SOUTH KING FIRE & RESCUE

FACILITY IMPROVEMENTS

FIRE STATION 61



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: 2721049034

PROPERTY TAX ACCOUNT NUMBER: 272104903401

BUILDING ADDRESS: 3203 SOUTH 360th STREET, FEDERAL WAY, WASHINGTON

ZONING: R-4

(EXISTING) SINGLE STORY FACILITY FULLY SPRINKLERED
TOTAL GROSS FLOOR AREA 8,662 SQ FT

TOTAL SITE AREA 4.43 ACRES (APPROXIMATE 192,895 SQ FT)

TYPE OF CONSTRUCTION: VB (NO CHANGE)

OCCUPANCY CLASSIFICATION: (NO CHANGE)
S1: APPARATUS BAY AND ASSOCIATED SUPPORT AREAS
R3: 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

METHOD OF LIGHTING EQUIPMENT COMPLIANCE: LIGHTING POWER ALLOWANCE

SCOPE OF WORK

ESTIMATED PROJECT VALUATION: $1,791,000

SITE IMPROVEMENTS:

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

INTERIOR RENOVATION:

RENOVATE AND REMODEL THE EXISTING STATION TO ACCOMMODATE INDIVIDUAL RESTROOMS WITH SHOWERS, APPROPRIATELY SIZED INDIVIDUAL SLEEPING ROOMS, AND IMPROVED STORAGE, DECONTAMINATION, AND WORK AREAS

SEISMIC UPGRADE

MECHANICAL AND ELECTRICAL IMPROVEMENTS

PROJECT TEAM

OWNER:

SOUTH KING FIRE & RESCUE
31617 1ST AVENUE
FEDERAL WAY, WASHINGTON 98003
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ARCHITECT:

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CIVIL:

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STRUCTURAL:

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MECHANICAL & PLUMBING:

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PHONE: 206-285-2966
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EMAIL: james@siderbyers.com

ELECTRICAL:

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6021 12TH STREET E, SUITE 200
FIFE, WASHINGTON 98424
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ENVIRONMENTAL:

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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	
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A00.02	ABBREVIATIONS AND SYMBOLS
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TS.1	EXISTING CONDITIONS
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C2.00	SANITARY SEWER PLAN
C2.01	SANITARY SEWER PLAN AND PROFILE (OFF-SITE)
C3.00	PAVING PLAN
C4.00	EROSION CONTROL DETAILS
C4.01	SEWER NOTES & DETAILS
ENVIRONMENTAL	
HA001	GENERAL NOTES, ABBREVIATIONS, SHEET INDEX, AND MATERIALS SUMMARY
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A10.01	ARCHITECTURAL SITE PLAN
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A21.11	FLOOR PLAN
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S31.11	HOSE TOWER PARTIAL FRAMING PLANS AND DETAILS
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M00.04	SCHEDULES
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M30.01	DETAILS
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E-003	SCHEDULES & LIGHTING CONTROL DIAGRAMS
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ED112	POWER DEMOLITION PLAN
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ED114	ROOF POWER DEMOLITION PLAN
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E-502	NEW ELECTRICAL ONE-LINE DIAGRAM
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FA1.01	FIRE ALARM FIRST FLOOR PLAN

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DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET
AUBURN, WA 98001

PROJECT # 2015137

BID SET

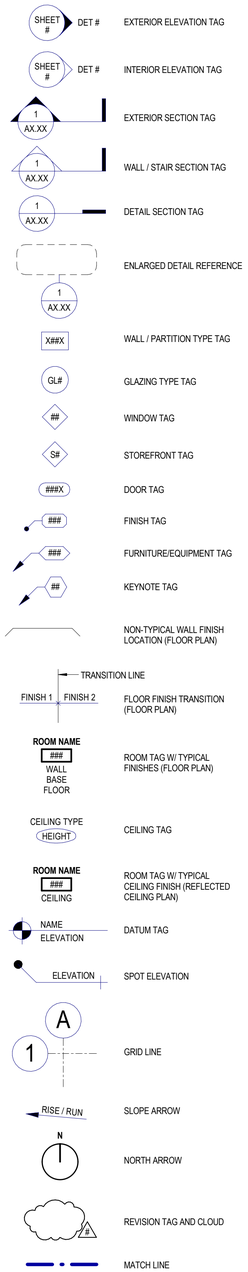
ISSUED: MARCH 16, 2017

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 --

F&LS	FIRE AND LIFE SAFETY
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

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PROJECT # 2015137

BID SET

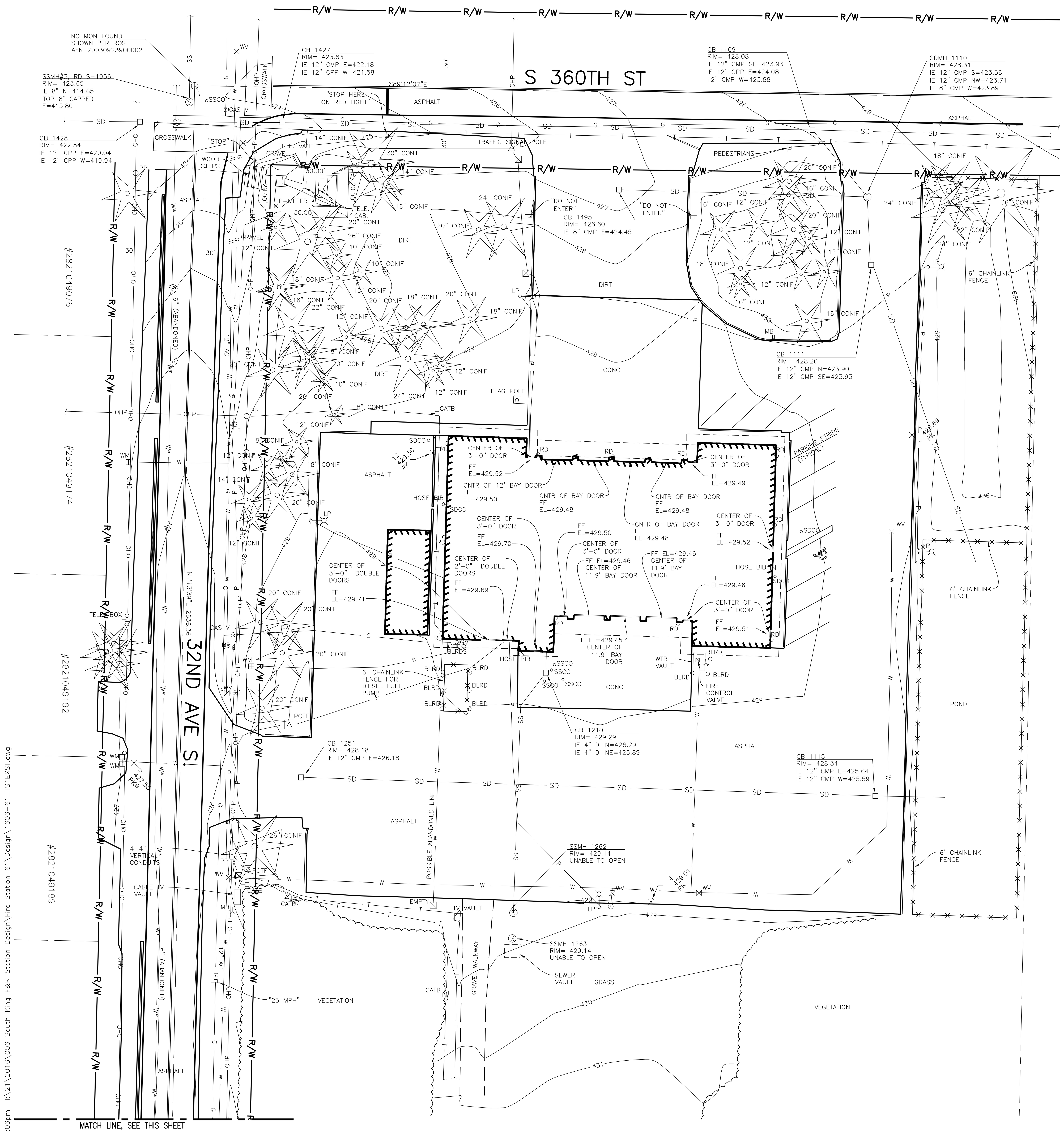
ISSUED: MARCH 16, 2017

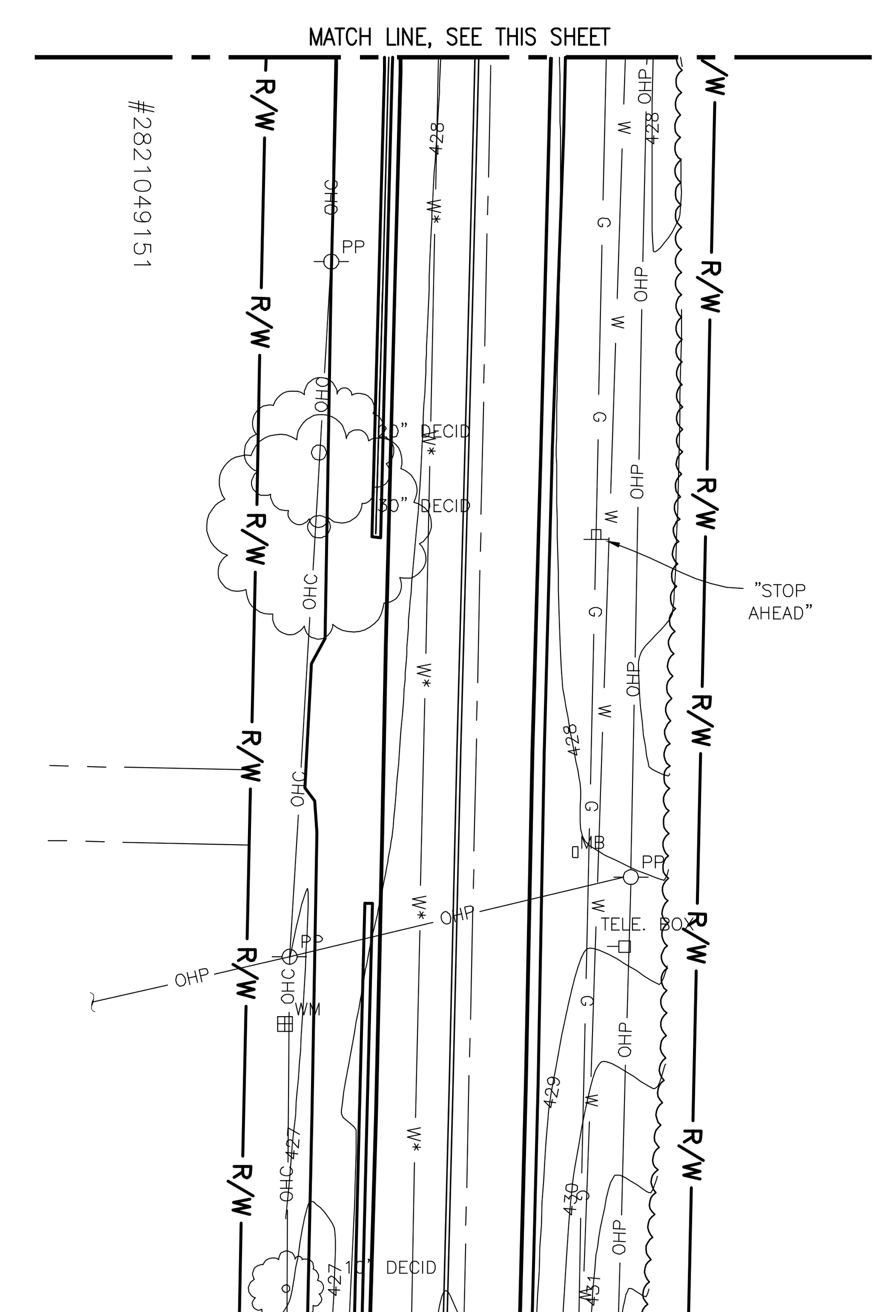
REVISION SCHEDULE

ABBREVIATIONS AND SYMBOLS

SHEET:

A00.02





LEGEND

- CONIFER TREE
- DECIDUOUS TREE
- TELEPHONE PEDESTAL
- GAS VALVE
- GAS METER
- JUNCTION BOX
- LIGHT POLE
- POWER TRANSFORMER
- UTILITY POLE
- GUY ANCHOR
- WATER METER
- WATER VALVE
- FIRE HYDRANT
- HOSE BIB
- CATCH BASIN
- STORM DRAIN CLEANOUT
- STORM DRAIN MANHOLE
- BOLLARD
- ROOF DRAIN
- SANITARY SEWER MANHOLE
- SIGN AS NOTED
- FOUND MONUMENT IN CASE
- PK NAIL W/WASHER
- BUILDING LINE
- EDGE OF GRAVEL
- VEGETATION LINE
- FENCE
- GUARD RAIL
- UNDERGROUND POWER LINE
- OVERHEAD POWER LINE
- OVERHEAD COMMUNICATIONS
- GAS LINE
- STORM DRAIN LINE
- SANITARY SEWER LINE
- FOG STRIPE
- DOUBLE YELLOW STRIPE
- WATERLINE
- RIGHT OF WAY LINE

SURVEY NOTES:

1. THE UTILITIES SHOWN ARE BASED ON OBSERVATION OF SURFACE FEATURES, RECORD UTILITY MAPS AND BY PAINT MARKS SET BY A UTILITY LOCATING COMPANY. PROVIDE AND PAY FOR A LOCATE SERVICE TO LOCATE AND MARK UTILITIES. LOCATE UTILITY CROSSINGS BY POT-HOLING BEFORE COMMENCING CONSTRUCTION.
2. BASIS OF BEARINGS: WASHINGTON STATE PLANE COORDINATE SYSTEM (NORTH ZONE) NAD83/11 PER THE WSRN. CONTROL MONUMENTS ESTABLISHED VIA RTK GPS OBSERVATIONS USING LEICA GX1200 AND LEICA GS14 SENSORS. ADDITIONAL CONTROL POINTS WERE LOCATED BY CLOSED LOOP TRAVERSE.
3. RIGHT OF WAY AND LOT LINES ARE SHOWN PER RECORD INFORMATION AND ARE FOR REFERENCE ONLY. THIS MAP DOES NOT REPRESENT A BOUNDARY SURVEY.
4. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND DOES NOT PURPORT TO SHOW ANY EASEMENTS OR OTHER ITEMS OF RECORD.

DATUMS:

HORIZONTAL DATUM: NAD 83/11 WA NORTH

VERTICAL DATUM: NAVD 88
NGVD 29 = NAVD 88 MINUS 3.54 FEET

PROJECT BENCHMARK: KING COUNTY BENCHMARK NO. 6945, REBAR AND ALUMINUM CAP STAMPED "GPS 6945", LOCATED ON THE CENTERLINE OF 31ST AVE. S. NORTH OF THE INTERSECTION WITH S 368TH ST. ELEVATION = 369.002

SITE BENCHMARK: RM POINT NO 5, PK NAIL W/WASHER SET ON WEST SIDE OF 32ND AVE. S. ACROSS FROM ENTRANCE TO SITE. ELEVATION = 427.55

SCALE IN FEET
20 0 20 40

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

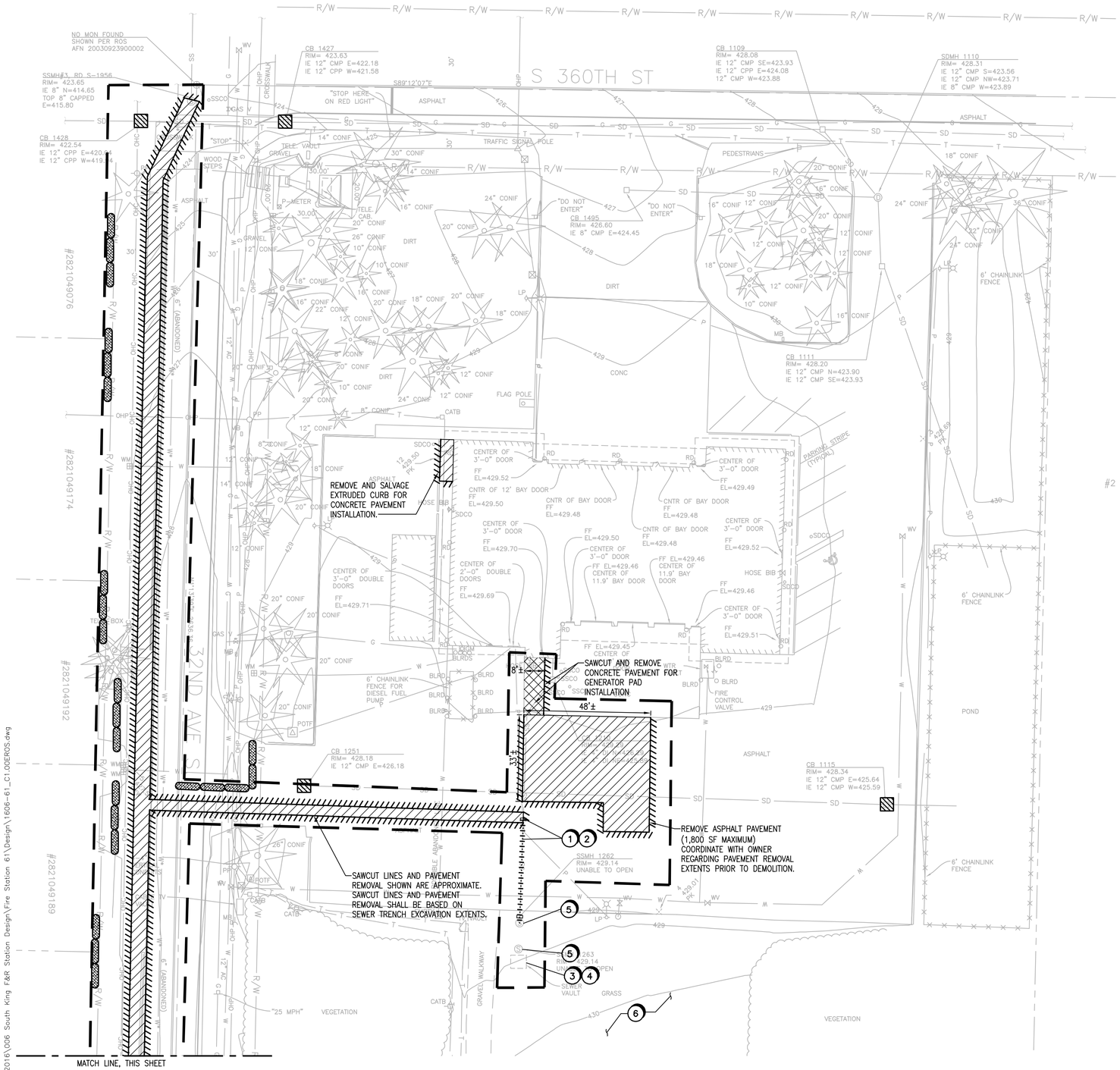
FIRE STATION 61
3203 S 360th STREET
AUBURN, WA

Project Number	2015137
Bid Set	
ISSUED:	March 28, 2017
REVISION SCHEDULE	

Existing Conditions

SHEET:

TS.1



LEGEND:

- CATCH BASIN FILTER (1 / C1.00 | C8.01)
- SAWCUT PAVEMENT
- REMOVE EXISTING ASPHALT
- SILT SOCK BARRIER
- LIMITS OF CONSTRUCTION
- CAP

SEE SHEET TS.1 FOR EXISTING FEATURES LEGEND.
SEE SURVEY NOTE #1.
NGVD 29 = NAVD 88 MINUS 3.45 FEET

DEMOLITION NOTE:

1. CUT AND CAP EXISTING SEPTIC SEWER PIPE.
2. ABANDON EXISTING SEPTIC SEWER PIPE. FILL EXISTING ENDS OF ABANDONED SEWER PIPE WITH GROUT FOR A MINIMUM OF 10 FEET FROM ENDS OF PIPE.
3. REMOVE AND DISPOSE OF SEPTIC SUMP PUMP AND ASSOCIATED APPURTENANCES. REMOVE AND DISPOSE OF LID. FILL SUMP PUMP TANK WITH GRAVEL BACKFILL FOR DRAINS.
4. DISCONNECT POWER TO SUMP PUMP TANK, CUT AND CAP ELECTRICAL SERVICES TO SUMP PUMP TANK, REMOVE ELECTRICAL EQUIPMENT, DEVICES, CONDUIT, WIRE, ETC.
5. REMOVE AND DISPOSE OF SOLID LID. FILL SEWER MANHOLE WITH GRAVEL BACKFILL FOR DRAINS. FILL MANHOLE WITH GRAVEL BACKFILL FOR DRAINS TO 1 FOOT BELOW GRADE. FILL TOP 1 FOOT WITH COMMON FILL. MATCH TO EXISTING GRADE.
6. ABANDON SEPTIC DRAIN FIELD IN-PLACE.

NOTES:

1. PROTECT EXISTING UNDERGROUND UTILITIES TO REMAIN, UNLESS NOTED OTHERWISE DURING CONSTRUCTION ACTIVITIES.
2. RE-STRIPE PAINT MARKINGS REMOVED DURING PROJECT DEMOLITION AND CONSTRUCTION ACTIVITIES.
3. SEE SHEET C2.01 FOR ADDITIONAL DEMOLITION WORK FOR THE SEWER MAIN CONSTRUCTION WORK.
4. SEE ELECTRICAL FOR SAWCUTTING AND PAVEMENT REMOVAL LOCATIONS ASSOCIATED WITH CONDUIT INSTALLATION AND GENERATOR PAD.

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET
AUBURN, WA

Project Number 2015137

Bid Set

ISSUED: March 28, 2017

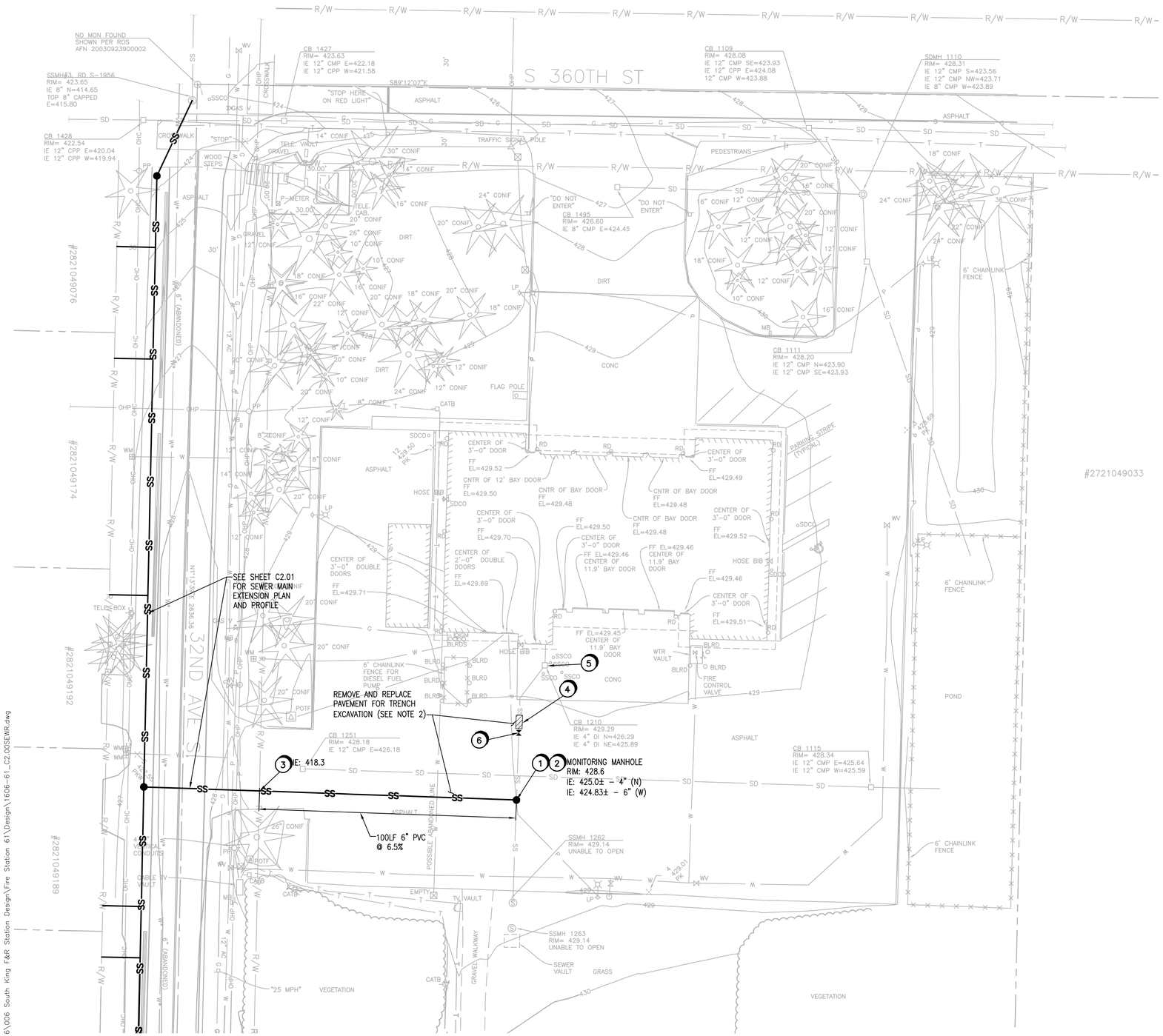
REVISION SCHEDULE	
ADDENDUM #1	04/XX/17

Temporary Erosion Control and Demolition Plan

SHEET:

C1.00

04/12/2017 3:07pm I:\21\2016\006 South King F&R Station Design\Fire Station 61\Design\1606-61_C1.00EROS.dwg



LEGEND:

- ● SANITARY SEWER MANHOLE
- ——SS—— SANITARY SEWER PIPE

SEE SHEET TS.1 FOR EXISTING FEATURES LEGEND.
SEE SURVEY NOTE #1.
NGVD 29 = NAVD 88 MINUS 3.45 FEET

CONSTRUCTION NOTES:

1. INTERCEPT EXISTING SANITARY SEWER PIPE. PROVIDE TYPE–1, 48" DIAMETER MANHOLE.
2. BEFORE COMMENCING CONSTRUCTION OF SEWER SYSTEM VERIFY BY EXCAVATION THE LOCATION AND INVERT ELEVATION OF EXISTING SANITARY SEWER TO BE CONNECTED TO PROPOSED SYSTEM.
3. CONNECT NEW 6" SANITARY SEWER PIPE TO SEWER STUB. MATCH INVERT ELEVATION.
4. INTERCEPT EXISTING 4" SEWER PIPE AND PROVIDE: (1) 60 GAL – 20 GPM COALESCING PLATE OIL/WATER SEPARATOR (MODEL: OLDCASTLE OW 25–CPS OR APPROVED SUBSTITUTION).
5. REMOVE AND DISPOSE OF ACCUMULATED SEDIMENT AND DEBRIS FROM EXISTING CATCH BASIN STRUCTURE.
6. INTERCEPT EXISTING 4" SEWER PIPE AND PROVIDE: (1) 4" CHECK VALVE

NOTES:

1. FOR TRENCH SECTION DETAIL SEE 1 / C2.00 C4.01
2. FOR SURFACE RESTORATION DETAILS SEE 2 / C2.00 C4.01
3. FIELD VERIFY UTILITY DEPTHS PRIOR TO CONSTRUCTION.
4. SEE LAKEHAVEN WATER & SEWER DISTRICT SIDE SEWER INSTALLATION DETAILS FOR TYPICAL SEWER INSTALLATION, CLEANOUT, AND TRENCH SECTION.
5. SEE SHEET C1.01 FOR STANDARD NOTES AND DETAILS FOR GRAVITY SEWER CONSTRUCTION (12/30/2016)
6. NGVD 29 = NAVD 88 MINUS 3.45 FEET

N

SCALE IN FEET
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5/4/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET
AUBURN, WA

Project Number 2015137

Bid Set

ISSUED: March 28, 2017

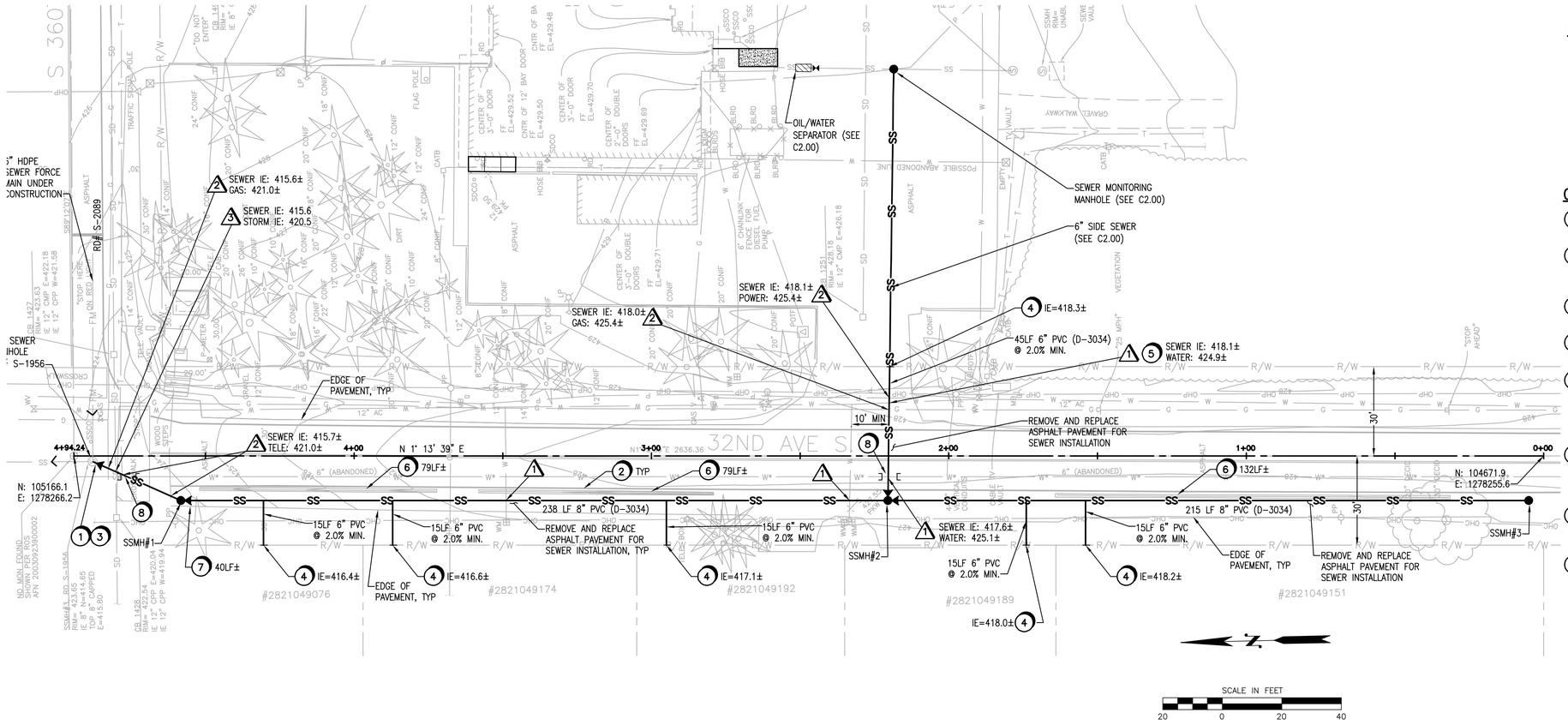
REVISION SCHEDULE	

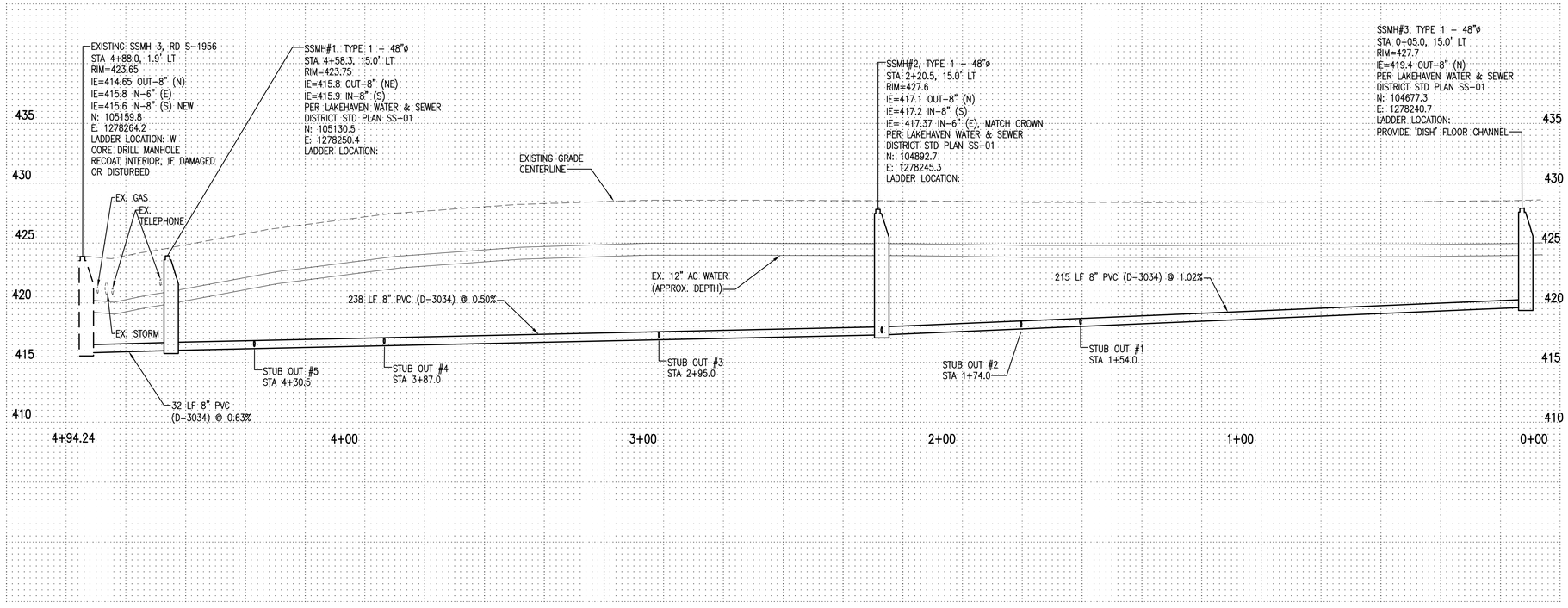
Sanitary Sewer Plan

SHEET:

C2.00

04/12/2017 3:05pm I:\21\2016\006 South King F&R Station Design\Fire Station 61\Design\1606-61_C2.00SEWR.dwg





LEGEND:

- ● SANITARY SEWER MANHOLE
- ——SS—— SANITARY SEWER PIPE

SEE SHEET TS.1 FOR EXISTING FEATURES LEGEND.
SEE SURVEY NOTE #1.
NGVD 29 = NAVD 88 MINUS 3.45 FEET

CONSTRUCTION NOTES:

1. CORE DRILL EXISTING SEWER MANHOLE. RECHANNEL MANHOLE BASE.
2. RESTRIPE EXISTING PAVEMENT EDGE MARKINGS REMOVED DURING SEWER INSTALLATION. 4" WIDE PAINT STRIPE. COLOR: WHITE.
3. RELOCATE LADDER WITHIN EXISTING MANHOLE, IF NEW PIPE PENETRATION CONFLICTS WITH LADDER LOCATION.
4. SIDE SEWER STUB, SEE LAKEHAVEN UTILITY DISTRICT STD PLAN SS-07 (DETAIL 3/C1.01).
5. AT AC WATER PIPE CROSSING, REPLACE A SEGMENT OF AC PIPE WITH:
   (1) DI CLASS 52 PIPE, A MINIMUM OF TWO (2) FEET ON EACH SIDE OF TRENCH TO STABLE SOIL.
   (2) 12" TRANS COUPLER (ACxDI)
6. REMOVE AND REPLACE EXISTING EXTRUDED CURB FOR SEWER INSTALLATION. SEE 7 C2.01 C4.01 FOR EXTRUDED CURB DETAIL.
7. REMOVE AND REPLACE EXISTING MODULAR BLOCK RETAINING WALL (APPROX. 3' TALL) FOR SEWER INSTALLATION.
8. CAP AND SEAL ABANDONED 6" STEEL WATER PIPE ON BOTH SIDES OF TRENCH.

NOTES:

1. FOR TRENCH SECTION DETAIL SEE 1 C2.01 C4.01
2. FOR SURFACE RESTORATION DETAILS SEE 2 C2.01 C4.01
3. FOR MANHOLE STEP AND COVER SEE LAKEHAVEN UTILITY DISTRICT STD PLAN SS-02.
4. SEE SHEET C1.01 FOR STANDARD NOTES AND DETAILS FOR GRAVITY SEWER CONSTRUCTION (12/30/2016).
5. PROTECT EXISTING ABOVE GROUND SURFACE FEATURES SUCH AS TREES, SHRUBS, AND POWER POLES TO REMAIN. COORDINATE WITH LAKEHAVEN WATER & SEWER DISTRICT AND KING COUNTY IF TREES OR POWER POLES REQUIRE REMOVAL FOR SEWER INSTALLATION.
6. PROTECT EXISTING UNDERGROUND UTILITIES TO REMAIN.

RIGHT-OF-WAY NOTE:

ACCEPTABLE CONSTRUCTION METHODS AND/OR ROW RESTORATION REQUIREMENTS FOR WORK PERFORMED IN ROW ARE DEFINED BY KING COUNTY AND MAY NOT BE SHOWN ON THE PLANS APPROVED FOR CONSTRUCTION. CONSULT WITH LAKEHAVEN'S PROJECT INSPECTOR AND ANY APPLICABLE ROW PERMIT FOR ACCEPTABLE CONSTRUCTION METHODS (OPEN TRENCH, BORE & CASE, DIRECTIONAL DRILL, ETC.) AND EXTENT OF ASPHALT OVERLAY &/OR OTHER RESTORATION REQUIREMENTS FOR WORK IN ROW.

SEWER SERVICE CONNECTION NOTE:

SEPARATE SEWER SERVICE CONNECTION PERMIT REQUIRED FOR EACH SEPARATE BUILDING, TO CONSTRUCT / COMPLETE BUILDING SEWER AND TO CONNECT TO THE SEWER MAIN.

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET
AUBURN, WA

Project Number 2015137
Bid Set
ISSUED: March 28, 2017

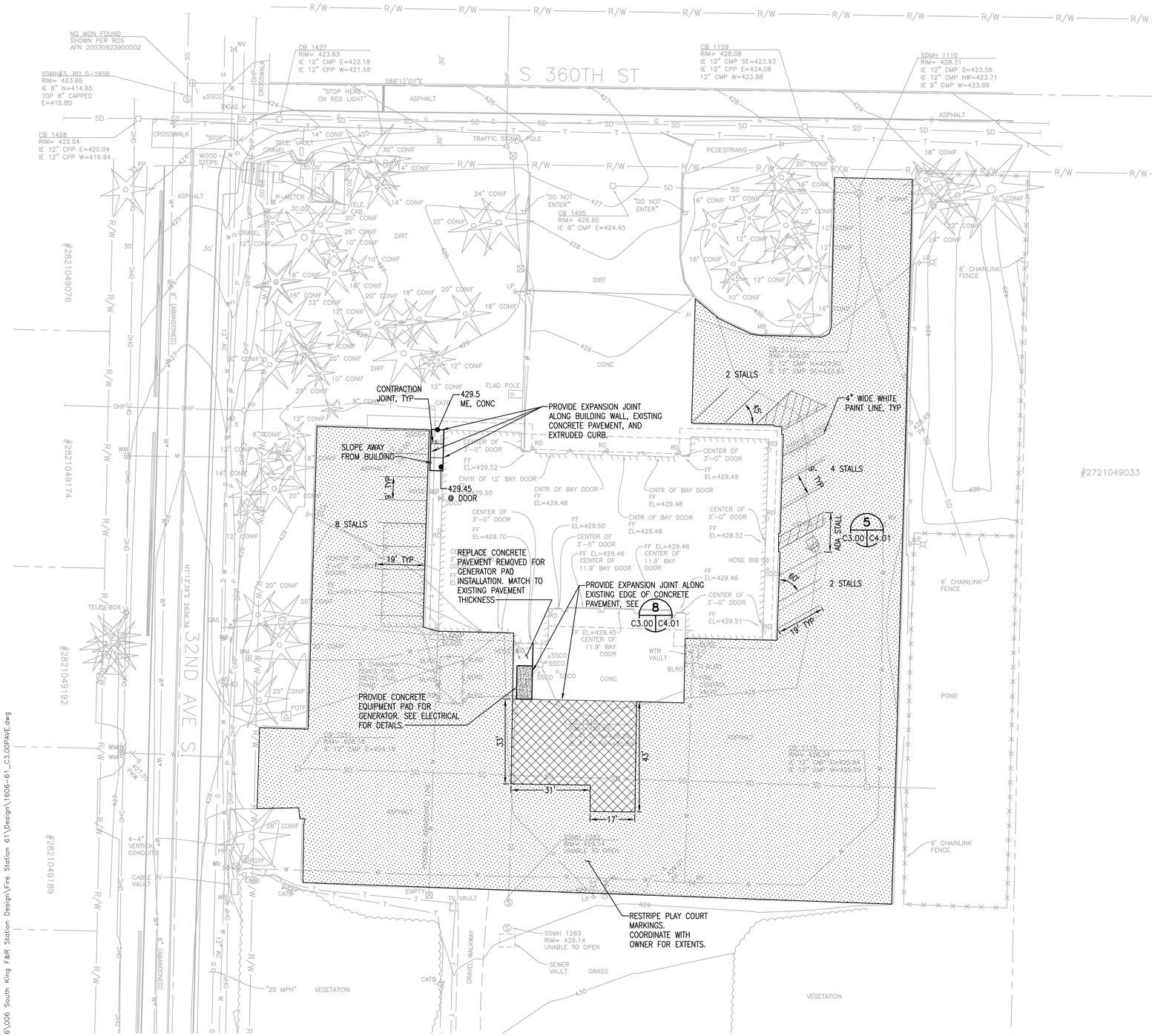
REVISION SCHEDULE	

Sanitary Sewer Plan and Profile (Off-Site)

SHEET:

C2.01

04/12/2017 3:05pm I:\21\2016\006 South King F&R Station Design\Fire Station 61\Design\1606-61_C2.01SSPROF.dwg



LEGEND:

STANDARD ASPHALT PAVEMENT 2 C3.00 C4.01

SEAL COAT TREATMENT (SEE NOTE 2)

CEMENT CONCRETE PAVEMENT 3 C3.00 C4.01

NOTES:

1. RE-STRIPE PAINT MARKINGS REMOVED DURING SEAL COAT TREATMENT ACTIVITIES.
2. PROVIDE SEAL COAT TREATMENT PER WSDOT STANDARD SECTION 5-02 BITUMINOUS SURFACE TREATMENT.
3. SEE SHEET A10.01 FOR FENCING AND GATES.

N

SCALE IN FEET
20 0 20 40

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5/4/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET
AUBURN, WA

Project Number 2015137

Bid Set

ISSUED: March 28, 2017

REVISION SCHEDULE	

Paving Plan

SHEET:

C3.00

04/12/2017 3:08pm I:\21\2016\006 South King F&R Station Design\Fire Station 61\Design\1606-61_C3.00PAVE.dwg

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 MINIMIZIED.

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.

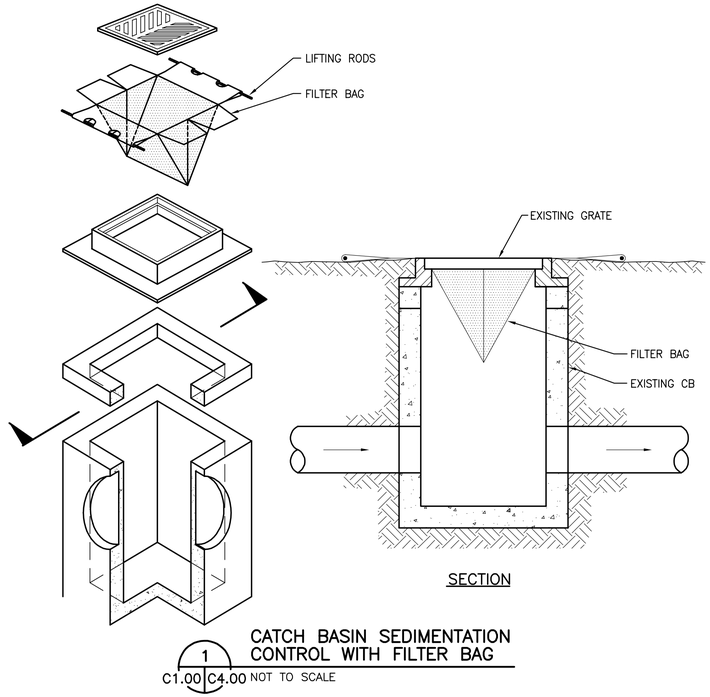
10. THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN THE 24 HOURS FOLLOWING A STORM EVENT.

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.



1
C1.00 | C4.00

CATCH BASIN SEDIMENTATION CONTROL WITH FILTER BAG

NOT TO SCALE

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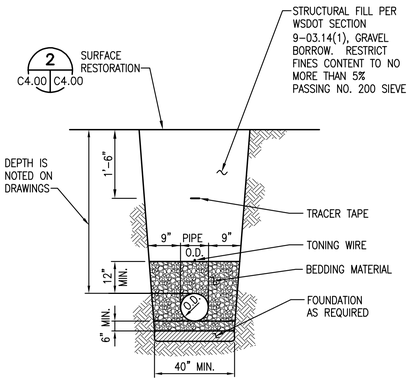
REVISION SCHEDULE	

Erosion Control Details

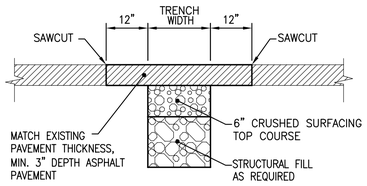
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C4.00

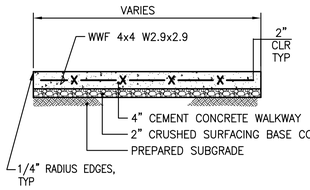
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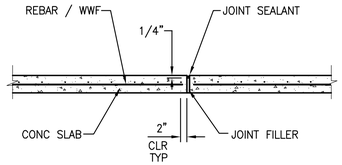
1 TYPICAL TRENCH PLASTIC SEWER PIPE
C2.00 C4.01 NOT TO SCALE



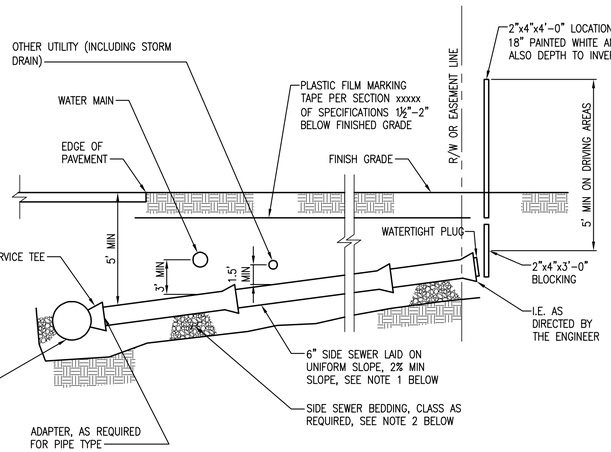
2 ASPHALT PATCH SECTION
C2.00 C4.01 NOT TO SCALE



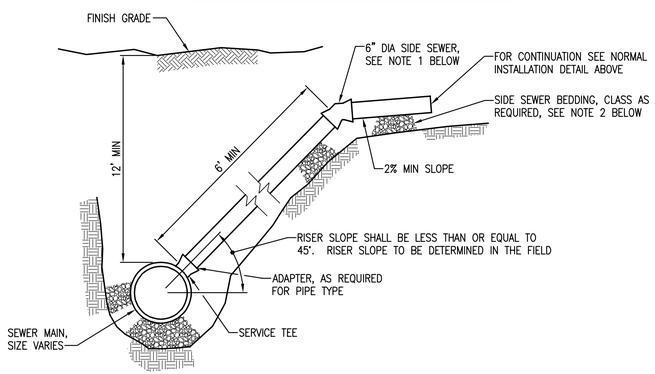
3 TYPICAL CEMENT CONCRETE WALKWAY SECTION
C3.00 C4.01 NOT TO SCALE



8 TYPICAL EXPANSION JOINT
C3.00 C4.01 NOT TO SCALE



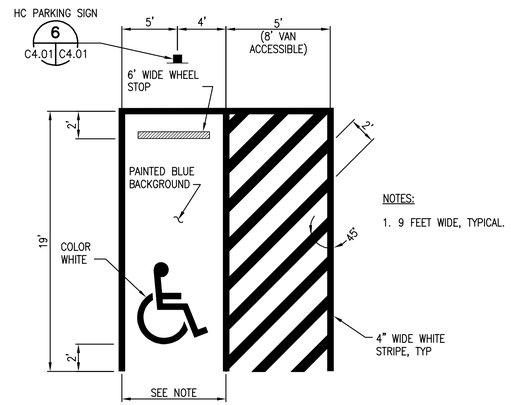
NORMAL INSTALLATION – 18" AND SMALLER MAINS



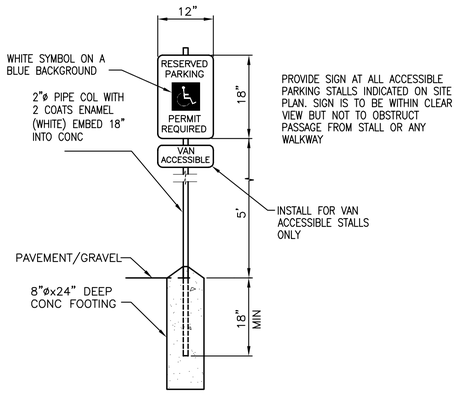
ALTERNATE INSTALLATION – 18" AND SMALLER MAINS

NOTES:
1. ACCEPTABLE PIPE TYPES FOR SIDE SEWERS ARE POLYVINYL CHLORIDE, ASTM xxxx AND DUCTILE IRON PIPE CLASS 52. MATCH MAIN TYPE.
2. BEDDING FOR POLYVINYL CHLORIDE AND CLASS 52 DUCTILE IRON PIPE SHALL BE CLASS "B" PEA GRAVEL ONLY.

4 SIDE SEWER STUB
C2.01 C4.01 NOT TO SCALE



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



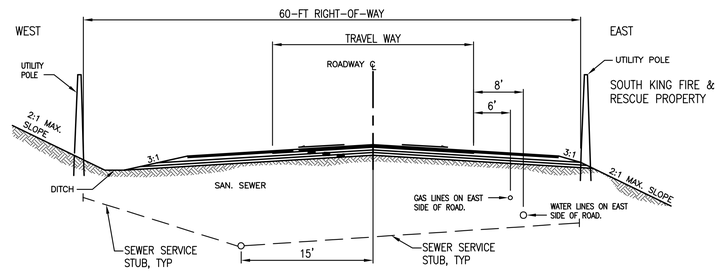
6 TYPICAL ACCESSIBLE PARKING SIGN
C4.01 C4.01 NOT TO SCALE

LAKEHAVEN WATER & SEWER DISTRICT
STANDARD NOTES FOR GRAVITY SEWER CONSTRUCTION:

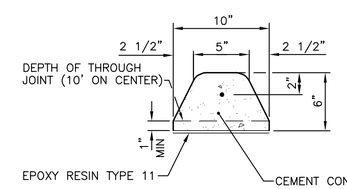
1. ALL WORK AND MATERIALS SHALL CONFORM TO THE STANDARDS OF LAKEHAVEN WATER & SEWER DISTRICT AND WASHINGTON STATE DEPARTMENT OF TRANSPORTATION/WASHINGTON STATE CHAPTER AMERICAN PUBLIC WORKS ASSOCIATION (WSDOT/APWA) "STANDARD PLANS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION," LATEST EDITION.
2. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES THAT MAY BE AFFECTED BY THIS WORK AND SHALL NOTIFY APPROPRIATE UTILITY COMPANIES TO FIELD-LOCATE THEIR FACILITIES BEFORE STARTING ANY EXCAVATION, IN ACCORDANCE WITH RCW 19.122.
3. CONNECTIONS OF NEW MAINS TO EXISTING FACILITIES SHALL BE TEMPORARILY SEALED OFF UNTIL AFTER UPSTREAM CONSTRUCTION IS TESTED, CLEANED AND ACCEPTED. ALL CONSTRUCTION DEBRIS AND WATER SHALL BE REMOVED PRIOR TO OPENING THE SEAL, WITHOUT FLUSHING THE DEBRIS DOWNSTREAM.
4. GRAVITY SEWER PIPE MATERIAL SHALL BE AS SHOWN ON THE PLANS, WHICH WILL BE ONE OF THE FOLLOWING AND NOT NECESSARILY INTERCHANGEABLE:
   - POLYVINYL CHLORIDE (PVC) ASTM D-3034, SDR 35 (4" THROUGH 15") OR ASTM F-679, SDR 35 (18" AND LARGER)
   - POLYVINYL CHLORIDE (PVC) AWWA C-900, DR-18 (4" THROUGH 12") OR AWWA C-905, DR-18 (14" THROUGH 36")
   - HIGH DENSITY POLYETHYLENE (HDPE) ASTM F-894, WITH GASKETED JOINTS
   - DUCTILE IRON ANSI A21.51/AWWA C-151, MINIMUM CLASS 52, EPOXY-LINED WITH PROTECTO 401™ CERAMIC EPOXY
5. CRUSHED SURFACING TOP COURSE (A.K.A. 5/8" CRUSHED ROCK) SHALL BE USED FOR PIPE BEDDING FOR RIGID AND FLEXIBLE GRAVITY SEWER PIPE. THE MATERIAL SHALL BE PLACED UNDER THE PIPE TO A COMPACTED DEPTH OF 4" (FOR 27" AND SMALLER PIPE), AND TO A COMPACTED DEPTH OF 6" (FOR PIPE GREATER THAN 27"). THE MATERIAL SHALL BE PLACED 6" OVER THE TOP OF FLEXIBLE PIPE AND TO THE SPRINGLINE OF RIGID PIPE. TO ASSURE UNIFORM SUPPORT, THE MATERIAL SHALL BE CAREFULLY WORKED UNDER THE PIPE HAUNCHES WITH A TOOL CAPABLE OF PREVENTING THE FORMATION OF VOID SPACES AROUND THE PIPE.
6. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95% OF RELATIVE DENSITY, OR GREATER IF SO SHOWN ON THE PLANS OR OTHERWISE REQUIRED BY THE ROAD AGENCY HAVING JURISDICTION, FROM THE BOTTOM OF THE EXCAVATION TO THE SURFACE. DEVELOPER SHALL BE RESPONSIBLE FOR ALL COSTS INCURRED FOR COMPACTION TESTING.
7. TRENCH BACKFILL SHALL BE COMPACTED PRIOR TO TESTING SEWER MAIN PIPE, AND SIDE SEWER STUB(S) SHALL BE AIR TESTED AT THE SAME TIME AS THE SEWER MAIN.
8. MANHOLES SHALL CONFORM TO WSDOT/APWA STANDARD PLAN B-23A, TYPE 1 OR TYPE 2 WITH ECCENTRIC CONES, AND INCLUDE 1-INCH GALVANIZED DROP SAFETY STEPS OR POLYPROPYLENE SAFETY STEPS (LANE INTERNATIONAL CORP. PART NO. P-14938) AND AT LEAST ONE (1), AND NO MORE THAN FIVE (5), FOUR-INCH (4") HIGH ADJUSTMENT RINGS BELOW THE FRAME AND COVER. ALL MANHOLE EXTERIOR SURFACES SHALL RECEIVE A PROTECTIVE COATING OF BITUMINOUS COAL TAR TO A MINIMUM THICKNESS OF 50 MILS, APPLIED AT THE FACTORY. WHERE NOTED ON THE PLANS, MANHOLE INTERIOR SURFACES SHALL RECEIVE A CORROSION PROTECTIVE EPOXY COATING OF:
   - POLYSHIELD SS-100® (BY SPECIALTY PRODUCTS, INC. (LAKEWOOD, WA); 50 MILS MINIMUM THICKNESS); OR
   - RAVEN® 405 (BY RLS SOLUTIONS INC. (OKLAHOMA); 100 MILS MINIMUM THICKNESS).

   ALL COATINGS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
9. MANHOLE FRAMES AND COVERS SHALL BE CAST IRON, WITH THE WORD "LAKEHAVEN" CAST IN THE TOP, SHALL WEIGH 140 TO 150 POUNDS, AND SHALL HAVE A SINGLE 1-INCH LIFT HOLE FITTED WITH ONE 3/4" x 3" GALVANIZED CARRIAGE BOLT WITH BURRED END TO RETAIN THE NUT AND A FLAT WASHER TO ALLOW FOR 1" BOLT TRAVEL. COVERS SHALL BE 25" IN DIAMETER.
10. CONCRETE COLLARS REINFORCED WITH WIRE MESH SHALL BE INSTALLED PER DISTRICT STANDARD PLAN WHERE SHOWN ON THE PLANS.
11. MANHOLE CHANNELS SHALL BE PRODUCED TO THE FULL DEPTH OF THE ASSOCIATED PIPE DIAMETER, AND TO A WIDTH NO LESS THAN THE OUTSIDE DIAMETER OF THE ASSOCIATED PIPE, AND NO MORE THAN 1/2-INCH IN EXCESS OF THE OUTSIDE DIAMETER OF THE ASSOCIATED PIPE. MANHOLE CHANNELS SHALL HAVE A SMOOTH FINISH. TO MINIMIZE TURBULENCE, SIDE CHANNELS FROM INLET PIPELINES SHALL BE CURVED TOWARD THE OUTLET PIPELINE TO PROVIDE A SMOOTH LAMINAR FLOW TRANSITION FROM ALL INLET PIPELINES TO THE OUTLET PIPELINE. CHANNEL MATERIAL SHALL BE A SHRINK-RESISTANT GROUT MIX, USING 6 SACKS PER CUBIC YARD PORTLAND CEMENT AND 7/8" GRADED AGGREGATE. FOR GRAVITY SEWER SYSTEMS 15" AND LARGER, PREDL® MANHOLE LINER SYSTEMS BY PREDL SYSTEMS NORTH AMERICA, INC. (BURNABY, B.C.) SHALL BE UTILIZED FOR CHANNELS, FLOORS AND PIPELINE CONNECTION SYSTEMS FOR MANHOLES.
12. MANHOLE SHELVES SHALL HAVE A BROOM FINISH, AND BE SLOPED 1/2-INCH TO 1-INCH PER FOOT TOWARD THE CHANNEL.
13. PIPE ENDS OF ALL INLET AND OUTLET PIPELINES SHALL NOT EXTEND MORE THAN 2 INCHES INSIDE THE MANHOLE, AND ALL PENETRATIONS SHALL BE SMOOTHLY GROUTED AROUND THE PIPE WITH SHRINK-RESISTANT GROUT.
14. NO JOINTS FOR FLEXIBLE PIPE INLETS AND OUTLETS SHALL BE WITHIN 10 FEET OF THE MANHOLE, AND PIPELINES SHALL BE CONNECTED TO THE MANHOLE WITH PVC MANHOLE COLLARS. FLEXIBLE BOOT COLLARS ARE PROHIBITED.
15. SIDE SEWER STUBS SHALL BE INSTALLED AT A GRADE OF AT LEAST 2%, AND THEIR TERMINI SHALL BE AT A DEPTH ADEQUATE TO SERVE THE INTENDED PROPERTY, CAPPED AND MARKED BY A WHITE 2x4 POST LABELED "SANITARY SIDE SEWER."

