City of Tampa
FIRE MARSHAL OFFICE

SEPARATE FIRE ALARM SYSTEM PERMIT REQUIRED

City of Tampa
CONSTRUCTION SERVICES DIVISION

SEPARATE FIRE PROTECTION SYSTEM ABOVE GROUND PERMIT REQUIRED

City of Tampa
FIRE MARSHAL OFFICE

SEPARATE FIRE PROTECTION SYSTEM BELOW GROUND PERMIT REQUIRED

City of Tampa
FIRE MARSHAL OFFICE
FIRE MARSHAL PLAN REVIEW

Signed	Tom Miller	Date	2/27/2020

THIS SET OF PLANS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make changes or alterations without written approval from City of Tampa Fire Marshal's Office. The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL

BLD-20-01-00009

THIS SET OF PLANS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make changes or alterations without written approval from the City of Tampa Construction Services Division.
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

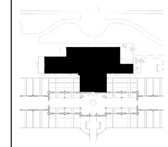
ROWE ARCHITECTS

Consultant Information

Civil
Native Engineering
PO Box 2995
Land O'Lakes, Florida 34639
813.735.0535

Structural
Master Consulting Engineers. Inc.
5523 West Cypress Street, #200
Tampa, Florida 33607
813.287.3600

M/E/P
Anston-Greenlees, Inc.
1315 West Fletcher Avenue
Tampa, Florida 33612
813.963.1919



FBC [A] 101.2 Scope: Reviewed for compliance with FBC 6th Edition (2017) Building

APPROVED
By Don Cassels at 1/30/2020 2:10:12 PM

David L. Tippin Water Treatment Facility

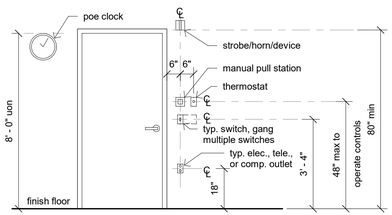
Phase I - Building & Site Improvements

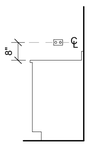
City of Tampa 17-D-00009

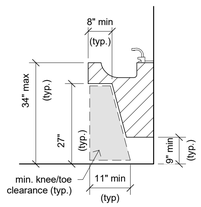
City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF DRAWINGS IS NOT TO BE USED FOR CONSTRUCTION UNLESS THE JURISDICTIONAL BOXES ARE CHECKED
It is unlawful for any person to make any alteration to this plan without permission from the Building Official
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
Phone 813.221.8771
AAC0002179

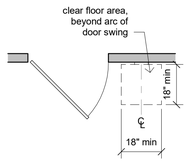
TYPICAL MOUNTING HEIGHTS AND CLEARANCES

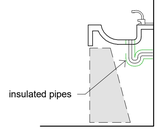




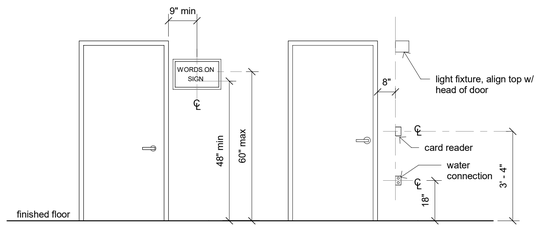


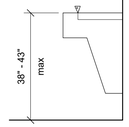
sink in cabinet



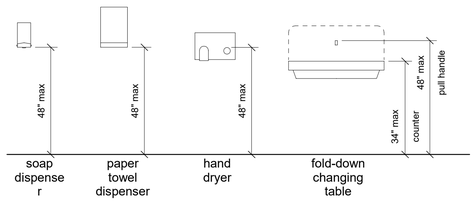


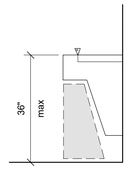
wall-hung sink



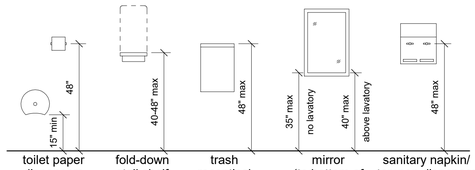


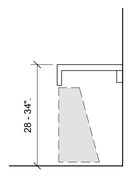
drinking fountain - standing





drinking fountain - accessible

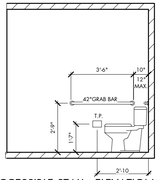




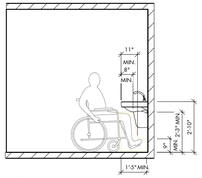
work or dining surfaces

TOILET PAPER HOLDER STANDARDS	WALL LAVATORY STANDARDS	WATER CLOSET STANDARDS	GRAB BAR STANDARDS
HEIGHT - 19" A.F.F. MIN. AND BELOW GRAB BAR. ALSO SHOULD NOT INTERFERE WITH THE USE OF THE GRAB BAR	CLEAR FLOOR SPACE - 30" x 48"	CLEAR FLOOR SPACE - 48" x 56"	GRAB BAR BEHIND TOILET - 36" LONG EXTENDING A MIN. OF 12" ON OPEN SIDE.
TOWEL DISPENSER (NOT SHOWN)	WIDTH - 19" MIN.	SEAT HEIGHT - 19" - 20" A.F.F.	SIDE GRAB BAR - 42" LONG
CLEAR FLOOR SPACE - 30" x 48" WITHIN FACBC STANDARD REACH RANGE	DEPTH - 17" MIN. WALL PROJECTION	FLUSH CONTROLS ON WIDE SIDE OF W.C.	STARTING 12" FROM WALL BEHIND W.C.
54" A.F.F. MAX. SIDE APPROACH	HEIGHT - 34" A.F.F. TO RIM	FLUSH CONTROL HEIGHT - 44" A.F.F. MAX.	HEIGHT OF ALL GRAB BARS - 33" A.F.F.
48" A.F.F. MAX. FRONT APPROACH	KNEE SPACE - 8" MIN.	LOCATION - 18" FROM WALL TO THE CENTER OF THE W.C.	GRAB BAR DIAMETER - 1 1/4" TO 1 1/2"
REFER TO FACBC 4.2.5, 4.2.6, & 27	TOE SPACE FROM WALL - 6" MAX.		SPACE B/W WALL AND GRAB BAR - 1 1/2"
	TOE SPACE HEIGHT - 9" MIN.		MUST WITHSTAND A FORCE OF 250 LBF
	FAUCET - LEVER TYPE		
	MIRROR - 40" A.F.F. TO BOTTOM		

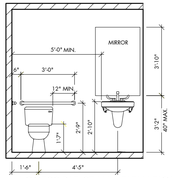
ACCESSIBILITY STANDARDS



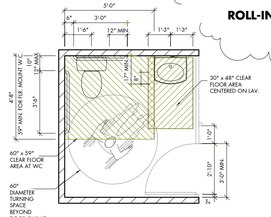
ACCESSIBLE STALL - ELEVATION



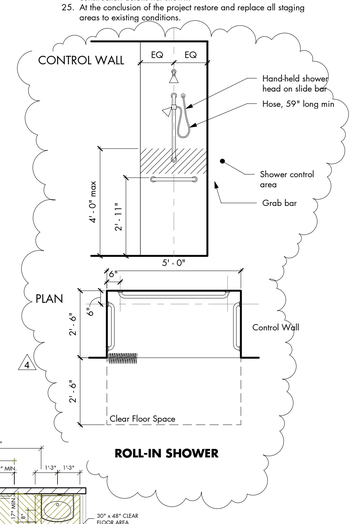
ACCESSIBLE STALL - ELEVATION



ACCESSIBLE STALL - ELEVATION



ACCESSIBLE TOILET STALL



ROLL-IN SHOWER

GENERAL PROJECT NOTES

1. These drawings are intended to convey the general intent of the work in scope and layout; They are not intended to show in minute detail every and all accessories intended for the purpose of execution of the work.
2. Do not scale drawings.
3. Ensure all Work is installed in compliance with all applicable codes and standards, including, but not limited to all state laws, local ordinances, utility company regulations and applicable requirements of the Occupational Safety and Health Act, Fire Protection Association, N.F.P.A. and the Florida Building Code.
4. Coordinate all staging, phasing, fencing, etc., with the Owner prior to beginning construction.
5. Perform a survey (accompanied by the Architect and Owner) of the entire project area including building(s) and site area(s) within the limits of the construction activities immediately upon occupying the Work area.
6. The Contractor shall detail any areas, by photographic and written correspondence, that are not in a first class condition (surfaces that are unbroken, non-cracked, non-rusting, without chips, without splinters, of texture matching its surrounding, with new appearing finishes, and operating as originally designed or intended to operate) which will remain in their present condition at the conclusion of the project.
7. Provide the Owner a complete project in first-class condition meeting industry wide standards in quality and performance throughout the entire project area, building(s) and site (regardless of whether area is specifically identified within the drawings and specifications or not) unless a particular area has been described in the aforementioned photographs and written details.
8. Protect the existing building(s), utilities and site throughout the project time frame.
9. Should, during the course of the Work, any area of the building(s) and/or utilities and/or the site become damaged and that area is not specifically called out to be a part of the construction, repair and/or replace the damaged area to the satisfaction of the Architect and Owner at no additional cost to the Owner.
10. Any documents indicating existing conditions are for reference purposes only. The Owner and his Agents assume no responsibility for their preparation, completeness or accurateness and the Contractor is fully responsible when using said sources.
11. Determine the specific location of underground /underslab utility services by careful hand excavation only unless other means are approved by the Architect and Owner before beginning the Work.
12. Replace or repair any and all damaged underground / underslab utility services as listed above at no additional cost to the Owner.
13. Coordinate schedule of all work with the Owner to minimize disruption of ongoing activities in all areas of the Building and the Campus.
14. Fence: the temporary construction fence shall include a visual screen fabric and shall remain intact until substantial completion.
15. Work inside any existing building shall be constantly and directly supervised by the General Contractor. Mechanical or Electrical rooms which open directly to the outside are exempted from this requirement.
16. Provide temporary barriers surrounding construction areas as required to ensure public safety.
17. Provide temporary bracing and shoring where required to maintain a safe and structurally sound working condition.
18. Coordinate the removal and/or storage of existing furnishings and equipment with the Owner prior to the commencement of the Work.
19. Field verify and coordinate all dimensions and details before proceeding with Work. Coordinate any discrepancies with Architect and owner prior to construction.
20. Contact the Architect immediately and notify in writing any discrepancy or omission found.
21. Protect all existing to remain built-in items and existing adjacent finishes from construction work.
22. Remove all debris from the site as required to maintain a safe and orderly condition.
23. Coordinate all work so as to minimize disruption to occupied portions of buildings.
24. All device locations exposed to view are to be coordinated with the Architectural documents. Refer to manufacturers' standard details, shop drawings or approved installation methods for any construction details not shown.
25. At the conclusion of the project restore and replace all staging areas to existing conditions.

GENERAL NOTES

PROJECT INFORMATION

Project Name: David L. Tippin Water Treatment Facility Building Improvements
Location: 7125 North 30th Street, Tampa, Florida

Owner: City of Tampa

Area:

Level One	=	4,630sf
Level Two	=	2,889sf
Total	=	7,535sf

FEMA Flood Zone X

APPLICABLE CODES

Building Code:	Florida Building Code - Building, 6th edition (2017)
Accessibility Code:	Florida Building Code - Accessibility, 6th edition (2017)
Mechanical Code:	Florida Building Code - Mechanical, 6th edition (2017)
Plumbing Code:	Florida Building Code - Plumbing, 6th edition (2017)
Existing Building Code:	Florida Building Code - Existing Building, 6th edition (2017)
Energy Code:	Florida Building Code - Energy Conservation Code, 6th edition (2017)
Electrical Code:	NFPA 70, (2011 ed.) National Electrical Code, except Article 80 Florida Fire Prevention Code, 5th Edition (2014)
Fire Code:	Florida Fire Prevention Code NFPA - 13 and 72 (2013) NFPA 1 Uniform Fire Code (with FL Amendments) (2015) NFPA - 10 (2013) Life Safety Code NFPA 101 (with FL Amendments) (2015)

USE AND OCCUPANCY CLASSIFICATION

Group B, Business

CONSTRUCTION TYPE

Type III B, sprinklered

MEANS OF EGRESS

Occupant Load
1st floor: 86 occupants
2nd floor: 47 occupants

Required Egress Widths
0.2" / Occupant

Total Required Egress Width
32" min allowable
1st floor: 17.2" req (165" provided)
2nd floor: 9.4" req (33" provided)

Plumbing Fixture Count
Total occupant count 133

	Men	Women
Toilets	67	67
Lavatories	3	3
	2	2

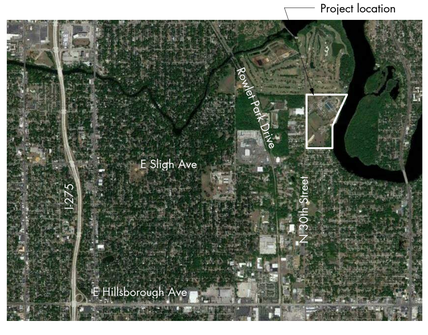
Automatic Fire Sprinkler System
Yes

Exit Access Travel Distance
Group B, sprinklered 300' max allowable

Common Path of Egress Travel
Group B, sprinklered 100' max allowable

Travel Distance to Fire Extinguisher
75' max allowable

PROJECT LOCATION MAP



SHEET INDEX

NO.	NAME	REVISION	DATE
GENERAL			
G100	SHEET INDEX & GENERAL NOTES	Permit REV 4	02.24.19
G200	LIFE SAFETY PLANS	REV 3	12.16.19
G300	EXISTING CONDITIONS	REV 3	12.16.19
G301	EXISTING CONDITIONS	REV 3	12.16.19
CIVIL			
C100	PUMP BUILDING PARKING LAYOUT		
C101	PUMP BUILDING PARKING LOT DETAILS		
C200	ADMIN BUILDING FIRE LINE PLAN		
C201	ADMIN BUILDING WATER DISTRIBUTION DETAILS		
STRUCTURAL			
S101	GENERAL STRUCTURAL NOTES	REV 3	12.16.19
S102	WIND DESIGN DATA & LOAD SCHEDULE	REV 3	12.16.19
S201	FOUNDATION & 2ND FLOOR FRAMING PLAN - MECH. YARD SLAB ON GRADE	REV 3	12.16.19
S202	ROOF FRAMING & DETAILS	REV 3	12.16.19
S301	TYPICAL DETAILS	REV 3	12.16.19
S401	WALL SECTIONS	REV 3	12.16.19
S402	WALL SECTIONS	REV 3	12.16.19
S403	SECTIONS AND DETAILS	REV 3	12.16.19
ARCHITECTURAL			
A000	SITE PLAN		
A100	DEMOLITION PLANS	Permit REV 4	02.24.19
A101	FLOOR PLANS	Permit REV 4	02.24.19
A102	FINISH PLANS	Permit REV 4	02.24.19
A103	CEILING PLANS	Permit REV 4	02.24.19
A104	ROOF PLAN	REV 3	12.16.19
A200	BUILDING SECTIONS, FLUME, ELEVATOR	REV 3	12.16.19
A201	LEVEL 1 - CORRIDOR & ENTRY	REV 3	12.16.19
A300	BREAK ROOM		
A301	PLANT CONTROL & ANALYZER	Permit REV 4	02.24.19
A302	LEVEL 1 - CONFERENCE	Permit REV 4	02.24.19
A303	LEVEL 2 - CONFERENCE & RECEPTION	Permit REV 4	02.24.19
A500	DETAILS	REV 3	12.16.19
A600	WALL TYPES & OPENING SCHEDULE	Permit REV 4	02.24.19
A700	INTERIOR STAIR		
A701	EXTERIOR STAIR		
A702	EXTERIOR STAIR DETAILS		
A800	WELDING SHOP		
A900	CHILLER YARD	Permit REV 2	09.18.19
FIRE PROTECTION			
FP001	FIRE PROTECTION GENERAL NOTES AND DETAILS		
FP101	ADMINISTRATION BUILDING FIRE PROTECTION FIRST AND SECOND FLOOR		
PLUMBING			
P001	PLUMBING LEGEND, DETAILS, AND GENERAL NOTES	REV 3	12.16.19
P002	PLUMBING SCHEDULES	Permit REV 4	02.24.19
P101	ADMINISTRATION BUILDING PLUMBING FIRST FLOOR PLAN	Permit REV 4	02.24.19
P102	ADMINISTRATION BUILDING PLUMBING SECOND FLOOR PLAN	Permit Review	08.21.19
P201	MAINTENANCE BUILDING PLUMBING FIRST FLOOR PLAN		
P301	PLUMBING ISOMETRICS	REV 3	12.16.19
MECHANICAL			
M001	HVAC LEGEND AND GENERAL NOTES		
M002	MECHANICAL SITE PLAN		
M101	ADMINISTRATION BUILDING MECHANICAL FIRST FLOOR PLAN	Permit REV 4	02.24.19
M102	ADMINISTRATION BUILDING MECHANICAL SECOND FLOOR PLAN	REV 3	12.16.19
M103	MAINTENANCE BUILDING MECHANICAL FIRST FLOOR		
M104	ENLARGED MECHANICAL ROOM PLANS AND SECTIONS	REV 3	12.16.19
M201	HVAC SCHEDULES	Permit REV 4	02.24.19
M202	HVAC SCHEDULES	REV 3	12.16.19
M301	HVAC DETAILS		
M302	HVAC DETAILS		
M401	HVAC CONTROLS		
M402	HVAC CONTROLS		
ELECTRICAL			
E001	ELECTRICAL LEGEND AND GENERAL NOTES		
E002	LUMINAIRE SCHEDULE	REV 3	12.16.19
E003	LUMINAIRE CUT SHEETS		
E100	ELECTRICAL DEMOLITION PLAN	Permit Review	08.21.19
E101	ADMINISTRATION BUILDING LIGHTING PLANS	Permit REV 4	02.24.19
E102	MAINTENANCE BUILDING LIGHTING PLAN		
E201	ADMINISTRATION BUILDING - POWER AND SYSTEMS PLANS	REV 3	12.16.19
E202	ADMINISTRATION BUILDING - MECHANICAL EQUIPMENT CONNECTION PLANS	REV 3	12.16.19
E203	CHILLER YARD LIGHTING AND POWER PLAN		
E204	MAINTENANCE BUILDING POWER PLAN		
E205	MECHANICAL EQUIPMENT CONNECTION SCHEDULE	REV 3	12.16.19
E301	ADMINISTRATION BUILDING FIRE ALARM AND ACCESS CONTROL PLANS	REV 3	12.16.19
E401	ELECTRICAL RISER DIAGRAM - DEMOLITION	Permit Review	08.21.19
E402	ELECTRICAL RISER DIAGRAM - NEW WORK	Permit Review	08.21.19
E403	EXISTING PANEL SCHEDULES	Permit Review	08.21.19
E404	PANEL SCHEDULES - NEW WORK	REV 3	12.16.19
E405	PANEL SCHEDULES - NEW WORK	Permit Review	08.21.19
E406	DATA AND SCADA SYSTEMS RISER DIAGRAM		
E407	FIRE ALARM RISER DIAGRAM		
E408	ACCESS CONTROL RISER DIAGRAM		
E501	ELECTRICAL DETAILS		

SHEET NUMBER KEY

A 1 0 3 . X X

DISCIPLINE DESIGNATOR
SHEET TYPE CATEGORY
SHEET SEQUENCE
PHASE / OPTION / ALTERNATE

SYMBOL LEGEND

SECTION TAG
section number indicator
sheet where section can be found

ELEVTION TAG
section number indicator
indicates direction of elevation
sheet where section can be found

ELEVATION TAG (interior)
section number indicator
indicates direction of elevation
sheet where section can be found

CALL OUT
section number indicator
sheet where section can be found

ROOM TAG
Room name
Room number
Actual area (nsf)

DOOR TAG
Door number

WALL TAG
Wall type indicator

NOT IN SCOPE

ABBREVIATIONS

OFCI - Owner Furnished Contrator Installed
OFOI - Owner Furnished Owner Installed

STATE OF FLORIDA
Richard Rowe
REGISTERED ARCHITECT

To the best of my ability these drawings and the project manual are complete and comply with the Florida Building Code.

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number	1706.00

Distribution

No.	Description	Date
1	Design Development	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

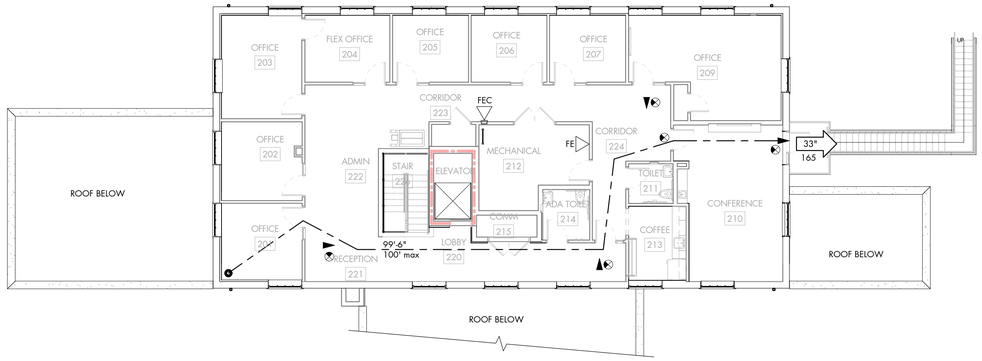
Revisions

No.	Description	Date
1	Permit Review	08.21.19
2	Permit REV 2	09.18.19
3	REV 3	12.16.19
4	Permit REV 4	02.24.19

Sheet Information

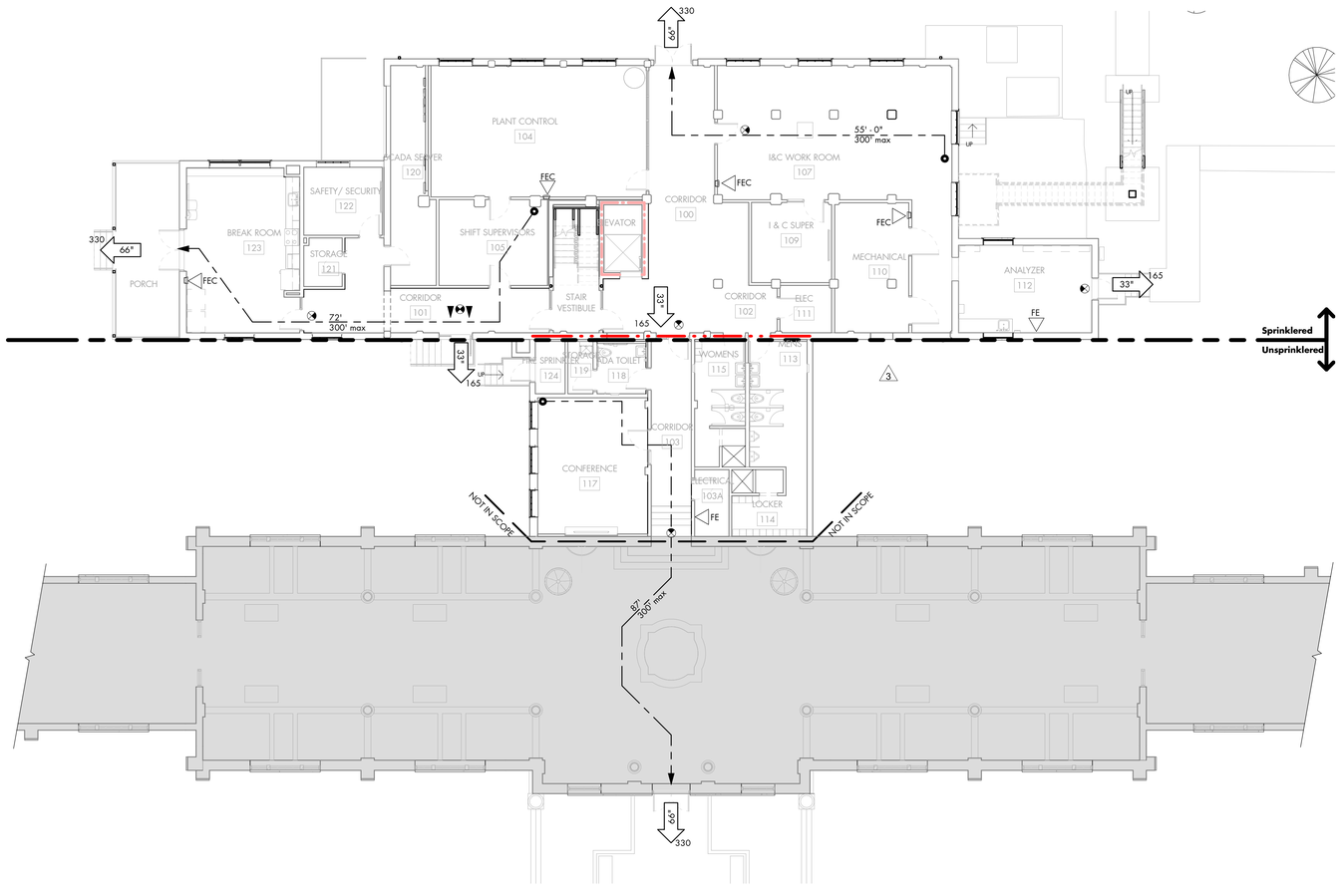
SHEET INDEX & GENERAL NOTES

G100



2 LEVEL 2 - LIFE SAFETY PLAN

scale : 3/32" = 1'-0"



1 LEVEL 1 - LIFE SAFETY PLAN

scale : 3/32" = 1'-0"

OCCUPANT LOAD - LEVEL 2

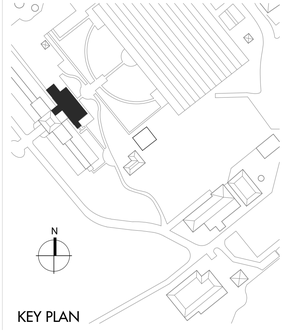
Number	Name	Area	Area / Occ.	Occupant Category	Gross or Net	Occ Load
Level 2						
210	CONFERENCE	342 SF	15 SF	Assembly Use	Net	22.8
Assembly Use		342 SF				22.8
209A	CLOSET	11 SF	50 SF	Business Use	Gross	0.2
201	OFFICE	138 SF	100 SF	Business Use	Gross	1.4
202	OFFICE	140 SF	100 SF	Business Use	Gross	1.4
203	OFFICE	185 SF	100 SF	Business Use	Gross	1.9
204	FLEX OFFICE	127 SF	100 SF	Business Use	Gross	1.3
205	OFFICE	113 SF	100 SF	Business Use	Gross	1.1
206	OFFICE	113 SF	100 SF	Business Use	Gross	1.1
221	RECEPTION	75 SF	100 SF	Business Use	Gross	0.7
222	ADMIN	154 SF	100 SF	Business Use	Gross	1.5
223	CORRIDOR	276 SF	100 SF	Business Use	Gross	2.8
224	CORRIDOR	221 SF	100 SF	Business Use	Gross	2.2
213	COFFEE	95 SF	100 SF	Business Use	Gross	1
220	LOBBY	243 SF	100 SF	Business Use	Gross	2.4
209	OFFICE	304 SF	100 SF	Business Use	Gross	3
207	OFFICE	113 SF	100 SF	Business Use	Gross	1.1
Business Use		2308 SF				23.2
212	MECHANICAL	154 SF	300 SF	Storage Use	Gross	0.5
215	COMM	30 SF	300 SF	Storage Use	Gross	0.1
216	STORAGE	22 SF	300 SF	Storage Use	Gross	0.1
0131	ELECTRICAL	28 SF	300 SF	Storage Use	Gross	0.1
Storage Use		233 SF				0.8
Level 2		2883 SF				46.7

OCCUPANT LOAD - LEVEL 1

Number	Name	Area	Area / Occ.	Occupant Category	Gross or Net	Occ Load
Level 1						
117	CONFERENCE	337 SF	15 SF	Assembly Use	Net	22.5
123	BREAK ROOM	418 SF	15 SF	Assembly Use	Net	27.9
Assembly Use		755 SF				50.3
122	SAFETY/ SECURITY	119 SF	100 SF	Business Use	Gross	1.2
103A	ELECTRICAL	51 SF	100 SF	Business Use	Gross	0.5
104	PLANT CONTROL	633 SF	100 SF	Business Use	Gross	6.3
114	LOCKER	70 SF	100 SF	Business Use	Gross	0.7
103	CORRIDOR	148 SF	100 SF	Business Use	Gross	1.5
113S	SHOWER	27 SF	100 SF	Business Use	Gross	0.3
102	CORRIDOR	63 SF	100 SF	Business Use	Gross	0.6
100	CORRIDOR	454 SF	100 SF	Business Use	Gross	4.5
101	CORRIDOR	287 SF	100 SF	Business Use	Gross	2.9
112	ANALYZER	261 SF	100 SF	Business Use	Gross	2.6
105	SHIFT SUPERVISORS	205 SF	100 SF	Business Use	Gross	2.1
109	I & C SUPER	142 SF	100 SF	Business Use	Gross	1.4
107	I&C WORK ROOM	813 SF	100 SF	Business Use	Gross	8.1
Business Use		3274 SF				32.7
110	MECHANICAL	213 SF	300 SF	Storage Use	Gross	0.7
100A	RECEPTION	61 SF	300 SF	Storage Use	Gross	0.2
115S	SHOWER	20 SF	300 SF	Storage Use	Gross	0.1
121	STORAGE	41 SF	300 SF	Storage Use	Gross	0.1
124	FIRE SPRINKLER	35 SF	300 SF	Storage Use	Gross	0.1
111	ELEC	55 SF	300 SF	Storage Use	Gross	0.2
119	STORAGE	29 SF	300 SF	Storage Use	Gross	0.1
120	SCADA SERVER	190 SF	300 SF	Storage Use	Gross	0.6
Storage Use		644 SF				2.1
Level 1		4672 SF				85.2

SYMBOL LEGEND

- travel distance
- 54'-6" / XXX' — PATH OF EGRESS: indicates direction of travel, maximum travel distance
- ZONE DIVISION
- 30 MIN RATED WALL: FBC - Existing Ch.803.2.1 ex 5.2
- 2 HOUR RATED WALL
- EXIT SIGN: directional arrow as indicated, shaded areas denote faces
- 35" / 175 — EGRESS WIDTH: allowble number of occupants for width provided
- FE — FIRE EXTINGUISHER
- FEC — FIRE EXTINGUISHER CABINET
- NO WORK: in shaded area



KEY PLAN

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF DRAWINGS AND SPECIFICATIONS
THE JOB AT ALL TIMES
Any alteration
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100 Madison Street, Suite 200
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www.RoweArchitects.com
Phone 813.221.8771
AAC0022172

STATE OF FLORIDA · Rick Rowe · AR0013510 · REGISTERED ARCHITECT

Rick Rowe
AR13510 2019.02.20

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number	1706.00

Distribution

No.	Description	Date
1	Design Development	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
3	REV 3	12.16.19

Sheet Information

LIFE SAFETY PLANS

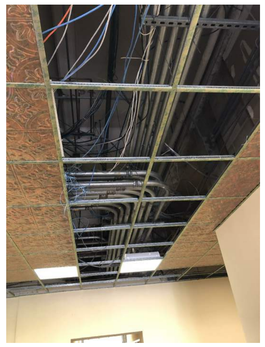
0' 1'-2" 4' 8' 16'
1/8" = 1'-0"

G200

EXISTING CONDITION NOTES

1. Photographs provided for reference only.
2. Photographs provided here show existing condition at the time the photograph was taken. Contractor is responsible for field verification of current conditions.

11 CONDUIT AND ELECTRICAL PANELS @ 103 CORRIDOR



10 CONDUIT ABOVE CEILING @ 100 CORRIDOR

9 FLUME HATCH @ BREAK ROOM @ 107 I&C WORKROOM

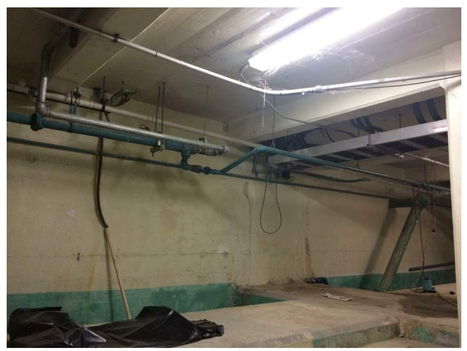
8 ABOVE CEILING @ 103 CORRIDOR

7 ABOVE CEILING @ 102 CORRIDOR

6 HISTORIC CLAY TILE @ 209 OFFICE

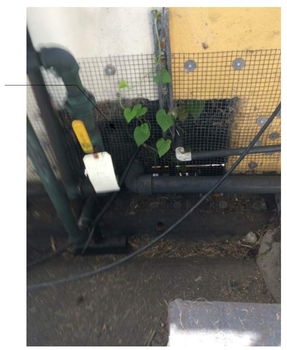
5 HISTORIC CLAY TILE

4 EXISTING STEEL BEAM @ CORRIDOR 102



3 PIPE GALLERY BELOW CORRIDOR 103

2 EXTERIOR UTILITLY TRENCH @ DOOR 100



1 EXTERIOR UTILITLY TRENCH

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STATE OF FLORIDA
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3	REV 3	12.16.19

Sheet Information

EXISTING CONDITIONS

3

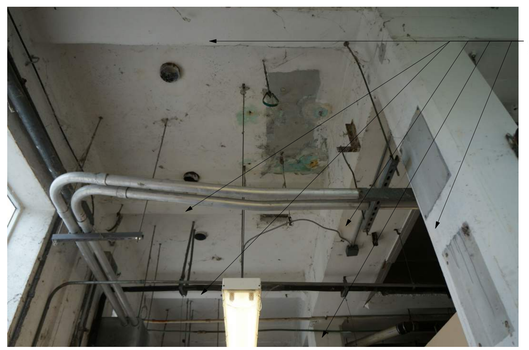
G300

EXISTING CONDITION NOTES

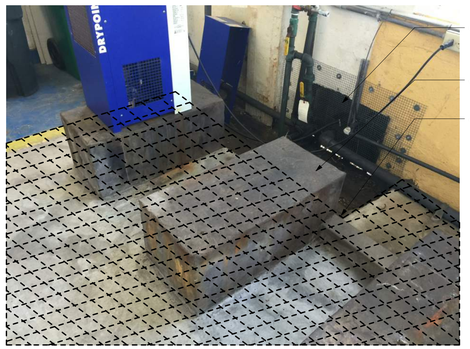
1. Photographs provided for reference only.
2. Photographs provided here show existing condition at the time the photograph was taken. Contractor is responsible for field verification of current conditions.

7 EXISTING CONCRETE STRUCTURE @ 107 I&C WORK ROOM

6 EXISTING QUARRY TILE @ 100 CORRIDOR



5 EXISTING CONCRETE STRUCTURE @ 107 I&C WORK ROOM



4 CONCRETE PLINTH @ 107 I&C WORK ROOM

3 HISTORIC BORROWED LITES @ 103 CORRIDOR

2 HISTORIC BORROWED LITES @ 103A ELECTRICAL

1 HISTORIC BORROWED LITES @ 117 CONFERENCE

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Revisions

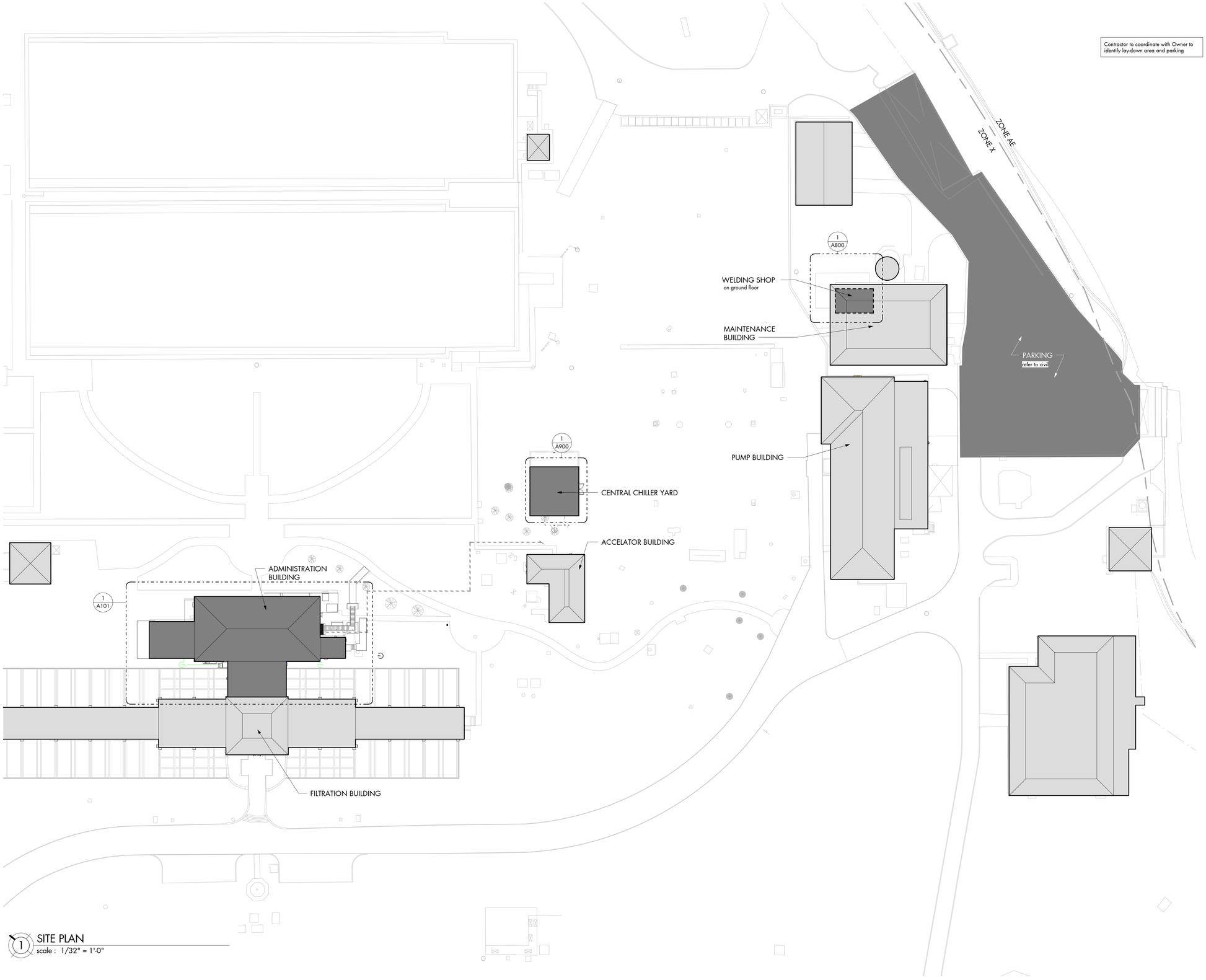
No.	Description	Date
3	REV 3	12.16.19

Sheet Information

EXISTING CONDITIONS

3

G301

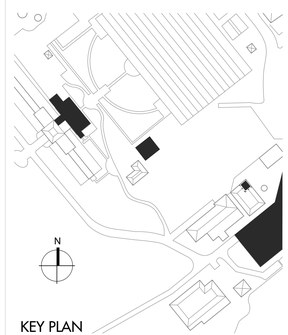


1 SITE PLAN
scale : 1/32" = 1'-0"

Contractor to coordinate with Owner to identify lay-down area and parking

LEGEND

- PHASE 1 SCOPE OF WORK
- EXISTING TO REMAIN



KEY PLAN

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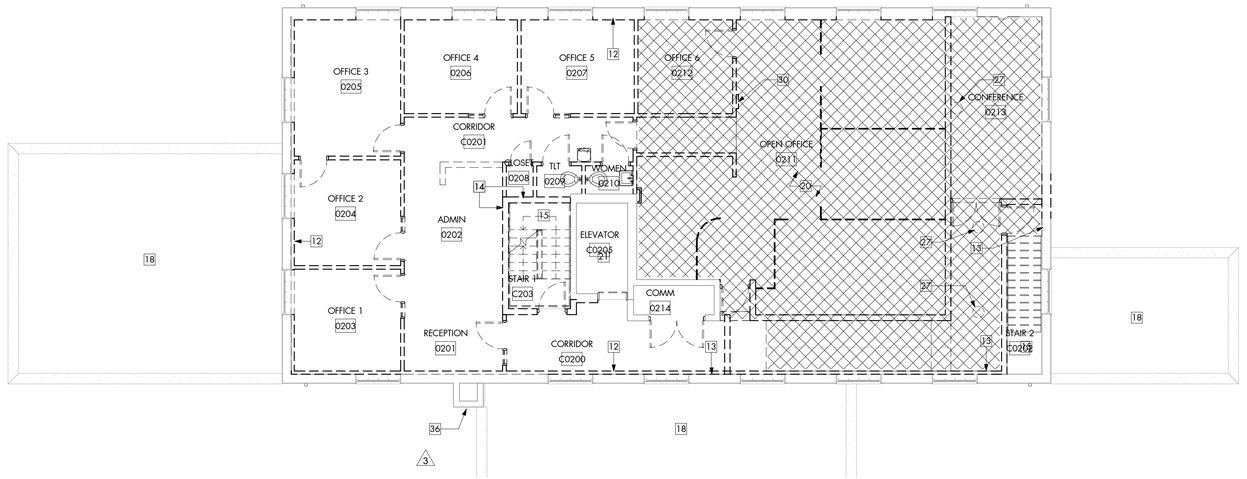
Revisions

No.	Description	Date

Sheet Information

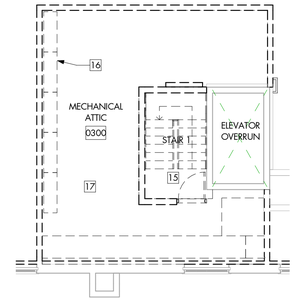
SITE PLAN

A000



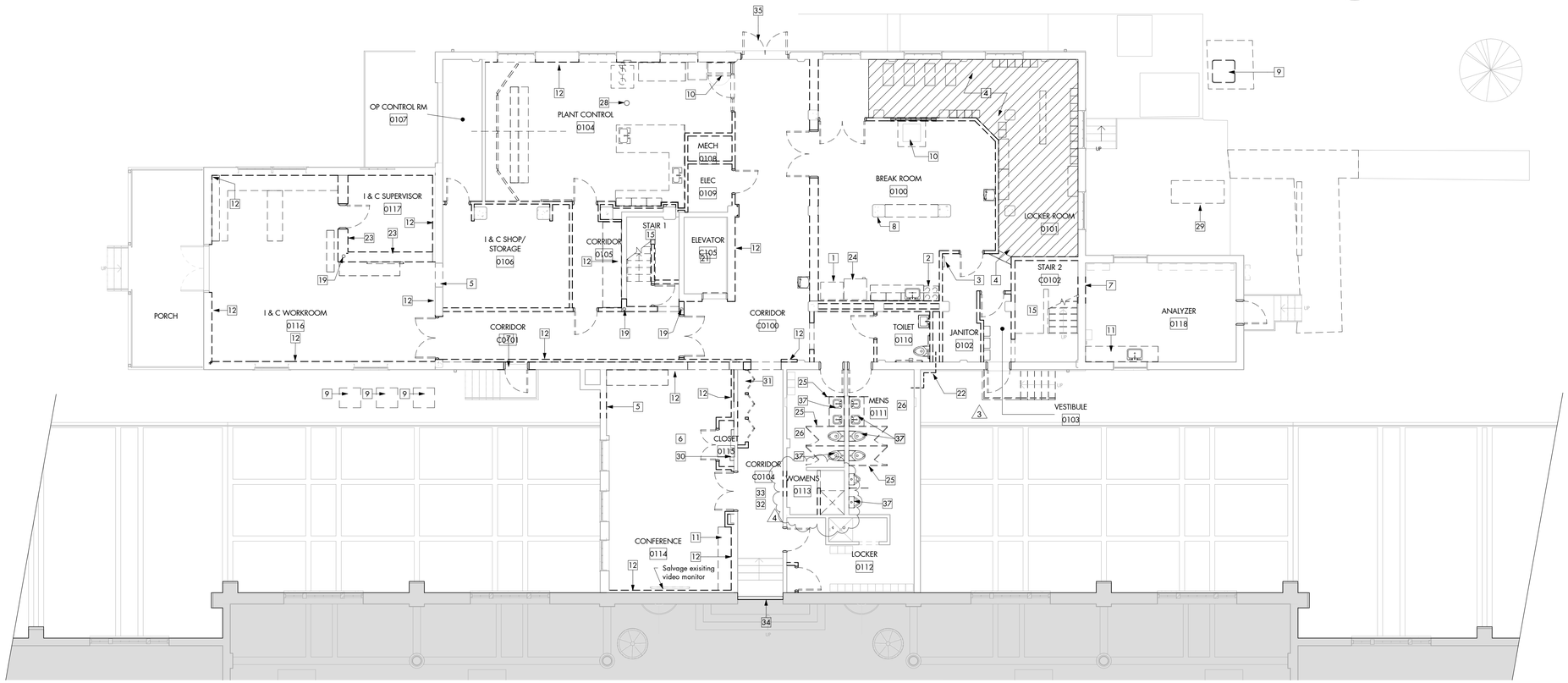
2 LEVEL 2 - DEMOLITION PLAN

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



3 LEVEL 3 - DEMOLITION PLAN

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



1 LEVEL 1 - DEMOLITION PLAN

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

LEGEND

- NOT IN SCOPE
- DEMO
- EXISTING

DEMOLITION PLAN NOTES

1. There is an existing, active flume under part of the first floor slab. Refer to A200 for extent. The flume is a component of the water treatment process and cannot be compromised during construction. The Contractor is responsible for ensuring that no material enters the flume. If there are any items in the flume that need to be demolished, the Contractor shall review onsite with the Owner and Architect before proceeding.
2. These drawings have been developed from archive drawings provided by the owner and may not reflect existing field conditions. The contractor shall notify the architect in writing of any discrepancies between the drawings and actual conditions.
3. The contractor shall notify the architect in writing of any work described in the contract documents which cannot be performed due to existing field conditions.
4. All structural columns, beams, floors, bracing, and load bearing cmu walls shall remain in place, execpt as noted on structural drawings.
5. Contractor shall not cut structural work in a manner resulting in a reduction of load carrying capacity. Notify structural engineer of all structural cuts 48 hours prior to execution.
6. The contractor shall shore and brace existing structure as required. The design adequacy and safety of erection of this shoring and bracing and any other temporary structure is the sole responsibility of the contractor. Refer to the structural for addional info on shoring of building.
7. Remove existing construction as shown. Typical wall removal includes finishes, doors, door frames, windows and window frames, millwork and fixtures as required. Repair holes in floors or existing walls to remain.
8. Demolition of the work shall be executed in conformance with applicable building codes and regulations.
9. The contractor shall notify the architect in writing of any construction defects found in uncovering work in the existing construction.
10. The contractor shall provided protective coverings for material, finishes, and structural elements to remain.
11. In existing areas not designated for demolition, the contractor shall be responsible for the repaid of any damage caused by his or any subcontractor's work.
12. The building envelope shall be protected from water intrusion throughout construction and left in a watertight condition at the end of each workday.
13. Use means necessary to prevent dust from becoming a nuisance to the public, to neighbors and to the other work being performed on or near the site.
14. In the event of demolition of items not scheduled to be demolished, promptly replace such items to the approval of the architect and at no additional cost to the owner.
15. Demolished material, not otherwise designated by the owner's representative, shall be considered property of the contractor and shall be completely removed from the job site and disposed of in a lawful manner.
16. These demolition documents anticipate that no asbestos will be encountered. In the event asbestos is encountered, notify the architect immediately.
17. The contractor shall perform demolition work in accordance with the owner's regulations.
18. Existing windows to be remain unless otherwise noted.
19. Remove all finish flooring, ceiling, plumbing, and light fixtures unless otherwise noted.

KEYED NOTES

1. REMOVE VENDING MACHINE AND SALVAGE FOR RELOCATION
2. REMOVE RANGE AND SALVAGE FOR RELOCATION
3. RELOCATE ELECTRICAL PANEL
4. REMOVE 14" CONCRETE PLINTH - ORIGINAL FLOOR SLAB TO REMAIN
5. PROVIDE OPENING IN WALL AS REQUIRED FOR NEW DOOR
6. REMOVE CEIILING AND FLOOR FINISH
7. REMOVE INFILL AT EXISTING OPENING
8. EXISTING STEEL CORNER GUARDS AT COLUMNS TO REMAIN, TYPICAL
9. REMOVE CONDENSOR AND PAD
10. FLOOR OPENING TO REMAIN
11. REMOVE CASEWORK
12. REMOVE EXISTING GYPSUM WALL BOARD FURR OUT - HISTORIC WALL TO REMAIN
13. REMOVE EXISTING CEMENT PLASTER TO EXPOSE CLAY TILE - REFER TO FINISH PLAN FOR FULL EXTENT
14. REMOVE WALL AT STAIR ABOVE PROPOSED 2ND FLOOR
15. REMOVE EXISTING STAIR
16. REMOVE MECHANICAL EQUIPMENT
17. REMOVE ENTIRE FLOOR STRUCTURE, WALLS AND CEILING
18. REPLACE ROOFING
19. EXISTING COLUMN TO REMAIN
20. HATCH INDICATES APPROXIMATE AREA OF RAISED CONCRETE FLOOR SLAB TO REMAIN; ESTIMATED DEPTH IS 9" ABOVE ORIGINAL 2ND FLOOR SLAB
21. DEMOLISH EXISTING ELEVATOR IN ITS ENTIRETY
22. REMOVE PIPING ASSOCIATED WITH DEMOLISHED TOILET ROOM - PATCH AND REPAIR EXTERIOR WALL AND STUCCO
23. LOAD BEARING WALLS - PROVIDE REQUIRED SHORING
24. REMOVE REFRIGERATOR AND SALVAGE FOR RELOCATION
25. REMOVE TOILET PARTITIONS
26. REMOVE CEILING GRID, LIGHTING, FLOOR AND WALL TILE
27. TRENCH EXISTING SLAB TO ACCOMODATE FLOOR BOX
28. REMOVE FLOOR DRAIN, TYPICAL
29. GENERATOR TO BE REMOVED BY OTHERS
30. REMOVE ELECTRICAL PANEL
31. EXISTING CONDUIT TO BE RELOCATED
32. HISTORIC WINDOWS TO REMAIN
33. REMOVE DROPPED CEILING; HISTORIC PLASTER TO REMAIN
34. TEMPORARY PARTITION
35. REMOVE AND SALVAGE HURRICANE SHUTTER FOR REINSTALLATION
36. REMOVE TOP SECTION OF CHIMNEY
37. REMOVE PLUMBING FIXTURE

City of Tampa
CONSTRUCTION SERVICES DIVISION
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Revisions

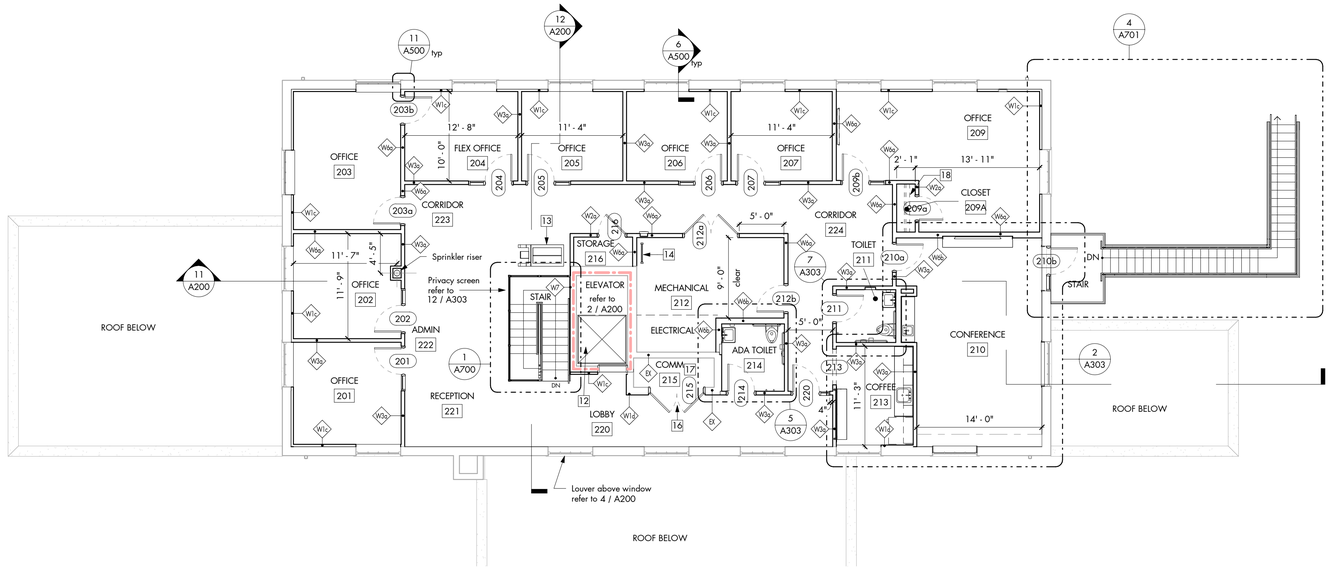
No.	Description	Date
3	REV 3	12.16.19
4	Permit REV 4	02.24.19

Sheet Information

DEMOLITION PLANS

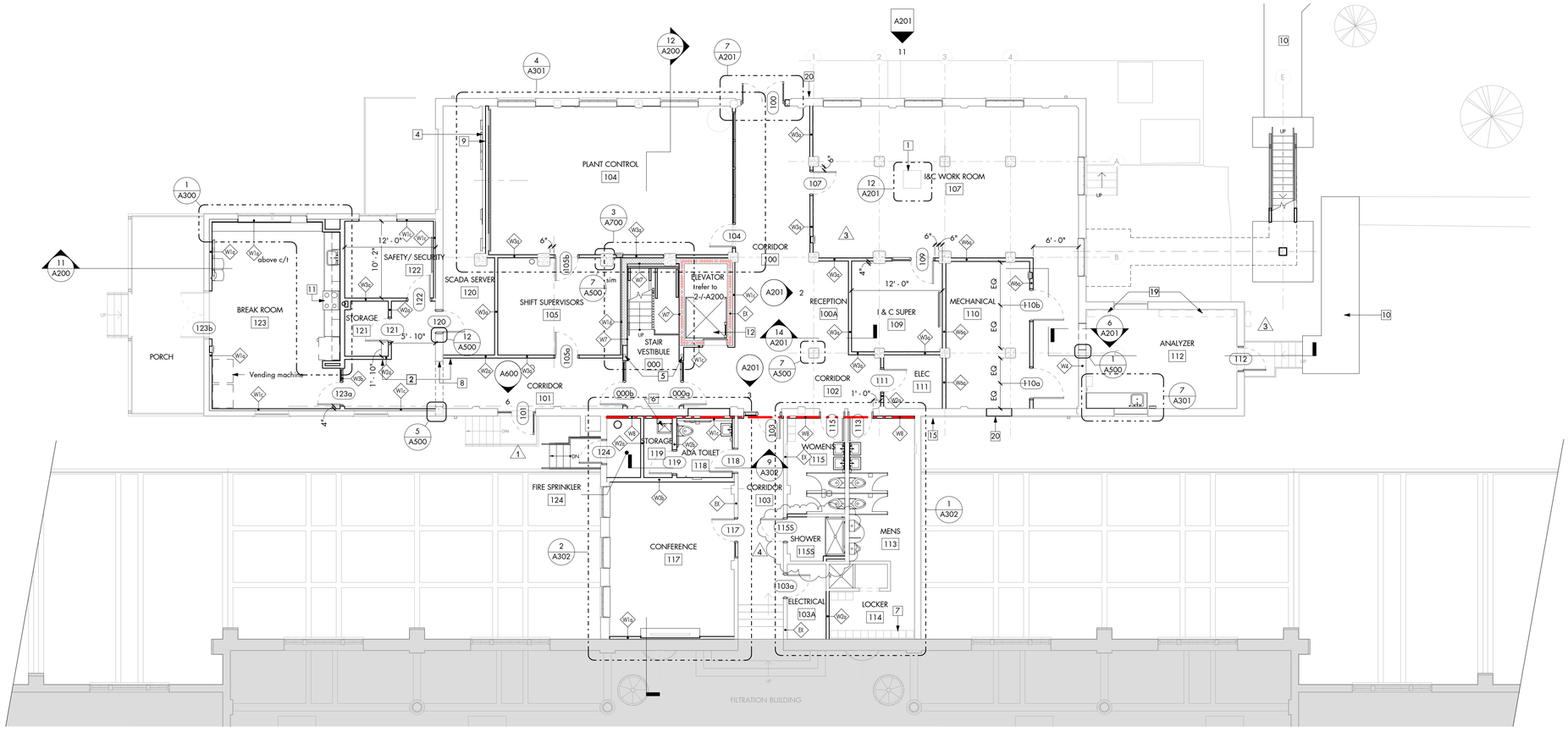
0' 1'-2" 4' 8' 16'
1/8" = 1'-0"

A100



2 LEVEL 2 - FLOOR PLAN

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



1 LEVEL 1 - FLOOR PLAN

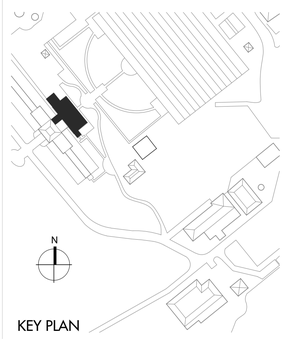
scale : 1/8" = 1'-0"

FLOOR PLAN NOTES

1. Dimensions at framed partitions are to finish face unless otherwise noted.
2. Refer to enlarged plans and details for critical interior dimensions.

KEYED NOTES

1 EXISTING FLOOR HATCH OPENING TO REMAIN. PROVIDE NEW HINGED COVER
2 ALIGN FINISH FACES OF PARTITIONS
3 FILL IN OPENING AROUND DOOR WITH TO MATCH EXISTING CONSTRUCTION AND FINISH
4 EXISTING WALL-MOUNTED PANELS TO REMAIN. PARTITION FRAMING AND SUPPORT TO REMAIN - REFINISH TO MATCH NEW. EXTEND TO NEW CEILING AS REQUIRED.
5 PAINT EXISTING STEEL COLUMN
6 UTILITIES TO BE ROUTED BELOW SLAB IN OPEN PIPE GALLERY - ACCESS SHALL BE COORDINATED WITH OWNER
7 EXISTING LOCKERS TO REMAIN
8 EDGE OF EXISTING OPENING
9 EXISTING WALL MOUNTED ELECTRICAL PANELS TO REMAIN - REFRAME AND REFINISH PARTITION AS REQUIRED
10 NEW SIDEWALK CONNECTED TO EXISTING WALK
11 RELOCATED OVEN - REFER TO DEMO PLANS
12 PROVIDE NEW ELEVATOR
13 COPIER
14 LADDER
15 PATCH AND REPAIR PIPING PENETRATION
16 PROVIDE NEW LINTEL AT RAISED OPENING HEIGHT
17 EXTEND WALLS ABOVE CEILING AS REQUIRED
18 PROVIDE SHELF AND CLOSET ROD
19 COORDINATE RELOCATION OF WALL-MOUNTED EQUIPMENT WITH OWNER
20 INFILL OPENING - MATCH EXISTING FINISH



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Revisions

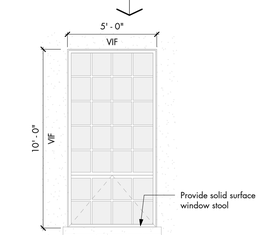
No.	Description	Date
1	Permit Review	08.21.19
3	REV 3	12.16.19
4	Permit REV 4	02.24.19

Sheet Information

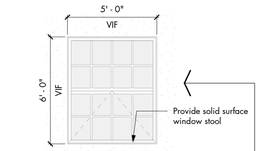
FLOOR PLANS

0' 1'-2" 4' 8' 16'
1/8 = 1'-0"

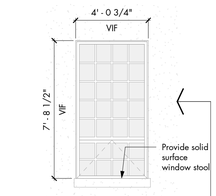
A101



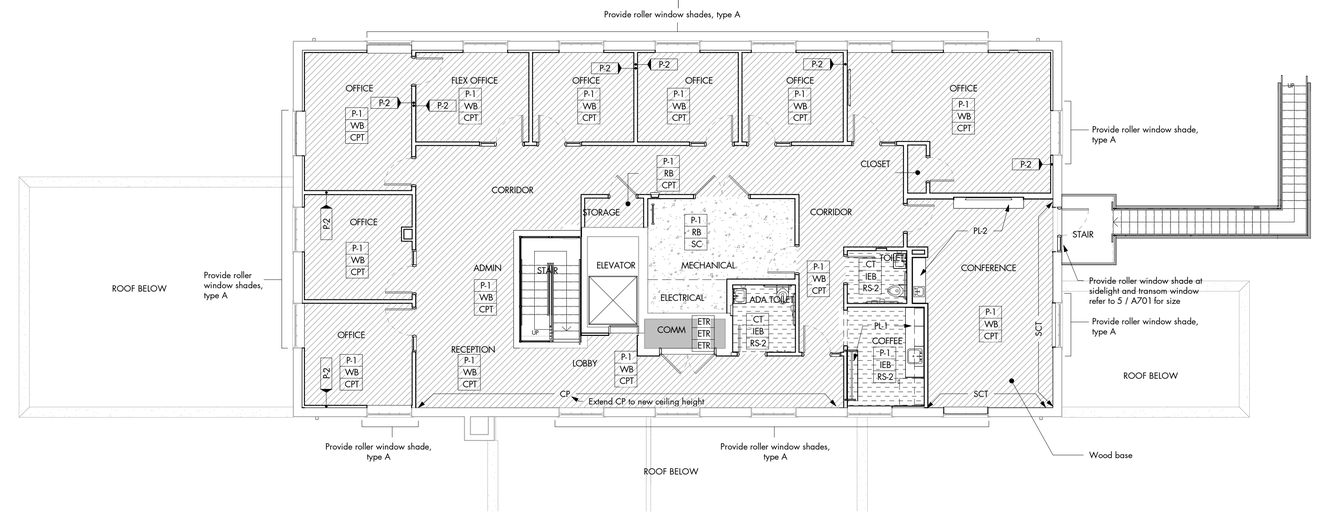
A ROLLER SHADE
scale : 1/4" = 1'-0"
For Reference - exact size to be field verified



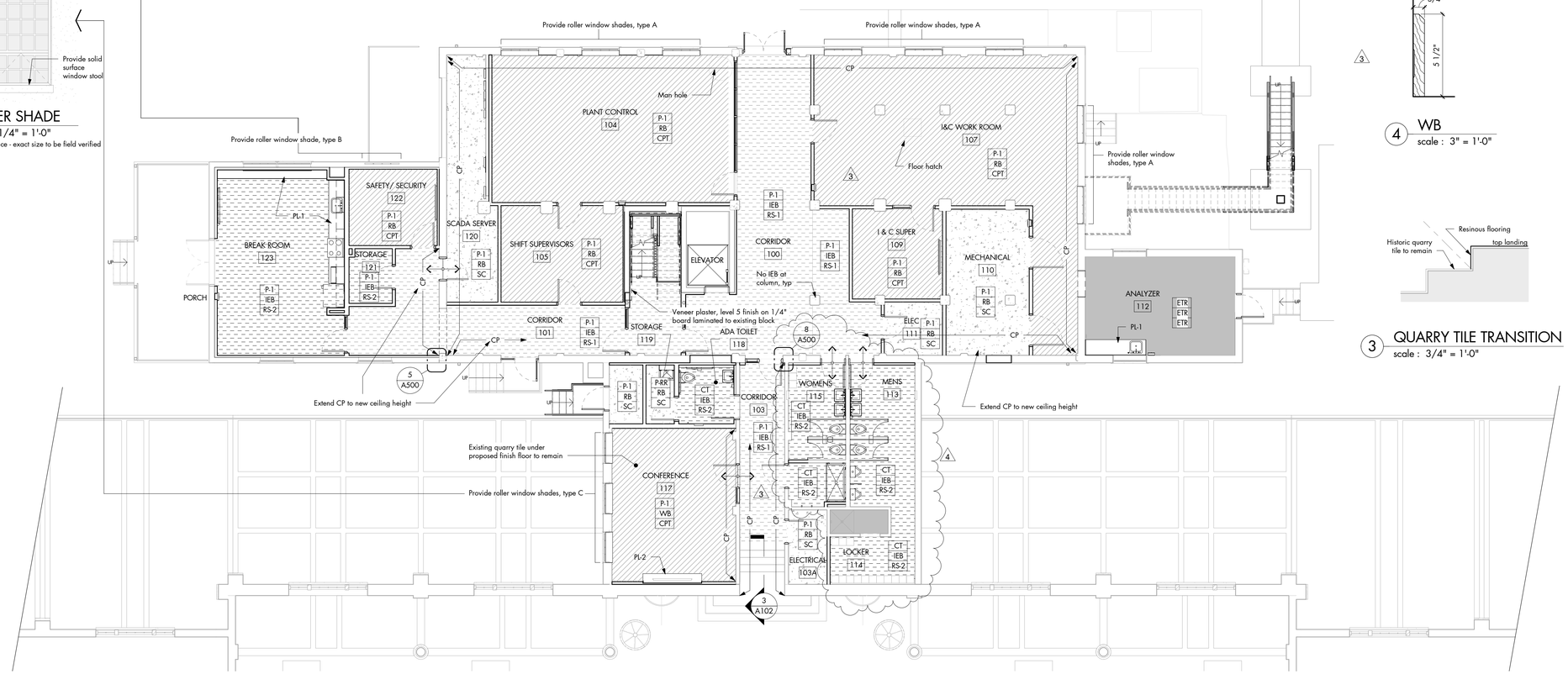
B ROLLER SHADE
scale : 1/4" = 1'-0"
For Reference - exact size to be field verified



C ROLLER SHADE
scale : 1/4" = 1'-0"
For Reference - exact size to be field verified



2 LEVEL 2 - FINISH PLAN
scale : 1/8" = 1'-0"

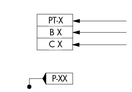


1 LEVEL 1 - FINISH PLAN
scale : 1/8" = 1'-0"

4 WB
scale : 3" = 1'-0"

3 QUARRY TILE TRANSITION
scale : 3/4" = 1'-0"

SYMBOLS



LEGEND

	VCT		SC
	CT		QT
	CPT		ETR
	RF		

WALL FINISHES

P-1	BASE PAINT COLOR
P-2	ACCENT COLOR 1
P-3	ACCENT COLOR 2
P-RR	RESTROOM PAINT
EXP	EXPOSED / UNFINISHED
ETR	EXISTING TO REMAIN
M. EX	MATCH EXISTING
CP	EXISTING CEMENT PLASTER - REPAIR & PAINT
SCT	EXISTING CLAY TILE

FLOORING / BASE

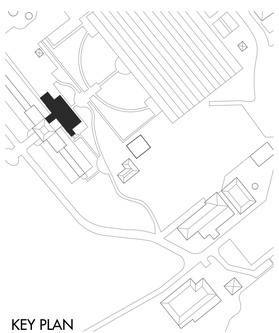
RB	RESILIENT BASE
WB	WOOD BASE, stained
IEB	INTEGRAL RESINOUS BASE
CPT	CARPET TILE
QT	EXISTING QUARRY TILE
SC	SEALED CONCRETE
RS	RESINOUS FLOORING
ETR	EXISTING TO REMAIN
CT	CERAMIC TILE

COUNTERTOP / CABINETRY

PL-1	QUARTZ, type 1 / PLASTIC LAMINATE, type 1
PL-2	QUARTZ, type 2 / PLASTIC LAMINATE, type 2

FINISH PLAN NOTES

1. Finish floor hatches shown for diagrammatic purposes only - they do not indicate pattern or layout.
2. Provide new window stools throughout.
3. Patch, repair and clean all divots, holes, and gashes in concrete slab and structure.
4. Strip existing paint from existing structure and clay tile.
5. New plaster finish to match existing.
6. Existing plaster to be cleaned and painted.
7. Provide adequate leveling of slab prior to installation of new flooring.
8. Refer to RCPs for extent of scope for acoustical panels.
9. millwork, fixtures and equipment shown in plans - coordinate extent of finishes with specific configurations.
10. Do not provide RB at CP or SCT walls.
11. Provide room signage throughout.
12. All exposed conduit, piping, ducts, etc. shall be painted.
13. Refinish historic cement plaster finish.
14. Remove paint from clay tile where exposed.
15. Remove paint from concrete where exposed.



City of Tampa
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Tampa, Florida 33602-4704
www.RoweArchitects.com
Phone 813.221.8771
AAC0002179

Rick Rowe
AR13510 2019.02.20

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number 1706.00

Distribution

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1	Design Development	07.20.18
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3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

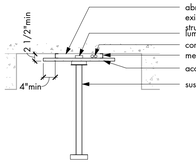
No.	Description	Date
3	REV 3	12.16.19
4	Permit REV 4	02.24.19

Sheet Information

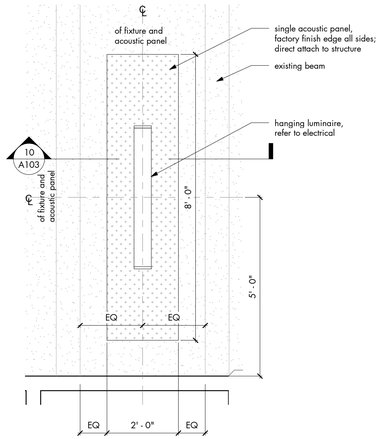
FINISH PLANS

0' 1'-2" 4' 8' 16'
1/8 = 1'-0"

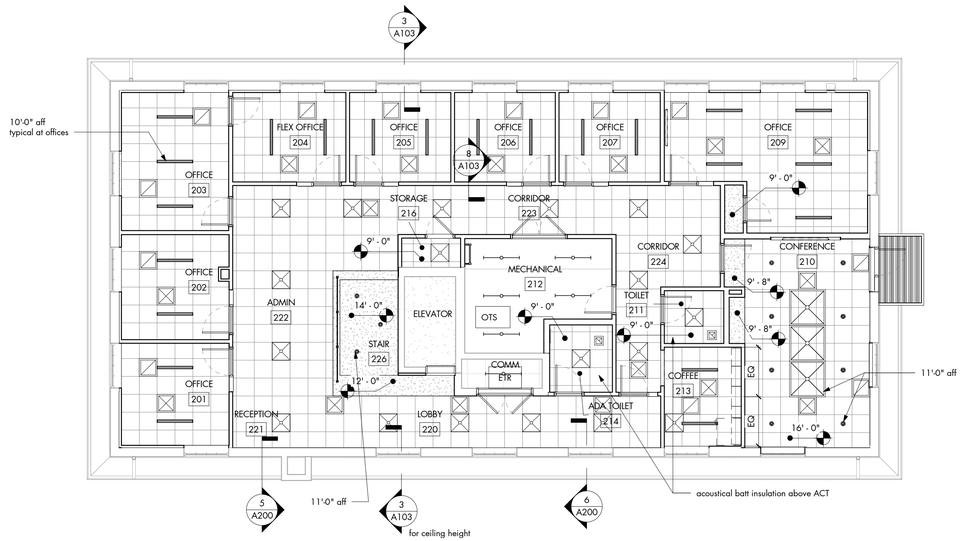
A102



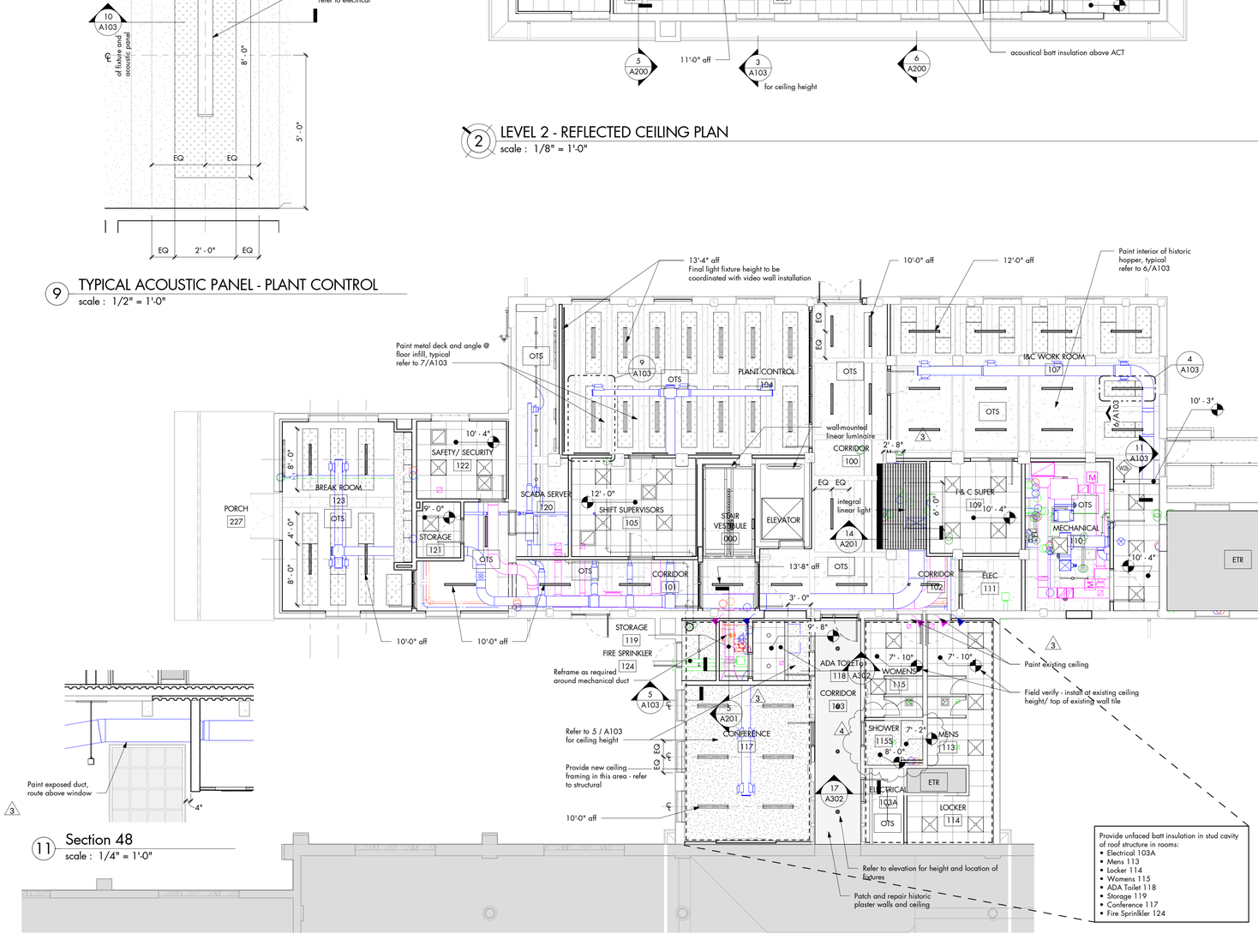
10 ACOUSTICAL PANEL
scale : 1/2" = 1'-0"



9 TYPICAL ACOUSTIC PANEL - PLANT CONTROL
scale : 1/2" = 1'-0"

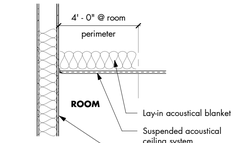


2 LEVEL 2 - REFLECTED CEILING PLAN
scale : 1/8" = 1'-0"



11 Section 48
scale : 1/4" = 1'-0"

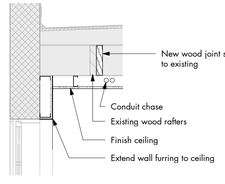
1 LEVEL 1 - REFLECTED CEILING PLAN
scale : 1/8" = 1'-0"



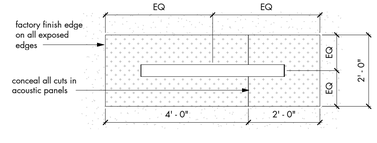
8 ACOUSTICAL BATT
scale : 1/2" = 1'-0"

7 104 - PLANT CONTROL

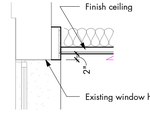
6 107 - HOPPER



5 DETAIL @ 117/ 118
scale : 1/2" = 1'-0"



4 ACOUSTICAL PANEL ASSEMBLY
scale : 1/2" = 1'-0"



3 TYPICAL DETAIL AT WINDOW
scale : 1/2" = 1'-0"

SYMBOLS

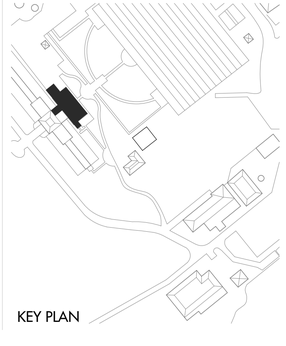
- FEATURE PENDANT LUMINAIRE
- 2x2 TROFFER
- LINEAR PENDANT LUMINAIRE
- INTERIOR PENDENT LUMINAIRE
- STRIP LUMINAIRE
- SUPPLY
- RETURN
- EXHAUST

CEILING TYPES

- ACT-1 — ACOUSTICAL CEILING PANELS
- GYP — GYPSUM BOARD CEILING
- ACT-2 — ACOUSTICAL CEILING PANELS
- ETR — EXISTING TO REMAIN
- OTS — OPEN TO STRUCTURE (abrasive blast concrete columns, underside of floor slab and beams)
- PL — EXISTING PLASTER TO BE REFINISHED

CEILING PLAN NOTES

1. Refer to 3/A103 for typical ceiling height in 2nd floor offices.
2. Head of all cased openings at interior partitions shall be 8'-0" aff unless otherwise noted.
3. Center and/or align edge of all ceiling mounted luminaires, diffusers, equipment in ceiling tiles, as indicated graphically - unless otherwise noted.
4. Refer to electrical drawings for light fixture descriptions and all ceiling mounted electrical devices.
5. Refer to mechanical drawings for diffuser descriptions.
6. Refer to equipment and technology drawings for identification and description of ceiling mounted equipment.
7. Refer to finish plans and interior elevations for additional ceiling height and/or ceiling materail information.
8. Provide lay-in acoustical blanket over ACT in all 2nd floor offices, restrooms and conference rooms. Refer to 8 / A103
9. All abandoned conduit, wiring and piping in OTS spaces shall be removed.
10. Exposed or surface-mounted conduit, piping, receptable, controls, etc. shall be limited in spaces without dropped ceilings. Those systems components that are visible shall be installed in a neat and organized manner. Contractor to meet with Architect prior to construction to review proposed layout.
11. Ceiling heights are from finish floor.
12. Areas left open to structure, OTS, apply sealer to exposed concrete columns and ceiling.
13. Extend gypsum board finish 8" above highest adjacent ceiling.



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AAC0032179
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Phone 813.221.8771
AAC0032179

STATE OF FLORIDA
Rick Rowe
AR0013510
REGISTERED ARCHITECT

Rick Rowe
AR13510 2019.02.20

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
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4	Permit CDs	02.26.19

Revisions

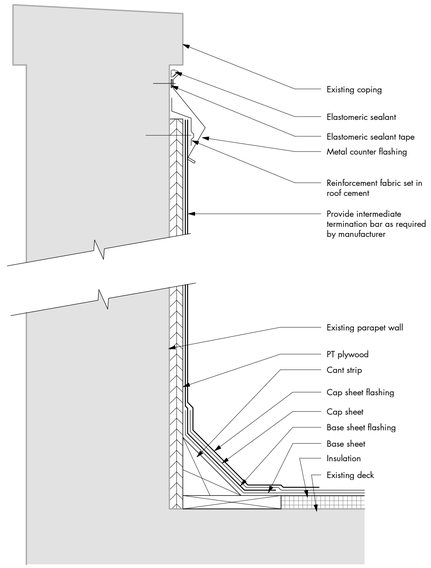
No.	Description	Date
3	REV 3	12.16.19
4	Permit REV 4	02.24.19

Sheet Information

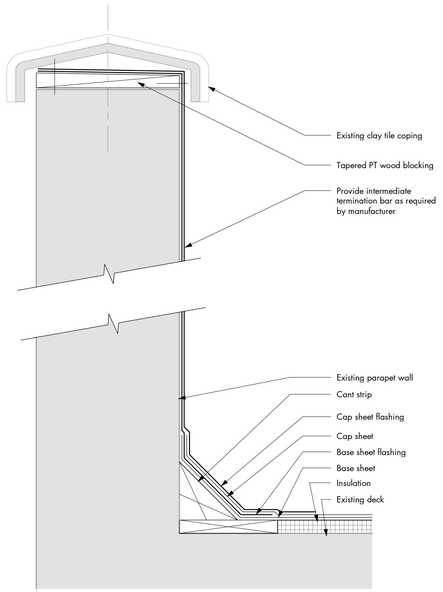
CEILING PLANS

0 1'-2" 4' 8' 16'
1/8" = 1'-0"

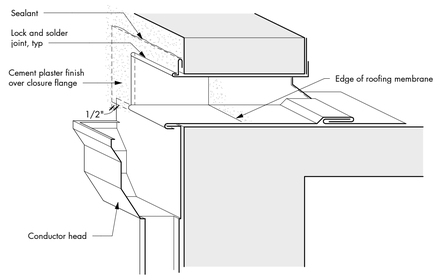
A103

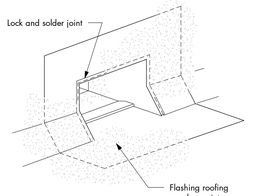


5 PARAPET FLASHING @ MASONRY COPING
scale : 3" = 1'-0"

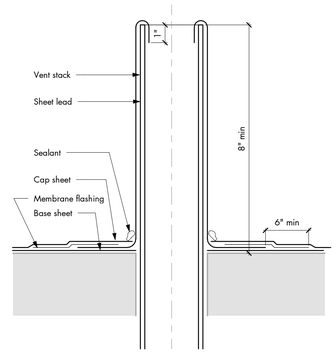


6 PARAPET FLASHING @ CLAY TILE
scale : 3" = 1'-0"





7 THRU WALL SCUPPER AND CONDUCTOR HEAD



9 VENT STACK
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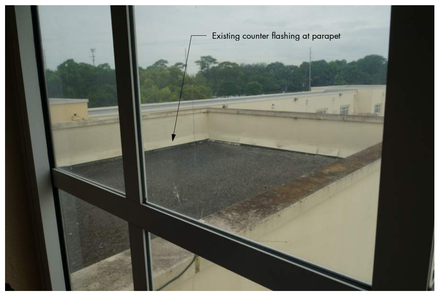
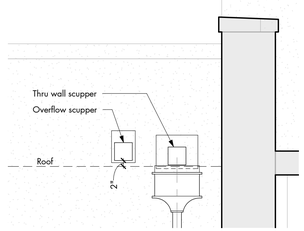


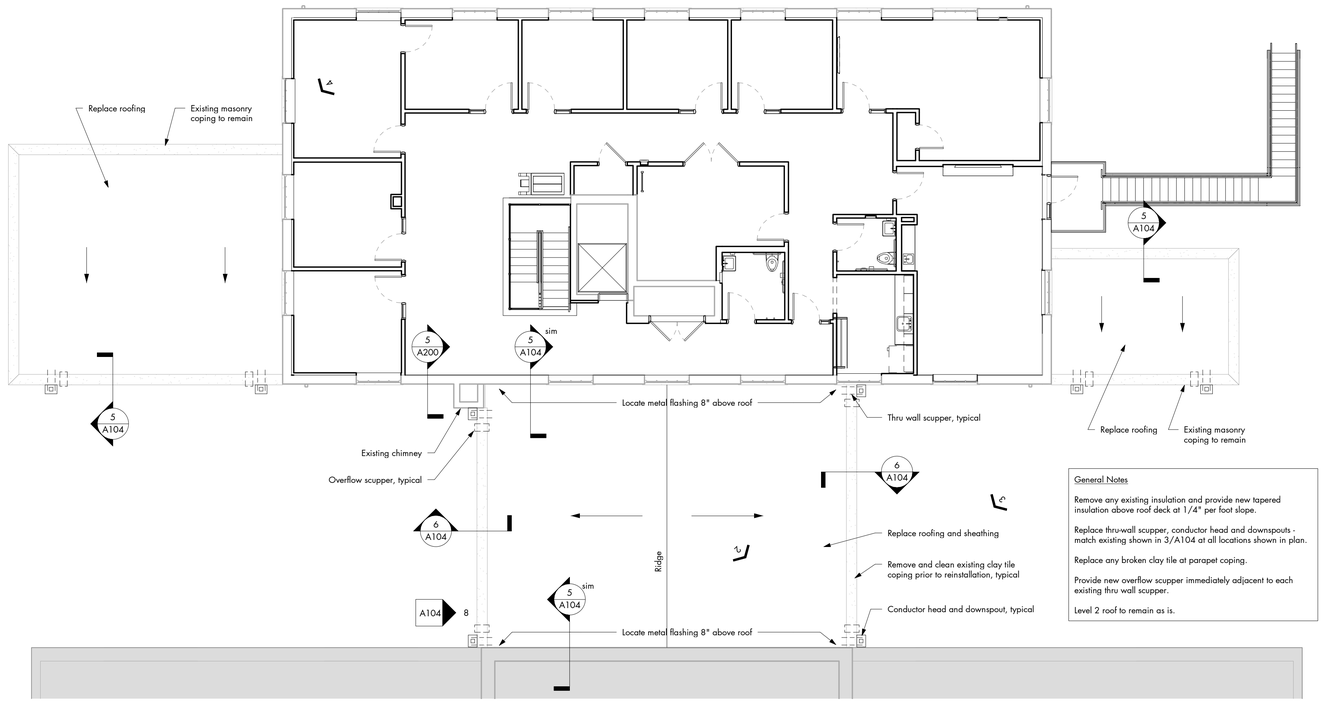
4 EXISTING ROOF
scale : 12" = 1'-0"



8 THRU WALL SCUPPER
scale : 1/2" = 1'-0"

3 EXISTING ROOF
scale : 12" = 1'-0"

2 EXISTING ROOF
scale : 12" = 1'-0"



1 LEVEL 1 - ROOF PLAN
scale : 1/8" = 1'-0"

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AR13510 2019.02.20

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Revisions

No.	Description	Date
3	REV 3	12.16.19

Sheet Information

ROOF PLAN

0' 1' 2' 4' 8' 16'
1/8" = 1'-0"

A104 3

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CONSTRUCTION SERVICES DIVISION
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BLD-20-[illegible]
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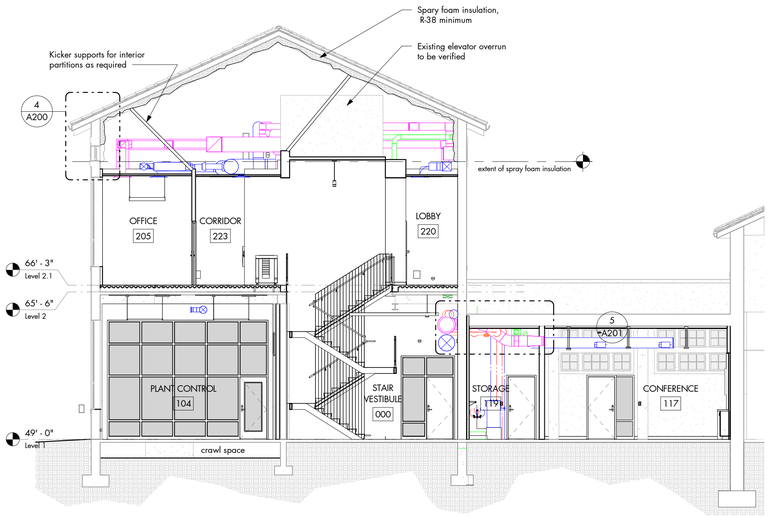
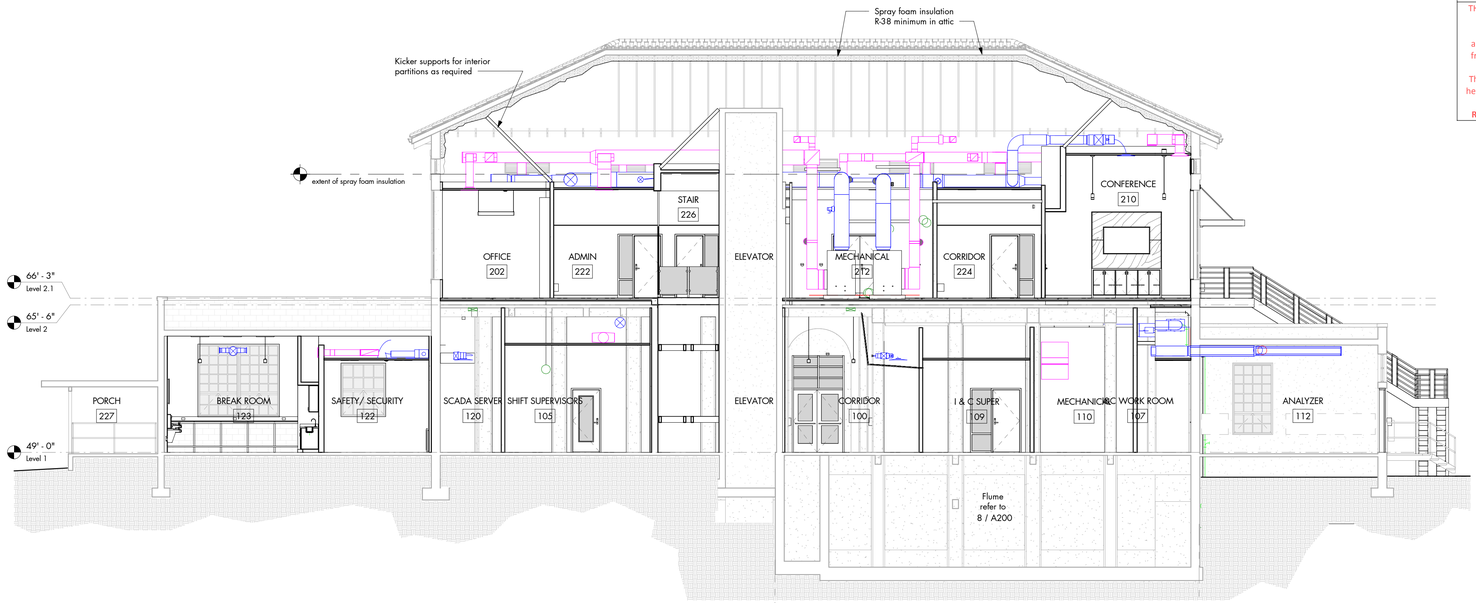
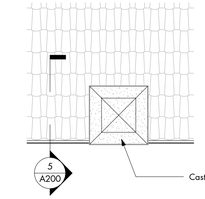




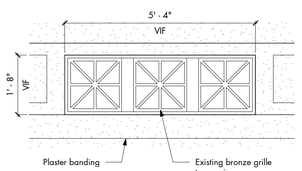
12 BUILDING SECTION - TRANSVERSE
scale : 1/8" = 1'-0"

11 BUILDING SECTION - LONGITUDINAL
scale : 1/8" = 1'-0"

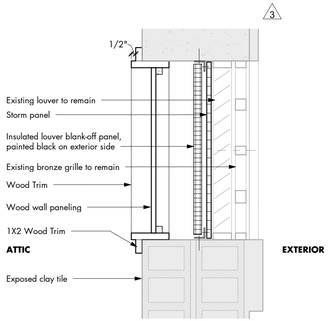


Historic chimney has been non-functioning for many years and is no longer required for any building use. Its height is being modified to reduce vulnerability in high winds. This modification will render the chimney unusable for any future use.

