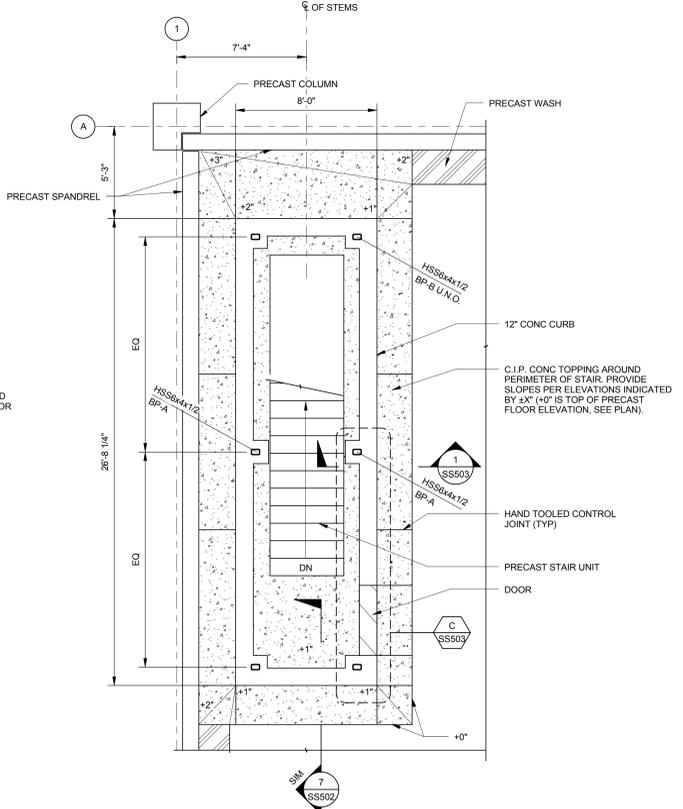
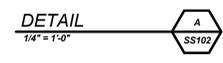
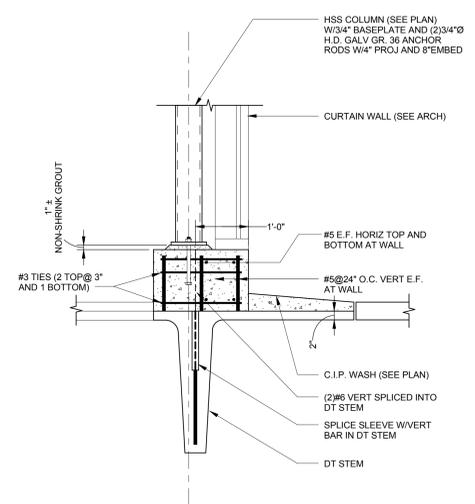


TYP STAIR 2 PLAN

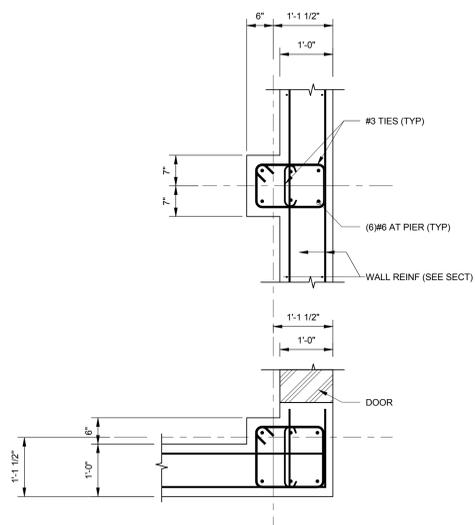
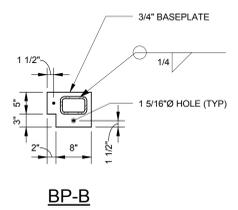
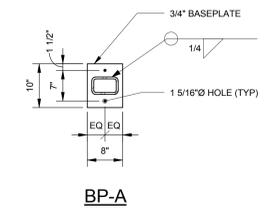


LEVEL 5 STAIR 2 PLAN

NOTES:  
1. SEE BP DETAILS THIS SHEET.



SECTION  
1  
3/4" x 1'-0"



DETAIL  
C  
3/4" x 1'-0"

three inches = one foot  
one and one half inches = one foot  
one inch = one foot  
three quarters inch = one foot  
one half inch = one foot  
three eighths inch = one foot  
one quarter inch = one foot  
one eighth inch = one foot

