| PROJECT SUMMARY                 |                   |  |  |  |  |  |  |
|---------------------------------|-------------------|--|--|--|--|--|--|
| BUILDING AREA                   | 972 GSF           |  |  |  |  |  |  |
| OCCUPANCY TYPE                  | BUSINESS GROUP B  |  |  |  |  |  |  |
| CONSTRUCTION TYPE               | TYPE V B          |  |  |  |  |  |  |
| AUTOMATIC FIRE SPRINKLER SYSTEM | FULLY SPRINKLERED |  |  |  |  |  |  |

## APPLICABLE CODES

TO THE BEST OF MY KNOWLEDGE, THESE DRAWINGS ARE COMPLETE, AND COMPLY WITH FBC 2010

THE DESIGN AND CONSTRUCTION OF THIS PROJECT SHALL COMPLY WITH THE FOLLOWING CODES AND STANDARDS. SHOULD THERE BE A CONFLICT BETWEEN ANY CODE REQUIREMENTS, COMPLY WITH THE REQUIREMENT THAT PROVIDES THE GREATEST

A. FBC (FLORIDA BUILDING CODE), 2014

1. FBC——MECHANICAL 2. NEC (NATIONAL ELECTRICAL CODE) 2008; FBC CHAPTER 27

3. FBC-ACCESSIBILITY 4. FBC REFERENCES-CHAPTER 35

B. FLORIDA FIRE PREVENTION CODE 5th EDITION, INCLUDING

1. NFPA 1-2012 2. NFPA 101-2012

C. UL FIRE RESISTANCE DIRECTORY 2015 D. FEDERAL REQUIREMENTS INCLUDING:

1. OSHA (OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION, US DEPARTMENT OF LABOR, CFR 29 AS

E. CONSTRUCTION, ALTERATION AND DEMOLITION SHALL COMPLY WITH NFPA 241.

| SHEET NUMBER    | SHEET TITLE                                   | DRAWING REVISION NUMBER | DRAWING REVISION DATE |
|-----------------|---|-------------------------|-----------------------|
| ARCHITECTURAL   |   |                         | j                     |
|                 | COVER & INDEX                                 | (1,2                    | 09.15.16              |
| A-01            | DEMOLITION FLOOR PLAN & RCP                   | <b>&gt;</b>             | \<br>                 |
| A-02            | NEW FLOOR PLAN & RCP                          | 1,2                     | 09.15.16              |
| A-03            | FINISH & DOOR SCHEDULE, DETAILS               |                         |                       |
| A-04            | INTERIOR ELEVATION & TYPICAL MOUNTING HEIGHTS | 1,2                     | 09.15.16              |
| STRUCTURAL      | <u> </u>                                      |                         | \ \ \ \               |
| S-01            | NEW SLAB LAYOUT                               | (1                      | 09.15.16              |
| MECHANICAL      |   |                         | )                     |
| M-01            | MECHANICAL FLOOR PLAN                         | 1                       | 09.15.16              |
| M-02            | MECHANICAL SCHEDULE, NOTES & DETAILS          | 1                       | 07.28.16              |
| PLUMBING        | <u> </u>                                      |                         | <u> </u>              |
| P-01            | PLUMBING SANITARY & WATER FLOOR PLAN          | 1                       | 09.15.16              |
| P-02            | PLUMBING SCHEDULE, NOTES & DETAILS            | <b></b>                 | )                     |
| ELECTRICAL      |   |                         | }                     |
| E-01            | NOTES, DETAILS & RISER DIAGRAMS               | <b>)</b> 1              | 07.28.16              |
| E-02            | ELECTRICAL FLOOR PLAN & PANEL SCHEDULE        | 1                       | 09.15.16              |
| FIRE PROTECTION |   |                         | <u> </u>              |
| (FP-01          | FIRE PROTECTION                               | 1                       | 09.15.16              |
| <b>A</b> A A    |   |                         |                       |

## PROJECT SCOPE

THE SCOPE OF THIS PROJECT INCLUDES REMODELING APPROXIMATELY 700SF OF THE MEN'S AND WOMEN'S RESTROOMS AT THE CITY OF WEST PALM BEACH OPERATIONS AND MAINTENANCE COMPLEX BUILDING -2.

THE WORK TO BE COMPLETED WILL ENTAIL THE FOLLOWING:

<u>DEMOLITION:</u>DEMOLITION OF DRYWALL PARTITIONS AND FINISHES DEMOLITION OF DOORS

 DEMOLITION OF EXISTING LOCKERS DEMOLITION OF EXISTING FLOOR AND WALL TILE

DEMOLITION OF EXISTING CEILINGS

NEW WORK:

NEW DRYWALL PARTITIONS AND CEILINGS NEW DOORS

NEW LOCKERS

NEW FLOOR, WALL AND CEILING FINISHESNEW TOILET PARTITIONS

 REMOVAL OF ALL TOILET PARTITIONS NEW PLUMBING AND ELECTRICAL FINISHES REMOVAL OF ALL PLUMBING AND ELECTRICAL FIXTURES NEW HVAC AND EQUIPMENT

# FLORIDA

CITY OF WEST PALM BEACH,

# O & M COMPLEX BLDG #2 RESTROOMS RENOVATIONS

1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401



S + A Project No. 15031

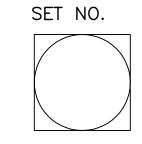


Song + Associates

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Architecture • Planning • Interior Design

100% CONSTRUCTION DOCUMENTS JUNE 3rd, 2016



PERRY DOUGLASS AR97112

CONSULTANTS

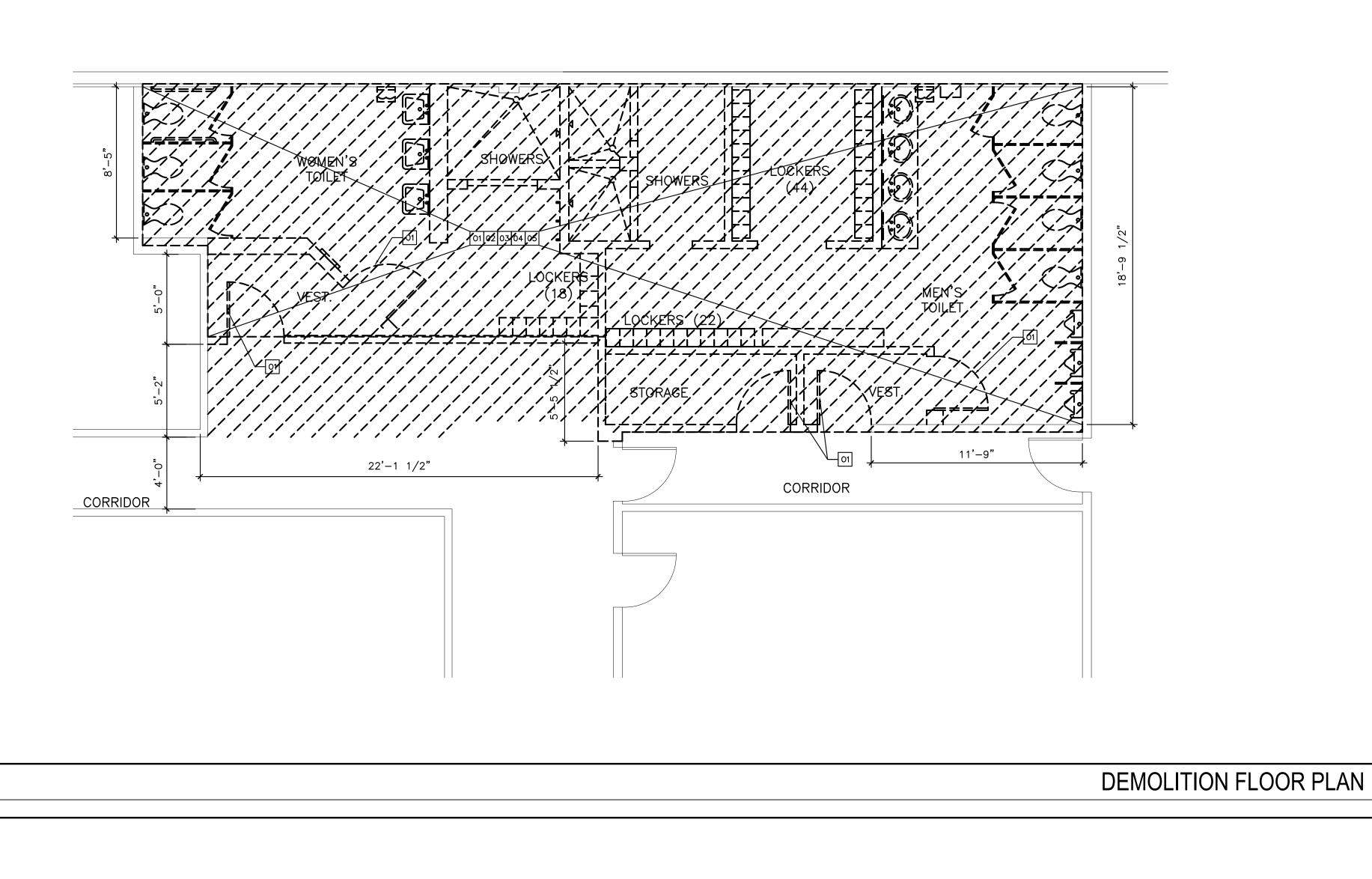
STRUCTURAL: ANDREW MORGAN SERVICES 513 U.S. HIGHWAY 1, SUITE 109 NORTH PALM BEACH, FL 33408

BACH DESIGN ENGINEERS

POMPANO BEACH, FL 33060

381 SE 10TH STREET

TEL: (954) 461-4314 EMAIL: BACH@BACHENGINEERS.COM



GENERAL NOTES

- 1. CONTRACTOR TO VERIFY EXISTING CONDITIONS.
- 2. THE DEMOLITION PLANS ARE DERIVED FROM EXISTING BUILDING PLANS AND ARE INTENDED TO REASONABLY REPRESENT EXISTING CONDITIONS. ILLUSTRATIONS, DIMENSIONS AND INFORMATION IN THESE DRAWINGS ARE BASED, IN PART, ON EXISTING DRAWINGS FURNISHED BY THE OWNER. ACTUAL CONDITIONS MAY DEVIATE FROM THAT SHOWN ON THE DRAWINGS. THE DEMOLITION KEY NOTES IDENTIFY SPECIFIC AREAS OF WORK BUT MAY NOT BE COMPLETE IN THE IDENTIFICATION OF ALL REMOVALS. THE CONTRACTOR SHALL VERIFY ACTUAL CONDITIONS AND COORDINATE THE DEMOLITION WITH NEW WORK SO THAT DEMOLITION IS COMPLETE.
- 3. REMOVE FROM SITE AS SOON AS PRACTICABLE DEMOLISHED MATERIALS, DEBRIS, AND RUBBISH. DO NOT ACCUMULATE DEBRIS ON THE FLOOR OR AT THE SITE. RECYCLE REMOVED CARPET, PADDING MATERIAL, STOREFRONT SYSTEM INCLUDING ALL GLASS PANELS.
- 4. PATCH AND REPAIR ALL EXISTING CEILINGS, PARTITIONS, AND FLOORS DISTURBED FOR NEW WORK AND FINISH.
- 5. PROVIDE A ZIP WALL AS DUST BARRIER ON ALL STRATEGIC AREAS OF CONSTRUCTION TO MINIMIZE DUST MIGRATION IN THE UNDISTURBED AREAS AS MUCH AS POSSIBLE.
- 6. ALL CONSTRUCTION PERSONNEL SHALL USE APPOINTED CONSTRUCTION ACCESSES ONLY AS PER OWNER'S DIRECTION.
- 7. CONSTRUCTION NOISE SHALL BE KEPT TO A MINIMUM, UNNECESSARY NOISE IS NOT PERMITTED.
- 8. COORDINATE WITH OWNER THE DISPOSITION, MOVING OR RELOCATION OF ALL SIGNAGE, SALVAGEABLE EQUIPMENT AND RELATED APPURTENANCES.
- 9. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR ANY INCONSISTENCIES.
- 10. UPON COMPLETION OF THE WORK, PROPERTY AND ADJACENT AREAS SHALL BE LEFT CLEAN AND SATISFACTORY TO THE OWNER AND THE ARCHITECT.
- 11. CONTRACTOR SHALL BE RESPONSIBLE FOR CUTTING, PATCHING AND FITTING OF ALL WORK IN A NEAT WORKMANLIKE MANNER. PROTECT ALL ADJACENT SURFACES FROM DAMAGE. PATCH AND REPAIR ALL WORK DAMAGED DURING CONSTRUCTION TO IT'S ORIGINAL OR BETTER CONDITION.

1/4" = 1'-0"

1/4" = 1'-0"

12. DIMENSIONS SHOWN ARE FROM EXISTING FINISHES TO FACE OF NEW METAL STUDS.

**KEYED NOTES** 

EXISTING TILE TO BE REMOVED TO EXTENT SHOWN — REFER TO KEYED NOTES FOR DETAILS.

未

Song + Associates

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Telephone: 561-655-2423

561-655-1482

AA - 0003165 IB - 0001095

ame : PERRY DOUGLASS

Consultants :

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CITY OF WEST PALM BEACH, FLORIDA

O & M COMPLEX
BLDG #2
RESTROOMS
RENOVATIONS

1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401

Key Plan:

 Date:
 06/03/16

 S+A Project No:
 15031

 Owner:
 WS

Checked By
Phase :

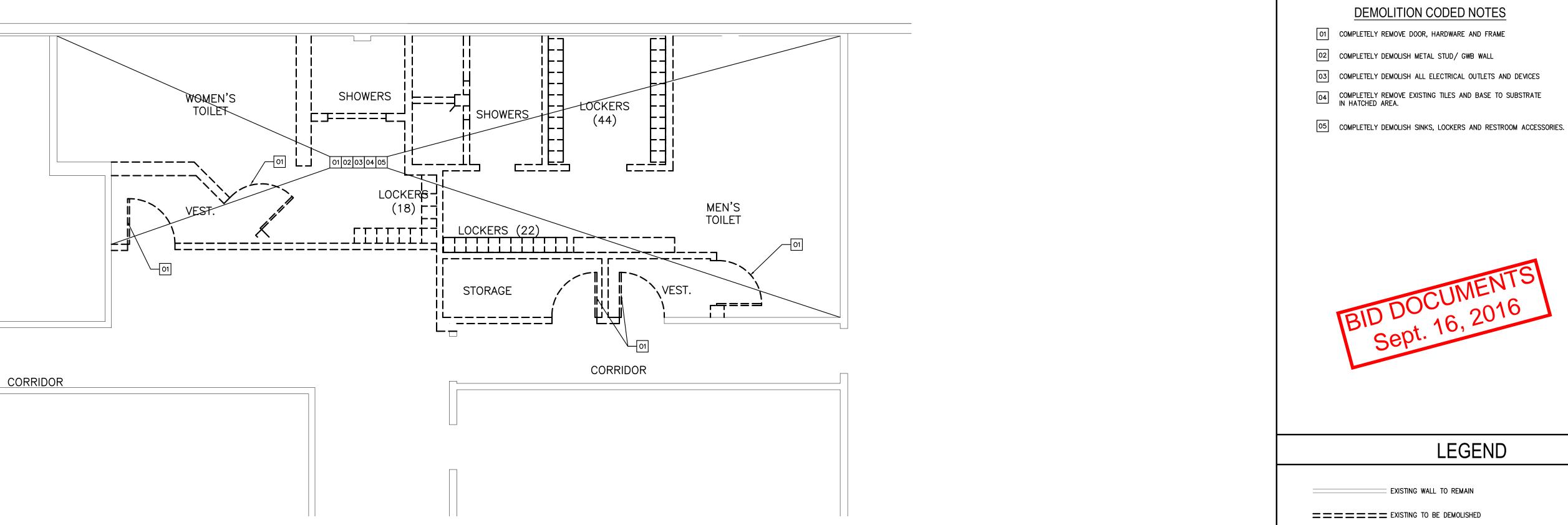
100% CONSTRUCTION

Sheet Title :

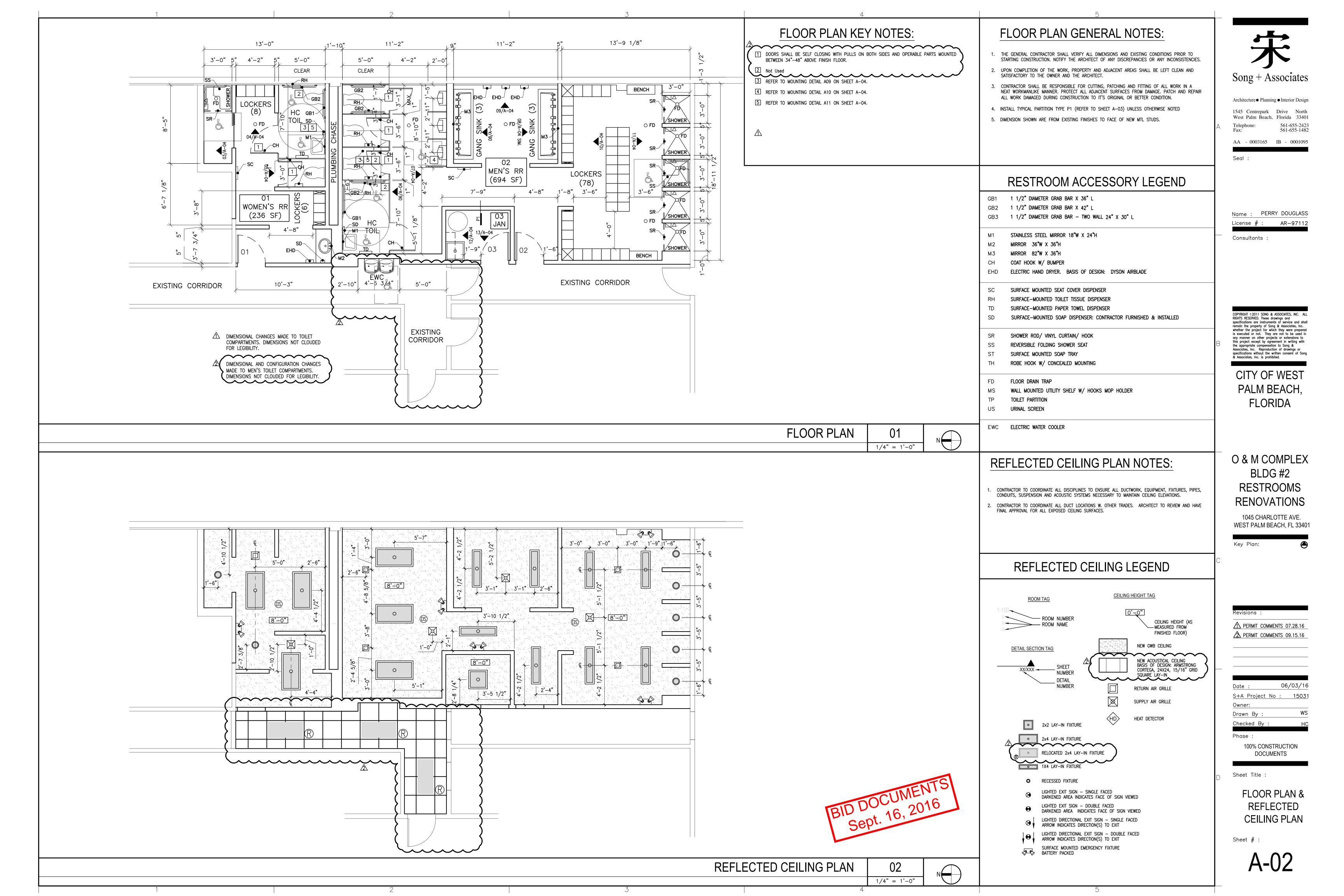
DEMOLITION FLOOR
PLAN & REFLECTED
CEILING PLAN