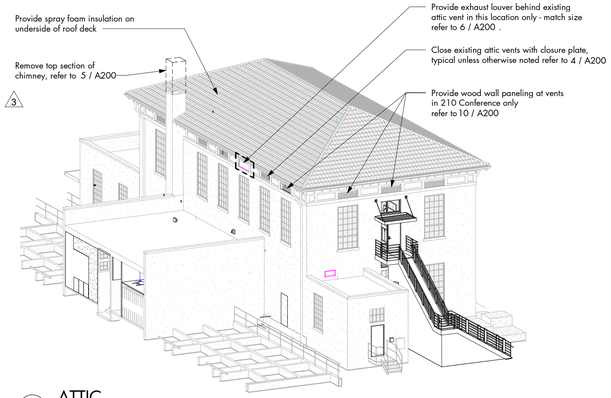
5 CHIMNEY MODIFICATION
scale : 1/4" = 1'-0"



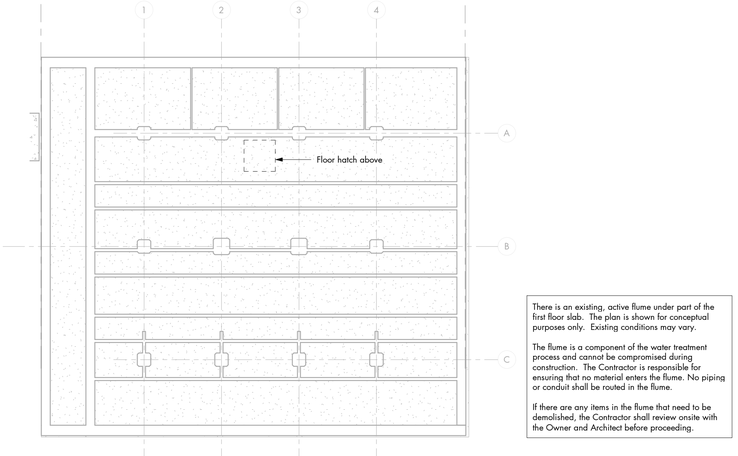
7 TYPICAL ATTIC VENT
scale : 1/2" = 1'-0"
For Reference - exact size to be field verified



10 ATTIC VENT @ 210 - CONFERENCE
scale : 1 1/2" = 1'-0"



9 ATTIC

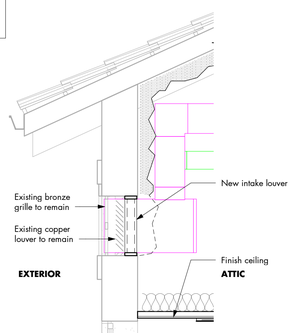


There is an existing, active flume under part of the first floor slab. The plan is shown for conceptual purposes only. Existing conditions may vary.

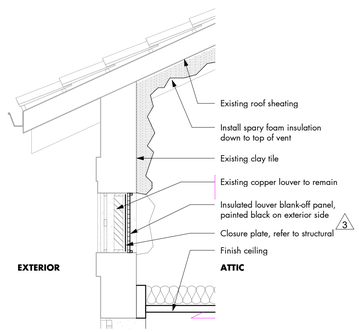
The flume is a component of the water treatment process and cannot be compromised during construction. The Contractor is responsible for ensuring that no material enters the flume. No piping or conduit shall be routed in the flume.

If there are any items in the flume that need to be demolished, the Contractor shall review onsite with the Owner and Architect before proceeding.

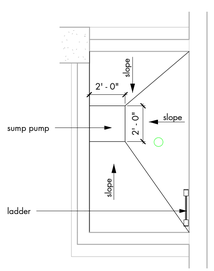
8 FLUME BELOW LEVEL 1
scale : 1/8" = 1'-0"



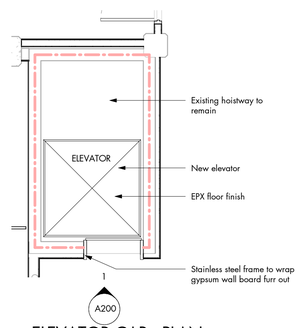
6 EXHAUST LOUVER
scale : 1/2" = 1'-0"



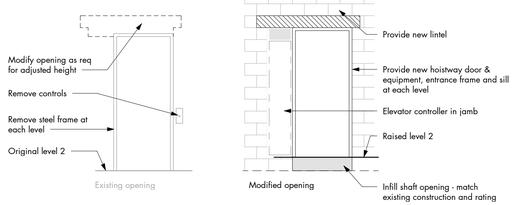
4 TYPICAL ATTIC VENT
scale : 1/2" = 1'-0"



3 ELEVATOR PIT
scale : 1/4" = 1'-0"



2 ELEVATOR CAB - PLAN
scale : 1/4" = 1'-0"



1 ELEVATOR OPENING
scale : 1/4" = 1'-0"

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AR13510
2019.02.20

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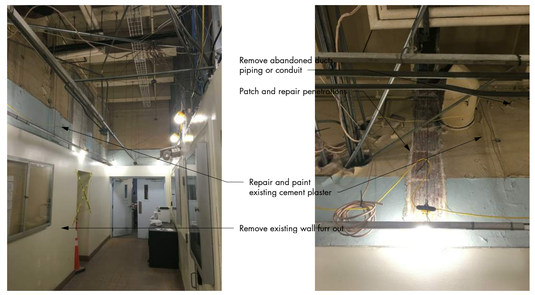
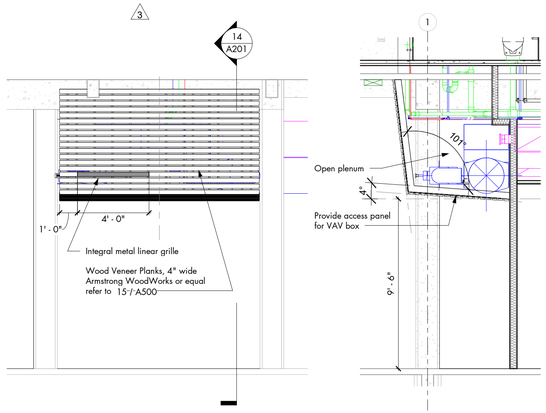
Sheet Information

BUILDING SECTIONS, FLUME, ELEVATOR

A200

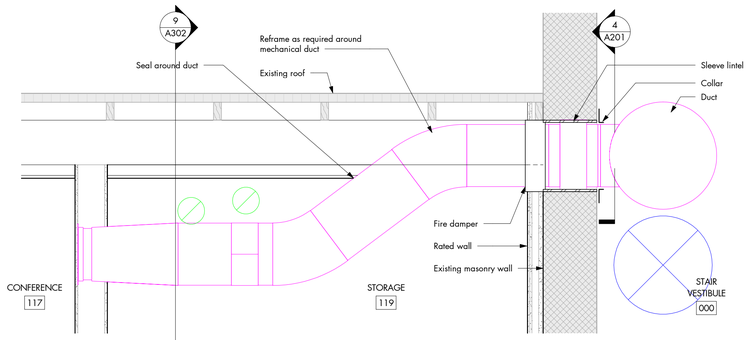


1 100 / 101 / 102 - CORRIDOR



2 100A - RECEPTION
scale : 1/4" = 1'-0"

14 100A - RECEPTION
scale : 1/4" = 1'-0"



5 DUCT PENETRATION - SECTION
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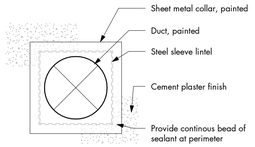

4 DUCT PENETRATION - ELEVATION
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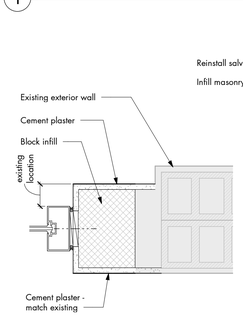

9 DETAIL @ DOOR 100
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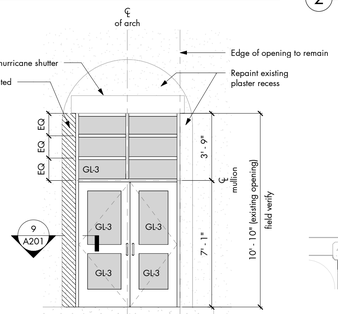

8 DOOR 100
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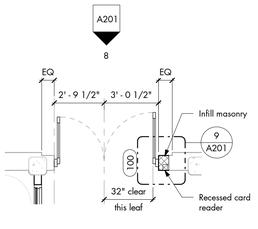

7 DOOR 100
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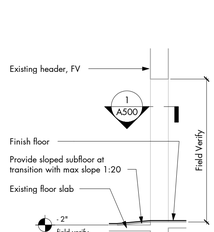

6 112 - ANALYZER
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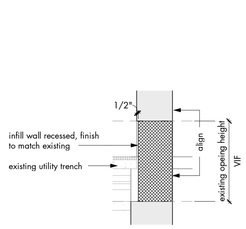

13 EXTERIOR INFILL - SECTION
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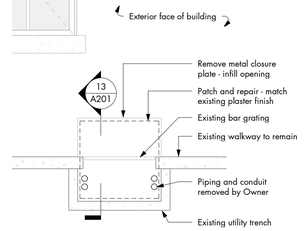

11 EXTERIOR INFILL - ELEVATION
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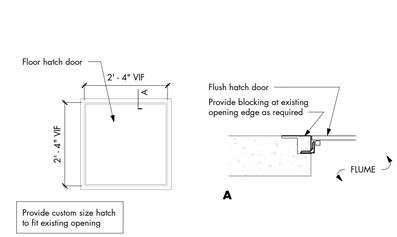

12 DETAIL @ FLOOR HATCH
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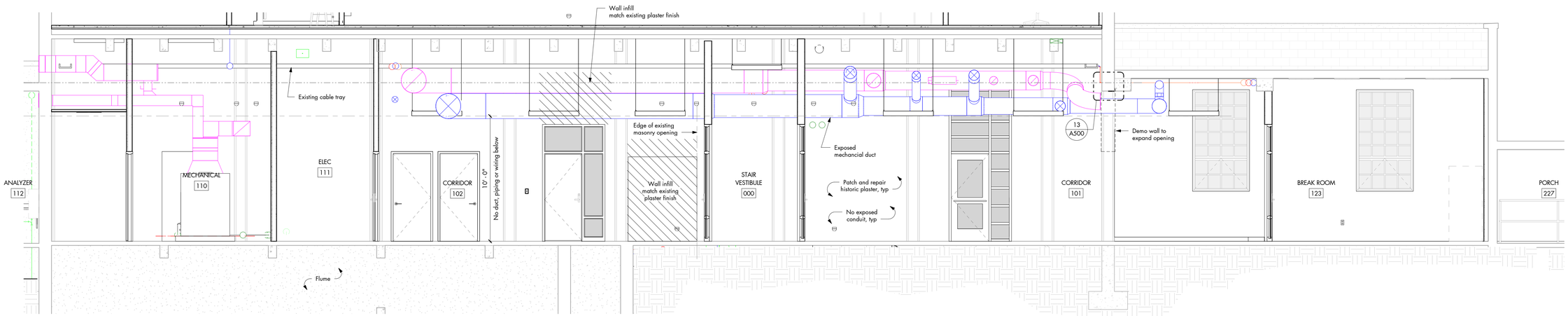


3 101 / 102 - CORRIDOR
scale : 1/4" = 1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make any alterations on the plans without permission from the Building Official
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
Phone 813.221.8771
AAC0002172

STATE OF FLORIDA
Rick Rowe
AR0013510
REGISTERED ARCHITECT

Rick Rowe
AR13510 2019.02.20

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number 1706.00

Distribution

No.	Description	Date
1	Design Development	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
3	REV 3	12.16.19

Sheet Information

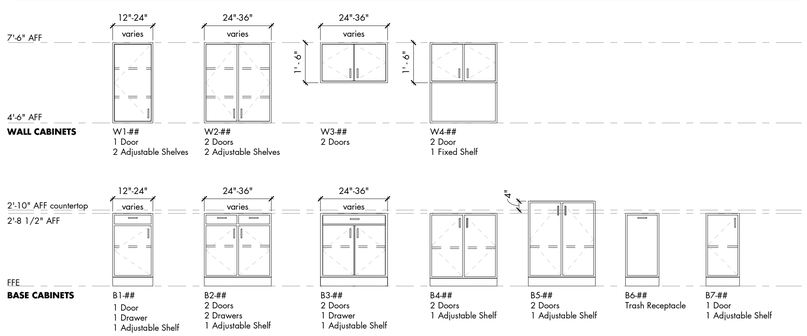
LEVEL 1 - CORRIDOR & ENTRY

0' 6" 1' 2' 4' 8'
1/4" = 1'-0"

A201

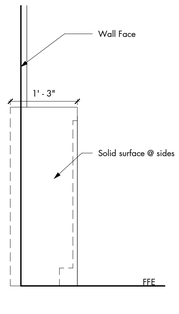
MILLWORK LEGEND

TYPE DESIGNATION —►X # - # #◄— WIDTH IN INCHES



MILLWORK NOTES

1. Refer to interior elevations for additional dimensions, location, and finish information.
2. Provide 2" plastic laminate filler pieces at all locations where base or upper cabinet or shelving meet adjacent walls or cabinetry.
3. Refer to finish sheet for additional millwork finish information.
4. All toe spaces to be 4" high.
5. Side and backsplashes at base cabinet counters is to be 4" u.o.n.
6. Verify all dimensions in the field.
7. Coordinate color and locations of grommets with architect.



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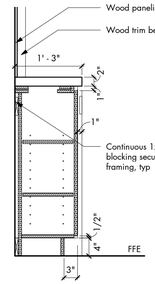

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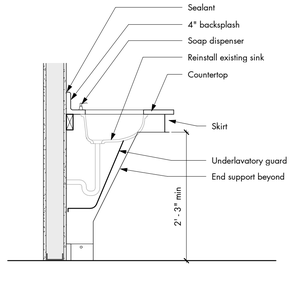

9 VANITY COUNTER
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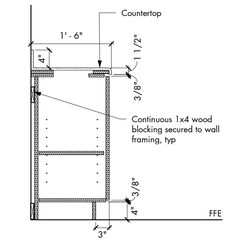

8 210 - CONFERENCE
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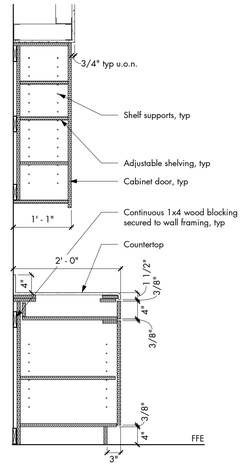

7 TYPICAL WALL AND BASE CABINET
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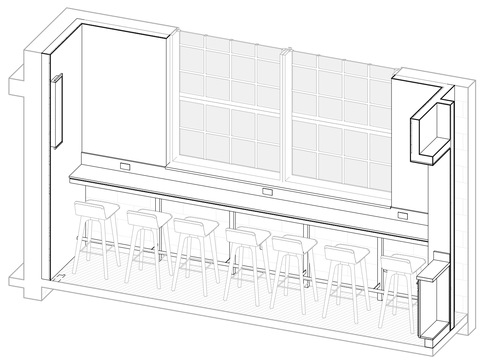
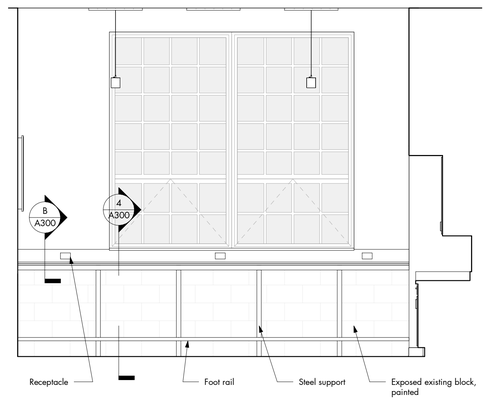


6 123 - COUNTER



5 123 - COUNTER
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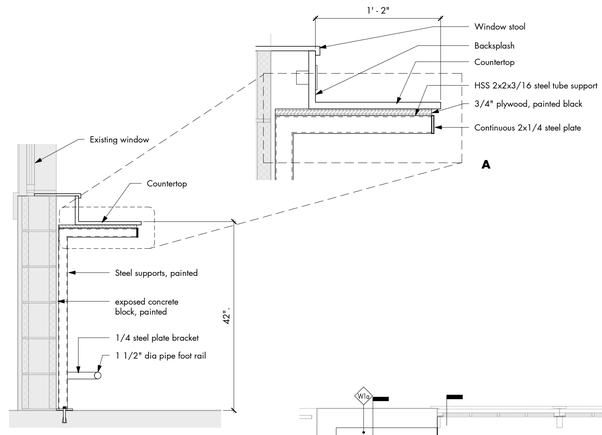

4 DETAIL @ COUNTER
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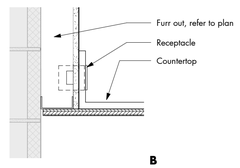
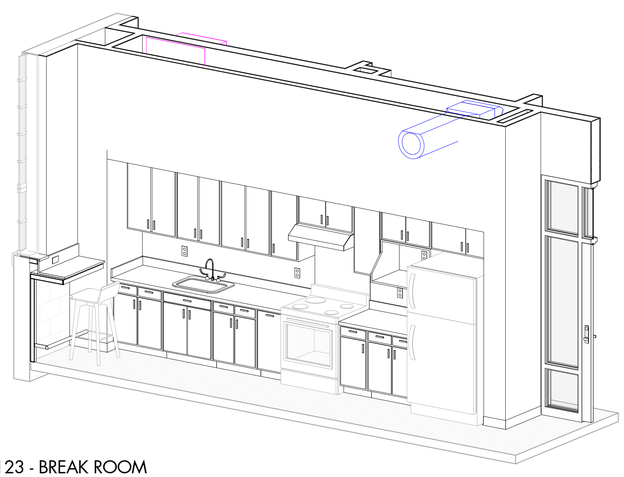
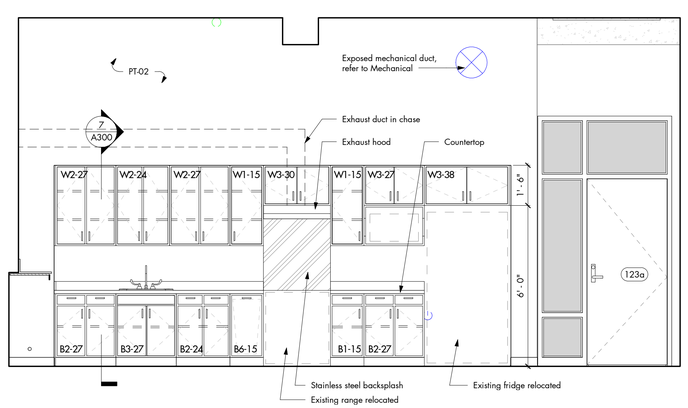




3 123 - BREAK ROOM



2 123 - BREAK ROOM
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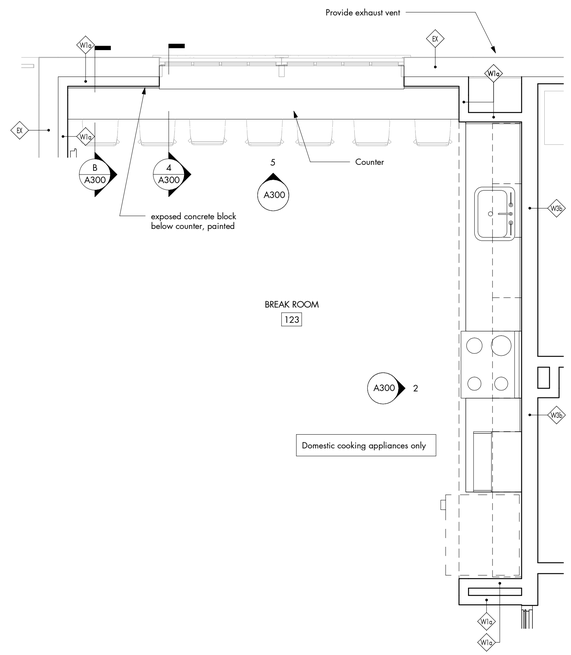

1 123 - BREAK ROOM
scale : 3/8" = 1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF CONSTRUCTION DOCUMENTS IS APPROVED FOR THE SCOPE OF WORK LISTED ON THE PERMIT.
It is unlawful for any person to make any alterations to this plan unless directed to do so from the Plans Examiner or Building Official.
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
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Phone 813.221.8771
AAC0002179

STATE OF FLORIDA
Rick Rowe
AR0013510
REGISTERED ARCHITECT

Rick Rowe
AR13510
2019.02.20

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number 1706.00

Distribution

No.	Description	Date
1	Design Development	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

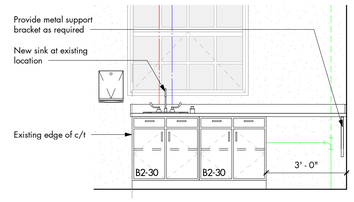
No.	Description	Date

Sheet Information

BREAK ROOM

0' 6" 1' 2' 4'
3/8" = 1'-0"

A300



8 112 - ANALYZER
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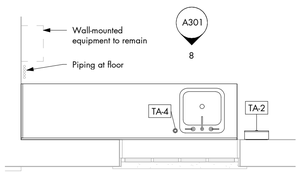
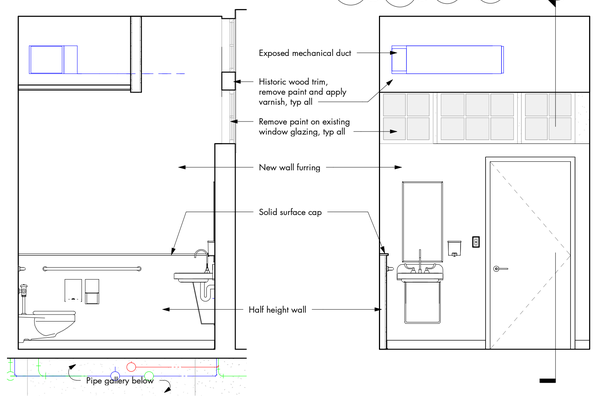


7 112 - ANALYZER
scale : 3/8" = 1'-0"

TOILET ACCESSORY SCHEDULE	
TA-1	Toilet Tissue Dispenser
TA-2	Paper Towel Dispenser
TA-3	Liquid Soap Dispenser
TA-4	Liquid Soap Dispenser
TA-5a	36" Grab Bar
TA-5b	42" Grab Bar
TA-5c	24" Grab Bar
TA-5d	48" Grab Bar
TA-6	Sanitary Napkin Disposal
TA-7	Sanitary Napkin Disposal
TA-8a	18" x 30" Mirror
TA-8b	42" x 36" Mirror
TA-9	Robe Hook
TA-10	Warm Air Dryer
TA-12	Utility Shelf with Rag Hooks and Broom Holders
TA-13	Curtain Rod

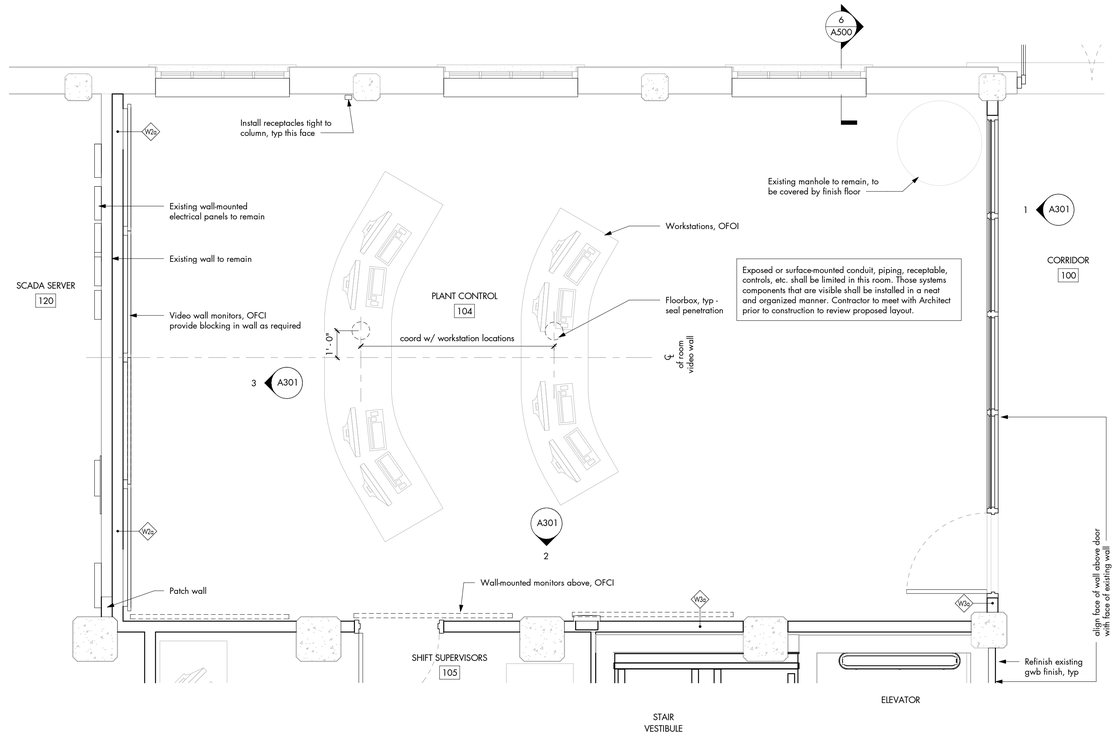
Provide TA-11 Underlavatory Guard at sink or lavatory locations with exposed piping underneath fixture

4



6 118 - ADA TOILET
scale : 3/8" = 1'-0"

5 118 - ADA TOILET
scale : 3/8" = 1'-0"



4 104 - PLANT CONTROL
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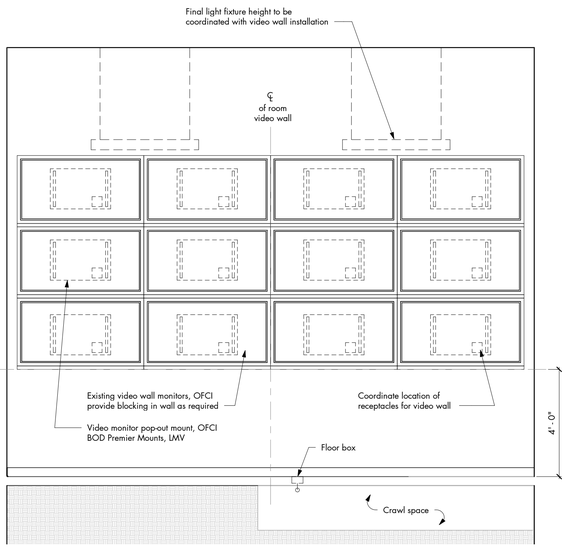

3 104 - PLANT CONTROL VIDEO WALL
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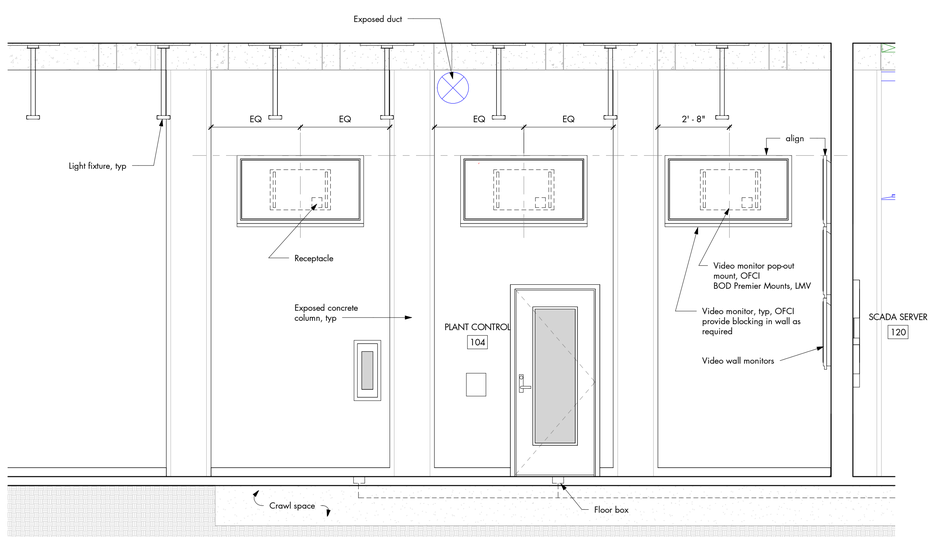

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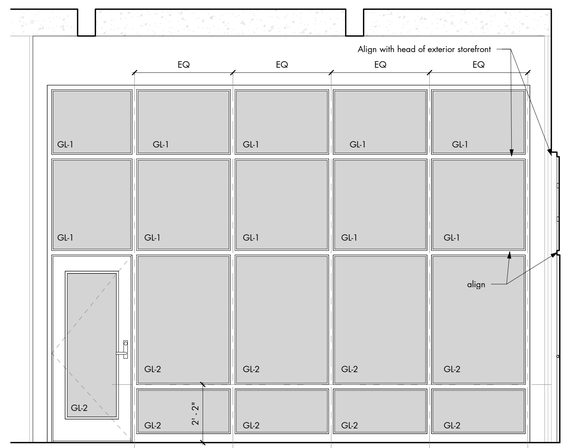

1 100 - CORRIDOR
scale : 3/8" = 1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
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AR13510 2019.02.20

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4	Permit CDs	02.26.19

Revisions

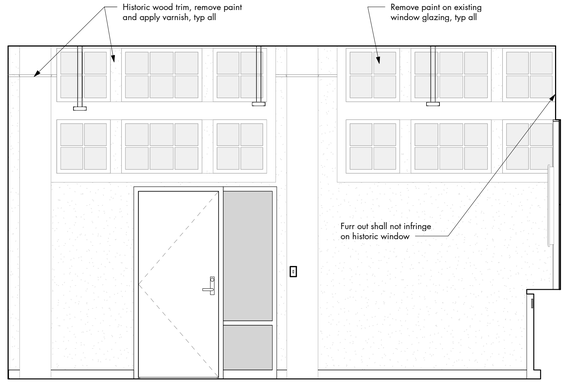
No.	Description	Date
4	Permit REV 4	02.24.19

Sheet Information

PLANT CONTROL & ANALYZER

0' 6" 1' 2' 4'
3/8" = 1'-0"

A301



8 117 - CONFERENCE
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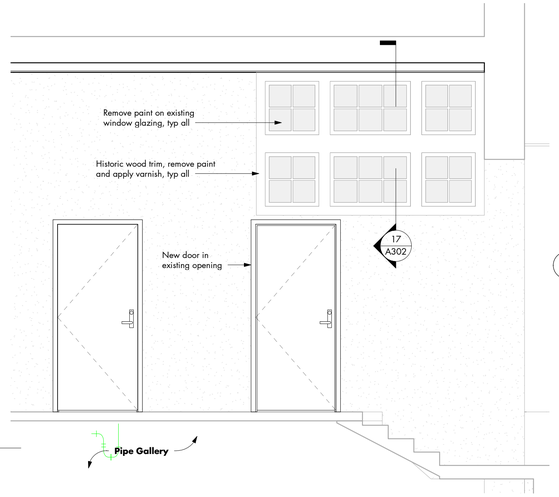

7 103 - CORRIDOR
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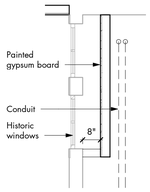

17 103A
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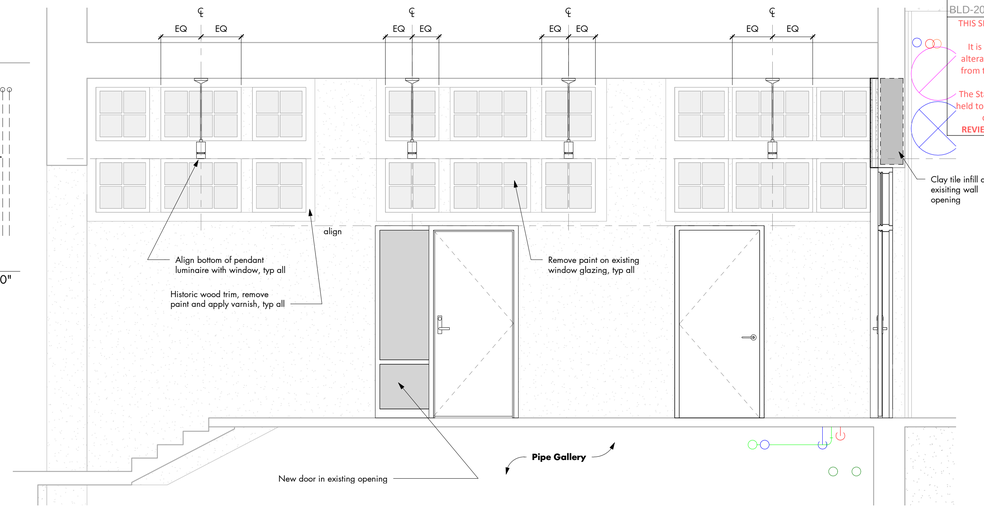
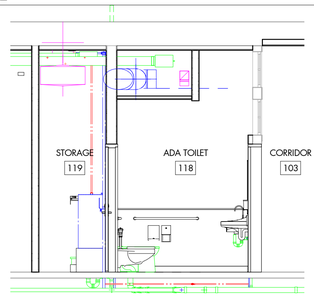


6 103 - CORRIDOR
scale : 3/8" = 1'-0"



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9 118 - ADA TOILET
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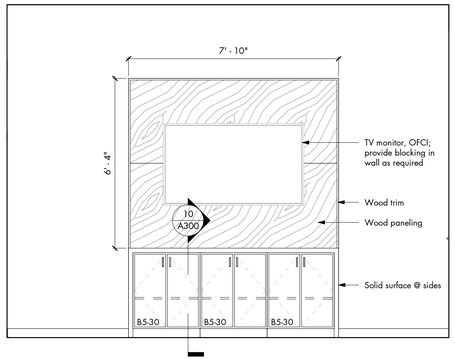

5 117 - CONFERENCE - FRONT WALL
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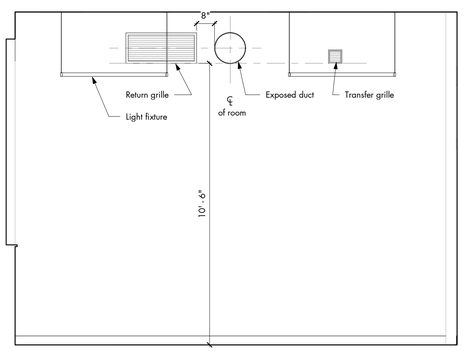

4 117 - CONFERENCE - BACK WALL
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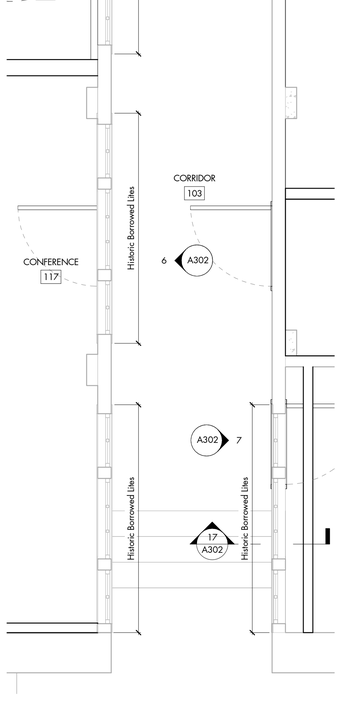

3 117 - BORROWED LITES
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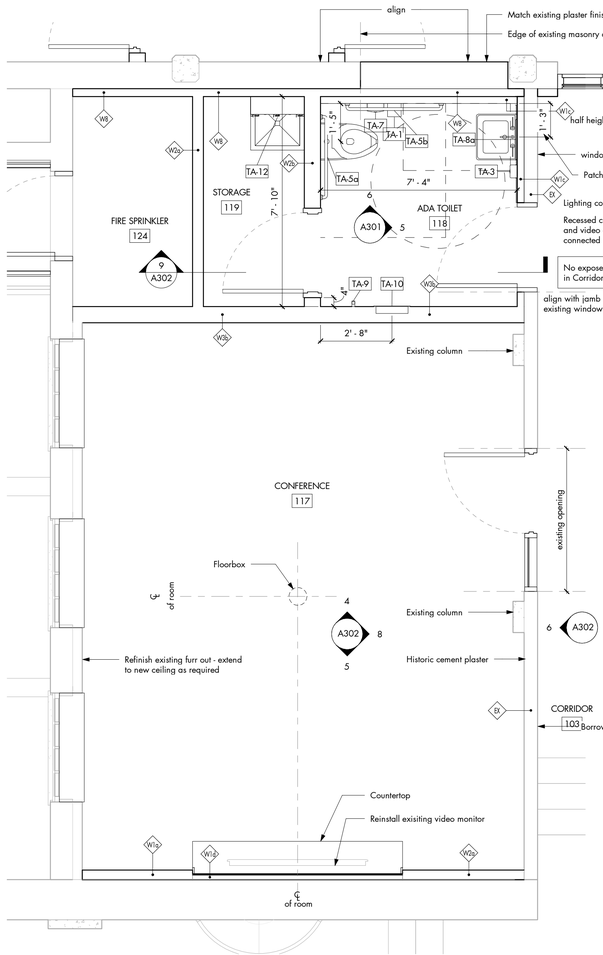

2 117 - CONFERENCE
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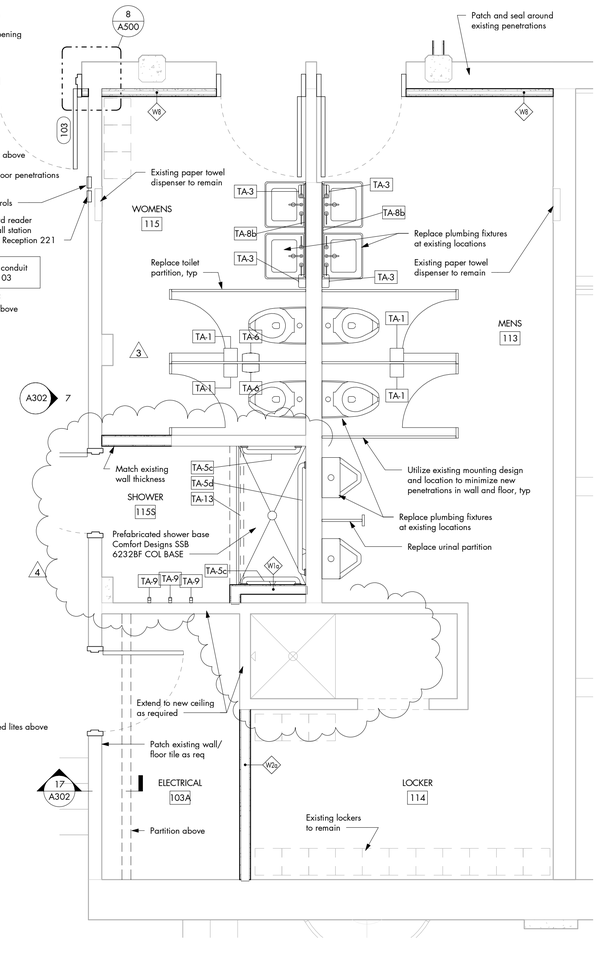

1 ENLARGED BATHROOMS
scale : 3/8" = 1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
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ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
Phone 813.221.8771
AAC0002179

STATE OF FLORIDA
Rick Rowe
AR0013510
REGISTERED ARCHITECT

Rick Rowe
AR13510 2019.02.20

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number	1706.00

Distribution

No.	Description	Date
1	Design Development	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

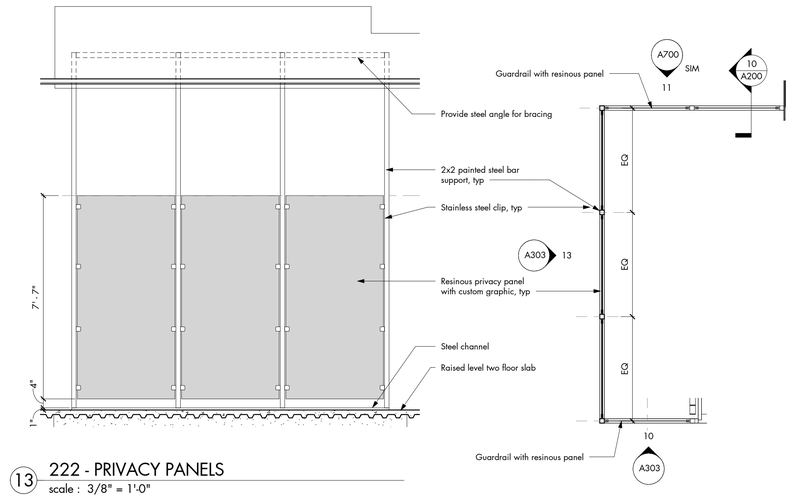
No.	Description	Date
3	REV 3	12.16.19
4	Permit REV 4	02.24.19

Sheet Information

LEVEL 1 - CONFERENCE

0' 6" 1' 2' 4'
3/8" = 1'-0"

A302



13 222 - PRIVACY PANELS
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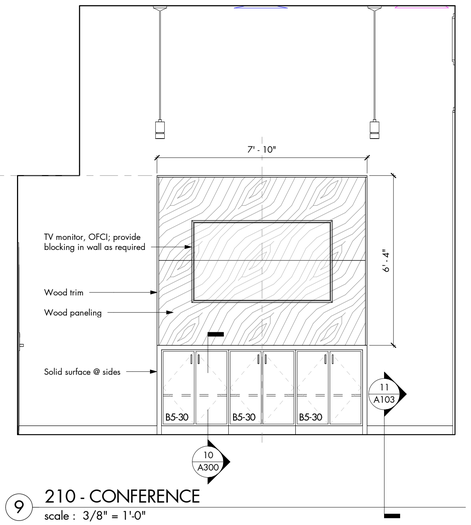
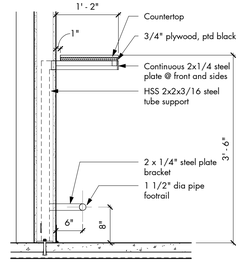


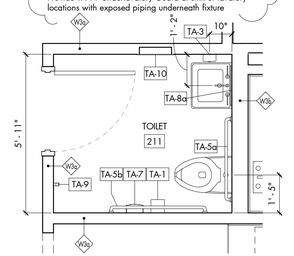
9 210 - CONFERENCE
scale : 3/8" = 1'-0"



8 DETAIL @ 213 BAR
scale : 3/4" = 1'-0"

TOILET ACCESSORY SCHEDULE	
TA-1	Toilet Tissue Dispenser
TA-2	Paper Towel Dispenser
TA-3	Liquid Soap Dispenser
TA-4	Liquid Soap Dispenser
TA-5a	36" Grab Bar
TA-5b	42" Grab Bar
TA-5c	24" Grab Bar
TA-5d	48" Grab Bar
TA-6	Sanitary Napkin Disposal
TA-7	Sanitary Napkin Disposal
TA-8a	18" x 30" Mirror
TA-8b	42" x 36" Mirror
TA-9	Robe Hook
TA-10	Warm Air Dryer
TA-12	Utility Shelf with Rag Hooks and Broom Holders
TA-13	Curtain Rod

Provide TA-11 Underlavatory Guard at sink or lavatory locations with exposed piping underneath fixture



7 211 - TOILET
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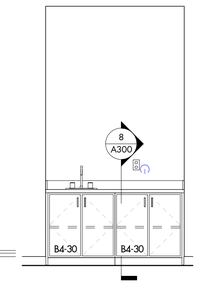

6 210 - COFFEE
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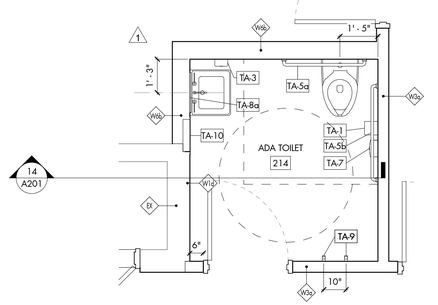

5 214 - ADA TOILET
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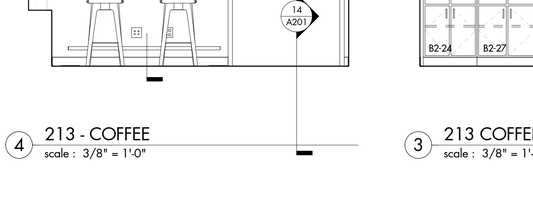

11 GUARDRAIL
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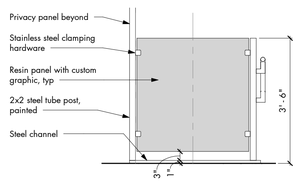

10 GUARDRAIL - SECOND FLOOR
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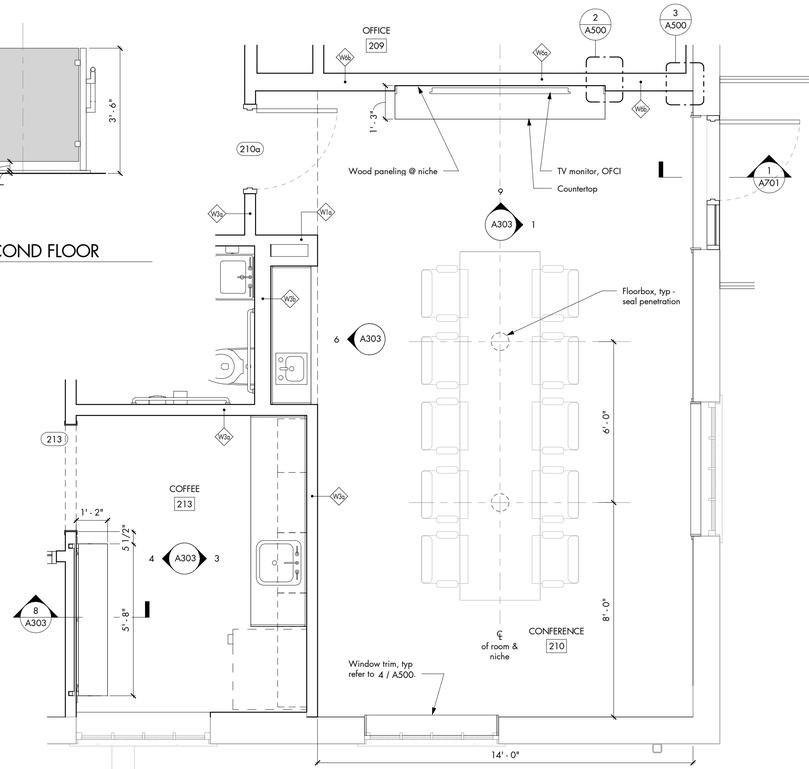

2 210 - CONFERENCE
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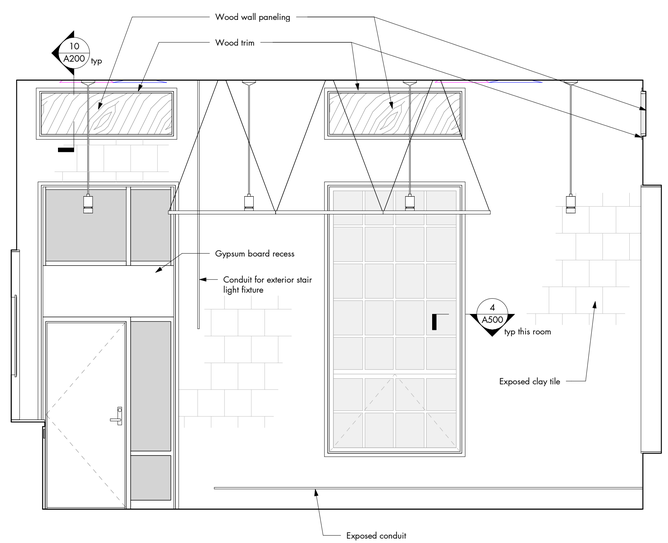

1 210 - CONFERENCE
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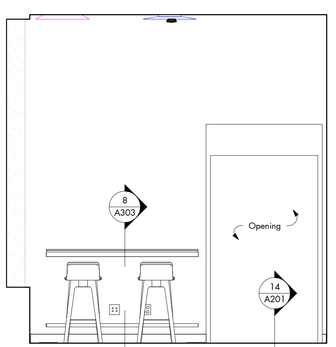

4 213 - COFFEE
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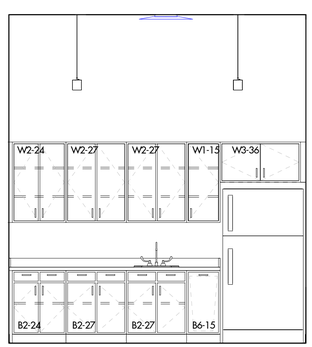

3 213 COFFEE CASEWORK
scale : 3/8" = 1'-0"

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Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number 1706.00

Distribution

No.	Description	Date
1	Design Development	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
1	Permit Review	08.21.19
4	Permit REV 4	02.24.19

Sheet Information

LEVEL 2 - CONFERENCE & RECEPTION

0' 6" 1' 2' 4'
3/8" = 1'-0"

A303

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CONSTRUCTION SERVICES DIVISION
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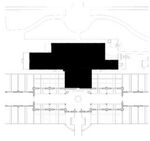
Rick Rowe
AR13510 2019.02.20



Project Information

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Project Number	1706.00

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Revisions

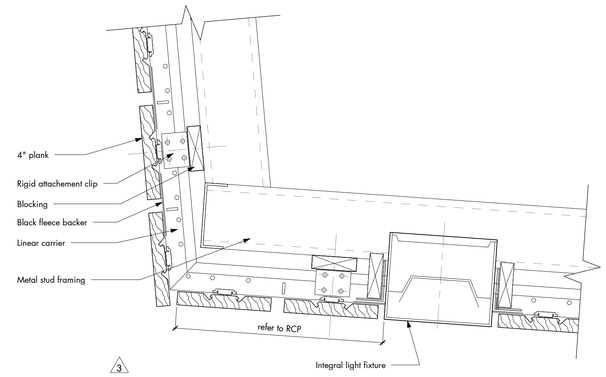
No.	Description	Date
3	REV 3	12.16.19

Sheet Information

DETAILS

0' 3' 6' 1'
1-1/2" = 1'-0"

A500



15 CEILING DETAIL
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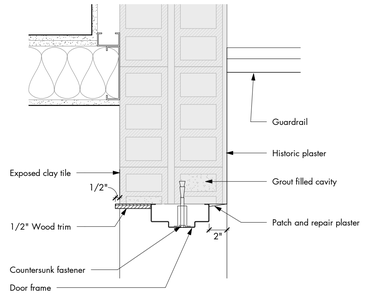

14 210B - DOOR JAMB
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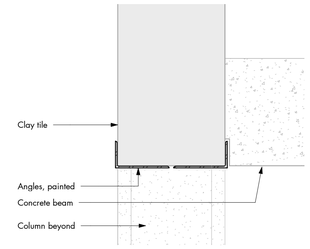

13 DETAIL @ OPENING
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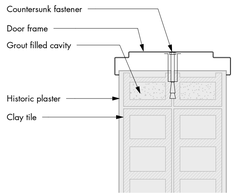

12 DETAIL @ DOOR FRAME
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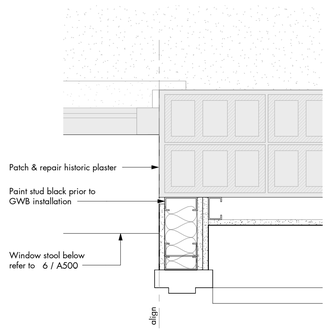

11 DETAIL @ WINDOW JAMB
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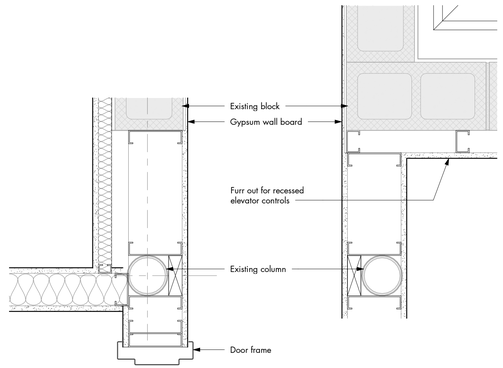
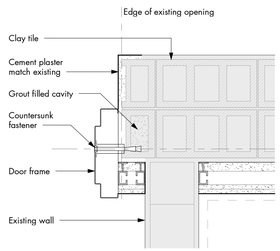
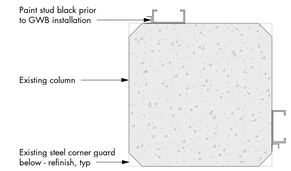


10 DETAIL @ STEEL COLUMN
scale : 1 1/2" = 1'-0"

9 DETAIL @ STEEL COLUMN
scale : 1 1/2" = 1'-0"



8 DETAIL @ JAMB
scale : 1 1/2" = 1'-0"



7 TYPICAL DETAIL @ COLUMN
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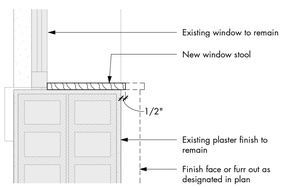
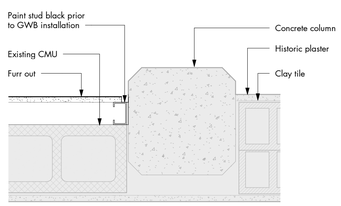


6 DETAIL @ TYP WINDOW STOOL
scale : 1 1/2" = 1'-0"



5 DETAIL @ WALL FURR OUT
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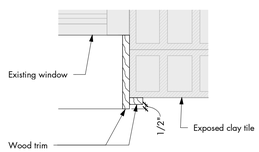

4 DETAIL @ TRIM 210 CONFERENCE
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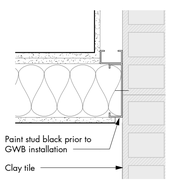

3 DETAIL @ 210 WALL
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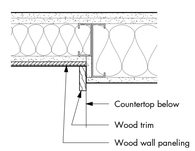

2 DETAIL @ 210 NICHE
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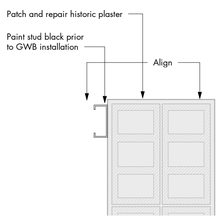

1 DETAIL @ 112 WET LAB
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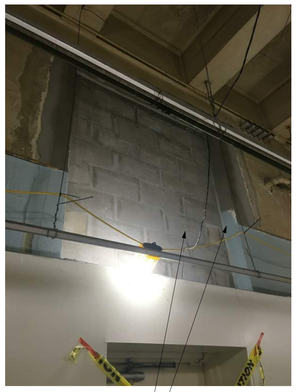
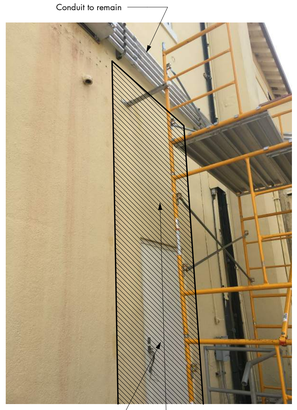


Remove CMU block infill at existing historic window opening

Finish jamb with cement plaster

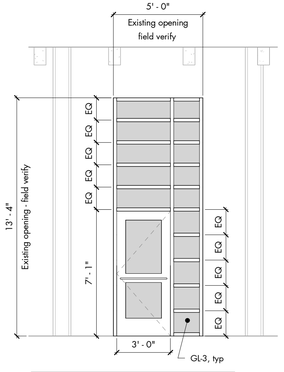


Remove existing door

Remove CMU block infill at existing historic window opening

5 HISTORIC WINDOW OPENING

scale : 12" = 1'-0"

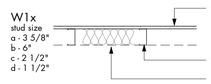


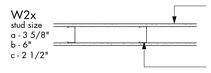
Align exterior face of storefront with exterior stucco

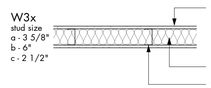
6 101 - WINDOW

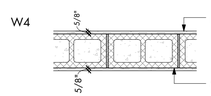
scale : 1/4" = 1'-0"

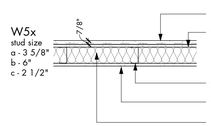
WALL TYPE LEGEND

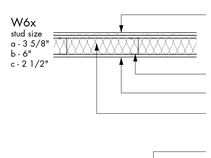


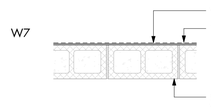




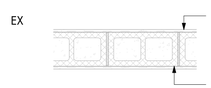


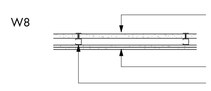






GENERAL WALL NOTES
1. All interior partitions on first floor to run to structure above.
2. All interior partitions on second floor to extend 8" above highest adjacent ceiling.





2-HR Shaft Wall
UL 415 System B

Gypsum panels, with beveled, square or tapered edges, nom 1/2 in. or 5/8 in. thick, 48 in. or 1200 mm wide, applied vertically or horizontally in two layers. Inner or base layer attached to studs with 1 in. long Type S steel screws spaced 24 in. OC when installed vertically or 16 in. OC when installed horizontally. Outer or face layer attached to studs with 1-5/8 in. long Type S steel screws spaced 12 in. OC when installed vertically and staggered 12 in. from base layer screws or 8 in. OC when installed horizontally and staggered 8 in. from base layer screws. Horizontal joints between inner and outer layers staggered a min of 12 in. Horizontal joints need not be backed by steel framing. Vertical joints centered over studs and staggered 24 in.

CGC INC — 1/2 in. Type C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

UNITED STATES GYPSUM CO — 1/2 in. Types C, IP-X2, IPC-AR, or WRC; 5/8 in. Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SGX, SHX, ULIX, ULX, USGX, WRC, WRX.

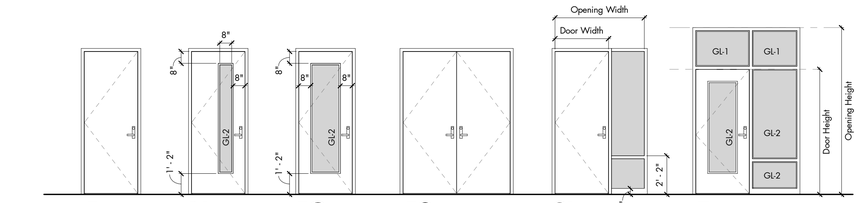
USG BORAL DRYWALL SFZ LLC — 1/2 in. Type C; 5/8 in. Types C, SCX, SGX, USGX

USG MEXICO S A DE C V — 1/2 in. Types C, IP-X2, IPC-AR or WRC; 5/8 in. Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, ULX, USGX, WRC, WRX

DOOR SCHEDULE

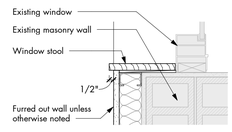
Mark	Opening Size		Door Panels					Frame				Fire Rating	Card Reader	Comments
	Width	Height	Type	Width	Height	Material	Finish	Material	Finish	Depth	Hardware			
Level 1														
000a	6' - 0"	9' - 4"	T	3' - 0"	7' - 0"	WD	STD	HM	PTD		06	SMOKE		hold open tied to fire alarm system
000b	6' - 0"	9' - 4"	T	3' - 0"	7' - 0"	WD	STD	HM	PTD		06	SMOKE		hold open tied to fire alarm system
100	REFER TO ELEVATION			REFER TO ELEVATION		GL-3	ANO	AL	ANO				CR; exterior	at existing opening; refer to elevation; unequal leafs
101	REFER TO ELEVATION			REFER TO ELEVATION		GL-3	ANO	AL	ANO	.5"			CR; exterior	at existing opening; refer to elevation
103	5' - 0"	9' - 4"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD	10"	07	90 MIN	CR	fire-rated glazing; video call station
103a	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		09			
104	18' - 0"	13' - 4"	T2	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	FG; refer to elevation
105a	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
105b	3' - 0"	7' - 0"	FG	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
107	3' - 0"	7' - 0"	N	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
109	5' - 8"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
110a	4' - 0"	7' - 0"	F	4' - 0"	7' - 0"	WD	STD	HM	PTD		08			
110b	4' - 0"	7' - 0"	F	4' - 0"	7' - 0"	WD	STD	HM	PTD		08			
111	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		09			
112	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	HM	PTD	HM	PTD	8"	04		CR	at existing opening - verify size in field
113	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD	10"	13	90 MIN		at existing opening - verify size in field
115	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD	10"	13	90 MIN		at existing opening - verify size in field
115S	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		12			
117	5' - 4"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		10			at existing opening - verify size in field
118	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	HM	PTD	HM	PTD		12			
119	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		09			
120	2' - 10"	7' - 0"	F	2' - 10"	7' - 0"	WD	STD	HM	PTD		07		CR	at existing opening - verify size in field
121	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		09			
122	3' - 0"	7' - 0"	N	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
123a	5' - 0"	9' - 4"	T	3' - 0"	7' - 0"	WD	STD	HM	PTD		13			
123b	6' - 0"	7' - 0"	EX	3' - 0"	7' - 0"	EX	EX	EX	EX		14		CR	existing to remain
124	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	HM	PTD	HM	PTD	8"	04			verify wall depth in field
Level 1: 27														
Level 2.1														
201	5' - 0"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
202	5' - 0"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
203a	3' - 0"	7' - 0"	N	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
203b	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
204	5' - 0"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		10			
205	5' - 0"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
206	5' - 0"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
207	5' - 0"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
209a	2' - 8"	7' - 0"	F	2' - 8"	7' - 0"	WD	STD	HM	PTD		10A			
209b	5' - 0"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	
210a	3' - 0"	7' - 0"	N	3' - 0"	7' - 0"	WD	STD	HM	PTD		13			
210b	5' - 0"	7' - 0"	SL	3' - 0"	7' - 0"	HM	PTD	HM	PTD	6 1/2"	03		CR	at existing opening - verify size in field, refer to elevation, GL-3
211	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		12			
212a	6' - 0"	7' - 0"	2F	3' - 0"	7' - 0"	HM	STD	HM	PTD		05			
212b	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		09			
213	4' - 0"	7' - 0"												cased opening
214	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		12			
215	6' - 0"	7' - 0"	2F	3' - 0"	7' - 0"	HM	STD	HM	PTD		05			provide new lintel @ raised opening height
216	3' - 0"	7' - 0"	F	3' - 0"	7' - 0"	WD	STD	HM	PTD		09			
220	4' - 4"	7' - 0"	SL	3' - 0"	7' - 0"	WD	STD	HM	PTD		07		CR	tied to fire alarm
Level 2.1: 20														

3 Door 102 removed as part of REV 3



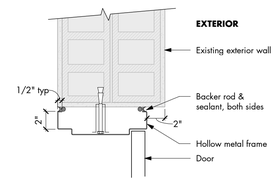
NOTES

1. Install frame jamb 6" from hinge side wall unless otherwise noted.
2. Frame to wrap partition unless otherwise noted in schedule. Refer to plan for partition width.
3. All exterior glazing to be GL-3.
4. GL-1 = annealed glazing; GL-2 = tempered glazing; GL-3 = laminated glass



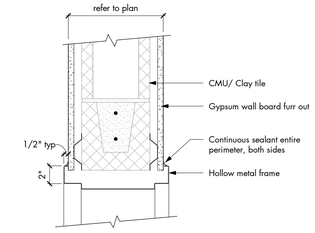
4 WINDOW STOOL

scale : 1 1/2" = 1'-0"



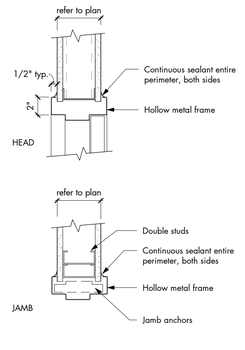
3 HM FRAME @ EXTERIOR

scale : 1 1/2" = 1'-0"



2 HM FRAME @ GWB FURR OUT

scale : 1 1/2" = 1'-0"



1 HM FRAME @ PARTITION

scale : 1 1/2" = 1'-0"

OPENING ABBREVIATIONS

ALM	Aluminum
GL	Glazing
HM	Hollow Metal
ANO	Anodized
EX	Existing
WD	Wood
STD	Stained
PTD	Painted

OPENING NOTES

1. Door thickness shall be 1 3/4" unless otherwise noted.
2. Interior doors to be undercut 1/2" maximum.
3. All doors in smoke barriers, and fire rated assemblies, shall be self closing or provided with fail-safe hold open devices.
4. When doors are automatic closing by smoke detection, the maximum delay for the door to begin closing is 10 seconds.when doors are automatic closing by smoke detection, the maximum delay for the door to begin closing is 10 seconds.
5. Combustible floor finishes having a critical radiant flux of 0.22w/cm2 or less, shall not extend under fire rated doors. Such doorways shall have metal sills a minimum width equal to the jamb depth or 4 inches, whichever is less.
6. If a door is equipped with a closure, the sweep period shall be set so that from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches from the latch as measured from the leading edge of the door.
7. The maximum door opening force for pushing or pulling open an interior hinged door or sliding or folding doors shall be 5lbf (22.2n).
8. Surface applied hardware shall be applied to the face of doors without removing material from the door other than a maximum of 1 inch diameter holes to accommodate operational elements, with the exception of cylinder holes, which shall be made as small as possible.
9. Signage on rated doors shall not exceed 5% of the area of the face of the door. they shall be attached using adhesive. Screws or nails are not permitted.
10. Signage shall not be applied to glass areas or on the operating hardware.
11. Knurl all knobs or levers to mechanical rooms, electrical rooms or closets, and other hazardous areas that may prove dangerous to the visually impaired. Fire exit stair door hardware shall not be knurled.
12. Thresholds shall meet ada accessibility requirements.
13. Mount opening devices between 30 and 42 inches above finish floor for all buildings used primarily by adults. Do not overlap hardware over glass areas.
14. All doors to be positive latching.
15. Beads at vision windows in wood doors to be wood beads.
16. Beads at hollow metal frames to be mounted on secure side of door.

1

FLORIDA PRODUCT APPROVAL

1. EXTERIOR HOLLOW METAL DOORS AND FRAMES
   Basis of Design - SteelCraft H Series Glazed Doors
   FL # 1592.1
2. EXTERIOR ALUMINUM STOREFRONT
   Basis of Design - Kawneer Trifab 451/451T
   FL # 14287.1
3. ROOFING
   Basis of Design - Derbigum, APP-modifed bituminous
   FL # 16290.R7

3

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF DRAWINGS MEETS THE 2017 NATIONAL E C A P P E D
...It is unlawful for any person to make any alteration from the plans without permission
from the Building Official
AAC0021279
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
Phone 813.221.8771
AAC0021279

STATE OF FLORIDA
Rick Rowe
AR0013510
REGISTERED ARCHITECT

Rick Rowe
AR13510 2019.02.20

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number 1706.00

Distribution

No.	Description	Date
1	Design Development	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

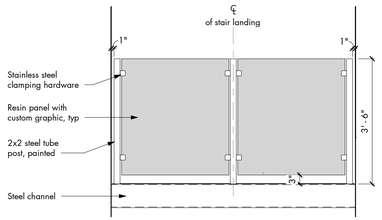
Revisions

No.	Description	Date
1	Permit Review	08.21.19
3	REV 3	12.16.19
4	Permit REV 4	02.24.19

Sheet Information

WALL TYPES & OPENING SCHEDULE

A600



11 GUARDRAIL - LANDING
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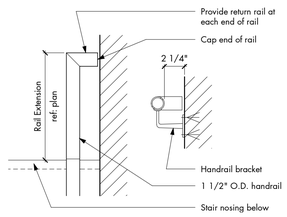

13 STAIR RAILING TERMINATION @ WALL
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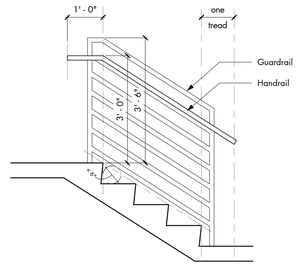

12 TYPICAL HANDRAIL EXTENSIONS
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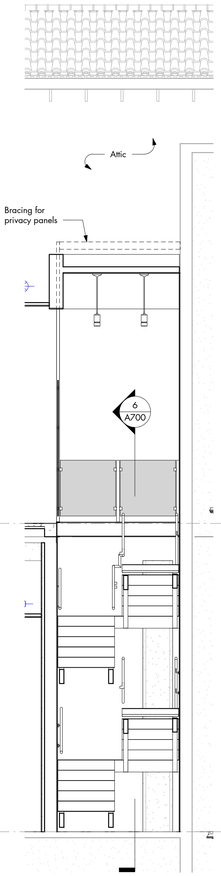
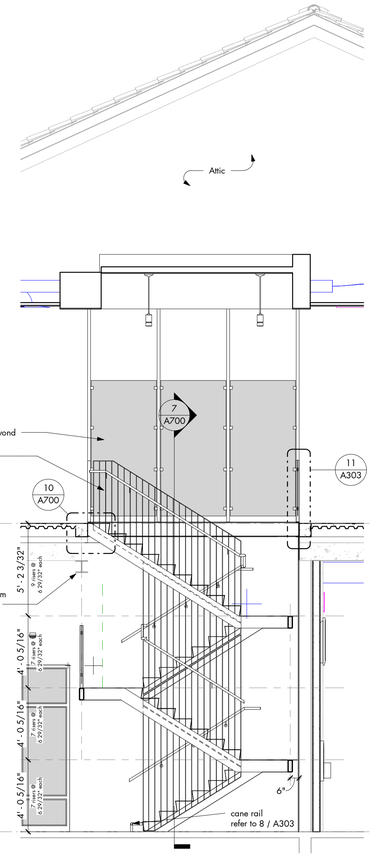
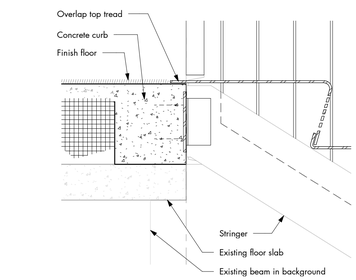
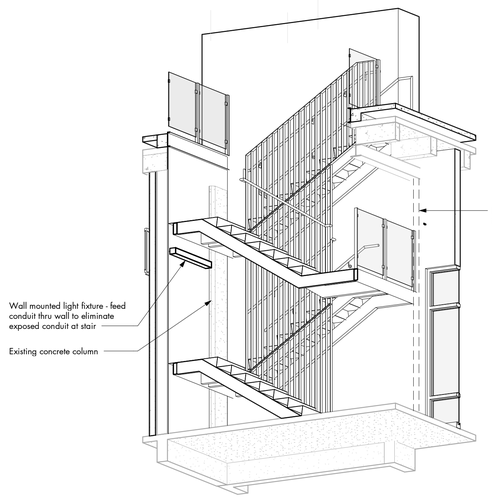


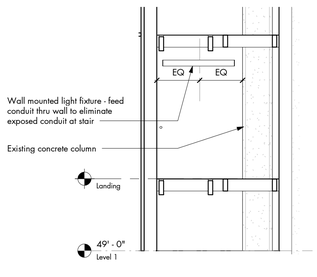




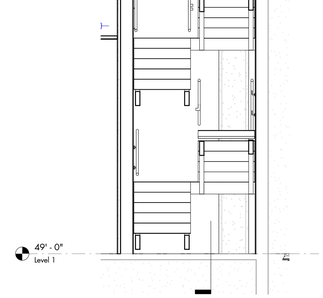
10 DETAIL @ STAIR TOP
scale : 1 1/2" = 1'-0"



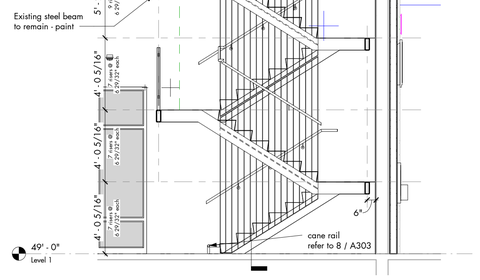
9 INTERIOR STAIR - 3D



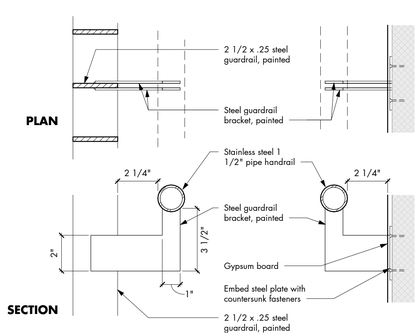
8 INTERIOR STAIR
scale : 1/4" = 1'-0"



7 INTERIOR STAIR
scale : 1/4" = 1'-0"



6 INTERIOR STAIR
scale : 1/4" = 1'-0"



5 HANDRAIL DETAILS
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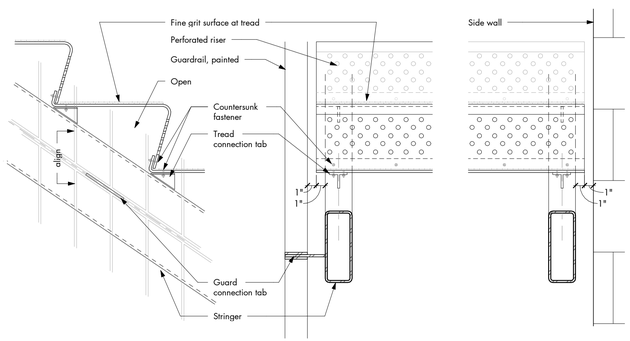
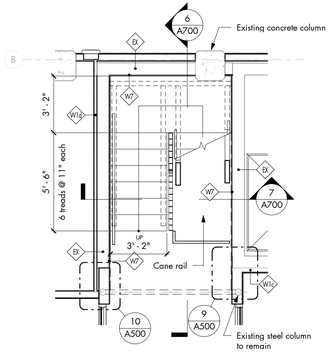
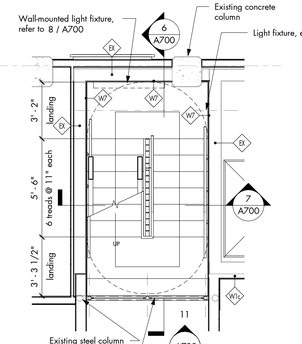


4 INTERIOR STAIR RISER, TYPICAL
scale : 1 1/2" = 1'-0"



3 FIRST FLOOR
scale : 1/4" = 1'-0"



2 INTERMEDIATE LANDING
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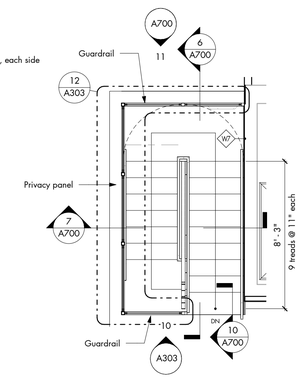

1 SECOND FLOOR
scale : 1/4" = 1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make any alterations, additions or deletions to these plans without approval from the Building Division
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
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Phone 813.221.8771
AAC0021279

STATE OF FLORIDA
Rick Rowe
AR0013510
REGISTERED ARCHITECT

Rick Rowe
AR13510 2019.02.20

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number	1706.00

Distribution

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2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

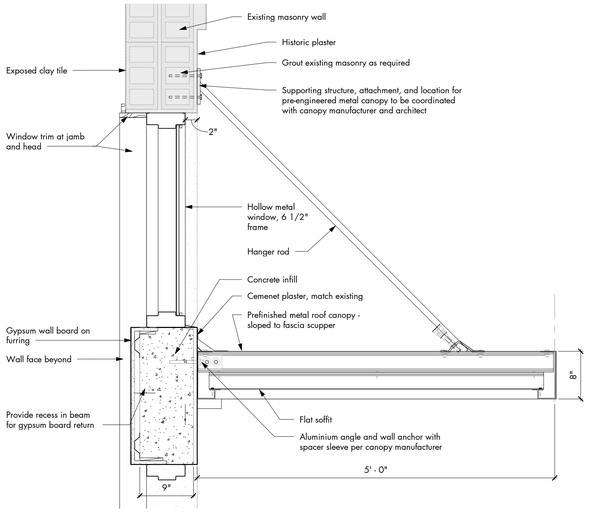
No.	Description	Date

Sheet Information

INTERIOR STAIR

0' 6" 1' 2' 4' 8'
1/4" = 1'-0"

A700



6 WALL SECTION @ LEVEL 2 CANOPY
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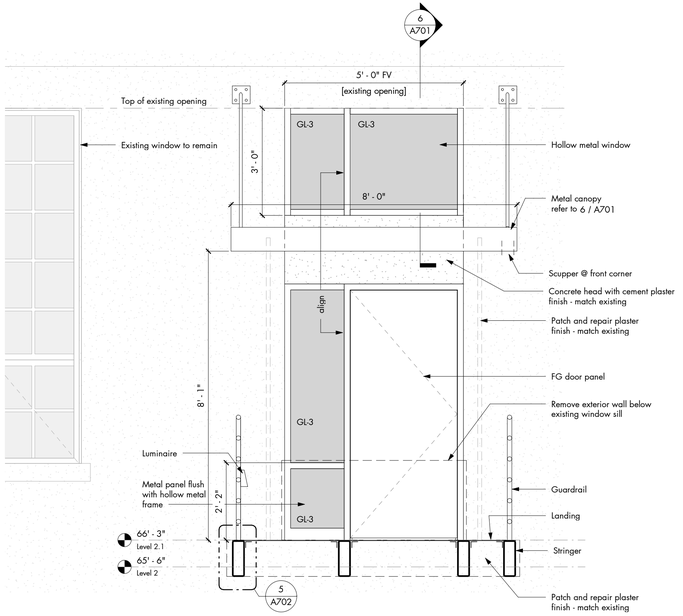
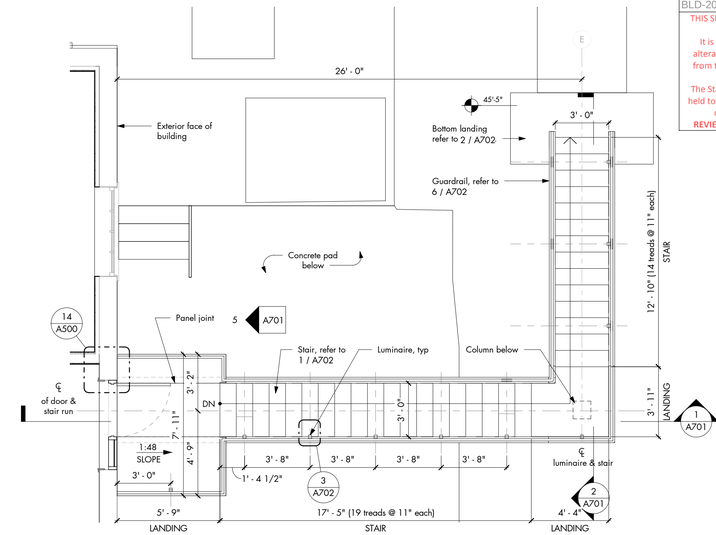
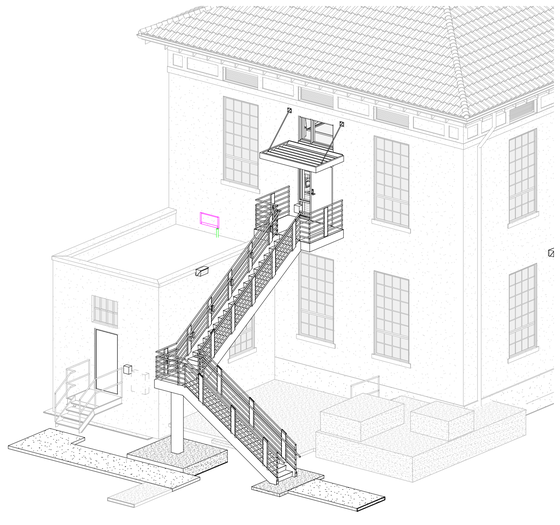


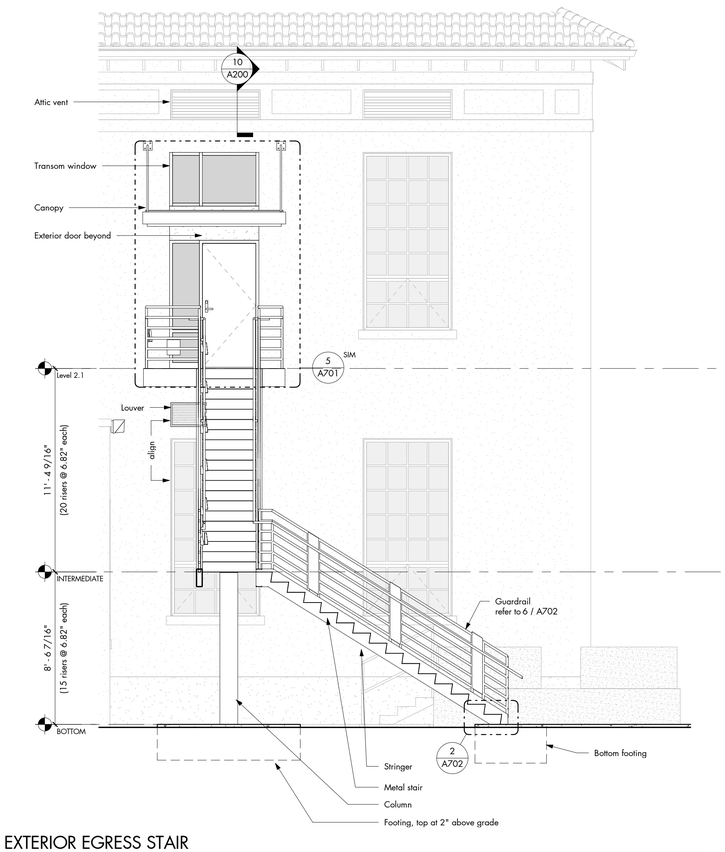
5 EXTERIOR EGRESS STAIR ELEVATION
scale : 1/2" = 1'-0"



4 EXTERIOR EGRESS STAIR
scale : 1/4" = 1'-0"



3 EXTERIOR EGRESS STAIR



2 EXTERIOR EGRESS STAIR
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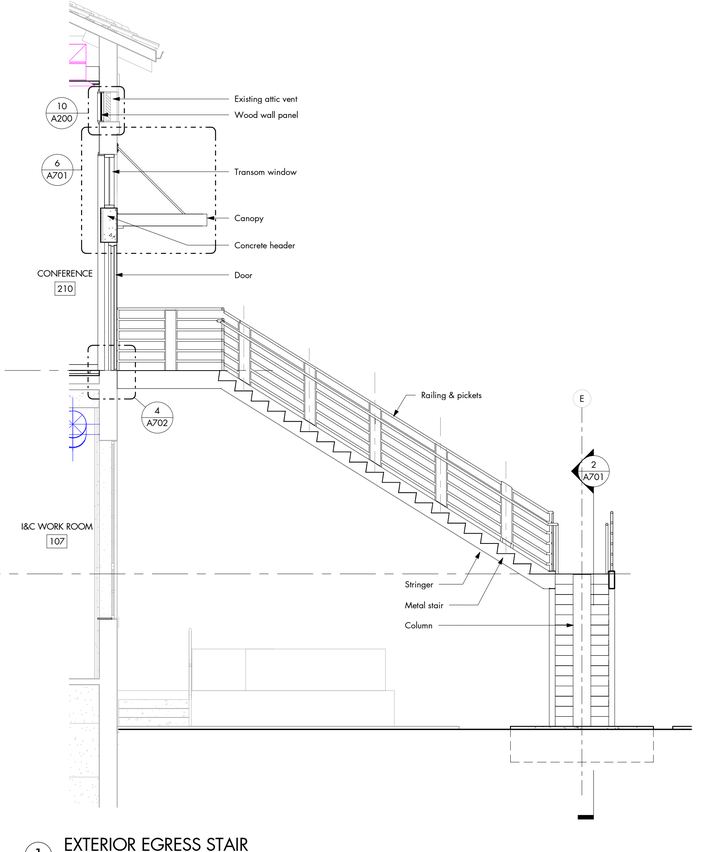

1 EXTERIOR EGRESS STAIR
scale : 1/4" = 1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF CONSTRUCTION PLANS HAS BEEN REVIEWED FOR THE [illegible] CODES
It is unlawful for any person to make any changes or alterations on this plan unless acting under the direction from the [illegible] Code Section
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
Phone 813.221.8771
AAC0002179

STATE OF FLORIDA
Rick Rowe
AR0013510
REGISTERED ARCHITECT

Rick Rowe
AR13510 2019.02.20

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

Project Number	1706.00

Distribution

No.	Description	Date
1	Design Development	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date

Sheet Information

EXTERIOR STAIR

0' 6" 1' 2' 4' 8'
1/4" = 1'-0"

A701

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make any changes or alterations on same, or to make any addition thereto or to use it for any purpose or extension from the plan for which the permit was issued.
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
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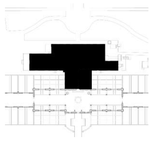
Rick Rowe
AR13510 2019.02.20



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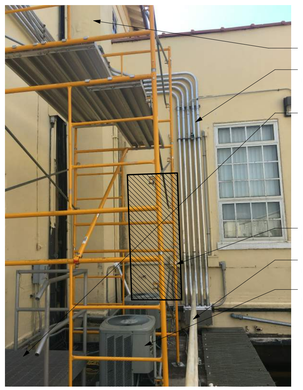
Sheet Information

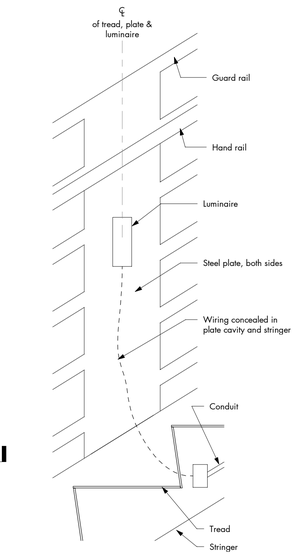
EXTERIOR STAIR DETAILS

0' 3" 6" 1'
1-1/2" = 1'-0"

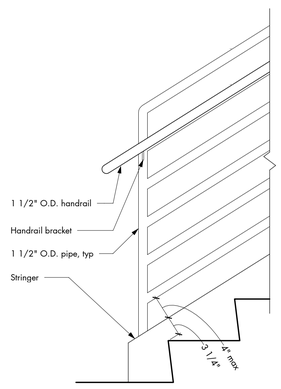
A702



9 124 - STAIR
scale : 12" = 1'-0"



8 124 - STAIR
scale : 1/4" = 1'-0"

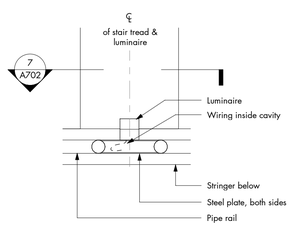


7 EXTERIOR STAIR LUMINAIRE
scale : 1 1/2" = 1'-0"

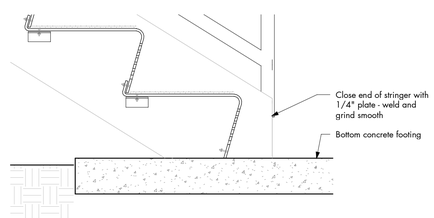
6 STAIR RAILING @ BOTTOM
scale : 1" = 1'-0"

5 DETAIL @ LANDING
scale : 1 1/2" = 1'-0"

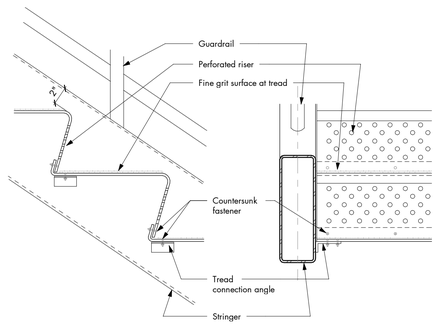
4 DETAIL @ THRESHOLD
scale : 1 1/2" = 1'-0"



3 EXTERIOR STAR LUMINAIRE
scale : 1 1/2" = 1'-0"



2 EXTERIOR STAIR - BOTTOM
scale : 1 1/2" = 1'-0"



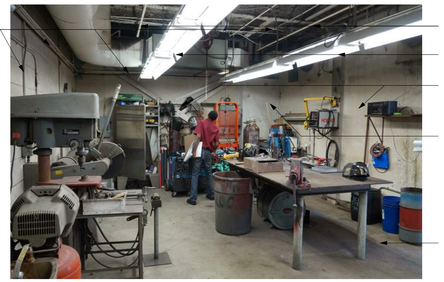
1 EXTERIOR STAIR RISER, TYP
scale : 1 1/2" = 1'-0"

9

8

7

6



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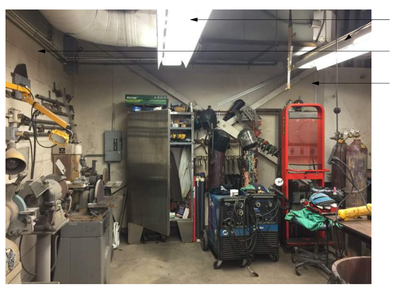
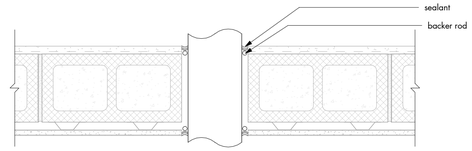


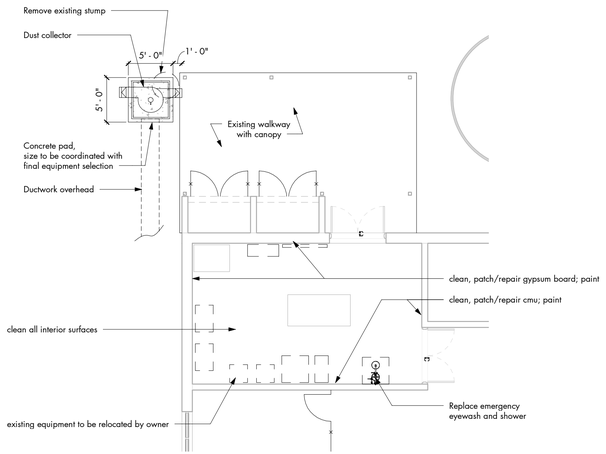
4

3



2 TYPICAL PENETRATION DETAIL

scale : 1 1/2" = 1'-0"



1 WELDING SHOP

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

WELDING SHOP NOTES

1. Clean all interior surfaces.
2. Prepare and paint all walls, doors, frames, electrical conduit and equipment, mechanical ductwork and equipment.
3. Infill all abandoned wall penetrations.
4. New wall penetrations are to be provided to accommodate installation of new mechanical, electrical and plumbing systems.
5. Install new dust and fume collector vaccum system.
6. All new electrical conudit and mechanical ducts to be painted.

