CITY OF MIAMI

COMMUNITY REDEVELOPMENT AGENCY

PIETER BOCKWEG- EXECUTIVE DIRECTOR

CAPITAL IMPROVEMENTS PROGRAM- CIP

ALBERT SOSA, P.E.- DIRECTOR

INTERIOR REHABILITATION OF HISTORIC FIRE STATION No. 2

1401 NORTH MIAMI AVENUE
MIAMI, FL 33136

PROJECT B-30579

PHASE 2B

Mayor
Tomas P. Regalado

Chairman – District 1
Wilfredo Gort

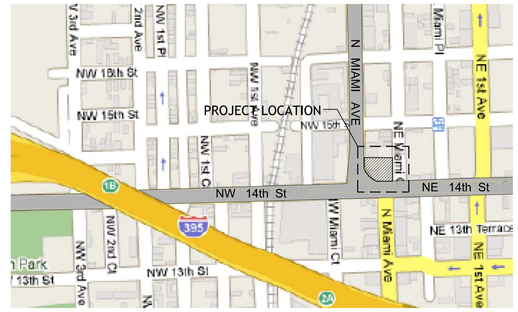
Vice Chair – District 3
Frank Carollo

Commissiones – District 2
Marc Sarnoff

Commissioner – District 4
Francis Suarez

Commissioner – District 5
Michelle Spence-Jones

City Manager
Johnny Martinez



1 LOCATION PLAN A0.00 SCALE: NTS

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MCHARRYASSOCIATES

ARCHITECTURE/ ENGINEERING/ PLANNING

AAC000986 EB0003663
Thomas M. Carlson, AIA 0007420
James W. Piersol, AIA 0008079

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ELECTRICAL / FIRE PROTECTION ENGINEERING
SDM CONSULTING ENGINEERS
135 ALMERIA AVENUE
CORAL GABLES, FLORIDA
305-446-2788

CIVIL ENGINEERING
CONSULTING ENGINEERING & SCIENCE, INC.
8925 SW 148 ST.
MIAMI, FLORIDA 33176
305-378-5555

CONSTRUCTION DOCUMENTS

25 MAY 2011
REVISION 1 -31 OCT 2011

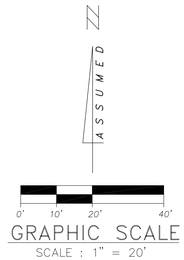
BOUNDARY & TOPOGRAPHIC SURVEY

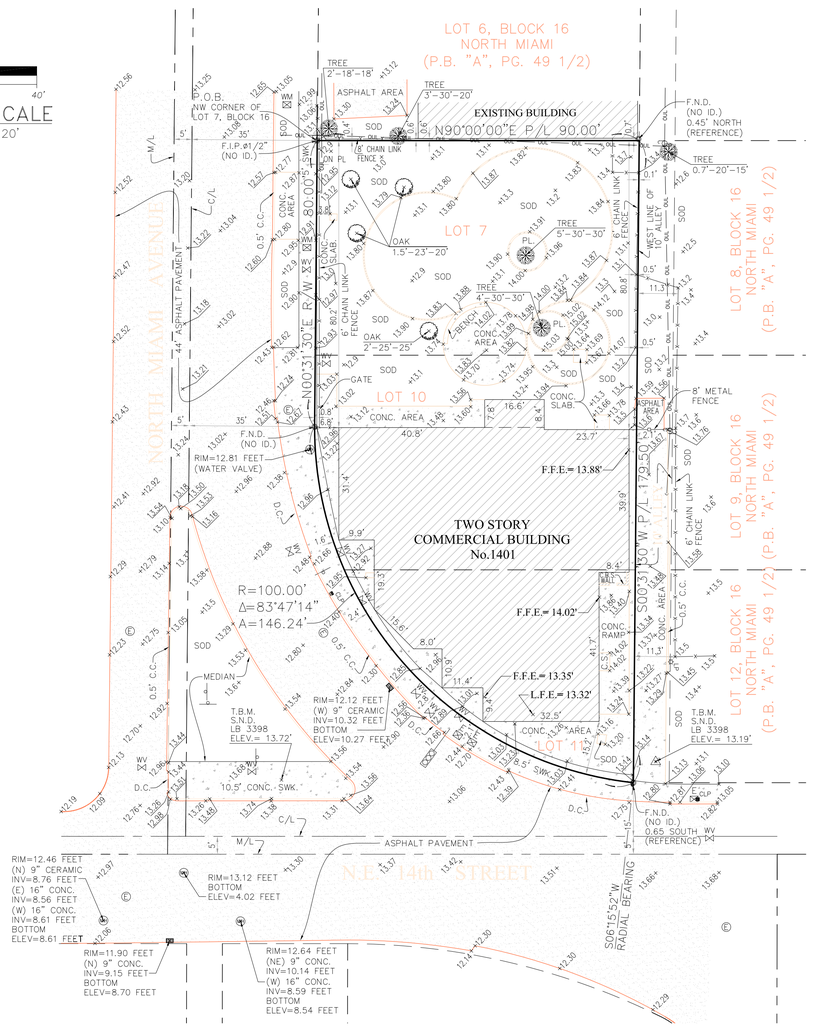
of

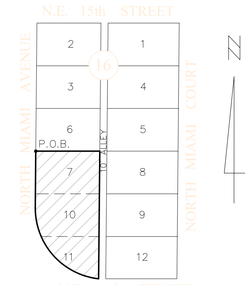
1401 & 1441 NORTH MIAMI AVENUE, MIAMI
MIAMI-DADE COUNTY, FLORIDA

for

Mc HARRY ASSOCIATES







LOCATION SKETCH
NOT TO SCALE

TREE LEGEND

SYMBOL	COMMON NAME
	Tree (Species unknown)
	Oak Tree

* TREE TYPES ARE DETERMINATED TO THE BEST OF OUR ABILITY AND SHOULD BE CONFIRMED BY BOTANIST OR A TRAINED SPECIALIST

ABBREVIATIONS

A	Arc Length	F.N.D.	Found Nail & Disc
A/C	Air Conditioner Pad	F.R.	Found Rebar
ASPH.	Asphalt	I.D.	Identification
B.M.	Benchmark	INV.	Inverts
C.B.S.	Concrete Block Structure	L.F.E.	Lowest Floor Elevation
C.C.	Conc. Curb.	M/L	Monument Line
C.G.	Curb & Gutter	P.B.	Plat Book
C/L	Center Line	P.C.P.	Permanent Control Point
C.L.F.	Chain Link Fence	PG.	Page
CONC.	Concrete	PL.	Planter
C.S.	Concrete Slab	P/L	Property Line
D.C.	Depress Curb.	P.R.M.	Permanent Reference Monument
DWY.	Driveway	R/W	Right-of-Way Line
E.T.P.	Electric Transformer Pad	SWK.	Sidewalk
F.F.E.	Finished Floor Elevation	T.B.M.	Temporary Benchmark
F.I.P.	Found Iron Pipe	V.G.	Valley Gutter

LEGEND

BFP	Back Flow Preventer	UM	Unknown Manhole
CLP	Concrete Light Pole	SV	Sewer Valve
MLP	Metal Light Pole	MB	Mail Box
	Guy Wire	x10.00	Spot Elevation
	Utility Power Pole		Temporary Benchmark
	Fire Hydrant	1.5'-15'-10'	Diameter-Height-Spread
WM	Water Meter		Right-of-Way Lines
E	Electric Box		Property Corner
T	Telephone Box		Traffic Sign
S	Sewer Manhole		Catch Basin
--OUL--	Overhead Utility Lines	D	Drainage Manhole
LP	Light Pole	ICV	Irrigation Control Valve
GV	Gas Valve		Iron Fence
WV	Water Valve		C.B.S. Wall
W	Water Manhole		Clean Out
T	Telephone Manhole	GP	Guard Pole
MW	Monitoring Well		Chain Link Fence
P	Parking Meter		Wood Fence

SURVEYOR'S NOTES:

1. MAP OF BOUNDARY AND TOPOGRAPHIC SURVEY:

Field Survey was completed on: January 9th, 2009.

2. LEGAL DESCRIPTION:

Lot 7 and the North 20 feet of Lot 10, Block 16 and the South 40 feet of Lot 10 and Lot 11, Block 16 of "NORTH MIAMI", according to the Plat thereof, as recorded in Plat Book "A", Page 49½ of the Public Records of Miami-Dade County, Florida. Less the West 10 feet of Lot 7 and the westerly 10 feet of the northerly 20 feet of Lot 10, Block 16 of "ROBBINS, GRAHAM AND CHILLINGSWORTH'S ADDITION" to the City of Miami, Miami-Dade County, Florida.

PROPOSED LEGAL DESCRIPTION:
That part of Lots 7, 10 and 11, Block 16 of "NORTH MIAMI", according to the Plat thereof, as recorded in Plat Book "A", Page 49½ of the Public Records of Miami-Dade County, Florida, more particularly described as follows:
Begin at the Northwest corner of Lot 7, Block 16 of "NORTH MIAMI", according to the Plat thereof, as recorded in Plat Book "A", Page 49½ of the Public Records of Miami-Dade County, Florida; thence run North 90°00'00" East for a distance of 90.00 feet to a point on the West line of the 10 foot alley as shown on the aforementioned plat of "NORTH MIAMI"; thence run South 00°31'30" West along the West line of the said 10 foot alley for a distance of 179.50 feet (calc.) (180.24 feet-measured) to a point on a circular curve concave to the northeast, said point bears South 61°15'52" West from the center of said curve; thence run northwesterly along said curve, having for its elements a central angle of 83°47'14" and a radius of 100.00 feet, for an arc distance of 146.24 feet to a point on the west line of the said Block 16; thence run North 00°31'30" East, along the west line of the said Block 16, for a distance of 80.00 feet to the Point of Beginning.

Containing 14,018 Square Feet or 0.32 Acres more or less by calculations.

The above captioned property was surveyed and described based on the above Legal Description furnished by the client, recorded in Official Records Book 26076, Page 3191.

3. SOURCES OF DATA:

AS TO VERTICAL CONTROL:

By scaled determination the subject property lies in Flood Zone X, as per Federal Emergency Management Agency (FEMA) Community-Panel Number 120650, Map No. 183, Suffix J, Revised Date: 07-17-1995.
An accurate Zone determination should be made by the preparer of the map, the Federal Emergency Management Agency, or the Local Government Agency having jurisdiction over such matters prior to any judgments being made from the Zone as noted. The referenced Federal Emergency Management Agency Map states in the notes to the user that "this map is for insurance purposes only".

The vertical control element of this survey was derived from the City of Miami Datum.

Benchmarks used:
City of Miami Benchmark Elev.=13.16'
Location: North Miami Court and N.E. 14th Street
City of Miami Benchmark Elev.=12.60'
Location: North Miami Avenue and N.E. 14th Street

AS TO HORIZONTAL CONTROL:

North Arrow and Bearings refer to an assumed value of N 00°31'30" E along the West boundary line of the Subject Property, as recorded in Official Records Book 26076, Page 3191, Public Record of Miami-Dade County, Florida. Said line is considered well-established and monumented.

4. ACCURACY:

The accuracy obtained by measurement and calculation of closed geometric figures was found to exceed this requirement.

5. LIMITATIONS:

Since no other information other than what is cited in the Sources of Data was furnished, the Client is hereby advised that there may be legal restrictions on the Subject Property that are not shown on the Survey Map or contained within this Report that may be found in the Public Records of Miami-Dade County, or the records of any other public and private entities as their jurisdictions may appear. The Surveyor makes no representation as to ownership or possession of the Subject Property by any entity or individual who may appear in public records. No excavation or determination was made as to how the Subject Property is served by utilities. No improvements were located, other than those shown. No underground foundations, improvements and/or utilities were located or shown hereon. This notice is required by the "Minimum Technical Standards for Land Surveying in the State of Florida," pursuant to Rule 61G17-6 of the Florida Administrative Code.

Notice is hereby given that Sunshine State One Call of Florida, Inc., must be contacted at 1-800-432-4770 at least 48 hours in advance of any construction, excavation or demolition activity within, upon, abutting or adjacent to the Subject Property. This Notice is given in compliance with the "Underground Facility Damage Prevention and Safety Act," pursuant to Chapter 556.101-111 of the Florida Statutes.

6. CLIENT INFORMATION:

This Boundary and Topographic Survey and the Survey Map resulting therefrom was prepared at the insistence of and certified to:

MC HARRY ASSOCIATES

SURVEYOR'S CERTIFICATE:

I hereby certify: That this "Boundary and Topographic Survey" and the Survey Map resulting therefrom was performed under my direction and is true and correct to the best of my knowledge and belief. Further, that said "Boundary and Topographic Survey" meets the intent of the applicable provisions of the "Minimum Technical Standards for Land Surveying in the State of Florida", pursuant to Rule 61G17-6 of the Florida Administrative Code and its implementing law, Chapter 472.027 of the Florida Statutes.

J. Bonfill & Associates, Inc.
Florida Certificate of Authorization Number LB 3398

By: _____
Juan J. Bonfill, P.S.M.
Professional Surveyor and Mapper Number No. LS 3179
State of Florida

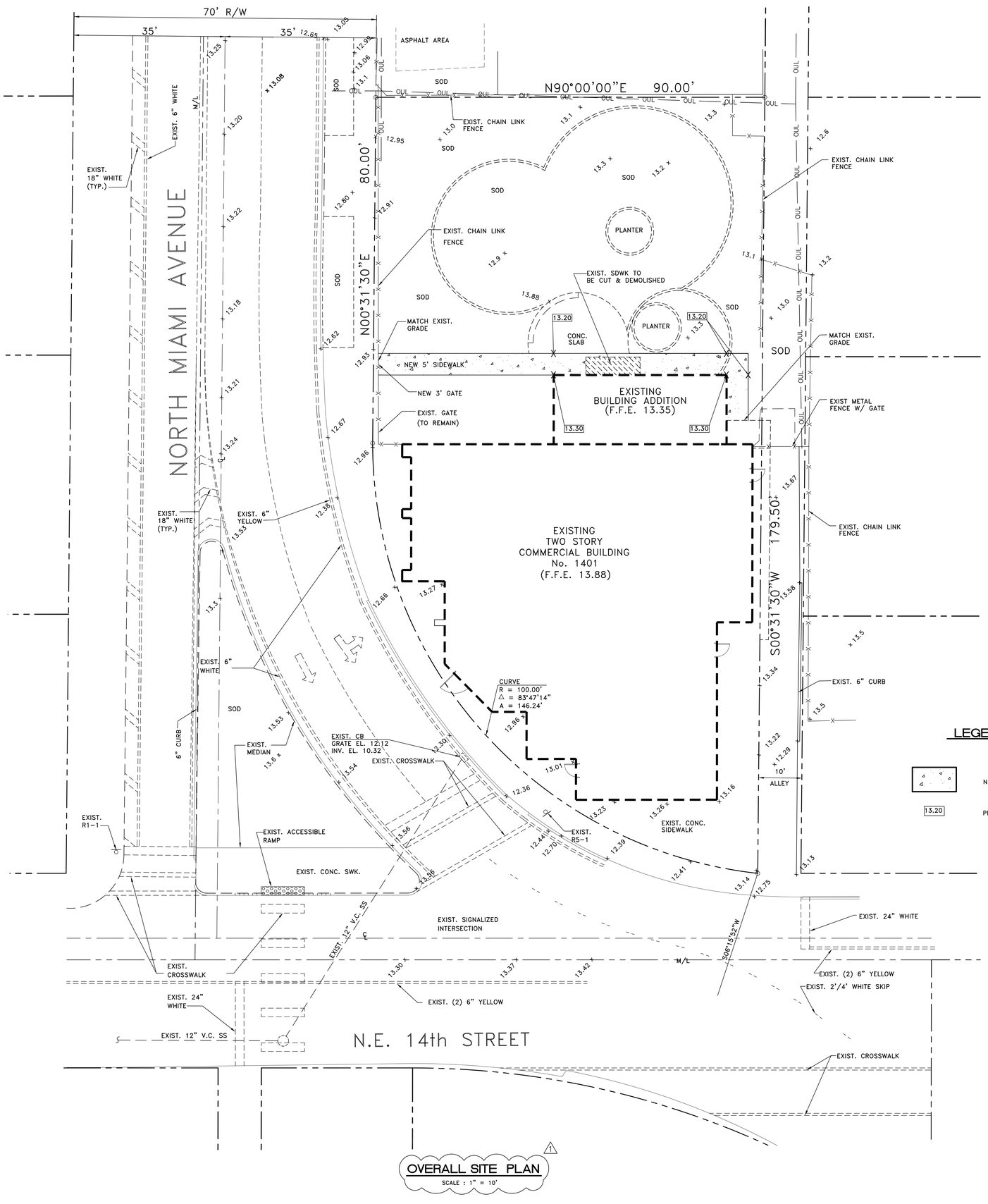
NOTICE: Not valid without the signature and original raised seal of a Florida Licensed Surveyor and Mapper. Additions or deletions to Survey Maps by other than the signing party are prohibited without the written consent of the signing party.

J. Bonfill & Associates, Inc.
ARCHITECTS, LAND SURVEYORS & MAPPERS
Florida Certificate of Authorization LB3398
9360 S.W. 72nd Street Suite 265
Miami, Florida 33173 (305) 598-8383

BOUNDARY & TOPOGRAPHIC SURVEY
of
1401 & 1441 NORTH MIAMI AVENUE, MIAMI
MIAMI-DADE COUNTY, FLORIDA
for
Mc HARRY ASSOCIATES

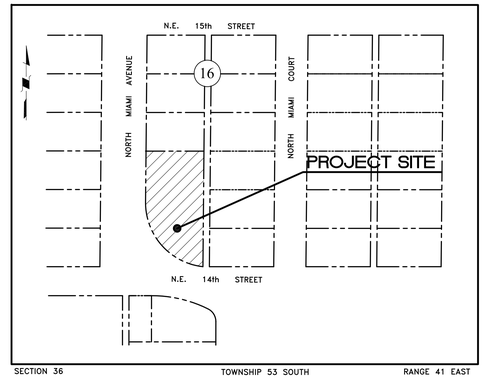
REVISIONS	BY

Proj:	09-0005
Job:	09-0005
Date:	01-09-2009
Drawn:	G.P., D.H.
Checked:	J.J.B.
Scale:	AS SHOWN
Field Book:	ON FILE
SHEET 1 OF 1	



OVERALL SITE PLAN

SCALE : 1" = 10'



LOCATION SKETCH

NOT TO SCALE

LEGEND

NEW SIDEWALK

13.20 PROPOSED ELEVATION

LEGAL DESCRIPTION

LOT 7 AND THE NORTH 20 FEET OF LOT 10, BLOCK 16 AND THE SOUTH 40 FEET OF LOT 10 AND LOT 11, BLOCK 16 OF "NORTH MIAMI", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK "A", PAGE 49½ OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA. LESS THE WEST 10 FEET OF LOT 7 AND THE WESTERLY 10 FEET OF THE NORTHERLY 20 FEET OF LOT 10, BLOCK 16 OF "ROBBINS, GRAHAM AND CHILLINGSWORTH'S ADDITION" TO THE CITY OF MIAMI, MIAMI-DADE COUNTY, FLORIDA.

ALSO DESCRIBED AS:

THAT PART OF LOTS 7, 10 AND 11, BLOCK 16 OF "NORTH MIAMI", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK "A", PAGE 49½ OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGIN AT THE NORTHWEST CORNER OF LOT 7, BLOCK 16 OF "NORTH MIAMI", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK "A", PAGE 49½ OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA; THENCE RUN NORTH 90°00'00" EAST FOR A DISTANCE OF 90.00 FEET TO A POINT ON THE WEST LINE OF THE 10 FOOT ALLEY AS SHOWN ON THE AFOREMENTIONED PLAT OF "NORTH MIAMI"; THENCE RUN SOUTH 00°31'30" WEST ALONG THE WEST LINE OF THE SAID 10 FOOT ALLEY FOR A DISTANCE OF 179.50 FEET (CALC.) (180.24 FEET-MEASURED) TO A POINT ON A CIRCULAR CURVE CONCAVE TO THE NORTHEAST, SAID POINT BEARS SOUTH 6°15'52" WEST FROM THE CENTER OF SAID CURVE; THENCE RUN NORTHWESTERLY ALONG SAID CURVE, HAVING FOR ITS ELEMENTS A CENTRAL ANGLE OF 83°47'14" AND A RADIUS OF 100.00 FEET, FOR AN ARC DISTANCE OF 146.24 FEET TO A POINT ON THE WEST LINE OF THE SAID BLOCK 16; THENCE RUN NORTH 00°31'30" EAST, ALONG THE WEST LINE OF THE SAID BLOCK 16, FOR A DISTANCE OF 80.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 14,018 SQUARE FEET OR 0.32 ACRES MORE OR LESS.

GENERAL NOTES

1. GENERAL NOTES ON THE PROJECT PLANS AND DRAWINGS ARE SOLELY TO AID AND ASSIST THE CONTRACTOR WITH THE FIELD OPERATIONS FOR THE PROJECT. SAID GENERAL NOTES MAY NOT FULLY DESCRIBE ALL OF THE REQUIREMENTS FOR AN ITEM. THEREFORE, THE CONTRACTOR SHALL READ AND VERIFY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE PLANS, SPECIFICATIONS, GENERAL TERMS AND CONDITIONS, AND THE SUPPLEMENTAL TERMS AND CONDITIONS, TO FULLY UNDERSTAND AND COMPLY WITH ALL THE REQUIREMENTS THEREIN.
2. ELEVATIONS SHOWN REFER TO THE NATIONAL GEODETIC VERTICAL DATUM (N.G.V.D.).
3. HORIZONTAL AND VERTICAL CONTROL SHALL BE PROVIDED BY THE OWNER'S SURVEYOR. LAYOUT IS THE RESPONSIBILITY OF THE CONTRACTOR.
4. IT IS THE INTENT OF THESE DRAWINGS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
5. EXISTING UTILITIES SHOWN ARE BASED ON INFORMATION SUPPLIED BY OTHERS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MEET WITH ALL APPLICABLE UTILITY COMPANIES TO VERIFY ALL UNDERGROUND FACILITIES PRIOR TO THE START OF CONSTRUCTION. ALL TRENCH EXCAVATION SHALL PROCEED WITH EXTREME CAUTION AT ALL TIMES. IN THE EVENT THAT EXISTING UTILITIES ARE DAMAGED, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR OR REPLACE ALL SUCH DAMAGE.
6. EXISTING GRADES WERE TAKEN FROM THE BEST AVAILABLE DATA AND MAY NOT ACCURATELY REFLECT PRESENT CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH CURRENT SITE CONDITIONS, AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO STARTING WORK.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR RESETTING ALL DISTURBED EXISTING MANHOLE COVERS, VALVE BOXES, BLOW-OFF RISERS, ETC. TO NEW ELEVATIONS, AS REQUIRED, WHETHER SPECIFICALLY SHOWN ON THESES DRAWINGS OR NOT.
8. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING ALL UTILITY MARKINGS ONCE THE WORK IS COMPLETED. FINAL PAYMENT TO THE CONTRACTOR MAY BE WITHHELD UNTIL THE UTILITY MARKS ARE REMOVED.
9. BOUNDARY AND TOPOGRAPHIC DATA BASED UPON SURVEY PREPARED BY J. BONFILL & ASSOCIATES, INC. , P.S.M., MIAMI, FLORIDA, DATED JANUARY 9, 2009.

DRAINAGE ANALYSIS

1. EXISTING RUNOFF:
   PERVIOUS AREA = 7,663 SF (54.7%)
   IMPERVIOUS AREA = 6,355 SF (45.3%)
   14,018 SF (0.32 AC.)
   RUNOFF COEFFICIENT C= 0.52
2. PROPOSED RUNOFF:
   PERVIOUS AREA = 7,236 SF (51.6%)
   IMPERVIOUS AREA = 6,782 SF (48.4%)
   14,018 SF (0.32 AC.)
   RUNOFF COEFFICIENT C= 0.54
3. EXISTING RUNOFF IS DIRECTED TO ON-SITE STORMWATER COLLECTION SYSTEM AND OPEN LANDSCAPE/GREEN AREAS.
4. PROPOSED RUNOFF IS DIRECTED TO SAME ON-SITE STORMWATER COLLECTION SYSTEM AND OPEN LANDSCAPE/ GREEN AREAS.
5. THERE IS NO SIGNIFICANT INCREASE IN RUNOFF. EXISTING SYSTEM IS ADEQUATE TO MEET WATER QUALITY/QUANTITY REQUIREMENTS.

ADA COMPLIANCE NOTE:

THIS SET OF DOCUMENTS HAS BEEN DESIGNED TO COMPLY WITH CHAPTER 11: FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION OF THE FLORIDA BUILDING CODE – LATEST EDITION
ALL RELATED SECTIONS OF THE CODE ARE NOTED WITHIN THESE DOCUMENTS AND STRICT COMPLIANCE IS REQUIRED BY ALL CONSTRUCTION TRADES. CONSTRUCTION QUALITY AND COMPLIANCE OF THE FINAL PRODUCTS ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

SITE DESIGN, ACCESS, AND PARKING HAVE BEEN DESIGNED AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH THE FOLLOWING SECTIONS, BUT NOT LIMITED TO:

11-4.1.6 ACCESSIBLE BUILDINGS: ALTERATIONS
11-4.3 ACCESSIBLE ROUTE
11-4.6 PARKING AND PASSENGER LOADING ZONES
11-4.7 CURB RAMPS

DRAWN BY: V.Q.
CHKD BY: R.B.B.
APP'D BY: R.B.B.
ISSUE DATE: 25 MAY 2011
REVISIONS:
No. DATE
1 31 OCT. 2011 ADD EXIST. ELEVATIONS & DRAINAGE ANALYSIS

MCHARRYASSOCIATES
ARCHITECTURE ENGINEERING PLANNING
Thomas M. Carlson, AIA AA0003986 James W. Piersol, AIA EB0002663 0008079
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JAMES W. PIERSOL AR 008079

CONSULTING ENGINEERING & SCIENCE, INC.
10225 N.W. 116th WAY, SUITE 400
MIAMI, FLORIDA 33178 (305) 378-5555
FOR THE FIRM: EB-0003255
CES PROJECT: 08256 RICHARD B. BOCHNOVICH PE-18833 (CIVIL)

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB
PROJECT TITLE:

FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

DRAWING TITLE:
OVERALL SITE PLAN & NOTES

SCALE:
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK!

SHEET No.
C-1

1. ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT AND SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND ON FILE WITH THE DEPARTMENT. SUBMIT SHOP DRAWINGS FOR ALL MATERIALS.

2. COVER OVER WATER OR SEWER FORCE MAINS SHALL BE 4'-0" MIN.

3. ALL MAIN LINE VALVES SHALL BE INSTALLED COMPLETE WITH 10" RISER PIPES AND NO. 3 OR 53 VALVE BOXES FIRE HYDRANTS AND SERVICE VALVES SHALL BE INSTALLED COMPLETE WITH 6" RISER PIPES AND NO. 2 VALVE BOXES.

4. ALL FORCE MAIN SERVICE CONNECTIONS INTO PRESSURE TRANSMISSION MAINS SHALL HAVE A SHUT OFF VALVE AND CHECK VALVE AT THE POINT OF ENTRY.

5. ALL GRAVITY SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEPARTMENT STANDARDS.

6. ALL WATER METERS WILL BE INSTALLED BY THE MIAMI-DADE WATER AND SEWER DEPARTMENT PROVIDING THE APPROPRIATE CHARGES HAVE BEEN PREPAID.

7. FIRE HYDRANT REQUIREMENTS (NUMBER AND LOCATION) SHALL BE AS REQUIRED BY THE MIAMI-DADE COUNTY FIRE DEPARTMENT OR THE APPROPRIATE FIRE AGENCY WITH INSTALLATION IN ACCORDANCE WITH DEPARTMENT STANDARDS.

8. CONTRACTOR MUST CALL M-DWASD INSPECTION DIVISION TO ARRANGE FOR A PRECONSTRUCTION MEETING 2 FULL BUSINESS DAYS PRIOR TO PROPOSED START OF CONSTRUCTION. CONTACT ONE CALL CENTER 48 HRS PRIOR TO EXCAVATION.

9. CONTRACT INSPECTOR WILL INSPECT ANY FACILITIES APPROVED BY THE DEPARTMENT. ALL OTHER REQUIREMENTS OF THE PERMITTING AGENCY SHALL BE IN ACCORDANCE WITH THEIR STANDARDS AND REQUIREMENTS.

10. WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED AS COMPLETE UNTIL FINAL ACCEPTANCE OF THE SYSTEM BY THE DEPARTMENT AND UNTIL THE FOLLOWING DOCUMENTS ARE RECEIVED AND APPROVED BY THE DEPARTMENT.

    a. EASEMENTS, IF REQUIRED.
    b. CONTRACTOR'S WAIVER AND RELEASE OF LIEN.
    c. ABSOLUTE BILL OF SALE.
    d. i. CONTRACTOR'S LETTER OF WARRANTY (I.E., LETTER AGREEMENT).
       ii. DEVELOPER'S CONTRACT BOND (I.E., CONTRACT AGREEMENT).
    e. "AS-BUILT" PRINTS 24"x36" SHOWING SPECIFIC LOCATIONS, DEPTH, ETC. OF ALL WATER AND SEWER FACILITIES AS LOCATED BY A LICENSED FLORIDA SURVEYOR, ALONG WITH PRINTS OF "AS-BUILT" WHICH HAVE BEEN SIGNED AND SEALED BY A REGISTERED SURVEYOR. (No. OF PRINTS: 3-FOR WATER, 4-FOR GRAVITY SEWER AND 5-FOR FORCE MAIN OR PUMP STATION PROJECTS). THE DEPARTMENT RESERVES THE RIGHT TO REQUIRE SUBMITTAL ON ELECTRONIC MEDIA IN ACCORDANCE WITH SEC. 01775 "MAGNETIC MEDIA SUBMITTAL".
    f. H.R.S. LETTER OF RELEASE REQUIRED FOR ALL WATER PROJECTS.
    g. BILL OF SALE SKETCH (8½"x11") FOR WATER AND SEWER, SEPARATELY.

11. ALL NEW CONNECTIONS FROM EXISTING DEPARTMENT MAINS TO BE MADE BY DEPARTMENT FORCES ONLY. THE CONTRACTOR TO EXCAVATE AT REQUIRED LOCATIONS, PROVIDE AND INSTALL MATERIAL WITH FITTINGS, PRIOR TO TAP.

12. AN APPROVED PAVING AND DRAINAGE PLAN MUST BE SUBMITTED TO MDWASD FOR ALL NEW SUBDIVISIONS PRIOR TO APPROVAL OF WATER AND SEWER PERMIT PLANS, UPON REQUEST.

13. UNLESS OTHERWISE SPECIFIED, ALL TAPS 20 INCHES AND SMALLER FOR CONNECTIONS TO EXISTING MAINS WILL BE DONE BY DEPARTMENT FORCES. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE PERMITTED TO TAP EXISTING MAINS IN THE SIZE RANGE SPECIFIED ABOVE. THE TAPPING SLEEVE AND TAPPING VALVE ARE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER THE SUPERVISION OF THE INSPECTOR.

ITEM	CROSS REF.	SPEC. REF.

ISSUE DATE	APPROVED BY	STANDARD DETAIL	
03/01/2010	V.F.C.	STANDARD REQUIREMENTS WATER AND SEWER CONSTRUCTION	GS 0.5 SHEET 1 OF 2

MIAMI-DADE COUNTY Delivering Excellence Every Day
WATER & SEWER DEPARTMENT

1. AT THE COMPLETION OF ANY WATER AND SEWER JOB, EITHER DONATION OR CONTRACT, THE CONTRACTOR SHALL SUBMIT:

    a. AS-BUILT PRINTS WHICH HAVE BEEN SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER. (QTY. OF PRINTS, AS REQUIRED BY THE DEPARTMENT.)

2. "AS-BUILT" FORMAT:

    a. 24"x36" PRINTS
    b. LOCATION MAP SCALE SHOULD BE 1"=300' AND SECTION-TOWNSHIP-RANGE SHOULD BE SHOWN.
    c. THE WORD "AS-BUILT" IN LARGE LETTERS.
    d. TITLE BLOCK WITH DEPARTMENT DS, DW OR ER NUMBER AND PERTINENT INFORMATION.
    e. PREFERRED SCALE TO BE 1"= 40' HORIZONTALLY AND 1"= 4' VERTICALLY*.
    f. STREET NOMENCLATURE.
    g. SEPARATE AS-BUILTS FOR WATER AND SEWER.
    h. SEPARATE WATER AND SEWER PROFILE.
    i. STATIONING STARTING WITH 0+00 AT PERMANENT REFERENCE POINT (I.E., ℄, ℄, ETC.) OR AS SHOWN ON DESIGN PERMIT PLANS, AND TO RUN CONTINUOUSLY TO END OF MAIN.
    j. EASEMENTS, IF ANY, TIED TO PERMANENT REFERENCE POINT.
    k. IDENTIFY ALL CONTROL LINES (I.E. BLDG. LINE, PROPERTY LINE, R/W, ETC).
    l. ALL "PROPOSED" INFORMATION TO BE REMOVED FROM PRINTS, LEAVING ONLY "AS-BUILT" INFORMATION REFLECTED IN DRAWINGS.

3. WATER "AS-BUILTS" MUST INCLUDE:

    a. PLANS SHOWING PIPE SIZE, MATERIAL AND OFFSET OF MAIN, DEFLECTIONS (IF ANY), STATION OF SERVICES, HYDRANTS AND FITTINGS AT THE MAINLINE (IF PERPENDICULAR TO IT), AND AT MAIN AND END OF SERVICES IF ANY, OTHER ANGLE, AND DEFLECTION OF PIPE, IF ANY.

    b. PROFILE SHOWING TOP OF GROUND AND TOP OF PIPE ELEVATIONS AT EVERY 100' STATION AND AT ANY CHANGE IN GRADE (WITH CORRESPONDING STATION), PIPE SIZE AND PIPE MATERIALS REFERENCED TO PLAN.

4. SEWER "AS-BUILTS" MUST INCLUDE:

    a. PLAN SHOWING MANHOLE NUMBER, PIPE SIZE AND PIPE MATERIAL OF PIPE, DEFLECTION, IF ANY (FORCE MAIN ONLY), AND LOCATION OF LATERALS WITH REFERENCE TO MANHOLE.

    b. PROFILE SHOWING MANHOLE NUMBER (AS PER PLAN), RIM AND INVERT ELEVATIONS (IF MORE THAN ONE INVERT, LABEL NORTH, SOUTH , ETC), AND STATION STARTING AT EACH 0+00 AT DOWNSTREAM MANHOLE.

5. FORCE MAIN "AS-BUILT" SAME AS WATER MAIN ABOVE.

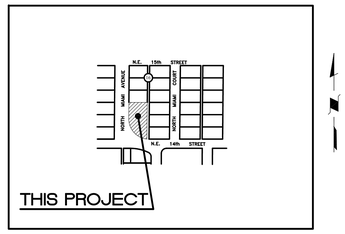
6. EACH AS-BUILT SHALL SHOW THE FLORIDA STATE PLANE COORDINATES (CURRENT READJUSTMENT) OF ALL THE MANHOLES AND VALVES AND OF AT LEAST TWO HORIZONTAL CONTROL POINTS PROPERLY IDENTIFIED AND LOCATED WITHIN THE PROJECT.

* OTHER SCALE MAY BE PERMITTED, BUT MUST BE APPROVED BY THE DEPA
OF DRAWINGS.

ITEM	CROSS REF.	SPEC. REF.

ISSUE DATE	APPROVED BY	STANDARD DETAIL	
03/11/2009	V.F.C.	"AS-BUILT" REQUIREMENTS	GS 0.5 SHEET 2 OF 2

MIAMI-DADE COUNTY Delivering Excellence Every Day
WATER & SEWER DEPARTMENT



SECTION 36 TOWNSHIP 53 SOUTH RANGE 41 EAST

LOCATION SKETCH
SCALE: 1" = 300'

LEGAL DESCRIPTION

LOT 7 AND THE NORTH 20 FEET OF LOT 10, BLOCK 16 AND THE SOUTH 40 FEET OF LOT 10 AND LOT 11, BLOCK 16 OF "NORTH MIAMI", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK "A", PAGE 49½ OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA. LESS THE WEST 10 FEET OF LOT 7 AND THE WESTERLY 10 FEET OF THE NORTHERLY 20 FEET OF LOT 10, BLOCK 16 OF "ROBBINS, GRAHAM AND CHILLINGSWORTH'S ADDITION" TO THE CITY OF MIAMI, MIAMI-DADE COUNTY, FLORIDA.

PROPOSED LEGAL DESCRIPTION:
THAT PART OF LOTS 7, 10 AND 11, BLOCK 16 OF "NORTH MIAMI", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK "A", PAGE 49½ OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS:
BEGIN AT THE NORTHWEST CORNER OF LOT 7, BLOCK 16 OF "NORTH MIAMI", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK "A", PAGE 49½ OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA; THENCE RUN NORTH 90°00'00" EAST FOR A DISTANCE OF 90.00 FEET TO A POINT ON THE WEST LINE OF THE 10 FOOT ALLEY AS SHOWN ON THE AFOREMENTIONED PLAT OF "NORTH MIAMI"; THENCE RUN SOUTH 00°31'30" WEST ALONG THE WEST LINE OF THE SAID 10 FOOT ALLEY FOR A DISTANCE OF 179.50 FEET (CALC.) (180.24 FEET-MEASURED) TO A POINT ON A CIRCULAR CURVE CONCAVE TO THE NORTHEAST, SAID POINT BEARS SOUTH 6°15'52" WEST FROM THE CENTER OF SAID CURVE; THENCE RUN NORTHWESTERLY ALONG SAID CURVE, HAVING FOR ITS ELEMENTS A CENTRAL ANGLE OF 83°47'14" AND A RADIUS OF 100.00 FEET, FOR AN ARC DISTANCE OF 146.24 FEET TO A POINT ON THE WEST LINE OF THE SAID BLOCK 16; THENCE RUN NORTH 00°31'30" EAST, ALONG THE WEST LINE OF THE SAID BLOCK 16, FOR A DISTANCE OF 80.00 FEET TO THE POINT OF BEGINNING.

CONTAINING 14,018 SQUARE FEET OR 0.32 ACRES MORE OR LESS BY CALCULATIONS.

FLORIDA DEP/DADE COUNTY DERM NOTES
ON WATER-SEWER INSTALLATION
(NOT A PART OF M-DWASD REVIEW OR APPROVAL)

1. A HORIZONTAL DISTANCE OF AT LEAST 6 FEET, AND PREFERABLY 10 FEET (OUTSIDE TO OUTSIDE), SHALL BE MAINTAINED BETWEEN GRAVITY OR PRESSURE SEWER PIPES AND WATER PIPES. THE MINIMUM HORIZONTAL SEPARATION CAN BE REDUCED TO 3 FEET FOR VACUUM-TYPE SEWERS OR FOR GRAVITY SEWERS WHERE THE BOTTOM OF THE SEWER PIPE IS AT LEAST 6 INCHES BELOW THE BOTTOM OF THE WATER PIPE. WHEN THE ABOVE SPECIFIED HORIZONTAL DISTANCE CRITERIA CANNOT BE MET DUE TO AN EXISTING UNDERGROUND FACILITY CONFLICT, SMALLER SEPARATIONS ARE ALLOWED IF:
    A- THE SEWER PIPES ARE DESIGNED AND CONSTRUCTED EQUAL TO THE WATER PIPE AND PRESSURE TESTED AT 150 PSI.
    B- THE SEWER IS ENCASED IN A WATERTIGHT CARRIER PIPE OR CONCRETE.
    C- THE TOP OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER PIPE.
2. A VERTICAL DISTANCE OF AT LEAST 12 INCHES (OUTSIDE TO OUTSIDE) SHALL BE MAINTAINED BETWEEN ANY WATER AND SEWER MAINS WITH SEWER PIPES PREFERABLY CROSSING UNDER WATER MAINS. THE MINIMUM VERTICAL SEPARATION CAN BE REDUCED TO 6 INCHES FOR VACUUM-TYPE SEWERS OR FOR GRAVITY SEWERS WHERE THE SEWER PIPE IS BELOW THE WATER MAIN. THE CROSSING SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 6 FEET FROM ALL JOINTS IN GRAVITY AND PRESSURE SEWER PIPES. THE DISTANCE CAN BE REDUCED TO 3 FEET FOR VACUUM-TYPE SEWERS. WHEN THE ABOVE SPECIFIED VERTICAL DISTANCE CRITERIA CANNOT BE MET DUE TO AN EXISTING UNDERGROUND FACILITY CONFLICT, SMALLER SEPARATIONS ARE ALLOWED IF:
    A- THE SEWER PIPES ARE DESIGNED AND CONSTRUCTED EQUAL TO THE WATER PIPE AND PRESSURE TESTED AT 150 PSI.
    B- THE SEWER IS ENCASED IN A WATERTIGHT CARRIER PIPE OR CONCRETE.
3. IN HIGHLY CONGESTED AREAS, WHERE EITHER WATER OR SEWER FACILITIES ARE EXISTING AND THE SEPARATION REQUIREMENTS CANNOT BE MET, SPECIAL CONSIDERATION MAY BE GIVEN SUBJECT TO SUBMITTAL OF DOCUMENTATION SHOWING THAT THE PROPOSED ALTERNATIVE WILL RESULT IN AN EQUIVALENT LEVEL OF RELIABILITY AND PUBLIC HEALTH PROTECTION.
4. THE MAXIMUM ALLOWABLE EXFILTRATION RATE OF GRAVITY SANITARY SEWERS CONSTRUCTED IN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE FIFTY (50) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY FOR RESIDENTIAL LAND USE AND TWENTY (20) GALLONS PER INCH PIPE DIAMETER PER MILE PER DAY FOR NON-RESIDENTIAL LAND USE.
5. FORCE MAIN SEWERS CONSTRUCTED IN A PUBLIC WELLFIELD PROTECTION AREA SHALL BE EITHER DUCTILE IRON OR REINFORCED CONCRETE PRESSURE SEWER PIPES. FOR DUCTILE IRON PIPE, EXFILTRATION RATE SHALL NOT BE GREATER THAN THE ALLOWABLE LEAKAGE RATE SPECIFIED IN AMERICAN WATER WORKS ASSOCIATION STANDARD (AWWAS) C600-82 AT A TEST PRESSURE OF 100 PSI. FOR REINFORCED CONCRETE PRESSURE SANITARY SEWER, EXFILTRATION RATE SHALL NOT BE GREATER THAN HALF (1/2) THE ALLOWABLE LEAKAGE RATE SPECIFIED IN AWWA C600-82 AT A TEST PRESSURE OF 100 PSI.
6. THE CONTRACTOR SHALL VERIFY NATURE, DEPTH, AND CHARACTER OF EXISTING UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
7. ALL OTHER PUBLIC OR PRIVATE UTILITY FACILITIES SHALL BE CONSTRUCTED AT LEAST 5 FEET FROM ANY WATER AND SEWER MAIN AS MEASURED FROM THE OUTSIDE BELL OF THE WATER OR THE UTILITY PIPE.
8. WHEN THE 5 FEET SEPARATION BETWEEN PROPOSED AND EXISTING LINE IS NOT POSSIBLE, THE CONTRACTOR SHALL HAND DIG OR EXPOSE THE WATER AND SEWER PIPES BEFORE PROCEEDING WITH POWER EQUIPMENT EXCAVATION.
9. IN NO CASE SHALL A CONTRACTOR INSTALL UTILITY PIPES, CONDUITS, CABLES, ETC. IN THE SAME TRENCH PARALLEL AND ABOVE AN EXISTING WATER OR SEWER PIPES EXCEPT WHERE THEY CROSS. ANY DEVIATION FROM NOTES 6, 7 AND 8 SHALL BE APPROVED IN WRITING BY THE RESPONSIBLE WATER AND SEWER UTILITY.
10. A NON-RESETTABLE ELAPSED TIME METER SHALL BE INSTALLED AT EACH PUMP TO RECORD THE TOTAL NUMBER OF OPERATING HOURS OF THE STATION.

HEALTH DEPARTMENT NOTES
(NOT A PART OF M-DWASD NOTES OR APPROVAL)

WATER MAIN HORIZONTAL SEPARATIONS

SEPARATIONS SHALL BE MEASURED OUTSIDE EDGE TO OUTSIDE EDGE BETWEEN WATER MAINS AND, STORM SEWERS, STORMWATER FORCE MAINS, OR RECLAIMED WATER LINES, SHALL BE 3 FT MINIMUM.

BETWEEN WATER MAINS AND VACUUM TYPE SEWER PREFERABLY 10 FT. AND AT LEAST 3 FT. MINIMUM.

GRAVITY OR PRESSURE SANITARY SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER PREFERABLY 10 FT. AND AT LEAST 6 FT. MAY BE REDUCED TO 3 FT. WHERE BOTTOM OF WATER MAINS IS AT LEAST 6 INCHES ABOVE TOP OF SEWER.

10 FT. TO ANY PART OF ON-SITE SEWER TREATMENT OR DISPOSAL SYSTEM.

WATER MAIN VERTICAL SEPARATIONS

SEPARATIONS BETWEEN WATER MAINS AND GRAVITY SEWER, VACUUM TYPE SEWER, OR STORM SEWERS, TO BE PREFERABLY 12 INCHES, OR AT LEAST 6 INCHES ABOVE, OR AT LEAST 12 INCHES IF BELOW.*

PRESSURE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR RECLAIMED WATER, AT LEAST 12 INCHES ABOVE OR BELOW.*

* NOTE: CENTER 1-FULL LENGTH OF WATER MAIN PIPE AT CROSSINGS; ALTERNATIVELY ARRANGE PIPES SO JOINTS ARE AT LEAST 3 FEET FROM JOINTS IN VACUUM, STORM OR STORM FORCE MAINS. AT LEAST 6 FEET FROM JOINTS IN GRAVITY OR PRESSURE SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER.

DRAWN BY: V.Q.
CHKD BY: R.B.B.
APP'D BY: R.B.B.
ISSUE DATE: 25 MAY 2011
REVISIONS:
No. DATE

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FOR THE FIRM:
CES PROJECT: 09066 PE-19853 (2016)
RICHARD B. BOCHNOVICH
JAN

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

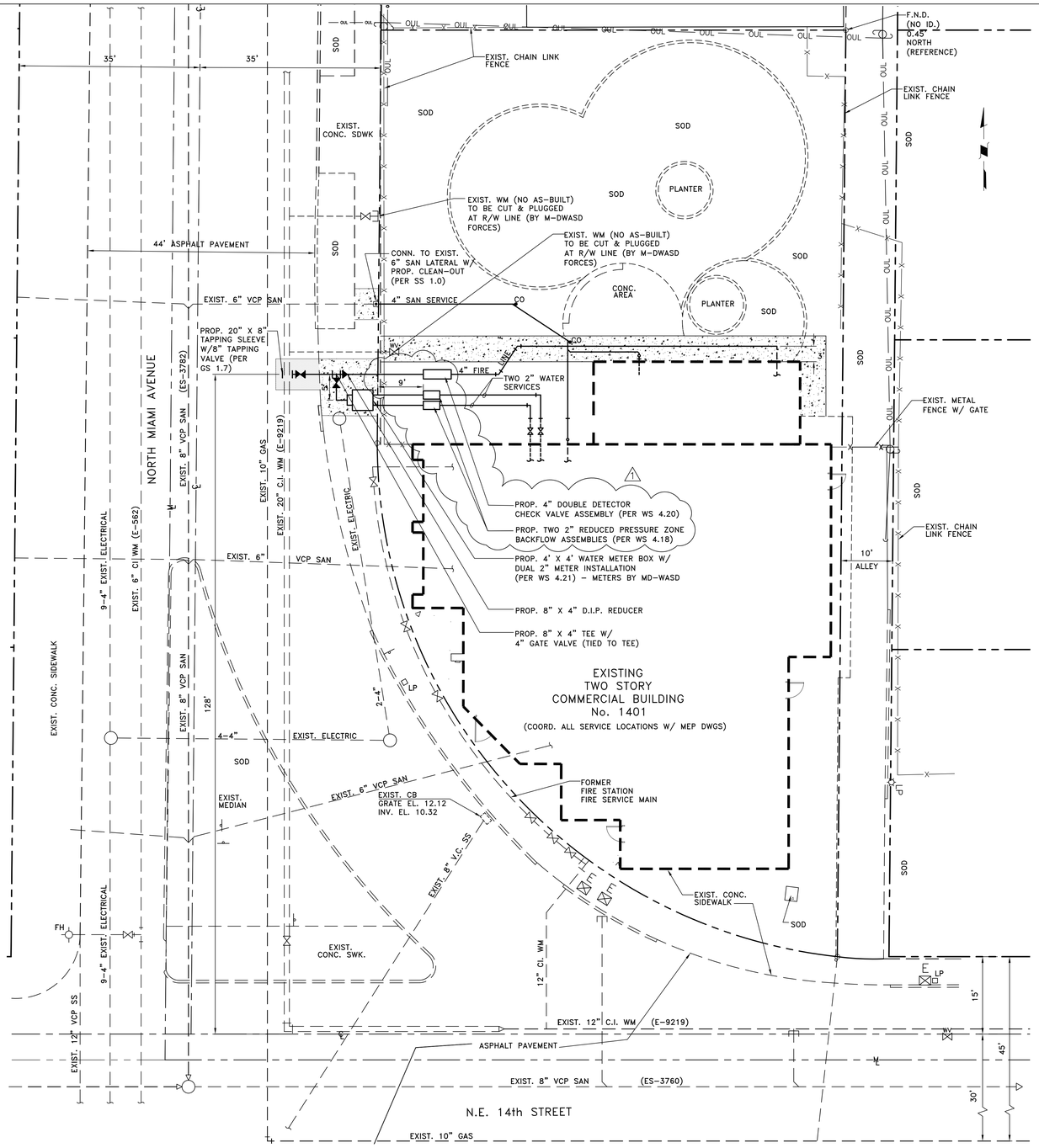
PROJECT TITLE: FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE, MIAMI, FLORIDA 33136

OWNER: CITY OF MIAMI

DRAWING TITLE: WATER AND SEWER NOTES

SCALE: AS SHOWN
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT JOB BEFORE PROCEEDING WITH WORK

SHEET No. WS-1



WATER AND SEWER PLAN

SCALE : 1" = 10'

LEGEND

EXISTING		PROPOSED
	SEWER LATERAL	
N/A	CLEAN-OUT	C.O.
WM	WATER MAIN	WM
	GATE VALVE	
	FIRE HYDRANT	
N/A	CONCRETE RESTORATION	
N/A	PAVEMENT RESTORATION	

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DRAWN BY: V.Q.
CHKD BY: R.B.B.
APP'D BY: R.B.B.
ISSUE DATE: 25 MAY 2011
REVISIONS:

No.	DATE	
1	9/16/2011	ADJUST BACKFLOW DEVICE LOCATIONS

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EB-0003255
FOR THE FIRM: RICHARD B. BOCHNOVICH
CES PROJECT: 09056 PE-19833 (CIVIL)

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE, MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
WATER AND SEWER PLAN & NOTES

SCALE: AS SHOWN
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
WS-2

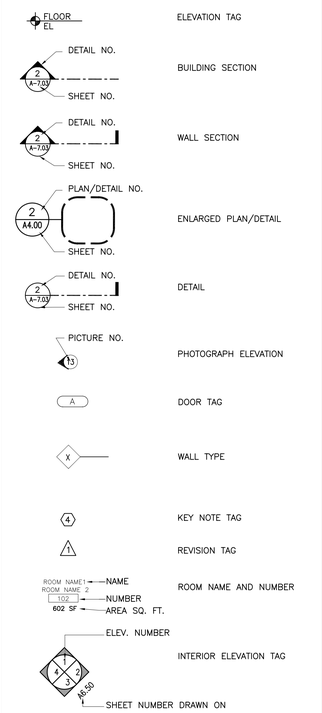
ABBREVIATIONS:

ACOUST.	ACOUSTICAL	E.J.	EXPANSION JOINT	N.I.C.	NOT IN CONTRACT
A.D.	AREA DRAIN	ELEC.	ELECTRICAL	NFPA	NATIONAL FIRE PREVENTION ASSOC.
ADJ.	ADJUSTABLE	EL.	ELEVATION (GRADE)	NFPA 1–FL	NATIONAL FIRE PREVENTION ASSOC. UNIFORM FIRE CODE, FLORIDA
A.F.F.	ABOVE FINISH FLOOR	ELEV.	ELEVATION (FACADE)		
A.F.L.	ABOVE FLOOR LINE	ELV.	ELEVATOR	NFPA 101–FL	NATIONAL FIRE PREVENTION ASSOC.
A/C	AIR CONDITIONING UNIT	EQ.	EQUAL		LIFE SAFETY CODE, FLORIDA
A.H.U.	AIR HANDLING UNIT	EXST.	EXISTING	NFPA 241	NATIONAL FIRE PREVENTION ASSOC. SAFEGUARDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS
ALUM.	ALUMINUM	F.B.C.	FLORIDA BUILDING CODE		
ANCH.	ANCHOR	F.B.C.–E.B.	FLORIDA BUILDING CODE, EXISTING BUILDING		
APPROX.	APPROXIMATELY	F.B.C.–B	FLORIDA BUILDING CODE BUILDING		
ASSOC.	ASSOCIATION			N.T.S.	NOT TO SCALE
∠	ANGLE (METAL)	F.D.	FLOOR DRAIN	O.C.	ON CENTER
∡	ANGLE (DEGREES)	F.E.	FIRE EXTINGUISHER	O.D.	OUTSIDE DIAMETER
@	AT	F.E.C.	FIRE EXTINGUISHER CAB.	OVHD.	OVERHEAD
B.E.	BURIED ELECTRIC	F.H.	FIRE HYDRANT	P.C.	PRECAST CONCRETE
BD.	BOARD	FFE	FINISH FLOOR ELEVATION	PNL.	PANEL
BKT.	BRACKET	FFPC	FLORIDA FIRE PREVENTION CODE	POL.	POLISHED
BLDG.	BUILDING	FIN.	FINISH	P.T.	PRESSURE–TREATED
BLK.	BLOCK	FL	FLOOR	PTD.	PAINTED
BLKG.	BLOCKING	FLASH.	FLASHING	QTY.	QUANTITY
BRK.	BRICK	F.P.	FIREPROOFING	R.C.P.	REFLECTED CEILING PLAN
B.U.R.	BUILT–UP–ROOF	F.T.	FIRE–TREATED	R.D.	ROOF DRAIN
B.T.	BURIED TELEPHONE	FT.	FEET / FOOT	REINF.	REINFORCING
CAB.	CABINET	FV	FIELD VERIFY	REQD.	REQUIRED
C.B.	CATCH BASIN	F.S.V.	FIRE SPRINKLER VALVE	R.O.	ROUGH OPENING
CEM.	CEMENT	GA.	GAUGE	R.W.L.	RAIN WATER LEADER
C.F.	CUBIC FOOT (FEET)	GALV.	GALVANIZED	SCHED.	SCHEDULE
C.T.	CERAMIC TILE	G.C.	GENERAL CONTRACTOR	SF.	SQURE FOOT (FEET)
C.I.	CAST IRON	GL.	GLASS	SHT.	SHEET
C.I.P.	CAST IN PLACE	GR.	GRADE	SIM.	SIMILAR
C.J.	CONTROL JOINT	GRND.	GROUND	SLD.	SEALED
CLG.	CEILING	G.S.U.	GLAZED STRUCT. UNIT	S.O.G.	SLAB ON GRADE
CLKG.	CAULKING	G.V.	GATE VALVE	SPEC.	SPECIFICATIONS
CLR.	CLEAR	GWB.	GYPSUM WALL BOARD	S.S.T.	STAINLESS STEEL
CLF	CHAIN LINK FENCE	HDWD.	HARDWOOD	STD.	STANDARD
CMU	CONC. MASONRY UNIT	HDWR.	HARDWARE	STL.	STEEL
C.C.	CENTER TO CENTER	H.M.	HOLLOW METAL	STOR.	STORAGE
C.O.	CLEAR OPENING	HORIZ.	HORIZONTAL	STRUCT.	STRUCTURAL
CL.OT.	CLEAN OUT	HGT.	HEIGHT	SUSP.	SUSPENDED
COL.	COLUMN	H.P.	HIGH POINT	TEL.	TELEPHONE
CONC.	CONCRETE	HVAC	HEATING, VENTILATION & AIR CONDITIONING	THK	THICKNESS
CONST.	CONSTRUCTION	I.D.	INSIDE DIAMETER	T.O.B.	TOP OF BEAM
CONT.	CONTINUOUS	IN.	INCH / INCHES	T.O.P.	TOP OF PURLIN
CONTR.	CONTRACTOR	INSUL.	INSULATION	T.O.S.	TOP OF SLAB
C.R.	COLD ROLLED	I.P.S.	INSIDE PIPE SIZE	T.O.STL.	TOP OF STEEL
CRS.	COURSES	L.F.E.	LOWEST FLOOR ELEVATION	T.O.W.	TOP OF WALL
CSK.	COUNTERSINK	LGTH.	LENGTH	T.S.	TUBE STEEL
CU.	CUBIC	LT.WT.	LIGHT WEIGHT	TYP.	TYPICAL
C.U.H.	CABINET UNIT HEATER	MAT.	MATERIAL	U.L.	UNDERWRITERS LABORATORY
℄	CENTER LINE	MAX.	MAXIMUM	U.N.O	UNLESS NOTED OTHERWISE
D.A.	DOUBLE ACTING	MECH.	MECHANICAL	V.C.T.	VINYL COMPOSITION TILE
DTL.	DETAIL	MFG.	MANUFACTURING	VERT.	VERTICAL
D.F.	DRINKING FOUNTAIN	MIN.	MINIMUM	V.I.F.	VERIFY IN FIELD
DIA.	DIAMETER	MISC.	MISCELLANEOUS	W/	WITH
DIM.	DIMENSION	M.O.	MASONRY OPENING	W.M.	WATER MAIN
D.I.P.	DUCTILE IRON PIPE	M.R.	MOISTURE RESISTANT	W.C.	WATER CLOSET
DN	DOWN	M.T.	METAL THRESHOLD	W.P.	WATERPROOFING
D.O.	DOOR OPENING	MTL.	METAL	W.W.M.	WELDED WIRE MESH
DWG.	DRAWING	N/A	NOT APPLICABLE	YD.	YARD
EA.	EACH	N.C.	NONCORROSIVE		

GENERAL NOTES:

1. GENERAL NOTES AND TYPICAL DETAILS APPLY THROUGHOUT THE JOB EXCEPT WHERE OTHERWISE INDICATED. DETAILS AND NOTES LABELED TYPICAL ON THE DRAWINGS APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR. SUCH DETAILS APPLY WHETHER OR NOT THEY ARE KEYED IN EACH LOCATION.