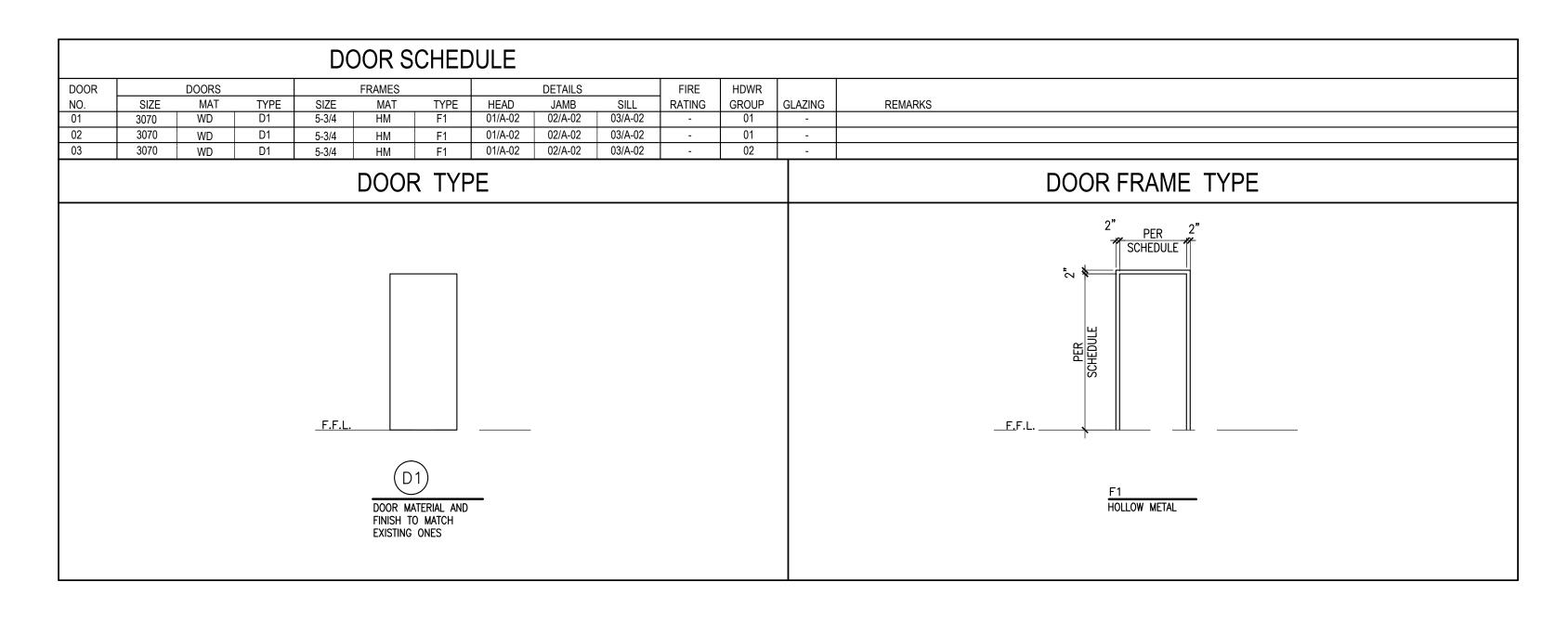
Sheet # :

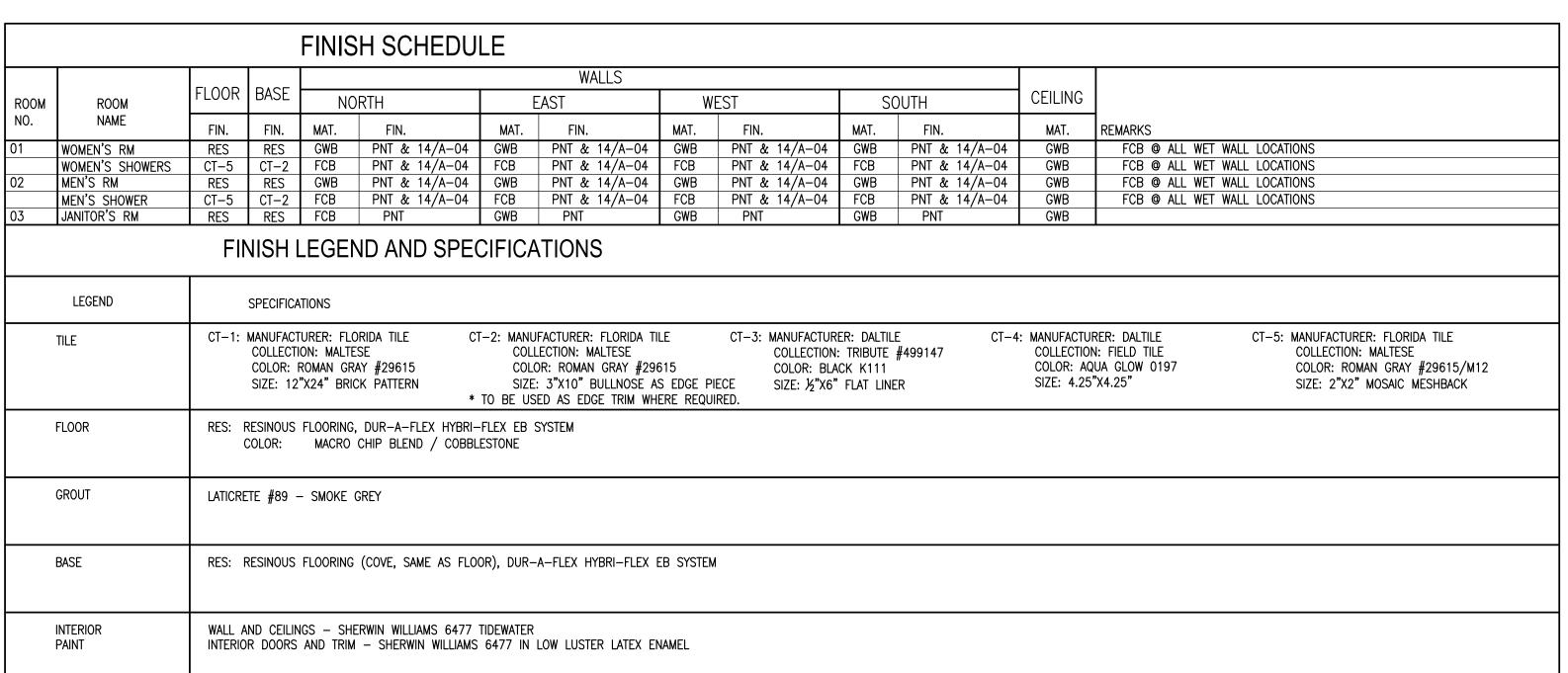
A-01



DEMOLITION REFLECTED CEILING PLAN

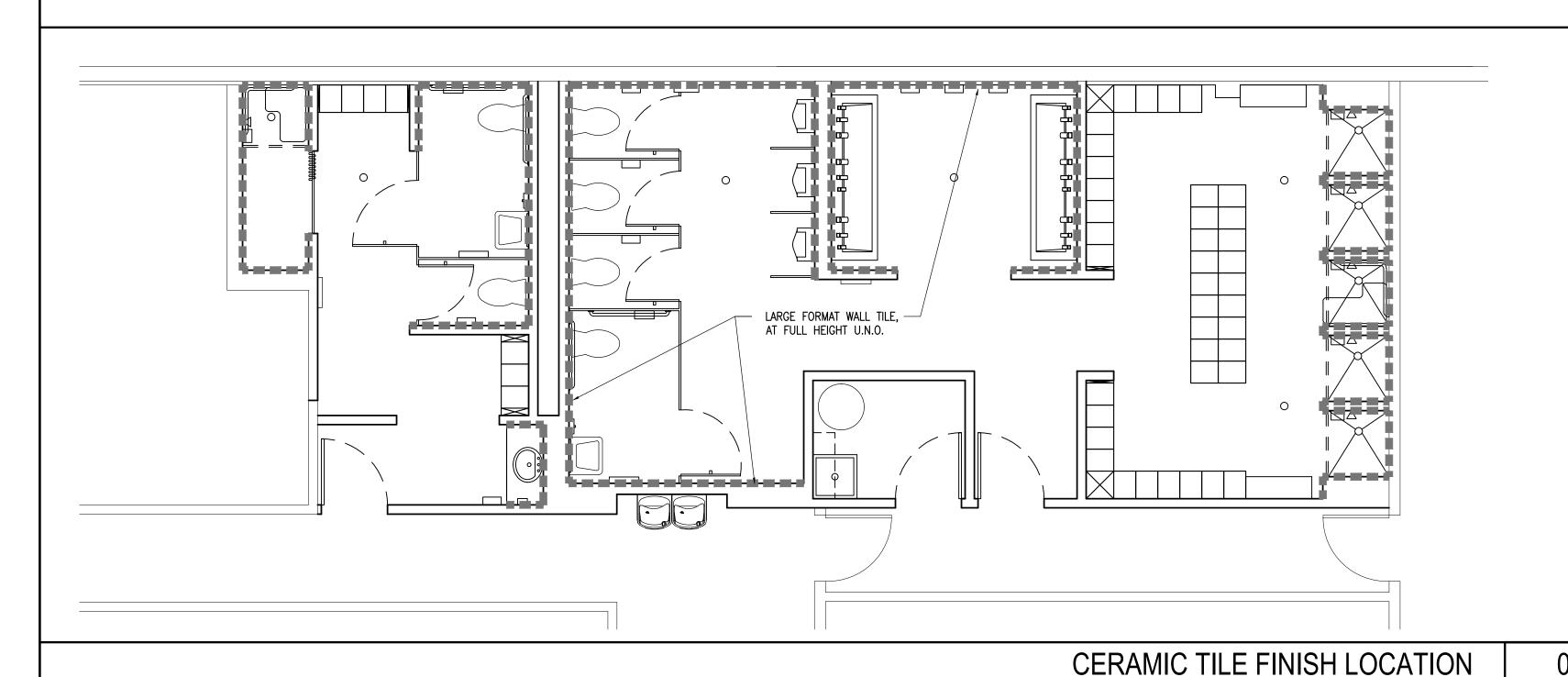






MATERIAL ABBREVIATION:

GWB: GYPSUM WALL BOARD, MOISTURE RESISTANT, ON ALL WALLS AND CEILINGS, UNLESS NOTED OTHERWISE. FCB: FIBER CEMENT BOARD, ON ALL SHOWER & WET WALLS



## WALL NOTES:

1/4" = 1'-0"

1. THESE PARTITION TYPES ARE DIAGRAMMATIC IN NATURE, REFER TO FINISH SCHEDULE

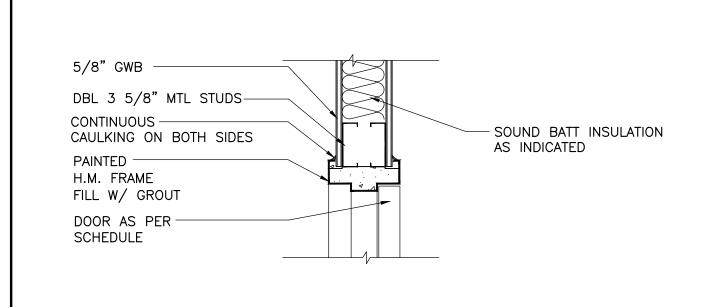
WALL TYPE SYMBOL LEGEND

-- P = PARTITION

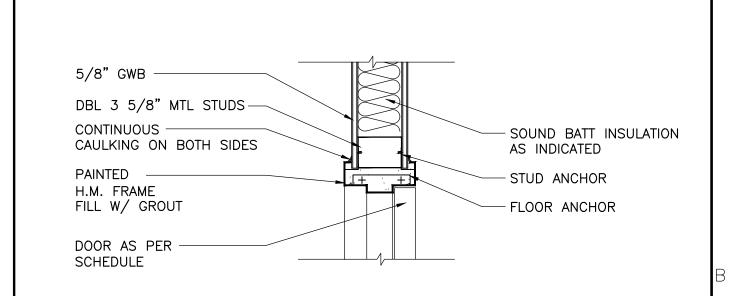
--- PARTITION TYPE DETAIL NUMBER

- INDICATES STUD WIDTH IF DIFFERENT THAN TYPICAL

- 2. WALL TAG DESIGNATION IS INTENDED TO INDICATE WALL TYPE ALONG AN ENTIRE WALL PLANE AND/OR SURFACE ALONG THE FULL LENGTH OF A SPACE OR CORRIDOR INCLUDING ASSOCIATED ALCOVES AND NICHES, UNLESS INDICATED OTHERWISE.
- 3. MAXIMUM STUD SPACING & MIN. STUD GAUGE SHALL PROVIDE A MAXIMUM DEFLECTION OF L/240 UNDER A MINIMUM 5 PSF LATERAL LOAD, UNLESS OTHERWISE INDICATED. PROVIDE FRAMING W/ 22 GA. STUDS @ 16" O.C.
- 4. SET FLOOR TRACKS IN TWO CONTINUOUS BEADS OF ACOUSTICAL (NON-HARDENING). IN ADDITION, PROVIDE A CONTINUOUS BEAD OF ACOUSTICAL CAULK BETWEEN THE BOTTOM OF DRYWALL AND CONCRETE
- 5. ALL GWB SHALL CONTAIN MOLD/MILDEW RESISTIVE PROPERTIES, UNLESS OTHERWISE SPECIFIED.
- 6. INTERIOR STUD DOOR HEAD & JAMB FRAMING TO BE DOUBLE 20 GAUGE STUDS, TYP. PROVIDE 20 GAUGE STUDS AT INTERIOR WALLS RECEIVING TILE FINISH.



INTERIOR DOOR HEAD  $1 \ 1/2" = 1'-0"$ 



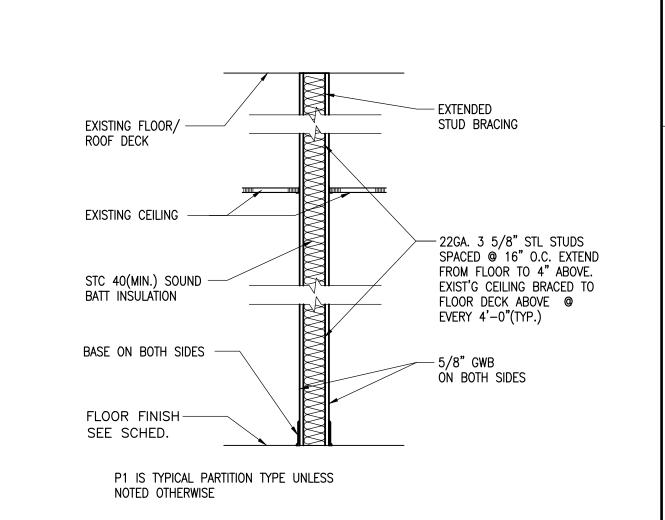
INTERIOR DOOR JAMB

 $1 \ 1/2" = 1'-0"$ 

- LINE OF WALL BEYOND LINE OF WALL BEYOND - PAINTED DOOR PAINTED -- MARBLE THRESHOLD H.M. FRAME WHERE TRANSITION OCCU FILL W/ GROUT BETWEEN TILE & CARPET - FLOOR FINISH - SEE SC EXISTING SLAB -

INTERIOR DOOR THRESHOLD

 $1 \ 1/2" = 1'-0"$ 



PARTITION TYPE 3/4" = 1'-0"

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PERRY DOUGLASS

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CITY OF WEST PALM BEACH **FLORIDA** 

O & M COMPLEX BLDG #2 RESTROOMS **RENOVATIONS** 

1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401

Key Plan:

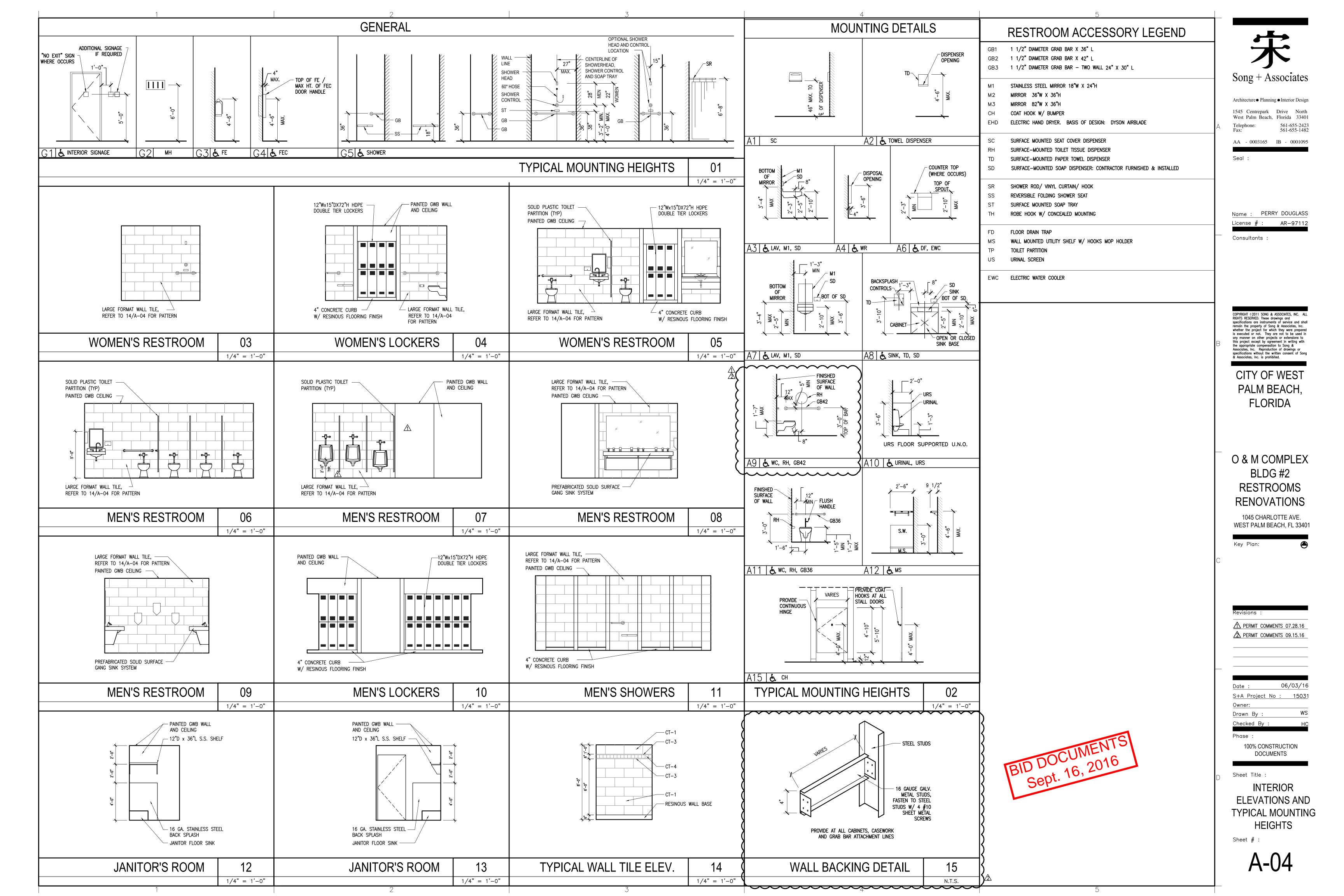
06/03/16 S+A Project No: 15031 Drawn By Checked By:

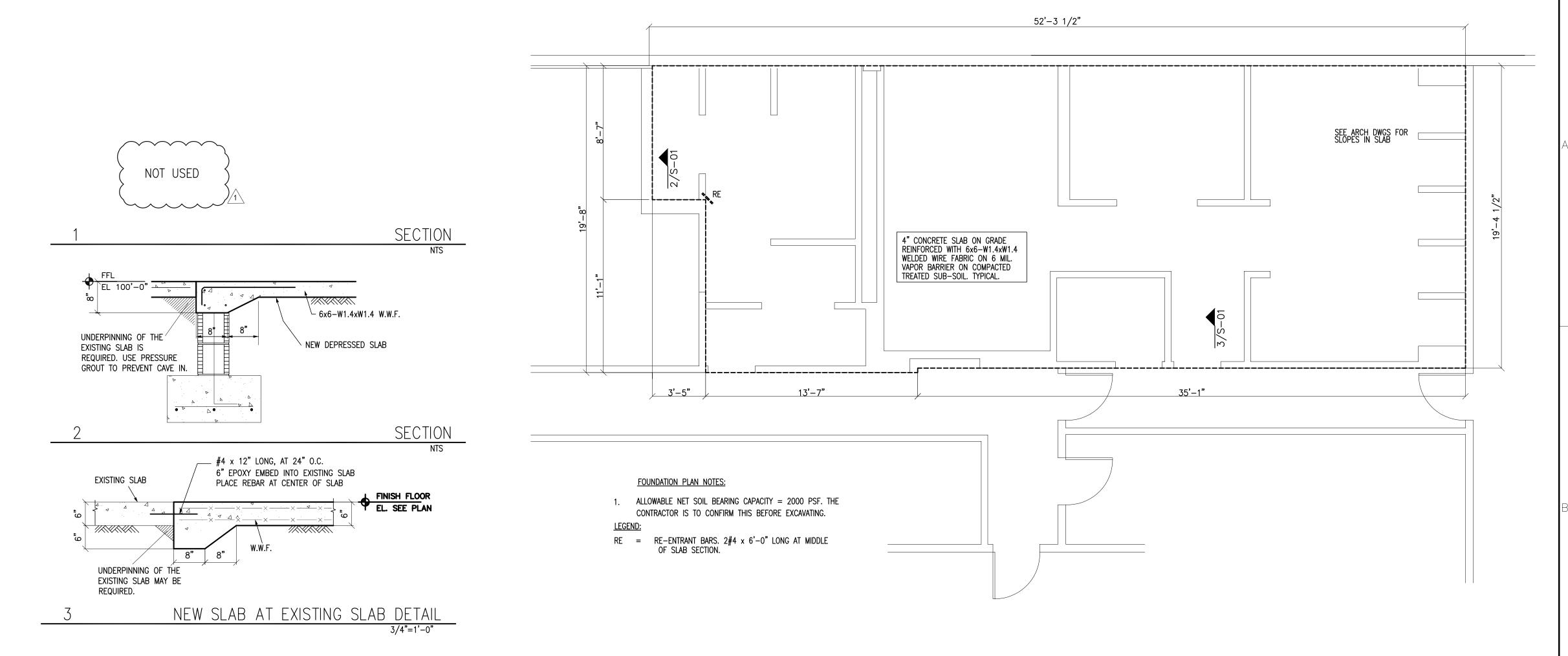
Phase : 100% CONSTRUCTION DOCUMENTS

Sheet Title:

