SOUTH KING FIRE & RESCUE

FACILITY IMPROVEMENTS
FIRE STATION 66



PROJECT INFORMATION

GOVERNING CODES

2015 INTERNATIONAL BUILDING CODE (IBC)
WASHINGTON STATE AMENDMENTS, WAC 51-50 AND RCW 19.27 & 70.92
ACCESSIBILITY CODE ICC/ANSI A117.1-2009
2015 INTERNATIONAL RESIDENTIAL CODE (IRC)
WASHINGTON STATE AMENDMENTS, WAC 51-11R, 51-56 AND 296-46B
2015 INTERNATIONAL MECHANICAL CODE (IMC)
WASHINGTON STATE AMENDMENTS, WAC 51-52 AND RCW 19.27
2015 INTERNATIONAL FIRE CODE (IFC)
WASHINGTON STATE AMENDMENTS, WAC 51-54A AND RCW 19.27
2015 INTERNATIONAL EXISTING BUILDING CODE (IEBC)
WASHINGTON STATE AMENDMENTS, WAC 51-11R & 51-11C AND RCW 19.27
2015 WASHINGTON STATE ENERGY CODE (WSEC)
2014 NATIONAL ELECTRICAL CODE
WASHINGTON STATE AMENDMENTS, WAC 296-43, 296-45 & 296-46B AND RCW 19.28 2015 UNIFORM PLUMBING CODE (UPC)
WASHINGTON STATE AMENDMENTS, WAC 51-56 AND RCW 19.27

PROJECT INFORMATION

PARCEL NUMBER: 953660-2015
PROPERTY TAX ACCOUNT NUMBER: 953660-2015

BUILDING ADDRESS: 27010 15th AVENUE SOUTH, DES MOINES, WASHINGTON
PRESENT USE: GOVERNMENT SERVICES

ZONING: RS-7,200 RESIDENTIAL: SINGLE FAMILY 7,200

(EXISTING) SINGLE STORY FACILITY NOT SPRINKLERED
TOTAL GROSS FLOOR AREA 6,955 SQ FT (NET 6,840 SQ FT)

TOTAL SITE AREA 1.02 ACRES (APPROXIMATE 44,220 SQ FT)

TYPE OF CONSTRUCTION: VB (NO CHANGE)

OCCUPANCY CLASSIFICATION: (NO CHANGE)
S-2: APPARATUS BAY AND ASSOCIATED SUPPORT AREAS
R-2: SLEEPING ROOMS, KITCHEN AND PHYSICAL FITNESS AREA

OCCUPANT LOAD = NO CHANGE

MAXIMUM EXIT ACCESS TRAVEL DISTANCE = 250 FT (IBC T1017.2)

METHOD OF HEATING: ELECTRICAL, GAS

METHOD OF LIGHTING EQUIPMENT COMPLIANCE: LIGHTING POWER ALLOWANCE

SCOPE OF WORK

ESTIMATED PROJECT VALUATION: $2,195,284

SITE IMPROVEMENTS:
- **REPAVING PORTIONS OF EXISTING DRIVEWAY AND PARKING, REFER TO CIVIL DRAWINGS FOR ASSOCIATED WORK**
- **SECURITY FENCING, GATES, AND REQUIRED SITEWORK, SEE SITE PLAN AND SPECIFICATIONS FOR WORK BY OWNER**

EXTERIOR IMPROVEMENTS:

- **REROOFING THE EXISTING ROOF TO MEET THE ENERGY CODE**
- **RESIDING EXTERIOR WALLS**

INTERIOR RENOVATION:

- **RENOVATE AND REMODEL THE EXISTING STATION TO ACCOMMODATE INDIVIDUAL RESTROOMS WITH SHOWERS, APPROPRIATELY SIZED INDIVIDUAL SLEEPING ROOMS**
- **RENOVATE AND REMODEL THE EXISTING KITCHEN**
- **IMPROVED STORAGE, DECONTAMINATION, AND WORK AREAS**
- **SEISMIC UPGRADE**
- **MECHANICAL AND ELECTRICAL IMPROVEMENTS**
- **NEW AUTOMATIC SPRINKLER SYSTEM**

PROJECT TEAM

OWNER:

SOUTH KING FIRE & RESCUE
31617 1ST AVENUE
FEDERAL WAY, WASHINGTON 98003
PHONE: 253-927-3118

ARCHITECT:

RICE FERGUS MILLER, INC.
275 5TH STREET
SUITE 100
BREMERTON, WA 98337
PHONE: (360) 377-8773
CONTACT:ED McMANAMINA
EMAIL: emcmanamina@rfmarch.com

CIVIL:

REID MIDDLETON
728 134TH STREET SW
EVERETT, WASHINGTON 98204
PHONE: 425-741-3800
CONTACT: MARK DAVIS
EMAIL: mdavis@reidmiddleton.com

STRUCTURAL:

REID MIDDLETON
728 134TH STREET SW
EVERETT, WASHINGTON 98204
PHONE: 425-741-3800
CONTACT: CORBIN HAMMER
EMAIL: chammer@reidmiddleton.com

MECHANICAL & PLUMBING:

SIDER + BYERS
192 NICKERSON, SUITE 300
SEATTLE, WASHINGTON 98109
PHONE: 206-285-2966
CONTACT: JAMES WHIGHAM
EMAIL: james@siderbyers.com

ELECTRICAL:

BEC ENGINEERS, INC
6021 12TH STREET E, SUITE 200
FIFE, WASHINGTON 98424
PHONE: 253-922-0446
CONTACT: CARRIE TAYLOR
EMAIL: carrie.taylor@bceengineers.com

ENVIRONMENTAL:

EHS-INTERNATIONAL, INC
1011 SW KLICKITAT WAY, SUITE 104
SEATTLE, WASHINGTON 98134
PHONE: 206-381-1128
CONTACT: DERICA ESCAMILLA
EMAIL: DericaE@ehsintl.com



N
1 VICINITY MAP
NTS

DRAWING INDEX

SHEET #	SHEET NAME
GENERAL	
A00.01	COVER SHEET AND GENERAL PROJECT INFORMATION
A00.02	ABBREVIATIONS AND SYMBOLS
CIVIL	
TS.1	EXISTING CONDITIONS
C1.00	TEMPORARY EROSION CONTROL AND DEMOLITION PLAN
C2.00	UTILITIES PLAN
C3.00	PAVING PLAN
C4.00	DETAILS
C4.01	DETAILS
ENVIRONMENT	
HA001	GENERAL NOTES, ABBREVIATIONS, SHEET INDEX, AND MATERIALS SUMMARY
HA101	HAZMAT - LEVEL 1 FLOOR PLAN
HA102	HAZMAT - LEVEL 1 WALL & CEILING PLAN
HA103	HAZMAT - BUILDING EXTERIOR PLAN
HA104	HAZMAT - ROOF PLAN
ARCHITECTURAL	
A01.01	ASSEMBLY SCHEDULES
A02.01	FIRE AND LIFE SAFTY CODE
A10.01	ARCHITECTURAL SITE PLAN
A10.02	SITE DETAILS
A20.01	EXISTING CONDITIONS, EXTERIOR
A20.02	EXISTING CONDITIONS, INTERIOR
A21.00	SLAB PLANS
A21.01	DEMO PLAN
A21.02	DEMO RCP
A21.03	DEMO ROOF PLAN
A21.11	FLOOR PLAN
A21.12	ROOF PLAN
A22.01	REFLECTED CEILING PLAN
A26.01	ENLARGED PLANS
A30.01	DEMO EXTERIOR ELEVATIONS
A31.01	BUILDING ELEVATIONS
A33.01	BUILDING SECTIONS
A35.01	TYPICAL EXTERIOR DETAILS
A35.02	EXTERIOR DETAILS
A35.03	EXTERIOR DETAILS
A35.04	EXTERIOR DETAILS
A50.01	WINDOW SCHEDULE AND DETAILS
A50.02	WINDOW DETAILS
A60.01	DOOR SCHEDULE AND DETAILS
A70.01	INTERIOR ELEVATIONS
A70.02	INTERIOR ELEVATIONS
A71.01	INTERIOR DETAILS
A71.02	INTERIOR DETAILS
A72.01	FINISH INFORMATION
STRUCTURAL	
S00.01	ABBREVATIONS AND SYMBOLS
S00.02	GENERALSTRUCTURAL NOTES
S00.03	GENERAL STRUCTURAL NOTES
S00.04	SPECIAL INSPECTIONS TABLE
S21.11	FOUNDATION PLAN
S21.12	MECHANICAL PLATFORM FRAMING PLAN
S21.13	ROOF FRAMING PLAN
S30.01	CONCRETE/SHOTCRETE ELEVATIONS
S40.01	FOUNDATION DETAILS
S40.02	FRAMING DETAILS
S40.03	ROOF FRAMING DETAILS
S40.04	ROOF FRAMING DETAILS
S50.01	TYPICAL CONCRETE DETAILS
S50.02	SHEAR WALL & HOLDOWN SCHEDULES AND DETAILS
MECHANICAL	
M00.01	MECHANICAL COVER SHEET
M00.02	MECHANICAL NOTES
M00.03	MECHANICAL SCHEDULES
M00.04	MECHANICAL SCHEDULES
M20.11	MECHANICAL DEMOLITION PLAN
M21.11	FLOOR PLAN MECHANICAL
M21.12	ROOF PLAN MECHANICAL
M21.13	ENLARGED PLAN
M22.01	MECHANICAL SECTIONS
M30.01	MECHANICAL DETAILS
M30.02	MECHANICAL DETAILS
M30.03	MECHANICAL DETAILS
M30.04	MECHANICAL DETAILS
M40.01	VRF DIAGRAM
PLUMBING	
P00.01	PLUMBING COVER SHEET
P00.02	PLUMBING SCHEDULES
P20.10	DEMOLITION FOUNDATION PLAN
P20.11	DEMOLITION FLOOR PLAN
P21.10	FOUNDATION FLOOR PLAN
P21.11	FLOOR PLAN PLUMBING
P21.12	ROOF PLAN PLUMBING
P30.01	PLUMBING DETAILS
P30.02	PLUMBING DETAILS
P30.03	PLUMBING DETAILS
P30.04	PLUMBING DETAILS
ELECTRICAL	
E0.01	ELECTRICAL LEGEND
E0.02	SCHEDULES
E0.03	LIGHTING CONTROL DIAGRAMS
E0.04	LOW VOLTAGE LIGHTING SCHEDULES
E1.01	ELECTRICAL SITE PLAN
ED1.11	LEVEL 1 - LIGHTING DEMO PLAN
ED1.12	LEVEL 1 - POWER & SYSTESM DEMO PLAN
E1.21	LEVEL 1 - LIGHTING PLAN
E1.31	LEVEL 1 - POWER PLAN
E1.41	SYSTEMS PLAN
E2.21	ROOF - POWER PLAN
E5.01	ELECTRICAL ONE-LINE DIAGRAM
E5.02	ELECTRICAL ONE-LINE DIAGRAM
E6.01	PANEL SCHEDULES
E6.02	PANEL SCHEDULES

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

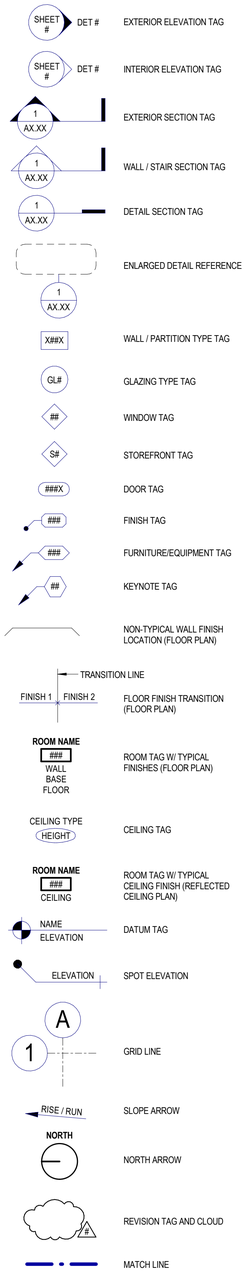
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

COVER SHEET AND GENERAL PROJECT INFORMATION

SHEET:

A00.01



2 SYMBOL LEGEND

1 ABBREVIATION LIST

– A –	
A	AMP
A/V	AUDIO VISUAL
AB	ANCHOR BOLT
ACC	ACCESSORIES
ACST	ACOUSTIC(AL)
ACT	ACOUSTIC CEILING TILE
ADJ	ADJACENT,
	ADJUST(ABLE)
AFF	ABOVE FLOOR FINISH
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX	APPROXIMATELY
ARCH	ARCHITECT(URAL)
AUTO	AUTOMATIC
– B –	
BD	BOARD
BITUM	BITUMINOUS
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BR	BEDROOM
BTWN	BETWEEN
BUR	BUILT UP ROOF(ING)
– C –	
CAB	CABINET
CALC	CALCULATION
CB	CATCH BASIN,
	CORNER BEAD
CEM	CEMENT
CFOI	CONTRACTOR FURNISHED & OWNER INSTALLED
CG	CORNER GUARD
CH	COAT HOOK
CIP	CAST IN PLACE
CJ	CONTROL JOINT,
	CONSTRUCTION JOINT
CL	CENTERLINE
CLG	CEILING
CLKJ	CAULKED JOINT
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECT(ION)
CONSTR	CONSTRUCTION
CONT	CONTINUE,
	CONTINUOUS
CONTR	CONTRACTOR
CORRD	CORDINATE
CORR	CORRIDOR
COV	COVE
CP	CEMENT PLASTER
CPT	CARPET
CRK	CORK
CRL	CHAIR RAIL
CS	CONCRETE SEALER
CSMT	CASEMENT
CTR	CENTER
– D –	
D	DEEP,
	DRYER
DBL	DOUBLE
DEB	DRY ERASE BOARD
DEMO	DEMOLISH,
	DEMOLISION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPOSAL
DL	DEAD LOAD
DN	DOWN
DP	DECORATIVE PANEL
DR	DOOR,
	DINING ROOM,
	DRAIN
DS	DOWNSPOUT
DW	DISHWASHER
DWG	DRAWING
DWR	DRAWER
– E –	
E	EAST
EA	EACH
EC	EDGE OF CURB
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR,
	ELEVATION
EMER	EMERGENCY
ENCL	ENCLOSE(D),
	ENCLOSURE
EP	ELECTRICAL PANELBOARD
EQ	EQUAL
EQUIP	EQUIPMENT
EST	ESTIMATE(D)
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPOSED,
	EXPANSION
EXT	EXTERIOR
– F –	
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDMPR	FIRE DAMPER
FDTN	FOUNDATION
FDV	FIRE DEPARTMENT VALVE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FACTORY FINISH,
	FINISH FACE
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK, FIRE HOSE REEL
FIN	FINISHED
FIN FLR	FINISHED FLOOR
FIXT	FIXTURE
FLASH	FLASHING
FLR	FLOOR
FLUOR	FLUORESCENT
FMF	FLEXIBLE MEMBRANE FLASHING
FOB	FACE OF BRICK
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FPL	FIREPLACE
FRP	FIBER REINFORCED PLASTIC
–F–	
FRTW	FIRE RETARDANT TREATED WOOD
FRZ	FREEZER
FS	FULL SIZE
FT	FOOT,
	FEET
FTG	FOOTING
FURN	FURNITURE
FUT	FUTURE
– G –	
G	GROUND
GA	GAUGE
GALV	GALVANIZED
GAR	GARAGE
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GEN	GENERAL
GFRG	GLASS REINFORCED PLASTER, GLASS FIBER REINFORCED GYPSUM
GI	GALVANIZED IRON
GL	GLASS
GLULAM	GLUE LAMINATED
GR	GROSS
GT	GROUT
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
– H –	
H	HIGH,
	HEIGHT
HB	HOSE BIB
HC	HOLLOW CORE, HANDICAPPED
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HGR	HANGER
HM	HOLLOW METAL
HRL	HANDRAIL
HORIZ	HORIZONTAL
HR	HOURS
HT	HEIGHT
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
HWT	HOT WATER TANK
– I –	
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER, INSIDE DIMENSION
IFC	INTERNATIONAL FIRE CODE
IIC	IMPACT INSULATION CLASS
IMC	INTERNATIONAL MECHANICAL CODE
IN	INCH(ES)
INC	INCREASE
INCL	INCLUDE(D), INCLUDING
INFO	INFORMATION
INSTL	INSTALL(ATION)
INSUL	INSULATION
INT	INTERIOR
– J –	
JAN	JANITOR
JBOX	JUNCTION BOX
JT	JOINT
– K –	
KD	KILN DRIED
KIT	KITCHEN
KW	KILOWATT
– L –	
L	LEFT, LINEN, LONG
LAB	LABORATORY
LAM	LAMINATE(D)
LAU	LAUNDRY
LAV	LAVATORY
LB(S)	POUND(S)
LDG	LANDING
LINO	LINOLEUM
LL	LIVE LOAD
LOC	LOCATION
LPT	LOW POINT
LR	LIVING ROOM
LRG	LARGE
LT	LIGHT
LTG	LIGHTING
LVR	LOUVER
– M –	
M&S	MIRROR & SHELF
MACH	MACHINE
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MBR	MASTER BEDROOM
MC	MEDICINE CABINET
MDO	MEDIUM DENSITY OVERLAY
MECH	MECHANIC(AL)
MED	MEDIUM
MEDS	MEDICINE, MEDICAL
MEMB	MEMBRANE
MEZZ	MEZZANINE
MFR	MANUFACTURER
MFRREC	MANUFACTURER'S RECOMMENDATION(S)
MGR	MANAGER
MH	MANHOLE
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MO	MASONRY OPENING, MONITOR
MTD	MOUNTED
MTL	METAL
MULL	MULLION
MULT	MULTIPLE
MW	MICROWAVE OVEN
– N –	
N	NORTH
NA	NOT APPLICABLE
NC	NOISE CRITERIA, NURSE CALL
NCAP	NURSE CALL ANNUNCIATOR PANEL
NCOMBL	NON-COMBUSTIBLE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NT	NET
NTS	NOT TO SCALE
– O –	
O/	OVER
OA	OVERALL
OC	ON CENTER
OCC	OCCUPANTS, OCCUPANT LOAD, OCCUPANCY
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED & CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED & OWNER INSTALLED
OFD	OVERFLOW DRAIN
OFF	OFFICE
OGL	OBSCURE GLASS
OHDR	OVERHEAD DOOR
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
ORD	OVERFLOW ROOF DRAIN
OZ	OUNCE
– P –	
P	PAINT(ED), PANTRY
PC	PORTLAND CEMENT
PCC	PRECAST CONCRETE
PED	PEDESTAL
PERF	PERFORATED
PERM	PERMANENT
PERP	PERPENDICULAR
PFP	PREPARED FOR PAINT
PIV	POST INDICATOR VALVE
PL	PLATE, PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PLYWD	PLYWOOD
PMTL	PAINTED METAL
PNT	POINT
PP	POWER POLE
PR	PAIR
PREFAB	PREFABRICATE
PRELIM	PRELIMINARY
PRKG	PARKING
PROP	PROPERTY
PS	PROJECTOR SCREEN
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESERVATIVE TREATED, PRESSURE TREATED, POST TENSIONED
PTD	PAPER TOWEL DISPENSER
PTDWRC	PAPER TOWEL DISPENSER & WASTE RECEPTACLE
PTN	PARTITION
PVC	POLYVINYL CHLORIDE, POLYVINYL CHLORIDE PIPE
PVD	PROVIDE
PVG	PAVING
PVR	PAVERS
– Q –	
QTY	QUANTITY
QTZ	QUARTZ
– R –	
R	RISER, RANGE, RADIUS
R/S	ROD & SHELF
RA	RETURN AIR
RCF	RAISED COMPUTER FLOOR
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REBAR	REINFORCING BAR
REC	RECESSED
RECPT	RECEPTACLE
REF	REFERENCE, REFRIGERATOR
REINF	REINFORCE(D), REINFORCING
RES	RESILIENT FLOORING
REQD	REQUIRED
REST	RESTROOM
RET	RETAINING
REV	REVISED, REVISION
RH	ROBE HOOK
RM	ROOM
RO	ROUGH OPENING
RP	RADIUS POINT
RS	ROUGH SAWN
RT	RIGHT
RVL	REVEAL
– S –	
S	SOUTH, SINK
S/R	SHELF & ROD
SAN	SANITARY
SC	SOLID CORE
SCD	SEAT COVER DISPENSER
SCHED	SCHEDULE
SD	SOAP DISH, SOAP DISPENSER, STORM DRAIN
SEAL	SEALER, SEALANT
SECT	SECTION
SEP	SEPARATION
SF	SQUARE FEET
SG	SAFETY GLASS, SAFETY GLAZING
SHR	SHOWER
SHT	SHEET
SHTG	SHEATHING, SHEETING
SHLV	SHELVING
SIM	SIMILAR
SM	SHEET METAL
SND	SANITARY NAPKIN DISPENSER
SOG	SLAB ON GRADE
SOL	SOLID SURFACE
STO	STONE
SPECS	SPECIFICATION(S)
SPKLR	SPRINKLER
SPKR	SPEAKER
SQ	SQUARE
SQIN	SQUARE INCH
SS	SERVICE SINK, SANITARY SEWER
SST	STAINLESS STEEL
ST	STREET, STAIN
STA	STATION
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STIR	STIRRUP
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL
SU	SOILED UTILITY
SUBFL	SUBFLOOR
SUSP	SUSPENDED
SW	SWITCH
SYM	SYMMETRICAL
– T –	
T	TREAD, TILE
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TB	TOWEL BAR
TEL	TELEPHONE
TEMP	TEMPORARY, TEMPERATURE
TER	TERRAZZO
THK	THICK(NESS)
TI	TENANT IMPROVEMENT
TL	TOTAL LOAD
TMPD	TEMPERED
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CURB, TOP OF CONCRETE
TOF	TOP OF FOOTING, TOP OF FLOOR, TOP OF FRAME
TOS	TOP OF SLAB, TOP OF STEEL
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TR	TRANSITION STRIP
TV	TELEVISION
TYP	TYPICAL
– U –	
UC	UNDERCOUNTER, UNDERCABINET, UNDERCUT
UGND	UNDERGROUND
UNFIN	UNFINISHED
UNO	UNLESS NOTED OTHERWISE
UP	UTILITY POLE
UPC	UNIFORM PLUMBING CODE
UTIL	UTILITY
– V –	
V	VOLT(AGE)
VCT	VINYL COMPOSITION TILE
VEH	VEHICLE
VEND	VENDING MACHINE
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
VNR	VENEER
VTO	VENT TO OUTSIDE
VTR	VENT THROUGH ROOF
– W –	
W	WEST, WIDE, WASHING MACHINE
W/	WITH
W/D	WASHER & DRYER
W/O	WITHOUT
WB	WALL BASE
WC	WATER CLOSET, WALL COVERING
WCO	WINDOW COVERING
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WH	WATER HEATER
WIC	WALK-IN CLOSET
WM	WIRE MOLD, WATER METER, WIRE MESH
WO	WALK-OFF FLOORING
WP	WORK POINT, WATERPROOFING, WEATHER PROOF
WPM	WATERPROOF MEMBRANE
WR	WATER REPELLENT, WATER RESISTANT
WRB	WATER RESISTANT BARRIER
WRC	WAIST RECEPTACLE
WSCT	WAINSCOT
WSEC	WASHINGTON STATE ENERGY CODE
WSVIAQC	WASHINGTON STATE VENTILATION & INDOOR AIR QUALITY CODE
WT	WEIGHT
WWF	WELDED WIRE FABRIC
–ASSOCIATIONS–	
AISI	AMERICAN IRON AND STEEL INSTITUTE
AMCA	AIR MOVING & CONDITIONING ASSOCIATION, INC.
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ARIB	ASPHALT ROOFING INDUSTRY BUREAU
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS
AWI	AMERICAN WOODWORK INSTITUTE
AWS	AMERICAN WELDING SOCIETY
AWWA	AMERICAN WATER WORKS ASSOCIATION
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CS	COMMERCIAL STANDARD OF THE U.S. DEPARTMENT OF COMMERCE
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE
FGMA	FLAT GLASS MARKETING ASSOCIATION
HUD	US DEPARTMENT OF HEALTH AND URBAN DEVELOPMENT
ICC	INTERNATIONAL CODE COUNCIL
IBC	INTERNATIONAL BUILDING CODE
IEEE	INSTITUTE OF ELECTRICAL & ELECTRONIC ENGINEERS
IPCEA	INSULATED POWER CABLE ENGINEER ASSOCIATION
MLA	METAL LATH ASSOCIATION
NAAMM	NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
NEMA	NATIONAL FIRE PROTECTION ASSOCIATION
NWMA	NATIONAL WOODWORK MANUFACTURER'S ASSOCIATION
OSHA	OCCUPACTIONAL SAFETY AND HEALTH ADMINISTRATION
PS	PRODUCT STANDARD OF U.S. DEPARTMENT OF COMMERCE
SDI	STEEL DECK INSTITUTE
SDI	STEEL DOOR INSTITUTE
SMACNA	SHEET METAL & AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
SSPC	STEEL STRUCTURES PAINTING COUNCIL
TCA	TILE COUNCIL OF AMERICA
UL	UNDERWRITER'S LABORATORIES
WAC	WASHINGTON ADMINISTRATIVE CODE
WISHA	WASHINGTON INDUSTRIAL SAFETY AND HEALTH ACT
WSDOH	WASHINGTON STATE DEPARTMENT OF HEALTH
WSDSHS	WASHINGTON STATE DEPARTMENT OF SOCIAL AND HEALTH SERVICES
WSEC	WASHINGTON STATE ENERGY CODE
WSVIAQC	WASHINGTON STATE VENTILATION & INDOOR AIR QUALITY CODE
WWPA	WESTERN WOOD PRODUCTS ASSOCIATION

RICE ARCHITECTURE & PLANNING fergus MILLER

275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

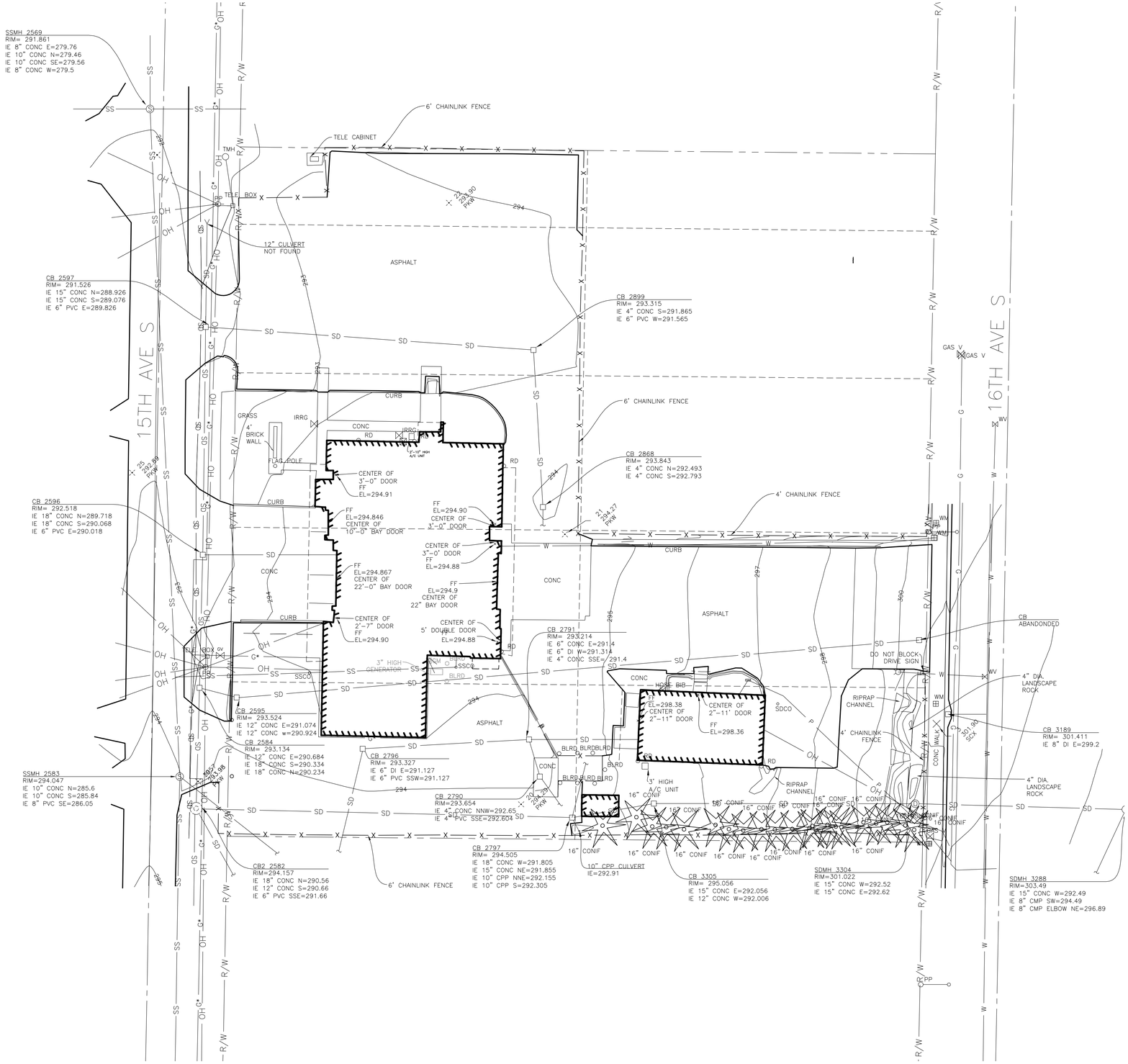
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

ABBREVIATIONS AND SYMBOLS

SHEET:

A00.02



LEGEND

- CONIFER TREE
- TELEPHONE/COMM. MANHOLE
- TELEPHONE BOX
- GAS VALVE
- GAS METER
- JUNCTION BOX
- POWER MANHOLE
- LIGHT POLE
- POWER TRANSFORMER
- UTILITY POLE
- GUY ANCHOR
- STORM DRAIN MANHOLE
- CATCH BASIN
- CLEANOUT
- CULVERT AS NOTED
- WATER VAULT
- FIRE HYDRANT
- WATER VALVE
- WATER METER
- WATER MANHOLE OR AS NOTED
- IRRIGATION VALVE
- HOSE BIB
- SANITARY SEWER MANHOLE
- BOLLARD
- SIGN
- FOUND MONUMENT IN CASE
- PK NAIL W/WASHER
- STORM DRAIN MANHOLE
- POWER METER
- CATCH BASIN
- ROOF DRAIN
- LIGHT POLE
- TELE. CABINET
- BUILDING LINE
- CENTERLINE
- FENCE
- EXISTING STORM DRAIN
- TELEPHONE LINE
- OVERHEAD POWER LINE
- GAS LINE
- RECORD GAS LINE
- EDGE OF ASPHALT
- SANITARY SEWER LINE
- CROWN OF ROAD
- UNDERGROUND POWER LINE
- WATER LINE

SURVEY NOTES:

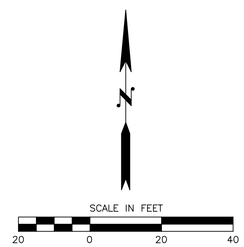
1. COORDINATES ESTABLISHED BY GPS RTK OBSERVATIONS ON KING CO. MONUMENT #5657 AND A FOUND MONUMENT IN CASE IN THE CENTERLINE OF 16TH AVE. S AT ± 190 FEET NORTH OF THE INTERSECTION WITH S. 264TH PL. VIA THE WASHINGTON STATE REFERENCE NETWORK. ADDITIONAL CONTROL COORDINATES ESTABLISHED BY CLOSED TRAVERSE.
2. THE UTILITIES SHOWN HEREON ARE BASED ON OBSERVATION OF SURFACE FEATURES, RECORD UTILITY MAPS AND BY PAINT MARKS SET BY A UTILITY LOCATING COMPANY. FIELD LOCATIONS MUST BE VERIFIED PRIOR TO ANY CONSTRUCTION.
3. RIGHT-OF-WAY BASED ON KING COUNTY DEPT. OF ASSESSMENTS QUARTER SECTION MAP FOR THE NE QUARTER OF SECTION 18, TWP. 25 N, R 4 E.
4. THIS SURVEY WAS MADE WITHOUT THE BENEFIT OF A TITLE REPORT AND DOES NOT PURPORT TO SHOW ANY EASEMENTS OR OTHER ITEMS OF RECORD.

DATUMS:

HORIZONTAL DATUM: NAD 83/91 WA NORTH

VERTICAL DATUM: NAVD 88

PROJECT BENCHMARK: NGS BENCHMARK NO. GLOVE, DISK STAMPED KC BM GLOVE, ELEVATION = 305.0267



RICE ARCHITECTURE & PLANNING fergus MILLER
275 Fifth Street
Suite 100
Bremerton, WA 98337
(360) 377-8773
Fax 792-1385
info@rfmarch.com

Reid Middleton
728 134th Street SW Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
© Copyright 2013 Reid Middleton, Inc.

JAMES L. PURKEY STATE OF WASHINGTON 37148 REGISTERED PROFESSIONAL LAND SURVEYOR

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH, DES MOINES, WASHINGTON

Project Number 2015137

BID SET

ISSUED: APRIL 13, 2017

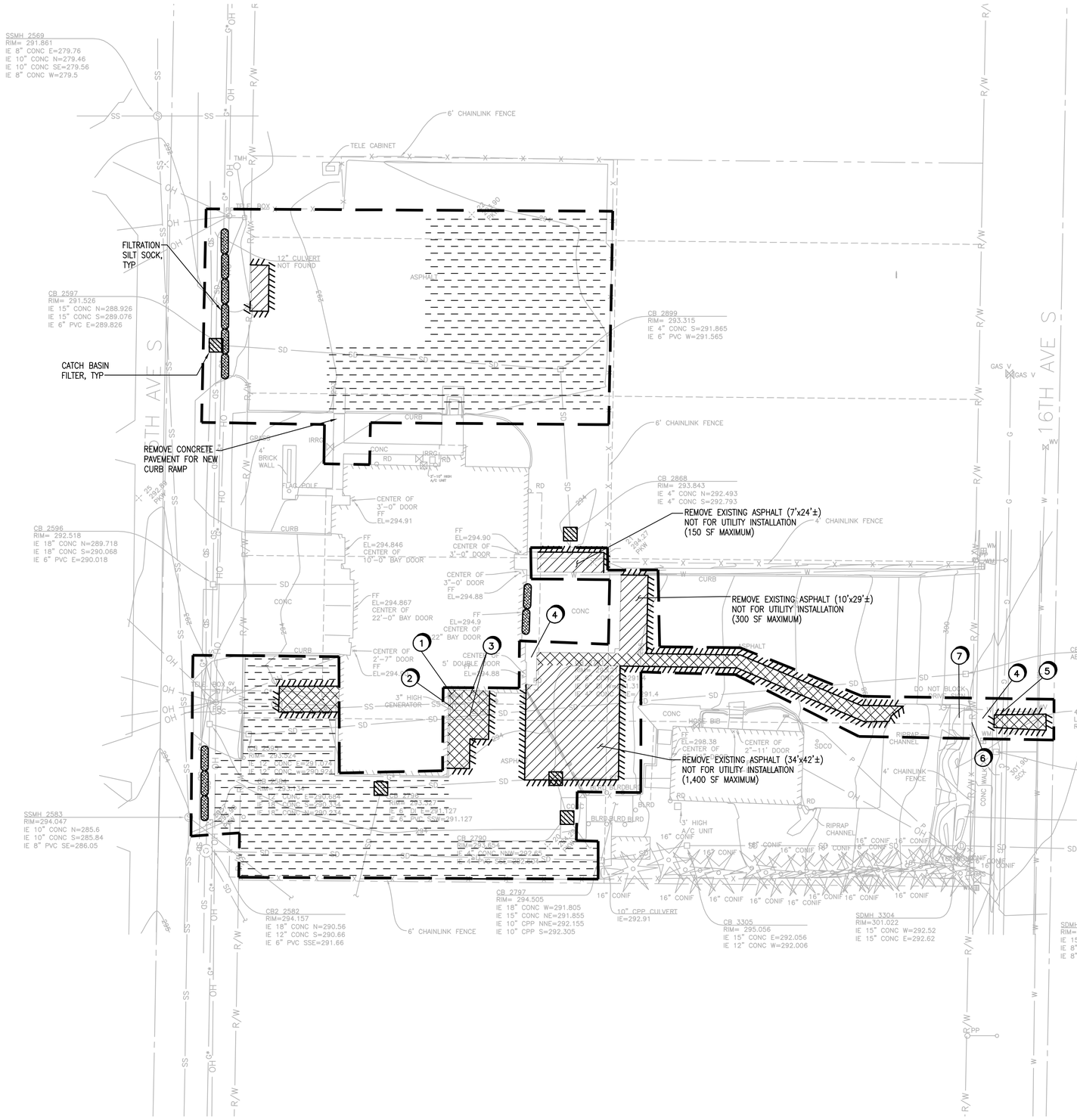
REVISION SCHEDULE	

Existing Conditions

SHEET:

TS.1

06/05/2017 3:31pm I:\21\2016\006 South King F&R Station Design\Fire Station 66\Design\1606-66_TS1EXST.dwg



LEGEND:

- CATCH BASIN FILTER (1 / C1.00 | C4.00)
- SILT SOCK BARRIER
- REMOVE ASPHALT FOR UTILITY INSTALLATION, SEE NOTE 3
- REMOVE EXISTING ASPHALT
- LIMITS OF CONSTRUCTION
- SWAWCUT PAVEMENT
- CRACK SEALING AREA

NOTES:

1. PROTECT EXISTING UNDERGROUND UTILITIES TO REMAIN.
2. RE-STRIPE PAINT MARKINGS REMOVED DURING PROJECT DEMOLITION AND CONSTRUCTION ACTIVITIES, AND IN STAGING AREAS, UNLESS SHOWN OTHERWISE ON PAVING PLAN.
3. SEE ELECTRICAL PLANS FOR SAWCUTTING AND PAVEMENT REMOVAL LOCATIONS ASSOCIATED WITH CONDUIT INSTALLATION.

CONSTRUCTION LIMITS NOTE:

PROVIDE TEMPORARY CHAIN LINK FENCE AT CONSTRUCTION LIMITS. COORDINATE WITH OWNER ON PLACEMENT AND EXTENTS.

LIMITS OF CONSTRUCTION ARE FOR PRIMARY UTILITY CONSTRUCTION AND WILL NEED TO BE TEMPORARILY EXPANDED TO PERMIT LIMITED WORK OUTSIDE THE AREA INDICATED (AS IN THE CASE OF ELECTRICAL UTILITY CONNECTIONS).

CRACK SEAL NOTES:

CRACK SEALING OPERATIONS SHALL BE THE FOLLOWING: CLEAN AND DRY PAVEMENT CRACKS WITH WIRE BRUSHING AND COMPRESSED AIR.

PROVIDE SOIL RESIDUAL HERBICIDE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTIN 5-04.3(5)D.

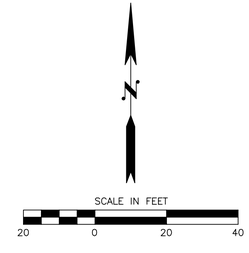
PROVIDE PAVEMENT CRACK SEALING MATERIAL IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 9-04.2(2) POURED RUBBER JOINT SEALER. APPLY SEALING MATERIAL AT A MINIMUM AIR TEMPERATURE OF 60°F.

CLEAN SURFACES AFTER COMPLETION OF CONSTRUCTION ACTIVITIES.

APPROXIMATE LINEAR FOOTAGE FOR CRACK SEALING WITHIN LIMITS OF CONSTRUCTION: 600 LF.

DEMOLITION NOTES:

1. REMOVE GAS METER.
2. REMOVE GENERATOR AND CONCRETE PAD.
3. REMOVE BOLLARD
4. REMOVE CONCRETE SIDEWALK TO NEAREST JOINT FOR UTILITY INSTALLATION.
5. REMOVE CONCRETE CURB AND GUTTER TO NEAREST JOINT FOR UTILITY INSTALLATION.
6. REMOVE EXISTING CHAIN LINK FENCE TO NEAREST POST TO ACCOMMODATE WATER LINE INSTALLATION.
7. REMOVE, SALVAGE, AND STORE ROCKERY AND RIPRAP CHANNEL MATERIALS. TAKE PHOTOS AND DOCUMENT EXISTING ROCKERY CONDITIONS, SUCH AS PLACEMENT AND COMPOSITION PRIOR TO CONSTRUCTION ACTIVITIES.



RICE FERGUS MILLER
ARCHITECTURE & PLANNING
275 Fifth Street
Suite 100
Bremerton, WA 98337
(360) 377-8773
Fax 792-1385
info@rfmarch.com

Reid Middleton
728 134th Street SW Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
© Copyright 2013 Reid Middleton, Inc.

MARK A. DAVIS — STATE OF WASHINGTON — 51549 — REGISTERED PROFESSIONAL ENGINEER
4/5/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH, DES MOINES, WASHINGTON

Project Number 2015137

BID SET

ISSUED: APRIL 13, 2017

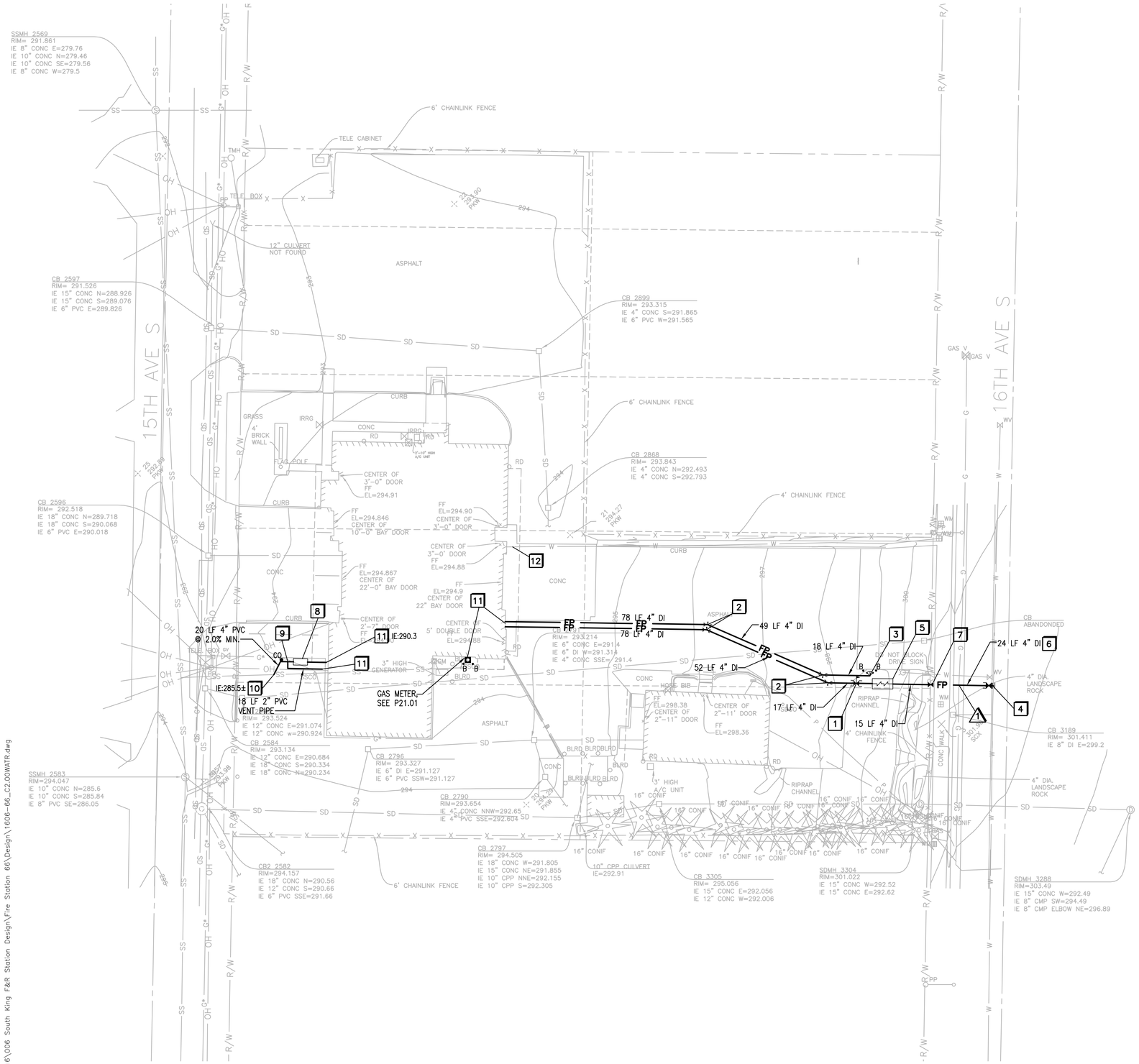
REVISION SCHEDULE	

Temporary Erosion Control and Demolition Plan

SHEET:

C1.00

06/05/2017 3:32pm I:\21\2016\006 South King F&R Station Design\Fire Station 66\Design\1606-66_C1.00EROS.dwg



LEGEND:

FP	FIRE PROTECTION WATER LINE, RESTRAINED JOINT
	WET TAP CONNECTION
B	BOLLARD, SEE 2 / C2.00 | C4.00
	POST INDICATOR VALVE
	BEND
	GAS METER
	DOUBLE CHECK VAULT
CO	SEWER CLEANOUT
HWD	HIGHLINE WATER DISTRICT

CONSTRUCTION NOTES:

1. (1) POST INDICATOR VALVE (MJxMJ)
2. (1) 4" 22.5° BEND THRUST BLOCKING
3. FIRE DEPARTMENT CONNECTION, SEE 3 / C2.00 | C4.00
4. PROVIDE EXCAVATION AND BACKFILL FOR WET TAP CONNECTION. WET TAP CONNECTION TO EXISTING 8" PIPE PROVIDED AND INSTALLED BY HWD
5. (1) 4" DOUBLE DETECTOR CHECK VALVE ASSEMBLY AND VAULT PER HWD STANDARD DETAIL #16. COORDINATE WITH HWD ON BY-PASS METER INSTALLATION.
6. PROVIDE EXCAVATION AND BACKFILL FOR WATER PIPE FROM WET TAP CONNECTION TO VALVE. HWD SHALL PROVIDE AND INSTALL WATER SERVICE PIPE.
7. HWD SHALL PROVIDE AND INSTALL: (1) 4" GATE VALVE (MJ)
8. (1) COALESCING PLATE OIL/WATER SEPARATOR (253-CPS MODEL – OLD CASTLE) RIM= 293.9 IE= 290.0±, SEE NOTE 3.
9. CONNECT TO 4" PIPE WITH 4"x2" TEE FITTING.
10. CONNECT TO EXISTING 6" SEWER PIPE WITH WYE FITTING. SEE NOTE 2.
11. SEE SHEET P21.01 FOR CONTINUATION
12. RECONNECT EXISTING WATER SERVICE PIPE AND DISCONNECT ABANDONED (2) 3/4" SERVICE LINES. SEE SHEET P21.01 FOR POINT OF CONNECTION.

UTILITY CONFLICT NOTES:

1. COORDINATE WITH HWD FOR WATER PIPE EXCAVATION. HWD TO INSTALL FIRE PROTECTION WATER SERVICE UNDER EXISTING GAS PIPING WITH 6" MIN. VERTICAL CLEARANCE.

NOTES:

1. ALL PIPES, JOINTS, AND FITTINGS OF THE FIRE PROTECTION SYSTEM SHALL BE RESTRAINED JOINT.
2. BEFORE COMMENCING CONSTRUCTION OF WATER AND SEWER SYSTEM, VERIFY LOCATION AND INVERT ELEVATION OF EXISTING PIPE SYSTEMS. IF CONFLICT EXISTS, CONTACT THE ARCHITECT IMMEDIATELY.
3. BEFORE COMMENCING CONSTRUCTION OF UTILITY SERVICES, VERIFY LOCATION OF SERVICES PENETRATING THE BUILDING WALL WITH MECHANICAL. IF CONFLICT EXISTS, NOTIFY THE ARCHITECT IMMEDIATELY.
4. RESTRIPE PAINT MARKINGS REMOVED DURING DEMOLITION AND CONSTRUCTION ACTIVITIES, AND IN STAGING AREAS, UNLESS SHOWN OTHERWISE ON PAVING PLAN.
5. SEE HWD STANDARD DETAIL #6 FOR THRUST BLOCKING.
6. SEE 4 / C2.00 | C4.00 FOR TYPICAL WATER TRENCH DETAIL.

N

SCALE IN FEET
20 0 20 40

RICE FERGUS MILLER
ARCHITECTURE & PLANNING
275 Fifth Street
Suite 100
Bremerton, WA 98337
(360) 377-8773
Fax 792-1385
info@rfmarch.com

Reid Middleton
728 134th Street SW Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
© Copyright 2013 Reid Middleton, Inc.

MARK A. DAVIS STATE OF WASHINGTON 51540 REGISTERED PROFESSIONAL ENGINEER
6/5/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH, DES MOINES, WASHINGTON

Project Number 2015137

BID SET

ISSUED: APRIL 13, 2017

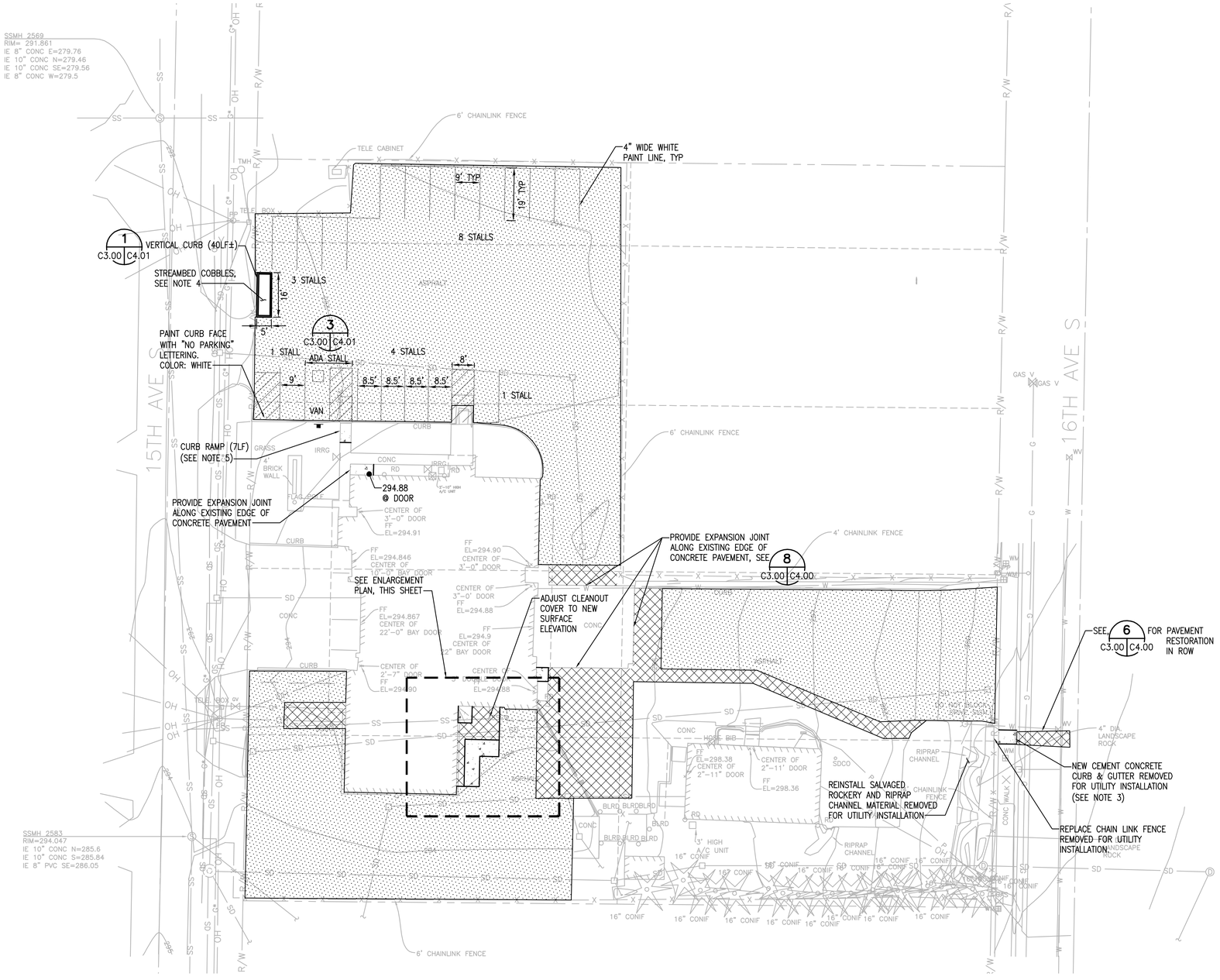
REVISION SCHEDULE	

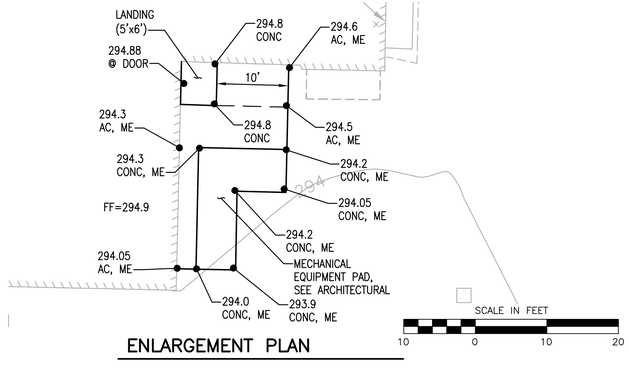
Utilities Plan

SHEET:

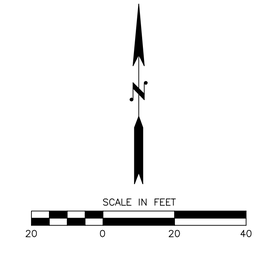
C2.00

06/05/2017 3:31pm I:\21\2016\006 South King F&R Station Design\Fire Station 66\Design\1606-66_C2.00WATR.dwg





ENLARGEMENT PLAN



LEGEND:

STANDARD ASPHALT PAVEMENT 5 C3.00 C4.00

SEAL COAT TREATMENT (SEE NOTE 2)

CEMENT CONCRETE PAVEMENT 7 C3.00 C4.00

NOTES:

1. RE-STRIPE PAINT MARKINGS REMOVED DURING SEAL COAT TREATMENT ACTIVITIES. SEE NEW PAVEMENT MARKINGS, THIS SHEET.
2. PROVIDE SEAL COAT TREATMENT PER WSDOT STANDARD SECTION 5-02 BITUMINOUS SURFACE TREATMENT.
3. CEMENT CONCRETE TRAFFIC CURB AND GUTTER, SEE WSDOT STANDARD PLAN F-10.12-03.
4. STREAMBED COBBLES: PER WSDOT STANDARD SECTION 9-03.11(2).
5. CURB RAMP: PER WSDOT STANDARD PLAN F-40.15-03, TYPE B PERPENDICULAR CURB RAMP.
6. SEE A10-01 FOR FENCING.
7. PROVIDE ASPHALT PATCH FOR ELECTRICAL TRENCHING. SEE ELECTRICAL FOR LOCATIONS.

RICE FERGUS MILLER
ARCHITECTURE & PLANNING
275 Fifth Street
Suite 100
Bremerton, WA 98337
(360) 377-8773
Fax 792-1385
info@rfmarch.com

Reid Middleton
728 134th Street SW Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
© Copyright 2013 Reid Middleton, Inc.

MARK A. DAVIS STATE OF WASHINGTON 51549 REGISTERED PROFESSIONAL ENGINEER
4/5/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH, DES MOINES, WASHINGTON

Project Number 2015137

BID SET

ISSUED: APRIL 13, 2017

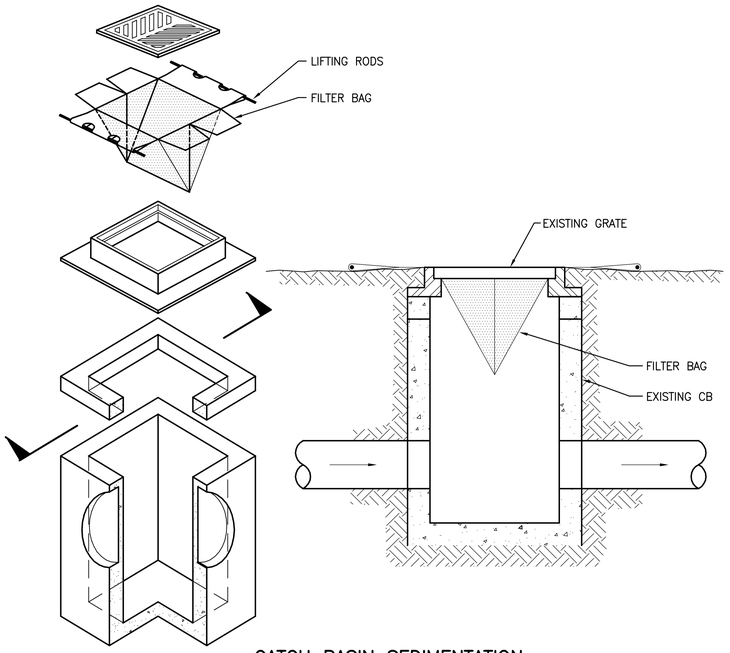
REVISION SCHEDULE

Paving Plan

SHEET:

C3.00

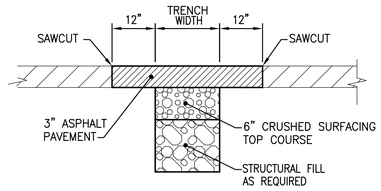
06/05/2017 3:30pm I:\21\2016\006 South King F&R Station Design\Fire Station 66\Design\1606-66_C3.00PAVE.dwg



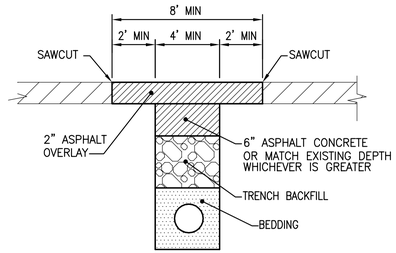
1 C1.00 C4.00 CATCH BASIN SEDIMENTATION CONTROL WITH FILTER BAG
NOT TO SCALE

EROSION AND SEDIMENT CONTROL NOTES

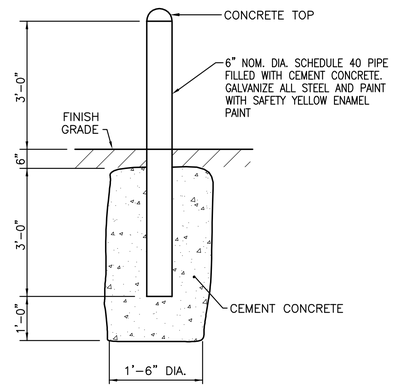
1. APPROVAL OF THIS TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G. SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
2. THE IMPLEMENTATION OF THESE TESC PLANS AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE TESC FACILITIES IS THE RESPONSIBILITY OF THE TESC SUPERVISOR UNTIL ALL CONSTRUCTION IS APPROVED.
3. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY FLAGGED BY SURVEY TAPE OR FENCING, IF REQUIRED, PRIOR TO CONSTRUCTION (SWDM APPENDIX D). DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE BEYOND THE CLEARING LIMITS SHALL BE PERMITTED. THE CLEARING LIMITS SHALL BE MAINTAINED BY THE APPLICANT/ESC SUPERVISOR FOR THE DURATION OF CONSTRUCTION.
4. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS CONSTRUCTED WHEEL WASH SYSTEMS OR WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPTH CLEAN AND TRACK OUT TO ROAD RIGHT OF WAY DOES NOT OCCUR FOR THE DURATION OF THE PROJECT.
5. THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING SO AS TO ENSURE THAT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, DRAINAGE SYSTEMS, AND ADJACENT PROPERTIES IS MINIMIZED.
6. THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE TESC FACILITIES SHALL BE UPGRADED AS NEEDED FOR UNEXPECTED STORM EVENTS AND MODIFIED TO ACCOUNT FOR CHANGING SITE CONDITIONS (E.G. ADDITIONAL COVER MEASURES, ADDITIONAL SUMP PUMPS, RELOCATION OF DITCHES AND SILT FENCES, PERIMETER PROTECTION, ETC.).
7. THE ESC FACILITIES SHALL BE INSPECTED DAILY BY THE APPLICANT/ESC SUPERVISOR AND MAINTAINED TO ENSURE CONTINUED PROPER FUNCTIONING. WRITTEN RECORDS SHALL BE KEPT OF WEEKLY REVIEWS OF THE ESC FACILITIES.
8. ANY AREAS OF EXPOSED SOILS, INCLUDING ROADWAY EMBANKMENTS, THAT WILL NOT BE DISTURBED FOR TWO DAYS DURING THE WET SEASON OR SEVEN DAYS DURING THE DRY SEASON SHALL BE IMMEDIATELY STABILIZED WITH THE APPROVED ESC COVER METHODS (E.G. SEEDING, MULCHING, PLASTIC COVERING, ETC.).
9. ANY AREA NEEDING ESC MEASURES, NOT REQUIRING IMMEDIATE ATTENTION, SHALL BE ADDRESSED WITHIN SEVEN (7) DAYS.
10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 24 HOURS FOLLOWING A STORM EVENT.
11. AT NO TIME SHALL MORE THAN ONE (1) FOOT OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
12. ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION SYSTEM, THE TEMPORARY FACILITY MUST BE ROUGH GRADED SO THAT THE BOTTOM AND SIDES ARE AT LEAST THREE FEET ABOVE THE FINAL GRADE OF THE PERMANENT FACILITY.
13. COVER MEASURES WILL BE APPLIED IN CONFORMANCE WITH APPENDIX D OF THE SURFACE WATER DESIGN MANUAL.
14. PRIOR TO THE BEGINNING OF THE WET SEASON (OCT. 1), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. DISTURBED AREAS SHALL BE SEEDED WITHIN ONE WEEK OF THE BEGINNING OF THE WET SEASON. A SKETCH MAP OF THOSE AREAS TO BE SEEDED AND THOSE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE DDES INSPECTOR FOR REVIEW.



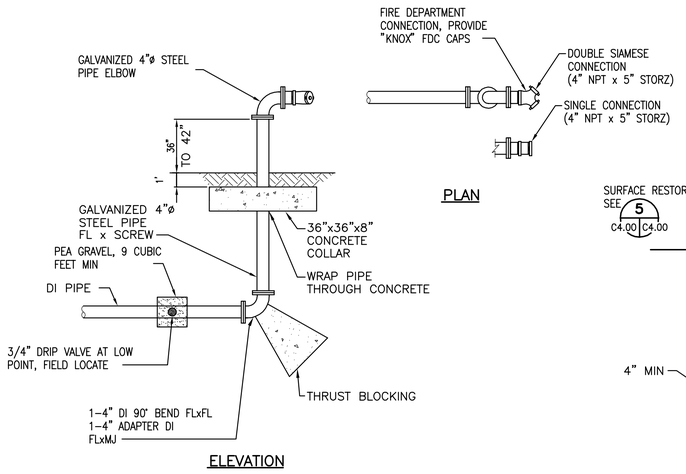
5 C3.00 C4.00 ASPHALT PATCH SECTION
NOT TO SCALE



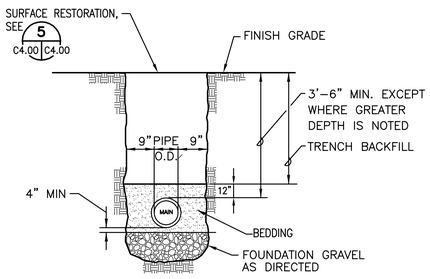
6 C3.00 C4.00 RIGHT-OF-WAY ASPHALT PATCH SECTION
NOT TO SCALE PER DES MOINES DETAIL DM.A7.2



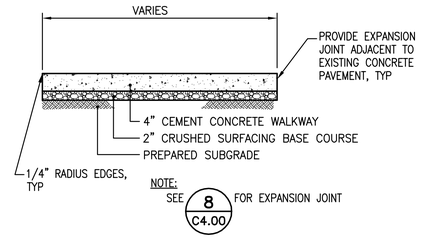
2 C2.00 C4.00 DETAIL – STEEL BOLLARD
NOT TO SCALE



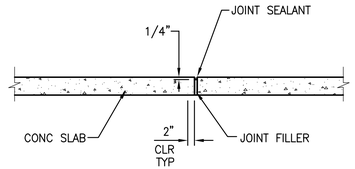
3 C2.00 C4.00 FIRE DEPARTMENT CONNECTION (FDC)
NOT TO SCALE



4 C2.00 C4.00 TYPICAL TRENCH PRIVATE DUCTILE IRON WATER PIPE
NOT TO SCALE



7 C3.00 C4.00 TYPICAL CEMENT CONCRETE SECTION
NOT TO SCALE



8 C4.00 C4.00 TYPICAL EXPANSION JOINT
NOT TO SCALE

RICE FERGUS MILLER
ARCHITECTURE & PLANNING
275 Fifth Street
Suite 100
Bremerton, WA 98337
(360) 377-8773
Fax 792-1385
info@rfmarch.com

Reid Middleton
728 134th Street SW Suite 200
Everett, Washington 98204
Ph: 425 741-5800
www.reidmiddleton.com
© Copyright 2013 Reid Middleton, Inc.

MARK A. DAVIS STATE OF WASHINGTON 51549 REGISTERED PROFESSIONAL ENGINEER
4/5/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH, DES MOINES, WASHINGTON

Project Number 2015137

BID SET

ISSUED: APRIL 13, 2017

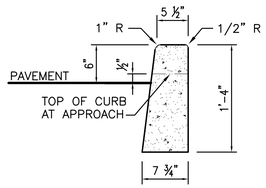
REVISION SCHEDULE	

Details

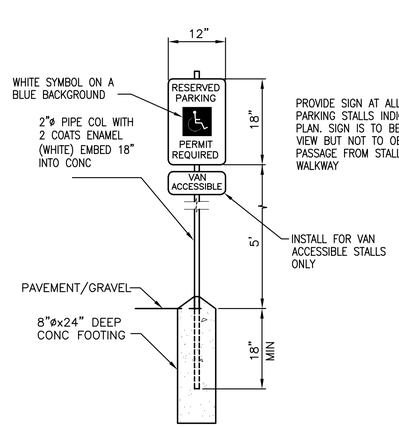
SHEET:

C4.00

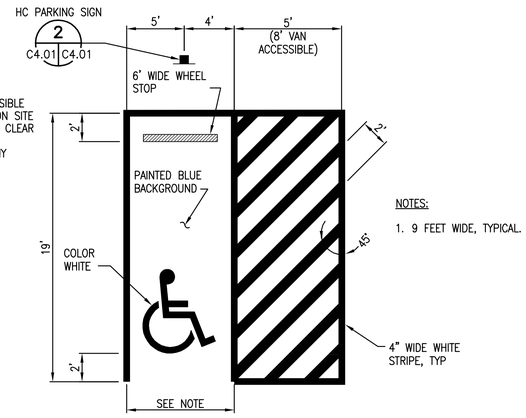
06/05/2017 3:29pm I:\21\2016\006 South King F&R Station Design\Fire Station 66\Design\1606-66_C4.00DETL.dwg



1 CEMENT CONCRETE VERTICAL CURB (CAST IN PLACE)
C3.00 C4.01 NOT TO SCALE



2 TYPICAL ACCESSIBLE PARKING SIGN
C3.00 C4.01 NOT TO SCALE



3 ACCESSIBLE PARKING STATLL (SINGLE)
C3.00 C4.01 NOT TO SCALE

RICE ARCHITECTURE & PLANNING fergus MILLER
275 Fifth Street
Suite 100
Bremerton, WA 98337
(360) 377-8773
Fax 792-1385
info@rfmarch.com

Reid Middleton
728 134th Street SW Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
© Copyright 2013 Reid Middleton, Inc.

MARK A. DAVIS STATE OF WASHINGTON 51549 REGISTERED PROFESSIONAL ENGINEER
6/5/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH, DES MOINES, WASHINGTON

Project Number 2015137

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

Details

SHEET:

C4.01

06/05/2017 3:56pm I:\21\2016\006 South King F&R Station Design\Fire Station 66\Design\1606-66_C4.00DETL.dwg

GENERAL NOTES:
ASBESTOS-CONTAINING MATERIALS

1. THIS PROJECT INCLUDES REMOVAL AND DISPOSAL OF HAZARDOUS BUILDING MATERIALS (ASBESTOS, LEAD-CONTAINING PAINT, POLYCHLORINATED BIPHENYLS, AND MERCURY-CONTAINING MATERIALS) FROM FIRE STATION 66 LOCATED AT 27010 15th AVE S, DES MOINES, WA.

2. LOCATIONS OF ACM SHOWN ON THE DRAWINGS ARE SCHEMATIC AND APPROXIMATE. NOTE: A LIMITED HAZARDOUS MATERIALS SURVEY WAS ACCOMPLISHED FOR IN PREPARATION FOR THE WORK, THAT MEETS THE REQUIREMENTS OF WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES DIVISION OF OCCUPATIONAL SAFETY AND HEALTH (L&I DOSH) "GOOD FAITH INSPECTION" AND PUGET SOUND CLEAN AIR AGENCY (PSCAA) ASBESTOS INSPECTION TO LOCATE AND IDENTIFY ASBESTOS-CONTAINING MATERIALS EXPECTED TO BE IMPACTED BY THE PROJECT (INCLUDED AS APPENDIX OF SECTION 011110 SUMMARY OF HAZARDOUS MATERIALS). ALL IMPACTED ASBESTOS MATERIALS WILL BE REMOVED WITHIN THE SCOPE OF THIS PROJECT. DEMOLITION FOR ACCESS TO CONCEALED ACM AND/OR ASSUMED ACM IS WITHIN THE SCOPE OF WORK. IF ANY IDENTIFIED ACM, OR SUSPECT MATERIAL NOT ADDRESSED BY THE "GOOD FAITH SURVEY" WILL BE IMPACTED AND IS NOT CALLED-OUT BY OTHER WORK AND IS NOT CALLED-OUT FOR REMOVAL, CONSULT THE DISTRICT'S HAZARDOUS MATERIALS CONSULTANT (EHSI) PRIOR TO DISTURBANCE. ANY SUCH MATERIAL MUST BE TREATED AS ACM UNLESS SAMPLED BY A CERTIFIED AHERA BUILDING INSPECTOR AND DETERMINED TO BE NON-ASBESTOS.

3. USE THE PROJECT HAZARDOUS MATERIALS SUMMARY LISTED ON THIS SHEET FOR BASE BID QUANTITIES. QUANTITIES ARE CONSIDERED ACCURATE WITHIN PLUS OR MINUS (+/-) TEN PERCENT (10%). NO CONTRACT CHANGES WILL BE CONSIDERED FOR VARIANCES IN THESE QUANTITIES OF LESS THAN 10%. CONTRACTOR MUST HAVE HAZARDOUS MATERIALS CONSULTANT'S WRITTEN VERIFICATION OF QUANTITIES PRIOR TO THE REMOVAL OF MATERIALS FOR CONSIDERATION OF COMPENSATION FOR ADDITIONAL QUANTITIES OF MATERIAL IN EXCESS OF +10%.

4. THE CONTRACTOR SHALL FIELD VERIFY AND COORDINATE WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DETAILS AND DIMENSIONS THAT MAY IMPACT THE WORK. THE CONTRACTOR SHALL VERIFY THE CONDITION, LOCATION, AND QUANTITIES OF HAZARDOUS MATERIALS IN THIS WORK PRIOR TO SUBMITTING A BID.

5. REFER TO CONTRACT AND CONTRACTOR'S APPROVED WORK PLAN FOR ASBESTOS REMOVAL AND DISPOSAL PROCEDURES AND REQUIREMENTS.

6. PIPING FITTINGS ARE ASSUMED TO HAVE ASBESTOS-CONTAINING PIPING INSULATION. PIPING FITTINGS INCLUDE: ELBOWS, VALVES, "TEE'S", REDUCERS, PIPE HANGERS, WALL PENETRATIONS AND FIBERGLASS INSULATION "ENCAPSULATED" ENDS. SMALL BORE FITTINGS ARE LESS THAN OR EQUAL TO 6" OD (OUTSIDE DIAMETER).

7. JOINT COMPOUND WITH PAINT FOUND ON GWB WALLS AND CEILINGS THROUGHOUT THE BUILDING; TAN MASTIC ASSOCIATED WITH 6"X6" CERAMIC TILES IN THE EAST RESTROOM AND FORMER EAST RESTROOM; AND BEIGE/BROWN GLAZING PUTTY ON 5'X5' WATCH OFFICE WINDOWS WERE ALL IDENTIFIED AS CONTAINING <1% CHRYSOTILE ASBESTOS FIBERS AND ARE THEREFORE NOT ACMs AND ARE NOT REGULATED BY PSCAA; HOWEVER, L&I DOSH REQUIRES DEMOLITION PERSONNEL TO BE TRAINED IN ACCORDANCE WITH WAC 296-62-07722(5). THEY ARE REQUIRED TO USE WET METHODS, HAVE APPROPRIATE RESPIRATORY PROTECTION, COMPLETE AN EXPOSURE ASSESSMENT, AND A CERTIFIED ASBESTOS SUPERVISOR MUST SUPERVISE THE DEMOLITION.

GENERAL NOTES:
LEAD-CONTAINING MATERIALS

1. INTERIOR AND EXTERIOR PAINTED/GLAZED SURFACES WERE FOUND TO CONTAIN LEAD (E.G., LEAD-CONTAINING PAINT - LCP) AND/OR LEAD CONTAINING BUILDING MATERIALS (LCM). LCM MAY ALSO INCLUDE THE FOLLOWING: LEAD ROOF VENT PIPES, GLAZING OF CERAMIC WALL AND FLOOR TILES, AND GLAZED BATHROOM FIXTURES, (E.G., SINKS, TOILETS, AND UTILITY SINKS).

2. REFER TO THE HAZARDOUS MATERIALS REMOVAL SPECIFICATIONS FOR IMPACTS TO LEAD COATED SURFACES AND LCM. REFER TO SPECIFICATIONS FOR LEAD DISTURBANCES, DISPOSAL, AND TESTING REQUIREMENTS.

3. THE CONTRACTOR SHALL ASSUME THAT LEAD PAINT IS PRESENT ON ANY PAINTED BUILDING MATERIALS NOT TESTED. ALL WORK THAT MAY DISTURB PAINT-CONTAINING LEAD OR OTHER LEAD BUILDING MATERIAL SHALL BE IN ACCORDANCE WITH L&I REGULATION WAC 296-155-176, OSHA REGULATION 29 CFR 1926.62, AND THE SPECIFICATIONS, INCLUDING DUST CONTROL, EMPLOYEE EXPOSURE ASSESSMENTS AND WASTE CHARACTERIZATION.

GENERAL NOTES: MERCURY-CONTAINING LIGHT TUBES AND THERMOSTATS, AND PCB-CONTAINING BALLASTS

1. INSPECT ALL LIGHT BALLASTS IN THE AREA. ALL IMPACTED MAGNETIC BALLASTS REGARDLESS OF LABELING AS "NO-PCBS" OR "PCB FREE", WILL BE REMOVED AND DISPOSED OF AS HAZARDOUS WASTE IN ACCORDANCE WITH THE REGULATIONS AND THE CONTRACTOR'S APPROVED WORK PLAN. PARTIAL DISASSEMBLY OF FLUORESCENT FIXTURES AND SELECTIVE DEMOLITION FOR ACCESS ARE INCLUDED IN THE SCOPE OF WORK. REFER TO CONTRACT SPECIFICATIONS/DRAWINGS, REGULATIONS, AND CONTRACTOR'S APPROVED WORK PLAN FOR PCB-BALLAST REMOVAL AND DISPOSAL PROCEDURES. IMPACTED BALLASTS LABELED "ELECTRONIC" MAY BE DISPOSED AS CONSTRUCTION DEBRIS.

2. ALL FLUORESCENT LIGHT TUBES, CFL BULBS, HID LAMPS, AND THERMOSTATS CONTAIN MERCURY AND WILL BE RECYCLED IN ACCORDANCE WITH THE CONTRACT SPECIFICATIONS AND WITHOUT BREAKAGE ON SITE. REFER TO THE CONTRACT SPECIFICATIONS, REGULATIONS, AND THE CONTRACTOR'S APPROVED WORK PLAN FOR LIGHT TUBE/CFL BULB/HID LAMP/THERMOSTAT RECYCLING PROCEDURES.

3. THE ABATEMENT CONTRACTOR IS RESPONSIBLE FOR ELECTRICAL ISOLATION OF ALL IMPACTED LIGHT FIXTURES AND THE ABATEMENT CONTRACTOR SHALL VERIFY PRIOR TO COMMENCING WORK.

SHEET INDEX

HA001	GENERAL NOTES, ABBREVIATIONS AND MATERIALS SUMMARY
HA101	HAZMAT - LEVEL 1 FLOOR PLAN
HA102	HAZMAT - LEVEL 1 WALL & CEILING PLAN
HA103	HAZMAT - BUILDING EXTERIOR PLAN
HA104	HAZMAT - ROOF PLAN

ABBREVIATIONS

ACM - ASBESTOS-CONTAINING MATERIAL
AHERA - ASBESTOS HAZARD EMERGENCY RESPONSE ACT
BLDG - BUILDING
CAB - CEMENT ASBESTOS BOARD
CFL - COMPACT FLUORESCENT LIGHT
CFR - CODE OF FEDERAL REGULATIONS
CMU - CONCRETE MASONRY UNIT
EA - EACH
EHSI - EHS-INTERNATIONAL, Inc.
GWB - GYPSUM WALLBOARD
HID - HIGH INTENSITY DISCHARGE
JC - JOINT COMPOUND
L&I DOSH - WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
LCM - LEAD-CONTAINING MATERIALS
LCP - LEAD-CONTAINING PAINT
LF - LINEAR FEET
OD - OUTSIDE DIAMETER
OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PCB - POLYCHLORINATED BIPHENYLS
PSCAA - PUGET SOUND CLEAN AIR AGENCY
SF - SQUARE FEET
SIM - SIMILAR
SVF - SHEET VINYL FLOORING
TYP - TYPICAL
W/ - WITH
WAC - WASHINGTON ADMINISTRATIVE CODE

PROJECT HAZARDOUS MATERIALS SUMMARY

QUANTITY/ UNIT	DESCRIPTION
	INTERIOR
1,500 SF	NON-ACM OFF-WHITE SVF WITH BROKEN ROCK PATTERN WITH NON-ACM GRAY PAPER BACKING WITH NON-ACM YELLOW MASTIC ON ACM BLACK MASTIC ON CONCRETE
14 EA	ACM DARK GRAY/DARK BROWN DOOR FRAME CAULKING ON SINGLE METAL AND WOOD-FRAMED DOORS (BOTH INTERIOR AND EXTERIOR)
3 EA	ACM DARK GRAY/BLACK DOOR FRAME CAULKING ON DOUBLE METAL AND WOOD-FRAMED DOOR (BOTH INTERIOR AND EXTERIOR)
1 EA	ACM DARK GRAY/DARK BROWN DOOR FRAME CAULKING ON LARGE 5'x14' WOOD ENTRY DOOR SYSTEM
75 EA	ACM BEIGE PIPE DOPE ON ACM BROWN PIPE DOPE ON 2" NATURAL GAS LINE FITTINGS
6 EA	ACM DARK GRAY WINDOW FRAME CAULKING WITH EXTERIOR ACM GRAY WINDOW GLAZING PUTTY ON 2'x3' METAL-FRAMED WINDOWS
40 SF	ACM BLACK ASPHALTIC SEAM SEALANT ON NON-ACM GRAY SEAM SEALANT ON AND AROUND 2'x2' ROOF DRAIN (ABOVE DROP CEILING)
150 EA	ACM HARD MUDDED TSI ON SMALL BORE PIPE ELBOWS AND FITTINGS WITH LAGGING ON FIBERGLASS RUNS; CONCEALED IN PLUMBING WALLS, ABOVE HARD LID AND DROP CEILING, AND BELOW KITCHEN SINK
500 LF	ACM DARK GRAY/GRAY SEAM SEALANT ALONG BRICK AND CMU WALL SEAMS
4 EA	ACM BROWN/GRAY WINDOW GLAZING PUTTY ON 5'x1' METAL FRAMED WINDOWS
4 EA	ACM BROWN/GRAY WINDOW GLAZING PUTTY ON 3.5'x1' METAL FRAMED WINDOWS
2 EA	ASSUMED ACM MASTIC ASSOCIATED WITH 2'x3' WALL MIRRORS
2 EA	ASSUMED ACM INTERNAL COMPONENTS IN 3'x4'x2' UNIT HEATERS
21 SF	ASSUMED ACM GLUE DOTS ASSOCIATED WITH 3' WALL CABINET AND COUNTER SYSTEM
60 SF	ASSUMED ACM GLUE DOTS ASSOCIATED WITH 3' LOWER WALL CABINET SYSTEMS
40 SF	ASSUMED ACM GLUE DOTS ASSOCIATED WITH 4' UPPER WALL CABINET SYSTEM
180 SF	ASSUMED ACM GLUE DOTS ASSOCIATED WITH 6' UPPER AND LOWER WALL CABINET SYSTEMS
330 SF	ASSUMED ACM GLUE DOTS ASSOCIATED WITH 8' WALL CABINET SYSTEMS
1 EA	ASSUMED ACM INTERNALS IN ELECTRICAL PANEL
5 EA	ASSUMED ACM INTERNALS IN LARGE ELECTRICAL PANELS AND ELECTRICAL SWITCH GEAR PANELS
11 EA	ASSUMED ACM CORE SINGLE FIRE DOORS AND FRAMES
1 EA	ASSUMED ACM CORE DOUBLE FIRE DOORS AND FRAME
1 EA	2.5'x1.5'x6' NATURAL GAS FURNACE WITH ASSUMED ACM INTERNAL COMPONENTS AND SEALANTS
50 LF	6"x18" IN-SLAB DUCTING WITH ASSUMED ACM DUCTING INSULATION AND SEALANTS
944 EA	MERCURY-CONTAINING FLUORESCENT LIGHT TUBES
13 EA	PCB-CONTAINING MAGNETIC LIGHT BALLASTS
2 EA	MERCURY-CONTAINING THERMOSTAT

	EXTERIOR
400 LF	ACM BLACK SEAM SEALANT BETWEEN CONCRETE PANELS AND BRICK WALLS
100 LF	ACM WHITE SEAM SEALANT BETWEEN CONCRETE PANEL SEAMS
350 SF	GRAY CAB ON NON-ACM SILVER FOIL WITH PAINT WITH NON-ACM YELLOW FOAM INSULATION WITH NON-ACM SILVER FOIL ON CONCRETE FOUNDATION
1 EA	ASSUMED ACM INTERNALS IN 4'x3'x3' GENERATOR

	ROOF
1 EA	ASSUMED ACM INTERNALS IN 6'x4'x3' HEAT PUMP

RICE FERGUS MILLER
ARCHITECTURE & PLANNING
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

ehsi
EHS-International, Inc.
1011 SW Klickitat Way, Suite 104
Seattle, Washington 98134
Ph: 206.381.1128
Fax: 206.254.4279

AHERA PROJECT DESIGNER
DAVID ESCUDILLA
CERT. NO. 155393
03/10/2017

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

GENERAL NOTES, ABBREVIATIONS, SHEET INDEX, AND MATERIALS SUMMARY

SHEET:

HA001

GENERAL NOTES

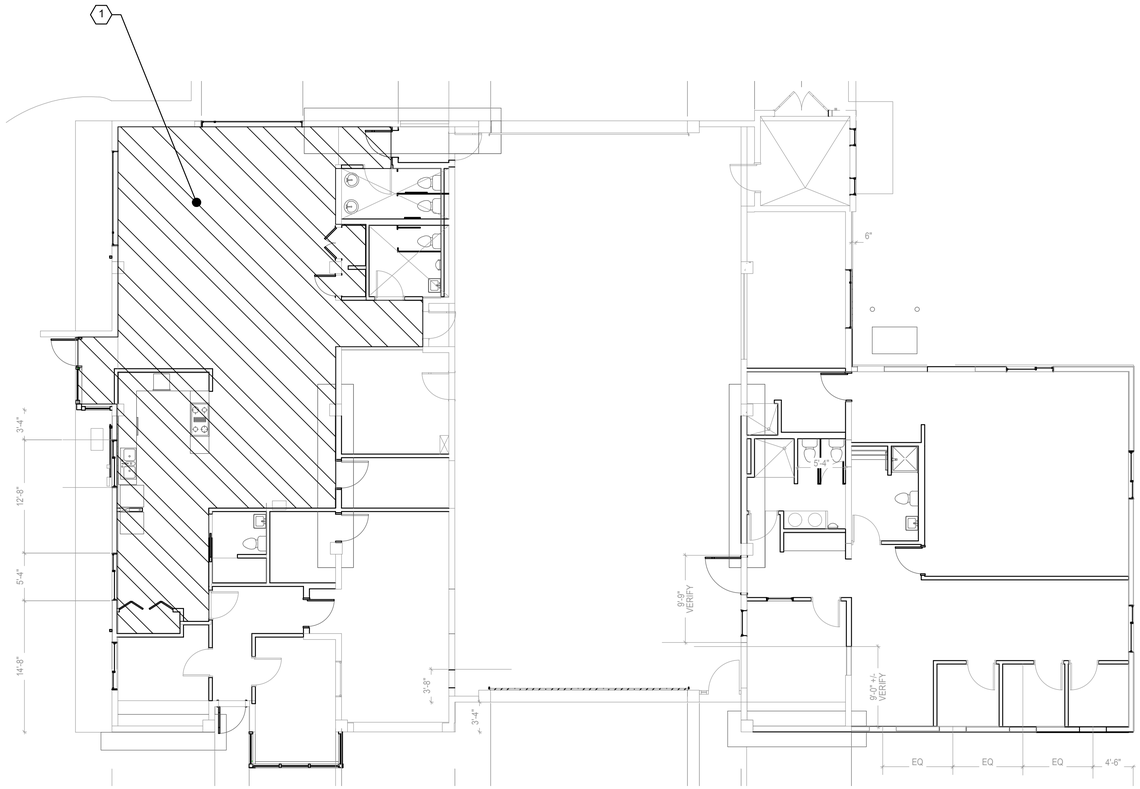
1. FOR HAZMAT GENERAL NOTES, SEE SHEET HA001.

(X) HAZMAT SHEET NOTES

1. REMOVE AND DISPOSE OF NON-ACM OFF-WHITE SVF WITH BROKEN ROCK PATTERN WITH NON-ACM GRAY PAPER BACKING WITH NON-ACM YELLOW MASTIC ON ACM BLACK MASTIC ON CONCRETE.

LEGEND

NON-ACM OFF-WHITE SVF WITH BROKEN ROCK PATTERN WITH NON-ACM GRAY PAPER BACKING WITH NON-ACM YELLOW MASTIC ON ACM BLACK MASTIC ON CONCRETE



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

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

ehsi
EHS-International, Inc.
1011 SW Klickitat Way, Suite 104
Seattle, Washington 98134
Ph: 206.381.1128
Fax: 206.254.4279

AREA PROJECT RESPONSIBLE
DEREK ESCAMILLA
CERT. NO. 155393
03/10/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

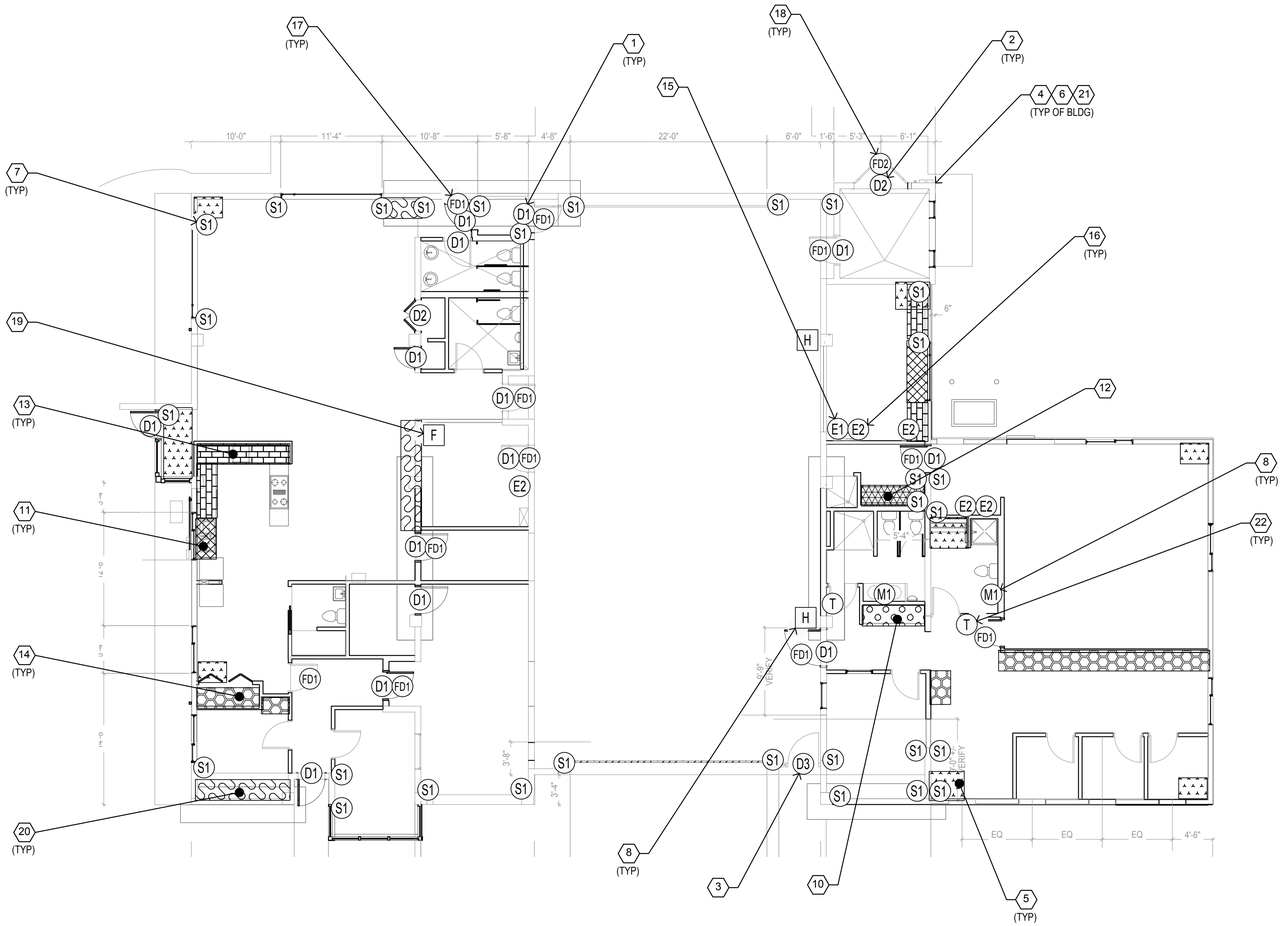
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

HAZMAT - LEVEL 1 FLOOR PLAN

SHEET:

HA101



1 LEVEL 1 - WALL & CEILING PLAN
1/8" = 1'-0"

GENERAL NOTES

1. FOR HAZMAT GENERAL NOTES, SEE SHEET HA001.

(X) HAZMAT SHEET NOTES

1. REMOVE AND DISPOSE OF ACM DARK GRAY/DARK BROWN DOOR FRAME CAULKING ON SINGLE METAL AND WOOD-FRAMED DOORS (BOTH INTERIOR AND EXTERIOR).
2. REMOVE AND DISPOSE OF ACM DARK GRAY/BLACK DOOR FRAME CAULKING ON DOUBLE METAL AND WOOD-FRAMED DOOR (BOTH INTERIOR AND EXTERIOR).
3. REMOVE AND DISPOSE OF ACM DARK GRAY/DARK BROWN DOOR FRAME CAULKING ON LARGE 5'x14' WOOD ENTRY DOOR SYSTEM.
4. REMOVE AND DISPOSE OF ACM BEIGE PIPE DOPE ON ACM BROWN PIPE DOPE ON 2"OD NATURAL GAS LINE FITTINGS. COORDINATE WITH MECHANICAL DEMOLITION DRAWINGS.
5. REMOVE AND DISPOSE OF ACM BLACK ASPHALTIC SEAM SEALANT ON NON-ACM GRAY SEAM SEALANT ON AND AROUND 2'x2' ROOF DRAIN (ABOVE DROP CEILING).
6. REMOVE AND DISPOSE OF ACM HARD MUDDED TSI ON SMALL BORE PIPE ELBOWS AND FITTINGS WITH LAGGING ON FIBERGLASS RUNS; CONCEALED IN PLUMBING WALLS, ABOVE HARD LID AND DROP CEILING, AND BELOW KITCHEN SINK. COORDINATE WITH PLUMBING DEMOLITION DRAWINGS.
7. REMOVE AND DISPOSE OF ACM DARK GRAY/GRAY SEAM SEALANT ALONG BRICK AND CMU WALL SEAMS.
8. REMOVE AND DISPOSE OF ASSUMED ACM MASTIC ASSOCIATED WITH 2'x3' WALL MIRRORS.
9. REMOVE AND DISPOSE OF ASSUMED ACM INTERNAL COMPONENTS IN 3'x4'x2' UNIT HEATERS. COORDINATE WITH MECHANICAL DEMOLITION DRAWINGS.
10. REMOVE AND DISPOSE OF ASSUMED ACM GLUE DOTS ASSOCIATED WITH 3' WALL CABINET AND COUNTER SYSTEM.
11. REMOVE AND DISPOSE OF ASSUMED ACM GLUE DOTS ASSOCIATED WITH 3' LOWER WALL CABINET SYSTEMS.
12. REMOVE AND DISPOSE OF ASSUMED ACM GLUE DOTS ASSOCIATED WITH 4' UPPER WALL CABINET SYSTEM.
13. REMOVE AND DISPOSE OF ASSUMED ACM GLUE DOTS ASSOCIATED WITH 6' UPPER AND LOWER WALL CABINET SYSTEMS
14. REMOVE AND DISPOSE OF ASSUMED ACM GLUE DOTS ASSOCIATED WITH 8' WALL CABINET SYSTEMS.
15. EXISTING ELECTRICAL PANEL WITH ASSUMED ACM INTERNALS TO BE REMOVED AND RE-INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE WITH ELECTRICAL DEMOLITION DRAWINGS.
16. EXISTING LARGE ELECTRICAL PANELS AND ELECTRICAL SWITCH GEAR PANELS WITH ASSUMED ACM INTERNALS TO BE REMOVED AND RE-INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE WITH ELECTRICAL DEMOLITION DRAWINGS.
17. REMOVE AND DISPOSE OF ASSUMED ACM CORE SINGLE FIRE DOORS AND FRAMES.
18. REMOVE AND DISPOSE OF ASSUMED ACM CORE DOUBLE FIRE DOORS AND FRAME.
19. REMOVE AND DISPOSE OF 2.5'x1.5'x6' NATURAL GAS FURNACE WITH ASSUMED ACM INTERNAL COMPONENTS AND SEALANTS.
20. IF IMPACTED, REMOVE AND DISPOSE OF 6"X18" IN-SLAB DUCTING WITH ASSUMED ACM DUCTING INSULATION AND SEALANTS.
21. INSPECT FLUORESCENT FIXTURES. REMOVE AND DISPOSE OF IMPACTED PCB-CONTAINING FLUORESCENT LIGHT BALLASTS AS HAZARDOUS WASTE AND REMOVE AND RECYCLE IMPACTED MERCURY-CONTAINING FLUORESCENT LIGHT TUBES WITHOUT BREAKAGE ON SITE. COORDINATE WITH ELECTRICAL DEMOLITION DRAWINGS.
22. REMOVE AND RECYCLE MERCURY-CONTAINING THERMOSTATS. COORDINATE WITH ELECTRICAL DEMOLITION DRAWINGS.