GRAPHIC SYMBOLS LEGEND:



BUILDING CODE ANALYSIS:

PROJECT DESCRIPTION:

FIRE SATION NO. 2, BUILT IN 1926, WAS LISTED ON THE NATIONAL REGISTER OF HISTORICAL PLACES IN 1989 (BLDG # 8802971) AND DESIGNATED A CONTRIBUTING STRUCTURE BY THE CITY OF MIAMI IN 1999.

PROJECT SCOPE: EXISTING STRUCTURE TO BE REMODELED TO PROVIDE MULTI–USE SPACE; TENANT, BOARD ROOM, WORK ROOM, STAFF LOUNGE, STORAGE, OFFICES AND TOILETS. REHABILITATION OF EXISTING TWO STORY BUILDING, ORIGINALLY USED AS A FIRE STATION. PROJECT IS A SECOND PHASE OF REHABILITATION EFFORT. PRIMARY SCOPE OF WORK FOR THIS PHASE IS OUTFIT THE INTERIOR SPACES OF SECOND FLOOR MINIMAL WORK DONE ON THE FIRST FLOOR WHICH WILL NOT BE OCCUPIED UNTIL A LATER DATE. AS PER FBC–EB, THE RESTORATION OF BLDG WILL EXCEED 50% OF THE AGGREGATE AREA, WHICH IS DEFINED AS A LEVEL 3 ALTERATION.

REHABILITATION WILL BE IN TWO PHASES. PHASE 2A - INCLUDES STRUCTURAL REHABILITATION OF COLUMNS AND BEAMS, NEW ROOF AND ROOFING, NEW EXTERIOR DOORS AND WINDOWS UNDER A SEPARATE PERMIT. PHASE 2B WILL INCLUDE INTERIOR REHABILITATION. SCOPE FOR THIS PERMIT IS PHASE 2B ONLY.

GOVERNING BUILDING CODE:

FLORIDA BUILDING CODE, EXISTING BUILDING (FBC–EB), 2007 EDITION WITH 2009 SUPPLEMENT AS PER FBC–B SECTION 3401.1
- FBC–EB - CHAPTER 11 - HISTORIC BUILDINGS
- STANDARD FOR REHABILITATION - SECRETARY OF INTERIOR'S STANDARDS FOR REHABILITATION AND GUIDELINES FOR REHABILITATING HISTORIC BUILDINGS.

BUILDING CLASSIFICATION:

PER FBC–B SECTION 304
USE: OFFICE
OCCUPANCY GROUP - BUSINESS
TYPE OF CONSTUCTION: V-B (PER FBC–B SECTION 602.5)
BUILDING IS FULLY SPRINKLED

TYPE OF CONSTRUCTION:

TYPE V - B

GENERAL HEIGHT & AREA LIMITATIONS

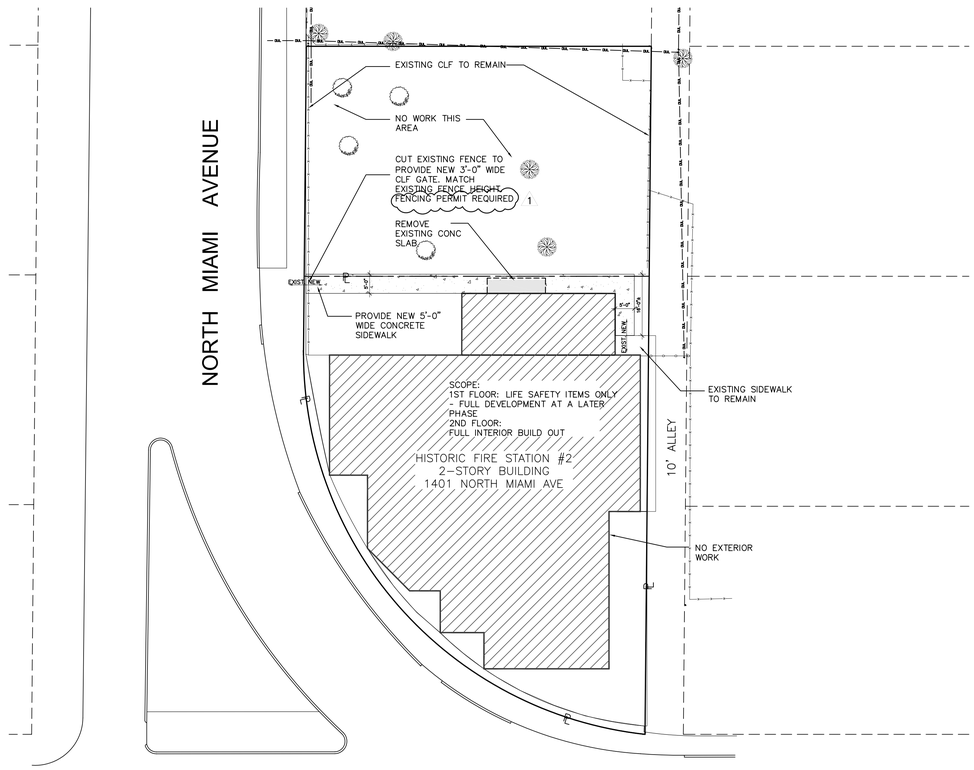
PER FBC–C TABLE 503

	MAX ALLOWED	EXISTING
NO. OF STORIES	2	2
BLDG. HEIGHT (FT)	40	32
FLOOR AREA (GSF)	9,000	5395 - 1ST
		4825 - 2ND

FIRE RESISTANCE RATING REQUIREMENTS

PER FBC–B TABLE 601 - TYPE V–B

	REQ'D	PROVIDED
STRUCTURAL FRAME	0	0
BEARING WALLS EXTERIOR	0	0
NONBEARING WALLS AND PARTITIONS		
EXTERIOR	0	0
INTERIOR	0	0
FLOOR CONSTRUCTION	0	0
ROOF CONSTRUCTION	0	0



1 **SITE PLAN**
SCALE: 1/16" = 1'-0"
NORTH

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: MAY 25 2011
REVISIONS:

No.	DATE
1	10-31-2011

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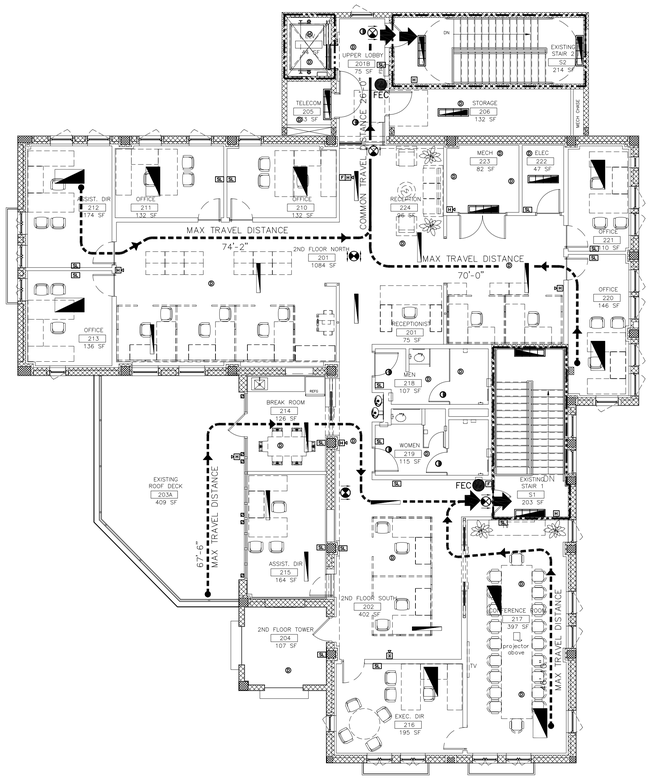
CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

DRAWING TITLE:
BUILDING DATA, GENERAL NOTES & SITE PLAN

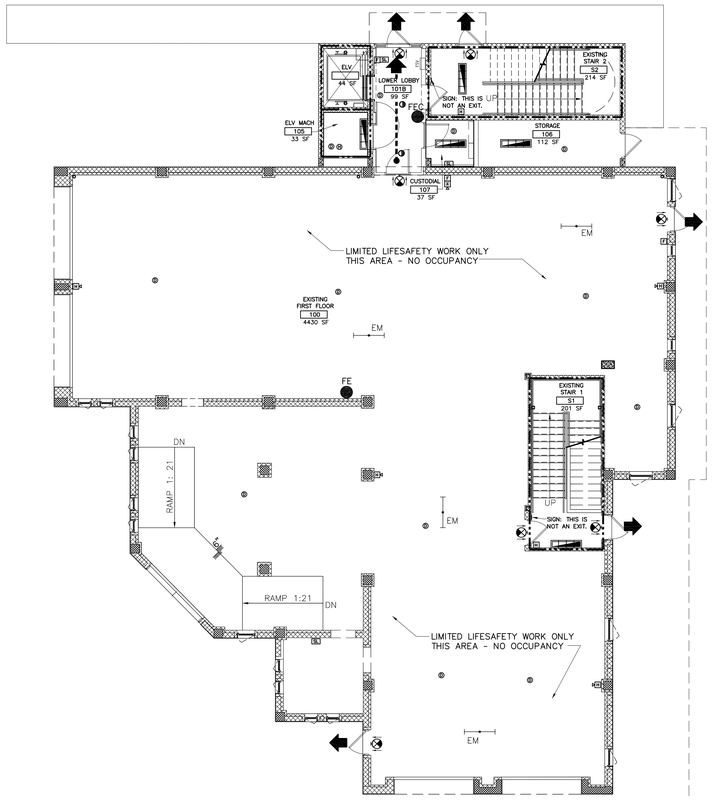
SCALE: 1/16"=1'-0"
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT JOB SITE PRIOR TO START OF WORK

SHEET No.
A0.01



2 2ND FLOOR LIFE SAFETY PLAN

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



1 1ST FLOOR LIFE SAFETY PLAN

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

LIFESAFETY LEGEND:

- 170 — PRIMARY EXIT & EXIT CAPACITY - SINGLE DOOR - 34" CLEAR WIDTH - EXIT CAPACITY: 170 OCCUPANTS DOUBLE DOORS - 68" CLEAR WIDTH- EXIT CAPACITY: 340 OCCUPANTS
- 170 — SECONDARY EXIT & EXIT CAPACITY
- XXX — ROOM NAME
- 602 SF — ROOM NUMBER / NET SQUARE FOOTAGE
- PATH OF TRAVEL
- COMMON PATH
- 1 HR. FIRE RATED WALL/ PARTITION
- FE — FIRE EXTINGUISHER
- FEC — FIRE EXTINGUISHER CABINET
- TRAVEL PATH / TRAVEL DIRECTION — TOTAL TRAVEL DISTANCE 125' — FURTHEST POINT FROM EXIT / TRAVEL DISTANCE / EXIT DISCHARGE

CONTRACTOR SHALL PROVIDE FIRE EXTINGUISHERS SUCH THAT LOCATION OF FIRE EXTINGUISHER SHALL NOT EXCEED 75'-0" FROM ONE LOCATION TO THE OTHER

- POINT OF ILLUMINATION, TYP. WALL MOUNTED EXIT SIGN
- DIRECTION OF EGRESS, TYP. CEILING (TRUSS, WHERE APPLICABLE) MOUNTED EXIT SIGN
- H — FIRE ALARM HORN/STROBE
- F — FIRE ALARM PULL STATION
- D — SMOKE DETECTOR
- SL — STROBE LIGHT
- H — HEAT DETECTOR
- EM — EMERGENCY LIGHT

GENERAL NOTES:

FIRE PROTECTION REQUIREMENTS DURING CONSTRUCTION:

1. CONTRACTOR SHALL PROVIDE MINIMALLY 1 (ONE) PORTABLE FIRE EXTINGUISHER HAVING A RATING OF AT LEAST 4–30A–B:C WITHIN A TRAVEL DISTANCE NOT TO EXCEED 75FT TO ANY POINT OF THE STRUCTURE UNDER CONSTRUCTION, IN COMPLIANCE WITH FLORIDA FIRE PREVENTION CODE.
2. STORAGE, HANDLING, OR USE OF FLAMMABLE OR COMBUSTIBLE LIQUIDS SHALL BE IN STRICT COMPLIANCE WITH FLORIDA FIRE PREVENTION CODE
3. STORAGE OF CLASS I AND II LIQUIDS SHALL NOT EXCEED 60 GAL. WITHIN 50 FT OF THE STRUCTURE, PER FLORIDA FIRE PREVENTION CODE
4. STORAGE AREAS SHALL BE KEPT FREE OF WEEDS, DEBRIS, AND OTHER COMBUSTIBLE MATERIALS NOT NECESSARY TO THE STORAGE AREA, FLORIDA FIRE PREVENTION CODE
5. OPEN FLAMES AND SMOKING SHALL NOT BE PERMITTED IN FLAMMABLE AND COMBUSTIBLE LIQUID STORAGE AREAS, PER FLORIDA FIRE PREVENTION CODE
6. SUCH STORAGE AREAS SHALL BE POSTED AS "NON–SMOKING AREAS, PER FLORIDA FIRE PREVENTION CODE
7. CLASS I AND CLASS II LIQUIDS SHALL BE KEPT IN APPROVED SAFETY CONTAINERS, PER FLORIDA FIRE PREVENTION CODE
8. CLASS I LIQUIDS SHALL BE DISPENSED ONLY WHERE THERE ARE NO OPEN FLAMES OR OTHER SOURCES OF IGNITION WITHIN THE POSSIBLE PATH OF VAPOR TRAVEL, PER FLORIDA FIRE PREVENTION CODE

BUILDING TO BE FULLY PROTECTED BY AUTOMATIC SUPERVISED SPRINKLER SYSTEM; REFER TO FIRE PROTECTION DRAWINGS.

INTERIOR ENCLOSED STAIRS #1
WIDTH OF STAIRS = 52"
WIDTH OF LANDINGS = 5'–4"
EGRESS CAPACITY OF STAIRS = 52" / 0.3
= 174 OCC.

INTERIOR ENCLOSED STAIRS #2
WIDTH OF STAIRS = 50"
WIDTH OF LANDINGS = 5'–0"
EGRESS CAPACITY OF STAIRS = 50" / 0.3
= 167 OCC.

OCCUPANT LOAD CALCULATIONS

FBC 2007 – 302.1, 303, 304, 312
FBC 2007 – 1004.1.2

AREA DESIGNATION	OCCUPANCY CLASSIFICATION		OCCUPANT LOAD		
	GROUP CLASSIFICATION	OCCUPANT LOAD FACTOR FBC TABLE 1004.1.2	NET/GROSS FLOOR AREA (S.F.)	NUMBER OF OCCUPANTS	EXIT CAPACITY PROVIDED HORZ/VERT DOORS @ 34"/.2 = 170 STAIRS @ 50"/.3 = 167
FIRST FLOOR					
OFFICE	B BUSINESS	100 GROSS	4545 GSF	46	
MECH/ STORAGE	B BUSINESS	300 GROSS	187 GSF	2	
		1ST FLOOR TOTAL	MAX OCCUPANTS	48	
SECOND FLOOR					
OFFICE	B BUSINESS	100 GROSS	3495 GSF	35	
MECH/ STORAGE	B BUSINESS	300 GROSS	312 GSF	2	
		2ND FLOOR TOTAL	MAX OCCUPANTS	37	

NOTE: OCCUPANT LOAD < 50 – 1 MEANS OF EGRESS ALLOWED PER TABLE 1014.1

CAPACITY OF MEANS OF EGRESS – DOORS

OCC. LOAD	EGRESS COMPONENT	FIRST FLOOR	REQUIRED	PROVIDED
48	DOORS (0.2 CAPACITY FACTOR 48 x 0.2= 9.6 IN)		9.6/34" CLR PER 3' DOOR= 0.28 1	3
OCC. LOAD	EGRESS COMPONENT	SECOND FLOOR	REQUIRED	PROVIDED
37	DOORS (0.2 CAPACITY FACTOR 37 x 0.2= 7.4 IN)		7.4/34" CLR PER 3' DOOR= 0.21 1	2

CAPACITY OF MEANS OF EGRESS – STAIRS

	OCC. LOAD	EGRESS COMPONENT	SECOND FLOOR (STAIRS)	REQUIRED	PROVIDED
STAIRS # 1	37	STAIRS (0.3 CAPACITY FACTOR 37 x 0.3= 11.1 IN)		11.1" CLR	52"
STAIRS # 2	37	STAIRS (0.3 CAPACITY FACTOR 37 x 0.3= 11.1 IN)		11.1" CLR	50"

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: MAY 25 2011
REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

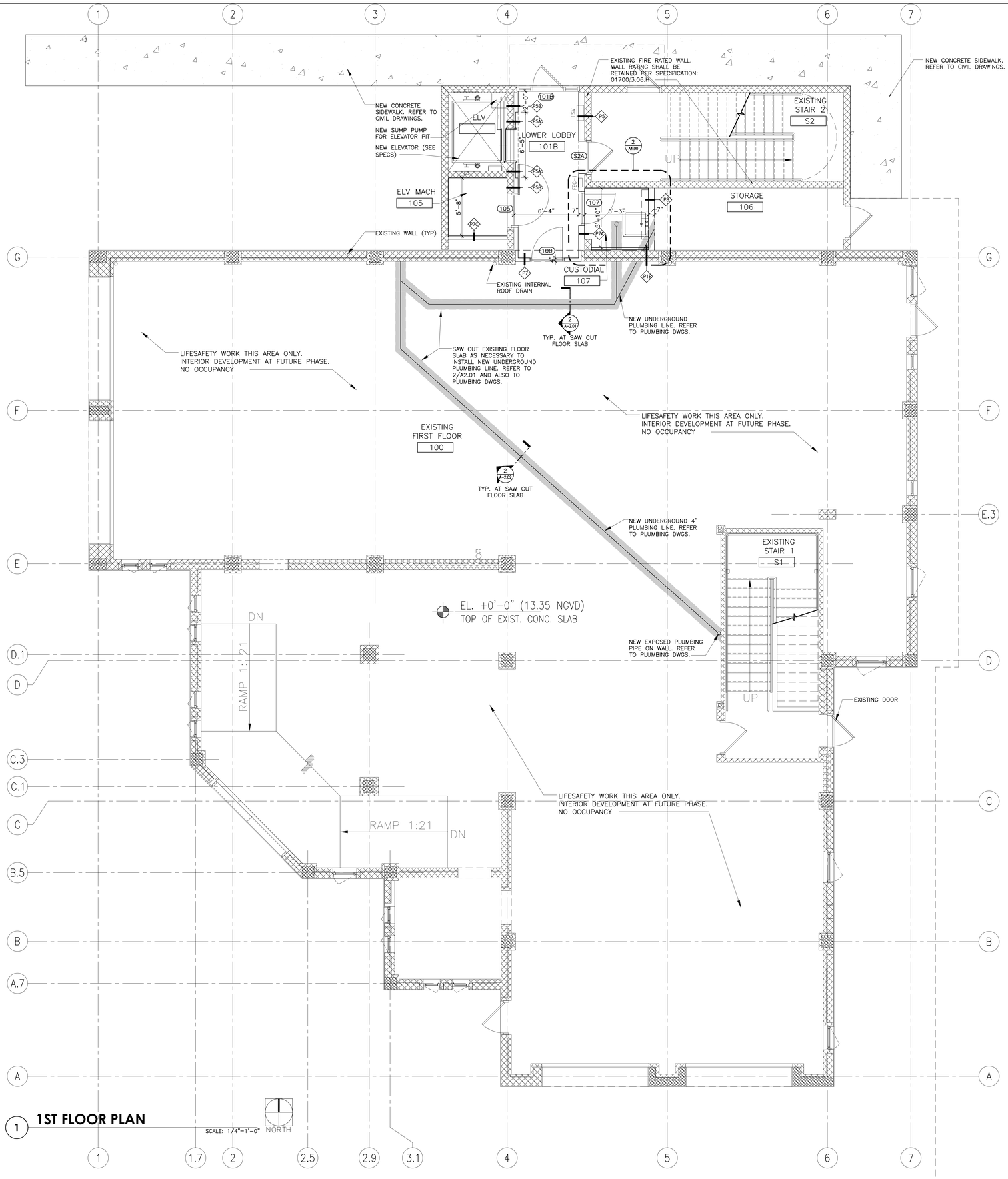
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
1ST AND 2ND FLOOR LIFE SAFETY PLANS

SCALE: 1/8"=1'-0" (24"x36") 1/16"=1'-0" (11"x17")
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
A1.01

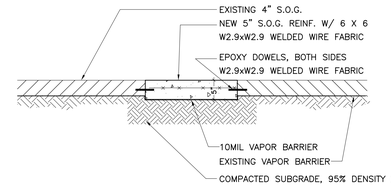


1 1ST FLOOR PLAN

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

FLOOR PLAN AND DIMENSION LEGEND:

- SAW CUT EXISTING FLOOR SLAB FOR INSTALLATION OF NEW PLUMBING LINES. POUR NEW SLAB; REFER TO 2/A2.01
- EXISTING COLUMNS TO REMAIN
- EXISTING WALLS AND COLUMNS TO REMAIN
- EXISTING DOOR TO REMAIN
- EXISTING WINDOWS TO REMAIN
- DOOR NUMBER FOR NEW DOORS. SEE DOOR SCHEDULE SHEET A7.00
- NEW DOOR: DOOR AND FRAME. REFER TO SCHEDULE.
- METAL STUD PARTITION. STUD WALLS ARE NOMINAL 5" (5/8" GYPSUM OVER 3-5/8" STUD) TYPE P7 UNLESS OTHERWISE NOTED. REFER TO SHEER A6.00 FOR WALL TYPES.
- NEW INSULATION, DRYWALL AND STUDS OVER EXISTING WALLS AND/OR COLUMNS. USE 1" RIGID INSULATION, 1-5/8" STUD AND 5/8"TYPE X DRYWALL, U.N.O. REFER TO SHEER A6.00 FOR WALL TYPE DETAIL.
- ROOM NAME1 / ROOM NAME 2 — ROOM NAME
- 102 — ROOM NUMBER
- 602 SF — NET SQUARE FOOTAGE
- X — WALL TYPE, SEE SHEET A6.00
- ELEVATION NUMBER
- INTERIOR ELEVATIONS
- A6.00 — SHEET ELEVATIONS ARE DRAWN ON
- 2 / A4.00 — DETAIL NUMBER / SHEET DETAIL IS DRAWN ON
- ENLARGED PLAN DETAIL
- FEC-1 — NEW FIRE EXTINGUISHER AND CABINET – RECESSED, REFER TO SPEC 10523
- FE — NEW FIRE EXTINGUISHER SURFACE MOUNTED, REFER TO SPEC 10523
- X" — DIMENSION LINES ARE SHOWN TO FINISH OF WALL, U.N.O.



2 NEW S.O.G. DETAIL

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

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: MAY 25 2011
REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

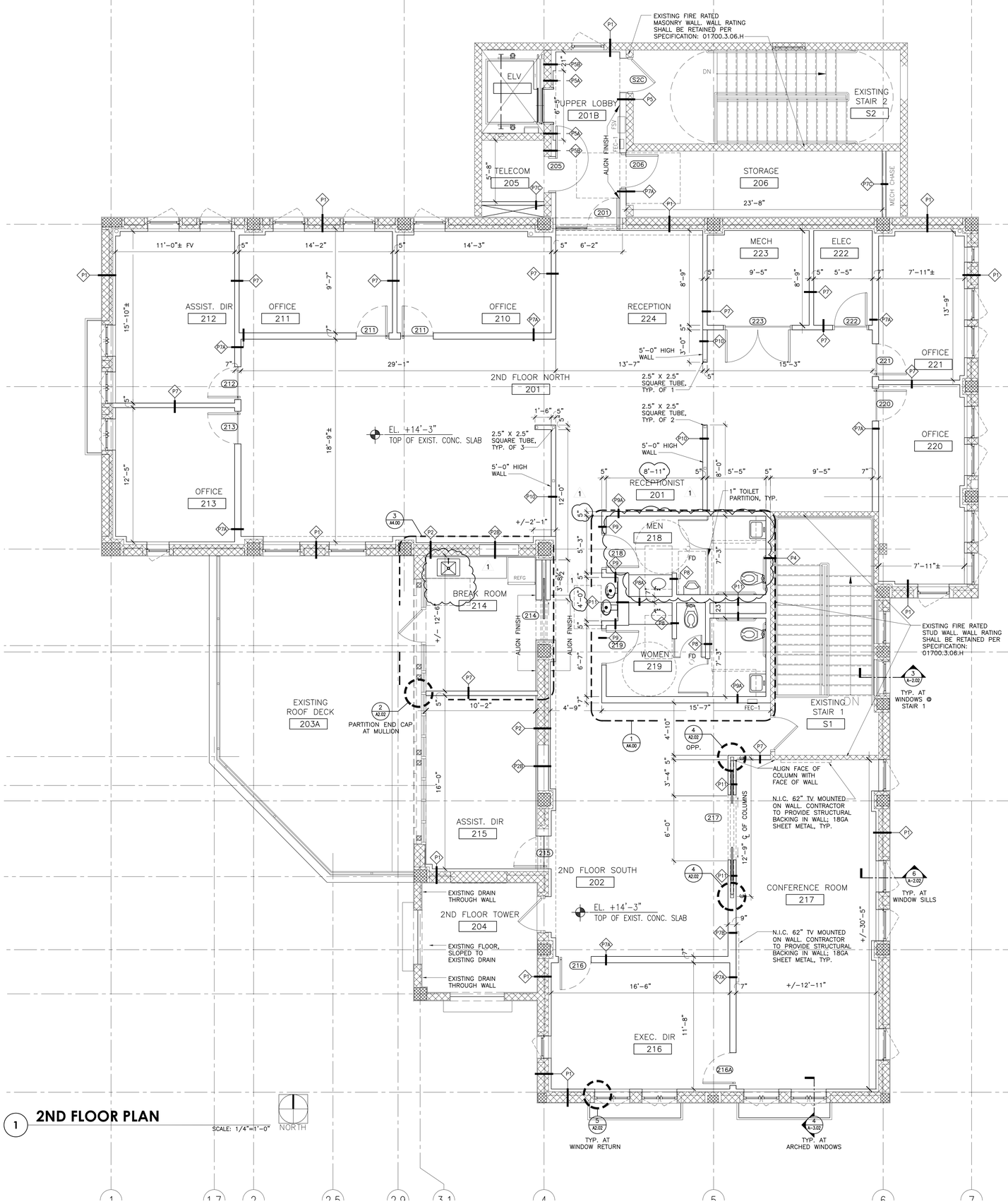
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
FIRST FLOOR PLAN

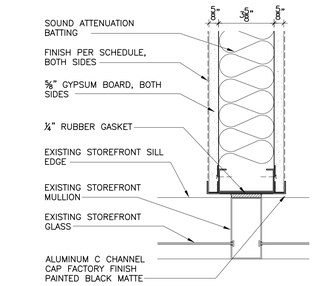
SCALE: 1/4" = 1'-0"
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
A2.01



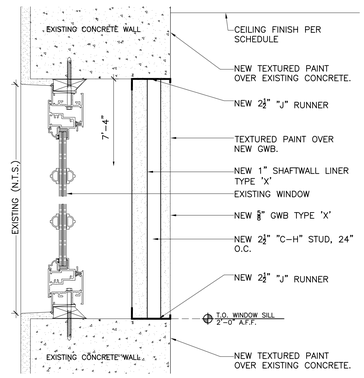
1 2ND FLOOR PLAN

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



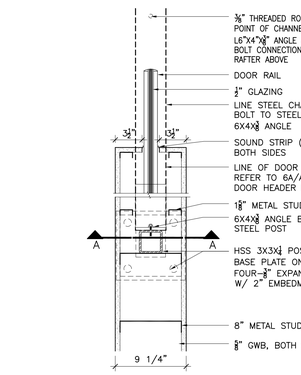
2 PARTITION END CAP @ MULLION

SCALE: 3"=1'-0"



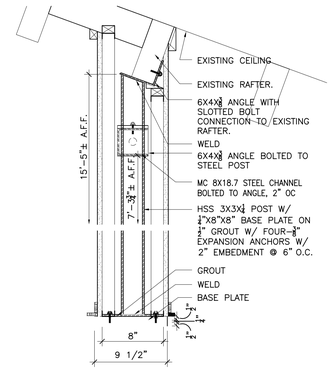
3 WINDOW DETAIL AT EXISTING STAIR

UL DESIGN NO. U415 SYSTEM A - 1HR SCALE: 3"=1'-0"

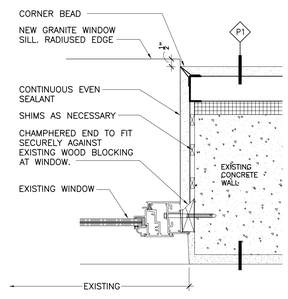


4 DETAIL AT SLIDING DOOR SUPPORT

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

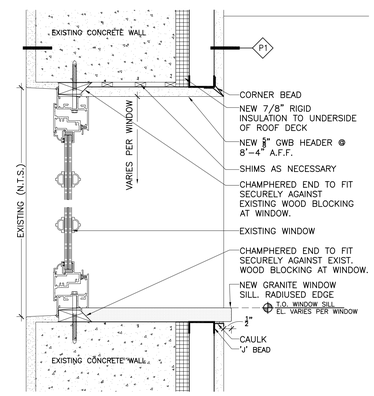


SECTION A-A



5 DETAIL AT WINDOW RETURNS, TYP.

SCALE: 3"=1'-0"



6 DETAIL AT WINDOW SILLS, TYP.

SCALE: 3"=1'-0"

FLOOR PLAN AND DIMENSION LEGEND:

- EXISTING COLUMNS TO REMAIN
- EXISTING WALLS AND COLUMNS TO REMAIN
- EXISTING DOOR TO REMAIN
- EXISTING WINDOWS TO REMAIN
- A — DOOR NUMBER FOR NEW DOORS. REFER DOOR SCHEDULE SHEET A7.00
- NEW DOOR: DOOR AND FRAME. REFER TO DOOR SCHEDULE SHEET A7.00.
- NEW DOOR: FRAMELESS GLASS. REFER TO DOOR SCHEDULE SHEET A7.00.
- NEW DOOR: FRAMELESS GLASS SLIDER. REFER TO DOOR SCHEDULE SHEET A7.00.
- METAL STUD PARTITION. STUD WALLS ARE NOMINAL 5" (5/8" GYPSUM OVER 3-5/8" STUD) TYPE P7 UNLESS OTHERWISE NOTED. REFER TO SHEER A6.00 FOR WALL TYPES.
- NEW INSULATION, DRYWALL AND STUDS OVER EXISTING EXISTING WALLS AND/OR COLUMNS. USE 2" RIGID INSULATION, 1-5/8" STUD AND ⅝"TYPE X DRYWALL, U.N.O. REFER TO SHEER A6.00 FOR WALL TYPE DETAIL.
- ROOM NAME1 / ROOM NAME 2 / 102 / 602 SF — ROOM NAME, ROOM NUMBER, NET SQUARE FOOTAGE
- X — WALL TYPE, SEE SHEET A6.00
- ELEVATION NUMBER / INTERIOR ELEVATIONS
- A6.00 — SHEET ELEVATIONS ARE DRAWN ON
- 2 / A4.00 — DETAIL NUMBER / SHEET DETAIL IS DRAWN ON
- ENLARGED PLAN DETAIL
- FEC-1 — NEW FIRE EXTINGUISHER AND CABINET – RECESSED, REFER TO SPEC 10523
- FE — NEW FIRE EXTINGUISHER SURFACE MOUNTED, REFER TO SPEC 10523
- FD — FLOOR DRAIN
- X" — DIMENSION LINES ARE SHOWN TO FINISH OF WALL, U.N.O.

DRAWN BY:	
CHKD BY:	
APP'D BY:	
ISSUE DATE:	MAY 25 2011
REVISIONS: No.	DATE
1	10-31-2011

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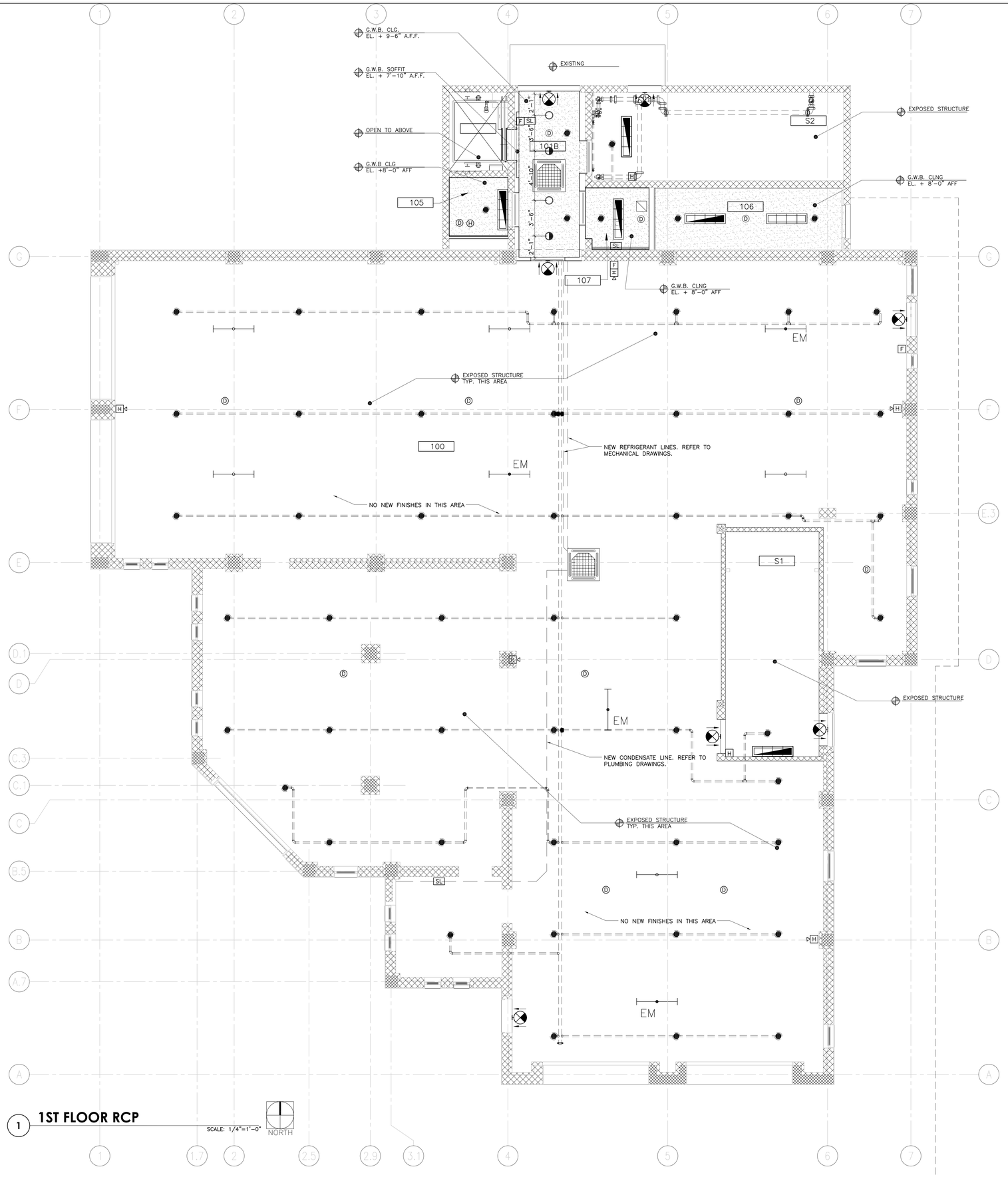
CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

DRAWING TITLE:
SECOND FLOOR PLAN

SCALE:
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
A2.02



RCP GENERAL NOTES:

1. ALL FIXTURES INDICATED ON THE ARCH. REFLECTED CLNG. PLANS MUST BE PROVIDED. SEE M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
2. FIXTURE LOCATIONS ON ARCH. REFLECTED CLNG PLANS SUPERSEDE THE M.E.P. PLANS.
3. COORDINATE ACCESS PANEL LOCATIONS WITH HVAC DAMPER LOCATIONS.
4. ALL EXPOSED INTERIOR CONCRETE SHALL RECEIVE PAINT.

RCP SYMBOL LEGEND:

- RECESSED LIGHT FIXTURES. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES.
- SURFACE MOUNTED LIGHT FIXTURES. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES.
- EM — EMERGENCY LIGHT FIXTURES. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- RECESSED LIGHT TROUGH
- SUPPLY AIR DIFFUSER, REFER TO MECHANICAL DWGS.
- EXHAUST FAN, REFER TO MECHANICAL DWGS.
- EXPOSED HVAC DUCTS, REFER TO MECHANICAL DWGS.
- FIRE SPRINKLER HEAD AND PIPE. REFER TO FIRE PROTECTION DWGS.
- PAINT OVER SUSPENDED 5/8" GYPSUM BOARD CEILING SYSTEM.
- EXPOSED WD BEAMS & JOISTS
- CEILING GRID EDGE TREATMENT. BASIS OF DESIGN: ARMSTRONG AXIOM KNIFE EDGE CEILING SYSTEM (USE WITH ANGULAR TEGULAR ACOUSTICAL CEILING PANELS). REFER TO 1/A3.02
- ACCESS PANELS.
- POINT OF ILLUMINATION, TYP. WALL MOUNTED EXIT SIGN. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL EXIT SIGNS. DIRECTION OF EGRESS, TYP.
- CEILING (TRUSS, WHERE APPLICABLE) MOUNTED EXIT SIGN REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL EXIT SIGNS.
- H — FIRE ALARM HORN/STROBE
- F — FIRE ALARM PULL STATION
- D — SMOKE DETECTOR
- SL — STROBE LIGHT
- H — HEAT DETECTOR
- 8'-0" A.F.F. — FINISH CEILING HEIGHT RELATIVE TO FINISH FLOOR

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: MAY 25 2011
REVISIONS:
No. DATE

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6/2/2011
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No. 0008079

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

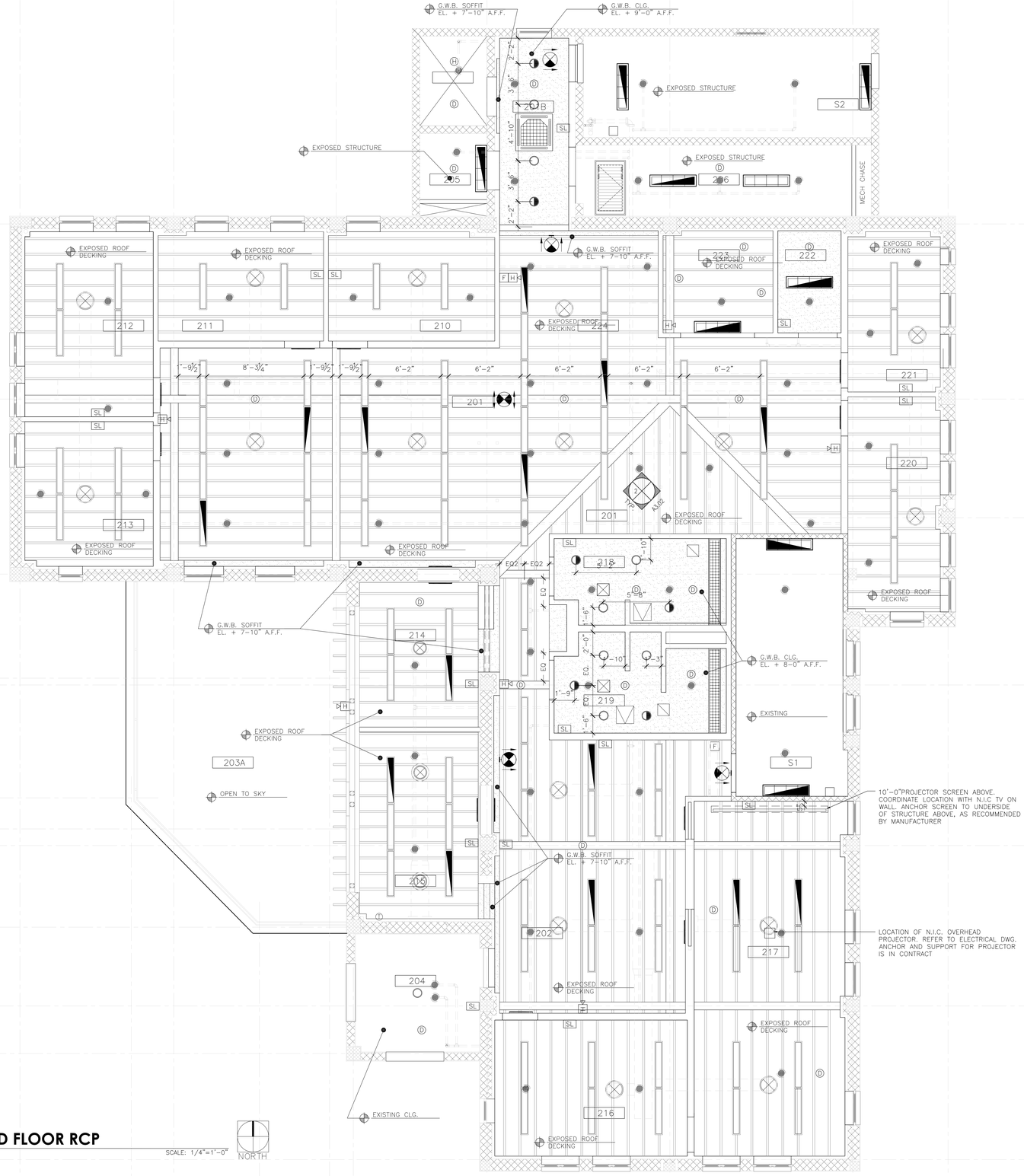
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
FIRST FLOOR RCP

SCALE: 1/4" = 1'-0" UNLESS OTHERWISE NOTED
VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
A3.01



1 **2ND FLOOR RCP**

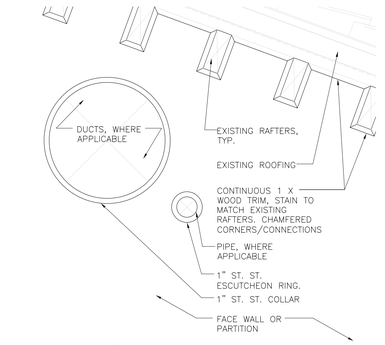
SCALE: 1/4"=1'-0"

RCP GENERAL NOTES:

1. ALL FIXTURES INDICATED ON THE ARCH. REFLECTED CLNG. PLANS MUST BE PROVIDED. SEE M.E.P. DRAWINGS FOR ADDITIONAL INFORMATION.
2. FIXTURE LOCATIONS ON ARCH. REFLECTED CLNG PLANS SUPERSEDE THE M.E.P. PLANS.
3. COORDINATE ACCESS PANEL LOCATIONS WITH HVAC DAMPER LOCATIONS.
4. ALL EXPOSED INTERIOR CONCRETE SHALL RECEIVE PAINT.
5. WHERE THERE ARE EXPOSED PENETRATIONS OF NEW AND EXISTING WALLS AND OR PARTITIONS PROVIDE CONCEALMENT OF PENETRATIONS:
   A. RAFTERS, JOISTS, BEAMS – 1X WOOD TRIM. STAIN TO MATCH EXISTING
   B. DUCTS – 1" WIDE ST. ST. COLLAR
   C. FIRE SPRINKLER AND/OR PLUMBING PIPES – 1" ST. ST. ESCUTCHEON RING

RCP SYMBOL LEGEND:

- RECESSED LIGHT FIXTURES. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES.
- SURFACE MOUNTED LIGHT FIXTURES. REFER TO ELECTRICAL DRAWINGS FOR FIXTURE TYPES.
- EMERGENCY LIGHT FIXTURES. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- RECESSED LIGHT TROUGH
- PENDANT LIGHT FIXTURES (BOTTOM OF FIXTURE 8'-0" A.F.F.)
- SUPPLY AIR DIFFUSER, REFER TO MECHANICAL DWGS.
- RETURN AIR GRILLE, REFER TO MECHANICAL DWGS.
- EXHAUST FAN, REFER TO MECHANICAL DWGS.
- EXPOSED HVAC DUCTS, REFER TO MECHANICAL DWGS.
- WALL HVAC TRANSFER GRILLE (CENTER ABOVE DOOR WHEN APPLICABLE)
- FIRE SPRINKLER HEAD AND PIPE. REFER TO FIRE PROTECTION DWGS.
- PAINT OVER SUSPENDED 5/8" GYPSUM BOARD CEILING SYSTEM.
- EXPOSED WD BEAMS & JOISTS
- CEILING GRID EDGE TREATMENT. BASIS OF DESIGN: ARMSTRONG AXIOM KNIFE EDGE CEILING SYSTEM (USE WITH ANGULAR TEGULAR ACOUSTICAL CEILING PANELS). REFER TO 1/A3.02
- ACCESS PANELS.
- POINT OF ILLUMINATION, TYP. WALL MOUNTED EXIT SIGN. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL EXIT SIGNS.
- DIRECTION OF EGRESS, TYP.
- CEILING (TRUSS, WHERE APPLICABLE) MOUNTED EXIT SIGN REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL EXIT SIGNS.
- FIRE ALARM HORN/STROBE
- FIRE ALARM PULL STATION
- SMOKE DETECTOR
- STROBE LIGHT
- HEAT DETECTOR
- 8'-0" A.F.F. — FINISH CEILING HEIGHT RELATIVE TO FINISH FLOOR



2 **WOOD TRIM AT EXIST. RAFTERS**

SCALE: 1"=1'-0"

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: MAY 25 2011

REVISIONS:

No.	DATE
1	10-31-2011

MCHARRY ASSOCIATES
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11/3/2011
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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

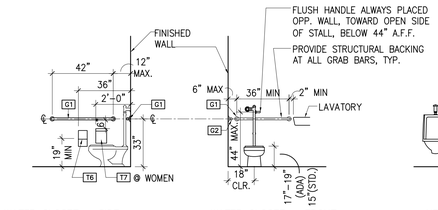
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
2ND FLOOR RCP

SCALE: 1/4"=1'-0"
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS & NOTIFY ARCHITECT OF ANY DISCREPANCIES

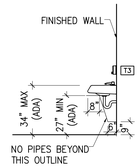
SHEET No.
A3.02



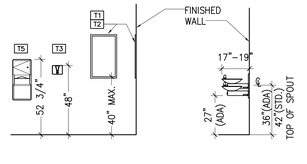
WATER CLOSET – SIDE

WATER CLOSET – FRONT

URINAL



LAVATORY



ACCESSORIES

DRINKING FOUNTAIN

GENERAL NOTES:

1. WHERE A DIMENSION CONFLICTS WITH THE TYPICAL INSTALLATION DETAILS, THE TYPICAL DETAIL SHALL GOVERN.

2. THE TERM "ADA" DENOTES HANDICAP ACCESSIBLE COMPONENT TO CONFORM TO FACBC 1997.

3. INDIVIDUAL TOILET ROOMS & ADA STALLS ARE TO BE HANDICAP ACCESSIBLE. ALL FIXTURES AND ACCESSORIES SHALL CONFORM TO FLORIDA ACCESSIBILITY CODE FOR BUILDING CONSTRUCTION (FACBC) 1997.

