


Gresham Smith

Genuine Ingenuity

# CONSTRUCTION DOCUMENTS

Orlando Health
Imaging Center 1800
S Orange Avenue
Orlando, Florida
32806

**Volume 1 of 1**

3/18/2019

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# PROJECT INFORMATION SHEET

Drawn By: Author
Checked By: Checker
Approved By: Approver

## FLORIDA PRODUCT APPROVALS

**Orlando Health: 1800 S Orange Avenue Imaging Center**

Listing of Florida Product Approvals and Miami-Dade NOA's for Exterior Building Envelope for Compliance with TAS 201, 202, and 203, Rule 9B-72 State Product Approval

Issue Date: 3/18/2019

| No. | Covered Products Category | Subcategory/Item | Manufacturer | Project Manual Spec Section | HVHZ Approved | Product Number & Description | Florida Product Approval # (FPA) | Miami-Dade NOA # | Tested Max PSF or MPH | NOA Expiration Date and/or PA Quality Assurance Contract Date | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **A Panel Walls** | | | | | | | | | | | |
| A1 | Panel Walls | Metal Stud Crete Precast System | Project specific design | | N/A | (Engineered Item) | (Engineered Item) | (Engineered Item) | N/A | N/A | No FPA Required per FBC 1626.4.4 |
| A2 | Panel Walls | Storefront Window Systems | YKK AP America | 08 4113 | No | YKK YHS 50 TU Storefront Outside Glazed - Wind Zone - Wind Zone 3 Impact Rated | FL14218.11 | | (+) 70 / (-) 70 | 12/31/2020 | |
| A3 | Panel Walls | Curtain Wall Window System | YKK AP America | 08 4413 | Yes | YKK YHC OG 300 Hurricane Curtain Wall Insulated Glazing - Large Missile Impac | FL13433.3 | | (+) 90 (-) 90 | 12/31/2020 | |
| A4 | Panel Walls | Metal Panel Cladding System | Mitsubishi Chemical Composites America | 07 4213.23 | Yes | Alpolic Series 20 | FL17186.2 | | (+) 90 (-) 90 | 1/1/2020 | |
| A5 | Panel Walls | Metal Panel Cladding System | Morin | | N/A | (Engineered Item) | (Engineered Item) | (Engineered Item) | N/A | N/A | Morin MR-26 Aluminum Panels with 23% Openness |
| **B Exterior Doors** | | | | | | | | | | | |
| B1 | Exterior Doors | Swinging Exterior Door Assemblies | YKK AP America | 08 4113 | Yes | YKK Series 35H Aluminum Outswing Entrance Door - LMI | FL16554.1 | | (+) 90 (-) 90 | 12/31/2020 | |
| B2 | Exterior Doors | Swinging Exterior Door Assemblies | Ingersoll-Rand | 08 1113 | Yes | H-Series Hollow Metal Single Outswing Doors with \n Duprin WS9827/WS9927 (F) Panic Device | FL14022.1 | | (+) 150 to (-) 150 | 12/31/2020 | |
| **C Roofing** | | | | | | | | | | | |
| C1 | Roofing | Single Ply Roofing Systems | GAF | 07 5419 | No | EverGuard PVC Single-Ply Roof Systems: 60mm Single Ply PVC over Steel Deck | FL3443 R27 | | (+) 502.5 (-) 502.5 | 11/14/2019 | |
| **D ROOF HATCH** | | | | | | | | | | | |
| D1 | Roof Hatch | Hatch | Bilco | | No | Series S/NB Steel and Aluminum Roof Hatch | FL | | (+) 70 (-) 70 | 12/2/2019 | |

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## GENERAL NOTES FOR PROJECTS

1. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE DRAWINGS AND THE PROJECT MANUAL (SPECIFICATIONS, SCHEDULES, ETC.). THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THESE DRAWINGS AND THE PROJECT MANUAL; AND HE SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES THAT HE DISCOVERS.
2. SEE OTHER SHEETS FOR ADDITIONAL NOTES WHICH APPLY TO ALL DISCIPLINES.
3. THE CONTRACTOR SHALL PROVIDE CHASES FOR MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL, COMMUNICATIONS, ETC., AS REQUIRED AND AS NECESSARY. SEE RESPECTIVE DISCIPLINES' DRAWINGS.
4. PIPING LOCATED ABOVE GRADE AND INSIDE THE BUILDING SHALL BE CONCEALED IN FURRED SPACES (WITH THE EXCEPTION OF PIPING IN ELECTRICAL ROOMS AND MECHANICAL ROOMS). THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO PROVIDE FURRING FOR PIPING INSTALLED IN FINISHED AREAS. THE CONTRACTOR SHALL GAIN APPROVAL FROM THE ARCHITECT IN ADVANCE, PRIOR TO LOCATING AND/OR PROVIDING ANY "FURRED SPACES" WHICH ARE NOT SPECIFICALLY INDICATED ON THE FLOOR PLANS.
5. REGARDING ACCESS PANELS:
   A. THE CONTRACTOR SHALL VERIFY THAT ACCESS PANELS (OF APPROPRIATE SIZE & TYPE) ARE INSTALLED IN WALLS/PARTITIONS/BARRIERS AND IN "NON-ACCESSIBLE TYPE" CEILINGS AND SOFFITS WHERE ACCESS, SERVICE OR ADJUSTMENT TO MECHANICAL, PLUMBING, FIRE PROTECTION, SECURITY, ELECTRICAL AND COMMUNICATION ITEMS MAY BE REQUIRED. COMPLY WITH THE SPECIFICATIONS AND WITH NEC RULE 314.29.
   B. THE CONTRACTOR SHALL SUBMIT DRAWINGS WHICH INDICATE PROPOSED LOCATIONS OF ALL ACCESS PANELS FOR APPROVAL.
   C. WALL MOUNTED ACCESS PANELS SHALL BE "KEY LOCKED" IN SPACES THAT ARE ACCESSIBLE TO THE PUBLIC, PATIENTS AND GENERAL STAFF.
   D. CEILING MOUNTED ACCESS PANELS IN ALL TOILET ROOMS SHALL BE "KEY LOCKED".
   E. THE CONTRACTOR SHALL REPLACE ANY ACCESS PANEL WHOSE KEY LOCK OR LATCHING MECHANISM HAS BEEN PAINTED.
   F. ACCESS PANELS SHALL BE GASKETED TO BE "AIR-TIGHT" IN THE FOLLOWING SPACES: CATH LABS AND ALL SPACES UNDER NEGATIVE PRESSURE THAT DO NOT HAVE A SUPPLY DIFFUSER (SUCH AS SMALL TOILET ROOMS).
6. PROVIDE CONTINUOUS SEALANT TO PROVIDE "WATER-TIGHT" AND "AIR-TIGHT" CONDITION AT THE PERIMETERS OF ALL DOOR FRAMES, INTERIOR WINDOW FRAMES, EXTERIOR WINDOW FRAMES, WINDOW STOOLS, CABINETS, CASEWORK, COUNTERTOPS, PLUMBING FIXTURES, TOILET ACCESSORIES (BOTH RECESSED & SURFACE MOUNTED), FIRE EXTINGUISHER CABINETS, FIRE DEPARTMENT VALVE CABINETS, ETC. (EVEN WHEN THE JOINT AT THE PERIMETER IS EITHER HIDDEN OR NOT READILY VISIBLE).
7. EQUIPMENT INDICATED WITH DASHED LINES SHALL BE FURNISHED BY THE OWNER AND RECEIVED/STORED BY THE GENERAL CONTRACTOR. (SEE OWNER FURNISHED EQUIPMENT MANUAL AND OWNER FURNISHED VENDOR DRAWINGS.) THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR THE DELIVERY AND INSTALLATION OF ALL OWNER FURNISHED EQUIPMENT.
8. DO NOT EMBED CONDUIT INTO ANY ELEVATED COMPOSITE SLAB. ALSO, DO NOT RECESS OR EMBED CONDUIT, PIPING, BACK BOXES OR ANYTHING ELSE (THAT COULD ADVERSELY AFFECT EITHER THE STRUCTURAL INTEGRITY OR THE FIRE RATED INTEGRITY OF THE ELEVATED SLAB) INTO ANY TYPE OF ELEVATED SLAB.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND VERIFYING DIRECTLY WITH THE OWNER REGARDING ANY OWNER DESIRED CHANGES TO THE NUMBERING SYSTEM AND/OR NAMING CONVENTION FOR INDIVIDUAL SPACES, ROOMS, FLOOR LEVELS, ELEVATORS, STAIRS, ETC. IN THE PROJECT. THESE MUST BE VERIFIED PRIOR TO THE LABELING OF, OR IDENTIFICATION OF, ANY OF THESE ITEMS/SPACES IN (OR ON) ELECTRICAL PANELS, MECHANICAL EQUIPMENT, FIRE ALARM SYSTEMS, FIRE ALARM PANELS, ELEVATORS, SIGNAGE, COMMUNICATION SYSTEMS, SECURITY SYSTEMS, ETC.
10. THE SHAPES AND SIZES OF STRUCTURAL MEMBERS SHOWN ON ARCHITECTURAL FLOOR PLANS, SECTIONS AND DETAILS ARE "DIAGRAMMATIC ONLY". SEE THE STRUCTURAL DRAWINGS FOR THE ACTUAL SHAPE AND SIZE OF EACH STRUCTURAL MEMBER.
11. PROVIDE ALL CODE REQUIRED SIGNAGE PER ORLANDO HEALTH STANDARDS. COORDINATE WITH OWNER'S PREFERRED VENDOR.

## DESIGN TEAM

**Architecture:** Gresham, Smith and Partners
Two Harbour Place
302 Knights Run Avenue, Suite 900
Tampa, Florida 33602
(813) 251-6838
A.O.R. / P.M.: Christopher Wahl, AIA
Project Executive: Robert Berry, AIA

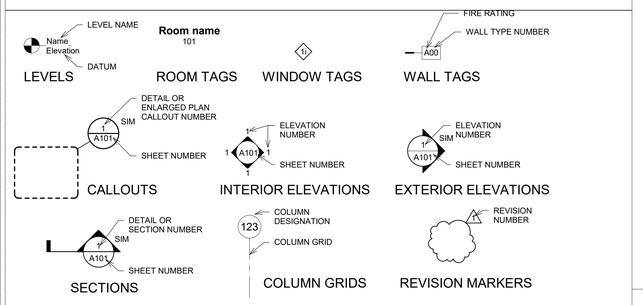
**Structural Engineering:** Walter P Moore
201 East Kennedy Boulevard
Suite 300
Tampa, FL 33602
(813) 221-2424
E.O.R./P.M. Robert S Mohrland, PE

**Interior Design:** Gresham, Smith and Partners
Two Harbour Place
302 Knights Run Avenue, Suite 900
Tampa, Florida 33602
(813) 251-6838
I.D.O.R Carrie Kovacs, IIDA

**Mechanical, Plumbing and Electrical Engineering:** TLC Engineering for Architecture
255 S Orange Ave
Suite #1600
Orlando, FL 32801
(407) 841-9050
P.M. Robert Mueller, PE
MECH/ PLUMB/ F.P. E.O.R. Aaron Johnson, PE
ELEC. E.O.R. E. Neal Boothe, PE

**Civil Engineering and Landscape Architecture:** GAI Consultants
618 E South St
Suite 700
Orlando, FL 32801
(407) 478-8750
E.O.R./P.M. Keith Haugdahl, PE
L.A.O.R. Kevin Aust, ASLA

## GRAPHIC SYMBOLS LEGEND




## PLAN REVIEW DATA

### BUILDING CLASSIFICATION:

OCCUPANCY TYPE: B
PER SIXTH EDITION (2017) OF FLORIDA BUILDING CODE, SECTION 304: BUSINESS
PER SIXTH EDITION (2017 FLORIDA EDITION) OF NFPA 101, LIFE SAFETY CODE, SECTION 38: NEW BUSINESS

CONSTRUCTION TYPE: II B
PER SIXTH EDITION (2017) OF FLORIDA BUILDING CODE, SECTION 602: TYPE II B

### BUILDING FIRE PROTECTION:

AREA SPRINKLERED: 7,526 S.F.

REQUIRED ASSEMBLY RATINGS: PER FBC, TABLE 601

| | |
|---|---|
| BEARING WALLS - EXTERIOR | 0 HOUR |
| BEARING WALLS - INTERIOR | 0 HOUR |
| NONBEARING WALLS - EXTERIOR | 0 HOUR |
| COLUMNS SUPPORTING ONLY ONE ROOF | 0 HOUR |
| BEAMS SUPPORTING ONLY ONE ROOF | 0 HOUR |
| ROOFS | 0 HOUR |

### BUILDING INFORMATION:

BUILDING HEIGHTS:

| | |
|---|---|
| FIRST FLOOR: | 0'-0" |
| ROOF DECK: | 15'-0" |
| SCREEN WALL HEIGHT: | 23'-6" |
| MAXIMUM PARAPET HEIGHT: | 24'-0" |
| TOTAL BUILDING HEIGHT: | 24'-0" |

| | |
|---|---|
| BUILDING AREAS: | NEW |
| LEVEL 1 | 7526 SF |
| | 7526 SF |

### GOVERNING CODES AND REGULATIONS:

FEDERAL CODES AND REGULATIONS:
- THE AMERICANS WITH DISABILITIES ACT (ADA) AND ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES (2010)
- 2017 EDITION OF NFPA 101, LIFE SAFETY CODE (AND ALL REFERENCED NFPA CODES)

FLORIDA BUILDING CODES:
- FLORIDA BUILDING CODE 6TH EDITION (2017) - BUILDING
- FLORIDA BUILDING CODE 6TH EDITION (2017) - ACCESSIBILITY
- FLORIDA BUILDING CODE 6TH EDITION (2017) - TEST PROTOCOLS
- FLORIDA BUILDING CODE 6TH EDITION (2017) - MECHANICAL
- FLORIDA BUILDING CODE 6TH EDITION (2017) - PLUMBING
- FLORIDA BUILDING CODE 6TH EDITION (2017) - FUEL GAS
- NFPA 70, NATIONAL ELECTRICAL CODE, 2014
- GUIDELINES FOR DESIGN AND CONSTRUCTION OF HOSPITALS AND OUTPATIENT FACILITIES (2014)

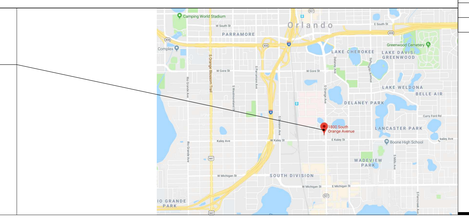
FLORIDA ADMINISTRATIVE CODES (INCLUDING LIFE SAFETY CODES):
- CODES AS REFERENCED IN THE FLORIDA BUILDING CODE
- FLORIDA FIRE PROTECTION CODE SIXTH EDITION (2017)
- NFPA 1, UNIFORM LIFE SAFETY CODE (SIXTH FLORIDA EDITION OF THE 2017 NFPA 101)
- NFPA 101, LIFE SAFETY CODE (SIXTH FLORIDA EDITION OF THE 2017 NFPA 101)
- SFM UNIFORM LIFE SAFETY RULES
- CHAPTER 633, FLORIDA STATUTES, FIRE PROTECTION AND CONTROL

### PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO PROVIDE AN OUTPATIENT IMAGING CENTER IN DOWNTOWN ORLANDO WITH EXPANDED CAPABILITY AND MODERNIZED TECHNOLOGICAL EQUIPMENT.

## VICINITY MAP

ORLANDO HEALTH IMAGING CENTER
1800 S ORANGE AVE
ORLANDO, FL 32806





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IB26000797/LC26000381


ORLANDO HEALTH®

Orlando Health Imaging Center
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Orlando, Florida 32806

STATE OF FLORIDA
CHRISTOPHER W. WAHL
AR98018
REGISTERED ARCHITECT

**Revision**

| No. | Date | Description |
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PROJECT INFORMATION

**G011**

43642
3/18/2019

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# SOUND TRANSMISSION LIMITATIONS

1.2 PLANNING, DESIGN, CONSTRUCTION, AND COMMISSIONING

**Table 1.2-6**

**Design Criteria for Minimum Sound Isolation Performance Between Enclosed Rooms[1]**

| Adjacency Combination | | STC[2] |
|---|---|---|
| Patient room | Patient room (wall–same floor) | 45[3] |
| Patient room | Patient room (floor–to–floor) | 50 |
| Patient room | Corridor (with entrance) | 35[4] |
| Patient room | Public space | 50 |
| Patient room | Service area | 60[5] |
| Exam room | Corridor (with entrance) | 35[4] |
| Exam room | Public space | 50 |
| Treatment room | Room | 50 |
| Treatment room | Corridor | 35 |
| Toilet room | Public space | 45 |
| Consultation room | Public space | 50 |
| Consultation room | Patient rooms | 50 |
| Consultation room | Corridor (with entrance) | 35[4] |
| Patient room | MRI room | 60[5] |
| Exam room | MRI room | 60[5] |
| Exam room | Exam room (no electronic masking) | 50 |
| Exam room | Exam room (with electronic masking) | 40[6] |
| Public space | MRI room | 50 |

[1] Additional spaces shall be added based on the building program.

[2] The STC values stated assume the need for normal speech privacy as shown in Table 1.2-7 (Design Criteria for Speech Privacy for Enclosed Rooms and Open-Plan Spaces)—except at corridor walls with doors—assuming a background sound level of at least 30 dBA. When selecting assemblies based on their tested or published STC ratings, it should be noted that STC test reports can, in general, be considered accurate to +/- 2 STC points. Consequently, an assembly with a tested or published STC rating as low as 2 points below the stated minimum may be considered acceptable.

[3] In cases where greater speech privacy is required between patient rooms when both patient room doors to the connecting corridor are closed, the wall performance requirement shall be STC 50.

[4] This is the performance required for the partition excluding the door. Note that sound isolation in these instances will be limited by the door's performance (e.g., STC 20 for a close-fitted 5-PSF door). It is up to the facility to determine if doors require a higher acoustic performance or if full perimeter gasketing and bottom seals should be required. Doors are not required to be sound sealed to maintain the STC rating, although a facility may choose to do so for specialty patient environments such as bereavement rooms, consultation rooms, sleep therapy rooms, etc.

[5] Relaxation of STC 60 ratings shall be permitted if compliance with room noise requirements is achieved with lower performance constructions. See Table 1.2-5 (Maximum Design Criteria for Noise in Interior Spaces Caused by Building Systems).

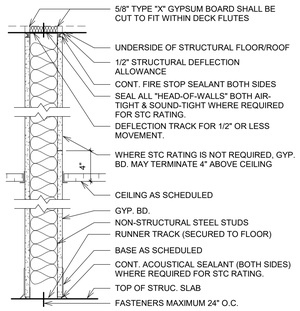
[6] Electronic masking shall provide a maximum background level of 48 dBA.

**Note:** See appendix table A2.1-a (Sound Transmission Loss or Attenuation Through Horizontal and Vertical Barriers in NICUs) for recommended STC ratings for neonatal intensive care units.



# WALLS / PARTITIONS / BARRIERS LEGEND

## TYPE N
## NON- RATED PARTITIONS




ONE LAYER GYP BD EACH SIDE APPLIED VERTICALLY. STAGGER ABUTTING END JOINTS NOT LESS THAN ONE FRAMING MEMBER IN ALTERNATE COURSES OF PANELS. REFER TO SECTION 09 2900 OF PROJECT MANUAL FOR MORE INFORMATION.

SEE GENERAL NOTES FOR WALLS/PARTITIONS ON SHEET G012 FOR ADDITIONAL INFORMATION & REQUIREMENTS.

— N00 NON-RATED PARTITION FRAMED TO DECK, STC-45

- 3 5/8", 25 GA, 16" O.C. STEEL STUDS
- ONE LAYER 5/8" GYP. BD. EACH SIDE
- ACOUSTICAL INSULATION (WHERE AN STC IS REQUIRED)
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 4-7/8"

— N01 NON-RATED PARTITION TO 4" ABOVE CEILING

- 3 5/8", 25 GA, 16" O.C. STEEL STUDS
- ONE LAYER 5/8" GYP. BD. EACH SIDE TO 4" ABOVE CEILING
- ACOUSTICAL INSULATION (WHERE AN STC IS REQUIRED)
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 4-7/8"

NOTE: WHEN SOUND ATTENUATION BLANKETS ARE INDICATED TO BE USED, BUT AN STC RATING IS NOT REQUIRED, PROVIDE A MINIMUM OF ONE LAYER OF GYPSUM BOARD ON AT LEAST ONE SIDE OF THE PARTITION (UP TO DECK ABOVE).

— N13 NON-RATED FURRING PARTITION FRAMED TO DECK

- 3 5/8", 20 GA, 24" O.C. STEEL STUDS
- ONE LAYER 5/8" GYP. BD. TYPE X GYP. BD. EXPOSED SIDE
- ACOUSTICAL INSULATION (WHERE AN STC IS REQUIRED)
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 4-1/4"

— N23 NON-RATED FURRING PARTITION TO 4" ABOVE CEILING

- 3 5/8", 20 GA, 24" O.C. STEEL STUDS
- ONE LAYER 5/8" GYP. BD. TYPE X GYP. BD. EXPOSED SIDE
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 4-1/4"

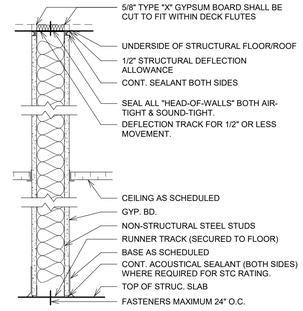
— N70 NON-RATED PARTITION FRAMED TO DECK, STC-45

- 6", 20 GA, 24" O.C. STEEL STUDS
- ONE LAYER 5/8" GYP. BD. TYPE X GYP. BD. EACH SIDE
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 7-1/4"

— N71 NON-RATED PARTITION FRAMED TO 4" ABOVE CEILING

- 6", 20 GA, 24" O.C. STEEL STUDS
- ONE LAYER 5/8" GYP. BD. TYPE X GYP. BD. EACH SIDE
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 7-1/4"

## TYPE L
## LEAD LINED PARTITIONS




ONE LAYER GYP BD EACH SIDE APPLIED VERTICALLY. STAGGER ABUTTING END JOINTS NOT LESS THAN ONE FRAMING MEMBER IN ALTERNATE COURSES OF PANELS. REFER TO SECTION 09 2900 OF PROJECT MANUAL FOR MORE INFORMATION.

SEE GENERAL NOTES FOR WALLS/PARTITIONS ON SHEET G012 FOR ADDITIONAL INFORMATION & REQUIREMENTS.

— L00 NON-RATED LEAD LINED PARTITION FRAMED TO DECK, STC-45

- 3 5/8", 20 GA, 16" O.C.STEEL STUDS
- INTERIOR OF LEAD LINED ROOM: ONE LAYER 5/8" LEAD LINED GYP. BD. TO 7'-0" AFF WITH 5/8" TYPE X GYB BD TO DECK ABOVE LEAD LINSED GYP BD.
- OTHER SIDE: ONE LAYER 5/8" TYPE X GYP. BD. TO DECK.
- 3-1/2" ACOUSTICAL INSULATION
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 4-7/8"

— L13 DESCRIPTION

NON-RATED LEAD LINED PARTITION FRAMED TO DECK

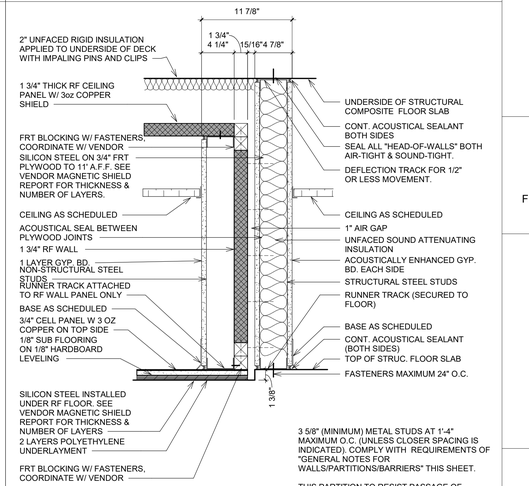
- 3 5/8", 20 GA, 24" O.C. STEEL STUDS
- ONE LAYER 5/8" LEAD LINED GYP. BD. TO 7'-0" AFF W/ TYPE X GYP BD TO DECK ABOVE LEAD LINED GYP BD.
- ACOUSTICAL INSULATION (WHERE AN STC IS REQUIRED)
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 4-1/4"

— L70 DESCRIPTION

NON-RATED LEAD LINED PARTITION FRAMED TO DECK, STC-45

- 3 5/8", 20 GA, 16" O.C.STEEL STUDS
- INTERIOR OF LEAD LINED ROOM: ONE LAYER 5/8" LEAD LINED GYP. BD. TO 7'-0" AFF WITH 5/8" TYPE X GYP BD TO DECK ABOVE LEAD LINED GYP BD.
- OTHER SIDE: ONE LAYER 5/8" TYPE X GYP. BD. TO DECK.
- 3-1/2" ACOUSTICAL INSULATION
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 7-1/4"

## TYPE R
## RF SHIELDED PARTITIONS




— R00 NON-RATED PARTITION TO DECK (N2), RF SHEILDING, & FURRING PARTITION (J3) STC 60

- ONE LAYER 5/8" TYPE X GYP. BD.
- 3 5/8", 20 GA, 24" O.C. STEEL STUDS
- ACOUSTICAL INSULATION
- ONE LAYER 5/8" SOUNDBREAK XP GYPSUM BOARD
- 1" AIR GAP
- 1-3/4" RF SHIELDING (SEE VENDOR DRAWINGS)
- 3 5/8", 25 GA, 24" O.C. STEEL STUDS
- ONE LAYER 5/8" GYP. BD.
- TERMINATE PARTITION AT UNDERSIDE STRUCT. FLOOR/ROOF
- OVERALL DIM: 11 7/8"

— R01 1 HOUR FIRE BARRIER, (A1) RF SHIELDING, & FURRING PARTITION (J3)

- ONE LAYER 5/8" FIRE RATED TYPE X GYP. BD.
- 3 5/8", 20 GA, 24" O.C. STEEL STUDS
- ACOUSTICAL INSULATION
- ONE LAYER 5/8" SOUNDBREAK XP GYP. BD.
- 1" AIR SPACE
- 1 3/4" RF SHIELDING PANELS
- 3 5/8", 25 GA, 24" O.C. STEEL STUDS
- ONE LAYER 5/8" FIRE RATED TYPE X GYP. BD.
- UL DESIGN NO. U465
- OVERALL DIM: 11 7/8"

3 5/8" (MINIMUM) METAL STUDS AT 1'-4" MAXIMUM O.C. (UNLESS CLOSER SPACING IS INDICATED). COMPLY WITH REQUIREMENTS OF "GENERAL NOTES FOR WALLS/PARTITIONS/BARRIERS" THIS SHEET.

THIS PARTITION TO RESIST PASSAGE OF SMOKE ON ONE SIDE:

ONE LAYER OF ACOUSTICALLY ENHANCED 5/8" GYPSUM BOARD EACH SIDE APPLIED VERTICALLY TO OBTAIN THE INDICATED STC RATING. STAGGER ALL VERTICAL JOINTS 1'-4" MINIMUM O.C. & STAGGER ALL HORIZONTAL JOINTS 2'-0" MINIMUM O.C. ALL HORIZONTAL JOINTS SHALL OCCUR ABOVE THE CEILING. APPLY 1" TYPE "S" STEEL SCREWS AT 8" O.C. ALONG EDGES OF BOARD & AT 1'-0" O.C. IN THE FIELD OF THE BOARD.

SEAL GYPSUM BOARD TO FLOOR SLAB BELOW PER GENERAL NOTES 5 & 6. EXTEND GYPSUM BOARD TO DECK ABOVE & SEAL PER GENERAL NOTES 3 & 5. SEAL ALL PENETRATIONS PER GENERAL NOTES 4 & 7. "USE DETAIL 4/A9.1 "PATCHING & SEALING PENETRATIONS IN RATED FIRE BARRIERS &/OR RATED SMOKE BARRIERS" ONLY IF PRE-APPROVED BY ALL AUTHORITIES HAVING JURISDICTION."

## GENERAL NOTES FOR WALLS / PARTITIONS / BARRIERS

1. ALL PARTITION TYPES SHALL BE N00 UNLESS NOTED OTHERWISE.
2. PENETRATIONS:
   - ACOUSTICALLY-RATED ASSEMBLIES: ACOUSTICAL GASKETS OR ACOUSTICAL SEALANT PER SPECIFICATIONS.
   - NON-RATED ASSEMBLIES: SEALS NOT REQUIRED.
   - THE GAPS AROUND ALL PENETRATIONS SHALL BE SEALED AIR-TIGHT & SOUND-TIGHT. COMPLY WITH NOTE 6 BELOW.
   - ITEMS RECESSED IN NON-RATED SMOKE PARTITIONS OR ALL OTHER FULL HEIGHT PARTITIONS SHALL BE SEALED "AIR-TIGHT" AT ALL PENETRATIONS.
3. BOTTOMS OF ASSEMBLIES:
   - MINIMUM 1/4" TO MAXIMUM 1/2" GAP AT FLOOR SLAB.
   - FIRE-RESISTANCE RATED ASSEMBLIES: COMPLY WITH INDICATED UL OR GA DESIGN WHERE GAP EXCEEDS 1/2"
   - ACOUSTICALLY-RATED ASSEMBLIES: ACOUSTICAL SEALANT BOTH SIDES PER SPECIFICATIONS. APPLY SEALANT BEAD TO FLOOR & SET GYPSUM BOARD INTO WET SEALANT.
   - NON-RATED ASSEMBLIES: SEALS NOT REQUIRED.
4. ACOUSTICAL SEPARATION ASSEMBLIES:
   - NON-RATED ACOUSTICAL ASSEMBLIES: APPLY ACOUSTICAL INSULATION IN EACH STUD SPACE WITHOUT GAPS OR VOIDS TO PROVIDE FULL COVERAGE. APPLY ACOUSTICAL SEALANT TO BOTH SIDES OF TOPS & BOTTOMS OF WALLS & VERTICAL JOINTS WITH OTHER CONSTRUCTION. INSTALL ELECTRICAL BOXES ON OPPOSITE SIDES OF PARTITION IN DIFFERENT STUD SPACES & PROVIDE GASKET SEALS. APPLY ACOUSTICAL SEALANT TO OTHER PENETRATIONS.
   - STC-RATED ACOUSTICAL ASSEMBLIES: COMPLY WITH REFERENCED DESIGN STANDARD TO ACHIEVE INDICATED RATINGS.
5. STEEL STUD FRAMING:
   - STRUCTURAL COLD-FORMED METAL FRAMING IS DESIGNATED AS CFMF IN PARTITION TYPES & DRAWING NOTES. CONTRACTOR IS RESPONSIBLE FOR DELEGATED DESIGN OF CFMF ASSEMBLIES FOR BOTH EXTERIOR & INTERIOR APPLICATIONS.
   - ALL OTHER STEEL STUD FRAMING IS NONSTRUCTURAL TYPE
6. THE ENCLOSURE WALLS/PARTITIONS/BARRIERS SHALL BE EXTENDED UP TO THE DECK ABOVE & BE SEALED "AIR-TIGHT" IN SPACES WHERE SOUND TRANSMISSION LIMITATIONS ARE EITHER REQUIRED BY THE CODE OR NECESSARY TO COMPLY WITH GOOD DESIGN PRACTICE. SEE SOUND TRANSMISSION LIMITATIONS CHART BELOW FOR LOCATIONS WHERE THIS IS REQUIRED.
7. SEE SPECIFICATIONS AND THESE DRAWINGS FOR REQUIRED LOCATIONS OF 5/8 INCH TYPE "X" GLASS MAT PAPERLESS INTERIOR GYPSUM BOARD. (NOTE: THE USE OF WATER-RESISTANT GYPSUM BOARD [GREEN BOARD] IS NOT ACCEPTABLE IN WET LOCATIONS. INSTEAD, USE 5/8 INCH TYPE "X" GLASS MAT PAPERLESS INTERIOR GYPSUM BOARD.)
8. WHERE TILE IS CALLED FOR PROVIDE 5/8" CEMENT BACKER BOARD - SEE SPECIFICATIONS FOR MORE INFORMATION.

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ORLANDO HEALTH®

Orlando Health Imaging Center
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STATE OF FLORIDA · CHRISTOPHER W. WAHL · AR98018 · REGISTERED ARCHITECT

Revision

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WALLS/ PARTITIONS/ BARRIERS LEGEND

**G012**

43642
3/18/2019

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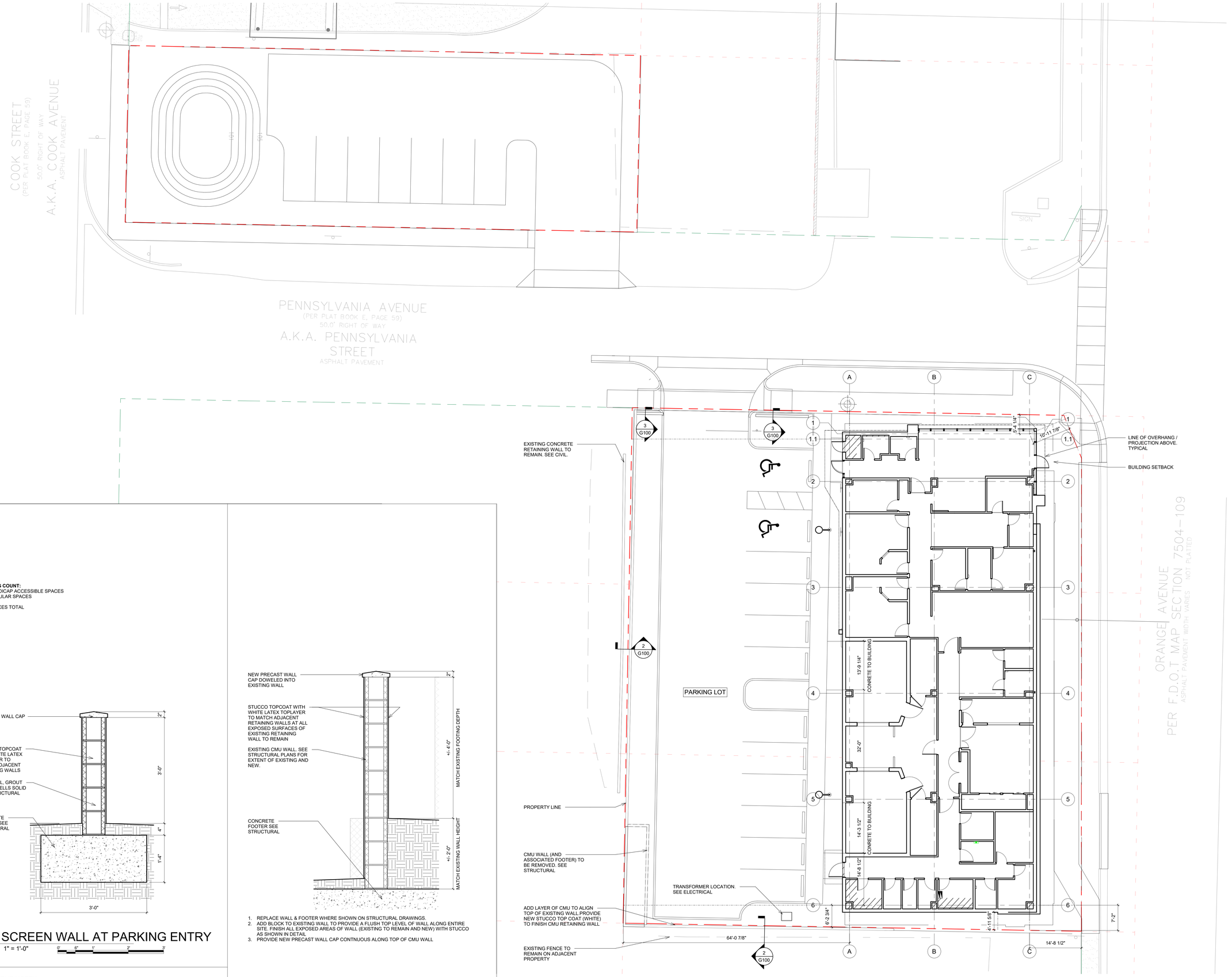


## 1 ARCHITECTURAL SITE PLAN
1" = 10'-0"

**PARKING COUNT:**
2 HANDICAP ACCESSIBLE SPACES
10 REGULAR SPACES

12 SPACES TOTAL

PLAN NORTH — TRUE NORTH: 1.38° EAST OF PLAN NORTH SEE CIVIL FOR EXACT ANGLE




## 3 SCREEN WALL AT PARKING ENTRY
1" = 1'-0"




1. REPLACE WALL & FOOTER WHERE SHOWN ON STRUCTURAL DRAWINGS.
2. ADD BLOCK TO EXISTING WALL TO PROVIDE A FLUSH TOP LEVEL OF WALL ALONG ENTIRE SITE. FINISH ALL EXPOSED AREAS OF WALL (EXISTING TO REMAIN AND NEW) WITH STUCCO AS SHOWN IN DETAIL.
3. PROVIDE NEW PRECAST WALL CAP CONTNUOUS ALONG TOP OF CMU WALL

## 2 RETAINING WALL REFURBISHMENT
1" = 1'-0"


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ORLANDO HEALTH®

# Orlando Health Imaging Center

1800 S Orange Avenue
Orlando, Florida 32806

STATE OF FLORIDA
CHRISTOPHER W. WAHL
AR98018
REGISTERED ARCHITECT

Revision

| No. | Date | Description |
|---|---|---|
| | | |

ARCHITECTURAL SITE PLAN

**G100**

43642
3/18/2019

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## GENERAL NOTES FOR ROOF PLAN

401 COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING NOTES IN THIS SET OF DRAWINGS AS THEY ALSO APPLY TO THE ROOF PLAN:
- A. "GENERAL NOTES FOR PROJECT" ON PROJECT INFORMATION SHEET G011
- B. "GENERAL NOTES FOR NEW CONSTRUCTION FLOOR PLANS" ON SHEET A200
- C. "GENERAL NOTES FOR DIMENSION FLOOR PLANS" ON SHEET A200
- D. "GENERAL NOTES FOR EXTERIOR ELEVATIONS" ON SHEET A300
- E. "GENERAL NOTES FOR REFLECTED CEILING PLANS" ON SHEET A200

402 REFER TO MECHANICAL, PLUMBING, FIRE PROTECTION, ELECTRICAL AND LIGHTNING PROTECTION DRAWINGS FOR LOCATIONS OF ADDITIONAL ITEMS WHICH HAVE NOT BEEN SHOWN ON THIS ROOF PLAN (INCLUDING PIPING, CURBS, VENTS, DUCTS, FANS, LIGHTNING PROTECTION, ETC.).

403 PAINT EXPOSED ROOF MOUNTED EQUIPMENT, PIPING, ETC. IN A COLOR AS SELECTED BY ARCHITECT, EXCEPT THAT ITEMS WHICH ARE ALUMINUM OR STAINLESS STEEL SHALL NOT BE PAINTED.

404 THE GENERAL CONTRACTOR SHALL VERIFY THAT THERE IS PROPER COORDINATION BETWEEN THE ROOFING CONTRACTOR AND THE PLUMBING CONTRACTOR SO THAT ALL ROOF DRAINS ARE SET AT A "LOW POINT", AND SO THAT ALL AREAS OF ALL ROOFS SLOPE TO A ROOF DRAIN AT A MINIMUM SLOPE OF 1/4 INCH (VERTICAL) IN 1'-0" (HORIZONTAL). THE ROOF SLOPE MUST BE CONTINUOUS WITH A CONSTANT GRADIENT/DEGREE OF SLOPE FROM "HIGH POINT" TO "LOW POINT". CHANGE IN GRADIENT/DEGREE OF ROOF SLOPE IS NOT ALLOWED IN ANY SINGLE "RUN" OF THE ROOF. THE ABSOLUTE MINIMUM ROOF SLOPE SHALL BE 1/4 INCH (VERTICAL) IN 1'-0" (HORIZONTAL); HOWEVER, THE ROOF SLOPE IN MANY AREAS MAY BE MUCH STEEPER THAN 1/4 INCH (VERTICAL) IN 1'-0" (HORIZONTAL) IN ORDER TO PROVIDE THE REQUIRED CONSTANT GRADIENT/DEGREE OF SLOPE. IN REGARDS TO ROOF DRAINAGE COMPLY WITH OF THE FLORIDA BUILDING CODE [FBC]SECTION 1503.4

405 THE CONTRACTOR SHALL PROVIDE GUARDS WHERE APPLIANCES, EQUIPMENT, FANS OR OTHER COMPONENTS THAT REQUIRE SERVICE ARE LOCATED WITHIN 10 FEET OF A "ROOF EDGE" OR AN "OPEN SIDE" OF A WALKING SURFACE AND SUCH "ROOF EDGE" OR "OPEN SIDE" IS LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR, ROOF OR GRADE BELOW. THE GUARD SHALL EXTEND NOT LESS THAN 30 INCHES BEYOND EACH END OF SUCH APPLIANCES, EQUIPMENT, FANS OR COMPONENTS; AND THE TOP OF THE GUARD SHALL BE LOCATED NOT LESS THAN 42 INCHES ABOVE THE ELEVATED SURFACE ADJACENT TO THE GUARD. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 20 INCH DIAMETER SPHERE AND IT SHALL COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE BUILDING CODE. COMPLY WITH FBC SECTION 1013.5 AND FLORIDA MECHANICAL CODE SECTION 304.10.

406 THE CONTRACTOR SHALL PROVIDE GUARDS WHERE ROOF HATCHES ARE LOCATED WITHIN 10 FEET OF A "ROOF EDGE" OR AN "OPEN SIDE" OF A WALKING SURFACE AND SUCH "ROOF EDGE" OR "OPEN SIDE" IS LOCATED MORE THAN 30 INCHES ABOVE THE FLOOR, ROOF OR GRADE BELOW. THE GUARD SHALL EXTEND NOT LESS THAN 30 INCHES BEYOND EACH END OF THE ROOF HATCH; AND THE TOP OF THE GUARD SHALL BE LOCATED NOT LESS THAN 42 INCHES ABOVE THE ELEVATED SURFACE ADJACENT TO THE GUARD. THE GUARD SHALL BE CONSTRUCTED SO AS TO PREVENT THE PASSAGE OF A 20 INCH DIAMETER SPHERE AND SHALL COMPLY WITH THE LOADING REQUIREMENTS FOR GUARDS SPECIFIED IN THE BUILDING CODE. COMPLY WITH FBC SECTIONS 1009.11.2 & 1013.6 AND FIGURE 1013.6 AND WITH FLORIDA MECHANICAL CODE SECTION 304.10.

## GENERAL NOTES FOR REFLECTED CEILING PLANS

501 COMPLY WITH THE FOLLOWING NOTES IN THIS SET OF DRAWINGS WHICH ALSO APPLY TO THE REFLECTED CEILING PLANS:
- A. "GENERAL NOTES FOR PROJECT" ON PROJECT INFORMATION SHEET G011
- B. "GENERAL NOTES FOR NEW CONSTRUCTION FLOOR PLANS" ON SHEET A200
- C. "GENERAL NOTES FOR DIMENSION FLOOR PLANS" ON SHEET A200

502 THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE REFLECTED CEILING PLANS WITH ELECTRICAL'S LIGHTING, SYSTEMS AND COMMUNICATIONS DRAWINGS;MECHANICAL'S SUPPLY, RETURN AND EXHAUST DRAWINGS; AND FIRE PROTECTION'S DRAWINGS. THE CONTRACTOR SHALL THEN IMMEDIATELY NOTIFY THE ARCHITECT OF ANY ERROR, INCONSISTENCY OR OMISSION THAT IS DISCOVERED.

503 SEE ELECTRICAL, COMMUNICATION, SECURITY AND FIRE PROTECTION DRAWINGS FOR LOCATIONS OF CEILING MOUNTED SMOKE DETECTORS, COMMUNICATION DEVICES, FIRE ALARM DEVICES, SECURITY DEVICES, ETC.

504 SPRINKLER HEADS:
- A. THE ONLY SPRINKLER HEADS SHOWN ON THE REFLECTED CEILING PLANS HAVE BEEN SHOWN FOR AESTHETIC PURPOSES.
- B. THE CONTRACTOR SHALL INSTALL SUFFICIENT HEADS IN ALL SPACES TO PROVIDE COMPLETE (100%) AUTOMATIC SPRINKLER COVERAGE AS DEFINED IN NFPA STANDARD 13, SPECIFICATION DIVISION 21 - FIRE SUPPRESSION AND AS SHOWN ON THE FIRE PROTECTION DRAWINGS.
- C. NEITHER SPRINKLER HEADS OR CONCEALED SPRINKLER HEAD COVERS ARE ALLOWED TO BE PAINTED. THE CONTRACTOR SHALL VERIFY THAT ANY SPRINKLER HEADS THAT ARE ACCIDENTALLY PAINTED ARE REMOVED FROM THE SITE AND REPLACED WITH NEW SPRINKLER HEADS.

505 THE CONTRACTOR SHALL ADVISE THE OWNER AND TENANTS THAT AN 18 INCH MINIMUM VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE BOTTOM OF THE EXTENDED (DROP DOWN) SPRINKLER HEADS AND THE TOP OF ANY FILES, SHELVING, EQUIPMENT, LOCKERS, ETC., (WHETHER CONTRACTOR OR OWNER FURNISHED). THE CONTRACTOR SHALL ALSO ADVISE THE OWNER AND TENANTS THAT ITEMS SHALL NOT BE PLACED OR STORED ON TOP OF SHELVING SO THAT THIS CODE REQUIRED 18 INCH MINIMUM VERTICAL CLEARANCE WILL BE MAINTAINED.

506 PROVIDE FURR-DOWNS OVER WALL CABINETS ONLY WHERE FURR-DOWNS ARE SPECIFICALLY INDICATED.

507 REGARDING MINIMUM REQUIRED CEILING HEIGHTS, COMPLY WITH THE MOST STRINGENT OF THE FOLLOWING CODES: SECTION 1208 OF THE FBC.

508 PROVIDE MEDICAL SUPPORT SYSTEMS [UNISTRUT] TO COMPLY WITH REQUIREMENTS OF THE OWNER FURNISHED VENDOR DRAWINGS AND DETAILS FOR ATTACHMENT OF MEDICAL SUPPORT SYSTEMS TO THE STRUCTURAL DECK ABOVE EACH SPACE. (THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IF THE STRUCTURE ABOVE ANY OF THESE SPACES REQUIRES AN ALTERNATIVE STRUCTURAL DETAIL.)

509 CEILINGS IN HEALTH CARE FACILITIES SHALL COMPLY WITH ALL REQUIREMENTS OF THE "FGI GUIDELINES FOR TE DESIGN AND CONSTRUCTION OF HOSPITALSS AND OUTPATIENT FACILITIES, 2014".

510 SEE THE INTERIOR DESIGN DRAWINGS FOR THE PAINT SPECIFICATIONS AND COLORS OF PAINTED CEILINGS AND INTERIOR SOFFITS.

511 SEE THE EXTERIOR ELEVATIONS, DETAILS AND REFLECTED CEILING PLANS FOR THE FINISH OF EXTERIOR SOFFITS.

## GENERAL NOTES FOR DIMENSION FLOOR PLANS

301 COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING NOTES IN THIS SET OF DRAWINGS AS THEY ALSO APPLY TO THE DIMENSION FLOOR PLANS:
- A. "GENERAL NOTES FOR PROJECT" ON PROJECT INFORMATION SHEET G011
- C. "GENERAL NOTES FOR NEW CONSTRUCTION FLOOR PLANS" ON SHEET A200
- D. "GENERAL NOTES FOR REFLECTED CEILING PLANS" ON SHEET A200

302 SEE NEW CONSTRUCTION FLOOR PLANS FOR: DOOR DESIGNATIONS; LOCATIONS OF LEAD-LINED WALLS; ADDITIONAL DETAIL, SECTION AND ELEVATION MARKERS; AND ADDITIONAL NOTES WHICH ALSO APPLY TO THE DIMENSION FLOOR PLANS.

303 FOR ADDITIONAL DIMENSIONING, COMPLY WITH REQUIREMENTS ON ENLARGED PLANS, WALL SECTIONS, EXTERIOR ELEVATIONS, INTERIOR ELEVATIONS, PLAN DETAILS AND SECTION DETAILS.

304 THE CONTRACTOR SHALL NOT SCALE THE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT PRIOR TO CONTINUING WITH CONSTRUCTION.

305 DIMENSIONS SHOWN ON THE FLOOR PLANS ARE: TO CENTERLINE OF COLUMNS; TO OUTSIDE FACE OF GYPSUM BOARD AT METAL STUD WALLS/ PARTITIONS/BARRIERS; TO OUTSIDE FACE OF CONCRETE/CMU/MASONRY WALLS/PARTITIONS/BARRIERS; DIMENSIONS MAY BE INDICATED AS "MINIMUM" OR "CLEAR". COMPLY WITH NOTE 306 BELOW.

306 THE CONTRACTOR SHALL TAKE INTO ACCOUNT THE THICKNESSES OF THE SCHEDULED FINISH MATERIALS SUCH AS CERAMIC TILE, SOLID SURFACE MATERIAL, ETC., PRIOR TO "LAYING OUT" METAL STUD WALLS/PARTITIONS/BARRIERS, SINCE THE TOTAL "OUT-TO-OUT" WALL THICKNESS MUST BE CONSIDERED SO THAT THE REQUIRED "MINIMUM FACE-OF-FINISH" AND "MINIMUM CLEAR FACE-OF-FINISH" DIMENSIONS CAN BE MAINTAINED AFTER THE INSTALLATION OF THE FINISH MATERIALS.

307 INTERIOR METAL STUD WALLS/PARTITIONS/BARRIERS SHALL BE CONSTRUCTED OF 3 5/8" (MINIMUM) METAL STUDS (OR AS SHOWN BELOW) UNLESS DIMENSIONED, DETAILED OR NOTED OTHERWISE.
- A. FLOOR-MOUNTED SINGLE WATER CLOSET: 8" OUTSIDE FACE OF 3-5/8" (MINIMUM) STUD TO OUTSIDE FACE OF 3-5/8" (MINIMUM) STUDS
- B. FIRE EXTINGUISHER CABINET: 6" (MINIMUM) STUDS

308 THE CONTRACTOR SHALL VERIFY THAT THE FLOOR-MOUNTED CARRIERS (USED TO SUPPORT WALL-MOUNTED SINKS/LAVATORIES AND UNSUPPORTED COUNTERTOP SINKS/LAVATORIES, OTHER THAN THOSE IDENTIFIED IN NOTE 307 ABOVE) ARE THE TYPE THAT WILL FIT WITHIN 3-5/8" METAL STUD WALLS. NOTIFY ARCHITECT IF THERE IS A CONFLICT

309 CABINETWORK/CASEWORK DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION AND INSTALLATION. SEE THE "GENERAL NOTES FOR CABINETWORK/CASEWORK" ON SHEET A501 FOR FURTHER REQUIREMENTS REGARDING CABINETWORK/CASEWORK DIMENSIONING.

310 SEE DETAILS ON SHEETS A801 AND A802 FOR DIMENSIONED ELEVATIONS OF TYPICAL ACCESSIBLE TOILET ROOMS, LAVATORIES, SINKS AND WATER CLOSETS

311 ACCESSIBLE WATER CLOSETS SHALL BE MOUNTED SO THAT THERE IS EXACTLY 1'-6" BETWEEN THE "FINISH FACE" OF THE NEAREST ADJACENTSIDE WALL OR TOILET PARTITION AND THE CENTERLINE OF THE WATERnCLOSET. SEE DETAILS ON SHEET A801 AND A802 THE FLUSH VALVE HANDLE FOR EACH ACCESSIBLE WATER CLOSET SHALL BE MOUNTED ON THE "OPEN-MOST" SIDE OF THE WATER CLOSET AT 3'-8" MAXIMUM AFF TO THE TOP OF THE HANDLE.

312 ACCESSIBLE WALL-MOUNTED SINKS/LAVATORIES SHALL BE MOUNTED TO ALLOW 1'-3" MINIMUM BETWEEN THE CENTERLINE OF THE SINK/LAVATORY AND THE "FINISH FACE" OF ADJACENT WALL, FIXED EQUIPMENT AND/OR CABINETWORK. DETAILS ON SHEET A801 AND A802 FOR ADDITIONAL REQUIREMENTS.

313 CORRIDORS SHALL BE 6'-0" MINIMUM CLEAR WIDTH TO FINISH FACE OF THE WALL/PARTITION/BARRIER.

314 SEE OWNER FURNISHED VENDOR DRAWINGS (INCLUDING, IMAGING, MRI, CT SCAN, FOR CRITICAL DIMENSIONS IN SPACES

315 THE CONTRACTOR SHALL VERIFY ALL "EDGE OF SLAB" DIMENSIONS BY REFERENCING THE ARCHITECT'S SECTIONS AND DETAILS.

316 SEE PROJECT INFORMATION SHEET G011 AND THE SHEET SPECIFIC KEYNOTES ON EACH NEW CONSTRUCTION FLOOR PLAN FOR LOCATIONS OF REQUIRED SOUND TRANSMISSION CLASS [STC] RATINGS, SOUND ATTENUATION BLANKETS, ETC.

## GENERAL NOTES FOR NEW CONSTRUCTION FLOOR PLANS

201 COMPLY WITH THE REQUIREMENTS OF THE FOLLOWING NOTES IN THIS SET OF DRAWINGS WHICH ALSO APPLY TO THE NEW CONSTRUCTION FLOOR PLANS:
- A. "GENERAL NOTES FOR PROJECT" ON PROJECT INFORMATION SHEET G011
- B. "GENERAL NOTES FOR DIMENSION FLOOR PLANS" ON SHEET A200
- C. "GENERAL NOTES FOR REFLECTED CEILING PLANS" ON SHEET A200
- D. "GENERAL NOTES FOR CABINETWORK/CASEWORK" ON SHEET A500

202 SEE DIMENSION FLOOR PLANS, ENLARGED PLANS, INTERIOR ELEVATIONS, DETAILS, ETC., FOR DIMENSIONS AND KEYNOTES WHICH APPLY TO THE NEW CONSTRUCTION FLOOR PLANS.

203 ITEMS DENOTED ON THE NEW CONSTRUCTION FLOOR PLANS WITH A DASHED LINE ARE BEING FURNISHED BY THE OWNER. (COMPLY WITH THE REQUIREMENTS OF "GENERAL NOTES FOR PROJECT"

204 REFER TO ARCHITECTURAL SCHEDULES AND LEGENDS LOCATED AS FOLLOWS:
- A. TOILET ACCESSORY SET SCHEDULE: SEE SPECIFICATION SECTION 10 2800 IN THE PROJECT MANUAL
- B. DOOR, FRAME AND HARDWARE SCHEDULE, NOTES AND ABBREVIATIONS; SEE SHEET A901
- C. DOOR, FRAME AND HARDWARE LEGENDS AND DETAILS: SEE SHEET A901
- D. INTERIOR WINDOW SCHEDULE, NOTES AND ABBREVIATIONS: SEE SHEET A901
- E. INTERIOR WINDOW LEGENDS AND DETAILS: SEE SHEET A901
- F. CABINETWORK AND CASEWORK LEGEND: SEE SHEET A500

205 SEE REFLECTED CEILING PLANS FOR LOCATIONS OF GYPSUM BOARD FURR DOWNS AND SOFFITS

206 SEE INTERIOR DESIGN DRAWINGS FOR INTERIOR FINISHES AND FOR LOCATIONS OF ACCENT WALLS AND WALL PROTECTION.

207 SEE SHEETS A800-A801 AND "GENERAL NOTES FOR DIMENSION FLOOR PLANS" ON SHEET A200 FOR CRITICAL ACCESSIBILITY CODE REQUIREMENTS REGARDING: MANEUVERING CLEARANCES AT DOORS; TOILET ROOMS; PLUMBING FIXTURES (WATER CLOSETS, SINKS, LAVATORIES, ELECTRIC WATER COOLERS, ETC.); DRESSING ROOMS; MOUNTING OF TOILET ACCESSORIES; ETC.

208 AT ALL EXTERIOR WALLS CONSTRUCTED OF METAL STUDS, THE 5/8 INCH TYPE "X" GLASS MAT PAPERLESS INTERIOR GYPSUM BOARD ON THE INTERIORSIDE OF THE METAL STUDS SHALL BE EXTENDED UP TO THE STRUCTURE ABOVE AND SHALL BE SEALED FOR "AIR-TIGHT" SEPARATION OF THE EXTERIOR WALL CAVITY FROM ALL INTERIOR SPACES. IT IS ALSO CRITICAL THAT THE CAVITY OF ALL EXTERIOR WALLS BE SEALED "AIR-TIGHT" AND "SOUND-TIGHT" FROM THE CAVITIES OF ALL INTERIOR WALLS.

209 NOTE: ONLY SOME OF THE REQUIRED GRAB BARS ARE SHOWN ON THE FLOOR PLANS. SEE ENLARGED PLANS, INTERIOR ELEVATIONS, SPECIFICATION SECTION 10 2800; TOILET ACCESSORY SCHEDULE, ETC., FOR ADDITIONAL LOCATIONS WHERE GRAB BARS ARE ALSO REQUIRED

210 THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE OWNER'S EQUIPMENT VENDORS TO INSURE THAT THERE WILL BE NO OWNER FURNISHED ITEMS OTHER FULL HEIGHT PARTITIONS SHALL BE SEALED "AIR-TIGHT" AT ALL PENETRATIONS.

211 SEE 1/A801 FOR DETAIL OF A SURFACE MOUNTED ACCESSIBLE ELECTRIC WATER COOLER [EWC] ALCOVE.

212 PROVIDE LEAD-LINING IN SPACES AS SHOWN ON THE DRAWINGS. PENETRATIONS IN LEAD-LINED WALLS/PARTITIONS/BARRIERS SHALL BE SEALED TO MEET SHIELDING REQUIREMENTS. COMPLY WITH PROJECT INFORMATION SHEET G011, SPECIFICATION SECTION 13 4900, AND THE OWNER FURNISHED RADIATION SHIELDING STUDY REPORT.

213 FOR THE INSTALLATION OF OWNER FURNISHED CEILING EQUIPMENT, THE CONTRACTOR SHALL REFER BOTH TO THE OWNER FURNISHED MANUFACTURER'S INSTRUCTIONS AND TO THE STRUCTURAL DRAWINGS FOR SUPPORT AND INSTALLATION DETAILS.


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ARCHITECTURAL GENERAL NOTES

# A200

43642
3/18/2019

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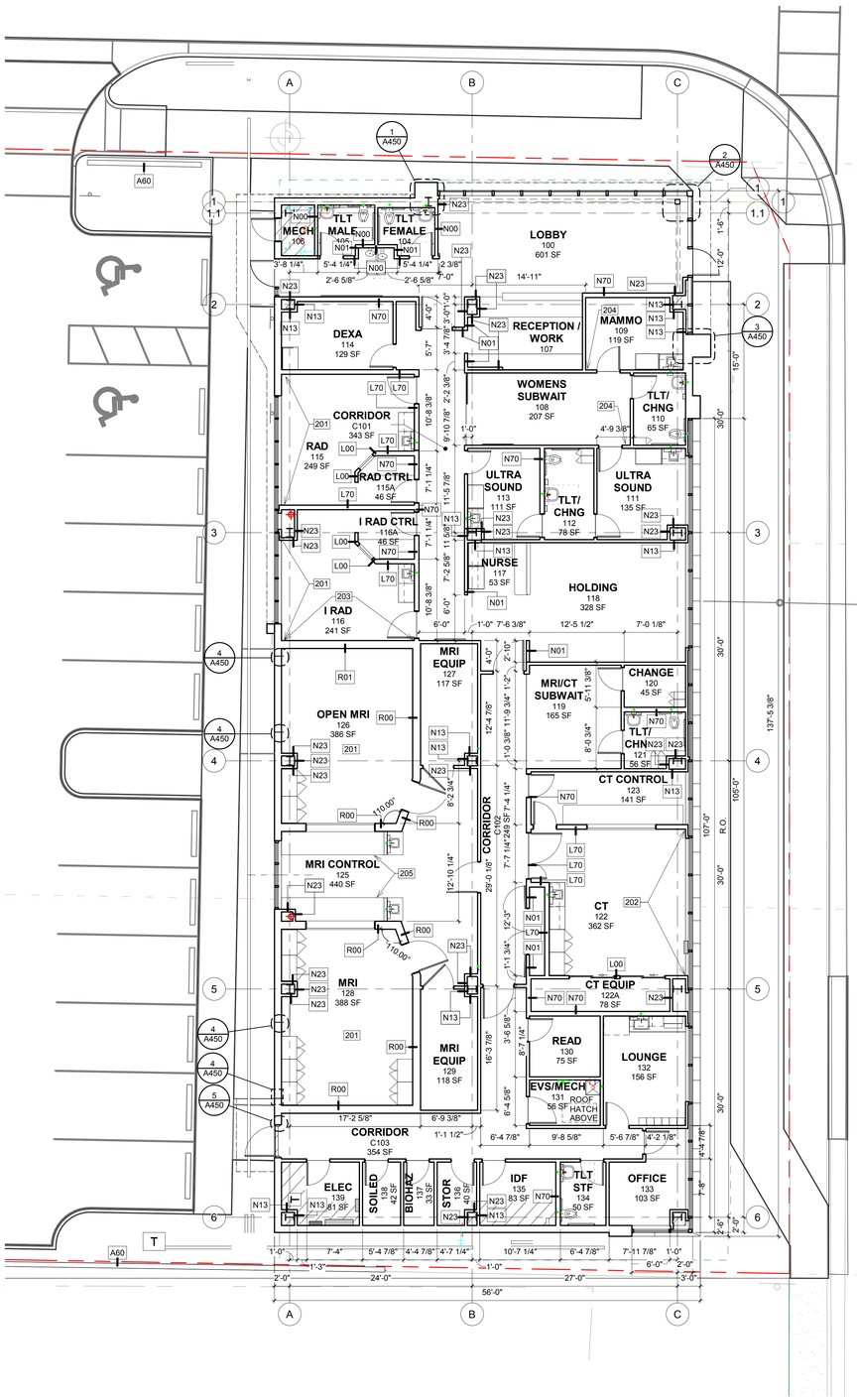
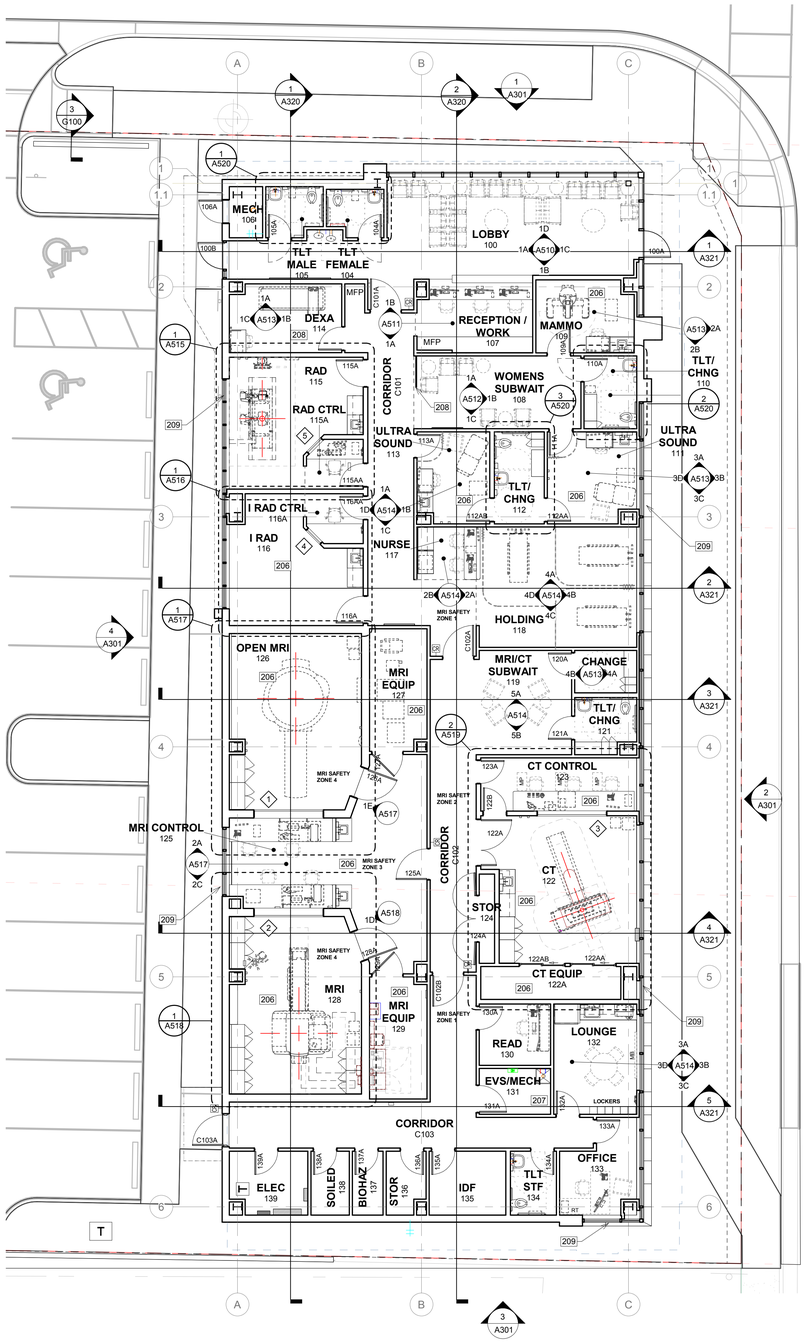



2 FIRST FLOOR DIMENSION PLAN
1/8" = 1'-0"




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

## LEGEND

| | |
|---|---|
| TYPE N - NON-RATED PARTITION | |
| LEAD-LINED PARTITION | LLP |
| R-F SHIELDED PARTITION | RF |
| SEE SHEET G012 FOR COMPONENTS OF WALLS/ PARTITIONS/ BARRIERS | |
| ACCESSIBLE | ACC |
| CARD READER | CR |
| CUBICLE CURTAIN TRACK (SEE DETAIL 2/A8.04) | CCT |
| DISCONNECT PANEL | DP |
| ELECTRICAL PANEL | EP |
| FIRE EXTINGUISHER CABINET (RECESSED) | FEC |
| KEY PAD | KP |
| ACCESSIBLE DRESSING BENCH. SEE A5.01 | BENCH |
| OWNER FURNISHED EQUIPMENT (DASHED LINES) | 10909 |
| SEE "NEW CONSTRUCTION KEYNOTES" ON THIS SHEET | 201 |
| DOOR DESIGNATION (SEE SHEET A901, FOR DOOR, FRAME AND HARDWARE SCHEDULE) | 101 |
| INTERIOR WINDOW DESIGNATION (SEE SHEET A901 FOR INTERIOR WINDOW AND FRAME SCHEDULE) | 01 |
| TOILET ACCESSORY SET (SEE SPECIFICATIONS FOR TOILET ACCESSORY SCHEDULE) | 1 |
| WALL DESIGNATION (SEE SHEET G012 FOR TYPES OF WALLS/ PARTITIONS/ BARRIERS) | A00 |

COMPLY WITH ALL REQUIREMENTS INCLUDED IN THE "GENERAL NOTES FOR NEW CONSTRUCTION FLOOR PLANS" AND "GENERAL NOTES FOR DIMENSION FLOOR PLANS" ON SHEET A200

## SHEET SPECIFIC KEYNOTES

201 RF SHIELDED ROOM: USE ONLY NON-FERROUS MATERIALS WITHIN THIS ROOM.
202 LEAD LINED WALL TO 7'-0" AFF. REPLACE GYPSUM BOARD AT INSIDE FACE OF TYPICAL EXTERIOR WALL CONSTRUCTION WITH LEAD LINED GYP BD.
203 LEAD LINED WALL TO 7'-0" AFF. REPLACE GYPSUM BOARD AT X-RAY SIDE OF TYPICAL R00 WALL CONSTRUCTION WITH LEAD LINED GYP BD.
204 MAINTAIN 18" PULL CLEARANCE TO MEET ADA REQUIREMENTS.
205 PARTIAL HEIGHT WALL (SIM CONSTRUCTION TO N00/N01) TO CONCEAL PLUMBING FOR SINK. SEE DETAILS.
206 SEE OWNER PROVIDED VENDOR DRAWINGS FOR EQUIPMENT DETAILS. COORDINATE RACEWAY AND OUTLET LOCATIONS WITH FINAL VENDOR LOCATIONS AND QUANTITIES.
207 ROOF MOUNTED RETRACTABLE LADDER ABOVE: SEE SECTIONS AND DETAILS. NOTE THE DEDICATED CIRCUIT PROVIDED FOR THE LADDER ON THE ELECTRICAL DRAWINGS.
208 1/2" THINK TEMPERED GLAZING WITH PATTERNED FRIT (SEE INTERIOR DESIGN DRAWINGS FOR PATTERN) SET IN 2" ALUMINUM BASE SHOE AT FLOOR AND 1" ALUMINUM TRACK AT NORTH WALL AND CEILING.
209 PROVIDE SOLID SURFACE WINDOW SILL AS SHOWN IN SECTION DETAILS, TYPICAL AT ALL EXTERIOR WINDOWS. SEE INTERIOR DESIGN DRAWINGS FOR SOLID SURFACE FINISH.

PLAN NORTH
TRUE NORTH: 1.38° EAST OF PLAN NORTH
SEE CIVIL FOR EXACT ANGLE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LEVEL 1 NEW CONSTRUCTION OVERALL PLAN

**A201**

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3/18/2019

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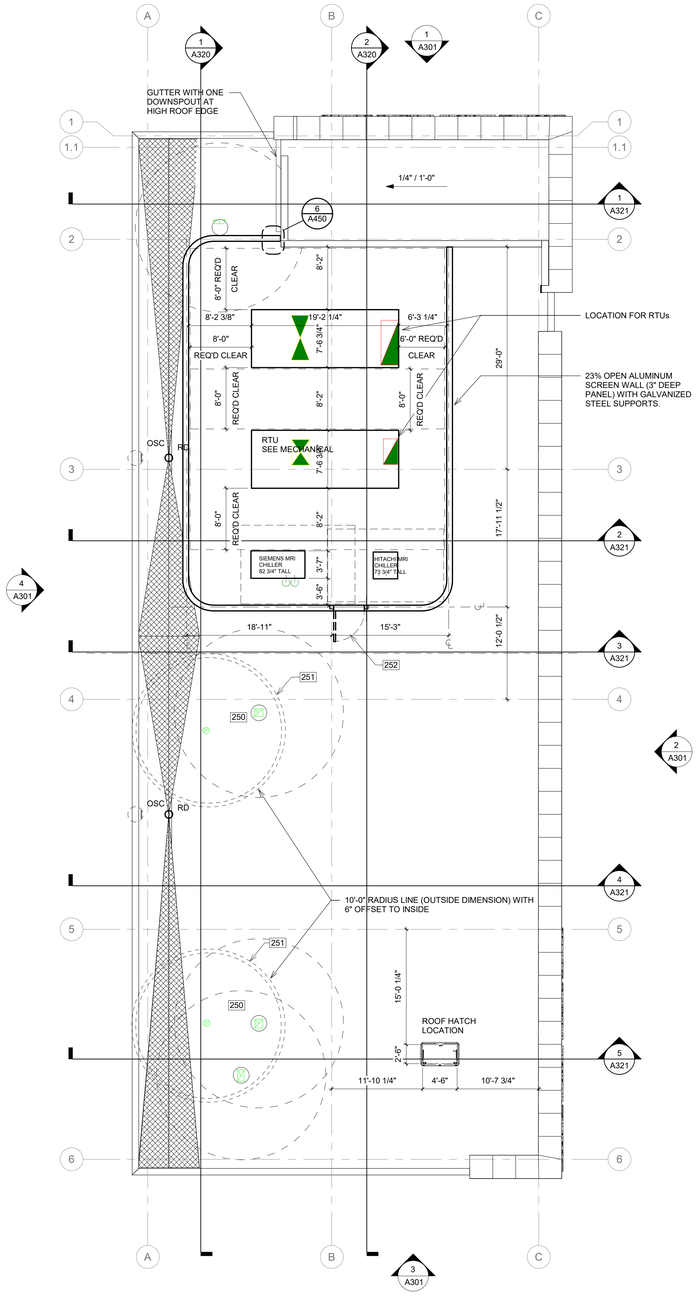
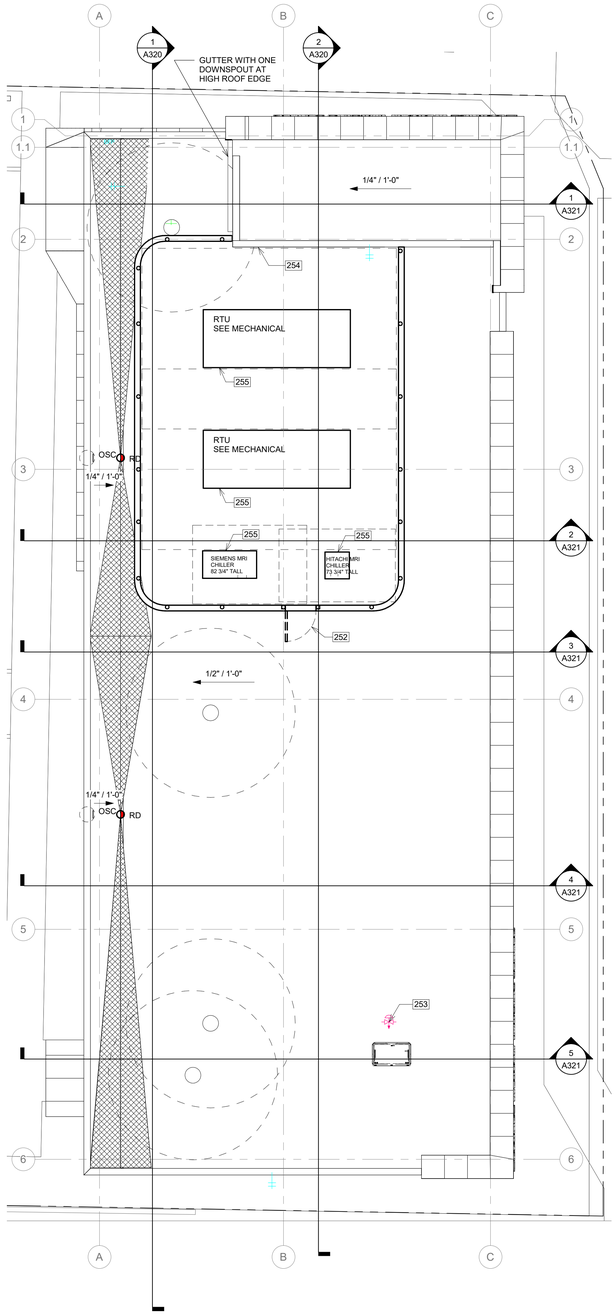



2 ROOF DIMENSION PLAN
1/8" = 1'-0"




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

## LEGEND FOR ROOF PLAN

- NEW CONSTRUCTION
- DOWNWARD DIRECTION OF ROOF SLOPE (COMPLY WITH NOTE 404)
- PARAPET
- ROOF DRAIN — RD
- OVERFLOW ROOF DRAIN — ORD
- ROOF HATCH — RH
- ROOF WALKWAY (SEE SPECIFICATIONS SECTION
- SCUPPER (SEE DETAILS _/A_._) — SCP 403

## SHEET SPECIFIC KEYNOTES

251 ADHERE 6" STRIP OF ROOFING IN 10' RADIUS AS SHOWN TO INDICATE SAFETY ZONE FOR MRI QUENCH VENT.
252 4'-0" WIDE GATE FOR ACCESS TO ROOFTOP EQUIPMENT. PROVIDE ALL REQUIRED HENGES AND LATCHES W/ 180 DEGREE HOLD OPEN.
253 ROOFTOP STANDPIPE. SEE FIRE PROTECTION PLANS.
254 LOCKABLE HOSE-BIBB (WALL HYDRANT) LOCATED APPROXIMATELY 30" FROM WEST EDGE OF WALL AND 18" ABOVE FINISHED ROOF. SEE PLUMBING DRAWINGS.
255 ROOFTOP MECHANICAL UNIT WITH REQUIRED ACCESS CLEARANCES SHOWN. SEE ENGINEERING DRAWINGS.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LEVEL 2 (ROOF) NEW CONSTRUCTION PLAN

**A202**

43642
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EXTERIOR 3D IMAGES

**A300**

43642
3/18/2019

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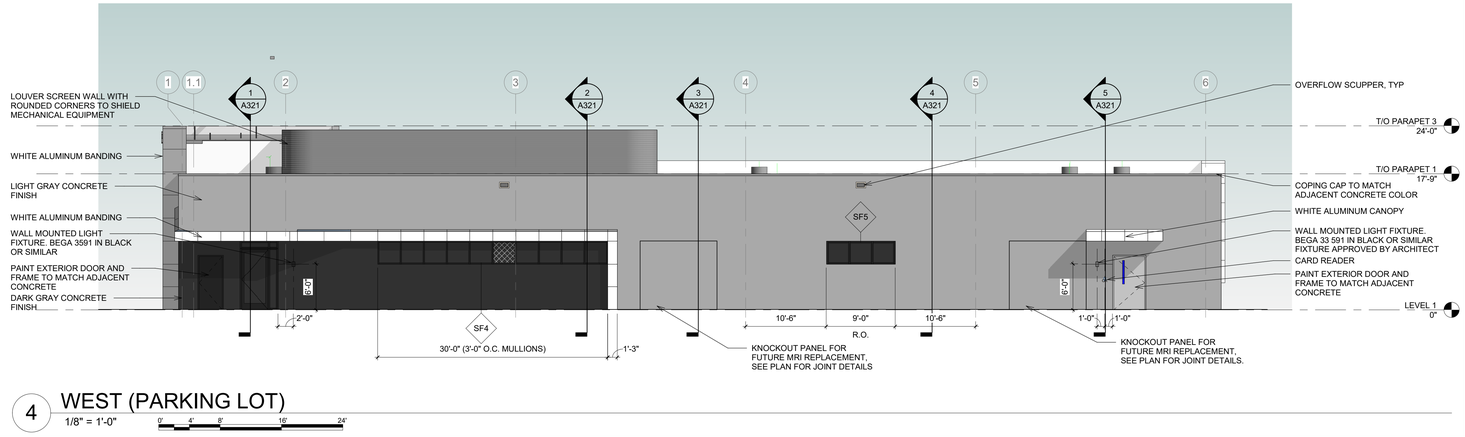
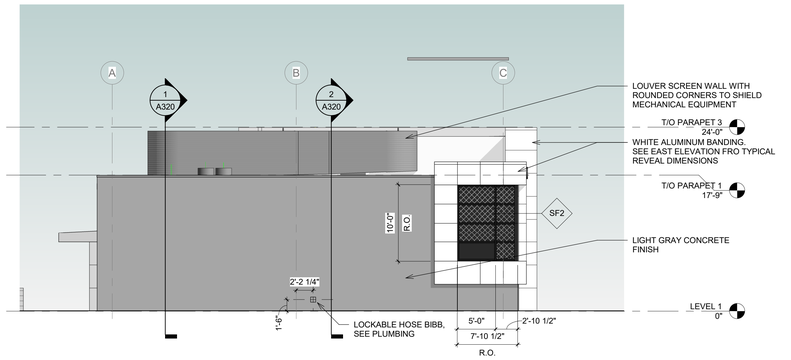
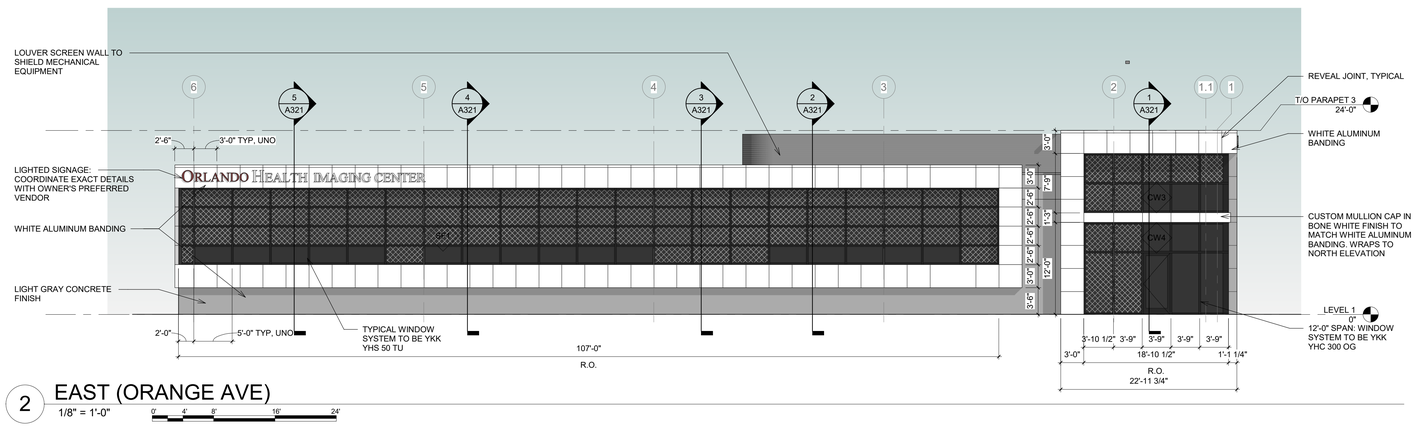


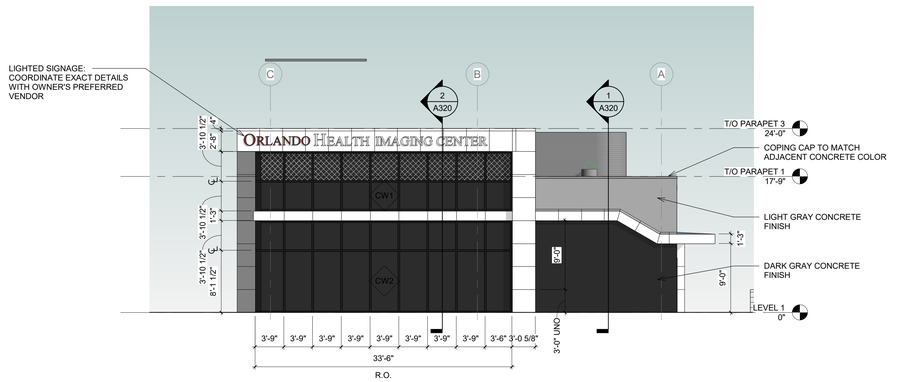

## 4 WEST (PARKING LOT)
1/8" = 1'-0"




## 3 SOUTH (ADJACENT TO FIRE STATION)
1/8" = 1'-0"




## 2 EAST (ORANGE AVE)
1/8" = 1'-0"




## 1 NORTH (PENNSYLVANIA ST)
1/8" = 1'-0"

## EXTERIOR ELEVATION LEGEND

PRECAST CONCRETE FINISH
LIGHT GRAY COLOR TO BE SELECTED BY ARCHITECT

PRECAST CONCRETE FINISH
DARK GRAY COLOR TO BE SELECTED BY ARCHITECT

VISION GLAZING
DARK GRAY LOW-E, INSULATED GLAZING, LARGE MISSLE IMPACT
BASIS OF DESIGN: OLDCASTLE GLASS SOLARGRAY W/ SENTRYGLASS INTERLAYER, 1 5/16" THINK IGU TYPICAL.

SPANDREL GLAZING
DARK GRAY LOW-E GLAZING TO MATCH VISION GLAZING APPEARANCE. BLACK BACKPAINTING ON INTERIOR GLASS PANE CURTAIN WALL INSULATION (STONE WOOL BOARD) TO PROVIDE R-13 INSULATION RETAINED WITH ALUMINUM CLIPS.

METAL PANEL
WHITE ACM PANEL WITH REVEALS AT 3'-0" O.C. UNLESS OTHERWISE NOTED.

SF1 STOREFRONT WINDOW SYSTEM
YKK YHS 50 TU
MANUFACTURER'S STANDARD BLACK ANODIZED FINISH BY ARCHITECT

CW1 CURTAIN WALL WINDOW SYSTEM
YKK YHC 300 OG
MANUFACTURER'S STANDARD BLACK ANODIZED FINISH BY ARCHITECT

601 SEE "SHEET SPECIFIC KEYNOTES" ON THIS SHEET

## GENERAL NOTES FOR EXTERIOR ELEVATIONS

601. PAINT EXPOSED ROOF MOUNTED EQUIPMENT, PIPING, SCREENS, ETC. IN A COLOR AS SELECTED BY THE ARCHITECT; EXCEPT THAT, ITEMS WHICH ARE ALUMINUM OR STAINLESS STEEL SHALL NOT BE PAINTED.

602. THE COLOR OF THE FASCIA AT THE GRAVEL GUARD SHALL MATCH THE COLOR OF THE ADJACENT SURFACE FINISH UNLESS NOTED OTHERWISE.

603. PAINT EXTERIOR SURFACES OF HOLLOW METAL DOORS AND DOOR FRAMES IN A COLOR AS INDICATED ON THE EXTERIOR ELEVATIONS, OR AS SELECTED BY THE ARCHITECT (IF NOT OTHERWISE INDICATED).

604. PROVIDE WALL MOUNTED POWER TO SIGNAGE ON THE EXTERIOR OF THE BUILDING. FOR EACH OF THESE SIGNS IS INDICATED ON SHEETS A301.

605. ALL WINDOWS, GLAZING AND DOORS TO MEET LARGE MISSILE IMPACT REQUIREMENTS AS DEFINED IN THE FLORIDA BUILDING CODE.

606. WHERE REVEALS ARE NOT SHOWN ON THE ELEVATIONS THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS INDICATING THE LOCATION OF ALL PROPOSED CONTROL JOINTS TO THE ARCHITECT FOR APPROVAL.

607. THE LOUVER ENCLOSURE IS REQUIRED TO PROVIDE IMPACT PROTECTION FOR THE ROOFTOP MOUNTED EQUIPMENT PER THE FLORIDA BUILDING CODE. CONTRACTOR SHALL VERIFY HEIGHT OF ALL ROOFTOP MOUNTED EQUIPMENT, INCLUDING CURBS IN SUBMITTAL PROCESS AND ENSURE THAT THE SCREEN WALL IS 4" TALLER THAN THE EQUIPMENT AND ASSOCIATED PIPING, CONDUIT, ETC.

## SHEET SPECIFIC KEYNOTES

## CONCRETE SAMPLES


LIGHT GRAY CONCRETE FINISH


DARK GRAY CONCRETE FINISH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EXTERIOR ELEVATIONS

# A301

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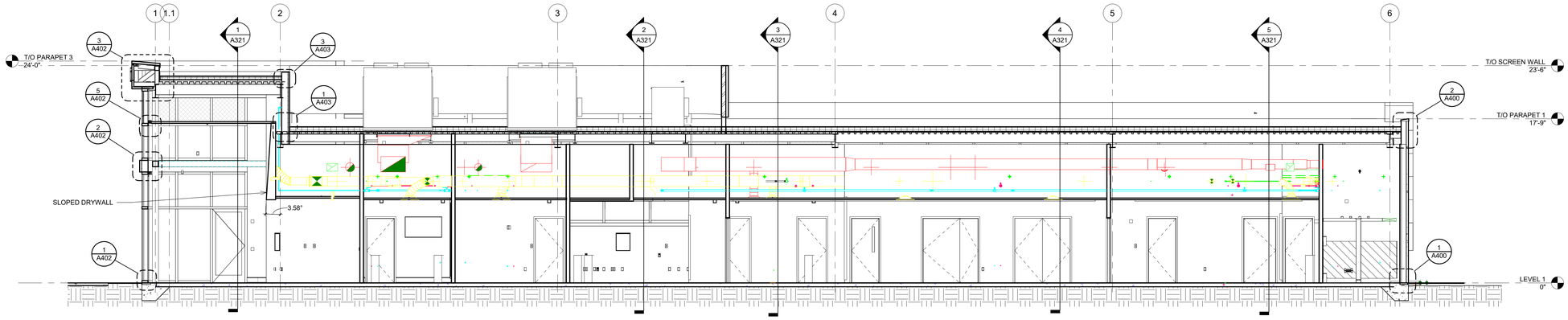
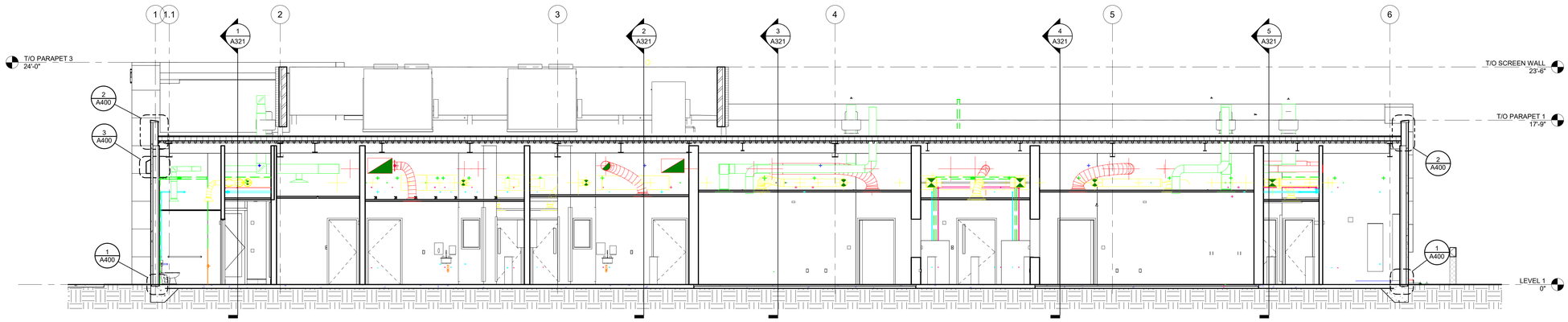



2 SECTION N/S 2
3/16" = 1'-0"
0' 4' 8' 16' 24'




1 SECTION N/S 1
3/16" = 1'-0"
0' 4' 8' 16' 24'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BUILDING SECTIONS

**A320**

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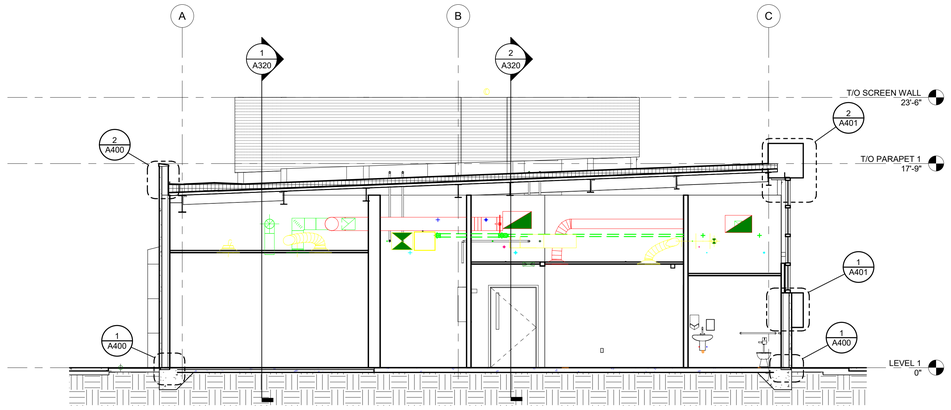


3 SECTION E/W 3
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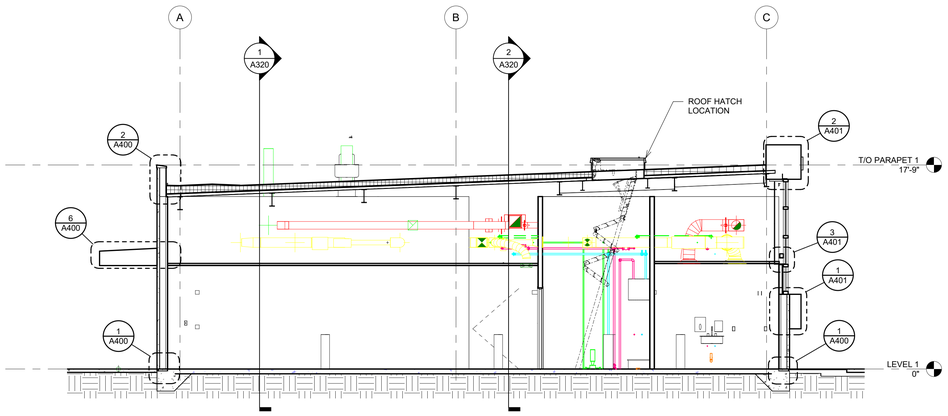


5 SECTION E/W 5
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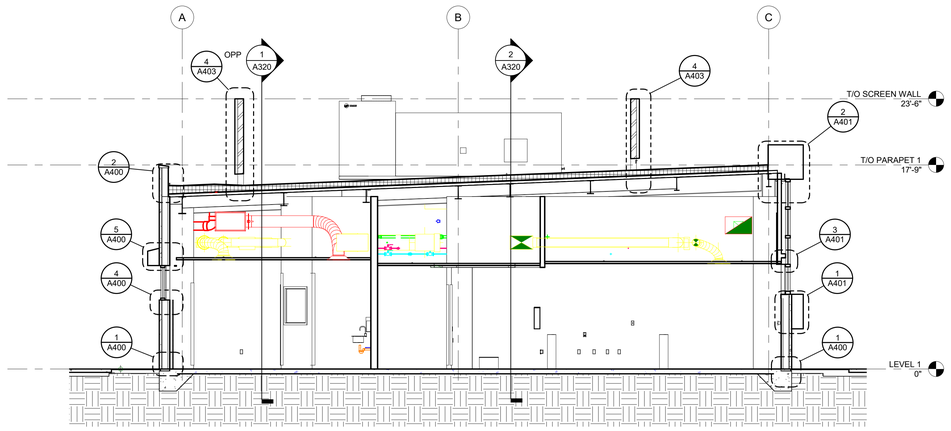


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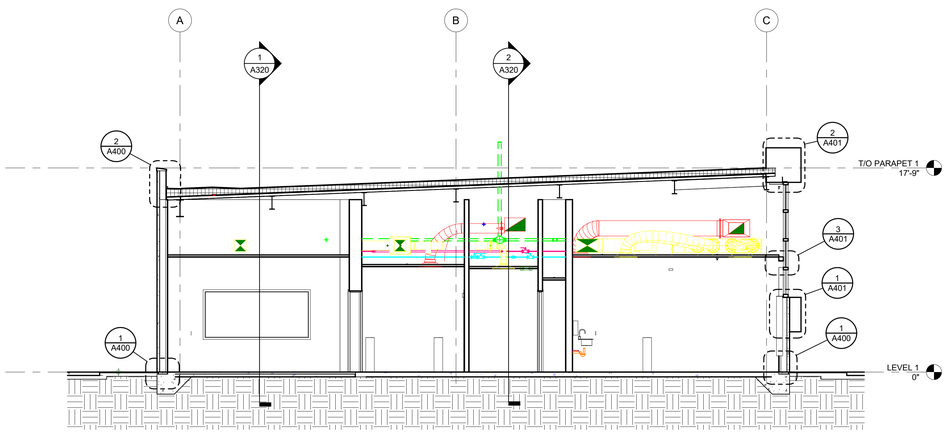
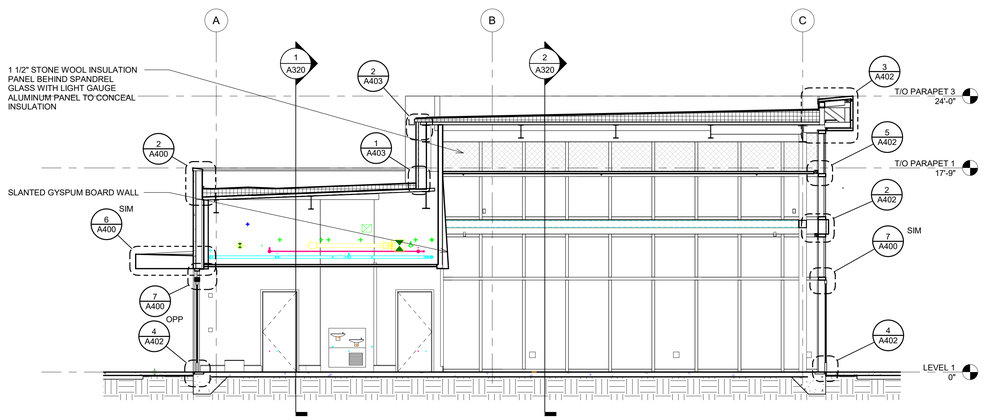



4 SECTION E/W 4
3/16" = 1'-0"




1 SECTION E/W 1
3/16" = 1'-0"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BUILDING SECTIONS

**A321**

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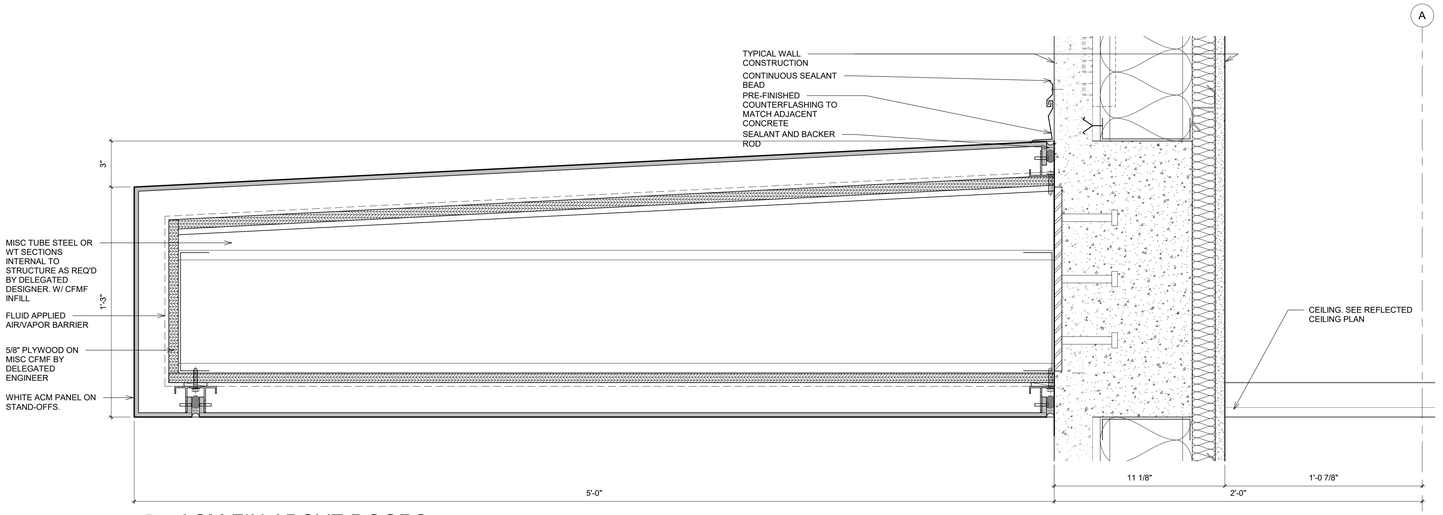
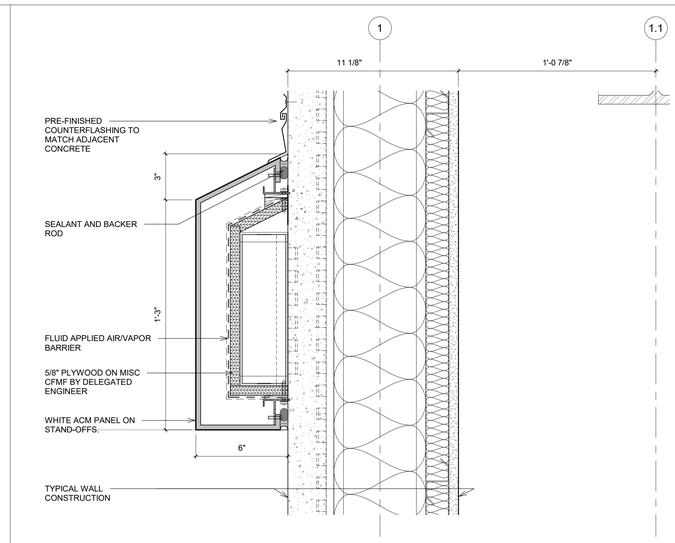


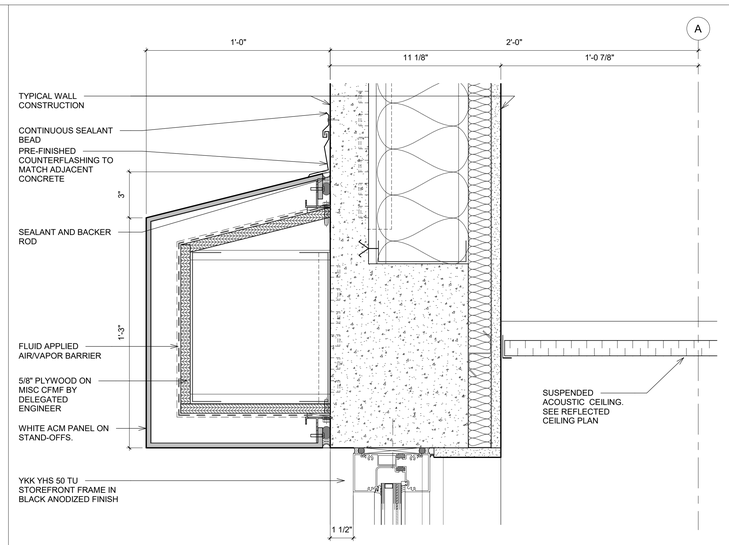

## 6 ACM FIN ABOVE DOORS

3" = 1'-0"



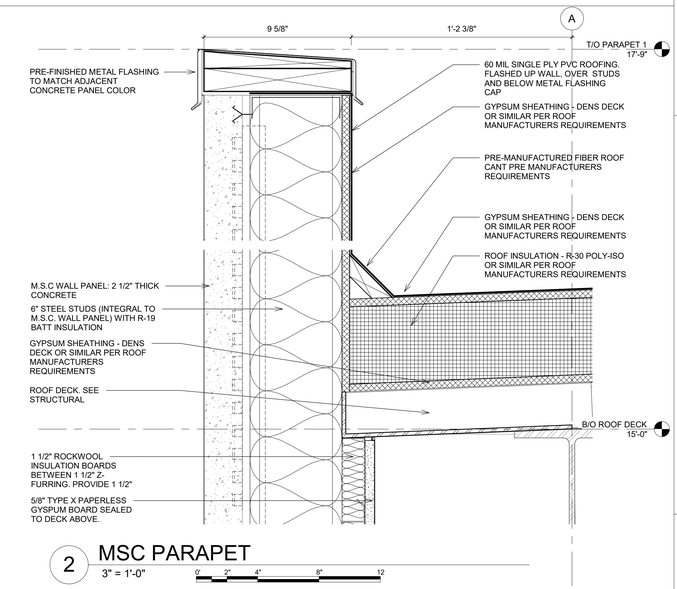

## 3 ACM FIN

3" = 1'-0"



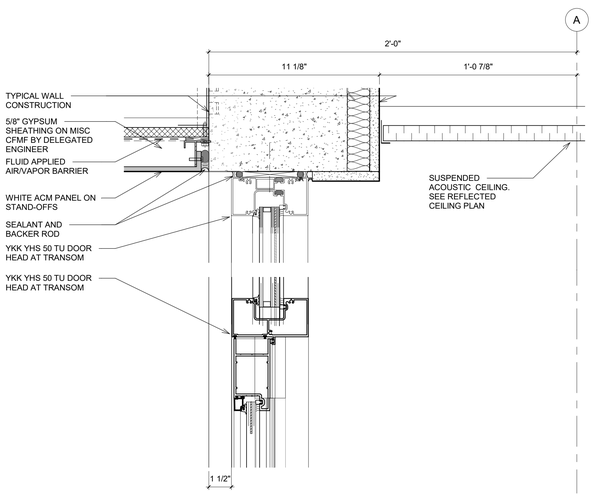

## 5 MSC STOREFRONT HEAD & ACM FIN

3" = 1'-0"



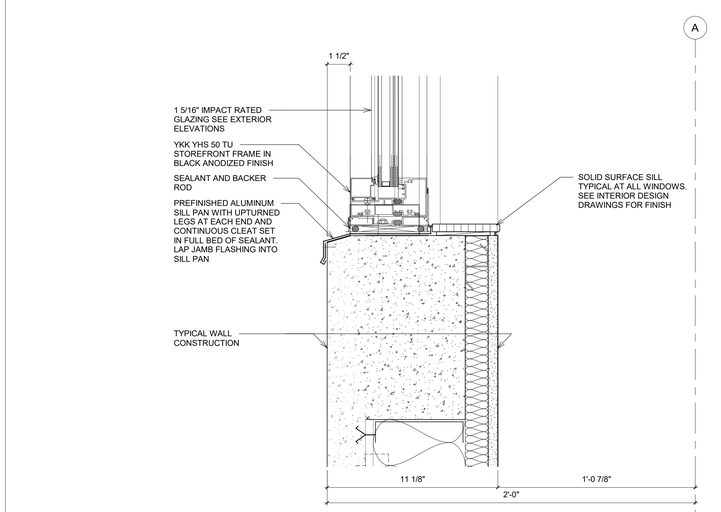

## 2 MSC PARAPET

3" = 1'-0"



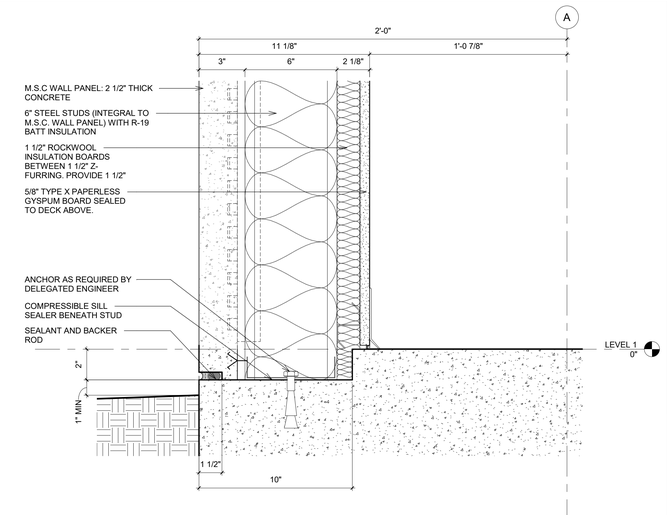

## 7 TRANSOM DOOR HEAD

3" = 1'-0"




## 4 MSC STOREFRONT SILL

3" = 1'-0"




## 1 MSC WALL BASE

3" = 1'-0"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SECTION DETAILS

**A400**

43642
3/18/2019

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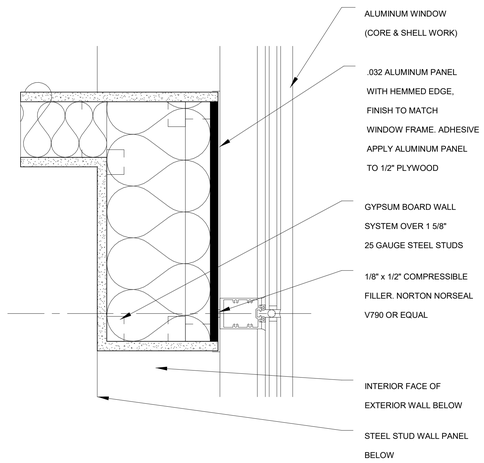
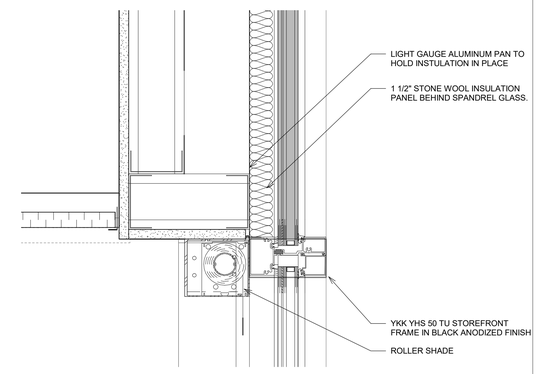
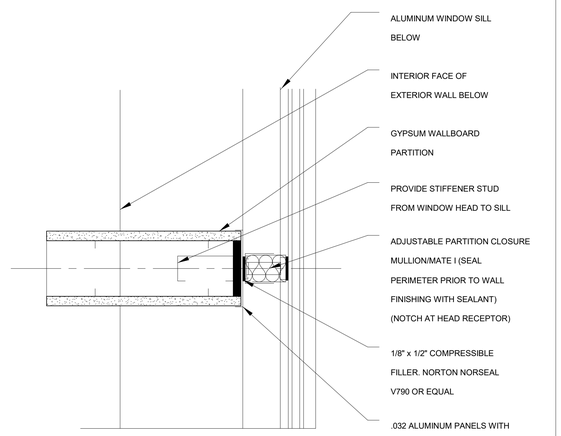


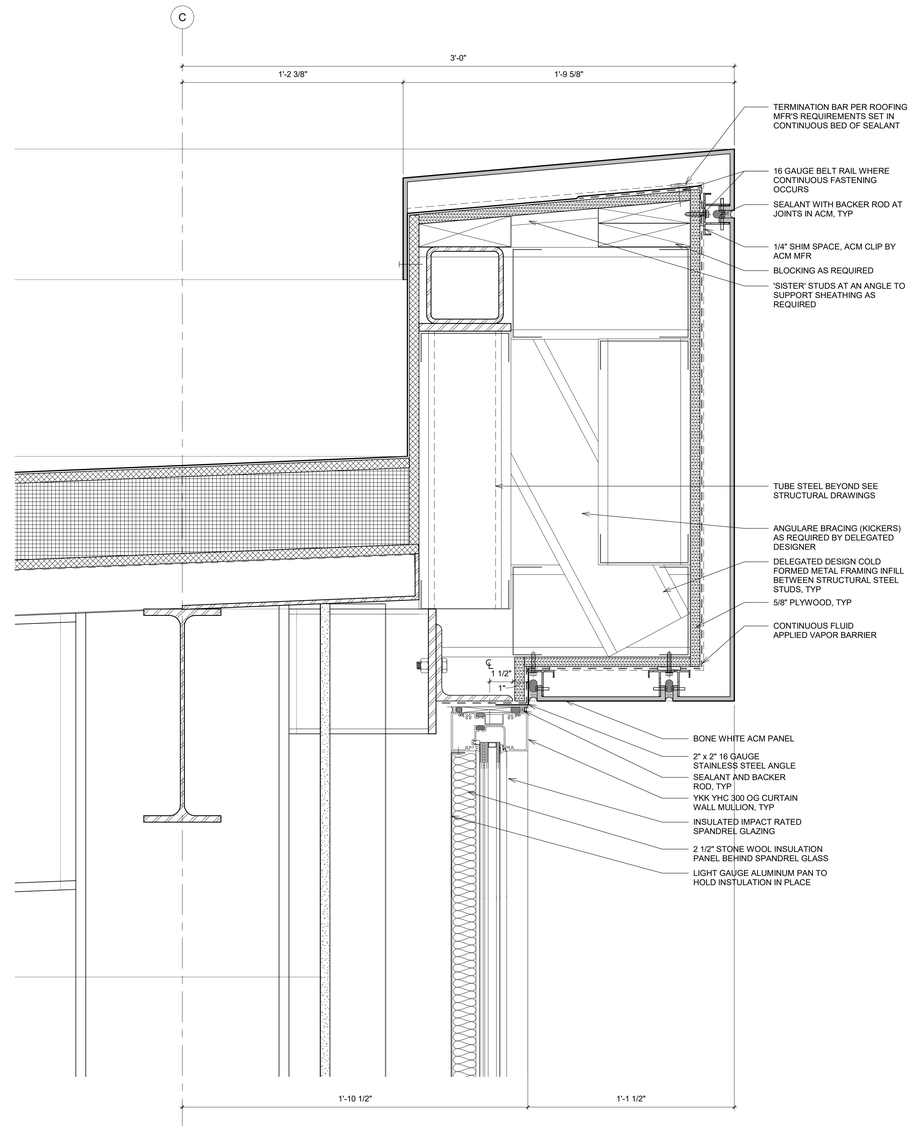

## 6 PARTITION TO MULLION
3" = 1'-0"



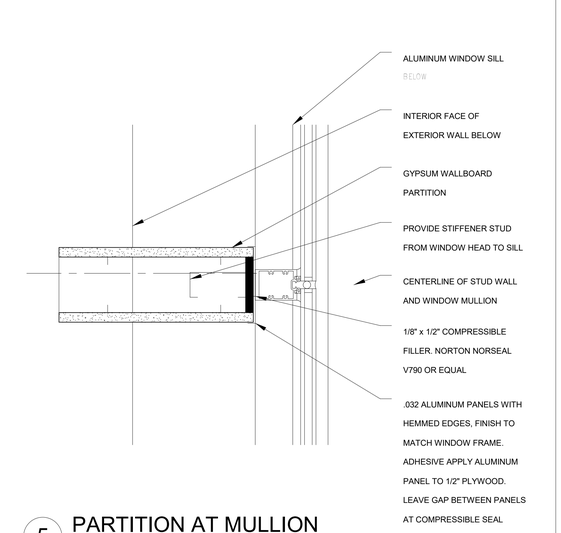

## 3 STOREFRONT SOFFIT DETAIL
3" = 1'-0"



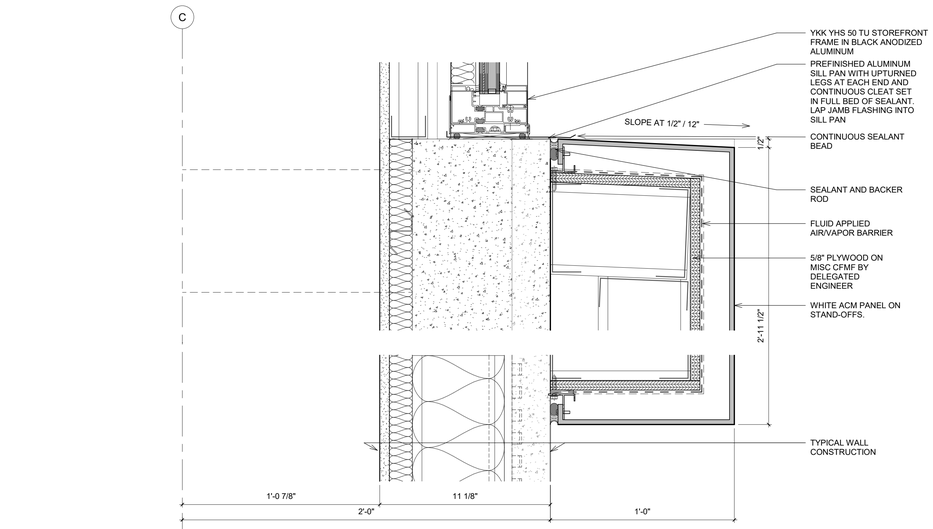

## 4 PARTITION AT GLAZING
3" = 1'-0"




## 2 ACM PARAPET - EAST FACADE
3" = 1'-0"




## 5 PARTITION AT MULLION
3" = 1'-0"




## 1 ACM AND MSC STOREFRONT SILL
3" = 1'-0"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SECTION DETAILS

**A401**

43642
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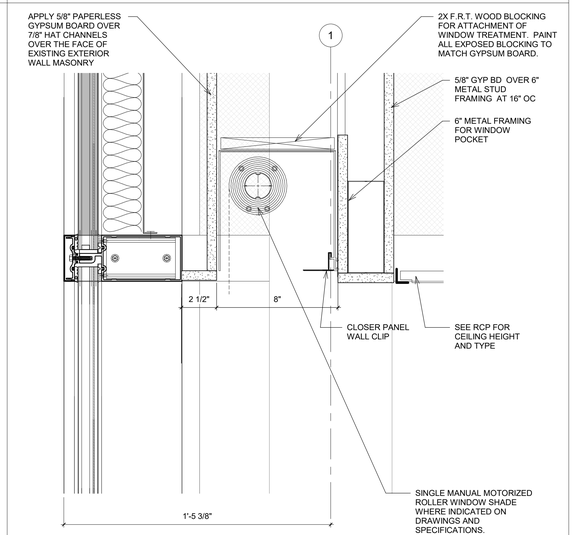
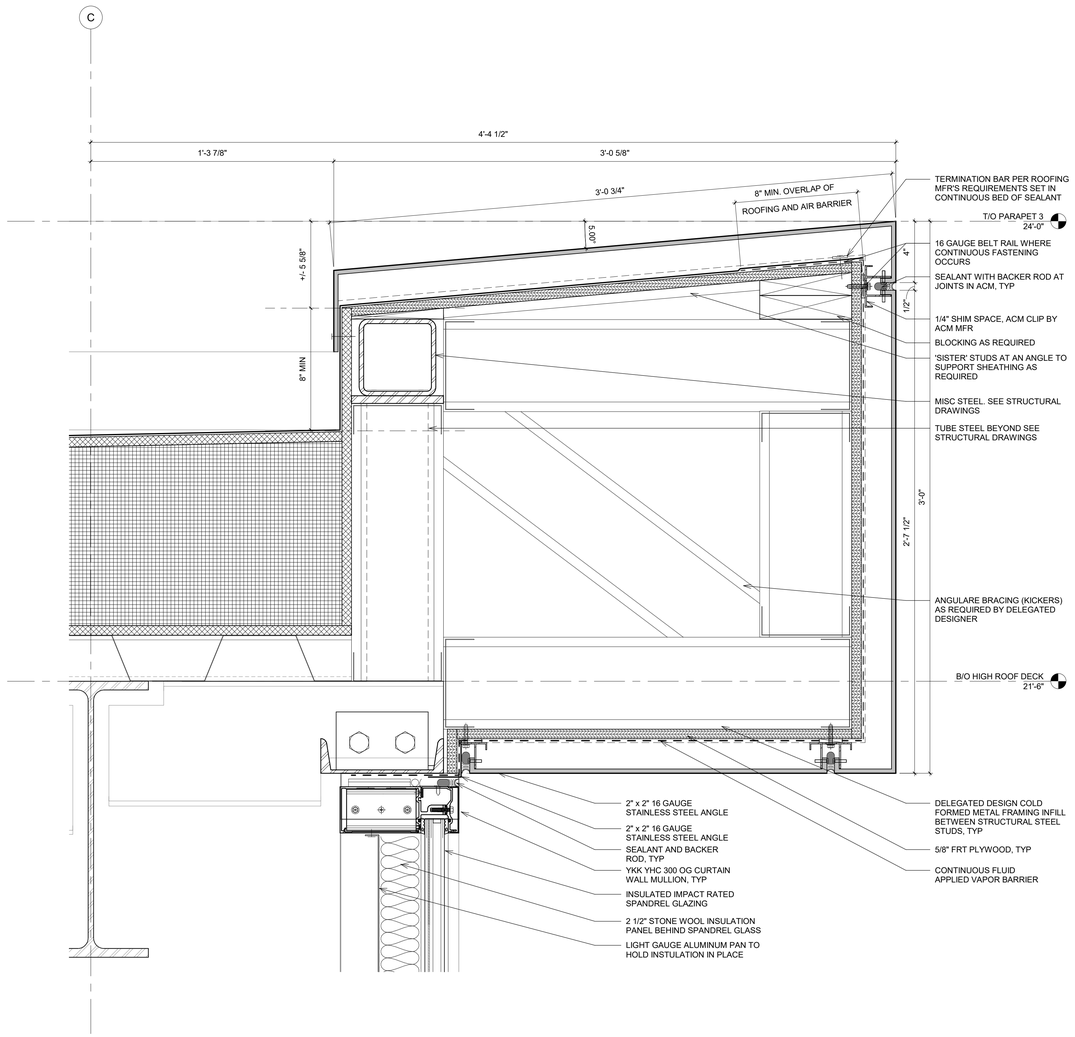


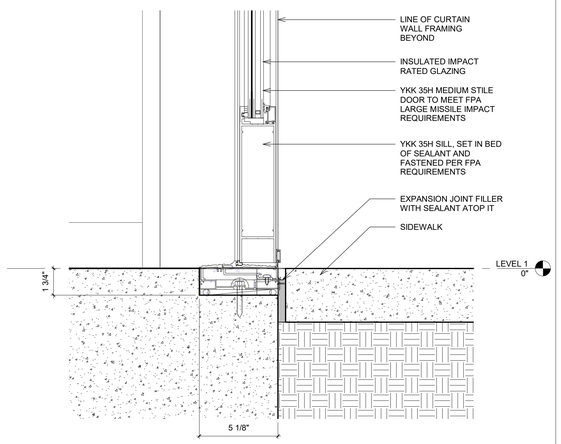

## 5 ROLLER SHADE AT LOBBY

3" = 1'-0"



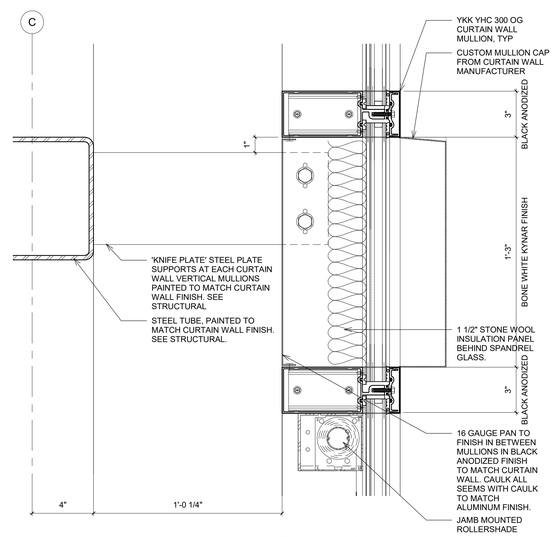

## 3 ACM AT HEAD OF CURTAIN WALL

3" = 1'-0"



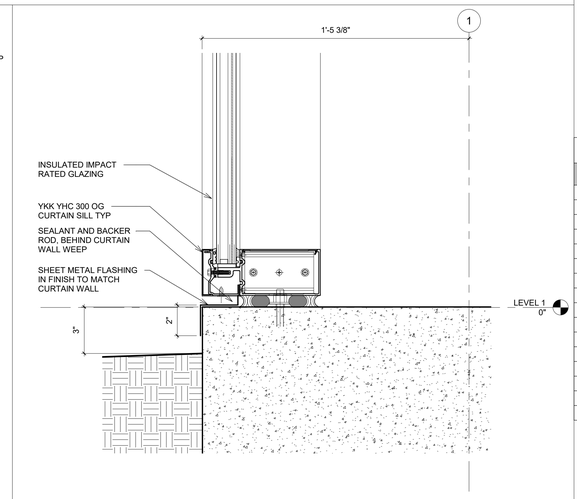

## 4 STOREFRONT DOOR SILL

3" = 1'-0"




## 2 CURTAIN WALL STEEL SUPPORT

3" = 1'-0"




## 1 CURTAIN WALL SILL

3" = 1'-0"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SECTION DETAILS

**A402**

43642
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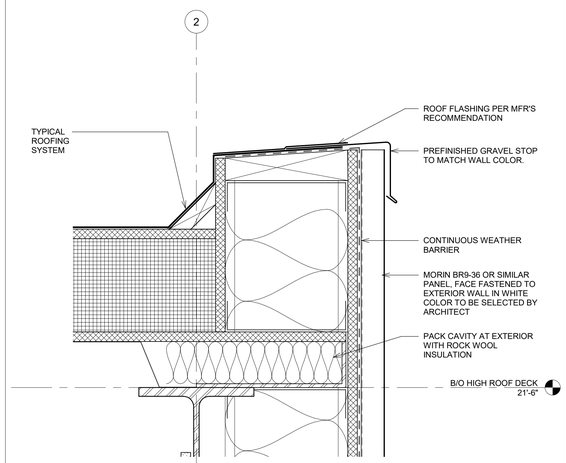
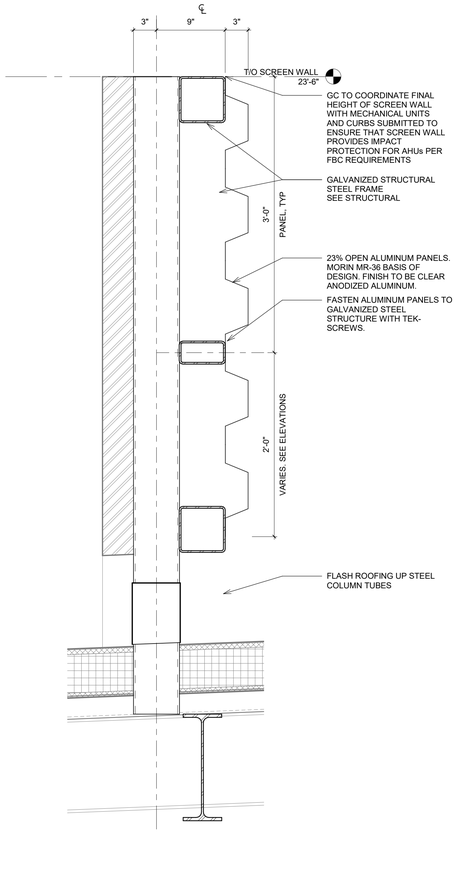
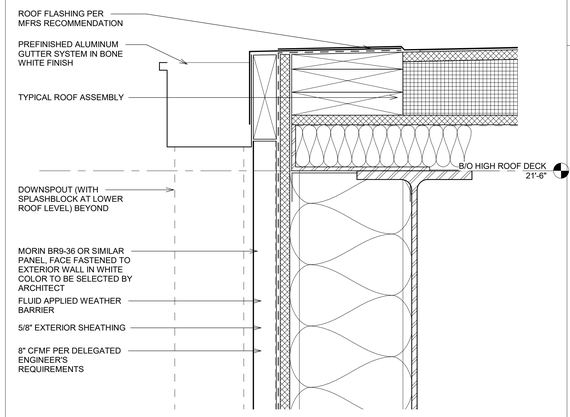


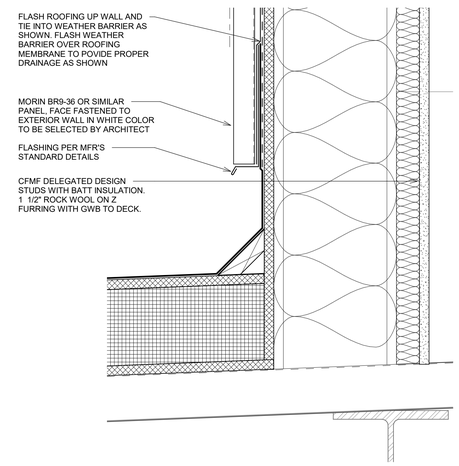

3 HIGH ROOF PARAPET
3" = 1'-0"
0" 2" 4" 8" 12"




4 SCREEN WALL SECTION
1 1/2" = 1'-0"
0' 6" 1' 1 1/2"




2 GUTTER AT HIGH ROOF
3" = 1'-0"
0' 2" 4" 8" 12"




1 WALL BASE AT HIGH ROOF
3" = 1'-0"
0' 2" 4" 8" 12"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SECTION DETAILS

**A403**

43642
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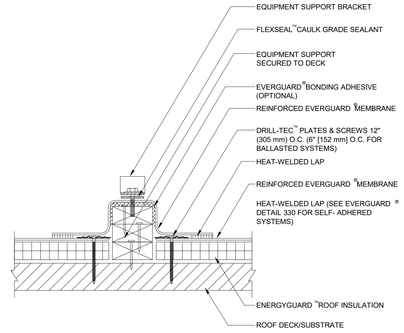
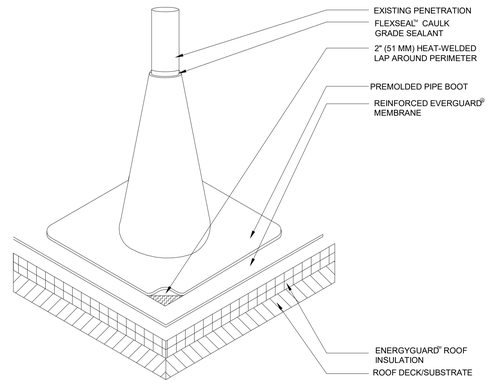



NOTE:

1.FOR INSULATION THICKNESS GREATER THAN 8" (203 mm), A HARD BOARD IS REQUIRED ON MECHANICAL SYSTEMS ONLY.

