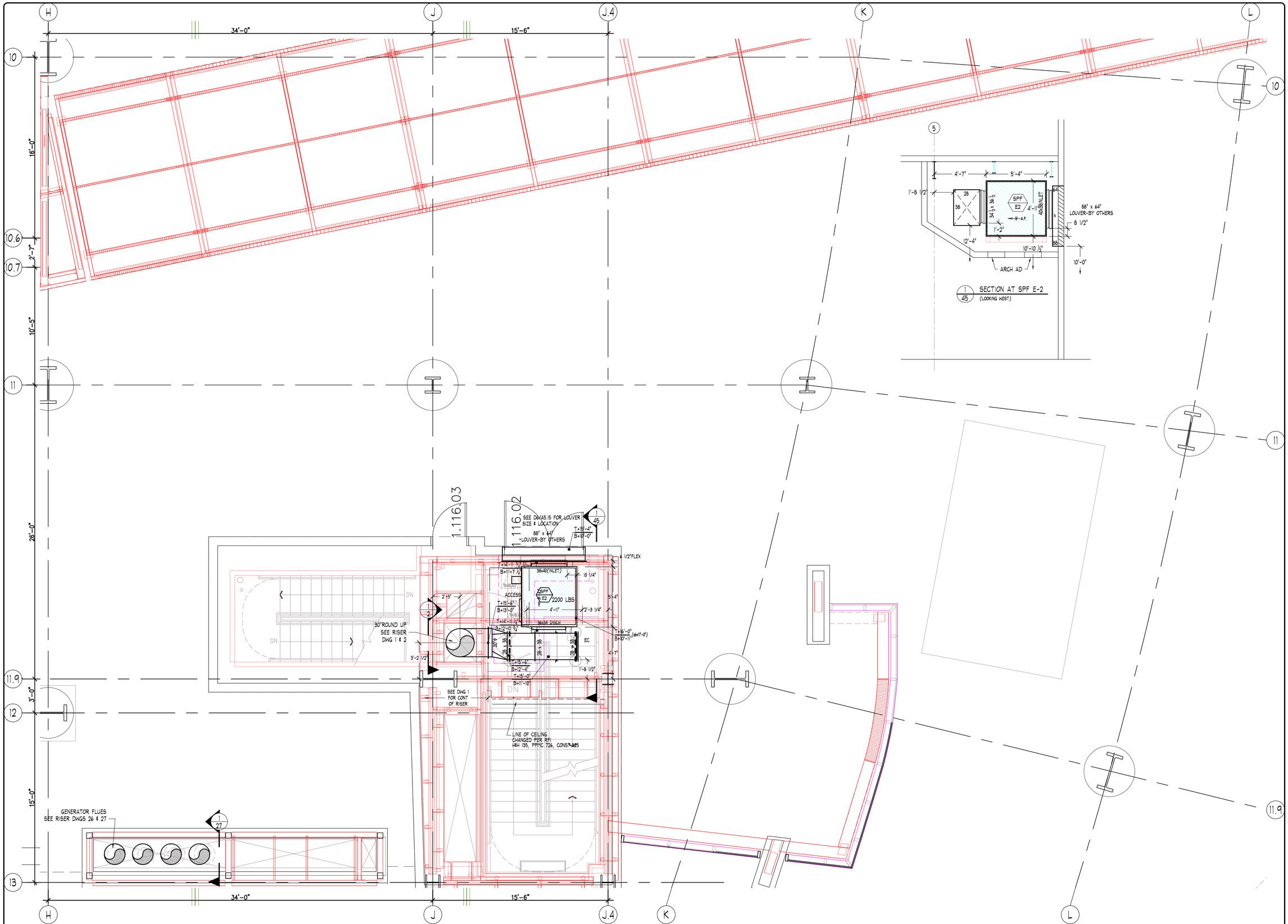



## NOTES

1. ELEVATIONS INDICATED ON THIS DRAWING ARE TO THE DUCT BODY. ALLOWANCES MUST BE MADE FOR TRANSITIONS, OFFSETS, REINFORCING AND EXTERIOR INSULATION WHEN COORDINATING ELEVATIONS.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AD, AP | ACCESS DOOR, ACCESS PLATE | S & A | S & A BRAKE CONNECTOR |
| B, BOTT | BOTTOM | SI | SPIN-IN FITTING |
| CEIL | CEILING/CLEAR | SLIP | SLIP JOINT |
| D, DN | DOWN | SP | STATIC PRESSURE |
| DM | DUCTMATE CONNECTOR | T | TOP |
| F, FTM | FEMALE | TDC | TRANSVERSE DUCT CONNECTION |
| FD | FIRE DAMPER | TG | TURNING GUIDES |
| FI | FLANGE IN | TRANS | TRANSITION FITTING |
| FO | FLANGE OUT | TV | TURNING VANES |
| FOB | FLAT ON BOTTOM | V | VERTICAL |
| FOS | FLAT ON SIDE | VD | VOLUME DAMPER |
| FOT | FLAT ON TOP | W | WITH |
| H | HORIZONTAL | WG | WATER GAUGE |
| M | MALE | MI | MALE INDICATOR |
| OS | OFFSET | FI | FEMALE INDICATOR |
| R | RADIUS | | |

## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER NO. |
| | MANUAL VOLUME DAMPER WITH QUAL OR EQUIVALENT TYPE REGULATOR |
| | MANUAL VOLUME DAMPER WITH CEILING MOUNTED CONCEALED REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR ACCESS PLATE |
| | DUCTWORK PIECE NO. INDICATOR |
| | SLOPE & DIRECTION OF DUCT ELEVATION INDICATOR |

## REVISIONS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 4 | AS-BUILT RECORD DRAWING | 5-3-13 |

## MATERIAL LISTS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| #54 | 44" X 46" SUPPLY DUCTWORK | 04-19-10 |
| #55 | 44" X 46" SUPPLY DUCTWORK | 09-14-10 |