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF DRAWINGS IS APPROVED
ON THE DATE STAMPED
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STATE OF FLORIDA
Rick Rowe
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AR13510 2019.02.20

Project Information

City of Tampa

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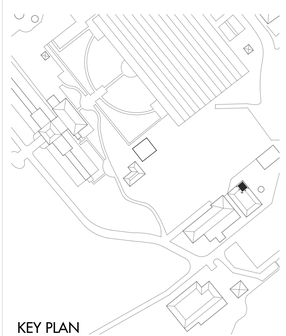
Revisions

No.	Description	Date

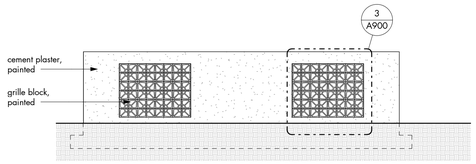
Sheet Information

WELDING SHOP

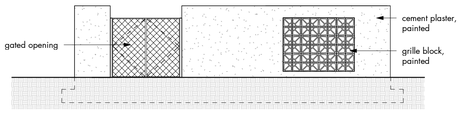


KEY PLAN

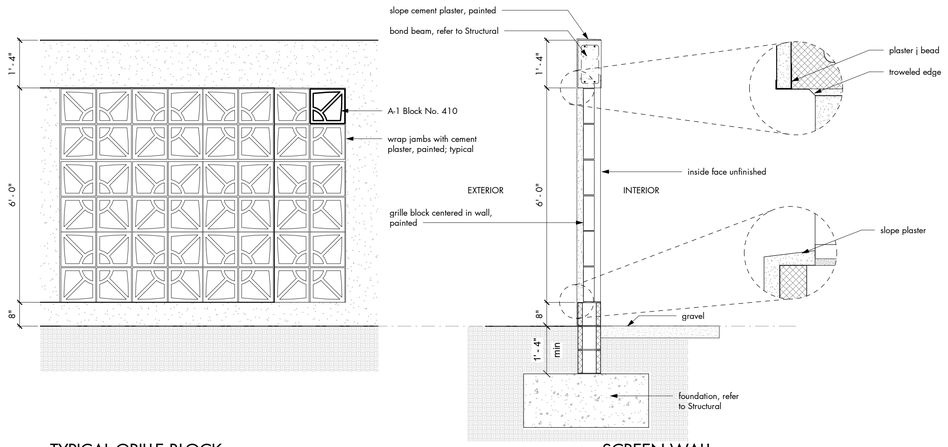
A800



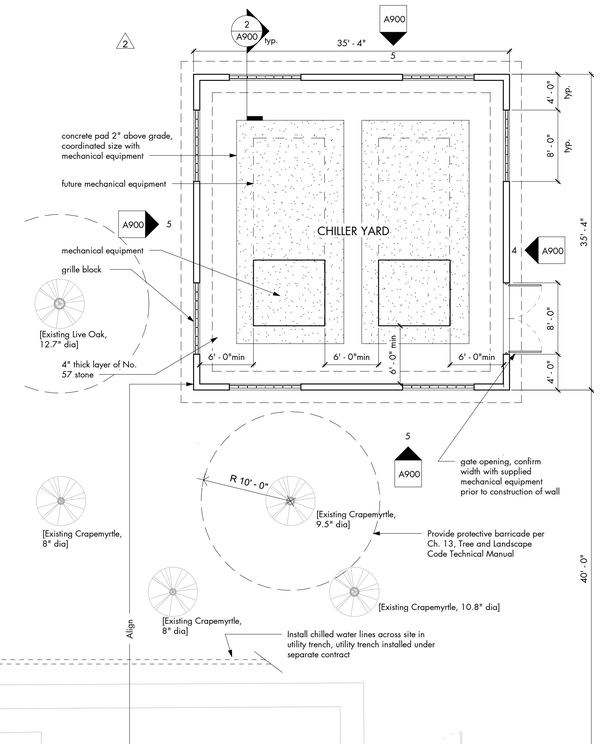
5 CHILLER YARD ELEVATION
scale : 1/8" = 1'-0"



4 CHILLER YARD ELEVATION
scale : 1/8" = 1'-0"

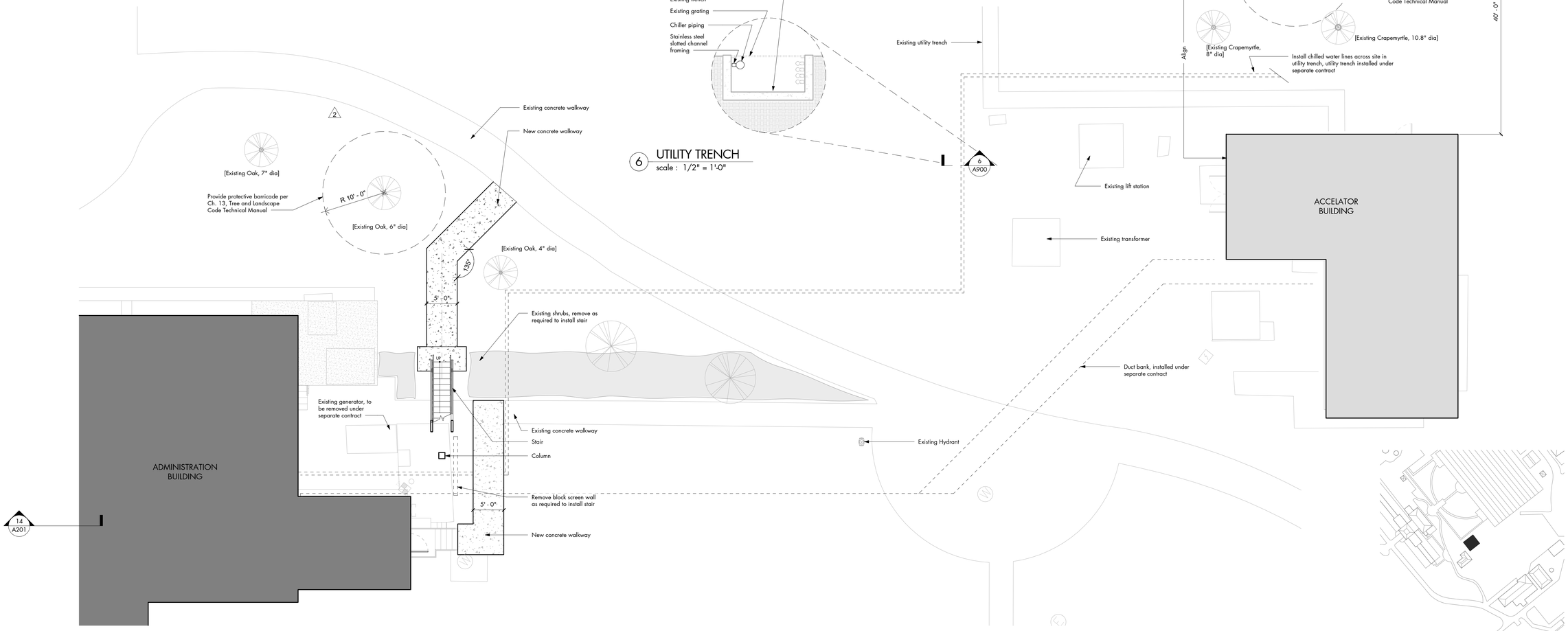


3 TYPICAL GRILLE BLOCK
scale : 1/2" = 1'-0"

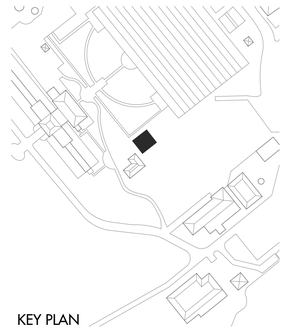


2 SCREEN WALL
scale : 1/2" = 1'-0"

6 UTILITY TRENCH
scale : 1/2" = 1'-0"



1 CHILLER YARD
scale : 1/8" = 1'-0"



KEY PLAN

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
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AAC0002172

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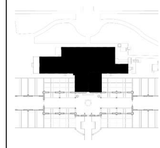
STATE OF FLORIDA
Rick Rowe
AR0013510
REGISTERED ARCHITECT

Rick Rowe
AR13510 2019.02.20



Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida 33610

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Revisions

No.	Description	Date
2	Permit REV 2	09.18.19

Sheet Information

CHILLER YARD

A900

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 10 ft.

DAVID L. TIPPIN WATER TREATMENT FACILITY

EXISTING PARKING:	REGULAR PARKING SPACES	8
	HANDICAP SPACES	3
	TOTAL EXISTING SPACES	11
PROPOSED PARKING:	REGULAR PARKING SPACES	29
	HANDICAP SPACES	2
	TOTAL PROPOSED SPACES	31

SURVEYOR'S LEGEND:

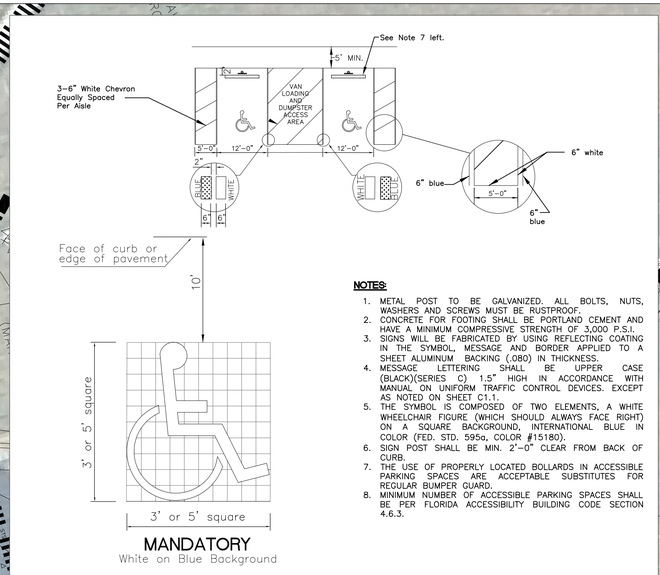
- = WATER VALVE
- = WATER METER
- = BACKFLOW PREVENTER
- = IRRIGATION CONTROL VALVE
- = SANITARY SEWER VALVE
- = UNKNOWN VALVE (WATER)
- = SANITARY SEWER MANHOLE
- = STORM SEWER MANHOLE
- = ELECTRIC MANHOLE
- = WATER MANHOLE (UNDERGROUND FACILITY ACCESS)
- = SURVEY CONTROL POINT (AS DESCRIBED)
- = FIRE HYDRANT
- = TREE (AS DESCRIBED, MEASURED AT BREAST HEIGHT)
- = BLOW OFF PIPE (SIZE AS NOTED)
- = LIGHT POLE
- = SIGN
- = STORM SEWER PIPE
- = CONCRETE

A/C = AIR CONDITIONING
BOT = BOTTOM
EL = ELEVATION
FFE = FINISHED FLOOR ELEVATION
RCP = REINFORCED CONCRETE PIPE
DIP = DUCTILE IRON PIPE
PVC = POLYVINYL CHLORIDE PIPE
CMP = CORRUGATED METAL PIPE
NAVD88= NORTH AMERICAN VERTICAL DATUM OF 1988
x32.1 = SPOT ELEVATION AT 'X'

TITLE
MAP SHOWING TOPOGRAPHIC SURVEY FOR DAVID L. TIPPIN WATER TREATMENT FACILITY BUILDING AND SITE IMPROVEMENTS, CITY OF TAMPA, HILLSBOROUGH COUNTY, FLORIDA."

SURVEYOR'S NOTES

1. THE SURVEY DATE IS MAY 21, 2018.
2. THIS IS A TOPOGRAPHIC SURVEY, AS DEFINED IN CHAPTER 5J–17.050(12) OF THE FLORIDA ADMINISTRATIVE CODE.
3. THIS DIGITAL SURVEY MAP IS NOT FULL AND COMPLETE WITHOUT THE ACCOMPANYING REPORT OF THE SAME TITLE.
4. ADDITIONS OR DELETIONS TO SURVEY MAPS OR REPORTS BY OTHER THAN THE SIGNING PARTY OR PARTIES IS PROHIBITED WITHOUT WRITTEN CONSENT OF THE SIGNING PARTY OR PARTIES.
5. COPYRIGHT (C) 2018 BY MACSURVEY, INC.
6. ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, AS ESTABLISHED BY A BRASS DISK EPOXIED ON A CONCRETE SLAB STAMPED "CITY OF TAMPA BENCHMARK DATE 6/26/2015 NAVD88 ELEVATION 35.28FT METZGER & WILLARD". CONTOURS SHOWN HEREON ARE IN 1' INTERVALS.
7. THE COORDINATE SYSTEM UTILIZED HEREON IS RELATIVE TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, WEST ZONE, NORTH AMERICAN DATUM OF 1983, 2011 ADJUSTMENT AS ESTABLISHED BY THE FLORIDA DEPARTMENT OF TRANSPORTATION'S ("FDOT") FLORIDA PERMANENT REFERENCE NETWORK ("FPRN") OF FIXED BASE STATIONS. ALL DISTANCES SHOWN HEREON ARE IN US SURVEY FEET.
8. THE AREAS INTENDED TO BE SURVEYED & MAPPED WERE DETERMINED BY THE CLIENT AND PROVIDED TO THIS FIRM IN THE FORM OF AN AERIAL MAP SHOWING THE TOPOGRAPHIC BOUNDARY LIMITS.
9. THIS SURVEY MAP HAS FILE NAME 2018–022TP01.dwg AND WAS PREPARED ON MAY 24, 2018 BY: MACSURVEY, INC. (LICENSED SURVEYING & MAPPING BUSINESS #7929), 22091 US HIGHWAY 19 NORTH, CLEARWATER, FLORIDA 33765 UNDER THE RESPONSIBLE CHARGE OF CHRISTOPHER P. MCLAUGHLIN, PSM (PROFESSIONAL SURVEYOR & MAPPER #6614).
10. AERIAL IMAGERY SHOWN HEREON WAS PROVIDED BY THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION VIA ITS LABINS WEBSITE AND IS SHOWN FOR INFORMATIONAL PURPOSES. THIS IMAGERY WAS FLOWN IN 2014.
11. THE RECORD DRAWING REFERENCED ON GRAVITY UTILITY PIPE CONNECTIONS WAS PROVIDED BY THE CLIENT ON 5/17/18 IN THE FORM OF AN AUTOCAD CIVIL3D DRAWING FILE TITLED, "MASTER-SITE-DLTWTF.dwg". THESE CONNECTIONS WERE UNABLE TO BE VERIFIED IN THE FIELD.



NOTES:

1. METAL POST TO BE GALVANIZED. ALL BOLTS, NUTS, WASHERS AND SCREWS MUST BE RUSTPROOF.
2. CONCRETE FOR FOOTING SHALL BE PORTLAND CEMENT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3,000 P.S.I.
3. SIGNS WILL BE FABRICATED BY USING REFLECTING COATING IN THE SYMBOL, MESSAGE AND BORDER APPLIED TO A SHEET ALUMINUM BACKING (.080) IN THICKNESS.
4. MESSAGE LETTERING SHALL BE UPPER CASE (BLACK)(SERIES C) 1.5" HIGH IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. EXCEPT AS NOTED ON SHEET C1.1.
5. THE SYMBOL IS COMPOSED OF TWO ELEMENTS, A WHITE WHEELCHAIR FIGURE (WHICH SHOULD ALWAYS FACE RIGHT) ON A SQUARE BACKGROUND, INTERNATIONAL BLUE IN COLOR (FED. STD. 595a, COLOR #15180).
6. SIGN POST SHALL BE MIN. 2'–0" CLEAR FROM BACK OF CURB.
7. THE USE OF PROPERLY LOCATED BOLLARDS IN ACCESSIBLE PARKING SPACES ARE ACCEPTABLE SUBSTITUTES FOR REGULAR BUMPER GUARD.
8. MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES SHALL BE PER FLORIDA ACCESSIBILITY BUILDING CODE SECTION 4.6.3.

MANDATORY
White on Blue Background

DISABLED PARKING / MARKING TYPICAL DETAILS

LIMITS OF ASPHALT SEAL COATING

CONNECT 90° BEND ONTO EXISTING HYDRANT SERVICE LEAD AND RELOCATE EXISTING FIRE HYDRANT OUTSIDE OF PAVED AREA PER LATEST CITY OF TAMPA WATER DEPARTMENT STANDARDS. ALL WATER PIPE TO BE DIP (POLYWRAPPED) AND ALL JOINTS RESTRAINED. RECONSTRUCT PAVEMENT IN ACCORDANCE WITH TYPICAL ASPHALT PAVEMENT SECTION DETAIL. SEE DETAIL SHEET.

PARKING BY DISABLED PERMIT ONLY
FINE $250 MAX

FTP-21-06
FTP-22-06

CONST. HANDICAP SIGNAGE AND STRIPING PER FDOT INDEX 17346

6" WHITE STRIPE @ 5' O.C. (TYP.)
24" WHITE STRIPE @ 5' O.C. (TYP.)
6" WHITE STRIPE @ 5' O.C. (TYP.)
6" WHITE STRIPE (TYP.)

16'
23' (TYP)
9' (TYP)
12' (TYP)
29'
16'
9' (TYP.)
18' (TYP.)
24' (24' MIN.)
27.00
28.00

PAVEMENT ARROW (TYP.)
TRANSFORMER
ASPHALT PAVEMENT
LIFT STATION (NOT VERIFIED)
SANITARY MANHOLE RIM=25.47' NW=20.50' NE=20.56' (NO FLOW VISIBLE FOUND) (NO CONNECTION FOUND)
STORM MANHOLE RIM=27.05' (4 PIPES VISIBLE, UNABLE TO DETERMINE SIZES PER RECORD DRAWING)
STORM MANHOLE RIM=26.88' (12"RCP) NE=21.86' (20"RCP) SE=21.10' (20"RCP) W=21.50' (12" RCP)
STORM MANHOLE RIM=26.19' NW=19.51' (20"RCP) SE=19.12' (20"RCP) SW=19.72' (12"UNK)
STORM MANHOLE RIM=27.03' NW=22.59' (12"RCP) SW=22.50' (12"RCP)
STORM MANHOLE RIM=27.73' NE=19.33' W=19.62' (FULL OF WATER UNABLE TO DETERMINE PIPE SIZES) ACCORDING TO RECORD DRAWING)
STORM MANHOLE RIM=28.30' NE=18.39' SW=18.69' (FULL OF WATER UNABLE TO DETERMINE PIPE SIZES)
STORM CATCH BASIN TOP=26.90' E=21.19' (18"RCP) W=21.29' (18"RCP)
STORM CATCH BASIN TOP=28.07' SE=24.60' (6"PVC)
INTRUSION DETECTOR
VAULT
ELECTRIC BOX
CONCRETE BUMPER GUARD PER FDOT INDEX 301
EXISTING INTRUSION DETECTION DEVICES TO BE REMOVED AND RELOCATED BY CITY FORCES
CHAINLINK FENCE
CONCRETE CURB
GRANITE CURB
BRICK CHIMNEY
METAL VAULT
CONCRETE DRIVEWAY
COVERED CONCRETE
BFP
WV
ASPHALT PAVEMENT
STOP SIGN
7–STORY METAL BUILDING
16" LIVE OAK
13" MAPLE
13" DECIDUOUS
10" DECIDUOUS
9" DECIDUOUS
FFE=27.71'
FFE=28.39'
SEE=28.11' (18"RCP)
RIM=28.12'
RIM=27.99'
TOP=28.07'
TOP=28.39'
TOP=28.30'
TOP=27.73'
TOP=27.05'
TOP=26.88'
TOP=26.19'
TOP=25.47'
TOP=26.90'

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0471991 3/2/2020
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Phone
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AAC0022172

NATIVE engineering,pllc
P.O. BOX 2995
LAND O' LAKES, FL 34639
(813) 536-2539
BOARD OF PROFESSIONAL ENGINEERS CERTIFICATE OF AUTHORIZATION NUMBER: 28759

Joshua S Bradley
Digitally signed by Joshua S Bradley
DN: c=US, o=IdenTrust ACES Unaffiliated Individual, cn=Joshua S Bradley, 0.9.2342.19200300.100.1.1=A01067C000001AD9B6146A60000F0E
Date: 2019.02.27 17:08:53 -05'00'
JOSHUA S. BRADLEY, P.E.
60020

THIS DRAWING IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF THE PROFESSIONAL ENGINEER OF RECORD. THIS DRAWING, ALONG WITH THE DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF NATIVE ENGINEERING, PLLC AND IS NOT TO BE USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF NATIVE ENGINEERING, PLLC.

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City of Tampa
David L. Tippin Water Treatment Facility Phase I – Building & Site Improvements
7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
	DD CHECK SET	7/19/18
	50% CHECK SET	9/24/18
	90% CHECK SET	12/07/18
	PERMIT CDs	02/26/19

Revisions

No.	Description	Date

Sheet Information
PUMP BUILDING PARKING LAYOUT

C100

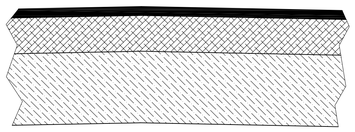
GENERAL NOTES

1. LAND SURVEYS, SOIL REPORTS AND LEGAL DESCRIPTIONS WERE PROVIDED BY OTHERS AND THE ENGINEER DOES NOT CERTIFY TO THE ACCURACY OR COMPLETENESS OF SAME. THE USER OF THESE PLANS SHALL VERIFY THE ACCURACY OF ALL SAID INFORMATION.
2. PRIOR TO CONSTRUCTION THE CONTRACTOR AND OWNER SHALL DETERMINE THE LOCATIONS OF ALL DRINKING WELLS, SEPTIC TANKS, WATERWAYS AND OTHER FACILITIES (IF ANY) TO INSURE THAT ALL REQUIRED MINIMUM SETBACKS FROM DRAINAGE FACILITIES AND BETWEEN ALL OTHER UTILITIES AS REQUIRED BY LAW ARE MET. DO NOT UTILIZE THESE PLANS FOR CONSTRUCTION PRIOR TO THIS INVESTIGATION.
3. PRIOR TO ANY CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL ABOVEGROUND AND SUBSURFACE CONDITIONS, FACILITIES AND UTILITIES. THE CONTRACTOR SHALL ABIDE BY FLA. STATUTE UNDERGROUND FACILITY DAMAGE PREVENTION AND SAFETY ACT (CALL 1-800-432-4770). THE CONTRACTOR IS RESPONSIBLE FOR THE REPLACEMENT TO AS-NEW CONDITION OF ANY EXISTING FACILITY OR UTILITY DAMAGED BY HIM, WHETHER OR NOT SHOWN HEREON.
4. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL OBTAIN PERMITS FOR ALL ON-SITE AND OFF-SITE WORK REQUIRED BY APPROPRIATE AGENCIES.
5. DEVIATIONS FROM THIS DRAWING ARE NOT PERMITTED WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES IN THE DRAWINGS PRIOR TO PROCEEDING.
6. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AND LABOR REQUIRED FOR THE CONSTRUCTION, TESTING, INSPECTION AND COMPLETION OF THE PROJECT.
7. THE CONTRACTOR SHALL REPLACE ALL SURVEY STAKES DESTROYED.
8. THE CONTRACTOR SHALL NOTIFY ALL CITY OF TAMPA INSPECTION PERSONNEL OF THE CONSTRUCTION SCHEDULE AS THEY SO REQUIRE.
9. IT IS THE INTENT OF THIS DESIGN TO CONFORM TO ALL APPLICABLE ADA CODES AND REGULATIONS, BUT THE ENGINEER DOES NOT WARRANT OR GUARANTEE SAME TO THE USER OF THESE PLANS. THE USER OF THIS PLAN SHALL BECOME FAMILIAR WITH SAID ADA PROVISIONS AND ADD SAME TO THIS PLAN AS NECESSARY TO CONFORM TO SAID CODES.
10. ALL CONSTRUCTION WILL COMPLY WITH THE LATEST FLORIDA FIRE PREVENTION CODE AND FLORIDA BUILDING CODE.

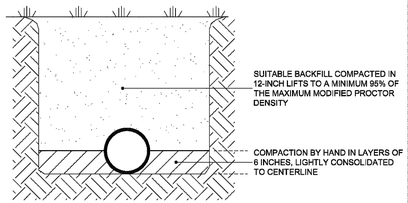
ROAD AND DRAINAGE NOTES

1. ALL WORKMANSHIP AND MATERIALS SHALL CONFORM TO THE LATEST EDITION OF THE FLORIDA D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, FDOT DESIGN STANDARDS, AND ALL CITY OF TAMPA TECHNICAL STANDARDS.
2. THIS DRAWING DELINEATES ROAD AND DRAINAGE CONSTRUCTION ONLY (TO WITHIN 5 FT. OF ANY BUILDING) AND EXCLUDES WATERPROOFING, RETAINING WALL, VENTILATION OR STRUCTURAL DESIGNS. THE CONTRACTOR SHALL REFER TO THE DRAWINGS BY OTHERS TO INSURE SAID SUPPORT DESIGNS ARE COMPLETE AND DO NOT CONFLICT WITH THIS DRAWING PRIOR TO ANY OTHER CONSTRUCTION.
3. EROSION / SEDIMENTATION CONTROL - THE CONTRACTOR SHALL SUPPLY ALL EROSION / SEDIMENTATION BARRIERS (HAY BALES OR SILTATION CURTAIN) TO PREVENT SILTATION OF ADJACENT PROPERTY, STREETS, STORM SEWERS AND WATERWAYS. IN ADDITION, THE CONTRACTOR SHALL PLACE STRAW, MULCH OR OTHER SUITABLE MATERIAL ON THE GROUND IN AREAS WHERE CONSTRUCTION RELATED TRAFFIC IS TO ENTER AND EXIT THE SITE. EROSION CONTROL MEASURES ARE TO BE IN PLACE AT THE START OF CONSTRUCTION AND TO REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED. THE CONTRACTOR IS TO INSPECT BARRIERS FOR DAMAGE DURING CONSTRUCTION AND MAINTAIN AS NEEDED. IF, IN THE OPINION OF THE ENGINEER AND/OR LOCAL AUTHORITIES, EXCESSIVE QUANTITIES OF EARTH ARE TRANSPORTED OFF-SITE EITHER BY NATURAL DRAINAGE OR BY VEHICULAR TRAFFIC, THE CONTRACTOR IS TO REMOVE AND CLEAN SAID EARTH TO THE SATISFACTION OF THE ENGINEER AND/OR AUTHORITIES.
4. ALL SIGNAGE AND STRIPING TO COMPLY WITH THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (M.U.T.C.D.), LATEST EDITION.
5. PRIOR TO PARKING LOT SEAL COATING, THE CONTRACTOR SHALL COMPLETE A SAMPLE TEST STRIP OF THE SEAL COAT OVER EXISTING PAVEMENT STRIPING TO ENSURE PAINT IS COMPLETELY CONCEALED. SHOULD EXISTING STRIPING "BLEED" THROUGH OR REMAIN VISIBLE, EXISTING STRIPING TO BE REMOVED BY METHODS THAT ARE NON-DESTRUCTIVE TO THE EXISTING PAVEMENT SURFACE.
6. WITHIN 30 DAYS OF CONSTRUCTION COMPLETION THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH AN AS-BUILT SURVEY SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR SHOWING ALL DIMENSIONS, ELEVATIONS AND IMPROVEMENTS SHOWN ON THIS PLAN TO SUCH DETAIL AS THE ENGINEER NEEDS IN ORDER TO VERIFY WHETHER CONSTRUCTION HAS BEEN COMPLETED IN ACCORDANCE WITH THE DESIGN DRAWINGS.
7. OPERATION AND MAINTENANCE OF THE STORMWATER MANAGEMENT SYSTEM: THE PERMITTED MAINTENANCE ENTITY SHALL VERIFY ON A REGULAR BASIS THAT THE SYSTEM CONTINUALLY FUNCTIONS AS DESIGNED BY:
   (A) CLEAN PIPES AND INLETS TO ALLOW UNOBSTRUCTED FLOWS.
   (B) MAINTAIN ALL DESIGN ELEVATIONS IN THE SWALE SYSTEM.
   (C) REPAIR ALL AREAS AFFECTED BY EROSION.

NOTE: ALL INLETS AND GRATE TOPS SHALL BE DESIGNED AND FURNISHED AS H-20 LOAD BEARING.



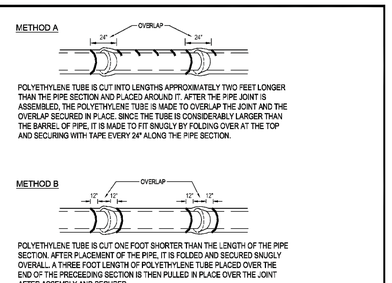
TYPICAL ASPHALT PAVEMENT SECTION
1.5" TYPE SP 9.5 OR TYPE SP 12.5 STRUCTURAL COURSE
WITH 6" CRUSHED CONCRETE BASE,
12" LBR 40 98% DENSITY M.P. SUB-BASE
N.T.S.



NOTES:

1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. LIGHTLY CONSOLIDATE BACKFILL TO CENTERLINE OF PIPE.
2. THIS STANDARD SHALL BE UTILIZED IN THE ABSENCE OF SPECIFIC STANDARDS. THE STANDARD OF THE AGENCY CONTROLLING THE RIGHT-OF-WAY SHALL GOVERN UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, CLAY, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE CITY ENGINEER IS UNSUITABLE.
4. NON-PAVED AREA IS A PERVIOUS AREA. IF ANY PART OF THE TRENCH IS WITHIN A CONCRETE OR ASPHALT CURB, SIDEWALK, DRIVEWAY, OR ROADWAY, THEN STANDARD DETAIL 2.01 APPLIES.

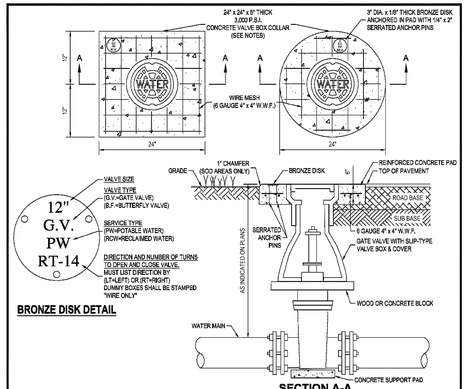
City of Tampa, Florida — Water Department	LAST REVISION		
	JUL 2018	TRENCHING, BEDDING, AND BACKFILL DETAIL FOR PERVIOUS (NON-PAVED) AREAS	2.02



NOTES:

1. USE BLUE POLYETHYLENE FILM AND TAPE ONLY.
2. POLYETHYLENE FILM SHALL BE A MINIMUM OF 8 MIL. THICKNESS.
3. SPIRAL WRAP NOT REQUIRED WITH POLYWRAP.

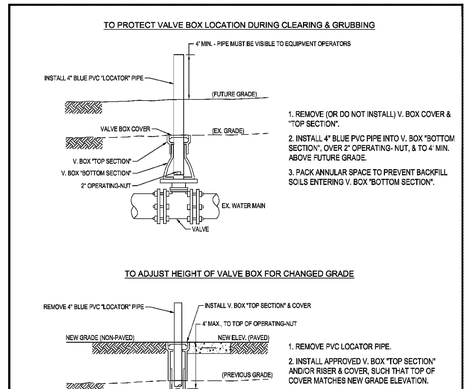
City of Tampa, Florida — Water Department	LAST REVISION		
	JUL 2018	POLYETHYLENE ENCASEMENT INSTALLATION DETAIL	2.05



NOTES :

1. CIRCULAR OR SQUARE CONCRETE PAD REQUIRED FOR ALL VALVE BOX INSTALLATIONS.
2. CAST IRON VALVE BOXES SHALL BE FIRMLY SUPPORTED AND CENTERED AND PLUMB OVER THE OPERATING NUT OF THE VALVE. VALVE BOX COVER SHALL BE FLUSH WITH THE SURFACE OF THE FINISHED PAVEMENT, OR GRADE OR AT SUCH OTHER LEVEL AS MAY BE DIRECTED BY THE DEPARTMENT.
3. "BLUE" WATER VALVE LOCATE MARKERS REQUIRED FOR ALL VALVE INSTALLATIONS.
4. EMBED BRONZE VALVE INFO DISK INTO CONCRETE VALVE BOX COLLAR.
5. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST T.W.D. APPROVED MATERIAL SPECIFICATIONS.
6. IF VALVE IS LOCATED WITHIN A SIDEWALK CONCRETE COLLAR MAY BE ELIMINATED AND DISK SET FLUSH DIRECTLY IN SIDEWALK.
7. BRONZE DISK REQUIRED FOR ALL VALVES AND DUMMY BOXES.

City of Tampa, Florida — Water Department	LAST REVISION		
	JUL 2018	VALVE INSTALLATION W/VALVE BOX & PAD FOR DI OR CI PIPE	3.01



NOTES:

1. MATERIALS FOR & INSTALLATION OF VALVE BOXES & PADS SHALL CONFORM TO TAMPA WATER DEPT. SPECIFICATIONS & STD. CONSTRUCTION DETAILS (DETAILS 3.01 & 3.03)

City of Tampa, Florida — Water Department	LAST REVISION		
	JAN 2018	VALVE BOX (V. BOX) ADJUSTMENTS FOR GRADE CHANGE	3.05

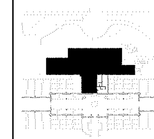
City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0471991 3/2/2020
THIS SET OF PLANS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make changes or alterations without written approval from the CONSTRUCTION SERVICES DIVISION
The Stamping of this plan shall not be held to permit or be an approval of the violation of any ordinance.
REVIEWED FOR CODE COMPLIANCE

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602.4704
www.RoweArchitects.com
Phone
813.221.8771
AAC0022172

NATIVE engineering,pllc
P.O. BOX 2995
LAND O' LAKES, FL 34639
(813) 536-2539
BOARD OF PROFESSIONAL ENGINEERS CERTIFICATE OF AUTHORIZATION NUMBER: 28759

Joshua S Bradley
Digitally signed by Joshua S Bradley
DN: c=US, o=IdenTrust ACES Unaffiliated Individual, cn=Joshua S Bradley, 0.9.2342.19200300.100.1.1=A01097C0000140988144A60000F069
Date: 2019.02.27 17:09:54 -05'00'
JOSHUA S. BRADLEY, P.E.
60020

THIS DRAWING IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF THE PROFESSIONAL ENGINEER OF RECORD. THIS DRAWING, ALONG WITH THE DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF NATIVE ENGINEERING, PLLC AND IS NOT TO BE USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF NATIVE ENGINEERING, PLLC.



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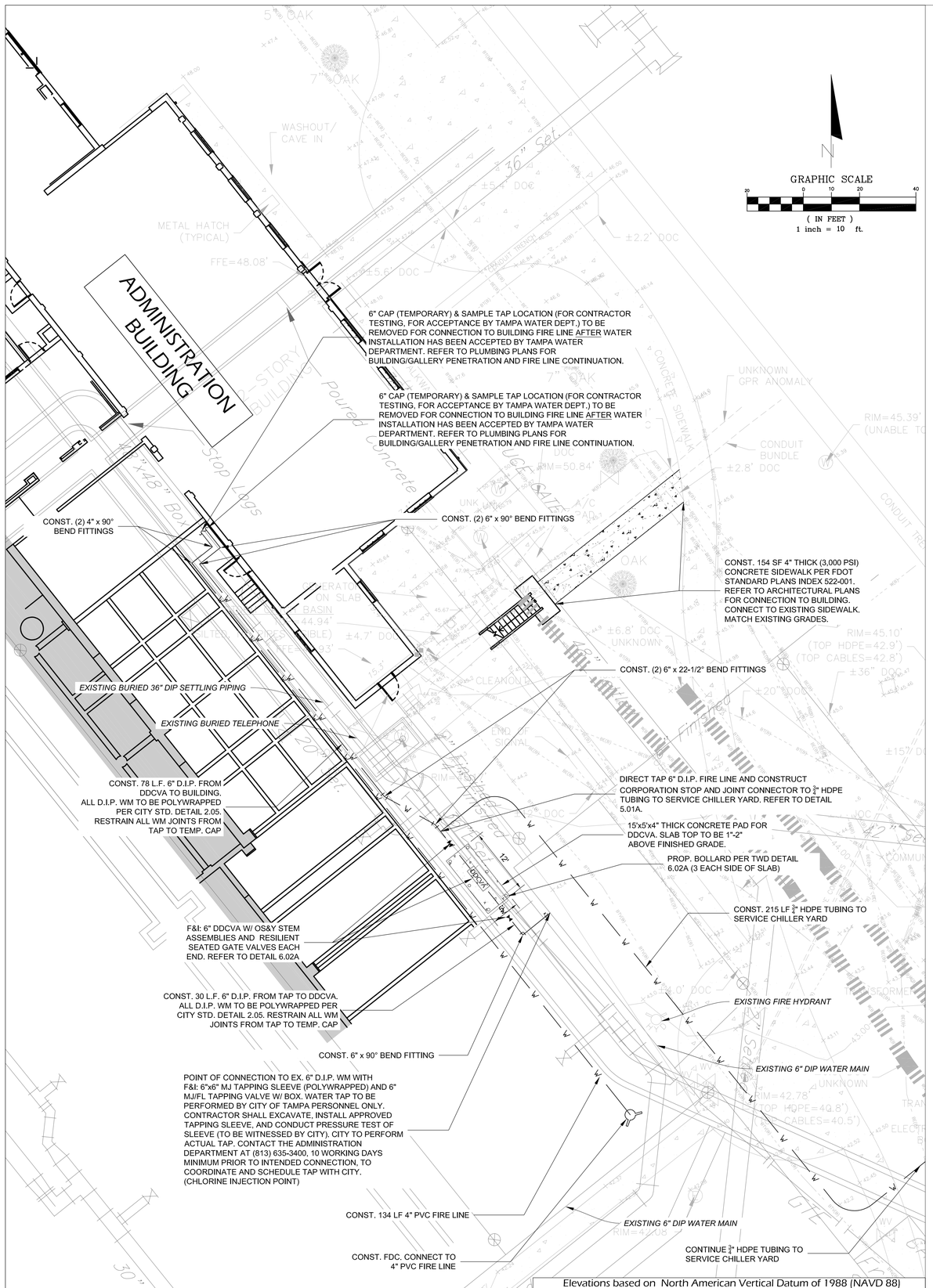
Revisions

No.	Description	Date

Sheet Information
PUMP BUILDING
PARKING LOT DETAILS

C101


ADMINISTRATION BUILDING
METAL HATCH (TYPICAL)
FFE=48.08'
WASHOUT/ CAVE IN
5" OAK
7" OAK
36" Set
±5.6' DOC
±2.2' DOC
±2.8' DOC
UNKNOWN GPR ANOMALY
CONCRETE SIDEWALK
CONDUIT BUNDLE
RIM=45.39' (UNABLE TO
RIM=50.84'
Stop Logs
Poured Concrete
48" Bo
CONST. (2) 4" x 90° BEND FITTINGS
CONST. (2) 6" x 90° BEND FITTINGS
CONST. 154 SF 4" THICK (3,000 PSI) CONCRETE SIDEWALK PER FDOT STANDARD PLANS INDEX 522-001. REFER TO ARCHITECTURAL PLANS FOR CONNECTION TO BUILDING. CONNECT TO EXISTING SIDEWALK. MATCH EXISTING GRADES.
CONST. (2) 6" x 22-1/2° BEND FITTINGS
EXISTING BURIED 36" DIP SETTLING PIPING
EXISTING BURIED TELEPHONE
CONST. 78 L.F. 6" D.I.P. FROM DDCVA TO BUILDING. ALL D.I.P. WM TO BE POLYWRAPPED PER CITY STD. DETAIL 2.05. RESTRAIN ALL WM JOINTS FROM TAP TO TEMP. CAP
DIRECT TAP 6" D.I.P. FIRE LINE AND CONSTRUCT CORPORATION STOP AND JOINT CONNECTOR TO 3/4" HDPE TUBING TO SERVICE CHILLER YARD. REFER TO DETAIL 5.01A.
15'x5'x4" THICK CONCRETE PAD FOR DDCVA. SLAB TOP TO BE 1"-2" ABOVE FINISHED GRADE.
PROP. BOLLARD PER TWD DETAIL 6.02A (3 EACH SIDE OF SLAB)
DDCVA
F&I: 6" DDCVA W/ OS&Y STEM ASSEMBLIES AND RESILIENT SEATED GATE VALVES EACH END. REFER TO DETAIL 6.02A
CONST. 215 LF 3/4" HDPE TUBING TO SERVICE CHILLER YARD
CONST. 30 L.F. 6" D.I.P. FROM TAP TO DDCVA. ALL D.I.P. WM TO BE POLYWRAPPED PER CITY STD. DETAIL 2.05. RESTRAIN ALL WM JOINTS FROM TAP TO TEMP. CAP
EXISTING FIRE HYDRANT
CONST. 6" x 90° BEND FITTING
EXISTING 6" DIP WATER MAIN
POINT OF CONNECTION TO EX. 6" D.I.P. WM WITH F&I: 6"x6" MJ TAPPING SLEEVE (POLYWRAPPED) AND 6" MJ/FL TAPPING VALVE W/ BOX. WATER TAP TO BE PERFORMED BY CITY OF TAMPA PERSONNEL ONLY. CONTRACTOR SHALL EXCAVATE, INSTALL APPROVED TAPPING SLEEVE, AND CONDUCT PRESSURE TEST OF SLEEVE (TO BE WITNESSED BY CITY). CITY TO PERFORM ACTUAL TAP. CONTACT THE ADMINISTRATION DEPARTMENT AT (813) 635-3400, 10 WORKING DAYS MINIMUM PRIOR TO INTENDED CONNECTION, TO COORDINATE AND SCHEDULE TAP WITH CITY. (CHLORINE INJECTION POINT)
CONST. 134 LF 4" PVC FIRE LINE
EXISTING 6" DIP WATER MAIN
CONST. FDC. CONNECT TO 4" PVC FIRE LINE
CONTINUE 3/4" HDPE TUBING TO SERVICE CHILLER YARD
RIM=45.10' (TOP HDPE=42.9') (TOP CABLES=42.8')
RIM=42.78' (TOP HDPE=40.8') CABLES=40.5')
UNKNOWN
CLEANOUT
±36" DOC
±20" DOC
±15" DOC
±6.8' DOC
±4.7' DOC
±3.6' DOC
±3.0' DOC
±2.4' DOC
±2.0' DOC
±1.8' DOC
±1.6' DOC
±1.4' DOC
±1.2' DOC
±1.0' DOC
±0.8' DOC
±0.6' DOC
±0.4' DOC
±0.2' DOC
±0.0' DOC
±0.2' DOC
±0.4' DOC
±0.6' DOC
±0.8' DOC
±1.0' DOC
±1.2' DOC
±1.4' DOC
±1.6' DOC
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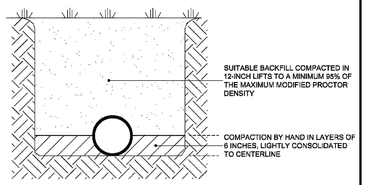
±3.6' DOC
±3.8' DOC

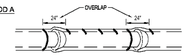


NOTES:

1. TYPE 2 TRENCH IS DEFINED AS A FLAT-BOTTOM TRENCH. LIGHTLY CONSOLIDATE BACKFILL TO CENTERLINE OF PIPE.
2. THIS STANDARD SHALL BE UTILIZED IN THE ABSENCE OF SPECIFIC STANDARDS. THE STANDARD OF THE AGENCY CONTROLLING THE RIGHT-OF-WAY SHALL GOVERN UNLESS OTHERWISE DIRECTED BY CITY ENGINEER.
3. SUITABLE BACKFILL SHALL BE DEFINED AS MATERIAL FREE FROM CINDERS, ASHES, REFUSE, CLAY, ORGANIC MATTER, BOULDERS, ROCKS OR STONES, OR OTHER MATERIAL THAT IN THE OPINION OF THE CITY ENGINEER IS UNSUITABLE.
4. NON-PAVED AREA IS A PERVIOUS AREA. IF ANY PART OF THE TRENCH IS WITHIN A CONCRETE OR ASPHALT CURB, SIDEWALK, DRIVEWAY, OR ROADWAY, THEN STANDARD DETAIL 2.01 APPLIES.

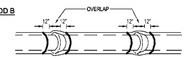
City of Tampa Water Department	LAST REVISION	TRENCHING, BEDDING, AND BACKFILL DETAIL FOR PERVIOUS (NON-PAVED) AREAS	2.02
	JUL 2018		

METHOD A



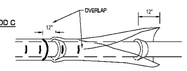
POLYETHYLENE TUBE IS CUT INTO LENGTHS APPROXIMATELY TWO FEET LONGER THAN THE PIPE SECTION AND PLACED AROUND IT. AFTER THE PIPE JOINT IS ASSEMBLED, THE POLYETHYLENE TUBE IS MADE TO OVERLAP THE JOINT AND THE OVERLAP SECURED IN PLACE. SINCE THE TUBE IS CONSIDERABLY LARGER THAN THE BARREL OF PIPE, IT IS MADE TO FIT SNUGLY BY FOLDING OVER AT THE TOP AND SECURING WITH TAPE EVERY 24" ALONG THE PIPE SECTION.

METHOD B



POLYETHYLENE TUBE IS CUT ONE FOOT SHORTER THAN THE LENGTH OF THE PIPE SECTION. AFTER PLACEMENT OF THE PIPE, IT IS FOLDED AND SECURED SNUGLY OVERALL. A THREE FOOT LENGTH OF POLYETHYLENE TUBE PLACED OVER THE END OF THE PRECEDING SECTION IS THEN PULLED IN PLACE OVER THE JOINT AFTER ASSEMBLY AND SECURED.

METHOD C

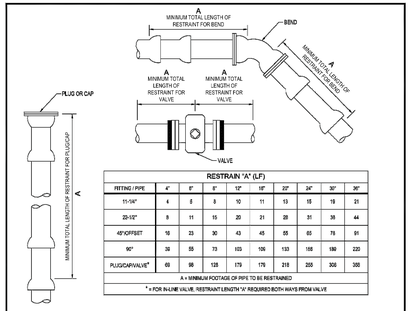


POLYETHYLENE SHEET IS CUT TO A LENGTH TWO FEET LONGER THAN THE PIPE SECTION. THE SHEET IS WRAPPED AROUND THE PIPE SO THAT IT OVERLAPS CIRCUMFERENTIALLY OVER THE TOP QUADRANT OF THE PIPE, THEN SECURED. AFTER JOINT ASSEMBLY, THE SURPLUS LENGTH OF POLYETHYLENE FILM IS SECURED AROUND THE JOINT, PROVIDING AN OVERLAP OF EACH JOINT, TAPE AT EACH JOINT AND AT 3' INTERVALS IN BETWEEN.

NOTES:

1. USE BLUE POLYETHYLENE FILM AND TAPE ONLY.
2. POLYETHYLENE FILM SHALL BE A MINIMUM OF 8 MIL. THICKNESS.
3. SPIRAL WRAP NOT REQUIRED WITH POLYWRAP.

City of Tampa Water Department	LAST REVISION	POLYETHYLENE ENCASEMENT INSTALLATION DETAIL	2.05
	JUL 2018		



RESTRAIN "A" (LF)

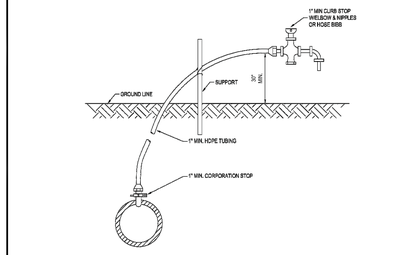
FITTING / PIPE	4"	6"	8"	12"	16"	20"	24"	30"	36"
11-1/4°	4	6	8	10	11	13	15	19	23
22-1/2°	9	11	15	20	21	26	31	39	44
45°/OFFSET	16	23	30	43	45	55	65	79	91
90°	30	55	73	103	106	133	166	199	220
PLUG/CAP/VALVE*	69	96	128	179	176	218	255	308	368
A = MINIMUM FOOTAGE OF PIPE TO BE RESTRAINED									

* = FOR IN-LINE VALVE, RESTRAINT LENGTH "A" REQUIRED BOTH WAYS FROM VALVE

NOTES:

1. THIS TABLE IS BASED ON:
   a. MAXIMUM TEST PRESSURE OF 150 PSI
   b. LAYING CONDITION TYPE 2 (SEE DETAILS 2.01 AND 2.02)
   c. POOR SOIL CONDITIONS
   d. USING D.I.P.
   e. 3 FEET OF COVER FOR 12" AND SMALLER MAINS; 4 FEET OF COVER FOR 16" AND LARGER MAINS
   f. HORIZONTAL BENDS ONLY - ENGINEER TO SUBMIT CALCULATIONS FOR VERTICAL RESTRAINTS
2. "RESTRAINED" PIPE SHALL BE MANUFACTURED RESTRAINED JOINT PIPE, PUSH-ON JOINT PIPE RESTRAINED W/GASKET-TYPE "GRIPPER RESTRAINTS", OR MECHANICAL JOINT PIPE RESTRAINED BY MEGALUG (OR APPROVED EQUIVALENT).
3. ANY ADDITIONAL FITTINGS WITHIN THE RESTRAINED SECTION SHALL BE RESTRAINED ACCORDINGLY.

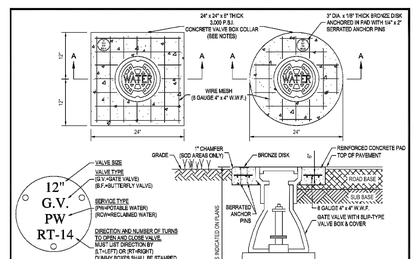
City of Tampa Water Department	LAST REVISION	RESTRAINED JOINT STANDARD FOR BENDS, PLUGS, CAPS, AND VALVES	2.11
	JUL 2018		



NOTES:

1. WATER OUTLET SHALL BE HELD UP OFF THE GROUND SO AS NOT TO INTERFERE WITH THE SAMPLING PROCESS.
2. CORPORATION STOP TO BE REMOVED AND BRASS PLUG INSTALLED IN TAPPED MAIN AFTER OPERATION.

City of Tampa Water Department	LAST REVISION	TEMPORARY SAMPLE TAP INSTALLATION W/DI, CI, OR PVC PIPE	2.18A
	JUL 2018		



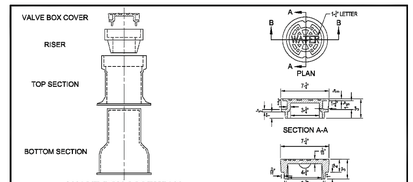
BRONZE DISK DETAIL

SECTION A-A

NOTES :

1. CIRCULAR OR SQUARE CONCRETE PAD REQUIRED FOR ALL VALVE BOX INSTALLATIONS.
2. CAST IRON VALVE BOXES SHALL BE FIRMLY SUPPORTED AND CENTERED AND PLUMB OVER THE OPERATING NUT OF THE VALVE. VALVE BOX COVER SHALL BE FLUSH WITH THE SURFACE OF THE FINISHED PAVEMENT, OR GRADE OR AT SUCH OTHER LEVEL AS MAY BE DIRECTED BY THE DEPARTMENT.
3. "BLUE" WATER VALVE LOCATE MARKERS REQUIRED FOR ALL VALVE INSTALLATIONS.
4. EMBED BRONZE VALVE INFO DISK INTO CONCRETE VALVE BOX COLLAR.
5. ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST T.W.D. APPROVED MATERIAL SPECIFICATIONS.
6. IF VALVE IS LOCATED WITHIN A SIDEWALK CONCRETE COLLAR MAY BE ELIMINATED AND DISK SET FLUSH DIRECTLY IN SIDEWALK.
7. BRONZE DISK REQUIRED FOR ALL VALVES AND DUMMY BOXES.

City of Tampa Water Department	LAST REVISION	VALVE INSTALLATION W/VALVE BOX & PAD FOR DI OR CI PIPE	3.01
	JUL 2018		

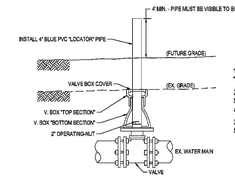


TOP SECTION	SIZE	A
	13"	13"
	16"	16"

BOTTOM SECTION	SIZE	A	B
	13"	13"	5-1/2"
	24"	24"	15-1/2"
	36"	36"	27-1/2"

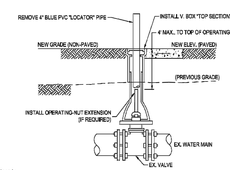
City of Tampa Water Department	LAST REVISION	VALVE BOX, SLIP TYPE	3.04
	JUL 2018		

TO PROTECT VALVE BOX LOCATION DURING CLEARING & GRUBBING



1. REMOVE (OR DO NOT INSTALL) V. BOX COVER & "TOP SECTION".
2. INSTALL 4" BLUE PVC PIPE INTO V. BOX "BOTTOM SECTION", OVER 3" OPERATING- NUT, & TO 4" MIN. ABOVE FUTURE GRADE.
3. PACK ANNULAR SPACE TO PREVENT BACKFILL SOILS ENTERING V. BOX "BOTTOM SECTION".

TO ADJUST HEIGHT OF VALVE BOX FOR CHANGED GRADE

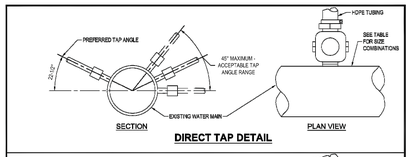


1. REMOVE PVC LOCATOR PIPE.
2. INSTALL APPROVED V. BOX "TOP SECTION" AND/OR RISER & COVER, SUCH THAT TOP OF COVER MATCHES NEW GRADE ELEVATION.
3. INSTALL STD CI OPERATING-NUT EXTENSION IF TOP OF OPERATING-NUT (T.O.N.) > 4" BELOW GRADE. FINAL T.O.N. TO BE < 4" DEEP.
4. IN NON-PAVED AREAS, CONSTRUCT 2'X2' (OR 2' DIA.) REINFORCED CONCRETE PAD, PER STD. DETAIL 3.01 (3000 P.S.I. CONCRETE, 6-GAUGE 4"X4" W.W.F.)

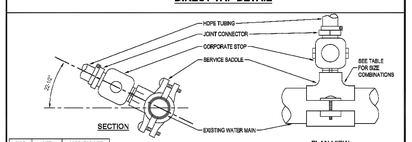
NOTES:

1. MATERIALS FOR & INSTALLATION OF VALVE BOXES & PADS SHALL CONFORM TO TAMPA WATER DEPT. SPECIFICATIONS & STD. CONSTRUCTION DETAILS (DETAILS 3.01 & 3.03)

City of Tampa Water Department	LAST REVISION	VALVE BOX (V. BOX) ADJUSTMENTS FOR GRADE CHANGE	3.05
	JAN 2018		



DIRECT TAP DETAIL

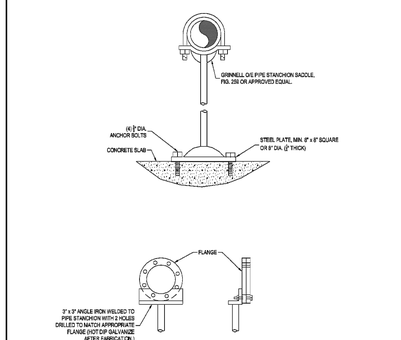


SADDLE TAP DETAIL

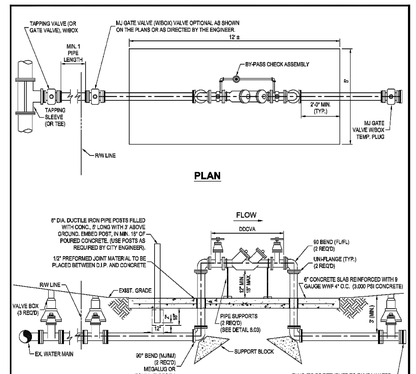
PIPE	SIZE	CORP. TAP SIZE	
		1"	2"
DI/CI	12"	DT	DT
	8"	DT	SS
	6"	DT	SS
	4"	SS	SS
PVC	2", 2-1/2"	SS	NA
	6", C-900	SS	SS
	6", C-900	SS	SS
	(FUSION)	SS	NA
OTHER*	12"	SS	SS
	10"	SS	SS
	8"	SS	SS
	6"	SS	SS
	4"	SS	NA
	3"	SS	NA
	2", 2-1/2"	SS	NA

LEGEND
DT - DIRECT TAP CAN BE ALLOWED SS- SERVICE SADDLE IS REQUIRED NA- NOT ALLOWED
*ASBESTOS CEMENT, STEEL, GALVANIZED IRON PIPE, NON STD PVC, ETC.

City of Tampa Water Department	LAST REVISION	TAPPING DETAIL FOR 3/4", 1", 1-1/2" & 2" W/DI, CI, OR PVC PIPE	5.01A
	JUL 2018		



City of Tampa Water Department	LAST REVISION	PIPE SUPPORTS FOR ABOVE GROUND DDCVA	6.03
	JUL 2018		



City of Tampa Water Department	LAST REVISION	ABOVE GROUND DOUBLE DETECTOR CHECK VALVE ASSEMBLY	6.02A
	JUL 2018		

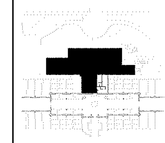
City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0471991 3/2/2020
THIS SET OF PLANS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make changes or alterations without written approval from the CONSTRUCTION SERVICES DIVISION
The Stamping of this plan shall not be held to permit or be an approval of the violation of any provisions of any City Ordinance or State Law.
REVIEWED FOR CODE COMPLIANCE

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602.4704
www.RoweArchitects.com
Phone
813.221.8771
AAC0022172

NATIVE engineering,pllc
P.O. BOX 2995
LAND O' LAKES, FL 34639
(813) 536-2539
BOARD OF PROFESSIONAL ENGINEERS CERTIFICATE OF AUTHORIZATION NUMBER: 28759

Joshua S Bradley
Digitally signed by Joshua S Bradley
DN: c=US, o=IdenTrust ACES Unaffiliated Individual, cn=Joshua S Bradley, 0.9.2342.19200300.100.1.1=A0102070000018298614640000F0E8
Date: 2019.02.27 17:13:50 -05'00'
JOSHUA S. BRADLEY, P.E.
60020

THIS DRAWING IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND SEAL OF THE PROFESSIONAL ENGINEER OF RECORD. THIS DRAWING, ALONG WITH THE DESIGNS INCORPORATED HEREIN, IS THE PROPERTY OF NATIVE ENGINEERING, PLLC AND IS NOT TO BE USED FOR ANY PURPOSE WITHOUT THE WRITTEN CONSENT OF NATIVE ENGINEERING, PLLC.



Project Information
City of Tampa
David L. Tippin Water Treatment Facility Phase I – Building & Site Improvements
7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
DD	CHECK SET	7/19/18
50%	CHECK SET	9/24/18
90%	CHECK SET	12/07/18
PERMIT	CDs	02/26/19

Revisions

No.	Description	Date

Sheet Information
ADMIN BUILDING
WATER DISTRIBUTION
DETAILS

C201

GENERAL STRUCTURAL NOTES

GENERAL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY AND COORDINATE ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT AND ENGINEERS.
2. DETAILS SHOWN IN ANY SECTION APPLY TO ALL SIMILAR SECTIONS AND CONDITIONS UNLESS NOTED OTHERWISE.
3. CONTRACTOR SHALL FULLY BRACE AND OTHERWISE PROTECT ALL WORK IN PROGRESS UNTIL THE BUILDING IS COMPLETED.
4. ALL STRUCTURAL ITEMS FOR THIS PROJECT HAVE BEEN DESIGNED IN ACCORDANCE WITH APPROPRIATE PROVISIONS OF EACH OF THE FOLLOWING:

   A. THE FLORIDA BUILDING CODE, (SIXTH EDITION) 2017.
   B. ACI STANDARD 318-14 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE.
   C. BUILDING CODE REQUIREMENTS FOR MASONRY STRUCTURES (ACI 530-13/ASCE 5-13/TMS 402-16).
   D. AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" 360-10.
   E. NDS FOR WOOD CONSTRUCTION WITH 2015 NDS SUPPLEMENT.
   F. ASCE 7-10 (WITH ERRATA DATED JANUARY11, 2011) "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES".

5. THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND THE ARCHITECTURAL AND MECHANICAL DRAWINGS. IF THERE IS A DISCREPANCY BETWEEN DRAWINGS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ARCHITECT PRIOR TO PERFORMING WORK. IN CASE OF CONFLICT THE MOST STRINGENT CONDITION SHALL APPLY.
6. ALL DIMENSIONS MUST BE COORDINATED WITH ARCHITECTURAL DRAWINGS AND WITH EQUIPMENT MANUFACTURER (I.E. WINDOW, DOOR, AIR HANDLER, ETC.). CONTRACTOR MUST OBTAIN AN ARCHITECTURAL DIRECTIVE IN CASE OF ANY CONFLICT. REFER TO ARCHITECTURAL DRAWINGS FOR DIMENSIONS NOT SHOWN IN STRUCTURAL DRAWINGS.
7. ROOFTOP EQUIPMENT ANCHORAGE & OUTDOOR RACK MOUNTED EQUIPMENT ANCHORAGE. ALL ROOF TOP EQUIPMENT CURBS, ROOF TOP MECHANICAL EQUIPMENT, EQUIPMENT TIE DOWNS, AND CONNECTIONS OF ALL EQUIPMENT TO OUTDOOR RACKS OR BUILDING STRUCTURE FOR WIND LOADING ARE TO BE DESIGNED AND ENGINEERED BY A REGISTERED SPECIALTY ENGINEER RETAINED BY THE MECHANICAL EQUIPMENT SUPPLIER. SIGNED AND SEALED DRAWINGS AND CALCULATIONS ARE TO BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL. THE EQUIPMENT MANUFACTURER SHALL PROVIDE THE ATTACHMENT OF THE UNIT TO THE STRUCTURE AND SUBMIT TO THE ENGINEER LOADS, LOCATIONS AND METHOD 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.

CONCRETE AND REINFORCING:

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

CONCRETE STRENGTH	MAX WATER CEMENT RATIO	TYPE AGGREGATE	LOCATION USED
3000 PSI	0.52	STONE	CONCRETE U.N.O.

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

    A. FOR CONCRETE EXPOSED TO SOIL AND/OR WEATHER, 5%.
    B. FOR INTERIOR WALLS, COLUMNS, AND SLABS, 3%.

20. FLY ASH - ASTMC618, TYPE C OR TYPE F SHOULD BE USED BUT NOT TO EXCEED 20% CEMENTITIOUS CONTENT.
21. ALL EXPOSED CONCRETE SLABS SHALL RECEIVE A CURING COMPOUND. THE CURING COMPOUND SHALL CONFORM TO ASTM C309 AND SHALL HAVE 30% SOLIDS MINIMUM. WATER/BLANKET CURING AS PER ACI RECOMMENDATION MAY BE USED AS ALTERNATE.

FOUNDATION NOTES:

1. SITE SOIL FOR THIS PROJECT HAS BEEN INVESTIGATED BY THE FIRM OF GDH AND FOUND, AS PRESENTED IN THEIR REPORT DATED 12/19/2018, SUITABLE TO SUPPORT 3.0 KSF SPREAD FOOTINGS. FOUNDATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE ABOVE STATED CRITERIA.
2. FILL AND SUBGRADE PREPARATION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER RECOMMENDATION AS CONTAINED IN THEIR REPORT STATED IN ITEM 1.
3. ALL COLUMN FOOTINGS SHALL BE CENTERED UNDER COLUMN CENTERLINES UNLESS OTHERWISE NOTED.
4. BACKFILLING AGAINST FOUNDATION WALLS SHALL BE DONE CAREFULLY WITH SMALL COMPACTION EQUIPMENT, AFTER SLABS ON GROUND ARE IN PLACE AND CONCRETE HAS SET. NO TRUCKS, BULLDOZERS, ETC. SHALL BE ALLOWED CLOSER THAN 6'-0" TO ANY FOUNDATION WALL. ANY WALL 3'-0" OR HIGHER MUST BE BRACED DURING THE CONSTRUCTION PROCESS.
5. NO FOUNDATIONS SHALL BE PLACED ABOVE 1 VERTICAL ON 2 HORIZONTAL SLOPES EXTENDED FROM THE CLOSEST EDGE OF ANY UNDISTURBED SOIL OR OTHER FOUNDATION STRUCTURE. BOTTOM OF FOOTINGS SHALL NOT BE LESS THAN 1'-0" BELOW EXISTING GRADE (U.N.O.).
6. FOR FOUNDATIONS SIZE AND REINFORCING SEE SCHEDULE.
7. ELEVATOR PIT DIMENSIONS = VERIFY WITH ELEVATOR MANUFACTURERS APPROVED SHOP DRAWINGS.
8. WATER PROOFING MATERIALS SHALL BE PROVIDED ON ALL SIDES AND BOTTOM OF ELEVATOR CORE AND ESCALATOR PIT.
9. CONTRACTOR SHALL TREAT SOIL BENEATH BUILDING FOR TERMITES.

COMPOSITE METAL FLOOR DECK:

1. STEEL FLOOR DECK SHALL BE AS SPECIFIED IN THE FLOOR FRAMING NOTES ON THE FLOOR PLAN.
2. ALL STEEL FLOOR DECK SHALL BE GALVANIZED G90.
3. ALL STEEL FLOOR DECK SHALL BE CAPABLE OF SUPPORTING ALL CONSTRUCTION LOADS.
4. ALL STEEL FLOOR DECK SHALL BE CONTINUOUS OVER FOUR OR MORE STRUCTURAL SUPPORTS (I.E. DECK SHOULD BE DETAILED FOR A THREE SPAN CONDITION).
5. STEEL FLOOR DECK SHALL HAVE NESTING SIDE LAPS (ATTACHED BY MECHANICAL MEANS) AT THE CENTER OF EACH SPAN OR 30" O/C, WHICHEVER IS LEAST DIMENSION.
6. IF DECK IS CUT IN SINGLE SPAN CONDITION, EACH END OF SUCH SECTIONS SHALL BE WELDED TO ITS SUPPORT THROUGH WELDING WASHERS IN THE BOTTOM OF EACH RIB.
7. IN AREAS WHERE THE DECK IS CUT AS PER NOTE 6, THE GAGE OF THE SINGLE SPAN DECK SHALL BE ADJUSTED UPWARDS AS REQUIRED BY THE ENGINEER TO SUPPORT THE LOADS.
8. ANY ELECTRICAL WORK WEIGHING MORE THAN 5 PSF SHALL BE HUNG FROM STEEL BEAMS ONLY. FOR HANGERS, SEE SPECIFICATIONS. ALL MECHANICAL WORK AND PIPING SHALL BE HUNG FROM STEEL BEAMS. SEE STRUCTURAL STEEL NOTE 12 (OF STRUCTURAL STEEL NOTES) FOR ADDITIONAL STEEL REQUIRED BY MECHANICAL/ELECTRICAL TRADES TO SUPPORT THEIR EQUIPMENT.
9. METAL DECK CONTRACTOR TO PROVIDE 18 GAGE RIDGE PLATE, VALLEY PLATE, EDGE STRIP, ETC., AS REQUIRED.
10. STEEL FLOOR DECK SHALL BE WELDED AT ENDS AND ALL INTERMEDIATE SUPPORTING MEMBERS WITH 5/8" DIAMETER PUDDLE WELDS OR ELONGATED WELDS OF EQUAL STRENGTH SPACED PER SPECIFICATIONS IN THE BOTTOM OF THE RIB ACROSS THE WIDTH OF THE DECK UNIT.
11. CUT OUT METAL DECK WHERE BOLT PROJECTIONS INTERFERE WITH METAL DECK.
12. ANY SINGLE SPAN FLOOR DECK SHALL BE SHORED AT MIDSPAN DURING CONCRETE PLACEMENT. SHORES SHALL REMAIN UNTIL CONCRETE HAS REACHED ITS 28-DAY STRENGTH.
13. DIRECTION OF METAL DECK SHOWN THUS ◄——► ON PLAN.

POST -INSTALLED ANCHORS

1. POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. SPECIAL INSPECTIONS (ARE/ ARE NOT) REQUIRED PER THE PROVISIONS SET FORTH BELOW. CONTRACTOR TO CONTACT MANUFACTURER'S REPRESENTATIVE FOR PROPER PRODUCT INSTALLATION TRAINING ON INITIAL ANCHORS.
2. SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW, SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE.
3. EXPANSION ANCHORS SHALL BE STUD TYPE WITH A SINGLE PIECE OF THREE SECTION WEDGE AND ZINC PLATED IN ACCORDANCE WITH ASTM B633. THE ANCHORS SHALL MEET FEDERAL SPECIFCATION FF-S-325, GROUP II, TYPE 4, CLASS I FOR CONCRETE EXPANSION ANCHORS. ANCHORS SHALL BE HILTI KWIK BOLT II AS SUPPLIED BY HILTI INC. TULSA OKLAHOMA. ANCHORS SHALL BE INSTALLED IN HOLES DRILLED WITH HILTI CARBIDE TIPPED DRILL BITS OR MATCHED TOLERANCE DIAMOND CORE BITS. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
4. INJECTED ADHESIVE ANCHORS SHALL BE USED FOR INSTALLATION OF THREADED RODS. ADHESIVE SHALL BE FURNISHED IN A SIDE BY SIDE REFILL PACK WHICH KEEP COMPONENT A AND B SEPARATE. INJECTION ADHESIVE SHALL BE HILTI HIT HY 200 AS SUPPLIED BY HILTI INC. TULSA OKLAHOMA. ANCHOR RODS MEET ASTM F1554 (36 KSI). NUTS AND WASHERS SHALL BE FURNISHED TO MEET THE REQUIREMENTS OF AN ASTM F1554 (36 KSI) STEEL ROD.

LIGHTGAUGE METAL FRAMING:

1. ALL STRUCTURAL MEMBERS SHALL BE DESIGNED IN ACCORDANCE WITH AMERICAN IRON AND STEEL INSTITUTE, "SPECIFICATION FOR THE DESIGN OF COLD FORMED STRUCTURAL MEMBERS", 2007 EDITION WITH 2012 SUPPLEMENTS. PROVIDE SIGN AND SEALED CALCULATIONS AND DRAWINGS FOR ALL LIGHT GAUGE STRUCTURAL ELEMENTS OF THE BUILDING, INCLUDING THE EXTERIOR METAL STUDS (CURTAIN WALL), AND ALL EXTERIOR CEILINGS.
2. ALL STRUCTURAL STUDS AND JOISTS 22, 20, AND 18 GAUGES SHALL BE FORMED FROM GALVANIZED STEEL PER ASTM A653, G60 COATING MEETING THE REQUIREMENTS OF ASTM C955 WITH A YIELD STRENGTH OF 33,000 PSI.
3. ALL STRUCTURAL STUDS AND JOISTS 16, 14, AND 12 GAUGES SHALL BE FORMED FROM GALVANIZED STEEL PER ASTM A653, G60 COATING MEETING ASTM C955, WITH YIELD STRENGTH OF 50,000 PSI.
4. ALL STRUCTURAL TRACK AND BRIDGING SHALL BE FORMED FROM GALVANIZED STEEL PER ASTM A653, G60 COATING MEETING THE REQUIREMENTS OF ASTM C595, WITH YIELD STRENGTH OF 33,000 PSI.
5. WITH EACH TYPE OF METAL FRAMING REQUIRED, PROVIDE MANUFACTURER'S STANDARD STEEL RUNNERS (TRACKS), BLOCKING, LINTELS, CLIP ANGELS, SHOES, REINFORCEMENTS, FASTENERS, AND ACCESSORIES AS RECOMMENDED BY MANUFACTURER FOR APPLICATIONS INDICATED, AS NEEDED TO PROVIDE A COMPLETE METAL FRAMING SYSTEM.
6. PROVIDE GALVANIZED FINISH TO METAL FRAMING COMPONENTS COMPLYING WITH ASTM A653 FOR MINIMUM G60 COATING. ATTACH SIMILAR COMPONENTS BY WELDING. ATTACH DISSIMILAR COMPONENTS BY WELDING, BOLTING OR SCREW FASTENERS, AS STANDARD WITH MANUFACTURER. ALL WELDING SHALL BE PERFORMED BY WELDERS CERTIFIED AND EXPERIENCED IN LIGHT GAUGE STRUCTURAL STEEL FRAMING WORK.
7. INSTALL METAL FRAMING SYSTEMS IN ACCORDANCE WITH MANUFACTURER'S PRINTED OR WRITTEN INSTRUCTIONS AND RECOMMENDATIONS, UNLESS OTHERWISE INDICATED.
8. INSTALL CONTINUOUS TRACKS SIZED TO MATCH STUDS.
9. SET STUDS PLUMB, EXCEPT AS NEEDED FOR DIAGONAL BRACING OR REQUIRED FOR NON-PLUMB WALLS OR WARPED SURFACED AND SIMILAR REQUIREMENTS.
10. WHERE STUD SYSTEM ABUTS STRUCTURAL COLUMN OR WALLS, INCLUDING MASONRY WALL, ANCHOR ENDS OF STIFFENERS TO SUPPORTING STRUCTURE.
11. SECURE STUDS TO TOP AND BOTTOM RUNNER TRACKS BY EITHER WELDING OR SCREW FASTENERS AT BOTH INSIDE AND OUTSIDE FLANGES.

SHOP DRAWINGS:

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

    A. NUMBER AND ANY CHANGES MARKED ON THE DRAWING MARKED 1 AT EACH ITEM CHANGED. ALL ITEMS TO BE NOTED IN REVISION BOX.
    B. SUBSEQUENT RESUBMISSION SHALL BEAR CHANGES "B" AND 2 AND 3 ETC. AS IN 11A.

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

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL WORK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST A.I.S.C. SPECIFICATIONS.
2. STRUCTURAL STEEL SHALL CONFORM TO:

WIDE FLANGE (WF) SHAPES (L,T,C,PL)	ASTM A992 (50 KSI)
STRUCTURAL TUBE (HSS)	ASTM A36
STEEL PIPE (HSS)	ASTM A500 (46 KSI)
ANCHOR BOLTS	ASTM A500 (42 KSI)
	ASTM F1554 (36 KSI) U.N.O. IN PLANS, OR SECTIONS.
FRAMING BOLTS	ASTM A325 OR A490
SHEAR STUDS	ASTM A108
WELDING ELECTRODES	E70XX

3. ALL HIGH STRENGTH BOLTS SHALL CONFORM TO ASTM SPECIFICATION A325 AND SHALL BE PROVIDED WITH HARDENED WASHERS UNDER THE TURNED ELEMENT (NUT OR BOLT HEAD).
4. INSTALLATION AND TIGHTENING OF ALL HIGH STRENGTH BOLTS SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
5. SHOP CONNECTIONS MAY BE WELDED OR HIGH STRENGTH BOLTED. ALL BOLTS SHALL BE 3/4" DIAMETER MINIMUM. ALL CONNECTIONS SHALL CONFORM TO THE TYPICAL CONNECTION DETAILS SHOWN ON THE PLANS UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
6. ALL FIELD CONNECTIONS SHALL BE BOLTED WITH HIGH STRENGTH BOLTS, SLIP-CRITICAL (FRICTION) TYPE EXCEPT WHERE SLOTTED HOLES ARE SPECIFIED OR WHERE MOVEMENT OF THE CONNECTED MEMBERS IS EXPECTED. IN THESE CASES PROVIDE OVERSIZED WASHER, HAND TIGHTEN BOLTS, AND TACK WELD WASHER TO NUT TO VERIFY ASSEMBLY IS HELD TOGETHER.
7. ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY CODE, ANSI01.1, ALL WELDING SHALL BE PERFORMED USING E70XX U.N.O.
8. CUTS, HOLES, COPINGS, ETC. REQUIRED IN STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES SHALL BE SHOWN IN THE STRUCTURAL STEEL SHOP DRAWINGS AND SHALL BE MADE IN THE SHOP. HOLES SHALL BE REINFORCED AS REQUIRED BY THE ENGINEER.
9. BURNING OF HOLES, CUTS, ETC. IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED, EXCEPT WITH THE SPECIFIC APPROVAL OF THE ENGINEER.
10. ALL STEEL MEMBERS EXPOSED TO WEATHER (SUCH AS LINTELS, DOOR JAMBS, EXTERIOR STAIRS, ETC.) SHALL BE HOT DIPPED GALVANIZED.
11. FOR MISCELLANEOUS STEEL, SEE ARCHITECTURAL DRAWINGS.
12. ANY STEEL MEMBERS REQUIRED BY THE ELECTRICAL OR MECHANICAL TRADES FOR THE SUPPORT OF THEIR EQUIPMENT, WHICH ARE NOT SHOWN ON ARCHITECTURAL OR STRUCTURAL DRAWINGS, SHALL BE PROVIDED BY THE TRADE REQUIRING SUCH SUPPORT.
13. SEE SPECIFICATIONS FOR PAINTING OF STRUCTURAL STEEL. ALL FABRICATION AND ERECTION MARKS SHALL BE COVERED DURING FIELD TOUCH-UP PAINTING.
14. ALL CONNECTIONS TO BE DOUBLE ANGLE FRAMED BEAM CONNECTION PER AISC UNLESS NOTED OTHERWISE. ALL BOLTS TO BE 3/4" MINIMUM DIAMETER UNLESS NOTED OTHERWISE. SHOP CONNECTIONS MAY BE WELDED OR BOLTED. WELDS ARE TO BE EQUAL IN STRENGTH TO BOLTS.
15. DESIGN CONNECTIONS FOR HALF THE MAXIMUM SHEAR (V IN KIPS) LISTED IN THE TABLE 3-6 "MAXIMUM TOTAL UNIFORM LOAD" AT THE BOTTOM OF EACH PAGE IN THE "BEAM PROPERTIES" OF THE AISC 360-10" MANUAL OF STEEL CONSTRUCTION. "MINIMUM CONNECTION SHALL CONSIST OF TWO 3/4"Ø A325 BOLTS. REACTIONS SHOWN ARE BASED ON UNFACTORED LOADS. PROVIDE SIGNED AND SEALED DRAWINGS AND CALCULATIONS BY A PROFESSIONAL ENGINEER.
16. DESIGN BASE PLATE ANCHOR BOLTS FOR LATERAL MEMBERS USING FORCES INDICATED IN DRAWINGS. PROVIDE SIGNED AND SEALED DRAWINGS AND CALCULATIONS BY A PROFESSIONAL ENGINEER.
17. WHEN STEEL MEMBERS ARE WELDED TO EMBED PLATES IN CONCRETE, WELDING PROCESS SHOULD BE PERFORMED IN SUCH WAY THAT EMBED PLATE DOES NOT OVERHEAT AND EXPAND. SUCH EXPANSION WILL CRACK THE CONCRETE SURROUNDING THE EMBED PLATE AND MAY WEAKEN THE STRUCTURAL CAPACITY OF THE CONNECTION. WE RECOMMEND TO PROVIDE SEVERAL SINGLE PASSES TO BUILT UP THE WELD SIZE REQUIRE WITH COOLING OFF PERIODS TO AVOID THE EMBED PLATE EXPANSION. UNDER NO CIRCUMSTANCES PROVIDE MORE THAN 6" OF 1/4" WELD WITHOUT ALLOWING A COOLING OFF PERIOD.
18. EXPOSED ENDS OF STRUCTURAL TUBES OR PIPES SHALL BE CAPPED WITH A MINIMUM 1/4" PLATE U.N.O.

City of Tampa
CONSTRUCTION SERVICES DIVISION
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BLD-20-[illegible]
REVIEWED FOR CONSTRUCTION
AAC0022122
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Consultant Information

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JAMES R. MEHLTRETTER LICENSE No 33860 STATE OF FLORIDA PROFESSIONAL ENGINEER

James R. Mehltretter,
FL Lic. No. 33860

To the best of our knowledge information and belief, these structural plans conform to and satisfy, the Florida Building Code, Sixth Edition 2017, ACI 318-14 and local codes as applicable

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7215 North 30Th Street
Tampa, Florida

Project Number	1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
1	REV 3	12.16.19

Sheet Information

GENERAL STRUCTURAL NOTES

S101

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SHEET LIST

SHEET NUMBER	SHEET NAME
S101	GENERAL STRUCTURAL NOTES
S201	FOUNDATION & 2ND FLOOR FRAMING PLAN / MECH. YARD SLAB ON GRADE
S202	ROOF FRAMING & DETAILS
S301	TYPICAL DETAILS
S401	WALL SECTIONS
S402	WALL SECTIONS
S403	SECTIONS AND DETAILS

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
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LOAD SCHEDULE:

FLOOR LOAD:

DEAD LOAD FLOOR		
PRECAST TREADS	=	40 PSF
LIVE LOAD		
STAIRS	=	100 PSF

ROOF:

DEAD LOAD		
1 1/2" METAL DECK	=	2 PSF
ROOF FRAMING	=	6 PSF
M/E/P	=	4 PSF
CEILING	=	2 PSF
MISC.	=	16 PSF
TOTAL DEAD LOAD	=	30 PSF
LIVE LOAD	=	20 PSF

WIND DESIGN DATA:

CODE:
ASCE 7-10 FLORIDA BUILDING CODE, (SIXTH EDITION) 2017

BASIC WIND SPEED	150 mph (Vult) 116 mph (Vasd)
CATEGORY (RISK)	IV
EXPOSURE	B
BUILDING HEIGHT	40ft.
ENCLOSURE CLASSIFICATION	± 0.18

* GLAZED OPENINGS IN RISK CATEGORY II, III, IV LOCATED IN HURRICANE PRONE REGIONS SHALL BE PROTECTED IN ACCORDANCE WITH FBC 2017 SEC. 1609.1.2

COMPONENTS AND CLADDING (ULTIMATE) UPLIFT PRESSURE SCHEDULE

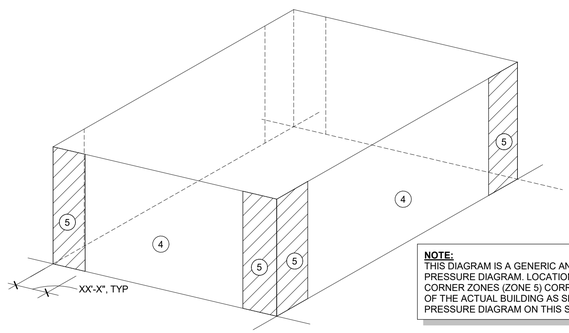
PATTERN	ZONE	MAIN ROOF			
		EFFECTIVE WIND AREA			
		10 SQ. FT.	25 SQ. FT.	50 SQ. FT.	100 SQ. FT.
	1	-41 PSF	-40 PSF	-39 PSF	-38 PSF
	2	-72 PSF	-65 PSF	-59 PSF	-53 PSF
	3	-72 PSF	-64 PSF	-59 PSF	-53 PSF
	2' ov	-91 PSF	-91 PSF	-91 PSF	-91 PSF
	3' ov	-91 PSF	-91 PSF	-91 PSF	-91 PSF

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

PATTERN	ZONE	EFFECTIVE WIND AREA			
		10 SQ. FT.	50 SQ. FT.	200 SQ. FT.	500 SQ. FT.
	4	+45 PSF/-49 PSF	+41 PSF/-44 PSF	+36 PSF/-40 PSF	+38 PSF/-38 PSF
	5	+45 PSF/-61 PSF	+41 PSF/-51 PSF	+36 PSF/-43 PSF	+38 PSF/-38 PSF

NOTE:

1. ALL EXTERIOR DOORS & WINDOW ASSEMBLIES SHALL SATISFY THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (SIXTH EDITION 2017, SECTION 1709.5). ALL CONNECTIONS TO BUILDING STRUCTURE SHALL HAVE THE CAPACITY TO WITHSTAND THE PRESSURES INDICATED IN THIS SCHEDULE.
2. PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE SURFACES, RESPECTIVELY.
3. ALL WIND PRESSURE VALUES INDICATED ARE IN POUNDS PER SQUARE FOOT (PSF). MULTIPLY ULTIMATE WIND PRESSURE BY 0.60 FOR ASD PRESSURE.



NOTE:
THIS DIAGRAM IS A GENERIC AND SIMPLIFIED WALL PRESSURE DIAGRAM. LOCATION AND WIDTH OF CORNER ZONES (ZONE 5) CORRESPOND TO ZONE 3 OF THE ACTUAL BUILDING AS SHOWN IN THE ROOF PRESSURE DIAGRAM ON THIS SHEET.

JAMES R. MEHLTRETTER LICENSE No 33860 STATE OF FLORIDA PROFESSIONAL ENGINEER

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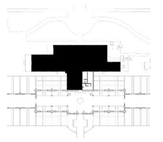

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
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Project Number 1706.00

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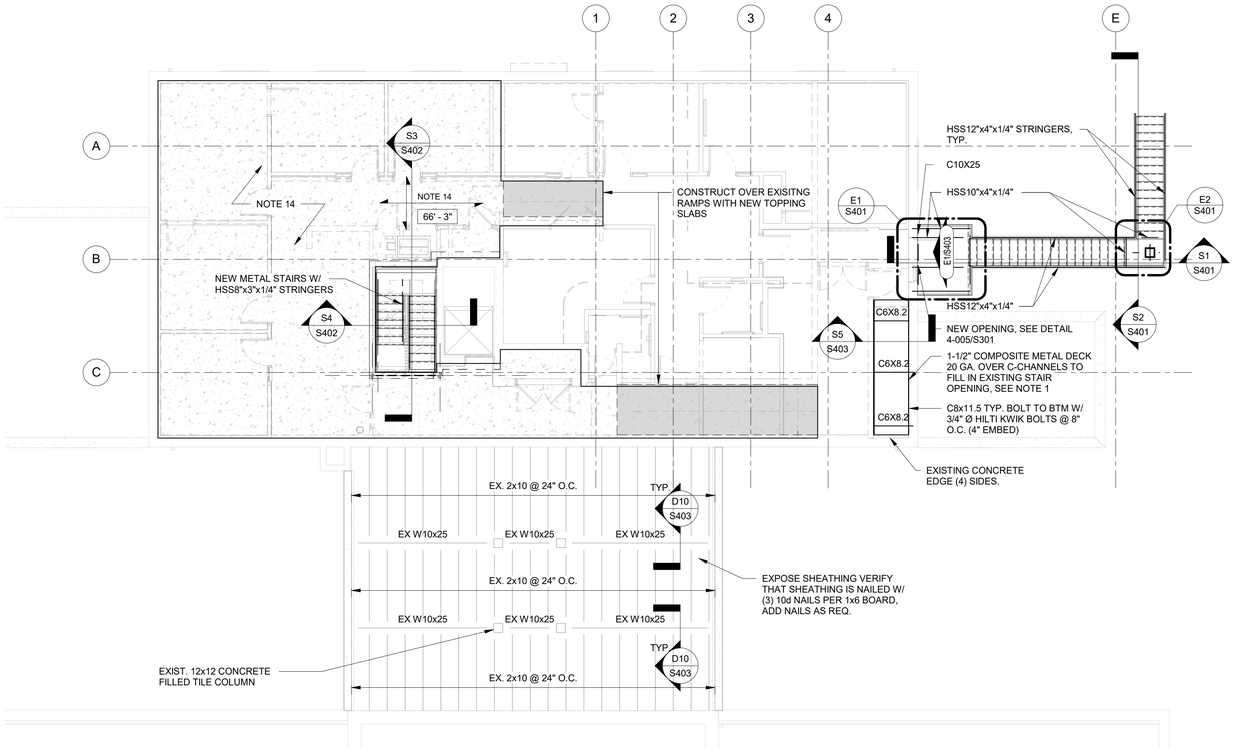
Revisions

No.	Description	Date
1	REV 3	12.16.19

Sheet Information

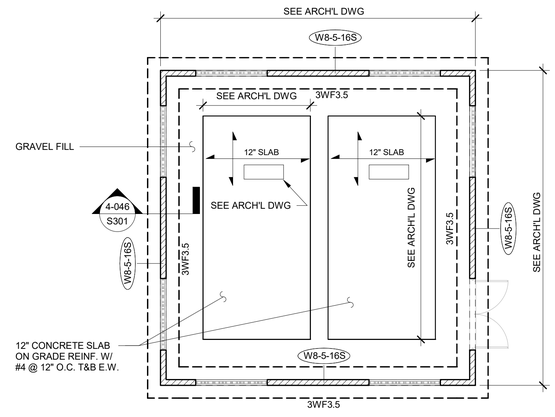
WIND DESIGN DATA & LOAD SCHEDULE

S102



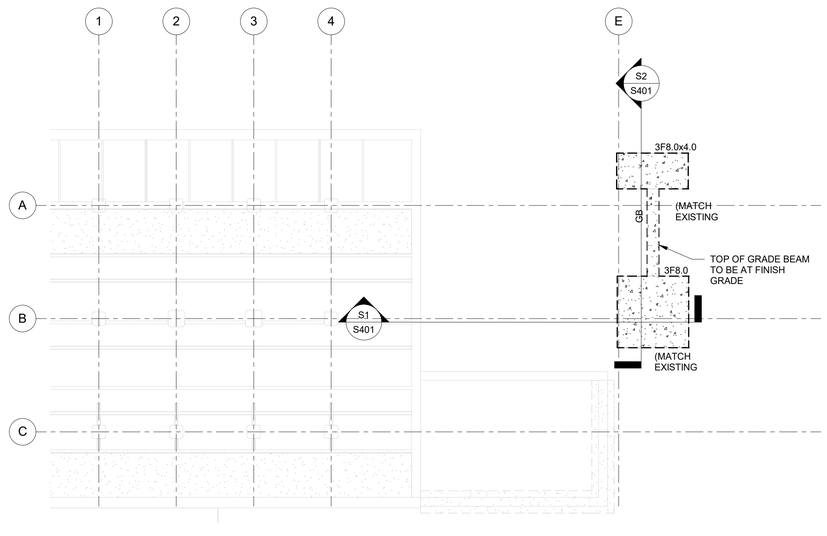
2ND FLOOR FRAMING PLAN

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



SLAB ON GRADE - MECHANICAL YARD

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



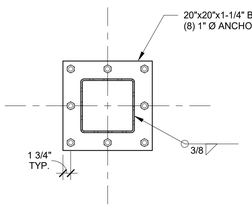
FOUNDATION PLAN

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

COLUMN FOOTING SCHEDULE					
MARK*	LENGTH	WIDTH	DEPTH	TOP & BOTT. REINF.* EA. WAY U.N.O.	REMARKS
3F8.0	8' - 0"	8' - 0"	2' - 0"	(8) #6 T&B E.W. HOOK ENDS	
3F8.0x4.0	8' - 0"	4' - 0"	2' - 0"	(6) #6 T&B LONG & #4 @ 12" O.C. SHORT HOOK ENDS	

CONCRETE BEAM SCHEDULE					
MARK	BEAM WIDTH	BEAM DEPTH	CONT. REINFORCING	TIE REINFORCING	REMARKS
GB	16"	24"	(4) #6 T&B	#4 @ 12" O.C. TIES	

WALL SCHEDULE	
TYPE	DESCRIPTION
W8-5-16S	8" CMU WALL REINF. W/ #5 AT 16" O.C.



BASE PLATE

SCALE: 3/4" = 1'-0"

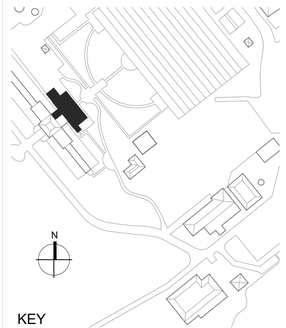
FOUNDATION PLAN NOTES:

1. FOR TYPICAL FOUNDATION PLAN DETAILS, SEE DRAWINGS S301.
2. FOR GENERAL STRUCTURAL NOTES, SEE DRAWING S101.
3. FOR FOOTING SIZE AND REINFORCING, SEE SCHEDULE ON THIS DRAWING.
4. ( ) DENOTES TOP OF FOOTING ELEVATION.
5. TOP OF FOOTING: ELEVATION @ INTERIOR = (42' - 3") TYPICAL U.N.O.
   ELEVATION @ EXTERIOR = (42' - 3") TYPICAL U.N.O.
6. FOR PLAN DIMENSIONS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS.
7. COLUMN DESIGNATION SHOWN THUS ⬡ ON PLAN.