100% BID DOCUMENTS

|                    |  |  |   |  |   |  |                    |                |              |         |  |
|--------------------|--|--|---|--|---|--|--------------------|----------------|--------------|---------|--|
| Revisions:<br>Date | CONSULTANTS:<br><br>SPECIFICATIONS:<br>Lowell Specifications<br>34 Marc Avenue<br>Topsham, ME 04802<br>Tel: (207) 406-4001<br>Email: keith@lowellspecs.com | ARCHITECT/ENGINEERS:<br><br> ARCHITECTURE<br>INTERIOR DESIGN<br>PLANNING<br>49 DARTMOUTH STREET<br>PORTLAND, ME 04101<br>207-775-1059<br>www.pdtarchs.com |   482 Payne Road<br>Scarborough, ME 04074<br>Tel: (207) 883-3355<br>Fax: (207) 883-3376 | Drawing Title<br>STRUCTURAL - FRAMING SECTIONS<br><br>Approved: Project Director | Project Title<br>WEST ROXBURY GARAGE<br>Location<br>VAMC - West Roxbury, MA 02132 | Project Number<br>523-400<br>Building Number<br>?<br>Drawing Number<br>SS503 | Date<br>03/31/2016 | Checked<br>CGW | Drawn<br>MSK | Dwg: 49 | Office of<br>Facilities<br>Management<br><br> Department of<br>Veterans Affairs |
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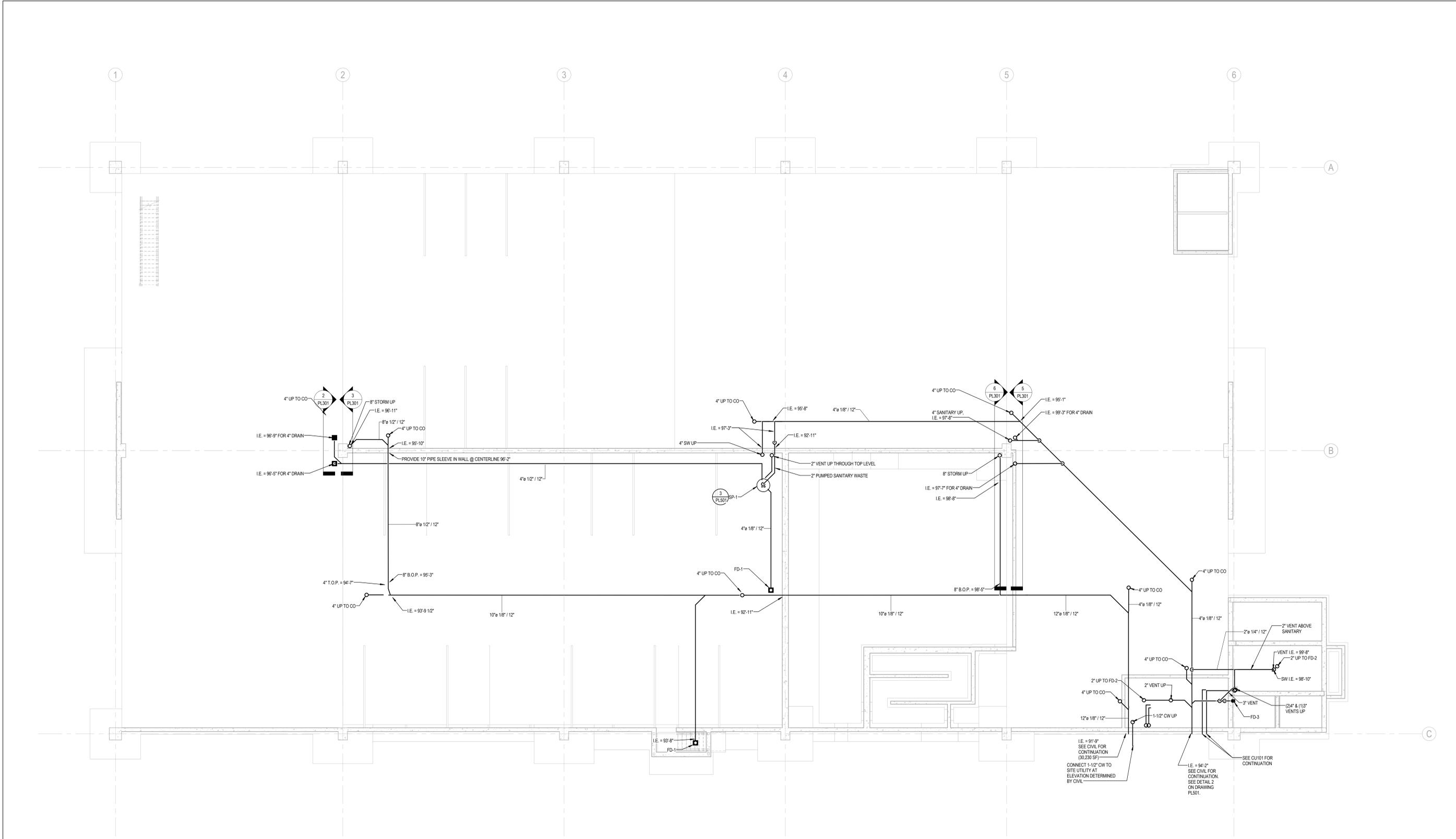
three inches = one foot  
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| GENERAL PLUMBING NOTES   |  | GENERAL ABBREVIATIONS   |  | GENERAL SYMBOLS  |  | PIPING SYMBOLS   |  |  | PLUMBING ALTERNATE LIST  |  |
|--|--|---|--|--|--|--|--|--|--|--|
| <p>1. PLUMBING GENERAL NOTES, SYMBOLS, LISTS AND DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL PLUMBING DRAWINGS FOR THIS PROJECT.</p> <p>2. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND EXACT LOCATIONS AND ARRANGEMENTS OF EXISTING NEW EQUIPMENT, DUCTWORK, PIPING AND OTHER COMPONENTS SHALL BE DETERMINED IN THE FIELD WITH DUE CONSIDERATION OF STRUCTURAL, ELECTRICAL AND ARCHITECTURAL SYSTEMS. EXISTING STRUCTURAL SYSTEMS SHALL NOT BE MODIFIED WITHOUT THE EXPRESS PERMISSION OF THE ENGINEER.</p> <p>3. THE PROJECT SHALL BE PHASED IN ACCORDANCE WITH THE APPROVED PHASING PLAN. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE PROJECT ENGINEER FOR THE SEQUENCING AND TIMING OF OPERATIONS PRIOR TO COMMENCING WORK. SEE SPECIFICATIONS.</p> <p>4. CONTRACTOR IS TO MAINTAIN SERVICE TO ROOMS OUTSIDE THE PROJECT SCOPE OF WORK AND PHASING SCHEDULE. IF INTERRUPTION OF SERVICE IS REQUIRED COORDINATE SHUTDOWN WITH PROJECT ENGINEER.</p> <p>5. CARE SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SYSTEMS AND SURFACES TO REMAIN. RESTORE DAMAGED AREAS THAT ARE BEYOND THE SCOPE OF THIS CONTRACT TO THEIR ORIGINAL CONDITION.</p> <p>6. MOST PARTITIONS ARE FULL HEIGHT AND REQUIRE UTILITIES PENETRATIONS TO BE SEALED. SEE ARCHITECTURAL DWGS FOR PARTITION HEIGHTS.</p> <p>7. TIE-IN POINT LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL DETERMINE EXACT LOCATIONS IN THE FIELD BASED ON EXISTING CONDITIONS.</p> <p>8. COORDINATE THE LOCATIONS OF ALL WALL MOUNTED EQUIPMENT WITH FINAL EQUIPMENT/FURNITURE LAYOUT.</p> <p>9. AT THE END OF EACH WORKING DAY, THE CONSTRUCTION SITE SHALL BE LEFT IN A CLEAN AND NEAT CONDITION.</p> <p>10. INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND GOOD PRACTICE NORMAL TO THE TRADE. INSTALLATION SHALL INCLUDE PROVISIONS FOR ACCESS TO NORMAL MAINTENANCE ITEMS.</p> <p>11. PROVIDE ADEQUATE STRUCTURAL SUPPORTS AND SECURE MOUNTING METHODS WITH PROVISIONS FOR VIBRATION ISOLATION AND EXPANSION WHERE REQUIRED.</p> <p>12. COORDINATE PENETRATIONS WITH GENERAL CONTRACTOR. SEE ARCHITECTURAL DRAWINGS FOR PENETRATION DETAILS. PLUMBING CONTRACTOR SHALL PROVIDE FLASHING AND COUNTER FLASHING FOR ROOF PENETRATIONS AS REQUIRED.</p> <p>13. PROVIDE PIPE SUPPORTS, GUIDES AND OFFSETS AS NECESSARY TO PREVENT UNDUE STRAIN ON PIPING.</p> <p>14. SEE DETAILS AND PIPING DIAGRAMS FOR ADDITIONAL VALVES AND FITTINGS NECESSARY FOR COMPLETE PIPING SYSTEMS.</p> <p>15. SEE SPECIFICATIONS FOR OTHER REQUIREMENTS.</p> <p>16. FIELD VERIFY CLEARANCES AND DIMENSIONS PRIOR TO INSTALLATION.</p> <p>17. SANITARY LINES 3" AND SMALLER SHALL SLOPE 1/4" PER FOOT UNLESS OTHERWISE NOTED. SANITARY LINES LARGER THAN 3" SHALL SLOPE 1/8" PER FOOT UNLESS OTHERWISE NOTED.</p> |  | <p>AD DUCT ACCESS DOOR<br/>                 AFF ABOVE FINISHED FLOOR<br/>                 AP ACCESS PANEL<br/>                 ARCH ARCHITECT<br/>                 AS AIR SEPARATOR<br/>                 B.O.P. BOTTOM OF PIPE<br/>                 BS BELOW SLAB (TYPE "K" COPPER)<br/>                 BTU BRITISH THERMAL UNIT<br/>                 BTUH BRITISH THERMAL UNIT PER HOUR<br/>                 C&amp;HW COLD &amp; HOT WATER<br/>                 CO CLEAN OUT<br/>                 CONN CONNECT<br/>                 CONTR CONTRACTOR<br/>                 CW COLD WATER<br/>                 DIA DIAMETER<br/>                 DN DOWN<br/>                 D DRAIN<br/>                 DWG OR DWGS DRAWING(S)<br/>                 E, EX OR (E) EXISTING<br/>                 EA EACH<br/>                 EC ELECTRICAL CONTRACTOR<br/>                 FC FLEXIBLE CONNECTION<br/>                 FCO FLOOR CLEAN OUT<br/>                 FD FLOOR DRAIN<br/>                 FDTF FLOOR DRAIN W/ TRAP PRIMER<br/>                 FPHB FREEZE PROOF HOSE BIBB<br/>                 FPM FEET PER MINUTE<br/>                 FT FEET<br/>                 GAL GALLONS<br/>                 GC GENERAL CONTRACTOR<br/>                 GPM GALLONS PER MINUTE<br/>                 GV GATE VALVE<br/>                 H HEIGHT<br/>                 HP HORSE POWER<br/>                 HW HOT WATER<br/>                 HWR HOT WATER RECIRCULATION<br/>                 I.P.C. INTERNATIONAL PLUMBING CODE<br/>                 ID INSIDE DIAMETER<br/>                 IN INCHES<br/>                 KW KILOWATTS<br/>                 MBH THOUSANDS OF B.T.U.'S PER HOUR<br/>                 MECH MECHANICAL<br/>                 MTD MOUNTED<br/>                 N.C. OR NC NORMALLY CLOSED<br/>                 N.O. OR NO NORMALLY OPEN<br/>                 NIC NOT IN CONTRACT<br/>                 NPW NON-PORTABLE WATER<br/>                 NTS NOT TO SCALE<br/>                 OD OUTSIDE DIAMETER<br/>                 PC PLUMBING CONTRACTOR<br/>                 PD PRESSURE DROP<br/>                 PSI POUNDS PER SQUARE INCH<br/>                 RD ROOF DRAIN<br/>                 RM ROOM<br/>                 RV RELIEF VALVE<br/>                 RVL RAIN WATER LEADER<br/>                 S SANITARY<br/>                 SD SANITARY DRAIN<br/>                 SF SQUARE FEET<br/>                 SP STATIC PRESSURE<br/>                 SS STAINLESS STEEL<br/>                 SW SANITARY WASTE<br/>                 T.O.P. TOP OF PIPE<br/>                 TYP TYPICAL<br/>                 V VENT<br/>                 VB VACUUM BREAKER<br/>                 VTR VENT THROUGH ROOF<br/>                 W WASTE<br/>                 WI WITH<br/>                 WCO WALL CLEANOUT</p> |  | <p>RH-1 EQUIPMENT DESIGNATION<br/>                 KEYNOTE CALL OUT<br/>                 12"Ø 1/8"12" PIPE SIZE (DIAMETER) AND SLOPE<br/>                 # REVISION TAG<br/>                 REVISION CLOUD</p> |  | <p>HWR NEW PIPING<br/>                 CW HOT WATER RECIRCULATION PIPING<br/>                 HW COLD WATER PIPING<br/>                 V VENT PIPING<br/>                 PIPING BELOW FLOOR/UNDER SLAB<br/>                 PIPE DROP<br/>                 PIPE RISER<br/>                 PIPE TEES - DOWN<br/>                 PIPE TEES - UP<br/>                 PIPE CONNECTION<br/>                 PIPE BREAK - TO CONTINUE<br/>                 DIRECTION OF FLOW<br/>                 WATER METER<br/>                 PIPE SLOPE<br/>                 P-TRAP<br/>                 ANCHOR PIPE ANCHOR<br/>                 PIPE CAP<br/>                 GUIDE WATER GUIDE<br/>                 WATER HAMMER ARRESTOR<br/>                 U UNION<br/>                 BLV BALL VALVE<br/>                 GV GATE VALVE<br/>                 GLV GLOBE VALVE<br/>                 T THERMOMETER<br/>                 FLG FLANGE<br/>                 STRAINER W/DRAIN VALVE AND CAP<br/>                 DRAIN VALVE AND CAP<br/>                 CONCENTRIC REDUCER (ENLARGER)<br/>                 FD FLOOR DRAIN<br/>                 FCO FLOOR CLEAN OUT<br/>                 WH WALL HYDRANT</p> |  |  | <p>NOTE:<br/>                 REFER TO ARCHITECTURAL DOCUMENTS FOR DEDUCT ALTERNATE ITEMS.</p> |  |
|  |  |   |  |  |  |  |  |  | <p>NUMBER TITLE</p>  |  |

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|---|--|---|--|--|--|---|--|--|--|---|--|---|--|---|--|
| <p>CONSULTANTS:</p> <p>SPECIFICATIONS:</p> <p>Lowell Specifications<br/>                 34 Marc Avenue<br/>                 Topsham, ME 04802<br/>                 Tel: (207) 406-4001<br/>                 Email: keith@lowellspecs.com</p> |  | <p>ARCHITECT/ENGINEERS:</p>  <p>CHRISTOPHER M. FRY<br/>                 P.E.<br/>                 MECHANICAL<br/>                 No. 48789<br/>                 REGISTERED PROFESSIONAL ENGINEER<br/>                 5/23/2016</p> <p>ARCHITECTURE<br/>                 INTERIOR DESIGN<br/>                 PLANNING</p> <p>49 DARTMOUTH STREET<br/>                 PORTLAND, ME 04101<br/>                 207-775-1059<br/>                 www.pdtarchs.com</p> |  |  <p>482 Payne Road<br/>                 Scarborough, ME 04074<br/>                 Tel: (207) 883-3355<br/>                 Fax: (207) 883-3376</p> |  |  <p>75 York Street, Portland, Maine 04101<br/>                 207.879.1838 ■ beckerstructural.com</p> |  | <p>Drawing Title<br/>                 PLUMBING - LEGEND AND GENERAL NOTES</p> <p>Approved: Project Director<br/>                 Denis McLaughlin<br/>                 Telephone: 857-364-5149</p> |  | <p>Project Title<br/>                 WEST ROXBURY GARAGE</p> <p>Location<br/>                 VAMC - West Roxbury, MA 02132</p> <p>Date<br/>                 6/15/2015</p> <p>Checked<br/>                 DCL</p> <p>Drawn<br/>                 DJA</p> |  | <p>Project Number<br/>                 523-400</p> <p>Building Number</p> <p>Drawing Number<br/>                 PL001</p> <p>Dwg: 50 of 99</p> |  | <p>Office of<br/>                 Facilities<br/>                 Management</p>  <p>Department of<br/>                 Veterans Affairs</p> |  |
|---|--|---|--|--|--|---|--|--|--|---|--|---|--|---|--|