2. APPLY EVERGUARD ®TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES (REFER TO EVERGUARD ®DETAIL 115).

## 3 PAINT CURB
NOT TO SCALE



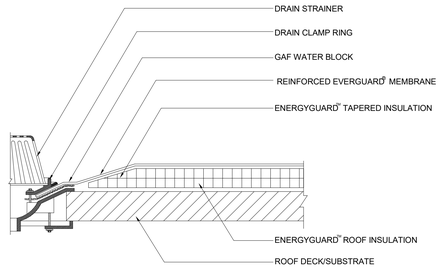

NOTE:

1. FOUR DRILL-TEC™ PLATES & SCREWS AROUND PENETRATION

2. IF PLATES AND FASTENERS ENCROACH INTO THE SEAM AREA OF THE POCKET, THEN A TARGET MUST BE ADDED FIRST TO COVER FASTENERS.

3. THIS PRODUCT IS AVAILABLE IN CUSTOM SIZES, VISIT GAF.COM FOR MORE INFORMATION

## 5 PIPE BOO
NOT TO SCALE




NOTE:

1. A FIELD WELD CANNOT PASS WITHIN 9" OF THE CLAMPING, OR WITHIN THE DRAIN SUMP ITSELF.

2. MEMBRANE MUST EXTEND MINIMUM 1" BEYOND THE BOLT HOLES, THE CLAMPING RING BOLTS MUST PENETRATE THE MEMBRANE.

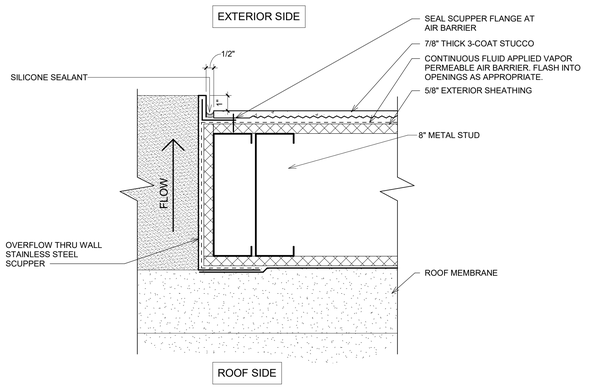
3. TAPERED INSULATION TO CREATE A ROOF SUMP MINIMUM 36" X 36" IN SIZE. (IF APPLICABLE)

4. EVERGUARD® ADHESIVE/ASPHALT (NOT SHOWN) REQ'D FOR FA SYSTEMS.

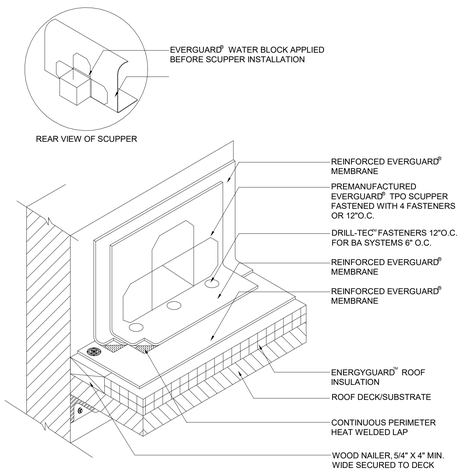
5. USE ONE FULL TUBE OF GAF WATER BLOCK PER DRAIN.

6. STONE/PAVER BALLAST (NOT SHOWN) REQUIRED FOR BA SYSTEMS.

## 2 DRAIN FLASHING DETAIL
NOT TO SCALE




## 4 PLAN DETAIL THROUGH OVERFLOW SCUPPER AT CEMENT PLASTER / MTL STUD PARAPET
3" = 1'-0"




NOTE:

1. DETAIL TO BE USED IN CONJUNCTION WITH STANDARD GUIDE SPECIFICATION CONTAINING REQUIREMENTS FOR NAILERS, INSULATION ETC.

2. APPLY EVERGUARD® TPO CUT EDGE SEALANT TO ALL CUT REINFORCED TPO EDGES ( REFER TO DETAIL MA/FA/BA 115 ).

## 1 SCUPPER DETAIL
NOT TO SCALE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ROOF DETAILS

**A420**

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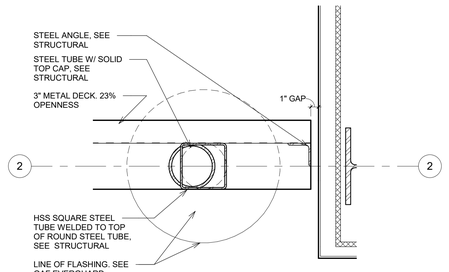
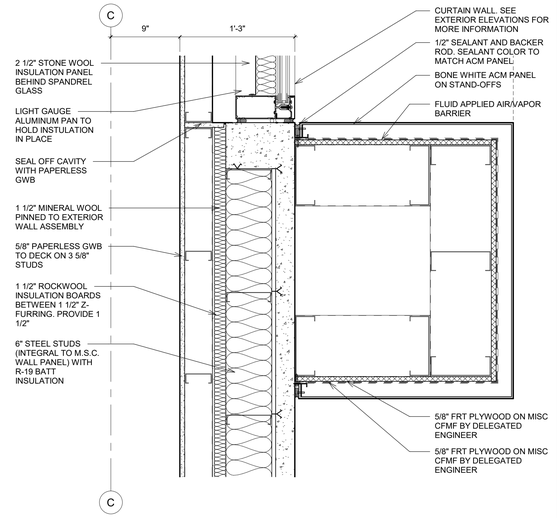



6 LEVEL 2 DIMENSION PLAN - Callout 1
1 1/2" = 1'-0"



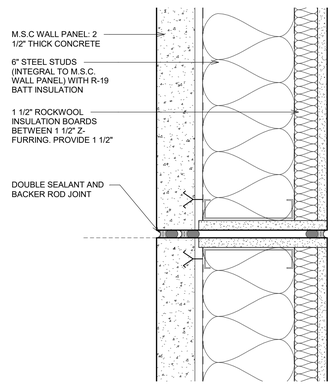

3 ACM BAND EAST
1 1/2" = 1'-0"




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




2 COLUMN DETAIL AT 1 AND C
1 1/2" = 1'-0"




4 KNOCKOUT PANEL PLAN DETAIL
3" = 1'-0"




1 ACM BAND NORTH
1 1/2" = 1'-0"

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PLAN DETAILS

**A450**

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# CASEWORK NOMENCLATURE



XX/XXX 24/24/34 ← CABINETWORK/CASEWORK DETAIL NUMBER / SHEET NUMBER

CABINETWORK/CASEWORK WIDTH, DEPTH & HEIGHT. (FOR INSTANCE, "24/24/34" INDICATES 24" WIDE BY 24" DEEP BY 34" HIGH).

NOTES:

1. BASE CABINETS HEIGHTS ARE TO FINISH COUNTERTOP (FOR INSTANCE, "242434" INDICATES 24" WIDE BY 24" DEEP UNIT WITH 34" FINISH COUNTERTOP HEIGHT ABOVE THE FINISH FLOOR)

2. COMPLY WITH ALL REQUIREMENTS INCLUDED IN THE "GENERAL NOTES FOR CABINETWORK/ CASEWORK" ON SHEET A500

3. PROVIDE 2'-5" MINIMUM CLEAR ABOVE THE FINISH FLOOR TO THE BOTTOM OF THE APRON AT ALL ACCESSIBLE SINK AND LAVATORY LOCATIONS.

4. EXCEPT WHERE INDICATED TO BE 2'-5" MINIMUM CLEAR ABOVE THE FINISH FLOOR TO THE BOTTOM OF THE APRON, PROVIDE 2'-3" MINIMUM CLEAR ABOVE THE FINISH FLOOR TO THE BOTTOM OF THE APRON AT ALL OTHER KNEE SPACES WHERE THERE IS NOT A SINK OR LAVATORY.

5. EXCEPT WHERE INDICATED TO BE 2'-5" MINIMUM CLEAR ABOVE THE FINISH FLOOR, PROVIDE 2'-3" MINIMUM CLEAR ABOVE THE FINISH FLOOR TO THE BOTTOM OF THE PENCIL DRAWER.

6. THE TOP OF THE FULL HEIGHT CABINETS SHALL BE 7'-2" ABOVE THE FINISH FLOOR (IN ORDER TO ALIGN WITH THE TOP OF THE DOOR FRAMES FOR THE 7'-0" HEIGHT DOORS).

7. THE TOP OF THE WALL CABINETS SHALL BE MOUNTED AT 7'-2" ABOVE THE FINISH FLOOR (IN ORDER TO ALIGN WITH THE TOP OF THE DOOR FRAMES FOR THE 7'-0" HEIGHT DOORS).

# KEYNOTES FOR CABINETWORK/ CASEWORK

751. WHERE INDICATED BY REFERENCE TO THIS NOTE, PROVIDE A MINIMUM OF 1'-6" CLEAR BETWEEN FACE OF CABINETWORK/CASEWORK AND/OR EDGE OF COUNTERTOP AND LEADING EDGE OF THE DOOR TO THE ROOM (WHEN DOOR IS IN CLOSED POSITION).

752. WHERE INDICATED BY REFERENCE TO THIS NOTE, PROVIDE A MINIMUM OF 1'-0" CLEAR BETWEEN FACE OF COUNTERTOP AND LEADING EDGE OF THE DOOR TO THE ROOM (WHEN DOOR IS IN CLOSED POSITION).

753. WHERE INDICATED BY REFERENCE TO THIS NOTE, PROVIDE A MINIMUM OF 5'-0" CLEAR BETWEEN THE FACE OF THE CABINETWORK/CASEWORK AND/OR EDGE OF COUNTERTOP AND THE WALL IN WHICH DOOR TO ROOM IS LOCATED.

754. WHERE INDICATED BY REFERENCE TO THIS NOTE, VERIFY AND PROVIDE A MINIMUM OF 5'-0" CLEAR BETWEEN THE FIXED EQUIPMENT ADJACENT TO CABINETWORK/CASEWORK AND THE WALL IN WHICH DOOR TO ROOM IS LOCATED.

755. WHERE INDICATED BY REFERENCE TO THIS NOTE, PROVIDE A MINIMUM OF 3'-0" CLEAR BETWEEN THE FACE OF THE CABINETWORK/CASEWORK AND/OR EDGE OF COUNTERTOP AND THE FACE OF THE WALL.

756. WHERE INDICATED BY REFERENCE TO THIS NOTE, PROVIDE COMPUTER PAPER SLOT IN COUNTERTOP. COORDINATE EXACT LOCATION WITH OWNER FURNISHED PRINTERS. [ARCHITECT SHALL SELECT COLOR OF PAPER SLOT.]

757. WHERE INDICATED BY REFERENCE TO THIS NOTE, PROVIDE 2 INCH SQUARE STAINLESS STEEL TUBE LEGS, AS REQUIRED FOR SUPPORT AT KNEE SPACES AND/OR AT COUNTERTOPS WITHOUT BASE CABINETS BELOW THEM.

758. WHERE INDICATED BY REFERENCE TO THIS NOTE, PROVIDE WIRE MANAGER PER SPECIFICATION SECTION 12 3200.

# ABBREVIATIONS

| | |
|---|---|
| AFF | ABOVE FINISH FLOOR |
| ACC | ACCESSIBLE |
| ADJUST | ADJUSTABLE |
| FOF | FACE OF FINISH |
| MAX | MAXIMUM |
| MIN | MINIMUM |
| OFE | OWNER FURNITURE EQUIPMENT |
| TEMP GL | TEMPERED GLASS |
| PL-X | PLASTIC LAMINATE |
| SS-X | SOLID SURFACE MATERIAL |
| S STL | STAINLESS STEEL |
| UON | UNLESS OTHERWISE NOTED |

# LEGEND FOR INTERIOR ELEVATIONS

(A) TOILET ACCESSORY (SEE PART 2.2 IN SPECIFICATION SECTION 10 28 00 FOR LEGEND)

751 SEE "INTERIOR ELEVATION KEYNOTES" ON THIS SHEET

| | |
|---|---|
| ACC | ACCESSIBLE |
| CCT | CUBICLE CURTAIN TRACK |
| CG | CORNER GUARD (SEE INTERIOR DESIGN DRAWINGS) |
| CR | CARD READER |
| EWC | ELECTRIC WATER COOLER |
| FE | FIRE EXTINGUISHER (SURFACE MOUNTED) |
| FEC | FIRE EXTINGUISHER CABINET (RECESSED) |
| IWP | IMPACT WALL PANEL (SEE INTERIOR DESIGN DRAWINGS) |
| IWS | IMPACT WALL SHEETING (SEE INTERIOR DESIGN DRAWINGS) |
| MB | MARKER BOARD |

# GENERAL NOTES FOR CABINETWORK/ CASEWORK

701. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THESE NOTES, THE "LEGEND FOR CABINETWORK/ CASEWORK", THE FLOOR PLANS, THE INTERIOR ELEVATIONS, THE DETAILS, THE SPECIFICATIONS, THE INTERIOR DESIGN DRAWINGS, AND THE MECHANICAL/ELECTRICAL/PLUMBING DRAWINGS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY ERRORS, INCONSISTENCIES OR OMISSIONS THAT ARE DISCOVERED.

702. THE CONTRACTOR SHALL CAREFULLY STUDY AND COMPARE THE FLOOR PLANS AND THE SPECIFIED CABINETWORK/CASEWORK TO VERIFY THAT CABINET DOORS AND DRAWERS DO NOT "SWING OUT" OR "OPEN" INTO THE "MINIMUM REQUIRED CLEAR WIDTH" OF ANY CORRIDOR OR PASSAGEWAY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY CONFLICTS THAT ARE DISCOVERED.

703. CABINETWORK/CASEWORK AND COUNTERTOP DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO FABRICATION AND INSTALLATION. DO NOT SCALE THE DRAWINGS TO DETERMINE DIMENSIONS. THE CONTRACTOR SHALL ALSO VERIFY THAT CABINETWORK/CASEWORK IS NOT PLACED IN A LOCATION WHERE IT WOULD INTERFERE WITH THE CODE REQUIRED MANEUVERING CLEARANCES AT ROOM DOORS AS IDENTIFIED IN DETAIL 14 ON SHEET A800 AND A801.

704. THE TOTAL OVERALL WIDTH OF "WALL CABINETS" (ABOVE) AND THE "BASE CABINETS" (BELOW) ON EACH ELEVATION SHALL BE THE SAME SO THAT THEY ARE ALIGNED, UNLESS OTHERWISE NOTED SPECIFICALLY.

705. INDIVIDUAL "WALL CABINET WIDTHS" (ABOVE) SHALL BE ALIGNED WITH INDIVIDUAL "BASE CABINET WIDTHS" (BELOW), UNLESS OTHERWISE NOTED SPECIFICALLY.

706. EXCEPT WHERE OTHERWISE INDICATED:
A. WALL CABINETS SHALL BE 1'-2" DEEP.
B. BASE CABINETS SHALL BE 2'-0" DEEP.
C. BASE CABINETS SHALL BE 2'-6" DEEP AT 2'-7" DEEP COUNTERTOPS.
D. COUNTERTOPS SHALL BE 2'-1" DEEP AT 2'-0" DEEP BASE CABINETS.
E. COUNTERTOPS SHALL BE 2'-7" DEEP AT 2'-6" DEEP BASE CABINETS.
F. TOP OF COUNTERTOPS SHALL BE A MAXIMUM OF 2'-10" AFF. HOWEVER, PER ADA *AND PER SECTION 606.3 OF THE ICC/ANSI A117.1 ACCESSIBILITY CODE: IF THERE IS A COUNTERTOP MOUNTED SINK WITH ITS RIM ABOVE THE COUNTERTOP LEVEL, THE CONTRACTOR SHALL MOUNT THE COUNTERTOP AT A LOWER MOUNTING HEIGHT (AND ADJUST THE HEIGHT OF THE ADJACENT BASE CABINETS, IF ANY) SO THAT THE RIM OF THE SINK IS A MAXIMUM OF 2'-10" AFF.
G. PROVIDE 1'-3" ABSOLUTE MINIMUM HORIZONTAL CLEARANCE BETWEEN THE CENTERLINE OF EACH SINK/LAVATORY BOWL AND THE FACE OF THE ADJACENT VERTICAL CABINET, LEG, END PANEL OR WALL SURFACE.
H. TOP OF WALL CABINETS SHALL BE 7'-2" AFF FLOOR (TO ALIGN WITH TOP OF THE DOOR FRAMES AT THE 7'-0" TALL DOORS).
J. THE MAXIMUM WIDTH OF WALL CABINET DOORS SHALL BE 2'-0".
K. THE MAXIMUM WIDTH OF FULL HEIGHT CABINET DOORS SHALL BE 2'-0".
L. DRAWER BASE CABINETS SHALL BE A MINIMUM OF 15 INCHES WIDE AND A MAXIMUM OF 24" WIDE.
M. ALL SHELVING OVER 30 INCHES WIDE SHALL BE 1 INCH THICK; HOWEVER, IN ANY SPACE WHERE 1 INCH THICK SHELVING IS USED, ALL SHELVING IN THAT SPACE SHALL BE 1 INCH THICK.
N. PROVIDE A MAXIMUM OF ONE 3 INCH FILLER PANEL IN THE OVERALL WIDTH OF CABINETWORK/ CASEWORK ON EACH ELEVATION.

707. THE CONTRACTOR SHALL VERIFY AND COORDINATE THE CLEAR DIMENSIONS REQUIRED FOR ALL OWNER FURNISHED EQUIPMENT [OFE] WHICH IS LOCATED WITHIN, OR ADJACENT TO, ANY PIECE OF COUNTERTOP OR CABINETWORK/CASEWORK. SEE THE FLOOR PLANS FOR LOCATIONS OF OFE.

708. UNLESS OTHERWISE NOTED SPECIFICALLY, COUNTERTOPS SHALL HAVE 4 INCH HIGH BACK-SPLASHES AND SIDE-SPLASHES/END-SPLASHES THAT ARE SCRIBED TO CONFORM TO THE SURFACE OF ABUTTING WALLS AT BACKS AND SIDES/ENDS OF COUNTERTOPS. THE TOP OF SIDE-SPLASHES/END-SPLASHES SHALL BE FLUSH WITH TOP OF BACK-SPLASHES. COUNTERTOPS, BACK-SPLASHES AND SIDE- SPLASHES/END-SPLASHES SHALL BE CONTINUOUSLY CAULKED TO THE WALL. THE THICKNESS OF PLASTIC LAMINATE CLAD BACK-SPLASHES AND SIDE-SPLASHES/END-SPLASHES SHALL BE 3/4 INCH. THE THICKNESS OF SOLID SURFACE BACK-SPLASHES AND SIDE-SPLASHES/END-SPLASHES AT SOLID SURFACE COUNTERTOPS SHALL BE 1/2 INCH.

709. THE CONTRACTOR, THE CABINETWORK/CASEWORK MANUFACTURER, THE SUPPLIER AND THE INSTALLER SHALL COORDINATE WITH ALL APPROPRIATE SUB-CONTRACTORS -- (1) FIRST PRIOR TO THE FABRICATION OF AND (2) THEN AGAIN PRIOR TO THE INSTALLATION OF THE FOLLOWING ITEMS IN, ON AND ADJACENT TO COUNTERTOPS AND CABINETWORK/CASEWORK:
A. SINKS/LAVATORIES WITH ASSOCIATED PIPING AND FITTINGS (FIXTURES, FAUCETS, AUTOMATIC SENSORS, SPRAY HOSES, INSTANT HOT WATER SPOUTS, WATER FILTRATION SYSTEMS, GARBAGE DISPOSALS, ETC.)
B. ELECTRICAL DEVICES (RECEPTACLES, LIGHT FIXTURES, LIGHT SWITCHES, ETC.)
C. COMMUNICATION DEVICES (TELEPHONE OUTLETS, DATA OUTLETS, COMPUTER OUTLETS, DICTATION OUTLETS, CABLE OUTLETS, MONITORS, ETC.)
D. TOILET ACCESSORIES (SOAP DISPENSERS, TOWEL BARS, PAPER TOWEL DISPENSERS, COUNTERTOP WASTE CHUTES, ETC.)
E. SECURITY DEVICES (MONITORS, PANIC BUTTONS, DOOR RELEASE SWITCHES, ETC.)
F. ITEMS FURNISHED BY THE CABINETWORK/CASEWORK SUPPLIER (HARDWARE, FILE DRAWER RAILS, PENCIL DRAWERS, KEYBOARD SLIDES, KEYBOARD TRAYS, TELEVISION SLIDES/SWIVELS, GROMMETS, PAPER SLOTS, WIRE MANAGERS, COUNTERTOP SUPPORTS,TRASH HOLE TRIM, CLOTHES RODS, CASH DRAWERS, TRANSACTION DRAWERS, ETC.
G. ITEMS FURNISHED BY THE OWNER (TELEPHONES, CHART RACKS, TELEVISIONS, MOUNTING BRACKETS, MONITORS, CPU CRADLES, TRASH CANS, LINEN HAMPERS, BATTERY CHARGERS, ETC.)

710. PROVIDE GROMMETS IN ALL COUNTERTOPS WHERE DEVICES, RECEPTACLES OR OUTLETS ARE LOCATED BELOW THE COUNTERTOP. THE CONTRACTOR SHALL PROVIDE AN ADEQUATE NUMBER OF GROMMETS TO ALLOW FOR ONE GROMMET TO BE PLACED FOR EACH 3'-0" OF TOTAL WIDTH OF COUNTERTOP ABOVE KNEE SPACE (WITH A MINIMUM OF ONE GROMMET AT EACH KNEE SPACE).

711. THE CONTRACTOR SHALL NOT DRILL ANY HOLES OR INSTALL ANY GROMMETS, KEYBOARD TRAYS, PENCIL DRAWERS, CPU CRADLES, ETC., UNTIL THE OWNER ACTUALLY INSTALLS THEIR COMPUTER EQUIPMENT, ETC., AND THEN CAN IDENTIFY EXACTLY WHERE THEY WANT THE GROMMETS, KEYBOARD TRAYS, PENCIL DRAWERS, CPU CRADLES, ETC., TO BE PLACED.

712. PROVIDE KEYED LOCKS ONLY ON DOORS AND DRAWERS
WHERE INDICATED. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WRITTEN INSTRUCTIONS FROM THE OWNER IN REGARDS TO THE KEYING SYSTEM TO BE PROVIDED FOR ALL CABINETWORK/CASEWORK LOCKS THROUGHOUT THE PROJECT.

713. AT COUNTERTOPS ABOVE KNEE SPACES AND AT SINK/LAVATORY COUNTERTOPS:
A. COUNTERTOPS SHALL BE CAPABLE OF SUPPORTING A MINIMUM LOAD OF 450 POUNDS.
B. PROVIDE METAL COUNTER SUPPORT BRACKETS WHICH WILL COMPLY WITH ADA KNEE CLEARANCE REQUIREMENTS, AND COMPLY WITH DETAILS INCLUDED IN THE DRAWINGS.
C. THE COUNTER SUPPORT BRACKETS SHALL NOT INTERFERE WITH ADA KNEE CLEARANCE REQUIRED FOR ADA ACCESSIBLE "FRONT-APPROACH" AT SINKS/LAVATORIES. SEE DETAILS.
D. THE COUNTER SUPPORT BRACKETS SHALL NOT INTERFERE WITH MOUNTING OF SINKS/LAVATORIES, KEYBOARD TRAYS, PENCIL DRAWERS, CPU CRADLES, UNDER-COUNTER OWNER FURNISHED EQUIPMENT, ETC.
E. LOCATIONS OF THESE COUNTER SUPPORT BRACKETS SHALL BE PRE-APPROVED BY THE ARCHITECT FOR AESTHETICS, AND SHALL COMPLY WITH THE DETAILS INCLUDED IN THE DRAWINGS.
F. ALL UNFINISHED WALL SUPPORTS SHALL BE PAINTED TO MATCH THE COLOR OF THE ADJACENT WALL SURFACE EVEN WHEN THEY ARE NOT READILY VISIBLE.

714. PROVIDE FOR COORDINATION BETWEEN THE WALL MOUNTED CABINETWORK/CASEWORK AND FULL HEIGHT CABINETS AND THE GYPSUM BOARD FURR DOWN SOFFITS ABOVE THEM. FURR-DOWN SOFFIT LOCATIONS AND DETAILS ARE INDICATED ON EITHER THE INTERIOR ELEVATIONS OR THE REFLECTED CEILING PLANS.

715. CABINETWORK/CASEWORK, BASES AND COUNTERTOPS SHALL BE CAULKED AT ALL JUNCTURES WITH EACH OTHER AND WITH ALL OTHER ADJOINING SURFACES/MATERIALS (INCLUDING WALLS, CABINETWORK/ CASEWORK, COUNTERTOPS, BASES, ETC.) EVEN THOUGH JOINTS MAY NOT BE VISIBLE. NOTE: THE PURPOSE OF THIS REQUIREMENT IS TO KEEP INSECTS FROM BEING ABLE TO CRAWL BETWEEN, BEHIND OR UNDER CABINETWORK/ CASEWORK, COUNTERTOPS AND SUPPORT BASES. ALL CAULK IS REQUIRED TO BE COLOR-COORDINATED TO MATCH THE COLOR OF THE ADJACENT SURFACE. WHEN THE TWO ADJACENT SURFACES ARE DIFFERENT COLORS, THE CONTRACTOR SHALL SPECIFICALLY REQUEST THAT THE ARCHITECT IDENTIFY WHICH SURFACE COLOR SHALL BE MATCHED.

716. PROVIDE FINISHED PLASTIC LAMINATE AND MATCHING 1 MM PVC TRIM* ON ALL CABINETWORK/ CASEWORK SURFACES WHICH ARE EXPOSED TO VIEW.

717. FINISHES, TEXTURES AND COLORS OF THE FOLLOWING SHALL BE AS INDICATED ON THE INTERIOR DESIGN DRAWINGS (IF NOT INDICATED, THEY SHALL BE SELECTED BY THE ARCHITECT DURING THE SUBMITTAL PROCESS.)
A. PLASTIC LAMINATE
B. SOLID SURFACE MATERIAL AND INTEGRAL SOLID SURFACE SINK BOWLS
C. GROMMETS, COMPUTER PAPER SLOTS, COUNTERTOP SUPPORTS, ETC.

718. PROVIDE SCHEDULED FINISH BASE ALONG BOTTOM OF EXPOSED FRONTS, BACKS, SIDES AND ENDS OF ALL FIXED CABINETWORK/CASEWORK, WARDROBES, END PANELS, VERTICAL SUPPORTS, KNEE SPACES, ETC. THE GENERAL CONTRACTOR SHALL COORDINATE BETWEEN SUB-CONTRACTORS. SEE INTERIOR DESIGN DRAWINGS FOR TYPE AND HEIGHT OF FINISH BASE TO BE PROVIDED IN EACH SPACE.

719. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FURNISHED EQUIPMENT [OFE] BROCHURE TO VERIFY THAT UNDER-COUNTER OFE (SUCH AS UNDER-COUNTER REFRIGERATORS, FREEZERS AND ICE MACHINES WILL FIT UNDER THE 2'-10" AFF MAXIMUM ALLOWED HEIGHT FOR COUNTERTOPS. *IF NOT, THE COUNTERTOP SHALL BE 3'-0" HEIGHT ONLY AT THE UNDER-COUNTER OFE.* THE CONTRACTOR SHALL ALSO VERIFY THE WIDTHS OF UNDER-COUNTER OFE TO AVOID LARGE GAPS IN THE BASE CABINETS ON EACH SIDE OF THE OFE.

720. AT LOCATIONS WHERE TOILET ACCESSORIES OR OWNER FURNISHED ITEMS NEED TO BE ATTACHED TO PLASTIC LAMINATE, SOLID SURFACE OR WOOD MATERIALS ON CABINETWORK, COUNTERTOPS, BACK SPLASHES OR SIDE SPLASHES/END SPLASHES, THE CONTRACTOR SHALL FIRST CONTACT THE ARCHITECT REGARDING WHICH ATTACHMENT METHOD (DOUBLE SIDED TAPE OR SCREWS) SHALL BE USED FOR EACH SPECIFIC TYPE OF ACCESSORY OR OWNER FURNISHED ITEM ON EACH FINISH MATERIAL.

721. ALL VISIBLE AND SEMI-VISIBLE WOOD SUPPORTS (WOOD BRACKETS, WOOD CLEATS, ETC.) BELOW A COUNTERTOP SHALL BE FINISHED WITH PLASTIC LAMINATE TO MATCH THE COLOR OF THE BASE CABINETS OR THEY SHALL BE SANDED SMOOTH, SEALED AND PAINTED TO MATCH THE ADJACENT WALL COLOR. (VERIFY "SPACE SPECIFIC" REQUIREMENTS WITH THE ARCHITECT.) ADDITIONALLY, EVEN ALL NON-VISIBLE WOOD, PLYWOOD & PARTICLE BOARD AT KNEE SPACES SHALL BE SANDED AND SEALED SO THAT THERE ARE NO ROUGH SPOTS THAT MIGHT CUT/ABRADE SKIN OR SNAG CLOTHING.

722. ALL CABINETWORK SHALL BE FASTENED TO THE VERTICAL PARTITIONS, TO EACH OTHER AND TO THE FLOORS AS REQUIRED BY THE SPECIFICATIONS AND THE DETAILS IN THE DRAWINGS. THE CONTRACTOR SHALL ALSO PROVIDE WOOD BLOCKING AND METAL REINFORCEMENT IN THE VERTICAL PARTITIONS PER THE MOST STRINGENT REQUIREMENTS OF THE SPECIFICATIONS, THE MANUFACTURER'S REQUIREMENTS AND THE DETAILS IN THE DRAWINGS.


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CABINETWORK/ CASEWORK GENERAL NOTES AND LEGEND

**A500**

43642
3/18/2019

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RENDERED ELEVATION VIEW OF FEATURE WALL AND RECEPTION

## SHEET SPECIFIC KEYNOTES

501 AWARDED FABRICATOR TO SUBMIT PATTERN MATCHING DRAWINGS TO ARCHITECT/DESIGNER FOR APPROVAL PRIOR TO CUTTING SLAB.

507 AT OUTSIDE CORNERS OF PORCELAIN TILE, PROVIDE FULL HEIGHT SCHLUTER TRIM 'QUADEC' IN 10FT LENGTH. START FULL TRIM PIECE FROM FLOOR.

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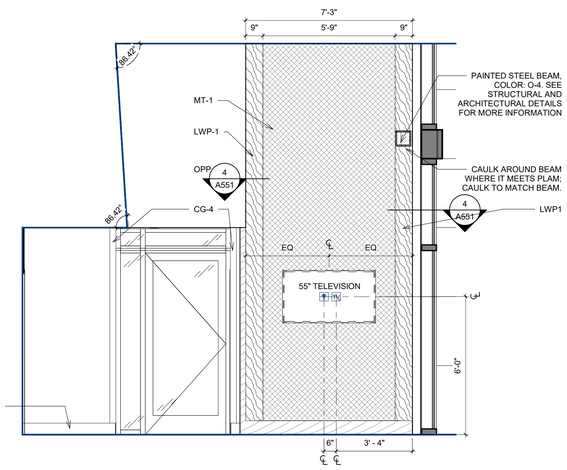


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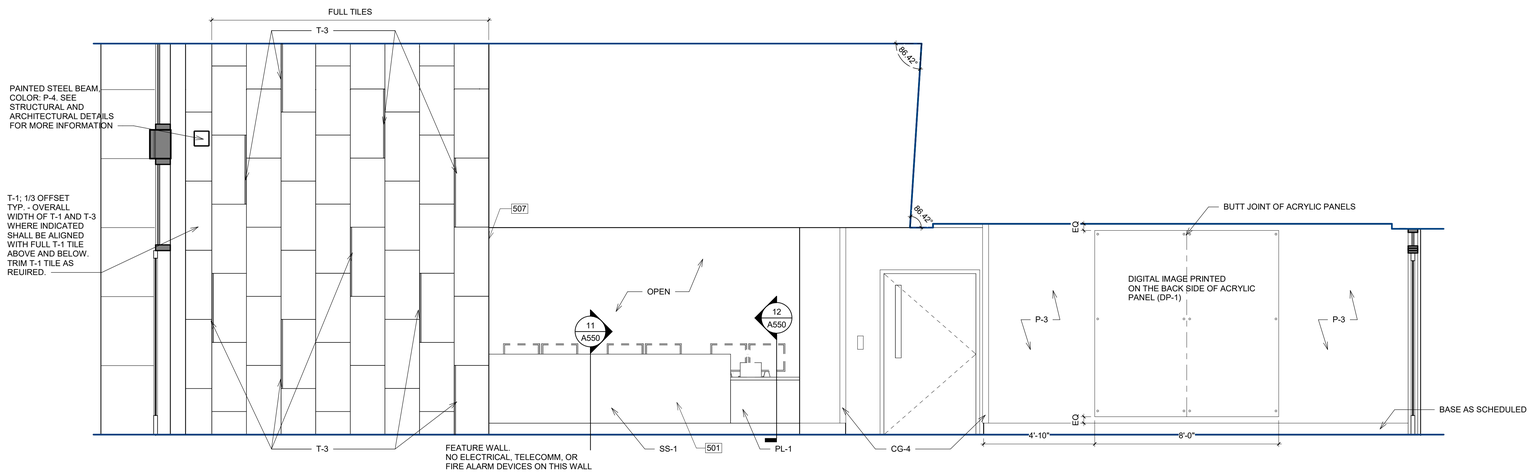


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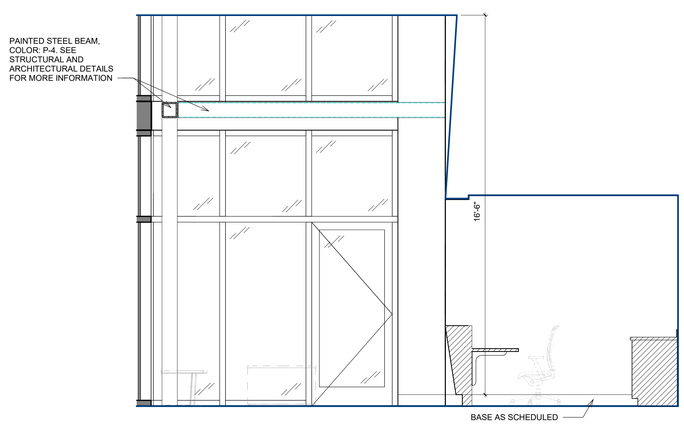


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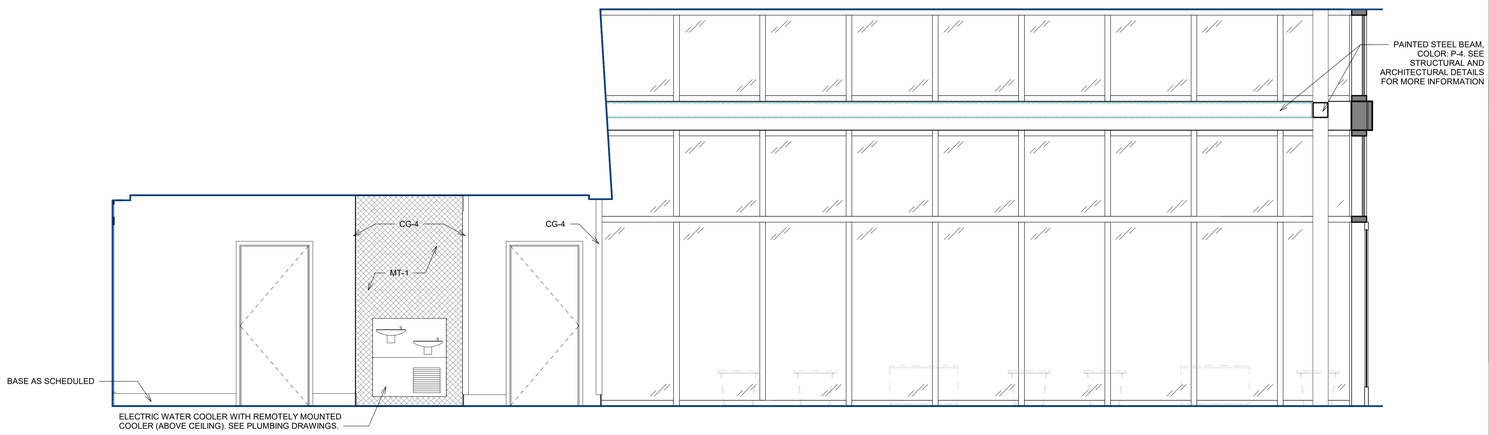


1D LOBBY - N

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ENLARGED PLANS AND INTERIOR ELEVATIONS

**A510**

43642
3/18/2019

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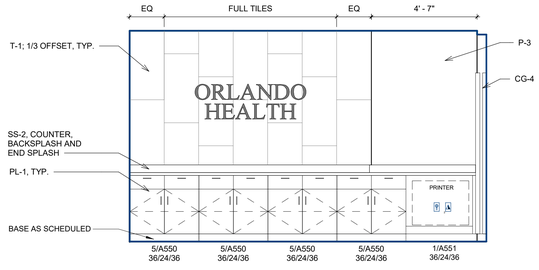


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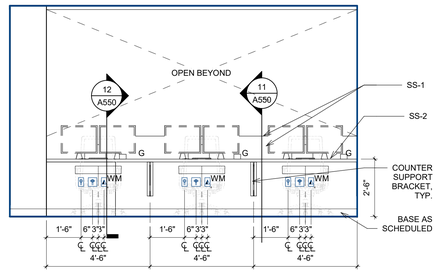


1B RECEPTION - N

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VIEW FROM ENTRY TO RECEPTION

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ENLARGED PLANS AND INTERIOR ELEVATIONS

**A511**

43642
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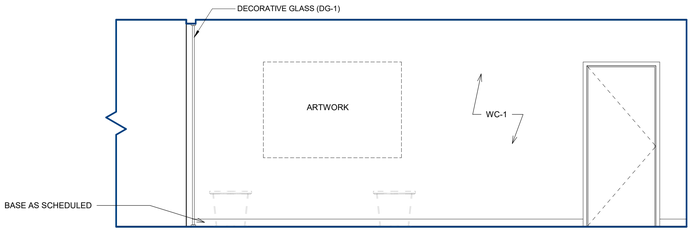
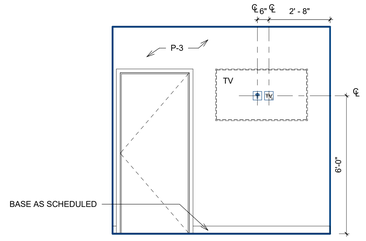



1A WOMENS SUBWAIT - N
3/8" = 1'-0"

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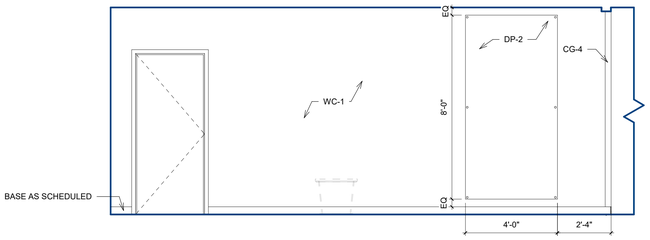


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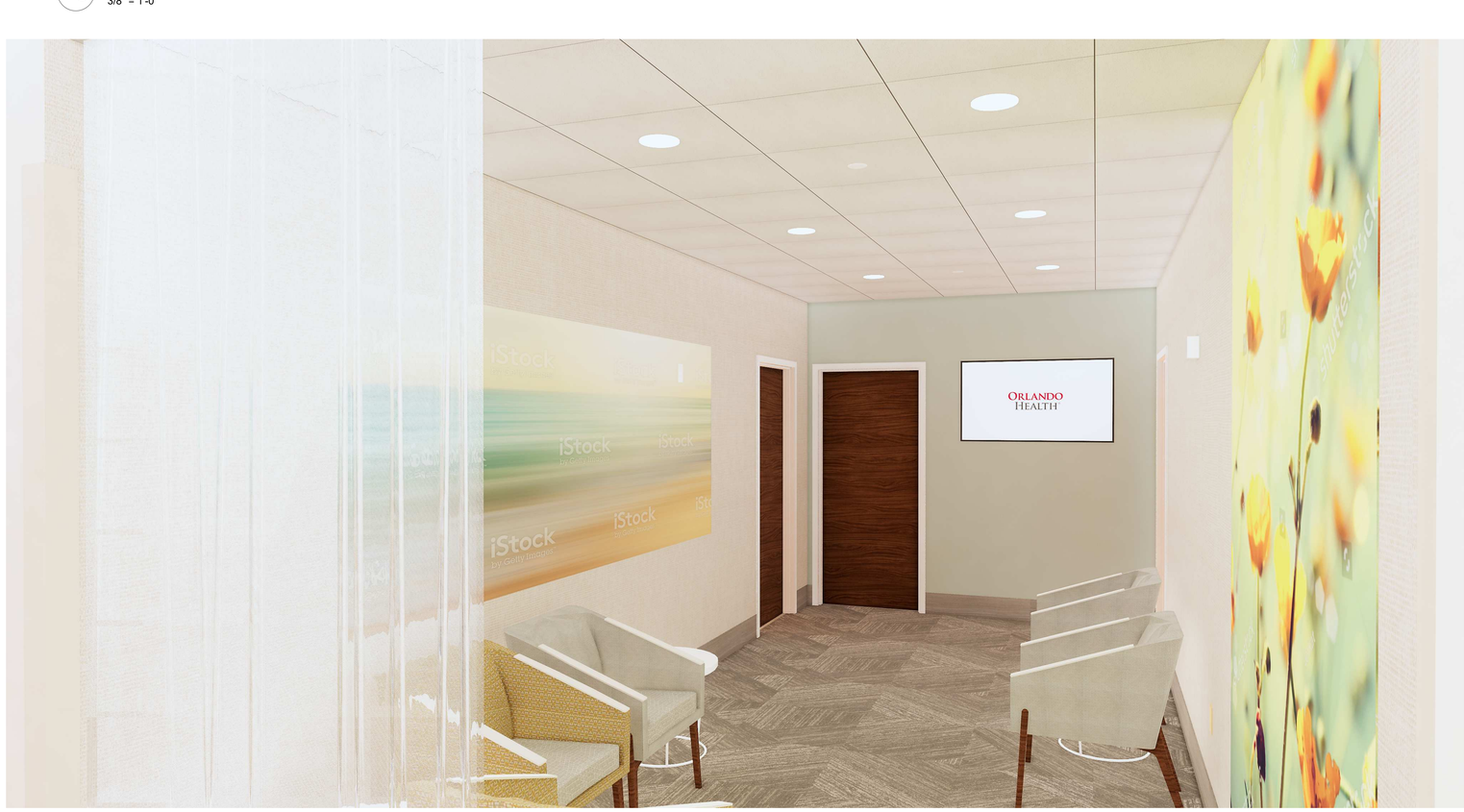


VIEW OF WOMEN'S SUBWAIT

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**A512**

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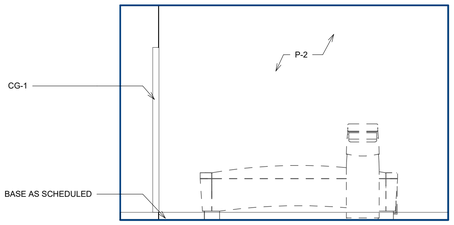


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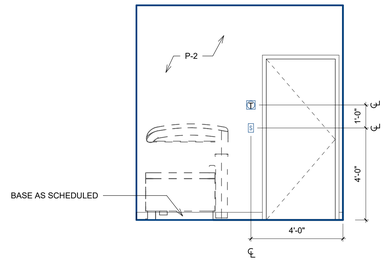


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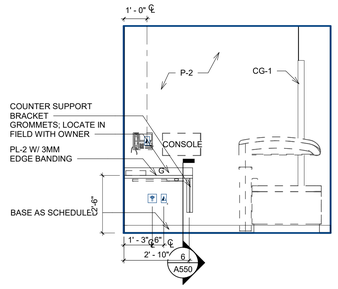


1C DEXA - W

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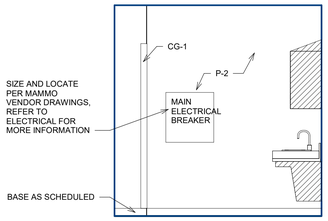


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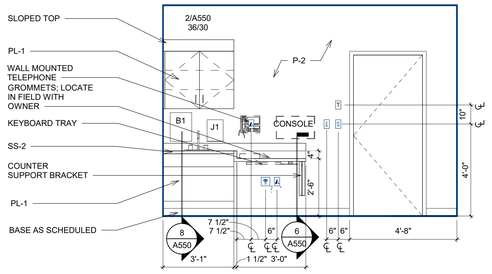


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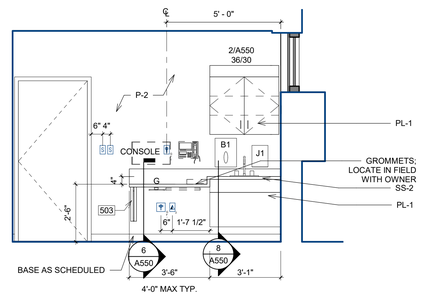


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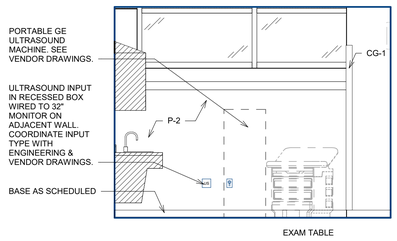


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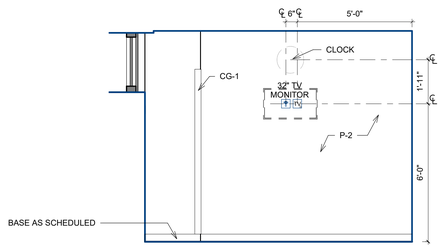


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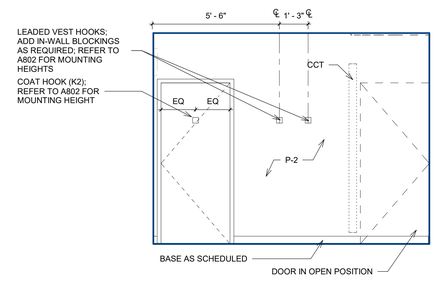


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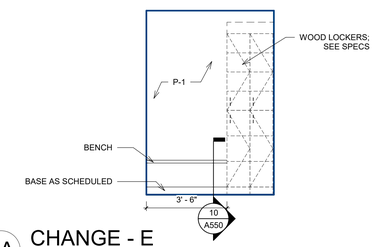
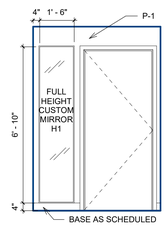



4A CHANGE - E
3/8" = 1'-0"




4B CHANGE - W
3/8" = 1'-0"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ENLARGED PLANS AND INTERIOR ELEVATIONS

**A513**

43642
3/18/2019

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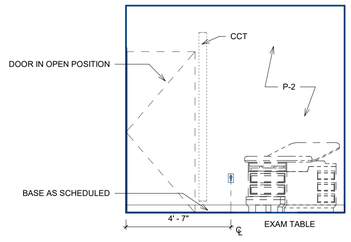
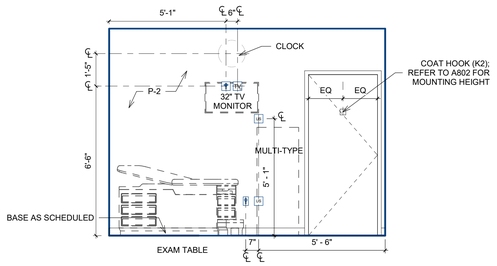



1A ULTRASOUND 1 - N
3/8" = 1'-0"

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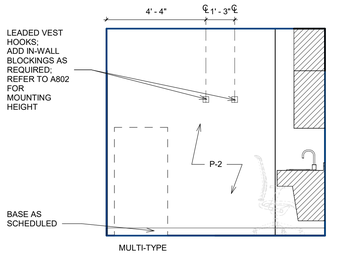
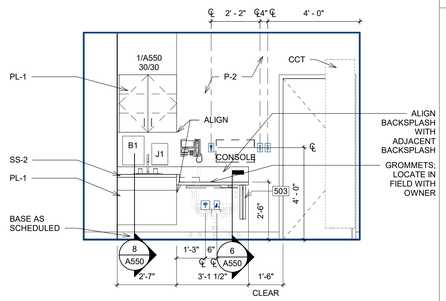



1C ULTRASOUND 1 - S
3/8" = 1'-0"




1D ULTRASOUND 1 - W

## SHEET SPECIFIC KEYNOTES

503 COUNTERTOP BRACKET. SPACING BETWEEN BRACKETS SHALL NOT EXCEED 48" O.C.
504 PROVIDE 10" DIAMETER CIRCULAR SELF DEGE OPENING IN SOLID SURFACE COUNTERTOP FOR TRASH HOLE.
505 PROVIDE CASEWORK FILLERS AS NEEDED.

REFER TO WALL BLOCKING REQUIREMENT TABLE ON SHEET ***TBD*** FOR BLOCKING INFORMATION.

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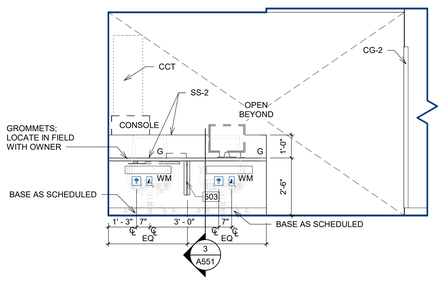
0' 2' 4' 6'

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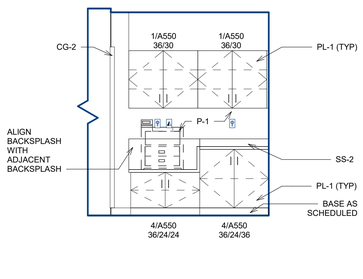


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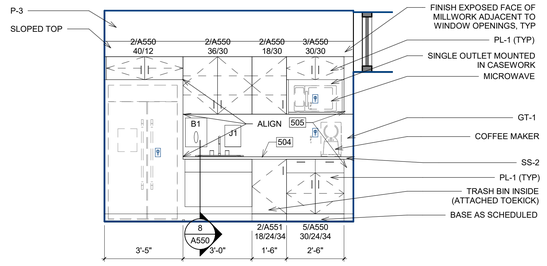
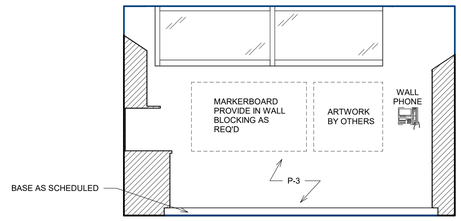



3A STAFF LOUNGE - N




3B FAMILY LOUNGE - E
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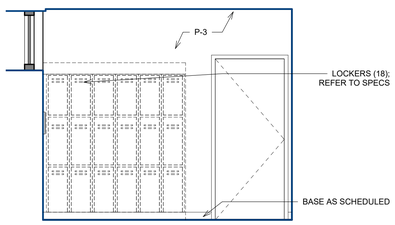
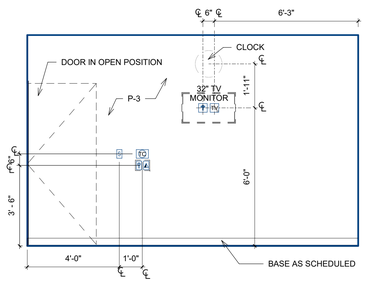
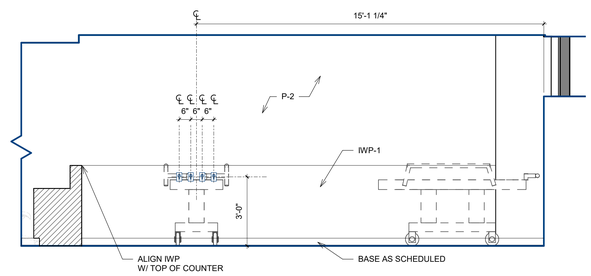


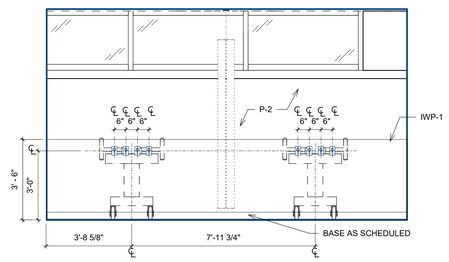

3C STAFF LOUNGE - S




3D STAFF LOUNGE - W




4A HOLDING - N

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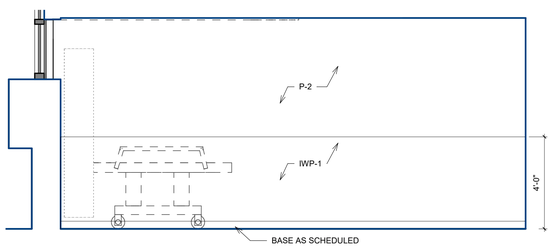
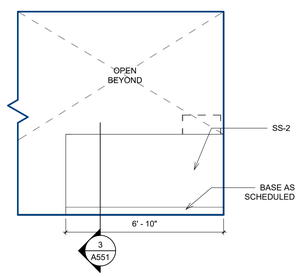
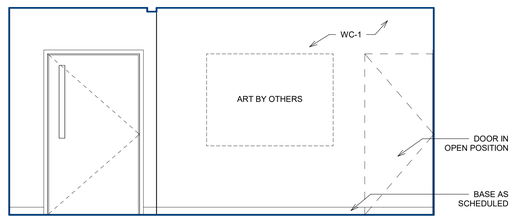


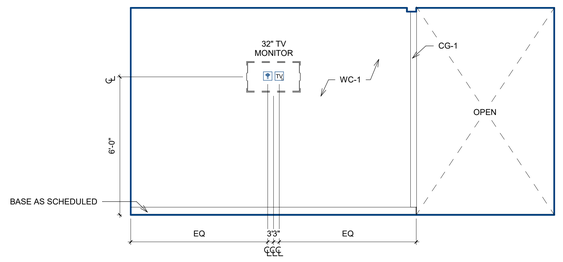

4C HOLDING - S




4D HOLDING - W




5A MRI SUBWAIT - N




5B MRI SUBWAIT - S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ENLARGED PLANS AND INTERIOR ELEVATIONS

**A514**

43642
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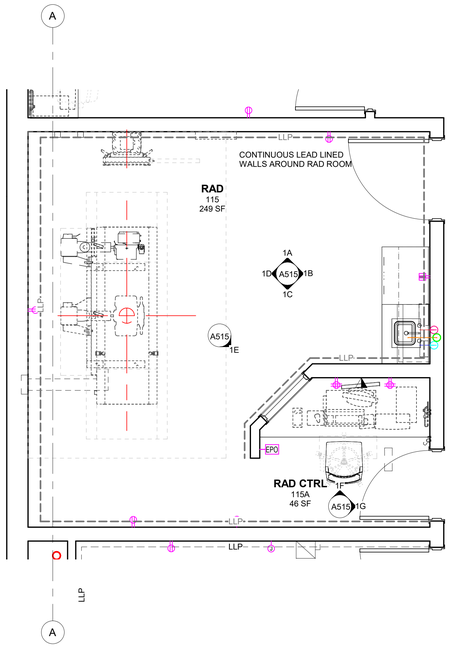
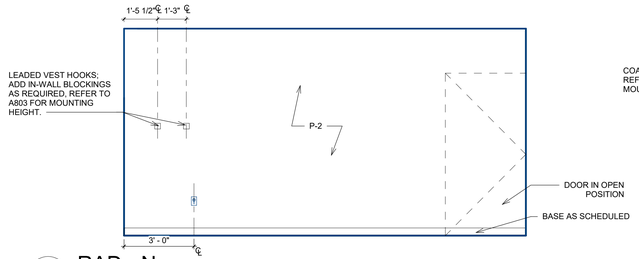
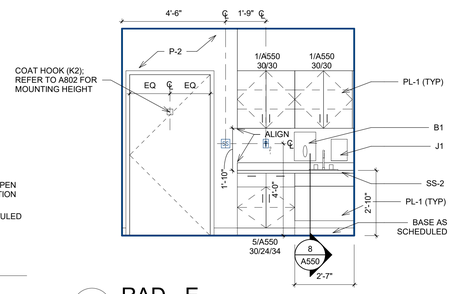



1 RAD ENLARGED PLAN




1A RAD - N
3/8" = 1'-0"




1B RAD - E

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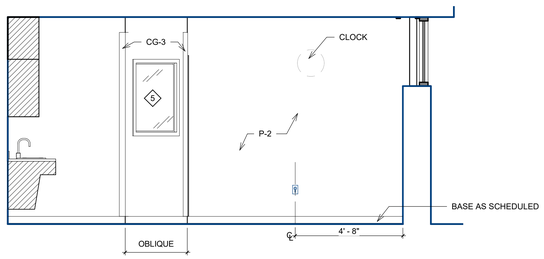
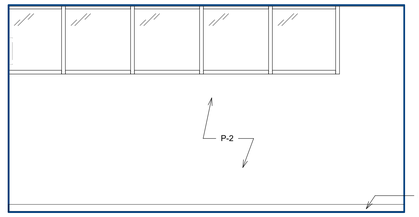
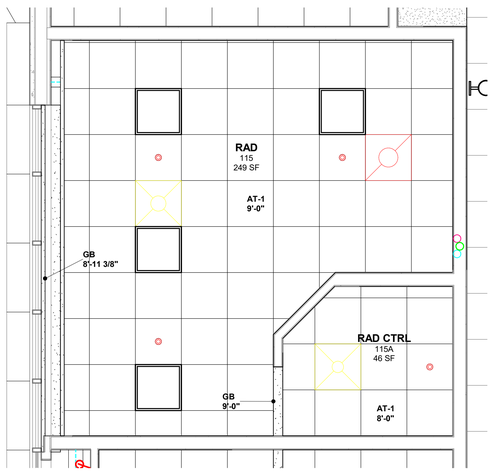


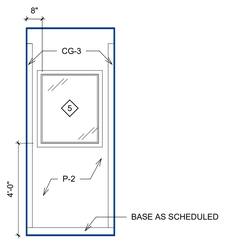

1C RAD - S



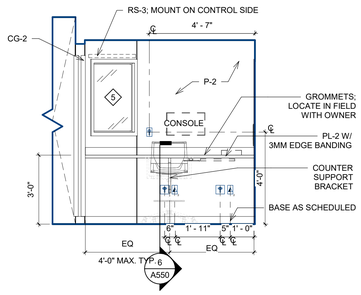

1D RAD - W
3/8" = 1'-0"



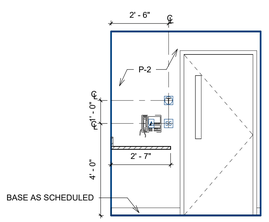

2 RAD ENLARGED RCP




1E RAD - SE




1F RAD CONTROL - N




1G RAD CONTROL - E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ENLARGED PLANS AND INTERIOR ELEVATIONS

**A515**

43642
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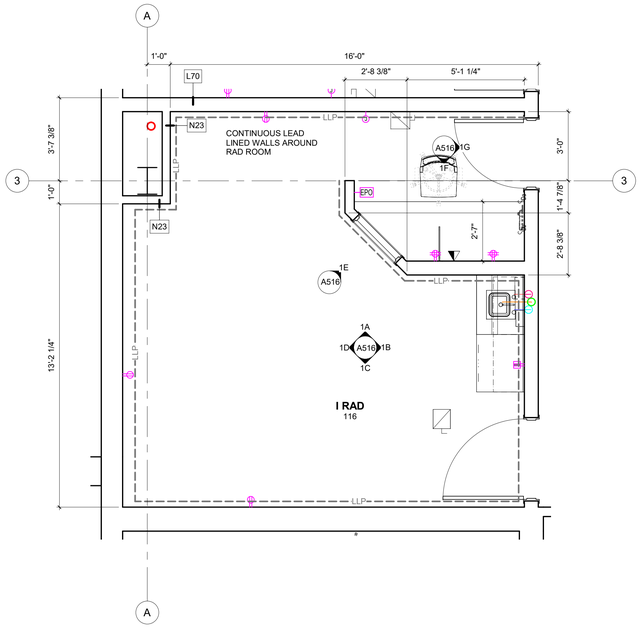
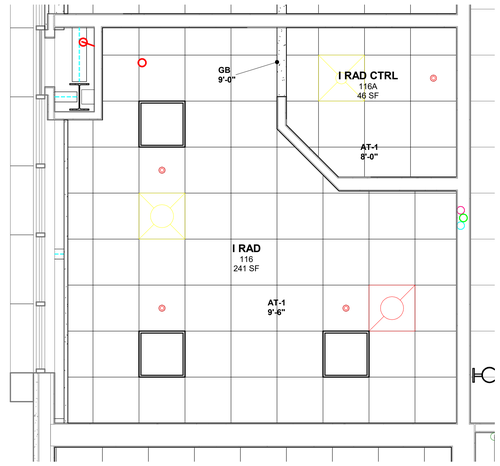



1 INTER RAD ENLARGED PLAN




2 INTER RAD ENLARGED RCP

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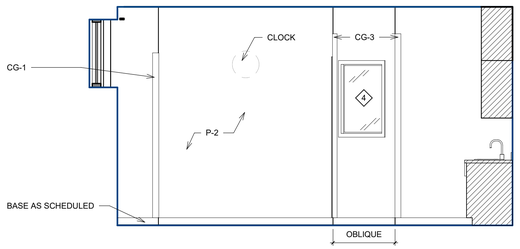


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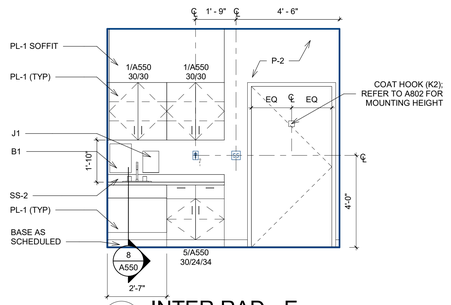
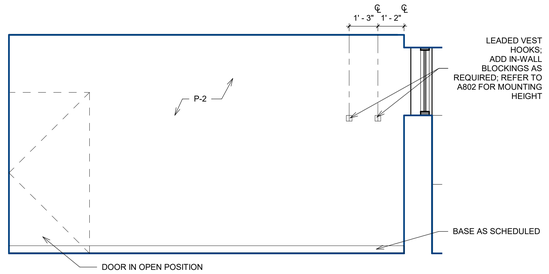
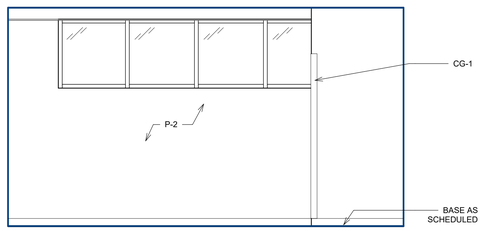


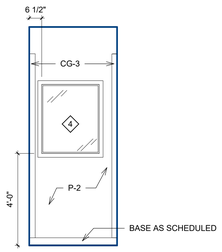

1B INTER RAD - E



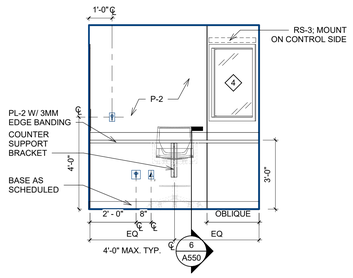

1C INTER RAD - S



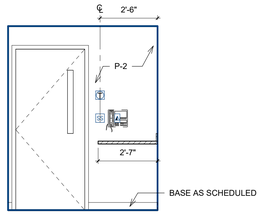

1D INTER RAD - W




1E INTER RAD - NE




1F INTER RAD CONTROL - S




1G I RAD CONTROL - E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ENLARGED PLANS AND INTERIOR ELEVATIONS

**A516**

43642
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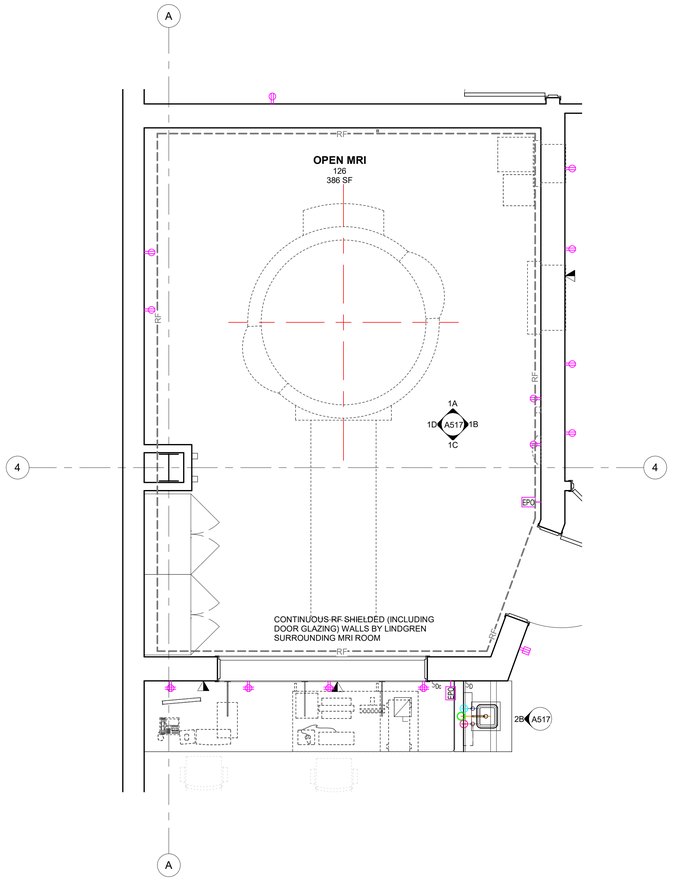
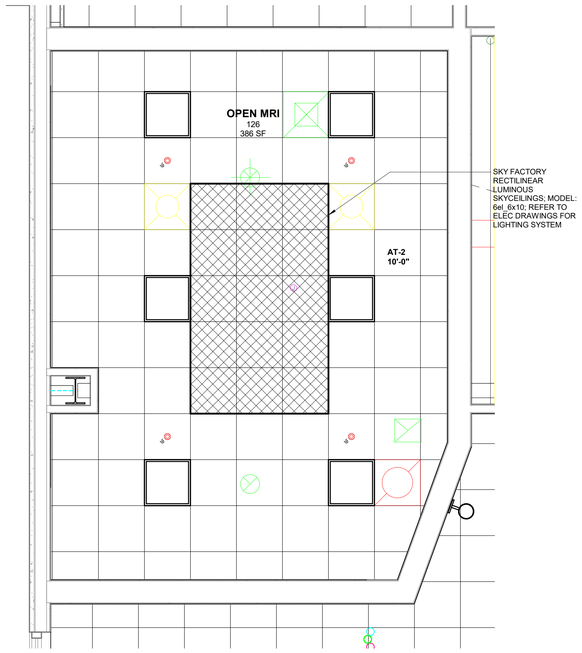
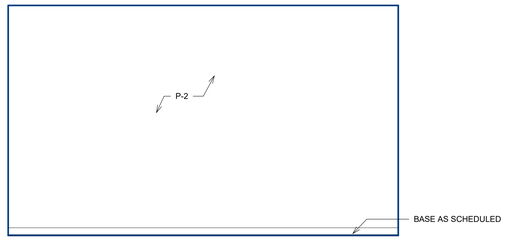


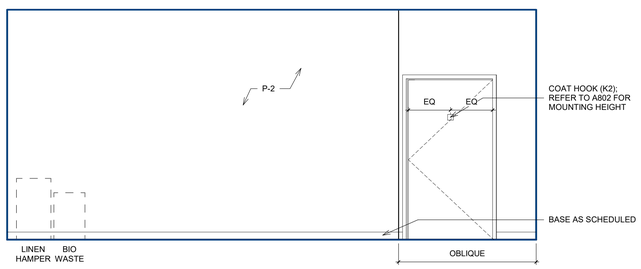

## 1 OPEN MRI ENLARGED PLAN



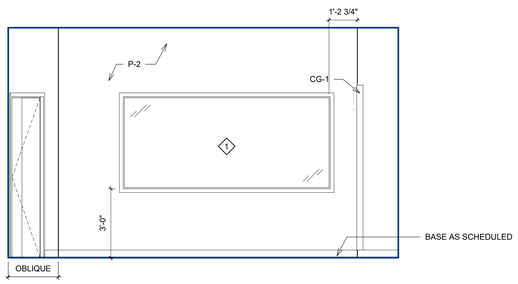

## 2 OPEN MRI ENLARGED RCP



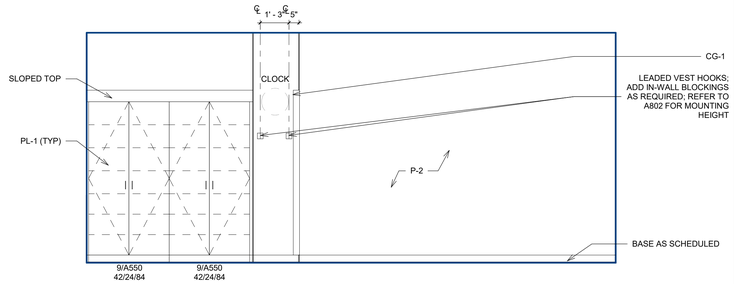

## 1A OPEN MRI - N



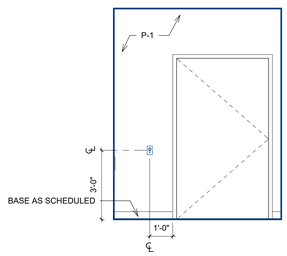

## 1B OPEN MRI - E



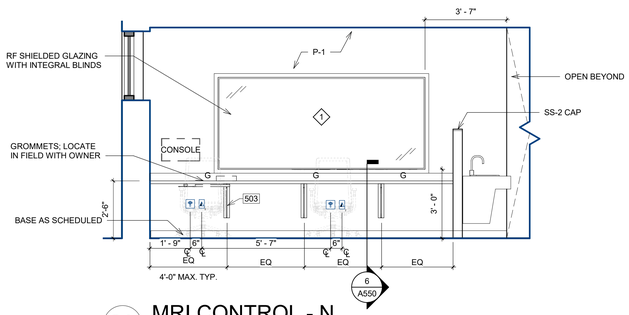

## 1C OPEN MRI - S



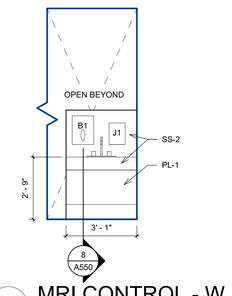

## 1D OPEN MRI - W




## 1E OPEN MRI ENTRY

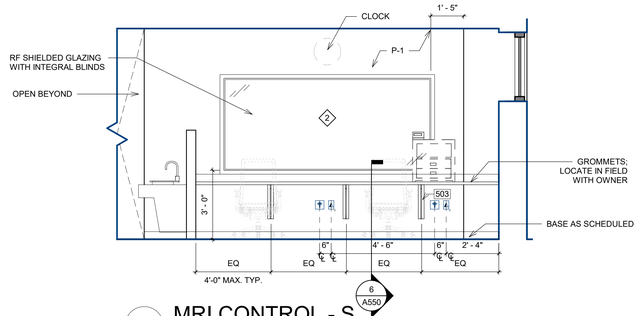



## 2A MRI CONTROL - N




## 2B MRI CONTROL - W

3/8" = 1'-0"




## 2C MRI CONTROL - S

## SHEET SPECIFIC KEYNOTES

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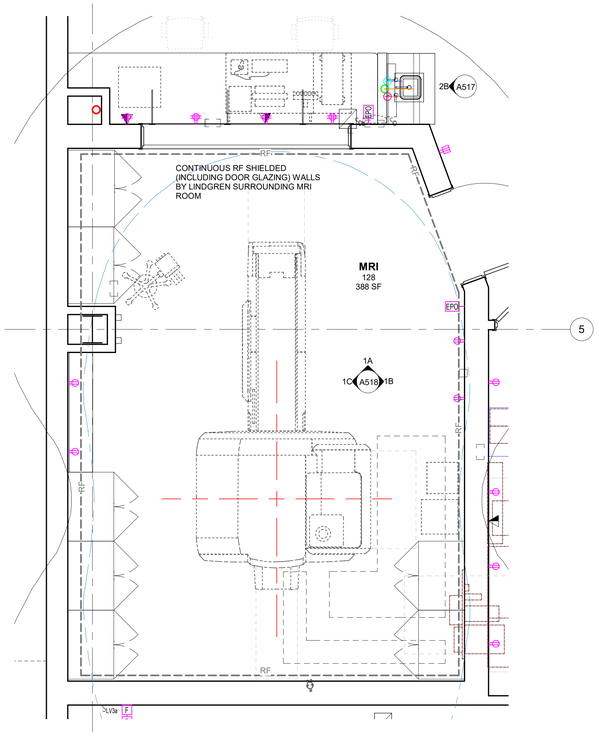
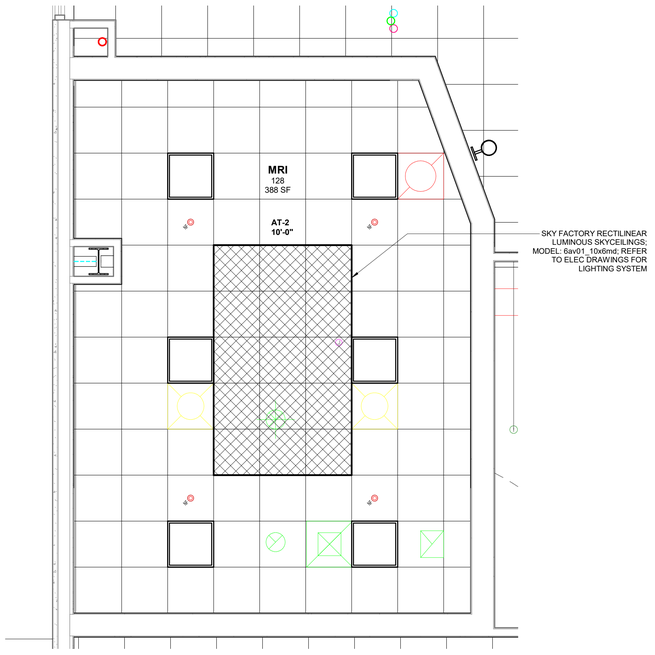
Approved By: Approver



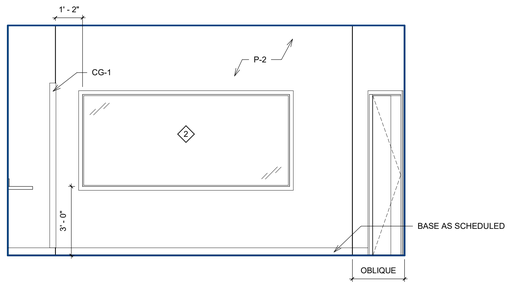

## 1 MRI ENLARGED PLAN

3/8" = 1'-0"



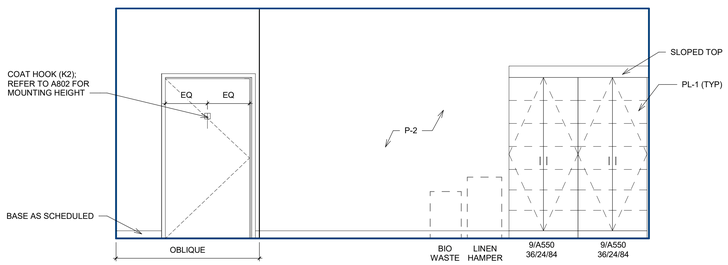

## 2 MRI ENLARGED RCP

3/8" = 1'-0"



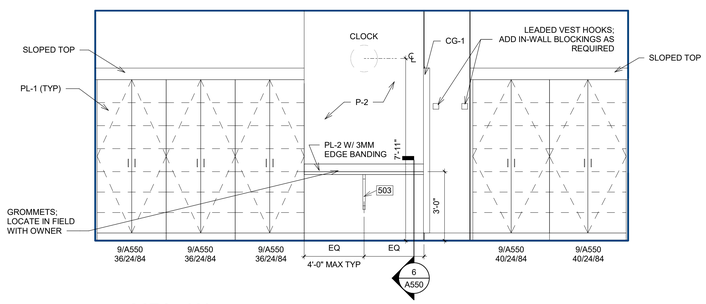

## 1A MRI - N

3/8" = 1'-0"



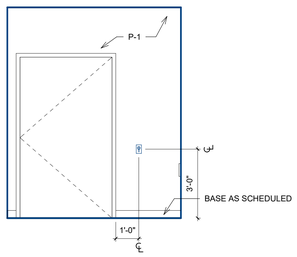

## 1B MRI - E

3/8" = 1'-0"




## 1C MRI - W

3/8" = 1'-0"




## 1D MRI ENTRY

3/8" = 1'-0"

## SHEET SPECIFIC KEYNOTES

503 COUNTERTOP BRACKET. SPACING BETWEEN BRACKETS SHALL NOT EXCEED 48" O.C.

REFER TO WALL BLOCKING REQUIREMENT TABLE ON SHEET ***TBD*** FOR BLOCKING INFORMATION.

ALL PLANS AND ELEVATIONS ON THIS SHEET ARE AT 3/8" SCALE WHEN PRINTED FULL SIZE (30"X42").

0' 2' 4' 6'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ENLARGED PLANS AND INTERIOR ELEVATIONS

**A518**

43642
3/18/2019

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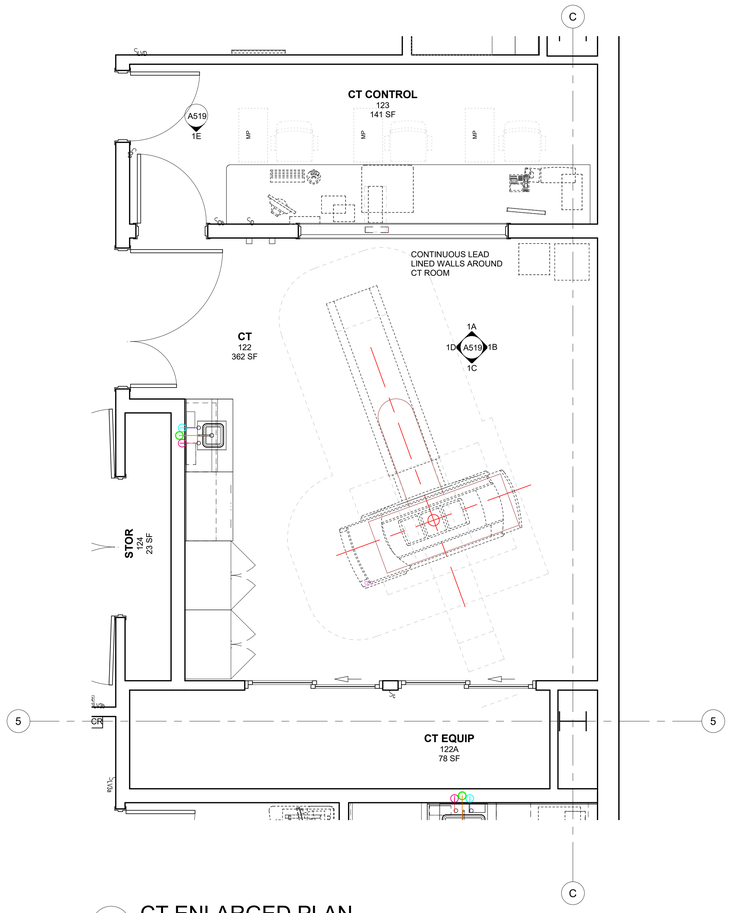
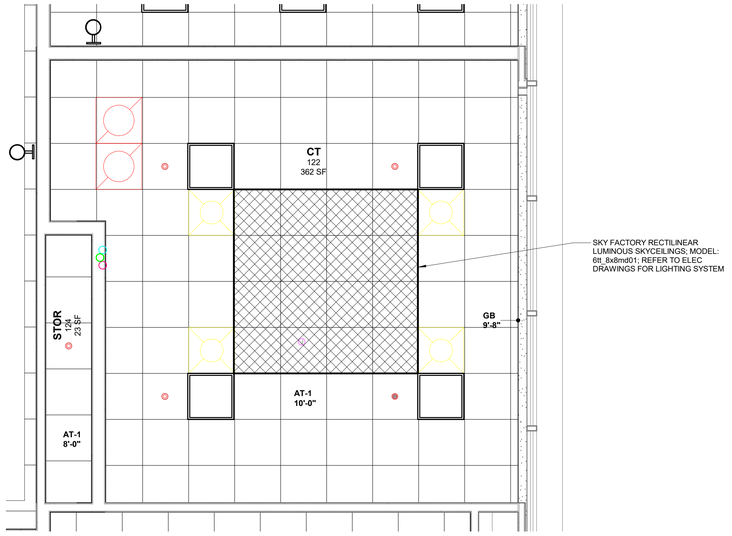


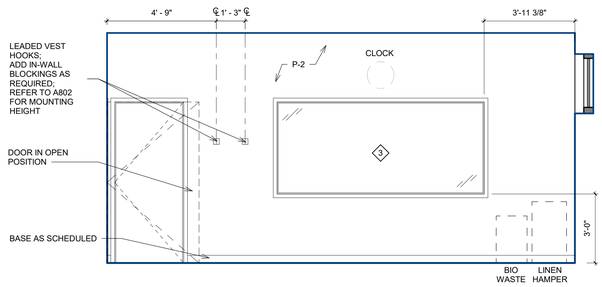

## 2 CT ENLARGED PLAN

3/8" = 1'-0"



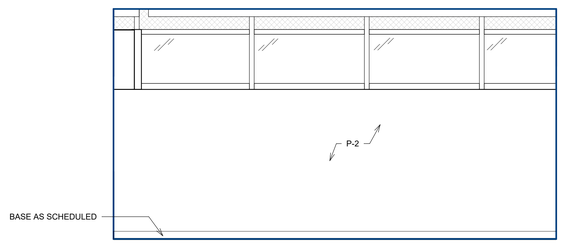

## 1 CT ENLARGED RCP

3/8" = 1'-0"



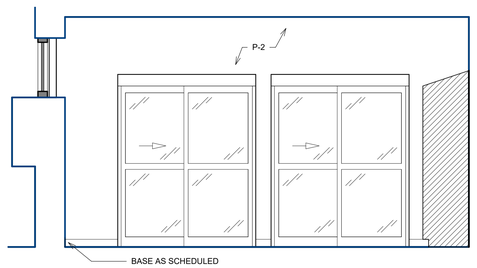

## 1A CT - N

3/8" = 1'-0"



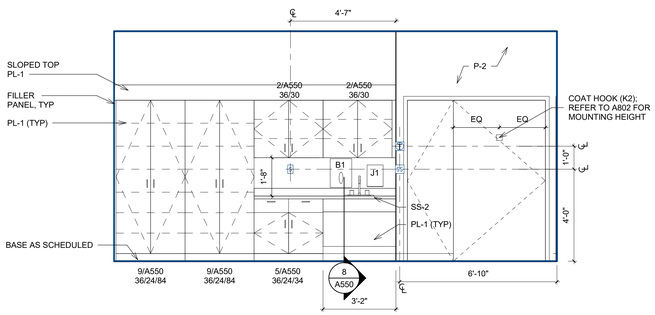

## 1B CT - E

3/8" = 1'-0"



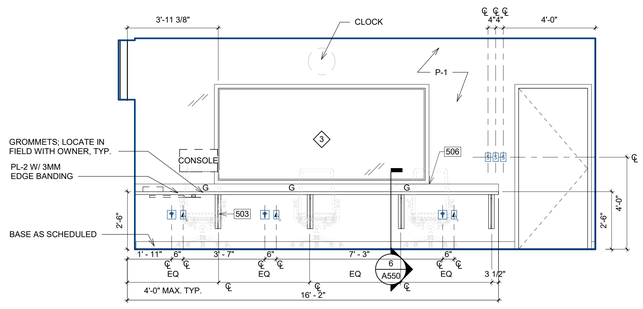

## 1C CT - S

3/8" = 1'-0"




## 1D CT - W

3/8" = 1'-0"




## 1E CT CONTROL - S

3/8" = 1'-0"

## SHEET SPECIFIC KEYNOTES

503 COUNTERTOP BRACKET. SPACING BETWEEN BRACKETS SHALL NOT EXCEED 48" O.C.

506 ALIGN BACKSPLASH WITH UNDERSIDE OF WINDOW FRAME.

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ENLARGED PLANS AND INTERIOR ELEVATIONS

**A519**

43642
3/18/2019

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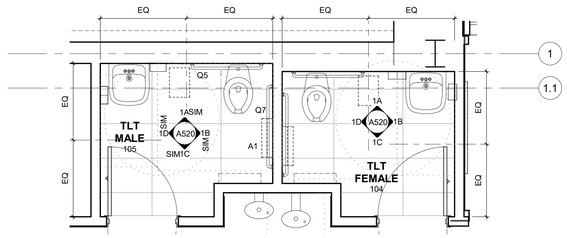
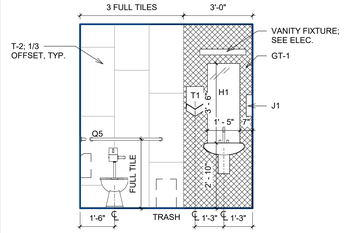
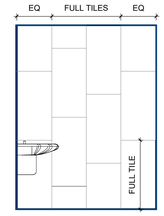


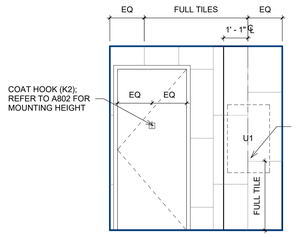

## 1 TYP. TLT ENLARGED PLAN



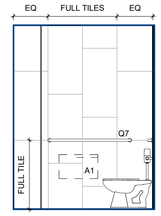

## 1A TLT - N



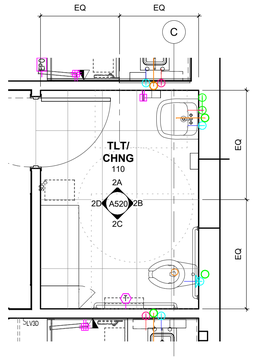

## 1B TLT - E




## 1C TLT - S

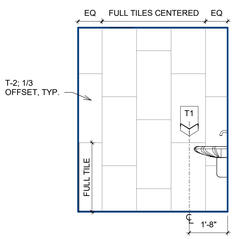



## 1D TLT - W

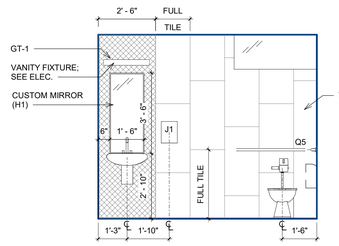



## 2 TLT/CHNG 110

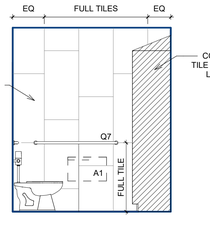
3/8" = 1'-0"



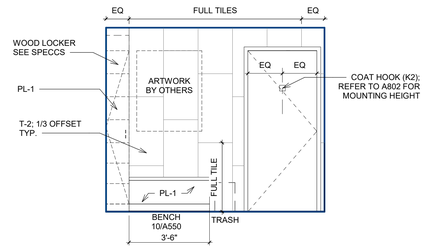

## 2A TLT/CHANGE - N



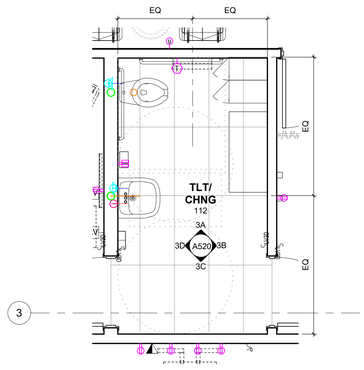

## 2B TLT/CHANGE - E




## 2C TLT/CHANGE - S

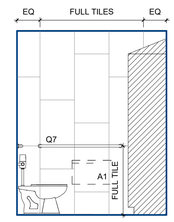



## 2D TLT/CHANGE - W



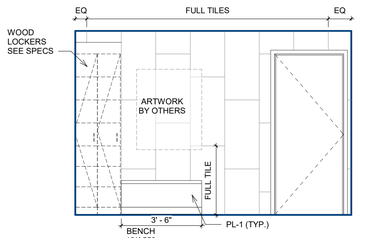

## 3 TLT/CHNG 112

3/8" = 1'-0"



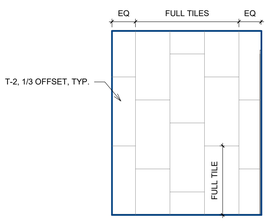

## 3A TLT/CHNG 112 - N

3/8" = 1'-0"



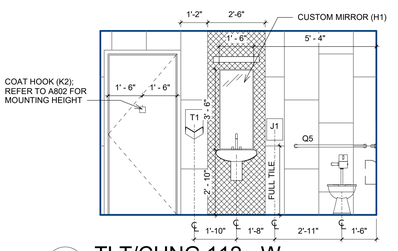

## 3B TLT/CHNG 112 - E

3/8" = 1'-0"




## 3C TLT/CHNG 112 - S

3/8" = 1'-0"




## 3D TLT/CHNG 112 - W

3/8" = 1'-0"

## SHEET SPECIFIC KEYNOTES

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TOILET ROOM ENLARGED PLANS AND INTERIOR ELEVATIONS

**A520**

43642
3/18/2019

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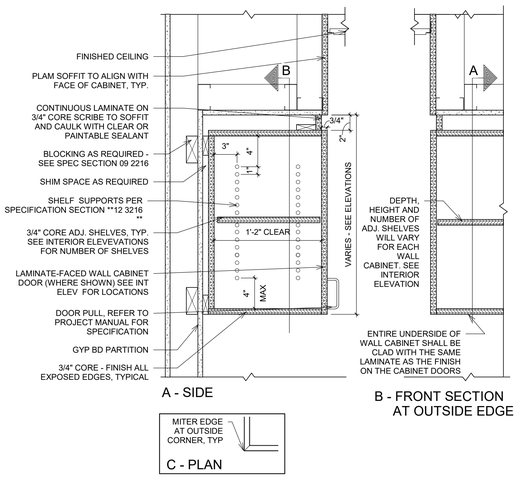
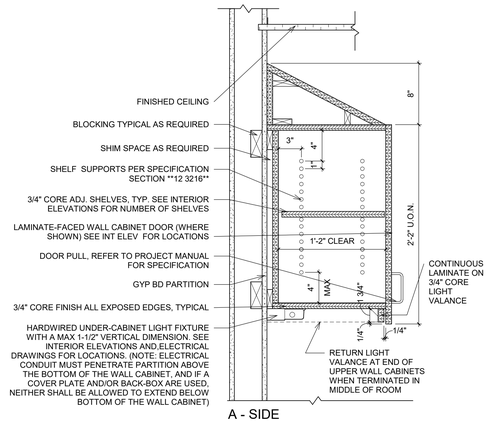



## 1 WALL CABINET WITHOUT LIGHT VALANCE

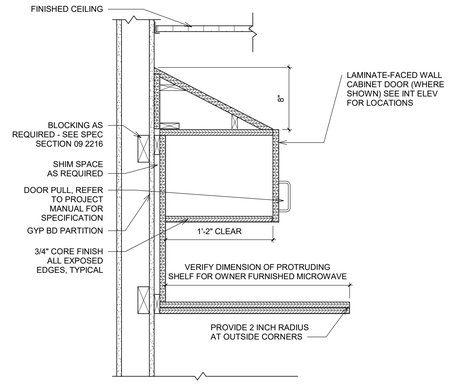
1 1/2" = 1'-0"




** MRI ROOM CASEWORK TO BE FABRICATED USING NON FERROUS METALS FOR FASTENERS AND HARDWARE

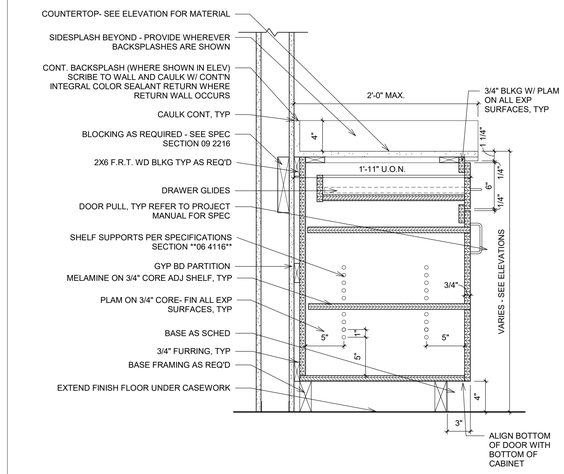
## 2 WALL CABINET WITH SLOPED TOP AND LIGHT VALENCE

1 1/2" = 1'-0"




## 3 WALL CABINET WITH MICROWAVE SHELF

1 1/2" = 1'-0"




## 5 BASE CABINET WITH DRAWER

1 1/2" = 1'-0"




## 4 BASE CABINET WITHOUT DRAWER

1 1/2" = 1'-0"




## 6 KNEE SPACE AT BASE CABINET WITHOUT APRON

1 1/2" = 1'-0"




## 7 COUNTERTOP WITH HIDDEN SUPPORT BRACKET

1 1/2" = 1'-0"




## 8 SOLID SURFACE COUNTERTOP AT ACCESSIBLE SINK (WITH INTEGRAL APRON AND SLOPED PANEL)

1 1/2" = 1'-0"




## 9 TALL CABINET WITH SHELVES

1" = 1'-0"

NOTES:
1. THE 2010 AMERICANS WITH DISABILITIES ACT [ADA] REQUIRES THAT EACH ACCESSIBLE BENCH BE A MINIMUM OF 42" WIDE BY 20"-24"DEEP.
2. COMPLY WITH THE ADDITIONAL REQUIREMENTS FOR BENCHES AS INDICATED IN DETAIL ***16 ON THE ACCESSIBILITY SHEETS.***
3. PROVIDE FOR STRUCTURAL LOADING REQUIREMENTS OF 500 POUNDS FOR ALL BENCHES IN COMPLIANCE WITH GENERAL NOTE 1 ON THE ACCESSIBILITY SHEETS.
4. SEAL ALL PENETRATIONS BEHIND AND BELOW BENCH IN ORDER TO MAINTAIN THE INTEGRITY OF THE WALLS/PARTITIONS/BARRIERS.




## 10 BENCH @ ACCESSIBLE DRESSING ROOMS & CUBICLES

3" = 1'-0"




## 11 CUSTOM RECEPTION W/ TRANSACTION TOP

1 1/2" = 1'-0"




## 12 CUSTOM NURSE STATION DESK W/ TRANSACTION TOP BEYOND

1 1/2" = 1'-0"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CASEWORK SECTIONS AND DETAILS

**A550**

43642
3/18/2019

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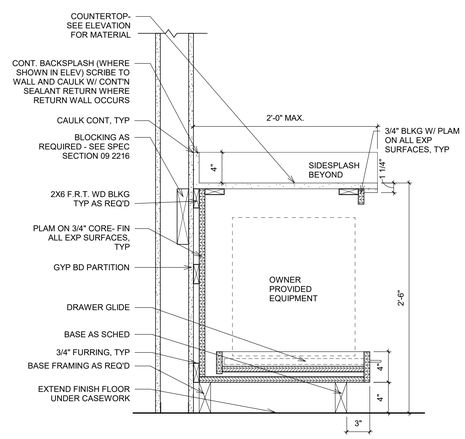
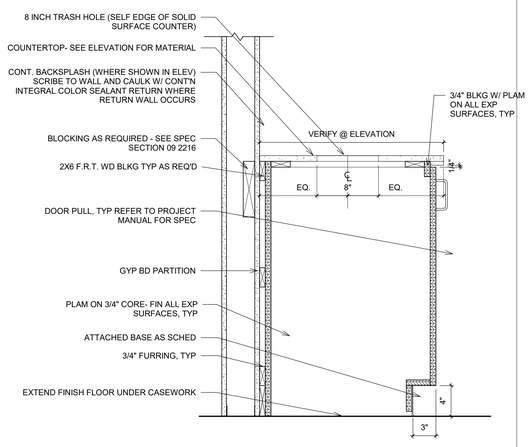


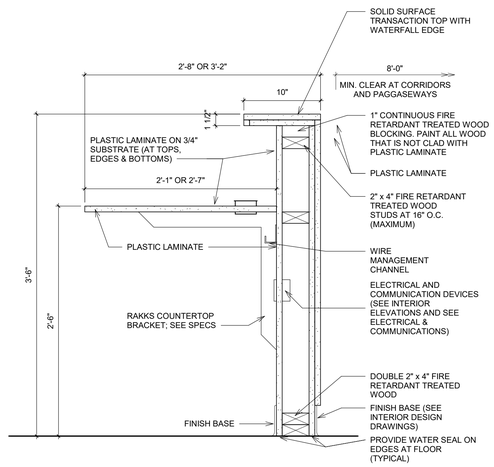

## 1 PRINTER SHELF CASEWORK

1 1/2" = 1'-0"



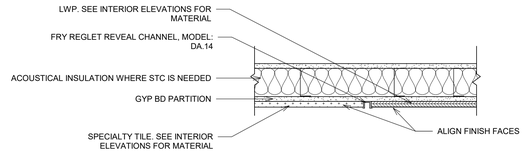

## 2 BASE CABINET WITH ATTACHED TOE KICK

1 1/2" = 1'-0"




## 3 NURSE STATIONS SECTION

1 1/2" = 1'-0"




## 4 TILE TO PLAM DETAIL

1 1/2" = 1'-0"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CASEWORK SECTIONS AND DETAILS

**A551**

43642
3/18/2019

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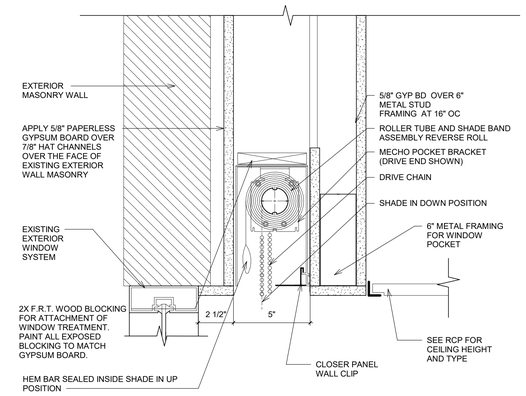
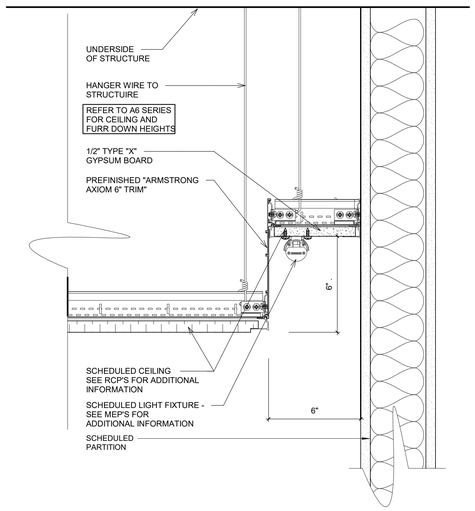


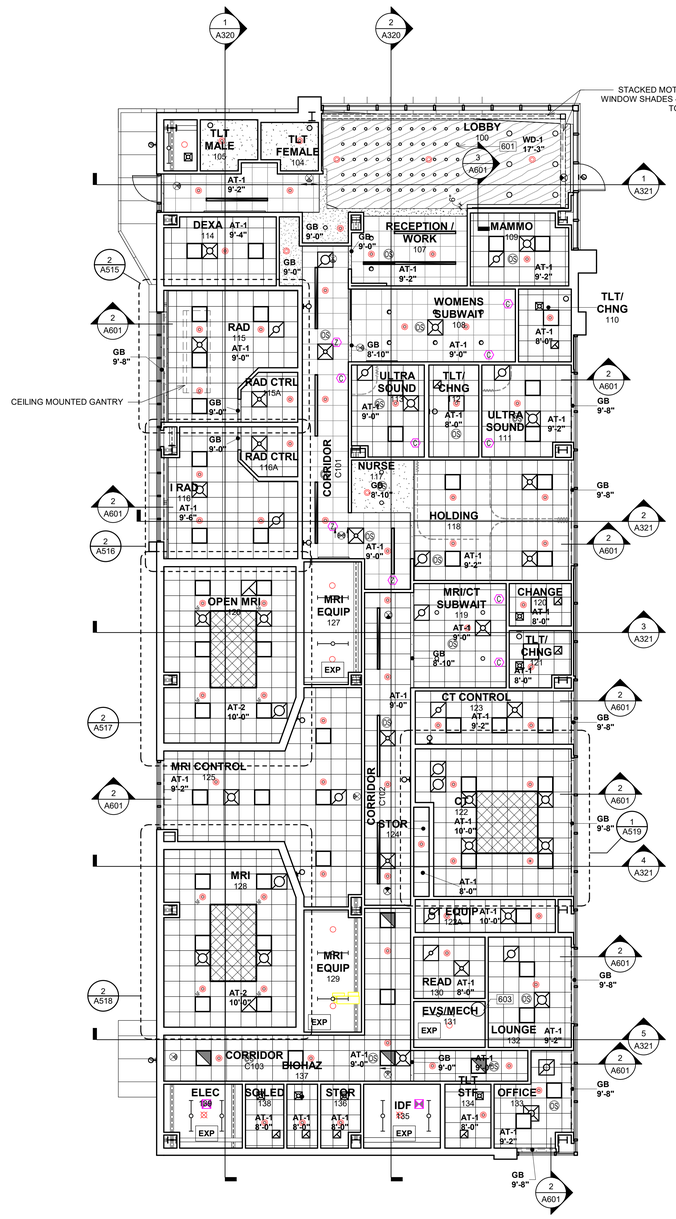

## 2 MANUAL SHADE DETAIL - SINGLE

3" = 1'-0"




## 3 LIGHT COVE AT FEATURE WALL

3" = 1'-0"




## 1 LEVEL 1 REFLECTED CEILING PLAN

1/8" = 1'-0"

0' 4' 8' 16' 24'

## LEGEND

| | |
|---|---|
| TYPE N - NON-RATED PARTITION | |
| ACOUSTICAL CEILING TILE DESIGNATION: TOP LINE INDICATES SYSTEM (SEE "CEILING SYSTEM SCHEDULE" IN SPEC SECTION 09 5113) BOTTOM LINE INDICATES FINISH CEILING HEIGHT | AP-1 1' - 0" |
| GYPSUM BOARD CEILING DESIGNATION (SEE INTERIOR DESIGN DRAWINGS FOR FINISH) BOTTOM LINE INDICATES FINISH CEILING HEIGHT | GB 8'-6" |
| EXPOSED STRUCTURE (NO FINISH CEILING) | EXP |
| CUBICLE CURTAIN TRACK (SEE DETAIL 2/A8.4) | CCT |
| SEE REFLECTED CEILING PLAN KEYNOTES ON THIS SHEET | 501 |
| SINGLE FACE EXIT LIGHTS (ARROWS INDICATE DIRECTION OF EGRESS) | |
| 2' x 2' FLUORESCENT LIGHT FIXTURE (SEE ELECTRICAL) | |
| 4' x 4' FLUORESCENT LIGHT FIXTURE (SEE ELECTRICAL) | |
| FLUORESCENT STRIP LIGHT FIXTURE (SEE ELECTRICAL) | |
| LIGHT FIXTURE (SEE ELECTRICAL) | |
| ACCESS PANEL (SEE REFLECTED CEILING PLAN GENERAL NOTES 506 AND 507 ON SHEET A6.1) | AP |
| 4'-0" LINEAR DIFFUSER (SEE MECHANICAL) | |
| RETURN OR EXHAUST AIR GRILLE (SEE MECHANICAL) | |
| SUPPLY AIR GRILLE (SEE MECHANICAL) | |
| SPEAKER (SEE COMMUNICATION DRAWINGS) | S |
| SMOKE DETECTOR (SEE FIRE PROTECTION DRAWINGS) | |
| AUTOMATIC SPRINKLER HEAD (SHOWN FOR AESTHETIC PURPOSES ONLY) | |

COMPLY WITH ALL REQUIREMENTS INCLUDED IN THE "GENERAL NOTES FOR REFLECTED CEILING PLANS" ON SHEET A200

## SHEET SPECIFIC KEYNOTES

601 ART LIGHTING. SEE RENDERINGS ON INTERIOR ELEVATION SHEETS AND ELECTRICAL DRAWINGS FOR MORE INFORMATION.
602 INSULATED ROOF HATCH. SEE SECTION, DETAILS AND ROOF PLAN FOR MORE INFORMATION.
603 TRAPEZE MOUNTED HOT WATER HEATER. SEE ENGINEERING DRAWINGS FOR MORE DETAILS.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# Orlando Health Imaging Center

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Orlando, Florida 32806

STATE OF FLORIDA
CHRISTOPHER W. WAHL
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Revision

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LEVEL 1 REFLECTED CEILING PLAN

**A601**

43642
3/18/2019

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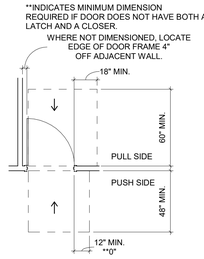
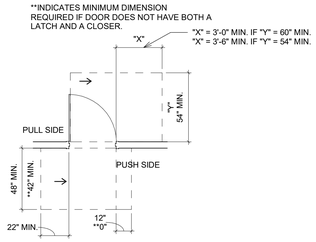


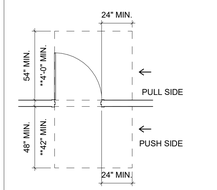

A MINIMUM CLEAR FLOOR SPACE FOR MANEUVERING CLEARANCE AT FRONT APPROACHES AT SWINGING DOORS




B MINIMUM CLEAR FLOOR SPACE FOR MANEUVERING CLEARANCE AT HINGE SIDE APPROACHES AT SWINGING DOORS

## 1 MANEUVERING CLEARANCES AT DOORS

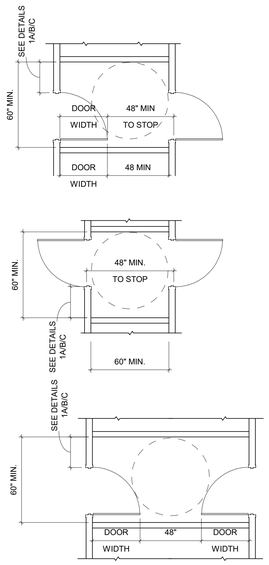
NOT TO SCALE




C MINIMUM CLEAR FLOOR SPACE FOR MANEUVERING CLEARANCE AT LATCH SIDE APPROACHES AT SWINGING DOORS

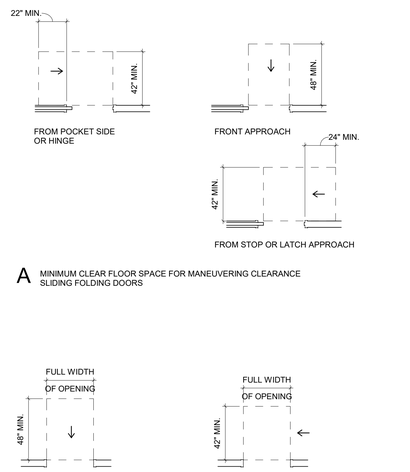
NOTES:

101. THE FLOOR AREA WITHIN THE REQUIRED MANEUVERING CLEARANCES AT DOORS SHALL BE LEVEL AND CLEAR.
102. WHERE ANY OBSTRUCTION WITHIN 18" OF THE LATCH SIDE OF THE DOORWAYS PROJECTS MORE THAT 8" BEYOND THE FACE OF THE DOOR, MANEUVERING CLEARANCES FOR A FORWARD APPROACH SHALL BE PROVIDED.
103. DASHED LINES INDICATE MANEUVERING CLEARANCES.
104. DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32".
105. MINIMUM CLEAR FLOOR SPACE FOR MANEUVERING CLEARANCE AT DOORS REQUIRED TO BE MAINTAINED SEE DETAILS 1A/B/C
106. A 60" DIAMETER CLEAR FLOOR SPACE IS REQUIRED WHEN TWO DOORS ARE IN A SERIES.




## 2 MANEUVERING CLEARANCES AT DOORS IN SERIES

NOT TO SCALE

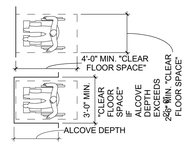



A MINIMUM CLEAR FLOOR SPACE FOR MANEUVERING CLEARANCE SLIDING FOLDING DOORS

B MINIMUM CLEAR FLOOR SPACE FOR MANEUVERING CLEARANCE DOORWAYS WITHOUT DOORS

## 3 MANEUVERING CLEARANCES AT DOORWAYS WITHOUT DOORS

NOT TO SCALE



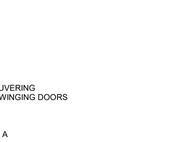

A "CLEAR FLOOR SPACE" FOR FORWARD REACH




B "CLEAR FLOOR SPACE" FOR SIDE REACH




C "WHEELCHAIR TURNING SPACE" 5' - 0" DIAMETER




D T-SHAPED "WHEELCHAIR TURNING SPACE" FOR 180 DEGREE TURNS

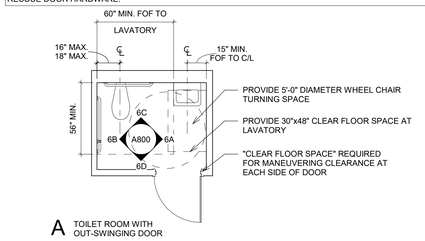
NOTES:
401. ONE FULL UNOBSTRUCTED SIDE OF THE "CLEAR FLOOR SPACE" SHALL ADJOIN OR OVERLAP AN "ACCESSIBLE ROUTE" OR ADJOIN ANOTHER "CLEAR FLOOR SPACE".
402. FLOOR SURFACES OF BOTH "CLEAR FLOOR SPACE" AND "WHEELCHAIR TURNING SPACE" SHALL HAVE A SLOPE NOT GREATER THAN 1:48 [ONE VERTICAL IN 48 HORIZONTAL].
403. CROSS SLOPES ON AN "ACCESSIBLE ROUTE" SHALL NOT EXCEED 1:48 [ONE VERTICAL IN 48 HORIZONTAL].

## 4 "CLEAR FLOOR SPACE" "ACCESSIBLE ROUTE" AND "WHEEL TURNING SPACE"

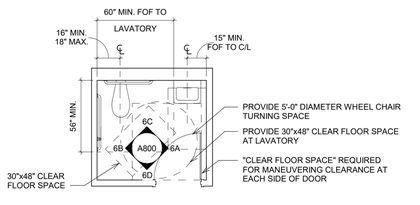
NOT TO SCALE

NOTES:

501. DIMENSION FROM THE FACE-OF-FINISH AT ADJACENT SIDE WALL TO THE CENTERLINE OF THE WATER CLOSET APPLIES TO THE FULL LENGTH OF THE WATER CLOSET. INSTALL WATER CLOSETS PARALLEL TO WALL.
502. IF A 30" X 48" CLEAR FLOOR SPACE IS PROVIDED BEYOND THE ARC OF THE DOOR AS SHOWN IN OPTION B, DOORS SHALL BE PERMITTED TO SWING INTO THE CLEARANCE REQUIRED FOR ANY FIXTURE.
503. PER THE 2014 FGI GUIDELINES FOR DESIGN AND CONSTRUCTION OF HEALTHCARE FACILITIES,PATIENT-USE TOILETS SHALL SWING OUTWARD, AS SHOWN IN OPTION "A", OR BE EQUIPPED WITH EMERGENCY RESCUE DOOR HARDWARE.



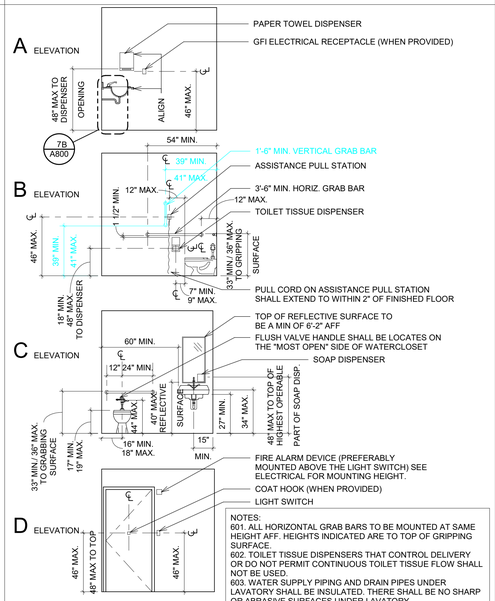

A TOILET ROOM WITH OUT-SWINGING DOOR




B TOILET ROOM WITH IN-SWINGING DOOR

## 5 ACCESSIBLE TOILET ROOM FLOOR PLANS

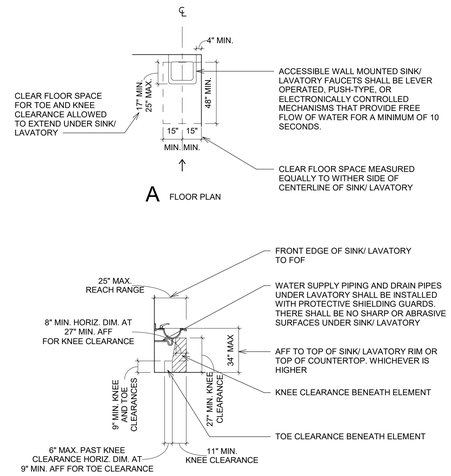
NOT TO SCALE




NOTES:
601. ALL HORIZONTAL GRAB BARS TO BE MOUNTED AT SAME HEIGHT AFF. HEIGHTS INDICATED ARE TO TOP OF GRIPPING SURFACE.
602. TOILET TISSUE DISPENSERS THAT CONTROL DELIVERY OR DO NOT PERMIT CONTINUOUS TOILET TISSUE FLOW SHALL NOT BE USED.
603. WATER SUPPLY PIPING AND DRAIN PIPES UNDER LAVATORY SHALL BE INSULATED. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORY.

## 6 ACCESSIBLE TOILET ROOM ELEVATIONS

NOT TO SCALE




## 7 ACCESSIBLE WALL-MOUNTED SINKS AND LAVATORIES

NOT TO SCALE

# GENERAL NOTES 2012 FLORIDA ACCESSIBILITY CODE ACCESSIBILITY REQUIREMENTS:

1. STRUCTURAL STRENGTH FOR GRAB BARS, BENCHES, TUB AND SHOWER SEATS, FASTENERS AND MOUNTING DEVICES TO COMPLY WITH THE SPECIFICATIONS IN THE PROJECT MANUAL AND SHALL MEET THE FOLLOWING CRITERIA:
(A) FOR GRAB BARS: ALLOWABLE STRESSES IN BENDING, SHEAR AND TENSION SHALL NOT BE EXCEEDED FOR MATERIALS USED WHERE A VERTICAL OR HORIZONTAL FORCE OF 500 POUNDS IS APPLIED AT ANY POINT ON THE GRAB BAR, FASTENER, MOUNTING DEVICE OR SUPPORTING STRUCTURE.
(B) FOR BENCHES AND SEATS: ALLOWABLE STRESSES IN BENDING, SHEAR AND TENSION SHALL NOT BE EXCEEDED FOR MATERIALS USED WHERE A VERTICAL OR HORIZONTAL FORCE OF 500 POUNDS IS APPLIED AT ANY POINT ON THE SEAT, FASTENER, MOUNTING DEVICE OR SUPPORTING STRUCTURE.
(C) BENDING STRESS IN A GRAB BAR, BENCH OR SEAT INDUCED BY THE MAXIMUM BENDING MOMENT FROM THE APPLICATION OF 500 POUNDS SHALL BE LESS THAN THE ALLOWABLE STRESS FOR THE MATERIAL OF THE GRAB BAR, BENCH OR SEAT.
(D) SHEAR STRESS INDUCED IN A GRAB BAR, BENCH OR SEAT BY THE APPLICATION OF 500 POUNDS SHALL BE LESS THAN THE ALLOWABLE SHEAR STRESS FOR THE MATERIAL OF THE GRAB BAR, BENCH OR SEAT. IF THE CONNECTION BETWEEN THE GRAB BAR, BENCH OR SEAT AND ITS MOUNTING BRACKET OR OTHER SUPPORT IS CONSIDERED TO BE FULLY RESTRAINED, THEN DIRECT AND TORSIONAL SHEAR STRESS SHALL BE TOTALED FOR THE COMBINED SHEAR STRESS, WHICH SHALL NOT EXCEED THE ALLOWABLE SHEAR STRESS.
(E) SHEAR FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 500 POUNDS SHALL BE LESS THAN THE ALLOWABLE LATERAL LOAD OF EITHER THE FASTENER OR MOUNTING DEVICE OR THE SUPPORTING STRUCTURE, WHICHEVER IS THE SMALLER ALLOWABLE LOAD.
(F) TENSILE FORCE INDUCED IN A FASTENER BY A DIRECT TENSION FORCE OF 500 POUNDS PLUS THE MAXIMUM MOMENT FROM THE APPLICATION OF 500 POUNDS SHALL BE LESS THAN THE ALLOWABLE WITHDRAWAL LOAD BETWEEN THE FASTENER AND THE SUPPORTING STRUCTURE.

2. " ↑ " INDICATES DIRECTION OF APPROACH.

3. "AFF" INDICATES "ABOVE FINISH FLOOR"
"MIN" INDICATES "MINIMUM"
"MAX" INDICATES "MAXIMUM"
"FOF" INDICATES FACE OF FINISH

4. ALL MINIMUM FACE-OF-FINISH AND/OR MINIMUM CLEAR DIMENSIONS MUST TAKE INTO ACCOUNT THE THICKNESS OF WALL FINISHES SUCH AS CERAMIC TILE, SOLID SURFACE MATERIAL, BACKER BOARD OR ANY OTHER FINISH MATERIAL BEING USED OVER THE GYPSUM BOARD, CMU, ETC.

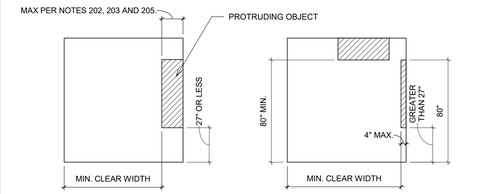
5. LOCATION OF TOILET ACCESSORIES ARE SHOWN FOR REFERENCE FOR ACCESSIBILITY REQUIREMENTS ONLY. SEE DRAWINGS FOR SPECIFIC LOCATIONS AND ADDITIONAL INFORMATION.

6. ASSISTANCE PULL STATIONS WITH PULL CORDS SHALL BE PROVIDED WITHIN REACH OF ALL ACCESSIBLE PATIENT-USE WATER CLOSETS, SHOWERS, AND TUBS, BUT NOT INSIDE THE SHOWER. THE PULL CORDS SHALL EXTEND TO WITHIN 2" OF THE FINISH FLOOR AND THEY SHALL BE PROVIDED WITH AN INTERMEDIATE "PULL" LOCATION ON THE CORD.

7. PATIENT BEDROOM DOORS AND DOORS INTO ALL OTHER SPACES THROUGH WHICH A PATIENT MIGHT BE ROLLED ON A STRETCHER (SUCH AS IMAGING ROOMS) SHALL BE A MINIMUM OF 48" WIDE FOR SINGLE DOORS AND A MINIMUM OF 46" WIDE FOR DOUBLE DOORS AND DOUBLE EGRESS DOORS, SO THAT THE REQUIRED MINIMUM 44" CLEAR WIDTH BETWEEN THE FACE OF THE DOOR (IN THE "90 DEGREE OPEN POSITION") AND THE STOP OF THE OPPOSITE SIDE OF THE DOOR FRAME CAN BE OBTAINED. ALL OTHER SINGLE DOORS SHALL BE 32" CLEAR MINIMUM WIDTH.

NOTES:

801. THIS DETAIL APPLIES TO OBJECTS WHICH PROTRUDE INTO CIRCULATION PATHS (WALKS, SIDEWALKS, CORRIDORS, PASSAGEWAYS OR AISLES).
802. PROTRUDING OBJECTS SHALL NOT PROTRUDE INTO THE REQUIRED CLEAR WIDTH OF AN ACCESSIBLE ROUTE OR MANEUVERING SPACE.
803. PROTRUDING OBJECTS SHALL NOT REDUCE THE REQUIRED MINIMUM CLEAR WIDTH OF A CORRIDOR, PASSAGEWAY OR AISLE AS INDICATED ON DETAIL AND AS REQUIRED BY THE APPLICABLE CODES THAT ARE ENFORCED BY THE AHJ FOR THIS PROJECT.
804. FREESTANDING OBJECTS THAT ARE MOUNTED ON POSTS OR PYLONS MAY OVERHANG HORIZONTALLY 12" MAXIMUM IF THE LEADING EDGE OF THE OVERHANGING OBJECT IS BETWEEN 27" AFF AND 80" AFF AS LONG AS THEY COMPLY WITH NOTES 602 AND 603. IF MULTIPLE POSTS ARE USED, LOWER EDGE OF SIGN MUST BE AT 27" MAX. OR 80" MIN. AFF IF POSTS ARE 12" OR GREATER APART.
805. CIRCULATION PATHS SHALL HAVE 6'-8" MINIMUM CLEAR HEADROOM. IF THE VERTICAL CLEARANCE OF AN AREA THAT IS ADJOINING AN ACCESSIBLE ROUTE IS REDUCED TO LESS THAN 6'-8" A BARRIER TO WARN BLIND OR VISUALLY-IMPAIRED PERSONS SHALL BE PROVIDED WITH LEADING EDGE OF BARRIER AT 27" MAX. AFF.

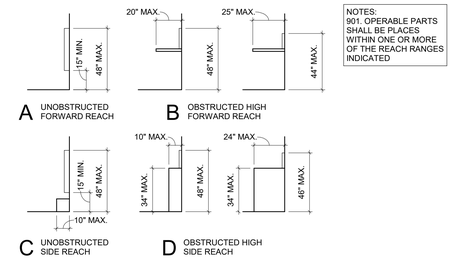



B LEADING EDGE OF OBJECT LESS THAN 27" AFF

A LEADING EDGE OF OBJECT GREATER THAN 27" AFF

## 8 LIMITS OF PROTRUDING OBJECTS INTO CIRCULATION PATHS

NOT TO SCALE




A UNOBSTRUCTED FORWARD REACH

B OBSTRUCTED HIGH FORWARD REACH

C UNOBSTRUCTED SIDE REACH

D OBSTRUCTED HIGH SIDE REACH

NOTES:
901. OPERABLE PARTS SHALL BE PLACES WITHIN ONE OR MORE OF THE REACH RANGES INDICATED

## 9 REACH RANGES

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ACCESSIBILITY DETAILS AND GENERAL NOTES

**A800**

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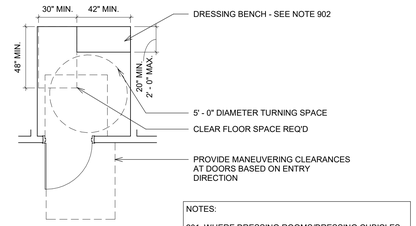
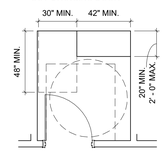



A DRESSING ROOM WITH OUT-SWINGING DOOR



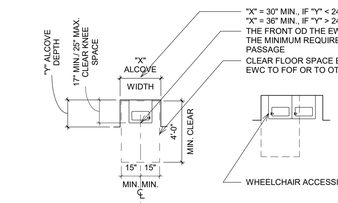

B DRESSING ROOM WITH IN-SWINGING DOOR

NOTES:

201. WHERE DRESSING ROOMS/DRESSING CUBICLES ARE PROVIDED FOR USE BY THE GENERAL PUBLIC,PATIENTS, CUSTOMERS, OR EMPLOYEES, FIVE PERCENT (BUT NEVER LESS THAN ONE) OF THE DRESSING ROOMS FOR EACH TYPE OF USE IN EACH CLUSTER OF DRESSING ROOMS SHALL BE ACCESSIBLE.
202. EACH ACCESSIBLE DRESSING ROOM SHALL HAVE A BENCH THAT IS FIXED TO THE WALL ON THE LONG SIDE OF THE BENCH. THE TOP OF THE BENCH SHALL BE MOUNTED 17" MINIMUM / 19" MAXIMUM AFF. PROVIDE BACK SUPPORT BEHIND BENCHES NOT MOUNTED ON WALLS. IF A BENCH IS INSTALLED IN A WET LOCATION, THE BENCH SHALL BE DESIGNED NOT TO ACCUMULATE WATER ON THE SURFACE OF THE BENCH AND THE BENCH SHALL BE SLIP RESISTANT.
203. IF MIRRORS ARE PROVIDED IN NON-ACCESSIBLE DRESSING ROOMS, THEN ACCESSIBLE DRESSING ROOMS SHALL BE PROVIDED WITH MIRROR. BOTTOM OF REFLECTING SURFACE SHALL BE MOUNTED 35" MAX. AFF AND TOP OF REFLECTING SURFACE 74" MIN. AFF.
204. COAT HOOKS SHALL BE MOUNTED 48" MAX. AFF TO C/L OF COAT HOOK.
905. PER THE 2014 FGI GUIDELINES FOR DESIGN AND CONSTRUCTION OF HEALTHCARE FACILITIES,AT LEAST ONE PATIENT-USE DRESSING ROOM DOOR SHALL SWING OUTWARD, AS SHOWN IN OPTION "A", OR BE EQUIPPED WITH EMERGENCY RESCUE DOOR HARDWARE.