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

FLOOR FRAMING NOTES:

1. TYPICAL FLOOR FRAMING SHALL BE 1-1/2"- 20 GAGE COMPOSITE GALVANIZED METAL DECK WITH 3 1/2" LIGHT WEIGHT CONCRETE TOPPING (TOTAL SLAB THICKNESS = 5 1/2") OVER OPEN WEB STEEL CHANNELS SPACED @ 6'-0" O.C. MAX., REINFORCE SLAB WITH 6 X 6 - W2.1 X W2.1 WWF (FLAT SHEETS) PLACED 1" BELOW FLOOR FINISH.
2. DIRECTION OF METAL DECK SPAN SHOWN THUS ⟷ ON PLAN.
3. TOP OF SLAB ELEVATION SHOWN THUS '-_" ON PLAN.
4. FOR GENERAL NOTES SEE DRAWINGS S101
5. FOR TYPICAL DETAILS SEE DRAWING S301.
6. [3] = DENOTES THE NUMBER OF 3/4"Ø X 4 3/16" (BEFORE WELDING LENGTH) HEADED STUDS, MACHINE WELDED TO BEAMS & GIRDERS.
7. <3/4"> = DENOTES THE MAGNITUDE OF SHOP-INDUCED CAMBER REQUIRED.
8. STUDS MUST NOT BE INSTALLED CLOSER THAN 4 1/2" CENTER TO CENTER ALONG THE LONGITUDINAL AXIS OF THE BEAM AND NOT CLOSER THAN 3" CENTER TO CENTER TRANSVERSE TO THE LONGITUDINAL AXIS OF THE BEAM.
9. PROVIDE MOMENT CONNECTION AT BEAMS SHOWN THUS ⟷ ⬡ ON PLAN.
10. COLUMN DESIGNATIONS SHOWN THUS ⬡ ON PLAN.
11. FOR LOAD SCHEDULE AND WIND DESIGN DATA, SEE THIS SHEET.
12. ALL STRUCTURAL STEEL WIDE FLANGE MEMBERS SHALL CONFORM TO ASTM SPECIFICATIONS A992, FY = 50 KSI.
13. EMBED (WELD) PLATE SHOWN THUS EP-1 ON PLAN. FOR PLATE REQUIREMENTS SEE TYPICAL DETAIL ON DRAWING S000.
14. FILL SLAB AREA WITH 6" STYROFOAM AND 3" CONCRETE TOPPING. REINFORCE TOPPING W/ 6x6-W2.1xW2.1 W.F.F. TOTAL t = 9" ±. SHOWN THUS ON



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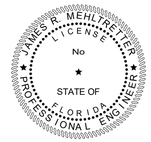

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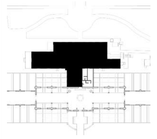

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Revisions

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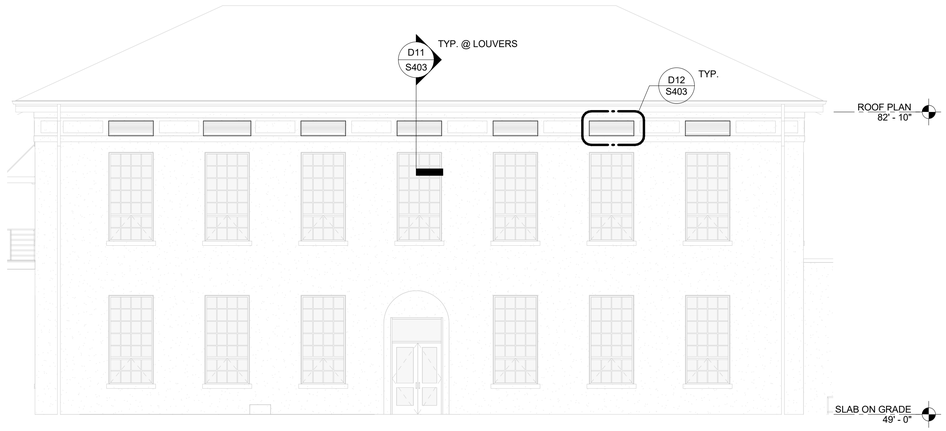
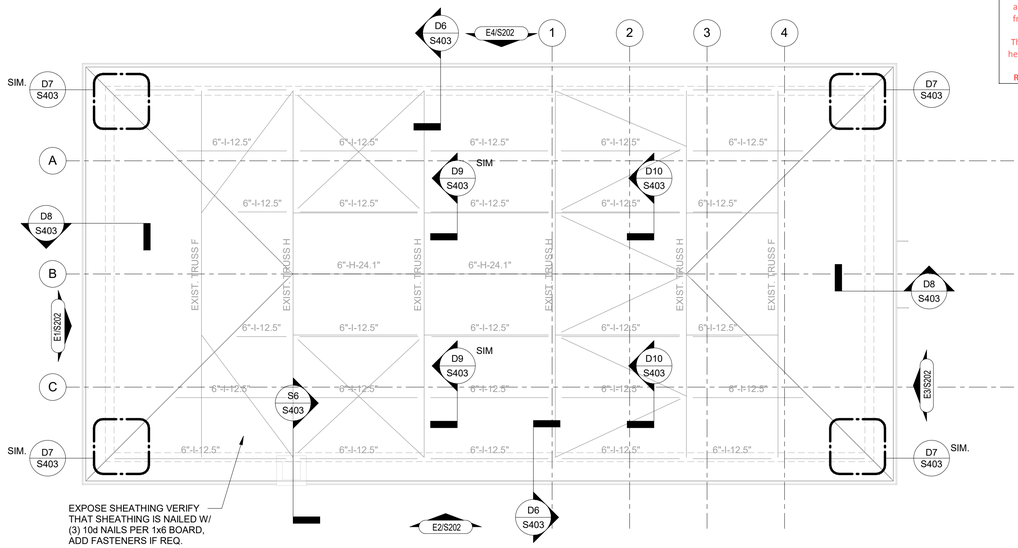
Sheet Information

FOUNDATION & 2ND FLOOR FRAMING PLAN / MECH. YARD SLAB ON GRADE

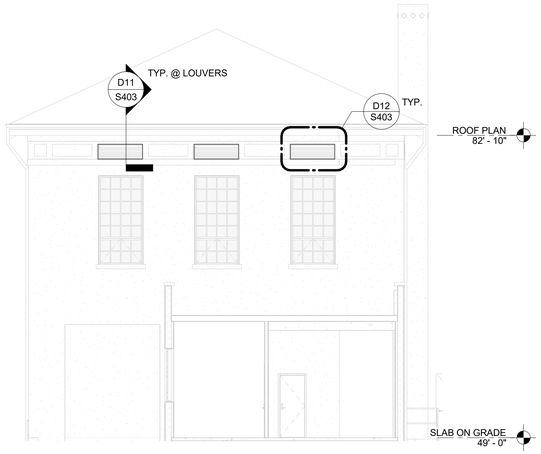
S201



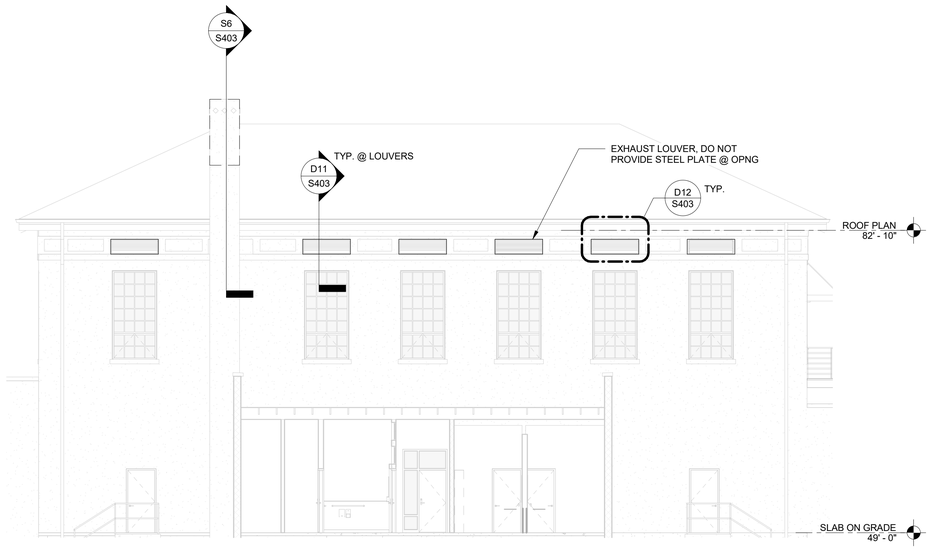
E4 S202 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



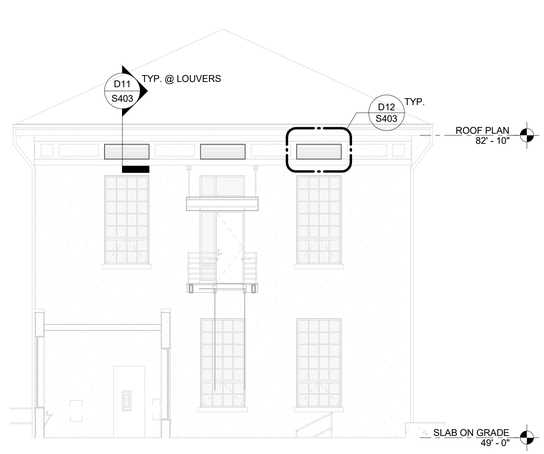
ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"



E1 S202 WEST ELEVATION
SCALE: 1/8" = 1'-0"



E2 S202 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"



E3 S202 EAST ELEVATION
SCALE: 1/8" = 1'-0"

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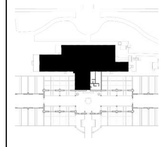

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7215 North 30Th Street
Tampa, Florida

Project Number	1706.00

Distribution

No.	Description	Date
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3	90% CDs	12.07.18
4	Permit CDs	02.26.19

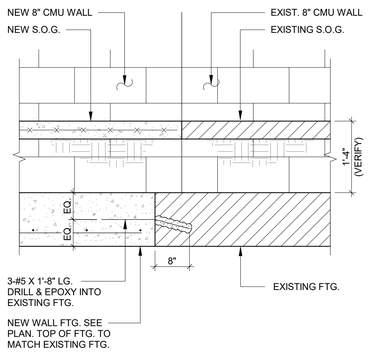
Revisions

No.	Description	Date
1	REV 3	12.16.19

Sheet Information

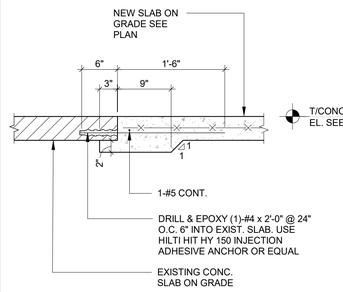
ROOF FRAMING & DETAILS

S202



NEW WALL FOOTING EXISTING SLAB ELEVATION

3-009



NEW SLAB TO EXISTING SLAB SECTION

3-011

f'c = 3000 PSI, NORMAL WEIGHT

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

NOTES:

CASE 1

BEAMS AND COLUMNS:
CONCRETE COVER >/= TO BAR DIAMETER, C-C BAR SPACING >/= TO 2X BAR DIAMETER AND WITH STIRRUPS
OR TIES THROUGHOUT TENSION LAP SPLICE LENGTH NOT LESS THAN THE CODE MINIMUM.

OTHER MEMBERS:
CONCRETE COVER >/= TO THE BAR DIAMETER AND C-C BAR SPACING >/= TO 3X BAR DIAMETER.

CASE 2

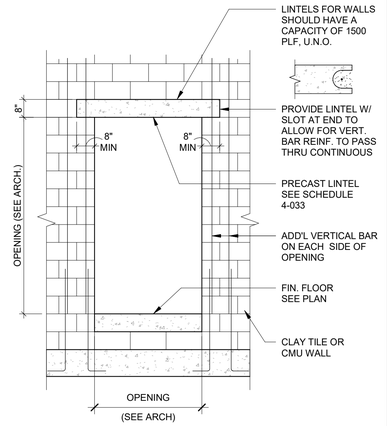
BEAMS AND COLUMNS:
CONCRETE COVER < BAR DIAMETER AND C-C BAR
SPACING < 2X BAR DIAMETER.

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

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

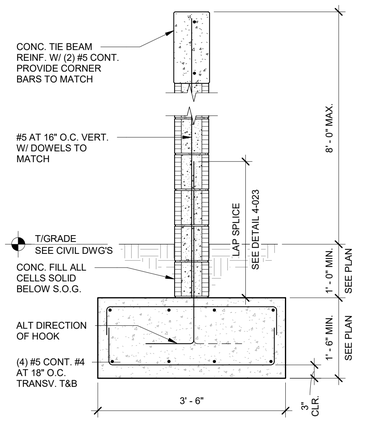
TENSION AND COMPRESSION LAP SPLICES WITH F'c = 3000 PSI

3-065



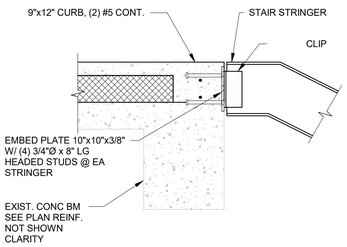
TYPICAL LINTEL OVER OPENING

4-005



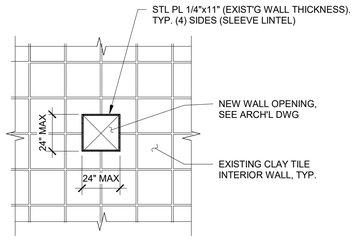
CMU SCREEN WALL

4-046

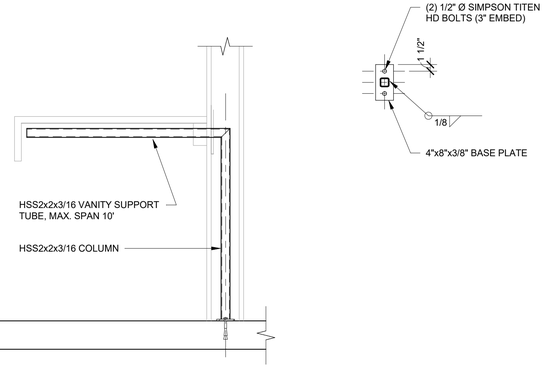


TYP. STEEL STAIR TO CONC. BEAM CONNECTION

5-503

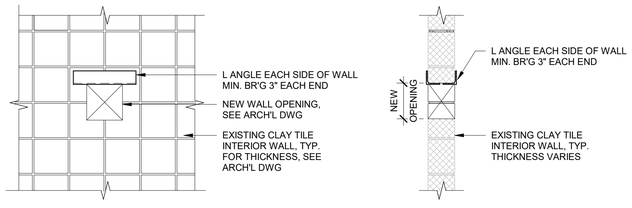


NEW OPENING ON EXISTING WALL (USING SLEEVE LINTEL) DETAIL T2

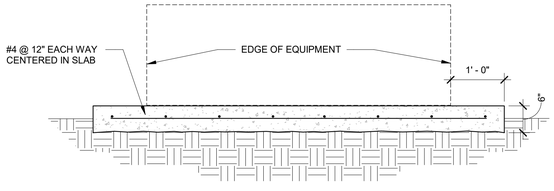


SUPPORT DETAIL D4

LOOSE LINTEL SCHEDULE	
OPEN'G SIZE	LINTEL
UP TO 2'-0"	L3x3x1/4
OVER 2'-0" - 3'-0"	L3x3x1/4
OVER 3'-0" - 4'-0"	L4x4x1/4
OVER 4'-0" - 5'-0"	L4x4x1/4
OVER 5'-0" - 6'-0"	L4x4x5/16
OVER 6'-0" - 7'-0"	L5x5x5/16



NEW OPENING ON EXISTING WALL DETAIL T1



EQUIPMENT PAD DETAIL

3-203

NOTE:
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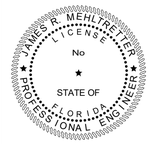

James R. Mehltretter,
FL Lic. No. 33860

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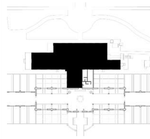

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
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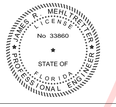
Revisions

No.	Description	Date
1	REV 3	12.16.19

Sheet Information

TYPICAL DETAILS



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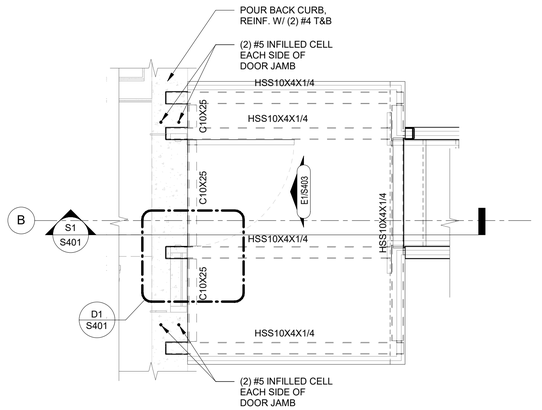
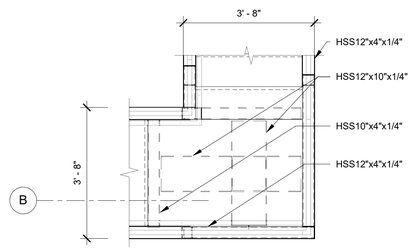
S301



E1 S401 ENLARGED PLAN
SCALE: 1/2" = 1'-0"



E2 S401 ENLARGED PLAN @ LANDING
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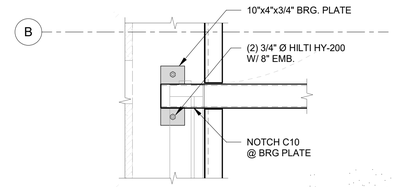
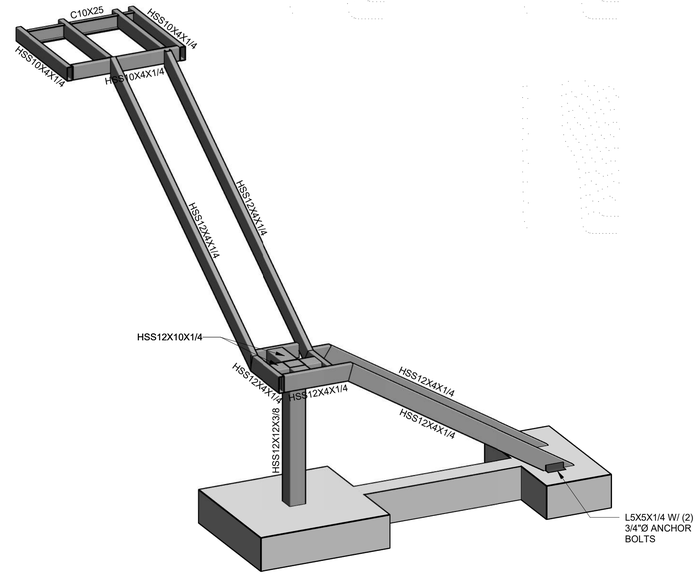
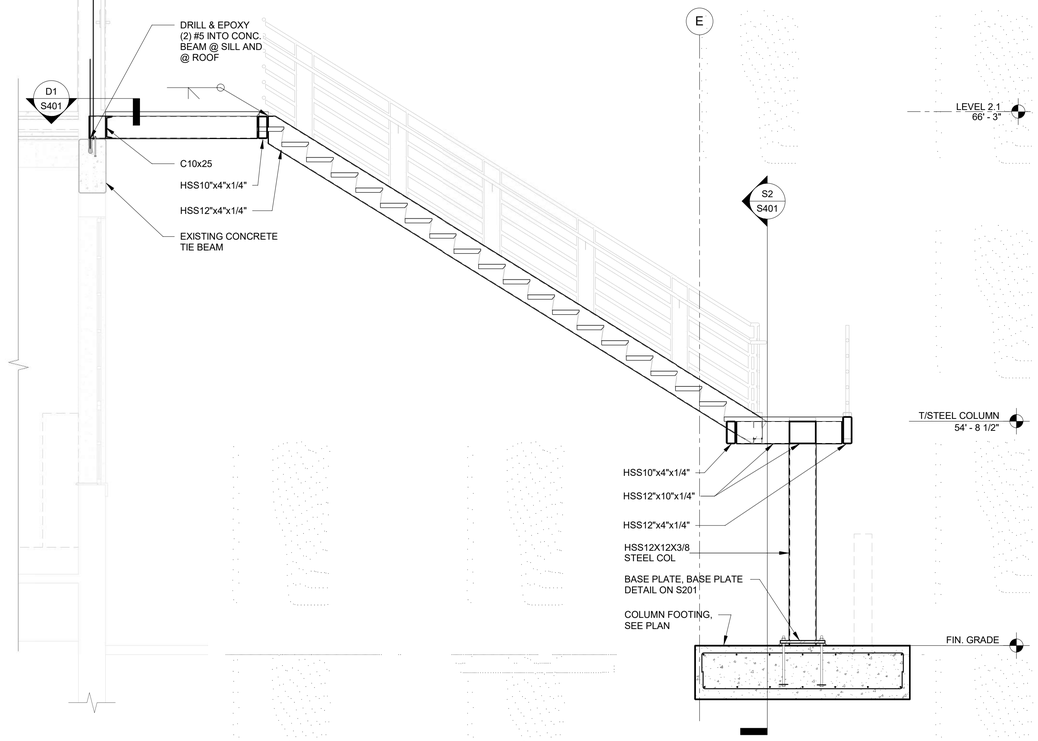


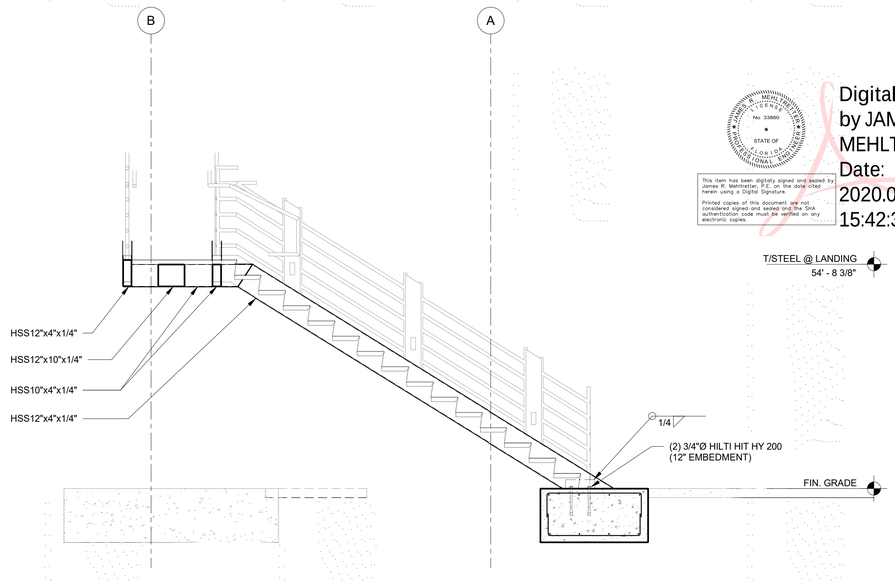
D1 S401 DETAIL 1
SCALE: 1" = 1'-0"



V1 S401 EXTERIOR STAIRS ISOMETRIC VIEW
SCALE:



S1 S401 SECTION S1 (@ STAIR)
SCALE: 3/8" = 1'-0"



S2 S401 SECTION S2 (@ STAIR)
SCALE: 3/8" = 1'-0"

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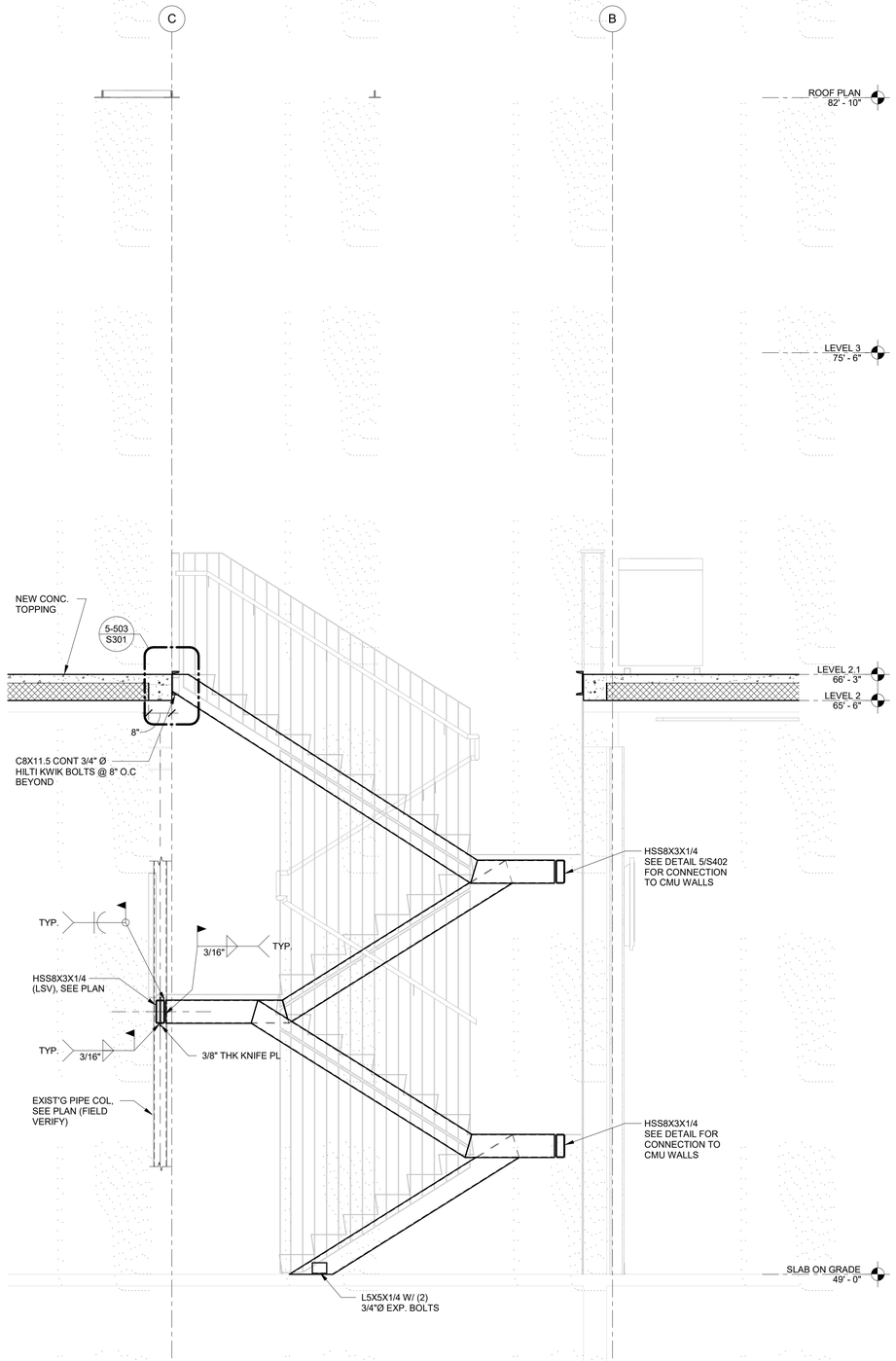
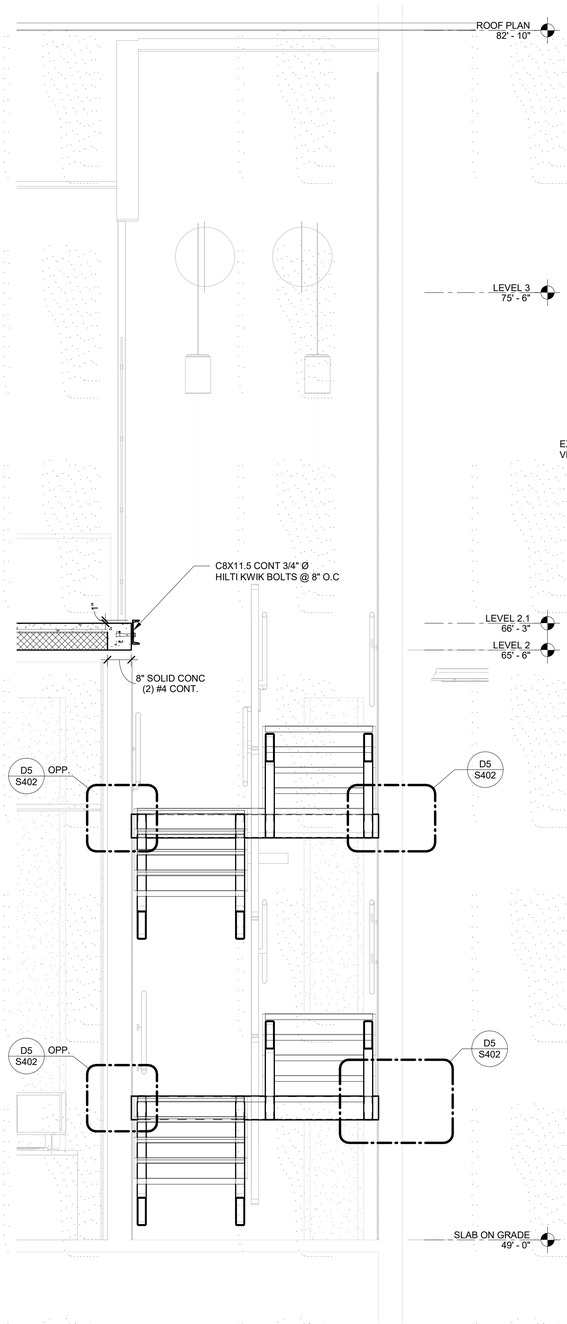
Sheet Information

WALL SECTIONS

S401



S3 / S402 SECTION S3 (@ STAIR)
SCALE: 1/2" = 1'-0"



S4 / S402 SECTION S4 (@ STAIR)
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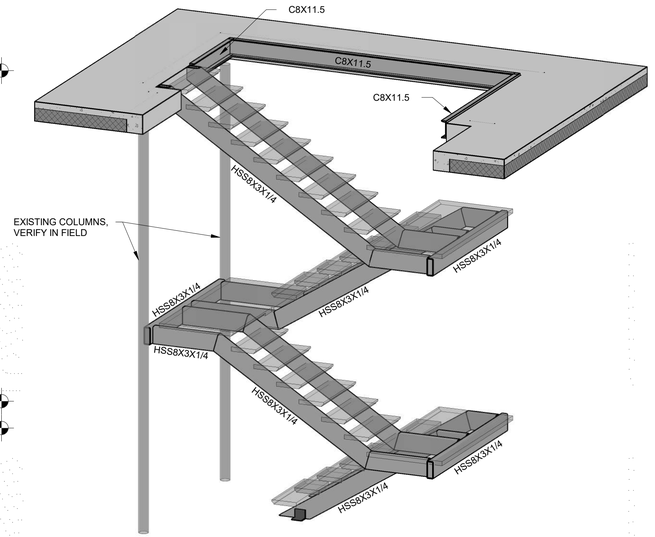

V2 / S402 INTERIOR STAIRS ISOMETRIC VIEW
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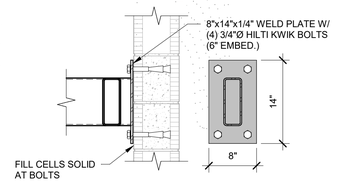

D5 / S402 DETAIL 5
SCALE: 1" = 1'-0"

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Facility
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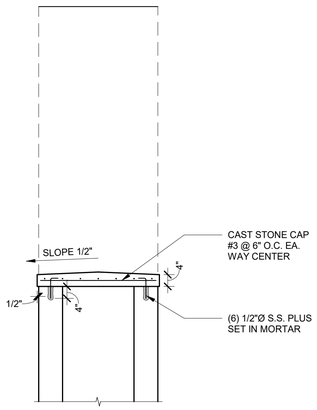
Sheet Information

WALL SECTIONS

S402



S6 / S403 CHIMNEY MODIFICATION
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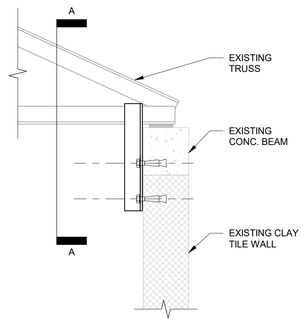
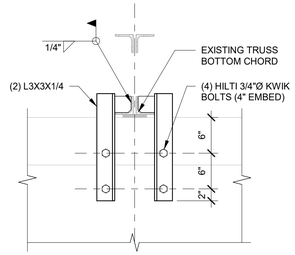
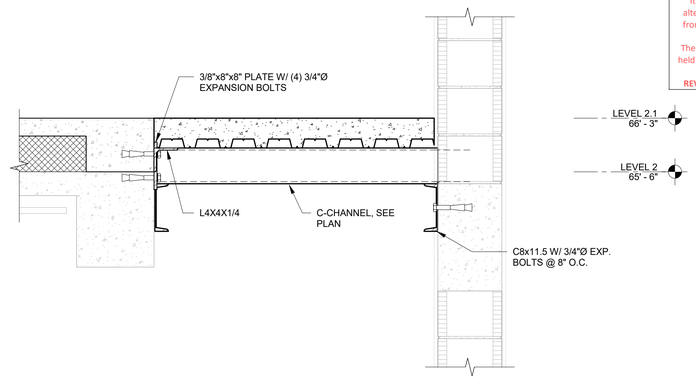


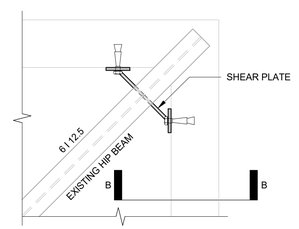


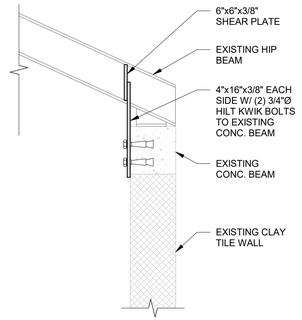
A-A SECTION

D6 / S403 TRUSS ANCHORAGE DETAILS
SCALE: 1" = 1'-0"



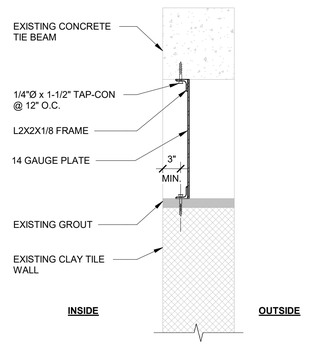
S5 / S403 EXISTING STAIR OPENING COVER
SCALE: 1" = 1'-0"



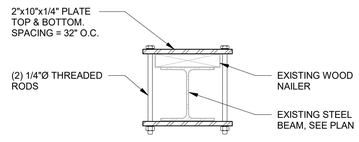


B-B SECTION

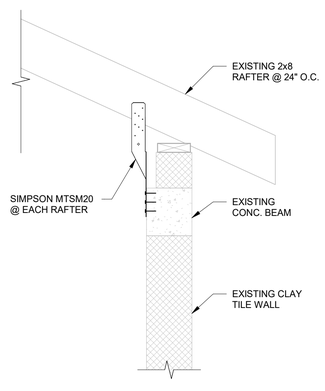
D7 / S403 HIP BEAM ANCHORAGE DETAIL
SCALE: 1" = 1'-0"



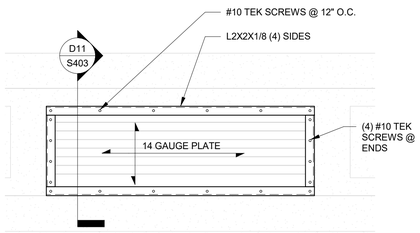
D11 / S403 LOUVER DETAIL
SCALE: 1" = 1'-0"



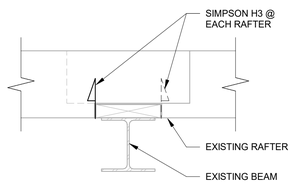
D9 / S403 NAILER ANCHORAGE DETAIL
SCALE: 1 1/2" = 1'-0"



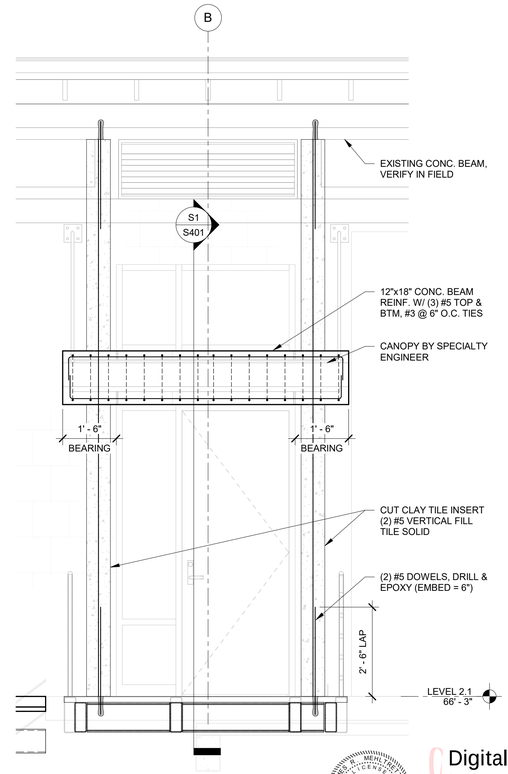
D8 / S403 2x8 RAFTER ANCHORAGE DETAIL
SCALE: 1" = 1'-0"



D12 / S403 LOUVER FRAMING DETAIL
SCALE: 3/4" = 1'-0"



D10 / S403 RAFTER ANCHORAGE DETAIL
SCALE: 1 1/2" = 1'-0"



E1 / S403 OPENING ELEVATION
SCALE: 1/2" = 1'-0"

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-[illegible]
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The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

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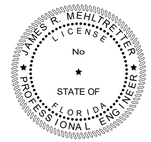
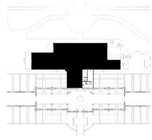


James R. Mehltretter,
FL Lic. No. 33860

To the best of our knowledge information and belief, these structural plans conform to and satisfy, the Florida Building Code, Sixth Edition 2017, ACI 318-14 and local codes as applicable



Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7215 North 30Tth Street
Tampa, Florida

Project Number	1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
1	REV 3	12.16.19

Sheet Information

SECTIONS AND DETAILS

S403

This item has been digitally signed and sealed by James R. Mehltretter, P.E. on the date cited herein using a Digital Signature.
Printed copies of this document are not considered signed and sealed and the SHA authentication code must be verified on any electronic copies.

Digitally signed by JAMES R MEHLTRETTER
Date: 2020.01.10 15:43:26 -05'00'

GENERAL MECHANICAL NOTES

1. ALL MECHANICAL WORK SHALL MEET ALL OF THE REQUIREMENTS OF THE FOLLOWING:
   A. FLORIDA BUILDING CODE (FBC) 6TH EDITION (2017): THIS CODE INCLUDES THE 2017 FBC BUILDING, MECHANICAL, PLUMBING, FUEL GAS AND ENERGY CONSERVATION VOLUMES. FURTHER, SEE "REFERENCED STANDARDS" IN THE FBC, BUILDING CHAPTER 35; FBC, PLUMBING CHAPTER 15; FBC, MECHANICAL CHAPTER 15; FBC, FUEL GAS CHAPTER 8, FBC, ENERGY CONSERVATION CHAPTER 6.) (EFFECTIVE DECEMBER 31, 2017)
   B. 6TH EDITION OF THE FLORIDA FIRE PREVENTION CODE (FFPC): (THIS CODE ALSO INCLUDES THE FLORIDA VERSIONS OF NFPA 1 AND NFPA 101.) (EFFECTIVE DECEMBER 31, 2017)
   C. 2014 NATIONAL ELECTRIC CODE
2. VERIFY, BY VISITING THE SITE, THE LOCATION OF UTILITIES IN ALL AREAS BEFORE COMMENCING WORK.
3. COORDINATE ALL WORK WITH OTHER AFFECTED TRADES. THE MECHANICAL CONTRACTOR SHALL FORWARD TO THE ELECTRICAL CONTRACTOR AN APPROVED COPY OF ALL EQUIPMENT SHOP DRAWINGS FOR ELECTRICAL POWER/CONTROL INTERFACE.
4. COVER ALL ELECTRICAL AND MECHANICAL EQUIPMENT TO PROTECT THEM FROM DUST AND DAMAGE DURING CONSTRUCTION. RESTORE ALL FACTORY PAINTED SURFACES TO NEW CONDITION, REPAIR ALL SCRATCHES, DENTS AND ABRASIONS. THOROUGHLY CLEAN ALL SURFACES OF DUST DEBRIS, AND FOREIGN MATTER. THE EQUIPMENT, WHEN TURNED OVER TO THE OWNER, SHALL BE CLEAN AND FREE OF DEFECTS.
5. PRIOR TO SUBSTANTIAL COMPLETION, A COMPLETE CERTIFIED TEST AND BALANCE REPORT SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. REFER TO THE SPECIFICATIONS FOR REQUIREMENTS.
6. THE CONDENSATE DRAIN LINE SHALL HAVE A TRAP AT THE AIR HANDLING UNIT. TRAP SHALL BE AS DETAILED OR FULL SIZE OF UNIT CONNECTION AND SHALL HAVE A WATER SEAL EQUAL TO 2" + THE UNITS' STATIC PRESSURE. PROVIDE CLEAN OUTS IN ALL CHANGES OF DIRECTION. MINIMUM PITCH 1/8" PER FOOT. CONDENSATE DRAIN LINE SHALL RUN TO CONDENSATE DRYWELL OR DRAIN. INSULATE ALL INTERIOR CONDENSATE PIPING WITH FLEXIBLE UNICELLULAR FOAM (ARMAFLEX OR EQUIVALENT) INSULATION TO PREVENT SWEATING. CONDENSATE DRAIN LINES AND TRAPS IN MECHANICAL ROOMS SHALL BECOPPER AND SHALL BE RIGIDLY SUPPORTED.
7. FLEXIBLE UNICELLULAR FOAM (ARMAFLEX OR EQUIVALENT) INSULATION SHALL BE 25/50 FLAME SPREAD/SMOKE DEVELOPED. REFRIGERANT PIPING SHALL BE INSULATED WITH FLEXIBLE UNICELLULAR FOAM INSULATION COMPLYING WITH ASTM C534, TYPE 1. PROVIDE ALUMINUM CLADDING FOR ALL INSULATION EXPOSED TO THE SUN AND WEATHER.
8. REFRIGERANT LINES SHALL BE SIZED AND REFRIGERANT SPECIALTIES SHALL BE PROVIDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS FOR STATIC LIFTS AND TOTAL LENGTHS REQUIRED. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
9. AIR HANDLING UNITS SHALL HAVE AN AUXILIARY DRAIN PAN 3" LARGER THAN UNIT EACH WAY. DRAIN PAN SHALL HAVE A FLOAT SWITCH TO DE-ENERGIZE THE AHU IN EVENT OF A CONDENSATE OVERFLOW CONDITION.
10. AIR HANDLING UNITS SHALL BE PLACED ON A 1/4" NEOPRENE PAD WITHIN AN AUXILIARY DRAIN PAN.
11. AIR HANDLING UNITS SHALL BE PLACED ON A CONCRETE PAD 6" THICK BY 6" LARGER, EACH WAY, THAN UNIT.
12. AIR HANDLING UNITS SHALL BE PLACED A MINIMUM OF 24" AWAY FROM WALLS.
13. IN GENERAL, PLANS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED.
14. ALL DUCTWORK SHALL MEET THE STANDARDS SET FORTH BY THE LATEST EDITION OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS". SUPPLY, RETURN, AND EXHAUST DUCTWORK SHALL BE FABRICATED FROM SHEET METAL. ALL ROUND DUCT SHALL BE SHEET METAL UNLESS OTHERWISE NOTED. PROVIDE TURNING VANES IN ALL 90° DUCT ELBOWS.
15. PROVIDE INSULATION FOR NEW DUCTWORK TO AND FROM THE UNIT WITH GLASS FIBER DUCT WRAP INSULATION. FACTORY APPLIED FOIL FACED VAPOR BARRIER, ASTM 518 AND ASTM E84 CERTIFIED TESTING PROCEDURES. JOINT TAPE SHALL BE MINIMUM 3" WIDE FOIL REINFORCED KRAFT TYPE. INSULATION THICKNESS SHALL BE A MINIMUM 2" THICK.
16. SUPPLY AIR DUCT FULL SIZE OF UNIT DISCHARGE. TRANSITION TO SIZE INDICATED ON DRAWINGS. RETURN AIR DUCT IS TO TRANSITION FROM SIZE INDICATED ON DRAWINGS TO FULL SIZE OF UNIT INLET.
17. ALL DUCT DIMENSIONS ARE CLEAR INSIDE DIMENSIONS (FREE AREA).
18. VERIFY ALL CLEARANCES AND DIMENSIONS BEFORE FABRICATION OF DUCTWORK AND PROVIDE ADDITIONAL OFFSETS TO MEET FIELD CONDITIONS. ADJUST LOCATIONS OF ALL EQUIPMENT AND DUCTWORK, AS NECESSARY TO AVOID INTERFERENCES WITH STRUCTURAL AND OTHER BUILDING COMPONENTS.
19. UNLESS NOTED OTHERWISE, INSTALL DUCTWORK AS HIGH AS POSSIBLE, TIGHT TO UNDERSIDE OF STRUCTURE. COORDINATE DUCT ELEVATION WITH RAIN LEADERS, WATER PIPING, DRAINS, AND MAJOR ELECTRICAL CONDUITS AND LIGHTS. PROVIDE OFFSETS AND TRANSITIONS AS REQUIRED TO KEEP DUCTWORK TIGHT TO THE STRUCTURE AND MAINTAIN CEILING ELEVATIONS AS INDICATED IN THE ARCHITECTURAL DRAWINGS. DUCTWORK MAY BE FLATTENED TO A 4:1 HEIGHT RATIO MAINTAINING THE DUCT FREE AREA SIZE AS INDICATED IN THE DRAWINGS. DUCTWORK SHAPE MAY HAVE TO BE ADJUSTED (I.E. ROUND TO RECTANGULAR) AS SPACE DICTATES. MULTIPLE SMALLER RUNS MAY BE REQUIRED IN PLACE OF A SINGLE RUN. DUCT RECONFIGURATION SHALL BE INDICATED IN THE DUCT FABRICATION DRAWINGS AND FIELD VERIFIED PRIOR TO SUBMITTAL FOR ENGINEER'S REVIEW.
20. DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, AND OTHER ITEMS OF THE AIR HANDLING SYSTEM SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM.
21. ALL SUPPLY DUCTWORK BETWEEN THE DISCHARGE OF THE PRIMARY AIR HANDLER AND THE INLETS TO THE VAV BOXES SHALL BE 3" W.G. PRESSURE CLASS. ALL OTHER DUCTWORK SHALL BE 1" W.G. ALL SHEET METAL DUCTWORK SHALL HAVE A CLASS C SEAL.
22. PROVIDE SUPPLEMENTARY STEEL AS REQUIRED TO INSTALL MECHANICAL EQUIPMENT AND MATERIALS.
23. PROVIDE ADDITIONAL VOLUME DAMPERS AS REQUIRED BY THE TEST AND BALANCE CONTRACTOR TO ACHIEVE AIRFLOWS INDICATED ON THE DRAWINGS.
24. MAINTAIN NEGATIVE PRESSURE IN ALL DESIGNATED CONSTRUCTION AREAS.
25. THE OWNER SHALL BE GIVEN ONE WEEK PRIOR NOTICE FOR ALL PERIODS OF HVAC SYSTEMS DOWNTIME.
26. IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE AIR HANDLERS MAY ONLY BE STARTED IF THE FOLLOWING CONDITIONS ARE MET:
   A. ALL OPENINGS FROM THE CONDITIONED SPACE DIRECTLY TO THE OUTSIDE MUST BE CLOSED. TEMPORARY CLOSURE METHODS MAY BE USED SUCH AS THE UTILIZATION OF PLASTIC SHEETS AND DUCT TAPE.
   B. MOP CLEAN ALL CONSTRUCTION DEBRIS AND DUST FROM THE FLOOR. PROVIDE DOOR MATS AT ALL ENTRANCES INTO THE BUILDING.
   C. TEMPORARY BARRIERS ARE TO BE PROVIDED AROUND AREAS THAT WILL HAVE ANY CONCRETE GRINDING OPERATION, DRYWALL WORK, PAINTING OR ANY OTHER PARTICULATE PRODUCING PROCESSES. ALL AIR DISTRIBUTION DEVICES IN THESE AREAS OF CONTAINMENT ARE TO BE COVERED AND SEALED AIR TIGHT.
   D. ALL RETURN GRILLES SHALL HAVE MERV-8 FILTER MEDIA TAPED OVER THEM PRIOR TO AIR HANDLER STARTUP AND SHALL REMAIN IN PLACE UNTIL ALL DUST PRODUCING OPERATIONS HAVE BEEN COMPLETED AND PRIOR TO TEST AND BALANCE. CLEAN ALL TAPE RESIDUE FROM THE GRILLES.
   E. ONCE THE UNIT IS STARTED, FILTERS IN THE AIR HANDLERS ARE TO BE SHAKEN CLEAN DAILY. ALL REQUIRED FIRE DAMPERS MAY NOT BE INDICATED HEREIN. PROVIDE FIRE DAMPERS AS REQUIRED AT RATED WALLS AND FLOORS PER FLORIDA BUILDING - MECHANICAL CODE. REFER TO ARCHITECTURAL DRAWINGS FOR RATED PARTITION LOCATIONS.
27. OMIT INSULATION ON TRANSFER DUCT SYSTEM. TRANSFER DUCT SYSTEMS ARE CONNECTED TO "XG#" TYPE AIR DISTRIBUTION DEVICES.
28. RUST COAT ALL CHILLED AND CONDENSER WATER PIPING AND FITTINGS PER SPECIFICATION (SPECIFICALLY SMALL FITTINGS) INSTALL AIR BLEED IN APPROPRIATE LOCATIONS.
29. SUBMIT DUCT FABRICATION DRAWINGS AND MECHANICAL ROOM LAYOUTS PER SPECIFICATIONS PRIOR TO ANY FRAMING WORK. ALL CHASE SIZES, FLOOR DRAINS IN MECHANICAL ROOMS/CLOSETS, AND ELECTRICAL PANEL LOCATIONS SHALL BE FIELD VERIFIED, COORDINATED, AND INDICATED IN THE SUBMITTAL.
30. ALL DUCT MOUNTED MANUAL BALANCING DAMPERS SHALL HAVE A TWO FOOT LONG, YELLOW STRIP OF MATERIAL ATTACHED TO THE DAMPER HANDLE FOR EASY VISUAL IDENTIFICATION.
31. ALL FIRE STOPPING SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S U.L. DETAILS OF THE PRODUCTS USED SPECIFICALLY ON THIS PROJECT. APPLICABLE U.L. DETAILS SHALL BE SUBMITTED FOR THE ENGINEER'S REVIEW AND A COPY SHALL BE AVAILABLE ON SITE FOR USE BY THE AUTHORITY HAVING JURISDICTION.
32. CONTROLS CONDUITS SHALL CONFORM TO ALL REQUIREMENTS FOR DIVISION 26 CONDUITS. REFER TO DIVISION 26 SPECIFICATIONS AND DRAWINGS.
33. CONCRETE SLAB/PAD IS TO HAVE NO CONTACT WITH ANY METAL PORTION OF THE EQUIPMENT OR THAT EQUIPMENT'S SUPPORT. PROVIDE 1/4" THICK RED, OR BLACK, RUBBER PAD UNDER THE ENTIRE METAL SURFACE INTENDED TO REST ON THE CONCRETE PAD.
34. THE TEMPERATURE CONTROLS (INCLUDING GRAPHICS) SHALL BE IN OPERATION AND EXERCISED IN THE PRESENCE OF THE ENGINEER OF RECORD AT TIME OF SUBSTANTIAL COMPLETION. THE CONSTRUCTION MANAGER SHALL SCHEDULE A MEETING BETWEEN THE CONTROL'S CONTRACTOR AND THE ENGINEER ONE WEEK PRIOR. THIS SHALL OCCUR PRIOR TO OWNER TRAINING.
35. PROVIDE DIELECTRIC UNIONS/PROTECTION AT ALL POINTS OF CONNECTION BETWEEN DISSIMILAR METALS; PIPE, PIPE HANGERS, CONNECTIONS TO STRUCTURAL STEEL, ETC.
36. ROUND FLEX DUCT SHALL BE A MAXIMUM LENGTH OF 6 FEET. ALL RUNS OF FLEX DUCT ARE TO BE SUPPORTED WITH THE APPROPRIATE HANGERS. FLEX DUCT SHALL NOT SAG OR BE CRIMPED.
37. AIR CONDITIONING FILTERS ARE TO BE PROVIDED AND CHANGED BY THE CONTRACTOR UP TO AND ON THE DATE OF SUBSTANTIAL COMPLETION ACCEPTANCE. FROM THAT TIME ON, THE OWNER WILL RETAIN ALL RESPONSIBILITY FOR FILTER MAINTENANCE. FILTERS SHALL BE CLEAN AT THE TIME OF SUBSTANTIAL COMPLETION.
38. VAV TERMINAL BOXES SHALL BE MOUNTED WITH THE BOTTOM AT 8" ABOVE THE CEILING. THE CONTROL PANEL AND THE HEATER SERVICE PANEL SHALL BE UNOBSTRUCTED AS REQUIRED BY NEC AND AS RECOMMENDED BY THE TERMINAL MANUFACTURER. VAV BOXES ARE TO BE INSTALLED WITH A 4 FT. LONG STRAIGHT SECTION OF ROUND DUCT AT THE INLET AND SHALL BE THE SAME SIZE AS THE BOX CONNECTION. ALL DUCTWORK BETWEEN THE VAV INLET AND THE AIR HANDLER IS TO BE RIGID (NO FLEX).
39. LOCATE ALL AIR DISTRIBUTION DEVICES AND CEILING MOUNTED EQUIPMENT IN CONFORMANCE WITH THE REFLECTED CEILING PLANS INCLUDED IN THE ARCHITECTURAL DRAWINGS FOR THIS PROJECT. COORDINATE DUCTWORK TO ALLOW FOR LOCATIONS OF THESE ITEMS. PROVIDE REVISED DUCTWORK LAYOUT WHERE REQUIRED. ANY MECHANICAL ITEMS EXPOSED TO VIEW SHALL BE PLACED PER THE ARCHITECTURAL DRAWINGS.
40. PROVIDE COMMISSIONING SERVICES THROUGH A REGISTERED DESIGN PROFESSIONAL OR APPROVED AGENCY IN ACCORDANCE WITH THE PROVISIONS OF FLORIDA BUILDING CODE/ ENERGY CONSERVATION SECTION C408 ON BUILDINGS WITH TOTAL MECHANICAL EQUIPMENT CAPACITY GREATER THAN 480,000 BTUH (40 TONS). THE SECTION STATES THAT PRIOR TO PASSING THE FINAL MECHANICAL INSPECTION, EVIDENCE OF THE MECHANICAL SYSTEM'S COMMISSIONING AND COMPLETION SHALL BE PROVIDED. COPIES OF COMMISSIONING DOCUMENT SHALL BE GIVEN TO THE OWNER AND MADE AVAILABLE TO THE CODE OFFICIAL UPON REQUEST.
41. DUCTS SHOWN PENETRATING SMOKE PARTITIONS SHALL BE SEALED AIR TIGHT BETWEEN THE DUCT OR ITS INSULATION AND THE WALL IT PENETRATES.
42. ALL THERMOSTAT/WALL SENSORS SHALL BE LABELED WITH THE UNIT MARK OF THE ITEM BEING CONTROLLED.
43. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

OUTDOOR AIR VENTILATION RATES

Description of Area	Space Classification	People Outdoor Air Rate cfm / person	x	Occupants Each (Oz)	=	People (Rp x Pz) cfm	Area Outdoor Air Rate (Ra) cfm / Sq. Ft.	x	Total Sq. Ft. (Az)	=	Area (Ra x Az) cfm	People cfm + Area cfm = uncorrected OA cfm (Vbz)	Air Distribution Effectiveness	Required Outside Air (CFM)
AH11														
104 PLANT CONTROL	OFFICE: Office space	5	x	3	=	15	0.06	x	612	=	37	52	0.8	65
105 SHIFT SUPER	OFFICE: Office space	5	x	3	=	15	0.06	x	199	=	12	27	0.8	34
122 SAFETY /SECURITY	OFFICE: Office space	5	x	1	=	5	0.06	x	119	=	7	12	0.8	15
101 COORIDOR	PUBLIC SPACES: Corridor	0	x	0	=	0	0.06	x	288	=	17	17	0.8	22
121 STORAGE	STORAGE: Warehouse	0	x	0	=	0	0.06	x	40	=	2	2	0.8	3
118 ADA TOILET	PUBLIC SPACE: Toilet	0	x	0	=	0	0	x	55	=	0	0	0.8	0
119 STORAGE	STORAGE: Warehouse	0	x	0	=	0	0.06	x	31	=	2	2	0.8	2
124 STAIR VESTIBULE	PUBLIC SPACES: Corridor	0	x	0	=	0	0.06	x	133	=	8	8	0.8	10
123 BREAK ROOM	OFFICE: Break Room	5	x	12	=	60	0.12	x	413	=	50	110	0.8	137
100 COORIDOR	PUBLIC SPACES: Corridor	0	x	0	=	0	0.06	x	447	=	27	27	0.8	34
102 COORIDOR	PUBLIC SPACES: Corridor	0	x	0	=	0	0.06	x	189	=	11	11	0.8	14
111 ELECTRICAL	PUBLIC SPACE: Toilet	0	x	0	=	0	0	x	53	=	0	0	0.8	0
120 SCADA	STORAGE: Warehouse	0	x	0	=	0	0.06	x	176	=	11	11	0.8	13
117 CONFERENCE	OFFICE: Conference Room	5	x	14	=	70	0.06	x	337	=	20	90	0.8	113
												Required Outside Air:		462
												Outside Air Provided:		610

OUTDOOR AIR VENTILATION RATES

Description of Area	Space Classification	People Outdoor Air Rate cfm / person	x	Occupants Each (Oz)	=	People (Rp x Pz) cfm	Area Outdoor Air Rate (Ra) cfm / Sq. Ft.	x	Total Sq. Ft. (Az)	=	Area (Ra x Az) cfm	People cfm + Area cfm = uncorrected OA cfm (Vbz)	Air Distribution Effectiveness	Required Outside Air (CFM)
AH12														
107 I&C WORKROOM	OFFICE: Office space	5	x	5	=	25	0.06	x	787	=	47	72	0.8	90
109 I&C SUPER	OFFICE: Office space	5	x	1	=	5	0.06	x	119	=	7	12	0.8	15
113 MENS	PUBLIC SPACE: Toilet	0	x	0	=	0	0	x	178	=	7	12	0.8	0
114 LOCKER	PUBLIC SPACE: Toilet	0	x	0	=	0	0	x	111	=	0	0	0.8	0
115 WOMENS	PUBLIC SPACE: Toilet	0	x	0	=	0	0	x	142	=	0	0	0.8	0
118 ELECTRICAL	PUBLIC SPACE: Toilet	0	x	0	=	0	0	x	51	=	0	0	0.8	0
112 ANALYZER	OFFICE: Office space	5	x	2	=	10	0.06	x	264	=	16	26	0.8	32
												Required Outside Air:		137
												Outside Air Provided:		205
AH21														
201 OFFICE	OFFICE: Office space	5	x	1	=	5	0.06	x	135	=	8	13	0.8	16
202 OFFICE	OFFICE: Office space	5	x	1	=	5	0.06	x	141	=	8	13	0.8	17
203 OFFICE	OFFICE: Office space	5	x	1	=	5	0.06	x	184	=	11	16	0.8	20
204 OFFICE	OFFICE: Office space	5	x	1	=	5	0.06	x	126	=	8	13	0.8	16
205 OFFICE	OFFICE: Office space	5	x	1	=	5	0.06	x	113	=	7	12	0.8	15
214 TOILET	PUBLIC SPACE: Toilet	0	x	0	=	0	0	x	0	=	0	0	0.8	0
216 STORAGE	STORAGE: Warehouse	0	x	0	=	0	0.06	x	22	=	1	1	0.8	2
220 LOBBY	PUBLIC SPACES: Corridor	0	x	0	=	0	0.06	x	323	=	19	19	0.8	24
220 RECEPTION	PUBLIC SPACES: Corridor	0	x	0	=	0	0.06	x	53	=	3	3	0.8	6
220 ADMIN	OFFICE: Office space	5	x	1	=	5	0.06	x	22	=	1	6	0.8	17
220 CORRIDOR	PUBLIC SPACES: Corridor	0	x	0	=	0	0.06	x	323	=	19	19	0.8	23
												Required Outside Air:		156
												Outside Air Provided:		160
AH22														
206 OFFICE	OFFICE: Office space	5	x	1	=	5	0.06	x	112	=	7	12	0.8	15
207 OFFICE	OFFICE: Office space	5	x	1	=	5	0.06	x	113	=	7	12	0.8	15
209 OFFICE	OFFICE: Office space	5	x	1	=	5	0.06	x	318	=	19	24	0.8	30
210 CONFERENCE	OFFICE: Conference	5	x	10	=	50	0.06	x	347	=	21	71	0.8	89
211 TOILET	PUBLIC SPACE: Toilet	0	x	0	=	0	0	x	39	=	0	0	0.8	0
213 COFFEE	PUBLIC SPACES: Corridor	0	x	0	=	0	0.06	x	95	=	6	6	0.8	7
224 CORRIDOR	PUBLIC SPACES: Corridor	0	x	0	=	0	0.06	x	192	=	12	12	0.8	14
												Required Outside Air:		170
												Outside Air Provided:		170

FMC [A] 101.2 Scope: Reviewed for compliance with FBC 6th Edition (2017) Mechanical

APPROVED
By Don Cassels at 1/30/2020 2:18:41 PM

HVAC LEGEND

UP / DOWN	SUPPLY AIR DUCT (UP & DOWN)
UP / DOWN	RETURN AIR DUCT (UP & DOWN)
UP / DOWN	EXHAUST AIR DUCT (UP & DOWN)
VD	VOLUME DAMPER
OBD	OPPOSED BLADE VOLUME DAMPER
	FIRE DAMPER - REFER TO DETAIL
100 / 100	AT CONTRACTOR'S OPTION: FIRE DAMPER OR DUCT WITH 24 GAUGE PER 100 SQ. INCH EXCEPTION IN THE MECHANICAL CODE. PROVIDE 12" LONG STEEL SLEEVE AT PENETRATION OF THE RATED WALL AND PACK VOID WITH MINERAL WOOL (SEE FBC/MECHANICAL 607.5.3.6.)
	SIDEWALL GRILLE
T	WALL MTD THERMOSTAT OR TEMPERATURE SENSOR
R	ELEVATION CHANGE IN DUCT
	DOUBLE WALL STEEL DUCTWORK
	EXPOSED DUCTWORK (PAINTED)
VD	BELLMOUTH "SPIN-IN" FITTING WITH LOCKING QUADRANT DAMPER
	FLEX DUCT
CD1 375 12x12/8"ø	AIR DEVICE MARK. TOP LINE INDICATES TYPE, REFER TO SCHEDULE. SECOND LINE INDICATES AIR QUANTITY CFM. THIRD LINE INDICATES NECK SIZE AND DUCT CONNECTION SIZE.
UC	UNDERCUT DOOR BY 3/4" AFF UNLESS OTHERWISE INDICATED COORDINATE WITH ARCHITECTURAL DRAWINGS.
SD	DUCT MOUNTED SMOKE DETECTOR
	MOTORIZED DAMPER (24 VOLT UNLESS NOTED OTHERWISE)
BOG	BOTTOM OF SIDEWALL GRILLE ELEVATION
TOG	TOP OF SIDEWALL GRILLE ELEVATION
IJS	DUCT IS LOCATED BETWEEN JOIST OR THROUGH JOIST WEB.
(E)	EXISTING - FIELD VERIFY EXACT SIZE AND LOCATION
(D) OR -x- -x-	EXISTING TO BE DEMOLISHED
(RL)	EXISTING ITEM TO BE RELOCATED
(R)	NEW LOCATION OF EXISTING ITEM
	CONNECT NEW TO EXISTING
	ELEVATION
	REMOVE ALL HATCHED MECHANICAL ITEMS

MECHANICAL DRAWING INDEX

SHEET NUMBER	SHEET NAME
M001	HVAC LEGEND AND GENERAL NOTES
M002	MECHANICAL SITE PLAN
M101	ADMINISTRATION BUILDING MECHANICAL FIRST FLOOR PLAN
M102	ADMINISTRATION BUILDING MECHANICAL SECOND FLOOR PLAN
M103	MAINTENANCE BUILDING MECHANICAL FIRST FLOOR
M104	ENLARGED MECHANICAL ROOM PLANS AND SECTIONS
M201	HVAC SCHEDULES
M202	HVAC SCHEDULES
M301	HVAC DETAILS
M302	HVAC DETAILS
M401	HVAC CONTROLS
M402	HVAC CONTROLS

DESIGN CRITERIA

Location:	TAMPA
Latitude:	28.0°
Longitude:	82.0°
Elevation:	19 ft.
Barometric Pressure:	29.9 in. Hg
DESIGN TEMPERATURES:	
Ambient Summer Design Dry Bulb:	91°F
Ambient Summer Design Wet Bulb:	80°F
Ambient Winter Design Dry Bulb:	39°F
Space Setpoint - cooling	76°F
Space Setpoint - heating	70°F
Space Setpoint - humidity	50% RH

BUILDING AIR BALANCE

OUTSIDE AIR INTO BUILDING		EXHAUST AIR OUT OF BUILDING		CFM NET
SOURCE	CFM	SOURCE	CFM	
AH11, 12, 21, 22	1,145	EF11, 12, 13, 21, 22	510	
	1,145		510	635
ZONE PRESSURIZATION ((1,145 OA - 510 EXH) / 11,275 SA) x 100 = 5.6%				

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BLD-20-[illegible]

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Harry W. Portellos
P.E. 61597

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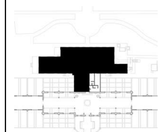


Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

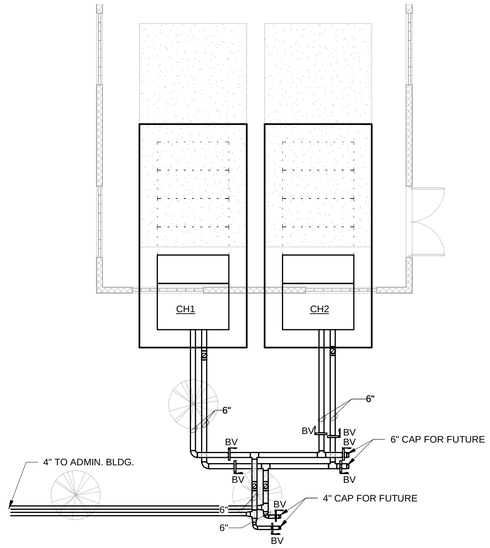
Revisions

No.	Description	Date

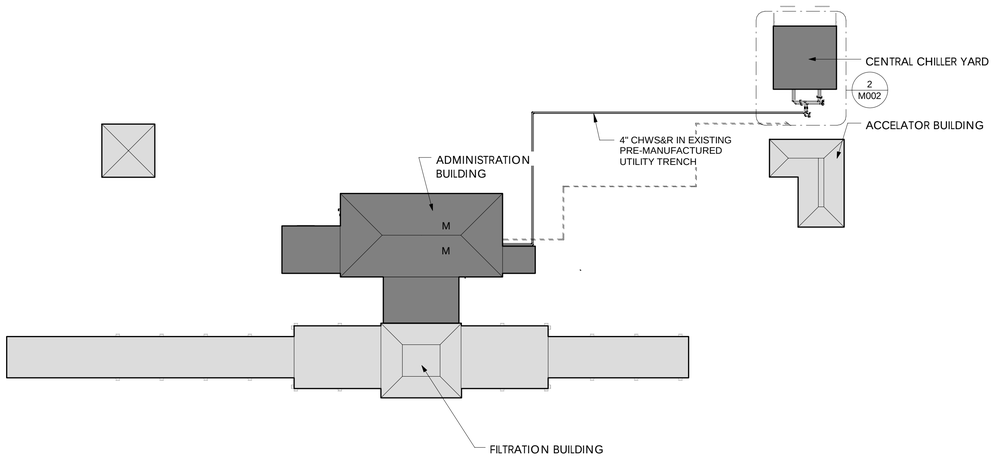
Sheet Information

HVAC LEGEND AND GENERAL NOTES

M001



2 CHILLER YARD
1/8" = 1'-0"



1 MECHANICAL SITE PLAN
1" = 40'-0"

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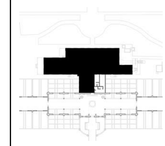

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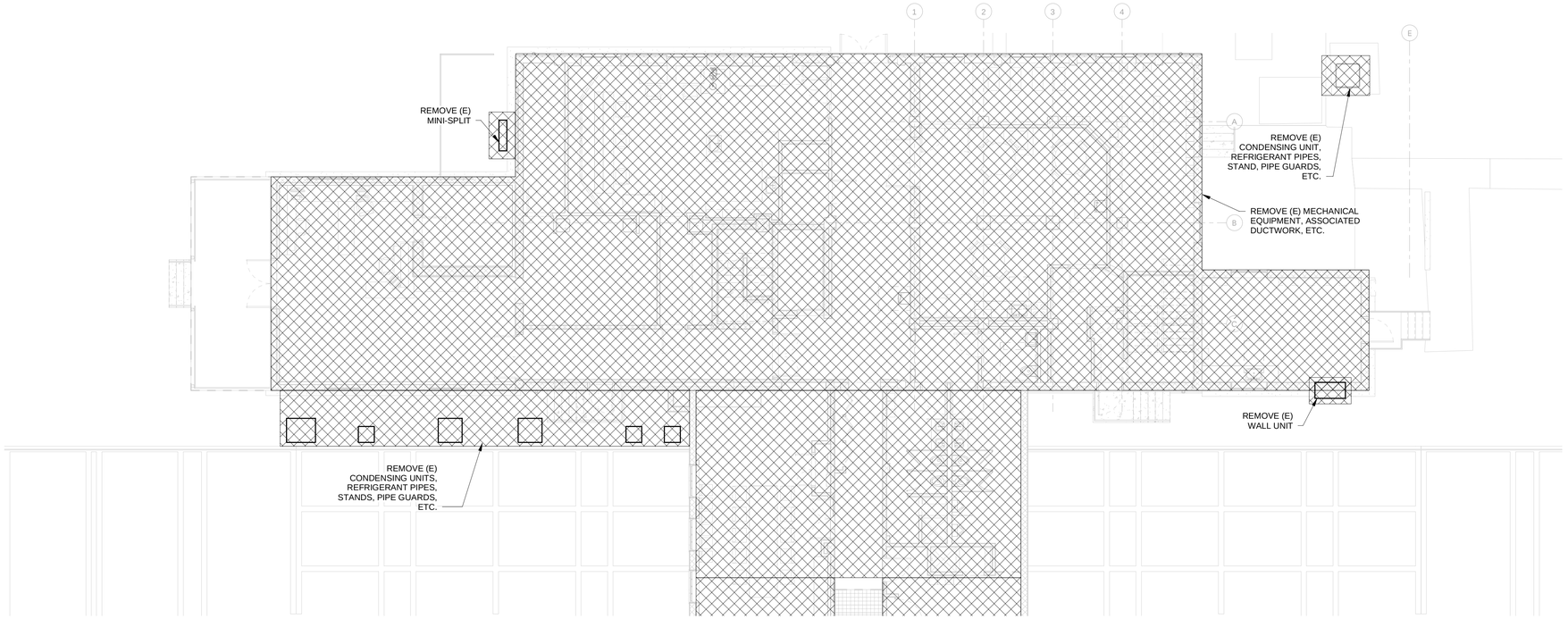
Sheet Information

MECHANICAL SITE PLAN

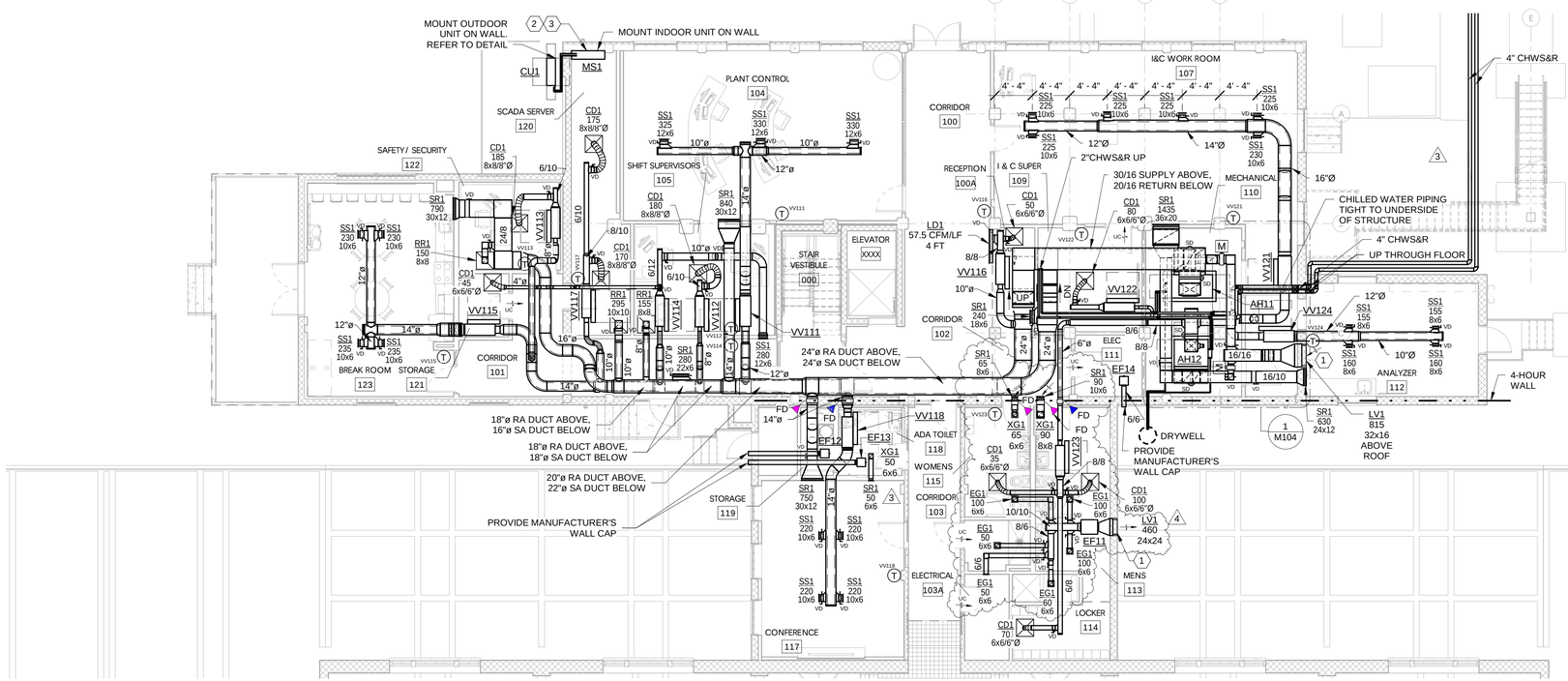
0' 5' 10' 40' 80'
1" = 40'-0"

M002



ADMINISTRATION BUILDING MECHANICAL DEMOLITION FIRST FLOOR PLAN

1/8" = 1'-0"

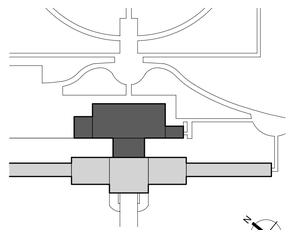


ADMINISTRATION BUILDING MECHANICAL NEW WORK FIRST FLOOR PLAN

1/8" = 1'-0"

DRAWING NOTES:

1. FABRICATE 10" DEEP PLENUM ON BACKSIDE OF LOUVER. ALL CORNERS OF PLENUM TO BE CONTINUOUSLY WELDED AND ENTIRE FABRICATION IS TO BE HOT DIPPED GALVANIZED. BOTTOM PANEL SHALL SLOPE 1"/FOOT BACK TO LOUVER SO COLLECTED WATER DRAINS BACK INTO LOUVER. PROVIDE WEATHERPROOF SEAL AT LOUVER/PLENUM CONNECTION.
2. ROUTE REFRIGERANT LINES THROUGH WALL AND SEAL WALL PENETRATION WEATHERTIGHT.
3. SUPPORT REFRIGERANT LINES FROM ABOVE. ROUTE LINES AS DIRECTLY AS POSSIBLE, MINIMIZING TURNS. LINES SHALL BE SIZED AS DIRECTED BY THE MANUFACTURER'S REPRESENTATIVE. REFER TO SCHEDULE AND SPECIFICATIONS.



KEY PLAN

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No.	Description	Date
3	REV 3	12.16.19
4	Permit REV 4	02.24.20

Sheet Information

ADMINISTRATION BUILDING MECHANICAL FIRST FLOOR PLAN

0' 1' 2' 4' 8' 16'
1/8" = 1'-0"

M101

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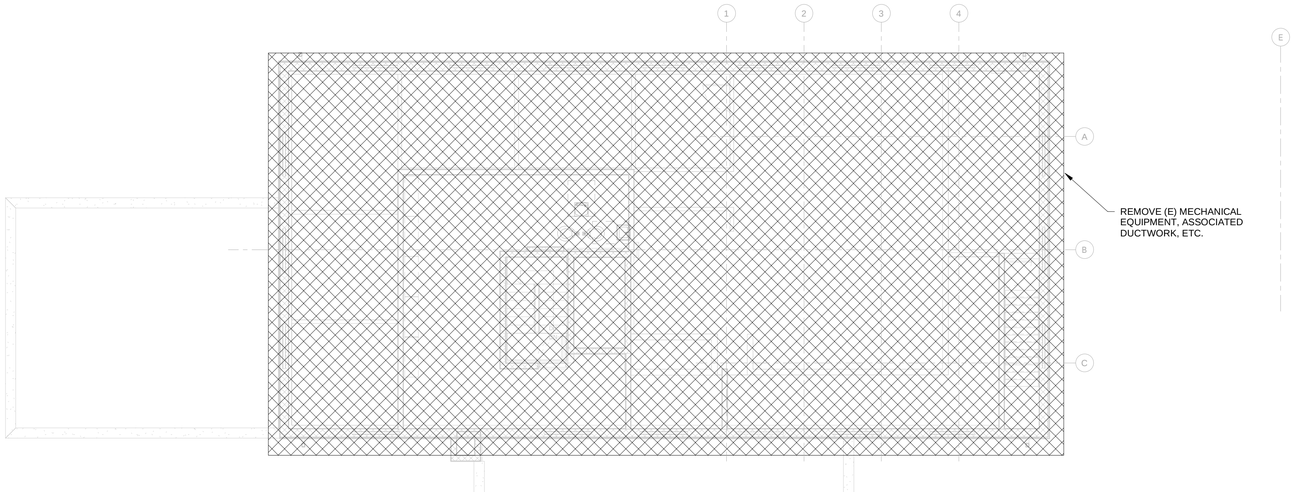
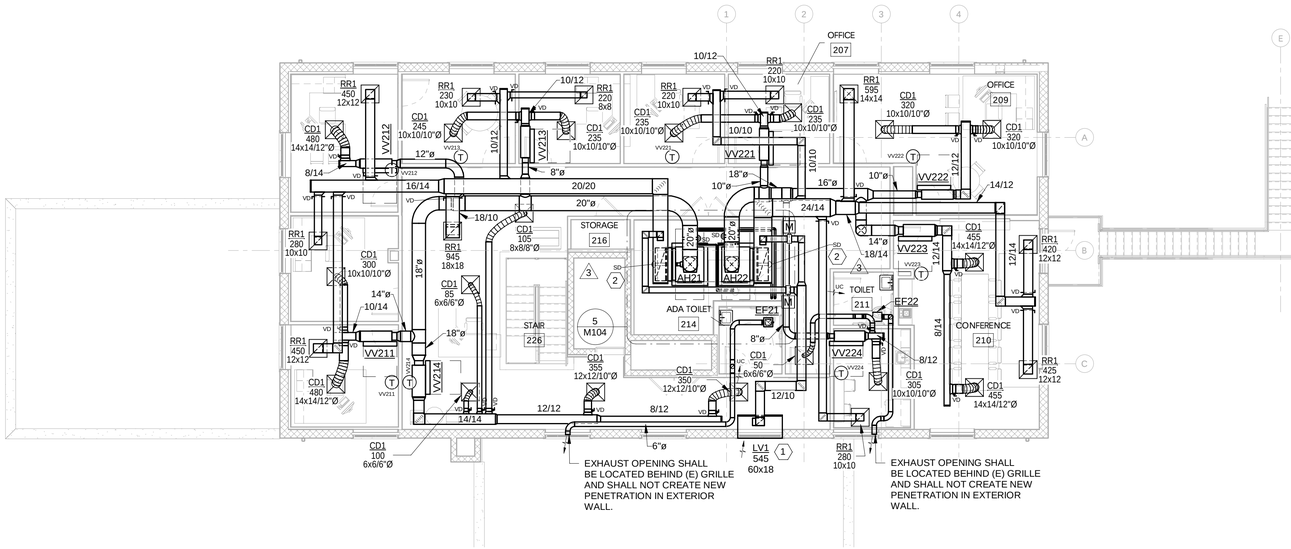


ADMINISTRATION BUILDING MECHANICAL DEMOLITION SECOND FLOOR PLAN

1/8" = 1'-0"

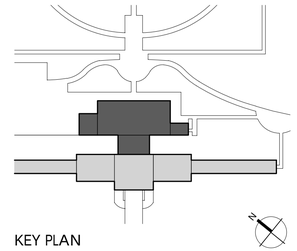


ADMINISTRATION BUILDING MECHANICAL NEW WORK SECOND FLOOR PLAN

1/8" = 1'-0"

DRAWING NOTES:

1. FABRICATE 10" DEEP PLENUM ON BACKSIDE OF LOUVER. ALL CORNERS OF PLENUM TO BE CONTINUOUSLY WELDED AND ENTIRE FABRICATION IS TO BE HOT DIPPED GALVANIZED. BOTTOM PANEL SHALL SLOPE 1"/FOOT BACK TO LOUVER SO COLLECTED WATER DRAINS BACK INTO LOUVER. PROVIDE WEATHERPROOF SEAL AT LOUVER/PLENUM CONNECTION.
2. PROVIDE SMOKE DETECTOR.



KEY PLAN

Project Information

City of Tampa

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No.	Description	Date
3	REV 3	12.16.19

Sheet Information

ADMINISTRATION BUILDING MECHANICAL SECOND FLOOR PLAN

0' 1' 2' 4' 8' 16'
1/8" = 1'-0"

M102

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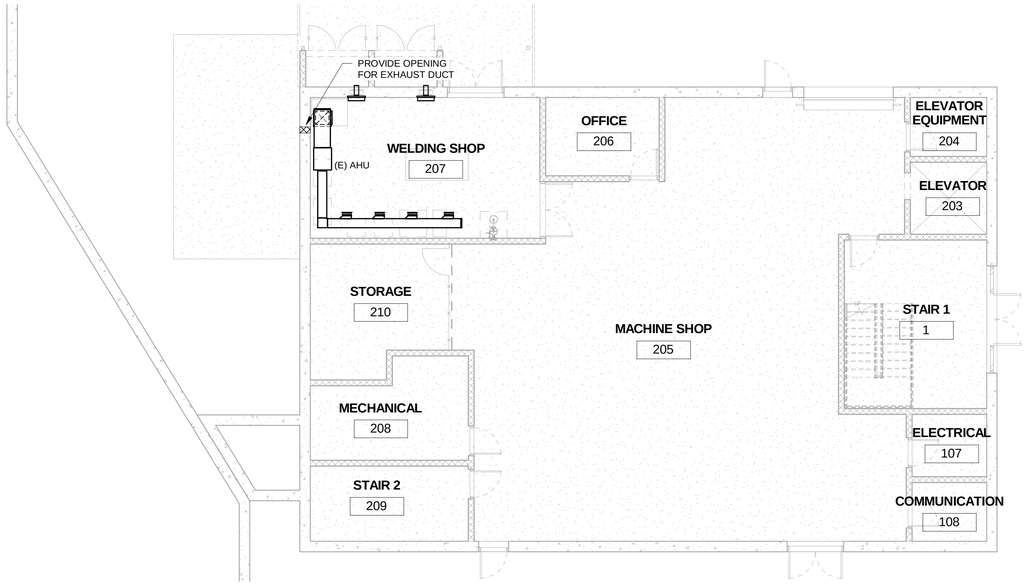
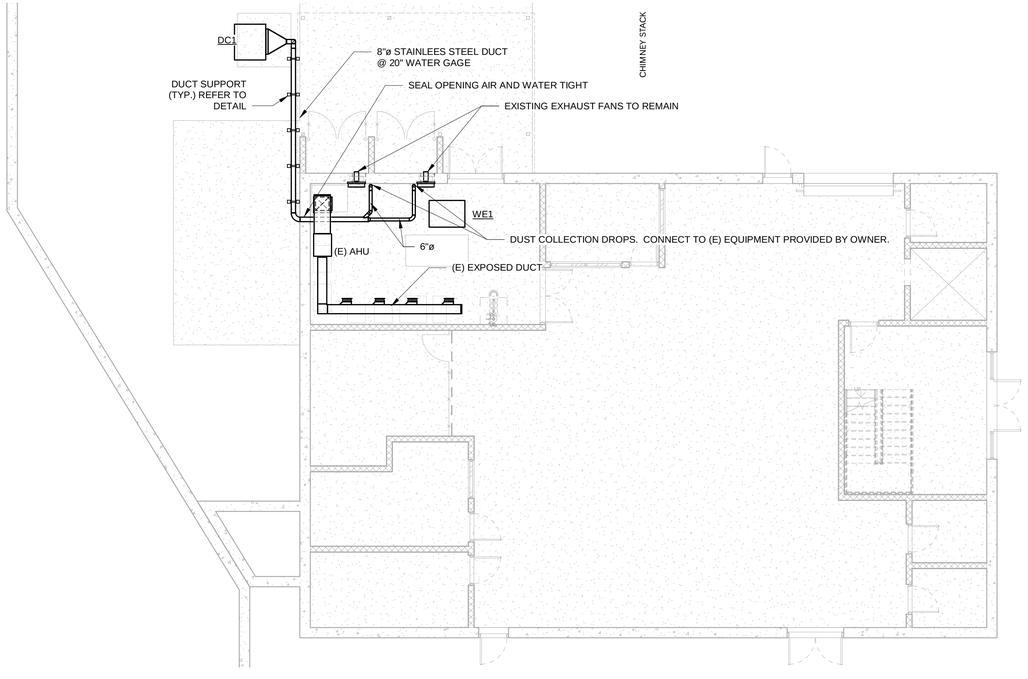


MAINTENANCE BUILDING MECHANICAL DEMOLITION FIRST FLOOR PLAN

1/8" = 1'-0"



MAINTENANCE BUILDING MECHANICAL NEW WORK FIRST FLOOR PLAN

1/8" = 1'-0"

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Revisions

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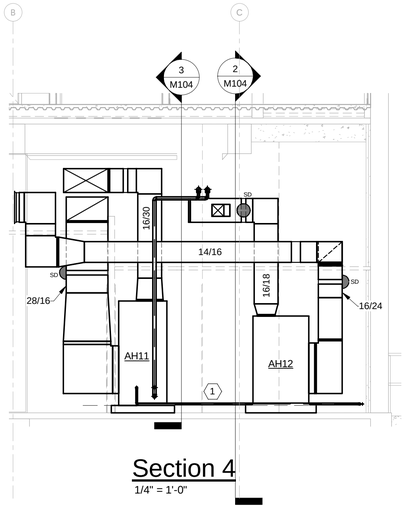
Sheet Information

MAINTENANCE BUILDING MECHANICAL FIRST FLOOR

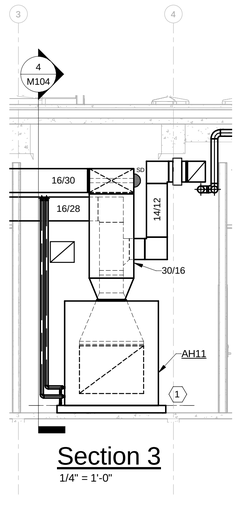
0' 1' 2' 4' 8' 16'
1/8 = 1'-0"

M103



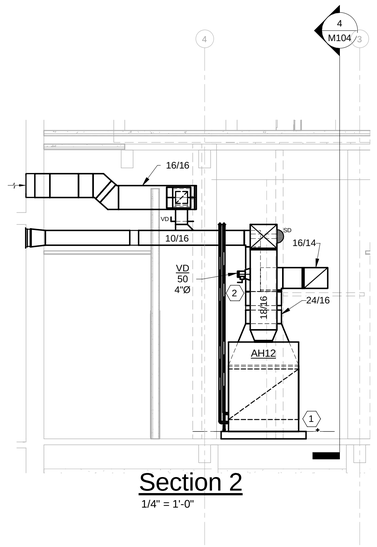
Section 4

1/4" = 1'-0"



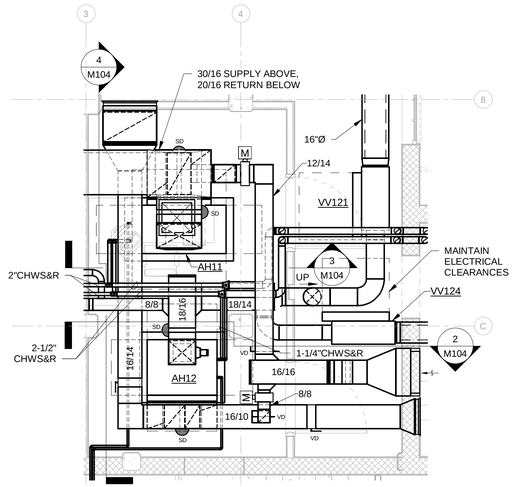
Section 3

1/4" = 1'-0"



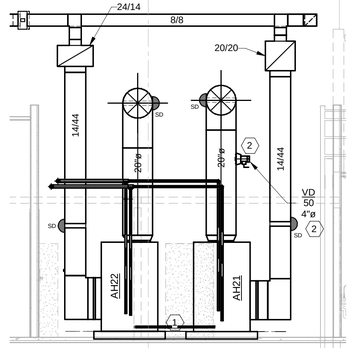
Section 2

1/4" = 1'-0"



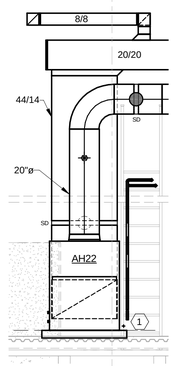
ENLARGED MECHANICAL ROOM 110 FLOOR PLAN

1/4" = 1'-0"



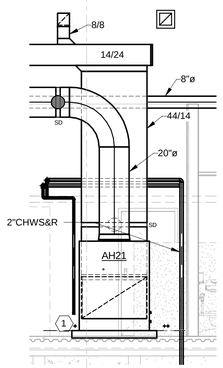
Section 6

1/4" = 1'-0"



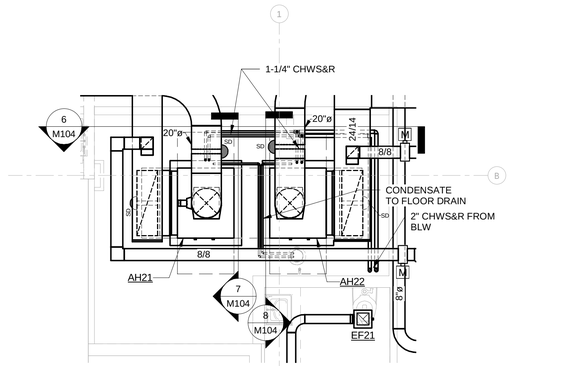
Section 7

1/4" = 1'-0"



Section 8

1/4" = 1'-0"



ENLARGED MECHANICAL ROOM 212 FLOOR PLAN

1/4" = 1'-0"

DRAWING NOTES:

1. THE AIR HANDLER SHALL BE PLACED ON A 4" THICK, REINFORCED CONCRETE PAD (6" LARGER EACH WAY THAN THE UNIT) AND AUXILIARY DRAIN PAN WITH FLOAT SWITCH. PROVIDE CONDENSATE TRAP AS DETAILED AND ROUTE INSULATED COPPER CONDENSATE DRAIN LINE TO CONDENSATE HUB DRAIN. SUPPORT DRAIN LINE FROM FLOOR. COORDINATE EQUIPMENT SUPPORT RAIL HEIGHT OF AIR HANDLER TO ALLOW FOR PROPER TRAP DEPTH. PROVIDE CLEANING/OPERATION VALVES ON CONDENSATE LINE (REFER TO THE CONDENSATE CLEANING AND OPERATION VALVE DETAIL).
2. PROVIDE 4" SPIN-IN FITTING WITH VOLUME DAMPER AND BALANCE TO AIRFLOW INDICATED.