| | |
|---|---|
| PCS-5 | |
| PCS-12 | |


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JOB NO: 9507 PAY ITEM: 45

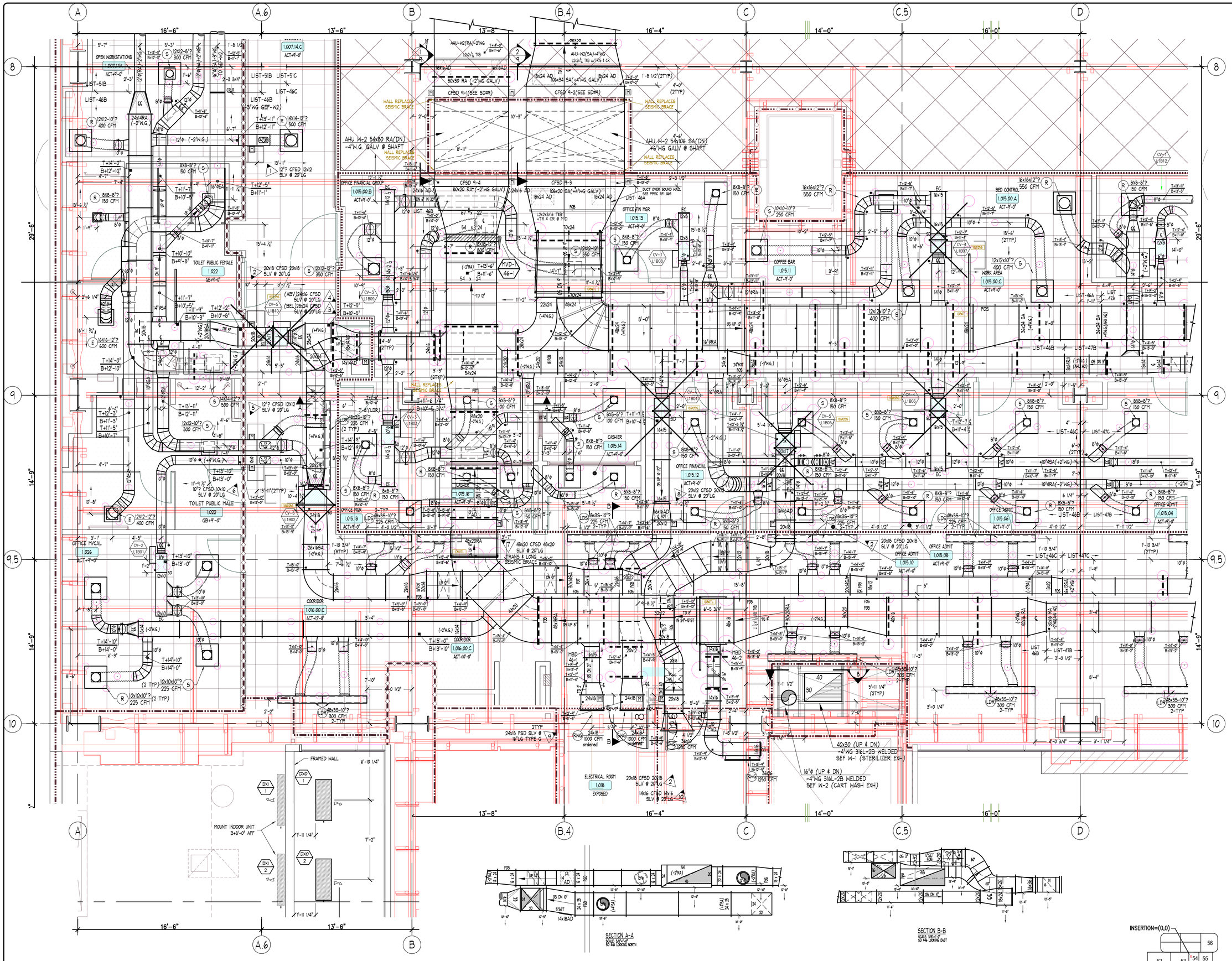
PROJECT:
CHILDRENS HOSPITAL
ORANGE, CA

TITLE:
LEVEL ONE AREA A
HVAC SYSTEM LAYOUT

REFERENCE DRAWINGS
ARCH:A3.1A STRUCT: S2.2A MECH:M3.1A

BY: R.F.
DATE: 1-27-10
SCALE: 3/8"=1'-0"

DRAWING NO.
45 OF 115




## NOTES

1. ELEVATIONS INDICATED ON THIS DRAWING ARE TO BOTTOM OF DUCT UNLESS OTHERWISE NOTED. MADE FOR TRANSVERSE CONNECTORS; CONFIRM WITH LONGITUDINAL CONNECTORS. COORDINATE ELEVATIONS BEFORE FABRICATION.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AD, SP, SL, BOTT | ACCESS DOOR, ACCESS PLATE | S & D | S & D DRIVE CONNECTOR |
| BOTT | BOTTOM | SI | SPIN-IN FITTING |
| CL | CENTERLINE | SLV | SLEEVE |
| D, DN | DOWN | SP | STATIC PRESSURE |
| DC | DUCT CONNECTOR | T | TEE |
| F, FTM | FITTING, FLAT OVAL | TDC | TRANSVERSE DUCT CONNECTOR |
| FD | FIRE DAMPER | TH | THROAT |
| FSD | FIRE SMOKE DAMPER | TFO | TRANSVERSE FITTING |
| FO | FLANGE OUT | TN | TURNING VANES |
| FOB | FLAT ON BOTTOM | TV | UP |
| FOS | FLAT ON SIDE | U | VERTICAL |
| FOT | FLAT ON TOP | V | VOLUME DAMPER |
| H | HORIZONTAL | VD | WITH |
| M | MALE | W | WATER GAUGE |
| RD | RETURN DUCT | WG | WALL PENETRATION |
| RTU | ROOF TOP UNIT | WP | WALL PENETRATION |

## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER |
| | MANUAL VOLUME DAMPER WITH FINAL BALANCE AIR QUANTITY |
| | MANUAL VOLUME DAMPER WITH QUADRANT TYPE REGULATOR |
| | CEILING MOUNTED CONCEALED REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR ACCESS PLATE |
| | DUCTWORK ACCESS DOOR WITH HINGED DOOR |
| | MALE |
| | RETURN DUCT |
| | TOP OF DUCT/BOTTOM OF DUCT ELEVATION INDICATOR |

## MATERIAL LISTS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 46A | +4"WG SUPPLY DUCTWORK | 6-16-10 |
| 46B | -2"& -3"WG RA & EA DUCTWORK | 6-16-10 |
| 46C | +2"WG SUPPLY DUCTWORK | 6-16-10 |
| 46F | PURCHASED ROUND DUCTWORK | 6-16-10 |
| 46AC | ARCANS PCS: 1-11, 13-14 | 4-29-11 |

## REVISIONS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 6 | AS-BUILT RECORD DRAWING | 5-13-12 |


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JOB NO: 9507 PAY ITEM: 46

PROJECT:
CHILDRENS HOSPITAL
ORANGE, CA

TITLE:
LEVEL ONE AREA D
HVAC SYSTEM LAYOUT

REFERENCE DRAWINGS
ARCH:A3.1D STRUCT: S2.2B MECH:M3.10

BY: CRP DRAWING NO.
DATE: 1-27-10 46 OF 115
SCALE: 3/8"=1'-0"

# LEVEL ONE - SOUTH CENTRAL

FINISHED FLOOR ELEVATION=17'-0" (U.N.O.)
TOP OF STEEL ELEVATION +17'-5 3/4" (U.N.O.)

"PROJECT RECORD DRAWING"

INSERTION=(0,0)

KEY PLAN

## NOTES

1. ELEVATION SHOWN ON THE DRAWING ARE TO THE FLOOR BELOW ALL DUCTWORKS TO BE MADE FOR TRANSVERSE CONNECTORS, ROUTING SUBJECT TO MODIFICATION WHEN COORDINATING ELEVATIONS.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AD, AP | ACCESS DOOR, ACCESS PLATE | S | S & R DRIVE CONNECTION |
| B, BOTT | BOTTOM | SI | SPIN-IN FITTING |
| C, CL | CENTERLINE | SLV | SLEEVE |
| D, DN | DOWN | SP | STATIC PRESSURE |
| Dia | DIAMETER, CONNECTOR | T | TOP |
| F, FTM | FLANGE | TDC | TRANSVERSE DUCT CONNECTOR |
| FD | FIRE DAMPER | TH | THROAT |
| FO | FLANGE OUT | TR | TRANSITION FITTING |
| FOB | FLAT ON BOTTOM | TV | TURNING VANES |
| FOS | FLAT ON SIDE | U | UP |
| FOT | FLAT ON TOP | VD | VERTICAL DROP |
| H | HORIZONTAL | VG | VOLUME DAMPER |
| M | WALL | W | WITH |
| RD | ROUND | WG | WATER GAUGE |
| R | RADIUS | WM | WALL MOUNTED |
| | | F/O | FEMALE INDICATOR |

## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER |
| | MANUAL VOLUME DAMPER WITH QUADRANT TYPE REGULATOR |
| | MANUAL VOLUME DAMPER WITH LOCKING QUADRANT REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR ACCESS PANEL |
| | DUCTWORK PIECE NO. INDICATOR |
| | TOP OF DUCT/BOTTOM OF DUCT ELEVATION INDICATOR |

## MATERIAL LISTS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 47A | +4"WG SUPPLY AIR DUCTWORK UPSTREAM OF BOXES PCS-1-23 | 6-7-10 |
| 47B | -2"WG RETURN AIR DUCTWORK PCS-1-28 | 6-7-10 |
| 47C | +2"WG SUPPLY AIR DUCTWORK DOWNSTREAM OF BOXES PCS-1-40 | 6-7-10 |
| 47P | PURCHASED SPIRAL & DUCTWORK PCS-1-9F | 6-15-10 |
| 47AG | ANGLES PCS-1-9 | 6-29-10 |