LEGEND

- (D1) ACM DARK GRAY/DARK BROWN DOOR FRAME CAULKING ON SINGLE METAL AND WOOD-FRAMED DOORS (BOTH INTERIOR AND EXTERIOR)
- (D2) ACM DARK GRAY/BLACK DOOR FRAME CAULKING ON DOUBLE METAL AND WOOD-FRAMED DOOR (BOTH INTERIOR AND EXTERIOR)
- (D3) ACM DARK GRAY/DARK BROWN DOOR FRAME CAULKING ON LARGE 5'x14' WOOD ENTRY DOOR SYSTEM
- BLACK ASPHALTIC SEAM SEALANT ON NON-ACM GRAY SEAM SEALANT ON AND AROUND 2'x2' ROOF DRAIN (ABOVE DROP CEILING)
- (S1) DARK GRAY/GRAY SEAM SEALANT ALONG BRICK AND CMU WALL SEAMS
- (M1) ASSUMED ACM MASTIC ASSOCIATED WITH 2'x3' WALL MIRRORS
- (H) ASSUMED ACM INTERNAL COMPONENTS IN 3'x4'x2' UNIT HEATERS
- ASSUMED ACM GLUE DOTS ASSOCIATED WITH 3' WALL CABINET AND COUNTER SYSTEM
- ASSUMED ACM GLUE DOTS ASSOCIATED WITH 3' LOWER WALL CABINET SYSTEMS
- ASSUMED ACM GLUE DOTS ASSOCIATED WITH 4' UPPER WALL CABINET SYSTEM
- ASSUMED ACM GLUE DOTS ASSOCIATED WITH 6' UPPER AND LOWER WALL CABINET SYSTEMS
- ASSUMED ACM GLUE DOTS ASSOCIATED WITH 8' WALL CABINET SYSTEMS
- (E1) ASSUMED ACM INTERNALS IN ELECTRICAL PANELS
- (E2) ASSUMED ACM INTERNALS IN LARGE ELECTRICAL PANELS AND ELECTRICAL SWITCH GEAR PANELS
- (FD1) ASSUMED ACM CORE SINGLE FIRE DOORS AND FRAMES
- (FD2) ASSUMED ACM CORE DOUBLE FIRE DOORS AND FRAME
- (T) MERCURY-CONTAINING THERMOSTAT
- (F) 2.5'x1.5'x6' NATURAL GAS FURNACE WITH ASSUMED ACM INTERNAL COMPONENTS AND SEALANTS
- 6"x18" IN-SLAB DUCTING WITH ASSUMED ACM DUCTING INSULATION AND SEALANTS

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

ehsi
EHS-International, Inc.
1011 SW Klickitat Way, Suite 104
Seattle, Washington 98134
Ph: 206.381.1128
Fax: 206.254.4279

AREA PROJECT MANAGER
DANIEL ESCAMILLA
CERT. NO. 155393
03/10/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

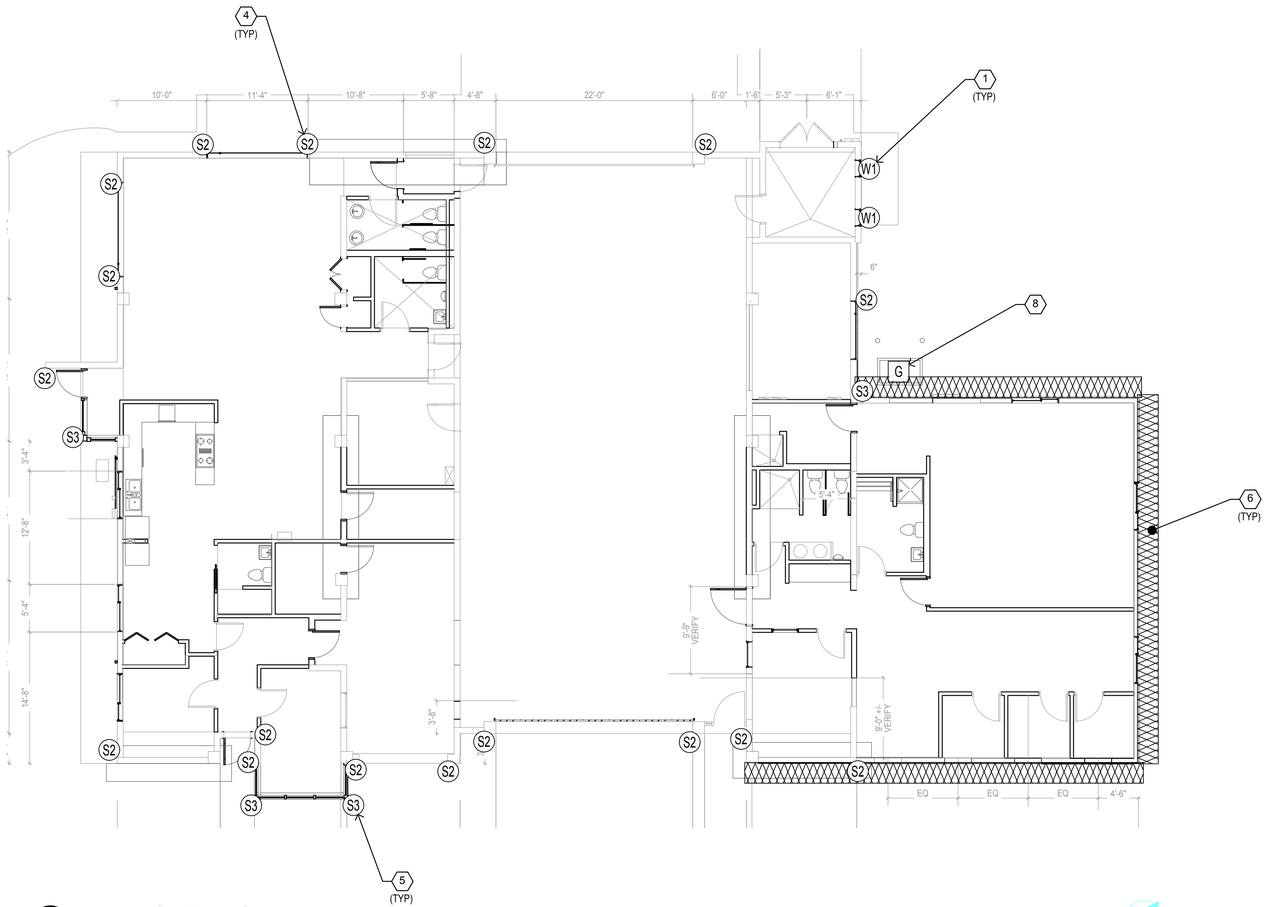
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

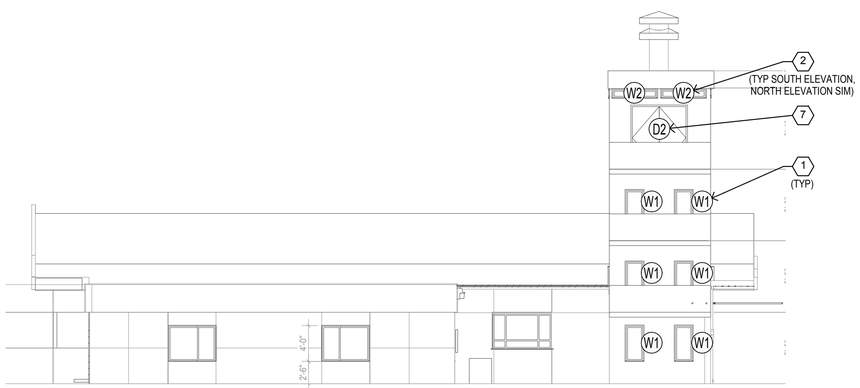
HAZMAT - LEVEL 1 WALL & CEILING PLAN

SHEET:

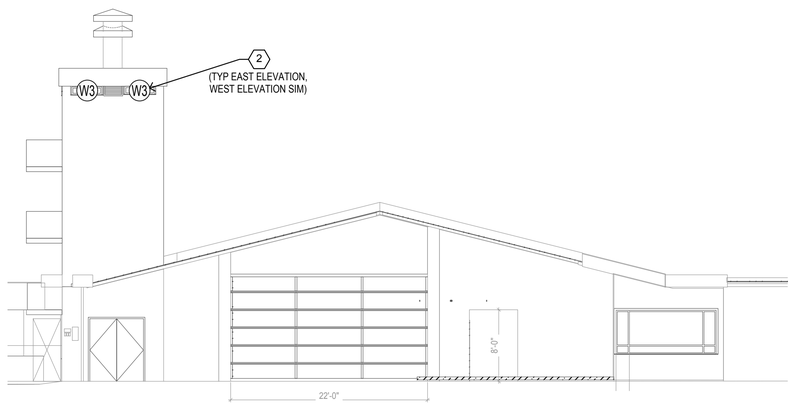
HA102



1 BUILDING EXTERIOR PLAN
1/8" = 1'-0"



2 BUILDING SOUTH ELEVATION
1/8" = 1'-0"



3 BUILDING EAST ELEVATION
1/8" = 1'-0"

GENERAL NOTES

1. FOR HAZMAT GENERAL NOTES, SEE SHEET HA001.

(X) HAZMAT SHEET NOTES

1. REMOVE AND DISPOSE OF ACM DARK GRAY WINDOW FRAME CAULKING WITH EXTERIOR ACM GRAY WINDOW GLAZING PUTTY ON 2'x3' METAL-FRAMED WINDOWS.
2. REMOVE AND DISPOSE OF ACM BROWN/GRAY WINDOW GLAZING PUTTY ON 5'x1' METAL-FRAMED WINDOWS.
3. REMOVE AND DISPOSE OF ACM BROWN/GRAY WINDOW GLAZING PUTTY ON 3.5'x1' METAL-FRAMED WINDOWS.
4. REMOVE AND DISPOSE OF ACM BLACK SEAM SEALANT BETWEEN CONCRETE PANELS AND BRICK WALLS.
5. REMOVE AND DISPOSE OF ACM WHITE SEAM SEALANT BETWEEN CONCRETE PANEL SEAMS.
6. REMOVE AND DISPOSE OF GRAY CAB ON NON-ACM SILVER FOIL WITH PAINT WITH NON-ACM YELLOW FOAM INSULATION WITH NON-ACM SILVER FOIL ON CONCRETE FOUNDATION.
7. REMOVE AND DISPOSE OF ACM DARK GRAY/BLACK DOOR FRAME CAULKING ON DOUBLE METAL AND WOOD-FRAMED DOOR (BOTH INTERIOR AND EXTERIOR).
8. REMOVE AND DISPOSE OF ASSUMED ACM INTERNALS IN 4'x3'x3' GENERATOR. COORDINATE WITH ELECTRICAL DEMOLITION DRAWINGS.

LEGEND

W1	ACM DARK GRAY WINDOW FRAME CAULKING WITH EXTERIOR ACM GRAY WINDOW GLAZING PUTTY ON 2'x3' METAL-FRAMED WINDOWS
W2	ACM BROWN/GRAY WINDOW GLAZING PUTTY ON 5'x1' METAL FRAMED WINDOWS
W3	ACM BROWN/GRAY WINDOW GLAZING PUTTY ON 3.5'x1' METAL FRAMED WINDOWS
S2	ACM BLACK SEAM SEALANT BETWEEN CONCRETE PANELS AND BRICK WALLS
S3	ACM WHITE SEAM SEALANT BETWEEN CONCRETE PANEL SEAMS
	GRAY CAB ON NON-ACM SILVER FOIL WITH PAINT WITH NON-ACM YELLOW FOAM INSULATION WITH NON-ACM SILVER FOIL ON CONCRETE FOUNDATION
D2	ACM DARK GRAY/BLACK DOOR FRAME CAULKING ON DOUBLE METAL AND WOOD-FRAMED DOOR (BOTH INTERIOR AND EXTERIOR)
G	ASSUMED ACM INTERNALS IN 4'x3'x3' GENERATOR

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

ehsi
EHS-International, Inc.
1011 SW Klickitat Way, Suite 104
Seattle, Washington 98134
Ph: 206.381.1128
Fax: 206.254.4279

AREA PROJECT MANAGER
JAMES ESCALANTE
CERT. NO. 155393
03/10/2017

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137
BID SET
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

HAZMAT - BUILDING EXTERIOR PLAN

SHEET:
HA103

GENERAL NOTES

1. FOR HAZMAT GENERAL NOTES, SEE SHEET HA001.

(X) HAZMAT SHEET NOTES

1. REMOVE AND DISPOSE OF ASSUMED ACM INTERNALS IN 6'x4'x3' HEAT PUMP. COORDINATE WITH MECHANICAL DEMOLITION DRAWINGS.

LEGEND

HP ASSUMED ACM INTERNALS IN 6'x4'x3' HEAT PUMP



1 ROOF PLAN
1/8" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

ehsi
EHS-International, Inc.
1011 SW Klickitat Way, Suite 104
Seattle, Washington 98134
Ph: 206.381.1128
Fax: 206.254.4279

AREA PROJECT RESPONSIBLE
DEREK ESCAMILLA
CERT. NO. 155393
03/10/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

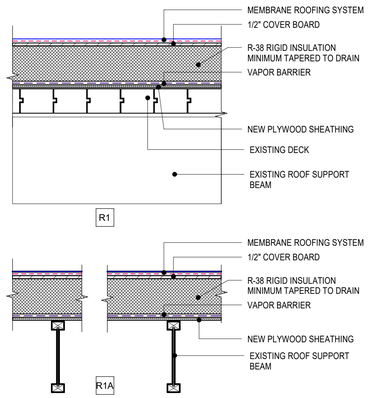
HAZMAT - ROOF PLAN

SHEET:

HA104

WALL SCHEDULE

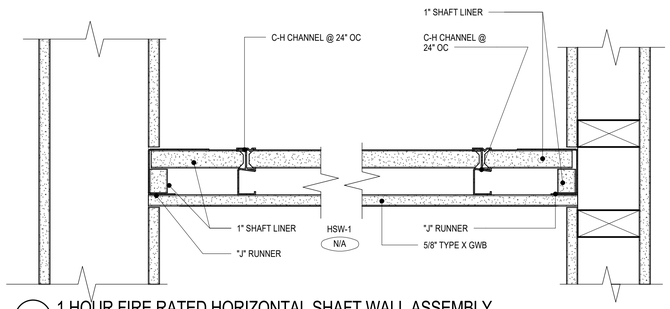
WALL #	WIDTH	TYPE	FIRE RATING	FIRE SOURCE	SOUND RATING	SOUND SOURCE
C1	8"	C1 - SHOTCRETE CONCRETE WALL PER STRUCTURAL	3 HR	IBC 2015, TABLE 721.1(2), ITEM 4-1.1	-	-
E1	7 11/16"	E1 - LAP SIDING OVER WOOD FRAMING WITH R-21 INSULATION	NA	NA	-	-
E2A	1 1/16"	E2A - NEW SIDING TYPE 1 OVER (E) WOOD FRAMING	NA	NA	-	-
E2B	1 1/16"	E2B - NEW SIDING TYPE 2 OVER (E) WOOD FRAMING	NA	NA	-	-
E3A	1 13/16"	E3A - NEW SIDING TYPE 1 OVER (E) CMU WALL	NA	NA	-	-
E3B	1 13/16"	E3B - NEW SIDING TYPE 2 OVER (E) CMU WALL	NA	NA	-	-
E4	6 1/8"	E4- FURRING WALL 2x6 WITH R-21 5/8" GWB	NA	NA	-	-
E5	5 9/16"	E5 - PARAPET LAP SIDING OVER WOOD FRAMING	NA	NA	-	-
W1	4 3/4"	W1 - 5/8" GWB OVER 2x4 WD STUDS OVER 5/8" GWB	NA	NA	35 STC	NGC-2403
W1A	4 1/8"	W1A - 5/8" GWB OVER 2x4 WD STUDS	NA	NA	-	-
W1B	1 3/8"	W1B - 5/8" GWB OVER 1x4 WD STUDS FLAT	NA	NA	-	-
W2	4 3/4"	W2 - 1 HR FR 5/8" GWB OVER 2x4 WD STUDS OVER 5/8" GWB	1 HR	IBC 2015, TABLE 721.1(2), ITEM NUMBER 15-1.15	34 STC	SEE WP 3520 (G&H NG-246FT, 7-2-65)
W2A	4 3/4"	W2A - FR 5/8" GWB OVER 2x4 WD STUDS OVER 5/8" GWB W/ SOUND INSULATION	1 HR	IBC 2015, TABLE 721.1(2), ITEM NUMBER 15-1.15	53 STC	RAL TL07-145
W3	6 3/4"	W3 - 5/8" GWB 2X6 STUDS 5/8" GWB	NA	NA	34 STC	USG-30-FT-G&H
W3A	6 3/4"	W3A -1 HR FIRE RATED 5/8" GWB 2X6 STUDS 5/8" GWB	1 HR	IBC2015, TABLE 721.1(2), ITEM NUMBER 15-1.14	35 STC	NGC-2403
W3B	6 1/8"	W3B - 5/8" GWB, 2X6 STUDS	NA	NA	-	-
W4	8 1/2"	W4 - 5/8" GWB OVER 2 ROWS OF 2x4 STUDS STAGGERED 5/8" GWB	NA	NA	39 STC	ESTIMATE
W4A	6 3/4"	W4A- 1 HR FR 5/8" GWB OVER 2 ROWS OF 2x4 STUDS STAGGERED 5/8" GWB	1 HR	WP 5515, UL R3501-52, 3-15-66, UL DESIGN U305; ULC DESIGN W301	40-45 STC	NRCC TL-93-254



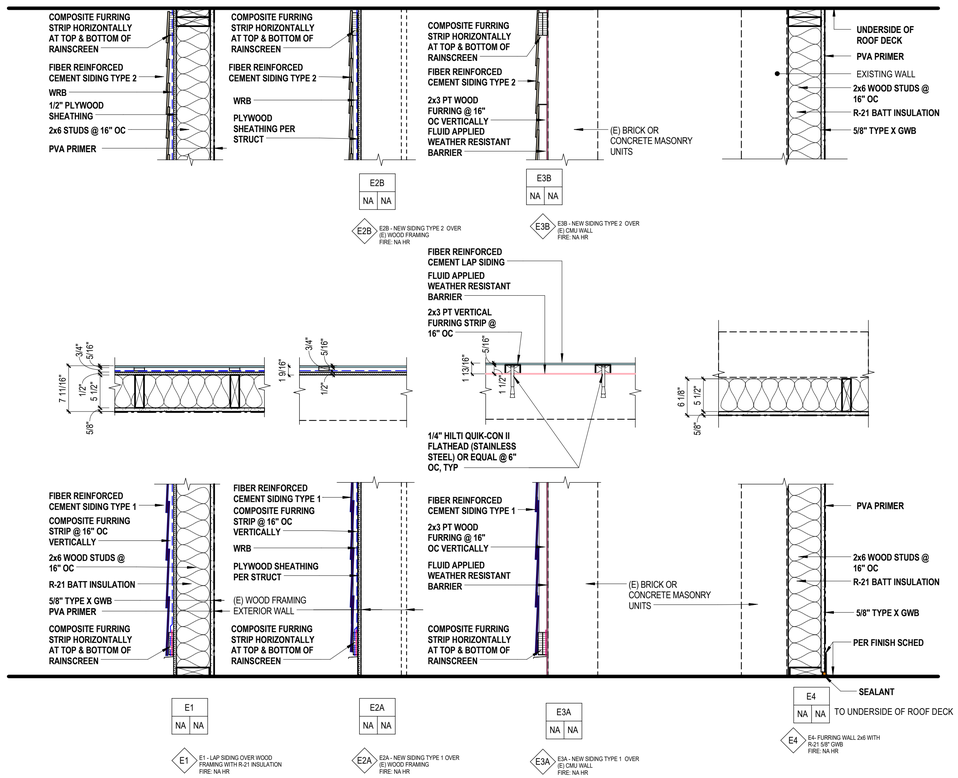
4 ROOF ASSEMBLY
1" = 1'-0"

FIRE RESISTANCE RATING: 1 HOUR FIRE: ITS (WHI) CTG/CC 60-01

SYSTEM WSD135 HORIZONTAL CEILING SYSTEM FOR CORRIDORS



3 1 HOUR FIRE RATED HORIZONTAL SHAFT WALL ASSEMBLY
3" = 1'-0"



2 EXTERIOR WALL ASSEMBLY
1" = 1'-0"

1 INTERIOR WALL ASSEMBLY
1" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

1	BLDG2017-0101 COMMENT REVISION	04/21/2017

ASSEMBLY SCHEDULES

SHEET:

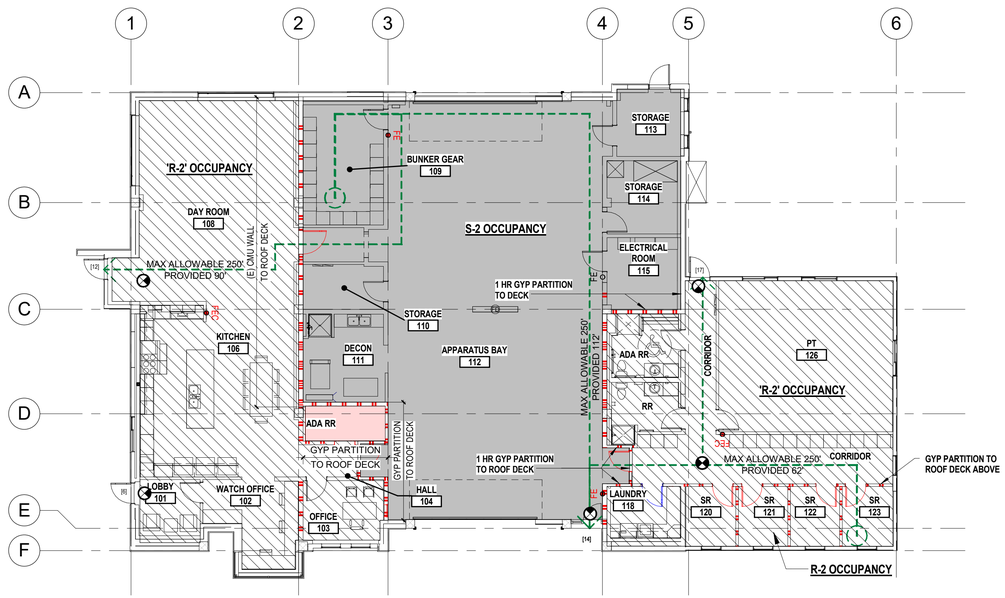
A01.01

OCCUPANT LOAD CHART

ROOM INORMATION			MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT			ALLOWABLE
NUMBER	NAME	AREA	FUNCTION OF SPACE	GROSS/NET	LOAD FACTOR	OCCUPANTS
101	LOBBY	79 SF	BUSINESS AREA	GROSS	100 SF	1
102	WATCH OFFICE	149 SF	BUSINESS AREA	GROSS	100 SF	2
103	OFFICE	113 SF	BUSINESS AREA	GROSS	100 SF	2
104	HALL	39 SF	-	-	0 SF	0
105	ADA RR	62 SF	-	-	0 SF	0
106	KITCHEN	597 SF	BUSINESS AREA	GROSS	100 SF	6
107	HALL	48 SF	-	-	0 SF	0
108	DAY ROOM	725 SF	BUSINESS AREA	GROSS	100 SF	8
109	BUNKER GEAR	216 SF	BUSINESS AREA	GROSS	100 SF	3
110	STORAGE	80 SF	ACCESSORY STORAGE AREAS, MECH ...	GROSS	300 SF	0
111	DECON	156 SF	BUSINESS AREA	GROSS	100 SF	2
112	APPARATUS BAY	2028 SF	PARKING GARAGE	GROSS	200 SF	10
113	STORAGE	92 SF	BUSINESS AREA	GROSS	100 SF	1
114	STORAGE	114 SF	ACCESSORY STORAGE AREAS, MECH ...	GROSS	300 SF	0
115	ELECTRICAL ROOM	113 SF	ACCESSORY STORAGE AREAS, MECH ...	GROSS	300 SF	0
116	ADA RR	92 SF	-	-	0 SF	0
117	RR	81 SF	-	-	0 SF	0
118	LAUNDRY	81 SF	BUSINESS AREA	GROSS	100 SF	1
120	SR	67 SF	DORMITORIES	GROSS	50 SF	1
121	SR	66 SF	DORMITORIES	GROSS	50 SF	1
122	SR	66 SF	DORMITORIES	GROSS	50 SF	1
123	SR	68 SF	DORMITORIES	GROSS	50 SF	1
124	CORRIDOR	285 SF	-	-	0 SF	0
125	CORRIDOR	106 SF	-	-	0 SF	0
126	PT	586 SF	EXERCISE ROOM	GROSS	50 SF	12
200	MECH PLATFORM	615 SF				
						52

F&LS PLAN LEGEND

- 1 HOUR FIRE BARRIER HORIZONTAL SHAFT
- 1 HOUR FIRE BARRIER
- 3 HOUR FIRE
- EXIT SIGN
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER, WALL MOUNTED
- [1] — DOOR FIRE RATING [# OF OCCUPANTS EXITING]
- PATH OF EGRESS



N

1 CODE COMPLIANCE PLAN

3/32" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER

275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT DAVID A. FERGUS STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

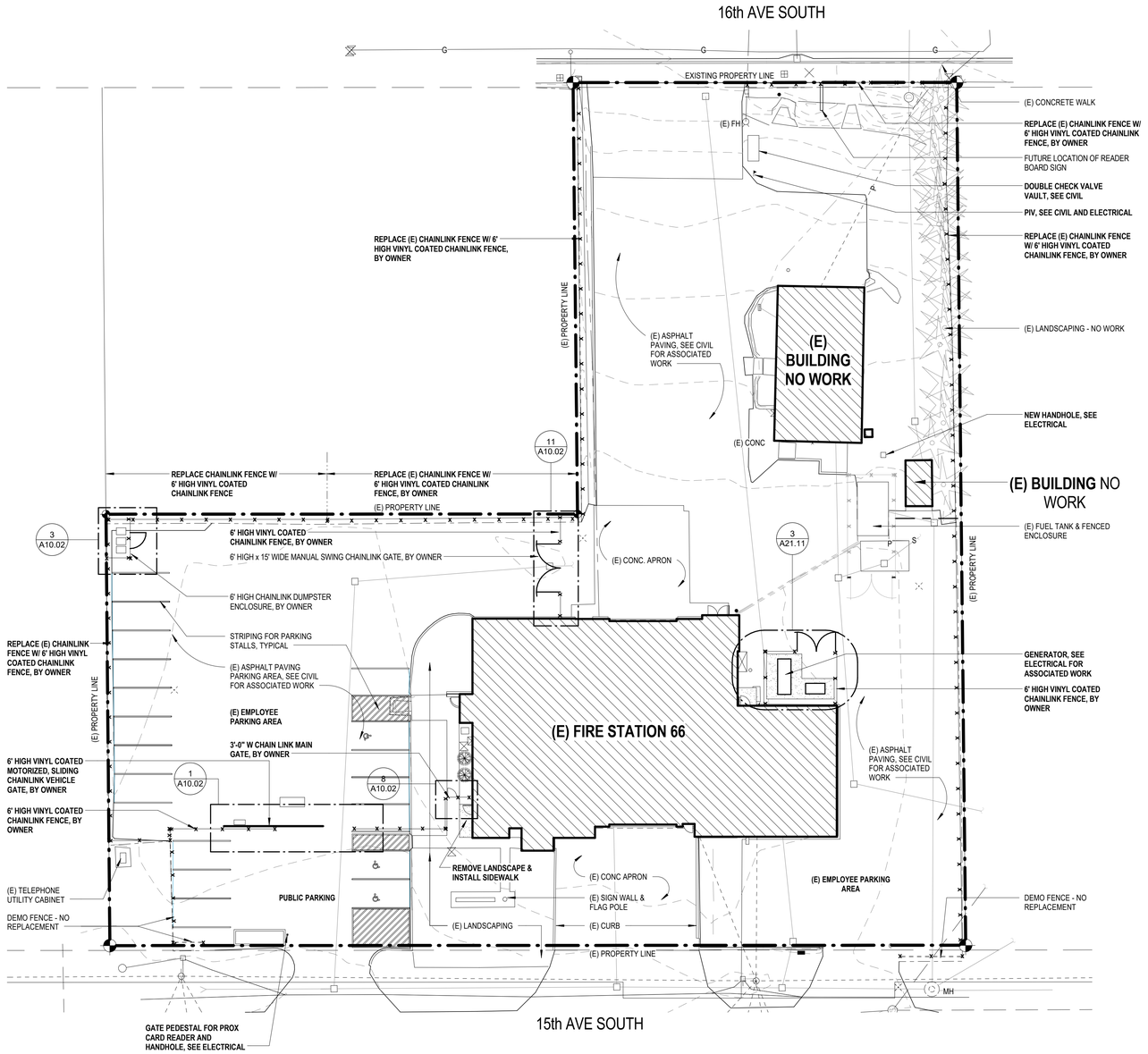
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

FIRE AND LIFE SAFTY CODE

SHEET:

A02.01



N

1 SITE PLAN

1" = 20'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER

275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

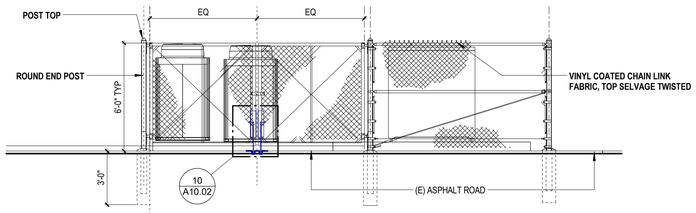
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

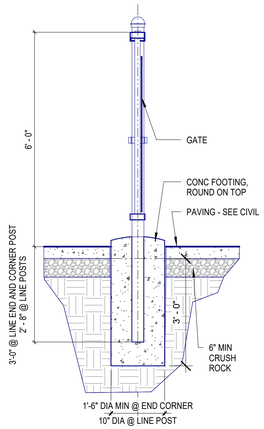
ARCHITECTURAL SITE PLAN

SHEET:

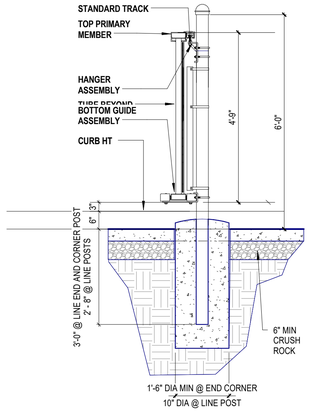
A10.01



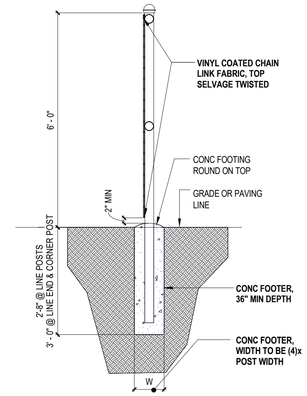
14 ELEVATION - GENERATOR GATE
1/4" = 1'-0"



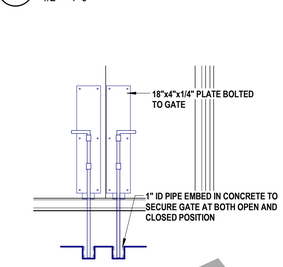
7 TYP SECTION - SWING GATE
1/2" = 1'-0"



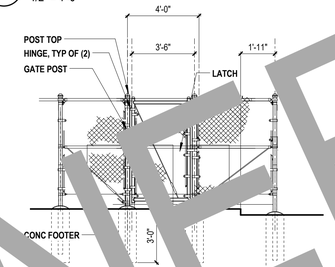
6 TYP SECTION - SLIDING GATE
1/2" = 1'-0"



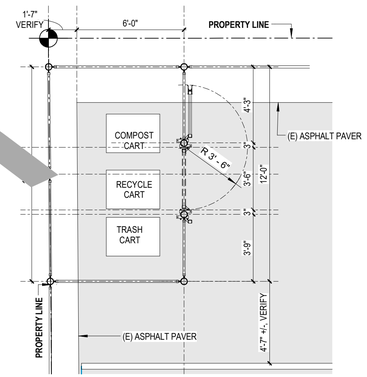
5 TYP SECTION - FENCE
1/2" = 1'-0"



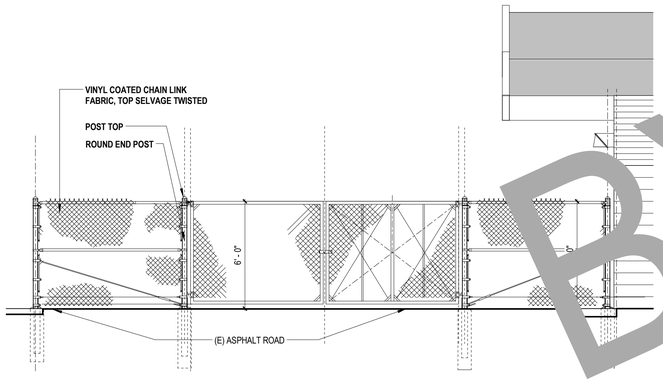
10 GATE BOLT
1" = 1'-0"



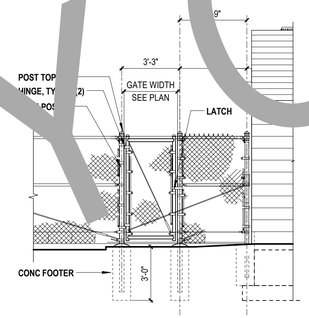
ELEVA... N T...SH EN... C...
1/4" = 1'-0"



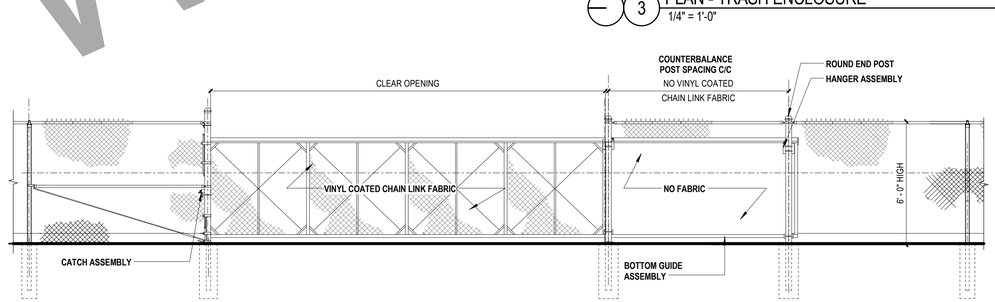
N 3 PLAN - TRASH ENCLOSURE
1/4" = 1'-0"



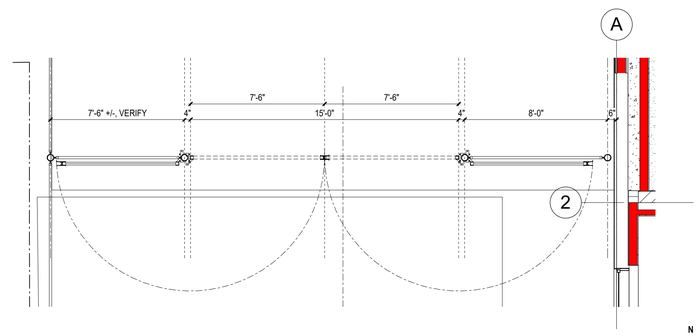
12 ELEVATION - SWING GATE EAST
1/4" = 1'-0"



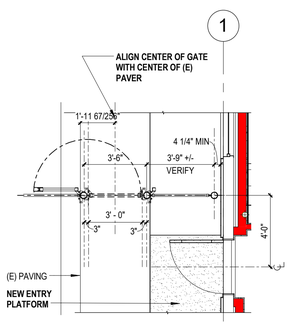
9 ELEVATION - MAN GATE NORTH
1/4" = 1'-0"



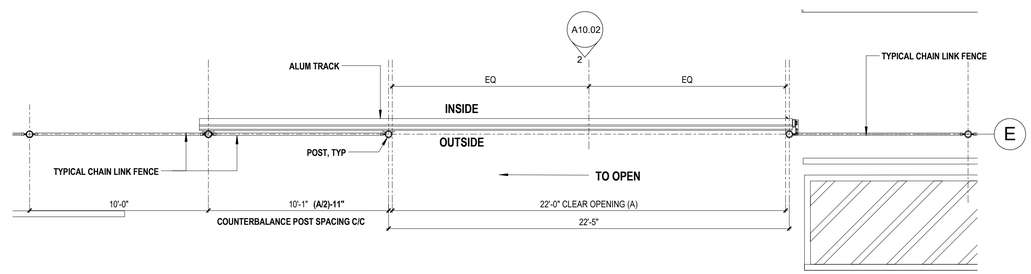
2 ELEVATION - MOTORIZED SLIDING GATE
1/4" = 1'-0"



N 11 PLAN - SWING GATE EAST
1/4" = 1'-0"



N 8 PLAN - MANGATE NORTH
1/4" = 1'-0"



N 1 PLAN - MOTORIZED SLIDING GATE
1/4" = 1'-0"

BY OWNER

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137
BID SET
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

SITE DETAILS

SHEET:
A10.02



1 EXTERIOR @ NORTH ENTRY



2 EXTERIOR @ NORTHWEST CORNER



3 EXTERIOR @ SOUTH WALL



4 EXTERIOR @ APPARATUS DOOR WEST



5 EXTERIOR @ SOUTHWEST CORNER



6 EXTERIOR @ SOUTHWEST CORNER



7 EXTERIOR @ SOUTH CORNER



8 EXTERIOR @ SOUTH



9 ROOF TRANSITION @ ADDITION



10 EXTERIOR @ SOUTHWEST CORNER



11 EXTERIOR @ SOUTHEAST CORNER



12 EXTERIOR @ TOWER



13 EXTERIOR @ APPARATUS DOOR EAST



14 EXTERIOR @ NORTHEAST CORNER



15 EXTERIOR @ NORTHEAST CORNER



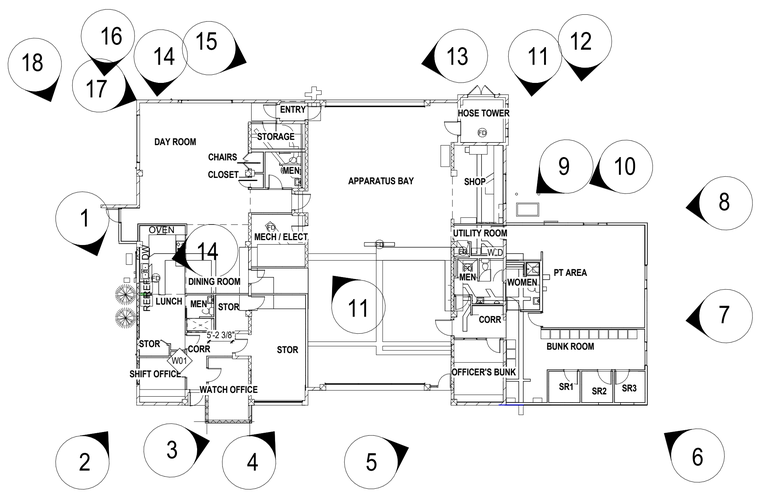
16 EXTERIOR @ NORTHEAST CORNER



17 EXTERIOR @ NE CORNER WALL BASE



18 EXTERIOR @ NORTHEAST CORNER



N

1 KEY PLAN - EXTERIOR

1/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER

275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

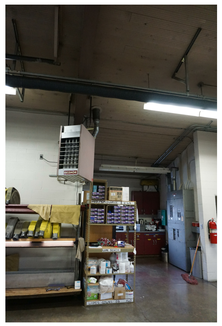
EXISTING CONDITIONS, EXTERIOR

SHEET:

A20.01



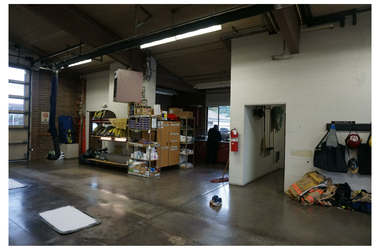
1 AAP BAY @ TOWER



2 APP BAY @ SOUTH WALL



3 APP BAY @ SOUTH WALL



4 APP BAY @ SOUTH WALL



5 SHOP @ EAST WALL



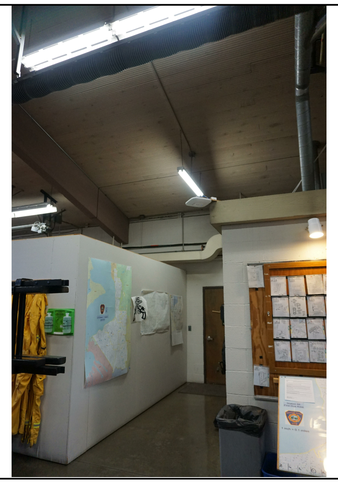
6 SHOP @ SOUTH WALL



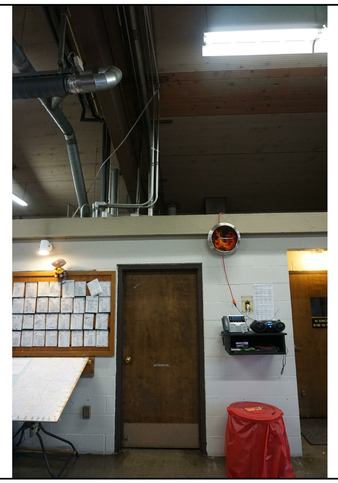
7 SHOP @ WEST WALL



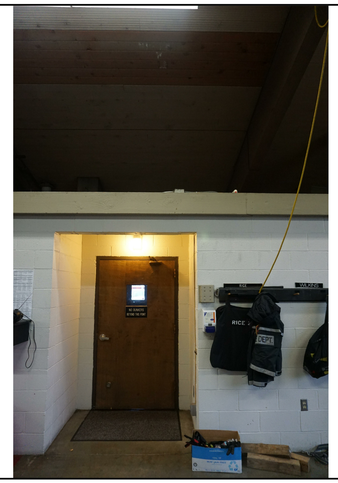
8 APP BAY @ NORTH WALL



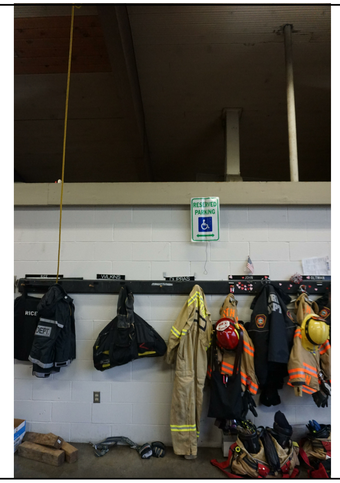
9 APP BAY @ NORTH WALL



10 APP BAY @ NORTH WALL



11 APP BAY @ NORTH WALL



12 APP BAY @ NORTH WALL



13 APP BAY @ NORTH WALL



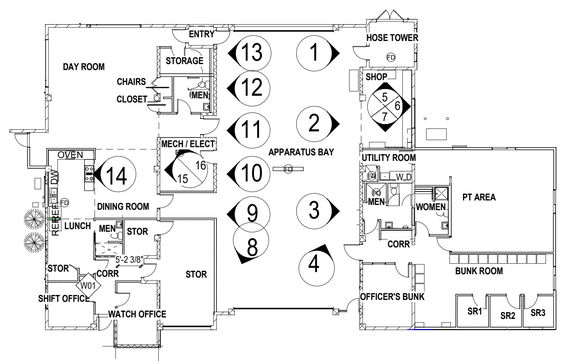
14 KITCHEN



15 MECHANICAL



16 MECHANICAL



N
1 KEY PLAN - INTERIOR
1/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

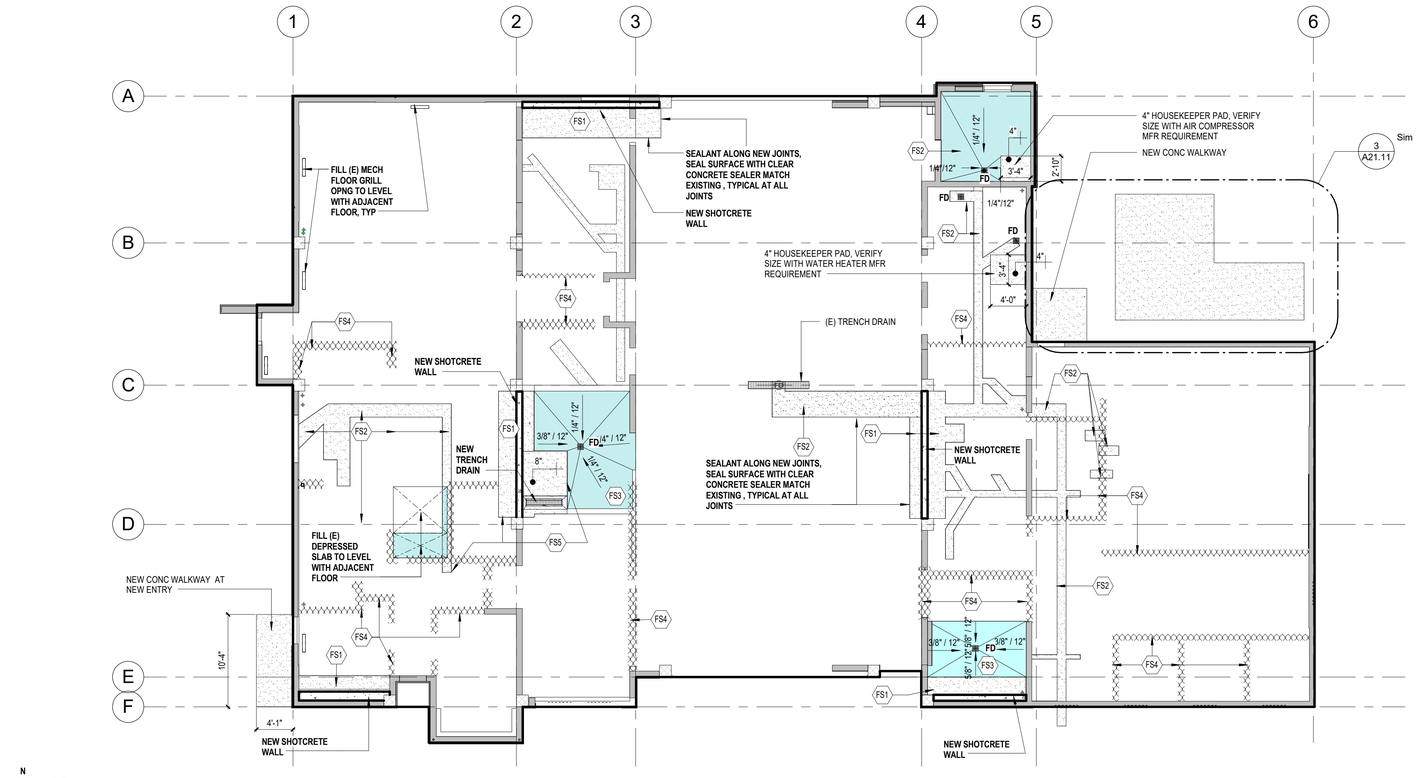
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

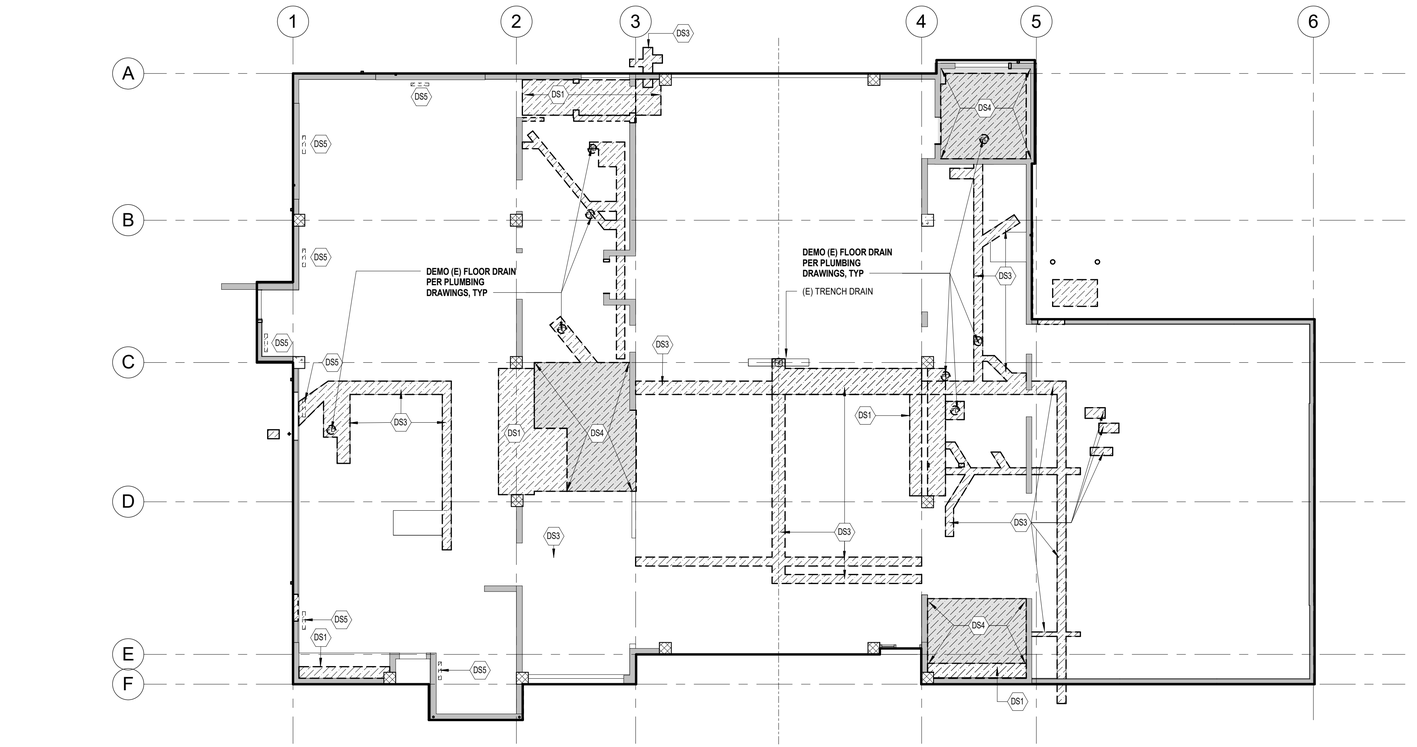
EXISTING CONDITIONS, INTERIOR

SHEET:

A20.02



N 2 LEVEL 1 - SLAB PLAN
1/8" = 1'-0"



N 1 LEVEL 1 - DEMO SLAB PLAN
1/8" = 1'-0"

GENERAL NOTES - DEMO PLAN

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. NO DEMOLITION WORK SHALL COMMENCE WITHOUT FIELD VERIFICATION BY THE CONTRACTOR
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND REMOVE ALL MECHANICAL, ELECTRICAL AND MISCELLANEOUS EQUIPMENT AS REQUIRED TO COMPLETE THE WORK. REFER TO MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS FOR DEMOLITION INFORMATION
3. THE CONTRACTOR SHALL FIELD LOCATE UNDERSLAB UTILITIES PRIOR TO SAW CUTTING AND/OR JACK HAMMERING AS REQUIRED TO CAREFULLY REMOVE EXISTING SLAB PER DEMO PLAN KEY NOTES D6 AND D14
4. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY STRUCTURAL BRACING AS REQUIRED DURING DEMOLITION AND CONSTRUCTION
5. ANY PORTION OF THE PROJECT TO REMAIN WHICH IS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITY, SHALL BE REPAIRED OR REPLACED TO MATCH THE EXISTING CONDITION
6. THE CONTRACTOR SHALL COORDINATE AND ARRANGE FOR THE DISCONNECTION OF ALL UTILITIES AND EQUIPMENT WITH THE OWNER AND UTILITY COMPANIES. THE CONTRACTOR SHALL CAP OFF ALL UNUSED UTILITIES
7. THE DEMOLITION OF MATERIALS SHALL BE HANDLED IN ACCORDANCE WITH THE HAZMAT DRAWINGS.
8. REFERENCE SLAB PLANS FOR ASSOCIATED WORK AT FLOOR SLAB

LEGEND - SLAB PLAN

- EXISTING SLAB ON GRADE TO REMAIN
- EXISTING WALL
- DEMO EXISTING SLAB ON GRADE PER DEMO FLOOR SLAB KEY NOTES
- NEW SLAB ON GRADE PER FLOOR SLAB KEY NOTES
- DEMO EXISTING SLAB ON GRADE FOR INSTALLATION OF NEW SLAB ON GRADE, SLOPED TO DRAIN SLAB PER PLUMBING DRAWINGS
- FD — PROVIDE NEW FLOOR SLAB SLOPE 1/4" PER FOOT MINIMUM TO DRAIN,
- PATCH EXISTING FLOOR AFTER DEMOLITION OF EXISTING WALL, SAND TO SMOOTH SURFACE

KEY NOTES - SLAB PLAN

#	NOTE DESCRIPTION
FS1	NEW SLAB ON GRADEWHERE NEW WALL AND NEW FOUNDATION ARE CONSTRUCTED, REFERENCE STRUCTURAL DRAWINGS FOR ASSOCIATED WORKS, SEAL NEW CONCRETE SLAB SURFACE WITH "CONC-1"
FS2	NEW SLAB ON GRADE WHERE (E) PIPE WERE DEMOLISHED AND WHERE NEW PIPES WERE INSTALLED, REFERENCE PLUMBING DRAWINGS FOR ASSOCIATED WORKS
FS3	NEW CONCRETE FLOOR SLAB SLOPE TO DRAIN
FS4	PATCH FLOOR WHERE EXISTING WALLS WERE REMOVED, SAND SURFACE SMOOTH TO MATCH ADJACENT FLOO, SEAL SURFACE WITH "CONC-1"
FS5	SEALANT ALONG NEW JOINTS, TYPICAL AT ALL JOINTS

KEY NOTES - DEMO SLAB PLAN

#	NOTE DESCRIPTION
DS1	SAW CUT (E) SLAB ON GRADE AND EXCAVATE FLOOR SUBSTRATE FOR EXPANSION AND ADDITION OF (E) FOUNDATION, REFERENCE STRUCTURAL DRAWINGS FOR ASSOCIATED WORKS
DS3	SAW CUT (E) SLAB ON GRADE AND EXCAVATE FLOOR SUBSTRATE FOR REMOVAL OF EXISTING UNDERGROUND PIPES AND FOR INSTALLATION OF NEW PLUMBING PIPES , REFERENCE PLUMBING DRAWINGS FOR ASSOCIATED WORKS
DS4	REMOVE (E) SLAB ON GRADE IN AREA WHERE REQUIRED NEW SLOPED TO DRAINS FLOOR SLAB, REFERENCE PLUMBING DRAWINGS FOR ASSOCIATED WORKS
DS5	REMOVE (E) MECHANICAL FLOOR GRILLE PER MECHANICAL DRAWINGS, FILL (E) OPENING WITH CONCRETE FLOOR SLAB MATCH (E) ADJACENT FLOOR

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT DAVID A. FERGUS STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

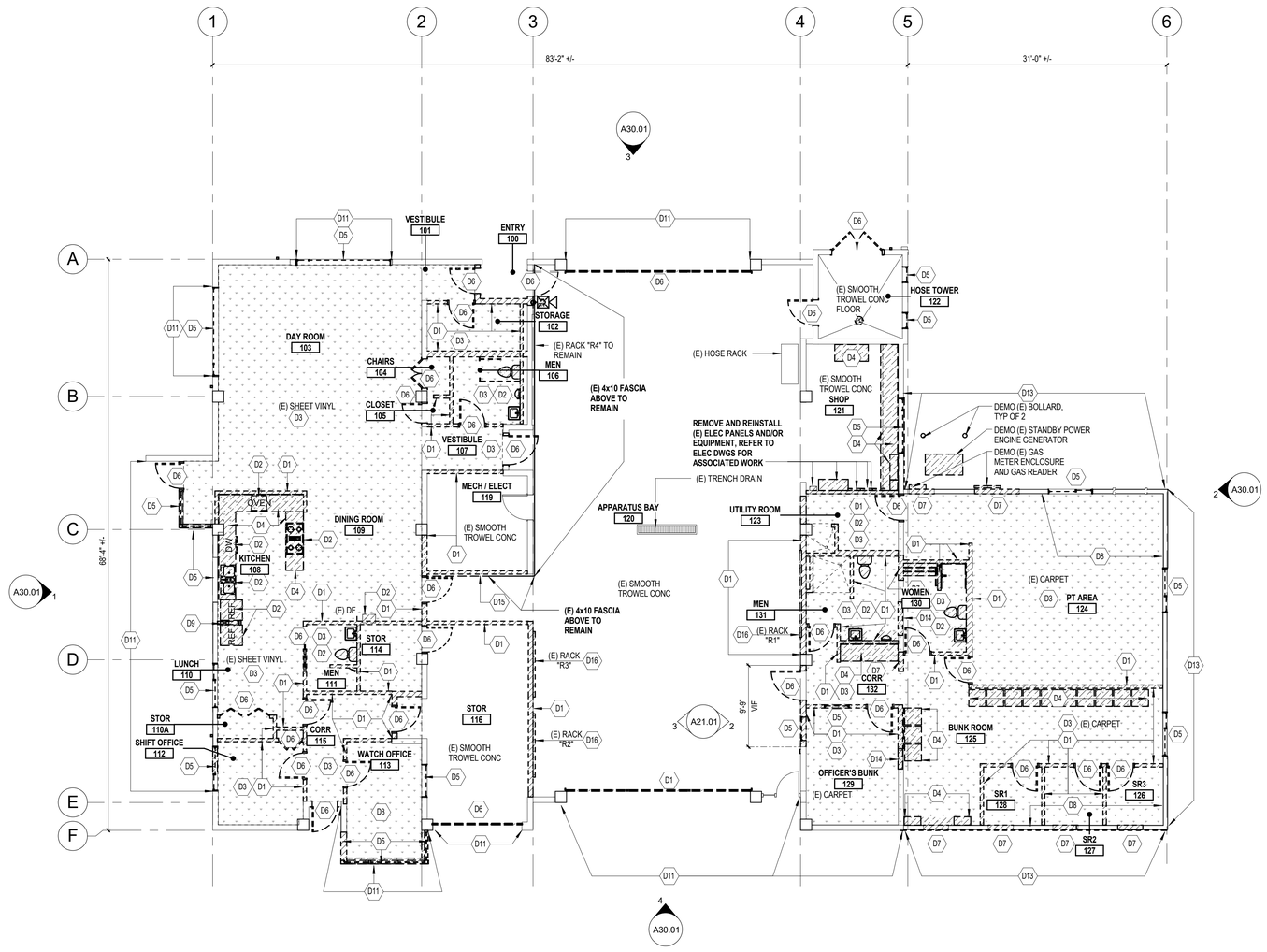
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

SLAB PLANS

SHEET:

A21.00



N

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

LEGEND - DEMO PLAN

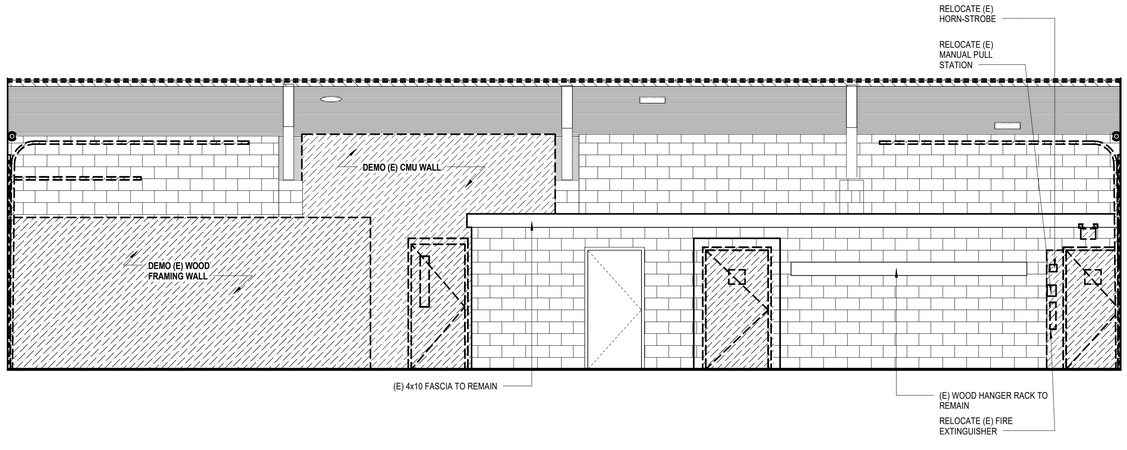
- DEMO EXISTING WALL, DOOR AND/OR WINDOW PER DEMOLITION KEY NOTES
- DEMO EXISTING FLOOR FINISH AND BASE
- EXISTING WALL OPENING TO BE FILLED, PATCHED AND PAINTED TO MATCH EXISTING ADJACENT MATERIAL, REQUIRED FIRE RATED AND FINISH
  SMALLER OPENINGS AT CMU WALLS TO BE PATCHED WITH SHOTCRETE. REFERENCE MECHANICAL DEMOLITION DRAWINGS FOR LOCATIONS
- PROVIDE OPENING IN EXISTING WALL FOR NEW MECHANICAL DUCT. REFERENCE MECHANICAL DRAWINGS FOR ASSOCIATED WORKS

GENERAL NOTES - DEMO PLAN

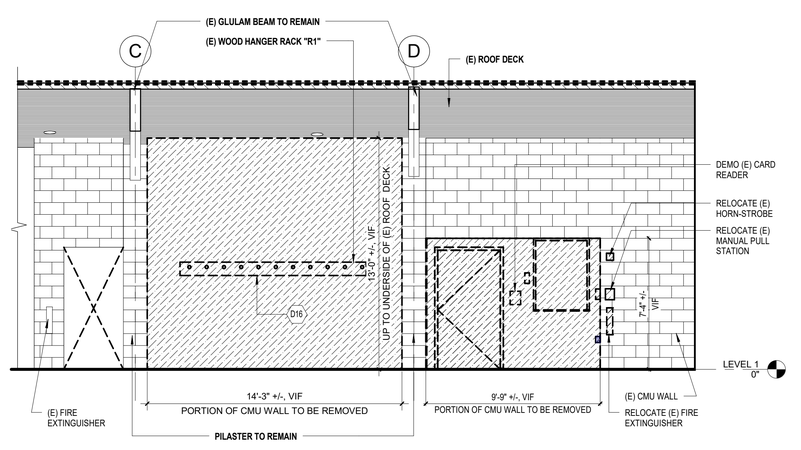
1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. NO DEMOLITION WORK SHALL COMMENCE WITHOUT FIELD VERIFICATION BY THE CONTRACTOR
2. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND REMOVE ALL MECHANICAL, ELECTRICAL AND MISCELLANEOUS EQUIPMENT AS REQUIRED TO COMPLETE THE WORK. REFER TO MECHANICAL, ELECTRICAL AND STRUCTURAL DRAWINGS FOR DEMOLITION INFORMATION
3. THE CONTRACTOR SHALL FIELD LOCATE UNDERSLAB UTILITIES PRIOR TO SAW CUTTING AND/OR JACK HAMMERING AS REQUIRED TO CAREFULLY REMOVE EXISTING SLAB PER DEMO PLAN KEY NOTES D6 AND D14
4. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY STRUCTURAL BRACING AS REQUIRED DURING DEMOLITION AND CONSTRUCTION
5. ANY PORTION OF THE PROJECT TO REMAIN WHICH IS DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITY, SHALL BE REPAIRED OR REPLACED TO MATCH THE EXISTING CONDITION
6. THE CONTRACTOR SHALL COORDINATE AND ARRANGE FOR THE DISCONNECTION OF ALL UTILITIES AND EQUIPMENT WITH THE OWNER AND UTILITY COMPANIES. THE CONTRACTOR SHALL CAP OFF ALL UNUSED UTILITIES
7. THE DEMOLITION OF MATERIALS SHALL BE HANDLED IN ACCORDANCE WITH THE HAZMAT DRAWINGS.
8. REFERENCE SLAB PLANS FOR ASSOCIATED WORK AT FLOOR SLAB

KEY NOTES - DEMO PLAN

#	NOTE DESCRIPTION
D1	DEMO (E) WALL
D2	DEMO (E) APPLIANCES, PLUMBING FIXTURES, SHOWER PAN, VANITY TOP OR TOILET PARTITIONS.
D3	REMOVE (E) FLOOR FINISH AND WALL BASE, PATCH AND PREP FOR NEW FLOOR FINISH PER FINISH SCHEDULE
D4	REMOVE (E) CASE WORK
D5	DEMO (E) WINDOW PER DEMO PLAN
D6	DEMO (E) DOOR AND FRAME
D7	DEMO (E) WALL FOR NEW WINDOW AND/OR DOOR AS INDICATED ON FLOOR PLAN
D8	DEMO (E) GWB FROM (E) WALL FOR STRUCTURAL SHEATHING INSTALLATION, REFERENCE STRUCTURAL DRAWINGS
D9	DEMO (E) MECH DUCT, EQUIPMENT, ETC. REFERENCE MECHANICAL DRAWINGS FOR INFORMATION
D10	DEMO (E) PLUMBING PIPES, EQUIPMENT, ETC. REFERENCE PLUMBING DRAWINGS FOR INFORMATION
D11	DEMO (E) EXTERIOR WALL FINISH AND ROOF FASCIA FINISH (CEMENT PLASTER AND/OR MARBLECRETE) DOWN TO FACE OF (E) MASONRY WALL OR (E) WOOD FRAMING WALL
D12	DEMO (E) TOWER CONSTRUCTION ABOVE ROOF LEVEL COMPLETELY
D13	DEMO EXISTING FASCIA
D14	DEMO (E) WOOD FRAMING WALL FROM (E) WINDOW OPENINGS IN (E) CMU WALL
D15	DEMO (E) 4x10 W00D TRIM AND (E) 2x WOOD BLOCKING FROM TOP OF (E) CMU WALL
D16	REMOVE (E) WOOD HANGER RACK, SALVAGE FOR REINSTALLATION



3 DEMO APPARATUS BAY - NORTH
1/4" = 1'-0"



2 DEMO INTERIOR ELEVATION
1/4" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

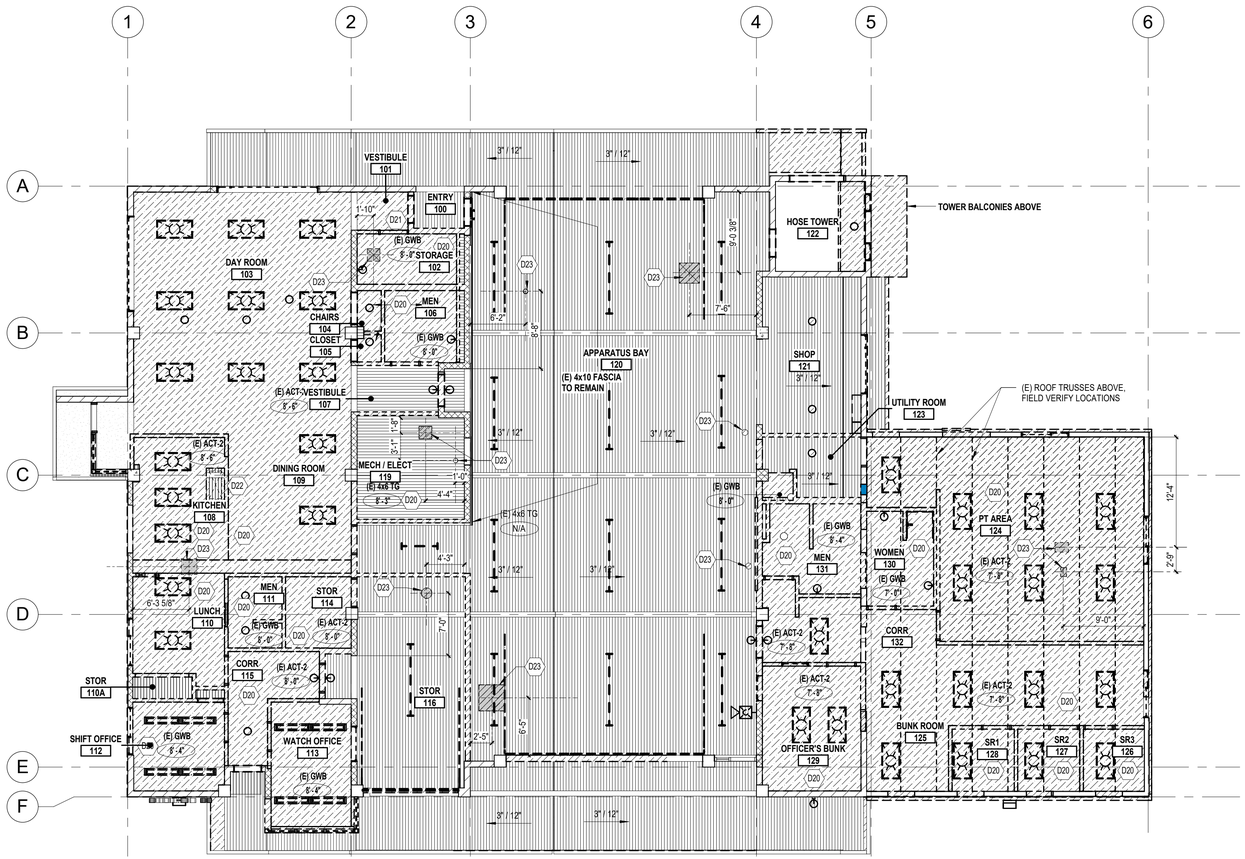
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

DEMO PLAN

SHEET:

A21.01



N

1 LEVEL 1 - REFLECTED CEILING DEMO PLAN

1/8" = 1'-0"

LEGEND - DEMO RCP

- EXISTING GWB CEILING TO REMAIN
- EXISTING SUSPENDED ACOUSTICAL TILE CEILING TO REMAIN
- EXISTING ROOF DECK TO REMAIN
- EXISTING LIGHTING FIXTURES TO REMAIN
- DEMO EXISTING CEILING, LIGHTING
- EXISTING WALL OPENING TO BE FILLED AND PATCHED, SEE ARCHITECTURAL DEMOLITION PLAN FOR INFORMATION
- NEW OPENING IN EXISTING WALL FOR NEW MECHANICAL DUCT, SEE ARCHITECTURAL DEMOLITION PLAN FOR INFORMATION

KEY NOTES - DEMOLITION RCP

#	DESCRIPTION
D20	DEMO (E) CEILING SYSTEM INCLUDED (E) LIGHTING FIXTURES AND MECHANICAL DIFFUSERS. REFERENCE MECHANICAL AND ELECTRICAL DRAWINGS FOR ASSOCIATED WORK
D21	DEMO (E) CEILING SYSTEM FOR INSTALLATION OF NEW WOOD FURRING WALLS
D22	DEMO (E) KITCHEN EXHAUST HOOD
D23	CUT OPENING IN EXISTING ROOF DECK FOR NEW MECHANICAL DUCT, REFER TO MECHANICAL DRAWINGS FOR ASSOCIATED WORK. COORDINATE WITH EXISTING ROOF TRUSSES WHERE OCCURS

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

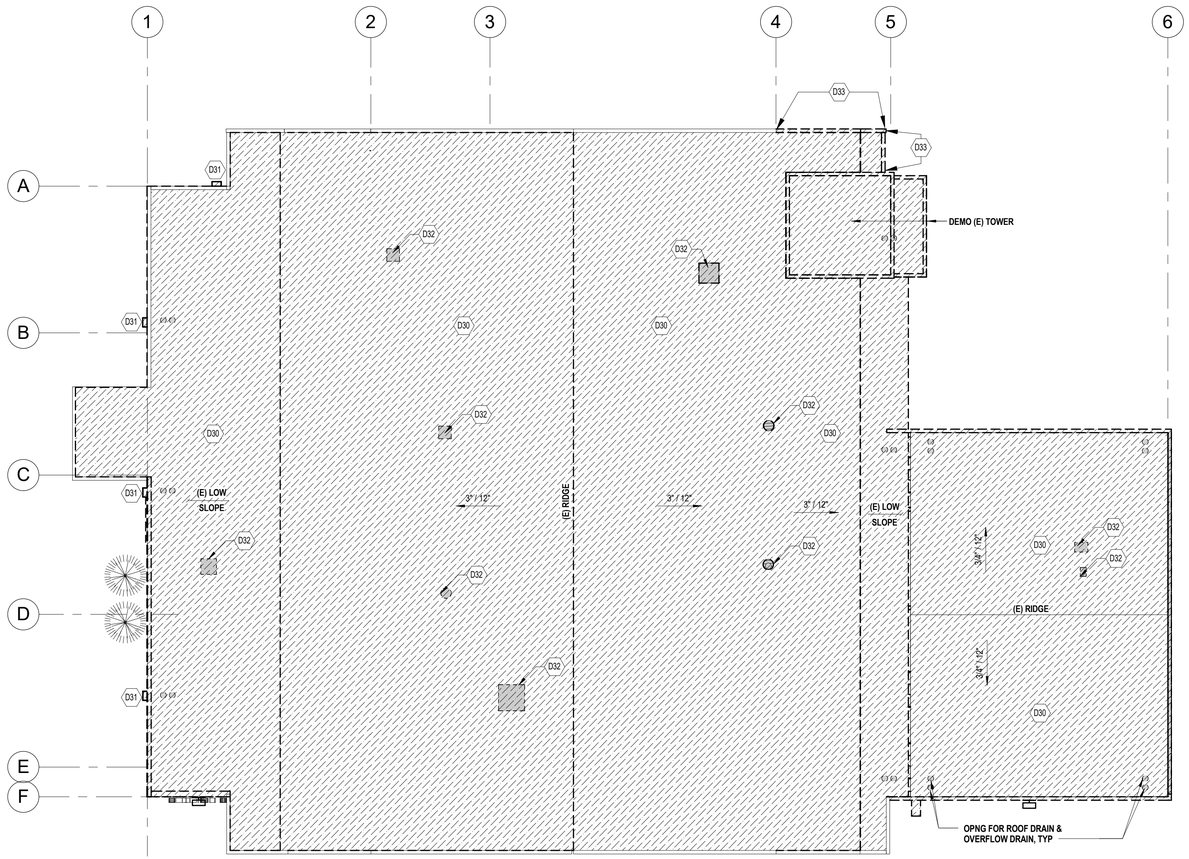
REVISION SCHEDULE

DEMO RCP

SHEET:

A21.02

KEY NOTES - DEMO ROOF PLAN	
#	NOTE DESCRIPTION
D30	DEMO (E) MEMBRANE ROOFING SYSTEM DOWN TO (E) WOOD DECK
D31	DEMO (E) ROOF DRAINS; OVERFLOW SCUPPER AND DOWNSPOUTS, PREP FOR INSTALLATION OF NEW DRAINS, SCUPPERS AND DOWNSPOUTS
D32	NEW OPENING IN EXISTING ROOF DECK FOR NEW MECHANICAL DUCT, SEE DEMOLITION REFLECTED CEILING PLAN FOR LOCATIONS
D33	DEMO EXISTING FASCIA



N

1 ROOF - DEMO PLAN

1/8" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER

275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

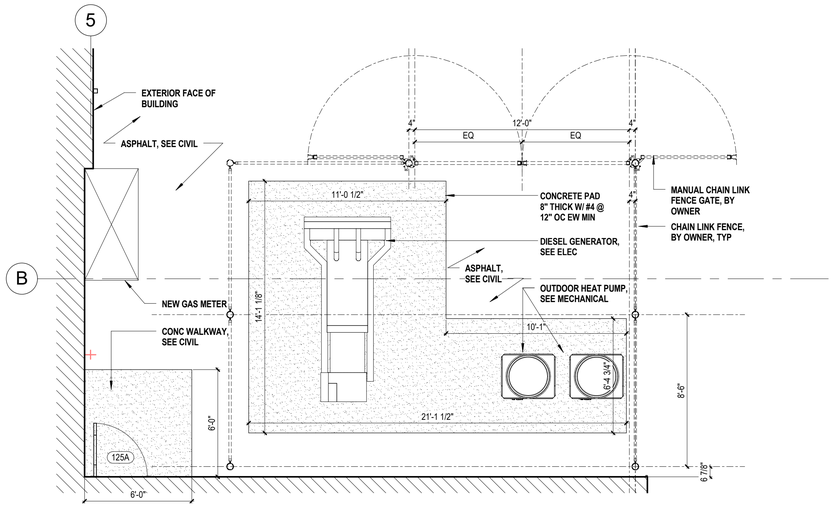
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

DEMO ROOF PLAN

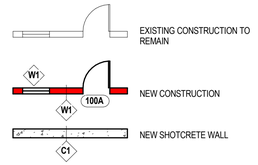
SHEET:

A21.03



3 PLAN - GENERATOR ENCLOSURE
1/4" = 1'-0"

FLOOR PLAN LEGEND

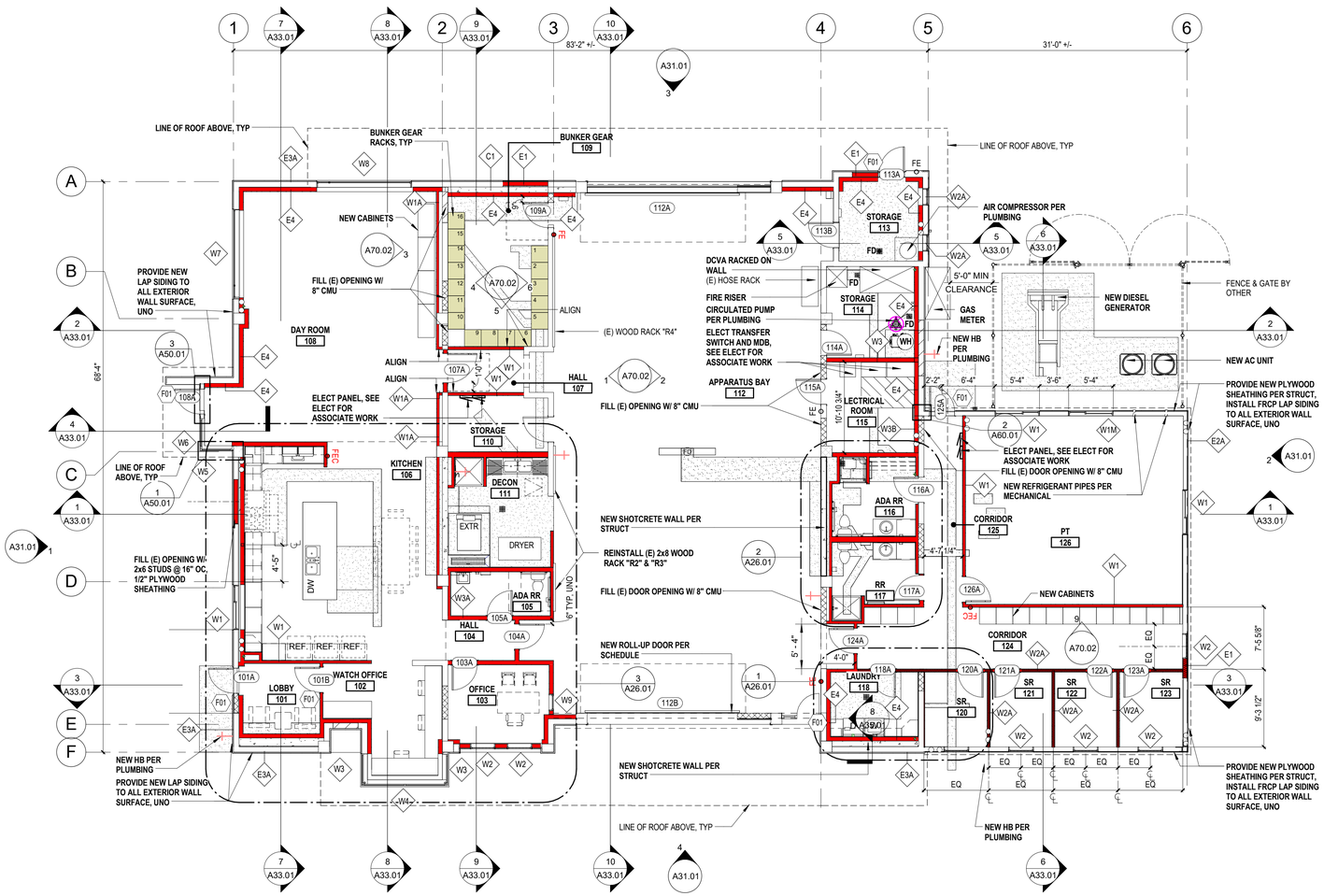


GENERAL NOTES - FLOOR PLAN

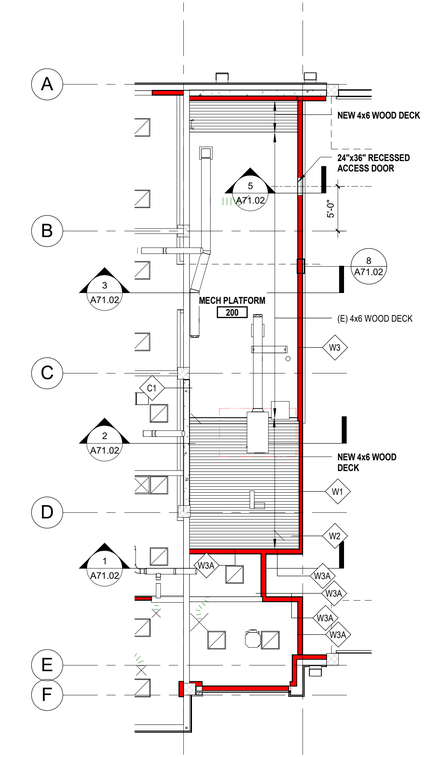
1. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE
2. FOR WALL, FLOOR AND ROOF ASSEMBLIES, SEE SHEETS A01.01
3. FOR WINDOW SCHEDULE AND DETAILS, SEE SHEET A50.01
4. FOR DOOR SCHEDULE AND DETAILS, SEE SHEET A60.01
5. ALL FINISHED DOOR OPENING ARE LOCATED 6" FROM WALL UNLESS NOTED OTHERWISE
6. FOR FINISH SCHEDULE AND FINISH LEGEND, SEE SHEET A72.01
7. DIMENSIONS INDICATED AS "MIN" OR "CLEAR" ARE FROM NEAREST FINISH SURFACE INCLUDING TRIM
8. PATCH ALL PENETRATIONS RELATED TO THE NEW SPRINKLER SYSTEM. FINISH TO MATCH ADJACENT CONSTRUCTION. SEE SPRINKLER SUBMITTAL FOR ASSOCIATED WORK
9. PROVIDE CONCEALED 2X WOOD BLOCKING FOR SURFACE-MOUNTED COMPONENTS ON WOOD-FRAMED WALLS
10. REFERENCE SLAB PLANS FOR ASSOCIATED WORK AT FLOOR SLAB

KEY NOTES - FLOOR PLAN

#	DESCRIPTION
F01	PATCH AND PAINT WALLS AFTER THE INSTALLATION OF NEW ACCESS CONTROL SYSTEM IS COMPLETED (BY OTHERS), COORDINATE WITH THE INSTALLER



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



2 MECHANICAL PLATFORM
1/8" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

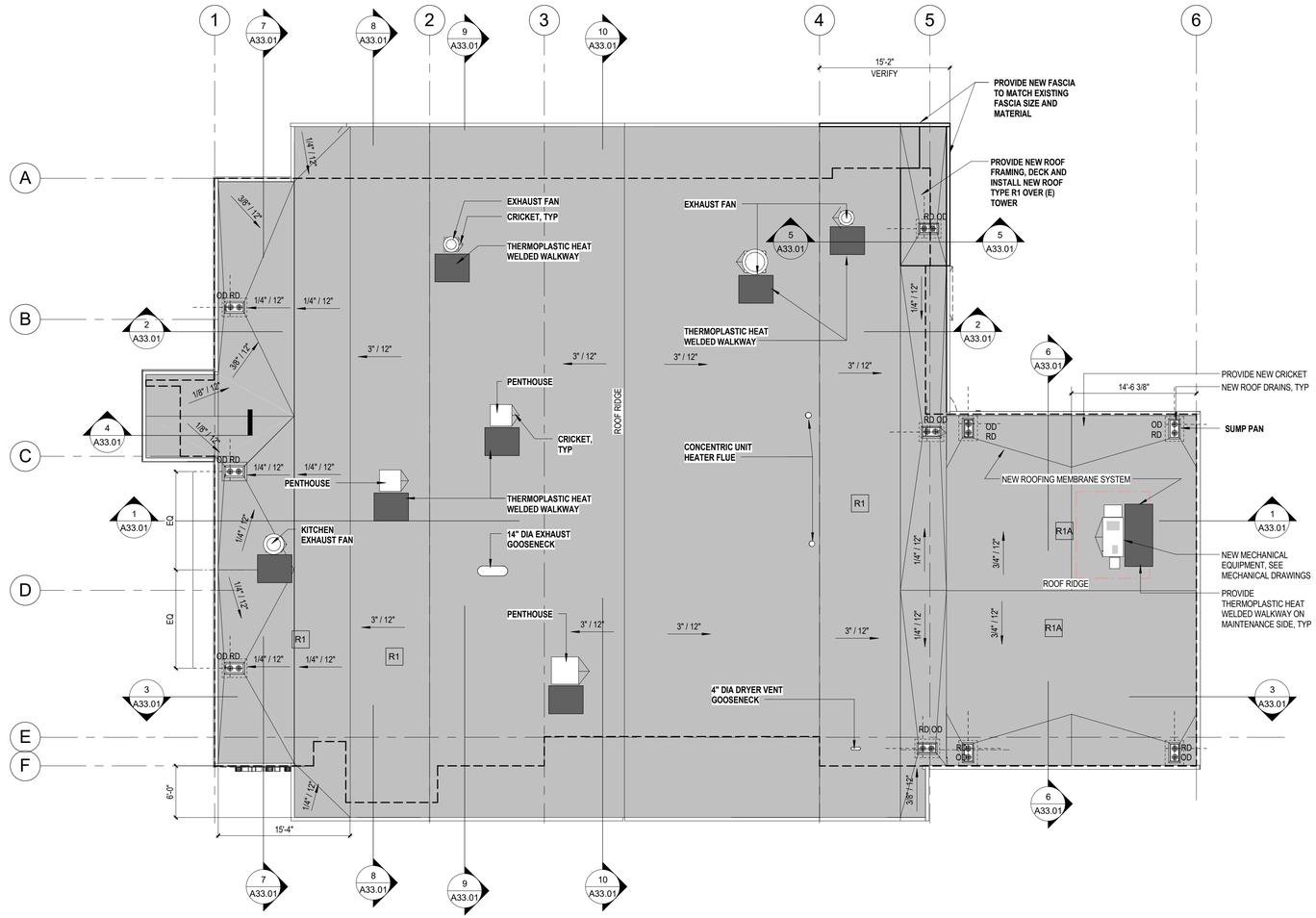
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

FLOOR PLAN

SHEET:

A21.11



RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

ROOF PLAN

SHEET:

A21.12

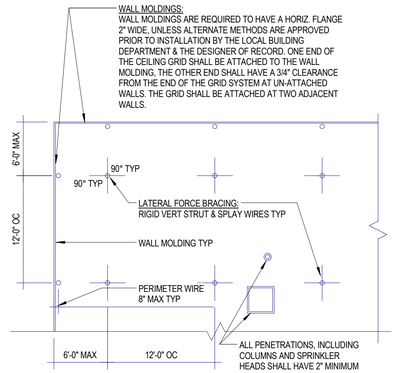
GENERAL NOTES - RCP

- ARCHITECTURAL RCP PROVIDED FOR COORDINATION PURPOSES ONLY. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS FOR DETAILED SCOPE OF SYSTEMS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
- CENTER ALL CEILING FIXTURES IN CEILING TILE, UNLESS NOTED OTHERWISE.
- REFER TO STRUCTURAL SHEETS FOR SEISMIC REQUIREMENTS
- SEISMIC BRACE ALL CEILING HUNG EQUIPMENT, SOFFITS AND ACOUSTICAL CEILINGS.
- REFER TO FINISH PLAN & FINISH SCHEDULE FOR MANUFACTURER, STYLE, COLOR, ETC.
- DROP CEILING SHALL BE PER CODE AND HAVE SEISMIC RESTRAINTS.
- ALL DRAFT STOPS SHALL BE PER CODE IN FLOOR CEILING ASSEMBLIES AND FIRE BLOCKING SHALL BE REQUIRED PER CODE IN WALL ASSEMBLIES PER CODE.

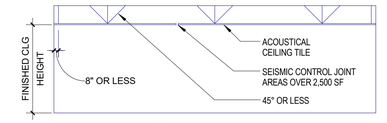
RCP LEGEND

- NEW WALL TO UNDERSIDE OF ROOF DECK
- EXISTING GWB CEILING TO REMAIN
- EXISTING SUSPENDED ACOUSTICAL TILE CEILING TO REMAIN
- **NEW GWB CEILING**
- NEW SUSPENDED ACOUSTICAL TILE CEILING
- **ELECTRICAL INFRA RED HEATER**
- **RADIANT CEILING PANEL**
- **EXHAUST, 2X2**
- **RETURN GRILLE, 2X2**
- **SUPPLY GRILLE, 2X2**
- **SURFACE OR RECESSED DOWNLIGHT**
- **WALL SCONCE LIGHT FIXTURE**
- **RECESSED TROFFER, 2X2**
- **RECESSED TROFFER, 1X4**
- **SURFACE OR PENDANT MOUNT LIGHT**

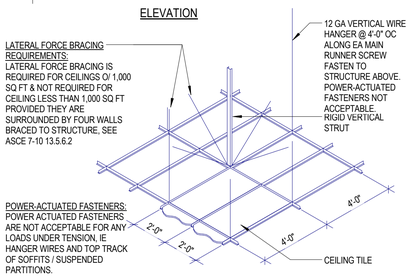
SEISMIC BRACING DETAILS



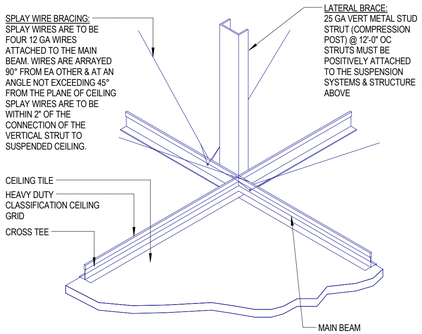
PLAN



ELEVATION



POWER-ACTUATED FASTENERS:
POWER ACTUATED FASTENERS ARE NOT ACCEPTABLE FOR ANY LOADS UNDER TENSION, IE HANGER WIRES AND TOP TRACK OF SOFFITS / SUSPENDED PARTITIONS.