DOOR & FINISH SCHEDULES AND **DETAILS** 

Sheet #





## DESIGN CRITERIA AS PER FBC 2014

DESIGN LOADING PER FBC 2010, WIND LOADS PER ASCE 7 10

RISK CATEGORY II

BUILDING: ENCLOSED = EXPOSURE C

WIND EXPOSURE = 0.85

INTERNAL PRESSURE COEFFICIENT = +/- 0.18

MEAN ROOF HEIGHT <= 15 FT VELOCITY PRESSURE = 54 PSF

| 7 DEG.< SL | OPE <27 DE | TRIBUTARY AREA (SQ. FT.) |      |      |
|------------|------------|--------------------------|------|------|
| AREA       | ZONE       |                          | 10   | 20   |
| MAIN ROOF  | 1,2&3      | PRESSURE psf             | 36   | 35   |
|            | 1          | SUCTION psf              | -58  | -57  |
|            | 2          | SUCTION psf              | -101 | -98  |
|            | 3          | SUCTION psf              | -149 | -147 |
| OVERHANG   | 2          | SUCTION psf              | -127 | -127 |
|            | 3          | SUCTION psf              | -208 | -200 |

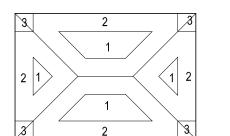
## TABLE 1: BUILDING GROSS ROOF CLADDING ULTIMATE WIND LOADS

| EFFECTIVE AREA OF C | 10  | 20           |             |     |   |   |
|---------------------|-----|--------------|-------------|-----|---|---|
|                     | 4&5 | PRESSURE psf | 63          | 63  |   |   |
| WALL ZONE           | 4   | SUCTION psf  | <b>-</b> 63 | -62 | 5 | 4 |
|                     | 5   | SUCTION psf  | <b>-</b> 77 | -77 |   |   |
| TABLE 2: ULTIMA     | a   | 1            |             |     |   |   |

WINDOWS AND DOORS

EFFECTIVE AREA OF COMPONENT/ OPENING (SQ. FT.) 10 20 PRESSURE psf 38 38 WALL ZONE 4 SUCTION psf -38 -37 5 SUCTION psf -46 -46

TABLE 3: ASD SUCTION/PRESSURE ON WALLS, WINDOWS AND DOORS



SLOPE < 27 DEG WIND ZONE a = 3'-0" ROOF WIND ZONES: UTILITY BUILDING COMPONENTS AN

<del>+ a +</del>

WALL WIND ZONES: COMPONENTS

AND CLADDING DESIGN

| AND CLADDING DESIGN TYPICAL | < | the renowing speed.    |   |             |                                |  |  |  |  |  |
|-----------------------------|---|------------------------|---|-------------|--------------------------------|--|--|--|--|--|
|                             | { | Location               | 28 Day Concrete<br>Compressive Strength | Air Content | Water/Cement<br>Ratio, Maximum |  |  |  |  |  |
|                             | { | Interior slab on grade | 3500 psi                                | Optional    | 0.45                           |  |  |  |  |  |

and Slab Construction (ACI 302.1R).

Reinforced concrete has been designed in accordance with the Building Code

Requirements for Structural Concrete (ACI 318) by the American Concrete Institute (ACI).

Slabs on grade shall be constructed in accordance with the Guide for Concrete Floor

Mixing, transporting, and placing of concrete shall conform to the latest edition of the Specifications for

Structural Concrete for Buildings (ACI 301). In case of a discrepancy, the plans and specifications shall

Concrete in the following areas shall have sand fine aggregate and normal weight, angular, coarse

aggregates conforming to ASTM C33, and Type I Portland cement conforming to ASTM C150, to

Pearock mixes are not to be used in slabs. For heavily trafficked areas, concrete slab on grade to have attained a compressive strength of 1600 psi before traffic is allowed on the slab on grade.

Concrete compressive strength tests shall be performed in accordance with ASTM C39. The tests shall Copies of the test results shall be forwarded directly to the Structural Engineer.

Fly ash may be used as a pozzolan to replace a portion of the Portland cement in a concrete mix, subject to the approval of the Structural Engineer. Concrete mixes using fly ash shall be proportioned to account for the properties of the specific fly ash used and to account for the specific properties of the fly ash concrete thus resulting. The use of fly ash is at the option of the Contractor, not the concrete

Place concrete in a manner so as to prevent segregation of the mix. Delay floating and troweling operations until the concrete has lost surface water sheen or all free water. Do not sprinkle free cement on the slab surface. Finishing of slab surfaces shall conform to the latest editions of ACI 302.1R and ACI 304R (Guide for Measuring, Mixing, Transporting and Placing Concrete) and the Specifications. Protect the concrete surface between finishing operations on hot, dry days or any time plastic shrinkage

cracks could develop by using wet burlap, plastic membranes or fogging. Protect concrete deck at all times from rain, hail, running water or other injurious effects.

Concrete cover/protection for nonprestressed reinforcement shall conform to the following:

| 1.50" |
|-------|
|       |
|       |
| 0.75" |
|       |

## GENERAL STRUCTURAL NOTES

The Structural Drawings shall be read in conjunction with the other Contract Documents which include, but are not limited to, Architectural, Site, Civil, Electrical and Mechanical Drawings, and the Specifications. Report any discrepancies between Contract Documents to the Architect before proceeding.

These general notes are to be read in conjunction with the notes on other structural drawings.

All work shall be in accordance with the 2014 Florida Building Code, FBC. All referenced standards and codes shall be as listed in the Florida Building Code 2014.

Refer items on the structural drawings requiring clarifications to the Architect and Structural Engineer. Do NOT use scaled dimensions. In case of a discrepancy between dimensions and/or details on the contract documents, relating to new or existing construction, please notify the Architect and Engineer before

Cover no work until the appropriate inspection has been completed.

## COORDINATION WITH OTHER TRADES

Where new work is to be fitted to old work, the Contractor shall check all dimensions and conditions in the field, and report any errors or discrepancies to the Structural Engineer prior to the fabrication and erection of any new members. The contractor has the responsibility for the correctness and fit of the new parts to the old part.

2. The Contractor shall coordinate and check all dimensions relating to architectural finishes, structural framing, mechanical openings, equipment, etc. The Structural Engineer and Architect shall be notified of any discrepancies before proceeding with work in any area under question. FOUNDATIONS

## REINFORCING STEEL

1. Reinforcing bar detailing, fabricating, and placing shall conform to the latest edition of the following standards: Specifications for Structural Concrete for Buildings (ACI 301), ACI Detailing Manual (SP66) The latest editions of Concrete Reinforcing Steel Institute's Reinforcing Bar Detailing and Placing Reinforcing Bars may also be used.

2. Reinforcing steel shall be deformed bars of new billet steel conforming to ASTM A615 and shall have

a minimum yield strength of 60,000 psi.

Provide specified bar chairs and spacers as required to maintain concrete protection specified. Welded wire fabric shall be smooth wire fabric conforming to ASTM A185 unless otherwise noted. Welded wire fabric in slabs on grade shall be placed 2 inches down from the top of the slab unless otherwise





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Andrew Morgan

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Consultants :



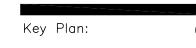
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CITY OF WEST PALM BEACH, **FLORIDA** 

O & M COMPLEX BLDG #2 RESTROOMS **RENOVATIONS** 

1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401



√1 \ PERMIT COMMENTS 09.15.16

06/03/16 S+A Project No: 15031 AMS # 1606 Drawn By Checked By

> 100% CONSTRUCTION DOCUMENTS

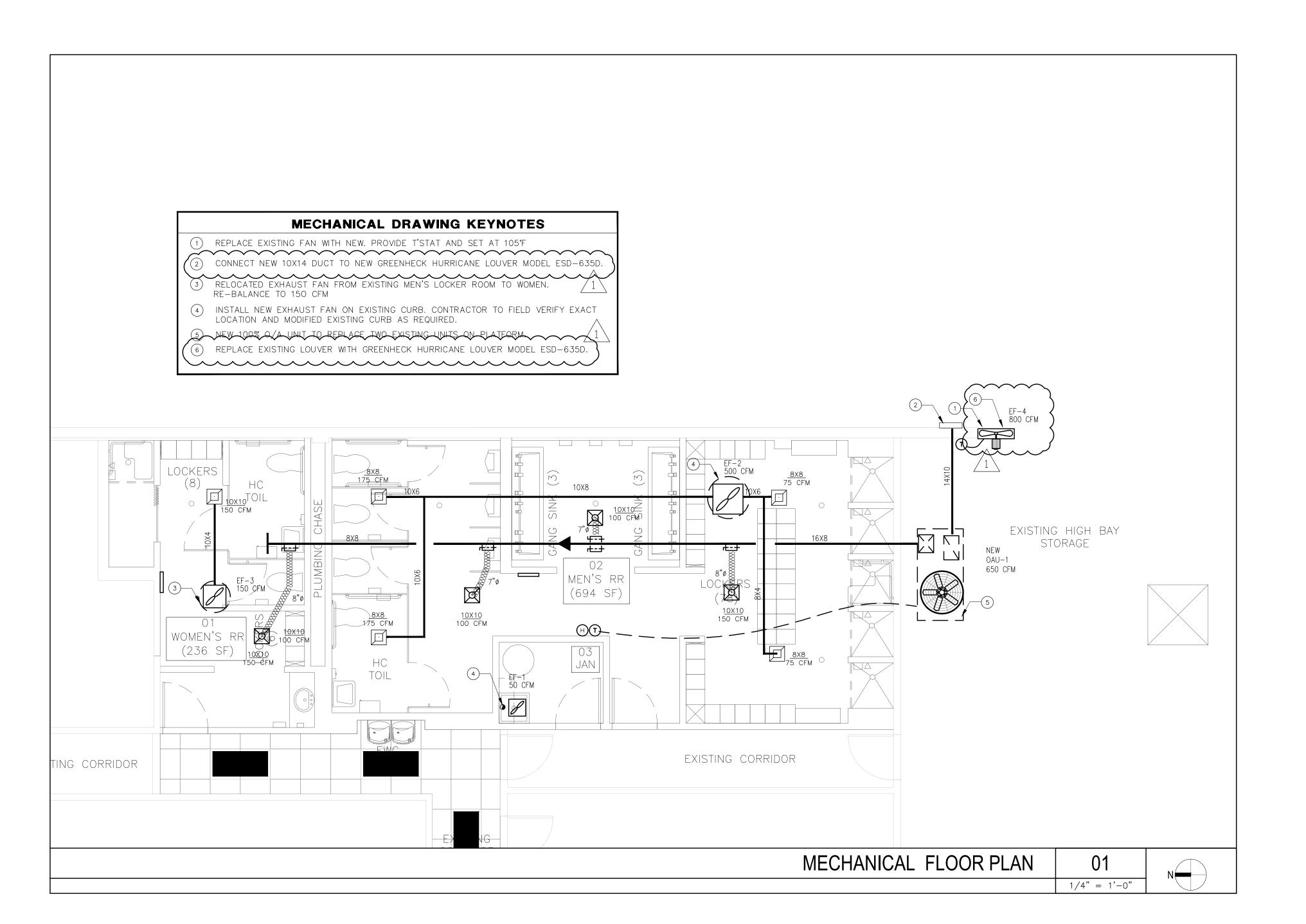
Sheet Title :

Phase :

**NEW SLAB LAYOUT** SCALE 1/8" = 1'-0"



Sheet # :







Architecture Planning Interior Design

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CITY OF WEST PALM BEACH, FLORIDA

O & M COMPLEX
BLDG #2
RESTROOMS
RENOVATIONS

1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401

Key Plan:

Revisions:

PERMIT COMMENTS
9-15-16

 Date :
 06/03/16

 S+A Project No :
 15031

 Owner:
 Drawn By :

 BN
 Checked By :

Phase: 100% CONSTRUCTION

DOCUMENTS

Sheet Title :

MECHANICAL FLOOR PLAN

Sheet # :

381 SE 10th Street, Pompano Beach, FL 33060 TEL:(954) 461-4314 Fax:(954) 782-2036 Info@bachengineers.com

Viet Bach Nguyen, P.E. Florida License #69753 M-1

#### 100% OUTSIDE AIR UNIT SCHEDULE TRANE AS STANDARD MARK MODEL COND. FAN TOTAL MAX | ELECTRICAL DIMENSIONS (LXWXH) NUMBER TOTAL OA KW STEP SP HP FLA NO. TONS FLA NO. FLA MCA FUSE VOLTS-PH-HZ TMBH SMBH LBS OABD048A3 1.0 | 2.5 | 4.4 | 1 | 4.5 | 27.7 | 1 4.2 31.9 45 208-3-60 55.1 24.9 13.5 1327 119X52X55 0AU-1

#### 100% OUTSIDE AIR UNIT NOTES:

- OUTSIDE AIR DESIGN CONDITIONS: 91°FDB 79°FDB. PROVIDE A/C UNITS WITH HEATING AND COOLING THERMOSTAT WITH
- ON-OFF SWITCH SUB-BASE. PROVIDE 0-25% MANUAL OUTSIDE AIR INTAKE WITH RAINHOOD, WMS AND
- MOTORIZED DAMPER.
- 4. PROVIDE SINGLE POINT KIT FOR ELECTRICAL HOOK-UP. 5. PROVIDE DISCONNECT SWITCH WITH ALL OUTSIDE AIR UNIT PACKAGE UNITS.
- 6. PROVIDE 120V GFI OUTLET

## **LEGEND** NEW SUPPLY DIFFUSER NEW EXHAUST GRILL. ■ MANUAL VOLUME DAMPER **DUCT TRANSITION** - NEW FLEXIBLE DUCT, U.L. CLASS 1 (R-6) — — EXISTING DUCT DUCT DETECTOR REMOTE TEST/RESET STAIOIN POINT OF CONNECTION EXISTING TO NEW. DUCT SMOKE DETECTOR (WITH AUDIBLE AND VISIBLE CAPABILITY) T) PROGRAMMABLE T-STAT

|      | FAN SCHEDULE    |           |                        |     |       |      |      |        |             |        |       |        |           |
|------|-----------------|-----------|------------------------|-----|-------|------|------|--------|-------------|--------|-------|--------|-----------|
|      | SELECTION BASEI | O ON      | TYPE/                  | CFM | TSP   | RPM  | МОТО | R DATA |             | DRIVE  | SONES | UNIT   | REMARKS   |
|      | MAKE            | MODEL NO. | SERVICE                |     | IN WG |      | HP   | RPM    | VOLTS-PH-HZ |        | OR NC | WEIGHT |           |
| EF-1 | GREENHECK       | SP-80     | JANITOR CLOSET EXHAUST | 80  | 0.20  | 482  | _    | 900    | 120-1-60    | DIRECT | 2.0   | _      | 1,2,5,8,9 |
| EF-2 | GREENHECK       | G-090     | MEN BATHROOM/LOCKER    | 500 | 1.25  | 1550 | 1/25 | -      | 120-1-60    | DIRECT | 7.5   | -      | 1,5,8,10  |
| EF-3 | RELOATED        | _         | WOMEN BATHROOM/LOCKER  | 150 | _     | _    | _    | _      | _           | DIRECT | 1.5   | _      | 1,5,8,10  |

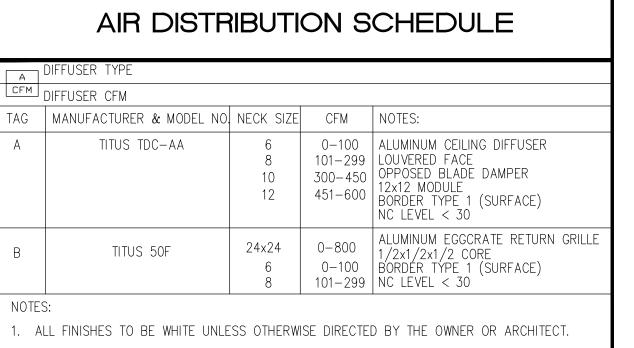
#### **GENERAL FAN NOTES:**

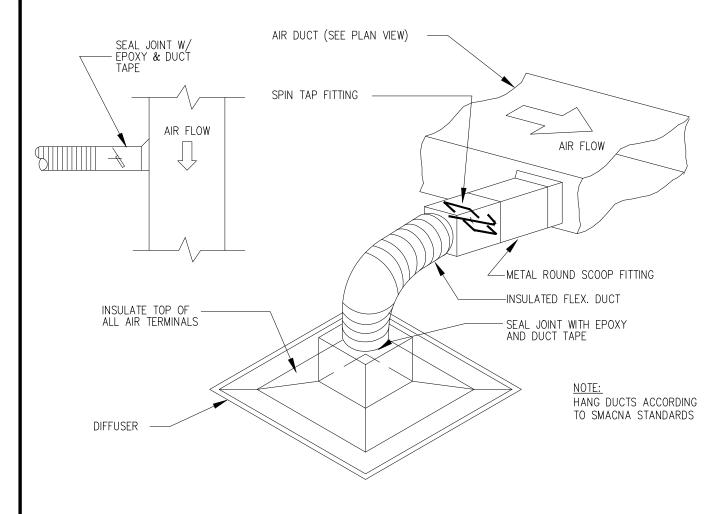
- 1. PROVIDE DISDONNECTS AND ALL ASSOCIATED CONTROLS
- PROVIDE BACKDRAFT FOR ALL EXHAUST FANS.
- FIELD ADJUST OPENINGS WITH STRUCTURE.
- 4. ALL OUTDOOR EQUIPMENT SHALL COMPLY WITH LOCAL ZONING NOISE ORI OR NOT EXCEED A NOISE LEVEL OF 55dB AS MEASURED RADIALLY 15 FT
- FROM THE EQUIPMENT IN ALL DIRECTIONS.
- COORDINATE WITH ELECTRICAL CONTRACTOR BEFORE BIDDING OR ORDERING ANY EQUIPMENT. SEE GENERAL, AIR CONDITIONING, DUCTWORK, AND COORDINATION NOTES FOR OTHER
- FIELD SUPPLIED ITEMS.

|                 | 1.25 | 1330   | 1/23   | _        | 120-1-00   | DINLOT | 7.5 |          | 1,0,0,10 |  |
|-----------------|------|--------|--------|----------|--|--------|-----|----------|----------|--|
| 150             | _    | _      | _      | _        | _  | DIRECT | 1.5 | _        | 1,5,8,10 |  |
|                 |      | 8. Pf  | ROVIDE | BIRDSCRE | EATERS SIZED AS<br>EN ON ALL INLET<br>LIGHT SWITCH |        |     | .D CONDI | 「IONS.   |  |
| RDINANCE<br>FT. |      | 10. RI | JN CON | TINUOUSL | Y  |        |     |          |          |  |
| INIO ANIX EC    |      |        |        |          |  |        |     |          |          |  |

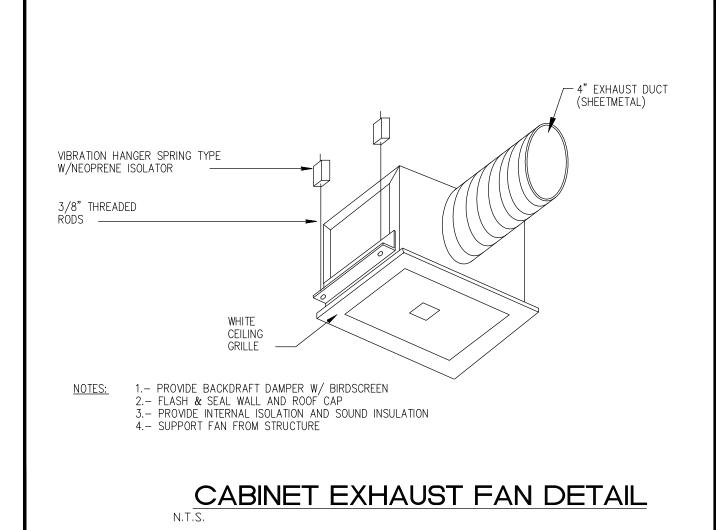
|                     | EXHAUS   | Γ AIR SUMMA     | RY (FBC TAE           | BLE 403.3)                     |                         |                                  |                      |
|---------------------|----------|-----------------|-----------------------|--------------------------------|-------------------------|----------------------------------|----------------------|
| <u>AREA</u>         | SYSTEM   | GR/NET<br>SQ FT | CFM EXHAUST/<br>SQ FT | <u>FIXTURE</u><br><u>COUNT</u> | CFM EXHAUST/<br>FIXTURE | <u>CFM</u><br><u>EXHAUST REQ</u> | PROVIDE<br>. EXHAUST |
| MEN BATHROOM/LOCKER | EF-2     | 200/LOCKER RM   | Л .25                 | _                              | _                       | 50                               | 50                   |
| MEN BATHROOM/LOCKER | EF-2     | BATHROOM        | И —                   | 7                              | 50                      | 350                              | 350                  |
| MEN BATHROOM/LOCKER | EF-2     | SHOWER          | ? –                   | 5                              | 20                      | 100                              | 100                  |
| WOMEN BATHROOM/LOCK | KER EF-3 | 85/LOCKER RN    | Л .25                 | _                              | _                       | 22                               | 25                   |
| WOMEN BATHROOM/LOCK | KER EF-3 | BATHROOM        | Л —                   | 2                              | 50                      | 100                              | 100                  |
| WOMEN BATHROOM/LOCK | KER EF-3 | 85/LOCKER RN    | Л .25                 | 1                              | 20                      | 20                               | 25                   |
|                     |          |                 |                       |                                |                         | AL= 500 CFM<br>AL= 150 CFM       |                      |

## AIR DISTRIBUTION SCHEDULE → DIFFUSER TYPE DIFFUSER CFM TAG | MANUFACTURER & MODEL NO| NECK SIZE| CFM | NOTES: TITUS TDC-AA 0-100 ALUMINUM CEILING DIFFUSER 101-299 LOUVERED FACE 300-450 OPPOSED BLADE DAMPER 10 12 451-600 12x12 MODULE BORDER TYPE 1 (SURFACE) NC LEVEL < 30





FLEXIBLE DUCT CONNECTION DETAIL



## **ABBREVIATIONS**

CFM - CUBIC FEET PER MINUTE. S/A - SUPPLY AIR. R/A - RETURN AIR.