## REVISIONS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 4 | AS-BUILT RECORD DRAWING | 9-3-13 |


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JOB NO: 9507 PAY ITEM: 47

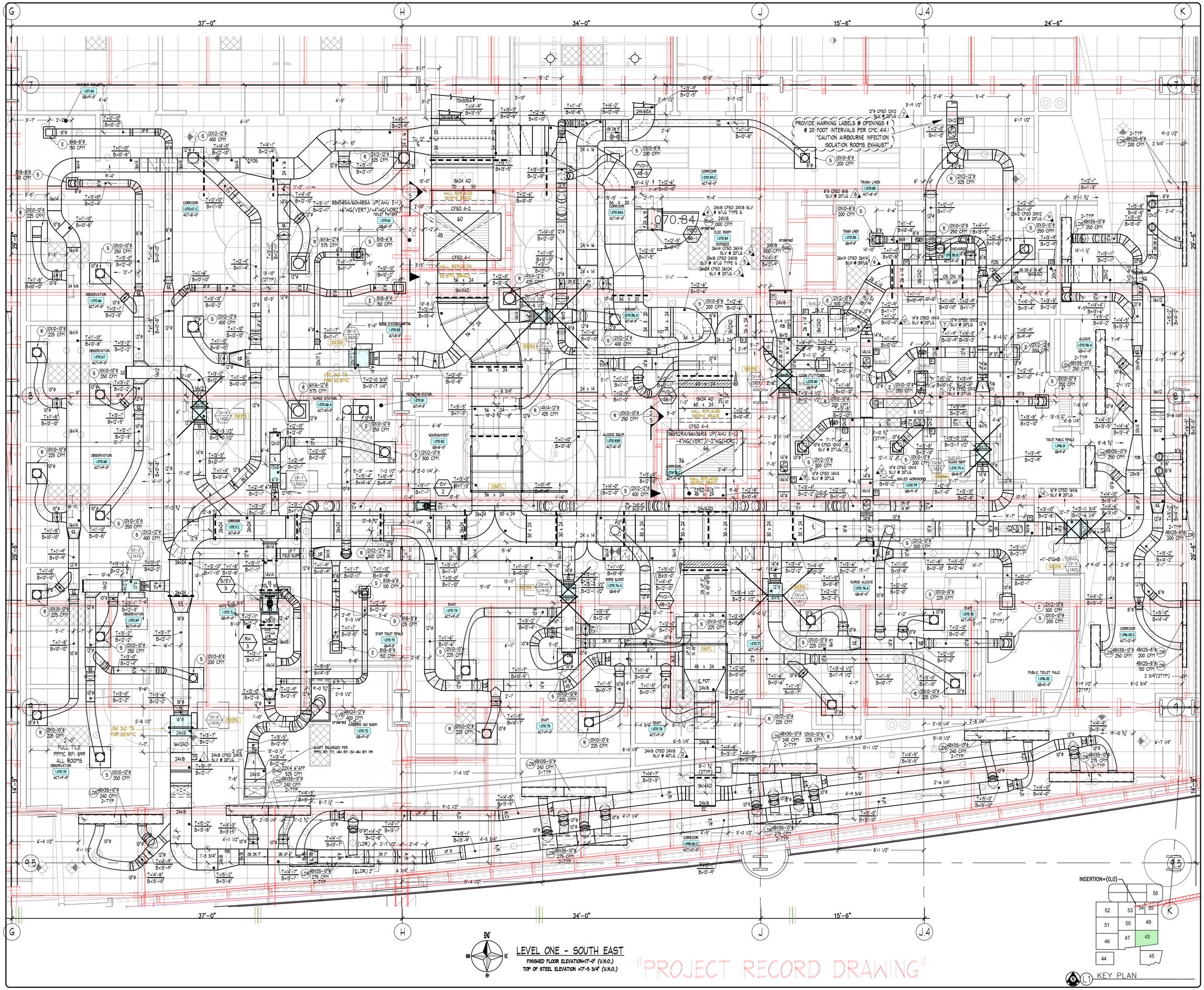
PROJECT:
CHILDRENS HOSPITAL
ORANGE, CA

TITLE:
LEVEL ONE AREA E
HVAC SYSTEM LAYOUT

REFERENCE DRAWINGS
ARCH:A3.1E STRUCT:S2.2B MECH:M3.1E

BY: BP
DATE: 1-27-10
SCALE: 3/8"=1'-0"

DRAWING NO.
47 OF 115




## NOTES

1. ELEVATIONS INDICATED ON THE DRAWING ARE TO THE DUCT BODY. ALLOWANCES MUST BE MADE FOR TRANSVERSE CONNECTORS, REINFORCING AND FLANGE PENETRATION WHEN COORDINATING ELEVATIONS.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| S & D | SIDE & DROP CONNECTOR | ACCESS DOOR | ACCESS PLATE |
| SI | SPIN-IN FITTING | AD, AP | |
| SLV | SLEEVE | B, BOTT | BOTTOM |
| SP | STATIC PRESSURE | CEILING | |
| T | TOP | E, DN | DOWN |
| TDC | TRANSVERSE DUCT CONNECTOR | EM | |
| TEMP | TEMPERATURE | DUCTWORK CONNECTOR | |
| TFIT | TRANSITION FITTING | F, FTM | FEMALE |
| TV | TURNING VANES | FD | FIRE DAMPER |
| U | UP | FI | FLANGE IN |
| V | VERTICAL | FO | FLANGE OUT |
| VD | VOLUME DAMPER | FOB | FLAT ON BOTTOM |
| W | WITH | FOS | FLAT ON SIDE |
| WG | WATER GAUGE | FOT | FLAT ON TOP |
| WI | WATER INDICATOR | H | HORIZONTAL |
| FM | FEMALE INDICATOR | MALE | |
| | | RADIUS | |

## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER W/ ACCESS DOOR |
| | FIRE/SMOKE DAMPER W/ACCESS DOOR |
| | MANUAL VOLUME DAMPER WITH DIAL |
| | FIRE/SMOKE DAMPER |
| | OR QUADRANT TYPE REGULATOR |
| | MANUAL VOLUME DAMPER WITH |
| | MOTORIZED VOLUME DAMPER W/ REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR ACCESS PLATE |
| | DUCTWORK PIECE NO. |
| | INDICATOR |
| | TOP OF DUCT/BOTTOM OF DUCT |
| | SUPPLY REGISTER |

## MATERIAL LISTS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 48A | 14"Ø SUPPLY DUCTWORK | 04/14/10 |
| 48B | 12"-7 3/4" x 14"Ø RETURN & SUPPLY DUCTWORK | 04/23/10 |
| 48C | 12"Ø SUPPLY DUCTWORK | 04/23/10 |
| 48F | PACKAGED ROOFTOP DUCTWORK | 09/30/10 |
| 48D | 12"-7 1/4"Ø & 10"Ø SUPPLY DUCTWORK | 4-29-10 |
| 48AC | ACCESS PCS: 1-10, 11-25 | |

## REVISIONS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 7 | AS-BUILT RECORD DRAWING | 5-5-12 |


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| | |
|---|---|
| JOB NO: | 9507 PAY ITEM: 48 |
| PROJECT: | CHILDRENS HOSPITAL ORANGE, CA |
| TITLE: | LEVEL ONE AREA F HVAC SYSTEM LAYOUT |
| REFERENCE DRAWINGS | ARCH:A3.1A STRUCT: S2.2A MECH: M3.1F |
| BY: B.P. | DRAWING NO. 48 OF 115 |
| DATE: 1-27-10 | |
| SCALE: 3/8"=1'-0" | |

# LEVEL ONE - NORTH EAST

FINISHED FLOOR ELEVATION=17'-0" (U.N.O.)
TOP OF STEEL ELEVATION +17'-5 3/4" (U.N.O.)