4. PROVIDE PROTECTIVE INSULATION COVER AT EXPOSED PIPING OF ACCESSIBLE LAVS AS PER FACBC 1997.

5. ALL DIMENSIONS ARE TO THE FINISH SURFACE.

ENLARGED PLAN LEGEND:

METAL STUD PARTITION.

INTERIOR ELEVATIONS SHEET AS NOTED

TOILET ROOM ACCESSORY LEGEND

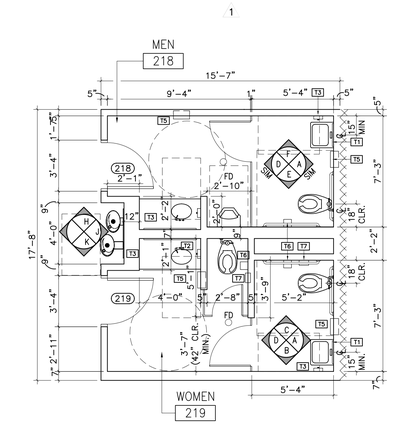
G1	GRAB BAR – 36" HORIZONTAL
G2	GRAB BAR – 42" HORIZONTAL
T1	NOT USED
T2	MIRROR – 42" W x 36 H" W/ S.S. FRAME
T3	SOAP DISPENSER, WALL MOUNTED
T4	NOT USED
T5	PAPER TOWEL DISPENSER & WASTE RECEPTACLE
T6	TOILET PAPER DISPENSER
T7	SANITARY NAPKIN DISPOSAL
T8	SHELF UNIT 12" X 48"
T9	TOOL RACK

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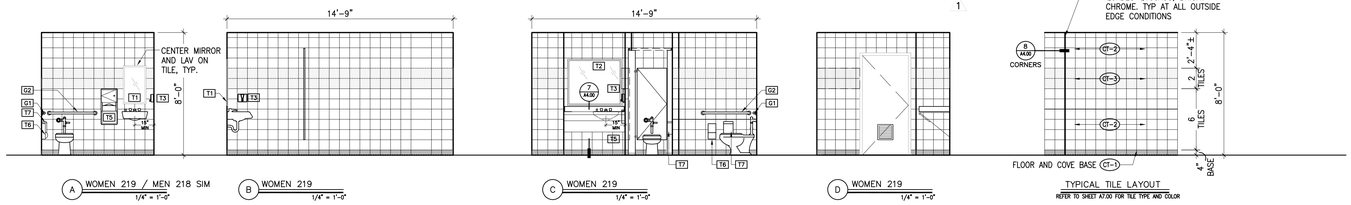
DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: MAY 25 2011
REVISIONS:

No.	DATE
1	10-31-2011



1 ENLARGED PLAN- TOILETS-VESTIBULE

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



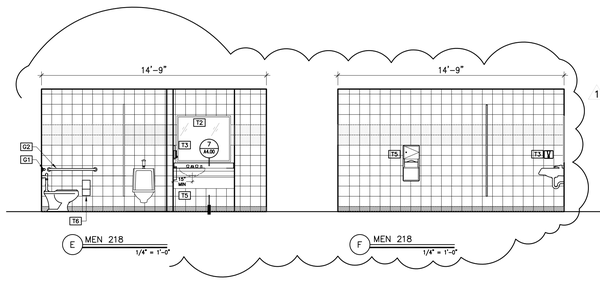
A WOMEN 219 / MEN 218 SIM 1/4" = 1'-0"

B WOMEN 219 1/4" = 1'-0"

C WOMEN 219 1/4" = 1'-0"

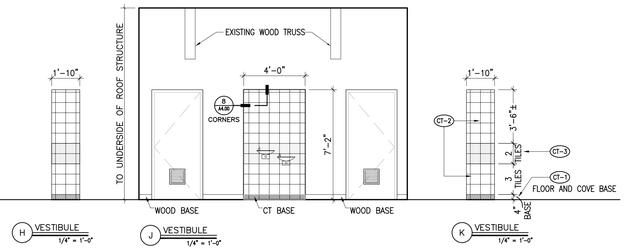
D WOMEN 219 1/4" = 1'-0"

TYPICAL TILE LAYOUT
REFER TO SHEET A7.00 FOR TILE TYPE AND COLOR



E MEN 218 1/4" = 1'-0"

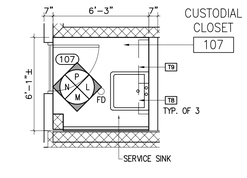
F MEN 218 1/4" = 1'-0"

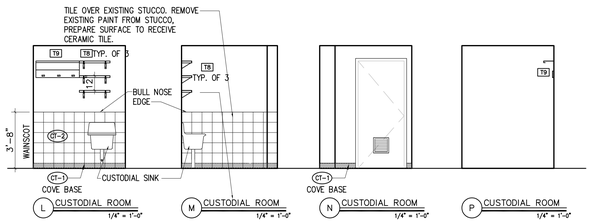


H VESTIBULE 1/4" = 1'-0"

J VESTIBULE 1/4" = 1'-0"

K VESTIBULE 1/4" = 1'-0"





L CUSTODIAL ROOM 1/4" = 1'-0"

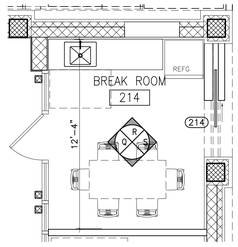
M CUSTODIAL ROOM

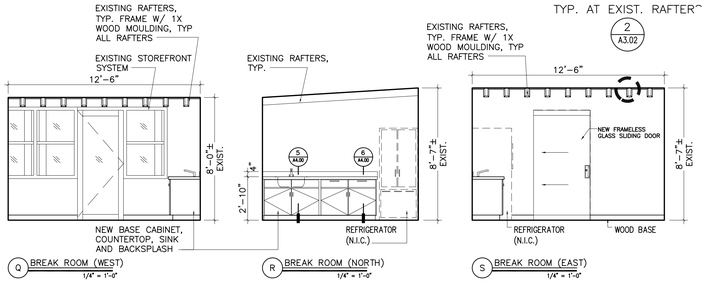
N CUSTODIAL ROOM

P CUSTODIAL ROOM 1/4" = 1'-0"

2 ENLARGED PLAN / ELEVATIONS - CUSTODIAL RM 107

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





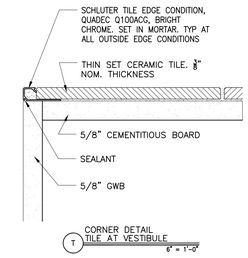
Q BREAK ROOM (WEST) 1/4" = 1'-0"

R BREAK ROOM (NORTH) 1/4" = 1'-0"

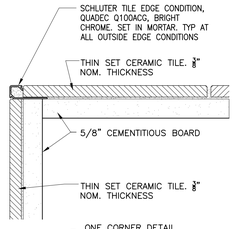
S BREAK ROOM (EAST) 1/4" = 1'-0"

3 ENLARGED PLAN / ELEVATIONS- BREAK ROOM

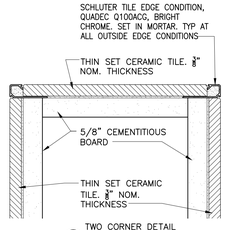
SCALE: 1/4"=1'-0"



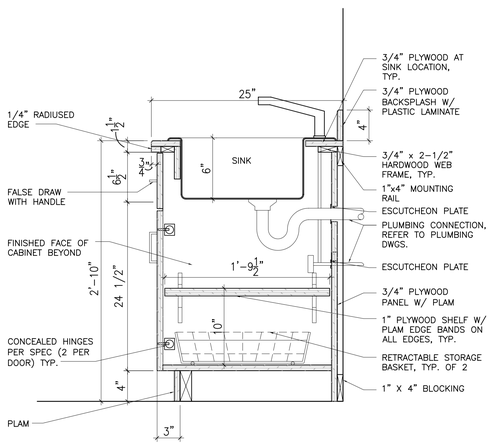
T CORNER DETAIL TILE AT VESTIBULE 6" = 1'-0"



U ONE CORNER DETAIL TILE AT RESTROOMS 6" = 1'-0"



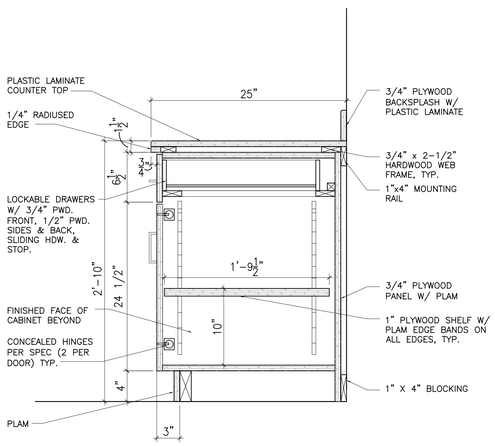
V TWO CORNER DETAIL TILE AT RESTROOMS 6" = 1'-0"



4 MILLWORK - SECTION @ SINK

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

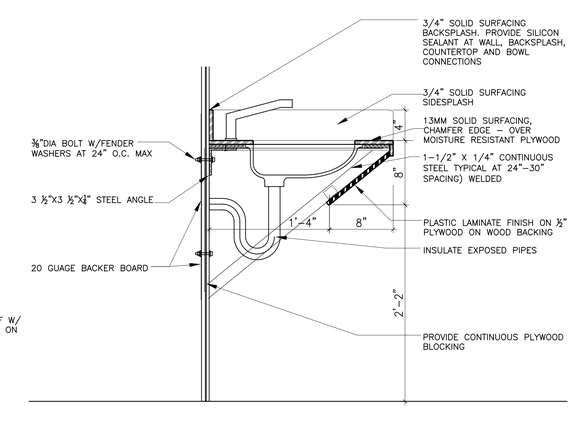
ALL EXPOSED AND VISIBLE SURFACES SHALL RECEIVE PLASTIC LAMINATE. REFER TO SHEET A7.00 FOR TYPE AND COLOR



5 MILLWORK - SECTION

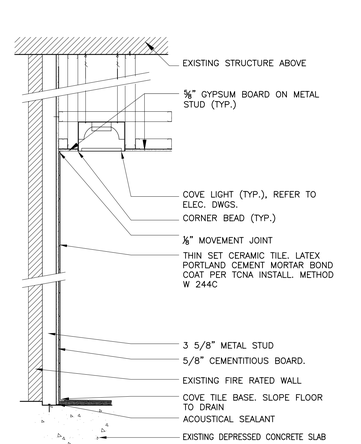
SCALE: 1 1/2"=1'-0"

ALL EXPOSED AND VISIBLE SURFACES SHALL RECEIVE PLASTIC LAMINATE. REFER TO SHEET A7.00 FOR TYPE AND COLOR



6 SINK/COUNTER - SECTION

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



7 COVE LIGHT DETAIL

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

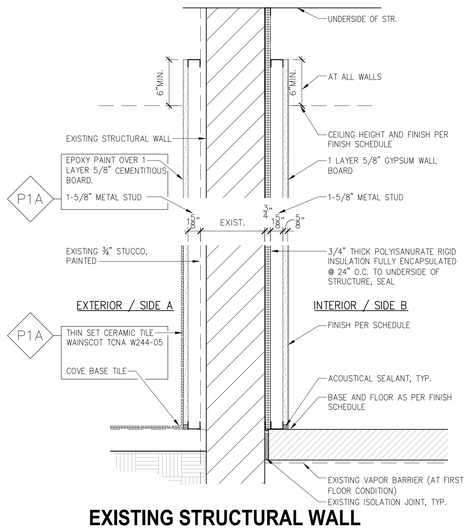
CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

DRAWING TITLE:
ENLARGED FLOOR PLANS
ELEVATIONS AND DETAILS

SCALE:
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

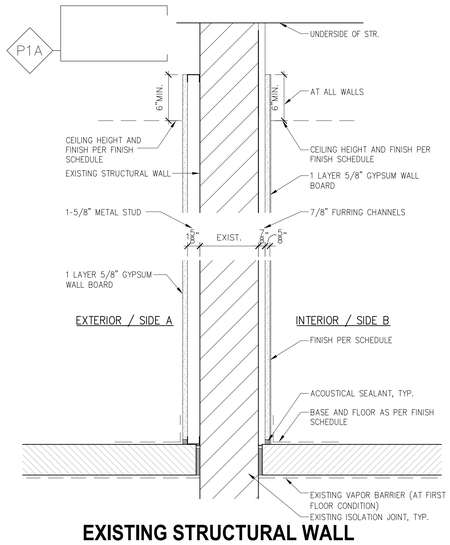
SHEET No.
A4.00



EXISTING STRUCTURAL WALL

P1 — 1 5/8" MTL. STUD
NON FIRE-RATED

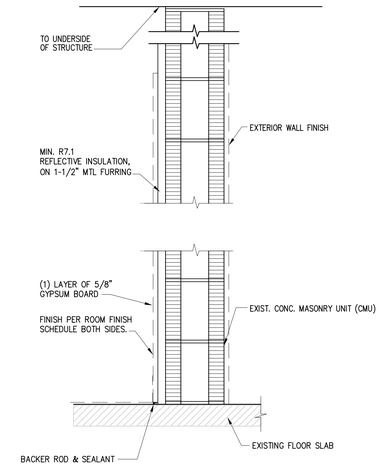
P1A — 1 5/8" MTL. STUD: 1 SIDE TILE
NON FIRE-RATED



EXISTING STRUCTURAL WALL

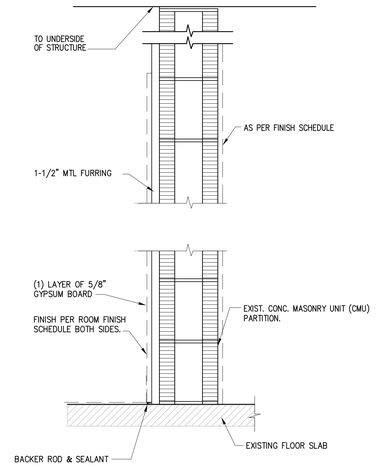
P2 — 1 5/8" MTL. STUD
NON FIRE-RATED

P2B — 1 5/8" MTL. STUD AT EXISTING OPENING IN WALL
NON FIRE-RATED



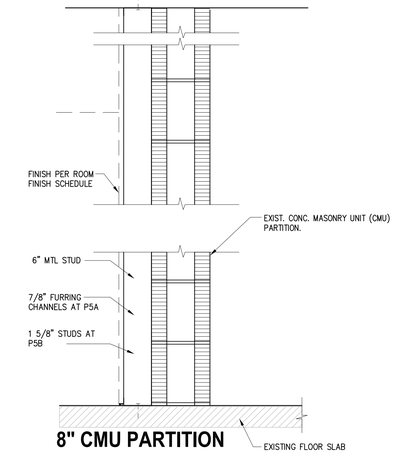
EXISTING CMU WALL

P3 — NON - FIRE RATED
WALL CORE: 7 5/8" C.M.U.



EXISTING CMU WALL

P4 — NON - FIRE RATED W/ TILE
WALL CORE: EXISTING C.M.U.

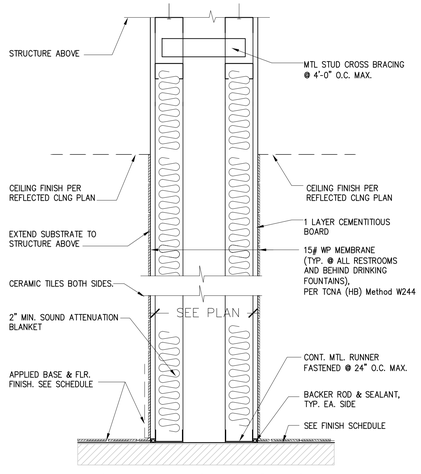


EXISTING CMU WALL

P5 — NON - FIRE RATED W/ 6" MTL STUD
WALL CORE: EXISTING C.M.U.

P5A — NON - FIRE RATED W/ 7/8" FURRING
WALL CORE: EXISTING C.M.U.

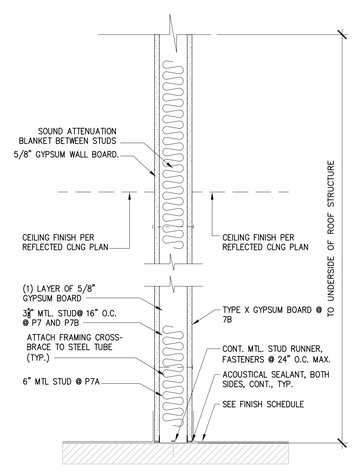
P5B — NON - FIRE RATED W/ 3 5/8" MTL STUD
WALL CORE: EXISTING C.M.U.



3-5/8" METAL STUD. CHASE WALL

P6 — 3 5/8" MTL. STUD PARTITION - 2 SIDES TILE

BOTH SIDES - FINISH AS PER FINISH SCHEDULE



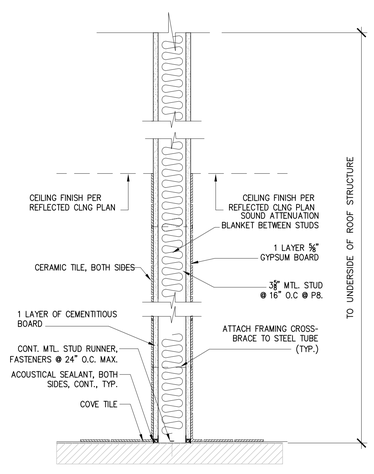
MTL. STUD PARTITION
NON LOAD BEARING - MIN. STC = 50

P7 — 3 5/8" MTL. STUD
NON FIRE-RATED

P7A — 6" MTL. STUD
NON FIRE-RATED

P7B — 8" MTL. STUD
NON FIRE-RATED

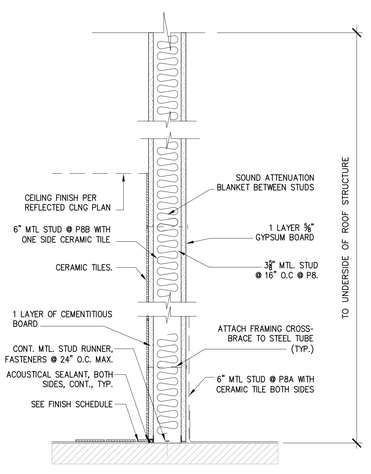
P7B — 3 5/8" MTL. STUD: ONE SIDE W/ DRYWALL ONLY
NON FIRE-RATED



MTL. STUD PARTITION W/ TILE 2 SIDES
NON LOAD BEARING - MIN. STC = 50

P8 — 3 5/8" MTL. STUD
NON FIRE-RATED

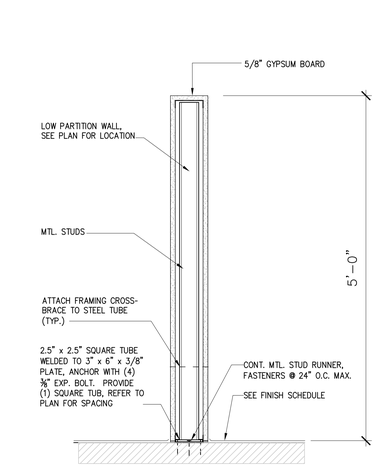
P8A — 6" MTL. STUD
NON FIRE-RATED



MTL. STUD PARTITION W/ TILE 1 SIDE
NON LOAD BEARING - MIN. STC = 50

P9 — 3 5/8" MTL. STUD
NON FIRE-RATED

P9A — 6" MTL. STUD
NON FIRE-RATED



MTL. STUD PARTITION

P10 — 3 5/8" MTL. STUD
NON FIRE-RATED LOW WALL

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE:
MAY 25 2011
REVISIONS:
No. DATE

MCHARRYASSOCIATES
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6/2/2011
JAMES W. PIERSOL
AR 006079

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

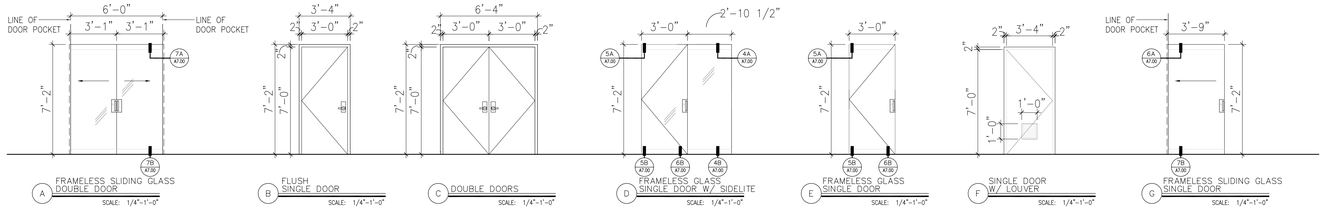
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

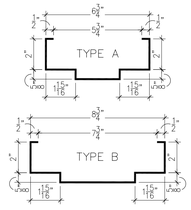
DRAWING TITLE:
WALL / PARTITION TYPES

SCALE:
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

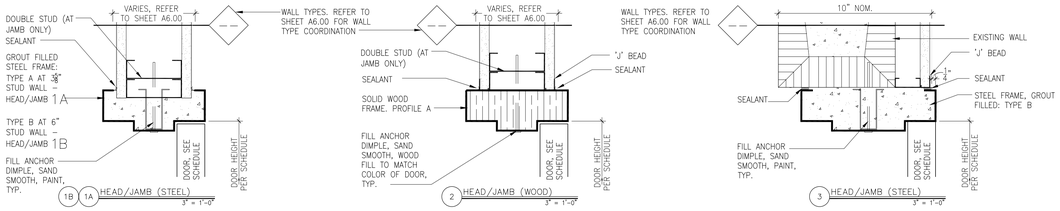
SHEET No.
A6.00

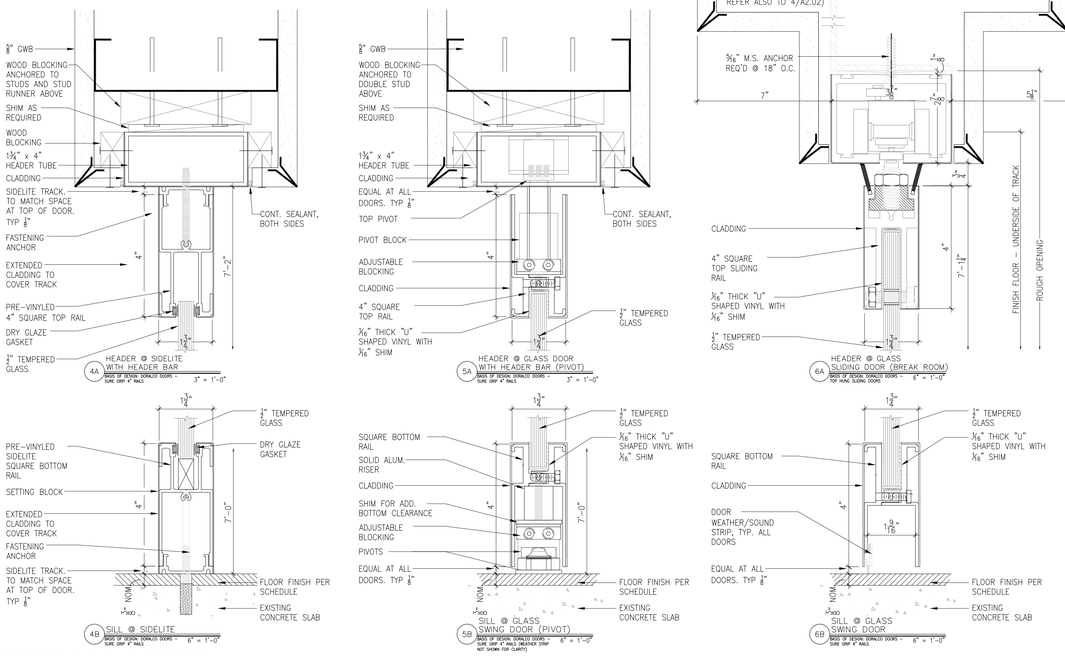


TYPICAL DOOR ELEVATIONS/ TYPE

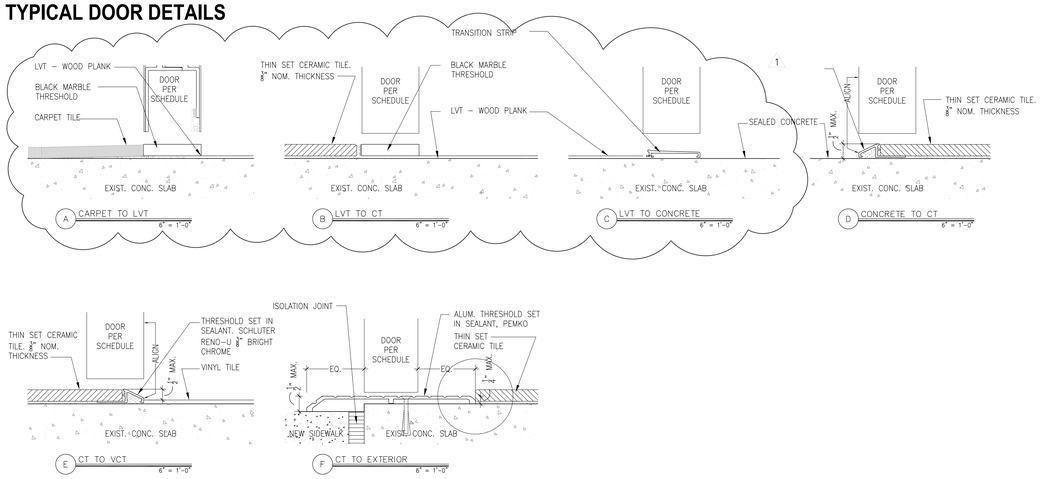


FRAME TYPES

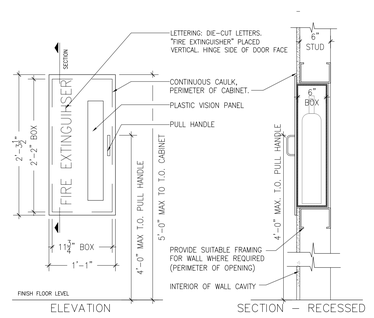




TYPICAL DOOR DETAILS



TYPICAL THRESHOLD DETAILS



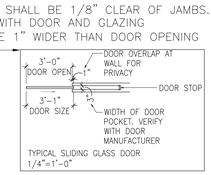
NOTE:
1. LOCATIONS OF RECESSED FIRE EXTINGUISHER AND CABINETS ARE DENOTED IN FLOOR PLANS WITH THE SYMBOL FEC-1
2. CAULK ALL JOINTS BETWEEN FACE OF WALL AND EXTINGUISHER CABINET FRAME.

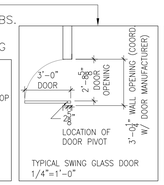
F.E.C. DETAILS

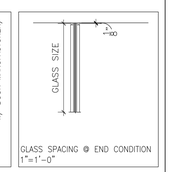
DOOR SCHEDULE

FLOOR	DOOR NUMBER	ROOM NUMBER	SPACE NAME / DESCRIPTION	DESIGNATION: ELEVATION / TYPE	DOOR: SIZE: WIDTH	SIZE: HEIGHT	SIZE: THICKNESS	MATERIAL: WOOD	MATERIAL: HOLLOW METAL	MATERIAL: GLASS	FRAME: MATERIAL: WOOD	MATERIAL: HOLLOW METAL	MATERIAL: NONE	DETAILS: JAMB	DETAILS: HEAD	THRESHOLD	REMARKS
FIRST	101B	101B	LOWER LOBBY (EXIST.)	EXIST	EXIST.	EXIST.	EXIST.	–	–	–	–	–	–	EXIST	EXIST	F	7
	1000	100	EXISTING FIRST FLOOR	B	3'-0"	7'-0"	1-3/4"	–	●	–	–	●	–	1A	1A	D	
	105	105	ELEVATOR MACHINE RM	B	3'-0"	7'-0"	1-3/4"	–	●	–	–	●	–	3	3	D	1
	107	107	CUSTODIAL	F	3'-0"	7'-0"	1-3/4"	–	●	–	–	●	–	1B	1B	D	
	S2A	S2	STAIR 2	EXIST	EXIST.	EXIST.	EXIST.	–	–	–	–	–	–	EXIST	EXIST	D	7
SECOND	S2C	S2	STAIR 2	EXIST	EXIST.	EXIST.	EXIST.	–	–	–	–	–	–	EXIST	EXIST	D	7
	201	201	UPPER LOBBY	D	3'-0"	7'-2"	1/2"	–	–	●	–	–	●	4	5A	B	3
	205	205	TELECOM	B	3'-0"	7'-0"	1-3/4"	–	●	–	–	●	–	3	3	D	
	206	206	STORAGE	B	3'-0"	7'-0"	1-3/4"	–	●	–	–	●	–	1B	1B	E	
	210	210	OFFICE	E	3'-0"	7'-2"	1/2"	–	–	●	–	–	●	4	5A	A	3, 5
	211	211	OFFICE	E	3'-0"	7'-2"	1/2"	–	–	●	–	–	●	4	5A	A	3, 5
	212	212	ASSISTANT DIRECTOR	E	3'-0"	7'-2"	1/2"	–	–	●	–	–	●	4	5A	A	3, 5
	213	213	OFFICE	E	3'-0"	7'-2"	1/2"	–	–	●	–	–	●	4	5A	A	3, 5
	214	214	BREAK ROOM	G	3'-9"	7'-2"	1/2"	–	–	●	–	–	●	–	6A	–	4, 5
	215	215	ASSISTANT DIRECTOR	E	3'-0"	7'-2"	1/2"	–	–	●	–	–	●	4	5A	A	3, 5
	216	216	EXEC. DIRECTOR	E	3'-0"	7'-2"	1/2"	–	–	●	–	–	●	4	5A	A	3, 5
	216A	216A	EXEC. DIRECTOR	E	3'-0"	7'-2"	1/2"	–	–	●	–	–	●	4	5A	–	2, 3, 5
	217	217	CONFERENCE ROOM	A	3'-1"	7'-2"	1/2"	–	–	●	–	–	●	–	7A	A	2, 4, 5, 6
	218	218	MEN RESTROOM	F	3'-0"	7'-0"	1-3/4"	●	–	–	●	–	–	2	2	B	
	219	219	WOMEN RESTROOM	F	3'-0"	7'-0"	1-3/4"	●	–	–	●	–	–	2	2	B	
	220	220	OFFICE	E	3'-0"	7'-2"	1-3/4"	–	–	●	–	–	●	4	5A	A	3, 5
	221	221	OFFICE	E	3'-0"	7'-2"	1-3/4"	–	–	●	–	–	●	4	5A	A	3, 5
	222	222	ELECTRICAL ROOM	B	3'-0"	7'-0"	1-3/4"	●	–	–	●	–	–	2	2	C	
	223	223	MECHANICAL ROOM	C	3'-0"	7'-0"	1-3/4"	●	–	–	●	–	–	2	2	C	6

REMARKS:
1. LABELED DOOR: 3/4 HR. FIRE RATED
2. FROSTED GLAZING
3. COORDINATE DOOR OPENING REQUIREMENTS WITH DOOR AND GLAZING MANUFACTURER. PER DORALCO DOOR OPENING SHALL BE 1/8" CLEAR OF JAMBS.
4. COORDINATE GLAZING AND DOOR RAIL WIDTH WITH DOOR AND GLAZING MANUFACTURER. PER DORALCO DOOR SHALL BE 1" WIDER THAN DOOR OPENING REQUIREMENT.
5. DUST PROOF STRIKE.
6. PAIR OF DOORS
7. EXISTING DOOR. NEW THRESHOLD ONLY.







FINISH SCHEDULE

FLOOR	ROOM NUMBER	SPACE NAME / DESCRIPTION	FLOOR: FINISH	FLOOR: BASE	WALLS: ALL	CEILING: EXPOSED	CEILING: PTD-GWB	CEILING:	REMARKS
FIRST	101B	LOWER LOBBY	CT1	TILE 1	PTD	–	●	–	
	105	ELEVATOR MACHINE RM	CONC SEALED	RUBBER COVE	PTD	–	●	–	
	106	STORAGE	CONC SEALED	RUBBER COVE	PTD	–	●	–	
	107	CUSTODIAL	CONC SEALED	CT1 COVE	PTD	–	●	–	1
	S1	STAIR 1	CONC SEALED	RUBBER COVE	PTD	–	●	–	1
	S2	STAIR 2	CONC SEALED	RUBBER COVE	PTD	–	●	–	
SECOND	201B	UPPER LOBBY	CT1	CT1 COVE	PTD	–	●	–	
	201/224	2ND FLOOR NORTH/ RECEPTION/RECEPTIONIST	LVT	WOOD	PTD	●	–	–	
	202	2ND FLOOR SOUTH	LVT	WOOD	PTD	●	–		
	203A	ROOF DECK	–	–	–	–	–	–	
	204	2ND FLOOR TOWER	EXISTING	EXISTING	EXISTING	●	–	–	1
	205	TELECOM	CONC SEALED	RUBBER COVE	PTD	–	●	–	
	206	STORAGE	VCT	RUBBER COVE	PTD	1 –	●	–	
	210	OFFICE	CARPET TILE	WOOD	PTD	●	–	–	
	211	OFFICE	CARPET TILE	WOOD	PTD	●	–	–	
	212	OFFICE	CARPET TILE	WOOD	PTD	●	–	–	
	213	OFFICE 1	CARPET TILE	WOOD	PTD	●	–	–	
	214	BREAKROOM	LVT	WOOD	PTD	●	–	–	
	215	ASSISTANT DIRECTOR	CARPET TILE	WOOD	PTD	●	–	–	
	216	EXECUTIVE DIRECTOR	CARPET TILE	WOOD	PTD	●	–	–	
	217	CONFERENCE ROOM	CARPET TILE	WOOD	PTD	●	–	–	
	218	MEN RESTROOM	CT1	CT1 COVE	CT2	–	●	–	2
	219	WOMEN RESTROOM	CT1	CT1 COVE	CT2	–	●	–	2
	220	OFFICE	CARPET TILE	WOOD	PTD	●	–	–	
	221	OFFICE	CARPET TILE	WOOD	PTD	●	–	–	
	222	ELECTRICAL	CONC SEALED	RUBBER COVE	PTD	–	●	–	
	223	MECHANICAL ROOM	CONC SEALED	RUBBER COVE	PTD	●	–	–	

NOTES:
1. PROVIDE EPOXY RESIN FINISH AT ALL WALLS AND CEILINGS AT 'WET' AREAS, U.O.N.
2. REFER TO REFLECTED CEILING PLAN FOR CEILING HEIGHTS

REMARKS:
1. EXISTING. NO WORK IN THIS AREA
2. WALLS HAVE CT3 ACCENT TILE. REFER TO A4.00
3. TILE 2 WAINSCOT ON 2 WALLS. REFER TO A4.00

FINISH LEGEND:

CARPET TILE (FLOOR):

CERAMIC TILE
CT1 (FLOOR):

CT2:

CT3:

WOOD (FLOOR):

WOOD (BASE):

GRANITE (SILL):

VCT (FLOOR):

PLASTIC LAMINATE
CABINETS:

COUNTER:

PAINT
PAINT 1 (WALLS):

PAINT 2 (WALLS):

PAINT 3 (WALLS):

PAINT 4 (CEILING):

RUBBER COVE (BASE):

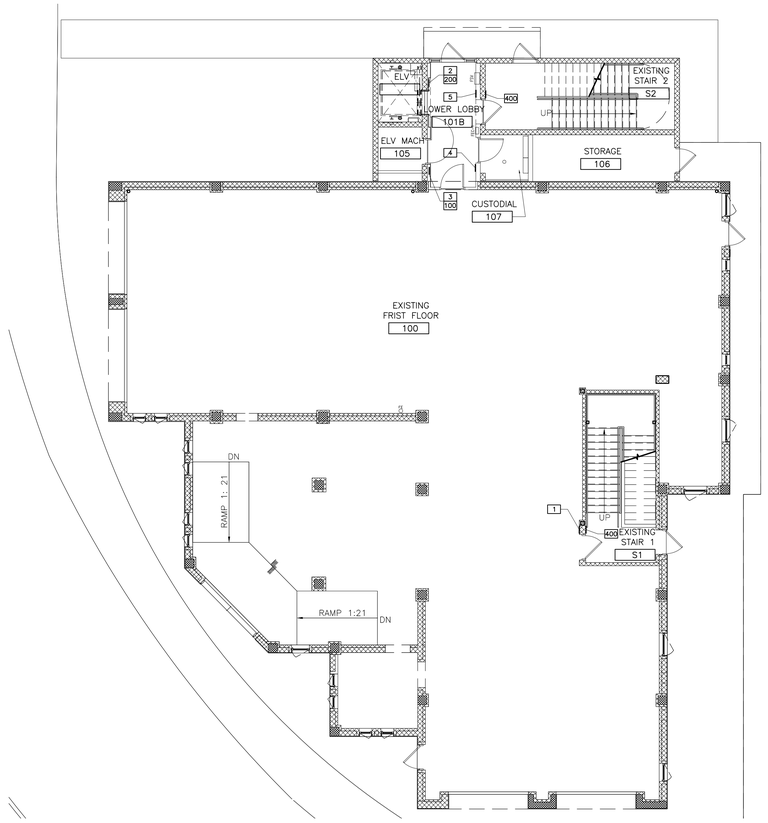
SOLID SURFACE:

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: MAY 25 2011
REVISIONS:
No. DATE
1 10-31-2011

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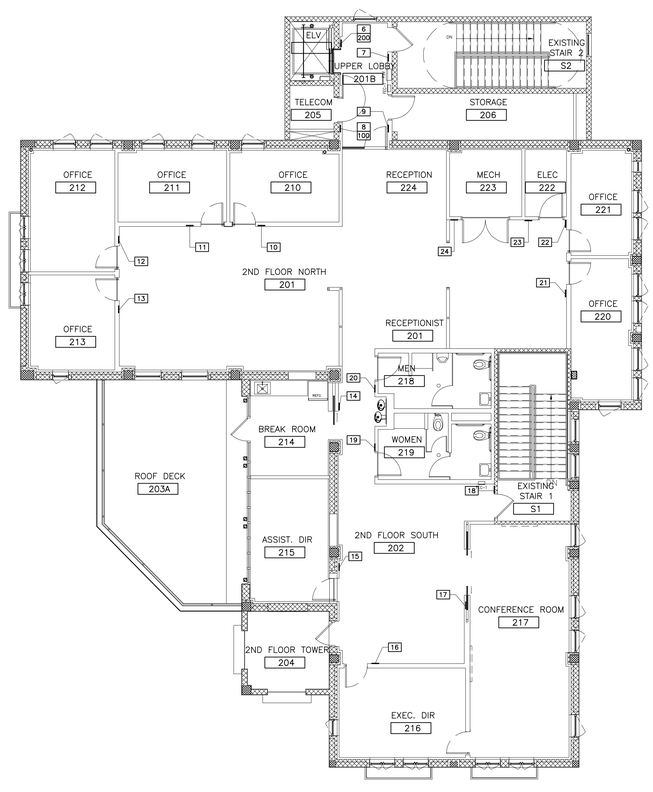
CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB
PROJECT TITLE: FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER: CITY OF MIAMI
DRAWING TITLE: DOOR + FINISH SCHEDULES DETAILS
SCALE: VARIES
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS & SHALL REPORT ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK.
SHEET No. A7.00



1 1ST FLOOR SIGNAGE PLAN

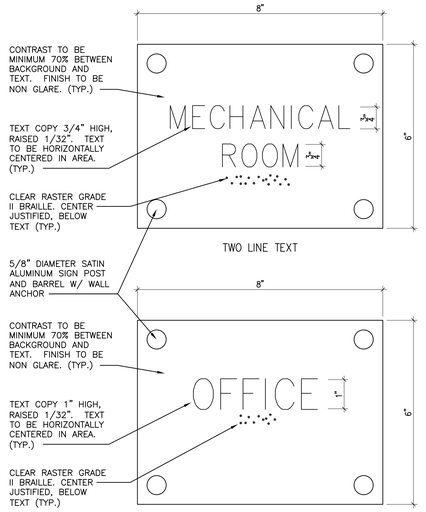
SCALE: 1/8"=1'-0"

NORTH

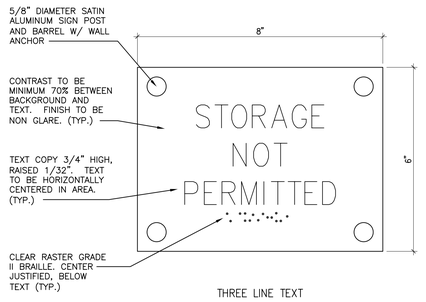


2 2ND FLOOR SIGNAGE PLAN

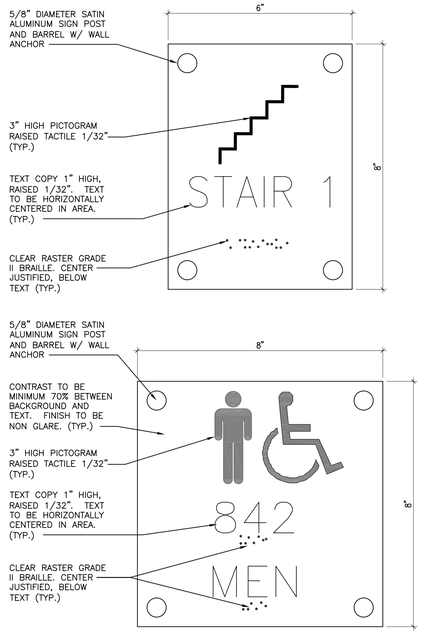
SCALE: 1/8"=1'-0"



TYPE A – SPACE IDENTIFICATION SIGNS



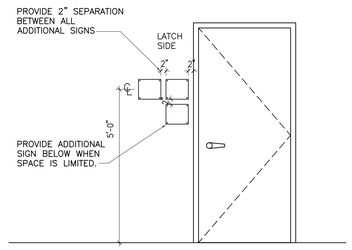
TYPE B – REGULATORY OR INSTRUCTIONAL SIGNS



TYPE C – SPACE IDENTIFICATION SIGNS W/ GRAPHICS

SIGNAGE SCHEDULE

SIGN	FLR	ROOM #	ROOM NAME	TYPE	ROOM TEXT	MAIN TEXT	COMMENTS
1	1	S1	STAIR 1	C	S1	STAIR #1	STAIR SYMBOL
2	1	–	ELEVATOR	A	–	ELEVATOR	
3	1	105	ELEVATOR MACHINE ROOM	A/B	105	MACHINE ROOM	
4	1	107	CUSTODIAL CLOSET	A	107	CUSTODIAL CLOSET	
5	1	S2	STAIR 2	C	S2	STAIR #2	STAIR SYMBOL
6	2	–	ELEVATOR	A	–	ELEVATOR	
7	2	S2	STAIR 2	C	S2	STAIR #2	STAIR SYMBOL
8	2	205	TELECOM	A/B	205	TELECOM	
9	2	206	STORAGE	A	206	STORAGE	
10	2	210	OFFICE	A	210	OFFICE	
11	2	211	OFFICE	A	211	OFFICE	
12	2	212	ASSIST. DIRECTOR	A	212	ASSISTANT DIRECTOR	
13	2	213	OFFICE	A	213	OFFICE	
14	2	214	BREAK ROOM	A	214	STAFF LOUNGE	
15	2	215	ASSIST. DIRECTOR	A	215	ASSISTANT DIRECTOR	
16	2	216	EXEC. DIRECTOR	A	216	EXECUTIVE DIRECTOR	
17	2	217	CONFERENCE ROOM	A	217	CONFERENCE ROOM	
18	2	S1	STAIR 1	C	S1	STAIR #1	STAIR SYMBOL
19	2	218	FEMALE RESTROOM	C	218	FEMALE	HANDICAP FEMALE SYMBOL
20	2	219	MALE RESTROOM	C	219	MALE	HANDICAP MALE SYMBOL
21	2	220	OFFICE	A	220	OFFICE	
22	2	221	OFFICE	A	221	OFFICE	
23	2	222	ELECTRICAL	A	222	ELECTRICAL	
24	2	223	MECHANICAL ROOM	A	223	MECHANICAL ROOM	
100	–	---	----------	B	----	STORAGE NOT PERMITTED	
200	–	---	----------	B	----	IN CASE OF FIRE DO NOT USE ELEVATOR. USE STAIRS	STAIR AND FIRE SYMBOL
300	–	---	----------	B	----	EXIT ONLY	
400	1	---	----------	B	----	NOT AN EXIT	



WALL MOUNTING

GENERAL NOTES:

1. BASIS OF DESIGN IS KROY SIGN SYSTEMS:

   ADVANTAGE SIGNS
   3/8" THICK CLEAR ACRYLIC PHOTOPOLYMER, CLEAR OR TINTED ACRYLIC
   SATIN ALUMINUM SIGN POSTS
   SQUARE CORNERS
   CHANGEABLE CLEAR POLYCARBONATE INSERTS

2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SCHEDULE FOR APPROVAL.
3. ROOM TEXT MUST BE VERIFIED WITH A/E PRIOR TO INSTALLATION OR MANUFACTURE OF SIGN.
4. CONTRACTOR MAY INCREASE SIGN WIDTH IN 1" INCREMENTS UP TO MAX. SHOWN ON SIGN TYPE, TO ACCOMMODATE LONG TITLES.
5. UNLESS SPECIFICALLY NOTED, ALL SIGNS TO BE MOUNTED ON THE LATCH SIDE OF THE DOOR. CONSULT A/E WHERE MOUNTING SPACE IS LIMITED.
6. CONTRACTOR RESPONSIBLE FOR PRODUCING ADA COMPLIANT SIGNAGE

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: MAY 25 2011
REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

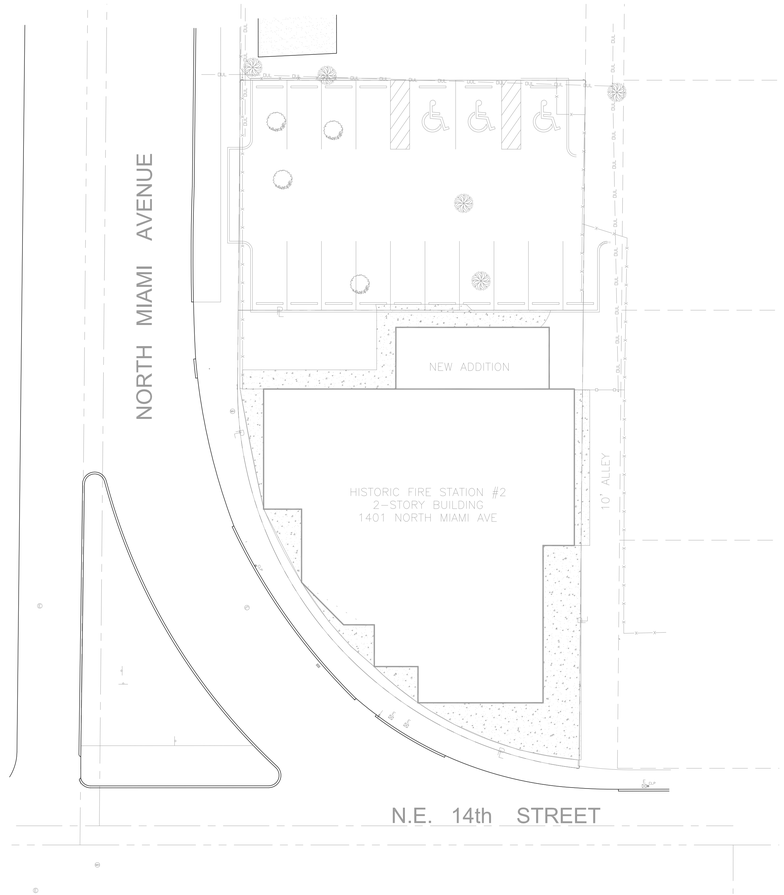
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
FIRST FLOOR SIGNAGE PLAN, TYPES AND SCHEDULE

SCALE: 1/4"=1'-0"
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
A8.01



1 OVERALL SITE PLAN - H.V.A.C.

SCALE: 1/16"=1'-0"

NORTH

MECHANICAL SYMBOLS (HVAC)

	SUPPLY AIR DIFFUSER (SEE AIR DEVICE SCHEDULE) "OPEN" CELLS DENOTE BLOW PATTERN. ALL 4 CELLS OPENED INDICATE 4-WAY BLOW.
	RETURN/EXHAUST AIR GRILLE (SEE AIR DEVICE SCHEDULE)
A 4-100	AIR DEVICE DESIGNATION (SEE SCHEDULE)
	SIDEWALL DIFFUSER/GRILLE
	45° DUCTWORK TAKEOFF WITH MANUAL VOLUME DAMPER
E	CAP (DUCTWORK OR PIPING)
E	DROP OR RISE IN DUCTWORK (RECTANGULAR)
DL	DOOR LOUVER
UC	DOOR UNDER CUT
H	WALL MOUNTED HUMIDISTAT
	DUCT SMOKE DETECTOR
	FIRE DAMPER
	FIRE/SMOKE DAMPER
24X12	DUCT SIZE DESIGNATION. SIDE SHOWN IS FIRST DIMENSION. SIZE SHOWN IS INTERNAL CLEAR OPENING. SHEET METAL SIZE MUST BE INCREASED FOR INTERNAL INSULATION WHERE SPECIFIED. (ø= ROUND DUCT, ⇔ = FLAT OVAL DUCT)
	TURNING VANES (NUMBER OF VANES SHALL BE BASED ON ACTUAL DUCT SIZE, NOT ON SCHEMATIC SYMBOL ON DRAWING). PROVIDE AT EVERY 90° TURN.
	RETURN, EXHAUST OR OUTSIDE AIR DUCT
	DISCHARGE OR SUPPLY DUCT
	FLEXIBLE DUCT
	MANUAL VOLUME DAMPER
AD	ACCESS DOOR (AD)
M	MOTORIZED DAMPER (120V)
D	DROP IN DIRECTION OF ARROW
R	RISE IN DIRECTION OF ARROW
	SPACE RELATIVE PRESSURE RELATIONSHIP. LACK OF SYMBOL INDICATES NEUTRAL PRESSURE.
	RETURN AIR TRANSFER DUCT
VX-Y	VAV BOX, WHERE: V=VAV BOX, X=AHU NUMBER, Y=SEQUENCIAL NUMBER DASHED LINE= HEATER, SHADED SPACE=ACCESS SPACE.
TX-Y	WALL MOUNTED DIGITAL THERMOSTAT, WHERE: I UCT SIZE DESIGNATION. SHEET METAL SIZE MUST BE INCREASED FOR INTERNAL INSULATION WHERE SPECIFIED.

MECHANICAL ABBREVIATIONS

ACC	AIR COOLED CONDENSER
A/C	AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR
	ACCESS PANEL
ATM.	ATMOSPHERE
BHP	BRAKE HORSE POWER
BTU	BRITISH THERMAL UNIT
CFM	CUBIC FEET PER MINUTE
DB	DRY BULB OR DECIBELS
DDC	DIRECT DIGITAL CONTROL
DN.	DOWN
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB TEMPERATURE
E/A	EXHAUST AIR
ESP	EXTERNAL STATIC PRESSURE
EWB	ENTERING WET BULB TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
FLA	FULL LOAD AMPS
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
GALV	GALVANIZED
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HP	HORSE POWER
HZ	HERTZ
IN. W.G.	INCHES OF WATER GAUGE
LAT	LEAVING AIR TEMPERATURE
LDB	LEAVING DRY BULB TEMPERATURE
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MD	MOTORIZED DAMPER
NC	NORMALLY CLOSED
NK.	NECK
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
O/A	OUTDOOR AIR
OICS	OPENING IN CEILING SPACE
PH.	PHASE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH (GAUGE PRESSURE)
R/A	RETURN AIR
RBJ	RUN BETWEEN JOIST
S/A	SUPPLY AIR
SP	STATIC PRESSURE
T/A	TRANSFER AIR
TEMP.	TEMPERATURE
TSP	TOTAL STATIC PRESSURE
TYP.	TYPICAL
MVD	MANUAL VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE

* NOT ALL ABBREVIATIONS ARE USED.