3

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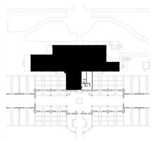

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No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
3	REV 3	12.16.19

Sheet Information

ENLARGED MECHANICAL ROOM PLANS AND SECTIONS

M104

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF PLANS IS APPROVED
ON CONDITION THAT
THE [illegible] ARE
It is unlawful to make any
alterations to these plans
from the [illegible] Division
The Stamping of this plan shall not be
held to permit or approve the violation
of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

AIR HANDLING UNIT SCHEDULE - CHILLED WATER

MARK	SUPPLY AIR (CFM)	OA Air Quantity (CFM)	SYSTEM WARM-UP (CFM)	STATIC PRESSURE (EXT/TOTAL)	RETURN/MAIN AIR PATH												ELECTRICAL										
					AIR QUANTITY (CFM)	ENTERING TEMP (°F DB/ °F WB)	LEAVING TEMP (°F DB / °F WB)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	COOLING COIL (ROWS/FPI)	MAX AIR PRESSURE DROP (IN H2O)	FACE VELOCITY (FPM)	FILTER NOTES	WATER FLOW (GPM)	CHILLED WATER TEMP ENT/LVG (DEGF/DEGF)	MAX WATER PRESSURE DROP (FT H2O)	MAX FAN SPEED (RPM)	FAN MOTOR (HP/BHP)	VOLTAGE	PHASE	HZ	FAN ARRANGEMENT / TYPE	MIN BASE RAIL HEIGHT	MANUFACTURER	MODEL	UNIT WEIGHT (LBS)	DISCH SOUND POWER LEVELS (OCTAVES)	RAD. SND. POWER LVLS (OCTAVES)	LOCATION	SPACE SERVED	NOTES
AH11	3,985	610	4,140	2.5/3.78	3,985	77.6/64.2	52.8/51.6	147.9	106.7	6/9	0.51	405	MERV 8	24.6	42/54	7.8	1825	7.5/3.1	240 V	3	60 Hz	MOTORIZED IMPELLER	6	TRANE	UCCCAR10	1300	83/75/80/80/77/73/69/64	75/75/77/77/74/69/68/68	MECH ROOM 110	1ST FLOOR NORTH	1-12
AH12	2,240	205	2,230	2.5/3.80	2,240	76.7/62.5	52.8/51.5	71.2	57.8	6/9	0.46	392	MERV 8	11.7	42/54	2.5	2100	4.0/1.9	240 V	3	60 Hz	MOTORIZED IMPELLER	6	TRANE	UCCCAR06	1000	91/80/90/78/75/69/65/58	83/76/90/76/73/66/65/59	MECH ROOM 110	1ST FLOOR SOUTH	1-12
AH21	2,580	160	2,735	2.5/4.09	2,580	76.1/61.8	52.8/51.5	76.12	64.9	6/9	0.57	460	MERV 8	12.7	42/54	2.7	2210	4.0/2.5	240 V	3	60 Hz	MOTORIZED IMPELLER	6	TRANE	UCCCAR06	1000	93/82/93/81/77/71/67/60	83/75/86/76/74/67/66/60	MECH ROOM 212	2ND FLOOR NORTH	1-11
AH22	2,175	170	2,375	2.5/3.85	2,175	76.5/62.4	52.8/51.6	67.9	55.7	6/9	0.45	390	MERV 8	11.3	42/54	2.3	2015	4.0/1.7	240 V	3	60 Hz	MOTORIZED IMPELLER	6	TRANE	UCCCAR06	1000	90/79/90/78/74/68/64/57	82/75/90/75/73/66/64/58	MECH ROOM 212	2ND FLOOR SOUTH	1-11

NOTES:

1. PROVIDE POSITIVE SLOPED (IN MIN OF TWO PLANES) STAINLESS STEEL DRAIN PAN WITH DRAIN OUTLET IN BOTTOM OF PAN. DRAIN PAN SHALL EXTEND 8" BEYOND COOLING COIL OR FAN SECTIONS SHALL HAVE DRAIN PANS. COIL CASING, INCLUDING CROSS BRACING, SHALL BE STAINLESS STEEL CONSTRUCTION. PROVIDE RED BRASS (NON-FERROUS) COIL CONNECTIONS, VENTS AND DRAINS AND EXTEND THROUGH THE COIL CASING.
2. PROVIDE DOUBLE WALL UNIT, MINIMUM 2", THROUGHOUT UNIT (INCLUDING BELOW DRAIN PAN) WITH A SOLID INNER LINER. UNIT SHALL HAVE FACTORY FABRICATED DOUBLE WALL FILTER PLENUM MIXING BOX. PROVIDE FULL SIZED HINGED ACCESS DOORS AT PLENUM SECTION, FILTER SECTION, COIL SECTION(S), AND FAN SECTION. BOTH HEATING AND COOLING COILS SHALL BE ACCESSIBLE ON THE UPSTREAM AND DOWNSTREAM SIDE.
3. PROVIDE PREMIUM EFFICIENCY MOTORS. SEE SPECIFICATIONS.
4. UNITS SHALL HAVE INTERNAL VIBRATION ISOLATORS WITH 2" DEFLECTION. UNIT SHALL HAVE 1" NEOPRENE PADS BETWEEN THE BASE RAILS AND THE 4" HOUSEKEEPING PAD.
5. PROVIDE OVERSIZED FANS NOT TO EXCEED RADIATED SOUND POWER PER ASHRAE. PROVIDE REMOTE BEARING LUBRICATION LINES, EXTENDED TO JUST INSIDE THE ACCESS DOOR.
6. PROVIDE SINGLE HEADER ON AFTER FILTERS FOR EFFECTIVE SEALING.
7. PROVIDE MAGNAHELIC DIFFERENTIAL PRESSURE GAGE AT FILTER.
8. FAN RPM AND OUTLET VELOCITY ARE MAXIMUM. PROVIDE OVERSIZED FANS NOT TO EXCEED VALUES INDICATED. PROVIDE ADJUSTABLE PITCH SHEAVE ON FAN MOTORS 10 HP AND LESS.
9. CHILLED WATER COILS SHALL NOT EXCEED 11 FINS PER INCH.
10. VAV SYSTEM WITH VARIABLE FREQUENCY DRIVE FOR FAN CONTROL. SEE VARIABLE FREQUENCY DRIVE SCHEDULE.
11. BASE RAIL HEIGHT INDICATED IS FOR BASIS OF DESIGN UNIT. OTHER MANUFACTURER'S MAY REQUIRE ADDITIONAL BASE RAIL HEIGHT ALLOWANCE FOR THE CONDENSATE DRAIN TRAP WHERE THE DRAIN LINE PENETRATES THE BASE RAIL INSTEAD OF THE UNIT'S SIDE CASING.
12. PROVIDE CONDENSATE PUMP.

FAN SCHEDULE

MARK	SERVES	AIR QUANTITY (CFM)	DRIVE	TIP SPEED	MOTOR RPM	FAN SPEED (RPM)	STATIC PRESSURE (IN H2O)	ELECTRICAL			FAN MOTOR (BHP/HP)	SONES	MANUFACTURER	MODEL	MOUNTING LOCATION	WEIGHT (LBS)	INTERLOCK	NOTES
								VOLTAGE	PHASE	HZ								
EF11	TOILETS	460 CFM	BELT	2,340	1725	1,555	0.375	115 V	1	60 Hz	0.12/0.25	7.4	GREENHECK	BCF-106-4	ABV CLG	78	AH12	1,2,3,5
EF12	STORAGE 119	50 CFM	DIRECT	-	675	675	0.25	115 V	1	60 Hz	16 WATTS	1.1	GREENHECK	SP-B70	CLG	9	AH11	1,2,3,4,5
EF13	ADA TOILET 118	50 CFM	DIRECT	-	675	675	0.25	115 V	1	60 Hz	16 WATTS	1.1	GREENHECK	SP-B70	CLG	9	AH11	1,2,3,4,5
EF14	ELEC 111	50 CFM	DIRECT	-	675	675	0.25	115 V	1	60 Hz	16 WATTS	1.1	GREENHECK	SP-B70	CLG	9	AH11	1,2,3,4,5
EF21	ADA TOILET 214	50 CFM	DIRECT	-	675	675	0.25	115 V	1	60 Hz	16 WATTS	1.1	GREENHECK	SP-B70	CLG	9	AH21	1,2,3,4,5
EF22	TOILET 211	50 CFM	DIRECT	-	675	675	0.25	115 V	1	60 Hz	16 WATTS	1.1	GREENHECK	SP-B70	CLG	9	AH22	1,2,3,4,5

NOTES:

1. COORDINATE WITH ELECTRICAL DRAWINGS.
2. PROVIDE WITH FACTORY DISCONNECT.
3. INTERLOCK VIA DDC SYSTEM. PROVIDE ALL REQUIRED CONTACTS AND RELAYS.
4. PROVIDE WITH WEATHERPROOF WALL CAP.
5. PROVIDE BACKDRAFT DAMPER.

CONTINUOUS = FAN SHALL RUN CONTINUOUSLY DURING OCCUPANCY.

DUST COLLECTOR SCHEDULE

MARK		DC1	
FAN TYPE		BI	
FAN DIA	IN.	18	
FILTER	NO.	6	
FILTER AREA EACH	SQ. FT.	206	
AIRFLOW	CFM	3,600	
TOTAL STATIC PRESSURE	IN. WG.	12	
MOTOR	HP	15	
SPEED	RPM	3,450	
ELECTRICAL	VOLT/ø/60	240/3/60	
WEIGHT	LBS.	1,365	
MANUFACTURER	-	MONOXIVENT	
MODEL	-	3RC6	
NOTES	-	1,2,3	

NOTES:

1. PROVIDE WITH 5.0 SCFM @ 100 PSIG OF COMPRESSED AIR AND FILTER REGULATOR.
2. HORIZONTAL INTAKE WITH VERTICAL DISCHARGE.
3. PRIMARY MATERIAL OF CONSTRUCTION IS HOT ROLLED STEEL WITH 2 COAT FINISH.
4. ABSOLUTLY NO ALUMINUM DUST OR ALUMINUM PARTICALES SHALL BE COLLECTED BY THIS SYSTEM.

WELDING EXHAUST SCHEDULE

MARK		WE1	
FILTER MEDIA	SQ FT	452	
AIRFLOW	CFM	900	
EXTRACTOR ARM DIA	IN.	10	
SOUND LEVEL	dBA	77 AT 5 FT	
MOTOR	HP	3	
SPEED	RPM	3450	
ELECTRICAL	VOLT/ø/60	240/1/60	
WEIGHT	LBS.	660	
MANUFACTURER	-	MILLER	
MODEL	-	FILTAIR 5 951639	
NOTES	-	1	

NOTES:

1. PROTABLE WELDING FUME EXHAUST.

MINI-SPLIT SCHEDULE

MARK	AREA SERVED	COOLING CAPACITY (BTUH)	AIR QUANTITY (HIGH) (CFM)	ENERY EFFICIENCY (SEER)	REFRIGERANT	MANUFACTURER	INDOOR UNIT		CU/HP OUTDOOR UNIT		ELECTRICAL				NOTES
							MODEL	DIMENSIONS (WxHxD)	MODEL	DIMENSIONS (WxHxD)	VOLTAGE	PHASE	MCA (AMPS)	MOCP (AMPS)	
MS1	SCADA SERVER	36,000	920	18.8	R-410A	MITSUBISHI	PKA-A36KA7	46x15x19	PUY-A36NKA7	42x14x53	240 V	1	25 A	30 A	1-6

NOTES

1. INDOOR UNIT: DUCTLESS SPLIT AIR CONDITIONING UNIT WITH REMOVABLE FRONT GRILLE, WASHABLE REUSABLE FILTERS, AUTO-RESTART. PROVIDE POWER SUPPLY CORD AND ACCESSORIES FOR WALL MOUNTING, WIRELESS REMOTE CONTROL WITH 24 HOUR TIME, FOUR SPEED FAN CONTROL, AUTO-COOL-DRY-FAN MODE. UL LISTED.
2. OUTDOOR UNIT SHALL BE SECURED TO THE PAD WITH HOT DOPPED FALVANIZED HARDWARE. ALL REFRIGERANT LINES SHALL BE RIGIDULY SUPPORTED. CONCEAL LINES AS MUCH AS POSSIBLE
3. INSULATE ALL SUCTION LINES.
4. SHALL BE ON EMERGENCY GENERATOR.
5. PROVIDE WITH INLINE CONDENSATE PUMP POWERED THROUGH THE AIR HANDLER.
6. PROVIDE WALL MOUNTING BRACKET.

COMPONENTS FOR MINI-SPLIT SYSTEM INSTALLATION

1. INTERIOR LINESET COVER: ALL LINESETS, WHICH ARE INSTALLED INSIDE THE BUILDING, SHALL BE ENCLOSED IN AN EXTRUDED PVC LINESET COVER SYSTEM, WHICH SHALL CONSIST OF COMPONENTS THAT DISASSEMBLE EASILY TO PROVIDE RAPID INSTALLATION AND FACILITATE FUTURE ACCESS FOR TESTING AND/OR REPAIRS AND SHALL HAVE NO EXPOSED FIXINGS OR CLOSURE MECHANISMS. THEY SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. LINESET COVERS FABRICATED FROM FOLDED METAL OR FROM PLASTIC OR METAL DOWNSPOUTS ARE NOT ACCEPTABLE. ENCLOSURE SYSTEM SHALL BE SLIMDUCT MD SERIES OR EQUIVALENT WITH COMPATIBLE AND APPROPRIATE ELBOWS, COUPLERS, CEILING TRIM, WALL INLETS, AND END COVERS.
2. EXTERIOR LINESET COVER: ALL LINESETS, WHICH ARE INSTALLED OUTSIDE THE BUILDING, SHALL BE ENCLOSED IN AN EXTRUDED PVC LINESET ENCLOSURE SYSTEM, WHICH SHALL CONSIST OF COMPONENTS THAT DISASSEMBLE EASILY TO PROVIDE RAPID INSTALLATION AND FACILITATE FUTURE ACCESS FOR TESTING AND/OR REPAIRS. ALL CLOSURE SCREWS AND ANY EXPOSED FIXING HARDWARE SHALL BE STAINLESS STEEL. NO EXTERNAL FIXINGS SHALL BE VISIBLE EXCEPT IN THE CASE OF SPECIFIC COMPONENTS THAT CANNOT BE FIXED INTERNALLY. ALL LINESET COVERS SHALL BE CORRECTLY SIZED TO ACCOMMODATE THE LINESET ITSELF AND ANY DRAIN HOSE OR ELECTRICAL WIRING WHICH MAY ALSO BE ENCLOSED. LINESET COVERS SHALL BE APPROPRIATELY COLORED TO FIT IN WITH BUILDING ARCHITECTURE AND SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. LINESET COVERS FABRICATED FROM FOLDED METAL OR FROM PLASTIC OR METAL DOWNSPOUTS ARE NOT ACCEPTABLE LINESET COVERS SHALL BE SLIMDUCT SD SERIES OR EQUIVALENT WITH COMPATIBLE AND APPROPRIATE ELBOWS, COUPLERS, WALL INLETS, AND END COVERS. ALL ASSOCIATED ANCHORAGE AND CONNECTING HARDWARE SHALL BE EITHER STAINLESS STEEL OR HOT DIPPED GALVANIZED.
3. CONDENSATE DRAIN HOSE: CONDENSATE DRAIN HOSE SHALL BE ADEQUATELY SIZED AND INSTALLED WITH SUFFICIENT SLOPE TO ENSURE GRAVITY FLOW OF CONDENSATE WATER TO OUTSIDE THE BUILDING. WHERE GRAVITY FLOW IS NOT POSSIBLE, A SUITABLY SIZED PUMP SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. ALL DRAIN HOSE SHALL BE FLEXIBLE AND SHALL BE INSTALLED WITHOUT KINKS OR RESTRICTIONS, WHICH COULD INHIBIT THE FREE FLOW OF CONDENSATE WATER. INSULATED CONDENSATE DRAIN HOSE SHALL BE SLIMDUCT MODEL DSH-14 OR EQUIVALENT.
4. CONDENSER MOUNTING BRACKETS: ALL MINISPLIT CONDENSERS SHALL BE FIRMLY MOUNTED IN AN AREA, WHICH IS EASILY ACCESSIBLE FOR PERIODIC MAINTENANCE AND/OR REPAIRS. CONDENSER BRACKETS SHALL BE PRESSED STEEL, GALVANIZED AND POWDER COATED. ALL BOLTS AND FIXINGS SHALL BE RUSTPROOF AND ALL BRACKETS SHALL BE FITTED WITH RUBBER ANTI VIBRATION MOUNTINGS UNDERNEATH THE CONDENSER. BRACKETS SHALL BE CORRECTLY SIZED FOR PHYSICAL DIMENSIONS OF CONDENSER AND WEIGHT CAPABILITY AND SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUITABILITY OF BOTH MOUNTING SURFACE AND FIXING BOLTS TO HANDLE COMBINED LOAD SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO INSTALLATION.
   A. WALL MOUNTED: CONDENSERS, WHICH MUST BE HUNG FROM BUILDING SURFACES, SHALL BE MOUNTED ON A PURPOSE MADE BRACKET DESIGNED SPECIFICALLY FOR THE TYPE OF MOUNT REQUIRED EQUIVALENT TO SLIMDUCT MODEL C-KU2.
5. CONDENSATE PUMP: WHERE CONDENSATE DISCHARGE TERMINATES ABOVE AC UNIT ELEVATION, A CONDENSATE DRAIN PUMP EQUIVALENT TO 115 VOLT/60 HZ., 20 WATT EZ-TRAP/ASPEN PUMPS MODEL ASP-ML-115 WITH INSTALLATION KIT PROVIDED. THE INSTALLATION KIT SHALL INCLUDE PUMP/CABLE ASSEMBLY, PVC ELBOW AND LINESET COVER, CEILING FLASHING, INLET AND DISCHARGE HOSE, WALLPLUGS AND SCREWS.
   A. THE PUMP SHALL BE SELF PRIMING AND SELF LEVELING, OPERATES AUTOMATICALLY ON WATER RISE, HAS A CAPACITY OF 0.8 GPH. @ 26 FOOT HEAD, OPERATES EXTREMELY QUIETLY AT 23 DB(A) AND SHALL BE RATED FOR MINISPLITS UP TO 30,000 BTU/HR. THE PUMP SHALL BE THERMALLY PROTECTED, POTTED FOR WATER RESISTANCE, INCLUDES WATERPROOF TERMINATION OF ELECTRICAL AND ALARM WIRING AND IS UL LISTED. THE PUMP AND WATER LEVEL SENSOR SHALL BE CONSOLIDATED INTO ONE SINGLE UNIT IN WHICH THE PUMP IS MOUNTED DIRECTLY ABOVE THE SENSOR HOUSING/RESERVOIR WHICH IS TRANSPARENT TO FACILITATE INSPECTION. THE SENSOR HOUSING/RESERVOIR DISASSEMBLES EASILY FROM THE PUMP TO FACILITATE CLEANING AND MAINTENANCE AND INCLUDES A STAINLESS STEEL MESH FILTER WHICH EASILY REMOVABLE FOR CLEANING. IT ALSO INCLUDES VOLT FREE NO & NC CONTACTS RATED AT 5 AMP INDUCTIVE AND 8 AMP RESISTIVE AT LINE VOLTAGE. THESE CONTACTS WILL ENERGIZE THE PUMP ON RISE OF WATER LEVEL, HOWEVER, IF THE WATER LEVEL CONTINUES TO RISE BECAUSE WATER IS NOT BEING EVACUATED FOR ANY REASON, THEY WILL CUT POWER TO PUMP AND EVAPORATOR.
   B. THE PUMP SHALL BE LOCATED AT THE FIRST LINESET COVER ELBOW FROM THE AC UNIT. THE ELBOW AND LINESET COVER BOTH HAVE REMOVABLE COVERS WHICH PROVIDE EASY ACCESS FOR INSTALLATION, CHECKING AND MAINTENANCE OF THE PUMP UNIT AND/OR THE DRAIN HOSES, WIRING OR LINESETS.

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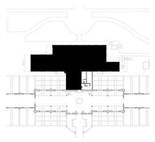
Harry W. Portellos
P.E. 61597

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE



Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
3	REV 3	12.16.19
4	Permit REV 4	02.24.20

Sheet Information

HVAC SCHEDULES

M201

VARIABLE FREQUENCY DRIVE SCHEDULE

MARK		VFDAH11	VFDAH12	VFDAH21	VFDAH22
SERVICE	-	AH11	AH12	AH21	AH22
MOTOR	HP	8	4	4	4
OPEN PROTOCOL	-	BACNET	BACNET	BACNET	BACNET
ELECTRICAL	VOLT/ø/60	240/3/60	240/3/60	240/3/60	240/3/60
MCA	AMPS	33	17.5	17.5	17.5
LOCATION	-	MECH 110	MECH 110	MECH 212	MECH 212
ENCLOSURE	-	NEMA4	NEMA4	NEMA4	NEMA4
DIMENSIONS	H"xW"xD"	40x31x18	40x31x18	40x31x18	40x31x18
MANUFACTURER	-	ALLEN BRADLEY	ALLEN BRADLEY	ALLEN BRADLEY	ALLEN BRADLEY
MODEL	-	23C-X033E10BNNNANN-LR-10HP	23C-X017E10BNNNANN-LR-5HP	23C-X017E10BNNNANN-LR-5HP	23C-X017E10BNNNANN-LR-5HP
NOTES	-	1,2,3,4,5,6,7	1,2,3,4,5,6,7	1,2,3,4,5,6,7	1,2,3,4,5,6,7

NOTES:

1. PROVIDE FULL SPEED MANUAL BYPASS WITH BOTH AN INTERLOCKING MAIN DISCONNECT SWITCH AND A DRIVE DISCONNECT SWITCH.
2. PROVIDE INTEGRAL FACTORY WIRED DC LINK REACTORS.
3. PROVIDE INTEGRAL FACTORY WIRED EMI FILTERS.
4. PROVIDE REMOTE START/STOP CAPABILITY IN BOTH DRIVE AND BYPASS MODE.
5. DRIVE AND BYPASS SHALL BE RATED AT 100,000 AMP MAXIMUM INPUT INTERRUPTING CAPABILITY, NO EXCEPTIONS.
6. DIVISION 23 SHALL FURNISH THE DRIVE. DRIVE INSTALLED BY DIVISION 26. SEE DIVISION 23 AND 26 SPECIFICATIONS.
7. COORDINATE DDC SYSTEM PROTOCAL AND INTERFACE WITH THE CONTROLS CONTRACTOR.

AIR COOLED CHILLER SCHEDULE

MARK		CH1	CH1(FUTURE)	CH2	CH2(FUTURE)
REFRIGERANT TYPE	-	R-410A	R-410A	R-410A	R-410A
NOMINAL CAPACITY (ARI)	TONS	30	150	30	150
OPERATING CAPACITY	TONS	27.9	133	27.9	133
AMBIENT TEMP	°F	95	95	95	95
EVAPORATOR WATER FLOW	GPM	65.0	266	65.0	266
PRESSURE DROP	FT. HEAD	6.6	6.6	6.6	6.6
ENTERING / LEAVING WATER TEMP.	°F/°F	54/42	54/42	54/42	54/42
# FANS/ HP EACH	-	3/1.5	15/1.5	3/1.5	15/1.5
UNIT TOTAL EER @ DESIGN	-	10.1	10.1	10.1	10.1
NO. OF COMPRESSORS	#	2	10	2	10
INDEPENDENT REFRIG. CIRCUITS (MIN.)	#	2	10	2	10
COMPRESSOR POWER INPUT	KW/TON	1.191	1.191	1.191	1.191
ELECTRICAL	VOLT/ø/60	240/60/3	240/60/3	240/60/3	240/60/3
MCA / MOCPD	AMPS	190/200	700/800	190/200	700/800
PERFORMANCE PER ARI STANDARD 550					
IPLV	EER	13.702	13.702	13.702	13.702
100%	EER	10.304	10.304	10.304	10.304
75%	EER	13.061	13.061	13.061	13.061
50%	EER	14.386	14.386	14.386	
25%	EER	13.664	13.664	13.664	13.664
SOUND POWER LEVELS (OCTAVES)	dB (63 THRU 8000)				
SOUND PRESSURE LEVELS (OCTAVES)	dB (63 THRU 8000)				
OPERATING WEIGHT	LBS	2,500	12,500	2,500	12,500
MAXIMUM DIMENSIONS	L"xW"xH"	96"x38"x89"	96"x190"x89"	96"x38"x89"	96"x190"x89"
MANUFACTURER	-	ARCTI CHILL	ARCTI CHILL	ARCTI CHILL	ARCTI CHILL
MODEL	-	PACVMV0300D3	PACVMV0300D3	PACVMV0300D3	PACVMV0300D3
NOTES	-	1-19	1-19	1-19	1-19

NOTES:

1. UNITS SHALL BE MADE IN THE USA.
2. CHILLER PERFORMANCE SHALL BE RATED IN ACCORDANCE WITH AHRI.
3. PROVIDE WITH FACTORY INSTALLED IFM EFECTOR THERMAL DISPERSION TYPE FLOW SWITCHES, SERVICE ISOLATION VALVE AND STRAINER FOR EACH EVAPORATOR. PADDLE TYPE FLOW SWITCHES ARE NOT ACCEPTABLE.
4. SERVICE TO EACH MODULE SHALL BE ABLE TO BE PERFORMED WHILE OTHER MODULES REMAIN IN OPERATION.
5. EACH MODULE SHALL CONSIST OF TWO SCROLL COMPRESSORS ON INDIVIDUAL CIRCTUITS WITH COMPRESSOR WRAPS. THE LEAD COMPRESSOR SHALL BE A DIGITAL SCROLL.
6. PROVIDE WITH A FACTORY MOUNTED DISCONNECT. POWER DISTRIBUTION PANEL FOR SINGLE POINT POWER FOR 5 TOTAL MODULES AND CONTAINNG A CIRCUIT BREAKER FOR EACH MODULE FOR BRANCH CIRCUIT PROTECTION.
7. CHILLER MUST BE CAPABLE OF VARIABLE PRIMARY FLOW THROUGH THE EVAPORATOR.
8. PROVIDE FACTORY MOUNTED "ARCHITECTURALLY PLEASING" GUARD PANELS. PANEL LOUVER SHALL COVER CONDENSER, EVAPORATOR AND COMPRESSOR SECTIONS SO ALL ARE HIDDEN FROM SIGHT. WIRE SCREENS OR WIRE MESH WILL NOT BE ALLOWED.
9. PROVIDE VARIABLE SPEED ECM LOW NOISE CONDENSER FANS.
10. A CONTROL POWER TRANSFORMER SHALL BE FACTORY INSTALLED AND FACTORY WIRED TO PROVIDE UNIT CONTROL POWER. BACNET CONTROLS INTERFACE AND MICROPROCESSOR CONTROLS. UNIT TO BE CONTROLLED TO DISCHARGE WATER TEMPERATURE. CONTROLLING THE CHILLER BASED ON RETURN WATER TEMPERATURE IS NOT ACCEPTABLE.
11. PROVIDE DUAL LEAD/LAG PUMPS (ONE REDUNDANT) SIZED FOR BOTH CURRENT AND FUTURE DUTY AND 150 GALLON BUFFER TANK IN PUMPING MODULE.
12. PROVIDE A CONDENSER COIL AND INTERNAL COMPONENT COATING WITH A MINIMUM OF 5,000 HOURS IN THE ASTM B-117 SALT SPRAY TEST. COATING MAY NOT DECREASE HEAT TRANSFER BY MORE THAN 1%. ADSIL, LUVATA AND FACTORY APPLIED COMPLETECOAT ARE APPROVED. BAKE PHENOLIC COATINGS ARE NOT ACCEPTABLE.
13. PROVIDE STAINLESS STEEL UNIT CASING. AND FRAME SUPPORTS.
14. PROVIDE OWNER TRAINING FOR TWO MEMBERS OF THE OWNERS STAFF TO ATTEND A TRAINING SESSION AT THE FACTORY. PRICE TO INCLUDE ALL TRAVEL, LODGING AND MEALS.
15. PROVIDE START UP ASSISTANCE PERFORMED BY A FACTORY AUTHORIZED TECHNICIAN.
16. PROVIDE ONE YEAR LABOR AND 5 YEAR UNIT PARTS WARRANTY ON THE ENTIRE CHILLER.
17. PROVIDE FACTORY WITNESS TESTING FOR THREE OWNER REPRESENTATIVES. PRICE TO INCLUDE ALL TRAVEL, LODGING AND MEALS.
18. CONTRACTOR MAY PROVIDE AN ALTERNATE MANUFACTURER AS A SEPARATE LINE ITEM ON THE BID GRANTED THAT THE ALTERNATE MANUFACTURER MEETS THE ENTIRITY OF THE SPECIFICATION. BASE BID SHALL BE BASIS OF DESIGN.
19. VFD'S SHALL BE MANUFACTURED BY ALLEN BRADLEY.

VARIABLE AIR VOLUME BOX SCHEDULE WITH ELECTRIC HEAT

MARK	MAX. COOLING CFM	MIN. COOLING CFM	MIN. HEATING CFM	TERMINAL SIZE	SOUND (NC)		HEAT			ELECTRICAL			MANUFACTURER	MODEL	NOTES
					DISCH	RAD	BTUH	KW	STEPS	VOLTAGE	PHASE	HZ			
VV111	985 CFM	330	330	10	73/69/62/53/45/46	64/58/51/45/39/39	14,300	4.0	SCR	240 V	1	60 Hz	TRANE	VCEF10	1-6
VV112	180 CFM	75	75	04	65/55/48/42/30/30	56/51/38/33/26/24	3,200	1.0	SCR	120 V	1	60 Hz	TRANE	VCEF04	1-6
VV113	185 CFM	80	80	04	65/55/48/42/30/30	56/51/38/33/26/24	3,400	1.0	SCR	120 V	1	60 Hz	TRANE	VCEF04	1-6
VV114	325 CFM	155	155	06	67/61/54/48/36/36	60/56/45/39/32/28	6,700	2.0	SCR	120 V	1	60 Hz	TRANE	VCEF06	1-6
VV115	930 CFM	460	460	10	72/68/61/52/44/46	63/58/51/44/39/39	19,900	6.0	SCR	240 V	1	60 Hz	TRANE	VCEF10	1-6
VV116	280 CFM	85	85	05	66/61/53/48/36/36	59/55/45/39/32/28	3,600	1.0	SCR	120 V	1	60 Hz	TRANE	VCEF05	1-6
VV117	345 CFM	115	115	06	67/61/54/48/36/36	60/56/46/40/32/28	5,000	1.5	SCR	120 V	1	60 Hz	TRANE	VCEF06	1-6
VV118	880 CFM	235	235	10	71/68/61/52/44/46	62/57/51/44/39/38	10,100	3.0	SCR	120 V	1	60 Hz	TRANE	VCEF10	1-6
VV121	1355 CFM	550	550	12	73/65/61/56/48/47	64/57/49/44/39/37	23,800	7.0	SCR	240 V	1	60 Hz	TRANE	VCEF12	1-6
VV122	80 CFM	75	75	04	59/49/41/34/21/25	51/45/34/27/22/18	3,200	1.0	SCR	120 V	1	60 Hz	TRANE	VCEF04	1-6
VV123	205 CFM	115	115	05	66/56/49/43/31/31	57/51/39/34/26/24	5,100	1.5	SCR	120 V	1	60 Hz	TRANE	VCEF05	1-6
VV124	630 CFM	340	340	08	73/65/60/53/42/39	62/56/48/45/38/35	14,700	4.5	SCR	240 V	1	60 Hz	TRANE	VCEF08	1-6
VV211	780 CFM	295	295	08	70/67/60/51/43/45	61/56/50/43/38/38	12,600	3.5	SCR	120 V	1	60 Hz	TRANE	VCEF08	1-6
VV212	480 CFM	210	210	08	71/64/57/51/40/37	59/54/45/42/36/32	9,100	2.5	SCR	120 V	1	60 Hz	TRANE	VCEF08	1-6
VV213	480 CFM	200	200	08	71/64/57/51/40/37	59/54/45/42/36/32	8,500	2.5	SCR	120 V	1	60 Hz	TRANE	VCEF08	1-6
VV214	995 CFM	420	420	10	73/69/62/53/45/47	64/58/52/45/40/39	18,100	5.5	SCR	240 V	1	60 Hz	TRANE	VCEF10	1-6
VV221	470 CFM	190	190	08	70/63/57/51/40/37	59/54/45/42/36/32	8,200	2.5	SCR	120 V	1	60 Hz	TRANE	VCEF08	1-6
VV222	640 CFM	305	305	08	73/65/60/53/42/39	62/57/48/45/38/35	13,200	4.0	SCR	240 V	1	60 Hz	TRANE	VCEF08	1-6
VV223	910 CFM	305	305	10	72/68/61/52/44/46	63/57/51/44/39/39	13,200	4.0	SCR	240 V	1	60 Hz	TRANE	VCEF10	1-6
VV224	355 CFM	90	90	06	67/62/54/48/36/36	60/56/46/40/33/28	3,900	1.0	SCR	120 V	1	60 Hz	TRANE	VCEF06	1-6

NOTES:

1. DDC CONTROLS BY CONTROLS CONTRACTOR.
2. PROVIDE REINFORCED NON-POROUS FOIL LAMINATE FOR MICROBIAL PROTECTION. LINER SHALL BE SECURED BY STEEL Z CLIPS OR OVERLAPPING PANEL CONSTRUCTION TO SEAL ALL EDGES. THE INSULATION SHALL BE RIGID COMPRESSED GLASS FIBERS, FOUR POUND DENSITY, WITH R3.5 R-VALUE, AND SHALL COMPLY WITH ASTM C665, UL 181, AND NFPA90A.
3. CONTRACTOR SHALL VERIFY PROPER CLEARANCES IN FRONT OF CONTROL HEATER PANELS. PROVIDE WITH INTEGRAL FACTORY MOUNTED SAFETY DISCONNECT, PRIMARY FUSING AND ALL REQUIRED CONTACTS AND RELAYS. COORDINATE WITH ELECTRICAL. PROVIDE FACTORY WIRED CONTROL TRANSFORMER. VAV TERMINAL SHALL HAVE SINGLE POINT POWER CONNECTION.
4. PROVIDE APPROPRIATE DIFFERENTIAL PRESSURE SWITCH TO PROPERLY CONTROL THE HEATER. THE EQUIPMENT SUPPLIER SHALL REVIEW THE DRAWINGS PRIOR TO ORDERING TO ASCERTAIN DUCT PRESSURES.
5. ALL PERFORMANCE DATA SHALL BE BASED ON TESTS CONDUCTED IN ACCORDANCE WITH ASHRAE 130-2008 AND AHRI 880-2008. ALL NC LEVELS DETERMINED USING AHRI 8855-2008, APPENDIX E RATED WITH 1" WG PRESSURE AT THE TERMINAL INLET.
6. PROVIDE MAGNETIC HEATER CONTACTORS.

AIR DISTRIBUTION DEVICE SCHEDULE

MARK		CD1	RR1	EG1	SS1	SR1	XG1	LD1	LV1
NECK SIZE	INCH	-	22x22	-	-	-	-	THREE 1/2" SLOTS	ANSI/AMCA 540 & 550 LISTED AND FL PRODUCT APPROVAL
MODULE/FACE SIZE	INCH	24x24/24x24	24x24/23x23	-/-	-/-	-/-	-/-	4x48	
MANUFACTURER	-	PRICE	PRICE	PRICE	PRICE	PRICE	PRICE	TITUS	RUSKIN
MODEL NUMBER	-	AMCD	APDDR	80	620	530	80	ML-37-NT	EME6625D
MANUFACTURER	-	J&J	TITUS	TITUS	TITUS	TITUS	TITUS	-	-
MODEL NUMBER	-	AL1444-33-TR	PAR-AA	50F	300FS	350RL	50F	-	-
CONSTRUCTION	-	ALUMINUM	ALUMINUM	ALUMINUM	ALUMINUM	STEEL	ALUMINUM	ALUMINUM	ALUMINUM
NOTES	-	1, 2, 4	1, 4, 6	1, 4, 6, 7	4	1, 4, 5	4, 6, 7	3, 9	3, 4, 8

NOTES:

1. NECK SIZE OF DEVICE IS EQUAL TO THE DUCT SIZE INDICATED ON THE DRAWING.
2. PROVIDE WITH SQUARE TO ROUND ADAPTER. REFER TO PLANS FOR SIZE.
3. COORDINATE COLOR AND FINISH TEXTURE BY SAMPLE SUBMITTAL TO ARCHITECT.
4. SEE PLANS FOR SIZE.
5. WHERE FIRE DAMPER IS INDICATED TO BE ADJACENT TO THE GRILLE, THE GRILLE SHALL BE SECURED TO THE FIRE DAMPER IN ACCORDANCE WITH THE FIRE DAMPER MANUFACTURER'S WRITTEN INSTRUCTION. THE FIRE DAMPER FOR THIS APPLICATION SHALL BE EQUIVALENT TO RUSKIN IBD20G UL 555 CLASSIFIED DAMPER.
6. WHERE GRILLE IS INDICATED TO BE LOCATED IN LAY-IN CEILINGS, PROVIDE 24X24 LAY-IN PANEL BORDER, WHITE IN COLOR.
7. PAINT INSIDE OF DUCT & GRILLE FLAT BLACK WHEN CAN BE SEEN THROUGH FACE OF GRILLE.
8. LOUVER WIND-DRIVEN RAIN PERFORMANCE SHALL BE WITHOUT A DAMPER : 99.9% EFFECTIVE AT PREVENTING WATER PENETRATION THROUGH LOUVER WHEN AMCA-500L TESTED AT 50 MILES PER HOUR WIND WITH 8 INCHES PER HOUR RAINFALL AND 2,155 FEET PER MINUTE AIRFLOW THROUGH THE FREE AREA. PENETRATION CLASS 'A' WITH DISCHARGE CLASS (INTAKE) ' 3 ' IN ACCORDANCE WITH AMCA 500-L WIND DRIVEN RAIN TEST. THE LOUVER SHALL BE ANSI/AMCA 540 AND ANSI/AMCA 550 LISTED AND SHALL HAVE A FLORIDA PRODUCT APPROVAL.
9. LINEAR DIFFUSER WITH ADJUSTABLE PATTERN CONTROLLER. PROVIDE WITH INSULATED SUPPLY PLENUM WITH BOOT & END CAPS. REFER TO ARCHITECTURAL FOR ADDITIONAL DETAILS.

REMARKS:

A. REFER TO PLANS FOR EXACT LOCATIONS OF ALL DIFFUSERS, GRILLES AND REGISTERS.
B. COORDINATE FRAME STYLES WITH CEILING SYSTEM ACTUALLY FURNISHED.
C. NC VALUES FOR DIFFUSERS, GRILLES AND REGISTERS SHALL NOT EXCEED 35 WITH A ROOM ABSORPTION RATE OF 10DB IE.. 10-12 WATTS.
D. REFER TO THE MECHANICAL LEGEND FOR A DESCRIPTION OF THE AIR DEVICE MARK.
E. WHERE THE CONNECTING DUCT OR PLENUM CAN BE OBSERVED THROUGH THE FACE OF THE GRILLE, THE VISIBLE DUCTWORK SHALL BE PAINTED FLAT BLACK.
F. LOUVERS ARE PROVIDED UNDER A DIFFERENT DIVISION. REFER TO ARCHITECTURAL DRAWINGS.

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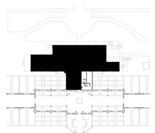


Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

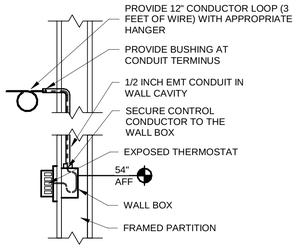
Revisions

No.	Description	Date
3	REV 3	12.16.19

Sheet Information

HVAC SCHEDULES

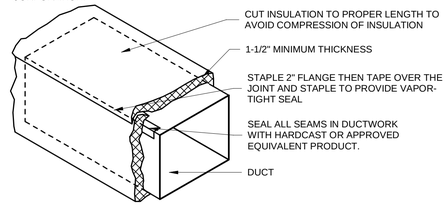
M202



ROOM THERMOSTAT IN GYPBOARD WALL

NOT TO SCALE

NOTE:
SECURE INSULATION WITH WELDED STICK PINS ON DUCTWORK 24" AND LARGER. ALL JOINTS SHALL BE FABRIC TAPED AND MASTIC COATED WITH #8 MASTIC BY RCD CORPORATION.



TYPICAL DUCT WRAPPING DETAIL

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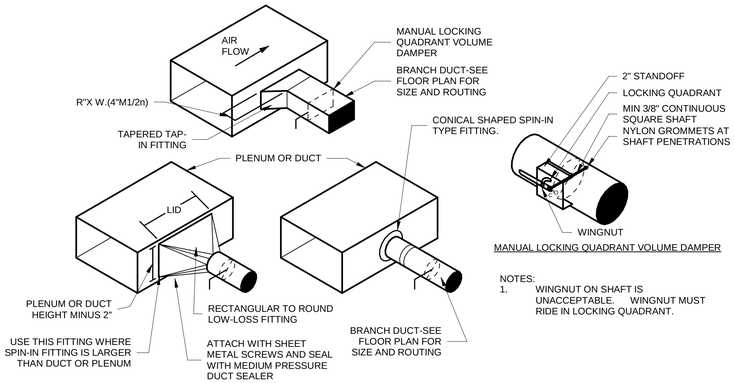


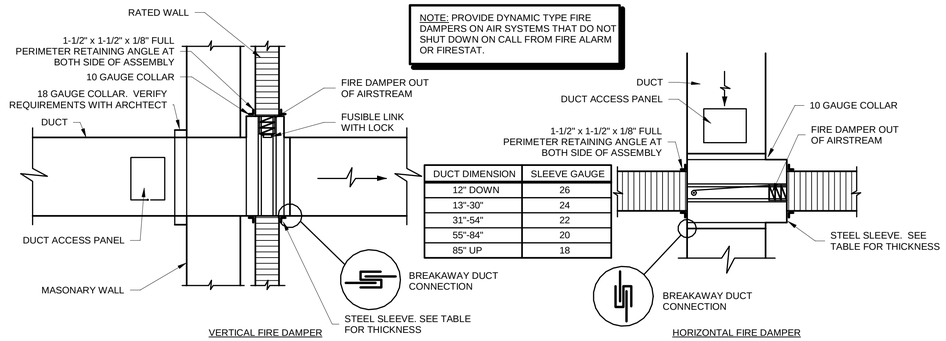
MANUAL LOCKING QUADRANT VOLUME DAMPER

NOTES:
1. WINGNUT ON SHAFT IS UNACCEPTABLE. WINGNUT MUST RIDE IN LOCKING QUADRANT.

BRANCH DUCT TAKE-OFF DETAIL

NOT TO SCALE

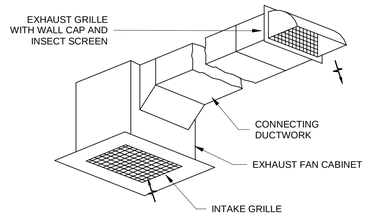
NOTES:
1. PROVIDE FITTING WITH 1" WIDE FLANGE WITH GASKET.
2. MUST MEET SMACNA GUAGE STANDARDS AND 2" W.G. STATIC PRESSSURE.
3. CONTINUOUS WELD LONGITUDINAL SEAM FOR NO LEAKAGE AT 2" W.G. STATIC PRESSURE.



DUCT DIMENSION	SLEEVE GAUGE
12" DOWN	26
13"-30"	24
31"-54"	22
55"-84"	20
85" UP	18

FIRE DAMPER DETAILS

NOT TO SCALE



CEILING EXHAUST FAN DETAIL

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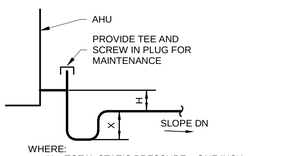
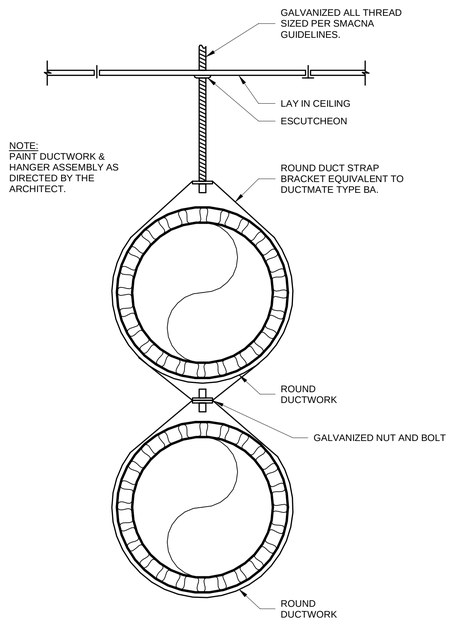


WHERE:
H = TOTAL STATIC PRESSURE + ONE INCH
X = H x 0.5

UNDER NEG. STATIC PRESS.

CONDENSATE DRAIN TRAP

NOT TO SCALE



EXPOSED DUCTWORK HANGER

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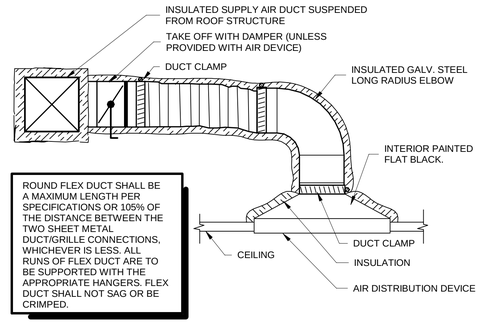
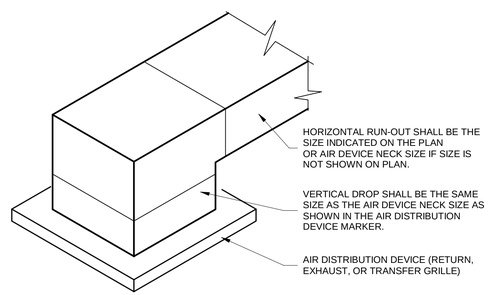


ROUND FLEX DUCT SHALL BE A MAXIMUM LENGTH PER SPECIFICATIONS OR 105% OF THE DISTANCE BETWEEN THE TWO SHEET METAL DUCT/GRILLE CONNECTIONS, WHICHEVER IS LESS. ALL RUNS OF FLEX DUCT ARE TO BE SUPPORTED WITH THE APPROPRIATE HANGERS. FLEX DUCT SHALL NOT SAG OR BE CRIMPED.

NOTES:
1. REFER TO THE AIR DISTRIBUTION DEVICE SCHEDULE FOR ADDITIONAL REQUIREMENTS.
2. REFER TO SPECIFICATIONS FOR MAXIMUM FLEXIBLE DUCT LENGTH.
3. SUSPEND AIR DEVICE FROM ABOVE, DO NOT SUPPORT FROM CEILING.
4. INTERIOR OF DEVICE TO BE PAINTED FLAT BLACK.

FLEXIBLE DUCT RUN-OUTS TO AIR DEVICE

NOT TO SCALE



RETURN, EXHAUST AND TRANSFER DUCT CONNECTIONS

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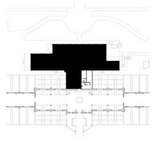

Project Information

City of Tampa

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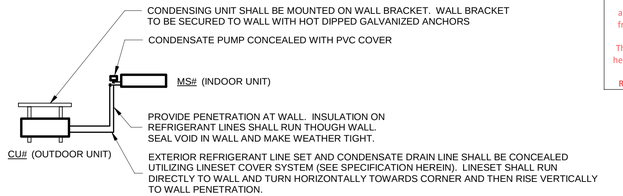
Sheet Information

HVAC DETAILS

M301



MINI-SPLIT SYSTEM INSTALLATION

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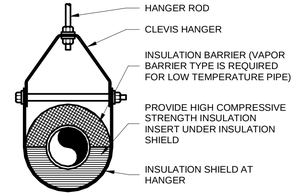
NOTE: REFER TO SCHEDULE FOR MOUNTING AND LINESET ACCESSORIES.



INSULATED PIPE HANGER SUPPORT

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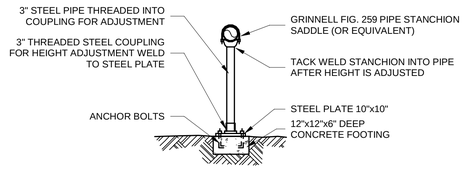

3

DUST COLLECTOR DUCT SUPPORT DETAIL

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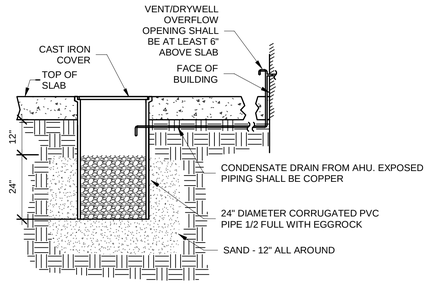

DRYWELL DETAIL

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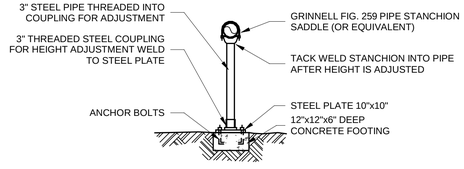

PIPE STANCHION DETAIL

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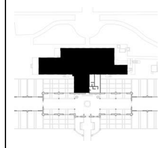

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Sheet Information

HVAC DETAILS

M302

TEMPERATURE CONTROLS POINT SCHEDULE

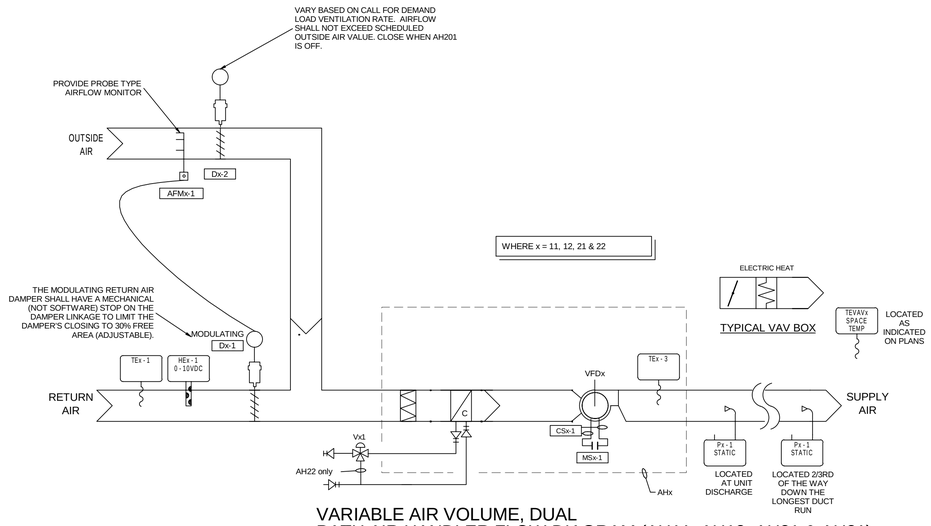
SYSTEM	HARDWARE				SOFTWARE		
	OUTPUT		INPUT		ALARMS		DDC SYSTEM FUNCTIONS
POINT DESCRIPTION	DIGITAL	ANALOG	DIGITAL	ANALOG	DIGITAL	ANALOG	

POINT DESCRIPTION	CONTROL RELAY	SOLENOID VLV.	CONTACTOR (GAS REQ'D.)	I/P TRANSDUCER	PNEUMATIC TRANSDUCER	ELECTRICAL TRANSDUCER	4-20 MA MODULE	0-10 VDC MODULE	PRESSURE SWITCH/STATUS	FLOW SWITCH/STATUS	SMOKE CLOSURE	AUX. VLV. CONTACT	KW / KWH CONTACT	CURRENT RELAY	TEMPERATURE	RELATIVE HUMIDITY	PRESSURE SENSOR	POSITION	CO2	OPEN	CURRENT SENSOR	EQUIPMENT STATUS	MAINTENANCE	HIGH LIMIT	LOW LIMIT	RUN TIME	SCHEDULED START/STOP	OPTIMUM START/STOP	DUTY CYCLING	DEMAND METERING	ECONOMIZER TRACK	DEMAND LOAD VENTILATION	TEMPERATURE COMPENSATION	ENTHALPY	HOT/COLD DECK RESET	BOILER PLANT RESET	STEAM BOILER OPTIMIZATION	HW RESET	HW WATER FLOW OPTIMIZATION	CHILLED WATER RESET	CHILLER OPTIMIZATION	CONDENSER WATER RESET	CHILLED WATER DEMAND LIMIT	VAV CONTROL	LABORATORY CONTROL	NOTES
SINGLE PATH VAV SYSTEM (AHx)																																																
AHx RETURN AIR TEMP (TEx-1)															X									80°F	65°F																							3
AHx RETURN HUMIDITY (HEx-1)															X	X								55%																								
AHx CHILLED WATER VALVE (Vx-1				X																																											
AHx FAN STATUS (CSx-1)														X								X																										
AHx START/STOP (MSx-1)	X																									X	X																					2
AHx FAN VARIABLE FREQUENCY DRIVE (AOx-1)					X																																										
AHx UNIT LVG AIR TEMP (TEx-3)															X									55°F																								
AHx OUTSIDE AIR TEMP (TEx-4)															X										38°F																							
AHx RETURN AIR MODULATING DAMPER (Dx-1)		X		X											X																															
AHx OUTSIDE AIR MODULATING DAMPER (Dx-2)		X		X											X																															
AHx OUTSIDE AIRFLOW CFM (AFMx-1)														X																																	
AHx DUCT STATIC PRESSURE (Px-1)																	X																														7,10
AHx DUCT STATIC PRESSURE (Px-2)																	X																														10
AHx OUTSIDE AIR FLOW MONITOR (AFMx-1)					X																																									
FOR EACH VAV BOX																																															
VAVy VAV ZONE TEMP SENSOR (# POINTS)															X																															
VAVy VAV BOX DAMPER (# POINTS)					X																																									
VAVy VAV BOX HEATER (# POINTS)	X																																														
FOR EACH FAN INDICATED IN THE FAN SCHEDULE																																														
EFx START/STOP	X	X																										X																			4
EFx STATUS														X																																	
CENTRAL PLANT CONTROLS																																															
CHWP1 (ON/OFF)		X																																												
CHWP1 STATUS														X																																	2
VFDP1 VARIABLE FREQUENCY DRIVE					X																																									
CHWP2 (ON/OFF)		X																																											
CHWP2 STATUS														X																																	2
VFDP2 VARIABLE FREQUENCY DRIVE					X																																									
PLANT CHWS TEMP SENSOR (TS5)															X									57°F	36°F																							
PLANT CHWR TEMP SENSOR (TS6)															X									57°F	39°F																							
CH1 CHWS TEMP SENSOR (TS1)															X										39°F																							
CH1 CHWR TEMP SENSOR (TS2)															X										39°F																							
CHILLER CH1 FLOW SWITCH (FS1)														X																																		
CHILLER CH1 DIFFERENTIAL PRESSURE SWITCH (DP1)														X																																		
ALARM FROM CHILLER CH1 CONTROLLER INTERFACE														X																																	6
CHILLER CH1 AUXILIARY "PUMP RUN" CONTACT														X																																	6
CH2 CHWS TEMP SENSOR (TS3)															X										39°F																							
CH2 CHWR TEMP SENSOR (TS4)															X										39°F																							
CHILLER CH2 FLOW SWITCH (FS2)														X																																		
CHILLER CH2 DIFFERENTIAL PRESSURE SWITCH (DP2)														X																																		
ALARM FROM CHILLER CH2 CONTROLLER INTERFACE														X																																	6
CHILLER CH2 AUXILIARY "PUMP RUN" CONTACT														X																																	6
OUTSIDE AMBIENT TEMP (ATS1)																	X																														
AMBIENT AIR HUMIDITY (AHS1)																	X																														

FOR EACH AIR HANDLER UNIT WHERE x = 11, 12 21 & 22

NOTES:

1. PROVIDE STARTING RELAY AND CONTACTOR IN CONTROL PANEL RATED FOR MOTOR LOAD.
2. ROUTE CIRCUIT THROUGH THE MOTOR STARTER.
3. REMOTE BULB THERMOSTAT WITH BULB IN RA DUCT. THERMOSTAT LOCATION INDICATED ON PLANS.
4. REFER TO FAN SCHEDULE NOTE 3 TO IDENTIFY APPLICABLE POINTS.
5. PROVIDE OPEN PROTOCOL INTERFACE AND ALL HARDWARE TO ALLOW FULL USER INTERFACE BETWEEN DIGITAL CHILLER CONTROL PANEL AND CAMPUS DDC SYSTEM.
6. DDC SYSTEM TO COMMUNICATE WITH CHILLER'S INTERFACE AND AUXILIARY CONTACT. INTERFACE AND AUXILIARY CONTACT PROVIDED WITH CHILLER.
7. PROVIDE HARD-WIRE BASED HIGH LIMIT STATIC PRESSURE CONTROL TO SHUT DOWN THE FAN IF THE DUCT STATIC PRESSURE EXCEEDS THE RATING OF THE DUCTWORK. PROVIDE HIGH PRESSURE EMERGENCY SENSOR IN THE SUPPLY DUCT THAT WILL DE-ENERGIZE THE AIR HANDLER WHEN EXCESSIVE AIR PRESSURE OCCURS. I.E. ALL VAV BOXES CLOSE AND THE VFD HAS A PROBLEM. PROVIDE A YELLOW JEWELED LIGHT RESTART SWITCH ADJACENT TO THE VFD. THE RESTART SWITCH SHALL HAVE A SIGN THAT READS, "DUCT HIGH PRESSURE FAULT RESET. LIGHT ON INDICATES FAULT".
8. CHILLER START COMMAND SHALL BE VIA SOFTWARE AND BINARY INPUT.
9. PROVIDE CURRENT TRANSDUCER ON POWER CIRCUIT. SHALL BE USED TO DETERMINE AMPS.
10. REFER TO SCHEMATIC DIAGRAMS FOR AIR SYSTEM DUCT STATIC PRESSURE SENSOR(S) REQUIREMENTS.



VARIABLE AIR VOLUME, DUAL PATH AIR HANDLER FLOW DIAGRAM (AH11, AH12, AH21 & AH21)

NOT TO SCALE

AIRSIDE TEMPERATURE CONTROL SEQUENCES

Variable Air Volume, single path Air Handler with dehumidification

The air handler shall be started and stopped by the DDC control system on a schedule as directed by the Owner. When the air handler is not running, the modulating two-way chilled water valveS at AH11, AH12 & AH21 and modulating three-way chilled water valve at AH21 shall be closed to the coils. The EMS shall enable the air handler supply air fan. The outside air damper and zone exhaust fans shall be interlocked with the air handler so that the outside air damper will open and the fans will run when the air handler is running after a 30 minute time delay for morning warm up/cool down cycle and will be disabled when the air handler is disabled.

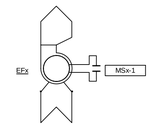
Cooling mode: In the cooling mode, the chilled water valves shall modulate to maintain the supply air temperature set point indicated in the air handler schedule as sensed by the supply air temperature sensor. The variable frequency drive on the supply air fan shall modulate the supply air volume to maintain a constant pressure (resettable) at the duct static pressure sensors (two per system). The modulating dampers in the outside air duct and return air duct shall modulate to maintain a constant fresh air supply to the air handler as indicated in the air handler schedule.

Dehumidification mode: When the return air humidity exceeds 55% RH as sensed by the return air humidity sensor, chilled water control valve shall open fully to the coil. The electric heaters in the VAV boxes shall stage on to maintain temperature setpoint in the zones. The chilled water valves shall close when the space humidity is satisfied.

Heating mode: In the heating mode, the chilled water valves shall be fully closed to the coil.

Variable Air Volume Boxes

Each variable air volume box shall modulate from fully open at 76°F (adjustable) and to the minimum position at 74°F (adjustable) in the cooling mode. The electric heater shall stage in the heating mode at minimum (or heating) air volume as scheduled to maintain the space heating temperature at 70°F (adjustable). The EMS shall monitor air volume through the box and supply air temperature after the heating coil. The VAV boxes shall be continuously controlled and monitored from the EMS.



EXHAUST FAN

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make any alterations, additions or deletions to these plans without the approval of the issuing authority.
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

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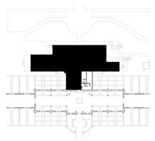


Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date

Sheet Information

HVAC CONTROLS

M401

WATERSIDE TEMPERATURE CONTROL SEQUENCES

CHILLER AND PUMPS:

SYSTEM 1 UC600 - 1

SEQUENCE OF OPERATIONS

SYSTEM 1 FLOW

SYSTEM GENERAL DESCRIPTION:

THE CHILLED WATER SYSTEM CONSISTS OF THE FOLLOWING:

TWO (2) CHILLERS, CONFIGURED AS: ONE (1) LEAD AND ONE (1) LAG

FOUR (4) CHILLED WATER PUMPS: ONE (1) LEAD, ONE (1) LAG AND TWO (2) STANDBY

ONE (1) CHILLED WATER ISOLATION VALVE PER CHILLER

CHILLED WATER BYPASS VALVE

THE BUILDING AUTOMATION SYSTEM (BAS) CONTROLLER PROVIDES STAND-ALONE CONTROL OR CONTROL FROM A HIGHER LEVEL BAS AND PROVIDES LEAD/LAG/STANDBY CONTROL FOR THE CHILLED WATER PUMPS AND CONTROLS THE CHILLED WATER BYPASS VALVE TO MAINTAIN A MINIMUM FLOW THROUGH OPERATING CHILLERS.

1. THE CHILLER IS DESIGNED TO OPERATE WITH HIGH VOLTAGE POWER SUPPLIED TO THE UNIT AT ALL TIMES.

2. AS LONG AS THERE IS POWER ON THE SYSTEM, THE MASTER MICROPROCESSOR SELECTS THE LEAD CHILLER MODULE AND ROTATES THIS LEAD ONCE EVERY 168 HOURS (1WEEK). THE LEAD MODULE'S ELECTRONIC ISOLATION VALVE WILL INITIALLY BE PROVIDED WITH FULL POWER, INPUT DRIVING THE VALVE FULLY OPEN.

3. THE CHILLER SYSTEM IS ENABLED WHEN THE SYSTEM ON/OFF SWITCH ON THE REMOTE INTERFACE PANEL IS ENERGIZED, AND THE REMOTE START/STOP RELAY IS ENABLED (EITHER THROUGH A CONTACT CLOSURE OR THROUGH THE BUILDING BMS).

4. THE VARIABLE FREQUENCY DRIVES FOR THE CHILLER PUMPS SHALL MONITOR THE OPENING AND CLOSING OF THE ELECTRONIC VALVES ON THE EVAPORATORS WHICH ARE CONTROLLED BASED ON CHILLER SYSTEM LEAVING FLUID TEMPERATURE (THE VFD CAN ALSO BE CONFIGURED TO CONTROL ON SYSTEM DIFFERENTIAL PRESSURE IF REQUIRED PROVIDED, AS A MINIMUM, THE VFDS MUST PROVIDE THE MINIMUM FLOW AS REQUIRED BY THE CHILLERS. PRESSURE DIFFERENTIAL ACROSS THE CHILLERS CANNOT BE USED AS A MEANS OF CONTROL FOR THE PRIMARY PUMPS). THE VFDS SHALL ALLOW THE PUMPS TO DELIVER THE REQUIRED FLOW THROUGH EACH OPERATING EVAPORATOR. THE PUMP SPEED VARIES PROPORTIONALLY TO THE NUMBER OF MODULES THAT ARE OPERATING (ELECTRONIC VALVES OPEN) IN THE CHILLER SYSTEM.

5. THE ELECTRONIC ISOLATION VALVE OF THE LEAD CHILLER IDENTIFIED IN STEP 2 IS ALREADY ENERGIZED THEREFORE, THE SYSTEM PUMP MUST PRODUCE THE MINIMUM FLOW REQUIRED BY THE LEAD CHILLER. A SYSTEM BYPASS WITH VALVE SHALL BE PROVIDED BY THE CUSTOMER AND INSTALLED EXTERNAL OF THE CHILLER AT THE MOST REMOTE AIR HANDLER OR OTHER SUITABLE REMOTE LOCATION FROM THE CHILLERS.

6. ONCE THIS MINIMUM FLOW IS ESTABLISHED AND THE SYSTEM DEMAND (BASED ON LEAVING FLUID TEMPERATURE. CONTROLLING TO RETURN TEMP IS NOT ACCEPTABLE) INDICATES THAT THERE IS A REQUIREMENT FOR COOLING, THE LEAD COMPRESSOR (DIGITAL OR VARIABLE SPEED) OF THE LEAD MODULE WILL ENERGIZE PROVIDED ALL SAFETIES OF THAT REFRIGERATION CIRCUIT ARE SATISFIED.

7. ONCE THERE IS A SYSTEM LOAD, THE BMS WILL MODULATE THE SYSTEM BYPASS DECREASING THE BYPASS FLOW, AS THE FLOW RATE THROUGH THE FAN COILS INCREASE. THIS CONTROL IS PROVIDED BY THE CUSTOMER EXTERNAL OF THE CHILLER, AND IS PRESUMED TO BE OVER PRESSURE DIFFERENTIAL ACROSS THE MOST REMOTE FAN COIL OR PIPING USER.

8. AS THE SYSTEM DEMAND CONTINUES TO INCREASE, THE SECOND COMPRESSOR WITHIN THAT MODULE WILL ENERGIZE PROVIDED ALL SAFETIES ON THAT CIRCUIT ARE SATISFIED.

9. AS THE SYSTEM DEMAND CONTINUES TO INCREASE, THE LEAVING FLUID TEMPERATURE FROM THE CHILLER SYSTEM WILL SLOWLY INCREASE UNTIL THE DIFFERENTIAL SET POINT IS REACHED. WHEN THE DIFFERENTIAL IS REACHED, A SECOND MODULE WILL BE BROUGHT ON LINE (FIRST IN OPERATION), INSTEAD OF OPENING THE VALVE FULLY IN THIS CHILLER MODULE - WHICH WILL CAUSE A SUBSTANTIAL DROP IN FLOW IN THE PREVIOUSLY OPERATING MODULE AND A LOW LEAVING FLUID TEMPERATURE CONDITION - BOTH VALVES WILL MODULATE BOTH CHILLER MODULES TO MAINTAIN A CONSTANT LEAVING FLUID TEMPERATURE UNTIL THEY BOTH ARE FULLY OPENED.

10. AS THE FLOW AND DEMAND CONTINUE TO INCREASE, AND THE TEMPERATURE ONCE AGAIN REACHES THE SET POINT PLUS DIFFERENTIAL SETTING, THE SECOND COMPRESSOR ON THE SECOND MODULE WILL ENERGIZE.

11. ON A DECREASE IN SYSTEM DEMAND (AND FLOW) SUCH THAT THE LEAVING FLUID TEMPERATURE REACHES THE SET POINT MINUS THE DIFFERENTIAL, A COMPRESSOR WILL DE-ENERGIZE, AND THE MODULATING VALVES WILL ONCE AGAIN BALANCE THE FLOW BETWEEN OPERATING MODULES.

12. THIS PROCESS OCCURS THROUGHOUT THE OPERATING RANGE OF THE CHILLER SYSTEM. AT ALL "IN-BETWEEN" STAGES OF SYSTEM CAPACITY AND DEMAND BALANCING, THE MODULATING VALVES SHALL MAINTAIN A CONSTANT LEAVING FLUID TEMPERATURE ACROSS OPERATING CHILLER MODULES.

13. FUTURE OPERATION - THE MICROPROCESSOR WILL PROVIDE A NEW LEAD CHILLER MODULE ONCE A WEEK TO EVEN THE RUN TIME BETWEEN MODULES.

HYDRONIC PIPING LEGEND

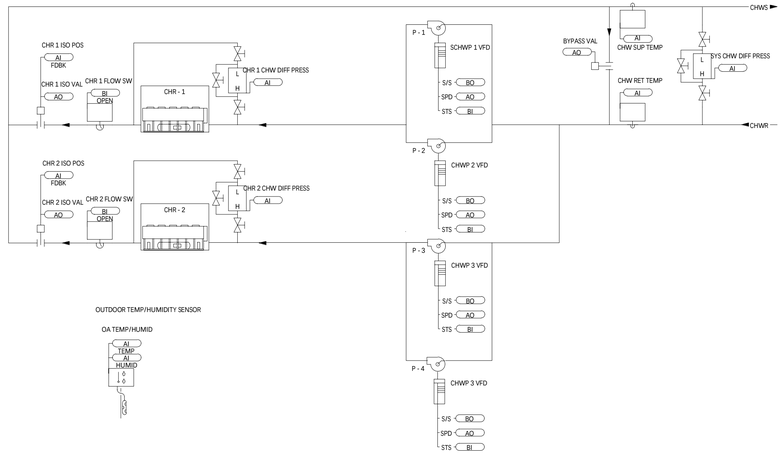
GENERAL

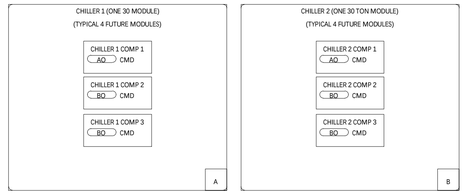
- DIRECTION OF FLOW
- STRAINER
- THERMOMETER
- PRESSURE GAGE
- FM — FLOWMETER (PADDLE TYPE)
- FS — FLOW SWITCH
- FLEXIBLE PIPING CONNECTION
- PUMP
- PS — PRESSURE SENSOR
- DP — DIFFERENTIAL PRESSURE SENSOR
- TS — TEMPERATURE SENSOR
- TPW — TEMPERATURE & PRESSURE TEST WELL

VALVES

- GATE VALVE
- GLOBE VALVE
- CHECK VALVE
- BUTTERFLY VALVE (MANUAL)
- TWO POSITION CONTROL VALVE (BUTTERFLY)
- V — STRAIGHT-THRU MODULATING CONTROL VALVE
- CSV — FLOW VENTURI/CIRCUIT BALANCING VALVE
- BALL VALVE
- M — BUTTERFLY VALVE WITH MEMORY STOP(MANUAL)
- THREE-WAY MODULATING CONTROL VALVE
- THREE-WAY TWO POSITION SOLENOID VALVE

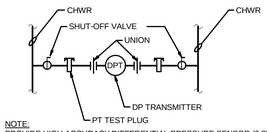
(SYSTEM 1)





MODULAR CHILLER SCHEMATIC

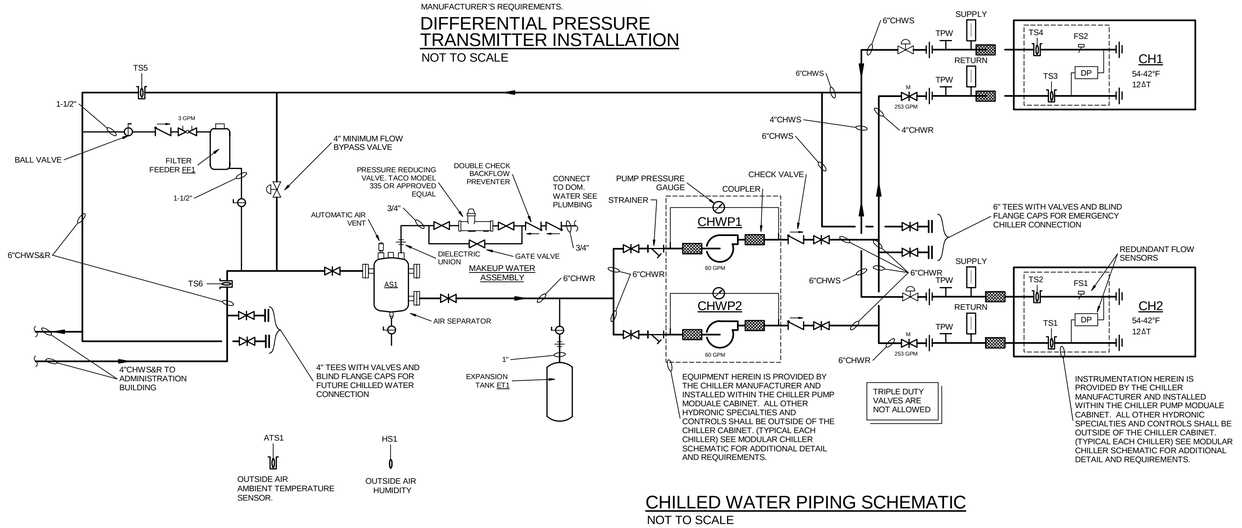
NOT TO SCALE



NOTE:
PROVIDE HIGH ACCURACY DIFFERENTIAL PRESSURE SENSOR (0.2% AT CALIBRATED FLOW, 0.5% AT OTHER FLOW RATES). INSTALL DIFFERENTIAL PRESSURE SENSORS ACCORDING TO THE MANUFACTURER'S REQUIREMENTS.

DIFFERENTIAL PRESSURE TRANSMITTER INSTALLATION

NOT TO SCALE



CHILLED WATER PIPING SCHEMATIC

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PLAN APPROVAL
BLD-20-[illegible]
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Florida Engineering Business Number 6093

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Harry W. Portellos
P.E. 61597

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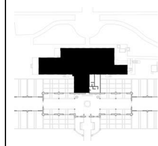

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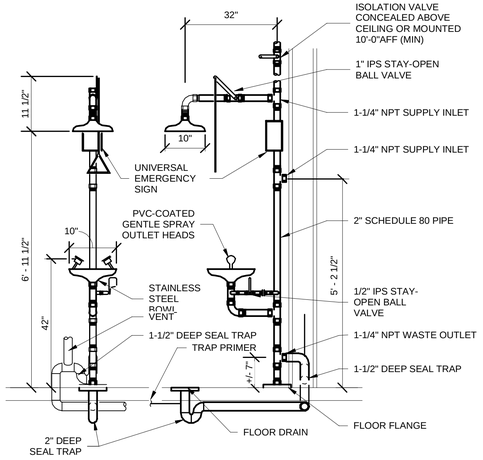
Sheet Information

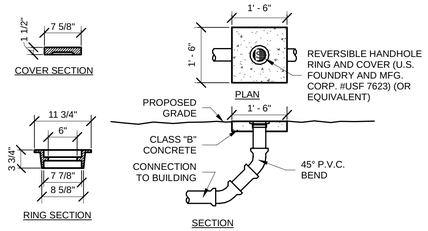
HVAC CONTROLS

M402



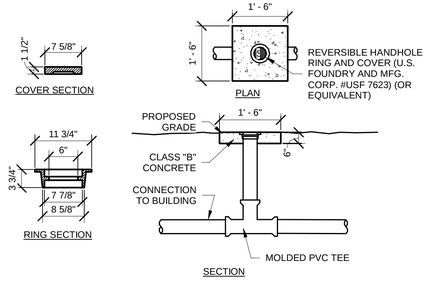
EYE WASH/EMERGENCY SHOWER DETAIL

NOT TO SCALE



EXTERIOR CLEAN-OUT DETAIL (ECO1)

NOT TO SCALE

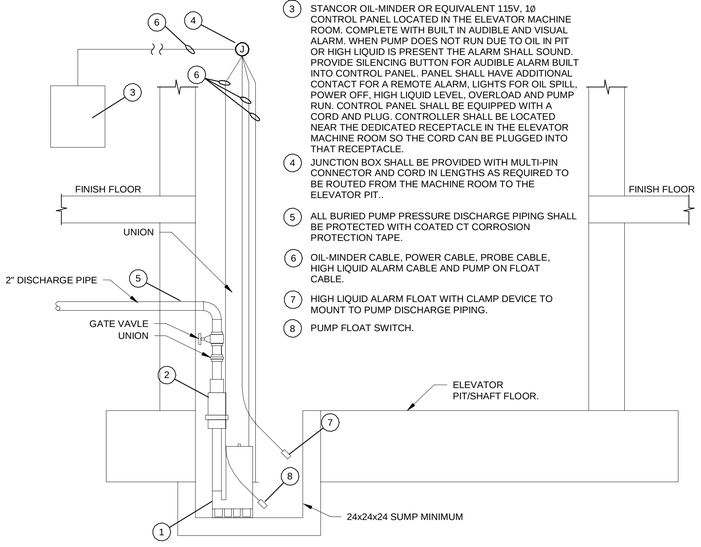


EXTERIOR CLEAN-OUT DETAIL (ECO2)

NOT TO SCALE

SUMP PUMP NOTES

1. STANCOR MODEL SE-50 OR EQUIVALENT SUBMERSIBLE EFFLUENT PUMP 1/2 HP, 115 VOLT, 3,600 RPM, 2" DISCHARGE CONNECTION.
2. STANCOR CHECK VALVE.
3. STANCOR OIL-MINDER OR EQUIVALENT 115V, 1ø CONTROL PANEL LOCATED IN THE ELEVATOR MACHINE ROOM. COMPLETE WITH BUILT IN AUDIBLE AND VISUAL ALARM. WHEN PUMP DOES NOT RUN DUE TO OIL IN PIT OR HIGH LIQUID IS PRESENT THE ALARM SHALL SOUND. PROVIDE SILENCING BUTTON FOR AUDIBLE ALARM BUILT INTO CONTROL PANEL. PANEL SHALL HAVE ADDITIONAL CONTACT FOR A REMOTE ALARM. LIGHTS FOR OIL SPILL, POWER OFF, HIGH LIQUID LEVEL, OVERLOAD AND PUMP RUN. CONTROL PANEL SHALL BE EQUIPPED WITH A CORD AND PLUG. CONTROLLER SHALL BE LOCATED NEAR THE DEDICATED RECEPTACLE IN THE ELEVATOR MACHINE ROOM SO THE CORD CAN BE PLUGGED INTO THAT RECEPTACLE.
4. JUNCTION BOX SHALL BE PROVIDED WITH MULTI-PIN CONNECTOR AND CORD IN LENGTHS AS REQUIRED TO BE ROUTED FROM THE MACHINE ROOM TO THE ELEVATOR PIT.
5. ALL BURIED PUMP PRESSURE DISCHARGE PIPING SHALL BE PROTECTED WITH COATED CT CORROSION PROTECTION TAPE.
6. OIL-MINDER CABLE, POWER CABLE, PROBE CABLE, HIGH LIQUID ALARM CABLE AND PUMP ON FLOAT CABLE.
7. HIGH LIQUID ALARM FLOAT WITH CLAMP DEVICE TO MOUNT TO PUMP DISCHARGE PIPING.
8. PUMP FLOAT SWITCH.



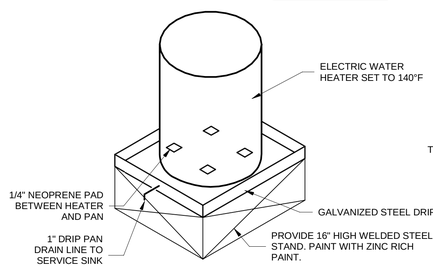
SUMP PUMP DETAIL

NOT TO SCALE

GENERAL PLUMBING NOTES

1. ALL PLUMBING WORK SHALL MEET ALL OF THE REQUIREMENTS OF THE FOLLOWING:
   - A. FLORIDA BUILDING CODE (FBC) 6TH EDITION (2017): THIS CODE INCLUDES THE 2017 FBC BUILDING, MECHANICAL, PLUMBING, FUEL GAS AND ENERGY CONSERVATION VOLUMES. FURTHER, SEE "REFERENCED STANDARDS" IN THE FBC, BUILDING CHAPTER 35; FBC, PLUMBING CHAPTER 15; FBC, MECHANICAL CHAPTER 15; FBC, FUEL GAS CHAPTER 8, FBC, ENERGY CONSERVATION CHAPTER 6.) (EFFECTIVE DECEMBER 31, 2017)
   - B. 6TH EDITION OF THE FLORIDA FIRE PREVENTION CODE (FFPC): (THIS CODE ALSO INCLUDES THE FLORIDA VERSIONS OF NFPA 1 AND NFPA 101.) (EFFECTIVE DECEMBER 31, 2014)
   - C. 2014 NATIONAL ELECTRIC CODE
2. PROVIDE COMPLETE PLUMBING SYSTEMS AS DETAILED. WORK CONSISTS OF FURNISHING ALL MATERIALS, EQUIPMENT, AND SERVICES REQUIRED FOR COMPLETE SYSTEMS.
3. IN GENERAL, PLANS ARE SCHEMATIC ONLY AND SHOULD NOT BE SCALED. ALL FLOOR DRAINS IN MECHANICAL ROOMS/CLOSETS, SHALL BE FIELD VERIFIED AND COORDINATED WITH THE HVAC EQUIPMENT/PAD LOCATIONS.
4. CONDITIONS SHOWN AS EXISTING ARE BASED ON AVAILABLE DATA AND SHOULD BE INTERPRETED TO BE APPROXIMATE. VERIFY EXISTING CONDITIONS IN THE FIELD.
5. COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS.
6. COORDINATE LOCATIONS OF FLOOR DRAINS, CLEAN OUTS AND FLOOR HYDRANTS WITH THE ARCHITECTURAL DRAWINGS.
7. UNLESS OTHERWISE NOTED, ALL PIPING SHALL BE RUN IN CONCEALED SPACES. HOWEVER, NO PIPING SHALL BE CHASED OR CUT INTO THE TENANT DEMISING WALLS.
8. WATER PIPING SHALL BE HARD DRAWN COPPER TYPE L WITH WROUGHT COPPER FITTINGS AND 95-5 SOLDER.
9. ALL SOIL, WASTE, AND VENT PIPING SHALL BE SCHEDULE 40 PVC DWV.
10. SANITARY PIPING BELOW THE GROUND FLOOR SLAB SHALL BE SCHEDULE 40 DWV PVC SOIL PIPE AND FITTINGS.
11. VENT THROUGH ROOF TERMINALS SHALL BE LOCATED 10'-0" AWAY FROM ANY BUILDING INTAKE OPENINGS. COORDINATE WITH THE MECHANICAL CONTRACTOR.
12. GATE VALVES SHALL BE #125 BRONZE WITH UNION BONNET.
13. PROVIDE TRAP PRIMERS WHERE REQUIRED BY CODE.
14. ALL FIRE STOPPING SHALL BE INSTALLED IN CONFORMANCE WITH THE MANUFACTURER'S U.L. DETAILS OF THE PRODUCTS USED SPECIFICALLY ON THIS PROJECT. APPLICABLE U.L. DETAILS SHALL BE SUBMITTED FOR THE ENGINEER'S REVIEW AND A COPY SHALL BE AVAILABLE ON SITE FOR USE BY THE AUTHORITY HAVING JURISDICTION.
15. UNLESS NOTED OTHERWISE, ALL PLUMBING EQUIPMENT, MATERIALS, AND WORKMANSHIP SHALL BE GUARANTEED FOR A ONE YEAR PERIOD FROM DATE OF ACCEPTANCE.
16. PROVIDE ALL CUTTING REQUIRED FOR THE INSTALLATION OF PLUMBING WORK. FINISH PATCHING SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR/CONSTRUCTION MANAGER.
17. ALL SOIL AND WASTE PIPING 2-1/2" AND SMALLER SHALL BE SLOPED AT 1/4" PER FOOT. LARGER WASTE PIPING SHALL BE SLOPED AT 1/8" PER FOOT.
18. ALL WATER PIPING SHALL BE SUPPORTED RIGIDLY AND IN LINE FROM THE BUILDING STRUCTURE. OFFSET PIPING TO AVOID STRUCTURAL MEMBERS, CANTS, FLASHING, MECHANICAL AND ELECTRICAL EQUIPMENT, ETC.
19. PRIOR TO COMMENCING ANY PLUMBING ROUGH-IN, THE EXISTING SANITARY PIPING SHALL BE EXCAVATED. VERIFY THE EXACT SIZE, LOCATION, INVERT AND DIRECTION OF FLOW. NOTIFY THE ENGINEER IMMEDIATELY IF THE DRAIN IS SMALLER THAN INDICATED OR IF THE INVERT WILL NOT BE LOW ENOUGH FOR THE NEW PLUMBING ROUGH-IN. CONNECT NEW SANITARY LINES TO EXISTING SANITARY LINES AS INDICATED. PATCH THE FLOOR AS DIRECTED BY THE ARCHITECT.
20. VERIFY ALL SITE RELATED SANITARY & WATER CONNECTIONS PRIOR TO STARTING WORK. SHOULD DEPTHS BE DIFFERENT THAN THAT SHOWN HEREIN ADVISE ENGINEER IMMEDIATELY.
21. PRIOR TO SITE UTILITIES WORK, CALCULATE THE INVERTS FOR ALL SANITARY WASTE CONNECTIONS BASED ON ACTUAL CONDITIONS. COORDINATE SANITARY WASTE LOCATIONS AND INVERTS WITH SITE UTILITIES CONTRACTOR.
22. WASTE LINES RECEIVING BELOW AMBIENT TEMPERATURE CONDENSATE SHALL BE INSULATED WITH 1/2" FLEXIBLE UNICELLULAR FOAM (ARMAFLEX OR EQUIVALENT) INSULATION TO GRADE.
23. REFER TO ARCHITECTURAL DRAWINGS FOR AREAS TO RECEIVE NEW WALL COVERINGS OR FLOOR FINISHES. EXISTING PLUMBING FIXTURES SHALL BE REMOVED TO ALLOW WORK TO BE DONE IN THESE AREAS AND THEN REINSTALLED.
24. DISCONNECT AND REMOVE DRAINS FROM ALL PLUMBING FIXTURES BEING REMOVED AND CAP BELOW FLOOR OR INSIDE OF WALL. DISCONNECT AND REMOVE ASSOCIATED VENT.
25. IN AREAS RECEIVING NEW ROOFING, PROVIDE NEW LEAD FLASHINGS FOR ROOF DRAINS AND VENTS TO ACCOMMODATE NEW ROOF INSULATION. REFER TO ROOFING PLAN FOR SCOPE OF WORK TO BE DONE.
26. ALL EXISTING LINES TO REMAIN SHALL BE VISUALLY INSPECTED AND MACHINE CLEANED.
27. REMOVE ALL UNUSED WASTE AND VENT PIPING.
28. ANY PLUMBING ITEMS EXPOSED TO VIEW SHALL BE PLACED PER THE ARCHITECTURAL DRAWINGS.
29. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

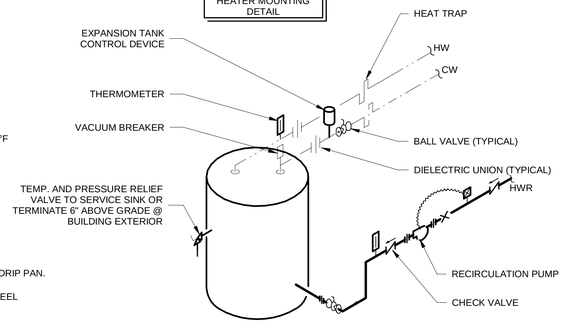
REFER TO ELECTRIC WATER HEATER PIPING DETAIL FOR PIPING ARRANGEMENT.



ELECTRIC WATER HEATER FLOOR MOUNTED DETAIL

NOT TO SCALE

REFER TO WATER HEATER MOUNTING DETAIL



ELECTRIC WATER HEATER PIPING DETAIL WITH RECIRCULATION PUMP

NOT TO SCALE

COORDINATE AND VERIFY EXACT LOCATIONS OF ALL PLUMBING FIXTURES WITH ARCHITECTURAL DRAWINGS

REFER TO RISER ON DRAWING P301 FOR DOMESTIC WATER AND WASTE AND VENT LINE SIZING

PLUMBING LEGEND

	VENT PIPING
	WASTE PIPING BELOW FLOOR OR GRADE (SAN)
	COLD WATER PIPING (CW)
	HOT WATER PIPING (HW)
T	TEMPERED WATER (110°F) (TW)
	HOT WATER RETURN PIPING (HWR)
120°	HOT WATER (120°F)
	PIPING UP
	PIPING DOWN
⊗	HOT WATER BALANCING VALVE
P#	PLUMBING FIXTURE IDENTIFICATION. SEE PLUMBING FIXTURE SCHEDULE
VTR	VENT THROUGH ROOF
	ELEVATION
	CONNECT NEW TO EXISTING. FIELD VERIFY SIZE AND LOCATION PRIOR TO EXECUTING WORK
(E)	EXISTING - EXACT SIZE AND LOCATION TO BE FIELD VERIFIED.
(D)	EXISTING ITEM TO BE DEMOLISHED
(RL)	EXISTING ITEM TO BE RELOCATED
(R)	NEW LOCATION OF EXISTING ITEM
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
S	SANITARY
W	WASTE
V	VENT

PLUMBING DRAWING INDEX

SHEET NUMBER	SHEET NAME
P001	PLUMBING LEGEND, DETAILS, AND GENERAL NOTES
P002	PLUMBING SCHEDULES
P101	ADMINISTRATION BUILDING PLUMBING FIRST FLOOR PLAN
P102	ADMINISTRATION BUILDING PLUMBING SECOND FLOOR PLAN
P201	MAINTENANCE BUILDING PLUMBING FIRST FLOOR PLAN
P301	PLUMBING ISOMETRICS

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful for any person to make any alterations on these plans unless directed to do so from the Building Official.
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE
BLD-20-0[illegible]

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
Phone 813.221.8771
AAC0022172

The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes

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Florida Engineering Business Number 6093

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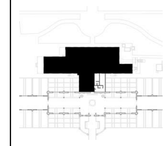
Harry W Portellos
2020.01.10 15:51:57 -05'00'

HARRY W. PORTELLOS LICENSE No. 61597 STATE OF FLORIDA PROFESSIONAL ENGINEER

Harry W. Portellos
P.E. 61597

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE



Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

APPROVED
By Edwin EliasNarvaez at 2/28/2020 3:30:35 PM
FBC [A] 101.1 Scope: Reviewed for FBC 6th Ed (2017) Plumbing compliance.