MVD - MANUAL VOLUME DAMPER

**GENERAL NOTES:** 

- ALL MECHANICAL SYSTEMS ARE TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE SECTIONS OF THE NFPA STANDARDS, ANSI STANDARDS, THE LOCAL BUILDING CODE, NOISE & HEIGHT ORDINANCES, PLANS AND SPECIFICATIONS.
- ALL MATERIALS SHALL BE NEW AND ALL WORKMANSHIP AND MATERIALS SHALL BE IN STRICT ACCORDANCE WITH APPLICABLE LOCAL CODES, PRODUCT APPROVAL RULES AND ORDINANCES, ANY DAMAGED EQUIPMENT SHALL BE REPLACED OR RESTORED TO ORIGINAL CONDITION.
- THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, ACCESS PANELS, CONTROL SYSTEMS, DEVICES, PERMITS AND SERVICES NECESSARY FOR FURNISHING AND INSTALLING A COMPLETE OPERABLE MECHANICAL SYSTEM.
- ALL LOUVERS, GRILLES, PIPING, ETC. SHALL BE PAINTED TO MATCH SURROUNDING COLOR AND TEXTURES AS REQUIRED BY ARCHITECT. VERIFY COLOR AND TEXTURE WITH ARCHITECT. PAINT ALL EXPOSED MECHANICAL EQUIPMENT WITH BENJAMIN MOORE EPOXY ENAMEL 182.
- ALL CUTTING, PATCHING, STRUCTURAL STEEL, WEATHER PROOFING, PAINTING, AND WALL OPENINGS SHALL BE BY THE GENERAL CONTRACTOR.
- 6. ALL OPENINGS IN BUILDING STRUCTURE, FOR DUCTWORK, PIPING, ETC. TO BE 1/2" LARGER (ON ALL SIDES) THEN THE OUTSIDE DIMENSIONS. FILL VOIDS WITH ONE OF CORREST SILICONE FOAM (I.E. CHASE—FOAM CTC PR—855 BY CHASE TECHNOLOGY CORP.).
- PROVIDE FLEXIBLE DUCT CONNECTORS, RATED AS REQUIRED, TO ALL FANS, A/C
- UNITS, OR MECHANICAL EQUIPMENT. PROVIDE MAINTENANCE AND OPERATION MANUAL ON ALL MECHANICAL EQUIPMENT OR SYSTEMS. PROVIDE 5 SETS OF SUBMITTALS ON ALL HVAC EQUIPMENT. SUBMITTALS SHALL HAVE A SUMMARY SHEET SHOWING ALL SCHEDULED
- HVAC CONTRACTOR WILL WARRANTY ALL MECHANICAL SYSTEMS, DUCTWORK, THERMOSTATS, AND ALL OTHER EQUIPMENT, PARTS AND LABOR UNDER THESE DRAWINGS AND SPECIFICATIONS FOR A PERÍOD OF ONE (1) YEAR AFTER ( BUILDING. ANY REPAIRS REQUIRING SYSTEM SHUT DOWN WILL BE DONE DURING NON OPERATIONAL PERIODS. HVAC CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES PRIOR TO BIDDING AND PURCHASING ANY EQUIPMENT.
- AIR QUALITY SHOULD BE TESTED BEFORE OCCUPANCY AND SHOULD BE INSTRUMENTED AND MONITORED THEREAFTER, OR AT LEAST AT REGULAR INTERVALS

## AIR DISTRIBUTION/DUCTWORK NOTES:

- REFER TO ARCHITECTURAL PLANS FOR CEILING TYPE.
- PROVIDE OFF WHITE FINISH (SUBJECT TO ARCHITECT'S APPROVAL).
- ALL DUCTWORK WHERE ALLOWED BY LOCAL CODES AND AND CEILING RATING SHALL BE 1" LOW PRESSURE DUCT, SEAL CLASS "C" AND AS FOLLOWS: A. S/A & R/A-1" THICK FIBERGLASS DUCT BOARD WITH VAPOR BARRIER (R-4.2 MIN.) B. EXHAUST AIR DUCTWORK - GALVANIZED SHEETMETAL B. OUTSIDE AIR DUCTWORK - INSULATED GALVANIZED SHEETMETAL
- ALL DUCTWORK AND DIFFUSERS SHALL BE RATED FOR THE USE, PRESSURE AND TEMPERATURE SPECIFIED AND AS REQUIRED BY THE CEILING SYSTEM RATING.
- ALL DUCTWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH
- 'SMACNA" STANDARDS AND LOCAL BUILDING CODES.
- ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
- SEAL ALL DUCTS, JOINTS AND SEAMS IN AN APPROVED MANNER AND INSURE PROVIDE ACCESS DOORS AS REQUIRED FOR ALL MECHANICAL EQUIPMENT TO
- SERVICE AND VISUALLY CHECK ROTATION OF FANS AND MOTORS, POSITION O DAMPERS, REPLACE FIRE DAMPER LINKS, ADJUST OR REPLACE CONTROLS, ETC. PROVIDE VANED FLROWS IN ALL CASES SPLITTER DAMPERS WHERE INDICATED ON DRAWINGS AND VOLUME CONTROL DAMPERS IN ALL BRANCH DUCTS OR DIFFUSER CONNECTIONS.
- TERMINAL AIR DISTRIBUTION DEVICES SHALL BE AS FOLLOWS: CEILING DIFFUSER: EQUIV. TO TITUS MODEL PAS—AA RETURN REGISTER: EQUIV. TO TITUS MODEL 4 FL

## **HVAC NOTES:**

- HVAC SUBCONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, TOOLS AND EQUIPMENT TO INSTALL A COMPLETE AND OPERATING A/C SYSTEM. 2. HVAC SUBCONTRACTOR TO PROVIDE ALL REQUIRED HVAC PERMITS. 3. COMPLY WITH NFPA-90A AND ALL APPLICABLE CODES. THIS IS THE
- CONTRACTOR'S RESPONSIBILITY. 4. ALL AIR DEVICES SHALL BE OF ALUMINUM CONSTRUCTION. TITUS, METALAIRE OR AS APPROVED BY ENGINEER.
- HVAC SUBCONTRACTOR SHALL COMFORT BALANCE TENANT AREA TO THE SATISFACTION OF THE LANDLORD AND/OR TENANT AFTER OCCUPANCY. PROVIDE AIR BALANCE REPORT AT COMPLETION OF PROJECT TO ENGINEER/TENANT. CFM VALVES CAN BE WITHIN 100% OF THE VALVE SHOWN ON PLANS.
- HVAC SUB-CONTRACTOR SHALL PROVIDE ALL CONTACTORS, RELAYS AND THERMOSTATS. THE ELECTRICAL SUBCONTRACTOR SHALL PROVIDE ALL SWITCHES, DISCONNECTS AND CONTROL WIRING. THERMOSTATS SHALL BE APPROVED BY EQUIPMENT MANUFACTURER. 7. ALL DUCT SIZES ARE CLEAR INSIDE DIMENSIONS.
- 8. ALL WORK OF THIS TRADE SHALL BE COORDINATED WITH ALL OTHER TRADES TO AVOID ANY INTERFERENCES THAT MAY DELAY PROGRESS OF CONSTRUCTION.
- 9. HVAC SUBCONTRACTOR SHALL INSTALL ALL NECESSARY OFFSETS, BENDS AND TRANSITIONS REQUIRED TO PROVIDE A COMPLETE SYSTEM AT NO ADDITIONAL COST TO OWNER.
- 10. COORDINATE LOCATION OF CEILING DIFFUSERS, GRILLES AND REGISTERS IN THE FIELD WITH ELECTRICAL, LIGHTS AND ARCHITECTURAL ELEMENTS. 11. CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH
- EXISTING CONDITIONS. NOTIFY ARCHITECT / ENGINEER WITH ANY DISCREPANCIES IN WRITING. NO CHANGE ORDERS WILL BE ACCEPTED.
- 12. HVAC SUBCONTRACTOR PROVIDE SUBMITTAL FOR ALL WALL LOUVER, ROOF CURBS FOR ENGINEER'S APPROVAL





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CITY OF WEST PALM BEACH **FLORIDA** 

O & M COMPLEX BLDG #2 **RESTROOMS RENOVATIONS** 

> 1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401

Key Plan:

PERMIT COMMENTS 07.28.16

06/03/16 S+A Project No: 15031

Drawn By: Checked By

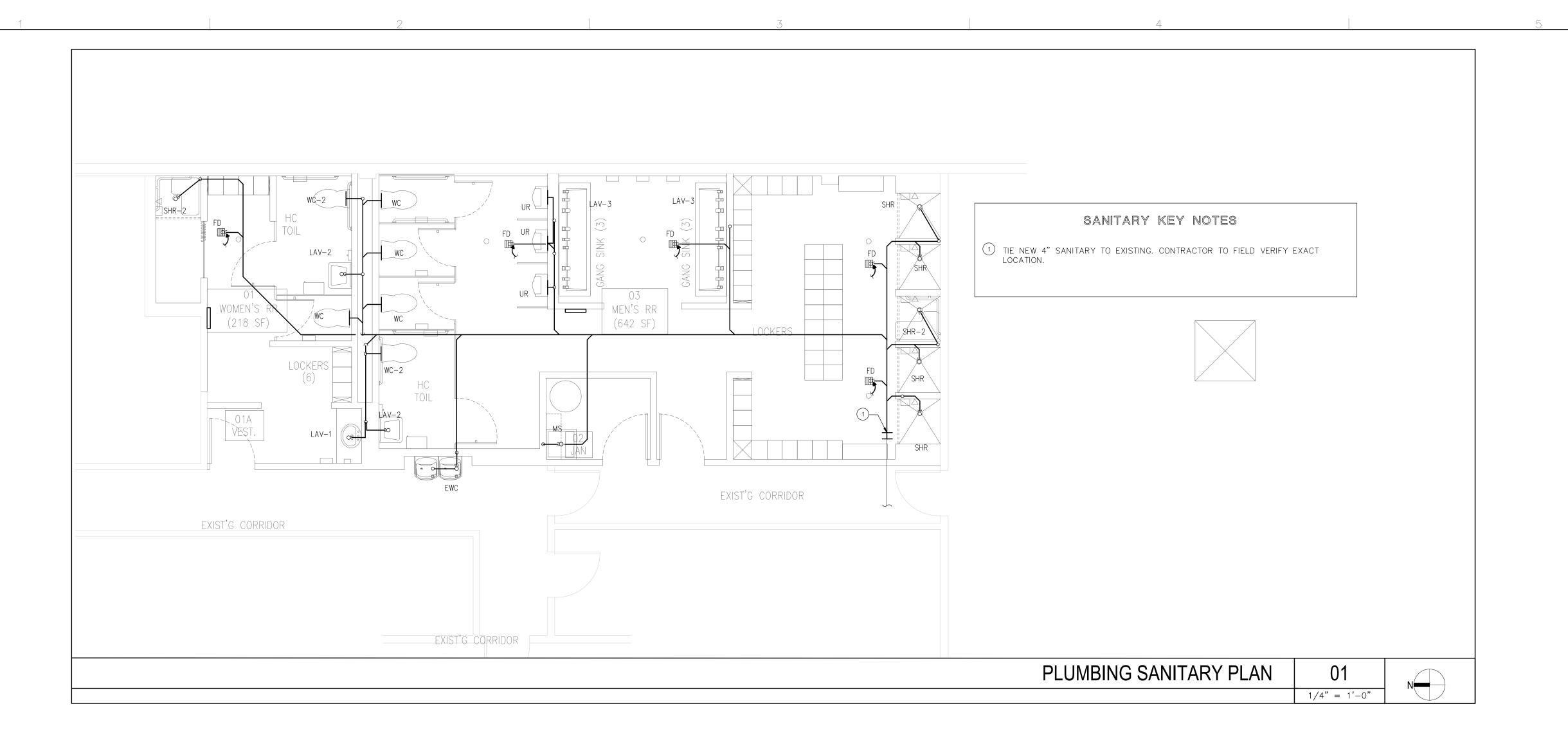
Phase : 100% CONSTRUCTION

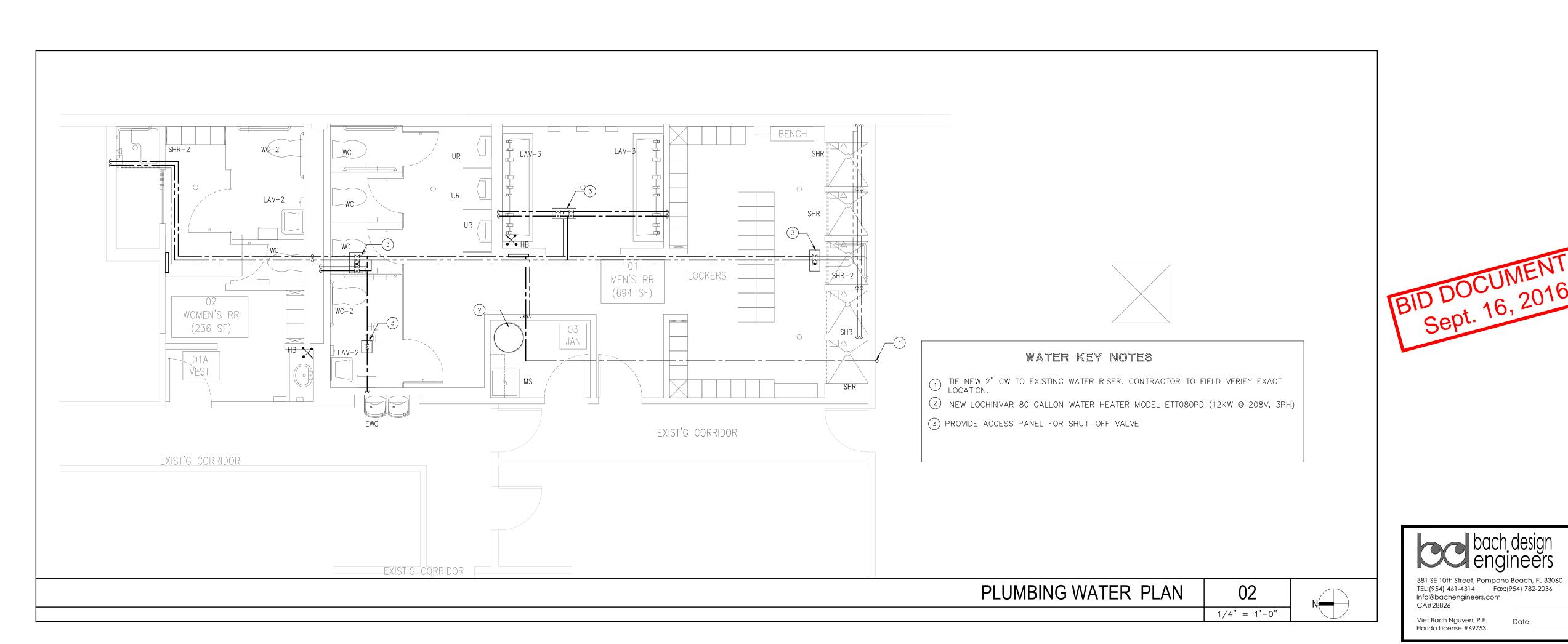
DOCUMENTS

Sheet Title : **MECHANICAL** 

SCHEDULE, **NOTES AND DETAILS** 

Sheet #:







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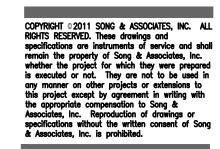
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CITY OF WEST PALM BEACH, FLORIDA

O & M COMPLEX
BLDG #2
RESTROOMS
RENOVATIONS

1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401

Key Plan:

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PERMIT COMMENTS 9-15-16

Date: 06/03/16
S+A Project No: 15031
Owner:
Drawn By: BN

Drawn By :
Checked By :

Phase:
100% CONSTRUCTION

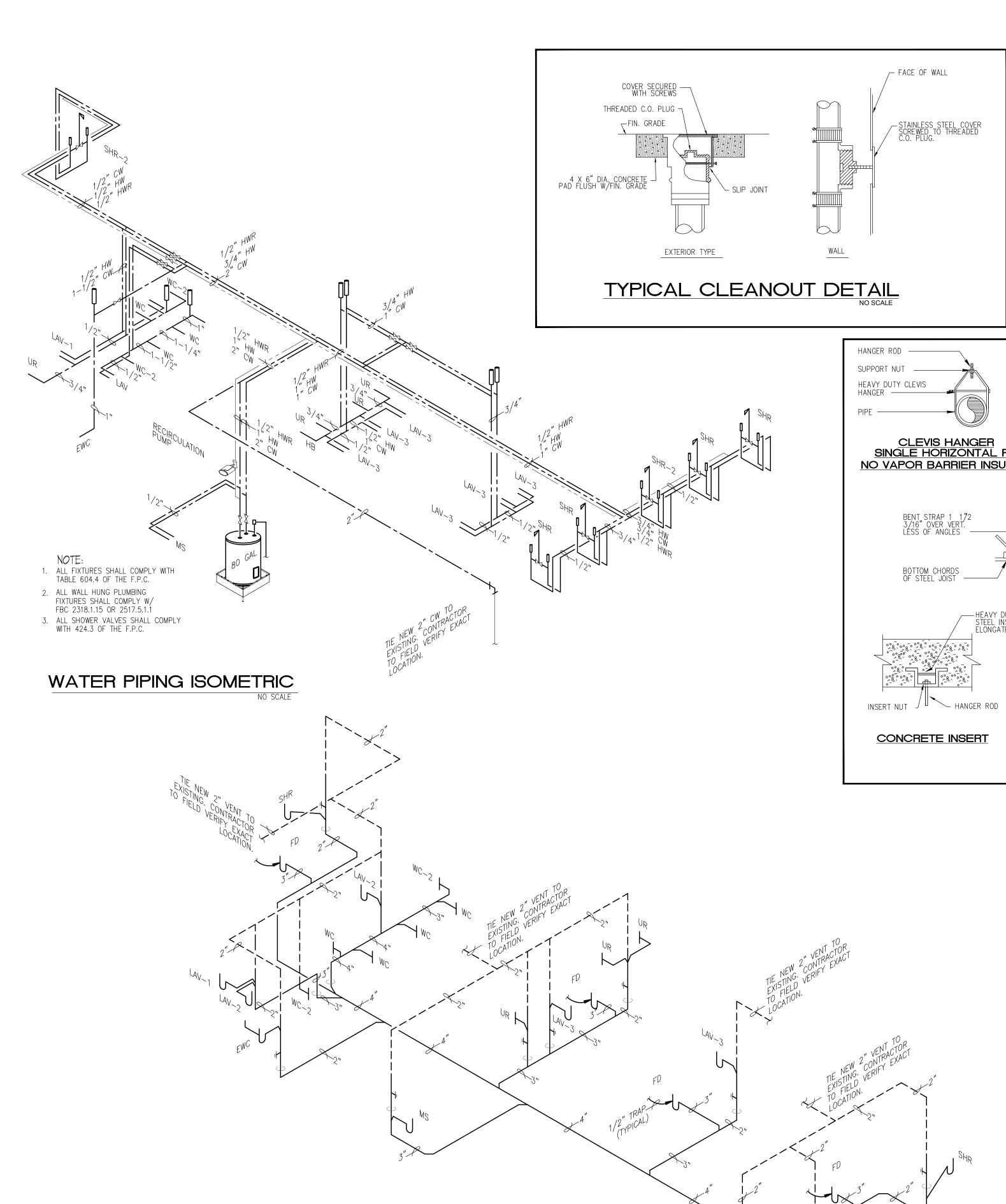
**DOCUMENTS** 

Sheet Title :