UPDATED 12/30/2016



TYPICAL RIGHT-OF-WAY SECTION
NOT TO SCALE



7 SECTION-EXTRUDED CEMENT CONCRETE CURB
C2.01 C4.01 NOT TO SCALE

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MARK A. DAVIS STATE OF WASHINGTON 51549 REGISTERED PROFESSIONAL ENGINEER
7/4/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET
AUBURN, WA

Project Number 2015137

Bid Set

ISSUED: March 28, 2017

REVISION SCHEDULE	

Sheet Title: Sewer Notes & Details

SHEET: C4.01

04/12/2017 3:03pm I:\21\2016\006 South King F&R Station Design\Fire Station 61\Design\1606-61_C4.00DETL.dwg

GENERAL NOTES:
ASBESTOS-CONTAINING MATERIALS

1. THIS PROJECT INCLUDES REMOVAL AND DISPOSAL OF HA□ARDOUS BUILDING MATERIALS (ASBESTOS, LEAD-BASED PAINT, AND MERCURY-CONTAINING LIGHT TUBES) FROM FIRE STATION 61 LOCATED AT 3203 S 360TH ST, AUBURN, WA.

2. LOCATIONS OF ACM SHOWN ON THE DRAWINGS ARE SCHEMATIC AND APPROXIMATE. NOTE: A LIMITED HA□ARDOUS 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 01 1110 SUMMARY OF HA□ARDOUS 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 HA□ARDOUS 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 HA□ARDOUS 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 HA□ARDOUS 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 HA□ARDOUS 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.

7. 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).

8. THE GRAY INTERIOR WINDOW GLA□ING PUTTY WITH PAINT (OFFICER□S VIEW WINDOW 4□6□) WAS IDENTIFIED AS CONTAINING □1□ CHRYSOTILE ASBESTOS AND IS THEREFORE NOT AN ACM AND IS 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 AND ARSENIC-CONTAINING MATERIALS

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

2. REFER TO THE HA□ARDOUS 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 CHARACTERI□ATION.

GENERAL NOTES: MERCURY-CONTAINING LIGHT TUBES AND THERMOSTATS

1. INSPECT ALL LIGHT BALLASTS IN THE AREA. BALLASTS LABELED "ELECTRONIC" MAY BE DISPOSED AS CONSTRUCTION DEBRIS.

2. ALL FLUORESCENT LIGHT TUBES, CFL BULBS, AND HID LAMPS 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, AND HID LAMP 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	HA□MAT - LEVEL 1 WALL, CEILING, FLOOR, & SUBGRADE PLAN
HA102	HA□MAT - LEVEL ME□□ANINE WALL & CEILING PLAN
HA103	HA□MAT - LEVEL ROOF PLAN

ABBREVIATIONS

ACM - ASBESTOS-CONTAINING MATERIAL
AHERA - ASBESTOS HA□ARD EMERGENCY RESPONSE ACT
AHU - AIR HANDLING UNIT
BLDG - BUILDING
CFL - COMPACT FLUORESCENT LIGHT
CFR - CODE OF FEDERAL REGULATIONS
EA - EACH
HID - HIGH INTENSITY DISCHARGE
L&I DOSH - WASHINGTON STATE DEPARTMENT OF LABOR AND INDUSTRIES DIVISION OF OCCUPATIONAL SAFETY AND HEALTH
LCM - LEAD-CONTAINING MATERIALS
LBP - LEAD-BASED PAINT
LCP - LEAD-CONTAINING PAINT
LF - LINEAR FEET
OD - OUTER DIAMETER
OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PSCAA - PUGET SOUND CLEAN AIR AGENCY
SF - SQUARE FEET
SVF - SHEET VINYL FLOORING
TYP - TYPICAL
W□- WITH
WAC - WASHINGTON ADMINISTRATIVE CODE

PROJECT HA□ARDOUS MATERIALS SUMMARY

QUANTITY□ UNIT	DESCRIPTION
600 SF	NON-ACM MULTI-COLOR CARPET ON NON-ACM TAN MASTIC ON NON-ACM LIGHT GRAY BROKEN ROCK PATTERN NON-ACM SVF ON ACM GRAY PAPER BACKING WITH CLEAR□GRAY MASTIC (ON CONCRETE)
400 SF	NON-ACM BEIGE BROKEN ROCK PATTERN□SVF ON NON-ACM GRAY PAPER BACKING ON NON-ACM TAN MASTIC ON NON-ACM GRAY LEVELING COMPOUND ON NON-ACM TAN SVF ON ACM GRAY PAPER BACKING ON TAN MASTIC (ON CONCRETE)
3 EA	ACM BLACK ASPHALTIC SEALANT (ON 1□1□RADIO TOWER ANCHOR)
12 EA	ACM BLACK ASPHALTIC CONDUIT PENETRATION SEALANT (ON 6"□6" PENETRATION ASSOCIATED WITH AHU)
8 EA	ACM BLACK ASPHALTIC PENETRATION SEALANT (ON 6"□6" PENETRATION ASSOCIATED WITH LADDER)
7 LF	NON-ACM GRAY CAULKING ON ACM BLACK ASPHALTIC CAULKING (ON 10" METAL EXHAUST BASE)
2,400 SF	NON-ACM BLACK ASPHALTIC PARAPET SEAM REPAIR PATCH WITH GRAY PAINT AND SAND ON NO-ACM BLACK ASPHALTIC TAR ON NON-ACM BLACK ASPHALTIC CAP-SHEET ON ACM BLACK ASPHALTIC TAR ON NON-ACM SILVER FOIL ON NON-ACM BLACK ASPHALTIC TAR ON NON-ACM BLACK ASPHALTIC FELT PAPER ON NON-ACM BLACK ASPHALTIC TAR WITH SAND (ON CONCRETE)
11 EA	WOOD FIRE DOOR WITH ASSUMED ACM CORE
210 SF	ASSUMED ACM GLUE DOTS BEHIND 7□30□KITCHEN WALL CABINET□COUNTERTOP SYSTEM
2 EA	ELECTRICAL PANEL WITH ASSUMED ACM INTERNAL COMPONENTS (1□2)
10 LF	ASSUMED ACM TRANSITE SEWER PIPE
230 EA	ASSUMED ACM TSI ON SMALL BORE PIPE ELBOWS AND FITTINGS ON FIBERGLASS RUNS (CONCEALED IN PLUMBING WALLS AND CEILINGS)
279 EA	MERCURY-CONTAINING FLUORESCENT LIGHT TUBES

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03/09/2018

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET, AUBURN, WASHINGTON

PROJECT # 2015137

BID SET

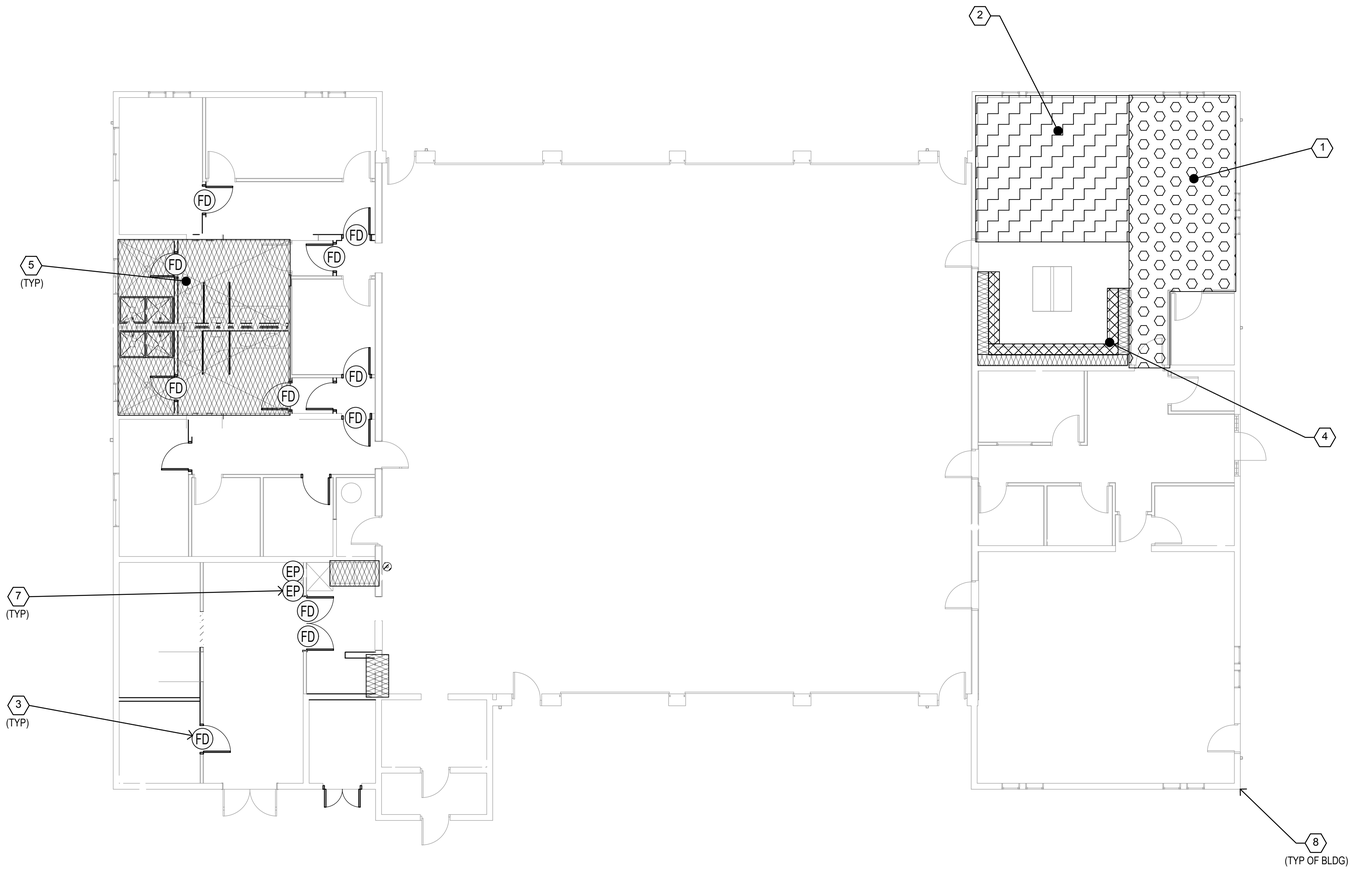
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REVISION SCHEDULE

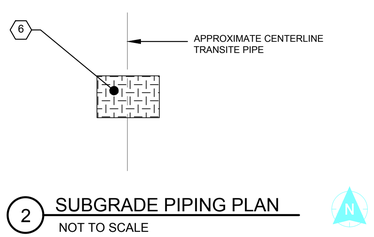
GENERAL NOTES, ABBREVIATIONS, SHEET INDEX, AND MATERIALS SUMMARY

SHEET:

HA001



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



2 SUBGRADE PIPING PLAN
NOT TO SCALE

GENERAL NOTES

1. FOR HAZMAT GENERAL NOTES, SEE SHEET HA001.

(X) HAZMAT SHEET NOTES

1. REMOVE AND DISPOSE OF NON-ACM MULTI-COLOR CARPET ON NON-ACM TAN MASTIC ON NON-ACM LIGHT GRAY BROKEN ROCK PATTERN NON-ACM SVF ON ACM GRAY PAPER BACKING WITH CLEAR/GRAY MASTIC (ON CONCRETE).
2. REMOVE AND DISPOSE OF NON-ACM BEIGE BROKEN ROCK PATTERN SVF ON NON-ACM GRAY PAPER BACKING ON NON-ACM TAN MASTIC ON NON-ACM GRAY LEVELING COMPOUND ON NON-ACM TAN SVF ON ACM GRAY PAPER BACKING ON TAN MASTIC (ON CONCRETE).
3. REMOVE AND DISPOSE OF WOOD FIRE DOOR WITH ASSUMED ACM CORE.
4. REMOVE AND DISPOSE OF ASSUMED ACM GLUE DOTS BEHIND 7'-30" KITCHEN WALL CABINET/COUNTERTOP SYSTEM.
5. REMOVE AND DISPOSE OF ASSUMED ACM TSI ON SMALL BORE PIPE ELBOWS AND FITTINGS ON FIBERGLASS RUNS (CONCEALED IN PLUMBING WALLS AND CEILINGS.
6. REMOVE AND DISPOSE OF ASSUMED ACM TRANSITE SEWER PIPE, COORDINATE LOCATION AND IMPACTS WITH CIVIL DRAWINGS.
7. REMOVE AND DISPOSE OF ELECTRICAL PANEL WITH ASSUMED ACM INTERNAL COMPONENTS (1 - 2).
8. INSPECT FLUORESCENT FIXTURES, AND RECYCLE FLUORESCENT TUBES AS UNIVERSAL WASTE. COORDINATE WITH ELECTRICAL DRAWINGS.

LEGEND

- NON-ACM MULTI-COLOR CARPET ON NON-ACM TAN MASTIC ON NON-ACM LIGHT GRAY BROKEN ROCK PATTERN NON-ACM SVF ON ACM GRAY PAPER BACKING WITH CLEAR/GRAY MASTIC (ON CONCRETE)
- NON-ACM BEIGE BROKEN ROCK PATTERN SVF ON NON-ACM GRAY PAPER BACKING ON NON-ACM TAN MASTIC ON NON-ACM GRAY LEVELING COMPOUND ON NON-ACM TAN SVF ON ACM GRAY PAPER BACKING ON TAN MASTIC (ON CONCRETE)
- (FD) WOOD FIRE DOOR WITH ASSUMED ACM CORE
- ASSUMED ACM GLUE DOTS BEHIND 7'-30" KITCHEN WALL CABINET/COUNTERTOP SYSTEM
- ASSUMED ACM TSI ON SMALL BORE PIPE ELBOWS AND FITTINGS ON FIBERGLASS RUNS (CONCEALED IN PLUMBING WALLS AND CEILINGS)
- ASSUMED ACM TRANSITE SEWER PIPE
- (EP) ELECTRICAL PANEL WITH ASSUMED ACM INTERNAL COMPONENTS (1 - 2)

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET, AUBURN, WASHINGTON

PROJECT # 2015137

BID SET

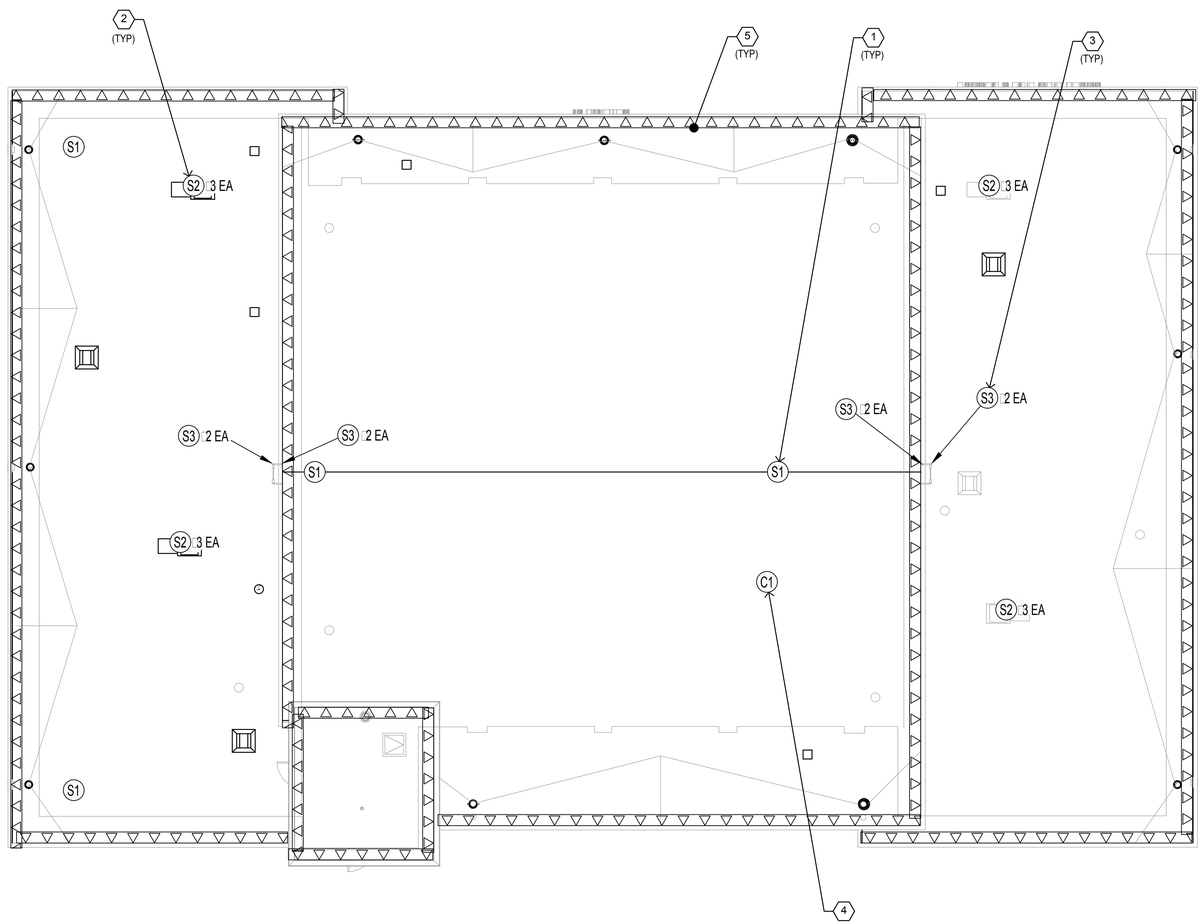
ISSUED: MARCH, 2017

REVISION SCHEDULE

HAZMAT - LEVEL 1 WALL, CEILING, FLOOR, & SUBGRADE PLAN

SHEET:

HA101



1 LEVEL ROOF 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 BLACK ASPHALTIC SEALANT (ON 1 1/2" RADIO TOWER ANCHOR).
2. REMOVE AND DISPOSE OF ACM BLACK ASPHALTIC CONDUIT PENETRATION SEALANT (ON 6" - 6" PENETRATION ASSOCIATED WITH AHU).
3. REMOVE AND DISPOSE OF ACM BLACK ASPHALTIC PENETRATION SEALANT (ON 6" - 6" PENETRATION ASSOCIATED WITH LADDER).
4. REMOVE AND DISPOSE OF NON-ACM GRAY CAULKING ON ACM BLACK ASPHALTIC CAULKING (ON 10" METAL EXHAUST BASE).
5. REMOVE AND DISPOSE OF NON-ACM BLACK ASPHALTIC PARAPET SEAM REPAIR PATCH WITH GRAY PAINT AND SAND ON NO-ACM BLACK ASPHALTIC TAR ON NON-ACM BLACK ASPHALTIC CAP-SHEET ON ACM BLACK ASPHALTIC TAR ON NON-ACM SILVER FOIL ON NON-ACM BLACK ASPHALTIC TAR ON NON-ACM BLACK ASPHALTIC FELT PAPER ON NON-ACM BLACK ASPHALTIC TAR WITH SAND (ON CONCRETE).

LEGEND

S1	ACM BLACK ASPHALTIC SEALANT (ON 1 1/2" RADIO TOWER ANCHOR)
S2	ACM BLACK ASPHALTIC CONDUIT PENETRATION SEALANT (ON 6" - 6" PENETRATION ASSOCIATED WITH AHU)
S3	ACM BLACK ASPHALTIC PENETRATION SEALANT (ON 6" - 6" PENETRATION ASSOCIATED WITH LADDER)
C1	NON-ACM GRAY CAULKING ON ACM BLACK ASPHALTIC CAULKING (ON 10" METAL EXHAUST BASE)
	NON-ACM BLACK ASPHALTIC PARAPET SEAM REPAIR PATCH WITH GRAY PAINT AND SAND ON NO-ACM BLACK ASPHALTIC TAR ON NON-ACM BLACK ASPHALTIC CAP-SHEET ON ACM BLACK ASPHALTIC TAR ON NON-ACM SILVER FOIL ON NON-ACM BLACK ASPHALTIC TAR ON NON-ACM BLACK ASPHALTIC FELT PAPER ON NON-ACM BLACK ASPHALTIC TAR WITH SAND (ON CONCRETE)

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AREA PROJECT DESIGNER
DEBRA ESCAMILLA
CERT. NO. 161001
03/09/2018

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET, AUBURN, WASHINGTON

PROJECT # 2015137

BID SET

ISSUED: MARCH, 2017

REVISION SCHEDULE

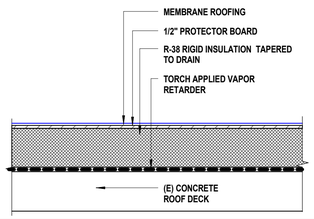
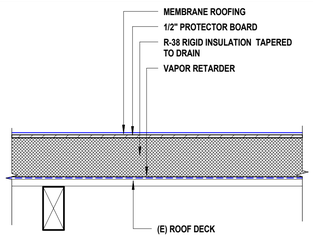
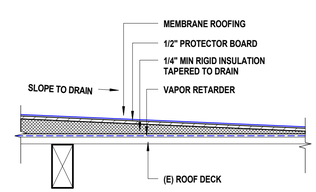
HAZMAT - LEVEL ROOF PLAN

SHEET:

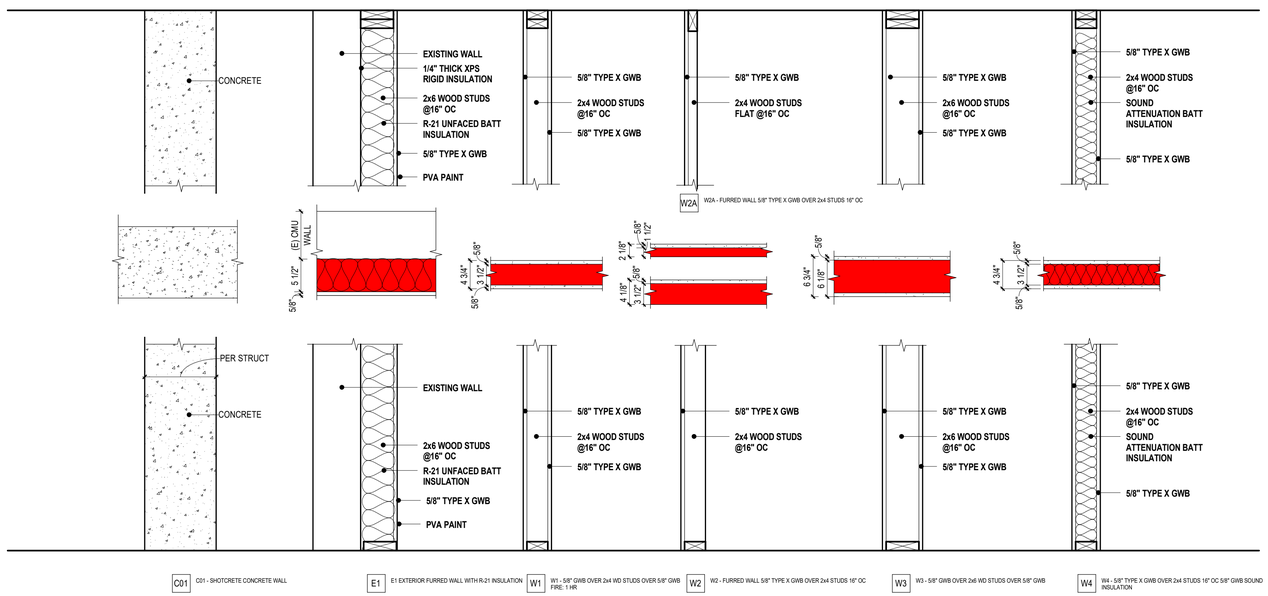
HA102

WALL SCHEDULE

WALL #	WIDTH	TYPE	FIRE		SOUND	
			RATING	SOURCE	RATING	SOURCE
C01	STRUCT	C01 - SHOTCRETE CONCRETE WALL	-	-	-	-
C2	8"	CMU WALL - 8"	-	-	-	-
E1	6 1/8"	E1 EXTERIOR FURRED WALL WITH R-21 INSULATION	-	-	-	-
W1	4 3/4"	W1 - 5/8" GWB OVER 2x4 WD STUDS OVER 5/8" GWB	1 HR	UL, U305	35 STC	NGC-2403
W2	4 1/8"	W2 - FURRED WALL 5/8" TYPE X GWB OVER 2x4 STUDS 16" OC	-	-	-	-
W2A	2 1/8"	W2A - FURRED WALL 5/8" TYPE X GWB OVER 2x4 STUDS 16" OC	-	-	-	-
W3	6 3/4"	W3 - 5/8" GWB OVER 2x6 WD STUDS OVER 5/8" GWB	NA	NA	35 STC	NGC-2403
W3A	6 1/8"	W3A - 2x6 WD STUDS OVER 5/8" GWB 2	NA	NA	NA	NA
W4	4 3/4"	W4 - 5/8" TYPE X GWB OVER 2x4 STUDS 16" OC 5/8" GWB SOUND INSULATION	-	-	36 STC	NGC 2008029

ROOF TYPE	ROOF ASSEMBLY	DESCRIPTION
R1		MEMBRANE ROOFING 1/2" PROTECTION BOARD R-38 MINIMUM RIGID INSULATION PLUS TAPERED INSULATION TO DRAIN ADHERED IN LOW RISE FOAM ADHESIVE TORCH APPLIED VAPOR RETARDER (E) ROOF CONCRETE ROOF DECKING
R1		MEMBRANE ROOFING 1/2" PROTECTION BOARD R-38 MINIMUM RIGID INSULATION TAPERED TO DRAIN VAPOR RETARDER (E) ROOF DECKING
R2		MEMBRANE ROOFING 1/2" PROTECTION BOARD RIGID INSULATION MINIMUM 1/4" THICK TAPERED TO DRAIN VAPOR RETARDER (E) ROOF DECKING

2 ROOF ASSEMBLIES
1" = 1'-0"



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

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STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
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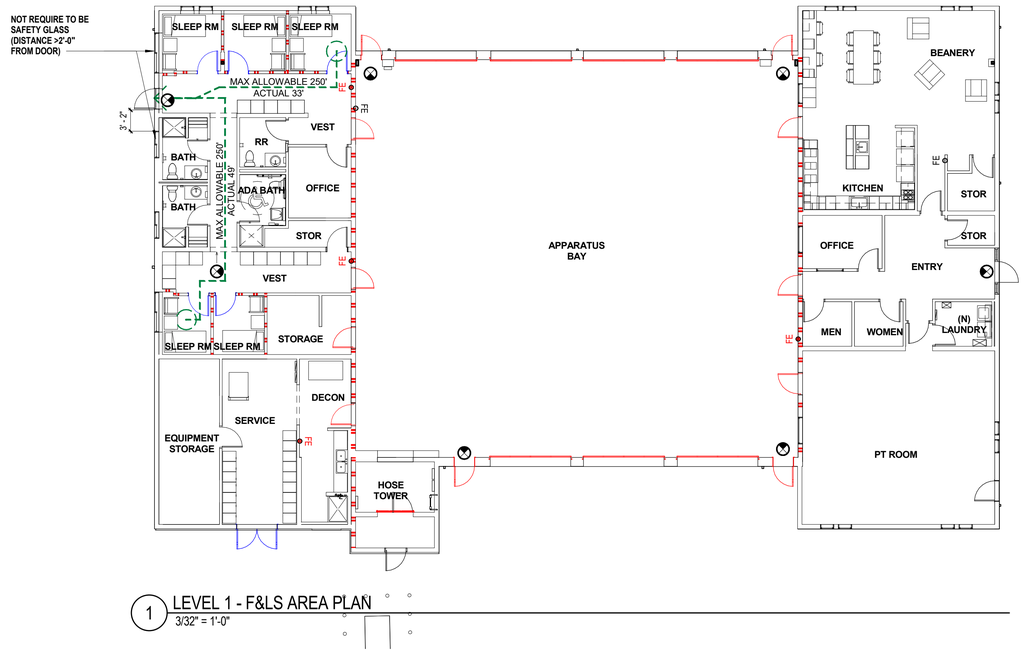
ASSEMBLY SCHEDULES

SHEET:

A01.01

F&LS PLAN LEGEND

- 1 HOUR FIRE
- EXIT SIGN
- FE — EXISTING FIRE EXTINGUISHER
- FE — FIRE EXTINGUISHER, WALL MOUNTED
- [1] — DOOR FIRE RATING [# OF OCCUPANTS EXITING]
- PATH OF EGRESS



1 LEVEL 1 - F&LS AREA PLAN
3/32" = 1'-0"

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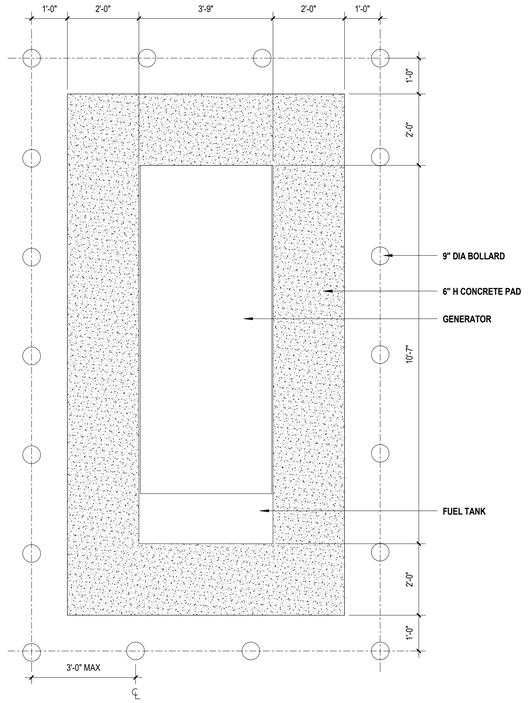
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

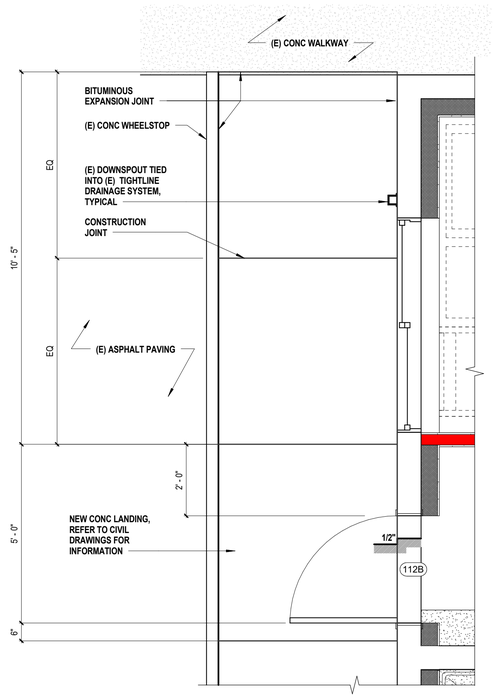
FIRE & LIFE SAFETY PLAN

SHEET:

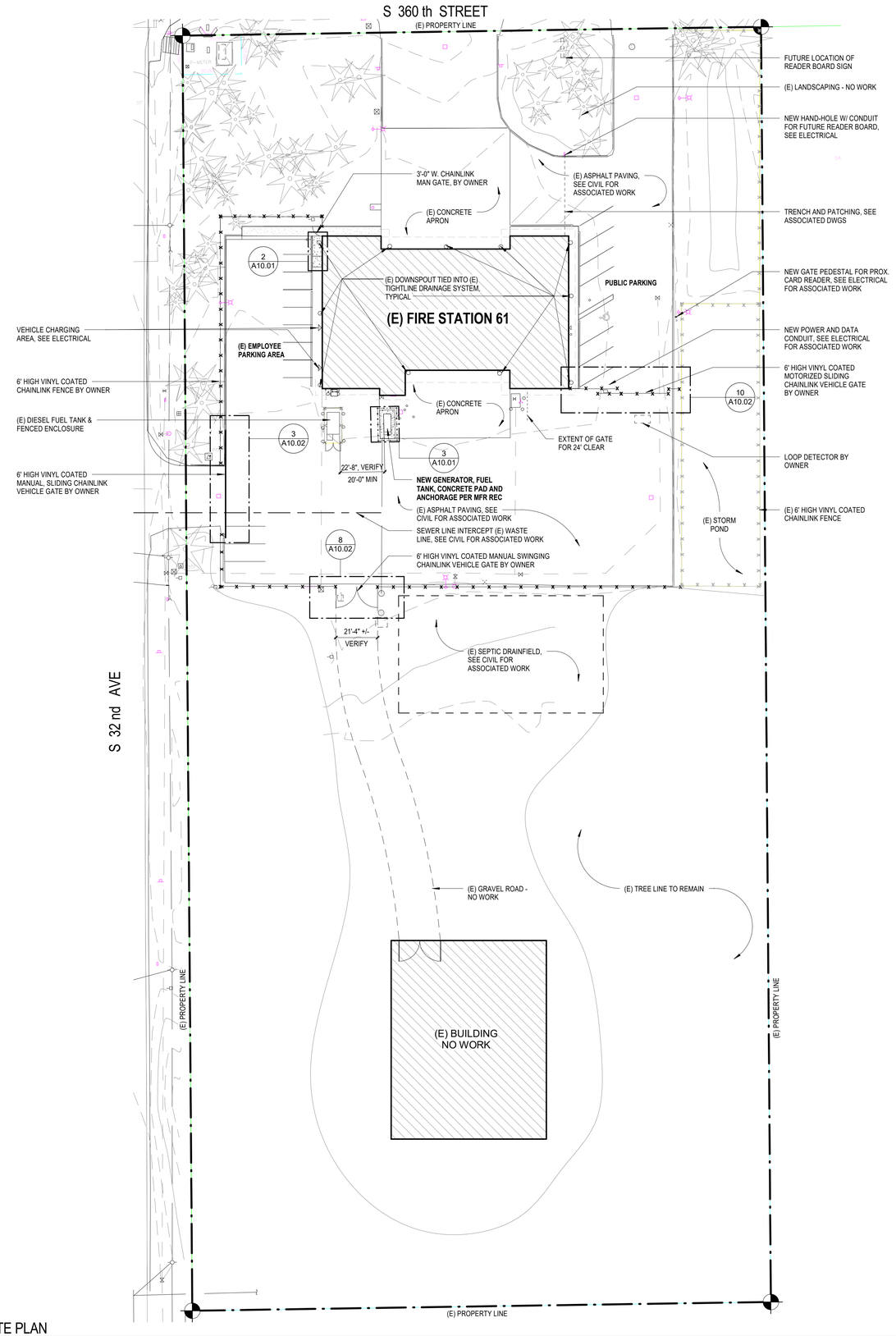
A02.01



N 3 GENERATOR, FUEL TANK AND CONCRETE PAD
1/2" = 1'-0"



N 2 ENLARGED PLAN - EGRESS DOOR
1/2" = 1'-0"



N 1 SITE PLAN
1" = 30'-0"

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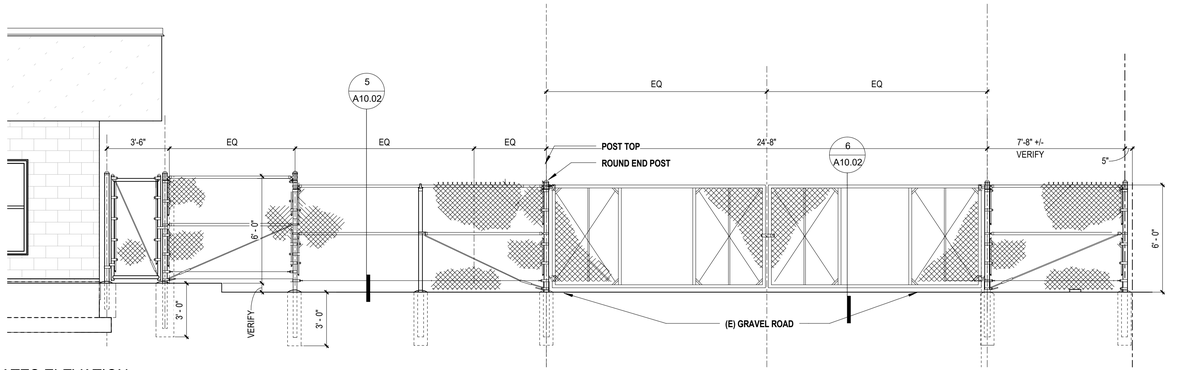
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

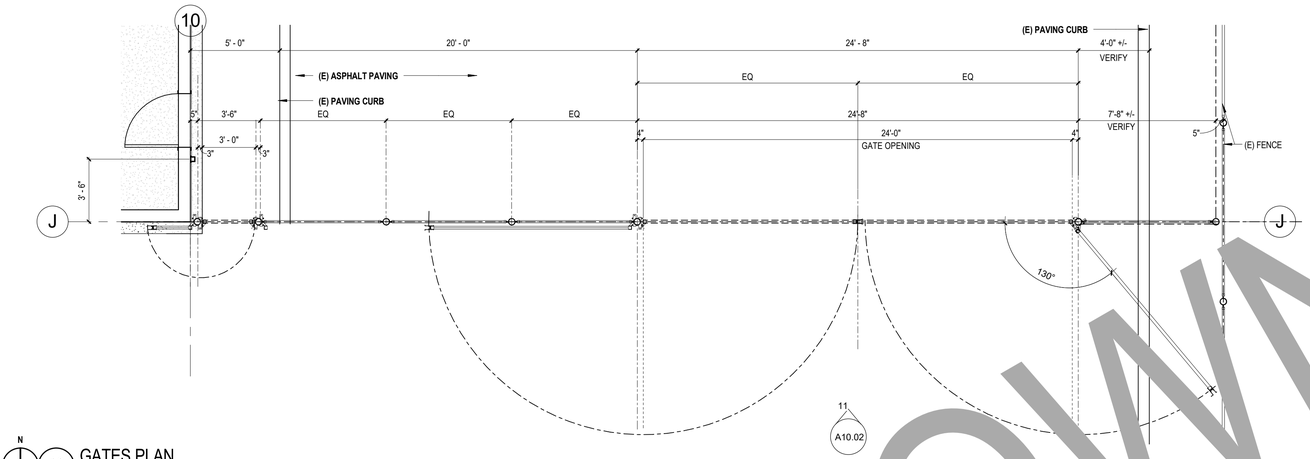
1	PLAN REVIEW	01.30.2017

ARCHITECTURAL
SITE PLAN

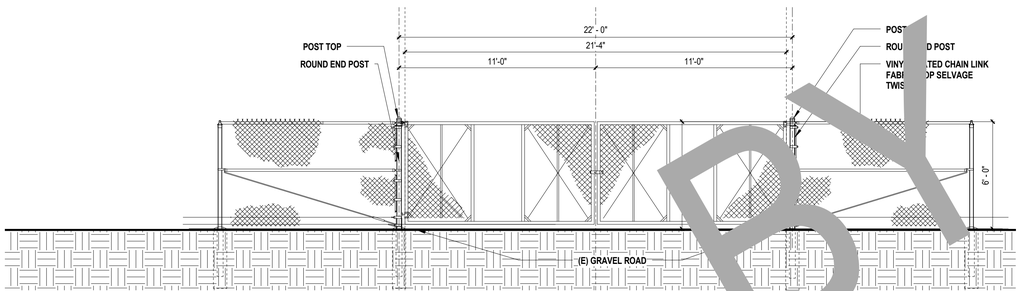
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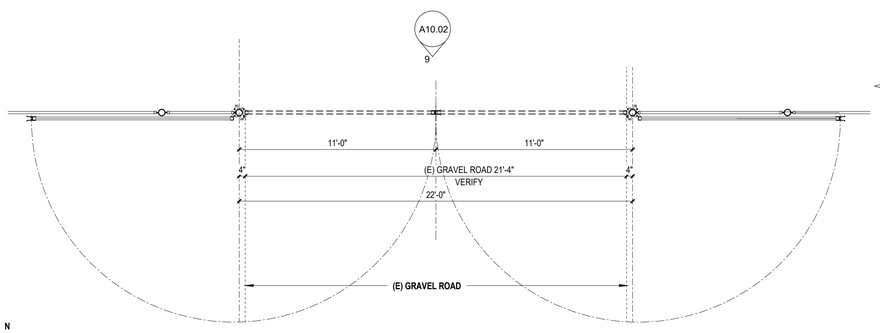
11 GATES ELEVATION
1/4" = 1'-0"



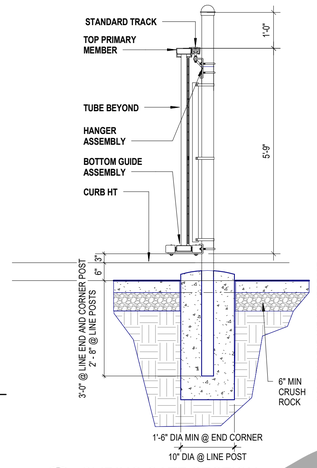
10 GATES PLAN
1/4" = 1'-0"



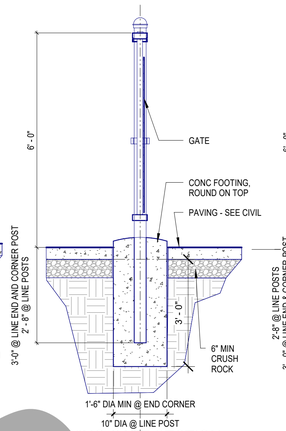
9 MANUAL SWING GATES ELEVATION
1/4" = 1'-0"



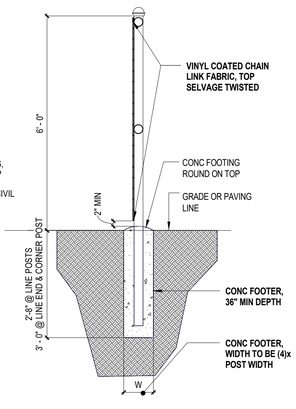
8 PLAN - MANUAL SWING GATES TO POND
1/4" = 1'-0"



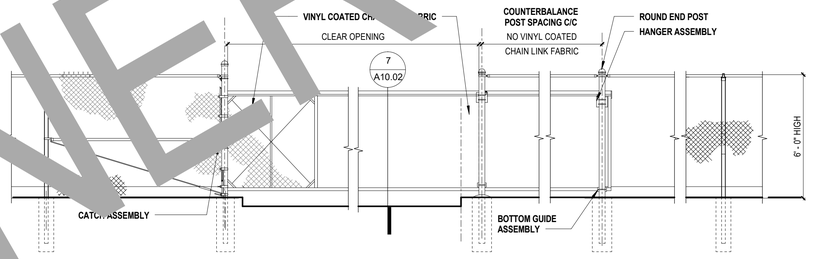
7 SLIDING GATE SECTION
1/2" = 1'-0"



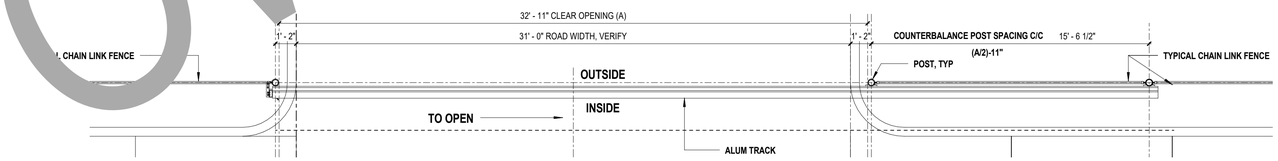
6 ING GATE SECTION
1'-0"



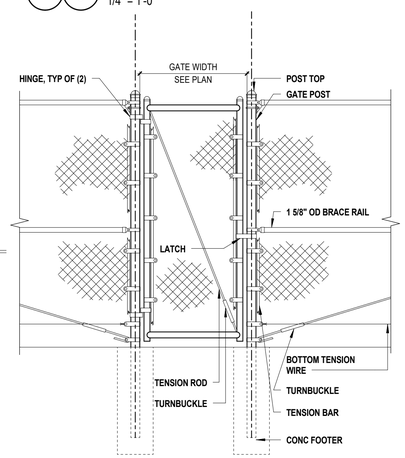
5 TYP FENCE SECTION
1/2" = 1'-0"



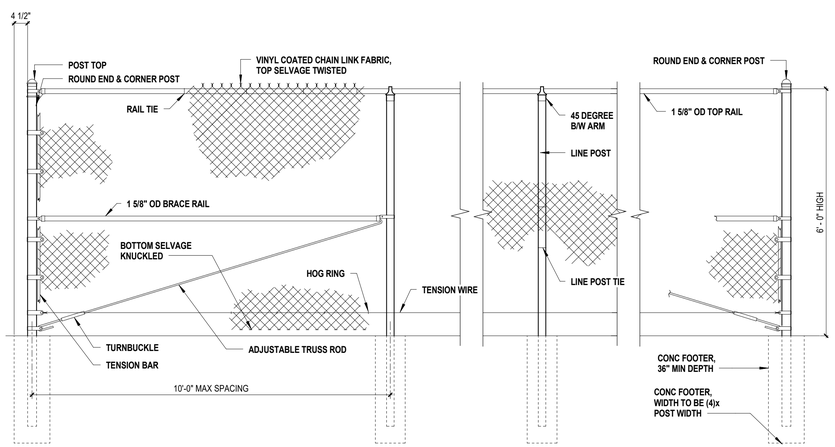
4 MOTORIZED SLIDING GATE ELEVATION
1/4" = 1'-0"



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



2 CHAIN LINK MANUAL GATE ELEVATION
1/2" = 1'-0"



1 TYPICAL CHAIN LINK FENCE ELEVATION
1/2" = 1'-0"

BY OWNER

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SITE DETAILS

SHEET:

A10.02



1 (E) GUYWIRE - WEST ROOF



2 (E) HVAC/PENTHOUSE - WEST ROOF



3 (E) ROOF OVERLAP - WEST ROOF



4 (E) LADDER - WEST ROOF



5 TOWER - WEST ROOF



6 (E) WEST ROOF



7 (E) HVAC/PENTHOUSE - WEST ROOF



8 (E) LADDER BASE



9 (E) HVAC/GUYWIRE - WEST ROOF



10 (E) APP BAY ROOF



11 (E) APP BAY ROOF



12 (E) APP BAY ROOF



13 (E) APP BAY ROOF



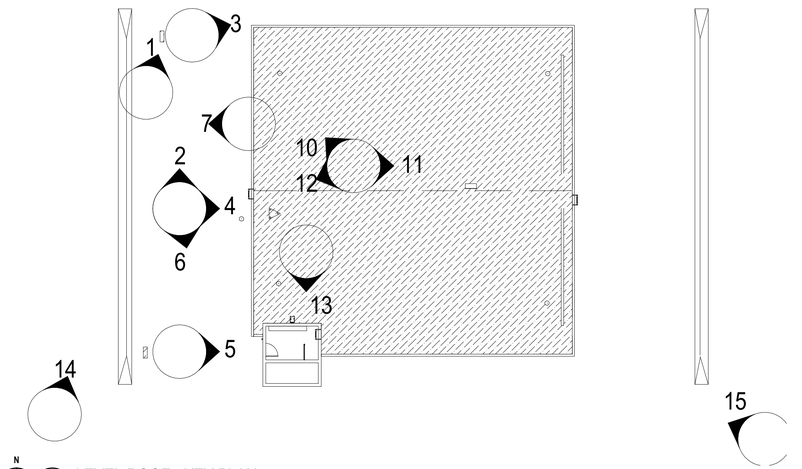
14 (E) ROOF WEST - OVERFLOW SCUPPERS



15 (E) ROOF SOUTHEAST



16 (E) DOWNSPOUT TO REMAIN



1 LEVEL ROOF - KEY PLAN
1/16" = 1'-0"

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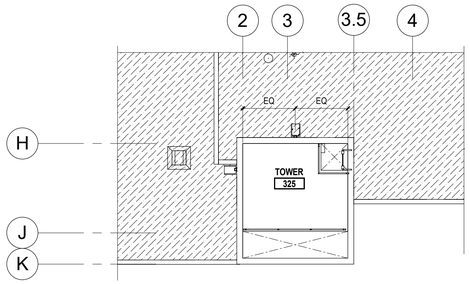
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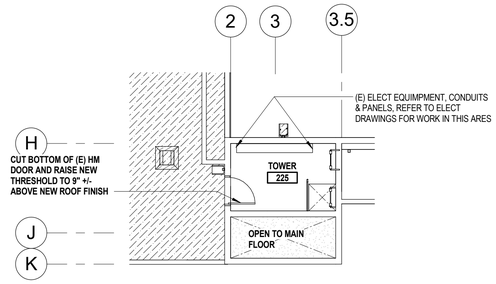
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EXISTING CONDITION

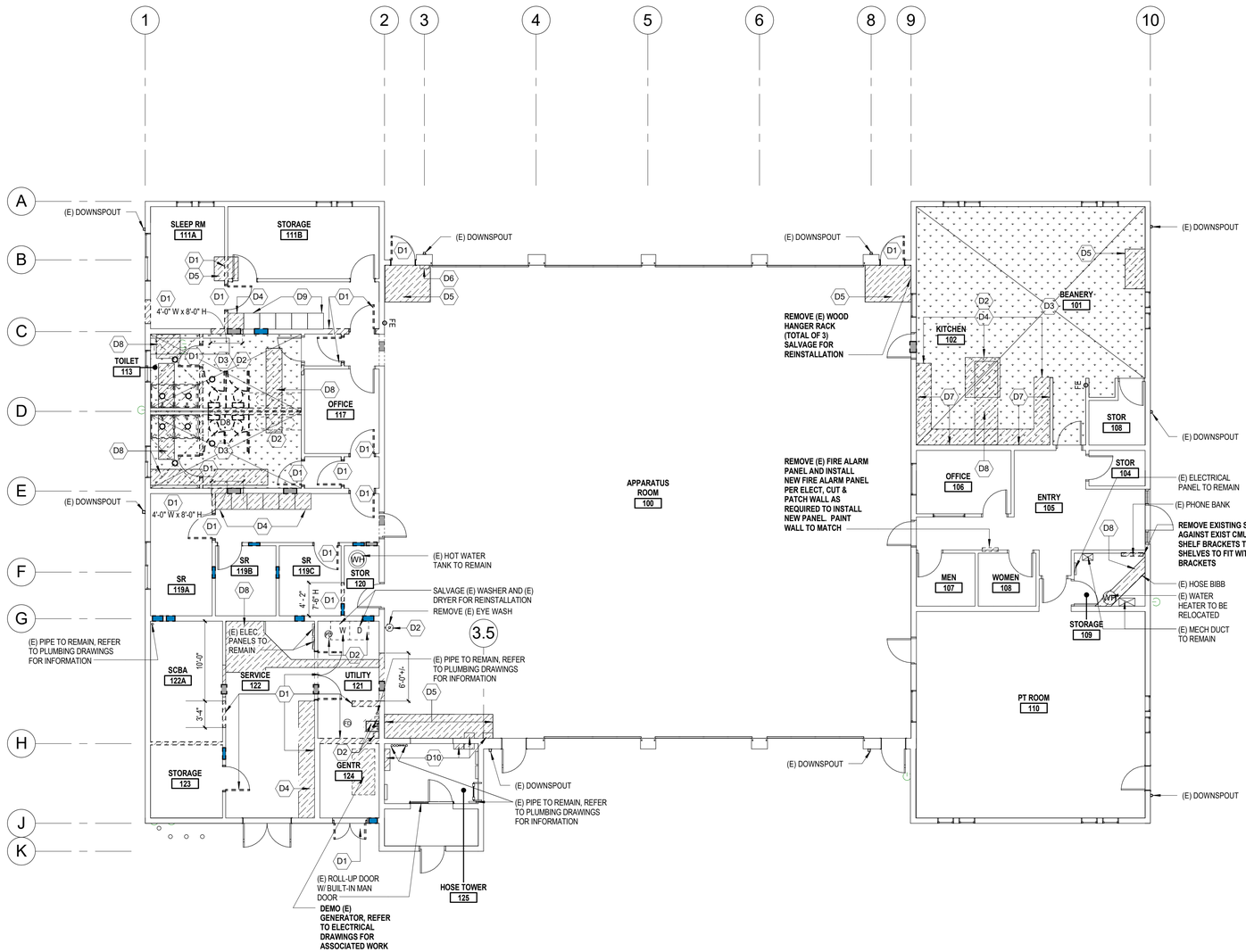
SHEET:
A20.01



N 3 TOWER PLAN - LEVEL 3 DEMO PLAN
1/8" = 1'-0"



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



N 1 LEVEL 1 - DEMO 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 D5 AND D8
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.