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
3	REV 3	12.16.19

Sheet Information

PLUMBING LEGEND, DETAILS, AND GENERAL NOTES

P001

PLUMBING EQUIPMENT SCHEDULE

MARK	DESCRIPTION	SELECTION	W OR S	TRAP	VENT	HW	CW
FD1	FLOOR DRAIN 3" FLOOR DRAIN WITH TRAP PRIMER CONNECTED TO DOMESTIC COLD WATER LINE AT LAVATORY. NICKEL BRONZE TOP. 6" ROUND. CAST IRON BODY WITH FLASHING COLLAR AND ADJUSTABLE STRAINER.	SMITH 2005-A-6"	3"	3"	1-1/2"	-	-
HB1	HOSE BIBB NON-RECESSED ANTI-SIPHON, FREEZE WALL HYDRANT WITH LOOSE KEY HANDLE AND 3/4" HOSE THREAD OUTLET. PROVIDE WITH INTEGRAL VACUUM BREAKER 90° INLET ELBOW. COORDINATE MTG. HEIGHT WITH GRADING PLAN.	ZURN Z-1321C	-	-	-	-	3/4"
WCO	CAST IRON TEE WALL CLEAN-OUT WITH BRONZE PLUG AND ROUND STAINLESS STEEL COVER PLATE. SIZE C.O. SAME AS LINE SIZE (2-1/2" MINIMUM). PROVIDE PVC TO NO-HUB ADAPTERS FOR PVC DWV APPLICATIONS.	SMITH 4351S-Y	2-1/2" MIN.	-	-	-	-
FCO	FLOOR CLEAN-OUT SIZE C.O. SAME AS LINE SIZE. SCORIATED NICKEL BRONZE TOP.	SMITH 4032	-	-	-	-	-
VTR	VENT THROUGH ROOF WITH VANDALPROOF VENT CAP SIZE AS INDICATED ON DRAWINGS.	WADE W-3680	-	-	-	-	-
TP	TRAP PRIMER TAILPIECE. GRAVITY FED DEVICE WITH NO MECHANICAL PARTS. 1-1/4" TAILPIECE WITH 1/2" NOMINAL ARM FOR CONNECTION TO FLOOR DRAIN. USE TRAP PRIMER TAILPIECE IN-LIEU OF STANDARD LAVATORY TAILPIECE WHERE SPECIFIED. ASSE 1044 APPROVED.	SIOUX CHIEF 213-092	-	-	-	-	-
CO	THREADED CLEAN-OUT PLUG SIZE CLEANOUT SAME AS LINE SIZE.	-	-	-	-	-	-
EWH1	ELECTRIC WATER HEATER 6,000 WATTS, 240 VOLT, SINGLE PHASE, 30 GALLON ELECTRIC WATER HEATER.	RHEEM EGSP30	-	-	-	3/4"	3/4"
HWP	HOT WATER RECIRCULATOR PUMP WITH INTEGRAL TIMER & AQUASTAT. THREE SPEED, WET ROTOR, DIRECT DRIVE, CENTRIFUGAL PUMP. UL LISTED AND CSA APPROVED. 120V, 85 WATTS, 1/25 HP, CORD. ALL BRONZE CONSTRUCTION.	GRUNDFOS UP 15-18B7	-	-	-	-	-
SP1	SUBMERSIBLE EFFLUENT PUMP 1/2 HP, 120 VOLT, 3,450 RPM, 2" DISCHARGE CONNECTION. COMPLETE WITH BUILT-IN AUDIBLE AND VISUAL ALARM WHEN PUMP DOES NOT RUN DUE TO OIL IN PIT OR HIGH LIQUID OR HIGH AMPERAGE CONDITION THE ALARM SHALL SOUND. PROVIDE SILENCING BUTTON FOR AUDIBLE ALARM BUILT INTO CONTROL PANEL. SEE DETAIL FOR ADDITIONAL REQUIREMENTS. LOCATE CONTROL PANEL IN STORAGE 119.	STANCOR MODEL SE-50	2"	-	-	-	-
G	RESIDENTIAL GARBAGE DISPOSAL 1/2 HP, 120V, SINGLE PHASE WITH STAINLESS STEEL GRIND CHAMBER, CUTTING ELEMENTS AND TURNTABLE.	IN-SINK-ERATOR 333SS	-	-	-	-	-
AAV	VENT TERMINAL RELIEF LOCATE AIR ADMITTANCE VALVE JUST BELOW ROOF DECK. SIZE AS INDICATED ON DRAWINGS.	STUDOR	-	-	-	-	-

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	SELECTION	W OR S	TRAP	VENT	HW	CW
P1 WATER CLOSET	HANDICAPPED ** BOWL: WHITE FLOOR MOUNTED WITH BOTTOM OUTLET, VITREOUS CHINA, SIPHON-JET, ELONGATED BOWL, 18" AFF TO RIM, BOLT CAPS WITH CAULK, LOW CONSUMPTION FLUSH (1.6 GPF). BOWL AND SEAT DIMENSIONS MUST MATCH WITHIN 1/4". SEAT: WHITE SOLID PLASTIC, HEAVY DUTY, ELONGATED, OPEN FRONT (WITHOUT COVER), STAINLESS STEEL SELF-SUSTAINING CHECK HINGES, INTEGRAL MOLDED BUMPERS FLUSH VALVE ASSEMBLY: 11-1/2" HIGH ABOVE RIM, PISTON TYPE (1.6 GALLON FLUSH), CHROME FINISH, ADA COMPLIANT, BATTERY OPERATED SENSOR OPERATED VALVE, 1" INLET, 1-1/2" OUTLET, INTEGRAL SCREWDRIVER ADJUSTABLE ANGLE STOP AND CHECK VALVE WITH COVER, VACUUM BREAKER, WALL AND SPUD FLANGES, SWEAT SOLDER ADAPTER KIT, SOLID RING PIPE SUPPORT. ROUGH-IN DIMENSION MUST ALLOW FOR FLUSH VALVE CLEARANCE OF HANDICAPPED GRAB BAR WHERE APPLICABLE, OR OFFSET FITTING MAY BE REQUIRED.	AMERICAN STANDARD MADERA 3043.001 KOHLER BEMIS 1955CT ZURN ZTR6200-WS1-LL-YK DELTA HYDROTEK AMERICAN STANDARD	4"	INT.	2"	-	1"
P2 LAVATORY	HANDICAPPED ** HOT/COLD WATER BOWL: WHITE, WALL MOUNTED, VITREOUS CHINA, 20"x18", ADA COMPLIANT CENTER FAUCET HOLE. PROVIDE FLOOR MOUNTED WALL CARRIER WITH CONCEALED CARRIER ARMS. MOUNT AS FOLLOWS: APPLICATION APRON(MAX.) RIM(MAX.) ADULT 29" 34" FAUCET: CHROME FINISHED SENSOR ** FAUCET, WITH ADJUSTABLE TIME CYCLE (0.35GPM/10 SECONDS MINIMUM), ADA COMPLIANT, VANDAL RESISTANT AERATOR, MOUNT IN CENTER HOLE, WATERTIGHT CONNECTOR AND BATTERY OPERATED WITH VANDAL RESENT MOUNT HOUSING. DRAIN: FLAT GRID, CHROME FINISH, 1-1/4" OUTLET WITH ADA COMPLIANT OFFSET TAILPIECE. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA. P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/4" INLET AND 1-1/2" OUTLET, CLEANOUT PLUG, WALL ESCUTCHEON SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVE, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET AND OUTLET CONNECTIONS. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA**. MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	AMERICAN STANDARD LUCERINE 0356.421 WATTS CA-401 DELTA PROXIMITY 631TP35 MCGUIRE 155WC MCGUIRE 8902 MCGUIRE 2165CCLK MCGUIRE W-215OWC W/155WC & 8902 PLUMBEREX "PRO-2000" SYMMONS 7-225-CK	2"	1-1/4"	1-1/4"	1/2"	1/2"
P3	SERVICE SINK ONE-PIECE CONSTRUCTION, 24"x24"x10", FLOOR MOUNTED TYPE. FAUCET WITH PAIL HOOK AND HOSE END, VACUUM BREAKER, INTEGRAL STOPS, VANDAL PROOF HANDLE MOP HANGER, 24" X 3", 18 GA. STAINLESS STEEL BUMPER GUARD. 12 OZ. SILICONE SEALANT. 30" HOSE AND BRACKET COMBINATION.	FIAT MSB 2424 FIAT 830-AA FIAT 889-CC FIAT 833-AA FIAT 832-AA	2"	2"	2"	1/2"	1/2"
P4 SINK	HANDICAPPED **/NON-HANDICAPPED HOT/ COLD WATER (SINGLE BOWL) BOWL: SINGLE BOWL, STAINLESS STEEL, COUNTERTOP-MOUNTED 18 GAUGE-TYPE 302, SELF RIM, OVERFLOW, 19-1/2"X19"X6-1/2" OVERALL, ONE FAUCET HOLE IN CENTER OF SIDE LEDGE AS REQUIRED FOR ACCESSIBILITY, ADA COMPLIANT FAUCET: 6" HIGH OUTLET, AERATOR (2 GPM), LEVER HANDLE, CHROME FINISHED, ADA COMPLIANT DRAIN: FLAT GRID STRAINER WITHOUT STOPPER, 1-1/2" OUTLET P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/2" INLET AND OUTLET, CLEANOUT PLUG SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVES, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET CONNECTIONS MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	ELKAY LRAD 1919 CHICAGO 50-GN2A-E3-369 ELKAY LK-18 MCGUIRE 8912 MCGUIRE 2165CCLK SYMMONS 7-225-CK	2"	2"	2"	1/2"	1/2"
P5 SINK	HANDICAPPED **/NON-HANDICAPPED HOT/ COLD WATER (DOUBLE BOWL) BOWL: DOUBLE BOWL, STAINLESS STEEL, COUNTERTOP-MOUNTED 18 GAUGE-TYPE 302, SELF RIM, OVERFLOW, 19-1/2"X19"X6-1/2" OVERALL, ONE FAUCET HOLE IN CENTER OF SIDE LEDGE AS REQUIRED FOR ACCESSIBILITY, ADA COMPLIANT FAUCET: 6" HIGH OUTLET, AERATOR (2 GPM), LEVER HANDLE, CHROME FINISHED, ADA COMPLIANT DRAIN: FLAT GRID STRAINER WITHOUT STOPPER, 1-1/2" OUTLET P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/2" INLET AND OUTLET, CLEANOUT PLUG SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVES, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET CONNECTIONS MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	JUST DL-1625-A-GR CHICAGO 50-GN2A-E3-369 ELKAY LK-18 MCGUIRE 8912 MCGUIRE 2165CCLK SYMMONS 7-225-CK	2"	2"	2"	1/2"	1/2"

MARK	DESCRIPTION	SELECTION	W OR S	TRAP	VENT	HW	CW
P6 BAR SINK	NON-HANDICAPPED HOT/ COLD WATER (SINGLE BOWL) BOWL: SINGLE BOWL, STAINLESS STEEL, COUNTERTOP-MOUNTED 18 GAUGE-TYPE 302, SELF RIM, OVERFLOW, 19-1/2"X19"X6-1/2" OVERALL, ONE FAUCET HOLE IN CENTER OF SIDE LEDGE AS REQUIRED FOR ACCESSIBILITY, ADA COMPLIANT FAUCET: 6" HIGH OUTLET, AERATOR (2 GPM), LEVER HANDLE, CHROME FINISHED, ADA COMPLIANT DRAIN: FLAT GRID STRAINER WITHOUT STOPPER, 1-1/2" OUTLET P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/2" INLET AND OUTLET, CLEANOUT PLUG SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVES, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET CONNECTIONS MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	ELKAY BCR15 CHICAGO 50-GN2A-E3-369 ELKAY LK-18 MCGUIRE 8912 MCGUIRE 2165CCLK SYMMONS 7-225-CK	2"	2"	2"	1/2"	1/2"
P7	RESIDENTIAL TYPE VALVE BOX FOR RESIDENTIAL REFRIGERATOR AND DISHWASHER ROUGH-IN AND MAKE ALL CONNECTIONS. ONE 1/2" HOSE BIBB AND 1-1/2" X 9" X 3-1/2" BOX. NOTE: PROVIDE 4" BOX IN STUD WALLS.	WATER-TITE 9700	-	-	-	-	1/2"
P8	HANDICAPPED** ELECTRIC WATER COOLER WHEELCHAIR ACCESS ELECTRIC WATER COOLER NON-RECESSED, STAINLESS STEEL TOP AND SIDES, WITH FRONT AND SIDE PRESSBARS, GRID STRAINER AND SAFETY BUBBLER. 8.0 GPH @ 30°F TEMPERATURE DIFFERENCE. 4.8AMPS @ 120V/1 Ø/60HZ. 1-1/4" P-TRAP, CAST BRASS WITH CLEAN OUT. 1/2" STOP. MOUNT WITH BUBBLER AS FOLLOWS: APPLICATION BUBBLER (AFF) ADULT 36"	ELKAY EZS8-SS	2"	1-1/4"	1-1/4"	-	1/2"
P9	EMERGENCY SHOWER/EYE AND FACE WASH ALL EXPOSED PIPING SHALL BE PAINTED YELLOW.	BRADLEY S19314EW	2"	2"	2"	-	1-1/4"
P10 WATER CLOSET	NON-HANDICAPPED BOWL: WHITE FLOOR MOUNTED WITH BOTTOM OUTLET, VITREOUS CHINA, SIPHON-JET, ELONGATED BOWL, 14" AFF TO RIM, BOLT CAPS WITH CAULK, LOW CONSUMPTION FLUSH (1.6 GPF). BOWL AND SEAT DIMENSIONS MUST MATCH WITHIN 1/4". SEAT: WHITE SOLID PLASTIC, HEAVY DUTY, ELONGATED, OPEN FRONT (WITHOUT COVER), STAINLESS STEEL SELF-SUSTAINING CHECK HINGES, INTEGRAL MOLDED BUMPERS FLUSH VALVE ASSEMBLY: 11-1/2" HIGH ABOVE RIM, PISTON TYPE (1.6 GALLON FLUSH), CHROME FINISH, ADA COMPLIANT, BATTERY OPERATED SENSOR OPERATED VALVE, 1" INLET, 1-1/2" OUTLET, INTEGRAL SCREWDRIVER ADJUSTABLE ANGLE STOP AND CHECK VALVE WITH COVER, VACUUM BREAKER, WALL AND SPUD FLANGES, SWEAT SOLDER ADAPTER KIT, SOLID RING PIPE SUPPORT. ROUGH-IN DIMENSION MUST ALLOW FOR FLUSH VALVE CLEARANCE OF HANDICAPPED GRAB BAR WHERE APPLICABLE, OR OFFSET FITTING MAY BE REQUIRED.	AMERICAN STANDARD MADERA 3043.001 KOHLER BEMIS 1955CT ZURN ZTR6200-WS1-LL-YK DELTA HYDROTEK AMERICAN STANDARD	4"	INT.	2"	-	1"
P11 LAVATORY	NON-HANDICAPPED HANDICAPPED HOT/COLD WATER BOWL: WHITE, WALL MOUNTED, VITREOUS CHINA, 20"X18", ADA COMPLIANT CENTER FAUCET HOLE. PROVIDE FLOOR MOUNTED WALL CARRIER WITH CONCEALED CARRIER ARMS. MOUNT AT 32" TO RIM. FAUCET: CHROME FINISHED SENSOR ** FAUCET, WITH ADJUSTABLE TIME CYCLE (0.35GPM/10 SECONDS MINIMUM), ADA COMPLIANT, VANDAL RESISTANT AERATOR, MOUNT IN CENTER HOLE, WATERTIGHT CONNECTOR AND BATTERY OPERATED WITH VANDAL RESENT MOUNT HOUSING. DRAIN: FLAT GRID, CHROME FINISH, 1-1/4" OUTLET WITH ADA COMPLIANT OFFSET TAILPIECE. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA. P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/4" INLET AND 1-1/2" OUTLET, CLEANOUT PLUG, WALL ESCUTCHEON SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVE, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET AND OUTLET CONNECTIONS. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA**. MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	AMERICAN STANDARD LUCERINE 0356.421 WATTS CA-401 DELTA PROXIMITY 631TP35 MCGUIRE 155WC MCGUIRE 8902 MCGUIRE 2165CCLK MCGUIRE W-215OWC W/155WC & 8902 PLUMBEREX "PRO-2000" SYMMONS 7-225-CK	2"	1-1/4"	1-1/4"	1/2"	1/2"
P12 URINAL	NON-HANDICAPPED BOWL: WHITE, WALL HUNG VITREOUS CHINA, SIPHON-JET, 14" PROJECTION, 24" TO LIP, FLOOR MOUNTED CARRIER WITH CONCEALED BACK, LOW CONSUMPTION FLUSH (1.0 GPF), 304 STAINLESS STEEL BOLTS AND WASHERS FLUSH VALVE ASSEMBLY: 10" HIGH, EXPOSED DIAPHRAM VALVE (1.0 GALLON FLUSH), CHROME FINISH, ADA COMPLIANT, BATTERY OPERATED SENSOR OPERATED VALVE, 1" INLET, 1-1/2" OUTLET, INTEGRAL SCREWDRIVER ADJUSTABLE ANGLE STOP AND CHECK VALVE WITH COVER, VACUUM BREAKER, WALL AND SPUD FLANGES, SWEAT SOLDER ADAPTER KIT, SOLID RING PIPE SUPPORT.	AMERICAN STANDARD WASHBROOK 6590.505 SMITH 637 ZURN ZTR6203-LL-YK DELTA HYDROTEK AMERICAN STANDARD	2"	INT.	1-1/2"	-	3/4"

** FIXTURE AND ALL ATTACHMENTS SHALL COMPLY WITH THE 6TH EDITION (2017) FBC/ACCESSIBILITY CODE AND THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES; CHILDREN'S FACILITIES. FIXTURE TO BE MOUNTED PER THIS SCHEDULE UNLESS NOTED OTHERWISE IN PLAN. FLUSH VALVE IS TO BE ON THE SIDE TOWARDS THE ASSOCIATED LAVATORY WHERE APPLICABLE.

*** CONNECT COLD WATER SUPPLY LINE TO HOT AND COLD WATER FIXTURE CONNECTIONS. PROVIDE TWO COLD WATER INDEXES WHERE POSSIBLE.

**** INDICATES THAT THE ITEM IS TO BE PROVIDED UNDER A DIFFERENT DIVISION AND TO BE INSTALLED BY THE PLUMBING CONTRACTOR. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL REQUIRED CONNECTIONS, WASTE ARMS, STOPS, END ESCUTCHEONS TO RENDER THE INSTALLATION COMPLETE.

3

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF PLANS IS APPROVED
IN ACCORDANCE WITH THE
CONDITIONS OF THE PERMIT
It is unlawful to make any
alterations, additions or deletions
from these plans without the
approval of the issuing division
The Stamping of this plan shall not be
held to permit or approve the violation
of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

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Harry W. Portellos
P.E. 61597

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
3	REV 3	12.16.19

Sheet Information

PLUMBING SCHEDULES

P002

PLUMBING EQUIPMENT SCHEDULE

MARK	DESCRIPTION	SELECTION	W OR S	TRAP	VENT	HW	CW
FD1	FLOOR DRAIN 3" FLOOR DRAIN WITH TRAP PRIMER CONNECTED TO DOMESTIC COLD WATER LINE AT LAVATORY. NICKEL BRONZE TOP. 6" ROUND. CAST IRON BODY WITH FLASHING COLLAR AND ADJUSTABLE STRAINER.	SMITH 2005-A-6"	3"	3"	1-1/2"	-	-
HB1	HOSE BIBB NON-RECESSED ANTI-SIPHON, FREEZE WALL HYDRANT WITH LOOSE KEY HANDLE AND 3/4" HOSE THREAD OUTLET. PROVIDE WITH INTEGRAL VACUUM BREAKER 90° INLET ELBOW. COORDINATE MTG. HEIGHT WITH GRADING PLAN.	ZURN Z-1321C	-	-	-	-	3/4"
WCO	CAST IRON TEE WALL CLEAN-OUT WITH BRONZE PLUG AND ROUND STAINLESS STEEL COVER PLATE. SIZE C.O. SAME AS LINE SIZE (2-1/2" MINIMUM). PROVIDE PVC TO NO-HUB ADAPTERS FOR PVC DWV APPLICATIONS.	SMITH 4351S-Y	2-1/2" MIN.	-	-	-	-
FCO	FLOOR CLEAN-OUT SIZE C.O. SAME AS LINE SIZE. SCORIATED NICKEL BRONZE TOP.	SMITH 4032	-	-	-	-	-
VTR	VENT THROUGH ROOF WITH VANDALPROOF VENT CAP SIZE AS INDICATED ON DRAWINGS.	WADE W-3680	-	-	-	-	-
TP	TRAP PRIMER TAILPIECE. GRAVITY FED DEVICE WITH NO MECHANICAL PARTS. 1-1/4" TAILPIECE WITH 1/2" NOMINAL ARM FOR CONNECTION TO FLOOR DRAIN. USE TRAP PRIMER TAILPIECE IN-LIEU OF STANDARD LAVATORY TAILPIECE WHERE SPECIFIED. ASSE 1044 APPROVED.	SIOUX CHIEF 213-092	-	-	-	-	-
CO	THREADED CLEAN-OUT PLUG SIZE CLEANOUT SAME AS LINE SIZE.	-	-	-	-	-	-
EWH1	ELECTRIC WATER HEATER 6,000 WATTS, 240 VOLT, SINGLE PHASE, 30 GALLON ELECTRIC WATER HEATER.	RHEEM EGSP30	-	-	-	3/4"	3/4"
HWP	HOT WATER RECIRCULATOR PUMP WITH INTEGRAL TIMER & AQUASTAT. THREE SPEED, WET ROTOR, DIRECT DRIVE, CENTRIFUGAL PUMP. UL LISTED AND CSA APPROVED. 120V, 85 WATTS, 1/25 HP, CORD. ALL BRONZE CONSTRUCTION.	GRUNDFOS UP 15-18B7	-	-	-	-	-
SP1	SUBMERSIBLE EFFLUENT PUMP 1/2 HP, 120 VOLT, 3,450 RPM, 2" DISCHARGE CONNECTION. COMPLETE WITH BUILT-IN AUDIBLE AND VISUAL ALARM WHEN PUMP DOES NOT RUN DUE TO OIL IN PIT OR HIGH LIQUID OR HIGH AMPERAGE CONDITION THE ALARM SHALL SOUND. PROVIDE SILENCING BUTTON FOR AUDIBLE ALARM BUILT INTO CONTROL PANEL. SEE DETAIL FOR ADDITIONAL REQUIREMENTS. LOCATE CONTROL PANEL IN STORAGE 119.	STANCOR MODEL SE-50	2"	-	-	-	-
G	RESIDENTIAL GARBAGE DISPOSAL 1/2 HP, 120V, SINGLE PHASE WITH STAINLESS STEEL GRIND CHAMBER, CUTTING ELEMENTS AND TURNTABLE.	IN-SINK-ERATOR 333SS	-	-	-	-	-
AAV	VENT TERMINAL RELIEF LOCATE AIR ADMITTANCE VALVE JUST BELOW ROOF DECK. SIZE AS INDICATED ON DRAWINGS.	STUDOR	-	-	-	-	-

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	SELECTION	W OR S	TRAP	VENT	HW	CW
P1 WATER CLOSET	HANDICAPPED ** BOWL: WHITE FLOOR MOUNTED WITH BOTTOM OUTLET, VITREOUS CHINA, SIPHON-JET, ELONGATED BOWL, 18" AFF TO RIM, BOLT CAPS WITH CAULK, LOW CONSUMPTION FLUSH (1.6 GPF). BOWL AND SEAT DIMENSIONS MUST MATCH WITHIN 1/4". SEAT: WHITE SOLID PLASTIC, HEAVY DUTY, ELONGATED, OPEN FRONT (WITHOUT COVER), STAINLESS STEEL SELF-SUSTAINING CHECK HINGES, INTEGRAL MOLDED BUMPERS FLUSH VALVE ASSEMBLY: 1-1/2" HIGH ABOVE RIM, PISTON TYPE (1.6 GALLON FLUSH), CHROME FINISH, ADA COMPLIANT, BATTERY OPERATED SENSOR OPERATED VALVE, 1" INLET, 1-1/2" OUTLET, INTEGRAL SCREWDRIVER ADJUSTABLE ANGLE STOP AND CHECK VALVE WITH COVER, VACUUM BREAKER, WALL AND SPUD FLANGES, SWEAT SOLDER ADAPTER KIT, SOLID RING PIPE SUPPORT. ROUGH-IN DIMENSION MUST ALLOW FOR FLUSH VALVE CLEARANCE OF HANDICAPPED GRAB BAR WHERE APPLICABLE, OR OFFSET FITTING MAY BE REQUIRED.	AMERICAN STANDARD MADERA 3043.001 KOHLER BEMIS 1955CT ZURN ZTR6200-WS1-LL-YK DELTA HYDROTEK AMERICAN STANDARD	4"	INT.	2"	-	1"
P2 LAVATORY	HANDICAPPED ** HOT/COLD WATER BOWL: WHITE, WALL MOUNTED, VITREOUS CHINA, 20"X18", ADA COMPLIANT CENTER FAUCET HOLE. PROVIDE FLOOR MOUNTED WALL CARRIER WITH CONCEALED CARRIER ARMS. MOUNT AS FOLLOWS: APPLICATION APRON(MAX.) RIM(MAX.) ADULT 29" 34" FAUCET: CHROME FINISHED SENSOR ** FAUCET, WITH ADJUSTABLE TIME CYCLE (0.35GPM/10 SECONDS MINIMUM), ADA COMPLIANT, VANDAL RESISTANT AERATOR, MOUNT IN CENTER HOLE, WATERTIGHT CONNECTOR AND BATTERY OPERATED WITH VANDAL RESENT MOUNT HOUSING. DRAIN: FLAT GRID, CHROME FINISH, 1-1/4" OUTLET WITH ADA COMPLIANT OFFSET TAILPIECE. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA. P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/4" INLET AND 1-1/2" OUTLET, CLEANOUT PLUG, WALL ESCUTCHEON SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVE, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET AND OUTLET CONNECTIONS. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA**. MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	AMERICAN STANDARD LUCERINE 0356.421 WATTS CA-401 DELTA PROXIMITY 631TP35 MCGUIRE 155WC MCGUIRE 8902 MCGUIRE 2165CCLK MCGUIRE W-215OWC W/155WC & 8902 PLUMBEREX "PRO-2000" SYMMONS 7-225-CK	2"	1-1/4"	1-1/4"	1/2"	1/2"
P3	SERVICE SINK ONE-PIECE CONSTRUCTION, 24"x24"x10", FLOOR MOUNTED TYPE. FAUCET WITH PAIL HOOK AND HOSE END, VACUUM BREAKER, INTEGRAL STOPS, VANDAL PROOF HANDLE MOP HANGER, 24" X 3", 18 GA. STAINLESS STEEL BUMPER GUARD. 12 OZ. SILICONE SEALANT. 30" HOSE AND BRACKET COMBINATION.	FIAT MSB 2424 FIAT 830-AA FIAT 889-CC FIAT 833-AA FIAT 832-AA	2"	2"	2"	1/2"	1/2"
P4 SINK	HANDICAPPED **/NON-HANDICAPPED HOT/ COLD WATER (SINGLE BOWL) BOWL: SINGLE BOWL, STAINLESS STEEL, COUNTERTOP-MOUNTED 18 GAUGE-TYPE 302, SELF RIM, OVERFLOW, 19-1/2"X19"X6-1/2" OVERALL, ONE FAUCET HOLE IN CENTER OF SIDE LEDGE AS REQUIRED FOR ACCESSIBILITY, ADA COMPLIANT FAUCET: 6" HIGH OUTLET, AERATOR (2 GPM), LEVER HANDLE, CHROME FINISHED, ADA COMPLIANT DRAIN: FLAT GRID STRAINER WITHOUT STOPPER, 1-1/2" OUTLET P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/2" INLET AND OUTLET, CLEANOUT PLUG SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVES, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET CONNECTIONS MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	ELKAY LRAD 1919 CHICAGO 50-GN2A-E3-369 ELKAY LK-18 MCGUIRE 8912 MCGUIRE 2165CCLK SYMMONS 7-225-CK	2"	2"	2"	1/2"	1/2"
P5 SINK	HANDICAPPED **/NON-HANDICAPPED HOT/ COLD WATER (DOUBLE BOWL) BOWL: DOUBLE BOWL, STAINLESS STEEL, COUNTERTOP-MOUNTED 18 GAUGE-TYPE 302, SELF RIM, OVERFLOW, 19-1/2"X19"X6-1/2" OVERALL, ONE FAUCET HOLE IN CENTER OF SIDE LEDGE AS REQUIRED FOR ACCESSIBILITY, ADA COMPLIANT FAUCET: 6" HIGH OUTLET, AERATOR (2 GPM), LEVER HANDLE, CHROME FINISHED, ADA COMPLIANT DRAIN: FLAT GRID STRAINER WITHOUT STOPPER, 1-1/2" OUTLET P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/2" INLET AND OUTLET, CLEANOUT PLUG SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVES, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET CONNECTIONS MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	JUST DL-1625-A-GR CHICAGO 50-GN2A-E3-369 ELKAY LK-18 MCGUIRE 8912 MCGUIRE 2165CCLK SYMMONS 7-225-CK	2"	2"	2"	1/2"	1/2"
P6 BAR SINK	NON-HANDICAPPED HOT/ COLD WATER (SINGLE BOWL) BOWL: SINGLE BOWL, STAINLESS STEEL, COUNTERTOP-MOUNTED 18 GAUGE-TYPE 302, SELF RIM, OVERFLOW, 19-1/2"X19"X6-1/2" OVERALL, ONE FAUCET HOLE IN CENTER OF SIDE LEDGE AS REQUIRED FOR ACCESSIBILITY, ADA COMPLIANT FAUCET: 6" HIGH OUTLET, AERATOR (2 GPM), LEVER HANDLE, CHROME FINISHED, ADA COMPLIANT DRAIN: FLAT GRID STRAINER WITHOUT STOPPER, 1-1/2" OUTLET P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/2" INLET AND OUTLET, CLEANOUT PLUG SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVES, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET CONNECTIONS MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	ELKAY BCR15 CHICAGO 50-GN2A-E3-369 ELKAY LK-18 MCGUIRE 8912 MCGUIRE 2165CCLK SYMMONS 7-225-CK	2"	2"	2"	1/2"	1/2"
P7	RESIDENTIAL TYPE VALVE BOX FOR RESIDENTIAL REFRIGERATOR AND DISHWASHER HOOK-IN AND MAKE ALL CONNECTIONS. ONE 1/2" HOSE BIBB AND 7-1/2" X 9" X 3-1/2" BOX. NOTE: PROVIDE 4" BOX IN STUD WALLS.	WATER-TITE 9700	-	-	-	-	1/2"
P8	HANDICAPPED** ELECTRIC WATER COOLER WHEELCHAIR ACCESS ELECTRIC WATER COOLER NON-RECESSED, STAINLESS STEEL TOP AND SIDES, WITH FRONT AND SIDE PRESSBARS, GRID STRAINER AND SAFETY BUBBLER. 8.0 GPH @ 30°F TEMPERATURE DIFFERENCE. 4.8AMPS @ 120V/1 ø/60HZ. 1-1/4" P-TRAP, CAST BRASS WITH CLEAN OUT. 1/2" STOP. MOUNT WITH BUBBLER AS FOLLOWS: APPLICATION BUBBLER (AFF) ADULT 36"	ELKAY EZS8-SS	2"	1-1/4"	1-1/4"	-	1/2"
P9	EMERGENCY SHOWER/EYE AND FACE WASH ALL EXPOSED PIPING SHALL BE PAINTED YELLOW.	BRADLEY S19314EW	2"	2"	2"	-	1-1/4"
P10 WATER CLOSET	NON-HANDICAPPED BOWL: WHITE FLOOR MOUNTED WITH BOTTOM OUTLET, VITREOUS CHINA, SIPHON-JET, ELONGATED BOWL, 14" AFF TO RIM, BOLT CAPS WITH CAULK, LOW CONSUMPTION FLUSH (1.6 GPF). BOWL AND SEAT DIMENSIONS MUST MATCH WITHIN 1/4". SEAT: WHITE SOLID PLASTIC, HEAVY DUTY, ELONGATED, OPEN FRONT (WITHOUT COVER), STAINLESS STEEL SELF-SUSTAINING CHECK HINGES, INTEGRAL MOLDED BUMPERS FLUSH VALVE ASSEMBLY: 11-1/2" HIGH ABOVE RIM, PISTON TYPE (1.6 GALLON FLUSH), CHROME FINISH, ADA COMPLIANT, BATTERY OPERATED SENSOR OPERATED VALVE, 1" INLET, 1-1/2" OUTLET, INTEGRAL SCREWDRIVER ADJUSTABLE ANGLE STOP AND CHECK VALVE WITH COVER, VACUUM BREAKER, WALL AND SPUD FLANGES, SWEAT SOLDER ADAPTER KIT, SOLID RING PIPE SUPPORT. ROUGH-IN DIMENSION MUST ALLOW FOR FLUSH VALVE CLEARANCE OF HANDICAPPED GRAB BAR WHERE APPLICABLE, OR OFFSET FITTING MAY BE REQUIRED.	AMERICAN STANDARD MADERA 3043.001 KOHLER BEMIS 1955CT ZURN ZTR6200-WS1-LL-YK DELTA HYDROTEK AMERICAN STANDARD	4"	INT.	2"	-	1"
P11 LAVATORY	NON-HANDICAPPED HANDICAPPED HOT/COLD WATER BOWL: WHITE, WALL MOUNTED, VITREOUS CHINA, 20"X18", ADA COMPLIANT CENTER FAUCET HOLE. PROVIDE FLOOR MOUNTED WALL CARRIER WITH CONCEALED CARRIER ARMS. MOUNT AT 32" TO RIM. FAUCET: CHROME FINISHED SENSOR ** FAUCET, WITH ADJUSTABLE TIME CYCLE (0.35GPM/10 SECONDS MINIMUM), ADA COMPLIANT, VANDAL RESISTANT AERATOR, MOUNT IN CENTER HOLE, WATERTIGHT CONNECTOR AND BATTERY OPERATED WITH VANDAL RESENT MOUNT HOUSING. DRAIN: FLAT GRID, CHROME FINISH, 1-1/4" OUTLET WITH ADA COMPLIANT OFFSET TAILPIECE. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA. P-TRAP: CHROME FINISHED WITH TWO UNIONS, 1-1/4" INLET AND 1-1/2" OUTLET, CLEANOUT PLUG, WALL ESCUTCHEON SUPPLY: TWO REQUIRED, CHROME PLATED, LOOSE KEY ANGLE VALVE, WALL ESCUTCHEON, FLEXIBLE TUBE RISER, 3/8" INLET AND OUTLET CONNECTIONS. PROVIDE PROTECTIVE INSULATION AS REQUIRED BY ADA**. MIXING VALVE: THERMOSTATICALLY CONTROLLED POINT OF USE MIXING VALVE. LEAD FREE. ASSE 1070 COMPLIANT. SET TEMPERATURE TO 105 DEG F.	AMERICAN STANDARD LUCERINE 0356.421 WATTS CA-401 DELTA PROXIMITY 631TP35 MCGUIRE 155WC MCGUIRE 8902 MCGUIRE 2165CCLK MCGUIRE W-215OWC W/155WC & 8902 PLUMBEREX "PRO-2000" SYMMONS 7-225-CK	2"	1-1/4"	1-1/4"	1/2"	1/2"
P12 URINAL	NON-HANDICAPPED BOWL: WHITE, WALL HUNG VITREOUS CHINA, SIPHON-JET, 14" PROJECTION, 24" TO LIP, FLOOR MOUNTED CARRIER WITH CONCEALED BACK, LOW CONSUMPTION FLUSH (1.0 GPF), 304 STAINLESS STEEL BOLTS AND WASHERS FLUSH VALVE ASSEMBLY: 10" HIGH, EXPOSED DIAPHRAM VALVE (1.0 GALLON FLUSH), CHROME FINISH, ADA COMPLIANT, BATTERY OPERATED SENSOR OPERATED VALVE, 1" INLET, 1-1/2" OUTLET, INTEGRAL SCREWDRIVER ADJUSTABLE ANGLE STOP AND CHECK VALVE WITH COVER, VACUUM BREAKER, WALL AND SPUD FLANGES, SWEAT SOLDER ADAPTER KIT, SOLID RING PIPE SUPPORT.	AMERICAN STANDARD WASHBROOK 6590.505 SMITH 637 ZURN ZTR6203-LL-YK DELTA HYDROTEK AMERICAN STANDARD	2"	INT.	1-1/2"	-	3/4"
P13	HANDICAPPED SHOWER ** CONCEALED PRESSURE BALANCING VOLUME CONTROL VALVE WITH SINGLE BLADE HANDLE AND SHOWER HEAD SPRAY HEAD WITH 5' HOSE, SPRAY HEAD, 30" VERTICAL CHROME BAR WITH ADJUSTABLE SLIDE, IN-LINE VACUUM BREAKER, WALL CONNECTION AND FLANGE. 2.5 GPM FLOW RESTRICTOR. STRAINER SHOWER GRATE. FLOOR DRAIN.	SYMMONS 25-500-B30-V SEE ED1	- 3"	- 3"	- 1-1/2"	1/2" -	1/2" -

4

3

** FIXTURE AND ALL ATTACHMENTS SHALL COMPLY WITH THE 6TH EDITION (2017) FBC/ACCESSIBILITY CODE AND THE AMERICANS WITH DISABILITIES ACT, ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES; CHILDREN'S FACILITIES. FIXTURE TO BE MOUNTED PER THIS SCHEDULE UNLESS NOTED OTHERWISE IN PLAN. FLUSH VALVE IS TO BE ON THE SIDE TOWARDS THE ASSOCIATED LAVATORY WHERE APPLICABLE.

*** CONNECT COLD WATER SUPPLY LINE TO HOT AND COLD WATER FIXTURE CONNECTIONS. PROVIDE TWO COLD WATER INDEXES WHERE POSSIBLE.

**** INDICATES THAT THE ITEM IS TO BE PROVIDED UNDER A DIFFERENT DIVISION AND TO BE INSTALLED BY THE PLUMBING CONTRACTOR. THE PLUMBING CONTRACTOR SHALL PROVIDE ALL REQUIRED CONNECTIONS, WASTE ARMS, STOPS, END ESCUTCHEONS TO RENDER THE INSTALLATION COMPLETE.

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF PLANS IS APPROVED
ON CONDITION THAT
THE WORK AT ALL TIMES
It is unlawful to make any
alterations to these plans
from the approved version
REVIEWED FOR CODE COMPLIANCE
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes

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Harry W. Portellos
P.E. 61597

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
3	REV 3	12.16.19
4	Permit REV 4	02.24.20

Sheet Information

PLUMBING SCHEDULES

P002

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make any alterations, additions or deletions to these plans without the approval of the issuing authority.
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BLD-20-0

ROWE ARCHITECTS
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Harry W Portellos 2020.02.26 12:19:19 -05'00'

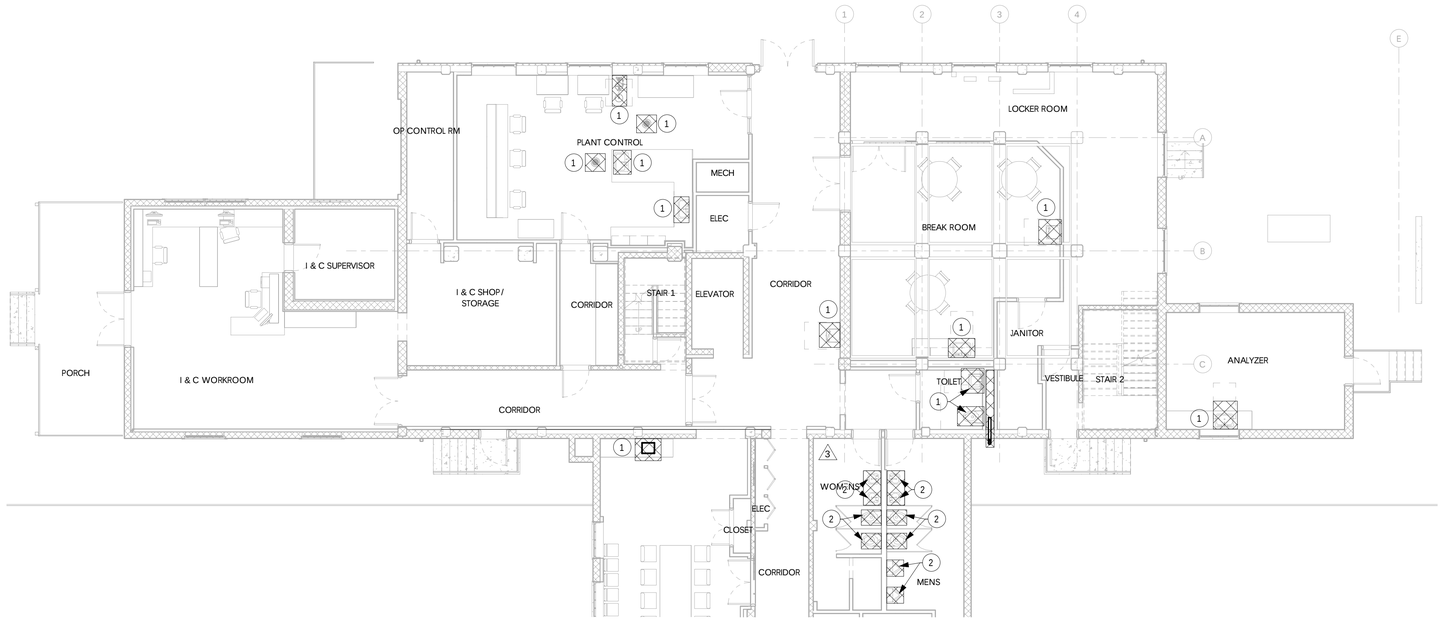
HARRY PORTELLOS LICENSE No. 61597 STATE OF FLORIDA PROFESSIONAL ENGINEER

Harry W. Portellos
P.E. 61597

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE

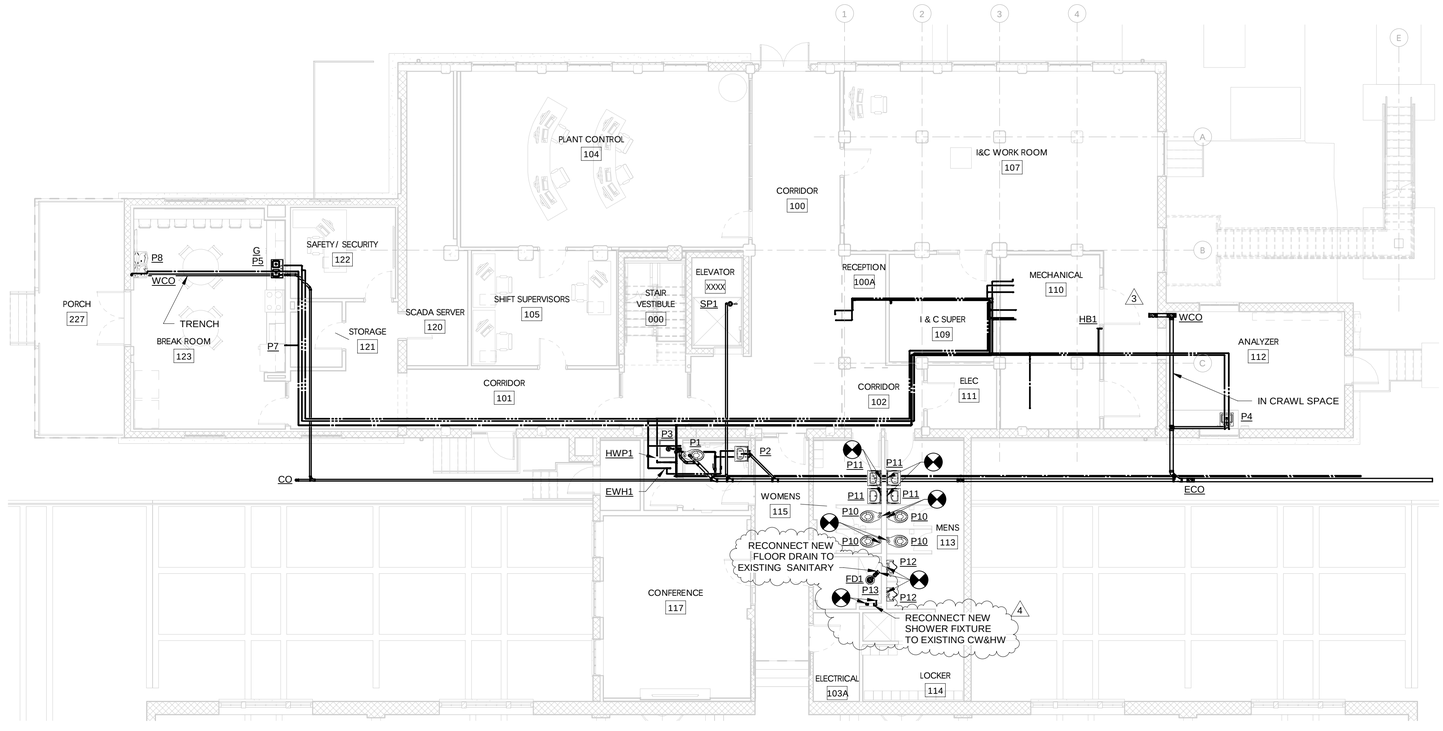
DEMOLITION NOTES:

1. REMOVE (E) PLUMBING FIXTURES AND ASSOCIATED PIPING.
2. REMOVE (E) PLUMBING FIXTURES TO BE REPLACED.



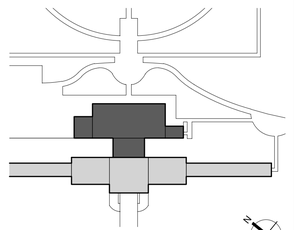
ADMINISTRATION BUILDING PLUMBING DEMOLITION FIRST FLOOR PLAN

1/8" = 1'-0"



ADMINISTRATION BUILDING PLUMBING NEW WORK FIRST FLOOR PLAN

1/8" = 1'-0"



KEY PLAN

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

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4	Permit REV 4	02.24.20

Sheet Information

ADMINISTRATION BUILDING PLUMBING FIRST FLOOR PLAN

0' 1' 2' 4' 8' 16'
1/8 = 1'-0"

P101

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make any changes or alterations on same, or any part thereof, without the specific approval from the Building Official.
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REVIEWED FOR CODE COMPLIANCE

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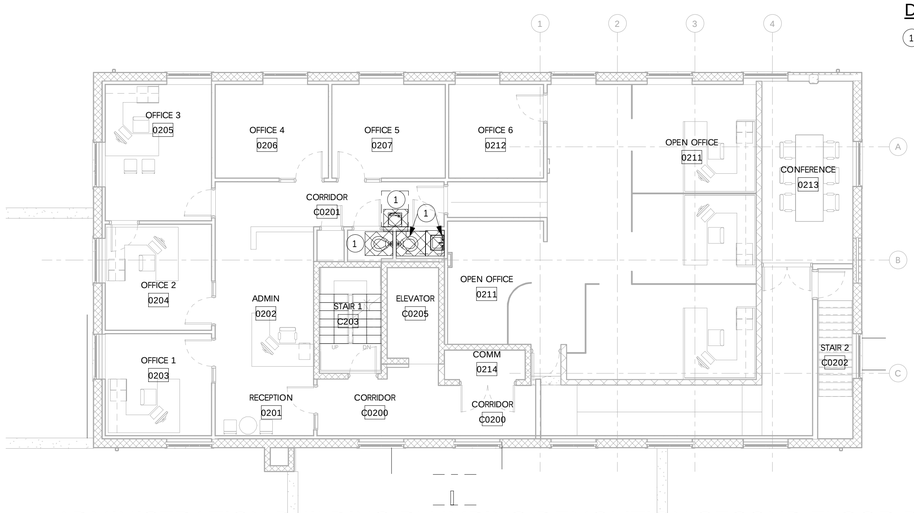
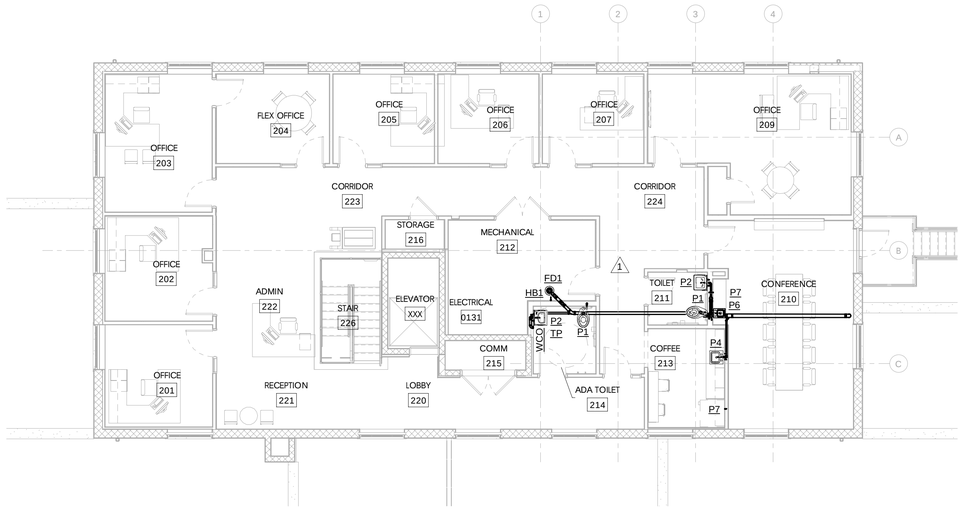


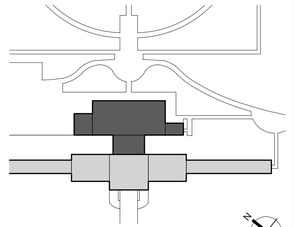
ADMINISTRATION BUILDING PLUMBING DEMOLITION SECOND FLOOR PLAN

1/8" = 1'-0"



ADMINISTRATION BUILDING PLUMBING NEW WORK SECOND FLOOR PLAN

1/8" = 1'-0"



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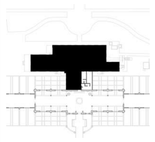

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1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
1	Permit Review	08.21.19

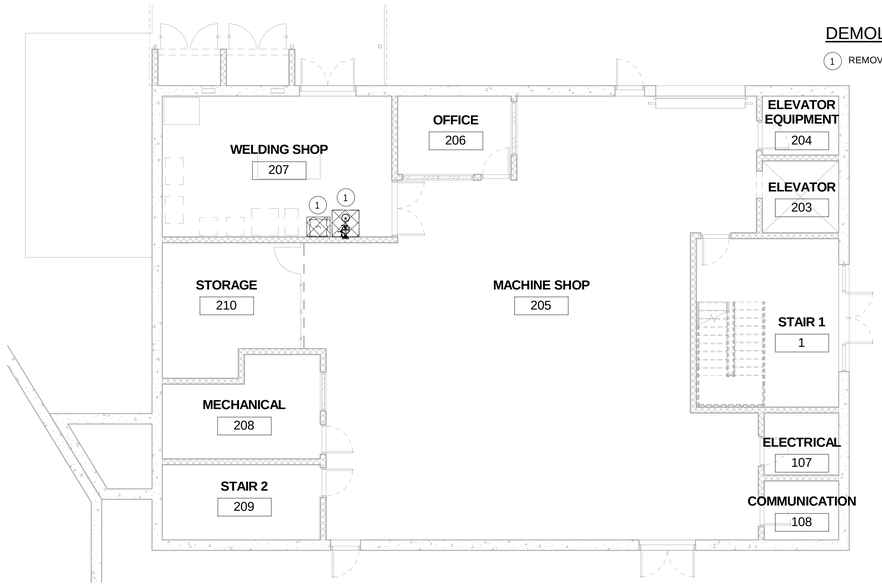
Sheet Information

ADMINISTRATION BUILDING PLUMBING SECOND FLOOR PLAN

0' 1' 2' 4' 8' 16'
1/8 = 1'-0"

P102

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful to make any changes or alterations on these plans without permission from the Building Official
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

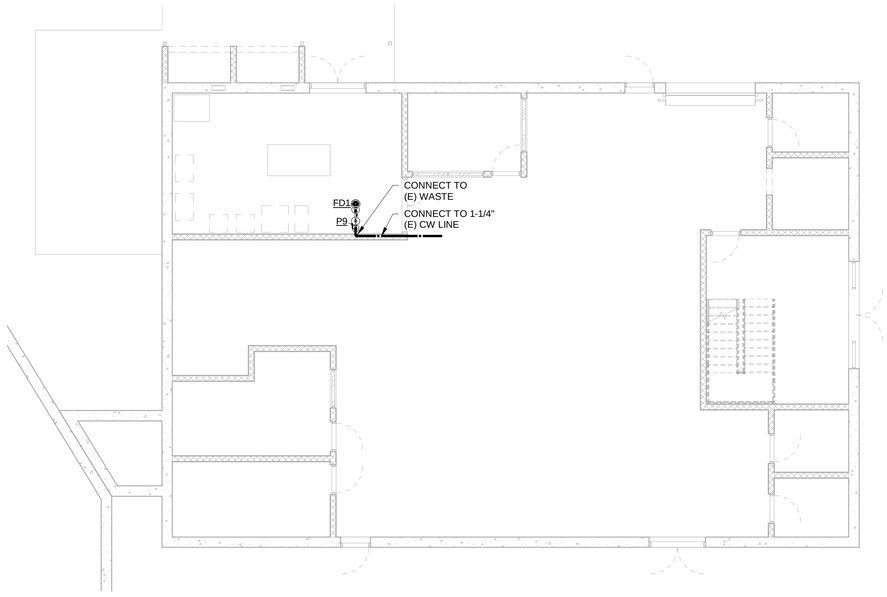


DEMOLITION NOTES:

1 REMOVE (E) PLUMBING FIXTURES.

MAINTENANCE BUILDING PLUMBING DEMOLITION FIRST FLOOR PLAN

1/8" = 1'-0"



MAINTENANCE BUILDING PLUMBING NEW WORK FIRST FLOOR PLAN

1/8" = 1'-0"

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
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Florida Engineering Business Number 6093

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Harry W. Portellos
P.E. 61597

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

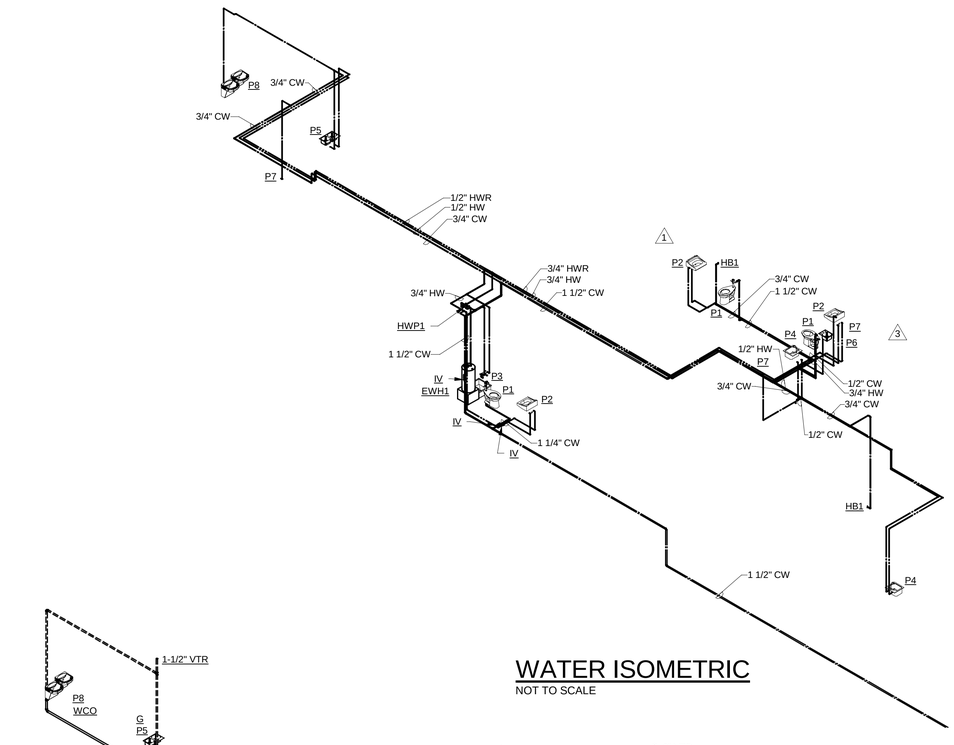
No.	Description	Date

Sheet Information

MAINTENANCE BUILDING PLUMBING FIRST FLOOR PLAN

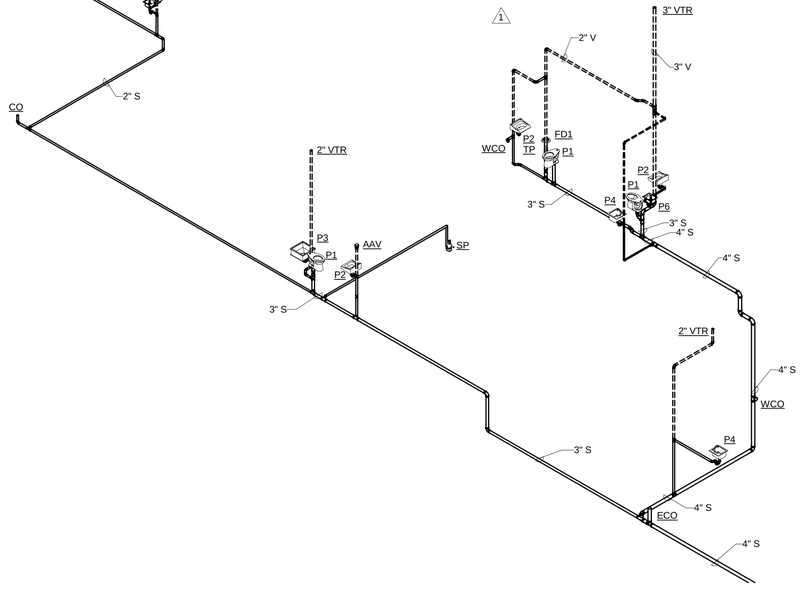
0' 1' 2' 4' 8' 16'
1/8 = 1'-0"

P201



WATER ISOMETRIC

NOT TO SCALE



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NOT TO SCALE

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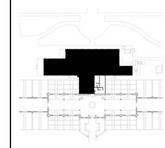

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Revisions

No.	Description	Date
1	Permit Review	08.21.19
3	REV 3	12.16.19

Sheet Information

PLUMBING ISOMETRICS

P301

ABBREVIATIONS:

AFF	ABOVE FINISHED FLOOR	GWB	GYPSUM WALL BOARD
AFG	ABOVE FINISHED GRADE	H.D.	HAND DRYER
E	EXISTING	INT	INTERCOM/PAGING CABINET
ETR	EXISTING TO REMAIN	MTG	MOUNTING
EWC	ELECTRIC WATER COOLER	MTD	MOUNTED
EWH	ELECTRIC WATER HEATER	M.H.	MOUNTING HEIGHT
EG	EQUIPMENT GROUND	N/A	NOT APPLICABLE
ESB	ENERGY SAVING BALLAST	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
EXP	EXPLOSION PROOF	PROJ	PROJECTOR LOCATION
FACP	FIRE ALARM CONTROL PANEL	U.O.N.	UNLESS OTHERWISE NOTED
FATC	FIRE ALARM TERMINAL CABINET	R	REMOVE
FPD	FLAT PANEL DISPLAY	RL	RELOCATED
GFI	GROUND FAULT PROTECTION	WP	WEATHER PROOF
G, GND	GROUND		

ELECTRICAL DRAWING INDEX

SHEET NUMBER	SHEET NAME
E001	ELECTRICAL LEGEND AND GENERAL NOTES
E002	LUMINAIRE SCHEDULE
E003	LUMINAIRE CUT SHEETS
E100	ELECTRICAL DEMOLITION PLAN
E101	ADMINISTRATION BUILDING LIGHTING PLANS
E102	MAINTENANCE BUILDING LIGHTING PLAN
E201	ADMINISTRATION BUILDING - POWER AND SYSTEMS PLANS
E202	ADMINISTRATION BUILDING - MECHANICAL EQUIPMENT CONNECTION PLANS
E203	CHILLER YARD LIGHTING AND POWER PLAN
E204	MAINTENANCE BUILDING POWER PLAN
E205	MECHANICAL EQUIPMENT CONNECTION SCHEDULE
E301	ADMINISTRATION BUILDING FIRE ALARM AND ACCESS CONTROL PLANS
E401	ELECTRICAL RISER DIAGRAM - DEMOLITION
E402	ELECTRICAL RISER DIAGRAM - NEW WORK
E403	EXISTING PANEL SCHEDULES
E404	PANEL SCHEDULES - NEW WORK
E405	PANEL SCHEDULES - NEW WORK
E406	DATA AND SCADA SYSTEMS RISER DIAGRAM
E407	FIRE ALARM RISER DIAGRAM
E408	ACCESS CONTROL RISER DIAGRAM
E501	ELECTRICAL DETAILS

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	MOUNTING
A	LED LUMINAIRE, LETTER INDICATES TYPE. a = SWITCH DESIGNATION	CEILING - SEE FIXTURE SCHEDULE
A1	LED LUMINAIRE W/ EMERGENCY BATTERY PACK, LETTER INDICATES TYPE.	CEILING - SEE FIXTURE SCHEDULE
G	LED RECESSED DOWNLIGHT LUMINAIRE, LETTER INDICATES TYPE	CEILING - SEE FIXTURE SCHEDULE
D1	LED STRIP LIGHT W/ EMERGENCY BATTERY PACK, LETTER INDICATES TYPE.	CEILING OR WALL - SEE FIXTURE SCHEDULE
D	LED STRIP LIGHT, LETTER INDICATES TYPE.	CEILING OR WALL - SEE FIXTURE SCHEDULE
F1	RECESSED LED LUMINAIRE W/ EMERGENCY BATTERY PACK, LETTER INDICATES TYPE.	CEILING - SEE FIXTURE SCHEDULE
F	RECESSED LED LUMINAIRE, LETTER INDICATES TYPE.	CEILING - SEE FIXTURE SCHEDULE
B	RECESSED LED LUMINAIRE, LETTER INDICATES TYPE.	CEILING - SEE FIXTURE SCHEDULE
B1	RECESSED LED LUMINAIRE W/ EMERGENCY BATTERY PACK, LETTER INDICATES TYPE.	CEILING - SEE FIXTURE SCHEDULE
A	LED LIGHTING FIXTURE, LETTER INDICATES TYPE	WALL - SEE FIXTURE SCHEDULE
	POLE MOUNTED SITE LIGHTING FIXTURE, LETTER INDICATES TYPE	POLE - SEE FIXTURE SCHEDULE & DETAIL
X	EXIT LIGHT, LETTER INDICATES TYPE SINGLE OR DUAL FACED AS INDICATED ON DRAWINGS	SEE FIXTURE SCHEDULE
VS	LOW VOLTAGE OCCUPANCY SENSOR, VACANCY TYPE (MANUAL ON/AUTO OFF) SENSORSWITCH OR APPROVED EQUIVALENT. PROVIDE WIDER RANGE DEVICES WHEN NECESSARY.	CEILING MOUNTED OR WALL MOUNT AT 9'-0" AFF
OS	OCCUPANCY SENSOR (AUTO ON/AUTO OFF), LINE VOLTAGE (120/277V), 2 POLE, SENSORSWITCH EMR92P OR APPROVED EQUIVALENT.	CEILING MOUNTED
$a	LOW VOLTAGE LIGHTING CONTROL WALL SWITCH. PUSH BUTTON ON/OFF. LOW VOLTAGE (0-10V) LIGHTING CONTROL WALL SWITCH WITH STAINLESS STEEL COVERPLATE. SENSOR SWITCH sPODM-SA OR APPROVED EQUIVALENT. COORDINATE WITH THE OCCUPANCY SENSOR. LETTER INDICATES FIXTURE GROUPING BY SWITCH	M.H. 40" AFF TO TOP
$a3	LOW VOLTAGE MULTI-WAY LIGHTING CONTROL WALL SWITCH (e.g. 3-WAY). PUSH BUTTON ON/OFF. LOW VOLTAGE (0-10V) LIGHTING CONTROL WALL SWITCH WITH STAINLESS STEEL COVERPLATE. SENSOR SWITCH sPODM-SA-3X OR APPROVED EQUIVALENT. COORDINATE WITH THE OCCUPANCY SENSOR. LETTER INDICATES FIXTURE GROUPING BY SWITCH	M.H. 40" AFF TO TOP
	LOW VOLTAGE PUSH-BUTTON DIMMER SWITCH. ON/OFF/DIMMING - 0-10V LED DIMMER SHALL BE COMPATIBLE WITH LED DRIVER AND OCCUPANCY SENSOR. SENSOR SWITCH sPODM-SA-D OR APPROVED EQUIVALENT.	M.H. 40" AFF TO TOP
3	LOW VOLTAGE MULTI-WAY PUSH-BUTTON DIMMER SWITCH, ON/OFF/DIMMING (MULTI-WAY APPLICATION WITH NON-DIMMING sPODM-SA-3X UNITS ONLY) LOW VOLTAGE (0-10V) LED DIMMER SHALL BE COMPATIBLE WITH LED DRIVER AND OCCUPANCY SENSOR. SENSOR SWITCH sPODM-SA-3X-D OR APPROVED EQUIVALENT.	M.H. 40" AFF TO TOP
$a	LINE VOLTAGE (120/277V) SINGLE POLE SWITCH, LETTER INDICATES FIXTURE GROUPING BY SWITCH	M.H. 40" AFF TO TOP
$3	LINE VOLTAGE (120/277V) THREE WAY SWITCH	M.H. 40" AFF TO TOP
$4	LINE VOLTAGE (120/277V) FOUR WAY SWITCH	M.H. 40" AFF TO TOP
$OS	LINE VOLTAGE (120/277V) AUTOMATIC WALL SWITCH WITH OCCUPANCY SENSOR	M.H. 40" AFF TO TOP
$T	TIME DELAY SWITCH, MARKTIME SERIES 42 3-POSITION, ON/OFF/TIMED FAN ADJUSTABLE TIME. SET 15 MINUTE OFF DELAY	M.H. 40" AFF TO TOP
$M	MOTOR/HP RATED TOGGLE SWITCH SIZED PER MOTOR MANUFACTURER'S RECOMMENDATION, MINIMUM 20 AMP.	SURFACE, ADJACENT TO OR ON MOTOR
	DUPLEX RECEPTACLE - 120VAC	M.H. 16" AFF TO BOTTOM OR AS NOTED
	DOUBLE DUPLEX RECEPTACLE - 120VAC	M.H. 16" AFF TO BOTTOM
WP	DUPLEX RECEPTACLE - 120VAC. LETTER NEXT TO DEVICE INDICATES THE FOLLOWING: 'WP' = WEATHERPROOF TYPE. 'GFI' = GROUND FAULT PROTECTION TYPE. 'DL' = DAMP LOCATION WEATHERPROOF COVER (NOT IN USE TYPE). 'TP' = TAMPER PROOF.	M.H. 16" AFF TO BOTTOM
	DUPLEX RECEPTACLE - 120VAC	M.H. 42" AFF TO BOTTOM OR AS NOTED
	SPECIAL PURPOSE RECEPTACLE AS NOTED	M.H. 42" AFF TO BOTTOM
	SINGLE RECEPTACLE - 120VAC	M.H. 16" AFF TO BOTTOM
	DUPLEX RECEPTACLE - 120VAC. COMPUTER OUTLET WITH SURGE PROTECTION AND SEPARATE NEUTRAL, MIN. #10 AWG	M.H. 16" AFF TO BOTTOM
	DOUBLE DUPLEX RECEPTACLE - 120VAC. COMPUTER OUTLET WITH SURGE PROTECTION AND SEPARATE NEUTRAL, MINIMUM #10 AWG	M.H. 16" AFF TO BOTTOM
USB	DUPLEX RECEPTACLE WITH DUAL USB CHARGER OUTLETS - 120VAC. PROVIDE 3.6 AMPS OF CHARGING POWER.	M.H. 16" AFF TO BOTTOM
J	JUNCTION BOX OR OUTLET BOX, 4" SQUARE BOX UNLESS OTHERWISE NOTED, PROVIDE CONNECTION	AS NOTED
HD	JUNCTION BOX OR OUTLET BOX, 4" SQUARE BOX, FOR HAND DRYER ELECTRICAL CONNECTION.	M.H. 44" AFF TO CENTER
FATC	FIRE ALARM TERMINAL CABINET - MIN. 18"x18"x6" WITH HINGED LOCKABLE COVER	M.H. 6'-0" A.F.F. TO TOP
FACP	FIRE ALARM CONTROL PANEL	M.H. 6'-0" A.F.F. TO TOP
FAA	FIRE ALARM ANNUNCIATOR PANEL WITH VOICE CONTROL COMMAND STATION	M.H. 6'-0" A.F.F. TO TOP
FAEC	FIRE ALARM EXPANDER CABINET AND FIBER RECEIVER/COMMUNICATIONS - MIN. 18"x18"x6" WITH HINGED LOCKABLE COVER	M.H. 6'-0" A.F.F. TO TOP
FACP	FIRE ALARM CONTROL PANEL	M.H. 6'-0" A.F.F. TO TOP
FAVP	FIRE ALARM VOICE COMMAND CENTER PANEL WITH INTEGRAL FIRE ALARM ANNUNCIATOR	M.H. 6'-0" A.F.F. TO TOP
	FIRE ALARM SYSTEM END OF LINE RESISTOR	SEE FIRE ALARM RISER

THIS IS A STANDARD LEGEND. NOT ALL DEVICES SHOWN ARE USED IN THESE DOCUMENTS.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION	MOUNTING
	BRANCH CIRCUIT CONDUIT AND WIRE CONCEALED ABOVE CEILING OR BEHIND FINISHED WALL	N/A
	BRANCH CIRCUIT CONDUIT AND WIRE CONCEALED BELOW FINISHED FLOOR OR UNDERGROUND.	N/A
	RACEWAY EXPOSED ON WALL OR CEILING	N/A
LA-1,3,5 EG IG	HOMERUN TO PANELBOARD - LETTER INDICATES PANEL, NUMBER INDICATES CIRCUIT, MINIMUM 3/4" CONDUIT. NOTE: ANY HOMERUN WITHOUT FURTHER DESIGNATION INDICATES TWO #12 AWG AND #12 AWG EQUIPMENT GROUND. PC OUTLET REQUIRES SEPARATE NEUTRAL, MIN. #10 AWG. DEDICATED CIRCUIT REQUIRES SEPARATE NEUTRAL	N/A
UP DN	RACEWAY RISER, UP OR DOWN AS NOTED	N/A
	CONDUIT CAPPED	N/A
2 4	COMMUNICATIONS OUTLETS W/REQUIRED CAT 6 CABLING IN 1" CONDUIT. # DESIGNATES QUANTITY OF CABLES & RJ45 JACKS. SEE DETAILS AND SPECIFICATIONS FOR MORE INFO. PROVIDE 4" SQUARE X 2-1/8" DEEP OUTLET BOX.	M.H. 16" AFF TO BOTTOM OR AS NOTED
2	2-PORT COMMUNICATIONS OUTLETS W/REQUIRED CAT 6 CABLING IN 1" CONDUIT. PROVIDE 4" SQUARE X 2.5" DEEP OUTLET BOX. # DESIGNATES QUANTITY OF CABLES & RJ45 JACKS. 1 - PORT ADS (BUSINESS RACK) 1 - PORT DATA (BUSINESS RACK)	M.H. 16" AFF TO BOTTOM OR AS NOTED
4	4-PORT SCADA/COMMUNICATIONS OUTLETS W/REQUIRED CAT 6 CABLING IN 1" CONDUIT. PROVIDE 4" SQUARE X 2.5" DEEP OUTLET BOX. # DESIGNATES QUANTITY OF CABLES & RJ45 JACKS. 1 - PORT SCADA (SCADA RACK) 1 - PORT DATA (BUSINESS RACK) 1 - PORT ADS (BUSINESS RACK) 1 - PORT SPARE	M.H. 16" AFF TO BOTTOM OR AS NOTED
4	COMBINATION COMMUNICATION/POWER FLOOR BOX. ROUND FULLY ADJUSTABLE, DEEP, TWO-GANG WITH CARPET FLANGE; HUBBELL B4233-61 OR EQUIVALENT. # = NUMBER OF PORTS WITH CAT 6 CABLING TO RACKS AS FOLLOWS: 1 - PORT SCADA (SCADA RACK) 1 - PORT DATA (BUSINESS RACK) 1 - PORT ADS (BUSINESS RACK) 1 - PORT SPARE 1" CONDUIT FROM DATA PORT TO ACCESSIBLE CEILING SPACE.	FLUSH MOUNTED IN FLOOR. REFER TO SPECIFICATIONS FOR MORE REQUIREMENTS
4	FIRE RATED, POKE-THRU TYPE FLOOR BOX. TWO-GANG WITH 1-DUPLEX RECEPTACLE, 1 - 4 PORT DATA OUTLET WITH 4 - CAT 6 CABLES.	FLUSH MOUNTED IN FLOOR. REFER TO SPECIFICATIONS FOR MORE REQUIREMENTS
WA	2 PORT, CAT 6 BOX ABOVE CEILING WITH 4 FOOT SERVICE LOOP. CAT 6 CABLING BACK TO BUSINESS RACK. INSTALL OWNER FURNISHED CEILING MOUNTED WIRELESS ACCESS DEVICE. AEROHIVE AP.	ABOVE CEILING
AV	AV OUTLET BOX WITH TV JACK, 4"x4"x2-1/8" DEEP BOX WITH 1" CONDUIT W/BUSHING STUBBED INTO CEILING SPACE.	AS NOTED
PEC	PHOTOELECTRIC CELL	AS NOTED
TC	TIME CLOCK, AS NOTED OR SPECIFIED	M.H. 54" A.F.F. TO BOTTOM OR AS NOTED
	120/208 VOLT POWER PANELBOARD	M.H. 6'-0" TO TOP OR AS NOTED
	277/480 VOLT POWER PANELBOARD	M.H. 6'-0" TO TOP OR AS NOTED
	NON-FUSIBLE SWITCH	M.H. 6'-0" TO TOP OR AS NOTED
	FUSIBLE SAFETY SWITCH	M.H. 6'-0" TO TOP OR AS NOTED
	COMBINATION MOTOR STARTER WITH FUSED DISCONNECT	AS NOTED
	MOTOR CONNECTION	AS NOTED
	ELECTRIC HEAT STRIP	AS NOTED
	RED "MUSHROOM HEAD" TYPE PUSH-BUTTON SWITCH. "EPO" TYPE REQUIRES KEY RESET WITH CONTACTOR.	M.H. 48" A.F.F. TO TOP OR AS NOTED
	DEVICE AS NOTED	AS NOTED
M	MOTORIZED DAMPER	AS NOTED
F	FIRE ALARM STROBE ONLY XX = CANDELA RATING, MINIMUM 75 CANDELA U.O.N.	TOP 6" BELOW CEILING OR 80" TO BOTTOM OF LENS A.F.F. WHICHEVER IS LOWER
S F	FIRE ALARM COMBINATION SPEAKER/STROBE, LETTER INDICATES TYPE: C=CHIMES, B=BELL, H=HORN, S=SPEAKER. XX = CANDELA RATING, MINIMUM 75 CANDELA U.O.N. WP = WEATHERPROOF TYPE	TOP 6" BELOW CEILING OR 80" TO BOTTOM OF LENS A.F.F. WHICHEVER IS LOWER
F	FIRE ALARM MANUAL PULL STATION	M.H. 48" AFF TO TOP
F S	FIRE ALARM SPEAKER. RECESSED IN THE CEILING OR SURFACE MOUNTED WHEN INDICATED WITH (SUR)	CEILING MOUNTED U.O.N. WITH (SUR)
F S	FIRE ALARM SPEAKER/STROBE. RECESSED IN THE CEILING OR SURFACE MOUNTED WHEN INDICATED WITH (SUR)	CEILING MOUNTED U.O.N. WITH (SUR)
	FIRE ALARM HEAT DETECTOR HT = HIGH TEMPERATURE TYPE	CEILING MOUNTED
F S	FIRE ALARM SMOKE DETECTOR	CEILING MOUNTED
F SD	FIRE ALARM DUCT MOUNTED SMOKE DETECTOR	DUCT MOUNTED (SEE MECH DWGS.)
F RI	FIRE ALARM REMOTE INDICATOR	M.H. 48" AFF TO TOP
F FS	FIRE ALARM FLOW SWITCH	AS NOTED
F TS	FIRE ALARM TAMPER SWITCH	AS NOTED
F D	FIRE ALARM MAGNETIC DOOR HOLDER COORDINATE MOUNTING HEIGHT WITH DOOR SUPPLIER	WALL MOUNTED
F R	FIRE ALARM CONTROL RELAY (AIR HANDLER SHUTDOWN SOLENOID VALVE, ETC.)	M.H. 60" A.F.F. TO BOTTOM OR AS NOTED
C	LIGHTING CONTACTOR, AS NOTED OR SPECIFIED	M.H. 54" A.F.F. TO BOTTOM OR AS NOTED
S	COMMUNICATIONS SYSTEM SPEAKER,	FLUSH MOUNTED IN CEILING

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ELECTRICAL GENERAL NOTES:

(THESE NOTES APPLY TO ALL SHEETS)

1. ALL ELECTRICAL WORK SHALL MEET ALL OF THE REQUIREMENTS OF THE FOLLOWING:
   - A. FLORIDA BUILDING CODE (FBC) 6TH EDITION (2017): THIS CODE INCLUDES THE 2017 FBC BUILDING, MECHANICAL, PLUMBING, ENERGY CONSERVATION, FUEL GAS, ACCESSIBILITY, AND TEST PROTOCOLS VOLUMES. FURTHER, SEE "REFERENCED STANDARDS" IN THE FBC BUILDING CHAPTER 35; FBC MECHANICAL CHAPTER 15; FBC PLUMBING CHAPTER 14; FBC ENERGY CONSERVATION CHAPTER 6; AND FBC FUEL GAS CHAPTER 8) (EFFECTIVE DECEMBER 31, 2017)
   - B. 6TH EDITION OF THE FLORIDA FIRE PREVENTION CODE (FFPC): (THIS CODE ALSO INCLUDES THE FLORIDA VERSIONS OF NFPA 1 AND NFPA 101.) (EFFECTIVE DECEMBER 31, 2017)
   - C. 2014 NATIONAL ELECTRIC CODE
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND VERIFY THE EXISTING CONDITIONS TO GAIN KNOWLEDGE OF THE SCOPE OF WORK INVOLVED.
3. "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
4. IN GENERAL, THESE DRAWINGS ARE SCHEMATIC IN NATURE AND SHOULD NOT BE SCALED. IT SHALL NOT BE THE INTENT OF THESE PLANS AND/OR SPECIFICATIONS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. PROVIDE ALL ITEMS NECESSARY FOR A COMPLETE AND OPERATIONAL SYSTEM.
5. ELECTRICAL INSTALLATION SHALL BE CLOSELY COORDINATED WITH ALL OTHER TRADES. REVIEW TH ENTIRE SET OF DOCUMENTS FOR COORDINATION. NO COST SHALL BE ASSOCIATED WITH ILL-TIMED INSTALLATION INCLUDING ANY REPAIRS OR REPLACEMENTS.
6. ALL CONDUITS AND BOXES SHALL BE CONCEALED UNLESS OTHERWISE NOTED. ALL CONDUIT RUNS ARE SCHEMATIC IN NATURE. EXACT ROUTING TO BE DETERMINED IN THE FIELD UNLESS OTHERWISE NOTED.
7. APPLY A BITUMASTIC COATING FOR ALL CONDUITS PENETRATING FLOOR SLABS FROM BELOW GRADE.
8. PROVIDE ALL REQUIRED PULL BOXES, JUNCTION BOXES, ETC. FOR A COMPLETE INSTALLATION.
9. PROVIDE FIRE-STOPPING AT ALL FIRE WALL PENETRATIONS. USE A U.L. APPROVED SYSTEM LISTED FOR THE ASSOCIATED INSTALLATION.
10. ALL CONDUCTORS SHALL BE STRANDED COPPER, THHN/THWN, MINIMUM #12 AWG. ALL CONDUCTORS SHALL BE IN CONDUIT. FLEXIBLE CONDUIT SHALL BE LIMITED TO A MAXIMUM OF 6'-0" IN LENGTH.
11. MC CABLE OR OTHER PREMANUFACTURED CABLING SHALL NOT BE USED.
12. ALL CIRCUITS SHALL CONTAIN A SEPARATE, GREEN, COPPER GROUNDING CONDUCTOR.
13. ALL RECEPTACLES SHALL HAVE A GROUND TERMINAL.
14. RECESSED LIGHTING FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE AT (4) POINTS. DO NOT SUPPORT FIXTURES FROM THE CEILING GRID, MECHANICAL PIPING, DUCTWORK, CONDUIT OR OTHER NON-STRUCTURAL BUILDING MEMBERS. PROVIDE SUPPLEMENTAL STEEL AS REQUIRED FOR INSTALLATION.
15. THE COLOR OF ALL RECEPTACLES, TOGGLE SWITCHES AND COVERPLATES SHALL BE VERIFIED WITH THE ARCHITECT PRIOR TO ORDERING.
16. PANELBOARDS SHALL BE ACCURATELY LABELED TO IDENTIFY FINAL CIRCUIT NUMBERS UTILIZED, THEIR LOAD AND LOCATION.
17. BRANCH CIRCUITS SHALL NOT BE RUN UNDERGROUND, EXCEPT FOR FLOOR BOXES, FLOOR FEEDS, AND SITE. ROUTE CONCEALED IN WALL AND ABOVE CEILINGS. HOME RUNS DISTRIBUTION FEEDERS FROM THE MAIN SWITCHBOARD OR PANELBOARD MAY BE RUN UNDERGROUND.
18. INTERIOR LOW VOLTAGE SYSTEMS (FIRE ALARM, INTERCOM, TV, VOICE/DATA, SECURITY) WIRING SHALL NOT BE RUN UNDERGROUND. BACKBONE CABLING/SERVICES FROM MDF TO IDF MAY RUN UNDERGROUND. WIRING SHALL BE RATED SUCH USE.
19. PROVIDE FIRE RETARDANT U.L. APPROVED SEALANT ON ALL PENETRATIONS OF FIRE RATED PARTITIONS, WALLS AND STRUCTURAL SLABS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY, PRIOR TO SUBMITTING BID, LOCATIONS OF ALL SUCH FIRE RATED PARTITIONS, WALL AND STRUCTURAL SLABS.
20. ALL EXTERIOR FASTENERS, ANCHORS, SUPPORTS, AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.
21. SEE SPECIFICATIONS FOR MORE INFORMATION.

APPROVED
By Edwin EliasNarvaez at 1/31/2020 2:55:30 PM
FBC [A] 101.2 Scope:
Reviewed for compliance with applicable requirements of NFPA70/NEC 2014.

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
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ROBERT C. ANSTON LICENSE No. 40858 STATE OF FLORIDA PROFESSIONAL ENGINEER

Robert C Anston
2020.01.13 08:16:17 -05'00'

ROBERT C. ANSTON
P.E. 40858

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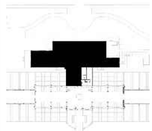


Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

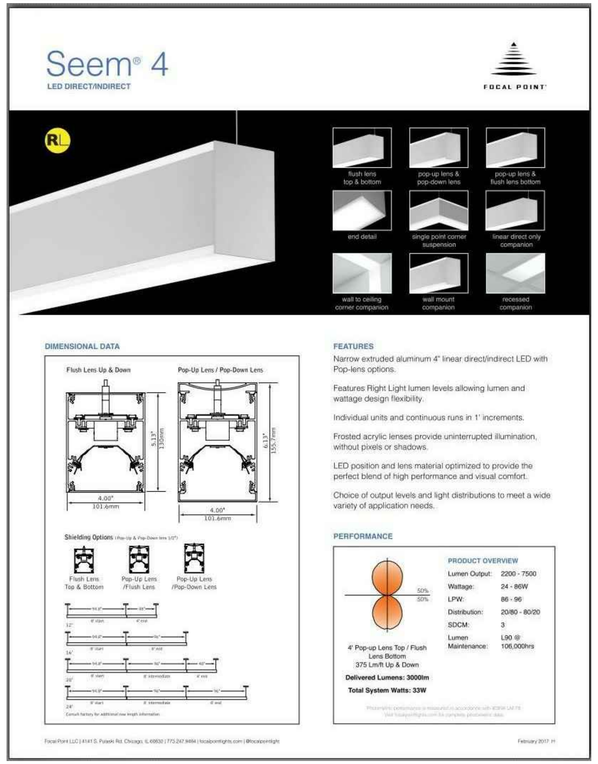
No.	Description	Date

Sheet Information

ELECTRICAL LEGEND AND GENERAL NOTES

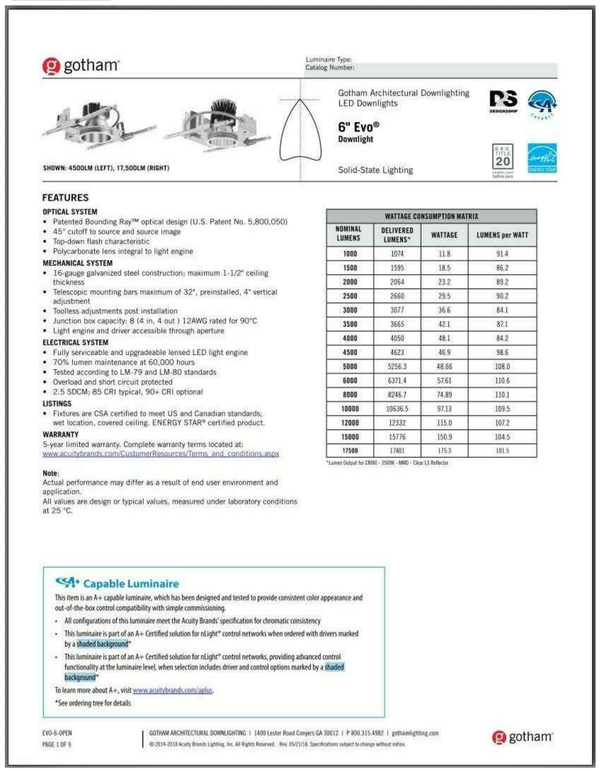
E001

FIXTURE 'A'



FIXTURE 'B'

FIXTURE 'C'



FIXTURE 'D'

LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	VOLTS	WATTS	LAMPS	BALLAST (IF APPLICABLE)	MOUNTING
A	4'-0" LED DIRECT / INDIRECT SUSPENDED LUMINAIRE. 4" EXTRUDED ALUMINUM HOUSING, FLAT FROSTED ACRYLIC LENS. FOCAL POINT SEEM 4 FSM4BS-FLFL-875DN-275UP-40K-1C-UNV-LD1-C24, OR APPROVED EQUIVALENT	120	52	LED, 275 LUMENS UP, 875 DOWN PER FOOT LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING	SUSPENDED AIRCRAFT CABLES AT 10'-0" AFF, U.O.N.
A1	SAME AS TYPE 'A' EXCEPT EQUIPPED WITH EMERGENCY BATTERY BACKUP. FOCAL POINT SEEM 4 FSM4BS-FLFL-875DN-275UP-40K-1C-UNV-LD1-C24-EM, OR APPROVED EQUIVALENT	120	52	LED, 275 LUMENS UP, 875 DOWN PER FOOT LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING, EMERGENCY BATTERY PACK	SUSPENDED AIRCRAFT CABLES AT 10'-0" AFF, U.O.N.
B	2'x2' LED LOW PROFILE BASKET TROFFER, LITHONIA - 2BLT2-48L-ADP-MVOLT-EZ1-LP840, OR APPROVED EQUIVALENT	120	45	LED 4800 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING	RECESSED CEILING GRID
B1	SAME AS TYPE 'B' EXCEPT EQUIPPED WITH EMERGENCY BATTERY BACKUP. LITHONIA - 2BLT2-48L-ADP-MVOLT-EZ1-LP840-EL14L, OR APPROVED EQUIVALENT	120	39	LED 4000 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING, EMERGENCY BATTERY PACK	RECESSED CEILING GRID
C	6" OPEN REFLECTOR, LED WITH SELF FLANGED WHITE PAINTED CONE. 16-GUAGE GALVANIZED STEEL CONSTRUCTION, DIMMING. GOTHAM EVO DOWNLIGHT SERIES #EVO-40/30-6WR-MD-MVOLT-EZ10 OR APPROVED EQUIVALENT	120	36	LED 3000 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING	RECESSED
D	4 FOOT LENSED LED STRIPLIGHT. SNAP ON/OFF FROSTED DIFFUSE LENS. COLD-ROLLED STEEL HOUSING, PROVIDE CHAIN HANGER AS REQ'D. LITHONIA ZL2N-L48-3000LM-MDD-MVOLT-40K-80CRI-WH, OR APPROVED EQUIVALENT.	120	41	LED 3,000 LUMENS, 4000K, 80 CRI	LED DRIVER	SURFACE MNT OR CHAIN HUNG 9'-0" AFF
D1	SAME AS TYPE 'D' EXCEPT EQUIPPED WITH EMERGENCY BATTERY BACKUP. LITHONIA ZL2N-L48-3000LM-MDD-MVOLT-40K-80CRI-E7W-WH, OR APPROVED EQUIVALENT.	120	41	LED 3,000 LUMENS, 4000K, 80 CRI	LED DRIVER WITH 1400 LUMEN EMERGENCY BATTERY PACK	SURFACE MNT OR CHAIN HUNG 9'-0" AFF.
F	LED LINEAR LUMINAIRE, 4'-0" X 4'-0" CANOPY DESIGN, EXTRUDED ALUMINUM CONSTRUCTION, FROSTED ACRYLIC DIFFUSERS. FOCAL POINT FNRP-44-FL50-4000L-40K-1C-UNV-L11-G-CLV48-WH OR APPROVED EQUIVALENT.	120	36	LED 4,000 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING	SUSPENDED AIRCRAFT CABLES
G	4.5" LED CYLINDER, EXTRUDED ALUMINUM HOUSING, ONE-PIECE DIE-CAST REFLECTOR, DIMMING. FOCAL POINT FLCY4-RD-BKR-2000L-40K-1C-UNV-PC-L11-C72-DNT-FLCD-WH, OR APPROVED EQUIVALENT.	120	30	LED 2,000 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING	PENDANT MOUNT
G1	SAME AS TYPE 'G' EXCEPT EQUIPPED WITH EMERGENCY BATTERY BACKUP. FOCAL POINT FLCY4-RD-BKR- 2000L-40K-1C-UNV-PC-L11-C72-DNT-FLCD-WH-EMR, OR APPROVED EQUIVALENT.	120	30	LED 2,000 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING WITH EMERGENCY BATTERY PACK	PENDANT MOUNT
H	8-1/4' x 4' LED FIXTURE, VANDAL RESISTANT GRADE, IMPACT RESISTANT POLYCARBONATE PROTECTED POLYCARBONATE HOUSING, TAMPER RESISTANT SCREWS. LITHONIA VAP-6000LM-FST-MD-MVOLT-GZ10- 40K-80CRI OR APPROVED EQUIVALENT.	120	49	LED, 6000 LUMENS 4000K	LED DRIVER WITH 0-10V DIMMING	SURFACE OR CEILING MOUNTED
H1	SAME AS TYPE 'H' EXCEPT EQUIPPED WITH EMERGENCY BATTERY BACKUP. LITHONIA VAP-6000LM-FST-MD-MVOLT-GZ10-40K-80CRI-BSL520 OR APPROVED EQUIVALENT.	120	49	LED 4000 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING, EMERGENCY BATTERY PACK	SURFACE OR CEILING MOUNTED
K	1.67"DEEP x 3.5"HIGH x 4' LONG, LED, WALL MOUNTED, DIRECT DOWN LIGHT (NO UPLIGHT). EXTEND ALUMINUM, COLOR TBD, WITH INTEGRAL EMERGENCY BATTERY BACKUP, FROSTED ACRYLIC LENS. SEEM 1 FOCAL POINT FSM1-WFL-625LF-40K-1C-UNV-LD1-W-MEMXX40	120	24	2500 LUMENS 4000K, 80 CRI	LED DRIVER WITH 0-10V DIMMING	WALL MOUNTED
L	17" DIA. ROUND FLAT FACE LOW PROFILE LED LUMINAIRE, MARINE GRADE DIE-CAST ALUMINUM, INTEGRAL HEAT SINKS. UV-STABILIZED, HIGH IMPACT RESISTANT, MOLDED POLYCARBONATE LENS. WET LISTED, DARK BRONZE KENALL MILLENIUM EDGE MR17FFDPPDB25L40KDV	120	25	LED, 4000K, 2941 LUMENS	LED DRIVER WITH 0-10V DIMMING	SURFACE CEILING
M	4'-0" LED DIRECT / INDIRECT (40/60) SUSPENDED LUMINAIRE. FLAT FROSTED ACRYLIC LENS. EXTRUDED ALUMINUM RAILS WITH DIE-CAST ALUMINUM END CAPS . FOCAL POINT NERA FNRS-FL40-875LF-40K-1C-UNV-LD1-HS-CLV48-WH-4-C4, OR APPROVED EQUIVALENT	120	52	LED, 875 LUMENS PER FOOT, 4000K	LED DRIVER WITH 0-10V DIMMING	SUSPENDED AIRCRAFT CABLES AT 13'-4" AFF U.O.N.
M1	SAME AS TYPE 'M' EXCEPT EQUIPPED WITH EMERGENCY BATTERY BACKUP. FOCAL POINT NERA FNRS-FL40-875LF-40K-1C-UNV-LD1-HS-CLV48-EM-WH-4-C4, OR APPROVED EQUIVALENT	120	52	LED, 875 LUMENS PER FOOT, 4000K	LED DRIVER WITH 0-10V DIMMING, EMERGENCY BATTERY PACK	SUSPENDED AIRCRAFT CABLES AT 13'-4" AFF U.O.N.
N	8 FOOT CONTINUOUS LENGTH RECESSED LINEAR LED. 4" WIDE. EXTRUDED ALUMINUM. FROSTED ACRYLIC SMOOTH CONTINUOUS LENS (NO GAPS - NO BREAKS). 1000 LUMENS PER FOOT, OR NOMINALLY 8000 LUMENS TOTAL. 0-10 VOLT DIMMING TO 1%, SELECT MOUNTING CONFIGURATION FOR THE SPECIAL CEILING TYPE. FOCAL POINT SEEM 4CAT NO. FSMM4L-FL-1000LF-40K-1C-UNV-L11-XXX, OR APPROVED EQUIVALENT	120	84	LED 8,000 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING	RECESSED IN CEILING. REFER TO ARCH. REFLECTED CEILING PLAN AND DETAILS FOR CEILING TYPE
S	LED SURFACE WALL STAIR LUMINAIRE, SHIELDED LIGHT SOURCE, SAFETY GLASS WITH OPTICAL TEXTURE, DIE-CAST MARINE GRADE ALUMINUM HOUSING, INTEGRAL 120V -277V LED DRIVER. BEGA LIGHTING #33514, OR APPROVED EQUIVALENT	120	40	LED, 204 LUMENS	LED DRIVER	WALL SURFACE MOUNTED AT 1'-6" ABOVE TREAD
T	6" OPEN REFLECTOR, LED WITH SELF FLANGED WHITE PAINTED CONE. 16-GUAGE GALVANIZED STEEL CONSTRUCTION, DIMMING. GOTHAM EVO DOWNLIGHT SERIES #EVO-40/10-6WR-MWD-MVOLT-GZ10 OR APPROVED EQUIVALENT	120	12	LED 1000 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING	RECESSED
T1	SAME AS TYPE 'T' EXCEPT EQUIPPED WITH EMERGENCY BATTERY BACKUP. GOTHAM EVO DOWNLIGHT SERIES #EVO-40/10-6WR-MWD-MVOLT-GZ10-EL OR APPROVED EQUIVALENT	120	12	LED 1000 LUMENS, 4000K	LED DRIVER WITH 0-10V DIMMING WITH BATTERY BACK-UP	RECESSED
W	EXTERIOR WALL MOUNTED LUMINAIRE, GLASS REFRACTOR, DIE-CAST ALUMINUM HOUSING, LITHONIA LIGHTING TWR1-P3-40K-MVOLT-DDBTXD OR APPROVED EQUIVALENT	120	40	LED, 4,470 LUMENS, 4000K	LED DRIVER	WALL MOUNTED
X	EXIT SIGN, EDGE LIT, EXTRUDED ALUMINUM CONSTRUCTION, CLEAR THERMOPLASTIC PANELS, RED LETTERS, UNIVERSAL MOUNTING, NICKEL-CADMIUM BATTERY. LITHONIA #EDG-1/2-R-EL, OR EQUIVALENT	120	4.5	LED	LED DRIVER WITH BATTERY BACK-UP	SURFACE MNT 8'-0" AFF, ABOVE DOOR OR CEILING

SUBSTITUTIONS WILL NOT BE CONSIDERED WITHOUT A MINIMUM 10 DAY PRIOR APPROVAL SUBMITTAL AND ACCEPTANCE BY OFFICIAL ADDENDUM

3 3

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CONSTRUCTION SERVICES DIVISION
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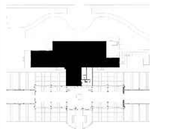


Project Information

City of Tampa

David L. Tippin
Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number	1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

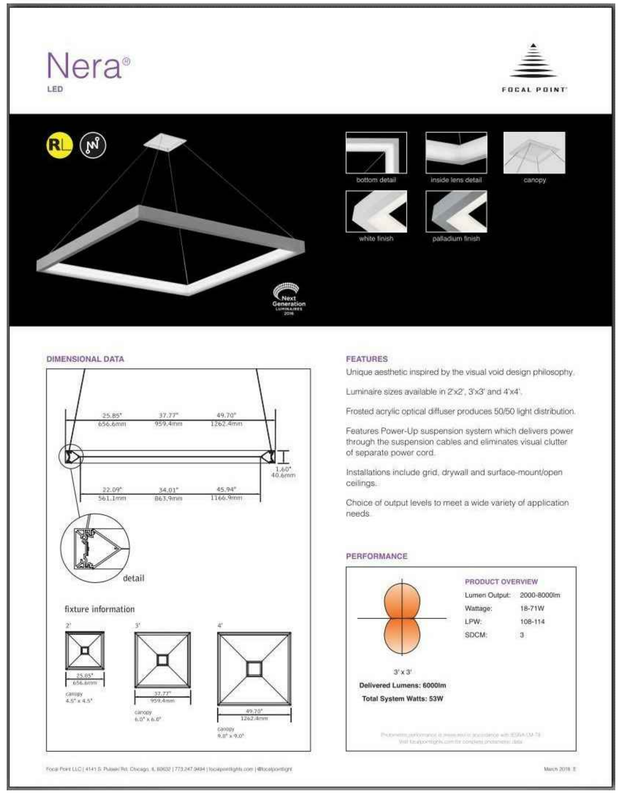
No.	Description	Date
3	REV 3	12.16.19

Sheet Information

LUMINAIRE SCHEDULE

E002

FIXTURE 'F'



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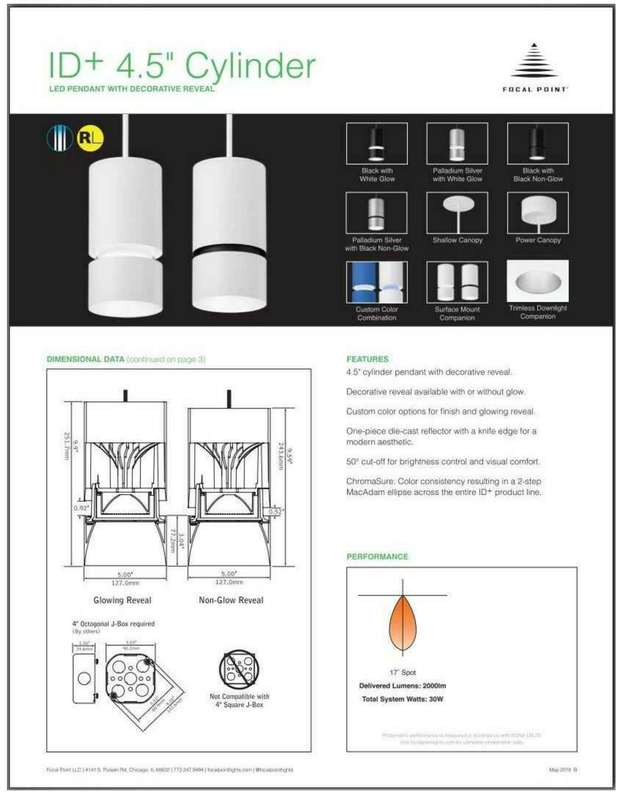

FIXTURE 'H'

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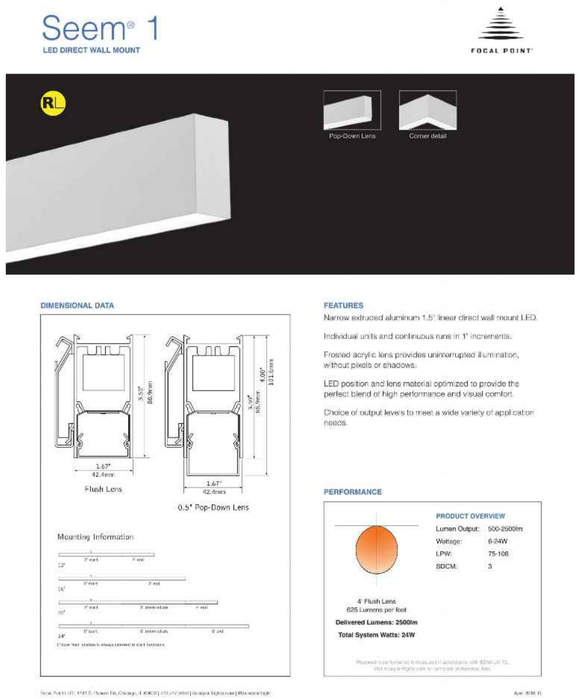

FIXTURE 'L'

FIXTURE 'X'

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BLD-20-[illegible]
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Phase I - Building & Site Improvements

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Revisions

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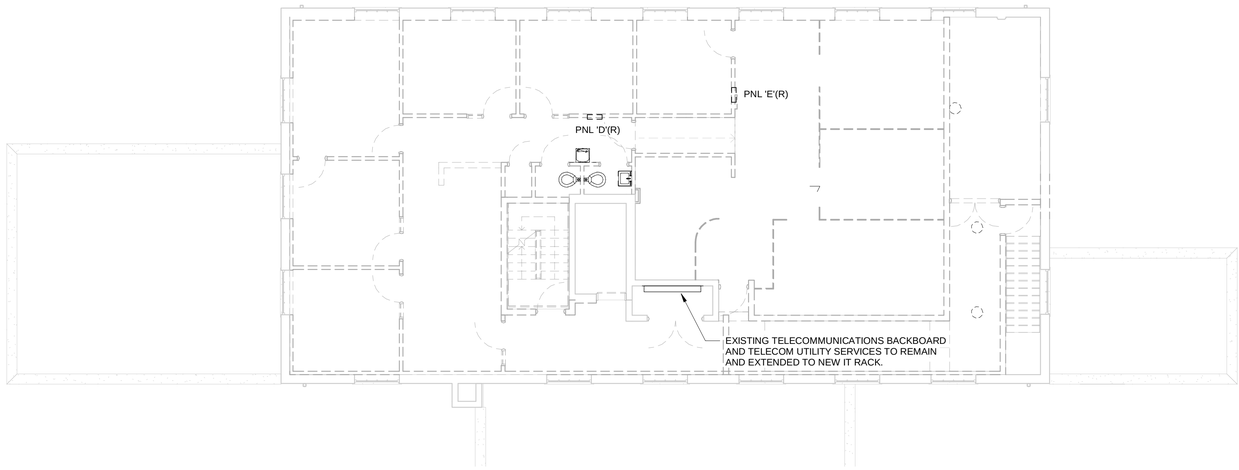
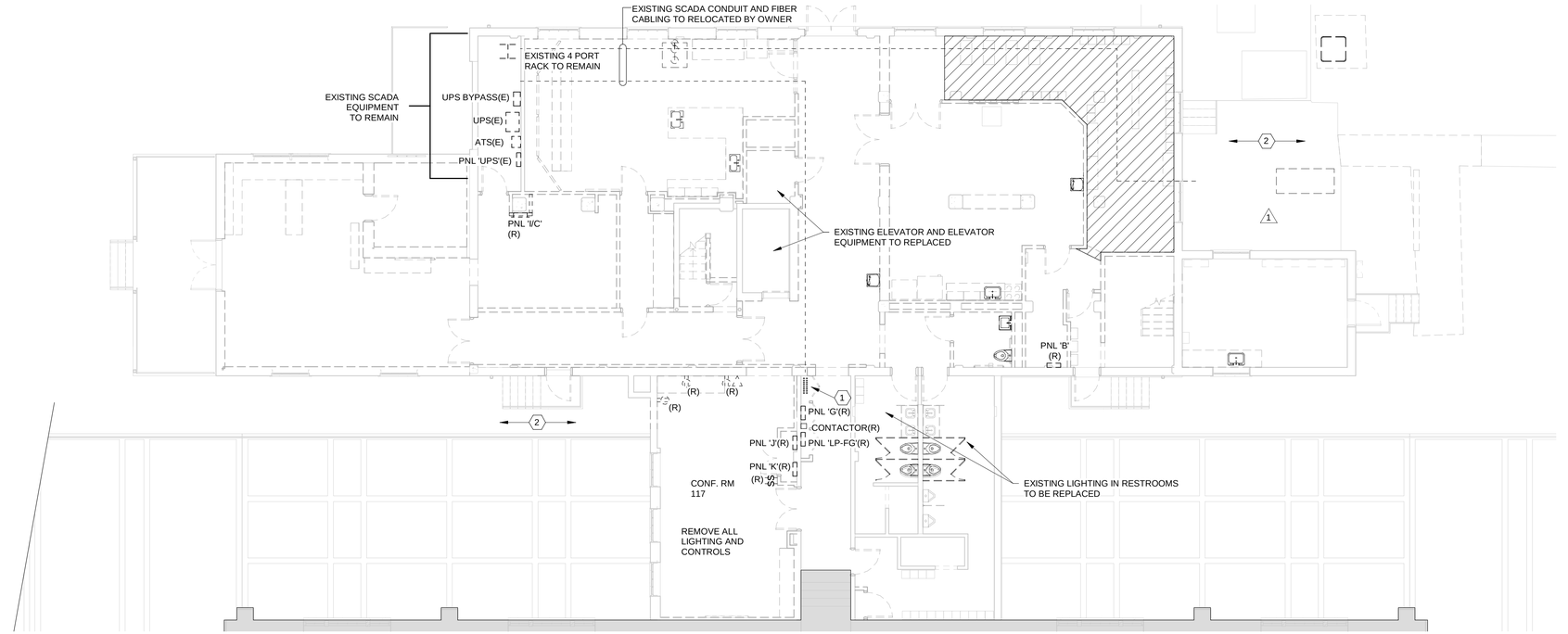
Sheet Information

LUMINAIRE CUT SHEETS

E003



ADMINISTRATION BUILDING
ELECTRICAL DEMOLITION SECOND FLOOR PLAN
2 1/8" = 1'-0"



ADMINISTRATION BUILDING
ELECTRICAL DEMOLITION FIRST FLOOR PLAN
1 1/8" = 1'-0"

DEMOLITION GENERAL NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR THE AREAS AND EXTENT OF THE REQUIRED DEMOLITION. REMOVE ALL EXISTING BRANCH CIRCUITS AND FEEDERS TO EXISTING EQUIPMENT, RECEPTACLES, ELECTRICAL PANELS AS INDICATED ON PLAN, AND ANY OTHER DEVICE ASSOCIATED WITH THE NEW WORK. REMOVE CONDUIT AND WIRE AND UPDATE PANEL CIRCUIT DIRECTORIES.
2. PROVIDE ALL REQUIRED DEMOLITION ASSOCIATED WITH THE NEW WORK AND REMOVE ALL EQUIPMENT, RACEWAYS, BOXES, WIRING, ETC. THAT IS RENDERED OUT OF SERVICE OR OBSOLETE.
3. SPLICE AND EXTEND CIRCUITS TO MAINTAIN CIRCUIT CONTINUITY TO EXISTING RECEPTACLES, AND OTHER EQUIPMENT WHICH IS TO REMAIN. DO NOT SPLICE TELEPHONE OR DATA CIRCUITS.
4. EXISTING JUNCTION BOXES WHICH ARE NOT BEING REUSED SHALL BE REMOVED AND THE WALLS OR CEILINGS SHALL BE PATCHED AND PAINTED TO MATCH THE SURROUNDING AREA.
5. ALL EXISTING POWER BRANCH CIRCUITS SERVING THE EXISTING ADMINISTRATION AND PLANT CONTROL OFFICE AREAS SHALL BE COMPLETELY REMOVED BACK THEIR RESPECTIVE PANEL.
6. PROVIDE NEW BRANCH CIRCUITS SERVING EXISTING DEVICES ON EXISTING WALLS THAT REMAIN IN CONFERENCE ROOM 117.
7. EXISTING VOICE AND DATA NETWORK CABLING CIRCUITS SERVING THE EXISTING ADMINISTRATION AND PLANT CONTROL OFFICE AREAS SHALL BE COMPLETELY REMOVED BACK TO THE EXISTING TELECOM CLOSET ON THE SECOND FLOOR. ANY AND ALL FIBER OPTIC AND COPPER CABLING SERVING THE SCADA SYSTEMS OUT TO THE PLANT EQUIPMENT SHALL REMAIN.