"PROJECT RECORD DRAWING"

PROVIDE WARNING LABELS @ OPENINGS ≤ @ 20 FOOT INTERVALS PER CMC 414.1 "CAUTION AIRBOURNE INFECTION ISOLATION ROOMS EXHAUST"

WALL REPLACES SEISMIC BRACE

EXPANDED METAL GRILLE IN SOFFIT

A/49 PARTIAL PLAN @ OUTSIDE AIR INTAKE

1/49 SECTION VIEW @ GRIDS H/7 (LOOKING NORTH) SCALE: 3/8"=1'-0"

2/49 SECTION @ OUTSIDE AIR (GRIDS K/5) (LOOKING NORTH) SCALE: 3/8"=1'-0"

3/49 SECTION @ OUTSIDE AIR (GRIDS K/5) (LOOKING NORTH) SCALE: 3/8"=1'-0"

KEY PLAN

## NOTES

1. ELEVATION SHOWN IN THIS DRAWING ARE TO THE TOP OF ROOF ALL UNLESS NOTED. MAKE FOR TRANSVERSE CONNECTORS, ROOF DRAINAGE AND OTHER OBSTRUCTION WHEN COORDINATING ELEVATIONS.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AD, AP | ACCESS DOOR, ACCESS PLATE | S | SUPPLY |
| B, BOTT | BOTTOM | S & D | SUPPLY & DRAW CONNECTOR |
| C, CL | CENTERLINE | SLV | SLEEVE |
| D, DN | DOWN | SP | STATIC PRESSURE |
| Dx | DUCTWORK CONNECTION | T | TOP |
| F, FTM | FEMALE | TDC | TRANSVERSE DUCT CONNECTOR |
| FD | FIRE DAMPER | TH | THROAT |
| FO | FLEXIBLE CONNECTOR | TR | TRANSITION FITTING |
| FO | FLANGE OUT | TV | TURNING VANES |
| FOB | FLAT ON BOTTOM | U | UP |
| FOS | FLAT ON SIDE | VD | VERTICAL DEFLECTION |
| FOT | FLAT ON TOP | VD | VOLUME DAMPER |
| H | HORIZONTAL | W | WITH |
| M | MALE | WG | WATER GAUGE |
| MD | MOTORIZED DAMPER | WG | WIRE GUARD |
| R | RADIUS | F/O | FEMALE INDICATOR |

## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER |
| | MANUAL VOLUME DAMPER WITH QUADRANT TYPE REGULATOR |
| | MANUAL VOLUME DAMPER WITH LOCKING QUADRANT TYPE REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR PANEL |
| | DUCTWORK PIECE NO. |
| | ANCHOR |
| | TOP OF DUCT/BOTTOM OF DUCT EXPOSED ROOFTOP |

## REVISIONS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 8 | 5-3-10 | AS-BUILT RECORD DRAWING |

## MATERIAL LISTS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| #9A | 4-22-10 | 49"WG SUPPLY AIR DUCTWORK |
| #9B | 4-22-10 | -3" & 2"WG EL. RM & OSA DUCTWORK |
| #9C | 4-22-10 | +2"WG SUPPLY AIR DUCTWORK |
| #9D | 10-4-10 | +4" SA, -3"EA & +2"SA DUCTWORK |
| #9E | 4-26-10 | PURCHASED SPIRAL DUCTWORK |
| #9F | 10-4-10 | PURCHASED SPIRAL DUCTWORK |
| #9G | 4-29-10 | ASCABS TDC-1/2, 3/4 & |


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JOB NO: 9507 PAY ITEM: 49

PROJECT:
CHILDRENS HOSPITAL
ORANGE, CA

TITLE:
LEVEL ONE AREA G
HVAC SYSTEM LAYOUT

REFERENCE DRAWINGS
ARCH:A3.1G STRUCT: S2.2G MECH: M3.1G

BY: BP DRAWING NO. 49 OF 115
DATE: 1-27-10
SCALE: 3/8"=1'-0"

# LEVEL ONE - MIDDLE

FINISHED FLOOR ELEVATION=17'-0" (U.N.O.)

TOP OF STEEL ELEVATION +17'-5 3/4" (U.N.O.)

## NOTES

1. ELEVATION SHOWN IN THIS DRAWING ARE TO THE BOTTOM OF BOTTOM CHORD OF BEAMS AND JOISTS. ALLOWANCES MUST BE MADE FOR TRANSVERSE CONNECTORS, ROOF DRAINAGE, AND PIPE INSULATION WHEN COORDINATING ELEVATIONS.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| S | S & DRVE. CONNECTOR | AD, AP | ACCESS DOOR, ACCESS PLATE |
| SD | SPIN-IN FITTING | B, BOTT | BOTTOM |
| SLV | SLEEVE | CONTERLINE | CONTERLINE |
| SP | STATIC PRESSURE | Ø, DIA | DIAMETER |
| T | TDF | DN | DUCTMATE CONNECTOR |
| TDC | TRANSVERSE DUCT CONNECTOR | F, ITM | FINALE |
| TH | THROAT | FD | FIRE DAMPER |
| TR | TRANSITION FITTING | FO | FLEXIBLE DUCT |
| TV | TURNING VANES | FO | FLANGE OUT |
| U | UP | FOB | FLAT ON BOTTOM |
| VD | VERTICAL DEFLECTION | FOS | FLAT ON SIDE |
| VD | VOLUME DAMPER | FOT | FLAT ON TOP |
| W | WITH | H | HORIZONTAL |
| WG | WATER GAUGE | MAX | MAXIMUM |
| WS | WELDED SEAM | MIN | MINIMUM |
| +D | FEMALE INDICATOR | R | RADIUS |

## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER |
| | MANUAL VOLUME DAMPER WITH QUADRANT TYPE REGULATOR |
| | MANUAL VOLUME DAMPER WITH LOCKING QUADRANT TYPE REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR ACCESS PANEL |
| | DUCTWORK PIECE NO. INDICATOR |
| | TOP OF DUCT/BOTTOM OF DUCT ELEVATION INDICATOR |

## MATERIAL LISTS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 50A | 48"x6 SUPPLY DUCTWORK UPSTREAM OF VAV | 5-18-10 |
| 50B | 12"x14 - 33"x6 RETURN & EXHAUST DUCTWORK | 5-18-10 |
| 50C | 12"x6 SUPPLY DUCTWORK DOWNSTREAM OF VAV | 5-24-10 |
| 50P | PURCHASED SPIRALL DUCTWORK | 5-24-10 |
| 50AG | AIRGRIL FCS: 7/5 #1 | 6-29-10 |

## REVISIONS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 7 | AS-BUILT RECORD DRAWING | 5-3-12 |

"PROJECT RECORD DRAWING"


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JOB NO: 9507 PAY ITEM: 50

PROJECT:
CHILDRENS HOSPITAL
ORANGE, CA

TITLE:
LEVEL ONE AREA H
HVAC SYSTEM LAYOUT

REFERENCE DRAWINGS
ARCH:A3.1H STRUCT: S2.2B&C MECH: M3.1H

BY: R.F.
DATE: 1-27-10
SCALE: 3/8"=1'-0"

DRAWING NO.
50 OF 115

INSERTION=(0,0)

KEY PLAN

# LEVEL ONE - NORTH WEST

FINISHED FLOOR ELEVATION=17'-0" (U.N.O.)

TOP OF STEEL ELEVATION +17'-5 3/4" (U.N.O.)