A  
three inches = one foot  
B  
one and one half inches = one foot  
C  
one inch = one foot  
D  
three quarters inch = one foot  
E  
one half inch = one foot  
F  
three eighths inch = one foot  
G  
one quarter inch = one foot  
H  
one eighth inch = one foot



1 PLUMBING PLAN - UNDERSLAB  
1/8" = 1'-0"

100% BID DOCUMENTS



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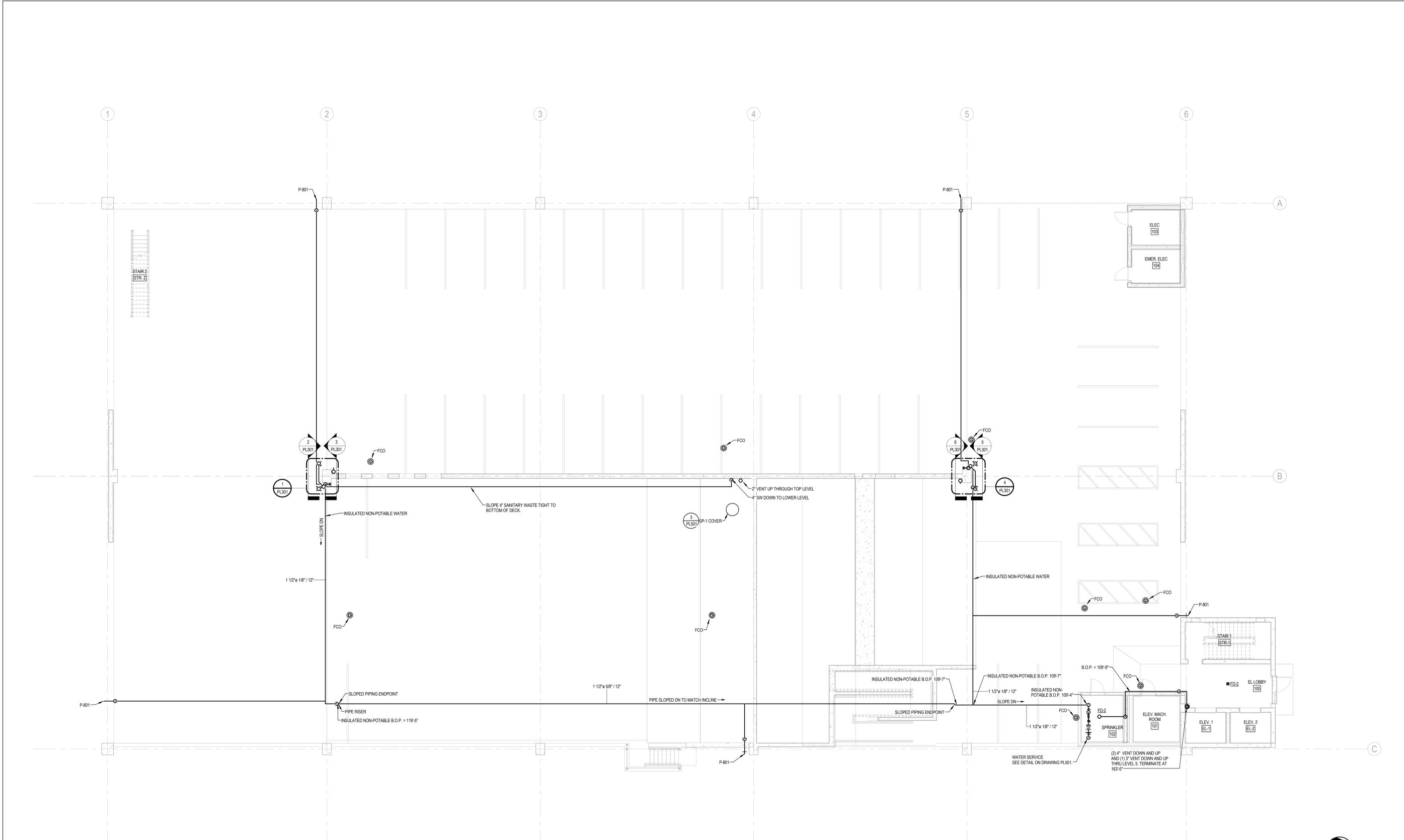


Drawing Title  
**PLUMBING - PLAN - UNDERSLAB**  
Approved: Project Director  
Denis McLaughlin  
Telephone: 857-364-5149

|  |  |                                  |
|--|--|----------------------------------|
| Project Title<br><b>WEST ROXBURY GARAGE</b>      |  | Project Number<br><b>523-400</b> |
| Location<br><b>VAMC - West Roxbury, MA 02132</b> |  | Building Number                  |
| Date<br><b>6/15/2015</b>                         |  | Checked<br><b>DCL</b>            |
| Drawn<br><b>DJA</b>                              |  | Drawing Number<br><b>PL100</b>   |
|  |  | Dwg: 51 of 99                    |



A  
three inches = one foot  
B  
one and one half inches = one foot  
C  
one inch = one foot  
D  
three quarters inch = one foot  
E  
one half inch = one foot  
F  
three eighths inch = one foot  
G  
one quarter inch = one foot  
H  
one eighth inch = one foot  
I  
one sixteenth inch = one foot



1 PLUMBING PLAN - LEVEL 1  
1/8" = 1'-0"

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| Revisions: | Date |
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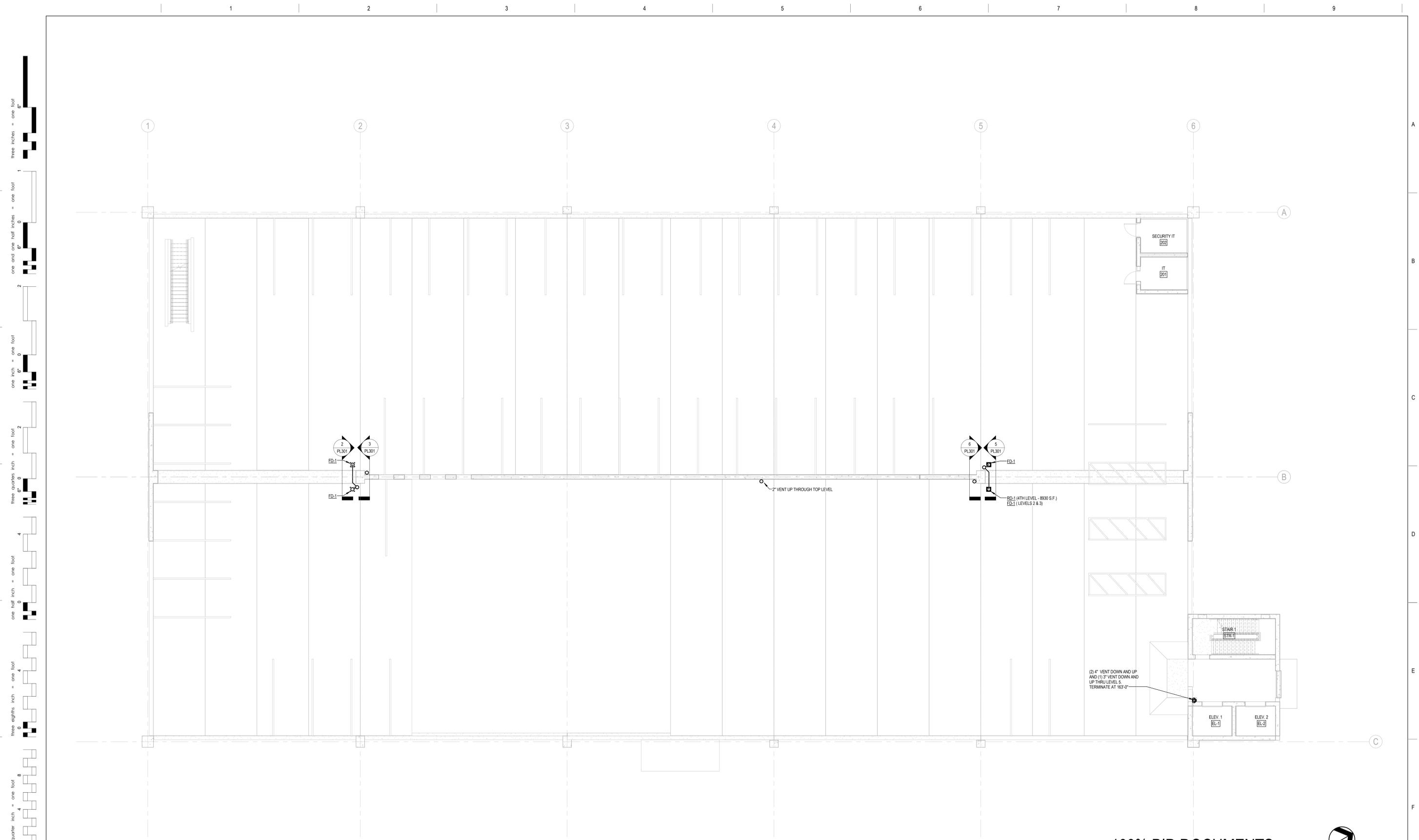
**ARCHITECT/ENGINEERS:**  
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Fax: (207) 883-3376  
75 York Street, Portland, Maine 04101  
207.879.1838 • beckerstructural.com

Drawing Title  
**PLUMBING - PLAN - LEVEL 1**  
Approved: Project Director  
Denis McLaughlin  
Telephone: 857-364-5149

|   |                |                           |
|---|----------------|---------------------------|
| Project Title<br><b>WEST ROXBURY GARAGE</b> |                | Project Number<br>523-400 |
| Location<br>VAMC - West Roxbury, MA 02132   |                | Building Number           |
| Date<br>6/15/2015                           | Checked<br>DCL | Drawn<br>DJA              |
| Drawing Number<br><b>PL101</b>              |                | Dwg: 52 of 99             |

Office of  
Facilities  
Management  
Department of  
Veterans Affairs



1 LEVELS 2-4 PLUMBING PLAN  
1/8" = 1'-0"

100% BID DOCUMENTS



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 one half inch = one foot  
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 one quarter inch = one foot  
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| Revisions: | Date |
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Drawing Title  
**PLUMBING - PLAN - LEVEL 2-4**