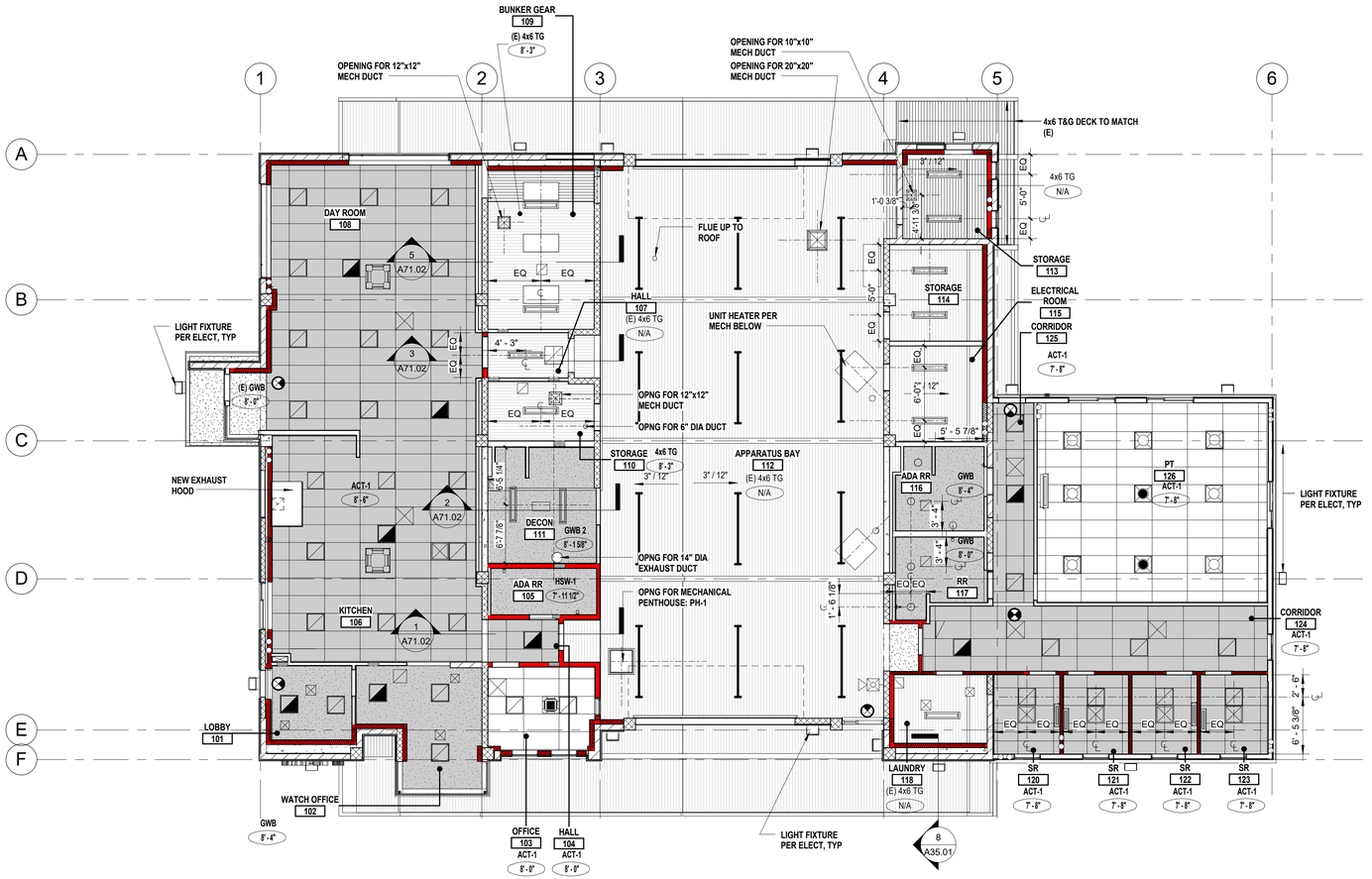
MAXIMUM RECOMMENDED LENGTHS FOR VERTICAL STRUTS FOR 1" METAL STUDS:
1 5/8" METAL STUD (25 GAGE) UP TO 6'-2"
2 1/2" METAL STUD (25 GAGE) UP TO 10'-6"

NOTES:

1. A STRUT, WITH STIFFNESS ADEQUATE TO RESIST THE VERTICAL LOADS IMPOSED, SHALL BE ATTACHED TO THE SUSPENSION SYSTEM & TO THE STRUCTURE ABOVE AT EACH BRACING LOCATION.
2. DIRECTION AND THE FIRST POINT SHALL BE WITHIN 6 FEET OF EACH WALL.
3. SPREADER (SPACER) BARS OR OTHER MEANS APPROVED BY THE LOCAL BUILDING DEPT. SHALL BE USED TO PREVENT ENDS OF MAIN BEAMS AT PERIMETER WALLS FROM SPREADING OPEN DURING A SEISMIC EVENT. PERIMETER WIRES SHALL NOT BE USED IN LIEU OF SPREADER BARS, SEE CISCA ZONES 3 - 4.
4. LIGHT FIXTURES & MECHANICAL SERVICES: ATTACH PER "GUIDELINES FOR SEISMIC RESTRAINT FOR DIRECT HUNG SUSPENDED CEILING ASSEMBLIES - SEISMIC ZONES 3 & 4", MAY 2004 (OR MOST CURRENT) BY CEILING & INTERIOR SYSTEMS CONSTRUCTION
5. ASSOCIATION (CISCA).
6. SUSPENDED CEILING INSTALLATION SHALL BE INSTALLED PER IBC 2009, ASTM C 635 & ASTM C636, ASCE 7-05 & CISCA ZONES 3-4.
7. SEISMIC SEPARATION JOINTS: FOR CEILING EXCEEDING 2,500 SQ.FT., A SEISMIC JOINT OR
8. FULL HEIGHT WALL PARTITION THAT BREAKS THE CEILING SHALL BE PROVIDED UNLESS ANALYSES ARE PERFORMED OF THE CEILING BRACING SYSTEM, CLOSURE ANGLES & PENETRATIONS TO PROVIDE SUFFICIENT CLEARANCE, SEE ASCE 7-05 13.5.6.2.2, ITEM D.

CHANGES IN CEILINGS PLANES WILL REQUIRE POSITIVE BRACING, SEE ASCE 7-05 13.5.6.2.2 ITEM F.

PARTITIONS THAT ARE TIED TO THE CEILING AND ALL PARTITIONS GREATER THAN 6 FEET IN HEIGHT SHALL BE LATERALLY BRACED TO THE STRUCTURE. BRACING SHALL BE INDEPENDENT OF THE CEILING SPLAY BRACING SYSTEM, SEE ASCE 7-05 13.5.6.1.



N

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

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

REFLECTED CEILING PLAN

SHEET:

A22.01

FLOOR PLAN LEGEND

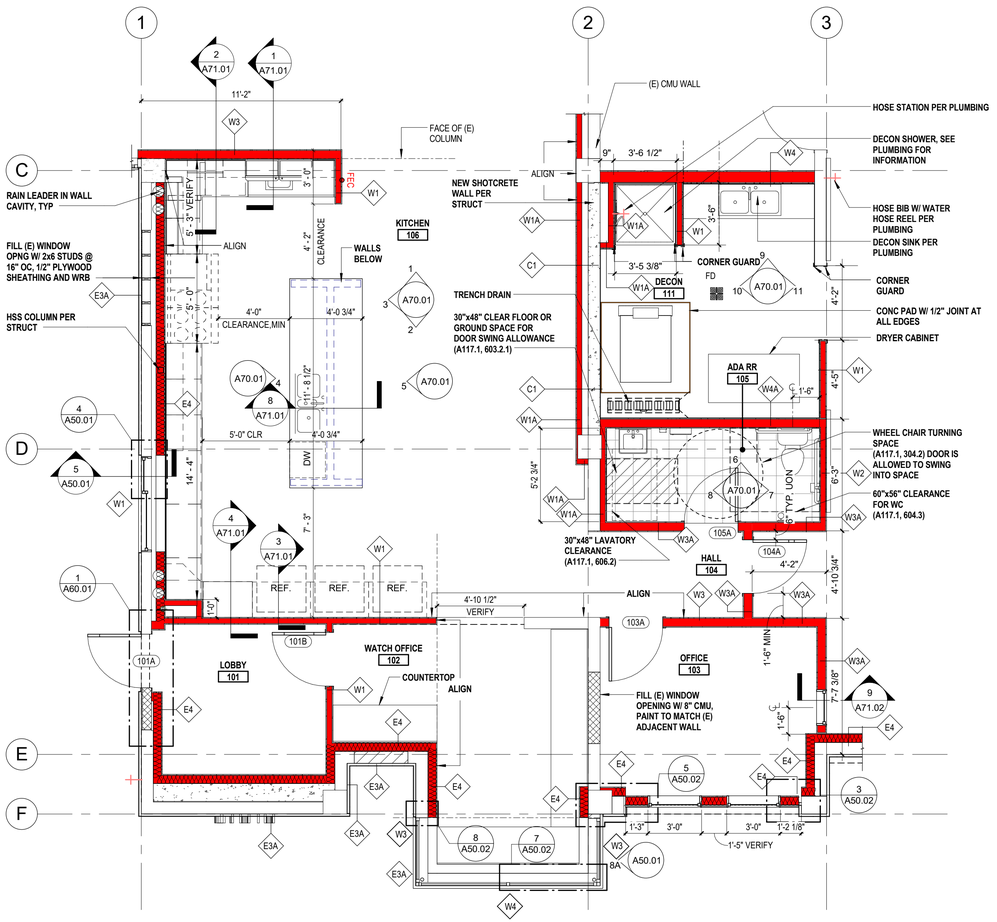
EXISTING CONSTRUCTION TO REMAIN

NEW CONSTRUCTION

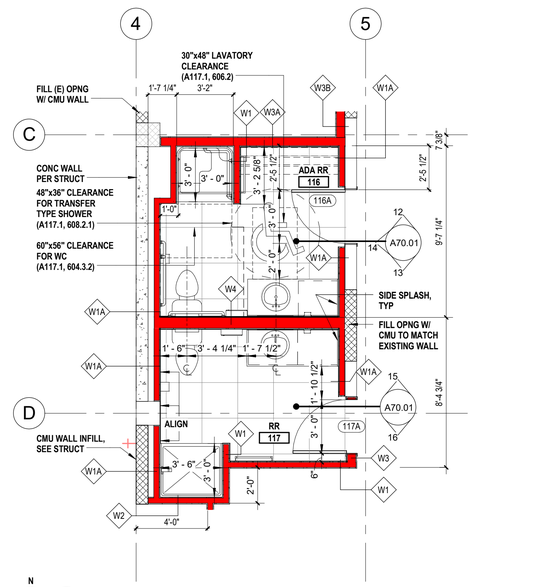
NEW SHOTCRETE WALL

GENERAL NOTES - FLOOR PLAN

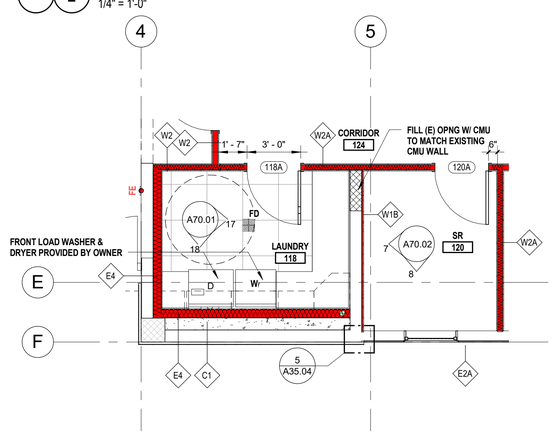
1. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE
2. FOR WALL, FLOOR AND ROOF ASSEMBLIES, SEE SHEETS A01.01
3. FOR WINDOW SCHEDULE AND DETAILS, SEE SHEET A50.01
4. FOR DOOR SCHEDULE AND DETAILS, SEE SHEET A60.01
5. ALL FINISHED DOOR OPENING ARE LOCATED 6" FROM WALL UNLESS NOTED OTHERWISE
6. FOR FINISH SCHEDULE AND FINISH LEGEND, SEE SHEET A72.01
7. DIMENSIONS INDICATED AS "MIN" OR "CLEAR" ARE FROM NEAREST FINISH SURFACE INCLUDING TRIM
8. PATCH ALL PENETRATIONS RELATED TO THE NEW SPRINKLER SYSTEM. FINISH TO MATCH ADJACENT CONSTRUCTION. SEE SPRINKLER SUBMITTAL FOR ASSOCIATED WORK
9. PROVIDE CONCEALED 2X WOOD BLOCKING FOR SURFACE-MOUNTED COMPONENTS ON WOOD-FRAMED WALLS
10. REFERENCE SLAB PLANS FOR ASSOCIATED WORK AT FLOOR SLAB



N 3 ENLARGED PLAN - 101 LOBBY, 102 WATCH OFFICE, 103 OFFICE, 104 HALL, 105 ADA RR, 106 KITCHEN AND 111 DECON ROOM
1/4" = 1'-0"



N 2 ENLARGED PLAN - RESTROOMS
1/4" = 1'-0"



N 1 ENLARGED PLAN - LAUNDRY/SLEEP ROOM
1/4" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

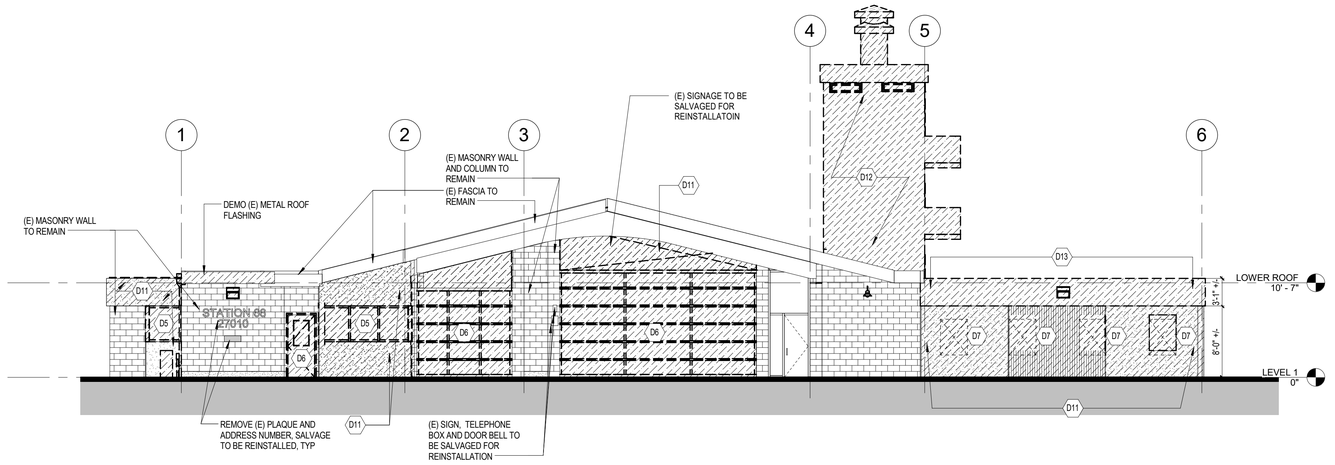
REVISION SCHEDULE

1	BLDG2017-0101 COMMENT REVISION	04/21/2017

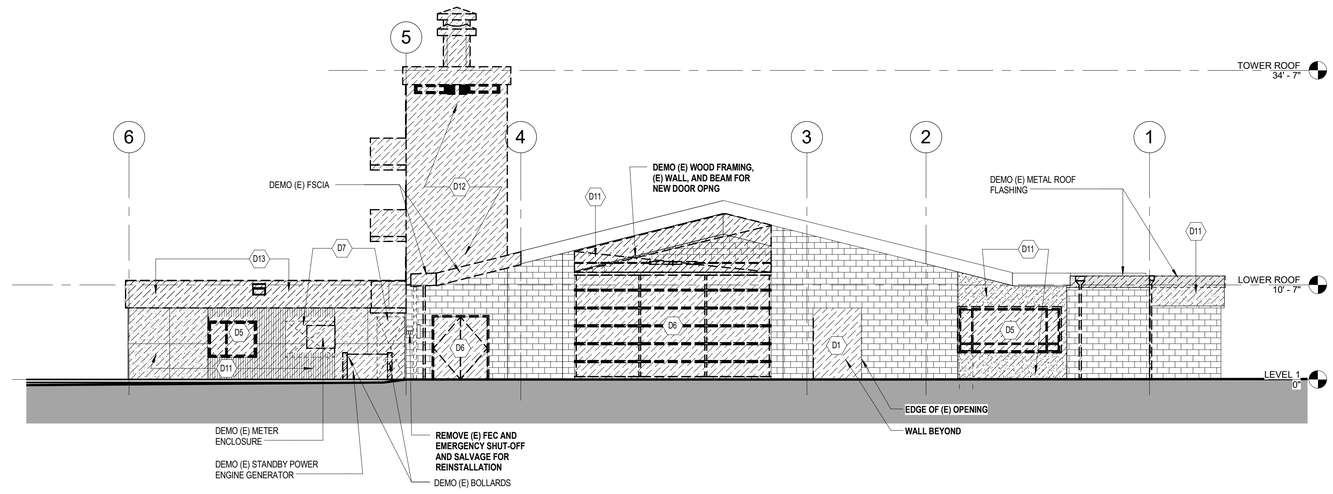
ENLARGED PLANS

SHEET:

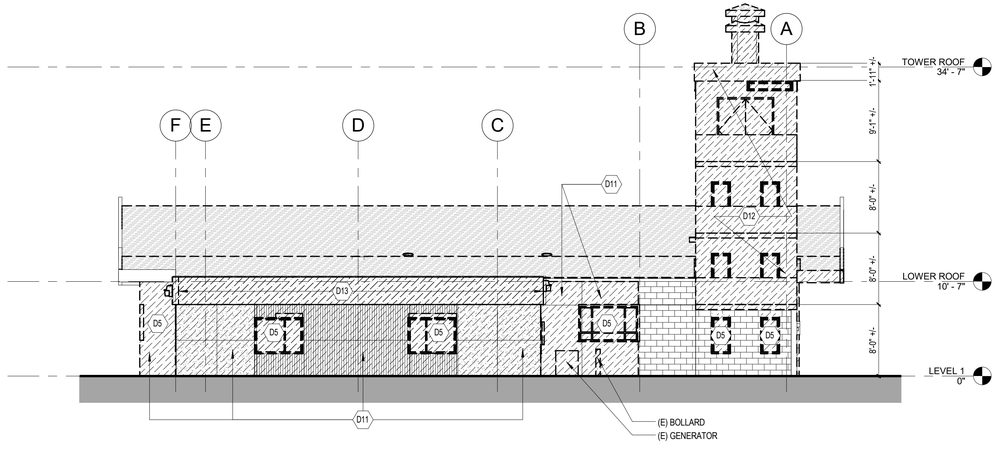
A26.01



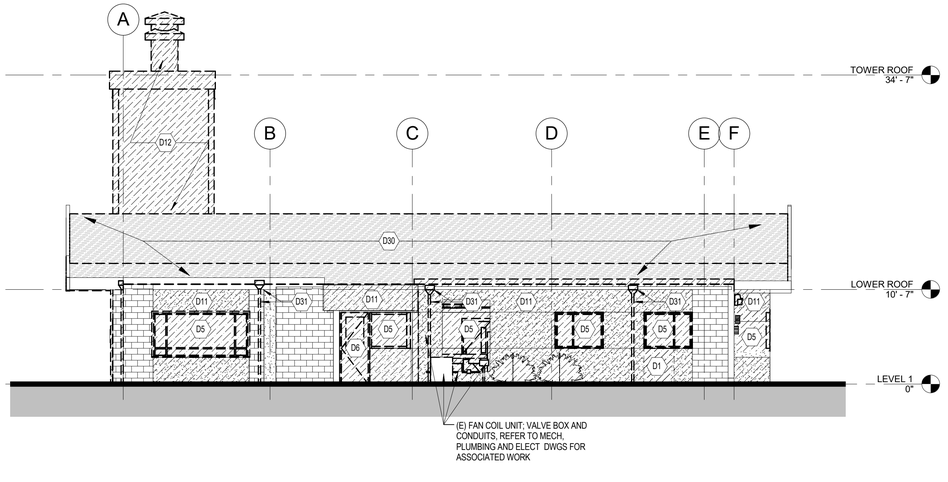
4 EXISTING EXTERIOR ELEVATION - WEST
1/8" = 1'-0"



3 EXISTING EXTERIOR ELEVATION - EAST
1/8" = 1'-0"



2 EXISTING EXTERIOR ELEVATION - SOUTH
1/8" = 1'-0"



1 EXISTING EXTERIOR ELEVATION - NORTH
1/8" = 1'-0"

KEY NOTES - DEMO PLAN

#	NOTE DESCRIPTION
D1	DEMO (E) WALL
D2	DEMO (E) APPLIANCES, PLUMBING FIXTURES, SHOWER PAN, VANITY TOP OR TOILET PARTITIONS.
D3	REMOVE (E) FLOOR FINISH AND WALL BASE, PATCH AND PREP FOR NEW FLOOR FINISH PER FINISH SCHEDULE
D4	REMOVE (E) CASE WORK
D5	DEMO (E) WINDOW PER DEMO PLAN
D6	DEMO (E) DOOR AND FRAME
D7	DEMO (E) WALL FOR NEW WINDOW AND/OR DOOR AS INDICATED ON FLOOR PLAN
D8	DEMO (E) GWB FROM (E) WALL FOR STRUCTURAL SHEATHING INSTALLATION, REFERENCE STRUCTURAL DRAWINGS
D9	DEMO (E) MECH DUCT, EQUIPMENT, ETC. REFERENCE MECHANICAL DRAWINGS FOR INFORMATION
D10	DEMO (E) PLUMBING PIPES, EQUIPMENT, ETC. REFERENCE PLUMBING DRAWINGS FOR INFORMATION
D11	DEMO (E) EXTERIOR WALL FINISH AND ROOF FASCIA FINISH (CEMENT PLASTER AND/OR MARBLECRETE) DOWN TO FACE OF (E) MASONRY WALL OR (E) WOOD FRAMING WALL
D12	DEMO (E) TOWER CONSTRUCTION ABOVE ROOF LEVEL COMPLETELY
D13	DEMO EXISTING FASCIA
D14	DEMO (E) WOOD FRAMING WALL FROM (E) WINDOW OPENINGS IN (E) CMU WALL
D15	DEMO (E) 4x10 W00D TRIM AND (E) 2x WOOD BLOCKING FROM TOP OF (E) CMU WALL
D16	REMOVE (E) WOOD HANGER RACK, SALVAGE FOR REINSTALLATION

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

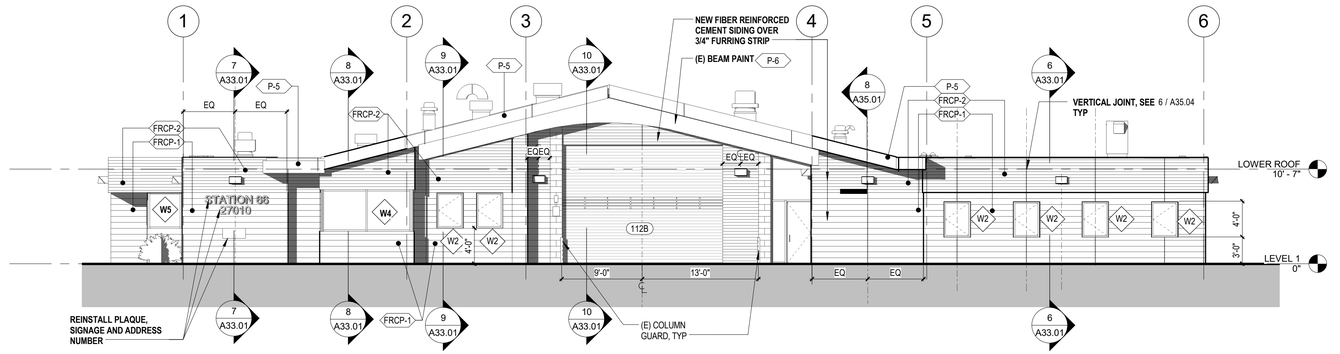
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

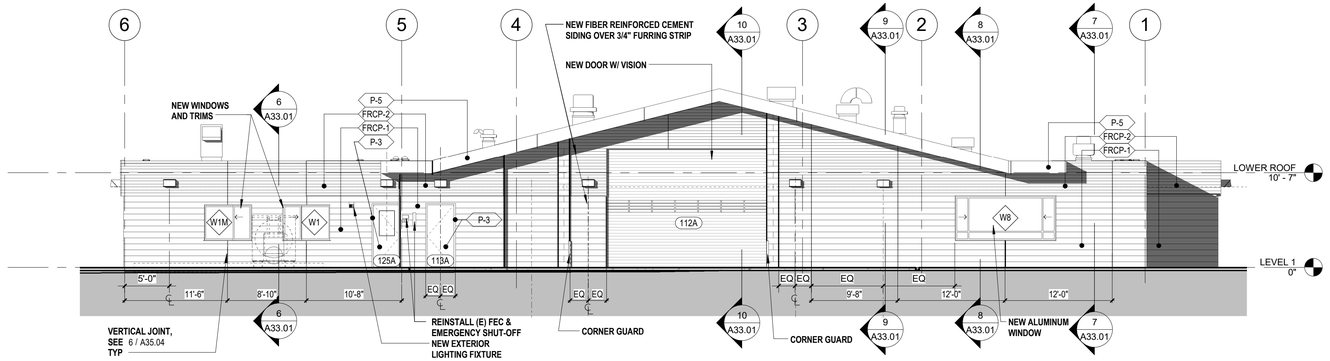
DEMO EXTERIOR ELEVATIONS

SHEET:

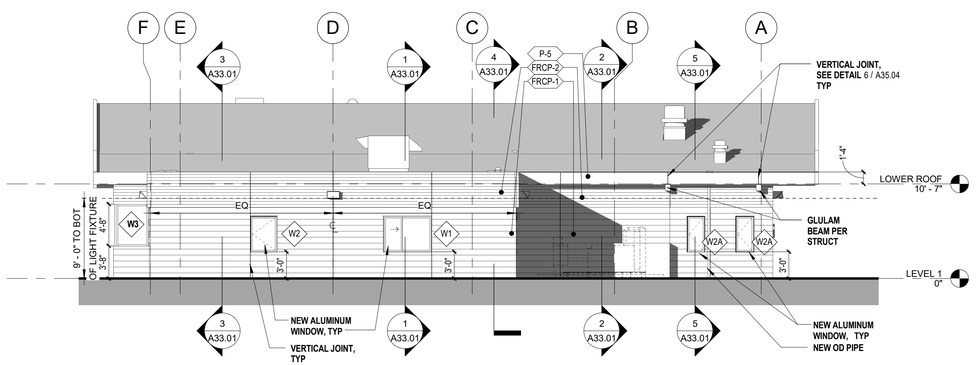
A30.01



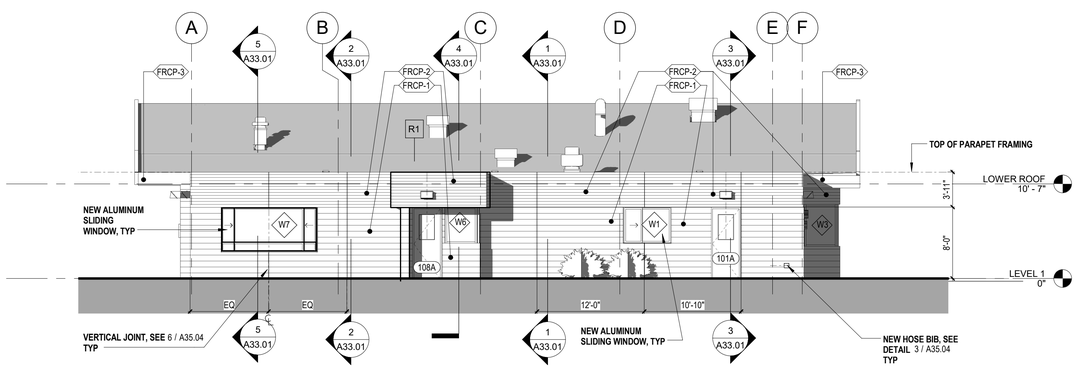
4 EXTERIOR ELEVATION - WEST
1/8" = 1'-0"



3 EXTERIOR ELEVATION - EAST
1/8" = 1'-0"



2 EXTERIOR ELEVATION - SOUTH
1/8" = 1'-0"



1 EXTERIOR ELEVATION - NORTH
1/8" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

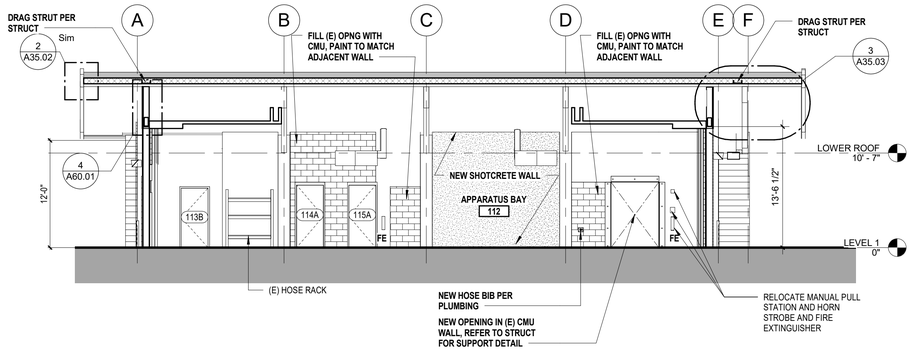
REVISION SCHEDULE

1	BLDG2017-0101 COMMENT REVISION	04/21/2017

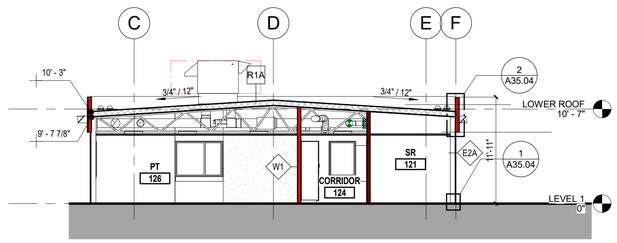
BUILDING ELEVATIONS

SHEET:

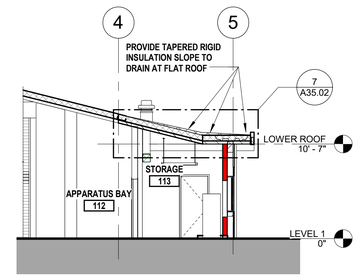
A31.01



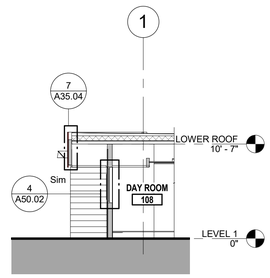
10 SECTION - THRU APPARATUS BAY
1/8" = 1'-0"



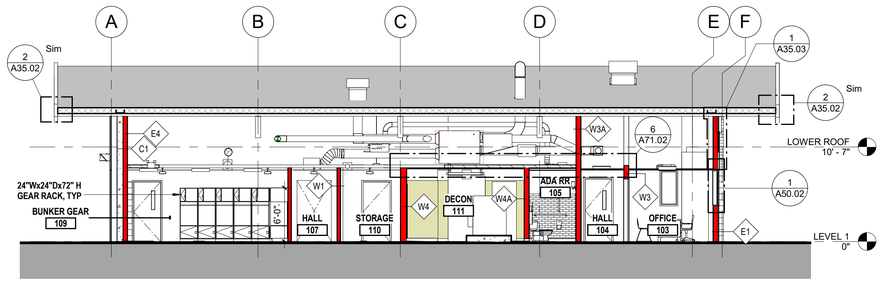
6 SECTION - PT AREA
1/8" = 1'-0"



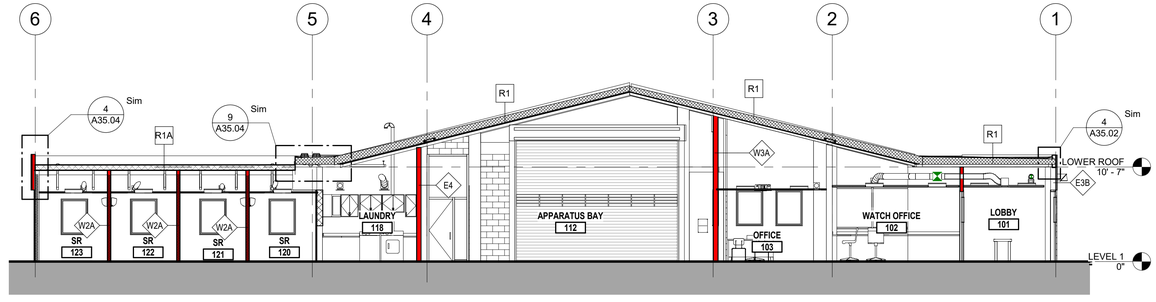
5 SECTION - NEW SHOP (E) TOWER
1/8" = 1'-0"



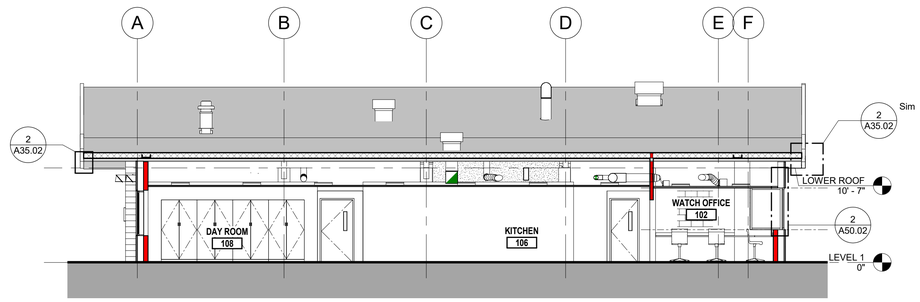
4 SECTION - NORTH ENTRY
1/8" = 1'-0"



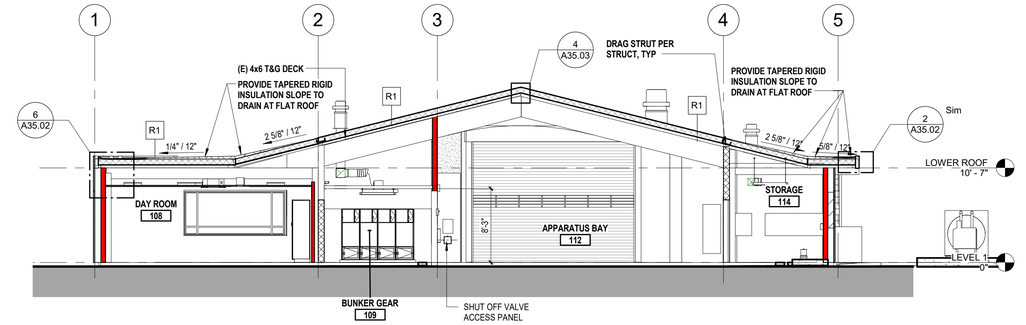
9 SECTION - ALONG GRID 3
1/8" = 1'-0"



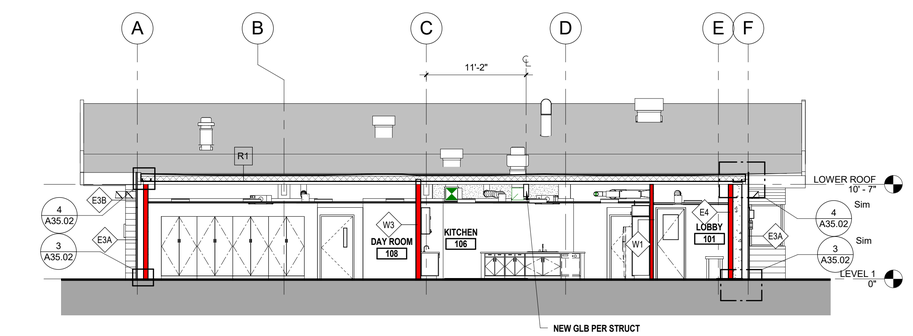
3 SECTION - ALONG GRID E
1/8" = 1'-0"



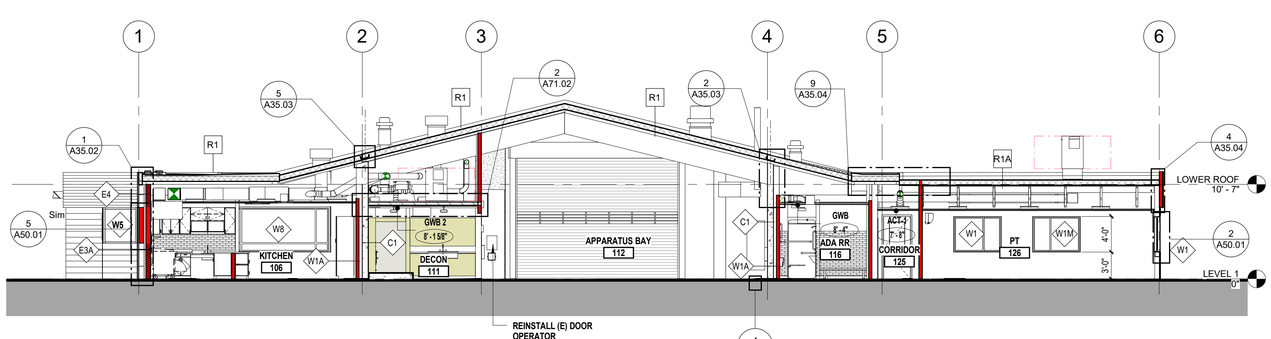
8 SECTION - ALONG GRID 2
1/8" = 1'-0"



2 SECTION - ALONG GRID B
1/8" = 1'-0"



7 SECTION - ALONG GRID 1
1/8" = 1'-0"



1 SECTION - ALONG GRID D
1/8" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

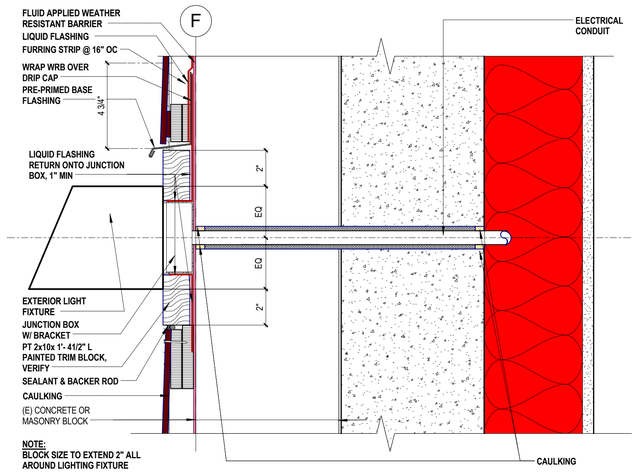
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

BUILDING SECTIONS

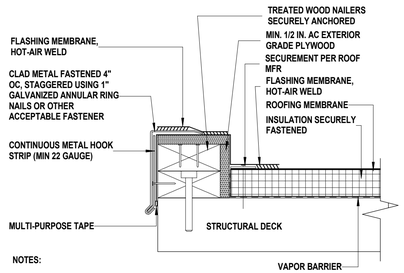
SHEET:

A33.01



NOTE:
BLOCK SIZE TO EXTEND 2" ALL AROUND LIGHTING FIXTURE

8 TYPICAL DETAIL AT LIGHT FIXTURE
3" = 1'-0"

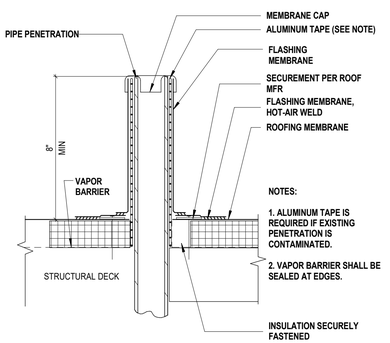


NOTES:

1. NAILERS SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST A MINIMUM FORCE OF 300 POUNDS PER LINEAR FOOT. FOLLOW FACTORY MUTUAL LOSSES PREVENTION DATA SHEET 1-49 RECOMMENDATIONS.

2. VAPOR BARRIER SHALL BE SEALED AT EDGES.

7 RAISED METAL EDGE
3" = 1'-0"

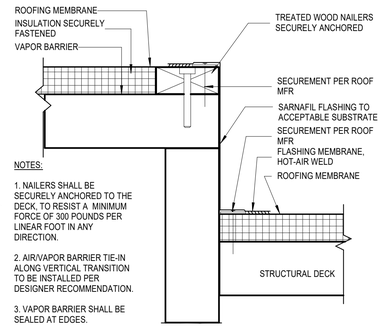


NOTES:

1. ALUMINUM TAPE IS REQUIRED IF EXISTING PENETRATION IS CONTAMINATED.

2. VAPOR BARRIER SHALL BE SEALED AT EDGES.

6 VENT STACK FLASHING
3" = 1'-0"



NOTES:

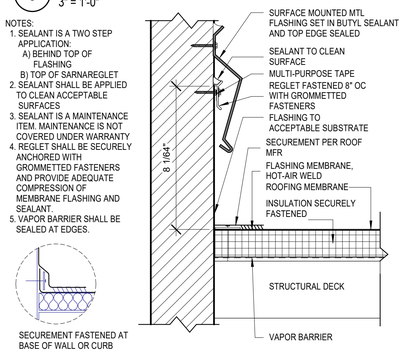
1. NAILERS SHALL BE SECURELY ANCHORED TO THE DECK, TO RESIST A MINIMUM FORCE OF 300 POUNDS PER LINEAR FOOT IN ANY DIRECTION.

2. AIR/VAPOR BARRIER TIE-IN ALONG VERTICAL TRANSITION TO BE INSTALLED PER DESIGNER RECOMMENDATION.

3. VAPOR BARRIER SHALL BE SEALED AT EDGES.

5 ROOF AT WALL TRANSITION
3" = 1'-0"

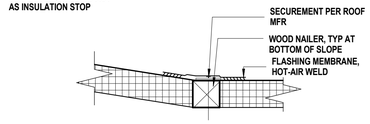
NOTES:
1. SEALANT IS A TWO STEP APPLICATION:
   A) BEHIND TOP OF FLASHING
   B) TOP OF SARNAREGLET
2. SEALANT SHALL BE APPLIED TO CLEAN ACCEPTABLE SURFACES
3. SEALANT IS A MAINTENANCE ITEM. MAINTENANCE IS NOT COVERED UNDER WARRANTY
4. REGLET SHALL BE SECURELY ANCHORED WITH GROMMETTED FASTENERS AND PROVIDE ADEQUATE COMPRESSION OF MEMBRANE FLASHING AND SEALANT.
5. VAPOR BARRIER SHALL BE SEALED AT EDGES.



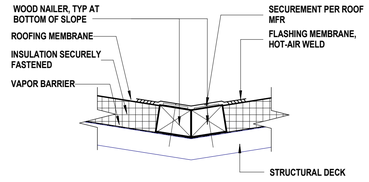
ALTERNATE BASE FASTENING

4 TYPICAL ROOFING DETAIL - AT WALL
3" = 1'-0"

NOTE:
WOOD NAILER TO MATCH HEIGHT OF INSULATION MAY BE REQUIRED TO ACT AS INSULATION STOP



OPTION AT SLOPE TO FLAT TRANSITION

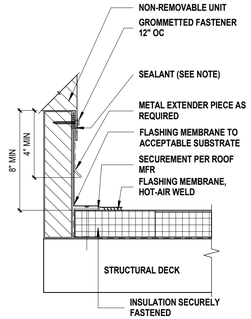


3 ROOF TRANSITION DETAIL
3" = 1'-0"

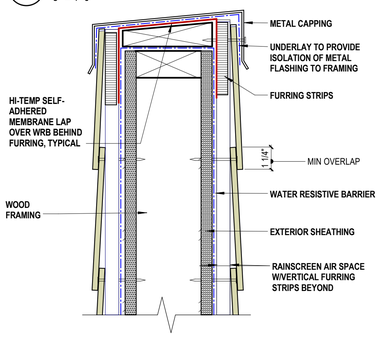
NOTES:

1. METAL EXTENDER PIECE IS REQUIRED IF EXISTING COUNTERFLASHING IS CONTAMINATED AND OR COUNTERFLASHING FASCIA IS LESS THAN 4 INCHES WIDE. FASTENED 12 INCHES OC WITH GROMMETTED FASTENER.

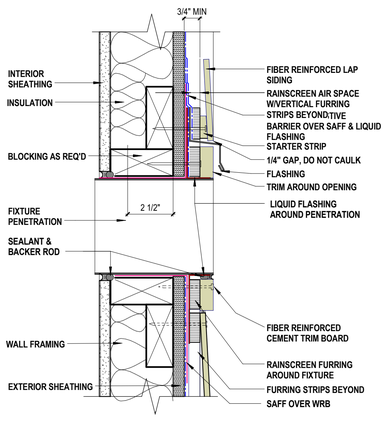
2. VAPOR BARRIER SHALL BE SEALED AT EDGES AND AT PENETRATIONS



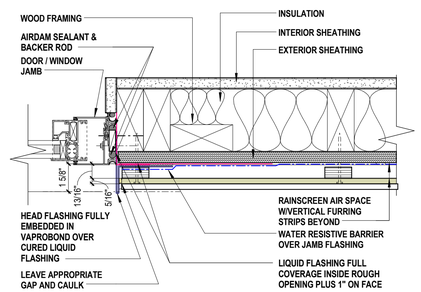
2 CURB FLASHING
3" = 1'-0"



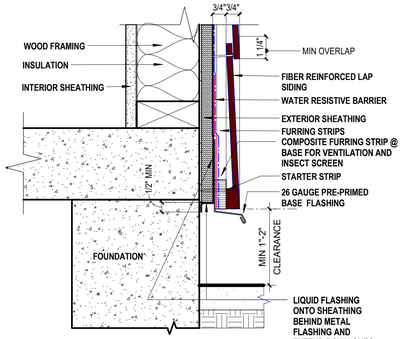
PARAPET - RAINSCREEN



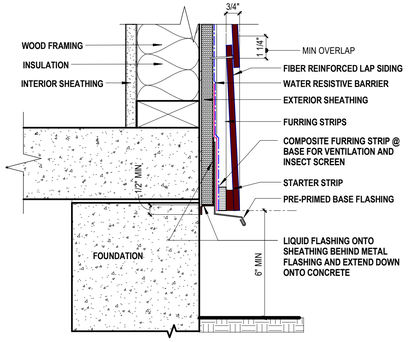
FIXTURE PENETRATION - RAINSCREEN



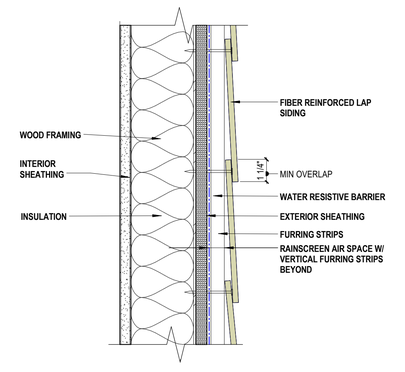
DOOR / WINDOW JAMB - RAINSCREEN



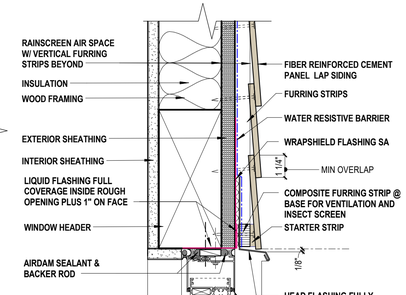
HARDSCAPE CLEARANCES



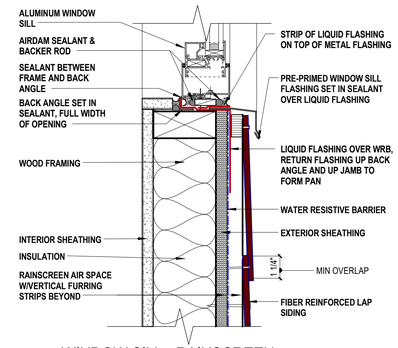
GRADE CLEARANCE - RAINSCREEN



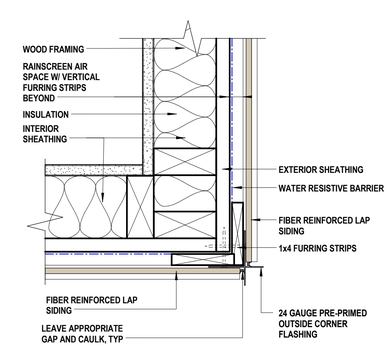
HORIZONTAL LAP VIEW - RAINSCREEN



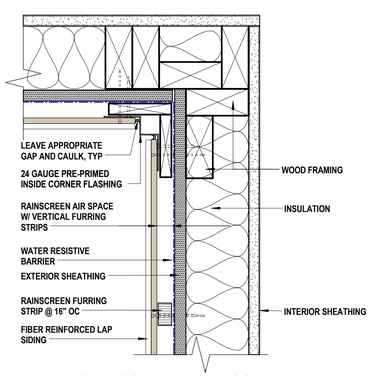
WINDOW/DOOR HEAD - RAINSCREEN



WINDOW SILL - RAINSCREEN



OUTSIDE CORNER - RAINSCREEN



INSIDE CORNER - RAINSCREEN

1 TYPICAL DETAILS - FRCP RAIN SCREEN
3" = 1'-0"

RICE FERGUS MILLER
ARCHITECTURE & PLANNING
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

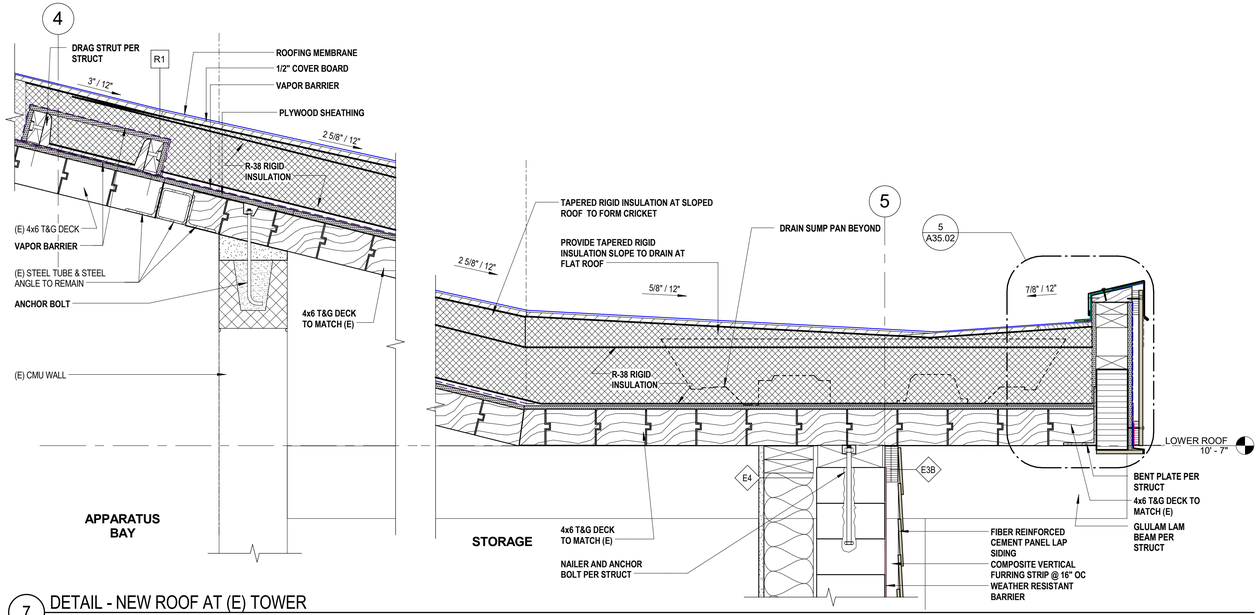
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

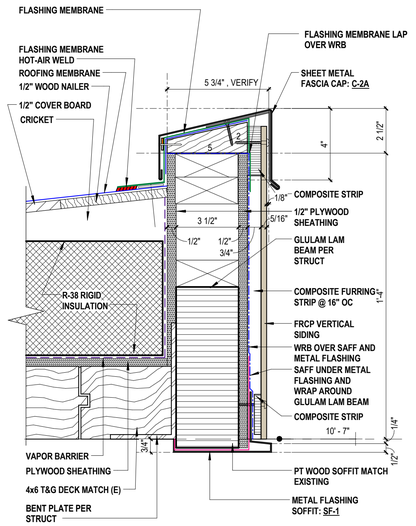
TYPICAL EXTERIOR DETAILS

SHEET:

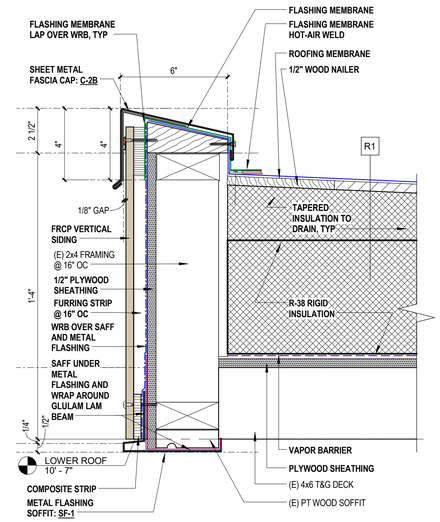
A35.01



7 DETAIL - NEW ROOF AT (E) TOWER
1 1/2" = 1'-0"



5 DETAIL - NEW ROOF AND NEW FASCIA
3" = 1'-0"



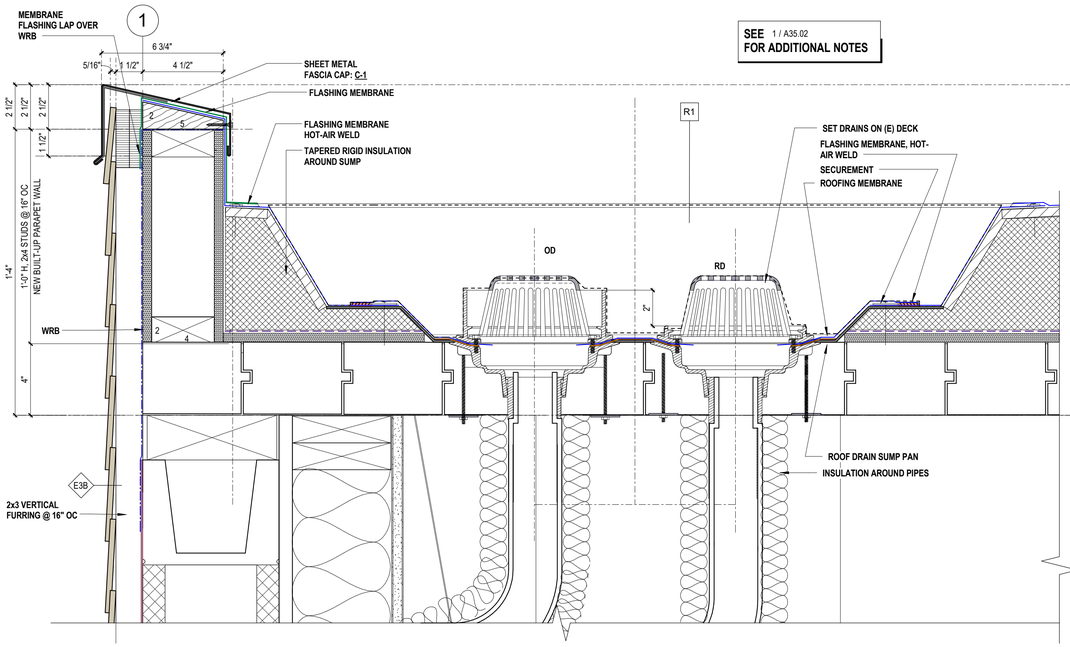
2 DETAIL - (E) FASCIA APP BAY ROOF
3" = 1'-0"

RICE FERGUS MILLER
ARCHITECTURE & PLANNING
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

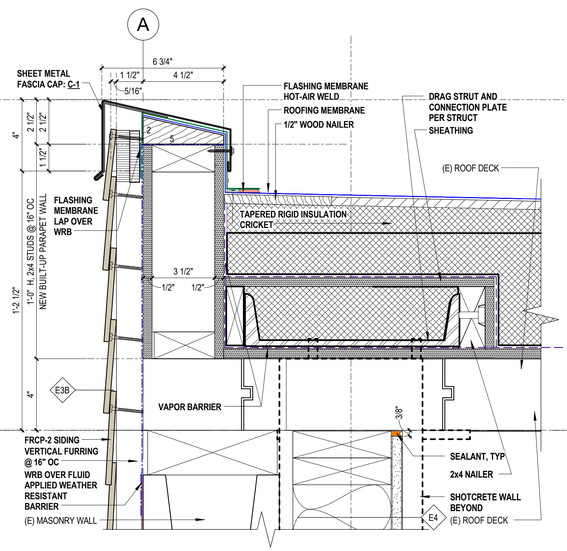
SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

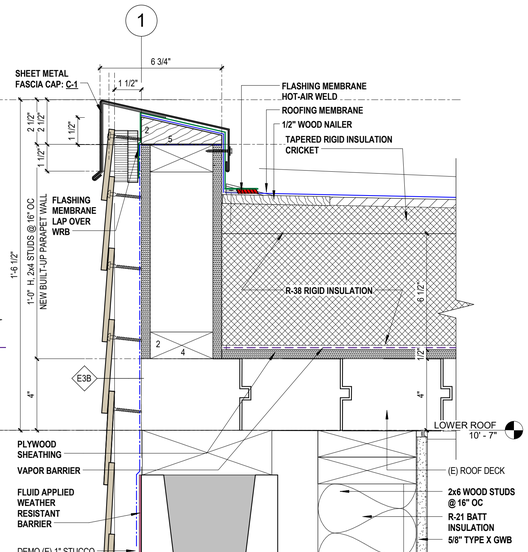


6 TYPICAL NEW ROOF DRAINS DETAIL
3" = 1'-0"

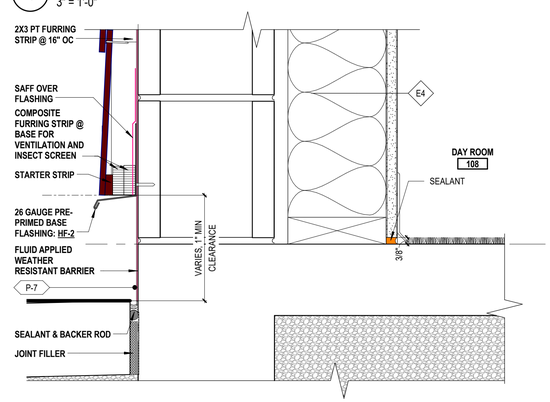
SEE 1 / A35.02
FOR ADDITIONAL NOTES



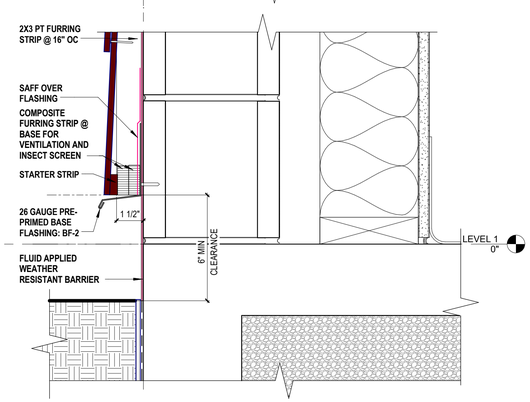
4 DETAIL - (E) FASCIA @ GRID A
3" = 1'-0"



1 SECTION DETAIL - (E) STUCCO WALL
3" = 1'-0"



3 SECTION DETAIL - WALL BASE @ PAVER
3" = 1'-0"



PROJECT # 2015137

BID SET

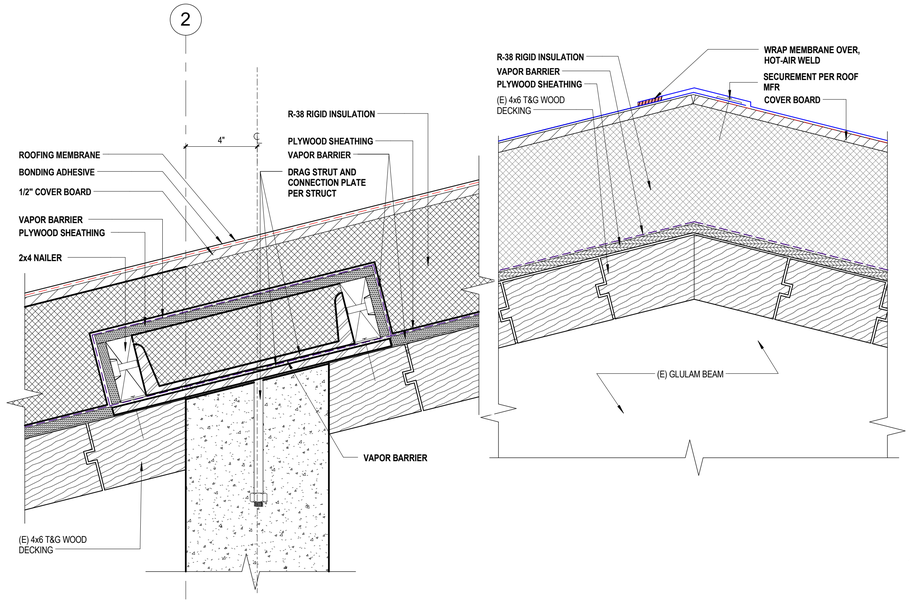
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

EXTERIOR DETAILS

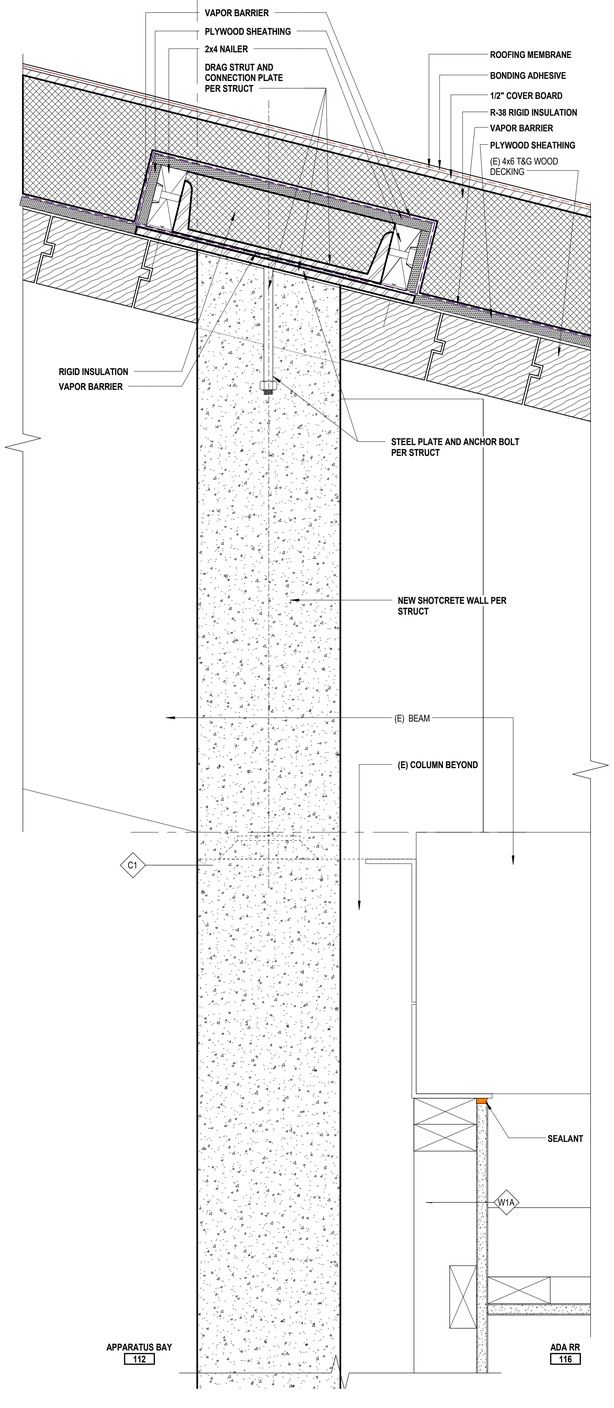
SHEET:

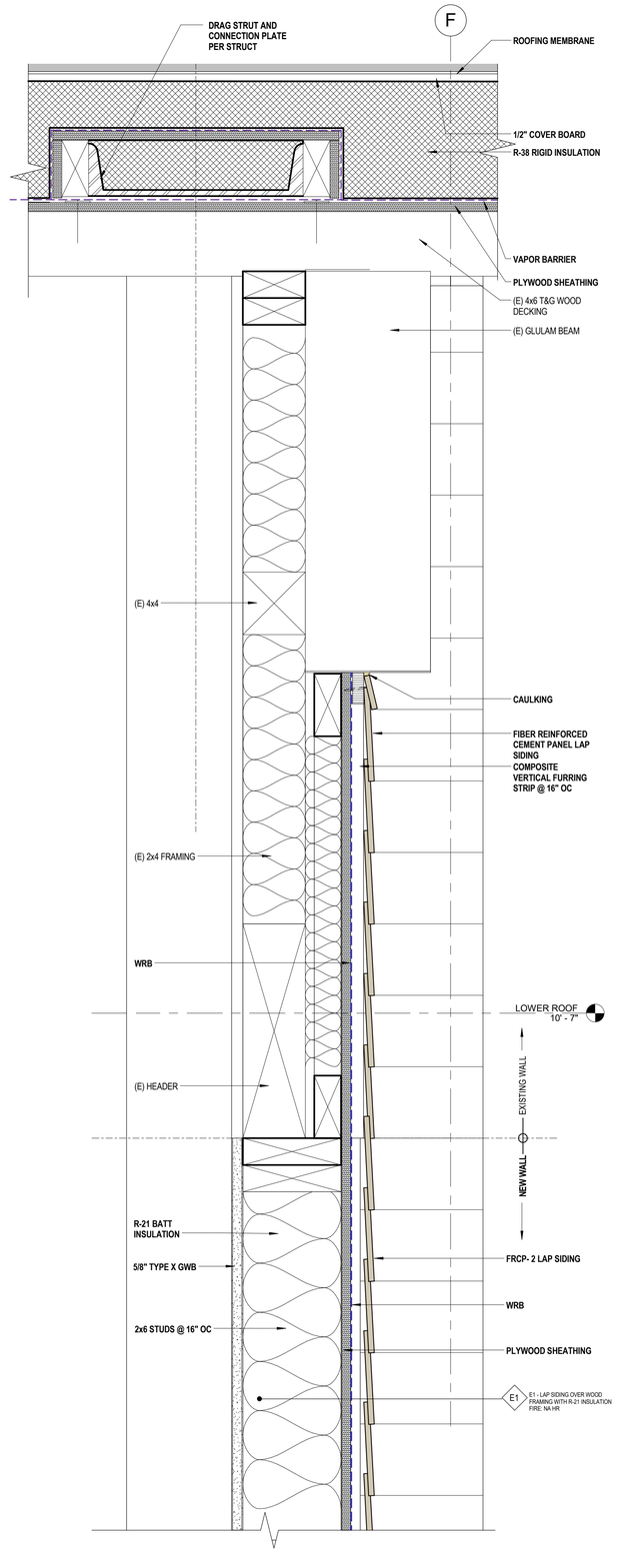
A35.02

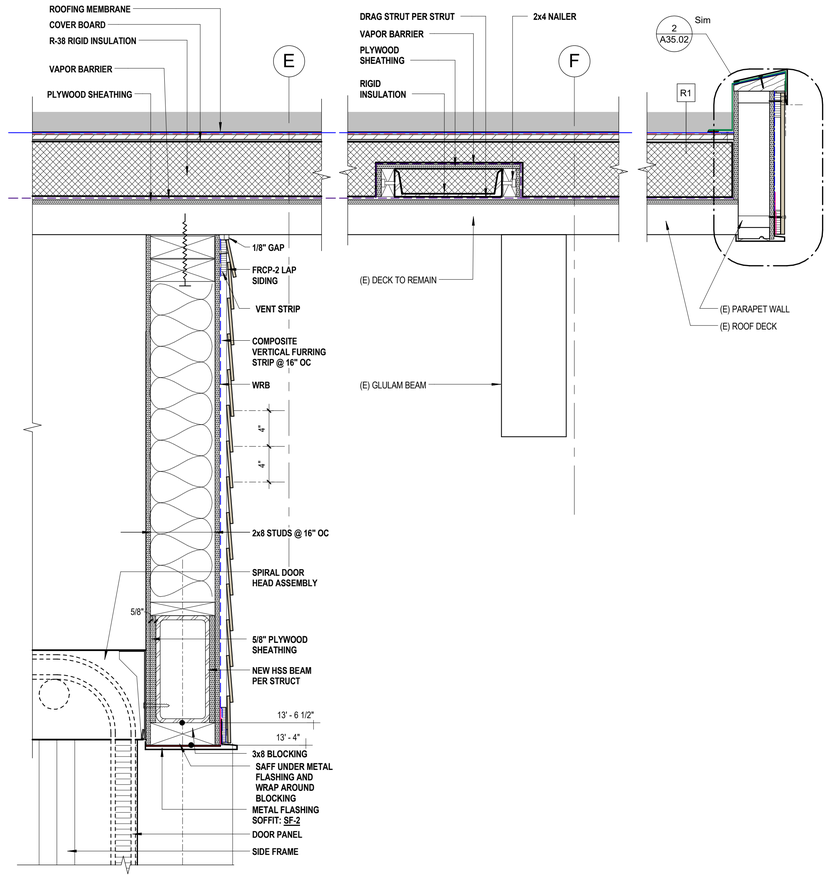


5 DETAIL - WALL TO DRAG STRUT @ GRID 2
3" = 1'-0"

4 TYPICAL DETAIL - RIDGE
3" = 1'-0"







3 DETAIL - ROOF GABLE
1 1/2" = 1'-0"

2 DETAIL - CONNECTION @ GRID 4
3" = 1'-0"

1 DETAIL - (E) OVERHEAD DOOR HEAD
3" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

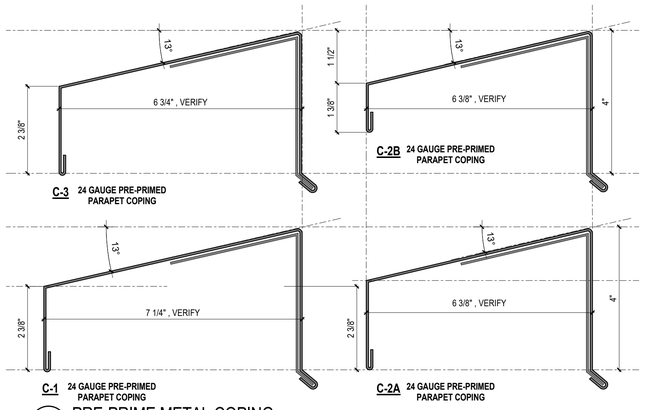
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

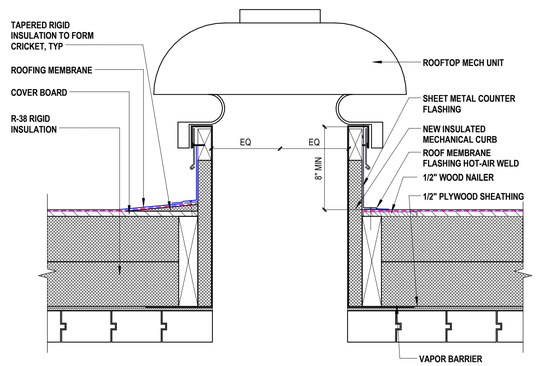
EXTERIOR DETAILS

SHEET:

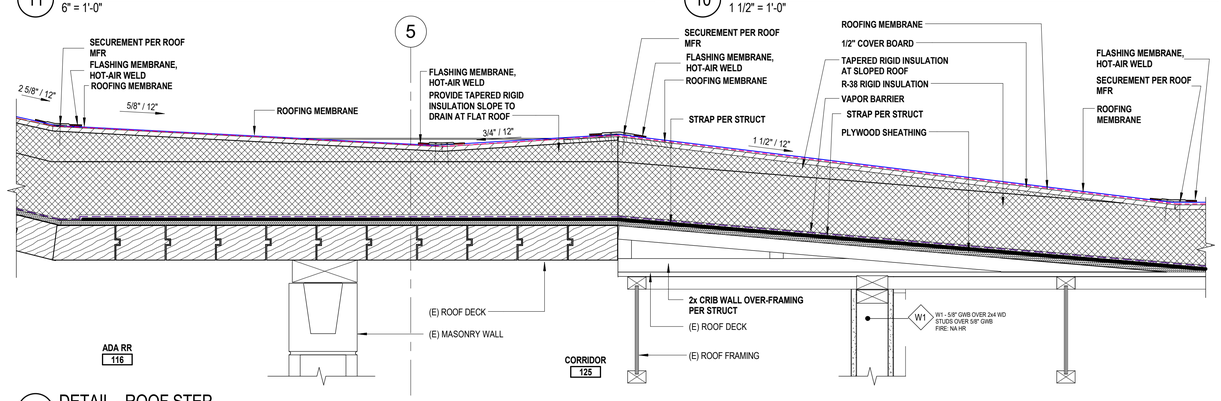
A35.03



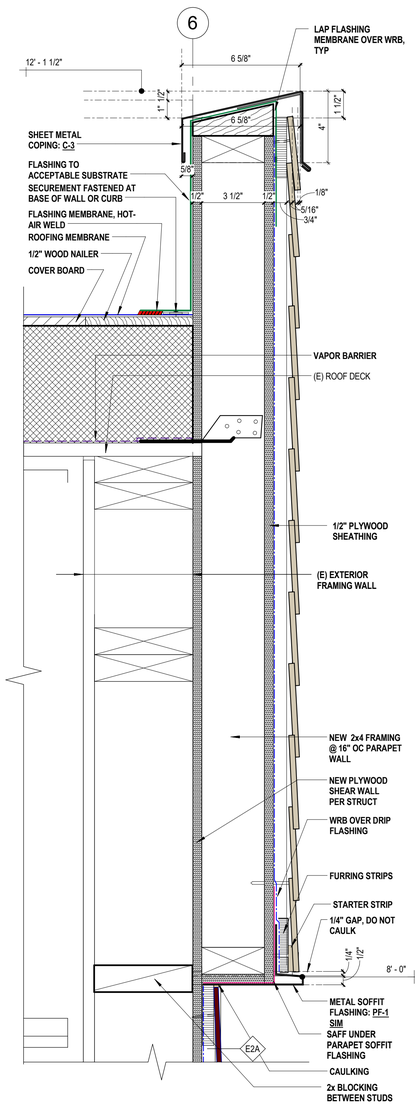
11 PRE-PRIME METAL COPING
6" = 1'-0"



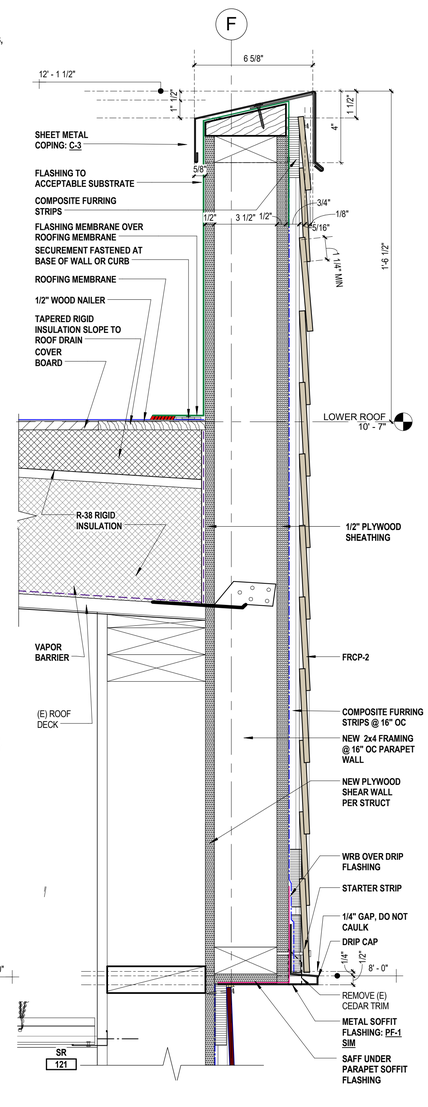
10 MECH CURB
1 1/2" = 1'-0"



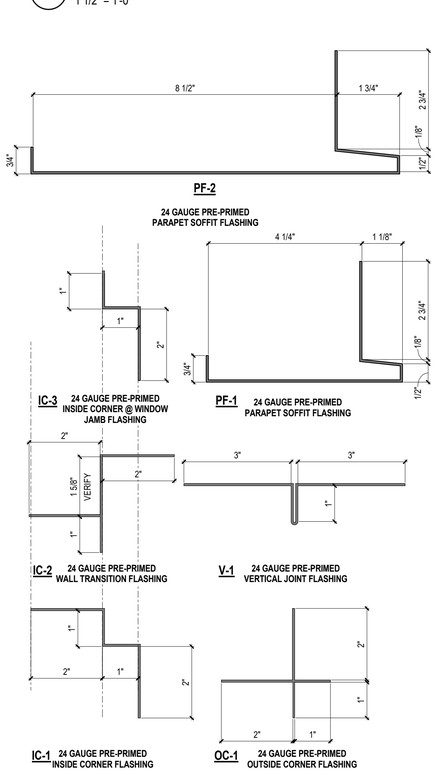
9 DETAIL - ROOF STEP
1 1/2" = 1'-0"



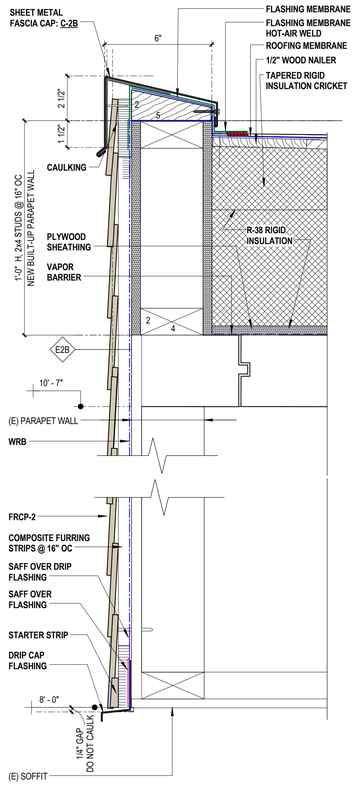
4 DETAIL - SOUTH PARAPET
3" = 1'-0"



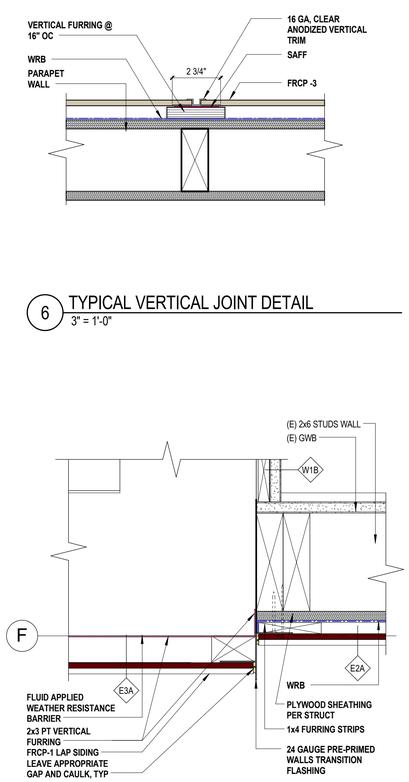
2 DETAIL - (E) LOW ROOF PARAPET
3" = 1'-0"



8 PRE-PRIME METAL FLASHING DETAIL
6" = 1'-0"

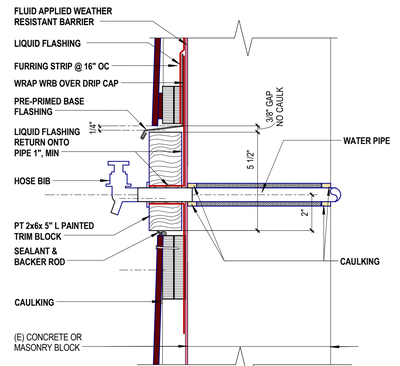


7 DETIL - NORTH ENTRY PARAPET
3" = 1'-0"

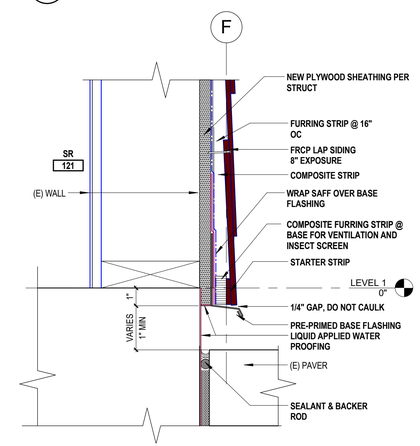


6 TYPICAL VERTICAL JOINT DETAIL
3" = 1'-0"

5 PLAN DETAIL - WALLS TRANSITION
3" = 1'-0"



3 TYPICAL DETAIL - HOSE BIB
3" = 1'-0"



1 DETAIL - (E) WD FRAMING WALL BASE
3" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE S
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

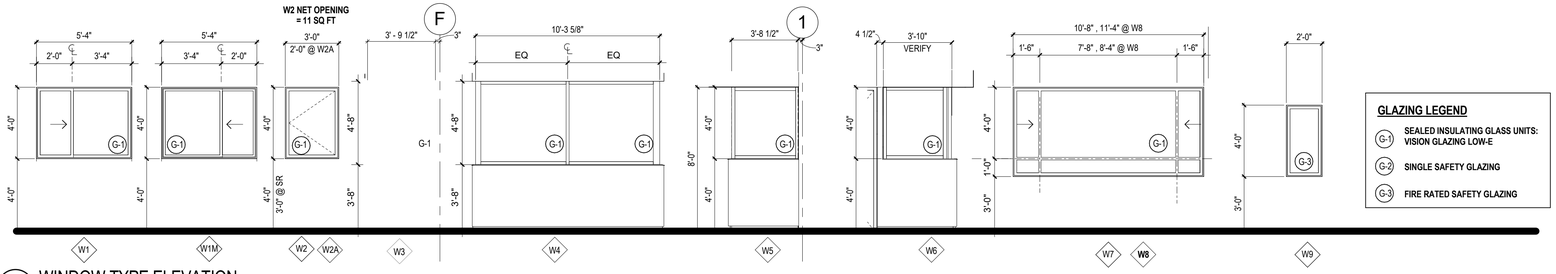
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

EXTERIOR DETAILS

SHEET:

A35.04



GLAZING LEGEND

- G-1 — SEALED INSULATING GLASS UNITS: VISION GLAZING LOW-E
- G-2 — SINGLE SAFETY GLAZING
- G-3 — FIRE RATED SAFETY GLAZING

7 WINDOW TYPE ELEVATION
1/4" = 1'-0"

WINDOW SCHEDULE

WINDOW #	WIDTH	HEIGHT	GLAZING	FRAME MATERIAL	COMMENTS
W1	5' - 4"	4' - 0"	G-1	ALUM	
W1M	5' - 4"	4' - 0"	G-1	ALUM	W1 MIRRORED
W2	3' - 0"	4' - 0"	G-1	ALUM	11 SQ FT OPERABLE AREA
W2A	2' - 0"	4' - 0"	G-1	ALUM	
W3	3' - 9 1/2"	4' - 8"	G-1	ALUM	
W4	10' - 3 5/8"	4' - 8"	G-1	ALUM	
W5	3' - 8 1/2"	4' - 0"	G-1	ALUM	
W6	3' - 10"	4' - 0"	G-1	ALUM	
W7	10' - 8"	5' - 0"	G-1	ALUM	
W8	11' - 4"	5' - 0"	G-1	ALUM	
W9	2' - 0"	4' - 0"	G-3	ALUM	INTERIOR

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOTE:
PROTECT WALL ASSEMBLY FROM MOISTURE

LIQUID FLASHING
BACK ANGLE
TYPICAL EXTERIOR WALL ASSEMBLY
ATTACH AS REQUIRED BY VARIOUS BUILDING TYPES
LIQUID FLASHING RETURN FLASHING UP BACK ANGLE AND UP JAMB TO FORM PAN
BACK ANGLE SET IN SEALANT, FULL WIDTH OF OPENING
5" MIN
9" MIN
STEP 1

INSTALL VAPROSHIELD SA PRE-FORMED CORNERS @ SILL, ATTACH AS REQUIRED FOR VARIOUS BUILDING TYPES
DOUBLE-SIDED VAPROTAPE OR NON-SKINNING BUTYL SEALANT (ATTACH TO VAPOR RETARDER IF PRESENT)
SINGLE-SIDED VAPROTAPE SEAL CORNERS TO SILL FLASHING
6" 6" 1'-6" 1'-6" 1'-6"
18" MIN 18" MIN
STEP 2

VAPROFLASHING SA
LIQUID FLASHING
LIQUID FLASHING FULL COVERAGE INSIDE ROUGH OPENING PLUS 1" MIN ON FACE
VAPROFLASHING SA CUT TO EXTEND O/ END DAMS OF SILL PAN
PRE-PRIMED WINDOW SILL FLASHING SET IN SEALANT OVER LIQUID FLASHING
DOUBLE-SIDED VAPROTAPE OR SEALANT (ATTACH TO VAPOR RETARDER IF PRESENT)
STRIP OF LIQUID FLASHING ON TOP OF METAL FLASHING AND LAP OVER BACK ANGLE
STEP 3

INSTALL VAPROSHIELD SA PRE-FORMED CORNERS AT HEAD
6"
LAP JAMB FLASHING OVER END DAMS
JAMB FLASHING FULLY EMBEDDED IN VAPROBOND OVER CURED LIQUID FLASHING
STEP 4

VAPROFLASHING SA
VAPROFLASHING SA
LIQUID FLASHING
CUT INSIDE EDGE OF PRE-FORMED CORNERS TO ALIGN W/JAMB AND HEAD FLASHING
6" MIN
6" MIN
LIQUID FLASHING FULL COVERAGE INSIDE ROUGH OPENING PLUS 1" MIN ON FACE
OPTION: 1/2" x 1/2", 0.040" ALUMINUM ANGLE (BY OTHER)
STEP 5

NOTE:
WHERE ATTACHMENT TO STEEL STUDS, USE VAPRO SPRAY ADHESIVE TO BOND
5"
HEAD FLASHING FULLY EMBEDDED IN VAPROBOND OVER CURED LIQUID FLASHING
STEP 6

NOTE:
SOME MANUFACTURERS REQUIRE CONTINUOUS SUPPORT, NOT SHIMS
READY FOR WINDOW INSTALLATION
SHIM WINDOWS PER MANUFACTURERS RECOMMENDATIONS
STEP 7

SET VAPROSHIELD EXPANDING FOAM TAPE @ COUNTER OF FRAME @ HEADS & JAMB SET AT BACK OF FRAME @ SILLS
INSTALL SINGLE-SIDED VAPRO TAPE O/ LEG OF METAL HEAD FLASHING SECURE HEAD FLASHING @ TOP OF 4" VERTICAL FLANGE 8" OC
INSTALL METAL HEAD FLASHING (BY OTHERS)
VAPROSHIELD EXPANDING FOAM TAPE AROUND WINDOW FRAME
STEP 8

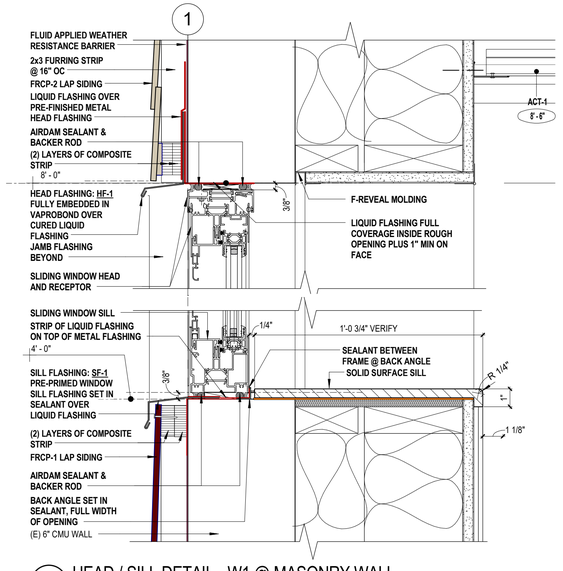
WRAPSHIELD / WALLSHIELD TO LAP O/ HEAD FLASHING
INSTALLATION OF WALLSHIELD / WRAPSHIELD LAP 6" AT HORIZONTAL AND 12" AT VERTICAL
EXTEND WALLSHIELD / WRAPSHIELD TO EDGE OF RO @ JAMBS SEAL USING VAPROTAPE DOUBLE-SIDED, ROLL TO ACTIVATE ADHESIVE
"U BIB" (SEE BELOW) FORMED FROM WRAPSHIELD / WALLSHIELD SLIP UNDER VAPROFLASHING & ATTACH
4" - 11"
VARIES
1' - 6"
1" - 2 3/4"
STEP 9

NOTE:
CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD. MEMBRANE AND FLASHING COMPONENTS ARE NOT SHOWN TO SCALE FOR CLARITY
SLOPE 15°
5" MIN
UPTURNED METAL END DAM (BEYOND)
3/4" MIN
WRB
VAPROFLASHING SA
AIRDAM SEALANT & BACKER ROD
HEAD FLASHING FULLY EMBEDDED IN VAPROBOND OVER CURED LIQUID FLASHING
LIQUID FLASHING FULL COVERAGE INSIDE ROUGH OPENING PLUS 1" ON FACE
HEAD

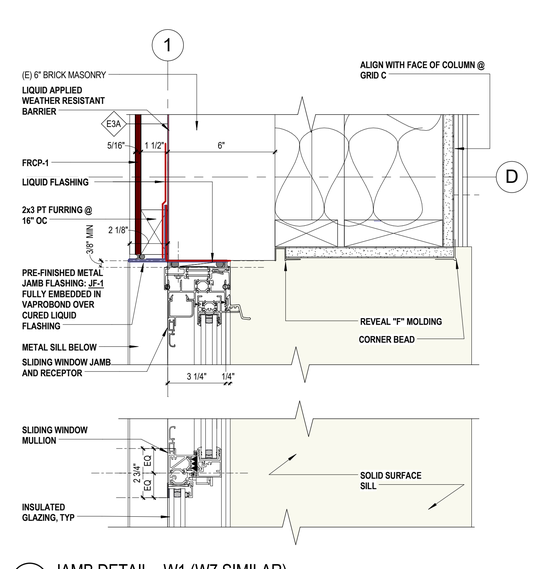
NOTE:
CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD. MEMBRANE AND FLASHING COMPONENTS ARE NOT SHOWN TO SCALE FOR CLARITY
WRB
JAMB FLASHING FULLY EMBEDDED IN VAPROBOND OVER CURED LIQUID FLASHING
AIRDAM SEALANT & BACKER ROD
LIQUID FLASHING FULL COVERAGE INSIDE ROUGH OPENING PLUS 1" ON FACE
NON-FLANGE WINDOW
JAMB

NOTE:
CONTRACTOR TO VERIFY ALL DIMENSIONS IN THE FIELD. MEMBRANE AND FLASHING COMPONENTS ARE NOT SHOWN TO SCALE FOR CLARITY
BACK ANGLE SET IN SEALANT, FULL WIDTH OF OPENING
SEALANT BETWEEN FRAME AND BACK ANGLE
AIRDAM SEALANT & BACKER ROD
PRE-PRIMED WINDOW SILL FLASHING SET IN SEALANT OVER LIQUID FLASHING
STRIP OF LIQUID FLASHING ON TOP OF METAL FLASHING
5" MIN
LIQUID FLASHING OVER WRB, RETURN FLASHING UP BACK ANGLE AND UP JAMB TO FORM PAN
WATER RESISTIVE BARRIER
SILL

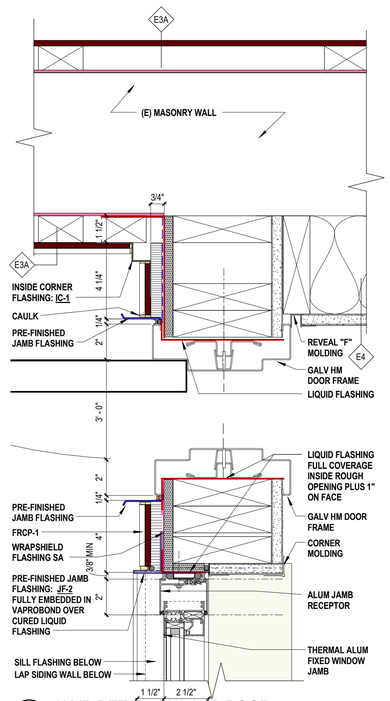
6 WINDOW FLASHING SEQUENCES
1/4" = 1'-0"



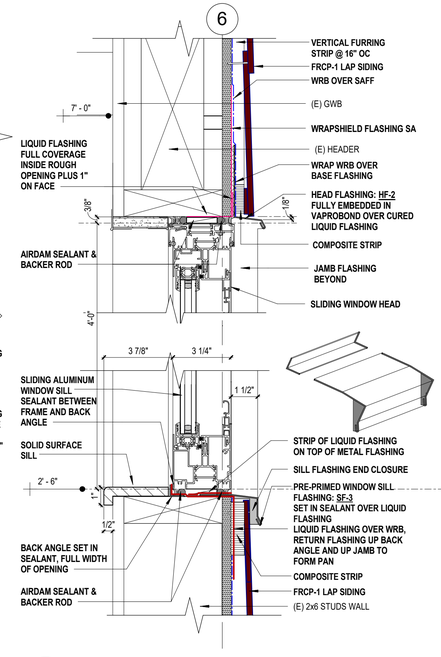
5 HEAD / SILL DETAIL - W1 @ MASONRY WALL
3" = 1'-0"