PLUMBING SANITARY AND WATER FLOOR PLAN

Sheet # :

P-1

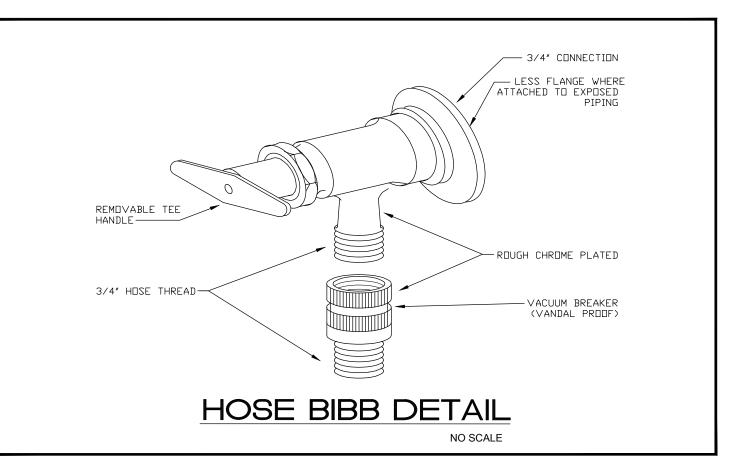


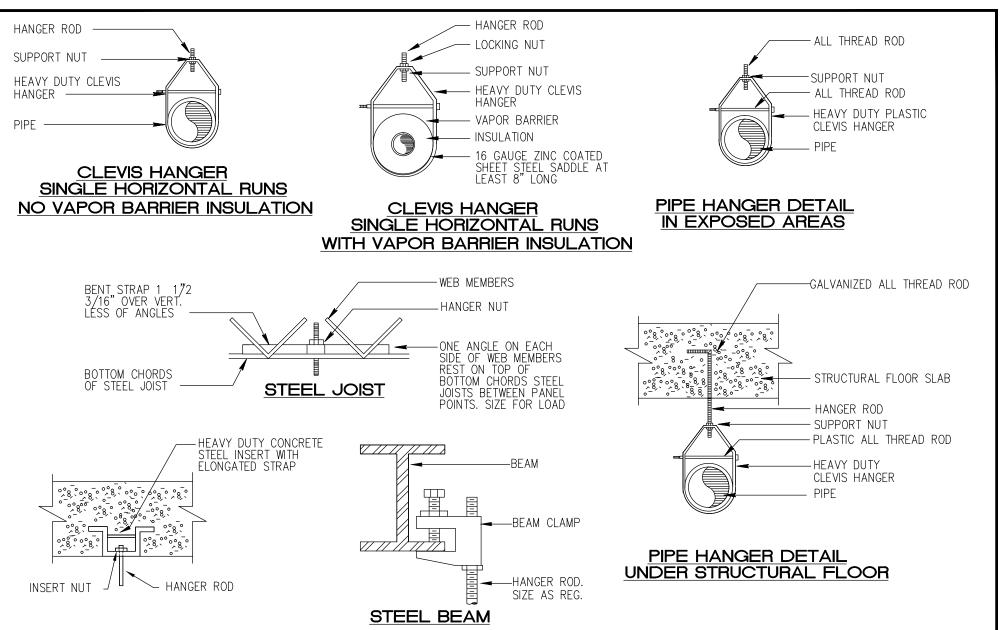
SLOPE ALL PIPING 2" AND LESS @ 1/4" PER L.F.

SLOPE ALL PIPING 3" AND ABOVE @ 1/4" OR 1/8" PER L.F.

SANITARY PIPING ISOMETRIC

HORIZONTIAL DRAINAGE PIPING SHALL BE INSTALLED IN UNIFORM ALIGNMENT AT UNIFORM SLOPE PER FBC(2014) 704.1





PIPE SUPPORT DETAIL

(FOR SANITARY + WATER PIPING) NO SCALE

WATER CLOSET

(FLUSH VALVE)

LAVATORY

| NAME  | <u>FIXTURE</u>             | MODEL #  | ACCESSORIES  |
|-------|----------------------------|--|--|
| WC-2  | ADA WATER<br>CLOSET        | AMERICAN STANDARD<br>MADERA 2854.128<br>ELONGATED (1.28 G.P.F) | CHURCH OPEN FRONT SEAT,<br>AMERICAN STANDARD FLOWISE<br>MANUAL FLUSH VALVE<br>MODEL 6047.121   |
| WC    | WATER<br>CLOSET            | AMERICAN STANDARD<br>MADERA 2854.128<br>ELONGATED (1.28 G.P.F) | CHURCH OPEN FRONT SEAT,<br>AMERICAN STANDARD FLOWISE<br>MANUAL FLUSH VALVE<br>MODEL 6047.121   |
| EWC   | ELECTRIC WATER<br>COOLER   | R ELKAY<br>EZSTL8  | 1/2" SUPPLY PIPES, MCGIURE<br>ANGLE STOPS & ADJUSTABLE<br>"P" TRAP".   |
| L-1   | DROP-IN<br>LAVATORY        | AQUALYN #0476.028  | ZURN #Z-7440 FAUCET 3/8"<br>FLEXIBLE SUPPLY PIPE, MCGUIRE<br>ANGLE STOPS & ADJUSTABLE "P"<br>TRAP WITH MCGUIRE 155WC GRID DRA            |
| LAV-2 | WALL HUNG<br>LAVATORY      | BY OWNER   | ZURN #Z-7440 FAUCET 3/8"<br>W # S-3440 DRAIN<br>FAUCET 3/8" FLEXIBLE SUPPLY PIPE,<br>MCGUIRE ANGLE STOPS & ADJUSTABLE<br>"P" TRAP.       |
| LAV-3 | TRIPLE STATION<br>LAVATORY | BRADLEY VERGE<br>LVRD3-IRG                                     | TRIPLE SINK WITH INTEGRATED FAUCET<br>FLEXIBLE SUPPLY PIPE, MCGUIRE<br>ANGLE STOPS & ADJUSTABLE "P"<br>TRAP WITH MCGUIRE 155WC GRID DRAI |
| SHR   | SHOWER<br>(COMMERCIAL)     | SYMMONS #96-1  | 1/2" SUPPLY PIPES AND SHOWER TRAY & STALL (TO BE SELECTED BY ARCHITECT) WITH 2" FLOOR DRAIN  |
| SH-2  | SHOWER H.C.                | SYMMONS #96-500-30   | 1/2" SUPPLY PIPES AND SHOWER TRAY & STALL (TO BE SELECTED BY ARCHITECT) WITH 2" FLOOR DRAIN  |
| UR    | URINAL                     | ALLBROOK #6541.132.  | WALL HANGING KIT W/ ZURN Z-1222<br>FLOOR MOUNTED CARRIER.<br>FLUSH VALVE ZURN Z-6003XL-WS1.  |
| MS    | MOP SINK                   | FIAT #MSB2424  | WALL GUARD — WG<br>ZURN Z-841 MI-RC<br>DRAIN — SD  |

1 1/4"

MAXIMUM FLOW RATES

1,28 GPM

.5 GPM

#### GENERAL PLUMBING NOTES:

- A. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE FLORIDA 2010 BUILDING CODE (PLUMBING) AND WITH ALL APPLICABLE REGULATIONS.
   B. DRAWINGS: REFER TO ALL DRAWINGS FOR COORDINATION OF THE
- PLUMBING WORK.

  C. ARRANGE AND PAY FOR ALL PERMITS, LICENSES, INSPECTIONS
  AND TESTS. OBTAIN THE REQUIRED CERTIFICATES AND PRESENT
  TO OWNER
- D. GUARANTEE: THE COMPLETED INSTALLATION SHALL BE FULLY GUARANTEED AGAINST DEFECTIVE MATERIALS AND/OR IMPROPER WORKMANSHIP FOR A MINIMUM OF ONE YEAR FOR MATERIAL AND
- E. ALL HORIZONTAL SANITARY PIPING SHALL SLOPE AT 1/8 INCH PER FOOT MINIMUM FOR 3" AND LARGER AND AT 1/4" SLOPE FOR 2" PIPES AND SMALLER.
- 2. PLUMBING FIXTURES: FIXTURES SHALL BE AS SELECTED BY TENANT AND INSTALLED BY THIS CONTRACTOR. FIXTURES SHALL BE COMPLETE WITH DRAINS, TRAPS, SUPPLIES AND ANY OTHER ACCESSORY REQUIRED. FIXTURES AND FAUCETS SHALL COMPLY WITH THE FLORIDA BUILDING CODE 2010 WATER SAVING STANDARDS.
- MATERIALS:A. PIPING:
  - A. SOIL, WASTE AND VENT: SCHEDULE 40 PVC
  - B. DOMESTIC WATER: TYPE M COPPER ISOLATE PIPING FROM CONCRETE WITH INSULATING MATERIAL.
  - D. DOMESTIC WATER SUPPLY ASSEMBLY: CHROME FINISH TUBING WITH ANGLE SHUT OFF VALVES.
- 4. PIPING TEST AND DISINFECTIONS:
- A. TEST: ALL SANITARY AND DOMESTIC WATER SUPPLY PIPING SHALL BE TESTED FOR LEAKS BEFORE PIPING IS CONCEALED OR CONNECTED TO EQUIPMENT AND PLUMBING FIXTURES.
- B. DISINFECTION: ALL DOMESTIC WATER PIPING SHALL BE
  DISINFECTED BY INTRODUCING A SOLUTION OF CALCIUM
  HYPOCHLORITE OF 50 PARTS PER MILLION OF CHLORIDE AND AS
  PER AWWA STANDARDS.
- 5. VALVES: DOMESTIC WATER VALVES SHALL BE OF BRONZE BODY, SWEAT ENDS.
- CONTRACTOR SHALL COORDINATE EXACT LOCATION OF SANITARY,
   AND DOMESTIC WATER PIPING BEFORE STARTING ANY WORK. NOTIFY
   ARCHITECT/ENGINEER OF ANY DEVIATIONS FROM DESIGN DRAWINGS.
   CONTRACTOR SHALL PIPE PROTECTION UNDERNEATH ALL ADA LAVATORIES
- AND SINKS TO COMPLY WITH ADA CODE.

  8. NO COMBUSTIBLE MATERIAL SHALL BE USED IN MECHANICAL ROOMS
- OR IN CEILING SPACES WHERE USED AS RETURN AIR PLENUMS.

  9. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF SANITARY,
  AND DOMESTIC WATER PIPING BEFORE STARTING ANY WORK. NOTIFY
  ARCHITECT/ENGINEER OF ANY DEVIATIONS FROM DESIGN DRAWINGS.

#### PLUMBING SYMBOL LEGEND SYMBOL DESCRIPTION EXISTING SANITARY LINE EXISTING VENT LINE \_\_\_\_\_\_\_ SANITARY LINE VENT LINE \_\_\_\_\_ EXISTING COLD WATER LINE EXISTING HOT WATER LINE COLD WATER LINE HOT WATER LINE GATE VALVE FLOOR PENETRATION HAMMER ARRESTOR WALL CLEANOUT CONNECT TO EXISTING

| SHOCK ARRESTOR SCHEDULE |   |  |  |  |  |  |  |  |  |  |  |
|-------------------------|---|--|--|--|--|--|--|--|--|--|--|
| MANUF. & MODEL          | FIXTURE UNITS   | CONNECTION   |  |  |  |  |  |  |  |  |  |
| SIOUX CHIEF 652-A       | 1-11  | 1/2"   |  |  |  |  |  |  |  |  |  |
| SIOUX CHIEF 652-B       | 12-32   | 3/4"   |  |  |  |  |  |  |  |  |  |
| SIOUX CHIEF 652-C       | 33-60   | 1"   |  |  |  |  |  |  |  |  |  |
| SIOUX CHIEF 652-D       | 61–113  | 1"   |  |  |  |  |  |  |  |  |  |
|                         | MANUF. & MODEL  SIOUX CHIEF 652-A  SIOUX CHIEF 652-B  SIOUX CHIEF 652-C | MANUF. & MODEL FIXTURE UNITS  SIOUX CHIEF 652-A 1-11  SIOUX CHIEF 652-B 12-32  SIOUX CHIEF 652-C 33-60 |  |  |  |  |  |  |  |  |  |

SIOUX CHIEF SHOCK ARRESTORS APPROVED FOR INSTALLATION WITH NO ACCESS DOOR REQUIRED. CONFORMS TO ANSI/ASSE 1010 STANDARDS.

 LOCATE SHOCK ARRESTORS PER MANUFACTURE RECONMENDATION.



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CITY OF WEST PALM BEACH, FLORIDA

O & M COMPLEX BLDG #2 RESTROOMS RENOVATIONS

1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401

Kev Plan:

Pevisions :

 Date:
 06/03/16

 S+A Project No :
 15031

 Owner:
 Drawn By :

BN

Checked By :
Phase :

100% CONSTRUCTION DOCUMENTS

Sheet Title :

PLUMBING SCHEDULE, NOTES, AND DETAILS

Sheet #:

P-2

## **ELECTRICAL SPECIFICATION**

THE CONTRACT DRAWINGS.

- SCOPE: FURNISH ALL LABOR AND MATERIALS NECESSARY FOR THE INSTALLATION OF THE COMPLETE ELECTRICAL SYSTEM AS SPECIFIED HEREIN AND INDICATED ON
- APPLICABLE CODES: THE INSTALLATION SHALL COMPLY WITH THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE. 2014 FLORIDA BUILDING CODE 5TH EDITION, 2014 FLORIDA FIRE PREVENTION CODE 5TH EDITION. 2009 LIFE SAFETY CODE. MATERIALS AND SUBSTITUTIONS: THE CONTRACTOR SHALL SUBMIT A LIST OF ALL MAJOR EQUIPMENT AND FIXTURES TO THE ARCHITECT FOR REVIEW. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT THE PERMISSION OF THE ARCHITECT IN WRITING. ALL EQUIPMENT SHALL BE NEW AND BEAR THE MANUFACTURER'S NAME AND TRADE NAME. ALL EQUIPMENT SHALL BE U.L. LISTED. PERMITS: CONTRACTOR SHALL PAY ALL REQUIRED FEES AND SHALL OBTAIN ALL
- NECESSARY PERMITS FOR INSTALLATION OF THE WORK. WORKMANSHIP: ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. EXPOSED CONDUITS AND/OR CABLES, WHERE PERMITTED, SHALL BE RUN PARALLEL AND AT RIGHT ANGLE TO MAJOR BUILDING CONSTRUCTION MEMBERS. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL
- EQUIPMENT AND DEVICES WITH THE ARCHITECT AT THE TIME OF INSTALLATION. CONDUIT SYSTEMS: CONDUIT SHALL BE EMT CONCEALED IN WALLS AND SUSPENDED CEILINGS AND EXPOSED IN UNFINISHED AREAS. EXTERIOR CONDUIT SHALL BE GALVANIZED RIGID STEEL. ALUMINUM CONDUIT SHALL NOT BE PERMITTED. MINIMUM SIZE CONDUIT SHALL BE 3/4". CONNECTIONS TO MOTORS AND OTHER VIBRATING EQUIPMENT SHALL BE MADE WITH LIQUIDTIGHT FLEXIBLE METAL CONDUIT.
- OUTLET BOXES: FOUR INCH SQUARE FOR SWITCHES AND RECEPTACLES AND FOUR INCH OCTAGONAL FOR LIGHTING FIXTURES, WITH APPROVED PLASTER RINGS AND COVERPLATES. WHERE MULTIPLE NUMBER OF SWITCHES OCCUR IN ONE LOCATION ON THE PLANS, PROVIDE A MULTI-GANG OUTLET BOX AND A COMMON COVERPLATE. PROVIDE BARRIERS WITHIN THE BOX AS MAY BE REQUIRED BY CODE. MIN. DEPTH 2 INCHES.
- WIRE AND CABLE: TYPE THW, OR THWN, 600 VOLT AC, COPPER CONDUCTORS, COLOR CODED, WITH THE MINIMUM SIZE TO BE #12 A.W.G. WITH INSULATED GROUND. TYPE "MC" METAL CLAD CABLE MAY BE USED WHERE PERMITTED BY APPLICABLE CODES.
- WIRING DEVICES: "ARROW HART" OR APPROVED EQUAL, AS FOLLOWS: DUPLEX RECEPTACLE-#5362; GFI RECEPTACLE-#GF5342; 1P TOGGLE SWITCH-#1991; 3-WAY TOGGLE SWITCH-#1993. COVERPLATES SHALL BE PAINTABLE PLASTIC. EDGES OF PLATES SHALL MAKE FULL CONTACT WITH BOX AND COMPLETELY COVER WALL OPENING ALL WATER FOUNTAINS, AND VENDING MACHINES SHALL HAVE GFCI TYPE RECEPTACLES AS PER NEC 422.51. ALL RECEPTACLES WITHIN 6 FEET OF WET BAR OR ANY SINK SHALL HAVE GFCI TYPE RECEPTACLES AS PER NEC 201.8.
- LIGHTING FIXTURES: AS SPECIFIED ON THE DRAWINGS, COMPLETE WITH LAMPS. PANELBOARDS AND CIRCUIT BREAKERS: PANELBOARDS SHALL BE SQUARE D TYPE "NQOD" WITH THE SIZE AND NUMBER OF CIRCUIT BREAKERS AS INDICATED ON THE DRAWINGS. CIRCUIT BREAKERS SHALL BE BOLT-ON TYPE. PLUG-IN BREAKERS SHALL NOT BE PERMITTED. MULTI-POLE BREAKERS SHALL HAVE COMMON TRIP WITH INTEGRAL TIE MECHANISM. HANDLE TIES SHALL NOT BE PERMITTED. PANELBOARDS SHALL HAVE COPPER BUS WITH FULL CAPACITY NEUTRAL. WHERE SPACES AND/OR PROVISIONS ARE INDICATED, BUS ASSEMBLY SHALL EXTEND TO FULL LENGTH WITH ALL NECESSARY HARDWARE TO ACCOMMODATE CIRCUIT BREAKERS. PROVIDE TYPEWRITTEN DIRECTORY ON INSIDE OF DOOR. WHEN NEW WORK IS CALLED FOR IN EXISTING PANELBOARDS, NEW BREAKERS SHALL MATCH EXISTING AND DIRECTORY SHALL BE UPDATED TO REFLECT ANY CHANGES. ALL ELECTRICAL EQUIPMENT WILL BE LABELED TO INDICATE POTENTIAL ELECTRIC ARC FLASH HAZARDS AS PER NEC 110.16
- GROUNDING: ALL SYSTEMS SHALL BE GROUNDED AND BONDED IN ACCORDANCE WITH TI REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES, THE UTILITY COMPANIES, SPECIAL SYSTEMS AND EQUIPMENT AS REQUIRED.