MECHANICAL SYMBOLS (GENERAL)

XX-1	EQUIPMENT TAGS (XX = MARKS BELOW) AHU = AIR HANDLING UNIT AS = AIR SEPARATOR CC = COOLING COIL CH = CHILLER CT = COOLING TOWER DC = IN-DUCT COIL EF = EXHAUST FAN P = PUMP FCU = FAN COIL UNIT EF = EXHAUST FAN RTU = ROOF TOP UNIT ET = EXPANSION TANK SF = SUPPLY FAN FH = FUMEHOOD CWP = CONDENSER WATER PUMP CHWP= CHILLED WATER PUMP FS = FLOW STATION V-3-1=VARIABLE AIR VOLUME BOX CV = CONSTANT AIR VOLUME BOX FPW = FAN POWERED AIR BOX CS = CHEMICAL SHOT FEEDER ACCU= AIR COOLED COND. UNIT ACCH= AIR COOLED CHILLER SCHW= SECONDARY CHILLED WATER PCHW= PRIMARY CHILLED WATER
	NEW TO EXISTING CONNECTION

HVAC DESIGN REQUIRES:	YES	NO
DUCT SMOKE DETECTOR	X	
FIRE DAMPER(S)		X
SMOKE DAMPER(S)		X
FIRE RATED ENCLOSURE		X
FIRE RATED ROOF/FLOOR CEILING ASSEMBLY		X
FIRE STOPPING		X
SMOKE CONTROL		X

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

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☐ JOEL QUESADA, P.E. LICENSE NO. 71487

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

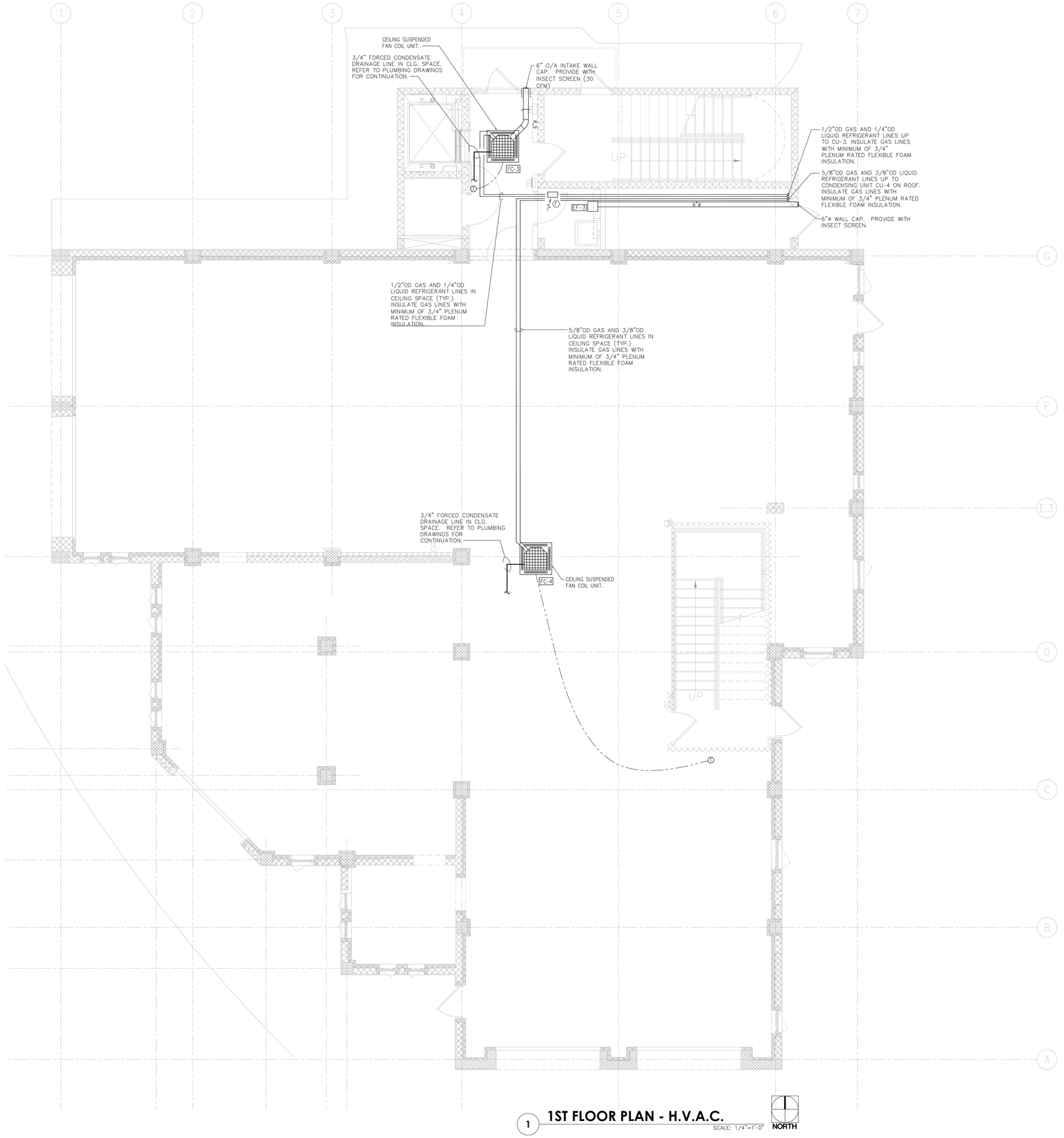
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:

SHEET No.

SCALE:
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK.



1 **1ST FLOOR PLAN - H.V.A.C.**
SCALE: 1/4"=1'-0"

NORTH

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

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☐ JOSE I. MARTINEZ, P.E. LICENSE NO. 57911
☐ MANUEL P. MONTOYA, P.E. LICENSE NO. 68222
☐ RODOLFO MORALES, P.E. LICENSE NO. 69014
☐ HECTOR J. CASTILLO, P.E. LICENSE NO. 60435
☐ JOEL QUESADA, P.E. LICENSE NO. 71487

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

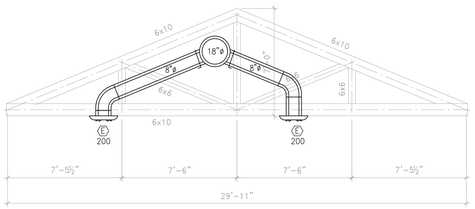
OWNER:
CITY OF MIAMI

DRAWING TITLE:
FIRST FLOOR PLAN
H.V.A.C.

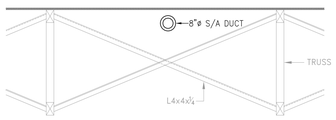
SCALE: 1/4" = 1'-0"

NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

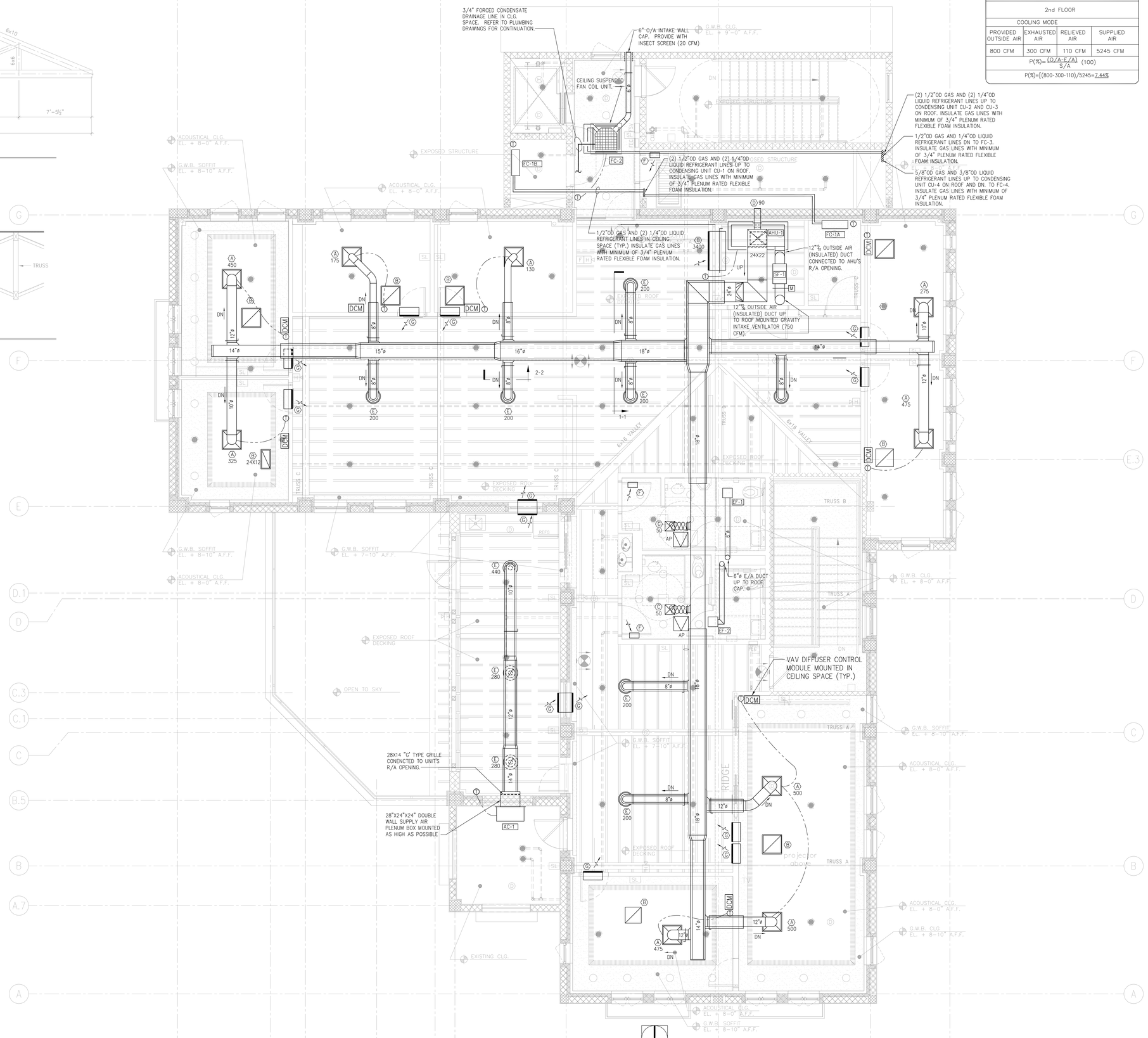
SHEET No.
M2.01



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



2 SECTION 2-2
SCALE: 1/4"=1'-0"



1 2ND FLOOR PLAN - H.V.A.C.
SCALE: 1/4"=1'-0"

AIR BALANCE CALCULATIONS			
2nd FLOOR			
COOLING MODE			
PROVIDED OUTSIDE AIR	EXHAUSTED AIR	RELIEVED AIR	SUPPLIED AIR
800 CFM	300 CFM	110 CFM	5245 CFM
P(%)= (O/A-E/A)/S/A (100)			
P(%)=[(800-300-110)/5245=7.44%			

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE:
25 MAY 2011
REVISIONS:
No. DATE

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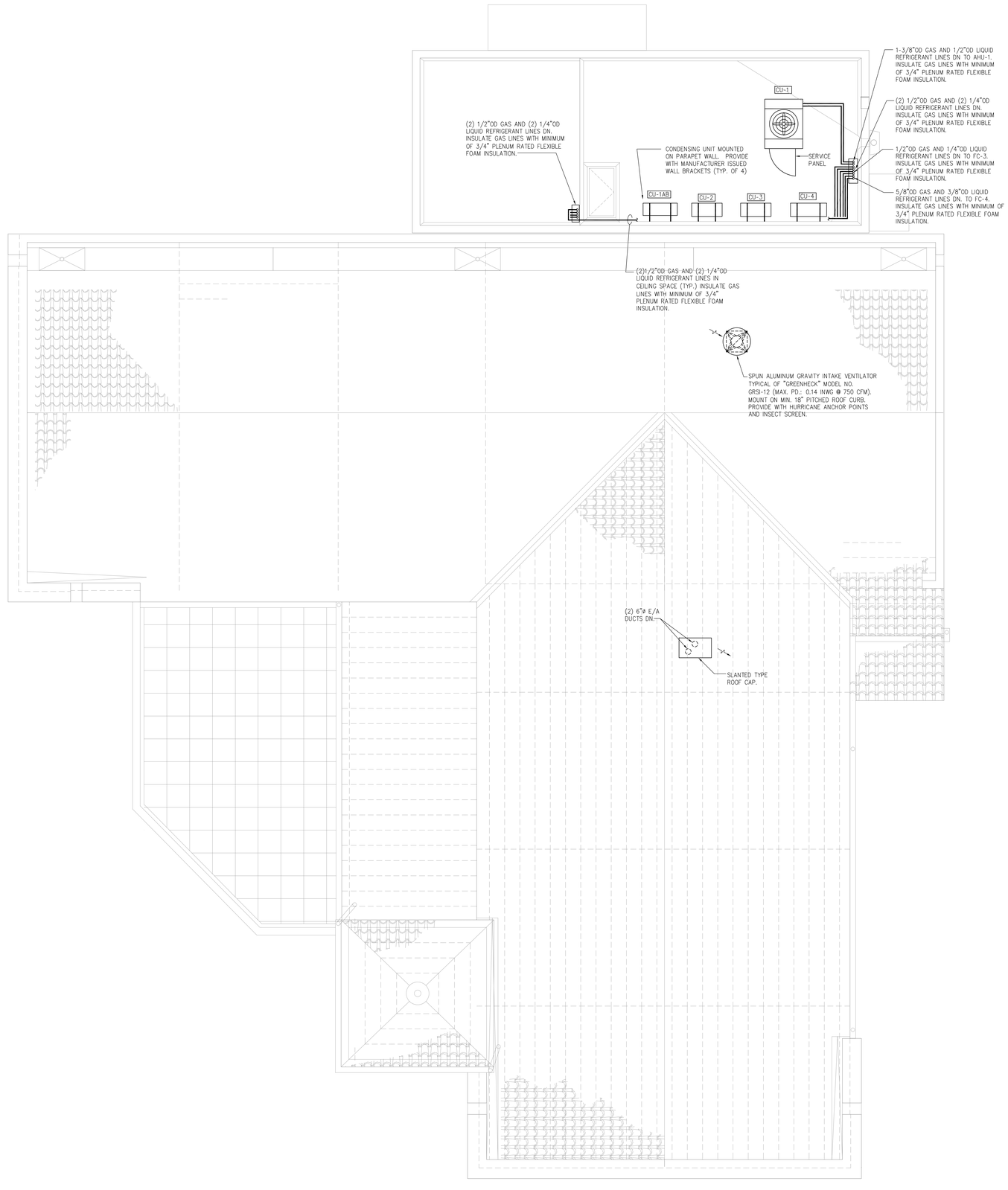
CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

DRAWING TITLE:
SECOND FLOOR PLAN
H.V.A.C.

SCALE: 1/4" = 1'-0"
AT 24"x36" SHEETS. VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK.

SHEET No.
M2.02



1 **ROOF PLAN - H.V.A.C.**

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

NORTH

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

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☐ HECTOR J. CASTILLO, P.E. LICENSE NO. 60605
☐ JOEL OLIVERA, P.E. LICENSE NO. 71487

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

DRAWING TITLE:
ROOF PLAN - H.V.A.C.

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

NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

SHEET No.
M2.03

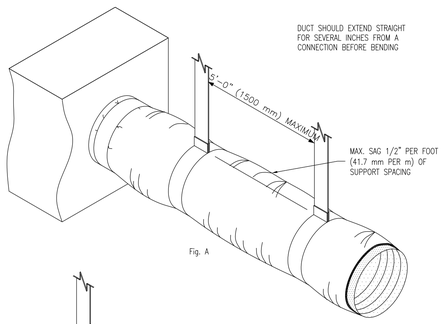


Fig. A

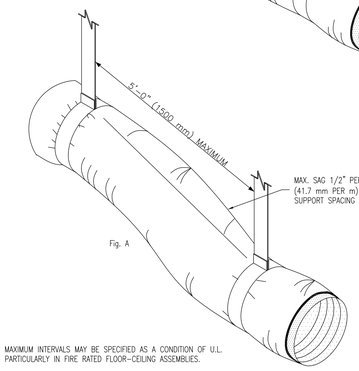
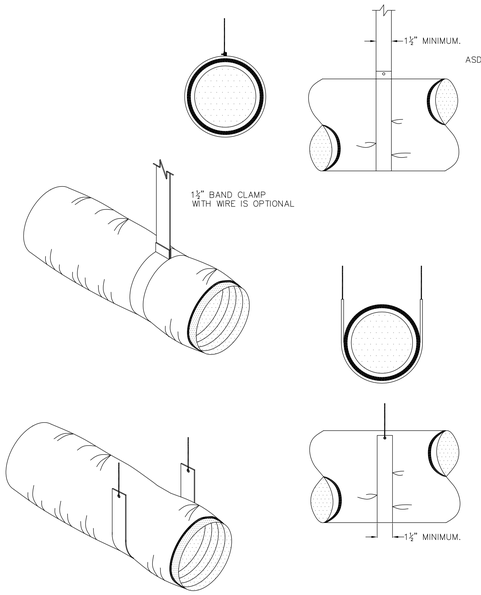


Fig. A

CLOSER MAXIMUM INTERVALS MAY BE SPECIFIED AS A CONDITION OF U.L. LISTING, PARTICULARLY IN FIRE RATED FLOOR-CEILING ASSEMBLIES.

SEE WIRE HANGER OPTION IN FIG. 3-10

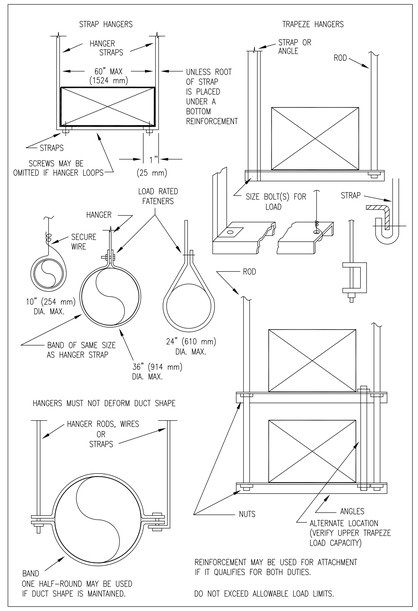


FLEX-DUCT HANGER STRAP TO BE GAGE#26 MIN.

SUPPORT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE.

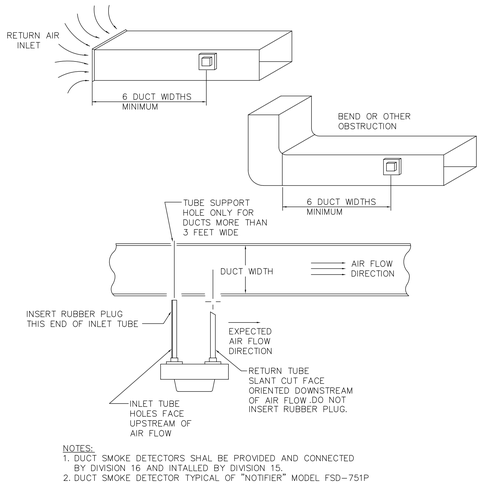
FLEXIBLE DUCTS SUPPORTS DETAIL

NO SCALE



LOWER HANGER ATTACHMENTS

NO SCALE



NOTES:
1. DUCT SMOKE DETECTORS SHAL BE PROVIDED AND CONNECTED BY DIVISION 16 AND INTALLED BY DIVISION 15.
2. DUCT SMOKE DETECTOR TYPICAL OF "NOTIFIER" MODEL FSD-751P

TYPICAL DUCT DETECTOR INSTALLATION

NO SCALE

ALUMINUM ROUND DUCT GAGE SCHEDULE MINIMUM SIZE								
MAXIMUM HALF OF DUCT PERIMETER	Pair at 10 ft Spacing		Pair at 8 ft Spacing		Pair at 5 ft Spacing		Pair at 4 ft Spacing	
	STRAP	WIRE/ ROD	STRAP	WIRE/ ROD	STRAP	WIRE/ ROD	STRAP	WIRE/ ROD
P/2 = 30"	1" X 22 ga.	10 ga. (.135")	1" X 22 ga.	10 ga. (.135")	1" X 22 ga.	12 ga. (.108")	1" X 22 ga.	12 ga. (.108")
P/2 = 72"	1" X 18 ga.	3/8"	1" X 20 ga.	1/4"	1" X 22 ga.	1/4"	1" X 22 ga.	1/4"
P/2 = 96"	1" X 16 ga.	3/8"	1" X 18 ga.	3/8"	1" X 20 ga.	3/8"	1" X 22 ga.	1/4"
P/2 = 120"	1 1/2" X 16 ga.	1/2"	1" X 16 ga.	3/8"	1" X 18 ga.	3/8"	1" X 20 ga.	1/4"
P/2 = 168"	1 1/2" X 16 ga.	1/2"	1 1/2" X 16 ga.	1/2"	1" X 16 ga.	3/8"	1" X 18 ga.	3/8"
P/2 = 192"	Not Given	1/2"	1 1/2" X 16 ga.	1/2"	1" X 16 ga.	3/8"	1" X 16 ga.	3/8"
P/2 = 193" up	SPECIAL ANALYSIS REQUIRED							

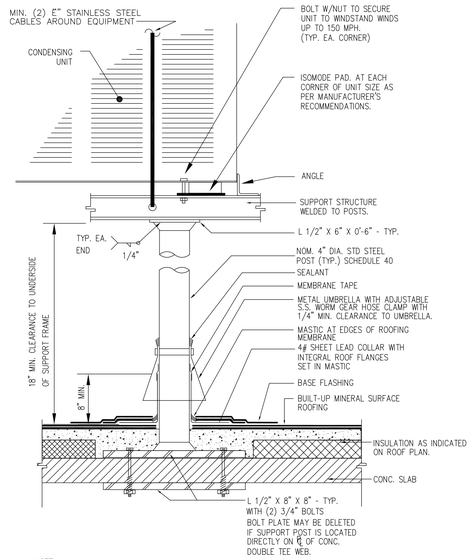
WHEN STRAPS ARE LAP JOINED USE THESE MINIMUM FASTENERS.	SINGLE HANGER MAXIMUM ALLOWABLE LOAD	
	STRAP	WIRE OR ROD (Dia.)
1" X 18, 20, 22 ga. –two #10 or one 1/4" bolt 1" x 16 ga. –two 1/4" dia. 1 1/2" x 16 ga. –two 3/8" dia. Place fasteners in series, not side by side.	1" x 22 ga. – 260 lbs. 1" x 20 ga. – 320 lbs. 1" x 18 ga. – 420 lbs. 1" x 16 ga. – 700 lbs. 1 1/2" x 16 ga. – 1100 lbs.	0.106" – 80 lbs. 0.135" – 120 lbs. 0.162" – 160 lbs. 1/4" – 270 lbs. 3/8" – 680 lbs. 1/2" – 1250 lbs. 1/4" – 270 lbs. 3/8" – 680 lbs.

ALUMINUM ROUND DUCT GAGE SCHEDULE				
Duct Diameter in Inches	Maximum 2" w.g. Static Positive		Maximum 2" w.g. Static Negative	
	Spiral Seam Gage	Longitudinal Seam Gage	Spiral Seam Gage	Longitudinal Seam Gage
3 thru 8	.025"	.032"	.025"	.040"
9 thru 14	.025"	.032"	.032"	.040"
15 thru 26	.032"	.040"	.040"	.050"
27 thru 36	.040"	.050"	.050"	.063"
37 thru 50	.050"	.063"	.063"	.071"
51 thru 60	.063"	.071"	N.A.	.090"
61 thru 84	N.A.	.090"	N.A.	N.A.

1" W.G. STATIC POS. OR NEG.		RECTANGULAR DUCT REINFORCEMENT							
	NO REINFORCEMENT REQUIRED	REINFORCEMENT CODE FOR DUCT GAGE NO.							
DUCT DIMENSION		REINFORCEMENT SPACING OPTIONS							
		10'	8'	6'	5'	4'	3'	2 1/2'	2'
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
10"dn	26 ga.	NOT REQUIRED							
11, 12"	26 ga.								
13, 14"	24 ga.	B-26	B-26	B-26	B-26	B-26	B-26	B-26	B-26
15, 16"	22 ga.	B-24	B-26	B-26	B-26	B-26	B-26	B-26	B-26
17, 18"	22 ga.	B-24	B-26	B-26	B-26	B-26	B-26	B-26	B-26
19, 20"	20 ga.	C-24	C-26	C-26	C-26	C-26	B-26	B-26	B-26
21, 22"	18 ga.	C-24	C-24	C-26	C-26	C-26	B-26	B-26	B-26
23, 24"	18 ga.	C-24	C-24	C-26	C-26	C-26	C-26	B-26	B-26
25, 26"	18 ga.	D-22	D-24	C-26	C-26	C-26	C-26	C-26	B-26
27, 28"	16 ga.	D-22	D-24	D-26	C-26	C-26	C-26	C-26	C-26
29, 30"	16 ga.	E-22	D-24	D-26	D-26	C-26	C-26	C-26	C-26
31-36"	NOT DESIGNED	E-20	E-22	E-24	D-24	D-26	C-26	C-26	C-26
37-42"		F-18	F-20	E-22	E-24	E-26	D-26	D-26	C-26
43-48"		G-16	G-18	F-20	F-22	E-24	E-26	E-26	D-26
49-54"		H-16	H-18	G-20	F-22	F-24	E-24	E-24	E-24
55-60"			H-18	G-20	G-22	F-24	F-24	E-24	E-24
61-72"				H-18G	H-18G	H-22G	F-24	F-24	F-24
73-84"				I-16G	I-18G	I-20G	H-22G	H-22G	G-22
85-96"					I-16H	I-18H	I-20G	H-20G	H-22G
97-108"						I-18G	I-18G	I-18G	I-18G
109-120"							I-18H	I-18H	I-18G

2" W.G. STATIC POS. OR NEG.		RECTANGULAR DUCT REINFORCEMENT							
	NO REINFORCEMENT REQUIRED	REINFORCEMENT CODE FOR DUCT GAGE NO.							
DUCT DIMENSION		REINFORCEMENT SPACING OPTIONS							
		10'	8'	6'	5'	4'	3'	2 1/2'	2'
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
10"dn	26 ga.	NOT REQUIRED							
11, 12"	24 ga.		B-26	B-26	B-26	B-26	B-26	B-26	B-26
13, 14"	22 ga.		B-24	B-26	B-26	B-26	B-26	B-26	B-26
15, 16"	20 ga.	C-22	C-24	C-24	C-26	C-26	C-26	B-26	B-26
17, 18"	20 ga.	C-22	C-24	C-24	C-26	C-26	C-26	C-26	B-26
19, 20"	18 ga.	C-20	C-22	C-24	C-26	C-26	C-26	C-26	C-26
21, 22"	16 ga.	D-20	D-22	D-24	D-26	C-26	C-26	C-26	C-26
23, 24"	16 ga.	E-20	E-22	D-24	D-26	D-26	C-26	C-26	C-26
25, 26"	NOT DESIGNED	E-20	E-22	E-24	D-26	D-26	C-26	C-26	C-26
27, 28"		F-18	E-20	E-22	E-24	D-26	D-26	C-26	C-26
29, 30"		F-18	F-20	E-22	E-24	E-26	D-26	D-26	C-26
31-36"		G-16	G-18	F-20	F-22	E-24	E-26	D-26	D-26
37-42"			H-16	G-18	G-20	F-24	E-24	E-26	E-26
43-48"			I-16	H-18	H-20	G-22	F-24	F-24	E-24
49-54"				I-16G	H-18G	H-20G	G-24	F-24	F-24
55-60"				I-16G	I-18G	H-18G	G-22	G-24	F-24
61-72"					J-16H	I-18G	H-22G	H-22G	H-24
73-84"						I-18G	I-20G	I-22G	I-22G
85-96"						J-18H	I-18H	I-20H	I-22H
97-108"							K-18H	J-18H	I-18H
109-120"								K-18I	J-18I

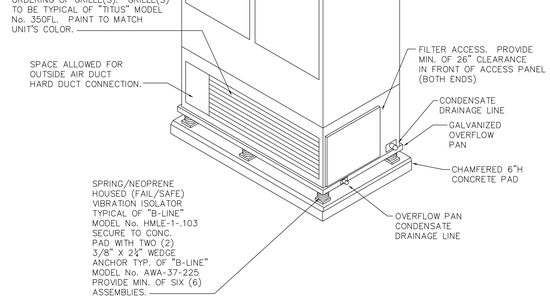
MINIMUM HANGER SIZES FOR ROUND DUCT				
Dia.	Maximum Spacing	Wire Dia.	Rod	Strap
10" dn 250 mm dn	12' 3.7 m	One 12 ga. One 2.75 mm	1/4" 6.4 mm	1" x 22 ga. 25.4 x 0.85 mm
11-18" 460 mm	12' 3.7 m	Two 12 ga. or One 8 ga. One 4.27 mm	1/4" 6.4 mm	1" x 22 ga. 25.4 x 0.85 mm
19-24" 610 mm	12' 3.7 m	Two 10 ga. Two 3.61 mm	1/4" 6.4 mm	1" x 22 ga. 25.4 x 0.85 mm
25-36" 900 mm	12' 3.7 m	Two 8 ga. One 2.75 mm	3/8" 9.5 mm	1" x 20 ga. 25.4 x 1.00 mm
37-50" 1270 mm	12' 3.7 m	→	Two 3/8" Two 9.5 mm	Two 1" x 20 ga. (2) 25.4 x 1.0 mm
51-60" 1520 mm	12' 3.7 m	→	Two 3/8" Two 9.5 mm	Two 1" x 18 ga. (2) 25.4 x 1.31 mm
61-84" 2130 mm	12' 3.7 m	→	Two3/8" Two 9.5 mm	Two 1" x 16 ga. (2) 25.4 x 1.61 mm



NOTE:
STAND SHALL BE TYPICAL OF "METALLUM ENTERPRISES" (NOTICE OF ACCEPTANCE - NOA.: 09-0720.01). INSTALLED STAND SHALL BE A MIAMI-DADE APPROVED PRODUCT/ASSEMBLY.

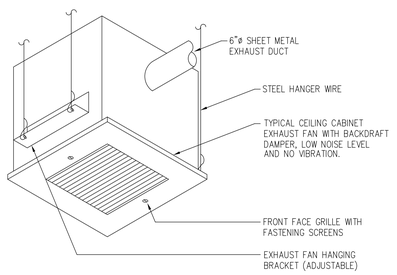
TYPICAL ROOF MOUNTED CONDENSING UNIT DETAIL

NO SCALE



VERTICAL AHU TYPICAL MOUNTING DETAIL

NO SCALE



CEILING MOUNTED CABINET EXHAUST FAN DETAIL

NO SCALE

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: **25 MAY 2011**
REVISIONS:
No. DATE

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☐ JOEL QUESADA, P.E LICENSE NO. 71487

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

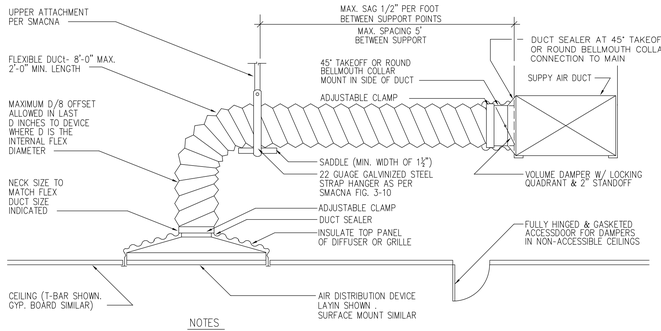
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
TYPICAL CONSTRUCTION DETAILS - H.V.A.C.

SCALE: NO SCALE
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

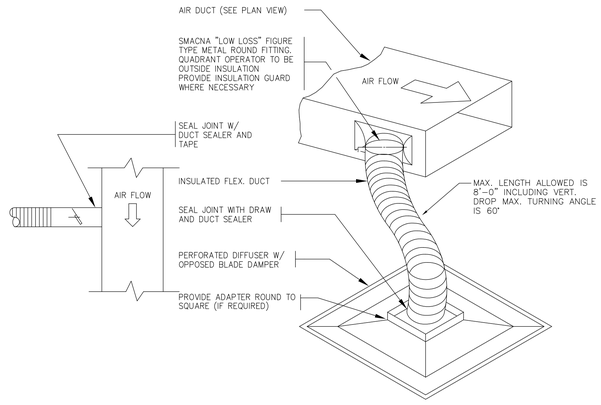
SHEET No.
M3.01



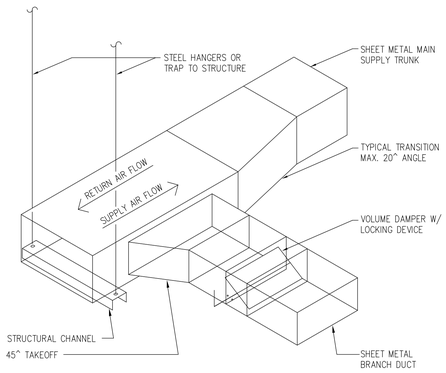
NOTES

1. FLEXIBLE DUCTS SHALL BE ONE PIECE AND SHALL NOT BE SPLICED TOGETHER .
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC .
3. FLEXIBLE AIR DUCT SHALL NOT EXCEED 8 FT. WHEN EXTENDED . ELBOW RADIUS SIZED FOR NO LESS THAN R / D = 1.0 .

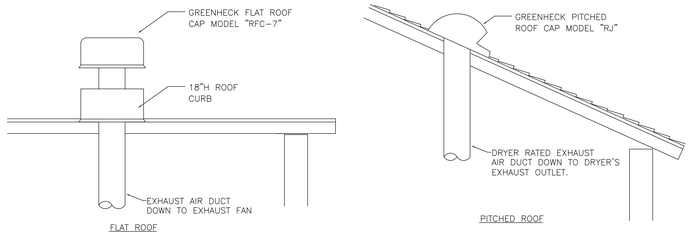
FLEXIBLE DUCT TAKEOFF DETAIL
NO SCALE



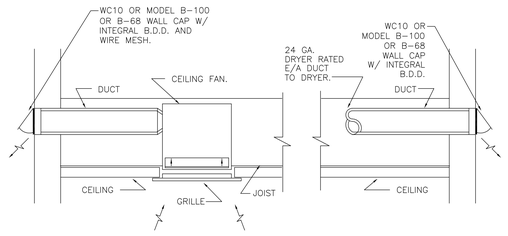
FLEXIBLE DUCT CONNECTION DETAIL
NO SCALE



BRANCH DUCT TAKEOFF DETAIL
NO SCALE

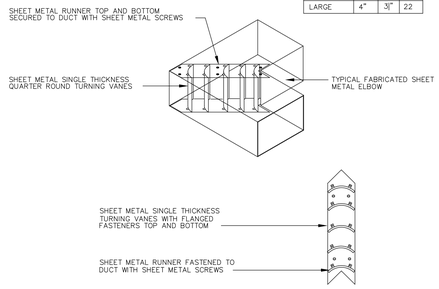


ROOF CAP TERMINATION DETAIL
NO SCALE

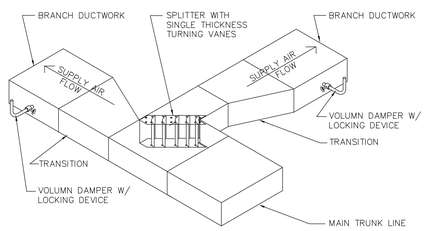


RESTROOM EXHAUST DETAIL
NO SCALE

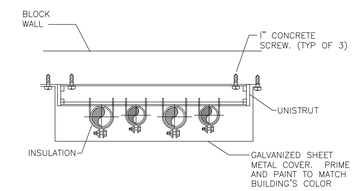
SINGLE VANE SCHEDULE			
	"R"	SP	GA.
SMALL	2"	1½"	24
LARGE	4"	3"	22



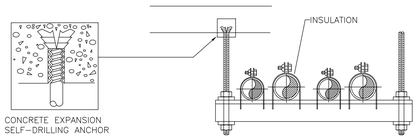
DUCT TURNING VANE DETAIL
NO SCALE



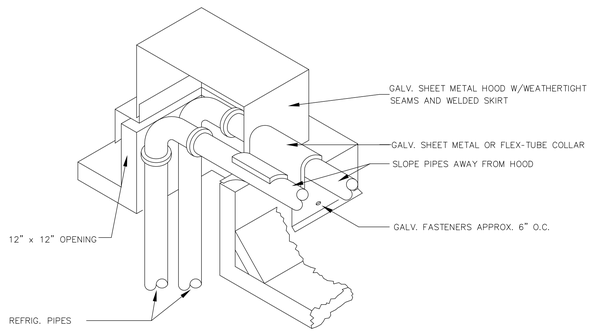
SPLITTER DAMPER DETAIL
NO SCALE



WALL MOUNTED REFRIGEREANT PIPE HOLD-DOWN SUPPORT DETAIL
NO SCALE

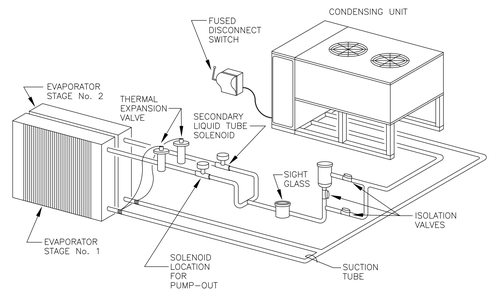


TYPICAL REFRIGERANT LINE MOUNTING DETAIL
NO SCALE



NOTE:
PIPING HOOD PROVIDED BY THIS CONTRACTOR FLASHING BY ROOFING CONTRACTOR.

ROOF PENETRATION DETAIL FOR REFRIGERANT PIPES
NO SCALE



NOTE:
CONTRACTOR IS TO DELETE THE THERMAL EXPANSION VALVES AND THE SOLENOID VALVES IF UNITS EVAPORATOR IS PROVIDED WITH ONLY ONE STAGE, OR IF EACH EVAPORATOR STAGE IS PIPED INDEPENDENTLY TO EACH OF THE CONDENSER COMPRESSORS.

REFRIGERANT SYSTEM PIPING DIAGRAM
NO SCALE

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: 25 MAY 2011
REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

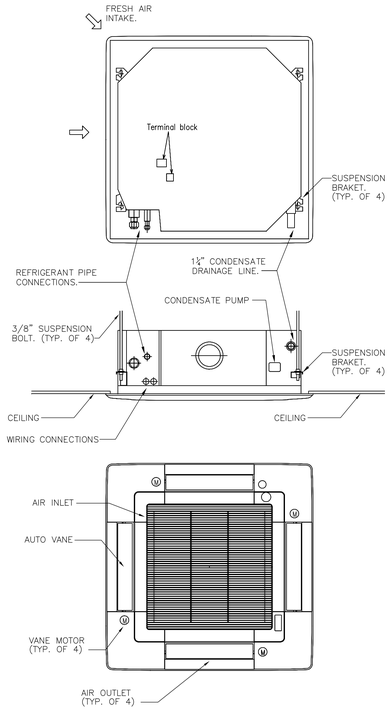
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
TYPICAL CONSTRUCTION DETAILS - H.V.A.C.

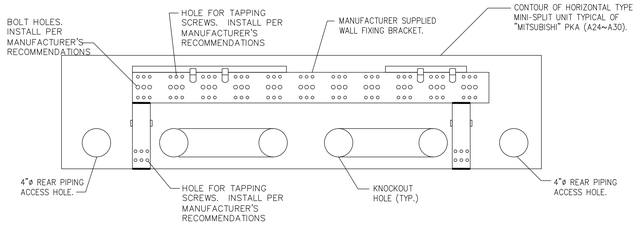
SCALE: NO SCALE
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
M3.02



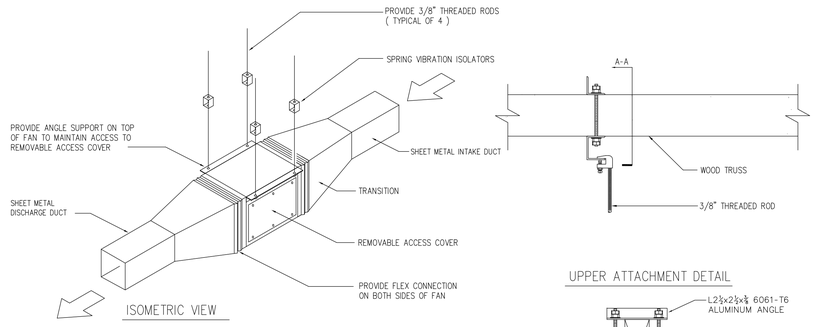
CEILING HUNG MINI-SPLIT AIR CONDITIONING UNIT MOUNTING DETAIL

NO SCALE



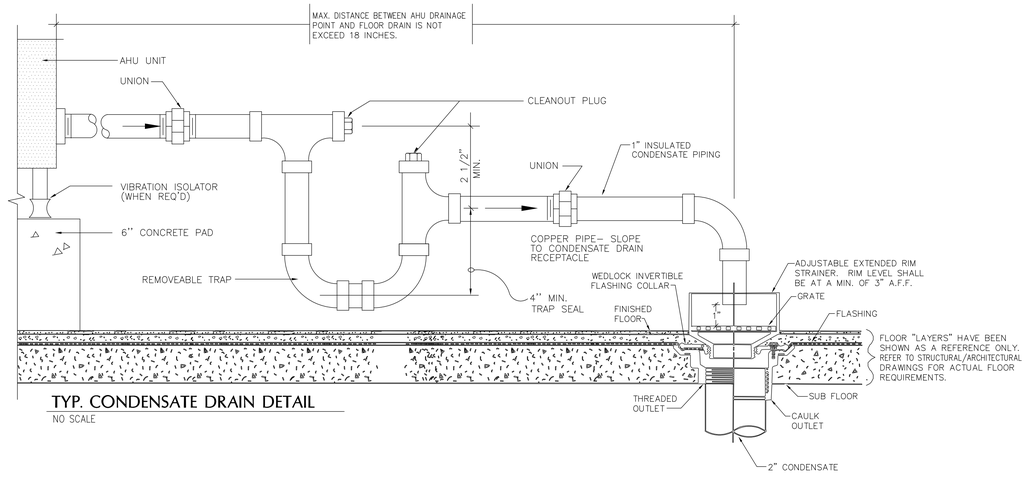
WALL MOUNTED FAN COIL UNIT (MINI-SPLIT) MOUNTING DETAIL

NO SCALE



DIRECT/BELT DRIVE INLINE FAN DETAIL

NTS



TYP. CONDENSATE DRAIN DETAIL

NO SCALE

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

DRAWING TITLE:
TYPICAL CONSTRUCTION DETAILS - H.V.A.C.

SCALE: NO SCALE

NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

SHEET No.
M3.03

GENERAL REQUIREMENTS:

RUNNING COMMUNICATION LINK WIRING IN THE SAME CONDUIT OR WIRE BUNDLE WITH ANY AC POWER WIRES MAY CAUSE THE CONTROLLER TO MALFUNCTION DUE TO ELECTRICAL NOISE.

ALL BUILDING CONTROLLER COMMUNICATION LINK WIRING IS LOW-VOLTAGE CLASS 2, AND MUST BE INSTALLED IN COMPLIANCE WITH NEC AND LOCAL CODES. TO PREVENT ELECTRICAL NOISE INTERFERENCE, ALL COMMUNICATION LINK WIRING MUST ALSO COMPLY WITH THE REQUIREMENTS, OUTLINED BELOW, FOR WIRE SELECTION AND INDIVIDUAL LINK CONFIGURATION.

WIRE SELECTION:

THE CONTROL WIRE MUST BE PLENUM RATED, SHIELDED, TWISTED PAIR. EACH CONDUCTOR IS STRANDED, TINNED COPPER. CAPACITANCE IS 23 PICOFARADS PER FOOT.

18 AWG PLENUM-RATED SHIELDED PAIR CABLE



APPLICATION:

NON-PLENUM, COMMUNICATION LINK WIRING, AND SENSOR WIRING FOR BUILDING MANAGEMENT SYSTEMS.

CONSTRUCTION:

STRANDED TINNED COPPER, INSULATED WITH EXTRUDED FED CONDUCTORS CABLED, AND SHIELDED WITH ALUMINUM/MYLAR TAPE AND STRANDED TINNED COPPER DRAIN WIRE. EXTRUDED SOLEF (VIOLET) JACKET.

LISTING/RATING:

300 VOLT 150°C NEC 725-2 (b) CLASS 2, TYPE CL2P.

SPECIFICATIONS:

NUMBER OF CONDUCTORS: 2
AWG STRAND: 18 19/30 (19 STRANDS OF 30 GAUGE)
INSULATION THICKNESS: .015 INCH/.38 mm
JACKET THICKNESS: .009 INCH/.23mm
NOMINAL DIAMETER; .179 INCH/4.55mm
CAPACITANCE BETWEEN CONDUCTORS: 25 PICOFARADS/FT. MAXIMUM CERTIFIED
CONDUCTOR COLOR CODE: BLACK/WHITE
JACKET COLOR: VIOLET

DIMENSIONS SPECIFIED ARE NOMINAL AND ARE SUBJECT TO NORMAL MANUFACTURING TOLERANCING.

18 AWG NON-PLENUM SHIELDED PAIR CABLE



APPLICATION:

NON-PLENUM, COMMUNICATION LINK WIRING, AND SENSOR WIRING FOR BUILDING MANAGEMENT SYSTEMS.

CONSTRUCTION:

STRANDED TINNED COPPER, INSULATED WITH POLYETHYLENE, CONDUCTORS CABLED, AND SHIELDED WITH OVERALL ALUMINUM/POLYESTER TAPE AND STRANDED TINNED COPPER DRAIN WIRE. CHROME GRAY PVC JACKET.

LISTING/RATING:

AWM STYLE 2092: 300 VOLT 60°C (UL) NEC TYPE CM, ARTICLE 800.

SPECIFICATIONS:

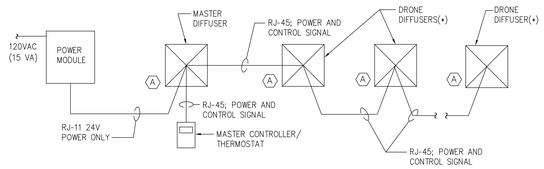
NUMBER OF CONDUCTORS: 2
AWG STRAND: 18 16/30 (16 STRANDS OF 30 GAUGE)
INSULATION THICKNESS: .018 INCH/.46 mm
JACKET THICKNESS: .028 INCH/.71mm
NOMINAL DIAMETER; .219 INCH/5.56mm
CAPACITANCE BETWEEN CONDUCTORS: 24 PICOFARADS/FT. MAXIMUM CERTIFIED
CONDUCTOR COLOR CODE: CLEAR/BLACK

DIMENSIONS SPECIFIED ARE NOMINAL AND ARE SUBJECT TO NORMAL MANUFACTURING TOLERANCING.

WIRING SPECIFICATIONS

(FOR ADDITIONAL INFORMATION REFER TO SPECIFICATION SECTION 15900)

NO SCALE



(+) MAXIMUM OF 5 DRONE DIFFUSERS PER AND 1 MASTER DIFFUSER PER POWER MODULE

VAV DIFFUSER CONTROL'S ARCHITECTURE

NO SCALE

CONTROLS TEMPERATURE SETPOINT SCHEDULE

UNLESS DIRECTED OTHERWISE BY THE OWNER, SET THERMOSTAT/TEMPERATURE ROOM SENSOR TO THE FOLLOWING DEVICE SCHEDULED SETPOINT:

AREA OR SYSTEM	SETPOINT TEMPERATURE (°F db)
OFFICE	75 COOLING / 68 HEATING
COMMON SPACE	75 COOLING / 68 HEATING
AHU SUPPLY AIR TEMPERATURE (COOLING)	55
AHU SUPPLY AIR TEMPERATURE (HEATING)	85

COOLING LOAD CALCULATIONS

(ELEVATOR LOBBIES; FC-2 AND FC-3)

COOLING COIL PEAK — Peaked at Time: Mo/Hr: 8 / 17; Outside Air: OADB/WB/HR: 90 / 78 / 127

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	246	0	246	4
Glass Solar	260	0	260	4
Glass/Door Cond	203	0	203	3
Wall Cond	224	0	224	4
Partition/Door	1,123		1,123	19
Floor	0		0	0
Adjacent Floor	0	0	0	0
Infiltration	368		368	6
Sub Total ==>	2,426	0	2,426	41
Internal Loads				
Lights	177	0	177	3
People	1,405	0	1,405	24
Misc	355	0	355	6
Sub Total ==>	1,938	0	1,938	33
Ceiling Load	0	0	0	0
Ventilation Load	0	0	1,483	25
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			17	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	4,364	0	5,864	100.00

CLG SPACE PEAK — Mo/Hr: Sum of OADB: Peaks

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	271	8
Glass Solar	250	7
Glass/Door Cond	201	6
Wall Cond	249	7
Partition/Door	1,123	32
Floor	0	0
Adjacent Floor	0	0
Infiltration	101	3
Sub Total ==>	2,186	62
Internal Loads		
Lights	177	5
People	781	22
Misc	355	10
Sub Total ==>	1,313	38
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing		
Exhaust Heat	0	0
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	3,499	100.00

HEATING COIL PEAK — Mo/Hr: Heating Design; OADB: 44

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-131	-131	22.45
Glass Solar	0	0	0.00
Glass/Door Cond	-302	-302	51.68
Wall Cond	-275	-275	47.06
Partition/Door	-421	-421	72.02
Floor	0	0	0.00
Adjacent Floor	0	0	0.00
Infiltration	-145	-145	24.79
Sub Total ==>	-1,275	-1,275	218.00
Internal Loads			
Lights	177	177	-30.34
People	781	781	-133.48
Misc	355	355	-60.68
Sub Total ==>	1,313	1,313	-224.51
Ceiling Load	0	0	0.00
Ventilation Load	0	-585	100.00
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		-38	6.51
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	38	-585	100.00

TEMPERATURES

	Cooling	Heating
SADB	50.2	68.0
Ra Plenum	72.0	68.0
Return	72.0	68.0
Ret/OA	74.7	64.4
Fn Mtr/TD	0.0	0.0
Fn Btd/TD	0.0	0.0
Fn Frict	0.1	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	144	144
Terminal	144	144
Main Fan	144	144
Sec Fan	0	0
Nom Vent	22	22
AHU Vent	22	22
Infil	5	5
MinStop/Rh	0	0
Return	150	150
Exhaust	27	27
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	15.2	15.2
cfm/ft²	1.39	1.39
cfm/ton	295.00	
ft²/ton	212.82	
Btu/hr-ft²	56.38	-5.62
No. People	3	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	0.5	5.9	3.9	144	74.8	63.4	69.0	50.2	49.1	50.2
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.5	5.9								

AREAS

	Gross Total ft²	Glass ft²	Glass (%)
Floor	104		
Part	286		
Int Door	0		
Ext/Fir	0		
Roof	104	0	0
Wall	81	14	17
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-0.6	144	64.4	68.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-0.6			

COOLING LOAD CALCULATIONS

(2nd FL; AC-1)

Bard Unit — **Packaged Terminal Air Conditioner**

COOLING COIL PEAK — Peaked at Time: Mo/Hr: 8 / 18; Outside Air: OADB/WB/HR: 89 / 77 / 124

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	875	0	875	5
Glass Solar	10,719	0	10,719	56
Glass/Door Cond	976	0	976	5
Wall Cond	960	0	960	5
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0	0	0	0
Infiltration	1,002		1,002	5
Sub Total ==>	14,533	0	14,533	76
Internal Loads				
Lights	1,123	0	1,123	6
People	941	0	941	5
Misc	510	0	510	3
Sub Total ==>	2,574	0	2,574	13
Ceiling Load	0	0	0	0
Ventilation Load	0	0	1,827	10
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			264	1
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	17,106	0	19,197	100.00

CLG SPACE PEAK — Mo/Hr: Sum of OADB: Peaks

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	875	5
Glass Solar	10,719	67
Glass/Door Cond	976	6
Wall Cond	960	6
Partition/Door	0	0
Floor	0	0
Adjacent Floor	0	0
Infiltration	290	2
Sub Total ==>	13,820	87
Internal Loads		
Lights	1,123	7
People	523	3
Misc	510	3
Sub Total ==>	2,156	13
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		0
OA Preheat Diff.		0
RA Preheat Diff.		0
Additional Reheat		0
Underflr Sup Ht Pkup		0
Supply Air Leakage		0
Grand Total ==>	15,976	100.00

HEATING COIL PEAK — Mo/Hr: Heating Design; OADB: 44

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-377	-377	24.34
Glass Solar	0	0	0.00
Glass/Door Cond	-1,384	-1,384	89.28
Wall Cond	-767	-767	49.48
Partition/Door	0	0	0.00
Floor	0	0	0.00
Adjacent Floor	0	0	0
Infiltration	-417	-417	26.89
Sub Total ==>	-2,946	-2,946	190.01
Internal Loads			
Lights	1,123	1,123	-72.40
People	523	523	-33.71
Misc	510	510	-32.91
Sub Total ==>	2,156	2,156	-139.02
Ceiling Load	0	0	0.00
Ventilation Load	0	-760	49.01
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		0	0.00
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-791	-1,551	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.9	68.8
Ra Plenum	72.0	68.0
Return	72.0	68.0
Ret/OA	72.5	67.2
Fn Mtr/TD	0.0	0.0
Fn Btd/TD	0.1	0.0
Fn Frict	0.2	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	889	889
Terminal	889	889
Main Fan	889	889
Sec Fan	0	0
Nom Vent	28	28
AHU Vent	28	28
Infil	16	16
MinStop/Rh	0	0
Return	905	905
Exhaust	44	44
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	3.2	3.2
cfm/ft²	2.97	2.97
cfm/ton	555.99	
ft²/ton	186.90	
Btu/hr-ft²	64.20	-5.19
No. People	2	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	1.6	19.2	16.8	889	72.8	60.9	60.7	55.9	53.4	56.8
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1.6	19.2								

AREAS

	Gross Total ft²	Glass ft²	Glass (%)
Floor	299		
Part	0		
Int Door	0		
Ext/Fir	0		
Roof	299	0	0
Wall	307	121	39
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-1.6	889	67.2	68.8
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-1.6			

COOLING LOAD CALCULATIONS

(2nd FL; AHU-1)

COOLING COIL PEAK — Peaked at Time: Mo/Hr: 8 / 15; Outside Air: OADB/WB/HR: 91 / 79 / 130

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	2,911	0	2,911	2
Glass Solar	14,993	0	14,993	12
Glass/Door Cond	5,672	0	5,672	4
Wall Cond	7,591	0	7,591	6
Partition/Door	1,123		1,123	1
Floor	0		0	0
Adjacent Floor	0	0	0	0
Infiltration	14,447		14,447	11
Sub Total ==>	46,738	0	46,738	36
Internal Loads				
Lights	14,829	0	14,829	12
People	20,042	0	20,042	16
Misc	6,654	0	6,654	5
Sub Total ==>	41,525	0	41,525	32
Ceiling Load	0	0	0	0
Ventilation Load	0	0	32,078	25
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		0	0	0
Sup. Fan Heat			8,065	6
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	88,263	0	128,406	100.00

CLG SPACE PEAK — Mo/Hr: 9 / 16; OADB: 89

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	3,229	4
Glass Solar	23,344	30
Glass/Door Cond	4,749	6
Wall Cond	8,802	11
Partition/Door	1,123	1
Floor	0	0
Adjacent Floor	0	0
Infiltration	4,072	5
Sub Total ==>	45,319	58
Internal Loads		
Lights	14,829	19
People	11,135	14
Misc	6,654	9
Sub Total ==>	32,617	42
Ceiling Load	0	0
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat	0	0
OA Preheat Diff.		0
RA Preheat Diff.		0
Additional Reheat		0
Underflr Sup Ht Pkup		0
Supply Air Leakage		0
Grand Total ==>	77,937	100.00

HEATING COIL PEAK — Mo/Hr: Heating Design; OADB: 44

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	-1,959	-1,959	9.93
Glass Solar	0	0	0.00
Glass/Door Cond	-8,493	-8,493	43.05
Wall Cond	-7,548	-7,548	38.26
Partition/Door	-421	-421	2.14
Floor	0	0	0.00
Adjacent Floor	0	0	0
Infiltration	-5,593	-5,593	28.35
Sub Total ==>	-24,014	-24,014	121.72
Internal Loads			
Lights	14,829	14,829	-75.16
People	11,135	11,135	-56.44
Misc	6,654	6,654	-33.72
Sub Total ==>	32,617	32,617	-165.32
Ceiling Load	0	0	0.00
Ventilation Load	0	-12,401	62.85
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	0	0	0.00
Exhaust Heat		8,522	-33.06
OA Preheat Diff.		0	0.00
RA Preheat Diff.		-8,603	43.60
Additional Reheat		-13,851	70.20
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	8,603	-19,730	100.00

TEMPERATURES

	Cooling	Heating
SADB	56.6	73.3
Ra Plenum	72.0	68.0
Return	72.0	59.3
Ret/OA	73.9	57.7
Fn Mtr/TD	0.2	0.0
Fn Btd/TD	0.4	0.0
Fn Frict	1.1	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	4,537	1,361
Terminal	4,537	1,361
Main Fan	4,537	1,361
Sec Fan	0	0
Nom Vent	463	463
AHU Vent	463	463
Infil	209	209
MinStop/Rh	1,361	1,361
Return	4,746	4,746
Exhaust	672	672
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	10.2	10.2
cfm/ft²	1.13	1.13
cfm/ton	423.97	
ft²/ton	374.84	
Btu/hr-ft²	32.01	-6.93
No. People	45	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	10.7	128.4	87.2	4,537	73.9	63.3	70.1	55.0	53.8	60.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	10.7	128.4								

AREAS

	Gross Total ft²	Glass ft²	Glass (%)
Floor	4,011		
Part	286		
Int Door	0		
Ext/Fir	0		
Roof	1,552	0	0
Wall	2,224	393	18
Ext Door	0	0	0

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-27.8	1,361	55.0	73.3
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-27.8			

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: **25 MAY 2011**
REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE: FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER: CITY OF MIAMI

DRAWING TITLE: COOLING/HEATING LOAD CALCULATIONS AND CONTROLS - H.V.A.C.