DRAWING NOTES:

1. THIS AREA OF CORRIDOR 103 SHALL BE FREE AND CLEAR OF ANY RACEWAYS, BOXES, OR CABLES, INCLUDING ANY THAT ARE EXISTING. IF ANY RACEWAYS, BOXES, OR CABLES REMAIN AFTER DEMOLITION, THEY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND OWNER FOR RESOLUTION.
2. REMOVE All MATERIALS AND EQUIPMENT ASSOCIATED WITH THE EXISTING HVAC EQUIPMENT (MOSTLY CONDENSING UNITS) IN THE EXTERIOR EQUIPMENT AREAS. REMOVE ALL RACEWAYS, BOXES, WIRING, DISCONNECTS, ETC., BACK TO THE LAST DEVICE THAT IS TO REMAIN IN SERVICE.

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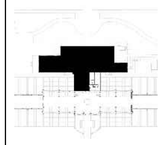

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Revisions

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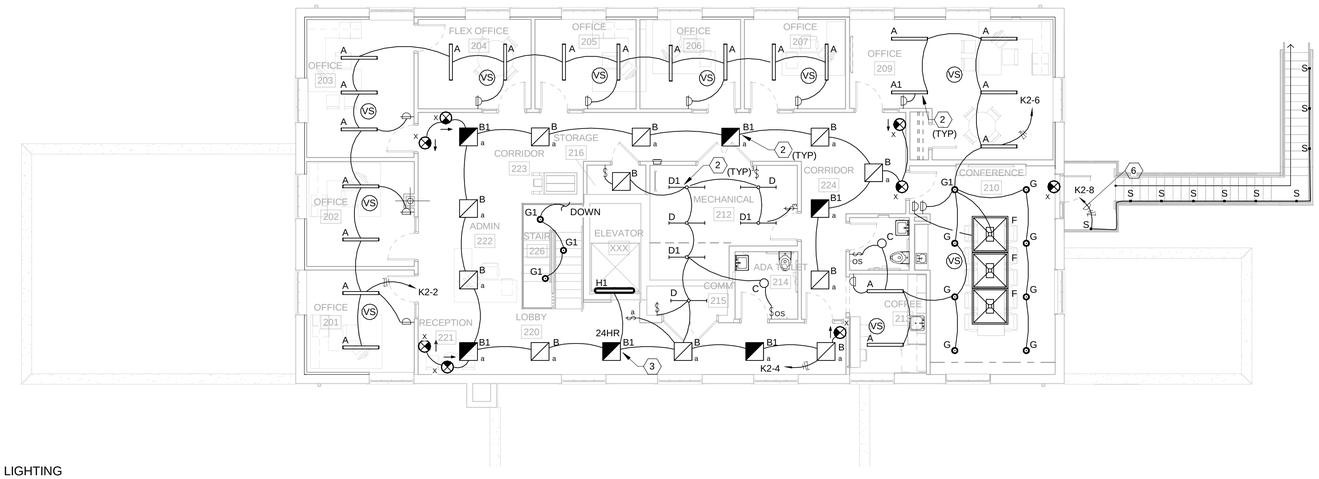
1	Permit Review	08.21.19

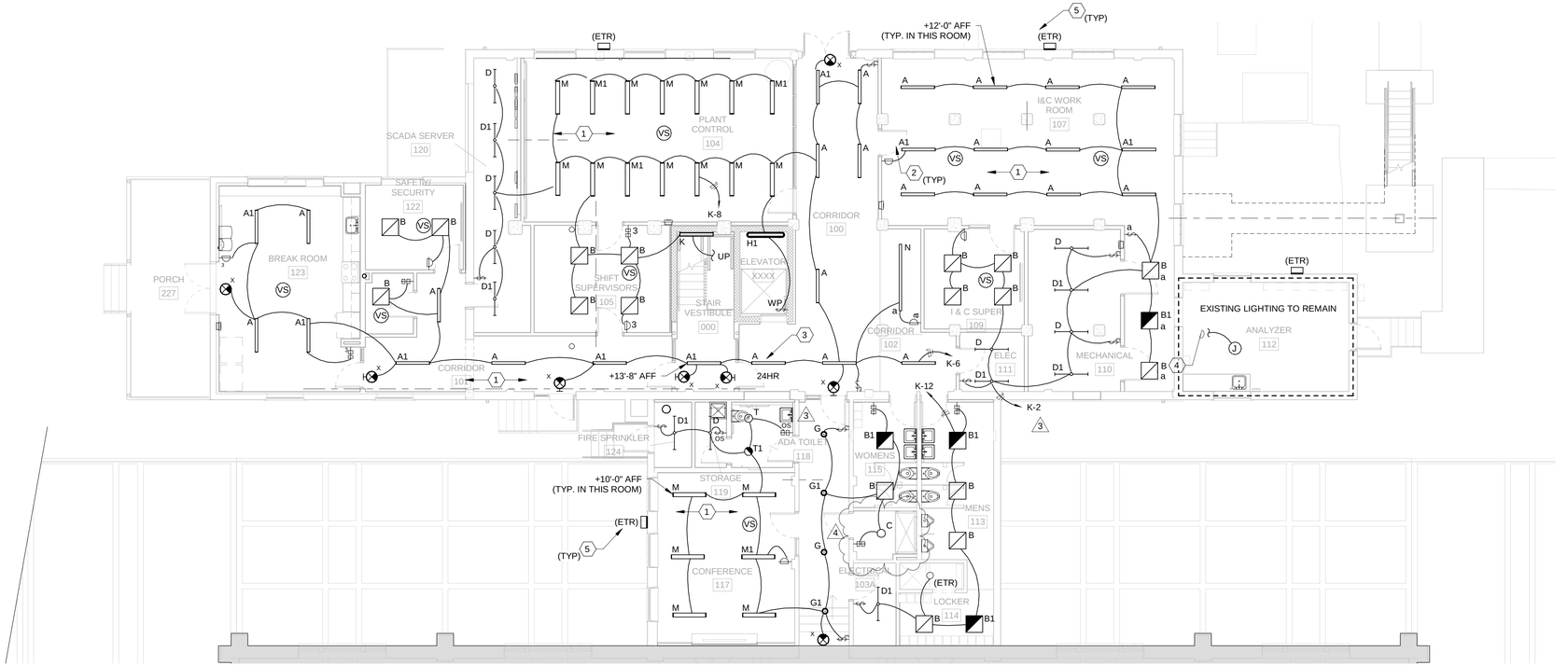
Sheet Information

ELECTRICAL DEMOLITION PLAN

E100



ADMINISTRATION BUILDING LIGHTING PLAN - SECOND FLOOR
1/8" = 1'-0"



ADMINISTRATION BUILDING LIGHTING PLAN - FIRST FLOOR
1/8" = 1'-0"

DRAWING NOTES:

1. CONTRACTOR SHALL HOLD A PRE-INSTALLATION CONFERENCE PRIOR TO ANY NEW WORK TO REVIEW AND DISCUSS ALL OPEN CEILING AREAS AND ALL SURFACE MOUNTED RACEWAYS ON WALLS WITH THE ARCHITECT. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR OPEN CEILING AREAS. SPECIAL PLANNING AND CARE WILL BE REQUIRED FOR A CLEAN INSTALLATION THAT IS COORDINATED WITH ALL OTHER SYSTEMS THAT ARE EXISTING AND NEW.
2. FIXTURES WITH EMERGENCY BATTERY PACKS SHALL BE SWITCHED AFTER THE EMERGENCY PACK SUCH THAT THE BATTERY PACK CONTINUOUSLY SEES NORMAL POWER. THE EMERGENCY BATTERY BACK-UP SHALL BE UNSWITCHED AND SHALL AUTOMATICALLY ILLUMINATE THE FIXTURE IN THE EVENT OF LOSS OF NORMAL POWER. TEST BUTTONS AND INDICATOR LIGHTS SHALL BE VISIBLE AND ACCESSIBLE FROM A FLOOR STANDING POSITION.
3. LUMINAIRES LABELED '24 HOUR' SHALL BE WIRED FOR 24 HOUR OPERATION, TYPICAL.
4. EXTEND EXISTING CIRCUIT TO NEW PANEL LOCATION.
5. EXISTING EXTERIOR BUILDING MOUNTED LUMINAIRES TO REMAIN. EXTEND CIRCUIT TO NEW PANEL.
6. ROUTE CIRCUIT VIA CENTRAL BATTERY SYSTEM FOR EMERGENCY EGRESS BACK-UP POWER.

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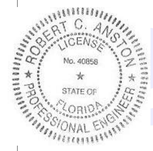

Robert C Anston
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ROBERT C. ANSTON
P.E. 40858

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Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

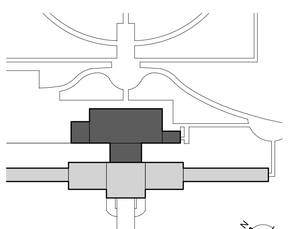
Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
3	REV 3	12.16.19
4	Permit REV 4	02.24.20

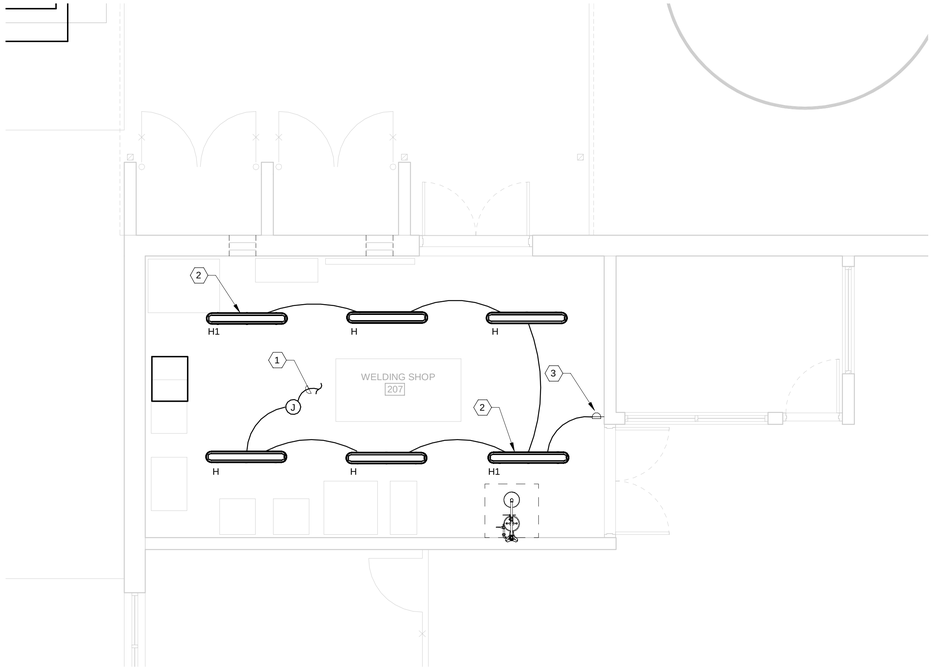


KEY PLAN

Sheet Information

ADMINISTRATION BUILDING LIGHTING PLANS

E101

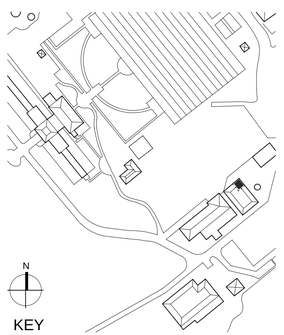


1 MAINTENANCE BUILDING LIGHTING PLAN
scale : 1/4" = 1'-0"

DRAWING NOTES:

1. EXTEND AND MODIFY EXISTING LIGHTING BRANCH CIRCUITS FOR THE NEW LUMINAIRE LAYOUT. PROVIDE ALL REQUIRED MODIFICATIONS AND EXTENSIONS TO THE EXISTING LIGHTING CIRCUITS TO CONNECT THE NEW LUMINAIRESS AND NEW DIMMER SWITCH. EXISTING LIGHTING CIRCUIT HOMERUNS CAN BE REUSED

   FIXTURES WITH EMERGENCY BATTERY PACKS SHALL BE SWITCHED AFTER THE EMERGENCY PACK SUCH THAT THE BATTERY PACK CONTINUOUSLY SEES NORMAL POWER. THE EMERGENCY BATTERY BACK-UP SHALL BE UNSWITCHED AND SHALL AUTOMATICALLY ILLUMINATE THE FIXTURE IN THE EVENT OF LOSS OF NORMAL POWER. TEST BUTTONS AND INDICATOR LIGHTS SHALL BE VISIBLE AND ACCESSIBLE FROM A FLOOR STANDING POSITION.
2. REPLACE EXISTING LIGHT SWITCH WITH NEW ON/OFF DIMMER SWITCH.



KEY

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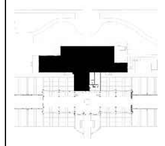

Project Information

City of Tampa

David L. Tippin
Water Treatment
Facility
Phase I - Building &
Site Improvements

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Project Number 1706.00

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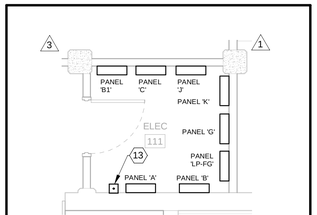
Revisions

No.	Description	Date

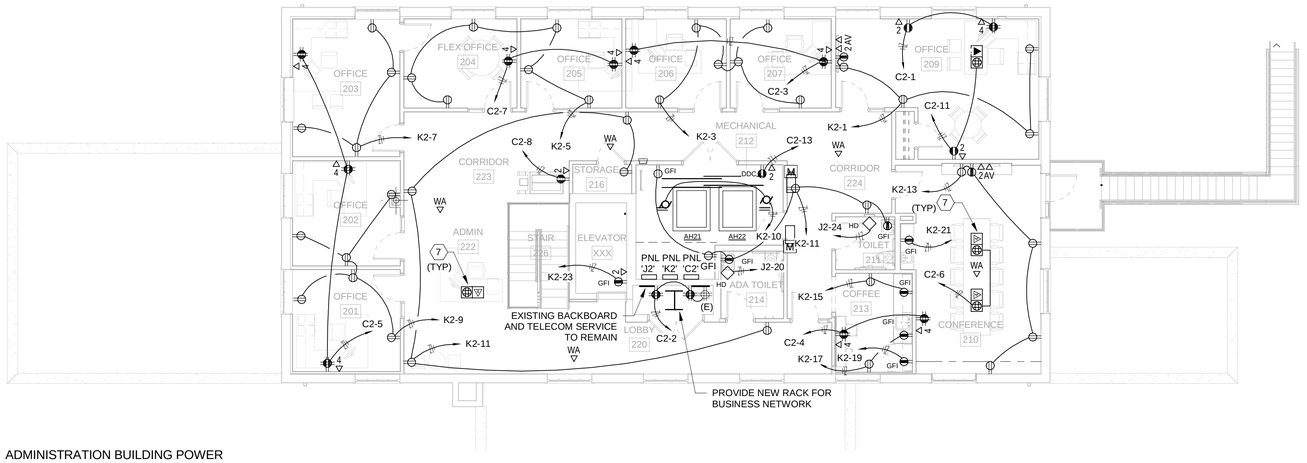
Sheet Information

MAINTENANCE BUILDING LIGHTING PLAN

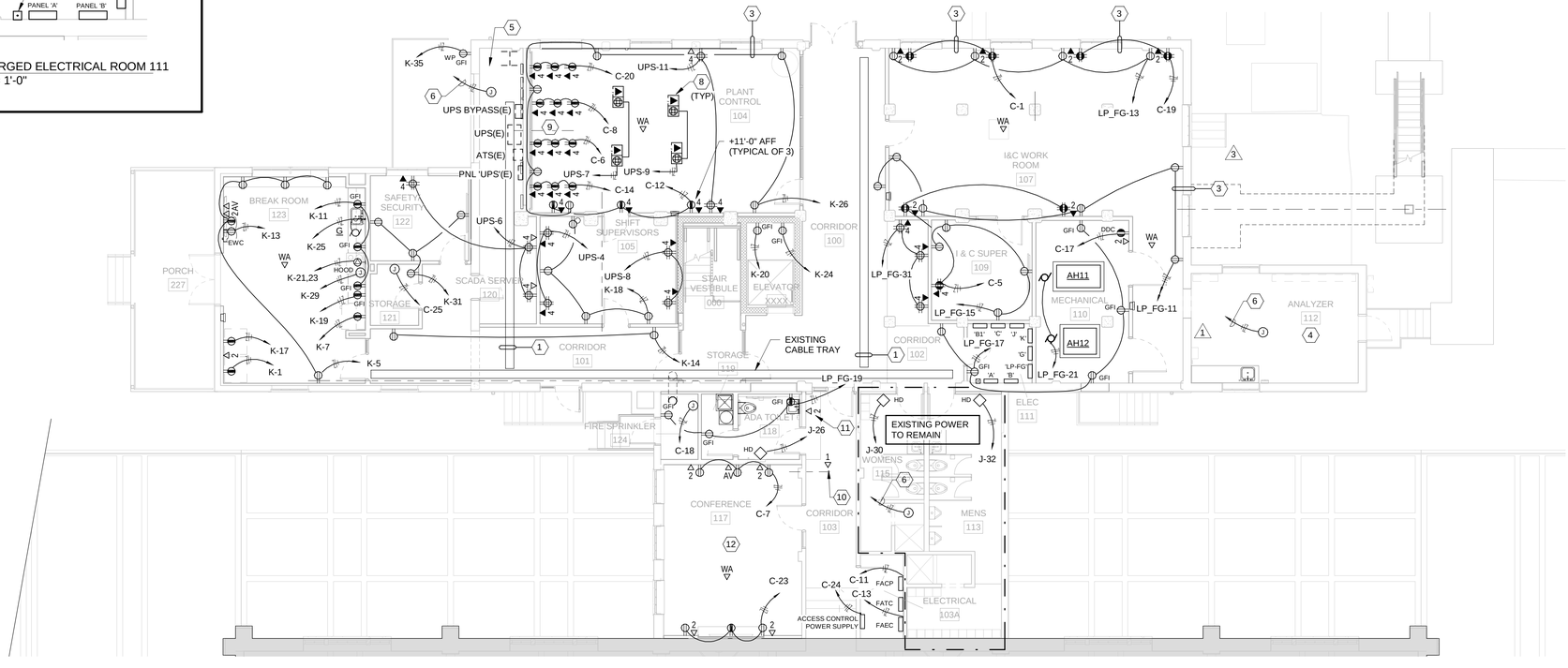
E102



3 ENLARGED ELECTRICAL ROOM 111
1/4" = 1'-0"



2 ADMINISTRATION BUILDING POWER AND SYSTEMS PLAN - SECOND FLOOR
1/8" = 1'-0"



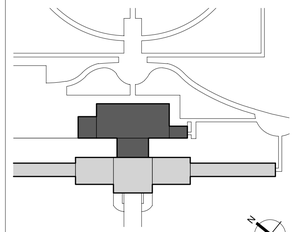
1 ADMINISTRATION BUILDING POWER AND SYSTEMS PLAN - FIRST FLOOR
scale : 1/8" = 1'-0"

GENERAL NOTES:

1. THERE ARE NUMEROUS AREAS WITH EXPOSED (OPEN) CEILINGS AND EXISTING WALLS WHERE BOXES AND RACEWAYS WILL BE REQUIRED TO BE EXPOSED OR SURFACE MOUNTED. ALL EXPOSED AND SURFACE MOUNTED DEVICES, BOXES, RACEWAYS AND FREE-WIRED WIRING SHALL BE INSTALLED IN A NEAT AND ORDERLY FASHION, AND ROUTED PERPENDICULAR AND PARALLEL TO THE BUILDING STRUCTURE.
2. ALL FREE-WIRED CABLING SHALL BE ROUTED IN A NEAT AND ORDERLY FASHION, ROUTED PERPENDICULAR AND PARALLEL TO THE BUILDING STRUCTURE, AND BUNDLED INTO VELCRO TIE-WRAPS WITH NOT MORE THAN 24 CABLES PER TIE-WRAP. ROUTE THE CABLE TO THE NEAREST CABLE TRAY OR DIRECTLY TO THE IT RACK, WHICHEVER IS THE SHORTEST ROUTE.
3. CONTRACTOR SHALL HOLD A PRE-INSTALLATION CONFERENCE PRIOR TO ANY NEW WORK TO REVIEW AND DISCUSS ALL OPEN CEILING AREAS AND ALL SURFACE MOUNTED RACEWAYS ON WALLS WITH THE ARCHITECT. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR OPEN CEILING AREAS. SPECIAL PLANNING AND CARE WILL BE REQUIRED FOR A CLEAN INSTALLATION THAT IS COORDINATED WITH ALL OTHER SYSTEMS THAT ARE EXISTING AND NEW.
4. EXISTING IT VOICE AND DATA SERVICES TO THE SECOND FLOOR SHALL REMAIN AND BE CONNECTED INTO NEW DATA RACK.

DRAWING NOTES:

1. PROVIDE NEW CABLE TRAY AND CONNECT TO THE OWNER CABLE TRAY AND TO EXTEND TO THE AREAS INDICATED. PROVIDE TRAY THAT MATCHES THE EXISTING OWNER TRAY, 8" WIDE B Y 5" DEEP, BASKET TYPE (WIREMAID CABLE-MGR). PROVIDE ALL REQUIRED HANGERS, SUPPORTS, FACTORY BENDS AND CONNECTIONS.
2. PROVIDE JUNCTION BOXES ABOVE AND BELOW THE CEILING AND FLOOR AREAS AS REQUIRED TO RE-ROUTE THE EXISTING RACEWAYS THAT ARE LOCATED IN THIS AREA. REFER TO THE DEMOLITION NOTES ON E100.
3. CONDUIT AND BOXES SHALL BE SURFACE MOUNTED ALONG THIS WALL. RUN CONDUIT AT 6" AFF.
4. EXISTING CIRCUITS IN ROOM 112 ARE TO REMAIN AND BE EXTENDED TO NEW PANEL.
5. ALLEXISTING CIRCUITS IN THE SCADA SERVER ROOM SHALL REMAIN. THESE CIRCUITS ARE CONNECTED TO THE UPS PANEL.
6. PROVIDE NEW 120 VOLT CIRCUIT TO CONNECT TO EXISTING RECEPTACLES IN THIS SPACE. CONNECT ANY EXISTING UPS CIRCUITS TO THE NEW UPS PANEL.
7. RACEWAY FOR FLOOR BOXES ON 2ND FLOOR (POWER AND DATA) SHALL BE ROUTED INSIDE THE SECOND FLOOR SLAB/TOPPING PAD, AND THEN OVER TO NEW WALL AND UP. BOXES SHALL NOT BE MORE 4' DEEP.
8. RACEWAY FOR FIRE RATED POKE-THRU TYPE FLOOR BOXES ON THE 1ST FLOOR SHALL BE ROUTED UNDER THE FLOOR IN THE CRAWL SPACE, AND OVER TO THE SCADA ROOM OR UP IN A NEW WALL AND UP TO THE CEILING. NO EXPOSED RACEWAY IN OCCUPIED AREAS.
9. REFER TO ARCHITECTURAL ELEVATION FOR VIDEO WALL OUTLET PLACEMENT.
10. PROVIDE CAT 6 CABLE FROM BUSINESS RACK ON THE SECOND FLOOR FOR A FUTURE CAMERA TO VIEW THE DOOR ENTRY. CAMERAS WILL BE BY OWNER. PROVIDE A 10 FOOT SERVICE LOOP ABOVE CEILING.
11. PROVIDE DATA OUTLET ON THE WALL WITH TWO CAT 6 CABLES FOR VOICE COMMUNICATIONS. SEE NOTE 1, SHEET E301.
12. CONFERENCE ROOM 117 WILL HAVE A GWB/IN-ACCESSIBLE CEILING. ANY AND ALL JUNCTION BOXES OR ANY OTHER DEVICES REQUIRING ACCESS SHALL BE LOCATED IN THE TOILET ROOM OR STORAGE ROOM FOR ACCESS. THE LIGHTING JUNCTION BOX MAY BE LOCATED ABOVE THE AIRCRAFT CABLE CANOPY COVER.
13. MAIN SERVICE DISCONNECT "EPO". REFER TO POWER RISER DIAGRAM.



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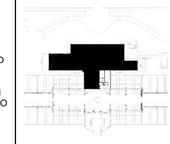

Project Information

City of Tampa

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Revisions

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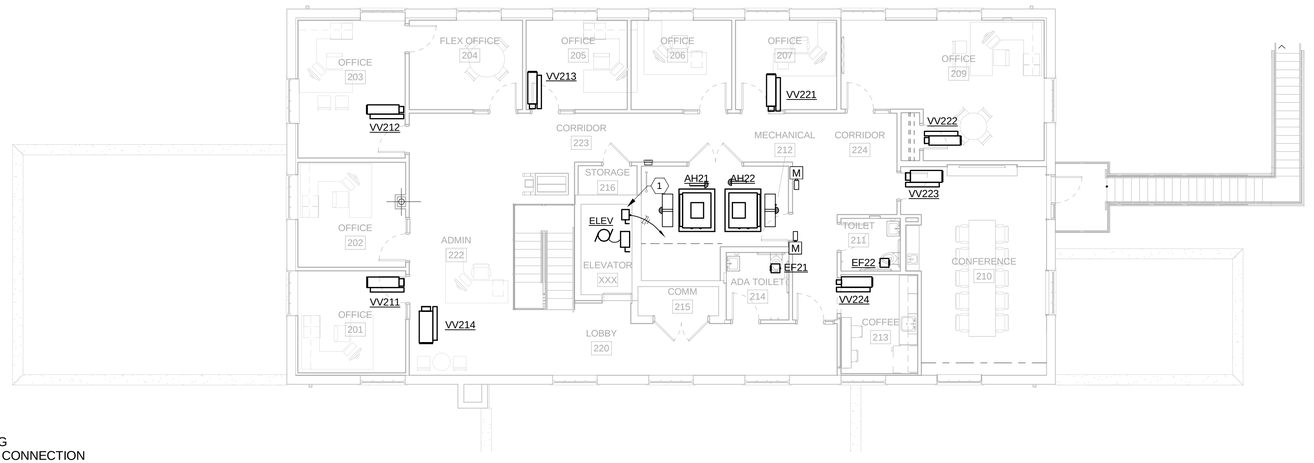
1	Permit Reviews	08.21.19
3	REV 3	12.16.19

Sheet Information

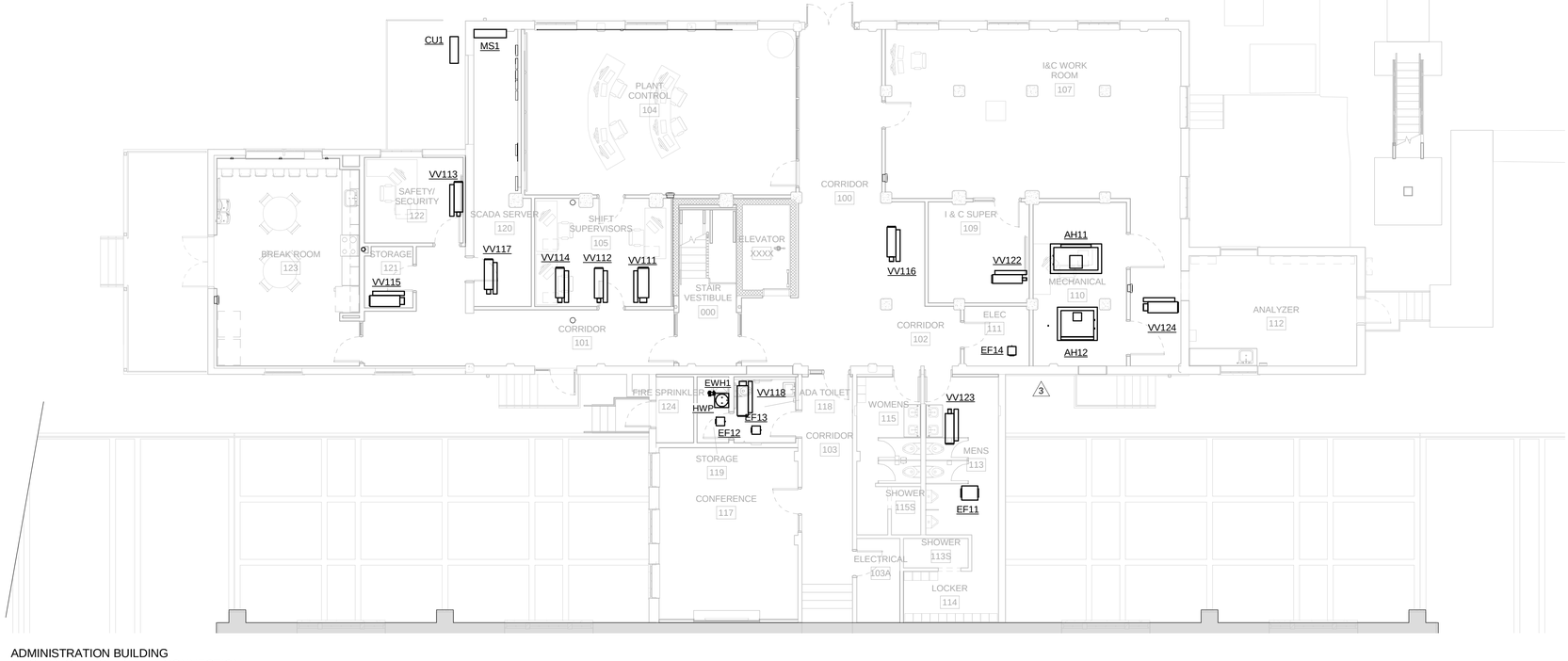
ADMINISTRATION BUILDING - POWER AND SYSTEMS PLANS

E201



ADMINISTRATION BUILDING
MECHANICAL EQUIPMENT CONNECTION
PLAN - SECOND FLOOR
1/8" = 1'-0"

2



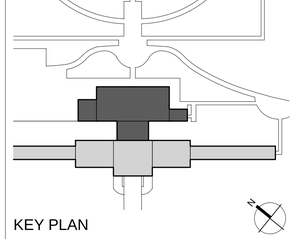
ADMINISTRATION BUILDING
MECHANICAL EQUIPMENT CONNECTION
PLAN - FIRST FLOOR
1/8" = 1'-0"

1

DRAWING NOTES:

1 PROVIDE 30A/1P, 125V GENERAL DUTY FUSIBLE DISCONNECT SWITCH IN NEMA 1 ENCL. FOR ELEVATOR CAB LIGHTING. PROVIDE 3/4"C; 2-#12, 1-#12 GND. PROVIDE WITH CLASS R FUSE REJECTION CLIPS. COORDINATE WITH ELEVATOR CONTRACTOR FOR ELECTRICAL REQUIREMENTS PRIOR TO ROUGH-IN.

REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE, SHEET E205 FOR MORE INFORMATION



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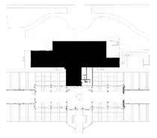

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3	REV 3	12.16.19

Sheet Information

ADMINISTRATION BUILDING - MECHANICAL EQUIPMENT CONNECTION PLANS

E202

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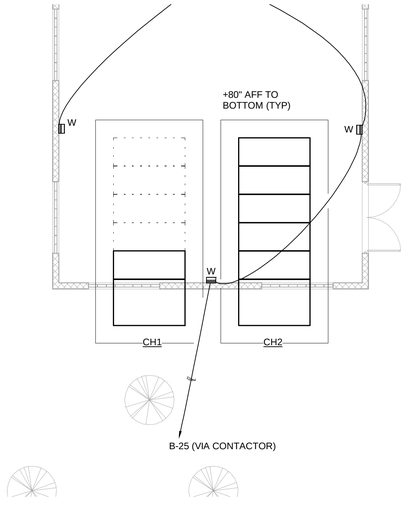
MECHANICAL EQUIPMENT CONNECTION SCHEDULE - CHILLER YARD

MARK	ROOM NO.	VOLTAGE/PHASE	KW	HP	FLA	MCA	BREAKER	HOMERUN CIRCUIT	CONDUIT & CABLING	COMBINATION STARTER/DISCONNECT SWITCH					INTERLOCK/ REMARKS
										SIZE AMPS	POLES	FUSE	STARTER SIZE	NEMA RATING	
CHILLERS															
CH1	YARD	240/3	-	-	623.5	-	800	MCC-A	THREE (3) 3"C.; 3-#300 KCMIL, 1-#1/0 GND	DIV23	-	-	-	-	NOTE 1, 2
CH2	YARD	240/3	-	-	623.5	-	800	MCC-B	THREE (3) 3"C.; 3-#300 KCMIL, 1-#1/0 GND	DIV23	-	-	-	-	NOTE 1, 2

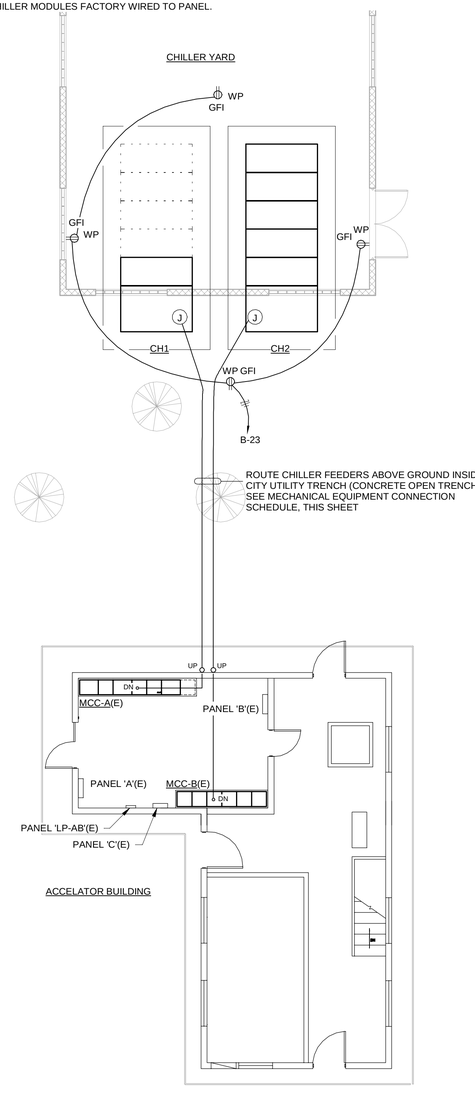
MFS = MANUFACTURER'S RECOMMENDED FUSE SIZE
MRS = MOTOR RATED TOGGLE SWITCH BY DIVISION 26
VFD = VARIABLE FREQUENCY DRIVE (FURNISHED BY DIVISION 23) INSTALLED BY DIVISION 26

NF = NON-FUSED
DIV23 = DISCONNECTING MEANS PROVIDED BY THE MANUFACTURER OR DIVISION 23 CONTRACTOR
SS = STAINLESS STEEL/4X

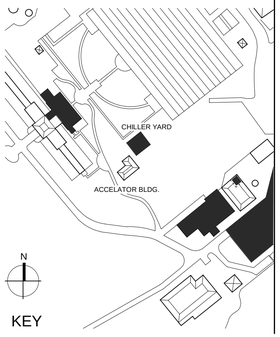
NOTES:
1. CHILLER CONNECTIONS INCLUDE INTEGRAL PUMPING SYSTEM.
2. CHILLERS ARE TO BE PROVIDED WITH AN INTEGRAL 800A POWER DISTRIBUTION PANEL AND ALL CHILLER MODULES FACTORY WIRED TO PANEL.



2 CHILLER YARD LIGHTING PLAN
1/8" = 1'-0"



1 CHILLER YARD POWER PLAN
1/8" = 1'-0"



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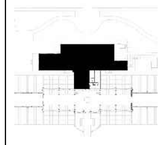

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Sheet Information

CHILLER YARD LIGHTING AND POWER PLAN

E203

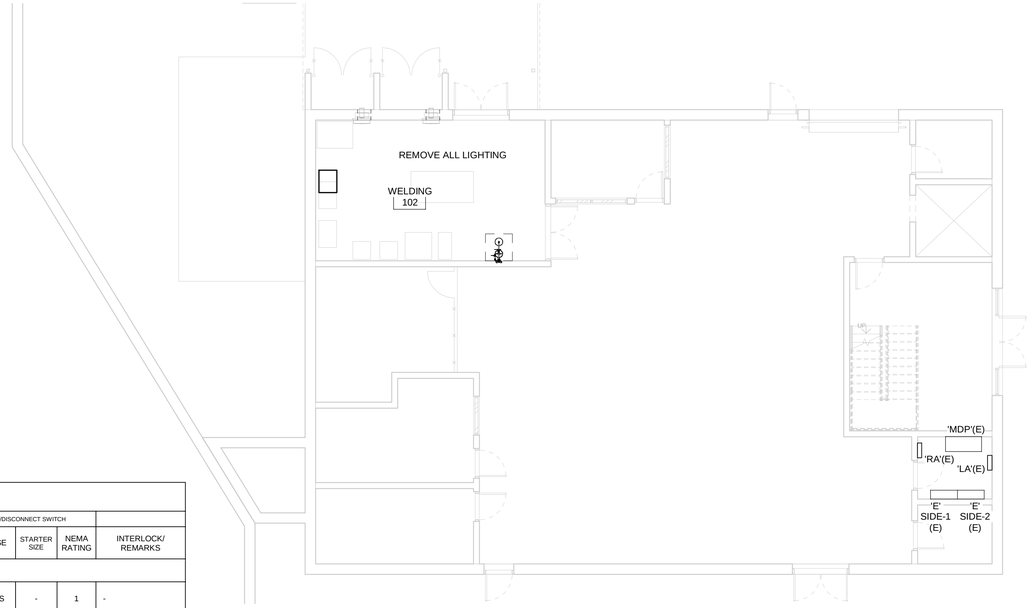
MECHANICAL EQUIPMENT CONNECTION SCHEDULE

MARK	ROOM NO.	VOLTAGE/PHASE	KW	HP	FLA	MCA	BREAKER	HOMERUN CIRCUIT	CONDUIT & CABLING	COMBINATION STARTER/DISCONNECT SWITCH					INTERLOCK/ REMARKS
										SIZE AMPS	POLES	FUSE	STARTER SIZE	NEMA RATING	
WELDING EQUIPMENT															
DUST/FUME VACUUM 'DC1'	EXTERIOR	240/3	-	15.0	42.0	52.5	60	E-23,25,27	1"C.; 3-#6, 1#10 GND	60	3	MFS	-	1	-
WELDING EXHAUST 'WE1'	WELDING 102	240/1	-	3.0	17.0	21.3	30	E-26,28 **	3/4"C.; 2-#10, 1#10 GND	-	-	-	-	-	CORD AND PLUG, SEE NOTE 1

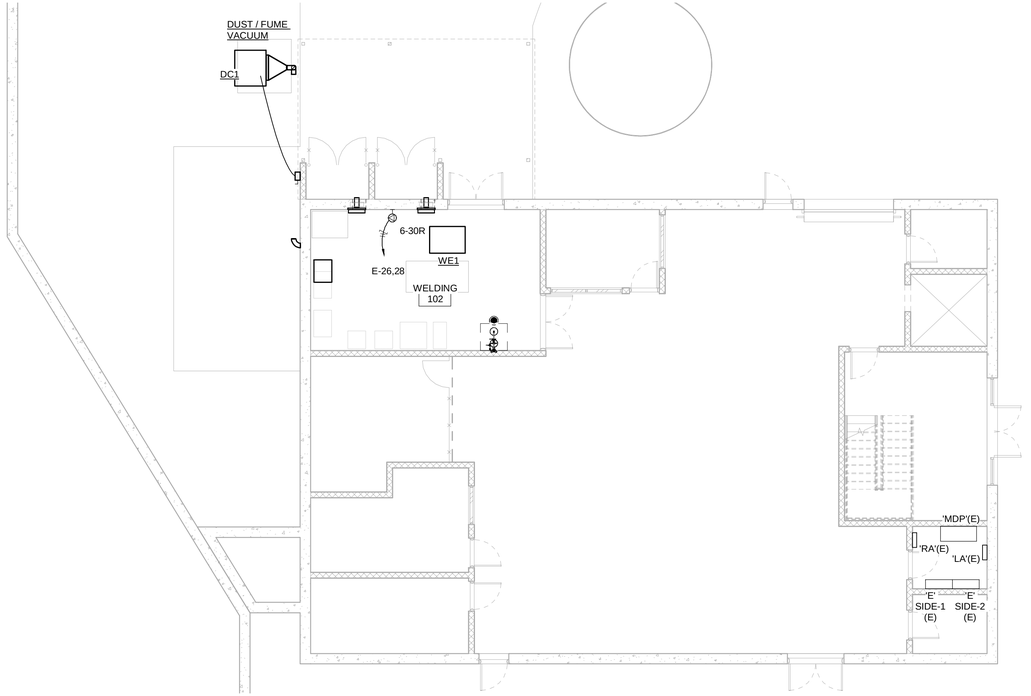
MFS = MANUFACTURER'S RECOMMENDED FUSE SIZE
MRS = MOTOR RATED TOGGLE SWITCH BY DIVISION 26
CONTRACTOR
VFD = VARIABLE FREQUENCY DRIVE (FURNISHED BY DIVISION 23) INSTALLED BY DIVISION 26

NF = NON-FUSED
DIV23 = DISCONNECTING MEANS PROVIDED BY THE MANUFACTURER OR DIVISION 23

NOTES:
1. PROVIDE NEMA 6-30R RECEPTACLE FOR WELDING EXHAUST. VERIFY EXACT NEMA CONFIGURATION WITH SHOP DRAWINGS PRIOR TO ROUGH-IN. COORDINATE RECEPTACLE LOCATION IN ROOM WITH OWNER PRIOR TO ROUGH-IN.



2 MAINTENANCE BUILDING ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"



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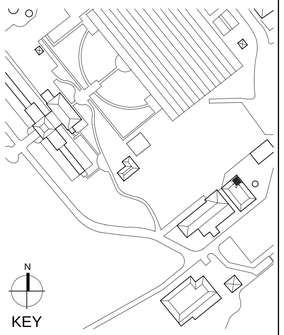

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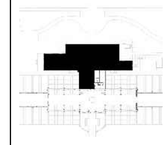

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

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Sheet Information

MAINTENANCE BUILDING POWER PLAN

E204

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

MARK	ROOM NO.	VOLTAGE/PHASE	KW	HP	FLA	MCA	BREAKER	HOMERUN CIRCUIT	CONDUIT & CABLING	COMBINATION STARTER/DISCONNECT SWITCH					
										SIZE AMPS	POLES	FUSE	STARTER	NEMA RATING	INTERLOCK/ REMARKS
VARIABLE AIR VOLUME TERMINAL BOXES															
VV111	105	240/1	4.0	-	16.6	20.8	30	J-1,3	3/4"C.; 2-#10, 1#10 GND	DIV23	-	-	-	-	-
VV112	105	120/1	1.0	-	8.3	10.4	20	J-14	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
VV113	122	120/1	1.0	-	8.3	10.4	20	J-18	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
VV114	100	120/1	2.0	-	16.6	20.8	30	J-20	3/4"C.; 2-#10, 1#10 GND	DIV23	-	-	-	-	-
VV115	121	240/1	6.0	-	25.0	31.3	40	J-5,7	1"C.; 2-#8, 1#10 GND	DIV23	3	-	-	-	-
VV116	102	120/1	1.0	-	8.3	10.4	20	J-24	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
VV117	120	120/1	1.5	-	12.5	15.6	20	J-26	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
VV118	117	120/1	3.0	-	25.0	31.3	40	J-13	1"C.; 2-#8, 1#10 GND	DIV23	-	3	-	-	-
VV121	102	240/1	7.0	-	29.1	36.3	50	J-9,11	1"C.; 2-#8, 1#10 GND	DIV23	-	-	-	-	-
VV122	102	120/1	1.0	-	8.3	10.4	20	J-30	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
VV123	113	120/1	1.5	-	12.5	15.6	20	J-32	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
VV124	117	240/1	4.5	-	16.6	20.8	30	J-15,17	3/4"C.; 2-#10, 1#10 GND	DIV23	-	-	-	-	-
VV211	201	120/1	3.5	-	29.1	36.4	40	J2-1	1"C.; 2-#8, 1#10 GND	DIV23	-	-	-	-	-
VV212	203	120/1	2.5	-	20.8	26.0	30	J2-11	3/4"C.; 2-#10, 1#10 GND	DIV23	-	-	-	-	-
VV213	205	120/1	2.5	-	20.8	26.0	30	J2-13	3/4"C.; 2-#10, 1#10 GND	DIV23	-	-	-	-	-
VV214	211	240/1	5.5	-	22.9	28.6	40	J2-3,5	1"C.; 2-#8, 1#10 GND	DIV23	-	-	-	-	-
VV221	207	120/1	2.5	-	20.8	26.0	30	J2-14	3/4"C.; 2-#10, 1#10 GND	DIV23	-	-	-	-	-
VV222	124	240/1	4.0	-	16.6	20.8	30	J2-7,9	3/4"C.; 2-#10, 1#10 GND	DIV23	-	-	-	-	-
VV223	123	240/1	4.0	-	16.6	20.8	30	J2-15,17	3/4"C.; 2-#10, 1#10 GND	DIV23	-	-	-	-	-
VV224	209	120/1	1.0	-	8.3	10.4	20	J2-19	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
EXHAUST FANS															
EF11	115	120/1	-	0.25	5.8	7.3	20	J-19	3/4"C.; 2-#12, 1#12 GND	MRS	3	-	-	-	-
EF12	115	120/1	-	16 WATTS	-	-	20	J-24	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
EF13	115	120/1	-	16 WATTS	-	-	20	J-24	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
EF14	111	120/1	-	16 WATTS	-	-	20	J-24	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
EF21	128	120/1	-	16 WATTS	-	-	20	J2-18	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
EF22	110	120/1	-	16 WATTS	-	-	20	J2-18	3/4"C.; 2-#12, 1#12 GND	DIV23	-	-	-	-	-
AIR HANDLERS															
AH11	110	240/3	-	3.0	9.6	12.0	20	J-2,4,6	3/4"C.; 3-#12, 1#12 GND	VFD	-	-	-	-	-
AH12	110	240/3	-	3.0	9.6	12.0	20	J-8,10,12	3/4"C.; 3-#12, 1#12 GND	VFD	-	-	-	-	-
AH21	215	240/3	-	3.0	9.6	12.0	20	J2-2,4,6	3/4"C.; 3-#12, 1#12 GND	VFD	-	-	-	-	-
AH22	215	240/3	-	2.5	8.2	10.3	20	J2-8,10,12	3/4"C.; 3-#12, 1#12 GND	VFD	-	-	-	-	-
MINI-SPLIT UNIT															
MS1/CU1	120	240/1	-	-	20.0	25.0	30	J-20,22	3/4"C.; 2-#10, 1#10 GND	30	2	MFS	-	1/3R	PROVIDE CONNECTION BETWEEN INSIDE AND OUTSIDE UNITS WITH 3/4"C.; 2-#12, 1#12 GND
MISC. EQUIPMENT															
EWH1	119	240/1	6.0	-	25.0	31.3	40	J-14,16	1"C.; 3-#8, 1#10 GND	60	2	MFS	-	1	-
HWP	119	120/1	85 WATTS	1/25	0.7	0.9	20	J-18	3/4"C.; 2-#10, 1#10 GND	MRS	-	-	-	-	-
ELEV	106	240/3	-	25.0	68.0	85.0	100	FROM PANEL 'A' IN ACCELETOR BUILDING	11/4"C.; 3-#3, 1#8 GND	100	3	MFS	-	3R	EXTEND EXISTING ELEVATOR CIRCUIT. SEE ELECTRICAL RISER DIAGRAM

MFS = MANUFACTURER'S RECOMMENDED FUSE SIZE
MRS = MOTOR RATED TOGGLE SWITCH BY DIVISION 26
VFD = VARIABLE FREQUENCY DRIVE (FURNISHED BY DIVISION 23) INSTALLED BY DIVISION 26

NF = NON-FUSED
DIV23 = DISCONNECTING MEANS PROVIDED BY THE MANUFACTURER OR DIVISION 23 CONTRACTOR

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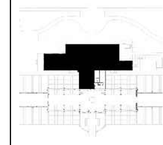

Project Information

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Phase I - Building & Site Improvements

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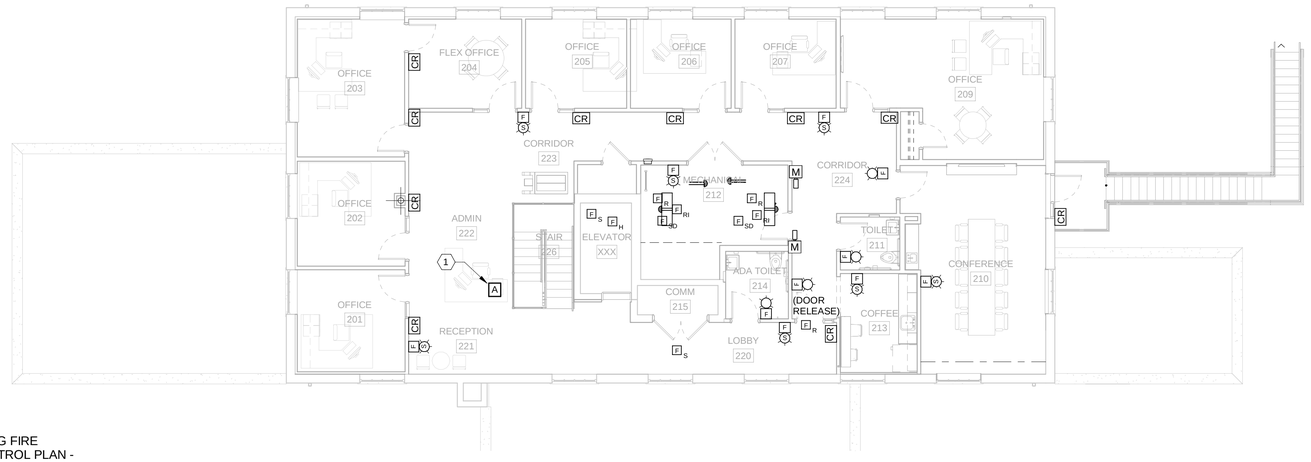
Revisions

No.	Description	Date
3	REV 3	12.16.19

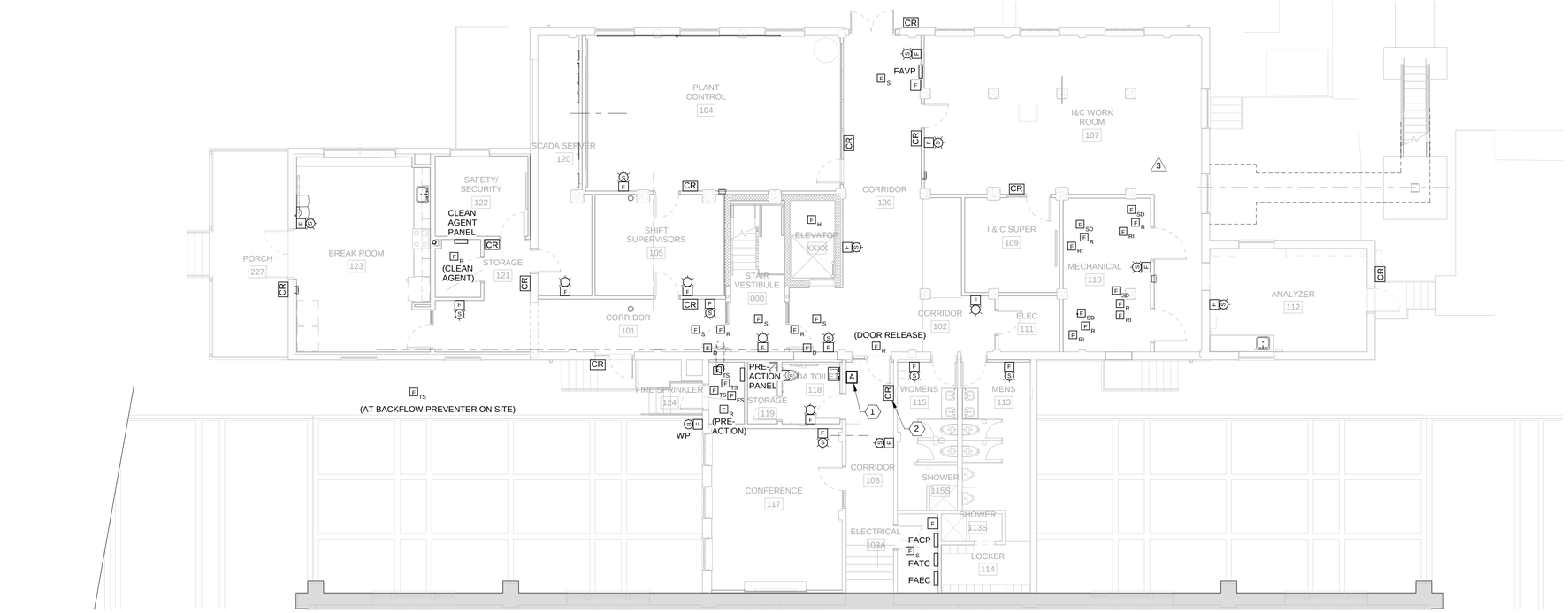
Sheet Information

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

E205



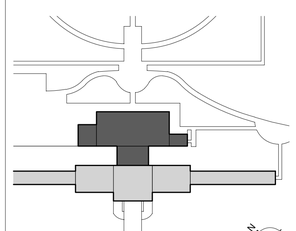
ADMINISTRATION BUILDING FIRE ALARM AND ACCESS CONTROL PLAN - SECOND FLOOR
2 1/8" = 1'-0"



ADMINISTRATION BUILDING FIRE ALARM AND ACCESS CONTROL PLAN - FIRST FLOOR
1 1/8" = 1'-0"

DRAWING NOTES:

1. THE RECEPTIONIST IN ADMIN 222 WILL REQUIRE A MEANS TO "BUZZ-IN" PERSONS REQUESTING ENTRY ON THE FIRST FLOOR ENTRY INTO CORRIDOR 102. VOICE COMMUNICATIONS WILL BE PROVIDED VIA THE CITY VOIP SYSTEM (OR INFORMACAST) VIA ONE OF THE CAT 6 PORTS IN THE NEAREST DATA OUTLET BY THE RECEPTIONIST. THE DATA OUTLET ON THE WALL IN CORRIDOR 103 WILL BE USED FOR THE CITY'S COMMUNICATION CONNECTION ON THE FIRST FLOOR. THE COMMUNICATIONS DEVICE (PHONE HAND SET, WALL TWO-WAY SPEAKER, ETC.) WILL BE PROVIDED BY THE CITY.
2. PROVIDE FOR A MEANS TO RELEASE THE ACCESS CONTROLLED DOOR FROM THE RECEPTIONIST IN ADMIN 222. THE RELEASE SHALL BE PART OF THE ACCESS CONTROL SYSTEM AND SHALL BE EITHER A BUTTON AT THE RECEPTION DESK OR COMPUTER BASED KEY STROKE OR TOUCH PANEL.



KEY PLAN

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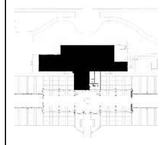

Project Information

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Revisions

No.	Description	Date
3	REV 3	12.16.19

Sheet Information

ADMINISTRATION BUILDING FIRE ALARM AND ACCESS CONTROL PLANS

E301

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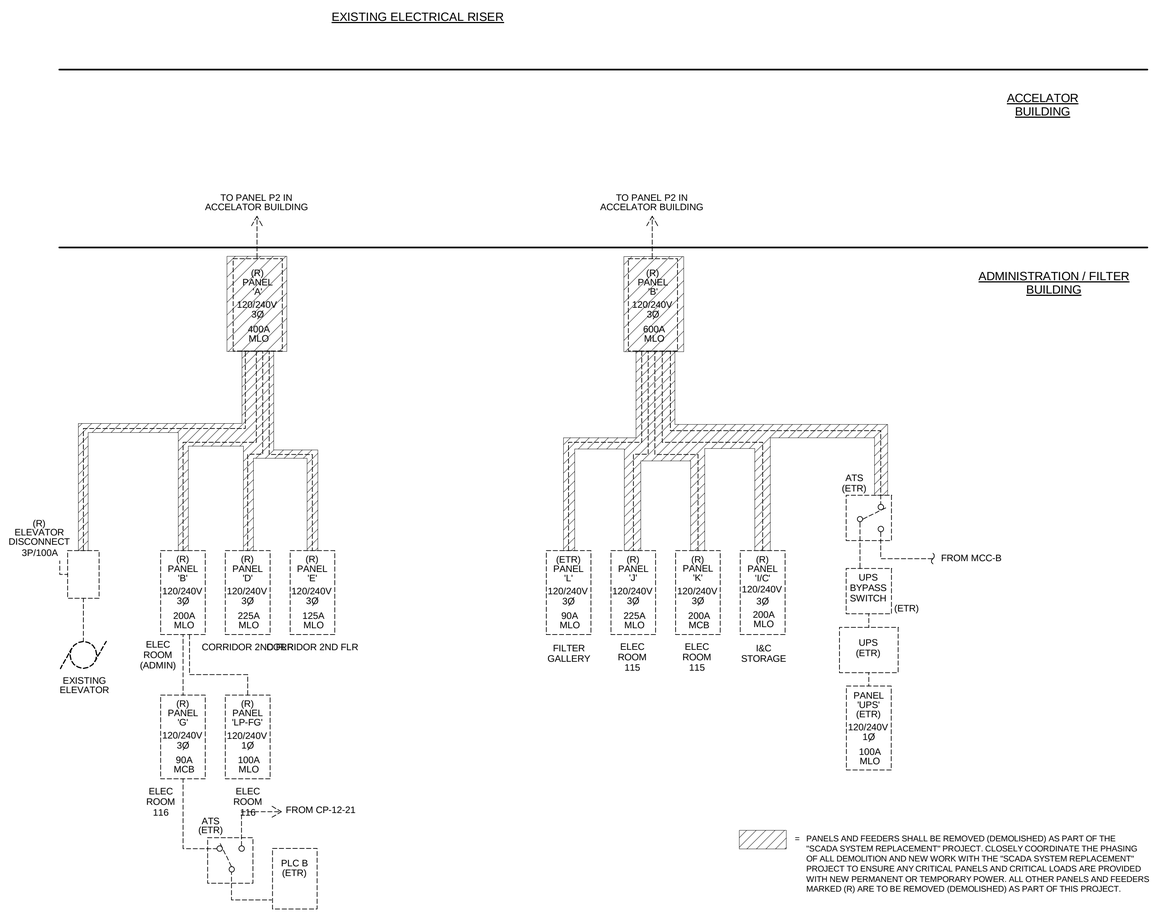
EXISTING ELECTRICAL RISER



= PANELS AND FEEDERS SHALL BE REMOVED (DEMOLISHED) AS PART OF THE "SCADA SYSTEM REPLACEMENT" PROJECT. CLOSELY COORDINATE THE PHASING OF ALL DEMOLITION AND NEW WORK WITH THE "SCADA SYSTEM REPLACEMENT" PROJECT TO ENSURE ANY CRITICAL PANELS AND CRITICAL LOADS ARE PROVIDED WITH NEW PERMANENT OR TEMPORARY POWER. ALL OTHER PANELS AND FEEDERS MARKED (R) ARE TO BE REMOVED (DEMOLISHED) AS PART OF THIS PROJECT.

ELECTRICAL RISER DIAGRAM - DEMOLITION

NOT TO SCALE

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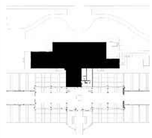

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Revisions

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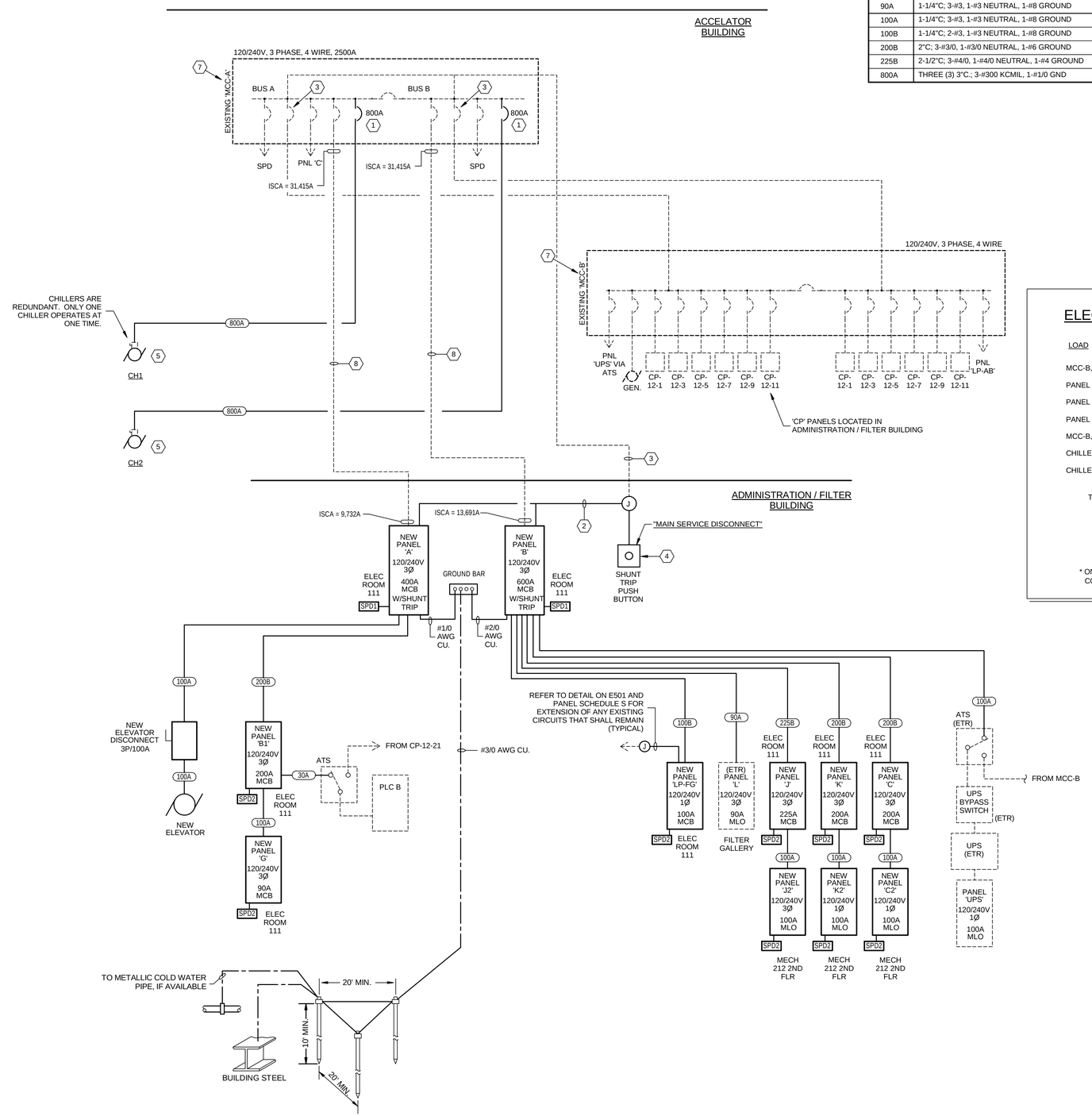
1	Permit Review	08.21.19

Sheet Information

ELECTRICAL RISER DIAGRAM - DEMOLITION

E401



ELECTRICAL RISER DIAGRAM - NEW WORK

NOT TO SCALE

FEEDER SCHEDULE

AMPS	CONDUIT & CABLING
30A	3/4"C; 3-#10, 1-#10 NEUTRAL, 1-#10 GROUND
90A	1-1/4"C; 3-#3, 1-#3 NEUTRAL, 1-#8 GROUND
100A	1-1/4"C; 3-#3, 1-#3 NEUTRAL, 1-#8 GROUND
100B	1-1/4"C; 2-#3, 1-#3 NEUTRAL, 1-#8 GROUND
200B	2"C; 3-#3/0, 1-#3/0 NEUTRAL, 1-#6 GROUND
225B	2-1/2"C; 3-#4/0, 1-#4/0 NEUTRAL, 1-#4 GROUND
800A	THREE (3) 3"C.; 3-#300 KCMIL, 1-#1/0 GND

RISER NOTES:

1. 800 AMP, 3-POLE, 240V CIRCUIT BREAKER IN EXISTING MOTOR CONTROL CENTER SHALL BE PROVIDED AS PART OF THE "SCADA SYSTEM REPLACEMENT" PROJECT. BREAKER SHALL BE PROVIDED WITH ADJUSTABLE INSTANTANEOUS TRIP, AND ADJUSTABLE LONG TIME AND SHORT TIME TRIP SETTINGS.
2. PROVIDE SHUNT TRIP CIRCUIT TO MAIN BREAKERS IN PANEL 'A' AND PANEL 'B'.
3. SHUNT TRIP CIRCUITS AND SHUNT TRIP COILS FOR 'MCC-B' BREAKERS ARE TO BE PROVIDED AS PART OF THE "SCADA SYSTEM REPLACEMENT" PROJECT.
4. PROVIDE SHUNT TRIP PUSH BUTTON TO AUTOMATICALLY TURN OFF THE MAIN BREAKER IN PANEL 'A' AND PANEL 'B', PLUS TURN OFF MOTOR CONTROL CENTER 'MCC-B'. LABEL "ADMINISTRATION / FILTER BUILDING MAIN SERVICE DISCONNECT".
5. CHILLERS ARE TO BE PROVIDED WITH A NON-FUSED DISCONNECT ACCESSIBLE FROM THE EXTERIOR, PLUS AN INTEGRAL FACTORY SUPPLIED DISTRIBUTION PANEL WITH BREAKERS TO FEED EACH CHILLER MODULE.
6. DO NOT BOND NEUTRAL AND GROUND BARS INSIDE BUILDING FEEDER PANELS 'A' AND 'B'.
7. MOTOR CONTROL CENTERS ARE PROVIDED AS PART OF THE "SCADA SYSTEM REPLACEMENT" PROJECT.
8. FEEDERS TO NEW PANS 'A' AND 'B' ARE TO BE PROVICED BY THE "SCADA SYSTEM REPLACEMENT" PROJECT.

ELECTRICAL LOAD CALCULATIONS

LOAD		BUS A CONNECTED	BUS A DEMAND	BUS B CONNECTED	BUS B DEMAND	TOTAL DEMAND
MCC-B, BUS A	=	139.2 KVA	108.0 KVA	-	-	108.0 KVA
PANEL 'C'	=	29.1 KVA	21.8 KVA	-	-	21.8 KVA
PANEL 'A'	=	82.8 KVA	89.9 KVA	-	-	89.9 KVA
PANEL 'B'	=	-	-	190.4 KVA	190.5 KVA	190.5 KVA
MCC-B, BUS B	=	-	-	131.4 KVA	100.2 KVA	100.2 KVA
CHILLER 'CH1'	=	-	-	252.0 KVA	252.0 KVA	252.0 KVA
CHILLER 'CH2'	=	252.0 KVA	252.0 KVA	-	-	* KVA
TOTAL	=	503.1 KVA	471.7 KVA	573.8 KVA	542.7 KVA	762.4 KVA

762,400 VA/240 V., 3 PHASE = 1,835 AMPS X 1.25 = 2,295 AMPS

2,500 AMP, 240 VOLT, 3 PHASE, 4 WIRE MOTOR CONTROL CENTER IS ADEQUATE.

* ONLY ONE CHILLER WILL RUN AT ANY ONE TIME FOR REDUNDANCY. CHILLERS ARE LOCKED OUT VIA HVAC CONTROLS SO ONLY ONE CHILLER WILL RUN.

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PLAN APPROVAL
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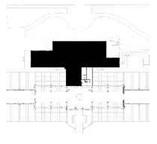

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Sheet Information

ELECTRICAL RISER DIAGRAM - NEW WORK

E402

EXISTING PANEL 'I/C' (TO BE REMOVED)

PANEL: I/C | AIC RATING: EXIST AMPS | SERVICE: 120/ 240 V., | 3PH,4W | MLO: 200 AMPS | MCB: 0 AMPS

STATUS	DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION	STATUS
D	SPACE	0	-	1				2	-	0	SPACE	D
D	SPACE	0	-	3				4	-	0	SPACE	D
D	SPACE	0	-	5				6	-	0	SPACE	D
D	SPACE	0	-	7				8	-	0	SPACE	D
D	SPACE	0	-	9				10	-	0	SPACE	D
D	SPACE	0	-	11				12	-	0	SPACE	D
D	SPACE	0	-	13				14	-	0	SPACE	D
D	SPACE	0	-	15				16	-	0	SPACE	D
D	SPACE	0	-	17				18	-	0	SPACE	D
D	SPACE	0	-	19				20	20	0.5	REC; I/C	D
D	REC; I/C	0.5	20	21				22	20	0.5	REC; I/C	D
D	REC; I/C	0.5	20	23				24	20	0.9	REC; I/C (TV)	D
D	REC; I/C	0.5	20	25				26	20	0.7	REC; I/C OFFICE	D
D	LTG; I/C	0.5	20	27				28	20	0.7	REC; I/C OFFICCE	D
D	REC; WORKBENCH	1	20	29				30	20	0.5	REC; I/C	D
D	SPARE	0	20	31				32	20	0.5	REC; I/C	D
D	SPARE	0	20	33				34	20	1	REC; REFRIDGERATOR	D
D	SPARE	0	20	35				36	20	1	REC; MICROWAVE	D
D	SPARE	0	20	37				38	20	0.5	REC; COUNTER	D
D	SPARE	0	20	39				40	20	0.5	REC; COUNTER	D
D	SPARE	0	20	41				42	20	0	SPARE	D

A PH = 2.70 | B PH = 3.70 | C PH = 3.90

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	0.50	x	1.25	=	0.63	x		=		
RECEPT	9.80	x	*	=	9.80	x		=		
MISC EQUIP	0.00	x	1.00	=	0.00	x		=		
A/C	0.00	x	1.00	=	0.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	0.00	x	1.00	=	0.00	x		=		
SPARE					72.62					
TOTALS	10.30 KVA				83.04 KVA					

* PER N.E.C. TABLE 220.44

EXISTING PANEL 'J' (TO BE REMOVED)

PANEL: J | AIC RATING: EXIST AMPS | SERVICE: 120/ 240 V., | 3PH,4W | MLO: 225 AMPS | MCB: 0 AMPS

STATUS	DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION	STATUS
D	A/C; CONDENSOR #5	4.6	3P	1				2	3P	2.4	A/C; CONDENSOR #1, #2	D
D	A/C; CONDENSOR #5	4.6	60	3				4	30	2.4	A/C; CONDENSOR #1, #2	D
D	A/C; CONDENSOR #5	4.6	"	5				6	"	2.4	A/C; CONDENSOR #1, #2	D
D	A/C; CONDENSOR #3	3	2P	7				8	2P	3	A/C; COMDENSOR #4	D
D	A/C; CONDENSOR #3	3	50	9				10	50	3	A/C; COMDENSOR #4	D
D	LTG; CONF RM / ELEV RM	1	20	11				12	20	1	REC; CONF RM	D
D	SPARE	0	2P	13				14	20	1	REC; CONF RM	D
D	SPARE	0	50	15				16	-	0	SPACE	D
D	SPACE	0	20	17				18	2P	0	SPARE	D
D	SPARE	0	20	19				20	30	0	SPARE	D
D	SPACE	0	-	21				22	-	0	SPARE	D
D	REC; ABANDONED OPS	1	20	23				24	2P	0	SPARE	D
D	REC; CONF RM	1	20	25				26	60	0	SPARE	D
D	SPACE	0	-	27				28	-	0	SPACE	D
D	LTG; SERVER RM	1	20	29				30	20	0.5	REC; TV OUTLET	D
D	LTG; ELEV CAB	1	20	31				32	20	0	SPARE	D
D	SPARE	1	2P	33				34	2P	1	A/C; AHU CONF RM	D
D	SPARE	1	20	35				36	20	1	A/C; AHU CONF RM	D
D	LTG; CORR. / PRINTER	1	20	37				38	20	1	REC; U/C REFRIGERATOR	D
D	SPACE	0	-	39				40	-	0	SPACE	D
D	EQ; FIRE ALARM / EXIT	0.5	20	41				42	20	1	LTG; ELEV RM / STAIR	D

A PH = 18.00 | B PH = 15.00 | C PH = 15.00

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	5.00	x	1.25	=	6.25	x		=		
RECEPT	5.50	x	*	=	5.50	x		=		
MISC EQUIP	0.50	x	1.00	=	0.50	x		=		
A/C	35.00	x	1.00	=	35.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	2.00	x	1.00	=	2.00	x		=		
SPARE					44.17					
TOTALS	48.00 KVA				93.42 KVA					

* PER N.E.C. TABLE 220.44

EXISTING PANEL 'K' (TO BE REMOVED)

PANEL: K | AIC RATING: EXIST AMPS | SERVICE: 120/ 240 V., | 3PH,4W | MLO: 0 AMPS | MCB: 225 AMPS

RELOCATE CIRCUIT TO NEW PANEL:	STATUS	DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION	STATUS	RELOCATE CIRCUIT TO NEW PANEL:
-	D	INSTRMT SHOP PNL	4.8	2P	1				2	20	1	REC; CONF RM	D	-
-	D	INSTRMT SHOP PNL	4.8	70	3				4	20	1	REC; CONF RM	D	-
-	D	A/C; OPS ABOVE CLG	2.5	3P	5				6	15	0.7	A/C; UPS ROOM	D	-
-	D	A/C; OPS ABOVE CLG	2.5	25	7				8	20	1	REC; FLTR PIPE GALL 9-20	RL	LP-FG - 18
-	D	A/C; OPS ABOVE CLG	2.5	"	9				10	20	1	REC; PIPE GALLERY 21-30	RL	LP-FG - 20
-	-	SPACE	0	-	11				12	15	0.7	A/C; CU - UPS	D	-
-	-	SPACE	0	-	13				14	2P	1.8	A/C AHU OPER. CLOSET	D	-
-	-	SPACE	0	-	15				16	30	1.8	A/C AHU OPER. CLOSET	D	-
-	-	SPACE	0	-	17				18	3P	0.8	A/C CONDENSER #6	D	-
LP-FG - 2	RL	REC; PORCH	1	20	19				20	15	0.8	A/C CONDENSER #6	D	-
LP-FG - 4	RL	REC; PORCH	1	20	21				22	"	0.8	A/C CONDENSER #6	D	-
-	-	SPACE	0	-	23				24	-	0	SPACE	D	-
LP-FG - 6	RL	LTG; PIPE GALL. WASH RM	1	20	25				26	20	1	REC; LION FOUNT HEAD	RL	LP-FG - 20
LP-FG - 8	RL	LTG; PIPE GALLERY 9-19	1	20	27				28	3P	1.8	MTR; SOUTH EX FAN	RL	
-	-	SPACE	0	-	29				30	30	1.8	MTR; SOUTH EX FAN	RL	G - 22,24,26
LP-FG - 10	RL	LTG; PIPE GALLERY 10-20	1	20	31				32	"	1.8	MTR; SOUTH EX FAN	RL	
LP-FG - 12	RL	LTG; PIPE GALLERY 21-29	1	20	33				34	20	1	LTG; PIPE GALLERY 22-30	RL	LP-FG - 24
-	-	SPACE	0	-	35				36	-	0	SPACE	-	-
LP-FG - 14	RL	LTG; FLTR GAL N ROTUNDA	1	20	37				38	2P	4.2	A/C; COND. UNIT	D	-
LP-FG - 16	RL	LTG; FLTR GAL N ROTUNDA	1	20	39				40	50	4.2	A/C; COND. UNIT	D	-
-	-	SPACE	0	-	41				42	-	0	SPACE	-	-

A PH = 22.90 | B PH = 22.90 | C PH = 6.50

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	7.00	x	1.25	=	8.75	x		=		
RECEPT	7.00	x	*	=	7.00	x		=		
MISC EQUIP	0.00	x	1.00	=	0.00	x		=		
A/C	23.30	x	1.00	=	23.30	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	5.40	x	1.25	=	6.75	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	9.60	x	1.00	=	9.60	x		=		
SPARE					38.02					
TOTALS	52.30 KVA				93.42 KVA					

* PER N.E.C. TABLE 220.44

PANEL STATUS ABBREVIATIONS:

E = EXISTING CIRCUIT TO REMAIN.
N = NEW BREAKER AND CIRCUIT. PROVIDE BREAKER, CONDUIT AND WIRE
D = DEMO BREAKER AND CIRCUIT.
RL = RELOCATE CIRCUIT TO NEW PANEL AS INDICATED.
SPLICE AND EXTEND CIRCUIT AS REQUIRED.