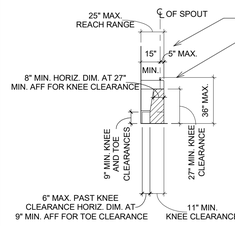
## 2 ACCESSIBLE DRESSING ROOMS AND CUBICLES

NOT TO SCALE

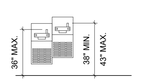



A FLOOR PLAN AT WHEELCHAIR ACCESSIBLE DRINKING FOUNTAIN

B FLOOR PLAN AT WHEELCHAIR AND STANDING ACCESSIBLE DRINKING FOUNTAIN




C SIDE ELEVATION AT WHEELCHAIR ACCESSIBLE DRINKING FOUNTAIN




D FRONT ELEVATION AT WHEELCHAIR AND STANDING ACCESSIBLE DRINKING FOUNTAIN

NOTES:
101. ONLY A FORWARD APPROACH IS ALLOWED FOR NEW CONSTRUCTION.
102. SPOUT OUTLETS OF WHEELCHAIR ACCESSIBLE DRINKING FOUNTAINS SHALL BE 36" MAX. AFF. SPOUT OUTLETS OF DRINKING FOUNTAINS FOR STANDING PERSONS SHALL BE 38" MIN. AND 43" MAX.

## 1 ACCESSIBLE ELECTRIC WATER COOLER [EWC] OR DRINKING FOUNTAIN W/ FORWARD APPROACH

NOT TO SCALE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# Orlando Health Imaging Center

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ACCESSIBILITY DETAILS

**A801**

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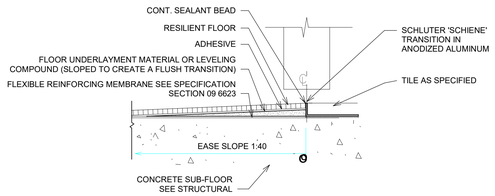
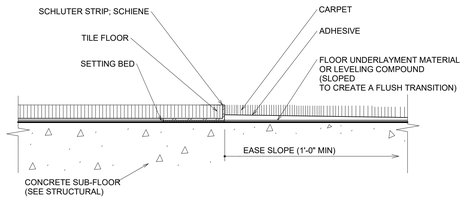



NOTE:
1. TOP OF VINYL SHALL BE FLUSH WITH TOP OF ADJACENT TILE.
2. CUT TRANSITION STRIP SQUARE AND PLUMB WITH ADJACENT DOOR FRAME.

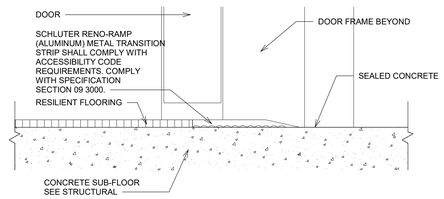
## 1 RESILIENT FLOORING TO TILE
3" = 1'-0"



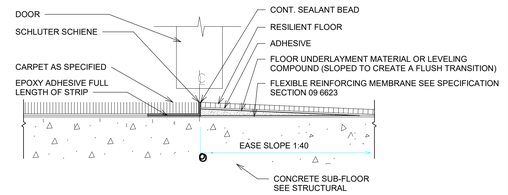

NOTES:
1. TOP OF CARPET SHALL BE FLUSH WITH TOP OF ADJACENT EPOXY TERRAZZO.

## 2 CPT/WOM TO TILE TRANSITION
1/8" = 1'-0"

NOTES:
1. SEE INTERIOR DESIGN DRAWINGS FOR FURTHER REQUIREMENTS.
2. TRANSITION STRIP SHALL BE LOCATED UNDER THE DOOR SO THAT THE TRANSITION IS NOT VISIBLE OUTSIDE THE ROOM WHEN THE DOOR IS CLOSED.

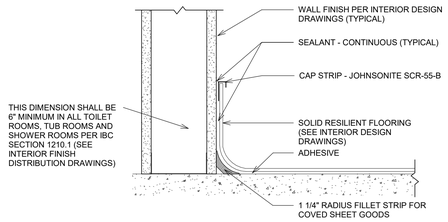



## 3 TRANSITION AT RESILIENT FLOORING AND SEALED CONCRETE UNDER DOOR
6" = 1'-0"



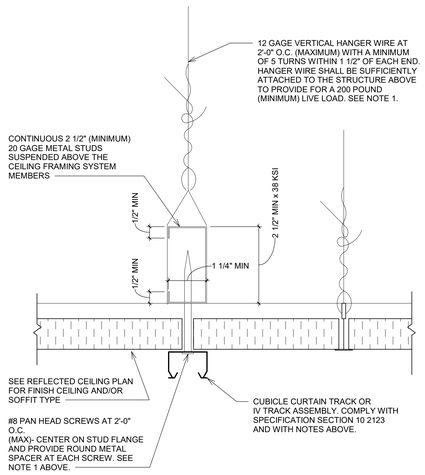

NOTE:
1. TOP OF LUXURY VINYL SHALL BE FLUSH WITH TOP OF ADJACENT CARPET

## 4 CARPET TO RESILIENT
3" = 1'-0"




## 5 RESILIENT FLOORING WITH INTEGRAL COVED BASE
3" = 1'-0"

NOTES:
1. THE CONTRACTOR SHALL INSTALL THE CUBICLE CURTAIN TRACK [CCT] SYSTEM ASSEMBLY AND IV TRACK SYSTEM ASSEMBLY IN SUCH A MANNER SO THAT THE TRACK SYSTEM ASSEMBLY WILL SUPPORT A MINIMUM OF A 200 POUND LIVE LOAD AT ANY POINT ON EACH OF THE TRACKS.
2. THE CONTRACTOR SHALL VERIFY THAT THERE IS ADEQUATE CLEARANCE BETWEEN THE TRACKS AND THE ADJACENT LIGHT FIXTURES, MECHANICAL DIFFUSERS/GRILLES, SPRINKLER HEADS, SMOKE DETECTORS, ETC.
3. WHEN A CUBICLE CURTAIN TRACK OR IV TRACK IS SHOWN TO BE LOCATED PARALLEL AND/OR IN CLOSE PROXIMITY TO AN ADJACENT WALL, SOFFIT OR CABINET, THE CENTERLINE OF THE TRACK SHALL BE AT LEAST 3 INCHES OFF THE FACE OF THE ADJACENT WALL, SOFFIT OR CABINET. THIS DIMENSION SHALL BE CLEARLY INDICATED ON THE CONTRACTOR'S SUBMITTAL OF THE DIMENSIONED LAYOUTS FOR EACH SPACE.
4. WOOD BLOCKING AND/OR WOOD SHIMS ARE NOT ALLOWED ABOVE THE CEILING.




## 6 CUBICLE CURTAIN TRACK AND I V TRACK ATTACHMENT
6" = 1'-0"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Orlando, Florida 32806

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Revision

| No. | Date | Description |
|---|---|---|
| | | |

MISCELLANEOUS INTERIOR DESIGN DETAILS

**A802**

43642
3/18/2019

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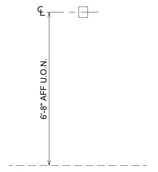
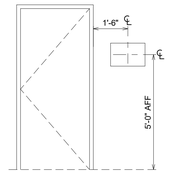
Drawn By: Author
Checked By: Checker
Approved By: Approver

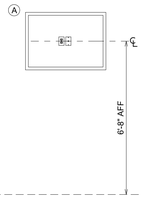


FIRE HORN

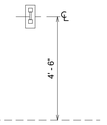


SIGN REQUIREMENTS U.O.N.

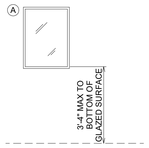
Ⓐ PROVIDE IN-WALL FIRE RETARDANT WOOD BLOCKING



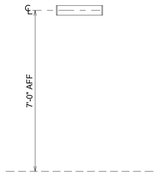
TELEVISION AND MESSAGE BOARDS UNLESS OTHERWISE NOTED



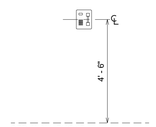
WALL OR EMERGENCY TELEPHONE



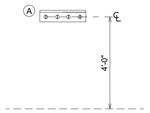
MIRROR



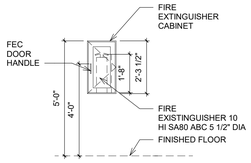
WALL MOUNTED VANITY LIGHT FIXTURE



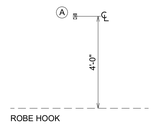
STD. WALL PHONE



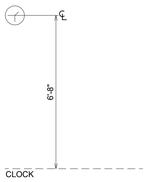
COAT RACK



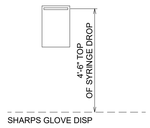
FIRE EXTINGUISHER CABINET



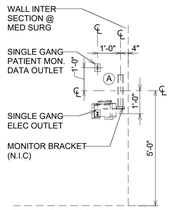
ROBE HOOK



CLOCK

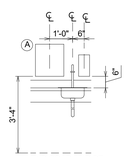


SHARPS GLOVE DISP

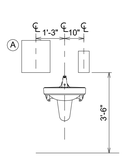


TYPICAL PATIENT MONITOR BRACKET DETAIL

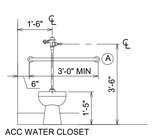
## 1 MOUNTING HEIGHTS
3/8" = 1'-0"



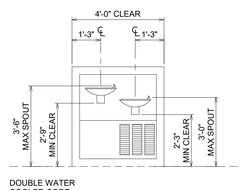
TYP SOAP AND PT DISPENSER AT LAVATORY IN COUNTER



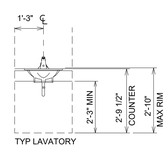
TYP SOAP AND PT DISPENSER AT WALL HUNG LAVATORY



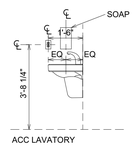
ACC WATER CLOSET



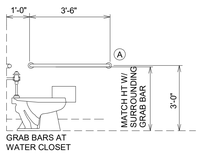
DOUBLE WATER COOLER CORR.



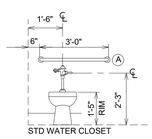
TYP LAVATORY



ACC LAVATORY

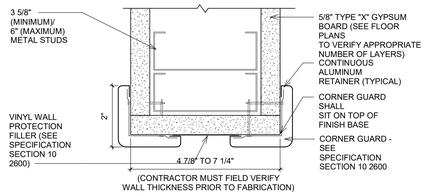


GRAB BARS AT WATER CLOSET



STD WATER CLOSET

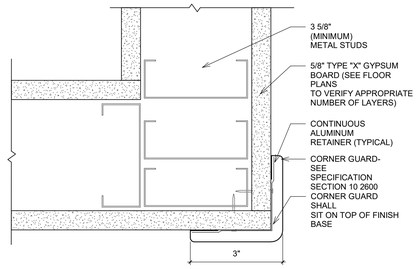
## 4 MOUNTING HEIGHTS - PLUMBING FIXTURES
3/8" = 1'-0"




"A" VINYL CORNER GUARDS AT END WALL (CG-2)

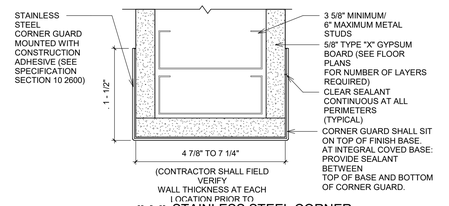
NOTE: SEE INTERIOR DESIGN DRAWINGS FOR LOCATIONS AND HEIGHTS OF CORNER GUARDS

NOTE: SEAL ALL PENETRATIONS BEHIND CORNER GUARDS IN ORDER TO MAINTAIN THE INTEGRITY OF WALLS/PARTITIONS/BARRIERS




"B" VINYL CORNER GUARD (CG-1)

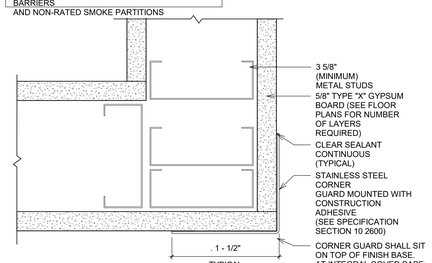
## 2 VINYL CORNER GUARDS (CG-1 & CG-2)
NOT TO SCALE




"A" STAINLESS STEEL CORNER GUARD AT END WALL (CG-4)

NOTE: PENETRATIONS BEHIND ALL CORNER GUARDS SHALL BE SEALED/FIRESTOPPED TO MAINTAIN THE INTEGRITY OF RATED BARRIERS AND NON-RATED SMOKE PARTITIONS

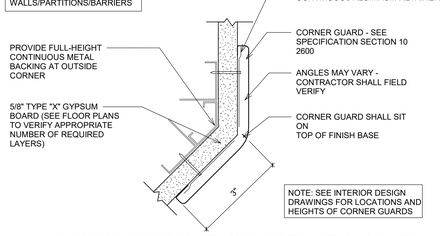
NOTE: SEE INTERIOR DESIGN DRAWINGS FOR LOCTIONS AND HEIGHTS OF CORNER GUARDS




"B" STAINLESS STEEL CORNER GUARD (CG-4)

## 3 STAINLESS STEEL CORNER GUARDS (CG-4)
NOT TO SCALE

NOTE: SEAL ALL PENETRATIONS BEHIND CORNER GUARDS TO MAINTAIN THE INTEGRITY OF THE WALLS/PARTITIONS/BARRIERS

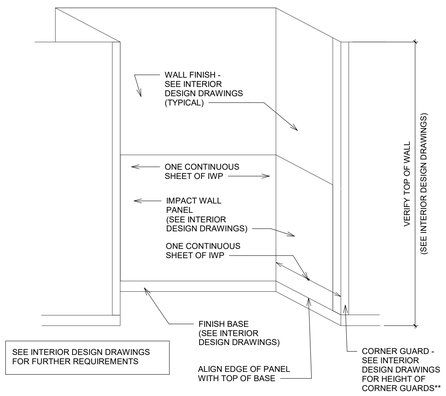



NOTE: SEE INTERIOR DESIGN DRAWINGS FOR LOCATIONS AND HEIGHTS OF CORNER GUARDS

## 5 VINYL CORNER GUARD AT ANGLED WALL (CG-3)
NOT TO SCALE

NOTES:

1. CORNER GUARDS SHALL SIT ON TOP OF FINISH BASE. AT INTEGRAL COVED BASE PROVIDE SEALANT BETWEEN TOP OF BASE AND BOTTOM OF CORNER GUARD.
2. IMPACT WALL PANELS (IWP) SHALL SIT ON TOP OF INTEGRAL COVED BASE. PROVIDE SEALANT BETWEEN TOP OF BASE AND BOTTOM OF IMPACT WALL PANELS.
3. PROVIDE CONTINUOUS SEALANT AT PERIMETER OF ALL IMPACE WALL PANELS.
4. PENETRATIONS BEHIND ALL WALL PROTECTION ELEMENTS SHALL BE SEALED/ FIRESTOPPED TO MAINTAIN THE INTEGRITY OF WALLS/PARTITIONS/BARRIERS.
5. COMPLY WITH SPECIFICATION SECTION 10 2600 AND WITH INTERIOR DESIGN DRAWINGS FOR WALL PROTECTION REQUIREMENTS.




SEE INTERIOR DESIGN DRAWINGS FOR FURTHER REQUIREMENTS

## 6 WALL PROTECTION JUNCTURES AND ALIGNMENT AT ALCOVES AND/OR OUTSIDE CORNERS
NOT TO SCALE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Revision

| No. | Date | Description |
|---|---|---|
| | | |

MISCELLANEOUS INTERIOR DESIGN WALL PROTECTION DETAILS & MOUNTING HEIGHTS

**A803**

43642
3/18/2019

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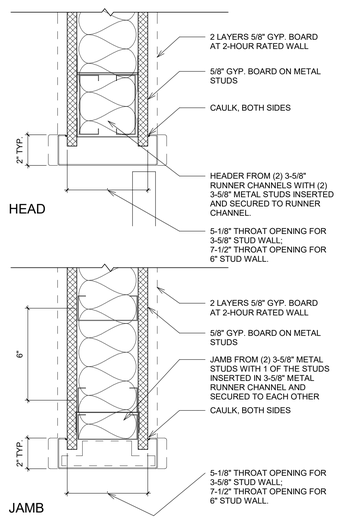
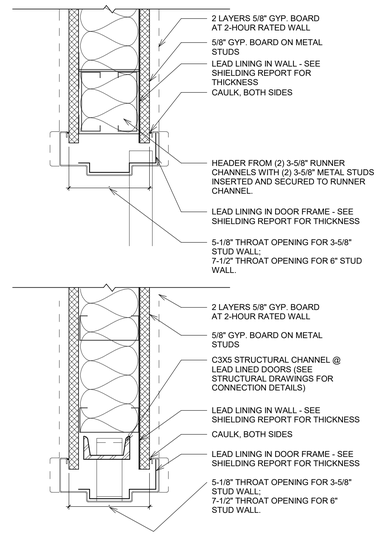
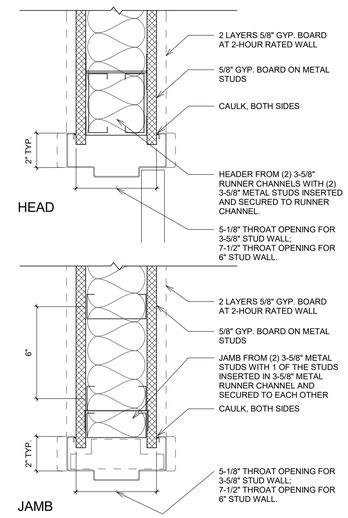
Checked By: Checker
Approved By: Approver




3 DOOR HEAD AND JAMB IN CASED OPENING
NOT TO SCALE




2 DOOR HEAD AND JAMB IN LEAD-LINED WALL
NOT TO SCALE




1 DOOR HEAD AND JAMB IN GYPSUM WALL BOARD
NOT TO SCALE

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Revision

| No. | Date | Description |
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| | | |

DOOR DETAILS

**A805**

43642
3/18/2019

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Drawn By: Author
Checked By: Checker
Approved By: Approver

# DOOR, FRAME AND HARDWARE SCHEDULE

| REVISION NUMBER | SPACE NO. / DOOR DESIGNATION | FROM ROOM | TO ROOM | DOOR SIZE WIDTH | DOOR SIZE HEIGHT | DOOR SIZE THICK | DOOR DESCRIPTION MAT'L | DOOR DESCRIPTION TYPE | DOOR DESCRIPTION GLASS | FRAME DESCRIPTION MAT'L | FRAME DESCRIPTION TYPE | DETAILS | FIRE RATING | HARDWARE SET | HARDWARE FUNCTION | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 100A | EXTERIOR | LOBBY | 3'-6" | 8'-0" | 1 3/4" | ALUM/GL | G | LAM | ALUM | S | | - | | ENTRANCE | FPA, SEE ELEVATIONS FOR FINISH |
| 0 | 100B | EXTERIOR | LOBBY | 3'-6" | 7'-10 3/4" | 1 3/4" | ALUM/GL | G | LAM | ALUM | S | | - | | ENTRANCE | FPA, SEE ELEVATIONS FOR FINISH |
| 0 | 104A | LOBBY | TLT FEMALE | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | C | | - | | PRIVACY W/ INDICATOR, EMERGENCY RELEASE | EMERGENCY OUTSWING |
| 0 | 105A | LOBBY | TLT MALE | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | C | | - | | PRIVACY W/ INDICATOR, EMERGENCY RELEASE | EMERGENCY OUTSWING |
| 0 | 106A | EXTERIOR | MECH | 3'-0" | 7'-0" | 1 3/4" | HM | F | - | HM | S | | - | | STOREROOM | FPA, SEE ELEVATIONS FOR FINISH |
| 0 | 109A | WOMENS SUBWAIT | MAMMO | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PASSAGE | |
| 0 | 110A | WOMENS SUBWAIT | TLT/ CHNG | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | C | | - | | PRIVACY W/ INDICATOR, EMERGENCY RELEASE | EMERGENCY OUTSWING |
| 0 | 111A | WOMENS SUBWAIT | ULTRA SOUND | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PASSAGE | |
| 0 | 112AA | ULTRA SOUND | TLT/ CHNG | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PRIVACY W/ INDICATOR | |
| 0 | 112AB | ULTRA SOUND | TLT/ CHNG | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PRIVACY W/ INDICATOR | |
| 0 | 113A | CORRIDOR | ULTRA SOUND | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PASSAGE | |
| 0 | 114A | CORRIDOR | DEXA | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PASSAGE | |
| 0 | 115A | CORRIDOR | RAD | 3'-6" | 7'-0" | 1 3/4" | WD-LL | F | - | HM-LL | S | | - | | PASSAGE | LEAD LINED FRAME & DOOR |
| 0 | 115AA | CORRIDOR | RAD CTRL | 3'-0" | 7'-0" | 1 3/4" | WD | NV | TEMP | HM | S | | - | | PASSAGE | |
| 0 | 116A | CORRIDOR | I RAD | 3'-6" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PASSAGE | |
| 0 | 116AA | CORRIDOR | I RAD CTRL | 3'-0" | 7'-0" | 1 3/4" | WD | NV | TEMP | HM | S | | - | | PASSAGE | |
| 0 | 120A | MRI/CT SUBWAIT | CHANGE | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PRIVACY W/ INDICATOR | |
| 0 | 121A | MRI/CT SUBWAIT | TLT/ CHNG | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PRIVACY W/ INDICATOR | |
| 0 | 122A | CORRIDOR | CT | 6'-0" | 7'-0" | 1 3/4" | WD-LL | FP | - | HM-LL | D | | - | | PASSAGE | LEAD LINED FRAME & DOOR |
| 0 | 122AA | CT | CT EQUIP | 6'-0" | 7'-0" | 2" | ALUM/GL | MS | | ALUM | N/A | | - | | PASSAGE | CLEAR ANODIZED |
| 0 | 122AB | CT | CT EQUIP | 6'-0" | 7'-0" | 2" | ALUM/GL | MS | | ALUM | N/A | | - | | PASSAGE | CLEAR ANODIZED |
| 0 | 122B | CT CONTROL | CT | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PASSAGE | |
| 0 | 123A | CORRIDOR | CT CONTROL | 3'-0" | 7'-0" | 1 3/4" | WD | NV | TEMP | HM | S | | - | | PASSAGE | |
| 0 | 124A | CORRIDOR | STOR | 6'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | D | | - | | STOREROOM | |
| 0 | 125A | CORRIDOR | MRI CONTROL | 4'-0" | 7'-0" | 1 3/4" | WD | NV | TEMP | HM | S | | - | | FAILSAFE | CR |
| 0 | 126A | MRI CONTROL | OPEN MRI | 4'-0" | 7'-0" | 1 3/4" | WD-RF | F | - | HM-RF | S | | - | | PNEUMATIC | RF SHIELDED DOOR BY SHIELDING INSTALLER |
| 0 | 127A | MRI CONTROL | MRI EQUIP | 4'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | STOREROOM | |
| 0 | 128A | MRI CONTROL | MRI | 4'-0" | 7'-0" | 1 3/4" | WD-RF | F | - | HM-RF | S | | - | | PNEUMATIC | RF SHIELDED DOOR BY SHIELDING INSTALLER |
| 0 | 129A | MRI CONTROL | MRI EQUIP | 4'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | STOREROOM | |
| 0 | 130A | CORRIDOR | READ | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PASSAGE | |
| 0 | 131A | CORRIDOR | EVS/MECH | 3'-6" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | STOREROOM | |
| 0 | 132A | CORRIDOR | LOUNGE | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PASSAGE | |
| 0 | 133A | CORRIDOR | OFFICE | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | ENTRANCE | |
| 0 | 134A | CORRIDOR | TLT STF | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | PRIVACY | |
| 0 | 135A | CORRIDOR | IDF | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | STOREROOM | CLOSER |
| 0 | 136A | CORRIDOR | STOR | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | STOREROOM | |
| 0 | 137A | CORRIDOR | BIOHAZ | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | STOREROOM | DELAYED CLOSER |
| 0 | 138A | CORRIDOR | SOILED | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | STOREROOM | |
| 0 | 139A | CORRIDOR | ELEC | 3'-0" | 7'-0" | 1 3/4" | WD | F | - | HM | S | | - | | STOREROOM | CLOSER |
| 0 | C101A | LOBBY | CORRIDOR | 4'-0" | 7'-0" | 1 3/4" | WD | NV | TEMP | HM | S | | - | | FAILSAFE | CR |
| 0 | C102A | CORRIDOR | CORRIDOR | 4'-0" | 7'-0" | 1 3/4" | WD | NV | TEMP | HM | S | | - | | FAILSAFE | CR |
| 0 | C102B | CORRIDOR | CORRIDOR | 4'-0" | 7'-0" | 1 3/4" | WD | NV | TEMP | HM | S | | - | | FAILSAFE | CR |
| 0 | C103A | EXTERIOR | CORRIDOR | 4'-0" | 7'-0" | 1 3/4" | HM | NV | LAM | HM | S | | - | | ENTRANCE | CR, FPA, SEE ELEVATIONS FOR FINISH |

# DOOR, FRAME & HARDWARE NOTES & ABBREVIATIONS

NOTES:

**801.** SEE SHEET A901 IN THE DRAWINGS FOR "LEGEND FOR DOOR TYPES", "LEGEND FOR DOOR AND INTERIOR WINDOW FRAME TYPES" AND "DOOR AND INTERIOR WINDOW FRAME DETAILS".

**802.** STUDY AND COMPARE THE: DRAWINGS; LEGENDS; NOTES; SPECIFICATIONS; AND DOOR, FRAME & HARDWARE SCHEDULE. REPORT ANY ERROR, INCONSISTENCY OR OMISSION TO ARCHITECT.

**803.** SEE DESCRIPTION OF THE HARDWARE SETS IN SPECIFICATION SECTION 08 7111 "DOOR HARDWARE".

**804.** DOORS IN RATED FIRE BARRIERS, RATED SMOKE BARRIERS, NON-RATED SMOKE PARTITIONS AND SOUND PARTITIONS MAY BE UNDERCUT ONLY A MAXIMUM OF 3/4 INCH ABOVE THE CONCRETE SLAB. THIS 3/4 INCH MAXIMUM GAP ABOVE THE CONCRETE SLAB APPLIES FOR THE FULL WIDTH OF THE DOOR IN ITS CLOSED POSITION. (NOTE: DOORS IN THESE BARRIERS AND PARTITIONS WITH AN UNDERCUT GREATER THAN THIS SHALLBE REPLACED AT THE CONTRACTOR'S EXPENSE.)

**805.** SEAL ALL FRAMES CONTINUOUSLY TO WALL. WHERE THERE IS A HORIZONTAL GAP OF 1/8 INCH OR LESS BETWEEN THE DOOR FRAME AND THE ADJACENT FINISH BASE AND/OR FLOOR MATERIAL, INSTALL A "PENCIL LINE" OF SEALANT BETWEEN THE FRAME AND THE FINISH BASE AND/OR FLOOR MATERIAL. HOWEVER, IF THIS HORIZONTAL GAP IS GREATER THAN 1/8 INCH, THE FINISH BASE AND/OR FLOOR MATERIAL SHALL BE REMOVED AND REINSTALLED TO ELIMINATE THE GAP.

**806.** ALL THRESHOLDS SHALL CONFORM TO THE MOST STRINGENT REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT [ADA] AND ALL OTHER ACCESSIBILITY CODES ENFORCED BY THE AUTHORITIES HAVING JURISDICTION.

**807.** VERIFY THAT DOOR CLOSERS AND OTHER HARDWARE WILL ALLOW DOOR TO SWING OPEN 180 DEGREES WHEN A "180 DEGREE SWING" IS EITHER SHOWN ON THE FLOOR PLAN AND/OR INDICATED IN THE DOOR SCHEDULE.

**808.** PROVIDE LEAD SAFETY GLASS IN LEAD-LINED DOOR LITE FRAMES IN INTERIOR LEAD-LINED DOORS. WHERE INDICATED FOR USE IN NON-RATED DOORS, PROVIDE NON-RATED INTERIOR DOOR LITES WITH INTEGRAL VISUAL OBSCURRING ABILITY (VISTAMATIC OR APPROVED EQUAL) UNLESS OTHERWISE NOTED OR REQUIRED BY CODE, PROVIDE 1/4 INCH MINIMUM THICKNESS OF TEMPERED SAFETY GLASS IN ALL OTHER INTERIOR DOOR LITES. COMPLY WITH THE FOLLOWING FOR ALL EXTERIOR DOORS: REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION; CODE REQUIREMENTS RELATED TO HIGH VELOCITY WIND ZONES; SPECIFICATIONS; AND NFPA 80.

**809.** VERIFY THE REQUIRED "THROAT WIDTH" FOR EACH DOOR FRAME BASED ON: SIZE OF STUDS; THICKNESS AND NUMBER OF LAYERS OF GYPSUM BOARD, GYPSUM SHEATHING, ETC.; CONCRETE WALL THICKNESS; ETC. AFTER TOTALING THE WIDTH OF THE COMPONENTS TO BE INSERTED INTO THE THROAT OF EACH FRAME, ADD AN ADDITIONAL 1/4 INCH TO THE CLEAR "THROAT WIDTH" DIMENSION TO ALLOW FOR CONSTRUCTION TOLERANCES.

**810.** INSTALLATION OF DOORS, HARDWARE AND FRAMES SHALL COMPLY WITH ALL REQUIREMENTS OF NFPA 80 AND WITH OTHER CODES ENFORCED BY THE AUTHORITIES HAVING JURISDICTION.

ABBREVIATIONS (FOR DOORS & WINDOWS):

| | |
|---|---|
| ALUM | ALUMINUM |
| AUTO | AUTOMATIC DOOR (INTEGRAL HOLD OPEN NOT ALLOWED) |
| HM | HOLLOW METAL |
| LAM | LAMINATED SAFETY GLASS |
| LEAD | LEAD SAFETY GLASS (NON RATED USE ONLY) |
| LL | LEAD LINED |
| PR | PAIR OF DOORS |
| RF | RADIO FREQUENCY SHIELDING |
| TEMP | TEMPERED SAFETY GLASS (NON RATED USE ONLY) |
| WD | WOOD DOOR |

# INTERIOR WINDOW SCHEDULE

| REVISION NUMBER | Mark | FROM ROOM | TO ROOM | GLAZING WIDTH | GLAZING HEIGHT | GLAZING | FRAME MATL | FRAME TYPE | DETAILS | FIRE RATING | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | MRI CONTROL | OPEN MRI | 9'-0" | 4'-0" | RF-TEMP | HM-RF | V3 | | - | RF / INTEGRAL BLINDS |
| 0 | 2 | MRI | MRI CONTROL | 9'-0" | 4'-0" | RF-TEMP | HM-RF | V3 | | - | RF / INTEGRAL BLINDS |
| 0 | 3 | CT | CT CONTROL | 9'-0" | 4'-0" | LL-TEMP | AL | V3 | | - | LL / INTEGRAL BLINDS |
| 0 | 4 | I RAD | I RAD CTRL | 2'-6" | 3'-0" | LL-TEMP | HM | V1 | | - | LEAD LINED FRAME & GLAZING |
| 0 | 5 | RAD | RAD CTRL | 2'-6" | 3'-0" | LL-TEMP | HM | V1 | | - | LEAD LINED FRAME & GLAZING |

# INTERIOR WINDOW NOTES & ABBREVIATIONS

NOTES:

**901.** SEE SHEET A901 IN THE DRAWINGS FOR "LEGEND FOR DOOR AND INTERIOR WINDOW FRAME TYPES" AND "DOOR AND INTERIOR WINDOW FRAME DETAILS".

**902.** STUDY AND COMPARE THE DRAWINGS, LEGENDS, NOTES, SPECIFICATIONS AND INTERIOR WINDOW SCHEDULE. REPORT ANY ERROR, INCONSISTENCY OR OMISSION TO ARCHITECT.

**903.** SEAL ALL FRAMES CONTINUOUSLY TO WALL. IF THE WINDOW FRAME EXTENDS TO THE FLOOR, AND THERE IS A HORIZONTAL GAP OF 1/8 INCH OR LESS BETWEEN THE WINDOW FRAME AND THE ADJACENT FINISH BASE AND/OR FLOOR MATERIAL, INSTALL A "PENCIL LINE" OF SEALANT BETWEEN THE FRAME AND THE FINISH BASE AND/OR FLOOR MATERIAL. HOWEVER, IF THIS HORIZONTAL GAP IS GREATER THAN 1/8 INCH, THE FINISH BASE AND/OR FLOOR MATERIAL SHALL BE REMOVED AND REINSTALLED TO ELIMINATE THE GAP.

**904.** ALIGN TOP OF INTERIOR WINDOW FRAMES WITH THE TOP OF DOOR FRAMES FOR 7'- 0" HEIGHT DOORS. UNLESS SHOWN OTHERWISE ON THE INTERIOR ELEVATIONS

**905.** MOUNT THE METAL GLAZING STOPS WITHIN THE FRAMES ON THE CONTROL ROOM SIDE OF EACH SPACE.

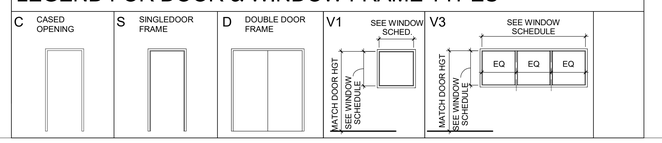
**906.** VERIFY THE REQUIRED "THROAT WIDTH" FOR EACH INTERIOR WINDOW FRAME BASED ON: SIZE OF STUDS; THICKNESS AND NUMBER OF LAYERS OF GYPSUM BOARD, GYPSUM SHEATHING, ETC.; AFTER TOTALING THE WIDTH OF THE COMPONENTS TO BE INSERTED INTO THE THROAT OF EACH FRAME, ADD AN ADDITIONAL 1/4 INCH TO THE CLEAR "THROAT WIDTH" DIMENSION TO ALLOW FOR CONSTRUCTION TOLERANCES.

**907.** PROVIDE AND INSTALL BOTH THE OPERABLE WINDOW HARDWARE AND THE OPERATING HARDWARE FOR INTEGRAL BLINDS TO COMPLY WITH THE MOST STRINGENT REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT [ADA] AND ALL OTHER ACCESSIBILITY CODES ENFORCED BY THE AUTHORITIES HAVING JURISDICTION.

# LEGEND FOR DOOR TYPES




# LEGEND FOR DOOR & WINDOW FRAME TYPES





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DOOR, FRAME & HARDWARE SCHEDULE

**A901**

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Drawn By: Author
Checked By: Checker
Approved By: Approver

# CALCULATIONS FOR OCCUPANT LOADS AND EXIT EGRESS

| COMPARTMENT DESIGNATION | GROSS AREA | ÷ OCCUPANT LOAD FACTOR (S.F. per occupant) [Note 1] | = OCCUPANT LOAD (# of occupants) [Note 2] | X | STAIRWAYS: WIDTH FACTOR [Note 3] | = WIDTH REQUIRED (Inches) [Note 4] | VS WIDTH PROVIDED [Inches] | OTHER COMPONENTS: WIDTH FACTOR [Note 3] | = WIDTH REQUIRED (Inches) [Note 4] | VS WIDTH PROVIDED [Inches] |
|---|---|---|---|---|---|---|---|---|---|---|
| Business areas | | | | | | | | | | |
| B1 | 7528 SF | 100 | 76 | | 0 | 0 | 0 | 0.2 | 16 | 123 |
| TOTAL | 7528 SF | | 76 | | | 0 | 0 | | 16 | 123 |

## NOTES

CODE REFERENCES FOR BUSINESS OCCUPANCY IN THE STATE OF FLORIDA:

NFPA 101: NFPA 101, LIFE SAFETY CODE (2017 FLORIDA EDITION)
FBC: FLORIDA BUILDING CODE SIXTH EDITION (2017)

1. OCCUPANT LOAD FACTOR IS DETERMINED PER MOST STRINGENT OF NFPA 101 TABLE 7.3.1.2 AND FBC TABLE 1004.1.2
2. OCCUPANT LOAD IS DETERMINED PER MOST STRINGENT OF NFPA 101 SECTION 38.2.1 AND FBC SECTION 1004.1 FOR BUSINESS OCCUPANCY.
3. EGRESS CAPACITY FACTOR IS DETERMINED PER MOST STRINGENT OF NFPA 101 SECTION 7.3.3, NFPA 101 TABLE 7.3.3.1 AND FBC SECTION 1005.
4. MINIMUM CLEAR EXIT EGRESS WIDTH REQUIRED IS 44 INCHES PER MOST STRINGENT OF NFPA 101 SECTION 7.3.4, FBC SECTION 1005 AND FBC TABLE 1020.2 FOR BUSINESS OCCUPANCY.
5. MAXIMUM TRAVEL DISTANCE FROM "THE MOST REMOTE POINT IN A ROOM" TO "AN EXIT" IS 300 FEET, PER MOST STRINGENT OF NFPA 101 SECTIONS 7.6, FBC SECTION 1017 AND FBC TABLE 1017.2 FOR SPRINKLERED BUSINESS OCCUPANCY.
6. FBC 508.3.1 ACCESSORY OCCUPANCIES AND 508.3.3 SEPARATION THE SPACES ARE SUBSIDIARY TO THE MAIN BUSINESS OCCUPANCY, OCCUPY LESS THAN 10 PERCENT OF THE OVERALL BUILDING SQUARE FOOTAGE AND THEREFORE WILL NOT BE REQUIRED TO HAVE A 1 HOUR SEPARATION FROM THE MAIN OCCUPANCY.




1 FIRST FLOOR LIFE SAFETY PLAN
1/8" = 1'-0"
0' 4' 8' 16' 24'

## LIFE SAFETY PLAN LEGEND

- NON-RATED PARTITION
- NON- RATED SMOKE TIGHT PARTITION
- ONE HOUR FIRE BARRIER
- ONE HOUR SMOKE BARRIER
- TWO HOUR FIRE BARRIER
- TWO HOUR SMOKE BARRIER
- THREE HOUR BARRIER
- THREE HOUR SMOKE BARRIER
- FOUR HOUR BARRIER

- SMOKE COMPARTMENT DESIGNATION: 1A / 150 SF
- CLEAR WIDTH OF EGRESS DOOR (IN INCHES): 29"
- TRAVEL DISTANCE TO EXIT DOOR: 144'-8"
- TRAVEL DISTANCE TO DOOR INTO ADJACENT SMOKE COMPARTMENT: 144'-8"
- EXIT LIGHTS (ARROWS INDICATE DIRECTION OF EGRESS)
- FIRE EXTINGUISHER/FIRE EXTINGUISHER CABINET (optional if required): FE
- HAZARDOUS STORAGE (optional if required)
- SUITE EXIT (optional)

| | |
|---|---|
| FIRE DEPARTMENT VALVE | FDV |
| FIRE DEPARTMENT VALVE CABINET | FDVC |
| FIRE DEPARTMENT VALVE CABINET WITH FIRE EXTINGUISHER | FDVC W/FE |
| FIRE EXTINGUISHER | FE |
| FIRE EXTINGUISHER CABINET | FEC |
| STANDPIPE | SP |
| FIRE ALARM MANUAL PULL STATION | |
| FIRE ALARM AUDIO DEVICE - INDICATES STROBE | |
| HATCHED OUTLINE INDICATES SUITE BOUNDARY | |

## GENERAL NOTES FOR LIFE SAFETY PLANS

101. THE LIFE SAFETY PLANS ARE "DIAGRAMMATIC ONLY". THEIR PURPOSE IS SOLELY TO REPRESENT THE LIFE SAFETY COMPONENTS FOR THE PROJECT (AS INCLUDED IN THE CONSTRUCTION DOCUMENTS PREPARED BY THE ARCHITECT, ELECTRICAL ENGINEER, FIRE PROTECTION ENGINEER, ETC.), THE GENERAL CONTRACTOR SHALL USE THE CONSTRUCTION DOCUMENTS (NOT THE LIFE SAFETY PLANS) FOR THE IMPLEMENTATION OF THE REQUIRED LIFE SAFETY COMPONENTS INTO THE PROJECT.

102. THE CONTRACTOR SHALL ADVISE THE ARCHITECT IMMEDIATELY UPON DISCOVERY OF ANY LIFE SAFETY COMPONENT THAT IS SHOWN ON THE LIFE SAFETY PLANS BUT HAS NOT BEEN INCLUDED IN THE CONSTRUCTION DOCUMENTS PREPARED BY THE ARCHITECT, ELECTRICAL ENGINEER, FIRE PROTECTION ENGINEER, ETC.

103. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THAT THE REQUIRED VISIBILITY FOR EACH INDIVIDUALLY INSTALLED EXIT LIGHT IS NOT IN ANY WAY DIMINISHED DUE TO VISUAL INTERFERENCE CAUSED BY ANY OTHER LIGHT FIXTURE, DEVICE, SIGN, ETC. (THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT'S REFLECTED CEILING PLANS, THE ELECTRICAL DRAWINGS, THE GRAPHICS DRAWINGS, ETC.)

104. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STENCILING EACH "WALL/PARTITION/BARRIER" CLASSIFICATION IN RED LETTERS ABOVE THE FINISH CEILING ON EACH SIDE OF ALL FIRE WALLS, RATED FIRE BARRIERS, RATED SMOKE BARRIERS, NON-RATED SMOKE PARTITIONS, ETC. PER THE REQUIREMENTS OF SPECIFICATION SECTION 09 9123 - INTERIOR PAINTING (UNDER PART 3 - EXECUTION) AND SPECIFICATION SECTION 09 2900 - GYPSUM BOARD (UNDER PART 3, UNDER STENCILING).


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Revision

| No. | Date | Description |
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LEVEL 1 LIFE SAFETY PLAN

**AL201**

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## GENERAL NOTES:

1. LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL FIELD LOCATE, VERIFY, AND FURTHER IDENTIFY THE LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES (IDENTIFIED ON THE PLANS OR NOT) AFFECTING ANY COMPONENT OF WORK HEREIN PRIOR TO THE START OF ANY CONSTRUCTION. DISCREPANCIES, CONFLICTS, OR POTENTIAL DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF ANY CONSTRUCTION.

2. THE CONTRACTOR SHALL CHECK PLANS FOR CONFLICTS AND DISCREPANCIES PRIOR TO THE START OF ANY CONSTRUCTION. SPECIAL ATTENTION SHALL BE TAKEN WITH THOSE EXISTING UTILITIES, STRUCTURES OR FEATURES (IDENTIFIED ON THE PLANS OR NOT) THAT MAY POTENTIALLY CONFLICT OR CROSS PROPOSED DESIGN COMPONENTS (I.E., STORM SEWERS, SANITARY SEWERS, WATER MAINS, EXFILTRATION, BUILDING FOUNDATIONS, ETC) AND ANY DISCREPANCIES, CONFLICTS, OR POTENTIAL DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF ANY CONSTRUCTION. ANY COST ASSOCIATED WITH THE LOCATION OF EXISTING UTILITIES AS OUTLINED ABOVE IS THE RESPONSIBILITY OF THE CONTRACTOR.

3. ERRORS OR OMISSIONS – DO NOT TAKE ADVANTAGE OF ANY APPARENT ERROR OR OMISSION DISCOVERED IN THE CONTRACT DOCUMENTS, BUT IMMEDIATELY NOTIFY THE ENGINEER OF SUCH DISCOVERY. THE ENGINEER WILL THEN MAKE SUCH CORRECTIONS AND INTERPRETATIONS AS NECESSARY TO REFLECT THE ACTUAL SPIRIT AND INTENT OF THE CONTRACT DOCUMENTS.

4. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN AREAS OF BURIED UTILITIES AND SHALL PROVIDE AT LEAST 48–HOURS NOTICE TO THE UTILITY COMPANIES PRIOR TO CONSTRUCTION TO OBTAIN FIELD LOCATIONS OF EXISTING UNDERGROUND UTILITIES.

5. 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. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY MONUMENTATION, AND ANY DISTURBED MONUMENTATION SHALL BE RESTORED AT CONTRACTOR'S EXPENSE BY A SURVEYOR SELECTED BY THE OWNER.

6. ALL UNDERGROUND UTILITIES MUST BE IN PLACE AND PASS ALL TESTING OR INSPECTION REQUIREMENTS PRIOR TO BASE & SURFACE IMPROVEMENT CONSTRUCTION.

7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BECOME FAMILIAR WITH THE PERMIT AND INSPECTION REQUIREMENTS SPECIFIED BY THE VARIOUS GOVERNMENTAL AGENCIES AND THE ENGINEER. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION, AND SCHEDULE INSPECTIONS AND TESTING ACCORDING TO AGENCY REQUIREMENTS.

8. ALL WORK PERFORMED SHALL COMPLY WITH THE CODES, STANDARDS, REGULATIONS AND REQUIREMENTS OF THE CITY OF ORLANDO LAND DEVELOPMENT CODE AND ENGINEERING STANDARDS, PLUS THE CURRENT EDITION OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND UTILITY CONSTRUCTION, PLUS THE REGULATIONS AND ORDINANCES OF THE VARIOUS OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.

9. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS ON ALL PRECAST AND MANUFACTURED ITEMS TO THE ENGINEER FOR APPROVAL. FAILURE TO OBTAIN APPROVAL BEFORE INSTALLATION COULD RESULT IN REMOVAL AND REPLACEMENT AT CONTRACTOR'S EXPENSE. THE ENGINEER'S REVIEW OF THE SHOP DRAWINGS IS FOR CONFORMITY WITH THE CONTRACT DOCUMENTS AND DOES NOT INCLUDE IN–DEPTH CHECK FOR THE ABILITY OF THE CONTRACTOR TO PERFORM THE WORK IN A SAFE OR EFFICIENT MANNER. THE ENGINEER'S REVIEW OF THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR DIMENSIONAL ACCURACY TO ENSURE FIELD FIT AND CONFORMITY OF THE VARIOUS COMPONENTS AND DETAILS. PROVIDE SHOP DRAWINGS OF SANITARY SEWER COMPONENTS TO THE CITY FOR WASTEWATER DIVISION REVIEW FOR THOSE COMPONENTS TO BE DEDICATED TO THE CITY.

10. CONTRACTOR SHALL KEEP ENGINEER ADVISED OF CONSTRUCTION SCHEDULE CHANGES SO THAT ENGINEER CAN SCHEDULE PERIODIC SITE VISITS AT APPROPRIATE TIMES IN ORDER TO PROVIDE CONSTRUCTION CERTIFICATIONS TO JURISDICTIONAL AGENCIES.

11. WORK PERFORMED UNDER THIS CONTRACT SHALL INTERFACE SMOOTHLY WITH OTHER WORK BEING PERFORMED ON OR ADJACENT TO THE 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.

12. SAFETY:
    A. DURING THE CONSTRUCTION AND/OR MAINTENANCE OF THIS PROJECT, ALL SAFETY REGULATIONS ARE TO BE ENFORCED. THE CONTRACTOR OR HIS REPRESENTATIVE SHALL BE RESPONSIBLE FOR THE CONTROL AND SAFETY OF THE TRAVELING PUBLIC AND THE SAFETY OF HIS PERSONNEL.
    B. LABOR SAFETY REGULATIONS SHALL CONFORM TO THE PROVISIONS SET FORTH BY OSHA IN THE FEDERAL REGISTER OF THE DEPARTMENT OF TRANSPORTATION.
    C. THE MAINTENANCE OF TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE CITY OF ORLANDO TRANSPORTATION ENGINEERING BUREAU AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
    D. 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.
    E. CONTACT THE CITY OF ORLANDO (SCOTT WALKER AT 407–246–2372) FOR MANAGEMENT OF TRAFFIC CONTROL REVIEW PRIOR AND DURING CONSTRUCTION.

13. CONTRACTOR SHALL PROVIDE ALL EQUIPMENT NECESSARY FOR DEWATERING. DISCHARGE WATER FROM DEWATERING SHALL BE CLEAR WITH NO VISIBLE SOIL PARTICLES. DISCHARGE WATER FROM DEWATERING SHALL BE DISPOSED OF IN SUCH A MANNER THAT IT WILL NOT INTERFERE WITH THE NORMAL DRAINAGE OF THE AREA IN WHICH THE WORK IS BEING PERFORMED, OR CREATE PONDING. THE OPERATION SHALL NOT CAUSE ANY DAMAGE TO ANY PORTION OF THE WORK COMPLETED, OR IN PROGRESS. THE DEWATERING OPERATION SHALL COMPLY WITH THE REQUIREMENTS OF APPLICABLE REGULATORY AGENCIES. A PRE–WORK MEETING WILL BE CONDUCTED WITH THE GEOTECHNICAL FIRM, THE OWNER, THE CONTRACTOR, AND THE ENGINEER PRIOR TO BEGINNING ANY SITE EXCAVATION.

14. CONFORMITY WITH WORK – IN THE EVENT THAT THE ENGINEER FINDS THAT THE CONTRACTOR HAS USED MATERIAL OR PRODUCED A FINISH PRODUCT THAT IS NOT REASONABLY CLOSE IN CONFORMITY WITH THE CONTRACT DOCUMENTS, I.E. UNSATISFACTORY PRODUCT, THE CONTRACTOR SHALL REMOVE AND REPLACE OR OTHERWISE CORRECT THE WORK OR MATERIALS AT NO EXPENSE TO THE OWNER.

15. "AS–BUILT" FOR THE PROPOSED CONSTRUCTION SHALL BE PROVIDED UPON COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL FURNISH THE OWNER'S ENGINEER WITH COMPLETE "AS–BUILT" INFORMATION CERTIFIED BY A FLORIDA REGISTERED PROFESSIONAL SURVEYOR. ONCE PROVIDED WITH "AS–BUILTS" AND AFTER OBSERVATION OF THE ENTIRE PROJECT, SHOULD THE ENGINEER DETERMINE THAT THE CONTRACTOR HAS SATISFACTORILY COMPLETED THE WORK, THE ENGINEER WILL GIVE THE CONTRACTOR WRITTEN NOTICE OF FINAL ACCEPTANCE.

16. PIPE LENGTHS SHOWN ARE APPROXIMATE AND SHOULD BE ORDERED FROM FIELD STAKED QUANTITIES. PLAN PIPE LENGTHS ARE MEASURED FROM CONNECTION POINT TO END OF THE LINES FOR WATER LINES.

17. CONTRACTOR MUST REVIEW "MAINTENANCE OF UTILITY SERVICE PLAN" WITH ENGINEER AND UTILITY COMPANY PRIOR TO START OF UTILITY CONSTRUCTION.

## GOVERNING SPECIFICATIONS:

A. GRADING, DRAINAGE AND PAVING MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CURRENT PUBLICATION OF THE FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" AS SUPPLEMENTED BY THE FDOT STANDARD INDEX AND AS SUPPLEMENTED BY DETAILS AND NOTES ON PLANS.

B. CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE CURRENT PUBLICATION OF THE CITY OF ORLANDO "ENGINEERING STANDARDS MANUAL", EXCEPT AS NOTED ON PLANS.

C. WATER DISTRIBUTION SYSTEM MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH ORLANDO UTILITIES COMMISSION'S STANDARDS AND SPECIFICATIONS, EXCEPT AS NOTED ON PLANS.

D. CONFORM WITH ALL REQUIREMENTS OF THE FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION (FDEP) SOILS DISTURBANCE AND WATER OR SANITARY SYSTEM EXTENSIONS PERMITS.

E. CONFORM WITH ALL REQUIREMENTS OF THE "ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT" (SJRWMD) ENVIRONMENTAL RESOURCES PERMIT (ERP).

## CLEARING AND GRUBBING NOTES:

1. PRIOR TO CLEARING AND GRUBBING, ALL SILT FENCE EROSION CONTROL DEVICES AND SEDIMENT CONTROL BASINS SHALL BE INSTALLED AND OPERATIONAL.

2. ALL INDICATED MATERIALS TO BE CLEARED, GRUBBED AND REMOVED FROM THE CONSTRUCTION AREA INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: ALL TREES, STUMPS, ROOTS, BRUSH, TRASH, ORGANIC MATTER WITHIN THE SITE, CURBING, PAVING, MISCELLANEOUS STRUCTURES (IF ANY), AND OTHER DEBRIS.

3. GRUBBING SHALL CONSIST OF COMPLETELY REMOVING ROOTS, STUMPS, TRASH AND OTHER DEBRIS FROM SITE, SO THAT THE TOPSOIL IS FREE OF ROOTS AND DEBRIS. TOPSOIL IS TO BE LEFT SUFFICIENTLY CLEAN SO THAT FURTHER PICKING AND RAKING WILL NOT BE REQUIRED.

4. BURNING OF TREES, ROOTS, OR ANY KIND OF MATERIALS WILL NOT BE ALLOWED ANYWHERE ON THE SITE.

5. THE CONTRACTOR SHALL EXERCISE SPECIAL PRECAUTIONS FOR THE PROTECTION AND PRESERVATION OF TREES, SOD, FENCES, ETC., SITUATED WITHIN THE VICINITY OF THE PROJECT AREA OR TREE SAVE AREAS BUT NOT DIRECTLY WITHIN EXCAVATION AND/OR FILL LIMITS. THE CONTRACTOR SHALL BE HELD LIABLE FOR ANY DAMAGE AS A RESULT OF HIS OPERATIONS.

6. TREES WHICH ARE SEVERELY DAMAGED OR DESTROYED BY CLEARING OPERATIONS OUTSIDE THE CLEARING LIMITS WILL BE PAID FOR BY THE CONTRACTOR IN WHOLE. MINOR DAMAGE INFLICTED TO TREE BRANCHES AND TRUNKS WILL BE REPAIRED, AT NO COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING TREE PROTECTION FENCING AROUND TREE SAVE AREAS WITHIN THE SITE, AS SHOWN ON PLANS OR DIRECTED BY THE MUNICIPAL AUTHORITY. THE TREE PROTECTION FENCING SHALL BE IN ACCORDANCE WITH MUNICIPAL STANDARDS AND REQUIREMENTS.

## EXCAVATION, GRADING, AND PAVING NOTES:

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 ENGINEER, OR 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 APPROVED MATERIALS AND COMPACTED AS SHOWN ON THESE PLANS. 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.

3. DEWATERING METHODS SHALL BE USED AS REQUIRED TO KEEP TRENCHES DRY WHILE PIPE AND APPURTENANCES ARE BEING PLACED.

4. ALL NECESSARY FILL AND EMBANKMENT THAT IS PLACED DURING CONSTRUCTION SHALL CONSIST OF MATERIAL SPECIFIED BY THE OWNER'S SOIL TESTING COMPANY OR ENGINEER AND BE PLACED AND COMPACTED ACCORDING TO THESE PLANS.

5. DISPOSAL OF ANY EXCESS EARTHWORK MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

6. PROPOSED SPOT ELEVATIONS REPRESENT FINISHED PAVEMENT OR GROUND SURFACE GRADE UNLESS OTHERWISE NOTED ON DRAWINGS.

7. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE COMPLIANCE WITH A.D.A. STANDARDS.

8. CONTRACTOR SHALL SAW–CUT EXIST. PAVEMENT TO PROVIDE CLEAN JOINT. REMOVE EXISTING PAVEMENT FOR NEW INSTALLATION AND MATCH EXISTING PAVEMENT AT LOCATIONS WHERE NEW PAVEMENT MEETS EXISTING PAVEMENT.

9. REFER TO THE CURRENT EDITION OF THE FDOT "ROADWAY AND TRAFFIC DESIGN STANDARDS" FOR DETAILS AND SPECIFICATIONS OF ALL FDOT TYPE CURBING CALLED FOR IN THESE PLANS.

10. REFER TO THE CURRENT EDITION OF THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR SPECIFICATIONS ON PAVING MATERIALS.

11. CONTRACTOR TO PROVIDE A 1/2–IN. BITUMINOUS EXPANSION JOINT MATERIAL WITH SEALER WHERE CONCRETE ABUTS BUILDINGS, OTHER CONCRETE, OR OTHER RIGID MATERIALS.

12. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SURVEY MONUMENTATION. DISTURBED MONUMENTATION SHALL BE RESTORED AT CONTRACTOR'S EXPENSE BY A SURVEYOR SELECTED BY THE OWNER.

13. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SOILS ENGINEER FOR APPLICABLE TESTING UPON COMPLETION OF THE WORK. THE SOILS ENGINEER WILL SUBMIT CERTIFICATIONS TO THE OWNER AND ENGINEER STATING THAT ALL REQUIREMENTS HAVE BEEN MET.

14. TESTING AND INSPECTION TO BE PERFORMED BY A QUALIFIED INDEPENDENT TESTING LABORATORY, UNDER THE SUPERVISION OF A REGISTERED ENGINEER, SPECIALIZING IN SOILS ENGINEERING. PERFORM ALL TESTING NECESSARY AS REQUIRED BY THESE PLANS AND THE VARIOUS PERMITTING AGENCIES. THE CONTRACTOR WILL PAY THE COSTS OF ALL INITIAL TESTING. SHOULD RETESTING BE REQUIRED DUE TO THE FAILURE OF ANY TESTS TO MEET SPECIFICATIONS, THE CONTRACTOR SHALL BEAR ALL COSTS OF SAID RETESTING.

## UTILITY SYSTEM NOTES:

1. CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY OWNERS AND FLORIDA'S "SUNSHINE ONE–CALL" SYSTEM 48–HRS PRIOR TO STARTING CONSTRUCTION. COST OF REPLACEMENT AND REPAIR OF EXISTING UTILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S OPERATION SHALL BE CONTRACTOR'S RESPONSIBILITY.

2. WORK IN THE PUBLIC RIGHT–OF–WAY SHALL BE COORDINATED WITH GOVERNING AUTHORITIES. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS AND PAY REQUIRED FEES, AND COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS APPLICABLE TO CONSTRUCTION OF THE PROJECT.

3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAKING ALL NECESSARY ARRANGEMENTS FOR PERFORMING WORK INVOLVED IN CONNECTION WITH THE DISCONTINUANCE OR INTERRUPTION OF ALL UTILITIES UNDER THE JURISDICTION OF THE UTILITY COMPANIES.

4. EXISTING OUT–OF–SERVICE BURIED UTILITIES ENCOUNTERED WITHIN THE PROPOSED PROJECT SHALL BE REMOVED WHEN WITHIN THE EXCAVATED AREA AND SLURRY FILLED BY THE CONTRACTOR ALONG OTHER AREAS WITHIN THE WORK ZONE. DISPOSITION AS DIRECTED BY THE UTILITY'S OWNER. NO ABANDONMENT OF UTILITY LINES ARE ALLOWED UNDER BUILDINGS WITHOUT THE PROJECT'S ENGINEERS APPROVAL.

5. CONFLICTS BETWEEN UNDERGROUND UTILITIES, I.E. WATER, ELECTRICAL, COMMUNICATIONS, GAS, AND STORM OR SANITARY SEWERS SHALL BE RESOLVED BY ADJUSTING THE UNDERGROUND UTILITIES AS NECESSARY, AND IS INCLUSIVE IN CONTRACTORS COST. GRAVITY SEWERS SHALL NOT BE ADJUSTED WITHOUT PRIOR APPROVAL OF THE ENGINEER AND THE MUNICIPAL AUTHORITY.

6. CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AT ALL INTERSECTIONS OF PROPOSED WORK WITH EXISTING UTILITIES. THE EXPLORATORY EXCAVATIONS SHALL BE MADE A MINIMUM OF 72–HRS IN ADVANCE OF THE PROPOSED WORK, AND PRIOR TO SHOP DRAWINGS SUBMITTALS, WHEN APPLICABLE. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE ENGINEER IF THERE IS A CONFLICT. INFORMATION TO BE FURNISHED BY THE CONTRACTOR SHALL INCLUDE: LOCATION, ELEVATION, UTILITY TYPE, MATERIAL AND SIZE.

7. UTILITY APPURTENANCES SHALL MEET THE FOLLOWING REQUIREMENTS: A) BE AESTHETICALLY ACCEPTABLE. B) IN COMPLIANCE WITH INDUSTRY AND MANUFACTURER'S STANDARDS. C) PLACED IN AREA WITH THE MINIMUM INTERFERENCE TO THE OPERATIONAL AND MAINTENANCE OF THE SITE. D) NOT IN CONFLICT WITH OTHER FACILITIES AND AS CLOSE TO THE RIGHT–OF–WAY AS POSSIBLE.

8. CONTRACTOR SHALL PROVIDE FOR THE TEMPORARY SUPPORT AND PROTECTION OF EXISTING UTILITIES WITHIN THE WORK ZONE. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ADEQUACY OF THESE METHODS I.E. ALL SHEETING, SHORING, AND BRACING SYSTEMS.

9. THE CONTRACTOR SHALL PROVIDE APPLICABLE TEST RESULTS FOR THE PURPOSE OF CERTIFICATIONS REQUIRED BY THE FDEP OR OTHER GOVERNING AGENCY HAVING JURISDICTION. TESTING AND CERTIFICATION SHALL INCLUDE BUT ARE NOT LIMITED TO: WATER LINE, SANITARY SEWERS, TRENCH BACKFILL AND COMPACTION, PAVING MATERIALS.

10. SANITARY SEWERS AND WATER MAINS SHALL NOT BE PLACED INTO SERVICE UNTIL A CLEARANCE LETTER/CERTIFICATION OF COMPLETION IS RECEIVED FROM FDEP FOR THE PROJECT.

## STRIPING AND SIGNAGE NOTES

1. SIGNING AND PAVEMENT MARKINGS TO BE DONE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND THE FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS.

2. COORDINATE AND PROVIDE FOR THE DISPOSITION AND PER PLAN REMOVAL OF EXISTING SIGNS WITH THE MUNICIPAL AUTHORITY.

3. EXISTING SIGNS THAT ARE TO REMAIN SHALL BE PROTECTED AND VISIBLE DURING THE COURSE OF CONSTRUCTION. EXISTING SIGNS WHICH ARE TO BE RELOCATED AND ARE DAMAGED BY THE CONTRACTOR SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER/MUNICIPALITY.

4. CAUTION SHALL BE EXERCISED IN THE INSTALLATION OF POST MOUNTED ROAD SIDE SIGNS IN ORDER TO PREVENT DAMAGE TO BURIED UTILITIES. LOCATIONS SHALL CONFORM TO FDOT STANDARD 17302.

5. ENGINEER TO BE NOTIFIED WHEN SIGN ASSEMBLY LOCATIONS SHOWN ON THE PLANS ARE IN CONFLICT WITH SIGNALS, LIGHTING, UTILITIES, ETC. LOCATION MAY BE SLIGHTLY ADJUSTED AS DIRECTED BY THE ENGINEER.

6. SIGNS SHALL BE CONSTRUCTED WITH TYPE III B HIGH PERFORMANCE PRISMATIC REFLECTIVE SHEETING, EXCEPT FOR "STOP", "WRONG–WAY", AND "DO–NOT–ENTER" WHICH SHALL BE TYPE VII SHEETING.

7. SIGN POST FOR ANY SINGLE COLUMN SIGNS SHALL BE A MINIMUM OF 3" DIA. CONFORMING TO FDOT STANDARD 11860, AND LISTED IN THE FDOT'S QUALIFIED PRODUCTS LIST (QPL). THE CONTRACTOR SHALL FIELD VERIFY THE LENGTH OF SIGN COLUMN SUPPORTS PRIOR TO FABRICATION.

8. ALL SURFACES SHALL BE CLEANED PRIOR TO THE START OF INSTALLATION OF ALL PAVEMENT MARKINGS.

9. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A COMBINATION OF SAND AND WATER BLASTING, OR OTHER APPROVED METHOD THAT WILL NOT MATERIALLY DAMAGE THE SURFACE TEXTURE OF THE PAVEMENT, AND WILL FULLY ELIMINATE ANY TRACE OF THE PREVIOUS MARKINGS. METHOD USED MUST RECEIVE PRE–APPROVAL OF THE MUNICIPAL AUTHORITY.

10. PAINTED PAVEMENT MARKINGS SHALL BE INSTALLED ON THE FINAL ASPHALT SURFACE DURING THE INITIAL 30–DAY CURE PERIOD, AND FINAL THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INSTALLED AFTER THE 30–DAY CURING PERIOD. PAINTED PAVEMENT MARKINGS SHALL CONFORM TO FDOT SPEC. SECTION 710, AND THERMOPLASTIC TO SECTION 711.

11. PLACEMENT OF TURN ARROWS SHALL CONFORM TO FDOT STANDARD 11346.

12. CROSSWALKS SHALL BE 10–LF WIDE UNLESS OTHERWISE SHOWN ON THE PLANS, AND SHALL CONFORM TO FDOT STANDARD 17346.

13. ALL PERMANENT STRIPING SHALL BE INSTALLED PRIOR TO RETRO–REFLECTIVE PAVEMENT MARKERS (RPMS) INSTALLATION. PLACEMENT OF RPMS SHALL CONFORM TO FDOT STANDARD 17352.

14. CONTRACTOR SHALL COORDINATE WITH THE LOCAL PUBLIC TRANSIT AGENCY FOR BUS STOP OR RESPECTIVE SIGNS TO BE REMOVED OR RELOCATED.

## UTILITY PROVIDERS:

**POTABLE WATER:**
ORLANDO UTILITIES COMMISSION
500 S ORANGE AVE
ORLANDO, FL 32801
PH: (407) 423–9101
FAX: (407) 236–9628

**FIRE PROTECTION:**
CITY OF ORLANDO
FIRE DEPARTMENT
400 S ORANGE AVE
ORLANDO, FL 32801
PH: (407) 246–2390
FAX: (407) 246–2512

**STORMWATER:**
CITY OF ORLANDO
STREET & DRAINAGE DEPT.
400 S ORANGE AVE
ORLANDO, FL 32801
PH: (407) 246–2238
FAX: (407) 246–4050

**WASTEWATER:**
CITY OF ORLANDO
WASTEWATER DIVISION
5100 LB McLEOD ROAD
ORLANDO, FL 32811
PH: (407) 246–2213
FAX: (407) 246–2886

**ELECTRIC:**
O.U.C. ELECTRIC
6003 PERSHING AVE
ORLANDO, FL 32822
PH: (407) 384–4173

**COMMUNICATIONS, OTHER:**
BRIGHT HOUSE NETWORKS
3767 ALL AMERICAN BLVD
ORLANDO, FL 32810
PH: (407) 291–2500
FAX: (407) 578–0979

**TELEPHONE:**
AT&T
450 NORTH GOLDENROD ROAD
ORLANDO, FL 32807
PH: (407) 273–5084
FAX: (407) 277–7241

**NATURAL GAS:**
TECO/PEOPLES GAS
600 WEST ROBINSON ST
ORLANDO, FL 32801
PH: (407) 420–6607
FAX: (407) 839–0768

48 HOURS BEFORE DIGGING
CALL
TOLL FREE
811
SUNSHINE STATE ONE CALL CENTER
WWW.CALLSUNSHINE.COM

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REVISIONS

SCALE: AS SHOWN
DATE: 10/22/2018
DRAWN: MJC
CHECKED: JVH
APPROVED: KSH

# GENERAL NOTES

## ORLANDO HEALTH - 1800 S. ORANGE AVE
## CITY OF ORLANDO, FLORIDA

SEAL
KEITH SIGURD HAUGDAHL
No. 66570
STATE OF FLORIDA
PROFESSIONAL ENGINEER
KEITH S. HAUGDAHL, P.E.
No. 66570

gai consultants
EB 9951
618 SOUTH ST. SUITE 700
ORLANDO, FLORIDA 32801
PHONE: (407) 423–8398

PROJECT NO./DASH NO.
A180543.00

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## CONSTRUCTION ACTIVITIES AND CONTRACTOR RESPONSIBILITIES

1. THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND ABIDE BY ALL PERMIT CONDITIONS, INSPECTIONS, SCHEDULES, AND OTHER RELEVANT REGULATORY AGENCY RULES AND REGULATIONS.
2. BMPs: SYNTHETIC BALES OR SEDIMENT FILTER LOGS.
3. INLET PROTECTION: PERFORATED PIPE WRAPPED IN FILTER FABRIC (FILTER LOGS).
4. TEMPORARY SLOPE STABILIZATION: CONTRACTOR SHALL PROVIDE FOR THE SAFETY OF TEMPORARY SOIL EMBANKMENT AND SHORING REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.
5. POTENTIAL POLLUTANTS DURING CONSTRUCTION: DELETERIOUS, TOXIC, OR CONTAMINATED MATERIAL, IF ENCOUNTERED, IS TO BE STOCKPILED OR REMOVED FROM THE SITE AS DIRECTED BY THE OWNER AND DISPOSED OF IN APPROVED LANDFILL. CONTACT LOCAL EMERGENCY OFFICIALS REPRESENTATIVES IN CASE OF ANY SPILLS OR CONTAMINATION OF A CHEMICAL NATURE (CALL FDEP 407-894-7555) PRIOR TO ANY OTHER ACTION.
6. INSPECTIONS: CONTRACTOR TO INSPECT CONSTRUCTION SITE FOR EROSION PROBLEMS ONCE A WEEK AND AFTER EACH RAINFALL GREATER THAN 0.5 INCHES WITHIN 24 HRS. CONTRACTOR TO PROVIDE AND MONITOR A RAIN GAUGE ON SITE AND RECORD DAILY RAINFALL AMOUNTS.
7. PERMANENT STORMWATER MANAGEMENT CONTROLS: RETENTION AND DETENTION/EXFILTRATION SYSTEMS, STORMWATER SEWER SYSTEM, PLUS STORMWATER CONTROL STRUCTURE IS TO PREVENT TRASH FROM GOING TO CITY'S DRAINAGE SYSTEM.
8. DEWATERING: IN GENERAL, WATER FROM CONTAMINATED AREAS ARE TO BE DISCHARGED TO SANITARY SEWER SYSTEM AND WATER FROM NON-CONTAMINATED AREAS ARE TO BE DISCHARGED INTO STORM SEWER SYSTEM. THE DEWATERING OPERATION SHALL COMPLY WITH THE REQUIREMENTS OF F.D.E.P., THE NPDES PERMIT, AND THE GEOTECHNICAL REPORT.
9. DEWATERING: DEWATRERING ACTIVITIES SHALL NOT RESULT IN THE DISCHARGE OF ANY WATER WITH TURBIDITY GREATER THAN 29 NTUS FROM THE SITE PER SECTION 6.14.01 (H) OF THE ESM.
10. CONTRACTOR SHALL MAKE AN EFFORT TO MINIMIZE THE AREA OF DISTURBANCE AND WILL BE RESPONSIBLE FOR ALL DAMAGES. ALL EXISTING SODDED AREAS DISTURBED DURING THE CONSTRUCTION SHALL BE REPLACED WITH THE SAME TYPE OF SOD IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS WITHIN 7 DAYS OF FINAL GRADING.
11. SURFACE DRAINAGE SHALL BE DIVERTED FROM EXCAVATIONS AND STOCKPILE AREAS SUCH THAT PROPER SITE CONDITIONS ARE MAINTAINED AND EROSION DUE TO RAIN RUN-OFF OR SEEPAGE IS PREVENTED OR MINIMIZED.
12. INLETS AND CATCH BASINS SHALL BE PROTECTED FROM SEDIMENT UNTIL THE COMPLETION OF ALL CONSTRUCTION OPERATIONS. EROSION CONTROL AT ALL INLET DRAINAGE STRUCTURES DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA STORMWATER, EROSION AND SEDIMENTATION CONTROL INSPECTORS HANDBOOK.
13. NO FERTILIZERS, HERBICIDES, OR PESTICIDES ARE TO BE USED ON-SITE WITHOUT PRIOR APPROVAL OF CITY OR COUNTY STAFF.
14. AFTER ALL CONSTRUCTION IS COMPLETE, ALL STRUCTURES AND STORM SEWER PIPES IN THE SYSTEM SHALL BE CLEANED AND TEMPORARY PLUGS IN STRUCTURES SHALL BE REMOVED.
15. ADDITIONAL NOTES: IF NECESSARY, CONTRACTOR SHALL INSTALL TURBIDITY BARRIER, AND USE STREET SWEEPER TO CLEAN ANY OFF-SITE TRACKING OF SOIL. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL IF IT BECOMES NECESSARY TO MEET STATE AND LOCAL STANDARDS AND TO COMPLY WITH THIS PLAN.
16. WASTE DISPOSAL: ALL WASTE SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTE SHALL BE PROPERLY CONTROLLED IN ACCORDANCE WITH ALL APPLICABLE STATE, LOCAL, AND FEDERAL REGULATIONS. THERE SHOULD BE NO DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO SURFACE WATERS OF THE STATE OR AN MS4.

## GENERAL CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO THESE DRAWINGS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL PERFORM A "SUNSHINE ONE-CALL" PRIOR TO EXCAVATIONS.
3. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS PRIOR TO CONSTRUCTION AND MAINTAIN COPIES AT THE JOBSITE.
4. THE LOCATION OF ALL EXISTING UTILITIES AND STORM DRAINAGE SHOWN ON THE PLANS IS APPROXIMATE AND HAS BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND IS GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE OWNER/ENGINEER ASSUMES NO RESPONSIBILITY FOR INACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES, FIELD DETERMINE THE EXACT LOCATION OF UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION OF THESE UTILITIES WITH THE OWNER OF THE UTILITY IF CONFLICTS EXIST. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING UNDERGROUND UTILITY AND ALL EXISTING UTILITIES SHALL BE PROTECTED.
5. THE CONTRACTOR SHALL COORDINATE ALL TREE REMOVALS REQUIRED BY CONSTRUCTION WITH THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL STRIVE TO PROTECT AS MANY TREES AS POSSIBLE DURING CONSTRUCTION OPERATIONS. COORDINATE EFFORTS WITH AREA DEVELOPMENT PLANS.
6. THE CONTRACTOR IS ADVISED TO BRING ANY LAYOUT DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
7. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST M.U.T.C.D. AND F.D.O.T. SPECIFICATIONS.
8. COORDINATE WITH LOCAL EMERGENCY SERVICES AND PROVIDE EMERGENCY ACCESS CORRIDOR THROUGHOUT CONSTRUCTION.
9. CONTACT LOCAL ENVIRONMENTAL COMPLIANCE OFFICIAL FOR APPROVAL OF EROSION CONTROL MEASURES 24 HOURS PRIOR TO BEGINNING GRADE WORK.
10. MATERIALS INTERFERING WITH CONSTRUCTION SHALL BE DISPOSED OF AS DIRECTED BY THE OWNER.
11. ALL EXCESS DIRT, CLEARING DEBRIS, UNSUITABLE MATERIALS AND EXISTING ROADWAY MATERIAL RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE HAULED OFF IN A LEGAL MANNER.
12. THE CONTRACTOR SHALL PROVIDE A LEVEL GROUND SURFACE AREA ACCESSIBLE TO THE HAUL ROADS AND CONSTRUCTION ENTRANCE FOR MATERIAL LAY-DOWN AND CONSTRUCTION STAGING. THE AREA SHALL BE DELINEATED WITH SAFETY FENCING AND SILT FENCE SHALL BE INSTALLED ALONG THE DOWNHILL BOUNDARY.
13. EXISTING TOPOGRAPHY AND ROADWAY DATA SHOWN ARE BASED UPON TOPOGRAPHIC SURVEYS BY:
    ALLEN & COMPANY
    JIM RICKMAN, PMS, LS
    16 EAST PLANT ST.
    WINTER GARDEN, FLORIDA 32787
14. CONTRACTOR SHALL CONFINE HIS OFF-SITE ACTIVITIES TO LIMITS OF CONSTRUCTION AS DEPICTED ON THE DEMOLITION PLAN (PROPOSED BY GAI CONSULTANTS.).
15. ANY PUBLIC LAND CORNER, WITHIN THE LIMITS OF CONSTRUCTION, IS TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL NOTIFY THE OWNERS REPRESENTATIVE WITHOUT DELAY.
16. SOILS DATA GEOTECHNICAL REPORT PREPARED BY PSI, INC.
17. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL THE REQUIRED CONSTRUCTION PERMITS HAVE BEEN OBTAINED PRIOR TO COMMENCING WORK.
18. ALL REFERENCES TO PROPOSED CONSTRUCTION INDICATES CONSTRUCTION INCLUDED IN THIS CONTRACT.

## EROSION AND SEDIMENTATION CONTROL NOTES

1. THE CONTRACTOR MUST IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES REQUIRED TO RETAIN SEDIMENT ON-SITE AND TO PREVENT VIOLATIONS OF THE WATER QUALITY CRITERIA AND STANDARDS IN CHAPTERS 62-4, 62-302, F.A.C. ALL EROSION/SEDIMENT CONTROL PRACTICES MUST BE IN ACCORDANCE WITH THE GUIDELINES AND SPECIFICATIONS IN SECTION 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL: A GUIDE TO SOUND LAND AND WATER MANAGEMENT (FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION 1988), AS WELL AS THE CITY OF ORLANDO WATER QUALITY CODE AND THE FLORIDA STORMWATER, EROSION AND SEDIMENTATION CONTROL INSPECTORS HANDBOOK, UNLESS A PROJECT-SPECIFIC EROSION AND SEDIMENT CONTROL PLAN IS APPROVED BY THE WATER MANAGEMENT DISTRICT IN WHICH CASE THE PRACTICES MUST BE IN ACCORDANCE WITH THE PLAN. IF SITE SPECIFIC CONDITIONS REQUIRE ADDITIONAL MEASURES DURING ANY PHASE OF CONSTRUCTION OR OPERATION TO PREVENT EROSION OR CONTROL SEDIMENT, THE CONTRACTOR MUST IMPLEMENT THE NECESSARY ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES.
2. STABILIZATION MEASURES SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED AREAS AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
3. THE LOCATION AND TYPE OF THE EROSION CONTROL MEASURES SHOWN ON THESE DRAWINGS ARE PROVIDED FOR GENERAL GUIDANCE TO THE CONTRACTOR. THE METHODS AND SEQUENCING OF CONSTRUCTION EMPLOYED BY THE CONTRACTOR MAY REQUIRE MORE OR LESS EROSION CONTROL MEASURES THAN THAT DEPICTED TO MAINTAIN ADEQUATE EROSION AND SEDIMENT CONTROL FOR THE CONSTRUCTION ACTIVITIES.
4. EROSION/TURBIDITY BARRIERS MUST BE INSTALLED AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SEDIMENT OR SUSPENDED SOLIDS TO ADJACENT PROPERTIES, JURISDICTIONAL WETLANDS AND/OR RECEIVING WATER BODIES EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST REMAIN IN PLACE AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND SOILS ARE STABILIZED AND VEGETATION HAS BEEN ESTABLISHED. THEREAFTER THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF THE BARRIERS. THE CONTRACTOR SHALL MAINTAIN THE EROSION/TURBIDITY CONTROL BARRIERS DAILY. THE CONTRACTOR IS TOTALLY RESPONSIBLE FOR PROVIDING THE NECESSARY EROSION/TURBIDITY CONTROL FOR THIS PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY PENALTIES IMPOSED BY THE PERMITTING AGENCIES FOR ANY EROSION, SHOALING, OR WATER QUALITY PROBLEMS RESULTANT TO CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CORRECTION OF ANY EROSION, SEDIMENTATION, SHOALING OR WATER QUALITY PROBLEMS THAT RESULT FROM THE CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL USE APPROPRIATE BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL AS DESCRIBED IN THE FLORIDA LAND DEVELOPMENT MANUAL, A GUIDE TO SOUND LAND AND WATER MANAGEMENT (DEP, 1988) AND/OR ACCORDING TO FDOT ROADWAY AND TRAFFIC DESIGN STANDARDS FOR EROSION CONTROL APPLICATIONS AND ACCORDING TO THE ORANGE COUNTY WATER QUALITY CODE AND THE FLORIDA STORMWATER, EROSION AND SEDIMENTATION CONTROL INSPECTORS HANDBOOK.
6. MEASURES SHALL BE TAKEN BY THE CONTRACTOR TO INSURE THAT SEDIMENTATION AND/OR TURBIDITY PROBLEMS ARE NOT CREATED IN THE RECEIVING WATER.
7. PRIOR TO BEGINNING THE CLEARING AND GRUBBING OF THE SITE, SYNTHETIC BALES SHALL BE STAKED TO THE GROUND ALONG THE PROPERTY LINE AT LOW AREAS IN ADDITION TO THE PERIMETER SILT FENCE TO PREVENT STORMWATER FROM WASHING ERODED SOIL FROM THE SITE.
8. THE SITE SHALL BE GRADED SUCH THAT ALL STORMWATER WILL BE DIRECTED INTO THE ON-SITE STORMWATER SYSTEM. SYNTHETIC BALES SHALL BE STAKED IN LOCATIONS WHERE WATER ENTERS THE SYSTEM TO FILTER OUT THE ERODED SOILS AND CONSTRUCTION FINES. CONTRACTOR SHALL MAKE PROVISIONS TO AVOID TRACKING DIRT AND CONSTRUCTION DEBRIS TO THE ROADWAY VIA TRUCK AND EQUIPMENT TIRES.
9. SILT FENCE SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CITY OF ORLANDO, AND FDOT STANDARDS AND SPECIFICATIONS, AND THE CONTRACT DRAWINGS.
10. CONTRACTOR SHALL REPLACE CLOGGED SECTIONS OF SILT FENCES AND PERFORATED PIPE WITH FABRIC SOCK AS NECESSARY TO MAINTAIN WATER PASSAGE.
11. CONTRACTOR SHALL PROVIDE SEDIMENT CONTROL DURING INSTALLATION OF NEW CURBING AND DRIVEWAYS AS APPROVED BY THE ENGINEER.
12. CONTRACTOR SHALL TAKE CARE TO KEEP EXPOSED AREAS TO A MINIMUM POSSIBLE TIME DURING CONSTRUCTION.
13. ON-SITE CONTROL MEASURES SHALL BE APPLIED TO REDUCE EROSION AS SHOWN ON THE PLANS, DETAIL SHEETS AND IN ACCORDANCE WITH FDOT, FDEP AND THE CITY OF ORLANDO REGULATIONS FOR EROSION CONTROL MEASURES. STOCKPILING AND STORAGE OF MATERIALS SHOULD NOT BE LOCATED IN A MANNER TO IMPEDE FLOW OR CAUSE MATERIALS TO BE ERODED BY STORMWATER RUNOFF.
14. ALL TEMPORARY SEDIMENTATION CONTROL STRUCTURES AND MEASURES TO BE USED DURING CONSTRUCTION SHALL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITY AND SHALL BE MAINTAINED IN AN EFFECTIVE CONDITION UNTIL SUCH TIME AS THE COMPLETION OF THE PERMANENT SYSTEM OR OTHER EROSION CONTROL MEASURES CAN ASSURE ADEQUATE EROSION AND SEDIMENT CONTROL.
15. ALL EXCESS FILL MATERIAL WILL BE HAULED OFF SITE.
16. NO EXCAVATING MATERIAL SHALL BE STOCK PILED IN A MANNER AS TO DIRECT RUNOFF OFF THE PROJECT SITE OR INTO AN ADJACENT WATER BODY OR STORM COLLECTION FACILITY.

## STORMWATER POLLUTION PREVENTION PLAN NOTES:

LOCATION: THE 0.7± ACRE SITE IS LOCATED IN THE CITY OF ORLANDO, ORANGE COUNTY, FLORIDA

LIMITS OF CONSTRUCTION: 0.7± ACRES WILL BE DISTURBED DURING CONSTRUCTION.

CONSTRUCTION ACTIVITIES: CLEARING AND GRUBBING OF EXISTING SITE; GRADING OPERATIONS; CONSTRUCTION OF A WIDENED ROADWAY.

SOIL TYPES: REFER TO THE GEOTECHNICAL REPORT FOR THE ON-SITE SOIL CLASSIFICATIONS.

GENERAL CONSTRUCTION SEQUENCE:
1. INSTALL SILT FENCE AROUND PERIMETER OF SITE. PROVIDE MINIMUM SITE DEMOLITION REQUIRED TO INSTALL SILT FENCE. INSTALL TEMP INLET PROTECTION.
2. GENERAL SITE CLEARING AND GRUBBING, AND DEMOLITION.
3. INSTALL UNDERGROUND UTILITIES.
4. CONSTRUCT PROPOSED ABOVE GROUND INFRASTRUCTURE PER THE SITE PLAN.
5. INSTALL LANDSCAPING.
6. REMOVE TEMP. PROTECTION SYSTEMS.

STORMWATER DISCHARGE: STORMWATER WILL DISCHARGE TO THE CITY OF ORLANDO STORMSEWER SYSTEM, WHICH OUTFALLS TO LAKE BEAUTY.

## ENGINEER CERTIFICATION

I CERTIFY THAT I PREPARED THE SWPPP FOR THE REFERENCED SITE. TO THE BEST OF MY KNOWLEDGE, THE SWPPP MEETS THE INTENT AND REQUIREMENTS OF THE NPDES GENERAL PERMIT NO. FLR100000, AND IS IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS WHICH GOVERN THE DISCHARGES FROM CONSTRUCTION SITES.

SIGNATURE DATE

NAME AND TITLE

COMPANY GAI CONSULTANTS, INC.

ADDRESS 618 E. SOUTH STREET, ORLANDO, FLORIDA 32801

## CONTRACTOR CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH THE INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS A PART OF THIS CERTIFICATION."

SIGNATURE DATE

PROJECT MANAGER

NAME AND TITLE

COMPANY

ADDRESS (CONTRACTING FIRM)

ADDRESS (CONSTRUCTION SITE)

TELEPHONE: AREA CODE NUMBER

## ABBREVIATIONS:

OUC – ORLANDO UTILITIES COMMISSION

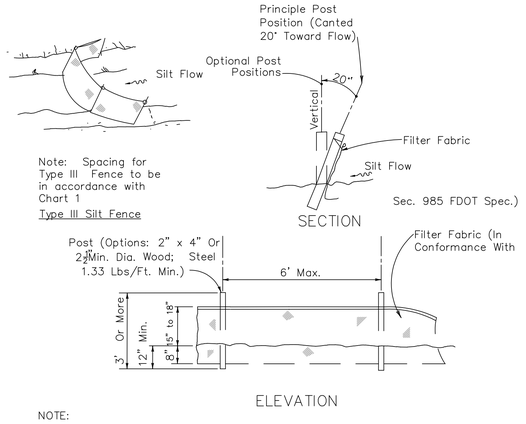
FDOT – FLORIDA DEPARTMENT OF TRANSPORTATION

A.D.A. – AMERICAN DISABILITY ACT

HDPE – HIGH DENSITY POLYETHYLENE PIPE

FDEP – FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

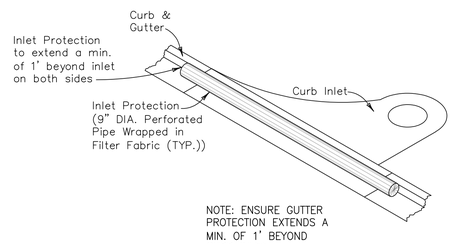
FOR STANDARD ABBREVIATIONS REFER TO THE FDOT STANDARD INDEX 001, UNLESS OTHERWISE NOTED ON PLANS.




NOTE:
ALL SILT FENCING SHALL COMPLY WITH THE LATEST FLORIDA EROSION AND SEDIMENT CONTROL INSPECTOR'S MANUAL, SECTION 4.06

## TYPE III SILT FENCE

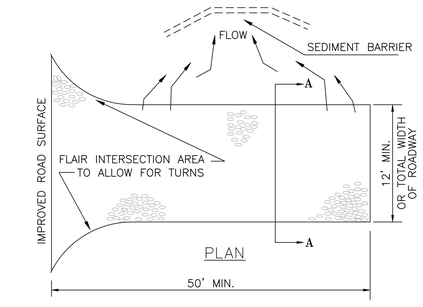
SCALE:NTS




NOTE: ENSURE GUTTER PROTECTION EXTENDS A MIN. OF 1' BEYOND CURB INLET

## INLET PROTECTION

SCALE:NTS




SECTION A-A

## ROCK CONSTRUCTION ENTRANCE

SCALE:NTS

FOR REFERENCE ONLY

| NO. | DESCRIPTION | DATE | DRWN | CHKD | APPVD |
|---|---|---|---|---|---|
| | REVISIONS | | | | |

SCALE: AS SHOWN
DATE: 10/22/2018
DRAWN: MJC
CHECKED: JVH
APPROVED: KSH

# SWPPP NOTES AND DETAILS

# ORLANDO HEALTH - 1800 S. ORANGE AVE CITY OF ORLANDO, FLORIDA

SEAL

KEITH SIGURD HAUGDAHL No. 66570 STATE OF FLORIDA PROFESSIONAL ENGINEER

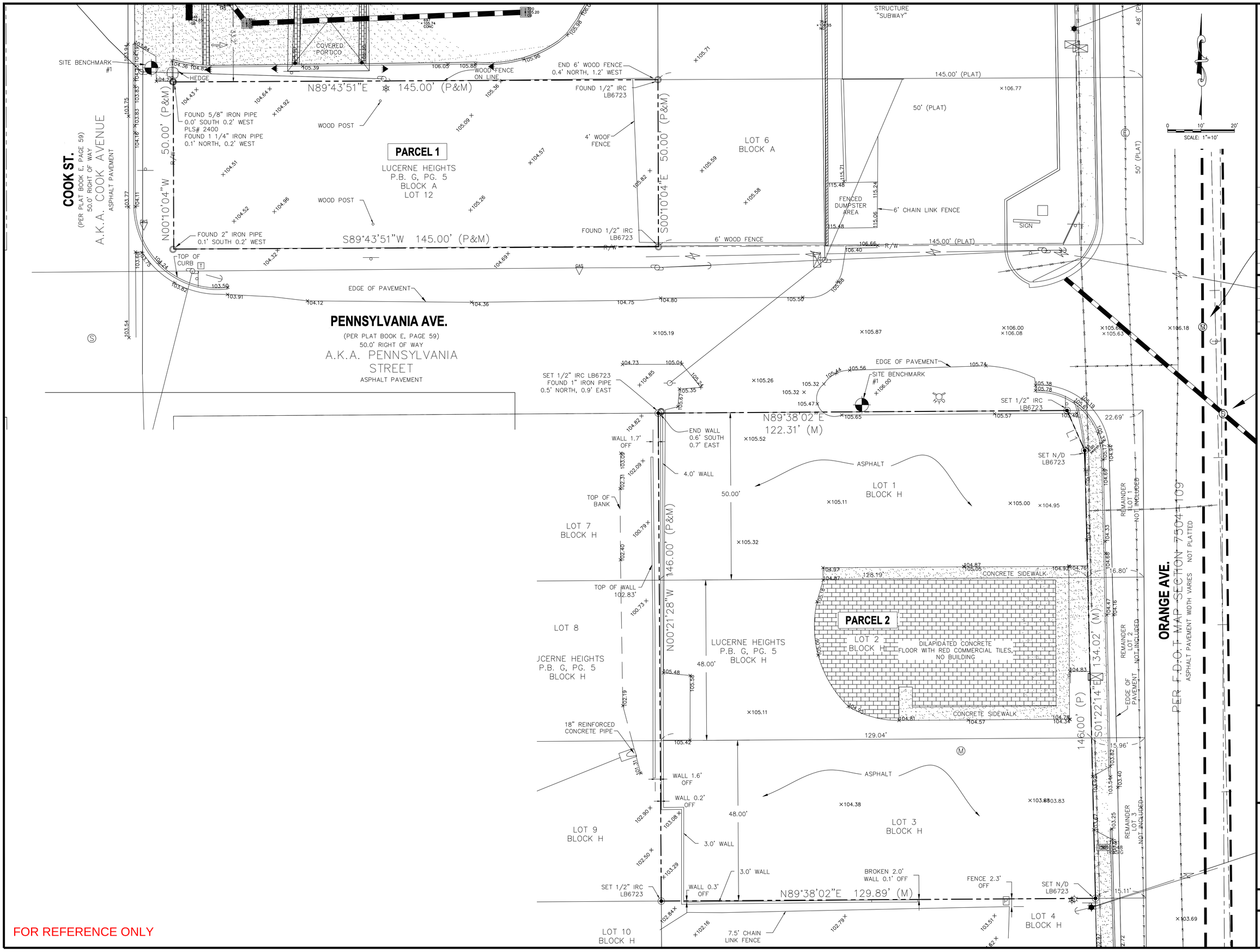
KEITH S. HAUGDAHL, P.E. No. 66570


gai consultants
EB 9951
618 SOUTH ST. SUITE 700
ORLANDO, FLORIDA 32801
PHONE: (407) 423-8398


PROJECT NO./DASH NO.
A180543.00

SHEET
C0.2

Z:\Energy\2018\A180543.00 - Orlando Health-1800 S\CAD\A180543.00 - GN.dwg Mar 15, 2019 - 3:09pm




| NO. | REVISIONS | DATE | DWN | CHKD | APPVD |
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| SCALE: | AS SHOWN |
| DATE: | 10/22/2018 |
| DRAWN: | MJC |
| CHECKED: | JVH |
| APPROVED: | KSH |

# EXISTING CONDITIONS PLAN

## ORLANDO HEALTH - 1800 S. ORANGE AVE
## CITY OF ORLANDO, FLORIDA

SEAL


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PHONE: (407) 423-8398


PROJECT NO./DASH NO.
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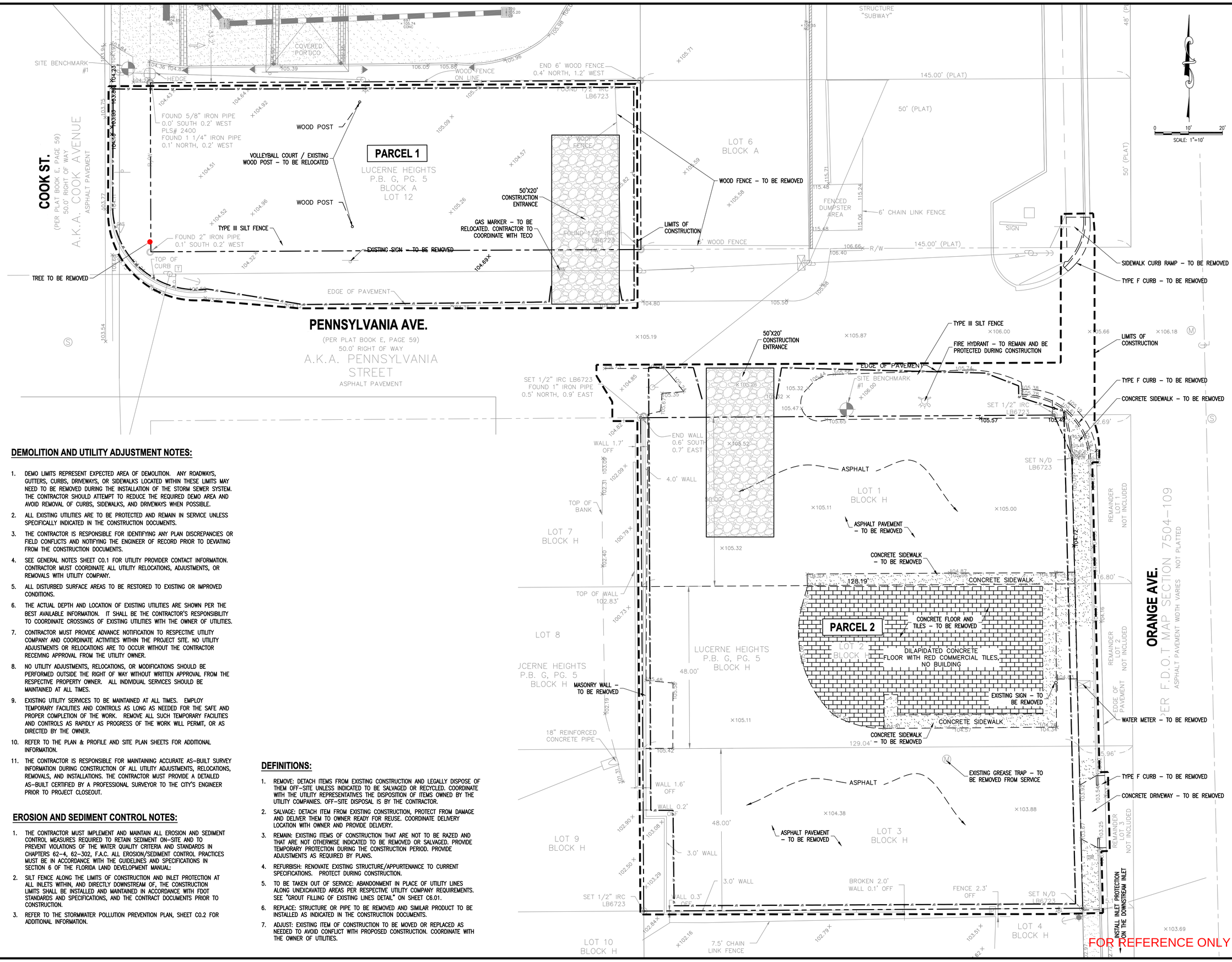
FOR REFERENCE ONLY




## DEMOLITION AND UTILITY ADJUSTMENT NOTES:

1. DEMO LIMITS REPRESENT EXPECTED AREA OF DEMOLITION. ANY ROADWAYS, GUTTERS, CURBS, DRIVEWAYS, OR SIDEWALKS LOCATED WITHIN THESE LIMITS MAY NEED TO BE REMOVED DURING THE INSTALLATION OF THE STORM SEWER SYSTEM. THE CONTRACTOR SHOULD ATTEMPT TO REDUCE THE REQUIRED DEMO AREA AND AVOID REMOVAL OF CURBS, SIDEWALKS, AND DRIVEWAYS WHEN POSSIBLE.
2. ALL EXISTING UTILITIES ARE TO BE PROTECTED AND REMAIN IN SERVICE UNLESS SPECIFICALLY INDICATED IN THE CONSTRUCTION DOCUMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ANY PLAN DISCREPANCIES OR FIELD CONFLICTS AND NOTIFYING THE ENGINEER OF RECORD PRIOR TO DEVIATING FROM THE CONSTRUCTION DOCUMENTS.
4. SEE GENERAL NOTES SHEET C0.1 FOR UTILITY PROVIDER CONTACT INFORMATION. CONTRACTOR MUST COORDINATE ALL UTILITY RELOCATIONS, ADJUSTMENTS, OR REMOVALS WITH UTILITY COMPANY.
5. ALL DISTURBED SURFACE AREAS TO BE RESTORED TO EXISTING OR IMPROVED CONDITIONS.
6. THE ACTUAL DEPTH AND LOCATION OF EXISTING UTILITIES ARE SHOWN PER THE BEST AVAILABLE INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE CROSSINGS OF EXISTING UTILITIES WITH THE OWNER OF UTILITIES.
7. CONTRACTOR MUST PROVIDE ADVANCE NOTIFICATION TO RESPECTIVE UTILITY COMPANY AND COORDINATE ACTIVITIES WITHIN THE PROJECT SITE. NO UTILITY ADJUSTMENTS OR RELOCATIONS ARE TO OCCUR WITHOUT THE CONTRACTOR RECEIVING APPROVAL FROM THE UTILITY OWNER.
8. NO UTILITY ADJUSTMENTS, RELOCATIONS, OR MODIFICATIONS SHOULD BE PERFORMED OUTSIDE THE RIGHT OF WAY WITHOUT WRITTEN APPROVAL FROM THE RESPECTIVE PROPERTY OWNER. ALL INDIVIDUAL SERVICES SHOULD BE MAINTAINED AT ALL TIMES.
9. EXISTING UTILITY SERVICES TO BE MAINTAINED AT ALL TIMES. EMPLOY TEMPORARY FACILITIES AND CONTROLS AS LONG AS NEEDED FOR THE SAFE AND PROPER COMPLETION OF THE WORK. REMOVE ALL SUCH TEMPORARY FACILITIES AND CONTROLS AS RAPIDLY AS PROGRESS OF THE WORK WILL PERMIT, OR AS DIRECTED BY THE OWNER.
10. REFER TO THE PLAN & PROFILE AND SITE PLAN SHEETS FOR ADDITIONAL INFORMATION.
11. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCURATE AS-BUILT SURVEY INFORMATION DURING CONSTRUCTION OF ALL UTILITY ADJUSTMENTS, RELOCATIONS, REMOVALS, AND INSTALLATIONS. THE CONTRACTOR MUST PROVIDE A DETAILED AS-BUILT CERTIFIED BY A PROFESSIONAL SURVEYOR TO THE CITY'S ENGINEER PRIOR TO PROJECT CLOSEOUT.

## EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR MUST IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES REQUIRED TO RETAIN SEDIMENT ON-SITE AND TO PREVENT VIOLATIONS OF THE WATER QUALITY CRITERIA AND STANDARDS IN CHAPTERS 62-4, 62-302, F.A.C. ALL EROSION/SEDIMENT CONTROL PRACTICES MUST BE IN ACCORDANCE WITH THE GUIDELINES AND SPECIFICATIONS IN SECTION 6 OF THE FLORIDA LAND DEVELOPMENT MANUAL:
2. SILT FENCE ALONG THE LIMITS OF CONSTRUCTION AND INLET PROTECTION AT ALL INLETS WITHIN, AND DIRECTLY DOWNSTREAM OF, THE CONSTRUCTION LIMITS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH FDOT STANDARDS AND SPECIFICATIONS, AND THE CONTRACT DOCUMENTS PRIOR TO CONSTRUCTION.
3. REFER TO THE STORMWATER POLLUTION PREVENTION PLAN, SHEET C0.2 FOR ADDITIONAL INFORMATION.

## DEFINITIONS:

1. REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF-SITE UNLESS INDICATED TO BE SALVAGED OR RECYCLED. COORDINATE WITH THE UTILITY REPRESENTATIVES THE DISPOSITION OF ITEMS OWNED BY THE UTILITY COMPANIES. OFF-SITE DISPOSAL IS BY THE CONTRACTOR.
2. SALVAGE: DETACH ITEM FROM EXISTING CONSTRUCTION, PROTECT FROM DAMAGE AND DELIVER THEM TO OWNER READY FOR REUSE. COORDINATE DELIVERY LOCATION WITH OWNER AND PROVIDE DELIVERY.
3. REMAIN: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE RAZED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED OR SALVAGED. PROVIDE TEMPORARY PROTECTION DURING THE CONSTRUCTION PERIOD. PROVIDE ADJUSTMENTS AS REQUIRED BY PLANS.
4. REFURBISH: RENOVATE EXISTING STRUCTURE/APPURTENANCE TO CURRENT SPECIFICATIONS. PROTECT DURING CONSTRUCTION.
5. TO BE TAKEN OUT OF SERVICE: ABANDONMENT IN PLACE OF UTILITY LINES ALONG UNEXCAVATED AREAS PER RESPECTIVE UTILITY COMPANY REQUIREMENTS. SEE "GROUT FILLING OF EXISTING LINES DETAIL" ON SHEET C6.01.
6. REPLACE: STRUCTURE OR PIPE TO BE REMOVED AND SIMILAR PRODUCT TO BE INSTALLED AS INDICATED IN THE CONSTRUCTION DOCUMENTS.
7. ADJUST: EXISTING ITEM OF CONSTRUCTION TO BE MOVED OR REPLACED AS NEEDED TO AVOID CONFLICT WITH PROPOSED CONSTRUCTION. COORDINATE WITH THE OWNER OF UTILITIES.

| NO. | DESCRIPTION | DATE | DWN | CHKD | APPVD |
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| SCALE: | AS SHOWN |
| DATE: | 10/22/2018 |
| DRAWN: | MJC |
| CHECKED: | JVH |
| APPROVED: | KSH |

# DEMOLITION PLAN

## ORLANDO HEALTH - 1800 S. ORANGE AVE
## CITY OF ORLANDO, FLORIDA

SEAL

KEITH S. HAUGDAHL, P.E. No. 66570


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618 SOUTH ST. SUITE 700
ORLANDO, FLORIDA 32801
PHONE: (407) 423-8398


PROJECT NO./DASH NO.
A180543.00

SHEET
**C2.0**

FOR REFERENCE ONLY

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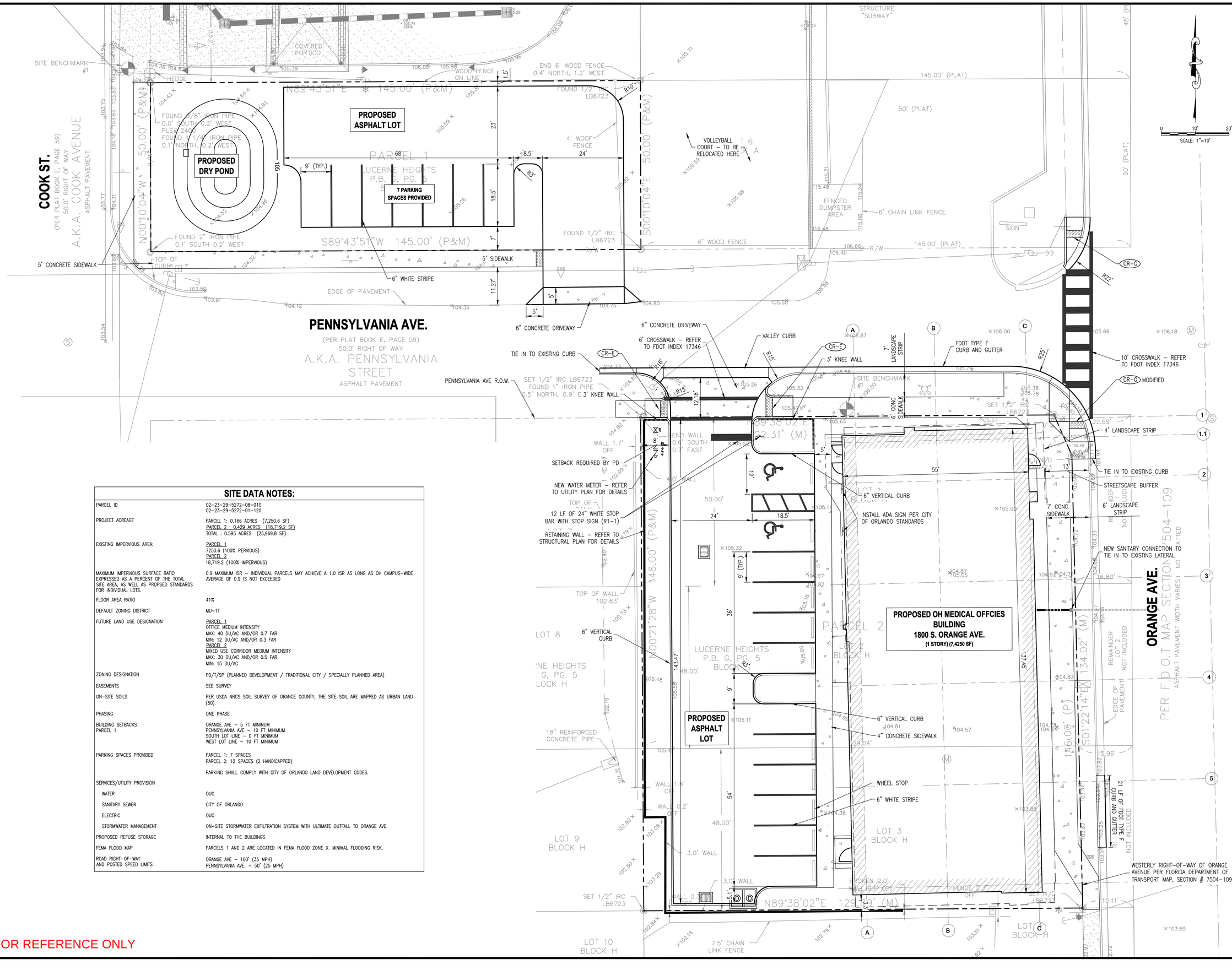


## SITE DATA NOTES:

| | |
|---|---|
| PARCEL ID | 02-23-29-5272-08-010<br>02-23-29-5272-01-120 |
| PROJECT ACREAGE | PARCEL 1: 0.166 ACRES (7,250.6 SF)<br>PARCEL 2 : 0.429 ACRES (18,719.2 SF)<br>TOTAL : 0.595 ACRES (25,969.8 SF) |
| EXISTING IMPERVIOUS AREA: | PARCEL 1<br>7250.6 (100% PERVIOUS)<br>PARCEL 2<br>18,719.2 (100% IMPERVIOUS) |
| MAXIMUM IMPERVIOUS SURFACE RATIO EXPRESSED AS A PERCENT OF THE TOTAL SITE AREA, AS WELL AS PROPSED STANDARDS FOR INDIVIDUAL LOTS. | 0.9 MAXIMUM ISR – INDIVIDUAL PARCELS MAY ACHIEVE A 1.0 ISR AS LONG AS OH CAMPUS-WIDE AVERAGE OF 0.9 IS NOT EXCEEDED |
| FLOOR AREA RATIO | 41% |
| DEFAULT ZONING DISTRICT | MU-1T |
| FUTURE LAND USE DESIGNATION | PARCEL 1<br>OFFICE MEDIUM INTENSITY<br>MAX: 40 DU/AC AND/OR 0.7 FAR<br>MIN: 12 DU/AC AND/OR 0.3 FAR<br>PARCEL 2<br>MIXED USE CORRIDOR MEDIUM INTENSITY<br>MAX: 30 DU/AC AND/OR 0.5 FAR<br>MIN: 15 DU/AC |
| ZONING DESIGNATION | PD/T/SP (PLANNED DEVELOPMENT / TRADITIONAL CITY / SPECIALLY PLANNED AREA) |
| EASEMENTS | SEE SURVEY |
| ON-SITE SOILS | PER USDA NRCS SOIL SURVEY OF ORANGE COUNTY, THE SITE SOIL ARE MAPPED AS URBAN LAND (50). |
| PHASING | ONE PHASE |
| BUILDING SETBACKS<br>PARCEL 1 | ORANGE AVE – 5 FT MINIMUM<br>PENNSYLVANIA AVE – 10 FT MINIMUM<br>SOUTH LOT LINE – 0 FT MINIMUM<br>WEST LOT LINE – 10 FT MINIMUM |
| PARKING SPACES PROVIDED | PARCEL 1: 7 SPACES<br>PARCEL 2: 12 SPACES (2 HANDICAPPED)<br>PARKING SHALL COMPLY WITH CITY OF ORLANDO LAND DEVELOPMENT CODES. |
| SERVICES/UTILITY PROVISION | |
| WATER | OUC |
| SANITARY SEWER | CITY OF ORLANDO |
| ELECTRIC | OUC |
| STORMWATER MANAGEMENT | ON-SITE STORMWATER EXFILTRATION SYSTEM WITH ULTIMATE OUTFALL TO ORANGE AVE. |
| PROPOSED REFUSE STORAGE | INTERNAL TO THE BUILDINGS |
| FEMA FLOOD MAP | PARCELS 1 AND 2 ARE LOCATED IN FEMA FLOOD ZONE X. MINIMAL FLOODING RISK. |
| ROAD RIGHT-OF-WAY AND POSTED SPEED LIMITS | ORANGE AVE – 100' (35 MPH)<br>PENNSYLVANIA AVE. – 50' (25 MPH) |

FOR REFERENCE ONLY

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| NO. | DESCRIPTION | DATE | DRWN | CHKD | APPVD |
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| SCALE: | AS SHOWN |
| DATE: | 10/22/2018 |
| DRAWN: | MJC |
| CHECKED: | JVH |
| APPROVED: | KSH |

# SITE PLAN

## ORLANDO HEALTH - 1800 S. ORANGE AVE
## CITY OF ORLANDO, FLORIDA

SEAL

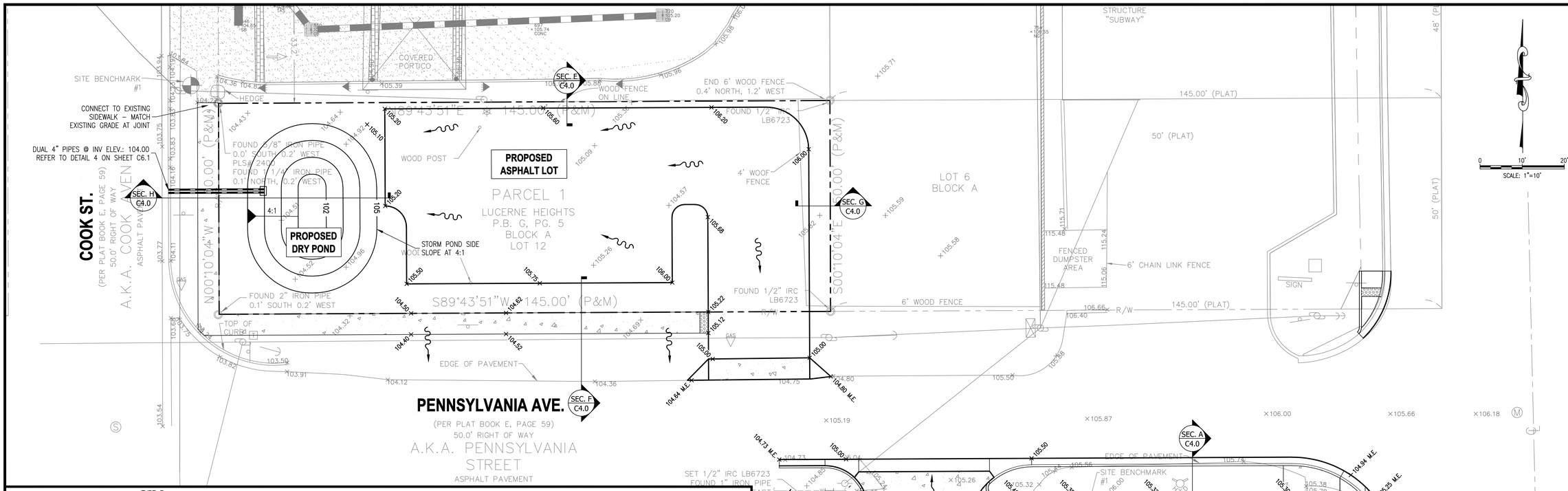
KEITH SHELDON HAUGHDAHL No. 66570 STATE OF FLORIDA PROFESSIONAL ENGINEER

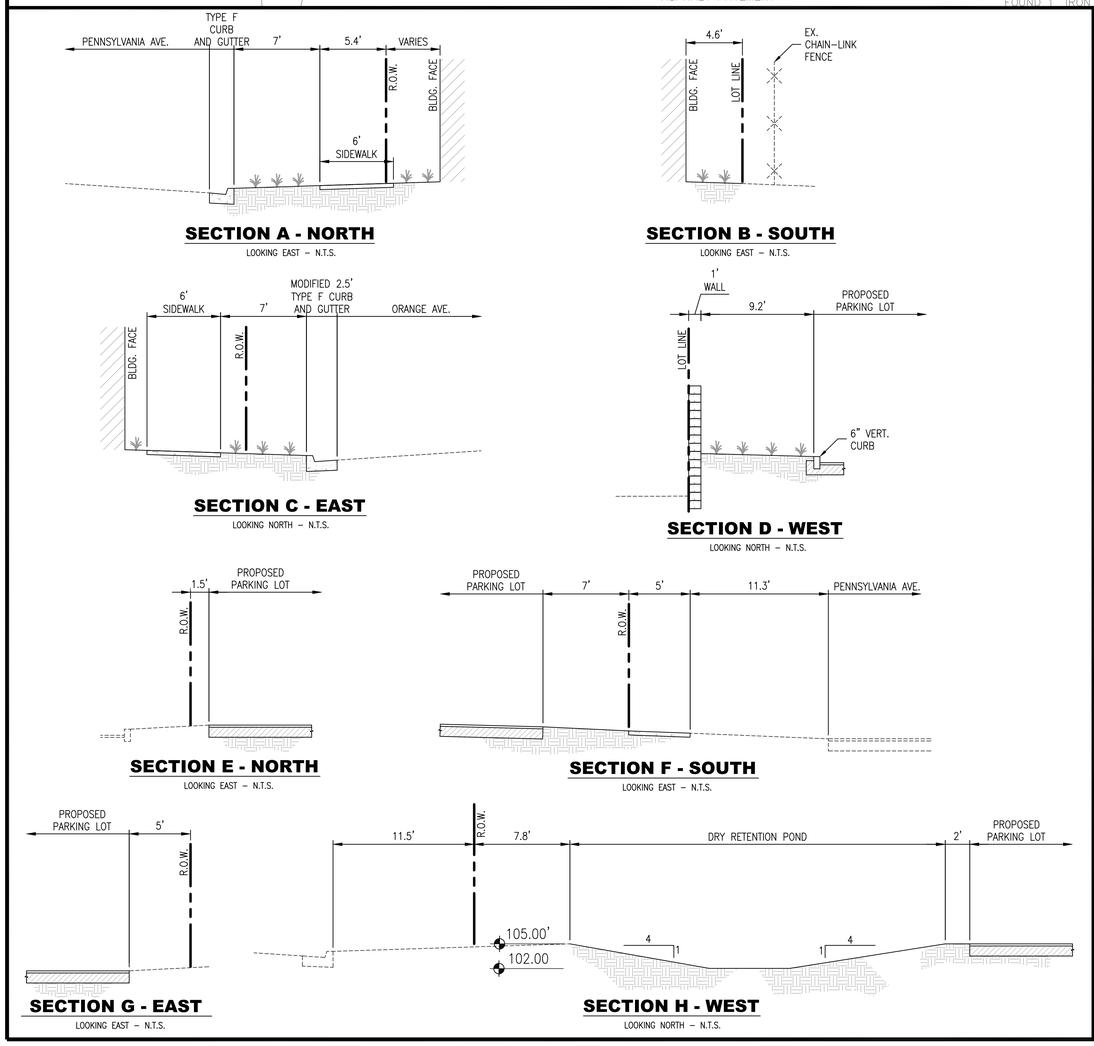
KEITH S. HAUGDAHL, P.E.
No. 66570

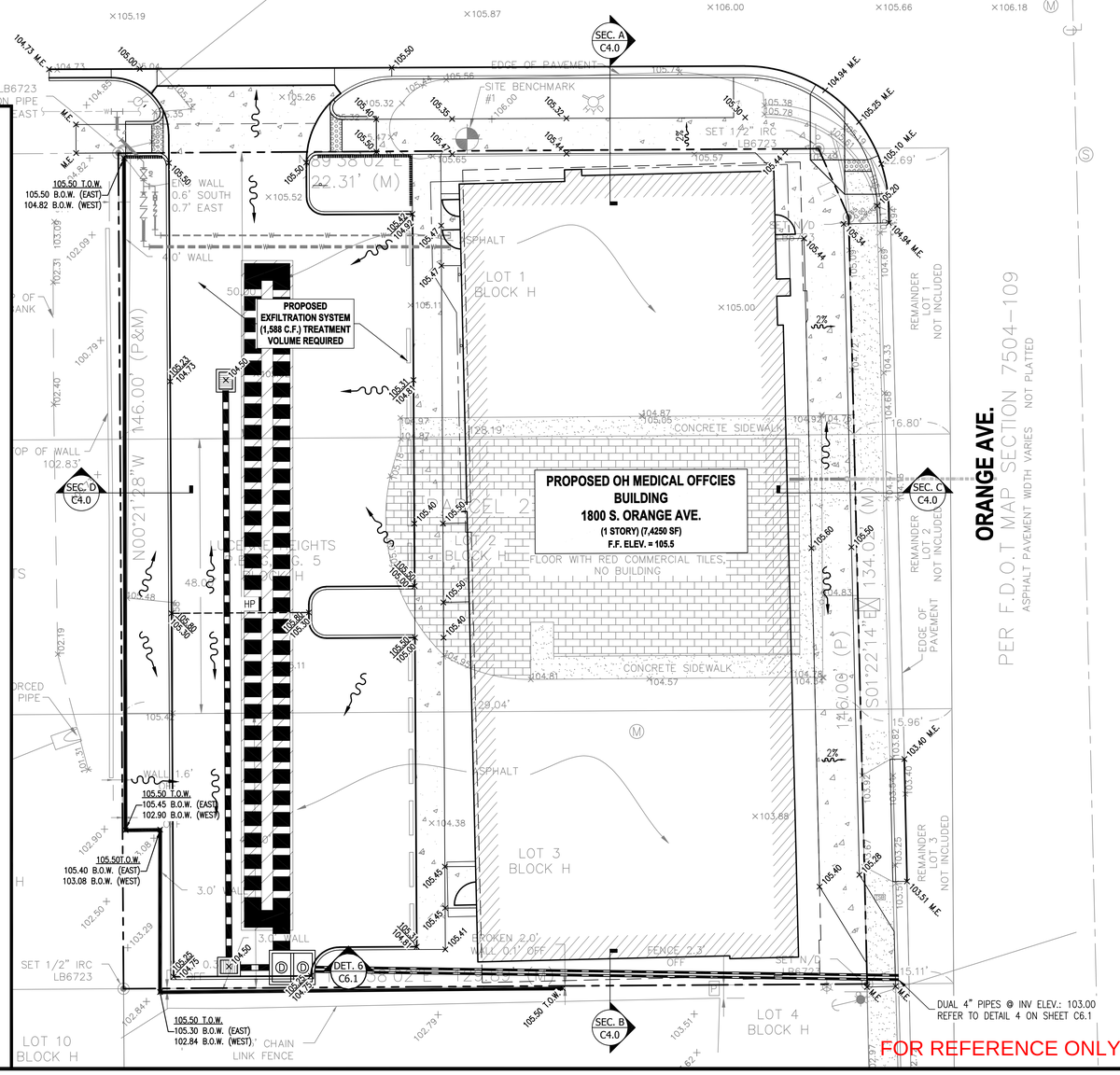
gai consultants
EB 9951
618 SOUTH ST. SUITE 700
ORLANDO, FLORIDA 32801
PHONE: (407) 423-8398

PROJECT NO./DASH NO.
A180543.00

SHEET
**C3.0**

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| SCALE: | AS SHOWN |
| DATE: | 10/22/2018 |
| DRAWN: | MJC |
| CHECKED: | JVH |
| APPROVED: | KSH |

# GRADING PLAN

## ORLANDO HEALTH - 1800 S. ORANGE AVE
## CITY OF ORLANDO, FLORIDA

SEAL

KEITH SIGURD HAUGDAHL PROFESSIONAL ENGINEER No. 66570 STATE OF FLORIDA

KEITH S. HAUGDAHL, P.E. No. 66570


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ORLANDO, FLORIDA 32801
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PROJECT NO./DASH NO.
A180543.00

SHEET
**C4.0**

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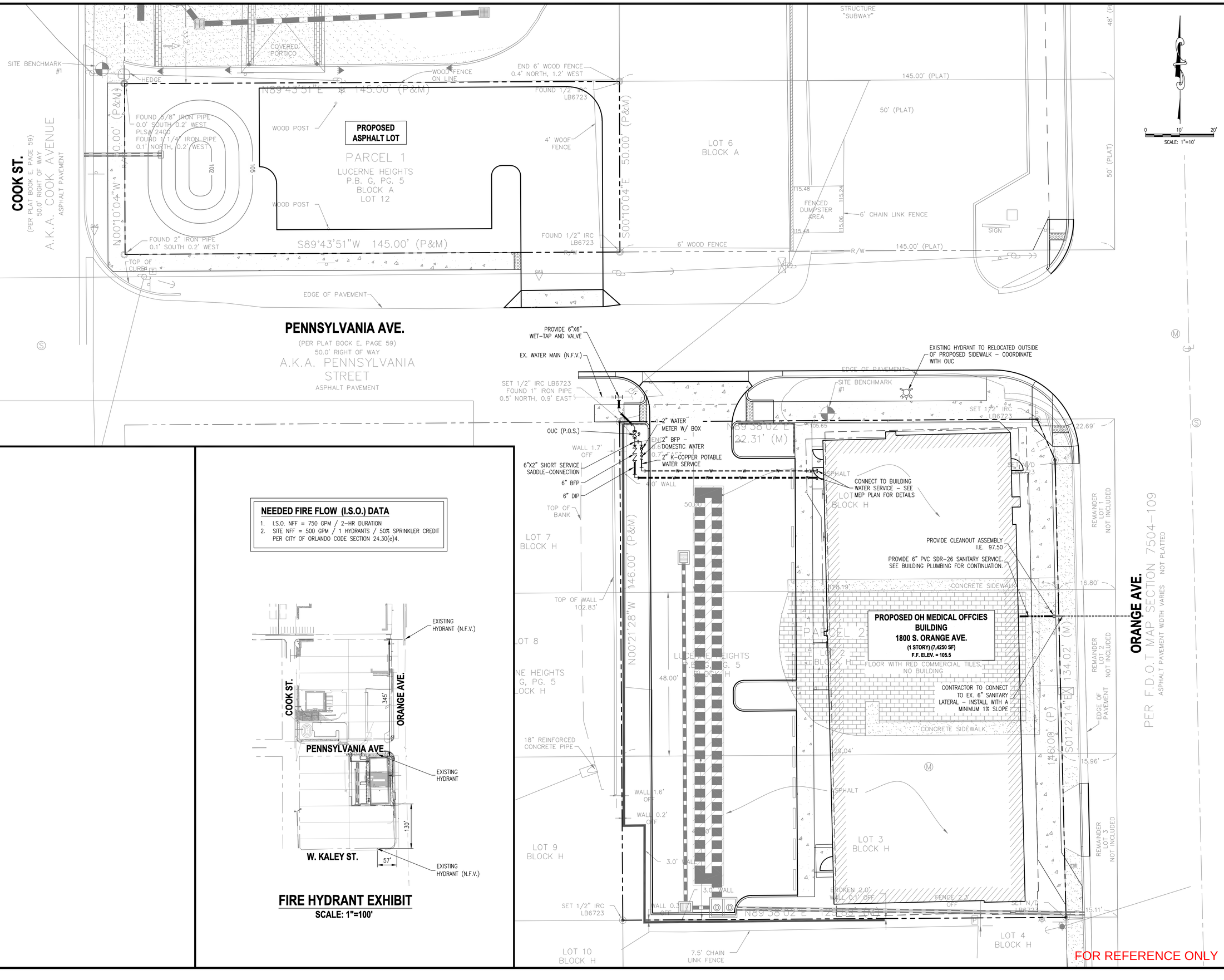


## NEEDED FIRE FLOW (I.S.O.) DATA

1. I.S.O. NFF = 750 GPM / 2–HR DURATION
2. SITE NFF = 500 GPM / 1 HYDRANTS / 50% SPRINKLER CREDIT PER CITY OF ORLANDO CODE SECTION 24.30(e)4.