EXISTING CONDITIONS: THE CONTRACTOR SHALL VISIT THE SITE AND CAREFULLY

- EXAMINE ALL EXISTING CONDITIONS THAT MAY AFFECT HIS BID. EXISTING ELECTRICAL INSTALLATION: ALL EXISTING ELECTRICAL WORK WHICH WILL NOT BE RENDERED OBSOLETE AND WHICH MAY BE DISTURBED DUE TO ANY CHANGES REQUIRED UNDER THIS CONTRACT SHALL BE RESTORED TO ITS ORIGINAL OPERATING CONDITION. OTHER ELECTRICAL MATERIAL OR MATERIAL RENDERED OBSOLETE SHALL BE ABANDONED WHERE CONCEALED AND REMOVED WHERE EXPOSED. OLD UNUSED WIRING AND DEVICES SHALL BE REMOVED FROM THE ABANDONED (CONCEALED) CONDUITS AND OUTLETS SHALL BE PROVIDED WITH BLANK COVERS. EXCEPT AS OTHERWISE SPECIFIED, ALL DISCONNECTED MATERIAL THAT IS NOT TO BE REUSED SHALL BE REMOVED FROM THE SITE.
- INTERRUPTION OF SERVICE: THE CONTRACTOR SHALL NOT DISCONTINUE ANY ELECTRICAL SERVICE TO THE BUILDING WITHOUT FIRST OBTAINING APPROVAL FROM THE ARCHITECT AND OWNER.
- CHEDULING OF WORK: THE CONTRACTOR SHALL ARRANGE WITH THE ARCHITEC' FOR SCHEDULING OF WORK.
- COORDINATION AND REPAIR: WHERE EXISTING ELECTRICAL INSTALLATIONS INTERFERE WITH NEW WORK AND WHERE SUCH INSTALLATIONS ARE TO REMAIN IN USE. THE INSTALLATIONS SHALL BE DISCONNECTED AND RELOCATED AND/OR RECONNECTED TO COORDINATE WITH THE WORK INDICATED ON THE CONTRACT DRAWINGS AND AS SPECIFIED.
- WATERPROOFING: WHERE ANY WORK PIERCES WATERPROOFING, INCLUDING WATERPROOF CONCRETE AND/OR MASONRY EXTERIOR WALLS, CONTRACTOR SHALL PROVIDE ALL NECESSARY SLEEVES, CAULKING, AND FLASHING REQUIRED TO MAKE OPENINGS ABSOLUTELY WATERTIGHT.
- FIREPROOFING: OPENINGS AND PASSAGE OF CONDUITS THROUGH FLOOR SLABS AND FIRE RATED WALLS OR PARTITIONS SHALL BE SEALED WITH U.L. LISTED FIRE STOPPING METHODS TO MAINTAIN THE FIRE RESISTANCE RATING.
- EQUIPMENT IDENTIFICATION: EXCEPT WHERE OTHER MEANS OF IDENTIFICATION ARE SPECIFIED, PANELBOARDS, METERS, SAFETY SWITCHES, REMOTE CONTROL SWITCHES, AND MOTOR CONTROL PUSHBUTTON STATIONS SHALL BE IDENTIFIED WITH BLACK PHENOLIC NAMEPLATES WITH WHITE LETTERS, MINIMUM 1/4" HIGH, TO SHOW THE NAME AND NUMBER, IF ANY, OF THE EQUIPMENT CONTROLLED.
- TESTS: THE CONTRACTOR SHALL TEST ALL OF THE EQUIPMENT INSTALLED UNDER THIS CONTRACT AND DEMONSTRATE ITS PROPER OPERATION TO THE OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED LABOR. MATERIAL AND INSTRUMENTS FOR THE TESTS.
- TEST ALL ELECTRICAL WIRING DEVICES FOR CONTINUITY TRESTING FREE FROM ANY SHORTS AND CHECK FOR LOAD CIRCUIT BALANCING TO ENSURE NO NEUTRAL CURRENT IS PRESENT.
- OPERATING INSTRUCTIONS: UPON COMPLETION OF ALL WORK AND OF ALL TESTS, FURNISH THE NECESSARY SKILLED LABOR AND HELPERS FOR OPERATING ALL ELECTRICAL SYSTEMS AND EQUIPMENT IN ORDER TO INSTRUCT AND TRAIN THE OWNER'S REPRESENTATIVE IN THE OPERATION AND MAINTENANCE OF ALL EQUIPMENT FURNISHED.
- CONTRACTOR SHALL MAINTAIN AS-BUILT RECORD DRAWINGS DURING CONSTRUCTION. THESE RED LINES AS-BUILT DRAWINGS SHALL BE SUBMITTED TO OWNER AND ENGINEER AT THE END OF PROJECT. ANY AS-BUILTS NEEDED FOR FINAL INSPECTIONS SHALL BE SUBMITTED TO ENGINEER (10) DAY PRIOR TO INSPECTION.

INTERIOR LIGHTING ALLOWANCE

CALCULATION

\*LIGHTING POWER ALLOWANCE BASED ON FBC-2014 ENERGY CONSERVATION - 5TH EDITION

898

1.0

0.8

AREA TYPE

TOILET

**JANITOR** 

- TABLE C405.5.2(2).

POWER TOTAL WATTS TOTAL WATTS

898

27.2

898

DESIGNED

701.0

ALLOWANCE (LPD) | ALLOWED

## GENERAL ELECTRICAL NOTES

THE ENTIRE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), AND THE LATEST EDITIONS OF ALL LOCAL CODES, RULES AND ORDINANCES HAVING JURISDICTION. AS A MINIMUM, ALL EQUIPMENT SHALL MEET APPLICABLE STANDARDS, FOR TYPE OF EQUIPMENT AND INTENDED USE, OF

THE FOLLOWING:

- a. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI). b. ILLUMINATING ENGINEERS SOCIETY (IES). AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM). d. NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NÉMA). NOTE: THESE STANDARDS ARE SUBORDINATE TO CODES AND STANDARDS SET BY U.L.
- IT SHALL BE UNDERSTOOD THAT ALL WORK PERFORMED SHALL BE BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. SAID CONTRACTOR SHALL MEET ALL REQUIREMENTS SET FORTH BY ANY LOCAL ORDINANCE AND GOVERNING AUTHORITIES
- 4. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED INSURANCE FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY
- DAMAGE FOR THE DURATION OF THE WORK. 5. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT
- LESS THAN (1) YEAR FROM DATE OF ACCEPTANCE, U.O.N.. 6. IT SHALL NOT BE THE INTENT OF THESE PLANS AND/OR SPECI-FICATIONS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR SHALL BE EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING TO ORIGINAL CONDITIONS, ANY AND ALL DAMAGES TO BUILDING SURFACES, EQUIPMENT, ETC. CAUSED DURING THE PERFORMANCE
- 8. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE OR DELAYS AND SHALL INCLUDE REPLACE-MENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.
- THE CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL CONDITIONS, LOCATIONS, DIMENSIONS AND COUNTS AS SHOWN OR
- NOTED ON THE DRAWINGS, PRIOR TO SUBMITTING BID. 10. THE CONTRACTOR SHALL NOT SCALE THE ELECTRICAL DRAWINGS REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT UNLESS NOTED OTHERWISE.
- 11. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE ALL LABOR, MATERIALS AND SUPERVISION NECESSARY TO ACCOMPLISH THE WORK AS SHOWN AND/OR NOTED ON THE PLANS. 12. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR FOR THE ADVANCE ORDERING OF LONG LEAD ITEMS, AS TO NOT
- INTEFERE WITH THE PRODUCTION OF OTHER TRADES RESULTING IN ANY DOWN OR LAG TIME. THE CONTRACTOR SHALL NOT ORDER ANY ITEMS UNTIL APPROVED SHOP DRAWINGS ARE RETURNED TO HIM. 13. THE CONTRACTOR SHALL KEEP ALL AREAS WHERE WORK IS BEING
- PERFORMED FREE FROM DEBRIS AT ALL TIMES AND SAID AREAS SHALL BE LEFT BROOM CLEAN AT THE END OF EACH WORKING DAY. 14. ALL CONDUCTORS SHALL BE COPPER, TYPE THHN/THWN EXCEPT
- WHERE OTHERWISE REQUIRED BY U.L. OR CODES. MINIMUM WIRE SIZE SHALL BE #12 AWG, EXCLUDING CONTROL WIRING.
- 15. ALUMINUM CONDUCTORS ARE NOT PERMITTED ANYWHERE. 16. ALL CONDUCTORS SHALL BE IN CONDUITS. ALL CONDUITS SHALL BE GALVANIZED RIGID STEEL (GRS) EXCEPT THAT: (a) PVC CONDUITS MAY BE USED UNDERGROUND PROVIDED ELBOWS AND RISERS ARE GRS, WHERE SUBJECT TO PHYSICAL DAMAGE (b) ELECTRICAL METALLIC TUBING (EMT) MAY BE USED IN OR ON WALLS OR CEILINGS WHERE NOT SUBJECT TO MECHANICAL DAMAGE. DAMP OR CORROSIVE CONDITIONS. (c) LIQUID TIGHT FLEXIBLE CONDUIT WHERE REQUIRED, (d) FLEXIBLE METALLIC CONDUIT (MC CABLE W/GROUNDING CONDUCTOR), WHERE REQUIRED IN DRY LOCATIONS ONLY. ALL CONDUITS IN HÁZARDOUS
- AREAS (PER NEC) SHALL MEET THE REQUIREMENTS OF NEC CHAPTER 5 17. ALL CONDUIT RUNS ARE SHOWN DIAGRAMATICALLY. THE EXACT ROUTING SHALL BE DETERMINED IN THE FIELD. UNLESS NOTED OTHER-
- 18. WHERE CORE DRILLING OF FLOORS/WALLS IS REQUIRED, THE CON-TRACTOR SHALL SEAL OPENINGS WATERTIGHT AFTER UTILITIES HAVE BEEN INSTALLED. LOCATION OF CORED HOLES SHALL COORDINATE WITH LOCATION OF EQUIPMENT IN A MANNER THAT IS CLEAN AND PER HOLE AND SEAL THE OPENING AROUND THE CONDUIT.
- 19. PROVIDE FIRE RETARDANT U.L. APPROVED SEALANT ON ALL PENE-TRATIONS, WALLS AND STRUCTURAL SLABS. IT SHALL BE THE RE-SPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO VERIFY PRIOR TO SUBMITTING BID, THE LOCATIONS OF ALL SUCH FIRE RATED PART-ITIONS, WALLS, AND STRUCTURAL SLABS.

WIRELESS OCCUPANCY SENSOR

(30 7/85/16. MAX.)

TO NEXT LIGHT FIXTURE

 $\mathbf{S}_{\mathsf{W}}$ 

LRF2-OČR2B-P-WH

└─ TYPICAL LIGHT FIXTURE

-ADD PICO SW. FOR 3 WAY: PJ2-2B-6WH

TYPICAL MAESTRO WALL SWITCH: MRF2-8S-DV-WH

**WIRELESS OCCUPANCY SENSOR DETAIL** 

(120/277V SWITCH ONLY) UP TO 8A

- 20. UNLESS NOTED AS EXISTING, ALL EQUIPMENT, WIRING, DEVICES, ETC. SHALL BE NEW.
- 21. ALL DISCONNECT SWITCHES SHALL BE SIZED BY NEC REQUIREMENTS TO ACCOMODATE EQUIPMENT SERVED. INCLUDING REQUIRED FUSES U.O.N. SWITCHES SHALL BE HORSEPOWER RATED FOR
- MAX. HORSEPOWER, HEAVY DUTY TYPE. 22. THE CONTRACTOR SHALL VERIFY CIRCUIT PROTECTIVE DEVICE RATINGS FOR EQUIPMENT PRIOR TO INSTALLATION.
- 23. ALL FUSES SHALL BE CURRENT LIMITING, PER U.L., RATED 600V. OR NON TIME DELAY FUSES IN MAIN SWITCHES AND SWITCHES FEEDING
- (b) TIME DELAY FUSES FOR MOTOR AND HVAC CIRCUITS. 24. WIREWAYS SHALL BE SIZED AS REQUIRED, PER NEC, U.O.N.
- 25. ALL CIRCUIT BREAKERS SHALL BE INVERSE TIME TYPE (THERMAL-MAGNETIC). TWO AND THREE POLE CIRCUIT BREAKERS SHALL BE COMMON TRIP. TIE HANDLES ARE NOT PERMITTED.
- 26. ALL ELECTRICAL EQUIPMENT SHALL BE RAINTIGHT (NEMA 3R) WHERE EXPOSED TO THE WEATHER. ALL FLEX CONDUITS CONNECTED TO SUCH EQUIPMENT SHALL BE LIQUIDTIGHT.
- 27. OUTLET BOXES SHALL BE PRESSED STEEL IN DRY LOCATIONS. CAST ALLOY WITH THREADED HUBS IN WET OR DAMP LOCATIONS AND SPECIAL ENCLOSURES AS REQUIRED FOR OTHER CLASSIFIED AREAS. U.O.N..
- 28. ALL CONNECTIONS TO GROUND RODS SHALL BE MADE WITH U.L. APPROVED WELDED CONNECTIONS, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL FORM A GROUNDING ELECTRODE SYSTEM AS PER NEC 250-50.
- 29. THE CONTRACTOR SHALL SUBMIT 6 COPIES OF EQUIPMENT SHOP DRAWINGS FOR ELECTRICAL EQUIPMENT TO THE ENGINEER FOR REVIEW, PRIOR TO ORDERING SUCH EQUIPMENT.
- 30. PROPER PLASTER RINGS SHALL BE USED WITH OUTLET BOXES. PLASTER RINGS SHALL BE A MAXIMUM OF 1/8" FROM THE FINISHED SURFACE OF THE DRYWALL AFTER THE DRYWALL IS INSTALLED. PROPER COORDINATION BETWEEN THE ELECTRICAL CONTRACTOR AND THE GENERAL CONTRACTOR FOR RING INSTALLATION IS RE-QUIRED. NO "GOOF" RINGS WILL BE ALLOWED. ALL OUTLET BOXES SHALL BE SECURELY FASTENED. ANY AND ALL IMPROPERLY INSTALLED PLASTER RINGS OR OUTLET BOXES SHALL BE REMOVED AND A NEW RING OR OUTLET INSTALLED AT THE CONTRACTOR'S EXPENSE.
- 31. FOR TELELPHONE SYSTEMS: PROVIDE GROUNDING FOR ALL TELEPHONE OUTLETS AND
- EQUIPMENT PER REQUIREMENTS OF THE TELEPHONE COMPANY. B. COORDINATE INSTALLATION OF ALL TELEPHONE OUTLETS, RACEWAYS, ENCLOSURES AND BACKBOARDS WITH TELE. CO.
- VERIFY LOCATION OF TELEPHONE SERVICE WITH TELEPHONE COMPANY.
  PROVIDE SERVICE CONDUIT TO BLDG. FROM SERVICE POINT PER TELCO.
- INSTRUCTIONS. D. MARK TERMINATIONS OF TELEPHONE CONDUIT AS DIRECTED BY
- THE TELEPHONE COMPANY. E. VERIFY LOCATION OF TELEPHONE SERVICE WITH TELEPHONE COMPANY PRIOR TO SUBMITTING BID.
- F. USE EXTERIOR GRADE 3/4" PLYWOOD BACKBOARDS FOR MOUNTING TELEPHONE EQUIPMENT AND TERMINAL STRIPS.
- PAINT BOARD ON ALL SIDES AND EDGES WITH TWO COATS OF FLAT BLACK ASPHALT PAINT.
- 32. FOR EMERGENCY EXIT SIGNS AND EMERGENCY BATTERY PACKS MAKE CONNECTION AHEAD OF ALL SWITCHES.
- 33. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR AREAS BEING DEMOLISHED, VISIT THE SITE AND INCLUDE ALL NECESSARY MATERIAL AND LABOR TO PERFORM THE REQUIRED DEMOLITION.
- 34. ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL, FIRE ALARM AND COMMUTATIONS INSTALLATIONS AND MAKE PROVISIONS AS TO THE COST THEREOF. EXISTING CONDITIONS OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC... THAT ARE PART OF THE FINAL SYSTEM SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO SUBMITTING HIS BID.
- 35. ELECTRICAL DRAWINGS ARE SCHEMATIC. ALL DEVICES FINAL LOCATION SHALL BE COORDINATED IN THE FIELD. NO CHANGE ORDERS WILL BE ALLOWED DUE TO EQUIPMENT RELOCATION PER FIELD CONDITIONS. ALL INSTALLATIONS SHALL BE COORDINATED WITH ALL TRADES INCLUDING BUT NOT LIMITED TO STRUCTURAL AND ARCHITECTURAL PRIOR TO PERFORMING ANY WORK.
- 36. CONDUCTORS/FEEDERS FOR BRANCH CIRCUITS SHALL BE SIZED TO PREVENT VOLTAGE DROP EXCEEDING 2 PERCENT/3 PERCENT AT THE FARTHEST OUTLET OF POWER. WHERE VOLTAGE DROP IS DETERMINED TO EXCEED THIS VALUE THE CONTRACTOR SHALL INCREASE THE SIZE OF CONDUCTORS AS REQUIRED.
- 37. THE CONTRACTOR SHALL CONFIRM WITH THE ELECTRICAL UTILITY COMPANY ANY AND ALL REQUIREMENTS SUCH AS: METERING EQUIPMENT REQUIREMENTS AND METERING EQUIPMENT LOCATION. TRANSFORMER SIZE AND LOCATION OR SERVICE POINT, CONDUIT ENTRY AND LUG SIZE RESTRICTIONS. THE CONTRACTOR SHALL SCHEDULE ALL REQUIRED DOWN TIME FOR THE OWNERS CONFIRMATION.
- 38. PROVIDE J-BOX WITH 3/4" STUB UPS INSIDE CONCEALED WALLS, CONTRACTOR SHALL COORDINATE WITH MECHANICAL DRAWINGS AND PROVIDE ALL NECESSARY
- 39. ALL ELECTRICAL POWER WIRING FOR THE HVAC SYSTEM INCLUDING WIRING THRU LINE VOLTAGE CONTROL DEVICES SHALL BE THE RESPONSIBILITY OF THE

## - WIRELESS OCCUPANCY SENSOR (10 MAX. PER POWER PACK) RMJ-16R-DV-B ⊚<sub>w</sub> LRF2-0ČR2B-P-WH TO NEXT LIGHT FIXTURE TYPICAL LIGHT FIXTURE - TYPICAL PICO SWITCH WIRELSS PICO SWITCH DETAIL

N.T.S. (120/277V SWITCH ONLY) MORE THAN 8A

# LIGHTING FIXTURE SCHEDULE

|   | DESIG | SYMBOL   | DESCRIPTION                  | MOUNT   | LAMP/LUMEN   | MANUF.    | CATALOG                       | VOLT | REMARKS | QUANTITY | WATTS | TOTAL WATTS |
|---|-------|----------|------------------------------|---------|--------------|-----------|-------------------------------|------|---------|----------|-------|-------------|
|   | А     |          | 1X4 LENSED STATIC<br>TROFFER | RECESS  | S32W3450L    | TEXAS FL  | FI#128-A-14L-S323450-DMV-40K  | 120  | 1       | 8        | 32    | 256         |
|   | В     |          | 2X4 PRISMATIC ACRYLIC        | RECESS  | S32W3450L    | TEXAS FL  | FI#200-A-2-48L-S3250L-DMV-40K | 120  | 1       | 6        | 32    | 192         |
|   | С     |          | LED DOWNLIGHT                | RECESS  | 15W/A-19 LED | LITE LINE | #RF60ICAT/RTM-6020S           | 120  | 1       | 6        | 21    | 126         |
| Ī |       |          | EMERGENCY LIGHT              | SURFACE | LED          | EELP      | EM16-E-LP-12-25               | 120  | 1       | 5        | 25    | 125         |
|   |       | $\Theta$ | EXIT LIGHT                   | SURFACE | LED          | EELP      | XE-2R-W-EM                    | 120  | 1,2     | 2        | 1     | 2           |
|   |       |          |                              |         |              |           |                               |      |         |          |       |             |
|   |       |          |                              |         |              |           |                               |      | •       | •        | TOTAL | 701         |

GENERAL NOTES

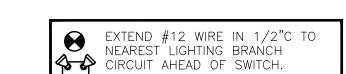
ALL FLUORESCENT LUMINARIES THAT UTILIZE DOUBLE-ENDED LAMPS AND CONTAIN BALLASTS THAT CAN BE SERVICED IN PLACE SHALL HAVE A DISCONNECTING MEANS INTERNALLY AS PER

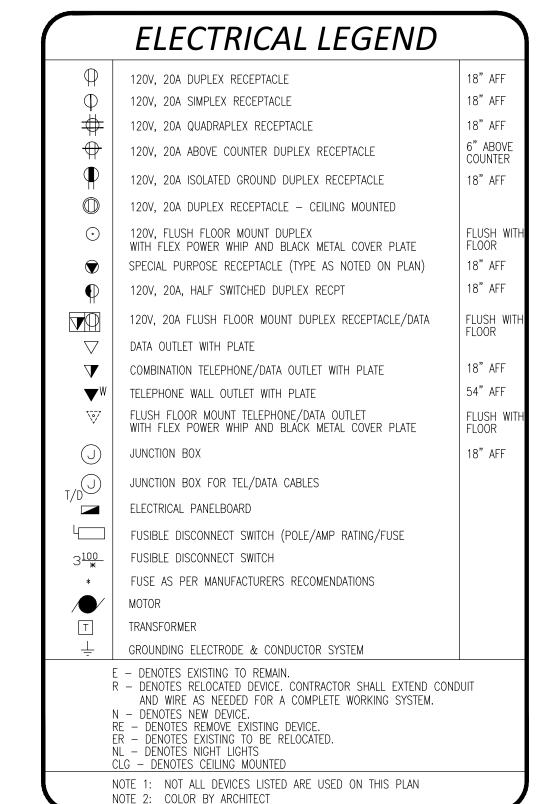
2008 NEC 410.130G. NOTE 1: PROVIDE SUBMITTALS FOR ARCHITECTS/TENANTS REVIEW PRIOR TO ORDERING.