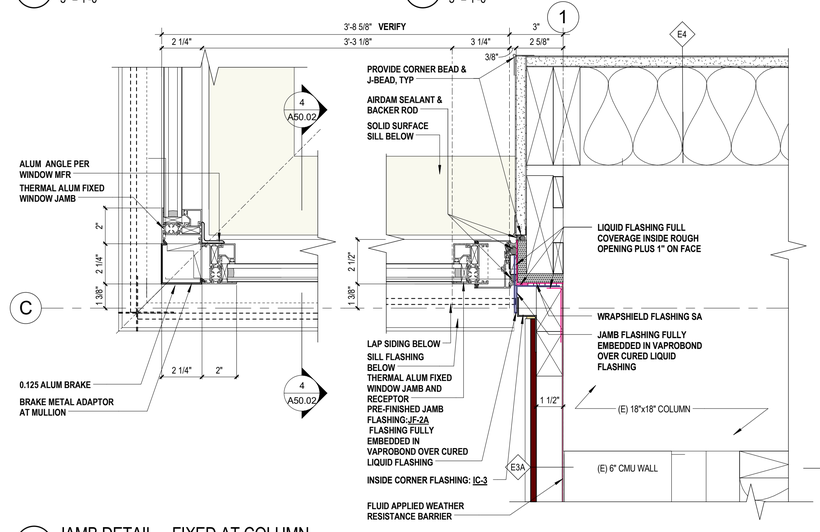
4 JAMB DETAIL - W1 (W7 SIMILAR)
3" = 1'-0"



3 JAMB DETAIL - W6 AND DOOR
3" = 1'-0"



2 HEAD/SILL DETAIL - W1 @ STUDS WALL
3" = 1'-0"



1 JAMB DETAIL - FIXED AT COLUMN
3" = 1'-0"

PROJECT #	2015137
BID SET	
ISSUED:	APRIL 13, 2017

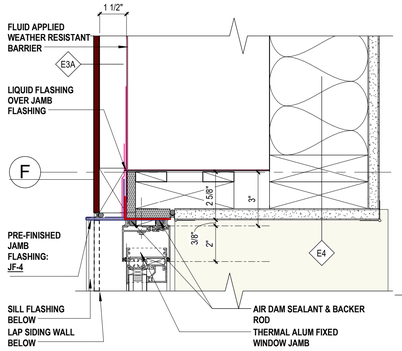
REVISION SCHEDULE

1	BLDG2017-0101 COMMENT REVISION	04/21/2017

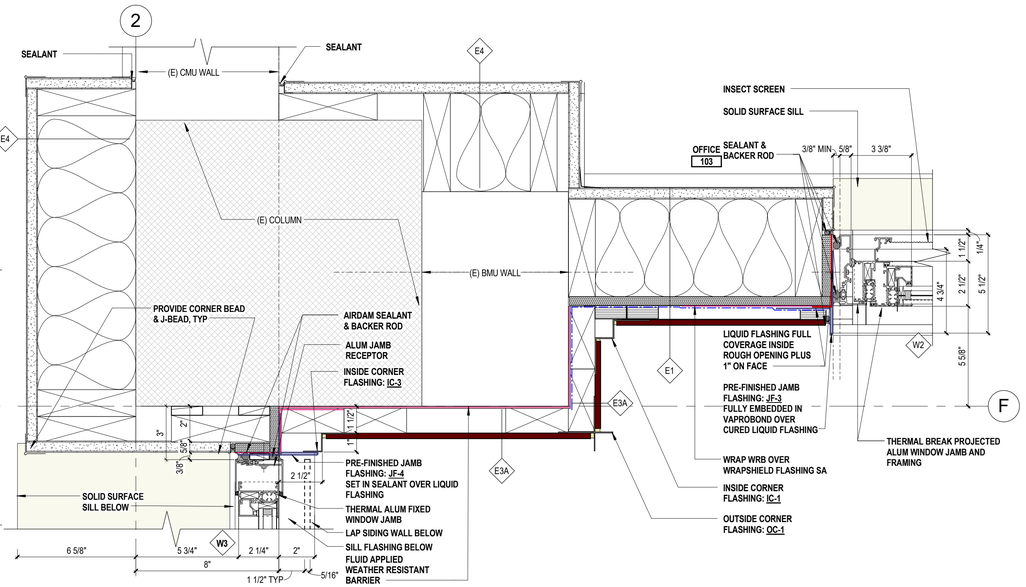
WINDOW SCHEDULE AND DETAILS

E4 SHEET:

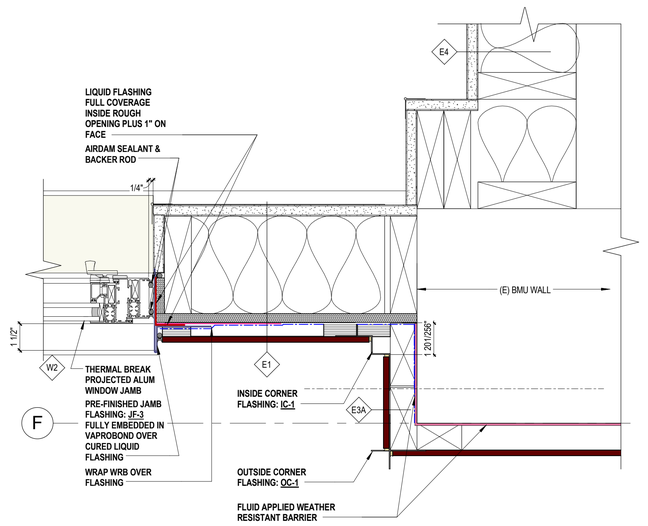
A50.01



8 JAMB DETAIL AT W3A
3" = 1'-0"

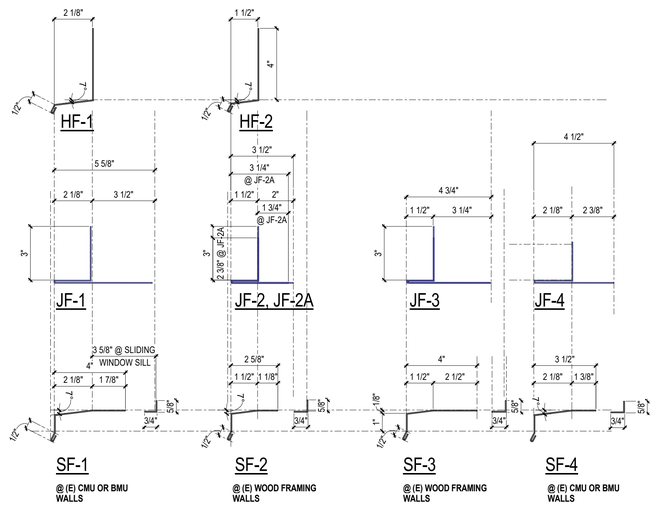


5 JAMB DETAIL AT W2-W3
3" = 1'-0"

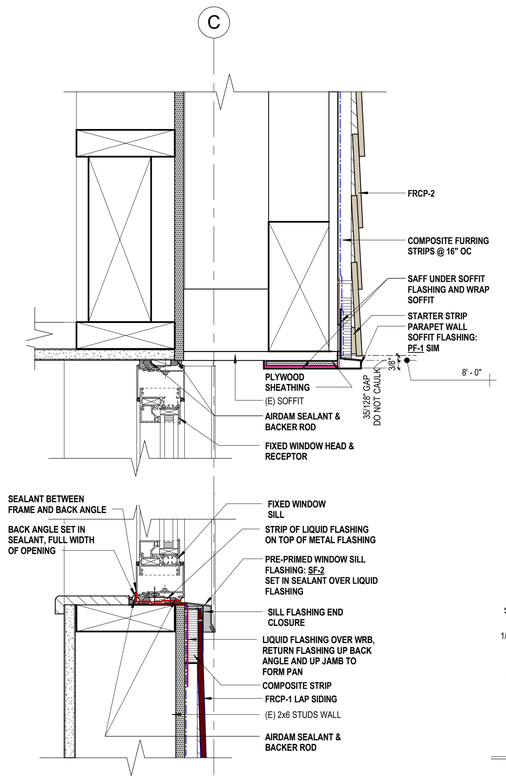


3 DETAIL AT W2 JAMB
3" = 1'-0"

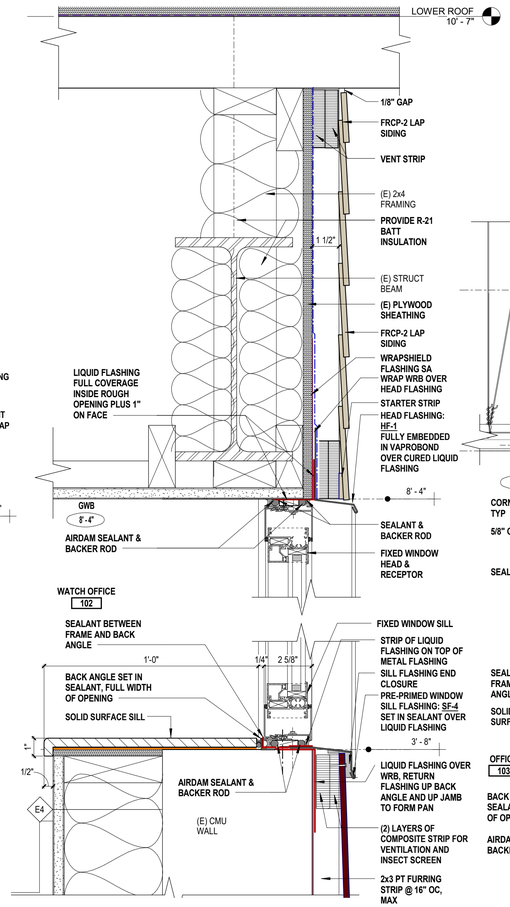
7 JAMB DETAIL AT W3-W4
3" = 1'-0"



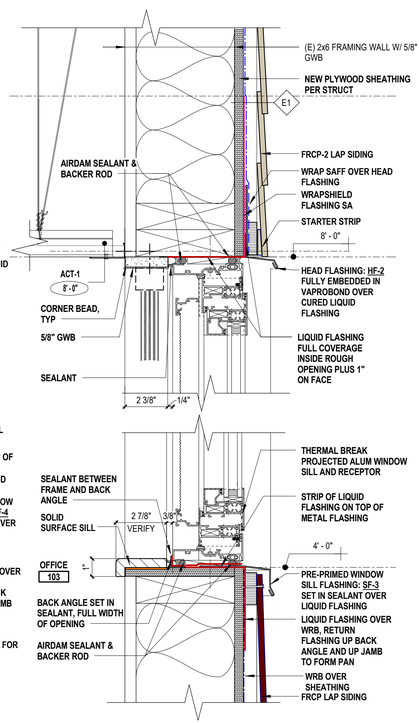
6 METAL FLASHING DETAILS
3" = 1'-0"



4 HEAD / SILL DETAIL - W5-W6
3" = 1'-0"



2 HEAD / SILL DETAIL - W4
3" = 1'-0"



1 HEAD / SILL DETAIL - W2
3" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

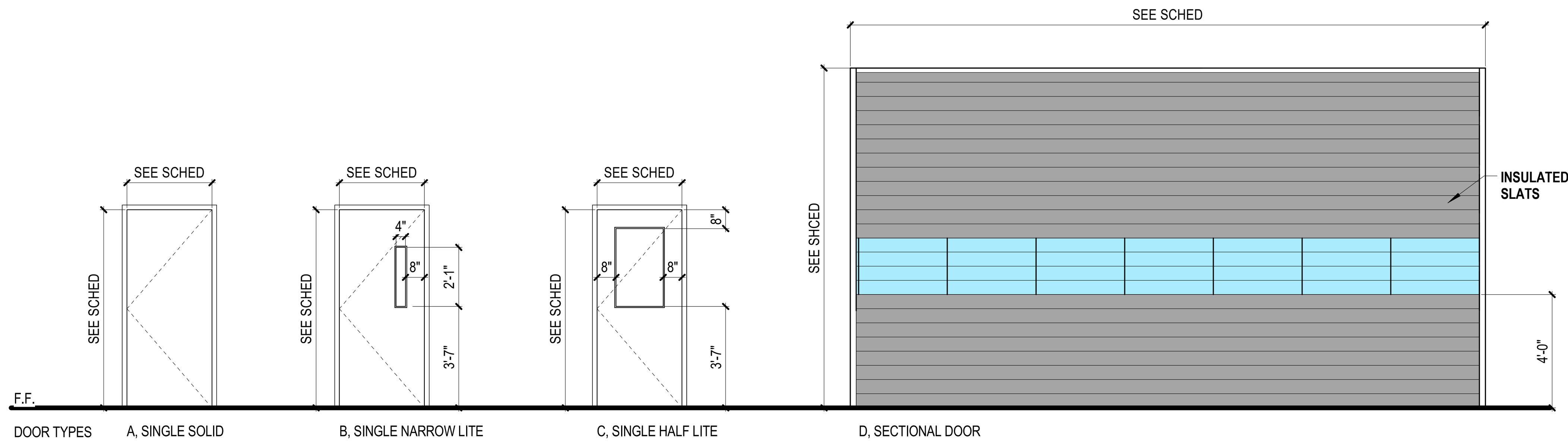
ISSUED: APRIL 13, 2017

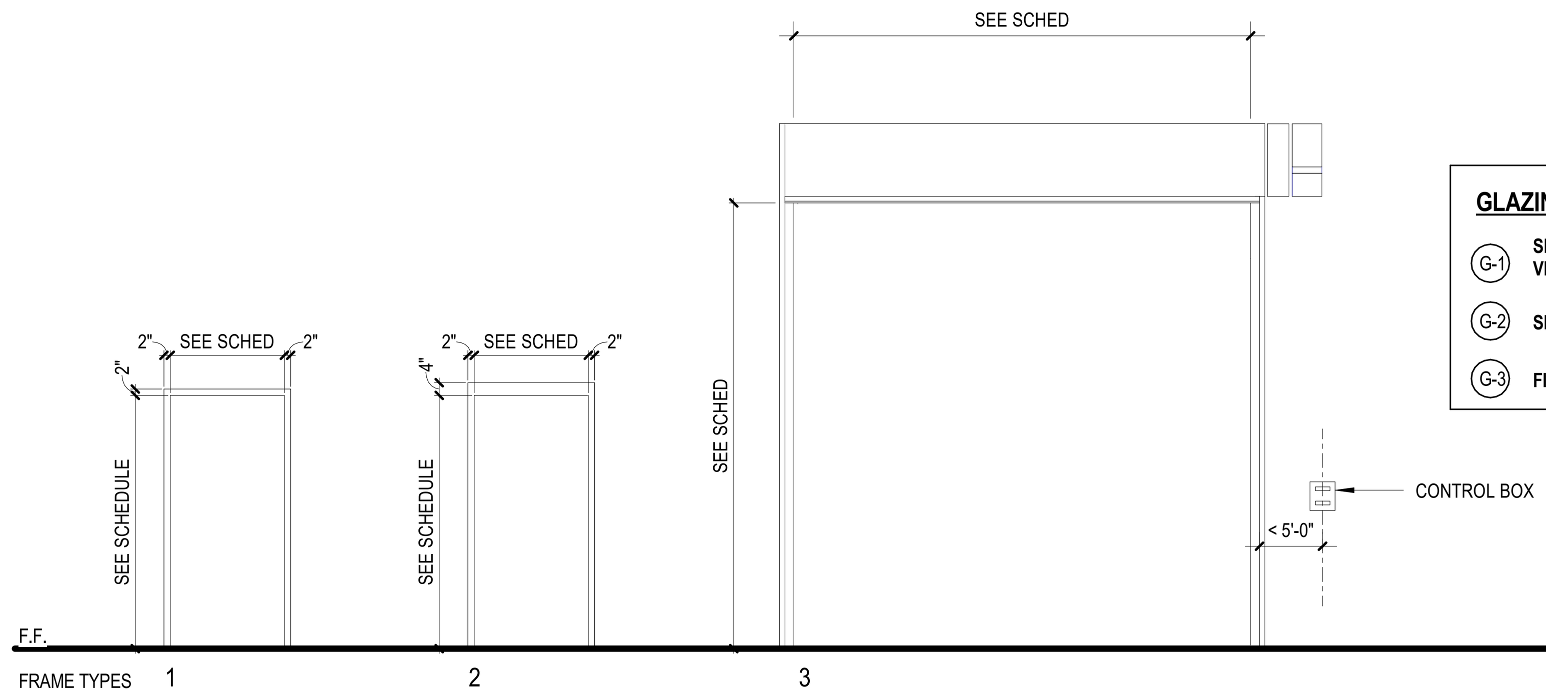
REVISION SCHEDULE

WINDOW DETAILS

SHEET:

A50.02





GLAZING LEGEND

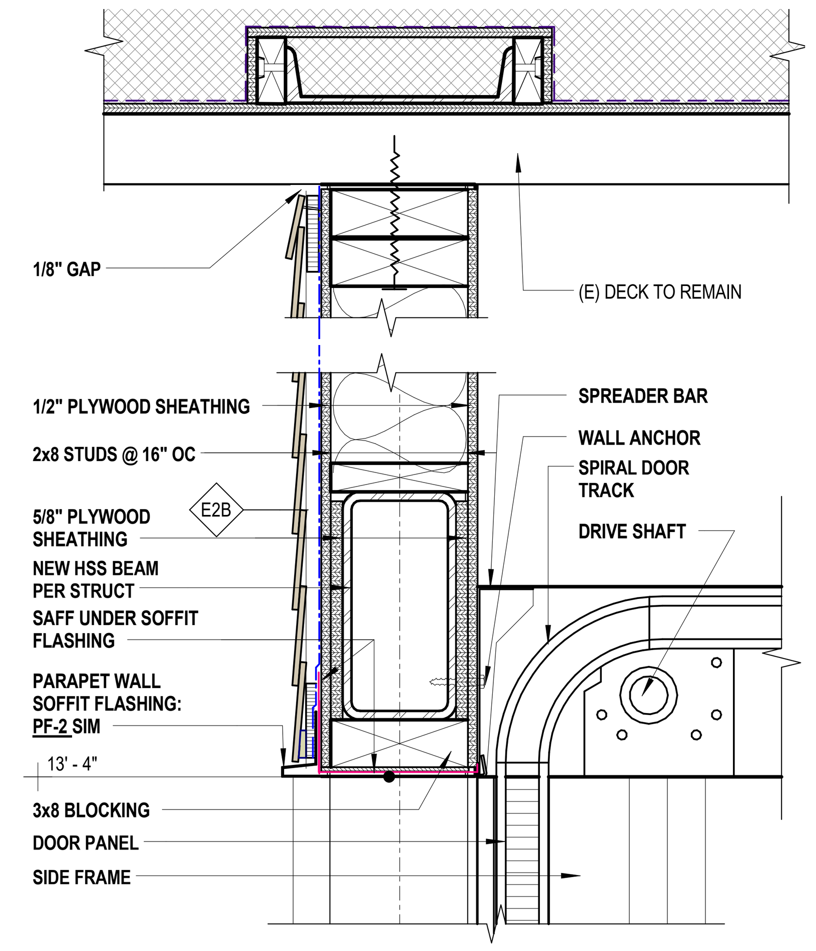
- G-1 SEALED INSULATING GLASS UNITS: VISION GLAZING LOW-E
- G-2 SINGLE SAFETY GLAZING
- G-3 FIRE RATED SAFETY GLAZING

DOOR & FRAME TYPES

1/4" = 1'-0"

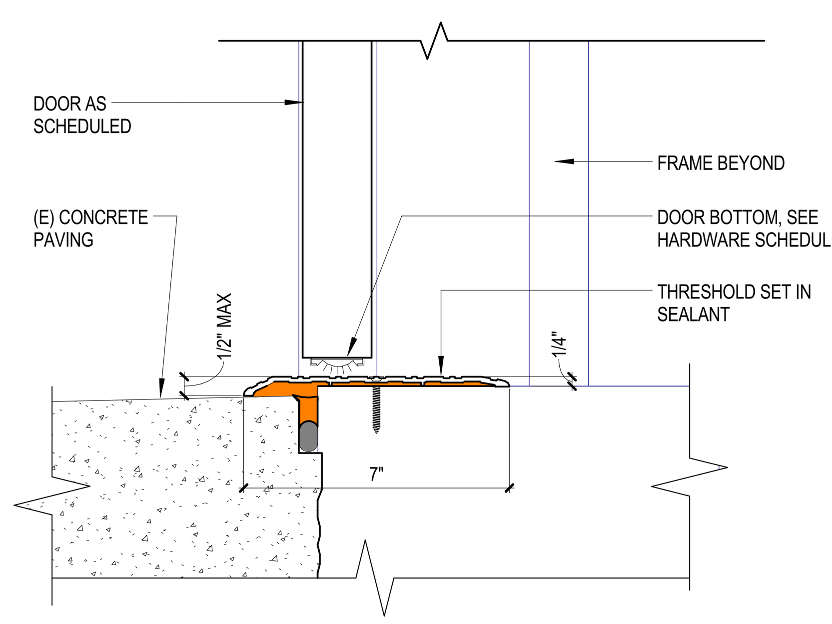
DOOR SCHEDULE

DOOR #	ROOM NUMBER	ROOM NAME	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	GLAZING	HEIGHT	WIDTH	THICKNESS	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	FIRE RATING	HARDWARE GROUP	COMMENTS
101A	101	LOBBY	C	HM		G1	7' - 10"	3' - 0"	1 3/4"	1	HM		NA	4	
101B	101	LOBBY	C	HM		G2	7' - 10"	3' - 0"	1 3/4"	1	HM		NA	3	
103A	103	OFFICE	A	HM			7' - 0"	3' - 0"	1 3/4"	1	HM		NA	5	
104A	104	HALL	B	HM		G3	7' - 0"	3' - 0"	1 3/4"	1	HM		60 MIN	7	
105A	105	ADA RR	A	HM			7' - 0"	3' - 0"	1 3/4"	1	HM		NA	2	
107A	107	HALL	B	HM		G3	7' - 0"	3' - 6"	1 3/4"	1	HM		60 MIN	7	
108A	108	DAY ROOM	C	HM		G1	7' - 10"	3' - 0"	1 3/4"	1	HM		NA	4	
109A	109	BUNKER GEAR	B	HM		G2	6' - 8"	3' - 0"	1 3/4"	1	HM		NA	8	
112A	112	APPARATUS BAY	D	ALUM			13' - 6"	18' - 0"	1"	3	STL	GALV	NA	NA	
112B	112	APPARATUS BAY	D	ALUM			13' - 6"	18' - 0"	1"	3	STL	GALV	NA	NA	
113A	113	STORAGE	A	HM			7' - 0"	3' - 0"	1 3/4"	1	HM		NA	4	
113B	113	STORAGE	A	HM			6' - 8"	3' - 0"	1 3/4"	1	HM		NA	6	
114A	114	STORAGE	A	HM			7' - 0"	3' - 0"	1 3/4"	2	HM		NA	5	PROVIDE WALL STOP
115A	115	ELECTRICAL ROOM	A	HM			7' - 0"	3' - 0"	1 3/4"	2	HM		NA	5	
116A	116	ADA RR	A	HM			6' - 8"	3' - 0"	1 3/4"	1	HM		NA	2	PROVIDE ROBE HOOK
117A	117	RR	A	HM			6' - 8"	3' - 0"	1 3/4"	1	HM		NA	2	PROVIDE ROBE HOOK
118A	118	LAUNDRY	B	HM		G3	7' - 0"	3' - 0"	1 3/4"	1	HM		20 MIN	8	NO WALL STOP
120A	120	SR	A	WD			7' - 0"	3' - 0"	1 3/4"	1	HM		20 MIN	1	
121A	121	SR	A	WD			7' - 0"	3' - 0"	1 3/4"	1	HM		20 MIN	1	
122A	122	SR	A	WD			7' - 0"	3' - 0"	1 3/4"	1	HM		20 MIN	1	
123A	123	SR	A	WD			7' - 0"	3' - 0"	1 3/4"	1	HM		20 MIN	1	
124A	124	CORRIDOR	B	HM		G3	7' - 0"	3' - 0"	1 3/4"	1	HM		60 MIN	7	
125A	125	CORRIDOR	C	HM		G1	7' - 0"	3' - 0"	1 3/4"	1	HM		NA	4	
126A	126	PT	C	HM		G2	7' - 0"	3' - 0"	1 3/4"	1	HM		NA	8	



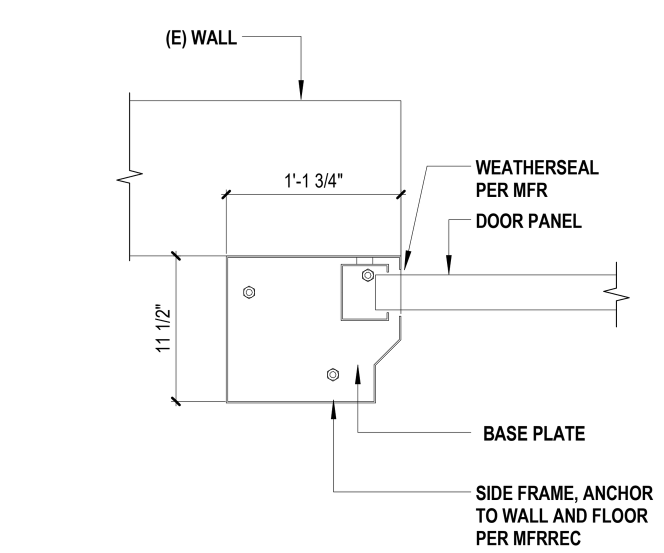
4 SECTION - OH DOOR HEAD DETAIL

1 1/2" = 1'-0"



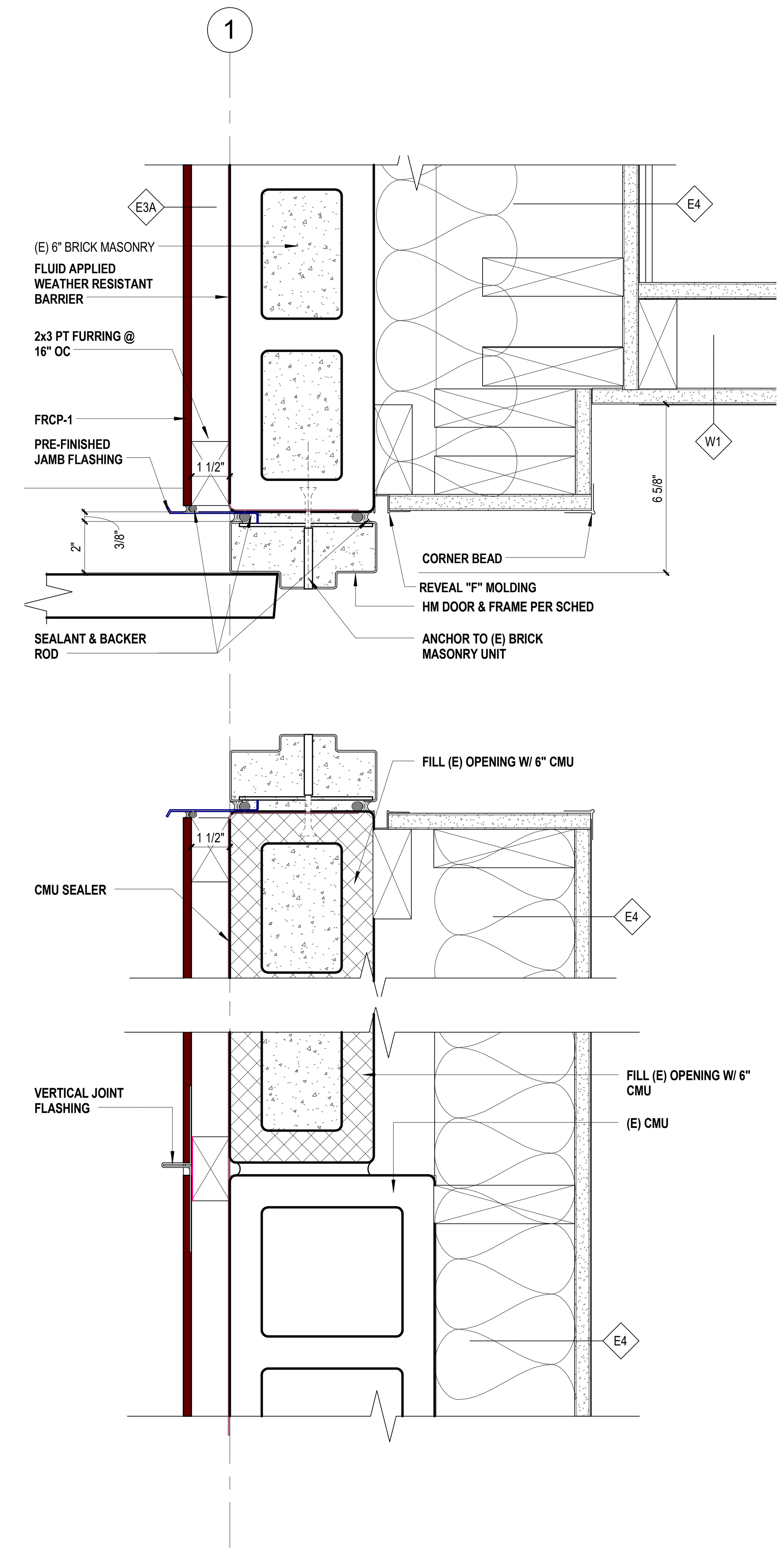
6 TYPICAL EXTERIOR THRESHOLD

3" = 1'-0"



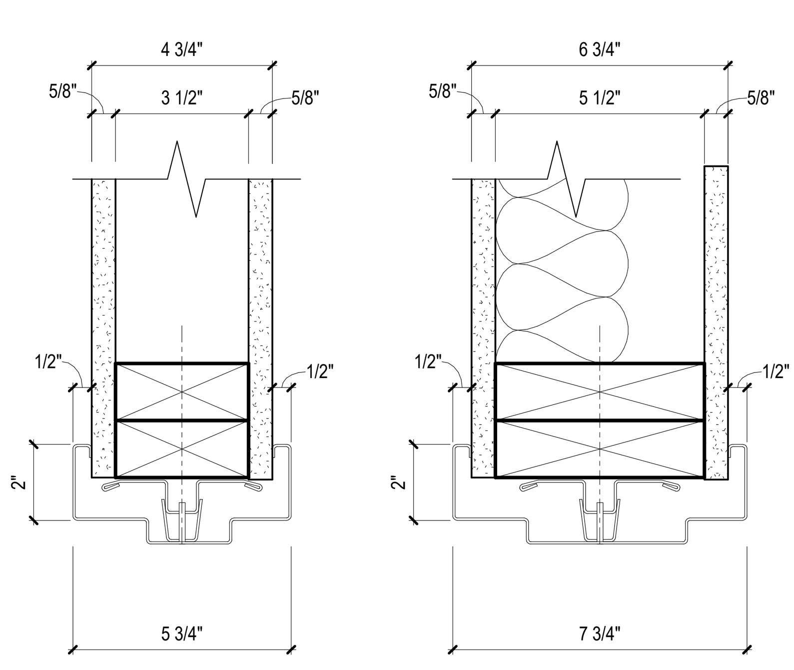
3 SPIRAL DOOR DETAIL - JAMB

1" = 1'-0"



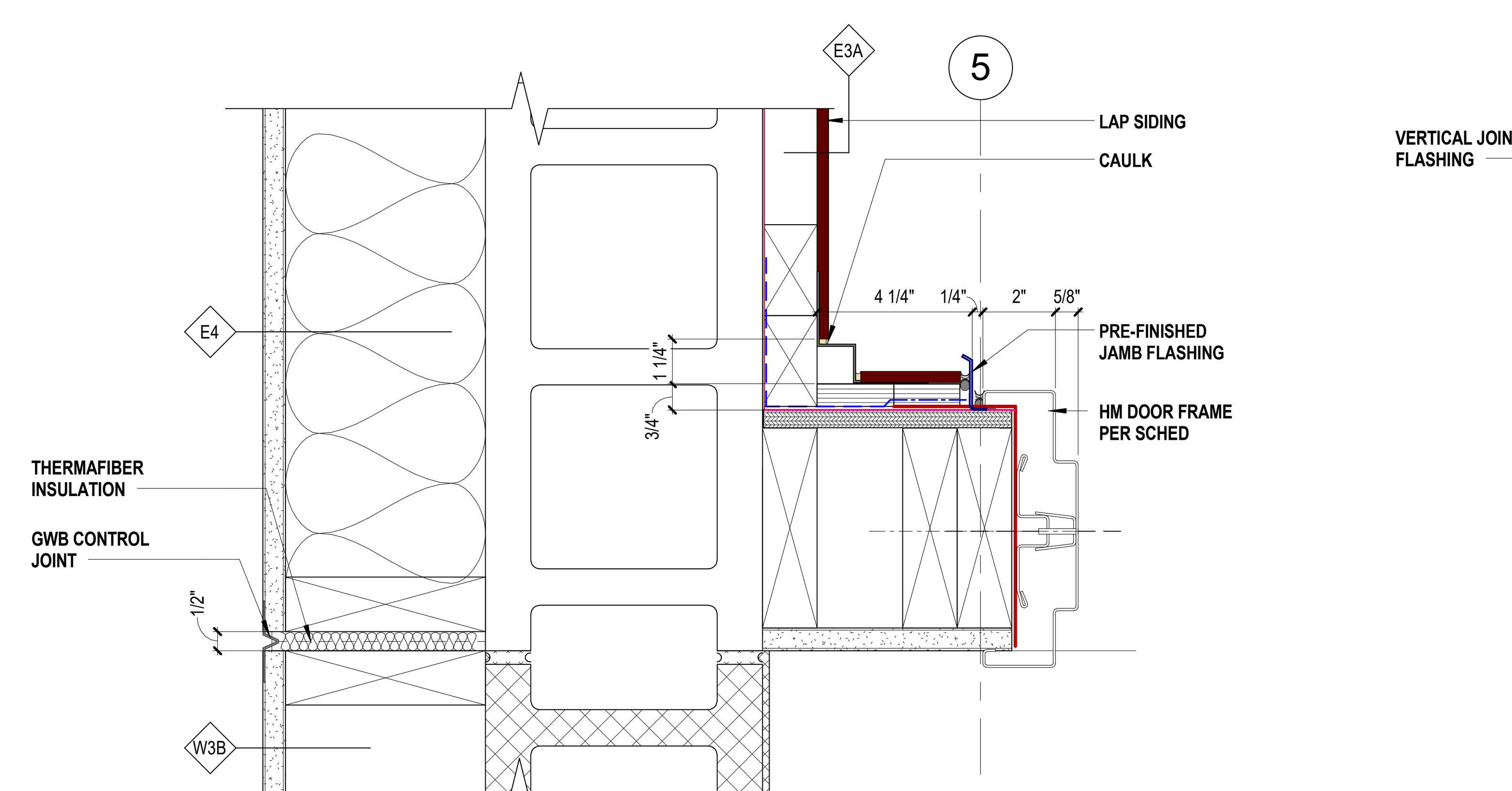
1 EXTERIOR DOOR JAMB - (E) BMU

3" = 1'-0"



5 TYP INT DOOR JAMB DETAIL (HEAD SIM)

3" = 1'-0"



2 EXTERIOR JAMB DETAIL

3" = 1'-0"

RICE fergus MILLER
ARCHITECTURE & PLANNING
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

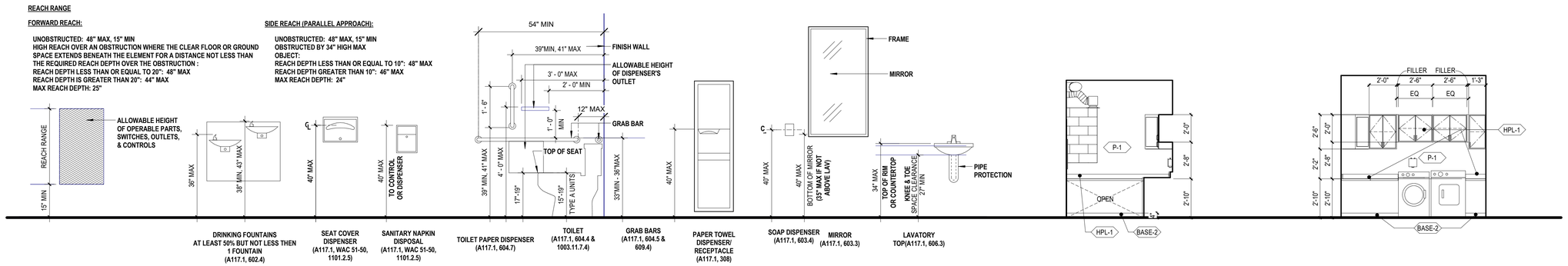
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

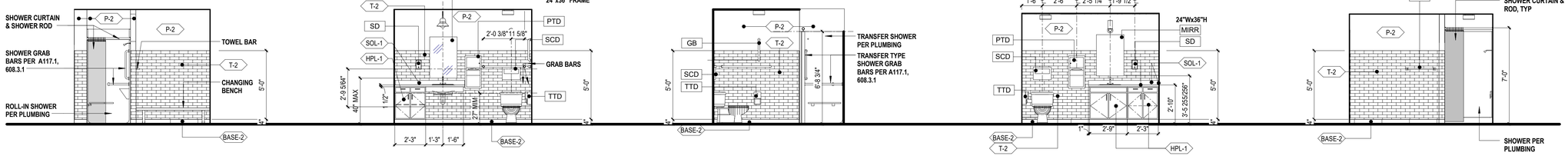
DOOR SCHEDULE AND DETAILS

SHEET:

A60.01



ADA ACCESSIBILITY MOUNTING HEIGHT



12 116 ADA RESTROOM - EAST 1/4" = 1'-0"

13 116 ADA RESTROOM - WEST 1/4" = 1'-0"

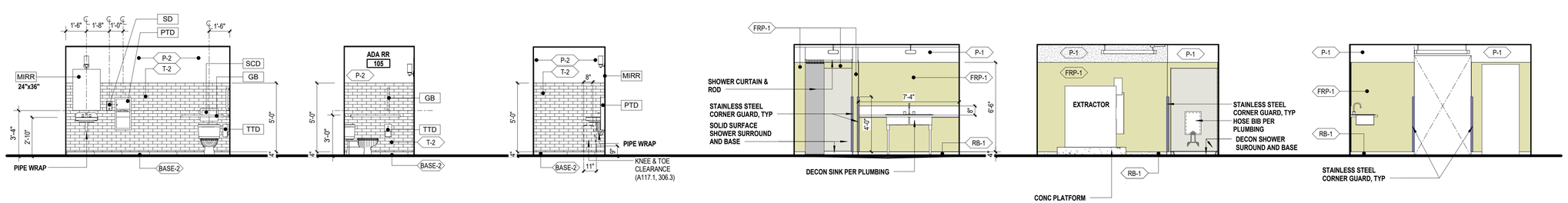
14 116 ADA RESTROOM - NORTH 1/4" = 1'-0"

15 117 RESTROOM - EAST 1/4" = 1'-0"

16 117 RESTROOM - WEST 1/4" = 1'-0"

17 118 LAUNDRY - SOUTH 1/4" = 1'-0"

18 118 LAUNDRY - WEST 1/4" = 1'-0"



6 105 ADA RESTROOM - EAST 1/4" = 1'-0"

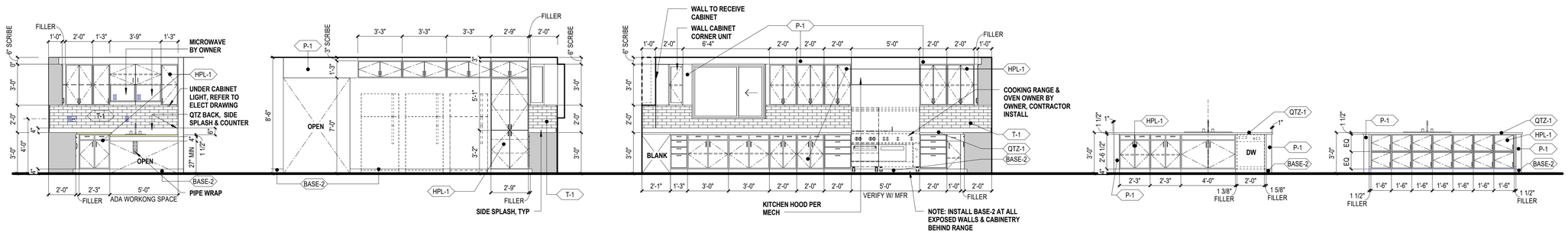
7 105 ADA REST ROOM - SOUTH 1/4" = 1'-0"

8 105 ADA RESTROOM - NORTH 1/4" = 1'-0"

9 111 DECON - EAST 1/4" = 1'-0"

10 111 DECON - NORTH 1/4" = 1'-0"

11 111 DECON - SOUTH 1/4" = 1'-0"



1 106 KITCHEN - EAST 1/4" = 1'-0"

2 106 KITCHEN - WEST 1/4" = 1'-0"

3 106 KITCHEN - NORTH 1/4" = 1'-0"

4 106 KITCHEN ISLAND - NORTH 1/4" = 1'-0"

5 106 KITCHEN ISLAND - SOUTH 1/4" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

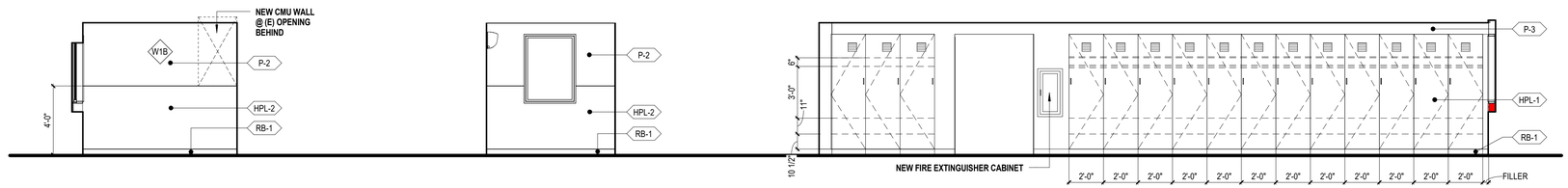
REVISION SCHEDULE

1	BLDG2017-0101 COMMENT REVISION	04/21/2017

INTERIOR ELEVATIONS

SHEET:

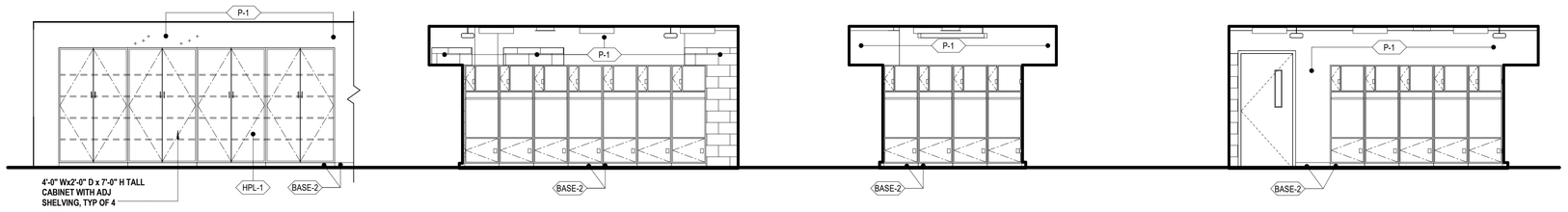
A70.01



7 SLEEP ROOM - WEST
1/4" = 1'-0"

8 SLEEP ROOM - SOUTH
1/4" = 1'-0"

9 124 CORRIDOR - NORTH
1/4" = 1'-0"

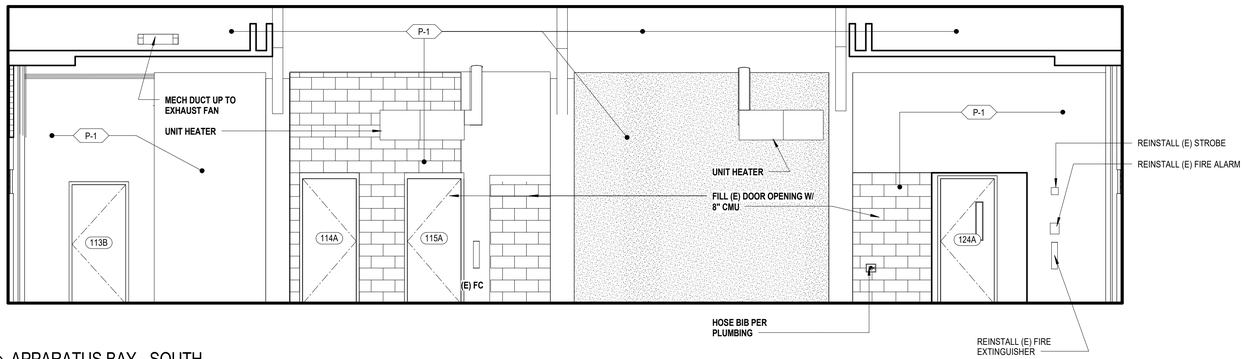


3 108 DAY ROOM - SOUTH
1/4" = 1'-0"

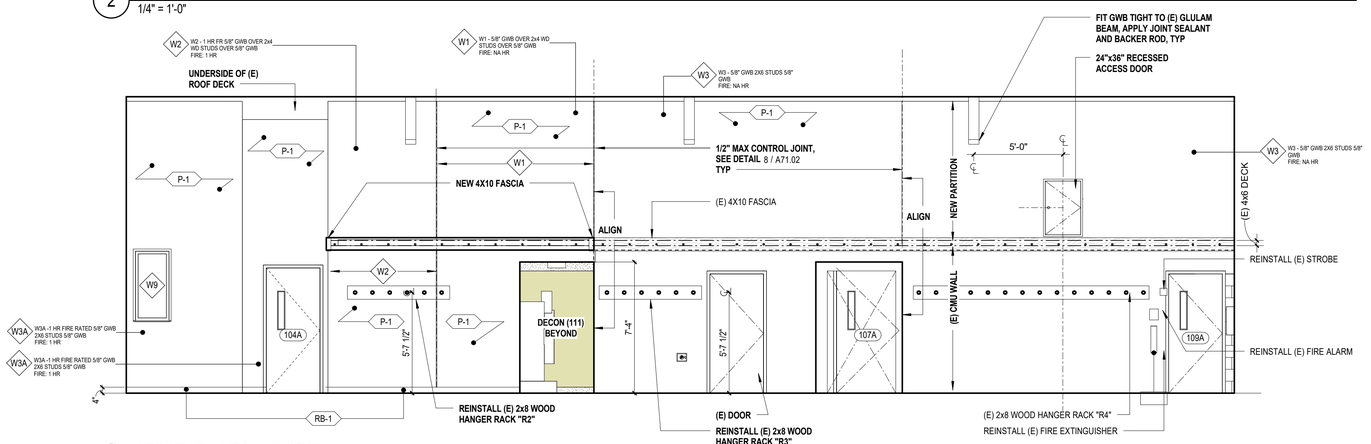
4 109 BUNKER GEAR - NORTH
1/4" = 1'-0"

5 109 BUNKER GEAR - WEST
1/4" = 1'-0"

6 109 BUNKER GEAR - SOUTH
1/4" = 1'-0"



2 APPARATUS BAY - SOUTH
1/4" = 1'-0"



1 APPARATUS BAY - NORTH
1/4" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

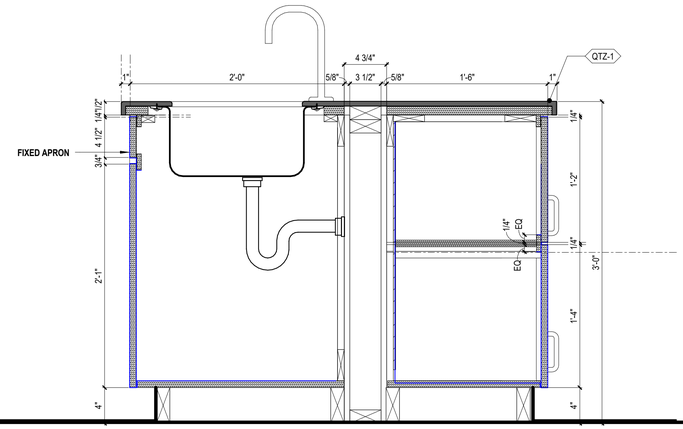
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

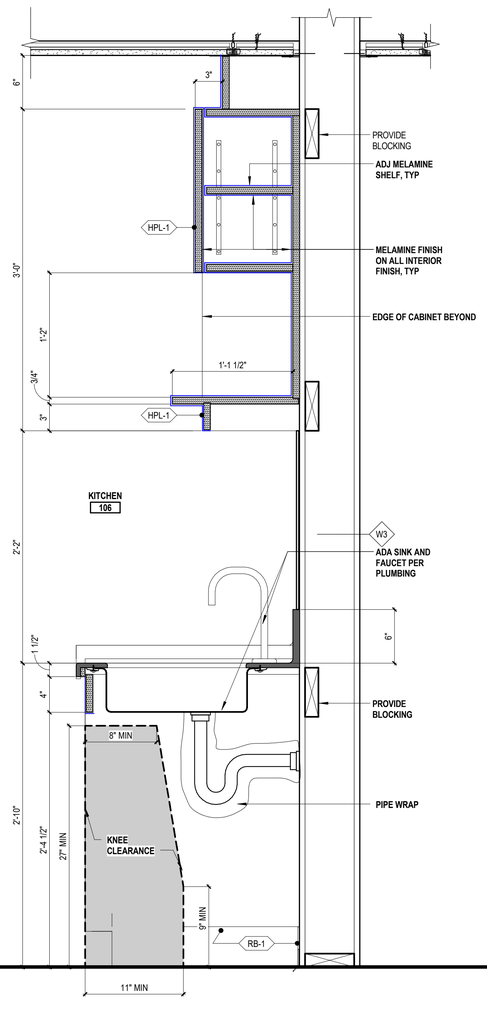
INTERIOR ELEVATIONS

SHEET:

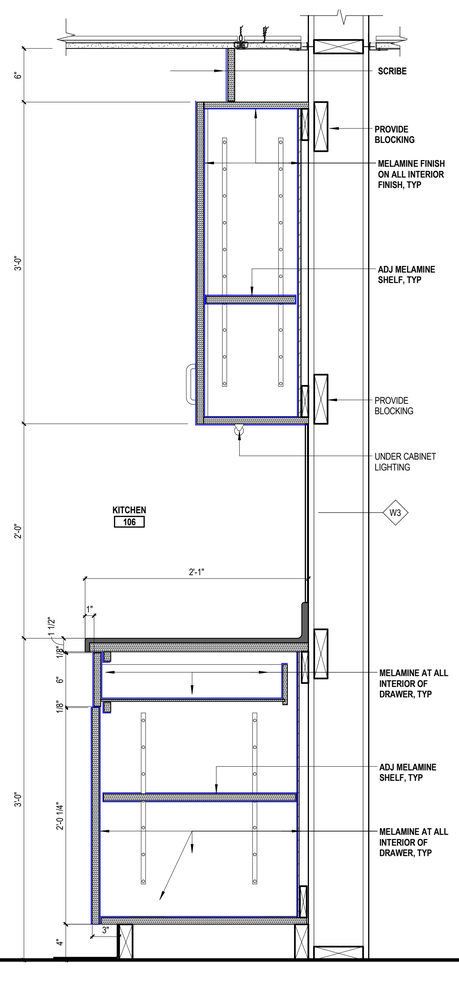
A70.02



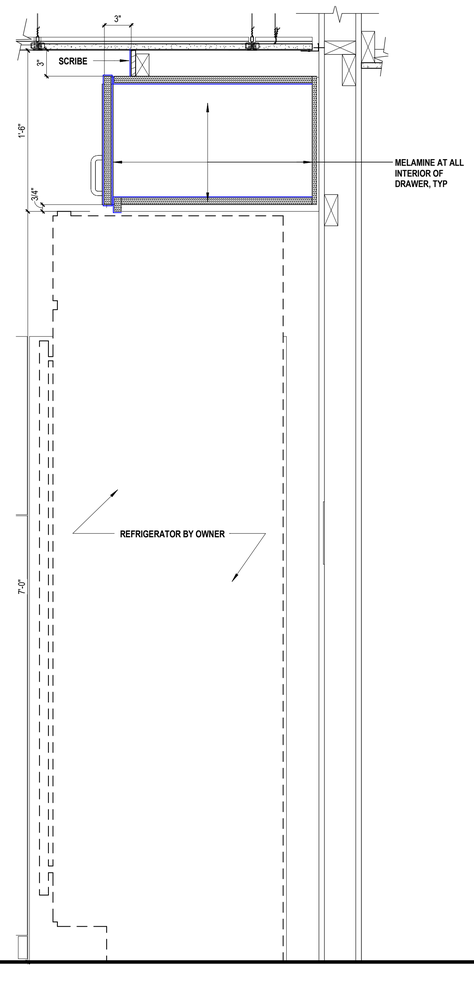
8 ISLAND SECTION
1 1/2" = 1'-0"



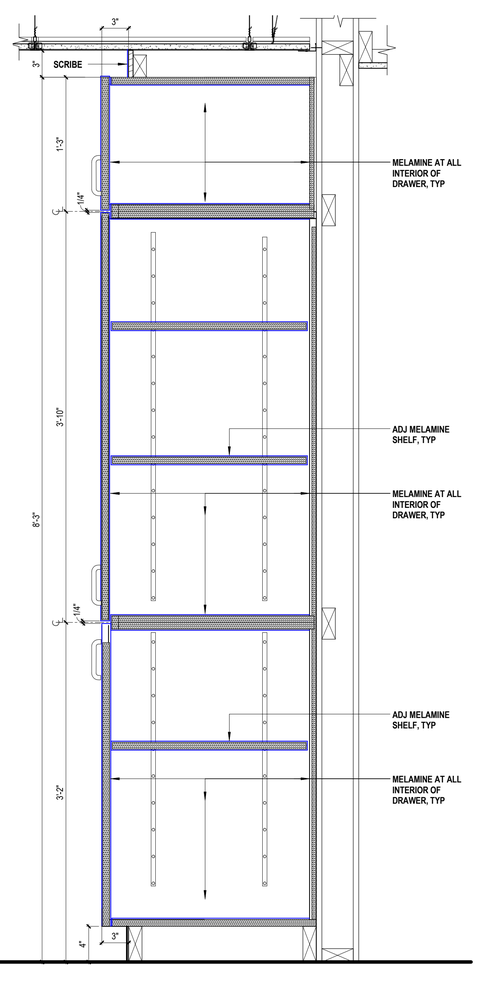
1 DETAIL - ADA COUNTERTOP
1 1/2" = 1'-0"



2 DETAIL - CASEWORK
1 1/2" = 1'-0"



3 WALL CABINET ABOVE REFRIGERATOR
1 1/2" = 1'-0"



4 KITCHEN PANTRY SECTION
1 1/2" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

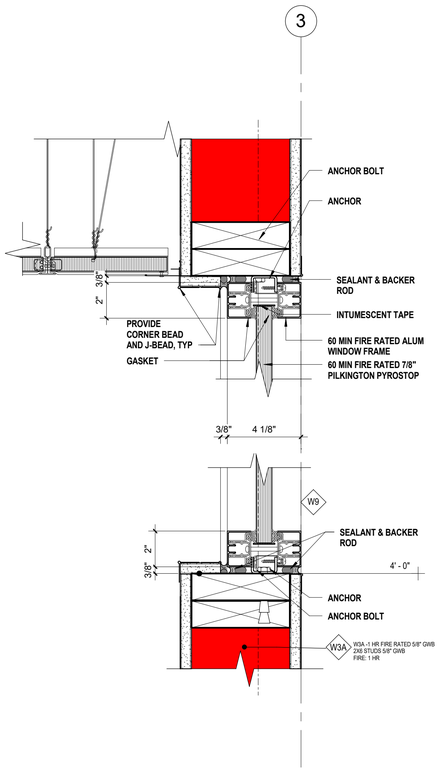
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

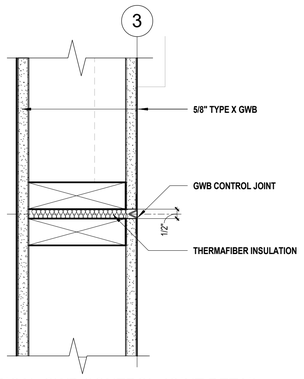
INTERIOR DETAILS

SHEET:

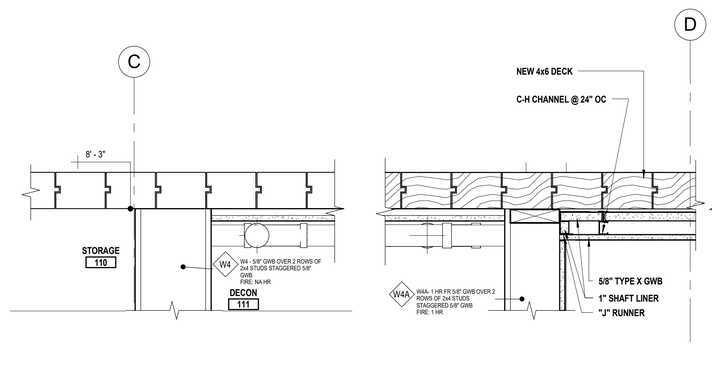
A71.01



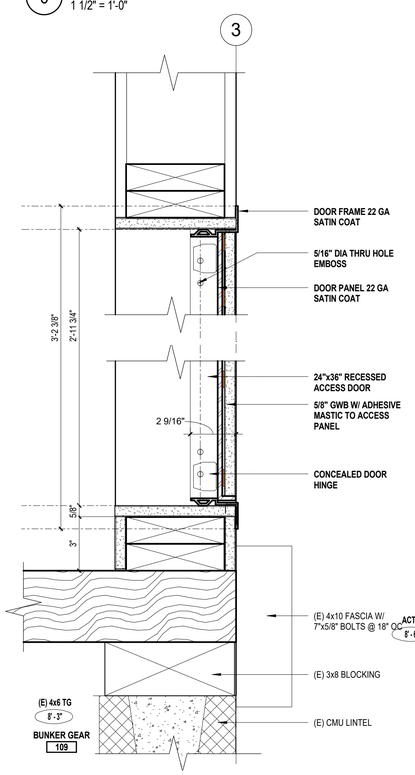
9 W9 HEAD / SILL DETAIL
3" = 1'-0"



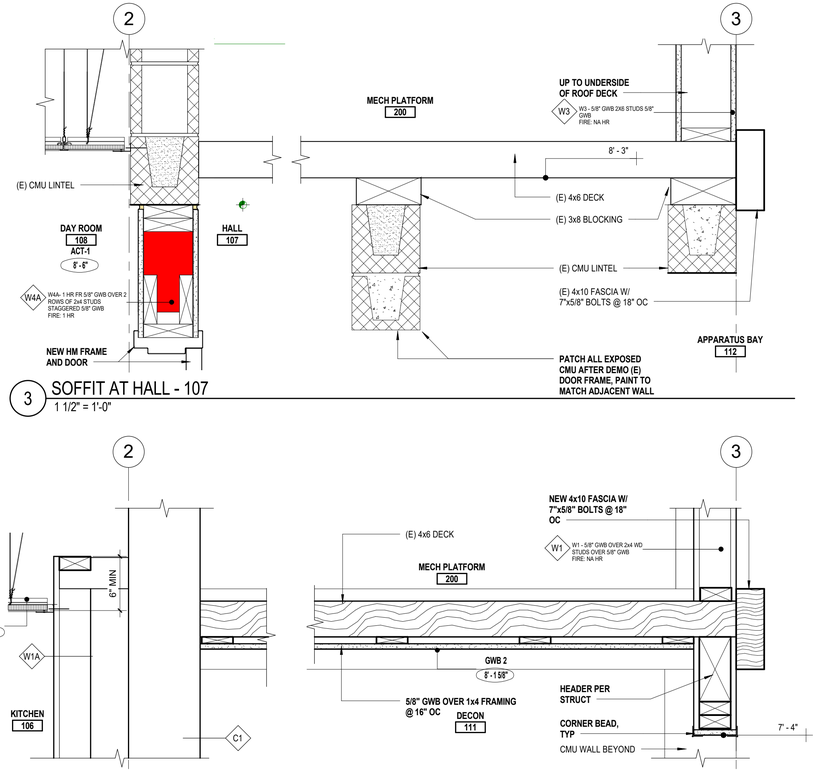
8 TYPICAL GWB CONTROL JOINT DETAIL
3" = 1'-0"



6 SECTION - DECK / HORIZ SHAFT WALL
1 1/2" = 1'-0"

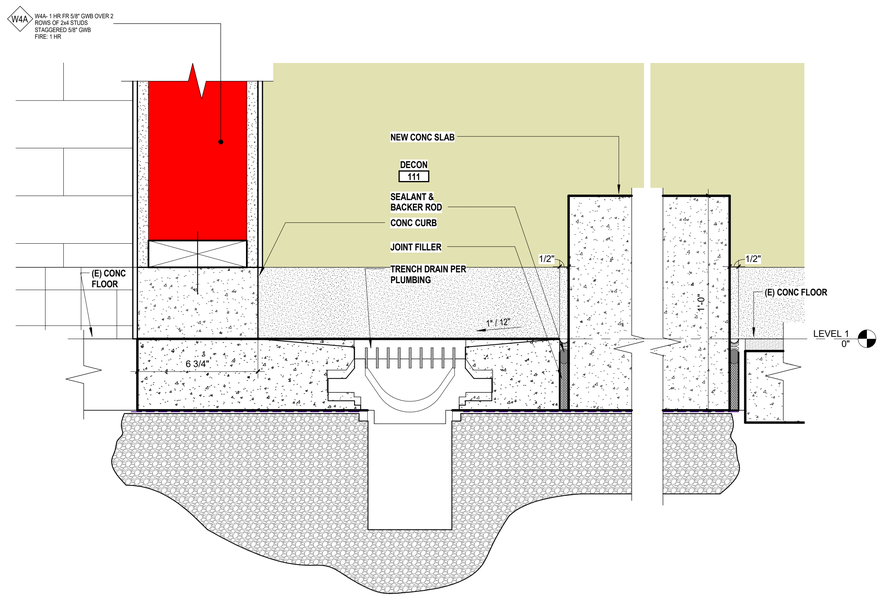


5 DETAIL - ACCESS DOOR
3" = 1'-0"

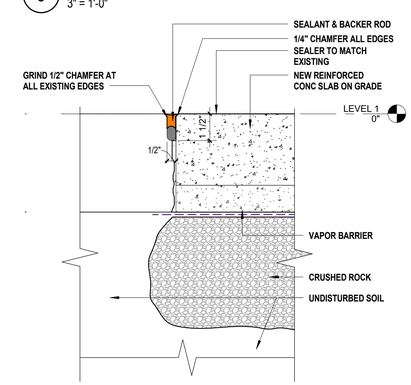


3 SOFFIT AT HALL - 107
1 1/2" = 1'-0"

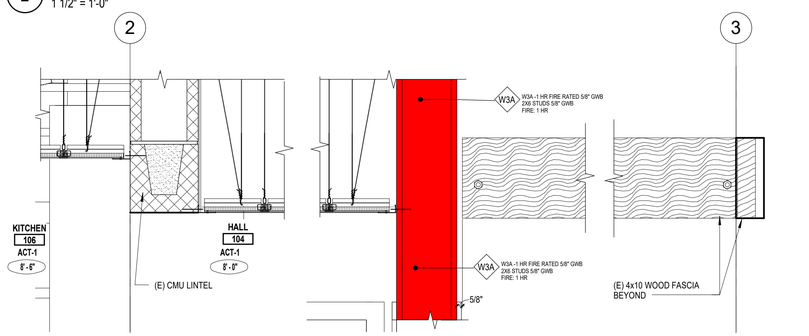
2 SOFFIT AT DECON - 111
1 1/2" = 1'-0"



7 DETAIL - TRENCH DRAIN
3" = 1'-0"



4 TYP - NEW REINF CONC SLAB JOINT
3" = 1'-0"



1 SOFFIT AT HALL - 104
1 1/2" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

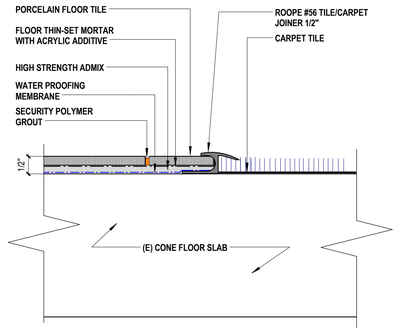
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

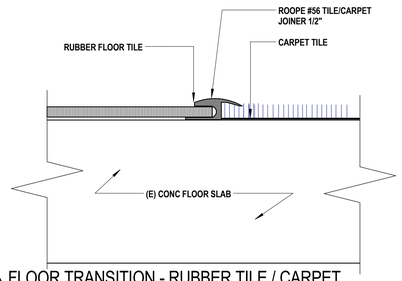
INTERIOR DETAILS

SHEET:

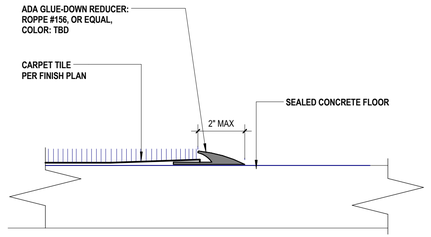
A71.02



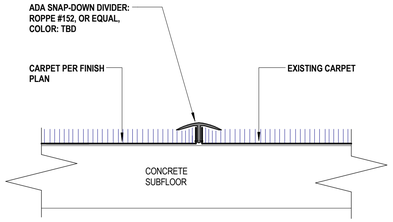
3 FLOOR TRANSITION - TILE / CARPET
6" = 1'-0"



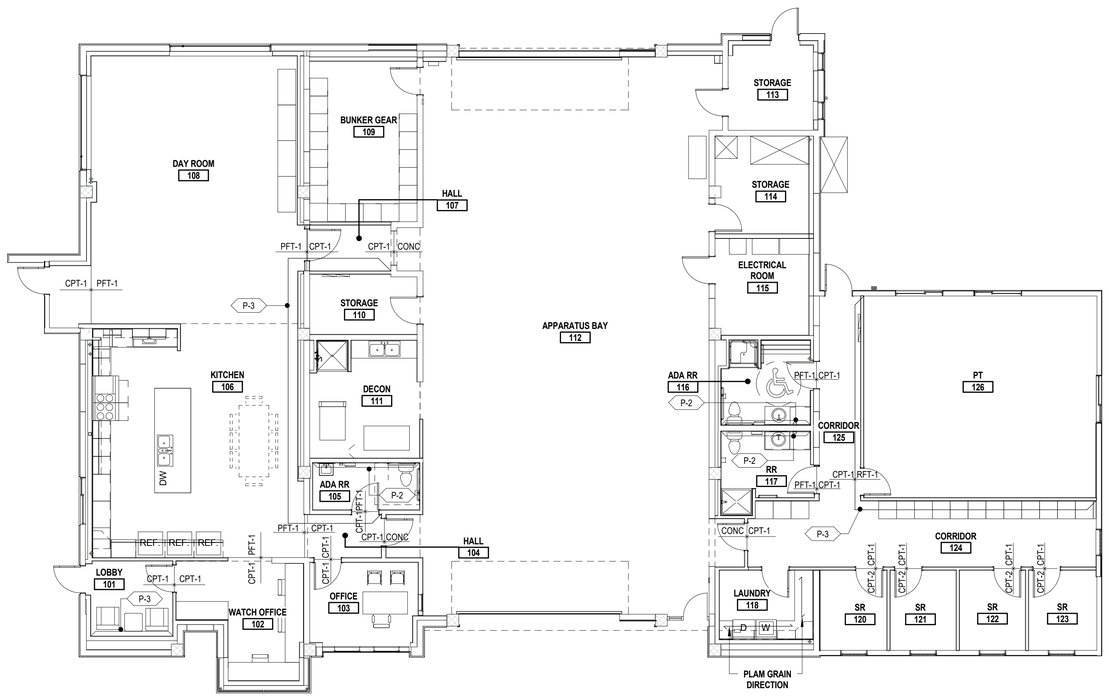
5 FLOOR TRANSITION - RUBBER TILE / CARPET
6" = 1'-0"



2 FLOOR TRANSITION - CARPET / CONCRETE
6" = 1'-0"



4 FLOOR TRANSITION - CARPET / CARPET
6" = 1'-0"



N
1 LEVEL 1 - FLOOR FINISH PLAN
1/8" = 1'-0"

ROOM FINISH SCHEDULE

ROOM INFORMATION		FINISH INFORMATION. TYP, UNO							
		WALL FINISH							
NUMBER	NAME	EAST	NORTH	SOUTH	WEST	BASE	FLOOR	CEILING	COMMENTS
101	LOBBY	P-1	P-1	P-1	P-1	RB-1	CPT-1	ACT	
102	WATCH OFFICE	P-1	P-1	P-1	P-1	RB-1	CPT-1	GWB	
103	OFFICE	P-1	P-1	P-1	P-1	RB-1	CPT-1	ACT	
104	HALL	P-3	P-1	P-1	P-1	RB-1	CPT-1	ACT	SEE FINISH PLAN FOR ACCENT WALL EXTENTS
105	ADA RR	P-2/T-2	P-1/T-2	P-1/T-2	P-1/T-2	BASE-2	PFT-1	GWB	
106	KITCHEN	P-1	P-1	P-3	P-1	BASE-2	PFT-1	ACT	SEE FINISH PLAN FOR ACCENT WALL EXTENTS
107	HALL	P-1	P-1	P-1	P-3	RB-1	CPT-1	(E)	SEE FINISH PLAN FOR ACCENT WALL EXTENTS
108	DAY ROOM	P-1	P-1	P-1	P-1	BASE-2	PFT-1	ACT	
109	BUNKER GEAR	P-1	P-1	P-1	P-1	RB-1	CONC	ACT	
110	STORAGE	P-1	P-1	P-1	P-1	RB-1	CONC	(E)	
111	DECON	P-1	P-1	P-1	P-1	RB-1	CONC	GWB	
112	APPARATUS BAY	P-1	P-1	P-1	P-1	RB-1	CONC	-	
113	STORAGE	P-1	P-1	P-1	P-1	RB-1	CONC	-	
114	STORAGE	P-1	P-1	P-1	P-1	RB-1	CONC	-	
115	ELECTRICAL ROOM	P-1	P-1	P-1	P-1	RB-1	CONC	-	
116	ADA RR	P-1/T-2	P-1/T-2	P-1/T-2	P-2/T-2	BASE-2	PFT-1	GWB	SEE FINISH PLAN FOR ACCENT WALL EXTENTS
117	RR	P-2/T-2	P-1/T-2	P-1/T-2	P-1/T-2	BASE-2	PFT-1	GWB	SEE FINISH PLAN FOR ACCENT WALL EXTENTS
118	LAUNDRY	P-1	P-1	P-1	P-1	BASE-2	PFT-1	(E)	
120	SR	P-2	P-2	P-2	P-2	RB-1	CPT-2	ACT	
121	SR	P-2	P-2	P-2	P-2	RB-1	CPT-2	ACT	
122	SR	P-2	P-2	P-2	P-2	RB-1	CPT-2	ACT	
123	SR	P-2	P-2	P-2	P-2	RB-1	CPT-2	ACT	
124	CORRIDOR	P-3	P-1	P-1	P-1	RB-1	CPT-1	ACT	SEE FINISH PLAN FOR ACCENT WALL EXTENTS
125	CORRIDOR	P-1	P-1	P-3	P-1	RB-1	CPT-1	ACT	SEE FINISH PLAN FOR ACCENT WALL EXTENTS
126	PT	P-1	P-1	P-1	P-1	RB-1	RFT-1	ACT	

FINISH LEGEND

TAG	MATERIAL	MANUFACTURER	PRODUCT	NOTES
WALL: EXTERIOR				
FRCP-1	FIBER REINFORCED CONCRETE PANEL	JAMES HARDIE	SMOOTH 8" EXPOSURE COLOR: COUNTRYLANE RED	
FRCP-2	FIBER REINFORCED CONCRETE PANEL	JAMES HARDIE	SMOOTH 4" EXPOSURE COLOR: AUTUMN TAN	
WALL: EXTERIOR FASCIA				
FRCP-3	FIBER REINFORCED CONCRETE PANEL	JAMES HARDIE	VERTICAL SIDING	
WALL: INTERIOR				
FRP-1	FIBERGLASS REINFORCED PLASTIC			
PAINT: EXTERIOR				
P-4	EXTERIOR DOOR AND TRIM			
P-5	EXTERIOR WOOD FASCIA PAINT			
P-6	EXTERIOR WOOD BEAM			
P-7	EXTERIOR CONCRETE BASE			
WALL: INTERIOR				
HPL-2	WALL PROTECTION	FORMICA	DECO METAL: M5307 PLEX UMBRA	SLEEP ROOM WALL PROTECTION
T-1	WALL TILE	DALTILE	RITTENHOUSE SQUARE,SEMI-GLOSS, 0190 ARCTIC WHITE WALL TILE; 3X6	KITCHEN BACKSPLASH; INSTALL BRICK-JOINT PATTERN
T-2	WALL TILE	DALTILE	RITTENHOUSE SQUARE, MATTE, 0790 ARCTIC WHITE WALL TILE; 3X6	RESTROOM WALL TILE; INSTALL BRICK-JOIN PATTERN
CASEWORK				
HPL-1	HIGH PRESSURE LAMINATE	PIONITE	GOLD PANNIN AT710; SUEDE	CASEWORK
QTZ-1	QUARTZ	WILSONART	LORRAINE Q1012	KITCHEN COUNTERTOP
SOL-1	SOLID SURFACE	WILSONART	YUKON RIVERSTONE 9196RS	RESTROOM COUNTERTOP
PAINT				
P-1	PAINT	SHERWIN WILLIAMS	FN204; SW 6203 SPARE WHITE	WALLS & CEILINGS
P-2	PAINT	SHERWIN WILLIAMS	SW 7644 GATEWAY GRAY	SLEEP ROOMS AND BATHROOM WALLS
P-3	PAINT	SHERWIN WILLIAMS	E37; SW 7026	ACCENT WALLS
BASE				
BASE-2	PORCELAIN TILE BASE	UNITED TILE	ELEGANZA - VARESE; GRAFITE, 4"X24"	TILE BASE
RB-1	RUBBER BASE	ROPPE	SEE SPECIFICATION FOR PRODUCT INFORMATION	BASE THROUGHOUT
FLOOR				
CONC	CONCRETE			
CPT-1	WALK OFF MAT, MODULAR	SHAW CONTRACT	ALL ACCESS 5T034; COLOR: EBONY 34500	
CPT-2	CARPET, BROADLOOM	MASLAND CONTRACT	RUNWAY 7B41; COLOR: COUTURE 48107	
PFT-1	PORCELAIN FLOOR TILE	UNITED TILE	ELEGANZA - VARESE; GRAFITE, 24"X24'	
RFT-1	RUBBER FLOOR TILE	ROPPE	TUFLEX #982 TAUPE	

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

4794
REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

FINISH INFORMATION

SHEET:

A72.01

ABBREVIATIONS

&	AND
@	AT
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
ADJ	ADJACENT, ADJUSTABLE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
AISI	AMERICAN IRON AND STEEL INSTITUTE
ALT	ALTERNATE
ANCH	ANCHOR
APA	AMERICAN PLYWOOD ASSOCIATION
APPROX	APPROXIMATE
AR	ANCHOR ROD
ARCH	ARCHITECT, ARCHITECTURAL
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
B/	BOTTOM OF
BAL	BALANCE
BC	BOTTOM CHORD
BF	BRACED FRAME
BLDG	BUILDING
BLK'G	BLOCKING
BM	BEAM
BMU	BRICK MASONRY UNIT
BOF	BOTTOM OF FOOTING
BOT	BOTTOM
BP, B PL	BASE PLATE
BRG	BEARING
BTWN	BETWEEN
BU	BUILT-UP
C	CAMBER, CHANNEL
CA	CONCRETE (EXPANSION) ANCHOR
CANTIL	CANTILEVER
CAP	CAPACITY
CC	CENTER-TO-CENTER
CDF	CONTROL DENSITY FILL
CG	CENTER OF GRAVITY
CIP	CAST-IN-PLACE
CJ	CONTROL JOINT, CONSTRUCTION JOINT

CJP, CP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE, CONTINUOUS
CONTR	CONTRACTOR
COORD	COORDINATE
CRSI	CONCRETE REINFORCED STEEL INSTITUTE
CTR	CENTER, CENTERED
CU YD	CUBIC YARD
d	PENNYWEIGHT (NAILS)
DB	DIVIDER BEAM, DROPPED BEAM
D-B	DESIGN-BUILD
DBA	DEFORMED BAR ANCHOR
DBL	DOUBLE
DEG, °	DEGREE
DEMO	DEMOLISH, DEMOLITION
DET	DETAIL
DF	DOUGLAS FIR
DIA	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DICA	DRILLED-IN CONCRETE ANCHOR
DIM	DIMENSION
DIST	DISTANCE
DL	DEAD LOAD
DN	DOWN
DO	DITTO
DP	DEEP
DS	DRAG STRUT
DWG	DRAWING
DWL	DOWEL
(E) EXIST	EXISTING
EA	EACH, EPOXY (ADHESIVE) ANCHOR
EE	EACH END
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR

EMBED	EMBEDMENT
ENGR	ENGINEER
EQ	EARTHQUAKE, EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
ETC	ET CETERA
E-W	EAST-WEST
EW	EACH WAY
EXP	EXPANSION
EXT	EXTERIOR
EXT GR	EXTERIOR GRADE
FD	FLOOR DRAIN
FDN	FOUNDATION
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
FF	FAR FACE, FINISH FLOOR
FIN	FINISH
FLR	FLOOR
FLG	FLANGE
FS	FAR SIDE
FT, '	FEET
FTG	FOOTING
GA	GAGE, GAUGE
GALV	GALVANIZED
GB, GR BM	GRADE BEAM
GEN	GENERAL
GL, GLU LAM	GLUE LAMINATED WOOD
GLB	GLUE LAMINATED BEAM
GRD	GIRDER
GRND	GROUND
HDR	HEADER
HGR	HANGER
HK	HOOK
HD	HOLD DOWN
HORIZ	HORIZONTAL
HPT	HIGH POINT
HSB	HIGH STRENGTH BOLT
HSS	HOLLOW STRUCTURAL SECTION
HT	HEIGHT
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER

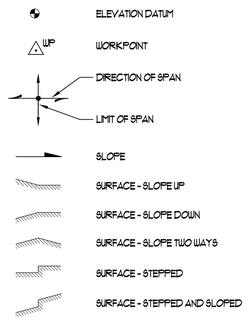
IF	INSIDE FACE
IN, "	INCH
INCL	INCLUDE
INFO	INFORMATION
INT	INTERIOR
U	ISOLATION JOINT
JST	JOIST
JT	JOINT
K	KIP (1,000 LB)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	LENGTH, ANGLE
LB, #	POUND
LEV	LEVEL
LF	LINEAL FOOT
LL	LIVE LOAD
LLBB	LONG LEGS BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION, LOCATE
LONGIT	LONGITUDINAL
LPT	LOW POINT
LSH	LONG SLOTTED HOLE
LSL	LAMINATED STRAND LUMBER
LVL	LAMINATED VENEER LUMBER
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MF	MOMENT FRAME
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MPH	MILES PER HOUR
MTL	METAL
NF	NEAR FACE
NIC	NOT IN CONTRACT
NLG	NAILING
NOM	NOMINAL
NO, #	NUMBER
N-S	NORTH-SOUTH
NS	NEAR SIDE
NTS	NOT TO SCALE

OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
OSH	OVERSIZED HOLE
OWJ	OPEN WEB JOIST
PA	POWDER ACTUATED
PCC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PEN	PENETRATION
PERP	PERPENDICULAR
PL	PLATE, PROPERTY LINE
PLCS	PLACES
PLF	POUNDS PER LINEAR FOOT
PLWD	PLYWOOD
PNL	PANEL
PP, PJP	PARTIAL JOINT PENETRATION
PRCST	PRECAST
PREFAB	PREFABRICATED
PS	PRESTRESSED CONCRETE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSL	PARALLEL STRAND LUMBER
PT	POINT, PRESSURE TREATED
P-T	POST-TENSIONED
PVC	POLYVINYL CHLORIDE
R, RAD	RADIUS
RD	ROOF DRAIN
REBAR	REINFORCING STEEL BARS
REF	REFERENCE
REINF	REINFORCING
REM	REMAINDER
REQD	REQUIRED
RTN	RETURN
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SHTHG	SHEATHING
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SOG	SLAB ON GRADE
SPC	SPACE, SPACED, SPACING

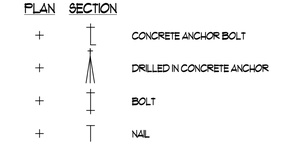
SPEC	SPECIFICATION
SQ	SQUARE
SST	STAINLESS STEEL
SSH	SHORT SLOTTED HOLE
STAG	STAGGER, STAGGERED
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STRUCT	STRUCTURAL
SPRT	SUPPORT
SW	SHEAR WALL
SWS	SHEAR WALL SCHEDULE
SYMM	SYMMETRICAL, SYMMETRY
T/	TOP OF
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TC	TOP CHORD
TBD	TO BE DETERMINED
TEMP	TEMPERATURE
THK	THICK, THICKNESS
THP	TENDON HIGH POINT
THRU	THROUGH
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TR	THREADED ROD
TRANS	TRANSVERSE
TYP	TYPICAL
TWS	THREADED WELDED STUD
UBC	UNIFORM BUILDING CODE
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W	WIDTH, WIDE FLANGE
W/	WITH
WD	WOOD
WHS	WELDED HEADED STUD
WJ	WOOD I-JOIST
W/O	WITHOUT
WP	WORK POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

SYMBOLS

GENERAL SYMBOLS



CONNECTORS



RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.



SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS FIRE
FIRE STATIO
27010 15th AVE S
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

ABBREVIATIONS AND SYMBOLS

SHEET:

S00.01

GENERAL STRUCTURAL NOTES

GENERAL

ALL TYPICAL DETAILS AND NOTES SHOWN ON THESE DRAWINGS ARE PART OF THE CONSTRUCTION CONTRACT AND SHALL BE PROVIDED BY THE CONTRACTOR. TYPICAL DETAILS MAY NOT NECESSARILY BE INDICATED ON THE PLANS, BUT SHALL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS.

CODES

THE EXISTING STRUCTURE DOES NOT CONFORM TO PRESENT EARTHQUAKE CODE REQUIREMENTS FOR NEW BUILDINGS. IT HAS BEEN SEISMICALLY REINFORCED IN ACCORDANCE WITH THE INTERNATIONAL EXISTING BUILDING CODE (1 IEBC), 2015 EDITION, AS ALLOWED BY SECTION 101.4.7 OF THE INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION, AND IS WITHIN THE CURRENT PRACTICE FOR THE RENOVATION OF EXISTING BUILDINGS OF THIS AGE AND TYPE OF CONSTRUCTION.

STANDARDS: REFERENCE TO ASTM AND OTHER STANDARDS SHALL MEAN THE LATEST EDITION IN EFFECT ON THE BID DATE, UNLESS NOTED IN THESE DOCUMENTS OR DESIGNATED BY THE GOVERNING CODE.

CRITERIA

EARTHQUAKE DESIGN DATA:

EXISTING SEISMIC-FORCE-RESISTING SYSTEM: ORIGINAL BUILDING:
BRICK AND CONCRETE MASONRY SHEAR WALLS
WOOD DECKING ROOF DIAPHRAGM

1984 ADDITION:
PLYWOOD SHEATHED DIAPHRAGM AND SHEAR WALLS

ANALYSIS PROCEDURE: LINEAR STATIC PROCEDURE (LSP)

PSEUDO SEISMIC BASE SHEAR:
(ASCE 41-13 SECTION 7.4.1.3.1) V_{BSE-N} = 545 KIPS
V_{BSE-2N} = 817 KIPS

SEISMIC RESPONSE COEFFICIENT: CI C2 CM SA=1E = 1.40
(ASCE 41 SECTION 7.4.1.3.1) CI C2 CM SA=2E = 1.40

SITE CLASS = D (ASCE 41-13 SECTION 2.4.1.6.2)

SXS-1N = 0.89 (ASCE 41-13 SECTION 2.4.1.6)
SX1-1N = 0.51 (ASCE 41-13 SECTION 2.4.1.6)

SS-2N = 1.33 (ASCE 41-13 SECTION 2.4.1.3)
S1-2N = 0.51 (ASCE 41-13 SECTION 2.4.1.3)
SXS-2N = 1.33 (ASCE 41-13 SECTION 2.4.1.6)
SX1-2N = 0.77 (ASCE 41-13 SECTION 2.4.1.6)

LEVEL OF SEISMICITY = HIGH (ASCE 41-13 SECTION 2.5)

ASCE 41-13 PERFORMANCE OBJECTION FOR
STRENGTHENED AND NEW STRUTURAL ELEMENTS = IMMEDIATE OCCUPANCY

GEOTECHNICAL

ALLOWABLE SOIL PRESSURE, LATERAL EARTH PRESSURE AND SOIL PROFILE TYPE ARE ASSUMED AND THEREFORE MUST BE VERIFIED BY THE CONTRACTOR'S GEOTECHNICAL ENGINEER OR INSPECTOR. IF SOILS ARE FOUND TO BE OTHER THAN ASSUMED OR FOUND TO BE EXPANSIVE, NOTIFY THE ARCHITECT OR STRUCTURAL ENGINEER FOR POSSIBLE REDESIGN.

FOOTINGS SHALL BEAR ON FIRM, UNDISTURBED EARTH OR CONTROLLED, COMPACTED STRUCTURAL FILL AT LEAST 18" BELOW LOWEST ADJACENT EXTERIOR FINISHED GRADE. FOOTING DEPTHS AND ELEVATIONS SHOWN ON DRAWINGS ARE MINIMUM AND FOR GUIDANCE ONLY; CONTRACTOR SHALL ESTABLISH ACTUAL ELEVATIONS IN FIELD. BACKFILL BEHIND ALL WALLS WITH FREE DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE IN AN APPROVED MANNER.

SOIL PROFILE TYPE	SITE CLASS "D"
ALLOWABLE VERTICAL DESIGN PRESSURE	2,000 PSF

LATERAL EARTH PRESSURE, LEVEL BACKFILL:

UNRESTRAINED (ACTIVE)	35 PCF
RESTRAINED (AT-REST)	55 PCF

SUBMITTALS

SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION OR CONSTRUCTION OF THESE ITEMS:

- CONCRETE MIX DESIGN
- CONCRETE REINFORCING
- STRUCTURAL STEEL

CONTRACTOR SHALL REVIEW AND STAMP SUBMITTALS PRIOR TO SUBMISSION. DIMENSIONS AND QUANTITIES ARE CONTRACTOR'S RESPONSIBILITY AND WILL NOT BE REVIEWED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS PLACED PRIOR TO RECEIPT OF REVIEWED SHOP DRAWINGS. CONTRACTOR SHALL ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW.

SHOP DRAWING SUBMITTALS PROCESSED BY THE ENGINEER ARE NOT CHANGE ORDERS. THE PURPOSE OF SHOP DRAWING SUBMITTALS BY THE CONTRACTOR IS TO DEMONSTRATE TO THE ENGINEER THAT THE CONTRACTOR UNDERSTANDS THE DESIGN CONCEPT BY INDICATING WHICH MATERIAL IS INTENDED TO BE FURNISHED AND INSTALLED AND BY DETAILING THE INTENDED FABRICATION AND INSTALLATION METHODS. IF DEVIATIONS, DISCREPANCIES, OR CONFLICTS BETWEEN SHOP DRAWING SUBMITTALS AND THE CONTRACT DOCUMENTS ARE DISCOVERED EITHER PRIOR TO OR AFTER SHOP DRAWING SUBMITTALS ARE PROCESSED BY THE ENGINEER, THE DESIGN DRAWINGS AND SPECIFICATIONS SHALL CONTROL AND SHALL BE FOLLOWED.

DEFERRED SUBMITTALS: DRAWINGS AND CALCULATIONS FOR BIDDER-DESIGNED COMPONENTS, SEALED BY THE WASHINGTON STATE REGISTERED PROFESSIONAL STRUCTURAL ENGINEER RESPONSIBLE FOR THE DESIGN, SHALL BE SUBMITTED (TO THE ARCHITECT) FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. DEFERRED SUBMITTALS INCLUDE:

SEISMIC BRACING AND ANCHORAGE OF MECHANICAL EQUIPMENT PER NOTES BELOW

SUBMITTALS OF BIDDER-DESIGNED COMPONENTS SHALL INCLUDE LOCATIONS, MAGNITUDES, AND DIRECTIONS OF ALL FORCES TRANSFERRED TO THE STRUCTURE. CALCULATIONS SUBMITTED FOR BIDDER-DESIGNED COMPONENTS ARE FOR INFORMATION ONLY AND WILL NOT BE REVIEWED.

SEISMIC BRACING AND ANCHORAGE OF MECHANICAL UNITS AND OTHER MECHANICAL AND ELECTRICAL FIXTURES NOT SPECIFICALLY SHOWN ON THE PROJECT DRAWINGS SHALL BE DESIGNED BY A REGISTERED,

STRUCTURAL ENGINEER IN THE STATE WHERE THE PROJECT IS LOCATED. THE MECHANICAL AND ELECTRICAL CONTRACTORS MUST RETAIN THE SERVICES OF A STRUCTURAL ENGINEER AND IS RESPONSIBLE FOR ALL COSTS RELATED TO THE PURCHASE AND INSTALLATION OF SEISMIC BRACING AND ANCHORAGE OF THEIR SYSTEMS.

SPECIAL INSPECTION PER IBC SECTION 1704, SHALL BE PERFORMED BY AN AGENCY APPROVED BY THE BUILDING OFFICIAL AND AS OUTLINED IN THE STRUCTURAL INSPECTION SCHEDULE, SHEET S00.03.

STRUCTURAL OBSERVATION SHALL BE PERFORMED PER IBC SECTION 1704.

EXISTING CONDITIONS: CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, MEMBER SIZES, AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS ARE INTENDED AS GUIDELINES ONLY AND MUST BE VERIFIED. EXISTING CONDITIONS SHOWN ON DRAWINGS ARE BASED EITHER ON SITE OBSERVATIONS, ORIGINAL DRAWINGS, OR WERE ASSUMED BASED ON EXPECTED CONDITIONS. IF EXISTING CONDITIONS DO NOT CLOSELY MATCH CONDITIONS SHOWN ON DRAWINGS, OR IF EXISTING MATERIALS ARE OF QUESTIONABLE OR SUBSTANDARD QUALITY, NOTIFY ENGINEER PRIOR TO COMMENCING ANY WORK.

CONTRACTOR-INITIATED CHANGES: SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT FOR APPROVAL AT LEAST 10 WORKING DAYS PRIOR TO FABRICATION AND CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS OR SUBMITTALS ONLY WILL NOT SATISFY THIS REQUIREMENT.

CONTRACTOR RESPONSIBILITIES: DRAWINGS REPRESENT DESIGN OF STRUCTURE IN COMPLETED FORM. CONTRACTOR SHALL BE RESPONSIBLE FOR METHODS, SEQUENCES, AND SAFETY PRECAUTIONS REQUIRED TO PERFORM WORK.

CONTRACTOR SHALL DESIGN AND PROVIDE TEMPORARY SHORING AND BRACING OF ALL STRUCTURAL MEMBERS, EXISTING CONSTRUCTION, AND SOIL EXCAVATION AS REQUIRED. SHORING AND BRACING SHALL NOT BE REMOVED UNTIL ALL FINAL CONNECTIONS HAVE BEEN COMPLETED IN ACCORDANCE WITH THE DRAWINGS, AND MATERIALS HAVE ACHIEVED DESIGN STRENGTH.

DISCREPANCIES: IN CASE OF DISCREPANCIES BETWEEN DRAWINGS, SPECIFICATIONS, REFERENCE STANDARDS, OR GOVERNING CODE, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN. CONTRACTOR SHALL NOTIFY THE ENGINEER OF DISCREPANCIES AND OBTAIN DIRECTION PRIOR TO PROCEEDING. NOTES ON INDIVIDUAL NOTED DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS. DO NOT SCALE DRAWINGS.

SPECIFICATIONS: REFER TO SPECIFICATIONS FOR INFORMATION IN ADDITION TO THESE NOTES AND DRAWINGS.

ARCHITECTURAL: REFER TO ARCHITECTURAL DRAWINGS FOR ELEVATIONS, SLOPES, DEPRESSIONS, NON-BEARING WALLS, FASCIA, ELEVATORS, STAIRS, CURBS, DRAINS, RAILINGS, WATERPROOFING, FINISHES, ETC.

RENOVATION

DEMOLITION: CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS BEFORE COMMENCING ANY DEMOLITION. SHORING SHALL BE INSTALLED TO SUPPORT EXISTING CONSTRUCTION AS REQUIRED AND IN A MANNER SUITABLE TO THE WORK SEQUENCES. EXISTING REINFORCING SHALL BE SAVED WHERE POSSIBLE AND AS NOTED ON DRAWINGS. SAW-CUTTING, IF AND WHERE USED, SHALL NOT CUT EXISTING REINFORCING THAT IS TO BE SAVED. DEMOLITION DEBRIS SHALL NOT BE ALLOWED TO DAMAGE OR OVERLOAD THE EXISTING STRUCTURE. CONSTRUCTION LOADING INCLUDING DEMOLITION DEBRIS ON EXISTING FLOOR SYSTEMS SHALL BE LIMITED TO 140 PSF.