Approved: Project Director  
Denis McLaughlin  
Telephone: 857-364-5149

Project Title  
**WEST ROXBURY GARAGE**

Location  
VAMC - West Roxbury, MA 02132

Project Number  
523-400

Building Number

Drawing Number  
**PL102**

Date  
6/15/2015

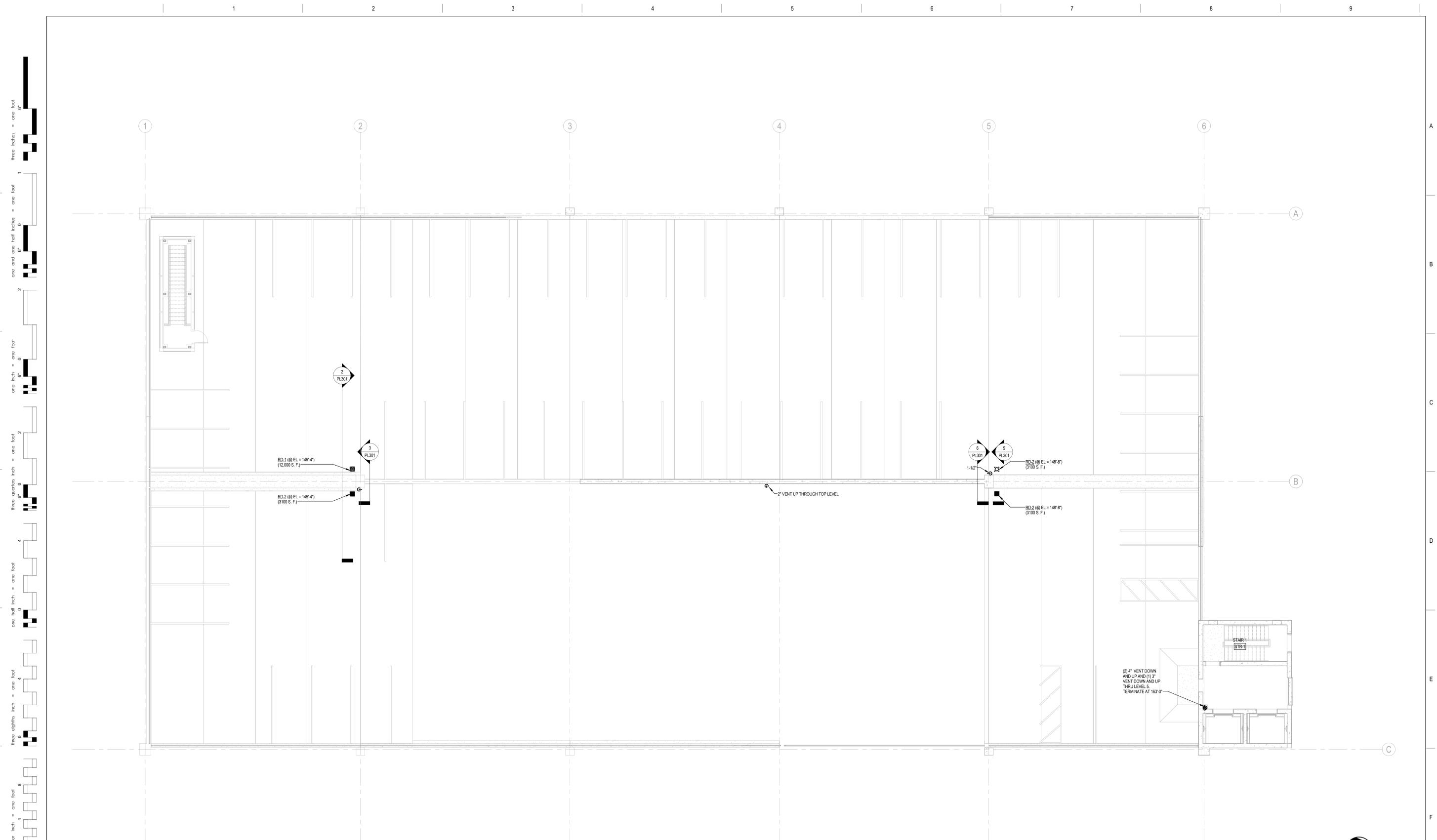
Checked  
DCL

Drawn  
DJA

Dwg: 53 of 99

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Facilities  
Management

Department of  
Veterans Affairs



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 one inch = one foot  
 three quarters inch = one foot  
 one half inch = one foot  
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 one quarter inch = one foot  
 one eighth inch = one foot

① LEVEL 5 PLUMBING PLAN  
1/8" = 1'-0"

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| Revisions: | Date |
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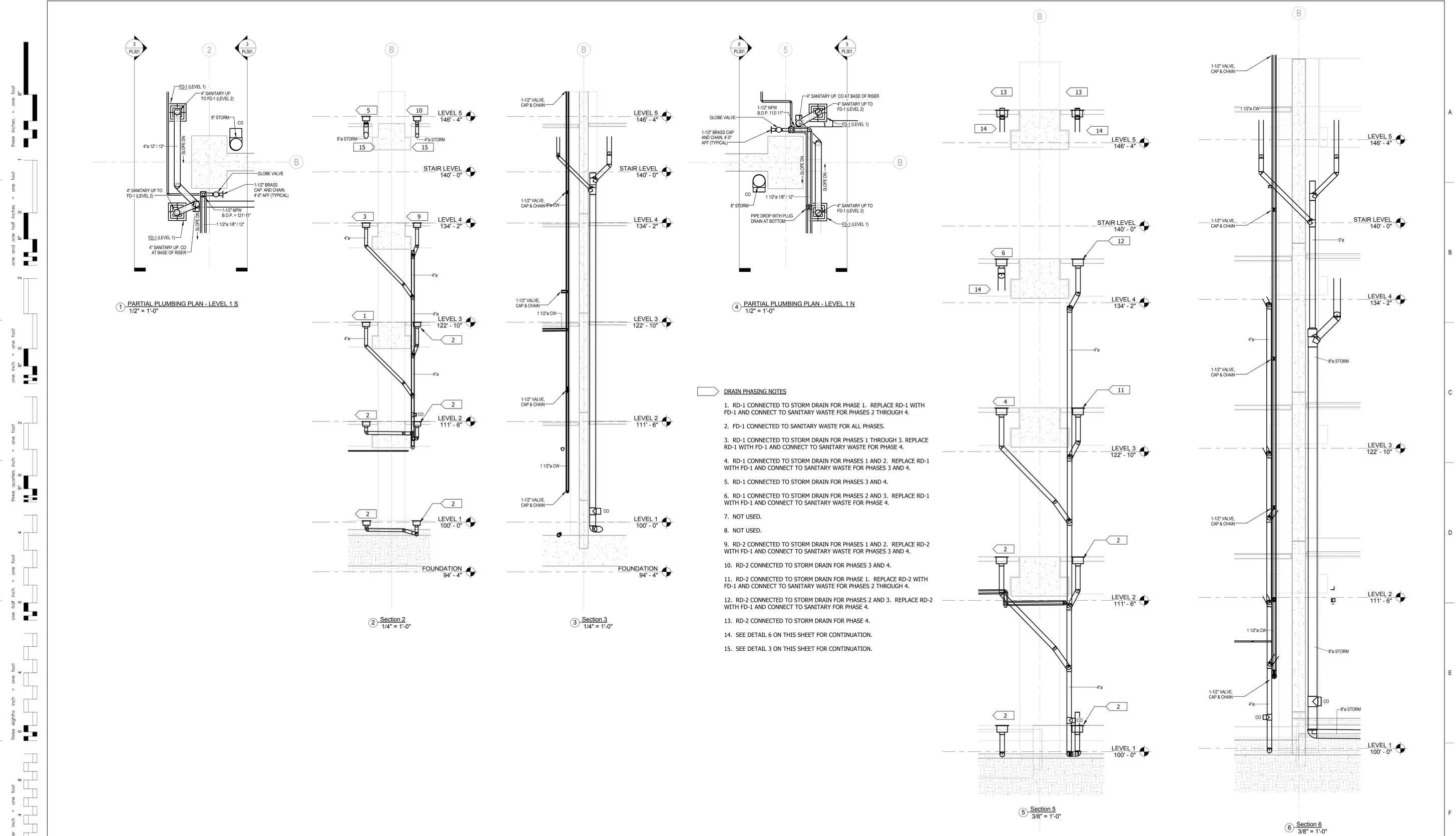
Drawing Title  
**PLUMBING - PLAN - LEVEL 5**

Approved: Project Director  
Denis McLaughlin  
Telephone: 857-364-5149

|   |                |                           |
|---|----------------|---------------------------|
| Project Title<br><b>WEST ROXBURY GARAGE</b> |                | Project Number<br>523-400 |
| Location<br>VAMC - West Roxbury, MA 02132   |                | Building Number           |
| Date<br>6/15/2015                           | Checked<br>DCL | Drawn<br>DJA              |
| Drawing Number<br><b>PL103</b>              |                | Dwg: 54 of 99             |

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Facilities  
Management

Department of  
Veterans Affairs



- DRAIN PHASING NOTES**
- RD-1 CONNECTED TO STORM DRAIN FOR PHASE 1. REPLACE RD-1 WITH FD-1 AND CONNECT TO SANITARY WASTE FOR PHASES 2 THROUGH 4.
  - FD-1 CONNECTED TO SANITARY WASTE FOR ALL PHASES.
  - RD-1 CONNECTED TO STORM DRAIN FOR PHASES 1 THROUGH 3. REPLACE RD-1 WITH FD-1 AND CONNECT TO SANITARY WASTE FOR PHASE 4.
  - RD-1 CONNECTED TO STORM DRAIN FOR PHASES 1 AND 2. REPLACE RD-1 WITH FD-1 AND CONNECT TO SANITARY WASTE FOR PHASES 3 AND 4.
  - RD-1 CONNECTED TO STORM DRAIN FOR PHASES 3 AND 4.
  - RD-1 CONNECTED TO STORM DRAIN FOR PHASES 2 AND 3. REPLACE RD-1 WITH FD-1 AND CONNECT TO SANITARY WASTE FOR PHASE 4.
  - NOT USED.
  - NOT USED.
  - RD-2 CONNECTED TO STORM DRAIN FOR PHASES 1 AND 2. REPLACE RD-2 WITH FD-1 AND CONNECT TO SANITARY WASTE FOR PHASES 3 AND 4.
  - RD-2 CONNECTED TO STORM DRAIN FOR PHASES 3 AND 4.
  - RD-2 CONNECTED TO STORM DRAIN FOR PHASE 1. REPLACE RD-2 WITH FD-1 AND CONNECT TO SANITARY WASTE FOR PHASES 2 THROUGH 4.
  - RD-2 CONNECTED TO STORM DRAIN FOR PHASES 2 AND 3. REPLACE RD-2 WITH FD-1 AND CONNECT TO SANITARY WASTE FOR PHASE 4.
  - RD-2 CONNECTED TO STORM DRAIN FOR PHASE 4.
  - SEE DETAIL 6 ON THIS SHEET FOR CONTINUATION.
  - SEE DETAIL 3 ON THIS SHEET FOR CONTINUATION.