SCALE: NO SCALE
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.: M4.01

OUTSIDE AIR CALCULATIONS

ZONE LEVEL														
	Zones served by system	**Upper Lobby 201B**	**Open Office Space**	**Office 210**	**Office 211**	**Office 212**	**Office 213**	**Break Room 214**	**Assist. Dir. 215**	**Exec. Dir. 216**	**Conf. Room 217**	**Office 220**	**Office 221**	**Storage 206**
	Space type (select from pull-down list)	Lobbies	Office space	Office space	Office space	Office space	Office space	Office space	Office space	Office space	Conference / meetin	Office space	Office space	Storage rooms
Az	Floor area of zone, ft2	104	2459	129	131	179	137	131	168	202	390	151	113	112
Pz	Zone population, largest # of people expected to occupy zone	3	17	1	1	1	1	1	1	1	20	1	1	0
Rp	People outdoor air rate from Table 6.1, cfm/person	5	5	5	5	5	5	5	5	5	5	5	5	0
Ra	Area outdoor air rate from Table 6.1, cfm/ft2	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.12
Pz*Rp		15	85	5	5	5	5	5	5	5	100	5	5	0
Az*Ra		6.24	147.54	7.74	7.86	10.74	8.22	7.86	10.08	12.12	23.4	9.06	6.78	13.44
Voz	Outdoor airflow to the zone corrected for zone air distribution effectiveness, (Pz*Rp + Az*Ra)/Ez, cfm	21.24	232.54	12.74	12.86	15.74	13.22	12.86	15.08	17.12	123.4	14.06	11.78	13.44
Vpz	Primary airflow to zone from air handler (intake plus recirculated air, but not local recirculation such as at mixing boxes), cfm. **In VAV systems, use the design value.**	150	1200	115	150	370	275	400	500	400	870	390	230	90
Vdz	Supplydischarge to zone including primary air Vpz and locally recirculated air, cfm. **In VAV systems, use the design value.**	150	1200	115	150	370	275	400	500	400	870	390	230	90
Vdzm	Minimum supplydischarge to zone used to calculate Ev, cfm. **In CAV systems, Vdzm = Vdz, In VAV systems, Vdzm is the minimum expected value of Vdz.**	150	1200	115	150	370	275	400	500	400	870	390	230	90
Zd	Outdoor air fraction required in air discharged to zone, = Voz/Vdzm	0.14	0.19	0.11	0.09	0.04	0.05	0.03	0.03	0.04	0.14	0.04	0.05	0.15
Ep	Primary air fraction to zone, = Vpz/Vdz (=1 for single duct and single zone systems)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Er	Fraction of secondary recirc to zone representative of system average, only applies if Ep<1. For plenum return =0. For duct return with local secondary recirc =1.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ez	Zone air distribution effectiveness, Table 6.2	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fa	Fraction of supply air to zone from sources outside zone, = Ep + (1-Ep)*Er	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fb	Fraction of supply air to zone from full mixed primary air, = Ep = Vpz/Vdz	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fc	Fraction of outdoor air to zone from sources outside zone, = 1 - (1-Ez) * (1-Er) * (1-Ep)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
SYSTEM LEVEL														
Ps	System population, maximum simultaneous # of occupants of space served by system	54	1	1	1	1	1	1	1	1	1	1	1	1
D	Occupant diversity, ratio of system peak occupancy to sum of space peak occupancies, = Ps/Σ Pz	1.10												
Vou	Uncorrected outdoor air intake, = D*Σ Rp*Pz +Σ Ra*Az, cfm	541												
Vps	Total system primary flow to all zones, Σ Vpz, cfm	5140	**Note: In VAV systems, Vps is equal to the fan airflow, and the formula in cell c40 needs to be replaced by this value.**											
Xs	Mixing ratio at primary air handler of uncorrected outdoor air intake to system primary flow, = Vou/Vps	0.11												
SYSTEM EFFICIENCY														
Evs	Zone ventilation efficiency, (Fa +Xs*Fb - Z*Fc)/Fa	0.96	0.91	0.99	1.02	1.06	1.06	1.07	1.08	1.06	0.96	1.07	1.05	0.96
Ev	System ventilation efficiency, min(Evs)	0.91												
				Percent outdoor air intake										
Vot	**Minimum outdoor air intake, Vou/Ev, cfm**	**594**		**12%**	= Vot/Vps									

FAN COIL / AIR HANDLING UNIT SCHEDULE

MARK No.		AHU-1	FC-1A	FC-1B	FC-2, FC-3	FC-4
TOTAL/ SENSIBLE CAPACITY, MBH		124.9/82.5	15 (NOMINAL)	15 (NOMINAL)	12 (NOMINAL)	42 (NOMINAL)
SUPPLY AIR, CFM		4595	340	340	350	1060
OUTSIDE AIR, CFM		750	——	——	20	——
EXT. STATIC PRESSURE, IN H2O		1.0	——	——	——	——
EVAP. FAN MOTOR, FLA		9.4 (3 HP)	0.76	0.76	0.51	1.0
EVAP. FAN DRIVE		BELT	DIRECT	DIRECT	DIRECT	DIRECT
HEATER	CAPACITY, MBH	94.6 (HEAT PUMP)	16.9 (HEAT PUMP)	16.9 (HEAT PUMP)	——	——
	No. OF STAGES	——	——	——	——	——
FILTER TYPE		1" PLEATED	WASHABLE	WASHABLE	WASHABLE	WASHABLE
ELECTRIC SERVICE, ø/HZ/V		3/60/240	1/60/240	1/60/240	1/60/240	1/60/240
UNITS MCA, AMPS		9.4	1	1	1	2
UNIT WEIGHT, LBS		400	40	40	50	55
MANUFACTURER		TRANE	MITSUBISHI	MITSUBISHI	MITSUBISHI	MITSUBISHI
MODEL No.		TWE120D	MSZ-A15NA	MSZ-A15NA	PLA-A12BA	PLA-A42BA
LOCATION		MECH. RM. 223	ELEC. RM. 222	TELECOM RM. 205	ELEV. LOBBIES	GROUND FL.
ACCESSORIES					COND. PUMP	COND. PUMP

AIR COOLED CONDENSING UNIT SCHEDULE

MARK No.	CU-1	CU-1AB	CU-2, CU-3	CU-4
GROSS COOLING CAPACITY, BTUH	120000	26000	12000	42000
AMBIENT AIR TEMP., °F	95	95	95	95
REFRIGERANT TYPE	R-410A	R-410A	R-410A	R-410A
SATURATED SUCTION TEMP., °F	45	45	45	45
TOTAL UNIT'S MCA, AMPS	42.6	20	13	26
ELECTRICAL SERVICE,V/Hz/ø	240/60/3	240/60/1	240/60/1	240/60/1
MANUFATURER	TRANE	MITSUBISHI	MITSUBISHI	MITSUBISHI
MODEL No.	TWA120D	MXZ-3A30NA	PUY-A12NHA	PUY-A42NHA
OPERATING WEIGHT, LBS	450	150	100	258
SEER/(EER)	(11.0)	16.0	13.5	14.4
ACCESSORIES		WALL BRACKETS	WALL BRACKETS	WALL BRACKETS

NOTES:
1. ALL REFRIGERANT LINES TO BE MADE OF TYPE "ACR" COPPER. INSULATE SUCTION LINE WITH A MINIMUM OF 3/4" FLEXIBLE FOAM INSULATION. PAINT INSULATION WITH UV RESISTANT, HEAT REFLECTIVE PAINT WHEN EXPOSED TO THE ELEMENTS. ALSO, WHEN EXPOSED TO THE ELEMENTS, INDEPENDENTLY INSULATE BOTH (SUCTION AND LIQUID) REFRIGERANT LINES.

EXTERIOR WALL MOUNTED SELF CONTAINED AC UNIT SCHEDULE

MARK No.		AC-1		
TOTAL / SENSIBLE CAPACITY, MBH		26.0/22.4		
SUPPLY AIR CFM		1000		
OUTSIDE AIR CFM		30		
EXT. STATIC PRESSURE IN H2O		0.4		
EVAP. FAN MOTOR HP		1/3		
EVAP. FAN DRIVE		DIRECT		
HEATER	CAPACITY, BTUH	29,000 (HEAT PUMP)		
	No. OF STAGES	–		
FILTER TYPE		–		
REFRIGERANT TYPE		R-410A		
AMBIENT AIR TEMPERATURE °F		95		
SATURATED SUCTION TEMPERATURE °F		40		
COMPRESSOR	RLA	8.0		
	LRA	71		
CONDENSER FAN FLA		1.5		
ELECTRIC SERVICE, ø/HZ/V		240/60/3		
MCA, AMPS		18.00		
UNIT WEIGHT LBS		400		
ACCESSORIES		T'STAT W/ SUB-BASE		
MANUFACTURER		BARD		
MODEL No.		W24H1-B		
EER/COP		9.2/3.0		
REMARKS		–		

FAN SCHEDULE

UNIT DESIGNATION		EF-1, EF-2, EF-3	SF-1
AREA SERVED		RESTROOMS	OUTSIDE AIR 2nd FLOOR
LOCATION		CLG. SPACE	2nd. FLOOR MECH. ROOM
PERFORMANCE	FAN TYPE	CEILING CABINET	INLINE
	FAN WHEEL TYPE	CENTRIFUGAL	CENTRIFUGAL
	TOTAL AIR CFM (TEMP °F)	150 (75)	750 (91)
	TOTAL STATIC PRESSURE, IN. OF H2O	0.3	0.3
	FAN SPEED, RPM	1050	1240
	DRIVE TYPE	DIRECT	BELT
MOTOR	MOTOR TYPE	O.D.P.	O.D.P.
	MOTOR SIZE, HP	129 (WATTS)	1/4
	ELECTRICAL SERVICE AVAILABLE, ø/Hz/V	1/60/120	1/60/120
ACCESS	COMPANION CURB (PREFAB)	———	———
	CURB HEIGHT, IN	———	———
	FIRESTATS	———	———
OPERATING WEIGHT, LBS		10	115
SONES/dBA		2.0/43	5.2/49
DESIGN MANUFACTURER & MODEL NUMBER		GREENHECK CSP-B150	GREENHECK BSQ-100-4

NOTES:
- PROVIDE SF-1 WITH MANUFACTURER PROVIDED INSULATED CASING.
- INTERLOCK SF-1 TO WORK CONCURRENTLY WITH CU-1.
- EF-1 AND EF-2 SHALL BE INTERLOCKED WITH RESTROOM LIGHT SWITCH. PROVIDE 15 MINUTE (ADJUSTABLE) TIME DELAY RELAY.
- EF-3 SHALL BE INTERLOCKED WITH JANITOR'S CLOSET LIGHT SWITCH. PROVIDE 15 MINUTE (ADJUSTABLE) TIME DELAY RELAY.

DUCTWORK CONSTRUCTION TABLE

[All ductwork shall be sealed following the class A requirements of SMACNA's Duct Construction Standards (Table 1-2)]

DUCTWORK SYSTEM	DUCTWORK LOCATION	DUCTWORK SHAPE	DUCTWORK MATERIAL	DUCTWORK INSULATION
SUPPLY AIR	CONCEALED ABOVE THE CEILING (R/A PLENUM)	SQUARE OR ROUND	SHEETMETAL	R-6 EXTERNALLY WRAPPED
	CONCEALED ABOVE THE CEILING (DUCTED RETURN)	SQUARE OR ROUND	SHEETMETAL	R-6 EXTERNALLY WRAPPED
	EXPOSED (INDOORS)	OVAL SPIRAL	SHEETMETAL	R-6 DOUBLE WALL W/ SOLID INNER AND OUTER WALLS
	EXPOSED (OUTDOORS)	SQUARE OR ROUND	SHEETMETAL	R-8 DOUBLE WALL W/ SOLID INNER AND OUTER WALLS
RETURN AIR	CONCEALED ABOVE THE CEILING (DUCTED RETURN)	SQUARE	SHEETMETAL	R-6 EXTERNALLY WRAPPED
	EXPOSED (INDOORS)	OVAL SPIRAL	SHEETMETAL	NOT REQUIRED
	EXPOSED (OUTDOORS)	SQUARE	SHEETMETAL	R-8 DOUBLE WALL W/ SOLID INNER AND OUTER WALLS
EXHAUST AIR	CONCEALED ABOVE THE CEILING (R/A PLENUM)	SQUARE	SHEETMETAL	NOT REQUIRED
	CONCEALED ABOVE THE CEILING (DUCTED RETURN)	SQUARE	SHEETMETAL	R-6 EXTERNALLY WRAPPED
	EXPOSED (INDOORS)	OVAL SPIRAL	SHEETMETAL	NOT REQUIRED
OUTSIDE AIR	UPSTREAM COOLING COIL	SQUARE	SHEETMETAL	R-6 EXTERNALLY WRAPPED
	DOWNSTREAM COOLING COIL	SQUARE	SHEETMETAL	R-6 EXTERNALLY WRAPPED

AIR TERMINAL SCHEDULE

DESIGN BASIS BY : TITUS

MARK	SERVICE	TYPE	NECK SIZE	CFM RANGE	ACCESS	MODEL NO.
Ⓐ	SUPPLY AIR	VAV CEILING DIFFUSER	8"ø	1 - 200	RELIEF RING	T3SQ-1 24X24 MODULE
			10"ø	201-350		
			12"ø	351-450		
Ⓑ	RETURN AIR	SINGLE DEFLECTION GRILLE	24X24	1 - 2500	——	350 FL
			48X24	2501-4600		
Ⓒ	SUPPLY AIR	LOUVERED CEILING DIFFUSER	8"ø	0-100	——	TDC-AA 12X12 MODULE
Ⓓ	SUPPLY AIR	SIDEWALL DIFFUSER	6X6	0-150	——	301-FS
Ⓔ	SUPPLY AIR	ROUND CLG. DIFFUSER	8"ø	1 - 350	——	TMR-AA (ALUM. FINISH)
			10"ø	351-500		
Ⓕ	TRANSFER AIR	SIGHTPROOF DOOR TRANSER GRILLE	12X12	1 - 250	——	CT-700L
Ⓖ	TRANSFER AIR	LOUVERED SIDEWALL GRILLE	18X6	1 - 450	——	350 FL

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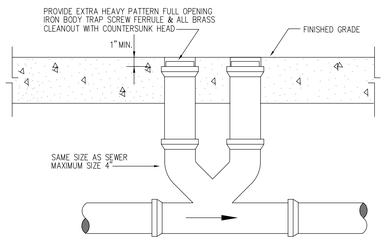
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DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: **25 MAY 2011**
REVISIONS:
No. DATE

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

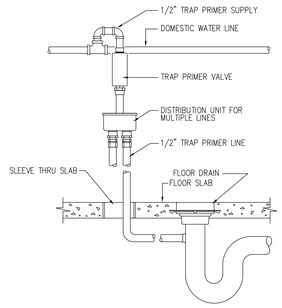
DRAWING TITLE:
SCHEDULES AND OUTSIDE AIR CALCULATIONS -H.V.A.C.
SCALE: NO SCALE
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
M5.01



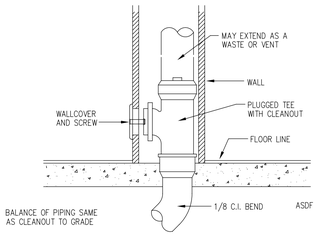
DOUBLE 2 WAY CLEANOUT DETAIL

NO SCALE



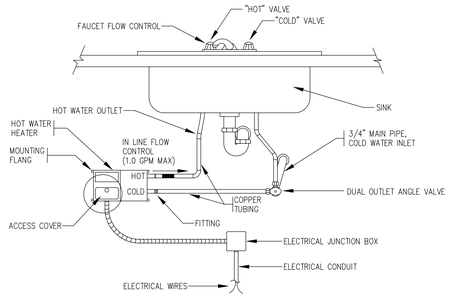
TRAP SEAL PRIMER DETAIL

NO SCALE



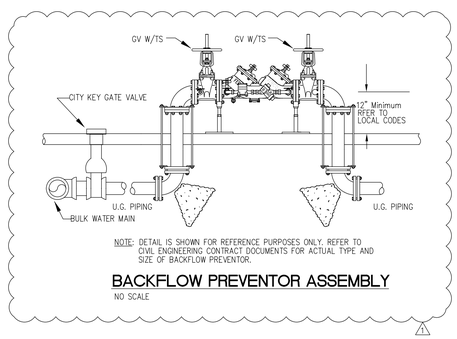
WALL CLEANOUT DETAIL

NO SCALE



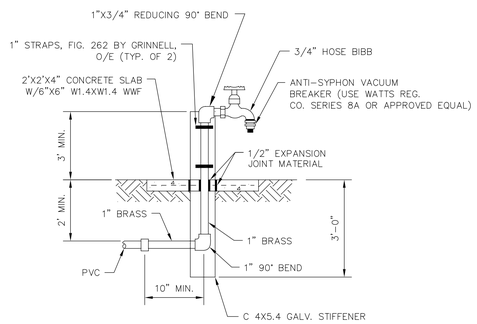
TYPICAL "IWH" INSTANT WATER HEATER MOUNTING DETAIL

NO SCALE



BACKFLOW PREVENTOR ASSEMBLY

NO SCALE



HOSE BIBB DETAIL

NO SCALE

FIXTURE CONNECTION SCHEDULE

MARK	DESCRIPTION	WASTE	VENT	COLD WATER	HOT WATER	REMARKS
WC (-H)	WATER CLOSET (HANDICAPPED)	3"	2"	1½"	———	
LAV (-H)	LAVATORY (HANDICAPPED)	1½"	1½"	½"	———	
UR (-H)	URINAL (HANDICAPPED)	2"	2"	¾"	———	
SK	SINK	1½"	1½"	½"	½"	
SS	SERVICE SINK	3"	2"	¾"	¾"	
EWC	ELECTRIC WATER COOLER	1½"	1½"	½"	———	
FD	FLOOR DRAIN	3"	2"	*	———	* TRAP RESEALED FROM NEAREST FIXTURE
HB	HOSE BIBB	———	———	¾"	———	
RF	REFRIGERATOR	———	———	½"	———	

WATER HEATER DATA

MARK	STORAGE IN U.S. GAL.	INPUT	MANUFACTURER MODEL No.	ELECTRICAL DATA	REMARKS	LOCATION
IWH	--	4800 W	CHRONOMITE SR-20L	1Ø/60Hz/240V		SEE PLANS

SHOCK ABSORBER SCHEDULE

ABSORTION TYPE No.	75001 75001-S	75002 75002-S	75003 75003-S	75004 75004-S	75005 75005-S	75006 75006-S
P.D.I. SYMBOLS (•)	A	B	C	D	E	F
FIXTURE-UNIT RATING	1-11	12-32	33-60	61-113	114-154	155-330

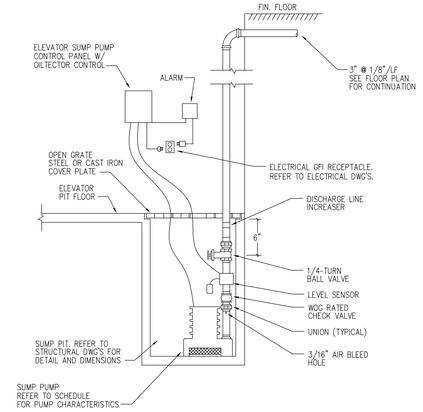
(•) CLASSFICATIONS ESTABLISHED BY THE PLUMBING AND DRAINAGE INSTITUTE "STANDARD P.D.I. - WH201"

NOTES:

1. CONTRACTOR TO INSTALL SHOCK ABSORBER AS PER MANUFACTURER INSTRUCTIONS.
2. SHOCK ABSORBERS TO BE JOSAM (ABSORBOTRON) OR EQUAL.
3. CONTRACTOR TO INSTALL SHOCK ABSORBERS WHERE QUICK CLOSING VALVES ARE PRESENT.
4. CONTRACTOR TO PROVIDE ACCESS DOORS WHERE REQUIRED TO SERVICE SHOCK ABSORBERS.

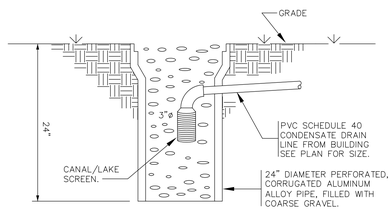
SUMP PUMP SCHEDULE

MARK	LOCATION	MANUFACTURER/ MODEL No.	PUMP TYPE	WATER FLOW (GPM)	TOTAL DYNAMIC HEAD (FT OF WATER)	MOTOR SIZE (HP)	PUMP SPEED (RPM)	ELECTRICAL DATA
SP-1	SUMP	LIBERTY PUMPS/ ELV280 (PUMP, OILTECTOR CONTROL, ALARM)	SUBMERSIBLE	40	20	1/2	3450	1Ø/60Hz/120V



SUMP PUMP DETAIL

NO SCALE



CONDENSATE FRENCH DRAIN DETAIL

NO SCALE

GENERAL NOTES

1. FOR CONTINUATION OF ALL PLUMBING UNDERGROUND SERVICES FROM BEYOND > 5'-0" OUTSIDE BUILDING, SEE CIVIL ENGINEERING DRAWINGS.
2. OFFSET ALL VTR'S, SANITARY, AND VENT STACKS AS REQUIRED.
3. ALL SAN. 2" AND SMALLER SHALL SLOPE UNIFORMLY NO LESS THAN 1/4"/FT, 3" AND LARGER SHALL SLOPE UNIFORMLY NO LESS THAN 1/8"/FT.
4. CONTRACTOR TO COORDINATE INSTALLATION OF PIPES WITH ERECTION OF BLOCK WALLS SO PIPES ARE INSTALLED BEFORE WALLS. ITS IS THE INTENT OF THIS INSTRUCTION TO MINIMIZE BLOCK CUTTING TO ACCOMODATE PIPES.
5. ALL HOSE BIBBS SHALL BE EQUIPPED WITH VACUUM BREAKERS.
6. DRAWINGS ARE DIAGRAMMATIC AND SHOW LOCATION INTENT, BUT SHOULD BE FOLLOWED AS CLOSE AS POSSIBLE CONTRACTOR IS TO COORDINATE LAYOUTS WITH OTHER DISCIPLINES TO AVOID CONFLICTS AND FACILITATE ACCESSIBILITY FOR SERVICING.
7. DESIGN INTENT CONSTITUTES THE PROVISIONS OF COMPLETE SYSTEM AS INDICATED WITH ALL NECESSARY COMPONENTS AND ACCESSORIES, WHETHER EXPLICITLY SPECIFIED OR IMPLIED, TO ACHIEVE FULL OPERATIONAL STATUS.
8. DRAWINGS FROM VARIOUS DISCIPLINES ARE INTERRELATED, WHAT IS REQUIRED IN ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. COMPLEMENTARY COMPONENTS BETWEEN DISCIPLINES, REASONABLY INFERRED AS BEING NECESSARY TO PRODUCE INTENDED RESULTS, SHALL BE DEEMED PART OF THE CONTRACTOR'S EXPECTED PERFORMANCE.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND EXECUTION OF ALL NECESSARY CHANGES ATTRIBUTABLE TO INSTALLATION OF SUBSTITUTE EQUIPMENT AT NO ADDITIONAL COST TO OWNER.
10. DOMESTIC WATER PIPING:
    CONTRACTOR TO INSTALL TYPE "L", DRAWN COPPER TUBE WITH WROUGHT COPPER FITTINGS AND LEAD FREE SOLDER JOINTS FOR PIPE SIZES 4 INCHES AND SMALLER, ABOVE GROUND, WITHIN BUILDING. CONTRACTOR TO INSTALL TYPE "K", ANNEALED TEMPERED COPPER TUBE FOR PIPE SIZES 3 INCHES AND SMALLER, WITH MINIMUM NUMBER OF JOINTS, BELOW GROUND.
11. SANITARY PIPING:
    CONTRACTOR TO INSTALL STORM DRAINAGE (WHEN APPLICABLE), DRAINAGE, DRAINAGE VENT PIPES AND FITTINGS AS FOLLOWS:
    A. ABOVE GROUND DRAINAGE AND VENT PIPE:
       1) POLYVINYL CHLORIDE (PVC) PLASTIC PIPE (TYPE DWV) COMPLYING WITH ASTM D 2665; ASTM D 2949; ASTM F 891; CSA CAN/CSA - B181.2.
    B. UNDERGROUND SEWER PIPE:
       1) POLYVINYL CHLORIDE (PVC) PLASTIC PIPE (TYPE DWV, SDR 26, SDR 35, SDR 41, PS 50 OR PS 100) COMPLYING WITH ASTM D 2665; ASTM D 2949; ASTM D 3034; ASTM F 891; CSA B 182.2; CSA CAN/CSA - B181.4.
12. ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FLORIDA BUILDING CODE.
13. NO GAS SERVICE REQUIRED IN THIS PROJECT.

PLUMBING LEGEND

—— WM ——	WATER MAIN
— — CW — —	COLD WATER LINE
— — HW — —	HOT WATER LINE
—— S ——	SANITARY WASTE LINE
— — V — —	SANITARY VENT
—— CD ——	CONDENSATE DRAIN LINE
CO	WALL CLEANOUT
	SHOCK ABSORBER
SD	STORM DRAIN (ROOF)
RWL	RAIN WATER LEADER
RS	ROOF SCUPPER
ERS	EMERGENCY ROOF SCUPPER
A.F.F.	ABOVE FINISHED FLOOR
SF	SQUARE FEET
VTR	VENT THROUGH ROOF
ERD	EMERGENCY ROOF DRAIN
ERWL	EMERGENCY RAIN WATER LEADER
RD	ROOF DRAIN
C.C.O.	GROUND CLEANOUT
F.C.O.	FLOOR CLEANOUT
	GATE VALVE
F.O.V.	FULL OPEN VALVE
HB	HOSE BIBB
	PIPE DOWN
	PIPE UP
	TEE DN
	TEE UP

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: 25 MAY 2011
REVISIONS:
No. DATE
1 SEPTEMBER, 16 2011

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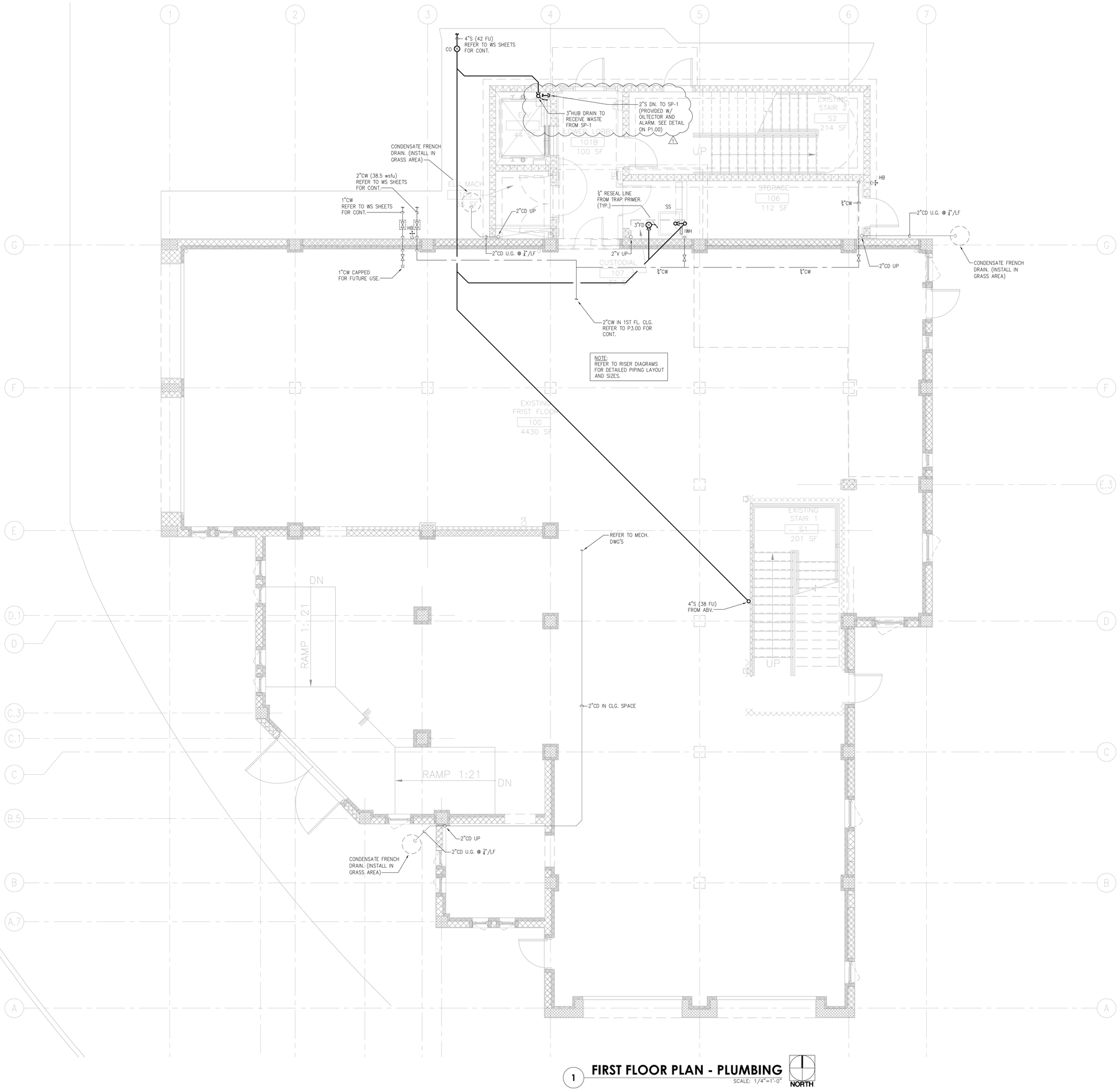
CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB
PROJECT TITLE

FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

DRAWING TITLE:
GENERAL NOTES, LEGENDS, SCHEDULES AND DETAILS - PLUMBING

SCALE: N.T.S.
DO NOT SCALE DRAWING - ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK.

SHEET No.
P1.00



1 **FIRST FLOOR PLAN - PLUMBING**
SCALE: 1/4"=1'-0"

NORTH

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

1 SEPTEMBER, 16 2011

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☐ JOEL IGLESIAS, P.E. LICENSE NO. 71491

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

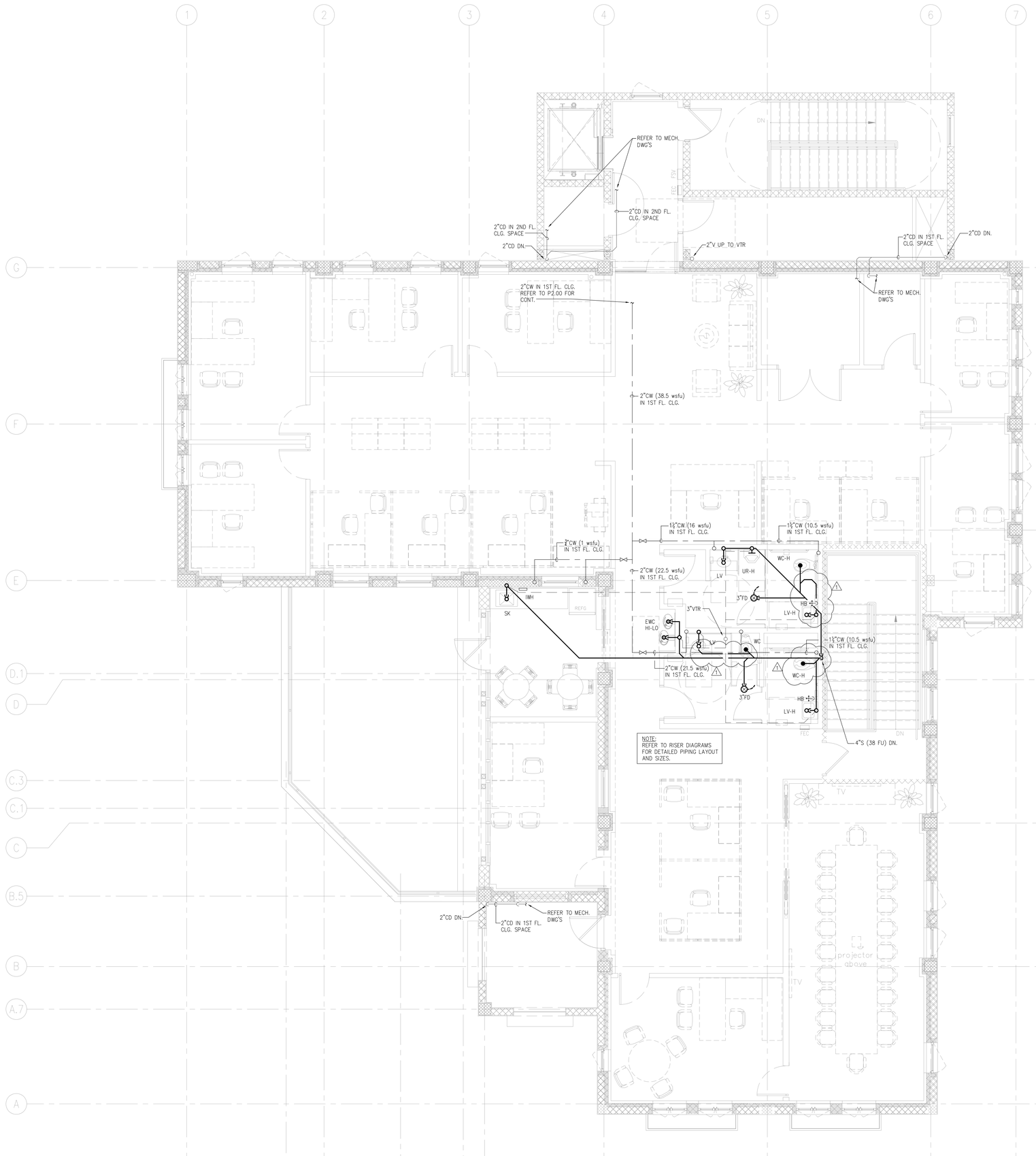
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
FIRST FLOOR PLAN - PLUMBING

SCALE: 1/4" = 1'-0"
AT 11" BEFORE PRODUCING WITH ALL DIMENSIONS

SHEET No.
P2.00



1 **SECOND FLOOR PLAN - PLUMBING**
SCALE: 1/4"=1'-0"

NORTH

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE:
25 MAY 2011
REVISIONS:
No. DATE
1 SEPTEMBER, 16 2011

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HECTOR J. CASTILLO, P.E. LICENSE NO. 68428
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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

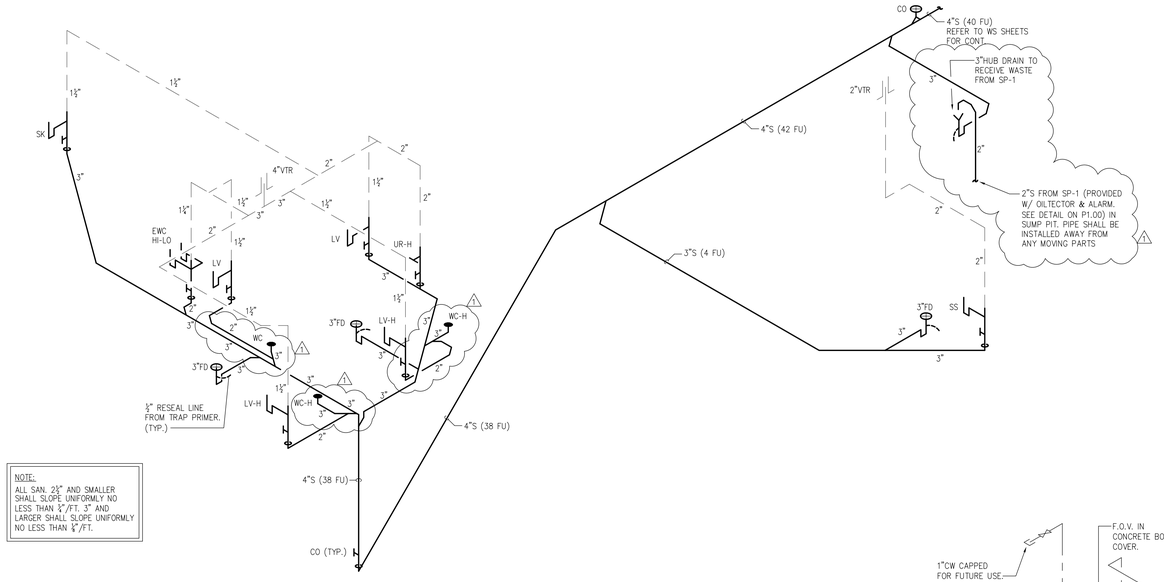
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
SECOND FLOOR PLAN - PLUMBING

SCALE: 1/4" = 1'-0"
NOTE: DRAWINGS ARE NOT TO SCALE. VERIFY ALL DIMENSIONS AT SITE BEFORE ORDERING ANY WORK.

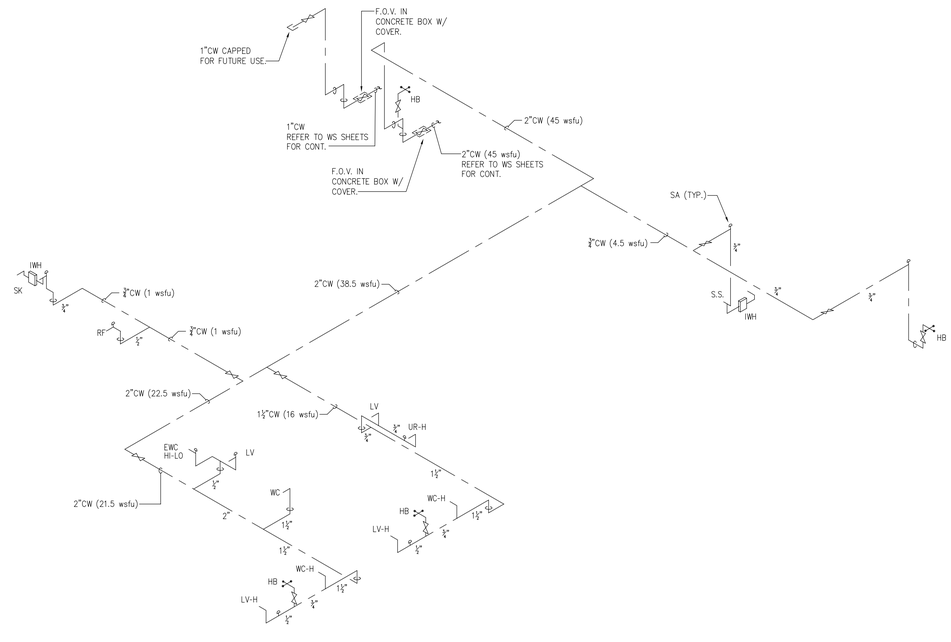
SHEET No.
P3.00



NOTE:
ALL SAN. 2½" AND SMALLER SHALL SLOPE UNIFORMLY NO LESS THAN ¼"/FT. 3" AND LARGER SHALL SLOPE UNIFORMLY NO LESS THAN ⅛"/FT.

1 SANITARY RISER DIAGRAM - PLUMBING

N.T.S.



2 DOMESTIC WATER RISER DIAGRAM - PLUMBING

N.T.S.

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

1 SEPTEMBER, 16 2011

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
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INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

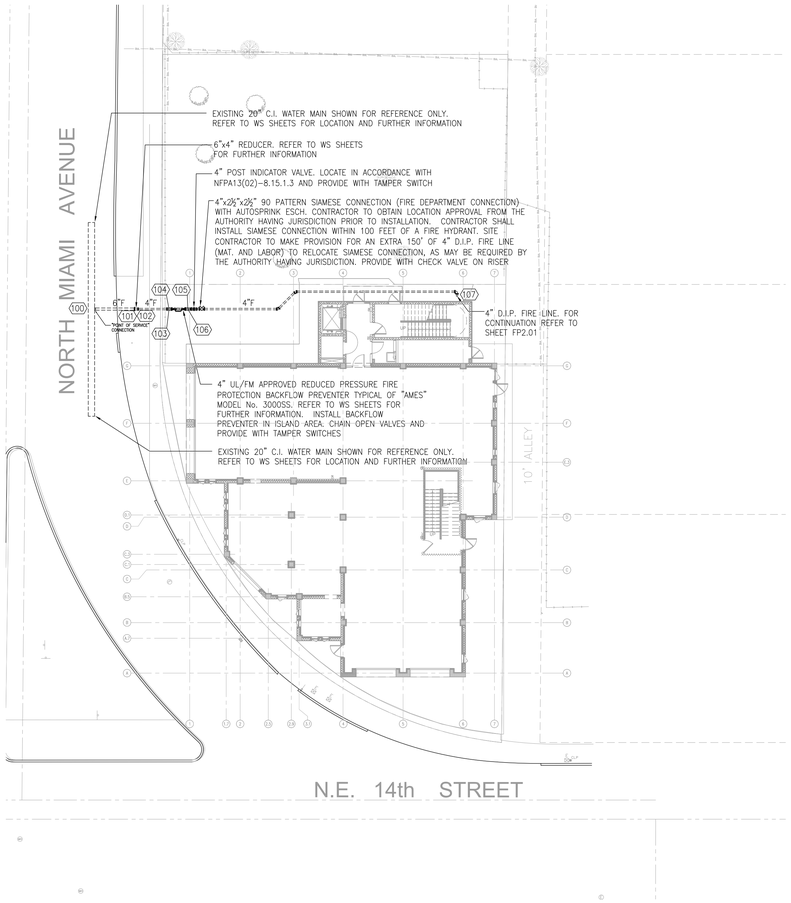
DRAWING TITLE:
RISERS - PLUMBING

SCALE: N.T.S.
AT 24 X 36 SHEET. ALL DRAWINGS NOT AT SCALE. DO NOT SCALE DIMENSIONS AT SITE. REFERENCE PROFESSIONAL WORK.

SHEET No.
P4.00

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF THE FLORIDA BUILDING CODE, N.F.P.A #13, 14, 24, 101, 72, UL LISTING, AND FACTORY MUTUAL REQUIREMENTS. IN ANY CONFLICT THE MOST RIGID REQUIREMENT SHALL APPLY.
2. ALL MATERIALS AND EQUIPMENT PROVIDED SHALL BE UL LISTED AND FM APPROVED FOR THE SPECIFIED SERVICE APPLICATION.
3. CONTRACTOR SHALL PAINT ALL ABOVE GROUND FIRE SERVICE PIPING, FITTING AND VALVES WITH A MINIMUM OF 10 MILS RUST PROOF FIRE PROTECTION RED PAINT (OR PAINT TO MATCH BACKGROUND IF REQUESTED BY OWNER AND APPROVED BY A.H.J.) . PIPING SHALL COMPLY WITH N.F.P.A.(02)-8.15.3.2.
4. ALL FIRE SERVICE PIPING ABOVE GROUND SHALL BE SCHEDULE 40 STEEL PIPE FOR PIPE SIZES UP TO 2" AND SCHEDULE 10 STEEL FOR PIPE SIZES 2½" AND LARGER (A.S.T.M. A-53).
5. ALL FIRE SERVICE PIPING BELOW GROUND SHALL BE DUCTILE IRON.
6. ALL PIPING OPEN TO EXTERIOR TO BE FACTORY HOT DIPPED GALVANIZED (PIPE AND FITTINGS).
7. ALL PIPING PENETRATING A FLOOR SLAB SHALL BE SLEEVED AND SEALED WITH NO DIRECT CONTACT WITH CONCRETE.
8. HANGING, BRACING AND RESTRAINT OF SYSTEM PIPING SHALL COMPLY WITH N.F.P.A.13(02)-9.
9. SPRINKLERS SHALL BE PROVIDED IN ALL AREAS EXCEPT WHERE OTHERWISE NOTED.
10. UNLESS OTHERWISE NOTED. ALL WET SYSTEM SPRINKLER HEADS SHALL BE OF THE QUICK RESPONSE TYPE, AND SHALL BE UL/FM APPROVED FOR THE HAZARD AND PRESSURE SPECIFIED.
11. ALL SPRINKLER HEADS SHALL BE INSTALLED ON CENTER OF CEILING TILE. CONTRACTOR TO PROVIDE A RETURN BEND TO ALLOW TWO DEGREES OF MOVEMENT AT EACH SPRINKLER HEAD LOCATION. REFER TO DETAILS FOR ADDITIONAL INFORMATION.
12. THE DISTANCE BETWEEN A HANGER AND THE CENTER OF AN UPRIGHT SPRINKLER SHALL NOT BE LESS THAN 3 INCHES.
13. PROVIDE STOCK OF SPRINKLER HEADS IN ACCORDANCE WITH N.F.P.A.13(02)-6.2.9.
14. ALL CONTROL, DRAIN AND TEST CONNECTION VALVES SHALL BE PROVIDED WITH SIGNS AS PER N.F.P.A.13 INDICATING THEIR PURPOSE. THE CONTROL VALVE SIGNS SHALL IDENTIFY THE PORTION OF THE BUILDING SERVED.
15. ALL VALVES CONTROLLING WATER SUPPLY SHALL BE PROVIDED WITH A SUPERVISORY (TAMPER) SWITCH. COORDINATE LOCATION AND WIRING WITH ELECTRICAL CONTRACTOR.
16. INTERCONNECT FIRE PROTECTION SYSTEM WITH BUILDING CENTRAL FIRE ALARM SYSTEM. REFER TO ELECTRICAL DRAWINGS FOR FURTHER INFORMATION.
17. WHENEVER SPRINKLERS ARE INSTALLED IN ELECTRICAL ROOMS, HOODS OR SHIELDS MUST BE PROVIDED OVER ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH N.F.P.A.13(02)-8.14.10. COORDINATE WITH ELECTRICAL CONTRACTOR.
18. PROVIDE AUXILIARY DRAINS WHERE A CHANGE IN PIPING DIRECTION PREVENTS DRAINAGE OF SYSTEM PIPING THROUGH THE MAIN DRAIN VALVE. AUXILIARY DRAINS SHALL COMPLY WITH N.F.P.A.13(02)-8.15.2.5.
19. PROVIDE LINE-SIZE TEST DRAIN (VALVE CHAINED SHUT AND LOCKED) AT REMOTE SPRINKLER HEAD OF EACH SYSTEM DOWN STREAM OF A FLOOR CONTROL ASSEMBLY.
20. PROVIDE TEST DRAIN AT EVERY FLOW SWITCH (COORDINATE ACCEPTABLE LOCATION WITH A/E TEAM).
21. READILY REMOVABLE FITTINGS SHALL BE PROVIDED AT THE END OF ALL CROSS-MAINS.
22. PROVIDE HINGED ACCESS PANEL FOR ALL DEVICES LOCATED IN PLASTER OR STUCCO CEILINGS.
23. WATER VELOCITY WITHIN PIPES SHALL NOT EXCEED 20 FT/SEC.
24. NO STORAGE SHALL BE ALLOWED IN THIS FACILITY. PRESENT FIRE PROTECTION DOES NOT ALLOW FOR STORAGE OF ANY TYPE. ADDITIONAL ENGINEERED FIRE PROTECTION PROVISIONS MUST BE MADE BASED ON STORAGE HEIGHT AND COMMODITY CLASS PRIOR TO THE REMOVAL OF THIS STORAGE RESTRICTION.
25. ALL WORK INCLUDED IN THIS DOCUMENTS SHALL BE INCLUDED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
26. WORK TO BE CONCEALED SHALL REMAIN UNCOVERED UNTIL REQUIRED TESTS HAVE BEEN COMPLETED IN PRESENCE OF A/E AND OTHER REQUIRED REPRESENTATIVES.
27. THE SYSTEM SHALL BE HYDROSTATICALLY TESTED AT 200 PSI FOR 2 HOURS CONFORMING TO N.F.P.A.13(02)-10.10.2.2.1 BEFORE FINAL APPROVAL.
28. ABOVE GROUND AND BELOW GROUND CERTIFICATES SHALL BE SIGNED AND PROVIDED TO OWNER UPON APPROVAL OF PRESSURE TEST AND FINAL INSPECTION AS PER NFPA13(02)-10.10.1
29. ALL FIRE SPRINKLER PIPING INCLUDING PIPING TO THE POINT OF SERVICE SHALL BE INSTALLED BY A CERTIFIED LICENSED CONTRACTOR AS PER FLORIDA ADMINISTRATIVE CODE RULE 4A-46 AND STATE STATUTE 489.105(N).
30. CONTRACTOR SHALL OBTAIN FIRE DEPARTMENT PERMIT BASED ON A/E APPROVED SHOP DRAWINGS (WORKING PLANS AS PER N.F.P.A.13(02)-14.1) PRIOR TO INSTALLATION OF SYSTEM(S).
31. DRAWINGS INDICATE APPROXIMATE LOCATION OF CEILING MOUNTED DEVICES. EXACT LOCATION IS TO BE COORDINATED WITH ARCHITECTURAL CEILING PLANS.
32. DESIGN INTENT CONSTITUTES THE PROVISION OF COMPLETE SYSTEM, AS INDICATED WITH ALL NECESSARY COMPONENTS AND ACCESSORIES WETHER EXPLICITLY SPECIFIED OR IMPLIED, TO ACHIEVE FULL OPERATIONAL STATUS.
33. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND EXECUTION OF ALL NECESSARY CHANGES ATTRIBUTABLE TO INSTALLATION OF SUBSTITUTE EQUIPMENT AT NO ADDITIONAL COST TO OWNER.
34. DRAWINGS ARE DIAGRAMMATIC AND AND SHOW DESIGN INTENT. CONTRACTOR IS TO COORDINATE SYSTEM LAYOUT WITH EXISTING CONDITIONS AND OTHER DISCIPLINES (MECHANICAL, ELECTRICAL, PLUMBING, ARCHITECTURAL, STRUCTURAL, ETC), TO AVOID CONFLICTS DURING CONSTRUCTION AND FACILITATE ACCESSIBILITY FOR MAINTENANCE. WHERE INTERFERENCE OCCUR, CONTRACTOR SHALL RE-ROUTE PIPING AS REQUIRED. CONTRACTOR SHALL MAKE ALL NECESSARY ALTERATIONS TO SYSTEM LAYOUT DURING THE SHOP DRAWING SUBMITTAL PHASE. ALTERATIONS DUE TO COORDINATION SHALL BE CLEARLY CLOUDED AND LABELED FOR QUICK REFERENCE AND SUBJECT FOR APPROVAL FOR THE A/E TEAM.
35. DRAWINGS FROM VARIOUS DISCIPLINES ARE INTERRELATED. WHAT IS REQUIRED IN ONE SHALL BE AS BINDING AS IF REQUIRED BY ALL. COMPLEMENTARY COMPONENTS BETWEEN DISCIPLINES, REASONABLY INFERRED AS BEING NECESSARY TO PRODUCE INTENDED RESULT SHALL BE DEEMED PART OF THE CONTRACTORS EXPECTED PERFORMANCE.
36. FIRE PROTECTION CONTRACTOR SHALL PREPARE SHOP DRAWINGS IN CAD FORMAT COMPATIBLE WITH "AUTOCAD" RELEASE 2004. HARD COPIES SHALL BE SUBMITTED, SIGNED & SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA, TO A/E TEAM FOR REVIEW. CONTRACTOR SHALL MAINTAIN DETAILED AS-BUILT DRAWINGS (UPDATED DAILY) OF WORK PERFORMED ON SITE. PRIOR TO SUBSTANTIAL COMPLETION WALK-THROUGH, CONTRACTOR SHALL PROVIDE CAD AS-BUILT (INCLUDING ISOMETRICS, SECTIONS, ENLARGED PLANS, ETC) TO A/E TEAM ON CD REFLECTING ACTUAL INSTALLATION.
37. WHERE SPRINKLERS ARE LOCATED CLOSER THAN 6' APART, CROSS-BAFFLES SHALL BE PROVIDED MIDWAY BETWEEN SPRINKLERS.