NOTE 2: CONFIRM COLOR AND SIDES REQUIRED WITH ARCHITECTURAL DRAWINGS

NOTE 3: HALF SHADE FIXTURE DENOTED WITH 1400 LUMEN EMERGENCY BATTERY PACK. NOTE 4: PROVIDE FIXTURE WITH OCCUPANCY SENSOR. SET SENSOR TO TURN LIGHT OFF AFTER 10 MINS. NOTE 5: CHAIN HUNG MOUNT @ 10'-0" A.F.F.

 $\mid$  \*\*\* general contractor to verify quantity of light fixtures prior to bidding.

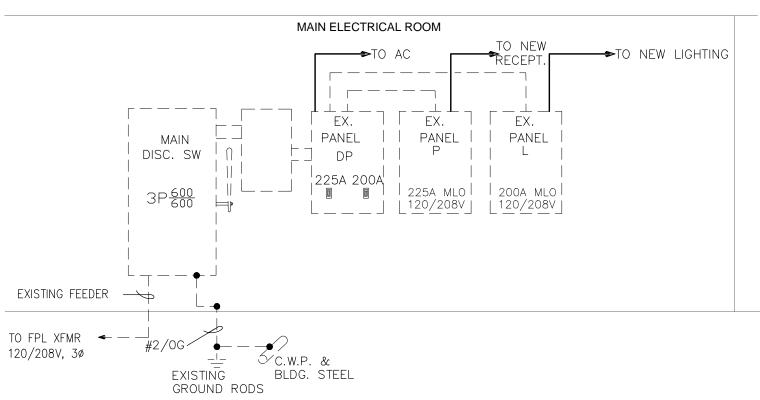




### SHOP DRAWING REQUIREMENTS

- 1. IF THE CONTRACTOR CHOOSES TO SUBMIT SHOP DRAWINGS, THEY SHALL BE SUBMITTED COMPLETE, TOGETHER AT ONE TIME AND MUST COME THROUGH THE ARCHITECT. ALL SUBMITTALS SHALL BE MADE
- WITHIN 30 DAYS OF NOTICE TO PROCEED. 2. ALL SUBMITTALS MUST CLEARLY INDICATE EXACTLY WHICH ITEMS ARE BEING PROPOSED FOR USE. IF NOT, THE SUBMITTAL SHALL BE REJECTED.
- SUBSTITUTIONS SHALL BE LIMITED TO ONE OF THE ALTERNATES LISTED IN THE CONSTRUCTION DOCUMENTS. PRODUCTS CONSIDERED TO BE EQUAL SHALL BE REVIEWED AND ACCEPTED BY THE ENGINEER, ARCHITECT AND OWNER (10) DAYS PRIOR TO BID DATE.
- 4. THE CONTRACTOR ASSUMES ALL DESIGN RESPONSIBILITY AND ALL FINANCIAL RISKS FOR PROCEEDING PRIOR TO SHOP DRAWINGS PROCESSING, AND ON
- ANY ITEM OR WORK THAT IS AT VARIANCE TO THE CONSTRUCTION DOCUMENTS. 5. SHOP DRAWINGS AND SUBMITTALS FOR EACH ITEM SHALL BE REVIEWED NO MORE THAN TWICE. A THIRD SUBMITTAL ON AN ITEM MUST BE ACCOMPANIED
- BY A PURCHASE ORDER FROM THE CONTRACTOR OR IT SHALL BE REJECTED. CIRCUMSTANCES NECESSITATING A REVISION TO THE PERMITTED DOCUMENTS NOT PROCESSED PRIOR TO INSTALLATION MAY NOT BE ACCEPTED. IF ACCEPTED IT MUST BE LEGIBLE, ACCURATE AND ACCOMPANIED BY A PURCHASE ORDER ORDER FROM THE CONTRACTOR. THE REVISION SHALL BE CHARGED TO THE
- CONTRACTOR AND DELIVERED TO HIM ON A C.O.D. BASIS SUBSTITUTIONS FROM THE BASE DESIGN OR VARIATIONS TO THE PERMITTED CONTRACT DOCUMENTS, WHETHER RESULTING FROM PROCESSED SHOP DRAWINGS OR NOT, THAT RESULT IN REQUIREMENTS IN LETTERS OF AUTHORIZATION AND/ OR PERMIT CONTRACT DOCUMENT CHANGES MANDATED BY THE AUTHORITY HAVING JURISDICTION WILL NOT BE MADE BY THIS OFFICE UNLESS ACCOMPANIED BY

A PURCHASE ORDER FROM THE CONTRACTOR, AND RELEASED ON A C.O.D. BASIS.



## **ELECTRICAL RISER DIAGRAM**

---- EXISTING TO REMAIN ------ NEW CONSTRUCTION



DRAWINGS SHALL BE BUILT IN ACCORDANCE WITH THESE DRAWINGS AND BOOK SPECIFICATION.

NOTE

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CITY OF WEST

O & M COMPLEX BLDG #2 **RESTROOMS** RENOVATIONS

> 1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401

Kev Plan:

PERMIT COMMENTS 07.28.16

06/03/16 S+A Project No: 1503 Drawn By Checked By

Phase : 100% CONSTRUCTION DOCUMENTS

Sheet Title:

NOTES, DETAILS AND RISER DIAGRAM

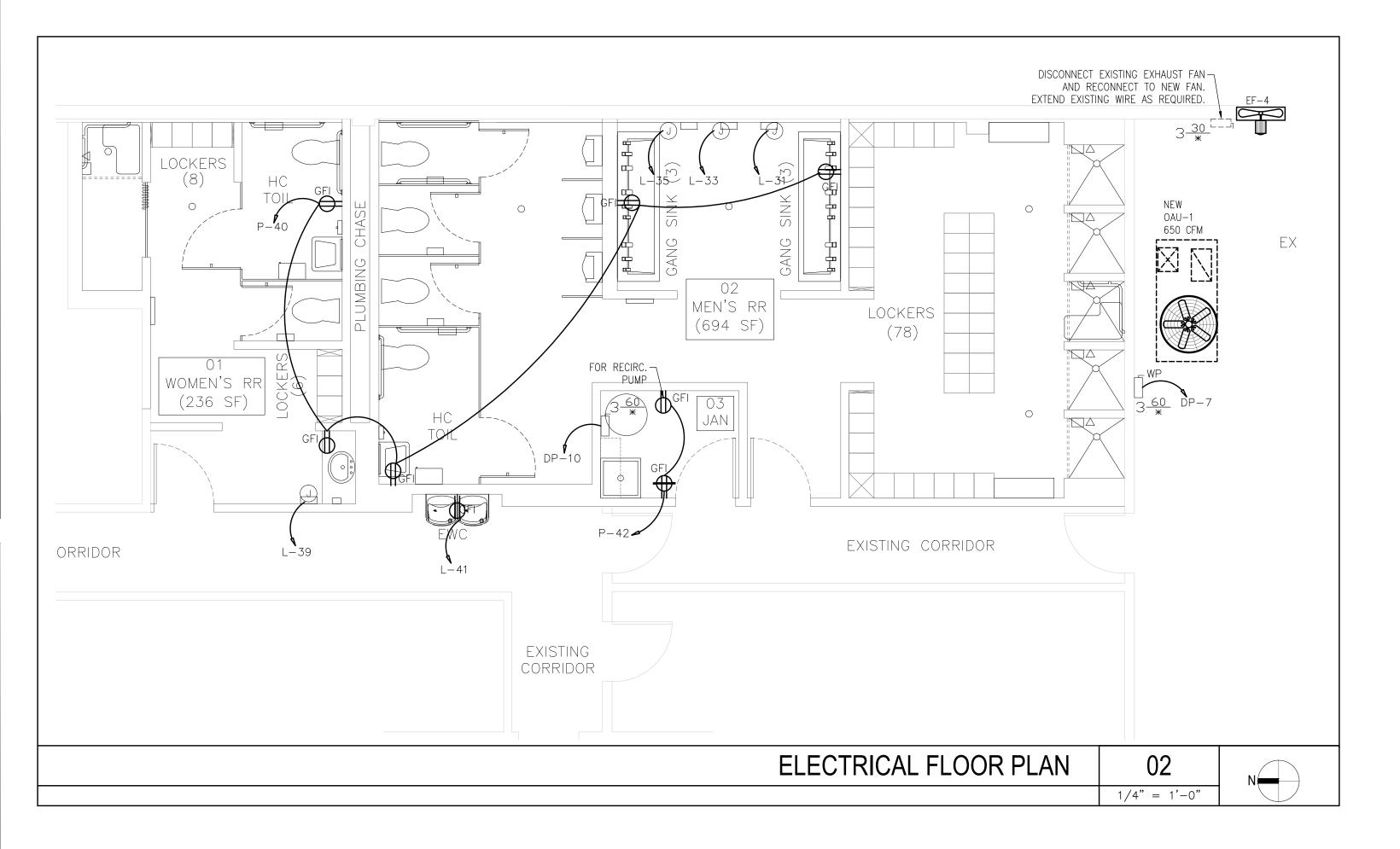
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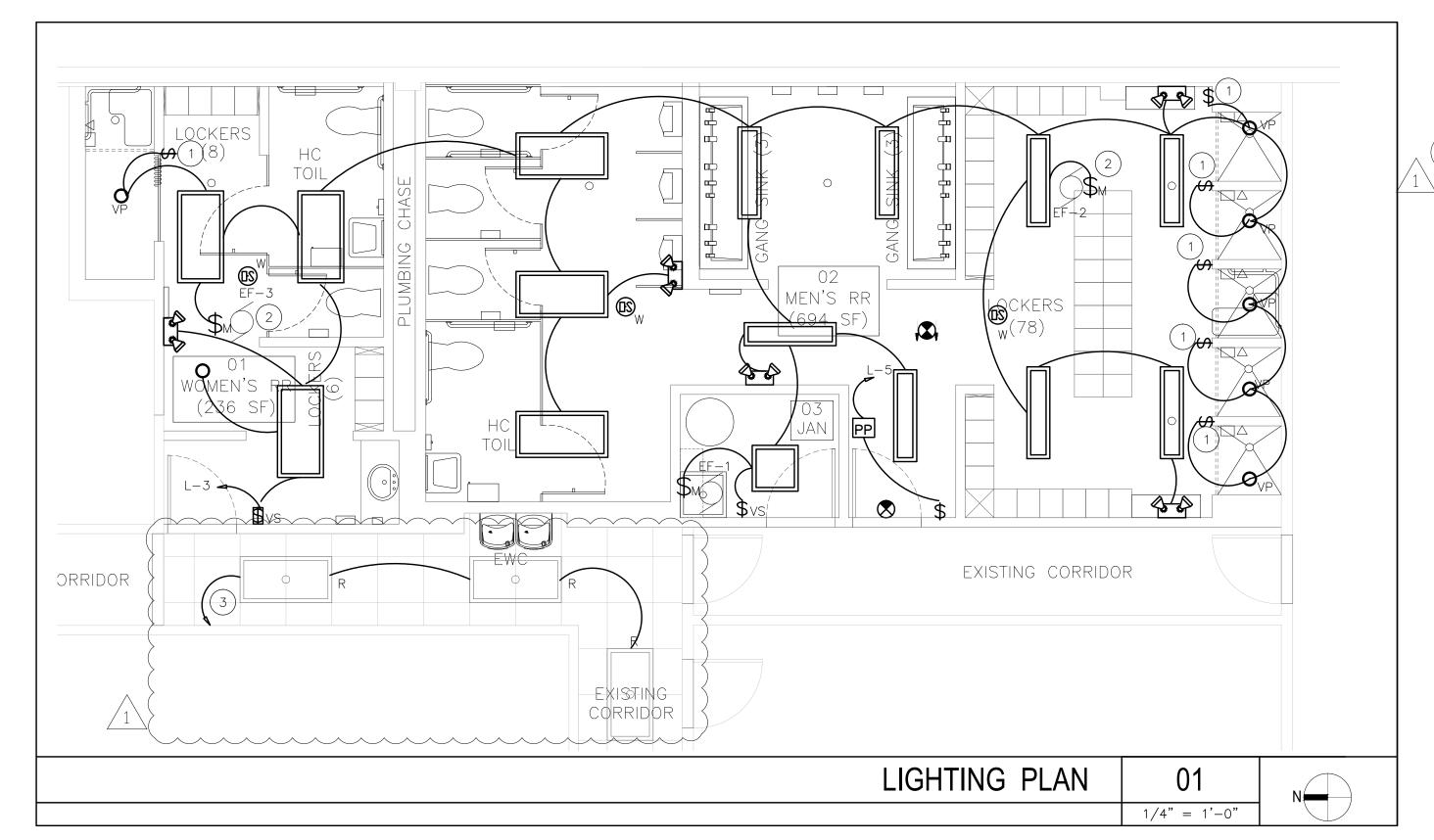
| POL |       | 6: SURF<br>42 | ACE  |     |             | ( )                      | ISTING)     |   | <i>LOCATION:</i><br>ELEC ROOM |              | <i>System type:</i><br>Normal |             |      | MAINS:<br>A.I.C./SCA: |              |       | MLO<br>EXISTING |  |  |
|-----|-------|---------------|------|-----|-------------|--------------------------|-------------|---|-------------------------------|--------------|-------------------------------|-------------|------|-----------------------|--------------|-------|-----------------|--|--|
|     | KVA   | TRIP<br>POLE  | WIRE | GRD | CON<br>DUIT | REMARKS                  | CKT.<br>NO. |   | CKT.<br>NO.                   | REMA         | RKS                           | CON<br>DUIT | GRD  | WIRE                  | TRIP<br>POLE | KVA   |                 |  |  |
|     |       |               |      |     |             | Г                        |             | Α |                               | 7            |                               |             |      |                       |              |       |                 |  |  |
|     | 6.0   | 30-3          | E    | E   | E           | EX. E.H #3               | 1           | В | 2                             | EX. AIR HANI | DLER #4                       | E           | Е    | E                     | 20-3         | 4.7   | _               |  |  |
|     |       |               |      |     |             | L                        | •           | C |                               |              |                               |             |      |                       |              |       | +               |  |  |
|     | 6.0   | 30-3          | E    | E   | E           | EX. E.F #9               | 3           | В | 4                             | EX. E.H. #4  |                               | E           | E    | E                     | 30-3         | 6.0   | +               |  |  |
|     | 1     |               |      |     |             |                          |             | С | <u> </u>                      |              |                               |             |      |                       |              |       |                 |  |  |
|     |       |               |      |     |             | Г                        |             | Α |                               | П            |                               |             |      |                       |              |       |                 |  |  |
|     | 6.0   | 30-3          | E    | E   | E           | EXH #2                   | 5           | В | 6                             | EX. E.H. #1  |                               | E           | Е    | E                     | 50-3         | 6.0   |                 |  |  |
|     |       |               |      |     |             | L                        | •           | С |                               |              |                               |             |      |                       |              |       |                 |  |  |
| 1)  | 11.4  | 45-3          | 8    | 10  | 3/4         | NEW OAU-1                | 7           | В | 8                             | EX. A/C #3   |                               | E           | E    | F                     | 70-3         | 9.4   |                 |  |  |
|     | 11.4  | +5 5          | - 0  | 10  | 3/ 1        | INCH OAO I               |             | С |                               |              |                               |             |      |                       | 70 3         | 3.1   |                 |  |  |
|     |       |               |      |     |             | Г                        |             | А |                               |              |                               |             |      |                       |              |       |                 |  |  |
|     | 9.4   | 40-3          | E    | E   | E           | EX. A/C #2               | 9           | В | 10                            | WATER HEATE  | :R                            | 3/4         | 10   | 8                     | 45-3         | 12.0  | 1               |  |  |
|     |       |               |      |     |             | L                        | •           | С |                               |              |                               |             |      |                       |              |       | -               |  |  |
|     | 9.4   | 70-3          | E    | E   | E           | OUTSIDE COMPRESSOR A/C   | 11          | В | 12                            | EX. AIR COM  | DRESSOR                       | E           | E    | E                     | 20-3         | 4.7   | +               |  |  |
|     | 3.7   | 70 3          |      |     |             | OUTSIDE COMITICESSON AYO | ' '         | С | 12                            | LX. AIR COM  | T INESSOIN                    |             |      |                       | 20 3         | 7.7   | -               |  |  |
|     |       |               |      |     |             | Г                        |             | А |                               |              |                               |             |      |                       |              |       |                 |  |  |
|     | 6.6   | 35-2          | 10   | 10  | 3/4         | AHU #3/CU-3              | 13          | В | 14                            | EXISTING LOA | ۷D                            | Е           | Е    | Е                     | 100-3        | 23.0  |                 |  |  |
|     |       |               |      |     |             | SPACE                    |             | С |                               | Ц            |                               |             |      |                       |              |       | _               |  |  |
|     | 48.0  | 225-3         | E    | E   | F           | EX. PANEL P              | 14          | В | 16                            | EX. PANEL L  |                               | E           | E    | F                     | 200-3        | 10 3  | _               |  |  |
|     | 40.0  | 223-3         | L    |     |             | LA. FAINEL F             | 14          | С | 10                            | LA, PANEL L  |                               | E           | E    | L                     | 200-3        | +0.5  | +               |  |  |
|     | 102.8 |               | Τ/   | \   |             | NECTED LOAD = 208.9 k    | /\          |   |                               | TOTAL        | CONNECTE                      |             | C. E | 20.0                  | L            | 106.1 | +               |  |  |

| 1 1 1        | 1.0<br>1.0<br>1.0<br>1.0 | TRIP POLE 20-1 20-1 20-1 20-1 | WIRE<br>E<br>E | GRD<br>E<br>E | CON<br>DUIT<br>E | REMARKS                         | CKT. |   |             |                |             |             |     |      |              | 1014 |   |
|--------------|--------------------------|-------------------------------|----------------|---------------|------------------|---------------------------------|------|---|-------------|----------------|-------------|-------------|-----|------|--------------|------|---|
| 1 1 1        | 1.0                      | 20-1                          | E              |               | Е                |                                 | NO.  |   | CKT.<br>NO. | REMAF          | RKS         | CON<br>DUIT | GRD | WIRE | TRIP<br>POLE | KVA  |   |
| 1            | 1.0                      | 20-1                          |                | F             | _                | EX. #29                         | 1    | Α | 2           | EX. MASTER SH  | HOP LIGHTS  | Е           | Е   | Е    | 20-1         | 1.0  |   |
| 1            | 1.0                      |                               | Е              |               | E                | EX. WOMEN'S ROOM LIGHTS         | 3    | В | 4           | EX. CONFEREN   | CE ROOM LTS | E           | E   | Е    | 20-1         | 1.0  | ' |
|              |                          | 20-1                          | _              | E             | E                | EX. MEN'S ROOM LIGHTS           | 5    | С | 6           | EX. MASTER SH  | HOP LIGHTS  | Е           | Е   | Е    | 20-1         | 1.0  |   |
| 1            | 1.0                      | 20-1                          | E              | Е             | Е                | EX. DRAFTING LIGHTS             | 7    | Α | 8           | EX. BAY LIGHTS | 5           | Е           | E   | Е    | 20-1         | 1.0  |   |
|              |                          | 20-1                          | Е              | E             | E                | EX. OFFICE LIGHTS               | 9    | В | 10          | EX. BAY LIGHTS | 6           | Е           | Е   | Е    | 20-1         | 1.0  |   |
| 1            | 1.0                      | 20-1                          | Е              | E             | E                | EX. DRAFTING LIGHTS             | 11   | С | 12          | EX. BAY LIGHTS | 5           | E           | E   | Е    | 20-1         | 1.0  |   |
| 1            | 1.0                      | 20-1                          | Е              | Е             | E                | EX. HALL LIGHTS                 | 13   | Α | 14          | EX. WORK BEN   | CH LIGHTS   | Е           | E   | Е    | 20-1         | 1.0  |   |
| 1            | 1.0                      | 20-1                          | Е              | Е             | E                | EX. ELECTRIC ROOM LIGHTS        | 15   | В | 16          | EX. BAY LIGHTS | 5           | Е           | E   | Е    | 20-1         | 1.0  |   |
| 1            | 1.0                      | 20-1                          | Е              | E             | E                | EX. EXIT LIGHTS                 | 17   | С | 18          | EX. BAY LIGHTS | 5           | E           | E   | Е    | 20-1         | 1.0  |   |
| 1            | 1.0                      | 20-1                          | E              | E             | Е                | EX. UNDER MEZZANINE LTS         | 19   | Α | 20          | EX. BAY LIGHTS | 5           | E           | Е   | E    | 20-1         | 1.0  |   |
| 1            | 1.0                      | 20-1                          | Е              | E             | E                | EX. CONFERENCE ROOM LTS         | 21   | В | 22          | EX. CONFEREN   | CE ROOM LTS | E           | Е   | E    | 20-1         | 1.0  |   |
| 1            | 1.0                      | 20-1                          | E              | E             | E                | EX. CEILING REC-FANS METER ROOM | 23   | С | 24          | EX. BAY LIGH   | TS          | E           | E   | E    | 15-2         | 2.0  |   |
| 1            | 1.0                      | 20-1                          | Е              | E             | E                | EX. 50 ADDITION                 | 25   | Α | 26          |                |             |             |     |      |              |      |   |
| 1            | 1.0                      | 20-1                          | Е              | E             | E                | EX. SAND BLASTER                | 27   | В |             | TEX. STAIR LIG | HTS         | E           | E   | Е    | 15-2         | 2.0  |   |
| <u> </u>     | 1.0                      | 20-1                          | Е              | Е             | E                | EX. SUPERVISOR LIGHTS           | 29   | С | 30          |                |             |             |     |      |              |      |   |
| $\leftarrow$ | 1.4                      | 20-1                          | 12             | 12            | -                | MAN'S RESTRM HAND DRYER         |      | Α |             | EX. ICE MACH   | IINE        | E           | E   | E    | 20-2         | 2.7  |   |
|              | 1.4                      | 20-1                          | 12             | 12            | -                | MAN'S RESTRM HAND DRYER         |      | В | 34          |                |             |             |     |      |              |      |   |
|              | 1.4                      | 20-1                          | 12             | 12            | 1/2              | MAN'S RESTRM HAND DRYER         |      | С | 36          | SPARE          |             |             |     |      | 20-1         |      |   |
|              | 1.0                      | 20-1                          | Е              | E             | E                | EX. ICE MACHINE                 | 37   | Α | 38          | SPARE          |             |             |     |      | 20-1         |      |   |
| _            | 1.4                      | 20-1                          | 12             | 12            | - , -            | WOMAN'S RESTRM HAND DRYER       | 39   | В |             | SPARE          |             |             |     |      | 20-1         |      |   |
| 2) 1         | 1.0                      | 20-1                          | 12             | 12            | 1/2              | NEW WATER COOLER                | 41   | С | 42          | SPARE          |             |             |     |      | 20-1         |      |   |