## FIRE HYDRANT EXHIBIT

SCALE: 1"=100'

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# UTILITY PLAN

## ORLANDO HEALTH - 1800 S. ORANGE AVE
## CITY OF ORLANDO, FLORIDA

SEAL

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PROJECT NO./DASH NO.
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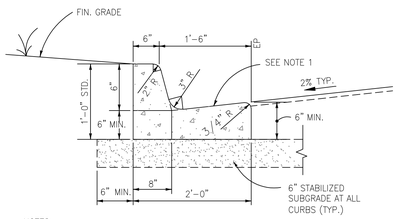
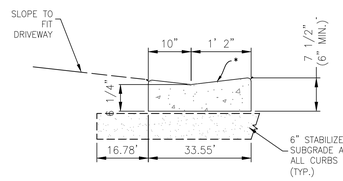


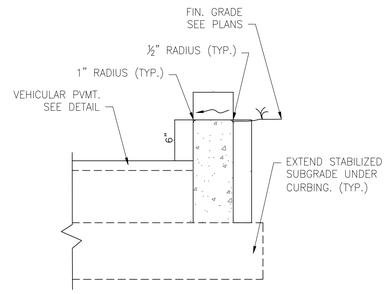

NOTES:
1. WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT.
2. USE F.D.O.T. CLASS I CONCRETE (3,000 PSI).
3. SAW CUT CONTROL JOINTS IN NEW CURB @ 10' C/C WITHIN 24 HOURS OF POUR.
4. CONFORM TO FDOT INDEX 300.

## 1 FDOT TYPE "F" CURB AND GUTTER DETAIL
N.T.S.



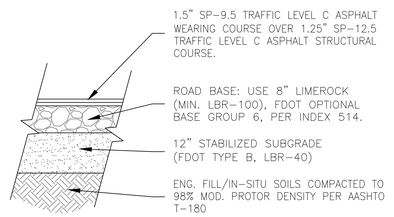

* NOTE: WHEN USED ON HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT THE THICKNESS OF THE LIP SHALL BE 6", UNLESS OTHERWISE SHOWN ON PLANS.

## 2 DROP CURB DETAIL
N.T.S.



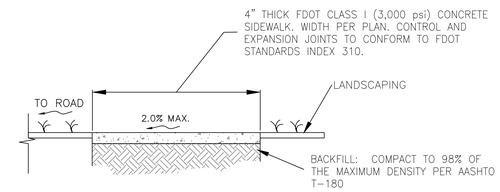

NOTES:
1. USE F.D.O.T. CLASS I CONCRETE (3,000 PSI).
2. SAW CUT CONTROL JOINTS IN NEW CURB @ 10' C/C WITHIN 24 HOURS OF POUR.

## 2 DROP CURB DETAIL
N.T.S.



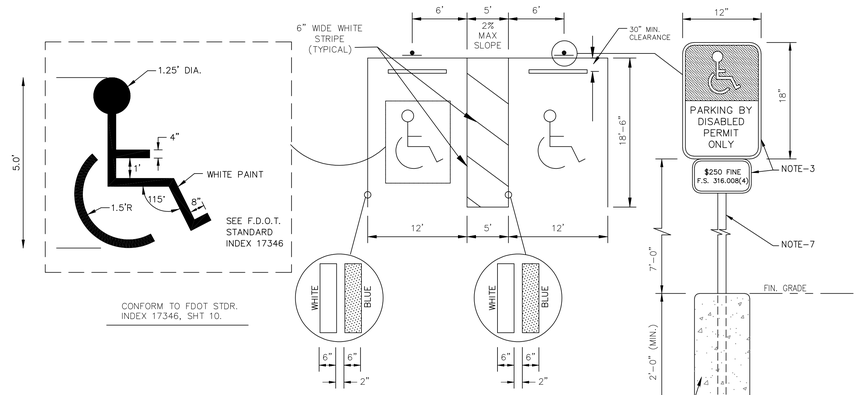

NOTES.
1. ASPHALT CONFORMING TO FDOT INDEX 334 "SUPERPAVE"
2. MILLING AND OVERLAY AREAS = 1.0" WEARING COURSE.
3. CONTRACTOR TO COORDINATE WITH OWNER AND E.O.R. SCHEDULING OF THE WEARING COURSE LAYOUT.

## 3 ASPHALT PAVEMENT DETAIL
N.T.S.




NOTES:
1. REFER TO LANDSCAPE ARCH PLANS FOR FIN.
2. PROVIDE SEALED EXP. JOINTS. AS REQUIRED.
3. CONFORM W/ FDOT INDEX 310 AND SPEC. 932.

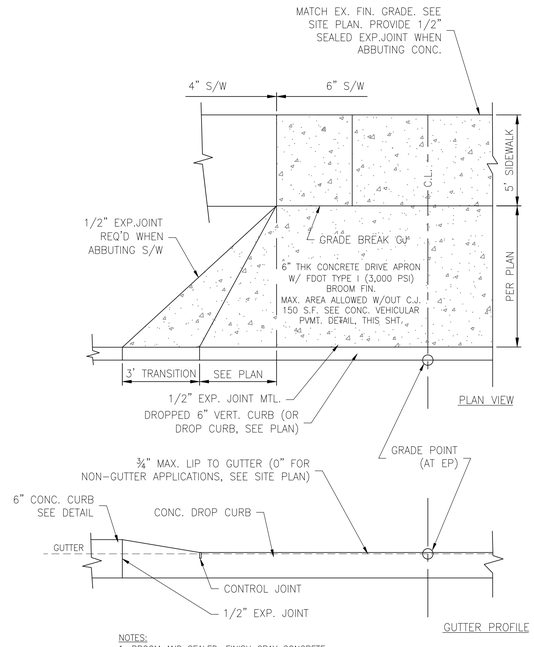
## 4 4" TYPICAL CONCRETE SIDEWALK
N.T.S.




CONFORM TO FDOT STDR. INDEX 17346, SHT 10.

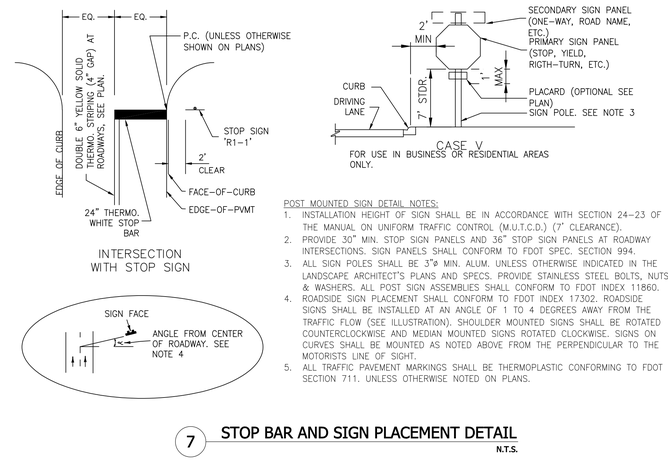
ADA SIGNAGE NOTES:
1. ONE (1) SIGN ASSEMBLY IS REQUIRED FOR EACH PARKING SPACE. PLACED CENTERED W/ PARKING SPACE AND 2'-0" CLEAR FROM BACK-OF-CURB WHEN APPLICABLE.
2. SIGN SHALL HAVE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY IN REFLECTORIZED BLUE BACKGROUND WITH WHITE REFLECTORIZED LEGEND. USE FDOT FTP-20-06, OR FTP-21-06, OR APPROVED EQUAL.
3. SIGNS SHALL HAVE A REFLECTORIZED (ENGINEERING GRADE) CONFORMING TO FDOT SPEC. SECTION 700. PANELS PER THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND FDOT STDR. INDEX NO. 17355. USE FDOT FTP-20-06 PLUS 6"X12" PLACARD BELOW.
4. SIGNS SHALL BE SHEET ALUMINUM BACKING (.080) THICKNESS.
5. HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 2A-23 OF THE MUTCD.
6. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH F.D.O.T. AND THE MUTCD.
7. POLES SHALL BE 3"ø ALUM. UNLESS OTHERWISE INDICATED IN THE LANDSCAPE ARCHITECH'S PLANS AND SPECS. PROVIDE RUSTPROOF HARDWARE. ALL SIGNS SHALL CONFORM TO FDOT INDEX 11864.

## 5 ADA COMPLIANT PARKING STALL SIGNAGE DETAIL
N.T.S.



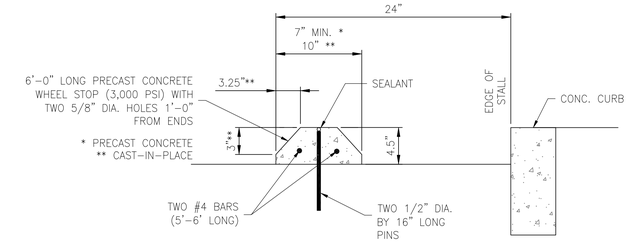

NOTES:
1. BROOM AND SEALED, FINISH GRAY CONCRETE.
2. PROVIDE SEALED EXPANSION AND CONTROL JOINTS. MAXIMUM SURFACE AREA BETWEEN CONTROL JOINTS SHALL NOT EXCEED 100 SQUARE FEET.
3. DETAIL SYMMETRICAL ABOUT THE CENTERLINE UNLESS OTHERWISE SHOWN ON SITE PLANS.

## 6 TYPICAL DRIVEWAY DETAIL
N.T.S.




POST MOUNTED SIGN DETAIL NOTES:
1. INSTALLATION HEIGHT OF SIGN SHALL BE IN ACCORDANCE WITH SECTION 24-23 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL (M.U.T.C.D.) (7' CLEARANCE).
2. PROVIDE 30" MIN. STOP SIGN PANELS AND 36" STOP SIGN PANELS AT ROADWAY INTERSECTIONS. SIGN PANELS SHALL CONFORM TO FDOT SPEC. SECTION 994.
3. ALL SIGN POLES SHALL BE 3"ø MIN. ALUM. UNLESS OTHERWISE INDICATED IN THE LANDSCAPE ARCHITECT'S PLANS AND SPECS. PROVIDE STAINLESS STEEL BOLTS, NUTS & WASHERS. ALL POST SIGN ASSEMBLIES SHALL CONFORM TO FDOT INDEX 11860.
4. ROADSIDE SIGN PLACEMENT SHALL CONFORM TO FDOT INDEX 17302. ROADSIDE SIGNS SHALL BE INSTALLED AT AN ANGLE OF 1 TO 4 DEGREES AWAY FROM THE TRAFFIC FLOW (SEE ILLUSTRATION). SHOULDER MOUNTED SIGNS SHALL BE ROTATED COUNTERCLOCKWISE AND MEDIAN MOUNTED SIGNS ROTATED CLOCKWISE. SIGNS ON CURVES SHALL BE MOUNTED AS NOTED ABOVE FROM THE PERPENDICULAR TO THE MOTORISTS LINE OF SIGHT.
5. ALL TRAFFIC PAVEMENT MARKINGS SHALL BE THERMOPLASTIC CONFORMING TO FDOT SECTION 711. UNLESS OTHERWISE NOTED ON PLANS.

## 7 STOP BAR AND SIGN PLACEMENT DETAIL
N.T.S.




## 8 WHEEL STOP DETAIL
N.T.S.

| NO. | REVISIONS | DATE | DWN | CHKD | APPVD |
|---|---|---|---|---|---|
| | DESCRIPTION | | | | |

SCALE: AS SHOWN
DATE: 10/22/2018
DRAWN: MJC
CHECKED: JVH
APPROVED: KSH

# DETAILS

# ORLANDO HEALTH - 1800 S. ORANGE AVE
# CITY OF ORLANDO, FLORIDA

SEAL

KEITH SIGURD HAUGDAHL PROFESSIONAL ENGINEER No. 66570 STATE OF FLORIDA

KEITH S. HAUGDAHL, P.E.
No. 66570

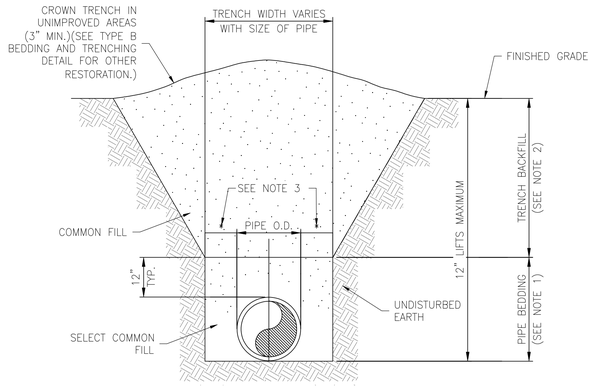
gai consultants
EB 9951
618 SOUTH ST. SUITE 700
ORLANDO, FLORIDA 32801
PHONE: (407) 423-8398

PROJECT NO./DASH NO.
A180543.00

SHEET
**C6.0**

FOR REFERENCE ONLY

Z:\Energy\2018\A180543.00 - Orlando Health-1800 S\CAD\A180543.00 - DT.dwg Mar 15, 2019 - 3:11pm



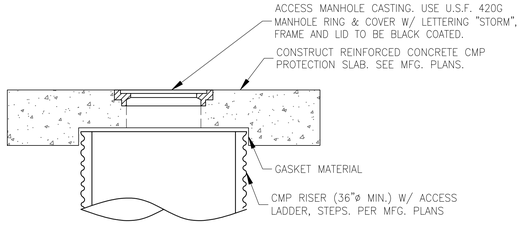

TRENCH NOTES:

1. PIPE BEDDING: SELECT COMMON FILL COMPACTED TO 95% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
2. TRENCH BACKFILL: COMMON FILL COMPACTED TO 98% OF THE MAXIMUM DENSITY AS PER AASHTO T-180.
3. (•): 15" MAX. FOR PIPE DIAMETER LESS THAN 24" AND 24" MAX FOR PIPE DIAMETER 24" AND LARGER.
4. WATER SHALL NOT BE PERMITTED IN THE TRENCH DURING CONSTRUCTION.
5. ALL PIPE TO BE INSTALLED WITH BELL FACING UPSTREAM TO THE DIRECTION OF THE FLOW.
6. INSTALL MARKING TAPE PER TECHNICAL STANDARDS.
7. CONFORM WITH OSHA TRENCH SAFETY STDRS., 29 C.F.R.
8. PAVEMENT AREAS SHALL BE RESTORED AND SHALL MATCH EXISTING GRADE. THE ENTIRE ROADWAY SECTION SHALL BE RESURFACED IF THE LONGITUDINAL EXCEEDS 50% OF THE WIDTH OF THE ROADWAY. CONFORM WITH LOCAL JURISDICTIONAL AUTHORITY STANDARDS. IF THE CROSSING DISPLACES THE SURFACE OF THE ROADWAY BY ANY MEASURABLE AMOUNT, THAT SECTION OF ROADWAY PLUS 25-FEET ON EITHER SIDE OF THE CROSSING WILL BE REMOVED AND RECONSTRUCTED TO CITY SPECIFICATIONS BY THE CONTRACTOR.

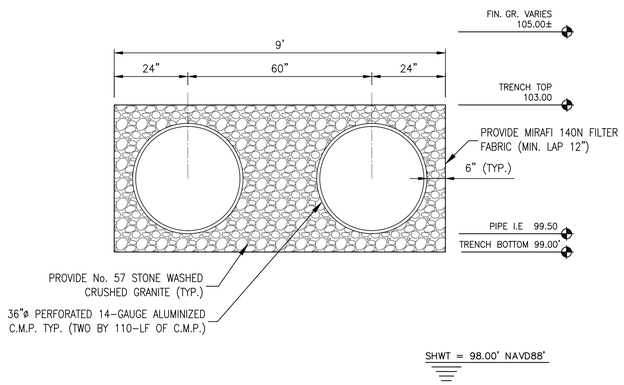
## 1 PIPE BEDDING AND TRENCH DETAIL
N.T.S.

PRE-MFG. EXFILTERATION BASIN GENERAL NOTES:

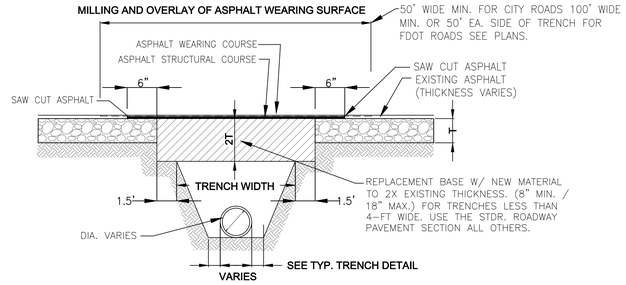
1. EXFILTRATION BASIN BASIS OF DESIGN = CONTECH CMP DETENTION SYSTEMS.
2. REFER TO TYPICAL TRENCH DETAIL FOR EXCAVATION REQUIREMENTS. CONFORM TO GEOTECHNICAL ENGINEER'S RECOMMENDATIONS FOR TRENCH BASE/BEDDING PREPARATIONS.
3. PROVIDE AASHTO NO.57 GRADED DRAINAGE AGGREGATE. USE "CRUSHED GRANITE" AND PREWASH BEFORE INSTALLATION.
4. PROVIDE ALUMINIZED TYPE 2 STEEL CMP CONFORMING TO AASHTO M274. PROVIDE CMP PERFORATIONS (⅜"ø) CONFORMING TO AASTHO M-36. PROVIDE 14-GAUGE STEEL FOR CMP.
5. SYSTEM SHALL CONFORM WITH AASHTO H-20 LOAD RATING.

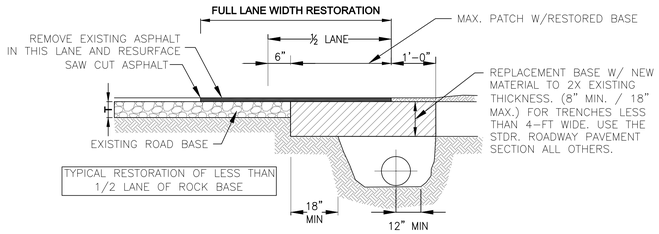


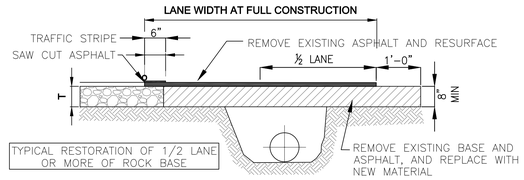

MANHOLE CAP DETAIL
NTS




## 5 EXFILTRATION SYSTEM DETAILS
N.T.S.



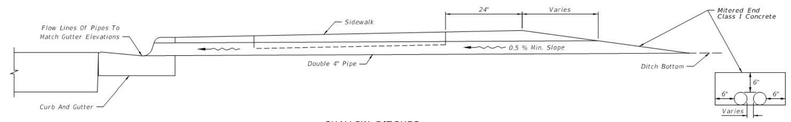




NOTES:

1. BASE MATERIAL SHALL HAVE A MINIMUM LBR OF 100 AND A MINIMUM CARBONATE CONTENT OF 70%.
2. BASE SHALL BE PLACED IN 6" MAXIMUM THICKNESS LAYERS WITH EACH LAYER COMPACTED AS REQUIRED AND TESTED PRIOR TO THE PLACEMENT OF THE SUCCEEDING LAYERS. COMPACTION SHALL BE BY ROLLED OR TAMPED MECHANICAL METHODS TO 98% OF MAXIMUM DENSITY, PER AASHTO T-180,
3. SUBGRADE MATERIAL SHALL BE GRANULAR AND ANGULAR AND SHALL HAVE A MINIMUM LBR OF 40.
4. BACK FILL SHALL BE PLACED AND COMPACTED IN 6" LAYERS, WITH TESTING TO BEGIN 12" ABOVE THE INSTALLED FACILITY.
5. ALL EDGES OF EXISTING ASPHALT PAVEMENT THAT ABUT RESURFACING SHALL BE SAW CUT IN STRAIGHT LINES PARALLEL TO OR PERPENDICULAR TO THE ROADWAY, PRIOR TO RESURFACING.
6. RESURFACING MATERIAL SHALL BE CONSISTENT WITH SURROUNDING SURFACE, AND SHALL BE APPLIED IN 2 LIFTS, A MINIMUM OF ¾ INCH AND A MAXIMUM OF 2" IN THICKNESS.
7. TRAFFIC STRIPES SHALL NOT BE PLACED DIRECTLY ON TOP OF THE JOINT.
8. THESE DETAILS APPLIES TO ALL INSTALLATIONS THAT REQUIRE AN OPEN CUT IN PAVEMENT.
9. TEMPORARILY FILLED TRENCHES SHALL BE COVERED WITH A 2" THICK ASPHALT CONCRETE PATCH TO KEEP THE FILL MATERIAL FROM RAVELING, UNTIL REPLACED WITH A PERMANENT RESTORATION. ROADWAY PLATES NOT ALLOWED WITHOUT SPECIAL PERMIT BY CITY OR AGENCY HAVING JURISDICTION ON RESPECTIVE RIGHT-OF-WAY.
10. ASPHALT RESTORATION TO EXTEND 25' PAST ANY PATCHES.

## 2 ROADWAY RESTORATION DETAILS
N.T.S.

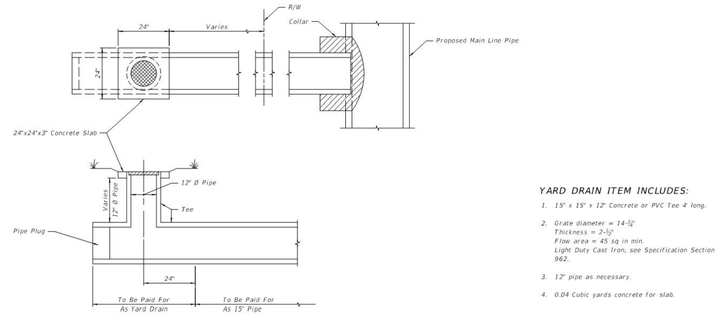



*SHALLOW DITCHES*

*Notes:*
*1. To be constructed at locations as directed by the Engineer.*
*2. Either cast iron pipe or PVC rigid conduit, U.L. listed for direct sunlight exposure, Schedule 40, may be used.*
*3. Pipe and Mitered End to be paid for under the contract unit price for either Cast Iron Soil Pipe (Standard) (4"), LF. or PVC Pipe For Back Of Sidewalk Drainage (4"), LF.*

*Note:*
*Miter to slope.*

## 3 BACK OF SIDEWALK DRAINAGE DETAIL
N.T.S.



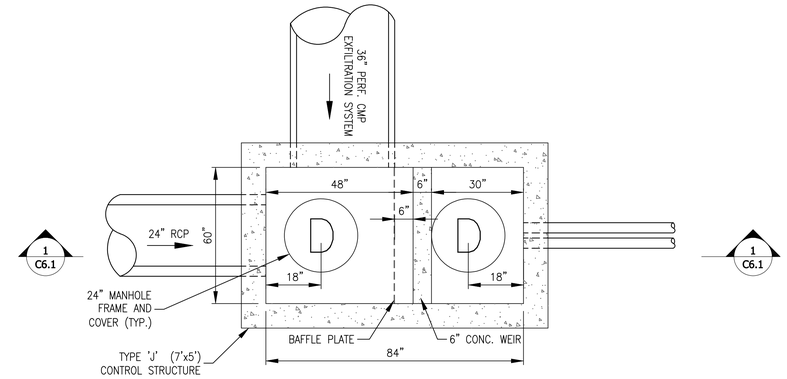

*YARD DRAIN ITEM INCLUDES:*

1. *15" x 15" x 12" Concrete or PVC Tee 4' long.*
2. *Grate diameter = 14-½"*
   *Thickness = 2-½"*
   *Flow area = 45 sq in min.*
   *Light Duty Cast Iron, see Specification Section 962.*
3. *12" pipe as necessary.*
4. *0.04 Cubic yards concrete for slab.*

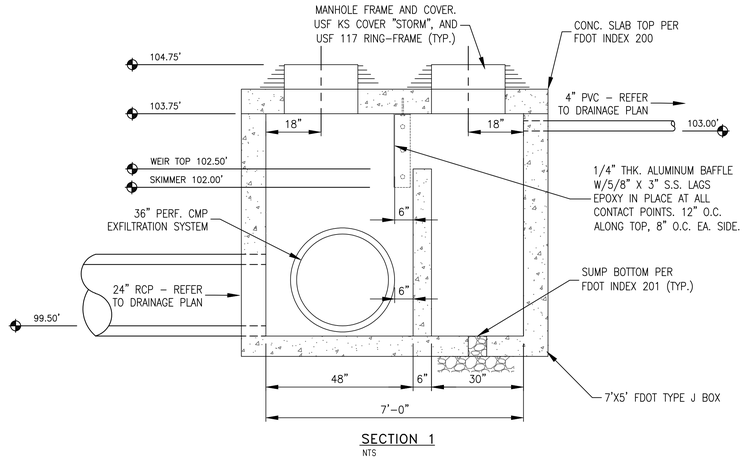
*YARD DRAINS*

*Notes:*
*1. Yard drains to be located outside the R/W. Drainage area should not exceed 750 SF (grate flow 0.1 Cfs).*
*2. Yard drains may be constructed at the option of the property owner as shown on the plans.*
*3. Cost of plugs and collars to be included in the cost for 15" pipe. For collar and plug details see Index No. 280.*
*4. Yard drains to be paid for under the contract unit price for Yard Drains, EA.*

## 4 YARD DRAIN DETAIL
N.T.S.




PLAN
NTS




SECTION 1
NTS

## 6 CONTROL STRUCTURE DETAILS
N.T.S.

FOR REFERENCE ONLY

| NO. | REVISIONS | DATE | DRWN | CHKD | APPVD |
|---|---|---|---|---|---|
| | DESCRIPTION | | | | |

| | |
|---|---|
| SCALE: | AS SHOWN |
| DATE: | 10/22/2018 |
| DRAWN: | MJC |
| CHECKED: | JVH |
| APPROVED: | KSH |

# DETAILS

**ORLANDO HEALTH - 1800 S. ORANGE AVE**
**CITY OF ORLANDO, FLORIDA**

SEAL
KEITH SIGURD HAUGDAHL, STATE OF FLORIDA, No. 66570, PROFESSIONAL ENGINEER
KEITH S. HAUGDAHL, P.E. No. 66570

gai consultants
EB 9951
618 SOUTH ST. SUITE 700
ORLANDO, FLORIDA 32801
PHONE: (407) 423-8398

PROJECT NO./DASH NO.
A180543.00

SHEET
**C6.1**

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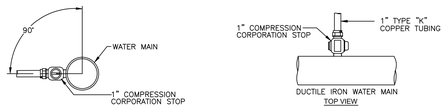
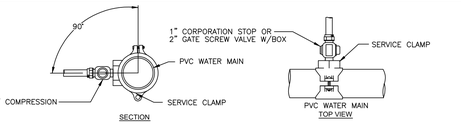
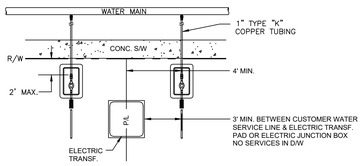
## SERVICE LINE DETAILS



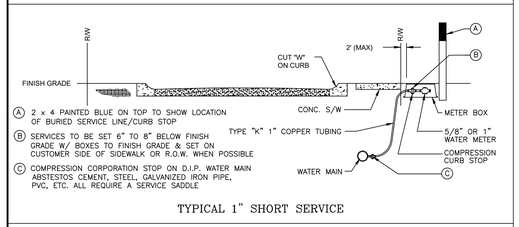

DIRECT TAP




SERVICE CLAMP




TYPICAL 1" SERVICE LOCATION (SHORT OR LONG)

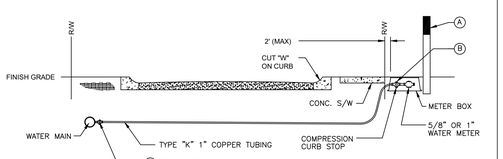



A 2 x 4 PAINTED BLUE ON TOP TO SHOW LOCATION OF BURIED SERVICE LINE/CURB STOP

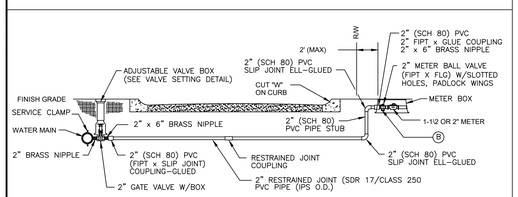
B SERVICES TO BE SET 6" TO 8" BELOW FINISH GRADE W/ BOXES TO FINISH GRADE & SET ON CUSTOMER SIDE OF SIDEWALK OR R.O.W. WHEN POSSIBLE

C COMPRESSION CORPORATION STOP ON D.I.P. WATER MAIN ABSTESTOS CEMENT, STEEL, GALVANIZED IRON PIPE, PVC, ETC. ALL REQUIRE A SERVICE SADDLE

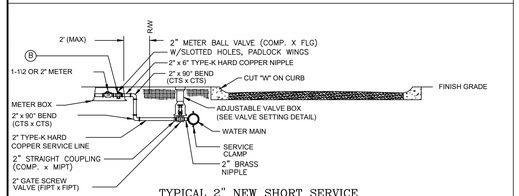
TYPICAL 1" SHORT SERVICE




TYPICAL 1" LONG SERVICE




TYPICAL 2" NEW LONG SERVICE




TYPICAL 2" NEW SHORT SERVICE

## SERVICE LINE NOTES

NOTE:

1. O.U.C. SHALL FURNISH/INSTALL ALL WATER METERS.
2. O.U.C. SHALL FURNISH METER BOXES, DEVELOPER'S CONTRACTOR TO INSTALL.
3. METER SHOULD BE ON THE CUSTOMER SIDE OF THE RIGHT-OF-WAY NO FURTHER THAN 2' BEYOND RIGHT-OF-WAY LINE AND ALWAYS ALONG THE BACK SIDE OF CONC. SIDEWALK.

LEGEND

DT DIRECT TAP MAY BE ALLOWED
SC SERVICE CLAMP IS REQUIRED
NA NOT ALLOWED
* ABSTESTOS CEMENT, STEEL, GALVANIZED IRON PIPE, PVC, ETC. ALL REQUIRE A SERVICE SADDLE.

| PIPE | SIZE | CORPORATION TAP SIZE | |
|---|---|---|---|
| | | 1" | 2" |
| D.I. | 12" | DT | SC |
| | 10" | DT | SC |
| | 8" | DT | SC |
| | 6" | DT | SC |
| | 4" | DT | SC |
| PVC | 4" C-900 | SC | SC |
| | 2"-SDR21 | SC | NA |

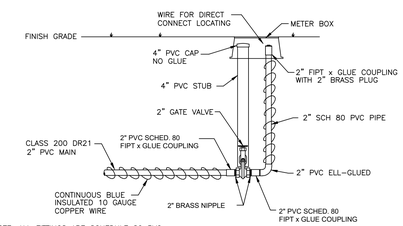
TAPPING FOR 1" CORP. STOP. & 2" GATE VALVE

SPECIAL NOTICE:
PROCEDURES FOR AN O.U.C. SINGLE FAMILY HOME HAVING RECLAIM WATER SERVICE.

WHERE RECLAIM WATER IS PROVIDED TO A PROPERTY, O.U.C.'S POTABLE WATER SYSTEM MUST BE PROTECTED BY AN APPROVED DOUBLE CHECK VALVE ASSEMBLY BACKFLOW PREVENTER WITH TOP ACCESS (FOR TESTING AND MAINTENANCE), INSTALLED, OWNED AND MAINTAINED BY OUC.
NO CONNECTIONS ARE ALLOWED BETWEEN THE METER AND THE BACKFLOW PREVENTER.

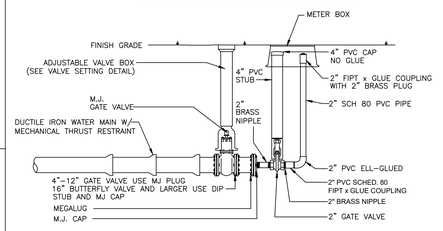
PRIOR TO ANY RECLAIM WATER SERVICE INSTALLATION, INSPECTION AND TESTING WILL BE CONDUCTED BY A REPRESENTATIVE OF THE RECLAIM WATER PROVIDER TO MAKE CERTAIN THAT THE APPROPRIATE BACKFLOW DEVICE HAS BEEN INSTALLED ON THE DOMESTIC WATER SERVICE.

## BLOW OFF DETAILS



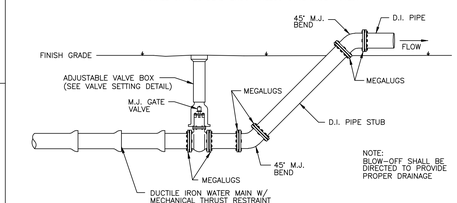

NOTE: ALL FITTINGS ARE SCHEDULE 80 PVC.
GLUE LAST 3 JOINTS OR ALL IF SHORTER.

2" PVC DEAD END WITH PERMANENT BLOW OFF
INSTALL ON ALL DEAD ENDS UNLESS OTHERWISE NOTED.




NOTE:
THIS IS A DEAD END BLOW-OFF,
NOT A "DISINFECTION/CHLORINATION" BLOW-OFF.

PERMANENT BLOW OFF (4" AND LARGER)
INSTALL ON ALL DEAD ENDS UNLESS OTHERWISE NOTED.



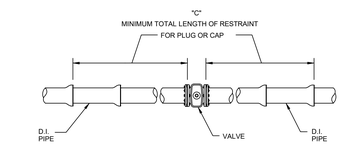

NOTE:
BLOW-OFF SHALL BE DIRECTED TO PROVIDE PROPER DRAINAGE

NOTE:
1. TEMPORARY BLOW-OFFS WILL BE INSTALLED SIZE FOR SIZE OF THE NEWLY INSTALLED MAIN UP TO 12".
2. M.J. PLUG/CAP SHALL BE INSTALLED WHERE APPLICABLE.

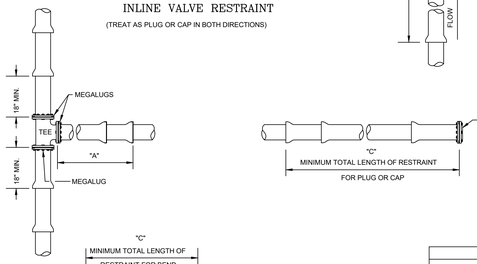
TEMPORARY BLOW OFF (4" THROUGH 12") FOR CONSTRUCTION PURPOSE

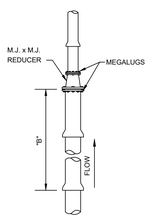
## RESTRAINED JOINT STANDARDS

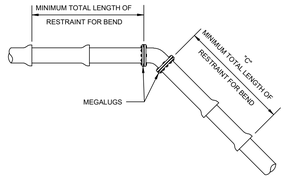
CONTACT O.U.C. FOR SPECIAL RESTRAINT DETAILS FOR WORK ON EXISTING PIPING.




INLINE VALVE RESTRAINT
(TREAT AS PLUG OR CAP IN BOTH DIRECTIONS)



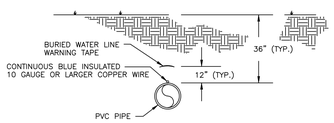



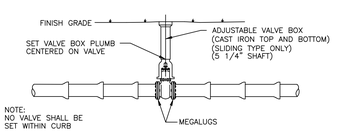

NOTES:

1. ALL FITTINGS SHALL HAVE APPROPRIATE MECHANICAL THRUST RESTRAINT (WEDGE-ACTION OR FULL CIRCUMFERENCE ARTICULTING WEDGE, EQUAL TO 1100 SERIES MEGALUG OR STAR-GRIP)
2. ALL COMPONENTS OF RESTRAINING MECHANISMS FOR PUSH-ON OR MECHANICAL JOINTS SHALL BE OF CORROSION RESISTANT MATERIAL OR SUITABLY PROTECTED AGAINST CORROSION.
3. THE PIPE LENGTHS IMMEDIATELY ON EITHER SIDE OF A FITTING SHALL BE ADEQUATELY TIED TOGETHER USING PROPRIETARY LOCKING GASKETS SUCH AS FIELD LOC OR FAST GRIP GASKETS.
4. INSTALL FULL LENGTH JOINTS WITH TOTAL LENGTH EQUAL TO OR GREATER THAN SHOWN IN THE TABLE.
5. WHERE TWO OR MORE FITTINGS ARE TOGETHER, USE FITTING WHICH YIELDS GREATEST LENGTH RESTRAINED PIPE. ALL ROAD CROSSINGS SHALL BE RESTRAINED AT EACH JOINT.
6. THROUGH RUN OF TEES OUTSIDE LIMITS OF RESTRAINED JOINTS FROM OTHER FITTINGS NEED NOT BE RESTRAINED UNLESS OTHERWISE INDICATED.
7. LENGTHS SHOWN IN THE TABLE HAVE BEEN CALCULATED IN ACCORDANCE WITH THE PROCEDURE OUTLINED IN "THRUST RESTRAINT DESIGN FOR DUCTILE IRON PIPE" SIXTH EDITION 2006 AS PUBLISHED BY DIPRA, WITH THE FOLLOWING ASSUMPTIONS:
   THE MAXIMUM TEST PRESSURE IS 150 P.S.I.
   THE LAYING CONDITION IS TYPE 4 (BACKFILL COMPACTED TO TOP OF PIPE)
   DIPRA SILT #1
   ALL BENDS ARE INSTALLED HORIZONTALLY
   THE PIPE IS DUCTILE IRON PIPE
   DEPTH OF COVER IS ASSUMED TO BE 3 FEET FOR 12" AND SMALLER WATER MAINS
   DEPTH OF COVER IS ASSUMED TO BE 4 FEET FOR 16" AND LARGER WATER MAINS
   NONE OF THE PIPE IS POLYWRAPPED
8. FOR PVC PIPE (4") MULTIPLY THE DUCTILE IRON FOOTAGE BY 1.1.
9. ALL EXISTING PIPE SHALL BE RESTRAINED AS NEEDED AT EACH NEW CONNECTION.

PVC PIPE DETAIL
(REFER TO GENERAL MATERIAL SPECIFICATIONS FOR LIMITATIONS ON USE)




VALVE SETTING
RESTRAINT REQUIRED FOR INLINE VALVES (SEE RESTRAINED JOINT STANDARDS)




NOTE:
NO VALVE SHALL BE SET WITHIN CURB

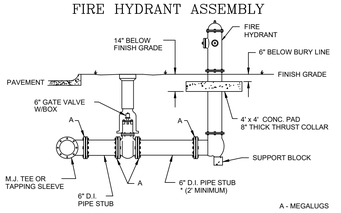
| 2" PVC — PIPE RESTRAINT (LF) | | |
|---|---|---|
| FITTING SIZE — | TEE "A" | REDUCER "B" |
| 2 x 2 | 11 | |
| 4 x 2 | 8 | USE LARGE PIPE DEAD-END/PLUG/CAP FOOTAGE |
| 6 x 2 | 5 | |
| 8 x 2 | 3 | |
| 10 x 2 | 0 | |
| D.I. PIPE RESTRAINT — (LF) | | |
| FITTING SIZE — | TEE "A" | REDUCER "B" |
| 4 x 4 | 39 | 0 |
| 6 x 4 | 36 | 32 |
| 6 x 6 | 56 | 0 |
| 8 x 4 | 34 | 58 |
| 8 x 6 | 55 | 34 |
| 8 x 8 | 75 | 0 |
| 10 x 4 | 32 | 78 |
| 10 x 6 | 53 | 59 |
| 10 x 8 | 74 | 32 |
| 10 x 10 | 91 | 0 |
| 12 x 4 | 29 | 98 |
| 12 x 6 | 51 | 82 |
| 12 x 8 | 73 | 60 |
| 12 x 10 | 90 | 33 |
| 12 x 12 | 108 | 0 |
| 16 x 4 | 14 | 104 |
| 16 x 6 | 34 | 95 |
| 16 x 8 | 51 | 82 |
| 16 x 10 | 66 | 67 |
| 16 x 12 | 81 | 48 |
| 16 x 16 | 107 | 0 |
| 20 x 4 | 8 | 129 |
| 20 x 6 | 30 | 122 |
| 20 x 8 | 49 | 112 |
| 20 x 10 | 64 | 100 |
| 20 x 12 | 79 | 85 |
| 20 x 16 | 106 | 48 |
| 20 x 20 | 131 | 0 |
| 24 x 6 | 26 | 148 |
| 24 x 8 | 45 | 140 |
| 24 x 10 | 61 | 130 |
| 24 x 12 | 76 | 117 |
| 24 x 16 | 104 | 87 |
| 24 x 20 | 130 | 48 |
| 24 x 24 | 154 | 0 |

MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED.

| DUCTILE IRON PIPE | | | | | | | | | | PVC PIPE |
|---|---|---|---|---|---|---|---|---|---|---|
| RESTRAINT "C" (LF) | | | | | | | | | | |
| FITTING | 4" | 6" | 8" | 10" | 12" | 16" | 20" | 24" | 30" | 36" | 2" |
| 11-1/4" | 2 | 3 | 4 | 4 | 5 | 5 | 6 | 7 | 9 | 10' | 1 |
| 22-1/2" | 4 | 6 | 8 | 9 | 11 | 11 | 13 | 15 | 18 | 20' | 1 |
| 45° OFFSET | 9 | 12 | 16 | 19 | 22 | 22 | 26 | 31 | 36 | 42' | 3 |
| 90° | 21 | 29 | 38 | 46 | 53 | 53 | 64 | 74 | 88 | 101' | 6 |
| VALVE/PLUG/CAP | 44 | 61 | 80 | 96 | 113 | 112 | 136 | 159 | 191 | 221' | 13 |

MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED.

## FIRE HYDRANT ASSEMBLY




NOTE:
A 6" ELL IS REQUIRED BETWEEN THE VALVE AND HYDRANT PARALLEL TO WATER MAIN WHEN:
1. TEE FACES TOWARD ROADWAY.
2. TEE FACES TOWARD BUILDING.
3. THE MAIN IS 12" OR LARGER.

* LONG HYDRANT LATERALS OVER 20' MAY REQUIRE 2 VALVES
* HYDRANT BURIED LINE TO BE WITHIN 2' OF FINISH GRADE.

NO HYDRANT RISERS WILL BE PERMITTED ON NEWLY INSTALLED FIRE HYDRANTS.

## MAXIMUM ALLOWABLE LEAKAGE

NOTE: 150 PSI TESTING, 2 HOUR LEAKAGE TESTS;
MAXIMUM LEAKAGE ALLOWED PER 1000 LF OF PIPE.

| PIPE SIZE | DUCTILE IRON PIPE GALLONS PER TWO (2) HOUR | PVC PIPE GALLONS PER TWO (2) HOUR |
|---|---|---|
| 2" | 0.42 | 0.38 |
| 4" | 0.72 | 0.65 |
| 6" | 1.10 | N/A |
| 8" | 1.48 | |
| 10" | 1.84 | |
| 12" | 2.20 | |
| 16" | 2.94 | |
| 20" | 3.68 | |
| 24" | 4.42 | |
| 30" | 5.52 | |
| 36" | 6.62 | |
| 42" | 7.73 | |
| 48" | 8.83 | |

NOTE:
ANY PIPE LENGTH EQUAL TO OR LESS THEN 300' SHALL HAVE 0 LEAKAGE

## GENERAL SPECIFICATIONS

1. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR TO ENSURE THAT ALL REQUIRED PERMITS ARE IN-HAND BEFORE BEGINNING ANY CONSTRUCTION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND VERIFYING ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION, AND FOR NOTIFYING THE VARIOUS UTILITY COMPANIES TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATION, TEMPORARY DISRUPTION OF SERVICE, OR CLARIFICATION OF ACTIVITY REGARDING SAID UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THESE PLANS OR FIELD LOCATED. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING STRUCTURES OR UTILITIES FROM CONSTRUCTION OF WATER FACILITIES. CONTRACTOR SHALL COORDINATE ANY NECESSARY ADJUSTMENTS AND COOPERATE WITH THE OWNER.
   ANY DELAY OR INCONVENIENCE OF THE VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT AND NO EXTRA COMPENSATION WILL BE ALLOWED.
3. ALL CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL MEET CURRENT ORLANDO UTILITIES COMMISSION SPECIFICATIONS FOR MATERIAL, INSTALLATION, AND DISINFECTION. ALL MATERIAL AND EQUIPMENT SHALL BE STORED, INSTALLED, AND USED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
   ALL WATER FACILITIES WILL BE IN COMPLIANCE WITH THE CONDITIONS OF FDEP PERMIT FOR THE PROJECT.
4. WATER MAIN SEPARATION FROM SEWER, STORM, AND RECLAIM LINES WILL BE IN COMPLIANCE WITH FDEP GUIDELINES.
   THE MINIMUM SEPARATION REQUIREMENTS FROM SANITARY FORCE MAINS, AT LEAST A 6' HORIZONTAL AND AN 12" VERTICAL SEPARATION AT CROSSINGS, MUST BE OBSERVED WITH NO STANDARD MITIGATION ALLOWED.
   A MINIMUM OF 18' SEPARATION FROM BUILDINGS AND STRUCTURES IS REQUIRED.
5. ALL CONDUIT TO BE A MINIMUM 2' FROM ALL WATER MAINS, AND APPURTENANCES.
6. THE RECLAIMED WATER MAIN SHALL BE ON THE OPPOSITE SIDE OF THE STREET FROM THE POTABLE WATER MAIN WHERE PRACTICAL. IF IT IS NOT PRACTICAL, THE RECLAIMED WATER MAIN SHALL BE INSTALLED AT A MINIMUM HORIZONTAL DISTANCE OF 3 FEET (EDGE TO EDGE) FROM THE POTABLE WATER MAIN. RECLAIMED WATER MAINS SHALL BE BELOW POTABLE WATER MAINS WITH A MINIMUM VERTICAL SEPARATION OF 12".
7. ALL HYDROSTATIC TESTING SHALL BE IN ACCORDANCE WITH ANSI/AWWA C600 FOR D.I. PIPE AND ANSI/AWWA C605 FOR PVC PIPE.
8. PROVISIONS ARE REQUIRED TO PROTECT EXISTING ACTIVE WATER MAINS FROM BACKFLOW CONTAMINATION DURING FILLING, FLUSHING, TESTING, AND MAINTAINING A PRESSURE IN THE NEW PIPING UNTIL A FDEP LETTER OF CLEARANCE IS OBTAINED.
9. THE DISINFECTION OF WATER MAINS SHALL BE IN COMPLIANCE WITH "RULES OF THE DEPARTMENT OF ENVIRONMENTAL REGULATION – CHAPTER 62-555 "PERMITTING AND CONSTRUCTION OF PUBLIC WATER SYSTEMS." THE PROCEDURE WILL MEET AND EXCEED THE REQUIREMENTS SET FORTH IN ANSI/AWWA STANDARDS C651. CHLORINATION IS A 5 DAY PROCESS, STARTING ON MONDAYS UNLESS APPROVED BY O.U.C.
10. CROSS CONNECTION CONTROL SHALL BE IN ACCORDANCE WITH RULES AND REQUIREMENTS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION – CHAPTER 62-555 "PERMITTING AND CONSTRUCTION OF PUBLIC WATER SYSTEMS."
11. BACKFLOW PREVENTERS SHALL BE LOCATED NO MORE THAN 10 FEET FROM POINT OF SERVICE UNLESS PRIOR APPROVAL HAS BEEN RECEIVED FROM OUC CROSS CONNECTION CONTROL DEPT.
12. ALL PIPE WITH DIAMETER OF 12" OR LESS SHALL HAVE A MINIMUM BURIAL DEPTH OF 36" AND NOT TO EXCEED 48" DEEP, UNLESS APPROVED BY OUC.
    ALL PIPE WITH DIAMETER OF 16" OR GREATER SHALL HAVE A MINIMUM BURIAL DEPTH OF 48" AND NOT TO EXCEED 60" DEEP UNLESS APPROVED BY OUC.
13. A PRE-CONSTRUCTION MEETING FOR THE INSTALLATION OF WATER FACILITIES IS REQUIRED. CONTACT: OUC WATER CONSTRUCTION 407-434-2535.
14. ON NEWLY INSTALLED PIPE, ONLY ONE (1) REPAIR EVERY EIGHT-HUNDRED (800') FEET WILL BE PERMITTED. IF MORE THAN ONE REPAIR IS NECESSARY, THE PIPE WILL NEED TO BE REINSTALLED PER OUC STANDARDS. REPAIRS ARE TO BE MADE USING A MECHANICALLY RESTRAINED SLEEVE. BELL CLAMPS ARE NOT TO BE USED. ANY OTHER METHODS MUST BE APPROVED BY THE OUC ENGINEER.
15. ALL TAPS ON ACTIVE WATER MAINS SHALL BE PERFORMED BY AN OUC APPROVED TAPPING CONTRACTOR.
16. ALL OUC OWNED SERVICES ASSEMBLIES SHALL HAVE A MINIMUM OF 10' SEPARATION FROM STRUCTURES AND TREES.
17. THE CONNECTION OF GROUNDING SYSTEMS FOR NEW OR RENOVATION CONSTRUCTION TO OUC WATER SYSTEM FACILITIES IS PROHIBITED.

## GENERAL MATERIAL SPECIFICATIONS

MATERIAL USED IN THE CONSTRUCTION OF THE WATER DISTRIBUTION SYSTEM SHALL ADHERE TO THE REQUIREMENTS OUTLINED IN THE OUC WATER DISTRIBUTION'S SPECIFICATION STANDARDS MANUAL. THE FOLLOWING INFORMATION IS TO PROVIDE GENERAL GUIDANCE IN THE PREPARATION OF CONSTRUCTION PLANS AND SPECIFICATIONS, AND IN NO WAY LIMITS OUC'S RIGHTS TO APPROVE OR DISAPPROVE PLANS, SPECIFICATIONS OF INSTALLATIONS. MOST CENTRAL FLORIDA UTILITY SUPPLY COMPANIES HAVE A COPY OF OUC'S SPECIFICATION STANDARDS MANUAL.

1. THE TYPICAL O.U.C. DISTRIBUTION SYSTEM PIPE SIZES AND MATERIAL USED ARE:
   * TWO INCH (2") WATER MAINS SHALL BE ASTM 2241 CLASS 200 SDR21 POLYVINYL CHLORIDE (PVC) PIPE.
   * TWO INCH (2") WATER MAIN UNDER ROADWAY REQUIRES 2" RESTRAINT JOINT SDR 17/CLASS 250 PIPE
   * FOUR INCH (4") WATER MAINS SHALL BE EITHER PRESSURE CLASS 350 DUCTILE IRON (D.I.) IN ACCORDANCE WITH ANSI/AWWA C150/A21.50-96 AND ANSI/AWWA C151/A21.51 OR, AS CONDITIONS WARRANT, C900 SDR18 CLASS 150 PVC PIPE.
   * SIX INCH (6") THROUGH TWENTY FOUR INCH (24") WATER MAINS SHALL BE PRESSURE CLASS 350 D.I. PIPE IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND ANSI/AWWA C151/A21.51.
   * THIRTY INCH (30") AND LARGER WATER MAINS SHALL BE PRESSURE CLASS 250 D.I. PIPE IN ACCORDANCE WITH ANSI/AWWA C150/A21.50 AND ANSI/AWWA C151/A21.51.

   NOTE:
   1. THE USE OF 2" AND/OR 4" PVC PIPE MUST BE APPROVED BY O.U.C. WATER ENGINEERING.
   2. PVC PIPE MUST BE BLUE IN COLOR OR HAVING CONTINUOUS BLUE MARKINGS TO CONFORM TO AWWA COLORS WITH NSF LOGO FOR POTABLE WATER USE.
   3. DUCTILE IRON POTABLE WATER MAINS REQUIRE SPECIAL IDENTIFICATION, SUCH IDENTIFICATION SHALL INCLUDE A MINIMUM OF 4 CONTINUOUS STRIPES SPACED AT NO MORE THAN 90° AROUND THE PIPE. THE STRIPE SHALL BE MINIMUM TWO INCHES IN WIDTH FOR PIPE 4-12 INCH IN DIAMETER AND FOUR (4) INCHES IN WIDTH FOR LARGER PIPE , AND SHALL BE BLUE IN COLOR. BACKFILL SHALL NOT BE PLACED FOR AT LEAST 30 MINUTES FOLLOWING PAINT APPLICATION.
2. ALL PIPE FITTINGS 4" UP TO 30" SHALL BE CEMENT OR EPOXY LINED (CLASS 350) AWWA C153 "COMPACT" DUCTILE IRON, WITH MECHANICAL JOINT ENDS. ALL PIPE FITTINGS 30" OR LARGER SHALL BE CEMENT LINED (CLASS 250) DUCTILE IRON, WITH MECHANICAL JOINT ENDS.
3. A SERVICE MATERIAL FOR AND 1" SHALL INCLUDE SOFT ANNEALED TYPE-K COPPER TUBING.
   B SERVICE MATERIAL FOR 2" SHORT SIDE SERVICES SHALL INCLUDE 2" CTS TYPE-K HARD COPPER PIPE.
   C SERVICE MATERIAL FOR 2" LONG SIDE SERVICES SHALL INCLUDE 2" RESTRAINED JOINT (SDR 17/CLASS 250) PVC PIPE (IPS-O.D.).
4. SERVICE MATERIAL (CORP. STOPS, CURB STOPS, ETC.) FOR 1", AND 2" SERVICES SHALL BE BRASS COMPRESSION FITTINGS IN ACCORDANCE W/AWWA C800. FLARED FITTINGS ARE ACCEPTABLE UNDER CONTROLLED CONDITIONS. AN AWWA (CC) THREADING IS REQUIRED ON ALL 1" CORPORATION STOPS USED WITH DIRECT PIPE TAPPING ON DUCTILE IRON PIPE OR WITH SERVICE CLAMPS ON PVC PIPE. INSTALLATION OF 2" SERVICES REQUIRE SERVICE CLAMPS AND TO ACCOMMODATE 1 1/2" OR 2" METERS, 2" BALL ANGLE METER VALVES (CTS X FLANGE) WITH SLOTTED HOLES ON THE FLANGE FACE ARE REQUIRED. PADLOCK WINGS MUST BE INCLUDED ON EACH CURB STOP OR BALL METER VALVE.
5. FIRE HYDRANTS SHALL BE TRAFFIC DRY BARREL TYPE AND MEET OUC SPECIFICATIONS.
6. ALL VALVES 4" THROUGH 12" SHALL BE RESILIENT SEAT/WEDGE GATE VALVES WITH EPOXY COATING INTERNALLY/EXTERNALLY AND CONFORM TO ANSI/AWWA STANDARD C509 OR LATEST REVISION. ALL VALVES 16" AND LARGER SHALL BE BUTTERFLY, HAVE EPOXY COATING AND CONFORM TO ANSI/AWWA C504 OR LATEST REVISION.
7. ALL VALVE BOXES SHALL BE CAST IRON SLIDING TYPE ONLY.
8. FOR VALVES OVER 5' DEEP A PIECE OF 6" SCH 40 BLUE PVC PIPE SHALL BE INSTALLED BETWEEN THE VALVE BOX TOP AND BOTTOM.

SPECIAL NOTICE:

OUC'S SPECIFICATIONS OFTEN ADD TO THE MANUFACTURER'S SPECIFICATIONS. IF YOU HAVE ANY QUESTIONS REGARDING MATERIAL SPECIFICATIONS OR CONSTRUCTION STANDARD SPECIFICATIONS, PLEASE CONTACT OUC'S WATER DELIVERY DEPARTMENT AT 407-434-2535 OR VISIT OUR WED SITE AT http://www.ouc.com/en/commercial/water/manuals_reports.aspx

| | |
|---|---|
| OUC The Reliable One | ORLANDO UTILITIES COMMISSION WATER BUSINESS UNIT 3800 Garden Ave. Orlando, FL 32839 |
| ENG. W.E. | |
| DRAWN: WETS | WATER DETAIL SHEET INSTALLATION INSTRUCTIONS |
| DATE: 12/06/2012 S.G. | |
| W.R. No. N/A | |
| ACAD No. N/A | |
| SCALE: N.T.S. | FILE: WDS2012.dwg MAP SEC. N/A |

| NO. | DESCRIPTION | DATE | DWN | CHKD | APPVD |
|---|---|---|---|---|---|
| | REVISIONS | | | | |

SCALE: AS SHOWN
DATE: 10/22/2018
DRAWN: MJC
CHECKED: JVH
APPROVED: KSH

# DETAILS

ORLANDO HEALTH - 1800 S. ORANGE AVE
CITY OF ORLANDO, FLORIDA

SEAL
No. 66570 STATE OF FLORIDA KEITH S. HAUGDAHL PROFESSIONAL ENGINEER

KEITH S. HAUGDAHL, P.E. No. 66570


gai consultants
EB 9951
618 SOUTH ST. SUITE 700
ORLANDO, FLORIDA 32801
PHONE: (407) 423-8398


PROJECT NO./DASH NO.
A180543.00

SHEET
C6.2

Z:\Energy\2018\A180543.00 - Orlando Health-1800 S\CAD\A180543.00 - DT.dwg Mar 15, 2019 - 3:11pm

FOR REFERENCE ONLY

Drawn By: CF
Checked By: ENB
Approved By: ENB

# ELECTRICAL SYMBOL LEGEND

## BASIC MATERIALS

| SYMBOL | DESCRIPTION |
|---|---|
| $S_a$ | SINGLE POLE SWITCH (SUBSCRIPT INDICATES ITEM CONTROLLED) |
| $S_3$ | THREE-WAY SWITCH |
| $S_4$ | FOUR-WAY SWITCH |
| $S_D$ | DIMMER SWITCH |
| | DUPLEX RECEPTACLE |
| | DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER |
| | CONTROLLED DUPLEX RECEPTACLE<br>- RECEPTACLE SHALL BE CONTROLLED VIA THE LOCAL OCCUPANCY SENSOR WITHIN THE ROOM.<br>- CONTROLLED RECEPTACLE SHALL BE APPROPRIATELY MARKED TO INDICATE DEVICE IS CONTROLLED VIA THE ROOMS OCCUPANCY SENSOR |
| EWC | SIMPLEX RECEPTACLE (EWC DENOTES ELECTRIC WATER COOLER. PROVIDE GFCI PROTECTION AND ACCESSIBLE RESET BUTTON. COORDINATE WITH EWC INSTALLER FOR MOUNTING HEIGHT) |
| | GFI RECEPTACLE MOUNTED ABOVE COUNTER |
| | TWO DUPLEX RECEPTACLES WITH COMMON COVER |
| | TWO DUPLEX RECEPTACLES WITH COMMON COVER MOUNTED ABOVE COUNTER |
| | DUPLEX RECEPTACLE<br>NOTE:<br>TICK MARKS SHOWN ON ANY DEVICE REPRESENTS RECEPTACLE CONNECTED TO THE EMERGENCY CIRCUIT (RED DEVICE) TYPICAL FOR ANY DEVICE IN LEGEND |
| | SPECIAL RECEPTACLE, COORDINATE RATING WITH EQUIPMENT REQUIREMENTS |
| GND | GROUND BAR |
| J | JUNCTION BOX |
| SPD | SURGE PROTECTIVE DEVICE<br>C3 = SERVICE ENTRANCE DEVICE<br>B3 = DISTRIBUTION BOARD DEVICE<br>A3 = PANELBOARD DEVICE |
| ST | SHUNT-TRIP BUTTON - FLUSH MOUNTED UNLESS OTHERWISE NOTED NEMA 3R FOR EXTERIOR LOCATIONS |
| | MAGNETIC MOTOR STARTER OR CONTACTOR SIZE AS NOTED |
| EDH-X | ELECTRIC DUCT HEATER |
| 5 | MOTOR CONNECTION, NUMBER DENOTES HORSEPOWER |
| VFD | VARIABLE FREQUENCY DRIVE |
| DDC | DIRECT DIGITAL CONTROL PANEL |
| T | TRANSFORMER |
| | AUTOMATIC TRANSFER SWITCH |
| 30AR NF | NON-FUSED DISCONNECT SWITCH, SIZE AS NOTED<br>NF DENOTES NON-FUSED |
| 30AR 20AF | FUSED DISCONNECT<br>AR DENOTES AMP RATING OF SWITCH<br>AF DENOTES AMP FUSE SIZE |
| MCP SIZE, 3P3 0 3R | # OF POLES<br>COMBINATION MAGNETIC MOTOR STARTER, SIZE AS NOTED 3 POLE UNLESS OTHERWISE NOTED<br>ENCLOSURE NEMA 1 UNLESS NOTED<br>NEMA STARTER SIZE |
| | BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS, SURFACE MOUNTED |
| | BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS, FLUSH MOUNTED |
| | BRANCH CIRCUIT PANELBOARD, OVER 250 VOLTS, SURFACE MOUNTED |
| | BRANCH CIRCUIT PANELBOARD, OVER 250 VOLTS, FLUSH MOUNTED |
| C | CRITICAL BRANCH CONDUIT |
| L | LIFE SAFETY BRANCH CONDUIT |
| E | EQUIPMENT BRANCH CONDUIT |

## NURSE CALL SYSTEMS

| | |
|---|---|
| (CS) | COMBINATION PATIENT STATION WITH INTEGRAL STAFF ASSIST AND CODE BLUE BUTTONS |
| (D) | DUTY STATION |
| (CB) | COMBINATION CODE BLUE AND STAFF EMERGENCY STATION |
| (C) | CORRIDOR DOME LIGHT |
| (Z) | CORRIDOR ZONE LIGHT |
| NCEC | NURSE CALL EQUIPMENT CABINET |

## LIGHTING

| SYMBOL | DESCRIPTION |
|---|---|
| | LED STRIP FIXTURE |
| A | FIXTURE DESIGNATION |
| 2 B | LED FIXTURE<br>LOWER CASE LETTER INDICATES CONTROL CIRCUIT SWITCH LEG<br>CIRCUIT NUMBER |
| | LED FIXTURE DIAGONAL SHADING DENOTES LIGHT FIXTURE TO CONTAIN INTEGRAL BATTERY BACKUP. |
| | LED WALL MOUNTED FIXTURE WITH WALL OUTLET BOX |
| | LED DOWNLIGHT FIXTURE |
| | EXIT LIGHT FIXTURE, DIRECTION ARROWS AS SHOWN (SHADED QUADRANT INDICATED FACE(S) OF FIXTURE) |
| | WALL MOUNTED EXIT LIGHT FIXTURE |

## DEMOLITION

| | |
|---|---|
| | DUPLEX RECEPTACLE TO BE REMOVED |
| | DUPLEX RECEPTACLE TO REMAIN |
| CAO | FLOOR OUTLET TO BE REMOVED |
| CAO | FLOOR OUTLET BOX TO REMAIN |
| | TWO DUPLEX RECEPTACLES TO REMAIN |
| | TWO DUPLEX RECEPTACLES TO BE REMOVED |
| J | JUNCTION BOX TO BE REMOVED |
| J | JUNCTION BOX TO REMAIN |
| | BRANCH CIRCUIT PANELBOARD TO BE REMOVED |
| | BRANCH CIRCUIT PANELBOARD TO REMAIN |
| | EXISTING LED / FLUORESCENT FIXTURE TO BE REMOVED |
| | EXISTING LED / FLUORESCENT FIXTURE TO REMAIN |
| | EXISTING LED / FLUORESCENT WALL MOUNTED FIXTURE TO BE REMOVED |
| (ETR) | EXISTING TO REMAIN |
| | EXISTING CONDUIT TO BE REMOVED |

## FIRE ALARM/DETECTION SYSTEM

| | |
|---|---|
| F | MANUAL PULL STATION |
| | CEILING SMOKE DETECTOR, PHOTO-ELECTRIC TYPE UNLESS OTHERWISE NOTED<br>E = ELEVATOR WITH RECALL CONTACTS<br>I = IONIZATION |
| | DUCT SMOKE DETECTOR<br>R = RETURN<br>S = SUPPLY |
| R | SUPERVISED CONTROL RELAY |
| F XXCD | COMBINATION AUDIBLE/VISUAL NOTIFICATION DEVICE CHIME/FLASHING "FIRE" LIGHT<br>CD = CANDELA RATING |
| F XXCD | COMBINATION AUDIBLE/VISUAL NOTIFICATION DEVICE<br>CD = CANDELA RATING |
| (S) | FIRE ALARM SPEAKER WITH STROBE<br>CD = CANDELA RATING |
| (F) | VISUAL SIGNALING UNIT, WALL MOUNTED (NO AUDIO DEVICE) |
| (P) | FIREMAN'S PHONE JACK |
| TS | SPRINKLER TAMPER SWITCH CONNECTION |
| FS | SPRINKLER WATERFLOW SWITCH CONNECTION |
| | ELECTROMAGNETIC DOOR HOLD OPEN DEVICE |
| H | ELECTROMAGNETIC DOOR HOLD OPEN DEVICE CONNECTION TO CLOSURE/ HOLDER |
| H | ELECTROMAGNETIC DOOR HOLD OPEN DEVICE CONNECTION TO CLOSURE/ HOLDER. INCLUDES DETECTOR |
| (H) | CEILING HEAT DETECTOR 135° UNLESS OTHERWISE INDICATED. |
| FACP | FIRE ALARM CONTROL PANEL |
| FATC | FIRE ALARM TERMINAL CABINET |
| FAAP | FIRE ALARM ANNUNCIATOR PANEL - FLUSH MOUNTED |
| (E) | FIREMAN'S ELEVATOR WARNING LIGHT |

## EQUIPMENT COORDINATION:

1. VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION. REFER TO EQUIPMENT MANUAL/CUT SHEETS/VENDOR DRAWINGS, ETC. FOR ALL INSTALLATION REQUIREMENTS. THE INTENT IS FOR THE CONTRACTOR TO PROVIDE ANY AND ALL WORK REQUIRED FOR COORDINATION BASED ON THE AVAILABLE DOCUMINTATION.

2. ALL WORK SHOWN IS BASED ON INFORMATION INDICATED BY THE EQUIPMENT VENDOR(S) AT THE TIME OF DESIGN ALL WORK SHALL BE COORDINATED WITH APPLICABLE VENDOR'S DOCUMENTATION. PROVIDE ALL PARTS, MATERIAL, LABOR, ETC. AS REQUIRED FROM THE VENDOR'S DOCUMENT(S) WHETHER INDICATED ON THESE DRAWINGS OR NOT FOR A COMPLETE AND OPERATIONAL SYSTEM(S).

3. COORDINATE PARTY(S) RESONSIBLE FOR ACQUIRING/INSTALLING EQUIPMENT WITH EQUIPMENT BOOK'S AND/OR DRAWINGS.

4. THE EQUIPMENT MAY INCLUDE BUT SHALL NOT BE LIMITED TOO FIXED EQUIPMENT AND COMPONENTS WHICH REQUIRES A ELECTRICAL CONNECTION. THESE MAY INCLUDE RADIOLOGY, KITCHEN, ELEVATORS, SECURITY, PNEUMATIC TUBE ETC.

5. CONTRACTOR SHALL REFER TO THE VENDOR'S DOCUMENTATION FOR ALL REQUIRED ELECTRICAL WORK FOR THE EQUIPMENT, THE VENDOR INFORMATION IN CONLUNCTION WITH THESE DOCUMENTS SHALL BE THE BASIS OF BID. IF REQUIRED VENDOR'S INSTALLATION DOCUMENTS ARE NOT ABLE AT THE TIME OF THE BID, ALLOWANCES FOR SUCH SYSTEMS SHALL BE INCLUDED IN THE BID. IF REQUIRED REVISED ELECTRICAL DRAWINGS WILL BE ISSUED UPON RECEIVING THE APPROPRIATE INFORMATION FROM THE VENDOR ILLUSTRATING THE POWER CONNECTION REQUIREMENT(S) OF THE EQUIPMENT.

6. ALL IDENTIFICATIONS IN THE VENDOR DRAWINGS OF "CUSTOMER/CONTRACTOR" SHALL BE THE RESPONSIBILITY OF THE "CONTRACTOR".

7. IT IS THE INTENTION OF THE VENDOR'S EQUIPMENT THAT ALL WORK (LABOR, MATERIALS, ETC.) REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM SHALL BE PROVIDED.

8. THESE PLANS ARE INTENDED TO GIVE THE CONTRACTOR A GENERAL KNOWLEDGE OF THE WORK ASSOCIATED WITH THE INSTALLATION OF THE VENDORS EQUIPMENT IN THE SELECTED ROOMS. IT IS NOT INTENDED TO INDICATE ALL CONNECTIONS, J-BOXES, ETC, OR EXACT DIMENSIONS OR LOCATIONS OF EQUIPMENT.

9. ALL EQUIPMENT SHALL BE INSTALLED PER THE OWNER APPROVED MANUFACTURER'S INSTALLATION DRAWINGS /SHOP DRAWINGS. INSTALLATION SHALL BE COORDINATED IN FIELD WITH THE MANUFACTURER OF THE EQUIPMENT. PROVIDE ELECTRICAL CONNECTION(S) AS REQUIRED.

10. EQUIPMENT MANUFACTURER MAY SUPPLY FIXED LENGTH CABLES, WHEREBY ALL MEASUREMENTS SHALL BE DETERMINED FROM ELECTRICAL TROUGH RUNS INDICATED ON VENDOR DRAWINGS. ANY CHANGES TO EQUIPMENT PLACEMENT OR TROUGH ROUTINGS AT JOB SITE WILL CAUSE THE DELIVERY OF INACCURATE AND ERRONEOUS CABLE LENGTHS. THIS MAY RESULT IN ADDITIONAL COST FOR REPLACEMENT CABLES AND DELAY EQUIPMENT INSTALLATION.

11. COORDINATE PLACEMENT OF ALL EQUIPMENT WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN. THE FOLLOWING MUST BE PERFORMED/PROVIDED AS REQUIRED
A. REDUNDANT GROUNDING FOR THE PATIENT CARE AREA VIA THE RACEWAY SYSTEM. THE EQUIPMENT MUST BE FASTENED TO THE RACEWAY SYSTEM OR BE BONDED TO THE RACEWAY SYSTEM BY THE USE OF FLEXIBLE METAL CONDUIT OR BONDING STRAPS.
B. SEPARATE RACEWAYS OR CONTINUOUS BARRIERS FOR THE SEPARATION OF INTERCONNECTING CABLES PER VOLTAGE RATING AND CLASS. POWER AND CLASS 1 CIRCUIT WIRING SHALL BE ROUTED TOTALLY SEPARATE FROM CLASS 2 AND 3 CIRCUIT WIRING. PROVIDE A CHART AND/OR WIRING DIAGRAM WITH MARKED CABLES TO FACILITATE VERIFICATION OF THIS REQUIREMENT. THIS CHART MUST BE DEVELOPED BY THE EQUIPMENT MANUFACTURER'S ENGINEERING DEPARTMENT.

12. COORDINATE FINAL LOCATIONS OF ALL EQUIPMENT REQUIRING ELECTRICAL CONNECTION THAT WILL BE PROVIDED BY OTHER DIVISIONS/PARTIES IN THE FIELD WITH THAT DIVISION/PARTY. FIELD LOCATIONS SHALL DICTATE.

## CODES AND STANDARDS:

1. THE CODES, STANDARDS AND PRACTICES LISTED HEREIN APPLY TO THE ENTIRE PROJECT, REFER TO SPECIFICATIONS FOR ADDITIONAL SPECIFIC CODES AND REQUIREMENTS.

2. COMPLIANCE AND CERTIFICATION: THE INSTALLATION SHALL COMPLY WITH THE GOVERNING STATE AND LOCAL CODES OR ORDINANCES. THE COMPLETED ELECTRICAL INSTALLATION SHALL BE INSPECTED AND CERTIFIED BY APPLICABLE AGENCIES THAT IT IS IN COMPLIANCE WITH CODES.

3. BUILDING CODE: FLORIDA BUILDING CODE 2017 6th EDITION

4. LABELS: MATERIALS AND EQUIPMENT SHALL BE NEW AND FREE OF DEFECTS, AND SHALL BE U.L. LISTED, BEAR THE U.L. LABEL OR BE LABELED OR LISTED WITH AN APPROVED, NATIONALLY RECOGNIZED ELECTRICAL TESTING AGENCY. WHERE NO LABELING OR LISTING SERVICE IS AVAILABLE OR DESIRED FOR CERTAIN TYPES OF EQUIPMENT, TEST DATA SHALL BE SUBMITTED TO VALIDATE THAT EQUIPMENT MEETS OR EXCEEDS AVAILABLE STANDARDS.

5. NATIONAL FIRE PROTECTION (NFPA) STANDARDS:
A. NFPA-70, NATIONAL ELECTRICAL CODE, 2014 EDITION
B. NFPA-72, NATIONAL FIRE ALARM CODE, 2013 EDITION
C. NFPA-90A, STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATION SYSTEMS, 2015 EDITION
D. NFPA-99, STANDARD FOR HEALTH CARE FACILITIES, 2015 EDITION
E. NFPA 101, LIFE SAFETY CODE 2015 FLORIDA SPECIFIC EDITION
6. FGI GUIDELINES FOR DESIGN AND CONSTRUCTION OF HEALTHCARE FACILITIES, 2014 EDITION.

## EQUIPOTENTIAL GROUNDING

A. EQUIPOTENTIAL GROUND: TEST ALL METAL CONDUCTIVE SURFACES LIKELY TO BECOME ENERGIZED WITHIN PATIENT CARE AREAS. TEST ALL LARGE CONDUCTIVE SURFACES LIKELY TO BECOME ENERGIZED WITHIN A VOLUME DEFINED AS 6 FOOT FROM THE PATIENT BED HORIZONTALLY OR 7 FOOT 6 INCHES VERTICALLY.

1. LARGE METAL SURFACES NOT LIKELY TO BE ENERGIZED, WHICH DO NOT REQUIRE TESTING:
a. WINDOW FRAMES
b. DOOR FRAMES
c. FLOOR DRAINS
d. MOVEABLE METAL CABINETS

2. TEST METHOD:
a. USE IMPEDANCE AND VOLTAGE MEASUREMENTS
b. UTILIZE ESTABLISHED GROUND BUS OR GROUND BAR IN PANEL SERVING AREA.
c. MEASURE VOLTAGE FROM REFERENCE POINT TO CONDUCTIVE SURFACES AND ALL RECEPTACLE GROUND CONTACTS.
d. MEASURE IMPEDANCE BETWEEN REFERENCE POINT AND RECEPTACLE GROUND CONTACTS.
e. CHECK FOR PROPER POLARITY.
f. IDENTIFY THE REFERENCE GROUND FOR EACH ROOM ON THE GROUND TEST REPORT. PROVIDE A BLUE DOT LABEL WITH A PERMANENT ADHESIVE BACKING LOCATED ON THE BOTTOM CENTER OF THE REFERENCE GROUND OUTLET COVER.

3. MAXIMUM ACCEPTABLE VALUES:
a. VOLTAGE: 20 MV
b. IMPEDANCE: 0.1 OHM
c. QUIET GROUND IMPEDANCE: 0.2 OHM

4. EQUIPMENT:
a. MILLIVOLT METER WITH 1 KOHM IMPEDANCE AND PROPER FREQUENCY RESPONSE, PER NFPA 99.
b. POLARITY TESTER

5. GROUND TEST REPORT. COMPLETE GROUND TEST REPORT INCLUDED AT THE END OF THIS SPECIFICATION SECTION, AND MAKE AVAILABLE COPIES OF SUCH TO ENGINEER AND INSPECTING AUTHORITY AT FINAL INSPECTION.

## ELECTRICAL SPECIFICATIONS:

THE WORK REQUIRED UNDER THIS DIVISION SHALL INCLUDE ALL MATERIALS, LABOR AND AUXILIARIES REQUIRED TO INSTALL A COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEM. THE ELECTRICAL SYSTEM REQUIRED UNDER THIS DIVISION CONSISTS BASICALLY OF, BUT IS NOT LIMITED TO THE FOLLOWING: POWER SYSTEM, POWER DISTRIBUTION, EQUIPMENT CONNECTIONS, ACCESS PANELS, EMPTY CONDUIT SYSTEMS AND ALL REQUIRED WIRING.

INSTALL IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE AND THE REGULATIONS OF GOVERNING LOCAL, STATE, COUNTY AND OTHER APPLICABLE CODES. PAY FOR ALL REQUIRED LICENSES, FEES AND INSPECTIONS.

ALL MATERIALS SHALL BE NEW AND FREE OF DEFECTS, AND SHALL BE U.L. LISTED. BEAR THE U.L. LABEL OR BE LABELED OR LISTED WITH AN APPROVED, NATIONALLY RECOGNIZED ELECTRICAL TESTING AGENCY. WHERE NO LABELING OR LISTING SERVICE IS AVAILABLE FOR CERTAIN TYPES OF EQUIPMENT, TEST DATA SHALL BE SUBMITTED TO PROVE TO THE ENGINEER THAT EQUIPMENT MEETS OR EXCEEDS AVAILABLE STANDARDS.

PROVIDE SHOP DRAWING SUBMITTALS TO THE ARCHITECTENGINEER FOR APPROVAL FOR ALL MATERIAL PROVIDED UNDER THIS DIVISION. EQUIPMENT SHALL NOT BE ORDERED PRIOR TO APPROVAL FROM THE ARCHITECT/ENGINEER.

COORDINATION STUDY: ALL PANELBOARD AND CIRCUIT BREAKERS SHALL BE OF THE TYPE AND MANUFACTURER SPECIFIED HEREIN, AND AS INDICATED ON THE DRAWINGS AND COORDINATION STUDY. ANY DISCREPANCIES OR CONFLICTS IN THE SPECIFIED EQUIPMENT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER DURING BID FOR FORMAL CLARIFICATION. NO SUBSTITUTIONS ARE ALLOWED FOR PANELS, CIRCUIT BREAKERS, TRANSFORMERS, ETC. SUBMIT EQUIPMENT AS SPECIFIED.

PROVIDE AND INSTALL ALL ELECTRICAL SYSTEMS AND ANY NECESSARY ACCESSORIES AS PER NEC AND LOCAL CODES WHETHER SPECIFIED HEREIN OR SHOWN ON DRAWINGS OR NOT. THE CONTENT OF THESE SPECIFICATIONS (DIVISION 26) AND CONTRACT DOCUMENTS IN GENERAL ONLY REFERS TO WORK REQUIRED ABOVE AND BEYOND THE REQUIREMENTS OF THE NEC AND LOCAL CODES.

DRAWINGS ARE DIAGRAMMATIC. COORDINATE FINAL EQUIPMENT LOCATIONS WITH GOVERNING ARCHITECTURAL AND STRUCTURAL DRAWINGS. LAY OUT BEFORE INSTALLATION SO THAT ALL TRADES MAY INSTALL EQUIPMENT IN SPACES AVAILABLE. PROVIDE COORDINATION AS REQUIRED FOR INSTALLATION IN A NEAT AND WORKMANLIKE MANNER.

CHECK SITE AND EXISTING CONDITIONS THOROUGHLY BEFORE BIDDING. ADVISE ENGINEER OF DISCREPANCIES OR QUESTIONS NOTED.

PROVIDE FIELD SUPERINTENDENT WHO HAS HAD A MINIMUM OF FOUR (4) YEARS PREVIOUS SUCCESSFUL EXPERIENCE ON PROJECTS OF COMPARABLE SIZES AND COMPLEXITY. SUPERINTENDENT SHALL BE PRESENT AT ALL TIMES THAT WORK UNDER THIS DIVISION IS BEING INSTALLED OR AFFECTED. SUPERINTENDENT SHALL HAVE PASSED A PROCTORED H.H. BLOCK JOURNEYMAN EXAM WITH 75% GRADE OR BETTER AND SHALL BE A LICENSED JOURNEYMAN. A RESUME OF THE SUPERINTENDENT'S EXPERIENCE SHALL BE SUBMITTED TO ENGINEER BEFORE STARTING WORK. AT LEAST ONE MEMBER OF THE ELECTRICAL CONTRACTING FIRM SHALL HOLD A STATE MASTER CERTIFICATE OF COMPETENCY.

PROVIDE ALL REQUIRED COORDINATION AND SUPERVISION WHERE WORK CONNECTS TO OR IS AFFECTED BY WORK OF OTHERS, AND COMPLY WITH ALL REQUIREMENTS AFFECTING THIS DIVISION.

SUITABLY PROTECT ALL EQUIPMENT FURNISHED UNDER THIS DIVISION DURING CONSTRUCTION. RESTORE ALL DAMAGED SURFACES AND ITEMS TO "LIKE NEW" CONDITION BEFORE A REQUEST FOR SUBSTANTIAL COMPLETION INSPECTION.

THE WORK REQUIRED UNDER THIS DIVISION SHALL INCLUDE A ONE-YEAR GUARANTEE. THIS GUARANTEE SHALL BE BY THE CONTRACTOR TO THE OWNER FOR ANY DEFECTIVE WORKMANSHIP OR MATERIAL WHICH HAS BEEN FURNISHED UNDER THIS CONTRACT AT NO COST TO THE OWNER FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OF THE WORK.

PERFORM VERIFICATION WORK AS REQUIRED TO SHOW THAT THE SYSTEM IS OPERATING CORRECTLY IN ACCORDANCE WITH CONTRACT DOCUMENTS AND MANUFACTURER'S LITERATURE. ALL VERIFICATION SHALL BE DONE AFTER 3-DAY FULL OPERATIONAL PERIOD. ALL WORK ON THE SYSTEM SHALL BE COMPLETED, AND ALL FORMS AND OTHER INFORMATION SHALL BE SUBMITTED FOR APPROVAL ONE WEEK BEFORE THE REQUEST FOR FINAL INSPECTION OF THE BUILDING.

CONTRACTOR SHALL CLOSELY COORDINATE WITH THE OWNER PRIOR TO COMMENCING WORK AND DURING CONSTRUCTION FOR POWER AND/OR SYSTEM OUTAGES AS WELL AS GENERAL REQUIREMENTS. A SEVEN (7) DAY NOTICE SHALL BE GIVEN FOR ALL POWER OUTAGES. CONTRACTOR SHALL WORK DURING OFF HOURS (EVENINGS & WEEKENDS) WHEN DEEMED NECESSARY BY THE HOSPITAL.

WHERE THE REQUIREMENTS OF ANOTHER DIVISION, SECTION, OR PART OF THESE SPECIFICATIONS EXCEED THE REQUIREMENTS OF THIS DIVISION, THOSE REQUIREMENTS SHALL GOVERN.

THE ENTIRE INSTALLATION SHALL BE IN HOT DIPPED RIGID GALVANIZED CONDUIT, OR ELECTRIC METALLIC TUBING, UNLESS SPECIFICALLY NOTED OTHERWISE. RIGID METAL GALVANIZED CONDUIT SHALL BE USED IN ALL DAMP OR WET LOCATIONS OR WHERE SUBJECT TO MECHANICAL DAMAGE. ELECTRIC METALLIC TUBING SHALL HAVE STEEL COMPRESSION TYPE COUPLINGS AND BE USED INSIDE OF BUILDINGS AND ONLY IN DRY AREAS WHERE NOT EXPOSED TO MECHANICAL DAMAGE. MINIMUM CONDUIT SIZE FOR ALL SYSTEMS SHALL BE 3/4". PROVIDE INSULATED BUSHINGS AT ENDS OF ALL CONDUITS. ALL CONDUITS AND BACKBOXES SHALL BE COLOR CODED TO MATCH EXISTING HOSPITAL STANDARDS. SUPPORT CONDUIT IN ACCORDANCE WITH THE NEC.

BRANCH CIRCUIT AND FEEDER CONDUCTORS FOR ELECTRIC POWER SHALL BE COPPER TYPE THHN/THWN INSULATION FOR BRANCH CIRCUITS AND THWN INSULATION FOR FEEDERS. NO ALUMINUM WIRING SHALL BE PERMITTED. ALL WIRE SHALL BE SIZE SHOWN ON THE DRAWINGS. IF NO SIZE IS SHOWN, WIRE SHALL BE MINIMUM NO. 12, EXCEPT THAT BRANCH "HOMERUNS" OVER 50 FT. IN LENGTH SHALL BE MINIMUM NO. 10. WIRE IN VICINITY OF HEAT-PRODUCING EQUIPMENT SHALL BE TYPE XHHW INSULATION. ALL WIRING SHALL BE MANUFACTURED IN THE USA. WIRING SHALL BE COLOR CODED ACCORDING TO EXISTING HOSPITAL STANDARDS.

IN GENERAL, ALL ELECTRICAL EQUIPMENT (METALLIC CONDUIT, MOTOR FRAMES, PANELBOARDS, ETC.) SHALL BE BONDED TOGETHER WITH A GREEN INSULATED COPPER SYSTEM GROUNDING CONDUCTOR IN ACCORDANCE WITH SPECIFIC RULES OF ARTICLE 250 OF THE N.E.C. BONDING CONDUCTOR THROUGH THE RACEWAY SYSTEM SHALL BE CONTINUOUS FROM EACH WIRING DEVICE OR EQUIPMENT TO PANEL GROUND BAR OF EACH PANELBOARD. PROVIDE GROUND BAR BOLTED TO THE CAN OF EXISTING PANELS WITHOUT A GROUND BAR. ALL RACEWAYS SHALL HAVE AN INSULATED COPPER SYSTEM GROUND CONDUCTOR THROUGHOUT THE ENTIRE LENGTH OF CIRCUIT INSTALLED WITHIN CONDUIT PER NEC 517-13. GROUNDING CONDUCTOR SHALL BE INCLUDED IN TOTAL FILL IN DETERMINING CONDUIT SIZES, EVEN THOUGH NOT INCLUDED OR SHOWN ON DRAWINGS. THE CONTRACTOR SHALL PROVIDE EQUIPOTENTIAL GROUND TESTING IN THE PROJECT AREAS AND SUBMIT TEST REPORT, PRIOR TO THE 100 % AHCA INSPECTION, IN COMPLIANCE WITH NFPA 99.

MOLDED CASE CIRCUIT BREAKERS: ALL PANELBOARD BRANCH CIRCUIT BREAKERS SHALL BE BOLT-ON THERMAL-MAGNETIC MOLDED CASE TYPE. BREAKERS SHALL BE 1, 2 OR 3 POLE WITH AN INTEGRAL CROSSBAR TO ASSURE SIMULTANEOUS OPENING OF ALL POLES IN MULTI-POLE CIRCUIT BREAKERS. BREAKERS SHALL HAVE AN OVERCENTER, TRIP-FREE TOGGLE-TYPE OPERATING MECHANISM WITH QUICK MAKE, QUICK-BREAK ACTION AND ACTIVE HANDLE INDICATION. HANDLES SHALL HAVE "ON", "OFF", AND "TRIPPED" POSITIONS. BOLT-ON CIRCUIT BREAKERS SHALL BE ABLE TO BE INSTALLED IN THE PANELBOARD WITHOUT REQUIRING ADDITIONAL MOUNTING HARDWARE. 120/208 VOLT CIRCUIT BREAKERS SHALL HAVE INTERRUPTING RATINGS A MINIMUM OF 10,000 RMS SYMMETRICAL AMPERES AT 240VAC.

AT THE COMPLETION OF WORK, CONTRACTOR SHALL PROVIDE TWO SETS OF RECORD "AS-BUILT" DRAWINGS IN ACCORDANCE WITH DIVISION 1, SHOWING THE ACTUAL LOCATION OF ALL EQUIPMENT INSTALLED INCLUDING UNDERGROUND CONDUITS AND JUNCTION BOXES.

## COLOR CODES

COLOR CODING: COLOR CODE ALL POWER AND LIGHTING CABLE. COLOR CODE THE WIRE BY USING COLORED PLASTIC TAPE, PAINTING THE ENDS ACCESSIBLE AT JUNCTION OR PULL BOXES, OR OTHER METHOD ACCEPTABLE TO THE ENGINEER. USE THE FOLLOWING CHART AS APPLICABLE:

| | 120/208 | | 277/480 |
|---|---|---|---|
| CONDUCTOR | VOLTS | CONDUCTOR | VOLTS |
| PHASE A | BLACK | PHASE A | BROWN |
| PHASE B | RED | PHASE B | ORANGE |
| PHASE C | BLUE | PHASE C | YELLOW |
| NEUTRAL | WHITE | NEUTRAL | GRAY |
| EQUIP GROUND | GREEN | EQUIP.GROUND | GREEN |

COLOR CODING OF ESSENTIAL CIRCUITS: ALL BOXES AND ENCLOSURES SHALL BE MARKED SO AS TO BE READILY IDENTIFIED AS PART OF THE ESSENTIAL SYSTEM. CONDUIT AND BOXES, INCLUDING BACK BOXES, PANELS, ETC. SHALL BE SPOT PAINTED. CONDUITS SHALL BE IDENTIFIED TO WITHIN 6" OF THE BOX OR ENCLOSURE. ALL OTHER COLOR CODES SHALL MATCH EXISTING COLOR CODING.

## GENERAL ELECTRICAL NOTES:

1. LIGHT SWITCHES SHALL BE MOUNTED 48 INCHES ABOVE FINISHED FLOOR TO CENTER LINE OF DEVICE, UNLESS OTHERWISE NOTED.

2. RECEPTACLES SHALL BE LOCATED 18 INCHES ABOVE FINISHED FLOOR TO CENTER LINE OF DEVICE, UNLESS OTHERWISE NOTED. ABOVE COUNTER RECEPTACLES SHALL BE MOUNTED 6" ABOVE BACK SPLASH TO CENTERLINE OF DEVICE.

3. THE EQUIPMENT GROUNDING TERMINAL BARS OF THE NORMAL AND ESSENTIAL ELECTRICAL SYSTEM PANELBOARDS SERVING THE SAME PATIENT VICINITY SHALL BE BONDED TOGETHER WITH AN INSULATED, CONTINUOUS, COPPER CONDUCTOR NOT SMALLER THAN NUMBER 10.

4. EQUIPMENT SHALL BE OF MATERIALS SUITABLE FOR AND RATED FOR THE ENVIRONMENT IN WHICH THEY ARE TO BE INSTALLED.

5. WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT SHALL BE IN COMPLIANCE WITH NEC 110.

6. THE EXCLUSIVELY DEDICATED SPACE EXTENDING FROM FLOOR TO STRUCTURAL CEILING WITH A WIDTH AND DEPTH OF THE PANELBOARD OR SWITCHBOARD MUST BE CLEAR OF ALL PIPING, DUCTS, EQUIPMENT FOREIGN TO THE ELECTRICAL EQUIPMENT OR ARCHITECTURAL APPURTENANCES IN ACCORDANCE WITH NEC 408.

7. CRITICAL AND LIFE SAFETY LIGHT SWITCHES SHALL BE ROUTED IN CONDUIT AND BOXES OTHER THAN THAT FOR THE NORMAL BRANCH. ESSENTIAL SYSTEM SWITCHES SHALL BE RED IN COLOR.

8. PATIENT CARE AREAS SHALL BE PROVIDED WITH GROUNDING IN ACCORDANCE WITH NEC 517.

9. WHEN ELECTRICAL BOXES ARE LOCATED IN VERTICAL FIRE-RESISTIVE ASSEMBLIES, (CLASSIFIED AS FIRE/SMOKE AND SMOKE PARTITIONS), THEY SHALL BE INSTALLED WITHOUT AFFECTING THE FIRE CLASSIFICATION. ALL OF THE FOLLOWING CONDITIONS SHALL BE MET:

A. ALL ELECTRICAL BOXES SHALL BE METALLIC.

B. BOX OPENING SHALL OCCUR ONLY ON ONE SIDE OF FRAMING SPACE.

C. BOX OPENING SHALL NOT EXCEED 16 SQUARE INCHES.

D. ALL CLEARANCES BETWEEN OUTLET BOX AND GYPSUM BOARD SHALL BE COMPLETELY FILLED WITH JOINT COMPOUND (OR OTHER APPROVED MATERIAL).

E. PROVIDE A WALL AROUND OUTLETS LARGER THAN 16 SQUARE INCHES. THE INTEGRITY OF THE WALL RATING SHALL BE MAINTAINED.

F. THE TOTAL AGGREGATE SURFACE AREA OF THE BOXES SHALL NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FEET.

G. OUTLET BOXES LOCATED ON OPPOSITE SIDES OF FIRE RESISTIVE ASSEMBLIES SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES.

H. OUTLET BOXES SHALL BE SECURELY FASTENED TO WALL FRAMING MEMBERS.

I. THE OPENING IN THE GYPSUM BOARD FACING SHALL BE CUT NOT TO EXCEED 1/8 INCH BETWEEN THE EDGES OF THE OUTLET BOX AND THE EDGES OF THE OPENING.

10. NON-METALLIC RACEWAYS SHALL NOT BE USED TO SERVE ANY PATIENT CARE SPACE. ALL WIRING SHALL BE MECHANICALLY PROTECTED BY INSTALLATION IN METALLIC RACEWAYS.

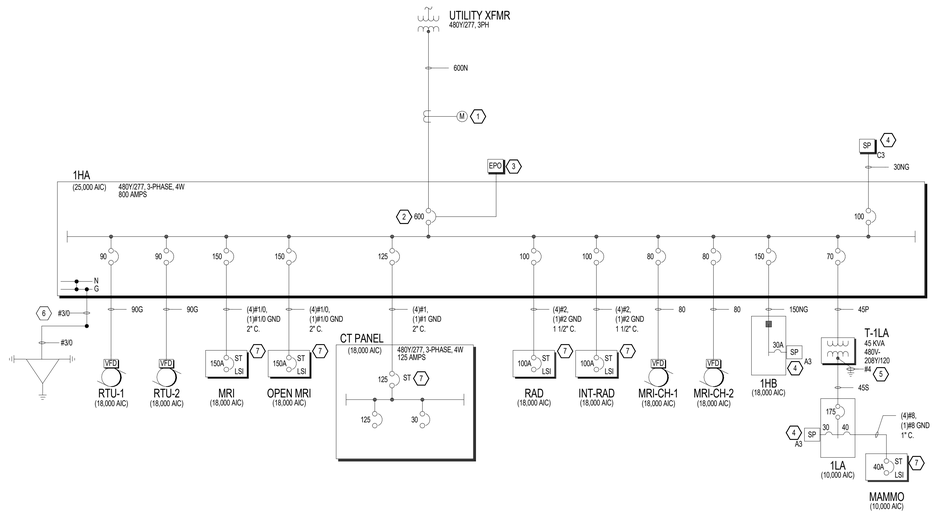
11. ALL DEVICES SHALL BE MOUNTED VERTICAL, UNLESS OTHERWISE NOTED.

12. ALL RECEPTACLES SHALL BE MOUNTED SUCH THAT THE GROUND PIN IS MOUNTED UP.

13. ALL PANELS AFFECTED BY THIS PROJECT SHALL BE PROVIDED WITH A NEW TYPE WRITTEN DIRECTORY.

14. PANELBOARD BRANCH CIRCUIT "RECIRCUITING" REQUIREMENTS:
• ALL BRANCH CIRCUITS BEING USED FOR "RECIRCUITING" SHALL BE FULLY INVESTIGATED BY THE CONTRACTOR PRIOR TO PERFORMING THE REQUIRED WORK. "RECIRCUITING" SHALL INCLUDE, BUT NOT LIMITED TO DEMOLISHING EXISTING ELECTRICAL DEVICES SHOWN AS BEING REMOVED AND REUSING THAT BRANCH CIRCUIT TO FEED NEW ELECTRICAL DEVICES.
• INTENT OF "RECIRCUITING" IS TO INTERCEPT THE EXISTING BRANCH CIRCUITS AT THE NEAREST, MOST CONVENIENT OVERHEAD JUNCTION BOX FOR EXTENSION TO NEW ELECTRICAL DEVICES SHOWN.
• THE REUSE OF EXISTING RACEWAYS SHALL BE PERMITTED TO THE FULLEST EXTENT POSSIBLE PROVIDED THAT THE RACEWAYS ARE METALLIC AND PROPERLY SUPPORTED PER THE NEC. CONTRACTOR SHALL ENSURE THAT SUCH RACEWAYS ARE SUPPORTED, AND IF REQUIRED, ADD ADDITIONAL SUPPORTS

Drawn By: Author
Checked By: Checker
Approved By: Approver




ELECTRICAL ONE-LINE DIAGRAM

| LOW VOLTAGE FEEDER SCHEDULE (COPPER) | | | | |
|---|---|---|---|---|
| FEEDER DESIGNATION | # OF SETS | PHASE & NEUTRAL | GROUND | CONDUIT SIZE |
| 30 | 1 | #10 | #10 | 3/4" |
| 40 | 1 | #8 | #10 | 1" |
| 50 | 1 | #8 | #10 | 1" |
| 60 | 1 | #6 | #10 | 1" |
| 70 | 1 | #4 | #8 | 1 1/4" |
| 80 | 1 | #4 | #8 | 1 1/4" |
| 90 | 1 | #2 | #8 | 1 1/2" |
| 100 | 1 | #2 | #6 | 1 1/2" |
| 125 | 1 | #1 | #6 | 1 1/2" |
| 150 | 1 | #1/0 | #6 | 2" |
| 175 | 1 | #2/0 | #6 | 2" |
| 200 | 1 | #3/0 | #6 | 2" |
| 225 | 1 | #4/0 | #4 | 2 1/2" |
| 250 | 1 | 250KCMIL | #4 | 2 1/2" |
| 300 | 1 | 350KCMIL | #4 | 3" |
| 350 | 1 | 500KCMIL | #3 | 3 1/2" |
| 400 | 1 | 600KCMIL | #3 | 3 1/2" |
| 500 | 2 | 250KCMIL | #2 | 2 1/2" |
| 600 | 2 | 350KCMIL | #1 | 3" |
| 700 | 2 | 500KCMIL | #1/0 | 3 1/2" |
| 800 | 3 | 300KCMIL | #1/0 | 3" |
| 1000 | 3 | 400KCMIL | #2/0 | 3 1/2" |
| 1200 | 4 | 350KCMIL | #3/0 | 3" |
| 1600 | 5 | 400KCMIL | #4/0 | 3 1/2" |
| 2000 | 6 | 500KCMIL | 250KCMIL | 4" |
| 2500 | 7 | 500KCMIL | 350KCMIL | 4" |
| 3000 | 8 | 500KCMIL | 400KCMIL | 4" |
| 4000 | 11 | 500KCMIL | 500KCMIL | 4" |

## ONE LINE DIAGRAM SYMBOL LEGEND

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|---|---|---|---|
| | SWITCHBOARD OR DISTRIBUTION BOARD | SIZE SIZE | DISCONNECT SWITCH |
| | | M | UTILITY COMPANY METER W/ CT'S |
| | | 800 | CIRCUIT BREAKER |
| 100 84 NAME (XX,XXX AIC) (XX,XXX SCA) | MAIN BREAKER PANEL | 20A | SUB-PANEL BREAKER |
| | | SIZE LSI | ENCLOSED CIRCUIT BREAKER |
| 84 NAME (XX,XXX AIC) (XX,XXX SCA) | MAIN LUG ONLY PANEL | SP C3 | SURGE SUPRESSOR<br>C3 = SERVICE ENTRANCE DEVICE<br>B3 = DISTRIBUTION BOARD DEVICE<br>A3 = PANELBOARD DEVICE |
| | | | SPLICE POINT/BOX |
| HORSE POWER | | | |
| 5 NAME (XX,XXX AIC) (XX,XXX SCA) | MOTOR | | GROUND BAR WITH GROUND ROD TRIAD CONFIGURATION |
| XXX XXXKVA (XX,XXX SCA) | UTILITY COMPANY TRANSFORMER | | |
| T- XXX 480V-208Y/120 # | STEP-DOWN TRANSFORMER | | |

| ONE-LINE DIAGRAM WIRE LEGEND | |
|---|---|
| | EXISTING EQUIPMENT TO BE DEMOLISHED |
| * | EXISTING EQUIPMENT AFFECTED BY PROJECT |
| | EXISTING EQUIPMENT TO REMAIN |
| | NEW EQUIPMENT |

| XFMR FEEDER SCHEDULE (CU) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| TRANSFORMER | SECONDARY | | | | | PRIMARY | | | |
| KVA RATING | G.E.C. | # OF SETS | SECONDARY WIRE SIZE (WITH NEUTRAL) | SECONDARY BONDING JUMPER | SECONDARY CONDUIT SIZE | # OF SETS | PRIMARY WIRE SIZE (WITHOUT NEUTRAL) | PRIMARY GROUND SIZE | PRIMARY CONDUIT SIZE |
| 15 | #8 | 1 | #6 | #8 | 1 1/2" | 1 | #10 | #10 | 3/4" |
| 30 | #6 | 1 | #2 | #6 | 1 1/2" | 1 | #8 | #10 | 1" |
| 45 | #4 | 1 | #2/0 | #4 | 2" | 1 | #4 | #8 | 1 1/4" |
| 75 | #2 | 1 | 350KCMIL | #2 | 4" | 1 | #1 | #6 | 1 1/2" |
| 112.5 | #1/0 | 1 | 600KCMIL | #1/0 | 4" | 1 | #2/0 | #6 | 2" |
| 150 | #2/0 | 2 | 350KCMIL | #2/0 | 4" | 2 | #4/0 | #4 | 2 1/2" |
| 225 | #2/0 | 3 | 300KCMIL | #2/0 | 3" | 3 | 500KCMIL | #3 | 4" |
| 300 | #3/0 | 4 | 350KCMIL | 250 KCMIL | 4" | 4 | 250KCMIL | #2 | 2 1/2" |
| 500 | #3/0 | 6 | 500KCMIL | #3/0 | 4" | 6 | 600KCMIL | #1/0 | 4" |

| ELECTRICAL ONE-LINE DIAGRAM NOTES | |
|---|---|
| 1 | WALL MOUNTED C/T CABINET AND METER SOCKET PROVIDED BY ELECTRICIAN. C/T CABINET AND METER SOCKET SHALL BE OUC APPROVED AND MOUNTED AT 5'-0" TO CENTERLINE OF METER. |
| 2 | PROVIDE 100% RATED BREAKER. |
| 3 | PROVIDE REMOTE BUILDING POWER SHUNT TRIP DEVICE WITH PUSH BUTTON ON THE EXTERIOR OF THE BUILDING. REFER TO FLOOR PLANS FOR LOCATION. |
| 4 | LOCATE SURGE PROTECTION DEVICE CLOSE TO PROTECTED PANELBOARD TO MINIMIZE LEAD LENGTHS. TWIST LEADS IN CONDUIT AND CONNECT TO OVERCURRENT DEVICE INDICATED. |
| 5 | TRANSFORMER GROUND TO BE CONNECTED TO ELECTRICAL ROOM GROUND BAR. |
| 6 | MAIN BUILDING GROUNDING LOCATION VIA MAIN GROUND BAR. PROVIDE #3/0 (600V) GROUND WIRE BONDED TO:<br>*(3) 5/8"x20'-0" VERTICALLY DRIVEN COPPERWELD GROUND RODS, 20'-0" APART<br>*FOUNDATION/FOOTING STEEL.<br>*MAIN WATER PIPE WITHIN 5' OF BUILDING ENTRANCE<br>*EMERGENCY GENERATOR GROUNDING SYSTEM<br>*BUILDING GROUND LOOP |
| 7 | CIRCUIT BREAKER SHALL HAVE 120V SHUNT TRIP. |

| GENERAL ONE-LINE DIAGRAM NOTES | |
|---|---|
| 1 | REFER TO PANEL SCHEDULES FOR ADDITIONAL LOADS/PANELBOARD REQUIREMENTS NOT SPECIFICALLY INDICATED ON THIS SHEET. |
| 2 | COORDINATE CIRCUIT BREAKER SELECTION AND LUG CAPACITIES WITH SPECIFIED WIRE SIZES. PROVIDE LUG KITS AS REQUIRED. ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT. |
| 3 | ALL NORMAL AND CRITICAL BRANCH PANELS SERVING THE SAME PATIENT CARE AREA SHALL HAVE A #10 CU BONDING JUMPER BETWEEN THE GROUND BUSSES. |
| 4 | PROVIDE A LABEL FOR ALL ELECTRICAL EQUIPMENT SHOWING MAXIMUM AVAILABLE FAULT CURRENT AND DATE OF THE CALCULATION. LABELS MUST COMPLY WITH ALL PROVISIONS OF NEC 110.24. |
| 5 | AVAILABLE FAULT CURRENT CALCULATED AT 42.924A BASED UPON TRANFORMER FAULT-LOAD CURRENT VALUES IN OUC DESIGN GUIDELINE. |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ELECTRICAL ONE-LINE DIAGRAM

**E100**

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3/18/2019

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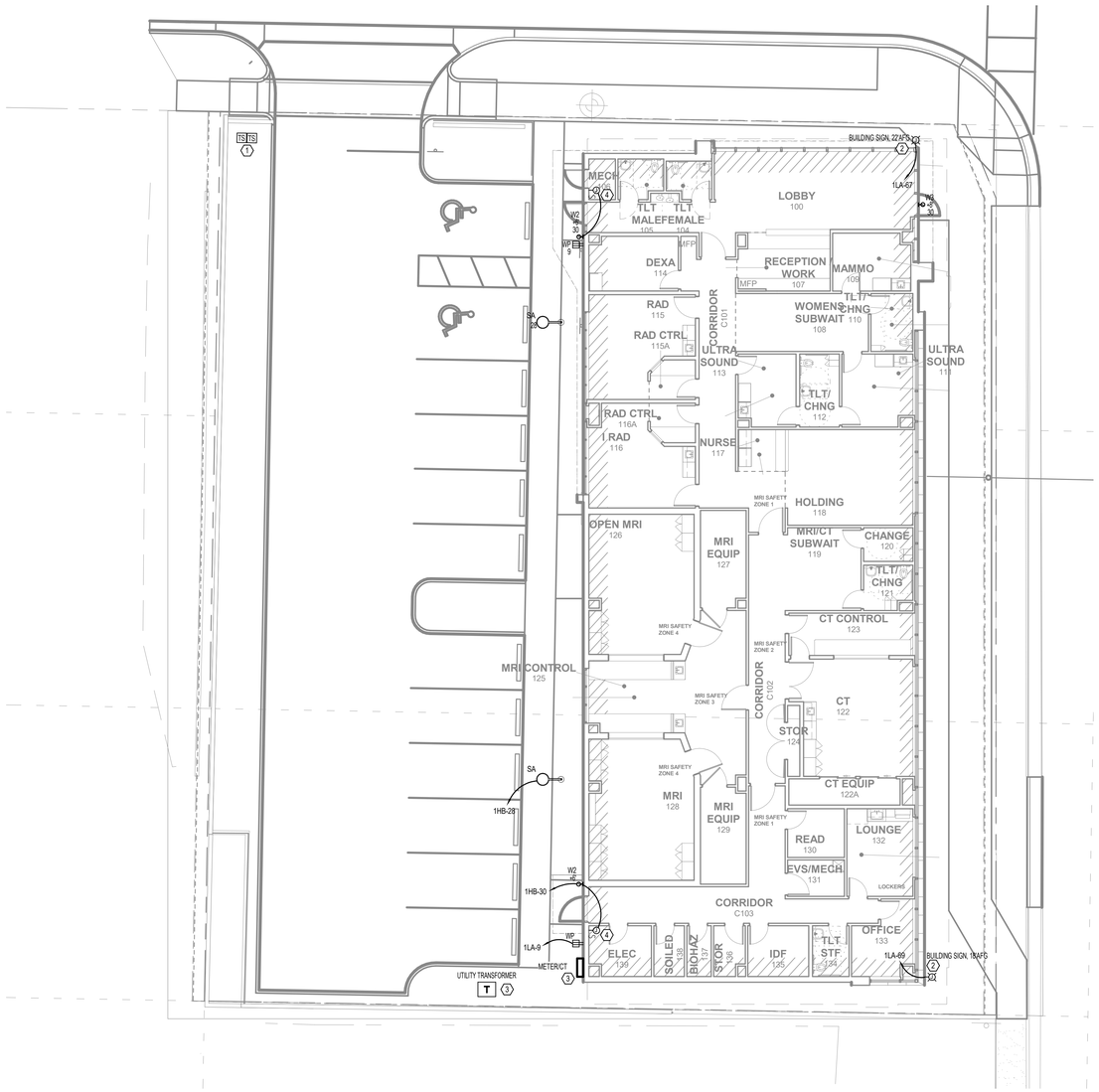
## GENERAL SITE PLAN NOTES

1. REFER TO ARCHITECTURAL ELEVATIONS FOR FINAL MOUNTING HEIGHTS OF ALL WALL MOUNTED LIGHT FIXTURES. UNLESS NOTED OTHERWISE, ARCHITECTURAL ELEVATIONS SHALL DICTATE MOUNTING HEIGHTS OF ALL FIXTURES.
2. COORDINATE LOCATIONS OF ALL SITE LIGHTING FIXTURES WITH CIVIL, ARCHITECTURAL, AND LANDSCAPING PLANS.
3. ALL SITE LIGHTING SHALL BE POWERED VIA LIGHTING CONTACTOR, REFER TO ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION.
4. ALL BURIED CONDUIT, BOTH DIRECT BURIED AND CONCRETE ENCASED SHALL REQUIRE ELECTRICAL WARNING TAPE ABOVE BURIED CONDUIT. TAPE SHALL BE LOCATED 6" BELOW GRADE FOR THE ENTIRE LENGTH OF THE RUN.
5. ALL DIRECT BURIED CONDUIT SHALL BE SCHEDULE 40 PVC. MINIMUM DEPTH SHALL BE 24" BELOW GRADE IN ALL LOCATIONS.

| ELECTRICAL PLAN NOTES (CODED NOTES) | |
|---|---|
| 1 | WEATHER PROOF TAMPER SWITCHES SHOWN FOR BACKFLOW PREVENTER (BFV) AND POST INDICATOR VALVE (PIV) ARE LOCATED ON THE EXTERIOR OF THE BUILDING. REFER TO FIRE PROTECTION SITE PLAN FOR EXACT LOCATION. |
| 2 | PROVIDE ELECTRICAL CONNECTION TO BUILDING EXTERIOR SIGNAGE. CIRCUIT TO BE CONTROLLED BY TIMECLOCK VIA LIGHTING CONTACTOR. REFER TO LIGHTING CONTROL DETAILS FOR FURTHER INFORMATION. COORDINATE EXACT CONNECTION REQUIREMENTS WITH SIGN VENDOR DRAWINGS. |
| 3 | PROPOSED LOCATION OF UTILITY COMPANY TRANSFORMER, CT CABINET, AND METER. COORDINATE PRIMARY AND SECONDARY ROUTING WITH UTILITY COMPANY. |
| 4 | REMOTE EMERGENCY BATTERY PACK FOR WALL MOUNTED FIXTURE. INSTALL LOCAL TEST SWITCH ADJACENT TO BATTERY PACK, PER MANUFACTURER INSTALLATION INSTRUCTIONS. |




1 SITE PLAN - ELECTRICAL
1" = 10'-0"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SITE PLAN - ELECTRICAL

**E200**

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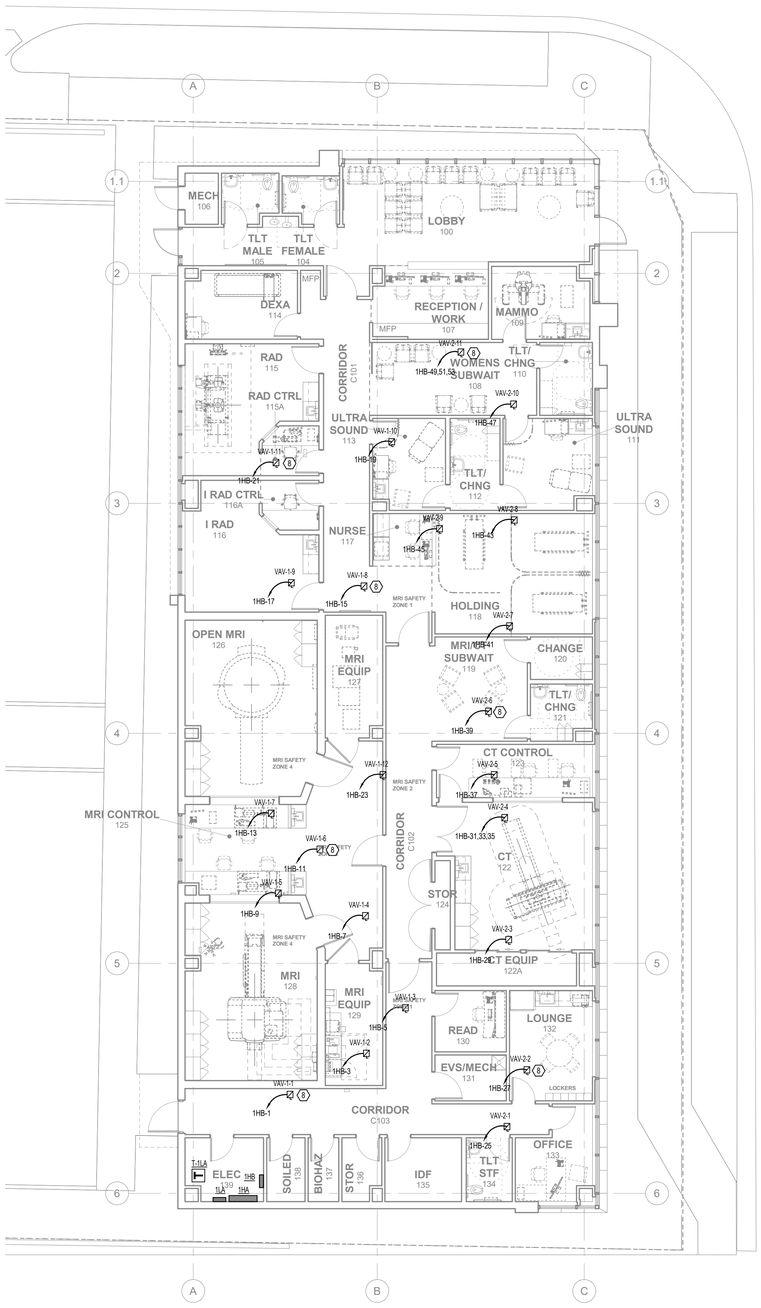
| POWER PLAN NOTES (CODED NOTES) | |
|---|---|
| 1 | PROVIDE 120V ELECTRICAL CONNECTION TO NURSE CALL EQUIPMENT CABINET (NCEC). |
| 2 | PROVIDE LIGHTING CONTACTORS, 30 AMP, MECHANICALLY HELD, PER LIGHTING CONTACTOR DETAIL ON DETAIL SHEETS. |
| 3 | PROVIDE 120V, 10 NORMAL BRANCH CONNECTION TO MOTORIZED SHADE POWER. PROVIDE EACH POWER SUPPLY WITH LOCAL DISCONNECTING MEANS, IE TOGGLE SWITCH, PRIOR TO CONNECTION TO POWER SUPPLY. LOCATE POWER SUPPLY ABOVE ACCESSIBLE CEILING. FROM EACH POWER SUPPLY, PROVIDE (1) 1/2"C. TO LOCATION SERVED FOR THE INSTALLATION OF POWER WIRING TO EACH SHADE SYSTEM. TERMINATE EACH RACEWAY INTO A 2-GANG BACKBOX W/ 1-GANG MUDRING LOCATED IN THE CEILING AT THE SHADE MOTOR LOCATION ALONG THE EXTERIOR WINDOW. PROVED ADDITIONAL (1) 1/2"C. TO WALL CONTROLLER. DIVISION 26 CONTRACTOR SHALL PROVIDE (3) #12AWG WIRE FROM POWER SUPPLY TO EACH SHADE INSTALLATION. FINAL TERMINATION BY SHADE VENDOR. LOW VOLTAGE WIRING TO WALL CONTROLLER BY SHADE VENDOR. |
| 4 | RECEPTACLE FOR EMPLOYEE TIME CLOCK. COORDINATE EXACT LOCATION WITH OWNER AND CONNECTION REQUIREMENTS WITH TIME CLOCK MANUFACTURER INSTRUCTIONS. |
| 5 | THIS ROOM IS A PATIENT CARE AREA. ALL RECEPTACLES IN THIS ROOM SHALL BE HOSPITAL GRADE TYPE AND SHALL HAVE REDUNDANT GROUNDING (I.E. EQUIPMENT GROUNDING CONDUCTOR AND RACEWAY LISTED AS A GROUND PATH.) |
| 6 | COORDINATE EXACT POWER REQUIREMENTS IN THIS ROOM WITH OWNER'S TECHNOLOGY DIVISION PRIOR TO ROUGH-IN. |
| 7 | COORDINATE INSTALLATION OF MOTOR OPERATED DAMPERS WITH DIVISION 23. VERIFY EXACT FUSE AND TRANSFORMER SIZE (IF REQUIRED) WITH ACTUAL DAMPER PROVIDED. PROVIDE WITH LOCAL DISCONNECTING MEANS, I.E. TOGGLE SWITCH, PRIOR TO CONNECTION TO HARDWARE. CONTROLS OF DAMPER BY DIVISION 23. |
| 8 | INSTALL ALL HVAC POWER DISCONNECTS TO MAINTAIN REQUIRED 4' WORKING CLEARANCE IN FRONT OF THEM, PER NEC 110.26. TYPICAL ALL DISCONNECTS. |

## GENERAL POWER PLAN NOTES

1. VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT. MODIFY LAYOUT AS REQUIRED PER MANUFACTURER'S SPACE REQUIREMENTS.
2. COORDINATE FINAL LOCATIONS OF ALL DIVISION 23 EQUIPMENT IN FIELD WITH DIVISION 23. FIELD LOCATIONS SHALL DICTATE.
3. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF ALL DEVICES WITH ARCHITECTURAL ELEVATIONS AND CASEWORK.

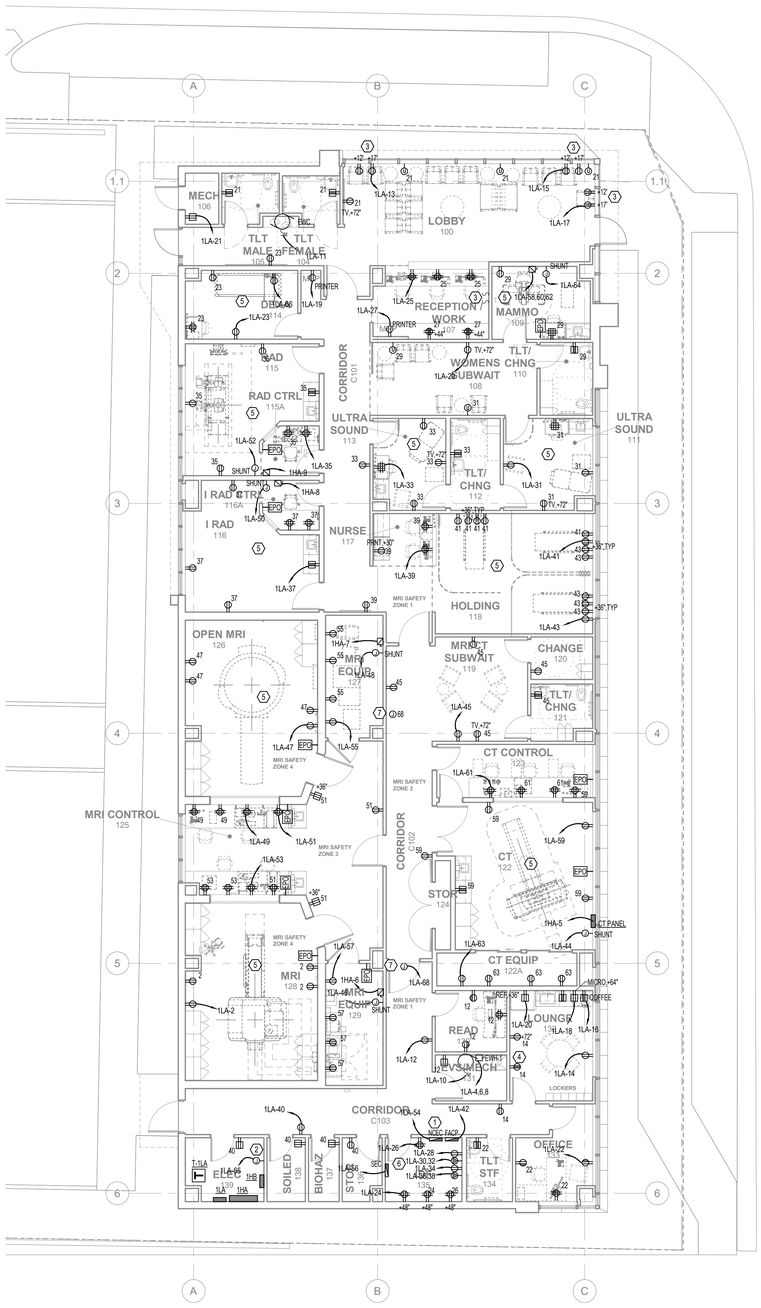
## GENERAL RADIOLOGY PLAN NOTES

1. THE RADIOLOGY PLANS AND DETAILS ARE INTENDED TO GIVE THE CONTRACTOR A GENERAL KNOWLEDGE OF THE WORK ASSOCIATED WITH THE INSTALLATION OF THE RADIOLOGY EQUIPMENT. IT IS NOT INTENDED TO INDICATE ALL CONNECTIONS, J-BOXES, ETC. OR EXACT DIMENSION OR LOCATIONS OF EQUIPMENT. ALL EQUIPMENT SHALL BE INSTALLED PER THE OWNER APPROVED MANUFACTURER'S INSTALLATION DRAWINGS. INSTALLATION SHALL BE COORDINATED IN FIELD WITH RADIOLOGY EQUIPMENT MANUFACTURER.
2. IT IS THE INTENTION OF THESE DRAWINGS THAT ALL WORK (LABOR, MATERIALS, ETC.) REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM SHALL BE PROVIDED.
3. EQUIPMENT MANUFACTURER SHALL SUPPLY FIXED LENGTH CABLES, WHEREBY ALL MEASUREMENTS SHALL BE DETERMINED FROM ELECTRICAL TROUGH RUNS INDICATED ON THE VENDOR DRAWINGS. ANY CHANGES TO EQUIPMENT PLACEMENT OR TROUGH ROUTINGS AT JOB SITE WILL CAUSE THE DELIVERY OF INACCURATE AND ERRONEOUS CABLE LENGTHS. THIS MAY RESULT IN ADDITIONAL COST FOR REPLACEMENT CABLES AND DELAY EQUIPMENT INSTALLATION. COORDINATE PLACEMENT OF ALL EQUIPMENT WITH EQUIPMENT INSTALLER PRIOR TO ROUGH-IN.
4. THE FOLLOWING MUST BE PERFORMED/PROVIDED AS REQUIRED:
   A. REDUNDANT GROUNDING FOR THE PATIENT CARE AREA VIA THE RACEWAY SYSTEM. THE EQUIPMENT MUST BE FASTENED TO THE RACEWAY SYSTEM OR BE BONDED TO THE RACEWAY SYSTEM BY THE USE OF FLEXIBLE METAL CONDUIT OR BONDING STRAPS.
   B. SEPARATE RACEWAYS OR CONTINUOUS BARRIERS FOR THE SEPARATION OF INTERCONNECTING CABLES PER VOLTAGE RATING AND CLASS. POWER AND CLASS 1 CIRCUIT WIRING SHALL BE ROUTED TOTALLY SEPARATE FROM CLASS 2 AND 3 CIRCUIT WIRING. PROVIDE A CHART AND/OR WIRING DIAGRAM WITH MARKED CABLES TO FACILITATE VERIFICATION OF THIS REQUIREMENT. THIS CHART MUST BE DEVELOPED BY THE EQUIPMENT MANUFACTURER'S ENGINEERING DEPARTMENT.
5. ALL RADIOLOGY EQUIPMENT SHALL BE TESTED AND RECORDED FOR CHASSIS LEAKAGE IN ACCORDANCE WITH NFPA 99. PROVIDE A WRITTEN REPORT, SIGNED, SEALED AND DATED BY THE PERSON SUPERVISING THE TEST FOR EACH PIECE OF EQUIPMENT. TABULATION PERMITTED AND RECOMMENDED.




## 2 LEVEL 1 NEW CONSTRUCTION PLAN - HVAC POWER

1/8" = 1'-0"




## 1 LEVEL 1 NEW CONSTRUCTION PLAN - POWER

1/8" = 1'-0"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LEVEL 1 NEW CONSTRUCTION PLAN - POWER

**E201**

43642
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## GENERAL POWER PLAN NOTES

1. VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT. MODIFY LAYOUT AS REQUIRED PER MANUFACTURER'S SPACE REQUIREMENTS.
2. COORDINATE FINAL LOCATIONS OF ALL DIVISION 23 EQUIPMENT IN FIELD WITH DIVISION 23. FIELD LOCATIONS SHALL DICTATE.
3. COORDINATE MOUNTING HEIGHTS AND LOCATIONS OF ALL DEVICES WITH ARCHITECTURAL ELEVATIONS AND CASEWORK.

## GENERAL LIGHTNING PROTECTION NOTES

1. PROVIDE COMPLETE UL LISTED, LPI CERTIFIED LIGHTNING PROTECTION SYSTEM IN FULL COMPLIANCE WITH THE LATEST EDITION OF NFPA 780 FOR NEW PORTION OF BUILDING AND EXISTING PORTION INDICATED. THE SYSTEM SHALL INCLUDE ALL AIR TERMINALS, ROOF CONDUCTORS, DOWN CONDUCTORS SPACED NOT MORE THAN 100' APART AND GROUND RODS (5/8" X 20'-0" VERTICALLY DRIVE RODS, 2 PER DOWN CONDUCTOR). PROVIDE AIR TERMINALS ON ALL ROOF MOUNTED MECHANICAL EQUIPMENT, AS REQUIRED. BOND ALL METALLIC BODIES WITHIN AREAS CALCULATED BY NFPA 780.
2. ALL ROOF MOUNTED LIGHTING PROTECTION EQUIPMENT SHALL BE ALUMINUM. ALL DOWN CONDUCTORS AND GROUND RODS SHALL BE COPPER. ALL DOWN CONDUCTORS SHALL BE CONTAINED IN MINIMUM 1" PVC CONDUIT.
3. SUBMIT COMPLETE SHOP DRAWINGS SHOWING ROOF LAYOUT, DOWN LOCATIONS, GROUND ROD LOCATIONS, ETC. AS WELL AS ALL CONNECTION DETAILS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PERFORM ALL REQUIRED RESISTANCE AND CONTINUITY TESTING AFTER INSTALLATION IS COMPLETED.
4. SUBMIT COMPLETE SHOP DRAWINGS SHOWING ROOF LAYOUT, DOWN LOCATIONS, GROUND ROD LOCATIONS, ETC. AS WELL AS ALL CONNECTION DETAILS TO ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. CONTRACTOR SHALL PERFORM ALL REQUIRED RESISTANCE AND CONTINUITY TESTING AFTER INSTALLATION IS COMPLETED.