1. ALL NEW OPENINGS THROUGH EXISTING CONCRETE OR MASONRY WALLS, SLABS, AND BEAMS SHALL BE ACCOMPLISHED BY SAWCUTTING WHEREVER POSSIBLE. ALL NEW OPENINGS SHALL BE SAWCUT NEAT AND CLEAN. NO OVERCUTTING AT OPENING CORNERS SHALL BE ALLOWED, UNLESS NOTED OTHERWISE. AS REQUIRED, CORE DRILL CORNERS AND CHIP, GRIND, OR CUT THE CORNERS TO PROVIDE REQUIRED DIMENSIONS.
2. CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND LOCATION OF MEMBERS PRIOR TO CUTTING ANY OPENINGS.
3. SMALL ROUND OPENINGS SHALL BE ACCOMPLISHED BY CORE DRILLING.

CONTRACTOR SHALL CHECK FOR DRY/ROT AT ALL EXTERIOR WALLS, EXISTING TOILET ROOM FLOORS AND WALLS, AREAS SHOWING WATER STAINS, AND ALL WOOD MEMBERS IN BASEMENT AND CRAWL SPACES. ALL ROT SHALL BE REMOVED AND DAMAGED MEMBERS SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE ENGINEER.

MASONRY RESTORATION: OF ALL EXTERIOR WALLS SHALL BE AS FOLLOWS: SCRAPE ALL LOOSE AND WEAKENED MORTAR OUT TO FULL DEPTH OF THE DETERIORATION, REMOVE AND REPLACE ANY LOOSE MASONRY UNITS. CHECK FOR LOOSE FACING BRICK VENEER AND TUCK-POINT ALL JOINTS SOLID. RESTORATION AND REPAIR SHALL BE PERFORMED SUCH THAT THE EXISTING STRUCTURE IS NOT WEAKENED OR LEFT UNSUPPORTED DURING PROCESS OF WORK. ALL EXTERIOR APPENDAGES, SUCH AS FIRE ESCAPES, CORNICES, AND EYEBROWS, SHALL BE EVALUATED FOR STRUCTURAL INTEGRITY AND THE CONDITION OF CONNECTIONS TO THE STRUCTURE. CONTRACTOR SHALL NOTIFY (ENGINEER) AS TO THE FINDINGS.

CONCRETE

REFERENCE STANDARDS: CONCRETE SHALL CONFORM TO ALL REQUIREMENTS OF THE FOLLOWING DOCUMENTS, EXCEPT AS MODIFIED BELOW:

ACI 301	"STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE"
ACI 318	"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
ACI 304	"GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE"
ACI 311	"GUIDE FOR CONCRETE INSPECTION"
ACI SP-15*	"FIELD REFERENCE MANUAL"

*A COPY SHALL BE KEPT IN THE CONTRACTOR'S FIELD OFFICE AT ALL TIMES.

MATERIALS

CEMENT	ASTM C150, C595
* AGGREGATES	ASTM C33
ADMIXTURES	ASTM C260, C494, C1017
** FLY ASH	ASTM C618, CLASS F OR C

* AGGREGATES THAT EXHIBIT DELETERIOUS ACTIVITY WHEN EVALUATED IN ACCORDANCE WITH ASTM C33 APPENDIX XI SHALL NOT BE USED. SAND EQUIVALENT FOR FINE AGGREGATE SHALL NOT EXCEED 75.

** MAXIMUM LOSS ON IGNITION SHALL BE 1%.

CONCRETE SHALL BE PROPORTIONED TO ACHIEVE A WORKABLE MIX THAT CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER. MIX DESIGNS SHALL BE SUBMITTED (TO THE ARCHITECT) FOR REVIEW BY ENGINEER PRIOR TO USE. COMPLY WITH IBC SECTION 1904. MIXES SHALL MEET OR EXCEED THE FOLLOWING CRITERIA:

TYPE OF CONSTRUCTION	SPECIFIED COMPRESSIVE STRENGTH (f'c)	TEST AGE	MAXIMUM WATER / CEMENT RATIO	EXPOSURE CLASS (ACI 318-11 TABLES 4.2.1 AND 4.3.1)
CONCRETE EXPOSED TO WEATHER	4,500 PSI	28 DAYS	0.5	F1, S0, P0, C1
CONCRETE EXPOSED TO EARTH	4,000 PSI	28 DAYS	0.4**	F0, S0, P0, C1
COLUMNS AND SHEAR WALLS	5,000 PSI	28 DAYS	0.5	AS INDICATED ABOVE
ALL OTHER CONCRETE UNLESS SPECIFIED BELOW	4,000 PSI	28 DAYS	**	F0, S0, P0, C0

** WATER-CEMENTITIOUS MATERIAL RATIO FOR INTERIOR SLABS SHALL BE 0.4 UNLESS OTHERWISE NOTED.

ADMIXTURES: ALL CONCRETE INCLUDING SLABS ON GRADE, SHALL HAVE A WATER-REDUCING ADMIXTURE COMPLYING WITH ASTM C494 ADDED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. CALCIUM CHLORIDE OR OTHER CHLORIDE ADMIXTURES SHALL NOT BE USED.

ALL HORIZONTAL SURFACES EXPOSED TO WEATHER SHALL CONTAIN AN AIR-ENTRAINING AGENT COMPLYING WITH ASTM C260. THE AMOUNT OF ENTRAINED AIR SHALL BE IN ACCORDANCE WITH TABLE 1 OF ASTM C94 FOR MODERATE EXPOSURE. TESTS FOR AIR CONTENT SHALL BE MADE AT THE DISCHARGE END OF THE TRUCKS PLACING HOSE IN ACCORDANCE WITH ASTM C173.

WATER/CEMENT RATIO: SHALL BE MEASURED BY WEIGHT AND BE BASED ON TOTAL CEMENTITIOUS MATERIAL, INCLUDING CEMENT AND POZZOLANS SUCH AS FLY ASH AND SILICA FUME.

MAXIMUM AGGREGATE SIZE: SHALL BE 1-1/2", BUT NOT MORE THAN 3/4 TIMES THE CLEAR DISTANCE BETWEEN REINFORCING BARS NOR 1/5 TIMES THE NARROWEST DIMENSION BETWEEN SIDES OF FORMS. MAXIMUM AGGREGATE SIZE FOR SLABS ON GRADE SHALL BE 1/3 TIMES THE SLAB THICKNESS.

SLUMP: REQUIRED FOR PROPER PLACEMENT SHALL BE DETERMINED BY CONTRACTOR AND SUPPLIER, AND INCLUDED IN MIX DESIGN SUBMITTALS. FIELD MEASURED SLUMP SHALL CONFORM TO SUBMITTED CONCRETE MIX DESIGN. SLUMP SHALL CONFORM TO ASTM C94.

SHOTCRETE: MAY BE USED IN LIEU OF CAST-IN-PLACE AS INDICATED ON THE DRAWINGS OR WHERE APPROVED BY THE STRUCTURAL ENGINEER. CONTRACTOR SHALL OBTAIN THE APPROVALS, TESTS, AND INSPECTIONS REQUIRED BY THE BUILDING DEPARTMENT FOR SHOTCRETE INSTALLATIONS.

SHOTCRETE PROCEDURE: MATERIALS, EQUIPMENT, PROPORTIONS, BATCHING AND MIXING, AND PLACEMENT SHALL BE IN ACCORDANCE WITH ACI 506R-90 AND IBC SECTION 1910. REINFORCING LAP SPLICES SHALL BE DETAILED ON SHOP DRAWINGS AS NON-CONTACT LAP SPLICES WITH A MINIMUM OF 2" CLEARANCE BETWEEN BARS.

EMBEDDED ITEMS: CONDUIT AND SLEEVES SHALL NOT BE EMBEDDED IN OR PASS THROUGH CONCRETE WITHOUT APPROVAL. ALUMINUM ITEMS SHALL NOT BE EMBEDDED IN CONCRETE. SUBMIT CONDUIT LAYOUT AND EMBEDDED ITEM PLANS (TO THE ARCHITECT) FOR REVIEW BY ENGINEER PRIOR TO PLACING CONCRETE.

BONDING AGENT: SHALL BE "CONCREVE 1030 LIQUID" BASF, OR APPROVED EQUAL, AND SHALL BE USED WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE. PLACE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, INCLUDING PREPARATION OF EXISTING SURFACES.

NON-SHRINK GROUT: SHALL BE "CONSTRUCTION GROUT" BY BASF, OR APPROVED EQUAL, AND SHALL BE MIXED AND PLACED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3,000 PSI MINIMUM).

CONSTRUCTION JOINTS IN WALLS SHALL BE KEYED IN ACCORDANCE WITH TYPICAL CONSTRUCTION JOINT DETAILS SHOWN ON DRAWINGS OR, AT CONTRACTOR'S OPTION, SHALL BE AN INTENTIONALLY ROUGHENED CONSTRUCTION JOINT DEFINED BY THE FOLLOWING:

1. SURFACE OF JOINT SHALL BE SAND BLASTED OR ROUGHENED WITH A CHIPPING HAMMER TO EXPOSE AGGREGATE EMBEDDED IN PREVIOUS POUR.
2. EXPOSED AGGREGATE SHALL PROTRUDE 1/4" MINIMUM.
3. JOINT SURFACE SHALL BE CLEANED AND LAITANCE REMOVED.
4. JOINT SHALL BE WETTED AND STANDING WATER REMOVED IMMEDIATELY BEFORE NEW CONCRETE IS PLACED.

SUBMIT CONSTRUCTION JOINT LAYOUT PLAN TO THE ARCHITECT FOR REVIEW BY ENGINEER PRIOR TO PLACING CONCRETE.

COORDINATION: SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DIMENSIONS OF DOOR AND WINDOW OPENINGS IN CONCRETE WALLS. SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF MISCELLANEOUS MECHANICAL OPENINGS THROUGH CONCRETE CONSTRUCTION. SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE, AND OTHER FINISH DETAILS AT EXPOSED CONCRETE SURFACES.

CONCRETE REINFORCEMENT

REFERENCE STANDARDS: CONCRETE REINFORCEMENT SHALL CONFORM TO ALL REQUIREMENTS OF THE FOLLOWING CODES, SPECIFICATIONS, AND STANDARDS, EXCEPT AS MODIFIED BELOW:

ACI 301	"STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE"
ACI SP-66	"ACI DETAILING MANUAL"
ACI 318	"BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
CRSI	"PLACING REINFORCING BARS"
CRSI	"MANUAL OF STANDARD PRACTICE" MSP-1
WRI	"WELDED WIRE FABRIC MANUAL OF STANDARD PRACTICE"

MATERIALS:

DEFORMED BARS	ASTM A615, GRADE 60
SEISMIC DEFORMED BARS*	ASTM A706, GRADE 60 LOW ALLOY
SMOOTH WELDED WIRE	ASTM A185, Fy=56KSI (W1.2) & 65KSI (W1.2)
DEFORMED BAR ANCHORS	ASTM A496, 75 KSI YIELD
BAR SUPPORTS	CONFORM TO CHAPTER 3, CRSI MSP-1
WELDED HEADED STUDS	ASTM A108

* SEISMIC DEFORMED BARS SHALL BE USED FOR LONGITUDINAL REINFORCEMENT IN COLUMNS, PILES, STRUT MEMBERS, COUPLING BEAMS, VERTICAL REINFORCEMENT IN SHEAR WALLS. ASTM A615, GRADE 60 BARS MAY BE USED IF:
(1) ACTUAL YIELD STRENGTH (BASED ON MILL TESTS) DOES NOT EXCEED THE SPECIFIED STRENGTH BY MORE THAN 18 KSI (RETESTS SHALL NOT EXCEED THIS VALUE BY MORE THAN AN ADDITIONAL 3 KSI) AND
(2) RATIO OF ACTUAL TENSILE STRENGTH TO ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25.
IF MILL TEST REPORTS ARE NOT AVAILABLE, REINFORCEMENT SHALL BE TESTED (PER THE SPECIFICATIONS) AT THE CONTRACTOR'S EXPENSE.

REINFORCEMENT SHALL BE PLACED AND SUPPORTED IN ACCORDANCE WITH CRSI MSP-1. REINFORCEMENT SHALL BE DETAILED IN ACCORDANCE WITH ACI SP-66. NO BENDING OR STRAIGHTENING OF REINFORCEMENT WILL BE PERMITTED AFTER PARTIAL EMBEDMENT IN CONCRETE.

LAP ALL CONTINUOUS REINFORCEMENT #5 AND SMALLER) 40 BAR DIAMETERS OR 2'-0" MINIMUM UNLESS OTHERWISE NOTED. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS (#5 AND SMALLER) 40 BAR DIAMETERS OR 2'-0" MINIMUM. LAPS OF LARGER BARS SHALL BE MADE IN ACCORDANCE WITH ACI 318-08, CLASS B. PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 1 CROSS WIRE SPACING + 2" OR 8" WHICHEVER IS GREATER.

MECHANICAL SPLICING OF REINFORCING BARS SHALL BE THE FOLLOWING SYSTEMS AND SHALL DEVELOP A MINIMUM OF 125% OF THE SPECIFIED YIELD STRENGTH OF THE BARS:

LENTON (ER-3967), DAYTON/RICHMOND (ER-4028), OR BAR-LOCK (ESR-2495)

CONCRETE COVER: UNLESS NOTED OTHERWISE, MINIMUM CONCRETE COVER FOR REINFORCEMENT SHALL BE:

SLABS ON GRADE	2" BOTTOM
INTERIOR WALL FACES	3/4" (#11 AND SMALLER) 1/2" (#14 AND #18)
EXPOSED FORMED WALL FACES	1 1/2" (#5 AND SMALLER), 2" (#6 AND LARGER)
FOOTINGS	3" (EXCEPT 2" TOP AND FORMED SIDES)
BEAMS, COLUMNS	1 1/2" (ALL REINFORCEMENT INCLUDING TIES, SPIRALS, STIRRUPS)

CONCRETE ANCHORAGE

POST-INSTALLED ANCHORS: INTO NORMAL-WEIGHT CONCRETE SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND NOTED ICC-ES REPORTS. SUBSTITUTES PROPOSED BY CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW BY ENGINEER WITH ICC-ES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. ANCHORS SHALL BE THE FOLLOWING TYPES:

EXPANSION ANCHORS: SHALL BE HILTI "KWIK BOLT TZ" (ESR-1917) OR SIMPSON STRONG BOLT (ESR-1771) OR POWERS "POWER STUD+ SD2".

UNDERCUT ANCHORS: SHALL BE USP DUC (ESR-1870) OR HILTI HDA (ESR-1546).

ADHESIVE ANCHORS: SHALL BE HILTI HIT-RE 500-V3 (ESR-3814) OR SIMPSON SET-XP (ESR-2508) OR POWERS PE1000+.

SCREW ANCHORS INTO CONCRETE SHALL BE SIMPSON TITEN HD (ESR-2713) OR POWERS SNAKE+ (ESR-2272).

DRIVE PINS AND OTHER POWDER-ACTUATED FASTENERS SHALL BE ITW RAMSET/RED HEAD (ESR-1799).

NO REINFORCING BARS SHALL BE CUT TO INSTALL ANCHORS. ALL DEFECTIVE ANCHOR HOLES SHALL BE GROUTED WITH EPOXY ADHESIVE AND A NEW HOLE DRILLED A MINIMUM OF 3 BOLT DIAMETERS AWAY. (POST-INSTALLED CONCRETE ANCHORS ARE NOT PERMITTED IN POST-TENSIONED CONCRETE SLABS, EXCEPT AS PERMITTED UNDER POST-TENSIONING NOTES.)

STEEL

REFERENCE STANDARDS: STRUCTURAL STEEL SHALL CONFORM TO ALL REQUIREMENTS OF THE FOLLOWING DOCUMENTS:

AISC 360	"SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS"
AISC 341	"SEISMIC PROVISIONS FOR STRUCTURAL STEEL BUILDINGS"
AISC 303	"CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"
AWS D1.1	"STRUCTURAL WELDING CODE - STEEL"
AISC 348	"SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS"
AISC 358	"PREQUALIFIED CONNECTIONS FOR SPECIAL AND INTERMEDIATE STEEL MOMENT FRAMES FOR SEISMIC APPLICATIONS"

STRUCTURAL STEEL, INCLUDING PLATES, ANGLES, CHANNELS, AND RODS, SHALL CONFORM TO ASTM A36, F_y = 36 KSI. WIDE FLANGE AND WT STEEL SHAPES SHALL CONFORM TO ASTM A992, F_y = 50 KSI. STEEL PIPE SHALL CONFORM TO ASTM A53, TYPE E OR S, GRADE B, F_y = 35 KSI. STRUCTURAL TUBING (HSS) SHALL CONFORM TO ASTM A500, GRADE B, F_y = 46 KSI. ANCHOR BOLTS AND CONNECTION BOLTS SHALL CONFORM TO ASTM A307.

WELDING: ALL WELDS SHALL COMPLY WITH AWS D1.1. WELDS SHALL BE MADE USING LOW HYDROGEN E70XX ELECTRODES. ONLY AWS PREQUALIFIED WELDED JOINTS SHALL BE USED. SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 STANDARD SYMBOLS. WELDS SHOWN ON DRAWINGS ARE MINIMUM SIZES. INCREASE WELD SIZE TO AWS MINIMUM SIZES BASED ON PLATE THICKNESS. WELDS NOT SPECIFIED SHALL BE CONTINUOUS (3/16") FILLET WELDS.

WELDS SHOWN ON DRAWINGS ARE FOR FINAL CONNECTIONS. UNLESS FIELD WELD SYMBOLS ARE SHOWN, CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF A WELD SHOULD BE SHOP OR FIELD WELDED IN ORDER TO FACILITATE STEEL ERECTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL JOINT PREPARATIONS AND WELDING PROCEDURES, INCLUDING ROOT OPENINGS AND FACE DIMENSIONS, GROOVE ANGLES, BACKING BARS, COPES, TAPERS, AND SURFACE ROUGHNESS.

WELDER CERTIFICATION: AWS OR WASHINGTON ASSOCIATION OF BUILDING OFFICIALS (WABO).

COLD-FORMED STEEL FRAMING: SHALL COMPLY WITH ASTM A653, TYPE SS, GRADE 33, UNLESS NOTED OTHERWISE. FOR SIZES SHOWN ON DRAWINGS, REFER TO ICC-ES ER-4943 DESIGNATIONS. ALL STUDS, TRACKS, AND JOISTS SHALL BE GALVANIZED PER ASTM A924, G60. FASTENINGS NOT SHOWN ON DRAWINGS SHALL BE AS RECOMMENDED BY THE MANUFACTURER.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com

©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · BRIAN T. MAI · 44400 · REGISTERED STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER

4/13/17

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS FIRE
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

GENERAL STRUCTURAL NOTES

SHEET:

S00.02

GENERAL STRUCTURAL NOTES

MASONRY ANCHORAGE

POST-INSTALLED MASONRY ANCHORS INTO SOLID GROUTED MASONRY SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND NOTED ICC-ES REPORTS. SUBSTITUTES PROPOSED BY CONTRACTOR.

SHALL BE SUBMITTED [TO THE ARCHITECT] FOR REVIEW BY ENGINEER WITH ICC-ES REPORTS INDICATING EQUIVALENT OR GREATER LOAD CAPACITIES. ANCHORS SHALL BE THE FOLLOWING TYPES:

EXPANSION ANCHORS SHALL BE SIMPSON WEDGE-ALL (ESR-1396) OR HILTI KWIK BOLT-3 (ICC-ESR 1385).

ADHESIVE ANCHORS SHALL BE SIMPSON SET (ESR-1772) OR HILTI HY-150 (ESR-2677).

WOOD

REFERENCE STANDARDS: WOOD SHALL CONFORM TO ALL REQUIREMENTS OF THE FOLLOWING DOCUMENTS:

AITC	"TIMBER CONSTRUCTION MANUAL"
NDS	"NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION"
AF AND PA SDPWS	"SUPPLEMENT SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC"
AITC A190.1	"STRUCTURAL GLUED LAMINATED TIMBER"
AITC A117	"STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED TIMBER OF SOFTWOOD SPECIES"
TPI 1	"NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION"

PLYWOOD: WOOD STRUCTURAL PANELS SHALL CONFORM TO REQUIREMENTS OF US DEPARTMENT OF COMMERCE PS-1 OR PS-2. EACH PANEL SHALL BEAR THE AMERICAN PLYWOOD ASSOCIATION (APA) GRADE MARK. SEE DRAWINGS FOR GRADE, GLUE TYPE AND THICKNESS.

SHEATHING: UNLESS NOTED OTHERWISE, ROOF AND FLOOR PANELS SHALL BE INSTALLED WITH LONG DIMENSION PERPENDICULAR TO SUPPORTS AND CONTINUOUS OVER 2 OR MORE SPANS. PLACE NAILS 3/8" FROM PANEL ENDS AND EDGES. (STAPLES, WHERE PERMITTED, SHALL HAVE A MINIMUM CROWN WIDTH OF 7/16" AND BE INSTALLED WITH CROWNS PARALLEL TO THE LONG DIMENSION OF FRAMING MEMBERS.) DRIVE ALL NAILS (AND STAPLES) FLUSH WITH SHEATHING SURFACE.

SAWN LUMBER: SAWN LUMBER SHALL BE IDENTIFIED BY THE GRADE MARK OF A LUMBER GRADING OR INSPECTION AGENCY APPROVED BY AN ACCREDETITATION BODY COMPLYING WITH US DEPARTMENT OF COMMERCE PS20. SAWN LUMBER SPECIES AND GRADES SHALL BE AS FOLLOWS:

USE	SIZE	SPECIES	GRADE
WALL STUDS	2x 3x	DOUG-FIR	#2
SILL PLATES	2x 3x	DOUG-FIR	#2
JOISTS	2x	DOUG-FIR	#2
JOISTS	3x 4x	DOUG-FIR	#2
BEAMS / POSTS	4x	DOUG-FIR	#1
BEAMS / POSTS	6x	DOUG-FIR	#1

GLUE LAMINATED MEMBERS (GLULAMS) SHALL BE MANUFACTURED IN CONFORMANCE WITH AITC 117 AND ASTM D3737. EACH MEMBER SHALL BEAR AN AITC OR APA IDENTIFICATION MARK AND BE ACCOMPANIED BY AN AITC CERTIFICATE OF CONFORMANCE. GLULAMS SHALL BE INDUSTRIAL GRADE WITH STRENGTH GRADES AS NOTED BELOW:

SIMPLE SPAN BEAMS: 24F-V4 (Fb=2400 PSI, Fv=240 PSI, E=1800 KSI)
CONTINUOUS BEAMS: 24F-V8 (Fb=2400 PSI, Fv=240 PSI, E=1800 KSI)

GLUED LAMINATED MEMBERS EXPOSED TO WEATHER OR MOISTURE SHALL BE TREATED WITH A NON-CORROSIVE, APPROVED PRESERVATIVE

CONNECTORS: DESIGN SHOWN ON DRAWINGS IS BASED ON CONNECTORS MANUFACTURED BY SIMPSON STRONG-TIE IN ACCORDANCE WITH CATALOG C-C-2015. SUBSTITUTES SHALL BE SUBMITTED WITH A CURRENT ICC-ES EVALUATION REPORT AND AN ITEMIZED SUBSTITUTION LIST FOR APPROVAL. CONNECTORS SHALL BE INSTALLED IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS. ALL TIMBER JOISTS AND MULTIPLE JOIST BEAMS SHALL BE CONNECTED TO FLUSH BEAMS WITH 'HU' SERIES JOIST HANGERS, UNLESS OTHERWISE NOTED.

ALL TIMBER CONNECTORS IN CONTACT WITH PRESSURE-TREATED WOOD THAT USES PRESERVATIVE CHEMICALS SHALL BE MANUFACTURED FROM ZMAX STEEL BY SIMPSON (G185 STEEL PER ASTM A653) OR TYPE 304 OR 316 STAINLESS STEEL. ALTERNATIVELY, CONNECTORS CAN BE POST HOT DIP GALVANIZED PER ASTM A123 OR MECHANICALLY GALVANIZED PER ASTM B633, CLASS SC OR GREATER. STAINLESS STEEL FASTENERS SHALL BE USED WITH STAINLESS STEEL CONNECTORS, AND HOT DIP GALVANIZED FASTENERS PER ASTM A153 SHALL BE USED WITH GALVANIZED CONNECTORS.

NAILING NOT SHOWN SHALL BE AS SHOWN IN IBC TABLE 2304.9.1. NAILS SHALL COMPLY WITH ASTM F1667. MINIMUM NAIL DIMENSIONS SHALL BE AS FOLLOWS:

SIZE	DIAMETER	LENGTH
SHTHG NAILS		
8d	0.131"	2 1/4"
10d	0.148"	2 1/2"
FRAMING NAILS		
10d	0.148"	3"
12d	0.148"	3 1/4"
16d	0.162"	3 1/2"

BOLTS SHALL CONFORM TO ASTM A307. LAG SCREWS SHALL CONFORM TO ASME B18.2.1. INSTALL WASHERS UNDER THE HEADS AND NUTS OF ALL BOLTS AND LAG SCREWS BEARING ON WOOD. INSTALLATION OF LAG SCREWS SHALL CONFORM TO 2012 NDS SECTION 11.1.4, AND INSTALLATION OF BOLTS SHALL CONFORM TO 2012 NDS SECTION 11.1.3.

PRESERVATIVE TREATED WOOD: ALL WOOD MEMBERS EXPOSED TO WEATHER AND SPECIFIED AS "PT" ON THE DRAWINGS SHALL BE PRESERVATIVE-TREATED IN ACCORDANCE WITH AWPA U1. EACH MEMBER SHALL BE IDENTIFIED BY THE QUALITY MARK OF AN INSPECTION AGENCY LISTED BY THE AMERICAN LUMBER STANDARDS TREATED WOOD PROGRAM, AND COMPLYING WITH IBC SECTION 2303.1.8.1. FASTENERS IN PRESERVATIVE OR FIRE TREATED WOOD MEMBERS SHALL BE HOT DIPPED ZINC COATED GALVANIZED PER ASTM A153.

SEE GENERAL STRUCTURAL NOTE REGARDING CONNECTORS FOR MATERIAL REQUIREMENTS OF CONNECTORS AND FASTENERS IN CONTACT WITH PRESSURE-TREATED MEMBERS. INSTALL 2 LAYERS OF ASPHALT-IMPREGNATED BUILDING PAPER BETWEEN UNTREATED LEDGERS, BLOCKING, ETC., AND CONCRETE OR MASONRY.

GENERAL WOOD FRAMING NOTES: THE FOLLOWING APPLY UNLESS OTHERWISE NOTED ON THE DRAWINGS:

A. ALL WOOD FRAMING DETAILS SHALL BE CONSTRUCTED TO THE MINIMUM STANDARDS OF THE IBC. MINIMUM NAILING SHALL CONFORM TO IBC TABLE 2304.9.1 OR CURRENT ICC-ES REPORT NER-272, UNLESS OTHERWISE NOTED. COORDINATE THE SIZE AND LOCATION OF ALL OPENINGS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.

B. WALL FRAMING: TWO STUDS MINIMUM SHALL BE INSTALLED AT THE ENDS OF ALL WALLS, UNLESS OTHERWISE NOTED. INSTALL SOLID BLOCKING FOR WOOD COLUMNS THROUGH FLOOR SPACES TO SUPPORTS BELOW.

ALL STUD WALLS SHALL HAVE THEIR LOWER WOOD PLATES ATTACHED TO WOOD FRAMING BELOW WITH 16d NAILS AT 12" OC STAGGERED OR BOLTED TO CONCRETE WITH 5/8" DIAMETER ANCHOR BOLTS @ 4'-0" OC PER IBC SECTION 2308.6 (EMBED 7"), UNLESS OTHERWISE NOTED. 3" x 3" x 0.229" PLATE WASHERS SHALL BE USED WITH ALL SILL PLATE ANCHOR BOLTS PER SDPWS SECTION 4.3.6.4.3. INDIVIDUAL MEMBERS OF BUILT-UP STUD POSTS SHALL BE NAILED TO EACH OTHER WITH 16d @ 12" OC STAGGERED.

C. FLOOR AND ROOF FRAMING: INSTALL DOUBLE JOISTS UNDER ALL PARALLEL PARTITIONS THAT EXTEND OVER MORE THAN HALF THE JOIST LENGTH AND AROUND ALL OPENINGS IN FLOORS OR ROOFS. INSTALL SOLID BLOCKING AT ALL BEARING POINTS. TOENAIL JOISTS TO SUPPORTS WITH TWO 16d NAILS. ATTACH TIMBER JOISTS TO FLUSH HEADERS OR BEAMS WITH SIMPSON METAL JOIST HANGERS IN ACCORDANCE WITH NOTES ABOVE. NAIL ALL MULTI-JOIST BEAMS TOGETHER WITH 16d @ 12" OC STAGGERED.

D. ROOF AND FLOOR SHEATHING SHALL BE LAID UP WITH GRAIN PERPENDICULAR TO SUPPORTS AND NAILED AS SHOWN ON THE DRAWINGS. INSTALL APPROVED PANEL EDGE CLIPS CENTERED BETWEEN JOISTS/TRUSSES AT UNBLOCKED ROOF SHEATHING EDGES. ALL FLOOR SHEATHING EDGES SHALL HAVE APPROVED TONGUE-AND- GROOVE JOINTS OR SHALL BE SUPPORTED WITH SOLID BLOCKING. ALLOW 1/8" SPACING AT ALL PANEL EDGES AND ENDS OF FLOOR AND ROOF SHEATHING. TOENAIL BLOCKING TO SUPPORTS WITH 16d @ 12" OC. AT BLOCKED FLOOR AND ROOF DIAPHRAGMS, INSTALL FLAT 2x BLOCKING AT ALL UNFRAMED PANEL EDGES AND NAIL WITH EDGE NAILING SPECIFIED.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · BRIAN T. MAY · 44400 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER
4/13/17

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS FIRE
FIRE STATION 66
27010 15th AVE S
DES MOINES, WA 98198

PROJECT # 262016.018
BID SET
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

GENERAL STRUCTURAL NOTES

SHEET:
S00.03

SPECIAL INSPECTION SCHEDULE

SEE EARTHQUAKE DESIGN DATA SECTION OF THE GENERAL STRUCTURAL NOTES ON SHEET [S00.01] FOR SEISMIC-FORCE RESISTING SYSTEMS. SEISMIC-FORCE-RESISTING SYSTEMS (INCLUDING DRAG STRUTS AND CHORDS) ARE SUBJECT TO SPECIAL INSPECTION IN ACCORDANCE WITH THE FOLLOWING SEISMIC AND NON-SEISMIC TABLES. STRUCTURAL SYSTEMS NOT PART OF THE SEISMIC-FORCE-RESISTING SYSTEM NEED ONLY BE INSPECTED IN ACCORDANCE WITH NON-SEISMIC TABLES.

STRUCTURAL STEEL SPECIAL INSPECTION

SPECIAL INSPECTION FOR STRUCTURAL STEEL SHALL BE ACCORDANCE WITH AISC 341, AISC 360, AND THE FOLLOWING INFORMATION.

TASK - INDICATES WHETHER TO OBSERVE OR PERFORM (OR BOTH) THE INSPECTION TASK.
DOC - THE INSPECTOR SHALL PREPARE REPORTS INDICATING THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
O - OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS, OPERATIONS NEED NOT BE DELAYED PENDING INSPECTIONS. FREQUENCY OF OBSERVATIONS SHALL BE ADEQUATE TO CONFIRM THAT THE WORK HAS BEEN PERFORMED IN ACCORDANCE WITH THE APPLICABLE DOCUMENTS.
P - PERFORM, FOR EACH JOINT OR MEMBER PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM.
QC - TASKS INDICATED AS 'QC' SHALL BE EXECUTED BY THE FABRICATOR AND ERECTOR IN ACCORDANCE WITH AISC 360 CHAPTER N
QA - TASKS INDICATED AS 'QA' SHALL BE EXECUTED BY THE SPECIAL INSPECTOR IN ACCORDANCE WITH AISC 360 CHAPTER N.

WELDING

INSPECTION TASKS PRIOR TO WELDING			REFERENCED STANDARD	IBC REFERENCE
INSPECTION TASKS PRIOR TO WELDING	QC	QA	AISC 360 CH. N & AWS D1.1	1705.2.1
WELDING PROCEDURE SPECIFICATIONS (WPSS) AVAILABLE	P	P		
MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	P	P		
MATERIAL IDENTIFICATION (TYPE/GRADE)	O	O		
WELDER IDENTIFICATION SYSTEM	O	O		
FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY), JOINT PREPARATION, DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION), BACKING TYPE AND FIT (IF APPLICABLE)	O	O		
CONFIGURATION AND FINISH OF ACCESS HOLES	O	O		
FIT-UP OF FILLET WELDS, DIMENSIONS (ALIGNMENT, GAPS AT ROOT), CLEANLINESS (CONDITION OF STEEL SURFACES), TACKING (TACK WELD QUALITY AND LOCATION)	O	O		
CHECK WELDING EQUIPMENT	O	-		
INSPECTION TASKS DURING WELDING			**REFERENCED STANDARD**	**IBC REFERENCE**
INSPECTION TASKS DURING WELDING	QC	QA	AISC 360 CH. N & AWS D1.1	1705.2.1
USE OF QUALIFIED WELDERS	O	O		
CONTROL AND HANDLING OF WELDING CONSUMABLES, PACKAGING, EXPOSURE CONTROL	O	O		
NO WELDING OVER CRACKED TACK WELDS	O	O		
ENVIRONMENTAL CONDITIONS, WIND SPEED WITHIN LIMITS, PRECIPITATION AND TEMPERATURE	O	O		
WPS FOLLOWED, SETTINGS ON WELDING EQUIPMENT, TRAVEL SPEED, SELECTED WELDING MATERIALS, SHIELDING GAS TYPE/FLOW RATE, PREHEAT APPLIED, INTERPASS TEMPERATURE MAINTAINED (MIN / MAX), PROPER POSITION (F, V, H, OH)	O	O		
WELDING TECHNIQUES, INTERPASS AND FINAL CLEANING, EACH PASS WITHIN PROFILE LIMITATIONS, EACH PASS MEETS QUALITY REQUIREMENTS	O	O		
INSPECTION TASKS AFTER WELDING			**REFERENCED STANDARD**	**IBC REFERENCE**
INSPECTION TASKS AFTER WELDING	QC	QA	AISC 360 CH. N & AWS D1.1	1705.2.1
WELDS CLEANED	O	O		
SIZE, LENGTH AND LOCATION OF WELDS	P	P		
WELDS MEET VISUAL ACCEPTANCE CRITERIA, CRACK PROHIBITION, WELD / BASE-METAL FUSION, CRATER CROSS SECTION, WELD PROFILES, WELD SIZE, UNDERCUT, POROSITY	P	P		
ARC STRIKES	P	P		
K-AREA [1]	P	P		
BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	P	P		
REPAIR ACTIVITIES	P	P		
DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	P	P		

THE FABRICATOR OR ERECTOR, AS APPLICABLE, SHALL MAINTAIN A SYSTEM BY WHICH A WELDER WHO HAS WELDED A JOINT OR MEMBER CAN BE IDENTIFIED, STAMPS, IF USED, SHALL BE THE LOW-STRESS TYPE.

SEISMIC REQUIREMENTS FOR WOOD CONSTRUCTION

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. FIELD GLUING OF SEISMIC ELEMENTS	X		AF&PA SDPWS-2015	1705.12.2
2. NAILING, BOLTING, ANCHORING AND FASTENING OF WOOD SHEAR WALLS, WOOD DIAPHRAGM, COLLECTORS/DRAG STRUTS, BRACES, SHEAR PANELS AND HOLDOWNS		X	AF&PA SDPWS-2015	1705.12.2

SPECIAL INSPECTION OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD[a]	IBC REFERENCE
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND PLACEMENT	-	X	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4
2. REINFORCING BAR WELDING:				
a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706	-	X	AWS D1.4 ACI 318: 26.6.4	-
b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"	-	X		
c. INSPECT ALL OTHER WELDS	X	-		
3. INSPECT ANCHORS CAST IN CONCRETE.	-	X	ACI 318: 17.8.2	-
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS[b]				
a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	X	-	ACI 318: 17.8.2.4	-
b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a	-	X	ACI 318: 17.8.2	-
5. VERIFY USE OF REQUIRED DESIGN MIX	-	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3, 1908.10
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE	X	-	ASTM C 172 ASTM C 31 ACI 318: 26.4, 26.12	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	X	-	ACI 318: 26.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	-	X	ACI 318: 26.5.3-26.5.5	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR:				
a. APPLICATION OF PRESTRESSING FORCES	X	-	ACI 318: 26.10	-
b. GROUTING OF BONDED PRESTRESSING TENDONS	X	-		
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	-	X	ACI 318: 26.8	-
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	-	X	ACI 318: 26.11.2	-
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	-	X	ACI 318: 26.11.1.2 (b)	-

(a) WHERE APPLICABLE, SEE ALSO IBC SECTION 1705.12, SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE.

(b) SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF WORK.

REQUIRED VERIFICATION AND INSPECTION OF SOILS

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC	REFERENCE STANDARD	IBC REFERENCE
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	-	X	-	1705.6
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	-	X	-	1705.6
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	-	X	-	1705.6
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	X	-	-	1705.6
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	-	X	-	1705.6

NONSTRUCTURAL COMPONENTS

SEISMIC REQUIREMENTS FOR NONSTRUCTURAL COMPONENTS

VERIFICATION AND INSPECTION TASK	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
1. DESIGNATED SEISMIC SYSTEM				
a. VERIFY THE LABEL, ANCHORAGE AND MOUNTING CONFORMS TO THE CERTIFICATE OF COMPLIANCE		X	ASCE 7 SECTION 13.2	1705.12.4
2. ARCHITECTURAL COMPONENTS				
a. ERECTION AND FASTENING OF b. EXTERIOR CLADDING [a] [b]		X	-	1705.12.5
b. ERECTION AND FASTENING OF INTERIOR AND [c] EXTERIOR NONBEARING WALLS [a] [b]		X	-	1705.12.5
c. ERECTION AND FASTENING OF INTERIOR AND EXTERIOR VENEER [a] [b]		X	-	1705.12.5
d. ANCHORAGE OF ACCESS FLOORS		X	-	1705.12.5.1
3. PLUMBING, MECHANICAL AND ELECTRICAL COMPONENTS				
a. ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY AND STANDBY POWER SYSTEMS		X	-	1705.12.6
b. ANCHORAGE OF OTHER ELECTRICAL EQUIPMENT		X	-	1705.12.6
c. INSTALLATION AND ANCHORAGE OF PIPING SYSTEM DESIGNED TO CARRY HAZARDOUS MATERIALS AND THERE ASSOCIATED MECHANICAL UNITS		X	-	1705.12.6
d. INSTALLATION AND ANCHORAGE OF DUCTWORK DESIGNED TO CARRY HAZARDOUS MATERIALS		X	-	1705.12.6
e. INSTALLATION AND ANCHORAGE OF VIBRATION ISOLATION SYSTEM WHERE THE NOMINAL CLEARANCE BETWEEN THE EQUIPMENT SUPPORT FRAME AND RESTRAIN IS 1/4 INCH OR LESS		X	-	1705.12.6
4. STORAGE RACK				
a. ANCHORAGE OF STORAGE RACKS 8FT OR GREATER IN HEIGHT		X	-	1705.12.7

(a) SPECIAL INSPECTION IS NOT REQUIRED FOR EXTERIOR CLADDING, INTERIOR AND EXTERIOR NONBEARING WALLS AND INTERIOR AND EXTERIOR VENEER 30FT OR LESS IN HEIGHT ABOVE GRADE (OR A WALKING SURFACE).

(b) SPECIAL INSPECTION IS NOT REQUIRED FOR EXTERIOR CLADDING AND INTERIOR AND EXTERIOR VENEER WEIGHING 5 PSF OR LESS.

(c) SPECIAL INSPECTION IS NOT REQUIRED FOR INTERIOR NONBEARING WALLS WEIGHING 15 PSF OR LESS.

TESTS

CONCRETE

a. VERIFICATION OF SPECIFIED CONCRETE COMPRESSIVE STRENGTH, f'_c, IN ACCORDANCE WITH ACI 318-14 SECTION 26.12.

b. VERIFICATION OF SPECIFIED AIR CONTENT, SLUMP, AND TEMPERATURE IN ACCORDANCE WITH ACI 318-14 SECTION 26.12 AT TIMES FRESH CONCRETE IS SAMPLED.

c. VERIFICATION OF SPECIFIED SHOTCRETE COMPRESSIVE STRENGTH, f'_c, IN ACCORDANCE WITH IBC 1908.10 AT LEAST ONCE PER SHIFT, BUT NOT LESS THAN 50 CUBIC YARDS OF SHOTCRETE.

GEOTECHNICAL

a. VERIFICATION OF SPECIFIED FILL CLASSIFICATION MOISTURE CONTENT, AND DENSITY IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

MASONRY

a. VERIFICATION OF SLUMP OF FLOW AND VISUAL STABILITY INDEX (VSI) AS DELIVERED TO THE PROJECT SITE IN ACCORDANCE WITH SPECIFICATION ARTICLE 1.5 B.1.c.3 FOR SELF CONSOLIDATING GROUT.

b. VERIFICATION OF f'm AND FAAC IN ACCORDANCE WITH SPECIFICATION ARTICLE 1.4 B PRIOR TO CONSTRUCTION, EXCEPT WHERE SPECIFICALLY EXEMPTED BY THIS CODE. VERIFY SPECIFIED COMPRESSIVE STRENGTH, f'm, OF MASONRY EVERY 5,000 SQUARE FEET DURING CONSTRUCTION.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX: 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.



4/13/17

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS FIRE
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

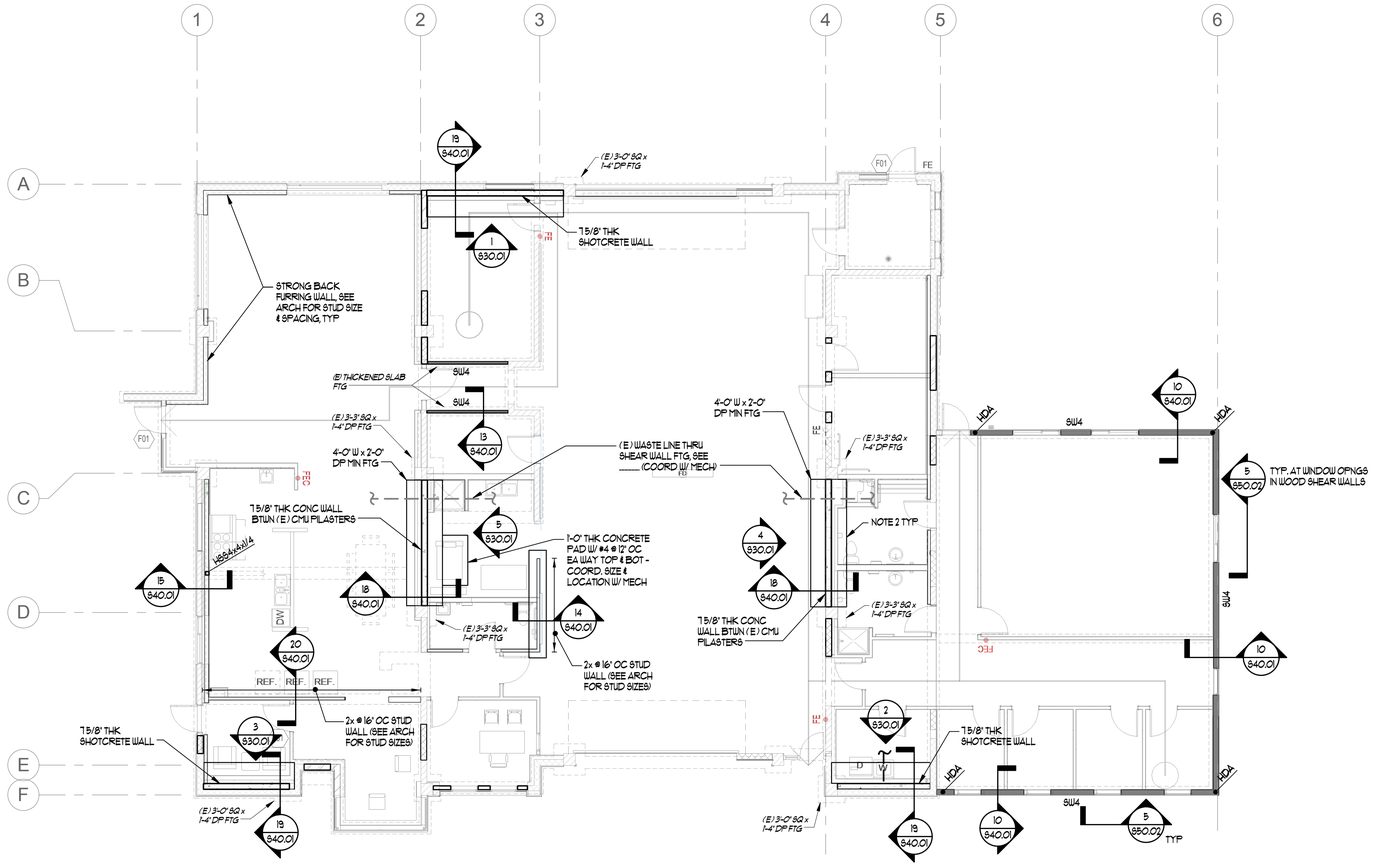
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

SPECIAL INSPECTIONS TABLE

SHEET:

S00.04



FOUNDATION PLAN
1/8" = 1'-0"

FOUNDATION PLAN NOTES:

1. SEE ARCHITECTURAL / MECHANICAL / CIVIL / ELEC / UTILITIES DRAWINGS FOR UNDERSLAB AND BELOW GRADE PIPING. COORDIATION FOUNDATION DEPTHS IN ACCORDANCE WITH 5/850.01. REPAIR SLABS-ON-GRADE PER IT 4 18/850.01.
2. CONTRACTOR TO COORDINATE SLAB DEMO EXTENTS TO INSTALL NEW FOUNDATIONS, SEE ARCHITECTURAL DRAWINGS.
3. BOTTOM OF NEW FOOTINGS SHALL MATCH BOTTOM OF EXISTING FOOTINGS UNO. OVEREXCAVATE AND PLACE COMPACTED STRUCTURAL FILL BELOW ALL NEW FOOTINGS AS REQUIRED. SEE GENERAL STRUCTURAL NOTES FOR ASSUMED SOIL BEARING CAPACITY.

LEGEND
(SEE S00.01 FOR ABBREVIATIONS)

- EXISTING WALL THIS LEVEL
- EXISTING CMU WALL THIS LEVEL
- EXISTING BRICK MASONRY WALL THIS LEVEL (BMU)
- CONCRETE/SHOTCRETE SHEAR WALL, SEE S30.01
- CMU INFILL PER 5/840.01
- SW X — WOOD SHEAR WALL TYPE SW X PER 20/850.02
- HDX — HOLDOWN PER SCHEDULE 17/850.02

SHEET NOTE:

ALL DIMENSIONS, ELEVATION, AND LOCATIONS OF EXISTING STRUCTURAL COMPONENTS ARE BASED ON INFORMATION GATHERED FROM ORIGINAL DRAWINGS OR CURSORY FIELD MEASUREMENTS AND ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL FILED MEASURE AND VERIFY ALL CONDITIONS PRIOR TO COMMENCING ANY WORK. NOTIFY ENGINEER WHERE CONDITIONS VARY FROM THOSE SHOWN.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · MATTHEW J. MILLER · 44400 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER
4/13/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS FIRE

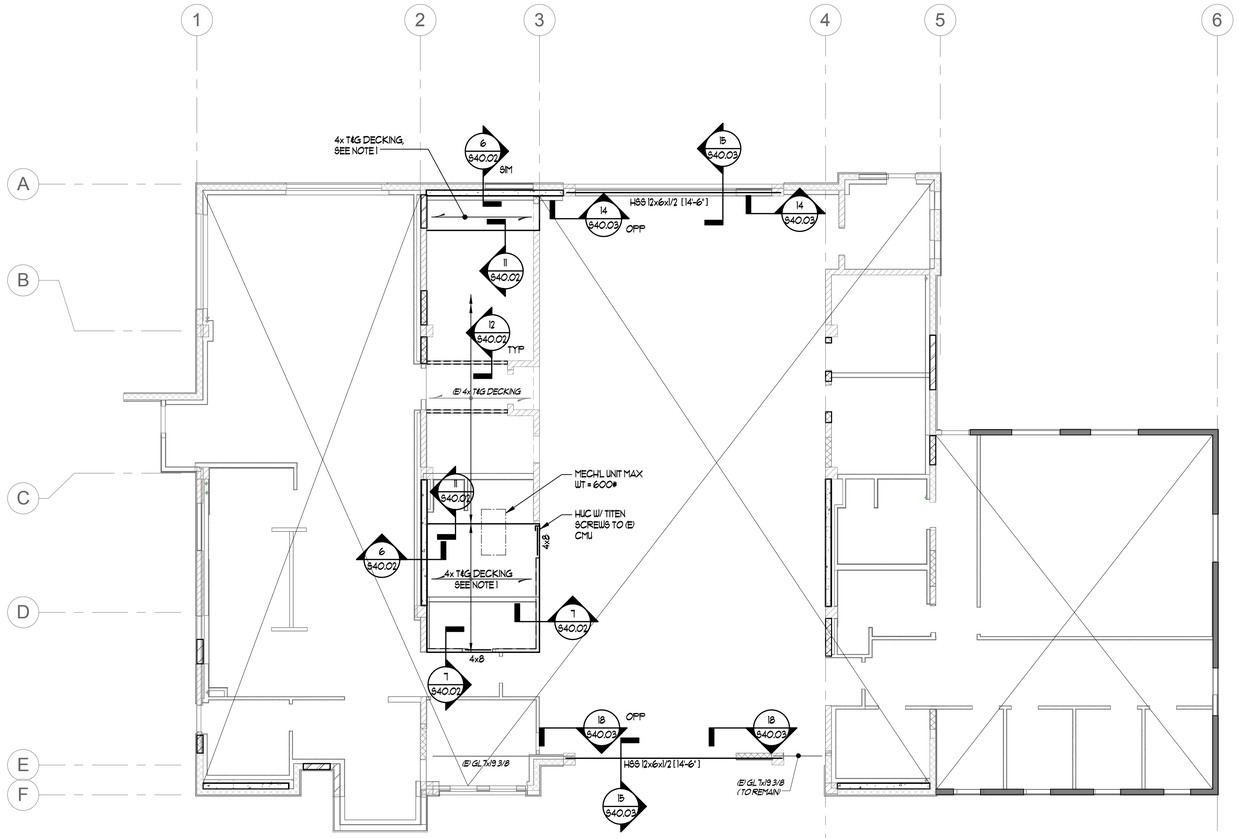
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018
BID SET
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

FOUNDATION PLAN

SHEET:
S21.11



MECHANICAL PLATFORM FRAMING PLAN

1/8" = 1'-0"

MECHANICAL PLATFORM FRAMING PLAN NOTES:

1. DECKING SHALL BE 4x NOMINAL TONGUE & GROOVE DECKING LAID CONTINUOUS. ATTACHE DECKING TO PERPENDICULAR FRAMING WITH FLAT HEAD 1/4" DIA x 5 1/2" WOOD SCREWS @ 6" OC AND TO PARALLEL FRAMING WITH FLAT HEAD 1/4" DIA x 5 1/2" WOOD SCREWS @ 12" OC.

   T&G DECKING SHALL BE SOLID SAWN, DOUGLAS FIR SELECT DEX, VISUALLY GRADED DECKING WITH THE FOLLWING MINIMUM ALLOWABLE DESIGN PROPERTIES:

   Fb = 2,000 PSI
   E = 1,800 KSI

LEGEND

(SEE S2.11 FOR LEGEND ITEMS UNO)

SPAN DIRECTION OF DECK / FRAMING MEMBERS

(X - X') TOP OF STEEL BEAM ELEVATION

SHEET NOTE:

ALL DIMENSIONS, ELEVATION, AND LOCATIONS OF EXISTING STRUCTURAL COMPONENTS ARE BASED ON INFORMATION GATHERED FROM ORIGINAL DRAWINGS OR CURSORY FIELD MEASUREMENTS AND ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL FILED MEASURE AND VERIFY ALL CONDITIONS PRIOR TO COMMENCING ANY WORK. NOTIFY ENGINEER WHERE CONDITIONS VARY FROM THOSE SHOWN.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · 44400 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER
4/13/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS FIRE

FIRE STATION 66
27010 15th AVE S
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

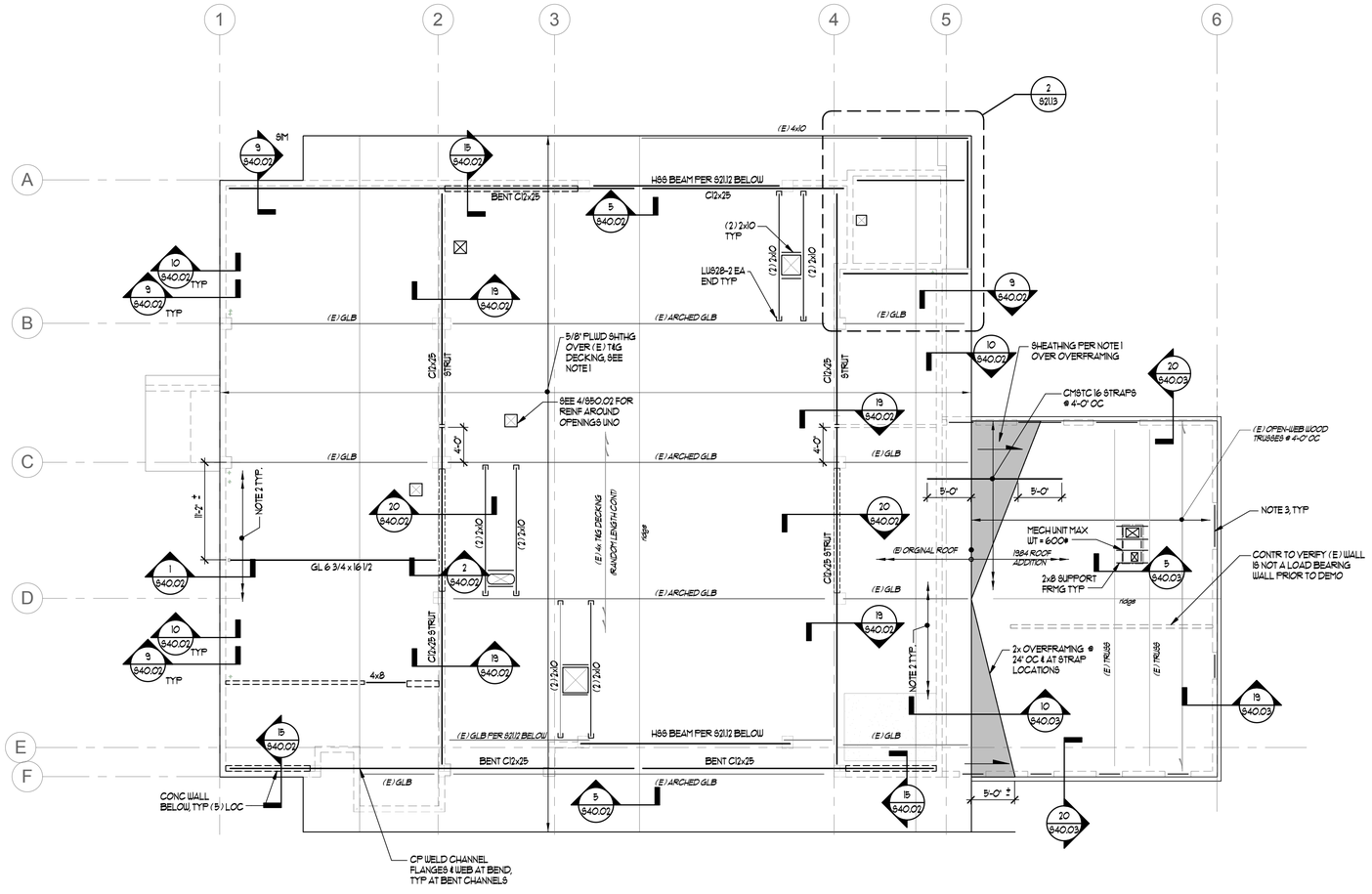
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

MECHANICAL PLATFORM FRAMING PLAN

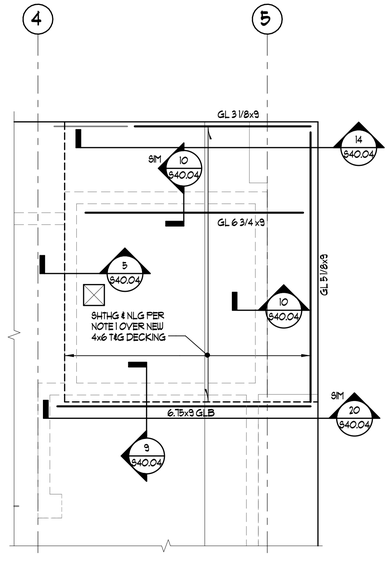
SHEET:

S21.12



ROOF FRAMING PLAN

1/8" = 1'-0"



PARTIAL ROOF FRAMING PLAN 2

1/4" = 1'-0"

LEGEND

- SPAN DIRECTION OF DECK / FRAMING MEMBERS
- STRUCTURAL WALL BELOW THIS LEVEL
- EXISTING WALL BELOW THIS LEVEL
- DRAG STRUT SPLICE PER 4/S40.02

SHEET NOTE:

ALL DIMENSIONS, ELEVATION, AND LOCATIONS OF EXISTING STRUCTURAL COMPONENTS ARE BASED ON INFORMATION GATHERED FROM ORIGINAL DRAWINGS OR CURSORY FIELD MEASUREMENTS AND ARE SHOWN FOR INFORMATION ONLY. CONTRACTOR SHALL FILED MEASURE AND VERIFY ALL CONDITIONS PRIOR TO COMMENCING ANY WORK. NOTIFY ENGINEER WHERE CONDITIONS VARY FROM THOSE SHOWN.

PLAN NOTES:

1. INSTALL 5/8" PLYWOOD SHEATHING (PANEL SPAN RATING 32/16) OVER EXISTING TONGUE AND GROOVE DECKING. NAIL PLYWOOD SHEATHING AT ALL PANEL EDGES W/ 10d @ 2 1/2" OC. NAIL PANEL FIELD W/ 10d @ 4" OC EACH WAY. CONTRACTOR SHALL VERIFY THICKNESS OF EXISTING TONGUE AND GROOVE DECKING AND VERIFY THAT NAILS DO NOT PENETRATE THROUGH UNDERSIDE OF DECKING AND BECOME EXPOSED.
2. INSTALL OUT OF PLANE WALL TIES AT EXTERIOR CMU / BRICK WALLS AND TO INTERIOR WALLS PER.
3. HEADERS AT EXTERIOR WOOD-FRAMED WALLS SHALL BE (3)2x8, UNO.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · MATTHEW J. MIDDLETON · 44400 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER
4/13/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS FIRE

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

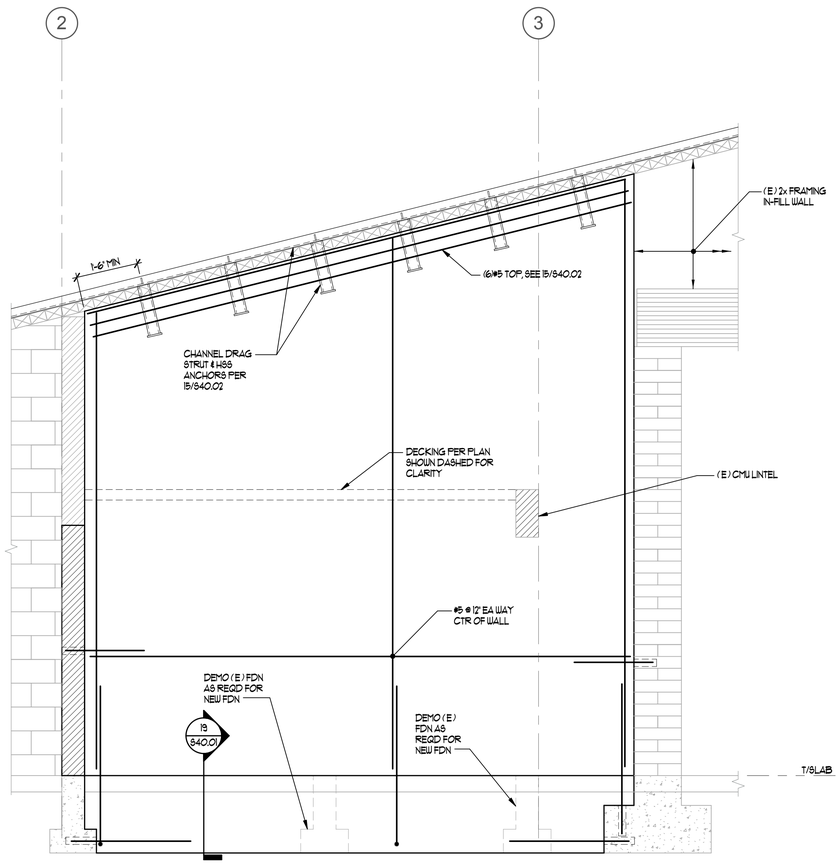
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

ROOF FRAMING PLAN

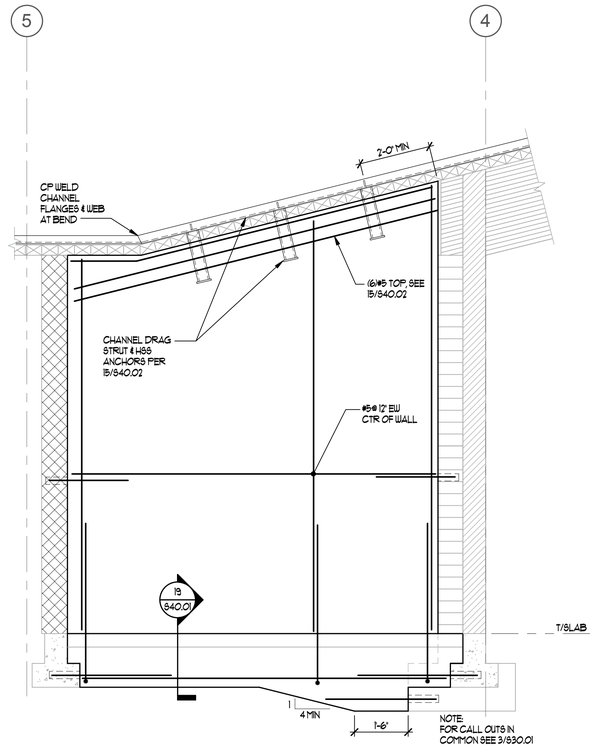
SHEET:

S21.13



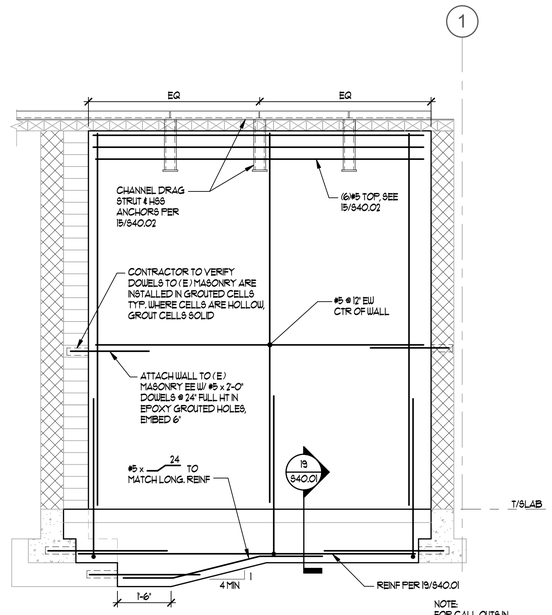
ELEVATION ON GRID A (LOOKING EAST) 1
1/2" = 1'-0"

NOTE.
FOR CALL OUTS IN COMMON SEE 3 & 5/S30.01



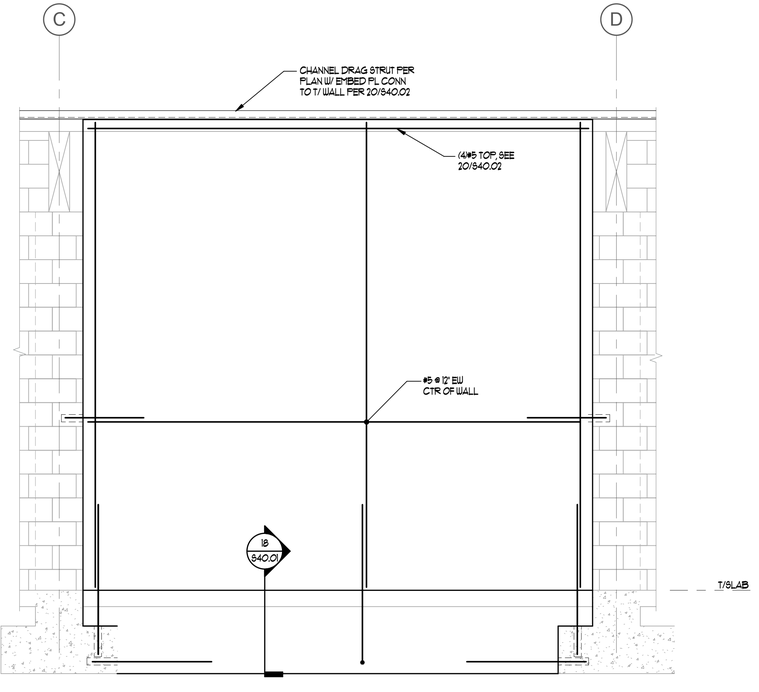
ELEVATION BTWN GRID 4 AND 5 (LOOKING WEST) 2
1/2" = 1'-0"

NOTE.
FOR CALL OUTS IN COMMON SEE 3/S30.01



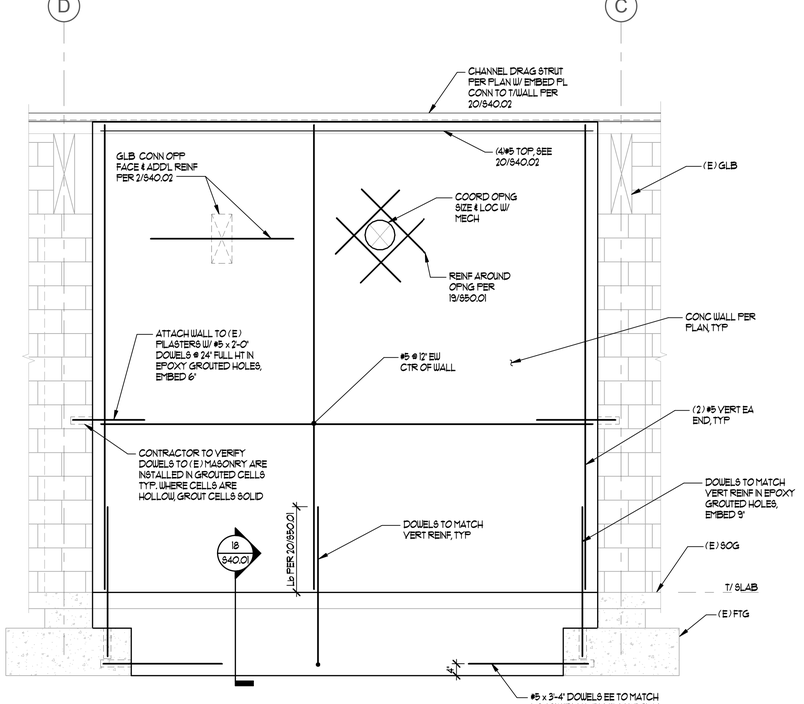
ELEVATION ON GRID F (LOOKING WEST) 3
1/2" = 1'-0"

NOTE.
FOR CALL OUTS IN COMMON SEE 5/S30.01



ELEVATION ON GRID 4 (LOOKING SOUTH) 4
1/2" = 1'-0"

NOTE.
FOR CALL OUTS IN COMMON SEE 5/S30.01



ELEVATION ON GRID 2 (LOOKING NORTH) 5
1/2" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · MATTHEW J. SWANSON · 44400 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER
4/13/17

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS FIRE

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

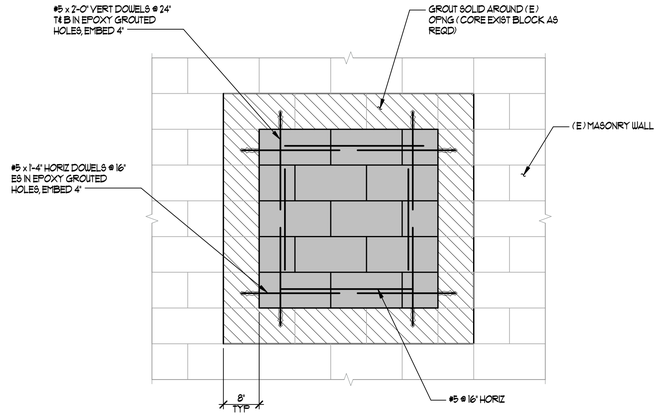
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

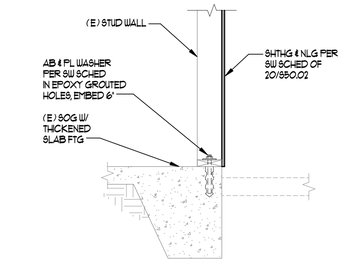
CONCRETE / SHOTCRETE ELEVATIONS

SHEET:

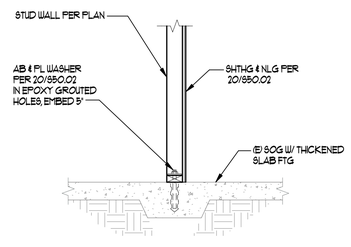
S30.01



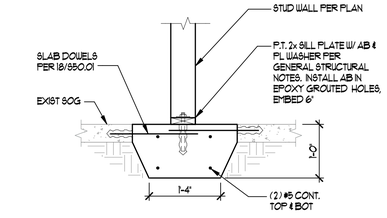
TYPICAL MASONRY INFILL 5
3/4" = 1'-0"



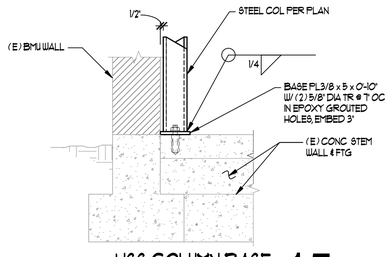
SHEAR WALL STRENGTHENING 10
3/4" = 1'-0"



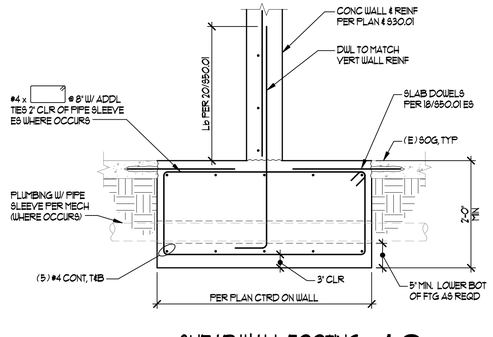
SHEAR WALL STRENGTHENING 13
3/4" = 1'-0"



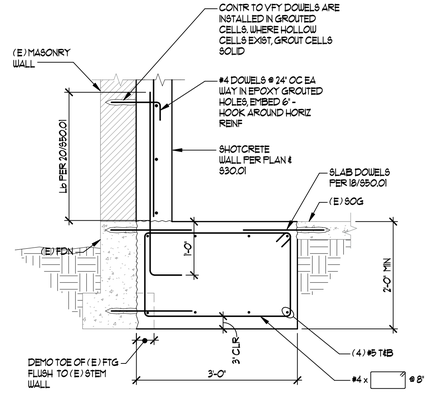
STRIP FOOTING IN EXIST SOG 14
3/4" = 1'-0"



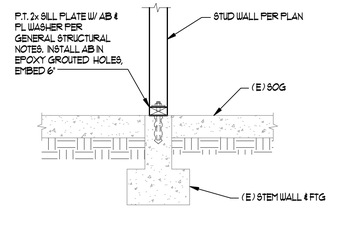
HSS COLUMN BASE 15
1" = 1'-0"



SHEAR WALL FOOTING 18
3/4" = 1'-0"



EXTERIOR SHOTCRETE WALL FOOTING 19
3/4" = 1'-0"



WOOD BEARING WALL ON (E) FDN 20
3/4" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · MATTHEW J. MILLER · 44400 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER
4/13/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS FIRE

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

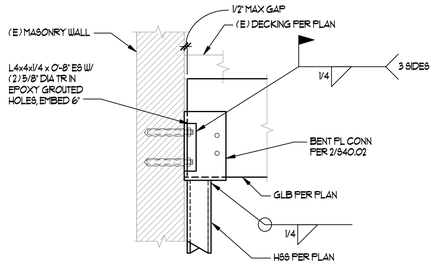
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

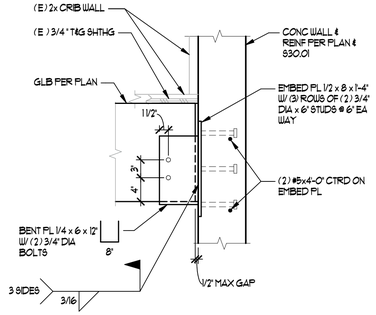
FOUNDATION DETAILS

SHEET:

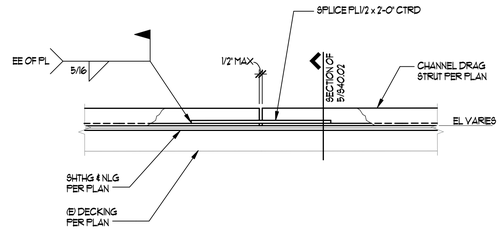
S40.01



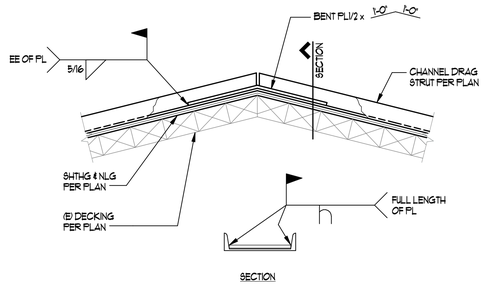
HSS CONNECTION TO MASONRY 1
1" = 1'-0"



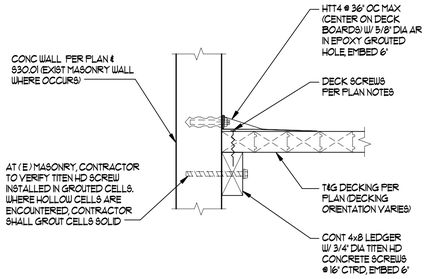
GLB CONN TO CONC WALL 2
1" = 1'-0"



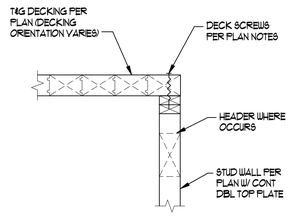
DRAG STRUT SPLICE 4
1" = 1'-0"



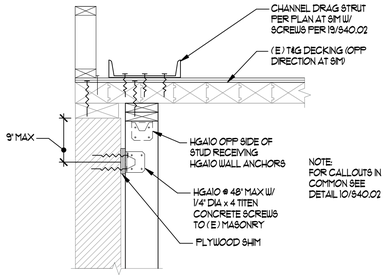
DRAG STRUT SPLICE AT RIDGE 5
1" = 1'-0"



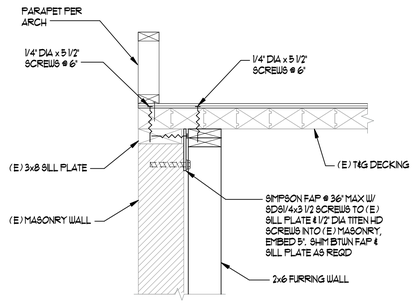
DECKING TO WALL CONNECTION 6
1" = 1'-0"



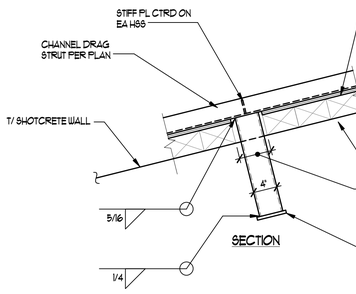
MECHANICAL PLATFORM DETAIL 7
1" = 1'-0"

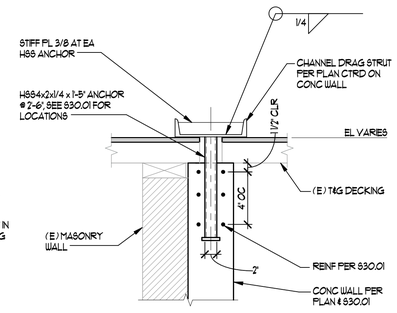


OUT-OF-PLANE STRENGTHENING 9
1" = 1'-0"

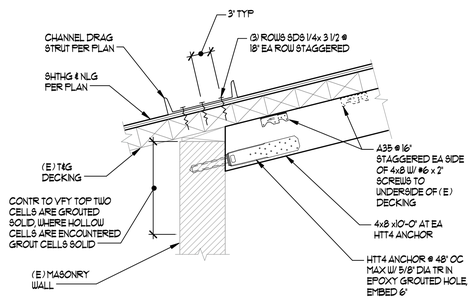


IN-PLANE STRENGTHENING 10
1" = 1'-0"

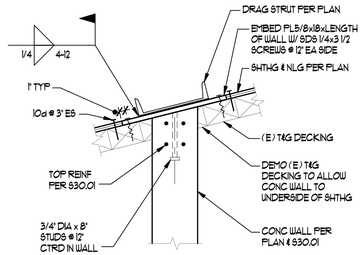




DRAG STRUT CONN TO SHEAR WALL 15
1" = 1'-0"



DRAG STRUT CONN TO ROOF SHTHG 19
1" = 1'-0"



DRAG STRUT CONN TO SHEAR WALL 20
1" = 1'-0"

NEW DECKING TO EXIST DECKING 11
1" = 1'-0"

EXIST DECKING TO SHEAR WALL 12
1" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · MATTHEW J. MIDDLETON · 44400 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER
4/13/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS FIRE

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

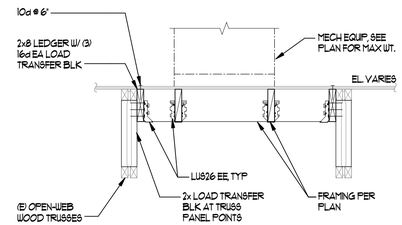
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

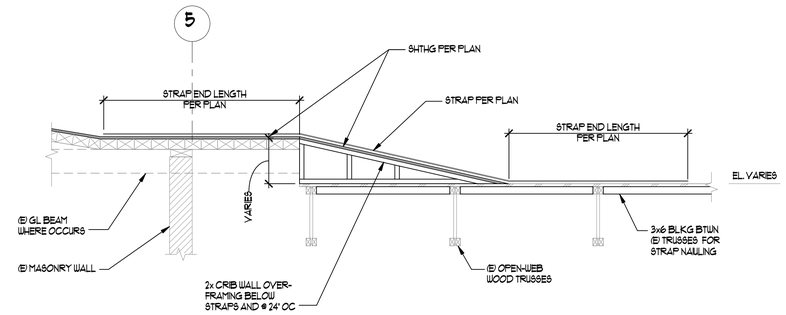
FRAMING DETAILS

SHEET:

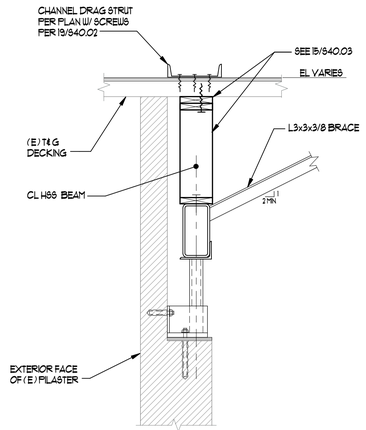
S40.02



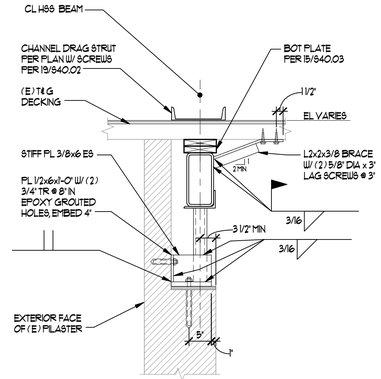
ROOF FRAMING DETAIL AT MECH UNIT 5
3/4" = 1'-0"



CONNECTION ACROSS GRID 5 10
1/2" = 1'-0"

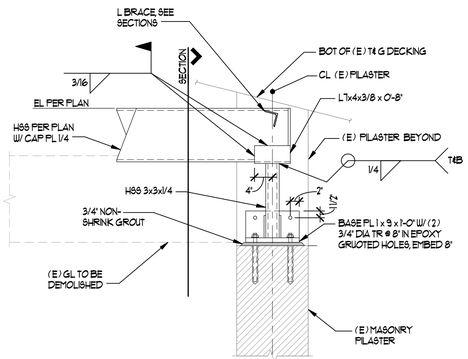


SECTION 14B AT GRID A / 3.1
(SEE SECTION 14A FOR CALL OUTS IN COMMON)

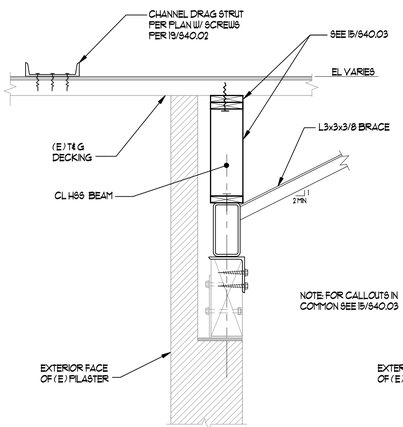


SECTION 14A AT GRID 3.8

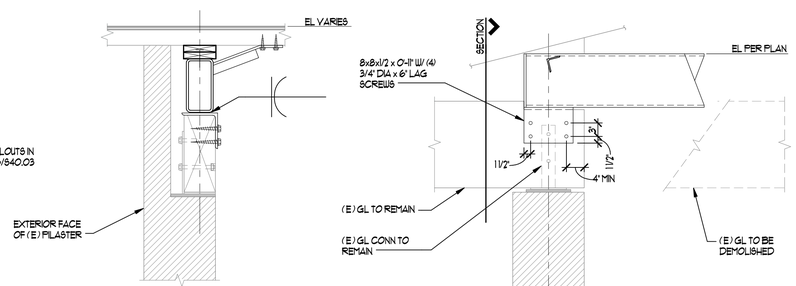
HSS BEAM TO EXIST CMU PILASTER GRID A 14
3/4" = 1'-0"



APPARATUS BAY DOOR BEAM 15
3/4" = 1'-0"

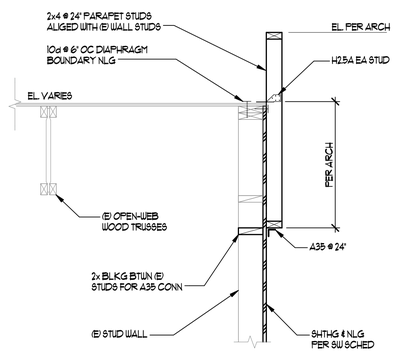


SECTION 18B AT GRID E/3.1
(SEE SECTION 18A FOR CALL OUTS IN COMMON)

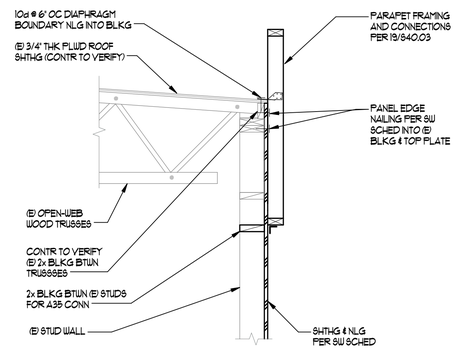


SECTION 18A AT GRID E/3.8

HSS BEAM TO EXIST CMU PILASTER GRID E 18
3/4" = 1'-0"



ROOF FRAMING DETAIL AT ADDITION EAVE 19
3/4" = 1'-0"



ROOF FRAMING DETAIL AT ADDITION 20
3/4" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · MATTHEW J. MIDDLETON · 44400 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER
4/13/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS FIRE

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

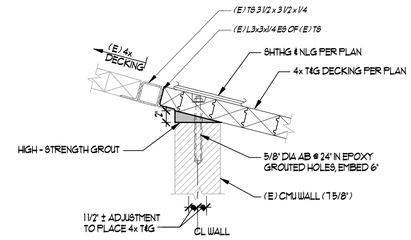
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

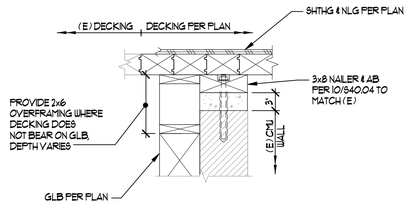
ROOF FRAMING DETAILS

SHEET:

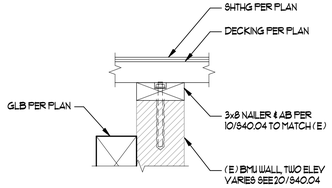
S40.03



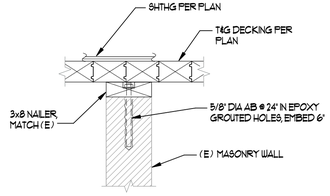
FRAMING DETAIL 5
1" = 1'-0"



FRAMING DETAIL 8
1" = 1'-0"



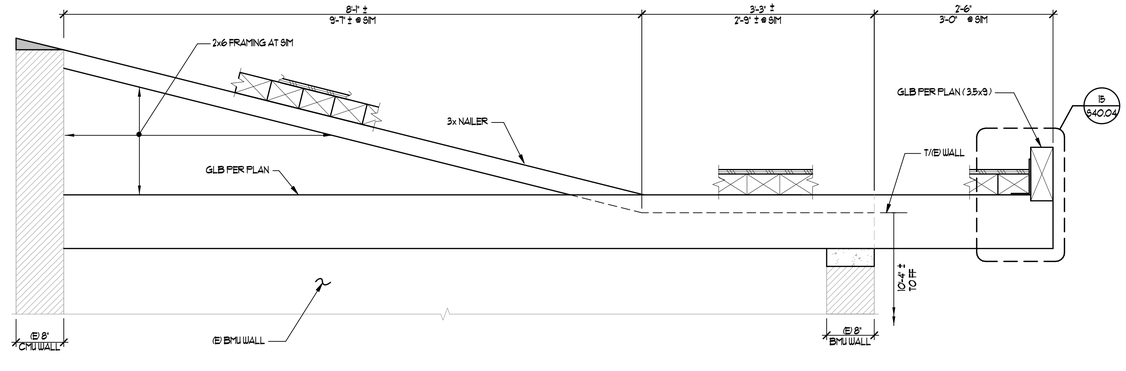
FRAMING DETAIL 9
1" = 1'-0"



FRAMING DETAIL 10
1" = 1'-0"

FRAMING DETAIL 14
1" = 1'-0"

FRAMING DETAIL 15
1" = 1'-0"



FRAMING SECTION AT HOSE TOWER 20
1" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.



SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS FIRE

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

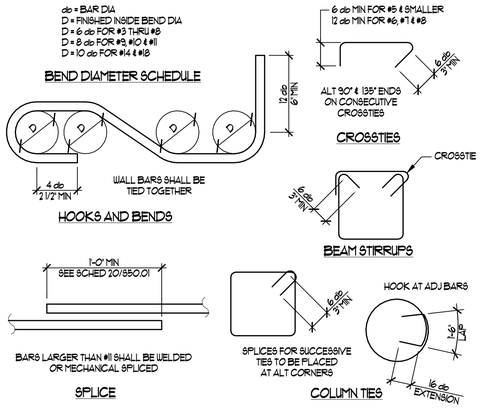
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

ROOF FRAMING DETAILS

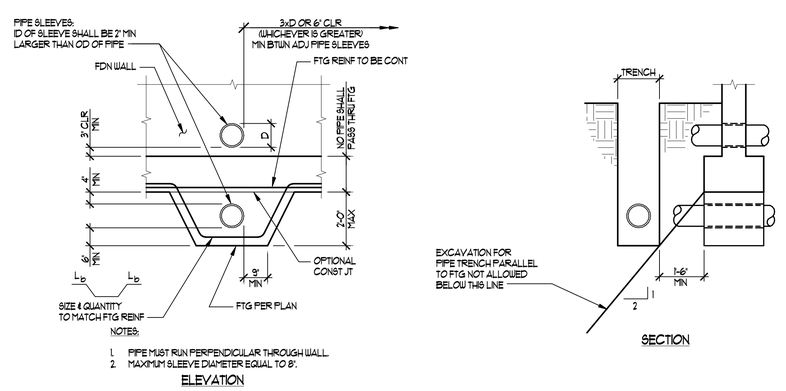
SHEET:

S40.04



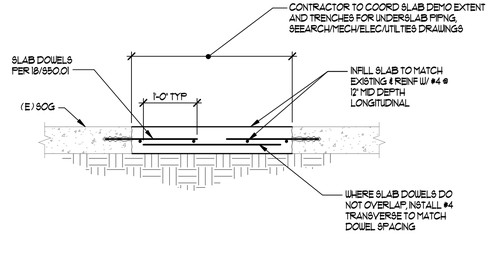
TYPICAL REINFORCING BAR BEND AND LAP DETAILS 4

NTS



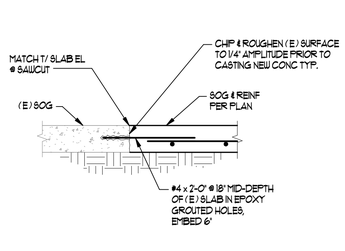
TYPICAL PIPE ENCASEMENT AT FOOTING 5

12" = 1'-0"



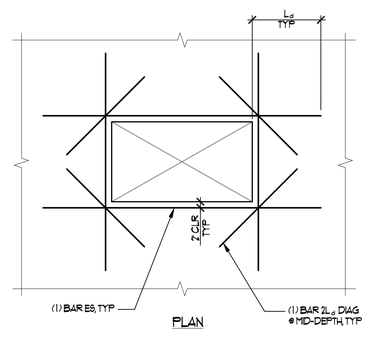
TRENCH REPAIR TO SLAB ON GRADE 17

3/4" = 1'-0"



SOG TO EXISTING CONNECTION 18

3/4" = 1'-0"



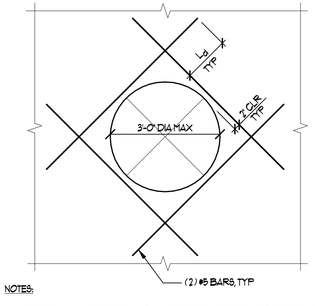
PLAN

NOTES:

1. BAR SIZE TO MATCH SLAB REINFORCING.
2. IF TWO LAYERS OF STEEL IN SLAB, PROVIDE OPENING REINFORCEMENT FOR EACH LAYER.

TYPICAL REINFORCING AT WALL OPENING 14

NTS



NOTES:

1. HORIZONTAL AND VERTICAL WALL REINFORCING NOT SHOWN FOR CLARITY.
2. TERMINATE INTERRUPTED HORIZONTAL AND VERTICAL REINFORCEMENT WITH A STANDARD HOOK.
3. REFER TO CIVIL AND MECHANICAL DRAWINGS FOR LOCATIONS OF PIPE PENETRATIONS.

REINFORCING AT PIPE PENETRATION IN WALL 19

NTS

I MINIMUM STRAIGHT DEVELOPMENT LENGTH (L_d)

f'c = 4000 to 5000 PSI

BAR SIZE	TOP BARS	OTHER BARS
#3	19"	15"
#4	25"	19"
#5	31"	24"
#6	37"	29"
#7	54"	42"
#8	62"	48"
#9	70"	54"
#10	79"	61"
#11	87"	67"

"TOP BARS" ARE HORIZONTAL BARS WITH MORE THAN 12" DEPTH OF CONCRETE CAST BELOW THEM.

IF CLEAR CONCRETE COVER IS LESS THAN 1x THE DIAMETER OF THE BAR OR THE CENTER-TO-CENTER SPACING IS LESS THAN (3) BAR DIAMETERS, THEN VALUES SHALL BE INCREASED BY 50%.

I MINIMUM LAP SPLICE LENGTHS (L_D) (CLASS B)

f'c = 4000 to 5000 PSI

BAR SIZE	TOP BARS	OTHER BARS
#3	25"	19"
#4	33"	25"
#5	40"	31"
#6	48"	37"
#7	71"	54"
#8	81"	62"
#9	91"	70"
#10	103"	79"
#11	114"	87"

"TOP BARS" ARE HORIZONTAL BARS WITH MORE THAN 12" DEPTH OF CONCRETE CAST BELOW THEM.

IF CLEAR CONCRETE COVER IS LESS THAN 1x THE DIAMETER OF THE BAR OR THE CENTER-TO-CENTER SPACING IS LESS THAN (3) BAR DIAMETERS, THEN VALUES SHALL BE INCREASED BY 50%.

II MINIMUM EMBEDMENT LENGTHS (L_{dh}) FOR STANDARD END HOOKS

A. FOR GENERAL USES:

BAR SIZE	f'c = 4000 to 5000 PSI
#3	6"
#4	7"
#5	9"
#6	10"
#7	12"
#8	14"
#9	15"
#10	17"
#11	19"

1. SIDE COVER MUST BE EQUAL TO OR GREATER THAN 2 1/2".
2. END COVER FOR 90 DEGREE HOOKS MUST BE EQUAL TO OR GREATER THAN 2".