1 **SITE PLAN-FIRE PROTECTION**
SCALE: 1/16"=1'-0"

NORTH

LEGEND AND ABBREVIATIONS

WM	UNDERGROUND WATER MAIN (FIRE SERVICE)
F	UNDERGROUND FIRE LINE
F	BULK FIRE MAIN/ DISTRIBUTION PIPING
SP	SPRINKLER MAIN
T	SPRINKLER SYSTEM DRAIN/TEST DRAIN
	QUICK RESPONSE, STANDARD COVERAGE, PENDENT SPRINKLER HEAD TYPICAL OF "TYCO" SERIES TY-FRB (MODEL No. TY3231) - 5.6 K-FACTOR. SPRINKLER HEAD MUST BE UL/FM APPROVED. PROVIDE WITH CORROSION RESISTANT COATING WHEN INSTALLED OUTDOORS. PROVIDE WITH STYLE 10 RECESSED SCUTCHEON WHEN INSTALLED IN CEILING AREAS. PROVIDE WITH METAL GUARD WHEN INSTALLED BELOW 7'-6" (MECHANICAL ROOMS, ETC.). PROVIDE 250PSI RATING WHEN INDICATED WITH "HP" REQUIREMENTS.
	QUICK RESPONSE, STANDARD COVERAGE, PENDENT SPRINKLER HEAD TYPICAL OF "TYCO" SERIES TY-FRB (MODEL No. TY3231) - 5.6 K-FACTOR. SPRINKLER HEAD MUST BE UL/FM APPROVED. PROVIDE WITH CORROSION RESISTANT COATING WHEN INSTALLED OUTDOORS. PROVIDE WITH STYLE 10 RECESSED SCUTCHEON WHEN INSTALLED IN CEILING AREAS. PROVIDE WITH METAL GUARD WHEN INSTALLED BELOW 7'-6" (MECHANICAL ROOMS, ETC.). PROVIDE 250PSI RATING WHEN INDICATED WITH "HP" REQUIREMENTS.
	QUICK RESPONSE, STANDARD COVERAGE, UPRIGHT SPRINKLER HEAD TYPICAL OF "TYCO" SERIES TY-FRB (MODEL No. TY3131) - 5.6 K-FACTOR. SPRINKLER HEAD MUST BE UL/FM APPROVED. PROVIDE WITH CORROSION RESISTANT COATING WHEN INSTALLED OUTDOORS. PROVIDE WITH METAL GUARD WHEN INSTALLED BELOW 7'-6" (MECHANICAL ROOMS, ETC.). PROVIDE 250PSI RATING WHEN INDICATED WITH "HP" REQUIREMENTS.
	QUICK RESPONSE, STANDARD COVERAGE, SIDEWALL SPRINKLER HEAD TYPICAL OF "TYCO" SERIES TY-FRB (MODEL No. TY3331) - 5.6 K-FACTOR. SPRINKLER HEAD MUST BE UL/FM APPROVED. PROVIDE WITH CORROSION RESISTANT COATING WHEN INSTALLED OUTDOORS. PROVIDE WITH 155°F BULB WHEN INDICATED WITH "HT" REQUIREMENTS. PROVIDE 250PSI RATING WHEN INDICATED WITH "HP" REQUIREMENTS.
	QUICK RESPONSE, STANDARD COVERAGE, RECESSED SIDEWALL SPRINKLER HEAD TYPICAL OF "TYCO" SERIES TY-FRB (MODEL No. TY3331) - 5.6 K-FACTOR. PROVIDE WITH STYLE 10 RECESSED SCUTCHEON. SPRINKLER HEAD MUST BE UL/FM APPROVED. PROVIDE WITH CORROSION RESISTANT COATING WHEN INSTALLED OUTDOORS.
	PIPE UP
	PIPE DOWN
CO	FLUSH CLEAN-OUT
DNP	DROP NIPPLE
RNP	RISE NIPPLE
IT	INTERMEDIATE TEMPERATURE SPRINKLER HEAD
HT	HIGH TEMPERATURE SPRINKLER HEAD
HP	HIGH PRESSURE SPRINKLER HEAD (250PSI)
TS	TAMPER SWITCH
FS	FLOW SWITCH
FHV	FIRE HOSE VALVE
FCA	FLOOR CONTROL ASSEMBLY.
T.O.P.	TOP OF PIPE
SCD	SCHEDULE
	POINT OF CONNECTION TO EXISTING PIPING
XX	HYDRAULIC CALCULATION REFERENCE POINT
#	NOTE NUMBER #

DESIGN CRITERIA

A: ORDINARY HAZARD GROUP I
MECHANICAL ROOMS, ELECTRICAL EQUIPMENT ROOMS, APPARATUS AREA, AUTOMOBILE PARKING, STORAGE ROOMS, KITCHEN.
SPRINKLER SPACING: 130 SF/HEAD MAXIMUM
DENSITY: 0.15 GPM/SF OVER HYDRAULICALLY MOST REMOTE AREA: 1500 SF

SPECIAL HAZARD
GENERATOR ROOM IS DESIGNED TO A 0.25 GPM/SF DENSITY OVER THE ENTIRE AREA AS PER NFPA 13, SECTION 13.29.1.7 (2002 EDITION)

B: LIGHT HAZARD
ALL OTHER AREAS (OFFICES, PUBLIC & ASSEMBLY AREAS)
SPRINKLER SPACING: 225 SF/HEAD MAXIMUM
DENSITY: 0.10 GPM/SF OVER HYDRAULICALLY MOST REMOTE AREA: 1500 SF

(+) WHERE APPLICABLE, THE SYSTEM AREA OF OPERATION MAY BE REDUCED WITHOUT REVISING THE DENSITY AS DEPICTED ON NFPA-13 SECTION 11.2.3.2.3 (2002 ED.)

WATER FLOW VELOCITIES EXCEEDING 20 FPS WITHIN ANY FIRE PROTECTION PIPE SHALL NOT BE PERMITTED. IN CASES WHERE THE AFOREMENTIONED VELOCITY IS EXCEEDED, THE CONTRACTOR SHALL INCREASE THE SIZE OF THE AFFECTED PIPE UNTIL THE WATER FLOW VELOCITY IS PROPERLY REDUCED.

DRAWN BY:
CHK'D BY:
APP'D BY:
ISSUE DATE: **25 MAY 2011**

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No.	DATE	
1	9-15-11	BLDG DEPT

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

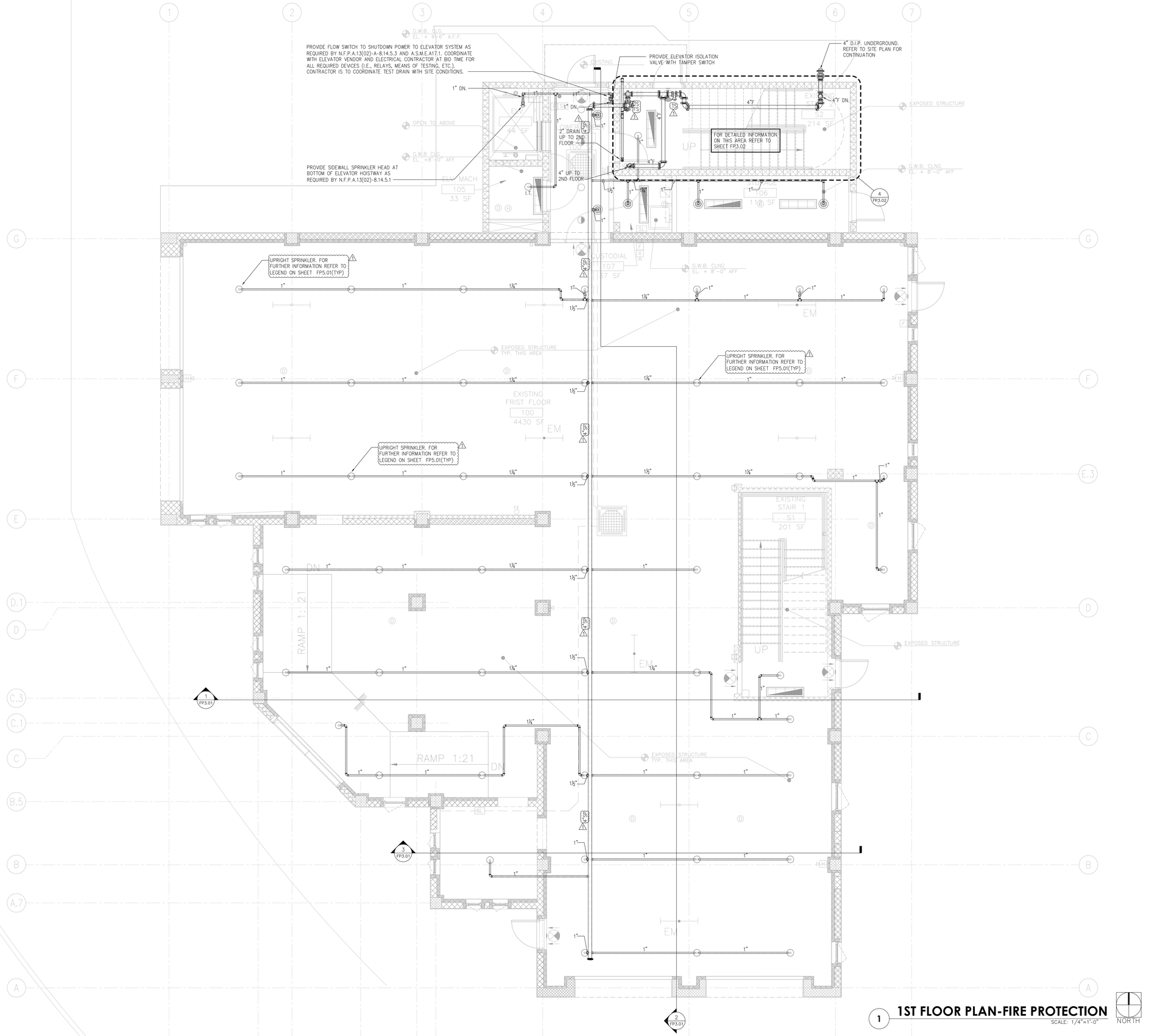
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
SITE PLAN, LEGEND AND NOTES FIRE PROTECTION

SCALE: 1/16" = 1'-0"
AT 24"x36" PRINTING. WITH ACAD DIMENSIONS AT 11"x17" PRINTING.

SHEET No.
FP1.01



1 1ST FLOOR PLAN-FIRE PROTECTION
SCALE: 1/4"=1'-0"

NORTH

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APP'D BY:
ISSUE DATE:
25 MAY 2011

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

SHEET No. **FP2.01**

DRAWING TITLE: **FIRST FLOOR PLAN FIRE PROTECTION**

SCALE: 1/4" = 1'-0"
NOTE: DRAWINGS ARE NOT TO BE USED TO SCALE DIMENSIONS AT 1" BEFORE PRINTING WITH ADJUSTMENTS

PROJECT TITLE: FIRE STATION NO. 2 INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER: **CITY OF MIAMI**

PROVIDE FLOW SWITCH TO SHUTDOWN POWER TO ELEVATOR SYSTEM AS REQUIRED BY N.F.P.A.13(02)-A-8.14.5.3 AND ASME A17.1. COORDINATE WITH ELEVATOR VENDOR AND ELECTRICAL CONTRACTOR AT BID TIME FOR ALL REQUIRED DEVICES (I.E., RELAYS, MEANS OF TESTING, ETC.). CONTRACTOR IS TO COORDINATE TEST DRAIN WITH SITE CONDITIONS

1"SP DN.

4" FIRE RISER ASSEMBLY. FOR FURTHER INFORMATION REFER TO SECTIONS ON SHEET FP3.02 AND DETAILS ON SHEET FP5.01

FOR DETAILED INFORMATION ON THIS AREA REFER TO SHEET FP3.02

PROVIDE UPRIGHT SPRINKLER HEAD AT TOP OF ELEVATOR HOISTWAY AS REQUIRED BY N.F.P.A.13(02)-8.14.5.4

4" FIRE RISER DOWN TO FIRST FLOOR

PROVIDE ELEVATOR ISOLATION VALVE WITH TAMPER SWITCH

2" DRAIN DOWN TO FIRST FLOOR

CONTRACTOR TO MAKE PROVISION FOR ADDITIONAL SPRINKLERS AS MAY BE REQUIRED BY NFPA13-8.6.5.1. COORDINATE CLOSELY WITH HVAC MAIN ROUND DUCT (TYP)

CONTRACTOR TO MAKE PROVISION FOR ADDITIONAL SPRINKLERS AS MAY BE REQUIRED BY NFPA13-8.6.5.1. COORDINATE CLOSELY WITH HVAC MAIN ROUND DUCT (TYP)

SPRINKLERS NOT REQUIRED IN NON-COMBUSTIBLE/ NON-ACCESSIBLE SHAFT AS PER N.F.P.A.13(02)-8.14.2.1.1.

CONTRACTOR TO MAKE PROVISIONS FOR ADDITIONAL SPRINKLER HEADS TO COVER AREA UNDER DUCTWORK AS PER N.F.P.A.13(02)-8.5.5.3.1

COORDINATE AND ASSIST ELECTRICAL CONTRACTOR IN PROVIDING HOODS OR SHIELDS OVER ALL ELECTRICAL EQUIPMENT IN ACCORDANCE WITH N.F.P.A.13(02)-8.14.10.2.

QUICK RESPONSE UPRIGHT SPRINKLER (INTERMEDIATE TEMPERATURE RATING), INSTALL WITH DEFLECTOR PARALLEL TO CEILING SURFACE AND IN ACCORDANCE WITH NFPA 13, SECTION 8.6.4.1.3 (2002 EDITION) (TYP)

CONTRACTOR TO MAKE PROVISION FOR ADDITIONAL SPRINKLERS AS MAY BE REQUIRED BY NFPA13-8.6.5.1. COORDINATE CLOSELY WITH HVAC MAIN ROUND DUCT (TYP)

QUICK RESPONSE UPRIGHT SPRINKLER (INTERMEDIATE TEMPERATURE RATING) POSITIONED IN ACCORDANCE WITH NFPA 13, SECTION 8.6.4.1.3 (2002 EDITION) (TYP)

CONTRACTOR TO MAKE PROVISION FOR ADDITIONAL SPRINKLERS AS MAY BE REQUIRED BY NFPA13-8.6.5.1. COORDINATE CLOSELY WITH HVAC MAIN ROUND DUCT (TYP)

MOST REMOTE AREA.
LIGHT HAZARD OCCUPANCY.
0.10 GPM/SF DENSITY.
AREA OF OPERATION 1500 SF+30%=1950.
(AREA OF OPERATION INCREASED AS PER N.F.P.A.13(02)-11.2.3.2.4 (SLOPED CEILING))
HOSE ALLOWANCE: 100 GPM
FOR CALCULATION REFER TO FP6.01

QUICK RESPONSE UPRIGHT SPRINKLER (INTERMEDIATE TEMPERATURE RATING) AT CONCEALED CEILING SPACE POSITIONED IN ACCORDANCE WITH NFPA 13, SECTION 8.6.4.1.3 (2002 EDITION) (TYP)

QUICK RESPONSE UPRIGHT SPRINKLER (INTERMEDIATE TEMPERATURE RATING) AT CONCEALED CEILING SPACE POSITIONED IN ACCORDANCE WITH NFPA 13, SECTION 8.6.4.1.3 (2002 EDITION) (TYP)

PENDENT SEMI-RECESSED SPRINKLER. FOR FURTHER INFORMATION REFER TO LEGEND ON SHEET FP1.01 (TYP)

1 2ND FLOOR PLAN-FIRE PROTECTION

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

NORTH

DRAWN BY:
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APP'D BY:
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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

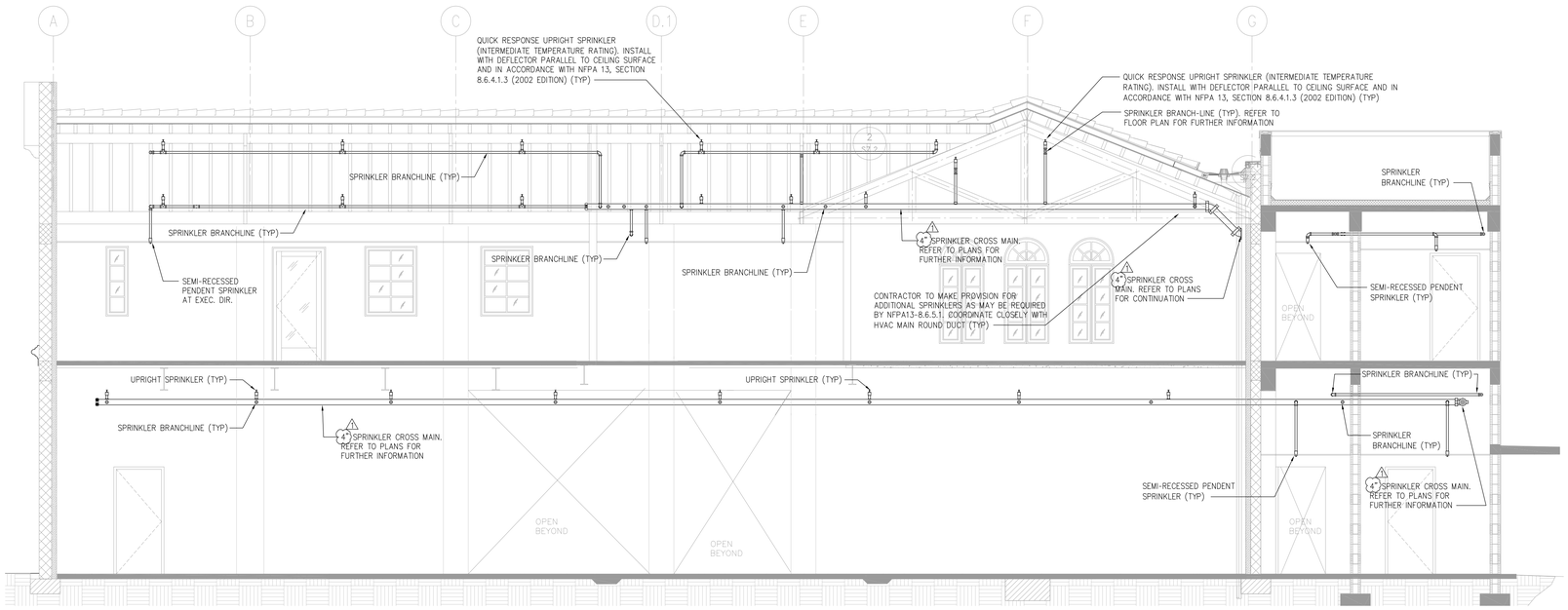
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

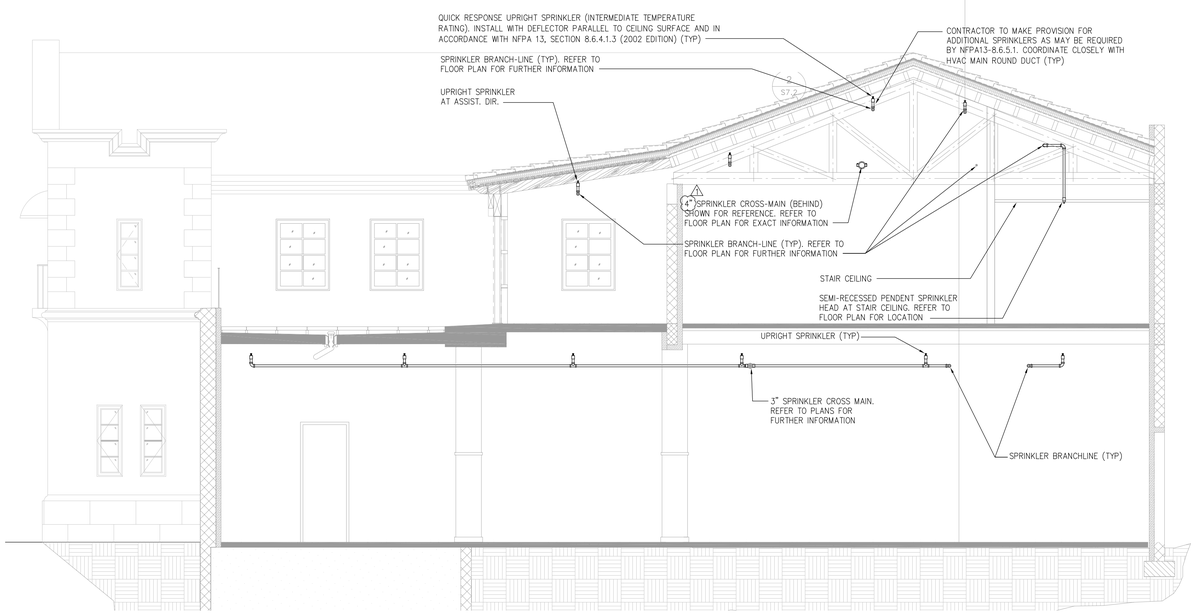
DRAWING TITLE:
SECOND FLOOR PLAN FIRE PROTECTION

SCALE: 1/4" = 1'-0"
ALL DRAWINGS ARE TO BE PLOTTED WITH "AS IS" SCALE DIMENSIONS

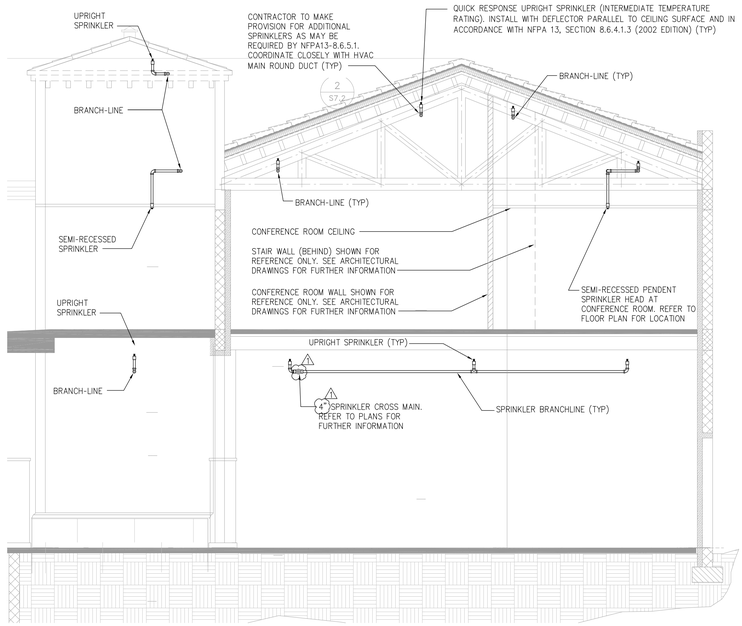
SHEET No.
FP2.02



1 MAIN SECTION LOOKING WEST
1/4" = 1'-0"



2 MAIN SECTION LOOKING NORTH
1/4" = 1'-0"



3 MAIN SECTION LOOKING NORTH
1/4" = 1'-0"

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ISSUE DATE:
25 MAY 2011
REVISIONS:
No. DATE
1 9-15-11 BLDG DEPT

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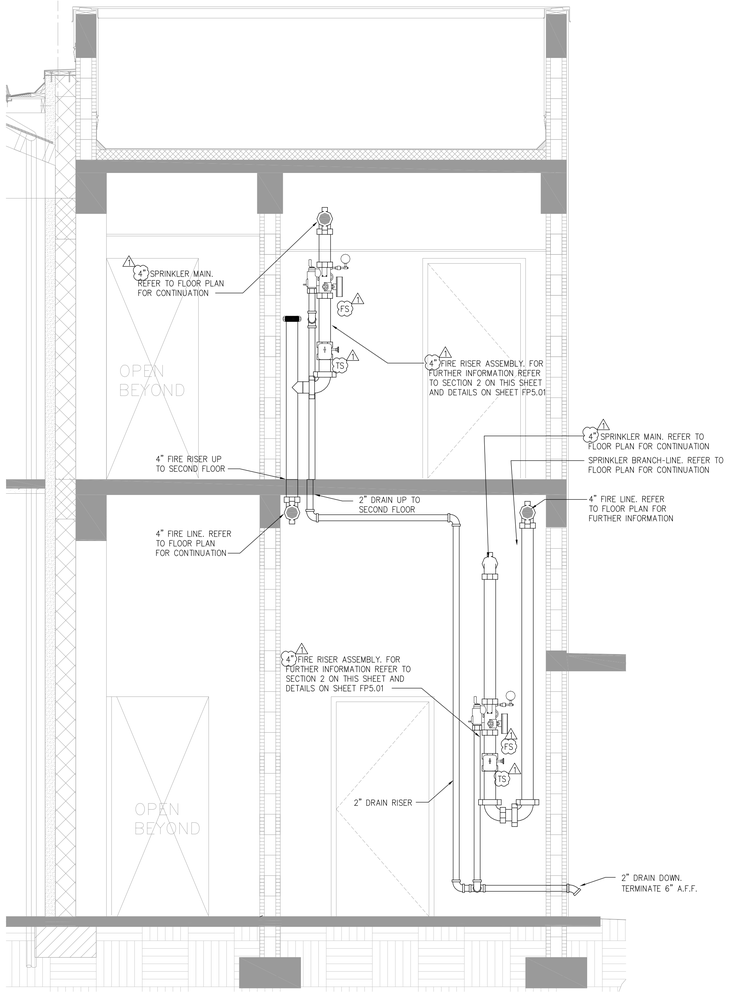
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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

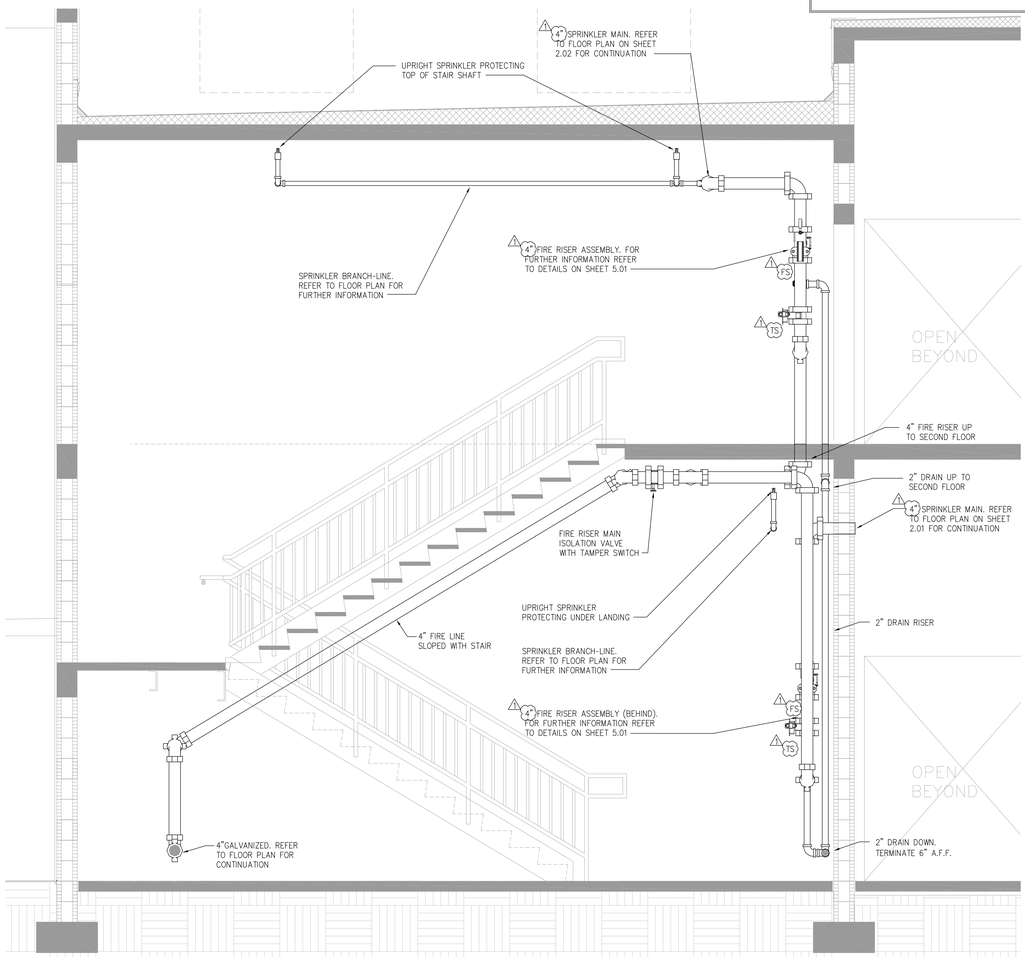
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

DRAWING TITLE:
MAIN SECTIONS
FIRE PROTECTION
SCALE: 1/4" = 1'-0"
ALL DRAWINGS ARE TO BE USED WITH ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

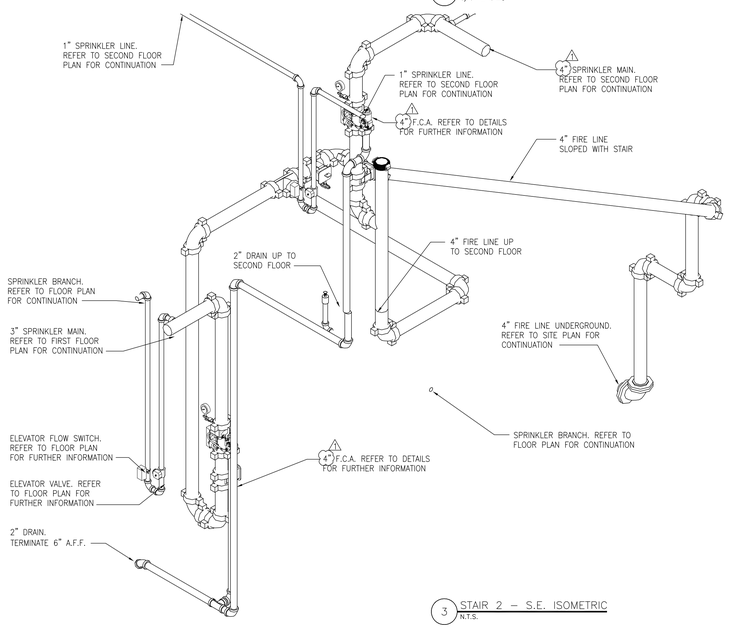
SHEET No.
FP3.01



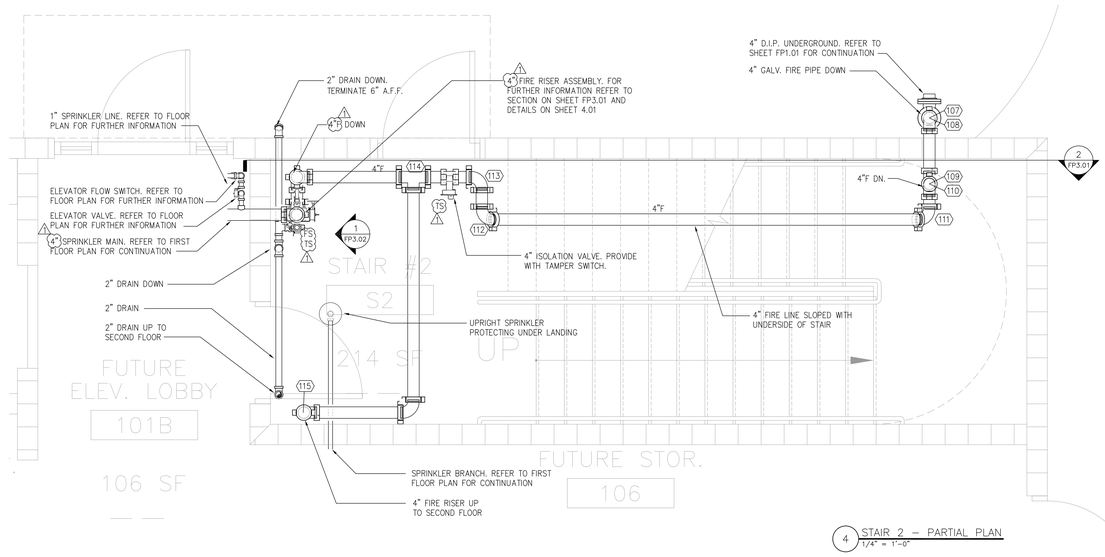
1 STAIR 2 – SECTION LOOKING WEST
1/4" = 1'-0"



2 STAIR 2 – SECTION LOOKING SOUTH
1/4" = 1'-0"



3 STAIR 2 – S.E. ISOMETRIC
N.T.S.



4 STAIR 2 – PARTIAL PLAN
1/4" = 1'-0"

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DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: **25 MAY 2011**
REVISIONS:

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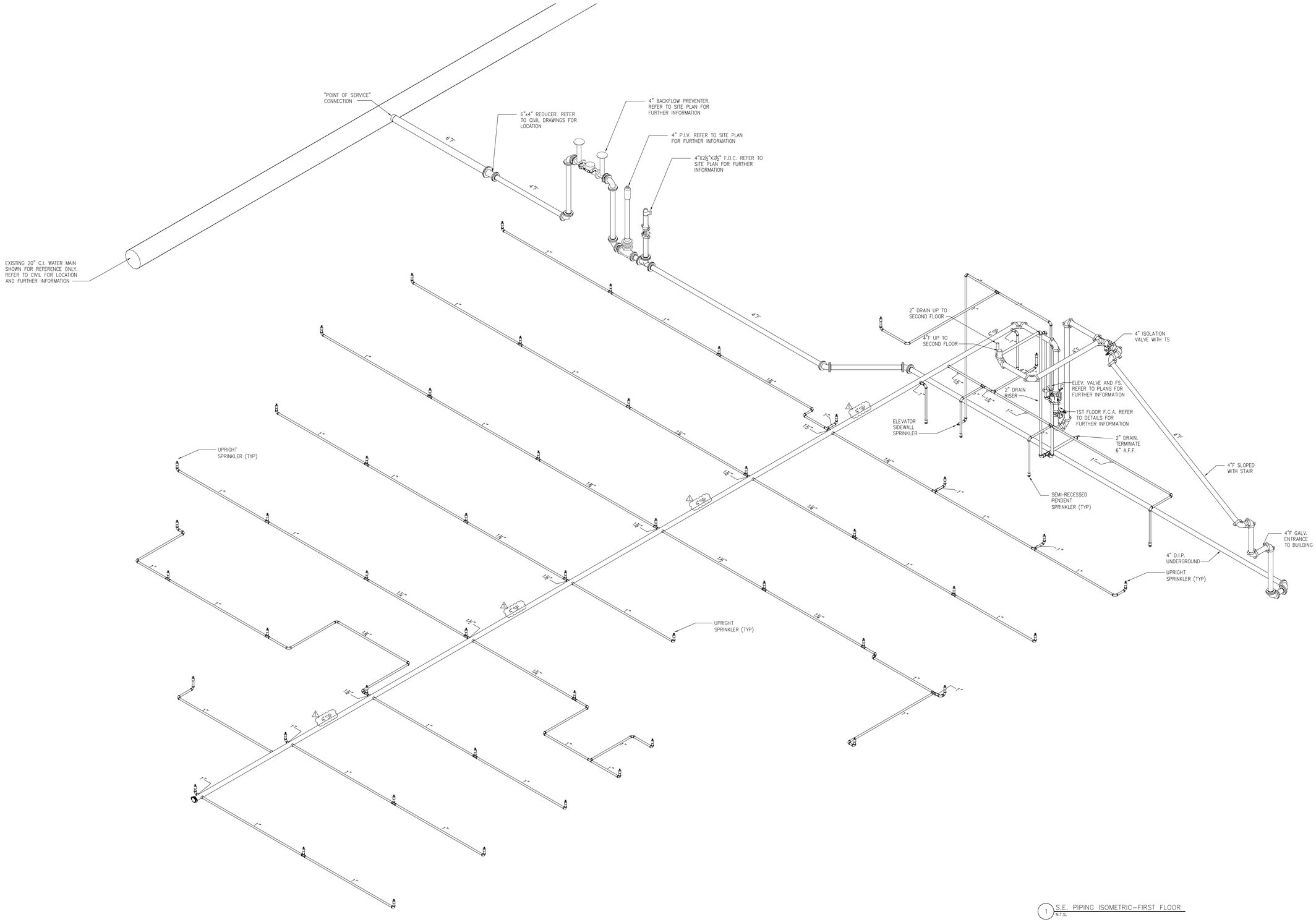
CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

DRAWING TITLE:
STAIR # 2
FIRE PROTECTION

SCALE: AS SHOWN
ALL DRAWINGS ARE TO BE PRINTED IN COLOR. ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK.

SHEET No.
FP3.02



1 S.E. PIPING ISOMETRIC–FIRST FLOOR
N.T.S.

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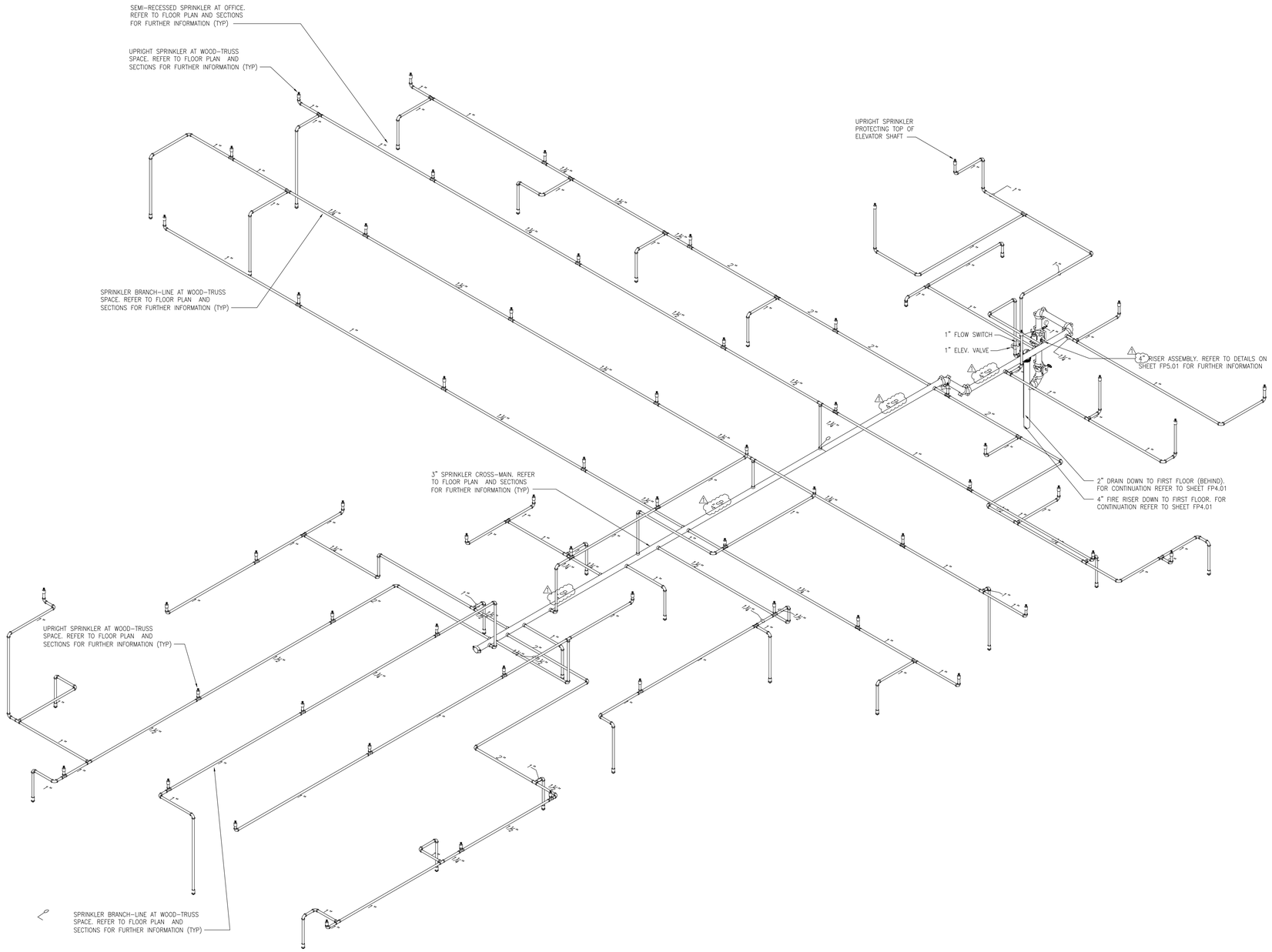
CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136
OWNER:
CITY OF MIAMI

DRAWING TITLE:
PIPING ISOMETRIC-1ST FLOOR
FIRE PROTECTION

SCALE: 1/2" = 1'-0"
AT 24"x36" SHEET, WITH ALL DIMENSIONS AT 50% BEFORE PLOTTING, WHEN ADJ.

SHEET No.
FP4.01



1 PIPING ISOMETRIC–FIRST FLOOR
N.T.S.

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☐ JOEL GERSON, P.E. LICENSE NO. 71451

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

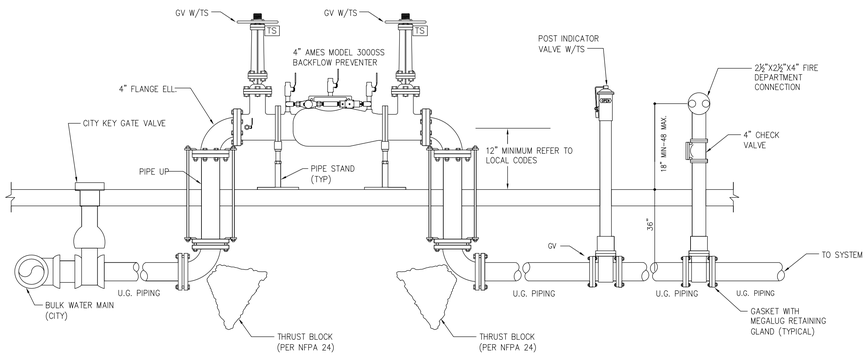
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

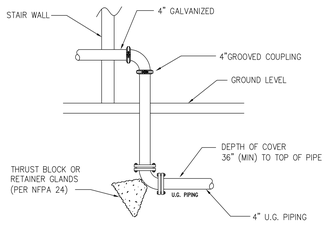
DRAWING TITLE:
PIPING ISOMETRIC-2ND FLOOR
FIRE PROTECTION

SCALE: 1/2" = 1'-0"
AT 11"x17" PRINTING. ALL DIMENSIONS & SITE ENTRANCE PROVISIONS ARE IN METRIC

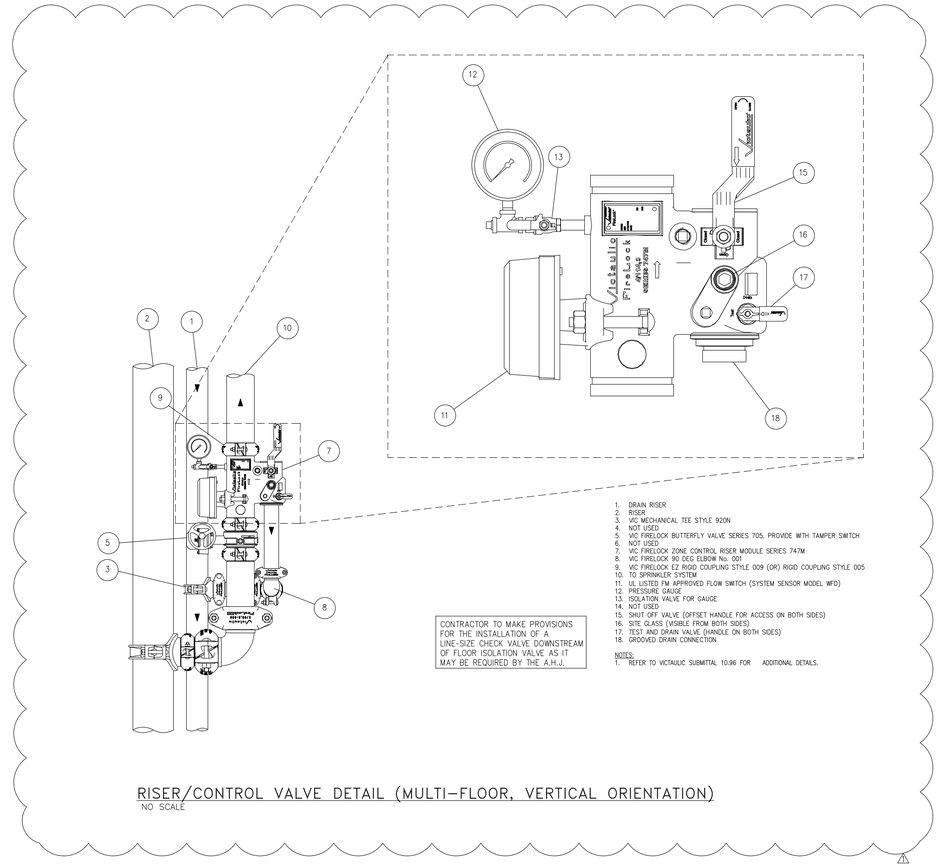
SHEET No.
FP4.02



BACKFLOW PREVENTER/P.I.V./F.D.C. ASSEMBLY
NO SCALE



TYP. CONCRETE THRUST BLOCK @ PIPING CHANGE OF DIRECTION
NO SCALE

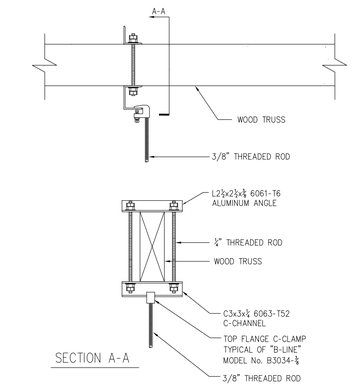


1. DRAIN RISER
2. RISER
3. VIC MECHANICAL TEE STYLE 920N
4. NOT USED
5. VIC FIRELOCK BUTTERFLY VALVE SERIES 705. PROVIDE WITH TAMPER SWITCH
6. NOT USED
7. VIC FIRELOCK ZONE CONTROL RISER MODULE SERIES 747M
8. VIC FIRELOCK 90 DEG ELBOW No. 001
9. VIC FIRELOCK EZ RIGID COUPLING STYLE 009 (OR) RIGID COUPLING STYLE 005
10. TO SPRINKLER SYSTEM
11. UL LISTED FM APPROVED FLOW SWITCH (SYSTEM SENSOR MODEL WFD)
12. PRESSURE GAUGE
13. ISOLATION VALVE FOR GAUGE
14. NOT USED
15. SHUT OFF VALVE (OFFSET HANDLE FOR ACCESS ON BOTH SIDES)
16. SITE GLASS (VISIBLE FROM BOTH SIDES)
17. TEST AND DRAIN VALVE (HANDLE ON BOTH SIDES)
18. GROOVED DRAIN CONNECTION

NOTES:
1. REFER TO VICTAULIC SUBMITTAL 10.96 FOR ADDITIONAL DETAILS.

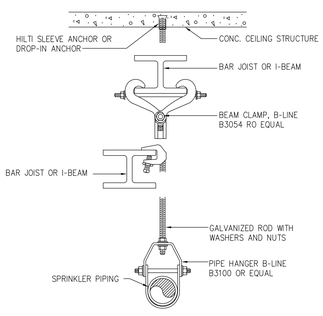
CONTRACTOR TO MAKE PROVISIONS FOR THE INSTALLATION OF A LINE-SIZE CHECK VALVE DOWNSTREAM OF FLOOR ISOLATION VALVE AS IT MAY BE REQUIRED BY THE A.H.J.