## GENERAL FIRE ALARM PLAN NOTES

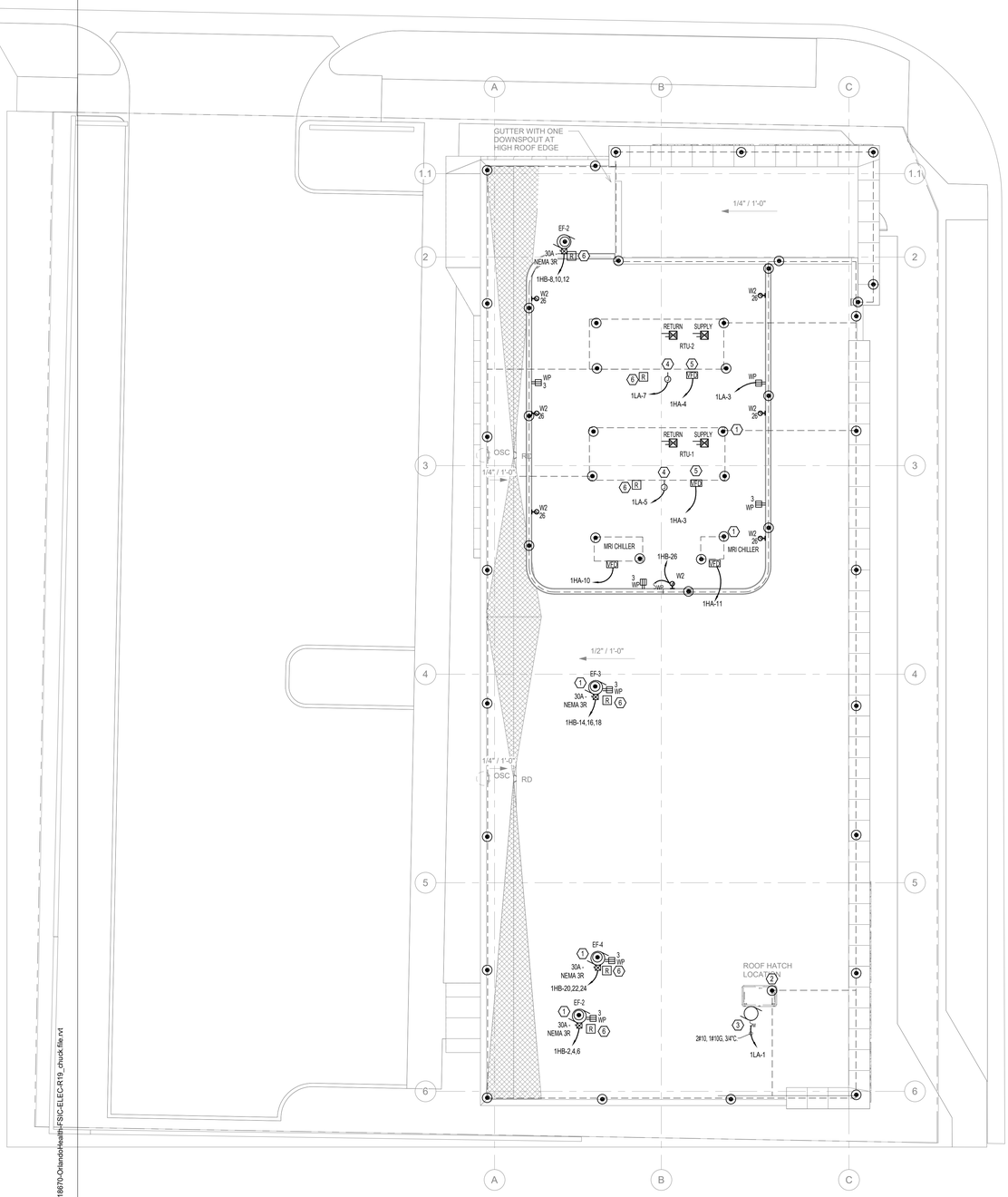
1. REFER TO FIRE ALARM SYMBOL LEGEND FOR DETAILED REQUIREMENTS FOR ALL FIRE ALARM DEVICE INSTALLATIONS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR FINAL MOUNTING HEIGHTS OF ALL DEVICES. UNLESS NOTED OTHERWISE, ARCHITECTURAL ELEVATIONS SHALL DICTATE MOUNTING HEIGHTS OF ALL FIXTURES.
3. VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT.
4. FIRE ALARM CONTRACTOR SHALL FULLY TEST ALL INITIATING DEVICES WITHIN THE SMOKE COMPARTMENT TO ENSURE THAT ALL DEVICES ARE CORRECTLY ANNUNCIATING THE CORRECT SMOKE COMPARTMENT IDENTIFICATION, AS SHOWN ON THE LIFE SAFETY PLAN. CONTRACTOR SHALL CORRECT ANY AND ALL DISCREPANCIES FOUND DURING SAID TESTING PROCEDURE.
5. REFER TO SYSTEM RISER DIAGRAMS AND DETAILS FOR ADDITIONAL INFORMATION.

## ELECTRICAL PLAN NOTES (CODED NOTES)

| | |
|---|---|
| 1 | PROVIDE LIGHTNING PROTECTION FOR ROOF MOUNTED MECHANICAL AND HVAC EQUIPMENT. REFER TO DETAIL SHEET FOR ADDITIONAL INFORMATION. |
| 2 | BOND METAL ROOF HATCH ASSEMBLY TO THE LIGHTNING PROTECTION SYSTEM IN ACCORDANCE WITH NFPA 780. |
| 3 | CONNECTION TO ELECTRIC RETRACTABLE ROOF ACCESS LADDER. COORDINATE EXACT ROUGH-IN LOCATION AND REQUIREMENTS EQUIPMENT VENDOR. |
| 4 | PROVIDE 120V, 1Ø CONNECTION TO AIR HANDLER MARINE LIGHTS, RECEPTACLES AND DDC. PROVIDE BRANCH CIRCUIT WITH LOCAL DISCONNECTING MEANS VIA SINGLE POLE KEY SWITCH AT INSTALLATION. COORDINATE EXACT LOCATION AND ROUGH-IN REQUIREMENTS WITH MECHANICAL DRAWINGS AND MANUFACTURER PRIOR TO ROUGH-IN. |
| 5 | PROVIDE SINGLE POINT ELECTRICAL CONNECTION, SIZED AS INDICATED, TO DIVISION 23 PROVIDED VARIABLE FREQUENCY DRIVE ASSEMBLY (VFD). COORDINATE INSTALLATION IN FIELD WITH DIVISION 23. |
| 6 | PROVIDE FIRE ALARM RELAY TO DE-ENGERGIZE (SHUTDOWN) MECHANICAL EQUIPMENT UPON ACTIVATION OF THE FIRE ALARM SYSTEM. |
| 7 | COVE LIGHT FIXTURE TO BE MOUNTED IN ARCHITECTURAL COVE 6" FROM DECORATIVE WALL. FIELD ADJUST AIMING TO ENSURE WALL IS WASHED EVENLY IN LIGHT. ARCHITECT/INTERIOR TO DESIGNER TO APPROVE FINAL MOUNTING AND AIMING. |
| 8 | CONNECTION TO SKYFACTORY CEILING PANEL, BY OTHERS. COORDINATE EXACT LOCATION WITH SKYFACTORY VENDOR FOR EXACT LOCATION AND CONNECTION REQUIREMENTS. |

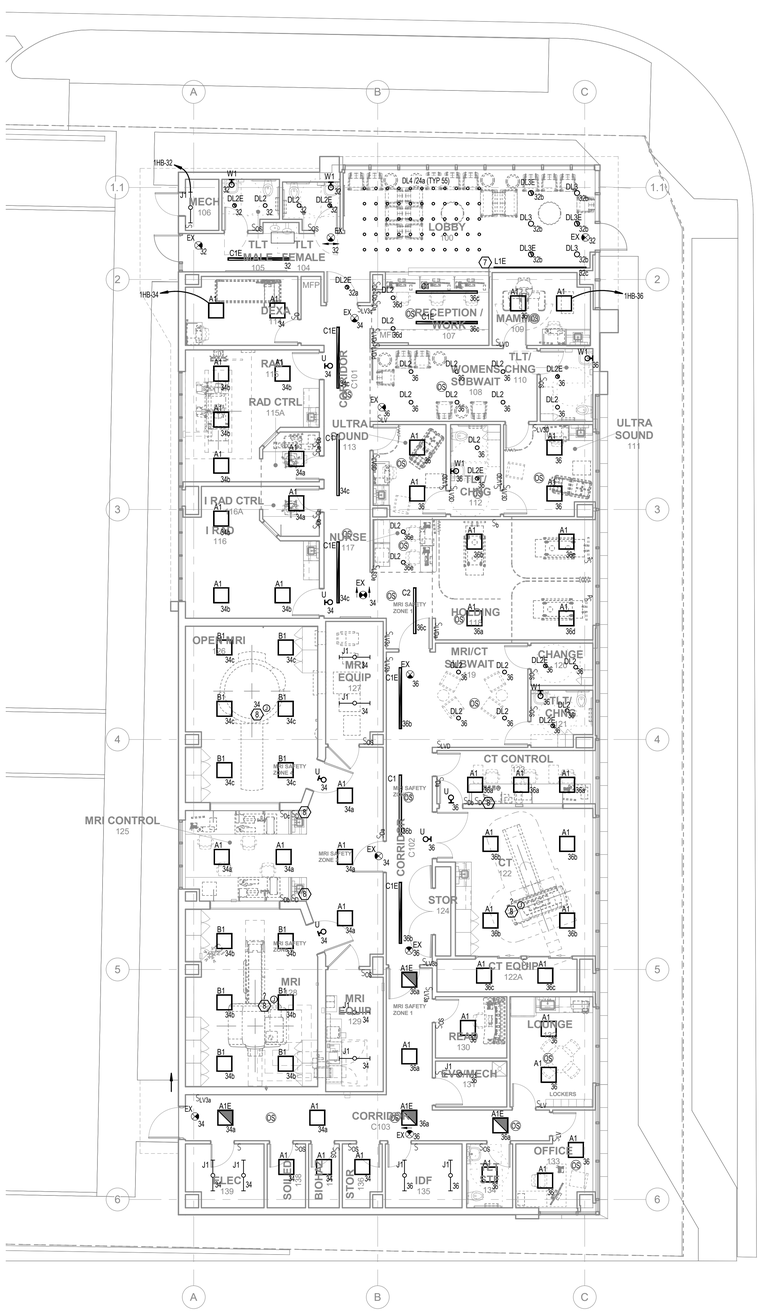
## GENERAL LIGHTING PLAN NOTES

1. REFER TO ARCHITECTURAL CEILING PLAN FOR FINAL PLACEMENT AND LOCATION OF ALL CEILING MOUNTED LIGHT FIXTURES.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR FINAL MOUNTING HEIGHTS OF ALL WALL MOUNTED LIGHT FIXTURES.
3. SURFACE MOUNTED RACEWAY IS NOT PERMITTED FOR INTERCONNECTION BETWEEN MULTIPLE UNDERCABINET LIGHT FIXTURES. BACKFEED ALL FIXTURES.
4. CONTRACTOR SHALL PROVIDE NEW ENGRAVED FACEPLATES FOR ALL SWITCHES AND EQUIPMENT IDENTIFYING PANEL AND CIRCUIT INFORMATION.
5. ALL EXISTING EXIT SIGNS OUTSIDE OF THE CONSTRUCTION BARRIERS SHALL INDICATE A DIRECTION FOR EGRESS PATH. NO EXIT SIGN SHALL DIRECT PERSONS INTO A CONSTRUCTION BARRIER OR NON-EGRESS PATH. EXIT SIGNS SHALL BE TEMPORARY REMOVED, RELOCATED, REWORKED AS NECESSARY TO DIRECT PERSONS INTO A EGRESS PATH. EXISTING EXIT SIGNS CAN BE TEMPORARY BAGGED OR HAVE DIRECTIONAL ARROWS BLANKED AS NECESSARY TO SUSTAIN EGRESS PATH DURING CONSTUCTION. UPON COMPLETION OF WORK THESE TEMPORARY SHALL BE REMOVED AND THE EXIT SIGNS BROUGHT BACK TO THERE ORIGINAL OPERATIONAL STATE. REFER TO ARCHITECTURAL LIFE SAFETY AND/OR PHASING PLANS FOR COORDINATION OF EXIT SIGNAGE.




## 2 ROOF LEVEL NEW CONSTRUCTION PLAN - POWER

1/8" = 1'-0"




## 1 LEVEL 1 NEW CONSTRUCTION PLAN - LIGHTING

1/8" = 1'-0"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LEVEL 1 NEW CONSTRUCTION PLAN - LIGHTING AND ROOF PLAN

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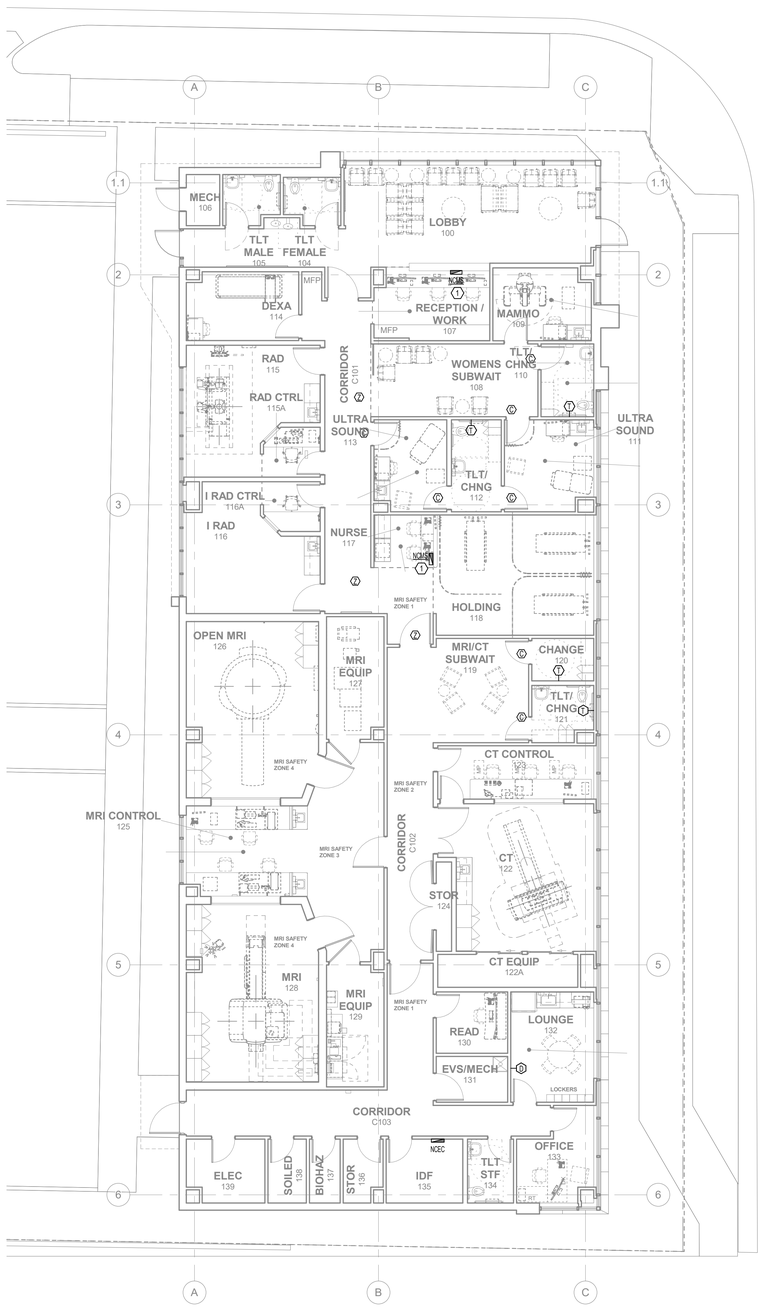
## GENERAL NURSE CALL PLAN NOTES

1. REFER TO ATCHITECTURAL ELEVATIONS FOR FINAL MOUNTING HEIGHTS OF ALL DEVICES. UNLESS OTHERWISE NOTED, ARCHITECTURAL ELEVATIONS SHALL DICTATE MOUNTING HEIGHT.
2. VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION.
3. COORDINATE INSTALLATION OF ALL LOW VOLTAGE SYSTEMS WITH O.F.C.I. PATIENT HEADWALL SYSTEMS PRIOR TO BEGINNING ROUGH-IN OF AREA.



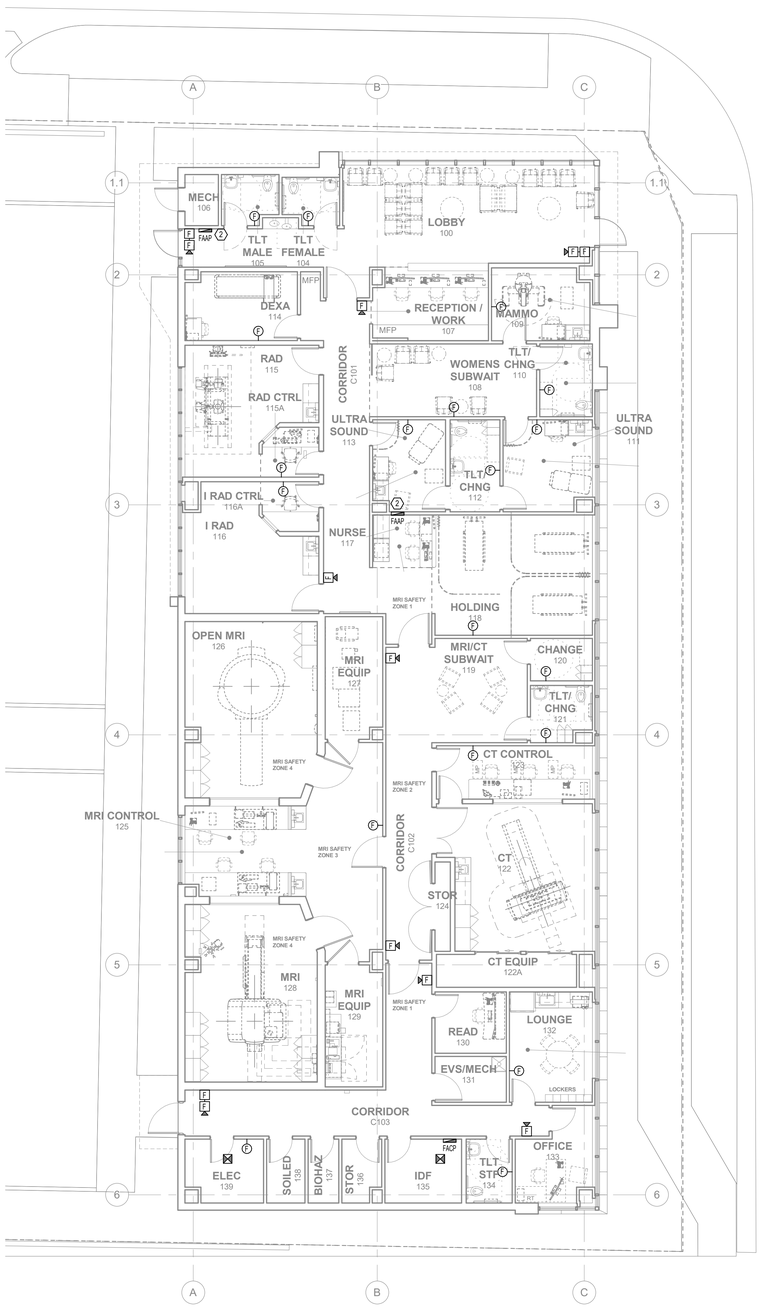

2 LEVEL 1 NEW CONSTRUCTION PLAN - NURSE CALL
1/8" = 1'-0" 0' 4' 8' 16' 24'

## ELECTRICAL PLAN NOTES (CODED NOTES)

| | |
|---|---|
| 1 | COORDINATE FINAL LOATION OF THE NURSE CALL MASTER STATION WITH THE FACILITY PRIOR TO ROUGH-IN. LOCATE PER STAFF'S DIRECTION. |
| 2 | PROVIDE FLUSH MOUNTED FIRE ALARM ANNUNCIATOR AT ENTRANCE AND ATTENDED NURSE STATION. COORDINATE WITH CASEWORK. |

## GENERAL FIRE ALARM PLAN NOTES

1. REFER TO FIRE ALARM SYMBOL LEGEND FOR DETAILED REQUIREMENTS FOR ALL FIRE ALARM DEVICE INSTALLATIONS.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR FINAL MOUNTING HEIGHTS OF ALL DEVICES. UNLESS NOTED OTHERWISE, ARCHITECTURAL ELEVATIONS SHALL DICTATE MOUNTING HEIGHTS OF ALL FIXTURES.
3. VERIFY AND COORDINATE EXACT ELECTRICAL REQUIREMENTS OF ALL EQUIPMENT WITH MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLATION OF EQUIPMENT.
4. FIRE ALARM CONTRACTOR SHALL FULLY TEST ALL INITIATING DEVICES WITHIN THE SMOKE COMPARTMENT TO ENSURE THAT ALL DEVICES ARE CORRECTLY ANNUNCIATING THE CORRECT SMOKE COMPARTMENT IDENTIFICATION. AS SHOWN ON THE LIFE SAFETY PLAN. CONTRACTOR SHALL CORRECT ANY AND ALL DISCREPANCIES FOUND DURING SAID TESTING PROCEDURE.
5. REFER TO SYSTEM RISER DIAGRAMS AND DETAILS FOR ADDITIONAL INFORMATION.




1 LEVEL 1 NEW CONSTRUCTION PLAN - FIRE ALARM
1/8" = 1'-0" 0' 4' 8' 16' 24'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Orlando Health Imaging Center
1800 S Orange Avenue
Orlando, Florida 32806


Emory Neal Boothe, P.E.
Florida License #54603

EMORY NEAL BOOTHE LICENSE No 54603 STATE OF FLORIDA PROFESSIONAL ENGINEER

Revision

| No. | Date | Description |
|---|---|---|
| | | |

LEVEL 1 NEW CONSTRUCTION PLAN - FIRE ALARM AND NURSE CALL

**E203**

43642
3/18/2019

This Line is 3 Inches When Printed Full Size

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Drawn By: Author
Checked By: Checker
Approved By: Approver

DESING MANUFACTURER: SQUARE D I-LINE HCR-U, FULL HEIGHT

**Name: 1HA**

**MAIN BREAKER:** 600 AMPS
**MAIN LUGS:** AMPS
**PHASE:** 3
**WIRE:** 4
**K.A.I.C.:** 25 AMPS
**SURFACE MTD:** X
**FLUSH MTD:**
**208V/120V**
**480V/277V** X
**240V/120V**

**Project Name:** ORLANDO HEALTH IMAGING
**Project Number:** 118670
**Fed From:** UTILITY XFMR
**Location:** ELEC 139

| NOTES | CKT NO | Identification | Load (kVA) | Trip | Poles |
|---|---|---|---|---|---|
| | 1 | PANEL 2HA | 64.8 | 150 A | 3 |
| | 2 | PANEL 1LA VIA T-1LA | 61.6 | 70 A | 3 |
| | 3 | RTU-1 | 47.0 | 90 A | 3 |
| | 4 | RTU-2 | 47.0 | 90 A | 3 |
| | 5 | CT PANEL | 115.0 | 125 A | 3 |
| | 6 | MRI | 128.0 | 150 A | 3 |
| | 7 | OPEN MRI | 100.0 | 150 A | 3 |
| | 8 | INT-RAD | 60.0 | 100 A | 3 |
| | 9 | RAD | 55.0 | 60 A | 3 |
| | 10 | MRI CHILLER | 44.5 | 80 A | 3 |
| | 11 | MRI CHILLER | 44.5 | 80 A | 3 |
| | 12 | SPACE | 0.0 | -- | -- |
| | 13 | SPACE | 0.0 | -- | -- |
| | 14 | SPACE | 0.0 | -- | -- |
| | 15 | SPACE | 0.0 | -- | -- |
| | 16 | SPARE | 0.0 | 100 A | 3 |
| | | Total Connected Load: | 767.5 kVA | | |

| | CONN. LOAD… | DEMAND FACTOR | DEMAND LOAD… |
|---|---|---|---|
| Lighting | 6.8 kVA | 125.00% | 8.6 kVA |
| Receptacle | 44.4 kVA | 61.26% | 27.2 kVA |
| Motor | 9.7 kVA | 106.19% | 10.3 kVA |
| Heating | 56.3 kVA | 65.00% | 36.6 kVA |
| Cooling | 183.3 kVA | 85.00% | 155.8 kVA |
| Other | 1.4 kVA | 100.00% | 1.4 kVA |
| Elevator | 0.0 kVA | 0.00% | 0.0 kVA |
| Spare | 0.0 kVA | 0.00% | 0.0 kVA |
| X-Ray | 465.5 kVA | 24.70% | 115.0 kVA |
| Kitchen Equipment - Non-Dwelling Unit | 0.0 kVA | 0.00% | 0.0 kVA |

**Total Connected Load:** 767.5 kVA
**Total Demand Load:** 354.9 kVA
**Total Demand Amps:** 427 A

Notes:

DESIGN MANUFACTURER: SQUARE D NQ PANELBOARD

**Name: 1LA**

**MAIN BREAKER:** 175 AMPS
**MAIN LUGS:** AMPS
**K.A.I.C. :** 10 AMPS
**SURFACE MTD:** X
**FLUSH MTD:**

**POLE** 3 **PHASE**
4 **WIRE**
X **208V/120V**
**480V/277V**
**240V/120V**

**Project Name:** ORLANDO HEALTH IMAGING
**Project Number:** 118670
**Fed From:** T-1LA
**Location:** ELEC 139

| NOTES | CKT | Load Name | Trip | Poles | A | B | C | Poles | Trip | Load Name | CKT | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | ROOF LADDER | 30 A | 1 | 2.0 0.8 | | | 1 | 20 A | RECEPTACLE MRI | 2 | |
| | 3 | RECEPTACLE ROOF | 20 A | 1 | 1.4 1.5 | | | 3 | 30 A | EWH-1 | 4 | |
| | 5 | RTU-1 MARINE LTG, RECEPTACLES | 20 A | 1 | | 0.5 1.5 | | -- | -- | -- | 6 | |
| | 7 | RTU-2 MARINE LTG, RECEPTACLES | 20 A | 1 | 0.5 1.5 | | | -- | -- | -- | 8 | |
| | 9 | RECEPTACLE EXTERIOR | 20 A | 1 | | 0.4 0.1 | | 1 | 20 A | RECIRC PUMP | 10 | |
| | 11 | EWC | 20 A | 1 | | | 0.3 1.2 | 1 | 20 A | RECEPTACLE READING | 12 | |
| | 13 | MOTORIZED SHADE | 20 A | 1 | 0.4 1.0 | | | 1 | 20 A | RECEPTACLE LOUNGE | 14 | |
| | 15 | MOTORIZED SHADE | 20 A | 1 | | 0.4 1.0 | | 1 | 20 A | RECEPTACLE COFFEE | 16 | |
| | 17 | MOTORIZED SHADE | 20 A | 1 | | | 0.4 1.0 | 1 | 20 A | RECEPTACLE MICRO | 18 | |
| | 19 | PRINTER | 20 A | 1 | 0.2 1.0 | | | 1 | 20 A | RECEPTACLE REFRIG | 20 | |
| | 21 | RECEPTACLE LOBBY | 20 A | 1 | | 0.8 1.0 | | 1 | 20 A | RECEPTACLE OFFICE | 22 | |
| | 23 | RECEPTACLE DEXA | 20 A | 1 | | | 1.0 0.8 | 1 | 20 A | RECEPTACLE IDF | 24 | |
| | 25 | RECEPTACLE RECEPTION | 20 A | 1 | 1.2 0.8 | | | 1 | 20 A | RECEPTACLE IDF | 26 | |
| | 27 | RECEPTACLE RECEPTION | 20 A | 1 | | 1.0 0.2 | | 1 | 20 A | RECEPTACLE IDF | 28 | |
| | 29 | RECEPTACLE MAMMO, SUBAIT | 20 A | 1 | | | 1.0 1.5 | 2 | 30 A | RECEPTACLE IDF | 30 | |
| | 31 | RECEPTACLE ULTRASOUND | 20 A | 1 | 1.0 1.5 | | | -- | -- | -- | 32 | |
| | 33 | RECEPTACLE ULTRASOUND | 20 A | 1 | | 1.4 0.2 | | 1 | 20 A | RECEPTACLE IDF | 34 | |
| | 35 | RECEPTACLE RAD | 20 A | 1 | | | 1.6 1.5 | 2 | 30 A | RECEPTACLE IDF | 36 | |
| | 37 | RECEPTACLE RAD | 20 A | 1 | 1.6 1.5 | | | -- | -- | -- | 38 | |
| | 39 | RECEPTACLE NURSE STATION | 20 A | 1 | | 1.2 1.0 | | 1 | 20 A | RECEPTACLE STORAGE, ELEC | 40 | |
| | 41 | RECEPTACLE HOLDING | 20 A | 1 | | | 1.2 0.2 | 1 | 20 A | FACP | 42 | |
| | 43 | RECEPTACLE HOLDING | 20 A | 1 | 1.2 0.1 | | | 1 | 20 A | SHUNT TRIP CT | 44 | |
| | 45 | RECEPTACLE MRI SUBWAT | 20 A | 1 | | 1.2 0.1 | | 1 | 20 A | SHUNT TRIP MRI | 46 | |
| | 47 | RECEPTACLE OPEN MRI | 20 A | 1 | | | 0.8 0.1 | 1 | 20 A | SHUNT TRIP MRI | 48 | |
| | 49 | RECEPTACLE MRI CONTROL | 20 A | 1 | 1.2 0.1 | | | 1 | 20 A | SHUNT TRIP IRAD | 50 | |
| | 51 | RECEPTACLE MRI CONTROL | 20 A | 1 | | 1.4 0.1 | | 1 | 20 A | SHUNT TRIP RAD | 52 | |
| | 53 | RECEPTACLE MRI CONTROL | 20 A | 1 | | | 1.2 0.2 | 1 | 20 A | NCEC | 54 | |
| | 55 | MRI EQUIPMENT | 20 A | 1 | 0.8 0.2 | | | 1 | 20 A | SEC | 56 | |
| | 57 | MRI EQUIPMENT | 20 A | 1 | | 0.8 2.5 | | 3 | 40 A | MAMMO | 58 | |
| | 59 | RECEPTACLE CT | 20 A | 1 | | | 1.4 2.5 | -- | -- | -- | 60 | |
| | 61 | RECEPTACLE CT CONTROL | 20 A | 1 | 1.2 2.5 | | | -- | -- | -- | 62 | |
| | 63 | CT EQUIPMENT | 20 A | 1 | | 0.8 0.1 | | 1 | 20 A | SHUNT TRIP MAMMO | 64 | |
| | 65 | LIGHTING CONTACTOR | 20 A | 1 | | | 0.0 0.2 | 1 | 20 A | RECEPTACLE DEXA | 66 | |
| | 67 | BUILDING SIGNAGE | 20 A | 1 | 0.2 0.2 | | | 1 | 20 A | MOTORIZED DAMPER | 68 | |
| | 69 | BUILDING SIGNAGE | 20 A | 1 | | 0.2 0.0 | | 1 | 20 A | SPARE | 70 | |
| | 71 | SPARE | 20 A | 1 | | | 0.0 0.0 | 1 | 20 A | SPARE | 72 | |
| | 73 | SPARE | 20 A | 1 | 0.0 0.0 | | | 1 | 20 A | SPARE | 74 | |
| | 75 | SPARE | 20 A | 1 | | 0.0 0.0 | | 1 | 20 A | SPARE | 76 | |
| | 77 | SPARE | 20 A | 1 | | | 0.0 0.0 | 1 | 20 A | SPARE | 78 | |
| | 79 | SPARE | 20 A | 1 | 0.0 0.0 | | | 3 | 30 A | SURGE PROTECTION | 80 | |
| | 81 | SPARE | 20 A | 1 | | 0.0 0.0 | | -- | -- | -- | 82 | |
| | 83 | SPARE | 20 A | 1 | | | 0.0 0.0 | -- | -- | -- | 84 | |
| | | Phase Connected Load: | | | 22.7 kVA | 18.8 kVA | 20.1 kVA | | | | | |

| | CONN. LOAD… | DEMAND FACTOR | DEMAND LOAD… |
|---|---|---|---|
| Lighting | 1.4 kVA | 125.00% | 1.8 kVA |
| Receptacle | 44.4 kVA | 61.26% | 27.2 kVA |
| Motor | 2.3 kVA | 121.74% | 2.8 kVA |
| Heating | 4.5 kVA | 65.00% | 2.9 kVA |
| Cooling | 0.3 kVA | 85.00% | 0.2 kVA |
| Other | 1.2 kVA | 100.00% | 1.2 kVA |
| Elevator | 0.0 kVA | 0.00% | 0.0 kVA |
| Spare | 0.0 kVA | 0.00% | 0.0 kVA |
| X-Ray | 7.5 kVA | 50.00% | 3.8 kVA |
| Kitchen Equipment - Non-Dwelling Unit | 0.0 kVA | 0.00% | 0.0 kVA |

**Total Connected Load:** 61.6 kVA
**Total Demand Load:** 39.8 kVA
**Demand Amps:** 111 A

Notes:

DESIGN MANUFACTURER: SQUARE D NF PANELBOARD

**Name: 1HB**

**MAIN BREAKER:** AMPS
**MAIN LUGS:** 150 AMPS
**K.A.I.C. :** 18 AMPS
**SURFACE MTD:** X
**FLUSH MTD:**

**POLE** 3 **PHASE**
4 **WIRE**
208V/120V
X **480V/277V**
240V/120V

**Project Name:** ORLANDO HEALTH IMAGING
**Project Number:** 118670
**Fed From:** 1HA
**Location:** ELEC 139

| NOTES | CKT | Load Name | Trip | Poles | A | B | C | Poles | Trip | Load Name | CKT | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | VAV-1-1 | 15 A | 1 | 1.6 0.8 | | | 3 | 15 A | EF-1 | 2 | |
| | 3 | VAV-1-2 | 15 A | 1 | | 1.6 0.8 | | -- | -- | -- | 4 | |
| | 5 | VAV-1-3 | 15 A | 1 | | | 0.8 0.8 | -- | -- | -- | 6 | |
| | 7 | VAV-1-4 | 15 A | 1 | 1.2 0.8 | | | 3 | 15 A | EF-2 | 8 | |
| | 9 | VAV-1-5 | 20 A | 1 | | 3.5 0.8 | | -- | -- | -- | 10 | |
| | 11 | VAV-1-6 | 15 A | 1 | | | 1.6 0.8 | -- | -- | -- | 12 | |
| | 13 | VAV-1-7 | 20 A | 1 | 3.2 0.4 | | | 3 | 15 A | EF-3 | 14 | |
| | 15 | VAV-1-8 | 15 A | 1 | | 2.5 0.4 | | -- | -- | -- | 16 | |
| | 17 | VAV-1-9 | 15 A | 1 | | | 2.0 0.4 | -- | -- | -- | 18 | |
| | 19 | VAV-1-10 | 15 A | 1 | 1.5 0.4 | | | 3 | 15 A | EF-4 | 20 | |
| | 21 | VAV-1-11 | 15 A | 1 | | 2.2 0.4 | | -- | -- | -- | 22 | |
| | 23 | VAV-1-12 | 15 A | 1 | | | 0.5 0.4 | -- | -- | -- | 24 | |
| | 25 | VAV-2-1 | 15 A | 1 | 1.5 0.5 | | | 1 | 20 A | LIGHTING ROOF | 26 | |
| | 27 | VAV-2-2 | 15 A | 1 | | 1.9 0.2 | | 1 | 20 A | SITE LIGHTING VIA CONTACTOR | 28 | |
| | 29 | VAV-2-3 | 15 A | 1 | | | 1.5 0.2 | 1 | 20 A | LIGHTING EXTERIOR VIA… | 30 | |
| | 31 | VAV-2-4 | 15 A | 3 | 2.5 1.1 | | | 1 | 20 A | INTERIOR LIGHTING NORTH | 32 | |
| | 33 | -- | -- | -- | | 2.5 1.8 | | 1 | 20 A | INTERIOR LIGHTING WEST | 34 | |
| | 35 | -- | -- | -- | | | 2.5 1.8 | 1 | 20 A | INTERIOR LIGHTING EAST | 36 | |
| | 37 | VAV-2-5 | 15 A | 1 | 1.1 0.0 | | | 1 | 20 A | SPARE | 38 | |
| | 39 | VAV-2-6 | 15 A | 1 | | 1.7 0.0 | | 1 | 20 A | SPARE | 40 | |
| | 41 | VAV-2-7 | 15 A | 1 | | | 2.2 0.0 | 1 | 20 A | SPARE | 42 | |
| | 43 | VAV-2-8 | 15 A | 1 | 2.0 0.0 | | | 1 | 20 A | SPARE | 44 | |
| | 45 | VAV-2-9 | 15 A | 1 | | 1.5 0.0 | | 1 | 20 A | SPARE | 46 | |
| | 47 | VAV-2-10 | 15 A | 1 | | | 1.7 0.0 | 1 | 20 A | SPARE | 48 | |
| | 49 | VAV-2-11 | 20 A | 3 | 2.3 0.0 | | | 1 | 20 A | SPARE | 50 | |
| | 51 | -- | -- | -- | | 2.3 0.0 | | -- | -- | SPACE | 52 | |
| | 53 | -- | -- | -- | | | 2.3 0.0 | -- | -- | SPACE | 54 | |
| | 55 | SPARE | 20 A | 1 | 0.0 0.0 | | | 3 | 30 A | SURGE PROTECTION | 56 | |
| | 57 | SPARE | 20 A | 1 | | 0.0 0.0 | | -- | -- | -- | 58 | |
| | 59 | SPARE | 20 A | 1 | | | 0.0 0.0 | -- | -- | -- | 60 | |
| | | Phase Connected Load: | | | 21.0 kVA | 24.2 kVA | 19.6 kVA | | | | | |

| | CONN. LOAD… | DEMAND FACTOR | DEMAND LOAD… |
|---|---|---|---|
| Lighting | 5.4 kVA | 125.00% | 6.8 kVA |
| Receptacle | 0.0 kVA | 0.00% | 0.0 kVA |
| Motor | 7.4 kVA | 108.11% | 8.0 kVA |
| Heating | 51.8 kVA | 65.00% | 33.7 kVA |
| Cooling | 0.0 kVA | 0.00% | 0.0 kVA |
| Other | 0.2 kVA | 100.00% | 0.2 kVA |
| Elevator | 0.0 kVA | 0.00% | 0.0 kVA |
| Spare | 0.0 kVA | 0.00% | 0.0 kVA |
| X-Ray | 0.0 kVA | 0.00% | 0.0 kVA |
| Kitchen Equipment - Non-Dwelling Unit | 0.0 kVA | 0.00% | 0.0 kVA |

**Total Connected Load:** 64.8 kVA
**Total Demand Load:** 48.7 kVA
**Demand Amps:** 59 A

Notes:

## LIGHT FIXTURE SCHEDULE

| TYPE | DESCRIPTION | MANUFACTURER AND CATALOG NO. | VOLTAGE | LAMPS | REMARKS | Apparent Load |
|---|---|---|---|---|---|---|
| A1 | 2'x2', EDGE LIT FLAT PANEL, LED, 3500K/80CRI, 4,000 LUMEN LIGHT SOURCE, WITH 0-10V DIMMING DRIVER AT 277 VOLTS. 3500K COLOR TEMPERATURE, 80 CRI, UNIVERSAL VOLTAGE 0-10V LED 1% DIMMING DRIVER, AND WHITE ANTIMICROBIAL FINISH. | WILLIAMS #LP 22 L40 8 835 DIM UNV | 277 | LED | | 0.04 kVA |
| A1E | 2'x2', EDGE-LIT FLAT PANEL, LED, 3500K/80CRI, 4,000 LUMEN LIGHT SOURCE, WITH 0-10V DIMMING DRIVER AT 277 VOLTS AND A REMOTE MOUNT 10-WATT EMERGENCY BATTERY. | WILLIAMS #LP 22 L40 8 835 EM10WRM DIM UNV | 277 | LED | | 0.04 kVA |
| B1 | 2'x2', LED, MR/ COMPLIANT, 3500K, STANDARD DIFFUSER, 3,185 LUMEN LIGHT SOURCE, REMOTE 0-10V DIMMING DRIVER WITH RECESSED DRYWALL MOUNTING, ANTIMICROBIAL WHITE PAINT AT 277V WITH REMOTE MOUNTED DRIVERS. | METALUMEN #SCEM 2L35K 22 SO22 AM LS 1 D 2 | 277 | LED | | 0.04 kVA |
| C1 | 4' APERTURE RECESSED LINEAR LED LUMINAIRE, 8' IN LENGTH, 3500K/80CRI, FLUSH MOUNTED, 277V WITH FLAT ENDCAP. | FINELITE #HP4 R 8 B 835 F 277V XX FE SC | 277 | LED | PROVIDE LENGTH AS INDICATED ON DRAWINGS. | 0.04 kVA |
| C1E | SAME AS C1 FIXTURE WITH INTEGRAL BATTERY BACKUP | | 277 | LED | PROVIDE LENGTH AS INDICATED ON DRAWINGS. | 0.04 kVA |
| C2 | 4' APERTURE RECESSED LINEAR LED LUMINAIRE, 8' IN LENGTH, 3500K/80CRI, FLUSH MOUNTED, 277V WITH FLAT ENDCAP. | FINELITE #HP4 R 8 B 835 F 277V XX FE SC | 277 | LED | PROVIDE LENGTH AS INDICATED ON DRAWINGS. | 0.03 kVA |
| DL2 | 6", ROUND DOWNLIGHT, LED, 3500K/80CRI, 1500 LUMEN LIGHT SOURCE, 0-10V DIMMING DRIVER, WITH CHANNEL BAR HANGERS, HAZE REFLECTOR, SELF FLANGED AT 277V. | INTENSE #SSBG4DR L2 35R I100 IC830 HZ SF | 277 | LED | SELF-TRIMMING FLANGE. FINAL FINISH SELECTED BY INTERIOR DESIGNER. | 0.01 kVA |
| DL2E | 6", ROUND DOWNLIGHT, LED, 3500K/80CRI, 1500 LUMEN LIGHT SOURCE, 0-10V DIMMING DRIVER, WITH CHANNEL BAR HANGERS, HAZE REFLECTOR, SELF FLANGED AT 277V WITH EMERGENCY BATTERY BACKUP WITH INTEGRAL TEST SWITCH. | INTENSE #SSBG4DR L2 35R EMTT I100 IC830 HZ SF | 277 | LED | SELF-TRIMMING FLANGE. FINAL FINISH SELECTED BY INTERIOR DESIGNER. | 0.01 kVA |
| DL3 | 6", ROUND DOWNLIGHT, LED, 3500K/80CRI, 5000 LUMEN LIGHT SOURCE, 0-10V DIMMING DRIVER, WITH CHANNEL BAR HANGERS, HAZE REFLECTOR, SELF FLANGED AT 277V. | INTENSE #SSBG4DR L7 35R I100 IC830 HZ SF | 277 | LED | SELF-TRIMMING FLANGE. FINAL FINISH SELECTED BY INTERIOR DESIGNER. | 0.06 kVA |
| DL3E | 6", ROUND DOWNLIGHT, LED, 3500K/80CRI, 5000 LUMEN LIGHT SOURCE, 0-10V DIMMING DRIVER, WITH CHANNEL BAR HANGERS, HAZE REFLECTOR, SELF FLANGED AT 277V WITH EMERGENCY BATTERY BACKUP WITH INTEGRAL TEST SWITCH. | INTENSE #SSBG4DR L7 35R EMTT I100 IC830 HZ SF | 277 | LED | SELF-TRIMMING FLANGE. FINAL FINISH SELECTED BY INTERIOR DESIGNER. | 0.06 kVA |
| DL4 | DECORATIVE LIGHT FEATURE TO BE SELECTED BY INTERIOR DESIGN | | | LED | | 0.01 kVA |
| EX | LED EXIT SIGN, THERMOPLASTIC HOUSING, RED LETTERS, SINGLE OR DOUBLE FACE AS SHOWN ON DRAWINGS, UNIVERSAL WALL OR CEILING MOUNT, INTEGRAL BATTERY BACKUP FOR 90 MINUTE OPERATION, WITH UNIVERSAL VOLTAGE. | BEGHELLI #VA4 R SA | 277 | LED | PROVIDE DIRECTIONAL ARROWS AS INDICATED. | 0.00 kVA |
| J1 | 4', LED STRIP LIGHT, 4000 LUMEN LIGHT SOURCE, 3500K/80CRI, WHITE FINISH, CONTOURED FROSTED ACRYLIC LENS, SUITABLE FOR DAMP LOCATIONS, AT 277V. | DAYBRITE #FSSEZ 4 40L 835 UNV | 277 | LED | | 0.03 kVA |
| L1E | LED COVE LIGHT, LENGTH AS SHOWN ON DRAWINGS, 3500K, 40 DEGREE OPTICS BEAM, 180 DEGREE ADJUSTABLE BRACKET, DIMMING MODULE. | SSL #CVL 4 35K 40 CVLL-4 ADB2 10VELVDIM | UNV | LED | PROVIDE LENGTH AS INDICATED ON DRAWINGS. | 0.00 kVA |
| SA | LED SITE LIGHT FIXTURE, TYPE III, MTD AT 20' AFG, TAPERED CONCRETE POLE | VISIONAIRE VSX.1 T3 25L 4K UNV AM FIN XXX OR APPROVED EQUAL | 277 | LED | PROVIDE PHOTOCELL | 0.20 kVA |
| U | EDGE LIT LED "XRAY IN USE" LIGHT WITH EXTRUDED ALUMINUM HOUSING, UNIVERAL MOUNTING, CLEAR ACRYLIC FACE, RED LETTERING, AC ONLY, CUSTOM WORDING "XRAY IN USE", AND WHITE FINISH. | BEGHELLI #CYC-HT-LR-1-C-WCS-SW ("XRAY IN USE") | | LED | | 0.01 kVA |
| W1 | 24" DECORATIVE LED VANITY LIGHT, SATIN NICKEL FINISH, FROSTED ACRYLIC DIFFUSER ON TOP AND BOTTOM, 277V | TECH LIGHTING #700BCTFN-24-S-LED927-277 | 277 | LED | | 0.02 kVA |
| W2 | 4" SQUARE X 6" HIGH CONTEMPORARY LED WALL LIGHT, 2000 LUMENS, BLACK FINISH, REMOTE EMERGENCY BATTERY PACK FOR 90 MINUTE OPERATION. | V2 LIGHTING GROUP QUBE 200 SERIES Q2LS-R-N-W-20-83-40-40-A6, REMOTE BATTERY: EM SOLUTION | 277 | LED | | 0.07 kVA |
| W3 | 24" LOW PROFILE LED WALL LIGHT, MOUNTED +87" ON GLASS MULLION CENTERED ABOVE DOOR, 2000 LUMENS, 4000K, FLAT POLYCARBONATE LENS, BLACK FINISH, EMERGENCY BATTERY PACK | LUMINAIRE BLADE SERIES #BLD24-20W-4000K-277-CC-DP-BLK-EMB10ST | 277 | LED | | 0.02 kVA |

LIGHTING FIXTURE SCHEDULE GENERAL NOTES
1. PROVIDE ALL PARTS AND PIECES FOR A COMPLETE AND WORKING SYSTEM, INCLUDING BUT NOT LIMITED TO REMOTE POWER SUPPLIES, MOUNTING HARDWARE, CONTROL EQUIPMENT, ETC.
2. ALL LAMPS SHALL HAVE A MINIMUM 80CRI AND COLOR TEMPERATURE OF 3500°K UNLESS SPECIFICALLY NOTED OTHERWISE IN THE LIGHT FIXTURE SCHEDULE.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHT FIXTURES.
4. COORDINATE TYPE OF CEILING FOR EACH FIXTURE WITH ARCHITECTURAL REFLECTED CEILING PLANS AND PROVIDE FIXTURE TRIM AS REQUIRED.
5. LAMPING CONFIGURATIONS ARE FOR THE DESIGN BASIS. ALTERNATE LAMPING CONFIGURATIONS ARE ACCEPTABLE, SUBJECT TO APPROVAL.
6. FOR DISCREPANCIES BETWEEN A FIXTURE DESCRIPTION, NOTES, AND CATALOG NUMBER LISTED, THE FIXTURE DESCRIPTION & GENERAL NOTES SHALL DICTATE.
7. APPROVED VENDORS INCLUDE, BUT NOT LIMITED TO: SESCO LIGHTING, LANDRETH, LIGHTING PARTNERS AND WESTERN FLORIDA ORLANDO.


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IB26000797/LC26000381

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THINK. LISTEN. CREATE.


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Orlando Health Imaging Center
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Orlando, Florida 32806


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Florida License #54603
EMORY NEAL BOOTHE LICENSE No 54603 STATE OF FLORIDA PROFESSIONAL ENGINEER


Revision

| No. | Date | Description |
|---|---|---|
| | | |

PANEL SCHEDULES

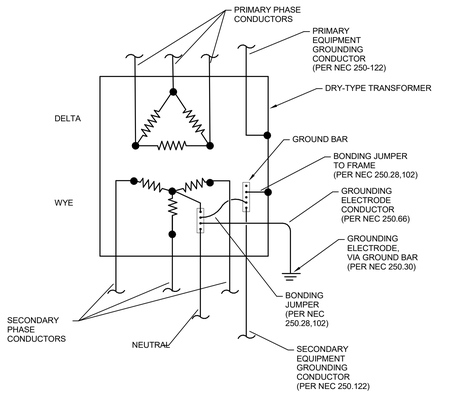
**E300**

43642
3/18/2019

This Line is 3 Inches When Printed Full Size

3/14/2019 6:15:32 PM C:\Revit Local\118670-OrlandoHealth-FSIC-ELEC-R19_chuck.ffle.rvt

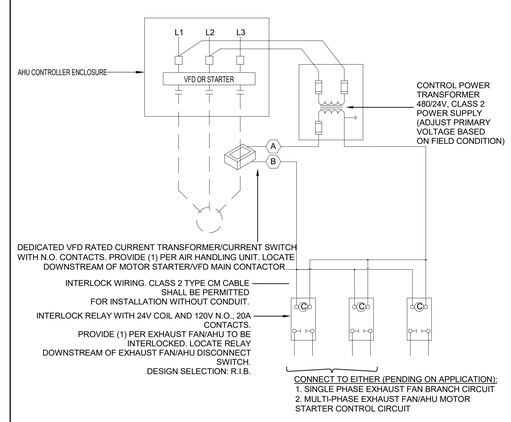
Drawn By: Author
Checked By: Checker
Approved By: Approver




## STEP DOWN TRANSFORMER GROUNDING
(3 PHASE, 3 WIRE, DELTA PRIMARY / 3 PHASE, 4 WIRE, WYE SECONDARY)

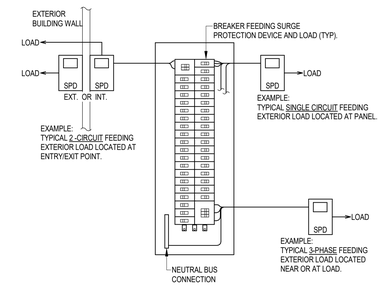
10

NOTE: INTERLOCK ALL EXISTING FANS SERVING PROJECT AREA WITH NEW AHU E4-01




## AHU-EF HARDWIRE INTERLOCK WIRING DIAGRAM
No Scale

7




GENERAL NOTE:
SURGE PROTECTION DEVICE (SPD) CAN BE LOCATED ADJACENT TO PANEL, AT A LOCATION ENTERING/EXITING THE STRUCTURE OR AT THE EXTERIOR LOAD. BUT, SHOULD BE LOCATED AS DESIGNATED ON DRAWINGS. REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL INFORMATION.

## SPD INSTALLATION DETAIL FOR CONDUCTORS ENTERING OR EXITING STRUCTURE
No Scale

4

### SPECIFICATION "ADD-IN SECTION" TO SURGE PROTECTION SECTION 264313 FOR EXTERIOR LOAD CIRCUIT PROTECTION

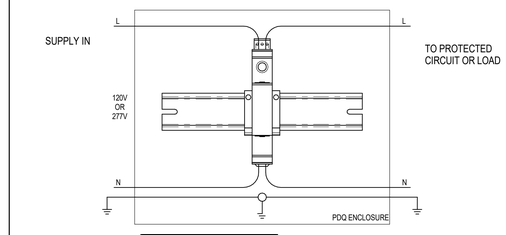
PROVIDE INDIVIDUAL EXTERIOR CIRCUIT SURGE PROTECTION DEVICES (SPD) AS INDICATED ON PANEL BOARD SCHEDULE(S) AND LOCATED AS SHOWN ON DRAWINGS OR AS ACCEPTABLE BY INSPECTOR. REFER TO DRAWING DETAIL FOR ADDITIONAL INFORMATION. SPD's SHALL BE LISTED TO THE CURRENT UL 1449 EDITION AND LISTED TYPE 2, 20kA-"N", WITH VISUAL FAILURE INDICATION PER CIRCUIT.

SINGLE POLE, TWO POLE AND THREE PHASE - WYE CIRCUITS SHALL HAVE L-N/G PROTECTION MODE. THREE PHASE GROUNDED DELTA CIRCUITS SHALL HAVE L-G PROTECTION MODE. SPD's SHALL BE MODULAR WITH FIELD REPLACEABLE MODULES, DRY CONTACTS FOR REMOTE MONITORING AND HAVE A 5 YEAR FACTORY WARRANTY.

ENCLOSURE RATING SHALL BE NEMA 4/12 INDOOR AND OUTDOOR AND INCORPORATE A HINGED DOOR WITH A VIEWING WINDOW AND GROUNDING TERMINAL(S). FOR PQDM SERIES THERE SHALL BE ONE GROUNDING TERMINAL FOR EVERY THREE CIRCUITS. SPD TERMINALS TO ACCEPT #6 - #14 AWG CONDUCTORS.

BASIS OF DESIGN IS PQ PROTECTION PQD SERIES AND APPROVED EQUALS ONLY.

### TYPICAL CIRCUIT WIRING DIAGRAM




SINGLE POLE (1P)
PART # EXAMPLE PDQX-X-1P-XXX

REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR DETAILED WIRING CONNECTION DIAGRAM

NOTE:
WIRING SHOWN IS TYPICAL FOR ONE CIRCUIT. MULTIPLE CIRCUITS MAY BE INCLUDED IN ONE ENCLOSURE. WIRE EACH CIRCUIT INDIVIDUALLY AS SHOWN IN WIRING DIAGRAM.




## GROUND BAR
No Scale

9




NOTES:

1 WALL ASSEMBLY - THE 1, 2, 3, OR 4 HOUR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY.

2 CABLES - MAX 4" DIAM TIGHT BUNDLE OF CABLES CENTERED IN CIRCULAR CUTOUTS IN GYPSUM WALLBOARD AND RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF COPPER CONDUCTOR CABLES MAY BE
USED:
A. MAX 350 KCMIL SINGLE CONDUCTOR POWER CABLES; CROSS-LINKED POLYETHYLENE (XLPE) OR POLYVINYL CHLORIDE (PVC) INSULATION.
B. MAX 7/C NO. 12 AWG CABLES; PVC INSULATION AND JACKET.
C. MAX 3/C NO. 2/0 AWG MULTICONDUCTOR POWER AND CONTROL CABLES; XLPE OR PVC INSULATION, XLPE OR PVC JACKET.
D. MAX 200 PAIR NO. 24 AWG TELECOMMUNICATION CABLES; PVC INSULATION AND JACKET.
E. MAX 6/94 FIBER OPTIC CABLE; PVC INSULATION AND JACKET.

3 FILL VOID OR CAVITY MATERIAL - WRAP STRIP BEARING THE UL CLASSIFICATION MARKING -NOM 1/4" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL, SUPPLIED IN NOM 2" WIDE STRIPS. NOM 2" WIDE STRIP TIGHTLY WRAPPED AROUND CABLE BUNDLE (FOIL SIDE OUT) WITH SEAM BUTTED. WRAP STRIP LAYER SECURELY BOUND WITH STEEL WIRE TIE AND SLID INTO ANNULAR SPACE APPROX 1-1/4" SUCH THAT APPROX 3/4" OF THE WRAP STRIP PROTRUDES FROM THE WALL SURFACE ON EACH SIDE OF THE ASSEMBLY.

4 FILL VOID OR CAVITY MATERIAL - CAULK OR PUTTY BEARING THE UL CLASSIFICATION MARKING - MIN 1/4" DIAM CONTINUOUS BEAD OF CAULK OR PUTTY APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED EDGE OF THE WRAP STRIP APPROX 3/4" FROM THE WALL SURFACE ON EACH SIDE OF THE WALL ASSEMBLY. CAULK OR PUTTY TO BE FORCED INTO THE INTERSTICES OF THE CABLE BUNDLE TO THE MAX EXTENT POSSIBLE WITHIN THE CONFINES OF THE WRAP STRIP ON EACH SIDE OF THE WALL ASSEMBLY.

## CABLE PENETRATION OF FIREWALL
UL SYSTEM NO. W-L-3030

6




NOTES:

1 WALL ASSEMBLY - THE 1, 2, 3, OR 4 HOUR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY.

2 CONDUIT - NOM 4" DIA OR SMALLER STEEL ELECTRICAL METALLIC TUBING. A MAX OF ONE CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.

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

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

## CONDUIT PENETRATION OF FIREWALL
UL SYSTEM NO. W-L-1001

5




TYPICAL EQUIPMENT

## EQUIPMENT NAMEPLATE
No Scale

3




TYPICAL SWITCH

TYPICAL SMALL EQ TAG

THIS TAG SHALL BE USED ON ALL HARDWIRED EQUIPMENT AND WHERE VISIBLE TO THE PUBLIC. EXAMPLES INCLUDE: PNEUMATIC TUBE STATIONS, MED GAS ALARM PANELS, AUTOMATIC DOOR OPERATORS

| BRANCH | PLATE AND LETTERING COLOR |
|---|---|
| LIFE SAFETY | YELLOW WITH BLACK LETTERING |
| EQUIPMENT | GREEN WITH WHITE LETTERING |
| CRITICAL | ORANGE WITH WHITE LETTERING |
| NORMAL | BLACK WITH WHITE LETTERING |




TYPICAL RECEPTACLE

## COVERPLATES & NAMEPLATES
No Scale

2




## LIGHTING CONTACTOR
No Scale

8




1 42" A.F.F. W/ 36" COUNTER, 39" A.F.F. W/ 30" COUNTER, 48" A.F.F. WITHOUT COUNTER OR AS NOTED ON PLANS

## MOUNTING HEIGHTS
No Scale

1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Revision

| No. | Date | Description |
|---|---|---|
| | | |

ELECTRICAL DETAILS

**E401**

43642
3/18/2019

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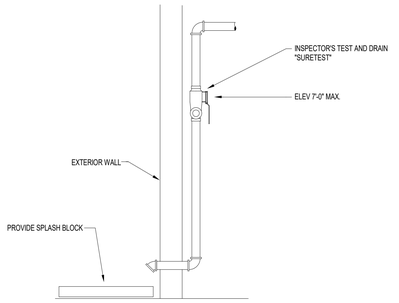
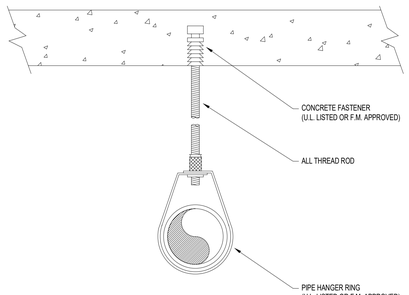
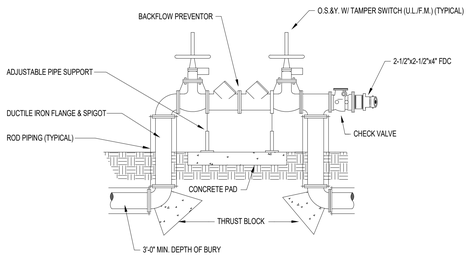
Approved By: ALJ




INSPECTOR'S TEST - WET PIPE SYSTEM
No Scale
4




HANGER - CONCRETE
No Scale
1




BACKFLOW PREVENTOR - W/ FDC
No Scale
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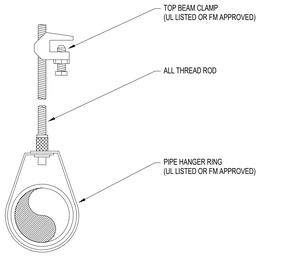
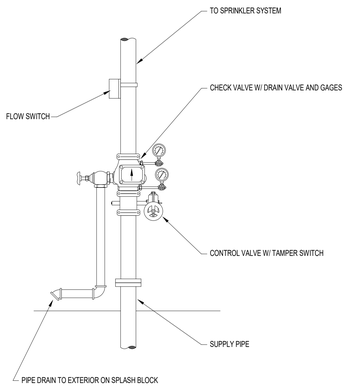
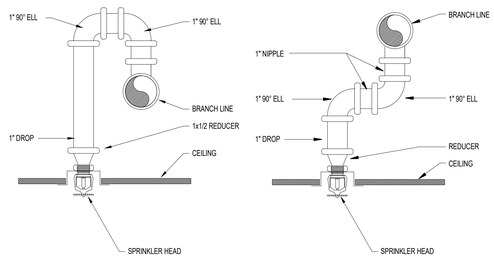



HANGER - STEEL
No Scale
2




SPRINKLER RISER - WET PIPE
No Scale
6




RETURN BEND / SWING JOINT
No Scale
3

## FIRE PROTECTION LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| OR | - CONTROL VALVE w/TAMPER SWITCH |
| | - U/G GATE VALVE |
| | - FIRE VALVE CABINET |
| | - NEW SPRINKLER PIPING |
| | - EXISTING SPRINKLER PIPING |
| | - DEMOLISHED SPRINKLER PIPING |
| 2 1/2" | - PIPE SIZE |
| 2 1/2" 3-0 | - PIPE SIZE AND LENGTH |
| | - CONTROL VALVE W/ TAMPER SWITCH |
| | - 2-1/2" FIRE DEPARTMENT VALVE W/ CAP AND CHAIN |
| | - HYDRAULIC REMOTE AREA |
| E | - KEYNOTE |
| # | - HYDRAULIC REFERENCE NODE |
| # | - REVISION REFERENCE |
| | - CONNECT TO |
| | - DEMO TO |

NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT

## FLORIDA ADMINISTRATIVE CODE CHAPTER 61G15-32 NOTES

a. THE POINT OF SERVICE AND THE WATER SUPPLY CHARACTERISTIC'S FOR THE FIRE PROTECTION SYSTEM IS SHOWN ON THE FIRE PROTECTION SITE PLAN.

b. THE FIRE PROTECTION DESIGN, CALCULATIONS, INSTALLATION AND THE ACCEPTANCE TESTING OF THE FIRE PROTECTION SYSTEM SHALL BE IN ACCORDANCE WITH NFPA 13, 2013 EDITION; THE FLORIDA BUILDING CODE AND THE FLORIDA FIRE PREVENTION CODE 6TH EDITION AND ALL LOCAL CODES REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

c. AREA OCCUPANCIES AND HAZARD CLASSIFICATIONS ARE LISTED IN THE DESIGN CRITERIA NOTE LOCATED ON THE CONTRACT DOCUMENTS.

d. THE FIRE PROTECTION SYSTEM SCOPE OF WORK SHALL INCLUDE THE PREPARATION AND DESIGN OF THE FIRE PROTECTION SYSTEM WORKING PLANS WITH HYDRAULIC CALCULATIONS AS REQUIRED IN CHAPTER 22 OF NFPA 13. THE FIRE PROTECTION CONTRACTOR SHALL ENGAGE A FIRE PROTECTION ENGINEER TO PREPARE AND PROVIDE SIGNED AND SEALED FIRE PROTECTION SYSTEM WORKING PLANS WITH HYDRAULIC CALCULATIONS. PROVIDE ALL EQUIPMENT, MATERIALS, COMPONENTS, ASSEMBLIES AND SUPPORT SYSTEMS REQUIRED, AS DESCRIBED, IN NFPA 13. ALL MATERIALS USED IN THE DESIGN AND INSTALLATION OF THE FIRE PROTECTION SYSTEM SHALL BE UL LISTED AND FM APPROVED.

e. SEE SITE PLAN FOR THE CHARACTERISTICS WATER SUPPLY PIPING.

f. THE FIRE PROTECTION CONTRACTOR SHALL CONDUCT A HYDRANT FLOW TEST FOR THE DESIGN OF THE FIRE PROTECTION SYSTEM.

g. ALL SYSTEM CONTROL VALVES SHALL BE PROVIDED WITH TAMPER SWITCHES AND INTERFACE THE ALARM CIRCUIT.

h. THE WATER SUPPLY FOR THE FIRE PROTECTION SYSTEM HAS NOT SHOWN ANY EVIDENCE OF MICROBIAL INDUCED CORROSION (MIC). THE FIRE PROTECTION CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY EVIDENCE OF MIC AND PROVIDE NECESSARY WATER TREATMENT AS NEEDED TO REDUCE OR ELIMINATE MIC.

i. ALL METERING AND BACK FLOW PREVENTION DEVICES SHALL MEET WITH ALL WATER PURVEYORS REQUIREMENTS.

j. ALL FIRE PROTECTION EQUIPMENT AND COMPONENTS SHALL BE LISTED AND TESTED FOR FIRE PROTECTION USE. ALL FIRE PROTECTION EQUIPMENT AND COMPONENTS SHALL BE THE U.L. LISTED AND FM APPROVED.

## FIRE PROTECTION DESIGN CRITERIA

THESE DRAWINGS ARE COMPLETE SPRINKLER DESIGN DRAWINGS FOR REVIEW BY ACHA FOR STAGE III CONSTRUCTION DOCUMENTS. THE LAYOUT OF THE PIPING SYSTEM COMPLETED BY TLC, AND ARE IN COMPLIANCE WITH FLORIDA STATUTE 61G15-32.003 AND -32.004.

**ENTIRE BUILDING (EXCEPT AS NOTED):**

| | |
|---|---|
| OCCUPANCY CLASSIFICATION: | LIGHT HAZARD |
| SYSTEM TYPE: | WET PIPE |
| DESIGN DENSITY: | .10 GPM/SQ. FT. |
| HYDRAULIC REMOTE AREA: | 1,500 SQ. FT. |
| SPRINKLER ORIFICE SIZE: | 1/2" |
| DURATION OF SUPPLY: | 30 MIN. |
| MAXIMUM COVERAGE/SPRINKLER HEAD: | 225 SQ. FT. |
| HOSE STREAM ALLOWANCE: | 100 GPM |

**UNLESS OTHERWISE NOTED ALL STORAGE, MECHANICAL AND ELECTRICAL ROOMS:**

| | |
|---|---|
| OCCUPANCY CLASSIFICATION: | ORDINARY HAZARD GROUP I |
| SYSTEM TYPE: | WET PIPE |
| DESIGN DENSITY: | .15 GPM/SQ. FT. |
| HYDRAULIC REMOTE AREA: | 1,500 SQ. FT. |
| SPRINKLER ORIFICE SIZE: | 1/2" |
| DURATION OF SUPPLY: | 60-90 MIN. |
| MAXIMUM COVERAGE/SPRINKLER HEAD: | 130 SQ. FT. |
| HOSE STREAM ALLOWANCE: | 250 GPM |

**DESIGN CRITERIA:**

DESIGN OF THE FIRE SUPPRESSION SYSTEM ON THIS PROJECT. THE FOLLOWING PUBLICATIONS SHALL BE USED AS A REFERENCE.

1. NFPA 13, INSTALLATION OF SPRINKLER SYSTEMS, 2013 EDITION
2. NFPA 24, PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES, 2013 EDITION
3. FLORIDA FIRE PREVENTION CODE, 6TH EDITION (2017)

**FIRE SPRINKLER:**

THE CONTRACTOR SHALL PREPARE SYSTEM LAYOUT DRAWINGS PER CHAPTER 22, OF NFPA 13 - 2013 EDITION. THE CONTRACTOR SHALL PERFORM HYDRAULIC CALCULATIONS. CONTRACTOR'S SPRINKLER SYSTEM LAYOUT (SHOP DRAWINGS), HYDRAULIC CALCULATIONS AND MATERIAL DATA SHALL BE SUBMITTED TO THE ARCHITECT/ENGINEER AND AUTHORITY HAVING JURISDICTION FOR APPROVAL PRIOR TO SYSTEM INSTALLATION.

**WATER SUPPLY DATA:**

THE CONTRACTOR SHALL PERFORM HYDRANT-FLOW TEST TO VERIFY WATER PRESSURE REQUIRED FOR HYDRAULIC CALCULATIONS.

## GENERAL NOTES

1. FIRE PROTECTION DESIGN SHALL COMPLY WITH NFPA 13, 14, 20, 24, THE FLORIDA FIRE PREVENTION CODE AND ALL APPLICABLE LOCAL CODES.
2. FINAL INSPECTION AND APPROVAL BY LOCAL FIRE MARSHAL AND ARCHITECT/ENGINEER.
3. THE FIRE PROTECTION SYSTEMS SHOWN REPRESENT THE DESIGN INTENT OF THE ENGINEER, IN ACCORDANCE WITH STATE REGULATION 61G15-32. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE INSTALLATION WITH ALL OTHER TRADES. SUBMIT COMPLETE SPRINKLER SYSTEM LAYOUT DRAWINGS WITH ANY ADDITIONAL OFFSETS, SPRINKLERS OR SYSTEM COMPONENTS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM AND TO AVOID CONFLICTS WITH OTHER TRADES.
4. SPRINKLER SHOP DRAWINGS AND MATERIAL CUT SHEETS SHALL BE SUBMITTED TO THE ARCHITECT AND LOCAL FIRE MARSHAL FOR APPROVAL PRIOR TO ANY INSTALLATION.
5. PIPE ROUTING SHOWN IS SCHEMATIC ONLY. PROVIDE ALL ADDITIONAL OFFSETS REQUIRED FOR PROPER INSTALLATION AND COORDINATION WITH OTHER TRADES.
6. INSTALL PIPING IN AREAS WITH EXPOSED STRUCTURE AS HIGH AS POSSIBLE TO ALLOW THE OWNER MAXIMUM USE OF THE SPACE.
7. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR CEILING DESCRIPTIONS AND HEIGHTS.
8. COORDINATE SPRINKLERS WITH ALL DIFFUSERS, SPEAKERS, LIGHTING FIXTURES AND LISTING OF THE SPRINKLER.
9. CENTER SPRINKLERS IN THE CENTER OF CEILING TILE. PROVIDE ARMOVER OR SWING JOINT AS REQUIRED.
10. SPRINKLERS IN AREAS WITH EXPOSED STRUCTURE (OBSTRUCTED CONSTRUCTION) SHALL BE INSTALLED WITH DEFLECTOR 1" BELOW THE BOTTOM OF THE BEAM (MAXIMUM 22" BELOW ROOF DECK). EXPOSED BAR JOISTS THAT HAVE SPRAY-ON FIRE PROOFING THAT MAKES THE JOIST SOLID SHALL BE TREATED LIKE A BEAM WITH THE SPRINKLERS 1" BELOW THE BOTTOM OF THE FIRE PROOFING.
11. SLEEVE AND/OR FIRESTOP ALL PENETRATIONS THROUGH RATED WALLS, CEILINGS, AND FLOORS WITH U/L LISTED ASSEMBLIES. PROVIDE FIRESTOP ASSEMBLIES EQUAL TO OR EXCEEDING THE RATING OF THE WALL, CEILING OR FLOOR. SEE ARCHITECTURAL DRAWINGS FOR RATINGS.
12. FURNISH ACCESS PANELS TO ALL VALVES ABOVE NON-ACCESSIBLE CEILINGS AND CHASES, FOR INSTALLATION BY GENERAL CONTRACTOR.
13. PROVIDE A PERMANENTLY ATTACHED NAME TAG TO THE RISER STATING THE REQUIRED DESIGN CRITERIA FOR EACH HYDRAULICALLY-DESIGNED SYSTEM.
14. PROVIDE SPRINKLERS UNDERNEATH ALL EXPOSED DUCTWORK WHICH IS OVER 48" WIDE AND SPACE HEADS AROUND ALL OBSTRUCTIONS IN ACCORDANCE WITH NFPA 13. HEADS UNDER DUCTS ARE NOT INDICATED ON THE DRAWINGS BUT ARE REQUIRED. PROVIDE IN ACCORDANCE WITH NFPA 13. COORDINATE SPRINKLER LOCATIONS UNDER DUCTWORK AND AROUND OBSTRUCTIONS WITH FINAL INSTALLED LOCATIONS.
15. PROVIDE SPRINKLERS AT THE TOP AND BOTTOM OF ALL STAIRWELLS.
16. PROVIDE SPRINKLER GUARDS ON ALL HEADS IN ELECTRIC ROOMS, TELEPHONE ROOMS, ELEVATOR ROOMS, ELEVATOR SHAFTS, STORAGE ROOMS, UTILITY ROOMS AND ON ANY HEADS LESS THAN 7'-0" ABOVE THE FLOOR.
17. PROVIDE HANGERS ON END HEADS IN PENDANT POSITION WITHIN 12" OF END OF LINE, IN ACCORDANCE WITH NFPA 13, WHEN SYSTEM PRESSURE EXCEEDS 100 PSI.
18. COORDINATE PIPING WITH ALL ELECTRICAL EQUIPMENT (PANELS, TRANSFORMERS, ETC.) PRIOR TO ANY INSTALLATION. DO NOT ROUTE ANY PIPING OVER ANY ELECTRICAL PANELS UNDER ANY CIRCUMSTANCES. REROUTE ANY PIPING RUN OVER ELECTRICAL EQUIPMENT.
19. PROVIDE 20-GAUGE STEEL SPRINKLER CANOPY SHIELD AT SPRINKLERS IN TRASH CHUTE PER NFPA #13.
20. PROVIDE INTERMEDIATE TEMPERATURE (200°F) SPRINKLERS IN ELEVATOR SHAFTS AND EQUIPMENT ROOMS PER NFPA 13.
21. INSULATE AND PROVIDE ALUMINUM JACKETING ON ALL WET BULK SUPPLY MAINS AND HOSE SUPPLY MAINS EXPOSED TO THE WEATHER.
22. ALL DRAIN AND DRY PIPE SYSTEM PIPING AND FITTINGS SHALL BE GALVANIZED BOTH INSIDE AND OUTSIDE.
23. PROVIDE TAMPER SWITCHES ON ALL CONTROL VALVES.
24. SLOPE ALL PIPING TO THE SYSTEM MAIN DRAIN AS REQUIRED TO INSURE PROPER DRAINAGE. INSTALL ADDITIONAL DRAINS AND PLUGS WHERE REQUIRED TO COMPLY WITH THE ABOVE REFERENCED CODES.
25. PROVIDE ROLL GROOVED OR CUT GROOVED COUPLINGS AND FITTINGS FROM A SINGLE MANUFACTURER.
26. THIS BUILDINGS STRUCTURAL SYSTEM HAS BEEN DESIGNED TO SUPPORT THE ADDITIONAL WEIGHT ASSOCIATED WITH THE SPRINKLER SYSTEM.
27. PAINT ALL SPRINKLER PIPING INSTALLED BELOW THE CEILINGS AND IN EXPOSED LOCATIONS. CLEAN, PRIME AND PAINT ALL EXPOSED PIPING RED, UNLESS OTHERWISE NOTED. COORDINATE ALL COLORS WITH THE ARCHITECT.
28. COORDINATE HANGER LOCATIONS WITH THE BUILDING STRUCTURE. SUPPORT PIPING IN ACCORDANCE WITH NFPA 13. PROVIDE ALL MISCELLANEOUS STEEL FRAMING AS REQUIRED TO SUPPORT PIPING. PROVIDE GALVANIZED OR COATED HANGERS AND RODS.
29. PROVIDE A TEMPORARY STANDPIPE SYSTEM WITH FIRE DEPARTMENT CONNECTIONS DURING CONSTRUCTION.

## FIRE PROTECTION DRAWING INDEX


| SHEET | DESCRIPTION | ISSUED |
|---|---|---|
| FP001 | GENERAL INFORMATION - FIRE PROTECTION | |
| FP010 | SITE PLAN - FIRE PROTECTION | |
| FP201 | LEVEL 1 NEW CONSTRUCTION PLAN - FIRE PROTECTION | |


## FIRE SPRINKLER LEGEND

| SYMBOL | ORIFICE | TEMP | RESPONSE | K-FACTOR | FINISH | MODEL | STYLE | PLATE | MFG |
|---|---|---|---|---|---|---|---|---|---|
| ◎ | 1/2" | 155° F | QUICK | 5.6 | BRASS | G5-56 | CONCEALED | WHITE | RELIABLE |
| ◎v | 1/2" | 155° F | QUICK | 5.6 | BRASS | F4FR-NF | CONCEALED NON-FERROUS | WHITE | RELIABLE |
| ⊠ | 1/2" | 155° F | QUICK | 5.6 | BRASS | F1FR | UPRIGHT | HEAD GUARD | RELIABLE |
| ○ | 1/2" | 155° F | QUICK | 5.6 | BRASS | F1FR | UPRIGHT | NONE | RELIABLE |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Revision

| No. | Date | Description |
|---|---|---|
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GENERAL INFORMATION - FIRE PROTECTION

# FP001

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3-18-19

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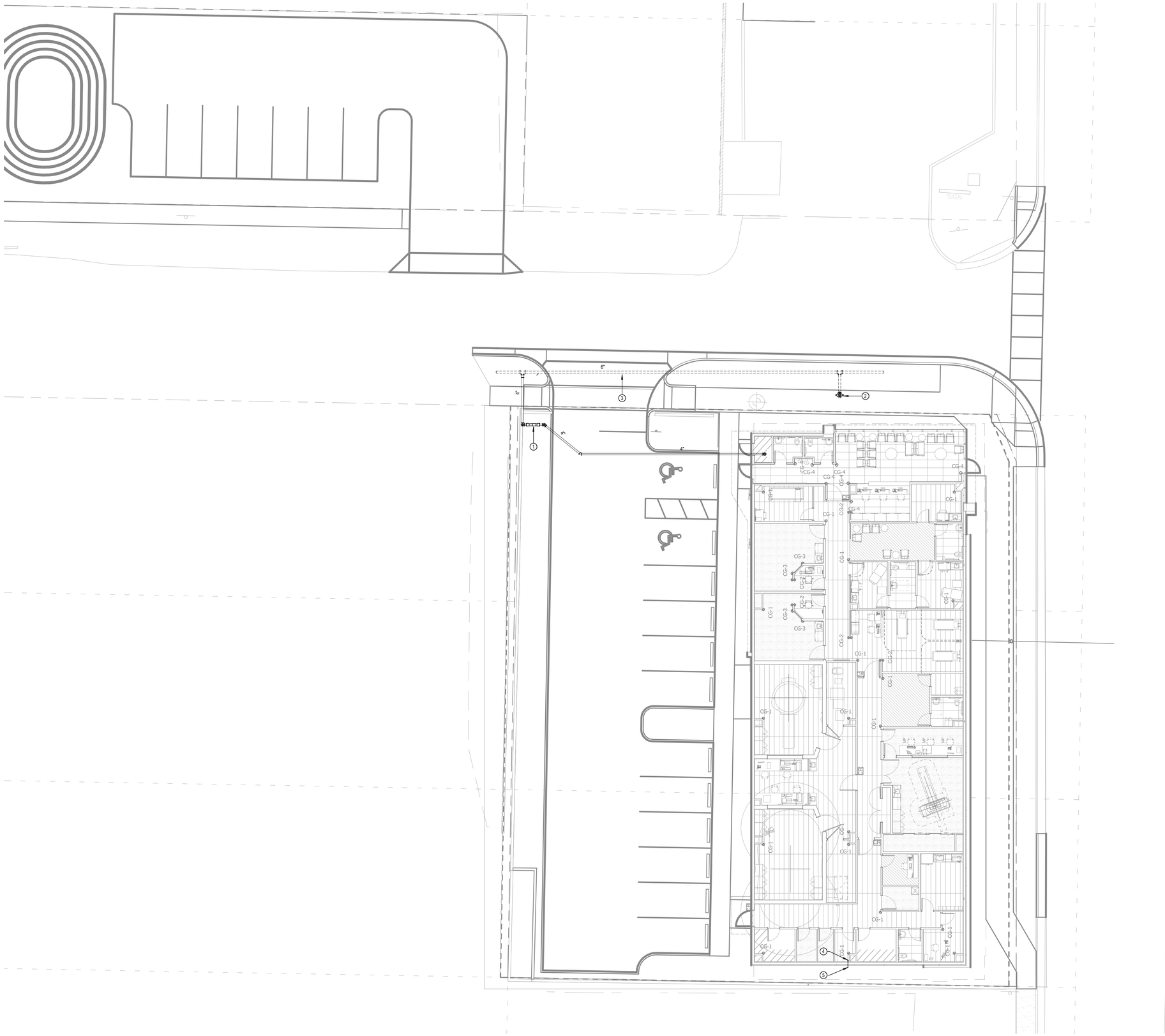
Checked By: ALJ
Approved By: ALJ




## FIRE PROTECTION KEYNOTES

1 4" BACKFLOW PREVENTER WITH TAMPER SWITCHES AND FDC
2 FIRE HYDRANT
3 EXISTING CITY WATER MAIN
4 INSPECTOR'S TEST VALVE
5 1" DRAIN TO SPLASH BLOCK.

1 SITE PLAN - FIRE PROTECTION
1" = 10'-0"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THINK. LISTEN. CREATE.

ORLANDO HEALTH®

# Orlando Health Imaging Center

1800 S Orange Avenue
Orlando, Florida 32806

Aaron Lee Johnson, P.E.
Florida License #71576

AARON LEE JOHNSON LICENSE No 71576 STATE OF FLORIDA PROFESSIONAL ENGINEER

Revision

| No. | Date | Description |
|---|---|---|

SITE PLAN - FIRE PROTECTION

**FP010**

43642
3-18-19

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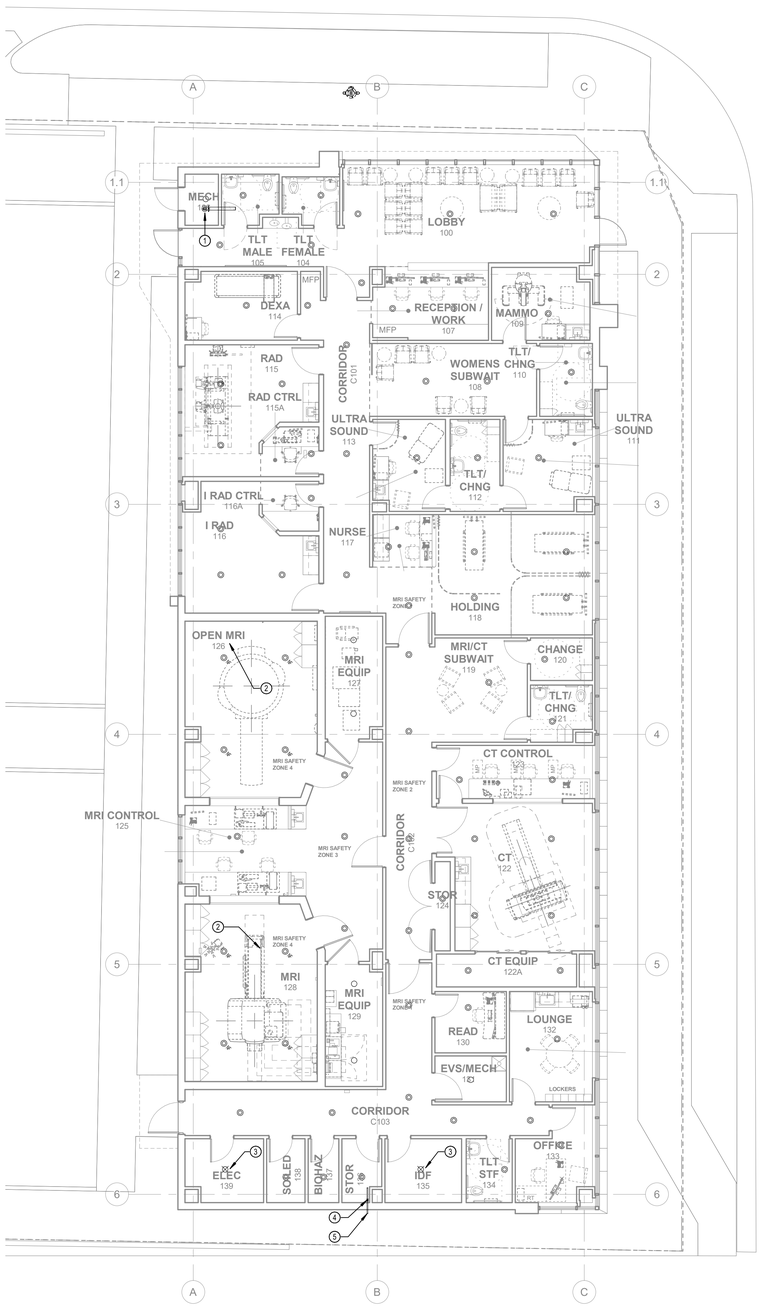
Drawn By: JLL
Checked By: ALJ
Approved By: ALJ

## FIRE PROTECTION KEYNOTES

1 SPRINKLER RISER
2 NON-FERROUS PIPING IN MRI.
3 NO ELECTRICAL OR MECHANICAL/PLUMBING SERVICES SHALL ENTER OR PASS THROUGH THIS ROOM THAT DOES NOT SERVE THE ROOM DIRECTLY IN ACCORDANCE WITH NFPA 99/FGI GUIDELINES.
4 INSPECTOR'S TEST VALVE
5 1" DRAIN TO SPLASH BLOCK.




## 1 LEVEL 1 NEW CONSTRUCTION PLAN - FIRE PROTECTION

1/8" = 1'-0"

0' 4' 8' 16' 24'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LEVEL 1 NEW CONSTRUCTION PLAN - FIRE PROTECTION

**FP201**

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3-18-19

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Drawn By: Author
Checked By: Checker
Approved By: Approver

# INTERIOR DESIGN GENERAL NOTES

## A. GENERAL INFORMATION

1. THE CONTRACTOR SHALL NOT SCALE DRAWINGS. IF DIMENSIONS ARE IN QUESTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE INTERIOR DESIGNER BEFORE CONTINUING WITH WORK.

2. THE CONTRACTOR SHALL NOTIFY THE INTERIOR DESIGNER OF ITEMS REQUIRING FINISH SELECTIONS THAT ARE NOT CLARIFIED IN THE CONTRACT DOCUMENTS OR IN THE PROJECT MANUAL.

3. THE CONTRACTOR SHALL NOTIFY THE INTERIOR DESIGNER IF ANY WORK INDICATED IN THE CONTRACT DOCUMENTS CAN NOT BE PERFORMED DUE TO EXISTING FIELD CONDITIONS.

4. THE CONTRACTOR SHALL ARRANGE FOR A PRE-INSTALLATION CONFERENCE CONCERNING PORCELAIN FLOOR AND WALL TILE. PARTIES TO ATTEND SHALL BE CONTRACTOR'S JOB SUPERINTENDENT, FLOORING SUB-CONTRACTOR, INTERIOR DESIGNER AND ARCHITECT.

## B. TILING (CERAMIC/PORCELAIN PAVER TILE AND GROUT)

1. REFER TO SPECIFICATION SECTION 09 3000 FOR ALL TILE SETTING, GROUT, UNDERLAYMENT, ETC. INFORMATION FOR TILING INSTALLATION.

## C. FLOORING TRANSITIONS

1. ALL FLOORING TRANSITIONS SHALL OCCUR AT THE CENTERLINE OF ALL DOORS, UNLESS OTHERWISE DESIGNATED BY FLOOR TRANSITION SYMBOLS ON THE FINISH PLANS.

2. SEE DETAILS ON SHEET **A8.03** AND SPECIFICATION SECTION **09 6513, 09 3000** FOR CLARIFICATION OF FLOORING TRANSITIONS.

3. INSTALL METAL EDGE STRIPS AT LOCATIONS WHERE EXPOSED EDGE OF TILE FLOOR MEETS CARPET OR OTHER FLOORING THAT FINISHES FLUSH WITH TOP OF TILE. REFER TO DETAILS ON SHET A8.03.

## D. RESILIENT BASE

1. UNLESS OTHERWISE SPECIFIED, ALL INTEGRAL BASE SHALL BE 4" HIGH, UNLES OTHERWISE NOTED. CAULK TOP OF BASE CAP AT WALL. REFER TO DETAILS ON SHEET A8.03.

## E. WALL COVERINGS

1. REFER TO INTERIOR DESIGN FINISH PLANS SHEETS FOR LOCATION OF ALL ACCENT WALL FINISHES.

2. WRAP UNDERSIDE SURFACE OF GYPSUM BOARD AT WINDOW HEADS, SOFFITS AND JAMBS WITH VINYL IF ADJACENT WALL IS TO RECEIVE VINYL WALL COVERING.

## F. INTERIOR PAINTING

1. PAINT FINISHES ON FLOORS SHALL MEET ALL ADA, ICC/ANSI AND OTHER APPLICABLE ACCESSIBILITY CODE REQUIREMENTS FOR SKID RESISTANCE. REFER TO SPECIFICATION SECTION 09 9123.

2. IF ADJACENT WALL IS SCHEDULED TO HAVE A PAINT FINISH, PAINT VERTICAL AND HORIZONTAL SURFACES OF BULKHEADS AND SOFFITS TO MATCH WALL PAINT FINISH, UNLESS OTHERWISE NOTED.

3. WALLS IN ALL SPACES WITH EXPOSED CEILINGS SHALL BE PAINTED UP TO THE UNDERSIDE OF FLOOR/ROOF SLAB ABOVE.

## G. WINDOWS, DOORS, DOOR FRAMES, ACCESS DOORS, ETC.

1. CONTRACTOR SHALL PAINT ALL METAL ACCESS DOORS, ELECTRICAL PANELS, RECESSED CABINET FACES, HVAC REGISTERS, GRILLES, ETC. TO MATCH ADJACENT WALL COLOR, UNLESS LOCAL CODES REQUIRE OTHERWISE, ALL FIRE EXTINGUISHER CABINETS AND FIRE DEPARTMENT VALVE CABINETS SHALL BE PAINTED TO MATCH ADJACENT WALL COLOR, UNLESS OTHERWISE NOTED.

2. INTERIOR HOLLOW METAL DOORS, DOOR FRAMES, WINDOW FRAMES AND VIEW WINDOW FRAMES SHALL BE PAINTED FP-**1.**

3. IN THE CASE WHERE A DOOR FRAME RECEIVES A GIVEN PAINT COLOR ON ONE SIDE OF THE DOOR, AND ANOTHER PAINT COLOR IN THE OPPOSITE SIDE OF THE DOOR, THE TRANSITION SHALL OCCUR ON THE INSIDE CORNER OF THE JAMB STOP. WHICH IS NOT VISIBLE WHEN THE DOOR IS IN THE CLOSED POSITION.

4. FINISH FOR LAMINATE CLAD DOORS SHALL BE PL-**1.**

5. AT ALL EXTERIOR AND INTERIOR WINDOWS, THE CONTRACTOR SHALL INSTALL REINFORCEMENT WHERE BLINDS AND OR SHADES ARE INDICATED. SEE FURNITURE PLANS ON "F" SHEETS.

6. EXTERIOR WINDOW STOOLS SHALL BE CORIAN SS-2. SEE SPECIFICATION SECTION 06 4023 AND ARCHITECTURAL WINDOW SECTION DETAILS.

## H. CEILINGS

1. GYPSUM BOARD CEILINGS SHALL BE PAINTED **SHERWIN WILLIAMS SW7007 CEILING BRIGHT WHITE** OR EQUAL, UNLESS OTHERWISE NOTED. REFER TO INTERIOR DESIGN FINISH PLANS OR REFLECTED CEILING PLANS FOR SOFFIT COLORS NOTED OTHERWISE.

## I. WALL AND DOOR PROTECTION

1. PROVIDE REINFORCEMENT IN WALLS TO SUPPORT HANDRAILS, BUMPER GUARDS AND CRASH RAILS. SEE DETAILS ON SHEET A8.03.

2. UNLESS OTHERWISE NOTED, ALL CORNER GUARDS SHALL BE FULL HEIGHT AND INSTALLED ABOVE THE BASE. SEE DETAIL ON SHEET A803.

3. HANDRAILS, CRASH RAILS AND BUMPER GUARDS SHALL TERMINATE 2" AWAY FROM FIRE EXTINGUISHER CABINETS, CORNER GUARDS, DOOR FRAMES, ETC. CONTACT INTERIOR DESIGNER FOR FURTHER CLARIFICATION.

4. IWP-**1** IMPACT WALL PROTECTION SHEETING TO BE INSTALLED AS SHOWN ON INTERIOR DESIGN DRAWINGS, WITH ANTI-MICROBIAL ADHESIVE, NO EXPOSED FASTENERS AND NOT TO INTERFERE WITH GASES, ELECTRICAL OR SIMILAR. SEE DETAILS ON SHEET **A8.03.**

## J. CONTRACTOR FURNISHED AND INSTALLED ITEMS (C.F.C.I.)

1. MOTORIZED BLINDS & SHADES***
2. ROLLER SHADES***
3. LOCKERS (METAL)***
4. CUBICLE CURTAINS***

***REFER TO INDIVIDUAL SPECIFICATION SECTIONS IN THE PROJECT MANUAL, TO THE INTERIOR DESIGN FINISH LISTING ON THIS SHEET, AND TO THE FURNITURE PLANS FOR SPECIFICATIONS AND LOCATIONS.

## O. OWNER FURNISHED AND VENDOR INSTALLED ITEMS (O.F.V.I.)

1. FURNITURE
2. MOBILE PEDESTAL FILES
3. MARKERBOARDS / TACKBOARDS
4. CLOCKS
5. SPECIFIC TOILET ACCESSORIES (SEE SPEC SECTION 10 2800)

# INTERIOR DESIGN FINISH LISTING

## CARPET (TILE)

| | | |
|---|---|---|
| CT-1 | MFR: | SHAW |
| | PATT: | ALCHEMY 5T135 |
| | COLOR: | FORGE PLATINUM 33518 |
| | SIZE: | 24" X 24" |
| | INSTALL: | MONOLITHIC |

## TILE

| | | |
|---|---|---|
| T-1 | WALL TILE | |
| | MFR: | CERAMIC TECHNICS; ERGON |
| | PATT: | STONE PROJECT |
| | COLOR: | WHITE FALDA |
| | SIZE: | 45CM X 90CM |
| | THICK: | 10MM |
| | FINISH: | LAPPATO |
| | GROUT: | LATICRETE 90 LIGHT PEWTER |
| T-2 | FLOOR TILE | |
| | MFR: | CERAMIC TECHNICS; ERGON |
| | PATT: | STONE PROJECT |
| | COLOR: | GREY FALDA |
| | SIZE: | 45CM X 90CM |
| | THICK: | 10MM |
| | FINISH: | NATURAL |
| | GROUT: | LATICRETE 24 NATURAL GRAY |
| T-3 | METAL INSET FOR FEATURE WALL TILE | |
| | MFR: | DALTILE |
| | PATT: | URBAN METALS |
| | COLOR: | BRONZE UM02 |
| | SIZE: | 1/2" X 12" JOLLY TRIM |
| | THICK: | 15/16" |
| | GROUT: | LATICRETE 90 LIGHT PEWTER |
| MT-1 | PENNY ROUND MOSAIC | |
| | MFR: | CASALE DESIGN SOURCE |
| | PATT: | M49CCMPWH3434GPEN |
| | COLOR: | PEARL WHITE |
| | SIZE: | 12" X 12" |
| | THICK: | 6MM |
| | FINISH: | GLOSSY |
| | GROUT: | BOSTIK DIMENSION RAPID CURE GLASS GROUT; SUBMIT FULL COLOR RANGE |

## GLASS TILE

| | | |
|---|---|---|
| GT-1 | GLASS TILE | |
| | MFR: | CERAMIC TECHNICS |
| | PATT: | GLAMOUR GLASS ASTRO |
| | COLOR: | SILVER SCAPE |
| | SIZE: | 10" X 11.5" |
| | THICK: | 5/16" |
| | GROUT: | BOSTIK DIMENSION RAPID CURE GLASS GROUT; SUBMIT FULL COLOR RANGE |

## SEALED CONCRETE

| | | |
|---|---|---|
| SC-1 | SEALED CONCRETE W/ EPOXY SEALER | |
| | MFR: | SHERWIN WILLIAMS |
| | TYPE: | ARMORSEAL FLOOR PLEX 7100 WITH H&C SHARK GRIP ADDITIVE |
| | COLOR: | GRAY |

## WALK OFF MATTING

| | | |
|---|---|---|
| WOM-1 | ENTRANCE FLOOR GRILLE | |
| | MFR: | CS GROUP |
| | PATT: | DESIGNSTEP BR DURATION |
| | COLOR: | 905 WROUGHT IRON |
| | FRAME: | SURFACE MOUNTED ALUMINUM FRAME |
| | SIZE: | 4FT X 6FT |

## RESILIENT SHEET FLOORING

| | | |
|---|---|---|
| SV-1 | MFR: | JOHNSONITE |
| | PATT: | IQ OPTIMA |
| | COLOR: | 3077260 SHARKTALE WG |
| | WELD: | MATCHING |

## RESILIENT TILE FLOORING

## LUXURY VINYL TILE

| | | |
|---|---|---|
| LVT-1 | MFR: | SHAW |
| | PATT: | STRAND 0516V |
| | COLOR: | WOOL |
| | SIZE: | 18" X 36" |

## RESILIENT BASE

| | | |
|---|---|---|
| RB-1 | FRONT OF HOUSE | |
| | MFR: | JOHNSONITE |
| | PATT: | MILLWORK REVEAL |
| | COLOR: | 29 MOON ROCK WG |
| | HEIGHT: | 8" |
| RB-2 | BACK OF HOUSE | |
| | MFR: | JOHNSONITE |
| | PATT: | TRADITIONAL |
| | COLOR: | 29 MOON ROCK WG |
| | HEIGHT: | 4" |

## INTEGRAL COVED BASE

| | |
|---|---|
| IB | SHALL MATCH SPECIFIED FLOORING UNLESS OTHERWISE DESIGNATED SHALL BE 4" HIGH USE RUBBER OR VINYL TOP CAP; SEE DETAILS ON SHEET A8.02 |

## DECORATIVE GLASS

| | | |
|---|---|---|
| DG-1 | MFR: | SKYLINE DESIGN |
| | PATT: | ORGANICS ASIAN GRASS |
| | THICK: | 1/2" CLEAR TEMPERED GLASS |
| | FRONT: | PATTERN ECO-ETCHED |
| | BACK: | FIELD ECO-ETCHED |
| | SIZE: | 4' x 9' |

## DECORATIVE PANEL

| | | |
|---|---|---|
| DP-1 | MFR: | 3FORM VARIA STAND-OFF HIGH RES IMAGE ON ACRYLIC |
| | IMAGE: | SHUTTERSTOCK IMAGE 1315575131; CLOSE VIEW DAFFODILS |
| | THICK: | 3/8" |
| | FINISH: | PATINA |
| | SIZE: | TWO 48" X 96" PANELS WITH POINT SUPPORT HARDWARE |
| DP-2 | MFR: | 3FORM VARIA STAND-OFF HIGH RES IMAGE ON ACRYLIC |
| | IMAGE: | ISTOCK ID 1089029254; TINY CHERRY BLOSSOMS |
| | THICK: | 3/8" |
| | FINISH: | PATINA |
| | SIZE: | 48" X 96" PANEL WITH POINT SUPPORT HARDWARE |
| DP-3 | MFR: | 3FORM VARIA STAND-OFF HIGH RES IMAGE ON ACRYLIC |
| | IMAGE: | ISTOCK ID1706616359; WATER RIPPLES ON A SWIMMING POOL |
| | THICK: | 3/8" |
| | FINISH: | PATINA |
| | SIZE: | 48" X 96" PANEL WITH POINT SUPPORT HARDWARE |

## INTERIOR PAINTING (WALL)

| | | |
|---|---|---|
| P-1 | GENERAL WALL PAINT | |
| | MFR: | SHERWIN WILLIAMS |
| | COLOR: | SW 7010 WHITE DUCK |
| | FINISH: | EGGSHELL |
| P-2 | ACCENT WALL PAINT | |
| | MFR: | SHERWIN WILLIAMS |
| | COLOR: | SW 7016 MINDFUL GRAY |
| | FINISH: | EGGSHELL |
| P-3 | ACCENT WALL PAINT | |
| | MFR: | SHERWIN WILLIAMS |
| | COLOR: | SW 6211 RAINWASHED |
| | FINISH: | EGGSHELL |
| P-4 | STEEL BEAM PAINT | |
| | MFR: | SHERWIN WILLIAMS |
| | COLOR: | SW 6258 TRICORN BLACK |
| | FINISH: | REFER TO SPECS FOR FINISH |
| FP-1 | FRAME PAINT | |
| | MFR: | SHERWIN WILLIAMS |
| | COLOR: | SW 7016 MINDFUL GRAY |
| | FINISH: | SEMI-GLOSS |
| EP-1 | GENERAL WALL PAINT | |
| | MFR: | SHERWIN WILLIAMS |
| | COLOR: | SW 7010 WHITE DUCK |
| | FINISH: | EGGSHELL |
| | TYPE: | EPOXY |

## INTERIOR PAINTING (CEILING & SOFFIT)

| | | |
|---|---|---|
| P-51 | LATEX CEILING PAINT | |
| | MFR: | SHERWIN WILLIAMS |
| | COLOR: | SW 7007 CEILING BRIGHT WHITE |
| | FINISH: | FLAT |

## PLASTIC LAMINATE

| | | |
|---|---|---|
| PL-1 | MFR: | WILSONART |
| | COLOR: | WALNUT HEIGHTS 7965K-12 |
| | FINISH: | SOFTGRAIN |
| PL-2 | SOLICOR LAMINATE | |
| | MFR: | WILSONART |
| | COLOR: | DESIGNER WHITE D354-60 |
| | FINISH: | MATTE |

## VINYL WALLCOVERING

| | | |
|---|---|---|
| WC-1 | TYPE II VINYL WALLCOVERING | |
| | MFR: | DESIGNTEX |
| | PATT: | OSSETRA 6703-102 |
| | COLOR: | CANVAS |
| | WIDTH: | 54" |
| | INSTALL: | REVERSE HANG, RANDOM MATCH |

## LAMINATE WALL PANEL

| | | |
|---|---|---|
| LWP-1 | TO BE SUPPLIED AS MILLWORK | |
| | TYPE: | WILSONART 7965K-12 WALNUT HEIGHTS (PL-1) MATCHING 3MM EDGE BANDING |
| | CORE: | (PARTICLEBOARD/MDF) |
| | THICK: | 3/4" |
| | WIDTH: | FIELD VERIFY; REFER TO INTERIOR ELEVATIONS |

*SEE SPECIFICATION SECTION 06 4219 FOR MORE INFORMATION.

## SOLID SURFACE MATERIAL

| | | |
|---|---|---|
| SS-1 | RECEPTION QUARTZ | |
| | MFR: | CAMBRIA |
| | COLOR: | BRITTANICCA MATTE |

NOTE: AWARDED FABRICATOR TO SUBMIT PATTERN MATCHING DRAWINGS TO ARCHITECT/DESIGNER FOR APPROVAL PRIOR TO CUTTING SLAB.

| | | |
|---|---|---|
| SS-2 | SOLID SURFACE | |
| | MFR: | STARON |
| | COLOR: | SANDED ICICLE SI414 |
| | THICK: | 1/2" |
| SS-3 | SOLID SURFACE INTEGRAL SINKS | |
| | MFR: | STARON BY SAMSUNG |
| | COLOR: | BRIGHT WHITE BW010 |
| | THICK: | 1/2" |

## WALL AND DOOR PROTECTION

| | | |
|---|---|---|
| CG-1 | CORNER GUARD | |
| | MFR: | INPRO |
| | MODEL: | 150BN; BLUNOSE |
| | COLOR: | CLAM SHELL 0154 |
| | TEXTURE: | PEBBLETTE |
| | HEIGHT: | 8FT HIGH ABOVE BASE |
| CG-2 | END WALL CORNER GUARD | |
| | MFR: | INPRO |
| | MODEL: | 160BN; BLUNOSE |
| | COLOR: | CLAM SHELL 0154 |
| | TEXTURE: | PEBBLETTE |
| | HEIGHT: | 8FT HIGH ABOVE BASE |
| CG-3 | ANGLED CORNER GUARD | |
| | MFR: | INPRO |
| | MODEL: | 130BN; BLUNOSE |
| | COLOR: | CLAM SHELL 0154 |
| | TEXTURE: | PEBBLETTE |
| | HEIGHT: | 8FT HIGH ABOVE BASE |
| CG-4 | STAINLESS STEEL CORNER GUARD | |
| | MFR: | INPRO |
| | MODEL: | MODEL 180; 90 DEGREE, 3 1/2" WING |
| | FINISH | SATIN #4 |
| | HEIGHT: | FULL HEIGHT FROM BASE TO CEILING |
| IWP-1 | IMPACT WALL PROTECTION (SHEETING) | |
| | MFR: | INPRO |
| | MODEL: | 405 SANPARREL RIGID VINYL SHEET |
| | COLOR: | CLAM SHELL 0154 |
| | TEXTURE: | VELVET |
| | THICK: | 0.040" |
| | HEIGHT: | 48" HIGH A.F.F., U.O.N.; REFER TO ELEVATIONS |

**IMPACT WALL SHEETING TO BE INSTALLED PRIOR TO WALL BASE. BASE TO BE INSTALLED DIRECTLY ON TOP OF IMPACT SHEETING.

# MISCELLANEOUS ITEMS

## ROLLER SHADES

| | | |
|---|---|---|
| RS-1 | LOBBY ROLLER SHADES | |
| | MFR: | STANDARD TEXTILES ***OR*** MEDLINE (RECESSED IN GYP CEILING POCKET OR INSIDE JAMB MOUNTED) |
| | PRODUCT: | MECHOSHADE OR EQUAL |
| | STYLE: | ELECTROSHADE ELECTRO /3, SINGLE SHADE POCKET BRACKET |
| | SERIES: | 1500 SERIES, THERMOVEIL |
| | OPENESS: | 2-3% OPENESS; SHADE CLOTH |
| | COLOR: | SHADOW GREY 1520 |
| | WIDTH: | FIELD VERIFY; SEGMENTED PIECES REQUIRED |
| RS-2 | MFR: | STANDARD TEXTILES ***OR*** MEDLINE |
| | PRODUCT: | MECHOSHADE OR EQUAL |
| | STYLE: | MECHOSHADE III, SLIMLINE BRACKET SINGLE SHADE OR EQUAL |
| | SERIES: | 0800 SERIES, DISTINCTIVE BLACKOUT |
| | OPENESS: | OPAQUE; SHADE CLOTH |
| | COLOR: | CHARCOAL 0812 |
| | WIDTH: | FIELD VERIFY |
| RS-3 | MFR: | STANDARD TEXTILES ***OR*** MEDLINE |
| | PRODUCT: | MECHOSHADE OR EQUAL |
| | STYLE: | MECHOSHADE III, SLIMLINE BRACKET SINGLE SHADE OR EQUAL |
| | SERIES: | 1500 SERIES, THERMOVEIL |
| | OPENESS: | 2-3% OPENESS; SHADE CLOTH |
| | COLOR: | SHADOW GREY 1520 |
| | WIDTH: | FIELD VERIFY |

## CUBICLE CURTAINS

| | | |
|---|---|---|
| CU-1 | MFR: | STANDARD TEXTILES |
| | PATT: | FURROW |
| | COLOR: | FRESH CMOO65O7 |
| | WIDTH: | 72" |


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STATE OF FLORIDA
CARRIE KOVACS
ID5005
REGISTERED INTERIOR DESIGNER

Revision

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INTERIOR DESIGN GENERAL NOTES & FINISH LISTING

**I000**

43642
3/18/2019

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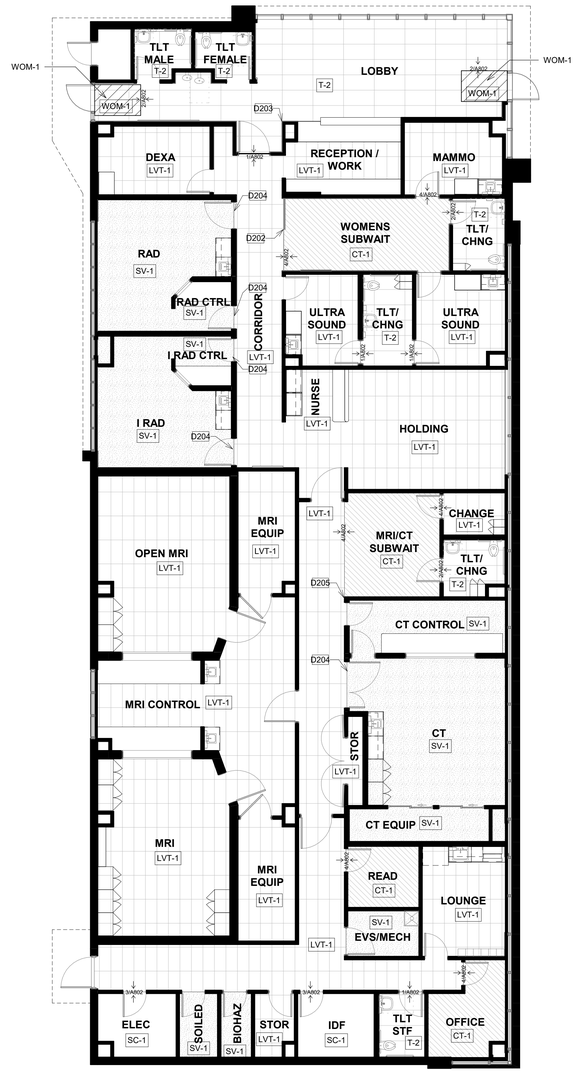
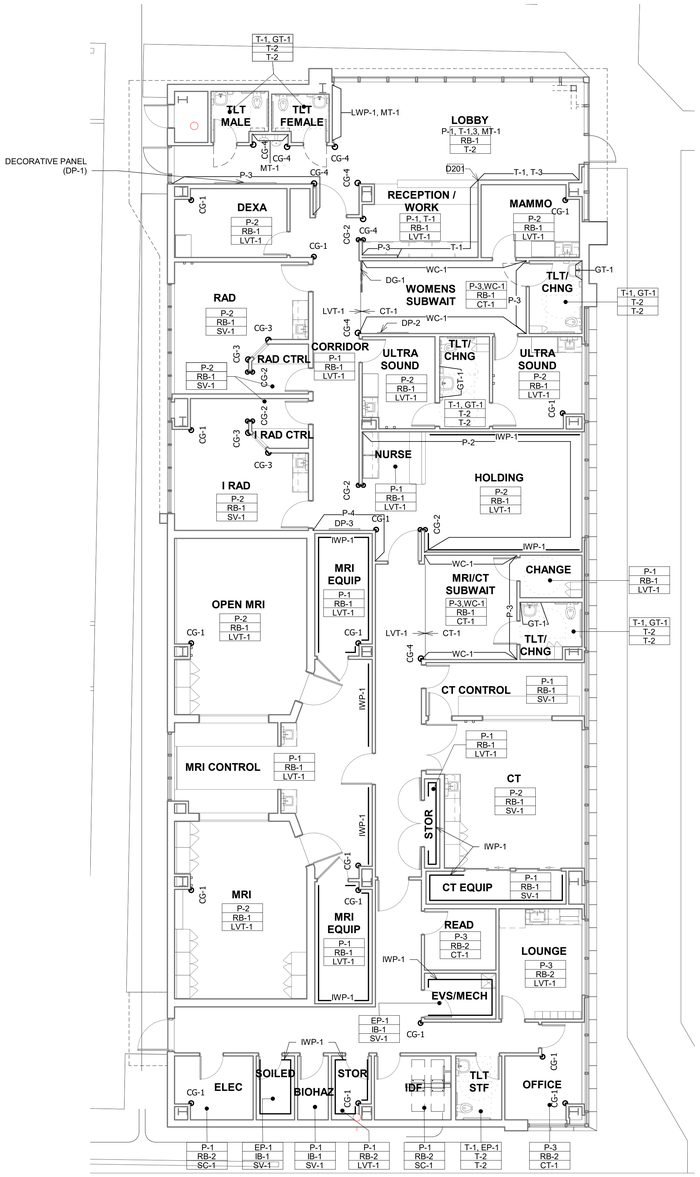
Drawn By: Author
Checked By: Checker
Approved By: Approver

THIS FLOOR PATTERN PLAN IS INTENDED TO SHOW FLOORING MATERIAL DESIGNATIONS AND IS NOT INTENDED TO SHOW EXACT INSTALLATION LAYOUT. WE REQUIRE FLOOR PATTERN SHOP DRAWINGS TO BE SUBMITTED AND INSTALLATION SHOULD FOLLOW THE REQUIREMENTS OF THE RESPECTIVE FLOORING SPECIFICATIONS SECTIONS.




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




1 FIRST FLOOR FINISH AND WALL PROTECTION PLAN
1/8" = 1'-0"

## FINISH & ACCENTS LEGEND

Wall Finish / Base Finish / Floor Finish — FINISH BOX - SEE SHEET I000 FOR "INTERIOR DESIGN FINISH LISTING"
XX-XX — ACCENT AND/OR SPECIFIC FINISH

NOTES:
A. THIS FINISH & ACCENT FINISH LEGEND IS ONLY A SYMBOLIC REPRESENTATION OF DIFFERENT MATERIAL TYPES USED FOR THIS PROJECT.
B. THE CONTRACTOR SHALL REFER TO THE INTERIOR DESIGN FINISH LISTING ON SHEET I000 THE INTERIOR DESIGN DRAWINGS, AND THE PROJECT MANUAL FOR ADDITIONAL PRODUCT AND COLOR SPECIFICATIONS.
C. SEE SHEET I000 FOR "INTERIOR DESIGN GENERAL NOTES".

## INTERIOR DESIGN ABBREVIATIONS

| | |
|---|---|
| CT | CARPET |
| CC | CUBICLE CURTAIN |
| DG | DECORATIVE GLASS |
| DP | DECORATIVE PANEL |
| EFG | ENTRANCE FLOOR GRILLE |
| EP | EPOXY PAINT |
| GT | GLASS TILE |
| IB | INTEGRAL BASE |
| LVT | LUXURY VINYL TILE |
| MT | MOSAIC TILE |
| OF/CI | OWNER FURNISHED/ CONTRACTOR INSTALLED |
| OF/OI | OWNER FURNISHED/ OWNER INSTALLED |
| P | PAINT |
| PL | PLASTIC LAMINATE |
| RB | RUBBER BASE |
| RS | ROLLER SHADE |
| SS | SOLID SURFACE MATERIAL |
| SV | SHEET VINYL |
| T | TILING (CERAMIC/PORCELAIN/ETC.) |
| WC | WALL COVERING |
| WOM | WALK OFF MAT |

## WALL AND DOOR PROTECTION LEGEND

NOTES: FOR WALL & DOOR PROTECTION MATERIALS, HEIGHTS AND SPECIFICATIONS, SEE INTERIOR DESIGN GENERAL NOTES ON SHEET I000; INTERIOR DESIGN FINISH LISTING ON SHEET I000; AND SPECIFICATION SECTION 10 2600 IN THE PROJECT MANUAL.

3 CG-1, 3, 4 — CORNER GUARDS - SEE DETAILS ON SHEET A8.03
3 CG-2 — END WALL CORNER GUARDS - SEE DETAILS ON SHEET A8.03
IWP-1 — IMPACT WALL SHEETING - SEE DETAIL ON SHEET A8.03

## FLOOR PATTERN LEGEND

XXXX — FLOORING TRANSITION REQUIRED BETWEEN DIFFERENT FINISH MATERIALS NUMBER INDICATES DETAIL NUMBER/SHEET
X-XX — FLOOR FINISH - REFER TO FINISH PLAN AND FINISH LISTING
CHANGE IN FLOORING WHERE A TRANSITION IS NOT REQUIRED

| | |
|---|---|
| T-2 | FLOOR TILE |
| LVT-1 | LUXURY VINYL TILE |
| CT-1 | CARPET |
| SV-1 | SHEET VINYL |
| SC-1 | SEALED CONCRETE |

## SHEET SPECIFIC NOTES

1. PROVIDE FULL HEIGHT STAINLESS SCHLUTER CORNER AT ALL OUTSIDE CORNERS OF TILED WALLS, TYP.
2. PROVIDE FULL HEIGHT STAINLESS 1/4" FRY REGLET REVEAL ON BOTH SIDES OF PLASTIC LAMINATE WALL PANELS, TYP.