DEVELOPMENT AND SPLICE LENGTH TABLES 20

3/4" = 1'-0"

RICE FERGUS MILLER
ARCHITECTURE & PLANNING
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON
44400
STRUCTURAL ENGINEER
4/13/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS FIRE

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

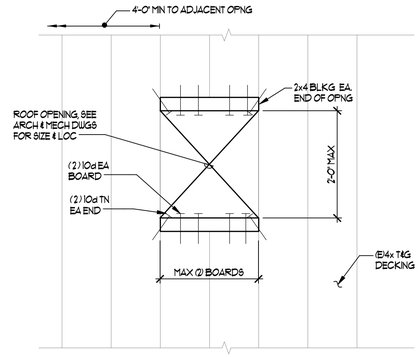
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

TYPICAL CONCRETE DETAILS

SHEET:

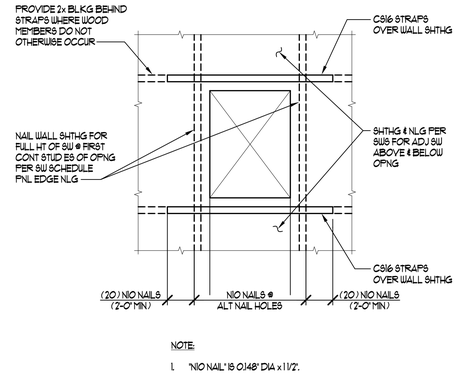
S50.01



PLAN

SMALL OPENING IN ROOF DECK 4

1 1/2" = 1'-0"

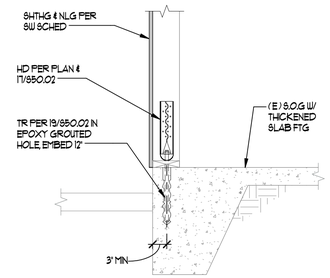


NOTE

1. "NO NAIL" IS 0.148" DIA x 1 1/2".

STRAPPING AT SHEAR WALL OPENINGS 5

12" = 1'-0"



HOLDOWN AT THICKENED SLAB EDGE 10

NTS

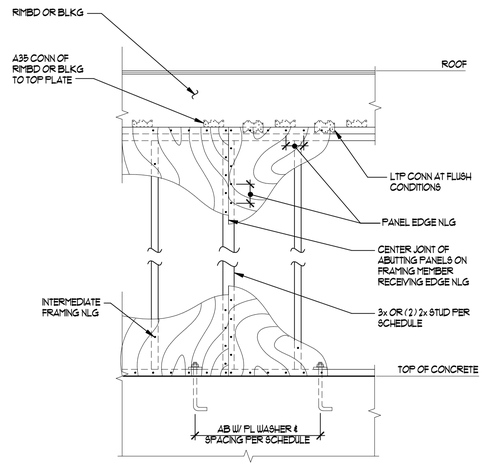
HOLDOWN SCHEDULE					
MARK	MODEL (NOTE 1)	WOOD POST, UNO PER PLAN OR DETAILS (NOTES 2 & 4)	2x POST NAILING (NOTE 3)	THREADED ROD DIAMETER	DETAIL REF.
HDA	HDU8-SDS2.5	(2) 2x	(2) ROWS 12d @ 6" OC	5/8"	10/S50.02

NOTES:

1. HOLDOWN MODELS REFER TO SIMPSON STRONG TIE CATALOG CALLOUTS. INSTALL FASTENERS PER HOLDOWN MFR.
2. SIZES LISTED IN THE SCHEDULE ARE FOR THE NOMINAL THICKNESS OF WOOD POST PERPENDICULAR TO THE HOLD DOWN. WIDTH OF THE POST IS THE SAME AS THE WIDTH OF THE WALL IN WHICH THE HOLD DOWN IS LOCATED.
3. FASTEN TOGETHER 2x MEMBERS OF POST AT THE SPECIFIED SPACING. 12d NAIL IS 0.148" DIA x 3 1/4". AT (3) 2x POSTS, FASTEN SECOND TO FIRST STUD AND THIRD TO SECOND STUD AT THE SPECIFIED SPACING.
4. NAIL PLYWOOD OR OSB SHEATHING TO HOLDOWN STUDS OR POST W/ SCHEDULED PANEL EDGE NAILING. STAGGER NAILS SO THAT EACH STUD IS NAILED. AT SOLID HOLDOWN POSTS, NAIL SHEATHING W/ (2) ROWS OF PANEL EDGE NAILING.

HOLDOWN SCHEDULE 17

NTS



TYPICAL SHEAR WALL NAILING CONVENTION

SHEAR WALL SCHEDULE										
WALL MARK	WALL SHEATHING	PANEL EDGE NAILING	FRAMING AT ADJ PANEL EDGES	(2) 2x FRAMING NAILING	BOTTOM PLATE NAILING	TOP PLATE CONNECTION		FDN SILL PLATE	SILL PL AR / BRG PL TR	ALLOWABLE SHEAR (PLF)
						A35	LTP4			
	NOTE #1, #4	NOTE #2			NOTES #3	NOTES #6	NOTES #6	NOTE #5	NOTE #5	
SW4	15/32" OSB (1) SIDE	0.131 x 2 1/2 @ 4" OC	2x	-	0.148 x 3 1/4 @ 6" OC	@ 1'-10" OC	@ 1'-10" OC	2x	3/4" DIA @ 4'-0" OC	350

SHEAR WALL NOTES:

1. WALL SHEATHING SHALL BE APA RATED ORIENTED STRAND BOARD SHEATHING (OSB), EXP 1 WITH PANEL SPAN RATING 24/16. WALL PANELS SHALL BE INSTALLED HORIZONTALLY..
2. THE SPECIFIED PANEL EDGE NAILING IS REQUIRED AT ALL PANEL EDGES AND ENDS. INSTALL 2x SOLID BLOCKING AT ALL UNSUPPORTED PANEL EDGES AND ENDS WITH MINIMUM 2x SOLID BLOCKING, UNO (SEE NOTES 5 AND 6). MAXIMUM SPACING OF NAILING AT INTERMEDIATE FRAMING MEMBERS IS 12" OC. SPACE NAILS MINIMUM 3/8" FROM EDGES AND ENDS OF WALL PANELS, WALL STUDS, TOP AND BOTTOM PLATES, AND BLOCKING.
3. TOP AND BOTTOM PLATE NAILS ARE 0.148" DIA x 3 1/4". SPACE BOTTOM PLATE NAILS 1/2" MINIMUM FROM EDGES AND 2" MINIMUM FROM ENDS OF THE BLOCKING (OR JOIST OR RIM BOARD) BELOW. INSTALL THE BOTTOM PLATE NAILS SO THAT THEY ARE CENTERED IN THE BLOCKING (OR JOIST OR RIM BOARD) BELOW.
4. NAIL SHEATHING AT INTERMEDIATE FRAMING WITH SAME SIZE NAILS AS PANEL EDGE NAILING @ 6" OC.
5. AT SILL PLATES, EMBED ANCHOR RODS A MINIMUM OF 7" INTO CONCRETE. SEE DETAIL 9. INSTALL 3"x3"x0.229" STEEL PLATE WASHER BETWEEN THE SILL PLATE AND NUT AT EACH ANCHOR ROD. HOLE IN PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A MAXIMUM WIDTH 3/16" > BOLT DIAMETER AND MAXIMUM LENGTH OF 1 3/4", PROVIDED STANDARD CUT WASHER INSTALLED BETWEEN PLATE WASHER AND NUT.
6. TOP PLATE CONNECTIONS IDENTIFIED AS "A35", AND "LTP4" ARE MANUFACTURED BY SIMPSON STRONG-TIE. SEE GENERAL STRUCTURAL NOTES FOR FURTHER INFORMATION.

SHEAR WALL SCHEDULE 20

NTS

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

Reid Middleton
728 134th Street SW - Suite 200
Everett, Washington 98204
Ph: 425 741-3800
www.reidmiddleton.com
©Copyright 2017 Reid Middleton, Inc.

STATE OF WASHINGTON · MATTHEW J. MIDDLETON · 44400 · STRUCTURAL ENGINEER · PROFESSIONAL ENGINEER

4/13/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS FIRE

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 262016.018

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

SHEAR WALL & HOLDOWN SCHEDULES AND DETAILS

SHEET:

S50.02

MECHANICAL SYMBOLS LEGEND

HYDRONIC SYSTEM LABELS

- PIPE BREAK (CONTINUATION)
- HYDRONIC SUPPLY
- HYDRONIC RETURN
- DIRECTION OF FLOW
- CAP
- HEAT TRACED PIPING

HYDRONIC VALVES AND SPECIALTIES

- 2-WAY ELECTRIC CONTROL VALVE
  - F.O. FAIL OPEN
  - F.C. FAIL CLOSED
- 3-WAY ELECTRIC CONTROL VALVE
- 4-WAY CONTROL VALVE

DUCTWORK LABELS

- INTERNALLY LINED DUCT
- HIDDEN DUCT
- DUCT (1ST DIMENSION SIDE SHOWN, 2ND DIMENSION OTHER SIDE) — 16X12
- REMOVE DUCT, PIPE OR MECH. EQUIPMENT
- FLEX DUCT
- RECTANGULAR SUPPLY DUCT OUT OF PAGE
- RECTANGULAR SUPPLY DUCT INTO PAGE
- SUPPLY DIFFUSER
- RECTANGULAR RETURN DUCT OUT OF PAGE
- RECTANGULAR RETURN DUCT INTO PAGE
- RETURN OR EXHAUST GRILLE — OR
- TURNING VANES
- STRAIGHT TAP
- TAPERED FITTING
- BELL MOUTH FITTING
- CONICAL FITTING
- 45 DEG. ANGLE TAP
- ROUND ELBOW OUT OF PAGE
- ROUND ELBOW INTO PAGE
- ROUND DUCT OUT OF PAGE
- ROUND DUCT INTO PAGE
- ROUND DUCT BREAK (CONTINUATION)
- RECTANGULAR DUCT BREAK (CONTINUATION)
- FLEX CONNECTION

REFERENCE SYMBOLS

- DETAIL NUMBER — M-1
- SHEET
- FLAG NOTE
- REVISION TAG — 1
- MECHANICAL EQUIPMENT — AHU-1
- DIFFUSER/GRILLE TYPE — D / 0 — CFM
- SECTION NUMBER — 1
- SHEET NUMBER

LIFE SAFETY SYMBOLS

- CEILING RADIATION DAMPER
- COMBINATION SMOKE/FIRE DAMPER — OR
- HORIZONTAL SMOKE DAMPER
- FIRE DAMPER

CONTROL SYMBOLS

- VOLUME DAMPER
- MOTORIZED CONTROL DAMPER — M
- THERMOSTAT IN DUCT — T
- REMOTE OPERATED VOLUME DAMPER
- BACKDRAFT DAMPER
- PRESSURE INDEPENDENT VOLUME DAMPER (TROX VFL)
- PRESSURE INDEPENDENT VOLUME CONTROLLER (TROX VFC)
- PRESSURE INDEPENDENT VOLUME CONTROLLER W/ ACTUATOR (TROX VFC EØ / MØ)
- THERMOSTAT, MOUNT @ 4'-0" A.F.F. — T
- SENSOR — S
- CARBON MONOXIDE DETECTOR WITH FAN INDICATED — CO — GEF-1
- CARBON DIOXIDE DETECTOR — CO2

PIPING SYSTEM LABELS

- NATURAL GAS OR PROPANE — G
- BALL VALVE MANUAL LEVER
- BUTTERFLY VALVE MANUAL LEVER
- BUTTERFLY GEAR VALVE
- GLOBE VALVE MANUAL LEVER
- BALANCE VALVE (CIRCUIT SETTER)
- BALANCE VALVE (PRESSURE INDEPENDENT)
- PIPE TO DRAIN
- PRESSURE SAFETY VALVE
- AUTOMATIC AIR VENT — AAV
- MANUAL AIR VENT — MAV
- WYE STRAINER
- WYE STRAINER WITH VALVE AND HOSE END CAP
- HEAT TRACE PIPING
- HOSE END AND CAP
- EXPANSION LOOP

HVAC ENERGY CODE NOTES

1. SEE SCHEDULES FOR EQUIPMENT TYPE, CAPACITY AND EFFICIENCY. ALL EQUIPMENT SHALL MEET MINIMUM EFFICIENCY PER C403.2.3.
2. THERMOSTATIC CONTROLS IN THE SAME ZONE OR IN NEIGHBORING ZONES CONNECTED BY OPENINGS LARGER THAN 10% OF THE FLOOR AREA OF EITHER ZONE SHALL BE INTERLOCKED TO NOT ALLOW SIMULTANEOUS HEATING AND COOLING.
3. HEAT PUMPS WITH SUPPLEMENTARY ELECTRIC HEAT SHALL INCLUDE MICROPROCESSOR CONTROLS THAT MINIMIZE ELECTRIC HEAT USAGE DURING START-UP, SET-UP, AND DEFROST CONDITIONS. CONTROLS SHALL ANTICIPATE NEED FOR HEAT AND USE COMPRESSION HEATING AS THE FIRST STAGE. CONTROLS SHALL INDICATE WHEN ELECTRIC HEAT IS BEING USED THROUGH VISUAL MEANS. ELECTRIC HEAT SHALL NOT OPERATE ABOVE 40 F OUTSIDE AIR TEMPERATURE.
4. THERMOSTATIC CONTROLS SHALL BE CONFIGURED WITH AT LEAST A 5F DEADBAND BETWEEN HEATING AND COOLING SETPOINTS.
5. THERMOSTATS (OTHER THAN GROUP R) SHALL BE 7-DAY PROGRAMMABLE WITH AUTOMATIC SETBACK CONTROLS SET DOWN TO 55F AND UP TO 85F. CONTROLS SHALL MAINTAIN PROGRAMMING FOR AT LEAST 10 HOURS DURING LOSS OF POWER. CONTROLS SHALL HAVE A MANUAL 2 HR OVERRIDE FOR TEMPORARY OPERATION. CONTROLS SHALL ADJUST THE DAILY START TIME FOR MORNING WARMUP PRIOR TO SCHEDULED OCCUPANCY.
6. PROVIDE AMCA CLASS 1 MOTORIZED CONTROL DAMPERS FOR OUTSIDE AIR INTAKES, EXHAUST OUTLETS, RELIEF OPENINGS, STAIRWAY AND SHAFT VENTS AND RETURN SIDE OF AIRSIDE ECONOMIZERS.
7. AIR-COOLED UNITARY DIRECT-EXPANSION UNITS WITH A COOLING CAPACITY OF 54 MBH OR GREATER THAT ARE EQUIPPED WITH AN ECONOMIZER SHALL INCLUDE FAULT DETECTION AND DIAGNOSTICS (FDD).
8. PROVIDE GAS-FIRED HEATING EQUIPMENT WITH MODULATING OR STAGED COMBUSTION CONTROL FOR ALL EQUIPMENT OVER 225 MBH.
9. THERMOSTATS (GROUP R) SHALL BE 5-2 PROGRAMMABLE SCHEDULE WITH AT LEAST 2 SETBACK PERIODS PER DAY.
10. PROVIDE DUCT, SHAFT AND PLENUM INSULATION PER C403.2.8 AND SPECIFICATION SECTION 23 07 00.
11. SEAL ALL TRANSVERSE AND LONGITUDINAL SEAMS, JOINTS AND CONNECTIONS OF ALL DUCTWORK WITH WELDS, GASKETS OR MASTICS.
12. PROVIDE PIPE INSULATION PER ENERGY CODE SECTION C403.2.9 AND SPECIFICATION SECTION 23 07 00.
13. INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DAMAGE, SUNLIGHT, MOISTURE AND WIND. PROVIDE JACKET AND ALUMINUM COVERS. ADHESIVE TAPE IS NOT PERMITTED.
14. SINGLE FAN OR MULTIPLE FANS IN PARALLEL WITH COMBINED MOTOR NAMEPLATE OVER 5HP SHALL HAVE A FAN EFFICIENCY GRADE (FEG) OF 67 OR HIGHER AND SHALL BE SELECTED TO OPERATE WITHIN 15% OF THE MAXIMUM TOTAL EFFICIENCY OF THE FAN.
15. COOLING SYSTEMS 65 MBH AND GREATER SHALL HAVE TWO SPEED FAN CONTROL OR MODULATING FAN CONTROL.
16. FAN AND PUMP MOTORS 7.5 HP AND GREATER SHALL BE PROVIDED WITH A VFD.
17. ECONOMIZERS SHALL BE INTEGRATED WITH MECHANICAL COOLING AND SHALL BE CAPABLE OF PROVIDING PARTIAL ECONOMIZER COOLING EVEN WHEN ADDITIONAL MECHANICAL COOLING IS REQUIRED.
18. AIR ECONOMIZERS SHALL HAVE FIXED DRY-BULB HIGH-LIMIT SHUTOFF CONTROL NOT TO EXCEED 75 DEG. F.
19. ALL ELECTRIC MOTORS SHALL MEET THE EFFICIENCY REQUIREMENTS OF TABLES C405.8(1) THROUGH C405.8(4).
20. FAN MOTORS 1/12 HP UP TO 1 HP SHALL BE ECM.
21. PROVIDE A MEANS OF BALANCING EVERY AIR INLET AND OUTLET AND EVERY AIR OR WATER TERMINAL DEVICE.
22. ALL PIPE AND DUCT INSULATION SHALL BE LABELLED WITH ITS THICKNESS AND INSULATING VALUE (R OR K).

HVAC GENERAL NOTES

1. THESE PLANS ARE SCHEMATIC AND DO NOT SHOW EXACT ROUTING OR EVERY OFFSET, WHICH MAY BE REQUIRED. THE HVAC CONTRACTOR IS TO COORDINATE WITH ALL OTHER TRADES AND IS TO VERIFY ALL CLEARANCES BEFORE COMMENCING WORK.
2. MATERIALS, METHODS AND INSTALLATION SHALL COMPLY WITH THE PROVISIONS OF THE LATEST EDITION OF THE SEATTLE MECHANICAL CODE, SEATTLE BUILDING CODE, SEATTLE FIRE CODE AND LOCAL CODES AND ORDINANCES.
3. DUCT CONSTRUCTION AND HANGING SHALL COMPLY WITH THE LATEST SMC AND WITH CURRENT SMACNA STANDARDS.
4. JOINTS OF DUCT SYSTEM SHALL BE SEALED WITH GASKETS OR LISTED MASTIC TYPE DUCT SEALANT.
5. DUCTS SHALL BE INSULATED AS INDICATED ON PLANS TO MEET THE REQUIREMENTS OF THE CURRENT WASHINGTON STATE ENERGY CODE AND SPECIFICATION.
6. FLEXIBLE DUCTS SHALL ONLY BE USED WHERE SHOWN AND SHALL NOT EXCEED 6 FT IN LENGTH UNLESS NOTED OTHERWISE.
7. PROVIDE EARTHQUAKE RESTRAINT FOR HVAC EQUIPMENT IN ACCORDANCE WITH THE CURRENT IBC.
8. PIPING PENETRATIONS OF FIRE RATED WALLS OR FLOOR SHALL BE SLEEVED AND FIRE STOPPED WITH LISTED MATERIALS SO AS TO MAINTAIN THE INTEGRITY AND RATING OF THE FLOOR OR WALL.
9. PROVIDE RETURN DUCT SMOKE DETECTOR(S) FOR AUTOMATIC SHUT DOWN OF ALL HEATING OR COOLING EQUIPMENT DELIVERING IN EXCESS OF 2000 CFM IN ACCORDANCE WITH THE CURRENT INTERNATIONAL MECHANICAL CODE. POWER WIRING AND INTERLOCK WIRING WITH THE BUILDING FIRE ALARM SYSTEM IS BY THE ELECTRICAL CONTRACTOR.
10. HVAC EQUIPMENT, VALVES AND DAMPERS SHALL BE LOCATED IN EASILY ACCESSIBLE LOCATIONS, UNLESS SHOWN ON ARCHITECTURAL DRAWINGS. REQUIRED ACCESS PANELS SHALL BE PROVIDED BY THE HVAC CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.
11. HVAC CONTRACTOR MUST COORDINATE WITH LIGHTING FIXTURES PRIOR TO DUCT AND PIPING INSTALLATION.

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	MEP	MECHANICAL, ELECTRICAL
ADA	AMERICANS WITH DISABILITIES ACT		& PLUMBING
ADJ	ADJUSTABLE	MEZZ	MEZZANINE
AFF	ABOVE FINISHED FLOOR	MIN	MINIMUM OR MINUTE
AFG	ABOVE FINISHED GRADE	MISC	MISCELLANEOUS
ALT	ALTERNATE		
AP	ACCESS PANEL	N/A	NOT APPLICABLE
APPROX	APPROXIMATE	NC	NORMALLY CLOSED
ARCH	ARCHITECTURAL/ARCHITECT	NEG	NEGATIVE
AS	AIR SEPARATOR	NIC	NOT IN CONTRACT
AUX	AUXILIARY	NO	NORMALLY OPEN
		NOM	NOMINAL
BFF	BELOW FINISHED FLOOR	NPT	NATIONAL PIPE THREAD
BHP	BRAKE HORSE POWER	NTS	NOT TO SCALE
BLDG	BUILDING		
BOP	BOTTOM OF PIPE	OA	OUTSIDE AIR
BTU	BRITISH THERMAL UNIT	OBD	OPEN BLADE DAMPER
BTUH	BRITISH THERMAL UNIT PER HOUR	OC	ON CENTER
		OD	OUTSIDE DIAMETER
CA	COMBUSTION AIR	OFCI	OWNER FURNISHED
CFH	CUBIC FEET PER HOUR		CONTRACTOR INSTALLED
CFM	CUBIC FEET PER MINUTE	OFOI	OWNER FURNISHED
CLG	CEILING		OWNER INSTALLED
CO	CARBON MONOXIDE		
CO2	CARBON DIOXIDE	ΔP	PRESSURE DIFFERENTIAL
COND	CONDENSATE	PERF	PERFORATED
CW	COLD WATER	Φ OR PH	PHASE
CX	CONNECT TO EXISTING	PLBG	PLUMBING
		POC	POINT OF CONNECTION
dB	DECIBEL	PRESS	PRESSURE
DB °F	DRY BULB TEMPERATURE	PRV	PRESSURE REDUCING VALVE
° OR DEG.	DEGREE	PSF	POUNDS PER SQUARE FOOT
Ø OR DIA	DIAMETER	PSI	POUNDS PER SQUARE INCH
D/L	DOOR LOUVER	PSIG	POUNDS PER INCH GAUGE
DN	DOWN	PTAC	PACKAGE TERMINAL
DWG(S)	DRAWING(S)		AIR CONDITIONER
DWV	DRAIN, WASTE, VENT		
		QTY	QUANTITY
EX	EXISTING/EXISTING TO REMAIN		
EA	EACH	REQD	REQUIRED
EA	EXHAUST AIR	RH	RELATIVE HUMIDITY
EAT	ENTERING AIR TEMPERATURE	RM	ROOM
ERU	ENERGY RECOVERY UNIT	RPBP	REDUCED PRESSURE
ESP	EXTERNAL STATIC PRESSURE		BACKFLOW PREVENTER
ET	EXPANSION TANK	RPM	REVOLUTIONS PER MINUTE
EXP	EXPANSION	RLX	RELOCATE EXISTING
		RTU	ROOF TOP UNIT
FC	FAIL CLOSED	RV	RELIEF VALVE
FF	FINISHED FLOOR	RX	REMOVE EXISTING
FLA	FULL LOAD AMPS		
FO	FAIL OPEN	SD	SMOKE DETECTOR
FP	FIRE PROTECTION	SF	SQUARE FOOT
FPM	FEET PER MINUT	S.L.	SOUND LINER
FPS	FEET PER SECOND	SP	STATIC PRESSURE
FT	FEET/FOOT	SPEC	SPECIFICATION
FTG	FOOTING	S/S, OR SS	STAINLESS STEEL
		STD	STANDARD
G	NATURAL GAS	SYM	SYMBOL
GA	GAUGE		
GAL	GALLON	T&P	TEMPERATURE AND PRESSURE
GALV	GALVANIZED		RELIEF VALVE
G.C.	GENERAL CONTRACTOR	TBD	TO BE DETERMINED
GSM	GALVANIZED SHEET METAL	TEMP	TEMPERATURE
		TOB	TOP OF BEAM
H	HEIGHT	TOC	TOP OF CONCRETE
HD	HEAD	TOD	TOP OF DECK
HP	HORSEPOWER	TOJ	TOP OF JOIST
HVAC	HEATING VENTILATING AND	TOS	TOP OF SLAB/TOP OF STEEL
	AIR CONDITIONING	T&P	TEMPERATURE & PRESSURE
HW	HOT WATER	TSP	TOTAL STATIC PRESSURE
HX	HEAT EXCHANGER	TYP	TYPICAL
HZ	HERTZ		
		UL	UNDERWRITERS LABORATORY
ID	INSIDE DIAMETER/DIMENSION	UNO	UNLESS NOTED OTHERWISE
IN	INCH/INCHES		
IN WC	INCHES WATER COLUMN	V	VOLT
		VAV	VARIABLE AIR VOLUME
KW	KILOWATT/KILOWATTS	VERT	VERTICAL
		VFD	VARIABLE FREQUENCY DRIVE
LAT	LEAVING AIR TEMPERATURE	VIB	VALVE-IN-BOX
LBS	POUNDS	VOL	VOLUME
LF	LINEAL FOOT		
LRA	LOCKED ROTOR AMPS	W/	WITH
LTG	LIGHTING	W/IN	WITHIN
LWT	LEAVING WATER TEMPERATURE	W/O	WITHOUT
		WB °f	WET BULB TEMPERATURE
MBH	1000 BRITISH THERMAL	WC	WATER COLUMN
	UNIT PER HOUR	WPD	WATER PRESSURE DROP
MED	MEDIUM	WT	WEIGHT

RICE fergus MILLER
ARCHITECTURE & PLANNING
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

MECHANICAL COVER SHEET

SHEET:

M00.01

SEQUENCE OF OPERATION

1. CONTROL SYSTEM.

   PROVIDE ELECTRIC/ELECTRONIC CONTROLS TO PERFORM FUNCTIONS IN ACCORD WITH THE FOLLOWING.

2. VRFZ SPLIT SYSTEMS: CM-1, CM-2, BC-1, BC-2 & FC-1 TO FC-10

   THE FOLLOWING CONTROL BY UNIT MANUFACTURER DIGITAL CONTROL SYSTEM INCLUDED WITH EQUIPMENT.

   SMART ME ZONE REMOTE CONTROLLER PROVIDES START/STOP, TEMPERATURE CONTROL & FAN SPEED CONTROL FOR EACH ZONE.

   CENTRAL AE-200 CONTROLLER PROVIDES SETBACK SCHEDULING, TEMPERATURE LIMIT SETTINGS, ZONE CONTROL & ERROR MESSAGES FOR EACH ZONE. SINGLE CONTROLLER COMMUNICATES WITH CM-1, CM-2, BC-1, BC-2 AND ALL FAN COILS.

   FAN COIL FANS ARE GENERALLY OFF DURING OCCUPIED MODE AND CYCLE ON HEAT/COOL WHICH MODULATES TO MAINTAIN ROOM SETPOINT. FAN COILS CYCLE DURING UNOCCUPIED SCHEDULE TO MAINTAIN UNOCCUPIED HEAT SETPOINT.

   ALL FAN COILS (FC-1 THROUGH FC-10) SCHEDULE OCCUPIED 24/7.

   DI: (DIGITAL INPUT) (QTY 2) RELAY ACTIVATES ON ERV-1/2 ALARM CONTACT AND PROVIDES SYSTEM ALARM.

3. ENERGY RECOVERY VENTILATOR: ERV-1/DH-2 & ERV-2/DH-3

   UNIT CONTROL BY MANUFACTURER'S MICROPROCESSOR CONTROL PANEL WITH REMOTE INTERFACE.

   SCHEDULE ERVS TO OPERATE IN OCCUPIED MODE 24/7.

   SUPPLY AND EXHAUST FANS OPERATE CONTINUOUSLY DURING OCCUPIED SCHEDULE AND ARE OFF DURING UNOCCUPIED. OUTSIDE AIR AND EXHAUST DAMPERS ARE OPEN DURING NORMAL OPERATION AND CLOSE WHEN FANS ARE OFF OR IF UNIT FANS FAIL.

   UNIT FANS SHUT DOWN, MOTORIZED DAMPERS CLOSE AND CONTROLS ALARM IF UNIT SUPPLY TEMPERATURE DROPS BELOW 30 F (ADJ).

   SUPPLY AIR ELECTRIC DUCT HEATERS (DH-2 & DH-3) MODULATE TO MAINTAIN SUPPLY AIR TEMPERATURE SET-POINT OF 58 F (ADJ).

4. APPARATUS BAY EXHAUST FAN: EF-1

   FAN OPERATES WITH 2-HR WALL TIMER SWITCH (BY M.C.) OR RELAY FROM CO/NO2 SENSORS. FAN ACTIVATES ON CARBON MONOXIDE (CO) LEVEL OF 50 PPM (ADJ) OR NITROGEN DIOXIDE (NO2) LEVEL OF 3 PPM (ADJ).
   FAN INTERLOCK OPENS FAN MOTORIZED DAMPER AND ASSOCIATED PENTHOUSE MOTORIZED DAMPER WHEN FAN IS OPERATING.
   ON A CO LEVEL OF 100 PPM (ADJ) OR A NO2 LEVEL OF 5 PPM (ADJ) RELAYS TO ACTIVATE AUDIBLE WARNING ALARM (BY M.C.)

5. STORAGE EXHAUST FAN: EF-2

   FAN OPERATES CONTINUOUSLY.

6. STORAGE EXHAUST FAN: EF-3

   FAN OPERATES CONTINUOUSLY.

7. KITCHEN HOOD EXHAUST FAN: KEF

   FAN OPERATES WITH HOOD MOUNTED SWITCH. INTERLOCK OPERATION WITH SF-1.

8. KITCHEN HOOD MAKEUP AIR: SF-1/DH-1

   HOOD FAN SWITCH ACTIVATES KEF & SF-1. WHEN FAN IS RUNNING MOTORIZED OUTSIDE AIR DAMPER OPENS AND DUCT HEATER MODULATES TO MAINTAIN DUCT SUPPLY TEMP OF 68F (ADJ). MOTORIZED DAMPER CLOSES WHEN FAN IS OFF. FAN SHUTS DOWN AND MOTORIZED DAMPER CLOSES WHEN DISCHARGE AIR TEMPERATURE FALLS BELOW 40 F.

9. KITCHEN HOOD: HOOD

   SEPARATE SWITCHES MOUNTED FOR LIGHTS AND FAN. FAN SWITCH OPERATES KEF AND SF-1.

10. GAS FIRED UNIT HEATERS: UH-1 & UH-2

    UNITS OPERATE ON LOW VOLTAGE ELECTRONIC PROGRAMMABLE THERMOSTATS. PROVIDE VENTED PROTECTIVE COVERS.

11. ELECTRIC INFRARED HEATERS (DDC): EIH

    UNIT OPERATES WITH ELECTRONIC LINE/LOW VOLTAGE HEATING ONLY WALL THERMOSTAT. SPACE TEMPERATURE SETPOINT OF 65F (ADJ).

12. RADIANT CEILING PANELS: RCP

    UNITS OPERATE WITH ELECTRONIC LINE/LOW VOLTAGE HEATING ONLY WALL THERMOSTATS. SPACE TEMPERATURE SETPOINT OF 60F (ADJ).

13. ELECTRIC WALL HEATERS: EWH-1

    UNIT OPERATES WITH INTEGRAL THERMOSTAT.

14. KITCHEN RANGE GAS SOLENOID VALVE:

    VALVE IS NORMALLY CLOSED (WITHOUT POWER). VALVE IS OPEN FOR STANDARD OPERATION. VALVE CLOSES ON RELAY FROM STATION ALERTING SYSTEM, RESET BY MANUAL WALL SWITCH. (BY ALERTING EC).

15. BBQ GAS SOLENOID VALVE:

    VALVE IS NORMALLY CLOSED (WITHOUT POWER). VALVE IS OPEN FOR STANDARD OPERATION. VALVE CLOSES ON RELAY FROM STATION ALERTING SYSTEM, RESET BY MANUAL WALL SWITCH (BY ALERTING EC).

COMMISSIONING NOTES

1. BUILDING COMMISSIONING SHALL BE COMPLETED FOR THE MECHANICAL SYSTEMS, SERVICE WATER HEATING SYSTEMS AND PLUMBING SYSTEMS ON THIS PROJECT IN ACCORD WITH SPECIFICATION SECTION 230800. THE GOAL OF COMMISSIONING IS TO VERIFY THAT EQUIPMENT, CONTROLS AND THE SEQUENCING OF SUCH OPERATE AS INTENDED. THE COMMISSIONING DOCUMENTATION THAT IS REQUIRED IS THE PROOF OF THIS OPERATION. THE FOLLOWING TASKS ARE REQUIRED FOR COMMISSIONING. SEE SECTION 230800 FOR ADDITIONAL REQUIREMENTS.
2. COMMISSIONING PLAN: A PLAN WHICH OUTLINES THE ORGANIZATION, SCHEDULE, ALLOCATION OF RESOURCES AND DOCUMENTATION REQUIREMENTS OF THE COMMISSIONING PROCESS. PLAN SHALL BE SUBMITTED WITH THE MECHANICAL SUBMITTALS.
3. PRELIMINARY COMMISSIONING REPORT: REPORT SHALL NOTE DEFICIENCIES FOUND DURING TESTING, CORRECTIVE ACTION TAKEN OR THE ANTICIPATED DATE OF CORRECTION, CONDITIONS UNDER WHICH THE TESTING WAS PERFORMED AND STATUS OF ANY DEFERRED TESTS.
   A. SUBMISSION OF THIS REPORT IS REQUIRED PRIOR TO SUBSTANTIAL COMPLETION.
4. WITHIN 90 DAYS OF RECEIPT OF THE BUILDING CERTIFICATE OF OCCUPANCY, THE PROJECT RECORD DRAWINGS, O&M MANUALS, FINAL BALANCING REPORT, FINAL COMMISSIONING REPORT AND DOCUMENTATION OF COMPLETED OWNER TRAINING SHALL BE SUBMITTED FOR REVIEW.
5. RECORD DRAWINGS: LOCATION AND PERFORMANCE DATA ON EACH PIECE OF INSTALLED EQUIPMENT, AS-INSTALLED CONFIGURATION OF DUCT AND PIPE DISTRIBUTION SYSTEM, INCLUDING SIZES, AND THE TERMINAL AIR AND WATER DESIGN FLOW RATES OF THE ACTUAL INSTALLATION.
6. OPERATION & MAINTENANCE MATERIALS: SUBMIT ALL OF THE FOLLOWING.
   A. EQUIPMENT SIZE, SELECTED OPTIONS, AND REQUIRED MAINTENANCE.
   B. MANUFACTURER'S O&M MANUAL FOR EACH PIECE OF EQUIPMENT.
   C. NAME AND ADDRESS OF SERVICE AGENCY.
   D. CONTROLS MAINTENANCE AND CALIBRATION INFORMATION INCLUDING WIRING DIAGRAMS, SCHEMATICS, RECORD DRAWINGS AND CONTROL SEQUENCES. SETPOINTS SHALL BE PERMANENTLY RECORDED IN THESE DOCUMENTS.
   E. NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE.
7. SYSTEM ADJUSTING & BALANCING: ALL HVAC, HYDRONIC AND SERVICE HOT WATER SYSTEMS SHALL BE BALANCED BY A LICENSED CONTRACTOR IN ACCORDANCE WITH ACCEPTED ENGINEERING STANDARDS AND SECTION 230593. FINAL FLOW RATES SHALL BE WITHIN TOLERANCES SPECIFIED. EACH AIR INLET OR OUTLET AND HYDRONIC COIL SHALL BE EQUIPPED WITH A MEANS FOR BALANCING.
8. FUNCTIONAL PERFORMANCE TESTING (FPT): PROVIDE AND EXECUTE WRITTEN PROCEDURES WHICH CLEARLY DESCRIBE THE INDIVIDUAL SYSTEMATIC TEST PROCEDURES, THE EXPECTED SYSTEMS' RESPONSES, ACCEPTANCE CRITERIA FOR EACH PROCEDURE, THE ACTUAL RESPONSE OR FINDINGS AND ANY NOTES. TESTING SHALL AFFIRM OPERATION DURING ACTUAL OR SIMULATED WINTER AND SUMMER CONDITIONS AND DURING FULL OUTSIDE AIR CONDITIONS.
   A. EQUIPMENT FPT SHALL DEMONSTRATE THE CORRECT INSTALLATION AND OPERATION OF EACH COMPONENT, SYSTEM, AND SYSTEM-TO-SYSTEM INTERTIE RELATIONSHIP. TESTING SHALL INCLUDE ALL MODES AND SEQUENCE OF OPERATIONS, INCLUDING FULL-LOAD, PART-LOAD, EMERGENCY, ALARMS AND LOSS OF POWER.
   B. CONTROL SYSTEMS SHALL BE TESTED TO ENSURE THAT CONTROL DEVICES, COMPONENTS, EQUIPMENT AND SYSTEMS ARE CALIBRATED, ADJUSTED AND OPERATE IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. SEQUENCE OF OPERATION SHALL BE FUNCTIONALLY TESTED TO DOCUMENT THEY OPERATE AS REQUIRED.
   C. ECONOMIZERS SHALL UNDERGO A FUNCTIONAL TEST TO DETERMINE THAT THEY OPERATE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
9. OWNER TRAINING: PROVIDE SYSTEM/EQUIPMENT OVERVIEW (WHAT IT IS, WHAT IT DOES AND WHICH OTHER SYSTEMS AND OR EQUIPMENT DOES IT INTERFACE WITH). REVIEW THE AVAILABLE O&M MATERIALS. REVIEW THE PROJECT RECORD DRAWINGS. PROVIDE HANDS-ON DEMONSTRATION OF ALL NORMAL MAINTENANCE PROCEDURES, NORMAL OPERATING MODES, AND ALL EMERGENCY SHUTDOWN AND START-UP PROCEDURES. INCLUDE WRITTEN DOCUMENTATION THAT ALL THE PREVIOUS HAS BEEN COMPLETED.
10. FINAL COMMISSIONING REPORT: REPORT SHALL INCLUDE:
    A. DISPOSITION OF ALL DEFICIENCIES FOUND DURING TESTING, INCLUDING DETAILS OF CORRECTIVE MEASURES USED OR PROPOSED.
    B. ALL FUNCTIONAL PERFORMANCE TEST PROCEDURES USED DURING THE COMMISSIONING PROCESS INCLUDING MEASURABLE CRITERIA FOR TEST ACCEPTANCE, PROVIDED HEREIN FOR REPEATABILITY.
11. THE MECHANICAL CONTRACTOR SHALL NOT BE CONSIDERED SUBSTANTIALLY COMPLETE UNTIL THE PRELIMINARY COMMISSIONING REPORT HAS BEEN APPROVED BY THE ENGINEER.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

MECHANICAL NOTES

SHEET:

M00.02

SPLIT SYSTEM HEAT PUMP & A/C SCHEDULE

INDOOR UNIT																	OUTDOOR UNIT												
			SUPPLY			COOLING						HEATING	ELECTRICAL		SOUND					COOLING			HEATING		ELECTRICAL				SOUND		
MARK	MAKE	MODEL	TOTAL CFM	ESP W.C.	OSA CFM	TOTAL MBH	SENS MBH	EAT DB / WB	OAT DB	ECONO (Y/N)	ECONO EXCEPT	HEATING MBH OUTPUT @ 24F OAT	VOLT/PH	MCA	PRESS dBA	OP. WT. LBS.	MARK	MAKE	MODEL	TOTAL MBH	IEER	SEER/ EER	TOTAL MBH	COP AT 47 F	VOLT/PH	MCA	MOCP	SCCR kA	PRESS dBA	OP. WT. LBS.	NOTES:
																	CM-1	MITSUBISHI	PURY-P72TLMU-A	72	28.1	14.8	80	4.3	208/3	24	35	NOTE C	58	450	1, 2
FC-1	MITSUBISHI	PKFY-P30NKMU-E2	920	N/A	N/A	28.1	22.0	75/62	85	N	C403.6	24.6	208/1	0.63	49	50														A, B, 4
FC-2	MITSUBISHI	PEFY-P15NMAU-E3	500	0.6	N/A	14.0	11.4	75/62	85	N	C403.6	12.3	208/1	1.45	34	60														A, D, 3
FC-3	MITSUBISHI	PKFY-P06NBMU-E2	200	N/A	N/A	5.6	4.3	75/62	85	N	C403.6	4.8	208/1	0.19	36	25														A, B, 4
FC-4	MITSUBISHI	PKFY-P06NBMU-E2	200	N/A	N/A	5.6	4.3	75/62	85	N	C403.6	4.8	208/1	0.19	36	25														A, B, 4
FC-5	MITSUBISHI	PKFY-P06NBMU-E2	200	N/A	N/A	5.6	4.3	75/62	85	N	C403.6	4.8	208/1	0.19	36	25														A, B, 4
FC-6	MITSUBISHI	PKFY-P06NBMU-E2	200	N/A	N/A	5.6	4.3	75/62	85	N	C403.6	4.8	208/1	0.19	36	25														A, B, 4
																	CM-2	MITSUBISHI	PURY-P72TLMU-A	72	28.1	14.8	80	4.3	208/3	24	35	NOTE C	58	450	1, 2
FC-7	MITSUBISHI	PLFY-P24NEMU-E	770	N/A	N/A	22.5	17.1	75/62	85	N	C403.6	18.7	208/1	0.51	37	60														A, D, 4
FC-8	MITSUBISHI	PLFY-P24NEMU-E	770	N/A	N/A	22.5	17.1	75/62	85	N	C403.6	18.7	208/1	0.51	37	60														A, D, 4
FC-9	MITSUBISHI	PEFY-P15NMAU-E3	500	0.6	N/A	14.0	11.4	75/62	85	N	C403.6	11.7	208/1	1.45	34	60														A, D, 3
FC-10	MITSUBISHI	PLFY-P08NCMU-ER4	350	N/A	N/A	7.5	6.5	75/62	85	N	C403.6	6.2	208/1	0.29	38	45														A, D, 4

NOTES:
1. MANUFACTURER'S DIGITAL CONTROL SYSTEM WITH AE-200A CENTRAL CONTROLLER.
2. CONTROL POWER SUPPLY UNIT.
3. FACTORY FILTER BOX WITH MERV 8 FILTER.
4. FACTORY PROVIDED WASHABLE FILTER.

A. SMART ME REMOTE CONTROLLER.
B. PROVIDE WITH BLUEDIAMOND CONDENSATE PUMP
C. SEE SPECIFICATIONS AND ELECTRICAL.
D. INTEGRAL CONDENSATE PUMP

BRANCH CIRCUIT CONTROLLER SCHEDULE

MARK	MAKE	MODEL	NUMBER OF BRANCHES	POWER SOURCE	MCA	WEIGHT	NOTES:
BC-1	MITSUBISHI	CMB-P108NU-G1	8	208/1	.54	85	ALL
BC-2	MITSUBISHI	CMB-P106NU-G1	6	208/1	.41	80	ALL

NOTES:
1. CONDENSATE DRAINAGE SHALL BE PIPED TO NEAREST INDIRECT WASTE.
2. PROVIDE WITH BLUE DIAMOND CONDENSATE PUMP.

ELECTRIC DUCT HEATER SCHEDULE

MARK	MAKE	MODEL	SERVES	DUCT SIZE	HEAT KW	STAGES	VOLT / PH	NOTES:
DH-1	INDEECO	QUZ	SF-1	18X14	18.0	SCR	208/3	ALL
DH-2	INDEECO	QUZ	ERV-1	14X14	3.5	SCR	208/3	ALL
DH-3	INDEECO	QUZ	ERV-2	16X14	7.0	SCR	208/3	ALL

NOTES:
1. FLANGE DUCT CONNECTION
2. AIR FLOW SWITCH SAFETY & HIGH LIMIT
3. PROPORTIONAL SCR CONTROL
4. MAGNETIC CONTACTS
5. CONTROL TRANSFORMER

A. SINGLE DOWNSTREAM DUCT THERMOSTAT.

ELECTRIC INFRARED HEATER SCHEDULE

MARK	MAKE	MODEL	LENGTH	ELECTRICAL WATTS	ELECTRICAL VOLT/PH	WEIGHT	NOTES:
EIH	BLACK BODY THERMAZONE	21-2000U	24"	2000	208/1	20	ALL

NOTES:
1. PROVIDE SEISMIC RESTRAINT PER MANUFACTURERS RECOMMENDATIONS.
2. SEE PLANS FOR UNIT QUANTITY.
3. LINE/LOW VOLTAGE THERMOSTAT.

HOOD SCHEDULE

MARK	MAKE	MODEL	WIDTH	LENGTH	HEIGHT	EXHAUST CFM	EXHAUST S.P.	SUPPLY CFM	SUPPLY S.P.	WEIGHT	VOLTAGE	NOTES:
HOOD	GREENHECK	GHFW	42"	60"	24"	1250	0.352	1125	0.12	200	115/1	ALL

NOTES:
1. THREE (3) INCANDESCENT LIGHT FIXTURES. (40 fc min)
2. GREASE CUP MOUNTED ON RIGHT END OF HOOD.
3. ALL 18GA TYPE 430 STAINLESS STEEL CONSTRUCTION.
4. 20" STAINLESS BAFFLE FILTERS WITH FILTER REMOVAL TOOL.
5. DUCT COLLAR WITH MOUNTING FLANGE.
6. SWITCHES FOR LIGHT & FAN, HOOD MOUNTED ON RIGHT SIDE.
7. WITHOUT ANSUL SYSTEM.
8. 12"X12" EXHAUST COLLAR, 10"X24" SUPPLY COLLAR.

PENTHOUSE SCHEDULE

MARK	MAKE	MODEL	SIZE	AIRFLOW DIRECTION	CFM	P.D. IN WG	FREE AREA	MATERIAL	WEIGHT (LBS)	NOTES:
PH-1	GREENHECK	WIH	24X24	INTAKE	3000	0.1	4.07	ALUMINUM	80	ALL
PH-2	GREENHECK	WIH	16X16	INTAKE	1125	0.07	2.9	ALUMINUM	60	ALL
PH-3	GREENHECK	WIH	16X16	INTAKE	550	0.07	2.9	ALUMINUM	60	1, 2, 3, 5

NOTES:
1. 1" HOOD INSULATION
2. ALUMINUM BIRDSCREEN AND ALUMINUM INSECT SCREEN
3. FACTORY CURB W/ LINER & SEAL, MATCH ROOF SLOPE
4. INSULATED MOTORIZED CONTROL DAMPER.
5. ALUMINUM INTAKE FILTERS.

ELECTRIC WALL HEATER SCHEDULE

MARK	MAKE	MODEL	HEAT W	ELEC VOLT/PH	NOTES:
EWH-1	CADET	NLW202TW	1500 W	208/1	1, 2, 3

NOTES:
1. HIGH TEMPERATURE MANUAL RESET AND OVERTEMPERATURE SAFEGUARD.
2. BUILT IN THERMOSTAT
3. SEE PLANS FOR UNIT QUANTITY.

UNIT HEATER SCHEDULE (GAS)

MARK	MAKE	MODEL	CFM	GAS HEATING INPUT MBH	GAS HEATING OUTPUT MBH	GAS HEATING EFF	ELECTRICAL AMP	ELECTRICAL HP	ELECTRICAL VOLT/PH	WEIGHT	NOTES:
UH-1	REZNOR	UDAS150	1900	150	124.5	83%	3.8	1/6	115/1	200	ALL
UH-2	REZNOR	UDAS150	1900	150	124.5	83%	3.8	1/6	115/1	200	ALL

NOTES:
1. CONCENTRIC VENT TERMINAL KIT
2. TYPE 409 STAINLESS STEEL HEAT EXCHANGER
3. 24 V CONTROL TRANSFORMER
4. LOW VOLTAGE PROGRAMMABLE THERMOSTAT

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007
BID SET
ISSUED: APRIL 13, 2017
REVISION SCHEDULE

MECHANICAL SCHEDULES

SHEET:
M00.03

DIFFUSER AND GRILLE SCHEDULE

ITEM	MAKE	MODEL	DESCRIPTION	SIZE	MARK
SUPPLY DIFFUSER	TITUS	MCD	SQUARE FACE/NECK, SURFACE MOUNT FRAME SIZE OR 24"X24" LAY-IN. SIDE INLET PLENUM PER PLANS. 4 ADJ. CORES, STEEL, WHITE ENAMEL	6"X6" 8"X8" 10"X10" 12"X12"	D-1 D-2 D-3 D-4
SUPPLY DIFFUSER	TITUS	TJD	24" x 24" SQUARE FACE INDUCTION NOZZLES STEEL, WHITE ENAMEL	8"	D-11
SUPPLY DIFFUSER	TROX SWIRL	TDF-SA -Q-Z-H	SQUARE FACE, SURFACE MOUNT FRAME SIZE OR 24"X24" LAY-IN. SIDE INLET PLENUM PER PLANS. FIXED HORIZONTAL DISCHARGE. STEEL, WHITE	12/24X12X24 16/24X16X24 20/24X20X24 24X24X24	D-21 D-22 D-23 D-24
SUPPLY DIFFUSER	TROX SWIRL	VDW -Q-Z-H	SQUARE FACE, SURFACE MOUNT FRAME SIZE OR 24"X24" LAY-IN. SIDE INLET PLENUM PER PLANS. ADJUSTABLE DISCHARGE PATTERN. STEEL, WHITE W/ BLACK BLADES.	12/24X12X8 16/24X16X16 20/24X20X24 24X24X24	D-31 D-32 D-33 D-34
SUPPLY REGISTER	TITUS	300RL	3/4" BLADE SPACING, DOUBLE DEFLECTION, BLADES PARALLEL TO LONG DIMENSION, STEEL, WHITE FINISH	18"X10"	R-1
RETURN GRILLE	TITUS	50F	1/2" EGG CRATE, ALUM., WHITE ENAMEL	12"X24" 24"X24"	G-1 G-2
RETURN GRILLE	TITUS	355RL	1/2" BLADE SPACING, 30 DEG DEFLECTION, BLADES PARALLEL TO LONG DIMENSION, STEEL, WHITE	10"X10" 12"X12"	G-11 G-12
RETURN GRILLE	TITUS	S8F	3/16" PERFORATED HOLE ON 1/4" CETNERS, ALUMINUM, RADIUS ENDCAPS, WHITE ENAMEL	24"X8"	G-21

NOTES:

1. CEILING UNIT FRAME SHALL BE COMPATIBLE WITH CEILINGS; FLAT FRAME SURFACE MOUNT (TITUS BORDER TYPE 1) FOR DRYWALL CEILINGS AND WITH LAY-IN PANEL FOR EXPOSED GRID CEILINGS (TITUS BORDER TYPE 3). SEE ARCHITECTURAL PLANS FOR CEILING TYPES.
2. BEVELED DROP FACE DIFFUSERS (TITUS BORDER TYPE 6) ARE NOT ACCEPTABLE.
3. SIZE INDICATES DUCT COLLAR.

FAN SCHEDULE

MARK	SERVES	MAKE	MODEL	TYPE	CFM	LOW SPEED	ESP INCH WC	RPM	BHP	MOTOR HP (W)	ELEC VOLT/PH	WGT. LBS	MAX SOUND	NOTES:
EF-1	APP BAY	GREENHECK	GB-200	ROOF CENT	3000	N/A	0.375	704	0.46	3/4	115 / 1	190	57 DBA	C, 2, 3, 5
EF-2	STORAGE	GREENHECK	G-085-VG	ROOF CENT	325	N/A	0.5	1576	0.06	1/10	115 / 1	80	55 DBA	A, 1, 2, 3, 5
EF-3	STORAGE	GREENHECK	G-095-VG	ROOF CENT	550	N/A	0.5	1486	0.11	1/6	115 / 1	85	56 DBA	A, 1, 2, 3, 5
SF-1	KITCHEN MUA	GREENHECK	SQ-130-VG	INLINE CENT	1125	N/A	0.5	1235	0.22	3/4	115 / 1	150	55 DBA	B, 1, 6, 7, 8
KEF	KITCHEN HOOD EXHUAST	GREENEHCK	CUBE-161HP	UPBLAST CENT	1250	N/A	1	1110	0.33	1/2	115 / 1	130	61 DBA	B, 2, 3, 5

NOTES:

1. SPEED CONTROL
2. FACTORY INSULATED CURB, MATCH ROOF SLOPE
3. ALUMINUM BIRDSCREEN, CURB SEAL, AND HINGE KIT
4. GRAVITY BACKDRAFT DAMPER
5. MOTORIZED INSULATED CONTROL DAMPER
6. NEOPRENE HANGING ISOLATION
7. FILTER BOX W/ 2" MERV 13 FILTERS
8. INSULATED HOUSING

A. RUNS CONTINUOUSLY
B. INTERLOCK WITH KITCHEN HOOD
C. WALL TIMER

ENERGY RECOVERY VENTILATOR SCHEDULE

MARK	MAKE	MODEL	TYPE	SUPPLY CFM	SUPPLY ESP	SUPPLY HP	EXHAUST CFM	EXHAUST ESP	EXHAUST HP	HEAT EXCHANGER MATERIAL	HEAT EXCHANGER WINTER EFF.	ELECTRICAL MCA	ELECTRICAL MOCP	ELECTRICAL VOLT/PH	ELECTRICAL SCCR	WGT. LBS	NOTES
ERV-1	GREENHECK	ECV-10-VG	INDOOR	550	0.5	1/2	500	0.5	1/2	CORE	69.1%	7.2	10	208/1	NOTE A	450	A,B,C,1,2,3,4,6,8
ERV-2	GREENHECK	ECV-10-VG	OUTDOOR	925	0.5	1/2	875	0.5	1/2	CORE	59.9%	7.2	10	208/1	NOTE A	500	A,B,C,1,2,3,4,5,6,7

NOTES:

1. DOUBLE WALL CONSTRUCTION W/ INSULATION & HINGED ACCESS
2. MERV 13 SUPPLY FILTERS; MERV 8 EXHAUST FILTERS
3. PERMATECTOR FINISH
4. MOTORIZED LOW LEAK SUPPLY AND EXHAUST DAMPERS
5. SPRING ISOLATION CURB
6. DIRTY FILTER SENSORS
7. OUTSIDE AND EXHAUST AIR HOODS
8. RESTRAINED SPRING ISOLATORS.

A. SEE SPECIFICATIONS AND ELECTRICAL.
B. MICROPROCESSOR UNIT CONTROL
C. REMOTE CONTROL PANEL

RADIANT CEILING PANEL SCHEDULE

MARK	MFR.	MODEL	SIZE	ELECTRICAL WATTS	ELECTRICAL VOLT/PH	WEIGHT	NOTES:
RCP	MARKEL	CP-807	24"X48"	750	208/1	20	ALL

NOTES:

1. PROVIDE LINE/LOW VOLTAGE WALL THERMOSTAT.
2. PROVIDE SURFACE MOUNTING FRAME FOR GWB CEILINGS.
3. SEE PLANS FOR UNIT QUANTITY.

RICE fergus MILLER
ARCHITECTURE & PLANNING
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

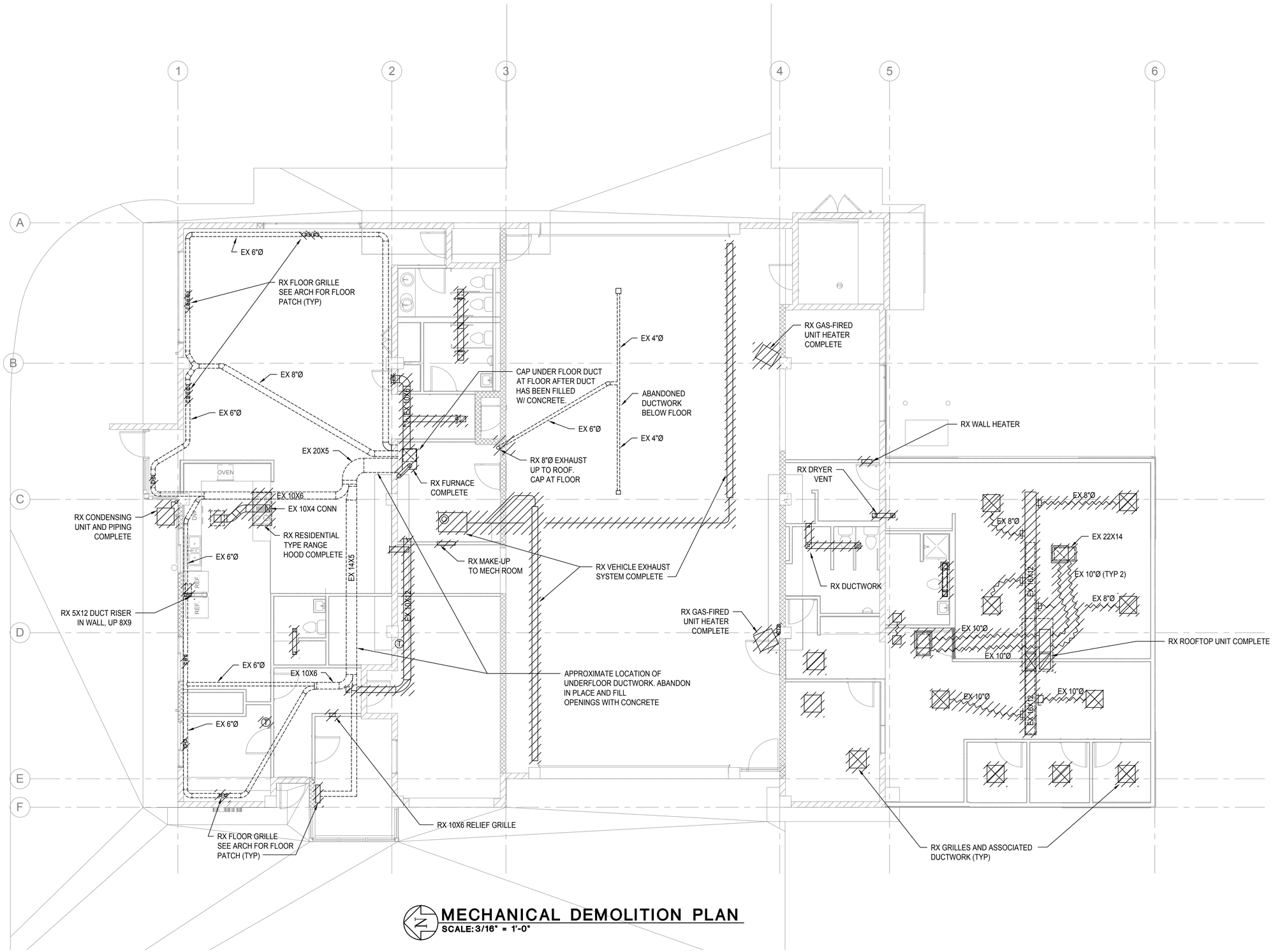
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

MECHANICAL SCHEDULES

SHEET:

M00.04



MECHANICAL DEMOLITION PLAN
SCALE: 3/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

MECHANICAL
DEMOLITION PLAN

SHEET:

M20.11

GENERAL NOTES:

1. REFRIGERANT PIPING REPRESENTATION SHOWS ONE LINE FOR EACH PIPE (HARD COPPER) BETWEEN THE CMS AND BCS. ROUTING OF PIPE (FLEXIBLE LINE SETS) FROM THE BCS TO THE FCS IS NOT SHOWN. DETERMINE ROUTING. SEE PIPING SCHEMATIC ON M40.01.

2. PROVIDE EQUIPMENT ANCHORING AND SEISMIC BRACING PER ASCE 7-05.

SEE M21.13 FOR UPPER PLATFORM PLAN.

SURFACE MOUNT (TYP 3)

1 M21.13

RCP (TYP 3)

12X12 UP TO EF-3 W/ 1" S.L.

@ 14'-0" AFF. 20X20 UP TO EF-1. COVER INLET W/ 1/4" FRAMED MESH

EWH-1

10X10 UP TO EF-2

NEW SHOP 113

BUNKER GEAR 109

DAY ROOM 108

D/L

G-11 200 W/ OBD

G-11 50 W/ OBD

STORAGE 114

ERV-2 REMOTE CONTROL

12"X12"

10"ø

G-12 250

VENTED BOX (TYP 2)

10"X10"

FC-7

8"ø

D-23 200

G-2 400

12"ø

G-11 50

AE-200 CENTRAL CONTROLLER & ERV-1 REMOTE CONTROL.

UH-1

EWH-1

G-11 75 W/ OBD

ELECTRICAL ROOM 115

RUN DUCTWORK THROUGH TRUSS WEBS (TYP).

CM-2 CM-1

PROVIDE CONTINUOUS ALUMINUM JACKET ON EXTERIOR REFRIGERANT PIPING.

SEE M21.13 FOR CONTINUATION (TYP).

6"ø

STORAGE 110

REFRIGERANT PIPING TO FOLLOW ROOF STRUCTURE ABOVE

1" S.L. (TYP)

DH-1

16"X16"

16"X12"

SF-1

G-12 250

12"ø

10"ø

HOOD

D-23 200

8"ø

12"X12"

CO & NO2 SENSORS

SEE M21.13 FOR CONTINUATION (TYP)

APPARATUS BAY 112

5"Ø B-VENT 6"Ø CA UP TO CONCENTRIC VENT (TYP 2)

SHOWER

RR (ADA) 116

D-2 175

G-21 500

PT 126

G-11 150

FC-1

1" S.L. (TYP)

ERV-1

EIH

DECON 111

6"ø BUNKER GEAR DRYER VENT UP TO GOOSENECK

UH-2

CORRIDOR

BC-1

ALIGN DUCTWORK AND EQUIPMENT BETWEEN TRUSSES.

NEW X15 GL BEAM (BY STRUCTURAL)

DH-2

2HR WALL TIMER FOR EF-1.

2 M22.01

RR 105

FC-2

RR 117

DH-3

R-1 450

FC-8

G-11 100

CRD

6"ø

8"ø

16"X12"

D-2 175

14"X12"

TROX VFC (TYP)

FC-9

@ 14'-0" AFF. 24X24 UP TO PH-1. COVER INLET W/ 1/4" FRAMED MESH

G-1

D-23 225

CORRIDOR 124

TROX VFL (TYP)

5"ø

M22.01

G-11 75

D-31 75

D-31 50

FC-10

D-2 150

D-31 90

SR 120

SR 121

SR 122

SR 123

FIRE/SMOKE DAMPER (TYP 4)

D-11 40 (TYP 4)

FC-3

FC-4

FC-5

FC-6

D-2 250

D-11 25

LOBBY 101

WATCH OFFICE 102

OFFICE 103

DRYER BOX 4"ø DUCT UP TO ROOF GOOSENECK.

LAUNDRY 118

1 FLOOR PLAN - MECHANICAL
3/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER

275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966
Fax: 206.285.1045

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE S
DES MOINES, WA 98198

PROJECT # 16007

BID SET

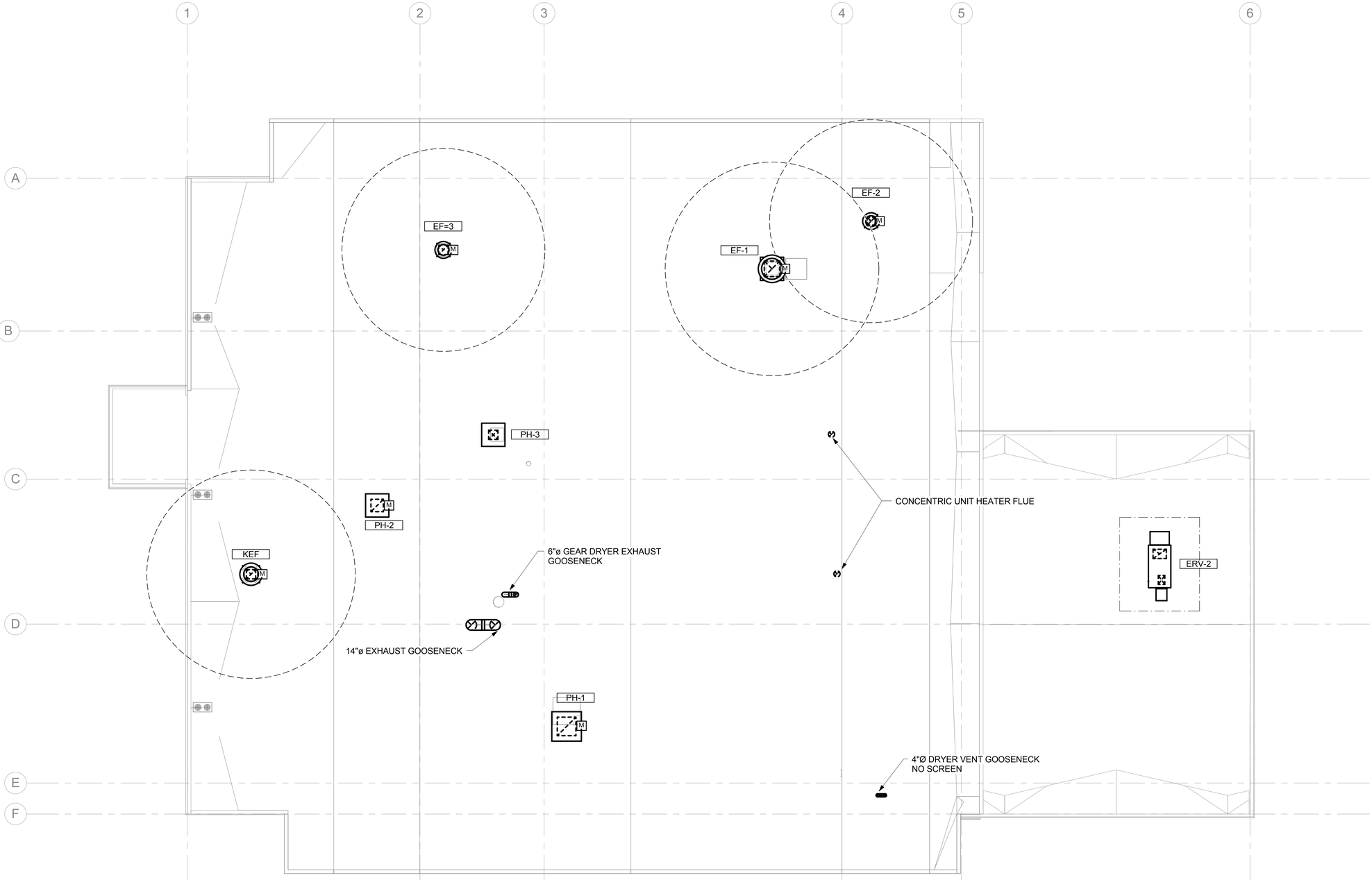
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

FLOOR PLAN MECHANICAL

SHEET:

M21.11



1 ROOF PLAN - MECHANICAL
3/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966
Fax: 206.285.1045

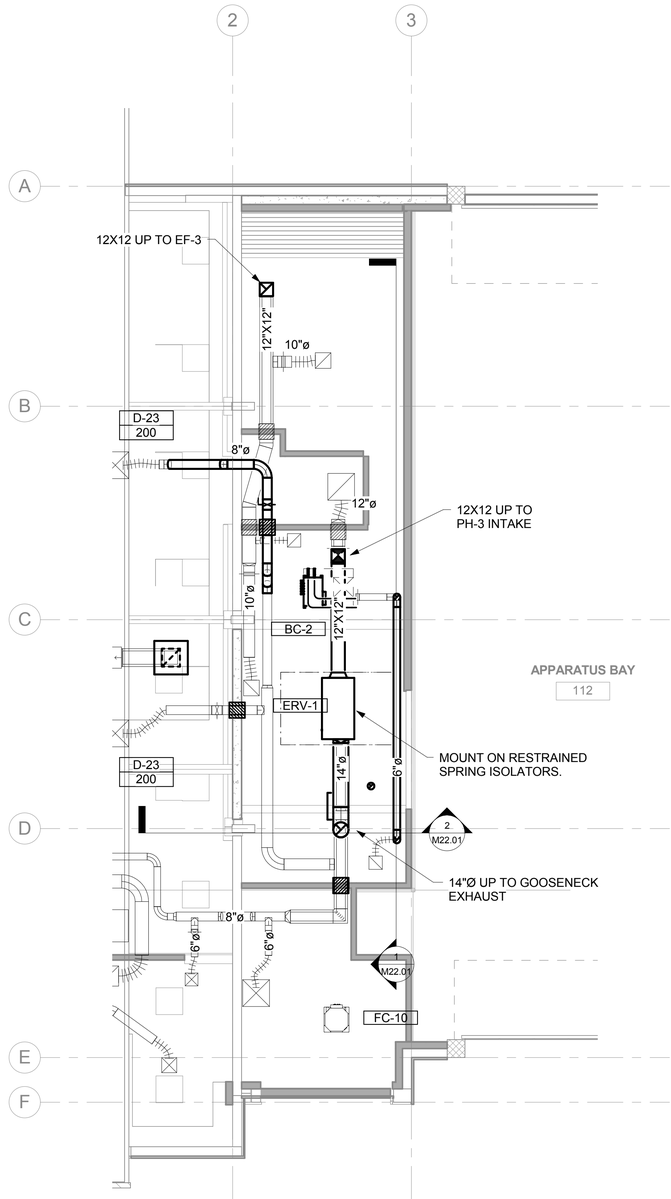
SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007
BID SET
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

ROOF PLAN
MECHANICAL

SHEET:
M21.12



1 MECHANICAL PLATFORM PLAN
3/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966
Fax: 206.285.1045

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

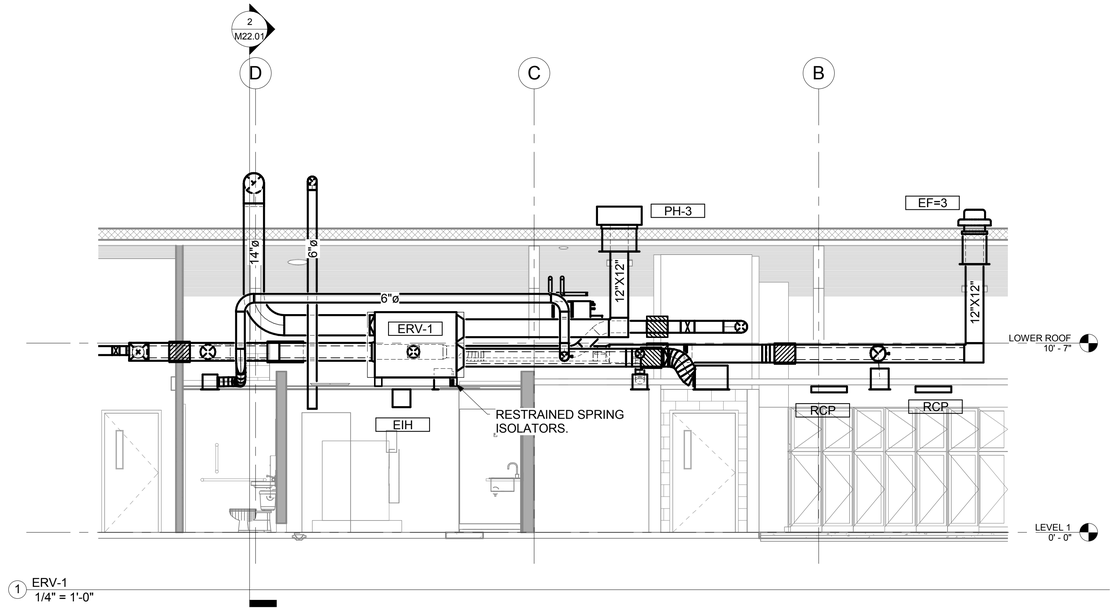
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

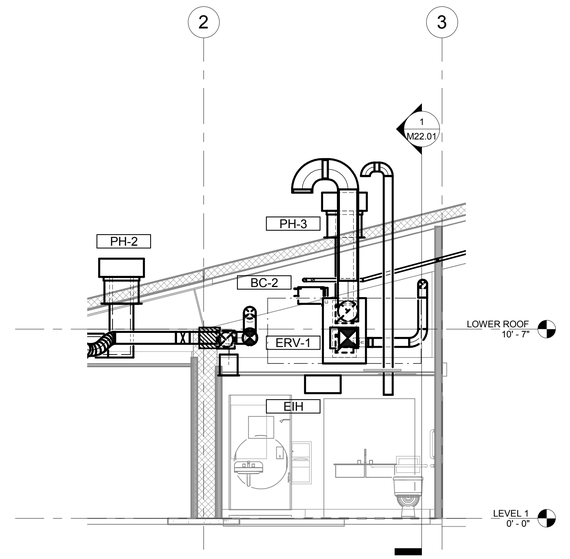
ENLARGED PLAN

SHEET:

M21.13



1 ERV-1
1/4" = 1'-0"



2 PLATFORM
1/4" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966
Fax: 206.285.1045

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

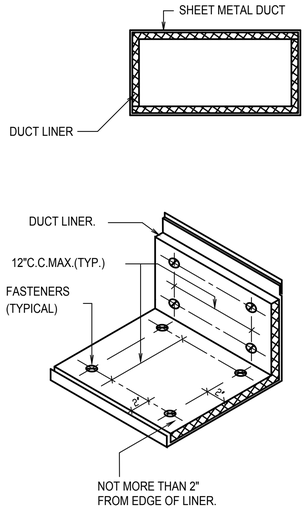
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

MECHANICAL
SECTIONS

SHEET:

M22.01

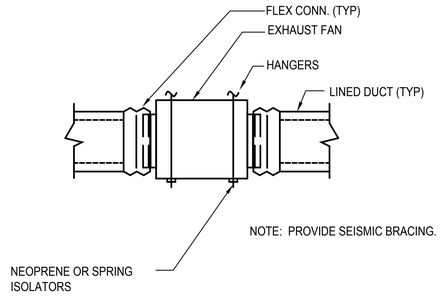


NOTES:

1. PROVIDE S/M NOSING AT EXPOSED EDGES OF INSULATION.
2. ALL TRANSVERSE AND LONGITUDINAL ENDS OF LINER TO BE COATED WITH ADHESIVE.

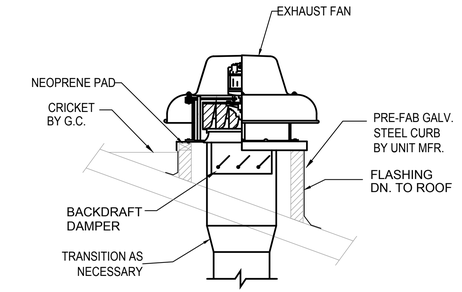
1 M30.01 DUCT LINER DETAIL

N.T.S.



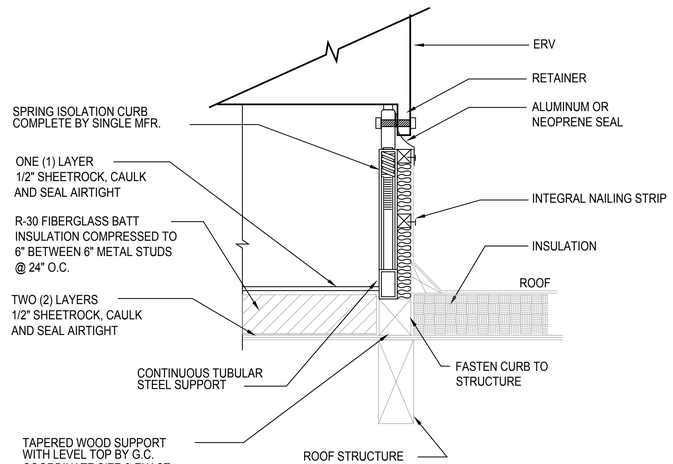
2 M30.01 INLINE EXHAUST FAN DETAIL

Scale: NONE



3 M30.01 ROOF EXHAUST FAN DETAIL

Scale: NONE

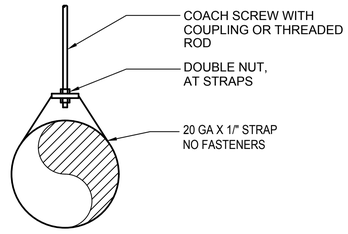


NOTE:

MECH. CONTRACTOR TO HIRE THIRD PARTY STRUCTURAL ENGINEER TO PROVIDE EXACT NUMBER AND SIZE OF BOLTS/FASTENERS AND PROVIDE EQUIPMENT SEISMIC CALCULATIONS.

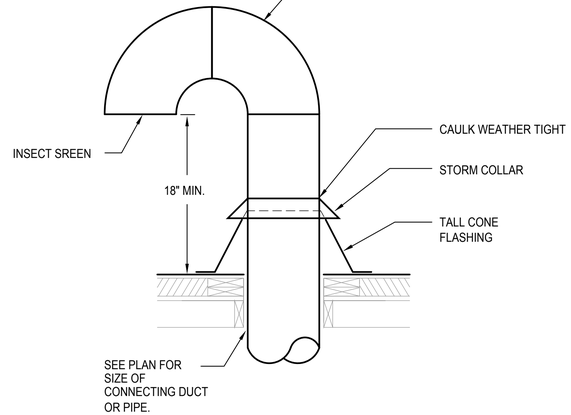
4 M30.01 SPRING ISOLATION CURB (MASON SRSC)

N.T.S.



5 M30.01 EXPOSED SPIRAL DUCT HANGING DETAIL

Scale: NONE



6 M30.01 ROUND GOOSENECK DETAIL

N.T.S.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER+BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

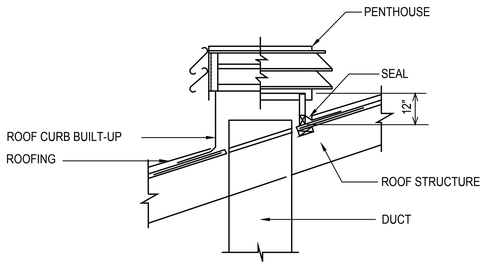
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

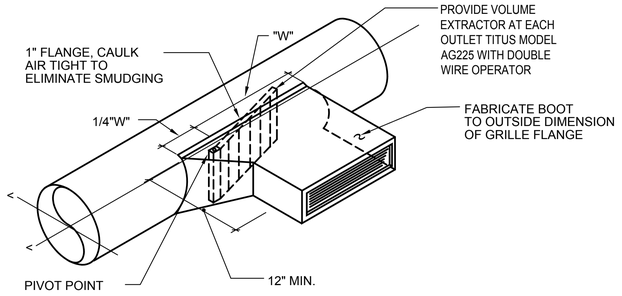
MECHANICAL DETAILS

SHEET:

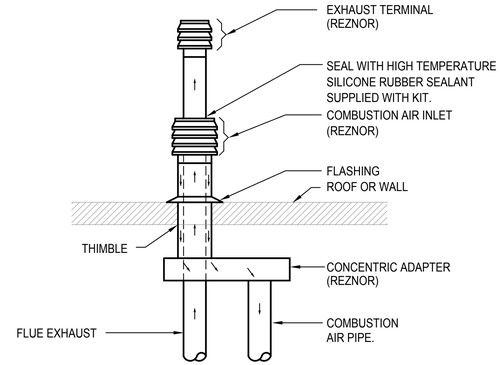
M30.01



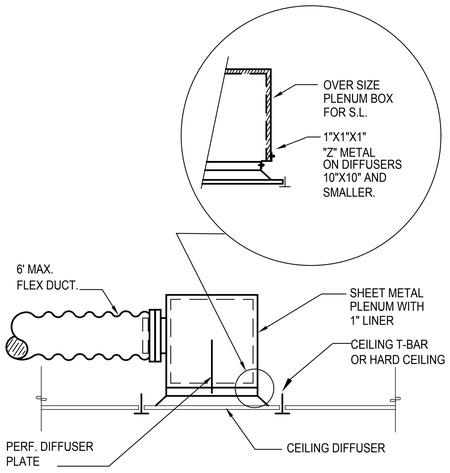
1 M30.02 PENTHOUSE DETAIL
N.T.S.



2 M30.02 SIDE WALL SUPPLY GRILLE DETAIL
N.T.S.

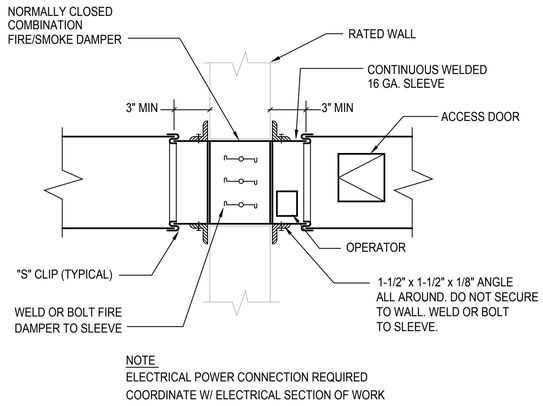


3 M30.02 CONCENTRIC VENT DETAIL
N.T.S.



NOTES:
1. SEE ARCHITECTURAL PLANS FOR CEILING TYPES.
2. SUPPLY SHOWN, DETAIL WITHOUT PERF PLATE IS TYPICAL FOR CEILING RETURN OR EXHAUST GRILLE INSTALLATION.

4 M30.02 CEILING INSTALLATION TYPICAL DIFFUSER DETAIL
Scale: NONE



NOTE
ELECTRICAL POWER CONNECTION REQUIRED
COORDINATE W/ ELECTRICAL SECTION OF WORK

5 M30.02 U.L. LISTED COMBINATION FIRE/SMOKE DAMPER
N.T.S.

RICE fergus MILLER
ARCHITECTURE & PLANNING
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

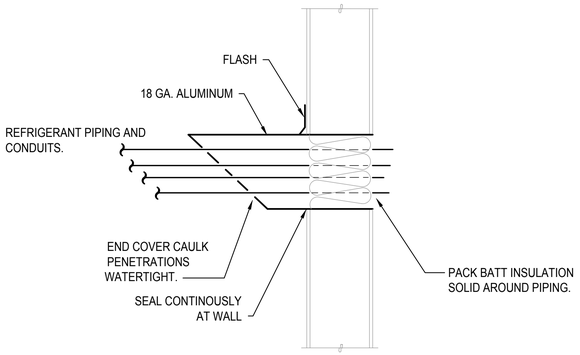
SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

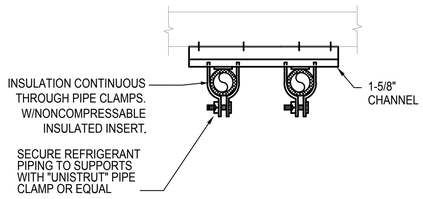
PROJECT # 16007
BID SET
ISSUED: APRIL 13, 2017
REVISION SCHEDULE

MECHANICAL DETAILS

SHEET:
M30.02

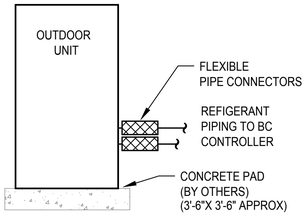


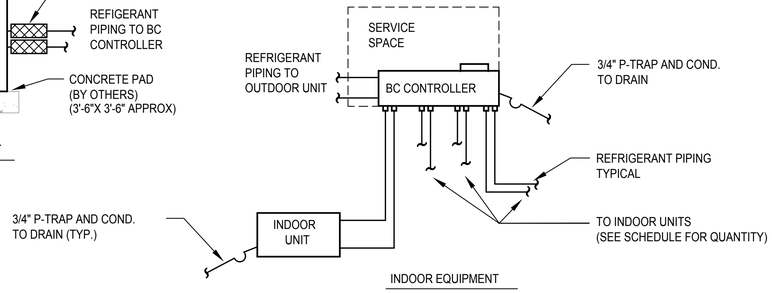
1 WALL PIPE PENETRATION
M30.03 N.T.S.



NOTE:
QUANTITY OF PIPES SHOWN REPRESENATIVE ONLY, PROVIDE QUANITY OF PIPES REQUIRED.

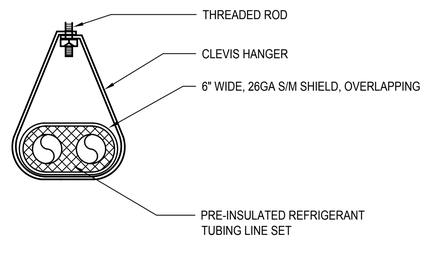
2 REFRIGERANT PIPE SUPPORT
M30.03 N.T.S.



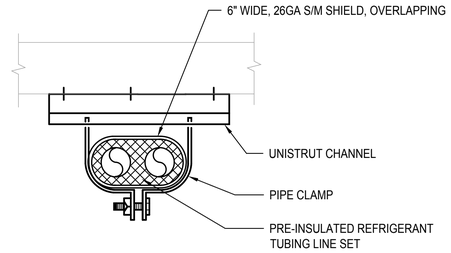


NOTE:
1. INSULATE BOTH LIQUID AND VAPORS LINES THROUGH OUT SYSTEM.
2. SECURE OUTDOOR UNIT TO SUPPORT.
3. SIZE REFRIGERANT LINES BASED ON MITSUBISHI SYSTEM CALCULATIONS. SEE M4.2
4. VERIFY ROUTING FOR REFRIGERANT PIPING AND CONDENSATE DRAINS.

3 VRFZ SYSTEM
M30.03 N.T.S.



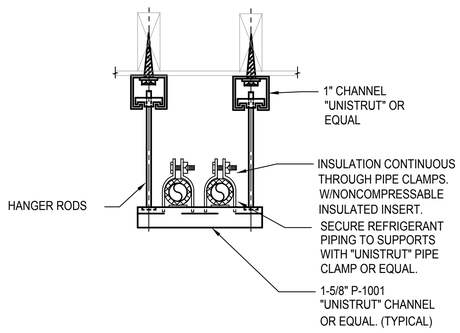
4 REFRIGERANT PIPE SUPPORT
M30.03 N.T.S.



5 REFRIGERANT PIPE SUPPORT
M30.03 N.T.S.

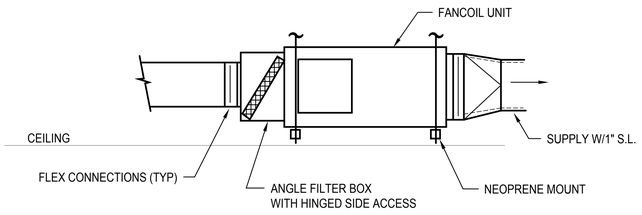
NOTE:
RUN STEEL COVER CONTINUOUS FROM CONDENSING UNITS TO RISERS OR PENETRATIONS AT BUILDING WALL. SEAL PENETRATIONS AND PROVIDE FLASHING AT POINT OF ENTRY.

NOTE:
PROVIDE ADDITIONAL WIDTH ON PIPE SUPPORT FOR ELEC. CONDUITS AND CONTROL CONDUITS. COORDINATE WITH ELECTRIC AND CONTROL CONTRACTORS.

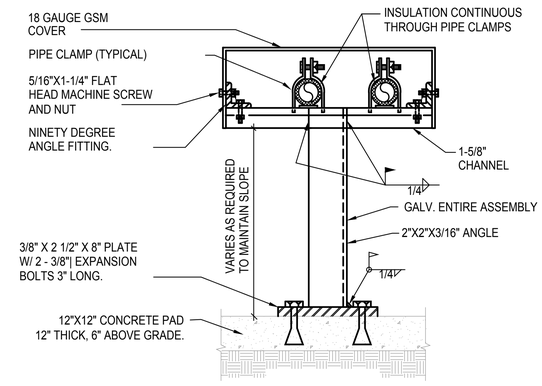


NOTE:
QUANTITY OF PIPES SHOWN REPRESENATIVE ONLY, PROVIDE QUANITY OF PIPES REQUIRED.

6 SUSPENDED REFRIGERANT PIPE SUPPORT
M30.03 N.T.S.



7 FAN COIL DETAIL
M30.03 N.T.S.



8 EXTERIOR REFRIGERANT PIPE SUPPORT DETAIL
M30.03 N.T.S.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

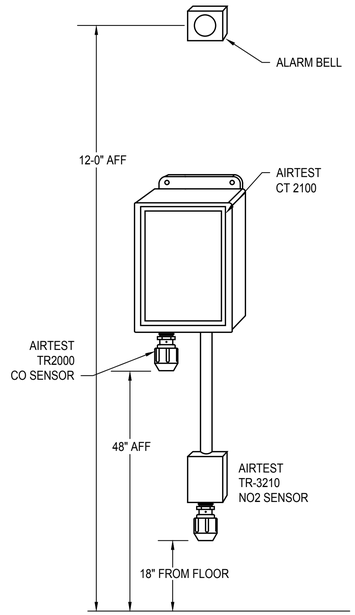
SIDER+BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007
BID SET
ISSUED: APRIL 13, 2017
REVISION SCHEDULE

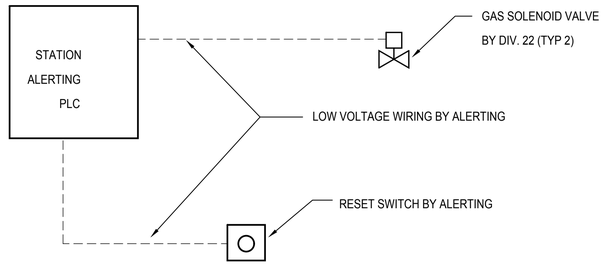
MECHANICAL DETAILS

SHEET:
M30.03



1 CO/N02 DETECTOR DETAIL

M30.04 N.T.S.

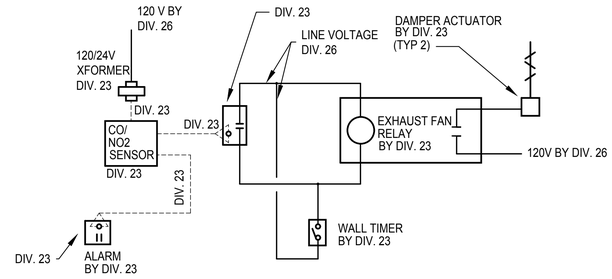


NOTE:
1. COORDINATE VOLTAGE OF VALVE WITH ALERTING CONTRACTOR..

(TYPICAL FOR BBQ & KITCHEN RANGE)

2 GAS VALVE/RESET CONTROL

M30.04 N.T.S.



CO/NO2 (EF-1) SENSOR CONTROL SCHEMATIC

M30.04 Scale: NONE

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

MECHANICAL DETAILS

SHEET:

M30.04

DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
—///—	POWER WIRE
———	CONTROL WIRE
———	REF. PIPE

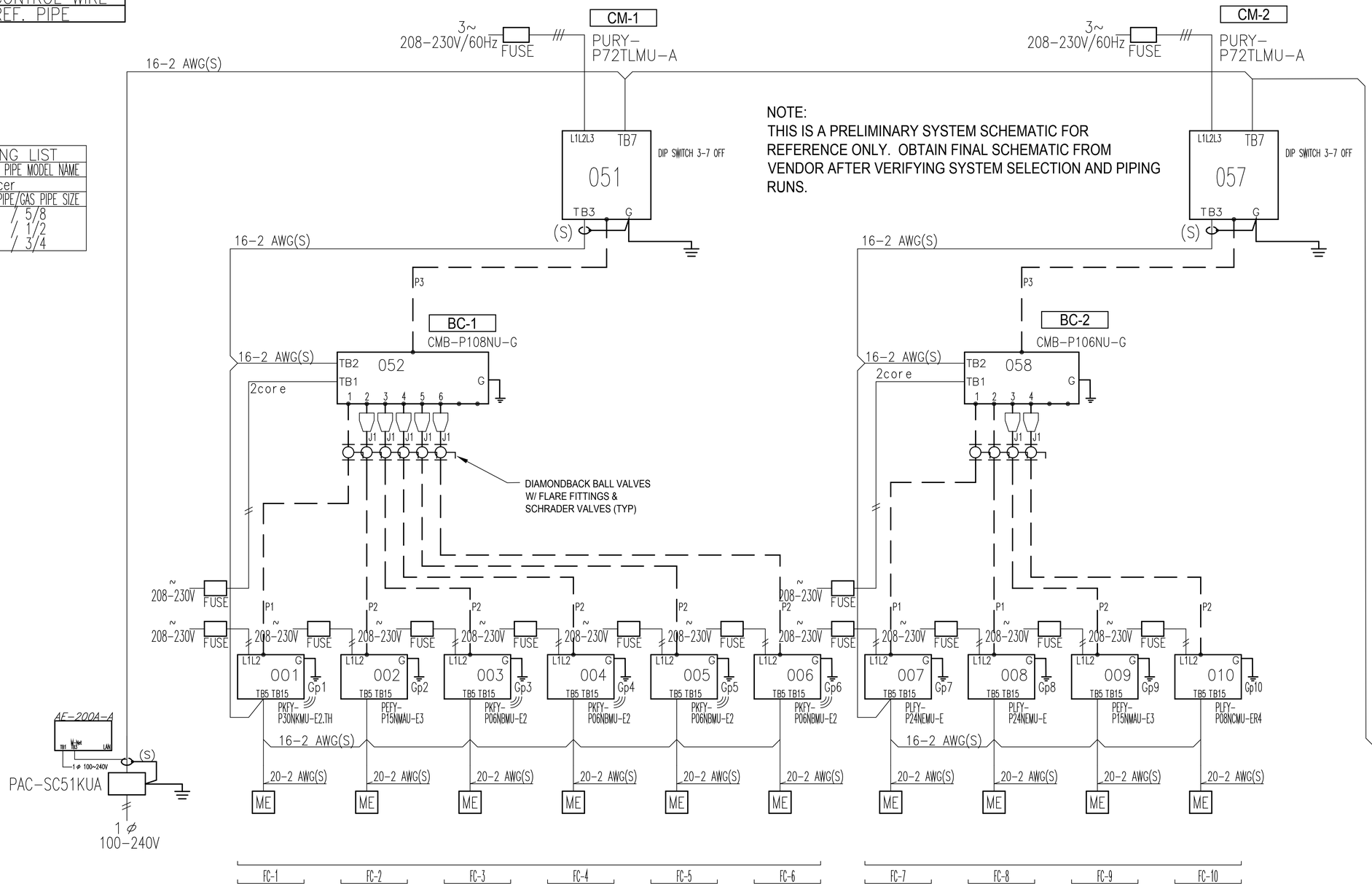
CONT.No		PAGE	

CITY MULTI
SYSTEM SCHEMATIC DWG.