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 one quarter inch = one foot  
 three eighths inch = one foot  
 one eighth inch = one foot  
 one sixteenth inch = one foot

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 207-775-1059  
 www.pdtarchs.com



Drawing Title  
**PLUMBING - ENLARGED PLANS AND SECTIONS**  
 Approved: Project Director  
 Denis McLaughlin  
 Telephone: 857-364-5149

Project Title  
**WEST ROXBURY GARAGE**  
 Location  
 VAMC - West Roxbury, MA 02132  
 Project Number  
 523-400  
 Building Number  
 Drawing Number  
**PL301**  
 Date  
 6/15/2015  
 Checked  
 DCL  
 Drawn  
 DJA  
 Dwg: 55 of 99



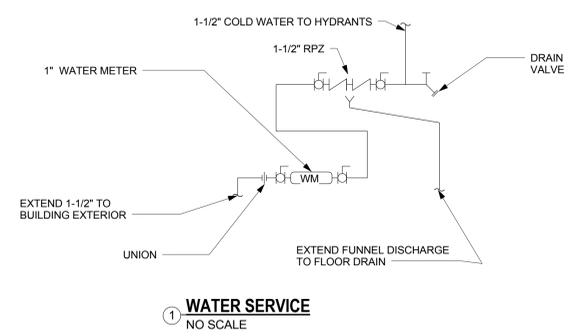
**FLOOR DRAIN SCHEDULE**

| PLAN TAG | TYPE  | DRAIN TYPE       | CONNECTIONS (INCHES) |      |       | REMARKS                    |
|----------|-------|------------------|----------------------|------|-------|----------------------------|
|          |       |                  | WASTE                | TRAP | VENT  |                            |
| RD-1     | FD-Y  | RAMP STORM DRAIN | 6                    | -    | -     | 12" SQUARE STRAINER        |
| RD-2     | FD-Y  | RAMP STORM DRAIN | 4                    | -    | -     | 12" SQUARE STRAINER        |
| FD-1     | FD-Y  | FLOOR DRAIN      | 4                    | -    | -     | GARAGE AREA, STAIRWAY      |
| FD-2     | FD-C  | FLOOR DRAIN      | 2                    | 2    | 1-1/2 |                            |
| FD-3     | 5"x7" | ELEV. PIT DRAIN  | 3                    | 3    | 3     | JOSAM MODEL 85223 OR EQUAL |

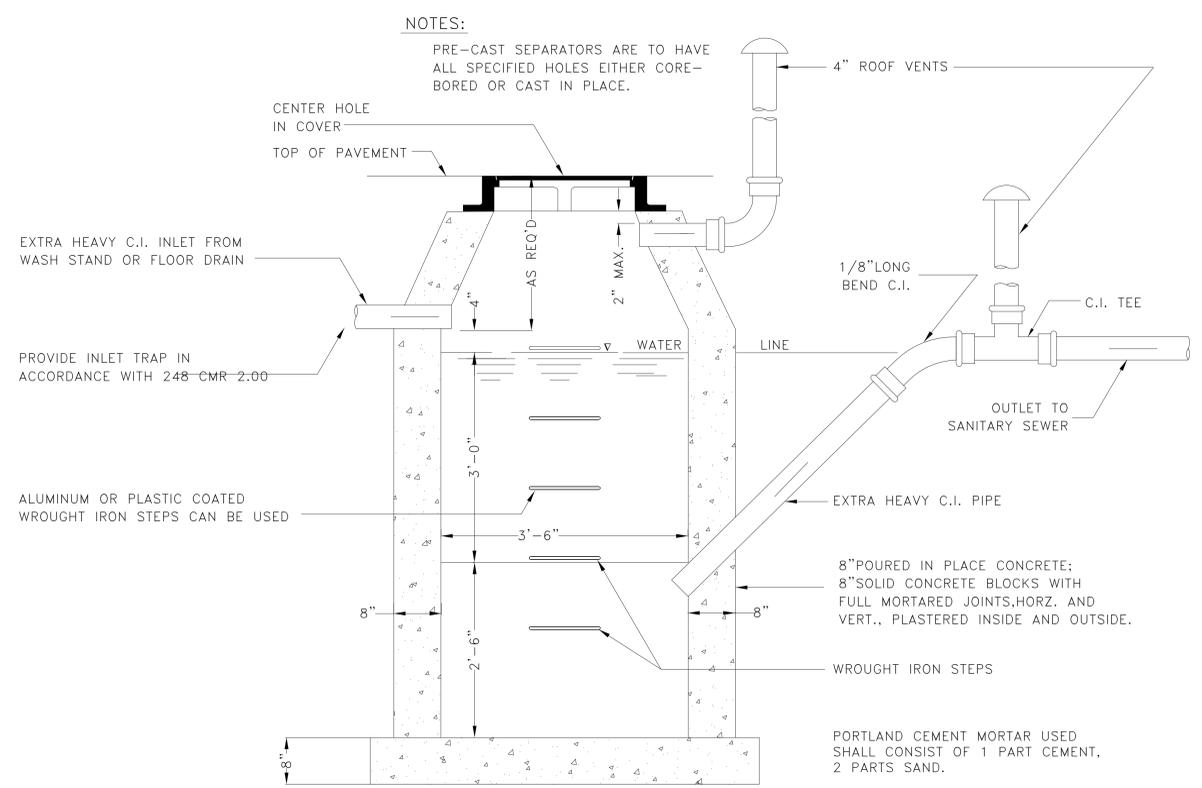
**SUMP PUMP SCHEDULE**

| PLAN TAG | AREA SERVED       | H.P. | VOLTS/HZ | RUNNING AMPS | DISCHARGE (FNPT) | PERFORMANCE GPM AT INDICATED HEAD |       |       | SHUTOFF HEAD | REMARKS |
|----------|-------------------|------|----------|--------------|------------------|-----------------------------------|-------|-------|--------------|---------|
|          |                   |      |          |              |                  | 5 FT                              | 10 FT | 15 FT |              |         |
| SP-1     | PARKING AREA SUMP | 3/10 | 115/60   | 9.7          | 1-1/2"           | 43                                | 34    | 19    | 19.25'       | 1       |

REMARKS:  
1. PROVIDE WITH SIMPLEX PUMP CONTROL PANEL, FLOATS AND AUDIBLE ALARM.



**1 WATER SERVICE**  
NO SCALE

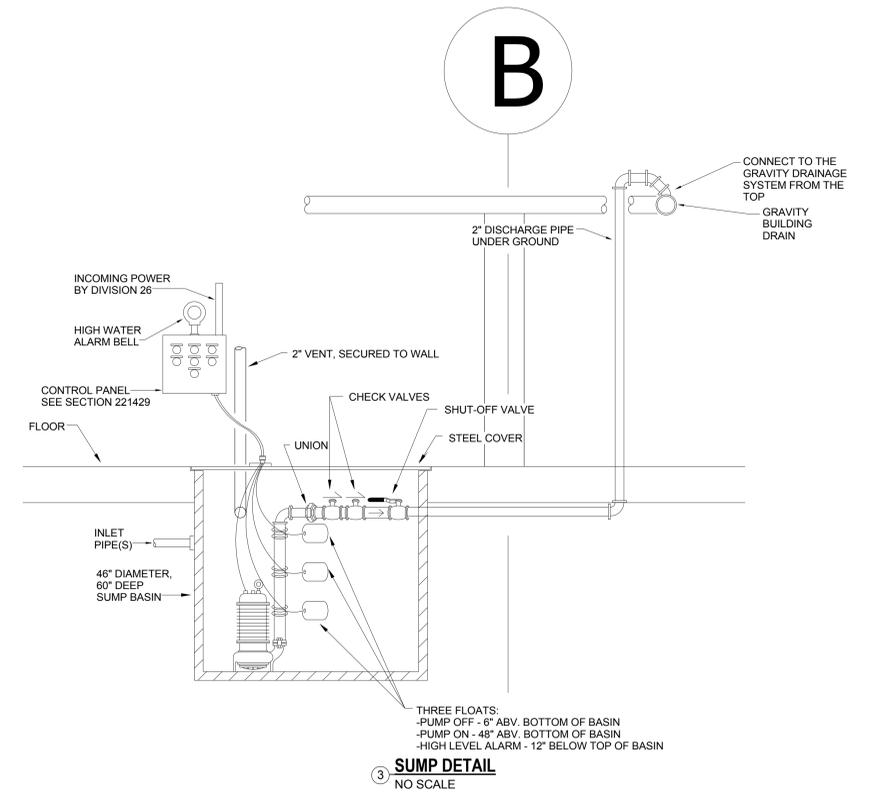


NOTES:  
PRE-CAST SEPARATORS ARE TO HAVE ALL SPECIFIED HOLES EITHER CORE-BORED OR CAST IN PLACE.

**GENERAL CONSTRUCTION NOTES**

- LOCATE BASIN OUTSIDE OF BUILDING.
- OPENING SHALL BE NOT LESS THAN 24" DIA.
- THE CATCH BASIN SHALL BE SO LOCATED AND CONSTRUCTED THAT SURFACE WATER SHALL BE EXCLUDED.
- INLET PIPE SHALL BE AT LEAST FOUR INCHES ABOVE NORMAL WATER LINE.
- WHERE SUBJECT TO FROST OR CRUSHING CONDITIONS, OUTLET SHALL BE AT LEAST THREE FEET BELOW THE SURFACE.
- THE NEW CATCH BASIN MUST BE FILLED WITH CLEAN WATER BEFORE USING, AND AFTER BEING EMPTIED FOR PERIODIC CLEANING.
- ALL OIL AND GASOLINE MUST BE REMOVED BEFORE CLEANING OUT THE BASIN, AND MUST NOT BE DISCHARGED INTO THE SEWER THROUGH OTHER FIXTURES.
- WROUGHT IRON STEPS SHALL BE SPACED ABOUT 18" APART.
- BOTH VENTS SHALL BE EXTENDED INDEPENDENTLY 18" ABOVE THE ROOF, OR AS APPROVED BY THE LOCAL AUTHORITIES, AND THE AUTHORITIES OF THE M.W.R.A. (Outlet pipe to be 45 degree angle)
- REFER TO DRAWING CU101 FOR LOCATION OF INTERCEPTOR.