LEGEND - DEMO PLAN

- DEMO EXISTING WALL, DOOR AND/OR WINDOW PER DEMOLITION KEY NOTES
- DEMO EXISTING CONSTRUCTION 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

KEY NOTES - DEMO PLAN

#	NOTE DESCRIPTION
D1	DEMO (E) WALL, DOOR AND FRAME AND WINDOW PER DEMO PLAN
D2	DEMO (E) APPLIANCES, PLUMBING FIXTURES, SHOWER PAN, VANITY TOP AND TOILET PARTITION. REFER TO PLUMBING DRAWINGD FOR ASSOSIATED WORK
D3	DEMO (E) FLOOR FINISH, PATCH AND PREP FOR NEW FLOOR FINISH INSTALLATION
D4	DEMO (E) CASE WORK
D5	SAW CUT (E) SLAB ON GRADE AND EXCAVATE FOR EXPANSION / ADDING FOUNDATION. REFERENCE STRUCTURAL DRAWINGS FOR ASSOCIATED WORK, SEE DEMO PLAN GENERAL NOTE #3
D6	DEMO (E) DOOR OPENER DEVICE, SALVAGE FOR REINSTALLATION
D7	DEMO (E) PLAM BACKSPLASH AND FURRED WALL BETWEEN BLACKSPLASH AND UPPER CABINET
D8	SAW CUT (E) SLAB ON GRADE AND EXCAVATE, REFERENCE PLUMBING FOR ASSOCIATED WORK, SEE DEMO PLAN GENERAL NOTE #3
D9	TEMPORARILY RELOCATE CASEWORK AS DIRECTD BY OWNER TO PERFORM WORK. REINSTALL IN THE SAME LOCATION AND CONDITION
D10	REMOVE (E) ELECTRICAL PANELS AND OR EQUIPMENTS, REFER TO ELECTRICAL DRAWINGS FOR ASSOCIATED WORKS

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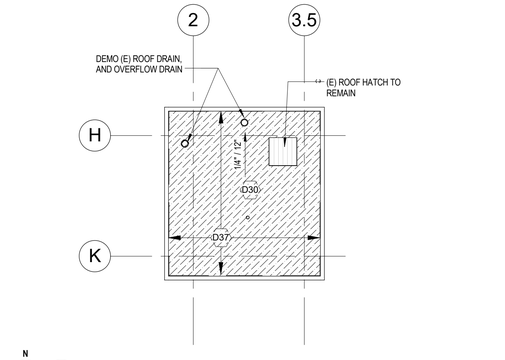
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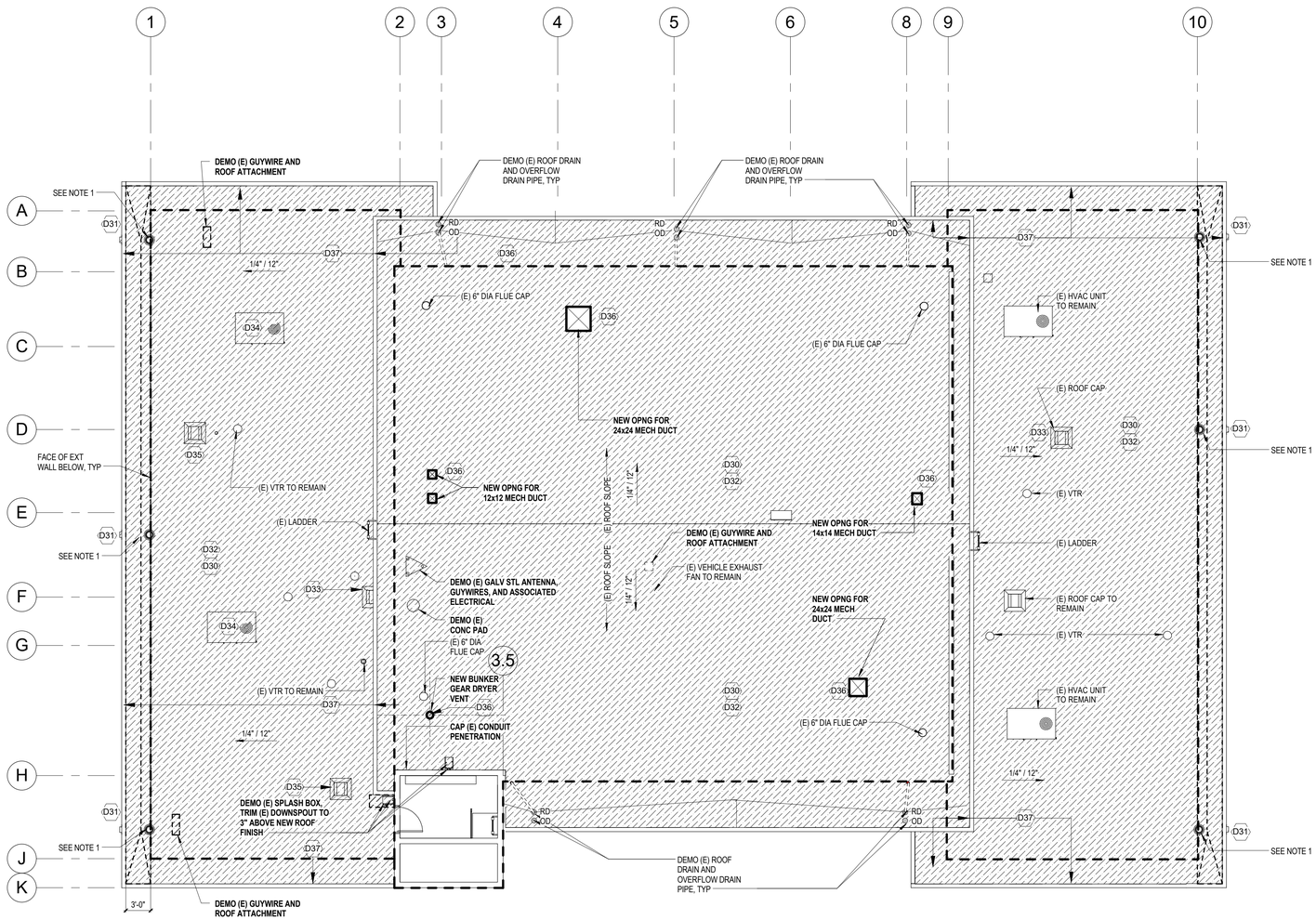
DEMO PLANS

SHEET:

A21.01



N 2 TOWER ROOF - DEMO PLAN
1/8" = 1'-0"



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

GENERAL NOTES - DEMO ROOF PLAN

1. EXISTING ROOF DRAIN AND DRAIN PIPE EMBEDDED IN CONCRETE DECK TO REMAIN FOR FUTURE USE
2. EXISTING SCUPPERS TO BE REMOVED

KEY NOTES - DEMO ROOF PLAN

#	NOTE DESCRIPTION
D30	DEMO (E) MEMBRANE ROOFING SYSTEM AND EXISTING RIGID INSULATION DOWN TO (E) PLYWOOD SHEATHING AND/OR EXISTING CONCRETE DECK. WORK INCLUDES DEMOLITION OF EXISTING ROOF CRICKET, ROOF CANT, FLASHING AND EXISTING PARAPET CAP
D31	DEMO (E) OVERFLOW SCUPPER, REMOVE EXISTING FLASHING, CLEAN AND PREP FOR INSTALLATION OF NEW OVERFLOW SCUPPER
D32	DISCONNECT AND REMOVE ALL EXISTING ROOFTOP EQUIPMENT, SALVAGE FOR REINSTALLATION AFTER THE NEW ROOFING SYSTEM IS INSTALLED
D33	EXISTING ROOF CAP TO BE DEMOLISHED
D34	EXISTING HVAC UNIT TO BE DEMOLISHED
D35	EXISTING PENTHOUSE UNIT TO BE DEMOLISHED
D36	PROVIDE OPENING IN ROOF FOR MECHANICAL EQUIPMENT, REFERENCE MECHANICALAND STRUCTURAL DRAWINGS FOR ASOCIATED WORK
D37	DEMO EXISTING ROOF MEMBRANE, FLASHING AND ALL ASSOCIATED MATERIAL FROM ALL INSIDE FACE OF EXISTING PARAPET WALLS DOWN TO EXISTING PLYWOOD SHEATHING. DEMO EXISTING PARAPET WALL COPING

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ROOF - DEMO PLANS

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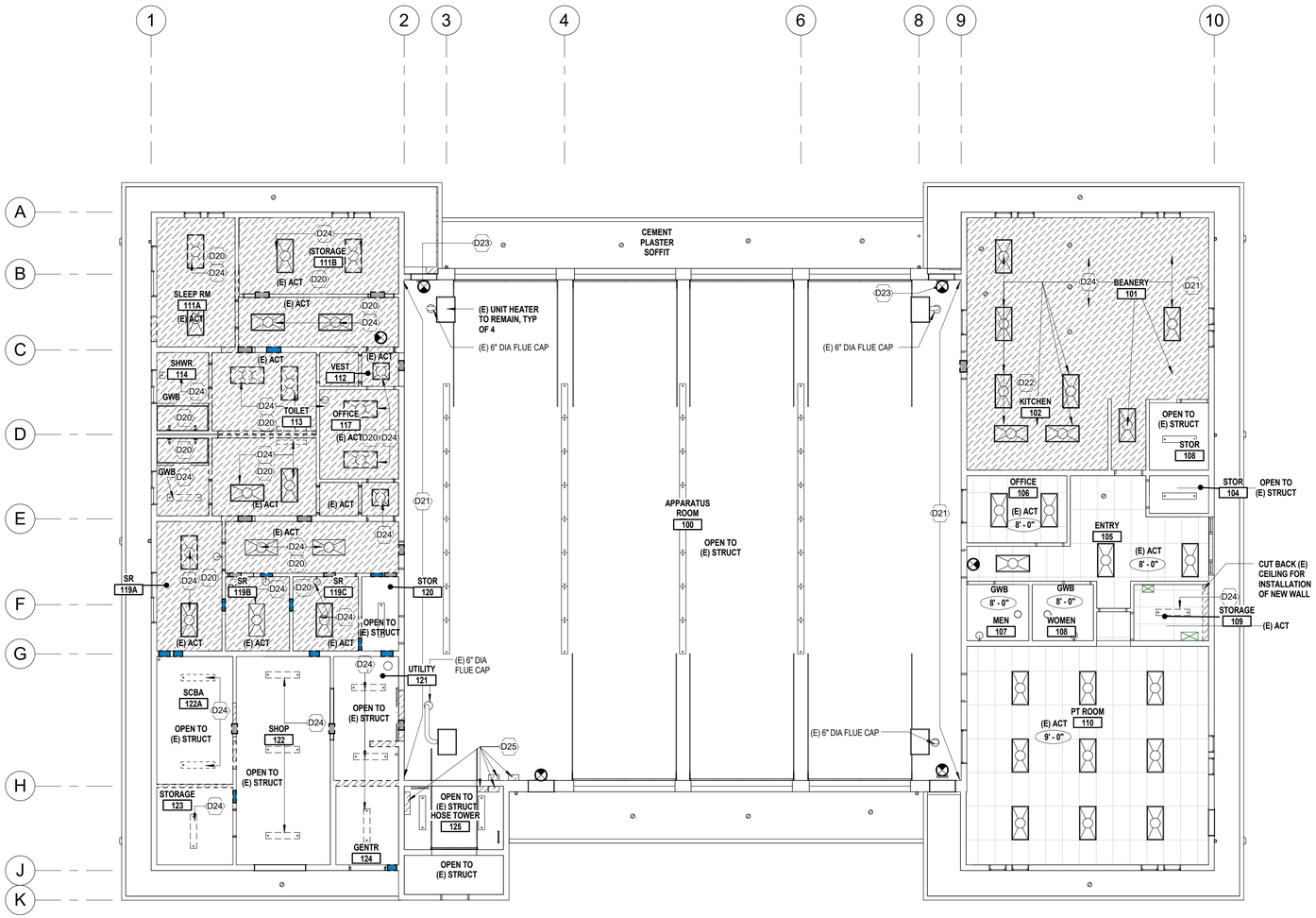
A21.02

LEGEND - DEMO RCP

- EXISTING GWB CEILING TO REMAIN
- EXISTING SUSPENDED ACOUSTICAL TILE CEILING 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 - DEMO REFLECTED CEILING PLAN

#	NOTE DESCRIPTION
D20	DEMO EXISTING CEILING SYSTEM
D21	REMOVE EXISTING CEILING TO GET ACCESS FOR WORK REQUIRED BY SEISMIC UPGRADE, REFERENCE STRUCTURAL DRAWINGS FOR ASSOCIATED WORK
D22	REMOVE EXISTING CEILING TO GET ACCESS FOR MECHANICAL WORK, REFERENCE MECHANICAL DRAWINGS FOR ASSOCIATED WORK
D23	REMOVE EXISTING EXIT SIGN, SALVAGE FOR REINSTALLATION
D24	DEMO EXISTING LIGHTING FIXTURES, REFERENCE ELECTRICAL DRAWINGS FOR INFORMATION
D25	REMOVE (E) ELECTRICAL PANELS, REFERENCE ELECTRICAL DRAWINGS FOR ASSOCIATED WORK



N

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

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4794 REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET
AUBURN, WA 98001

PROJECT # 2015137

BID SET

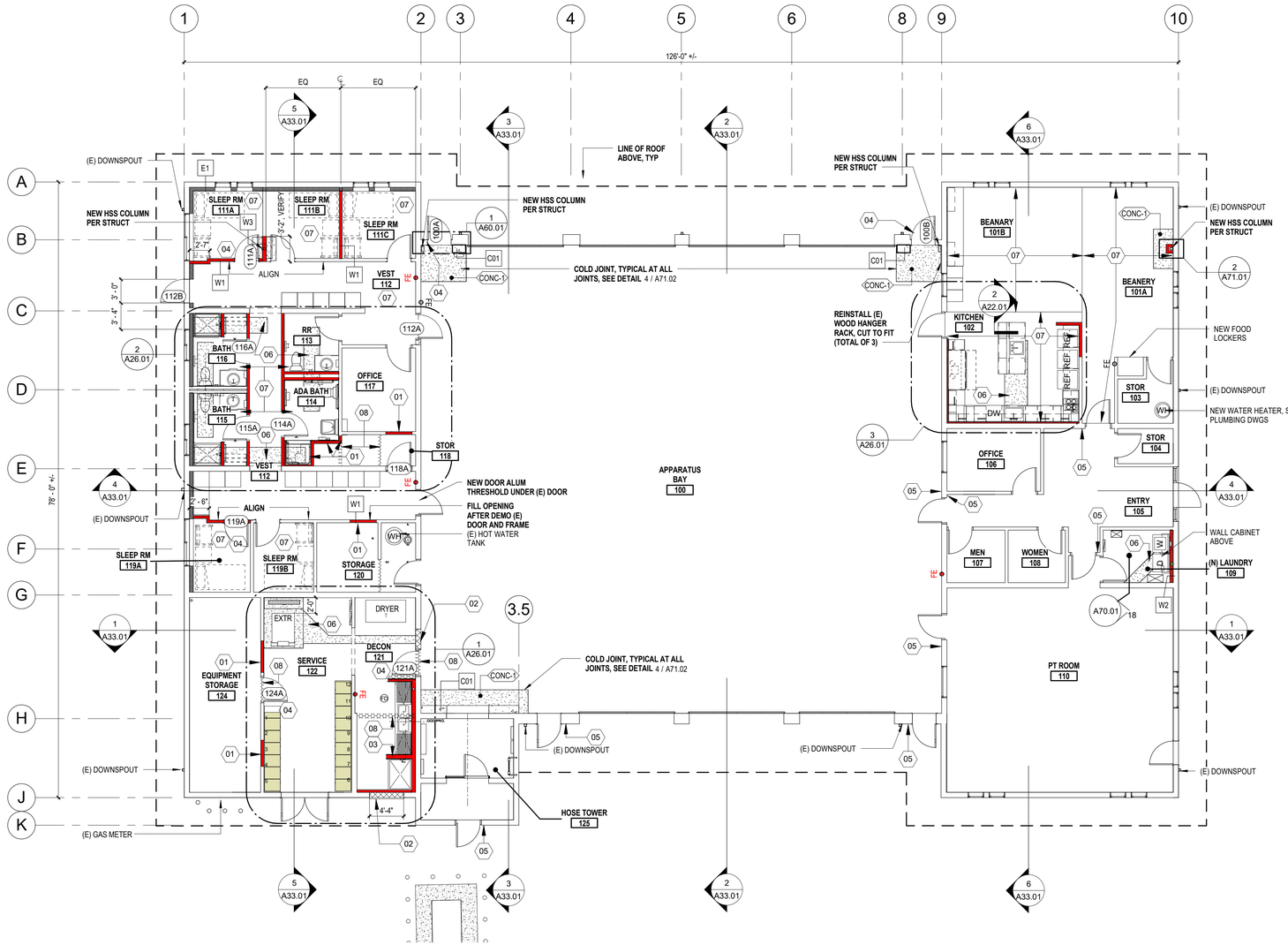
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

DEMO REFLECTED CEILING PLAN

SHEET:

A21.03



N

1 LEVEL 1 - FLOOR PLAN

1/8" = 1'-0"

GENERAL NOTES - FLOOR PLAN

1. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE
   10'-6"
2. ARE FINISH TO FINISH
3. FOR WALL, FLOOR AND ROOF ASSEMBLIES, SEE SHEETS A01.01
3. FOR DOOR SCHEDULE AND DETAILS, SEE SHEET A60.01
4. FOR FINISH PLAN, FINISH SCHEDULE AND FINISH LEGEND, SEE SHEET A72.01
5. ALL FINISHED DOOR OPENING ARE LOCATED 6" FROM WALL UNLESS NOTED OTHERWISE
6. DIMENSIONS INDICATED AS "MIN" OR "CLEAR" ARE FROM NEAREST FINISH SURFACE INCLUDING TRIM
7. PATCH ALL CONCRETE FLOOR SLAB WHERE UNDERGROUND WORKS ARE REQUIRED, SAND SMOOTH FINISH TO MATCH ADJACENT EXISTING SLAB SURFACE

KEY NOTES - FLOOR PLAN

#	NOTE DESCRIPTION
01	PAINT NEW WALL AND PROVIDE NEW BASE PER FINISH SCHEDULE
02	FILL (E) OPENING IN CMU WALL, PAINT TO MATCH EXISTING ADJACENT WALL
03	NEW WALL 2x4 OR 2x6 WOOD STUDS AT 16" OC WITH 5/8" (UNO) MOISTURE AND MILDEW RESISTANCE GYPSUM BOARD IN TOILETS, SHOWER AND BATH ROOMS
04	NEW DOOR, FRAME AND HARDWARE
05	PATCH AND PAINT EXISTING WALLS AFTER THE INSTALLATION OF NEW ACCESS CONTROL SYSTEM IS COMPLETE (BY OTHERS), COORDINATE WITH THE INSTALLER
06	PATCH AND SAND SMOOTH NEW CONCRETE FLOOR SLAB SURFACE TO MATCH ADJACENT SURFACE
07	INSTALL NEW FLOOR FINISH PER FINISH SCHEDULE
08	PATCH EXPOSED CONC FLOOR FROM REMOVAL OF (E) WALL, SAND SURFACE TO A SMOOTH FINISH

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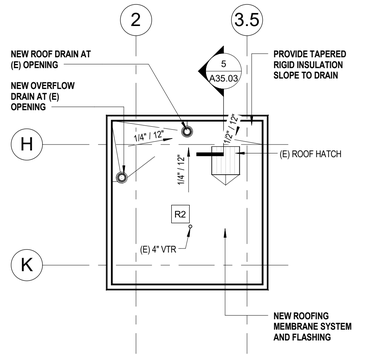
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

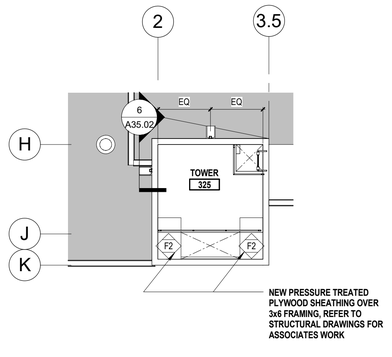
FLOOR PLAN

SHEET:

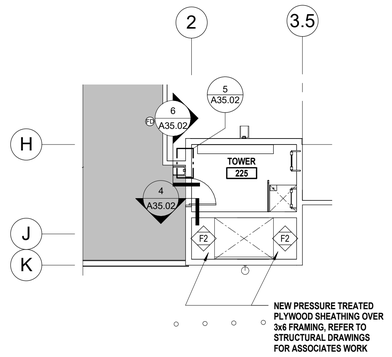
A21.11



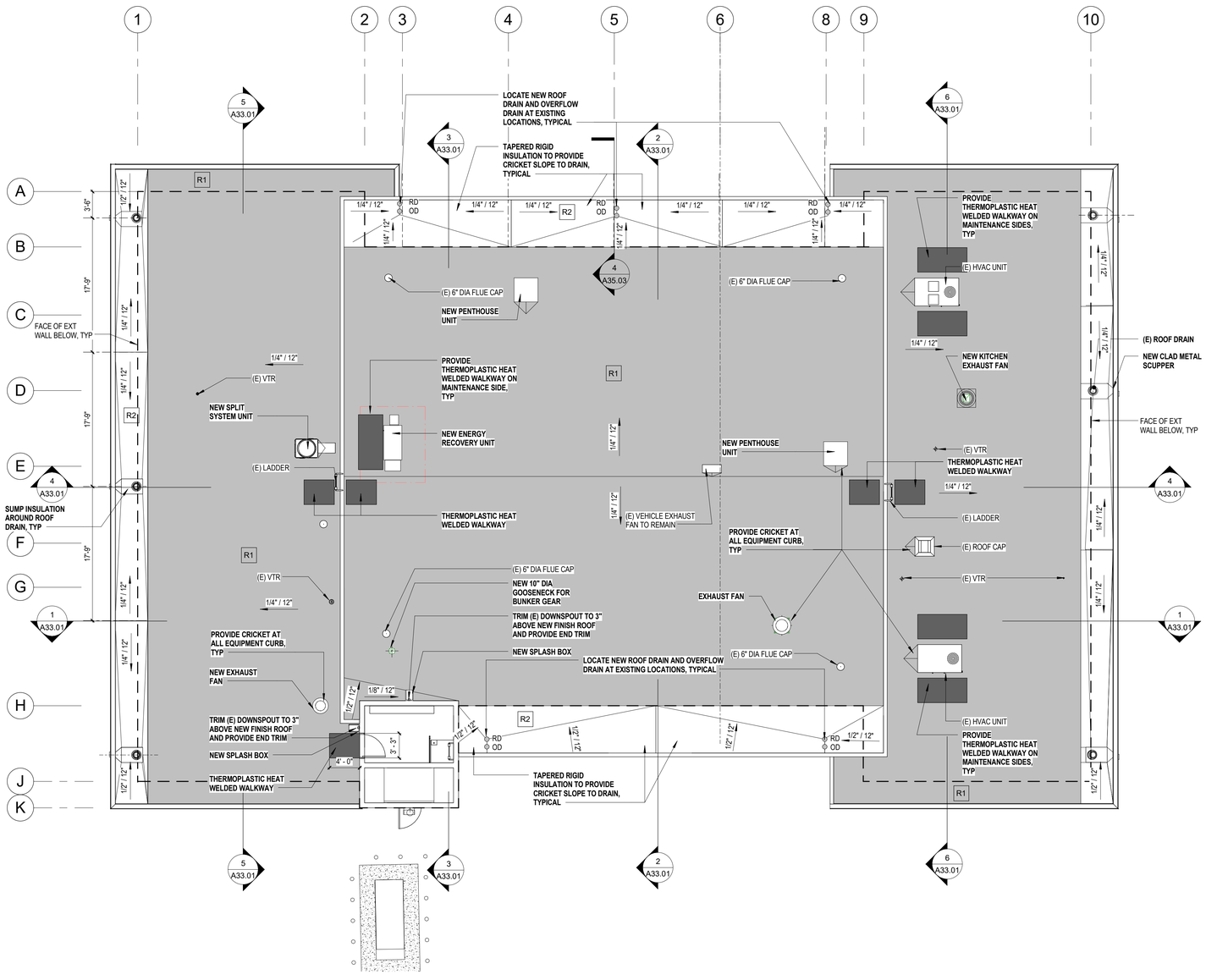
N 4 TOWER ROOF PLAN
1/8" = 1'-0"



N 3 TOWER PLAN - LEVEL 3
1/8" = 1'-0"



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



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

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ROOF PLAN AND TOWER PLANS

SHEET:

A21.12

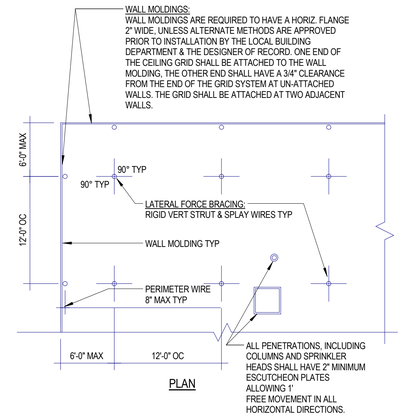
RCP LEGEND

- EXISTING GWB CEILING TO REMAIN
- EXISTING SUSPENDED ACOUSTICAL TILE CEILING TO REMAIN
- **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**
- **NEW GWB CEILING**
- NEW SUSPENDED ACOUSTICAL TILE CEILING
- **ELECTRICAL INFRA RED HEATER**
- **EXHAUST, 2X2**
- **RETURN GRILLE, 2X2**
- **SUPPLY DIFFUSER, 2X2**
- **RECESSED DOWNLIGHT**
- **RECESSED TROFFER, 2X2**
- **RECESSED TROFFER, 2X4**
- **SUSPENDED LIGHT**
- **EXIT SIGN**

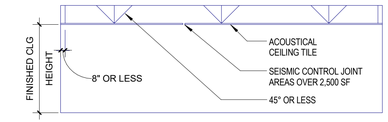
GENERAL NOTES - RCP

- 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.

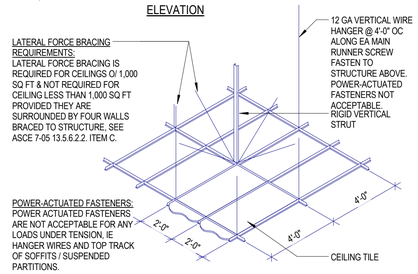
SEISMIC BRACING DETAIL



PLAN



ELEVATION



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:

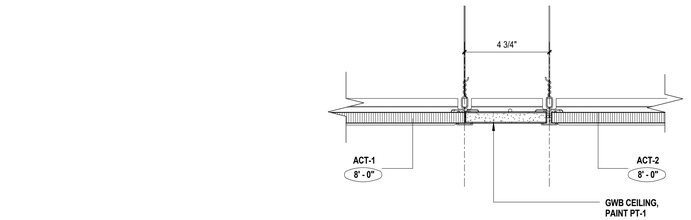
1. A STRUT, WITH STIFFNESS ADEQUATE TO RESIST THE VERTICAL LOADS IMPOSED, SHALL BE ATTACHED TO THE SUSPENSION SYSTEM & TO THE STRUCTURE ABOVE AT EACH BRACING LOCATION.
2. DIRECTION AND THE FIRST POINT SHALL BE WITHIN 6 FEET OF EACH WALL.
3. SPREADER (SPACER) BARS OR OTHER MEANS APPROVED BY THE LOCAL 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
4. LIEU OF SPREADER BARS, SEE CISCA ZONES 3 - 4.

   LIGHT FIXTURES & MECHANICAL SERVICES: ATTACH PER "GUIDELINES FOR SEISMIC
5. RESTRAINT FOR DIRECT HUNG SUSPENDED CEILING ASSEMBLIES - SEISMIC ZONES 3 & 4", MAY 2004 (OR MOST CURRENT) BY CEILING & INTERIOR SYSTEMS CONSTRUCTION
6. ASSOCIATION (CISCA).

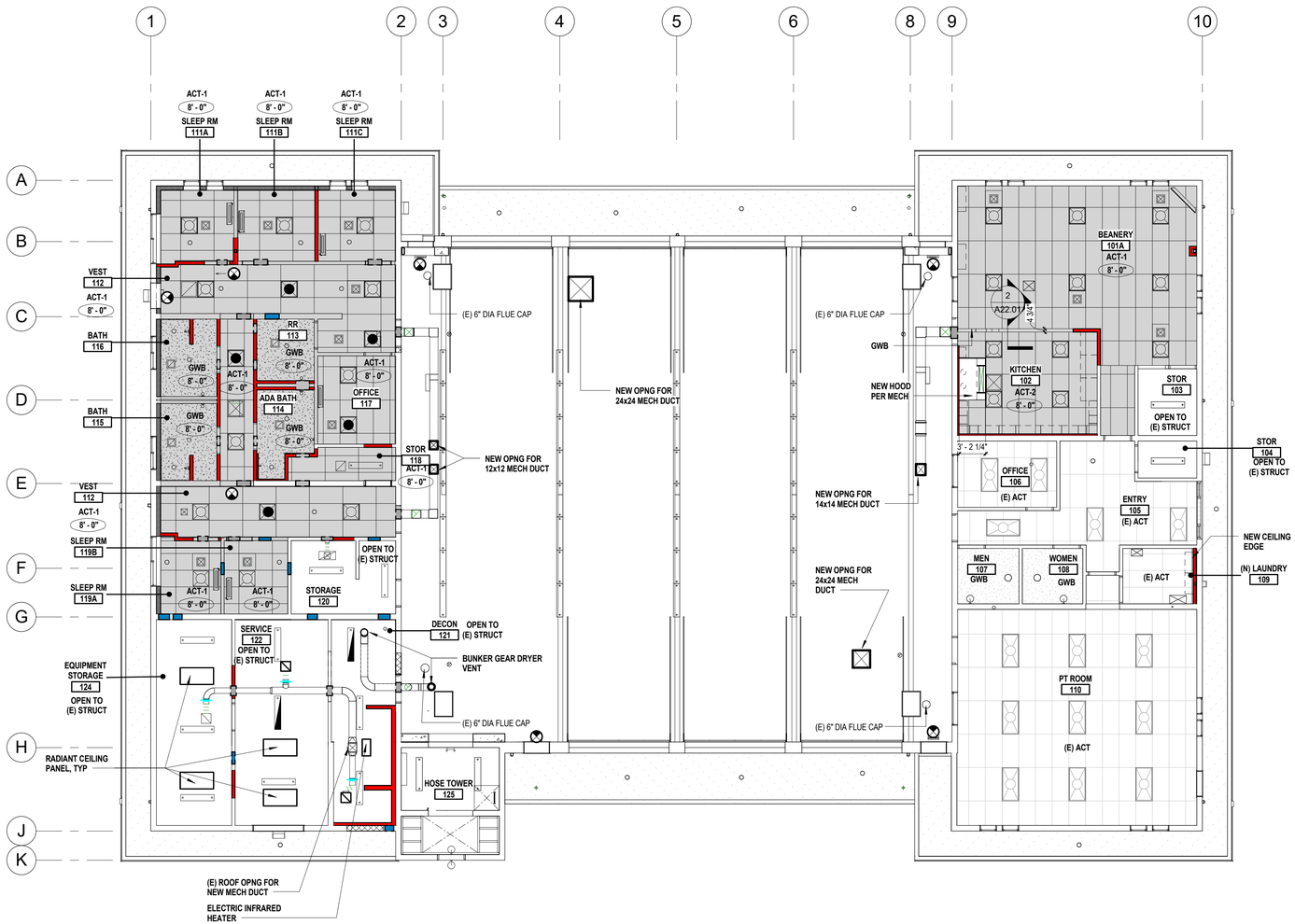
   SUSPENDED CEILING INSTALLATION SHALL BE INSTALLED PER IBC 2009, ASTM C 635 & ASTM C636, ASCE 7-05 & CISCA ZONES 3-4.
7. SEISMIC SEPARATION JOINTS: FOR CEILING EXCEEDING 2,500 SQ FT, A SEISMIC JOINT OR
8. FULL HEIGHT WALL PARTITION THAT BREAKS THE CEILING SHALL BE PROVIDED UNLESS ANALYSES ARE PERFORMED 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 13.5.8.1.



2 CEILING TRANSITION - ACT-1/ACT-2
3" = 1'-0"



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

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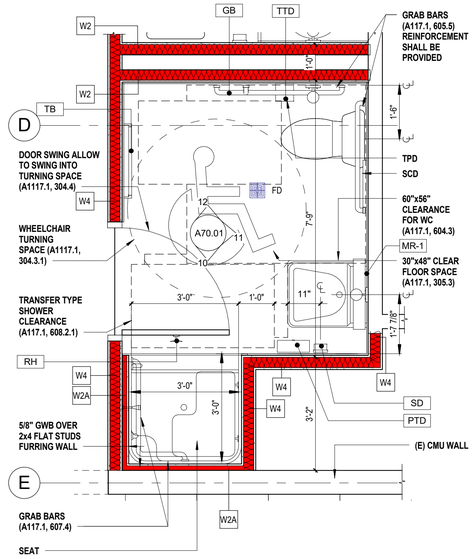
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

REFLECTED CEILING PLAN AND DETAIL

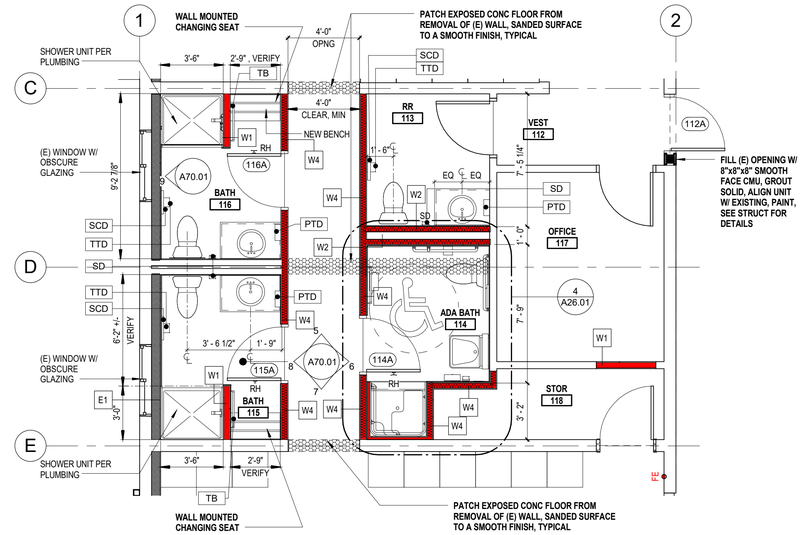
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A22.01



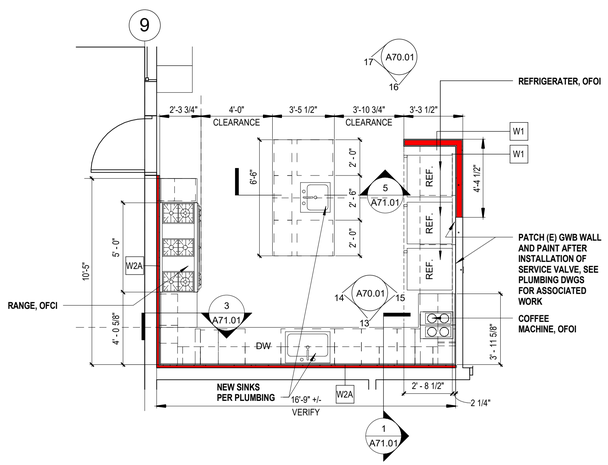
N 4 ENLARGED PLAN - ADA BATHROOM 114

1/2" = 1'-0"



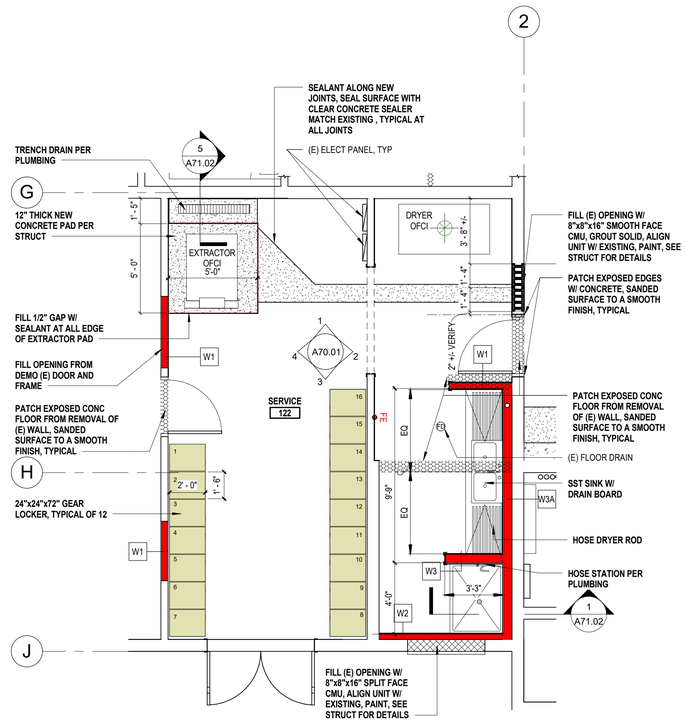
N 2 ENLARGED PLAN - BATH ROOMS

1/4" = 1'-0"



N 3 ENLARGED PLAN - KITCHEN

1/4" = 1'-0"



N 1 ENLARGED PLAN - DECON 120

1/4" = 1'-0"

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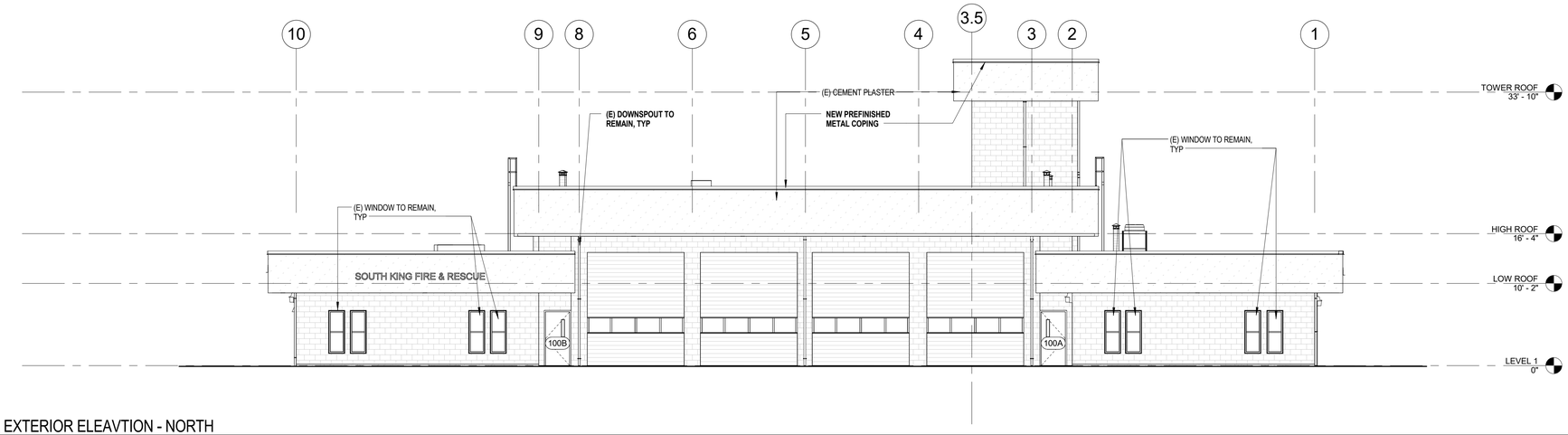
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REVISION SCHEDULE

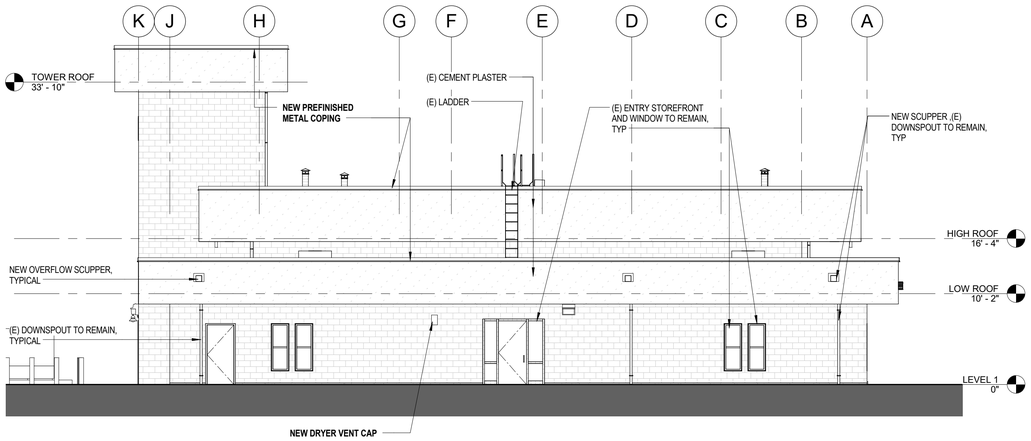
ENLARGED PLANS

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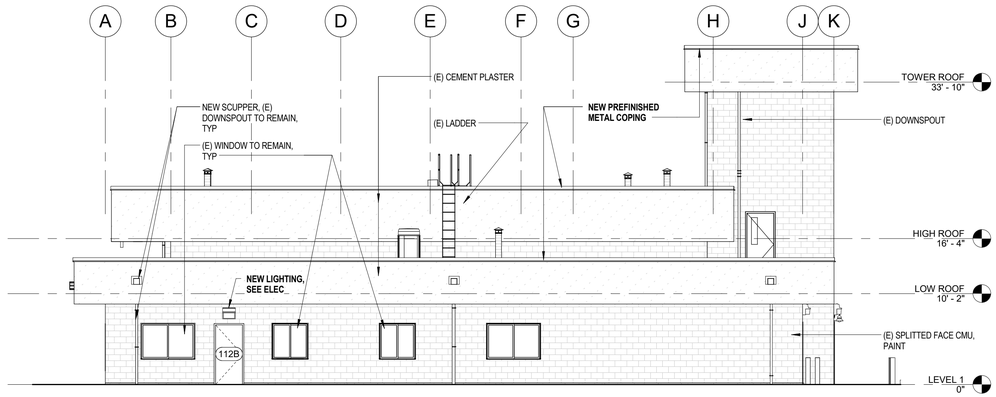
A26.01



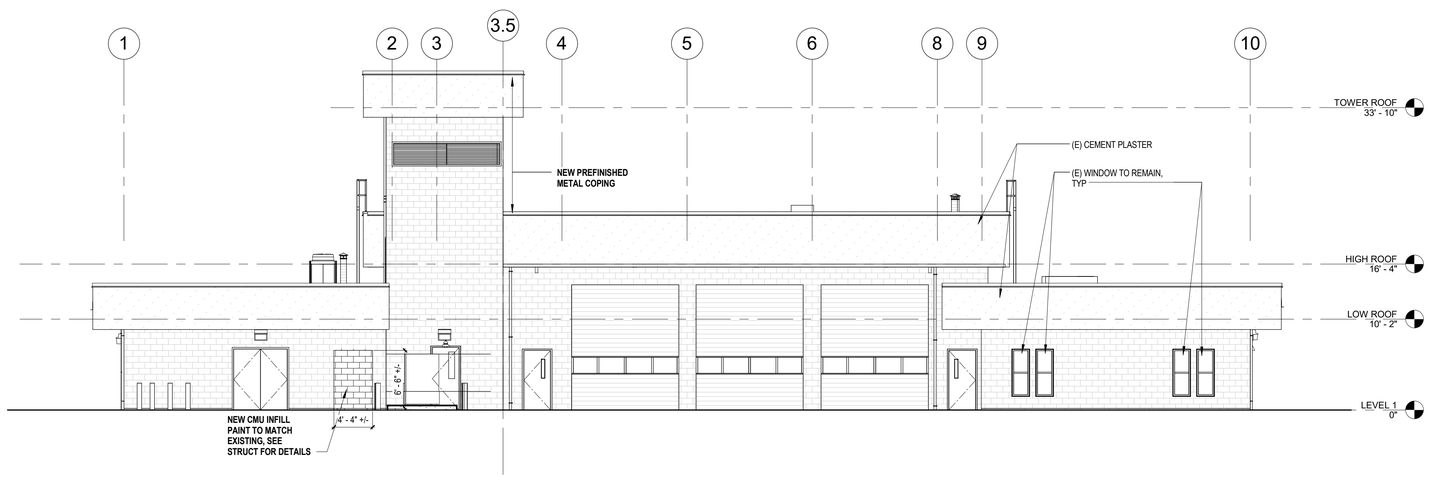
1 EXTERIOR ELEAVTION - NORTH
1/8" = 1'-0"



2 EXTERIOR ELEAVTION - EAST
1/8" = 1'-0"



3 EXTERIOR ELEAVTION - WEST
1/8" = 1'-0"



4 EXTERIOR ELEAVTION - SOUTH
1/8" = 1'-0"

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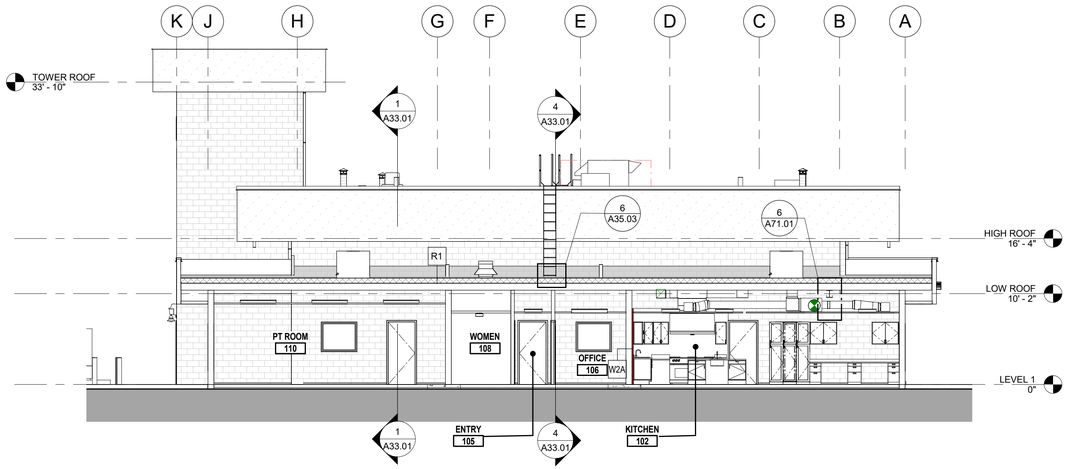
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

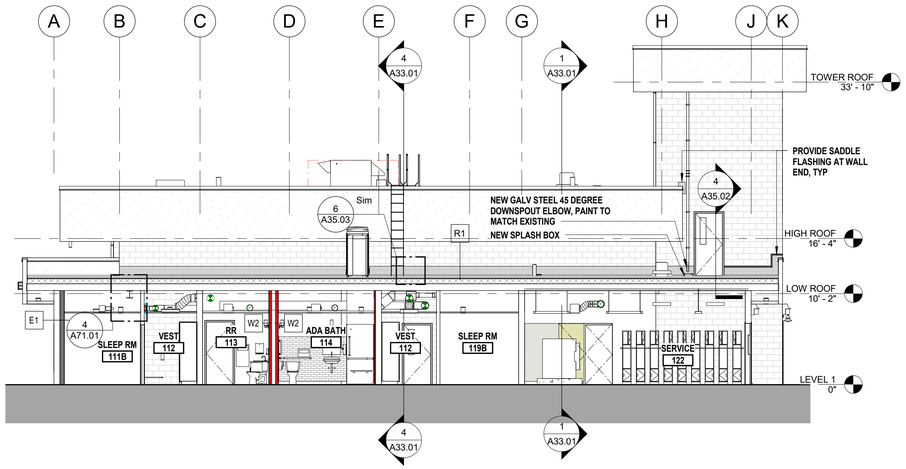
BUILDING ELEVATIONS

SHEET:

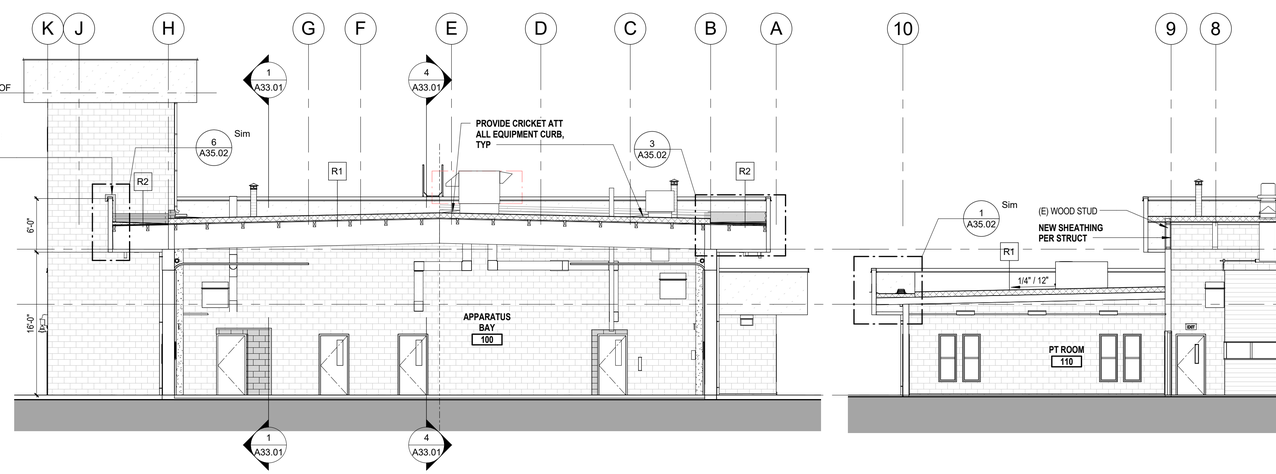
A31.01



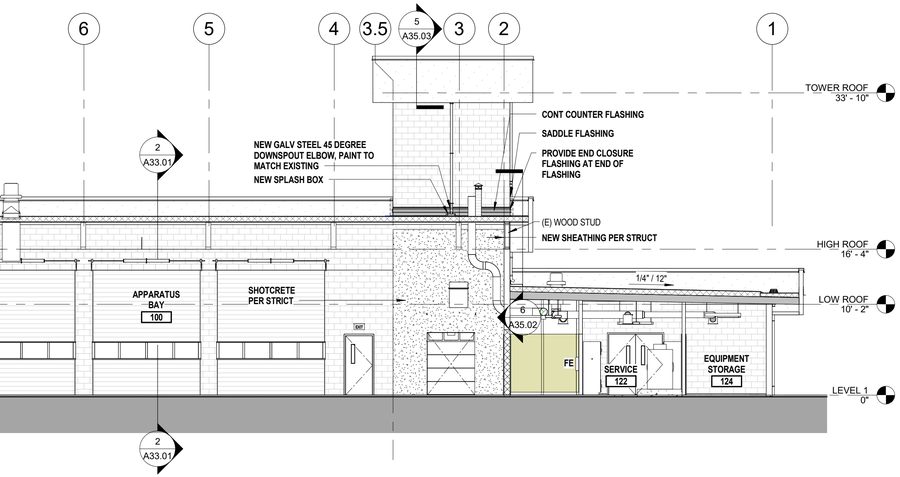
6 BUILDING SECTION - ALONG GRID 8
1/8" = 1'-0"



5 BUILDING SECTION - ALONG GRID 1
1/8" = 1'-0"



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



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

2 BUILDING SECTION - APPARATUS BAY
1/8" = 1'-0"

1 BUILDING SECTION - ALONG GRID G
1/8" = 1'-0"

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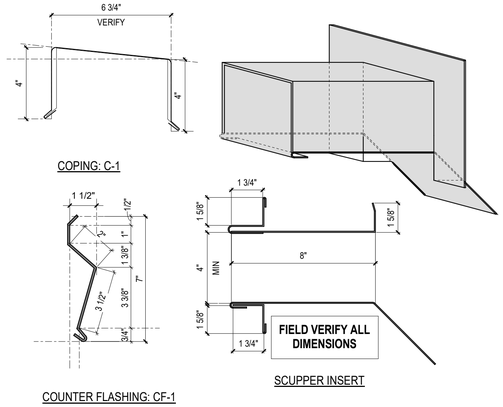
SOUTH KING FIRE & RESCUE
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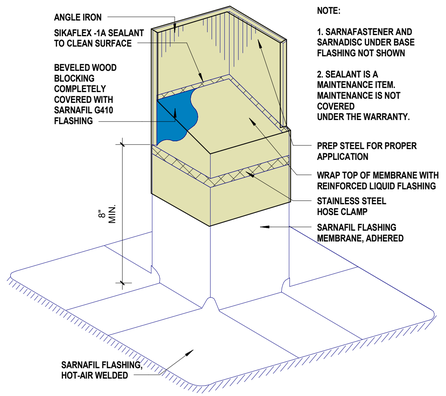
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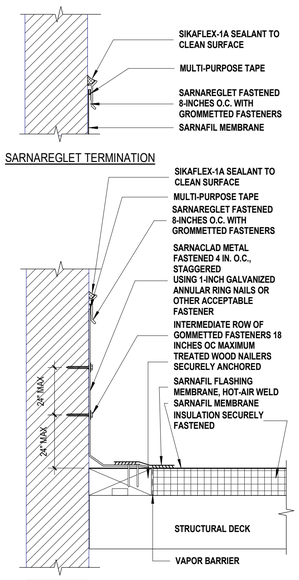
BUILDING SECTIONS

SHEET:
A33.01

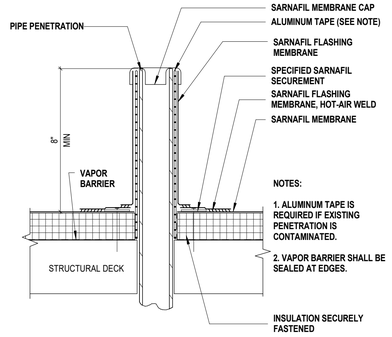


13 SHEET METAL DETAIL
3" = 1'-0"

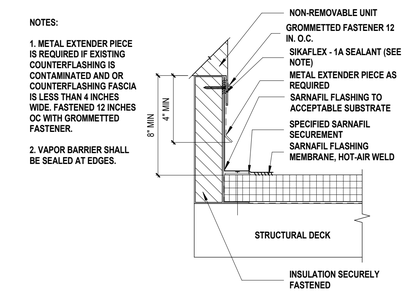




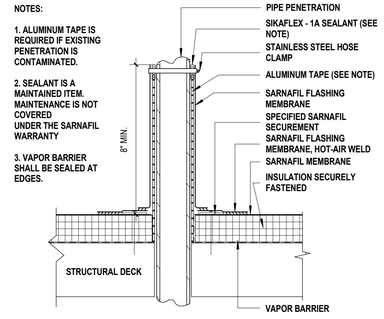
11 TYP DETAIL - CLAD METAL FLASHING
3" = 1'-0"



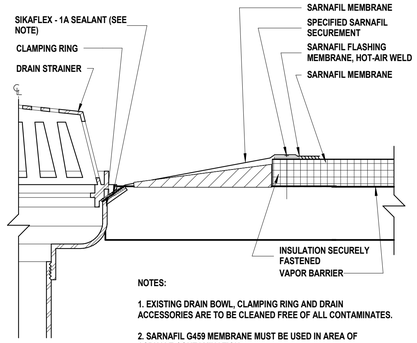
9 TYP DETAIL - VENT STACK FLASHING
3" = 1'-0"



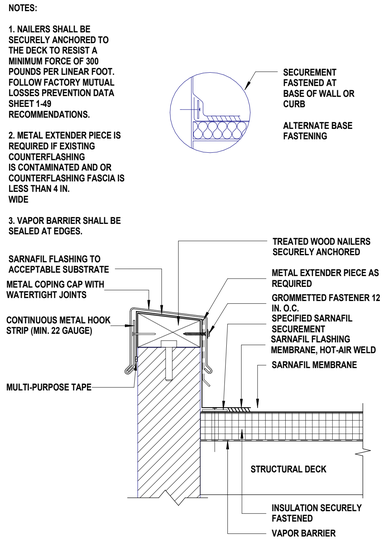
6 TYPICAL DETAIL - CURB FLASHING
3" = 1'-0"



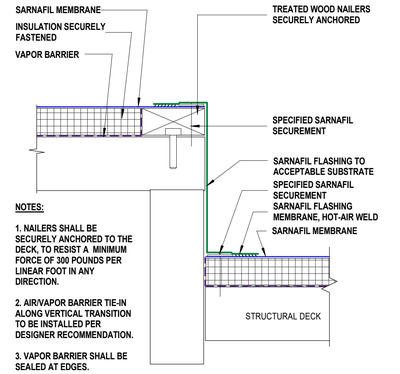
3 PIPE PENATRATED FLASHING
3" = 1'-0"



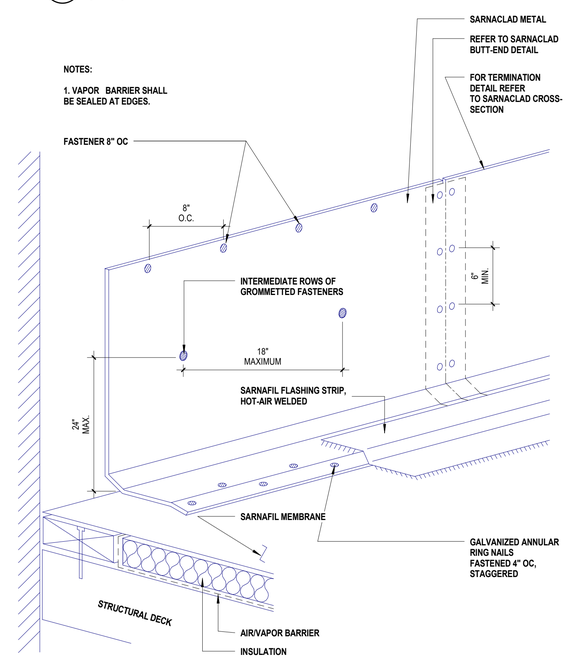
8 CLAMPING RING ROOF DRAIN
3" = 1'-0"



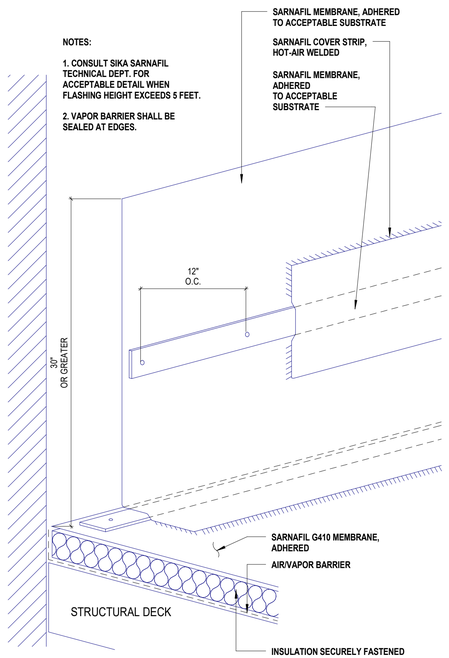
5 TYPICAL DETAIL - PARAPET WALL
3" = 1'-0"



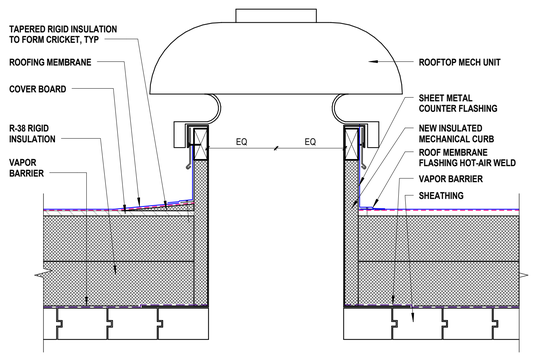
2 ROOFING AT WALL TRANSITION
3" = 1'-0"



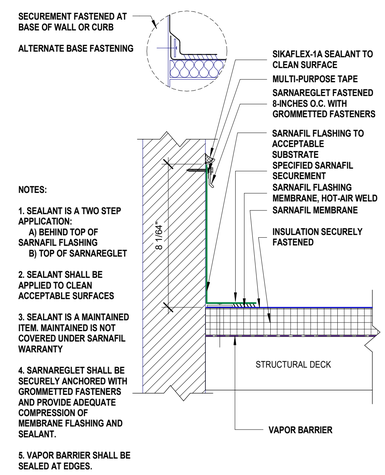
10 TYPICAL DETAIL - CLAD METAL
3" = 1'-0"



7 TYP DETAIL - ADHERED WALL FLASHING
3" = 1'-0"



4 TYPICAL DETAIL - MECH CURB
1 1/2" = 1'-0"



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

12 DETAIL @ STEEL ANGLE
3" = 1'-0"

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DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET
AUBURN, WA 98001

PROJECT # 2015137

BID SET

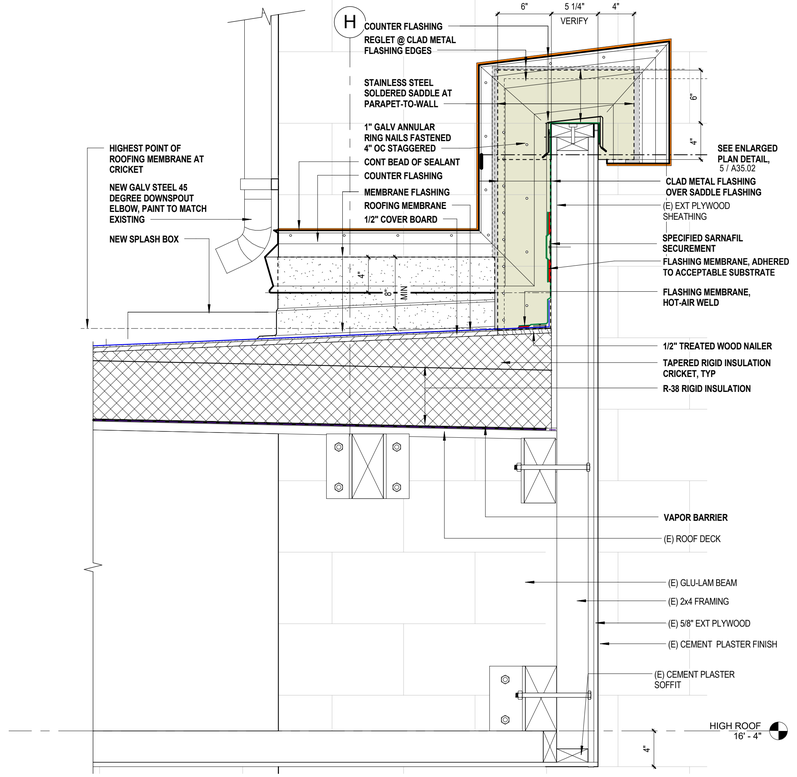
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

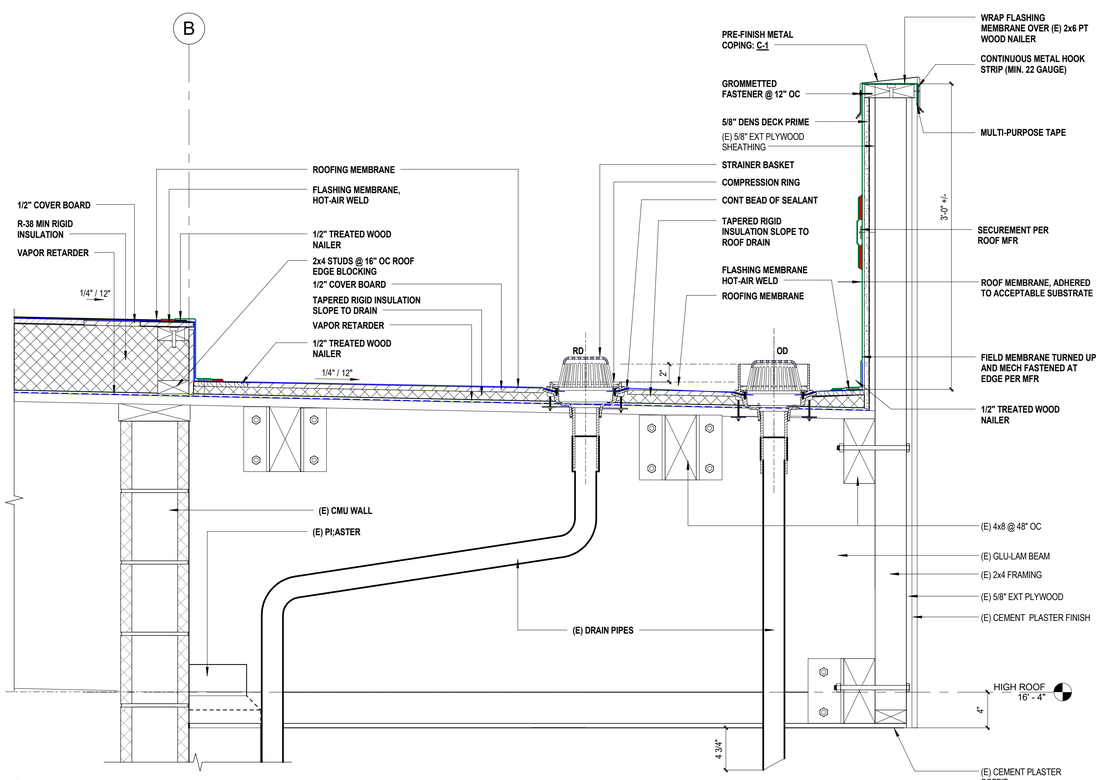
TYPICAL ROOF DETAILS

SHEET:

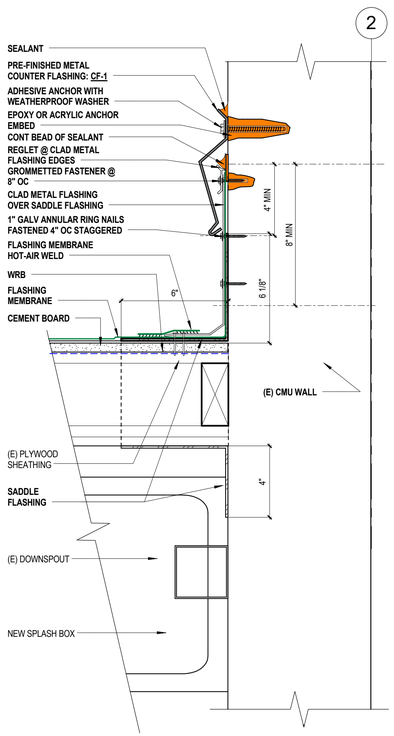
A35.01



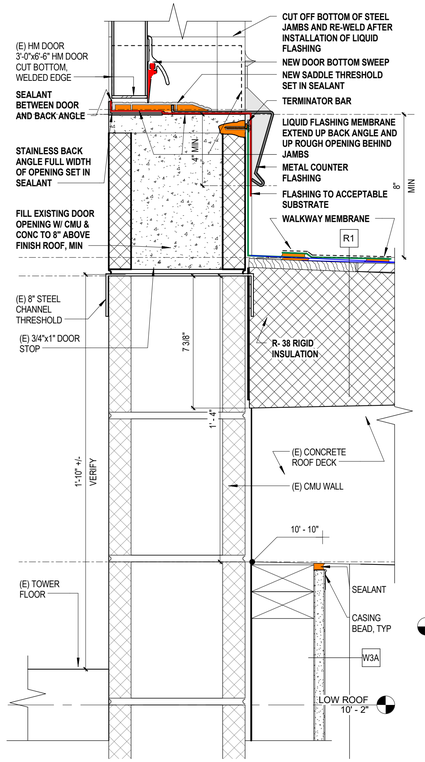
6 DETAIL - PARAPET WALL @ TOWER
1 1/2" = 1'-0"



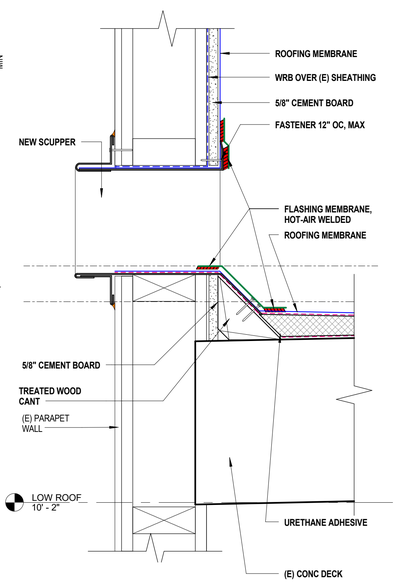
3 TYP DETAIL - APP BAY ROOF DRAIN & OVERFLOW DRAIN
1 1/2" = 1'-0"



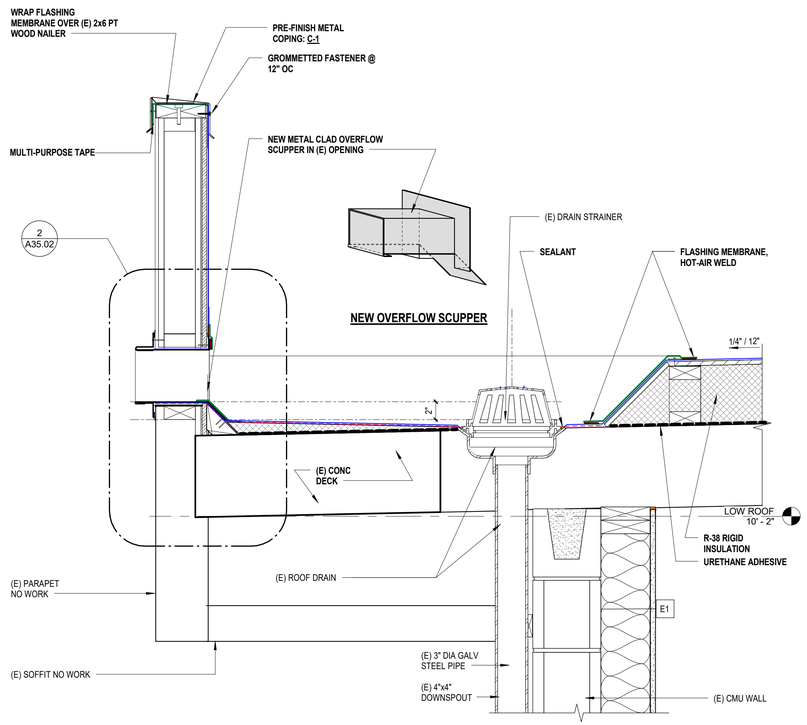
5 ENLARGED PLAN @ PARAPET/WALL
3" = 1'-0"



4 DETAIL - (E) TOWER DOOR THRESHOLD
3" = 1'-0"



2 DETAIL - OVERFLOW DRAIN @ (E) SCUPPER
3" = 1'-0"



1 TYP DETAIL - ROOF DRAIN @ (E) CONC DECK
1 1/2" = 1'-0"

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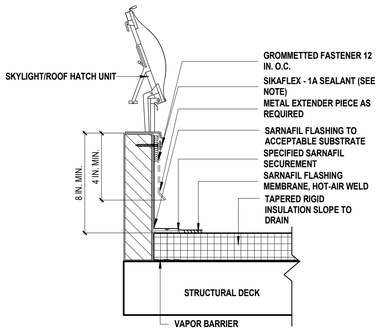
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DAVID A. FERGUS
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SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
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AUBURN, WA 98001

PROJECT # 2015137
BID SET
ISSUED: MARCH 16, 2017
REVISION SCHEDULE

ROOF DETAILS

SHEET:
A35.02

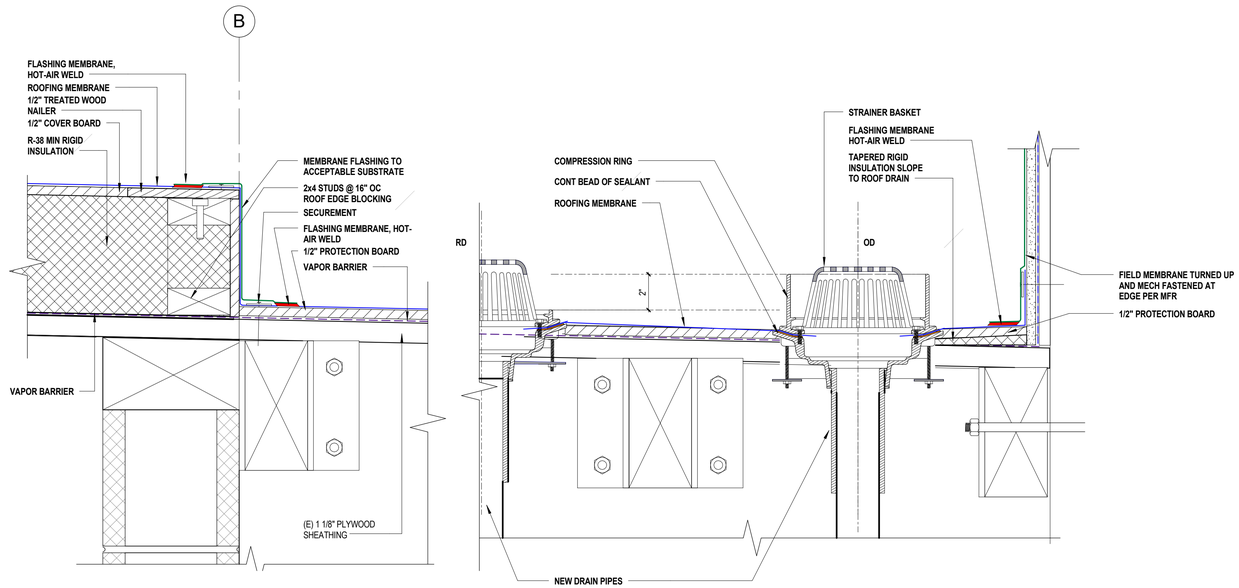


NOTES:

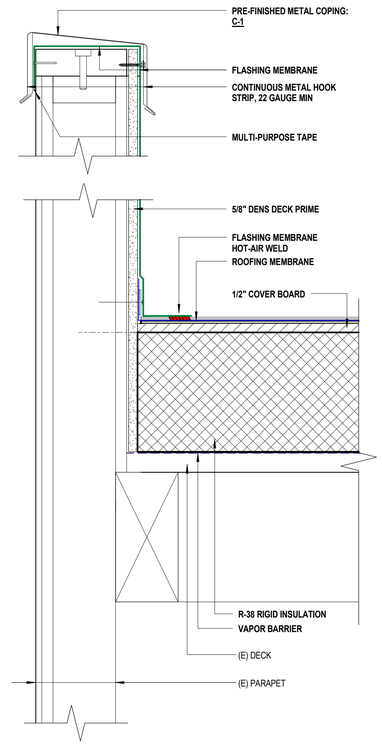
1. METAL EXTENDER PIECE IS REQUIRED IF EXISTING COUNTERFLASHING IS CONTAMINATED AND OR COUNTERFLASHING FASCIA IS LESS THAN 4 INCHES WIDE. FASTENED 12 INCHES O.C. WITH GROMMETTED FASTENER.

2. VAPOR BARRIER SHALL BE SEALED AT EDGES.

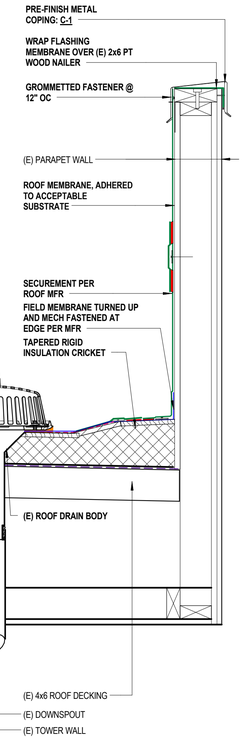
7 ROOF HATCH
3" = 1'-0"



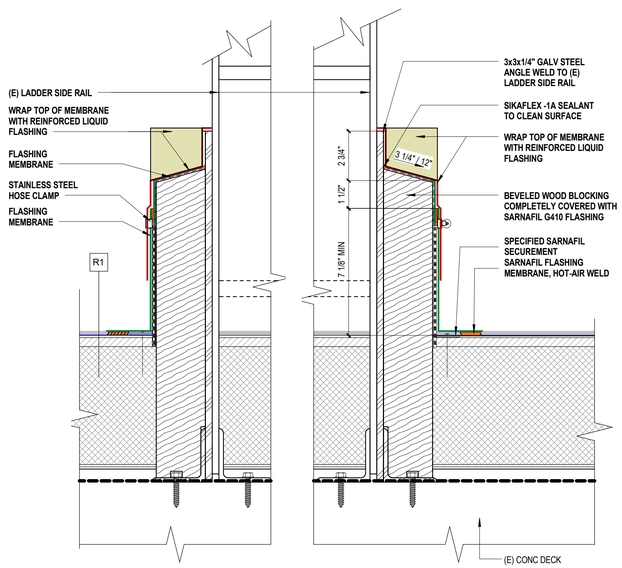
4 DETAIL - HIGH ROOF TRANSITION AND DRAINS DETAIL
3" = 1'-0"



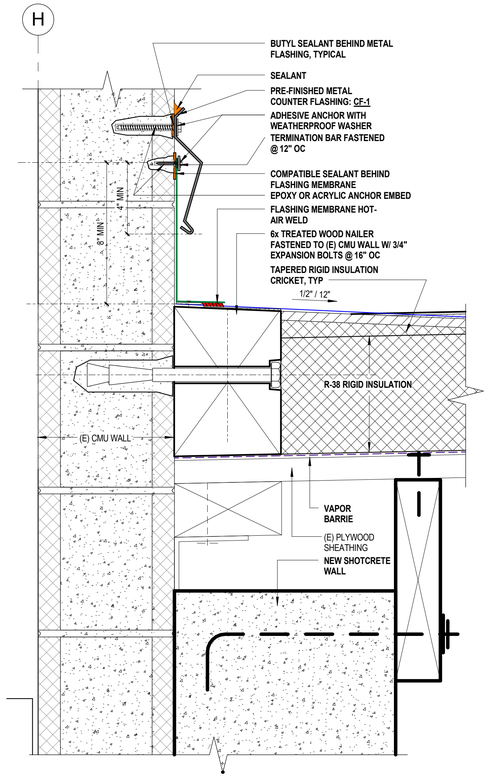
2 DETAIL - HIGH ROOF AT PARAPET
3" = 1'-0"



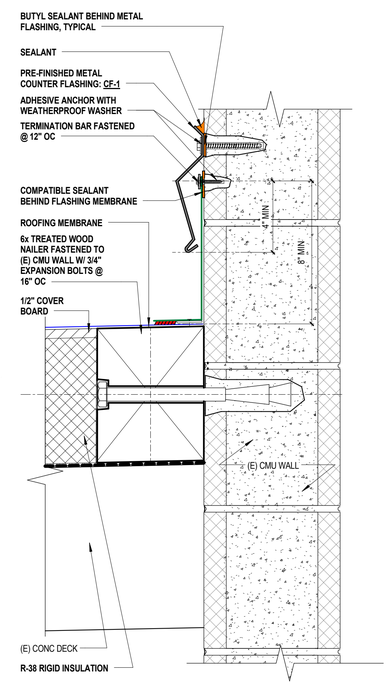
5 DETAIL - HOSE TOWER PARAPET
1 1/2" = 1'-0"



6 SECTION DETAIL @ (E) LADDER BASE FLASHING
3" = 1'-0"



3 DETAIL - HIGH ROOF AT TOWER WALL
3" = 1'-0"



1 DETAIL - LOWER ROOF @ END WALL
3" = 1'-0"

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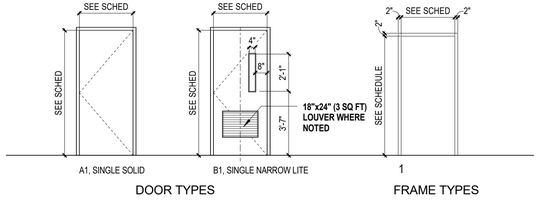
FIRE STATION 61
3203 S 360th STREET
AUBURN, WA 98001

PROJECT # 2015137
R1
BID SET
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

ROOF DETAILS

SHEET:
A35.03



DOOR & FRAME TYPES

1/4" = 1'-0"

GLAZING LEGEND

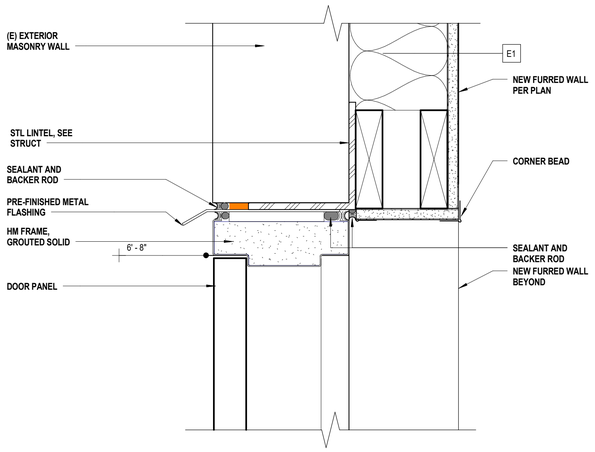
- G-1 — SEALED INSULATING GLASS UNITS: SAFETY GLAZING
- G-2 — SINGLE PANE SAFETY GLAZING
- G-3 — FIRE RATED SAFETY GLAZING

DOOR SCHEDULE

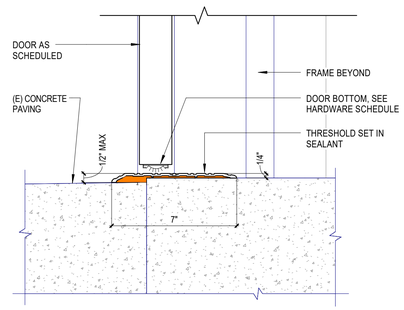
DOOR #	ROOM NUMBER	ROOM NAME	DOOR INFORMATION TYPE	MATERIAL	FINISH	GLAZING	HEIGHT	WIDTH	THICKNESS	FRAME INFORMATION TYPE	MATERIAL	FINISH	FIRE RATING	HARDWARE GROUP	POWER REQUIRED	COMMENTS
100A	100	APPARATUS BAY	B1	HM	PT-2	G-1	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	NA	HW-04		
100B	100	APPARATUS BAY	B1	HM	PT-2	G-1	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	NA	HW-04		
111A	111A	SLEEP RM	A1	WD	ST-1	NA	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	20 MIN	HW-01		
112A	112	VEST	B1	HM	PT-2	G-3	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	60 MIN	HW-03		
112B	112	VEST	A1	HM	PT-2	NA	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	NA	HW-06		
114A	114	ADA BATH	A1	WD	ST-1	NA	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	NA	HW-02		ROBE HOOK, SEE SPEC SECTION 102800
115A	115	BATH	A1	WD	ST-1	NA	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	NA	HW-02		ROBE HOOK, SEE SPEC SECTION 102800
116A	116	BATH	A1	WD	ST-1	NA	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	NA	HW-02		ROBE HOOK, SEE SPEC SECTION 102800
118A	118	STOR	A1	HM	PT-2	NA	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	NA	HW-05		
119A	119A	SLEEP RM	A1	WD	ST-1	NA	6' - 8"	3' - 0"	1 3/4"	1	WD	PT-2	20 MIN	HW-01		
121A	121	DECON	B1	HM	PT-2	G-3	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	NA	HW-03		LOUVER 3 SQ FT, EXCLUDE THRESHOLD
124A	124	EQUIPMENT STORAGE	A1	HM	PT-2	NA	6' - 8"	3' - 0"	1 3/4"	1	HM	PT-2	NA	HW-05		

NOTES:

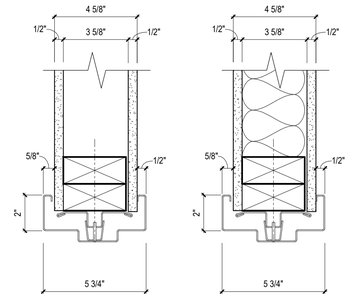
1. WHERE A DOOR THRESHOLD IS REQUIRED AND THERE EXISTS A CHANGE IN FLOOR ELEVATION, PROVIDE AN OFFSET THRESHOLD.
2. FIRE RATED DOORS SHALL BE EQUIPPED WITH A CLOSER.



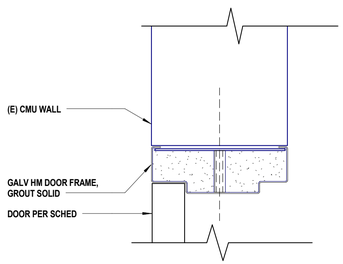
4 DETAIL - EXTERIOR DOOR HEAD, JAMB SIM
3" = 1'-0"



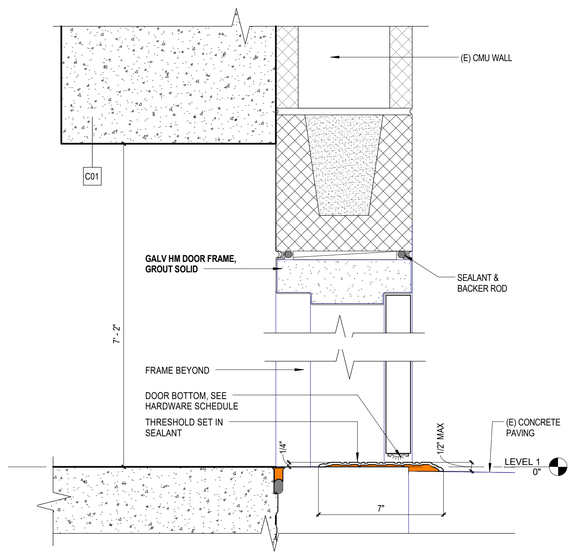
3A DOOR THRESHOLD
3" = 1'-0"



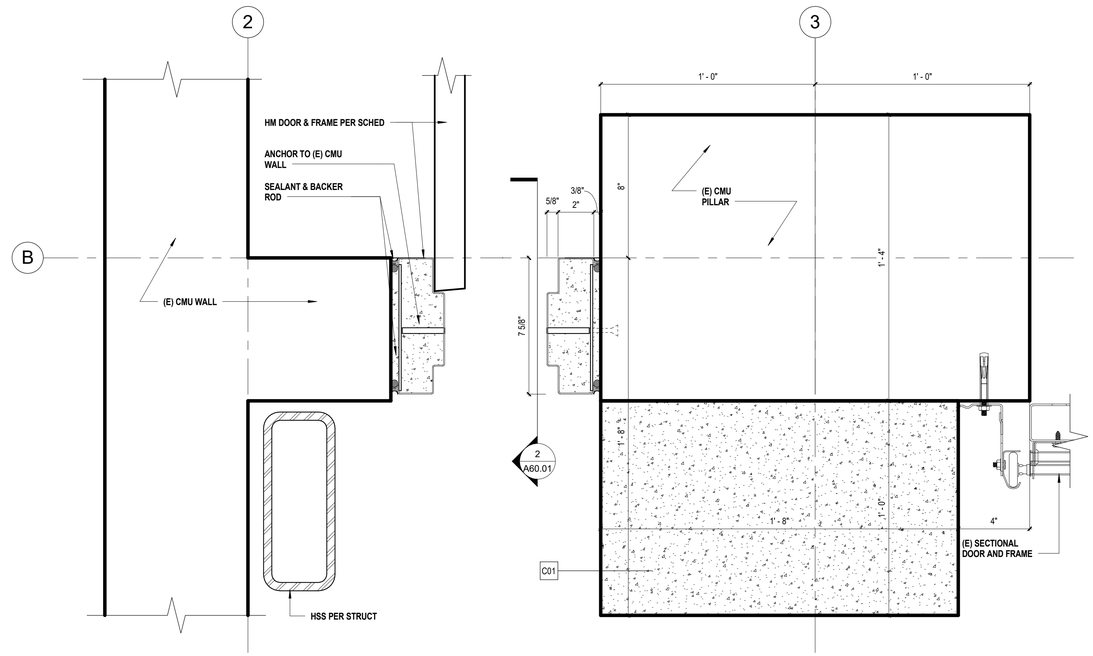
1A TYP INT DOOR JAMB DETAIL (HEAD SIM)
3" = 1'-0"



3 TYP DETAIL - CMU WALL DOOR JAMB
3" = 1'-0"



2 HEAD AND SILL DETAIL @ NEW SHOTCRETE WALL
3" = 1'-0"



1 JAMB DETAIL @ NEW SHOTCRETE WALL
3" = 1'-0"

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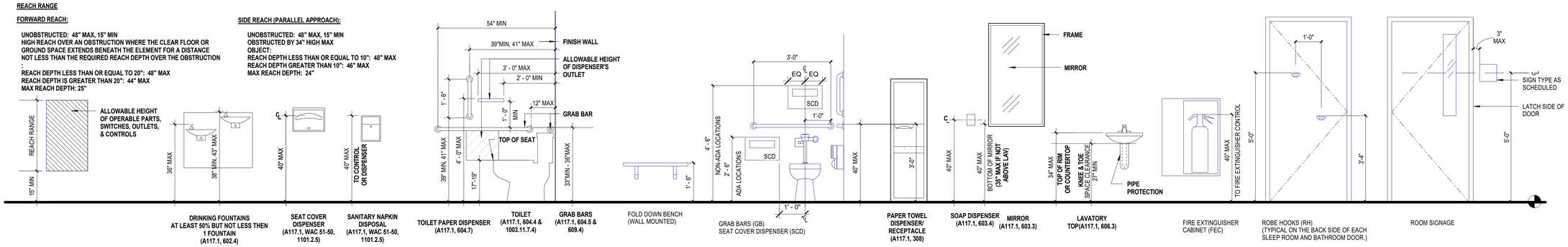
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

DOOR SCHEDULE AND DETAILS

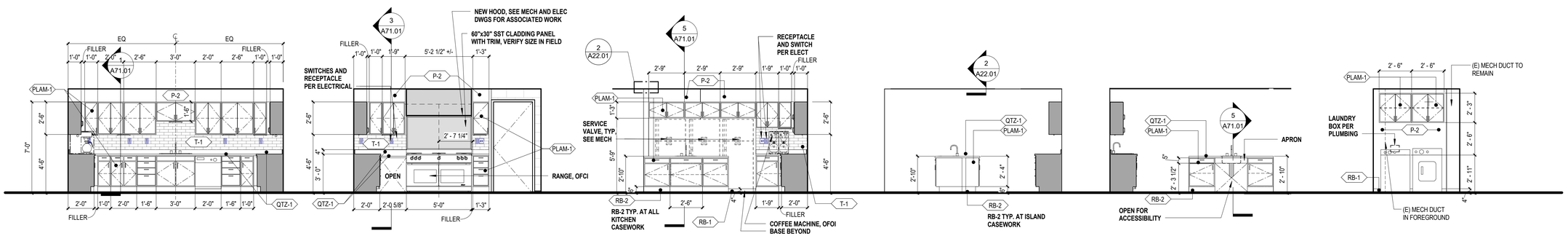
SHEET:

A60.01



19 ADA ACCESSIBILITY MOUNTING HEIGHT
1/2" = 1'-0"

NOTE: HORIZONTAL POSITIONS OF FIXTURES NOT INDICATED IN THIS DETAIL



13 KITCHEN 102 - SOUTH ELEVATION
1/4" = 1'-0"

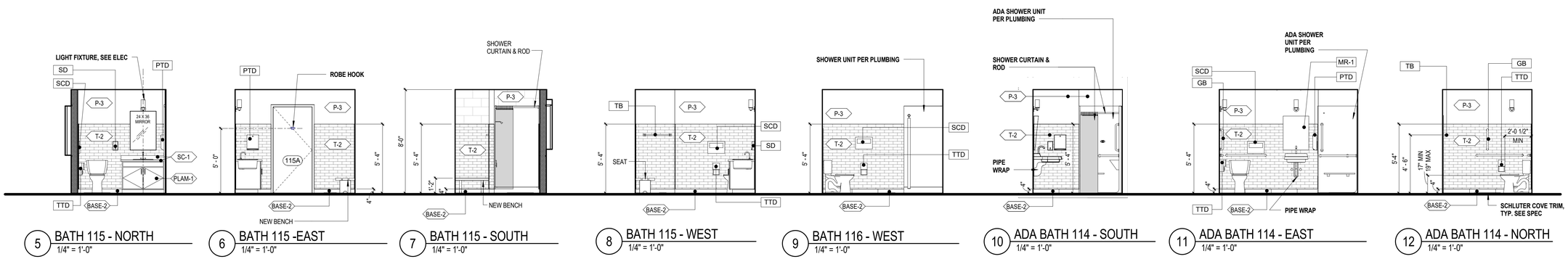
14 KITCHEN 102 - WEST ELEVATION
1/4" = 1'-0"

15 KITCHEN 102 - EAST ELEVATION
1/4" = 1'-0"

16 ISLAND - NORTH ELEVATION
1/4" = 1'-0"

17 ISLAND - EAST ELEVATION
1/4" = 1'-0"

18 LAUNDRY 109 - EAST
1/4" = 1'-0"



5 BATH 115 - NORTH
1/4" = 1'-0"

6 BATH 115 -EAST
1/4" = 1'-0"

7 BATH 115 - SOUTH
1/4" = 1'-0"

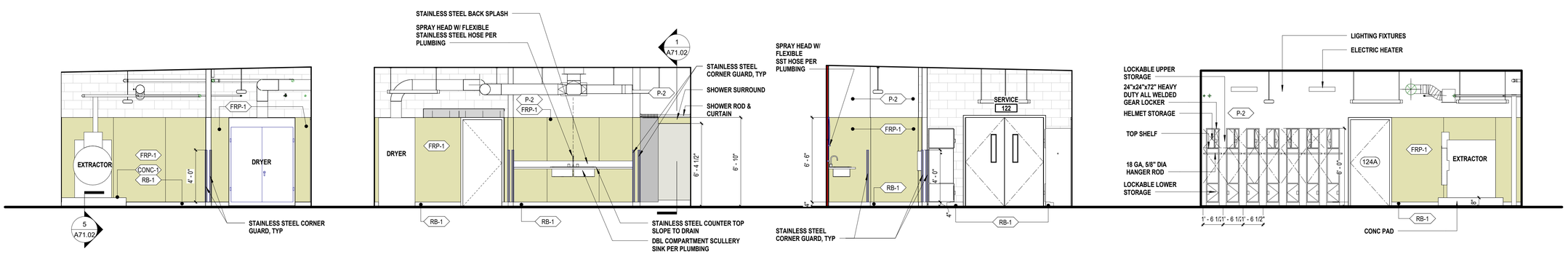
8 BATH 115 - WEST
1/4" = 1'-0"

9 BATH 116 - WEST
1/4" = 1'-0"

10 ADA BATH 114 - SOUTH
1/4" = 1'-0"

11 ADA BATH 114 - EAST
1/4" = 1'-0"

12 ADA BATH 114 - NORTH
1/4" = 1'-0"



1 DECON 121 / SERVICE 122 - NORTH
1/4" = 1'-0"

2 DECON 121 - EAST
1/4" = 1'-0"

3 DECON 121 / SERVICE 122 - SOUTH
1/4" = 1'-0"

4 SERVICE 122 - WEST
1/4" = 1'-0"

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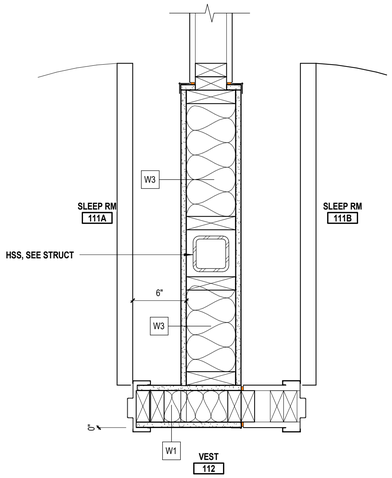
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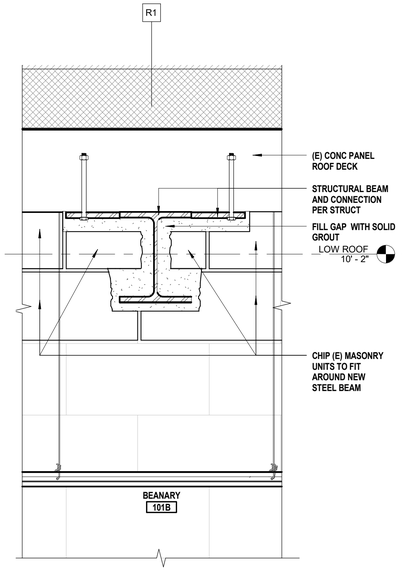
PROJECT # 2015137
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INTERIOR ELEVATIONS

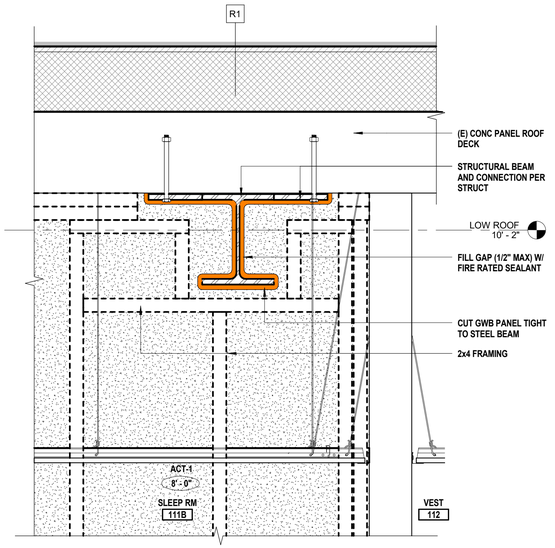
SHEET:
A70.01



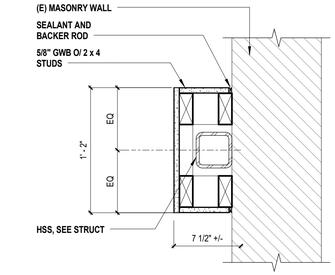
7 DETAIL - HSS EMBEDDED IN WALL
1 1/2" = 1'-0"



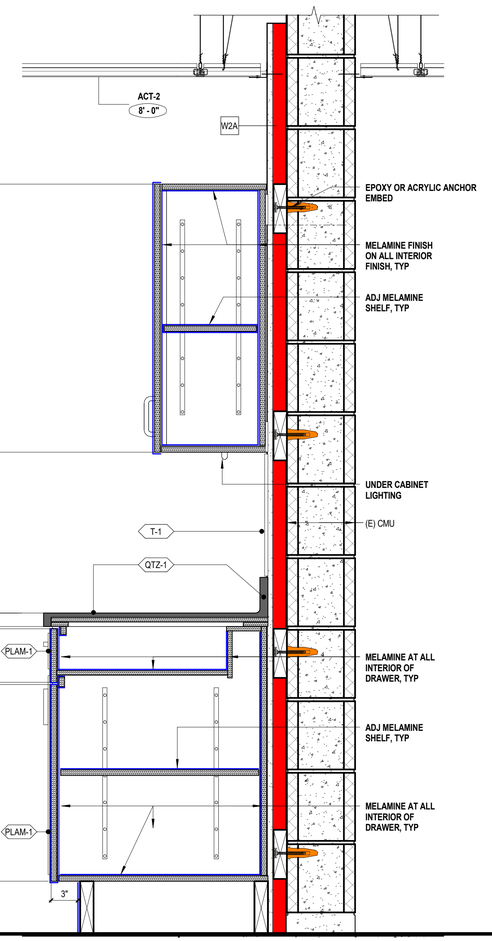
6 STEEL BEAM AT CMU WALL
1 1/2" = 1'-0"

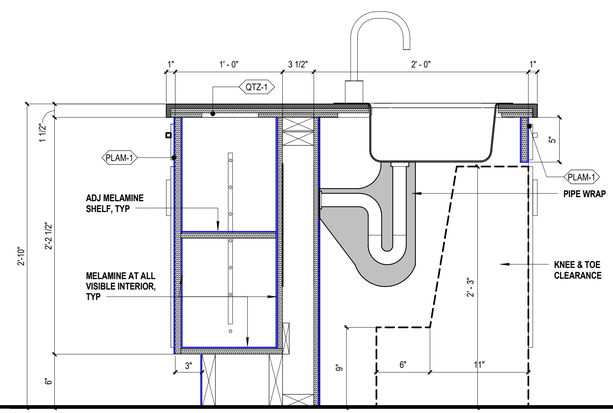


4 STEEL BEAM AT FIRE RATED WALL
1 1/2" = 1'-0"

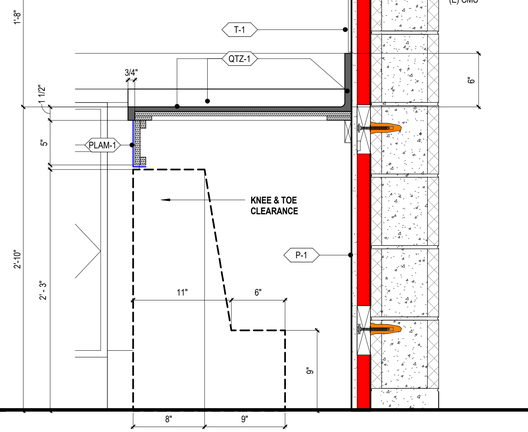


2 DETAIL - COLUMN WRAP
1 1/2" = 1'-0"





5 DETAIL - ISLAND SECTION
1 1/2" = 1'-0"



3 COUNTER - ADA WORK SPACE
1 1/2" = 1'-0"

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PROJECT # 2015137

BID SET

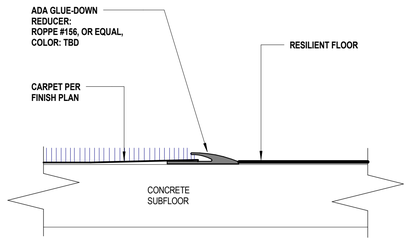
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

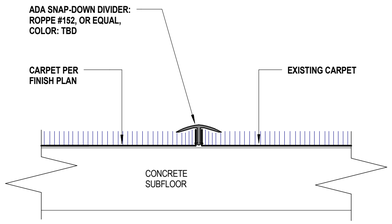
INTERIOR DETAILS

SHEET:

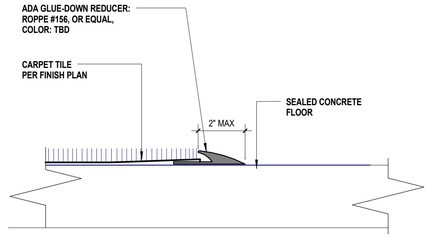
A71.01



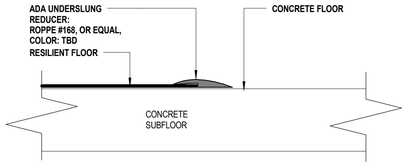
8 FLOOR TRANSITION - CARPET/RESILIENT TILE
6" = 1'-0"



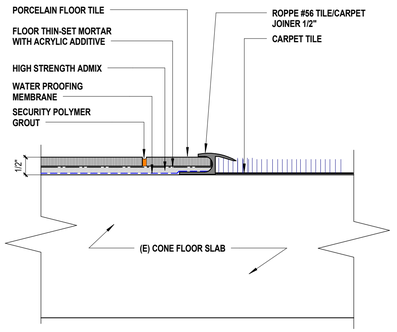
10 FLOOR TRANSITION - CARPET / CARPET
6" = 1'-0"



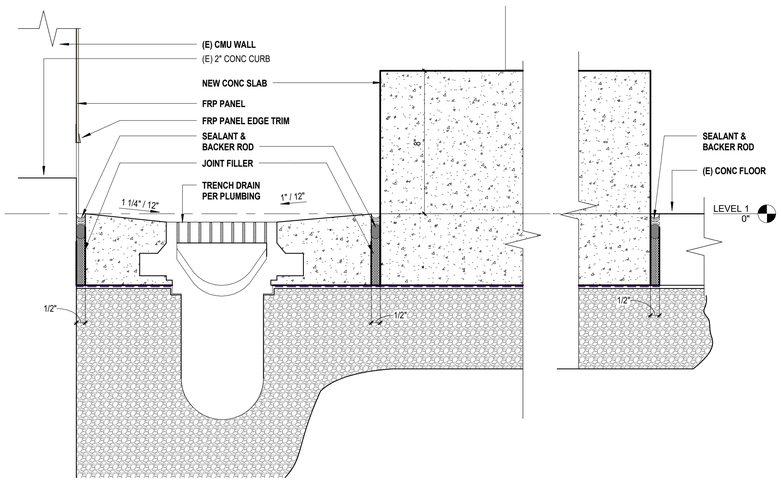
7 FLOOR TRANSITION - CARPET /CONCRETE
6" = 1'-0"



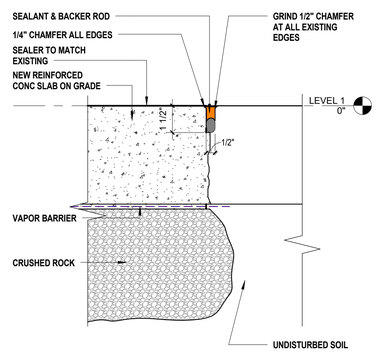
9 FLOOR TRANSITION - RESILIENT FL / CONC
6" = 1'-0"



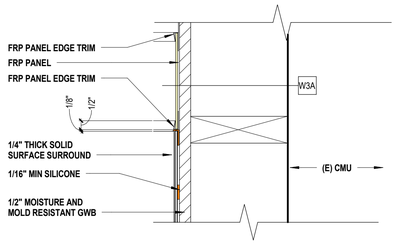
6 FLOOR TRANSITION - TILE / CARPET
6" = 1'-0"



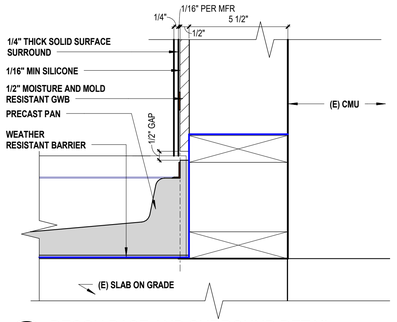
5 EXTRACTOR PAD AND DRAIN
3" = 1'-0"



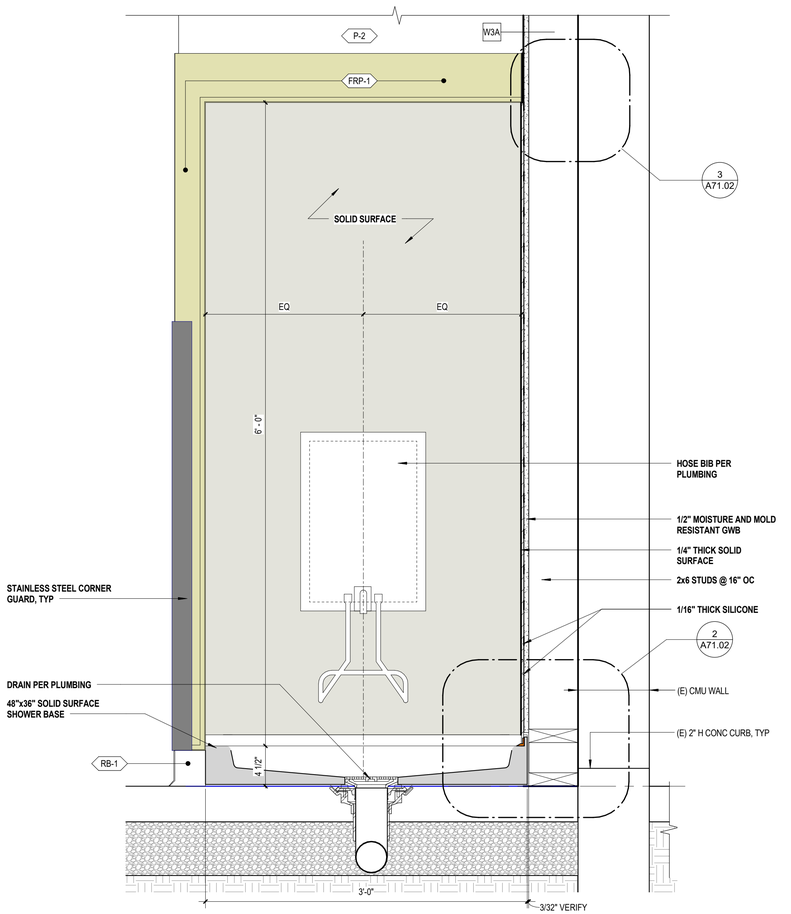
4 TYPICAL DETAIL - NEW SOG EDGE
3" = 1'-0"



3 DECON SURROUND AT FRP
3" = 1'-0"



2 DECON BASE AND SURROUND DETAIL
3" = 1'-0"



1 DECON BASE AND SURROUND
1 1/2" = 1'-0"

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REGISTERED ARCHITECT
DAVID A. FERGUS
STATE OF WASHINGTON

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET
AUBURN, WA 98001

PROJECT # 2015137

BID SET

ISSUED: MARCH 16, 2017

REVISION SCHEDULE

INTERIOR DETAILS

SHEET:

A71.02

ROOM FINISH SCHEDULE

ROOM INFORMATION			FINISH INFORMATION, TYPICAL UNLESS NOTED OTHERWISE							
			WALL							
ROOM #	ROOM NAME	Area	WALL EAST	WALL NORTH	WALL SOUTH	WALL WEST	BASE	FLOOR	CEILING	REMARKS
100	APPARATUS BAY	3900 SF	EXIST	P-1	EXIST	P-1	EXIST	EXIST/CONC-1	EXIST	
101A	BEANERY	289 SF	P-2	P-2	P-2	P-2	RB-1	CPT-2	ACT-1	
101B	BEANARY	268 SF	P-2	P-2	P-2	P-2	RB-1	RSF-1	ACT-1	
102	KITCHEN	231 SF	P-2	P-2	P-2	P-2	RB-1/RB-2	RSF-1	ACT-2	
103	STOR	47 SF	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
104	STOR	31 SF	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
105	ENTRY	234 SF	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
106	OFFICE	94 SF	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
107	MEN	49 SF	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
108	WOMEN	48 SF	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
109	(N) LAUNDRY	56 SF	P-2	P-2	P-2	P-2	RB-1	EXIST	EXIST	
110	PT ROOM	760 SF	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
111A	SLEEP RM	75 SF	P-2	P-2	P-2	P-2	RB-1	CPT-1	ACT-1	
111B	SLEEP RM	79 SF	P-2	P-2	P-2	P-2	RB-1	CPT-1	ACT-1	
111C	SLEEP RM	79 SF	P-2	P-2	P-2	P-2	RB-1	CPT-1	ACT-1	
112	VEST	476 SF	P-2	P-2	P-2	P-2	RB-1	WOM-1	ACT-1	
113	RR	53 SF	P-3	P-3	P-3	P-3	BASE-2	PFT-1	GWB-1/P-3	
114	ADA BATH	62 SF	T-2/P-3	T-2/P-3	T-2/P-3	T-2/P-3	BASE-2	PFT-1	GWB-1/P-3	
115	BATH	63 SF	T-2/P-3	T-2/P-3	T-2/P-3	T-2/P-3	BASE-2	PFT-1	GWB-1/P-3	
116	BATH	62 SF	T-2/P-3	T-2/P-3	T-2/P-3	T-2/P-3	BASE-2	PFT-1	GWB-1/P-3	
117	OFFICE	99 SF	P-2	P-2	P-2	P-2	RB-1	EXIST	ACT-1	
118	STOR	51 SF	P-2	P-2	P-2	P-2	RB-1	EXIST	ACT-1	
119A	SLEEP RM	64 SF	P-2	P-2	P-2	P-2	RB-1	CPT-1	ACT-1	
119B	SLEEP RM	67 SF	P-2	P-2	P-2	P-2	RB-1	CPT-1	ACT-1	
120	STORAGE	108 SF	P-2	P-2	P-2	P-2	RB-1	EXIST	EXIST	
121	DECON	175 SF	FRP-1/P-2	FRP-1/P-2	FRP-1/P-2	FRP-1/P-2	RB-1	EXIST/CONC-1	EXIST	
122	SERVICE	275 SF	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	
124	EQUIPMENT STORAGE	223 SF	P-2	P-2	P-2	P-2	RB-1	EXIST	EXIST	
125	HOSE TOWER	88 SF	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	

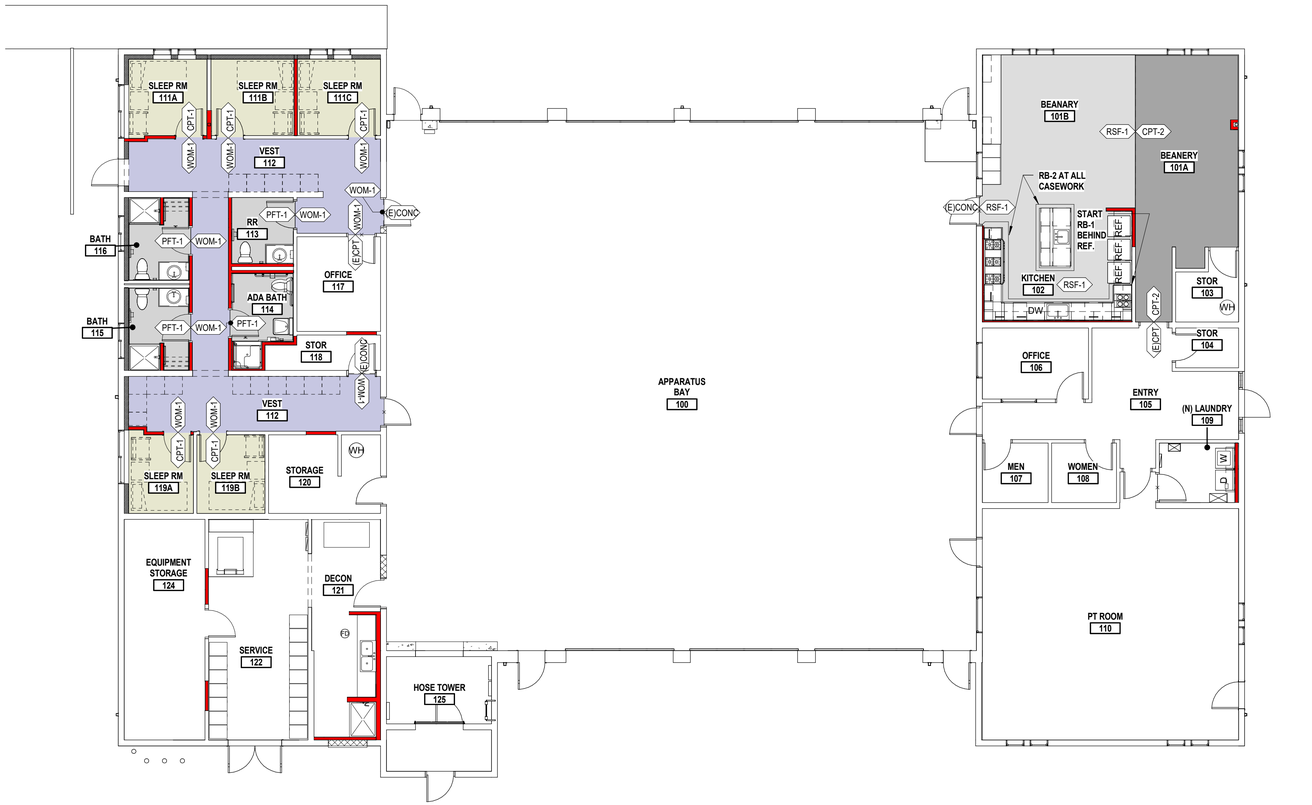
FINISH LEGEND

TAG	MATERIAL	NOTES
FLOOR		
(E)CONC	EXISTING CONCRETE	SEE FINISH PLAN FOR EXTENTS
(E)CPT	EXISTING CARPET	SEE FINISH PLAN FOR EXTENTS
CONC-1	CONCRETE SEALER	SEE SPEC SECTION 033000
CPT-1	BROADLOOM CARPET	SLEEP ROOMS
CPT-2	CARPET TILE	BEANERY 101A FLOORING
PFT-1	PORCELAIN FLOOR TILE	RESTROOM FLOORING
RSF-1	RESILIENT FLOORING, SHEET	KITCHEN FLOORING; HEAT WELD, TYP
WOM-1	CARPET TILE	CORRIDOR FLOORING; SEE FINISH PLAN FOR EXTENTS
WALL		
BASE-2	TILE BASE	RESTROOM TILE BASE WITH SCHLUTER COVE TRIM PIECE
FRP-1	FRP	DECON ROOM
P-1	PAINT	COLOR AND TEXTURE TO MATCH EXISTING WALLS
P-2	PAINT	SLEEP ROOM, KITCHEN/BEANERY, VESTIBULE AND DECON PAINT
P-3	PAINT	RESTROOM PAINT
RB-1	RUBBER BASE	BASE AT CARPET AND RESILIENT, SEE ELEVATIONS AND FINISH PLAN FOR LOCATIONS
RB-2	RUBBER BASE	KITCHEN CASEWORK BASE
T-1	CERAMIC WALL TILE	KITCHEN BACKSPLASH
T-2	CERAMIC WALL TILE	RESTROOM TILE WAINSCOT
CASEWORK		
PLAM-1	PLASTIC LAMINATE	ALL KITCHEN CASEWORK AND RESTROOM VANITY CASEWORK
QTZ-1	QUARTZ COUNTERTOP, TYP.	KITCHEN CASEWORK AND ISLAND COUNTERTOPS AND 4" BACK SPLASH
SC-1	SOLID CORE COUNTER TOP	RESTROOM COUNTER TOP AND 4" BACK SPLASH
CEILING		
ACT-1	ACOUSTIC CEILING TILE	NEW CEILING
ACT-2	ACOUSTIC CEILING TILE	NEW CEILING - KITCHEN

NOTE: SEE SPECIFICATION FOR MANUFACTURER AND PRODUCT INFORMATION

GENERAL NOTES - FINISH PLAN

1. **CONC-1 SEALER AT NEW CONCRETE FLOOR ONLY; SEE SHEET A21.11 FOR LOCATIONS**
2. **PAINT NEW SHOTCRETE WALLS AND NEW CMU WALLS TO MATCH EXISTING IN APP BAY**
3. **ALL FLOOR FINISH TRANSITIONS TO BE CENTERED UNDER DOOR, UNO**



N

1 LEVEL 1 - FINISH PLAN

1/8" = 1'-0"

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ISSUED: MARCH 16, 2017

REVISION SCHEDULE

FINISH FLOOR PLAN, ROOM FINISH SCHEDULE AND FINISH LEGEND

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
BLKG	BLOCKING
BM	BEAM
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	FAIR 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

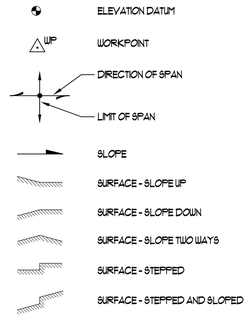
IF	INSIDE FACE
IN, "	INCH
INCL	INCLUDE
INFO	INFORMATION
INT	INTERIOR
IJ	ISOLATION JOINT
JST	JOIST
JT	JOINT
K	KIP (1,000 LB)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
L	LENGTH, ANGLE
LB, #	POUND
LEV	LEVEL
LF	LINEAL FOOT
LL	LIVE LOAD
LLBB	LONG LEGS BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG 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
PT	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

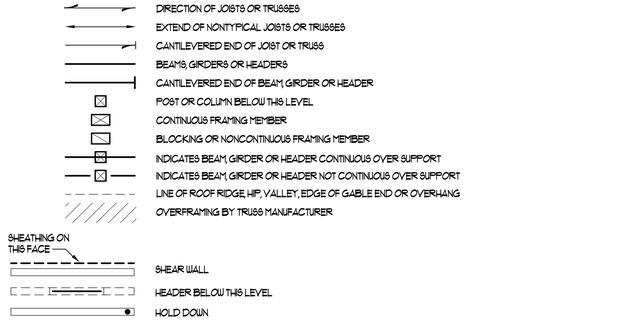
SPEC	SPECIFICATION
SQ	SQUARE
SST	STAINLESS STEEL
SSH	SHORT SLOTTED HOLE
STAG	STAGGER, STAGGERED
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STRUCT	STRUCTURAL
SPRT	SUPPORT
SW	SHEAR WALL
SWS	SHEAR WALL SCHEDULE
SYMM	SYMMETRICAL, SYMMETRY
T/	TOP OF
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TC	TOP 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
WF	WIDE FLANGE
WHS	WELDED HEADED STUD
WJ	WOOD I-JOIST
W/O	WITHOUT
WP	WORK POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

SYMBOLS

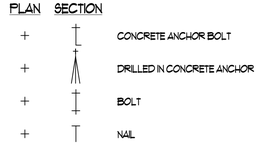
GENERAL SYMBOLS



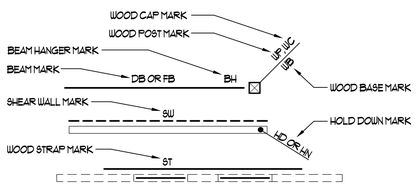
WOOD SYMBOLS



CONNECTORS



WOOD FRAMING ANNOTATIONS



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STATE OF WASHINGTON
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REGISTERED PROFESSIONAL ENGINEER
3/16/17

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET
FEDERAL WAY, WA

PROJECT # 262016.018

BID

ISSUED: MARCH 16, 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 (IEBC), AS ALLOWED BY SECTION 3401 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: MASONRY SHEAR WALLS
WOOD DECKING ROOF DIAPHRAGM (APP BAY)
CONCRETE PANEL ROOF DIAPHRAGM (LIVING QUARTERS)

ANALYSIS PROCEDURE: LINEAR STATIC PROCEDURE (LSP)

PSEUDO SEISMIC BASE SHEAR: (V_{BASE})
(ASCE 41-13 SECTION 7.4.1.3.1)
V_{BASE} (N-S) = 691 KIPS
V_{BASE} (E-W) = 788 KIPS
V_{BASE} (N-S) = 1,052 KIPS
V_{BASE} (E-W) = 1200 KIPS

SEISMIC RESPONSE COEFFICIENT: (ASCE 41 SECTION 7.4.1.3.1)
CI C2 CM S_a-IE = 0.952
CI C2 CM S_a-2E = 1.449

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

S_S-IE = 0.482 (ASCE 41-13 SECTION 2.4.1.4)
S_1-IE = 0.179 (ASCE 41-13 SECTION 2.4.1.4)
SX_S-IE = 0.682 (ASCE 41-13 SECTION 2.4.1.6)
SX_1-IE = 0.368 (ASCE 41-13 SECTION 2.4.1.6)

S_S-2E = 0.915 (ASCE 41-13 SECTION 2.4.1.3)
S_1-2E = 0.355 (ASCE 41-13 SECTION 2.4.1.3)
SX_S-2E = 1.038 (ASCE 41-13 SECTION 2.4.1.6)
SX_1-2E = 0.600 (ASCE 41-13 SECTION 2.4.1.6)

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

GEOTECHNICAL

ALLOWABLE SOIL PRESSURE, LATERAL EARTH PRESURE, AND SOIL PROFILE TYPE ARE ASSUMED AND THEREFORE MUST BE VERFIED 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, UNDISTRUBED 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 WASHINGTON STATE REGISTERED STRUCTURAL ENGINEER. 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 40 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.