Additional refrigerant charge is needed depending on the size and length of extended piping.
Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.
1.25mm²(16 AWG) : 1.25mm²(16 AWG) or more. 0.75mm²(20 AWG) : between 0.5mm²(24 AWG) and 0.75mm²(20 AWG).

PIPING LIST		
SYMBOL	BRANCH PIPE MODEL NAME	
J1	Reducer	
SYMBOL	LIQUID PIPE/GAS PIPE SIZE	
P1	3/8	/ 5/8
P2	1/4	/ 1/2
P3	5/8	/ 3/4

NOTE:
THIS IS A PRELIMINARY SYSTEM SCHEMATIC FOR REFERENCE ONLY. OBTAIN FINAL SCHEMATIC FROM VENDOR AFTER VERIFYING SYSTEM SELECTION AND PIPING RUNS.



RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER+BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007
BID SET
ISSUED: APRIL 13, 2017
REVISION SCHEDULE

VRF DIAGRAM

SHEET:
M40.01

PLUMBING SYMBOLS LEGEND

LINETYPE LEGEND

- EXISTING
- NEW WORK DARK/HEAVY

PIPING SYSTEM LABELS

- CW — COLD WATER
- HW — HOT WATER
- (140) — HOT WATER (TEMPERATURE)
- HWC — HOT WATER CIRCULATING
- SD — STORM DRAIN
- PW — PUMPED WASTE
- WASTE (BURIED)
- W — WASTE (ABOVE GRADE)
- GW — GREASE WASTE
- V — VENT
- RL — RAINLEADER
- OD — OVERFLOW DRAIN
- NPW — NON-POTABLE COLD WATER
- G OR P — NATURAL GAS OR PROPANE
- F — FIRE SERVICE
- DIRECTION OF FLOW
- CA — COMPRESSED AIR
- DI — DIONIZED WATER
- V — VACUUM
- C — CONDENSATE
- PC — PUMPED CONDENSATE
- X" — SLOPE SYMBOL (X" PER FOOT)

PIPE FITTINGS

- PIPE DOWN
- PIPE UP
- TEE UP
- TEE DOWN
- UNION
- PIPE ANCHOR POINT
- PIPE GUIDE
- FLANGE
- CAP

DRAINS AND CLEANOUTS

- FLOOR SINK
- FLOOR DRAIN
- HIDDEN FLOOR DRAIN
- ROOF DRAIN
- OVERFLOW DRAIN
- FLOOR CLEANOUT
- GRADE CLEANOUT
- TRENCH DRAIN
- WALL CLEANOUT
- UP TO CLEANOUT
- FUNNEL DRAIN
- STANDPIPE FUNNEL DRAIN

PIPE VALVES AND SPECIALTIES

- P-1 — PLUMBING EQUIPMENT
- X — MEDICAL TAG
- M-1 — DETAIL NUMBER / SHEET
- FLAG NOTE
- 1 — REVISION TAG
- 1 / P-1 — PLUMBING RISER NO. / SHEET
- 1 — SECTION NUMBER / SHEET NUMBER

PIPE VALVES AND SPECIALTIES

- GATE VALVE
- GLOBE VALVE
- NON RISING STEM VALVE
- RISING STEM GATE VALVE
- BALANCING VALVE (CIRCUIT SETTER)
- AUTOFLOW VALVE
- CHECK VALVE
- BALL VALVE
- PRESSURE REDUCING VALVE
- PRESSURE GAUGE
- THERMOMETER
- STRAINER
- SAFETY VALVE
- PIPING FLEXIBLE CONNECTIONS
- BUTTERFLY VALVE
- OR — CAP
- HOSE BIBB
- DOUBLE CHECK VALVE
- RPBA
- TRIPLE DUTY VALVE
- BALL VALVE MANUAL LEVER
- BUTTERFLY VALVE MANUAL LEVER
- BUTTERFLY GEAR VALVE
- GLOBE VALVE MANUAL LEVER
- BALANCE VALVE (PRESSURE INDEPENDENT)
- PUMP
- M — METER
- M — METER

PLUMBING NOTES

1. PLUMBING FIXTURES SHALL BE DESIGNED OR EQUIPPED TO MEET FOLLOWING MAXIMUM WATER USE EFFICIENCY STANDARDS:
   - A. WATER CLOSETS (TANK STYLE OR FLUSH VALVE). 1.6 GPF
   - B. SHOWER HEADS 2.5 GPM
   - C. RESIDENTIAL LAVATORY FAUCETS. 1.0 GPM
   - D. PUBLIC LAVATORY FAUCETS. 0.5 GPM
   - E. KITCHEN SINK FAUCETS 2.2 GPM

   SINK AND LAVATORY DRAINS SHALL BE CHROME PLATED 17 GA. BRASS TUBING BY ENGINEERED BRASS, DEARBORN BRASS OR BRASSCRAFT. PROVIDE INSULATED P-TRAP AND SUPPLY COVERS (TRUEBRO OR EQUAL) AT ALL EXPOSED P-TRAPS AND SUPPLIES PER A.D.A. STANDARDS.
2. PLUMBING FIXTURE MOUNTING SHALL COMPLY WITH CONTRACT DOCUMENTS, ADA, AND WASHINGTON STATE ACCESSIBILITY CODE.
3. INSTALL WATER HAMMER ARRESTORS ON HOT & COLD WATER PIPING OF EACH FIXTURE GROUP AND AT ALL FIXTURES W/QUICK ACTING VALVES. UNITS SHALL BE ZURN "SHOKTROLL" OR EQUAL. SELECT UNIT SIZE AND LOCATION PER MANUFACTURERS RECOMMENDATIONS AND IN ACCORD WITH PDI STANDARD WH-201. PROVIDE ACCESS PANELS AT ARRESTORS ABOVE GWB CEILINGS. ALL ACCESS PANELS AND DOORS SHALL BE ELMDOR FAB. STEEL SLK SERIES OR EQUAL WITH 14 GAUGE DOOR AND FRAME. PROVIDE WITH CYLINDER LOCK, CONTINUOUS PIANO HINGE AND PRIME COATED READY FOR PAINTING.
4. COLD WATER AND HOT WATER PIPING SHALL BE INSULATED AND ROUTED FULL SIZE WITH APPROPRIATE SIZE REDUCTION AT POINT OF CONNECTION TO FIXTURE. 1/2" WATER LINE LIMITED TO 10'-0" DISTANCE FROM FIXTURE. "DEAD-LEGS" OR "FUTURE" STUBS ON ACTIVE POTABLE WATER LINES SHALL BE LIMITED TO 4" TO PREVENT STAGNANT WATER CONDITIONS.
5. INSTALL WATER PIPING ON WARM SIDE OF BUILDING INSULATION. SEE SPEC. FOR INSULATION SYSTEMS. SEE DWGS. FOR ELEC. HEAT TRACE REQUIREMENTS. SEE PLUMBING DETAILS FOR PIPE HANGER STYLE. SEE SPEC. FOR HANGER SPACING.
6. WHEN CONNECTING TO EXISTING BURIED WASTE PIPING VERIFY PROPER FLOW CONDITIONS BEFORE COVERING. BURIED WASTE & VENT PIPING SHALL BE MIN. 2" DIA. & SLOPED 1/4"/FT., UNLESS OTHERWISE NOTED. PVC OR ABS PIPING SHALL BE USED ONLY IF APPROVED BY ADMINISTRATIVE AUTHORITY, SEE SPECIFICATIONS FOR FURTHER INFO.
7. PROVIDE TRAP PRIMERS ON ALL FLOOR DRAINS EXCEPT IN SHOWER STALLS OR OTHERWISE NOTED ON DWGS. CONTRACTOR SHALL INSTALL ACCESS PANELS WHERE PRIMERS ARE CONCEALED IN WALLS.
8. COORDINATE VENT THROUGH ROOF (VTR) LOCATIONS WITH HVAC UNITS. MAINTAIN MIN. 10'-0" CLEARANCE. OFFSET VTR AS NECESSARY. COORDINATE PIPE ROUTING WITH HVAC AND SPRINKLER CONTRACTORS.
9. SITE WATER PRESSURE IS 85 PSI PER LAKEHAVEN WATER.
10. RISER DIAGRAMS & PLANS DO NOT SHOW SOME PIPING OFFSETS REQUIRE FOR STRUCTURAL CLEARANCES. EXACT ROUTING MAY VARY FROM THAT INDICATED. ALL WASTE PIPING INCLUDING RISERS ON RESIDENTIAL LEVELS TO BE CAST IRON.
11. ALL LEVER CONTROLLED WATER CLOSETS TO BE INSTALLED WITH THE LEVER ON THE OPEN SIDE OF THE BATHROOM.

ENERGY CODE NOTES

1. SEE SCHEDULE FOR WATER HEATER EQUIPMENT TYPE, CAPACITY AND EFFICIENCY. MINIMUM EFFICIENCY SHALL MEET TABLE C404.2
2. PUBLIC LAVATORIES SHALL BE EQUIPPED WITH AN ASSE 1070 MIXING VALVE SET TO DELIVERY 110 F HOT WATER.
3. NONCIRCULATING HOT WATER SYSTEMS WITHOUT AN INTEGRAL HEAT TRAP SHALL BE PROVIDED WITH HEAT TRAPS ON THE SUPPLY AND DISCHARGE PIPING.
4. ELECTRIC WATER HEATERS IN UNCONDITIONED SPACES OR ON CONCRETE FLOORS SHALL BE PLACED ON INCOMPRESSIBLE R-10 INSULATION.
5. PROVIDE PIPE INSULATION PER ENERGY CODE SECTION C403.2.9 AND SPECIFICATION SECTION 22 07 00.
6. INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DAMAGE, SUNLIGHT, MOISTURE AND WIND. PROVIDE JACKET AND ALUMINUM COVERS. ADHESIVE TAPE IS NOT PERMITTED.
7. ALL PIPE AND WRAP INSULATION SHALL BE LABELED WITH ITS THICKNESS AND INSULATING VALUE (R OR K).
8. THE MAXIMUM ALLOWABLE PIPING LENGTH FROM THE NEAREST SOURCE OF HOT WATER TO THE TERMINATION OF THE FIXTURE SUPPLY SHALL COMPLY WITH C404.3
9. CIRCULATING HOT WATER PUMPS OR HEAT TRACE SHALL BE EQUIPPED WITH AUTOMATIC TIMERS.

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE
ADA	AMERICANS WITH DISABILITIES ACT
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ALT	ALTERNATE
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL/ARCHITECT
AS	AIR SEPARATOR
AUX	AUXILIARY
BFF	BELOW FINISHED FLOOR
BFG	BELOW FINISHED GRADE
BHP	BRAKE HORSE POWER
BLDG	BUILDING
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
CA	COMBUSTION AIR
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COND	CONDENSATE
CW	COLD WATER
CX	CONNECT TO EXISTING
dB	DECIBEL
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DDCV	DOUBLE DETECTOR CHECK VALVE
DDCVA	DOUBLE DETECTOR CHECK VAVLE ASSEMBLY
DF	DRINKING FOUNTAIN
DFU	DRAINAGE FIXTURE UNIT
DHW	DOMESTIC HOT WATER
DHWC	DOMESTIC HOT WATER RECIRCULATION
Ø OR DIA	DIAMETER
DN	DOWN
DWG(S)	DRAWING(S)
DWV	DRAIN, WASTE, VENT
EA	EACH
EEW	EMERGENCY EYEWASH
EFF	EFFICIENCY
ELEV	ELEVATION
EQUIP	EQUIPMENT
ES	EMERGENCY SHOWER
ET	EXPANSION TANK
EX	EXISTING/EXISTING TO REMAIN
EXP	EXPANSION
FC	FAIL CLOSED
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FLA	FULL LOAD AMPS
FM	FORCE MAIN
FO	FAIL OPEN
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOOR SINK
FSZV	FIRE SPRINKLER ZONE VALVE ASSEMBLY
FT	FEET/FOOT
FTG	FOOTING
FV	FLUSH VALVE
G	NATURAL GAS
GA	GAUGE
GAL	GALLON
G.C.	GENERAL CONTRACTOR
GCO	GRADE CLEANOUT
GD	GARAGE DRAIN
GPF	GALLONS PER FLUSH
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GW	GREASE WASTE
H	HEIGHT
HB	HOSE BIBB
HBVB	HOSE BIBB VACUUM BREAKER
HD	HEAD
HP	HORSEPOWER
HS	HAND SINK
HW	HOT WATER
HX	HEAT EXCHANGER
IE	INVERT ELEVATION
IN	INCH/INCHES
KW	KILOWATT/KILOWATTS
LAV	LAVATORY
LB	LAUNDRY BOX
LBS	POUNDS
LF	LINEAL FOOT
LTG	LIGHTING
LWT	LEAVING WATER TEMPERATURE
MBH	1000 BRITISH THERMAL UNITS PER HOUR
MED	MEDIUM
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MEZZ	MEZZANINE
MIN	MINIMUM
MISC	MISCELLANEOUS
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEG	NEGATIVE
NIC	NOT IN CONTRACT
NOM	NOMINAL
NPC	NON-POTABLE COLD WATER
NPCW	NON POTABLE COLD WATER
NPH	NON-POTABLE HOT WATER
NPHR	NON-POTABLE HOT WATER RETURN
NPT	NATIONAL PIPE THREAD
NTS	NOT TO SCALE
OD	OUTSIDE DIAMTER/OVERLOW DRAIN
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
ORD	OVERFLOW ROOF DRAIN
ORL	OVERFLOW RAINWATER LEADER
ΔP	PRESSURE DIFFERENTIAL
PD	PLANTER DRAIN; PRESSURE DROP
PERF	PERFORATED
PH	PHASE
PIV	POST INDICATOR VALVE
PLBG	PLUMBING
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER INCH GAUGE
QTY	QUANTITY
RD	ROOF DRAIN
REQD	REQUIRED
RL	RAIN WATER LEADER
RM	ROOM
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RPM	REVOLUTIONS PER MINUTE
RLX	RELOCATE EXISTING
RV	RELIEF VALVE
RX	REMOVE EXISTING
S	SINK
S	STORM
SCFM	STANDARD CUBIC FEET PER MINUT
SD	STORM DRAIN
SF	SQUARE FOOT
SFU	SUPPLY FIXTURE UNIT
SH	SHOWER
S.O.V.	SHUTOFF VALVE
SPEC	SPECIFICATION
SS	STAINLESS STEEL
STD	STANDARD
SYM	SYMBOL
T&P	TEMPERATURE AND PRESSURE RELIEF VALVE
TBD	TO BE DETERMINED
TD	TRENCH DRAIN
TEMP	TEMPERATURE
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOD	TOP OF DECK
TOJ	TOP OF JOIST
TOS	TOP OF SLAB/TOP OF STEEL
TP	TRAP PRIMER
T&P	TEMPERATURE & PRESSURE
TYP	TYPICAL
UL	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
UR	URINAL
V	VENT(S)
V	VOLT
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VIB	VALVE-IN-BOX
VTR	VENT THROUGH ROOF
W	WASTE/WATER
W/	WITH
W/IN	WITHIN
W/O	WITHOUT
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WATER HEATER
WPD	WATER PRESSURE DROP
WT	WEIGHT
YCO	YARD CLEANOUT

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

PLUMBING COVER SHEET

SHEET:

P00.01

PLUMBING FIXTURE SCHEDULE

MARK	ITEM	MFR: MODEL	DESCRIPTION
WC-1	WATER CLOSET (ADA)	KOHLER: K-3493-T-0	FLOOR-MOUNT, TANK TYPE, PRESSURE ASSIST, ELONGATED BOWL 30 1/8" X 21 1/4" X 31 1/4. TWO PIECE, 1.6 GPF, ADA. INSTALL FLUSH HANDLE TOWARDS OPEN SIDE OF RESTROOM PER ADA
	SEAT	BEMIS: 1955C	WHITE PLASTIC, OPEN FRONT, W/O COVER.
LAV-1	LAVATORY	KOHLER: K-2210	19-1/4" X 16-1/4" OVAL, UNDERMOUNT, VIT. CHINA, WHITE.
	FAUCET	SYMMONS: S-20-2-1	4 1/2" SPOUT, 1.0 GPM AERATOR, SGL. LEVER HANDLE, 4" CTRS, CHROME PLATE, POP-UP DRAIN, VANDAL RES. ADA
	DRAIN		INSULATE DRAIN AND STOPS PER ADA REQUIREMENTS
	LAVATORY MIXING VALVE	SYMMONS: 7-210-CK-B	THERMOSTATIC MIXING VALVE, INTEGRAL CHECKS, 3/8" INLETS AND OUTLET, PROVIDE WHITE ENAMEL WALL CABINET AND MOUNT BELOW LAVATORIES. MUST COMPLY WITH ASSE 1070.
LAV-2	LAVATORY	KOHLER: K-2005-4	21-1/4" X 18-1/8", WALL MOUNT, VIT. CHINA, 3 HOLES ON 4" CTRS, WHITE, CONCEALED ARM CARRIER, ADA.
	FAUCET	SYMMONS: S-20-2-G-O.5	4 1/2" SPOUT, 0.5 GPM AERATOR, SGL. LEVER HANDLE, 4" CTRS, CHROME PLATE, GRID DRAIN, VANDAL RES. ADA
	DRAIN		INSULATE DRAIN AND STOPS PER ADA REQUIREMENTS
	LAVATORY MIXING VALVE	SYMMONS: 7-210-CK-B	THERMOSTATIC MIXING VALVE, INTEGRAL CHECKS, 3/8" INLETS AND OUTLET, PROVIDE WHITE ENAMEL WALL CABINET AND MOUNT BELOW LAVATORIES. MUST COMPLY WITH ASSE 1070.
SH-1	SHOWER	AQUATIC 1423C	42" DP. X 35-1/4" WIDE X 73-1/4" HIGH, ONE PIECE GEL-COATED FIBERGLASS, SS THROUGH BOLTED CURTAIN ROD, VERIFY RIGHT OR LEFT HAND PLUMBING BEFORE ORDERING.
	SHOWER VALVE	SYMMONS: 4701-X-2.0	PRESSURE BALANCING MIXING VALVE WITH INTERGRRAL SERVICE STOPS, 2.0 GPM SHOWER HEAD.
	DRAIN		PERFORATED GRID STRAINER, CHROME.
SH-2	TRANSFER SHOWER (A.D.A.)	FIBER FAB: 38H1FW	38-1/4" DP. X 38" WIDE X 80-3/4" HIGH, ONE PIECE GEL-COATED FIBERGLASS, SS THROUGH BOLTED CURTAIN ROD, FOLD DOWN SEAT AND GRAB BARS (HORIZONTAL & VERTICAL), ORDER SHOWER WITH FACTORY INSTALLED BACKING FOR SEAT AND GRAB BARS. BEFORE ORDERING VERIFY RIGHT OR LEFT HAND PLUMBING. INSTALL PER ADA.
	SHOWER HEAD	SYMMONS: T-600B-36-V	36" SLIDE BAR, ADA, 2.5 GPM HAND HELD SHOWER HEAD.
	SHOWER VALVE	SYMMONS: 4700-X	PRESSURE BALANCING MIXING VALVE, INTERGRAL STOPS, ADA.
	DRAIN		PERFORATED GRID STRAINER, CHROME.
SH-3	DECON SHOWER	SWANSTONE: SK-484896 & SS-4242	#SK-484896 SOLID SURFACE SHOWER WALLS 48" X 48" X 96", CUT WALLS PER MANUFACTURERS INSTRUCTIONS TO FIT 42"X42" SHOWER ALCOVE, VERIFY ALCOVE DIMENSIONS WITH ARCH. #SS-4242 SOLID SURFACE SHOWER PAN 42" X 42" VERIFY COLOR WITH ARCH.
	DRAIN		PERFORATED GRID STRAINER, CHROME.
S-1	KITCHEN SINK	ELKAY: DLRS332212	33"X22"X12" DEEP, SINGLE COMPARTMENT, #18 GAUGE STAINLESS STEEL, SELF-RIMMING SOUND DEADENED. 3 HOLES SPACED TO FIT FAUCET, INSTA HOT/COLD FAUCET, AND DISHWASHER AIR GAP.
	FAUCET	T&S BRASS: MPZ-2DLN-06	6" SWING NOZZLE, 8" RISER, 24" FLEXIBLE STAINLESS STEEL HOSE, 1.42 GPM, SINGLE HOLE FAUCET.
	DRAIN		CRUMB CUP STRAINER, 1 1/2" TAILPIECE, STAINLESS STEEL.
	HOT/COLD WATER DISPENSER	INSINKERATOR: INVOLVE-HC	2/3 GALLON HOT WATER TANK, ADJUSTABLE TEMPERATURE, SELF CLOSING VALVE, BRASS FAUCET, PROVIDE F-1000S FILTRATION SYSTEM, 120 V. DIVISION 26 TO PROVIDE DEDICATED OUTLET UNDER SINK TO SERVE ONLY THE WATER DISPENSER TANK.

NOTE: CONTRACTOR SHALL VERIFY CABINET DIMENSIONS BEFORE ORDERING SINK.

MARK	ITEM	MFR: MODEL	DESCRIPTION
S-2	KITCHEN PREP SINK	ELKAY: LRAD252155	25"X21-1/4"X5-1/2" DEEP, SINGLE COMPARTMENT, #18 GAUGE STAINLESS STEEL, SELF-RIMMING SOUND DEADENED, 4 HOLES ON 4" CENTERS.
	FAUCET	CHICAGO: 201-AGN2AE3ABCP	11-5/8" HIGH X 5-3/8" SWINGING GOOSENECK, 2.2 GPM, LEVER HANDLES.
	DRAIN		CRUMB CUP STRAINER, 1 1/2" TAILPIECE, STAINLESS STEEL.
	HOT/COLD WATER DISPENSER	INSINKERATOR: INVOLVE-HC	2/3 GALLON HOT WATER TANK, ADJUSTABLE TEMPERATURE, SELF CLOSING VALVE, BRASS FAUCET, PROVIDE F-1000S FILTRATION SYSTEM, 120 V, DIVISION 26 TO PROVIDE OUTLET UNDER SINK TO SERVE THE WATER DISPENSER TANK.

NOTE: CONTRACTOR SHALL VERIFY CABINET DIMENSIONS BEFORE ORDERING SINK.

MARK	ITEM	MFR: MODEL	DESCRIPTION
S-3	SINK (DECON)	ELKAY: WNSF8248L	73-1/2" LONG X 27-1/2" DEEP, 14 GAUGE SS SCULLERY SINK, 2 COMPARTMENT, FULL LENGTH 8" HIGH BACKSPLASH, COMPARTMENT DIMENSIONS 24" X 24" X 14", 24" DRAIN BOARD ON LEFT, TUBULAR LEGS, 1/4" RADIUS COVED CORNERS, 2 HOLES ON 8" CENTERS.
	FAUCET	T & S BRASS: B-2187	WALL MOUNTED FITTING, 10" SWING SPOUT W/AERATOR, INDEXED LEVER HANDLES, 8" CTRS., PRE-RINSE FAUCET RUBBER HOSE & SPRAY VALVE.
	EMERGENCY EYE WASH	HAWS: 7610	DECK MOUNTED, ABS PLASTIC HEADS, 2.5 GPM FLOW CONTROLS,PULL DOWN ACTIVATIONS, UNIVERSAL EMERGENCY SIGN. PROVIDE WITH HAWS PREPACKAGED TEMPERED WATER SYSTEM MODEL 9201EFE. MOUNT EYEWASH ON BACKSPLASH ABOVE RIGHT BOWL IN LOCATION THAT DOES NOT CONFLICT WITH FAUCET AND ALLOWS HEADS TO BE ABOVE BOWL WHEN PULLED DOWN FOR USE.
	DRAIN	ELKAY: LK25RT	2" DIAMETER TAILPIECE, ROTARY LEVER OPERATED DRAIN OUTLET
LB	LAUNDRY BOX	OATEY: 38470SP	FIRE-RATED ABS OUTLET BOX 1/2" HW & 1/2" CW, 2" DRAIN.
SV	SERVICE VALVE	SIOUX CHIEF: 696 OXBOX	1/2" SERVICE STOP FOR SUPPLY WATER, WATER HAMMER ARRESTORS, OUTLET BOX, 11-1/2" X 7-1/4" BOX.
FD-1	FLOOR DRAIN	ZURN: Z-415-S	2" C.I. BODY, 5" SQ. ADJ. NICKEL BRONZE STRAINER, TRAP PRIMER TAPPING. PROVIDE TRAP PRIMERS FOR ALL INSTALLATIONS EXCEPT SHOWERS. **REFER TO FLOOR DRAIN DETAIL FOR DRAIN CONST. &/OR COVERING.**
FD-2	FLOOR DRAIN W/FUNNEL	ZURN: Z-415-S	2" C.I. BODY, 7" SQ. ADJ. NICKEL BRONZE STRAINER, TRAP PRIMER TAPPING. PROVIDE TRAP PRIMERS FOR ALL INSTALLATIONS EXCEPT SHOWERS. PROVIDE WITH ZURN Z329-7 FUNNEL. **REFER TO FLOOR DRAIN DETAIL FOR DRAIN CONST./COVERING.**
TD-1	TRENCH DRAIN	ZURN: Z874-E1-DGC	12" WIDE X 48" LONG X 16" DEEP SECTIONAL DRAIN. HIGH-DENSITY COMPOSITE CONST. W/ HEAVY-DUTY STEEL TOP FRAME & DUCTILE IRON SLOTTED GRATE. PROVIDE OPENING IN GRATE FOR EXTRACTOR DRAIN PROVIDE BOTTOM DOME STRAINER.
HB-1	EXTERIOR HOSE BIBB (LOOSE KEY)	WOODFORD: 19	FREEZE PROOF TYPE, AUTOMATIC DRAINING, PROVIDE WITH LOOSE KEY CONTROL IN LIEU OF WHEEL HANDLE.
HB-2	HOSE BIBB (WHEEL HANDLE)	WOODFORD: 24	BRASS CONST., 3/4" HOSED END, VAC. BKR., WHEEL HANDLE, CHROME PLATED.
HB-3	HOSE STATION (HOT & COLD)	LEONARD: SW-75-EVBD	INT. VACUUM BREAKER, DIAL THERMOMETER, 3/4" HOSE THREAD. PROVIDE LEONARD 18100 MOUNTING PLATE.
	HOSE	LEONARD: 10-HDH	10' HEAVY DUTY HOSE
	NOZZLE	LEONARD: N-2	STANDARD NOZZLE

MARK	ITEM	MFR: MODEL	DESCRIPTION
HR	WATER HOSE REEL	REELCRAFT: CA33112 L	HAND CRANK HOSE REEL ON MOUNTING CHANNEL. PROVIDE WITH 100 FEET OF 3/4" HOSE & WALL MOUNTING RAIL.
ACP	AIR COMPRESSOR	QUINCY: QT-5	RECIPROCATING TYPE, 5 HP, 230 V/3 PHASE, 17.2 CFM @ 175 PSI VERTICAL 80 GALLON TANK.
WH	WATER HEATER	PHOENIX: PH-130-80	80 GAL. CAP., 158 GPH RECOVERY @ 100 DEG. F TEMP. RISE. 30 - 130 MBH MODULATING NATURAL GAS INPUT, PVC COMBUSTION AIR & GAS VENT, 96% EFF., 405 LBS (DRY), 115 VOLT, 5 AMPS.
ET	DOMESTIC EXPANSION TANK	AMTROL: ST-12	STEEL CONST. W/INTERNAL DIAPHRAGM 11" DIA. X 15" HIGH.
CP	CIRC. PUMP	ARMSTRONG: ASTRO 225SSU	3.5 GPM @ 10' HEAD, 115 VOLT/1 PHASE, FLA 0.69, 83 WATTS, STAINLESS STEEL PUMP BODY.
MV	MASTER MIXING VALVE	SYMMONS: 7-400	THERMOSTATIC MIXING VALVE, INTEGRAL CHECK STOPS, REMOVABLE STRAINER, BRONZE FINISH, WALL MOUNTED. TEMPERATURE CONTROL RANGE OF 70° - 150° F.
RD	ROOF DRAIN	ZURN: Z-100-C-R	15" DIA. C.I. BODY, 3" PIPE SIZE, ALUM. DOME, UNDER-DECK CLAMP.
OD	ROOF DRAIN	ZURN: Z-100-C-R-W2	15" DIA. C.I. BODY, 3" PIPE SIZE, ALUM. DOME, UNDER-DECK CLAMP. 2" HIGH DAM.
ON	OVERFLOW NOZZLE	ZURN: Z199	REFERENCE PLANS FOR PIPE SIZE, NICKEL BRONZE BODY
GOB	GAS OUTLET BOX	BURNABY: BBQ-SS-50	BRUSHED STAINLESS STEEL BOX WITH LOW PRESSURE GAS CONNECTION. 1/2" NPT PIPE CONNECTION AND 1/2" QUICK DISCONNECT PLUG INCLUDED.
DB	DRAIN BOX	SIOUX CHIEF: 696-3	2" DRAIN OUTLET BOX, 3-1/2" X 5-1/2"
AR	AIR HOSE REEL	GROVER: 1550 SN	REEL W/ 50' OF 1/2" HOSE. PROVIDE MOUNTING RAIL ACCESSORY.

PLUMBING FIXTURE CONNECTION SCHEDULE

MARK	FIXTURE	PIPE SIZE C.W	H.W	WASTE	VENT	WATER FIXTURE UNITS	WASTE FIXTURE UNITS	REMARKS
WC-1	WATER CLOSET	1/2"	-	3"	2"	2.5	4	FLOOR MOUNT, TANK TYPE
LAV-1	LAVATORY	1/2"	1/2"	1-1/4"	1-1/4"	1	1	UNDERMOUNT
LAV-2	LAVATORY	1/2"	1/2"	1-1/4"	1-1/4"	1	1	WALL MOUNT
S-1	SINK	1/2"	1/2"	2"	1-1/2"	2	2	KITCHEN SINK
S-2	SINK	1/2"	1/2"	2"	1-1/2"	2	2	KITCHEN SINK
S-3	SINK	1/2"	1/2"	2"	1-1/2"	2	2	DECON SINK
SH-1	SHOWER	1/2"	1/2"	2"	2"	2	2	
SH-2	SHOWER	1/2"	1/2"	2"	2"	2	2	ADA
SH-3	SHOWER	-	-	2"	2"	2	-	DECON SHOWER
DB	DRAIN BOX	-	-	2"	1-1/2"	-	2	FOR CONDENSATE, UNDER COUNTERTOP
LB	LAUNDRY BOX	1/2"	1/2"	2"	1-1/2"	4	2	
FD-1	FLOOR DRAIN	-	-	2"	2"	-	2	
FD-2	FLOOR DRAIN	-	-	2"	2"	-	2	WITH FUNNEL
EX TD	EXISTING TRENCH DRAIN	-	-	4"	-	-	8	TRAPPED AT SEPARATOR
TD-1	TRENCH DRAIN	-	-	4"	2"	-	2	
HB-1	HOSE BIBB	3/4"	-	-	-	2.5	-	
HB-2	HOSE BIBB	3/4"	-	-	-	2.5	-	
HB-3	HOSE BIBB	3/4"	3/4"	-	-	2.5	-	HOT AND COLD, IN DECON SHOWER
SV	SERVICE VALVE	1/2"	-	-	-	0.5	-	

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

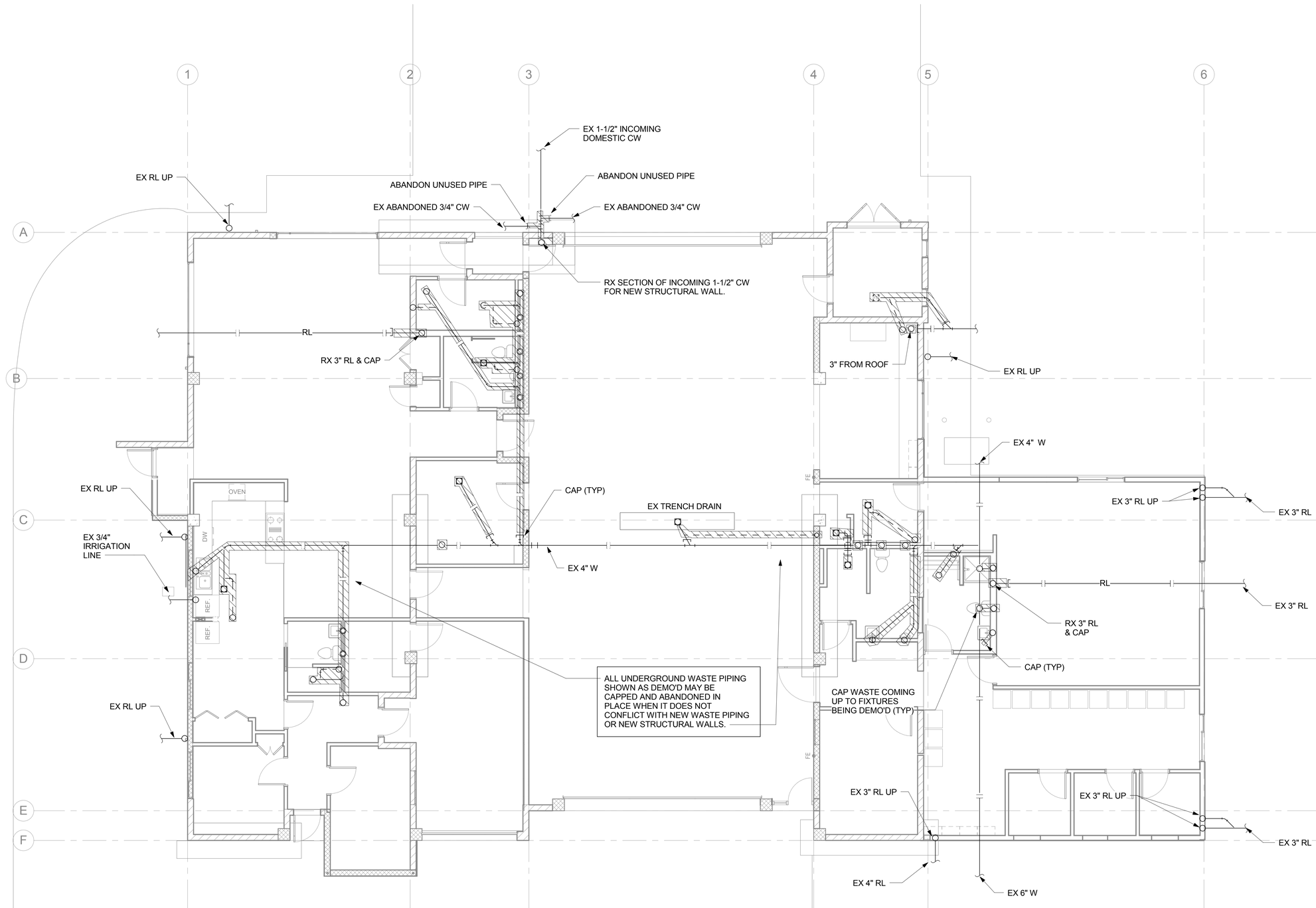
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

PLUMBING SCHEDULES

SHEET:

P00.02



1 PLUMBING DEMOLITION FOUNDATION PLAN
3/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966
Fax: 206.285.1045

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

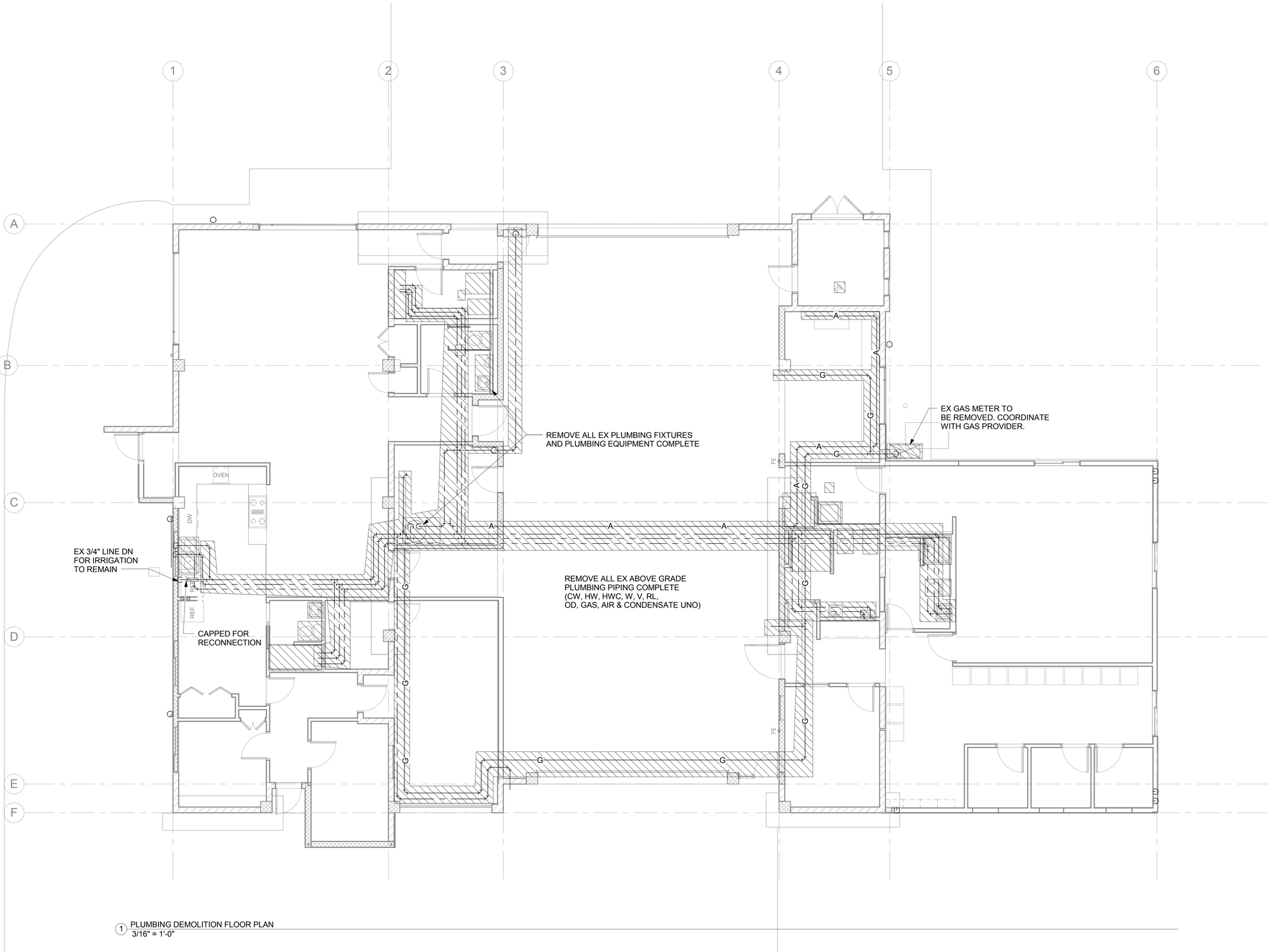
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

DEMOLITION FOUNDATION PLAN

SHEET:

P20.10



1 PLUMBING DEMOLITION FLOOR PLAN
3/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966
Fax: 206.285.1045

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

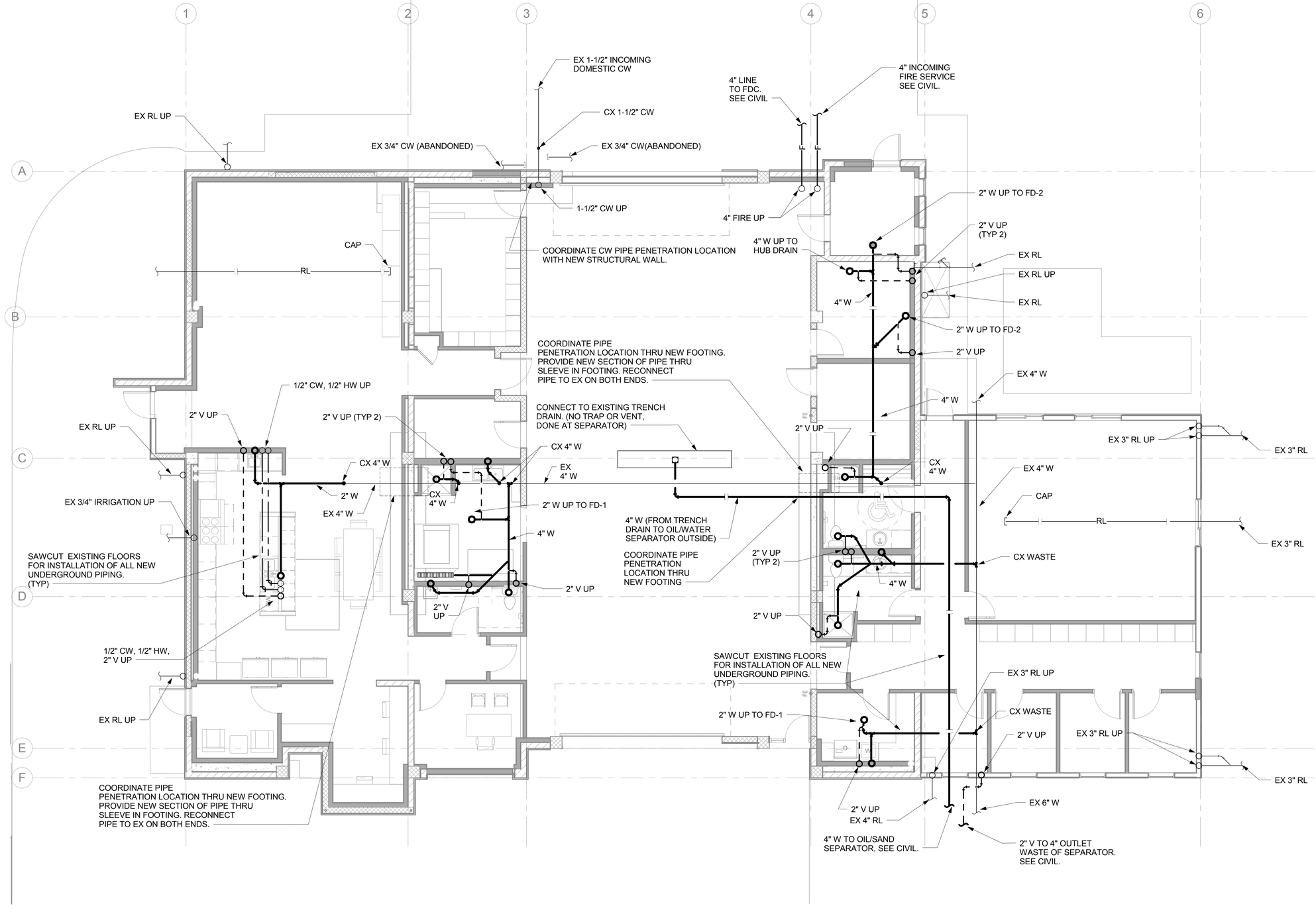
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

DEMILITION FLOOR PLAN

SHEET:

P20.11



1 PLUMBING FOUNDATION PLAN
3/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966
Fax: 206.285.1045

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

ISSUED: APRIL 13, 2017

REVISION SCHEDULE

FOUNDATION FLOOR PLAN

SHEET:

P21.10

FLAG NOTES:

1. 3/4" CONDENSATE TO HVAC UNIT PUMP (FOR WALL MOUNTED HVAC UNITS SEE DETAIL 3/P30.04)

CX EXTERIOR RL PIPE
EL RL PIPE
1-1/2" CW DN. SHUT-OFF VALVE WITH ACCESS PANEL, APPRX. 30" AFF
4" FIRE DN
4" FDC LINE DN
AIR DROP (SEE DETAIL 1/P30.04)
3" RL UP
3" OD UP. DAYLIGHT JUST BELOW OVER HANG.
ACP SEE DETAIL 2/P30.04
PRV, DOMESTIC DCVA, & IRRIGATION DCVA, RACKED ON WALL
2 PSI GAS METER. COORDINATE INSTALLATION WITH NATURAL GAS PROVIDER.
GAS PRV
2" GAS
CX RL PIPE
3" OD UP
ON
3" RL UP
DAY ROOM 108
BUNKER GEAR 109
NEW SHOP 113
3/4" AIR
FD-2
2" VTR
FIRE RISER
1-1/2" CW
10" HUB WITH 4" DRAIN
EX BEAM
3/4" AIR
STORAGE 114
MV
FD-2
CP
WH
ET
HB-1
GOB
3" RL UP
1" GAS
HALL 107
1-1/2" GAS
120 V/1 PHASE GAS SOLENOID VALVE. (TYP 2)
1-1/2" CW
1-1/2" HW
3/4" HWC
2" GAS
3/4" IRRIGATION
1" GAS TO UNIT HEATER
EL. ROOM 115
SEE DETAIL 6/P30.02
3" OD UP
3" OD
3" VENT UP, 3" COMBUSTION AIR UP
1/2" CW DN
1/2" HW DN
2" V
S-2
S-3
1-1/4" GAS
STORAGE 110
HB-2
HR
1" CW
1" HW
3/4" HWC
1-1/2" GAS
3/4" IRRIGATION
CIRCUIT SETTER (1 GPM)
3" OD UP
3" RL UP
EX 3" RL
RL & OD CX 3" RL IN VERTICAL.
EX RL PIPE
SH-3
2" V
HB-3
EX BEAM
1" CW 3/4" HW 3/4" HWC
EX TRENCH DRAIN
AR MOUNTED TO SIDE OF BEAM
RR (ADA) 116
SH-2
PT 126
3" RL
CX EXTERIOR RL PIPE
FD-1
3" VTR
EX 3/4" IRRIGATION LINE DN
3/4" CW 3/4" HW 3/4" HWC
1" CW 1" HW 3/4" HWC
1" CW, 1" HW (SEE DETAIL 5/P30.03)
INSTALL ALL PIPING IN APP BAY TIGHT TO CEILING FOLLOWING THE ROOF SLOPE
1" GAS TO UNIT HEATER
LAV-1 (TYP 2)
CX 3/4" IRRIGATION LINE
CIRCUIT SETTER (2 GPM)
3/4" IRRIGATION
WC-1 (TYP)
2" V
S-1
1/2" HWC
RR 105
TD-1
RR 117
1/2" CW FOR COFFEE MAKER. VERIFY EXACT LOCATION OF COFFEE MAKER WITH ARCH. BEFORE INSTALLING. PROVIDE SERVICE STOP AND HARDPIPE CONNECTION TO COFFEE MAKER
3/4" CW
EX BEAM
HB-2
HR
ON
SV
APPARATUS BAY 112
SH-1
2" V
3/4" CW 3/4" HW 3/4" HWC
3/4" CONDENSATE
CORRIDOR 124
EX RL PIPE
LAV-2
3/4" CONDENSATE DN. DRAIN INTO TRENCH DRAIN
3" VTR
CX EXTERIOR RL PIPE
SV
SV
OFFICE 103
CIRCUIT SETTER (0.5 GPM)
LAUNDRY 118
FD-1
3" RL UP
3" OD UP
SR 121
SR 122
SR 123
3" OD UP
RL & OD CX 3" RL IN VERTICAL.
LOBBY 101
WATCH OFFICE 102
3" OD UP
3" RL UP
2" V
EX 3" RL
HB-1
LB
DB
(FOR CONDENSATE)
RL & OD CX 3" RL IN VERTICAL.
3/4" CONDENSATE DN TO DRAIN BOX
3/4" CONDENSATE

1 PLUMBING FLOOR PLAN
3/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER+BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966
Fax: 206.285.1045

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

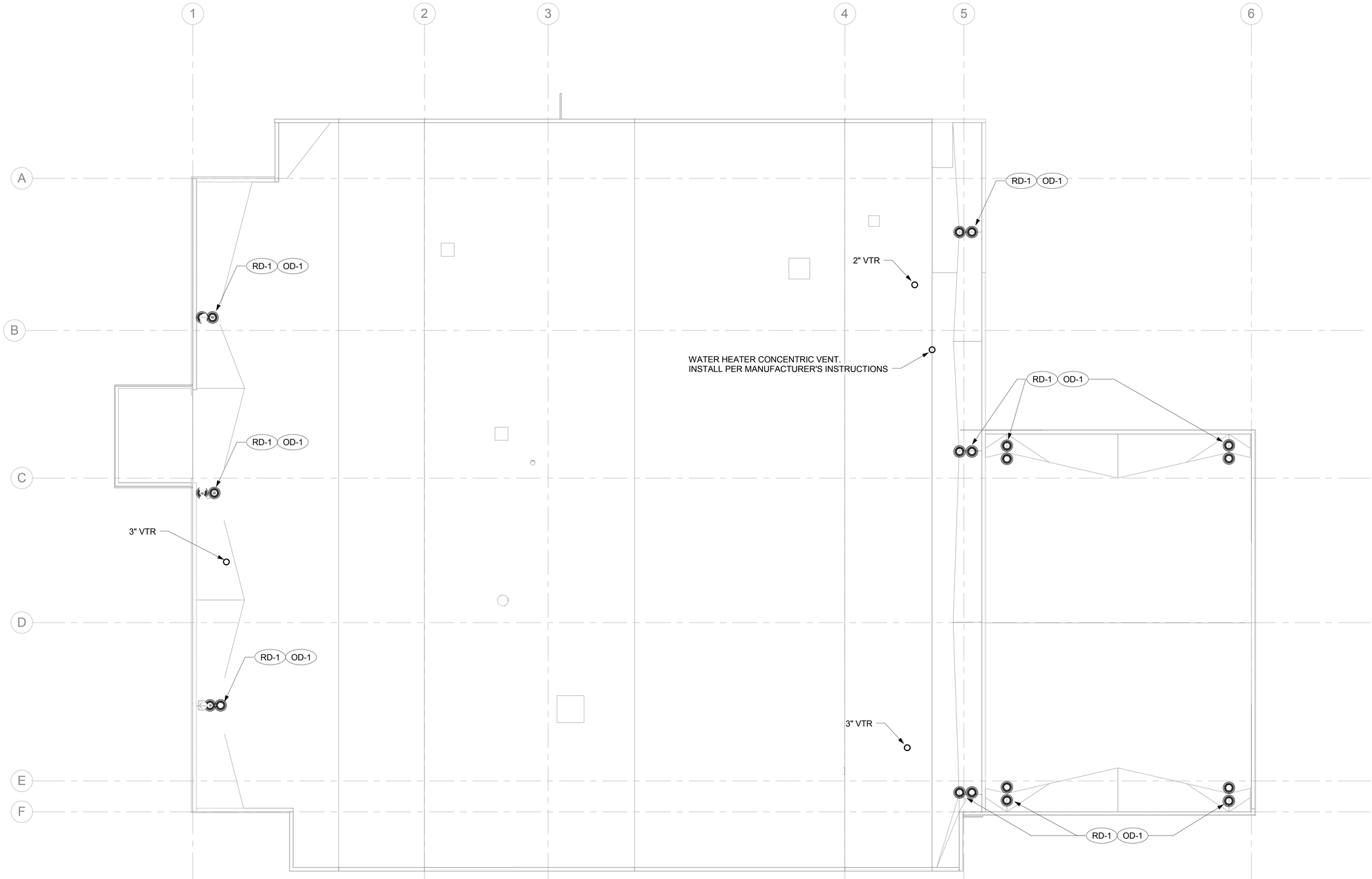
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007
BID SET
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

FLOOR PLAN
PLUMBING

SHEET:
P21.11



1 ROOF PLAN - MECHANICAL
3/16" = 1'-0"

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS
MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966
Fax: 206.285.1045

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

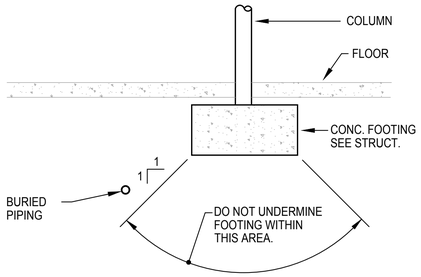
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

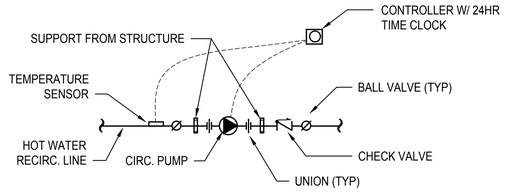
ROOF PLAN
PLUMBING

SHEET:

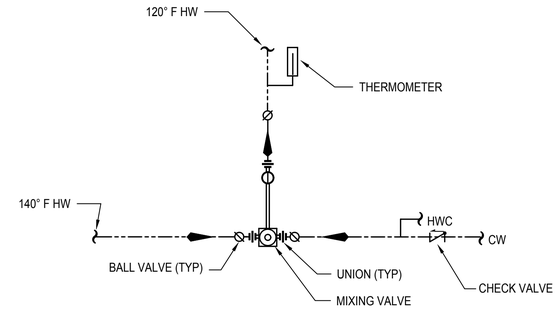
P21.12



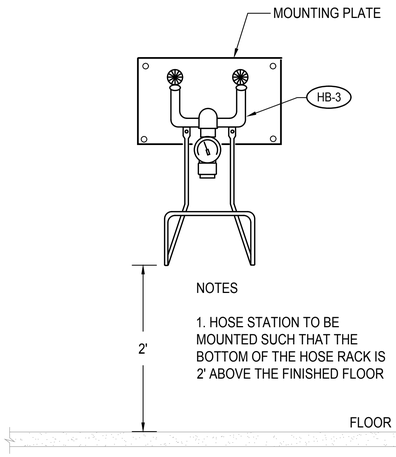
1 P30.01 BURIED PIPING DETAIL
N.T.S.



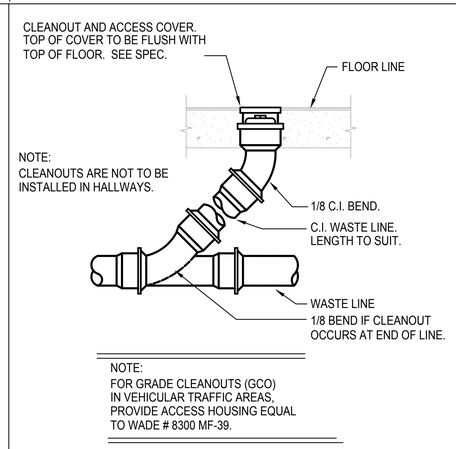
2 P30.01 DOMESTIC CIRC. PUMP DETAIL
N.T.S.



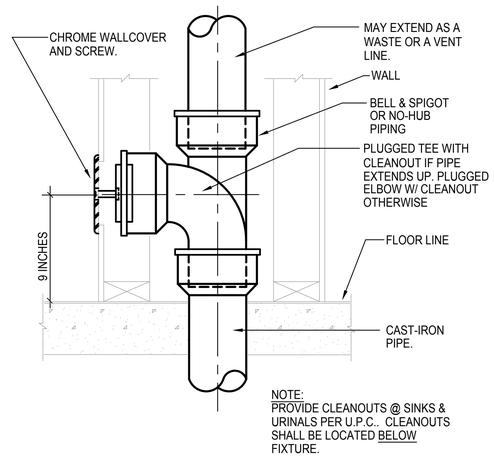
3 P30.01 MASTER MIXING VALVE DETAIL
N.T.S.



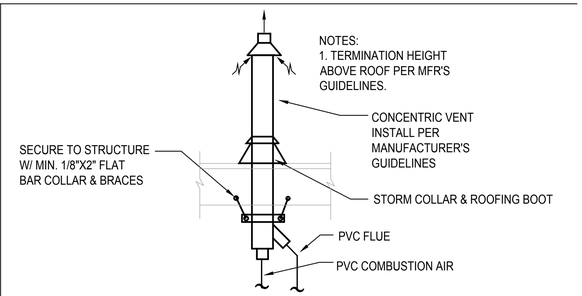
4 P30.01 HOSE STATION DETAIL
N.T.S.



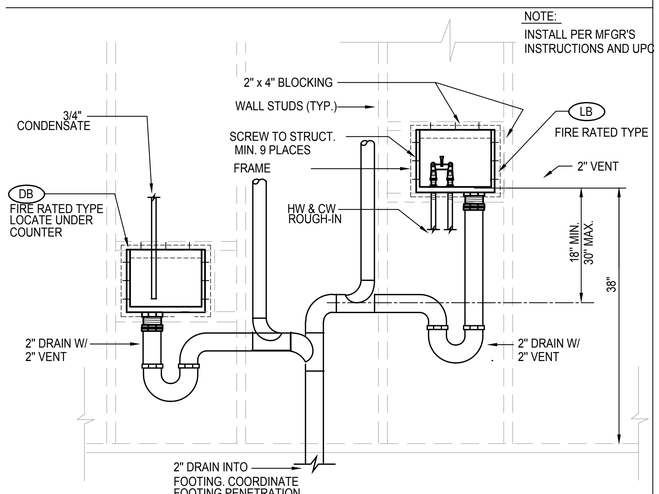
5 P30.01 FLOOR CLEANOUT DETAIL
N.T.S.



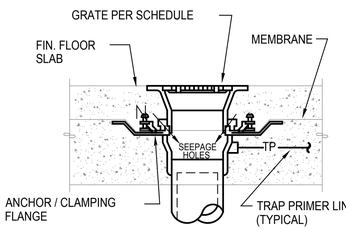
6 P30.01 WALL CLEANOUT DETAIL
N.T.S.



7 P30.01 CONCENTRIC VENT ROOF TERMINATION
N.T.S.

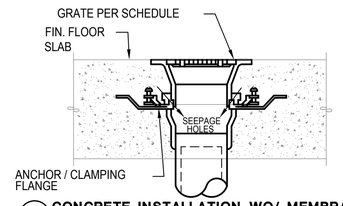


8 P30.01 LAUNDRY & DRAIN BOX DETAIL
N.T.S.

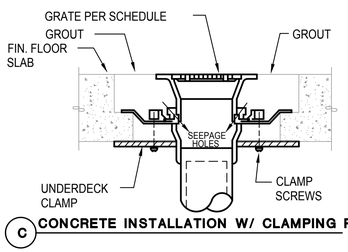


A CONCRETE INSTALLATION W/ MEMBRANE

NOTES:
1. VERIFY FLOORING CONSTRUCTION BEFORE ORDERING DRAINS.
2. FLOOR DRAINS SHALL BE FLUSH TO 1/4" BELOW FIN. FLOOR. FLOOR SINKS SHALL BE 1/2" ABOVE TO 1/4" BELOW FIN. FLOOR VERIFY W/ LOCAL PLUMBING INSPECTOR.



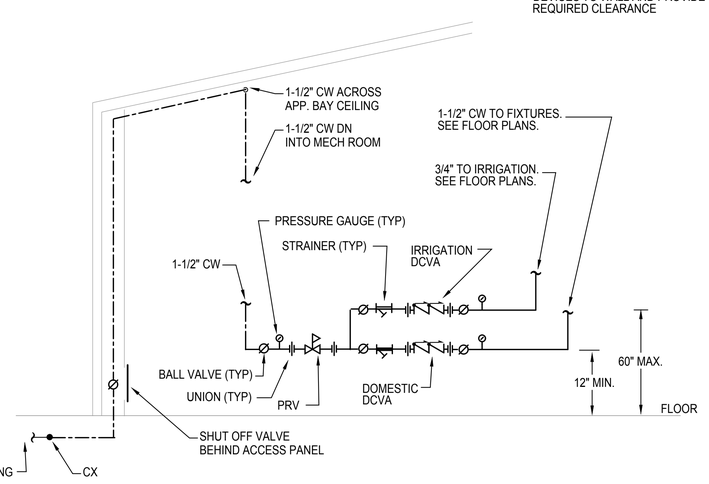
B CONCRETE INSTALLATION WO/ MEMBRANE



C CONCRETE INSTALLATION W/ CLAMPING RING

9 P30.01 FLOOR DRAIN / SINK INSTALLATION STYLES
N.T.S.

NOTES:
1. SECURE BACKFLOW PREVENTION DEVICES TO WALL AND PROVIDE REQUIRED CLEARANCE



10 P30.01 INCOMING WATER SERVICE DETAIL
N.T.S.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

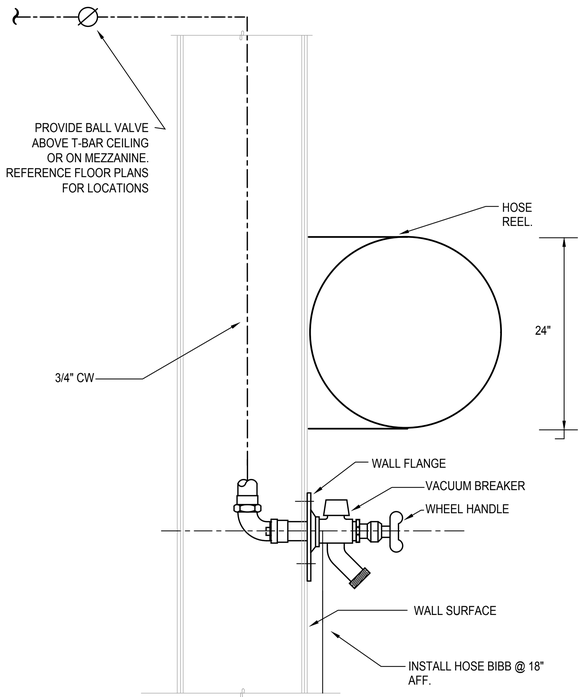
SIDER + BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007
BID SET
ISSUED: APRIL 13, 2017
REVISION SCHEDULE

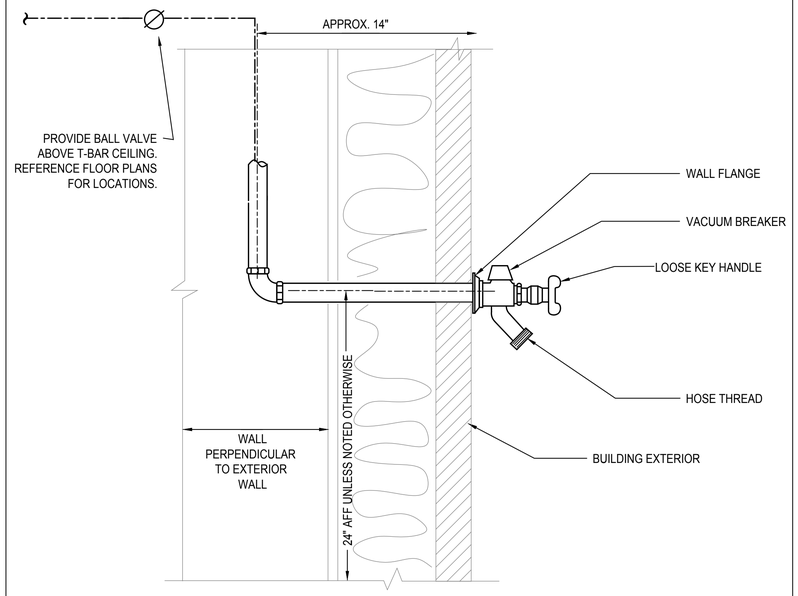
PLUMBING DETAILS

SHEET:
P30.01



1 P30.02 APP. BAY HOSE BIBB WITH HOSE REEL DETAIL

N.T.S.

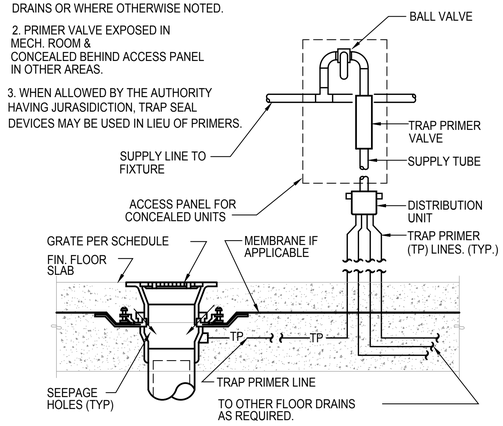


2 P30.02 FREEZE PROOF HOSE BIBB DETAIL

N.T.S.

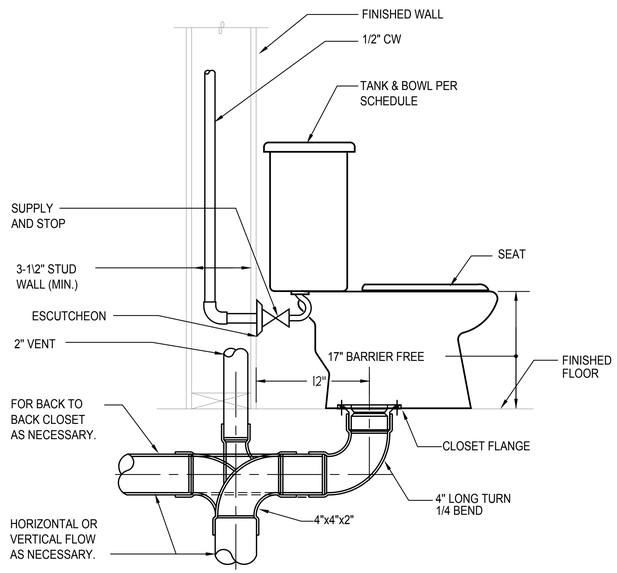
NOTES:

1. PROVIDE TRAP PRIMERS ON ALL FLOOR DRAINS & FLOOR SINKS EXCEPT SHOWER DRAINS OR WHERE OTHERWISE NOTED.
2. PRIMER VALVE EXPOSED IN MECH. ROOM & CONCEALED BEHIND ACCESS PANEL IN OTHER AREAS.
3. WHEN ALLOWED BY THE AUTHORITY HAVING JURASIDICTION, TRAP SEAL DEVICES MAY BE USED IN LIEU OF PRIMERS.



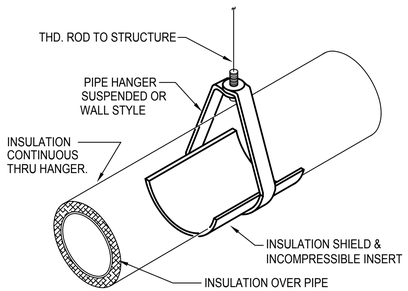
3 P30.02 TRAP PRIMER DETAIL

N.T.S.



4 P30.02 WATER CLOSET DETAIL

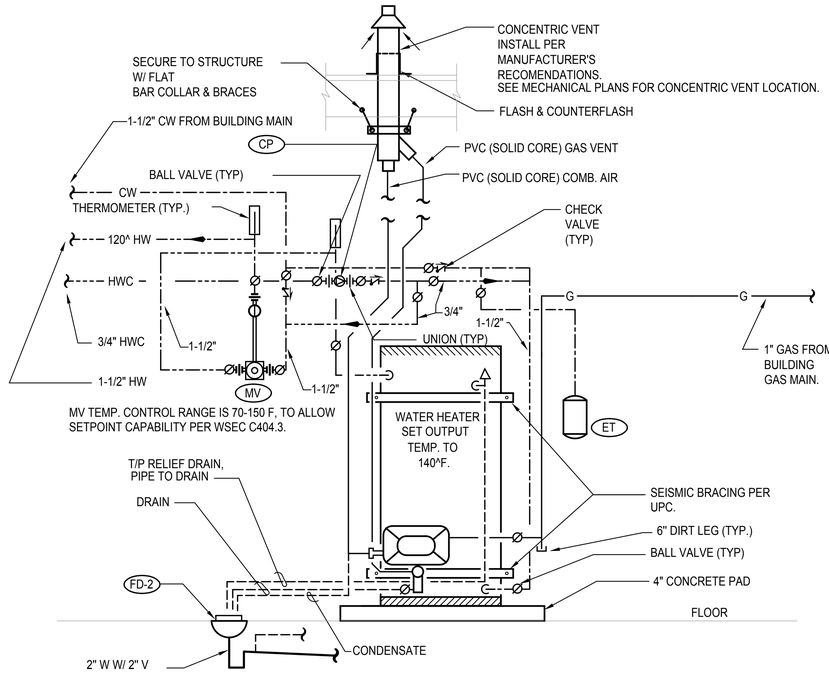
N.T.S.



NOTE:
INSULATE & LABEL PIPING PER. SPEC.

5 P30.02 PIPE HANGER DETAIL

N.T.S.



6 P30.02 PHOENIX WATER HEATER DETAIL

N.T.S.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007

BID SET

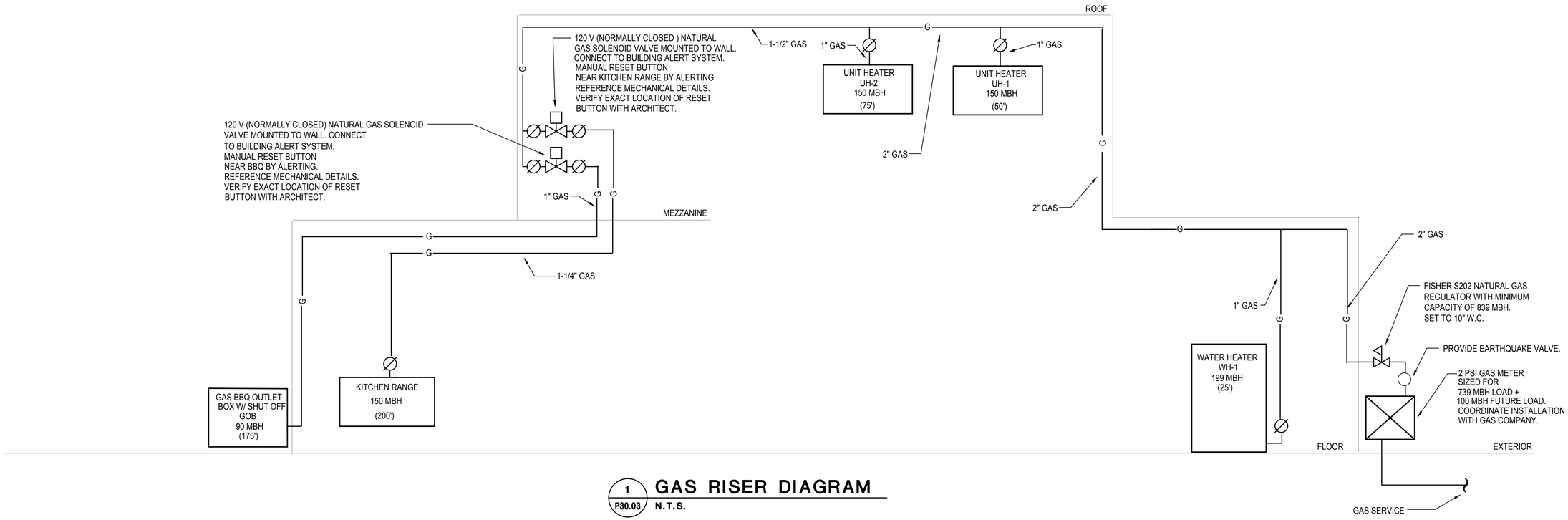
ISSUED: APRIL 13, 2017

REVISION SCHEDULE

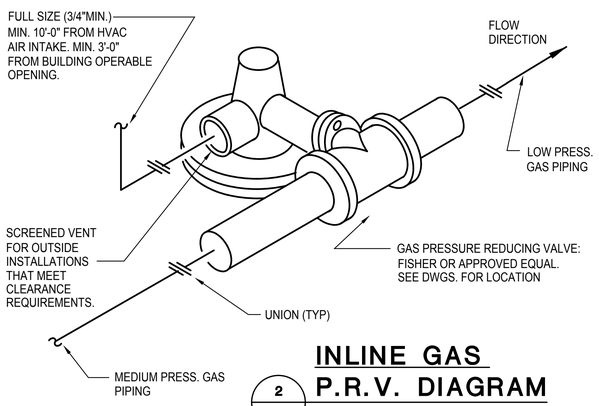
PLUMBING DETAILS

SHEET:

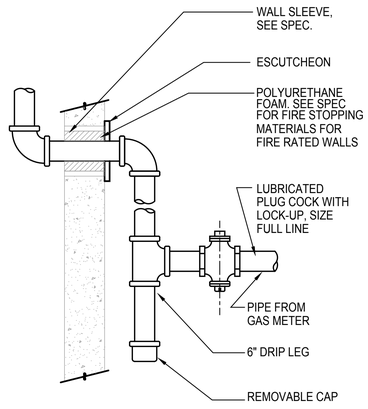
P30.02



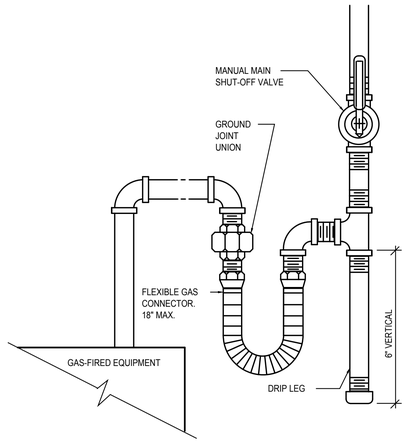
1 P30.03 GAS RISER DIAGRAM
N.T.S.



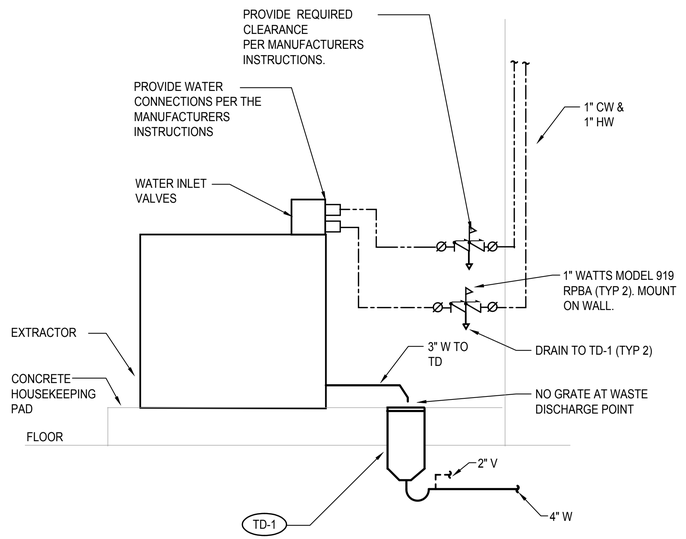
2 P30.03 INLINE GAS P.R.V. DIAGRAM
N.T.S.



3 P30.03 PIPING PENETRATION DETAIL
N.T.S.



4 P30.03 GAS LINE CONNECTION DETAIL
N.T.S.



5 P30.03 EXTRACTOR DETAIL
N.T.S.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

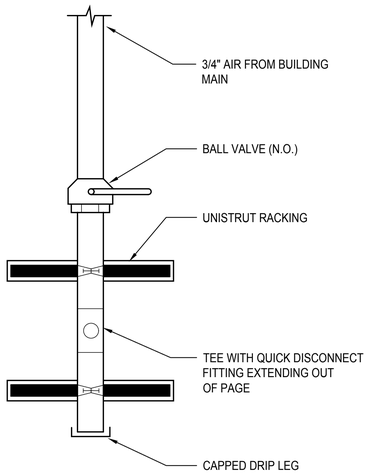
SIDER+BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

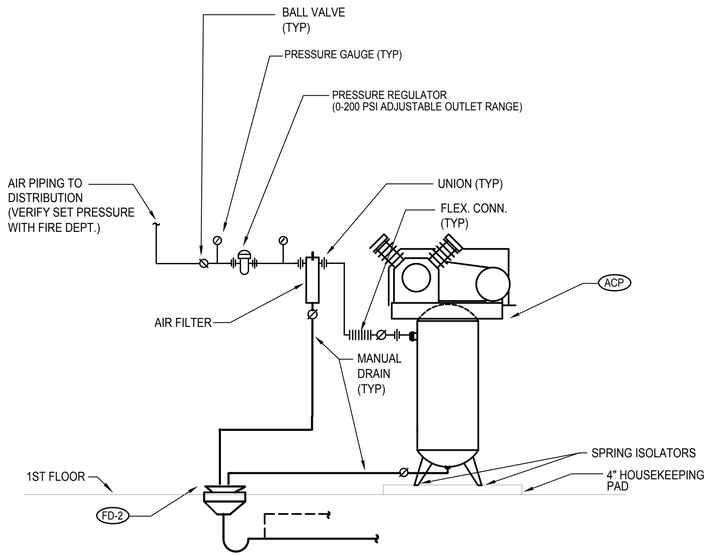
PROJECT # 16007
BID SET
ISSUED: APRIL 13, 2017
REVISION SCHEDULE

PLUMBING DETAILS

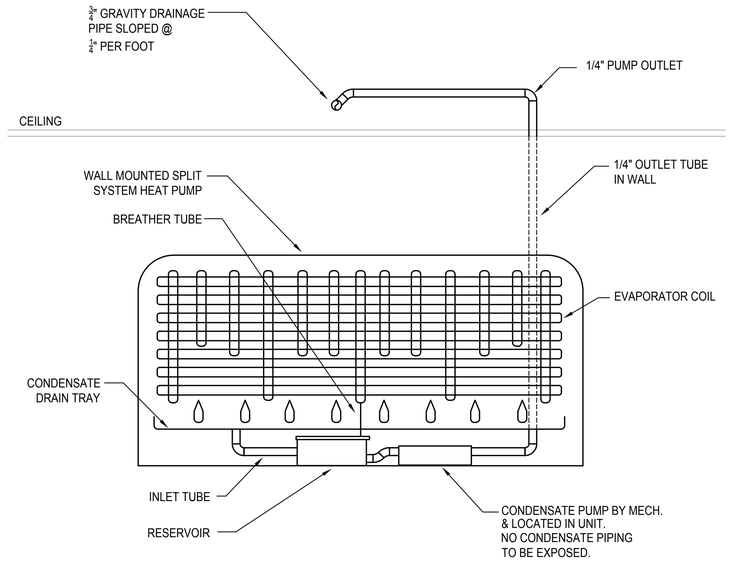
SHEET:
P30.03



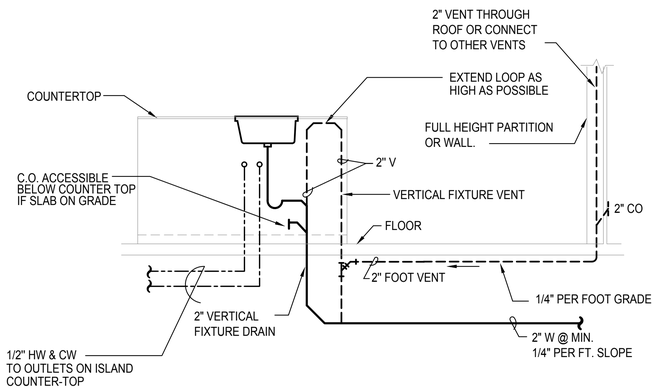
1 P30.04 AIR DROP DETAIL
N.T.S.



2 P30.04 AIR COMPRESSOR DETAIL
N.T.S.

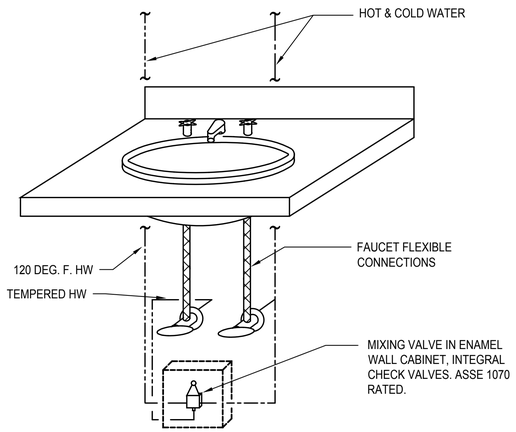


WALL MOUNTED SPLIT SYSTEM CONDENSATE DETAIL
3 P30.04 N.T.S.



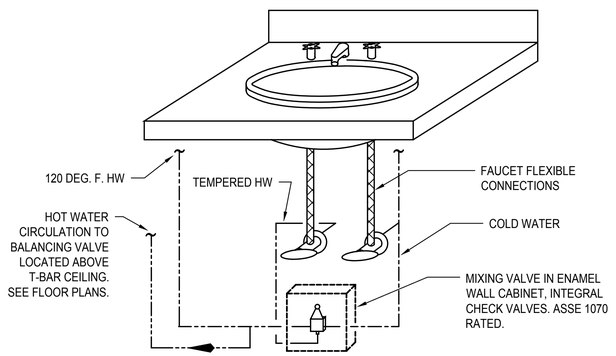
4 P30.04 ISLAND VENT DETAIL
N.T.S.

NOTE:
PROVIDE INSULATED P-TRAP AND SUPPLY COVERS AT ALL EXPOSED P-TRAPS AND SUPPLIES PER ADA STANDARDS.



RESTROOMS 116 & 117 LAVATORY WATER CONNECTION DETAIL
5 P30.04 N.T.S.

NOTE:
PROVIDE INSULATED P-TRAP AND SUPPLY COVERS AT ALL EXPOSED P-TRAPS AND SUPPLIES PER ADA STANDARDS.



LOBBY RESTROOM 105 LAVATORY WATER CONNECTION DETAIL
6 P30.04 N.T.S.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

SIDER + BYERS MECHANICAL ENGINEERS
192 Nickerson, Suite #300
Seattle, Washington 98109
Phone: 206.285.2966

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 16007
BID SET
ISSUED: APRIL 13, 2017
REVISION SCHEDULE

PLUMBING DETAILS

SHEET:
P30.04

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	LIGHTING
	RECESSED LIGHT FIXTURE
	SURFACE OR PENDANT MOUNT LIGHT FIXTURE (CIRCLE INDICATES RECESSED OR CONCEALED JUNCTION BOX)
	WALL MOUNT LIGHT FIXTURE
	WALL SCONCE LIGHT FIXTURE
	SURFACE OR RECESSED LIGHT FIXTURE
	SURFACE OR RECESSED LIGHT FIXTURE
	SURFACE OR PENDANT MOUNT STRIP LIGHT (CIRCLE INDICATES RECESSED OR CONCEALED JUNCTION BOX)
	EGRESS FIXTURE WITH EMERGENCY BATTERY PACK. PROVIDE UNSWITCHED HOT LEG.
	EXIT LIGHT FIXTURE (PROVIDE DIRECTION ARROWS AS INDICATED) PROVIDE UNSWITCHED HOT LEG.
	WALL MOUNTED EXIT LIGHT FIXTURE (PROVIDE DIRECTION ARROWS AS INDICATED) PROVIDE UNSWITCHED HOT LEG.
	RECEPTACLES
	DUPLEX RECEPTACLE
A	ARC FAULT DUPLEX RECEPTACLE
G	DUPLEX RECEPTACLE (G INDICATES GROUND FAULT CIRCUIT INTERRUPTER)
C	DUPLEX RECEPTACLE (C INDICATES ABOVE COUNTER)
S	SWITCHED DUPLEX RECEPTACLE
	FOURPLEX RECEPTACLE
	DOUBLE DUPLEX DROP CORD WITH KELLUM GRIP
	SPECIAL PURPOSE OUTLET - 1Ø, VOLTAGE AND AMPERES AS INDICATED
	EQUIPMENT, WIRING AND RACEWAYS
	CONDUIT STUB OUT (PROVIDE CONCRETE MARKER ON EXTERIOR)
	DEDICATED CONDUIT HOMERUN TO PANEL & CIRCUIT NUMBERS AS INDICATED ON PLANS
	RACEWAY CONCEALED IN WALL OR CEILING
	RACEWAY CONCEALED UNDERGROUND OR UNDER FLOOR SLAB
	MARKS INDICATE NUMBER OF #12 AWG UNLESS NOTED OTHERWISE
	GROUNDING CONDUCTOR
	FLEXIBLE CONDUIT
	GROUNDING SYSTEM PER CODE
J	JUNCTION BOX - SIZE PER CODE
	MOTOR CONNECTION
M	MANUAL STARTER
	FUSED DISCONNECT SWITCH
	120/208 VOLT PANELBOARD (OR AT RATED VOLTAGE AS NOTED)
	MAIN DISTRIBUTION BOARD
	ENCLOSED CIRCUIT BREAKER, AMPERES AS INDICATED
M	METER
SPD	SURGE PROTECTION DEVICE
ATS	AUTOMATIC TRANSFER SWITCH

SYMBOL	DESCRIPTION
	SWITCHES
$	SINGLE POLE SWITCH
$T	TIMER SWITCH
$VS	COMBINATION SWITCH / OCCUPANCY SENSOR
	PUSH BUTTON EMERGENCY SHUTOFF SWITCH
	PUSH-BUTTON CONTROLLER
$D,LV	LOW VOLTAGE DIMMER SWITCH
LC	LOW VOLTAGE LIGHTING CONTROL PANEL
PC	PHOTOCELL CONTROL
TC	TIME CLOCK CONTROL
OS	OCCUPANCY SENSOR (LIGHTING CONTROL)
VS	CEILING MOUNTED VACANCY SENSOR (LIGHTING CONTROL)
R	RELAY - SEE LOW VOLTAGE CONTROL DIAGRAMS
	FIRE STATION ALERTING SYSTEM
S	70V SPEAKER, FLUSH MOUNT ROUND, WHITE BAFFLE WITH BACKCAN; 5W TRANSFORMER. PROVIDE WITH VOLUME CONTROL INTEGRAL TO THE SPEAKER WHERE IDENTIFIED ON THE DRAWINGS. ATLAS SOUND SD72W/SD72WV. PROVIDE 18 GAUGE UL LISTED SPEAKER WIRE FOR CONNECTION TO EXISTING AMPLIFICATION SYSTEM.
VC	WALL MOUNTED VOLUME CONTROL 10W ATTENUATOR WITH 3dB STEPS, WHITE. MATCH 70V SPEAKER ASSEMBLY. PROVIDE WIRING BETWEEN VOLUME CONTROL AND SPEAKER IN EACH ROOM INDICATED.
DB	DOOR BELL. MOUNT AT +48" AFF. OWNER PROVIDED, CONTRACTOR INSTALLED.
RS	RESET BUTTON FOR POWER CONTACTORS AND GAS SOLENOIDS.
	SYSTEMS
FSD	FIRE / SMOKE DAMPER. PROVIDE 120 - VOLT AND FIRE ALARM CONNECTION.
TV	TV OUTLET. PROVIDE F-TYPE WALL PLATE, WHITE PLASTIC WITH RG6 COAX CABLE TO ROOM 115 TELECOM BACKBOARD. PROVIDE 6' OF COILED COAX FOR TERMINATION BY TELEVISION SERVICE PROVIDER. VERIFY MOUNTING HEIGHT AT EACH LOCATION WITH OWNER PRIOR TO ROUGH-IN. MOUNT CABLING IN 3/4"C., UP TO ABOVE ACCESSIBLE CEILING.
	PROVIDE (2) CATEGORY 6 DATA JACK WITH 2-PORT FACEPLATE AND CATEGORY 6 CABLES. HOMERUN CABLES TO ROOM 115 TELECOM BACKBOARD. TERMINATE CABLES ON OWNER PROVIDED PATCH PANELS PROVIDE 10' OF COILED CABLING AT THE RACK LOCATION. MOUNT CABLING IN 1"C., UP TO ABOVE ACCESSIBLE CEILING.
	CEILING MOUNTED DATA JACK FOR WIRELESS ACCESS POINT
	TELEPHONE / DATA OUTLET TO REMAIN
	CABLE TRAY - 12"W X 4"D. SUPPORT WITH UNISTRUT AND THREADED ROD FROM STRUCTURE
	MISCELLANEOUS
1	CONSTRUCTION NOTES
1	DEMOLITION NOTES
W	W INDICATES WEATHERPROOF FOR ALL DEVICES, PROVIDE LOCKING COVER ON RECEPTACLES.
$	ALL DEVICES WITH LIGHT LINE WEIGHT INDICATES EXISTING TO BE RETAINED
$	ALL DEVICES WITH DASH LINE INDICATES EXISTING TO BE REMOVED
A / X	DETAIL CALL OUT - A INDICATES DETAIL IDENTIFICATION, X INDICATES SHEET DRAWN ON
AH1 / 1	MECHANICAL EQUIPMENT CONNECTION

ABBREVIATIONS

G	GROUND FAULT CIRCUIT INTERRUPTER	UC	UNDERCOUNTER
C	MOUNT ABOVE COUNTER	UG	UNDERGROUND
DW	DISHWASHER	C.	CONDUIT
EC	ELECTRICAL CONTRACTOR	CO	CONDUIT ONLY
MC	MECHANICAL CONTRACTOR	GR	GROUND
REQ'D	REQUIRED	SPD	SURGE PROTECTIVE DEVICE
TTB	TELEPHONE TERMINAL BOARD	CU	COPPER
MW	MICROWAVE	XFMR	TRANSFORMER
REF	REFRIGERATOR	GC	GENERAL CONTRACTOR
E	EXISTING	WS	WASHER

GENERAL DEMOLITION NOTES

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INCLUDE IN HIS/HER BID ALL COSTS ASSOCIATED WITH NECESSARY DEMOLITION TO ALLOW NEW CONSTRUCTION SHOWN IN CONTRACT DOCUMENTS, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL REMOVE ALL EXISTING ELECTRICAL EQUIPMENT, LIGHTING FIXTURES, DEVICES, ABANDONED RACEWAYS, CONDUCTORS, TOGETHER WITH ANY AUXILIARY ITEMS TO ALLOW NEW CONSTRUCTION AND FINISH TO OCCUR AS COMPLIMENTED BY THE CONTRACT DOCUMENTS. DASHED LINES INDICATE EXISTING DEVICES AND EQUIPMENT TO BE REMOVED.
2. THESE PLANS DELINEATE THE BASIC SCOPE OF WORK FOR THE REMOVAL OF EXISTING MATERIAL. THE DEMOLITION DRAWINGS AND NOTES ARE PROVIDED WITH THE INTENT TO GENERALLY DESCRIBE AREAS AND LIMITS OF WORK. THE CONTRACTOR SHALL BE FAMILIAR WITH THE SITE AND CONDITIONS THERE AND SHALL NOT RELY SOLELY ON REVIEW OF THE BIDDING DOCUMENTS IN DETERMINING THE EXTENT OF DEMOLITION WORK REQUIRED. COORDINATION OF THESE DRAWINGS WITH REQUIREMENTS FOR CONTRACT WORK IS THE RESPONSIBILITY OF THE CONTRACTOR. DISCREPANCIES BETWEEN OR WITHIN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY. THE CONTRACTOR SHALL PROVIDE CLARITY SKETCHES, DIAGRAMS, AND FIELD DIMENSTIONS OF EXISTING CONDITIONS AT THE REQUEST OF THE ENGINEER IF/WHEN CONFLICTS ARE IDENTIFIED.
3. E.C. TO REMOVE ELECTRICAL CONNECTIONS TO ALL MECHANICAL EQUIPMENT TO BE DEMOLISHED. E.C. SHALL CHECK ALL DEMOLITION PLANS AND ACTUAL FIELD CONDITIONS FOR UNIT LOCATIONS. ALL CONDUITS PENETRATING THROUGH THE ROOF AND ACCESSIBLE SHALL BE REMOVED.
4. THE DEMOLITION PLANS HAVE NO INTENT TO SHOW ALL ELECTRICAL DEVICES TO BE REMOVED. ELECTRICAL CONTRACTOR SHALL VERIFY DEMOLITION WORK INVOLVED PRIOR TO BID.
5. REMOVE ALL ELECTRICAL AND SIGNALING DEVICES (INCLUDING, BUT NOT LIMITED TO REMOVAL OF ALL ELECTRICAL PANELS, LIGHTING FIXTURES, RECEPTACLES, MOTOR DISCONNECTS, FIRE ALARM AND OTHER LOW VOLTAGE DEVICES). UNLESS NOTED OTHERWISE.
6. REMOVE ALL WIRES, CABLES AND SURFACE MOUNT RACEWAYS AND APPURTENANCES WHICH SERVE DEVICES BEING REMOVED, CUT CONDUIT FLUSH TO CEILING OR WALL WHEN CONCEALED, AND SEAL OFF WITH SPRAY FOAM. ABANDON FLUSH BOXES AND NON-ACCESSIBLE CONDUIT. PROVIDE COVER PLATES FOR ALL BOXES TO REMAIN.
7. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE GENERAL CONTRACTOR FOR ALL CUTTING, PATCHING AND FINISH WORK.
8. CONTRACTOR TO REMOVE AND DELIVER TO OWNER ALL DEVICES THAT ARE IDENTIFIED BY OWNER TO BE RETAINED. CONTRACTOR SHALL COORDINATE WITH OWNER TO ASSURE THAT ALL ITEMS TO BE RETAINED ARE IDENTIFIED PRIOR TO THE START OF DEMOLITION. ALL ITEMS NOT SO IDENTIFIED SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSE OF OFF SITE.
9. FIELD VERIFY EXISTING CONDITIONS AND RACEWAYS CAST IN CONCRETE.