RISER/CONTROL VALVE DETAIL (MULTI-FLOOR, VERTICAL ORIENTATION)
NO SCALE



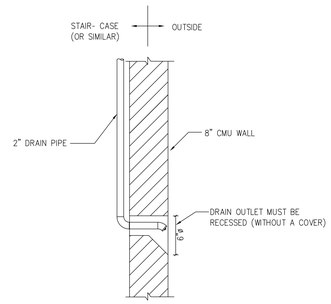
WOOD TRUSS ATTACHMENT DETAIL
NO SCALE

PIPE SIZES 1" THROUGH 4": ROD SIZE 3/8"
PIPE SIZES 5" THROUGH 8": ROD SIZE 1/2"
PIPE SIZES 10" THROUGH 12": ROD SIZE 5/8"



TYPICAL PIPE MOUNTING DETAIL
NO SCALE

PIPE SIZES 1" THROUGH 4": ROD SIZE 3/8"
PIPE SIZES 5" THROUGH 8": ROD SIZE 1/2"
PIPE SIZES 10" THROUGH 12": ROD SIZE 5/8"



TYP. SECTION THROUGH FCA DRAIN
NO SCALE

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: **25 MAY 2011**

REVISIONS:

No.	DATE	
1	9-15-11	BLDG DEPT

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☐ MANUEL R. MONTOYA, P.E. LICENSE NO. 68200 ☐ FLORENCIO NIETO, P.E. LICENSE NO. 69406
☐ HECTOR J. CASTILLO, P.E. LICENSE NO. 69409 ☐ JOEL GUEVARA, P.E. LICENSE NO. 71451

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

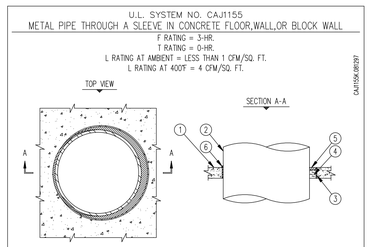
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

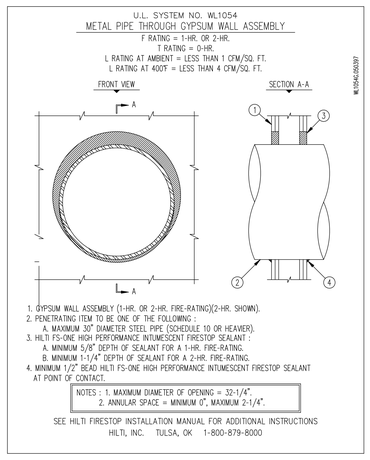
DRAWING TITLE:
DETAILS
FIRE PROTECTION

SCALE: 1/2" = 1'-0"
ALL DRAWINGS ARE DIAGRAMMATIC. ALL DIMENSIONS ARE TO BE VERIFIED PROFESSIONAL WITH AS-BUILT CONDITIONS.

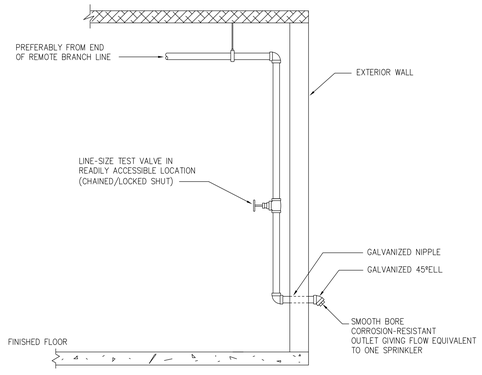
SHEET No.
FP5.01



FIRE STOP SYSTEM DETAIL
NO SCALE

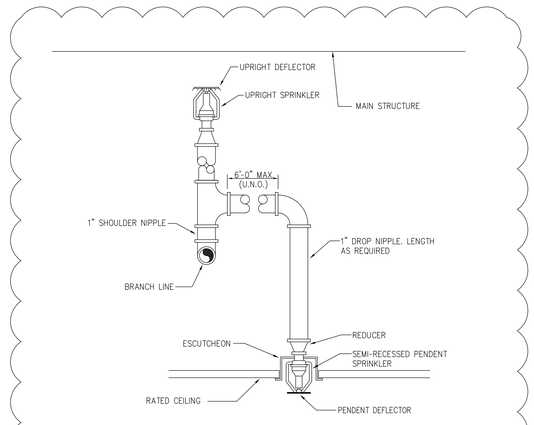


FIRE STOP SYSTEM DETAIL
NO SCALE



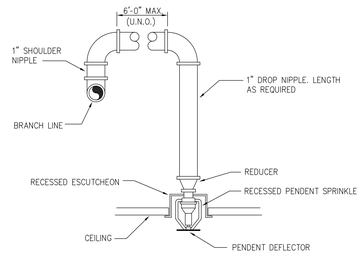
SYSTEM TEST CONNECTION (WET SYSTEM)
NO SCALE

NOTES:
1. TYPICAL FOR REMOTE BRANCH OF EACH SPRINKLER SYSTEM UNDER CONTROL OF A FLOOR CONTROL ASSEMBLY



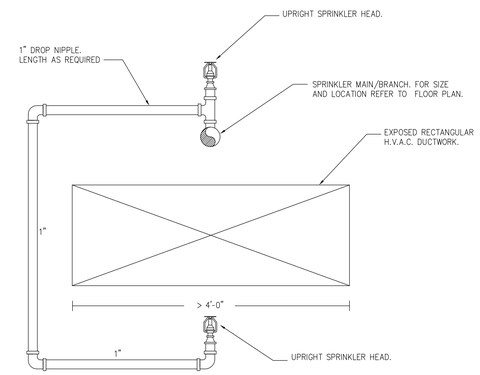
SPRINKLER ABOVE AND BELOW CEILING DETAIL
NO SCALE

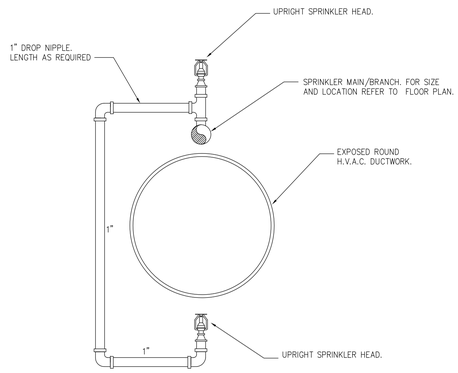
NOTES:
1. SPRINKLERS IN COMMON AREAS SHALL BE POSITIONED IN CENTER OF CEILING TILE BOTH WAYS.
2. SPRINKLERS IN AREAS OTHER THAN COMMON AREAS SHALL BE POSITIONED AS CLOSE TO CENTER OF CEILING TILE AS POSSIBLE.
3. COORDINATE WITH ARCHITECT FOR TYPE AND FINISH PRIOR TO PURCHASE AND INSTALLATION.



SEMI-RECESSED PENDENT HEAD DETAIL
NO SCALE

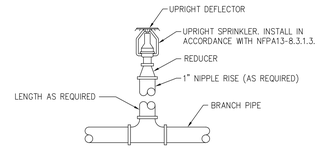
NOTES:
1. SPRINKLERS IN COMMON AREAS SHALL BE POSITIONED IN CENTER OF CEILING TILE BOTH WAYS.
2. SPRINKLERS IN AREAS OTHER THAN COMMON AREAS SHALL BE POSITIONED AS CLOSE TO CENTER OF CEILING TILE AS POSSIBLE.
3. COORDINATE WITH ARCHITECT FOR TYPE AND FINISH PRIOR TO PURCHASE AND INSTALLATION.



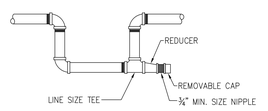


TYPICAL H.V.A.C. DUCTWORK SPRINKLER COVERAGE DETAIL
NO SCALE

NOTE:
CONTRACTOR TO MAKE PROVISION FOR ADDITIONAL SPRINKLERS AS MAY BE REQUIRED BY NFPA13-8.6.5.1.
COORDINATE CLOSELY WITH HVAC MAIN ROUND DUCTS (TYP)



UPRIGHT HEAD DETAIL
NO SCALE



AUXILIARY DRAIN DETAIL
NO SCALE

TRAPPED VOLUME: 5GAL THROUGH 50 GAL: ¾" MIN DRAIN VALVE REQ'D
TRAPPED VOLUME: OVER 50 GAL: 1" MIN DRAIN VALVE REQ'D

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE:
25 MAY 2011
REVISIONS:

No.	DATE	
1	9-15-11	BLDG DEPT

MCHARRY ASSOCIATES
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☐ FLORIDA REGISTERED LICENSE NO. 69405
☐ HECTOR J. CASTILLO, P.E. LICENSE NO. 69405
☐ JOEL GERSON, P.E. LICENSE NO. 71451

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
DETAILS
FIRE PROTECTION

SCALE: N.T.S.
ALL DRAWINGS SHOWN ARE TO BE PRINTED FULL SIZE DIMENSIONS AT 24"x36" BEFORE PRINTING AT ANY OTHER SIZE

SHEET No.
FP5.02

HYDRAULIC CALCULATIONS-FIRE PROTECTION

SUMMARY REPORT

COMPANY	SDM CONSULTING ENGINEERS	PAGE 1 OF 1
DESIGNER	ALEXANDER J. SOL, E.I.	DATE 2011 NOV 2
CLIENT	MCHARRYASSOCIATES	
PROJECT	CITY OF MIAMI FIRE STATION 2	
JOB NO.	NONE	

DESIGN POINT CALCULATION COMPLETED

MINIMUM FLOW OF ALL OPERATING SPRINKLER HEADS IS 15.08

AVERAGE FLOW FROM ALL OPERATING SPRINKLER HEADS IS 19.06

TOTAL FLOW FROM ALL OPERATING SPRINKLER HEADS IS 381.24

TOTAL DEMAND ON THE WHOLE SYSTEM IS 381.24

SPECIFIED AVAILABLE PRESSURE AT INPUT NODE IS 132.84 FEET
OR 57.52 P.S.I.

REQUIRED PRESSURE FOR MINIMUM FLOW IS 109.12 FEET
OR 47.25 P.S.I.

AVAILABLE PRESSURE MINUS REQUIRED PRESSURE IS 23.71 FEET
OR 10.27 P.S.I.

HYDRAULIC CALCULATIONS -- PIPE CHARACTERISTICS

COMPANY	SDM CONSULTING ENGINEERS	PAGE 1 OF 4
DESIGNER	ALEXANDER J. SOL, E.I.	DATE 2011 NOV 2
CLIENT	MCHARRYASSOCIATES	
PROJECT	CITY OF MIAMI FIRE STATION 2	
JOB NO.	NONE	

(PIPE) (NO.)	PIPE NODES	FLOW (US GPM)	PIPE DIAMETER: NOM (IN)	ACTUAL (IN)	#	PIPE/FTG CODE	TOTAL LENGTH (FT)	HEAD LOSS LENGTH (FT)	HEAD LOSS PER FT. (PSI)	HEAD LOSS OVER PIPE (PSI)	STATIC HEAD LOSS (PSI)	TOTAL HEAD LOSS (PSI)	K-FACTOR (US GPM/ (PT/SEC))	WATER VELOCITY (FT/SEC)	VELOC. PRESS. (PSI)
1	100 101	381.24	6	6.40	CSOI	31.5	25.3	0.00642	0.129	0.000	0.129	120	9.802	(0.0973
			6		1TN	6.4									
			6		1OT	2.1									
2	101 102	381.24	6	6.40	CSOI	1.0	1.0	0.0562	0.0562	0.000	0.0562	100	9.265	0.578	
3	102 103	381.24	4	4.03	CSAM	8.5	14.1	0.0438	0.618	0.000	0.618	120	9.608	0.621	
			4		1E1	5.6									
4	103 104	381.24	4	4.03	CSAM	7.0	12.6	0.0438	0.552	3.031	3.583	120	9.608	0.621	
			4		1E1	5.6									
5	104 105	381.24	4	4.03	CSAM	5.0	10.6	0.0438	0.465	0.000	3.402	120	9.608	0.621	
			4		1E1	5.6									
					BackFlw Prev					2.9					
6	105 106	381.24	4	4.03	CSAM	7.0	12.6	0.0438	0.552	+3.031	+2.479	120	9.608	0.621	
			4		1E1	5.6									
7	106 107	381.24	4	4.03	CSAM	75.0	93.8	0.0438	4.109	0.000	4.109	120	9.608	0.621	
			4		2E1	11.2									
			4		2E2	5.6									
			4		2OT	2.0									
8	107 108	381.24	4	4.03	CSAM	5.0	10.6	0.0438	0.465	2.165	2.630	120	9.608	0.621	
			4		1E1	5.6									
9	108 109	381.24	4	4.03	CSAM	2.0	7.6	0.0438	0.333	0.000	0.333	120	9.608	0.621	
			4		1E1	5.6									
10	109 110	381.24	4	4.03	CSAM	3.5	9.1	0.0438	0.399	1.516	1.915	120	9.608	0.621	
			4		1E1	5.6									
11	110 111	381.24	4	4.03	CSAM	1.5	7.1	0.0438	0.311	0.000	0.311	120	9.608	0.621	
			4		1E1	5.6									
12	111 112	381.24	4	4.03	CSAM	17.0	22.6	0.0438	0.990	3.767	4.758	120	9.608	0.621	
			4		1E1	5.6									
13	112 113	381.24	4	4.03	CSAM	1.5	7.1	0.0438	0.311	0.000	0.311	120	9.608	0.621	
			4		1E1	5.6									
14	113 114	381.24	4	4.03	CSAM	2.5	8.1	0.0438	0.355	0.000	0.355	120	9.608	0.621	
			4		1E1	5.6									
15	114 115	381.24	4	4.03	CSAM	13.0	24.2	0.0438	1.061	0.000	1.061	120	9.608	0.621	
			4		2E1	11.2									
16	115 200	381.24	4	4.03	CSAM	4.0	9.6	0.0438	0.421	1.775	2.196	120	9.608	0.621	
			4		1E1	5.6									
17	200 201	381.24	4	4.03	CSAM	1.0	11.0	0.0438	0.482	0.000	0.482	120	9.608	0.621	
			4		1SE	10.0									
18	201 202	381.24	4	4.03	CSAM	5.5	15.5	0.0438	0.679	2.382	3.061	120	9.608	0.621	
			4		1SE	10.0									
19	202 203	381.24	4	4.03	CSAM	3.0	27.0	0.0438	1.183	0.000	1.183	120	9.608	0.621	
			4		1SE	10.0									
			4		1TN	3.0									
20	203 204	381.24	4	4.03	CSAM	3.0	13.0	0.0438	0.569	0.823	1.392	120	9.608	0.621	
			4		1SE	10.0									

NONE HYDRAULIC CALCULATIONS -- PIPE CHARACTERISTICS PAGE 2 OF 4

(PIPE) (NO.)	PIPE NODES	FLOW (US GPM)	PIPE DIAMETER: NOM (IN)	ACTUAL (IN)	#	PIPE/FTG CODE	TOTAL LENGTH (FT)	HEAD LOSS LENGTH (FT)	HEAD LOSS PER FT. (PSI)	HEAD LOSS OVER PIPE (PSI)	STATIC HEAD LOSS (PSI)	TOTAL HEAD LOSS (PSI)	K-FACTOR (US GPM/ (PT/SEC))	WATER VELOCITY (FT/SEC)	VELOC. PRESS. (PSI)
21	204 205	381.24	4	4.03	CSAM	26.0	32.0	0.0438	1.402	0.000	1.402	120	9.608	0.621	
			4		1TN	6.0									
22	205 206	340.47	4	4.03	CSAM	2.0	8.0	0.0355	0.284	0.000	0.284	120	8.581	0.496	
			4		1TN	6.0									
23	206 207	340.47	4	4.03	CSAM	2.0	8.0	0.0355	0.284	0.000	0.284	120	8.581	0.496	
			4		1TN	6.0									
24	207 208	318.35	4	4.03	CSAM	2.0	8.0	0.0314	0.251	0.000	0.251	120	8.023	0.433	
			4		1TN	6.0									
25	208 209	261.37	4	4.03	CSAM	2.0	11.0	0.0218	0.239	0.000	0.239	120	6.587	0.292	
			4		1TN	6.0									
26	209 210	261.37	4	4.03	CSAM	5.0	9.0	0.0218	0.196	0.000	0.196	120	6.587	0.292	
			4		1TN	6.0									
27	210 211	240.00	4	4.03	CSAM	1.0	7.0	0.0186	0.130	0.000	0.130	120	6.049	0.246	
			4		1TN	6.0									
28	211 212	171.03	4	4.03	CSAM	1.0	7.0	0.00993	0.0695	0.000	0.0695	120	4.310	0.125	
			4		1TN	6.0									
29	212 213	112.22	4	4.03	CSAM	2.0	8.0	0.00455	0.0364	0.000	0.0364	120	2.828	0.0538	
			4		1TN	6.0									
30	213 214	53.52	4	4.03	CSAM	1.0	7.0	0.00115	0.00808	0.000	0.00808	120	1.349	0.0122	
			4		1TN	6.0									
31	214 215	53.52	1 1/2	1.61	CSAM	1.0	5.0	0.100	0.501	0.000	0.501	120	8.435	0.479	
			1 1/2		1SE	4.0									
32	215 216	53.52	1 1/2	1.61	CSAM	3.6	7.6	0.100	0.762	1.559	2.321	120	8.435	0.479	
			1 1/2		1SE	4.0									
33	216 217	53.52	1 1/2	1.61	CSAM	5.0	7.0	0.100	0.702	0.000	0.702	120	8.435	0.479	
			1 1/2		1TN	2.0									
34	217 218	34.98	1 1/4	1.38	CSAM	12.0	14.0	0.0966	1.353	0.000	1.353	120	7.504	0.379	
			1 1/4		1TN	2.0									
35	218 219	17.61	1	1.05	CSAM	12.0	14.0	0.103	1.443	0.000	1.443	120	6.537	0.288	
			1		1TN	2.0									
36	219 220	17.61	1	1.05	CSAM	3.0	7.0	0.103	0.721	0.000	0.721	120	6.537	0.288	
			1		1SE	4.0									
37	219 221	0.00	1 1/2	1.61	CSAM	7.0	11.0	0.000	0.000	0.000	0.000	120	0.000	0.000	
			1 1/2		1SE	4.0									
38	221 222	0.00	1 1/2	1.61	CSAM	3.5	7.5	0.000	0.000	1.516	1.516	120	0.000	0.000	
			1 1/2		1SE	4.0									
39	222 223	0.00	1	1.05	CSAM	6.0	8.0	0.000	0.000	0.000	0.000	120	0.000	0.000	
			1		1SE	2.0									
40	222 224	0.00	1 1/4	1.38	CSAM	6.0	8.0	0.000	0.000	0.000	0.000	120	0.000	0.000	
			1 1/4		1TN	2.0									
41	224 225	0.00	1	1.05	CSAM	12.0	14.0	0.000	0.000	0.000	0.000	120	0.000	0.000	
			1		1TN	2.0									
42	225 226	0.00	1	1.05	CSAM	12.0	14.0	0.000	0.000	0.000	0.000	120	0.000	0.000	
			1		1SE	2.0									
43	213 227	58.70	2	2.07	CSAM	14.8	17.8	0.0352	0.627	0.000	0.627	120	5.412	0.212	
			2		1TN	3.0									
44	227 228	39.62	1 1/2	1.61	CSAM	12.0	14.0	0.0558	0.782	0.000	0.782	120	6.149	0.254	
			1 1/2		1SE	2.0									
45	228 229	19.97	1 1/2	1.61	CSAM	10.0	12.0	0.0161	0.194	0.000	0.194	120	3.147	0.0666	
			1 1/2		1TN	2.0									

NONE HYDRAULIC CALCULATIONS -- PIPE CHARACTERISTICS PAGE 3 OF 4

(PIPE) (NO.)	PIPE NODES	FLOW (US GPM)	PIPE DIAMETER: NOM (IN)	ACTUAL (IN)	#	PIPE/FTG CODE	TOTAL LENGTH (FT)	HEAD LOSS LENGTH (FT)	HEAD LOSS PER FT. (PSI)	HEAD LOSS OVER PIPE (PSI)	STATIC HEAD LOSS (PSI)	TOTAL HEAD LOSS (PSI)	K-FACTOR (US GPM/ (PT/SEC))	WATER VELOCITY (FT/SEC)	VELOC. PRESS. (PSI)
48	229 230	19.97	1	1.05	CSAM	2.5	4.5	0.130	0.585	0.000	0.585	120	7.413	0.370	
			1		1TN	2.0									
47	230 231	19.97	1	1.05	CSAM	2.0	6.0	0.130	0.781	0.000	0.781	120	7.413	0.370	
			1		1SE	4.0									
48	212 232	58.81	2	2.07	CSAM	24.0	37.0	0.0353	1.308	0.000	1.308	120	5.623	0.213	
			2		2SE	10.0									
			2		1TN	3.0									
49	232 233	20.92	1	1.05	CSAM	1.0	5.0	0.142	0.426	0.000	0.426	120	7.767	0.406	
			1		1SE	2.0									
50	232 234	37.68	1 1/2	1.61	CSAM	2.0	8.0	0.0529	0.423	0.000	0.423	120	5.970	0.240	
			1 1/2		1SE	4.0									
			1 1/2		1TN	2.0									
51	234 235	37.88	1 1/2	1.61	CSAM	8.0	10.0	0.0529	0.529	0.000	0.529	120	5.970	0.240	
			1 1/2		1TN	2.0									
52	235 236	37.88	1 1/4	1.38	CSAM	2.0	5.0	0.112	0.560	0.000	0.560	120	8.126	0.444	
			1 1/4		1TN	2.0									
53	236 237	19.62	1	1.05	CSAM	2.0	5.0	0.126	0.630	0.000	0.630	120	7.285	0.357	
			1		1SE	4.0									
54	236 238	18.26	1	1.05	CSAM	10.0	12.0	0.110	1.323	0.000	1.323	120	6.779	0.309	
			1		1TN	2.0									
55	238 239	18.26	1	1.05	CSAM	5.0	9.0	0.110	0.992	0.000	0.992	120	6.779	0.309	
			1		1SE	4.0									
56	211 240	68.97	1 1/2	1.61	CSAM	5.0	7.0	0.160	1.122	0.000	1.122	120	10.870	0.795	
			1 1/2		1TN	2.0									
57	240 241	20.79	1	1.05	CSAM	1.0	3.0	0.140	0.421	0.000	0.421	120	7.719	0.401	
			1		1SE	2.0									
58	240 242	48.18	1 1/4	1.38	CSAM	8.5	11.5	0.175	2.010	0.000	2.010	120	10.334	0.719	
			1 1/4		1SE	3.0									
59	242 243	48.18	1 1/4	1.38	CSAM	1.8	4.8	0.175	0.839	+0.779	0.0596	120	10.334	0.719	
			1 1/4		1SE	3.0									
60	243 244	48.18	1 1/4	1.38	CSAM	7.0	9.0	0.175	1.573	0.000	1.573	120	10.334	0.719	
			1 1/4		1SE	2.0									
61	244 245	30.94	1	1.05	CSAM	5.0	7.0	0.293	2.050	0.000	2.050	120	11.487	0.888	
			1		1SE	2.0									
62	245 246	15.08	1	1.05	CSAM	8.0	10.0	0.0774	0.774	0.000	0.774	120	5.599	0.211	
			1		1SE	2.0									
63	244 247	17.23	1	1.05	CSAM	4.0	6.0	0.0990	0.594	0.000	0.594	120	6.397	0.275	
			1		1SE	2.0									
64	210 248	21.37	1	1.05	CSAM	4.0	6.0	0.147	0.885	0.000	0.885	120	7.932	0.423	
			1		1SE	2.0									
65	208 249	56.99	1 1/4	1.38	CSAM	4.0	6.0	0.239	1.431	0.000	1.431	120	12.224	1.006	
			1 1/4		1TN	2.0									
66	249 250	21.18	1	1.05	CSAM	2.0	4.0	0.145	0.580	0.000	0.580	120	7.863	0.416	
			1		1SE	2.0									
67	249 251	35.80	1	1.05	CSAM	6.0	8.0	0.384	3.069	0.000	3.069	120	13.292	1.189	
			1		1SE	2.0									
68	251 252	17.86	1	1.05	CSAM	4.0	6.0	0.106	0.635	0.000	0.635	120	6.629	0.296	
			1		1SE	2.0									
69	251 253	17.95	1	1.05	CSAM	3.0	5.0	0.107	0.534	0.000	0.534	120	6.662	0.299	
			1		1SE	2.0									

NONE HYDRAULIC CALCULATIONS -- PIPE CHARACTERISTICS PAGE 4 OF 4

(PIPE) (NO.)	PIPE NODES	FLOW (US GPM)	PIPE DIAMETER: NOM (IN)	ACTUAL (IN)	#	PIPE/FTG CODE	TOTAL LENGTH (FT)	HEAD LOSS LENGTH (FT)	HEAD LOSS PER FT. (PSI)	HEAD LOSS OVER PIPE (PSI)	STATIC HEAD LOSS (PSI)	TOTAL HEAD LOSS (PSI)	K-FACTOR (US GPM/ (PT/SEC))	WATER VELOCITY (FT/SEC)	VELOC. PRESS. (PSI)
70	207 254	22.12	1	1.05	CSAM	4.0	6.0	0.157	0.943	0.000	0.943	120	8.210	0.454	
			1		1SE	2.0									
71	205 255	40.77	1 1/2	1.61	CSAM	12.0	16.0	0.0606	0.969	0.000	0.969	120	6.426	0.278	
			1 1/2		1TN	4.0									
72	255 256	40.77	1 1/2	1.61	CSAM	2.0	6.0	0.0606	0.363	0.606	0.970	120	6.426	0.278	
			1 1/2		1TN	4.0									
73	256 257	40.77	1 1/2	1.61	CSAM	2.0	4.0	0.0606	0.242	0.000	0.242	120	6.426	0.278	
			1 1/2		1TN	2.0									
74	257 258	40.77	1 1/4	1.38	CSAM	2.0	4.0	0.128	0.513	0.000	0.513	120	8.746	0.515	
			1 1/4		1TN	2.0									
75	258 259	21.15	1	1.05	CSAM	2.0	4.0	0.145	0.579	0.000	0.579	120	7.853	0.415	
			1		1SE	2.0									
76	258 260	19.62	1	1.05	CSAM	10.0	12.0	0.126	1.511	0.000	1.511	120	7.283	0.357	
			1		1TN	2.0									
77	260 261	19.62	1	1.05	CSAM	5.0	9.0	0.126	1.133	0.000	1.133	120	7.283	0.357	
			1		1SE	4.0									
78	239 1	18.26	1	1.05	CSAM	2.4	2.4	0.110	0.265	-1.039	-0.775	120	6.779	0.309	
79	237 2	19.62	1	1.05	CSAM	2.4	2.4	0.126	0.302	-1.039	-0.737	120	7.285	0.357	
80	233 3	20.92	1	1.05	CSAM	2.4	2.4	0.142	0.340	-1.039	-0.699	120	7.767	0.406	
81	220 4	17.61	1	1.05	CSAM	6.0	6.0	0.103	0.618	+2.598	+1.980	120	6.537	0.288	
82	218 5	17.37	1	1.05	CSAM	1.0	1.0	0.101	0.101	0.346	0.447	120	6.449	0.280	
83	217 6	18.54	1	1.05	CSAM	1.0	1.0	0.113	0.113	0.346	0.460	120	6.884	0.319	
84	231 7	19.97	1	1.05	CSAM	2.4	2.4	0.130	0.312	-1.039	-0.727	120	7.413	0.370	
85	228 8	19.05	1	1.05	CSAM	0.6	0.6	0.119	0.0715	1.905	1.977	120	7.071	0.337	
86	227 9	19.68	1	1.05	CSAM	0.6	0.6	0.127	0.0760	1.905	1.981	120	7.305	0.359	
87	246 10	15.08	1	1.05	CSAM	0.6	0.6	0.0774	0.0464	0.173	0.220	120	5.599	0.211	
88	241 11	17.23	1	1.05	CSAM	0.6	0.6	0.0885	0.0531	0.173	0.226	120	6.397	0.275	
89	247 12	17.23	1	1.05	CSAM	0.6	0.6	0.0885	0.0531	0.173	0.226	120	6.397	0.275	
90	241 13	20.79	1	1.05	CSAM	0.6	0.6	0.140	0.0838	+0.606	+0.690	120	7.719	0.401	
91	248 14	21.37	1	1.05	CSAM	2.4	2.4	0.147	0.354	+0.606	+0.252	120	7.932	0.423	
92	252 15	17.86	1	1.05	CSAM	0.6	0.6	0.106	0.0635	0.260	0.323	120	6.629	0.296	
93	253 16	17.95	1	1.05	CSAM	0.6	0.6	0.0641	0.0384	0.260	0.298	120	6.662	0.299	
94	250 17	21.18	1	1.05	CSAM	2.4	2.4	0.145	0.348	-1.039	-0.691	120	7.863	0.416	
95	254 18	22.12	1	1.05	CSAM	2.4	2.4	0.157	0.377	-1.039	-0.662	120	8.210	0.454	
96	261 19	19.62	1	1.05	CSAM	3.8	3.8	0.126	0.479	+1.645	+1.167	120	7.283	0.357	
97	259 20	21.15	1	1.05	CSAM	3.8	3.8	0.145	0.550	+1.645	+1.095	120	7.853	0.415	

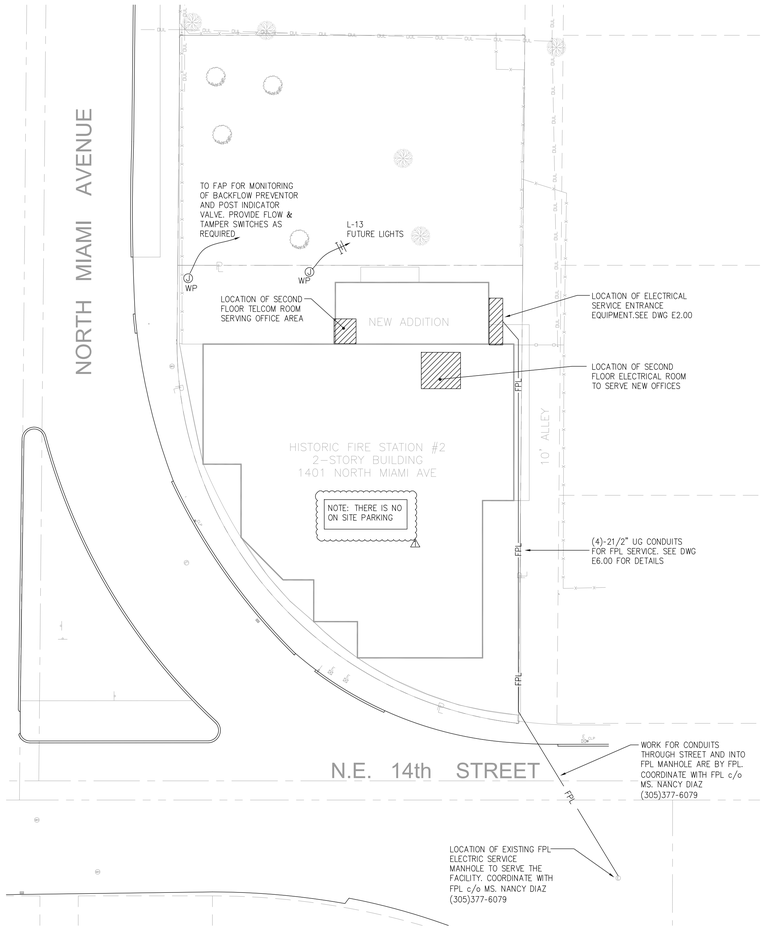
HYDRAULIC CALCULATIONS -- NODE CHARACTERISTICS

COMPANY	SDM CONSULTING ENGINEERS	PAGE 1 OF 3
DESIGNER	ALEXANDER J. SOL, E.I.	DATE 2011 NOV 2
CLIENT	MCHARRYASSOCIATES	
PROJECT	CITY OF MIAMI FIRE STATION 2	
JOB NO.	NONE	

SPRINKLER/NOZZLE(N) POINTS NO.	DISCHG. GPM	P.S.I.	REFERENCE POINTS NO.	DISCHG. GPM	P.S.I.	INPUT POINTS NO.	DEMAND GPM	P.S.I.	POINT ELEVATION (FT)	REQUIRED DISCHARGE (US GPM)	K-FACTOR
1	18.26	10.433							22.300	18.00	5.600
2	19.62	12.280							22.300	18.00	5.600
3	20.92	13.958							22.300	18.00	5.600
4	17.61	9.887							22.300	15.00	5.600
5	17.37	9.424							29.100	15.00	5.600
6	18.54	10.964							29.100	15.00	5.600
7	19.97	12.715							22.300	15.00	5.600
8	19.05	11.571							29.100	15.00	5.600
9	19.68	12.348							29.100	15.00	5.600
10	15.08	7.254							23.300	15.00	5.600
11	15.86	8.023							23.300	15.00	5.600
12	17.23	9.470							23.300	15.00	5.600
13	20.79	13.788							23.300	15.00	5.600
14	21.37	14.559							23.300	15.00	5.600
15	17.86	10.169							25.300	15.00	5.600
16	17.95	10.277							25.300	15.00	5.600
17	21.18	14.249							25.300	15.00	5.600
18	22.12	15.597							22.300	15.00	5.600
19	19.62	12.375							22.300	15.00	5.600
20	21.15	14.249							22.300	15.00	5.600
						100	381.24	47.254	+4.000		
			101		47.125				+4.000		
			102		47.069				+4.000		
			103		46.451				+4.000		
			104		42.867				3.000		
			105		39.465				3.000		
			106		41.944				+4.000		
			107		37.835				+4.000		
			108		35.205				1.000		
			109		34.872				1.000		
			110		32.957				4.500		
			111		32.646				4.500		
			112		27.889				13.200		
			113		27.377				13.200		
			114		27.222				13.200		
			115		26.161				13.200		
			200		23.965				17.300		
			201		23.483				17.300		
			202		20.423				22.800		
			203		19.246				22.800		
			204		17.044				24.700		
			205		16.647				24.700		
			206		16.363				24.700		
			207		15.878				24.700		

NONE HYDRAULIC CALCULATIONS -- NODE CHARACTERISTICS PAGE 2 OF 3

SPRINKLER/NOZZLE(N) POINTS NO.	DISCHG. GPM	P.S.I.	REFERENCE POINTS NO.	DISCHG. GPM	P.S.I.	INPUT POINTS NO.	DEMAND GPM	P.S.I.	POINT ELEVATION (FT)	REQUIRED DISCHARGE (US GPM)	K-FACTOR
			208						15.627		
			209						15.388		
			210						15.152		
			211						15.062		
			212						14.992		
			213						14.956		
			214						14.948		
			215						14.647		
			216						12.122		
			217						11.954		
			218						10.674		
			219						8.628		
			220						7.907		
			221						14.956		
			222						13.440		
			223						13.440		
			224						13.440		
			225						13.440		
			226						13.440		
			227						14.329		
			228						13.568		
			229						13.354		
			230						12.768		
			231						11.998		
			232						13.685		
			233						13.259		
			234						13.262		
			235						12.733		
			236						12.173		
			237						11.543		
			238						10.850		
			239						9.858		
			240						13.940		
			241						13.541		
			242						11.529		
			243						10.970		
			244						14.297		
			245						8.247		
			246						7.474		
			247						9.703	



1 OVERALL ELECTRICAL SITE PLAN

SCALE: 1/16"=1'-0"

NORTH

ELECTRICAL SYMBOLS (LIGHTING)

(A)	LIGHTING FIXTURE SCHEDULE TYPE "A"
○	RECESSED DOWNLIGHT FIXTURE
◑	RECESSED DOWNLIGHT FIXTURE WITH INTEGRAL 90 MIN BATTERY BACKUP
▭	1'x4' FLUORESCENT LIGHT FIXTURE MOUNTING AS PER FIXTURE SCHEDULE
▰	1' X 4' FLUORESCENT LIGHT FIXTURE W/INTEGRAL 90MIN BATTERY BACKUP. MOUNTING AS PER FIXTURE SCHEDULE
▭	2'X4' FLUORESCENT LIGHT FIXTURE. MOUNTING AS PER FIXTURE SCHEDULE.
◪	2'X4' FLUORESCENT LIGHT FIXTURE W/INTEGRAL 90MIN BATTERY BACKUP. MOUNTING AS PER FIXTURE SCHEDULE.
⊡	CEILING & WALL MOUNTED EXIT SIGNS WITH INTEGRAL 90 MIN EMERGENCY BATTERY
⟡	WALL MOUNTED LIGHTING FIXTURE OUTLET

NOTE: CONTRACTOR TO PROVIDE CONTACTORS FOR ALL LIGHTING INDICATED TO BE CONTROLLED VIA THE EMS.

ELECTRICAL SYMBOLS (FIRE ALARM)

F	FIRE ALARM PULL STATION MNT. 48" AFF
H	FIRE ALARM HORN/ VISUAL LIGHT COMBINATION (75cd UNLESS NOTED OTHERWISE) MNT. 80" AFF
SL	STROBE LIGHT (75cd UNLESS NOTED OTHERWISE), MTD. 80" AFF
TS	TAMPER SWITCH, EQUIPMENT MTD.
FS	FLOW SWITCH, EQUIPMENT MTD.
D	SMOKE DETECTOR, CEILING MTD.
H	HEAT DETECTOR, CEILING MTD.
D S	DUCTSMOKE DETECTOR WITH AIR SAMPLING TUBES MOUNTED ON THE AIR SUPPLY DUCT W/REMOTE TEST SWITCH
F.A.P.	FIRE ALARM PANEL
RTS	DUCT DETECTOR REMOTE TEST SWITCH. PROVIDE ONE RTS PER DETECTOR. MOUNTED 48" A.F.F.

ELECTRICAL SYMBOLS (CONDUCTORS/CONDUITS)

⌒	CONCEALED CONDUIT
∿∿∿	FLEXIBLE METAL CONDUIT (GREENFIELD)
⌒	HOMERUN TO PANELBOARD. SHORT TICKS INDICATE PHASE CONDUCTORS & LONG TICK INDICATES NEUTRAL. LONG I TICK INDICATES GROUND CONDUCTOR.
⏚	GROUND

ELECTRICAL SYMBOLS (RECEPTACLES)

⏚	20A, 125V, 2P, 3W, GNDING TYPE SINGLE RECEPTACLE MNT. 48" AFF UNLESS NOTED OTHERWISE.
⏚	20A, 125V, 2P, 3W, GNDING TYPE DUPLEX RECEPTACLE MNT. 18" AFF UNLESS NOTED OTHERWISE.
⏚	20A, 125V, 2P, 3W, GNDING TYPE QUAD RECEPT. MNT. 18" AFF

ELECTRICAL SYMBOLS (POWER DISTRIBUTION)

3P 30	DISCONNECT SWITCH. 3P = # OF POLES, 30 = FRAME SIZE, * = FUSE PER MANUFACTURERS RECOMMENDATIONS.
▰	120/208V, 3ø, 4W PANELBOARD
(J) (J)H	CEILING & WALL MOUNTED JUNCTION BOX, SIZE AS REQ. TO MEET NEC-370 (MINIMUM 4"x4"x2-1/2")

ELECTRICAL SYMBOLS (TELECOMMUNICATIONS)

▨	TELEPHONE TERMINAL BACKBOARD, 3/4" PLYWOOD 8'X4' PAINTED ON ALL SIDES IN A MEDIUM GRAY COLOR AS PER TIA 569B
▽	TELECOMM JACK MOUNTED 18" A.F.F. UNLESS OTHERWISE NOTED. EXTEND 3/4" CONDUIT TO TELEPHONE ROOM
TV	TELEVISION CABLE OUTLET. 4"X4" BOX W/1 GANG RING AND "F" COAX CONNECTOR FACEPLATE.EXTEND RG-6 COAX CABLE,3/4"C TO CATV TERMINAL CABINET. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE

ELECTRICAL SYMBOLS (SWITCHES)

$	20A, 120V SINGLE POLE SWITCH MTD. 48" AFF
$3	20A, 120V THREE WAY SWITCH MTD. 48" AFF
$M	MOTOR RATED SWITCH WITH OVERLOAD PROTECTION EQUIP. MTD.

NOTE: LIGHT SWITCHES LOCATED ADJACENT TO EACH OTHER SHALL BE GANGED TOGETHER IN ONE COMMON BACKBOX UNDER A COMMON CONTINUOUS FACEPLATE.

ELECTRICAL SYMBOLS (SECURITY)

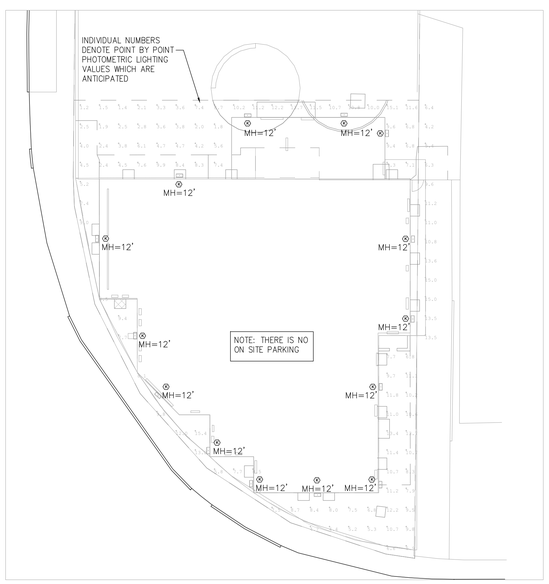
DC	SECURITY DOOR CONTACT
KP	SECURITY SYSTEM KEY PAD MTD. 48" AFF.
MD	CEILING MOUNTED SECURITY SYSTEM MOTION DETECTOR DUAL TECHNOLOGY - PIR AND ULTRASONIC
HC	SECURITY SYSTEM HATCH CONTACT
AH	SECURITY SYSTEM AUDIBLE ALARM HORN

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LAMPS		VOLTS	MOUNTING	REMARKS
			Qty	Type			
A	Daybrite	2AVG328PMW-1/3-EB	3	F028T8-3500K	120	RECESSED	2'X4' DIRECT/INDIRECT FL
B	Infinity	PH60-226QEB-CS-BH	2	26W DTT 3500K	120	RECESSED	6" LOBBY DOWNLIGHT
C	Finelite	S12-ID-WCB-L-3T5-SC-91W-Open-120-FE	3	F032T8-3500K	120	PENDANT	DIRECT/INDIRECT FLUOR
D	Begheli	BS100-232-FA12-1/2EB-BH	2	F032T8-3500K	120	SURFACE	1'X4' FLUORESCENT TROFFER
E	Begheli	Cyclone Series SA	1	LED	120	UNIVERSAL	OFFICES EXIT SIGN W/BATTERY
E1	Chloride	CAD-N-U-R-W	1	LED	120	UNIVERSAL	SHELL EXIT SIGN W/BATTERY
F	Capri	CM6-F226-U-H66C	2	26W DTT 3500K	120	RECESSED	RESTROOM DOWNLIGHT
G	Daybrite	IA232-120-EB	2	F032T8-3500K	120	SURFACE	INDUSTRIAL FLUORESCENT
H	Sun Valley	LCH1/MOD PENDANT/4PLT42	4	PLT42-3500K	120	SUSPEND	TOWER PENDANT
J	Daybrite	VFN26CUW-LP-PG	1	26W	120	SURFACE	ELEVATOR PIT LIGHT
K	Sun Valley	WS/LCH2-XAZ-WM/PGIII	1	70MH	120	SURFACE	EXTERIOR SECURITY LIGHT
L	Daybrite	SSR232-1/2EB-UNV	2	F032T8-3500K	120	SURFACE	BATHROOM COVE

LIGHT FIXTURES INDICATED ON PLAN CROSS HATCH AND OR "EM" DESIGNATION SHALL BE PROVIDED WITH INTEGRAL BATTERY PACKS - 2 LAMP 1400 LUMEN FOR LINEAR FLUORESCENT AND 900 LUMEN FOR COMPACT FLUORESCENT

⚠ TYPE "K" EXTERIOR SECURITY LIGHT IS WALL MOUNTED +/- 12' ABOVE FINISHED GRADE. COORDINATE EXACT MOUNTING HEIGHT AND LOCATION WITH ARCHITECT PRIOR TO ROUGH IN



2 OVERALL PHOTOMETRIC SITE PLAN

SCALE: 1/16"=1'-0"

NORTH

Luminaire Schedule

Project: CITY OF MIAMI HISTORIC FIRE STATION

Symbol	Qty	Label	Description	Lumens/Lamp	LLD	LDD	LLF	Lum. Watts	Total Watts
-	14	K	Sun Valley WS/LCH2-XAZ-WM/PGIII	14000	1.000	1.000	0.750	292	4088

Photometric Calculation Summary

Project: CITY OF MIAMI HISTORIC FIRE STATION

Label	Avg FC	Max FC	Min FC	Avg/Min	Max/Min
Object_1_Planar	8.00	15.4	1.2	6.67	12.83

NOTE: TYPE "K" EXTERIOR LIGHT FIXTURES ARE CONTROLLED VIA TIME CLOCK FOR AUTOMATIC DUSK TO DAWN OPERATION

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: 25 MAY 2011
REVISIONS:
No. DATE
⚠ 1 9-16-11 BLDG DEPT REVIEW

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

DRAWING TITLE: LEGEND. NOTES. SYMBOLS AND LIGHT FIXTURE SCHEDULE

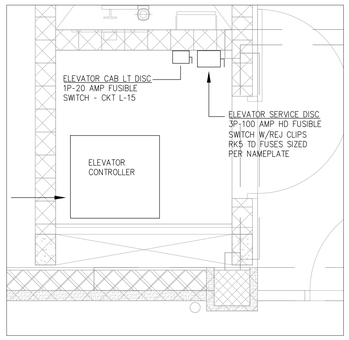
SCALE: NTS

NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No. E1.00

PROJECT TITLE: FIRE STATION NO. 2 INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

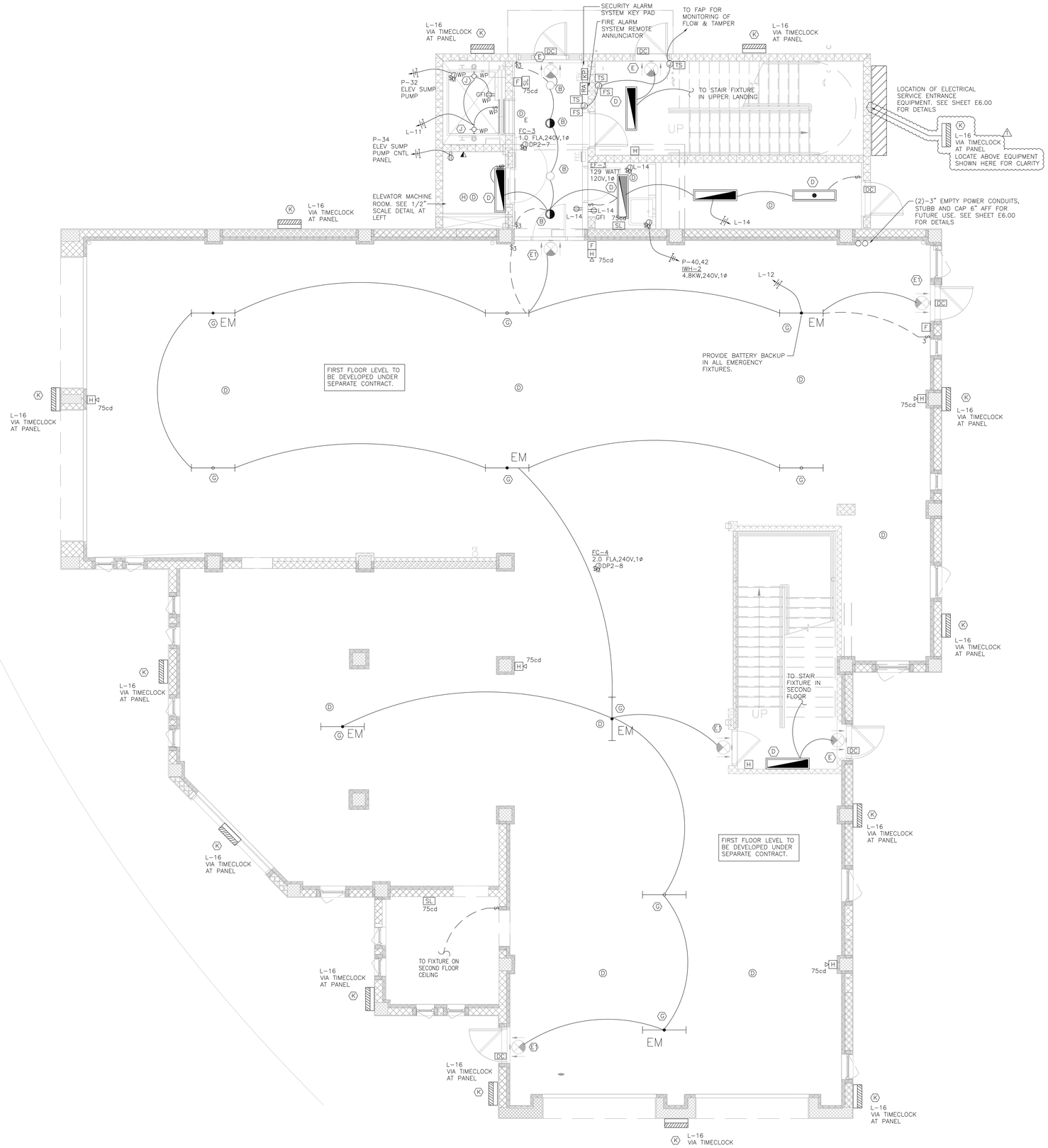
OWNER: CITY OF MIAMI



1 ENLARGED ELEVATOR MACHINE ROOM FIRST FLOOR

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

NORTH



1 FIRST FLOOR ELECTRICAL PLAN

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

NORTH

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:

No.	DATE	
1	9-16-11	BLDG DEPT REVIEW

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

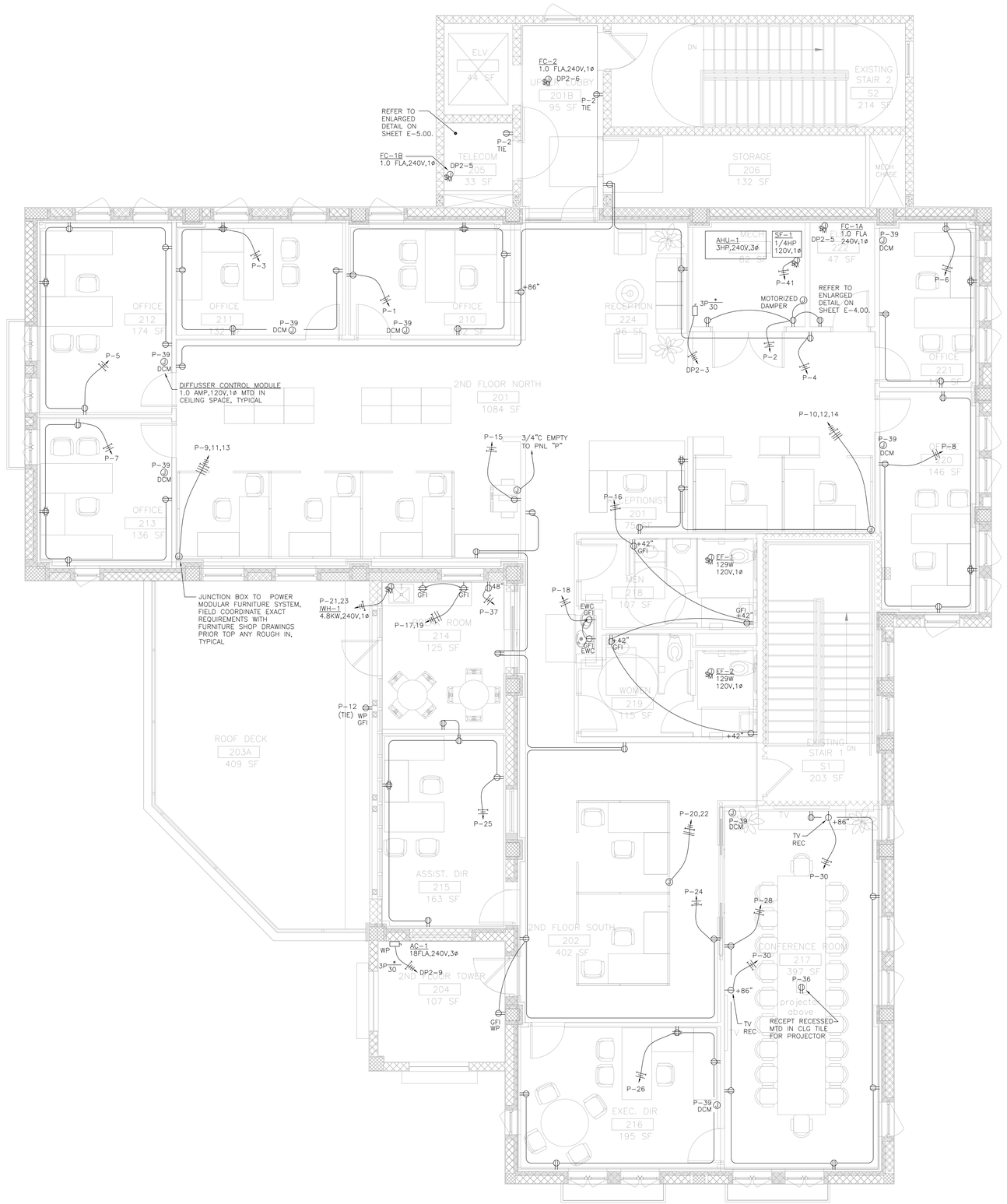
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
FIRST FLOOR
ELECTRICAL PLAN