## KEYNOTES

D201 AT OUTSIDE CORNERS OF PORCELAIN TILE, PROVIDE FULL HEIGHT SCHLUTER TRIM 'QUADEC' IN 10FT LENGTH. START FULL TRIM PIECE FROM FLOOR.
D202 FLOOR TRANSITION TO ALIGN WITH OUTSIDE EDGE OF METAL FRAME FOR GLASS.
D203 START FULL TILE AT INDICATED OUTSIDE CORNER.
D204 PROVIDE A HEAT WELD SEAM WHERE RESILIENT SHEET FLOORING MEETS RESILIENT TILE FLOORING.
D205 ALIGN FLOOR TRANSITION WITH OUTSIDE CORNER OF WALL.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LEVEL 1 FINISH, WALL PROTECTION, & FLOOR PATTERN PLAN

**I201**

43642
3/18/2019

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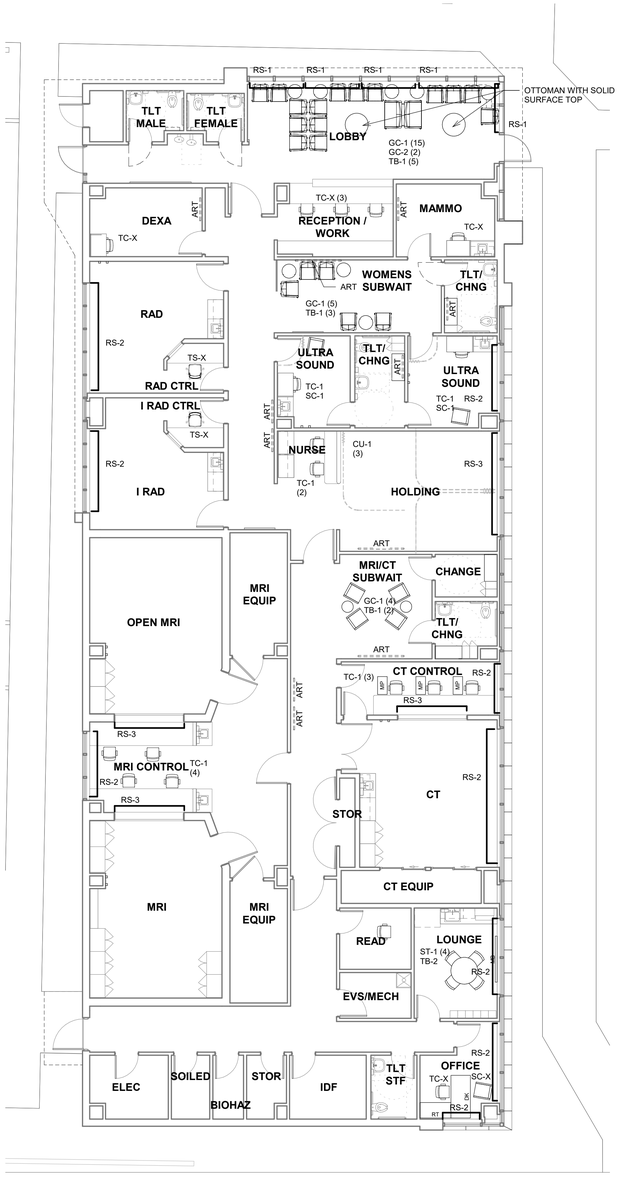
Approved By: Approver




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

ALL MOVALBE FURNITURE IS OWNER FURNISHED / VENDOR INSTALLED

## FURNITURE LEGEND

- TC — TASK CHAIR WITH ARMS
- TC — TASK CHAIR WITHOUT ARMS
- TS — TASK STOOL WITHOUT ARMS
- SC — SIDE CHAIR WITH ARMS
- STC — STACK CHAIR WITHOUT ARMS
- GUEST SEATING WITH ARMS
- TWO SEATER GUEST SEATING WITH ARMS
- ET — END TABLE
- TB — ROUND DINING TABLE WITH CHAIRS
- DK / R — DESK WITH RETURN
- MP — MOBILE PEDESTAL
- ARTWORK (BY OTHERS)
- TKB — TACKBOARD
- MB — MARKER BOARD
- CU — CUBICLE CURTAIN
- RS — ROLLER SHADE

## SHEET SPECIFIC KEYNOTES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LEVEL 1 FURNITURE PLAN

**I301**

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Approved By: RAM

# HVAC SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | -CEILING DIFFUSER, ROUND NECK (CEILING DIFFUSERS ARE 4-WAY THROW UNO) |
| | -ROUND DIFFUSER |
| | -CEILING RETURN |
| | -CEILING EXHAUST |
| | -CEILING DIFFUSER, RECTANGULAR OR SQUARE NECK (CEILING DIFFUSERS ARE 4-WAY THROW UNO) |
| | -SUPPLY REGISTER OR GRILLE (VERTICAL MOUNT, SIDEWALL) |
| | -RETURN/EXHAUST REGISTER OR GRILLE (VERTICAL MOUNT, SIDEWALL) |
| 1 | -REVISION REFERENCE |
| 1 / M-1 | -DETAIL REFERENCE: TOP-DETAIL#, BOTTOM-DRAWING# SHOWN ON |
| T | -THERMOSTAT/TEMPERATURE SENSOR |
| H | -HUMIDISTAT/HUMIDITY SENSOR |
| | -DUCT SMOKE DETECTOR |
| | -CONNECT TO EXISTING |
| | -DEMOLISH TO POINT INDICATED |
| M | -MOTORIZED CONTROL DAMPER |
| TS | -TEMPERATURE SENSOR |
| P | -PRESSURE SENSOR |
| BD | -BACKDRAFT DAMPER |
| 0 | -NEUTRAL RELATIVE PRESSURE |
| + | -POSITIVE RELATIVE PRESSURE |
| - | -NEGATIVE RELATIVE PRESSURE |
| 1 | -SHEET NOTE CALLOUT |
| 1 | -SHEET NOTE CALLOUT |
| 1 | -SHEET NOTE CALLOUT |
| | -CEILING MOUNTED ACCESS DOOR |

| SYMBOL | DESCRIPTION |
|---|---|
| | -FIRE DAMPER (WITH ACCESS PANEL) |
| | -FIRE & SMOKE DAMPER (WITH ACCESS PANEL) |
| | -EXISTING FIRE DAMPER TO REMAIN |
| | -EXISTING FIRE & SMOKE DAMPER TO REMAIN |
| EA-1 | -SOUND ATTENUATOR |
| M | -MOTOR OPERATED CONTROL DAMPER (MOD) |
| FM | -AIR FLOW MEASURING STATION |
| | -MANUAL BALANCING DAMPER |
| | -DOOR GRILLE |
| 1/2" | -UNDERCUT DOOR |
| M | -ACCESS DOORS, VERTICAL OR HORIZONTAL |
| | -STAINLESS STEEL DUCTWORK |
| | -FLEXIBLE CONNECTION |
| 12x8 | -FLAT OVAL DUCT |
| 24x12 | -NEW DUCTWORK, FIRST DIMENSION IS SIDE SHOWN |
| 24x12 | -EXISTING DUCTWORK TO REMAIN |
| 24x12 | -EXISTING DUCTWORK TO BE REMOVED |
| 24x12 DOWN / UP W/IN FLOOR | -DUCT ELBOW, POSITIVE PRESSURE (SUPPLY), FIRST DIMENSION INDICATES SIDE TO WHICH ARROW IS POINTING |
| | -DUCT ELBOW, EXHAUST |
| | -DUCT ELBOW, NEGATIVE PRESSURE, RETURN |
| | -DUCT ELBOW UP THROUGH ROOF OR SLAB ABOVE |
| | -RECTANGULAR DUCT SECTION UP, POSITIVE PRESSURE, SUPPLY OR OUTSIDE AIR |
| | -RECTANGULAR DUCT SECTION UP, NEGATIVE PRESSURE, RETURN |
| | -RECTANGULAR DUCT SECTION UP, EXHAUST |
| | -ROUND DUCT SECTION UP |
| | -FLAT OVAL DUCT SECTION UP |
| | -EXHAUST DUCT UP THROUGH SLAB W/ FAN ON ROOF ABOVE |
| | -EXHAUST FAN ON ROOF W/ DUCT DOWN THROUGH ROOF |

| SYMBOL | DESCRIPTION |
|---|---|
| | -TERMINAL UNIT, VARIABLE/CONSTANT AIR VOLUME WITH ELECTRIC HEAT |
| | -TERMINAL UNIT, VARIABLE/CONSTANT AIR VOLUME WITH ELECTRIC HEAT |
| | -TERMINAL UNIT, VARIABLE/CONSTANT AIR VOLUME, FAN POWERED |
| | -TERMINAL UNIT, VARIABLE/CONSTANT AIR VOLUME, FAN POWERED, WITH ELECTRIC HEAT |
| | -ELECTRIC DUCT HEATER (W/ PANEL CLEARANCE) |
| | -HYDRONIC REHEAT COIL |
| | -INLINE CENTRIFUGAL FAN |
| | -PACKAGED TERMINAL AIR CONDITIONER (PTAC) |
| UP / DN | -CHANGE OF ELEVATION |
| | -FLEXIBLE DUCT |
| | -TRANSITION, CONCENTRIC |
| | -TRANSITION, ECCENTRIC |
| 10x8 / 8Ø | -TRANSITION, SQUARE TO ROUND |
| | -SQUARE THROAT ELBOW W/TURNING VANES |
| | -RADIUS ELBOW |
| | -RECTANGULAR/ROUND BRANCH TAKE-OFF OR ROUND/ROUND BRANCH TAKE-OFF |
| | -SQUARE THROAT TEE |
| 12x8 | -RADIUS TEE |
| | -RECTANGLE-TO-ROUND TAKE-OFF |
| | -STANDARD BRANCH TAKE-OFF |
| | -SPIN-IN TAKE-OFF |

# HVAC ABBREVIATIONS

| SYMBOL | DESCRIPTION | SYMBOL | DESCRIPTION |
|---|---|---|---|
| AFD | -ADJUSTABLE FREQUENCY DRIVE | LD | -LINEAR DIFFUSER |
| AFF | -ABOVE FINISHED FLOOR | MBH | -THOUSAND BTUs PER HOUR |
| AFR | -ABOVE FINISHED ROOF | MCA | -MINIMUM CIRCUIT AMPS |
| AHU | -AIR HANDLING UNIT | MOCP | -MAXIMUM OVER CURRENT PROTECTION |
| AP | -ACCESS PANEL | MOD | -MOTOR OPERATED CONTROL DAMPER (MOD) |
| BOP | -BOTTOM OF PIPE | NC | -NORMALLY CLOSED |
| BHP | -BRAKE HORSEPOWER | NO | -NORMALLY OPEN |
| BTU | -BRITISH THERMAL UNIT | NTS | -NOT TO SCALE |
| ℄ | -CENTER LINE | OA | -OUTSIDE AIR |
| ∉ | -CFM (CUBIC FEET PER MINUTE) | OAL | -OUTSIDE AIR LOUVER |
| CD | -CEILING DIFFUSER | PRV | -PRESSURE REDUCING VALVE |
| CT | -COOLING TOWER | PRS | -PRESSURE REDUCING STATION |
| CV | -CONSTANT AIR VOLUME | PSI | -POUNDS PER SQUARE INCH |
| △P | -CHANGE IN PRESSURE | PSIG | -PSI GAUGE |
| △T | -CHANGE IN TEMPERATURE | PTAC | -PACKAGED TERMINAL AIR CONDITIONER |
| CFM | -CUBIC FEET PER MINUTE | PVC | -POLYVINYL CHLORIDE PIPE |
| CU | -CONDENSING UNIT | RA | -RETURN AIR |
| DDC | -DIRECT DIGITAL CONTROLS | RHC | -REHEAT COIL |
| DN | -DOWN | RHP | -ROOFTOP HEAT PUMP |
| EAT | -ENTERING AIR TEMPERATURE | RPM | -REVOLUTIONS PER MINUTE |
| ESP | -EXTERNAL STATIC PRESSURE | RS/L | -REFRIGERANT SUCTION & LIQUID LINES |
| EWT | -ENTERING WATER TEMPERATURE | RTU | -ROOFTOP AIR HANDLING UNIT |
| FCU | -FAN COIL UNIT | SA | -SUPPLY AIR |
| FD | -FIRE DAMPER | SP | -STATIC PRESSURE |
| FF | -FINAL FILTERS | TSP | -TOTAL STATIC PRESSURE |
| FLA | -FULL LOAD AMPS | UNO | -UNLESS NOTED OTHERWISE |
| FPM | -FEET PER MINUTE | V/PH | -VOLTS/PHASE |
| GPM | -GALLONS PER MINUTE | VAV | -VARIABLE AIR VOLUME |
| KW | -KILOWATT | VFD | -VARIABLE FREQUENCY DRIVE |
| LAT | -LEAVING AIR TEMPERATURE | | |
| LWT | -LEAVING WATER TEMPERATURE | | |

# APPLICABLE CODES

FLORIDA BUILDING CODE - BUILDING, 5TH EDITION (2017)
FLORIDA BUILDING CODE - MECHANICAL, 5TH EDITION (2017)
FLORIDA BUILDING CODE - PLUMBING, 5TH EDITION (2017)
FLORIDA BUILDING CODE - ENERGY CONSERVATION, 5TH EDITION (2017)
ASHRAE 90.1-2013
THE FIRE CODE, NFPA 1-2015
STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, NFPA 13-2013
STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FP SYSTEMS, NFPA 25-2014
NATIONAL ELECTRICAL CODE, NFPA 70-2014
NATIONAL FIRE ALARM CODE, NFPA 72-2013
STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS, NFPA 90A-2015
STANDARD FOR THE INSTALLATION OF WARM AIR HEATING AND A/C SYSTEMS, NFPA 90B-2015
FLORIDA FIRE PREVENTION CODE, RULE CHAPTER 69A-60, FAC-2017 EDITION
HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE DUCT, SMACNA 2005

# HVAC GENERAL NOTES

1. CONNECTION TO EQUIPMENT SHALL BE VERIFIED WITH MANUFACTURER'S CERTIFIED DRAWINGS. TRANSITIONS TO ALL EQUIPMENT SHALL BE VERIFIED AND PROVIDED FOR EQUIPMENT FURNISHED.
2. DIMENSIONS SHALL BE FIELD-VERIFIED AND COORDINATED PRIOR TO PROCUREMENT OR FABRICATION. COORDINATE THE WORK WITH OTHER TRADES INVOLVED. FIELD MODIFICATIONS SUCH AS OFFSETS IN PIPING OR DUCTWORK (INCLUDING DIVIDED DUCTWORK) NEEDED DUE TO OBSTRUCTIONS OR INTERFERENCES SHALL BE PROVIDED AT NO ADDITIONAL COST, FOR PROJECTS INVOLVING RENOVATION, COORDINATE NEW WORK WITH EXISTING ELEMENTS SUCH AS THE BUILDING STRUCTURE AND ARCHITECTURAL FEATURES, SPRINKLER PIPING, LIGHTS, PLUMBING, AND ELECTRICAL CONDUIT.
3. DUCT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARD.
4. SEE SPECIFICATIONS FOR GAUGES, THICKNESS, BRACING, REQUIREMENTS, ETC., OF DUCTWORK.
5. ALL ELBOWS SHALL BE 1.5 RADIUS WHENEVER SPACE PERMITS.
6. DUCT SIZES AND ALL OPENINGS THROUGH BUILDING CONSTRUCTION SHALL SUIT EQUIPMENT FURNISHED.
7. COORDINATE DIFFUSER, GRILLE AND REGISTER LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND EQUIPMENT OF ALL TRADES. COORDINATE ALL FRAME TYPES WITH RCP.
8. LOCATE THERMOSTATS, TEMPERATURE SENSORS, HUMIDISTATS, AND HUMIDITY SENSORS AT 48" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE. COORDINATE LOCATIONS WITH OTHER EQUIPMENT, FURNITURE, AND DOOR SWINGS.
9. ALL EQUIPMENT, DUCTWORK, ETC., SHALL BE SUPPORTED AS DETAILED AND/OR SPECIFIED. PROVIDE ADDITIONAL SUPPORTS AS REQUIRED TO PROVIDE A VIBRATION-FREE, RIGID INSTALLATION.
10. ALL DUCT SIZES SHOWN ARE INSIDE CLEAR DIMENSIONS.
11. DAMPERS AND INSIDES OF DUCTS VISIBLE THROUGH GRILLES, REGISTERS AND DIFFUSERS SHALL BE PAINTED FLAT BLACK.
12. REFER TO TYPICAL DETAILS FOR PIPING AND INSTALLATION OF EQUIPMENT.
13. TRAPPED CONDENSATE DRAINS FROM ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED FOR PROPER DRAINAGE TO SUIT EQUIPMENT FURNISHED.
14. ACCESS PANELS IN DUCTWORK AND CEILINGS SHALL BE PROVIDED WHERE REQUIRED FOR OPERATION, BALANCING OR MAINTENANCE OF ALL MECHANICAL EQUIPMENT.
15. ALL DUCTWORK AND PIPING IS SHOWN SCHEMATICALLY. PROVIDE ALL TRANSITIONS, TURNING VANES, ELBOWS, FITTINGS, ETC., TO ALLOW SMOOTH FLOWS. ALL SPLIT DUCT FITTINGS SHALL TRANSITION TO FULL SIZE OF THE SUM OF BOTH BRANCHES, UPSTREAM OF SPLIT.
16. PROVIDE CONCRETE HOUSEKEEPING PAD UNDER ALL FLOOR-MOUNTED EQUIPMENT. REFER TO SPECIFICATIONS FOR DETAILED REQUIREMENTS.
17. VERIFY FINISH WITH ARCHITECT PRIOR TO PURCHASING GRILLES, REGISTERS, DIFFUSERS, LOUVERS AND OTHER AIR DISTRIBUTION DEVICES.
18. PROVIDE FLEXIBLE DUCT CONNECTIONS ON ALL DUCTWORK CONNECTING TO EACH FAN, AIR HANDLING UNITS, AND FAN COIL UNITS.
19. PROVIDE TRANSITIONS AT DIFFUSER NECKS AS REQUIRED TO MATCH SIZES OF FLEX DUCTS TO BE CONNECTED.
20. INTERRUPTIONS TO EXISTING SERVICES SHALL BE SCHEDULED FOR TIMES OTHER THAN NORMAL OPERATING HOURS (SUCH AS NIGHTS AND WEEKENDS). SUCH INTERRUPTIONS TO SERVICES SHALL NOT BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF THE OWNER'S REPRESENTATIVE AND PROPER COORDINATION WITH OTHER TRADES. PRE-WORK SHALL BE PERFORMED TO MAKE THE SHUTDOWN PERIOD AS BRIEF AS POSSIBLE.
21. ALL EQUIPMENT, DUCTWORK, ETC., TO BE REMOVED SHALL REMAIN PROPERTY OF THE OWNER OR DISPOSED OF LEGALLY, AS DIRECTED BY OWNER.
22. MAINTAIN CLEARANCE OF A MINIMUM OF 6" BETWEEN DUCTWORK, PIPING, EQUIPMENT, ETC., AND ALL FIRE RATED AND FIRE/SMOKE RATED PARTITIONS, TO ALLOW FOR INSPECTIONS OF RATED WALLS.
23. LOCATE ALL OUTSIDE AIR INTAKES A MINIMUM OF 10' CLEAR FROM ALL PLUMBING VENTS AND EXHAUST AIR DISCHARGE LOCATIONS.
24. DUCT RUNOUTS TO DIFFUSERS SHALL MATCH THE SIZE OF THE DIFFUSER NECK.
25. WATER PRESSURE DROPS THROUGH COIL CONTROL VALVES SHALL NOT EXCEED 5 PSI.
26. UNLESS OTHERWISE NOTED, ALL EQUIPMENT AND VALVE DRAINS SHALL BE INDEPENDENTLY PIPED FULL SIZE TO THE NEAREST PLUMBING DRAIN.
27. SLEEVE AND SEAL ALL PIPING PENETRATIONS THROUGH BUILDING PARTITIONS. PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS IN CHILLED WATER AND HOT WATER PIPING.
28. PIPING, DUCTWORK, LEAK PROTECTION APPARATUS, OR OTHER EQUIPMENT FOREIGN TO ELECTRICAL SWITCHBOARDS, PANELBOARDS, DISTRIBUTION BOARDS, OR MOTOR CONTROL CENTERS SHALL NOT BE INSTALLED WITHIN THE REQUIRED SPACE FOR WORKING CLEARANCES OR DEDICATED SPACES OF THE ELECTRICAL EQUIPMENT. EXTENDING IN FRONT OF AND FROM FLOOR TO STRUCTURAL CEILING WITH A WIDTH AND DEPTH OF THE ELECTRICAL EQUIPMENT IN ACCORDANCE WITH NEC-110.26.

# HVAC PIPING SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| CWS | -CONDENSER WATER SUPPLY |
| CWR | -CONDENSER WATER RETURN |
| CHWS | -CHILLED WATER SUPPLY |
| CHWR | -CHILLED WATER RETURN |
| CD | -CONDENSATE |
| CR | -CONDENSATE RETURN |
| PC | -PUMPED CONDENSATE |
| HWR | -HOT WATER RETURN |
| HWS | -HOT WATER SUPPLY |
| HPS | -HIGH PRESSURE STEAM SUPPLY |
| MPS | -MEDIUM PRESSURE STEAM SUPPLY |
| LPS | -LOW PRESSURE STEAM SUPPLY |
| HPR | -HIGH PRESSURE STEAM RETURN |
| MPR | -MEDIUM PRESSURE STEAM RETURN |
| LPR | -LOW PRESSURE STEAM RETURN |
| RL | -REFRIGERANT LIQUID |
| RS | -REFRIGERANT SUCTION |

| SYMBOL | DESCRIPTION |
|---|---|
| | -FLOW DIRECTION |
| | -GATE VALVE |
| | -BALL VALVE |
| | -CALIBRATING BALANCING VALVE |
| | -BUTTERFLY VALVE |
| | -GAS COCK |
| | -UNION |
| | -STRAINER |
| | -CONTROL VALVE |
| S | -SOLENOID VALVE |
| | -PSI REG. |
| | -CHECK VALVE |
| | -FLOW SWITCH |
| | -SLOPE DIRECTION (DOWN) |
| | -FLEX CONNECTION |
| | -O.S.&Y. GATE VALVE |
| | -STEAM TRAP |
| | -THREE-WAY CONTROL VALVE |
| | -THERMOMETER |

| SYMBOL | DESCRIPTION |
|---|---|
| EQUIP. | - P-TRAP |
| | -TWO-WAY CHECK VALVE |
| MV | -MANUAL VENT |
| | -PRESSURE GAUGE |
| | -RELIEF VALVE |
| FM | -FLOW METER |
| M | -WATER METER |
| | -INLINE PUMP |
| | -INLINE PUMP |
| | -VALVE ON RISER |
| | -CAP |
| | -CONNECTION, BOTTOM |
| | -CONNECTION, TOP |
| | -COUPLING |
| | -ELBOW, 90° |
| | -ELBOW, 45° |
| | -ELBOW, TURNED DOWN |
| | -ELBOW, TURNED UP |
| | -TEE, OUTLET DOWN |
| | -TEE, OUTLET UP |
| D / D | -45° PIPE RISE (R) / DROP (D) |
| | -PIPE ANCHORS |
| | -CONCENTRIC REDUCER |
| | -ECCENTRIC REDUCER |

NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT

# HVAC EQUIPMENT TAGS

TAG / A 200 / CFM — -AIR DISTRIBUTION DEVICE

AHU NUMBER / AHU-1 — -AIR HANDLING UNIT

AHU NUMBER / COIL NUMBER / RHC-1-1 — -REHEAT COIL

VARIABLE/CONSTANT AIR VOLUME TERMINAL UNITS

TERMINAL UNIT TYPE
VTU - VARIABLE TERMINAL UNIT
CTU - CONSTANT TERMINAL UNIT
PTU - PARALLEL TERMINAL UNIT
STU - SERIES TERMINAL UNIT

AHU NUMBER / TERMINAL NUMBER / VTU-1-1

# MECHANICAL DRAWING INDEX

| SHEET | DESCRIPTION | ISSUED |
|---|---|---|
| M001 | GENERAL INFORMATION - HVAC | Yes |
| M100 | NEW CONSTRUCTION PLAN - DUCTWORK | Yes |
| M200 | NEW CONSTRUCTION PLAN - PIPING | Yes |
| M300 | SCHEDULES | Yes |
| M400 | DETAILS | Yes |
| M401 | DETAILS | Yes |
| M402 | DETAILS | Yes |
| M500 | CONTROLS | Yes |


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Revision

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GENERAL INFORMATION - HVAC

**M001**

43642
2/1/2019

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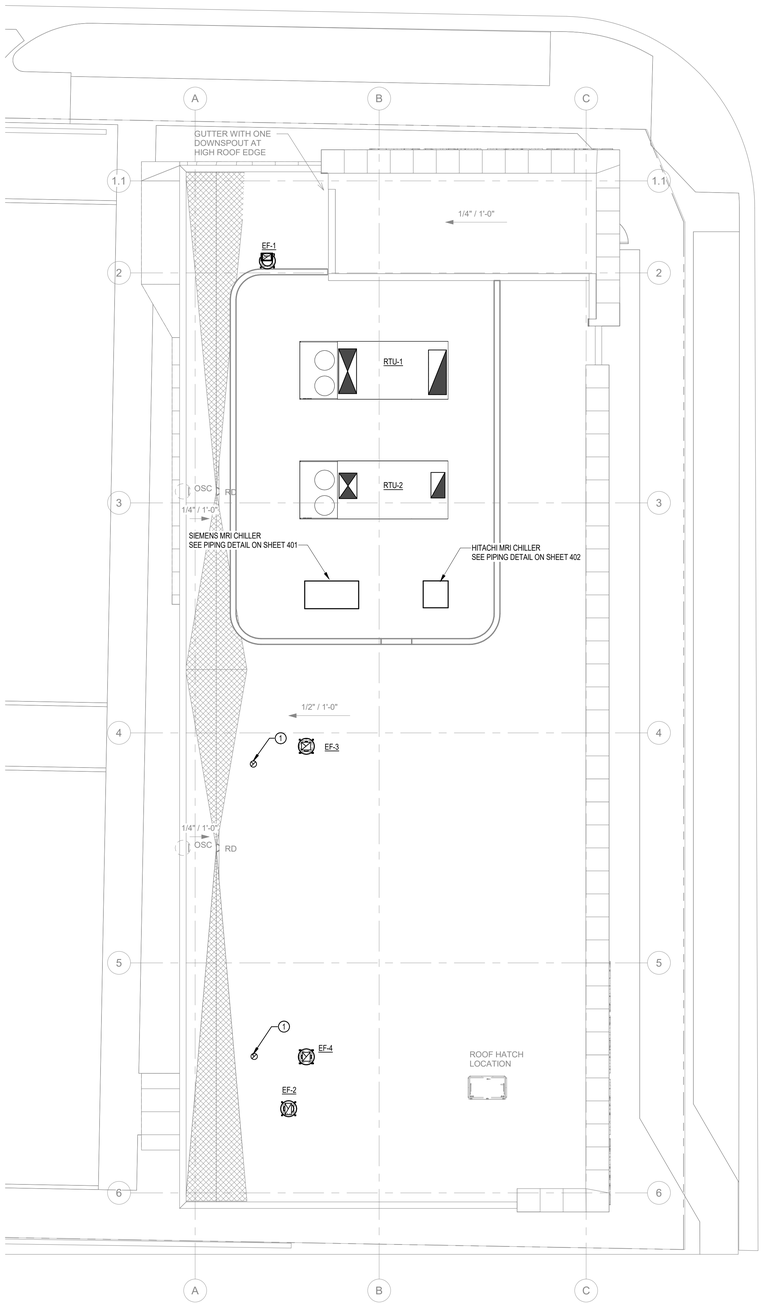
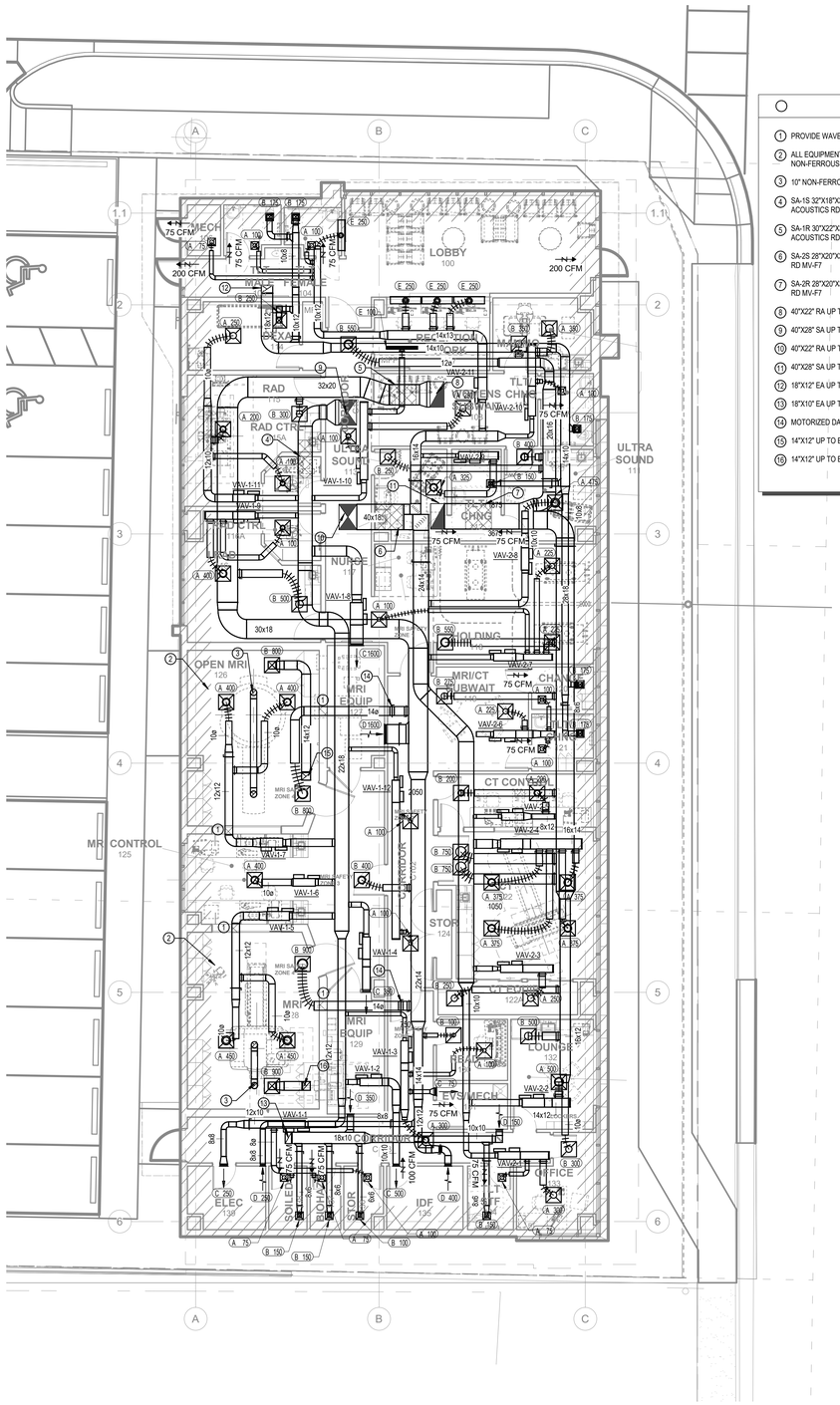
| KEYNOTES |
|---|
| 1 10" CRYOVENT DOWN TO MRI. |




2 ROOF LEVEL NEW CONSTRUCTION PLAN - DUCTWORK
1/8" = 1'-0"




1 LEVEL 1 NEW CONSTRUCTION PLAN - DUCTWORK
1/8" = 1'-0"

| KEYNOTES |
|---|
| 1 PROVIDE WAVE GUIDES AT ALL PENETRATIONS. |
| 2 ALL EQUIPMENT, DUCTWORK, AND PIPING IN THIS AREA TO BE NON-FERROUS. |
| 3 10" NON-FERROUS STAINLESS STEEL CRYOVENT TO ROOF. |
| 4 SA-1S 32"X18"X36" SOUND ATTENUATOR 0.13" PD VIBRO ACOUSTICS RD MV-FS |
| 5 SA-1R 30"X22"X36" SOUND ATTENUATOR 0.1" PD VIBRO ACOUSTICS RD MV-F7 |
| 6 SA-2S 28"X20"X36" SIYBD ATTENUATOR 0.11PD VIBRO ACOUSTICS RD MV-F7 |
| 7 SA-2R 28"X20"X36" SIYBD ATTENUATOR 0.11PD VIBRO ACOUSTICS RD MV-F7 |
| 8 40"X22" RA UP TO RTU-1 |
| 9 40"X28" SA UP TO RTU-1 |
| 10 40"X22" RA UP TO RTU-2 |
| 11 40"X28" SA UP TO RTU-2 |
| 12 18"X12" EA UP TO EF-1 |
| 13 18"X10" EA UP TO EF-2 |
| 14 MOTORIZED DAMPER - CLOSES ON 02 SENSOR |
| 15 14"X12" UP TO EF-3 |
| 16 14"X12" UP TO EF-4 |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Orlando Health Imaging Center
1800 S Orange Avenue
Orlando, Florida 32806

Aaron Lee Johnson, P.E.
Florida License #71576

AARON LEE JOHNSON LICENSE No 71576 STATE OF FLORIDA PROFESSIONAL ENGINEER

Revision

| No. | Date | Description |
|---|---|---|
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NEW CONSTRUCTION PLAN - DUCTWORK

# M100

43642
2/1/2019

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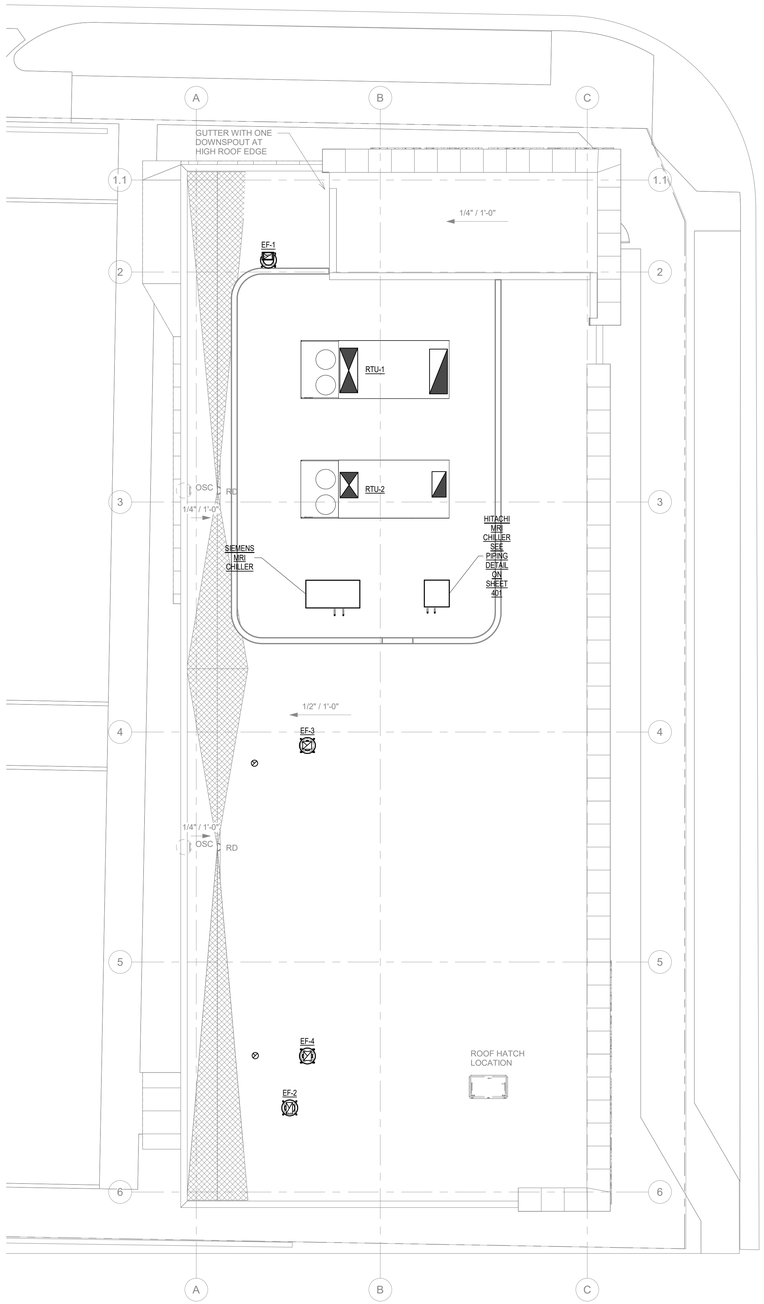
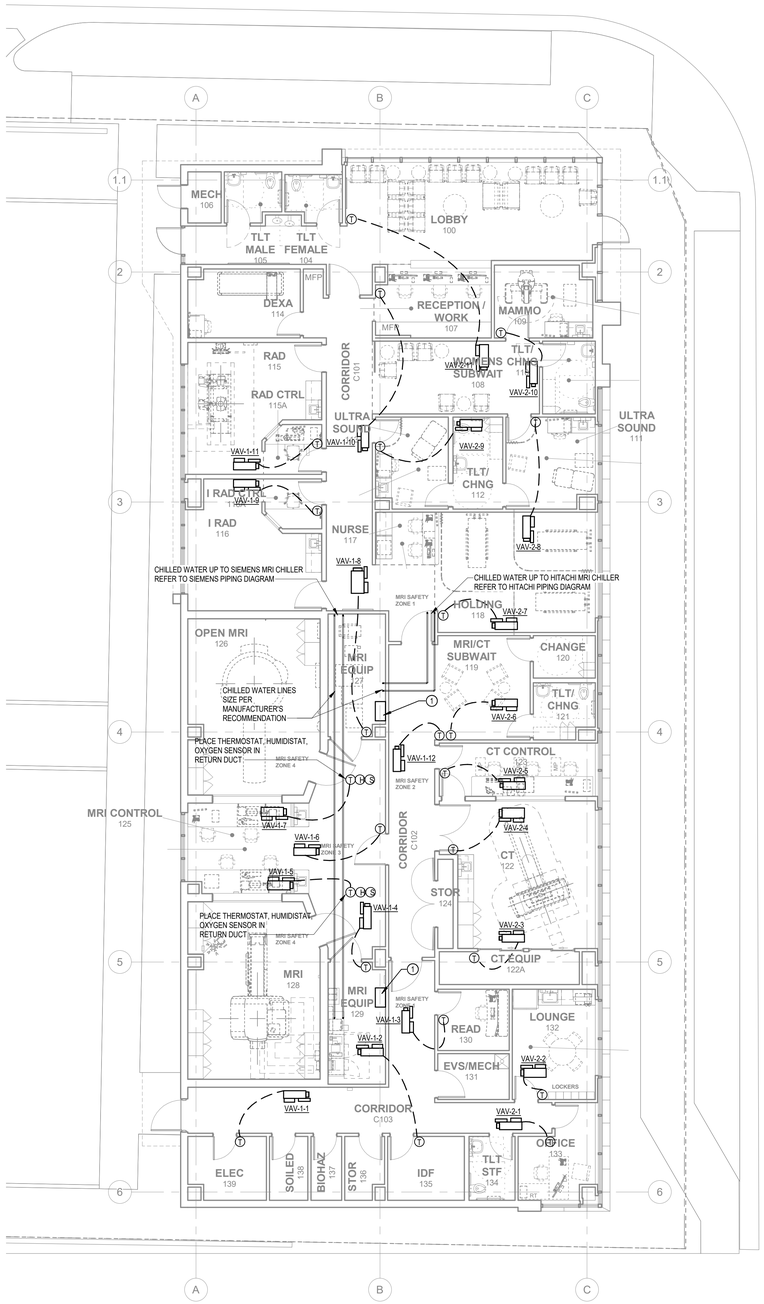



2 ROOF LEVEL NEW CONSTRUCTION PLAN - PIPING
1/8" = 1'-0"




1 LEVEL 1 NEW CONSTRUCTION PLAN - PIPING
1/8" = 1'-0"

KEYNOTES

1 MANUAL EMERGENCY SWITCH OVER PANEL. SEE PLUMBING PLANS.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NEW CONSTRUCTION PLAN - PIPING

# M200

43642
2/1/2019

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Checked By: RAM
Approved By: RAM

## TERMINAL UNIT SCHEDULE

| MARK | INLET | AIR FLOW | | | HEATING COIL DATA | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MAX CFM | MIN CFM | HTG CFM | kW | EAT (°F) | LAT (°F) | V | Φ |
| VAV-1-1 | 8 | 500 | 500 | 500 | 1.6 | 55 | 85 | 277 | 1 |
| VAV-1-2 | 8 | 500 | 500 | 500 | 1.6 | 55 | 85 | 277 | 1 |
| VAV-1-3 | 8 | 475 | 250 | 250 | 0.8 | 55 | 85 | 277 | 1 |
| VAV-1-4 | 8 | 350 | 350 | 350 | 1.2 | 55 | 85 | 277 | 1 |
| VAV-1-5 | 10 | 900 | 450 | 450 | 3.5 | 55 | 85 | 277 | 1 |
| VAV-1-6 | 8 | 400 | 200 | 200 | 1.6 | 55 | 85 | 277 | 1 |
| VAV-1-7 | 10 | 800 | 400 | 400 | 3.2 | 55 | 85 | 277 | 1 |
| VAV-1-8 | 14 | 1600 | 800 | 800 | 2.5 | 55 | 85 | 277 | 1 |
| VAV-1-9 | 8 | 500 | 250 | 250 | 2 | 55 | 85 | 277 | 1 |
| VAV-1-10 | 8 | 450 | 225 | 225 | 1.5 | 55 | 85 | 277 | 1 |
| VAV-1-11 | 8 | 550 | 275 | 275 | 2.2 | 55 | 85 | 277 | 1 |
| VAV-1-12 | 6 | 200 | 100 | 100 | 0.5 | 55 | 85 | 277 | 1 |

**NOTES:**

1. BASIS OF DESIGN: PRICE
2. PROVIDE 120V TRANSFORMER ON ALL TERMINAL UNITS.
3. ALL BOXES SHALL BE 24V.
4. ALL TERMINAL UNITS SHALL BE INSULATED, SOLID DOUBLE WALL CONSTRUCTION
5. PROVIDE STAGED SCR HEATING FOR ALL COILS.
6. MAX AIR PRESSURE DROP: 0.5 IN. WG.

## TERMINAL UNIT SCHEDULE

| MARK | INLET | AIR FLOW | | | HEATING COIL DATA | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | MAX CFM | MIN CFM | HTG CFM | kW | EAT (°F) | LAT (°F) | V | Φ |
| VAV-2-1 | 8 | 375 | 125 | 200 | 2 | 55 | 85 | 277 | 1 |
| VAV-2-2 | 8 | 500 | 150 | 250 | 2.5 | 55 | 85 | 277 | 1 |
| VAV-2-3 | 10 | 750 | 225 | 375 | 4 | 55 | 85 | 277 | 1 |
| VAV-2-4 | 12 | 1200 | 375 | 600 | 6 | 55 | 85 | 277 | 1 |
| VAV-2-5 | 8 | 350 | 125 | 175 | 2 | 55 | 85 | 277 | 1 |
| VAV-2-6 | 8 | 425 | 150 | 225 | 2.5 | 55 | 85 | 277 | 1 |
| VAV-2-7 | 8 | 550 | 175 | 275 | 3 | 55 | 85 | 277 | 1 |
| VAV-2-8 | 8 | 475 | 150 | 250 | 2.5 | 55 | 85 | 277 | 1 |
| VAV-2-9 | 6 | 325 | 100 | 175 | 2 | 55 | 85 | 277 | 1 |
| VAV-2-10 | 8 | 450 | 150 | 225 | 2.5 | 55 | 85 | 277 | 1 |
| VAV-2-11 | 12 | 1375 | 425 | 700 | 7 | 55 | 85 | 480 | 3 |

**NOTES:**

1. BASIS OF DESIGN: PRICE
2. PROVIDE 120V TRANSFORMER ON ALL TERMINAL UNITS.
3. ALL BOXES SHALL BE 24V.
4. ALL TERMINAL UNITS SHALL BE INSULATED, SOLID DOUBLE WALL CONSTRUCTION
5. PROVIDE STAGED SCR HEATING FOR ALL COILS.
6. MAX AIR PRESSURE DROP: 0.5 IN. WG.

## ROOFTOP AIR HANDLING UNIT

| PLAN MARK | SERVING | MODEL | REFRIGERANT TYPE | COOLING COIL | FAN DATA | | | | | COOLING COIL DATA | | | | | AMBIENT TEMP °F | UNIT ELECTRIC DATA | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CFM | | E.S.P. | MOTOR QTY. | MOTOR HP | CAPACITY | EAT° F | | LAT °F | | | VOLTAGE | PHASE | MCA | MOCP | |
| | | | | | S.A. | O.A. | | | | QT/QS (MBH) | DB | WB | DB | WB | DB | | | | | |
| RTU-1 | IMAGING | CSAA | R410A | DX | 6925 | 1150 | 4.0 | 2 | 3 HP EA. | 318/109 | 80 | 67 | 51 | 51 | 105 | 460 | 3 | 70.75 A | 90 A | |
| RTU-2 | IMAGING | HORIZON (B/G) | R410A | DX | 6425 | 1175 | 4.0 | 2 | 3 HP EA. | 318/109 | 80 | 67 | 51 | 51 | 105 | 460 | 3 | 70.75 A | 90 A | |

REMARKS:

1. BASIS OF DESIGN: TRANE
2. PROVIDE MERV 7 PREFILTERS AND MERV 11 FINAL FILTERS.
3. PROVIDE SINGLE POINT POWER CONNECTION TO UNIT.
4. PROVIDE VFD INSIDE ENCLOSURE.
5. PROVIDE 120V CONVENIENCE OUTLET.
6. PROVIDE MARINE LIGHTS.
7. MECHANICAL CONTRACTOR SHALL APPLY AN ADDITIONAL 2" MINIMUM OF FOAM INSULATION ON THE UNDERSIDE OF UNIT DIRECTLY BELOW COOLING COIL DRAIN PAN BEFORE SETTING UNIT IN PLACE.
8. PROVIDE TIMER TO PREVENT SHORT CYCLING OF COMPRESSORS.

## AIR DISTRIBUTION SCHEDULE

| MARK | CFM | NECK... | FACE SI... | DESCRIPTION |
|---|---|---|---|---|
| A | 00-90 | 6"rd | 24x24 | SUPPLY DIFFUSER |
| | 91-210 | 8"rd | 24x24 | BASIS OF DESIGN: PRICE AMD |
| | 211-380 | 10"rd | 24x24 | COLOR: WHITE |
| | 381-620 | 12"rd | 24x24 | MATERIAL: ALUMINUM |
| | 621-750 | 14"rd | 24x24 | OPPOSED BLADE DAMPER: NO |
| | 751-980 | 16"rd | 24x24 | BACK PAN SIZE: 18x18 |
| | | | | |
| B | 000-110 | 6x6 | 24x24 | RETURN / EXHAUST GRILLE |
| | 111-220 | 8x8 | 24x24 | BASIS OF DESIGN: PRICE 80 |
| | 221-350 | 10x10 | 24x24 | COLOR: WHITE |
| | 351-530 | 12x12 | 24x24 | OPPOSED BLADE DAMPER: NO |
| | 530-730 | 14x14 | 24x24 | 1/2" x 1/2" x 1/2" GRID |
| | 731-970 | 16x16 | 24x24 | |
| | 971-1240 | 18x18 | 24x24 | |
| | 1241-15... | 20x20 | 24x24 | |
| | 1541-18... | 22x22 | 24x24 | |
| | | | | |
| C | 000-100 | 6x6 | SEE | SUPPLY SIDEWALL GRILLE |
| | 101-150 | 8x6 | PLANS | BASIS OF DESIGN: PRICE 610L |
| | 151-300 | 12x8 | | COLOR: WHITE |
| | 301-350 | 18x6 | | MATERIAL: ALUMINUM |
| | 351-550 | 18x10 | | OPPOSED BLADE DAMPER: NO |
| | 551-900 | 24x12 | | SINGLE DEFLECTION |
| | | | | 3/4" SPACING |
| | | | | |
| D | 000-100 | 6x6 | SEE | RETURN/EXHAUST SIDEWALL GRILLE |
| | 101-150 | 8x6 | PLANS | BASIS OF DESIGN: PRICE 610Z-L |
| | 151-200 | 12x6 | | COLOR: WHITE |
| | 201-300 | 18x6 | | MATERIAL: ALUMINUM |
| | 301-550 | 18x10 | | OPPOSED BLADE DAMPER: NO |
| | 551-710 | 24x12 | | 0 DEGREE FIXED DEFLECTION |
| | 711-1000 | 24x14 | | 3/4" SPACING |
| | | | | |
| E | 110 CFM | SEE | SEE | LINEAR BAR DIFFUSER: SUPPLY |
| | /FT | PLANS | PLANS | BASIS OF DESIGN: PRICE SDS-100 |
| | | | | COLOR: WHITE |
| | | | | MATERIAL: ALUMINUM |
| | | | | OPPOSED BLADE DAMPER: NO |
| | | | | BORDER TYPE 2 |
| | | | | 1"SLOTS |
| | | | | FIELD FABRICATED PLUNUM |
| | | | | LENGTHS LONGER THAN 6'-0" SHALL |
| | | | | HAVE CONTINUOUS APPEARANCE |
| | | | | |
| F | 110 CFM | SEE | SEE | LINEAR BAR DIFFUSER: RETURN |
| | /FT | PLANS | PLANS | BASIS OF DESIGN: PRICE SDR-100 |
| | | | | COLOR: WHITE |
| | | | | MATERIAL: ALUMINUM |
| | | | | OPPOSED BLADE DAMPER: NO |
| | | | | BORDER TYPE 2 |
| | | | | 1"SLOTS |
| | | | | FIELD FABRICATED PLUNUM |
| | | | | LENGTHS LONGER THAN 6'-0" SHALL |
| | | | | HAVE CONTINUOUS APPEARANCE |

NOTES:

1. AIR DISTRIBUTION DEVICES LOCATED WITHIN ACOUSTICAL TILE CEILINGS SHALL BE PROVIDED WITH BORDER TYPE 3 FOR LAY-IN MOUNTING. AIR DISTRIBUTION DEVICES LOCATED WITHIN GYPSUM BOARD CEILINGS OR WALLS SHALL BE PROVIDED WITH BORDER TYPE 1 FOR SURFACE MOUNTING. REFER TO ARCHITEVAVRAL DOCUMENTS FOR CEILING TYPES.
2. AIR DISTRIBUTION DEVICES LOCATED IN SMALL ROOMS WHERE FULL 24"x24" GRID ARE NOT AVAILABLE SHALL BE PROVIDED WITH SURFACE MOUNTING BORDERS IN LIEU OF LAY-IN. SECURE EACH DEVICE TO CEILING GRID WITH FIELD-FABRICATED SUPPORTS.
3. PROVIDE ALL MATERIALS AND EQUIPMENT REQUIRED FOR A COMPLETE INSTALLATION OF ALL LINEAR AND MODULAR SLOT AIR DISTRIBUTION SYSTEMS AS SHOWN ON THE ARCHITEVAVRAL AND MECHANICAL DRAWINGS AND/OR INDICATED IN THE SPECIFICATIONS. THE SYSTEMS BE COMPLETE IN EVERY RESPECT AND SHALL INCLUDE ALL REQUIRED APPURTENANCES. MECHANICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL PLENUMS, BLANK-OFFS AND ASSOCIATED SHEET METAL COMPONENTS INCLUDING ALL DUCT CONNECTIONS THERETO.

## FAN SCHEDULE

| PLAN MARK | MODEL NO. | TYPE | CFM | STATIC PRESS. | FAN RPM | MOTOR RPM | MOTOR HP | VOLT/ PHASE | DRIVE TYPE | SONES | FAN SERVICE | ACCESSORIES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EF-1 | CUBE-161 | CENTRIFUGAL UPBLAST | 1275 | 2.5" | 2252 | 1725 | 1.5 | 460/3 | BELT | - | GENERAL | 1,3,5,6,12,15,20,39 |
| EF-2 | CUBE-161 | CENTRIFUGAL UPBLAST | 1050 | 2.5" | 2252 | 1725 | 1.5 | 460/3 | BELT | - | GENERAL | 1,3,5,6,12,15,20,39 |
| EF-3 | CUBE-141 | CENTRIFUGAL UPBLAST | 900 | 1.5" | 1741 | 1725 | 3/4 | 460/3 | BELT | - | GENERAL | 1,3,5,6,12,15,20,39 |
| EF-4 | CUBE-141 | CENTRIFUGAL UPBLAST | 800 | 1.5" | 2252 | 1725 | 3/4 | 460/3 | BELT | - | GENERAL | 1,3,5,6,12,15,20,39 |

NOTES:

1. MODEL NUMBERS AND FAN SELECTION ARE BASED ON GREENHECK.
2. ALL EXTERIOR FANS SHALL BE NOA RATED.
3. PROVIDE SPEED CONTROLLER ON ALL DIRECT DRIVE FANS.
4. ALL UTILITY SET EXHAUST STACKS SHALL HAVE HURRICANE TIE DOWNS.
5. ALL MOTORS SHALL BE PREMIUM EFFICIENCY.

ACCESSORIES:

1) BACKDRAFT DAMPER
2) THERMOSTAT
3) BIRDSCREEN
4) ROOF CURB
5) DISCONNECT SWITCH
6) DRAIN
7) EQUIPMENT SUPPORTS
8) INLET SCREEN
9) CURB MOUNT ROOF JACK
10) SPEED CONTROLLER
11) WALL SHUTTER
12) VIBRATION ISOLATORS
13) WALL CAP
14) WALL SHUTTER - MOTORIZED
15) WEATHER COVER
16) 2 SPEED / 1 WINDING
17) FILTERS
18) WALL COLLAR
19) FAN GUARD/SCREEN
20) COMPANION FLANGES
21) INSULATED HOUSING FOR SOUND CONTROL
22) HINGED FRAMES
23) SPARK/EXPLOSION PROOF
24) UL RATED FOR SMOKE CONTROL
25) DUCT ROOF PENETRATION
26) BAG-IN/BAG-OUT FILTER ASSEMBLY
27) NEMA 4 DISCONNECT
28) BELT TUNNEL
29) MOTOR HEAT SHIELD
30) STEEL WHEEL CONSTRUCTION
31) BOLTED ACCESS DOOR
32) STAINLESS STEEL UL-762 LISTED KITCHEN GREASE FAN
33) FACTORY GREASE CONTAINMENT RESERVOIR
34) SIDE OR BOTTOM ACCESS MOTOR
35) PROVIDE WITH VFD AND NEMA 3R ENCLOSURE.
36) CORROSION RESISTANT INTERNAL COMPONENTS
37) SIDE DISCHARGE
38) PROVIDE VENTED ROOF CURB
39) FAN SHALL BE NOA RATED.
40) PROVIDE FACTORY CUSTOM COLOR OPTION. COLOR BY ARCHITECT.

## INTERLOCK SCHEDULE

| AIR HANDLING UNIT | EXHAUST FAN |
|---|---|
| RTU-1 | EF-1 EF-2 |
| RTU-2 | EF-2 EF-1 |

NOTES:

1. PROVIDE FIRE ALARM RELAYS FOR AUTOMATIC SHUTDOWN OF EXHAUST FANS AND AHUS (HARD WIRED).
2. PROVIDE CONTROL RELAYS TO INTERLOCK AHU MANUAL DISCONNECT (AT THE MOTOR STARTER) AND EXHAUST FAN.

## SOUND ATTENUATOR SCHEDULE

| TAG | SIZE | CFM | PD | OCTAVE BAND | | | | | | MODEL VIBRO ACOUSTIC |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 63 | 125 | 250 | 500 | 1K | 2K | |
| SA-1S | 22"x20"x3' | 6,000 | 0.16 | X | X | X | X | X | X | RD MV-FS |
| SA-1R | 32"x20"x3' | 5,000 | 0.16 | X | X | X | X | X | X | RD MV-F7 |
| SA-2S | 40"x18"x3' | 6,000 | 0.15 | X | X | X | X | X | X | RD MV-F7 |
| SA-2R | 40"x22"x3' | 5,000 | 0.15 | X | X | X | X | X | X | RD MV-F7 |

## GENERAL ELECTRICAL REQUIREMENTS

1. ALL VFD SHALL BE 25,000 AIC UNLESS OTHERWISE INDICATED. ALL CONTROLLERS AND CONTROL PANELS FOR MECHNICAL EQUIPMENT SHALL BE 25,000 AIC UNLESS OTHERWISE INDICATED ON THE ONELINE DIAGRAM. REFER TO ELECTRICAL DRAWINGS.
2. VFD AMPERAGE RATING SHALL BE AS REQUIRED FOR THE DRIVE EQUIPMENT AND SHALL BE CAPABLE OF OPERATING THE MOTOR INCLUDING THE SERVICE FACTOR FOR AN INDEFINATE PERIOD OF TIME.
3. ALL VFDS SHALL INCLUDE AN INTERGRAL DISCONNECTING MEANS, CAPABLE OF BEING LOCKED IN THE OFF POSITION.
4. ALL AHU VFDS SHALL BE PROVIDED WITH DOUBLE BARREL LUGS FOR FIRE SMOKE DAMPER TRANSFORMER.
5. ALL VFD'S LOCATED OUTSIDE SHALL BE IN A NEMA 3R ENCLOSURE.


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SCHEDULES

**M300**

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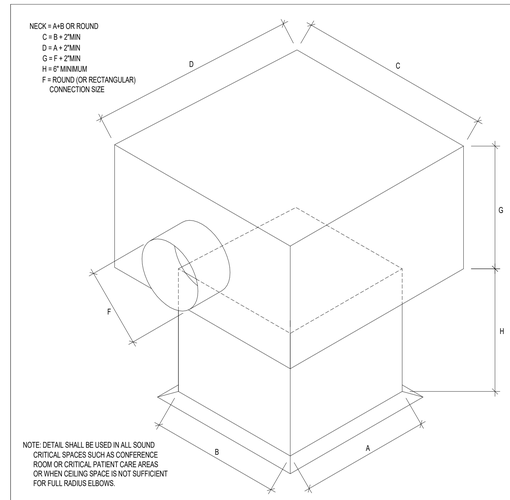
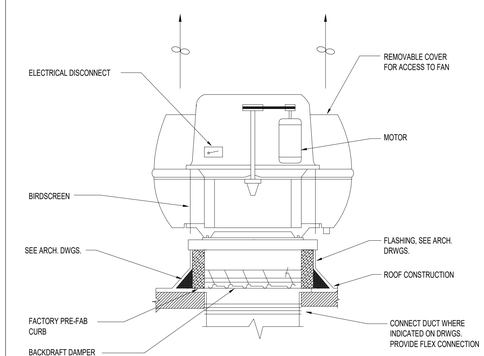
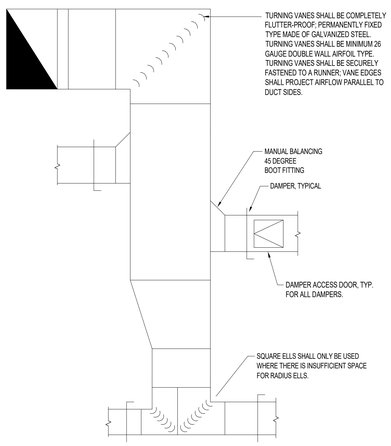


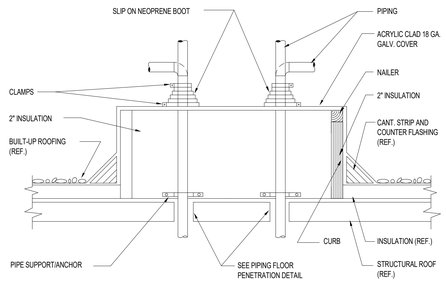

## DIFFUSER CONNECTION BOOT DETAIL
No Scale — 4



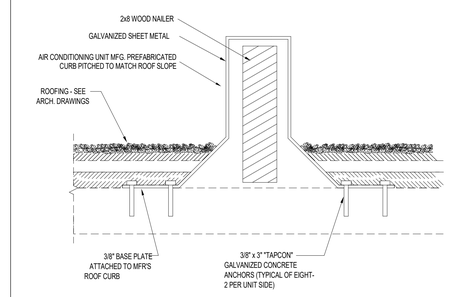

## ROOF MOUNTED EXHAUST FAN
No Scale — 1



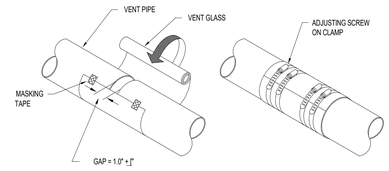

## TYPICAL LOW PRESSURE DUCTWORK
No Scale — 9



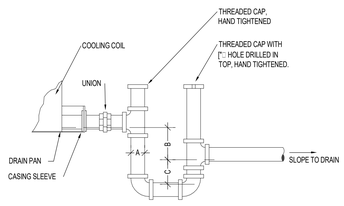

## ROOF PIPING PENETRATION
No Scale — 7



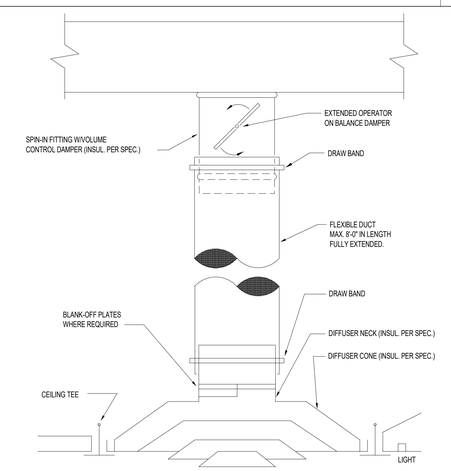

## TYPICAL ROOFTOP EQUIPMENT CURB MOUNTING
No Scale — 5



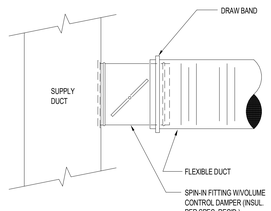

## CRYOGEN VENT GLASS CONTINUOUS WRAP
No Scale — 2



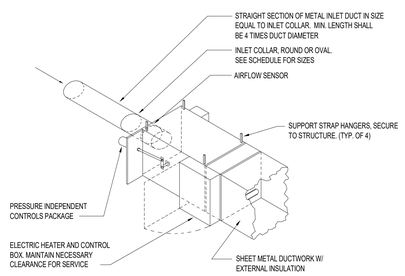

## AHU CONDENSATE DRAIN TRAP
No Scale — 10




## DIFFUSER MOUNTING
No Scale — 8




## TYPICAL FLEX DUCT CONNECTION
No Scale — 6




## VARIABLE VOLUME TERMINAL W/ELECTRIC HEAT
No Scale — 3

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DETAILS

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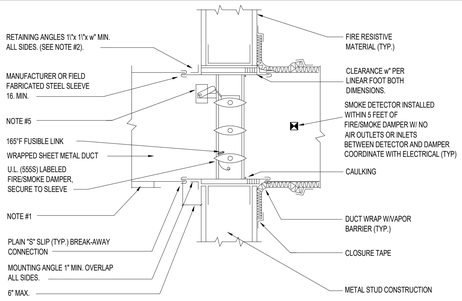
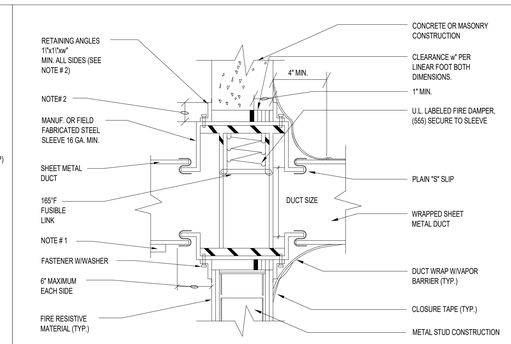



NOTES:
1. PROVIDE ACCESS DOOR & LABEL ON SIDE OR BOTTOM OF DUCT AS FOLLOWS:

| DUCT WIDTH | DOOR SIZE |
|---|---|
| 10" THRU 12" | 8" x 8" |
| 14" THRU 20" | 12" x 12" |
| 22" AND ABOVE | 18" x 18" |

2. 1" x 1" x w" RETAINING ANGLES SHALL LAP STRUCTURAL OPENING 1" MIN. & COVER CORNERS OF OPENINGS. ANGLES ATTACH TO SLEEVE ONLY AND MUST NOT BE ATTACHED TO EACH OTHER AT CORNERS OR TO WALL.
3. ALL ATTACHMENTS PER MANUFACTURER'S APPROVED INSTALLATION INSTRUCTION.
4. VERTICAL POSITION SHOWN. HORIZONTAL INSTALLATION SIMILAR.
5. ACTUATOR TO BE MOUNTED ON OUTSIDE OF DAMPER SLEEVE ON ACCESSIBLE SIDE. ACTUATOR SHALL NOT INTERFERE WITH "S" JOINT. ACTUATOR ASSEMBLY TO BE U.L. LABELED.
6. VERIFY THAT ACCESS IS PROVIDED ON THE ACTUATOR SIDE OF THE WALL-FLOOR SO THAT THE LINK MAY BE SERVICED WITH THE DAMPER IN CLOSED POSITION.

## FIRE & SMOKE DAMPER INSTALLATION — 8
No Scale



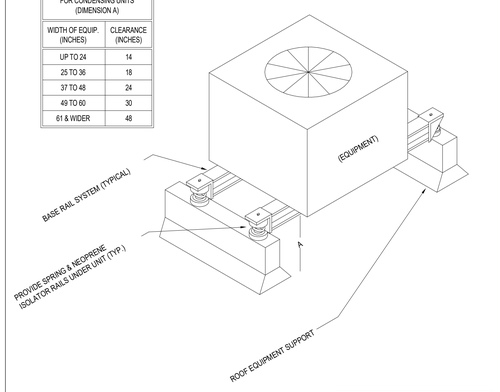

NOTES:
1. PROVIDE ACCESS DOOR & LABEL ON SIDE OR BOTTOM OF DUCT AS FOLLOWS:

| DUCT WIDTH | DOOR SIZE |
|---|---|
| 10" THRU 12" | 8" x 8" |
| 14" THRU 20" | 12" x 12" |
| 22" AND ABOVE | 18" x 18" |

2. 1"x1"xw" RETAINING ANGLES SHALL LAP STRUCTURAL OPENING 1" MIN. & COVER CORNERS OF OPENINGS. ANGLES ATTACH TO SLEEVE ONLY AND MUST NOT BE ATTACHED TO EACH OTHER AT CORNERS OR TO WALL.
3. ALL ATTACHMENTS PER MANUFACTURER'S APPROVED INSTALLATION INSTRUCTION.
4. VERTICAL POSITION SHOWN. HORIZONTAL INSTALLATION SIMILAR. DAMPER TO BE SPRING LOADED WHEN HORIZONTAL.

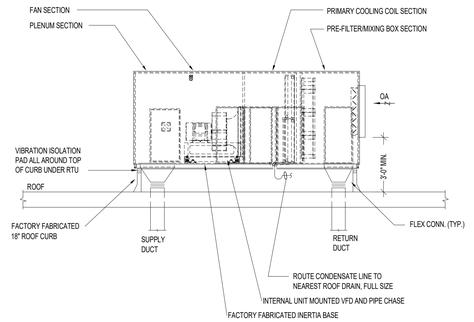
## FIRE DAMPER INSTALLATION — 5
No Scale

| CLEARANCE REQUIREMENTS FOR CONDENSING UNITS (DIMENSION A) | |
|---|---|
| WIDTH OF EQUIP. (INCHES) | CLEARANCE (INCHES) |
| UP TO 24 | 14 |
| 25 TO 36 | 18 |
| 37 TO 48 | 24 |
| 49 TO 60 | 30 |
| 61 & WIDER | 48 |



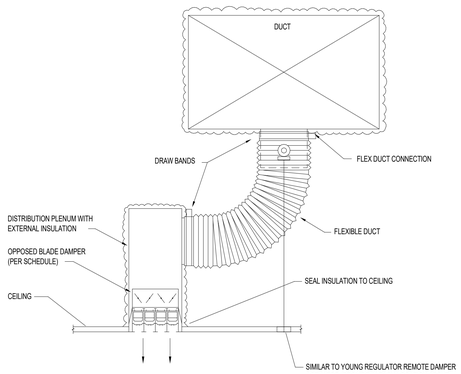

NOTE: ALL ROOF MOUNTED EQUIPMENT MUST ADHERE TO CURRENT HURRICANE CODES REGARDING ROOF TIE-IN AND WIND RESISTANCE.

## ROOF MOUNTED EQUIPMENT — 4
No Scale

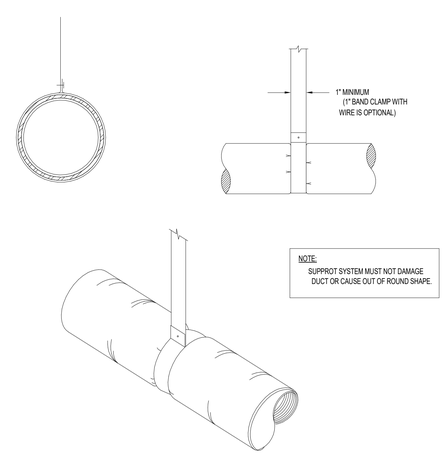



NOTE: ALL ROOF MOUNTED EQUIPMENT MUST ADHERE TO CURRENT HURRICANE CODES REGARDING ROOF TIE-IN AND WIND RESISTANCE.

## ROOFTOP UNIT — 1
No Scale

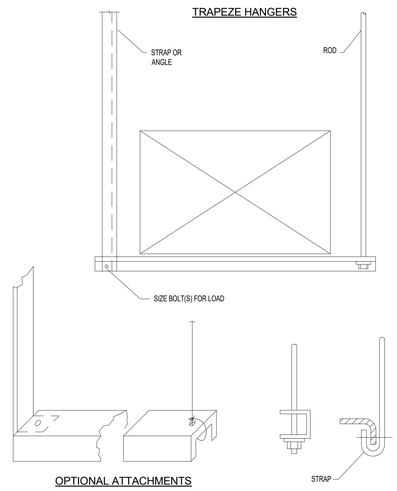



## VERTICAL LINEAR DIFFUSER W/ REMOTE ACTUATOR — 9
No Scale



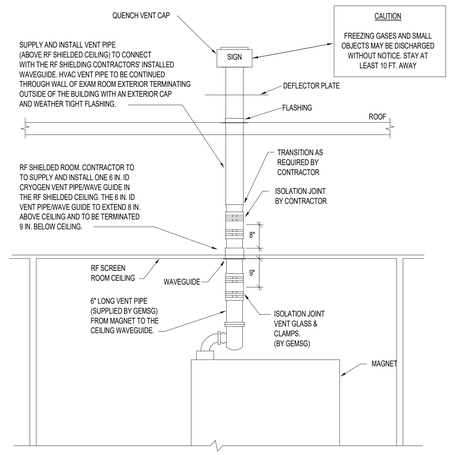

NOTE:
SUPPROT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE.

## FLEXIBLE DUCT SUPPORT (SMACNA) — 6
No Scale

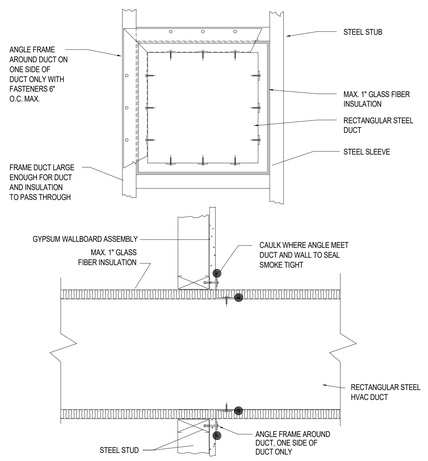



NOTE:
HANGERS MOST NOT DEFORM DUCT SHAPE.

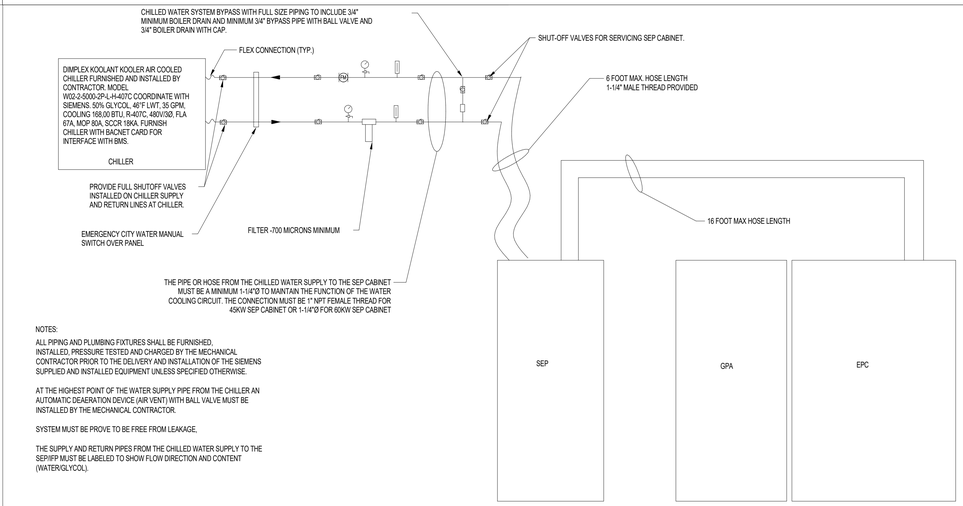
## RIGID ROUND & RECTANGULAR DUCT SUPPORT (SMACNA) — 2
No Scale




## CRYOGEN VENT PIPE THRU ROOF — 10
No Scale




## TYPICAL DUCT PENETRATION THRU GYPSUM WALLBOARD ASSEMBLY (NON-RATED) — 7
No Scale




NOTES:
ALL PIPING AND PLUMBING FIXTURES SHALL BE FURNISHED, INSTALLED, PRESSURE TESTED AND CHARGED BY THE MECHANICAL CONTRACTOR PRIOR TO THE DELIVERY AND INSTALLATION OF THE SIEMENS SUPPLIED AND INSTALLED EQUIPMENT UNLESS SPECIFIED OTHERWISE.

AT THE HIGHEST POINT OF THE WATER SUPPLY PIPE FROM THE CHILLER AN AUTOMATIC DEAERATION DEVICE (AIR VENT) WITH BALL VALVE MUST BE INSTALLED BY THE MECHANICAL CONTRACTOR.

SYSTEM MUST BE PROVE TO BE FREE FROM LEAKAGE.

THE SUPPLY AND RETURN PIPES FROM THE CHILLED WATER SUPPLY TO THE SEP/PP MUST BE LABELED TO SHOW FLOW DIRECTION AND CONTENT (WATER/GLYCOL).

## SIEMENS MRI EQUIPMENT PIPING DETAIL — 3
No Scale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Revision

| No. | Date | Description |
|---|---|---|
| | | |

DETAILS

**M401**

43642
2/1/2019

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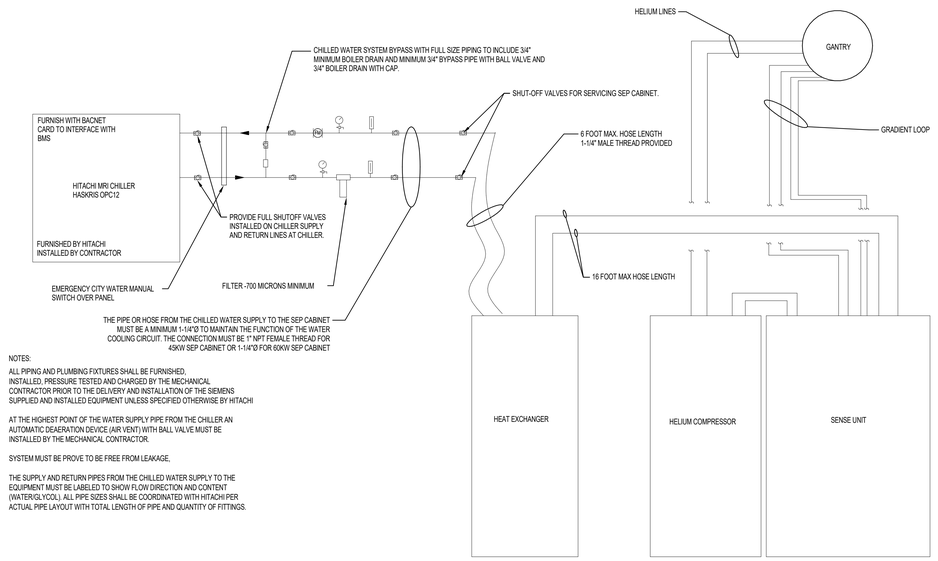
Checked By: RAM
Approved By: RAM




NOTES:

ALL PIPING AND PLUMBING FIXTURES SHALL BE FURNISHED, INSTALLED, PRESSURE TESTED AND CHARGED BY THE MECHANICAL CONTRACTOR PRIOR TO THE DELIVERY AND INSTALLATION OF THE SIEMENS SUPPLIED AND INSTALLED EQUIPMENT UNLESS SPECIFIED OTHERWISE BY HITACHI

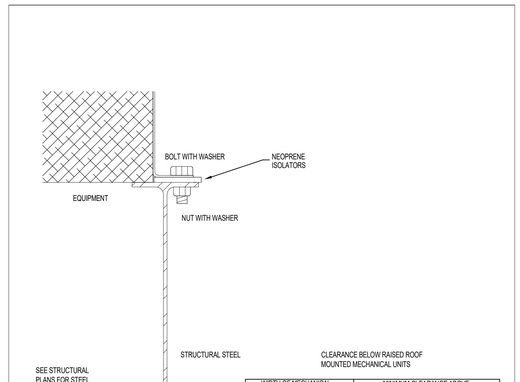
AT THE HIGHEST POINT OF THE WATER SUPPLY PIPE FROM THE CHILLER AN AUTOMATIC DEAERATION DEVICE (AIR VENT) WITH BALL VALVE MUST BE INSTALLED BY THE MECHANICAL CONTRACTOR.

SYSTEM MUST BE PROVE TO BE FREE FROM LEAKAGE.

THE SUPPLY AND RETURN PIPES FROM THE CHILLED WATER SUPPLY TO THE EQUIPMENT MUST BE LABELLED TO SHOW FLOW DIRECTION AND CONTENT (WATER/GLYCOL). ALL PIPE SIZES SHALL BE COORDINATED WITH HITACHI PER ACTUAL PIPE LAYOUT WITH TOTAL LENGTH OF PIPE AND QUANTITY OF FITTINGS.

## HITACHI MRI EQUIPMENT PIPING DETAIL
No Scale

3

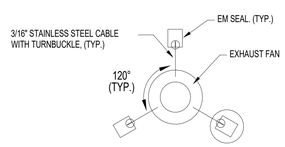



CLEARANCE BELOW RAISED ROOF MOUNTED MECHANICAL UNITS

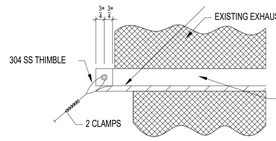
| WIDTH OF MECHANICAL UNIT (INCHES) | MINIMUM CLEARANCE ABOVE ROOF LEVEL (INCHES) |
|---|---|
| < 24 | 14 |
| 24 < 36 | 18 |
| 36 < 48 | 24 |
| 48 < 60 | 30 |
| >60 | 48 |

## ROOF EQUIPMENT TIE DOWN DETAIL
NO SCALE

1

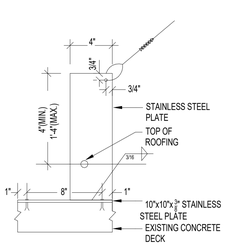



## HIGH DISCHARGE EXHAUST STACK TIE DOWN DETAIL
NTS

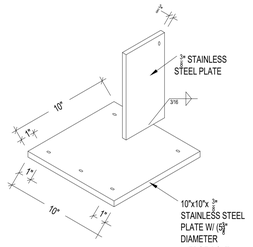



## ELEVATION
NTS

NEW 1½"x14 GA. S.S. STRAP AROUND PERIMETER OF EXHAUST FAN. PLACE IN DIRECT CONTACT WITH FLANGE AND FASTEN TO HOOD WITH #14 S.S. AT 8" c/c. (ONE SCREW 1" EA. SIDE OF TIE CABLE). PROVIDE WATERPROOF SEAL AT ALL SCREWS.



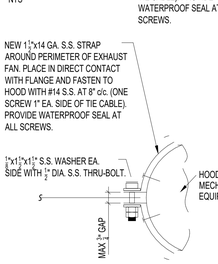

## D DETAIL
NTS




## E DETAIL
NTS

NEW 1½"x14 GA. S.S. STRAP AROUND PERIMETER OF EXHAUST FAN. PLACE IN DIRECT CONTACT WITH FLANGE AND FASTEN TO HOOD WITH #14 S.S. AT 8" c/c. (ONE SCREW 1" EA. SIDE OF TIE CABLE). PROVIDE WATERPROOF SEAL AT ALL SCREWS.

½"x1½"x1½" S.S. WASHER EA. SIDE WITH ½" DIA. S.S. THRU-BOLT.




## F SECTION
NTS

1. GENERAL
   STRUCTURAL TIE-DOWNS AND SCREENS WERE DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 2010 EDITION (HIGH VELOCITY HURRICANE ZONE).
   NEW TIE-DOWNS FOR ROOF-MOUNTED MECHANICAL EQUIPMENT HAVE BEEN DESIGNED TO MITIGATE LIKELIHOOD OF DETACHMENT OF THE MECHANICAL EQUIPMENT FROM ROOF SLABS DURING A HURRICANE TYPE EVENT. NO GUARANTEE OF ANY KIND IS GIVEN OR IMPLIED AS TO THE STRUCTURAL INTEGRITY OF THE EXISTING EQUIPMENT OR THE CONNECTIONS BETWEEN THE EXISTING EQUIPMENT AND ROOF SLABS.
2. DESIGN LOADS
   THE FOLLOWING SUPERMODIFIED LOADS WERE USED:
   WIND LOADS AS PER ASCE 7-02:
   DESIGN WIND SPEED = 190 MPH
   IMPORTANCE FACTOR = 1.00
   EXPOSURE CATEGORY = C
3. STRUCTURAL STEEL
   MISCELLANEOUS STEEL MEMBERS SHALL CONFORM TO ASTM A 36.
   STAINLESS STEEL CABLE AND MISCELLANEOUS STAINLESS STEEL MEMBERS SHALL CONFORM TO ASTM A 666 TYPE 304.
   STRUCTURAL TUBE SECTIONS SHALL CONFORM TO ASTM A 500, GRADE 'B' ( $F_y$ = 46 KSI).
   STRUCTURAL PIPE SECTIONS SHALL CONFORM TO ASTM A 53, GRADE 'B' ( $F_y$ = 35 KSI).
   BOLTS SHALL CONFORM TO ASTM A 325 OR ASTM A490.
   ANCHOR BOLTS SHALL CONFORM TO ASTM A 307 OR ASTM A 36 (THREADED ROD) (I.O.N.).
   ALL STEEL ASSEMBLIES, REMAINING EXPOSED TO THE ELEMENTS THROUGHOUT THE LIFE OF THE STRUCTURE, SHALL BE HOT-DIP GALVANIZED FOLLOWING FABRICATION (FASTENERS SHALL BE MECHANICALLY GALVANIZED OR STAINLESS STEEL AS NOTED IN THE DRAWINGS).
   ALL FIELD WELDS AT GALVANIZED STEEL MEMBERS TO BE COATED WITH ZINC PAINT (ASTM A780).
4. EXPANSION ANCHORS
   THE CONTRACTOR SHALL USE ONE OF THE FOLLOWING: POWER-STUD BY "POWERS/RAWL", KWIK BOLT II BY "HILTI", TRUBOLT WEDGE BY "RAMSET/REDHEAD" OR AN ENGINEER APPROVED SUBSTITUTE. INSTALLATION OF ANCHORS SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS.
5. SCREW ANCHORS
   THE CONTRACTOR SHALL USE ONE OF THE FOLLOWING: TAPPER OR WEDGE-BOLT BY "POWERS/RAWL", KWIK-CON BY "HILTI", TAPCON BY "RAMSET/REDHEAD" OR AN ENGINEER APPROVED SUBSTITUTE. INSTALLATION OF ANCHORS SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS.

## ROOFTOP EQUIPMENT TIE DOWN
No Scale

2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Revision

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DETAILS

# M402

43642
2/1/2019

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Drawn By: BKB
Checked By: RAM
Approved By: RAM

## SEQUENCE OF OPERATIONS

VARIABLE VOLUME AIR HANDLING UNIT WITH ZONE VAV BOXES

START/STOP:
WHEN THE AHU IS INDEXED TO OPERATE BY OPERATOR COMMAND, EXHAUST FANS SHALL START. AHU'S SHALL RUN CONTINUOUSLY. NIGHT SETBACK SHALL BE DONE VIA VAV REDUCED AIRFLOW SETPOINTS. AFTER AN ADJUSTABLE TIME DELAY (SET AT TD RELAY LOCATED IN STARTER), THE AHU SUPPLY FAN SHALL START THROUGH THE VFD. ALL SAFETIES AND INTERLOCKS SHALL OPERATE THROUGH THE VFD IN BYPASS OR AUTOMATIC MODE. SEE INTERLOCK SCHEDULE FOR AHU AND EXHAUST FAN INTERLOCKS.

VARIABLE AIR VOLUME AIR HANDLER SHALL INCREASE/DECREASE IN SPEED BASED ON VAV BOX POSITION AND STATIC PRESSURE. AHU VFD SHALL AUTOMATICALLY DECREASE IN SPEED TO MAINTAIN A MINIMUM OF THREE BOXES ABOVE 90% OPEN AND MAINTAIN AN AUTOMATICALLY ADJUSTED STATIC PRESSURE SETPOINT FOR THE SENSOR LOCATED 2/3 DOWNSTREAM OF SUPPLY DUCT RUN. THIS INITIAL HIGH SETPOINT SHALL BE DETERMINED BY T&B CONTRACTOR AND PROVIDED TO CONTROLS CONTRACTOR FOR PROGRAMMING. FOR FAN WALL UNITS AND ANY UNITS WITH MULTIPLE FANS, UPON SENSING FAILURE OF OF ONE FAN, REMAINING FAN SHALL AUTOMATICALLY INCREASE IN SPEED TO MAINTAIN AIRFLOW.

ZONE VAV TERMINAL REHEAT UNIT CONTROL:
INDIVIDUAL SPACES ARE SERVED BY SCR ELECTRIC REHEAT TERMINAL UNITS. BCS TERMINAL UNIT CONTROLLER SHALL MONITOR AND CONTROL VARIABLE AIR VOLUME AT ALL TIMES. VAV BOXES SHALL MAINTAIN MINIMUM AIRFLOW AS INDICATED IN VAV BOX SCHEDULE. UPON A RISE IN SPACE TEMPERATURE AS MEASURED BY THE SPACE THERMOSTAT, TERMINAL UNIT CONTROLLER WILL MODULATE ZONE DAMPER TO COOLING AIRFLOW POSITION. UPON REACHING COOLING SETPOINT, ZONE DAMPER SHALL REDUCE BACK TO MINIMUM AIRFLOW SETPOINT. UPON A DROP IN SPACE TEMPERATURE AS MEASURED BY THE SPACE THERMOSTAT, TERMINAL UNIT CONTROLLER SHALL MODULATE ZONE DAMPER TO HEATING AIRFLOW POSITION. ELECTRIC HEAT SHALL MODULATE LINEARLY TO MAINTAIN ROOM TEMPERATURE SETPOINT.

OA MONITORING:
EACH AHU SHALL HAVE AN EBTRON COMBINATION AIRFLOW STATION/MODULATING CONTROL DAMPER LOCATED IN THE ALUMINUM OUTSIDE AIR DUCTWORK. AIRFLOW STATION SHALL MODULATE CONTROL DAMPER TO MAINTAIN CONSTANT OUTSIDE AIR CFM TO SPACE. REFERENCE AHU BALANCE SCHEDULE FOR OA CFM. OA CFM SHALL MATCH EXHAUST AIR.

UPON AIR HANDLER SHUTDOWN, OA DAMPER SHALL AUTOMATICALLY CLOSE.

CONDENSER FANS AND COMPRESSORS SHALL STAGE ON/OFF AUTOMATICALLY PER MANUFACTURER PROVIDED SEQUENCE TO MAINTAIN LEAVING AIR TEMPERATURE OF 55° F ADJUSTABLE. IF RH RISES ABOVE 60% AS SENSED BY ANY HUMIDISTAT THE LAT SHALL ADJUST DOWN (52°F) TO MEET SETPOINT.

SUPPLY AIR RESET: PROVIDE A DISCHARGE AIR TEMPERATURE RESET MODE (REQUIRED BY ASHRAE 90.1) THAT WILL GRADUALLY INCREASE THE DISCHARGE AIR TEMPERATURE WHENEVER ALL OF THE FOLLOWING ARE TRUE: A VAV TERMINAL UNIT IS CALLING FOR HEAT; NO OTHER VAV TERMINAL UNIT IS REQUIRING FULL COOLING; AND THE SPACE/RETURN AIR RELATIVE HUMIDITY ( AS SENSED BY THE SPACE HUMIDITY SENSOR AND/OR RETURN AIR HUMIDITY SENSOR) IS LESS THEN 60% RH. IF THE HUMIDITY IN THE DUCTWORK RISES TO 60% OR GREATER, THE COOLING COIL LAT SET POINT SHALL BE IMMEDIATELY RESET DOWN TO THE LAT SPECIFIED ON THE SCHEDULE, AND THE SPACE TEMPERATURE SHALL BE MAINTAINED BY REHEAT.

NIGHT TIME SETBACK: AIR HANDLER (TYP) SHALL REDUCE DOWN TO A MAXIMUM OF 30% SPEED DURING UNOCCUPIED HOURS (7:00 PM - 5:00 AM) (ADJ.). ONE T-STAT PER RTU SHALL HAVE A BUTTON TO OVERRIDE THE NIGHT SETBACK FOR THE REMAINDER OF THE NIGHT. ADDITIONALLY, IF THE RETURN AIR HUMIDITY OR SPACE HUMIDITY EXCEEDS 60%, THE RTU SHALL RETURN TO NORMAL OPERATION.

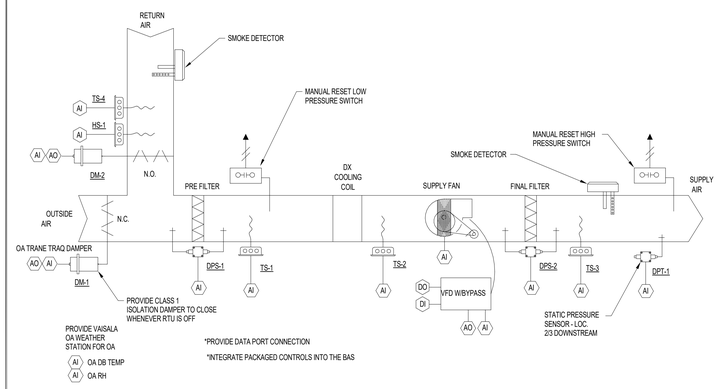
SAFETIES:
BUILDING FIRE ALARM:
AIR HANDLING UNIT SHALL DE-ENERGIZE AND THE ASSOCIATED EXHAUST FANS SHALL STOP AND ASSOCIATED ISOLATION DAMPERS SHALL CLOSE. UPON ACTIVATION OF SMOKE DUCT DETECTORS THE AIR HANDLING UNIT AND ASSOCIATED EXHAUST FANS SHALL DE-ENERGIZE AND THE ISOLATION DAMPERS SHALL CLOSE TO ISOLATE AIR HANDLER. UPON REACTIVATION (RESET) OF SYSTEM THE AIR HANDLING UNIT SHALL B E PROVIDED WITH A TIME DELAY SUFFICIENT TO ALLOW ALL ISOLATION DAMPERS TO FULLY OPEN.
UPON SENSING FLOW OF SPRINKLER WATER SERVING ASSOCIATED SMOKE COMPARTMENT, AHU'S AND ASSOCIATED INTERLOCKED EXHAUST FANS SHALL AUTOMATICALLY DISENGAGE AND ALL ISOLATION DAMPERS SHALL CLOSE. UPON REACTIVATION (RESET) OF SYSTEM ISOLATION DAMPER SHALL AUTOMATICALLY OPEN AND AHU'S AND INTERLOCKED EXHAUST FANS SHALL AUTOMATICALLY ENGAGE AFTER A TIME DELAY SUFFICIENT TO OPEN ALL ISOLATION DAMPERS. UPON ACTIVATION OF A PULL STATION ALARM, AHU AND INTERLOCKED EXHAUST FANS SHALL NOT BE REQUIRED TO SHUT DOWN.

HIGH STATIC SHUTDOWN:
A HIGH LIMIT STATIC PRESSURE SENSOR BETWEEN THE SUPPLY FAN DISCHARGE AND THE FIRST DAMPER DOWNSTREAM OF THE SUPPLY FAN SHALL PREVENT OVER PRESSURIZATION OF THE SUPPLY DUCTWORK. IF THE DISCHARGE STATIC PRESSURE RISES ABOVE THE SETPOINT AS MEASURED BY HIGH STATIC LIMIT THE AIR HANDLER UNIT SHALL BE DE-ENERGIZED BY THE BCS SYSTEM & AN ALARM INITIATED. AIR HANDLER SHALL NOT BE ALLOWED TO RUN UNTIL AN OPERATOR MANUALLY RESETS THE SENSOR AT THE UNIT.

BMS SHALL MONITOR ALL BACNET POINTS AVAILABLE FROM RTU CONTROLLER. ALL SAFETIES SHALL REPORT DIRECTLY TO ORLANDO HEALTH.

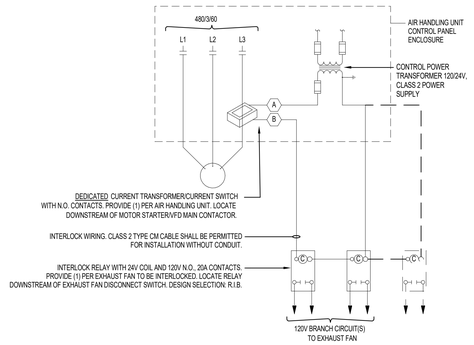
OXYGEN SENSOR LOCATED IN MRI ROOM RA DUCT SHALL ACTIVATE THE PURGE EXHAUST FAN AND CLOSE MOTORIZED DAMPER IN RA DUCT.

OUTDOOR AIR DEMAND CONTROL VENTILATION:
A DEMAND CONTROL VENTILATION ROUTINE WILL BE USED DURING OCCUPIED MODE TO DETERMINE THE OUTSIDE AIR FLOW SET POINT (INITIAL OA CFM SET POINT DURING UNIT START UP SHALL BE DESIGN MAXIMUM), THE WORST CASE SPACE CO2 PART PER MILLION (PPM) VALUE WILL BE USED TO MODULATE THE OA DAMPER LINEARLY FROM MINIMUM TO MAXIMUM OUTSIDE AIRFLOW SET POINTS. AS THE CO2 LEVELS VARIES FROM 350 PPM (ADJ.) TO 1000 PPM (ADJ.), THE OUTSIDE AIR FLOW SET POINT WILL VERY LINEARLY FROM ITS MINIMUM SETTING TO MAXIMUM SET POINTS RESPECTIVELY. IF ANY CO2 SENSOR FAILS AS DETERMINED BY 150 PPM (ADJ) DEVIATED FROM AVERAGE, ALARM OPERATOR AND REMOVE FROM CALCULATION UNIT RESET BY OPERATOR. THE SYSTEM SHALL INDICATE AN ALARM CONDITION AT THE FRONT-END CONTROLS WORKSTATION SHOULD A CO2 SENSOR INDICATE A SPACE CO2 LEVEL EXCEEDING 1100 PPM. OA CFM SHALL REMAIN HIGHER THAN THE SPACE EA CFM TO MAINTAIN POSITIVE BUILDING PRESSURIZATION AT ALL TIMES.



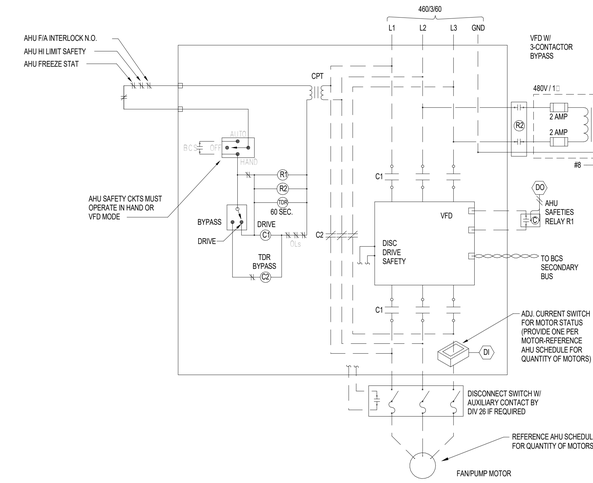

## PACKAGED DX AHU'S (VAV)
No Scale

1




## AHU HARDWIRE INTERLOCK WIRING DIAGRAM
No Scale

4

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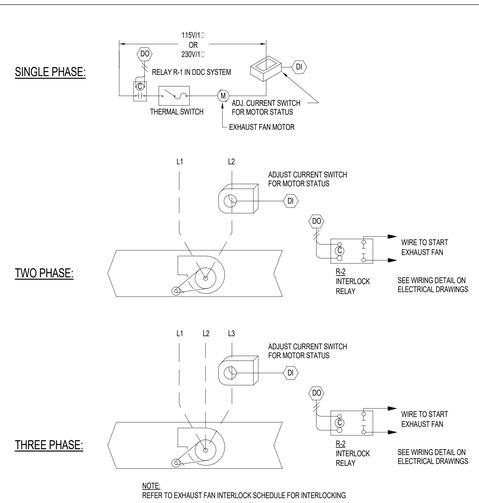
2




## EXHAUST FANS
No Scale

3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Revision

| No. | Date | Description |
|---|---|---|
| | | |

CONTROLS

**M500**

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2/1/2019

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Drawn By: JBH
Checked By: ALJ
Approved By: ALJ

# PLUMBING FIXTURE LEGEND

| TAG | DESCRIPTION |
|---|---|

**WC-1** FLOOR MOUNTED WATER CLOSET

VITREOUS CHINA, 1.28 GALLON FLOOR MOUNTED, DIRECT-FED SIPHON JET, ELONGATED CLOSET BOWL WITH 1-1/2" TOP SPUD, FULLY GLAZED TRAPWAY, BOLT CAPS WITH RIM OF FIXTURE 16-1/2" A.F.F.

1.28 GALLON CHROME PLATED MANUAL FLUSH VALVE(EXPOSED), , NON-HOLD-OPEN HANDEL, 1-INCH I.P.S. SCREW DRIVER ANGLE STOP WITH PROTECTIVE CAP, FOR 1-1/2" TOP SPUD, WALL AND SPUD FLANGES, SOLID RING PIPE SUPPORT, ADJUSTABLE TAILPIECE, VACUUM BREAKER FLUSH CONNECTION AND SPUD COUPLING FOR 1-1/2" TOP SPUD, WALL AND SPUD FLANGES, SOLID RING PIPE

CONTOURED SEAT SHALL BE EXTRA HEAVY SOLID PLASTIC WITH OPEN FRONT LESS COVER. SEAT SHALL INCLUDE STAINLESS STEEL SELF SUSTAINING CHECK HINGE FEATURE.

BASIS OF DESIGN

CHINA - AMERICAN STANDARD - 3312.001
FLUSH VALVE - SLOAN ROYAL "II" 111 (1.28)
SEAT - BEMIS - 1655-SS/C

**L-1** ACCESSIBLE WALL HUNG LAVATORY

VITREOUS CHINA LAVATORY, 20" X 18", WITH FRONT OVERFLOW, SELF DRAINING DECK AREA & CONTOURED BACK W/ SIDE SPLASH PANELS, PROVIDE FIXTURE PUNCHED FOR SINGLE HOLE INSTALLATION AND CONCEALED ARM CARRIER SUPPORT.

CHROME PLATED BRASS SENSOR FAUCET, W/ 5-1/4" RIGID GOOSENECK NOZZLE AND .5 GPM LAMINAR REGULATOR, VANDAL PROOF NON-AERATING SPRY OUTLET, OUTLET OF SPOUT SHALL BE MINIMUM 5 INCHES ABOVE RIM OF FIXTURE. 12 VOLT AC TRANSFORMER REQUIRED.

CHROME PLATED CAST BRASS GRID STRAINER WITH 1-1/4" O.D. OFFSET TAILPIECE, CHROME PLATED 17 GAUGE 1-1/4" X 1-1/2" BRASS P-TRAP W/ C.O. PLUG AND SLIP NUTS. PROVIDE P-TRAP & TAILPIECE WITH REWRAPPED SEAMLESS MOLDED CLOSED CELL VINYL INSULATION WITH FLEXIBLE COLLARS TO ALLOW PIPE CONNECTION. PRE-WRAPPED DRAIN INSULATION KIT SHALL INCLUDE HOT AND COLD ANGLE STOP AND WATER SUPPLY COVERS OF SAME MATERIAL.

3/8" I.P.S. CHROME PLATED ANGLE SUPPLY, LOOSE KEY STOP, REDUCER, WROUGHT BRASS DEEP BELL FLANGE ESCUTCHEON AND 1/2" CHROME PLATED COPPER EXTENSION TUBE.

CONCEALED ARMS FLOOR MOUNTED CARRIER. COATED STEEL UPRIGHTS WITH WELDED FEET, CAST IRON ADJUSTABLE HEADERS, STEEL SLEEVES, ALIGNMENT TRUSS AND FASTENERS

BASIS OF DESIGN

CHINA -AMERICAN STANDARD - 0356.015
FAUCET - T&S B-2866-05
STRAINER/TRAP - MCGUIRE -155WC/PW 2150 WC
SUPPLIES - MCGUIRE - H170LK
CARRIER - ZURN ZR-1231

**S-1** SINK

SINGLE COMPARTMENT SELF RIMMING SINK CONSTRUCTED OF TYPE 302 18-8 STAINLESS STEEL, 17" X 20" X 6-1/2" DEEP. INTERIOR AND TOP SURFACES SHALL BE POLISHED TO A HIGH LUSTER FINISH. PROVIDE SINK WITH STAINLESS STEEL CRUMB CUP STRAINER. PROVIDE FIXTURE PUNCHED FOR 3-HOLE FAUCET INSTALLATION ON 4-INCH CENTERS.

8-INCH WIDESPREAD COMBINATION CHROME PLATED BRASS FAUCET, WITH RIGID GOOSENECK (5-3/8" WIDE) SPOUT AND 1.4 GPM LAMINAR FLOW REGULATOR, VANDAL RESISTANT 4-INCH WRIST BLADE HANDLES WITH COLOR CODED INDEXES AND RENEWABLE SEATS IN MONEL, OUTLET OF SPOUT TO BE MINIMUM OF 5- INCHES ABOVE RIM OF FIXTURE.

3/8 INCH I.P.S. CHROME PLATED ANGLE SUPPLY, LOOSE KEY STOP, REDUCER, WROUGHT BRASS DEEP BELL FLANGE ESCUTCHEON AND 1/2" CHROME PLATED COPPER EXTENSION TUBE WITH SWEAT CONNECTION. CHROME PLATED 17 GAUGE 1-1/2 X 1-1/2 P-TRAP WITH CLEANOUT.

BASIS OF DESIGN

SINK - ELKAY LRAD-1720C
FAUCET - T&S BRASS MODEL B-2866-05-LF08-QT WITH B-LT
SUPPLIES - MCGUIRE - H170LK
TRAP - MCGUIRE - 8912

**S-2** SINK

TWO COMPARTMENT SELF RIMMING SINK CONSTRUCTED OF TYPE 302 18-8 STAINLESS STEEL, 22" X 29" X 6-1/2" DEEP. INTERIOR AND TOP SURFACES SHALL BE POLISHED TO A HIGH LUSTER FINISH. PROVIDE SINK WITH STAINLESS STEEL CRUMB CUP STRAINER. PROVIDE FIXTURE PUNCHED FOR 3-HOLE FAUCET INSTALLATION ON 4-INCH CENTERS.

8-INCH WIDESPREAD COMBINATION CHROME PLATED BRASS FAUCET, WITH RIGID GOOSENECK (5-3/8" WIDE) SPOUT AND 1.4 GPM LAMINAR FLOW REGULATOR, VANDAL RESISTANT 4-INCH WRIST BLADE HANDLES WITH COLOR CODED INDEXES AND RENEWABLE SEATS IN MONEL, OUTLET OF SPOUT TO BE MINIMUM OF 5- INCHES ABOVE RIM OF FIXTURE.

3/8 INCH I.P.S. CHROME PLATED ANGLE SUPPLY, LOOSE KEY STOP, REDUCER, WROUGHT BRASS DEEP BELL FLANGE ESCUTCHEON AND 1/2" CHROME PLATED COPPER EXTENSION TUBE WITH SWEAT CONNECTION. CHROME PLATED 17 GAUGE 1-1/2 X 1-1/2 P-TRAP WITH CLEANOUT.

BASIS OF DESIGN

SINK - ELKAY LRAD-Q292265
FAUCET - T&S BRASS MODEL B-2866-05-LF08-QT WITH B-LT
SUPPLIES - MCGUIRE - H170LK
TRAP - MCGUIRE - 8912

**MS-1** MOP SINK

PRECAST TERRAZZO WITH STAINLESS STEEL CAP, 24" X 24" X 12", TERRAZZO SHALL BE MADE OF GRAY MARBLE CHIPS CAST IN WHITE PORTLAND CEMENT TO PRODUCE A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,000 P.S.I. TERRAZZO SURFACE SHALL BE GROUND AND POLISHED WITH ALL AIR HOLES AND/OR PITS TO BE GROUTED AND EXCESS REMOVED. DRAIN BODY SHALL BE STAINLESS STEEL CAST INTEGRAL, AND SHALL PROVIDE FOR A CAULKED LEAD CONNECTION AND NOT LESS THAN 1 INCH DEEP TO A 3 INCH PIPE.

TYPE 304, 20-GAUGE STAINLESS STEEL SPLASH PANELS, 12" HEIGHT SECURED TO WALL ON 2 SIDES.

SERVICE FAUCET SHALL BE CHROME PLATED WITH RENEWABLE SEATS IN MONET, VACUUM BREAKER, INTEGRAL STOPS AND SPRING CHECK VALVES, ADJUSTABLE WALL BRACE, PAIL HOOK, AND 3/4 INCH HOSE THREAD ON SPOUT.

BASIS OF DESIGN

SINK - WILLIAMS SBC-1700-2-BP
FAUCET - T&S BRASS - B-0665-BSTP

**EWC-1** ACCESSIBLE ELECTRIC WATER COOLER

DUAL LEVEL TYPE 300 STAINLESS STEEL DRINKING FOUNTAIN POLISHED TO A #3 SATIN FINISH WITH DUAL RECEPTOR, SELF CLOSING FRONT MOUNTED PUSH BUTTON TYPE BUBBLER, WITH BOTTLE FILLER, STRAINER AND TAILPIECE. WALL MOUNTED REFRIGERANT CHILLER UNIT CAPABLE OF 8 GPH OF 50°F AT AN AMBIENT TEMPERATURE OF 90°F. ELECTRICAL CHARACTERISTICS - 120V AC, 60HZ, SINGLE PHASE.

CHROME PLATED 17 GAUGE 1-1/4" X 1-1/2" BRASS P-TRAP WITH CLEANOUT.

3/8 INCH I.P.S. CHROME PLATED ANGLE SUPPLY, LOOSE KEY STOP, REDUCER, WROUGHT BRASS DEEP BELL FLANGE ESCUTCHEON AND 1/2" CHROME PLATED COPPER EXTENSION TUBE WITH SWEAT CONNECTION.

BASIS OF DESIGN

FOUNTAIN - ELKAY - EZWS-ERPBM28K
TRAP - MCGUIRE - 8902
SUPPLY - MCGUIRE - 158LK

**HB-1** HOSE BIBB

EXPOSED BRASS HOSE BIBB, VACUUM BREAKER BACKFLOW PREVENTER, 3/4" FEMALE PIPE THREAD CONNECTION AND WHEEL HANDLE.

BASIS OF DESIGN

WOODFORD 24-3/4"

**WH-1** WALL HYDRANT

MODERATE CLIMATE WALL ANTI-SIPHON WALL HYDRANT COMPLETE WITH BRONZE CASING, VACUUM BREAKER, ALL BRONZE INTERIOR PARTS AND NON TURNING OPERATING ROD WITH FREE FLOATING COMPRESSION CLOSURE VALVE WITH CHROME FINISH AND OPERATING KEY.

BASIS OF DESIGN

WOODFORD MODEL 75

**CB-1** SUPPLY WATER BOX

PROVIDE RECESSED 16 GAUGE EPOXY FINISH STEEL SUPPLY BOX WITH WALL FLANGE, FURNISHED WITH 1/2" FIP INLET X 3/4" OD OUTLET COMPRESSION ANGLE VALVE. SUPPLY CONNECTION IS 1/2" MPT OR 5/8" OD SWEAT CONNECTION.

PROVIDE IN-LINE DUAL CHECK BACK FLOW PREVENTER.

BASIS OF DESIGN

GUY GRAY - MODEL BIM875
BACK FLOW PREVENTER - WATTS SERIES LF7

**FD-1** FLOOR DRAIN

COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE TYPE "B" NICKEL BRONZE STRAINER, 6" ROUND TOP, TAPPED FOR TRAP PRIMER CONNECTION, VANDAL PROOF.

BASIS OF DESIGN

JR SMITH

**FD-2** FLOOR DRAIN (MECHANICAL ROOM)

COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE TYPE "B" NICKEL BRONZE STRAINER, 6" ROUND TOP, TAPPED FOR TRAP PRIMER CONNECTION, VANDAL PROOF.

BASIS OF DESIGN

JR SMITH

**TP-1** AUTOMATIC TRAP PRIMER VALVE

MACHINED OF CORROSION RESISTANT BRASS SHALL NOT CONTAIN SPRINGS OR DIAPHRAGMS, "O" RING SEALS TESTED FOR RELIABILITY BETWEEN -40 TO 450 F. INLET OPENING SHALL BE 1/2-INCH MALE NPT, OUTLET SHALL BE 1/2-INCH FEMALE NPT.

TRAP PRIMER OPERATES VIA LINE PRESSURE DROP AND DOES NOT NEED TO BE PLACED NEAR A FIXTURE.

BASIS OF DESIGN

PRECISION PLUMBING PRODUCTS

**SA-1** SHOCK ARRESTER

PISTON OPERATED, TYPE "K" COPPER BARREL WITH BRASS THREADED ADAPTOR. ALL JOINTS SHALL BE MADE WITH 95-5 LEAD FREE SOLDER. THE PISTON SHALL BE EQUIPPED WITH TWO (2) "O" RINGS TO PROVIDE A PERMANENT MECHANICAL BARRIER BETWEEN FLUID AND PRE-LOAD AIR CHARGE. ARRESTORS MAY BE INSTALLED IN VERTICAL AND HORIZONTAL POSITION.

THE ARRESTOR SHALL BE FULLY GUARANTEED FOR ENTIRE SYSTEM LIFE NOTE:

SHOCK ARRESTORS SHALL BE PROVIDED AT ALL FIXTURES AND BATTERIES OF FIXTURES WHETHER OR NOT THEY ARE SHOWN ON THE DRAWINGS.

BASIS OF DESIGN

PRECISION PLUMBING PRODUCTS - SC SERIES

**EEW-1** EMERGENCY EYE WASH

WALL MOUNTED PUSH HANDEL OPERATED EYEWASH WITH STAINLESS STEEL BOWL WITH P-TRAP, PIPING SHALL BE HEAVY WALL SCHEDULE 80 HOT DIPPED GALVANIZED STEEL, DUAL STREAM EYEWASH HEADS, FLOAT OFF COVERS SECURED WITH CHAIN. EYEWASH UNIT SHALL BE PROVIDED WITH SELF ADJUSTING REGULATORS. PROVIDE THERMOSTATIC MIXING VALVE.

BASIS OF DESIGN

EMERGENCY EYEWASH - BRADLEY MODEL S19224BPT
MIXING VALVE - S19224BPT

**CO** CLEANOUTS

GENERAL(ALL FLOOR CLEANOUTS): DURO-COATED CAST IRON CLEANOUT WITH MEMBRANE FLANGE WITH CADMIUM PLATED CAST IRON COUNTERSUNK PLUG. CLEANOUT CAN BE ADJUSTED TO FINISH FLOOR LEVEL AFTER CONCRETE HAS SET.

FLOOR: HEAVY DUTY ROUND SCORIATED NICKEL BRONZE TOP

CARPETED FLOOR: HEAVY DUTY ROUND NICKEL BRONZE TOP RECESSED FOR CARPET.

TILE FLOOR: HEAVY DUTY ROUND NICKEL BRONZE TOP RECESSED FOR TILE.

EXTERIOR: HEAVY DUTY ROUND SCORIATED NICKEL BRONZE TOP. PROVIDE WITH 18" X 4" THICK CONCRETE COLLAR, SEE DETAIL.

WALL: CAST IRON CLEANOUT TEE, CADMIUM PLATED CAST IRON COUNTERSUNK PLUG, SMOOTH SQUARE NICKEL BRONZE WALL ACCESS COVER AND FRAME.

PLUG: DURA-COATED CAST IRON FERRULE AND CADMIUM PLATED CAST IRON COUNTERSUNK PLUG.

BASIS OF DESIGN

FLOOR - ZURN - ZN-1405
CARPETED FLOOR - ZURN - ZN-1405-4
TILE FLOOR - ZURN - ZN-1405-4
EXTERIOR FLOOR - ZURN - ZN-1406
WALL - ZURN - 1445-4
PLUG - ZURN - Z-1440

**RD-1** ROOF DRAIN

MAIN ROOF DRAIN, DURA-COATED CAST IRON BODY WITH EXTENSION, ROOF SUMP RECEIVER AND UNDER DECK CLAMP. DRAIN SHALL HAVE COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL STOP AND GALVANIZED CAST IRON LOW SILHOUETTE DOME.

BASIS OF DESIGN

JR SMITH

**RD-2** OVERFLOW DRAIN

SECONDARY ROOF DRAIN, COATED CAST IRON BODY WITH EXTENSION, ROOF SUMP RECEIVER AND UNDER DECK CLAMP. DRAIN SHALL HAVE COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL STOP AND GALVANIZED CAST IRON DOME.

PROVIDE WITH 3" DEEP INTERNAL WATER DAM.

BASIS OF DESIGN

JR SMITH

**DSN-1** DOWN SPOUT NOZZLE

DOWN SPOUT COVER SHALL BE ROUND, 304 STAINLESS STEEL FRAME WITH 304 STAINLESS STEEL HINGED STRAINER, VANDAL PROOF. MOUNT DOWN SPOUT NOZZLE 16" ABOVE FINISHED GRADE.

BASIS OF DESIGN

JR SMITH

# PLUMBING SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| AV | - ACID VENT |
| AW | - ACID WASTE |
| AW | - BELOW GROUND ACID WASTE |
| CO2 | - CARBON DIOXIDE |
| CA | - COMPRESSED AIR |
| CD | - ABOVE GROUND CONDENSATE DRAIN |
| CD | - BELOW GROUND CONDENSATE DRAIN |
| DA | - DENTAL AIR |
| DI | - DEIONIZED WATER |
| DV | - DENTAL VACUUM |
| | - DOMESTIC COLD WATER |
| | - DOMESTIC HOT WATER |
| | - DOMESTIC HOT WATER RETURN |
| FOF | - FUEL OIL FILL |
| FOG | - FUEL OIL GAGE |
| FOR | - FUEL OIL RETURN |
| FOS | - FUEL OIL SUPPLY |
| FOV | - FUEL OIL VENT |
| G | - GAS |
| GR | - KITCHEN WASTE (GREASE) |
| MA | - MEDICAL COMPRESSED AIR |
| MV | - MEDICAL VACUUM |
| NI | - NITROGEN |
| N2O | - NITROUS OXIDE |
| OX | - OXYGEN |
| S | - ABOVE GROUND SANITARY |
| S | - BELOW GROUND SANITARY |
| ST | - SANITARY VENT |
| ST | - ABOVE GROUND STORM |
| ST | - BELOW GROUND STORM |
| STO | - OVERFLOW STORM DRAIN |
| STO | - BELOW GROUND OVERFLOW STORM |
| SW | - SOFT COLD WATER |
| M | - WATER METER |
| C | - ROOF DRAIN |
| FS | - FLOOR SINK |
| | - BALL VALVE |
| | - CALIBRATED BALANCING VALVE |
| | - CHECK VALVE (SWING) |
| | - PRESSURE REDUCING VALVE |
| | - SOLENOID OPERATED VALVE |
| | - REDUCED PRESSURE BACKFLOW PREVENTER |
| | - RELIEF OR SAFETY VALVE |
| | - CONNECT TO EXISTING |
| | - DEMOLISH TO POINT INDICATED |
| 1 / P2.01 | - REVISION REFERENCE |
| | - DETAIL REFERENCE: TOP-DETAIL#, BOTTOM-DRAWING# SHOWN ON |

NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT

# PLUMBING ABBREVIATIONS

| SYMBOL | DESCRIPTION |
|---|---|
| CA | - COMPRESSED AIR |
| AFF | - ABOVE FINISH FLOOR |
| AW | - ACID WASTE |
| AV | - ACID VENT |
| CO2 | - CARBON DIOXIDE |
| CB | - CATCH BASIN |
| CD | - CONDENSATE DRAIN |
| CFH | - CUBIC FEET PER HOUR |
| CO | - CLEANOUT |
| CONT | - CONTINUATION |
| CW | - DOMESTIC COLD WATER |
| DI | - DEIONIZED WATER |
| DN | - DOWN |
| DS | - DOWNSPOUT |
| DWG | - DRAWING |
| EXIST | - EXISTING |
| °F | - DEGREE FAHRENHEIT |
| FCO | - FLOOR CLEANOUT |
| FD | - FLOOR DRAIN |
| FOF | - FUEL OIL FILL |
| FOG | - FUEL OIL GAGE |
| FOR | - FUEL OIL RETURN |
| FOS | - FUEL OIL SUPPLY |
| FOV | - FUEL OIL VENT |
| FS | - FLOOR SINK |
| G | - GAS |
| GPH | - GALLONS PER HOUR |
| GPM | - GALLONS PER MINUTE |
| GR | - KITCHEN WASTE (GREASE) |
| HB | - HOSE BIBB |
| HD | - HUB DRAIN |
| HW | - DOMESTIC HOT WATER |
| HWR | - DOMESTIC HOT WATER RECIRCULATING |
| IE | - INVERT ELEVATION |
| IW | - INDIRECT WASTE |
| KW | - KILOWATT |
| LBS | - POUNDS |
| MA | - MEDICAL AIR |
| MV | - MEDICAL VACUUM |
| MH | - MANHOLE |
| NI | - NITROGEN |
| N2O | - NITROUS OXIDE |
| NC | - NORMALLY CLOSED |
| NIC | - NOT IN CONTRACT |
| NO | - NORMALLY OPEN |
| NP | - NON-POTABLE WATER |
| NTS | - NOT TO SCALE |
| OD | - OUTSIDE DIAMETER |
| OX | - OXYGEN |
| PRV | - PRESSURE REDUCING VALVE |
| PSI | - POUNDS PER SQUARE INCH |
| PVC | - POLYVINYL CHLORIDE PIPE |
| RD | - ROOF DRAIN |
| RPBP | - REDUCED PRESSURE BACKFLOW PREVENTOR |
| S | - SANITARY |
| SF | - SQUARE FEET |
| SH | - SHEET |
| ST | - STORM |
| STO | - OVERFLOW STORM DRAIN |
| SW | - SOFT COLD WATER |
| V | - VENT |
| VC | - VACUUM CLEANING |
| VTR | - VENT THRU ROOF |
| WCO | - WALL CLEANOUT |
| WTR | - WATER |

# CODES AND STANDARDS

- FLORIDA BUILDING CODE 6TH EDTION - 2017 EDITION
- NFPA #99, HEALTHCARE FACILITIES CODE - 2015 EDITION.
- GUIDELINES FOR DESIGN AND CONSTRUCTION. FLORIDA HEALTHCARE FACILITIES - 2014 EDITION.
- ALL LOCAL CODES - LATEST EDITION.

# GENERAL NOTES

REFERENCE THE SPECIFICATIONS FOR MATERIAL AND EQUIPMENT INSTALLATION STANDARDS.

THE PLUMBING INSTALLATION SHALL COMPLY WITH ALL STATE AND LOCAL CODES.

PLANS ARE NOT COMPLETELY TO SCALE. PIPE ROUTING SHOWN IS SCHEMATIC AND IS NOT INTENDED TO INDICATE EXACT ROUTING. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL OFFSETS AND FITTINGS REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES. VERIFY STRUCTURAL, MECHANICAL AND ELECTRICAL INSTALLATIONS AND OTHER POTENTIAL OBSTRUCTIONS AND ROUTE PIPING TO AVOID INTERFERENCES.

PROVIDE ALL OFFSETS AND FITTINGS AND MAKE CONNECTION TO SITE UTILITIES.

CONCEAL PIPING ABOVE CEILINGS, WITHIN WALLS OR CHASES EXCEPT IN MECHANICAL ROOMS OR AS SPECIFICALLY NOTED.

PROVIDE ACCESS PANELS FOR ALL VALVES CONCEALED IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS.

SLEEVE AND/OR FIRESTOP ALL PENETRATIONS THROUGH RATED WALLS, CEILINGS, AND FLOORS WITH U/L LISTED ASSEMBLIES. FIRESTOP ASSEMBLIES SHALL BE EQUAL TO OR EXCEED THE RATING OF THE WALL, CEILING OR FLOOR. SEE ARCHITECTURAL DRAWINGS FOR FINAL FINISHES.

FLASH AND COUNTER-FLASH ROOF PENETRATIONS. SEE ARCHITECTURAL DRAWINGS FOR DETAILS.

PROVIDE FOUNDATION PAD PENETRATION SLEEVES. ALLOW 1" MINIMUM CLEARANCE BETWEEN SLEEVE INSIDE SURFACE AND PIPE EXTERIOR.

SEE ARCHITECTURAL DRAWINGS FOR FIXTURE LOCATIONS AND MOUNTING HEIGHTS.

ALL EXPOSED PIPE AND FITTINGS IN FINISHED AREAS SHALL BE CHROME PLATED.

MOUNT HOSE BIBBS 24" ABOVE FINISHED GRADE, UNLESS OTHERWISE NOTED.

PROVIDE CLEANOUTS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES. INSTALL CLEANOUT WITH COVER FLUSH TO FINISH SURFACE.

COORDINATE PIPING WITH ALL ELECTRICAL EQUIPMENT (PANELS, TRANSFORMERS, ETC.) PRIOR TO ANY INSTALLATION. DO NOT ROUTE ANY PIPING OVER ANY ELECTRICAL PANELS UNDER ANY CIRCUMSTANCES. ANY PIPING RUN OVER PANELS SHALL BE RE-ROUTED AT NO ADDITIONAL COST.

ALL WALL MOUNTED LAVATORIES SHALL BE ATTACHED TO FLOOR MOUNTED CARRIER DESIGNED TO WITHSTAND A VERTICAL LOAD OF 250 POUNDS ON THE FRONT OF THE FIXTURE.

PROVIDE SANITARY WASTE, VENT, DOMESTIC WATER, ETC. ROUGH-IN AND MAKE FINAL CONNECTIONS (TO INCLUDE PROVIDING ALL NECESSARY RELATED STOPS, VALVES, TRAPS, ETC. AND MAKE READY FOR USE) TO ALL EQUIPMENT, WHETHER FURNISHED BY THIS CONTRACTOR OR FURNISHED BY OTHERS.

PROVIDE AN AIR GAP, WHEN REQUIRED BY CODE, SERVING INDIVIDUAL FIXTURES, DEVICES, APPLIANCES AND APPARATUS.

ANY EQUIPMENT THAT IS DIRECTLY CONNECTED TO THE DOMESTIC WATER SYSTEM SHALL BE BACKFLOW PROTECTED

PROVIDE WATER HAMMER ARRESTORS IN ALL HW AND CW SUPPLY PIPING AT SOLENOID, REMOTE OPERATED OR QUICK CLOSING VALVES AND AT EACH FLUMBING FIXTURE OR BATTERY FO PLUMBING FIXTURES. INSTALL IN ACCORDANCE WITH PDI-WH201 STANDARDS AND AS CLOSE AS POSSIBLE TO THE VALVE OR VALVES BEING SERVED. AIR CHAMBERS ARE NOT ACCEPTABLE SUBSTITUTIONS.

VENT PIPING SHOWN IS ONLY FOR DIAGRAMMATIC PURPOSES. COORDINATE VTRS WITH HVAC AIR INTAKES.

PROVIDE THERMAL INSULATION FOR HOT WATER AND HOT WATER RETURN PIPING IN ACCORDANCE WITH THE ENERGY EFFICIENCY CODE FOR BUILDING CONSTRUCTION AND PER SPECIFICATIONS.

SLOPE SANITARY PIPING 2-1/2" OR LESS AT 1/4" PER FOOT. SLOPE SANITARY PIPING 3" AND LARGER AT 1/8" PER FOOT.

# PLUMBING DRAWING INDEX



| SHEET | DESCRIPTION | ISSUED |
|---|---|---|
| P001 | GENERAL INFORMATION - PLUMBING | Yes |
| P201 | LEVEL 1 NEW CONSTRUCTION PLAN - GRAVITY | Yes |
| P301 | LEVEL 1 NEW CONSTRUCTION PLAN - PRESSURE | Yes |
| P400 | PLUMBING RISERS | Yes |
| P600 | PLUMBING DETAILS | Yes |



# PUMP SCHEDULE

| MARK | CP-1 | |
|---|---|---|
| SERVICE | DOMESTIC PUMP | |
| LOCATION | EVS/MECH 130 | |
| TYPE | INLINE | |
| CAPACITY (GPM) | 6 | |
| HEAD (FEET) | 20 | |
| MOTOR (HP) | 1/8 | |
| MOTOR (VOLTS/PHASE/HERTZ) | 120/1/60 | |
| MANUFACTURER | TACO | |
| MODEL NUMBER | 0011-SS4 | |
| NOTES | | |

# DOMESTIC WATER HEATER SCHEDULE

| MARK | EWH-1 | |
|---|---|---|
| ENERGY SOURCE/TYPE | ELECTRIC | |
| IMPUT | 4.5 kw | |
| RECOVERY (GPH) @60°F | 30 | |
| STORAGE (GALLONS) | 20 | |
| STORAGE TEMP (°F) | 120 | |
| MOTOR (HP) | NA | |
| (VOLTS/PHASE/HERTZ) | 208/1/60 | |
| SIZE (D"xH") | 22"X22" | |
| FLUE SIZE | NA | |
| MANUFACTURER | AO SMITH | |
| MODEL NUMBER | DEL-20 | |

ALTERNATE MANUFACTURERS: A.O. SMITH, STATE


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GENERAL INFORMATION - PLUMBING

**P001**

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3/8/2019

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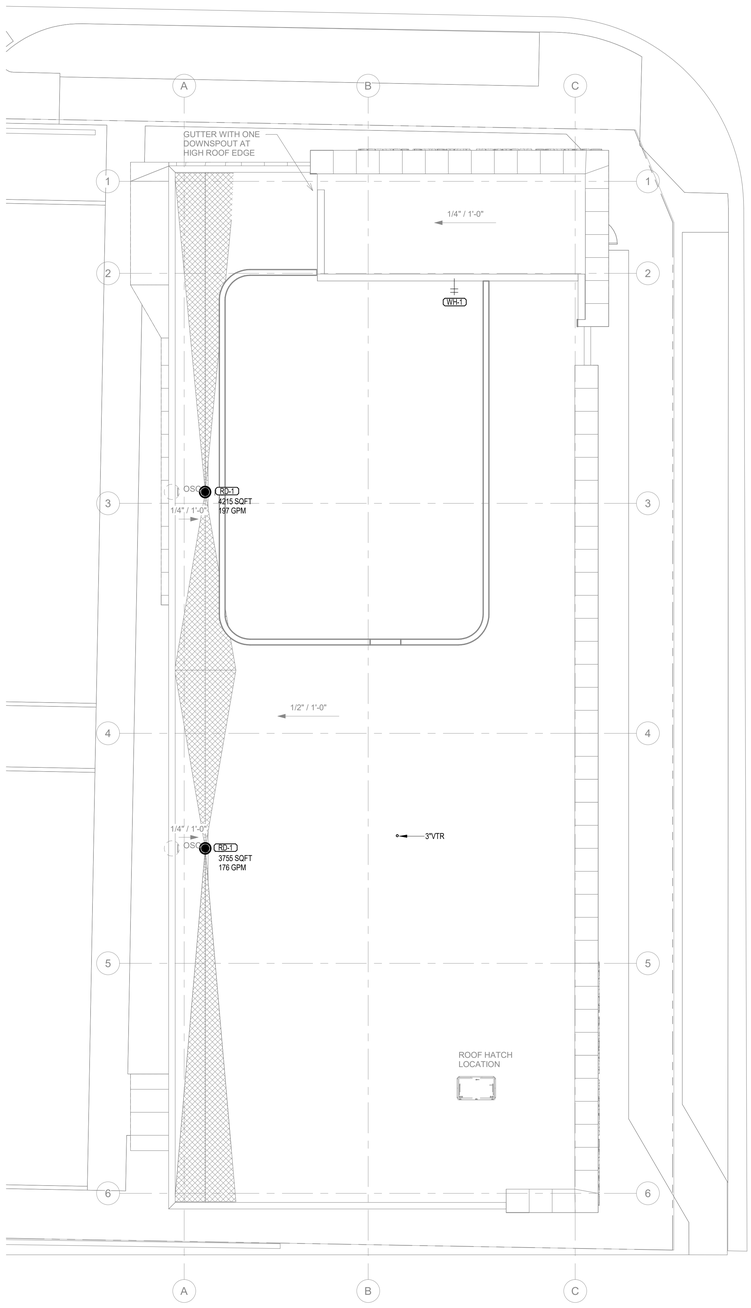
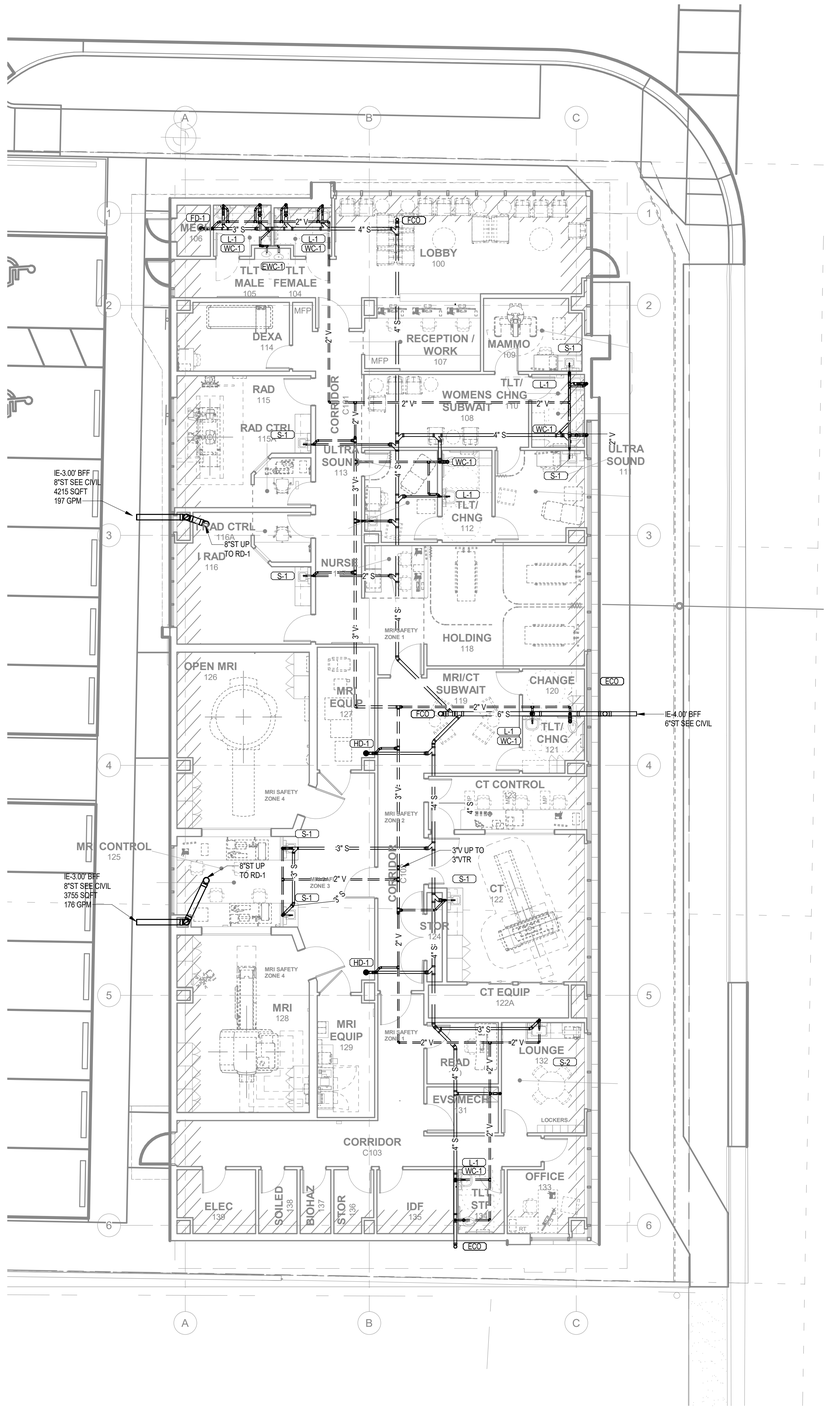



2 ROOF LEVEL NEW CONSTRUCTION PLAN - GRAVITY
1/8" = 1'-0"




1 LEVEL 1 NEW CONSTRUCTION PLAN - GRAVITY
1/8" = 1'-0"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LEVEL 1 NEW CONSTRUCTION PLAN - GRAVITY

**P201**

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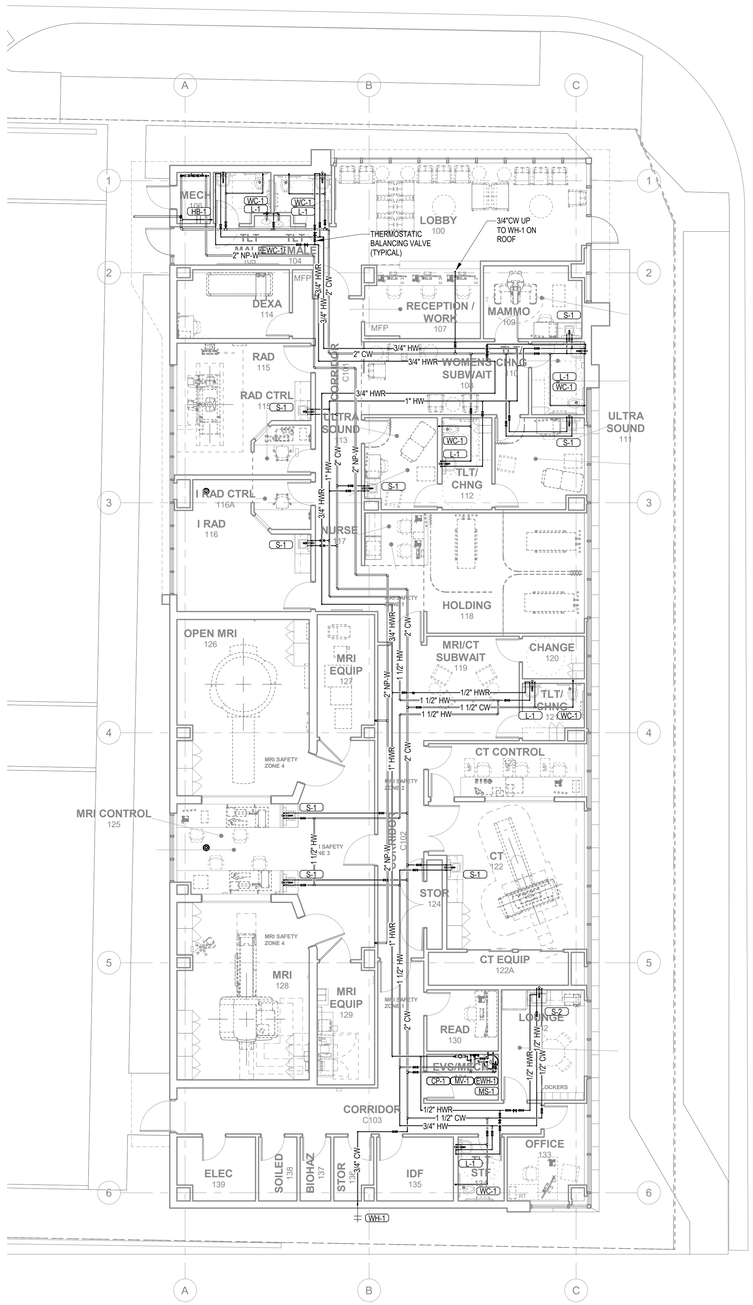


1 LEVEL 1 NEW CONSTRUCTION PLAN - PRESSURE

1/8" = 1'-0"

0' 4' 8' 16' 24'


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LEVEL 1 NEW CONSTRUCTION PLAN - PRESSURE

**P301**

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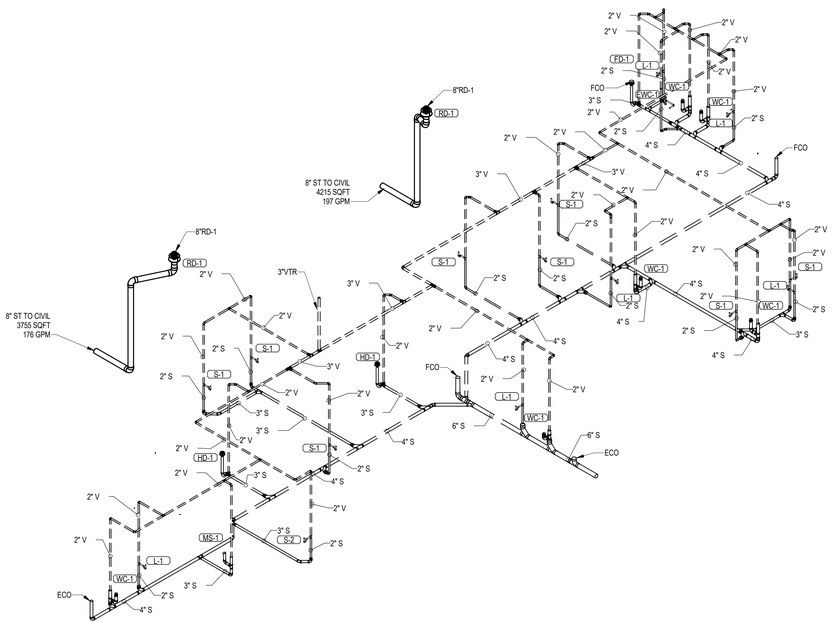
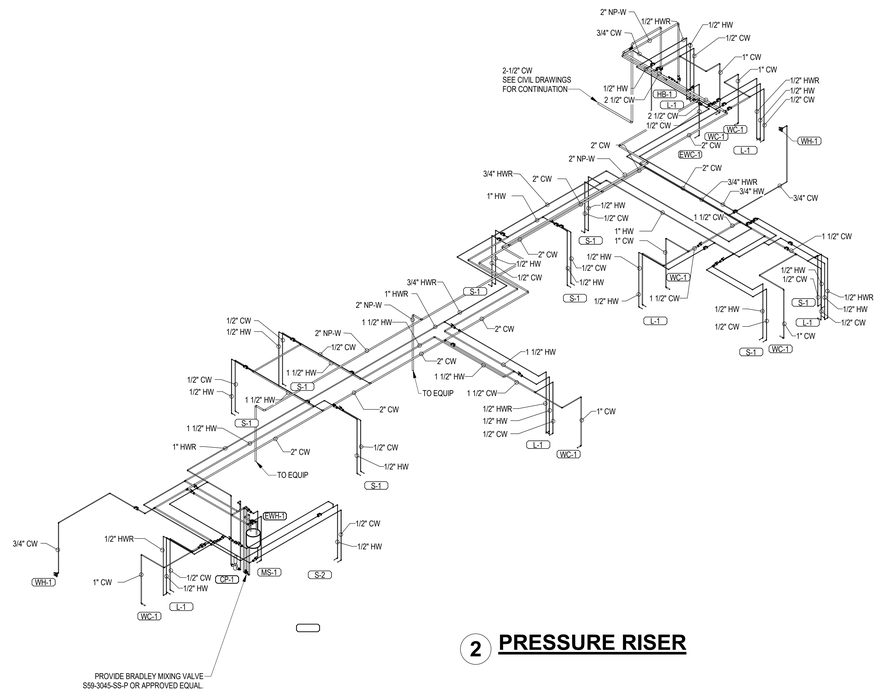



1 **GRAVITY RISER**

| WATER HAMMER ARRESTORS | | |
|---|---|---|
| ARRESTOR SIZE | WATER SUPPLY FIXTURE UNITS | PDI STD WH 201 |
| 1/2" | 1-11 | PDI-A |
| 3/4" | 12-32 | PDI-B |
| 1" | 33-60 | PDI-C |
| 1-1/4" | 61-133 | PDI-D |
| 1-1/2" | 114-154 | PDI-E |
| 2" | 155-330 | PDI-F |

NOTE:
ALL ARRESTORS SHALL BE INSTALLED PER PDI (PLUMBING AND DRAINAGE INSTITUTE) STANDARD PDI-WH201 (2006) FOR SIZING AND PLACEMENT.