1

EXISTING PANEL 'B' (TO BE REMOVED)

PANEL: B_DEMO | AIC RATING: EXIST AMPS | SERVICE: 120/ 240 V., | 3PH,4W | MLO: 200 AMPS | MCB: 0 AMPS

RELOCATE CIRCUIT TO NEW PANEL:	STATUS	DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION	STATUS	RELOCATE CIRCUIT TO NEW PANEL:
-	D	HEAT AC HT STRIP	1	3P	1				2	-	0	BLANK	D	-
-	D	HEAT AC HT STRIP	1	30	3				4	-	0	BLANK	D	-
-	D	HEAT AC HT STRIP	1	"	5				6	2P	4.8	CHEM SCAN	RL	B1-7,9
-	D	A/C BREAKROOM	2	3P	7				8	60	4.8	CHEM SCAN	RL	B1-7,9
-	D	A/C BREAKROOM	2	45	9				10	-	0	BLANK	D	-
-	D	A/C BREAKROOM	2	"	11				12	-	0	BLANK	D	-
-	D	REC; REFRIG.	1	20	13				14	3P	1	AHU BREAKROOM	D	-
-	D	BLANK	0	-	15				16	20	1	AHU BREAKROOM	D	-
B1-17,19	RL	HEAT; DRYER	1.8	2P	17				18	"	1	AHU BREAKROOM	D	-
B1-17,19	RL	HEAT; DRYER	1.8	30	19				20	20	0	REC; COUNTER	D	-
-	D	BLANK	0	-	21				22	-	0	BLANK	D	-
-	D	REC; DRINK MACHINE	1	2P	23				24	2P	7	RANGE	D	-
-	D	REC; DRINK MACHINE	1	20	25				26	80	7	RANGE	D	-
-	D	BLANK	0	-	27				28	-	0	BLANK	D	-
-	D	REC; EWC	1	20	29				30	20	1	REC; MICROWAVE	D	-
-	D	REC; ELEC RM	1	20	31				32	20	1	REC; BREAKROOM	D	-
-	D	BLANK	0	-	33				34	-	0	BLANK	D	-
-	D	SPARE	0	20	35				36	2P	8	PNL; LP-FG	D	SEE NOTE 1
-	D	MTR; FAN	0.5	3P	37				38	100	8	PNL; LP-FG	D	SEE NOTE 1
-	D	MTR; FAN	0.5	15	39				40	-	0	BLANK	D	-
-	D	MTR; FAN	0.5	"	41				42	20	1	REC; BREAKROOM	D	-

A PH = 30.10 | B PH = 4.50 | C PH = 30.10

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	0.00	x	1.25	=	0.00	x		=		
RECEPT	8.00	x	*	=	8.00	x		=		
MISC EQUIP	0.00	x	1.00	=	0.00	x		=		
A/C	6.00	x	1.00	=	6.00	x		=		
HEATING	6.60	x	1.00	=	6.60	x		=		
LARGEST MOTOR	1.50	x	1.25	=	1.88	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	42.60	x	1.00	=	42.60	x		=		
SPARE					17.97					
TOTALS	64.70 KVA				83.04 KVA					

* PER N.E.C. TABLE 220.44
NOTE 1 - NEW PANEL 'LP-FG' BEING FED FROM NEW PANEL 'B'

EXISTING PANEL 'LP-FG' (TO BE REMOVED)

PANEL: LP-FG | AIC RATING: EXIST AMPS | SERVICE: 120/ 240 V., | 1PH, 3W | MLO: 0 AMPS | MCB: 100 AMPS

RELOCATE CIRCUIT TO NEW PANEL:	STATUS	DESCRIPTION	KVA	BKR	CKT	A	B	CKT	BKR	KVA	DESCRIPTION	STATUS	RELOCATE CIRCUIT TO NEW PANEL:
-	-	SPACE	0	-	1			2	20	1	REC; NE FLOOR BUFFER	RL	LP-FG - 1
-	D	REC; CLOSET	1	20	3			4	20	1	REC; NW FLOOR BUFFER	RL	LP-FG - 3
-	D	SPARE	0	20	5			6	20	1	REC; SE FLOOR BUFFER	RL	LP-FG - 5
-	D	SPARE	0	20	7			8	20	1	REC;	RL	LP-FG - 7
-	D	SPARE	0	20	9			10	20	1	REC;	RL	LP-FG - 9
-	D	SPARE	0	20	11			12	20	0	SPARE	D	-
-	D	SPARE	0	20	13			14	20	0	SPARE	D	-
-	D	SPARE	0	20	15			16	20	0	SPARE	D	-
-	D	SPARE	0	20	17			18	20	0	SPARE	D	-
-	D	SPARE	0	20	19			20	20	0	SPARE	D	-
-	D	SPARE	0	20	21			22	20	0	SPARE	D	-
-	-	SPACE	0	-	23			24	20	0	SPARE	D	-
-	D	SPARE	0	20	25			26	20	0	SPARE	D	-
-	D	SPARE	0	20	27			28	20	0	SPARE	D	-
-	D	SPARE	0	20	29			30	20	0	SPARE	D	-
-	D	SPARE	0	20	31			32	20	0	SPARE	D	-
-	D	SPARE	0	20	33			34	20	0	SPARE	D	-
-	D	SPARE	0	20	35			36	20	0	SPARE	D	-
-	D	SPARE	0	2P	37			38	20	0	SPARE	D	-
-	D	SPARE	0	20	39			40	20	0	SPARE	D	-
-	D	SPARE	0	20	41			42	20	0	SPARE	D	-

A PH = 3.00 | B PH = 3.00

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	0.00	x	1.25	=	0.00	x		=		
RECEPT	6.00	x	*	=	6.00	x		=		
MISC EQUIP	0.00	x	1.00	=	0.00	x		=		
A/C	0.00	x	1.00	=	0.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	0.00	x	1.00	=	0.00	x		=		
SPARE					18.00					
TOTALS	6.00 KVA				24.00 KVA					

* PER N.E.C. TABLE 220.44

EXISTING PANEL 'G' (TO BE REMOVED)

PANEL: G | AIC RATING: EXIST AMPS | SERVICE: 120/ 240 V., | 3PH,4W | MLO: 0 AMPS | MCB: 100 AMPS

RELOCATE CIRCUIT TO NEW PANEL:	STATUS	DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION	STATUS	RELOCATE CIRCUIT TO NEW PANEL:
-	D	EQ; WATER HTR	1.8	2P	1				2	20	1	LTG; 1ST FLR HALLWAY	D	-
-	D	EQ; WATER HTR	1.8	30	3				4	20	1	LTG; NEAR CU VIA PC	RL	G - 2
G - 1,3	RL	LTG; EXT SOUTH	1	2P	5				6	20	0	SPARE	D	-
	RL	LTG; EXT SOUTH	1	20	7				8	20	0	SPARE	D	-
G - 5	RL	EQ; J-BOX ABOVE WOM RR	1	20	9				10	20	0	SPARE	D	-
G - 7	RL	REC; MENS RR	1	20	11				12	20	0	SPARE	D	-
-	D	LTG; RR HALLWAY	1	20	13				14	20	0	SPARE	D	-
-	D	LTG; MENS RR	1	20	15				16	20	1	PLC-B	RL	G - 6
G - 13	RL	EQ; J-BOX ABOVE WOM. RR	1	20	17				18	20	1	EQ; BATTERY CHRGR	RL	G - 8
G - 17	RL	REC; AIR SCOUR RELIEF N	1	20	19				20	20	1	REC; AIR SCOUR RELIEF S	RL	G - 12
G - 9,11	RL	PNL; EXT WATER BEARER	1.8	2P	21				22	20	0	SPARE FRONT GATE	D	-
	RL	PNL; EXT WATER BEARER	1.8	30	23				24	20	0	SPARE FRONT GATE	D	-
G - 19	RL	LTG; FILTER GALLERY	1	20	25				26	20	1	LTG; FRONT POLE VIA PC	RL	G - 18
G - 23	RL	LTG; FILTER GALLERY	1	20	27				28	20	1	LTG; FILTER GALLERY	RL	G - 20
G - 25	RL	LTG; FILTER GALLERY	1	20	29				30	-	0	SPACE	-	-
G - 29	RL	LTG; FILTER GALLERY	1	20	31				32	-	0	SPACE	-	-
G - 31	RL	LTG; FILTER GALLERY	1	20	33				34	-	0	SPACE	-	-
G - 35	RL	LTG; FILTER GALLERY	1	20	35				36	-	0	SPACE	-	-
G - 37	RL	LTG; FILTER GALLERY	1	20	37				38	-	0	SPACE	-	-
G - 41	RL	LTG; FILTER GALLERY	1	20	39				40	-	0	SPACE	-	-
G - 20	RL	LTG; FILTER GALLERY	1	20	41				42	-	0	SPACE	-	-

A PH = 10.80 | B PH = 11.60 | C PH = 8.80

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	17.00	x	1.25	=	21.25	x		=		
RECEPT	3.00	x	*	=	3.00	x		=		
MISC EQUIP	6.60	x	1.00	=	6.60	x		=		
A/C	0.00	x	1.00	=	0.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	4.60	x	1.00	=	4.60	x		=		
SPARE					6.07					
TOTALS	31.20 KVA				41.52 KVA					

* PER N.E.C. TABLE 220.44

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-[illegible]
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful for any person to make any alterations to these plans unless directed to do so from the Construction Services Division.
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

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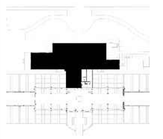
ROBERT C. ANSTON
P.E. 40858

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE



Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
1	Permit Review	08.21.19

Sheet Information

EXISTING PANEL SCHEDULES

E403

NEW PANEL 'LP-FG'

PANEL: LP-FG | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., | 1PH, 3W | MLO: 0 AMPS | MCB: 100 AMPS

DESCRIPTION	KVA	BKR	CKT	A	B	CKT	BKR	KVA	DESCRIPTION
REC; NE FLOOR BUFFER	0.5	20	1			2	20	0.4	REC; PORCH SPLIT
REC; NW FLOOR BUFFER	0.5	20	3			4	20	0.4	REC; PORCH SPLIT
REC; SE FLOOR BUFFER	0.5	20	5			6	20	1	LTG; PIPE GAL. WASH RM
REC;	0.5	20	7			8	20	1	LTG; PIPE GAL. 9-19
REC;	0.5	20	9			10	20	1	LTG; PIPE GAL. 10-20
REC; I&C WRK RM	0.9	20	11			12	20	1	LTG; PIPE GAL. 21-29
REC; I&C WRK RM	0.7	20	13			14	20	1	LTG; FLTR GAL. N RTNDA
REC; I&C SUPER	0.9	20	15			16	20	1	LTG; FLTR GAL N RTNDA
REC; COR, MECH,ELEC	1.1	20	17			18	20	0.4	REC; PIPE GAL. 9-20
REC; ADA TOILET,STOR	0.5	20	19			20	20	0.4	REC; PIPE GAL. 21-30
EQ; CONDENSATE PUMP	0.5	20	21			22	20	0.5	REC; LION FOUNT. HEAD
SPARE	0	20	23			24	20	1	LTG; PIPE GAL. 22-30
SPARE	0	20	25			26	20	0	SPARE
SPARE	0	20	27			28	20	0	SPARE
SPARE	0	20	29			30	20	0	SPARE
REC; RCPT. DESK	1.1	20	31			32	20	0	SPARE
SPACE	0	-	33			34	-	0	SPACE
SPACE	0	-	35			36	-	0	SPACE
SPACE	0	-	37			38	-	0	SPACE
EQ; SPD2	0	2P	39			40	-	0	SPACE
EQ; SPD2	0	20	41			42	-	0	SPACE

A PH = 8.10 | B PH = 9.20

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	7.00	x	1.25	=	8.75	x		=		
RECEPT	9.80	x	*	=	9.80	x		=		
MISC EQUIP	0.50	x	1.00	=	0.50	x		=		
A/C	0.00	x	1.00	=	0.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	0.00	x	1.00	=	0.00	x		=		
SPARE					4.95					
TOTALS	17.30	KVA			24.00	KVA				

* PER N.E.C. TABLE 220.44

NEW PANEL 'C'

PANEL: C | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., | 3PH,4W, HI-LEG DELTA | MLO: 0 AMPS | MCB: 200 AMPS

DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION
REC; I&C WRK RM	0.7	20	1				2	2P	3.9	PNL C2
BLANK	0	-	3				4	100	4	PNL C2
REC; I&C WRK RM	0.7	20	5				6	20	0.5	REC; PLNT CONTROL
REC; CONF RM 117	0.5	20	7				8	20	0.5	REC; PLNT CONTROL
BLANK	0	-	9				10	-	0	BLANK
EQ; FACP	0.4	20	11				12	20	0.5	REC; PLNT CONTROL
EQ; FAEC	0.4	20	13				14	20	0.5	REC; PLNT CONTROL
BLANK	0	-	15				16	-	0	SPACE
EQ; DDC CNTRL	0.4	20	17				18	20	0.5	EQ; PRE-ACTION
REC; I&C WRK RM	0.7	20	19				20	20	0.5	REC; PLNT CONTROL
BLANK	0	-	21				22	-	0	SPACE
REC; CONF RM 117	0.5	20	23				24	20	0.5	EQ; ACCESS CNTRL
EQ; CLEAN AGENT	0.5	20	25				26	20	0	SPARE
SPACE	0	-	27				28	-	0	SPACE
SPARE	0	20	29				30	20	0	SPARE
SPARE	0	20	31				32	20	0	SPARE
SPACE	0	-	33				34	-	0	SPACE
SPARE	0	20	35				36	20	0	SPARE
EQ; SPD2	0	3P	37				38	20	0	SPARE
EQ; SPD2	0	30	39				40	-	0	SPACE
EQ; SPD2	0	"	41				42	-	0	SPACE

A PH = 8.20 | B PH = 4.00 | C PH = 4.00

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	0.00	x	1.25	=	0.00	x		=		
RECEPT	5.60	x	*	=	5.60	x		=		
MISC EQUIP	2.70	x	1.00	=	2.70	x		=		
A/C	0.00	x	1.00	=	0.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	7.90	x	1.00	=	7.90	x		=		
SPARE					66.84					
TOTALS	16.20	KVA			83.04	KVA				

* PER N.E.C. TABLE 220.44

NEW PANEL 'B1'

PANEL: B1 | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., | 3PH,4W, HI-LEG DELTA | MLO: 0 AMPS | MCB: 200 AMPS

DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION
MTR; SOUTH EX FAN	0.8	3P	1				2	2P	3	EQ; EWH1
MTR; SOUTH EX FAN	0.8	15	3				4	40	3	EQ; EWH1
MTR; SOUTH EX FAN	0.8	"	5				6	20	0.3	EQ; HWP
EQ; CHEM SCAN RM	4.8	2P	7				8	2P	2.4	A/C; MS1/CU1
EQ; CHEM SCAN RM	4.8	60	9				10	30	2.4	A/C; MS1/CU1
PNL G	10.4	3P	11				12	3P	1.8	PLC-B VIA ATS
PNL G	4.4	100	13				14	30	1.8	PLC-B VIA ATS
PNL G	11.3	"	15				16	"	1.8	PLC-B VIA ATS
HEAT; DRYER	1.8	2P	17				18	20	0	SPARE
HEAT; DRYER	1.8	20	19				20	20	0	SPARE
SPACE	0	-	21				22	-	0	SPACE
SPARE	0	20	23				24	20	0	SPARE
SPARE	0	20	25				26	20	0	SPARE
SPACE	0	-	27				28	-	0	SPACE
SPACE	0	-	29				30	-	0	SPACE
SPACE	0	-	31				32	-	0	SPACE
SPACE	0	-	33				34	-	0	SPACE
SPACE	0	-	35				36	-	0	SPACE
EQ; SPD2	0	3P	37				38	-	0	SPACE
EQ; SPD2	0	30	39				40	-	0	SPACE
EQ; SPD2	0	"	41				42	-	0	SPACE

A PH = 17.20 | B PH = 24.10 | C PH = 13.30

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	0.00	x	1.25	=	0.00	x		=		
RECEPT	0.00	x	*	=	0.00	x		=		
MISC EQUIP	15.90	x	1.00	=	15.90	x		=		
A/C	4.80	x	1.00	=	4.80	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	2.40	x	1.25	=	3.00	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	31.50	x	1.00	=	31.50	x		=		
SPARE					27.84					
TOTALS	54.60	KVA			83.04	KVA				

* PER N.E.C. TABLE 220.44

NEW PANEL 'J'

PANEL: J | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., | 3PH,4W, HI-LEG DELTA | MLO: 225 AMPS | MCB: 0 AMPS

DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION
HEAT; VV111	2	2P	1				2	3P	1.3	A/C; AH11
HEAT; VV111	2	30	3				4	20	1.3	A/C; AH11
HEAT; VV115	3	2P	5				6	"	1.3	A/C; AH11
HEAT; VV115	3	40	7				8	3P	1.3	A/C; AH12
HEAT; VV121	3.3	2P	9				10	20	1.3	A/C; AH12
HEAT; VV121	3.3	40	11				12	"	1.3	A/C; AH12
HEAT; VV118	3	40	13				14	2P	3	EQ; EWH1
HEAT; VV124	2.3	2P	15				16	40	3	EQ; EWH1
HEAT; VV124	2.3	30	17				18	20	0.3	EQ; HWP
MTR; EF11	0.7	20	19				20	2P	2.4	A/C; MS1/CU1
PNL J2	15.4	3P	21				22	30	2.4	A/C; MS1/CU1
PNL J2	9.2	100	23				24	20	0.3	MTR; EF12,EF13
PNL J2	11.6	"	25				26	20	1.5	EQ; HAND DRYER
SPACE	0	-	27				28	-	0	BLANK
SPARE	0	20	29				30	20	1.5	EQ; HAND DRYER
SPARE	0	20	31				32	20	1.5	EQ; HAND DRYER
SPACE	0	-	33				34	-	0	SPACE
SPARE	0	20	35				36	20	0	SPARE
EQ; SPD2	0	3P	37				38	20	0	SPARE
EQ; SPD2	0	30	39				40	-	0	SPACE
EQ; SPD2	0	"	41				42	20	0	SPARE

A PH = 31.30 | B PH = 31.00 | C PH = 22.50

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	0.00	x	1.25	=	0.00	x		=		
RECEPT	0.00	x	*	=	0.00	x		=		
MISC EQUIP	10.80	x	1.00	=	10.80	x		=		
A/C	12.60	x	1.00	=	12.60	x		=		
HEATING	24.20	x	1.00	=	24.20	x		=		
LARGEST MOTOR	0.70	x	1.25	=	0.88	x		=		
OTHER MOTORS	0.30	x	1.00	=	0.30	x		=		
OTHER	36.20	x	1.00	=	36.20	x		=		
SPARE					8.45					
TOTALS	84.80	KVA			93.42	KVA				

* PER N.E.C. TABLE 220.44

NEW PANEL 'J2'

PANEL: J2 | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., | 3PH,4W, HI-LEG DELTA | MLO: 100 AMPS | MCB: 0 AMPS

DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION
HEAT; VV211	3.5	40	1				2	3P	1.3	A/C; AH21
HEAT; VV214	2.8	2P	3				4	20	1.3	A/C; AH21
HEAT; VV214	2.8	40	5				6	"	1.3	A/C; AH21
HEAT; VV222	2	2P	7				8	3P	1.1	A/C; AH22
HEAT; VV222	2	30	9				10	20	1.1	A/C; AH22
HEAT; VV212	2.5	30	11				12	"	1.1	A/C; AH22
HEAT; VV213	2.5	30	13				14	30	2.5	HEAT; VV221
HEAT; VV223	2	2P	15				16	-	0	SPACE
HEAT; VV223	2	30	17				18	20	0.4	MTR; EF21,EF22
HEAT; VV224	1	20	19				20	20	1.5	EQ; HAND DRYER
SPACE	0	-	21				22	-	0	SPACE
SPARE	0	20	23				24	20	1.5	EQ; HAND DRYER
SPARE	0	20	25				26	20	0	SPARE
SPACE	0	-	27				28	-	0	SPACE
SPARE	0	20	29				30	20	0	SPARE
SPARE	0	20	31				32	20	0	SPARE
SPACE	0	-	33				34	-	0	SPACE
SPACE	0	-	35				36	20	0	SPARE
EQ; SPD2	0	3P	37				38	20	0	SPARE
EQ; SPD2	0	30	39				40	-	0	SPACE
EQ; SPD2	0	"	41				42	-	0	SPACE

A PH = 15.40 | B PH = 9.20 | C PH = 11.60

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	0.00	x	1.25	=	0.00	x		=		
RECEPT	0.00	x	*	=	0.00	x		=		
MISC EQUIP	3.00	x	1.00	=	3.00	x		=		
A/C	7.20	x	1.00	=	7.20	x		=		
HEATING	25.60	x	1.00	=	25.60	x		=		
LARGEST MOTOR	0.40	x	1.25	=	0.50	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	0.00	x	1.00	=	0.00	x		=		
SPARE					5.22					
TOTALS	36.20	KVA			41.52	KVA				

* PER N.E.C. TABLE 220.44

NEW PANEL 'G'

PANEL: G | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., | 3PH,4W, HI-LEG DELTA | MLO: 100 AMPS | MCB: 0 AMPS

DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION
LTG; EXT SOUTH	0.8	2P	1				2	20	1	LTG; EXTERIOR VIA PC
LTG; EXT SOUTH	0.8	20	3				4	-	0	BLANK
REC; ABOVE WOMENS RR	0.5	20	5				6	20	1	EQ; PLC-B
REC; MENS RR	0.5	20	7				8	20	0.5	REC; GEN BATT. CHRGR
PNL; WATER BEARER	1.8	2P	9				10	-	0	BLANK
PNL; WATER BEARER	1.8	30	11				12	20	0.4	REC; AIR SCOUR RELIEF S
REC; ABOVE WOMENS RR	0.5	20	13				14	20	0.5	LTG; FRONT POLE VIA PC
BLANK	0	-	15				16	-	0	BLANK
REC; AIR SCOUR RELIEF N	0.8	20	17				18	20	1	LTG; FILTER GALLERY
LTG; FILTER GALLERY	0.8	20	19				20	20	1	LTG; FILTER GALLERY
BLANK	0	-	21				22	3P	1.8	MTR; SOUTH EX FAN
LTG; FILTER GALLERY	1	20	23				24	30	1.8	MTR; SOUTH EX FAN
LTG; FILTER GALLERY	1	20	25				26	"	1.8	MTR; SOUTH EX FAN
BLANK	0	-	27				28	2P	0	PNL; PLC-B VIA ATS
LTG; FILTER GALLERY	1	20	29				30	150	0	PNL; PLC-B VIA ATS
LTG; FILTER GALLERY	1	20	31				32	20	0	SPARE
BLANK	0	-	33				34	-	0	SPACE
LTG; FILTER GALLERY	1	20	35				36	20	0	SPARE
LTG; FILTER GALLERY	1	20	37				38	3P	0	EQ; SPD2
BLANK	0	-	39				40	30	0	EQ; SPD2
LTG; FILTER GALLERY	1	20	41				42	"	0	EQ; SPD2

A PH = 10.40 | B PH = 4.40 | C PH = 11.30

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	12.90	x	1.25	=	16.13	x		=		
RECEPT	3.20	x	*	=	3.20	x		=		
MISC EQUIP	1.00	x	1.00	=	1.00	x		=		
A/C	0.00	x	1.00	=	0.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	5.40	x	1.25	=	6.75	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	3.60	x	1.00	=	3.60	x		=		
SPARE					10.85					
TOTALS	26.10	KVA			41.52	KVA				

* PER N.E.C. TABLE 220.44

NEW PANEL 'K'

PANEL: K | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., | 3PH,4W, HI-LEG DELTA | MLO: 0 AMPS | MCB: 225 AMPS

DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION
REC; BREAK RM VEND	1	20	1				2	20	0.8	LTG; I&C WRK RM
SPACE	0	-	3				4	-	0	SPACE
REC; BREAK RM	0.9	20	5				6	20	1.3	LTG; CORR, BRK RM
REC; BREAK RM	0.8	20	7				8	20	1.1	LTG; PLANT CONTROL
SPACE	0	-	9				10	-	0	SPACE
REC; BREAK RM	0.5	20	11				12	20	1	LTG; CONF RM, RR, COR.
REC; EWC	0.7	20	13				14	20	0.4	REC; CORRIDOR
SPACE	0	-	15				16	-	0	SPACE
REC; BREAK RM VEND	1	20	17				18	20	0.9	REC; SHIFT SUP.
REC; BREAK RM	0.8	20	19				20	20	0.4	REC; ELEV PIT
EQ; RANGE	4.2	2P	21				22	-	0	SPACE
EQ; RANGE	4.2	50	23				24	20	0.6	REC; ELEV SUMP
MTR; DISPOSAL	1.2	20	25				26	20	1.1	REC; PLNT CNTL
SPACE	0	-	27				28	-	0	SPACE
EQ; HOOD	0.5	20	29				30	20	0	SPARE
REC; SECURITY,STORAGE	0.7	20	31				32	20	0	SPARE
SPACE	0	-	33				34	-	0	SPACE
REC; EXTERIOR	0.2	20	35				36	20	0	SPARE
EQ; SPD	0	3P	37				38	20	0	SPARE
EQ; SPD	0	30	39				40	2P	6.7	PNL K2
EQ; SPD	0	"	41				42	100	5.7	PNL K2

A PH = 9.00 | B PH = 10.90 | C PH = 16.80

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	4.20	x	1.25	=	5.25	x		=		
RECEPT	10.00	x	*	=	10.00	x		=		
MISC EQUIP	8.90	x	1.00	=	8.90	x		=		
A/C	0.00	x	1.00	=	0.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	1.20	x	1.25	=	1.50	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	12.40	x	1.00	=	12.40	x		=		
SPARE					55.37					
TOTALS	36.70	KVA			93.42	KVA				

* PER N.E.C. TABLE 220.44

NEW PANEL 'K2'

PANEL: K2 | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., | 1PH, 3W | MLO: 100 AMPS | MCB: 0 AMPS

DESCRIPTION	KVA	BKR	CKT	A	C	CKT	BKR	KVA	DESCRIPTION
REC; OFFICE 209	0.9	20	1			2	20	0.8	LTG; OFFICES
REC; OFFICE 206,207	1.1	20	3			4	20	1	LTG; RPT, CORR
REC; OFFICE 204,205	1.1	20	5			6	20	1.2	LTG; OFFICE, CONF
REC; OFFICE 203	0.7	20	7			8	20	0.5	LTG; EXT. STAIRS**
REC; OFFICE 201,202	1.1	20	9			10	20	0.5	EQ; CONDENSATE PUMPS
REC; ADMIN 222	0.9	20	11			12	20	0	SPARE
REC; CONF RM 210	0.9	20	13			14	20	0	SPARE
REC; COFFEE 213	0.5	20	15			16	20	0	SPARE
REC; COFFEE 213	0.5	20	17			18	20	0	SPARE
REC; COFFEE 213	0.8	20	19			20	-	0	SPACE
REC; CONF RM 210	0.2	20	21			22	-	0	SPACE
REC; ELEVATOR	0.2	20	23			24	-	0	SPACE
SPARE	0	20	25			26	-	0	SPACE
SPARE	0	20	27			28	-	0	SPACE
SPARE	0	20	29			30	-	0	SPACE
SPARE	0	20	31			32	-	0	SPACE
SPACE	0	-	33			34	-	0	SPACE
SPACE	0	-	35			36	-	0	SPACE
SPACE	0	-	37			38	-	0	SPACE
EQ; SPD2	0	2P	39			40	-	0	SPACE
EQ; SPD2	0	30	41			42	-	0	SPACE

A PH = 7.20 | B PH = 5.70

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	3.50	x	1.25	=	4.38	x		=		
RECEPT	8.90	x	*	=	8.90	x		=		
MISC EQUIP	0.50	x	1.00	=	0.50	x		=		
A/C	0.00	x	1.00	=	0.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	0.00	x	1.00	=	0.00	x		=		
SPARE					10.23					
TOTALS	12.90	KVA			24.00	KVA				

* PER N.E.C. TABLE 220.44
** VIA CONTACTOR

NEW PANEL 'C2'

PANEL: C2 | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., | 1PH, 3W | MLO: 100 AMPS | MCB: 0 AMPS

DESCRIPTION	KVA	BKR	CKT	A	C	CKT	BKR	KVA	DESCRIPTION
REC; OFFICE 209	0.5	20	1			2	20	1.1	REC; DATA
REC; OFFICE 206,207	0.7	20	3			4	20	0.7	REC; CONF, COFFEE
REC; OFFICE 201,202,203	0.7	20	5			6	20	0.7	REC; CONF 210
REC; OFFICE 204,206	1.1	20	7			8	20	1	REC; COPIER
REC; ADMIN 222	0.4	20	9			10	20	0	SPARE
REC; OFFICE 209	0.5	20	11			12	20	0	SPARE
EQ; DDC CNTRL	0.5	20	13			14	20	0	SPARE
SPARE	0	20	15			16	20	0	SPARE
SPARE	0	20	17			18	-	0	SPACE
SPARE	0	20	19			20	-	0	SPACE
SPARE	0	20	21			22	-	0	SPACE
SPACE	0	-	23			24	-	0	SPACE
SPACE	0	-	25			26	-	0	SPACE
SPACE	0	-	27			28	-	0	SPACE
SPACE	0	-	29			30	-	0	SPACE
SPACE	0	-	31			32	-	0	SPACE
SPACE	0	-	33			34	-	0	SPACE
SPACE	0	-	35			36	-	0	SPACE
SPACE	0	-	37			38	-	0	SPACE
EQ; SPD2	0	2P	39			40	-	0	SPACE
EQ; SPD2	0	30	41			42	-	0	SPACE

A PH = 3.90 | B PH = 4.00

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY		KVAD	PANEL KVAD
LIGHTING	0.00	x	1.25	=	0.00	x		=		
RECEPT	7.40	x	*	=	7.40	x		=		
MISC EQUIP	0.50	x	1.00	=	0.50	x		=		
A/C	0.00	x	1.00	=	0.00	x		=		
HEATING	0.00	x	1.00	=	0.00	x		=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x		=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x		=		
OTHER	0.00	x	1.00	=	0.00	x		=		
SPARE					16.10					
TOTALS	7.90	KVA			24.00	KVA				

* PER N.E.C. TABLE 220.44

City of Tampa
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P.E. 40858

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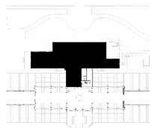

Project Information

City of Tampa

David L. Tippin Water Treatment Facility
Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number 1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date
1	Permit Review	08.21.19
3	REV 3	12.16.19

Sheet Information

PANEL SCHEDULES - NEW WORK

E404

NEW PANEL 'A'

PROVIDE 120 VOLT SHUNT TRIP IN MAIN BREAKER

PANEL: A | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., 3PH,4W | MLO: 0 AMPS | MCB: 400 AMPS **

DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION
MTR; ELEVATOR	9.4	3P	1				2	3P	17.2	PNL B1
MTR; ELEVATOR	9.4	100	3				4	200	24.1	PNL B1
MTR; ELEVATOR	9.4	"	5				6	"	13.3	PNL B1
SPARE	0	20	7				8	20	0	SPARE
SPARE	0	20	9				10	20	0	SPARE
SPARE	0	20	11				12	20	0	SPARE
SPARE	0	20	13				14	20	0	SPARE
SPARE	0	20	15				16	-	0	SPACE
SPARE	0	20	17				18	-	0	SPACE
SPACE	0	-	19				20	-	0	SPACE
SPACE	0	-	21				22	-	0	SPACE
SPACE	0	-	23				24	-	0	SPACE
SPACE	0	-	25				26	-	0	SPACE
SPACE	0	-	27				28	-	0	SPACE
SPACE	0	-	29				30	-	0	SPACE
SPACE	0	-	31				32	-	0	SPACE
SPACE	0	-	33				34	-	0	SPACE
SPACE	0	-	35				36	-	0	SPACE
EQ; SPD	0	3P	37				38	-	0	SPACE
EQ; SPD	0	30	39				40	-	0	SPACE
EQ; SPD	0	"	41				42	-	0	SPACE

A PH = 26.60 | B PH = 33.50 | C PH = 22.70

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY	KVAD	PANEL KVAD
LIGHTING	0.00	x	1.25	=	0.00	x	=		
RECEPT	0.00	x	*	=	0.00	x	=		
MISC EQUIP	0.00	x	1.00	=	0.00	x	=		
A/C	0.00	x	1.00	=	0.00	x	=		
HEATING	0.00	x	1.00	=	0.00	x	=		
LARGEST MOTOR	28.20	x	1.25	=	35.25	x	=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x	=		
OTHER	54.60	x	1.00	=	54.60	x	=		
SPARE					76.23				
TOTALS	82.80 KVA				166.08 KVA				

* PER N.E.C. TABLE 220.44
** PROVIDE 120 VOLT SHUNT TRIP IN MAIN BREAKER

NEW PANEL 'B'

PROVIDE 120 VOLT SHUNT TRIP IN MAIN BREAKER

PANEL: B | AIC RATING: 22000 AMPS | SERVICE: 120/ 240 V., 3PH,4W | MLO: 0 AMPS | MCB: 600 AMPS ***

DESCRIPTION	KVA	BKR	CKT	A	B	C	CKT	BKR	KVA	DESCRIPTION
PNL LP-FG	8.1	2P	1				2	3P	8	PNL L
PNL LP-FG	8.1	100	3				4	90	8	PNL L
PNL J	31.3	3P	5				6	"	8	PNL L
PNL J	31	225	7				8	3P	9	PNL K
PNL J	22.5	"	9				10	225	11.4	PNL K
PNL C	8.2	3P	11				12	"	16.8	PNL K
PNL C	4	200	13				14	2P	6.3	PNL UPS
PNL C	4	"	15				16	100	4.8	PNL UPS
SPARE	0	20	17				18	20	0	SPARE
SPARE	0	20	19				20	20	0	SPARE
SPACE	0	-	21				22	20	0	SPARE
REC; CHILLER YARD	0.7	20	23				24	20	0	SPARE
LTG; CHILLER YARD**	0.2	20	25				26	20	0	SPARE
PNL; PLC-B	2.7	3P	27				28	20	0	SPARE
PNL; PLC-B	2.7	30	29				30	-	0	SPACE
PNL; PLC-B	2.7	"	31				32	-	0	SPACE
SPACE	0	-	33				34	-	0	SPACE
SPACE	0	-	35				36	-	0	SPACE
SPACE	0	-	37				38	3P	0	EQ; SPD
SPACE	0	-	39				40	30	0	EQ; SPD
SPACE	0	-	41				42	"	0	EQ; SPD

A PH = 69.30 | B PH = 61.50 | C PH = 67.70

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY	KVAD	PANEL KVAD
LIGHTING	0.20	x	1.25	=	0.25	x	=		
RECEPT	0.70	x	*	=	0.70	x	=		
MISC EQUIP	0.00	x	1.00	=	0.00	x	=		
A/C	0.00	x	1.00	=	0.00	x	=		
HEATING	0.00	x	1.00	=	0.00	x	=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x	=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x	=		
OTHER	197.60	x	1.00	=	197.60	x	=		
SPARE					50.57				
TOTALS	198.50 KVA				249.12 KVA				

* PER N.E.C. TABLE 220.44
** VIA CONTACTOR
*** PROVIDE 120 VOLT SHUNT TRIP IN MAIN BREAKER

EXISTING PANEL 'UPS'

PANEL: UPS | AIC RATING: EXIST AMPS | SERVICE: 120/ 240 V., 1PH, 3W | MLO: 100 AMPS | MCB: 0 AMPS

STATUS	DESCRIPTION	KVA	BKR	CKT	A	B	CKT	BKR	KVA	DESCRIPTION	STATUS
E	REC; TEST COMP/CNTL	1	20	1			2	20	0.5	EQ; FIRE ALARM	E
E	REC; RACK	1	20	3			4	20	0.7	REC; SUPR 105	R
E	EQ; FIBER COMM	1	20	5			6	20	1.1	REC; SCADA	R
R	REC; PLANT CONTROL	0.7	20	7			8	20	0.7	REC; SHIFT SUP.	R
R	REC; PLANT CONTROL	0.7	20	9			10	20	0	SPARE	S
R	REC; PLANT CONTROL	0.7	20	11			12	20	1	REC;	E
S	SPARE	0	20	13			14	20	0	SPARE	S
S	SPARE	0	20	15			16	20	0	SPARE	S
S	SPARE	0	20	17			18	20	1	EQ; TECO STDBY GEN ALERT	E
S	SPARE	0	20	19			20	20	0	SPARE	S
S	SPARE	0	20	21			22	20	1	REC; SERVER	E
S	SPARE	0	20	23			24	20	0	SPARE	S

A PH = 6.30 | B PH = 4.80

SERVES	CONN LOAD		FACTOR		FEED		DIVERSITY	KVAD	PANEL KVAD
LIGHTING	0.00	x	1.25	=	0.00	x	=		
RECEPT	8.60	x	*	=	8.60	x	=		
MISC EQUIP	2.50	x	1.00	=	2.50	x	=		
A/C	0.00	x	1.00	=	0.00	x	=		
HEATING	0.00	x	1.00	=	0.00	x	=		
LARGEST MOTOR	0.00	x	1.25	=	0.00	x	=		
OTHER MOTORS	0.00	x	1.00	=	0.00	x	=		
OTHER	0.00	x	1.00	=	0.00	x	=		
SPARE					12.90				
TOTALS	11.10 KVA				24.00 KVA				

* PER N.E.C. TABLE 220.44

PANEL STATUS ABBREVIATIONS:

E = EXISTING CIRCUIT TO REMAIN.
N = NEW BREAKER AND CIRCUIT. PROVIDE BREAKER, CONDUIT AND WIRE
D = DEMO BREAKER AND CIRCUIT.
RL = RELOCATE CIRCUIT TO NEW PANEL AS INDICATED.
SPLICE AND EXTEND CIRCUIT AS REQUIRED.
R = REUSE CIRCUIT BREAKER TO FEED NEW LOAD. PROVIDE CONDUIT AND WIRE AS REQUIRED.
S = SPARE OUT EXISTING CIRCUIT BREAKER. REMOVE ALL ABANDONED CONDUCTORS AND CONDUIT.

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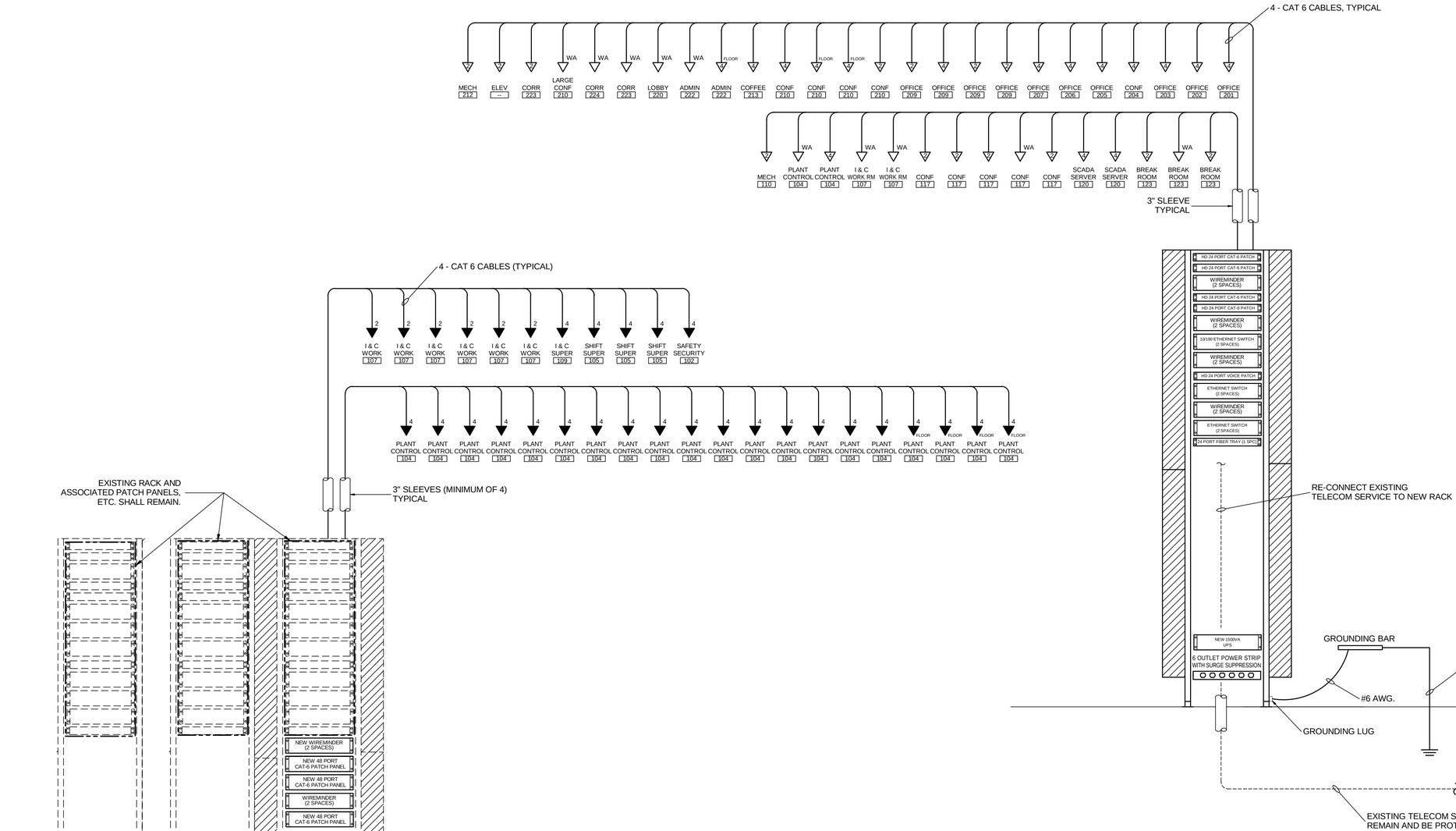
1	Permit Review	08.21.19
2	Permit REV 2	09.18.19

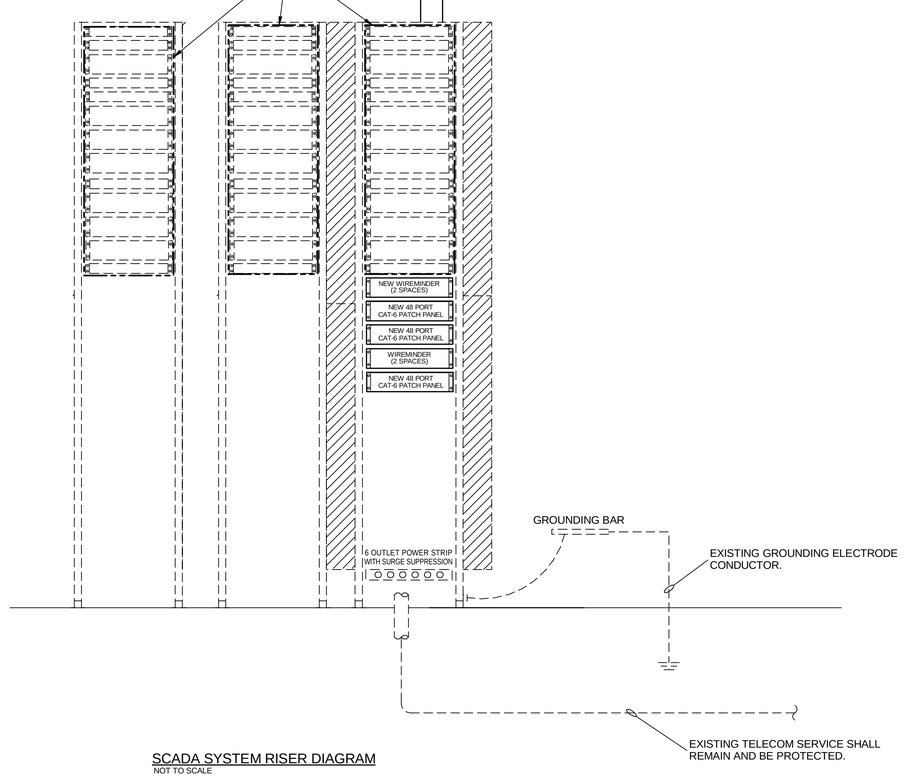
Sheet Information

PANEL SCHEDULES - NEW WORK

E405



DATA SYSTEMS RISER DIAGRAM
NOT TO SCALE



SCADA SYSTEM RISER DIAGRAM
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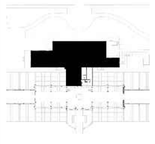

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Sheet Information

DATA AND SCADA SYSTEMS RISER DIAGRAM

E406

CONDUCTOR LEGEND

A - INITIATION DEVICE LOOP - MINIMUM #18 TWISTED SHIELDED PAIR.

B - SPEAKER/STROBE CIRCUIT - MINIMUM #14 AWG. PROVIDE #12 OF HIGHER WHERE REQUIRED FOR VOLTAGE DROP.

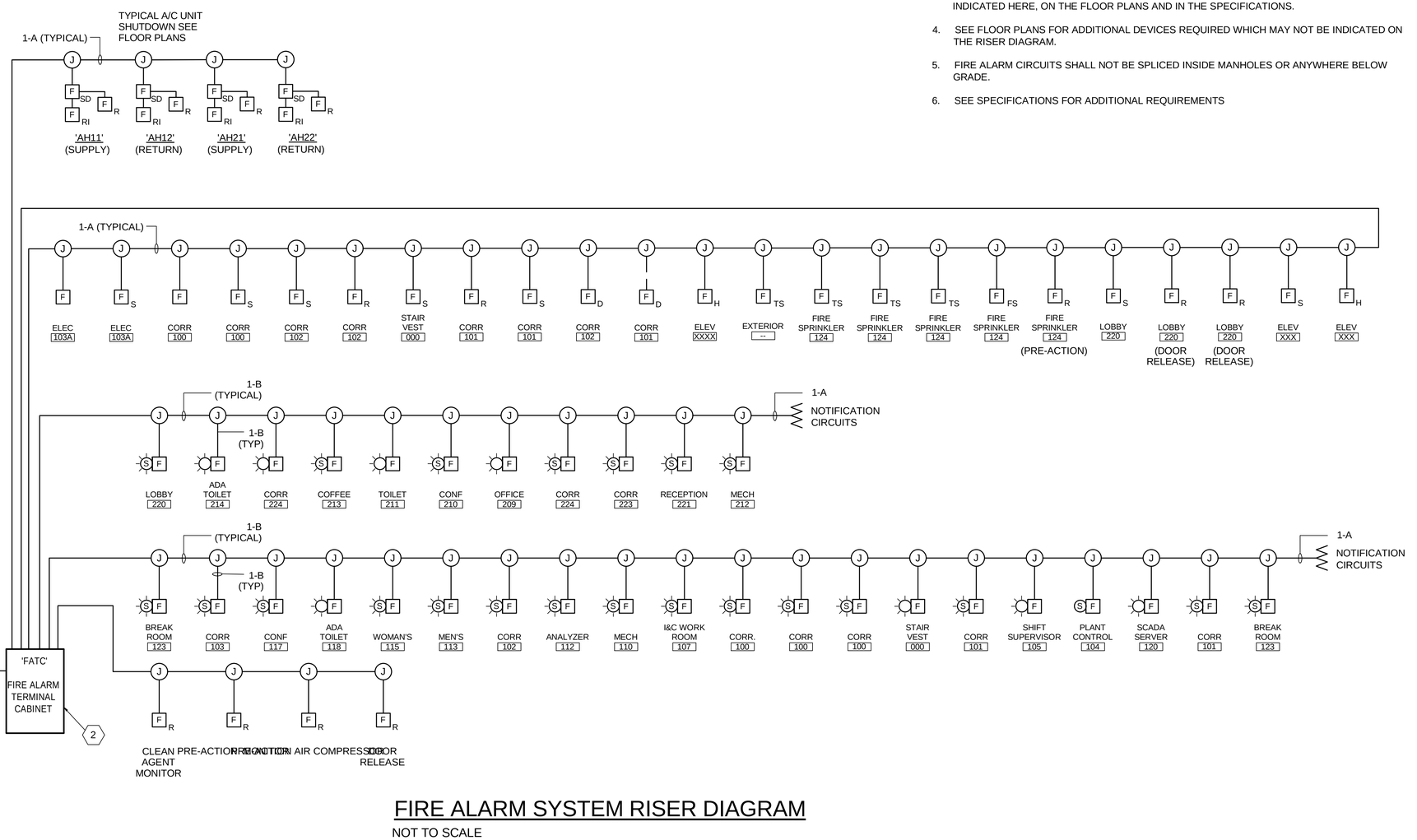
C - AUXILIARY CONTROL CIRCUIT - MINIMUM #18 AWG. PROVIDE #12 OF HIGHER WHERE REQUIRED FOR VOLTAGE DROP. * QUANTITY OF AUXILIARY CONTROL CIRCUITS TO BE DETERMINED BASED UPON CONTROLS REQUIRED.

FIRE ALARM NOTES:

1. PROVIDE 120 VOLT CIRCUIT FROM PANELBOARD AS INDICATED ON DRAWING.
2. PROVIDE SURGE SUPPRESSION IN TERMINAL CABINET.
3. NUMBER INDICATES QUANTITY OF FIRE ALARM DEVICES IN ROOM INDICATED.

FIRE ALARM GENERAL NOTES:

1. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT SIZED IN ACCORDANCE WITH NEC. ALL CONDUIT SHALL BE CONCEALED WHERE EVER POSSIBLE. PROVIDE REQUIRED CONDUIT FOR NUMBER OF CONDUCTORS REQUIRED.
2. INDICATING APPLIANCE SIGNAL CIRCUITS SHALL BE A MINIMUM #14 AWG STRANDED COPPER, NPLFP TYPE, PER NEC. ALARM INITIATING AND AUXILIARY CONTROL CIRCUITS SHALL BE A MINIMUM #18 AWG STRANDED COPPER, NPLFP TYPE, PER NEC.
3. QUANTITIES OF CONDUCTORS AND CIRCUITING INDICATED IS BASED ON A SPECIFIC SYSTEM AND MAY BE DIFFERENT DEPENDING ON THE MANUFACTURER UTILIZED. CONTRACTOR IS TO PROVIDE ALL NECESSARY CIRCUITS, WIRE AND CONDUIT TO ACCOMPLISH THE FUNCTIONS INDICATED HERE, ON THE FLOOR PLANS AND IN THE SPECIFICATIONS.
4. SEE FLOOR PLANS FOR ADDITIONAL DEVICES REQUIRED WHICH MAY NOT BE INDICATED ON THE RISER DIAGRAM.
5. FIRE ALARM CIRCUITS SHALL NOT BE SPLICED INSIDE MANHOLES OR ANYWHERE BELOW GRADE.
6. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS



FIRE ALARM SYSTEM RISER DIAGRAM

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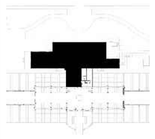

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Phase I - Building & Site Improvements

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Revisions

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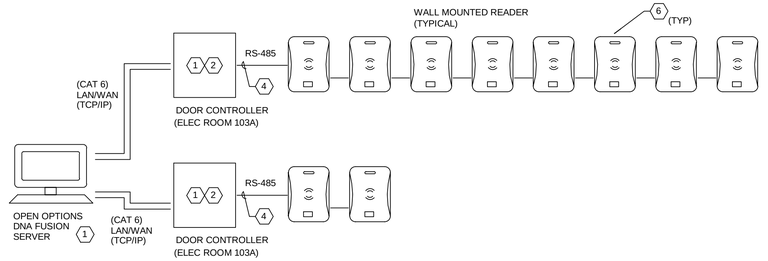
Sheet Information

FIRE ALARM RISER DIAGRAM

E407



GENERAL NOTES:

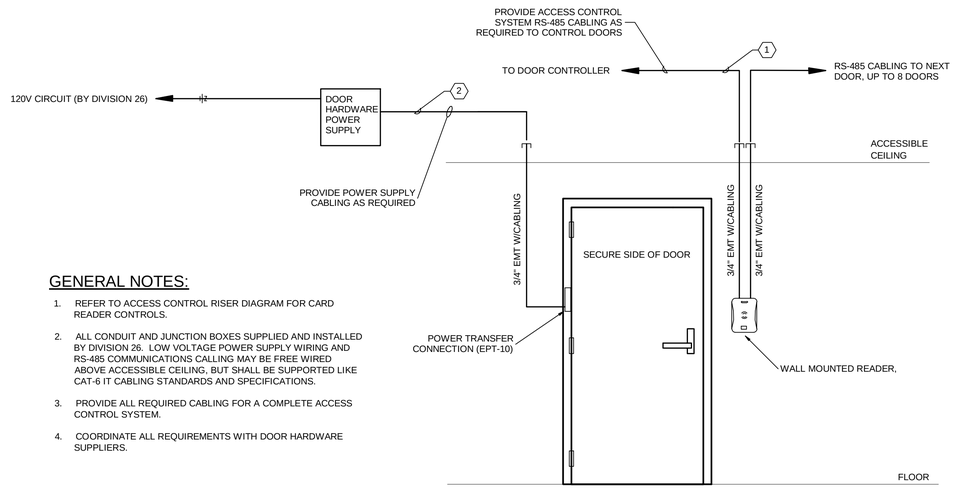
1. DIVISION 28 CONTRACTOR SHALL INSTALL ALL DOOR ACCESS CONTROL EQUIPMENT, POWER SUPPLIES, DOOR CONTROLLER, HARDWARE AND WIRING. THE OWNER WILL INSTALL THEIR ACCESS CONTROLS SOFTWARE ON THEIR SERVER AND WILL SET UP AND PROGRAM THE LOCKS FOR PROPER AUTHORIZATION OF CARD ACCESS. POWER SUPPLIES, LOCKSET AND WALL MOUNTED CARD READER ARE FURNISHED WITH THE DOOR HARDWARE, INSTALLED BY DIVISION 28.
2. REFER TO THE FLOOR PLANS FOR DOOR ACCESS CARD READER LOCATIONS.
3. REFER TO THE DOOR ACCESS CONTROL SPECIFICATION SECTION 28 13 00, AND THE DOOR HARDWARE SPECIFICATIONS (08 71 00) AND COORDINATE WITH THE DOOR SUPPLIER/INSTALLER FOR INSTALLATION OF THE LOCKS AND ASSOCIATED POWER SUPPLY AND ACCESS CONTROL WIRING.
4. WIRING MAY BE FREE-WIRED ABOVE ACCESSIBLE CEILING. PROVIDE RACEWAYS WHERE CONCEALED IN NON-ACCESSIBLE AREAS, THROUGH WALLS, AND IN WALLS.

RISER NOTES:

1. ACCESS CONTROL SERVER WILL BE PROVIDED BY THE OWNER. CONTRACTOR SHALL PROVIDE A NEW, ADDITIONAL LICENSE FOR EACH DOOR ON THIS PROJECT.
2. PROVIDE A DOOR CONTROLLER, AND PROVIDE CAT 6 CONNECTION INTO THE NETWORK FOR COMMUNICATIONS TO THE SERVER.
3. POWER SUPPLY TO SUPPLY POWER TO EACH DOOR. PROVIDE MULTIPLE POWER SUPPLIES IF REQUIRED DEPENDING ON TOTAL NUMBER OF DOORS BEING CONTROLLED. POWER SUPPLY FURNISHED WITH DOOR HARDWARE, INSTALLED BY DIVISION 28.
4. PROVIDE AN RS-485 CABLE, 24 AWG, 2 OR 4 CONDUCTOR SHIELDED, BELDEN 9841, 9842, OR EQUAL. DAISEY CHAIN COMMUNICATIONS TO ADDITIONAL LOCKS. UP TO 8 LOCKS PER PORT.
5. PROVIDE POWER SUPPLY CABLING TO EACH LOCK. POWER SUPPLY CABLING SHALL BE A MINIMUM #18 AWG, 2 CONDUCTOR, BELDEN 8760 OR EQUAL.
6. POWER TRANSFER CONNECTION, EPT-10 WITH DOOR HARDWARE, INSTALLED BY DIVISION 28.
7. PROVIDE FIRE ALARM SYSTEM CONTROL CONNECTION TO RELEASE ALL ACCESS CONTROLLED EGRESS DOORS UPON INITIATION OF A FIRE ALARM.

ACCESS CONTROL RISER DIAGRAM - WALL MOUNTED READER DOORS

NOT TO SCALE



GENERAL NOTES:

1. REFER TO ACCESS CONTROL RISER DIAGRAM FOR CARD READER CONTROLS.
2. ALL CONDUIT AND JUNCTION BOXES SUPPLIED AND INSTALLED BY DIVISION 26. LOW VOLTAGE POWER SUPPLY WIRING AND RS-485 COMMUNICATIONS CALLING MAY BE FREE WIRED ABOVE ACCESSIBLE CEILING, BUT SHALL BE SUPPORTED LIKE CAT-6 IT CABLING STANDARDS AND SPECIFICATIONS.
3. PROVIDE ALL REQUIRED CABLING FOR A COMPLETE ACCESS CONTROL SYSTEM.
4. COORDINATE ALL REQUIREMENTS WITH DOOR HARDWARE SUPPLIERS.

RISER NOTES:

1. PROVIDE AN RS-485 CABLE, 24 AWG, 2 OR 4 CONDUCTOR SHIELDED, BELDEN 9841, 9842, OR EQUAL. DAISEY CHAIN COMMUNICATIONS TO ADDITIONAL LOCKS. UP TO 8 LOCKS PER PORT.
2. PROVIDE POWER SUPPLY CABLING TO EACH LOCK. POWER SUPPLY CABLING SHALL BE A MINIMUM #18 AWG, 2 CONDUCTOR, BELDEN 8760 OR EQUAL.

TYPICAL DOOR DEVICE LAYOUT WITH WALL MOUNTED CARD READER

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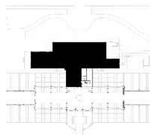

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Revisions

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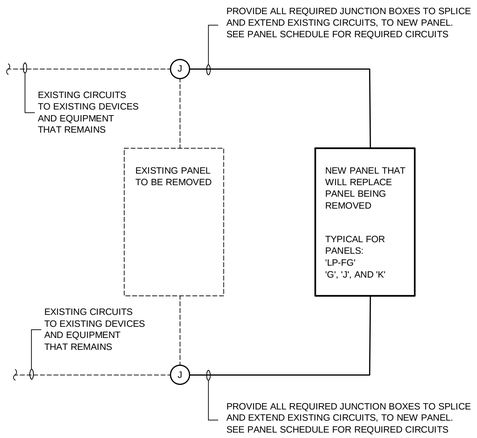
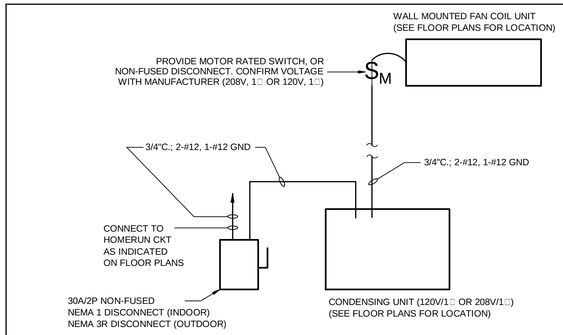
Sheet Information

ACCESS CONTROL
RISER DIAGRAM

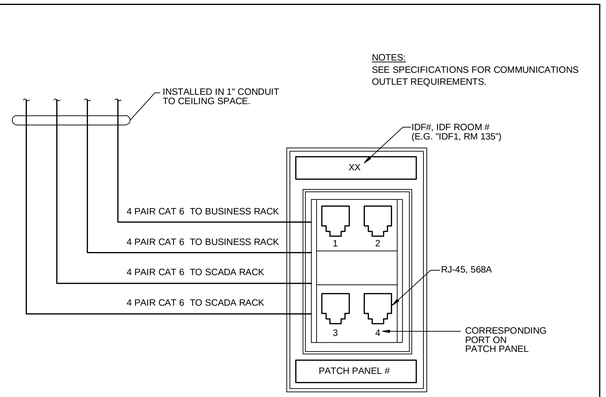
E408



TYPICAL BRANCH CIRCUIT
EXTENSION DETAIL
NOT TO SCALE

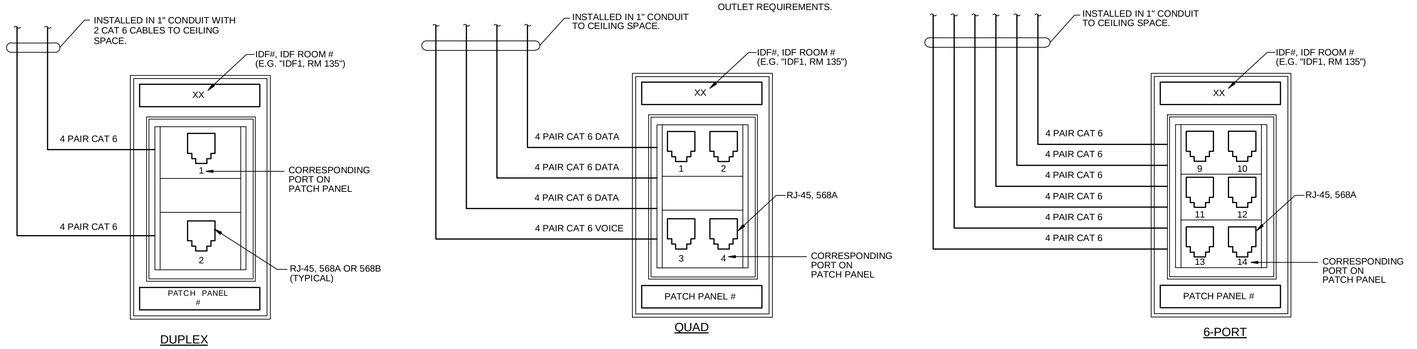


TYPICAL WIRING DETAIL FOR DUCTLESS
SPLIT SYSTEMS
NOT TO SCALE



QUAD

TYPICAL
SCADA OUTLET DETAIL-CAT 6 4
NOT TO SCALE

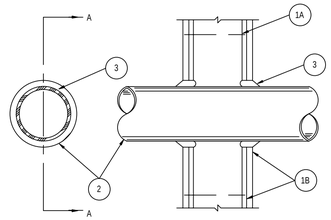


TYPICAL
COMMUNICATIONS OUTLET DETAIL-CAT 6 4
NOT TO SCALE

System No. W-L-1001

June 15, 2005

F Ratings — 1, 2, 3 and 4 Hr (See Items 2 and 3)
T Ratings — 0, 1, 2, 3, and 4 Hr (See Item 3)
L Rating At Ambient — less than 1 CFM/sq ft
L Rating At 400 F — less than 1 CFM/sq ft



SECTION A-A

FIRE-RATED WALL PENETRATION DETAIL FOR PIPE OR CONDUIT

NOT TO SCALE

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

   A. STUDS — WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 H FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC WITH NOM 2 BY 4 IN. (51 BY 102 MM) LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. (92 MM) WIDE BY 1-3/8 IN. (35 MM) DEEP CHANNELS SPACED MAX 24 IN. (610 MM) OC.

   B. GYPSUM BOARD* — NOM 1/2 OR 5/8 IN. (13 OR 16 MM) THICK, 4 FT. (122 CM) WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIAM OF OPENING IS 26 IN. (660 MM).

2. THROUGH-PENETRANT — ONE METALLIC PIPE, CONDUIT OR TUBING INSTALLED EITHER CONCENTRICALLY OR ECCENTRICALLY WITHIN THE FIRESTOP SYSTEM. THE ANNULAR SPACE BETWEEN PIPE, CONDUIT OR TUBING AND PERIPHERY OF OPENING SHALL BE MIN OF 0 IN / (0 MM). (POINT CONTACT) TO MAX 2 IN. (51 MM) PIPE, CONDUIT OR TUBING TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:

   A. STEEL PIPE — NOM 24 IN. (610 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

   B. IRON PIPE — NOM 24 IN. (610 MM) DIAM (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN (305 MM) DIAM (OR SMALLER) OR CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE.

   C. CONDUIT — NOM 6 IN. (152 MM) DIAM (OR SMALLER) STEEL CONDUIT OR NOM 4 IN (102 MM) DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING

   D. COPPER TUBING — NOM 6 IN. (152 MM) DIAM (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING

   E. COPPER PIPE — NOM 6 IN. (152 MM) DIAM (OR SMALLER) REGULAR (OR HEAVIER) COPPER PIPE.

   F. THROUGH PENETRATING PRODUCT* — FLEXIBLE METAL PIPING THE FOLLOWING TYPES OF STEEL FLEXIBLE METAL GAS PIPING MAY BE USED:

      1. NOM 2 IN. (51 MM) DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

         OMEGA FLEX INC

      2. NOM 1 IN. (25 MM) DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

         GASTITE, DIV OF TITEFLEX

      3. NOM 1 IN. (25 MM) DIAM (OR SMALLER) STEEL FLEXIBLE METAL GAS PIPING. PLASTIC COVERING ON PIPING MAY OR MAY NOT BE REMOVED ON BOTH SIDES OF FLOOR OR WALL ASSEMBLY.

         WARD MFG L L C

3. FILL, VOID OR CAVITY MATERIAL* — CAULK OR SEALANT — MIN 5/8. , 1-1/4,1-7/8 AND 2-1/2 IN. (16, 32, 48 AND 64 MM) THICKNESS OF CAULK FOR 1, 2, 3 AND 4 HR RATED ASSEMBLIES, RESPECTIVELY, APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. MIN 1/4 IN. (6 MM) DIAM BEAD OF CAULK APPLIED TO GYPSUM BOARD/PENETRANT INTERFACE AT POINT CONTACT LOCATION ON BOTH SIDES OF WALL. 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 PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX PIPE OR CONDUIT DIAM. IN (MM)	F RATING HR	T RATING HR
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

+WHEN COPPER PIPE IS USED, T RATING IS 0 H.

3M COMPANY — CP 25WB+ OR FB-3000 WT.

* INDICATES SUCH PRODUCTS SHALL BEAR THE UL OR CUL CERTIFICATION MARK FOR JURISDICTIONS EMPLOYING THE UL OR CUL CERTIFICATION (SUCH AS CANADA), RESPECTIVELY.

LAST UPDATED ON 2005-06-15

EXAMPLE

PANEL 'HA2'
480Y/277V, 3Ø, 4W.
FED FROM PANEL 'HA1'
CIR-31,33,35

TYPICAL NAMEPLATE DETAIL
NOT TO SCALE

NOTES:

PROVIDE NAMEPLATE LABELS ON ALL EQUIPMENT. EACH NAME PLATE SHALL HAVE THE FOLLOWING INFORMATION:
1. EQUIPMENT NAME.
2. VOLTAGE AND PHASE.
3. LOCATION FROM WHICH EQUIPMENT IS BEING FED FROM. INCLUDE BUILDING NAME / NUMBER APPLICABLE. INCLUDE CIRCUIT NUMBERS.

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful for any person to make any alteration unless under the supervision of a Florida registered professional engineer or architect.
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602-4704
www.RoweArchitects.com
Phone 813 221 8771
AA0002212

AGI
Anston-Greenlees, Inc.
Mechanical & Electrical Consulting Engineers
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Email: AGI@agi-engineers.com HTTP://www.agi-engineers.com
Florida Engineering Business Number 6093

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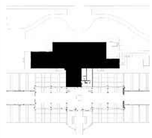
ROBERT C. ANSTON
P.E. 40858

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE



Project Information

City of Tampa

David L. Tippin
Water Treatment
Facility
Phase I - Building &
Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number	1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date

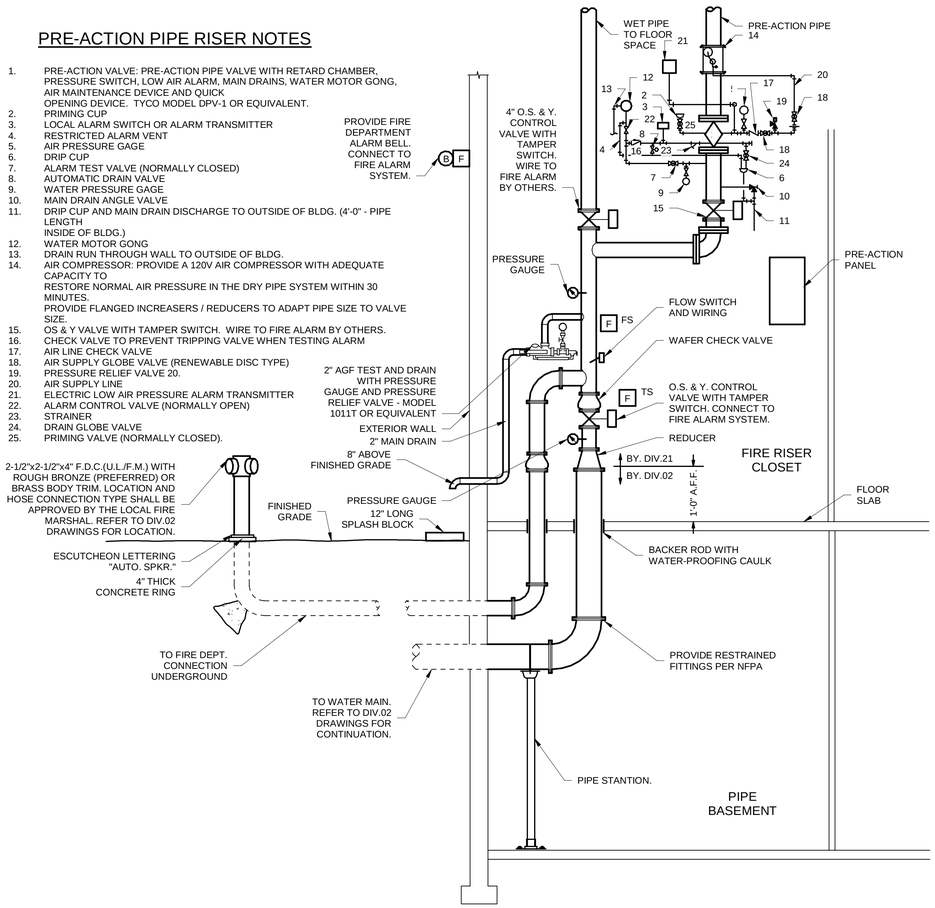
Sheet Information

ELECTRICAL DETAILS

E501

PRE-ACTION PIPE RISER NOTES

1. PRE-ACTION VALVE: PRE-ACTION PIPE VALVE WITH RETARD CHAMBER, PRESSURE SWITCH, LOW AIR ALARM, MAIN DRAINS, WATER MOTOR GONG, AIR MAINTENANCE DEVICE AND QUICK OPENING DEVICE. TYCO MODEL DPV-1 OR EQUIVALENT.
2. PRIMING CUP
3. LOCAL ALARM SWITCH OR ALARM TRANSMITTER
4. RESTRICTED ALARM VENT
5. AIR PRESSURE GAGE
6. DRIP CUP
7. ALARM TEST VALVE (NORMALLY CLOSED)
8. AUTOMATIC DRAIN VALVE
9. WATER PRESSURE GAGE
10. MAIN DRAIN ANGLE VALVE
11. DRIP CUP AND MAIN DRAIN DISCHARGE TO OUTSIDE OF BLDG. (4'-0" - PIPE LENGTH INSIDE OF BLDG.)
12. WATER MOTOR GONG
13. DRAIN RUN THROUGH WALL TO OUTSIDE OF BLDG.
14. AIR COMPRESSOR: PROVIDE A 120V AIR COMPRESSOR WITH ADEQUATE CAPACITY TO RESTORE NORMAL AIR PRESSURE IN THE DRY PIPE SYSTEM WITHIN 30 MINUTES. PROVIDE FLANGED INCREASERS / REDUCERS TO ADAPT PIPE SIZE TO VALVE SIZE.
15. OS & Y VALVE WITH TAMPER SWITCH. WIRE TO FIRE ALARM BY OTHERS.
16. CHECK VALVE TO PREVENT TRIPPING VALVE WHEN TESTING ALARM
17. AIR LINE CHECK VALVE
18. AIR SUPPLY GLOBE VALVE (RENEWABLE DISC TYPE)
19. PRESSURE RELIEF VALVE 20.
20. AIR SUPPLY LINE
21. ELECTRIC LOW AIR PRESSURE ALARM TRANSMITTER
22. ALARM CONTROL VALVE (NORMALLY OPEN)
23. STRAINER
24. DRAIN GLOBE VALVE
25. PRIMING VALVE (NORMALLY CLOSED).



FIRE PROTECTION RISER AND FIRE DEPARTMENT CONNECTION DETAIL

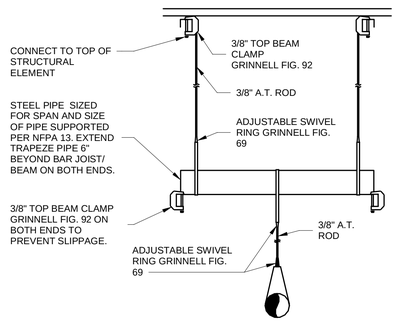
NOT TO SCALE

SPRINKLER SYSTEM DESIGN CRITERIA

1. THE FOLLOWING AREAS ARE LIGHT HAZARD:
   a. RESTROOMS
   b. CORRIDORS
   c. OFFICES
   d. LOBBIES
   f. ATTIC*
2. THE FOLLOWING AREAS ARE ORDINARY HAZARD, GROUP 1:
   a. STORAGE ROOMS
   b. MECHANICAL ROOMS
   c. ELECTRICAL ROOMS
   d. JANITOR CLOSETS
3. MAXIMUM SPRINKLER COVERAGE:
   a. LIGHT HAZARD - 225 SQ. FT. PER SPRINKLER. (*EXCEPTION: ATTIC AREA IS COMBUSTIBLE CONSTRUCTION WITH MEMBERS LESS THAN 3 FT ON CENTER WHICH REQUIRES 130 SQ. FT. PER SPRINKLER.)
   b. ORDINARY HAZARD, GROUP 1 & 2 - 130 SQ. FT. PER SPRINKLER.
4. DENSITY/ AREA REQUIREMENTS:
   a. LIGHT HAZARD - 0.10 GPM PER SQ. FT. OVER MOST REMOTE 1500 SQ. FT. OF AREA. ALLOW 100 GPM FOR HOSE DEMAND. (*EXCEPTION: ATTIC AREA UNDER GABLE ROOF IS MOST REMOTE 1950 SQ. FT.)
   b. ORDINARY HAZARD, GROUP 1 - 0.15 GPM PER SQ. FT. OVER MOST REMOTE 1500 SQ. FT. OF AREA. ALLOW 250 GPM FOR HOSE DEMAND.
5. FLOW TEST DATA:

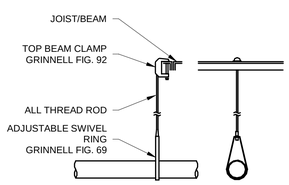
STATIC PRESSURE:	66 PSI
RESIDUAL PRESSURE:	64 PSI
FLOW:	1,278 GPM
DATE:	12/04/18
LOCATION:	HYDRANT LOCATED AT SOUTHWEST CORNER OF FILTRATION BUILDING
SOURCE:	CITY OF TAMPA

6. BASED ON THE FLOW TEST INFORMATION GIVEN IN ITEM 5, PROVIDE A SAFETY FACTOR OF AT LEAST 10 PSI BETWEEN THE CALCULATED PRESSURE DEMAND AND THE WATER SUPPLY AVAILABLE PRESSURE AT THE REQUIRED FLOW RATE.



TRAPEZE PIPE HANGER DETAIL

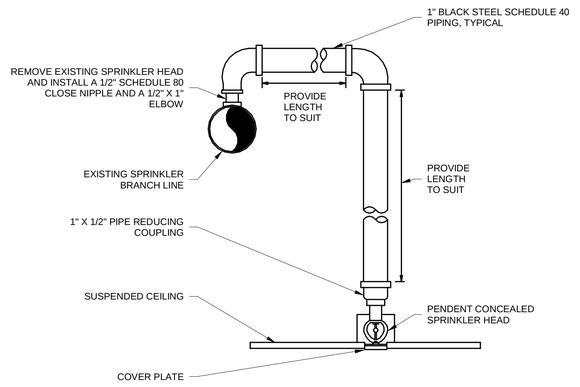
NOT TO SCALE



FOR 1" THROUGH 4" PIPE

PIPE HANGER DETAIL

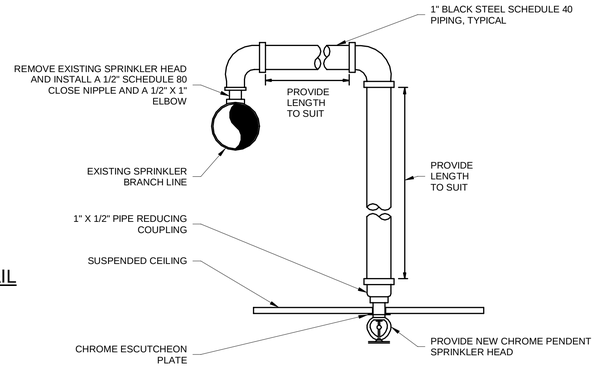
NOT TO SCALE



NOTES:
1. ADJUST SPRINKLER DROPS AS NECESSARY TO CLEAR OBSTRUCTIONS SUCH AS THE CEILING "T" BAR SUSPENSION SYSTEM, LIGHT FIXTURES, ETC. PROVIDE A PIPE HANGER IF THE HORIZONTAL OFFSET LENGTH EXCEEDS 24 INCHES.

TYPICAL NEW CONCEALED SPRINKLER HEAD DROP

NOT TO SCALE



NOTES:
1. ADJUST SPRINKLER DROPS AS NECESSARY TO CLEAR OBSTRUCTIONS SUCH AS THE CEILING "T" BAR SUSPENSION SYSTEM, LIGHT FIXTURES, ETC. PROVIDE A PIPE HANGER IF THE HORIZONTAL OFFSET LENGTH EXCEEDS 24 INCHES.

2. THIS SPRINKLER HEAD DROP IS APPLICABLE ONLY WHERE IT IS NOT NECESSARY TO RETAIN AN UPRIGHT SPRINKLER FOR PROTECTION OF COMBUSTIBLE CONSTRUCTION ABOVE THE CEILING.

TYPICAL NEW SPRINKLER HEAD DROP

NOT TO SCALE

GENERAL FIRE PROTECTION NOTES

1. ALL FIRE PROTECTION WORK SHALL MEET ALL OF THE REQUIREMENTS OF THE FOLLOWING:
   A. FLORIDA BUILDING CODE (FBC) 6TH EDITION (2017): THIS CODE INCLUDES THE 2017 FBC BUILDING, MECHANICAL, PLUMBING, ENERGY CONSERVATION, FUEL GAS, ACCESSIBILITY, AND TEST PROTOCOLS VOLUMES. FURTHER, SEE "REFERENCED STANDARDS" IN THE FBC BUILDING CHAPTER 35; FBC MECHANICAL CHAPTER 15; FBC PLUMBING CHAPTER 14; FBC ENERGY CONSERVATION CHAPTER 6; AND FBC FUEL GAS CHAPTER 8) (EFFECTIVE DECEMBER 31, 2017)
   B. 6TH EDITION OF THE FLORIDA FIRE PREVENTION CODE (FFPC): (THIS CODE ALSO INCLUDES THE FLORIDA VERSIONS OF NFPA 1 AND NFPA 101.) (EFFECTIVE DECEMBER 31, 2017)
   C. 2014 NATIONAL ELECTRIC CODE
   D. PROVIDE FIRE PROTECTION SYSTEM IN ACCORDANCE WITH FAC 61G15-32.004 DESIGN OF WATER BASED FIRE PROTECTION SYSTEMS.
2. PIPING SHALL BE SIZED BY HYDRAULIC CALCULATION METHOD NFPA 13 (2013).
3. ALL FIRE PROTECTION WORK SHALL MEET ALL OF THE REQUIREMENTS OF NFPA. COMPLY WITH STATE FIRE MARSHAL RULE 4A-47 FOR ELEVATORS. ALL MATERIALS, METHODS, AND DESIGN SHALL BE PER EDITION OF NFPA 13 REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
4. FLUSH AND TEST SYSTEM IN ACCORDANCE WITH NFPA 13, AND 24.
5. PROVIDE PLANS AND HYDRAULIC CALCULATIONS IN CONFORMANCE WITH THE REQUIREMENTS OF NFPA 13 AND THE FLORIDA BUILDING CODE. PLANS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A DELEGATED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF FLORIDA AND SUBMITTED TO THE AUTHORITY HAVING JURISDICTION (AHJ) FOR APPROVAL. PRIOR TO ISSUING PLANS AND CALCULATIONS, THE DELEGATED PROFESSIONAL ENGINEER SHALL ISSUE A LETTER ADDRESSED TO HARRY W. PORTELLOS, P.E.., ON THEIR COMPANY LETTERHEAD, STATING THAT HE/SHE IS ACCEPTING THE ROLE AS ENGINEER OF RECORD FOR THE FIRE PROTECTION PORTION OF THE PROJECT. ONCE HARRY W. PORTELLOS, P.E. RECEIVES THE LETTER, HE WILL RELINQUISH THE TITLE OF ENGINEER OF RECORD TO THE DELEGATED PROFESSIONAL ENGINEER.
6. SPRINKLER SYSTEMS SHALL BE INSTALLED BY PERSONNEL WHO HAVE ENGINEERING FACILITIES AND EXPERIENCE IN SUCH WORK AND WHO ARE REGULARLY EMPLOYED TO DO SUCH WORK.
7. ALL MATERIALS SHALL BE OF APPROVED QUALITY AND THE WORK SHALL BE DONE IN A THOROUGH AND WORKMANLIKE MANNER. THE WORK, MATERIALS AND TEST SHALL BE IN ACCORDANCE WITH THE CURRENT REQUIREMENTS OF NFPA 13.
8. SPRINKLERS SHALL BE 1/2" ORIFICE TYPE OF ORDINARY DEGREE RATING EXCEPT WHERE EXCESSIVE TEMPERATURES ARE ANTICIPATED. IN THESE LOCATIONS, HIGH TEMPERATURE SPRINKLERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13. THE CONTRACTOR SHALL INDICATE SPRINKLER TEMPERATURE RATING, ORIFICE SIZE AND TYPE ON FINAL DRAWINGS. SPRINKLER AND ESCUTCHEON SHALL BE CHROME PLATED.
9. COORDINATE EXACT LOCATION OF SPRINKLERS, PIPING, AND EQUIPMENT WITH CEILING, ELECTRICAL, MECHANICAL, AND STRUCTURAL COMPONENTS OF BUILDING. MAKE MODIFICATIONS WITHOUT ADDITIONAL COST TO THE OWNER.
10. ALL MATERIAL SHALL BE UL LISTED OR FM APPROVED.
11. REFER TO THE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF ALL SMOKE AND FIRE RATED WALLS WHICH FIRE PROTECTION PIPING PENETRATES. FIRE PROTECTION PIPING SHALL BE SMOKE/FIRE SAFED IN AN APPROVED MANNER WHEN PENETRATING RATED WALLS AND FLOORS. PROVIDE SLEEVES OR OTHER APPROVED MEANS AND SEAL OPENINGS IN WALLS, FLOORS, AND PARTITIONS IN SUCH A MANNER AS TO MAINTAIN THE SMOKE AND FIRE RATING OF THAT WALL, FLOOR OR CEILING.
12. SPACING OF SPRINKLERS: THE SPACING AND SIZES OF PIPES SHALL CONFORM TO THE REQUIREMENTS OF NFPA 13. SPRINKLERS SHALL BE WITHIN 1" OF CENTER OF ACOUSTICAL PANEL. PROVIDE SWING JOINT IF REQUIRED TO ACCOMPLISH THIS. SPRINKLERS SHALL BE AT LEAST 6" FROM ANY CEILING FIXTURE. COORDINATE THE LOCATION OF SPRINKLERS AND PIPING WITH THE ELECTRICAL AND MECHANICAL DRAWINGS.
13. PIPE SUPPORTS, HANGERS, CLAMPS, RODS AND OTHER ACCESSORIES: SHALL BE OF AN APPROVED TYPE AND IN SUFFICIENT NUMBER TO PROPERLY SUPPORT ALL PIPING. PIPING SHALL BE SUPPORTED BY ROUND WROUGHT U-TYPE APPROVED ADJUSTABLE HANGERS. PROVIDE ALL HANGERS INCLUDING TRAPEZE HANGERS AS REQUIRED TO COMPLY WITH NFPA 13. HANG TO TOP CHORD OF BAR JOIST ONLY.
14. ALL CONDUIT BETWEEN CONTROLLER AND DEVICES BEING CONTROLLED SHALL BE BY DIVISION 21 AND SHALL BE IN CONFORMANCE TO DIVISION 26 REQUIREMENTS.
15. PROVIDE ANY ADDITIONAL DRAINS REQUIRED TO COMPLY WITH NFPA 13 AND LOCAL CODES (WITHOUT ADDITIONAL COST TO OWNER).
16. PROVIDE A SINGLE AIR VENT WITH A CONNECTION CONFORMING TO NFPA 8.16.6 ON EACH WET PIPE SYSTEM UTILIZING METALLIC PIPE.
17. ALL BIDDERS ARE ENCOURAGED TO VISIT THE SITE AND THOROUGHLY FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS PRIOR TO SUBMITTING THEIR BID. NO ADDITIONAL COST WILL BE APPROVED FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS.
18. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

THE FIRE PROTECTION SYSTEM SHALL BE PROVIDED AS A COMPLETE DESIGN-BUILD DELIVERY, INCLUDING COMPLETE DESIGN DRAWINGS, HYDRAULIC CALCULATIONS, ETC., AS NECESSARY FOR PERMIT AND ANY OTHER REQUIREMENTS BY THE AUTHORITY HAVING JURISDICTION BASED ON THESE DOCUMENTS. ALL CALCULATIONS AND DESIGN DRAWINGS SHALL BE PRODUCED UNDER THE DIRECT SUPERVISION OF THE FLORIDA REGISTERED PROFESSIONAL ENGINEER AND ALL DOCUMENTS SHALL BE SIGNED AND SEALED BY THIS ENGINEER OF RECORD. ANY PREVIOUS ENGINEER OF RECORD (EOR) USED FOR THE DEVELOPMENT OF THE DESIGN-BUILD PERFORMANCE SPECIFICATION WILL RELINQUISH THE EOR TO THIS NEW EOR.

OBTAIN FLOW TEST RESULTS AND EVALUATE IF A FIRE PUMP AND OTHER APPURTENANCES WILL BE NEEDED. IF A FIRE PUMP IS NEEDED NOTIFY THE ARCHITECT AND ELECTRICAL ENGINEER IMMEDIATELY.

FIRE PROTECTION DRAWING INDEX

SHEET NUMBER	SHEET NAME
FP001	FIRE PROTECTION GENERAL NOTES AND DETAILS
FP101	ADMINISTRATION BUILDING FIRE PROTECTION FIRST AND SECOND FLOOR

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
BLD-20-0[illegible]
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful for any person to make any alterations on these plans unless acting from the authorization of the Building Official
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

ROWE ARCHITECTS
100 Madison Street, Suite 200
Tampa, Florida 33602.4704
www.RoweArchitects.com
Phone 813.221.8771
AAC0022172

The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes

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Email: AGI@agi-engineers.com HTTP://www.agi-engineers.com
Florida Engineering Business Number 6093

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Harry W Portellos
2020.01.13 09:39:26 -05'00'

HARRY W. PORTELLOS LICENSE No. 61597 STATE OF FLORIDA PROFESSIONAL ENGINEER

Harry W. Portellos
P.E. 61597

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE

Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number	1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

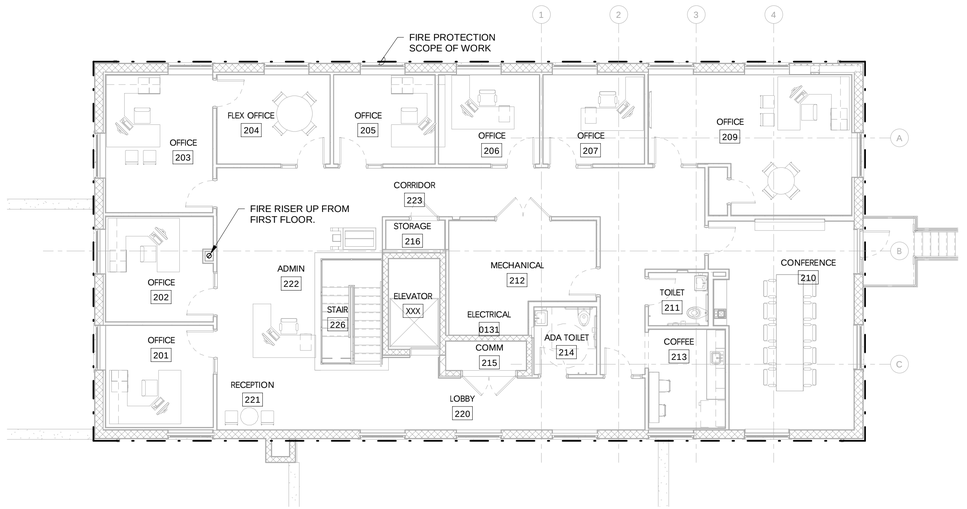
Revisions

No.	Description	Date

Sheet Information

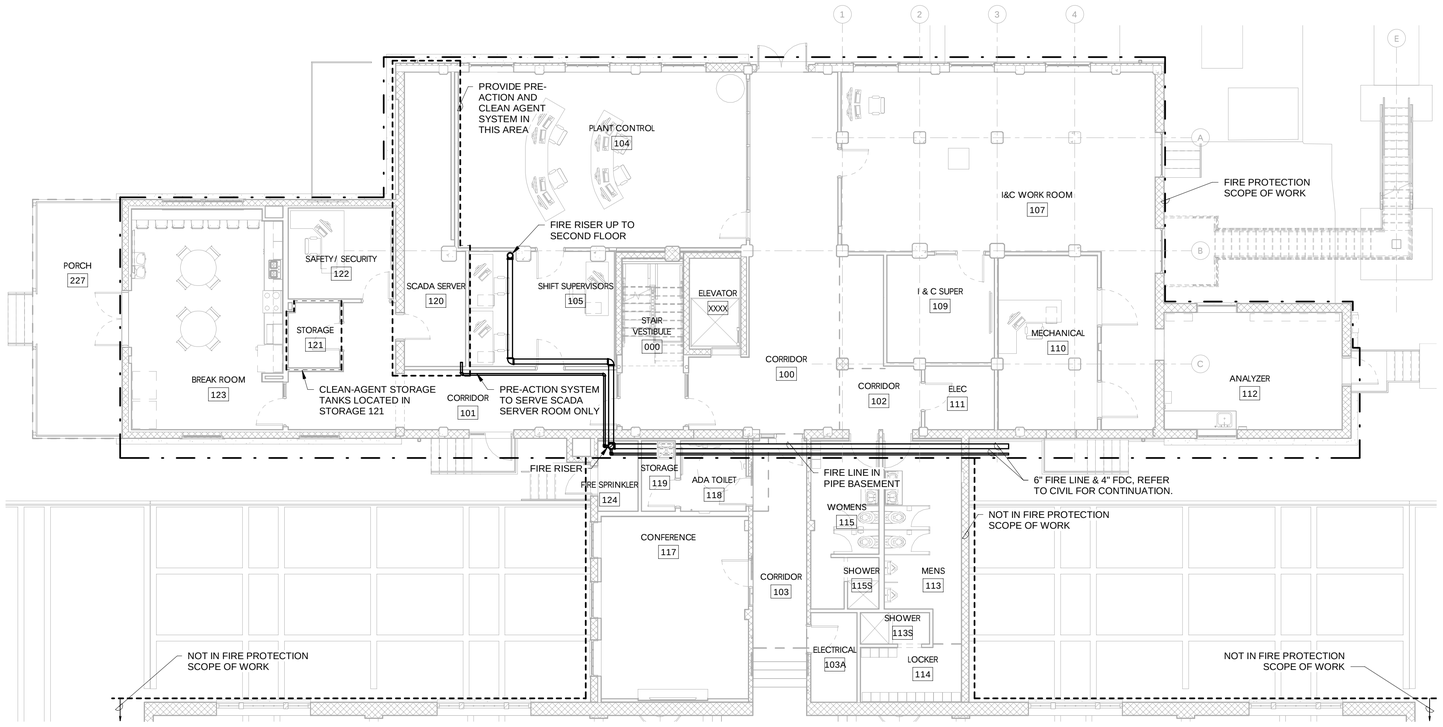
FIRE PROTECTION GENERAL NOTES AND DETAILS

FP001



ADMINISTRATION BUILDING FIRE PROTECTION NEW WORK SECOND FLOOR PLAN

1/8" = 1'-0"



ADMINISTRATION BUILDING FIRE PROTECTION NEW WORK FIRST FLOOR PLAN

1/8" = 1'-0"

Division 21 - Fire Protection Scope

1. Provide fire sprinkler system in scope of work area as indicated on plans.
2. All storage, mechanical, electrical, janitorial and communications areas shall be designed to Ordinary Hazard (Group 1), not to exceed 130 sq. ft. per sprinkler. Design shall be based on 0.15 gpm per sq. ft. over 1,500 sq. ft..
3. All other spaces shall be designed to Light Hazard. Area per sprinkler shall not to exceed 225 sq. ft. of coverage. Design shall be based on 0.10 gpm per sq. ft. over 1,500 sq. ft..

City of Tampa
CONSTRUCTION SERVICES DIVISION
PLAN APPROVAL
THIS SET OF PLANS AND SPECIFICATIONS MUST BE KEPT ON THE JOB AT ALL TIMES
It is unlawful for any person to make any alterations to these plans unless directed to do so from the Building Official or his duly authorized representative.
The Stamping of this plan shall not be held to permit or approve the violation of any City or State Codes
REVIEWED FOR CODE COMPLIANCE

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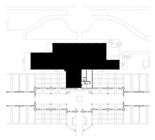
Harry W. Portellos
P.E. 61597

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS AND THE PROJECT MANUAL ARE COMPLETE AND COMPLY WITH THE 2017 FLORIDA BUILDING CODE



Project Information

City of Tampa

David L. Tippin Water Treatment Facility Phase I - Building & Site Improvements

7125 North 30th Street
Tampa, Florida

Project Number	1706.00

Distribution

No.	Description	Date
1	DD	07.20.18
2	50% CDs	09.24.18
3	90% CDs	12.07.18
4	Permit CDs	02.26.19

Revisions

No.	Description	Date

Sheet Information

ADMINISTRATION BUILDING FIRE PROTECTION FIRST AND SECOND FLOOR

FP101