1) NEW LOAD ADDED TO EXISTING BREAKER.
(2) NEW CIRCUIT BREAKER AND LOAD ADDED TO EXISTING PANEL.

| RVICE:<br>OUNTINO<br>DLES: | 120,<br><b>3:</b> SUR<br>42 |      | υρ,  | 1 4 4       | NEMA 1           | (EXI     |   | G) |             | ATION:<br>C ROOM | NO<br><i>System typ</i><br>Normal | PE:         | M     | EUTRAL<br>AINS:<br>I.C./SCA |              | FULL<br>MLO<br>10K |              |
|----------------------------|-----------------------------|------|------|-------------|------------------|----------|---|----|-------------|------------------|-----------------------------------|-------------|-------|-----------------------------|--------------|--------------------|--------------|
| KVA                        | TRIP<br>POLE                | WIRE | GRD  | CON<br>DUIT | REMAR            |          | CKT.<br>NO.   |    | CKT.<br>NO. |                  | RKS                               | CON<br>DUIT | GRD   | WIRE                        | TRIP<br>POLE | KVA                |              |
| 0.8                        | 20-1                        | Е    | E    | E           | EX. OFFICE REC   |          | 1   | Α  | 2           | EX. RECEPTION    | REC                               | Е           | Е     | E                           | 20-1         | 0.6                |              |
| 0.2                        | 20-1                        | E    | E    | Е           | EX. EF-6         |          | 3   | В  | 4           | EX. WATER CO     | OLER                              | Е           | Е     | E                           | 20-1         | 1.0                |              |
| 1.0                        | 20-1                        | E    | E    | E           | EX. TOOL ROOM F  | REC      | 5   | С  | 6           | EX. OFFICE RE    | С                                 | Е           | Е     | E                           | 20-1         | 1.0                |              |
| 0.6                        | 20-1                        | Е    | E    | E           | EX. METER SHOP   | REC      | 7   | Α  | 8           | EX. DRAFTING     | REC                               | Е           | Е     | E                           | 20-1         | 0.6                |              |
| 1.0                        | 20-1                        | E    | E    | E           | EX. METER SHOP   | REC      | 9   | В  | 10          | EX. DRAFTING     | REC                               | E           | Е     | E                           | 20-1         | 1.0                |              |
| 0.8                        | 20-1                        | E    | E    | E           | EX. CONFERENCE   | ROOM REC | 11  | С  | 12          | EX. OFFICE RE    | С                                 | Е           | Е     | E                           | 20-1         | 0.6                |              |
| 1.0                        | 20-1                        | E    | E    | E           | EX. VENDING ROO  | М        | 13  | Α  | 14          | EX. OFFICE RE    | С                                 | Е           | Е     | Е                           | 20-1         | 1.0                |              |
| 1.0                        | 20-1                        | E    | E    | E           | EX. VENDING ROO  | М        | 15  | В  | 16          | EX. UNDER ME     | ZZANINE REC                       | E           | E     | E                           | 20-1         | 0.4                |              |
| 1.0                        | 20-1                        | E    | Е    | E           | EX. WATER COOLE  | R BAY A. | 17  | С  | 18          | EX. UNDER ME     | ZZANINE REC                       | Е           | Е     | E                           | 20-1         | 0.6                |              |
| 1.0                        | 20-1                        | E    | E    | E           | EX. LUNCH ROOM   | ICE BOX  | 19  | Α  | 20          | EX. UNDER ME     | ZZANINE REC                       | Е           | E     | E                           | 20-1         | 0.6                |              |
| 1.0                        | 20-1                        | E    | E    | E           | EX. LUNCH ROOM   | MICRO    | 21  | В  | 22          | EX. UNDER ME     | ZZANINE REC                       | E           | E     | E                           | 20-1         | 0.6                |              |
|                            |                             |      |      |             |                  |          | 23  | С  | 24          | EX. BAY REC      |                                   | E           | Е     | E                           | 20-1         | 0.4                |              |
| 4.6                        | 20-3                        | E    | E    | E           | EX. CARPENTER S  | HOP      | 25  | Α  | 26          | EX. BAY REC      |                                   | E           | E     | E                           | 20-1         | 0.4                | ┸            |
|                            |                             |      |      |             |                  | L        | 27  | В  | 28          | EX. COMPRESS     | OR DRYER                          | Е           | Е     | E                           | 20-1         | 1.0                |              |
|                            | 20-1                        | E    | E    | E           | EX. ELECT. HOIST |          | 29  | С  | 30          | <b>1</b>         |                                   |             |       |                             |              |                    | ┶            |
|                            | 20-1                        |      |      |             | SPARE            |          | 31  | Α  | 32          | EX. VFD          |                                   | E           | Е     | E                           | 60-3         | 14.0               | ┷            |
|                            | 20-1                        | E    | E    | E           | EX. EF-7         |          | 33  | В  | 34          | <b>J</b>         |                                   |             |       |                             |              |                    | _            |
| 2.7                        | 20-2                        | E    | E    | E           | EX. ICE MACHINE  |          | 35  | С  | 36          | EX. LUNCH        | ROOM RANGE                        | E           | E     | E                           | 30-2         | 4.0                | 1            |
|                            |                             |      |      |             |                  | L        | 37  | Α  | 38          | <b>J</b>         |                                   |             |       |                             |              |                    | $\downarrow$ |
| 2.7                        | 20-2                        | E    | E    | E           | EX. LOAD         |          | 39  | В  |             | NEW GFI BATH     |                                   | 1/2         | 12    |                             |              | 0.4                | 1            |
|                            |                             |      |      |             |                  | L        | 41  | С  | 42          | NEW RECIRC.      | PUMP REC                          | 1/2         | 12    | 12                          | 20-1         | 0.4                | (            |
| 19.4                       |                             | TC   | DTAL | CON         | NECTED LOAD =    | = 48.0 k | <va< td=""><td></td><td></td><td>TOTAL</td><td>CONNECTED</td><td>) AMF</td><td>PS: 1</td><td>33.3</td><td></td><td>28.6</td><td></td></va<> |    |             | TOTAL            | CONNECTED                         | ) AMF       | PS: 1 | 33.3                        |              | 28.6               |              |







CONTRACTOR SHALL PROVIDE TIMER SWITCH AS SHOWN ON PLANS. FIELD VERIFY PRIOR TO INSTALLATION WITH ARCHITECT/OWNER.

 WIRE EXHAUST FAN TO RUN CONTINUOUSLY.

CONTRACTOR SHALL EXTEND 2#12, 1#12G IN 1/2"C TO EXISTING LIGHTING CIRCUIT IN AREA.

BID DOCUMENTS Sept. 16, 2016

bach design engineers

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CITY OF WEST PALM BEACH, FLORIDA

O & M COMPLEX
BLDG #2
RESTROOMS
RENOVATIONS

1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401

Key Plan:

Revisions :

1 PERMIT COMMENTS
9-15-16

Date: 06/03/16

S+A Project No: 15031

Owner:

Drawn By: MG

Checked By: RN

Phase:
100% CONSTRUCTION
DOCUMENTS

Sheet Title :

ELECTRICAL FLOOR
PLAN AND PANEL
SCHEDULE

Sheet # :

F-2

## FAC 61G15 COMPLIANCE NOTES

## APPLICABLE CODES AND STANDARD

- 1. FLORIDA BUILDING CODE, 2014 5TH EDITION.
- 2. FLORIDA BUILDING CODE PREVENTION CODE, 2007 EDITION
- 3. NFPA-13, 2010 EDITION

## CLASSIFICATION FO HAZARD COCCUPANCY FOR EACH ROOM AREA

— LIGHT HAZARD OCCUPANCIES CLASSROOM, BATHROOM, OFFICE

ORDINARY HAZARD GROUP 1 STORAGE, EQUIPMENTS ROOMS

## DESIGN APPROACH

LIGHT HAZARD AREAS: SPRINKLER SYSTEM SHALL BE ATTACHED AND SUPPLIED FROM MAIN SERVICE RISER AS INDICATED ON DRAWINGS. SYSTEM SHALL BE EXTENDED INTO ALL PROTECT AREAS IN ACCORDANCE WITH NFPA-13. U.L. LIGHT HAZARD LISTED AND APPROVED PENDENT AND UPRIGHT QUICK-RESPONSE STANDARD COVERAGE SPRINKLER HEADS SHALL BE PROVIDE. HEADS SHALL BE RATED AT 155°F. HYDRAULIC CALCULATION SHALL BE PERFORMED IN ACCORDANCE WITH NFPA-13, SECTION 7-2.3.3 AND IN STRICT ACCORDANCE WITH SPRINKLER HEAD LISTING. REMOTE AREA SHALL BE A MINIMUM OF 1,500 SQ. FT. DENSITY SHALL BE 0.10 GPM PER SQ. FT. MAXIMUM SPACING OF SPRINKLER HEADS SHALL NOT EXCEED MANUFACTURE'S LIGHT HAZARD SPECIFICATIONS.

ORDINARY HAZARD AREAS: SPRINKLER SYSTEM SHALL BE ATTACHED AND SUPPLIED FROM MAIN SERVICE RISER AS INDICATED ON DRAWINGS. SYSTEM SHALL BE EXTENDED INTO ALL PROTECT AREAS IN ACCORDANCE WITH NFPA-13. U.L. LIGHT HAZARD LISTED AND APPROVED PENDENT AND UPRIGHT QUICK-RESPONSE STANDARD COVERAGE SPRINKLER HEADS SHALL BE PROVIDE. HEADS SHALL BE RATED AT 155°F. HYDRAULIC CALCULATION SHALL BE PERFORMED IN ACCORDANCE WITH NFPA-13, SECTION 7-2.3.3 AND IN STRICT ACCORDANCE WITH SPRINKLER HEAD LISTING. REMOTE AREA SHALL BE A MINIMUM OF 1,500 SQ. FT. DENSITY SHALL BE 0.15 GPM PER SQ. FT. MAXIMUM SPACING OF SPRINKLER HEADS SHALL NOT EXCEED 130 SF.

## FIRE PROTECTION LEGEND

|               |    | EXISTING SPRINKLER PIPE                 |
|---------------|----|---|
|               |    | NEW SPRINKLER PIPE                      |
| •             |    | NEW SEMI-RECESSED SPRINKLER HEAD        |
| 0             |    | NEW UPRITHT SPRINKLER HEAD              |
| 0             |    | EXISTING SPRINKLER HEAD<br>TO REMAIN    |
| ×             |    | EXISTING SPRINKLER HEAD<br>TO BE REMOVE |
|               |    |   |
|               | DN | PIPE DOWN                               |
| <del></del> ə | DP | PIPE DROP                               |

## FIRE SPRINKLER HEAD SCHEDULE

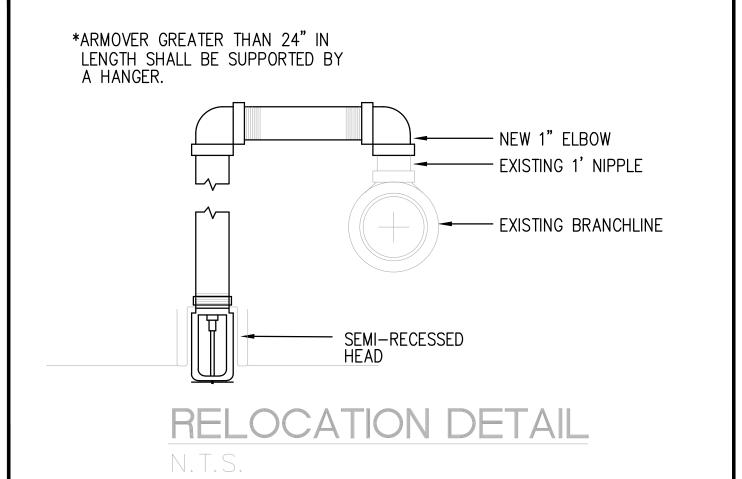
| SYM. | TYPE              | ORIFICE<br>SIZE | TEMP<br>RATING | FACTOR | COVERAGE<br>AREA (WxL) | MODEL              |
|------|-------------------|-----------------|----------------|--------|------------------------|--------------------|
| •    | SEMI-<br>RECESSED | 1/2"            | 165° F         | 5.6    | 15'×15'                | TYCO SERIES TY3III |

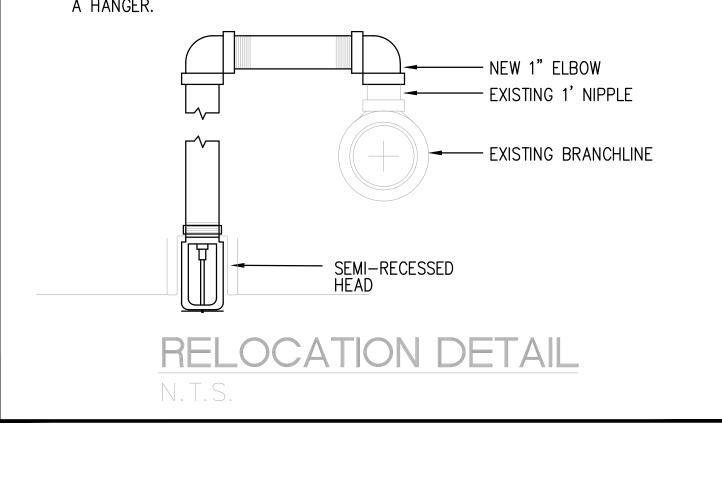
## FIRE PROTECTION NOTES

- THE FIRE PROTECTION SYSTEM INSTALLATION AND MATERIALS SHALL BE IN COMPLIANCE WITH THE FLORIDA BUILDING CODE, NFPA 13 (2007) AND NFPA 24 REQUIREMENTS.
- SPRINKLER SYSTEM TO BE INSTALLED BY A STATE CERTIFIED FIRE PROTECTION CONTRACTOR.
- CONTRACTOR SHALL COORDINATE WITH STRUCTURE, CEILING GRID AND ELEVATION. AND OTHER MECHANICAL AND ELECTRICAL SERVICES BEFORE FABRICATING AND INSTALLING SPRINKLER PIPING. MAKE OFFSETS IN PIPING AS REQUIRED PER FIELD CONDITIONS.
  MAINTAIN 6" CLEARANCE BETWEEN PIPING AND 1 AND 2 HOUR RATED WALLS INCLUDING CORRIDOR WALLS.
- SPRINKLER HEADS SHALL BE U.L. LISTED AS INDICATED IN SCHEDULE RATED FOR 175 PSI WORKING PRESSURE, AND PROVIDED IN ACCORDANCE WITH SCHEDULE SHOWN ON THIS SHEET PROVIDE HEAD GUARDS ON UPRIGHT AND PENDENT SPRINKLER HEADS LOCATED IN MECHANICAL ROOMS AND ELECTRICAL ROOMS.
- ABOVE GROUND PIPING SHALL BE ALLIED "XL" THREADABLE U.L. LISTED 1" THRU 3" AND/OR SCHEDULE 10 BLACK STEEL PIPING 2" AND UP IN SIZE DRAIN RISER SHALL BE ALLIED "XL". STEEL PIPING EXPOSED TO WEATHER, SHALL BE SCHEDULE 40 ASTM A53 GALVANIZED. PROVIDE U.L. LISTED CLASS 125 CAST IRON THREADED FITTINGS, AND/OR U.L. LISTED GROOVED MECHANICAL PIPE FITTINGS FOR SIZE UP TO 2". ALL STEEL PIPE FITTINGS 2 1/2" AND LARGER SHALL BE U.L. LISTED GROOVED MECHANICAL PIPE FITTINGS. ALL GROOVED END 90° ELBOWS SHALL BE LONG RADIUS. CONTRACTOR TO MAKE ALL NECESSARY OFFSETS PER JOB CONDITION AND INSTALL PIPING TIGHT TO STRUCTURE WHERE POSSIBLE. PIPING MATERIAL SHALL BE LISTED FOR 175 PSI WWP. ALL MATERIALS SHALL BE OF DOMESTIC MANUFACTURER AND U.L. LISTED. ALL FITTINGS SHALL BE PROVIDED BY THE SAME MANUFACTURER.
- SPRINKLER HEADS SHALL BE A MINIMUM OF 18" ABOVE ANY FLOOR OBSTRUCTION, SHELVES OR CABINETS.
- PRESSURE TEST ABOVE GROUND PIPING HYDROSTATICALLY AT 200 PSIG FOR 2 HOURS IN ACCORDANCE WITH NFPA-13. FLUSH OUT ALL PIPING IN ACCORDANCE WITH NFPA-13. PROVIDE TYPED AND COMPLETED NFPA-13 TEST CERTIFICATE FOR ABOVEGROUND AND UNDERGROUND PIPING.
- CONTRACTOR SHALL INSTALL SPRINKLERS UNDER DUCTS & OTHER OBSTRUCTIONS OVER 4 FFET IN WIDTH, INSTALL IN EQUIPMENT ROOMS WITH CEILINGS.
- CONTRACTOR SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS TO THE CITY AND ENGINEER FOR APPROVAL, WITHIN 30 DAYS OF SIGNING CONTRACT, A MINIMUM OF 5 COPPIES OF FULLY DESCRIPTIVE, LITERATURE, INCLUDING BUT NOT LIMITED TO: SPRINKLER PIPING, AND SPRINKLER HEADS. NO WORK SHALL PROCEED WITHOUT THE APPROVAL OF THESE SUBMITTALS.

ORRIDOR

CONTRACTOR TO PROVIDE 1" ARM OVER FROM EACH SPRINKLER TO NEW HEAD. MAXIMUM OF 2 NEW SPRINKLER HEADS ON CAN BE CONNECT TO EXISTING 1" LINE. CONTRACTOR TO RISE EXISTING SPRINKLER LINE AS REQUIRED TO COORDINATE WITH NEW CEILING HEIGHT.





4 A

1/4" = 1'-0"

EXISTING CORRIDOR

FIRE PROTECTION PLAN



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CITY OF WEST PALM BEACH **FLORIDA** 

O & M COMPLEX BLDG #2 **RESTROOMS RENOVATIONS** 

1045 CHARLOTTE AVE. WEST PALM BEACH, FL 33401

PERMIT COMMENTS

S+A Project No: 15031

100% CONSTRUCTION

Sheet Title :

FIRE PROTECTION PLAN