"PROJECT RECORD DRAWING"

## NOTES

1. ELEVATIONS INDICATED ON THIS DRAWING ARE TO BOTTOM OF DUCT. ALLOWANCE SHALL BE MADE FOR TRANSVERSE CONNECTORS, REINFORCING AND EXTERIOR INSULATION WHEN COORDINATING ELEVATIONS.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AD or AP | ACCESS DOOR, ACCESS PLATE | S or S | S DRIVE CONNECTION (PITTSBURGH) |
| B, BOT | BOTTOM | SLEEVE | |
| C | CENTERLINE | SLV | SLEEVE |
| D, DN | DOWN | SP | STATIC PRESSURE |
| DIFF | DIFFUSER, DIFFUSER CONNECTION | T | |
| F, FEM | FEMALE | TOC | TRANSVERSE DUCT CONNECTION |
| FD | FIRE DAMPER | TH | THROAT |
| FOB | FURNACE OUT | TDF | TRANSVERSE DUCT FITTING |
| FOS | FURNACE OUT | TYPWG | TURNING VANES |
| FOB | FLAT ON BOTTOM | TV | TV |
| FOS | FLAT ON SIDE | UP | UP |
| FSD | FLAT SIDE DUCT | V | VERTICAL |
| H | HORIZONTAL | VD | VOLUME DAMPER |
| M, F | MALE | W | WITH |
| OS | OFFSET | WG | WATER GAUGE |
| RISE | RISE | WP | WALL PENETRATION |
| | | ↑ or ↓ | SMOKE DAMPER |

## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER W/ FUSIBLE LINK |
| | MANUAL VOLUME DAMPER WITH OR QUADRANT TYPE REGULATOR |
| | CEILING MOUNTED CONCEALED REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR ACCESS PLATE |
| | DUCTWORK PIECE NO. INDICATOR |
| | TOP OF DUCT/BOTTOM OF DUCT ELEVATION INDICATOR |

## MATERIAL LISTS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 5IA | 14"WG SUPPLY AIR DUCTWORK UPSTREAM OF CVS PCS1-4 | 5-26-10 |
| 5IB | 3" X 12"WG EXH & RET AIR DUCTWORK PCS1-1 | 5-26-10 |
| 5IC | 12"WG SUPPLY AIR DUCTWORK DOWNSTREAM OF CVS PCS1-5 | 5-26-10 |
| 5IP | PURCHASED SPIRAL DUCTWORK PCS1-7&8 | 5-26-10 |
| 5IAG | ABOVE GRADE PCS 1-4,9-11 | 4-29-11 |

## REVISIONS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 8 | AS-BUILT RECORD DRAWING | 5-3-12 |


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JOB NO: 9507 PAY ITEM: 51

PROJECT: CHILDRENS HOSPITAL ORANGE, CA

TITLE: LEVEL ONE AREA J HVAC SYSTEM LAYOUT

REFERENCE DRAWINGS
ARCH:A3.1J STRUCT: S2.2BAC MECH: M3.1J

BY: B.P.

DATE: 1-27-10

SCALE: 3/8"=1'-0"

DRAWING NO. 51 OF 115

INSERTION=(0,0)

KEY PLAN L1

"PROJECT RECORD DRAWING"

# LEVEL ONE - NORTH WEST

FINISHED FLOOR ELEVATION=77'-0" (U.N.O.)
TOP OF STEEL ELEVATION =77'-5 3/4" (U.N.O.)

## NOTES

1. ELEVATIONS INDICATED ON THIS DRAWING ARE TO THE DUCT BODY. ALLOWANCES MUST BE MADE FOR INSULATION, LINING, REINFORCING AND EXTERIOR INSULATION WHEN COORDINATING ELEVATIONS.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AD, AP | ACCESS DOOR, ACCESS PLATE | S & D | S & DRIVE CONNECTOR |
| B, BOTT | BOTTOM | SI | SPIN-IN FITTING |
| C | CEILING, VOLUME | SLV | SLEEVE |
| D, DN | DOWN | SP | STATIC PRESSURE |
| DM | DUCTMATE CONNECTOR | T | TDF |
| F, FTM | FEMALE | TDC | TRANSVERSE DUCT CONNECTOR |
| FD | FIRE DAMPER | TDF | TDF |
| FI | FLANGE IN | TRANS | TRANSITION FITTING |
| FO | FLANGE OUT | TV | TURNING VANES |
| FOB | FLAT ON BOTTOM | V | V |
| FOS | FLAT ON SIDE | VD | VERTICAL |
| FOT | FLAT ON TOP | VD | VOLUME DAMPER |
| H | HORIZONTAL | W | WITH |
| M | MALE | WG | WATER GAUGE |
| OS | OFFSET | WI | WALK IN DOOR |
| R | RADIUS | (F) | FEMALE INDICATOR |

## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER NO. |
| | MANUAL VOLUME DAMPER WITH DIAL OR QUADRANT TYPE REGULATOR |
| | CEILING MOUNTED CONCEALED REGULATOR |
| M | MOTORIZED DAMPER |
| AD | DUCTWORK ACCESS DOOR OR ACCESS PLATE |
| T | DUCTWORK PIECE NO. |
| | INDICATOR |
| | DIRECTION OF FLOW/TYPE OF DUCT ELEVATION INDICATOR |

## MATERIAL LISTS

| NO. | DESCRIPTION |
|---|---|
| 50A | 4"WG SUPPLY AIR DUCTWORK UPSTREAM OF BOXES PDS1-47 |
| 50B | 3"WG SUPPLY AIR DUCTWORK UPSTREAM OF BOXES PDS1-47 |
| 50C | 2"WG SUPPLY AIR DUCTWORK DOWNSTREAM OF BOXES PDS1-70 |
| 50D | ALUMINUM DUCTWORK IN FUTURE PRI AREAS PDS3-9 |
| 50EP | PURCHASED SPIRAL @ DUCTWORK PDS7-46P |
| 50AC | AIRCARE PDS, I-M, 30-27 |
| 50E | DUCT @ PRI: 2"WG 5.5FT.- 1-2, 2"WG ALUM. 3-8 |
| 50F | 4"WG GALV.-1-7, 3"WG-8-11, 2"WG-8-25, 2"WG-26-34 |
| 50F | 2"WG 5.5FT.-1-31, 3"WG-1"WG(ALUM.)-40-48, 2"(ALUM.)-46-47 |
| 50F | 4"WG GALV.-48-49, 3"WG- 50, 2"WG- 51 (REF. CD#272) |