**2 INTERCEPTOR**  
1" = 1'-0"



**3 SUMP DETAIL**  
NO SCALE

100% BID DOCUMENTS

Vertical scale markings on the left side of the page, ranging from 0 to 16 inches.

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Drawing Title  
PLUMBING - DETAILS AND SCHEDULES  
Approved: Project Director  
Denis McLaughlin  
Telephone: 857-364-5149

Project Title  
WEST ROXBURY GARAGE  
Location  
VAMC - West Roxbury, MA 02132  
Project Number  
523-400  
Building Number  
Drawing Number  
PL501  
Date  
6/15/2015  
Checked  
DCL  
Drawn  
DJA  
Dwg: 56 of 99



| HVAC GENERAL NOTES  | GENERAL ABBREVIATIONS   | PIPING SYMBOLS   | GENERAL SYMBOLS  | DUCTWORK SYMBOLS   |               |              |  |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |
|---|---|--|--|--|---------------|--------------|--|--------|-----------------------------|--|--------|------------------------------|--|------------|---|--|------------|---|--|------------|---|--|------------|---|--|
| <p><b>DESCRIPTIONS</b></p> <p>1. ALL HVAC GENERAL NOTES, SYMBOLS LISTS &amp; DETAILS ARE TO BE CONSIDERED AS APPLICABLE TO ALL HVAC DRAWINGS FOR THIS PROJECT.</p> <p>2. THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND EXACT LOCATIONS AND ARRANGEMENTS OF EXISTING NEW EQUIPMENT, DUCTWORK, PIPING AND OTHER COMPONENTS SHALL BE DETERMINED IN THE FIELD WITH DUE CONSIDERATION OF STRUCTURAL, ELECTRICAL AND ARCHITECTURAL SYSTEMS. EXISTING STRUCTURAL SYSTEMS SHALL NOT BE MODIFIED WITHOUT THE EXPRESS PERMISSION OF THE ENGINEER.</p> <p>3. THE PROJECT SHALL BE PHASED IN ACCORDANCE WITH THE APPROVED PHASING PLAN. THE CONTRACTOR SHALL OBTAIN APPROVAL FOR THE SEQUENCING AND TIMING OF OPERATIONS PRIOR TO COMMENCING WORK. SEE SPECIFICATIONS.</p> <p>4. CONTRACTOR IS TO MAINTAIN SERVICE TO ROOMS OUTSIDE THE PROJECT SCOPE OF WORK AND PHASING SCHEDULE. IF INTERRUPTION OF SERVICE IS REQUIRED COORDINATE SHUTDOWN.</p> <p>5. CARE SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SYSTEMS AND SURFACES TO REMAIN. RESTORE DAMAGED AREAS THAT ARE BEYOND THE SCOPE OF THIS CONTRACT TO THEIR ORIGINAL CONDITION.</p> <p>6. WHERE INDICATED ON THE DRAWINGS, REMOVE OR RELOCATE EXISTING COMPONENTS AS REQUIRED TO ACCOMMODATE THE NEW WORK. REMOVALS SHALL INCLUDE ALL ASSOCIATED OFF-SITE DISPOSAL COSTS.</p> <p>7. COORDINATE REMOVALS AND RELOCATIONS INCLUDING SELECTIVE CUTTING AND PENETRATIONS WITH ARCHITECTURAL, MECHANICAL, STRUCTURAL, AND ELECTRICAL CONTRACTORS.</p> <p>8. MOST PARTITIONS ARE FULL HEIGHT AND REQUIRE UTILITIES PENETRATIONS TO BE SEALED. SEE ARCHITECTURAL DWGS FOR PARTITION HEIGHTS. UTILITIES SHOWN FOR CLARITY THAT MAY RUN PARALLEL TO WALL PARTITIONS WILL REQUIRE LOCATING IN THE FIELD TO MINIMIZE CONFLICT WITH PARTITIONS.</p> <p>9. COORDINATE THE LOCATIONS OF ALL HALL MOUNTED TEMPERATURE SENSORS WITH FINAL EQUIPMENT FURNITURE LAYOUT.</p> <p>10. MANUFACTURERS NAME &amp; MODEL NUMBER ARE USED FOR DESCRIPTIVE PURPOSES ONLY &amp; ARE INTENDED TO INDICATE THE STANDARD OF MATERIAL OR ARTICLES REQUIRED.</p> <p>11. INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS AND GOOD PRACTICE NORMAL TO THE TRADE. INSTALLATION SHALL INCLUDE PROVISIONS FOR ACCESS TO NORMAL MAINTENANCE ITEMS SUCH AS BELTS, BEARINGS, FILTERS AND MOTORS. PROVIDE ADEQUATE STRUCTURAL SUPPORTS AND SECURE MOUNTING METHODS WITH PROVISIONS FOR VIBRATION ISOLATION AND EXPANSION WHERE REQUIRED.</p> <p>12. PROVIDE VOLUME DAMPERS DOWN STREAM OF VAV BOXES AT EACH BRANCH FROM MAIN DUCTWORK AND DUCT RUNNOUTS. PROVIDE OPPOSED BLADE DAMPERS AT EACH NECK TO AN INDIVIDUAL REGISTER OR DIFFUSER IN SUPPLY, RETURN AND EXHAUST DUCTS RESPECTIVE OF WHETHER OR NOT A DAMPER IS INDICATED ON THE PLANS.</p> <p>13. DIFFUSER SIZES INDICATED ARE NECK SIZES. REGISTERS &amp; GRILLES ARE INDICATED AS NOMINAL SIZES.</p> <p>14. PERFORM ALL TESTS BEFORE INSULATING.</p> <p>15. PIPING AND DUCTWORK SHALL BE CONCEALED UNLESS OTHERWISE NOTED.</p> <p>16. INSTALLATION SHALL PERMIT ACCESSIBILITY FOR SERVICE AND/OR REPLACEMENT OF EQUIPMENT PROVIDED. PROVIDE ACCESS PANELS TO GAIN ACCESS TO SYSTEMS COMPONENTS THAT REQUIRE MAINTENANCE ACCORDING TO MANUFACTURERS LITERATURE.</p> <p>17. PROVIDE DUCTWORK WITH OFFSETS AND TRANSITIONS AS REQUIRED TO FIT UNDER STRUCTURAL STEEL OR OTHER OBSTRUCTIONS. FLAT OVAL OR ROUND SIZES MAY BE USED INTERCHANGEABLY BY THE CONTRACTOR. MAINTAIN DUCT CROSS SECTIONAL AREA. CHANGES SHALL BE ONLY IN ACCORDANCE WITH APPROVED SHOP DRAWINGS OR WRITTEN PERMISSION OF THE VA PROJECT ENGINEER.</p> <p>18. PROVIDE CLAMPS, OFFSETS, EXPANSION JOINTS, ANCHORS &amp; GUIDES AS NECESSARY TO PREVENT UNDUE STRAIN ON PIPING.</p> <p>19. SEE DETAILS &amp; PIPING DIAGRAMS FOR ADDITIONAL VALVES &amp; FITTINGS NECESSARY FOR COMPLETE PIPING SYSTEM.</p> <p>20. MECHANICAL CONTRACTOR TO COORDINATE ALL WORK WITH OTHER BUILDING TRADES. SOME RELOCATION OF EXISTING UTILITIES MAY BE NECESSARY TO ACCOMMODATE INSTALLATION OF NEW EQUIPMENT OR DUCTWORK.</p> <p>21. PROVIDE FIRE OR FIRE-SMOKE DAMPERS WHERE INDICATED ON PLANS &amp; WHERE REQUIRED BY APPLICABLE CODES FOR DUCTS &amp; OPENINGS THROUGH FLOORS, FIRE WALLS &amp; FIRE PARTITIONS. DAMPERS SHALL BE ENCLOSED IN #4 GAUGE STEEL SLEEVE. PROVIDE ACCESS DOORS LOCATED SO THAT FUSIBLE LINK &amp; OTHER DAMPER COMPONENTS MAY BE INSPECTED REPAIRED AND/OR SERVICED.</p> <p>22. SEE SPECIFICATIONS FOR OTHER REQUIREMENTS.</p> <p>23. AT THE END OF EACH WORKING DAY, THE CONSTRUCTION SITE SHALL BE LEFT IN A CLEAN AND NEAT CONDITION.</p> <p>24. FIELD VERIFY EXISTING EQUIPMENT, DUCTWORK AND PIPING PRIOR TO REMOVAL OR REUSE. CONFIRM WITH HISTORIC THAT ALL EQUIPMENT, DUCTWORK AND PIPING DESIGNATED TO BE REMOVED IS NO LONGER IN SERVICE PRIOR TO ITS REMOVAL.</p> <p>25. EXISTING EQUIPMENT, DUCTWORK AND PIPING TO REMAIN IN SERVICE SHALL BE INSPECTED. ANY EQUIPMENT FOUND TO BE INOPERABLE SHALL BE REPORTED TO THE PROJECT ENGINEER.</p> <p>26. INFILL ALL NEW OR EXISTING ABANDONED FLOOR SLAB PENETRATIONS WITH GROUT. FULL THICKNESS OF SLAB. MAINTAIN 2 HR FIRE RATING. ALL EXISTING CONCRETE FLOORS AND CHASES ARE 2 HOUR FIRE RATED.</p> <p>27. FILL AND PATCH ALL OPENINGS IN WALLS WHERE CONDUITS, PIPES, DUCTS ETC. ARE OR HAVE BEEN REMOVED WITH UL LISTED FIRE ASSEMBLY APPROVED BY THE ARCHITECT. MAINTAIN 2 HR FIRE RATING WHERE APPLICABLE.</p> <p>28. ALL UNUSED (ABANDONED) DUCTWORK, PIPING AND EQUIPMENT INDICATED TO BE REMOVED SHALL BE REMOVED AND CAPPED.</p> <p>29. TIE-IN POINT LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL DETERMINE EXACT LOCATIONS IN THE FIELD BASED ON EXISTING CONDITIONS.</p> | <p><b>ABBREVIATIONS</b></p> <p>AD ABOVE FINISHED FLOOR<br/>AFF ABOVE FINISH GRADE<br/>AFG ACCESS PANEL<br/>AS AIR SEPARATOR<br/>ATC AUTOMATIC TEMPERATURE CONTROL<br/>BFP BACK FLOW PREVENTER<br/>BOD BOTTOM OF DUCT<br/>BTU BRITISH THERMAL UNIT<br/>BTUH BRITISH THERMAL UNIT PER HOUR<br/>C CONECTOR<br/>C&amp;HW COLD &amp; HOT WATER<br/>CAP CAPACITY<br/>CC COOLING COIL<br/>CD CEILING DIFFUSER<br/>CFM CUBIC FEET PER MINUTE<br/>COL COLUMN<br/>CONN CONNECT<br/>CV CONTROL VALVE<br/>DB DRY BULB TEMPERATURE<br/>DDC DIRECT DIGITAL CONTROL<br/>DA DOWN<br/>DN DOWN<br/>DO DIGITAL OUTPUT<br/>DW OR DWGS DWOR/DWGS<br/>E EX OR (E)<br/>EA EXHAUST AIR<br/>EAT ENTERING AIR TEMPERATURE<br/>EC ELECTRICAL CONTRACTOR<br/>ECU EVAPORATIVE CONDENSING UNIT<br/>EL EXHAUST LOOP<br/>EG EXHAUST AIR GRILLE<br/>EMIS ENERGY MANAGEMENT SYSTEM<br/>ER EXHAUST AIR REGISTER<br/>ERV EXHAUST ON ROOF<br/>ESP EXTERNAL STATIC PRESSURE<br/>ET EXPANSION TANK<br/>ETD EXISTING TO BE REMOVED<br/>EVO ETHYLENE OXIDE<br/>EWT ENTERING WATER TEMPERATURE<br/>EWH EXHAUST WATER HEATING<br/>FA FREE AREA<br/>FC FLEXIBLE CONNECTION<br/>FD FIRE DAMPER<br/>FLA FULL LOAD AMPS<br/>FLR FLOOR<br/>FR FEET PER INCH<br/>FFM FEET PER MINUTE<br/>FSD COMBINATION FIRE AND SMOKE DAMPER<br/>FT FEET<br/>FTR FIN TUBE RADIATION<br/>GAL GALLONS<br/>GC GENERAL CONTRACTOR<br/>GE GENERAL EXHAUST<br/>GPM GALLONS PER MINUTE<br/>HC HEATING COIL<br/>HP HORSE POWER<br/>HW HOT WATER<br/>ID INSIDE DIAMETER<br/>IN INCHES<br/>IN