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 (SHOTCRETE)	6,000 PSI	28 DAYS		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 TRUCK'S 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.

CAST-IN-PLACE MAY BE USED IN LIEU OF SHOTCRETE 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 "CONCRESIVE 1080 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).

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, F_y=56 KSI (W1.2) & 65K SI (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" (#6 AND SMALLER) 1 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)

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-1970) 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.

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STATE OF WASHINGTON · CHARLES MICHAEL FERGUS · 43107 · REGISTERED PROFESSIONAL ENGINEER
3/16/17

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET
FEDERAL WAY, WA

PROJECT # 262016.018

BID

ISSUED: MARCH 16, 2017

REVISION SCHEDULE

GENERAL NOTES

SHEET:

S00.02

GENERAL NOTES AND SPECIAL INSPECTION SCHEDULE

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 1/8" 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).

ANCHOR RODS SHALL BE INSTALLED TO AISC SNUG-TIGHT CRITERIA WITH HEX NUTS AND LOCK WASHERS OR JAM NUTS AT THE TOP, AT THE BOTTOM, PROVIDE A STANDARD SIZE HEAD, TACK-WELDED NUT OR DOUBLE NUT. NO HEATING OR BENDING OF ANCHOR RODS IS PERMITTED. ENLARGEMENT OF ANCHOR ROD HOLES BY BURNING IS NOT PERMITTED. BASE PLATE HOLES FOR ANCHOR RODS SHALL BE AS SHOWN BELOW:

BR DIAMETER	MAXIMUM HOLE DIAMETER	MINIMUM WASHER DIAMETER	MINIMUM WASHER THICKNESS
5/8"	11/16"	1 1/2"	3/16"
3/4"	15/16"	2"	1/4"
7/8"	1 1/16"	2 1/2"	5/16"
1"	1 1/16"	3"	3/8"

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 BOLTS (ICC-ESR 1385).

ADHESIVE ANCHORS SHALL BE SIMPSON SET (ESR-1772) OR HILTI HY-150 (ESR-2618).

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'

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. DRIVE ALL NAILS 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	HEM-FIR	STUD
SILL PLATES	2x 3x	HEM-FIR	UTILITY

STRUCTURAL COMPOSITE LUMBER: DESIGN SHOWN ON DRAWINGS IS BASED ON LUMBER MANUFACTURED BY TRUS-JOIST IN ACCORDANCE WITH ICC-ES ESR-1387. SUBSTITUTES SHALL BE SUBMITTED WITH A CURRENT ICC-ES EVALUATION REPORT AND AN ITEMIZED SUBSTITUTION LIST FOR APPROVAL.

CONNECTORS: DESIGN SHOWN ON DRAWINGS IS BASED ON CONNECTORS MANUFACTURED BY SIMPSON STRONG-TIE IN ACCORDANCE WITH CATALOG 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.

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
6d	0.113"	2"
8d	0.131"	2 1/2"
10d	0.148"	3"
12d	0.148"	3 1/4"
16d	0.162"	3 1/2"
20d	0.192"	4"

BOLTS AND LAG SCREWS SHALL CONFORM TO ASTM A307.

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 SUCH WOOD MEMBERS SHALL BE HOT DIPPED ZINC COATED GALVANIZED PER ASTM A153.

CARBON FIBER REINFORCED POLYMER (CFRP) AND EPOXY INJECTION

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

ACI 440.2R-08	'GUIDE FOR THE DESIGN AND CONSTRUCTION OF EXTERNALLY BONDED FRP SYSTEMS FOR STRENGTHENING CONCRETE STRUCTURES'
ACI 503R-93	'USE OF EPOXY COMPOUNDS WITH CONCRETE'
ACI 546R-04	'CONCRETE REPAIR GUIDE'
ICRI #310.2-1997	'SELECTING AND SPECIFYING CONCRETE SURFACE PREPARATION FOR SEALERS, COATINGS, AND POLYMER OVERLAYS'
ICRI #320.2R-2009	'GUIDE FOR SELECTING AND SPECIFYING MATERIALS FOR REPAIR OF CONCRETE SURFACES'

CFRP SYSTEMS SHALL CONFORM TO ANY ADDITIONAL STANDARDS RECOMMENDED BY THE MANUFACTURER OR THE SUPPLIER.

MATERIALS AND TESTING:

EPOXY-RESIN BONDING SYSTEMS	ASTM C881 / C881M
CFRP TEST METHODS	ASTM D3039
FULL-OFF TEST	ASTM D4541

CFRP MATERIALS: THE CFRP COMPOSITE LAMINATE SYSTEM SHALL BE ONE OF THE FOLLOWING PRODUCTS:

- 'FYFECO TYFO SCH - 41
- 'EDGE STRUCTURAL COMPOSITES FIBERBOND VELACARB 600U

THE CFRP COMPOSITE LAMINATE SYSTEM SHALL HAVE AN ULTIMATE TENSILE STRENGTH OF NOT LESS THAN 120,000 PSI, AND A TENSILE MODULUS NOT LESS THAN 11×10^6 PSI, ELONGATION AT TENSILE FAILURE SHALL NOT BE LESS THAN 0.85%. EPOXY RESIN SHALL BE INTENDED BY THE MANUFACTURER FOR USE AS PART OF A CFRP SYSTEM AND SHALL BE PROVIDED AS PART OF THE CFRP SYSTEM. AN APPROVED ICC-ES REPORT OR ICC-ES LEGACY REPORT SHALL BE PROVIDED TO SUBSTANTIATE THE PERFORMANCE OF THE CFRP SYSTEM. PREPARATION AND INSTALLATION OF THE SYSTEM SHALL BE AS RECOMMENDED BY THE MANUFACTURER AND ANY ADDITIONAL REQUIREMENTS INCLUDED IN THE ICC-ES REPORT OR ICC-ES LEGACY REPORT.

RAW SAMPLES AND MSDS OF ALL MATERIALS USED IN THE APPLICATION OF THE CFRP COMPOSITE LAMINATE SYSTEM SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION. SAMPLES SHALL BE SUBMIT FOR ANY EPOXY, BONDING AGENTS SEALER, ARCHITECTURAL FINISH, OR ANY OTHER CHEMICAL USED DURING THE COURSE OF THE PROJECT.

DESIGN STRENGTH: THE CFRP SYSTEM SHALL PROVIDE A TOTAL STRENGTH AND CONFINEMENT AS CALLED OUT IN THE BEAM/COLUMN ELEVATIONS. WHERE REQUIRED NOMINAL STRENGTHS ARE CALLED OUT IN THE DRAWINGS, THEY REFLECT THE REQUIRED CFRP STRENGTH ONLY. WHERE A MINIMUM NUMBER OF CFRP LAYERS IS ALSO INDICATED, BOTH CRITERIA SHALL BE APPLIED TO THE CFRP DESIGN. CONTRIBUTIONS FROM EXISTING CONCRETE OR REBAR ARE NOT INCLUDED. NOMINAL VALUES ASSUME THAT A SHEAR STRENGTH REDUCTION FACTOR, ϕ, OF 0.75 (PER ACI 318-08) AND AN ADDITIONAL REDUCTION FACTOR, Ψ_f, OF 0.95 AND 0.85 FOR COMPLETELY-WRAPPED AND PARTIALLY-WRAPPED MEMBERS, RESPECTIVELY. (PER ACI 440.2R-08, TABLE 11.1) WILL BE APPLIED. IF THE PROPOSED CFRP SYSTEM REQUIRES A DIFFERENT ϕ OR Ψ_f FACTOR, NOMINAL VALUES SHALL BE SCALED UP AS REQUIRED TO COMPENSATE FOR THE ALTERNATE REDUCTION VALUES. LOWER NOMINAL VALUES SHALL NOT BE USED. CALCULATIONS PREPARED AND STAMPED BY AN WASHINGTON STATE LICENSED PROFESSIONAL ENGINEER QUALIFIED TO DESIGN CFRP SYSTEMS SHALL BE PROVIDED TO SUBSTANTIATE THESE VALUES. DESIGNS SHALL BE BASED ON DESIGN VALUES ESTABLISHED IN THE ICC-ES REPORT OR ICC-ES LEGACY REPORT.

EPOXY CONCRETE: EPOXY CONCRETE SHALL BE USED TO FILL VOIDS AND SHALL BE APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. PRIME DRY CAVITY SURFACES WITH EPOXY RESIN USING A STIFF BRISTLE BRUSH. MAKE COATING APPROXIMATELY 20 MILS THICK. PLACE EPOXY CONCRETE WHILE PRIMER IS STILL TACKY AND IN LAYERS NOT EXCEEDING ONE INCH THICK. USE VIBRATORY FLOATS, PLATES, OR HAND TAMPERS TO CONSOLIDATE THE CONCRETE. LEVEL EACH LAYER AND SCREED THE FINAL SURFACE TO MATCH THE ADJOINING SURFACES. REMOVE EXCESS EPOXY CONCRETE ON ADJACENT SURFACES BEFORE THE CONCRETE HARDENS. DO NOT FEATHER EPOXY CONCRETE OUT ONTO ADJACENT SURFACES. EPOXY CONCRETE COMPRESSIVE STRENGTH SHALL BE 6,000 PSI MINIMUM.

CFRP CURING: CURE EPOXY CONCRETE MATERIALS AND CFRP MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.

CFRP MATERIAL TESTING: A SAMPLE BATCH SHALL CONSIST OF TWO 12"x12" SAMPLES OF CURED CFRP COMPOSITE MATERIAL. THE LOT NUMBER OF THE FABRIC AND RESIN AND THE LOCATION OF THE INSTALLATION SHALL BE RECORDED. MAKE A MINIMUM OF TWO SAMPLE BATCHES PER DAY. THE TEST LABORATORY SHALL PREPARE THE SAMPLE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED PER ASTM D3039. FURNISH ONE 12"x12" SAMPLE OF CURED COMPOSITE TO THE ENGINEER OF RECORD.

THE 12"x12" SAMPLE PANELS SHALL HAVE FIVE COUPONS, 3/4"x9", REMOVED AND TESTED FOR MATERIAL PROPERTIES IN THE LONGITUDINAL (PRIMARY FIBER) DIRECTION PER ASTM D3039. TEST LABORATORY SHALL CONFIRM WITH THE MANUFACTURER THAT THEY ARE TESTING IN THE SPECIFIED DIRECTION. TEST PROCEDURES SHALL CONFORM TO ASTM D3039 AND THE MANUFACTURER'S PUBLISHED TESTING METHODS. TESTING RESULTS SHALL BE MADE AVAILABLE WITHIN THREE WEEKS OF SAMPLE SUBMISSION. TESTING SHALL PROVIDE AVERAGE VALUES OF ULTIMATE TENSILE STRENGTH, TENSILE MODULUS, AND PERCENT ELONGATION AT ULTIMATE TENSILE STRENGTH. 25 PERCENT OF SAMPLE BATCHES SHALL BE TESTED. IF ONE 12"x12" SPECIMEN FAILS (ON AVERAGE), THE REMAINING SPECIMEN FROM THE SAME BATCH SHALL BE TESTED. IF THE SECOND SPECIMEN ALSO FAILS OR IF THE FIRST SPECIMEN FAILED BY 15 PERCENT OR MORE, THE MANUFACTURER SHALL RECOMMEND AND THE CONTRACTOR SHALL EXECUTE REMEDIAL MEASURES TO ENSURE THE INTEGRITY OF THE SYSTEM. ADDITIONALLY, 50 PERCENT OF REMAINING SAMPLES SHALL BE TESTED IF ANY ONE FAILING SPECIMEN IS FOUND.

CFRP PULL-OFF TESTING: A MINIMUM OF THREE PULL-OFF TEST PER 500 FT OF CFRP INSTALLED OR ONE TEST MINIMUM SHALL BE PERFORMED. PERFORM TEST PER ASTM D4541 AND ACCORDING TO THE REQUIREMENTS OF THE MANUFACTURER AND ANY ADDITIONAL REQUIREMENTS IN THE ICC-ES OR ICC-ES LEGACY REPORT. TESTING EQUIPMENT AND LOCATIONS SHALL BE SELECTED TO AVOID DAMAGE TO THE POST-TENSIONING ANCHORAGE GROUT POCKETS THAT OCCUR AT SOME COLUMN FACE LOCATIONS. CONDITIONS OF ACCEPTANCE SHALL BE:

A. THE FAILURE MODE IS COHESIVE FAILURE WITHIN THE CONCRETE.
B. THE TENSILE BOND STRENGTH SHALL BE IN EXCESS OF 200 PSI.

THE CONTRACTOR SHALL REPAIR THE TEST AREA IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATION.

CFRP INSPECTION: CHECK EACH AREA WHERE CFRP HAS BEEN INSTALLED FOR CRACKS, SPALLS, POPOUTS, AND LOSS OF BOND BETWEEN THE EPOXY CONCRETE OR CFRP SYSTEM COMPONENTS AND THE SURROUNDING CONCRETE. CHECK EACH EPOXY CONCRETE REPAIRED AREA FOR VOIDS BY TAPPING WITH A HAMMER OR STEEL ROD AND LISTENING FOR A DULL OR HOLLOW SOUNDS. CHECK EACH CFRP REINFORCED AREA IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ANY ADDITIONAL REQUIREMENTS IN THE ICC-ES OR ICC-ES LEGACY REPORT. IMMEDIATELY REPAIR DEFECTS.

EPOXY INJECTION: CRACKS SHALL BE EPOXY INJECTED WITH ASTM C881, GRADE I LOW VISCOSITY EPOXY RESIN INTENDED BY THE MANUFACTURER FOR CONCRETE REPAIR. INJECTION PROCEDURES SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND ANY ADDITIONAL REQUIREMENTS IN THE ICC-ES OR ICC-ES LEGACY REPORT. THE CONCRETE IN THE VICINITY OF THE REPAIR SHALL BE OBSERVED DURING THE REPAIR PROCEDURE TO ENSURE THAT THE INJECTION PRESSURE DOES NOT DAMAGE THE EXISTING CONCRETE. STOP IMMEDIATELY IF DAMAGE IS OBSERVED.

COLUMN CORNER INFILLS: SHALL CONSIST OF NORMAL-WEIGHT CONCRETE PROPORTIONED FOR A 28-DAY COMPRESSIVE STRENGTH OF AT LEAST 4,000 PSI. CONTRACTOR SHALL COORDINATE WITH CONCRETE SUPPLIER TO ENSURE CONCRETE SLUMP AND SETTING TIMES ARE SUITABLE FOR THE APPLICATION. AT THE CONTRACTOR'S OPTION, ONE OF THE FOLLOWING PRODUCTS MAY BE USED IN LIEU OF CONCRETE PROVIDING THE STRENGTH AND DURABILITY CHARACTERISTICS MEET OR EXCEED THE REQUIREMENTS NOTED FOR CONCRETE. SEE SECTION 03300 OF THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

POLYMER MODIFIED CONCRETE
DRY-PACK MORTAR

SPECIAL INSPECTION SCHEDULE

ITEM	CI	PI	REFERENCE STANDARD	IBC 2012 REFERENCE	REMARK
CONCRETE:					
REINFORCEMENT		X	ACI 318 3.5, 7.1-7.7	1910.4	
WELDING OF REINFORCING BARS			AWS D1.4, ACI 318 3.5.2		
MECHANICAL SPLICES OF REINFORCEMENT				1705.1.1	PER EVALUATION REPORT
ANCHOR RODS, EMBEDDED BOLTS AND INSERTS	X		ACI 318 8.1.3, 21.2.8	1908.1, 1909.1	PRIOR TO & DURING CONCRETE PLACEMENT
ANCHORS		X	ACI 318 3.8.6, 8.1.3, 21.2.8		IN HARDENED CONCRETE
USE OF REQUIRED DESIGN MIX		X	ACI 318: CH.4, 5.2-5.4	1904.2, 1910.2, 1910.3	
CONCRETE SLUMP, AIR CONTENT AND TEMPERATURE	X		ASTM C172, C31, ACI 318 5.6, 5.8	1910.10	WHILE MAKING SPECIMENS FOR STRENGTH TESTS
CONCRETE & SHOTCRETE PLACEMENT	X		ACI 318 5.9, 5.10	1910.6-1910.8	
CONCRETE CURING		X	ACI 318 5.11-5.13	1910.9	
IN-SITU CONCRETE STRENGTH FOR FORM REMOVAL OR POST-TENSIONING		X	ACI 318 6.2		
POST-INSTALLED ANCHORS		X		1909.1	PER EVALUATION REPORT
CFRP MATERIALS		X	ACI 440		SEE MANUFACTURER'S REQUIREMENTS
CFRP PLACEMENT	X		ACI 440		SEE MANUFACTURER'S REQUIREMENTS
ANCHORS AND INSERTS	X				DURING PLACEMENT
USE OF REQUIRED EPOXY CONCRETE		X			SEE MANUFACTURER'S REQUIREMENTS
EPOXY CONCRETE PLACEMENT		X			SEE MANUFACTURER'S REQUIREMENTS
CFRP CURING		X	ACI 440		SEE MANUFACTURER'S REQUIREMENTS
STEEL:					
HIGH-STRENGTH BOLTS, NUTS, AND WASHERS		X	ASTM AS NOTED, AISC 360 A3.3		ID MARKS, MFR CERTIFICATION OF COMPLIANCE
HIGH-STRENGTH BOLTING:					
BEARING TYPE CONNECTIONS		X	AISC 360 M2.5	1705.2	
STRUCTURAL STEEL MATERIALS			ASTM A6, A568, AS NOTED		ID MARKS, MFR CERT MILL TEST REPORTS
WELD FILLER MATERIALS			AISC 360 A3.5		ID MARKS, MFR CERTIFICATION OF COMPLIANCE
WELDING:					
CJP & PJP GROOVE WELDS	X		AWS D1.1	1705.2.2.1	
MULTI-PASS FILLET WELDS	X		AWS D1.1	1705.2.2.1	
SINGLE PASS FILLET WELDS > 5/16"	X			1705.2.2.1	
SINGLE PASS FILLET WELDS ≤ 5/16"		X		1705.2.2.1	
WOOD:					
FASTENERS, BOLTS, STRAPS, HOLDOWNS, ETC		X		1705.11.2	

INSPECTION SCHEDULE NOTES:

1. ITEMS MARKED WITH AN "X" INDICATE WHETHER THE INSPECTION IS CONTINUOUS OR PERIODIC AS DEFINED IN IBC SECTION 1702.1. FOR ITEMS NOT MARKED WITH AN "X", COMPLY WITH IBC CHAPTER 17.
2. CI = CONTINUOUS INSPECTION.
3. PI = PERIODIC INSPECTION.
4. TESTING AND INSPECTION REPORTS SHALL BE SUBMITTED TO THE ARCHITECT, ENGINEER, BUILDING OFFICIAL, AND CONTRACTOR.
5. SEE IBC TABLES 1704.5.1 AND 1704.5.3 FOR LEVEL 1 AND LEVEL 2 SPECIAL INSPECTIONS, RESPECTIVELY.

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STATE OF WASHINGTON 43107 REGISTERED PROFESSIONAL ENGINEER
3/16/17

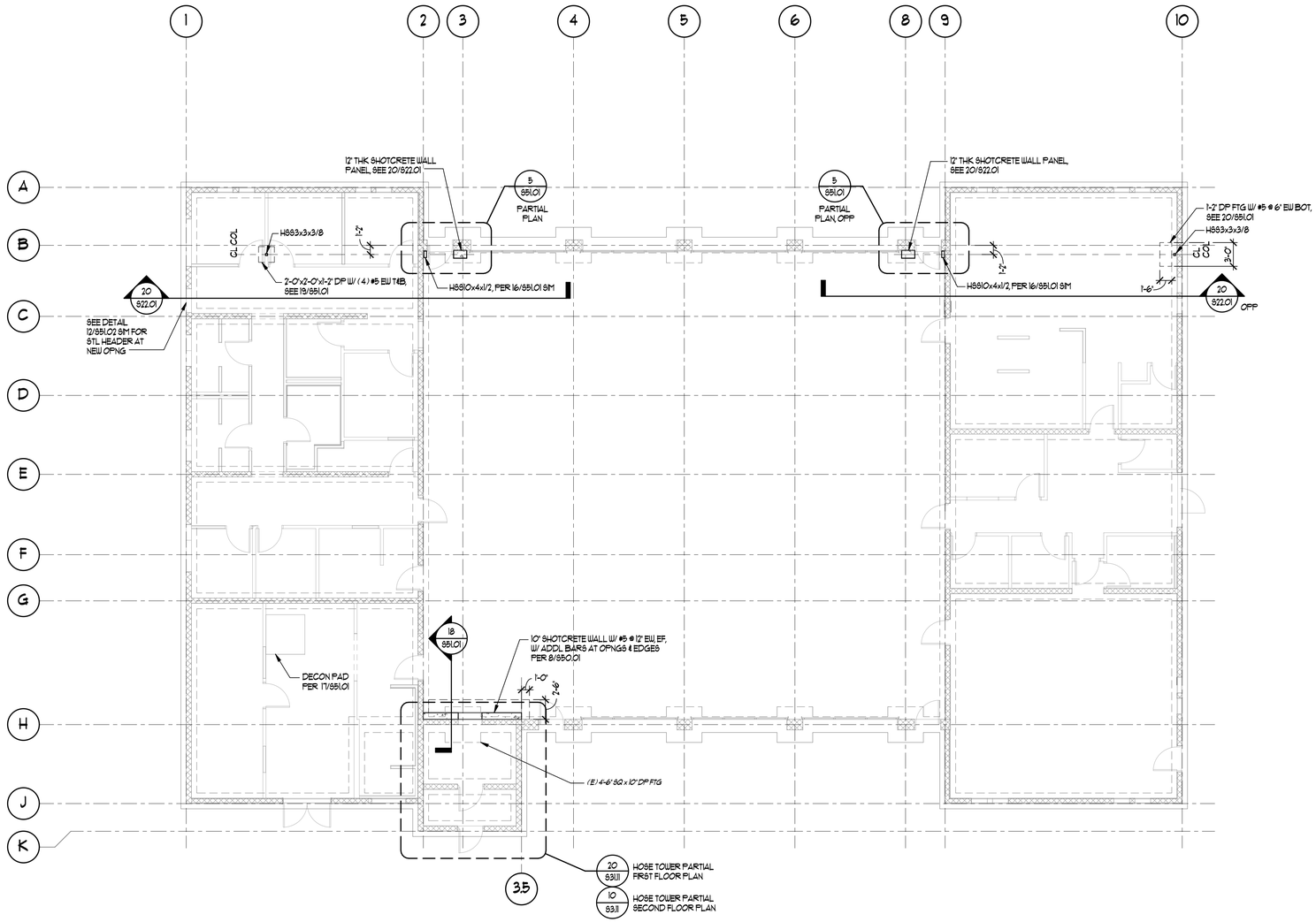
SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET
FEDERAL WAY, WA

PROJECT # 262016.018
BID
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

GENERAL NOTES AND SPECIAL INSPECTION SCHEDULE

SHEET:
S00.03



FOUNDATION AND FLOOR PLAN

1/8" = 1'-0"

NOTES:

1. COORDINATE MASONRY WALL OPENINGS FOR MECHANICAL WITH MECHANICAL DRAWINGS. PROVIDE OPENING HEADER PER 12/S5.02.
2. PATCH CONCRETE SLAB AT FOOTINGS AND AS REQUIRED FOR PLUMBING PER 1/S5.01. COORDINATE LOCATIONS WITH ARCHITECTURAL AND PLUMBING.
3. DOWEL ALL SHOTCRETE WALLS TO EXISTING WALLS PER 8/S5.01.

LEGEND

(SEE S00.01 FOR ABBREVIATIONS)

EXISTING MASONRY WALL THIS LEVEL

SHOTCRETE WALLS

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 FIELD MEASURE AND VERIFY ALL CONDITIONS PRIOR TO COMMENCING ANY WORK. NOTIFY ENGINEER WHERE CONDITIONS VARY FROM THOSE SHOWN.

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

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FEDERAL WAY, WA

PROJECT # 262016.018

BID

ISSUED: MARCH 16, 2017

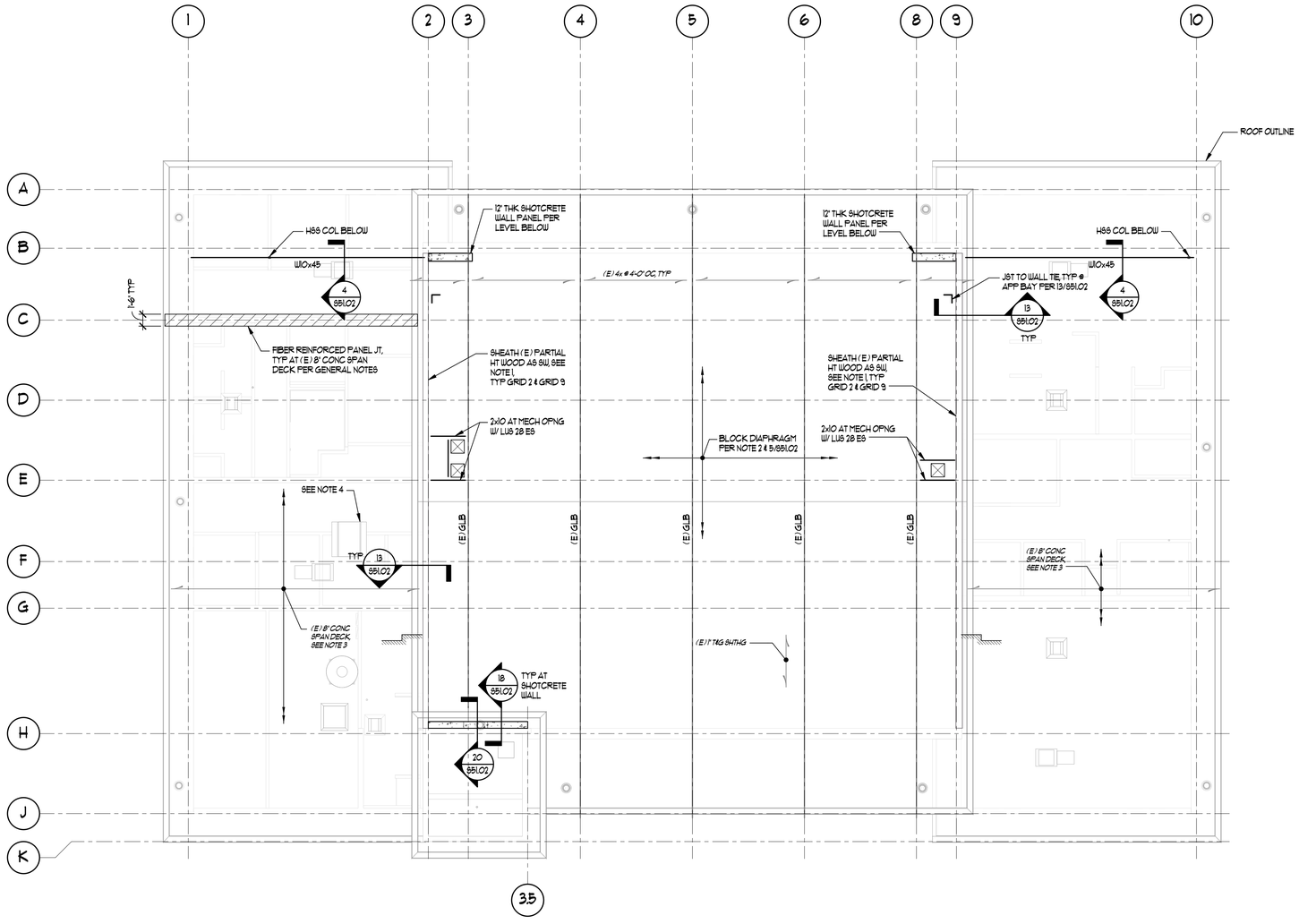
REVISION SCHEDULE

1	PERMIT REVISIONS	1/20/17

FOUNDATION AND FLOOR PLAN

SHEET:

S21.11



ROOF FRAMING PLAN

1/8" = 1'-0"

LEGEND

(SEE S00.01 FOR ABBREVIATIONS)

- SPAN DIRECTION OF MTL DECK / FRAMING MEMBERS
- ROOF STEP
- SHEAR WALL OR SHOTCRETE WALL BELOW THIS LEVEL
- EXISTING WALL BELOW

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 FIELD MEASURE AND VERIFY ALL CONDITIONS PRIOR TO COMMENCING ANY WORK. NOTIFY ENGINEER WHERE CONDITIONS VARY FROM THOSE SHOWN.

NOTES:

1. REMOVE INTERIOR (E) GYPSUM BOARD AT EXISTING PARTIAL HEIGHT WOOD STUD WALL. SHEATH & NAIL (E) STUD WALL AS SHEAR WALL W/ 3/4" PLYWOOD WITH 10d NAILS @ 6" OC. INSTALL 2x BLOCKING BETWEEN STUDS AT UNFRAMED PANEL EDGES.
2. BLOCK EXISTING APPARATUS BAY ROOF DIAPHRAGM (BETWEEN GRIDS 2 AND 9 FROM GRIDS A TO K) W/ 3x FLAT BLOCKING AT ALL UNFRAMED PANEL EDGES. NAIL (E) SHEATHING PANEL EDGES AT SUPPORTS & BLOCKING W/ 10d @ 4" OC.
3. EXISTING CONCRETE SPAN DECK IS 8 - INCH THICK HOLLOW CORE PANELS THAT ARE TYPICALLY 8 - FEET WIDE AND SPAN THE WIDTH OF THE ROOF.
4. SEE MECHANICAL DRAWINGS FOR LOCATION AND REQUIREMENT FOR ANCHORAGE DESIGN. SEE NOTE 3 FOR COMPOSITION OF ROOF DECK. ANCHORAGE SHALL BE DESIGNED AS TO NOT DAMAGE EXISTING REINFORCING AND TO NOT REDUCE TO CAPACITY OF THE ROOF DECK.

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3/16/17

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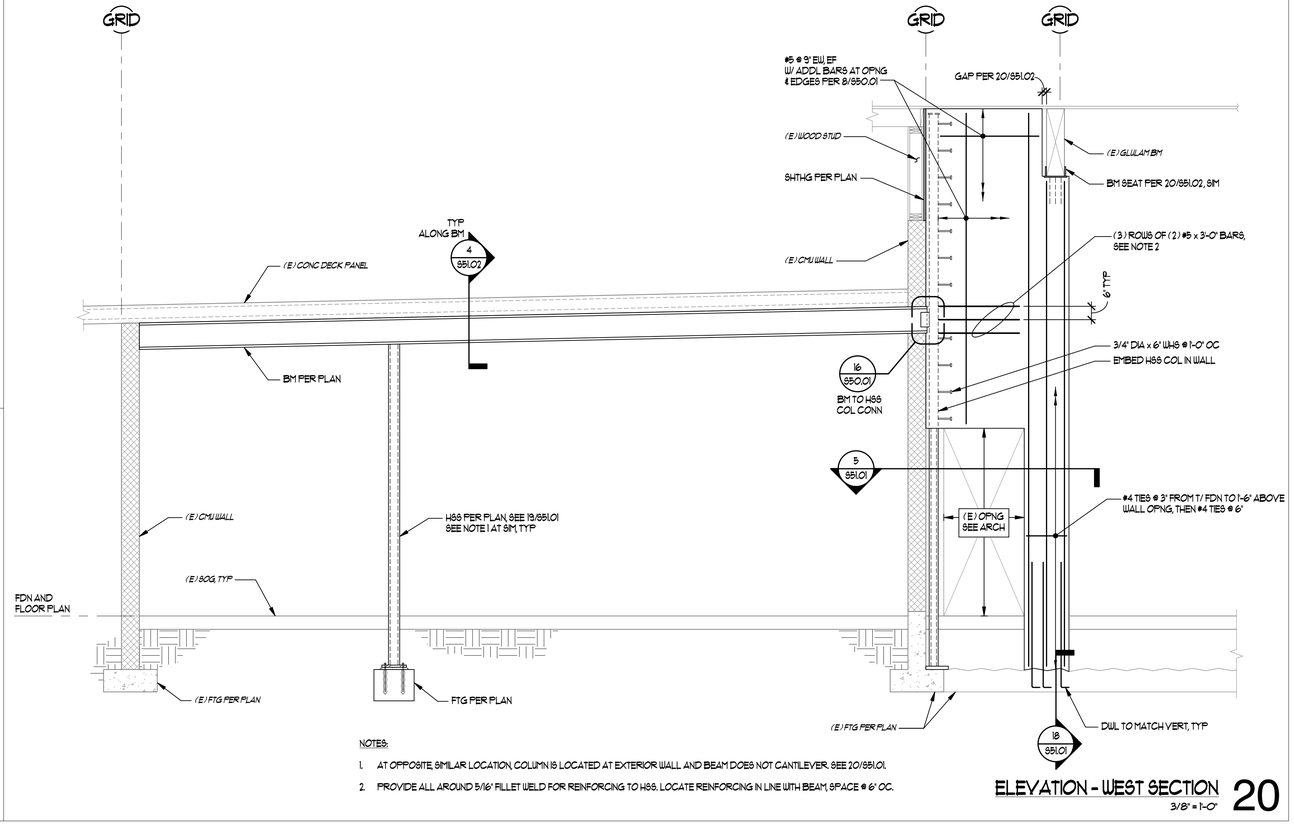
REVISION SCHEDULE

1	PERMIT REVISIONS	1/20/17

ROOF FRAMING PLAN

SHEET:

S21.12



NOTES:

1. AT OPPOSITE, SIMILAR LOCATION, COLUMN IS LOCATED AT EXTERIOR WALL AND BEAM DOES NOT CANTILEVER. SEE 20/S5.01.
2. PROVIDE ALL AROUND 5/16" FILLET WELD FOR REINFORCING TO HSS. LOCATE REINFORCING IN LINE WITH BEAM, SPACE @ 6" OC.

ELEVATION - WEST SECTION 20

3/8" = 1'-0"

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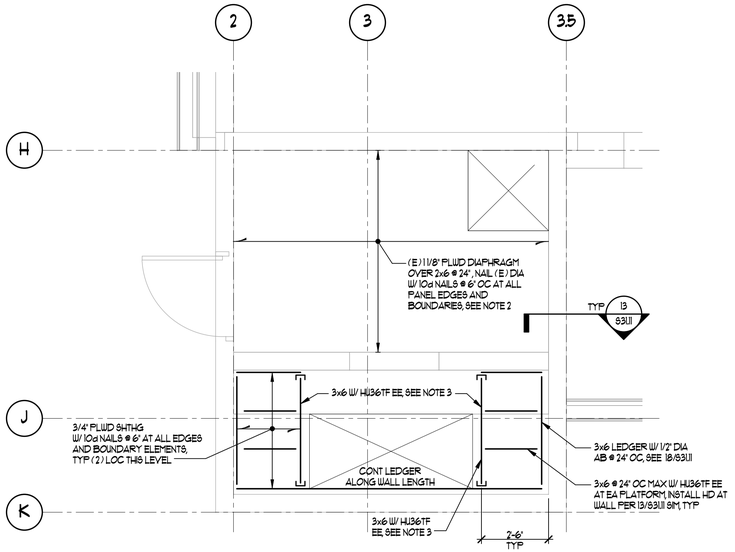
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REVISION SCHEDULE

ELEVATIONS

SHEET:

S22.01

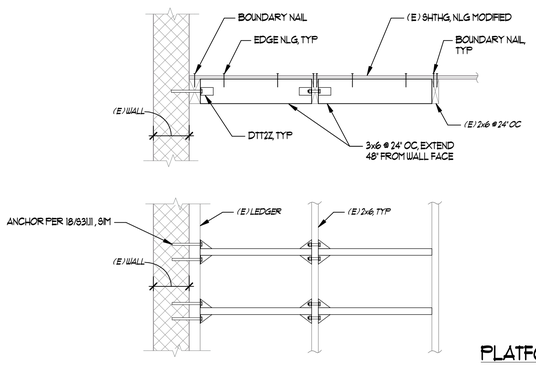


NOTES:

1. LOCATE PLATFORMS AT ELEVATION SO THEY ALIGN WITH EXISTING PLATFORM ELEVATIONS.
2. AT EVERY OTHER EXISTING 2x6 INSTALL HOLDOWN EACH SIDE AT WALL PER 13/S3.11, SIMILAR.
3. INSTALL HOLDOWN EACH SIDE AT WALL PER 13/S3.11, SIMILAR.

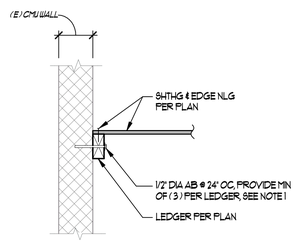
HOSE TOWER PARTIAL SECOND FLOOR FRAMING PLAN 10

3/8" = 1'-0"



PLATFORM HOLDOWNS 13

3/4" = 1'-0"

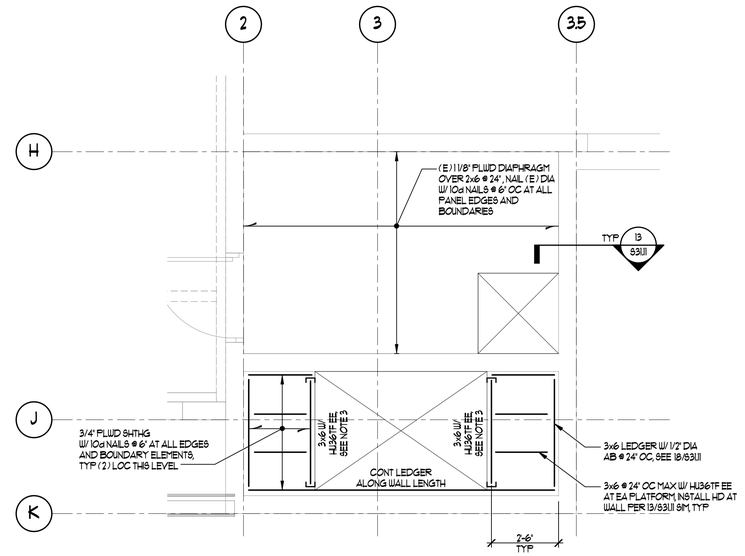


NOTE:

1. AT GROUTED CELLS EMBED AND EPOXY ANCHOR BOLT 4", AT HOLLOW CELLS INSTALL ANCHOR WITH HILTI-HY 70 AND HIT-IC INSERT.

HOSE TOWER LEDGER CONNECTION 18

3/4" = 1'-0"



NOTES:

1. LOCATE PLATFORMS AT ELEVATION SO THEY ALIGN WITH EXISTING PLATFORM ELEVATIONS.
2. AT EVERY OTHER EXISTING 2x6 INSTALL HOLDOWN EACH SIDE AT WALL PER 13/S3.11, SIMILAR.
3. INSTALL HOLDOWN EACH SIDE AT WALL PER 13/S3.11, SIMILAR.

HOSE TOWER PARTIAL FIRST FLOOR FRAMING PLAN 20

3/8" = 1'-0"

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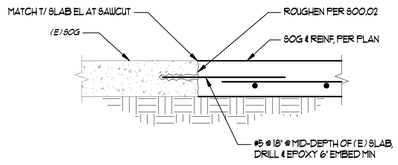
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REVISION SCHEDULE

HOSE TOWER PARTIAL FRAMING PLANS AND DETAILS

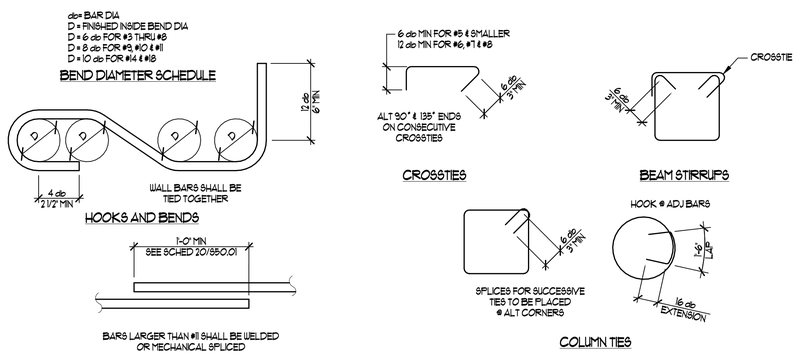
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S31.11



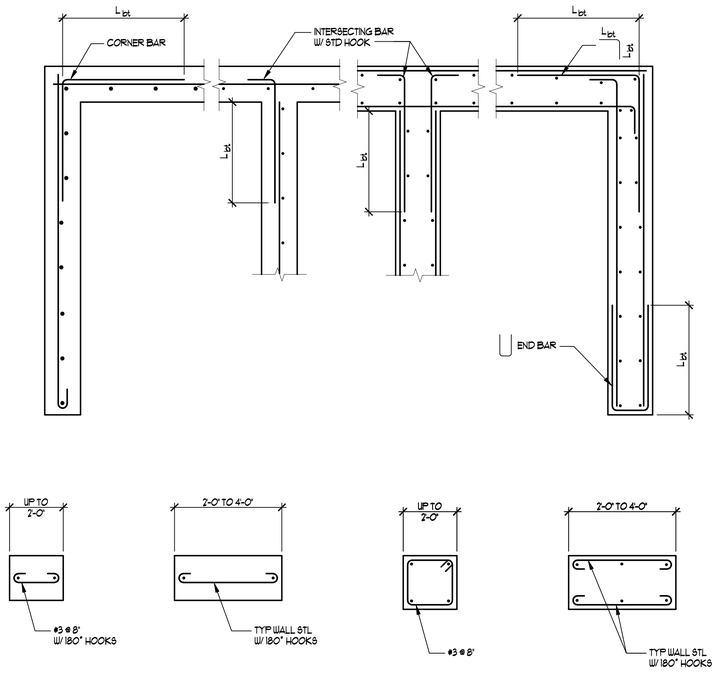
SOG TO EXISTING CONNECTION
NTS

1



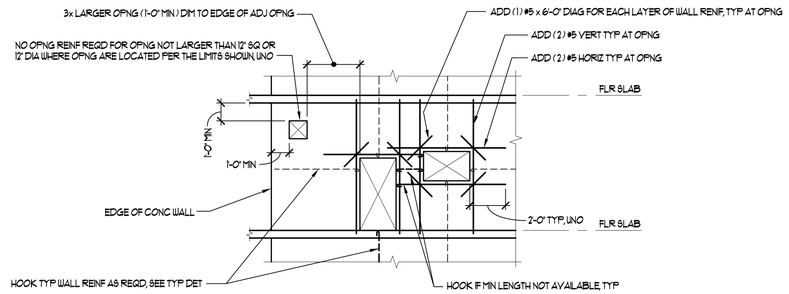
TYPICAL REINFORCING BAR BEND AND LAP DETAILS
NTS

3



TYPICAL CONCRETE WALL PLAN DETAILS
NTS

10

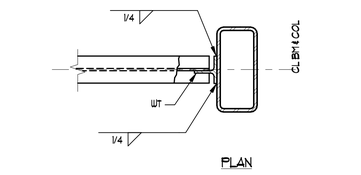


NOTE:

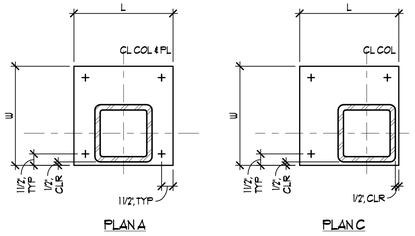
1. TYPICAL WALL REINFORCING NOT SHOWN FOR CLARITY, EXCEPT AS NOTED.

CONCRETE WALL ELEVATION DETAIL
NTS

8

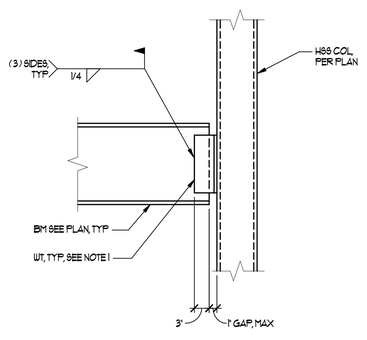


PLAN



PLAN A

PLAN C

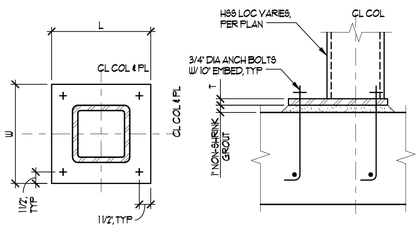


NOTE:

1. WEB THICKNESS TO BE 1/4"

BEAM TO HSS COLUMN CONNECTION DETAIL
NTS

16



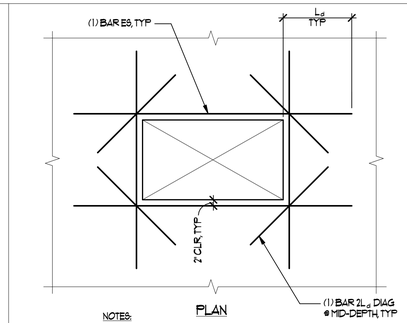
PLAN B

SECTION

BASE PLATE SCHEDULE		
COLUMN SIZE	PLATE SIZE L x W	PLATE THICK T
HSS3x3	9" x 9"	3/4"
HSS10x4	16" x 10"	1 1/2"

TYPICAL BASE PLATE DETAIL
NTS

17



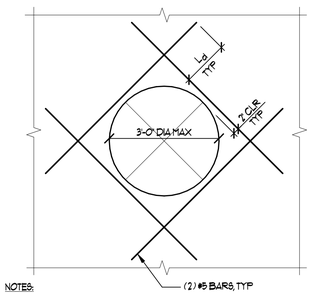
PLAN

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
NTS

13



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
NTS

18

Fc = 4,000 PSI / 4,500 PSI								
SIZE	L_a (2,3,4) & L_d (2,3,4)	L_b (2,3,4)	L_{dh}	L_c	L_{cl}	L_{ds} (4,5,6)	L_{bs} (4,5,6)	L_{dhs}
3	15	19	8	8	12	15	20	6
4	19	25	10	10	15	19	24	8
5	24	31	12	12	19	23	30	10
6	29	37	15	15	23	28	36	11
7	42	54	17	17	27	32	42	13
8	48	62	19	19	30	37	48	15
9	54	70	22	22	34	42	54	17
10	61	79	25	25	39	47	61	19
11	67	87	27	27	43	52	67	21

Fc = 6,000 PSI								
SIZE	L_a (2,3,4) & L_d (2,3,4)	L_b (2,3,4)	L_{dh}	L_c	L_{cl}	L_{ds} (4,5,6)	L_{bs} (4,5,6)	L_{dhs}
3	12	16	6	8	12	15	20	6
4	16	21	8	9	15	15	20	6
5	20	26	10	12	19	19	25	8
6	24	31	12	14	23	23	29	9
7	34	45	14	16	27	27	34	11
8	39	51	16	18	30	30	39	12
9	44	57	18	21	34	34	44	14
10	50	64	20	23	39	38	50	16
11	55	71	22	26	43	42	55	17

NOTES:

1. USE THE LENGTHS IN THIS SCHEDULE UNLESS NOTED OTHERWISE.
2. FOR BARS WITH LOW COVER OR SPACING, INCREASE LENGTH BY 50%. IF BARS ARE ENCLOSED IN STIRRUPS OR TIES, INCREASE APPLIES WHEN BAR COVER OR CLEAR BAR SPACING IS LESS THAN d_b. IF BARS ARE NOT ENCLOSED IN STIRRUPS OR TIES, INCREASE APPLIES WHEN BAR COVER IS LESS THAN d_b OR CLEAR BAR SPACING IS LESS THAN $2d_b$.
3. FOR TOP BARS INCREASE LENGTH BY 30%. A TOP BAR IS A HORIZONTAL BAR WITH MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW IT.
4. FOR EPOXY COATED REINFORCING, INCREASE STRAIGHT BAR LENGTHS BY 50% AND HOOKED BAR LENGTHS BY 20%.
5. FOR PORTIONS NOT WITHIN A CONFINED COLUMN OR BOUNDARY ZONE CORE, INCREASE LENGTH BY 60%.
6. FOR SEISMIC TOP BARS INCREASE LENGTH BY 40%. SEISMIC TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW.

ABBREVIATIONS:

d_b	BAR DIAMETER
L_d	TENSION DEVELOPMENT LENGTH
L_{dt}	TENSION DEVELOPMENT LENGTH FOR A TOP BAR (SEE NOTE 3)
L_a	CLASS A LAP SPLICE LENGTH
L_{at}	CLASS A LAP SPLICE LENGTH FOR A TOP BAR (SEE NOTE 3)
L_b	CLASS B LAP SPLICE LENGTH
L_{bt}	CLASS B LAP SPLICE LENGTH FOR A TOP BAR (SEE NOTE 3)
L_{dh}	TENSION DEVELOPMENT LENGTH FOR A STANDARD HOOK
L_c	COMPRESSION DEVELOPMENT LENGTH
L_{cl}	COMPRESSION LAP SPLICE LENGTH
L_{ds}	SEISMIC TENSION DEVELOPMENT LENGTH
L_{dts}	SEISMIC TENSION DEVELOPMENT LENGTH FOR A TOP BAR (SEE NOTE 6)
L_{bs}	SEISMIC LAP SPLICE LENGTH
L_{bts}	SEISMIC LAP SPLICE LENGTH FOR A TOP BAR (SEE NOTE 6)
L_{dhs}	SEISMIC DEVELOPMENT LENGTH FOR A STANDARD HOOK

REINF BAR DEVELOPMENT & SPLICE LENGTH TABLES
NTS

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3/16/17

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET
FEDERAL WAY, WA

PROJECT # 262016.018

BID

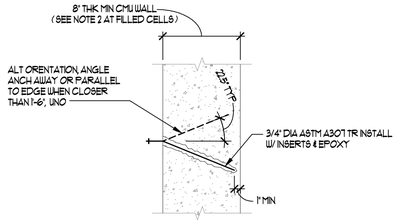
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

TYPICAL DETAILS

SHEET:

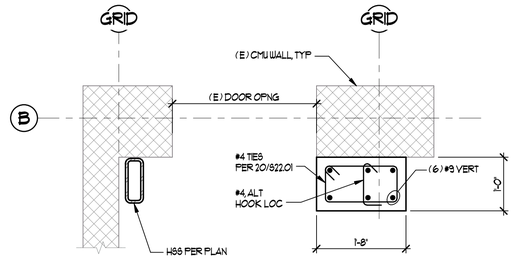
S50.01



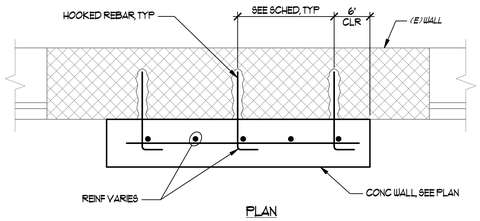
NOTES:

1. INSTALL ANCHOR WITH REBAR WHERE REQUIRED. SEE DETAILS FOR REBAR SIZE.
2. 22.5° HOLE ANGLE NOT REQUIRED FOR REBAR INSTALLED IN EXISTING FILLED CELLS. IF DISTANCE TO EXISTING SIDE IS NOT APPLICABLE AT EXISTING CONCRETE WALLS, 4" MINIMUM EMBED PER 8/S51.01 REQUIRED.
3. DRILLING METHODS SHALL BE SELECTED TO AVOID DAMAGE TO THE WALL.

ANCHOR IN EXISTING WALLS 3
1" = 1'-0"



PARTIAL PLAN AT GRID B / 2 5
3/4" = 1'-0"



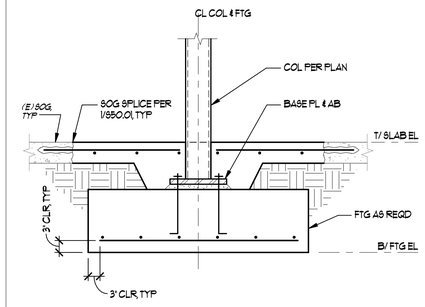
PLAN

SCHEDULE				
(E) WALL	DETAIL	MAX SPACING	MIN EMBED	BAR SIZE
FILLED CMU	3/S51.01	1'-6" EW	4"	3/4" DIA TR
HOLLOW CMU	3/S51.01 SIM	1'-6" EW	PER 3/S51.01	3/4" DIA TR

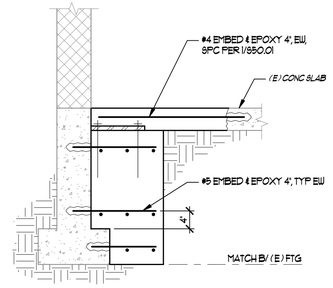
NOTE:

1. THIS OCCURS AT ALL CONCRETE, MASONRY, AND URM WALLS.

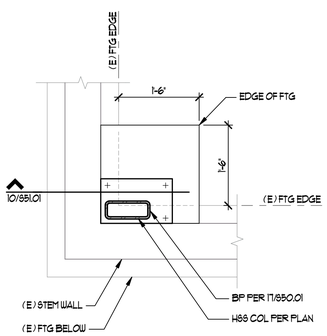
CONCRETE WALL DETAIL AND SCHEDULE 8
1" = 1'-0"



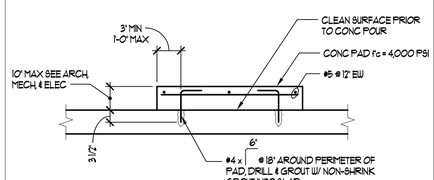
INTERIOR STEEL COLUMN FOOTING DETAIL 9
NTS



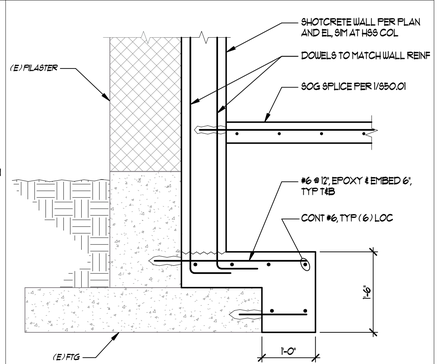
COLUMN FOUNDATION - SECTION 10
3/4" = 1'-0"



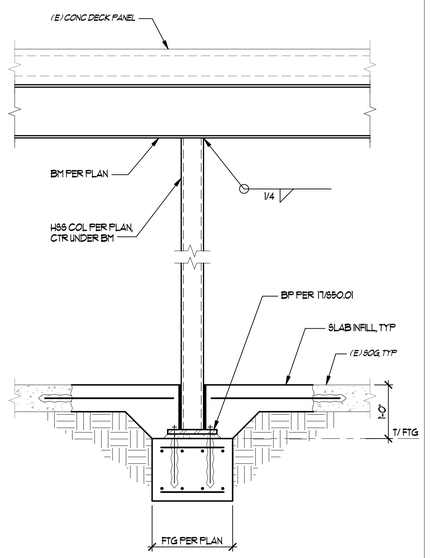
COLUMN FOUNDATION - PLAN 16
3/4" = 1'-0"



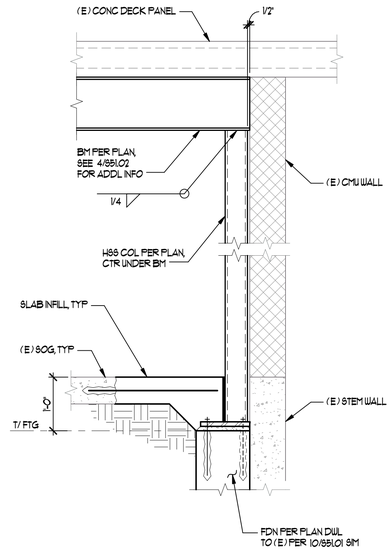
DECON PAD SOG DETAIL 17
NTS



SECTION - EXTENDED FOOTING 18
3/4" = 1'-0"



COLUMN SUPPORT AT BEAM CANTILEVER 19
3/4" = 1'-0"



COLUMN SUPPORT AT BEAM END 20
3/4" = 1'-0"

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET
FEDERAL WAY, WA

PROJECT # 262016.018

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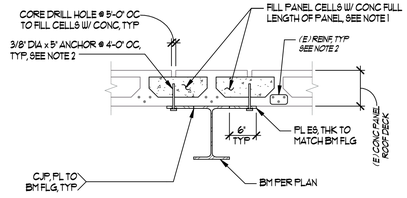
ISSUED: MARCH 16, 2017

REVISION SCHEDULE		
1	PERMIT REVISIONS	1/20/17

FOUNDATION DETAILS

SHEET:

S51.01

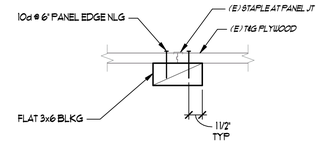


NOTES:

1. CONCRETE SHALL BE SELF CONSOLIDATING. CALCULATE REQUIRED CONCRETE VOLUME TO FILL CELLS PRIOR TO PLACEMENT TO ENSURE NO VOIDS ARE PRESENT.
2. SCAN EXISTING DECK TO LOCATE REINFORCING TENDONS. INSTALL ANCHORS IN PANEL VOIDS. DO NOT DAMAGE REINFORCING.

BEAM TO CONCRETE PANEL CONNECTION 4

3/4" = 1'-0"

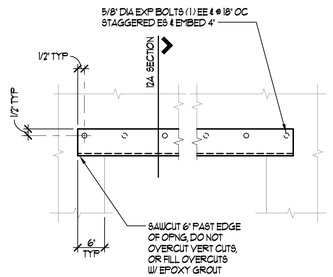


NOTE:

1. INSTALL BLOCKING AT ALL PANEL EDGES. BLOCKING TO BE INSTALLED SNUG BETWEEN EXISTING 4x MEMBERS.

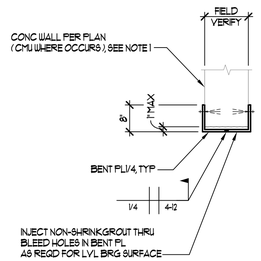
DIAPHRAGM BLOCKING 5

1 1/2" = 1'-0"



NOTES:

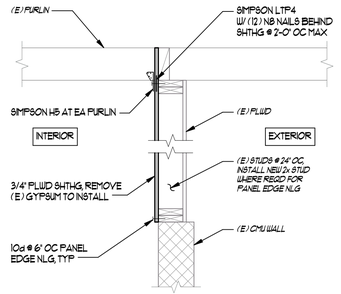
1. AT CMU WALL VERIFY CELLS ARE FULLY GROUTED PRIOR TO SAWCUTTING OPENING. GROUT AROUND OPENING PER 11/S51.02 SIMILAR WHERE CMU IS NOT FULLY GROUTED.
2. AT SIMILAR CONDITION INSTALL SINGLE L6x6x3/8 ANGLE. VERTICAL LEG SHALL BE INSTALLED FLUSH ON INTERIOR WALL FACE.