## REVISIONS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | AS-BUILT RECORD DRAWING | 1-2-13 |


HARRIS & HART
SHEET METAL CONTRACTORS & FABRICATORS

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ttaylor@harris-hart.com


JOB NO: 9507 PAY ITEM: 52

PROJECT:
CHILDRENS HOSPITAL
ORANGE, CA

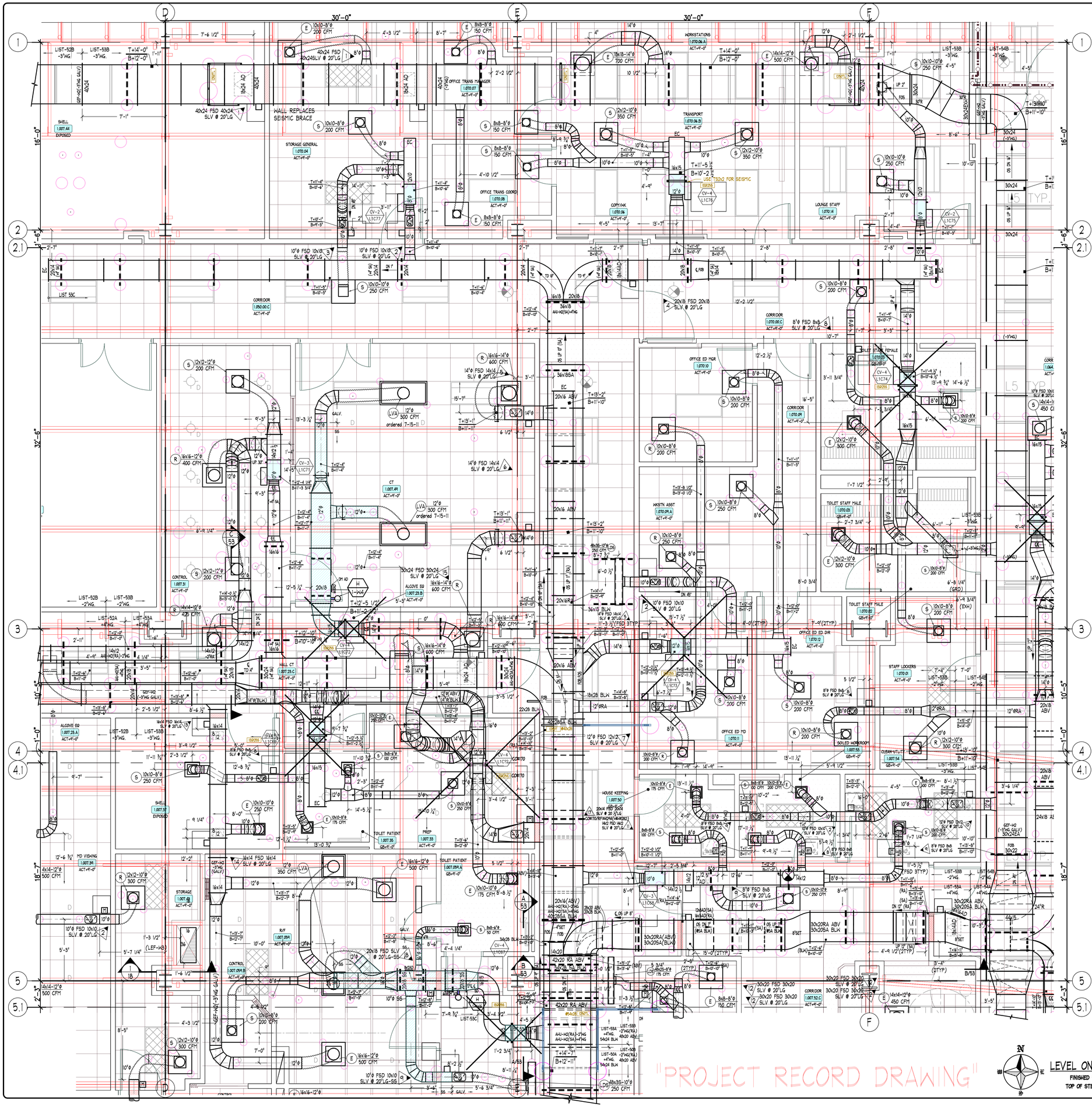
TITLE:
LEVEL ONE AREA K
HVAC SYSTEM LAYOUT

REFERENCE DRAWINGS
ARCH:A3.1K STRUCT: S2.2C MECH:M3.1K

BY: BP
DATE: 1-27-10
SCALE: 3/8"=1'-0"

DRAWING NO.
52 OF 115

KEY PLAN


30'-0"
30'-0"
WALL REPLACES SEISMIC BRACE
STORAGE GENERAL 1.070.04 ACT=9'-0"
OFFICE TRANS MANAGER 1.070.07 ACT=9'-0"
OFFICE TRANS COORD 1.070.08 ACT=9'-0"
WORKSTATIONS 1.070.06.A ACT=9'-0"
TRANSPORT 1.070.06.B ACT=9'-0"
COPY/INK 1.070.06 ACT=9'-0"
LOUNGE STAFF 1.070.14 ACT=9'-0"
OFFICE ED MGR 1.070.10 ACT=9'-0"
OFFICE ED ED DIR 1.070.12 ACT=9'-0"
OFFICE ED MD 1.070.11 ACT=9'-0"
STAFF LOCKERS 1.070.01 ACT=9'-0"
TOILET STAFF FEMALE 1.070.03 GB=9'-0"
TOILET STAFF MALE 1.070.02 GB=9'-0"
TOILET PATIENT 1.007.35 GB=9'-0"
TOILET PATIENT 1.007.09A GB=9'-0"
PREP 1.007.33 ACT=9'-0"
CORRIDOR 1.050.00.C ACT=9'-0"
CORRIDOR 1.070.00.C ACT=9'-0"
CORRIDOR 1.070.09 ACT=9'-0"
CORRIDOR 1.007.52.C ACT=9'-0"
SHELL 1.007.44 EXPOSED
SHELL 1.007.37 EXPOSED
CONTROL 1.007.31 ACT=9'-0"
CONTROL 1.007.09A.B ACT=9'-0"
ALCOVE EQ 1.007.23.A ACT=9'-0"
ALCOVE EQ 1.007.23.B ACT=9'-0"
HALL CT 1.007.23.C ACT=9'-0"
STORAGE 1.007.48 ACT=9'-0"
R/F 1.007.09A ACT=9'-0"
CT 1.007.49 ACT=9'-0"
MD VIEWING 1.007.38 ACT=9'-0"
HOUSE KEEPING 1.007.50 ACT=9'-0"
SOILED HOLDROOM 1.007.53 GB=9'-0"
CLEAN-STLT/ 1.007.54 GB=9'-0"
WKSTN ASST 1.070.09.A ACT=9'-0"
LIST-52B -3"WG.
LIST-53B -3"WG.
LIST-52A +4"WG.
LIST-53A +4"WG.
LIST-53C
LIST-54B -3"WG.
LIST-53B -2"WG.
LIST-54B -2"WG.
LIST-53B +4"WG.
LIST-54B +4"WG.
LIST-50A -2"WG.(RA) 40x20 ABV
LIST-50A +4"WG. 54x24 BLW
LIST-50B -2"WG.(RA) 40x20 ABV
LIST-50B +4"WG. 54x24 BLW
LIST-53E -3"WG.
LIST-54E -3"WG.
LIST-53D -2"WG.
LIST-54D -2"WG.
LIST-53B -3"WG.
LIST-54B -3"WG.
LIST-53B +4"WG.
LIST-54B +4"WG.
LIST-53B -2"WG.
LIST-54B -2"WG.
LIST-53B +4"WG.
LIST-54B +4"WG.
LIST-53B -2"WG.
LIST-54B -2"WG.
LIST-53B -3"WG.
LIST-54B -3"WG.
LIST-53B -3"WG.
LIST-54B -3"WG.
LIST-53B -3"WG.
LIST-54B -3

"PROJECT RECORD DRAWING"

# LEVEL ONE - NORTH EAST

FINISHED FLOOR ELEVATION=17'-0" (U.N.O.)
TOP OF STEEL ELEVATION +17'-5 3/4" (U.N.O.)

## NOTES

1. ELEVATIONS INDICATED ON THIS DRAWING ARE TO THE DUCT BODY. ALLOWANCES MUST BE MADE FOR DUCTWORK LINING, FLANGES, REINFORCING AND EXTERIOR INSULATION WHEN COORDINATING ELEVATIONS.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AD, AP | ACCESS DOOR, ACCESS PLATE | S & D | SIGN & DRAW CONNECTOR |
| B, BOTT | BOTTOM | SF | SIGN FITTING |
| C, CEIL | CEILING | SV | SUPPLY VALVE |
| D, DN | DOWN | SP | STATIC PRESSURE |
| DM | DUCTMATE CONNECTOR | T | TOP |
| EF | EXHAUST FAN | TDC | TRANSITION DUCT CONNECTOR |
| FD | FIRE DAMPER | TF | TRANSITION FITTING |
| F / FTM | FLANGE / FLANGE TO METAL | TRANS | TRANSITION |
| FI | FLANGE IN | TV | TURNING VANES |
| FO | FLANGE OUT | U | UP |
| FOB | FLAT ON BOTTOM | VD | VOLUME DAMPER |
| FOS | FLAT ON SIDE | W | WITH |
| FOT | FLAT ON TOP | WG | WATER GAUGE |
| H | HORIZONTAL | WI | WALL INDICATOR |
| M | MOTOR | ↗ | FLANGE INDICATOR |
| OFFSET | OFFSET | ↗ | |
| RADIUS | RADIUS | | |