2 **PRESSURE RISER**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PLUMBING RISERS

**P400**

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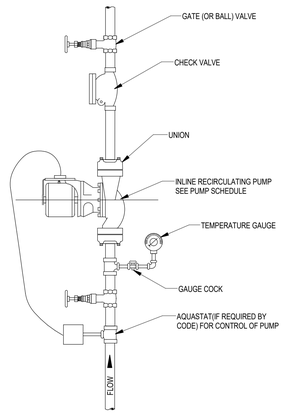
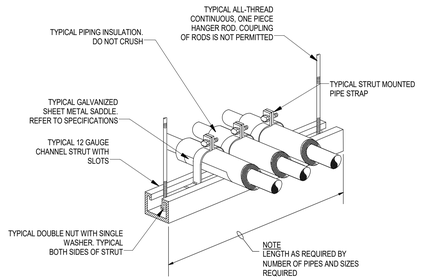



**10** — **RECIRCULATING PUMP**
No Scale — **4**

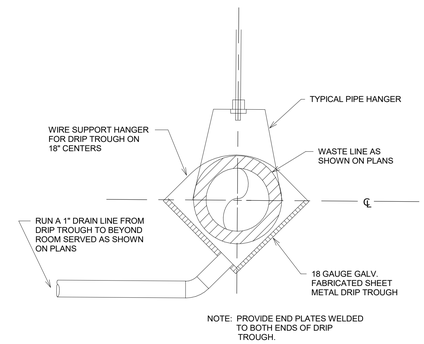



NOTE:

1. REFER TO SPECIFICATIONS AND FLOOR PLANS FOR

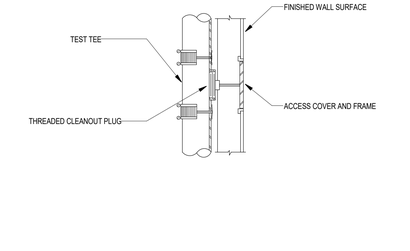
2. SPECIFIED HANGER ROD, STRUT, NUTS, WASHER, AND PIPE STRAPS SHALL BE OF GALVANIZED PLATED MATERIALS

**7** — **TRAPEZE HANGER**
No Scale — **1**

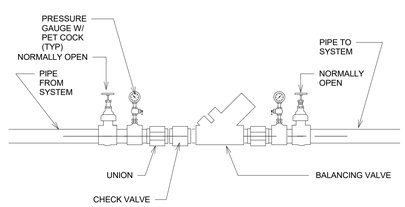



NOTE: PROVIDE END PLATES WELDED TO BOTH ENDS OF DRIP TROUGH.

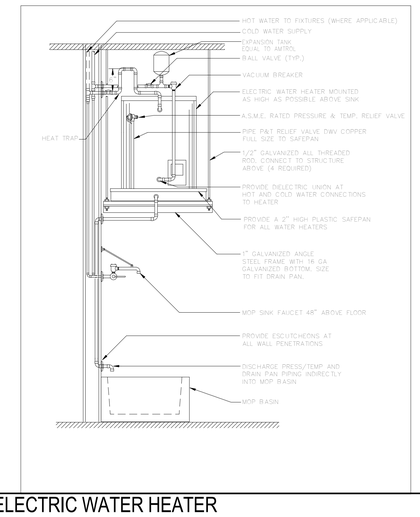
**11** — **DRIP TROUGH SECTION**
**8** — **5**




**WALL CLEANOUT**
No Scale — **2**




**12** — **TYPICAL BALANCING VALVE ASSEMBLY**
**9** — **6**




**ELECTRIC WATER HEATER**
**3**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PLUMBING DETAILS

**P500**

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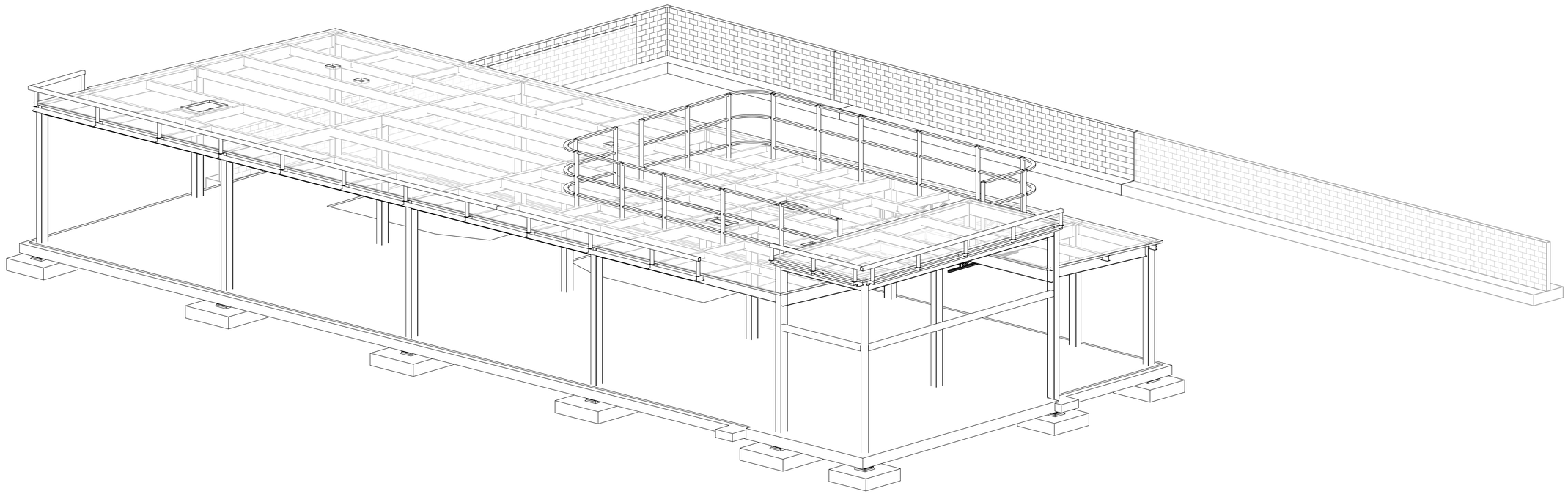
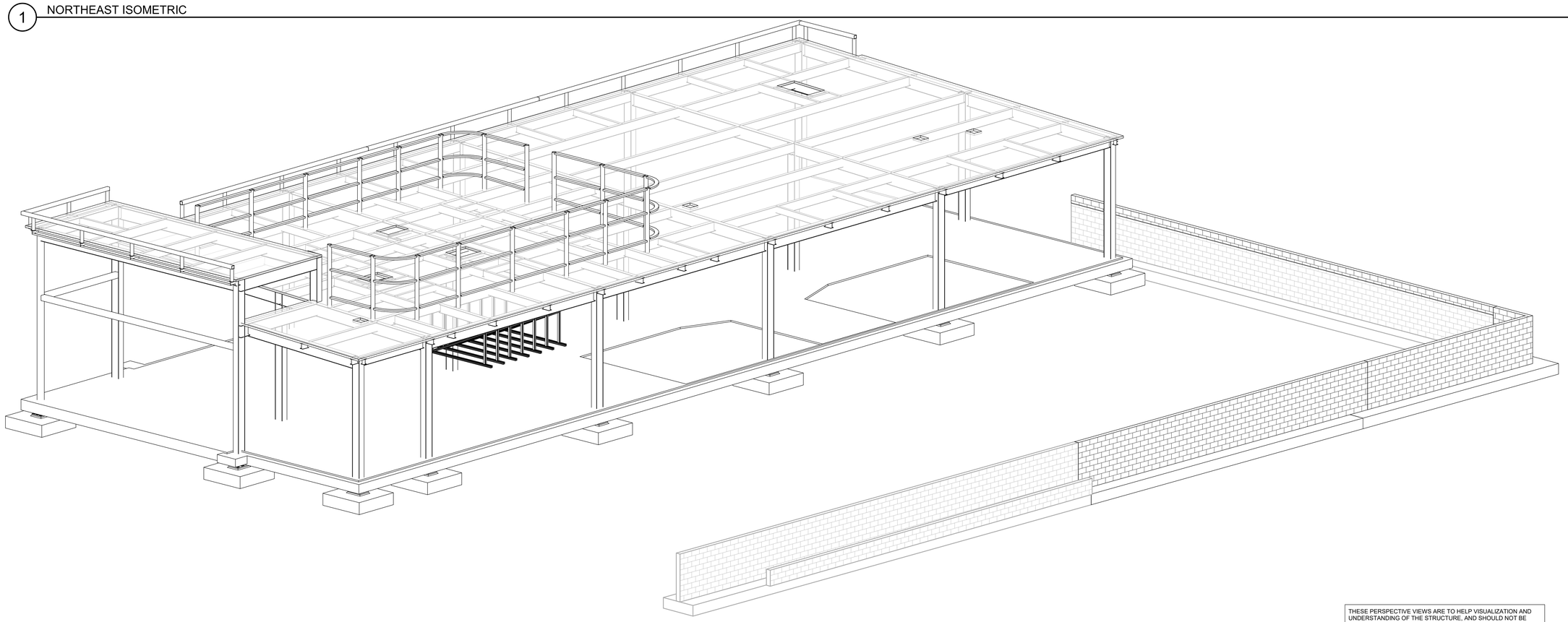


1 NORTHEAST ISOMETRIC



2 NORTHWEST ISOMETRIC

THESE PERSPECTIVE VIEWS ARE TO HELP VISUALIZATION AND UNDERSTANDING OF THE STRUCTURE, AND SHOULD NOT BE USED TO DEFINE SCOPE OF DETERMINE QUANTITIES.

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WALTER P MOORE

WALTER P. MOORE AND ASSOCIATES, INC.
201 EAST KENNEDY BOULEVARD, SUITE 300
TAMPA, FLORIDA 33602.5823
PHONE: 813.221.2424 FAX: 813.221.2289
CERTIFICATE OF AUTHORIZATION NO. 3818

PROJECT NO. S05-18065-00

ROBERT S. MOHRLAND P.E. NO. 62851

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES

ORLANDO HEALTH®

# Orlando Health Imaging Center

1800 S Orange Avenue
Orlando, Florida 32806

ROBERT S. MOHRLAND LICENSE No. 62851 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by: Robert S. Mohrland
-82F9567289980475
3/15/2019

This item has been digitally signed and sealed by Robert S. Mohrland on the date adjacent to the seal.

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ISOMETRIC VIEWS

**S000**

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# GENERAL STRUCTURAL NOTES

## PART I - DESIGN CRITERIA

A. GENERAL BUILDING CODE

1. THE CONSTRUCTION DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE FLORIDA BUILDING CODE SIXTH EDITION (2017).

B. DEAD AND LIVE LOADS

1. REFER TO THE LOAD KEY PLANS ON SHEETS S007 FOR ALL DEAD AND LIVE LOADING USED ON THE PROJECT.

2. THE ROOF STRUCTURE HAS BEEN DESIGNED TO SUPPORT THE WEIGHT OF PONDED WATER SHOWN BELOW CAUSED BY CLOGGING OF THE PRIMARY ROOF DRAINS FOR A DEPTH OF FOUR INCHES.

C. WIND LOADS

1. WIND PRESSURES ARE BASED ON THE PROVISIONS OF THE FLORIDA BUILDING CODE WHICH REFER TO THE AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-10 AND THE FOLLOWING CRITERIA:
   a. ULTIMATE DESIGN WIND SPEED (VULT): 136 MPH (3 SECOND GUST)
   b. NOMINAL DESIGN WIND SPEED (VASD): 113 MPH (3-SECOND GUST)
   c. BUILDING RISK CATEGORY: II
   d. WIND EXPOSURE CATEGORY: C
   e. INTERNAL PRESSURE COEFFICIENT (GCPI): +0.18/-0.18

2. THIS STRUCTURE IS NOT LOCATED IN A WIND-BORNE DEBRIS REGION AND HAS BEEN DESIGNED AS ENCLOSED. IMPACT-RESISTANT EXTERIOR GLAZING OR IMPACT-RESISTANT COVERING OVER EXTERIOR GLAZING IS NOT REQUIRED.

3. WIND PRESSURES USED IN THE DESIGN OF THE CLADDING ARE SHOWN ON THE STRUCTURAL DRAWINGS, SHEETS S005 AND S006.

D. FUTURE EXPANSION

1. NO PROVISIONS FOR ANY FUTURE EXPANSIONS HAVE BEEN MADE IN THE STRUCTURAL DESIGN.

E. BUILDING MOVEMENT AND DEFLECTIONS

1. THE BUILDING MOVEMENT SPECIFIED HEREIN IS ANTICIPATED TO OCCUR AND SHOULD BE CONSIDERED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK.

2. SPANDREL BEAM DEFLECTIONS. THE FOLLOWING PROVISION SHOULD BE MADE FOR SUPERIMPOSED LOAD DEFLECTION OF THE GROUND FLOOR RELATIVE TO THE ROOF IN THE DESIGN, FABRICATION, AND ERECTION OF THE BUILDING CLADDING:
   a. TYPICAL SPANDREL BEAM: 3/8"

   SUPERIMPOSED LOAD DEFLECTION IS DEFINED AS ALL DEFLECTION ANTICIPATED TO OCCUR AFTER THE CLADDING HAS BEEN ERECTED. THE RELATIVE DEFLECTION ABOVE DOES NOT INCLUDE THE ROOF DEFLECTION CAUSED BY THE WEIGHT OF THE CLADDING ITSELF OR THE DEAD LOAD DEFLECTION OF THE ROOF FRAMING ITSELF, NOR DOES IT INCLUDE ANY ALLOWANCE FOR FABRICATION OR ERECTION TOLERANCES.

3. ROOF DEFLECTIONS: THE FOLLOWING PROVISION FOR SUPERIMPOSED LOAD DEFLECTIONS SHALL BE MADE IN THE DESIGN, FABRICATION, AND INSTALLATION OF ALL PARTITIONS, GLASS WALLS, AND OTHER ELEMENTS SUPPORTED BY AND ATTACHED TO THE STRUCTURE:
   a. TYPICAL ROOF MEMBERS: SPAN/360 BUT NOT LESS THAN 3/8"

4. LATERAL FRAME WIND DEFLECTION (DRIFT): THE FOLLOWING PROVISION FOR LATERAL FRAME DEFLECTION IN THE PLANE OF THE WALL OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR SHALL BE MADE IN THE DESIGN, FABRICATION AND INSTALLATION OF THE BUILDING CLADDING:
   a. TYPICAL FLOOR TO FLOOR: FLOOR HEIGHT/400

   THE DEFLECTIONS LISTED ABOVE ARE BASED ON WIND LOADS WITH A 10-YEAR MEAN RECURRENCE INTERVAL.

F HANDRAILS AND GUARDS

1. THE HANDRAIL ASSEMBLIES AND GUARDS SHALL BE DESIGNED FOR 50 PLF OR A CONCENTRATED LOAD OF 200 POUNDS AT ANY POINT APPLIED IN ANY DIRECTION AT THE TOP AND TO TRANSFER THIS LOAD THROUGH THE SUPPORTS TO THE STRUCTURE. THESE LOADS NEED NOT BE ASSUMED TO ACT CONCURRENTLY.

F. ROOFTOP EQUIPMENT ANCHORAGE

1. ALL ROOF TOP EQUIPMENT CURBS, ROOF TOP MECHANICAL EQUIPMENT, EQUIPMENT TIE DOWNS, AND CONNECTIONS OF ALL EQUIPMENT TO BUILDING STRUCTURE FOR WIND LOADING ARE TO BE DESIGNED AND ENGINEERED BY A REGISTERED SPECIALTY ENGINEER RETAINED BY THE MECHANICAL EQUIPMENT SUPPLIER. SIGNED AND SEALED DRAWINGS AND CALCULATIONS ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. THE EQUIPMENT MANUFACTURER SHALL PROVIDE THE ATTACHMENT OF THE UNIT TO THE STRUCTURE AND SUBMIT TO THE ENGINEER LOADS, LOCATIONS, AND METHODS OF ATTACHMENT. THE STRUCTURAL ENGINEER WILL MAKE PROVISIONS IN THE DESIGN OF THE PRIMARY STRUCTURAL FRAME TO ACCOMMODATE THE LOADS AND ATTACHMENTS SUBMITTED BY THE MANUFACTURER.

## PART II - FOUNDATION

A. GEOTECHNICAL REPORT

1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL INVESTIGATION REPORT AS FOLLOWS "REPORT GEOTECHNICAL ENGINEERING SERVICES ORLANDO HEALTH IMAGING CENTER 1800 SOUTH ORANGE AVENUE ORLANDO, ORANGE COUNTY, FLORIDA PSI PROJECT NO. 07572105 DATED NOVEMBER 30, 2018.

2. THE GEOTECHNICAL REPORT IS AVAILABLE TO THE GENERAL CONTRACTOR UPON REQUEST TO THE OWNER. THE INFORMATION INCLUDED THEREIN MAY BE USED BY THE GENERAL CONTRACTOR FOR HIS GENERAL INFORMATION ONLY. THE ARCHITECT AND ENGINEER WILL NOT BE RESPONSIBLE FOR THE ACCURACY OR APPLICABILITY OF SUCH DATA THEREIN.

B. SHALLOW FOUNDATION TYPE

1. SPREAD FOOTING:
   a. DESIGN PRESSURES
      1) TOTAL LOAD: 3,000 PSF NET PRESSURE FOR MAIN BUILDING
         2,000 PSF NET PRESSURE FOR PERIMETER WALL
      2) ALLOWABLE PRESSURES ARE INCREASED 33% FOR COMBINED GRAVITY AND WIND AND/OR EARTHQUAKE LOADS.

2. GRADE BEAMS:
   a. GRADE BEAM SIDE FORMS. BOTH SIDES OF ALL GRADE BEAMS SHALL BE FORMED FOR FULL BEAM DEPTH.
   b. BAR SUPPORTS FOR GRADE BEAM CAGES. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5'-0" MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3" BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE DESIGNED AND MANUFACTURED FOR SUPPORT ON SOIL.

C. RETAINING WALLS

1. DESIGN CRITERIA
   a. ACTIVE SOIL PRESSURE: 40 PSF PER FOOT OF DEPTH.
   b. AT-REST SOIL PRESSURE: 60 PSF PER FOOT OF DEPTH.
   c. SURCHARGE: WALLS HAVE BEEN DESIGNED FOR A SURCHARGE LOAD OF 100 PSF EQUIVALENT TO AN ADDITIONAL ACTIVE LATERAL PRESSURE OF 33 PSF OR AND ADDITIONAL AT-REST PRESSURE 50 PSF.
   d. THE DESIGN PRESSURES SPECIFIED ABOVE ARE BASED ON DRAINED BACKFILL WITH NO BUILDUP OF WATER PRESSURE BEHIND THE WALLS.

D. CONSTRUCTION DEWATERING

1. THE CONTRACTOR SHALL DETERMINE THE EXTENT OF CONSTRUCTION DEWATERING REQUIRED FOR THE EXCAVATION. THE CONTRACTOR SHALL SUBMIT TO THE GEOTECHNICAL ENGINEER FOR REVIEW THE PROPOSED PLAN FOR CONSTRUCTION DEWATERING, PRIOR TO BEGINNING THE EXCAVATION.

## PART III - REINFORCED CONCRETE

A. CLASSES OF CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "CLASSES OF CONCRETE MATRIX" ON SHEET S003 UNLESS NOTED OTHERWISE ON THE DRAWINGS.

B. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS

1. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY CONCRETE POURS UNLESS SHOWN ON THE DRAWINGS. THE ARCHITECT/ENGINEER SHALL APPROVE ALL DEVIATIONS OR ADDITIONAL JOINTS IN WRITING.

## PART III - REINFORCED CONCRETE (CONTINUED)

C. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THESE NOTES.

2. REINFORCING STEEL: PROVIDE REINFORCING STEEL CONFORMING TO ASTM A 706 FOR ALL REINFORCING STEEL REQUIRED TO BE WELDED AND WHERE NOTED ON THE DRAWINGS.

3. DEFORMED BAR ANCHORS: 3/8" TO 5/8" DIAMETER AWS D1.1 TYPE C (TABLE 7.1) STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 1064 WITH A MINIMUM YIELD STRENGTH 70,000 PSI. 3/4" OR LARGER DIAMETER, ASTM A706 BARS OF EQUAL SIZE WITH WELDS TO STEEL SUBSTRATE THAT DEVELOP FULL STRENGTH OF ANCHOR. ASTM A 615 REINFORCING BARS SHALL NOT BE SUBSTITUTED FOR DEFORMED BAR ANCHORS.

4. HEADED STUD ANCHORS FOR EMBEDDED PLATES: AWS D1.1 TYPE A STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 29 WITH A MINIMUM TENSILE STRENGTH OF 61,000 PSI.

5. DEFORMED WELDED WIRE REINFORCEMENT: ASTM A 1064, YIELD STRENGTH 70,000 PSI.

D. PLACEMENT OF WELDED WIRE REINFORCEMENT

1. WHEREVER WELDED WIRE REINFORCEMENT IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND NOT INTERRUPTED BY BEAMS OR GIRDERS AND PROPERLY LAPPED PER ACI 318, 25.5.3 AND 25.5.4.

E. REINFORCING STEEL COVERAGE

1. REINFORCING STEEL COVERAGE SHOULD CONFORM TO THE REQUIREMENTS SPECIFIED IN DETAILS LABELED "TYPICAL CLEAR CONCRETE COVER" ON SHEETS S004, UNLESS NOTED OTHERWISE ON THE DRAWINGS. COVER SPECIFIED SHALL BE CONSIDERED MINIMUMS THAT MAY REQUIRE INCREASING WHERE REINFORCING STEEL INTERSECTS FOR DIFFERENT MEMBER TYPES. COVER IN STRUCTURAL MEMBERS NOT SPECIFIED IN THE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. THE REINFORCING STEEL DETAILER SHALL ADJUST REINFORCING STEEL CAGE SIZES AT INTERSECTING STRUCTURAL MEMBERS AS REQUIRED TO ALLOW CLEARANCE FOR INTERSECTING REINFORCING BAR LAYERS WITH MINIMUM SPECIFIED COVER.

F. SPLICES AND HOOKS IN REINFORCING STEEL

1. SPLICE LOCATION AND TYPE AND HOOKS FOR UNSCHEDULED BEAMS, SLABS AND WALLS:
   a. BEAMS AND SLABS. UNSCHEDULED BEAMS AND SLABS, INCLUDING GRADE BEAMS, SHALL HAVE CONTINUOUS TOP BARS LAPPED AT MIDSPAN BETWEEN SUPPORTS WITH A CLASS B TENSION SPLICE. BOTTOM BARS SHALL BE LAPPED AT THE SUPPORTS WITH A CLASS B TENSION SPLICE. ALL BEAM BARS SHALL BE HOOKED AT DISCONTINUOUS END, UNLESS NOTED OTHERWISE.

## PART IV - CONCRETE MASONRY

A. CONCRETE MASONRY UNITS.

1. CONCRETE STRENGTH OF MASONRY UNITS (BASED ON NET AREA) SHALL BE 1,900 PSI MINIMUM.

2. UNITS SHALL CONFORM TO ASTM C 55 OR ASTM C 90 AND SAMPLED IN ACCORDANCE WITH ASTM C 140.

B. MORTAR

1. USE ONLY PORTLAND CEMENT/LIME, TYPE M OR S, MORTAR CONFORMING TO ASTM C 270. PROVIDE AN AVERAGE COMPRESSIVE STRENGTH AT 28 DAYS OF 1,800 PSI MINIMUM.

C. GROUT

1. MIX DESIGNS:
   a. FOR FILLING SPACES 4" OR LARGER IN BOTH HORIZONTAL DIRECTIONS, USE "COARSE GROUT" WITH A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI. THE GROUT SHALL BE TESTED IN ACCORDANCE WITH ASTM C1019. FOR FILLING SPACES LESS THAN 4" IN ONE OR BOTH HORIZONTAL DIRECTIONS, USE "FINE GROUT" PROPORTIONED PER ASTM C 476.
   b. ALL GROUT MIX DESIGN SUBMITTALS SHALL INCLUDE THE RESULTS OF THE TESTS PERFORMED IN ACCORDANCE WITH ASTM C 1019.
   c. SLUMP RANGE AT POINT OF FINAL DISCHARGE: 8" TO 11".
   d. THE USE OF AIR ENTRAINING ADMIXTURES IS NOT ALLOWED.

D. MINIMUM REINFORCEMENT FOR CONCRETE MASONRY UNITS

1. REINFORCING STEEL IN CONCRETE MASONRY CONSTRUCTION: ASTM A 615, GRADE 60.

2. PROVIDE VERTICAL REINFORCEMENT IN CELLS OF CONCRETE MASONRY UNITS (FULLY EMBEDDED IN GROUT) AS SHOWN ON THE PLANS AND OTHER DETAILS.

3. PROVIDE HORIZONTAL REINFORCEMENT IN EVERY COURSE (MAXIMUM 8" SPACING).

4. TERMINATION OF REINFORCING STEEL:
   a. ALL VERTICAL REINFORCEMENT SHALL HAVE STANDARD HOOK INTO BOND BEAM. HOOK SHALL EXTEND TO THE UPPERMOST HORIZONTAL REINFORCEMENT OF THE BOND BEAM AND HAVE A MINIMUM EMBEDMENT OF 6".
   b. ALL HORIZONTAL REINFORCEMENT AT ENDS OF BOND BEAMS SHALL HAVE STANDARD HOOK INTO VERTICAL GROUTED CELL. PROVIDE CORNER BARS SUCH THAT HORIZONTAL REINFORCEMENT IS CONTINUOUS AROUND CORNERS.

E. REINFORCING STEEL COVERAGE

1. COVER TO REINFORCING STEEL WITHIN MASONRY ELEMENTS SHALL NOT BE LESS THAN THE FOLLOWING:
   a. EXPOSED TO EARTH OR WEATHER: 2" (#6 AND LARGER BARS), 1.5" (#5 AND SMALLER BARS).
   b. LONGITUDINAL WIRES OF JOINT REINFORCEMENT SHALL BE FULLY EMBEDDED IN MORTAR OR GROUT WITH A MINIMUM COVER OF 5/8" WHEN EXPOSED TO EARTH AND WEATHER.

F. STABILITY AND BRACING OF MASONRY WALLS DURING CONSTRUCTION

1. ALL MASONRY WALLS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES APPLIED TO THEM IN THE FINAL CONSTRUCTED CONFIGURATION ONLY ASSUMING FULL BRACING TOP, BOTTOM, AND/OR SIDE OF WALL AS SHOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY AND ADEQUATELY BRACE ALL MASONRY WALLS AT ALL STAGES DURING CONSTRUCTION TO RESIST ERECTION LOADS AND LATERAL LOADS THAT COULD POSSIBLY BE APPLIED PRIOR TO COMPLETION OF CONSTRUCTION.

## PART V - STRUCTURAL STEEL

A. MATERIAL

1. HOT ROLLED STRUCTURAL MEMBERS: ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A 6.

2. ASTM SPECIFICATION AND GRADE: CLEARLY MARK THE GRADE OF STEEL ON EACH PIECE, WITH A DISTINGUISHING MARK VISIBLE FROM FLOOR SURFACES, FOR THE PURPOSE OF FIELD INSPECTION OF PROPER GRADE OF STEEL. UNLESS NOTED OTHERWISE ON THE DRAWINGS, STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   a. W- AND WT-SHAPES: ASTM A 992.
   b. C-SHAPES: ASTM A 36.
   c. L-SHAPES: ASTM A 36.
   d. ROUND HSS: ASTM A 500, GRADE B (FY=42 KSI).
   e. RECTANGULAR HSS: ASTM A 500, GRADE B (FY=46 KSI).
   f. STEEL PIPES: ASTM A 53 (TYPES E OR S), GRADE B.
   g. BASE PLATES: ALL BASE PLATES SHALL CONFORM TO ASTM A 572, GRADE 50 UNLESS NOTED OTHERWISE ON THE DRAWINGS.
   h. EDGE ANGLES, BENT PLATES, ANGLE HANGERS, AND ANGLE KICKERS: ASTM A 36.
   i. CONNECTION MATERIAL:
      1) BEAM COLUMN CONTINUITY PLATES AND DOUBLER PLATES: ASTM A 572, GRADE 50.
      2) ALL CONNECTION MATERIAL, EXCEPT AS NOTED OTHERWISE HEREIN OR ON THE DRAWINGS, INCLUDING BEARING PLATES, GUSSET PLATES, STIFFENER PLATES, FILLER PLATES, ANGLES, ETC. SHALL CONFORM TO ASTM A 36 UNLESS A HIGHER GRADE OF STEEL IS REQUIRED BY STRENGTH AND PROVIDED THE RESULTING SIZES ARE COMPATIBLE WITH THE CONNECTED MEMBERS.

## PART V - STRUCTURAL STEEL (CONTINUED)

B. CONNECTIONS

1. CONNECTION DETAILS NOT COMPLETELY DETAILED ON THE DRAWINGS INCLUDING MATERIAL GRADE AND SIZES, WELD SIZES, AND NUMBER OF BOLTS SHALL BE DESIGNED BY THE CONTRACTOR PER THE SPECIFICATIONS. CONCEPTUAL CONNECTION DETAILS WITH THE REQUIRED MEMBER DESIGN FORCES ARE SHOWN ON THE DRAWINGS AND ARE APPLICABLE TO ALL CONNECTIONS NOT DESIGNED AND FULLY DETAILED ON THE DRAWINGS. THE CONCEPTUAL DETAILS ARE PROVIDED ONLY TO INDICATE THE CONNECTION TYPE REQUIRED AND MAY NOT FULLY REPRESENT THE COMPLEXITY OF THE CONNECTION AS REQUIRED BY THE FINAL CONNECTION DESIGN FOR THE FORCES THEY MUST RESIST. ADDITIONAL CONNECTION ELEMENTS MAY NOT BE SPECIFICALLY SHOWN IN THE CONCEPTUAL DETAILS BUT MAY BE REQUIRED BY THE FINAL CONNECTION DESIGN, SUCH AS STIFFENER PLATES, DOUBLER PLATES, SUPPLEMENT/ REINFORCING PLATES OR OTHER CONNECTION MATERIAL. THE FABRICATOR IS RESPONSIBLE FOR ENGAGING THE SERVICES OF A CONNECTION SPECIALTY ENGINEER TO PREPARE A FINAL CONNECTION DESIGN FOR SUBMISSION THAT MEETS THE REQUIREMENTS OF THE CONCEPTUAL CONNECTION DETAILS AND RESISTS THE INDICATED DESIGN FORCES.

2. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. REACTIONS NOTED ON THE PLANS ARE BASED ON FACTORED LOADS AND ARE INTENDED FOR USE WITH THE LOAD AND RESISTANCE FACTOR DESIGN METHOD.

C. STRUCTURAL BOLTS AND THREADED FASTENERS.

1. A 325 BOLTS: ALL BOLTS IN STRUCTURAL CONNECTIONS SHALL CONFORM TO ASTM A 325 TYPE 1, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.

2. THREADED ROUND STOCK: THREADED RODS SHALL CONFORM TO:
   a. ASTM A 36.
   b. ASTM A 572 GRADE 50 (TO 2 INCHES IN DIAMETER).

D. WELDING

1. UNLESS NOTED OTHERWISE, ELECTRODES FOR WELDING SHALL CONFORM TO E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW).

E. ANCHOR RODS

1. UNLESS INDICATED OTHERWISE IN THE COLUMN SCHEDULE OR ON THE DRAWINGS, ANCHOR RODS SHALL CONFORM TO ASTM F 1554 GRADE 55 (WITH SUPPLEMENTARY REQUIREMENT S1) AND THE SIZE SHALL BE 3/4" DIAMETER AND SHALL EMBED INTO THE CONCRETE FOUNDATION A DISTANCE OF 1'-0" WITH A HEAVY HEX NUT AT THE EMBEDDED END. STRIKE BOLT THREADS AT THE EMBEDDED END AT TWO PLACES BELOW THE NUT.

F. GROUT

1. GROUT BELOW STRUCTURAL STEEL BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM STRENGTH OF 6,000 PSI WHEN BEARING ON 3,000 PSI CONCRETE OR LESS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE BETWEEN 3,000 AND 4,000 PSI, AND, UNLESS NOTED OTHERWISE ON THE DRAWINGS, A STRENGTH OF 8,000 PSI WHEN BEARING ON CONCRETE GREATER THAN 4,000 PSI.

## PART VI - STEEL DECKS

A. ROOF DECK

1. SCHEDULE:

| | MINIMUM | DEPTH | GAGE | |
|---|---|---|---|---|
| | YIELD | OF | OF | |
| LOCATION | STRENGTH | DECK | DECK | TYPE |
| TYPICAL | 33KSI | 3" | 20 | 3DR |

   NOTES:
   MINIMUM YIELD STRENGTH, KIPS PER INCHES^2
   3DR 3 INCH, DEEP RIB, TYPE N

2. ATTACHMENT OF DECK:
   a. MINIMUM ATTACHMENT AT SUPPORTS: STEEL DECK UNITS SHALL BE FASTENED TO ALL SUPPORT MEMBERS AT EACH RIB (36/7) WITH HILTI X-ENP-19 POWER-ACTUATED FASTENERS, UNLESS NOTED OTHERWISE. AT MEMBERS PARALLEL TO DECK SPAN, SPACING OF FASTENERS SHALL BE 12".
   b. MINIMUM ATTACHMENT AT SIDE LAPS: SIDE LAPS OF ADJACENT UNITS SHALL BE FASTENED BY #12 SELF-TAPPING SCREWS AT A MAXIMUM OF 12", UNLESS NOTED OTHERWISE.

3. FLAT, RIDGE, AND VALLEY PLATES:
   UNLESS NOTED OTHERWISE, CONTRACTOR SHALL PROVIDE FLAT PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF DECK CHANGES DIRECTION AND RIDGE OR VALLEY PLATES (20 GAGE MINIMUM) AT ALL LOCATIONS WHERE ROOF SLOPE EXCEEDS 1/2" PER FOOT.

## PART VII - COLD-FORMED METAL FRAMING

A. MATERIALS

1. STUD AND TRACK PROFILES SHALL BE STANDARD SECTIONS USED BY MEMBERS OF THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA). SSMA MEMBER DESIGNATIONS AS SHOWN ON THE FOLLOWING EXAMPLE:

   600 S 162-43 REPRESENTS A 6.00" DEEP, STUD SECTION, 1.625" WIDE FLANGE, 0.043" (43 MILS) MINIMUM STEEL THICKNESS.
   NOTES:
   S = STUD SECTION
   T = TRACK SECTION
   U = CHANNEL SECTION
   F = FURRING CHANNEL

2. UNLESS NOTED OTHERWISE ON THE DRAWINGS, MEMBERS SHALL HAVE THE FOLLOWING YIELD STRENGTHS:
   a. STUDS: 33, 43 MIL THICKNESS FY = 33 KSI
   b. STUDS: 54, 68, 97 MIL THICKNESS FY = 50 KSI
   c. TRACKS: 33, 43, 54, 68, 97 MIL FY = 33 KSI
   d. U-CHANNELS, FURRING CHANNELS: FY = 33 KSI

3. ALL COLD-FORMED STEEL FRAMING MATERIALS SHALL HAVE A MINIMUM G60 GALVANIZED COATING.

B. CONNECTIONS

1. CONNECTIONS NOT FULLY DETAILED ON THE CONTRACT DOCUMENTS SHALL BE DESIGNED BY THE CONTRACTOR PER THE SPECIFICATION.

2. SCREWS: UNLESS NOTED OTHERWISE SCREWS SHALL BE AS FOLLOWS:
   a. SHEET STEEL TO SHEET STEEL: #10-16, 5/8 INCH LONG SELF DRILLING SCREWS.
   b. SHEET STEEL TO STRUCTURAL STEEL: #12-24, 1-1/2 INCH LONG SELF DRILLING SCREWS WITH NO 5 TIP STYLE.

3. POWDER ACTUATED FASTENERS: UNLESS NOTED OTHERWISE, PAF SHALL BE AS FOLLOWS:
   a. SHEET STEEL TO CONCRETE: 0.145" DIAMETER, 1-1/4" LONG, SMOOTH SHANK.
   b. SHEET STEEL TO POST-TENSIONED CONCRETE: 0.145" DIAMETER, 3/4" LONG, SMOOTH SHANK.
   c. SHEET STEEL TO STRUCTURAL STEEL: 0.145" DIAMETER, 3/4" LONG, KNURLED SHANK.

4. WELDING:
   a. WELDING PROCEDURES FOR SHEET STEEL TO BE IN ACCORDANCE WITH AWS D1.3. WELDERS SHALL BE CERTIFIED FOR SHEET STEEL IN ALL POSITIONS REQUIRED PER AWS D1.3
   b. SUGGESTED WELD METAL AND PROCESS FOR SHOP WELDING ARE: 60KSI WELD METAL STRENGTH (MINIMUM) - MIG.
   c. SUGGESTED METHODS FOR FIELD WELDING: 1/8 INCH E60XX (MINIMUM) ELECTRODE - SMAW.
   d. MINIMUM WELD THROAT THICKNESS (T) MUST MATCH OR EXCEED THE BASE STEEL THICKNESS OF THE THINNEST CONNECTED STEEL SHEET UNLESS NOTED OTHERWISE.
   e. AFTER WELDING ALL FLUX SHALL BE REMOVED, AND A ZINC-RICH PAINT, WITH A DRY FILM CONTAINING 94% ZINC DUST BY WEIGHT, SHALL BE APPLIED TO THE WELD AREA TO RESTORE CORROSION RESISTANCE.

## PART VIII - SUBMITTALS

A. SUBMITTAL LIST AND SCHEDULE

1. THE GENERAL CONTRACTOR SHALL PREPARE A DETAILED LIST AND SCHEDULE OF ALL SUBMITTAL ITEMS TO BE SENT TO THE STRUCTURAL ENGINEER PRIOR TO THE START OF CONSTRUCTION. THIS LIST SHALL BE UPDATED AND REVISED AND KEPT CURRENT AS THE JOB PROGRESSES. THE SUBMITTAL LIST SHALL BE ORGANIZED AS SHOWN BELOW:
   a. SHOP DRAWINGS
   b. DESIGN CALCULATIONS
   c. PRODUCT DATA, CERTIFICATES, REPORTS, AND OTHER LITERATURE

B. SUBMITTALS TO BE PROVIDED TO STRUCTURAL ENGINEER

1. STRUCTURAL SUBMITTALS: IN ADDITION TO THE SUBMITTALS REQUIRED BY THE STRUCTURAL SPECIFICATIONS, THE FOLLOWING SUBMITTALS SHALL BE PROVIDED:
   a. LAYOUT OF EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS.
   b. LAYOUT OF MECHANICAL, ELECTRICAL, AND PLUMBING OPENINGS IN ROOF.

2. DEFERRED SUBMITTALS:
   a. THE FOLLOWING ITEMS ARE CONSIDERED DEFERRED SUBMITTALS BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:
      1) COLD-FORMED METAL FRAMING (S&S, REC)
      2) EXTERIOR WINDOW WALL SYSTEM (S&S, REC)
      3) METAL FABRICATIONS, RAILINGS, AND GRATINGS (S&S)
      4) ROOF TOP EQUIPMENT AND ANCHORAGES (S&S)
      5) STRUCTURAL STEEL CONNECTIONS (S&S)
      6) WINDOW WASHING AND FALL ARREST SYSTEMS (S&S)
      7) UNISTRUT FRAMING FOR HANGING MEDICAL EQUIPMENT (S&S)

   NOTES:

   (S&S) ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.

   (REC) ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.

3. SUBMITTALS WITH IMPACT TO STRUCTURE:
   a. MECHANICAL EQUIPMENT WEIGHTS

4. SUBMITTAL REQUIREMENTS:
   a. ALL SHOP DRAWINGS MUST BE REVIEWED AND ELECTRONICALLY STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
   b. CONTRACTOR SHALL PROVIDE THE SUBMITTAL IN ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) PER THE SPECIFICATIONS.
   c. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.

C. REPRODUCTION

1. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

## PART IX - MISCELLANEOUS

A. CONTRACT DOCUMENTS

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.

2. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.

3. OPENINGS THROUGH FLOORS, ROOFS, AND WALLS FOR DUCTS, PIPING, AND/OR CONDUIT SHALL BE COORDINATED BY THE CONTRACTOR. CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF HOLES AND OPENINGS WITH THE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS AND THE RESPECTIVE SUBCONTRACTORS.

4. REFER TO DRAWINGS OTHER THAN STRUCTURAL FOR COMPLETE INFORMATION INCLUDING: TYPES OF FLOOR SLAB FINISHES AND THEIR LOCATIONS, FLOOR SLAB DEPRESSIONS AND CURBS, OPENINGS IN STRUCTURAL WALLS, ROOFS AND FLOORS REQUIRED BY ARCHITECTURAL AND MEP FEATURES, STAIRS, RAMPS, ETC.

5. WHERE MEMBER LOCATIONS ARE NOT SPECIFICALLY DIMENSIONED, MEMBERS ARE EITHER LOCATED ON COLUMNS LINES OR ARE EQUALLY SPACED BETWEEN LOCATED MEMBERS.

6. IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SHOWN OR SPECIFIED IN SIMILAR CONDITIONS.

B. DRAWING CONFLICTS

1. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

C. CONFLICTS IN STRUCTURAL REQUIREMENTS

1. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.

D. EXISTING CONDITIONS

1. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE EXISTING BUILDING AT THE JOB

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Drawn By: Author
Checked By: Checker
Approved By: Approver

# STRUCTURAL SYMBOLS AND NOTATIONS

## MATERIAL IDENTIFICATION SYMBOLS

THE FOLLOWING MATERIAL IDENTIFICATION SYMBOLS MAY BE USED IN THE SECTIONS AND DETAILS:

ALUMINUM | CAST-IN-PLACE CONCRETE | EARTH | EARTH (UNDISTURBED) | EXISTING CONSTRUCTION | GRAVEL | GROUT

MASONRY | POLYSTYRENE | RIGID INSULATION | ROCK | STEEL | STRUCTURAL PRECAST CONCRETE | WOOD

THE FOLLOWING MATERIAL IDENTIFICATION SYMBOLS MAY BE USED IN THE PLANS:

STEEL COLUMN | CONCRETE COLUMN | CONCRETE WALL | LOADBEARING MASONRY WALL | NON-LOADBEARING MASONRY WALL | STRUCTURAL PRECAST WALL | GRATING

EXISTING
BOUNDARY OF EXISTING CONSTRUCTION

DEMO W14x22
BOUNDARY OF EXISTING CONSTRUCTION TO BE DEMOLISHED

BOUNDARY OF FUTURE EXPANSION

BOUNDARY OF CONCRETE TOPPING SLAB POURED ON SUBSTRUCTURE

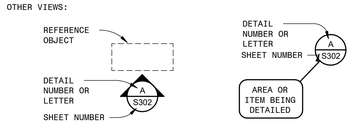
## SYMBOLIC LINEWORK

THE FOLLOWING SYMBOLIC LINEWORK MAY BE USED THROUGHOUT THE DRAWINGS:

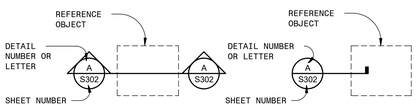
- REFERENCE GRID LINE SYMBOL
- CENTERLINE SYMBOL
- PLAN MATCHLINE SYMBOL
- NON-STRUCTURAL LINE SYMBOL
- WELDED WIRE REINFORCEMENT SYMBOL
- STEEL JOIST LINE SYMBOL
- OPENING LINE SYMBOL

## VIEW REFERENCE SYMBOLS

THESE FOLLOWING SYMBOLS MAY BE USED THROUGHOUT THE DRAWINGS TO REFER TO OTHER VIEWS:



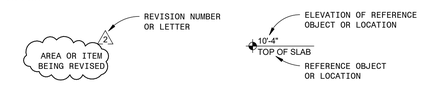

FRAMING ELEVATION SYMBOL | DETAIL REFERENCE SYMBOL




OVERALL SECTION SYMBOL | PARTIAL SECTION SYMBOL

## UNIVERSAL SYMBOLS

THESE FOLLOWING SYMBOLS MAY BE USED THROUGHOUT THE DRAWINGS:




REVISION CLOUD SYMBOL | ELEVATION DESIGNATION SYMBOL




REFERENCE GRID INDICATOR SYMBOL | WORK POINT SYMBOL

FLAT FACE BREAK MARK | CURVED FACE BREAK MARK | LINE BREAK MARK

## PLAN SYMBOLS

THE FOLLOWING SYMBOLS MAY BE USED THROUGHOUT THE PLANS.

SLOPE TRANSITION INDICATOR SYMBOL | RAMP SLOPE INDICATOR SYMBOL | SLOPE PITCH INDICATOR SYMBOL

SIZE OF STEP (IF PROVIDED) 6" — STEP INDICATOR SYMBOL

SIZE OF STEP (IF PROVIDED) 6" — STEP TO SLOPE INDICATOR SYMBOL

RIDGE INDICATOR SYMBOL

PROJECT NORTH ARROW SYMBOL | BORING LOCATION SYMBOL | KEYNOTE INDICATOR SYMBOL

S12 — SLAB OR DECK TYPE (IF PROVIDED) — ONE-WAY SLAB OR DECK SPAN INDICATOR SYMBOL

S12 — SLAB OR DECK TYPE (IF PROVIDED) — TWO-WAY SLAB SPAN INDICATOR SYMBOL

DEAD END — STRESSING END — POST-TENSIONING TENDON SYMBOLS

SMALL OPENINGS IN STRUCTURAL SLAB OR DECK

OPEN — LARGE OPENING IN STRUCTURAL SLAB OR DECK

REINFORCING STEEL WITH 90° HOOK | REINFORCING STEEL WITH 180° HOOK | CONCRETE FRAMING PENETRATION (FPx)

STEEL FRAMING PENETRATION (FPx) | FORCE (KIPS) 50 — PASS-THROUGH FORCE SYMBOL | BRACE/KICKER DIRECTION INDICATOR SYMBOL

50 — CONNECTION WITH PASS THROUGH FORCE | MOMENT CONNECTION (NON-SEISMIC) | EPx EPx — CONNECTION TO CONCRETE WITH EMBEDDED PLATE

CONNECTION WITH TWO COLUMNS OF BOLTS | CONNECTION WITH DOUBLE SHEAR PLATE | CONNECTION WITH FULL-DEPTH SHEAR PLATE

CONNECTION WITH GUSSET AND WELDED FLANGES | CONNECTION WITH GUSSET | SPECIAL CONNECTION (TYPE X)

CONNECTION WITH WELDED TOP FLANGE | BEAM SPLICE CONNECTION (SHEAR ONLY) | MOMENT CONNECTION (SEISMIC)

XXX-x
3,500# BELOW

- ROUGH OUTLINE OF UNIT
- UNIT NAME (IF PROVIDED)
- MAXIMUM TOTAL ALLOWABLE WEIGHT OF UNIT OR EQUIPMENT INCLUDING WEIGHT OF CURB
- IF PROVIDED, INDICATES UNIT IS HANGING BELOW FLOOR OR ROOF

MECHANICAL UNIT OR OTHER EQUIPMENT

## STRUCTURAL ELEMENTS TAGS

THE FOLLOWING STRUCTURAL ELEMENT TAGS, USED IN CONJUNCTION WITH SCHEDULES, MAY APPEAR ON THE DRAWINGS:

- Bxx DENOTES SLAB BOTTOM REINFORCEMENT TYPE "xx"
- BMxx DENOTES CONCRETE BEAM TYPE "xx"
- BPxx DENOTES BASE PLATE TYPE "xx"
- Cxx DENOTES COLUMN TYPE "xx"
- CFxx DENOTES CONTINUOUS FOOTING TYPE "xx"
- DPxx DENOTES DRILLED PIER TYPE "xx"
- EPxx DENOTES EMBEDDED PLATE TYPE "xx"
- Fxx DENOTES SPREAD FOOTING TYPE "xx"
- FPxx DENOTES FRAMING PENETRATION TYPE "xx"
- GBxx DENOTES GRADE BEAM TYPE "xx"
- MWxx DENOTES CMU WALL TYPE "xx"
- Pxx DENOTES PIER TYPE "xx"
- PCxx DENOTES PILE OR PIER CAP TYPE "xx"
- Sxx DENOTES ONE-WAY SLAB TYPE "xx"
- SRxx DENOTES HEADED SHEAR STUD REINFORCEMENT TYPE "xx"
- SFxx DENOTES STRIP FOOTING TYPE "xx"
- Txx DENOTES SLAB TOP REINFORCEMENT TYPE "xx"
- WFxx DENOTES WALL FOOTING TYPE "xx"

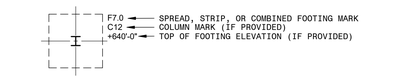
## ABBREVIATIONS

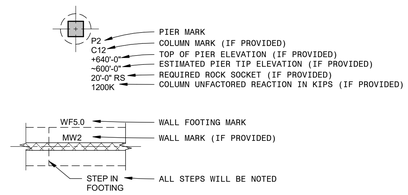
THE FOLLOWING ABBREVIATIONS MAY BE USED IN THE DRAWINGS:

| | | | |
|---|---|---|---|
| @ | AT | LLH | LONG LEG HORIZONTAL |
| & | AND | LLV | LONG LEG VERTICAL |
| # | NUMBER | LONG | LONGITUDINAL |
| Ø | ROUND, DIAMETER | LSH | LONG SIDE HORIZONTAL |
| ADDL | ADDITIONAL | LSLP | LONG-SLOTTED HOLE PARALLEL |
| AESS | ARCHITECTURAL EXPOSED STRUCTURAL STEEL | LSLT | LONG-SLOTTED HOLE TRANSVERSE |
| | | LSV | LONG SIDE VERTICAL |
| AFF | ABOVE FINISHED FLOOR | LWC | LIGHTWEIGHT CONCRETE |
| AHR | ANCHOR | M | MOMENT |
| AHU | AIR HANDLING UNIT | MAS | MASONRY |
| ALT | ALTERNATE | MAX | MAXIMUM |
| APPROX | APPROXIMATE | MC | MOMENT CONNECTION |
| AR | ANCHOR ROD | MECH | MECHANICAL |
| ARCH | ARCHITECTURAL | MEZZ | MEZZANINE |
| BC | BOTTOM OF COLUMN | MFR | MANUFACTURER |
| BF | BRACED FRAME | MH | HORIZONTAL MOMENT |
| BLDG | BUILDING | MIN | MINIMUM |
| BM | BEAM | MISC | MISCELLANEOUS |
| BO | BOTTOM OF | MTL | METAL |
| BOD | BOTTOM OF DECK | NF | NEAR FACE |
| BOT | BOTTOM | NIC | NOT IN CONTRACT |
| BRDG | BRIDGING | NS | NEAR SIDE |
| BRG | BEARING | NTS | NOT TO SCALE |
| BTWN | BETWEEN | NWC | NORMALWEIGHT CONCRETE |
| C | CAMBER | OC | ON CENTER |
| CANTIL | CANTILEVER | OD | OUTSIDE DIAMETER |
| CFSF | COLD-FORMED STEEL FRAMING | OPH | OPPOSITE HAND |
| CIP | CAST-IN-PLACE | OPNG | OPENING |
| CJ | CONSTRUCTION/CONTROL JOINT | OPP | OPPOSITE |
| CJP | COMPLETE JOINT PENETRATION | OVS | OVERSIZED HOLE |
| CL | CENTERLINE | P | AXIAL LOAD |
| CMU | CONCRETE MASONRY UNIT | PAF | POWDER ACTUATED FASTENER |
| COL | COLUMN | PAR | PARALLEL |
| CONC | CONCRETE | PCC | PRECAST CONCRETE |
| CONN | CONNECTION | PCF | POUNDS PER CUBIC FOOT |
| CONSTR | CONSTRUCTION | PCY | POUNDS PER CUBIC YARD |
| CONT | CONTINUOUS | PERP | PERPENDICULAR |
| COORD | COORDINATE | PL | PLATE |
| COV | COVER | PLF | POUNDS PER LINEAR FOOT |
| CPRS | COMPRESSIBLE | PJP | PARTIAL JOINT PENETRATION |
| CTRS | CENTERS | PRELIM | PRELIMINARY |
| db | BAR DIAMETER | PROP | PROPERTY |
| DBA | DEFORMED BAR ANCHOR | PSF | POUNDS PER SQUARE FOOT |
| DCW | DEMAND CRITICAL WELD | PSI | POUNDS PER SQUARE INCH |
| DET | DETAIL | PT | POST-TENSION(ED) |
| DIA | DIAMETER | QTY | QUANTITY |
| DIM | DIMENSION | R | REACTION |
| DWA | DEFORMED WIRE ANCHOR | RAD | RADIUS |
| DWG | DRAWING | REF | REFERENCE |
| EA | EACH | REINF | REINFORCEMENT |
| EF | EACH FACE | REM | REMAINDER |
| EJ | EXPANSION JOINT | REQD | REQUIRED |
| EL | ELEVATION | REV | REVISION |
| ELEV | ELEVATOR | RS | ROCK SOCKET |
| EMBED | EMBEDMENT, EMBEDDED | RTU | ROOF TOP UNIT |
| ENGR | ENGINEER | SC | SLIP CRITICAL |
| EQ | EQUAL | SCHED | SCHEDULE(D) |
| EQUIP | EQUIPMENT | SDS | SELF-DRILLING SCREW |
| EQUIV | EQUIVALENT | SECT | SECTION |
| EW | EACH WAY | SHT | SHEET |
| EXIST | EXISTING | SIM | SIMILAR |
| EXP | EXPANSION | SLBB | SHORT LEG BACK TO BACK |
| EXT | EXTERIOR | SLRS | SEISMIC LOAD RESISTING SYSTEM |
| FAB | FABRICATE | SOG | SLAB-ON-GRADE |
| f'c= | 28 DAY CONCRETE STRENGTH= | SPA | SPACING |
| f'm= | 28 DAY MASONRY STRENGTH= | SPEC | SPECIFICATION |
| FD | FLOOR DRAIN | SPRT | SUPPORT |
| FDTN | FOUNDATION | SQ | SQUARE |
| FF | FAR FACE | SS | STAINLESS STEEL |
| FIN | FINISH(ED) | SSLP | SHORT-SLOTTED HOLE PARALLEL |
| FLR | FLOOR | SSLT | SHORT-SLOTTED HOLE TRANSVERSE |
| FS | FAR SIDE | STD | STANDARD |
| FTG | FOOTING | STIF | STIFFENER |
| FUT | FUTURE | STIR | STIRRUP |
| FV | FIELD VERIFY | STL | STEEL |
| Fy= | YIELD STRENGTH= | STRUCT | STRUCTURE, STRUCTURAL |
| GALV | GALVANIZE(D) | SW | SHEAR WALL |
| GEN | GENERAL | SYMM | SYMMETRIC, SYMMETRICAL |
| GR | GRADE | T | TORSION |
| H | HORIZONTAL REACTION | TC | TOP OF COLUMN |
| HGR | HANGER | THD | THREADED |
| HORIZ | HORIZONTAL | TO | TOP OF |
| HSA | HEADED STUD ANCHOR | TOC | TOP OF CONCRETE |
| HSS | HOLLOW STRUCTURAL SECTION | TOM | TOP OF MASONRY |
| ID | INSIDE DIAMETER | TOS | TOP OF STEEL, TOP OF SLAB |
| INFO | INFORMATION | TRANS | TRANSVERSE |
| INT | INTERIOR | TYP | TYPICAL |
| JT | JOINT | UNO | UNLESS NOTED OTHERWISE |
| K | KIPS (1000 LBS) | VERT | VERTICAL |
| KSF | KIPS PER SQUARE FOOT | WF | WIDE FLANGE |
| KSI | KIPS PER SQUARE INCH | WP | WORK POINT |
| LBS | POUNDS | WS | WATERSTOP |
| Ld | DEVELOPMENT LENGTH | WT | WEIGHT |
| LLBB | LONG LEG BACK TO BACK | WWR | WELDED WIRE REINFORCEMENT |
| | | XS | EXTRA STRONG |
| | | XXS | DOUBLE EXTRA STRONG |

## FOUNDATION ANNOTATION STYLES

THE FOLLOWING STRUCTURAL ANNOTATIONS MAY APPEAR ON THE FOUNDATION PLANS:



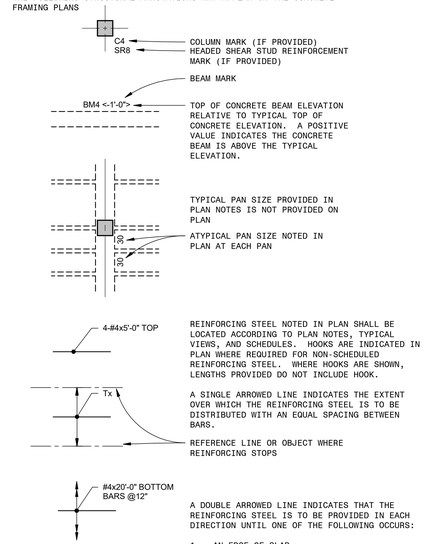



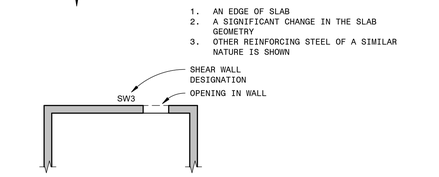


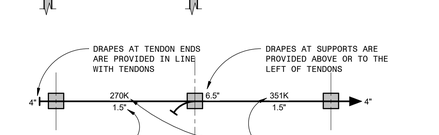


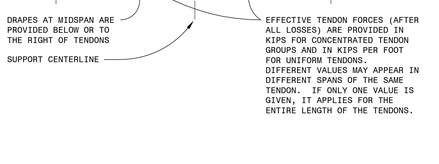
## CONCRETE ANNOTATION STYLES

THE FOLLOWING STRUCTURAL ANNOTATIONS MAY APPEAR ON THE CONCRETE FRAMING PLANS

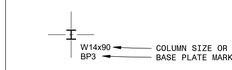


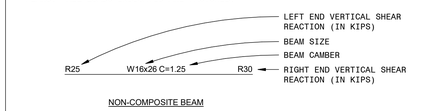



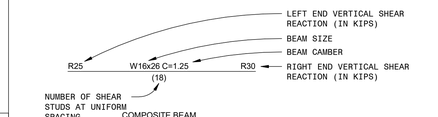

## STEEL ANNOTATION STYLES



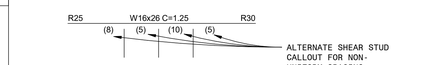

THE FOLLOWING STRUCTURAL ANNOTATIONS MAY APPEAR ON THE STEEL FRAMING PLANS. ALL LOADS INDICATED ARE FACTORED:



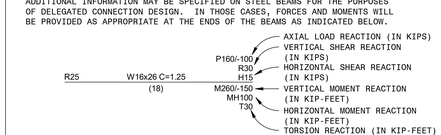

NON-COMPOSITE BEAM




COMPOSITE BEAM

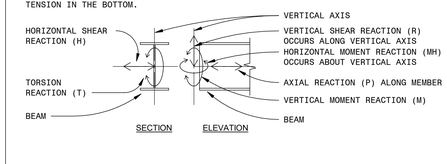



ADDITIONAL INFORMATION MAY BE SPECIFIED ON STEEL BEAMS FOR THE PURPOSES OF DELEGATED CONNECTION DESIGN. IN THOSE CASES, FORCES AND MOMENTS WILL BE PROVIDED AS APPROPRIATE AT THE ENDS OF THE BEAMS AS INDICATED BELOW.

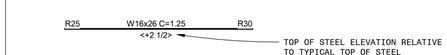


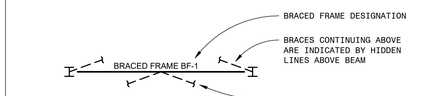

THE FOLLOWING DIAGRAM PROVIDES INFORMATION REGARDING THE ORIENTATION OF THE REACTIONS PROVIDED. THE DIAGRAM BELOW APPLIES TO ALL NON-SLOPING MEMBERS REGARDLESS OF THE INDIVIDUAL MEMBER ORIENTATION (FOR EXAMPLE, AN HSS ORIENTED LONG-SIDE HORIZONTAL). REFER TO DETAILS FOR ADDITIONAL INFORMATION ON LOADING OF SLOPED MEMBERS.

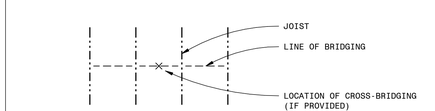
FOR ALL LOADING, REACTIONS ARE TO BE APPLIED AT THE CENTERLINE OF THE MEMBER AT THE WORK POINT, UNLESS NOTED OTHERWISE. IF ONLY A SINGLE VALUE IS SHOWN, THE LOAD SHALL BE ASSUMED TO ACT IN BOTH DIRECTIONS WITH EQUAL MAGNITUDE. FOR AXIAL LOAD REACTIONS, A POSITIVE VALUE INDICATES TENSION. FOR VERTICAL MOMENTS, A POSITIVE VALUE WILL CAUSE COMPRESSION IN THE TOP OF THE BEAM AND TENSION IN THE BOTTOM.

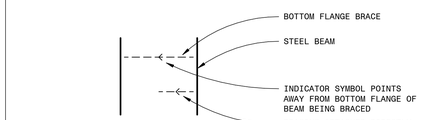



SECTION | ELEVATION

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TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES

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Revision

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STRUCTURAL SYMBOLS AND NOTATIONS

**S002**

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3/18/2019

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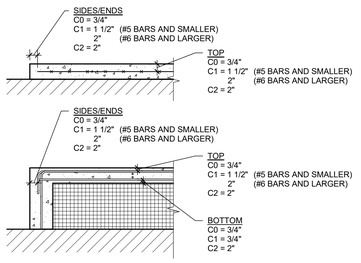
Checked By: Checker
Approved By: Approver




NOTES:
1. REFER TO "NOTES FOR TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL" FOR ADDITIONAL INFORMATION.

## 5 TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL IN TOPPING SLABS

NO SCALE

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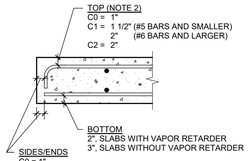


NOTES:
1. REFER TO "NOTES FOR TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL" FOR ADDITIONAL INFORMATION.
2. REFER TO "TYPICAL CONSTRUCTION AND CONTROL JOINTS IN SLAB-ON-GRADE" FOR MORE STRINGENT TOP COVER REQUIREMENTS FOR SLABS-ON-GRADE WITH CONSTRUCTION OR CONTROL JOINTS.

## 4 TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL IN SLABS-ON-GRADE

NO SCALE

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NOTES:
1. CONCRETE PROFILES AND REINFORCING STEEL CONFIGURATIONS ARE SCHEMATIC AND ARE PROVIDED FOR ESTABLISHING TYPICAL CLEAR CONCRETE COVERS ONLY. REFER TO STRUCTURAL PLANS AND DETAILS FOR ALL OTHER INFORMATION.
2. ALL COVERS SHOWN ARE CLEAR FROM THE OUTERMOST SURFACE OF REINFORCING STEEL TO THE CLOSEST OUTER SURFACE OF THE CONCRETE, INCLUDING REVEALS, DRIP GROOVES, OR RUSTICATIONS.
3. WHERE COVERS ARE DIFFERENT AS A FUNCTION OF BAR SIZE, DETAILER SHALL ADJUST LOCATION OF TRANSVERSE REINFORCING STEEL AS REQUIRED SUCH THAT CLEAR COVERS ARE MET FOR BOTH TRANSVERSE AND LONGITUDINAL STEEL.
4. C0, C1, AND C2 REFER TO THE CORROSION EXPOSURE CLASS OF THE CONCRETE ELEMENT. REFER TO THE CLASSES OF CONCRETE MATRIX AND GENERAL NOTES FOR ADDITIONAL INFORMATION.

## 3 NOTES FOR TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL

NO SCALE

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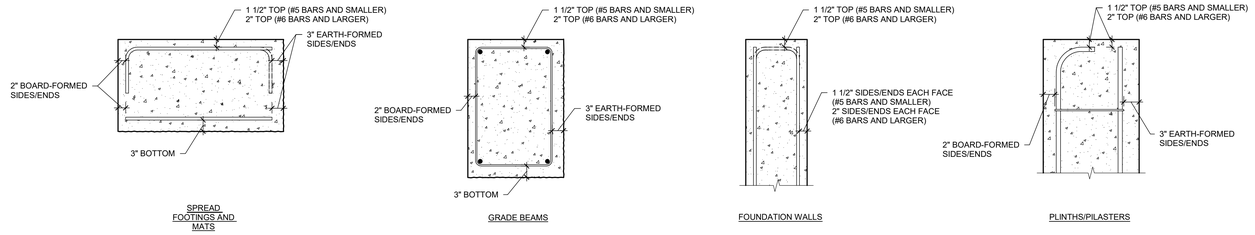
| CLASSES OF CONCRETE MATRIX | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| CONCRETE USAGE | MINIMUM COMPRESSIVE STRENGTH (f'c) | CONCRETE TYPE | EXPOSURE CLASSES | MAXIMUM W/CM RATIO | PERMISSIBLE AIR CONTENT | REQUIRED CEMENT REPLACEMENT | MAXIMUM AGGREGATE SIZE | ADDITIONAL REMARKS |
| SPREAD FOOTINGS | 4,000 PSI AT 28 DAYS | NWC | C1 | N/A | N/A | 0-50% | 1-1/2" | |
| SLABS-ON-GRADE | 4,000 PSI AT 28 DAYS | NWC | C1 | 0.45 | N/A | 0-50% | 1-1/2" | |

NOTES:
1. ALL CONCRETE SHALL BE CONSIDERED TO BE IN EXPOSURE CLASS F0, S0, P0, AND C0 ACCORDING TO ACI 318-14 UNLESS NOTED OTHERWISE IN TABLE ABOVE, IN NOTES BELOW, OR ELSEWHERE ON THE STRUCTURAL DRAWINGS.
2. CONCRETE NOTED ABOVE OR ON PLAN TO BE IN EXPOSURE CLASSES F1, F2, F3, S1, S2, S3, P1, C1, OR C2 SHALL BE PROPORTIONED TO COMPLY WITH ACI 318-14 TABLES 4.3.1, 4.4.1, AND 4.4.2 IN ADDITION TO THE NOTATIONS IN THE TABLE ABOVE AND THE STRICTER REQUIREMENTS SHALL GOVERN. REFER TO THE SPECIFICATIONS FOR OTHER REQUIREMENTS FOR VARIOUS EXPOSURE CLASSES RELATIVE TO CEMENT TYPE, AIR ENTRAINMENT REQUIREMENTS, CHLORIDE ION LIMITS, AND POZZOLAN LIMITS.

## 2 CLASSES OF CONCRETE MATRIX

NO SCALE




NOTES:
1. REFER TO "NOTES FOR TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL" FOR ADDITIONAL INFORMATION.
2. SIDE COVER FOR DEEP FOUNDATIONS CAST INSIDE OF PERMANENT STEEL CASING SHALL BE MEASURED FROM INSIDE FACE OF CASING.
3. FOR PRECAST ELEMENTS NOT MANUFACTURED UNDER PLANT CONDITIONS, COVERS NOTED FOR CAST-IN-PLACE ELEMENTS SHALL BE USED.

## 8 TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL IN FOUNDATION ELEMENTS

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CLASSES OF CONCRETE AND CONCRETE COVERS

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## WALL VERTICAL BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE

| BAR SIZE | LAP CLASS | f'c = 3000 PSI | | f'c = 4000 PSI | | f'c = 5000 PSI | | f'c = 6000 PSI | | f'c = 7000 PSI | | f'c = 8000 PSI | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CATEGORY 1 | CATEGORY 2 | CATEGORY 1 | CATEGORY 2 | CATEGORY 1 | CATEGORY 2 | CATEGORY 1 | CATEGORY 2 | CATEGORY 1 | CATEGORY 2 | CATEGORY 1 | CATEGORY 2 |
| #4 | A | 17 | 17 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| | B | 22 | 22 | 19 | 19 | 17 | 17 | 16 | 16 | 15 | 15 | 15 | 15 |
| #5 | A | 21 | 25 | 19 | 21 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| | B | 27 | 32 | 24 | 28 | 21 | 25 | 19 | 23 | 19 | 21 | 19 | 20 |
| #6 | A | 25 | 33 | 23 | 29 | 23 | 26 | 23 | 24 | 23 | 23 | 23 | 23 |
| | B | 33 | 43 | 28 | 37 | 25 | 34 | 23 | 31 | 23 | 28 | 23 | 27 |
| #7 | A | 41 | 48 | 35 | 42 | 32 | 38 | 29 | 34 | 27 | 32 | 27 | 30 |
| | B | 53 | 63 | 46 | 54 | 41 | 49 | 38 | 45 | 35 | 41 | 33 | 39 |
| #8 | A | 51 | 55 | 44 | 48 | 40 | 43 | 36 | 39 | 34 | 36 | 31 | 34 |
| | B | 66 | 72 | 57 | 62 | 51 | 56 | 47 | 51 | 44 | 47 | 41 | 44 |
| #9 | A | 62 | 62 | 54 | 54 | 48 | 48 | 44 | 44 | 41 | 41 | 38 | 38 |
| | B | 81 | 81 | 70 | 70 | 63 | 63 | 57 | 57 | 53 | 53 | 50 | 50 |
| #10 | A | 71 | 71 | 61 | 61 | 55 | 55 | 50 | 50 | 47 | 47 | 44 | 44 |
| | B | 92 | 92 | 80 | 80 | 71 | 71 | 65 | 65 | 60 | 60 | 56 | 56 |
| #11 | A | 84 | 84 | 73 | 73 | 65 | 65 | 60 | 60 | 55 | 55 | 52 | 52 |
| | B | 109 | 109 | 95 | 95 | 85 | 85 | 77 | 77 | 72 | 72 | 67 | 67 |

NOTES:
1. ALL SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR WALL VERTICAL BARS ONLY. REFER TO OTHER DEVELOPMENT LENGTH TABLES FOR WALL HORIZONTAL BARS AND OTHER MEMBERS.
3. THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO THE SCHEDULED "CLASS A" LAP SPLICE LENGTH.
4. FOR DETERMINING THE BAR CATEGORY, "db" IS DEFINED AS THE DIAMETER OF THE LARGER BAR BEING SPLICED.
5. THE "CATEGORY 1" LAP LENGTH SHALL BE USED WHEN THE CLEAR SPACING BETWEEN BARS AT THE SPLICE IS EQUAL TO OR GREATER THAN 3db.
6. THE "CATEGORY 2" LAP LENGTH SHALL BE USED WHEN THE CLEAR SPACING BETWEEN BARS AT THE SPLICE IS LESS THAN 3db AND GREATER THAN 2db.
7. WHEN THE CLEAR SPACING BETWEEN BARS AT THE SPLICE IS EQUAL TO OR LESS THAN 2db, SPLICES SHALL BE STAGGERED SO THAT NO MORE THAN 50% OF BARS ARE SPLICED AT ANY GIVEN LOCATION. REFER TO "TYPICAL CLEAR SPACING CRITERIA OF LAP SPLICED BARS, STAGGERED SPLICES" FOR CRITERIA TO DETERMINE CLEAR SPACING "S" FOR BARS AT STAGGERED SPLICES.
8. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED SPLICE LENGTHS BY 1.5.
9. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.
10. FOR CONCRETE STRENGTHS IN BETWEEN THOSE TABULATED HERE, USE DEVELOPMENT AND LAP SPLICE LENGTHS OF LOWER CONCRETE STRENGTH.

## WALL HORIZONTAL BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE

| BAR SIZE | LAP CLASS | f'c = 3000 PSI | f'c = 4000 PSI | f'c = 5000 PSI | f'c = 6000 PSI | f'c = 7000 PSI | f'c = 8000 PSI |
|---|---|---|---|---|---|---|---|
| #3 | A | 13 | 12 | 12 | 12 | 12 | 12 |
| | B | 17 | 16 | 16 | 16 | 16 | 16 |
| #4 | A | 22 | 19 | 17 | 16 | 14 | 14 |
| | B | 29 | 25 | 23 | 21 | 19 | 19 |
| #5 | A | 32 | 28 | 25 | 23 | 21 | 20 |
| | B | 42 | 37 | 33 | 30 | 28 | 26 |
| #6 | A | 43 | 37 | 34 | 31 | 28 | 27 |
| | B | 56 | 49 | 45 | 41 | 37 | 36 |
| #7 | A | 69 | 60 | 54 | 49 | 46 | 43 |
| | B | 90 | 78 | 71 | 64 | 60 | 56 |
| #8 | A | 86 | 74 | 67 | 61 | 56 | 53 |
| | B | 112 | 97 | 88 | 80 | 73 | 69 |
| #9 | A | 104 | 90 | 81 | 74 | 68 | 64 |
| | B | 136 | 117 | 106 | 97 | 89 | 84 |
| #10 | A | 125 | 108 | 97 | 88 | 82 | 77 |
| | B | 163 | 141 | 127 | 115 | 107 | 101 |
| #11 | A | 146 | 127 | 114 | 104 | 96 | 90 |
| | B | 190 | 166 | 149 | 136 | 125 | 117 |

NOTES:
1. ALL SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR WALL HORIZONTAL BARS ONLY. REFER TO OTHER DEVELOPMENT LENGTH TABLES FOR WALL VERTICAL BARS AND OTHER MEMBERS.
3. THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO THE SCHEDULED "CLASS A" LAP SPLICE LENGTH.
4. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED SPLICE LENGTHS BY 1.3.
5. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.
6. FOR CONCRETE STRENGTHS IN BETWEEN THOSE TABULATED HERE, USE DEVELOPMENT AND LAP SPLICE LENGTHS OF LOWER CONCRETE STRENGTH.

## DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION

GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE

| BAR SIZE | f'c=3000 PSI | | f'c=4000 PSI | | f'c=5000 PSI | | f'c=6000 PSI | | f'c=7000 PSI | | f'c=8000 PSI | | BAR SIZE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Lhb | 0.7 Lhb | Lhb | 0.7 Lhb | Lhb | 0.7 Lhb | Lhb | 0.7 Lhb | Lhb | 0.7 Lhb | Lhb | 0.7 Lhb | |
| #3 | 9 | 7 | 8 | 6 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | #3 |
| #4 | 11 | 8 | 10 | 7 | 9 | 7 | 8 | 6 | 8 | 6 | 7 | 6 | #4 |
| #5 | 14 | 10 | 12 | 9 | 11 | 8 | 10 | 7 | 9 | 7 | 9 | 7 | #5 |
| #6 | 17 | 12 | 15 | 11 | 13 | 10 | 12 | 9 | 11 | 8 | 11 | 8 | #6 |
| #7 | 20 | 14 | 17 | 12 | 15 | 11 | 14 | 10 | 13 | 10 | 12 | 9 | #7 |
| #8 | 22 | 16 | 19 | 14 | 17 | 12 | 16 | 12 | 15 | 11 | 14 | 10 | #8 |
| #9 | 25 | 18 | 22 | 16 | 20 | 14 | 18 | 13 | 17 | 12 | 16 | 12 | #9 |
| #10 | 28 | 20 | 25 | 18 | 22 | 16 | 20 | 14 | 19 | 14 | 18 | 13 | #10 |
| #11 | 31 | 22 | 27 | 19 | 24 | 17 | 22 | 16 | 21 | 15 | 19 | 14 | #11 |
| #14 | 38 | - | 33 | - | 29 | - | 27 | - | 25 | - | 23 | - | #14 |
| #18 | 50 | - | 43 | - | 39 | - | 35 | - | 33 | - | 31 | - | #18 |




NOTES:
1. Ldh = DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (INCHES).
2. Ldh = Lhb UNLESS CONDITIONS OF NOTE 3 ARE SATISFIED.
3. Ldh = 0.7Lhb FOR #11 BARS AND SMALLER WHEN SIDE COVER (NORMAL TO PLANE OF HOOK) IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOKS COVER ON BAR EXTENSION BEYOND HOOK IS NOT LESS THAN 2 INCHES.
4. HOOKS ARE NOT CONSIDERED EFFECTIVE FOR DEVELOPING BARS IN COMPRESSION.
5. Ldh SHALL BE MULTIPLIED BY 1.2 FOR EPOXY-COATED HOOKED REINFORCING BARS.

## 5 TYPICAL WALL VERTICAL BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

NO SCALE

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## 3 TYPICAL WALL HORIZONTAL BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

NO SCALE

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## 1 TYPICAL DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION

NO SCALE

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## CMU WALL, PILASTER, AND COLUMN VERTICAL BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

GRADE 60 REINFORCEMENT, STANDARD BLOCK (f'm = 1500 PSI)

| BAR SIZE | 4" CMU | 6" CMU | | 8" CMU | | 10" CMU | | 12" CMU | |
|---|---|---|---|---|---|---|---|---|---|
| | 1 BAR /CELL | 1 BAR /CELL | 2 BARS /CELL | 1 BAR /CELL | 2 BARS /CELL | 1 BAR /CELL | 2 BARS /CELL | 1 BAR /CELL | 2 BARS /CELL |
| #3 | 19 | 16 | 19 | 16 | 17 | 16 | 17 | 16 | 17 |
| #4 | 34 | 25 | 34 | 21 | 29 | 21 | 29 | 21 | 29 |
| #5 | NP | 40 | 45 | 27 | 45 | 26 | 45 | 26 | 45 |
| #6 | NP | NP | NP | 41 | 54 | 32 | 54 | 32 | 54 |
| #7 | NP | NP | NP | 56 | 63 | 42 | 63 | 37 | 63 |
| #8 | NP | NP | NP | 72 | NP | 64 | 72 | 51 | 72 |
| #9 | NP | NP | NP | NP | NP | NP | NP | 65 | 81 |
| #10 | NP | NP | NP | NP | NP | NP | NP | NP | NP |
| #11 | NP | NP | NP | NP | NP | NP | NP | NP | NP |

NP = NOT PERMITTED

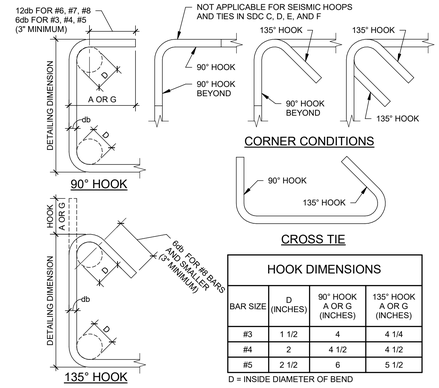
NOTES:
1. ALL DEVELOPMENT AND LAP SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR ALL REINFORCED CMU WALLS, PILASTERS, AND COLUMNS UNLESS NOTED OTHERWISE IN DETAILS.
3. INCREASE TABULATED VALUES BY 50% FOR EPOXY COATED REINFORCEMENT.
4. WITH APPROVAL BY THE ENGINEER, WELDED SPLICES AND MECHANICAL SPLICES DEVELOPING AT LEAST 125% OF THE YIELD STRENGTH, Fy, OF THE BAR MAY BE SUBSTITUTED IN SOME LOCATIONS.
5. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR.
6. REFER "TYPICAL CMU VERTICAL BAR PLACEMENT" FOR BAR POSITIONING IN CELLS.

## SLAB TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE

| BAR SIZE | LAP CLASS | f'c = 3000 PSI | | f'c = 4000 PSI | | f'c = 5000 PSI | | f'c = 6000 PSI | | f'c = 7000 PSI | | f'c = 8000 PSI | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BOTTOM BARS | OTHER BARS | BOTTOM BARS | OTHER BARS | BOTTOM BARS | OTHER BARS | BOTTOM BARS | OTHER BARS | BOTTOM BARS | OTHER BARS | BOTTOM BARS | OTHER BARS |
| #3 | A | 12 | 13 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| | B | 16 | 17 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| #4 | A | 17 | 22 | 15 | 19 | 13 | 17 | 12 | 16 | 12 | 14 | 12 | 14 |
| | B | 23 | 29 | 20 | 25 | 17 | 23 | 16 | 21 | 16 | 19 | 16 | 19 |
| #5 | A | 25 | 32 | 21 | 28 | 19 | 25 | 18 | 23 | 16 | 21 | 15 | 20 |
| | B | 33 | 42 | 28 | 37 | 25 | 33 | 24 | 30 | 21 | 28 | 20 | 26 |
| #6 | A | 33 | 43 | 29 | 37 | 26 | 34 | 24 | 31 | 22 | 28 | 21 | 27 |
| | B | 43 | 56 | 38 | 49 | 34 | 45 | 32 | 41 | 29 | 37 | 28 | 36 |
| #7 | A | 53 | 69 | 46 | 60 | 42 | 54 | 38 | 49 | 35 | 46 | 33 | 43 |
| | B | 69 | 90 | 60 | 78 | 55 | 71 | 50 | 64 | 46 | 60 | 43 | 56 |
| #8 | A | 66 | 86 | 57 | 74 | 51 | 67 | 47 | 61 | 44 | 56 | 41 | 53 |
| | B | 86 | 112 | 75 | 97 | 67 | 88 | 62 | 80 | 58 | 73 | 54 | 69 |
| #9 | A | 80 | 104 | 69 | 90 | 62 | 81 | 57 | 74 | 53 | 68 | 49 | 64 |
| | B | 104 | 136 | 90 | 117 | 81 | 106 | 75 | 97 | 69 | 89 | 64 | 84 |
| #10 | A | 96 | 125 | 83 | 108 | 75 | 97 | 68 | 88 | 63 | 82 | 59 | 77 |
| | B | 125 | 163 | 108 | 141 | 98 | 127 | 89 | 115 | 82 | 107 | 77 | 101 |
| #11 | A | 113 | 146 | 98 | 127 | 87 | 114 | 80 | 104 | 74 | 96 | 69 | 90 |
| | B | 147 | 190 | 128 | 166 | 114 | 149 | 104 | 136 | 97 | 125 | 90 | 117 |

NOTES:
1. ALL SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR SLABS ONLY. REFER TO OTHER DEVELOPMENT LENGTH TABLES FOR OTHER MEMBERS.
3. THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO THE SCHEDULED "CLASS A" LAP SPLICE LENGTH.
4. A BOTTOM BAR IS DEFINED AS ANY BAR THAT DOES NOT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
5. OTHER BARS INCLUDE TOP BARS AND ALL OTHER BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR. FOR TOP REINFORCEMENT IN SLABS THAT ARE 12" THICK OR LESS, TABULATED SPLICE LENGTHS FOR BOTTOM BARS SHALL BE USED.
6. FOR EPOXY-COATED BARS, MULTIPLY THE TABULATED SPLICE LENGTHS OF BOTTOM BARS BY 1.5 AND THE TABULATED SPLICE LENGTHS OF OTHER BARS BY 1.3.
7. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.
8. FOR CONCRETE STRENGTHS IN BETWEEN THOSE TABULATED HERE, USE DEVELOPMENT AND LAP SPLICE LENGTHS OF LOWER CONCRETE STRENGTH.




HOOK DIMENSIONS

| BAR SIZE | D (INCHES) | 90° HOOK A OR G (INCHES) | 135° HOOK A OR G (INCHES) |
|---|---|---|---|
| #3 | 1 1/2 | 4 | 4 1/4 |
| #4 | 2 | 4 1/2 | 4 1/2 |
| #5 | 2 1/2 | 6 | 5 1/2 |

D = INSIDE DIAMETER OF BEND

## 9 TYPICAL CMU VERTICAL BAR TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

NO SCALE

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## 8 TYPICAL SLAB TENSION DEVELOPMENT AND LAP SPLICE LENGTHS

NO SCALE

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## 6 TYPICAL STIRRUP, HOOP, AND TIE HOOKS

NO SCALE

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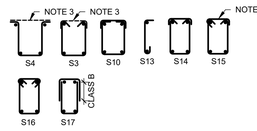
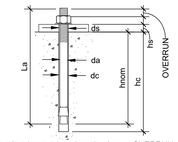
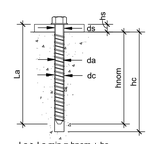



NOTES:
1. ALL HOOKS SHALL BE FABRICATED AS REQUIRED BY ACI. REFER TO "TYPICAL STIRRUP AND TIE HOOK TYPES."
2. THE TOP CAP FOR CLOSED STIRRUPS S15 SHALL BE PLACED SUCH THAT THE 90-DEGREE HOOK IS:
   a) CONFINED BY THE SLAB AT PERIMETER CONDITIONS (SLAB ON ONE SIDE ONLY), AND
   b) ON ALTERNATE SIDES AT ADJACENT HOOPS IN INTERIOR CONDITIONS (SLAB ON BOTH SIDES).
3. PROVIDE TOP CAP FOR OPEN STIRRUPS S3, S4, S21, S22, AND S29 TO MATCH SCHEDULED STIRRUP SIZE @48".



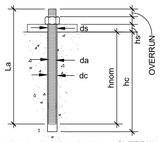

La ≥ La,min = hnom + hs + hwash + hnut + OVERRUN

EXPANSION AND UNDERCUT




La ≥ La,min = hnom + hs

SCREW




La ≥ La,min = hnom + hs + hwash + hnut + OVERRUN

ADHESIVE

ANCHOR SIZE FOR ORDER: "da" DIAMETER x "La" ANCHOR LENGTH
DRILLED HOLE: "dc" DIAMETER x "hc" DEEP

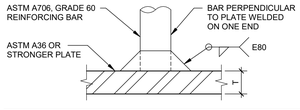
DEFINITIONS:

da = DIAMETER OF ANCHOR (IN)
dc = DIAMETER OF HOLE IN CONCRETE = DIAMETER OF DRILL BIT (IN)
ds = DIAMETER OF HOLE IN STEEL ATTACHMENT (IN)

La,min = MINIMUM LENGTH OF ANCHOR (IN)
La = ORDERED LENGTH OF ANCHOR (IN)

hnom = NOMINAL EMBEDMENT DEPTH (IN)
hc = DEPTH OF HOLE IN CONCRETE (IN)
hs = THICKNESS OF STEEL ATTACHMENT (IN)
hwash = THICKNESS OF WASHER (IN)
hnut = HEIGHT OF HEX NUT (IN)
OVERRUN =1/4" UNLESS NOTED OTHERWISE

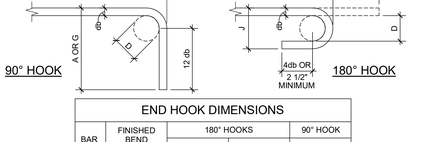
CONTRACTOR AND INSTALLER NOTES:
1. ONLY POST-INSTALLED ANCHOR PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE USED WHERE SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL PROVIDE SIGNED AND SEALED CALCULATIONS TO THE ENGINEER OF RECORD (EOR) FOR ANCHOR PRODUCTS SUBSTITUTED FOR THOSE INDICATED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE EOR PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN ANCHORS AND REINFORCEMENT.
2. ANCHOR LENGTHS SPECIFIED IN THE CONTRACT DOCUMENTS INDICATE THE *NOMINAL EMBEDMENT DEPTH*. REFER TO THE ANCHOR TYPE FOR THE DEFINITION OF NOMINAL EMBEDMENT DEPTH "hnom". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE CORRECT ANCHOR LENGTH "La" FOR ORDER BASED ON THE SPECIFIED NOMINAL EMBEDMENT DEPTH, ATTACHMENT THICKNESS AND OTHER ANCHOR CHARACTERISTICS NOTED.
3. MINIMUM ANCHOR LENGTH "La,min" IS DETERMINED AS SHOWN FOR EACH ANCHOR. ORDER AND INSTALL AN ANCHOR LENGTH EQUAL TO OR GREATER THAN THIS VALUE. INSTALLED ANCHOR LENGTHS SHALL NOT HAVE NOMINAL EMBEDMENT DEPTHS THAT EXCEED THEIR CORRESPONDING MINIMUM CONCRETE THICKNESS LIMITS. REFER TO ANCHOR'S ICC-ES EVALUATION SERVICE REPORT (ESR).
4. REFER TO THE ANCHOR'S ICC-ES EVALUATION SERVICE REPORT (ESR) FOR DRILL BIT TYPE AND DIAMETER, AND DEPTH OF HOLE TO BE DRILLED IN THE CONCRETE.
5. FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).
6. ALL DRILLED HOLES FOR ADHESIVE ANCHORS SHALL BE WITHIN SIX DEGREES OF PERPENDICULAR TO THE SURFACE OF THE CONCRETE MEMBER.




DEVELOPMENT OF WELDABLE REINFORCEMENT

GRADE 60 REINFORCEMENT, E80 ELECTRODE

| BAR SIZE | NOMINAL WELD SIZE (INCHES) | MINIMUM PLATE THICKNESS, T (INCHES) |
|---|---|---|
| #3 | 3/16 | 1/4 |
| #4 | 1/4 | 1/4 |
| #5 | 5/16 | 5/16 |
| #6 | 5/16 | 7/16 |
| #7 | 3/8 | 1/2 |
| #8 | 7/16 | 9/16 |
| #9 | 1/2 | 5/8 |
| #10 | 9/16 | 11/16 |
| #11 | 5/8 | 3/4 |




END HOOK DIMENSIONS

| BAR SIZE | FINISHED BEND DIAMETER D, (INCHES) | 180° HOOKS | | 90° HOOK |
|---|---|---|---|---|
| | | A OR G, (INCHES) | J, (INCHES) | A OR G, (INCHES) |
| #3 | 2 1/4 | 5 | 3 | 6 |
| #4 | 3 | 6 | 4 | 8 |
| #5 | 3 3/4 | 7 | 5 | 10 |
| #6 | 4 1/2 | 8 | 6 | 12 |
| #7 | 5 1/4 | 10 | 7 | 14 |
| #8 | 6 | 11 | 8 | 16 |
| #9 | 9 1/2 | 15 | 11 3/4 | 19 |
| #10 | 10 3/4 | 17 | 13 1/4 | 22 |
| #11 | 12 | 19 | 14 3/4 | 24 |
| #14 | 18 1/4 | 27 | 21 3/4 | 31 |
| #18 | 24 | 36 | 28 1/2 | 41 |

D = INSIDE DIAMETER OF BEND

## 15 TYPICAL STIRRUP TYPES

NO SCALE

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## 14 TYPICAL POST-INSTALLED ANCHOR INFORMATION

NO SCALE

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## 12 TYPICAL DEVELOPMENT OF WELDABLE REINFORCEMENT

NO SCALE

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## 11 TYPICAL END HOOK TYPES

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PROJECT NO. S05-18065-00

ROBERT S. MOHRLAND P.E. NO. 62851

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES

ORLANDO HEALTH®

Orlando Health Imaging Center
1800 S Orange Avenue
Orlando, Florida 32806

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DEVELOPMENT - LAP SPLICE LENGTHS AND REINFORCEMENT DETAILS

**S004**

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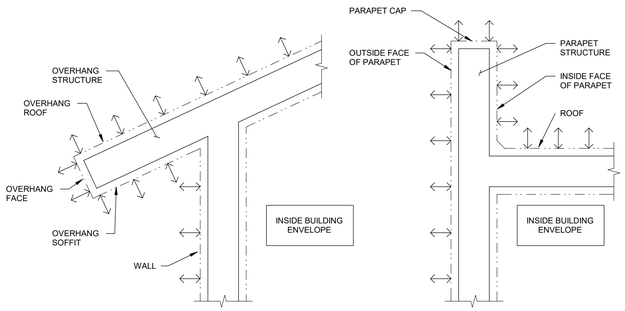



OVERHANG PARAPET

NOTES:
1. REFER TO LOADING DIAGRAMS FOR LOCATION OF EACH CLADDING TYPE.
2. FOR EACH OF THE SPECIFIED OVERHANG CLADDING ELEMENTS, USE THE FOLLOWING VALUES FROM THE TABLES IN 1/S005 :
   a. OVERHANG SOFFIT CLADDING - USE INTERIOR OR EDGE WALL PRESSURES.
   b. OVERHANG FACE CLADDING - USE EDGE OR CORNER ROOF PRESSURES.
   c. OVERHANG ROOF CLADDING - USE INTERIOR, EDGE, OR CORNER ROOF PRESSURES.
   d. OVERHANG STRUCTURE (SUPPORTING BOTH SOFFIT AND ROOF COMPONENTS)
      1) POSITIVE (DOWNWARD) PRESSURE = [POSITIVE ROOF PRESSURE + (-NEGATIVE WALL PRESSURE)]
      2) NEGATIVE (UPWARD) PRESSURE = [-(NEGATIVE ROOF PRESSURE) + POSITIVE WALL PRESSURE]
3. FOR EACH OF THE SPECIFIED PARAPET CLADDING ELEMENTS, USE THE FOLLOWING VALUES FROM THE TABLES IN 1/S005 :
   a. PARAPET OUTSIDE FACE CLADDING - USE INTERIOR OR EDGE WALL PRESSURES.
   b. PARAPET INSIDE FACE CLADDING - USE THE EDGE OR CORNER ROOF PRESSURES.
   c. PARAPET CAP CLADDING - USE THE EDGE OR CORNER ROOF PRESSURES.
   d. PARAPET STRUCTURE (SUPPORTING BOTH FACES OF THE PARAPET) - USE THE TABULATED PARAPET PRESSURES.
4. THE LOADING DIAGRAMS INDICATED ARE SCHEMATIC IN NATURE ONLY AND ARE NOT INTENDED TO PROVIDE CONSTRUCTION-RELATED INFORMATION. REFER TO DETAILS FOR INFORMATION REGARDING STRUCTURAL FRAMING AND CONNECTIONS.

## 2 APPLICATION OF WIND PRESSURE FOR PARAPETS AND OVERHANGS
NO SCALE

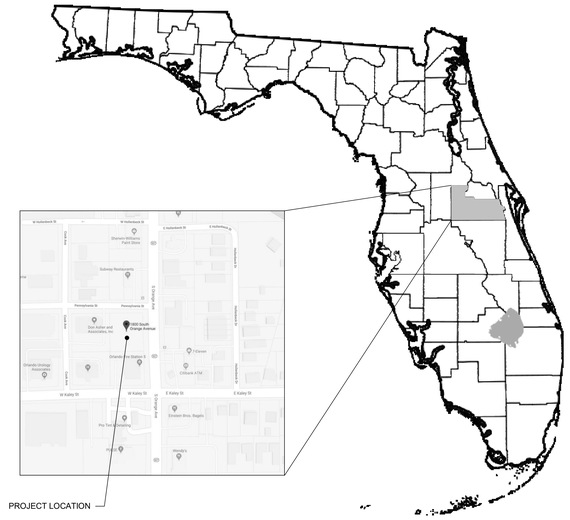
**WALL CLADDING PRESSURES**

| CLADDING TYPE | LOCATION | EFFECTIVE AREA (SF) | POSITIVE PRESSURE (PSF) | NEGATIVE PRESSURE (PSF) |
|---|---|---|---|---|
| WALL | INTERIOR (WI) | 10 | 40 | -44 |
| | | 20 | 39 | -42 |
| | | 50 | 36 | -40 |
| | | 100 | 35 | -38 |
| | | 500 | 30 | -34 |
| WALL | EDGE (WE) | 10 | 40 | -54 |
| | | 20 | 39 | -50 |
| | | 50 | 36 | -45 |
| | | 100 | 35 | -42 |
| | | 500 | 30 | -34 |
| PARAPET | INTERIOR (PI) | 10 | 103 | -72 |
| | | 20 | 93 | -69 |
| | | 50 | 80 | -64 |
| | | 100 | 70 | -60 |
| | | 500 | 66 | -52 |
| PARAPET | EDGE (PARAPET<3FT) (PE) | 10 | 141 | -83 |
| | | 20 | 120 | -77 |
| | | 50 | 92 | -70 |
| | | 100 | 70 | -64 |
| | | 500 | 66 | -52 |

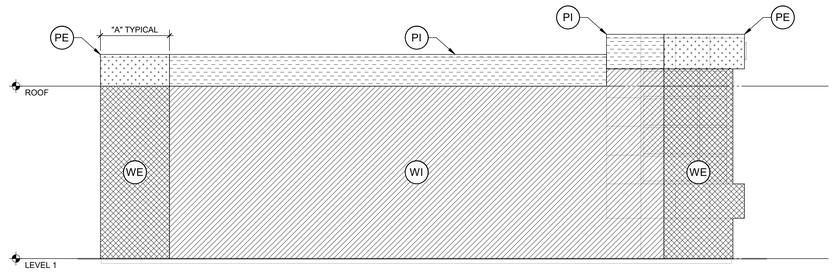
TABULATED WIND PRESSURE NOTES:
1. WIDTH OF EDGE OR CORNER ZONE, "A" = 6'-0".
2. PRESSURES ACT NORMAL TO THE CLADDING SURFACE. POSITIVE PRESSURES ACT TOWARDS THE SURFACE AND NEGATIVE PRESSURES ACT AWAY FROM THE SURFACE.
3. DESIGN PRESSURE SHALL NOT BE LESS THAN 16 PSF, ACTING IN EITHER DIRECTION NORMAL TO THE SURFACE.
4. THE EFFECTIVE WIND AREA IS THE SPAN LENGTH MULTIPLIED BY AN EFFECTIVE WIDTH THAT NEED NOT BE LESS THAN ONE-THIRD THE SPAN LENGTH. FOR CLADDING FASTENERS, THE EFFECTIVE WIND AREA SHALL NOT BE GREATER THAN THE AREA THAT IS TRIBUTARY TO AN INDIVIDUAL FASTENER.
5. TABULATED PARAPET STRUCTURE PRESSURES INCLUDE THE PRESSURE FROM BOTH EXPOSED SURFACES OF THE ELEMENT. REFER TO DETAIL 2/S005 TO DETERMINE THE APPROPRIATE PRESSURE TO BE APPLIED TO THE INDIVIDUAL SURFACES.
6. FOR ROOF CORNER ZONES WITH PARAPETS AT LEAST 3 FEET HIGH ON BOTH SIDES, EDGE ZONE PRESSURES MAY BE USED.
7. THE DESGIN PRESSURES LISTED ARE ULTIMATE DESIGN PRESSURES AS DETERMINED BY ASCE 7-10, TO OBTAIN SERVICE LEVEL PRESSURES, USE THE ALLOWABLE STRESS DESIGN BASIC LOAD COMBINATIONS IN ASCE 7-10, SECTION 2.4.1, WHICH MULTIPLY TABULATED ULTIMATE WIND PRESSURES BY A FACTOR OF 0.6.

**ROOF CLADDING PRESSURES**

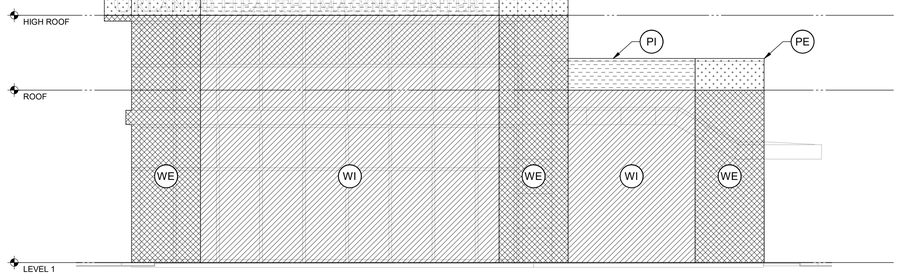
| CLADDING TYPE | LOCATION | EFFECTIVE AREA (SF) | POSITIVE PRESSURE (PSF) | NEGATIVE PRESSURE (PSF) |
|---|---|---|---|---|
| ROOF | INTERIOR (RI) | 10 | 18 | -44 |
| | | 20 | 17 | -43 |
| | | 50 | 16 | -42 |
| | | 100 | 16 | -40 |
| | | 500 | 16 | -40 |
| ROOF | EDGE (PARAPET<3FT) (RE) | 10 | 18 | -74 |
| | | 20 | 17 | -66 |
| | | 50 | 16 | -56 |
| | | 100 | 16 | -48 |
| | | 500 | 16 | -48 |
| ROOF | CORNER (PARAPET<3FT) (RC) | 10 | 18 | -111 |
| | | 20 | 17 | -92 |
| | | 50 | 16 | -67 |
| | | 100 | 16 | -48 |
| | | 500 | 16 | -48 |
| OVERHANG | INTERIOR (OI) | 10 | 16 | -70 |
| | | 20 | 16 | -69 |
| | | 50 | 16 | -67 |
| | | 100 | 16 | -66 |
| | | 500 | 16 | -48 |
| OVERHANG | EDGE (PARAPET<3FT) (OE) | 10 | 16 | -70 |
| | | 20 | 16 | -69 |
| | | 50 | 16 | -67 |
| | | 100 | 16 | -66 |
| | | 500 | 16 | -48 |
| OVERHANG | CORNER (PARAPET<3FT) (OC) | 10 | 16 | -111 |
| | | 20 | 16 | -88 |
| | | 50 | 16 | -59 |
| | | 100 | 16 | -37 |
| | | 500 | 16 | -37 |
| ROOFTOP EQUIPMENT (h<60FT) | LATERAL | - | 71 | -71 |
| ROOFTOP EQUIPMENT (h<60FT) | UPLIFT | - | 56 | -56 |



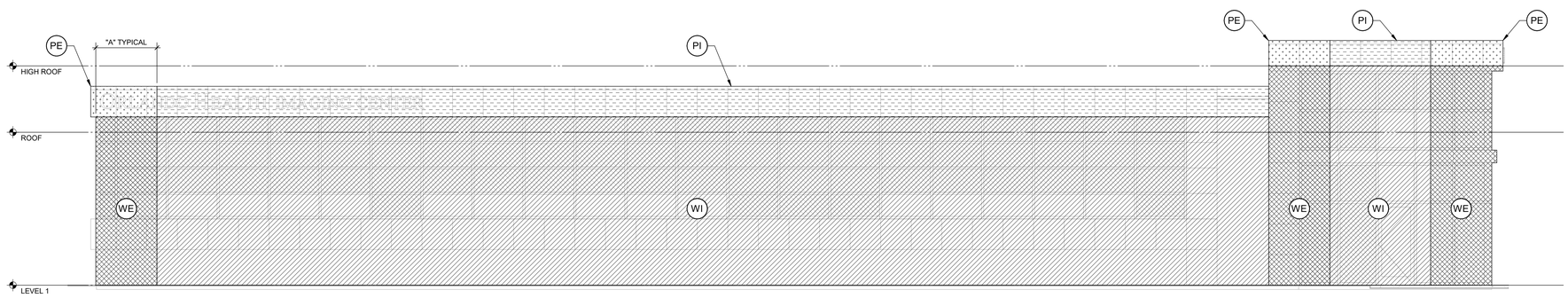

## 1 ULTIMATE COMPONENT AND CLADDING WIND PRESSURES (ENCLOSED BUILDINGS)
NO SCALE




## 4 SOUTH ELEVATION - CLADDING PRESSURES
3/16" = 1'-0"




## 3 NORTH ELEVATION - CLADDING PRESSURES
3/16" = 1'-0"




## 5 EAST ELEVATION - CLADDING PRESSURES
3/16" = 1'-0"

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CERTIFICATE OF AUTHORIZATION NO. 3818

PROJECT NO. S05-18065-00

ROBERT S. MOHRLAND P.E. NO. 62851

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES

ORLANDO HEALTH®

# Orlando Health Imaging Center
1800 S Orange Avenue
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DN: c=US, E=rmohrland@walterpmoore.com, O=Walter P. Moore, CN=Robert S. Mohrland, 1.2.840.113549.1.9.2=82F595C2B9B04758
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COMPONENTS AND CLADDING WIND PRESSURE DIAGRAMS

**S005**

43642
3/18/2019

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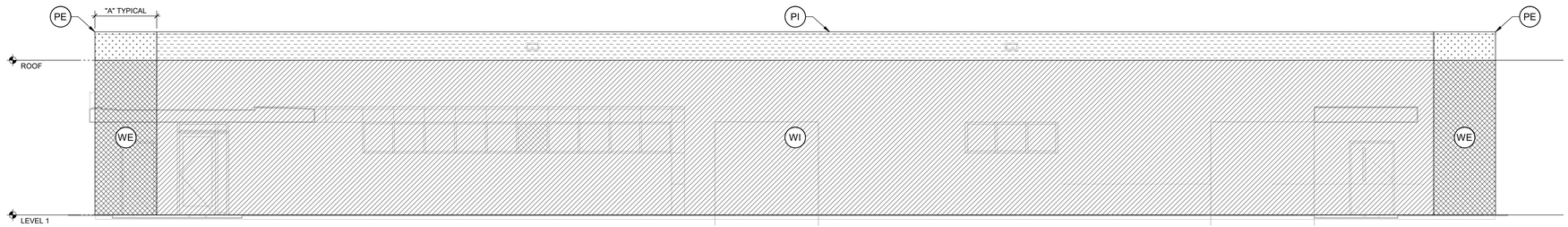
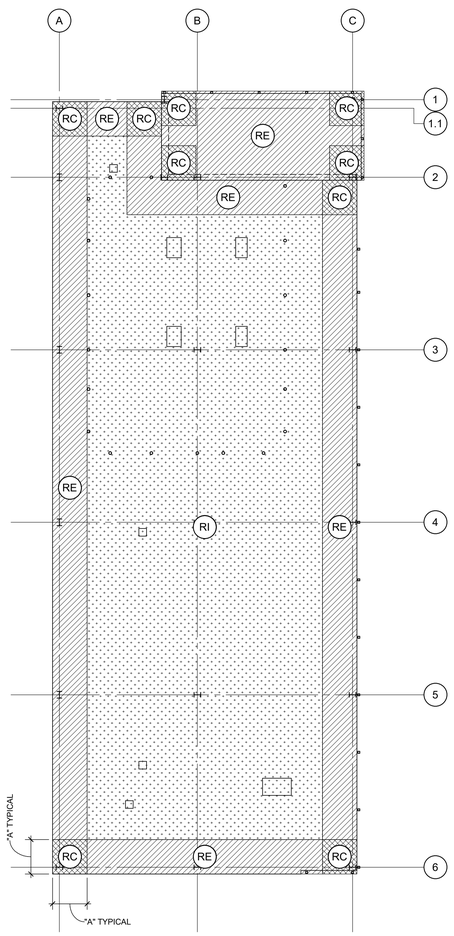



1 WEST ELEVATION - CLADDING PRESSURES
3/16" = 1'-0"




2 ROOF - CLADDING PRESSURES
3/32" = 1'-0"

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COMPONENTS AND CLADDING WIND PRESSURE DIAGRAMS

**S006**

43642
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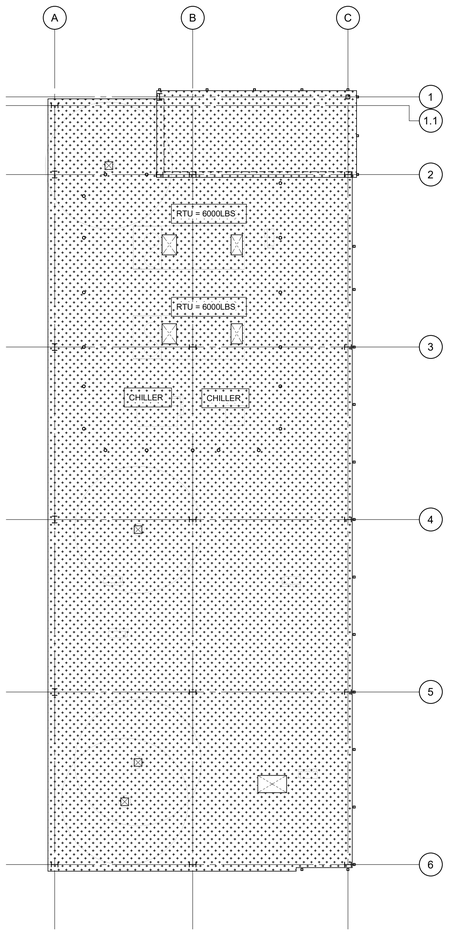
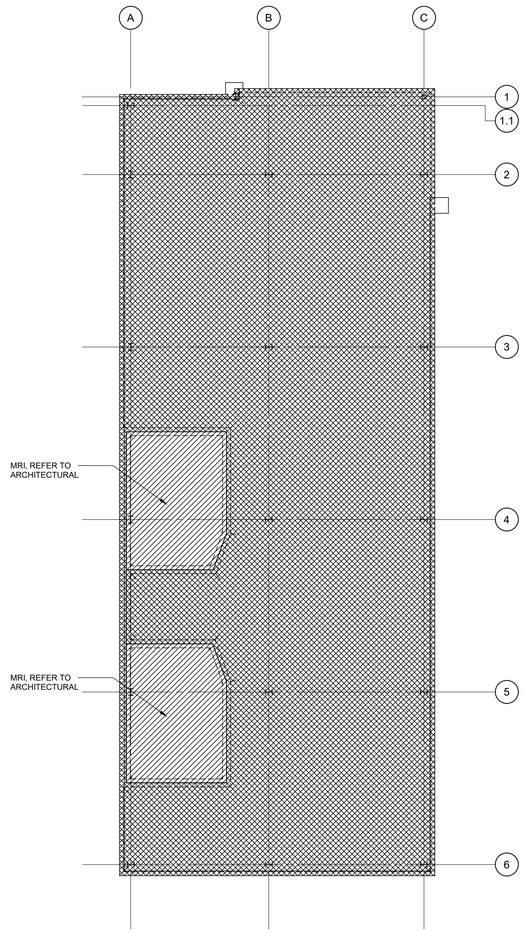
| LOAD KEY LEGEND | | | | |
|---|---|---|---|---|
| PATTERN | TYPE OR LOCATION | SUPERIMPOSED DEAD LOAD | LIVE LOAD | REMARKS |
| | TYPICAL SLAB-ON-GRADE | 20 | 80 | - |
| | HEAVY SLAB-ON-GRADE | 20 | 125 | - |
| | ROOF | 20 | 20 | - |

NOTES:

1. DESIGN LOADS AREA BASED ON THE MORE RESTRICTIVE OF THE UNIFORM LIVE LOAD LISTED ABOVE OR A 2,000 LB CONCENTRATED LOAD ACTING OVER AN AREA 2.5 SQUARE.
2. THE CONTRACTOR SHALL CONFIRM WEIGHTS OF MEP EQUIPMENT AND SUBMIT TO STRUCTURAL ENGINEER FOR REVIEW.




2 ROOF - LOAD KEY PLAN
3/32" = 1'-0"




1 LEVEL 1 - LOAD KEY PLAN
3/32" = 1'-0"

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LOAD KEY PLANS

**S007**

43642
3/18/2019

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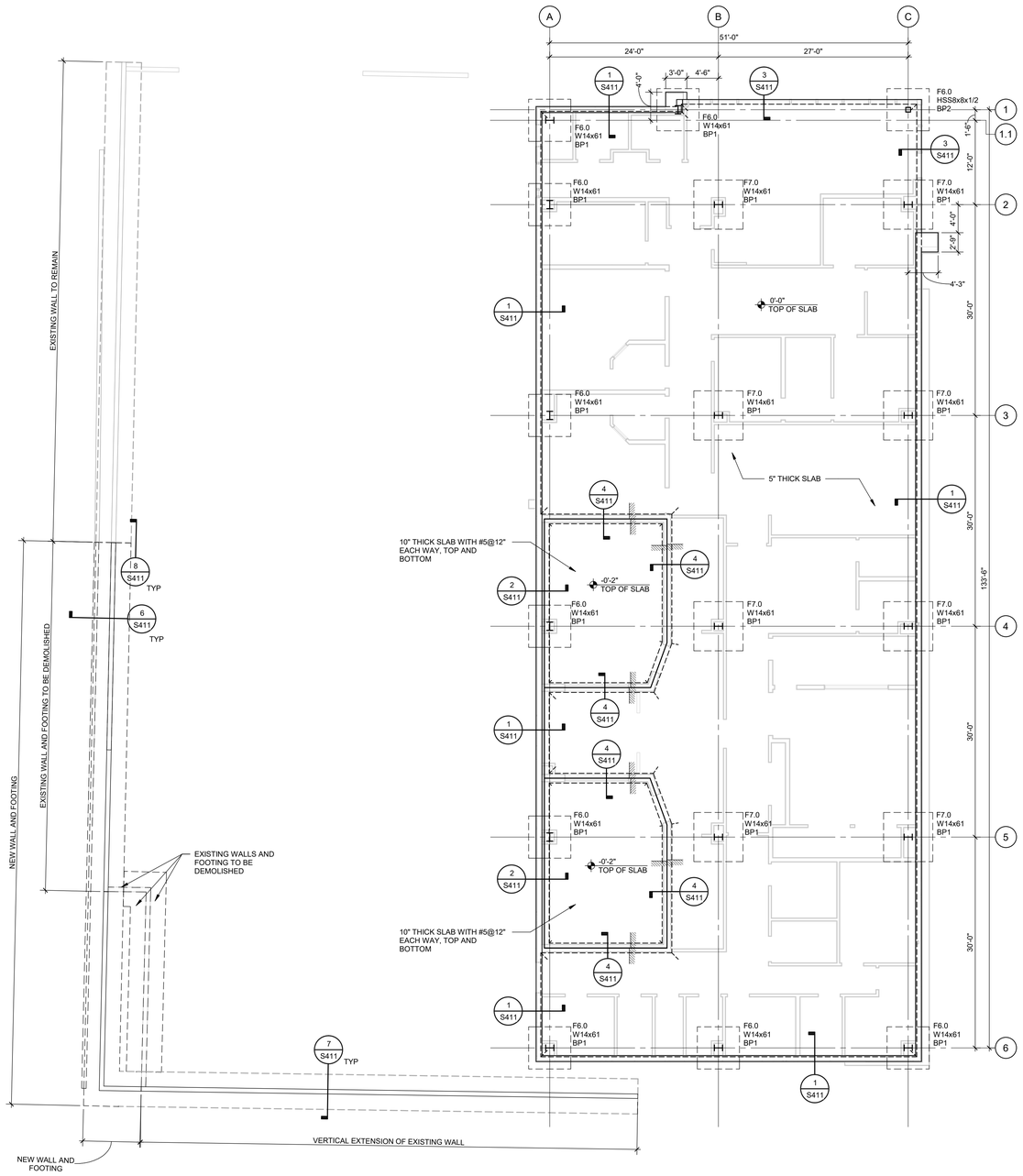


1 FOUNDATION PLAN
1/8" = 1'-0"

FOUNDATION PLAN NOTES

1. CIVIL DRAWINGS ELEVATION 105.50' = DATUM ELEVATION 0'-0".
2. TOP OF FOUNDATION ELEVATION IS -2'-0", UNLESS NOTED OTHERWISE ON PLAN.
3. UNLESS NOTED OTHERWISE, FLOOR STRUCTURE IS A 5" THICK NORMALWEIGHT CONCRETE SLAB-ON-GRADE REINFORCED WITH WWR 6x6-W2.9xW2.9.
4. PROVIDE 2-#4x4'-0" ADDITIONAL SLAB REINFORCEMENT AT ALL RE-ENTRANT CORNERS.
5. SPREAD FOOTINGS SHALL BE CENTERED ON THE CENTROID OF SUPPORTED COLUMN, UNLESS NOTED OTHERWISE.
6. WALL FOOTINGS SHALL BE CENTERED ON THE SUPPORTED WALL, UNLESS NOTED OTHERWISE.
7. REFER TO S4XX SERIES SHEETS FOR FOUNDATION AND SLAB-ON-GRADE SECTIONS AND DETAILS.
8. REFER TO SHEET S402 FOR FOUNDATION SCHEDULES.
9. REFER TO ARCHITECTURAL DRAWINGS FOR EXTENTS AND DIMENSIONS OF RAISED OR DEPRESSED SLAB AREAS, SLOPES, CURBS, AND DRAINS. REFER TO TYPICAL DETAILS FOR REINFORCEMENT REQUIREMENTS.
10. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR SLAB PENETRATIONS AND UNDERGROUND UTILITIES.
11. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY ARCHITECT AND STRUCTURAL ENGINEER OF ANY DISCREPANCIES.
12. THE CONCRETE SLAB IN AREAS WHERE MEDICAL EQUIPMENT IS MOUNTED SHALL BE TRUE, LEVEL, AND SMOOTH. REFER TO EQUIPMENT DRAWING FOR ALLOWABLE TOLERANCES FOR EACH PIECE OF EQUIPMENT.
13. THE CONCRETE SLAB SHALL BE LOCALLY THICKENED TO 8" IN ALL AREAS WHERE MEDICAL EQUIPMENT IS TO BE FLOOR MOUNTED. PROVIDE #4@10" ADDITIONAL BOTTOM REINFORCEMENT AT THICKENED AREAS. REFER TO 3/S512 FOR MORE INFORMATION.
14. SLAB-ON-GRADE AT INTERIOR SPACES IS TO BE PLACED ON A MOISTURE BARRIER PER SPECIFICATIONS AND DETAILS.

PLAN NORTH
TRUE NORTH: 1.38° EAST OF PLAN NORTH SEE CIVIL FOR EXACT ANGLE

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FOUNDATION PLAN

**S201**

43642
3/18/2019

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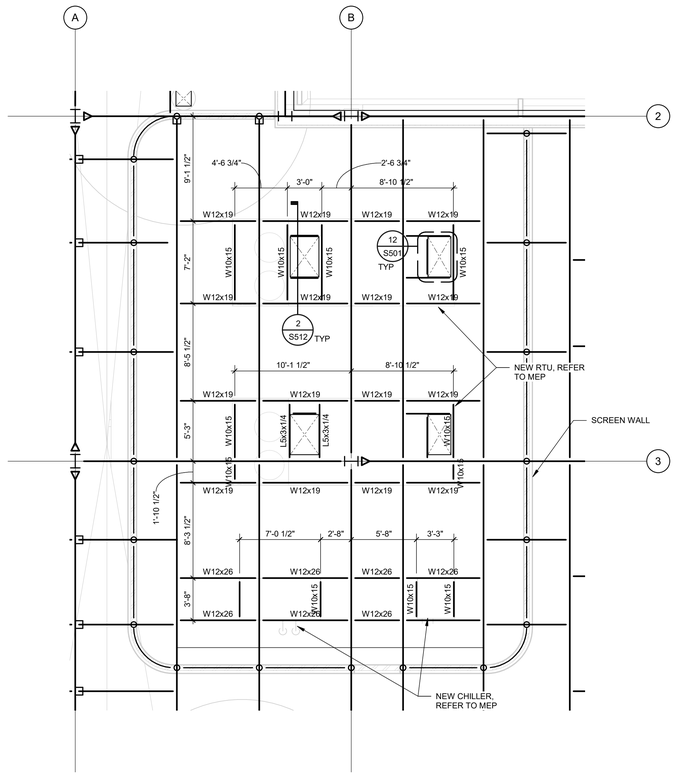
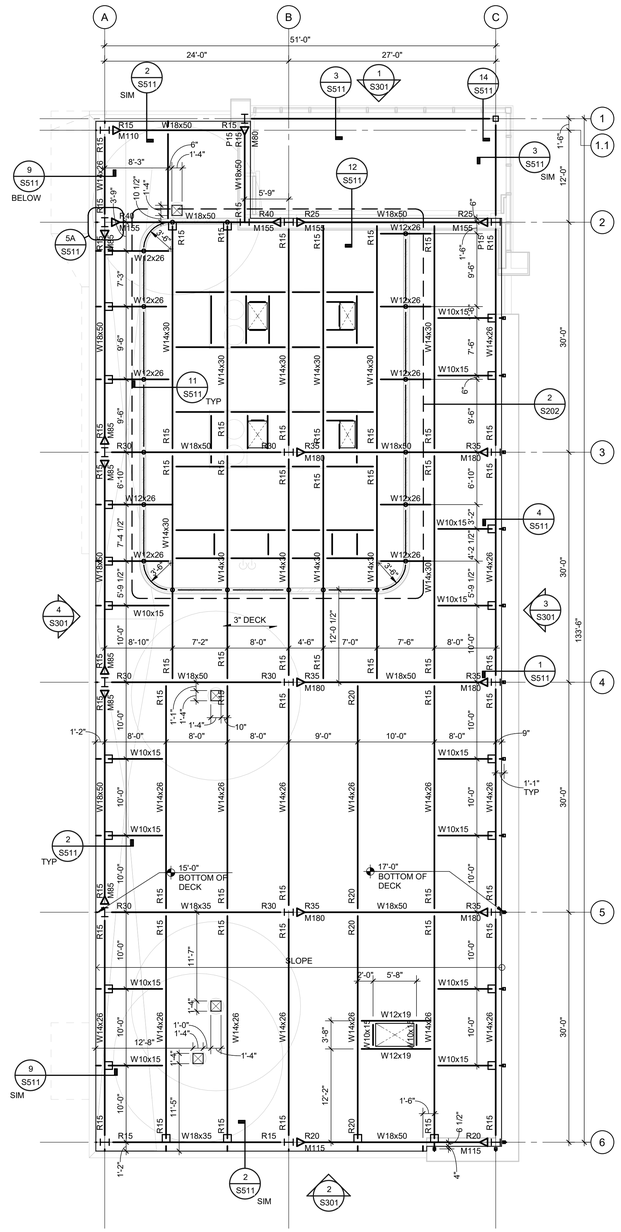



2 PARTIAL ROOF FRAMING PLAN
3/16" = 1'-0"




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

PLAN NORTH

TRUE NORTH: 1.38° EAST OF PLAN NORTH SEE CIVIL FOR EXACT ANGLE

PLAN NOTES

1. REFER TO PLAN FOR BOTTOM OF DECK ELEVATIONS. TOP OF STEEL ELEVATIONS FOR BEAMS AND GIRDERS SHALL BE DETERMINED FROM BOTTOM OF DECK ELEVATIONS, UNLESS NOTED OTHERWISE.
2. ROOF SYSTEM IS ROOF DECK SUPPORTED BY STEEL BEAMS. ROOF DECK SHALL BE 3" DEEP, 20 GAGE GALVANIZED (G90) STEEL ROOF DECK. ROOF DECK SHALL BE PLACED WITH A TWO SPAN CONDITION MINIMUM. REFER TO GENERAL NOTES FOR ATTACHMENT OF DECK TO STEEL BEAMS.
3. PROVIDE A CONTINUOUS 1/4" BENT PLATE AT ALL ROOF EDGES AND OPENINGS, UNLESS NOTED OTHERWISE.
4. ALL STEEL THAT IS PERMANENTLY EXPOSED TO THE EXTERIOR OR IS PERMANENTLY IN UNCONDITIONED SPACE SHALL BE HOT-DIPPED GALVANIZED.
5. REFER TO THE S5XX SERIES DRAWINGS FOR STEEL FRAMING SECTIONS AND DETAILS.
6. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR PENETRATIONS NOT SHOWN. REFER TO TYPICAL DETAILS FOR ADDITIONAL STEEL REQUIREMENTS AT OPENINGS.
7. ALL CONNECTIONS SHALL BE DESIGNED FOR A VERTICAL SHEAR OF 12 KIPS, MINIMUM.
8. LOCATIONS OF ROOF BEAMS BELOW ROOF TOP UNITS (RTU) SHALL BE CONFIRMED BY THE CONTRACTOR BEFORE DETAILING/FABRICATION OF STEEL.
9. REFER TO 12/S501 FOR ADDITIONAL STEEL REQUIRED AROUND ROOF DECK OPENINGS, UNLESS NOTED OTHERWISE.