12A SECTION

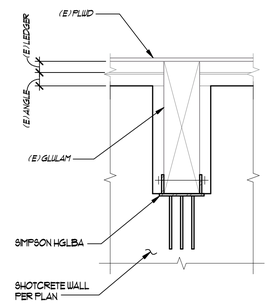
STEEL HEADER ABOVE NEW OPENING 12

NTS

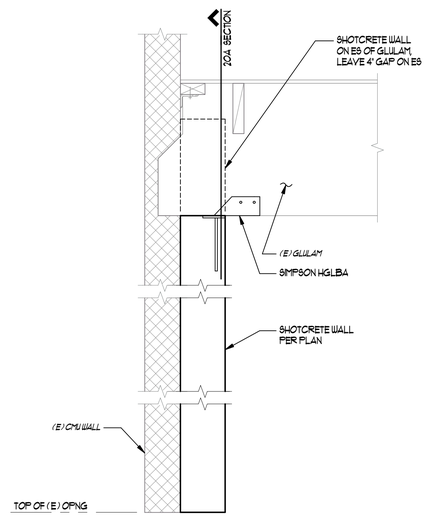


PARTIAL HEIGHT WOOD SHEAR WALL 13

3/4" = 1'-0"

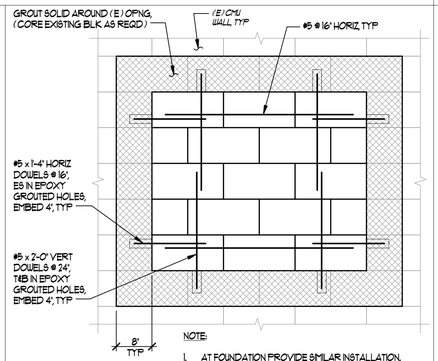


20A SECTION



SECTION - SHOTCRETE WALL 20

3/4" = 1'-0"

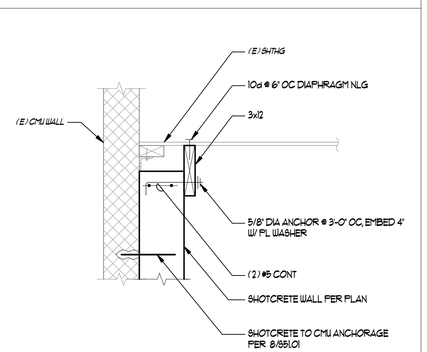


NOTE:

1. AT FOUNDATION PROVIDE SIMILAR INSTALLATION. EPOXY REINFORCING TO EXISTING CONCRETE.

TYPICAL MASONRY INFILL 17

NTS



SHOTCRETE WALL TO DIAPHRAGM CONN 18

3/4" = 1'-0"

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BID

ISSUED: MARCH 16, 2017

REVISION SCHEDULE

1	PERMIT REVISIONS	1/20/17

FRAMING DETAILS

SHEET:

S51.02

MECHANICAL SYMBOLS LEGEND

DUCTWORK LABELS

- INTERNALLY LINED DUCT
- HIDDEN DUCT
- 16X12 — DUCT (1ST DIMENSION SIDE SHOWN, 2ND DIMENSION OTHER SIDE)
- 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
- OR — RETURN OR EXHAUST GRILLE
- 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

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

LIFE SAFETY SYMBOLS

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

CONTROL SYMBOLS

- VOLUME DAMPER
- M — MOTORIZED CONTROL DAMPER
- T — THERMOSTAT IN DUCT
- 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)
- T — THERMOSTAT, MOUNT @ 4'-0" A.F.F.
- S — SENSOR
- CO — GEF-1 — CARBON MONOXIDE DETECTOR WITH FAN INDICATED
- CO2 — CARBON DIOXIDE DETECTOR

HVAC ENERGY CODE NOTES

1. SEE SCHEDULE FOR EQUIPMENT TYPE, CAPACITY AND EFFICIENCY.
2. PROVIDE MICROPROCESSOR-BASED THERMOSTAT FOR HEAT PUMP CONTROLS WHICH MINIMIZES THE USE OF ELECTRIC HEAT DURING START-UP, SET-UP AND DEFROST. CONTROLS SHALL ANTICIPATE NEED FOR HEAT AND USE COMPRESSION HEATING AS THE FIRST STAGE. CONTROLS SHALL INDICATE WHEN ELECTRIC HEAT IS BEING USED. ELECTRIC HEAT SHALL NOT OPERATE ABOVE 40 F OUTSIDE AIR TEMPERATURE.
3. PROVIDE THERMOSTAT CONTROLS CAPABLE OF AT LEAST A FIVE (5) DEGREE DEADBAND BETWEEN HEATING AND COOLING.
4. FOR ALL BUT GROUP R THERMOSTATS, PROVIDE PROGRAMMABLE AUTOMATIC SETBACK CONTROLS WITH NIGHT SETBACK AND SEVEN (7) DIFFERENT DAY TYPES.
5. FOR PRIMARY GROUP R THERMOSTATS, PROVIDE PROGRAMMABLE 5-2 SCHEDULE WITH AT LEAST 2 SETBACK PERIODS/DAY.
6. PROVIDE AMCA CLASS 1A MOTORIZED CONTROL DAMPERS FOR OUTSIDE AIR INTAKES, EXHAUST OUTLETS AND RELIEF WHICH CLOSE AUTOMATICALLY WHEN THOSE SYSTEMS ARE NOT IN USE, DURING BUILDING WARM-UP AND SETBACK. GRAVITY BACKDRAFT DAMPERS ARE ALLOWED FOR SYSTEMS WHICH OPERATE CONTINUOUSLY OR FOR GROUP R AIRFLOWS <400 CFM.
7. PROVIDE GAS-FIRED HEATING EQUIPMENT WITH MODULATING OR STAGED CONTROL FOR ALL EQUIPMENT OVER 225 MBH.
8. PROVIDE A MEANS OF BALANCING EVERY AIR INLET AND OUTLET AND EVERY AIR OR WATER TERMINAL DEVICE.
9. SIMULTANEOUS HEATING AND COOLING IN A ZONE IS NOT PERMITTED.
10. SEAL TRANSVERSE AND LONGITUDINAL SEAMS, JOINTS AND CONNECTIONS OF ALL DUCTWORK.
11. PROVIDE DUCT INSULATION PER ENERGY CODE SECTION C403.2.7 AND SPECIFICATION SECTION 23 07 00.
12. PROVIDE PIPE INSULATION PER ENERGY CODE SECTION C403.2.8 AND SPECIFICATION SECTION 23 07 00.
13. INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DAMAGE, SUNLIGHT, MOISTURE AND WIND. ADHESIVE TAPE IS NOT PERMITTED.
14. ALL PIPE AND DUCT INSULATION SHALL BE LABELLED WITH ITS THICKNESS AND INSULATING VALUE (R OR K).
15. FAN MOTORS 1/12 HP UP TO 1 HP SHALL BE ECM.
16. POLYPHASE MOTORS 1 HP OR MORE SHALL MEET EFFICIENCY REQUIREMENTS OF ENERGY CODE C403.2.13.
17. FAN SYSTEMS OVER 5 HP SHALL MEET ALLOWABLE FAN POWER LIMIT PER ENERGY CODE C403.2.10.

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 INTERNATIONAL MECHANICAL CODE, INTERNATIONAL BUILDING CODE, INTERNATIONAL FIRE CODE AND LOCAL CODES AND ORDINANCES.
3. DUCT CONSTRUCTION AND HANGING SHALL COMPLY WITH THE LATEST IMC 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. 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.
10. HVAC CONTRACTOR MUST COORDINATE WITH LIGHTING FIXTURES PRIOR TO DUCT AND PIPING INSTALLATION.

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	MEP	MECHANICAL, ELECTRICAL & PLUMBING
ADA	AMERICANS WITH DISABILITIES ACT	MEZZ	MEZZANINE
ADJ	ADJUSTABLE	MIN	MINIMUM OR MINUTE
AFF	ABOVE FINISHED FLOOR	MISC	MISCELLANEOUS
AFG	ABOVE FINISHED GRADE		
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 CONTRACTOR INSTALLED
CFH	CUBIC FEET PER HOUR		
CFM	CUBIC FEET PER MINUTE	OFOI	OWNER FURNISHED OWNER INSTALLED
CLG	CEILING		
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 AIR CONDITIONER
DWG(S)	DRAWING(S)		
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 BACKFLOW PREVENTER
ESP	EXTERNAL STATIC PRESSURE	RPM	REVOLUTIONS PER MINUTE
ET	EXPANSION TANK	RLX	RELOCATE EXISTING
EXP	EXPANSION	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 RELIEF VALVE
GALV	GALVANIZED		
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 AIR CONDITIONING	TOS	TOP OF SLAB/TOP OF STEEL
		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 UNIT PER HOUR	WC	WATER COLUMN
		WPD	WATER PRESSURE DROP
MED	MEDIUM	WT	WEIGHT

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 16001

CONSTRUCTION BID DOCUMENTS

ISSUED: MARCH 16, 2017

REVISION SCHEDULE

MECHANICAL COVER SHEET

SHEET:

M00.01

SEQUENCE OF OPERATIONS

1. CONTROL SYSTEM.

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

2. VRF □ SPLIT SYSTEMS: FC-1 TO FC-7

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

   SMART ME □ ONE REMOTE CONTROLLER PROVIDES START/STOP, TEMPERATURE CONTROL & FAN SPEED CONTROL.

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

   DUCTED FAN COILS (PEFY): PROVIDE FAN COIL FILTER BOX

   FAN COIL FANS CYCLE DURING OCCUPIED SCHEDULE TO MAINTAIN OCCUPIED HEAT/COOL SETPOINT. FAN COIL FANS CYCLE DURING UNOCCUPIED SCHEDULE TO MAINTAIN UNOCCUPIED HEAT SETPOINT.

   FC-6 SCHEDULE OCCUPIED FROM 7AM TO 10PM. FC-1 THROUGH FC-5 AND FC-7 SCHEDULE OCCUPIED 24/7.

3. ENERGY RECOVERY VENTILATORS: ERV-1 □ DH-2

   UNIT CONTROL BY MANUFACTURER'S MICROPROCESSOR CONTROL PANEL.

   ERV'S RUN CONTINUOUSLY. OUTSIDE AIR AND RELIEF DAMPERS ARE OPEN DURING NORMAL OPERATION AND CLOSE IF UNIT FANS FAIL.

   DH-2 MODULATES TO MAINTAIN DUCT SUPPLY TEMP OF 58F (ADJ). F

4. APPARATUS BAY EXHAUST FAN EF-1:

   FAN OPERATES WITH 2-HOUR WALL TIMER (BY E.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 STARTER INTERLOCK OPENS FAN & PENTHOUSE MOTORIZED DAMPERS WHEN FAN IS OPERATING.
   ON A CO LEVEL OF 100 PPM (ADJ) OR A NO2 LEVEL OF 5 PPM RELAYS TO ACTIVATE WARNING BELLS (BY E.C.)

5. DECON EXHAUST FAN: EF-2

   FAN OPERATES CONTINUOUSLY.

6. KITCHEN HOOD MAKEUP AIR: SF-1 □ DH-1

   HOOD SWITCH ACTIVATES SF-1. WHEN FAN IS RUNNING MOTORIZED OUTSIDE AIR DAMPER OPENS AND DH-1 MODULATES TO MAINTAIN DUCT SUPPLY TEMP OF 65F (ADJ). INTERLOCK OPERATION WITH KEF.

7. KITCHEN HOOD EXHAUST FAN: KEF

   FAN OPERATES WITH HOOD MOUNTED SWITCH. WHEN FAN IS RUNNING, MOTORIZED DAMPER OPENS. INTERLOCK OPERATION WITH SF-1 AND KITCHEN RANGE GAS SOLENOID.

8. KITCHEN RANGE GAS SOLENOID VALVE

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

10. ELECTRIC INFRARED HEATER: EIH

    UNIT OPERATES WITH ELECTRONIC LINE/LOW VOLTAGE HEATING ONLY WALL THERMOSTAT.

11. ELECTRIC WALL HEATERS: EWH

    UNITS OPERATE WITH INTEGRAL THERMOSTAT. UNIT IS INTERLOCKED WITH 30-MINUTE WALL TIMER.

12. RADIANT CEILING PANELS: RCP

    UNITS OPERATE WITH ELECTRONIC LINE/LOW VOLTAGE HEATING ONLY WALL THERMOSTATS.

13. 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 EC).

COMMISSIONING NOTES

1. COMMISSIONING OF THE MECHANICAL SYSTEMS, SERVICE WATER HEATING SYSTEMS AND ENERGY METERING SYSTEMS IS REQUIRED ON THIS PROJECT IN ACCORD WITH THE COMMERCIAL ENERGY CODE SECTION C408 AND 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. A COMMISSIONING PLAN: THE PLAN PROVIDES THE DESIGN INTENT, OUTLINES EQUIPMENT AND SYTEMS TO BE TESTED, DETAILS TEST PROCEDURES AND INCLUDES FORMS FOR RESULTS.
3. PRELIMINARY COMMISSIONING REPORT: COMPLETION OF THE COMMISSIONING PLAN NOTING DEFICIENCIES FOUND DURING TESTING, CORRECTIVE ACTION TAKEN OR THE ANTICIPATED DATE OF CORRECTION, CONDITIONS UNDER WHICH THE TESTING WAS PERFORMED AND RECORD OF COMPLETED OWNER TRAINING.
   A. VERIFICATION OF THIS REPORT IS REQUIRED FOR FINAL MECHANICAL INSPECTION AND CERTIFICATE OF OCCUPANCY.
   B. CODE OFFICIAL MAY REQUEST COPY OF REPORT.
4. WITHIN 90 DAYS OF RECEIPT OF THE BUILDING CERTIFICATE OF OCCUPANCY, THE 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 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. NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE.
7. BALANCING: ALL HVAC AND SERVICE HOT WATER SYSTEMS SHALL BE BALANCED BY A LICENSED CONTRACTOR IN ACCORDANCE WITH ACCEPTED ENGINEERING STANDARDS AND SECTION 230593.
8. FUNCTIONAL PERFORMANCE TESTING: DEMONSTRATE THE CORRECT INSTALLATION AND OPERATION OF EACH COMPONENT, SYSTEM, AND SYSTEM-TO-SYSTEM INTERTIE RELATIONSHIP. CONTROL SYSTEMS SHALL BE TESTED TO ENSURE THAT CONTROL DEVICES, COMPONENTS, EQUIPMENT AND SYSTEMS ARE CALIBRATED, ADJUSTED AND OPERATE IN ACCORDANCE WITH THE SEQUENCE OF OPERATION.
9. OWNER TRAINING: SYSTEM/EQUIPMENT OVERVIEW (WHAT IT IS, WHAT IT DOES AND WHICH OTHER SYSTEMS AND OR EQUIPMENT DOES IT INTERFACE WITH). REVIEW OF THE AVAILABLE O&M MATERIALS. REVIEW OF THE RECORD DRAWINGS ON THE SUBJECT SYSTEM/EQUIPMENT. HANDS-ON DEMONSTRATION OF ALL NORMAL MAINTENANCE PROCEDURES, NORMAL OPERATING MODES, AND ALL EMERGENCY SHUTDOWN AND START-UP PROCEDURES.
10. FINAL COMMISSIONING REPORT: RESULTS OF ALL FUNCTIONAL PERFORMANCE TESTS.
    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. BUILDINGS OR PORTIONS THEREOF, SHALL NOT BE ISSUED A FINAL CERTIFICATE OF OCCUPANCY UNTIL SUCH TIME THAT THE BUILDING OFFICIAL DETERMINES THAT THE PRELIMINARY COMMISSIONING REPORT REQUIRED BY THIS SECTION HAS BEEN COMPLETED. THIS MAY BE ACCOMPLISHED BY SUBMITTING THE COMMISSIONING COMPLIANCE CHECKLIST.
12. THE MECHANICAL CONTRACTOR SHALL NOT BE CONSIDERED SUBSTANTIALLY COMPLETE UNTIL THE PRELIMINARY COMMISSIONING REPORT HAS BEEN APPROVED BY THE ENGINEER.

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REVISION SCHEDULE

MECHANICAL NOTES

SHEET:

M00.02

SPLIT SYSTEM A/C & HEAT PUMP UNIT SCHEDULE

INDOOR UNIT															OUTDOOR UNIT												
			SUPPLY		COOLING						HEATING	ELECTRICAL		SOUND					COOLING			HEATING		ELECTRICAL				SOUND		
MARK	MAKE	MODEL	TOTAL CFM	ESP W.C.	TOTAL MBH	SENSIBLE MBH	EAT DB / WB	OAT DB	ECONO (Y/N)	ECONO EXCEPT	HEATING MBH OUTPUT @ 20 OAT	VOLT/PH	MCA	LEVEL dBA	OP. WT. LBS.	MARK	MAKE	MODEL	TOTAL MBH	IEER	SEER/ EER	TOTAL MBH	COP AT 47 F	VOLT/PH	MCA	MOCP	SCCR kA	LEVEL dBA	OP. WT. LBS.	NOTES:
																CM-1	MITSUBISHI	PURY-P72TKMU-A	73.9	21.1	13.9	55.2	3.81	208/3	23	30	NOTE A	58	525	1,2
FC-1	MITSUBISHI	PKFY-P06NBMU-E2	180	-	5.67	4.17	75/63	88.0	N	403.6	6.14	208/1	0.19	36	25															B,C,4
FC-2	MITSUBISHI	PKFY-P06NBMU-E2	180	-	5.67	4.17	75/63	88.0	N	403.6	6.14	208/1	0.19	36	25															B,C,4
FC-3	MITSUBISHI	PKFY-P06NBMU-E2	180	-	5.67	4.17	75/63	88.0	N	403.6	6.14	208/1	0.19	36	25															B,C,4
FC-4	MITSUBISHI	PKFY-P06NBMU-E2	180	-	5.67	4.17	75/63	88.0	N	403.6	6.14	208/1	0.19	36	25															B,C,4
FC-5	MITSUBISHI	PKFY-P06NBMU-E2	180	-	5.67	4.17	75/63	88.0	N	403.6	6.14	208/1	0.19	36	25															B,C,4
FC-6	MITSUBISHI	PKFY-P06NBMU-E2	180	-	5.67	4.17	75/63	88.0	N	403.6	6.14	208/1	0.19	36	25															B,C,4
FC-7	MITSUBISHI	PEFY-P18NMAU-E3	500	0.5"	17.01	13.39	75/63	88.0	N	403.6	18.33	208/1	1.56	35	60															B,D,3

NOTES:
1. MANUFACTURER'S DIGITAL CONTROL SYSTEM WITH AE-200A CENTRAL CONTROLLER.
2. CONTROL POWER SUPPLY UNIT.
3. FILTER BOX WITH 2" PLEATED MERV 13 FILTER.
4. FACTORY PROVIDED WASHABLE FILTER.

A. SEE SPECIFICATIONS AND ELECTRICAL
B. SMART ME REMOTE CONTROLLER.
C. PROVIDE WITH BLUEDIAMOND CONDENSATE PUMP. CONDENSATE DRAINAGE SHALL BE PIPED TO NEAREST INDIRECT WASTE BY PLUMBER.
D. INTEGRAL CONDENSATE PUMP

BRANCH CIRCUIT CONTROLLER SCHEDULE

MARK	MAKE	MODEL	NUMBER OF BRANCHES	POWER SOURCE	POWER INPUT	STARTING CURRENT (208V)	WEIGHT	NOTES:
BC-1	MITSUBISHI	CMB-P1010NU-G	10	208/1	138 W	0.83 AMP	120	1

NOTES:
1. PROVIDE WITH BLUEDIAMOND CONDENSATE PUMP. CONDENSATE DRAINAGE SHALL BE PIPED TO NEAREST INDIRECT WASTE BY PLUMBE

ENERGY RECOVERY VENTILATOR SCHEDULE

				SUPPLY			EXHAUST			HEAT EXCHANGER		ELECTRICAL				WGT.	
MARK	MAKE	MODEL	TYPE	CFM	ESP	HP	CFM	ESP	HP	MATERIAL	WINTER EFF.	MCA	MOCP	VOLT/PH	SCCR	LBS	NOTES
ERV-1	GREENHECK	ECV-10-VG	ROOFTOP	650	0.75	1/2	675	0.75	1/2	WHEEL	68.5%	7.2	10	208/1	NOTE B	500	ALL

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

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

PENTHOUSE SCHEDULE

MARK	MAKE	MODEL	SIZE	AIRFLOW DIRECTION	CFM	FREE AREA	MATERIAL	WEIGHT (LBS)	NOTES:
PH-1	GREENHECK	WIH	24X24	INTAKE	3000	4.07	ALUMINUM	70	ALL
PH-2	GREENHECK	WIH	16X16	INTAKE	1125	2.9	ALUMINUM	50	ALL

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

FAN SCHEDULE

MARK	SERVES	MAKE	MODEL	TYPE	CFM	ESP INCH WC	RPM	BHP	HP (WATTS)	ELEC VOLT/PH	WT. LBS	MAX SOUND	NOTES:
EF-1	APP BAY	GREENHECK	GB-260-15	ROOF CENT	6000	0.375	1725	0.96	1 1/2	208/3	250	61 DBA	A, 2, 3, 6
EF-2	DECON	GREENHECK	G-090-VG	ROOF CENT	600	0.5	1725	0.1	1/10	120/1	50	57 DBA	B, 1, 2, 3, 5
SF-1	KITCHEN MAKE UP AIR	GREENHECK	SQ-130-VG	INLINE CENT	1125	0.52	1725	0.19	3/4	120/1	70	53 DBA	C, 1, 6, 10
KEF	KITCHEN HOOD EXHAUST	GREENHECK	CUE-161-VG	UPBLAST CENT	1250	0.834	1300	0.29	1/2	120/1	150	61 DBA	C,1, 2, 6, 8, 9

NOTES:
1. FAN SPEED CONTROL
2. FACTORY INSULATED CURB W/ SEAL.
3. ALUMINUM BIRD SCREEN
4. BACKDRAFT DAMPER
5. MOTORIZED SHUTOFF DAMPER, CLASS 1A
6. INSULATED, MOTORIZED SHUTOFF DAMPER, CLASS 1A
7. TWO SPEED SELECTABLE CONTROL
8. CLEAN-OUT PORT, VENTED CURB EXT, GREASE TRAP WITH ABSORBANT MATERIAL, PERMATECTOR COATING, HINGED CURB BASE
9. NON-STICK WHEEL
10. NEOPRENE HANGING ISOLATION

A. RUNS ON CO / NO2 SENSOR AND WALL MOUNTED 2 HR TIMER. SEE CONTROL DIAGRAM.
B. RUNS CONTINUOUSLY.
C. SWITCHED WITH HOOD. SEE CONTROL DIAGRAM.

KITCHEN 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	0.434	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 & EXHAUST FAN, HOOD MOUNTED ON RIGHT SIDE.
7. WITHOUT ANSUL SYSTEM.

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M00.03

RADIANT CEILING PANEL SCHEDULE

MARK	SERVES	MANUFACTURER	MODEL	SIZE	ELECTRICAL WATTS	ELECTRICAL VOLT/PH	WEIGHT	NOTES:
RCP-1	SEE PLANS	MARKEL	RCP-807	24"X48"	750	208/1	40	1, 2, 3

NOTES:
1. LINE-VOLTAGE THERMOSTAT FURNISHED BY MECHANICAL, INSTALLED BY ELECTRICAL
2. FLUSH-IN-CEILING OR T-BAR CEILING MOUNT, PER PLANS.
3. CEILING PANEL TO BE FURNISHED AND INSTALLED BY MECHANICAL

ELECTRIC INFRARED HEATER SCHEDULE

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

NOTES:
1. PROVIDE SEISMIC RESTRAINT PER MANUFACTURES RECOMMENDATIONS.
2. LINE-VOLTAGE THERMOSTAT FURNISHED BY MECHANICAL, INSTALLED BY ELECTRICAL

ELECTRIC DUCT HEATER SCHEDULE

MARK	MAKE	MODEL	SERVES	DUCT SIZE	HEAT KW	STAGES	VOLT / PH	NOTES:
DH-1	INDEECO	QUZ	SF-1	14X14	18.0	SCR	208/3	ALL
DH-2	INDEECO	QUZ	ERV-1	12X12	10.0	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 WALL HEATER SCHEDULE

MARK	MAKE	MODEL	HEAT W	ELEC VOLT/PH	NOTES:
EWH-1	CADET	UC102B	750 W	208/1	1, 2, 3, 4
EWH-2	CADET	CS078	750 W	208/1	1, 2, 3, 4

NOTES:
1. HIGH TEMPERATURE MANUAL RESET AND OVERTEMPERATURE SAFEGUARD.
2. BUILT IN THERMOSTAT.
3. SEE UNIT PLANS FOR QUANTITY.
4. 30 MIN WALL TIMER.

DIFFUSER AND GRILLE SCHEDULE

ITEM	MAKE	MODEL	DESCRIPTION	SIZE	MARK
SUPPLY DIFFUSER	TITUS	MCD	24" x 24" SQUARE FACE	6"X6"	D-1
			SQ. NECK PER PLANS	8"X8"	D-2
			4 ADJ. CORES	10"X10"	D-3
			STEEL WHITE ENAMEL	12"X12"	D-4
SUPPLY DIFFUSER	TITUS	TJD	24" x 24" SQUARE FACE	8"	D-11
			INDUCTION NOZZLES		
			STEEL, WHITE ENAMEL		
SUPPLY DIFFUSER	TROX SWIRL	VDW -Q-Z-H	24" SQUARE FACE, INLET SIZE	24X12X8	D-31
			PER PLANS. SIDE INLET PLENUM.	24X16X16	D-32
			ADJUSTABLE DISCHARGE	24X20X24	D-33
			PATTERN. STEEL, WHITE	24X24X24	D-34
			BLACK PATTERN CONTROLLERS		
RETURN GRILLE	TITUS	50F	1/2" EGG CRATE, ALUM.,	12"X24"	G-1
			WHITE ENAMEL	24"X24"	G-2
RETURN GRILLE	TITUS	355RL	1/2" BLADE SPACING, 35 DEG	10X10"	G-11
			DEFLECTION, BLADES PARALLEL		
			TO LONG DIMENSION, STEEL,		
			WHITE		

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 (EXCEPT FOR TROX SWIRL DIFFUSERS).

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SUITE 100
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FAX 792-1385
INFO@RFMARCH.COM

SIDER+BYERS MECHANICAL ENGINEERS
192 N[illegible], S[illegible] #300
S[illegible], W[illegible] 98109
Ph[illegible]: 206.285.2966

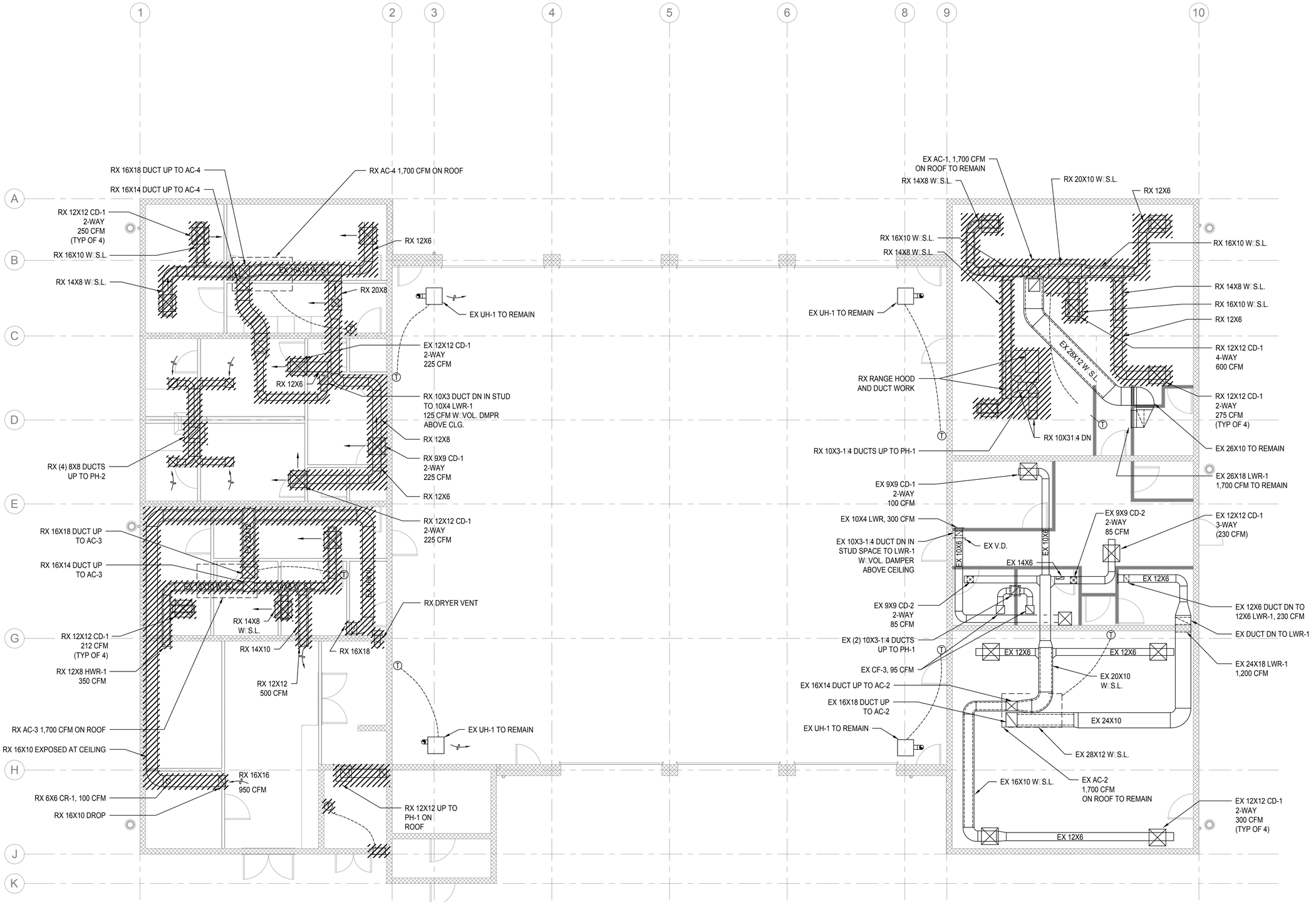
SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 16001
CONSTRUCTION BID DOCUMENTS
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

SCHEDULES

SHEET:
M00.04



DEMOLITION FLOOR PLAN

SCALE: 3/16"=1'-0"

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

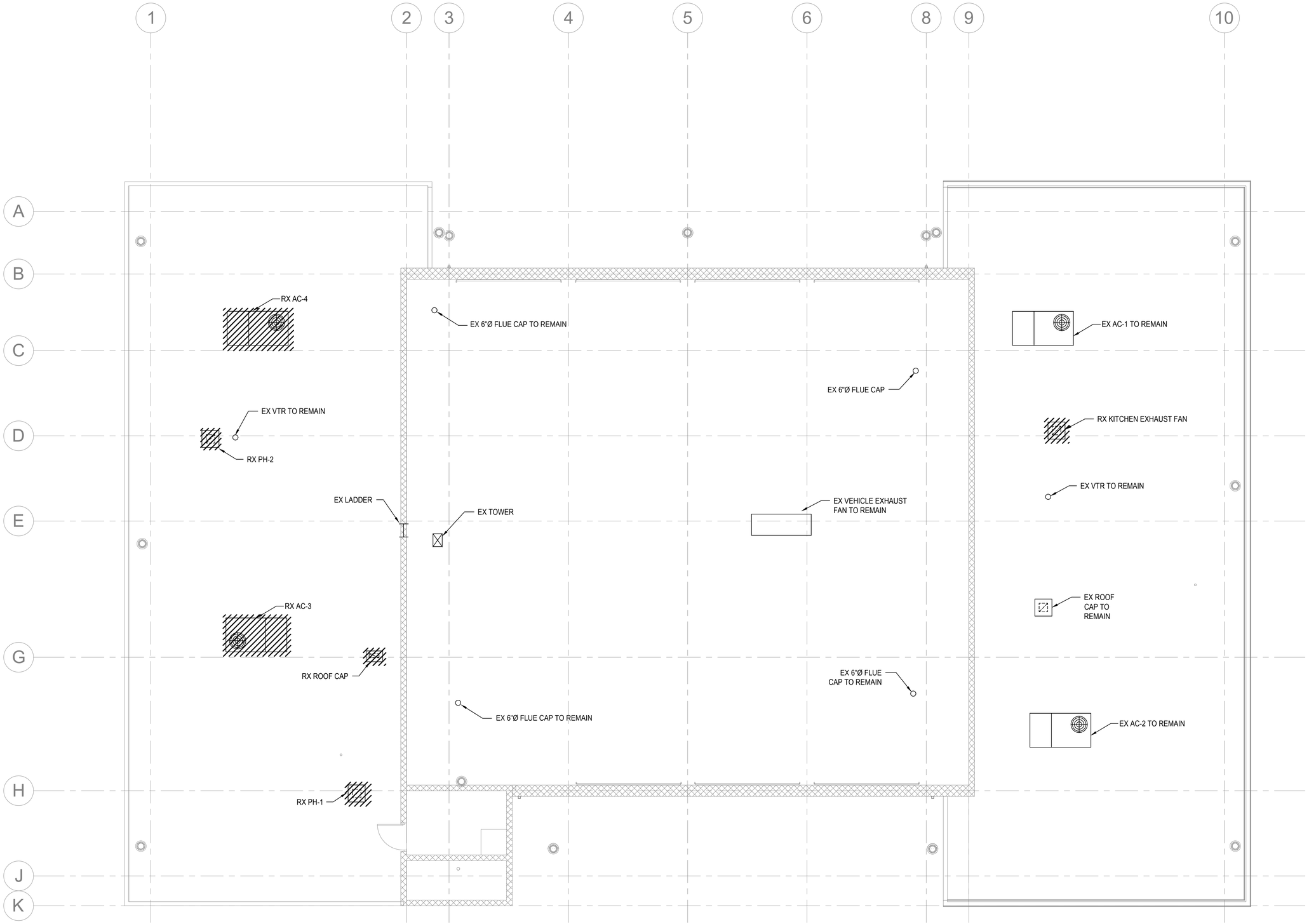
PROJECT # 16001
CONSTRUCTION BID DOCUMENTS
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

MECHANICAL DEMOLITION PLAN

SHEET:

M20.11



DEMOLITION ROOF PLAN

SCALE: 3/16"=1'-0"

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S[illegible]tt[illegible], W[illegible]h[illegible]t[illegible] 98109
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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

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MECHANICAL DEMOLITION ROOF PLAN

SHEET:

M20.12

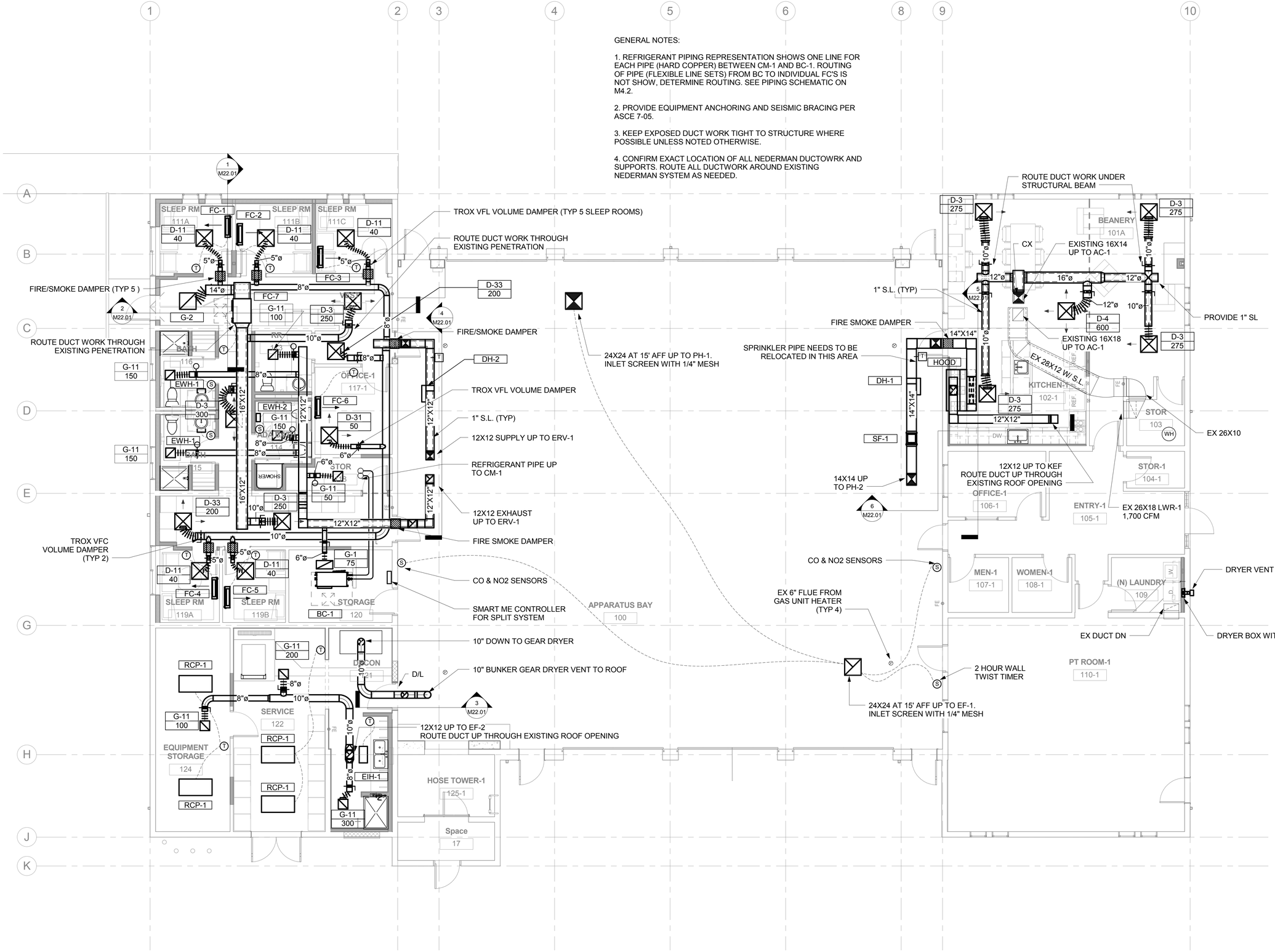
GENERAL NOTES:

1. REFRIGERANT PIPING REPRESENTATION SHOWS ONE LINE FOR EACH PIPE (HARD COPPER) BETWEEN CM-1 AND BC-1. ROUTING OF PIPE (FLEXIBLE LINE SETS) FROM BC TO INDIVIDUAL FC'S IS NOT SHOW, DETERMINE ROUTING. SEE PIPING SCHEMATIC ON M4.2.

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

3. KEEP EXPOSED DUCT WORK TIGHT TO STRUCTURE WHERE POSSIBLE UNLESS NOTED OTHERWISE.

4. CONFIRM EXACT LOCATION OF ALL NEDERMAN DUCTOWRK AND SUPPORTS. ROUTE ALL DUCTWORK AROUND EXISTING NEDERMAN SYSTEM AS NEEDED.



1 Mech_New Print
3/16" = 1'-0"

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61

3203 S 360th STREET AUBURN, WA 98001

PROJECT # 16001

CONSTRUCTION BID DOCUMENTS

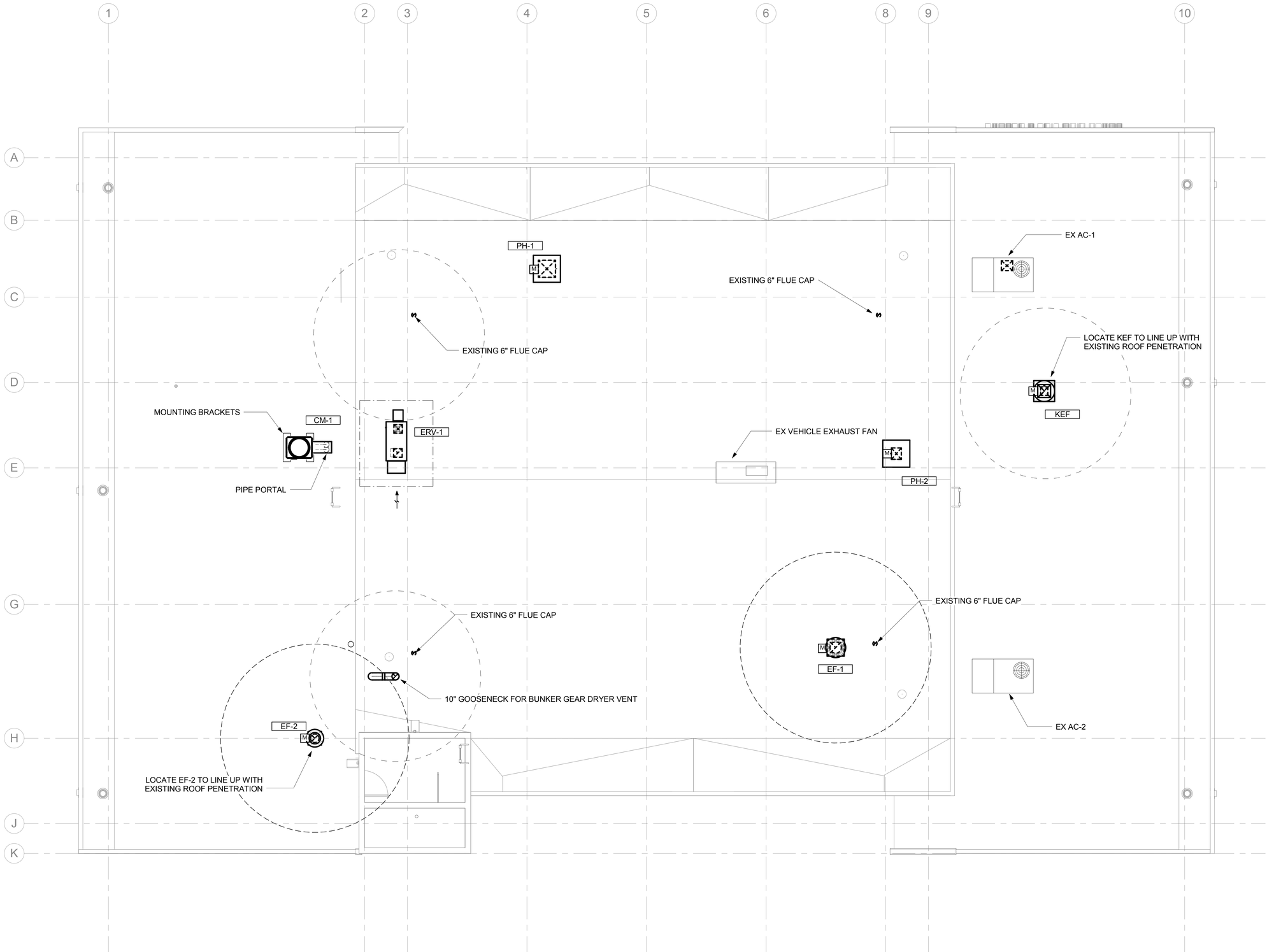
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

MECHANICAL FLOOR PLAN

SHEET:

M21.11



1 2 - Mech Roof Print
3/16" = 1'-0"

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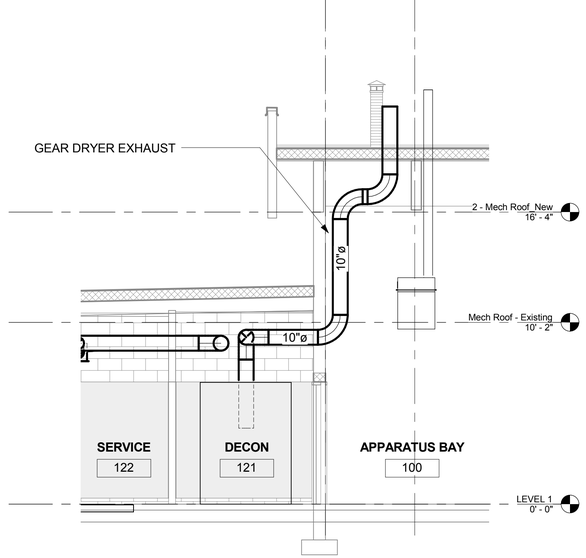
SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET AUBURN, WA 98001

PROJECT # 16001
CONSTRUCTION BID DOCUMENTS
ISSUED: MARCH 16, 2017

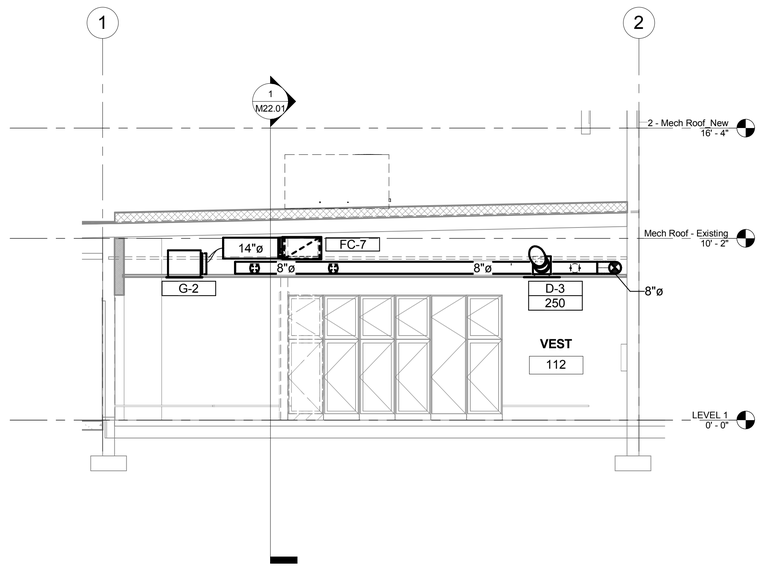
REVISION SCHEDULE

MECHANICAL ROOF PLAN

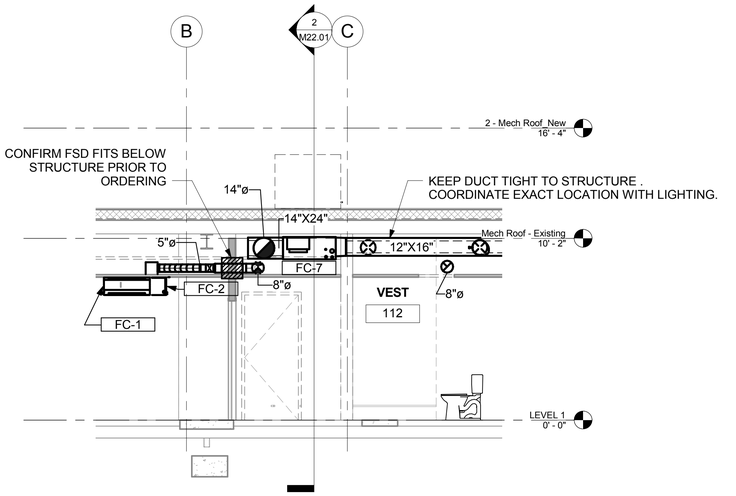
SHEET:
M21.12



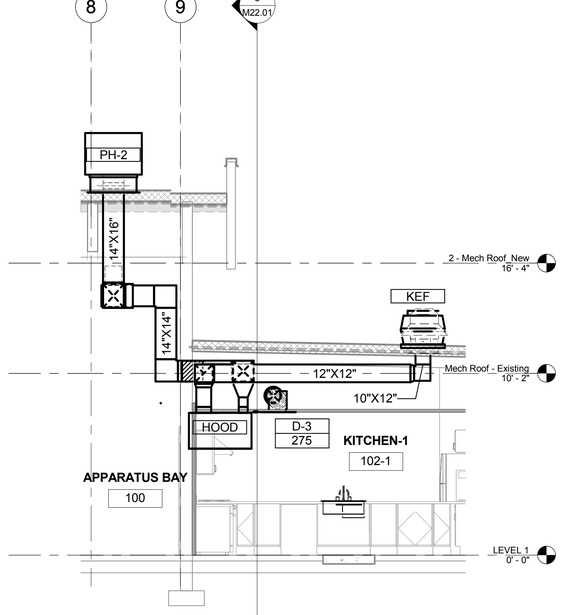
3 GEAR DRYER EXHAUST
1/4" = 1'-0"



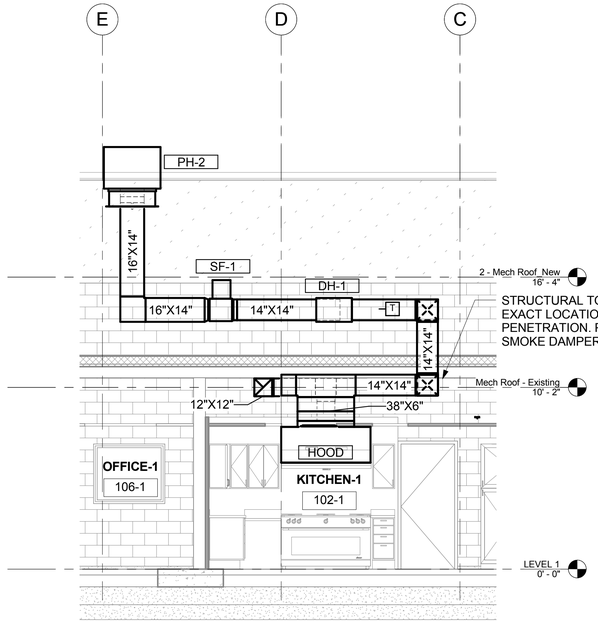
2 FC-7
1/4" = 1'-0"



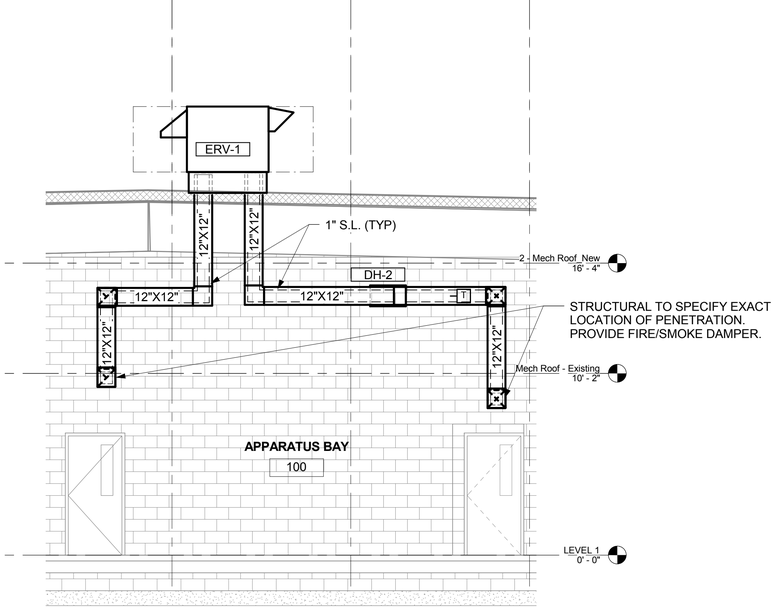
1 FC-7 SUPPLY AND RETURN
1/4" = 1'-0"



6 KITCHEN HOOD DUCTWORK
1/4" = 1'-0"



5 KITCHEN HOOD
1/4" = 1'-0"



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

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

3203 S 360th STREET AUBURN, WA 98001

FIRE STATION 61

PROJECT # 16001

CONSTRUCTION BID DOCUMENTS

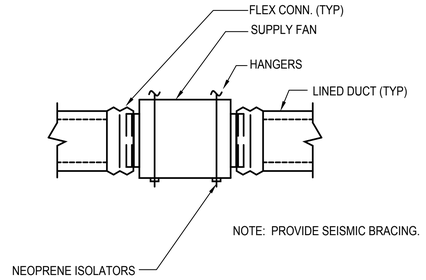
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

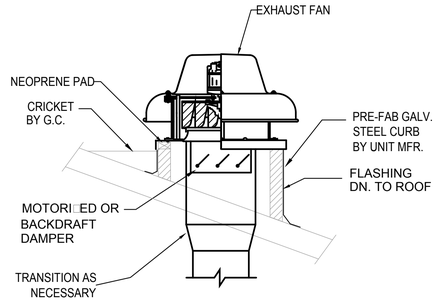
MECHANICAL SECTIONS

SHEET:

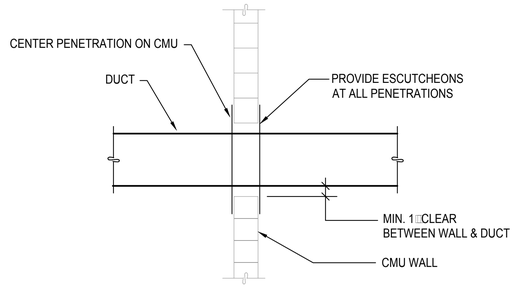
M22.01



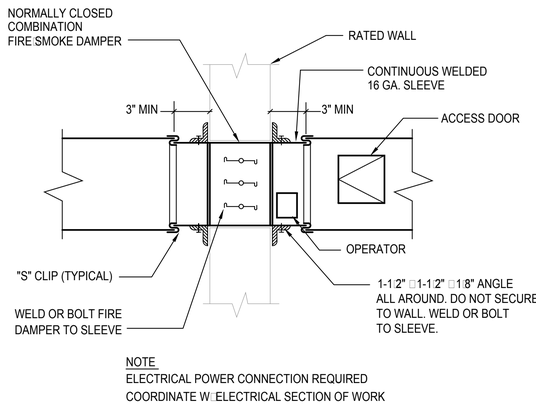
1 INLINE SUPPLY FAN DETAIL
M30.01 **Scale: NONE**



ROOF EXHAUST FAN DETAIL
2 M30.01 **Scale: NONE**

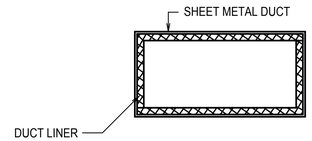


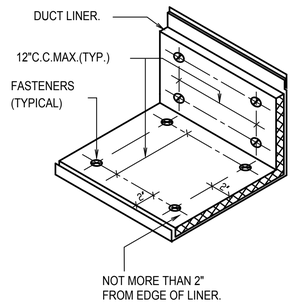
CHASE FOR INTERIOR PENETRATION DETAIL
3 M30.01 **N.T.S.**



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

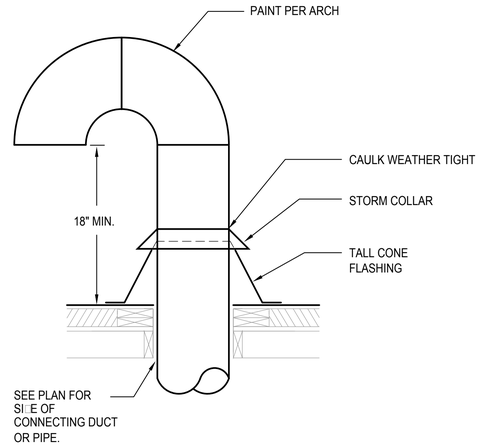
U.L. LISTED COMBINATION FIRE/SMOKE DAMPER
4 M30.01 **N.T.S.**





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

DUCT LINER DETAIL
5 M30.01 **N.T.S.**



ROUND GOOSENECK DETAIL
6 M30.01 **N.T.S.**

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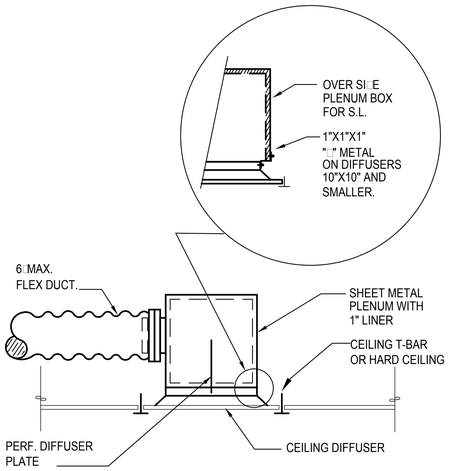
SIDER + BYERS MECHANICAL ENGINEERS
192 N□□□r□□□, S□□□ #300
S□□□□, W□□h□□□□ 98109
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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 16001
CONSTRUCTION BID DOCUMENTS
ISSUED: MARCH 16, 2017
REVISION SCHEDULE

DETAILS

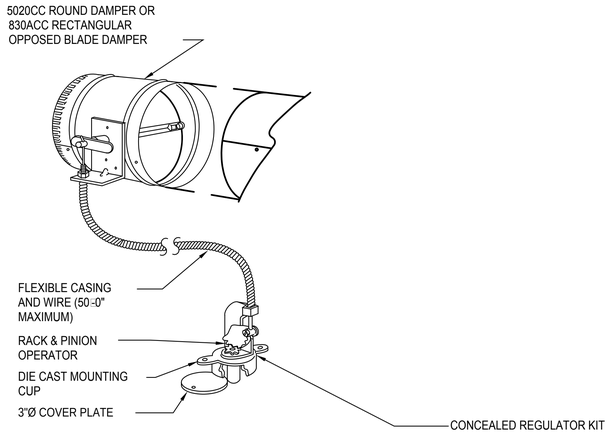
SHEET:
M30.01



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

1 CEILING INSTALLATION TYPICAL DIFFUSER DETAIL

M30.02 **Scale: NONE**

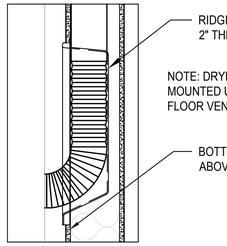


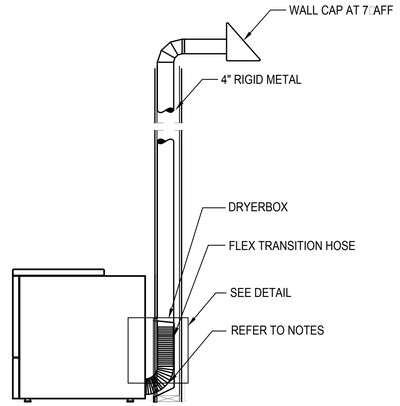
NOTE:

1) COORDINATE EXACT LOCATION OF CEILING MOUNTED CONCEALED REGULATOR WITH ARCHITECT PRIOR TO INSTALLATION.
2) THE 270-301 BOWDEN CABLE CONTROL SYSTEM IS DESIGNED TO BE IMBEDDED IN THE CEILING FLUSH WITH THE FINISHED SURFACE.
3) CABLE SHALL CONSIST OF BOWDEN CABLE 0.054" STAINLESS STEEL CONTROL WIRE ENCAPSULATED IN 1□16" FLEXIBLE GALVANI□ED SPIRAL WIRE SHEATH.