## SYMBOL LEGEND

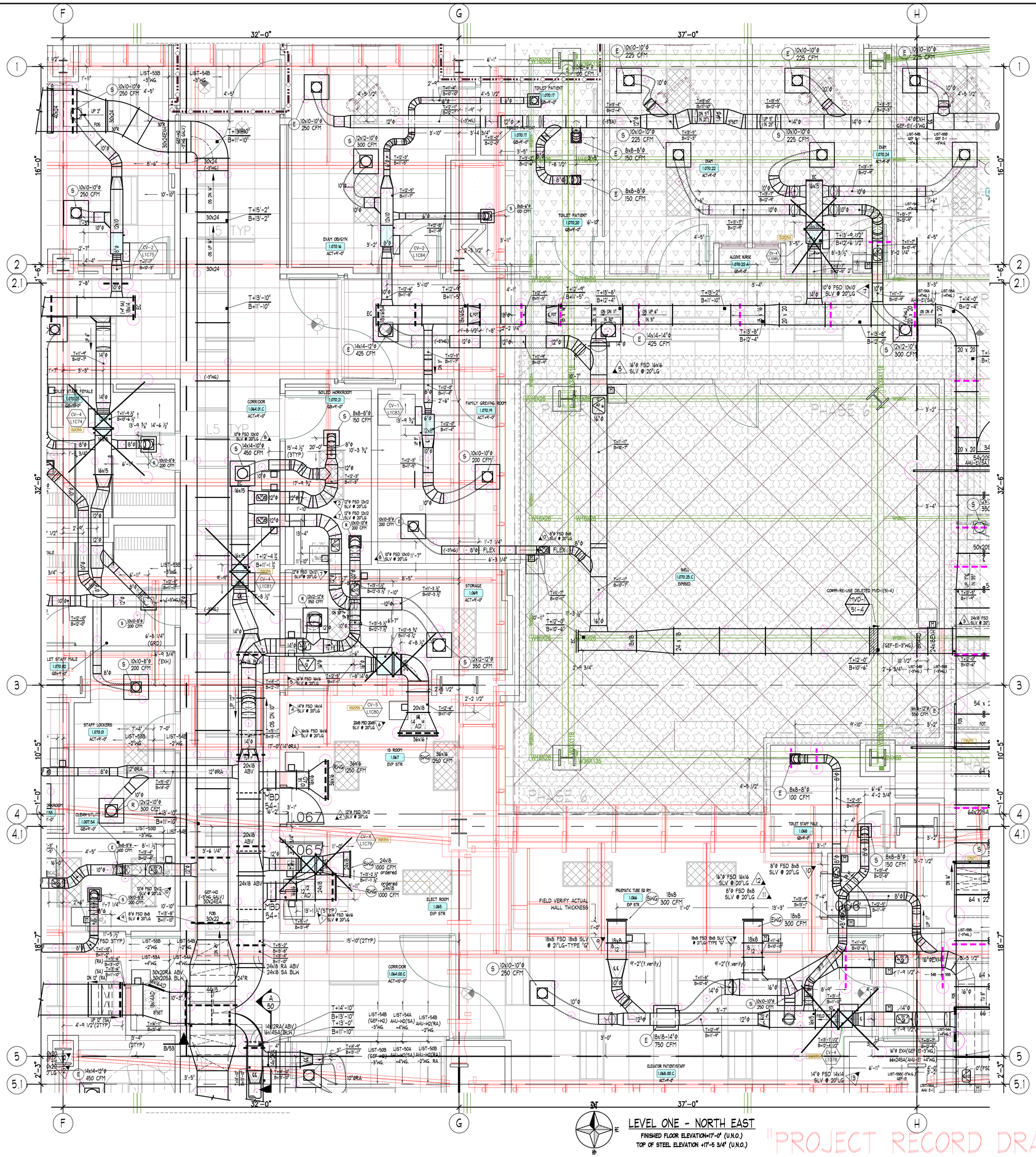
| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER (SF COMBINATION) |
| | FIRE/SMOKE DAMPER NO. |
| | MANUAL VOLUME DAMPER WITH DIAL OR QUADRANT TYPE REGULATOR |
| | CEILING MOUNTED CONCEALED REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR ACCESS PLATE |
| | DUCTWORK PIECE NO. |
| | INDICATOR |
| | SECTION OR ELEVATION INDICATOR |

## REVISIONS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 5 | 12-04-12 | PREPARED FOR ASI 166 |

## MATERIAL LISTS

| NO. | DATE | DESCRIPTION |
|---|---|---|
| 554 | 11-29-12 | 4"ø SUPPLY AIR DUCTWORK (WITHIN SHAFT) |
| 555 | 11-29-12 | 4", 3" & 2"ø EXH. EA. DUCTWORK |
| 556 | 11-29-12 | 10"ø SUPPLY AIR DUCTWORK (WITHIN SHAFT) |
| 557 | 12-1-12 | 4"-1 3/4"ø EXHAUST AIR DUCTWORK |
| 558 | 12-4-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559 | 12-5-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-1 | 12-4-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-2 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-3 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-4 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-5 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-6 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-7 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-8 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-9 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-10 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559-11 | 12-13-12 | PURCHASED SPIRAL 8" DUCTWORK |
| 559A | 11-29-12 | 4"ø GALV(TDC)-24-42.0T-2"ø GALV(TDF)-24-42.0T-2"ø GALV(TDF)-24-42.0T-2"ø GALV(TDF




## NOTES

1. ELEVATIONS INDICATED ON THIS DRAWING ARE FOR REFERENCE ONLY. ALL MEASUREMENTS ARE MADE FOR TRANSVERSE CONNECTORS; REFER TO MECHANICAL SHOP DRAWINGS FOR COORDINATING ELEVATIONS.

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AD, AP | ACCESS DOOR, ACCESS PLATE | S | S & P DRIVE CONNECTION |
| B, BOTT | BOTTOM | SI | SPIN-IN FITTING |
| CL | CENTERLINE | SLV | SLEEVE |
| Ø, DIA | DIAMETER | SP | STATIC PRESSURE |
| DI | DUCTWORK CONNECTION | T | TOP |
| F, FEM | FEMALE | TDC | TRANSVERSE DUCT CONNECTOR |
| FD | FIRE DAMPER | TH | THROAT |
| FSD | FIRE SMOKE DAMPER | TDF | TRANSVERSE FITTING |
| FO | FLANGE OUT | TV | TURNING VANES |
| FOB | FLAT ON BOTTOM | U | UP |
| FOS | FLAT ON SIDE | VD | VOLUME DAMPER |
| FOT | FLAT ON TOP | W | WITH |
| H | HORIZONTAL | WD | WATER GAUGE |
| M | MALE | WG | WIRE GUIDE |
| RD | ROUND | F | FEMALE INDICATOR |
| R | RADIUS | M | MALE INDICATOR |

## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER |
| | MANUAL VOLUME DAMPER WITH QUAL OR QUADRANT TYPE REGULATOR |
| | MANUAL VOLUME DAMPER WITH LOCKING QUADRANT REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR PANEL |
| | DUCTWORK SECT. NO. |
| | TOP OF DUCT/BOTTOM OF DUCT ELEVATION INDICATOR |

## MATERIAL LISTS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 54A | 4" W.G. SUPPLY DUCTWORK | 5-28-10 |
| 54B | 3" & 2" W.G. RETURN / EXH DUCTWORK | 5-28-10 |
| 54C | 2" W.G. SUPPLY DUCTWORK | 5-28-10 |
| 54P | PURCHASED ROUND | 5-28-10 |
| 54D | 2" W.G. 1/2", 3/4#, 3-01 | 10-5-10 |
| 54F | 3" W.G. PURCHASED TCS 18-94 | 10-5-10 |
| 54E | 4" W.G. DUCTMATE/PCS-1-3/94 GALV(EXH) | 5-5-11 |
| 54G | 4" W.G. DUCTMATE/PCS-1-3/94 GALV(SUP) | 10-24-11 |
| 54C | ADDED TCS-1-91, 12-13 | 4-29-14 |