INCHES<br/>KW KILOWATTS<br/>L LOUVER<br/>LAT LEAVING AIR TEMPERATURE<br/>LWT LEAVING WATER TEMPERATURE<br/>MBH THOUSANDS OF B.T.U.'S PER HOUR<br/>MD MOTORIZED DAMPER<br/>MECH MECHANICAL<br/>MNT MOUNTED<br/>MTC NORMALLY CLOSED<br/>N.O. OR N.O. NORMALLY OPEN<br/>NIC NOT IN CONTRACT<br/>NOM NOMINAL<br/>NTS NOT TO SCALE<br/>OA, OR OA OUTSIDE AIR<br/>OAT OUTSIDE AIR TEMPERATURE<br/>OED OPPOSED BLADE DAMPER<br/>OD OUTSIDE DIAMETER<br/>OEN OPEN ENDED DUCT<br/>PC PLUMBING CONTRACTOR<br/>PD PRESSURE DROP<br/>PSI POUNDS PER SQUARE INCH<br/>PRV PRESSURE REDUCING VALVE<br/>RA RETURN AIR<br/>REF RETURN EXHAUST FAN<br/>RF RETURN FAN<br/>RG RETURN AIR GRILLE<br/>RHRH REHEAT WATER RETURN<br/>RHS REHEAT WATER SUPPLY<br/>RM ROOM<br/>RR RETURN AIR REGISTER<br/>RV RELIEF VALVE<br/>SA SUPPLY AIR<br/>SAT SUPPLY AIR TEMPERATURE<br/>SF SQUARE FEET<br/>SP STATIC PRESSURE<br/>SPD SPEED<br/>SPEC SPECIFICATION<br/>SR SUPPLY AIR REGISTER<br/>SS STAINLESS STEEL<br/>TG TRANSFER AIR GRILLE<br/>TOP TOP OF DUCT<br/>TSTAT THERMOSTAT<br/>TYP TYPICAL<br/>UG UNDER GRADE<br/>US UNDER SLAB<br/>UC UNDERCUT DOOR<br/>V VENT<br/>VAV VARIABLE AIR VOLUME<br/>VB VACUUM BREAKER<br/>VFD VARIABLE FREQUENCY DRIVE<br/>VTR VENT THROUGH ROOF<br/>W WASTE<br/>WV WITH WET BULB TEMPERATURE (°F)<br/>WMS WIRE MESH SCREEN</p> | <p><b>SYMBOLS</b></p> <p>— G — G GAS PIPING<br/>— GS — GS GLYCOL SUPPLY<br/>— GR — GR GLYCOL RETURN<br/>— RS — RS REFRIGERANT SUCTION<br/>— RL — RL REFRIGERANT LIQUID<br/>— RHG — RHG REFRIGERANT HOT GAS<br/>— D — D A.C. CONDENSATE DRAIN<br/>— MUW — MUW MAKE UP WATER<br/>— PC — PC PUMPED CONDENSATE<br/>— HPC — HPC HIGH-PRESSURE CONDENSATE<br/>— BBD — BBD BOILER BLOWDOWN<br/>— FOD — FOD FUEL OIL DISCHARGE<br/>— FOG — FOG FUEL OIL GARGE<br/>— FOS — FOS FUEL OIL SUCTION<br/>— FOR — FOR FUEL OIL RETURN<br/>— FOV — FOV FUEL OIL TANK VENT<br/>— MTWS — MTWS MEDIUM-TEMPERATURE HOT WATER SUPPLY<br/>— HTWS — HTWS HIGH-TEMPERATURE HOT WATER SUPPLY<br/>— MTWR — MTWR MEDIUM-TEMPERATURE HOT WATER RETURN<br/>— HTWR — HTWR HIGH-TEMPERATURE HOT WATER RETURN<br/>— SAN — SAN SANITARY DRAIN ABOVE FLOOR OR GRADE<br/>— CHEM — CHEM CHEMICAL SUPPLY PIPES<br/>— CHWS — CHWS CHILLED WATER SUPPLY PIPING<br/>— CHWR — CHWR CHILLED WATER RETURN PIPING<br/>— CWS — CWS CONDENSER WATER SUPPLY<br/>— CWR — CWR CONDENSER WATER RETURN<br/>— HPS — HPS HIGH PRESSURE STEAM<br/>— HWS — HWS HOT WATER SUPPLY PIPING<br/>— HWR — HWR HOT WATER RETURN PIPING<br/>— RHWS — RHWS REHEAT HOT WATER SUPPLY PIPING<br/>— RHRW — RHRW REHEAT HOT WATER RETURN PIPING<br/>— LPC — LPC LOW PRESSURE CONDENSATE RETURN<br/>— LPS — LPS LOW PRESSURE STEAM<br/>— MPC — MPC MEDIUM PRESSURE CONDENSATE RETURN<br/>— MPS — MPS MEDIUM PRESSURE STEAM<br/>— CW — CW COLD WATER PIPING<br/>— HW — HW HOT WATER PIPING<br/>— HWR — HWR HOT WATER RETURN PIPING<br/>— V — V VENT PIPING</p> <p>— PIPE DROP<br/>— PIPE RISER<br/>— PIPE TEE - DOWN<br/>— PIPE TEE - UP<br/>— PIPE CONNECTION<br/>— PIPE BREAK - TO CONTINUE<br/>— DIRECTION OF FLOW<br/>— ANCHOR<br/>— GUIDE<br/>— U<br/>— BLV<br/>— SCV<br/>— CBV<br/>— ACV<br/>— GV<br/>— GLV<br/>— MPV<br/>— PRV<br/>— T<br/>— FLG<br/>— STRAINER W/DRAIN VALVE AND CAP<br/>— RSV<br/>— PGV<br/>— RPB</p> | <p><b>SYMBOLS</b></p> <p>— POINT OF CONNECTION TO EXISTING<br/>— LIMIT OF DEMOLITION<br/>— EQUIPMENT, GRILLE, REGISTER OR DIFFUSER TAG<br/>— DIFFUSER, REGISTER OR GRILLE TAG, WITH CFM AIRFLOW<br/>— REVISION TAG<br/>— REVISION CLOUD<br/>— NOTE CALL OUT<br/>— PRESSURE GAUGE W/PETCOCK<br/>— DUCT STATIC PRESSURE SENSOR<br/>— ISOLATION ROOM PRESSURIZATION CONTROLLER<br/>— DUCT MOUNTED SMOKE DETECTOR, MTD BY HVAC CONTR. SUPPLIED AND WIRED BY ELECTRICAL CONTR.<br/>— FLOW SWITCH<br/>— PRESSURE SWITCH<br/>— THERMOSTAT<br/>— AUTOMATIC AIR VENT<br/>— MANUAL AIR VENT<br/>— PRESSURE PORT ("PETE'S PLUG")<br/>— FLOAT &amp; THERMOSTATIC TRAP<br/>— HUMIDIFIER<br/>— VARIABLE AIR VOLUME BOX<br/>— FEET<br/>— DUCT SIZE<br/>— PIPE SIZE<br/>— PIPE SIZE, GANG</p> <p>12, 12x12<br/>12" UP<br/>14" DN<br/>1-1/2"</p> <p>— ROOF EXHAUST - EXISTING<br/>— ROOF EXHAUST - REMOVED<br/>— ROOF EXHAUST - NEW<br/>— MANUAL VOLUME DAMPER<br/>— FIRE DAMPER<br/>— COMBINATION FIRE SMOKE DAMPER<br/>— SMOKE DAMPER<br/>— MOTOR-OPERATED DAMPER</p> | <p><b>SYMBOLS</b></p> <p>— EXISTING RECTANGULAR DUCT RUN W/ SIZE DESIGNATION<br/>— EXISTING CIRCULAR DUCT RUN W/ SIZE DESIGNATION<br/>— EXISTING FLEX DUCT RUN W/ SIZE DESIGNATION<br/>— DEMOLITION RECTANGULAR DUCT RUN W/ SIZE DESIGNATION<br/>— DEMOLITION CIRCULAR DUCT RUN W/ SIZE DESIGNATION<br/>— DEMOLITION FLEX DUCT RUN W/ SIZE DESIGNATION<br/>— NEW RECTANGULAR DUCT RUN W/ SIZE DESIGNATION<br/>— NEW CIRCULAR DUCT RUN W/ SIZE DESIGNATION<br/>— NEW RECTANGULAR DUCT RUN W/ SIZE DESIGNATION<br/>— NEW FLEX DUCT RUN W/ SIZE DESIGNATION<br/>— NEW RECTANGULAR DUCT - UP<br/>— NEW CIRCULAR DUCT RUN - UP<br/>— NEW RECTANGULAR DUCT - DOWN<br/>— NEW CIRCULAR DUCT RUN - DOWN<br/>— ACOUSTICALLY LINED DUCT RUN<br/>— RECTANGULAR TO RECTANGULAR DUCTWORK TRANSITION<br/>— RECTANGULAR TO CIRCULAR DUCTWORK TRANSITION<br/>— ELEVATION CHANGE IN DUCTWORK - UP<br/>— ELEVATION CHANGE IN DUCTWORK - DOWN<br/>— DUCTWORK BREAK - TO CONTINUE</p> |               |              |  |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |
|   |   |  | <p><b>MECHANICAL ALTERNATE LIST</b></p> <table border="1"> <thead> <tr> <th>NUMBER</th> <th>TITLE</th> </tr> </thead> <tbody> <tr> <td>NOTE:</td> <td>REFER TO ARCHITECTURAL DOCUMENTS FOR DEDUCT ALTERNATE ITEMS.</td> </tr> </tbody> </table>  | NUMBER   | TITLE         | NOTE:        | REFER TO ARCHITECTURAL DOCUMENTS FOR DEDUCT ALTERNATE ITEMS. |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |
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|   |   |  | <p><b>DIFFUSER SYMBOLS</b></p> <table border="1"> <thead> <tr> <th>SYMBOLS</th> <th>ABBREVIATIONS</th> <th>DESCRIPTIONS</th> </tr> </thead> <tbody> <tr> <td></td> <td>RG, RR</td> <td>RETURN AIR GRILLE, REGISTER</td> </tr> <tr> <td></td> <td>EG, ER</td> <td>EXHAUST AIR GRILLE, REGISTER</td> </tr> <tr> <td></td> <td>SD, SR, SG</td> <td>SUPPLY AIR 4 WAY DIFFUSER, REGISTER, GRILLE</td> </tr> <tr> <td></td> <td>SD, SR, SG</td> <td>SUPPLY AIR 3 WAY DIFFUSER, REGISTER, GRILLE</td> </tr> <tr> <td></td> <td>SD, SR, SG</td> <td>SUPPLY AIR 2 WAY DIFFUSER, REGISTER, GRILLE</td> </tr> <tr> <td></td> <td>SD, SR, SG</td> <td>SUPPLY AIR 1 WAY DIFFUSER, REGISTER, GRILLE</td> </tr> </tbody> </table>   | SYMBOLS  | ABBREVIATIONS | DESCRIPTIONS |  | RG, RR | RETURN AIR GRILLE, REGISTER |  | EG, ER | EXHAUST AIR GRILLE, REGISTER |  | SD, SR, SG | SUPPLY AIR 4 WAY DIFFUSER, REGISTER, GRILLE |  | SD, SR, SG | SUPPLY AIR 3 WAY DIFFUSER, REGISTER, GRILLE |  | SD, SR, SG | SUPPLY AIR 2 WAY DIFFUSER, REGISTER, GRILLE |  | SD, SR, SG | SUPPLY AIR 1 WAY DIFFUSER, REGISTER, GRILLE |  |
| SYMBOLS   | ABBREVIATIONS   | DESCRIPTIONS   |  |  |               |              |  |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |
|   | RG, RR  | RETURN AIR GRILLE, REGISTER  |  |  |               |              |  |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |
|   | EG, ER  | EXHAUST AIR GRILLE, REGISTER   |  |  |               |              |  |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |
|   | SD, SR, SG  | SUPPLY AIR 4 WAY DIFFUSER, REGISTER, GRILLE  |  |  |               |              |  |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |
|   | SD, SR, SG  | SUPPLY AIR 3 WAY DIFFUSER, REGISTER, GRILLE  |  |  |               |              |  |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |
|   | SD, SR, SG  | SUPPLY AIR 2 WAY DIFFUSER, REGISTER, GRILLE  |  |  |               |              |  |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |
|   | SD, SR, SG  | SUPPLY AIR 1 WAY DIFFUSER, REGISTER, GRILLE  |  |  |               |              |  |        |                             |  |        |                              |  |            |   |  |            |   |  |            |   |  |            |   |  |