SCALE: 1/4" = 1'-0"
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
E2.00



1 **SECOND FLOOR POWER PLAN**
SCALE: 1/4"=1'-0"

NORTH

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

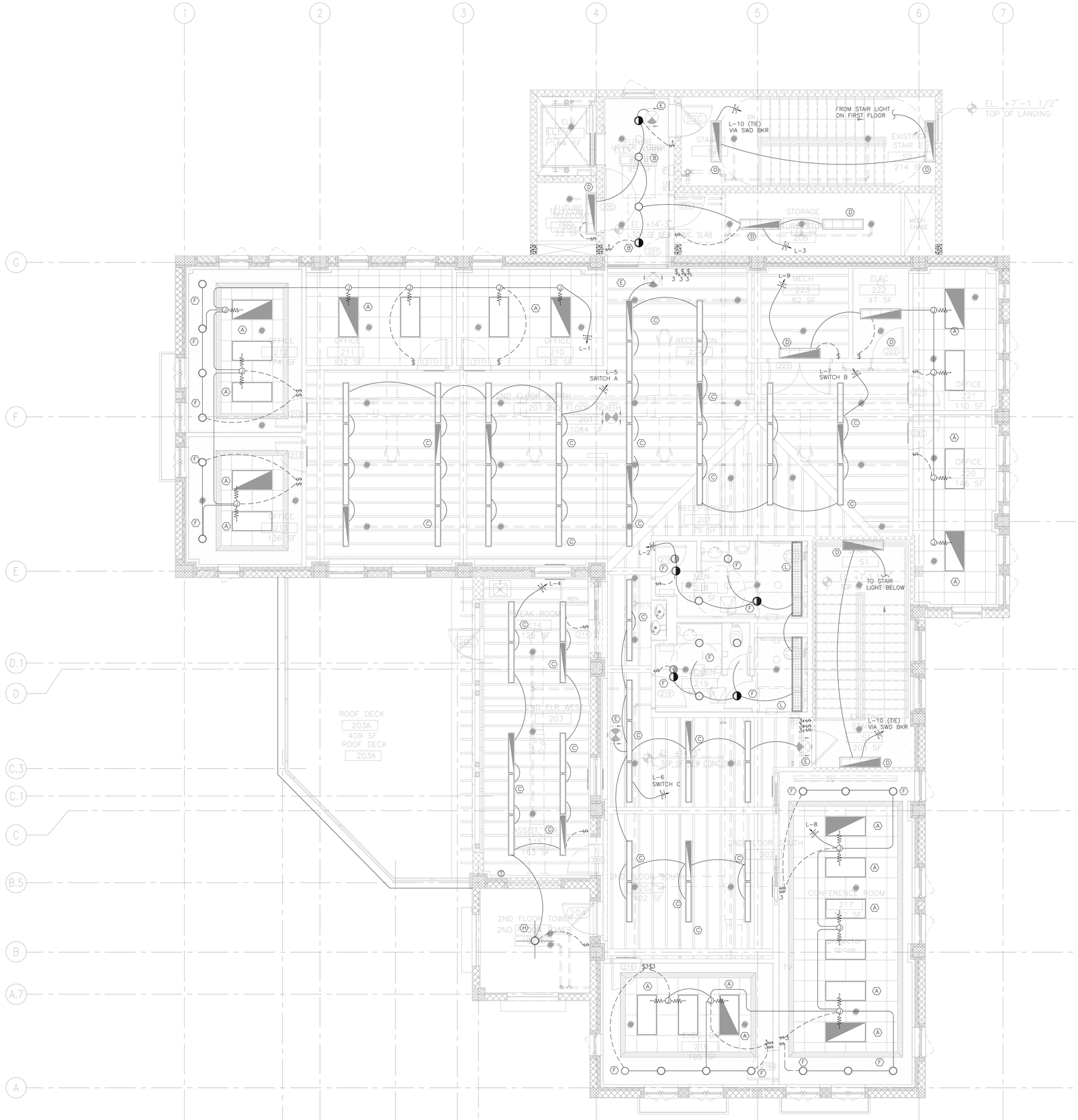
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
SECOND FLOOR POWER PLAN

SCALE: 1/4" = 1'-0"
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
E3.00



1 **SECOND FLOOR LIGHTING PLAN**
SCALE: 1/4"=1'-0"

NORTH

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

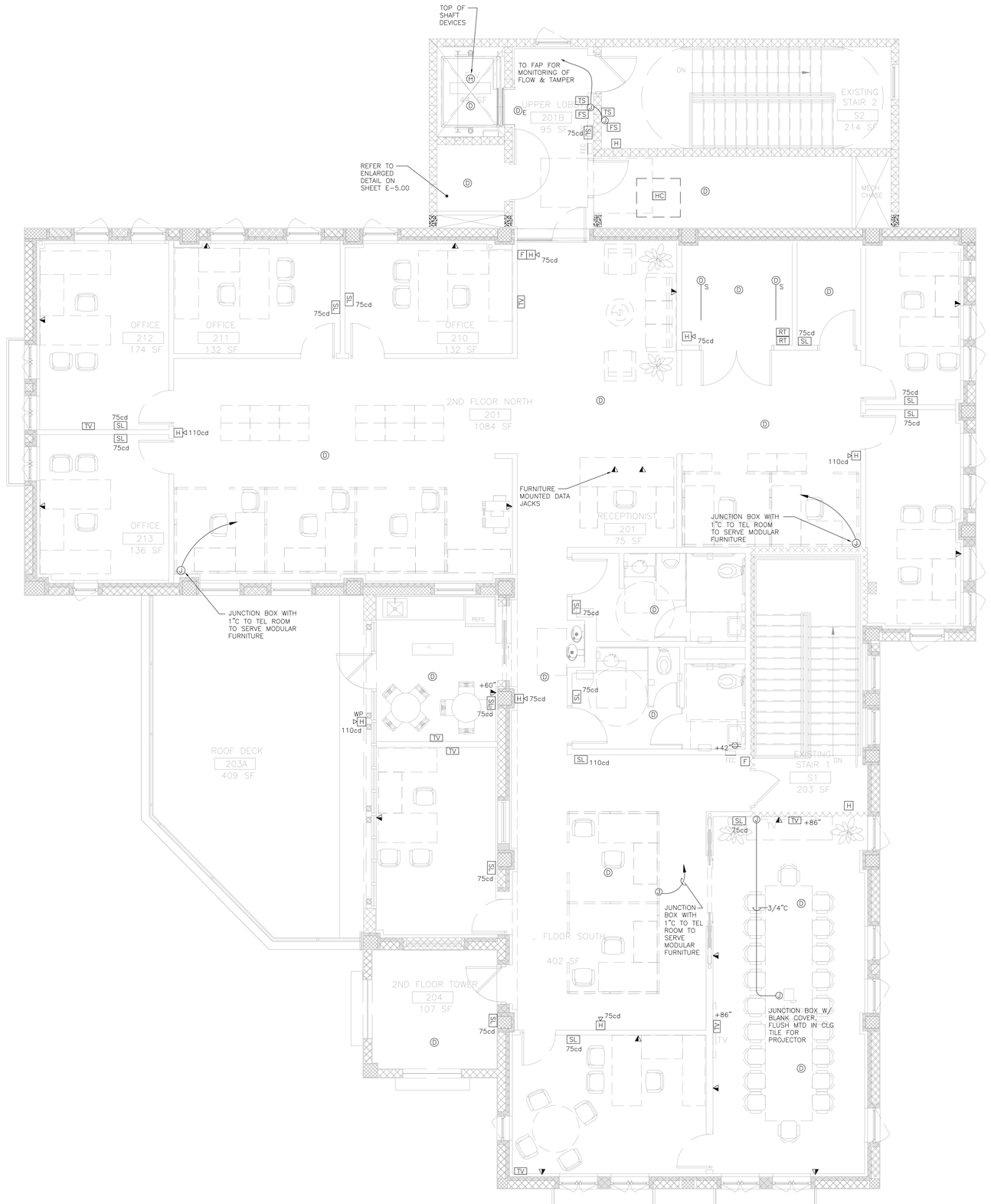
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
SECOND FLOOR LIGHTING PLAN

SCALE: 1/4" = 1'-0"
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
E3.01



1 **SECOND FLOOR SYSTEMS PLAN**
SCALE: 1/4"=1'-0"

NORTH

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CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

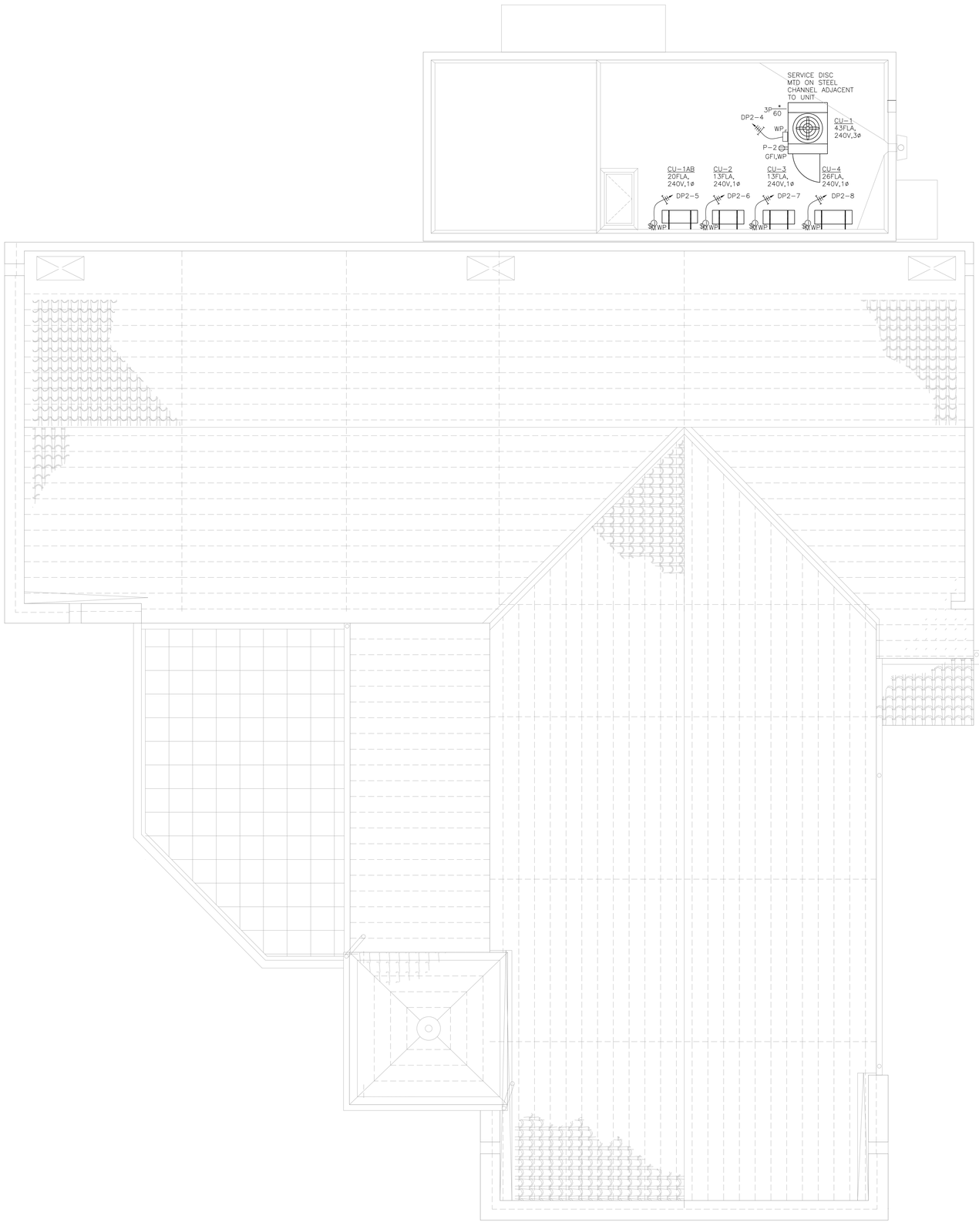
PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

DRAWING TITLE:
SECOND FLOOR SYSTEMS PLAN

SCALE: 1/4" = 1'-0"
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
E3.02



1 **ROOF PLAN - ELECTRIC**

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

NORTH

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

DRAWING TITLE:
ROOF PLAN - ELECTRIC

SCALE: 1/4" = 1'-0"
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER:
CITY OF MIAMI

SHEET No.
E3.03

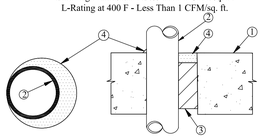
2 Hour Fire Rated Through Penetration Firestop for Single Metal Pipe through Concrete Floors or Block Walls using TREMstop Acrylic.

TREMCO
3735 Green Rd.
Beachwood, OH, 44122

Drawing not to scale

CAJ 1205

F-Rating = 2 Hr.
T-Rating = 0 Hr.
L-Rating at Ambient - Less Than 1 CFM/sq. ft.
L-Rating at 400 F - Less Than 1 CFM/sq. ft.



① Pre-Rated Concrete Floors or Block Walls = Min. 4-1/2" thickness.
The annular space range shall be min. 0" to max. 7/8" for this firestop system.
② Metallic Pipe: > Steel Pipe - 12" diam. (or smaller) sch. 40 (or heavier) steel
> Conduit - Nom. 4" diam. (or smaller) steel conduit, or EMT.
> Copper Pipe - 3" diam. (or smaller) Regular (or heavier) copper.
> Cast Iron Pipe - 12" diam. (or smaller) cast or ductile iron.
> Copper Tubing - 3" diam. (or smaller) Type L (or heavier) copper.
③ Packing Material - Min. 4" thickness of mineral wool (min. 4.0 pcf) insulation, firmly packed into opening as a permanent form.
④ TREMstop Acrylic - Min. 1/2" sealant applied within annulus, and a minimum 1/4" sealant applied at point contact; at the floor surface for floors, or both surfaces for walls.

Project: _____
Location: _____
Installer: _____
Signature: _____

The Tremco products used above have been tested in accordance with the following:
• ASTM E814 (UL1479) Standard Test Method for Through Penetration Firestopping.

Date: 1/15/97 Drawing: TR-1208
Approved by: J. Pitcole

The above described assembly has been tested and is based on both past and anticipated performance criteria. Tremco shall not be liable for any damages, direct or consequential, resulting from use of this material or design. Tremco shall only be responsible for replacing material found to be defective.

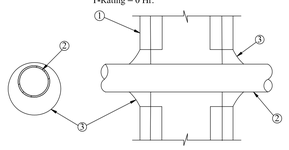
1 or 2 Hour Fire Rated Through Penetration Firestop for Single Metal Pipe through Gypsum Walls using FYRE-SHIELD.

TREMCO
3735 Green Rd.
Beachwood, OH, 44122

Drawing not to scale

WL 1097

F-Rating = 1 and 2 Hr.
T-Rating = 0 Hr.



① Pre-Rated Gypsum Wallboard/Stud Wall Assembly
② Metallic Pipe - A) Steel Pipe - 8" diam. (or smaller) Sch. 40 (or heavier) steel pipe.
B) Iron Pipe - 8" diam. (or smaller) cast or ductile iron pipe.
C) Conduit - 4" diam. (or smaller) EMT or rigid steel conduit.
D) Copper Tubing - 4" diam. (or smaller) Type L (or heavier) copper tubing.
E) Copper Pipe - 4" diam. (or smaller) Regular (or heavier) copper pipe.
The annular space shall be min. 1/4" to max. 5/8" within the firestop system.
③ FYRE-SHIELD - Min. 1/2" thickness of sealant applied within opening. Additional sealant to be installed such that a min. 1/4" crown is formed around the penetrating item.

Project: _____
Location: _____
Installer: _____
Signature: _____

The Tremco products used above have been tested in accordance with the following:
• ASTM E814 (UL1479) Standard Test Method for Through Penetration Firestopping.

Date: 4/23/97 Drawing: TW-1097
Approved by: J. Pitcole

The above described assembly has been tested and is based on both past and anticipated performance criteria. Tremco shall not be liable for any damages, direct or consequential, resulting from use of this material or design. Tremco shall only be responsible for replacing material found to be defective.

FIRE ALARM SYSTEM GENERAL NOTES

1. THE EXTENT OF THE FIRE ALARM SYSTEM WORK IS INDICATED BY THE DRAWINGS AND SCHEDULES.
2. THE FIRE ALARM RISER IS A DIAGRAMMATIC GUIDE FOR THE INSTALLATION OF THE FIRE ALARM EQUIPMENT. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE OPERATING SYSTEM.
3. ALL NEW SYSTEM COMPONENTS SHALL MATCH AND BE OF THE SAME MANUFACTURER FOR COMPATIBILITY.
4. ALL FIRE ALARM SYSTEM COMPONENTS SHALL BE UL LISTED AND LABELED.
5. SIGNALING CIRCUITS SHALL BE POWER LIMITED PER NEC 760-11.
6. PROVIDE DETAILED INSTALLATION SHOP DRAWINGS INDICATING AS A MINIMUM: DEVICE LOCATIONS, DESCRIPTIONS, ADDRESS/ZONE, CONDUIT SIZE, WIRING TYPE AND SIZE, BATTERY CALCULATIONS.
7. PROVIDE SHOP DRAWINGS SHOWING NEW EQUIPMENT AND DEVICE LOCATIONS, CONNECTION WIRING NECESSARY FOR THE NEW SYSTEM.
8. ALL WIRING MUST CONFORM WITH NEC ARTICLE 760 AND LOCAL CODES. ALL EQUIPMENT SHALL BE UL LISTED. ALL DEVICES SHALL BE COMPATIBLE WITH THE CONTROL PANEL.
9. ALL INSTALLATION MATERIAL SUCH AS CONDUIT FITTINGS, BOXES, HANGERS, ETC. ARE TO BE PROVIDED AND INCLUDED.
10. ALL INITIATING AND INDICATING CIRCUITS MUST BE SUPERVISED.
11. CIRCUIT POLARITY MUST BE OBSERVED.
12. WIRE RUNS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATION OF ALL EQUIPMENT TO BE DETERMINED IN THE FIELD, BUT SHALL CONFORM WITH THE BASIC LAYOUT AS SHOWN ON DRAWINGS TO PREVENT CIRCUIT OVERLOAD.
13. DETECTORS SHALL NOT BE LOCATED IN DIRECT AIR STREAM FROM SUPPLY AIR OUTLETS. MAINTAIN A MINIMUM CLEAR DISTANCE OF 36", OFFSET/ADJUST LOCATIONS AS REQUIRED.
14. MINIMUM CONDUIT SIZE WILL BE 3/4" UNLESS NOTED OTHERWISE. CONDUIT SHALL BE NO MORE THAN 40% FILLED.
15. DO NOT MARK ID NUMBERS ON DEVICES. LABEL BASE ONLY.
16. POWER UP & POWER DOWN ON PANEL MUST BE DONE IN SEQUENCE:
POWER DOWN
A – DISCONNECT BATTERY.
B – TURN OFF AC POWER PRIMARY & SECONDARY.
POWER UP
A – TURN ON AC POWER PRIMARY & SECONDARY.
B – RECONNECT BATTERIES.
17. THE FIRE ALARM CONTROL PANEL SHALL NOT BE USED TO POWER ANY UNAUTHORIZED EXTERNAL DEVICE.
18. STROBES ARE TO BE WALL MOUNTED PER ADA REQUIREMENTS. LOCATION OF THESE DEVICES TO BE DETERMINED IN FIELD. MOUNT STROBES 80" AFF TO TOP OF LENS, OR 6" BELOW CEILING TO TOP OF LENS, WHICHEVER IS LOWER.
19. ALL HORNS TO BE TAPPED AT STD SETTING EACH PROVIDING 93 DB AT 10 FT (TYPICAL ANECHOIC DBA).
20. FIRE ALARM CONTROL PANEL MUST BE CONNECTED TO BUILDING COLD-WATER GROUND VIA 1 GREEN #10 THHN OR EQUIVALENT.
21. ANY SURFACE MOUNTED FIRE ALARM DEVICES, i.e., PULL STATION, STROBES, HORN/STROBE SHALL BE MOUNTED IN "SYSTEMS" BOXES PROVIDED BY THE MANUFACTURER. DO NOT USE 1900 TYPE ELECTRICAL BOXES PAINTED RED.
22. PROVIDE AND INSTALL ALL DEVICES AS INDICATED IN THE FLOOR PLANS AND/OR RISER DIAGRAM AND/OR DETAILS AS REQUIRED FOR A COMPLETE CODE COMPLIANT OPERATIONAL SYSTEM
23. FIRE ALARM INSTALLATION SHOP DRAWINGS, REFERENCED IN NOTE #6 ABOVE, REQUIRED BY THE CITY FOR AN INSTALATION PERMIT, SHALL BE PREPARED, SIGNED & SEALED BY A STATE OF FLORIDA LICENSED DELEGATED SPECIALTY ENGINNER AND ARE NOT THE RESPONSIBILITY OF THE EOR

FIRE ALARM SYSTEM LEGEND

SYMBOL	DESCRIPTION	MANUFACT.	CATALOG No.	MOUNTING	REMARKS
D	PHOTOELECTRIC SMOKE DETECTOR	SIMPLEX	TRUE ALARM 4098-9714	CEILING	
H	135°F HEAT DETECTOR	SIMPLEX	TRUE ALARM 4098-9733	CEILING	
SL	STROBE LIGHT	SIMPLEX	4090-9333	WALL	SEE FLOOR PLAN FOR CANDELA STROBE RATING
FS	FLOW SWITCH INDIVIDUAL ADDRESSABLE MONITOR MODULE	SIMPLEX	4091-9001	WALL	
TS	TAMPER SWITCH INDIVIDUAL ADDRESSABLE MONITOR MODULE	SIMPLEX	4090-9001	WALL	
FAP	FIRE ALARM CONTROL PANEL	SIMPLEX	4002	WALL	UPDATE AS REQUIRED TO ACCEPT NEW DEVICES
F	ADDRESSABLE MANUAL PULL STATION	SIMPLEX	4099-9001	WALL	
H	HORN W/ VISUAL ALARM	SIMPLEX	4903-9358	WALL	SEE FLOOR PLAN FOR CANDELA STROBE RATING
R S D	DUCT SMOKE * DETECTOR	SIMPLEX	TRUEALARM 4098-9756	DUCT	PROVIDE ALL WITH REMOTE INDICATOR W/KEY TEST SWITCH 2098-9806
RT	DUCT SMOKE DETECTOR REMOTE INDICATOR KEYED TEST SWITCH	SIMPLEX	2098-9806	WALL	PROVIDE FOR ALL SUPPLY & RETURN AIR DUCT MTD DETECTORS
ZAM	ZONE ADAPTER MODULE (ZAM)	SIMPLEX	2190-SERIES	AS RECOMMENDED BY FIRE ALARM PROVIDER	PROVIDE MONITOR, SIGNAL, CONTROL ZAMS AS REQUIRED
ANN	REMOTE LCD ANNUNCIATOR	SIMPLEX	4603-9101	WALL	
NAC	NOTIFICATION APPLIANCE CIRCUIT PANEL	SIMPLEX	4009-9001	WALL	FULLY ADDRESSABLE

* DUCT SMOKE DETECTORS LOCATIONS AS SHOWN ON PLANS ARE DIAGRAMMATIC AND SHOWN FOR REFERENCE ONLY. DUCT DETECTORS SHALL BE PROVIDED ON ALL SUPPLY AND RETURN AIR DUCTS WHICH ENTER AND EXIT THE UNITS. FA SUBCONTRACTOR WILL PROVIDE THE DETECTORS TO THE MECHANICAL SUBCONTRACTOR WHO WILL INSTALL SAME. SAMPLING TUBES SHALL BE INSTALLED INSIDE DUCTWORK AND SHALL NOT SAMPLE AIR FROM MIXED AIR PLENUMS. FIRE ALARM SUBCONTRACTOR WILL ASSIST THE MECHANICAL SUBCONTRACTOR IN PROPERLY LOCATING THE DETECTORS WITHIN THE FIELD FABRICATED DUCTWORK IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 72 APPENDIX A.

FIRE ALARM SYSTEM SPECIFIC NOTES

1. DUCT DETECTOR AND TEST SWITCHES TO BE LABELED.
2. DUCT DETECTOR REQUIRES MECHANICAL TEST FOR APPROVAL. TEST ACCORDING TO NFPA 72 7-2.2 REQUIREMENTS
3. ALL DEVICES SHALL BE ADDRESSABLE, TRUE ALARM DEVICES.
4. FIRE ALARM SYSTEM SHALL BE WIRED AS A CLASS "B" SYSTEM.
5. ALL SIGNALLING CIRCUITS SHALL BE FED FROM THE FIRE ALARM PANEL. NO NAC PANELS.
6. HORN AND STROBE CIRCUITS SHALL BE INSTALLED IN SEPERATE ZONES OR CIRCUITS. NO MORE THAN 8 STROBES PER CIRCUIT.
7. MONITORING OF THE SYSTEM SHALL BE DONE BY THE FIRE ALARM NETWORK, NOT BY RELAYS.
8. ALL INITIATING DEVICES SHALL BE ACCESSIBLE FOR MAINTENANCE.
9. DUCT DETECTOR INSTALLATION SHALL COMPLY WITH NFPA 72 AND MANUFACTURERS RECOMMENDATIONS.
10. INSPECTION, TESTING AND MAINTENANCE PROGRAMS SHALL SATISFY THE REQUIREMENTS OF NFPA 72, SHALL CONFORM TO THE EQUIPMENT MANUFACTURERS RECOMMENDATIONS AND SHALL VERIFY CORRECT OPERATION OF THE FIRE ALARM SYSTEM.
11. TYPE AIR DUCT DETECTORS SHALL BE TESTED OR INSPECTED TO ENSURE THAT THE DEVICE WILL SAMPLE THE AIRSTREAM. THE TEST SHALL BE MADE IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

OPPING DETAILS

SCALE: N.T.S.

WIRE LEGEND

K = REMOTE TEST SWITCH CIRCUIT – RTSC
14/2 FPL MINIMUM

D = VOICE COMMUNICATION CIRCUIT –VCC
18/2 TWISTED/SHIELDED PAIR FPL

R = RELAY CIRCUIT – RC
14/2 FPL MINIMUM

L = NOTIFICATION APPLIANCE CIRCUIT – NAC/VISUAL
14/2 TWISTED FPL MINIMUM

P = POWER CIRCUIT – PC
14/2 FPL MINIMUM

M = MULTI-ADDRESSABLE PERIPHERAL NETWORK – MAPNET
18/2 TWISTED/SHIELDED PAIR FPL

S = ANNUNICATOR SERIAL COMMUNICATION – ACC
18/2 TWISTED/SHIELDED PAIR FPL

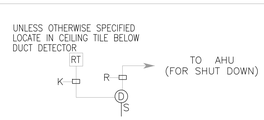
SIGNALING LINE CIRCUITS

NOTIFICATION APPLIANCE CIRCUIT – NAC/VISUAL

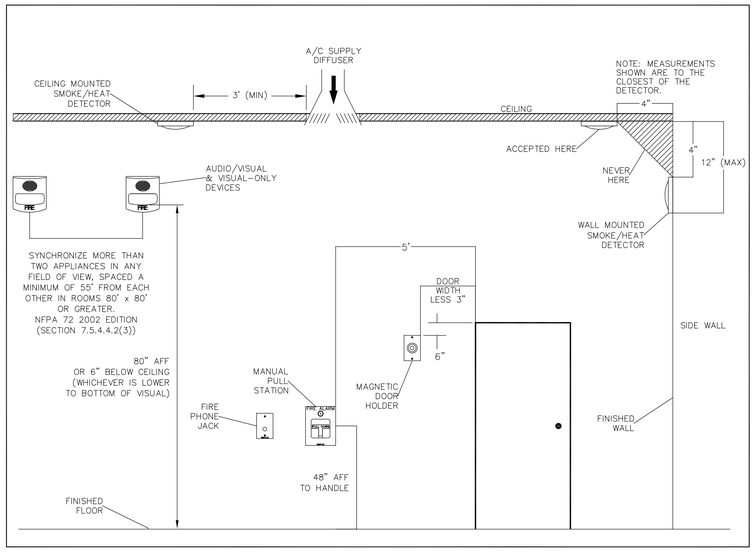
MULTI-ADDRESSABLE PERIPHERAL NETWORK – MAPNET

ANNUNICATOR SERIAL COMMUNICATION – ACC

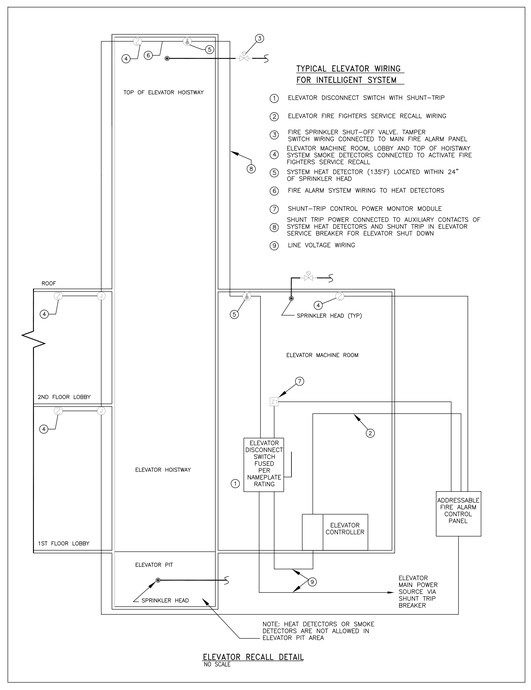
NOTES:
WIRE TYPES LISTED IN THE WIRE LEGEND ARE THE MANUFACTURER'S MINIMUM WIRING REQUIREMENTS. CONTRACTOR SHALL CHOOSE WIRE TYPES AND RATING TO MEET THESE REQUIREMENTS AND ALL ALL OF THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND NFPA FOR THE APPLICATIONS AND LOCATIONS OF USE.



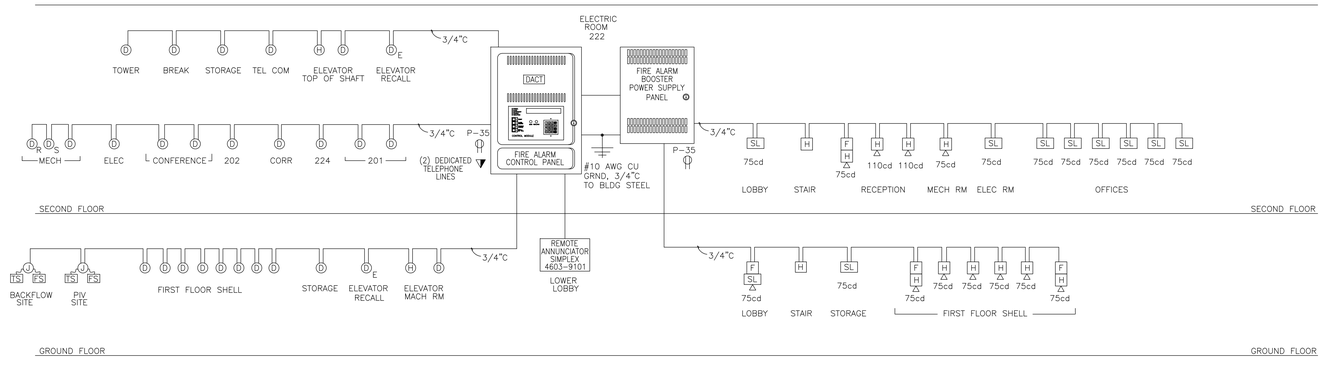
TYPICAL DUCT DETECTOR DETAIL



FIRE ALARM TYPICAL DEVICE MOUNTING LOCATIONS



ELEVATOR RECALL DETAIL
NO SCALE



FIRE ALARM RISER DIAGRAM

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: 25 MAY 2011
REVISIONS:
No. DATE

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☐ RODOLFO MORALES, P.E. LICENSE NO. 68004
☐ HECTOR J. CASTILLO, P.E. LICENSE NO. 60405
☐ JOEL QUESADA, P.E. LICENSE NO. 74451

CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

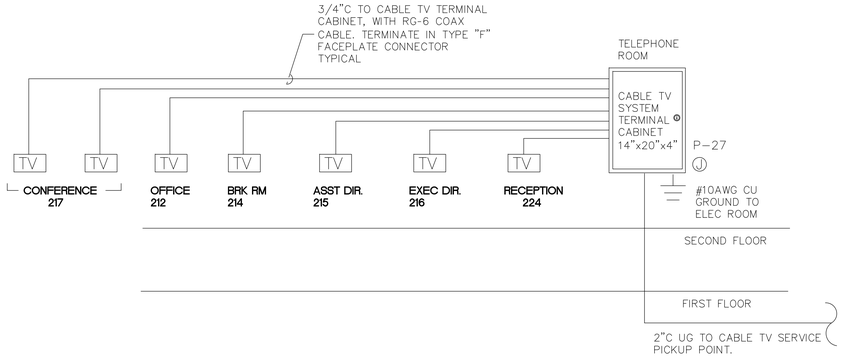
PROJECT TITLE: FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER: CITY OF MIAMI

DRAWING TITLE: FIRE ALARM RISER DIAGRAM

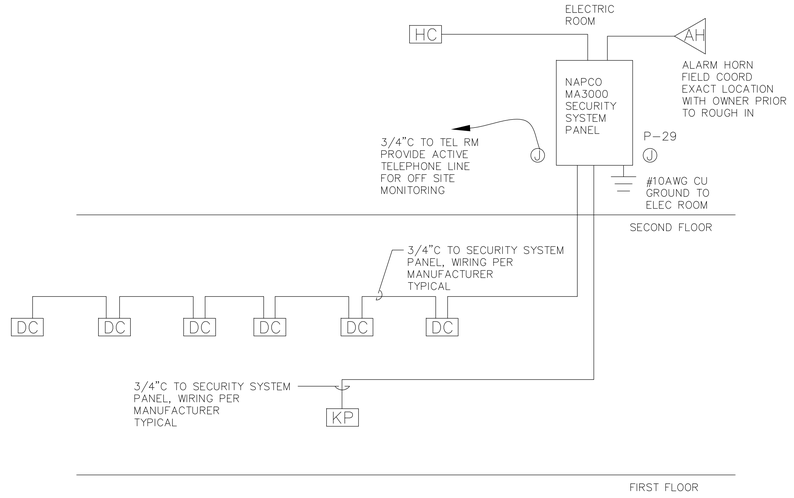
SCALE: NTS
NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No. E4.00



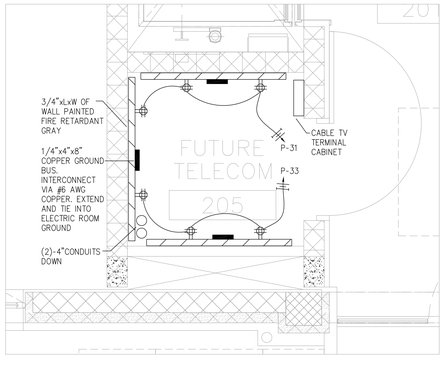
2 CABLE TELEVISION RISER DIAGRAM

NO SCALE



1 SECURITY INTRUSION ALARM SYSTEM RISER DIAGRAM

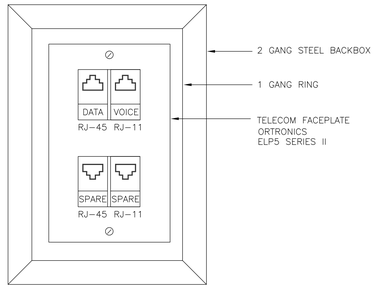
NO SCALE



5 ENLARGED TELEPHONE ROOM SECOND FLOOR

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

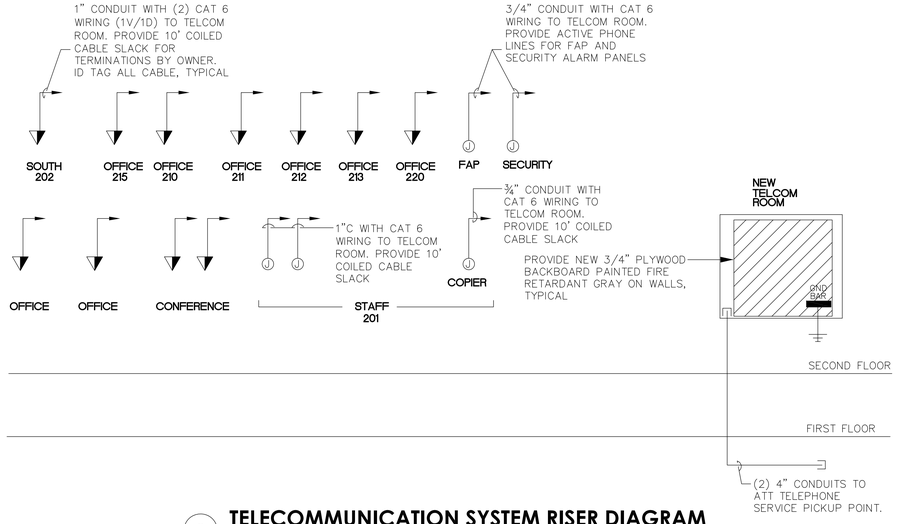
NORTH



4 TYPICAL TELECOMMUNICATION OUTLET

DENOTED BY THE SYMBOL "▽"

NO SCALE



3 TELECOMMUNICATION SYSTEM RISER DIAGRAM

NO SCALE

DRAWN BY:

CHKD BY:

APP'D BY:

ISSUE DATE:
25 MAY 2011

REVISIONS:
No. DATE

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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE:
FIRE STATION NO. 2
INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER
CITY OF MIAMI

DRAWING TITLE:
SYSTEMS RISER DIAGRAM

SCALE: NTS

NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE PROCEEDING WITH WORK

SHEET No.
E5.00

EQUAL TO: EATON — VOLTAGE: 120/ 240 V, 1 Ø,3W

LIGHTING

TYPE: POW R LINE 1, 22K AIC — MAIN BUS RATING: 100 AMPS

PANEL "L"

MOUNTING: SURFACE, NEMA 1 — ELEC. RM. 222 — TYPE MAINS: MLO

COPPER BUS,LUGS,BOLTED GND BAR

IDENTIFICATION	"A" VA LOAD	"C" VA LOAD	AMPS. TRIP C.B.	POLES	CIR. NO.	WIRE	CON-DUIT	CON-DUIT	WIRE	CIR. NO.	POLES	AMPS. TRIP C.B.	"A" VA LOAD	"C" VA LOAD	IDENTIFICATION
GENERAL LIGHTING	1080		20	1	1	12	3/4"	3/4"	12	2	1	20	585		RESTROOM LIGHTING
GENERAL LIGHTING		1185	20	1	3	12	3/4"	3/4"	12	4	1	20		1100	GENERAL LIGHTING
GENERAL LIGHTING	1600		20	1	5	12	3/4"	3/4"	12	6	1	20	1440		GENERAL LIGHTING
GENERAL LIGHTING		1700	20	1	7	12	3/4"	3/4"	12	8	1	20		1440	GENERAL LIGHTING
GENERAL LIGHTING	600		20	1	9	12	3/4"	3/4"	12	10	1	20	300		STAIR LIGHTS
ELEV PIT LIGHTS/REC.		500	20	1	11	12	3/4"	3/4"	12	12	1	20		1000	1st FLR SHELL LIGHTING
FUTURE PARKING LOT LIGHTS	1000		20	1	13	10	3/4"	3/4"	12	14	1	20	1000		1st FLR LOBBY LIGHTING
SPARE		-	20	1	15			3/4"	10	16	1	20		1600	EXTERIOR SECURITY LIGHTS *
SPARE	-		20	1	17					18	1	20	-		SPARE
SPARE		-	20	1	19					20	1	20		-	SPARE
SPARE	-		20	1	21					22	1	20	-		SPARE
SPARE		-	20	1	23					24	1	20		-	SPARE
SPACE	-			1	25	-	-	-	-	26	1		-		SPACE
SPACE		-		1	27	-	-	-	-	28	1			-	SPACE
SPACE	-			1	29	-	-	-	-	30	1		-		SPACE
SPACE		-		1	31	-	-	-	-	32	1			-	SPACE
SPACE	-			1	33	-	-	-	-	34	1		-		SPACE
SPACE		-		1	35	-	-	-	-	36	1			-	SPACE
SPACE	-			1	37	-	-	-	-	38	1		-		SPACE
SPACE		-		1	39	-	-	-	-	40	1			-	SPACE
SPACE	-			1	41	-	-	-	-	42	1		-		SPACE

TOTAL VA "A" PHASE 7605 — TOTAL VA "C" PHASE 8525

TOTAL CONNECTED KVA: 16.1 67.2 (AMPS) — TOTAL DEMANDED KVA: (0 AMPS)

* INDICATES LIGHITNG LOAD TO BE CONTROLLED VIA TIME CLOCK MOUNTED ADJACENT TO PANEL

EQUAL TO: EATON — VOLTAGE: 120/ 240 V, 1 Ø,3W

GENERAL POWER

TYPE: POW R LINE 1, 22K AIC — MAIN BUS RATING: 225 AMPS

PANEL "P"

MOUNTING: SURFACE, NEMA 1 — ELEC. RM. 222 — TYPE MAINS: MLO

COPPER BUS,LUGS,BOLTED GND BAR

IDENTIFICATION	"A" VA LOAD	"C" VA LOAD	AMPS. TRIP C.B.	POLES	CIR. NO.	WIRE	CON-DUIT	CON-DUIT	WIRE	CIR. NO.	POLES	AMPS. TRIP C.B.	"A" VA LOAD	"C" VA LOAD	IDENTIFICATION
OFFICE 210 RECEPTACLES	900		20	1	1	12	3/4"	3/4"	12	2	1	20	360		MECH/ELEC RMS RECEPTACLES
OFFICE 211 RECEPTACLES		900	20	1	3	12	3/4"	3/4"	12	4	1	20		900	GENERAL RECEPTACLES
OFFICE 212 RECEPTACLES	1080		20	1	5	12	3/4"	3/4"	12	6	1	20	900		OFFICE 221 RECEPTACLES
OFFICE 213 RECEPTACLES		900	20	1	7	12	3/4"	3/4"	12	8	1	20		900	OFFICE 220 RECEPTACLES
MODULAR FURNITURE RECEPT	720		20	1	9	12	3/4"	3/4"	12	10	1	20	720		STAFF RECEPTACLES
MODULAR FURNITURE RECEPT		720	20	1	11	12	3/4"	3/4"	12	12	1	20		720	STAFF RECEPTACLES
MODULAR FURNITURE RECEPT	720		20	1	13	12	3/4"	3/4"	12	14	1	20	720		RECEPTIONIST RECEPT
COPIER RECEPTACLE		1200	20	1	15	12	3/4"	3/4"	12	16	1	20		720	RESTROOM RECEPTACLES
BREAK ROOM RECEPTACLE	1500		20	1	17	12	3/4"	3/4"	12	18	1	20	1000		EWC
BREAK ROOM RECEPTACLE		1500	20	1	19	12	3/4"	3/4"	12	20	1	20		720	MODULAR FURNITURE RECEPT
IWH-1 4.8KW,240V,1PH	2400		30	2	21	10	3/4"	3/4"	12	22	1	20	720		MODULAR FURNITURE RECEPT
		2400			23			3/4"	12	24	1	20		1260	GENERAL RECEPTACLES
OFFICE 215 RECEPTACLES	900		20	1	25	12	3/4"	3/4"	12	26	1	20	900		OFFICE 216 RECEPTACLES
CATV TERMINAL CABINET		200	20	1	27	12	3/4"	3/4"	12	28	1	20		1080	CONFERENCE ROOM RECEPT
SECURITY SYSTEM PANEL	200		20	1	29	12	3/4"	3/4"	12	30	1	20	500		TELEVISION
TELCOM ROOM RECEPT		1080	20	1	31	12	3/4"	3/4"	12	32	1	20		1200	ELEVATOR SUMP PUMP
TELCOM ROOM RECEPT	1080		20	1	33	12	3/4"	3/4"	12	34	1	20	200		ELEV SUMP PUMP CNTL PNL
FIRE ALARM PANEL		500	20	1	35	12	3/4"	3/4"	12	36	1	20		180	CONF RM PROJECTOR
REFRIGERATOR	1200		20	1	37	12	3/4"			38	1	20	0		SPARE
DIFFUSER CONTROL MODULES		960	20	1	39	12	3/4"	3/4"	10	40	2	30		2400	IWH-2 4.8KW,240V,1PH
SUPPLY FAN SF-1	720		20	1	41	12	3/4"			42			2400		

TOTAL VA "A" PHASE 19840 — TOTAL VA "C" PHASE 20440

TOTAL CONNECTED KVA: 40.3 168 (AMPS) — TOTAL DEMANDED KVA: (0 AMPS)

EQUAL TO: EATON — VOLTAGE: 120/ 240 V, 3 Ø,4W DELTA

TYPE: POW R LINE 2, 42K AIC

PANEL "DP2"

ELEC. RM. 222

MOUNTING: SURFACE, NEMA 1 — COPPER BUS,LUGS,BOLTED GND BAR — MAIN BUS RATING: 400 AMPS — TYPE MAINS: 300 AMPS MCB

CKT. NO.	IDENTIFICATION	LOAD HP	LOAD KVA	VOLT	POLES	CIRCUIT BREAKER FRAME	CIRCUIT BREAKER A.I.C.	CIRCUIT BREAKER TRIP	WIRE	CONDUIT	REMARKS
1	POWER PANEL "P"	-	40.1	240	2	225	42K	225	3#4/0	2 1/2"	-
2	LIGHTING PANEL "L"	-	16.1	240	2	100	42K	100	3#3	1- 1/4"	-
3	AHU-1	3	4.0	240	3	100	42K	15	3#12	3/4"	#12 GROUND
4	CU-1	-	17.9	240	3	100	42K	60	3#6	1"	-
5	FC-1A/FC-1B/CU-1AB	-	5.6	240	2	100	42K	35	3#8	3/4"	-
6	FC-2/CU-2	-	3.5	240	2	100	42K	20	3#10	3/4"	-
7	FC-3/CU-3	-	3.5	240	2	100	42K	20	3#10	3/4"	-
8	FC-4/CU-4	-	7.1	240	2	100	42K	40	3#8	3/4"	-
9	AC-1	-	7.5	240	3	100	42K	30	3#10	3/4"	-
10	TVSS	-	0.0	240	3	100	42K	30	3#10	3/4"	-
11	SPARE	-	-	240	3	100	42K	-	-	-	-
12	SPARE	-	-	240	3	100	42K	-	-	-	-
13	SPARE	-	-	240	3	100	42K	-	-	-	-
14	SPARE	-	-	240	3	100	42K	-	-	-	-
	-	-	0.0	240	3	100		-	-	-	-

TOTAL CONNECTED KVA: 105.3 (253 AMPS)

NOTE: SERVICE IS 240/120V 3ø,4W DELTA SYSTEM WITH A HI LEG.
COMPLY WITH NEC 110.15, 230.56 AND 408.3 (E)(F)

FPL

May 27, 2011

Manuel P. Montoya, P.E.
SDM Consulting Engineers, Inc.
135 Almeria Avenue
Coral Gables, FL 33134

Re: Available Fault Current for City of Miami Fire Station #2 Renovation

Dear Manuel P. Montoya,

Thank you for contacting FPL about the available fault current at City of Miami Fire Station #2 Renovation. Based on existing transformer, the maximum available fault current at the transformer secondary terminals is estimated to be 38,620 symmetrical amperes at 120/240 volts. The protective device on the line side of the transformer currently in place or to be installed and serving your property located at the subject location is a 15 amp type "KS" fuse. The primary service voltage is 13.2kV L-L. This calculated symmetrical fault current is not intended for use as the basis for motor starting calculations and does not include:

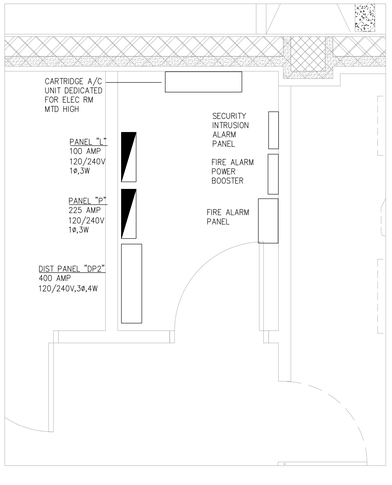
- Consideration for any motor contribution or
- Fault current asymmetry.

The FPL equipment currently serving or planned to serve your facility may change over time as a result of any number of factors, including but not limited to transformer replacements due to load growth, electrical grid changes or emergencies. As a result, although we are providing you with this information for the sole purpose of assisting you in the completion of your study, you and your client should not design, install **or operate** your system in reliance upon any expectation that the specific size and type of equipment currently in place will remain so. If and when the size and type of the equipment changes, our employees are not always in a position to immediately notify customers.

As the construction project progresses, any questions or information you may need can be communicated through me. I have enclosed my business card for easy reference and look forward to hearing from you in the near future.

Sincerely,

Nancy Diaz
Associate Technical Specialist



2 ENLARGED ELECTRICAL ROOM SECOND FLOOR

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

NORTH

SERVICE LOAD CALCULATIONS

FPL SERVICE NO.1

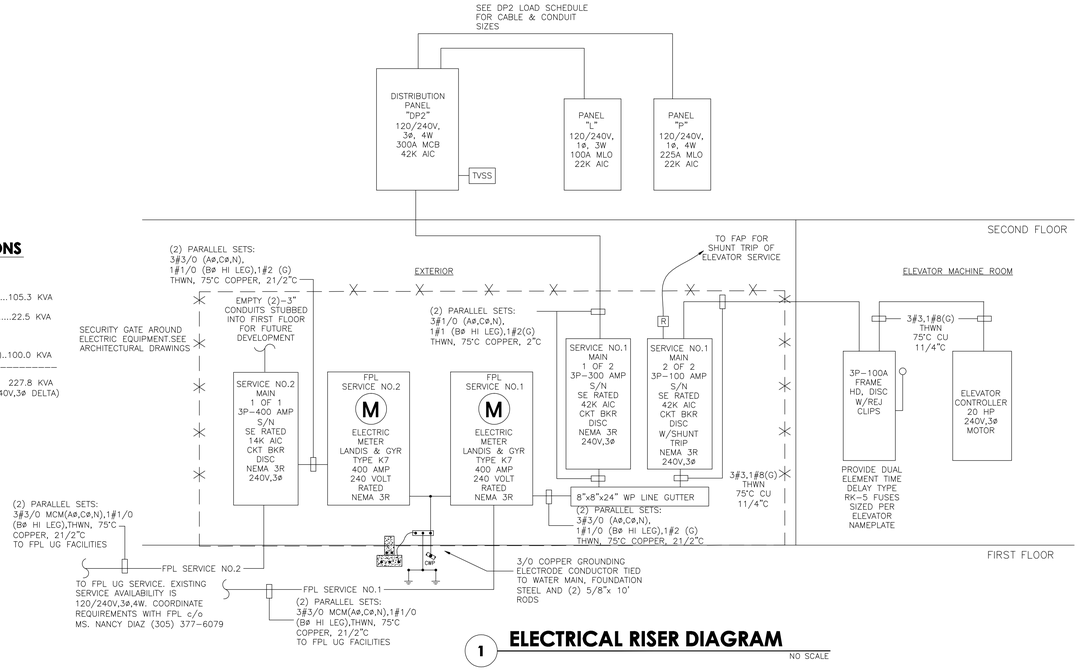
MAIN 1 OF 2 (SECOND FLOOR).....105.3 KVA

MAIN 2 OF 2 (ELEVATOR).....22.5 KVA

FPL SERVICE NO.2

MAIN 1 OF 1 (FIRST FLOOR FUTURE BUILDOUT)..100.0 KVA

TOTAL CONNECTED LOAD 227.8 KVA
(546 AMP AT 240V,3ø DELTA)



1 ELECTRICAL RISER DIAGRAM

NO SCALE

DRAWN BY:
CHKD BY:
APP'D BY:
ISSUE DATE: 25 MAY 2011
REVISIONS: No. DATE

MCHARRY ASSOCIATES
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CONSTRUCTION DOCUMENTS PHASE 2B - INTERIOR REHAB

PROJECT TITLE: FIRE STATION NO. 2 INTERIOR REHABILITATION
1401 NORTH MIAMI AVENUE MIAMI, FLORIDA 33136

OWNER: CITY OF MIAMI

DRAWING TITLE: ELECTRICAL RISER AND PANEL SCHEDULES

SCALE: NTS

NOTE: CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE FABRICATION AND WORK

SHEET No. E6.00