## REVISIONS

| NO. | DESCRIPTION | DATE |
|---|---|---|
| 1 | AS-BUILT RECORD DRAWING | 5-3-12 |


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JOB NO: 9507 PAY ITEM: 54

PROJECT:
CHILDRENS HOSPITAL
ORANGE, CA

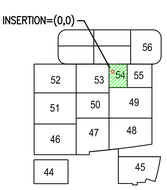
TITLE:
LEVEL ONE AREA P
HVAC SYSTEM LAYOUT

REFERENCE DRAWINGS
ARCH:A3.1P STRUCT: S2.2D MECH:M3.1P

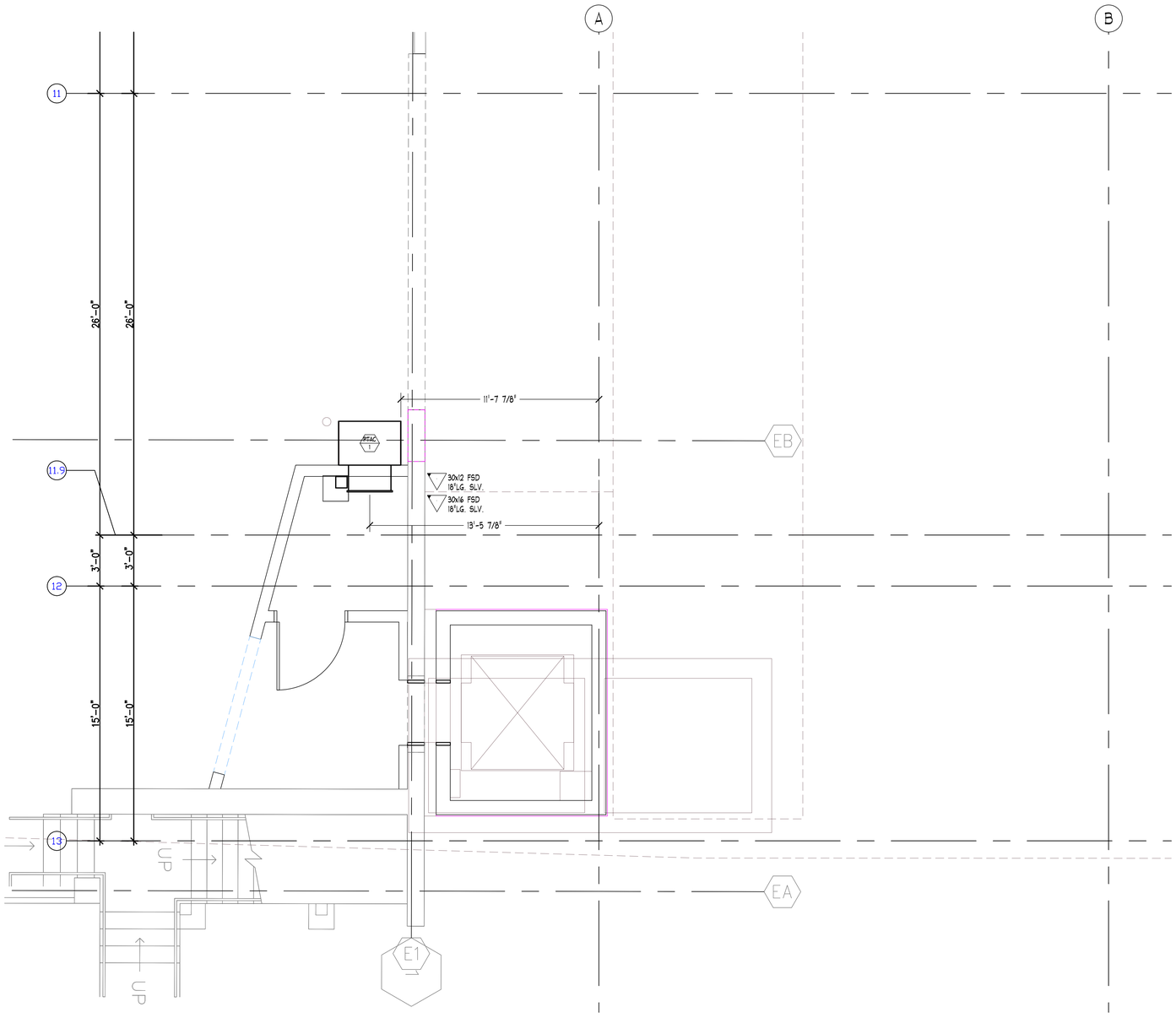
BY: RON FRESTON
DATE: 1-27-10
SCALE: 3/8"=1'-0"

DRAWING NO.
54 OF 115

INSERTION=(0,0)




KEY PLAN




## SYMBOL LEGEND

| SYMBOL | DESCRIPTION |
|---|---|
| | FIRE DAMPER OR COMBINATION FIRE/SMOKE DAMPER W/O ACTUATOR |
| | MANUAL VOLUME DAMPER WITH QUADRANT TYPE REGULATOR |
| | CEILING MOUNTED CONCEALED REGULATOR |
| | MOTORIZED DAMPER |
| | DUCTWORK ACCESS DOOR OR ACCESS PLATE |
| | ROUND TAKE OFF FITTING |
| | TOP OF DUCT/BOTTOM OF DUCT ELEVATION INDICATOR |

## ABBREVIATIONS

| | | | |
|---|---|---|---|
| AD or RD, BOTT | ACCESS DOOR, ACCESS PLATE BOTTOM | S & D | S & DRIVE CONNECTOR S-DRIVE SLIP FITTINGS |
| ℄ | CENTERLINE | SLV | SLEEVE |
| D, DN | DOWN | SP | STATIC PRESSURE |
| DW, L | ELEVATION CONNECTOR | T | TON |
| F, FTM | FLANGE | TDC | TRANSVERSE DUCT CONNECTOR |
| FD | FIRE DAMPER | TH | THROAT |
| FL | FLANGE IN | TRANS | TRANSITION FITTING |
| FLG | FLANGE OUT | TV | TURNING VANES |
| FOB | FLAT ON BOTTOM | U | UP |
| FOS | FLAT ON SIDE | V | VERTICAL |
| FOT | FLAT ON TOP | VD | VOLUME DAMPER |
| H | HORIZONTAL | W | WITH |
| M | MALE | WG | WATER GAUGE |
| OS | OFFSET | ↑P | MALE INDICATOR |
| PLUG | PLUG | ↓P | FEMALE INDICATOR |

## NOTES

1. ELEVATIONS INDICATED ON THIS DRAWING ARE TO THE BOTTOM OF DUCT. ALLOWANCE MUST BE MADE FOR TRANSVERSE CONNECTORS, REINFORCING AND EXTERIOR INSULATION WHEN COORDINATING ELEVATIONS.

## MATERIAL LISTS

| DATE | NO. | DESCRIPTION |
|---|---|---|
| | | |

## REVISIONS

| DATE | NO. | DESCRIPTION |
|---|---|---|
| 5-3-12 | 1 | AS-BUILT RECORD DRAWING |

"PROJECT RECORD DRAWING"


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WEBSITE: WWW.HARRIS-HART.COM
E-MAIL TO DETAILING DEPARTMENT:
ttaylor@harris-hart.com


JOB NO: 9507 PAY ITEM: 44

PROJECT:
CHILDRENS HOSPITAL
ORANGE, CA

TITLE:
LEVEL ONE ELEV. EQUIP. RM.
HVAC SYSTEM LAYOUT

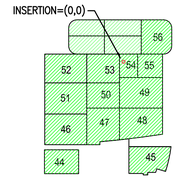
REFERENCE DRAWINGS
ARCH:A3.31.2 STRUCT: MECH:M3.31

BY:
DATE: 1-27-10
SCALE: 3/8"=1'-0"

DRAWING NO.
44 OF 115

LEVEL ONE - SOUTH WEST
FINISHED FLOOR ELEVATION=156.02
GARAGE BRIDGE & ELEVATOR (PROJECT # 12013.00)

SUPPLY AIR DUCTS & FSD'S SHOWN BOLD




KEY PLAN