2 REMOTE DAMPER CONTROL

M30.02 **N.T.S.**





3 DRYER VENT WALL BOX

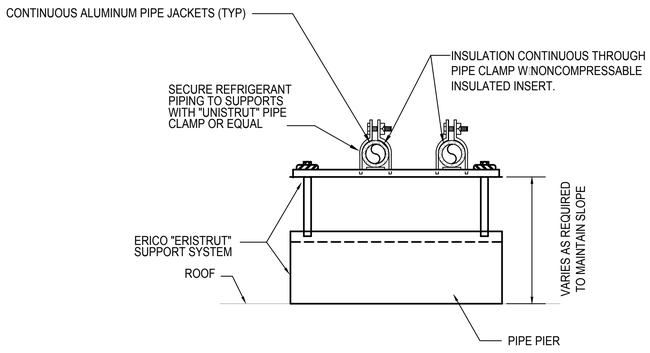
M30.02 **N.T.S.**

DRYERBOX INSTALLATION

DRYER VENTING: MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR RUNNING ALL DUCTWORK FOR THE DRYER EXHAUST SYSTEM. ALL CONCEALED DRYER DUCTING MUST BE RIGID METAL (GALVANI□ED OR ALUMINUM) MINIMUM OF 4" IN DIAMETER, SMOOTH 30 GA. CLEAN, UNOBSTRUCTED, FRICTIONLESS DUCTS (NO FLEXIBLE DUCT ALLOWED IN CONCEALED AREAS). SEAL ALL JOINTS WITH FOIL BACKED PRESSURE SENSITIVE DUCT TAPE MEETING THE REQUIREMENTS OF UL 181. DUCT JOINTS SHALL BE INSTALLED SO THAT THE MALE END OF THE DUCT POINTS IN THE DIRECTION OF THE AIRFLOW. DO NOT USE RIVETS OR SCREWS IN THE JOINTS OR ANYWHERE ELSE IN THE DUCT AS THESE WILL ENCOURAGE LINT COLLECTION.

DRYERBOX® RECEPTACLE (WWW.DRYERBOX.COM) SHALL BE METAL AND BE INSTALLED AS LOW AS POSSIBLE AS TO PERMIT THE PROPER AND SAFE COLLECTION OF THE DRYER TRANSITION HOSE. DRYERBOX SHOULD BE RESTING ON THE BOTTOM PLATE AND BE LOCATED AT OR NEAR THE CENTERLINE OF THE PROPOSED DRYER APPLIANCE. RIGID DUCT SHOULD PENETRATE DRYERBOX PORT 2 INCHES TO PROVIDE FOR FUTURE CONNECTION AND STORAGE OF TRANSITION HOSE. BASEBOARD SHALL BE "BUTTED" UP TO THE FIXED EXTENSION RIM AND SLIGHTLY BACK-CUT. DRYERBOX SHOULD BE CAULKED AND THEN PAINTED WITH THE TRIM PAINT. FOR USAGE IN A ONE-HOUR WALL ASSEMBLY, UL REQUIRES THAT BATT INSULATION BE STUFFED AROUND THE DRYERBOX AND IN THE ENTIRE WALL CAVITY CELL.

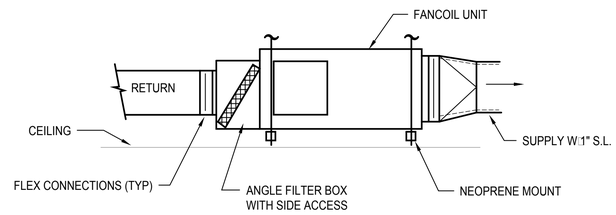
LENGTH OF CONCEALED RIGID METAL DUCTING SHALL NOT EXCEED 25 FEET. DEDUCT 5 FEET FROM THE ALLOWABLE LENGTH FOR EVERY 3.5" RADIUS 90 DEGREE ELBOW AND TWO AND A HALF FEET FOR EVERY 45 DEGREE FITTING. DRYER VENTING SHALL BE INDEPENDENT OF ANY OTHER SYSTEMS (CHIMNEYS OR EXHAUST VENTS). TERMINATION OF DRYER VENTING MUST BE TO THE EXTERIOR WITH A PROPER HOOD OR ROOF JACK EQUIPPED WITH A BACK-DRAFT DAMPER. SMALL ORIFICE METAL SCREENING SHOULD NOT BE PART OF THE HOOD OR ROOF JACK AS THIS WILL ACCELERATE LINT ACCUMULATION AND BLOCKAGE. THE HOOD OPENING SHOULD POINT DOWN AND EXHIBIT 12 INCHES OF CLEARANCE BETWEEN THE BOTTOM OF THE HOOD AND THE GROUND OR OTHER OBSTRUCTION. VERIFY MANUFACTURER'S RECOMMENDATIONS FOR ANY OTHER FACTORS.



NOTE:
PROVIDE ADDITIONAL WIDTH ON PIPE SUPPORT FOR ELECTRICAL CONDUIT(S) AND CONTROL CONDUIT(S). COORDINATE WITH ELECTRIC AND CONTROL CONTRACTORS.

4 ROOF REFRIGERANT PIPE SUPPORT DETAIL

M30.02 **N.T.S.**



5 FAN COIL DETAIL

M30.02 **N.T.S.**

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61

3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 16001

CONSTRUCTION BID DOCUMENTS

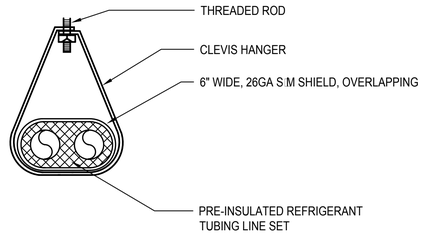
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REVISION SCHEDULE

DETAILS

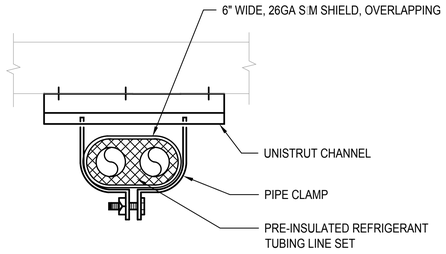
SHEET:

M30.02



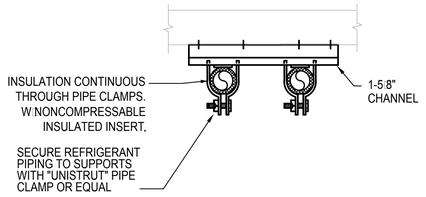
REFRIGERANT PIPE SUPPORT

1 M30.03 N.T.S.



REFRIGERANT PIPE SUPPORT

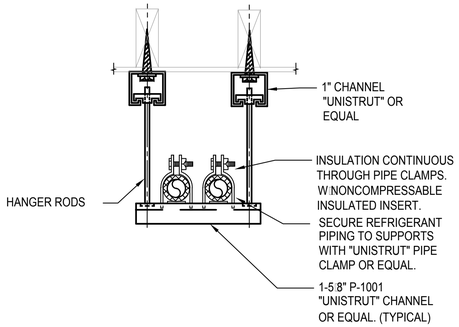
2 M30.03 N.T.S.



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

REFRIGERANT PIPE SUPPORT

3 M30.03 N.T.S.

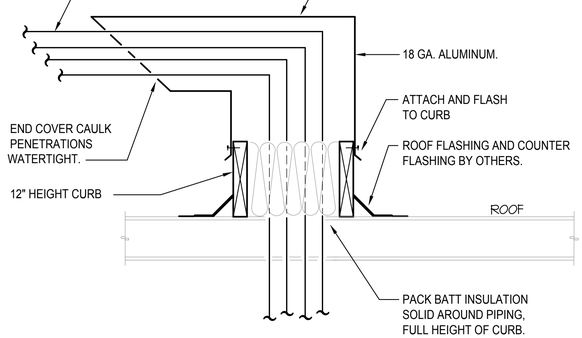


NOTE:
QUANTITY OF PIPES SHOWN REPRESENATIVE ONLY, PROVIDE QUANITY OF PIPES REQUIRED.

SUSPENDED REFRIGERANT PIPE SUPPORT

4 M30.03 N.T.S.

NOTE:
CURB AND PORTAL DIMENSIONS
AS INDICATED ON PLAN.

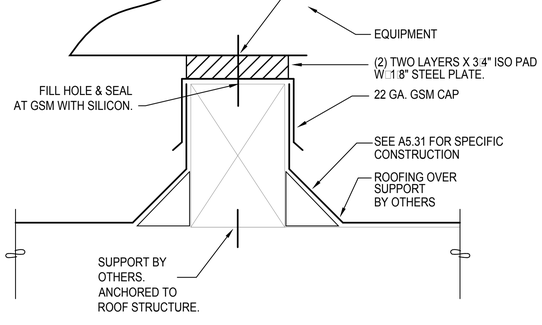


REFRIGERANT PIPING ROOF PENETRATION DETAIL

5 M30.03 N.T.S. PIPE PORTAL

NOTE:

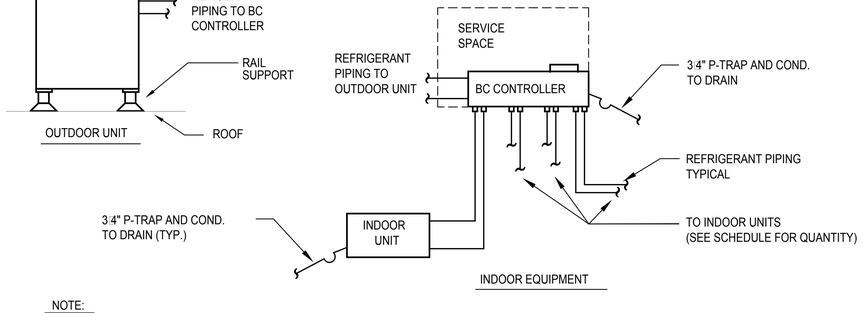
MECH. CONTRACTOR TO HIRE THIRD PARTY STRUCTURAL ENGINEER TO PROVIDE EXACT NUMBER AND SI:E OF BOLTS:FASTENERS AND PROVIDE EQUIPMENT SEISMIC CALCULATIONS.



DETAIL TYPICAL FOR CONDENSING UNIT SUPPORT. DUCT SUPPORT SIMILAR.

RAIL SUPPORT DETAIL

6 M3.03 Scale: NONE



NOTE:

1. INSULATE BOTH LIQUID AND VAPORS LINES THROUGH OUT SYSTEM.
2. SECURE OUTDOOR UNIT TO SUPPORT.
3. SI:E REFRIGERANT LINES BASED ON MITSUBISHI SYSTEM CALCULATIONS. SEE M40.02
4. VERIFY ROUTING FOR REFRIGERANT PIPING AND CONDENSATE DRAINS.

VRFZ SYSTEM

7 M30.03 N.T.S.

RICE ARCHITECTURE & PLANNING fergus MILLER
275 FIFTH STREET
SUITE 100
BREMERTON, WA 98337
(360) 377-8773
FAX 792-1385
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SIDER+BYERS MECHANICAL ENGINEERS
192 N□□r□□□, S□□:#300
S□□□□, W□h□□□□ 98109
Ph□□□: 206.285.2966

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

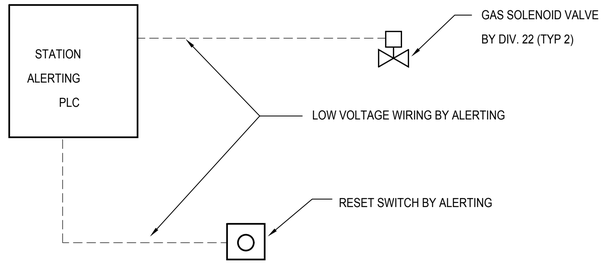
PROJECT # 16001
CONSTRUCTION BID DOCUMENTS
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

DETAILS

SHEET:

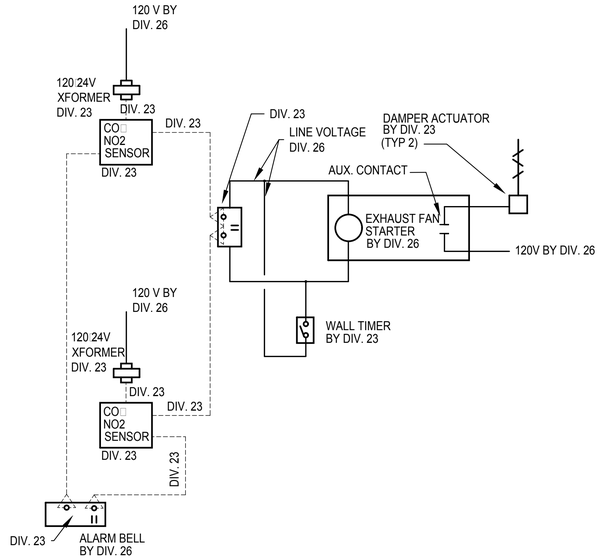
M30.03



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

(TYPICAL FOR BBQ & KITCHEN RANGE)

1 M40.01 **GAS VALVE/RESET CONTROL**
N.T.S.



CO/NO2 (EF-1)
2 M40.01 **SENSOR CONTROL SCHEMATIC**
Scale: NONE

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M40.01

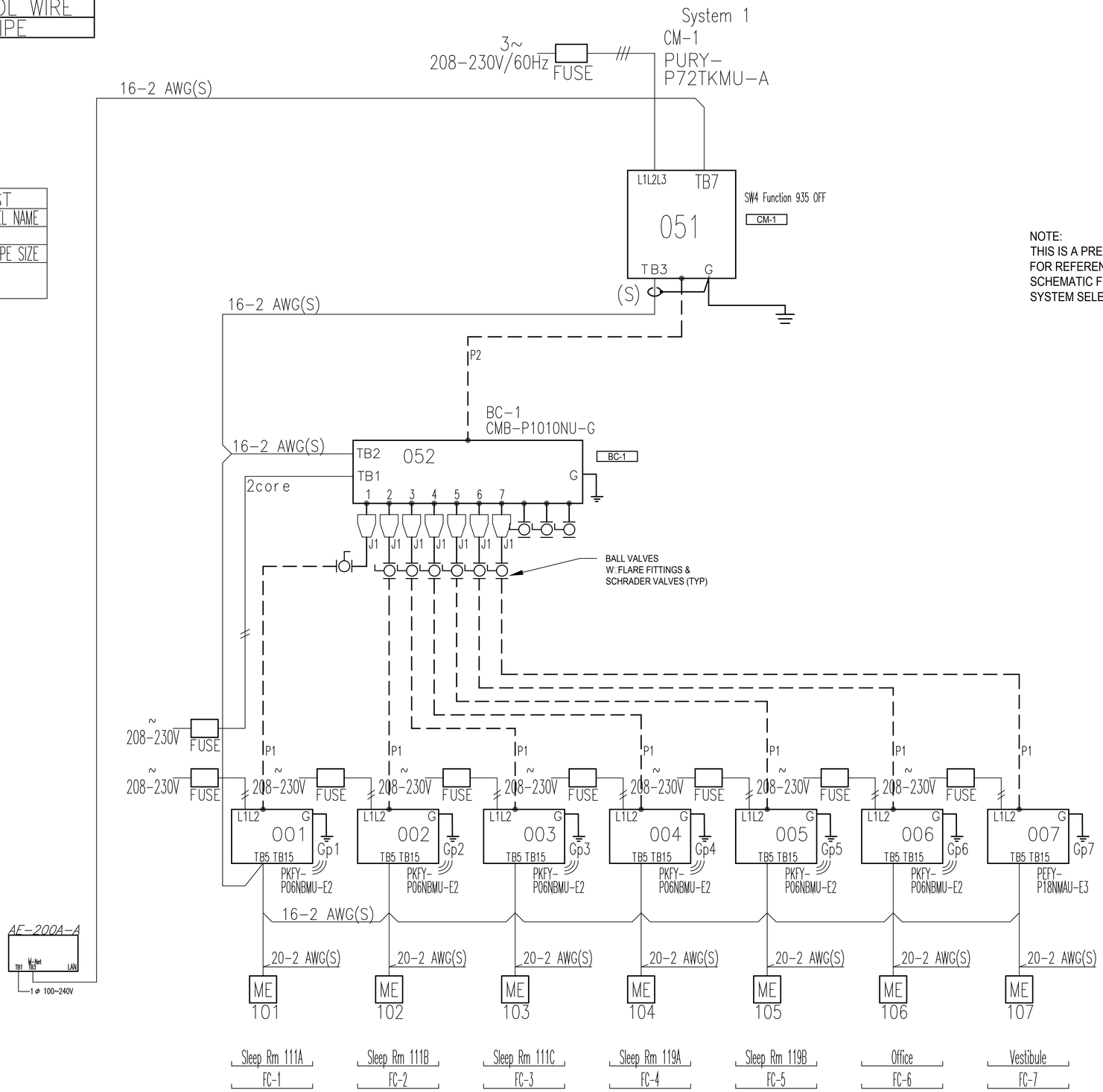
DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
—//—	POWER WIRE
———	CONTROL WIRE
———	REF. PIPE

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	1/4	/ 1/2
P2	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.

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M40.02

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 — DIONI:ED 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 2.0 GPM
   - C. PRIVATE LAVATORY FAUCETS. 1.5 GPM
   - D. KITCHEN SINK FAUCETS 1.5 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/OUICK 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. RISER DIAGRAMS & PLANS DO NOT SHOW SOME PIPING OFFSETS REOUIRED FOR STRUCTURAL CLEARANCES. EXACT ROUTING MAY VARY FROM THAT INDICATED. ALL WASTE PIPING INCLUDING RISERS ON RESIDENTIAL LEVELS TO BE CAST IRON.
10. PROVIDE ELECTRIC HEAT TRACE UNDER PIPING INSULATION FOR ALL WATER PIPING INSTALLED IN UNHEATED GARAGE SPACES.
11. CONFIGURE PIPING FOR SUDS RELIEF AS REOUIRED BY THE UPC.
12. 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 EOUIPMENT TYPE, CAPACITY AND EFFICIENCY.
2. PUBLIC LAVATORIES SHALL BE EOUIPPED WITH AN ASSE 1070 MIXING VALVE SET TO DELIVERY 110 F HOT WATER.
3. NONCIRCULATING HOT WATER SYSTEMS WIHOUT 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 C404.6 AND SPECIFICATION SECTION 22 07 00.
6. INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED FROM DAMAGE, SUNLIGHT, MOISTURE AND WIND. ADHESIVE TAPE IS NOT PERMITTED.
7. ALL PIPE AND WRAP INSULATION SHALL BE LABELED WITH ITS THICKNESS AND INSULATING VALUE (R OR K).
8. CIRCULATING HOT WATER PUMPS OR HEAT TRACE SHALL BE EOUIPPED 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
EOUIP	EOUIPMENT
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
REOD	REOUIRED
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	SOUARE 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 FREOUENCY 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

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FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 16001

CONSTRUCTION BID DOCUMENTS

ISSUED: MARCH 16, 2017

REVISION SCHEDULE

COVER SHEET

SHEET:

P00.01

PLUMBING FIXTURE SCHEDULE

MARK	ITEM	MFR: MODEL	DESCRIPTION
SH-1	SHOWER	FIBER FAB: 38BFFW	38-1/4" DP. X 38" WIDE X 80-3/4" 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-364872	36" X 48" X 72" SOLID SURFACE SHOWER WALLS WITH SOLID SURFACE PAN. VERIFY COLOR WITH ARCH
	DRAIN		PERFORATED GRID STRAINER, CHROME.
S-1	DECON SINK	ELKAY: CUSTOM	110" LONG X 27-1/2" DEEP, 14 GAUGE 304 STAINLESS STEEL, FULL LENGTH 8" HIGH BACKSPLASH, 24" X 18" X 14" DEEP BOWLS, LEFT AND RIGHT END DRAINBOARDS, DRAINBOARDS SLOPE TO SINK. CENTERED DRAINS, STAINLESS STEEL TUBULAR LEGS. PROVIDE FAUCET HOLES ON BACKSPLASH ABOVE BOTH BOWLS TO MATCH SCHEDULED FAUCETS. PROVIDE HOLE ON BACKSPLASH ABOVE RIGHT DRAINBOARD FOR THE EYEWASH.
	FAUCET	T & S BRASS: B-2187	WALL MOUNTED FITTING, 10" SWING SPOUT W/AERATOR, INDEXED LEVER HANDLES, 8" CTRS., PRE-RINSE FAUCET W/ RUBBER HOSE & SPRAY VALVE. CHROME FINISH.
	EMERGENCY EYE WASH	HAWS: 7610	BACKSPLASH 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 DRAINBOARD.
	DRAIN	ELKAY: LK25RT	2" DIAMETER TAILPIECE, ROTARY LEVER OPERATED DRAIN OUTLET
S-2	SINK	ELKAY: DLRS332212	33"X22"X12" DEEP, SINGLE COMPARTMENT, #18 GAUGE STAINLESS STEEL, SELF-RIMMING SOUND DEADENED, 5 HOLES ON 4" CENTERS.
	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: F-HC3300	2/3 GALLON HOT WATER TANK, ADJUSTABLE TEMPERATURE, SELF CLOSING VALVE, F-1000S FILTRATION SYSTEM, BRASS FAUCET
	DISPOSER	INSINKERATOR: EVOLUTION EXCEL	1 HP, 1725 RPM 120 VOLT
S-3	PREP SINK	ELKAY: DLRS222210	22"X22"X10-1/8" DEEP, SINGLE COMPARTMENT, #18 GAUGE STAINLESS STEEL, SELF-RIMMING SOUND DEADENED, 4 HOLES ON 4" CENTERS.
	FAUCET	CHICAGO: 786-ABCP	9" HIGH X 5" SWINGING GOOSENECK, 2.0 GPM, LEVER HANDLES.
	DRAIN		CRUMB CUP STRAINER, 1 1/2" TAILPIECE, STAINLESS STEEL.
LAV-1	LAVATORY	KOHLER: 2196-4	17" X 20" OVAL, COUNTER TOP, SELF RIM, VIT. CHINA, 4" CTRS, WHITE.
	FAUCET	SYMMONS: S-20-2	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. SET OUTLET TEMPERATURE TO 110° F PER WSEC SECTION C404.3 REQUIREMENTS.
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	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. SET OUTLET TEMPERATURE TO 110° F PER WSEC SECTION C404.3 REQUIREMENTS.
WC-1	WATER CLOSET	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. 17" RIM HEIGHT. FLUSH HANDLES TOWARDS OPEN SIDE OF RESTROOM PER ADA.
	SEAT	BEMIS: 1955C	WHITE PLASTIC, OPEN FRONT, W/O COVER.
HB-1	HOSE BIBB (HOT & COLD)	LEONARD: CW75-VBD	RECESSED CABINET, INTERNAL VACUUM BREAKER, 16 GA. SS, 3/4" HOSE THREAD. MOUNT NEXT TO SS-1 DIRECTLY TO CMU WALL
	HOSE	LEONARD: 20-HDH	20' HEAVY DUTY HOSE
	NOZZLE	LEONARD: N-2	STANDARD NOZZLE
RD-1	ROOF DRAIN	ZURN: Z-100-C-R	15" DIAMETER CAST IRON BODY, 3" PIPE SIZE, ALUMINUM DOME, UNDER-DECK CLAMP. ORDERING
OD-1	ROOF DRAIN	ZURN: Z-100-C-R-W2	15" DIAMETER CAST IRON BODY, 3" PIPE SIZE, ALUMINUM DOME, UNDER-DECK CLAMP. 2" HIGH DAM.
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.
LB	LAUNDRY BOX	OATEY: 38470SP	FIRE-RATED ABS OUTLET BOX 1/2" HW & 1/2" CW, 2" DRAIN.
SV	SERVICE VALVE	SIOUX CHIEF: 696-G1010MF	1/2" SERVICE STOP FOR SUPPLY WATER, WATER HAMMER ARRESTOR, OUTLET BOX, 5-3/4" X 7-1/4" BOX.
CP-1	CIRC. PUMP	ARMSTRONG: ASTRO 225SSU	2 GPM @ 8' HEAD, 115 VOLT/1 PHASE, FLA 0.69, 83 WATTS, STAINLESS STEEL PUMP BODY.
CP-2	CIRC. PUMP	ARMSTRONG: ASTRO 225SSU	2 GPM @ 7' HEAD, 115 VOLT/1 PHASE, FLA 0.69, 83 WATTS, STAINLESS STEEL PUMP 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.

PLUMBING FIXTURE CONNECTION SCHEDULE

MARK	FIXTURE	PIPE SIZE C.W	H.W	WASTE	VENT	WATER FIXTURE UNITS	WASTE FIXTURE UNITS	REMARKS
LAV-1	LAVATORY	1/2"	1/2"	1-1/4"	1-1/4"	1	1	OVAL, COUNTER TOP
LAV-2	LAVATORY	1/2"	1/2"	1-1/4"	1-1/4"	1	1	WALL MOUNT
WC-1	WATER CLOSET	1"	-	4"	2"	5	4	FLOOR MOUNT, TANK TYPE
SH-1	SHOWER	1/2"	1/2"	2"	1-1/2"	2	2	
SH-2	SHOWER	1/2"	1/2"	2"	1-1/2"	2	2	ADA
S-1	SINK	1/2"	1/2"	2"	1-1/2"	2	2	DECON SINK
S-2	KITCHEN SINK	1/2"	1/2"	2"	2"	1.5	2	
S-3	KITCHEN SINK	1/2"	1/2"	2"	2"	1.5	2	
LB	LAUNDRY BOX	1/2"	1/2"	2"	2"	4	3	
SV	SERVICE VALVE	1/2"	-	-	-	0.5	-	
TD-1	TRENCH DRAIN	-	-	4"	-	-	8	EXTRACTOR TRENCH DRAIN
HB-1	HOSE BIBB	3/4"	3/4"	-	-	2.5	-	HOT AND COLD, DECON.

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S[illegible], W[illegible] 98109
Ph[illegible]: 206.285.2966

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

3203 S 360th STREET, FIRE STATION 61
FEDERAL WAY, WASHINGTON

PROJECT # 16001

CONSTRUCTION BID DOCUMENTS

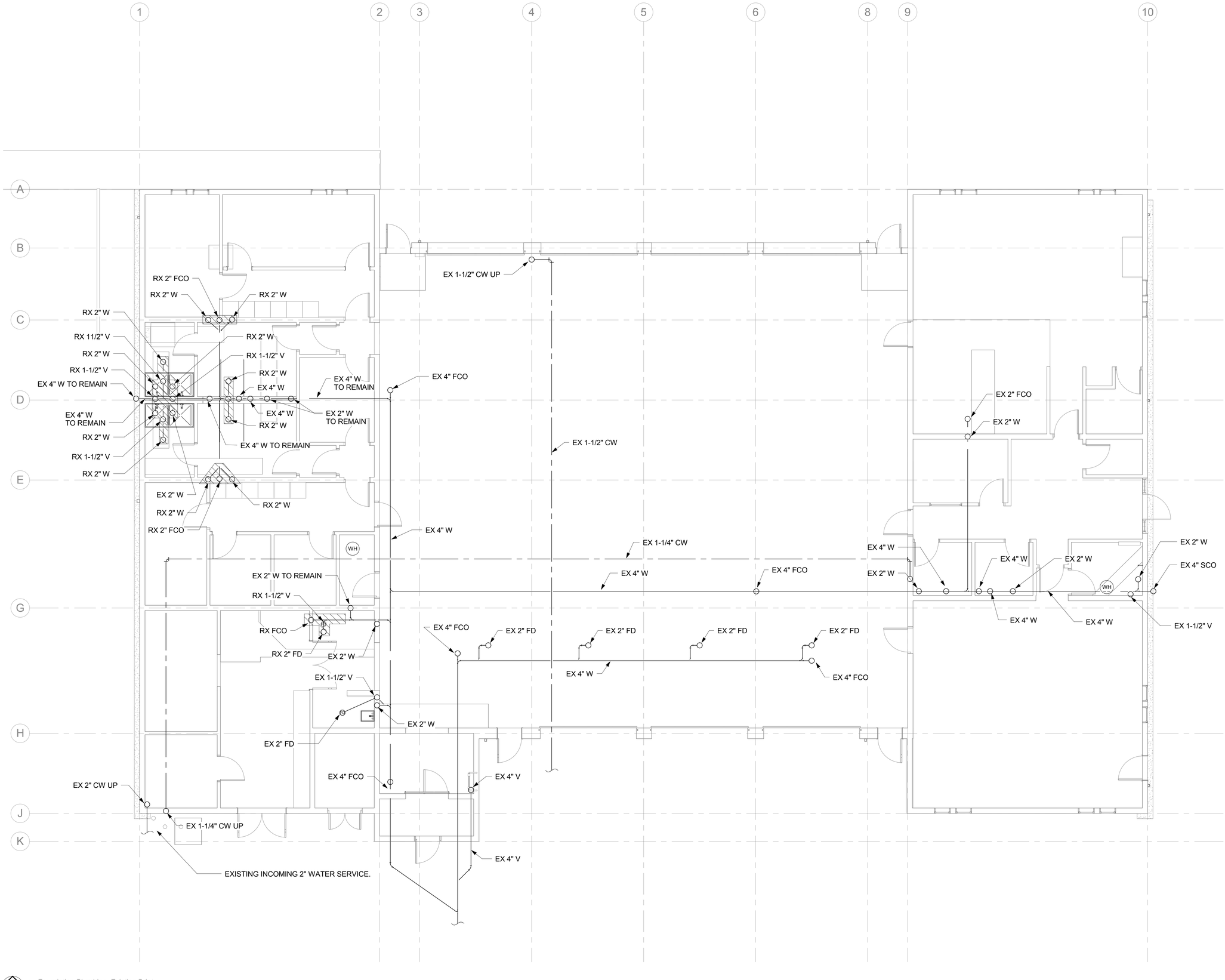
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REVISION SCHEDULE

SCHEDULES

SHEET:

P00.02



1 Foundation Plumbing_Existing Print
3/16" = 1'-0"

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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

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FIRE STATION 61

PROJECT # 16001

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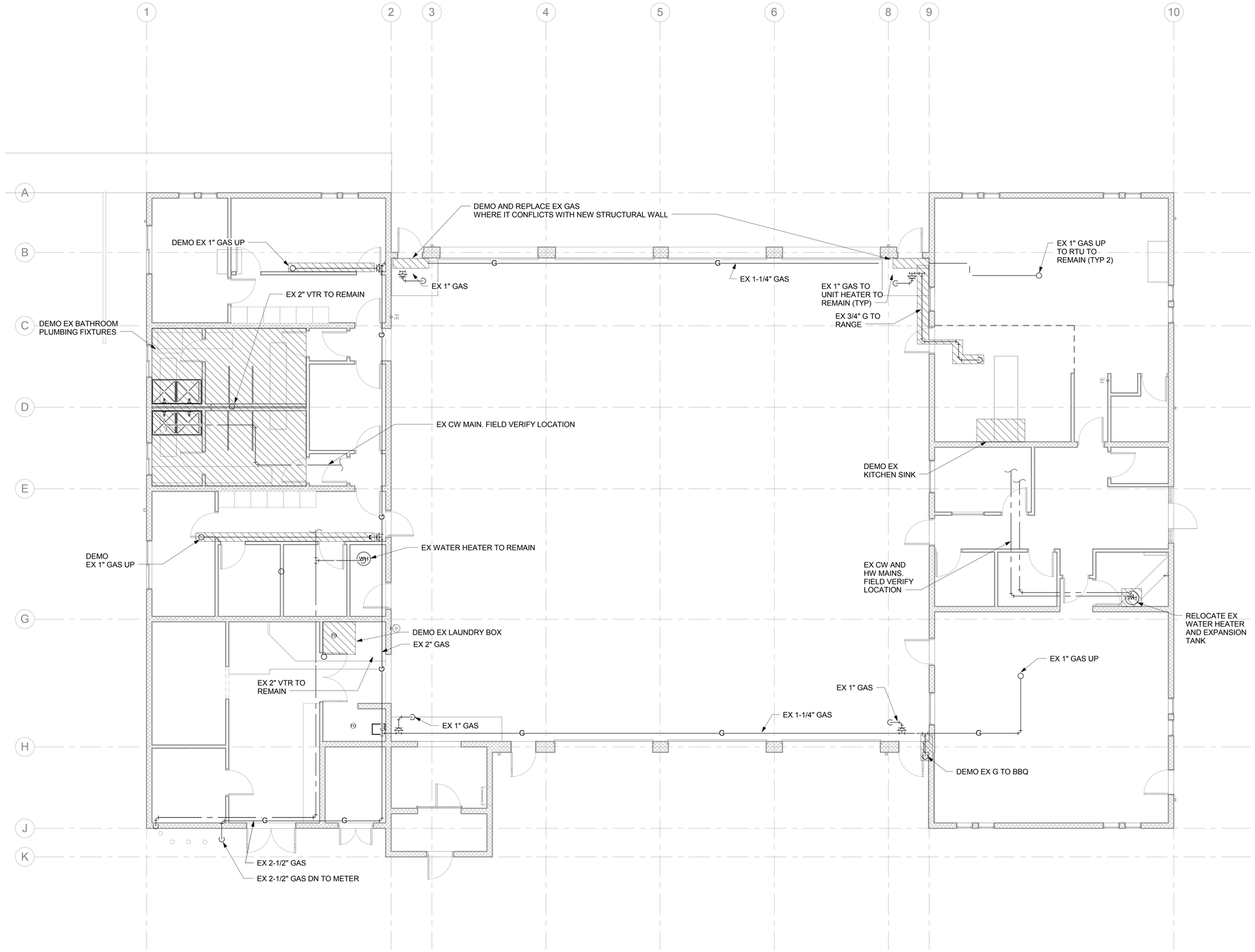
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REVISION SCHEDULE

PLUMBING DEMO FOUNDATION PLAN

SHEET:

P20.10



1 Plumbing_Existing Print
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SOUTH KING FIRE & RESCUE
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FIRE STATION 61

PROJECT # 16001

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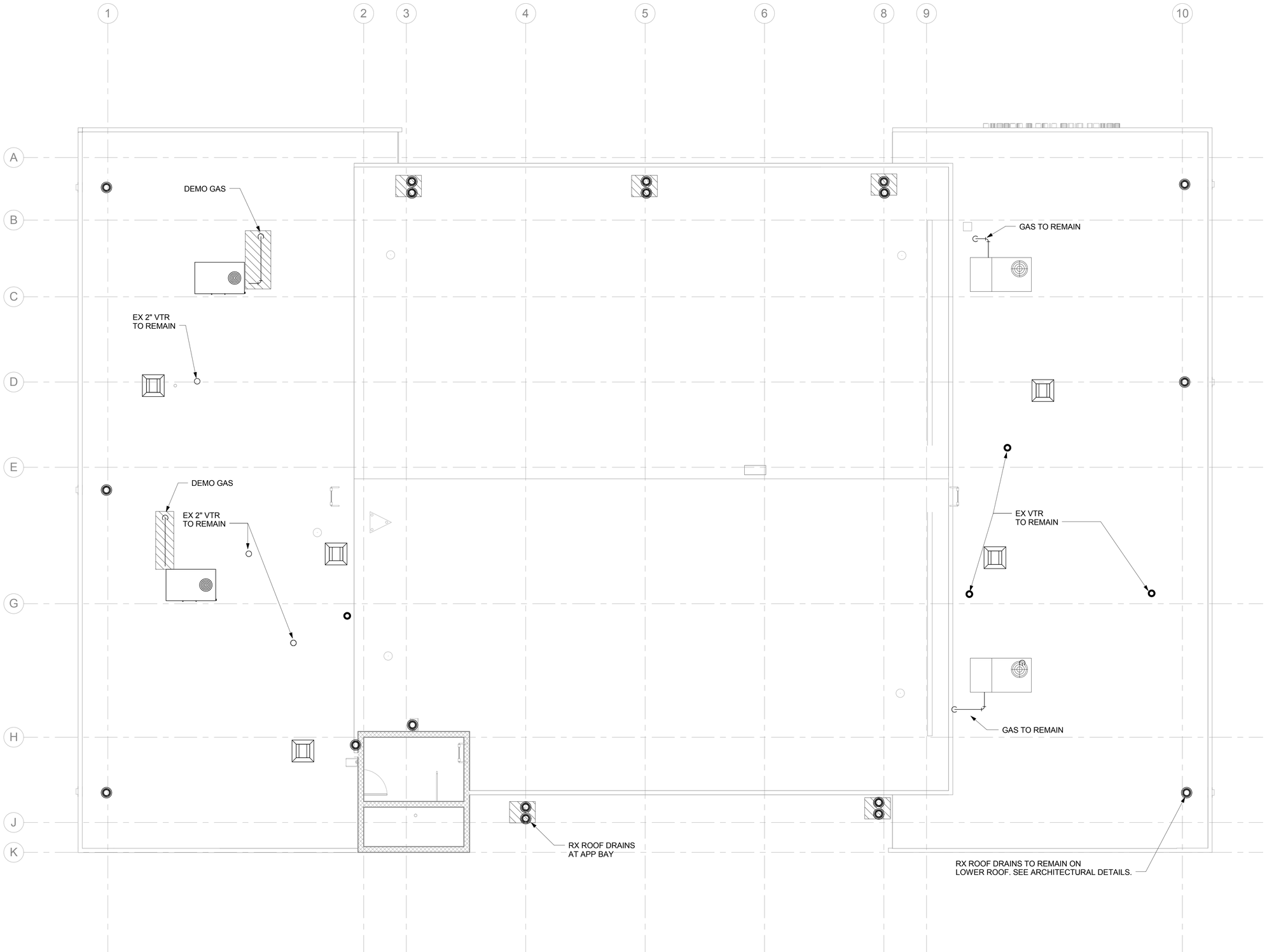
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REVISION SCHEDULE

PLUMBING DEMO FLOOR PLAN

SHEET:

P20.11



1 PLUMBING DEMO ROOF PLAN
3/16" = 1'-0"

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SOUTH KING FIRE & RESCUE
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FIRE STATION 61

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PROJECT # 16001

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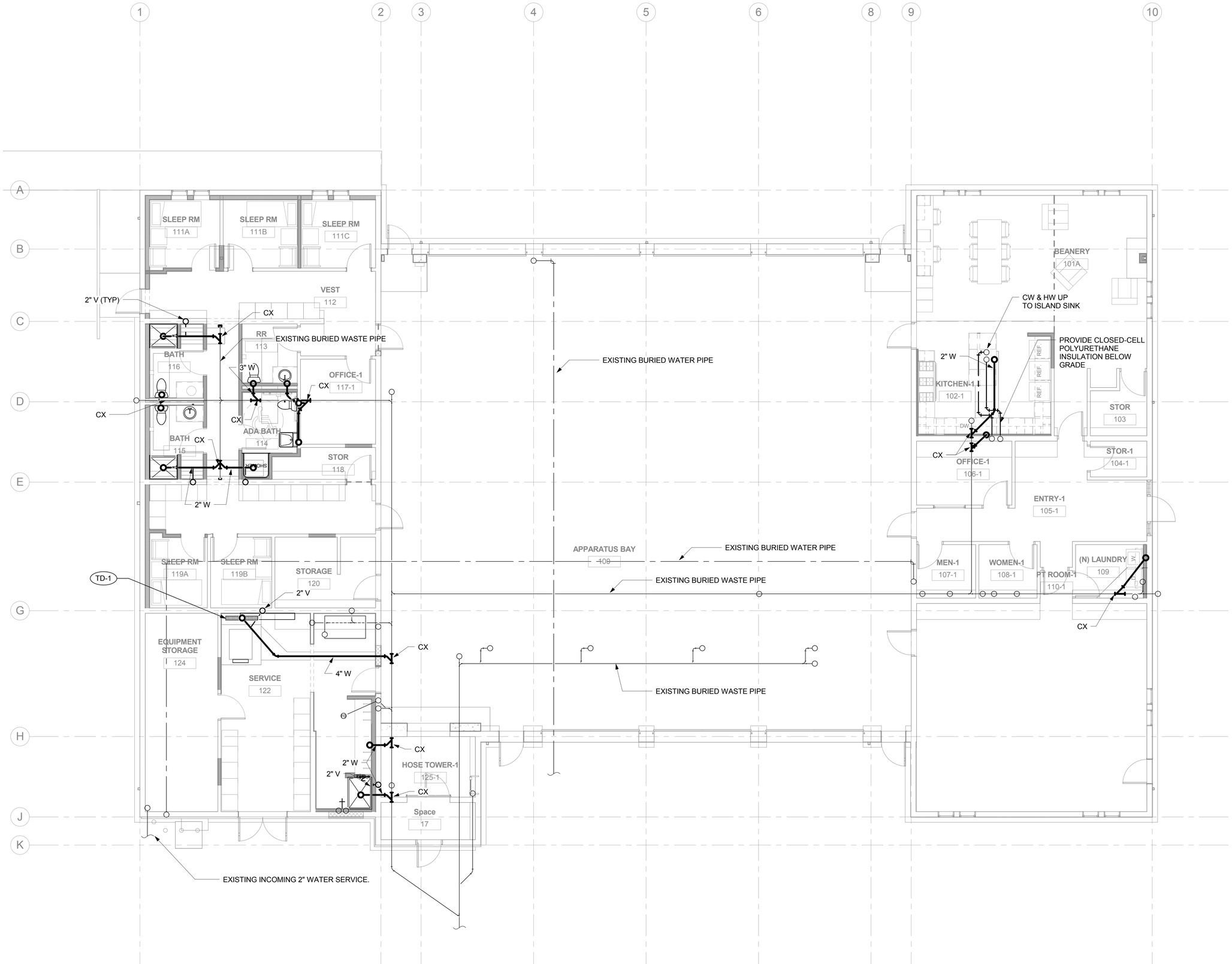
ISSUED: MARCH 16, 2017

REVISION SCHEDULE

PLUMBING DEMO
ROOF PLAN

SHEET:

P20.12



1 Foundation Plumbing_new Print
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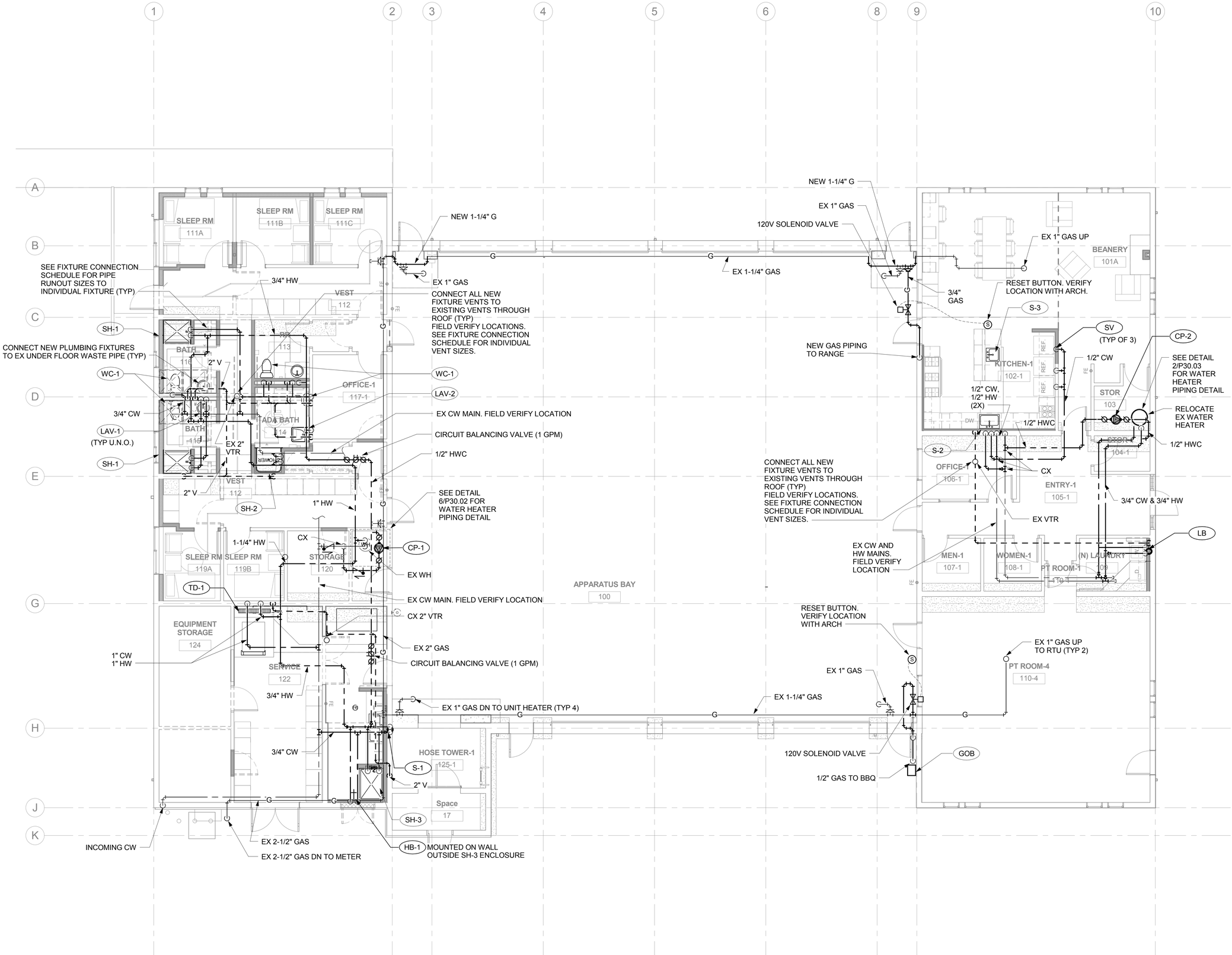
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REVISION SCHEDULE

PLUMBING
FOUNDATION PLAN

SHEET:

P21.10



1 Plumbing_new Print
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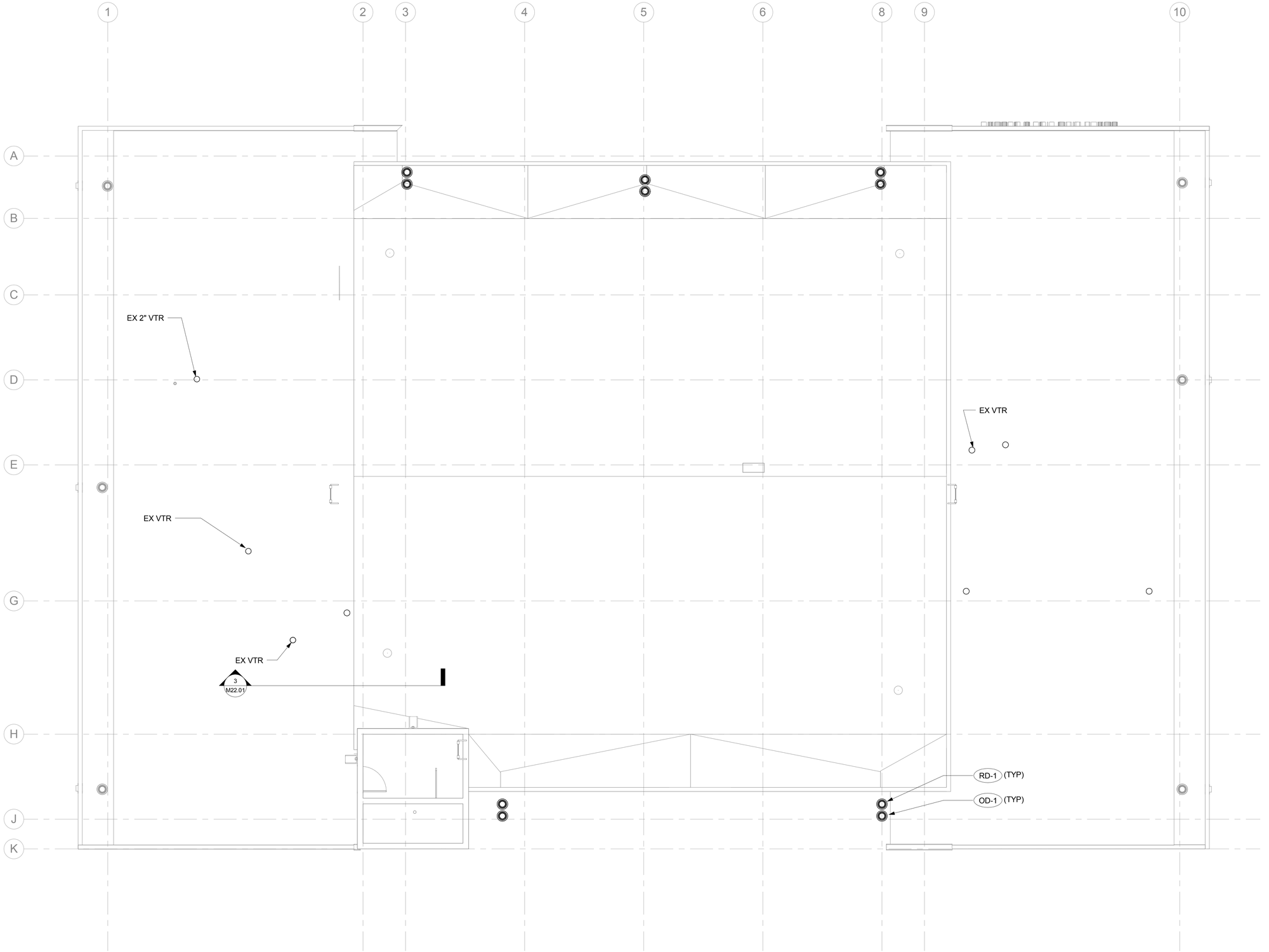
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REVISION SCHEDULE

PLUMBING FLOOR PLAN

SHEET:

P21.11



1 Plumbing Roof Print - new
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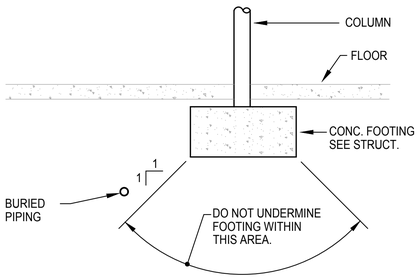
SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET AUBURN, WA 98001

PROJECT # 16001
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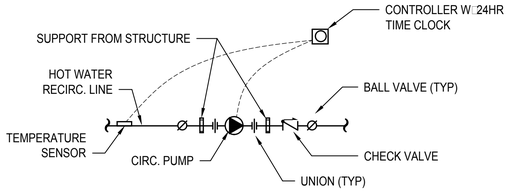
REVISION SCHEDULE

PLUMBING ROOF PLAN

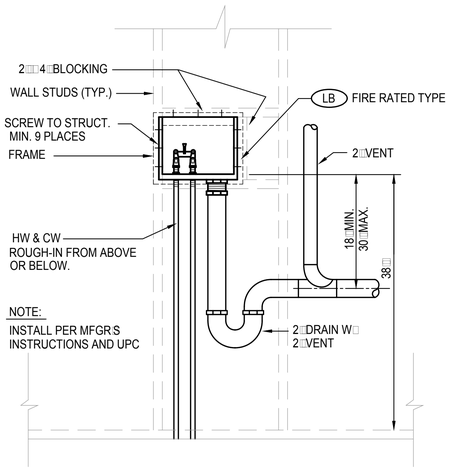
SHEET:
P21.12



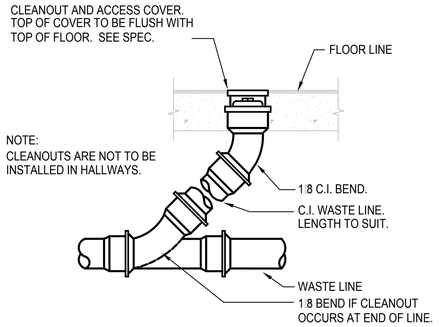
1 BURIED PIPING DETAIL
P30.01 N.T.S.



2 DOMESTIC CIRC. PUMP DETAIL
P30.01 N.T.S.

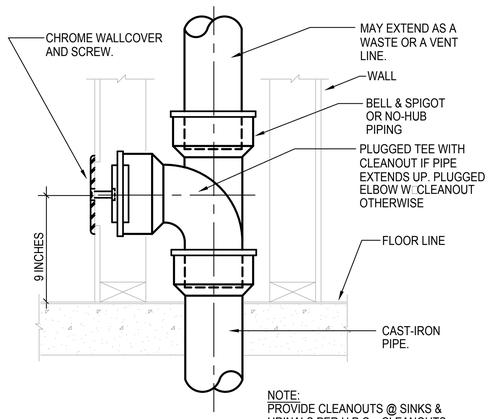


3 LAUNDRY BOX DETAIL
P30.01 N.T.S.



NOTE:
FOR GRADE CLEANOUTS (GCO)
IN VEHICULAR TRAFFIC AREAS,
PROVIDE ACCESS HOUSING EQUAL
TO WADE # 8300 MF-39.

4 FLOOR CLEANOUT DETAIL
P30.01 N.T.S.



NOTE:
PROVIDE CLEANOUTS @ SINKS &
URINALS PER U.P.C.. CLEANOUTS
SHALL BE LOCATED BELOW
FIXTURE.

5 WALL CLEANOUT DETAIL
P30.01 N.T.S.

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S[illegible]ttle, W[illegible]h[illegible]t[illegible] 98109
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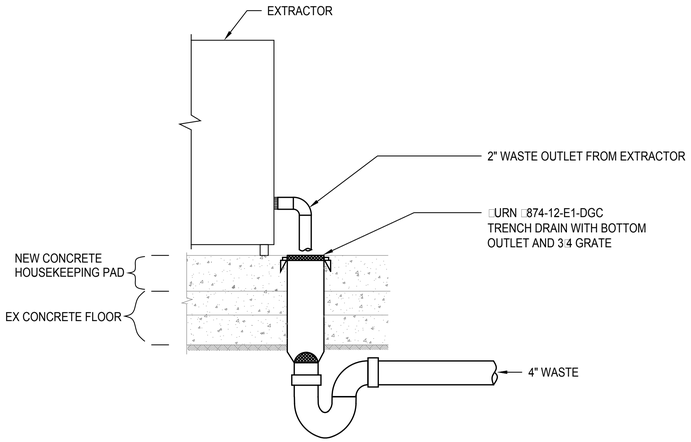
SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 16001
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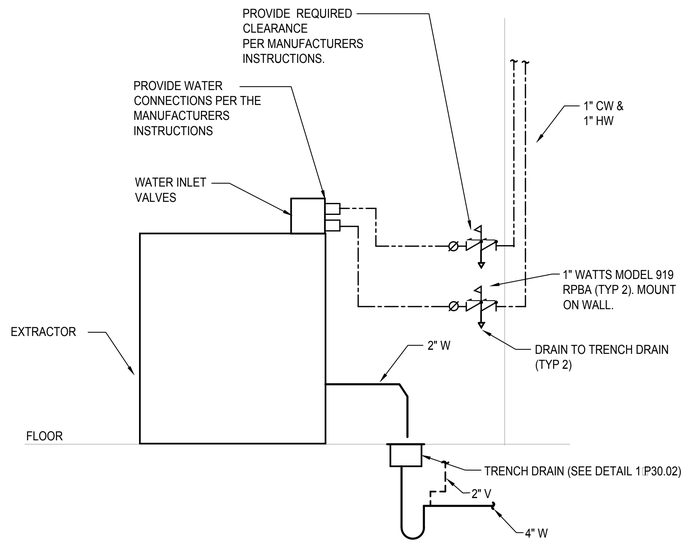
REVISION SCHEDULE

DETAILS

SHEET:
P30.01

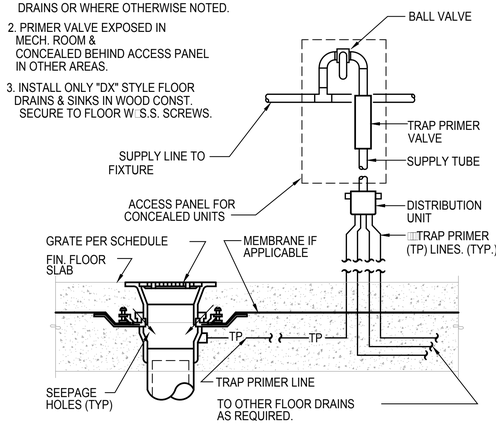


1 EXTRACTOR TRENCH DRAIN DETAIL
P30.02 N.T.S.

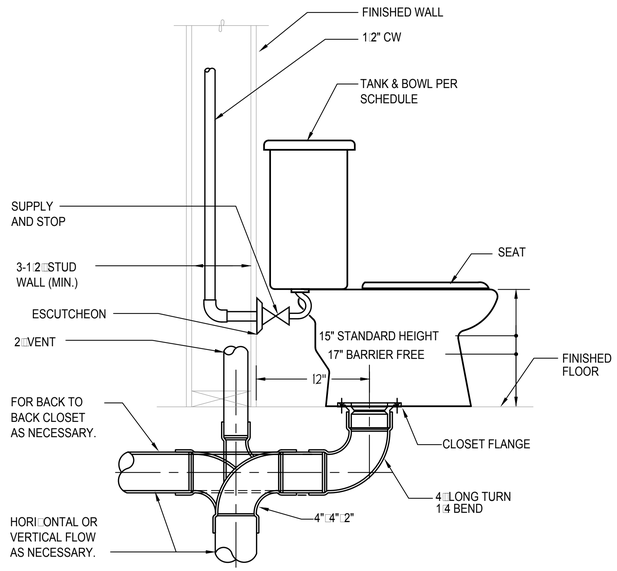


2 EXTRACTOR DETAIL
P30.02 N.T.S.

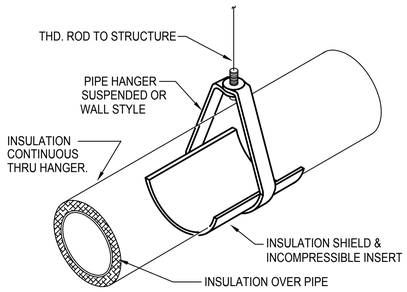
NOTES:
1. PROVIDE TRAP PRIMERS ON ALL FLOOR DRAINS & FLOOR SINKS EXCEPT SHOWER DRAINS OR WHERE OTHERWISE NOTED.
2. PRIMER VALVE EXPOSED IN MECH. ROOM & CONCEALED BEHIND ACCESS PANEL IN OTHER AREAS.
3. INSTALL ONLY "DX" STYLE FLOOR DRAINS & SINKS IN WOOD CONST. SECURE TO FLOOR W/ S.S. SCREWS.



3 TRAP PRIMER DETAIL
P30.02 N.T.S.

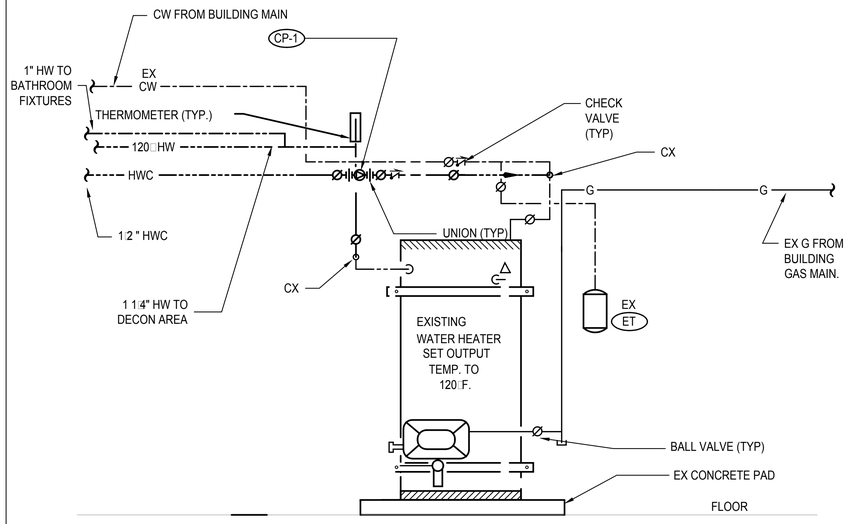


4 WATER CLOSET DETAIL
P30.02 N.T.S.



NOTE:
INSULATE & LABEL PIPING PER. SPEC.