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CERTIFICATE OF AUTHORIZATION NO. 3818

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ROOF FRAMING PLAN

**S202**

43642
3/18/2019

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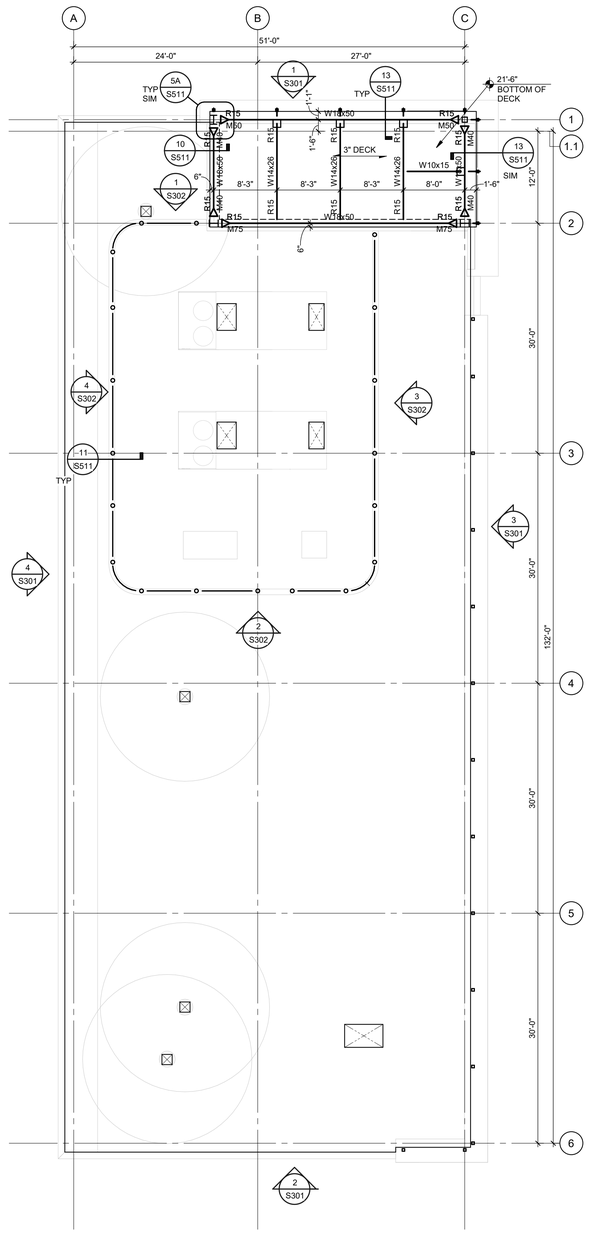


1 HIGH ROOF FRAMING PLAN
1/8" = 1'-0"

PLAN NORTH

TRUE NORTH: 1.38° EAST OF PLAN NORTH
SEE CIVIL FOR EXACT ANGLE

PLAN NOTES

1. REFER TO PLAN FOR BOTTOM OF DECK ELEVATIONS. TOP OF STEEL ELEVATIONS FOR BEAMS AND GIRDERS SHALL BE DETERMINED FROM BOTTOM OF DECK ELEVATIONS, UNLESS NOTED OTHERWISE.
2. ROOF SYSTEM IS ROOF DECK SUPPORTED BY STEEL BEAMS. ROOF DECK SHALL BE 3" DEEP, 20 GAGE GALVANIZED (G90) STEEL ROOF DECK. ROOF DECK SHALL BE PLACED WITH A TWO SPAN CONDITION MINIMUM. REFER TO GENERAL NOTES FOR ATTACHMENT OF DECK TO STEEL BEAMS.
3. PROVIDE A CONTINUOUS 1/4" BENT PLATE AT ALL ROOF EDGES AND OPENINGS, UNLESS NOTED OTHERWISE.
4. ALL STEEL THAT IS PERMANENTLY EXPOSED TO THE EXTERIOR OR IS PERMANENTLY IN UNCONDITIONED SPACE SHALL BE HOT-DIPPED GALVANIZED.
5. REFER TO THE S5XX SERIES DRAWINGS FOR STEEL FRAMING SECTIONS AND DETAILS.
6. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR PENETRATIONS NOT SHOWN. REFER TO TYPICAL DETAILS FOR ADDITIONAL STEEL REQUIREMENTS AT OPENINGS.
7. ALL CONNECTIONS SHALL BE DESIGNED FOR A VERTICAL SHEAR OF 12 KIPS, MINIMUM.
8. LOCATIONS OF ROOF BEAMS BELOW ROOF TOP UNITS (RTU) SHALL BE CONFIRMED BY THE CONTRACTOR BEFORE DETAILING/FABRICATION OF STEEL.
9. REFER TO 12/S501 FOR ADDITIONAL STEEL REQUIRED AROUND ROOF DECK OPENINGS, UNLESS NOTED OTHERWISE.

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HIGH ROOF FRAMING PLAN

**S203**

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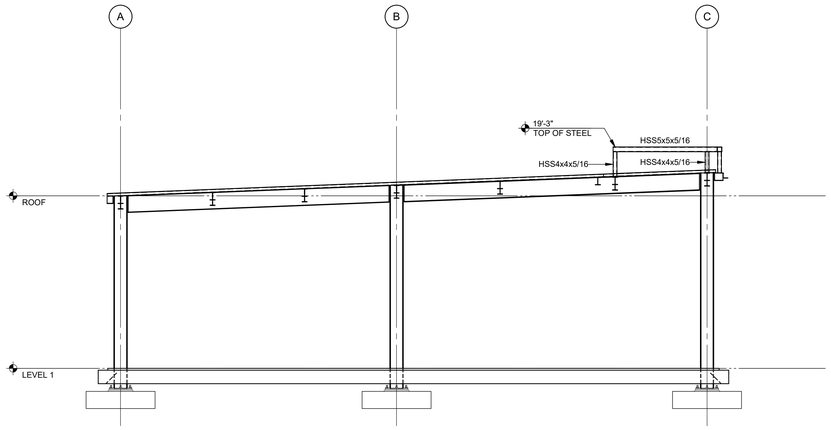
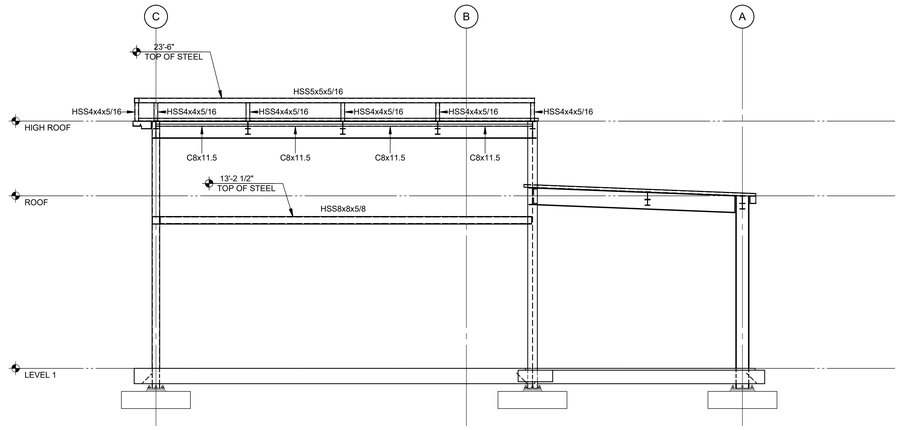
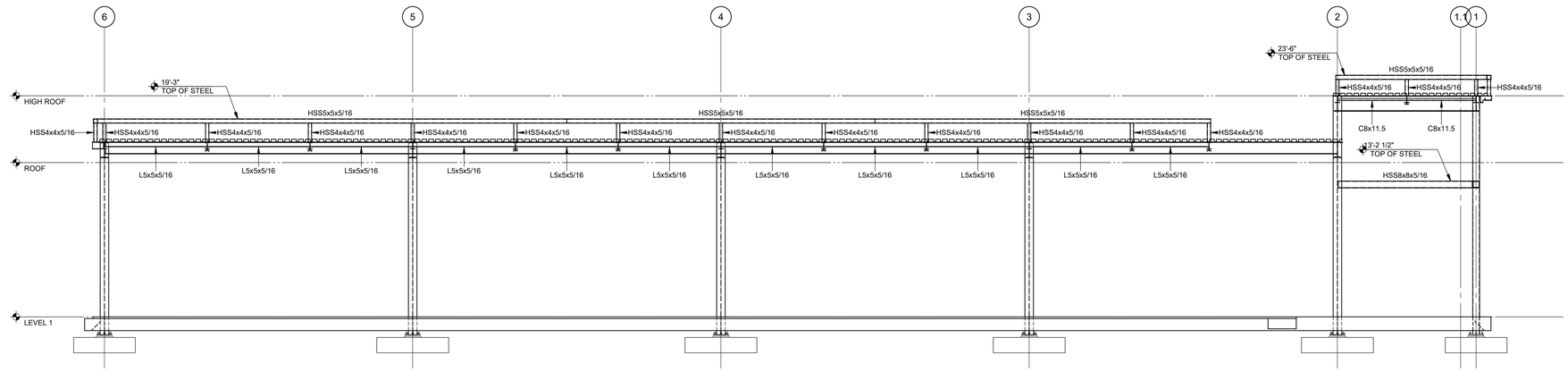


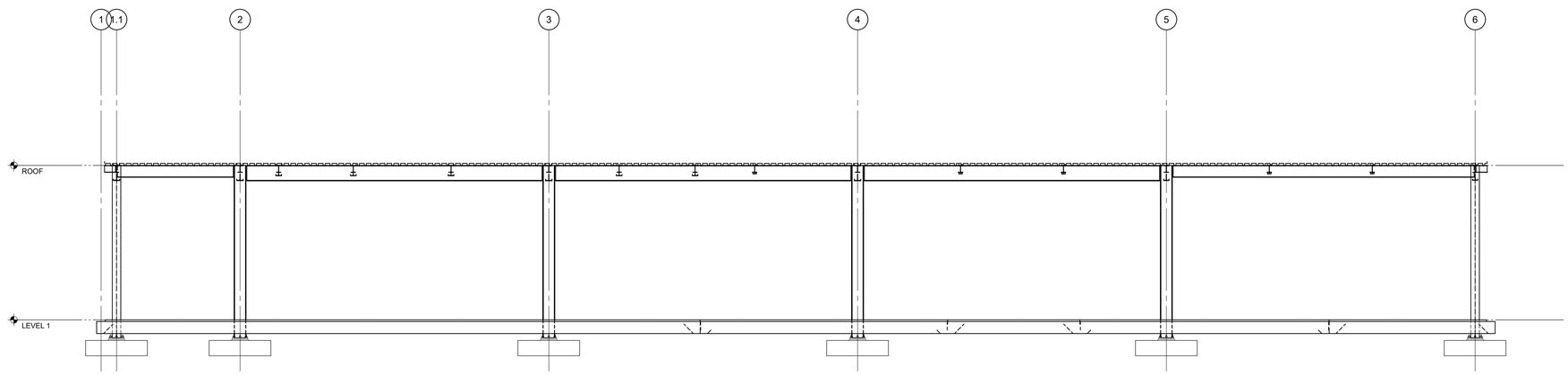

2 SOUTH ELEVATION - CLADDING STEEL
3/16" = 1'-0"




1 NORTH ELEVATION - CLADDING STEEL
3/16" = 1'-0"




3 EAST ELEVATION - CLADDING STEEL
3/16" = 1'-0"




4 WEST ELEVATION - CLADDING STEEL
3/16" = 1'-0"

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CLADDING STEEL FRAMING ELEVATIONS

**S301**

43642
3/18/2019

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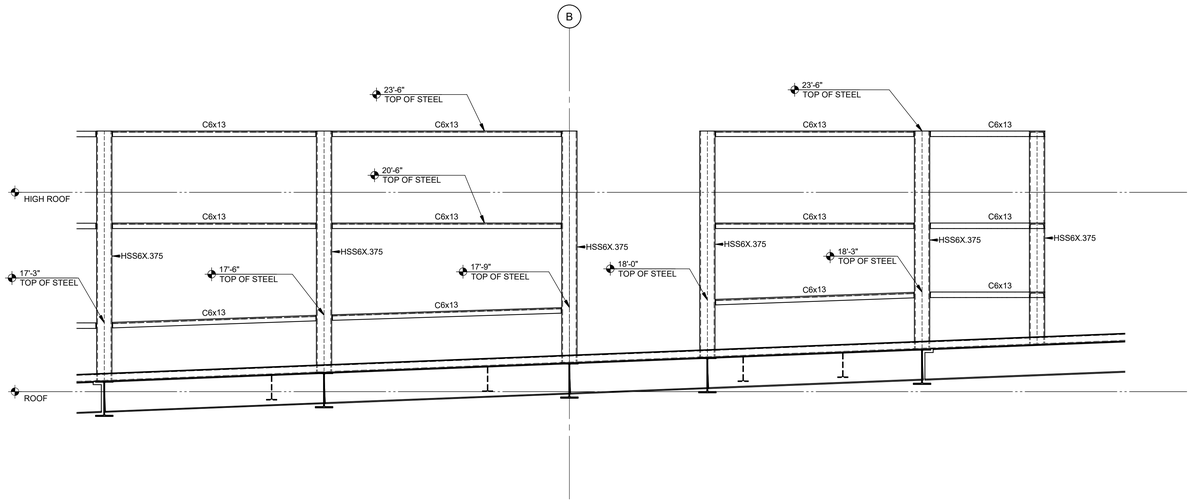
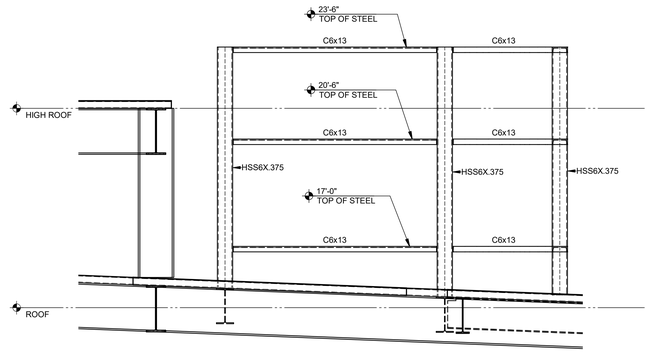
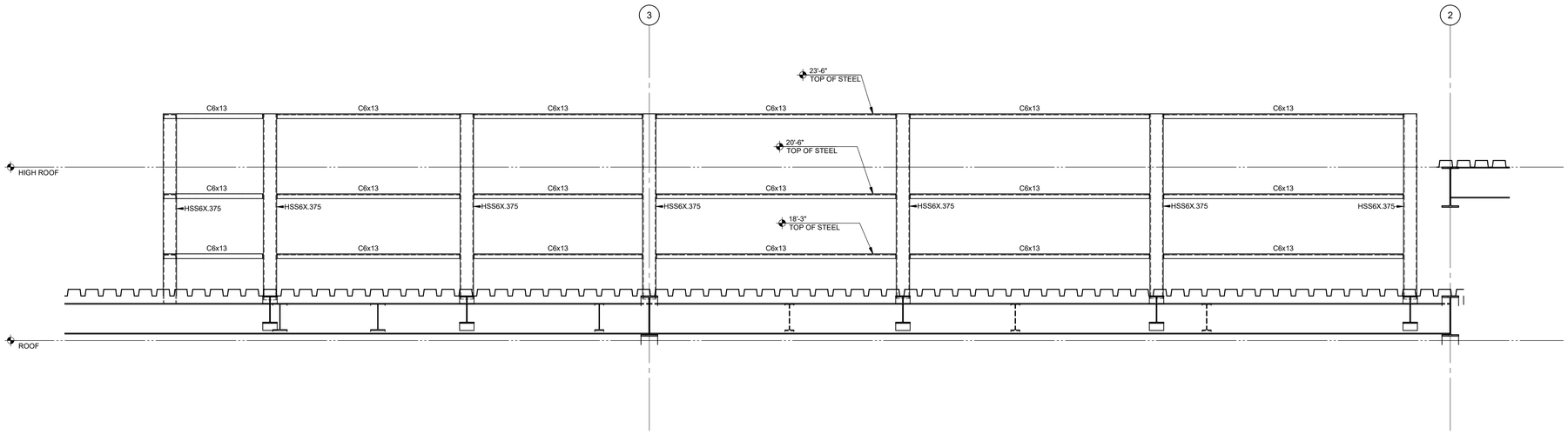


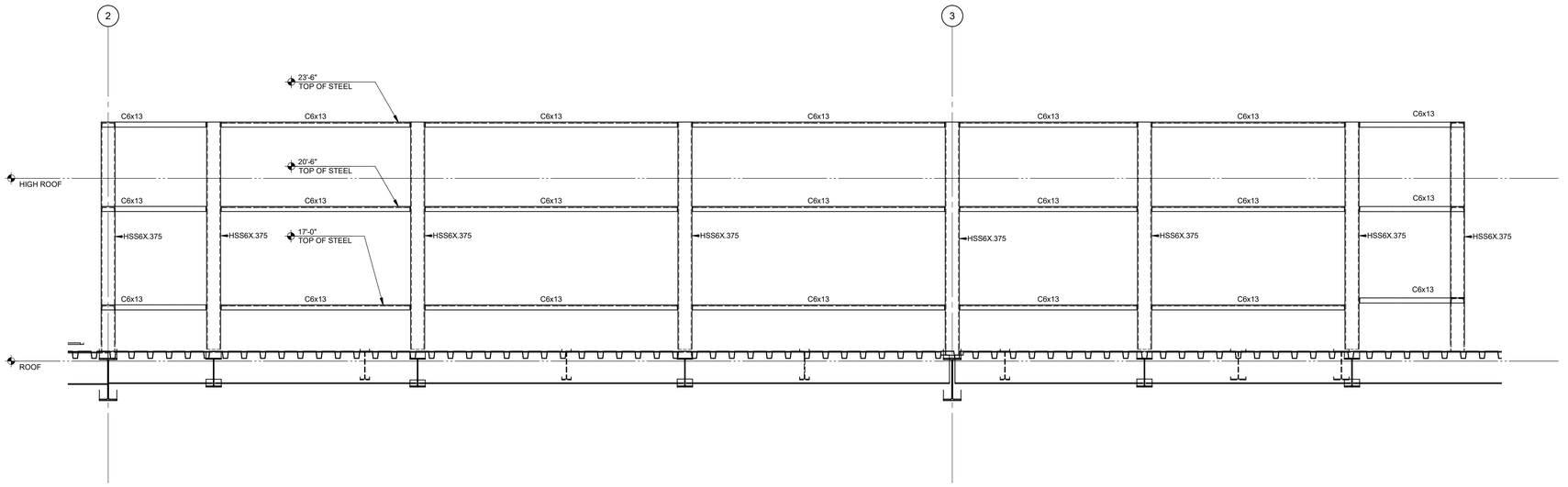

2 SCREEN WALL ELEVATION
1/2" = 1'-0"




1 SCREEN WALL ELEVATION
1/2" = 1'-0"




3 SCREEN WALL ELEVATION
1/2" = 1'-0"




4 SCREEN WALL ELEVATION
1/2" = 1'-0"

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CERTIFICATE OF AUTHORIZATION NO. 3818

PROJECT NO. S05-18065-00

ROBERT S. MOHRLAND P.E. NO. 62851

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES

ORLANDO HEALTH®

# Orlando Health Imaging Center

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Orlando, Florida 32806

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Revision

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SCREEN WALL STEEL FRAMING ELEVATIONS

# S302

43642
3/18/2019

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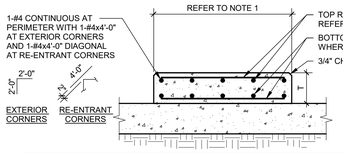


| HOUSEKEEPING PAD REINFORCEMENT SCHEDULE | | |
|---|---|---|
| PAD THICKNESS | TOP REINFORCEMENT | BOTTOM REINFORCEMENT |
| T = 4" | WWR4x4-W2.9xW2.9 OR #3@12" EACH WAY | NONE |
| 4" < T <= 6" | WWR4x4-W4xW4 OR #4@18" EACH WAY | NONE |
| 6" < T <= 8" | WWR4x4-W6xW6 OR #4@12" EACH WAY | NONE |
| 8" < T <= 12" | #4@18" EACH WAY | #4@18" EACH WAY |
| 12" < T <= 16" | #4@12" EACH WAY | #4@12" EACH WAY |

NOTES:
1. REFER TO ARCHITECTURAL, STRUCTURAL, OR MEP DRAWINGS FOR HOUSEKEEPING PAD PLAN DIMENSIONS AND THICKNESS (4" MINIMUM THICKNESS).
2. CONTRACTOR SHALL COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.

## 5 TYPICAL HOUSEKEEPING PAD OVER SLAB-ON-GRADE

NO SCALE

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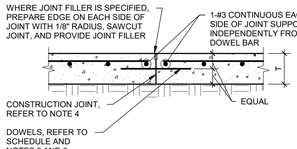
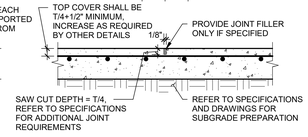
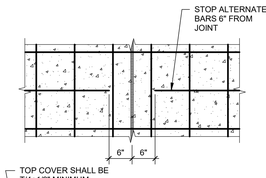
| DOWEL AND JOINT SPACING SCHEDULE | | | | |
|---|---|---|---|---|
| SLAB DEPTH | DOWEL SIZE | DOWEL LENGTH | DOWEL SPACING | MAXIMUM JOINT SPACING |
| 5" | 3/4"Ø | 16" | 12" | 13'-0" |
| 6" | 3/4"Ø | 16" | 12" | 14'-6" |
| 7" | 1"Ø | 18" | 12" | 16'-0" |
| 8" | 1"Ø | 18" | 12" | 17'-6" |




CONSTRUCTION JOINT




CONTRACTION (CONTROL) JOINT




NOTES:
1. REFER TO PLAN FOR SLAB THICKNESS (T) AND REINFORCEMENT.
2. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
3. LONG STRIP CONSTRUCTION METHOD SHALL BE USED IN PLACING CONCRETE FOR ALL SLABS-ON-GRADE UNLESS NOTED OTHERWISE. REFER TO "TYPICAL LONG STRIP CONSTRUCTION SCHEMATIC JOINT LAYOUT" FOR COMPLETE PLACING SEQUENCE. AT CONTRACTOR'S OPTION, LARGER SLAB AREAS MAY BE POURED PROVIDED THE EARLY-ENTRY DRY-CUT METHOD OF INSTALLING CONTRACTION JOINTS IS USED. REFER TO THE SPECIFICATIONS.
4. AT CONSTRUCTION JOINTS, BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDES OF JOINT WITH A CURING COMPOUND, BONDBREAKER, OR FORM OIL.
5. DOWELS SHOULD BE SMOOTH, ALIGNED, AND SUPPORTED SO THEY WILL REMAIN PARALLEL IN BOTH THE HORIZONTAL AND VERTICAL PLANES.
6. TO PREVENT A BOND BETWEEN THE DOWEL AND THE CONCRETE, LIGHTLY COAT THE EXPOSED END OF THE DOWELS WITH A PARAFFIN-BASED LUBRICANT, ASPHALT EMULSION, FORM OIL, OR GREASE IMMEDIATELY BEFORE PLACING CONCRETE ON THE SECOND SIDE OF THE JOINT. ALTERNATIVELY, USE A PLASTIC OR METAL SLEEVE SPECIFICALLY MANUFACTURED FOR THIS PURPOSE.
7. AT CONTRACTION (CONTROL) JOINTS, MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB. REFER TO SPECIFICATIONS.
8. PROVIDE CONTRACTION OR CONSTRUCTION JOINTS AT EVERY COLUMN LINE AND IN BETWEEN THE COLUMN LINES SUCH THAT THE JOINT SPACING DOES NOT EXCEED TABULATED DISTANCES.
9. FOR SLAB THICKNESS IN BETWEEN TABULATED VALUES, USE DOWEL INFORMATION FOR THICKER SLAB. MAXIMUM JOINT SPACING SHALL BE INTERPOLATED.

## 4 TYPICAL CONSTRUCTION AND CONTROL JOINTS IN SLAB-ON-GRADE

NO SCALE

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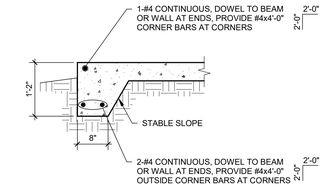


## 2 TYPICAL EXTERIOR SLAB-ON-GRADE TURNDOWN

NO SCALE

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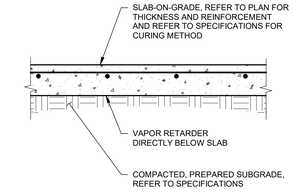


## 1 TYPICAL SLAB-ON-GRADE SUBGRADE PREPARATION

NO SCALE

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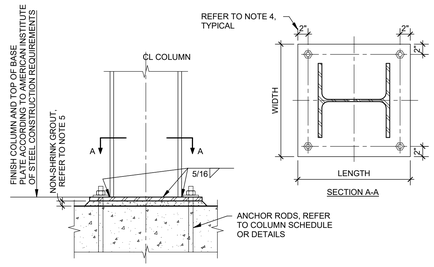


NOTES:
1. USE OVERSIZED HOLES FOR ANCHOR RODS ACCORDING TO AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
2. PLATE WASHERS WITH STANDARD HOLES SHALL BE INSTALLED OVER OVERSIZED HOLES.
3. CONTRACTOR SHALL PROVIDE TEMPLATE FOR ANCHOR ROD INSTALLATION.
4. INCREASE EDGE DISTANCE TO 3" MINIMUM FOR ANCHOR ROD SIZES OF 1 1/2"Ø OR GREATER. CONFORM TO MINIMUM EDGE DISTANCE REQUIREMENTS.
5. MINIMUM GROUT THICKNESS IS 1" UNLESS NOTED OTHERWISE ON PLANS, DETAILS, OR IN GROUT THICKNESS SCHEDULE.

## 10 TYPICAL WIDE FLANGE COLUMN BASE CONNECTION

NO SCALE

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| GROUT THICKNESS SCHEDULE | |
|---|---|
| MINIMUM BASE PLATE PLAN DIMENSION | MINIMUM GROUT THICKNESS |
| 18" OR LESS | 1" |
| 19" TO 24" | 1 1/2" |
| 25" TO 30" | 2" |
| 31" TO 36" | 2 1/2" |
| 37" TO 42" | 3" |
| 43" TO 48" | 3 1/2" |
| GREATER THAN 48" | REFER TO NOTE 2 |

NOTES:
1. REFER TO SPECIFICATIONS AND GENERAL NOTES FOR GROUT REQUIREMENTS.
2. ADD 1/2" GROUT THICKNESS FOR EACH ADDITIONAL 12" OF MINIMUM PLATE DIMENSION.

## 9 TYPICAL GROUT THICKNESS SCHEDULE

NO SCALE

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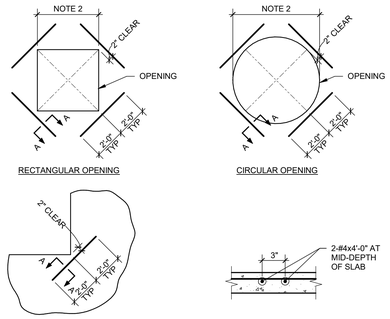


NOTES:
1. ADDITIONAL REINFORCEMENT SHALL NOT CROSS SLAB-ON-GRADE CONSTRUCTION AND CONTROL JOINTS. SKEW OR OMIT ADDITIONAL REINFORCEMENT AS REQUIRED.
2. COORDINATE OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
3. OPENINGS OR GROUPS OF OPENINGS 10" AND SMALLER DO NOT REQUIRE ADDITIONAL REINFORCEMENT. FOR RECTANGULAR OPENINGS, USE LARGER DIMENSION TO DETERMINE IF ADDITIONAL REINFORCEMENT IS REQUIRED.

## 8 TYPICAL SLAB-ON-GRADE OPENING AND CORNER REINFORCEMENT

NO SCALE

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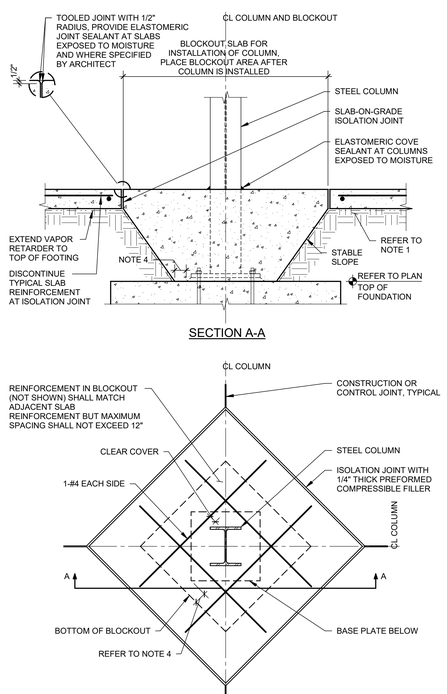


NOTES:
1. REFER TO "TYPICAL SLAB-ON-GRADE SUBGRADE PREPARATION" FOR SUBGRADE PREPARATION REQUIREMENTS INCLUDING LOCATION OF VAPOR RETARDER RELATIVE TO SLAB AND GRANULAR BASE AND WHETHER FINE-GRADE GRANULAR MATERIAL IS REQUIRED.
2. REFER TO "TYPICAL CONSTRUCTION AND CONTROL JOINTS - SLAB-ON-GRADE" FOR CONSTRUCTION AND CONTROL JOINT REQUIREMENTS.
3. CONTRACTOR TO COORDINATE REQUIRED SIZE OF BLOCKOUT FOR STRUCTURAL STEEL COLUMNS WITH STEEL ERECTOR. SUBMIT THE DESIRED BLOCKOUT SIZE TO ARCHITECT FOR APPROVAL.
4. BLOCKOUT SHALL BE SIZED TO PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN AND BASE PLATE.

## 12 TYPICAL SLAB-ON-GRADE BLOCKOUT AROUND STEEL COLUMNS

NO SCALE

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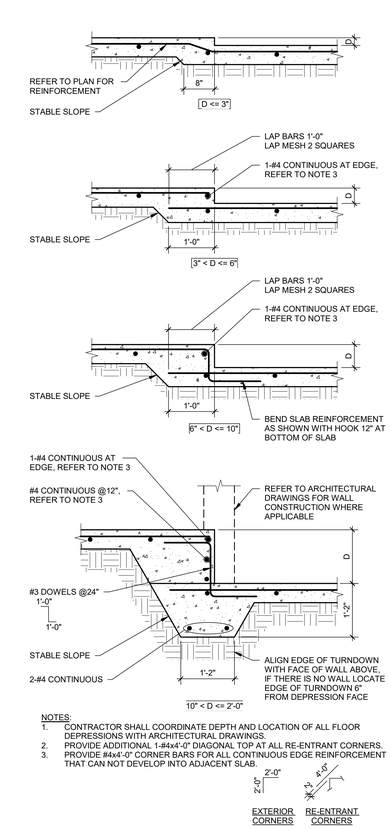


NOTES:
1. CONTRACTOR SHALL COORDINATE DEPTH AND LOCATION OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE ADDITIONAL 1-#4x4'-0" DIAGONAL TOP AT ALL RE-ENTRANT CORNERS.
3. PROVIDE #4x4'-0" CORNER BARS FOR ALL CONTINUOUS EDGE REINFORCEMENT THAT CAN NOT DEVELOP INTO ADJACENT SLAB.

## 11 TYPICAL SLAB-ON-GRADE DEPRESSIONS

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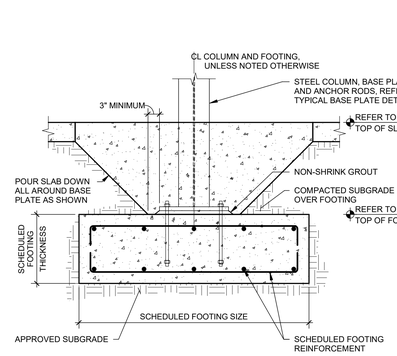


## 15 TYPICAL STEEL COLUMN ON SPREAD FOOTING

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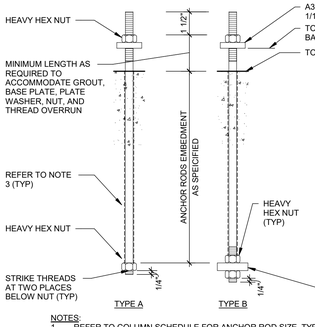


| ANCHOR ROD DIAMETER | BASE PLATE HOLE DIAMETER | CIRCULAR OR SQUARE PLATE WASHER SIZE (INCHES) | F1554 GRADE 36 | | F1554 GRADE 55 | | F1554 GRADE 105 | |
|---|---|---|---|---|---|---|---|---|
| | | | PLATE WASHER THICKNESS (INCHES) | ANCHOR PLATE SIZE (INCHES) | PLATE WASHER THICKNESS (INCHES) | ANCHOR PLATE SIZE (INCHES) | PLATE WASHER THICKNESS (INCHES) | ANCHOR PLATE SIZE (INCHES) |
| 3/4"Ø | 1 5/16"Ø | 2 | 1/4 | ANCHOR PLATE NOT NEEDED | 5/16 | - | 5/8 | 1/2x2 1/4x2 1/4 |
| 7/8"Ø | 1 9/16"Ø | 2 1/2 | 5/16 | | 3/8 | | 5/8 | 5/8x2 1/2x2 1/2 |
| 1"Ø | 1 7/8"Ø | 3 | 3/8 | | 7/16 | 1/2x2 3/4x2 3/4 | 3/4 | 3/4x2 3/4x2 3/4 |
| 1 1/4"Ø | 2 1/8"Ø | 3 1/2 | 1/2 | | 1/2 | 5/8x3x3 | 7/8 | 7/8x3x3 |
| 1 1/2"Ø | 2 3/8"Ø | 4 | 1/2 | | 5/8 | 3/4x3 1/2x3 1/2 | 1 1/4 | 1 1/4x3 1/2x3 1/2 |
| 1 3/4"Ø | 2 7/8"Ø | 4 1/2 | 5/8 | | 3/4 | 3/4x3 3/4x3 3/4 | 1 1/4 | 1 1/4x3 3/4x3 3/4 |
| 2"Ø | 3 1/4"Ø | 5 | 3/4 | | 7/8 | 7/8x4 1/4x4 1/4 | 1 1/2 | 1 1/2x4 1/4x4 1/4 |
| 2 1/2"Ø | 3 3/4"Ø | 5 1/2 | 7/8 | | 1 | 1 1/4x5x5 | 1 3/4 | 2x5 1/4x5 1/4 |
| 3"Ø | 4 1/4"Ø | 6 1/2 | 1 | | 1 1/4 | 1 1/2x5 3/4x5 3/4 | 2 1/4 | 2 1/4x6 1/2x6 1/2 |
| 3 1/2"Ø | 4 3/4"Ø | 7 | 1 1/4 | | 1 1/2 | 1 1/2x6 1/2x6 1/2 | N/A | N/A |
| 4"Ø | 5 1/4"Ø | 8 | 1 1/2 | | 1 3/4 | 1 3/4x7 1/2x7 1/2 | N/A | N/A |

NOTES:
1. REFER TO COLUMN SCHEDULE FOR ANCHOR ROD SIZE, TYPE, AND EMBEDMENT. ALL ANCHOR RODS SHALL BE TYPE "A" UNLESS NOTED OTHERWISE.
2. UNLESS NOTED OTHERWISE, ALL ANCHOR ROD NUTS SHALL BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED BY AISC AFTER THE CONCRETE IS AT LEAST 14 DAYS OLD.
3. RAP EMBEDDED LENGTH OF ANCHOR ROD ABOVE NUT WITH TAPE AT BRACED-FRAME LOCATIONS ONLY IN SEISMIC DESIGN CATEGORY C OR HIGHER. AT CONTRACTOR'S OPTION 6 MIL POLY TUBING MAY BE USED IN LIEU OF TAPE PROVIDED EXCESS TUBING IS SECURED TIGHTLY TO THE ANCHOR ROD AND OPEN SEAMS ARE TAPED.
4. ANCHOR PLATE IS NOT REQUIRED AT TYPE "A" ANCHOR RODS.

## 14 TYPICAL ANCHOR ROD TYPE "A" AND "B" (f'c>=4000 PSI)

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Orlando, Florida 32806

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FOUNDATION TYPICAL DETAILS

# S401

43642
3/18/2019

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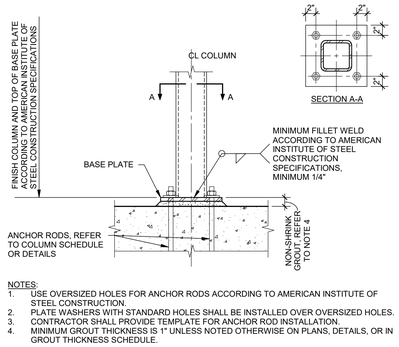


NOTES:
1. USE OVERSIZED HOLES FOR ANCHOR RODS ACCORDING TO AMERICAN INSTITUTE OF STEEL CONSTRUCTION.
2. PLATE WASHERS WITH STANDARD HOLES SHALL BE INSTALLED OVER OVERSIZED HOLES.
3. CONTRACTOR SHALL PROVIDE TEMPLATE FOR ANCHOR ROD INSTALLATION.
4. MINIMUM GROUT THICKNESS IS 1" UNLESS NOTED OTHERWISE ON PLANS, DETAILS, OR IN GROUT THICKNESS SCHEDULE.

## 4 TYPICAL RECTANGULAR/SQUARE HSS COLUMN BASE CONNECTION

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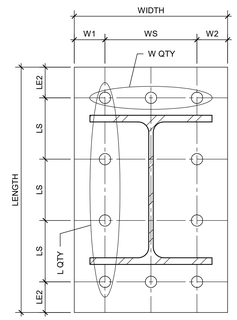


## 3 BASE PLATE SCHEDULE

NO SCALE

BASE PLATE SCHEDULE

| MARK | BASE PLATE | | | ANCHORS | | | | LENGTH SIDE | | | | WIDTH SIDE | | | | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | WIDTH | LENGTH | THICKNESS | DIAMETER | EMBEDMENT | TYPE | TOTAL QTY | LE1 | LS | LE2 | L QTY | WE1 | WS | WE2 | W QTY | |
| BP1 | 1'-6" | 2'-0" | 1 1/2" | 1 1/4" | 1'-0" | A | 8 | 2" | 10" | 2" | 3 | 2" | 7" | 2" | 3 | |
| BP2 | 1'-6" | 1'-6" | 1 1/2" | 1 1/4" | 1'-0" | A | 8 | 2" | 7" | 2" | 3 | 2" | 7" | 2" | 3 | |

SPREAD FOOTING SCHEDULE

| MARK | REINFORCEMENT | LENGTH | WIDTH |
|---|---|---|---|
| F6.0 | 7-#6 HOOKED EACH WAY, TOP & BOTTOM | 6'-0" | 6'-0" |
| F7.0 | 8-#6 HOOKED EACH WAY, TOP & BOTTOM | 7'-0" | 7'-0" |

NOTES:
1. REFER TO S401 FOR TYPICAL FOUNDATION DETAILS.

## 7 SPREAD FOOTING SCHEDULE

3" = 1'-0"

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TAMPA, FLORIDA 33602.5823
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CERTIFICATE OF AUTHORIZATION NO. 3818

PROJECT NO. S05-18065-00

ROBERT S. MOHRLAND P.E. NO. 62851

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES

ORLANDO HEALTH®

Orlando Health Imaging Center
1800 S Orange Avenue
Orlando, Florida 32806

ROBERT S. MOHRLAND LICENSE No. 62851 STATE OF FLORIDA PROFESSIONAL ENGINEER
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3/15/2019

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Revision

| No. | Date | Description |
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| | | |

FOUNDATION TYPICAL DETAILS

# S402

43642
3/18/2019

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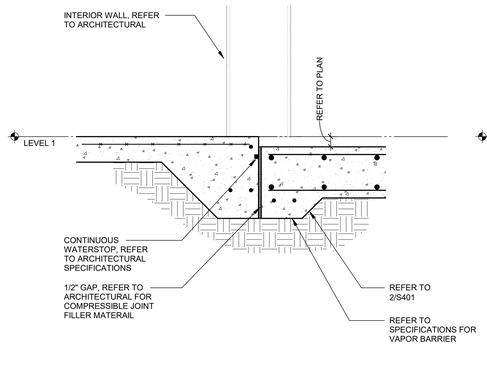
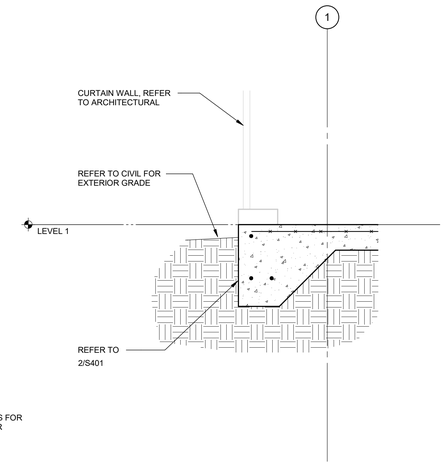
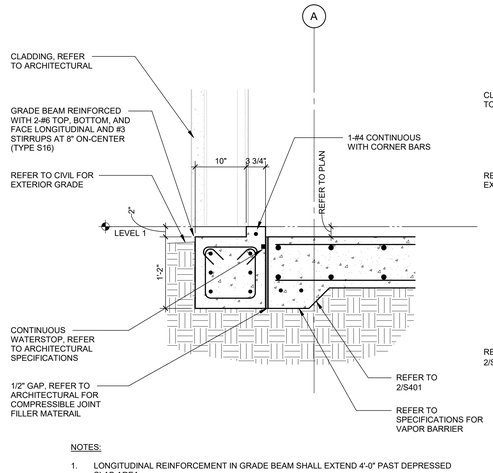
Checked By: Checker
Approved By: Approver




4 DETAIL
1" = 1'-0"



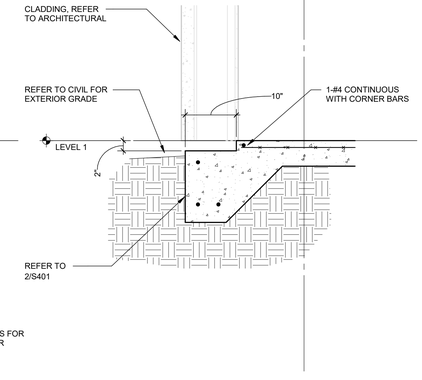

3 DETAIL
1" = 1'-0"



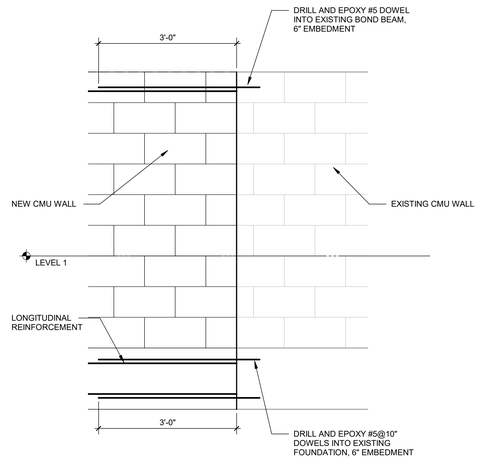

NOTES:

1. LONGITUDINAL REINFORCEMENT IN GRADE BEAM SHALL EXTEND 4'-0" PAST DEPRESSED SLAB AREA.

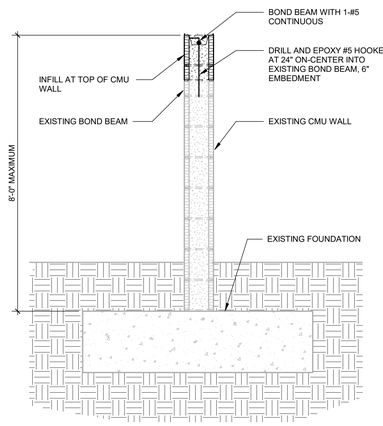
2 DETAIL
1" = 1'-0"



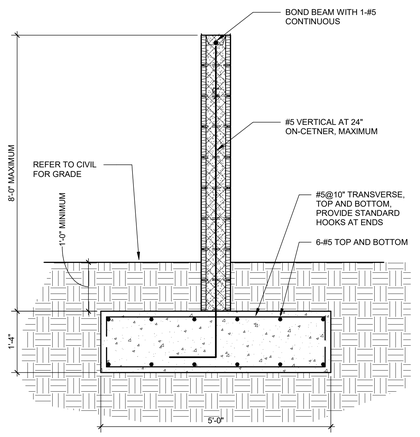

1 DETAIL
1" = 1'-0"




8 EXISTING TO NEW CMU WALL DETAIL
3/4" = 1'-0"




7 SECTION AT CMU WALL
3/4" = 1'-0"




NOTES:

1. ELEVATION OF FOUNDATION TO MATCH EXISTING FOUNDATION TO REMAIN.

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

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DN: c=US, o=Gresham Smith and Partners, ou=Florida, cn=Robert S. Mohrland, email=robert.mohrland@greshamsmith.com, 0.2.262.1.10.0.20=1.2.840.113549.1.9.1=#1613726f626572742e6d6f68726c616e64406772657368616d736d6974682e636f6d
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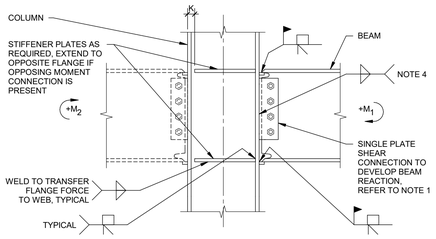


NOTES:
1. BOLTS IN WEB CONNECTION MAY BE SNUG-TIGHTENED OR PRETENSIONED A325 OR A490 BOLTS WITH HORIZONTAL SHORT-SLOTTED HOLES IN PLATE. IF BOLTS ARE TO BE PRETENSIONED, SNUG-TIGHTEN BOLTS PRIOR TO WELDING FLANGES AND PRETENSION AFTER WELDING FLANGES.
2. REFER TO SPECIFICATIONS FOR CONNECTION DESIGN CRITERIA.
3. PROVIDE PREDESIGNED SHEAR CONNECTIONS AS SHOWN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION LRFD MANUAL WHERE APPLICABLE.
4. MINIMUM FILLET WELD SIZE FOR SINGLE PLATE SHEAR CONNECTIONS SHALL BE 5/8 TIMES THE PLATE THICKNESS.
5. WHEN BEAM FRAMES ON ONLY ONE SIDE OF COLUMN OR WHEN BEAM MOMENTS ARE SIGNIFICANTLY UNBALANCED ( $|M_1 + M_2| >> 0$), STRENGTHEN COLUMN WEB AS REQUIRED.

## 5 TYPICAL MOMENT CONNECTION AT COLUMN FLANGE

NO SCALE

05120-CN-BMCOL.dgn
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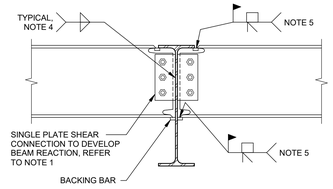


NOTES:
1. BOLTS IN WEB CONNECTION MAY BE SNUG-TIGHTENED OR PRETENSIONED A325 OR A490 BOLTS WITH HORIZONTAL SHORT-SLOTTED HOLES IN PLATE. IF BOLTS ARE TO BE PRETENSIONED, SNUG-TIGHTEN BOLTS PRIOR TO WELDING FLANGES AND PRETENSION AFTER WELDING FLANGES.
2. REFER TO SPECIFICATIONS FOR CONNECTION DESIGN CRITERIA.
3. PROVIDE PREDESIGNED SHEAR CONNECTIONS AS SHOWN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION LRFD MANUAL WHERE APPLICABLE.
4. MINIMUM FILLET WELD SIZE FOR SINGLE PLATE SHEAR CONNECTIONS SHALL BE 5/8 TIMES THE PLATE THICKNESS.
5. IF MOMENT IS SHOWN ON DRAWINGS, PARTIAL PENETRATION WELD TO DEVELOP MOMENT CAN BE USED IN LIEU OF COMPLETE JOINT PENETRATION WELD. FOR THIS CASE, WELD SHALL BE REQUIRED TO DEVELOP THE BEAM FLANGE FORCE COMPUTED AS FOLLOWS: Pu = (Mu)/(0.95D),
WHERE: Mu = DESIGN MOMENT (KIP-FEET).
D = BEAM DEPTH (INCHES).
Pu = BEAM FLANGE FORCE (KIPS).

## 4 TYPICAL BEAM-TO-BEAM MOMENT CONNECTION

NO SCALE

05120-CN-BMBEAM
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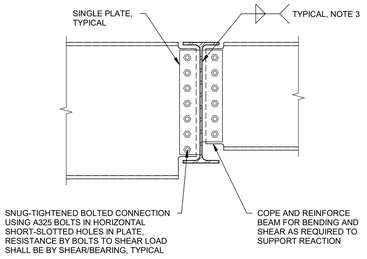


NOTES:
1. REFER TO SPECIFICATIONS FOR CONNECTION DESIGN CRITERIA.
2. PROVIDE PREDESIGNED CONNECTIONS AS SHOWN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL WHERE APPLICABLE.
3. MINIMUM FILLET WELD SIZE SHALL BE 5/8 TIMES THE PLATE THICKNESS.

## 3 TYPICAL BEAM-TO-BEAM SHEAR CONNECTION

NO SCALE

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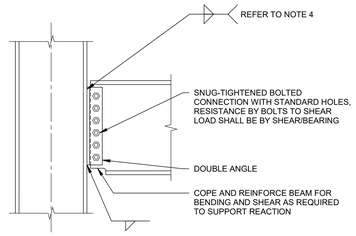


NOTES:
1. REFER TO SPECIFICATIONS FOR CONNECTION DESIGN CRITERIA.
2. REFER TO PLAN FOR CONNECTION DESIGN REACTIONS.
3. PROVIDE PREDESIGNED CONNECTIONS AS SHOWN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL WHERE APPLICABLE.
4. SHOP WELD CONNECTION TO DEVELOP BEAM REACTION (2 x WELD SIZE RETURN AT TOP).

## 2 TYPICAL SHEAR CONNECTION AT COLUMN FLANGE

NO SCALE

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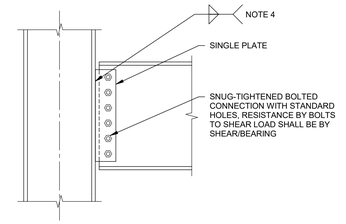


NOTES:
1. REFER TO SPECIFICATIONS FOR CONNECTION DESIGN CRITERIA.
2. REFER TO PLAN FOR CONNECTION DESIGN REACTIONS.
3. PROVIDE PREDESIGNED CONNECTIONS AS SHOWN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL WHERE APPLICABLE.
4. MINIMUM FILLET WELD SIZE SHALL BE 5/8 TIMES THE PLATE THICKNESS.

## 1 TYPICAL SHEAR CONNECTION AT COLUMN FLANGE

NO SCALE

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NOTES:
1. REFER TO SPECIFICATIONS FOR CONNECTION DESIGN CRITERIA.
2. REFER TO PLAN FOR CONNECTION DESIGN REACTIONS.
3. PROVIDE PREDESIGNED CONNECTIONS AS SHOWN IN AMERICAN INSTITUTE OF STEEL CONSTRUCTION MANUAL WHERE APPLICABLE.
4. SHOP WELD ON 3 SIDES TO DEVELOP BEAM REACTION, TYPICAL.

## 8 TYPICAL SHEAR CONNECTION AT COLUMN WEB

NO SCALE

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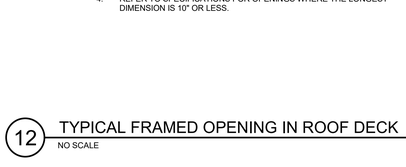


NOTES:
1. REINFORCEMENT MUST BE PLACED USING REINFORCING BAR POSITIONERS THAT LOCATE THE BAR AS SPECIFIED AND PREVENT MOVEMENT OF THE BAR DURING CONSTRUCTION.
2. SPLICED REINFORCEMENT MUST BE A CONTACT LAP SPLICE WITH SPLICED BARS ALIGNED PARALLEL TO THE WALL AS SHOWN.
3. THE ENGINEER MUST BE NOTIFIED PRIOR TO PLACEMENT OF REINFORCEMENT THAT IS REQUIRED TO BE PLACED OUTSIDE OF THE TOLERANCES OF THIS DETAIL SUCH AS TO AVOID INTERFERENCE WITH OTHER REINFORCEMENT, CONDUITS, OR EMBEDDED ITEMS.

## 7 TYPICAL CMU VERTICAL BAR PLACEMENT

NO SCALE

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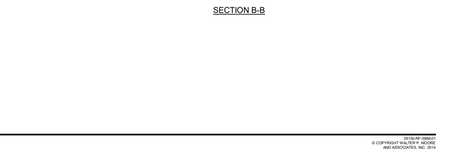


NOTES:
1. FIT STIFFENER PLATES TIGHT TO TOP FLANGE AND STOP AT FILLET OF BOTTOM FLANGE.
2. ALL WELDS SHALL BE IN ACCORDANCE WITH AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS.

## 6 STEEL WIDE FLANGE COLUMN TRANSFER

NO SCALE

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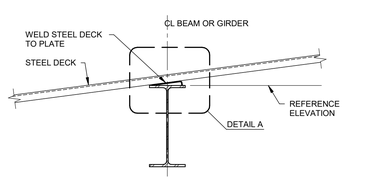


## 15 TYPICAL SLOPING STEEL DECK SUPPORT ON BEAM WITH VERTICAL WEB

NO SCALE

05305-RF-STLDK.01
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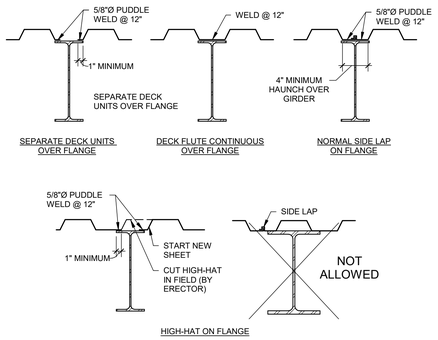


## 14 TYPICAL COMPOSITE STEEL DECK DETAILS AT GIRDER

NO SCALE

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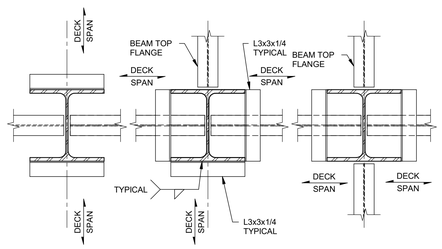


## 13 TYPICAL STEEL DECK SUPPORT AT STEEL COLUMNS

NO SCALE

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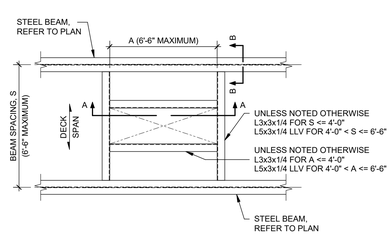


NOTES:
1. COORDINATE OPENING SIZES AND LOCATIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
2. ROOF DECK SHALL BE CONTINUOUS OVER FRAMED OPENINGS. DO NOT CUT OPENINGS UNTIL IMMEDIATELY BEFORE THEY ARE NEEDED.
3. VERIFY FRAMING WITH ENGINEER WHERE DIMENSIONS EXCEED MAXIMUM DIMENSIONS SHOWN IN THIS DETAIL.
4. REFER TO SPECIFICATIONS FOR OPENINGS WHERE THE LONGEST DIMENSION IS 10" OR LESS.

## 12 TYPICAL FRAMED OPENING IN ROOF DECK

NO SCALE

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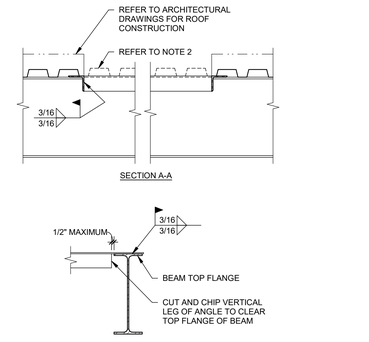


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Orlando, Florida 32806

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DN: c=US, o=FLORIDA, ou=A01410D000001A7C, cn=Robert S. Mohrland
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FRAMING TYPICAL DETAILS

**S501**

43642
3/18/2019

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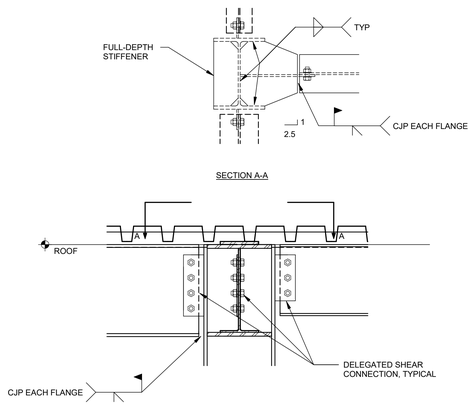
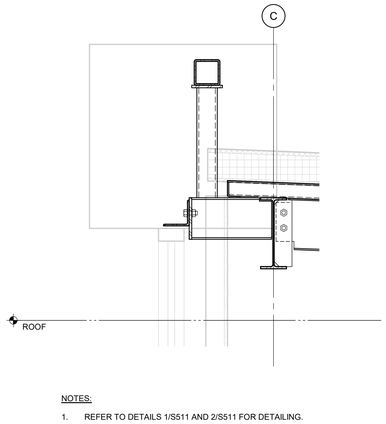



NOTES:

1. REFER TO PLAN FOR DESIGN FORCES AND MOMENTS.

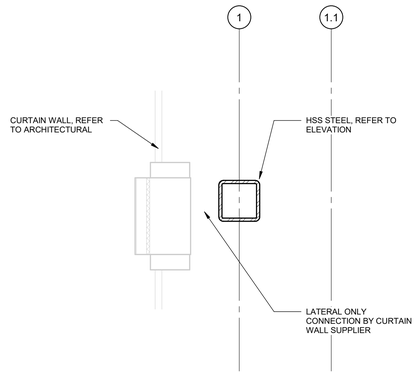
## 5 TYPICAL WEAK AXIS MOMENT CONNECTION
1" = 1'-0"



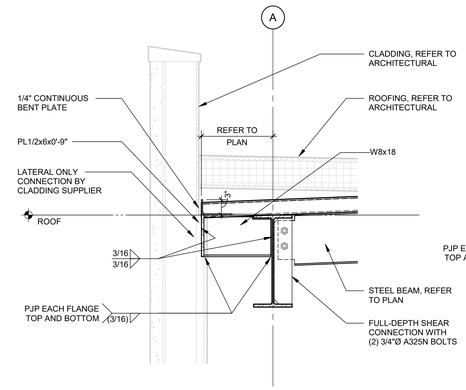

NOTES:

1. REFER TO DETAILS 1/S511 AND 2/S511 FOR DETAILING.

## 4 DETAIL
1" = 1'-0"




## 3 DETAIL
1" = 1'-0"

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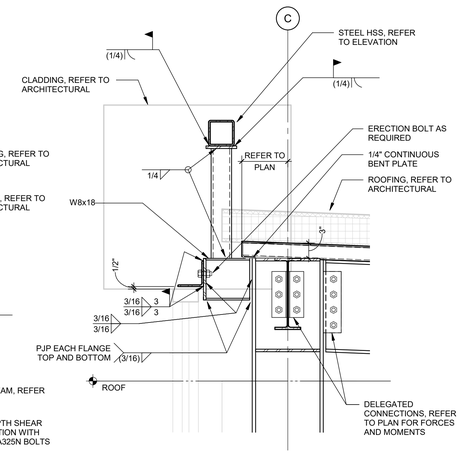
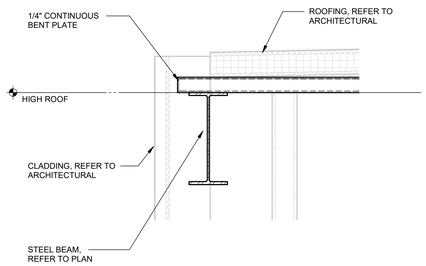



## 1 DETAIL
1" = 1'-0"

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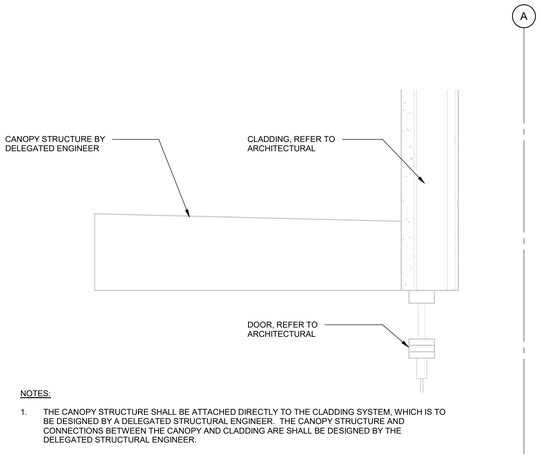
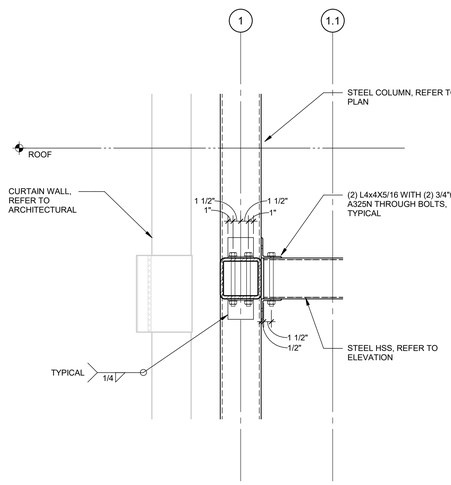



NOTES:

1. THE CANOPY STRUCTURE SHALL BE ATTACHED DIRECTLY TO THE CLADDING SYSTEM, WHICH IS TO BE DESIGNED BY A DELEGATED STRUCTURAL ENGINEER. THE CANOPY STRUCTURE AND CONNECTIONS BETWEEN THE CANOPY AND CLADDING ARE SHALL BE DESIGNED BY THE DELEGATED STRUCTURAL ENGINEER.

## 9 DETAIL
1" = 1'-0"




## 14 DETAIL
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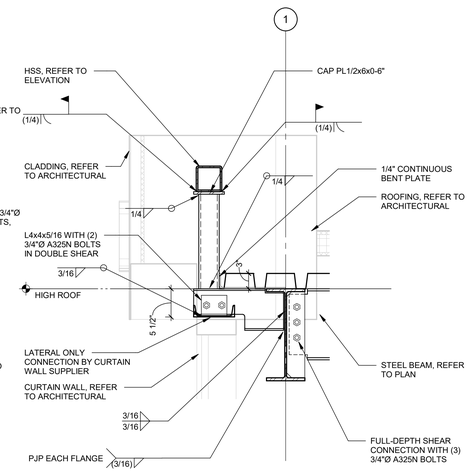


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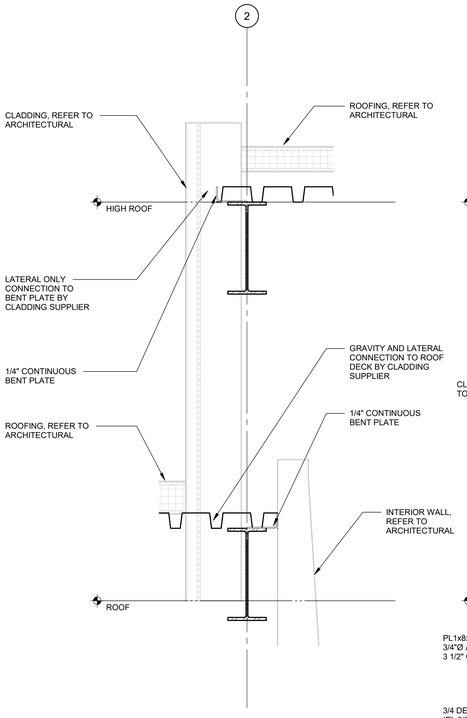


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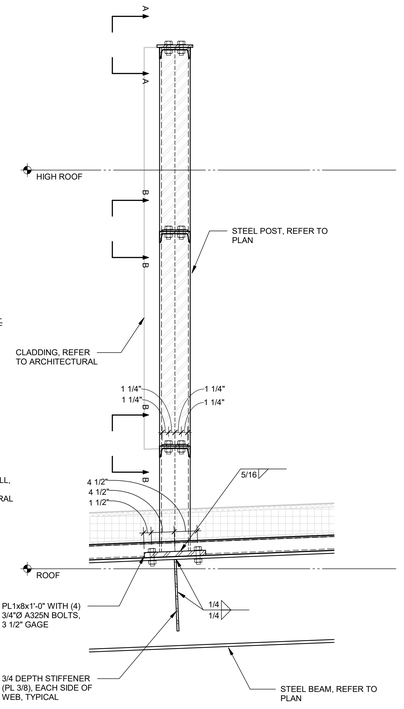
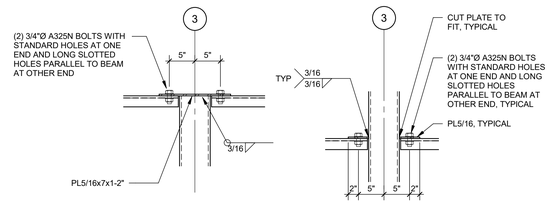



## 11 DETAIL
1" = 1'-0"

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CERTIFICATE OF AUTHORIZATION NO. 3818

PROJECT NO. S05-18065-00

ROBERT S. MOHRLAND P.E. NO. 62851

TO THE BEST OF THE ENGINEER'S KNOWLEDGE, THE PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE MINIMUM BUILDING CODES

ORLANDO HEALTH®

# Orlando Health Imaging Center
1800 S Orange Avenue
Orlando, Florida 32806

ROBERT S. MOHRLAND LICENSE No. 62851 STATE OF FLORIDA PROFESSIONAL ENGINEER
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Revision

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FRAMING DETAILS

# S511

43642
3/18/2019

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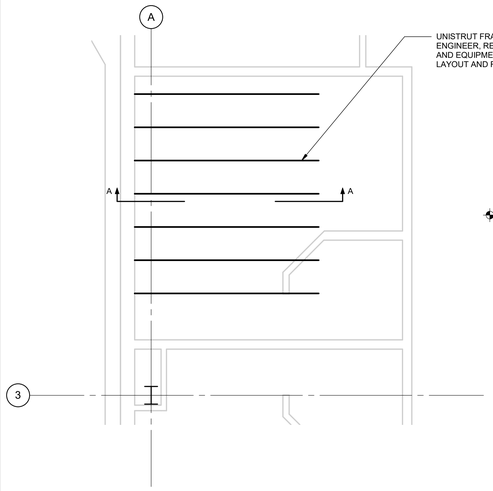
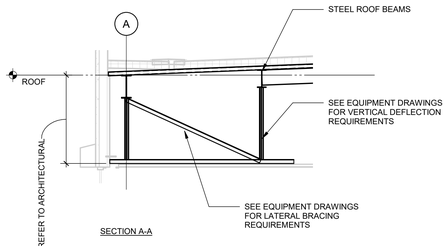


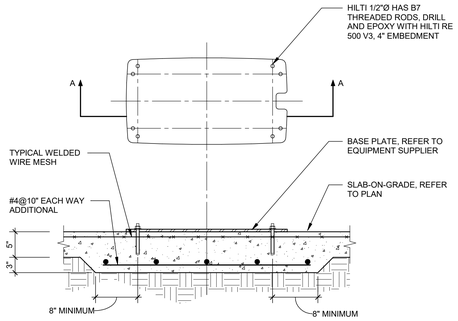

SECTION A-A

NOTES:

1. LAYOUT OF UNISTUT IS CONCEPTUAL. THE CONTRACTOR SHALL COORDINATE THE FINAL LAYOUT WITH THE EQUIPMENT SUPPLIER.

## 5 TYPICAL UNISTRUT FRAMING FOR MEDICAL EQUIPMENT

1/4" = 1'-0"



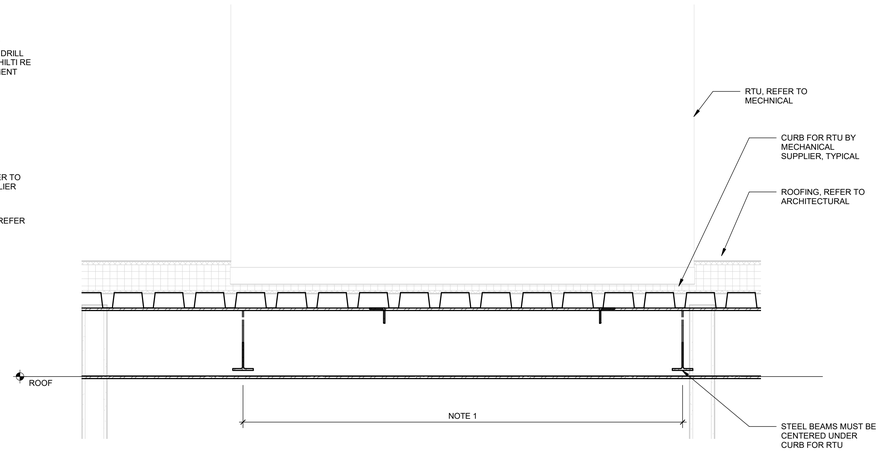

SECTION A-A

NOTES:

1. REFER TO EQUIPMENT SUPPLIER FOR BASE PLATE GEOMETRY.
2. REFER TO ARCHITECTURAL FOR LOCATIONS OF THICKENED SLAB.
3. CONCRETE SLAB WITHIN MOUNTING AREA SHALL BE TRUE, SMOOTH, AND LEVEL WITHIN 3/16" OVER 3 FEET. REFER TO EQUIPMENT DRAWINGS FOR MORE INFORMATION.

## 3 TYPICAL BASE CONNECTION FOR EQUIPMENT

1" = 1'-0"

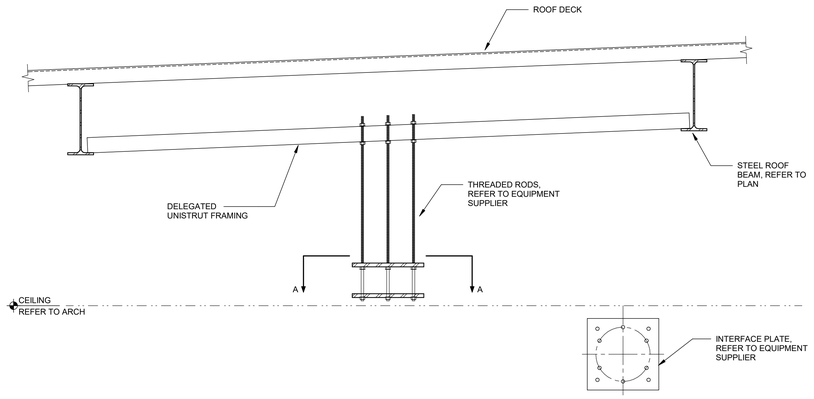



NOTES:

1. STEEL BEAM LOCATIONS ARE BASED ON PRELIMINARY COORDINATION WITH THE ARCHITECT AND MECHANICAL ENGINEER. FINAL LOCATIONS OF STEEL BEAMS MUST BE CONFIRMED BY THE CONTRACTOR ONCE THE RTU IS SELECTED.

## 2 TYPICAL SECTION AT RTU

1" = 1'-0"




SECTION A-A

NOTES:

1. REFER TO ARCHITECTURAL AND MEDICAL EQUIPMENT MANUFACTURER'S DRAWINGS FOR EQUIPMENT LOCATIONS AND ADDITIONAL REQUIREMENTS.

## 7 TYPICAL UNISTRUT SUPPORT FOR HANGING MEDICAL EQUIPMENT

1" = 1'-0"

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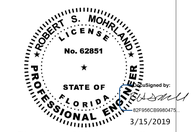


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Revision

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FRAMING DETAILS

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43642
3/18/2019

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Drawn By: KGG
Checked By: Checker
Approved By: Approver

# TECHNOLOGY SYSTEMS SYMBOL LEGEND

## BASIC MATERIALS

| SYMBOL | DESCRIPTION |
|---|---|
| J | JUNCTION BOX |
| J | FLOOR MOUNTED JUNCTION BOX |
| J | PEDESTAL MOUNTED JUNCTION BOX |
| | INGROUND PULL BOX |
| | CONDUIT CONCEALED |
| | CONDUIT EXPOSED |
| | CONDUIT CONCEALED IN SLAB, UNDERGROUND OR UNDER FLOOR |
| | CONDUIT TURNING UP |
| | CONDUIT TURNING DOWN |
| | CONDUIT STUB |
| | CONDUIT CONTINUED |
| | FLEXIBLE CONDUIT |
| | GROUND OR GROUND ROD AS NOTED |
| | SLEEVE TURNING UP |
| | SLEEVE TURNING DOWN |
| | EXISTING TO BE REMOVED |
| | EXISTING TO REMAIN |
| | EXISTING AFFECTED BY THIS PROJECT |
| | FUTURE |
| | CABLE TRAY FOR HORIZONTAL CABLING. |
| | LADDER TRAY FOR HORIZONTAL CABLING. |
| | PENETRATION CONDUIT SLEEVE WITH BUSHINGS. |

## AUDIO/VIDEO SYSTEM

| SYMBOL | DESCRIPTION |
|---|---|
| X x Y | OVERHEAD PROJECTOR WITH SCREEN. SCREEN SIZE SHOWN ON PLANS |
| X | OVERHEAD PROJECTOR - CEILING MOUNTED<br>X - DENOTES TYPE |
| | CEILING MOUNTED DOCUMENT CAMERA |
| AV | AUDIO/VIDEO CAMERA |
| X x Y | PULLDOWN PROJECTION SCREEN, SIZE SPECIFIED ON PLANS |
| X x Y | MOTORIZED PROJECTION SCREEN, SIZE SPECIFIED ON PLANS |
| | OVERHEAD PROJECTION SCREEN MOTOR |
| $S_X$ | WALL SWITCH FOR MOTORIZED SCREEN<br>X = A, B, C... INTERFACE TYPE. |
| AV X | AUDIO VISUAL INPUT/OUTPUT - WALL MOUNTED WITH ADJACENT DEDICATED DUPLEX RECEPTACLE BY DIVISION 26<br>X = TYPE (A, B, C, ETC.) SEE DETAILS FOR ADDITIONAL INFORMATION |
| AV X | AUDIO VISUAL INPUT/OUTPUT -SURFACE OR FLOOR BOX MOUNTED WITH ADJACENT DEDICATED DUPLEX RECEPTACLE BY DIVISION 26<br>X = TYPE (A, B, C, ETC.) SEE DETAILS FOR ADDITIONAL INFORMATION |
| N<br>TV XX" | N = FACEPLATE CONNECTIVITY AND MOUNTING TYPE, SEE DETAILS FOR INFORMATION (TYPE 1,2,3, ETC.)<br>MONITOR SIZE IF APPLICABLE, SEE DETAILS FOR INFORMATION<br>TELEVISION/MONITOR OUTLET, SEE DETAILS FOR MOUNTING HEIGHT |
| ALT | ASSISTED LISTENING TRANSMITTER |
| TS | TOUCH SCREEN AUDIO/VIDEO CONTROL |
| TS | WALL MOUNTED TOUCH SCREEN AUDIO/VIDEO CONTROL |
| SX Y | CEILING MOUNTED SPEAKER<br>x DENOTES TYPE<br>y DENOTES ZONE |
| SX Y | WALL MOUNTED SPEAKER<br>x DENOTES TYPE<br>y DENOTES ZONE<br>NO ZONE DENOTES LOCAL AUDIO/VIDEO SYSTEM |
| VC | VOLUME CONTROL. PROVIDE 3/4" CONDUIT STUB-UP ABOVE CEILING AND SINGLE STANDARD ELECTRICAL BOX AT 52" ABOVE FINISHED FLOOR |
| MX Y | CEILING MOUNTED MICROPHONE OUTLET<br>x DENOTES TYPE<br>y DENOTES ZONE |
| MX Y | WALL MOUNTED MICROPHONE<br>x DENOTES TYPE<br>y DENOTES ZONE<br>NO ZONE DENOTES LOCAL AUDIO/VIDEO SYSTEM |
| MX Y | SURFACE MOUNTED MICROPHONE<br>x DENOTES TYPE<br>y DENOTES ZONE<br>NO ZONE DENOTES LOCAL AUDIO/VIDEO SYSTEM |
| SD | SATELLITE DISH |
| PODIUM | SEE PODIUM DETAILS |
| PR | PRESS CONNECTION PANEL, SEE DETAILS FOR ADDITIONAL INFORMATION |
| S | SPEAKER - DEMOLITION PLAN |
| M | MICROPHONE - DEMOLITION PLAN |

NOTES:

1. ALL RACEWAYS AND BOXES SHOWN ARE IN CONTRACT BY THE ELECTRICAL INSTALLER.
2. AUDIO/VIDEO DEVICES AND EQUIPMENT BY THE AUDIO/VIDEO INSTALLER.

## INTERCOM & PAGING SYSTEM

| | |
|---|---|
| AP | ADMINISTRATIVE PHONE |
| HS | HANDSET |
| CS | CALL STATION |
| S | 2x2 LAY-IN CEILING MOUNTED SPEAKER |
| SX Y | WALL MOUNTED SPEAKER<br>x DENOTES TYPE<br>y DENOTES ZONE<br>NO ZONE DENOTES LOCAL AUDIO/VIDEO SYSTEM |

## VOICE & DATA SYSTEM

| SYMBOL | DESCRIPTION |
|---|---|
| C X N N N | MOUNTING 2" ABOVE COUNTER OR BACK SPLASH<br>X = MOUNTING (F)LUSH, (S)URFACE, (M)ODULAR FURNITURE ADAPTER (P)OLE, (R)ACEWAY, (D)OUBLE GANG FLUSH, (PD) PEDESTAL<br>N = # OF VOICE/DATA JACKS<br>N = # OF COAX CONNECTORS "F" TYPE CONNECTOR<br>N = # OF FIBER OPTIC CONNECTORS. SC, ST, LC |
| | COMMUNICATIONS "INFORMATION OUTLET" MOUNTED AT RECEPTACLE HEIGHT UNLESS OTHERWISE NOTED. MODULE AND FACEPLATE DESCRIPTIONS ON DETAIL SHEETS |

SPECIAL NOTES:

1. VOICE/DATA JACKS:
   EACH RJ45CAT6A JACK FOR VOICE/DATA SHALL BE CONNECTED TO A DEDICATED UTP 4 PR CAT6A CABLE.

| | |
|---|---|
| W F1 | WALL TELEPHONE OUTLET FOR HOUSE PHONE. MOUNTED AT 52" ABOVE FINISHED FLOOR TO TOP. |
| W ADA | WALL MOUNTED OUTLET FOR ADA ACCESSABLE PAY PHONE. MOUNTED AT 44" ABOVE FINISHED FLOOR |
| CN | SECURITY CAMERA NETWORK OUTLET. COORDINATE EXACT LOCATION OF OUTLET WITH OWNER PRIOR TO ROUGH IN.<br>N = # OF DATA JACKS. MAXIMUM CABLE LENGTH 262 FT |
| WAP XON | WIRELESS ACCESS POINT OUTLET. ACCESS POINT BY OWNER.<br>X = MOUNTING (F)LUSH, (S)URFACE, (C)EILING.<br>N = # OF DATA JACKS. MAXIMUM CABLE LENGTH 262 FT |
| S1 ELV | WALL TELEPHONE OUTLET FOR TELEPHONE IN ELEVATOR MACHINE ROOM. (S)URFACE MOUNTED AT 52" ABOVE FINISHED FLOOR. |
| XNNN | COMBINED VOICE/DATA, AUDIO/VIDEO AND POWER OUTLETS IN FLOOR BOX. POWER RECEPTACLE IS SHOWN FOR REFERENCE ONLY. CONDUIT, BOX AND POWER RECEPTACLE DIVISION 26.y |
| TB XNNN | X = A, B, C... FLOOR BOX TYPE. N'S ARE DESCRIBED ABOVE. TABLE TOP POP-UP WITH VOICE/DATA, AUDIO/VIDEO AND POWER INTERFACE.<br>X = A, B, C... FLOOR BOX TYPE. N'S ARE DESCRIBED ABOVE. |
| P XNNN | POKE THRU WITH COMBINED VOICE/DATA, AUDIO/VIDEO AND POWER.<br>X = A, B, C... FLOOR BOX TYPE. N'S ARE DESCRIBED ABOVE. |
| | 3/4" PLYWOOD BACKBOARD. BY DIVISION 26 |
| | IDF - 2 POST RACK |
| | IDF - 4 POST RACK |
| | TELECOMM PANEL |
| TEF: | TELECOMMUNICATIONS ENTRANCE FACILITY |
| TR: | TELECOMMUNICATIONS ROOM |
| TER: | TELECOMMUNICATIONS EQUIPMENT ROOM |

NOTES:

1. STRUCTURED CABLING SYSTEM BY DIVISION 27 CABLING INSTALLER.
2. ALL CABLE TRAY, CONDUITS AND BOXES SHOWN ARE IN CONTRACT BY THE ELECTRICAL INSTALLER. J-HOOKS AND LADDER RACKS BY SCS INSTALLER.
3. INSTALLER TO REMOVE ALL EXISTING LOW VOLTAGE CABLES NOT TO BE REUSED. E.G. ALL EXISTING UTP 4 PAIR CABLES. NO ABANDONED CABLES SHALL BE LEFT IN THE BUILDING.

## SECURITY SYSTEM

| SYMBOL | DESCRIPTION |
|---|---|
| | FIXED CCTV CAMERA. PROVIDE CAT6A CABLE, FACEPLATE, AND DOUBLE GANG JUNCTION BOX AND CONDUIT<br>INDICATES WALL MOUNT |
| | PAN/TILT/ZOOM CCTV CAMERA,. PROVIDE CAT6A CABLE, FACEPLATE, AND DOUBLE GANG JUNCTION BOX AND CONDUIT<br>INDICATES WALL MOUNT |
| | SECURITY PANEL |
| DPS | DOOR POSITION SWITCH |
| BMS | BALANCED MAGNETIC SWITCH |
| CR | CARD READER |
| KP | KEYPAD |
| CK | COMBINED CARD READER/KEYPAD |
| HS | HIRSH SCRAMBLE KEYPAD |
| IK | INTRUSION ALARM KEYPAD |
| BR | BIOMETRIC READER |
| SA | LOCAL HORN STROBE ALARM |
| EL | ELECTRIC LATCH |
| EM | ELECTRIC MORTISE/TRIM LOCK |
| ES | ELECTRIC STRIKE |
| ML | MAGNETIC LOCK |
| PE | POWER OVER ETHERNET CARDREADER/LOCK COMBO |
| DE | DELAYED EGRESS |
| DL | DETENTION LOCK |
| DI | DOOR INTERLOCK |
| | REMOTE DOOR RELEASE BUTTON |
| | REX OR ADA DOOR OPEN BUTTON |
| AS | ASSISTANCE STATION |
| IS | INTERCOM SUBSTATION |
| SP | SPEAKER PHONE |
| D | DURESS BUTTON MOUNTED UNDERSIDE OF COUNTER |
| D | DURESS BUTTON WALL MOUNTED |
| MON | CCTV MONITOR |
| P | PHOTO ELECTRIC BEAM |
| MI | INTERCOM MASTER STATION |
| M | DIRECTIONAL MOTION DETECTOR |
| | 360° MOTION DETECTOR |
| G | GLASS BREAK SENSOR |
| R | REQUEST TO EXIT MOTION SENSOR |
| I | DETENTION DOOR INTERLOCK |
| X | ASSOCIATED DOOR DETAIL REFERENCE |
| PC | PERSONAL COMPUTER WORKSTATION |
| CP | SECURITY CAMERA EXTERIOR POLE |

NOTES:

1. ALL RACEWAYS AND BOXES SHOWN ARE IN CONTRACT BY THE ELECTRICAL INSTALLER.
2. SECURITY DEVICES AND EQUIPMENT BY DIVISION 27 SECURITY INSTALLER.
3. INSTALLER TO REMOVE ALL EXISTING SECURITY CABLES AND EQUIPMENT NOT TO BE REUSED. ALL EXISTING EQUIPMENT WILL BE RETURNED TO THE OWNER.

NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT.

# GENERAL NOTES

## GENERAL SYSTEM NOTES

1. PRODUCTS SHALL BE OF MATERIALS THAT ARE SUITABLE FOR THE ENVIRONMENT IN WHICH THEY ARE TO BE INSTALLED.
2. WORKING CLEARANCES AROUND ELECTRICAL EQUIPMENT SHALL BE MAINTAINED IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE ARTICLE 110, COORDINATE EQUIPMENT INSTALLATION TO MAINTAIN REQUIRED CLEARANCES.
3. IF AN OUTLET BOX IS REQUIRED TO BE LOCATED IN AN ASSEMBLY OR PARTITION RATED AS "FIRE/SMOKE" OR "SMOKE" OR IDENTIFIED AS EITHER "FIRE/SMOKE" OR "SMOKE", THEN ALL OF THE FOLLOWING CONDITIONS SHALL BE MET:
   A. THE OUTLET BOX SHALL BE METALLIC.
   B. THE OUTLET BOX OPENINGS SHALL OCCUR ONLY ON ONE SIDE OF THE FRAMING SPACE.
   C. THE OUTLET BOX OPENINGS SHALL NOT EXCEED 16 SQUARE INCHES.
   D. ALL CLEARANCES BETWEEN THE OUTLET BOX AND THE WALL BOARD MATERIAL SHALL BE COMPLETELY SEALED WITH APPROVED MATERIALS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS FOR THE PROJECT.
   E. PROVIDE A SUPPLEMENTAL BARRIER AROUND OUTLETS LARGER THAN 16 INCHES SO THAT THE ORIGINAL RATING OF THE PENETRATION IS MAINTAINED.
   F. THE TOTAL AGGREGATE SURFACE AREA OF THE OUTLET BOX SHALL NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FEET.
   G. THE OUTLET BOX SHALL BE SEPARATED FROM OPENINGS ON THE OPPOSITE SIDE OF THE RATED PARTITION BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES.
   H. THE OUTLET BOX SHALL BE SECURELY FASTENED TO A PARTITION FRAMING MEMBER BY MEANS OF AN APPROVED ATTACHMENT METHOD.
   I. OPENINGS CUT INTO THE WALL BOARD MATERIAL SHALL NOT EXCEED 1/8 INCH BETWEEN THE EDGES OF THE OUTLET BOX AND THE EDGES OF THE OPENING.
4. LOCATIONS OF EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE, COORDINATE EXACT EQUIPMENT LOCATION AND CONNECTION REQUIREMENTS WITH THE APPROPRIATE TRADE PRIOR TO INSTALLATION.
5. FOR EXACT LOCATION OF CEILING MOUNTED EQUIPMENT REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN. LOCATIONS OF EQUIPMENT NOT INCLUDED ON THE REFLECTED CEILING PLAN SHALL BE COORDINATED WITH THOSE ITEMS SHOWN. COORDINATION OF CEILING MOUNTED EQUIPMENT SHALL BE PRIOR TO ANY ROUGH-IN. NOTIFY ENGINEER OF ANY DISCREPANCY.
6. PROVIDE FINAL CONNECTIONS TO OWNER PROVIDED EQUIPMENT WHERE INDICATED ON THE PLAN DRAWINGS.
7. PRIOR TO ROUGH-IN AND INSTALLATION OF ANY FLOOR MOUNTED DEVICE, VERIFY LOCATION WITH THE OWNER AND ARCHITECT.
8. VERIFY AND COORDINATE THE LOCATION OF REQUIRED DIVISION 27 OUTLETS WITH OTHER TRADE DRAWINGS AND OWNER PROVIDED EQUIPMENT.
9. EACH TELEVISION OUTLET LOCATION SHOWN, SHALL HAVE A DOUBLE GANG OUTLET BOX WITH A SINGLE GANG PLASTER RING AND (1) 1" CONDUIT STUBBED UP TO AN ACCESSIBLE LOCATION ABOVE THE FINISHED CEILING OR TO AN ACCESSIBLE CABLE TRAY WHERE PROVIDED.
10. THE DESIGNATION "N.I.C." SHALL DENOTE ITEMS, WHICH ARE "NOT IN CONTRACT".
11. THE DESIGNATION "U.S.C." SHALL DENOTE ITEMS, WHICH ARE "UNDER SEPARATE CONTRACT".
12. THE DESIGNATION "F.B.O." SHALL DENOTE ITEMS, WHICH ARE "FURNISHED BY OTHERS".
13. THE DESIGNATION "O.F.E." SHALL DENOTE ITEMS, WHICH ARE "OWNER FURNISHED EQUIPMENT".
14. THE DESIGNATION "D.H.C." SHALL DENOTE "DOOR HARDWARE INSTALLER".
15. THE DESIGNATION "O.F.C.I." SHALL DENOTE ITEMS WHICH ARE FURNISHED BY THE OWNER AND INSTALLED BY THE CONTRACTOR.
16. ALL RACEWAY SYSTEMS SHOWN TO SUPPORT THE INSTALLATION OF THE DIVISION 27 EQUIPMENT SHALL BE PROVIDED BY THE ELECTRICAL INSTALLER. PROVIDE COORDINATION FOR THE INSTALLATION OF THIS BE PROVIDED BY THE ELECTRICAL INSTALLER.
17. THE SYMBOL LEGENDS SHOWN ON THIS SHEET ARE ALL INCLUSIVE. SYMBOLS INCLUDED IN THE LEGENDS MAY OR MAY NOT BE USED IN THESE PROJECT DRAWINGS.
18. EACH VOICE/DATA OUTLET LOCATION SHOWN, SHALL HAVE A DOUBLE GANG OUTLET BOX WITH A SINGLE GANG PLASTER RING AND (1) 1" CONDUIT STUBBED UP TO AN ACCESSIBLE LOCATION ABOVE THE FINISHED CEILING, TO AN ACCESSIBLE CABLE TRAY WHERE PROVIDED OR HOMERUN IN SLAB TO NEAREST COMMUNICATIONS ROOM. WORK BY ELECTRICAL INSTALLER PER DIVISION 27 SPECIFICATIONS.
19. EACH FLOOR MOUNTED VOICE/DATA OUTLET SHALL HAVE A SINGLE GANG SPACE WITHIN THE FLOOR BOX AND (1) 1" CONDUIT CONCEALED IN SLAB STUBBED UP TO AN ACCESSIBLE LOCATION ABOVE THE FINISHED CEILING OR TO AN ACCESSIBLE CABLE TRAY WHERE PROVIDED. WORK BY ELECTRICAL INSTALLER PER DIVISION 27 SPECIFICATIONS.
20. ALL BONDING AND GROUNDING ELEMENTS UTILIZED FOR STRUCTURED CABLING SYSTEM SHALL BE IN COMPLIANCE WITH DIVISION 27 SPECIFICATIONS.
21. PROVIDE ALL SLEEVES AS REQUIRED FOR ALL LOW VOLTAGE CABLE PATHWAYS. RESTORE THE FIRE RATING OF THE SURFACE.
22. ALL CABLES SHALL BE SUITABLE TO THE ENVIRONMENT TO WHERE THEY WILL BE INSTALLED.
23. ALL INDOOR CONDUITS N0 LARGER THAN 1" SHOWN ON THE GROUND FLOOR SHALL BE INSTALLED EMBEDDED IN THE SLAB. CONDUITS SHALL BE KEPT DRY AND CLEAN PRIOR TO PULLING CABLES.
24. ANYTHING NOT DESIGNATED AS ROUGH-IN AND SUPPORT RESPONSIBILITY ON THESE DRAWINGS IS IN THE SYSTEM INSTALLER SCOPE OF WORK.
25. SEE DETAIL SHEETS FOR DEVICE MOUNTING REQUIREMENTS AND ADDITIONAL INFORMATION.
26. IN ELECTRICAL AND MECHANICAL ROOMS, CONDUIT FOR LOW VOLTAGE OUTLETS SHALL BE EXTENDED TO ACCESSIBLE CEILING OUTSIDE OF THE ROOM.

## SECURITY SYSTEM NOTES

1. ALL DOUBLE DOORS ARE TO RECEIVE (1) DOOR POSITION SWITCH ON EACH DOOR LEAF AND SHALL REPORT AS ONE ALARM POINT.
2. ALL 120V POWER WIRING SHALL BE INSTALLED IN A SEPARATE CONDUIT.
3. FIBER CCTV LOCATION WHICH EXCEEDS 3000 FEET SHALL BE EQUIPPED WITH 2 FIBER CONNECTIONS 1 VIDEO, 1 DATA
4. ALL POWER CIRCUITS, 120VAC AND 24VAC, SHALL INCLUDE AN EQUIPMENT GROUNDING CONDUCTOR WHICH IS EQUAL IN SIZE TO THE PHASE AND NEUTRAL CONDUCTORS.
5. ALL CONDUIT ABOVE GRADE SHALL BE METALLIC, ALL CONDUIT BELOW GRADE SHALL BE PVC UNLESS OTHERWISE NOTED ON DRAWINGS.
6. ALL CARD READERS AND KEYPADS DEDICATED FOR ELEVATOR FLOOR SELECTION CONTROL ARE SHOWN INSIDE THE ELEVATOR CAB ON THE LOWEST LEVEL FLOOR PLAN TO WHICH THE ELEVATOR TRAVELS.
7. ALL CONDUIT, WIRING, AND ASSOCIATED BACK BOXES SHALL BE FULLY CONCEALED WITHIN WALLS, FLOORS, AND CEILINGS.
8. INSTALLATION OF CAT6AUTP CABLE SHALL BE IN ACCORDANCE WITH EIA/TIA GUIDELINES. CABLE INSTALLATION AND TERMINATIONS THAT DO NOT COMPLY SHALL BE REPLACED BY THE INSTALLER.
   A. THE MAXIMUM PULLING TENSION SHALL NOT EXCEED 25 POUNDS TO AVOID STRETCHING THE CONDUCTORS.
   B. THE MINIMUM BENDING RADIUS OF THE CABLE SHALL NOT BE LESS THAN 4X THE OUTSIDE DIAMETER OF THE CABLE.
   C. THE CABLE SHALL BE INSTALLED WITHOUT KINKS OR TWISTS AND THE APPLICATION OF CABLE TIES SHALL NOT DEFORM THE CABLE BUNDLE.
   D. STRIP BACK ONLY AS MUCH CABLE JACKET AS IS REQUIRED TO TERMINATE THE CABLE. CABLE PAIRS SHALL NOT BE UNTWISTED MORE THAN 1/2 INCH.
9. INSTALLATION OF FIBER OPTIC CABLES SHALL BE IN ACCORDANCE WITH EIA/TIA GUIDELINES. CABLE INSTALLATION AND TERMINATIONS THAT DO NOT COMPLY SHALL BE REPLACED BY THE INSTALLER.
   A. THE BEND RADIUS FOR INTRABUILDING 2 AND 4-FIBER HORIZONTAL OPTICAL FIBER CABLE SHALL NOT BE LESS THAN 1 INCH UNDER NO-LOAD CONDITIONS. WHEN UNDER A MAXIMUM TENSILE LOAD OF 50 LBF, THE BEND RADIUS SHALL NOT BE LESS THAN 2 INCHES.
   B. THE BEND RADIUS FOR INTRABUILDING OPTICAL FIBER BACKBONE SHALL NOT BE LESS THAN THAT RECOMMENDED BY THE MANUFACTURER IF NO RECOMMENDATION IS KNOWN, THEN THE APPLIED BEND RADIUS SHALL NOT BE LESS THAN 10 TIMES THE CABLE OUTSIDE DIAMETER UNDER NO-LOAD CONDITIONS AND NOT LESS THAN 15 TIMES THE CABLE OUTSIDE DIAMETER WHEN THE CABLE IS UNDER TENSILE LOAD.
   C. THE BEND RADIUS FOR INTER BUILDING (OSP) OPTICAL FIBER BACKBONE SHALL NOT BE LESS THAN THAT RECOMMENDED BY THE MANUFACTURER IF NO RECOMMENDATION IS KNOWN, THEN THE APPLIED BEND RADIUS SHALL NOT BE LESS THAN 10 TIMES THE CABLE OUTSIDE DIAMETER NO-LOAD CONDITIONS AND NOT LESS THAN 20 TIMES THE CABLE OUTSIDE DIAMETER WHEN THE CABLE IS UNDER A TENSILE LOAD UP TO THE RATING OF THE CABLE, USUALLY 600 LBF.
10. COORDINATE LOCATION OF ALL FIRE RATED PENETRATIONS PRIOR TO PROCEEDING WITH INSTALLATION. ALL PENETRATIONS THROUGH FIRE RATED BARRIERS SHALL BE COMPLETELY SEALED WITH APPROPRIATE FIRE STOP MATERIAL IN ACCORDANCE WITH NFPA AND FIRE AUTHORITY HAVING JURISDICTION.
11. ALL DELAYED EGRESS LOCKS AND MAGNETIC LOCKS, SHALL RECEIVE A FIRE ALARM RELAY TO RELEASE THE DOOR UPON ALARM AS REQUIRED BY CODE.

## Drawing Index


| SHEET | DESCRIPTION | Issued |
|---|---|---|
| T001 | GENERAL TECHNOLOGY INFORMATION | Yes |
| T010 | SITE PLAN - TECHNOLOGY | Yes |
| T201 | LEVEL 1 NEW CONSTRUCTION PLAN - TECHNOLOGY | Yes |
| T301 | ENLARGED PLAN - TECHNOLOGY | Yes |
| T501 | TECHNOLOGY DETAILS | Yes |
| T502 | TECHNOLOGY DETAILS | Yes |



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GENERAL TECHNOLOGY INFORMATION

# T001

43642
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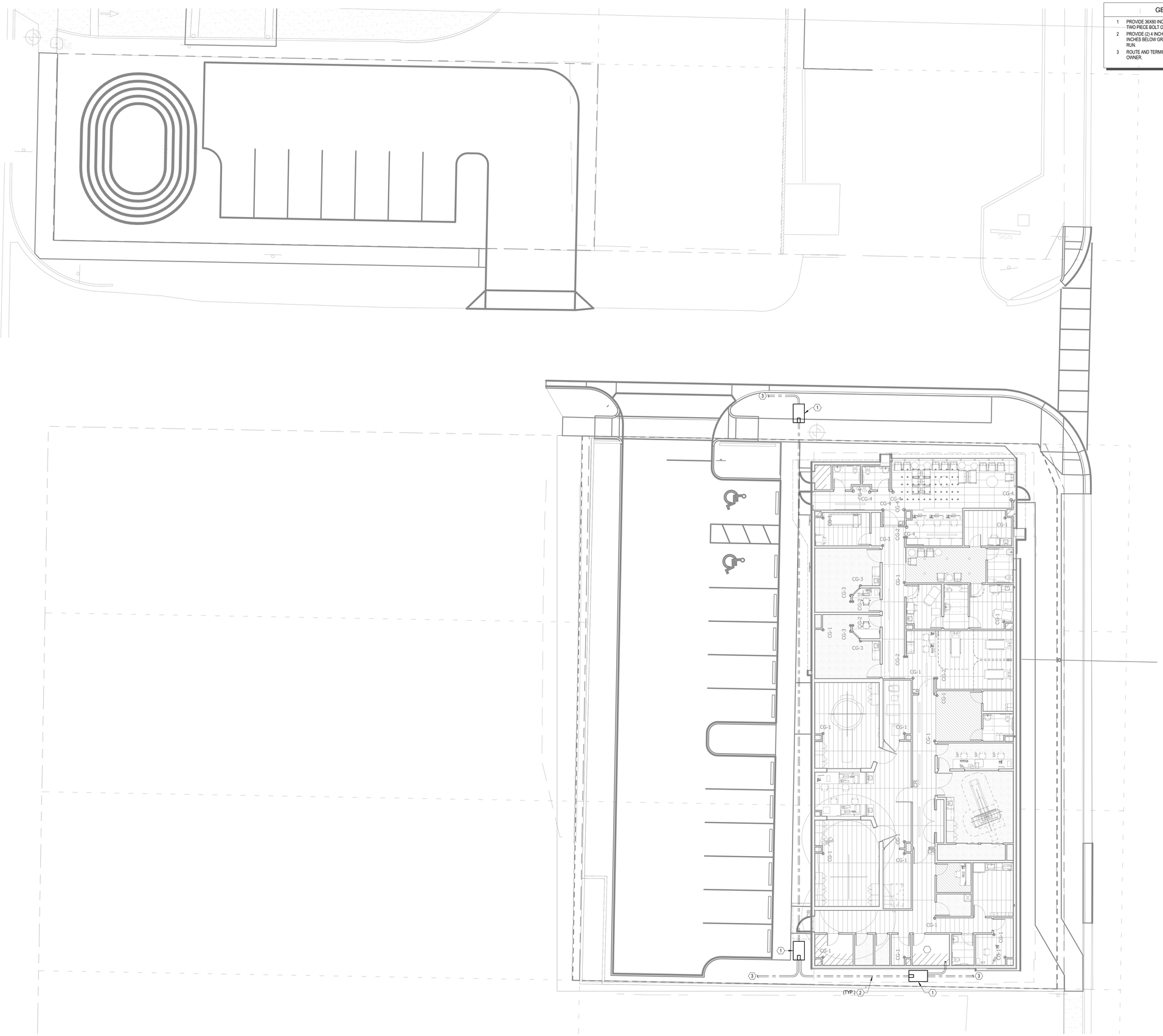
## GENERAL NOTES

1. PROVIDE 36X60 INCH GRADE MOUNTED PULL BOX, 15 TIER MINIMUM, TWO PIECE BOLT ON COVER FOR SERVICE ENTRANCE CABLING.
2. PROVIDE (2) 4 INCH CONDUITS WITH (3) 1-1/4 INCH INNER DUCTS 36 INCHES BELOW GRADE WITH MARKER TAPE OVER EACH CONDUIT RUN.
3. ROUTE AND TERMINATE SITE CONDUIT AS REQUIRED BY THE OWNER.




1 SITE PLAN - TECHNOLOGY
1" = 10'-0"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SITE PLAN - TECHNOLOGY

**T010**

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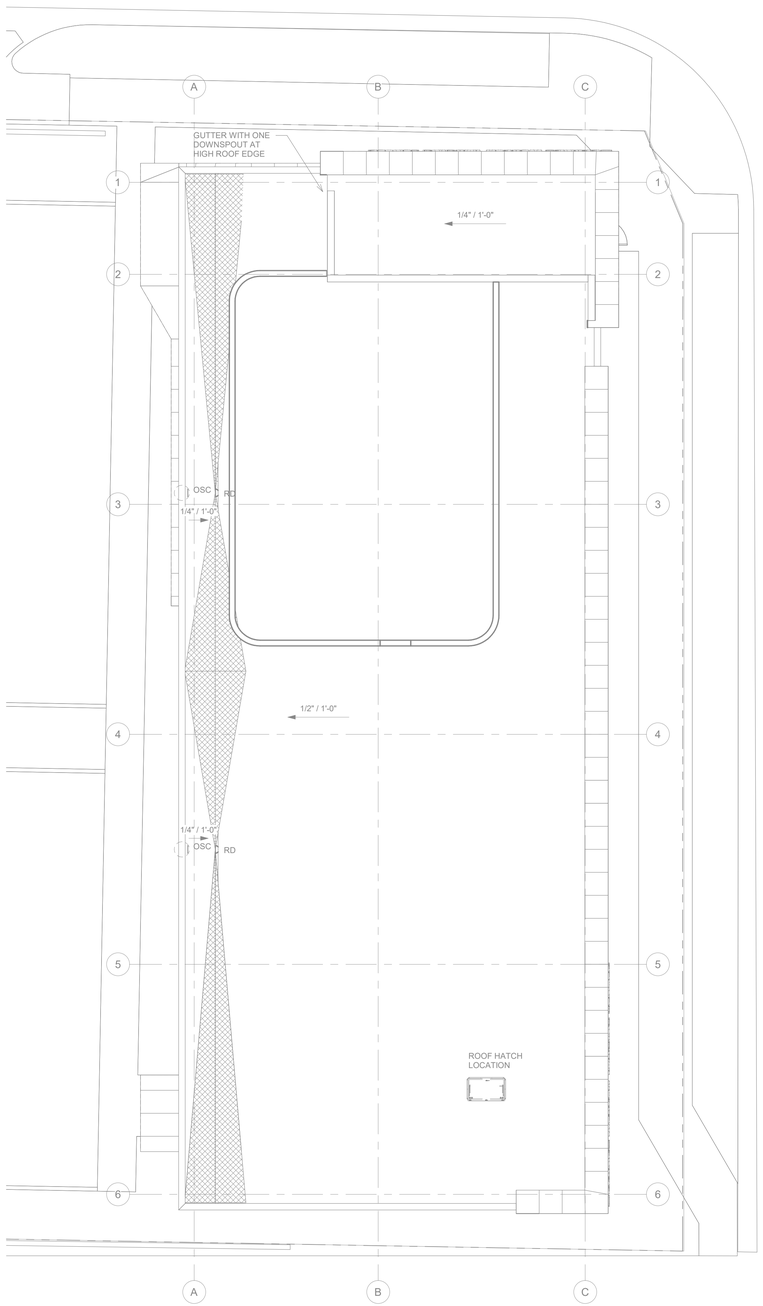
## GENERAL NOTES

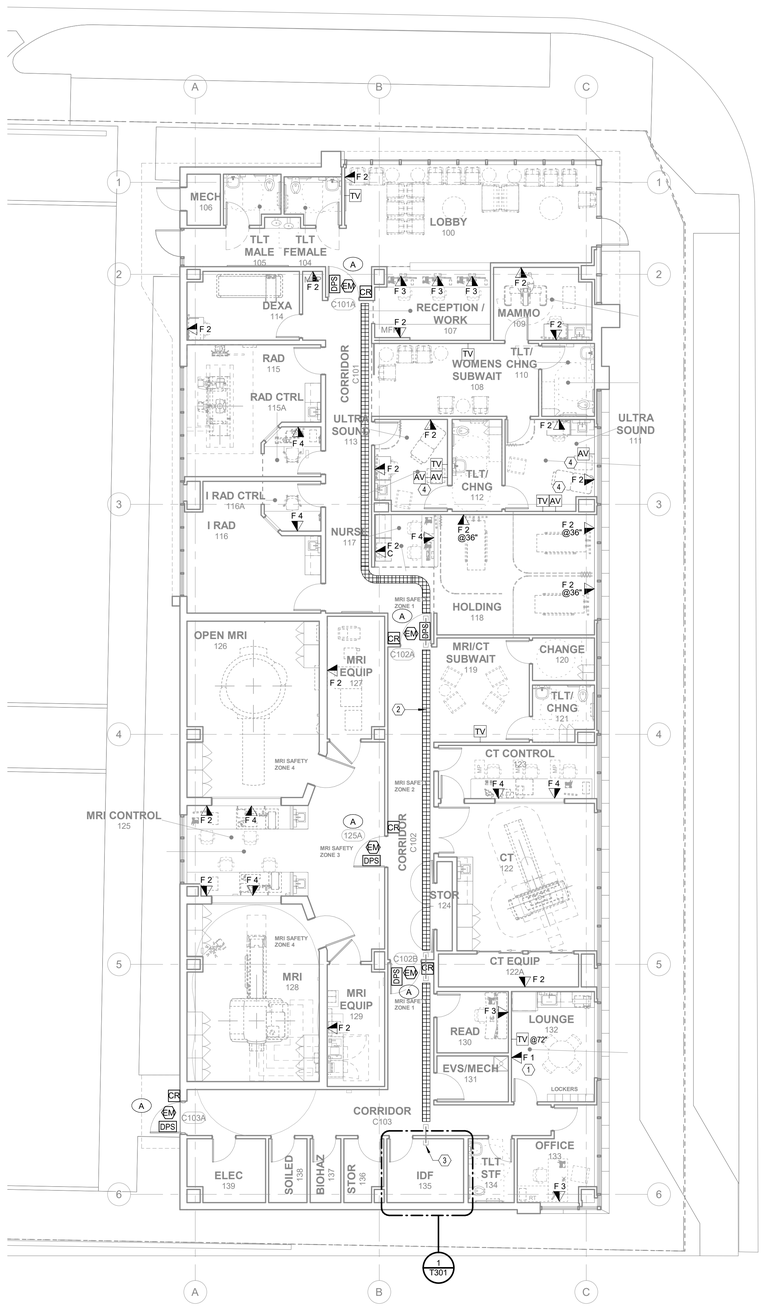
1. ALL CABLING TO SUPPORT DEVICES SHOWN SHALL BE ROUTED TO AND TERMINATED IN IDF 134.
2. ALL CABLING SHALL BE SUPPORTED FROM THE BUILDING STRUCTURE FOR THE FULL CABLE ROUTE, 3 TO 5 FOOT INTERVALS.
3. ALL CABLING SHALL BE PLENUM RATED.

## GENERAL NOTES

1 PROVIDE NETWORK CONNECTION FOR OWNER FURNISHED POE TIME CLOCK, SEE DETAIL FOR INSTALLATION REQUIREMENTS.
2 PROVIDE 12X4 INCH BASKET STYLE CABLE TRAY, SUPPORT FROM BUILDING STRUCTURE.
3 PROVIDE WALL PENETRATION, (2) 4 INCH CONDUIT SLEEVES AND (2) SERIES 44 EZ PATH INSTALLED ABOVE THE CONDUIT SLEEVES.
4 DOUBLE GANG JUNCTION BOX, SINGLE GANG MUD RING WITH COVER AND (1) 1 INCH CONDUIT FOR CONNECTION FROM BEHIND TV MONITOR TO ULTRASOUND MACHINE. COORDINATE WITH ARCHITECTURAL ELEVATIONS.




2 ROOF LEVEL NEW CONSTRUCTION PLAN - TECHNOLOGY
1/8" = 1'-0"




1 LEVEL 1 NEW CONSTRUCTION PLAN - TECHNOLOGY
1/8" = 1'-0"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LEVEL 1 NEW CONSTRUCTION PLAN - TECHNOLOGY

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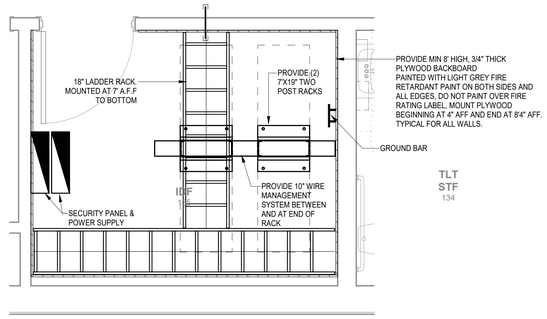
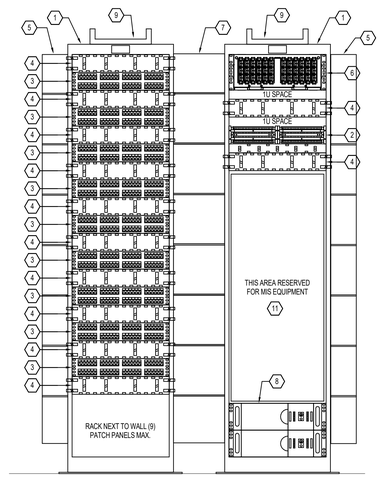



1 ENLARGED PLAN - IDF #134
1/2" = 1'-0"
0' 4' 8' 16' 24'

RACK ELEVATION NOTES:

1. PROVIDE 7' X 19" RACKS - BLACK FINISH (UL LISTED), CPI. #48353-703
2. PROVIDE 110/100/200/C5 RACK MOUNT BLOCK FOR RISER CABLE - WITH EXISTING WIRE TROUGHS, SIEMON HS110DA1-100 RTF.
3. PROVIDE 48 PORT PATCH PANEL - VOICE & DATA WORKSTATIONS (2RU), SIEMON HD6468.
4. PROVIDE 2 RU HORIZONTAL WIRE MANAGER. CPI - 30330-719.
5. PROVIDE 7' X 6" VERTICAL WIRE MANAGER. CPI #MCS-EFX 40095-703.
6. PROVIDE 72 PORT RACK MOUNTED FIBER CONNECT CABINET WITH 6 POSITION DUAL LC BULKHEAD. SUPERIOR: RTC 72B WITH #6112DLC, CONNECTOR SELECTION SHALL MATCH FIBER TYPE.
7. PROVIDE 7' X 10" VERTICAL WIRE MANAGER. CPI #MCS-EFX 40096-703.
8. UPS (BY OWNER).
9. PROVIDE LADDER RACK 12" X 3" (SEE ENLARGED PLAN), CPI. #11275-712
10. PATCH PANELS AND WIRE MANAGEMENT TO ACCOMMODATE HORIZONTAL CABLING IN EXCESS OF 9 CONTAINED IN FIRST RACK
11. RACK SPACE FOR DESIGNATED ELECTRONIC EQUIPMENT.




2 RACK ELEVATION
1/2" = 1'-0"
0' 4' 8' 16' 24'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ENLARGED PLAN - TECHNOLOGY

# T301

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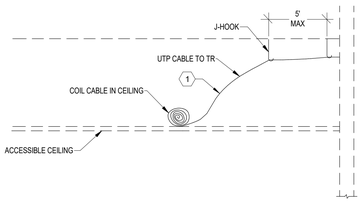


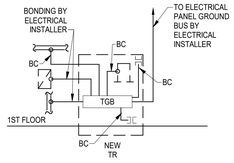

(BY SCS CONTRACTOR)
WAP
S2

NOTE:
WIRELESS ACCESS POINT AND ANTENNA NOT IN CONTRACT.

DETAIL NOTE:
1 COIL 20' LOOP IN CEILING.

## OUTLET MOUNTING FOR WIRELESS ACCESS POINT 10
No Scale

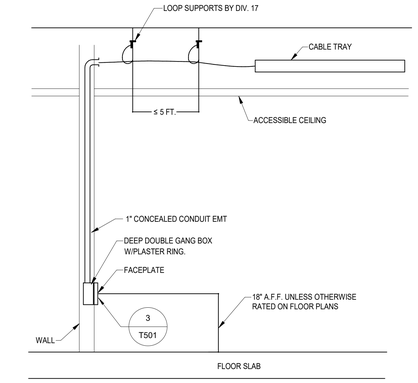
| TBB LENGTH LINEAR M (FT) | TBB SIZE AWG |
|---|---|
| LESS THAN 4 (13) | 6 |
| 4-6 (14-20) | 4 |
| 6-8 (21-26) | 3 |
| 8-10 (27-33) | 2 |
| 10-13 (34-41) | 1 |
| 13-16 (42-52) | 1/0 |
| 16-20 (53-66) | 2/0 |
| GREATER THAN 20 (66) | 3/0 |



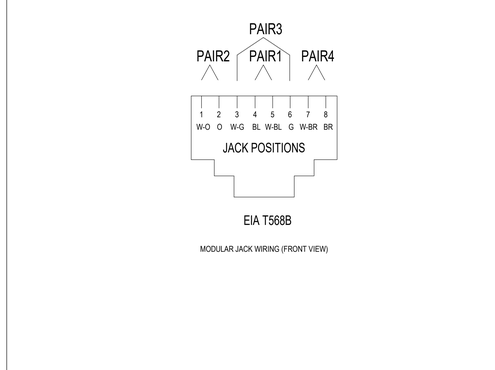

ABBREVIATION SCHEDULE

| | |
|---|---|
| BCT | BONDING CONDUCTOR FOR TELECOMMUNICATIONS. |
| TR | TELECOMMUNICATIONS ROOM. |
| TEF | TELECOMMUNICATIONS ENTRANCE FACILITY. |
| TER | TELECOMMUNICATIONS EQUIPMENT ROOM. |
| TBB | TELECOMMUNICATIONS BONDING BACKBONE. |
| BC | BONDING CONDUCTOR. SHALL BE #6 AWG. UNLESS OTHERWISE NOTED BY COMMUNICATIONS CABLING INSTALLER. |
| TGB | TELECOMMUNICATIONS GROUNDING BUSBAR. |
| TMGB | TELECOMMUNICATIONS MAIN GROUNDING BUSBAR. |
| | RACK CONNECTION. |
| | ELECTRICAL PANELBOARD SERVING EQUIPMENT IN THIS COMM ROOM. |
| | CABLE BOND CONNECTIONS MADE W/U.L. LISTED BONDING CONNECTION FASTENERS. |
| | CABLE TRAY CONNECTION |
| | METAL FRAME OF BUILDING CONNECTION. |
| | CONDUIT/SLEEVES. |

## GROUNDING AND BONDING DIAGRAM 7
No Scale



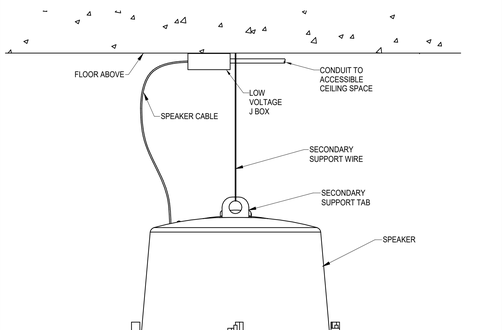

## TYPICAL FLUSH OUTLET CONDUIT DETAIL (BY DIV.16) 4
No Scale



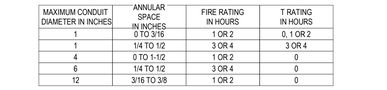

EIA T568B

MODULAR JACK WIRING (FRONT VIEW)

## MODULAR JACK WIRING DETAIL 1
No Scale




## TYPICAL TV OUTLET 11
No Scale

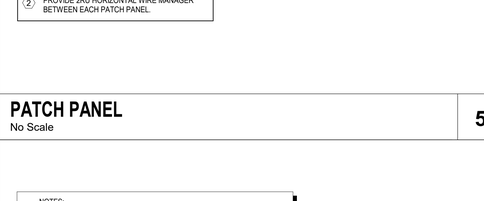



DETAIL NOTES:

1. WALL ASSEMBLY - THE 1, 2, 3, OR 4 HOUR FIRE RATED GYPSUM WALLBOARD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY.
2. CONDUIT - NOM 4" DIAMETER OR SMALLER STEEL ELECTRICAL METALLIC TUBING. A MAXIMUM OF ONE CONDUIT IS PERMITTED IN THE FIRE STOP SYSTEM. CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
3. FILL VOID OR CAVITY MATERIAL - CAULK FILL MATERIAL BEARING THE UL CLASSIFICATION MARKING INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN. 1/4" DIAMETER BEAD OF CAULK APPLIED TO PERIMETER OF CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRE STOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRE STOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

| MAXIMUM CONDUIT DIAMETER IN INCHES | ANNULAR SPACE IN INCHES | FIRE RATING IN HOURS | T RATING IN HOURS |
|---|---|---|---|
| 1 | 0 TO 3/16 | 1 OR 2 | 0, 1 OR 2 |
| 1 | 1/4 TO 1/2 | 3 OR 4 | 3 OR 4 |
| 4 | 0 TO 1-1/2 | 1 OR 2 | 0 |
| 6 | 1/4 TO 1/2 | 3 OR 4 | 0 |
| 12 | 3/16 TO 3/8 | 1 OR 2 | 0 |

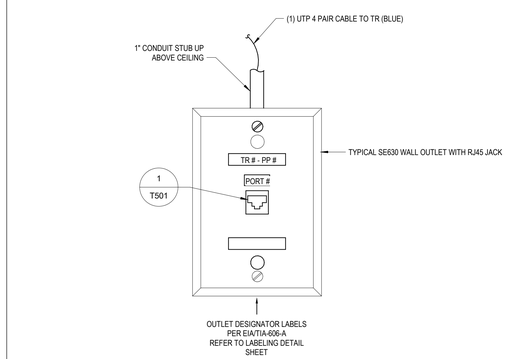
## CONDUIT PENETRATION OF FIRE WALL 8
No Scale




NOTES:

1. PATCH PANELS WILL BE # A,B,C, ETC. FOR THE NUMBER OF PANEL REQUIRED PER RACK.
2. PROVIDE 2RU HORIZONTAL WIRE MANAGER BETWEEN EACH PATCH PANEL.

## PATCH PANEL 5
No Scale




W
F1

NOTE: COORDINATE IN THE FIELD THAT THE WALLPHONE JACK IS A MINIMUM OF 12" FROM OTHER DEVICES MOUNTED IN THE WALL SUCH AS LIGHT SWITCH, VOLUME CONTROL, THERMOSTAT, ETC.

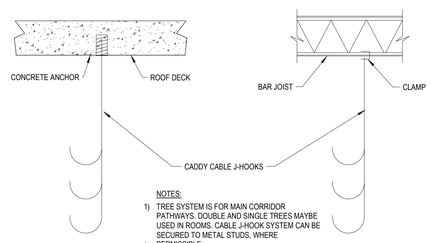
## WALL PHONE OUTLET - W/F1 2
No Scale




NOTE: SPEAKER PART NUMBER INCLUDES SPEAKER, BACKBOX, GRILL AND MOUNTING HARDWARE

S
X

## CEILING MOUNTED SPEAKER 12
No Scale




NOTES:

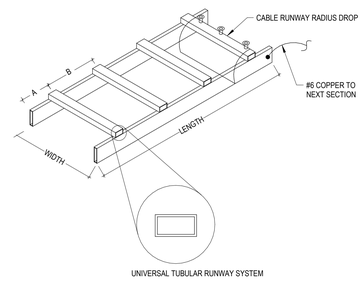
1) TREE SYSTEM IS FOR MAIN CORRIDOR PATHWAYS. DOUBLE AND SINGLE TREES MAYBE USED IN ROOMS. CABLE J-HOOK SYSTEM CAN BE SECURED TO METAL STUDS, WHERE
2) PERMISSIBLE, L BE USED WHERE EXISTING CABLE TRAY IS NOT AVAILABLE.

## CABLE HANGER (MULTI J-HOOK) 9
No Scale

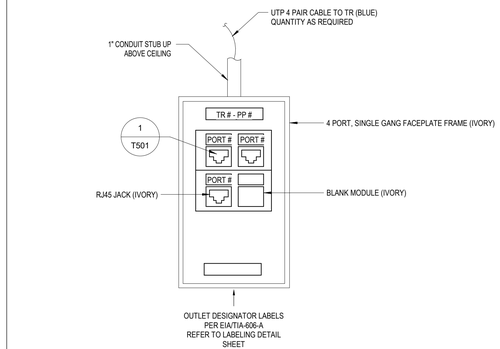
NOTES:

"A" MEASURED FROM END OF STRINGER TO MIDDLE OF CROSS SLAT.

"B" MEASURED FROM MIDDLE OF CROSS SLATS.




## TUBULAR RUNWAY/LADDER RACK IN TR'S 6
No Scale




F#

## WALL MOUNTED OUTLET - VOICE/DATA 3
No Scale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TECHNOLOGY DETAILS

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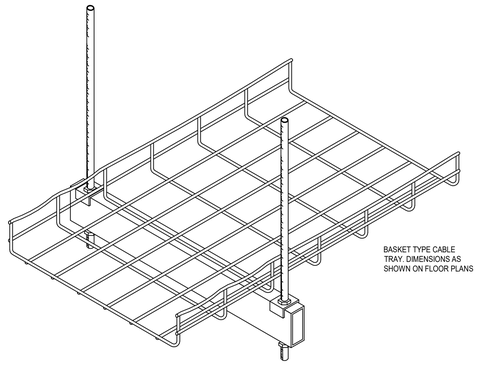
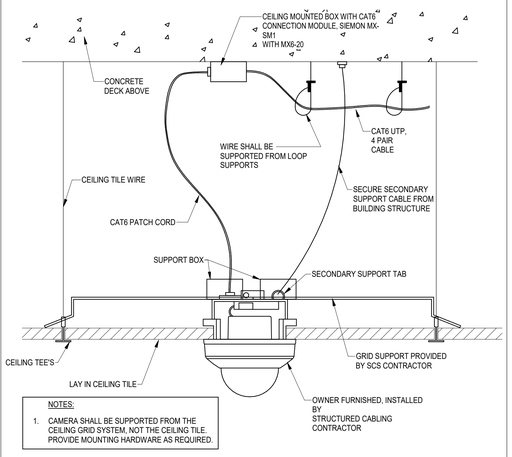



**CABLE TRAY (SIDE HANGER)** — **1**
No Scale




**CCTV CAMERA INSTALLATION1** — **2**
No Scale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TECHNOLOGY DETAILS

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