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Drawing Title  
**MECHANICAL - LEGEND AND GENERAL NOTES**

Approved: Project Director  
Denis McLaughlin  
Telephone: 857-364-5149

Project Title  
**WEST ROXBURY GARAGE**

Location  
VAMC - West Roxbury, MA 02132

Project Number  
523-400

Building Number

Drawing Number  
**MH001**

Date  
6/15/2015

Checked  
CMP

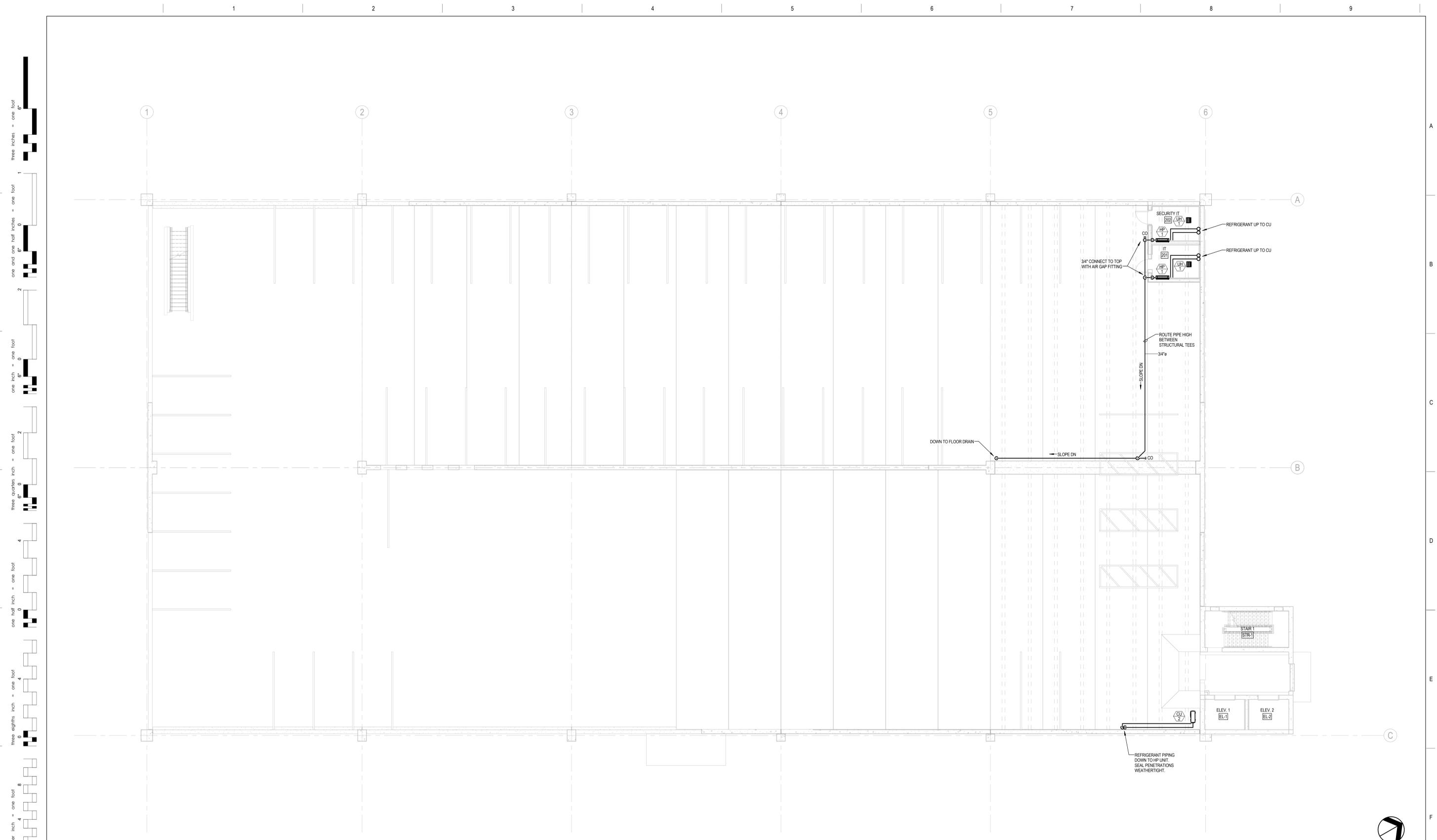
Drawn  
ERD

Dwg: 57 of 99



100% BID DOCUMENTS





1 MECHANICAL PLAN - LEVEL 2  
1/8" = 1'-0"

100% BID DOCUMENTS

three inches = one foot  
 one and one half inches = one foot  
 one inch = one foot  
 three quarters inch = one foot  
 one half inch = one foot  
 three eighths inch = one foot  
 one quarter inch = one foot  
 one eighth inch = one foot  
 one sixteenth inch = one foot

| Revisions: | Date |
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**CONSULTANTS:**

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**ARCHITECT/ENGINEERS:**

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**BECKER  
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207.879.1838 ■ beckerstructural.com

Drawing Title  
**MECHANICAL - PLAN - LEVEL 2**

Approved: Project Director  
Denis McLaughlin  
Telephone: 857-364-5149

Project Title  
**WEST ROXBURY GARAGE**

Location  
VAMC - West Roxbury, MA 02132

Date  
6/15/2015

Checked  
CMP

Drawn  
ERD

Project Number  
523-400

Building Number

Drawing Number  
**MH102**

Dwg: 59 of 99

Office of  
Facilities  
Management

Department of  
Veterans Affairs