GENERAL NOTES

1. PRIOR TO BIDING, THE CONTRACTOR/INSTALLING VENDOR SHALL VERIFY ALL CMU/CONCRETE WALLS, BRICK WALLS, EXISTING UNDERGROUND CONDUIT CAPACITIES, CABLE ROUTING AND ALL WORK REQUIRED TO FACILITATE A COMPLETE AND FULLY FUNCTIONAL SYSTEM. ALL WALLS SHALL BE CORE DRILLED AS REQUIRED.
2. BIDS SHALL INCLUDE ALL CORE DRILLING REQUIRED TO FACILITATE ALL CONDUIT WORK. THE CONTRACTOR/INSTALLING VENDOR SHALL X-RAY THE EXISTING CONCRETE SLABS AND WALLS PRIOR TO CORE DRILLING. CORE DRILLED HOLES SHALL NOT PENETRATE THROUGH ANY EXISTING REBAR AND/OR CONDUIT CONTAINED IN THE EXISTING CONCRETE SLAB AND WALLS. CORE DRILL LOCATIONS MAY NEED TO BE MODIFIED TO ACCOMMODATE EXISTING OBSTRUCTIONS CONTAINED WITHIN THE FLOOR AND WALLS. NEVER CORE DRILL A STRUCTURAL BEAM OR MODIFY THE STRUCTURAL INTEGRITY OF THE BUILDING.
3. CONTRACTOR SHALL REFER TO STRUCTURAL DRAWINGS FOR BRACE FRAMED WALLS. CONTRACTOR SHALL MOUNT DEVICES AND ROUTE CONDUIT SO AS NOT TO INTERFERE WITH THE STRUCTURAL INTEGRITY OF THE WALL.
4. CONDUITS ARE NOT ALLOWED TO BE ROUTED IN ANY CONCRETE SLAB. CONDUITS MAY BE ROUTED UNDER THE SLAB ONLY.
5. ALL CONDUITS ROUTED UNDER THE CONCRETE SLAB SHALL BE ROUTED PARALLEL TO ONE ANOTHER AND MAY NOT CROSS OVER EACH OTHER UNLESS SPECIFICALLY ALLOWED BY THE ENGINEER.
6. ALL SPARE CONDUITS (FOR FUTURE USE) SHALL BE LABELED "SPARE/FUTURE CONDUIT" AT EACH END OF THE CONDUIT WITH 1/2" TALL LETTERS, USING A PERMANENT MARKER.
7. ALL CABLING SHALL BE RUN IN CONDUIT AND CONDUIT SHALL BE RUN PARALLEL OR PERPENDICULAR TO THE STRUCTURE. THE CONTRACTOR/INSTALLING VENDOR SHALL COORDINATE ALL CONDUIT ROUTING WITH THE OWNER. NEATLY SURFACE MOUNT EXPOSED CONDUIT.
8. ALL OUTLETS, SWITCHES, AND DEVICES MOUNTED BACK TO BACK IN A WALL MUST BE SPACED A MINIMUM OF 24" APART TO MEET ACOUSTICAL REQUIREMENTS.
9. THE CABLING AND EQUIPMENT REQUIREMENTS FOR ALL SYSTEMS SHALL BE INCLUDED IN THE CONTRACTOR'S/INSTALLING VENDOR'S BID.
10. WHEN PENETRATING FIRE RATED WALLS, FLOORS, OR CEILINGS, THE CONTRACTOR/ INSTALLING VENDOR SHALL UTILIZE FIRE RATED PENETRATION METHODS. THE FIRE RATING OF THE WALL SHALL BE MAINTAINED AFTER THE CONDUIT OR WIREWAY HAS BEEN INSTALLED.
11. REPAIRS FOR ANY DAMAGE DONE DURING CONSTRUCTION, INCLUDING BUT NOT LIMITED TO REPAIRS WHERE EXISTING DEVICES ARE REMOVED, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/INSTALLING VENDOR AT NO ADDITIONAL COST TO THE OWNER.
12. CONTRACTOR/INSTALLING VENDOR MAY UTILIZE ANY SPARE OR ABANDONED CONDUIT PER OWNERS APPROVAL.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f: (253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON — STATE OF WASHINGTON — 32006 — REGISTERED PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE S
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137
BID SET
ISSUED: JUNE, 2017
REVISION SCHEDULE

ELECTRICAL LEGEND

SHEET:
E0.01

MECHANICAL EQUIPMENT CONNECTION SCHEDULE (EXHAUST FANS, AIR HANDLING UNITS, ETC)

EQUIP.	VOLT/PH	LOAD VA	LOAD MCA	LOAD HP	CIRCUIT PANEL	CIRCUIT BKR	CONDUIT/WIRE SIZE (NOTE 2)	MANUAL STARTER (NOTE 1)	MAGNETIC STARTER (NOTE 1)	MOTOR RATED DISC. SWITCH (NOTE 1)	FUSED DISC. (NOTE 1)	REMARKS
FC- 1	208/1	131	0.63		A	43,45	1/2" C., (3)#12			EC		
FC- 2	208/1	302	1.45		A	43,45	1/2" C., (3)#12			EC		
FC- 3	208/1	40	0.19		A	43,45	1/2" C., (3)#12			EC		
FC- 4	208/1	40	0.19		A	43,45	1/2" C., (3)#12			EC		
FC- 5	208/1	40	0.19		A	43,45	1/2" C., (3)#12			EC		
FC- 6	208/1	40	0.19		A	43,45	1/2" C., (3)#12			EC		
FC- 7	208/1	106	0.51		B	43,45	1/2" C., (3)#12			EC		
FC- 8	208/1	106	0.51		B	43,45	1/2" C., (3)#12			EC		
FC- 9	208/1	302	1.45		B	43,45	1/2" C., (3)#12			EC		
FC- 10	208/1	60	0.29		B	43,45	1/2" C., (3)#12			EC		
BC- 1	208/1	302	1.45		A	43,45	1/2" C., (3)#12			EC		
BC- 2	208/1	133	0.64		B	43,45	1/2" C., (3)#12			EC		
CM- 1	208/3	8633	24		MDB	1,3,5	1"C., (4) #10		EC		EC	PROVIDE WEATHERPROOF DEVICES & CONNECTIONS
CM- 2	208/3	8633	24		MDB	2,4,6	1"C., (4) #10		EC		EC	PROVIDE WEATHERPROOF DEVICES & CONNECTIONS
EWH- 1	208/1	1500	9		A	50,52	1/2" C., (3)#12			MFR		
EWH- 2	208/1	1500	9		A	50,52	1/2" C., (3)#12			MFR		
ERV- 1	208/1	1498	7.2	1/2	B	49,51	1/2" C., (3)#12		EC		EC	
ERV- 2	208/1	1498	7.2	1/2	A	51,53	1/2" C., (3)#12		EC		EC	PROVIDE WEATHERPROOF DEVICES & CONNECTIONS
RCP- 1	208/1	750	4.5		B	50,52	1/2" C., (3)#12			MFR		
RCP- 2	208/1	750	4.5		B	50,52	1/2" C., (3)#12			MFR		
RCP- 3	208/1	750	4.5		B	50,52	1/2" C., (3)#12			MFR		
DH- 1	208/3	18000	62.6		MDB	7,9,11	1-1/4"C., (4) #4				EC	
DH- 2	208/3	3500	12		B	44,46,48	3/4"C., (4) #12				EC	
DH- 3	208/3	7000	24		A	44,46,48	1"C., (4) #10				EC	
SF- 1	120/1	1656	13.8	3/4	B	47	1/2" C., (2)#12		EC		EC	
EF- 1	120/1	1656	13.8	3/4	B	59	1/2" C., (2)#12		EC		EC	PROVIDE WEATHERPROOF DEVICES & CONNECTIONS
EF- 2	120/1	264	2.2	1/10	A	57	1/2" C., (2)#12		EC		EC	
EF- 3	120/1	528	4.4	1/6	B	54	1/2" C., (2)#12		EC		EC	
KEF	120/1	1176	9.8	1/2	B	56	1/2" C., (2)#12		EC		EC	
HOOD	120/1	240	2		B	58	1/2" C., (2)#12					PROVIDE A WALL SWITCH FOR CONTROL OF THE HOOD LIGHTS & FAN
WH- 1	120/1	600	5		A	54	1/2" C., (2)#12			EC		
CP- 1	120/1	83	0.69		A	54	1/2" C., (2)#12			EC		
ACP	208/3	6295	21.87	5	MDB	8,10,12	1"C., (4) #10				EC	
UH- 1	120/1	456	3.8		A	47	1/2" C., (2)#12			MFR		
UH- 2	120/1	456	3.8		A	49	1/2" C., (2)#12			MFR		
EIH- 1	208/1	2000	12		B	53,55	1/2" C., (3)#12			MFR		

NOTE: 1. CONTRACTOR LISTED SHALL FURNISH AND INSTALL THE LISTED DEVICE.
2. EQUIPMENT GROUND CONDUCTOR IS REQUIRED

LOW VOLTAGE LIGHTING CONTROL PANEL (LVP-A) SCHEDULE

LOCATION: Main Electrical Room

RELAY NO. r#	AREA / ROOM OF CONTROL	CIRCUIT NO. (panel-ckt)	RELAY CONTROL DESIGNATION: Photocell Control	Alert System Alarm Control	Time Clock Controlled	Sequence of Operation
1	Exterior Bldg lights	A-38	Yes		Yes	Photocell control 'On' at 1/2 hour before dusk & dawn; Time clock off at 11:00 p.m.
2	Parking Lot Lights	B-40	Integral			Photocell control on/off at dusk & dawn; Occupancy sensor to reduce lighting level to 50%.
3	Front Parking Lot Light	A-40	Integral			Photocell control on/off at dusk & dawn; Occupancy sensor to reduce lighting level to 50%.
4	Flag Pole Light	A-38	Yes			Photocell control 'On' at 1/2 hour before dusk & and turn 'Off' 1/2 hour after dawn
5	Apparatus Bay Lights	B-35		Yes		See Lighting Control Sequence of operation
6	Apparatus Bay Lights	B-37		Yes		See Lighting Control Sequence of operation
7	Sleeping Room 'Red' Lights			Yes		See Lighting Control Sequence of operation
8	Hallway 'Red' Lights			Yes		See Lighting Control Sequence of operation
9	SPARE					
10	SPARE					
11	SPARE					
12	SPARE					

Verify the lighting control scenario with the Owner prior to scheduling.

GENERAL NOTES FOR LIGHTING FIXTURE SCHEDULE

1. SEE DRAWINGS FOR EMERGENCY LIGHTING FIXTURES.

2. FOR LIGHTING CONTROLS WHICH INCLUDE DAYLIGHT, OCCUPANCY SENSORS AND TIME CLOCK CONTROLS, THE ELECTRICAL CONTRACTOR SHALL PROVIDE TESTING OF THE CONTROL DEVICES, COMPONENTS, EQUIPMENT AND SYSTEMS TO MAKE SURE THEY ARE CALIBRATED, ADJUSTED AND OPERATE IN ACCORDANCE WITH DRAWINGS AND SPECIFICATIONS. SEQUENCES OF OPERATION SHALL BE FUNCTIONALLY TESTED IN THE PRESENCE OF THE ENGINEER. A COMPLETE REPORT OF TEST PROCEDURES AND RESULTS SHALL BE PREPARED AND FILED WITH THE OWNER.

3. FIXTURE TYPES LISTED ARE TO INDICATE THE TYPE OF STYLE, LAMPING CHARACTERISTICS AND MOUNTING REQUIRED TO FACILITATE THE DESIGN. OTHER FIXTURE MANUFACTURERS MEETING THE LIGHT FIXTURE TYPE CRITERIA ARE ACCEPTABLE UPON EVALUATION BY THE ENGINEER.

4. ALL LIGHT FIXTURE COLORS AND FINISHES SHALL BE COORDINATED AND SELECTED BY THE ARCHITECT.

LIGHTING FIXTURE SCHEDULE

DESIGNATION	FIXTURE DESCRIPTION	MANUFACTURER/MODEL #	LAMPS	LUMENS	V	W	MOUNTING & REMARKS
EX1	EMERGENCY EXIT SIGN	LITHONIA LQM-S-W-R-120	LED	–	120	0.62	
EX2	EMERGENCY EGRESS LIGHT	LITHONIA EU2-LED-M12-120	LED	–	120	1.8	
EX3	EMERGENCY EXIT SIGN & EGRESS LIGHT	LITHONIA ECBR-LED-M6	LED	–	120	2.32	
AL1	PARKING LOT LIGHTING - SINGLE HEAD; TYPE IV DISTRIBUTION; LED; ON 18' HIGH POLE WITH BI-LEVEL MOTION/AMBIENT SENSOR	LITHONIA DSX1-40C-700-40K-T4M-120-SPA-PIRH1FC3V-*/SQUARE POLE-RATED WITH HEAD FOR 100 MPH	LED - 40K	10,000	120	100	ARCHITECT TO SELECT COLOR. POLE TO BE MOUNTED ON A CONCRETE BASE - 30" ABOVE FINISHED GRADE; 6 FEET BELOW GRADE
AL2	PARKING LOT LIGHTING - DUAL HEAD; (1) HEAD-TYPE IV DISTRIBUTION;(1) HEAD TYPE II DISTRIBUTION; LED; ON 18' HIGH POLE WITH BI-LEVEL MOTION/AMBIENT SENSOR	LITHONIA DSX1-40C-700-40K-T4M & T2M-120-SPA-PIRH1FC3V-*/SQUARE POLE-RATED WITH HEADS FOR 100 MPH	LED - 40K	10,000	120	200	ARCHITECT TO SELECT COLOR. POLE TO BE MOUNTED ON A CONCRETE BASE - 30" ABOVE FINISHED GRADE; 6 FEET BELOW GRADE
FL1	BUILDING MOUNTED LIGHT FOR FLAG POLE	ECONOLIGHT #E-GL5MFLO7N2Z/E-ACWM4DB	LED - 40K	7800	120	72	
RL1	2X2 RECESSED LIGHT FIXTURE	FOCAL POINT #FEQ2-22-AC-3000LH-35K-1C-UNV-WH	LED - 35K	3000	120	35	
RL1E	2X2 RECESSED EMERGENCY LIGHT FIXTURE	FOCAL POINT #FEQ2-22-AC-3000LH-35K-1C-UNV-EM-WH	LED - 35K	3000	120	35	
RL2	4.5" RECESSED DOWNLIGHT FIXTURE	FOCAL POINT #FLC4D-RO-1000L-120-T-LC4-RD-1000L-35K-DN-CD	LED - 35K	1000	120	12	
RL2E	4.5" RECESSED DOWNLIGHT FIXTURE WITH EMERGENCY BATTERY PACK	FOCAL POINT #FLC4D-RO-1000L-120-T-EM-LC4-RD-1000L-35K-DN-CD	LED - 35K	1000	120	12	
RL3	4.5" RECESSED SHOWER DOWNLIGHT FIXTURE	FOCAL POINT #FLC4D-RO-1000L-120-T-LC4-RD-1000L-35K-DN-CD-WL	LED - 35K	1000	120	12	
RL5	6" RECESSED LED RED LENSED DOWNLIGHT FIXTURE	PATHWAY #6VFLX-1500-4K-RED LENSE	LED - 40K	1500	120	18	ALERTING LIGHT
SL1	1X4 SURFACE MOUNT LIGHT FIXTURE	LUMINAIRE LED #VPF8-4-50W-3500K-120-277-CP-WHT	LED - 35K	5477	120	54	
SL3	1X4 SURFACE MOUNT LIGHT FIXTURE	PRUDENTIAL LIGHTING #R1-LED35-SO-4'-SAL-TMW-UNV-SUR-X3-DMO1	LED - 35K	3600	120	36	
SL4	1X8 SURFACE MOUNT LIGHT FIXTURE - MOUNT (2) 4' FIXTURES END TO END WITH INTEGRAL OCCUPANCY SENSOR	LUMINAIRE LED #VPF8-(2)4-70W-3500K-120-CP-WHT-DIM-OCC50	LED - 35K	8030	120	148	
SL4E	1X8 SURFACE MOUNT LIGHT FIXTURE - MOUNT (2) 4' FIXTURES END TO END WITH INTEGRAL OCCUPANCY SENSOR, NIGHT LIGHT AND BATTERY BACK-UP	LUMINAIRE LED #VPF8-(2)4-70W-3500K-120-CP-WHT-DIM-OCC50-LEDNL-EMB310	LED - 35K	8030	120	148	
UC1	1 FOOT LONG UNDER COUNTER LIGHT	FINELITE #UC-E-12"-S-PS-8W-ES1	LED - 35K	196	120	4	
WL1	2' WALL MOUNT LED FIXTURE	COLUMBIA LIGHTING #CWM2-35VWSM-SFFP-EU	LED - 35K	2099	120	30	
WL2	WALL PACK	LITHONIA WSTM LED 2A 40K 120 XXXXX	LED - 40K	1277	120	17	MOUNT AT 9'-0" AFF TO BOTTOM OF THE FIXTURE. ARCHITECT TO SELECT COLOR.
WL2E	WALL PACK WITH EMERGENCY BATTERY PACK	LITHONIA WSTM LED 2A 40K 120 EMERGENCY-XXXXX	LED - 40K	1277	120	17	MOUNT AT 9'-0" AFF TO BOTTOM OF THE FIXTURE. ARCHITECT TO SELECT COLOR.
WL3	APRON FLOOD LIGHT WITH PHOTO-CELL & MOTION SENSOR	ECONOLIGHT #E-HL8F15N2Z/E-ACP1	LED - 40K	12300	120	150	MOUNT AT BOTTOM SIDE OF THE ROOF OVERHANG. EC TO PROVIDE SEPARATE MOTION SENSORS FOR OPERATION OF LIGHTS.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
32006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

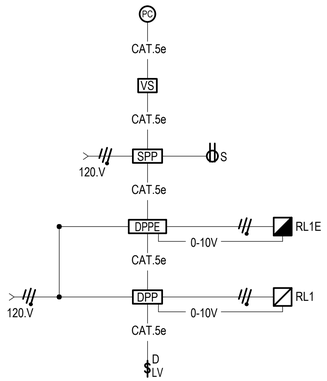
SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

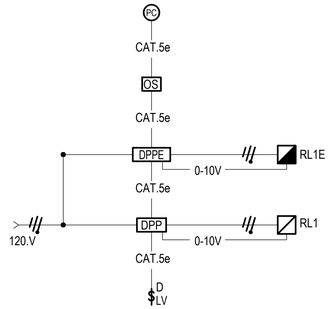
PROJECT # 2015137
BID SET
ISSUED: JUNE, 2017
REVISION SCHEDULE

ELECTRICAL SCHEDULES & NOTES

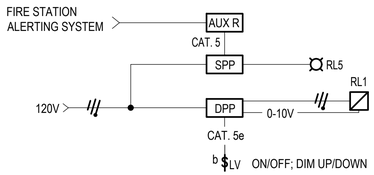
SHEET:
E0.02



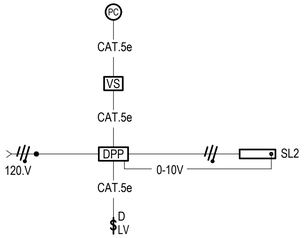
8 OFFICE 102/103
SCALE: DIAGRAMATIC



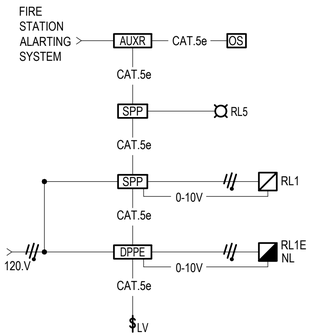
9 LOBBY 101
SCALE: DIAGRAMATIC



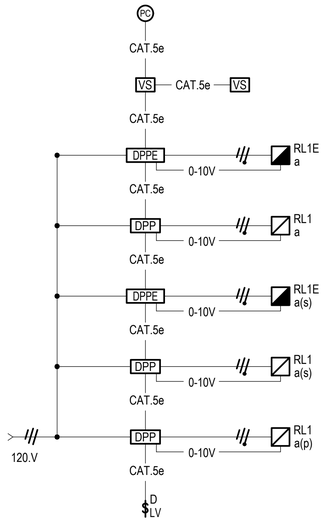
4 TYPICAL SLEEPING ROOMS
SCALE: DIAGRAMATIC



5 SHOP 113
SCALE: DIAGRAMATIC



6 CORRIDOR 124 & 125
SCALE: DIAGRAMATIC

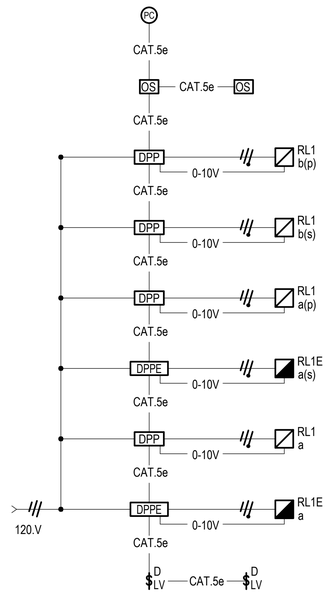


7 PT ROOM
SCALE: DIAGRAMATIC

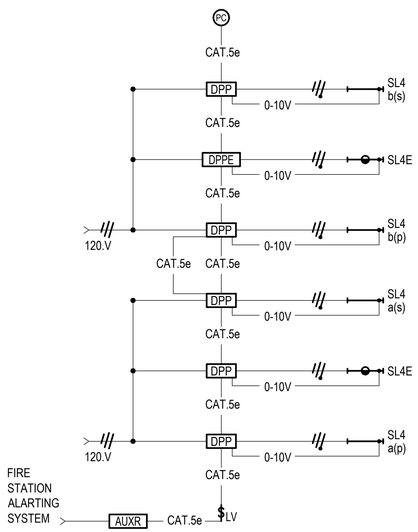
LIGHTING CONTROLS LEGEND

SYMBOL	DESCRIPTION
	DEVICES AND CABLING
TC	TIME CLOCK
SPP	SWITCHING POWER PACK
DPP	DIMMING 0-10V POWER PACK.
AUX R	AUXILIARY RELAY FOR CONTROL
DPPE	EMERGENCY DIMMING 0-10V POWER PACK.
PC	PHOTOCELL.
OS	OCCUPANCY SENSOR.
CAT. 5	CATEGORY 5 CABLING.
VS	VACANCY SENSOR.
0-10V	DIMMING CONTROL CABLING
	120V LINE VOLTAGE WIRE
	LIGHT FIXTURE
	EGRESS LIGHT FIXTURE

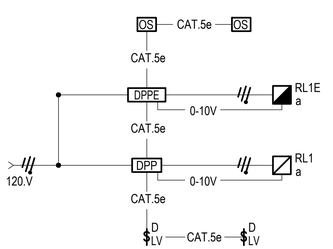
NOTE :
1. COORDINATE PROGRAMMING AND OCCUPANCY/VACANCY TIMEOUT SETTINGS WITH THE OWNER.



1 DAY ROOM 108
SCALE: DIAGRAMATIC



2 APPARATUS BAY 112
SCALE: DIAGRAMATIC



3 KITCHEN 106
SCALE: DIAGRAMATIC

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
22006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137
BID SET
ISSUED: JUNE, 2017
REVISION SCHEDULE

LIGHTING CONTROL DIAGRAMS

SHEET:
E0.03

LIGHTING CONTROL SEQUENCE OF OPERATION

GENERAL REQUIREMENTS

1. PROVIDE AUXILIARY CONTACT FOR INTERFACE TO FIRE FIGHTER CALL RELAY FOR CONTROL OF LIGHTS IN APPARATUS BAY AND NOTIFICATION LIGHTS.
2. VACANCY/OCCUPANCY SENSORS SHALL BE CONNECTED TOGETHER FOR CONTROL OF ALL LIGHTS IN THE ROOM. SET UP SENSORS IN VACANCY MODE.
3. PHOTOCELLS TO BE INSTALLED IN EDGE OF PRIMARY AND SECONDARY DAYLIGHT ZONES. TRIGGER 1 OF PHOTOCELL TO CONTROL LIGHTS IN PRIMARY DAYLIGHT ZONES, TRIGGER 2 OF PHOTOCELL TO CONTROL LIGHTS IN SECONDARY DAYLIGHT ZONES. DIMMING SHALL BE CONTINUOUS AND SHALL BE CONFIGURED TO COMPLETELY SHUT OFF ALL CONTROLLED LIGHTS WITH IN THE DAY LIGHTING ZONE.
4. PROGRAMMING SHALL BE PROVIDED FOR ADJUSTMENT OF LIGHTS ON SITE.
5. ALL LIGHTS WHERE INDICATED SHALL BE CONTROLLED VIA 0-10V DIMMING.
6. SWITCHED RECEPTACLES ARE TO BE CONTROLLED VIA VACANCY/OCCUPANCY SENSOR WITHIN THE SPACE.

OFFICES

_ROOM LIGHTS (DESIGNATION 'a (p)')
   a. LIGHTS IN PRIMARY DAYLIGHT ZONE - DIM CONTROLLED WITH PHOTOCELL - TRIGGER LEVEL 1.
7. ROOM LIGHTS (DESIGNATION 'a (s)')
   a. LIGHTS IN SECONDARY DAYLIGHT ZONE - DIM CONTROLLED WITH PHOTOCELL - TRIGGER LEVEL 2.
3. WALL CONTROL STATION
   a. BUTTON 1 - FUNCTION: ON/OFF
   b. BUTTON 2 - FUNCTION; DIM UP/DOWN
4. SWITCHED RECEPTACLES TO BE CONTROLLED VIA VACANCY SENSOR WITHIN THE ROOM.

LOBBY & HALLWAYS

1. EMERGENCY LIGHTS ARE TO BE ON DURING OCCUPIED TIMES.
2. DAYLIGHT ZONES (DESIGNATION 'a (p)').
   a. PRIMARY DAYLIGHT ZONE - DIM CONTROLLED WITH PHOTOCELL - TRIGGER LEVEL 1.
   b. SECONDARY DAYLIGHT ZONE - DIM CONTROLLED WITH PHOTOCELL - TRIGGER LEVEL 2.
3. OCCUPANCY SENSORS TO CONTROL NON-EMERGENCY LIGHTS DURING OCCUPIED MODE DIMMING TO 50% OF OUTPUT.
4. WALL CONTROL STATIONS
   a. BUTTON 1 - FUNCTION: ON/OFF NORMAL LIGHTS
   b. BUTTON 2 - FUNCTION: ON/OFF NIGHT LIGHTS
5. ALERTING STATION LIGHTS (TYPE RL5) SHALL COME ON UPON CONTACT CLOSURE OF THE ALERTING SYSTEM AND TIME OUT AFTER 30 MINUTES.

DAY ROOM, PT ROOM & APPARATUS BAY

1. ROOM LIGHTS (DESIGNATION 'a (p)')
   a. LIGHTS IN PRIMARY DAYLIGHT ZONE - DIM CONTROLLED WITH PHOTOCELL - TRIGGER LEVEL 1.
2. ROOM LIGHTS (DESIGNATION 'a (s)')
   b. LIGHTS IN SECONDARY DAYLIGHT ZONE - DIM CONTROLLED WITH PHOTOCELL - TRIGGER LEVEL 2.
3. REMAINDER OF LIGHTS WITH MANUAL DIMMING CONTROL AT ENTRANCE.
4. OCCUPANCY SENSORS TO CONTROL NON-EMERGENCY LIGHTS DURING NON-OCCUPIED MODE DIMMING TO 50% OF OUTPUT.
5. WALL CONTROL STATIONS
   a. SWITCH 1 - LIGHTS 'a' - ON/OFF; UP/DOWN
   b. SWITCH 2 - LIGHTS 'a' - ON/OFF; UP/DOWN

SLEEPING ROOMS

1. ROOM LIGHTS TO BE CONTROLLED VIA VACANCY SENSOR AND MANUAL DIMMING CONTROL AT ENTRANCE.
2. WALL CONTROL STATION
   a. BUTTON 1 - FUNCTION: ON/OFF
   b. BUTTON 2 - FUNCTION; DIM UP/DOWN
3. ALERTING STATION LIGHTS (TYPE RL5) SHALL COME ON UPON CONTACT CLOSURE OF THE ALERTING SYSTEM AND TIME OUT AFTER 30 MINUTES.

NON-RESIDENTIAL ENERGY CODE SUMMARY (LIGHTING)			
Building Sq. Ft.	Total Watts Allowed	Proposed Lighting Wattage	Interior Lighting Power Allowance
6920	3737	2985	Comlies with C406.3 Reduced Interior Lighting Power
EGRESS LIGHTING POWER DENSITY (C405.2.5- ITEM 7)			
6920	.02 W/SQ.FT (138W)	350	Egress lighting to be shut-off during unoccuppied hours

LOW VOLTAGE LIGHTING CONTROL PANEL (LVP-A) SCHEDULE

LOCATION: Main Electrical Room

RELAY NO. r#	AREA / ROOM OF CONTROL	CIRCUIT NO. (panel-ckt)	RELAY CONTROL DESIGNATION: Photocell Control	Alert System Alarm Control	Time Clock Controlled	Sequence of Operation
1	Exterior Bldg lights	A-38	Yes		Yes	Photocell control 'On' at 1/2 hour before dusk & dawn; Time clock off at 11:00 p.m.
2	Parking Lot Lights	B-40	Integral			Photocell control on/off at dusk & dawn; Occupancy sensor to reduce lighting level to 50%.
3	Front Parking Lot Light	A-40	Integral			Photocell control on/off at dusk & dawn; Occupancy sensor to reduce lighting level to 50%.
4	Flag Pole Light	A-38	Yes			Photocell control 'On' at 1/2 hour before dusk & and turn 'Off' 1/2 hour after dawn
5	Apparatus Bay Lights	B-35		Yes		See Lighting Control Sequence of operation
6	Apparatus Bay Lights	B-37		Yes		See Lighting Control Sequence of operation
7	Sleeping Room 'Red' Lights			Yes		See Lighting Control Sequence of operation
8	Hallway 'Red' Lights			Yes		See Lighting Control Sequence of operation
9	SPARE					
10	SPARE					
11	SPARE					
12	SPARE					

Verify the lighting control scenario with the Owner prior to scheduling.

Room Lighting Control Schedule (For Commissioning Purposes)

Sheet Number	Room Number	Daylight Zone	Daylight Zone - Sq. Ft.	LV Lighting Control System	LV Occ/Vacancy Sensor	LV Photocell sensor	Stand alone occ/vacancy sensor	Stand alone photocell sensor	Wall mount timer switch	Wall mount occ/vacancy switch	Line voltage wall/Dimmer switch	Low voltage wall/Dimmer switch	Switched Recepts	Alert System Override	Wiring Diagram
E1.21	101	N		Y	Y							Y			9/E0.03
E1.21	102	Y	126	Y	Y	Y						Y	Y		8/E0.03
E1.21	103	Y	110	Y	Y	Y						Y	Y		8/E0.03
E1.21	104	N		N	Y							Y			3/E0.03
E1.21	105	N		N						Y					
E1.21	106	Y	144	Y	Y	Y						Y			3/E0.03
E1.21	107	N		N											1/E0.03
E1.21	108	Y	352	Y	Y	Y						Y			1/E0.03
E1.21	109	N					Y				Y				
E1.21	110	N								Y					
E1.21	111	N								Y					
E1.21	112	N		Y								Y		Y	2/E0.03
E1.21	113	Y	90	Y	Y	Y						Y			5/E0.03
E1.21	114	N								Y					
E1.21	115	N								Y					
E1.21	116	N							Y	Y					
E1.21	117	N							Y	Y					
E1.21	118	N								Y					
E1.21	119														
E1.21	120	N		Y	Y							Y			4/E0.03
E1.21	121	N		Y	Y							Y			4/E0.03
E1.21	122	N		Y	Y							Y			4/E0.03
E1.21	123	N		Y	Y							Y			4/E0.03
E1.21	124	N		Y	Y							Y		Y	6/E0.03
E1.21	125	N		Y	Y							Y		Y	6/E0.03
E1.21	126	Y	384	Y	Y	Y						Y			7/E0.03

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f: (253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
21006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137

BID SET

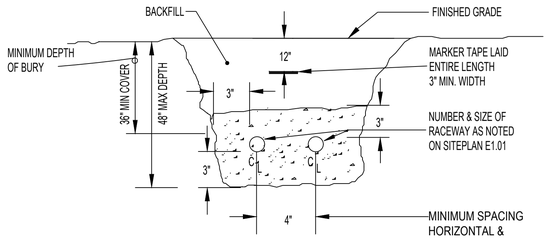
ISSUED: JUNE, 2017

REVISION SCHEDULE

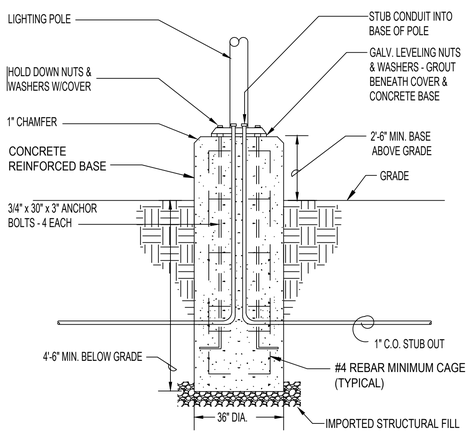
LOW VOLTAGE LIGHTING SCHEDULES

SHEET:

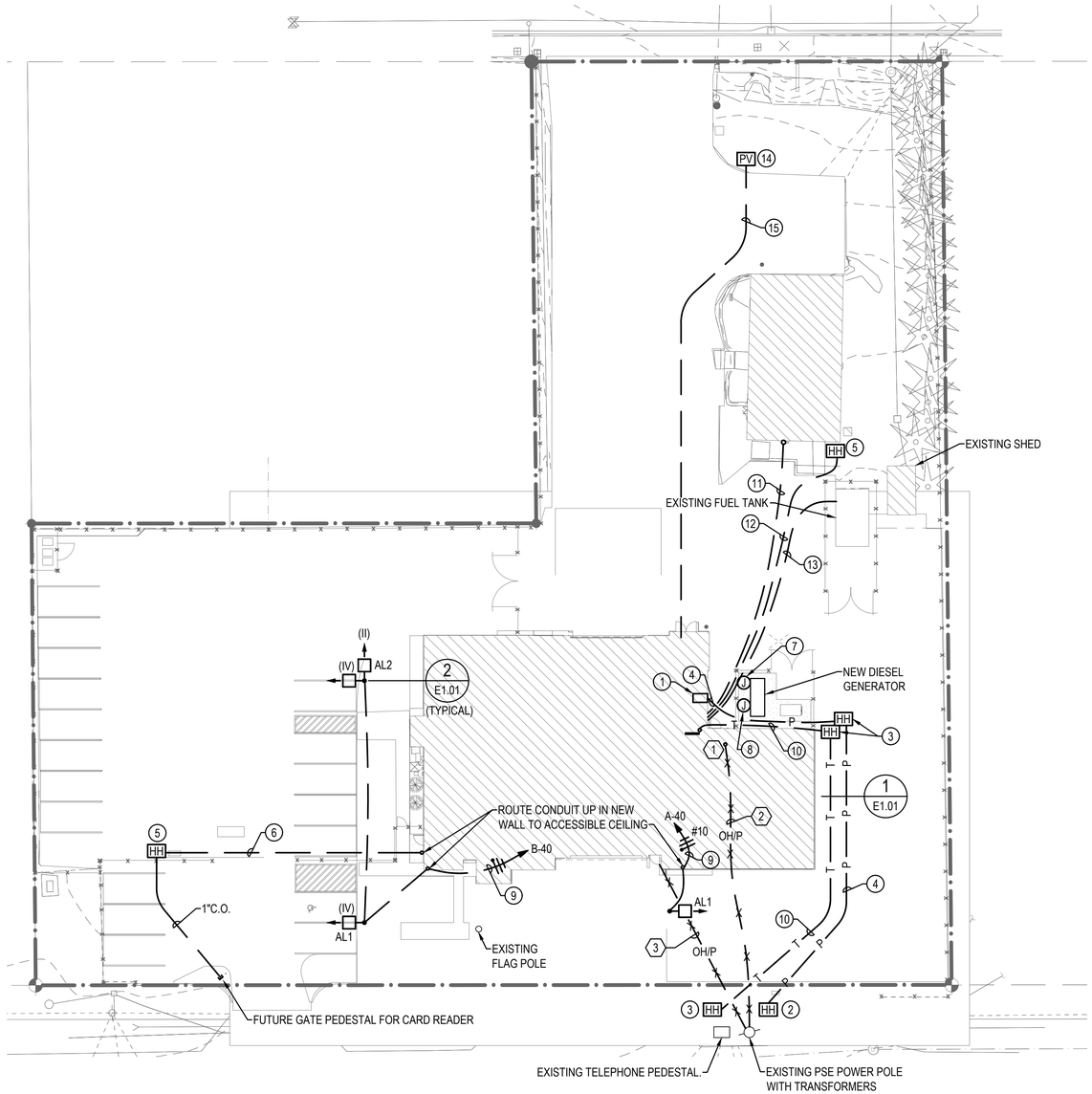
E0.04



3 TRENCH DETAIL
SCALE: DIAGRAMMATIC



2 POLE BASE DETAIL
SCALE: DIAGRAMMATIC



1 ELECTRICAL SITE PLAN
SCALE: 1"=20'-0"

GENERAL NOTES

1. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL SAWCUTTING OF EXISTING ASPHALT. TRENCHING, BEDDING FOR CONDUITS AND BACKFILLING FOR ALL NEW WORK INDICATED.

DEMOLITION NOTES

1. REMOVE EXISTING SERVICE CONDUIT AND WEATHERHEAD THROUGH ROOF.
2. DISCONNECT AND REMOVE EXISTING OVERHEAD POWER LINE TO BUILDING. COORDINATE WORK WITH PUGET SOUND ENERGY.
3. DISCONNECT AND REMOVE EXISTING OVERHEAD TELEPHONE, FIBER AND CABLE LINES TO THE BUILDING. COORDINATE WITH THE OWNER AND UTILITY PROVIDERS.

CONSTRUCTION NOTES

1. LOCATION OF NEW MAIN DISTRIBUTION BOARD.
2. SECONDARY SERVICE HANDHOLE BY PUGET SOUND ENERGY.
3. PROVIDE UTILITY VAULT 3030LA WITH H20 RATED, GALVANIZED LID.
4. SECONDARY SERVICE CONDUITS TO NEW MAIN DISTRIBUTION BOARD. SEE SHEET E5.02 FOR RACEWAY AND CONDUCTOR SIZES.
5. PROVIDE FOGTITE TYPE 2 CONCRETE HANDHOLE WITH GALVANIZED LID AND INTERIOR DIVIDING PARTITION TO ACCOMMODATE POWER / LOW VOLTAGE WIRING.
6. PROVIDE (2) 1-1/2" C.O. FROM PANEL B TO HANDHOLE FOR MOTORIZED GATE, CONTROLLER, CARD READER AND DETECTOR LOOPS. PROVIDE CUTTING AND PATCHING OF ASPHALT.
7. PROVIDE WEATHERPROOF CONNECTION TO BATTERY CHARGE. PROVIDE 3/4"C., (2) #12 AND (1) #12 GROUND TO MDB-25.
8. PROVIDE WEATHERPROOF CONNECTION TO BLOCK HEATER. PROVIDE 3/4"C., (2) #12 AND (1) #12 GROUND TO MDB-26.
9. ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR.
10. PROVIDE (1) 4"C., AND (1) 2"C., TO TELEPHONE TERMINAL BOARD.
11. PROVIDE 2" C.O. FOR TELECOM. STUB UP AT BUILDING.
12. PROVIDE 1-1/2" C.O. FOR FUTURE READER BOARD.
13. PROVIDE 1" C.O. FOR DATA AND (1) 2" C.O. FOR FUTURE POWER.
14. POST INDICATOR VALVE.
15. PROVIDE 1"C., FOR WIRING FROM FIRE ALARM PANEL TO POST INDICATOR VALVE. ROUTING TO FOLLOW FIRE PROTECTION LINE.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
22006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

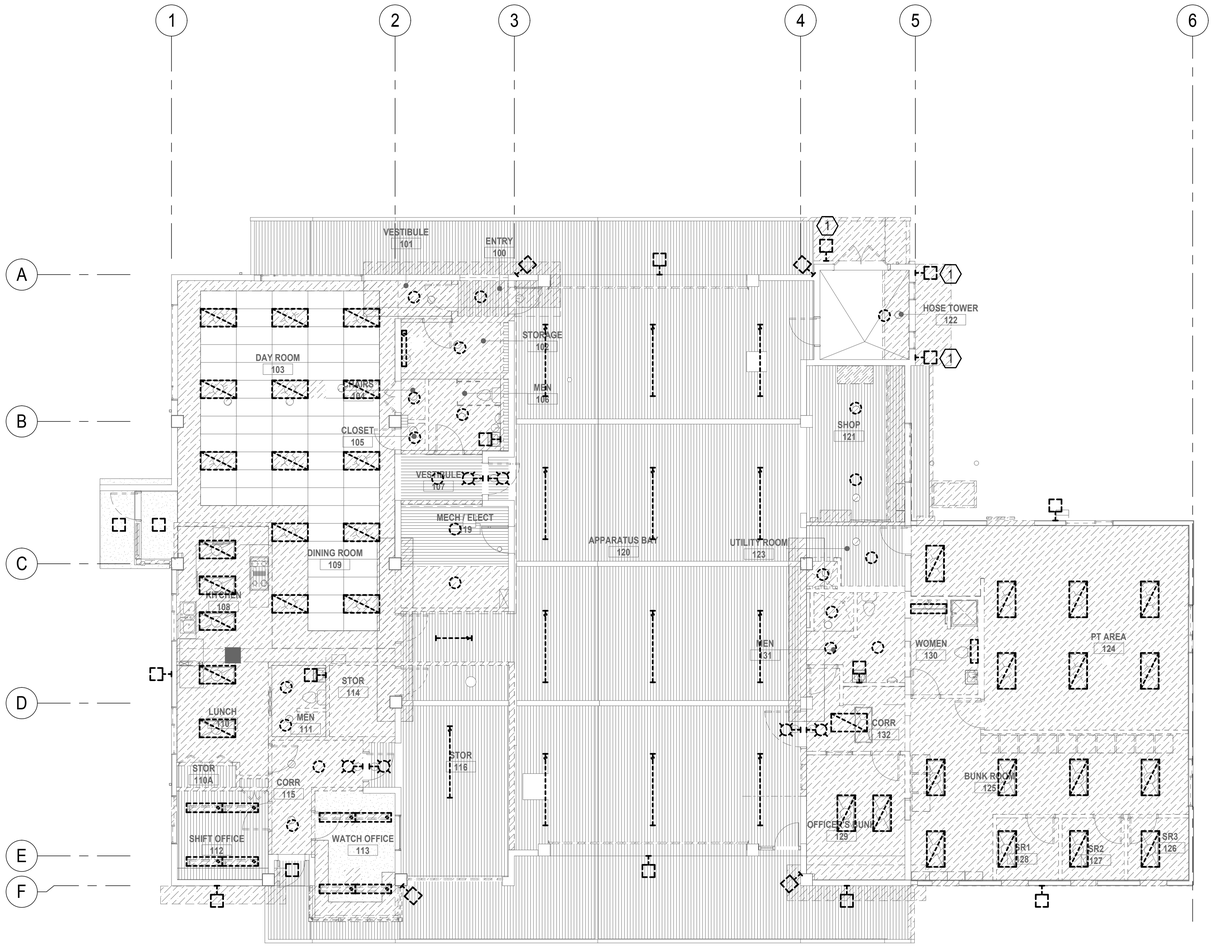
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137
BID SET
ISSUED: JUNE, 2017
REVISION SCHEDULE

ELECTRICAL SITE PLAN

SHEET:
E1.01



1 LEVEL 1 - LIGHTING DEMO PLAN

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

GENERAL NOTES

1. ALL EXISTING LIGHTING, LIGHTING CONTROL, CONDUIT AND WIRING TO BE REMOVED.

DEMOLITION NOTES

1 EXISTING LIGHTS LOCATED AT TOP OF THE HOSE TOWER.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

BCE bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
21006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137

BID SET

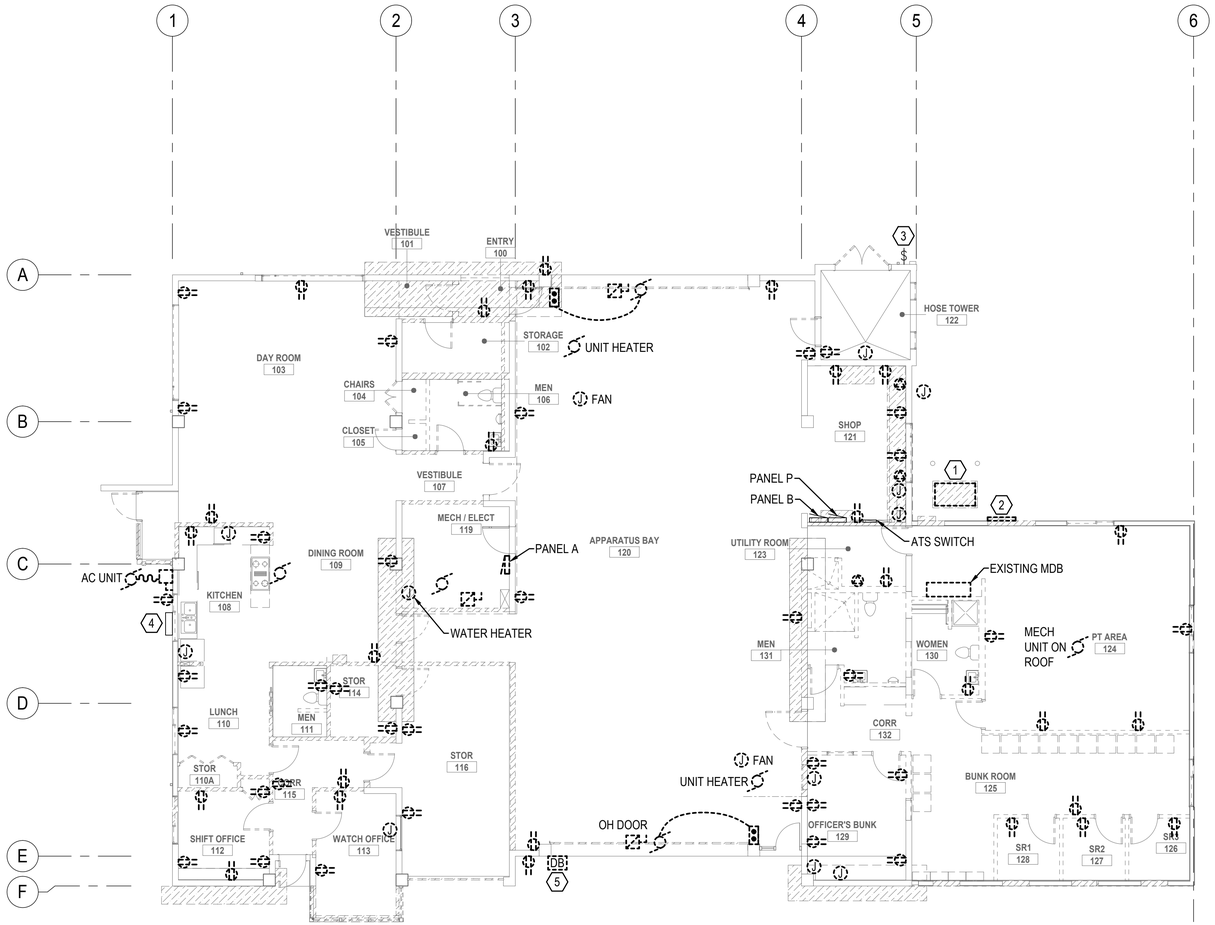
ISSUED: JUNE, 2017

REVISION SCHEDULE

LEVEL 1 - LIGHTING DEMO PLAN

SHEET:

ED1.11



1 LEVEL 1 - POWER & SYSTEMS DEMO PLAN

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

GENERAL NOTES

1. ALL EXISTING DEVICES, BACKBOXES CONDUIT AND WIRING TO BE REMOVED. THIS INCLUDES ALL LOW VOLTAGE AND FIRE ALARM DEVICES AND CABLING.

DEMOLITION NOTES

1. EXISTING GENERATOR TO BE DISCONNECTED AND REMOVED.
2. EXISTING PSE METERING TELEMETRY CABINET. COORDINATE WITH PSE FOR DISCONNECTION AND RELOCATION.
3. EXISTING DUEL SHUT-OFF SWITCH TO REMAIN.
4. MAINTAIN EXISTING IRRIGATION CONTROLLER.
5. DISCONNECT AND REMOVE EXISTING EMERGENCY CALL BOX AND DOOR BELL.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
22006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137

BID SET

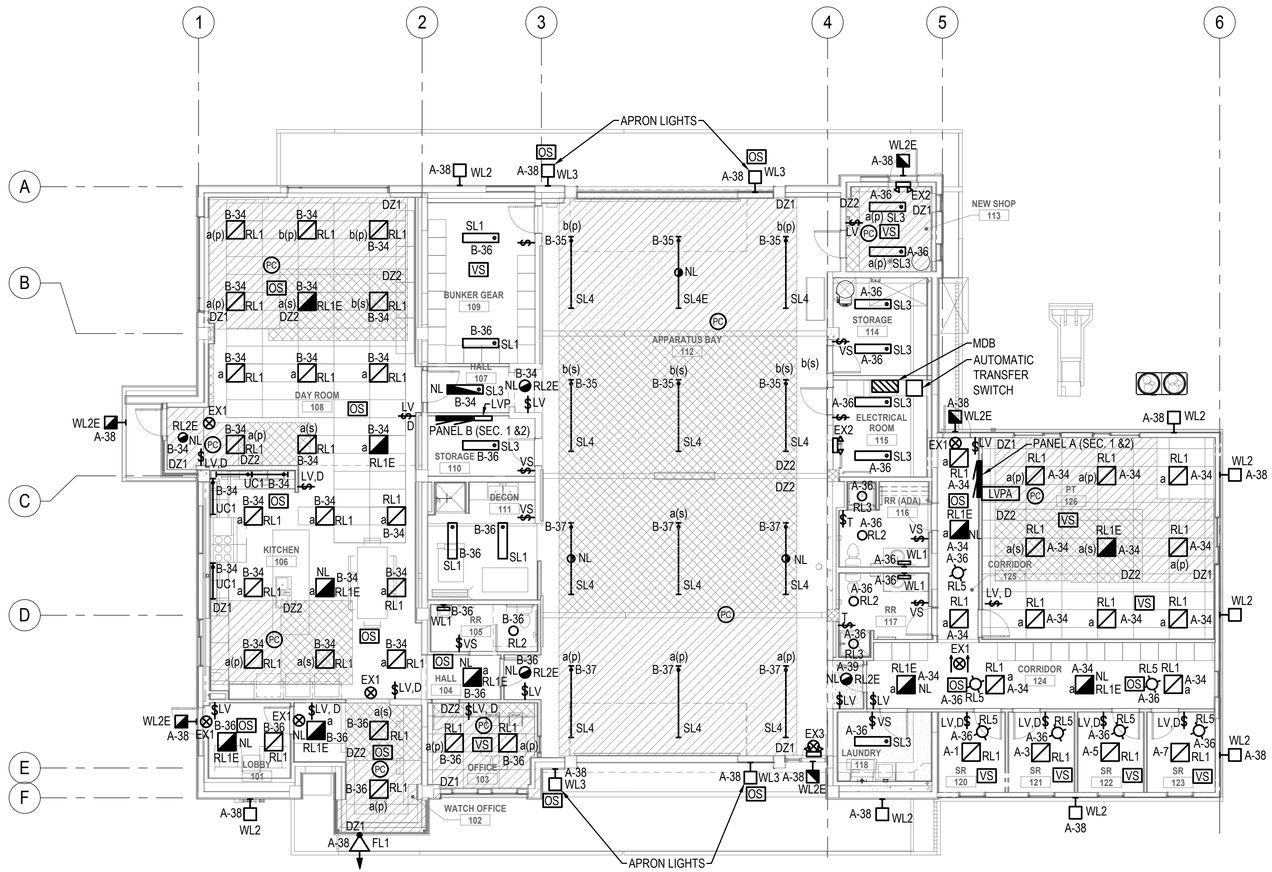
ISSUED: JUNE, 2017

REVISION SCHEDULE

LEVEL 1 - POWER & SYSTEMS DEMO PLAN

SHEET:

ED1.12



1 LEVEL 1 - LIGHTING PLAN

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

GENERAL NOTES

1. PROVIDE UNSWITCHED HOT LEG TO EMERGENCY BATTERY PACKS.
2. ALL WALL MOUNTED EXTERIOR LIGHTS TO BE ROUTED THROUGH LIGHTING CONTROL RELAYS FOR CONTROL.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

BCE bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
21006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137

BID SET

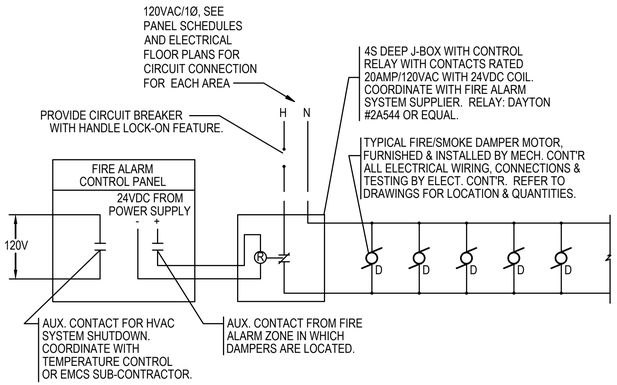
ISSUED: JUNE, 2017

REVISION SCHEDULE

LEVEL 1 - LIGHTING PLAN

SHEET:

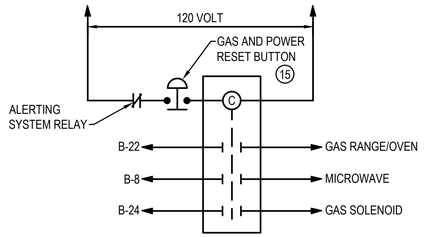
E1.21



SEQUENCE OF OPERATION: UPON POWER OUTAGE OR ZONE FIRE ALARM SIGNAL, FIRE/SMOKE DAMPERS SHALL CLOSE, AND HVAC SYSTEM SHALL BE SHUTDOWN. UPON RESET OF FIRE ALARM CONTROL PANEL, DAMPERS SHALL AUTOMATICALLY OPEN, AND HVAC SYSTEM SHALL START.

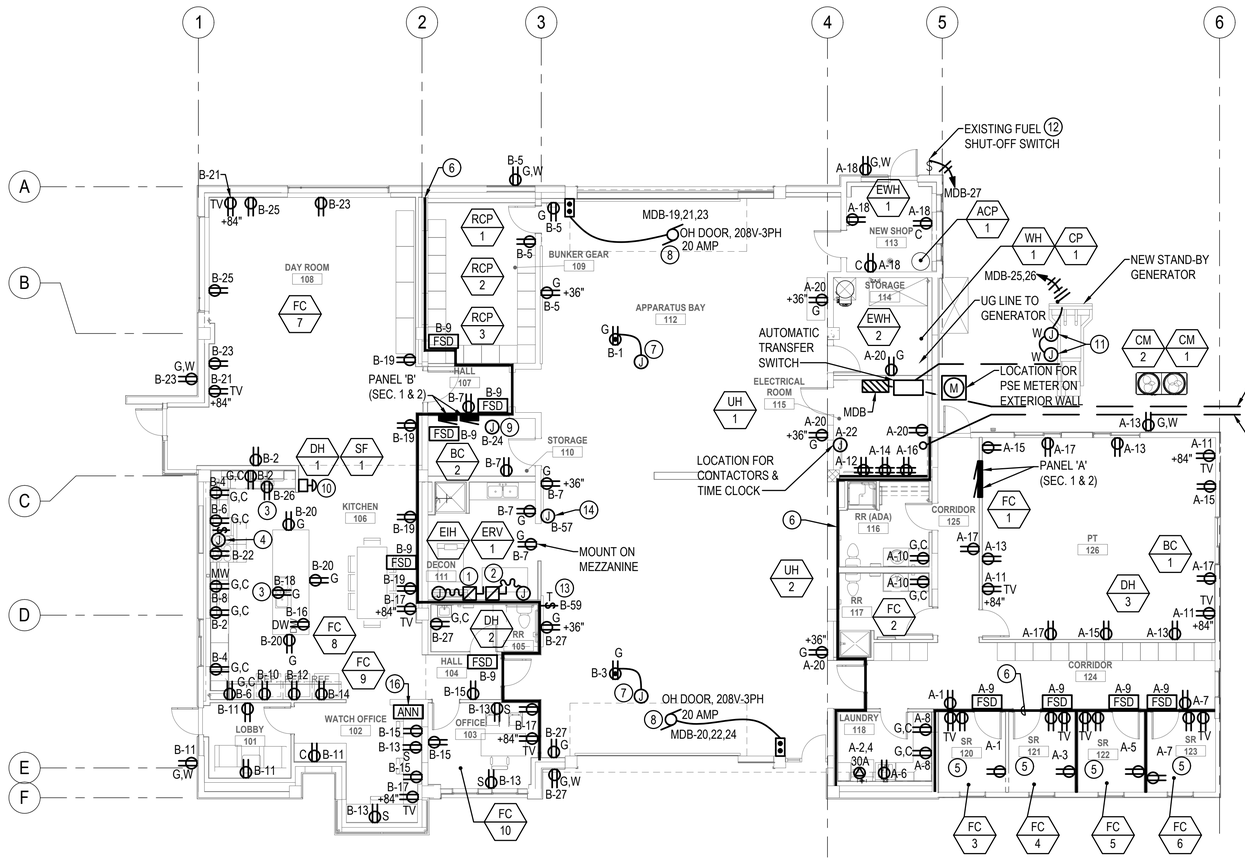
4 SMOKE/FIRE DAMPER WIRING DIAGRAM

SCALE: DIAGRAMMATIC



2 POWER & GAS SHUT-OFF DIAGRAM

SCALE: NTS

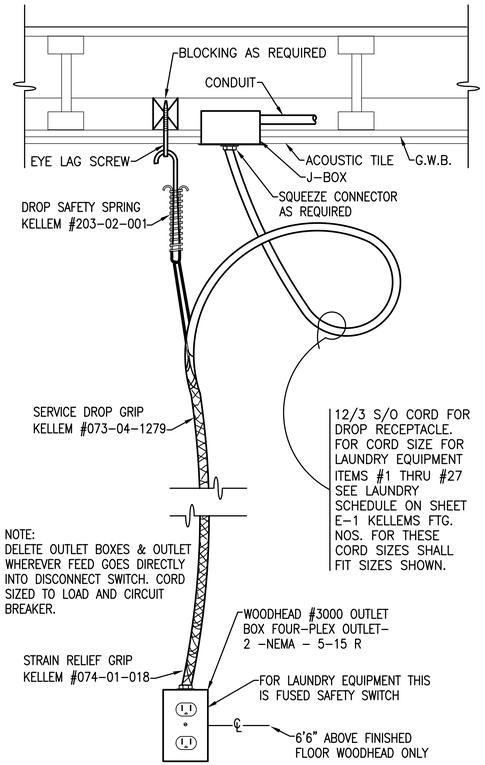


1 LEVEL 1 - POWER PLAN

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

CONSTRUCTION NOTES

1. PROVIDE 100-AMP - 3 POLE DISCONNECT SWITCH FOR EXTRACTOR. PROVIDE 1-1/4"C., (4) #4 AND (1) #8 GROUND FROM MDB.
2. PROVIDE 60-AMP - 3 POLE DISCONNECT SWITCH FOR NEW DRYER. PROVIDE 1"C., (4) #6 AND (1) #8 GROUND FROM MDB.
3. PROVIDE CONNECTION TO HOT-COLD WATER DISPENSER UNDER SINK.
4. PROVIDE CONNECTION TO RANGE HOOD.
5. ALL DEVICES IN THIS ROOM ARE TO HAVE ARC FAULT PROTECTION.
6. LINE REPRESENTS FIRE BARRIER WALL FROM SLAB TO ROOF DECK. PROVIDE FIRE SEALANT AROUND ALL PENETRATIONS THROUGH THIS WALL.
7. PROVIDE DROP CORD FROM CEILING FOR VEHICLE CHARGING. SEE DETAIL 3 ON THIS SHEET.
8. PROVIDE CONNECTION TO OVERHEAD DOOR AND CONTROLS.
9. PROVIDE CONNECTION TO GAS SOLENOID VALVES.
10. PROVIDE RESET BUTTON FOR GAS SOLENOIDS AND POWER. SEE DETAIL 2 ON THIS SHEET.
11. PROVIDE CONNECTIONS TO GENERATOR BATTERY CHARGER AND BLOCK HEATER.
12. PROVIDE NEW CONNECTION TO EXISTING FUEL SHUT-OFF SWITCH AND FUEL PUMP.
13. PROVIDE CONNECTION TO WALL TIMER FOR CONTROL OF EF-1.
14. PROVIDE CONNECTIONS TO CO/NO2 SENSORS CONTROLLER. PROVIDE A VIBRATONE HORN 350 FOR CONNECTION TO THE CO/NO2 SYSTEM. SURFACE MOUNT @ +8'-0".
15. PROVIDE 'YELLOW' STI STOPPER STATION WITH MOMENTARY PUSH-BUTTON; TURN TO RESET. PROVIDE LABEL STATING "EMERGENCY POWER AND GAS OFF".
16. PROVIDE FLUSH MOUNT REMOTE ANNUNCIATOR FOR GENERATOR.



3 DROP CORD DETAIL

SCALE: DIAGRAMMATIC

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f: (253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON — STATE OF WASHINGTON — 33006 — REGISTERED PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

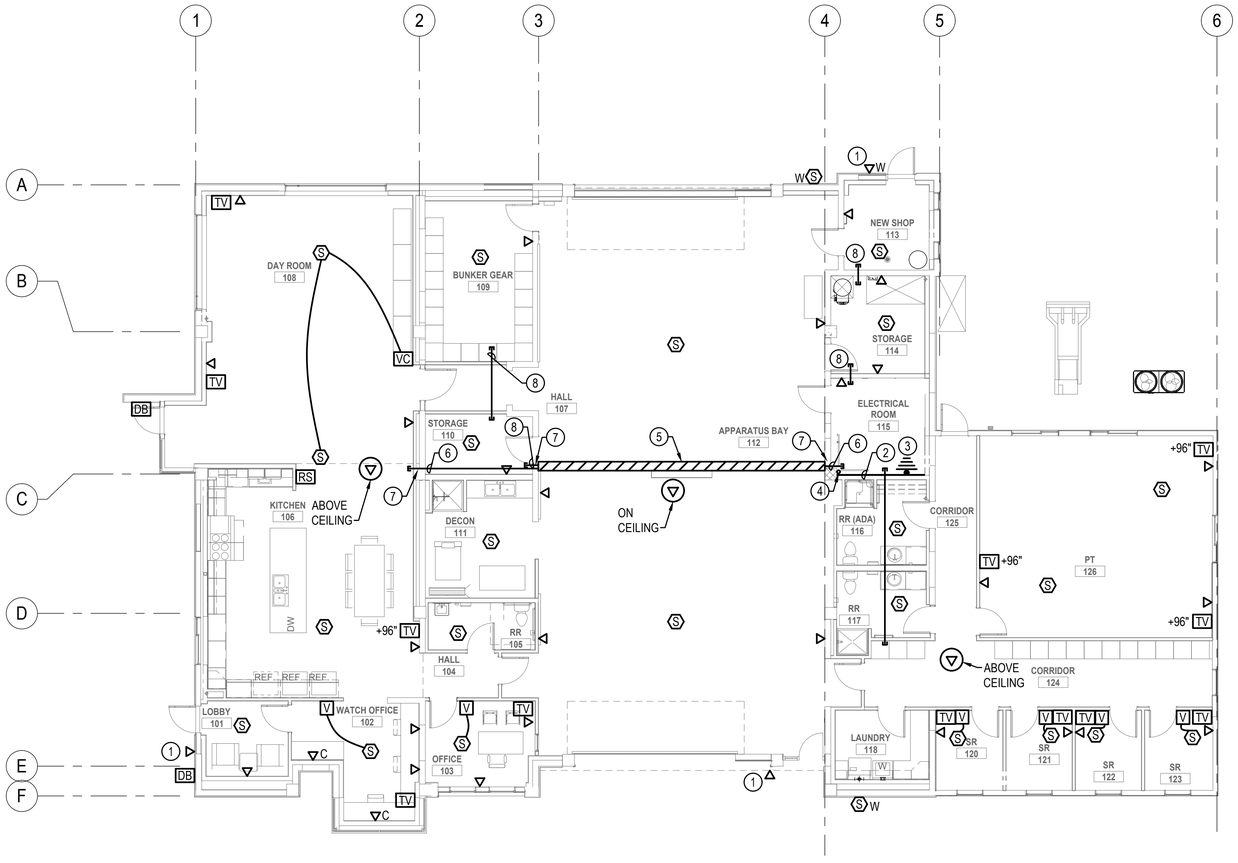
NOT FOR CONSTRUCTION

PROJECT # 2015137
BID SET
ISSUED: JUNE, 2017

REVISION SCHEDULE

LEVEL 1 - POWER PLAN

SHEET:
E1.31



1 LEVEL 1 - SYSTEMS PLAN

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

GENERAL NOTES

1. PROVIDE CONDUIT BUSHINGS ON ALL COMMUNICATION CONDUITS.

CONSTRUCTION NOTES

1. PROVIDE WEATHER PROOF PHONE JACK. MOUNT AT 48" HIGH.
2. PROVIDE 8'-0" HIGH FIRE RETARDANT PLYWOOD BACKBOARD ALL ALONG WALL FOR TELECOMMUNICATION AND ALERTING SYSTEM EQUIPMENT.
3. PROVIDE COPPER GROUND BAR WITH STAND-OFFS (4"H X 20"W) 2-HOLE LOG STRAIGHT BARREL CONNECTION. PROVIDE (1) #2/0 COPPER GROUND TO SERVICE ENTRANCE GROUND BAR.
4. PROVIDE 2"C.O. UP THROUGH ROOF WITH A CAP. STUB CONDUIT UP A MINIMUM OF 18" ABOVE THE ROOF.
5. PROVIDE SOLID BOTTOM CABLE TRAY. MOUNT AT +36" BELOW THE CEILING.
6. PROVIDE (3) 2"C. STUB OUT ABOVE ACCESSIBLE CEILING.
7. PROVIDE FIRE STOPPING AROUND CONDUITS.
8. PROVIDE 1-1/4"C., THROUGH WALL AT CEILING LEVEL FOR LOW VOLTAGE CABLING.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
32006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137

BID SET

ISSUED: JUNE, 2017

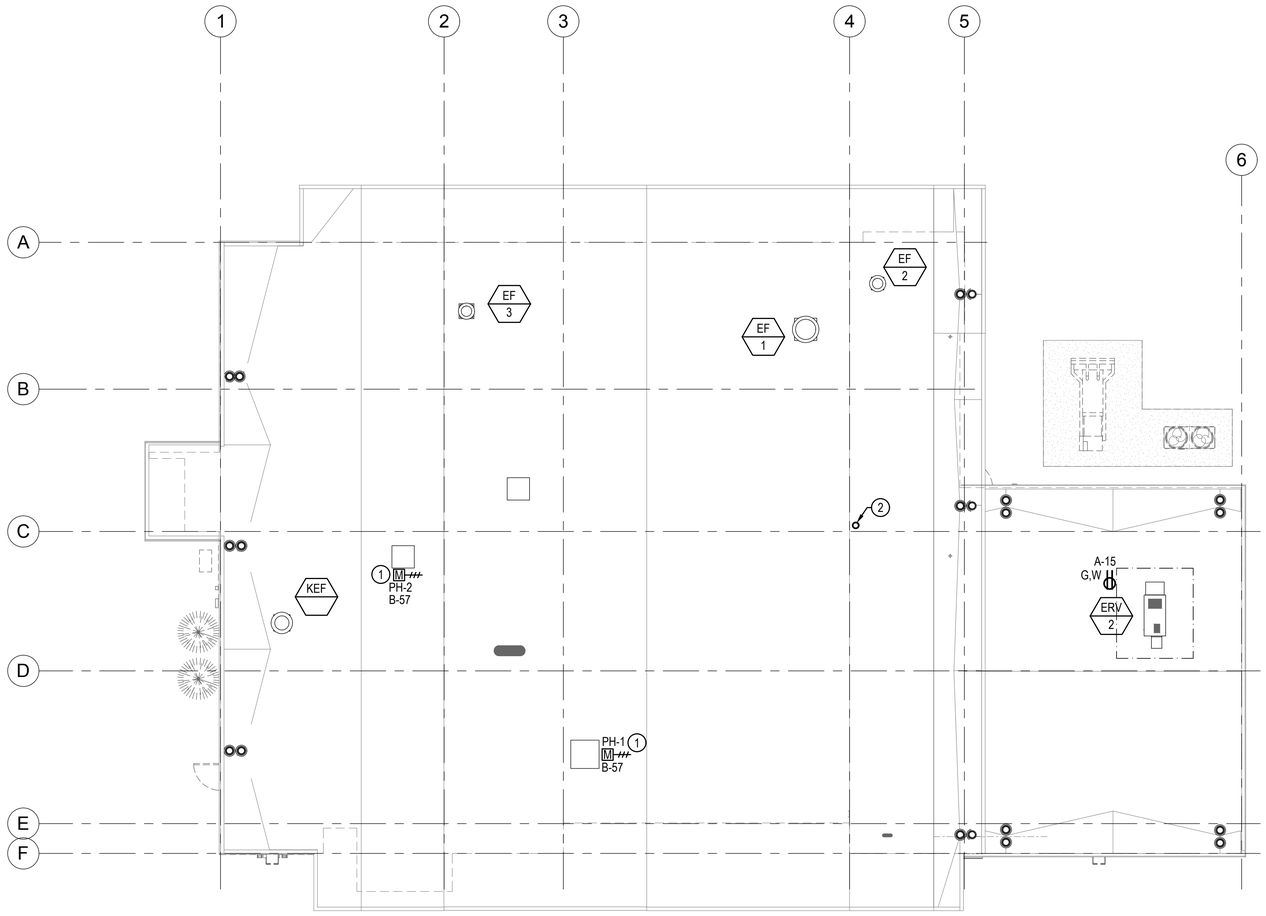
REVISION SCHEDULE

LEVEL 1 - SYSTEMS PLAN

SHEET:

E1.41

NOT FOR CONSTRUCTION



CONSTRUCTION NOTES

1. PROVIDE CONNECTION TO MOTORIZED DAMPERS AS PART OF THE CO/NO2 SENSOR CONTROL.
2. 2"C.O. LOCATION UP THROUGH ROOF FROM ROOM 115.

1 ROOF - POWER PLAN

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

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

BCE bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
32006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137

BID SET

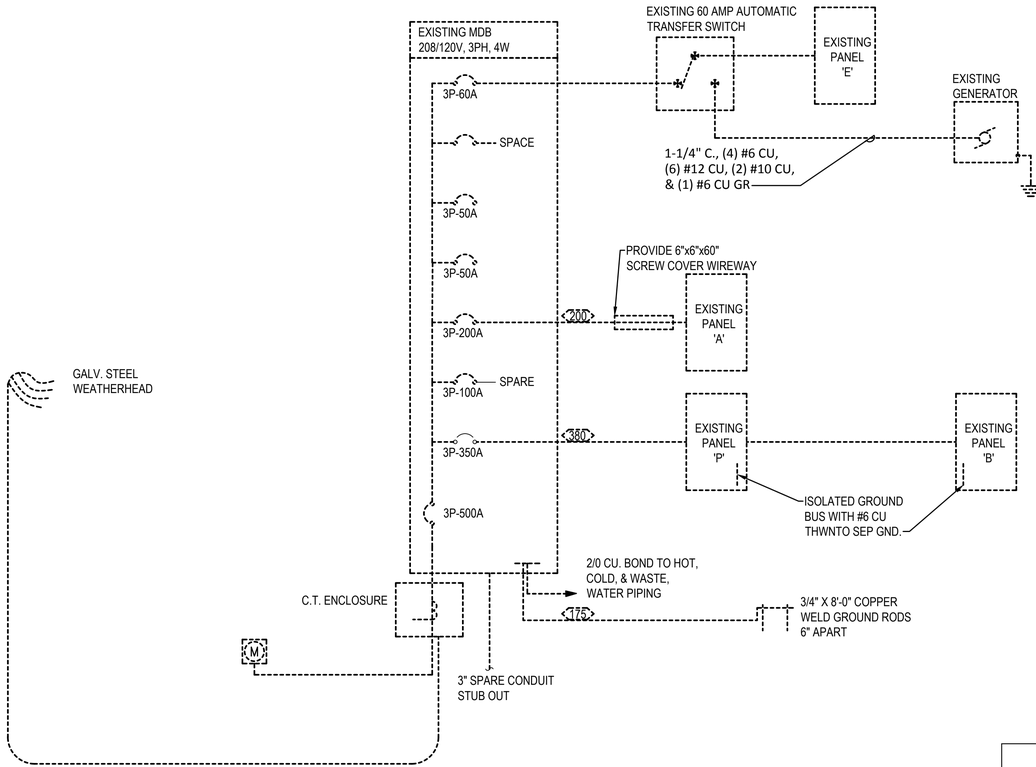
ISSUED: JUNE, 2017

REVISION SCHEDULE

ROOF - POWER PLAN

SHEET:

E2.21



1 EXISTING ELECTRICAL ONE-LINE DIAGRAM

SCALE: DIAGRAMMATIC

GENERAL NOTES

1. ELECTRICAL CONTRACTOR TO DISCONNECT AND REMOVE ALL EXISTING ELECTRICAL SYSTEM, CONDUIT AND WIRING.
2. CONFIRM WITH OWNER REGARDING THE EXISTING GENERATOR AND TRANSFER SWITCH IF THEY WISH TO RETAIN FOR INSTALLATION AT OTHER FACILITIES.

CONDUIT/FEEDER SCHEDULE

FEEDER NO.	CONDUIT/FEEDER DESCRIPTION	FEEDER AMPACITY
30	1"C., (4) #10 & (1) #10 GR.	30
60	1-1/4"C., (4) #6 & (1) #6 GR.	65
175	1-1/4" C., (4) #2/0 CU	175
200	2" C., (4) #3/0 CU & (1) #6 GR.	200
380	3-1/2" C., (4) #500 MCM CU	380

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

BCE bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
21006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

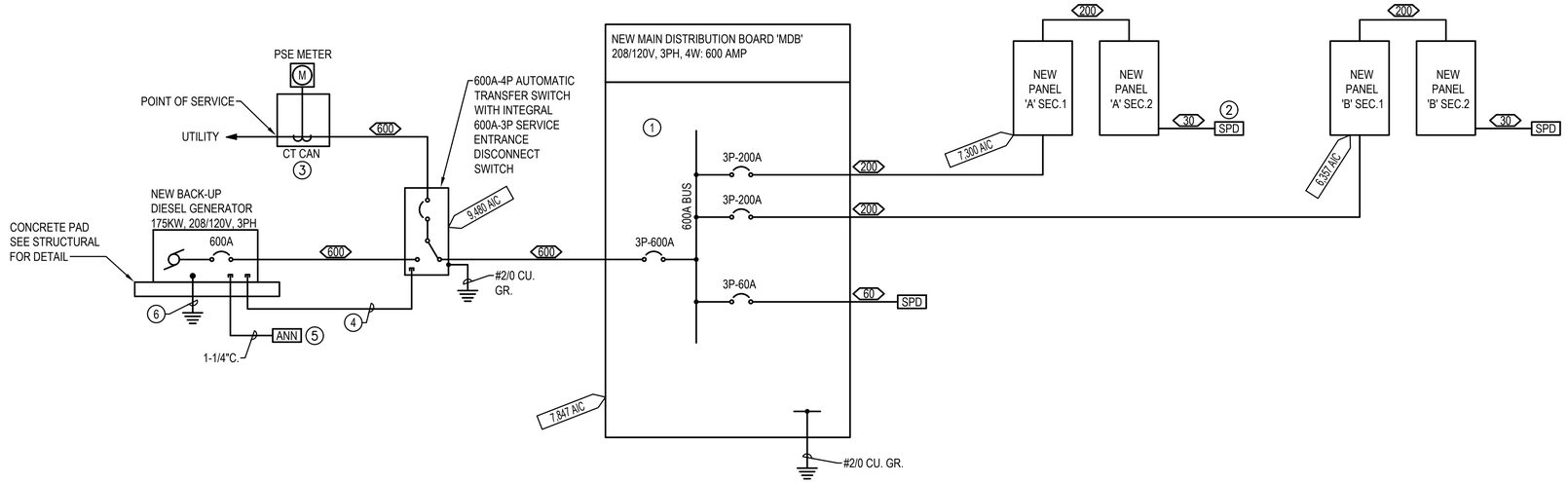
PROJECT # 2015137
BID SET
ISSUED: JUNE, 2017
REVISION SCHEDULE

ELECTRICAL
ONE-LINE
DIAGRAM

SHEET:
E5.01

CONSTRUCTION NOTES

1. SEE PANEL SCHEDULES FOR ADDITIONAL BREAKER REQUIREMENTS.
2. PROVIDE FLUSH MOUNTED SPD.
3. ELECTRICAL CONTRACTOR TO PROVIDE NEMA 3R SURFACE MOUNT CT CAN, CT'S, METER BASE AND SOCKET TO MEET PUGET SOUND ENERGY REQUIREMENTS.
4. PROVIDE 1" CONDUIT, CONDUCTORS, TERMINATIONS AND PROGRAMMING AS REQUIRED FOR GENERATOR AND ATS CONTROL AND COMMUNICATIONS PER THE MANUFACTURER'S RECOMMENDATIONS.
5. PROVIDE REMOTE ANNUNCIATOR WITH SIGNAL WIRING. SEE SHEET E1.31 FOR LOCATIONS.
6. GROUND PER NEC.



1 NEW ELECTRICAL ONE-LINE DIAGRAM
SCALE: DIAGRAMMATIC

CONDUIT/FEEDER SCHEDULE

FEEDER NO.	CONDUIT/FEEDER DESCRIPTION	FEEDER AMPACITY
30	1"C., (4)#10 & (1)#10 GR.	30
60	1-1/4" C., (4) #4 CU & #10 GR.	70
200	2" C., (4) #3/0 CU & (1) #6 GR.	200
600	(2) SETS OF 4"C., (4) 350 MCM CU.	620

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON
STATE OF WASHINGTON
22006
REGISTERED
PROFESSIONAL ENGINEER
6/19/2017

NOT FOR CONSTRUCTION

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

PROJECT # 2015137
BID SET
ISSUED: JUNE, 2017

REVISION SCHEDULE

ELECTRICAL ONE-LINE DIAGRAM

SHEET:
E5.02

PANEL: NEW MDB — 3 PH, 4 WIRE — VOLTAGE: 208Y/120V — 600A MCB
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: NEMA 1 — POLES: 42 — SF MAINS: — 7847 AIC

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	CIR BRKR AMP	A	B	C	CIR BRKR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
ML	2878		1	3		5756			3		2		2878	ML
ML	2878	CM-1	3				5756				4	CM-2	2878	ML
ML	2878		5		40			5756		40	6		2878	ML
H	6000		7	3		8098			3		8		2098	ML
H	6000	DH-1	9				8098				10	ACP	2098	ML
H	6000		11		70			8098		30	12		2098	ML
SF	11375		13	3		25014			3		14		13639	SF
SF	11188	PANEL A	15				22825				16	PANEL B	11637	SF
SF	8515		17		200			20708		200	18		12193	SF
D	1319		19	3		2638			3		20		1319	D
D	1319	OH DOOR - EAST (3HP)	21				2638				22	OH DOOR - WEST (3HP)	1319	D
D	1319		23		20			2638		20	24		1319	D
D	500	GENERATOR BATTERY CHARGER	25	1	20	2000			1	20	26	GENERATOR BLOCK HEATER	1500	D
D	1656	FUEL PUMP & SWITCH	27	1	20		1656				28	SPACE		
		SPARE	29	1	20						30	SPACE		
		SPACE	31			3000			3		32		3000	D
		SPACE	33				3000				34	DRYER	3000	D
		SPACE	35					3000		40	36		3000	D
D	8500		37	3		8500			3		38			
D	8500	EXTRACTOR	39				8500				40	SPD		
D	8500		41		80			8500		60	42			
	89325	**TOTAL**				**THIS PANEL->** 55006	52473	48700					**TOTAL** 66854	

LIGHTING(125%) = 5705.00 — RECEPTS<=10000(100%) = 10000.00 — RECEPTS>10000(50%) = 3280.00 — RECEPTS TOTAL = 13280.00 — ELECTRIC HEAT(100%) = 36662.00
LARGEST MOTOR(125%) = 10792.50 — OTHER MOTORS(100%) = 24806.00 — MOTOR TOTAL = 35598.50 — WATER HEATERS(100%) = 683.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 13900.00 — DEDICATED(100%) = 50370.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 156,179.00
TOTAL CONNECTED CURRENT (A): 433.51
TOTAL DEMAND LOAD (VA): 156,198.50
TOTAL DEMAND CURRENT (A) 433.56

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED

PANEL: NEW B SECTION 1 — 3 PH, 4 WIRE — VOLTAGE: 208Y/120V — 200A MLO
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: NEMA 1; FEED-THRU LUGS — POLES: 42 — SF MAINS: YES — 6357 AIC

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	CIR BRKR AMP	A	B	C	CIR BRKR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
D	500	VEHICLE CHARGER - EAST	1	1	20	1040			1	20	2	RECEPT - KITCHEN	540	R
D	500	VEHICLE CHARGER - WEST	3	1	20		860		1	20	4	RECEPT - KITCHEN	360	R
R	720	RECEPT 112 - NORTH	5	1	20			1080	1	20	6	RECEPT - KITCHEN	360	R
R	540	RECEPT 110, 111	7	1	20	1740			1	20	8	RECEPT - MICROWAVE	1200	A
D	1000	FIRE/SMOKE DAMPER	9	1	20		1600		1	20	10	RECEPT - REFRIG	600	A
R	540	RECEPT - 101	11	1	20			1140	1	20	12	RECEPT - REFRIG	600	A
R	720	RECEPT 102, 103	13	1	20	1320			1	20	14	RECEPT - REFRIG	600	A
R	720	RECEPT 102, 103	15	1	20		1920		1	20	16	DISHWASHER	1200	A
R	540	RECEPT 102, 103	17	1	20			2040	1	20	18	INSTA-HOT	1500	A
R	720	RECEPT 106, 108	19	1	20	1260			1	20	20	RECEPT - KITCHEN ISLAND	540	R
R	360	RECEPT - TV 108	21	1	20		860		1	20	22	GAS RANGE/OVEN	500	A
R	540	RECEPT - 108	23	1	20			740	1	20	24	GAS SOLENOID VALVES	200	D
R	360	RECEPT - 108	25	1	20	1860			1	20	26	INSTA-HOT	1500	A
R	720	RECEPT - 105, 112	27	1	20		720		1	20	28	SPARE		
		SPARE	29	1	20				1	20	30	SPARE		
		SPARE	31	1	20				1	20	32	SPARE		
		SPARE	33	1	20		782		1	20	34	LTS 106-108	782	L
L	648	LTS - APP BAY	35	1	20			1186	1	20	36	LTS 101-105; 109-111	538	L
L	648	LTS - APP BAY	37	1	20	848			1	20	38	TIME CLOCK/CONTACTOR	200	D
		SPARE	39	1	20		300		1	20	40	PARKING LOT LIGHTS	300	L
		SPARE	41	1	20				1	20	42			
X	5571		SF1			5571					SF2			
X	4595	PANEL B (SECTION 2)	SF1				4595				SF2			
X	6007		SF1					6007			SF2			
	25949	**TOTAL**				**THIS PANEL->** 13639	11637	12193					**TOTAL** 11520	

LIGHTING(125%) = 3895.00 — RECEPTS<=10000(100%) = 8280.00 — RECEPTS>10000(50%) = 0.00 — RECEPTS TOTAL = 8280.00 — ELECTRIC HEAT(100%) = 7751.00
LARGEST MOTOR(125%) = 2070.00 — OTHER MOTORS(100%) = 5566.00 — MOTOR TOTAL = 7636.00 — WATER HEATERS(100%) = 0.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 7700.00 — DEDICATED(100%) = 3400.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 37,469.00
TOTAL CONNECTED CURRENT (A): 104.00
TOTAL DEMAND LOAD (VA): 38,662.00
TOTAL DEMAND CURRENT (A) 107.31

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED

PANEL: NEW A SECTON 1 — 3 PH, 4 WIRE — VOLTAGE: 208Y/120V — 200A MLO
LOC: — MOUNT: FLUSH — FEED: BOTTOM
TYPE: NEMA 1; FEED-THRU LUGS — POLES: 42 — SF MAINS: YES — 7300 AIC

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	CIR BRKR AMP	A	B	C	CIR BRKR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
R	755	RECEPT & LT - 120 (NOTE 1)	1	1	20	3255			2		2	DRYER	2500	A
R	575	RECEPT & LT - 121 (NOTE 1)	3	1	20		3075			30	4		2500	A
R	575	RECEPT & LT - 122 (NOTE 1)	5	1	20			1775	1	20	6	WASHER - 118	1200	A
R	755	RECEPT & LT - 123 (NOTE 1)	7	1	20	1115			1	20	8	RECEPT - 118	360	R
D	400	FIRE/SMOKE DAMPERS	9	1	20		760		1	20	10	RECEPT - 116, 117	360	R
R	540	RECEPT - TV 126	11	1	20			900	1	20	12	DED RECEPT - 115	360	R
R	720	RECEPT - 126	13	1	20	1080			1	20	14	DED RECEPT - 115	360	R
R	540	RECEPT - 126	15	1	20		900		1	20	16	DED RECEPT - 115	360	R
R	720	RECEPT - 126	17	1	20			1260	1	20	18	RECEPT 113	540	R
		SPARE	19	1	20	900			1	20	20	RECEPT 112, 114, 115	900	R
		SPARE	21	1	20		500		1	20	22	TIME CLOCK/CONTACTOR	500	D
		SPARE	23	1	20				1	20	24	SPARE		
		SPACE	25						1	20	26	SPARE		
		SPACE	27						1	20	28	SPARE		
		SPACE	29						1	20	30	SPARE		
		SPACE	31						1	20	32	SPARE		
		SPACE	33				560		1	20	34	LTS 124-126	560	L
		SPACE	35					359	1	20	36	LTS 108, 113-117	359	L
		SPACE	37			289			1	20	38	EXT. WALL LIGHTS	289	L
		SPACE	39				100		1	20	40	PARKING LOT LIGHTS	100	L
		SPACE	41						1	20	42	SPARE		
X	4736		SF1			4736					SF2			
X	5293	PANEL A (SECTION 2)	SF1				5293				SF2			
X	4221		SF1					4221			SF2			
	19830	**TOTAL**				**THIS PANEL->** 11375	11188	8515					**TOTAL** 11248	

LIGHTING(125%) = 1810.00 — RECEPTS<=10000(100%) = 8280.00 — RECEPTS>10000(50%) = 0.00 — RECEPTS TOTAL = 8280.00 — ELECTRIC HEAT(100%) = 10911.00
LARGEST MOTOR(125%) = 1872.50 — OTHER MOTORS(100%) = 1158.00 — MOTOR TOTAL = 3030.50 — WATER HEATERS(100%) = 683.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 6200.00 — DEDICATED(100%) = 900.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 31,078.00
TOTAL CONNECTED CURRENT (A): 86.26
TOTAL DEMAND LOAD (VA): 31,814.50
TOTAL DEMAND CURRENT (A) 88.31

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED
1. PROVIDE ARC FAULT CIRCUIT BREAKER.

PANEL: NEW A SECTION 2 — 3 PH, 4 WIRE — VOLTAGE: 208Y/120V — 200A MLO
LOC: — MOUNT: FLUSH — FEED: BOTTOM
TYPE: NEMA 1 — POLES: 42 — SF MAINS: — 7300 AIC

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	CIR BRKR AMP	A	B	C	CIR BRKR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
ML	447	FC-1 - FC-6 & BC-1	43	2		2780			3		44		2333	H
ML	447		45		20		2780				46	DH-3	2333	H
H	456	UH-1	47	1	20			2789		30	48		2333	H
H	456	UH-2	49	1	20	1956			2		50	EWH-1, EWH-2	1500	H
ML	749	ERV-2	51	2			2249			20	52		1500	H
ML	749		53		20			1432	1	20	54	WH-1, CP-1	683	WH
		SPARE	55	1	20						56	SPACE		
ML	264	EF-2	57	1	20		264				58	SPACE		
		SPACE	59								60	SPACE		
		SPACE	61								62	SPACE		
		SPACE	63								64	SPACE		
		SPACE	65								66	SPACE		
		SPACE	67								68	SPACE		
		SPACE	69								70	SPACE		
		SPACE	71								72	SPACE		
		SPACE	73								74	SPACE		
		SPACE	75								76	SPACE		
		SPACE	77								78	SPACE		
		SPACE	79						3		80			
		SPACE	81								82	SPD		
		SPACE	83							30	84			
	3568	**TOTAL**				**THIS PANEL->** 4736	5293	4221					**TOTAL** 10682	

LIGHTING(125%) = 0.00 — RECEPTS<=10000(100%) = 0.00 — RECEPTS>10000(50%) = 0.00 — RECEPTS TOTAL = 0.00 — ELECTRIC HEAT(100%) = 10911.00
LARGEST MOTOR(125%) = 1872.50 — OTHER MOTORS(100%) = 1158.00 — MOTOR TOTAL = 3030.50 — WATER HEATERS(100%) = 683.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 0.00 — DEDICATED(100%) = 0.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 14,250.00
TOTAL CONNECTED CURRENT (A): 39.55
TOTAL DEMAND LOAD (VA): 14,624.50
TOTAL DEMAND CURRENT (A) 40.59

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON — STATE OF WASHINGTON — 33006 — REGISTERED PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137
BID SET
ISSUED: JUNE, 2017

REVISION SCHEDULE

PANEL SCHEDULES

SHEET:
E6.01

PANEL: NEW B SECTION 2 — 3 PH — 4 WIRE — VOLTAGE: 208Y/120V — 200A MLO
LOC: — MOUNT: SURFACE — FEED: TOP
TYPE: NEMA 1 — POLES: 42 — SF MAINS: — 6357 AIC

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR BRKR P	CIR BRKR AMP	A	B	C	CIR BRKR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
ML	354	FC-7 - FC-10, BC-2	43	2		1521			3		44		1167	H
ML	354		45		20		1521				46	DH-2	1167	H
ML	1656	SF-1	47	1	20			2823		20	48		1167	H
ML	749	ERV-1	49	2		1874			2		50	RCP-1 - RCP-3	1125	H
ML	749		51		20		1874			20	52		1125	H
H	1000	EIH-1	53	2				1528	1	20	54	EF-3	528	ML
H	1000		55		20	2176			1	20	56	KEF	1176	ML
D	1000	MOTORIZED DAMPERS/CO/NO2	57	1	20		1200		1	20	58	HOOD	200	L
ML	1656	EF-1	59	1	20			1656			60	SPACE		
		SPACE	61								62	SPACE		
		SPACE	63								64	SPACE		
		SPACE	65								66	SPACE		
		SPACE	67								68	SPACE		
		SPACE	69								70	SPACE		
		SPACE	71								72	SPACE		
		SPACE	73								74	SPACE		
		SPACE	75								76	SPACE		
		SPACE	77								78	SPACE		
		SPACE	79						3		80			
		SPACE	81								82	SPD		
		SPACE	83							30	84			
	8518	TOTAL			THIS PANEL->	5571	4595	6007				TOTAL	7655	
						5571	4595	6007						

LIGHTING(125%) = 250.00 — LARGEST MOTOR(125%) = 2070.00 — KITCHEN LOADS(65%) = 0.00 — TOTAL CONNECTED LOAD (VA): 16,173.00
RECEPTS<=10000(100%) = 0.00 — OTHER MOTORS(100%) = 5566.00 — APPLIANCES(100%) = 0.00 — TOTAL CONNECTED CURRENT (A): 44.89
RECEPTS>10000(50%) = 0.00 — MOTOR TOTAL = 7636.00 — DEDICATED(100%) = 1000.00 — TOTAL DEMAND LOAD (VA): 16,637.00
RECEPTS TOTAL = 0.00 — WATER HEATERS(100%) = 0.00 — MISC(100%) = 0.00 — TOTAL DEMAND CURRENT (A) 46.18
ELECTRIC HEAT(100%) = 7751.00

NOTES: L=LIGHTING, R=RECEPTACLES, H=ELECTRIC HEAT, ML=LARGEST MOTOR, MO=OTHER MOTORS, WH=WATER HEATERS, K=KITCHEN LOADS, A=APPLIANCES, D=DEDICATED, X=MISC, SF=SUB FEED

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
INFO@RFMARCH.COM

BCE bce engineers, inc.
p:(253) 922-0446
f:(253) 922-0896
6021 12th street east, suite 200, fife, wa 98424

CHARLES A. HEATON — STATE OF WASHINGTON — 32006 — REGISTERED PROFESSIONAL ENGINEER
6/19/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 66
27010 15th AVE SOUTH,
DES MOINES, WA 98198

NOT FOR CONSTRUCTION

PROJECT # 2015137
BID SET
ISSUED: JUNE, 2017

REVISION SCHEDULE

PANEL SCHEDULES

SHEET:
E6.02