5 PIPE HANGER DETAIL
P30.02 N.T.S.



6 GAS WATER HEATER DETAIL
P30.02 N.T.S.

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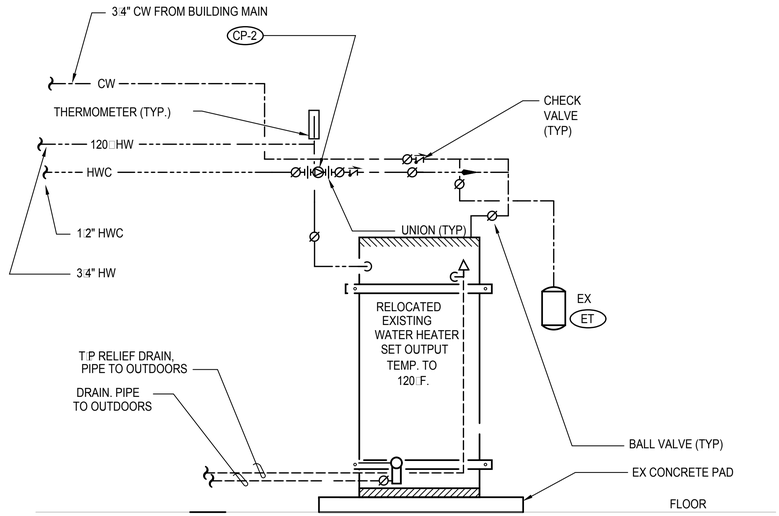
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SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS
FIRE STATION 61
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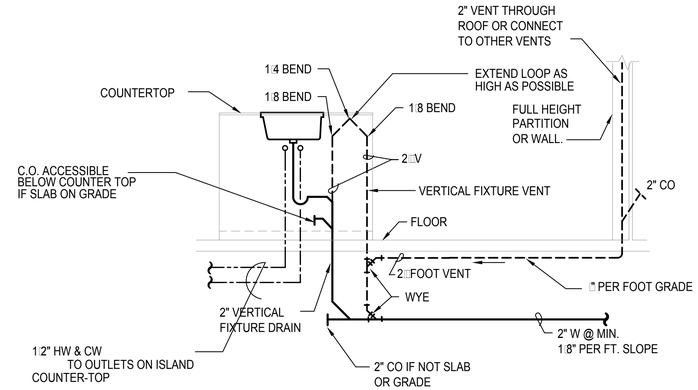
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ISSUED: MARCH 16, 2017
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DETAILS

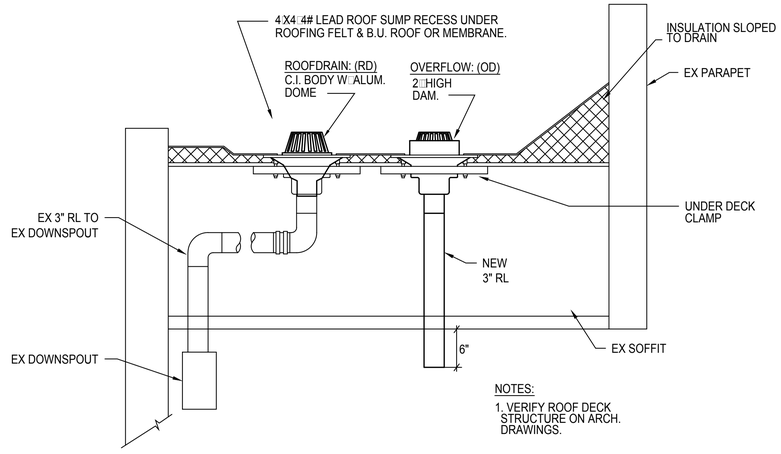
SHEET:
P30.02



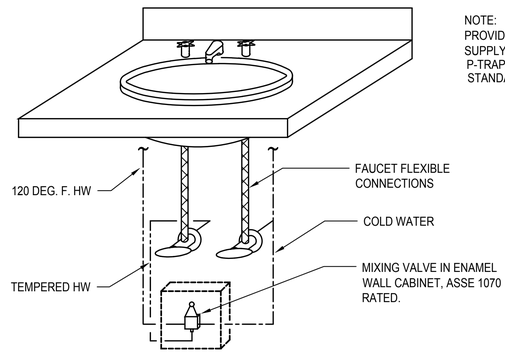
2 ELECTRIC WATER HEATER DETAIL
P30.03 N.T.S.



1 ISLAND VENT DETAIL
P30.03 N.T.S.



3 ROOF DRAIN PIPING SCHEMATIC
P30.03 N.T.S.



LAVATORY WATER CONNECTION DETAIL
4 P30.03 N.T.S.

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SHEET:
P30.03

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 (E INDICATES EXISTING TO BE REPLACED)
$_A$	ARC FAULT DUPLEX RECEPTACLE
$_G$	DUPLEX RECEPTACLE (G INDICATES GROUND FAULT CIRCUIT INTERRUPTER)
$_C$	DUPLEX RECEPTACLE (C INDICATES ABOVE COUNTER)
	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)
	EXISTING PANELBOARD TO BE RETAINED
	MAIN DISTRIBUTION BOARD
	ENCLOSED CIRCUIT BREAKER, AMPERES AS INDICATED
M	METER

SYMBOL	DESCRIPTION
	SWITCHES
$	SINGLE POLE SWITCH
$_D	DIMMING SWITCH - SINGLE POLE
$_T	TIMER SWITCH
$_VS	COMBINATION SWITCH / OCCUPANCY SENSOR
$_3	THREE WAY SWITCH
$_4	FOUR WAY SWITCH
$_a$_b	MULTI-GANGED SWITCH (LOWER CASE LETTERS INDICATES SWITCHING)
	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 SLEEPING ROOM.
DB	DOOR BELL
RS	RESET BUTTON
	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 2ND LEVEL OF HOSE TOWER 125. PROVIDE 6' OF COILED COAX FOR TERMINATION BY TELEVISION SERVICE PROVIDER.
	PROVIDE (2) CATEGORY 6 DATA JACK WITH 2-PORT FACEPLATE AND CATEGORY 6 CABLES. HOMERUN CABLES TO THE 2ND LEVEL OF HOSE TOWER 125. TERMINATE CABLES ON OWNER PROVIDED PATCH PANELS PROVIDE 10' OF COILED CABLING AT THE RACK LOCATION.
	CEILING MOUNTED DATA JACK FOR WIRELESS ACCESS POINT
	EXISTING TELEPHONE / DATA OUTLET TO REMAIN
	MISCELLANEOUS
1	CONSTRUCTION NOTES
1	DEMOLITION NOTES
1	FLAG NOTE
W	W INDICATES WEATHERPROOF FOR ALL DEVICES, PROVIDE LOCKING COVER ON RECEPTACLES.
WG	WG INDICATES WIRE GUARD
$	ALL DEVICES WITH LIGHT LINE WEIGHT INDICATES EXISTING TO BE RETAINED
$	ALL DEVICES WITH DASH LINE INDICATES EXISTING TO BE REMOVED
A / E2 E3	DETAIL CALL OUT - A INDICATES DETAIL IDENTIFICATION, E2 INDICATES SHEET TAKEN FROM, E3 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

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4/13/2017

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 2015137

BID SET

ISSUED: MARCH 24, 2017

REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

ELECTRICAL LEGEND

SHEET:

E-001

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.

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NOTES

SHEET:

E-002

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
RL1	2X2 RECESSED LIGHT FIXTURE	FOCAL POINT #FEQ2-22-AC-4000LH-35K-1C-UNV-WH	LED - 35K	4000	120	41	
RL1E	2X2 RECESSED EMERGENCY LIGHT FIXTURE	FOCAL POINT #FEQ2-22-AC-4000LH-35K-1C-UNV-EM-WH	LED - 35K	4000	120	41	
RL2	2X2 RECESSED LIGHT FIXTURE	FOCAL POINT #FEQ2-22-AC-3000LH-35K-1C-UNV-WH	LED - 35K	3000	120	35	
RL2E	2X2 RECESSED EMERGENCY LIGHT FIXTURE	FOCAL POINT #FEQ2-22-AC-3000LH-35K-1C-UNV-EM-WH	LED - 35K	3000	120	35	
RL3	6" RECESSED DOWNLIGHT FIXTURE	PATHWAY #6VFLX-2000L-120-6VLEDCL-SCLPF	LED - 35K	2000	120	25	
RL4	6" RECESSED SHOWER DOWNLIGHT FIXTURE	PATHWAY #6VFLX-1100L-120-6VLEDCL-SCLPF-WL	LED - 35K	1100	120	15	
RL5	6" RECESSED LED RED LENSED DOWNLIGHT FIXTURE	PATHWAY #6VFLX-1500-4K-RED LENSE	LED - 40K	1500	120	18	
SL1	1X4 SURFACE MOUNT LIGHT FIXTURE	LUMINAIRE LED #VPF8-4-50W-3500K-120-277-CP-WHT	LED - 35K	5477	120	54	
SL1E	1X4 SURFACE MOUNT LIGHT FIXTURE	LUMINAIRE LED #VPF8-4-50W-3500K-120-277-CP-WHT-EMB310	LED - 35K	5477	120	54	
SL2	1X4 SURFACE MOUNT LIGHT FIXTURE	LITHONIA LIGHTING #MNSL-MV-M6	LED - 40K	2100	120	24	
UC1	1 FOOT LONG UNDER COUNTER LIGHT	FINELITE #UC-E-12"-S-PS-8W-ES1	LED - 35K	196	120	4	
WL1	1X4 PENDANT MOUNT	COLUMBIA LIGHTING #CWM2-35VWSM-SFFP-EU	LED - 35K	1447	120	14	
WL2E	EXTERIOR WALL MOUNT WITH EMERGENCY BATTERY	LITHONIA LIGHTING #WSTM-LED-40-120-PE-*	LED - 40K	1277	120	17	ARCHITECT TO SELECT COLOR
EX1	EXIT LIGHT	LITHONIA #EXG LED M6	LED	NA	120	0.8	
EX2	EMERGENCY LIGHTING	LITHONIA #EU2 LED M12	LED	NA	120	1.8	

MECHANICAL EQUIPMENT CONNECTION SCHEDULE (EXHAUST FANS, AIR HANDLING UNITS, ETC)

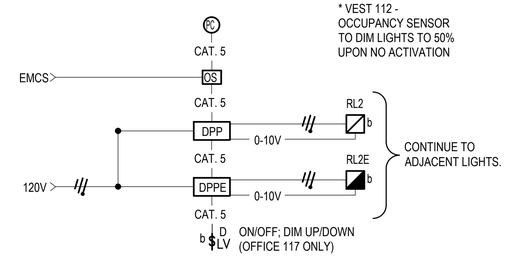
EQUIP.	VOLT/PH	LOAD VA	LOAD MCA	LOAD HP	CIRCUIT PANEL	CIRCUIT BKR	CONDUIT/WIRE SIZE	MANUAL STARTER (NOTE 1)	MAGNETIC STARTER (NOTE 1)	FUSED DISC. (NOTE 1)	REMARKS
FC -1	208/1	40	0.19		P3	18,20	3/4"C., (3) #12 CU. & (1) #12 GR.			EC	
FC -2	208/1	40	0.19		P3	18,20	3/4"C., (3) #12 CU. & (1) #12 GR.			EC	
FC -3	208/1	40	0.19		P3	18,20	3/4"C., (3) #12 CU. & (1) #12 GR.			EC	
FC -4	208/1	40	0.19		P3	18,20	3/4"C., (3) #12 CU. & (1) #12 GR.			EC	
FC -5	208/1	40	0.19		P3	18,20	3/4"C., (3) #12 CU. & (1) #12 GR.			EC	
FC -6	208/1	40	0.19		P3	18,20	3/4"C., (3) #12 CU. & (1) #12 GR.			EC	
FC -7	208/1	325	1.56		P3	18,20	3/4"C., (3) #12 CU. & (1) #12 GR.			EC	
CM -1	208/3	8280	23		P3	22,24,26	3/4"C., (4) #10 CU. & (1) #12 GR.		EC	EC	PROVIDE WITH WEATHER PROOF CONNECTIONS
BC -1	208/1	178	0.9		P1	29	3/4"C., (3) #12 CU. & (1) #12 GR.			EC	
ERV -1	208/1	1498	7.2		P1	30,32	3/4"C., (3) #12 CU. & (1) #12 GR.		EC	EC	
EF -1	208/3	2808	7.8	2	P2	22,24,26	3/4"C., (4) #12 CU. & (1) #12 GR.		EC	EC	
EF -2	120/1	528	4.4	1/6	P1	28	3/4"C., (2) #12 CU. & (1) #12 GR.			EC	
SF -1	120/1	1656	13.8	3/4	P2	30	3/4"C., (2) #12 CU. & (1) #12 GR.		EC	EC	
KEF	120/1	1176	9.8	1/2	P2	28	3/4"C., (2) #12 CU. & (1) #12 GR.		EC	EC	
HOOD	120/1	200	1.7		P2	21	3/4"C., (2) #12 CU. & (1) #12 GR.				PROVIDE WALL SWITCH FOR CONTROL
RCP 1 -1	208/1	750	3.6058		P3	23,25	3/4"C., (3) #12 CU. & (1) #12 GR.				LINE VOLTAGE THERMOSTAT INSTALLED BY E.C.
RCP 1 -2	208/1	750	3.6058		P3	23,25	3/4"C., (3) #12 CU. & (1) #12 GR.				LINE VOLTAGE THERMOSTAT INSTALLED BY E.C.
RCP 1 -3	208/1	750	3.6058		P3	27,29	3/4"C., (3) #12 CU. & (1) #12 GR.				LINE VOLTAGE THERMOSTAT INSTALLED BY E.C.
RCP 1 -4	208/1	750	3.6058		P3	27,29	3/4"C., (3) #12 CU. & (1) #12 GR.				LINE VOLTAGE THERMOSTAT INSTALLED BY E.C.
RCP 1 -5	208/1	750	3.6058		P3	31,33	3/4"C., (3) #12 CU. & (1) #12 GR.				LINE VOLTAGE THERMOSTAT INSTALLED BY E.C.
EIH -1	208/1	2000	9.6154		P3	38,40	3/4"C., (3) #12 CU. & (1) #12 GR.				LINE VOLTAGE THERMOSTAT INSTALLED BY E.C.
DH -1	208/3	18000	50		P4 SEC.1	2,4,6	1-1/2"C., (4)#4 CU. & (1)# 8 GR.				
DH -2	208/3	10000	27.8		P4 SEC.1	8,10,12	1-1/2"C., (4)#8 CU. & (1)# 10 GR.				
EWH 1 -1	208/1	1500	7.2115		P3	30,32	3/4"C., (3) #12 CU. & (1) #12 GR.				
EWH 1 -2	208/1	1500	7.2115		P3	34,36	3/4"C., (3) #12 CU. & (1) #12 GR.				
EWH 1 -3	208/1	1500	7.2115		P3	35,37	3/4"C., (3) #12 CU. & (1) #12 GR.				
CP- 1	120/1	83			P3	6	3/4"C., (2) #12 CU. & (1) #12 GR.			EC	
CP- 2	120/1	83			P2	13	3/4"C., (2) #12 CU. & (1) #12 GR.			EC	

NOTE: 1. CONTRACTOR LISTED SHALL FURNISH AND INSTALL THE LISTED DEVICE.

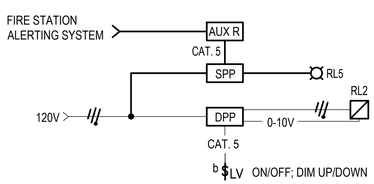
LIGHTING CONTROLS LEGEND

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

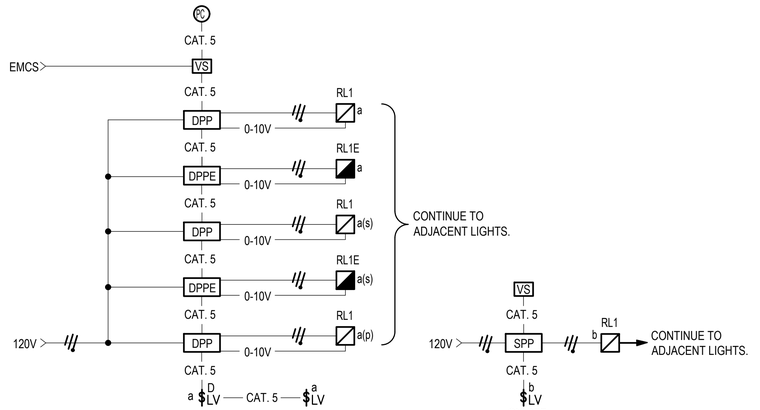
NOTE :
1. COORDINATE PROGRAMMING AND OCCUPANCY/VACANCY TIMEOUT SETTINGS WITH THE OWNER.



2 VEST 112 & OFFICE 117
SCALE: DIAGRAMATIC



3 TYPICAL SLEEPING ROOMS
SCALE: DIAGRAMATIC



1 BEANARY 101B
SCALE: DIAGRAMATIC

1 KITCHEN 102
SCALE: DIAGRAMATIC

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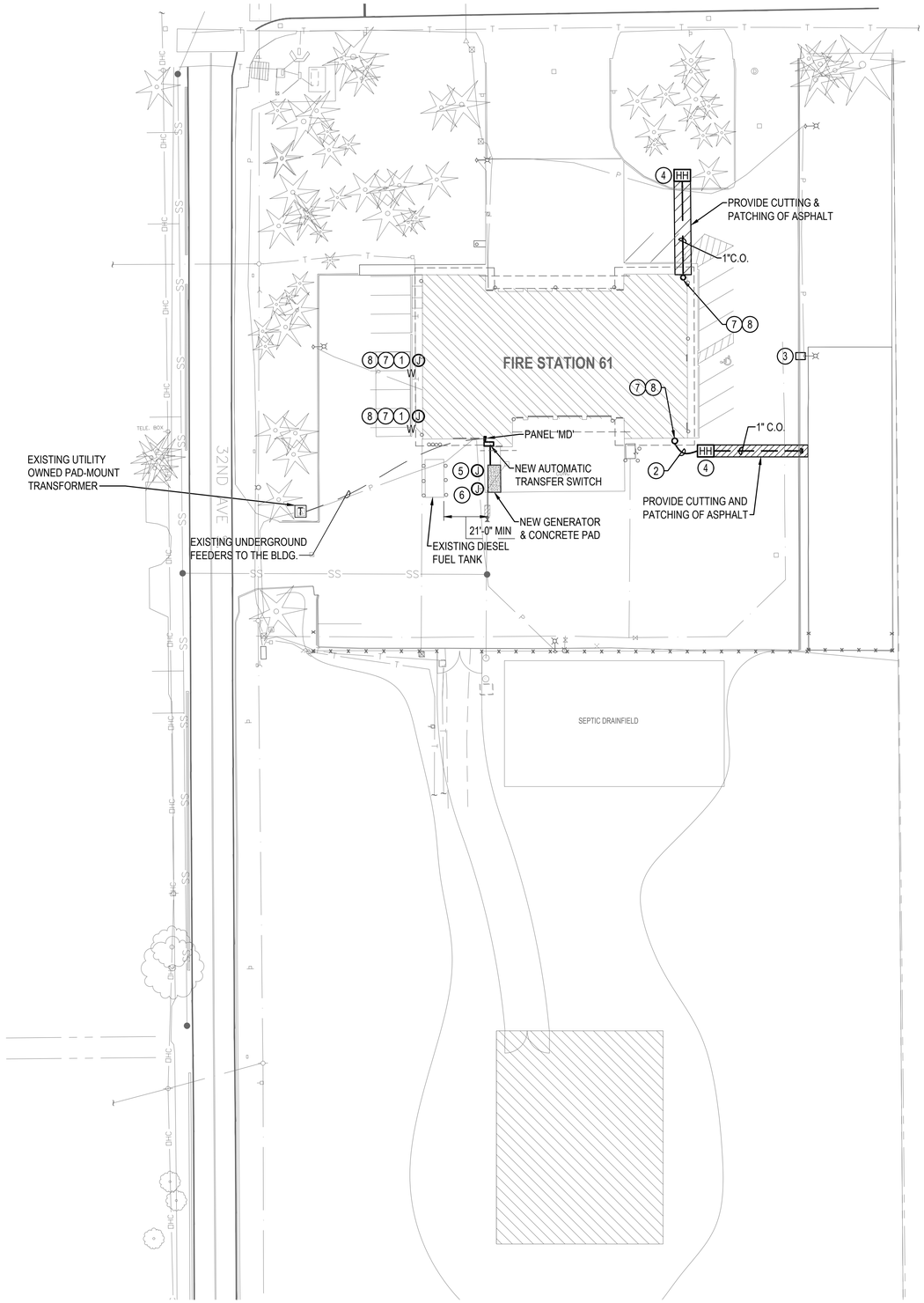
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

SCHEDULES & LIGHTING CONTROL DIAGRAMS

SHEET:

E-003



1 ELECTRICAL SITE PLAN
SCALE: 1"=30'-0"

CONSTRUCTION NOTES

1. PROVIDE 4" SQ WEATHERPROOF BACKBOX WITH COVER AND 1" GALVANIZED RIGID C.O. INTO ABOVE ACCESSIBLE CEILING SPACE FOR FUTURE CAR CHARGING STATIONS. MOUNT AT +30" ABOVE GRADE. ROUTE CONDUIT INTO STORAGE ROOM 124.
2. PROVIDE (2)1-1/2" GALVANIZED RIGID C.O. FROM PANEL P2 TO HANDHOLE FOR MOTORIZED GATE, CONTROLLER, CARD READER AND DETECTOR LOOPS. PROVIDE CUTTING AND PATCHING OF ASPHALT.
3. CARD READER FOR GATE TO BE PROVIDED BY OWNER.
4. PROVIDE FOGTITE TYPE 2 HANDHOLE WITH GALVANIZED H20 RATED LID AND INTERIOR DIVIDING PARTITION TO ACCOMMODATE POWER / LOW VOLTAGE WIRING.
5. PROVIDE WEATHERPROOF CONNECTION TO BATTERY CHARGER. PROVIDE 3/4"C., (2)#12 & (1)#12 GR TO P1-20
6. PROVIDE WEATHERPROOF CONNECTION TO BLOCK HEATER. PROVIDE 3/4"C., (2)#12 & (1)#12 GR TO P1-22.
7. ROUTE CONDUITS UP OUTSIDE OF THE BUILDING LB BELOW SOFFIT AND INTO THE ACCESSIBLE CEILING SPACE. PROVIDE CORE DRILLING THROUGH EXISTING MASONRY WALL.
8. PROVIDE WATER TIGHT SEALANT AROUND CONDUITS PENETRATING THE EXTERIOR WALL. PAINT CONDUITS TO MATCH EXTERIOR MASONRY WALL.

GENERAL NOTES

1. PROVIDE ALL TRENCHING, BACKFILLING AND COMPACTION FOR INSTALLATION OF ALL UNDERGROUND WORK.

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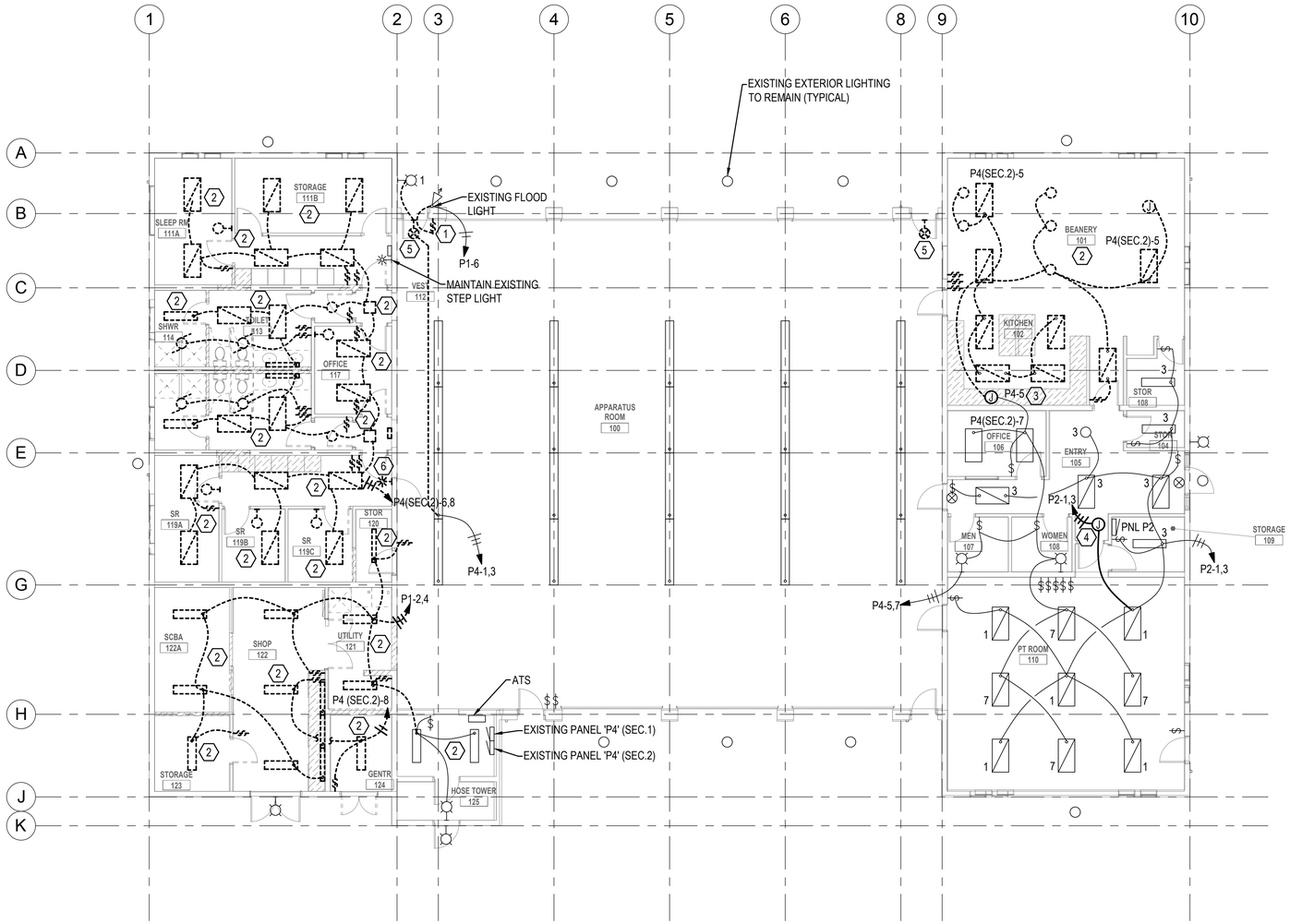
ELECTRICAL SITE PLAN

SHEET:

E-101

DEMOLITION NOTES

1. DISCONNECT AND REMOVE EXISTING LIGHT SWITCH TO ACCOMMODATE STRUCTURAL UPGRADE.
2. ELECTRICAL CONTRACTOR TO DISCONNECT AND REMOVE ALL EXISTING LIGHTING, SWITCHES, CONDUIT, WIRING AND JUNCTION BOXES COMPLETE. MAINTAIN EXISTING CIRCUIT FOR RE-USE.
3. EXISTING PANEL AND CIRCUIT FOR THIS AREA.
4. INTERCEPT EXISTING HOMERUN CONDUIT AND CIRCUITS. CONNECT THE EXISTING LIGHTS TO THE EXISTING CIRCUITS SO THAT LIGHTS REMAIN OPERATIONAL.
5. DISCONNECT AND REMOVE EXISTING CONDUIT, WIRING AND EXIT SIGN.
6. DISCONNECT & REMOVE EXISTING STEP LIGHT.



1 LIGHTING DEMOLITION PLAN
SCALE: 1/8"=1'-0"

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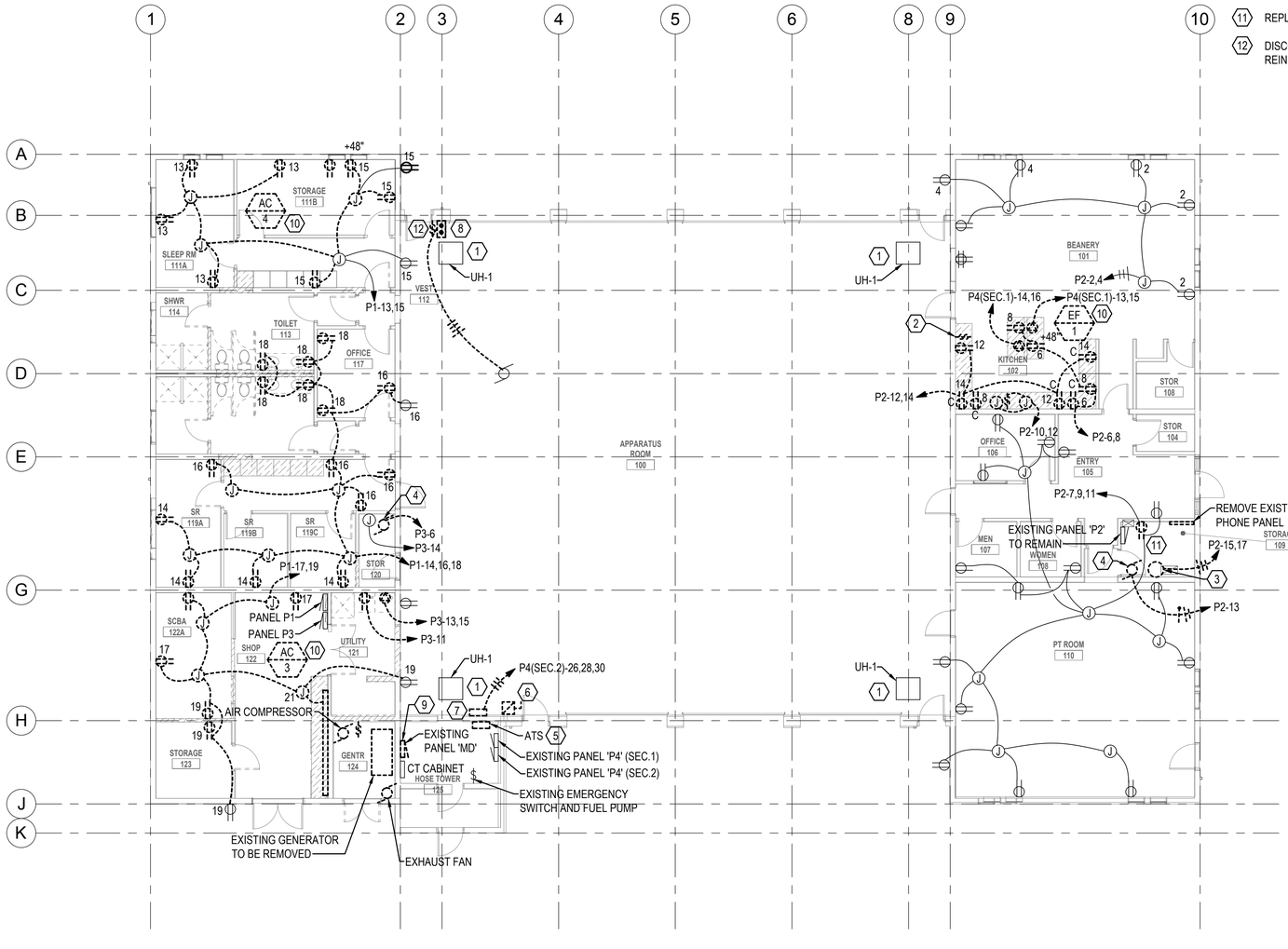
LIGHTING DEMOLITION PLAN

SHEET:

ED111

DEMOLITION NOTES

1. EXISTING MECHANICAL EQUIPMENT TO STAY.
2. DISCONNECT AND REMOVE POWER RESET SWITCH. RETAIN SWITCH FOR RE-INSTALLATION.
3. DISCONNECT POWER FROM EXISTING WATER HEATER. COORDINATE WITH MECHANICAL CONTRACTOR.
4. DISCONNECT POWER FROM CIRC PUMP. COORDINATE WITH MECHANICAL CONTRACTOR.
5. DISCONNECT AND REMOVE EXISTING TRANSFER SWITCH. CUT AND CAP ABANDONED CONDUITS.
6. DISCONNECT AND REMOVE EXISTING EXHAUST FAN DISCONNECT AND CONTROL SWITCH. RETAIN FOR REINSTALLATION AFTER STRUCTURAL WORK IS COMPLETE.
7. DISCONNECT AND REMOVE EXISTING VEHICLE EXHAUST CONTROLLER. RETAIN FOR REINSTALLATION AFTER STRUCTURAL WORK IS COMPLETE.
8. DISCONNECT AND REMOVE EXISTING OVERHEAD DOOR CONTROLLER AND SWITCH. RETAIN FOR REINSTALLATION AFTER STRUCTURAL WORK IS COMPLETE.
9. EXISTING 'MD' TO BE REPLACED WITH NEW.
10. DISCONNECT EXISTING MECHANICAL EQUIPMENT ON ROOF. REMOVE CONDUIT AND WIRE BACK TO POWER SOURCE.
11. REPLACE EXISTING RECEPTACLE WITH NEW.
12. DISCONNECT AND REMOVE EXISTING SIGNAL LIGHT CONTROL SWITCH. RETAIN FOR REINSTALLATION AFTER STRUCTURAL WORK IS COMPLETE.



1 POWER DEMOLITION PLAN
SCALE: 1/8"=1'-0"

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4/13/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 2015137

BID SET

ISSUED: MARCH 24, 2017

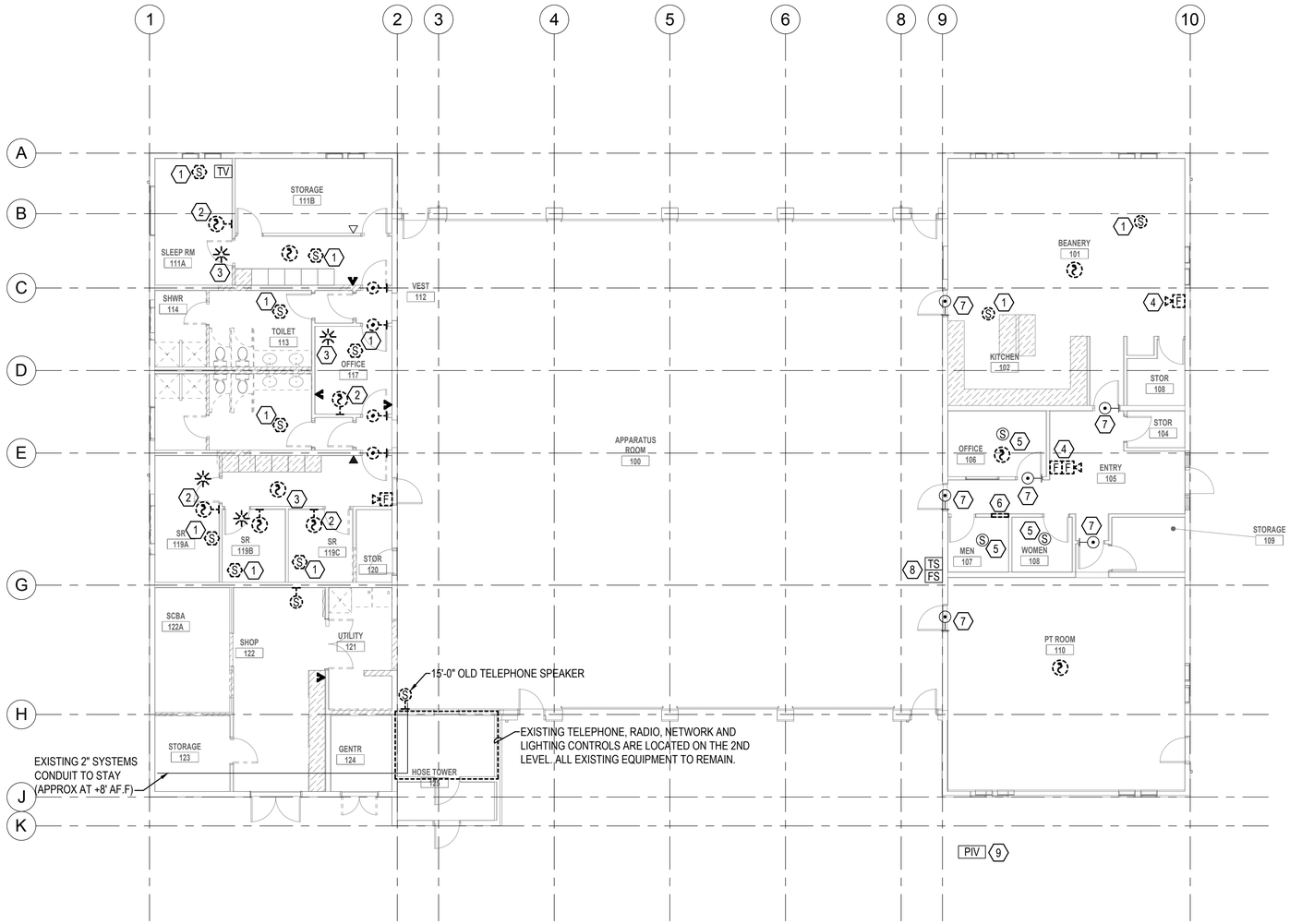
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

POWER DEMOLITION PLAN

SHEET:

ED112



1 SYSTEMS DEMOLITION PLAN

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

N

DEMOLITION NOTES

1. DISCONNECT & REMOVE EXISTING CEILING SPEAKER. RETAIN FOR REINSTALLATION.
2. DISCONNECT & REMOVE EXISTING WALL MOUNTED SMOKE DETECTOR. RETAIN FOR REINSTALLATION.
3. DISCONNECT & REMOVE EXISTING CEILING MOUNTED ALERTING LIGHT. RETAIN FOR REINSTALLATION.
4. DISCONNECT AND REMOVE EXISTING WALL MOUNTED FIRE ALARM DEVICE AND PROVIDE BLANK PLATE.
5. EXISTING DEVICES TO REMAIN.
6. DISCONNECT AND REMOVE EXISTING FIRE ALARM PANEL.
7. MAINTAIN EXISTING DOOR HOLD OPENS FOR RE-CONNECTION TO NEW FIRE ALARM SYSTEM.
8. EXISTING FLOW AND TAMPER SWITCHES FOR SPRINKLER SYSTEM TO REMAIN. CONNECT TO NEW FIRE ALARM SYSTEM.
9. EXISTING POST INDICATOR VALVE TO REMAIN. CONNECT TO NEW FIRE ALARM SYSTEM.

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SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

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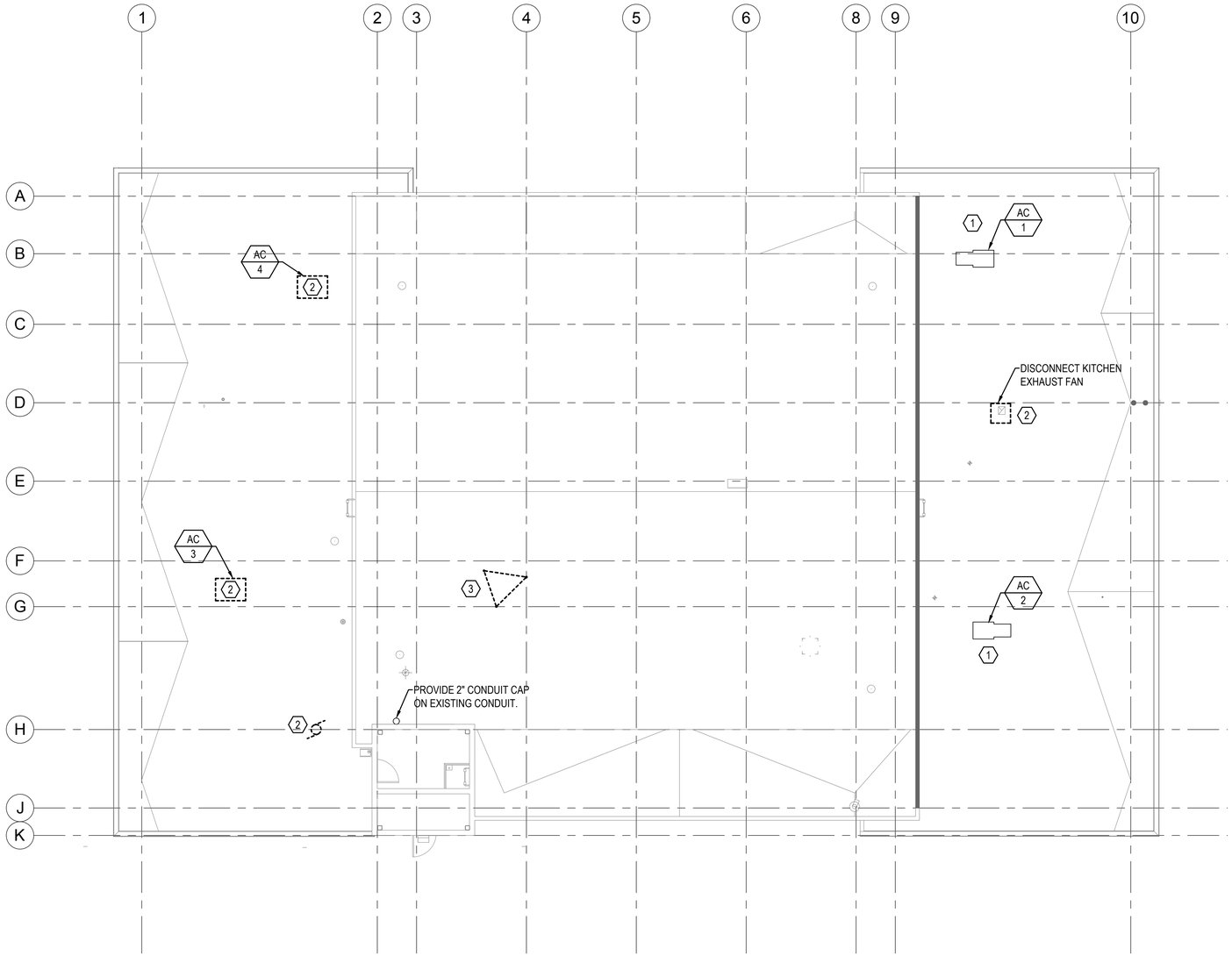
SYSTEMS DEMOLITION PLAN

SHEET:

ED113

DEMOLITION NOTES

1. EXISTING MECHANICAL EQUIPMENT TO STAY.
2. DISCONNECT AND REMOVE MECHANICAL EQUIPMENT CONNECTIONS, DISCONNECT SWITCHES, CONDUIT AND WIRING.
3. ELECTRICAL CONTRACTOR TO REMOVE ALL CONDUITS ASSOCIATED WITH ANTENNA BACK TO EXISTING TOWER. ANTENNA TO BE REMOVED BY GENERAL CONTRACTOR.



1 ROOF POWER DEMOLITION PLAN
SCALE: 1/8"=1'-0"

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ROOF POWER DEMOLITION PLAN

SHEET:

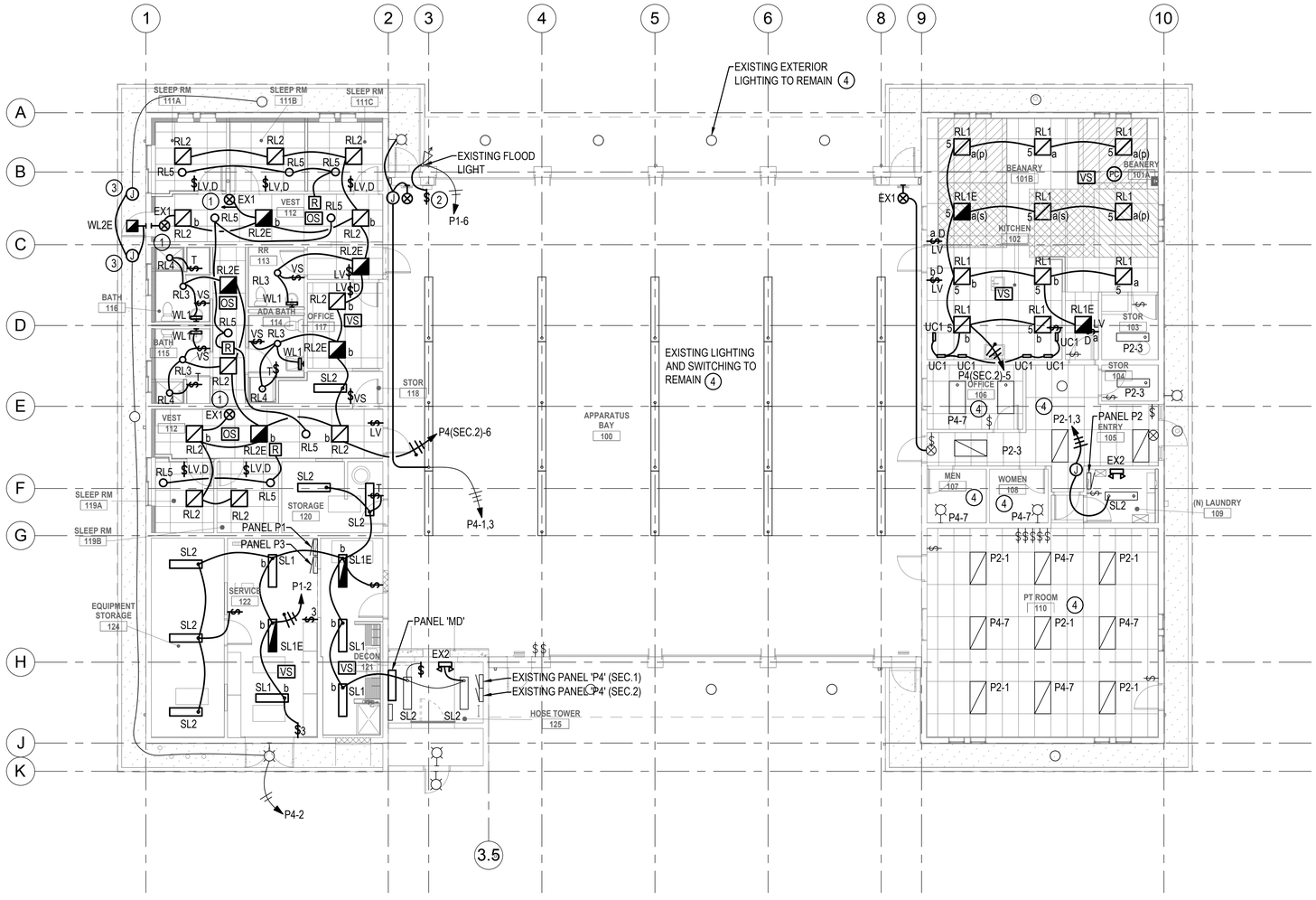
ED114

GENERAL NOTES

1. SEE SHEET E-003 FOR LOW VOLTAGE LIGHTING CONTROL DIAGRAMS FOR SLEEPING ROOMS, CORRIDORS, OFFICE AND KITCHEN / BEANARY.

CONSTRUCTION NOTES

1. CONNECT TO UNSWITCHED HOT LEG.
2. PROVIDE NEW SWITCH, CONDUIT AND WIRING FOR CONTROL OF EXISTING FLOOR LIGHT.
3. INTERCEPT EXISTING EXTERIOR LIGHTING CIRCUIT AND CONNECT TO NEW LIGHT FIXTURE.
4. MAINTAIN EXISTING CIRCUITING AND SWITCHING FOR LIGHTS DURING CONSTRUCTION.



1 ELECTRICAL LIGHTING PLAN
SCALE: 1/8"=1'-0"

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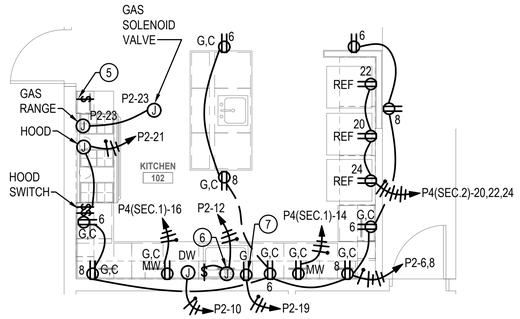
ELECTRICAL LIGHTING PLAN

SHEET:

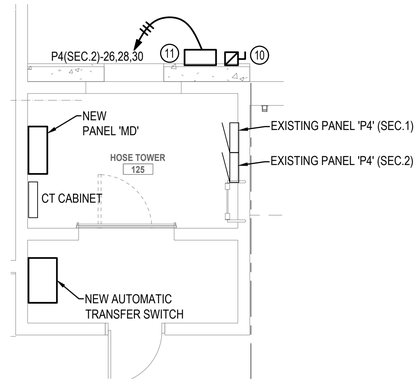
E-121

CONSTRUCTION NOTES

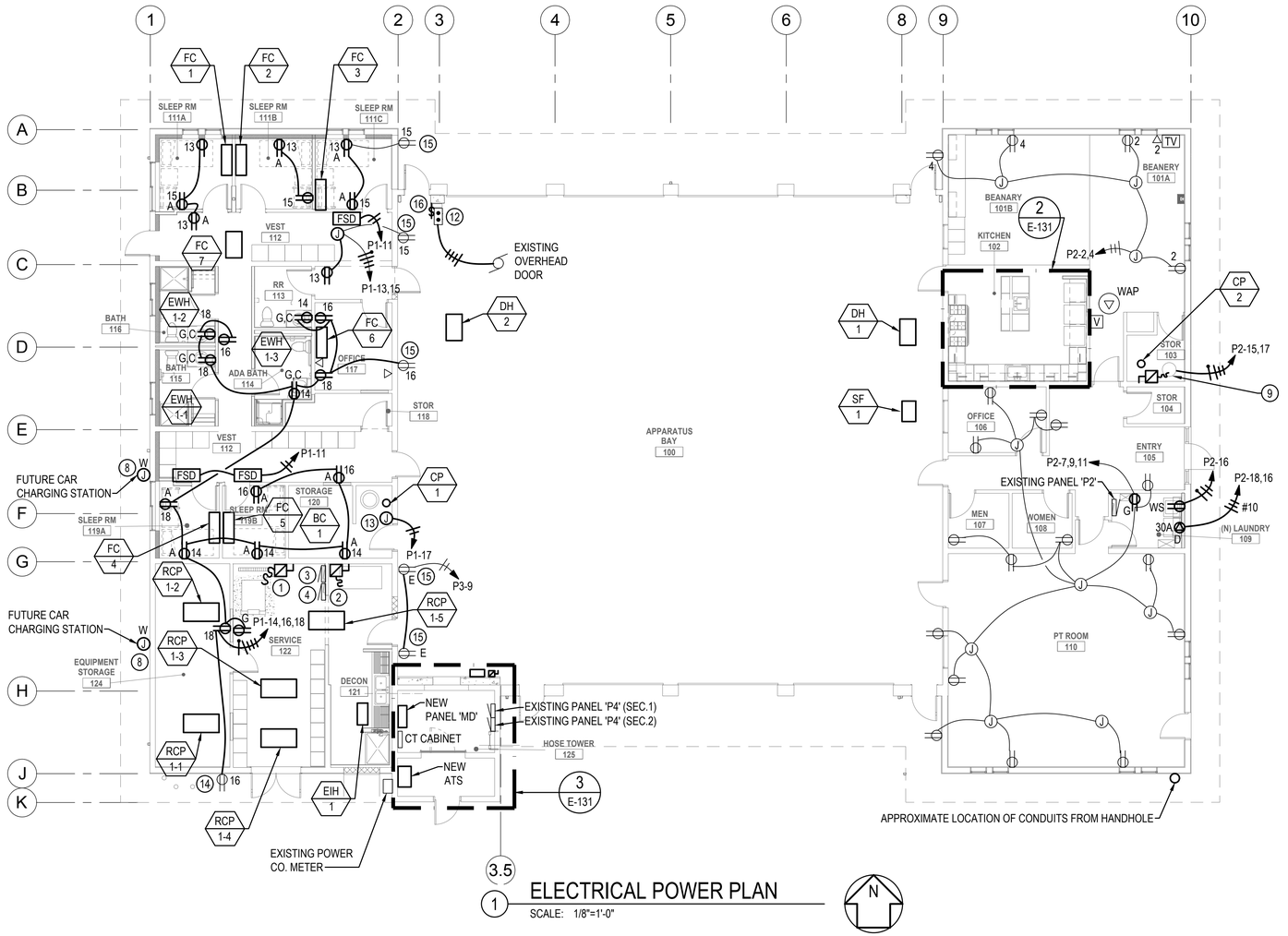
1. PROVIDE 100AMP-3 POLE DISCONNECT SWITCH FOR EXTRACTOR. PROVIDE 1-1/4"C., (4)#4 AND (1)#8 GROUND FROM MD.
2. PROVIDE 60AMP-2 POLE DISCONNECT SWITCH FOR NEW DRYER. PROVIDE 1"C.,(3)#6 & (1)#10 GROUND FROM MD.
3. EXISTING PANEL P1.
4. EXISTING PANEL P3.
5. REINSTALL EXISTING POWER AND GAS RESET SWITCH.
6. PROVIDE CONNECTION TO GARBAGE DISPOSAL AND SWITCH.
7. PROVIDE CONNECTION FOR INSTA-HOT UNDER THE SINK.
8. PROVIDE 3/4" CONDUIT BACK TO PANEL P1.
9. RELOCATED WATER HEATER.
10. REINSTALL DISCONNECT SWITCH AND CONTROLLER FOR EXHAUST FAN.
11. REINSTALL VEHICLE EXHAUST CONTROLLER.
12. REINSTALL EXISTING OVERHEAD DOOR CONTROLLER.
13. PROVIDE CONNECTION TO MECHANICAL EQUIPMENT CONTROLLER.
14. PROVIDE NEW CONNECTION TO EXISTING DEVICE.
15. RECONNECT EXISTING DEVICES TO NEW CIRCUIT.
16. REINSTALL AND CONNECT SIGNAL LIGHT CONTROL.



2 ENLARGED KITCHEN POWER PLAN
SCALE: 1/4"=1'-0"



3 ENLARGED EQUIPMENT ROOM PLAN
SCALE: (2ND FLOOR)



3.5 1 ELECTRICAL POWER PLAN
SCALE: 1/8"=1'-0"

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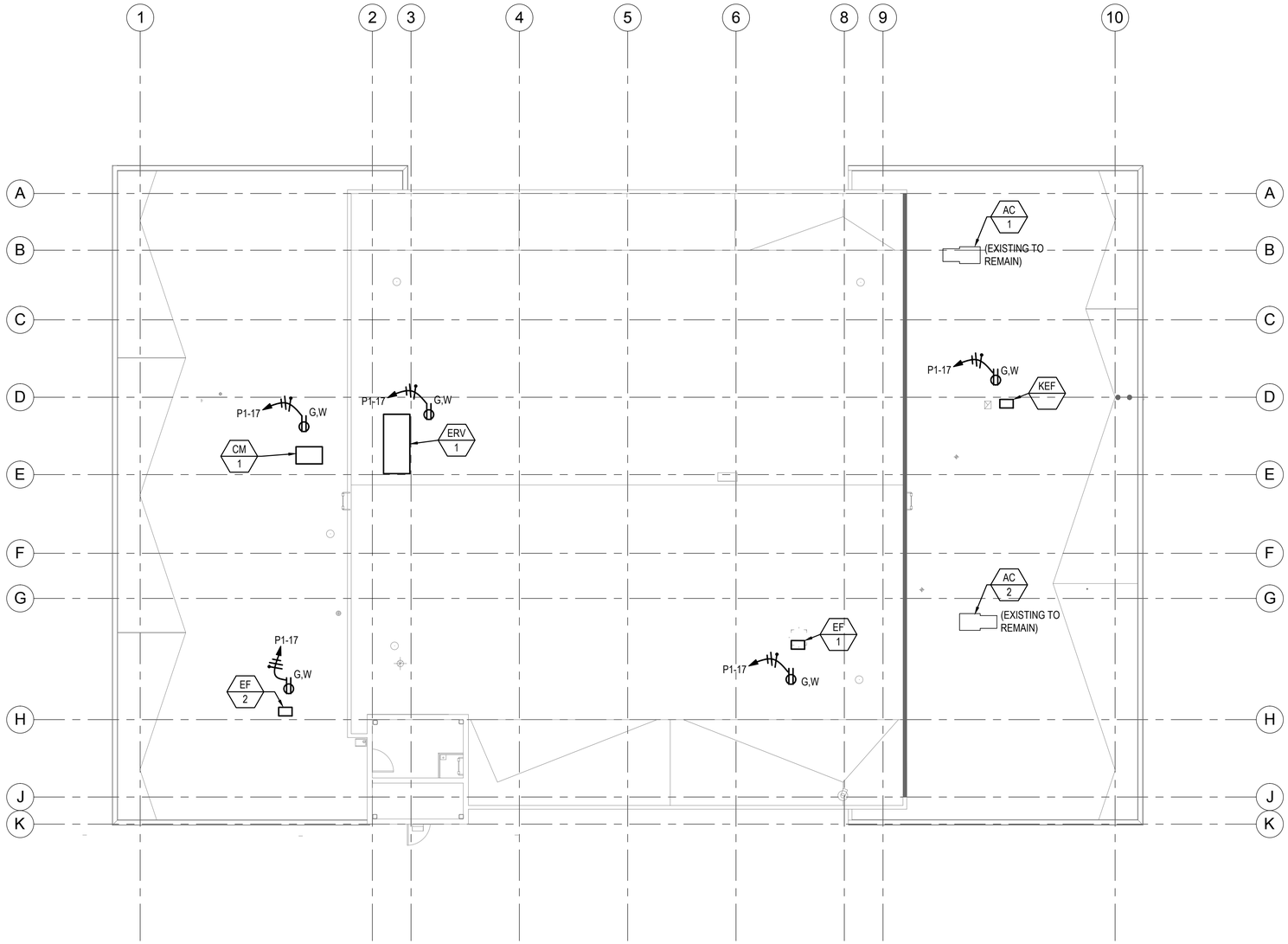
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

ELECTRICAL POWER PLAN

SHEET:

E-131



1 ELECTRICAL ROOF POWER PLAN
SCALE: 1/8"=1'-0"

N

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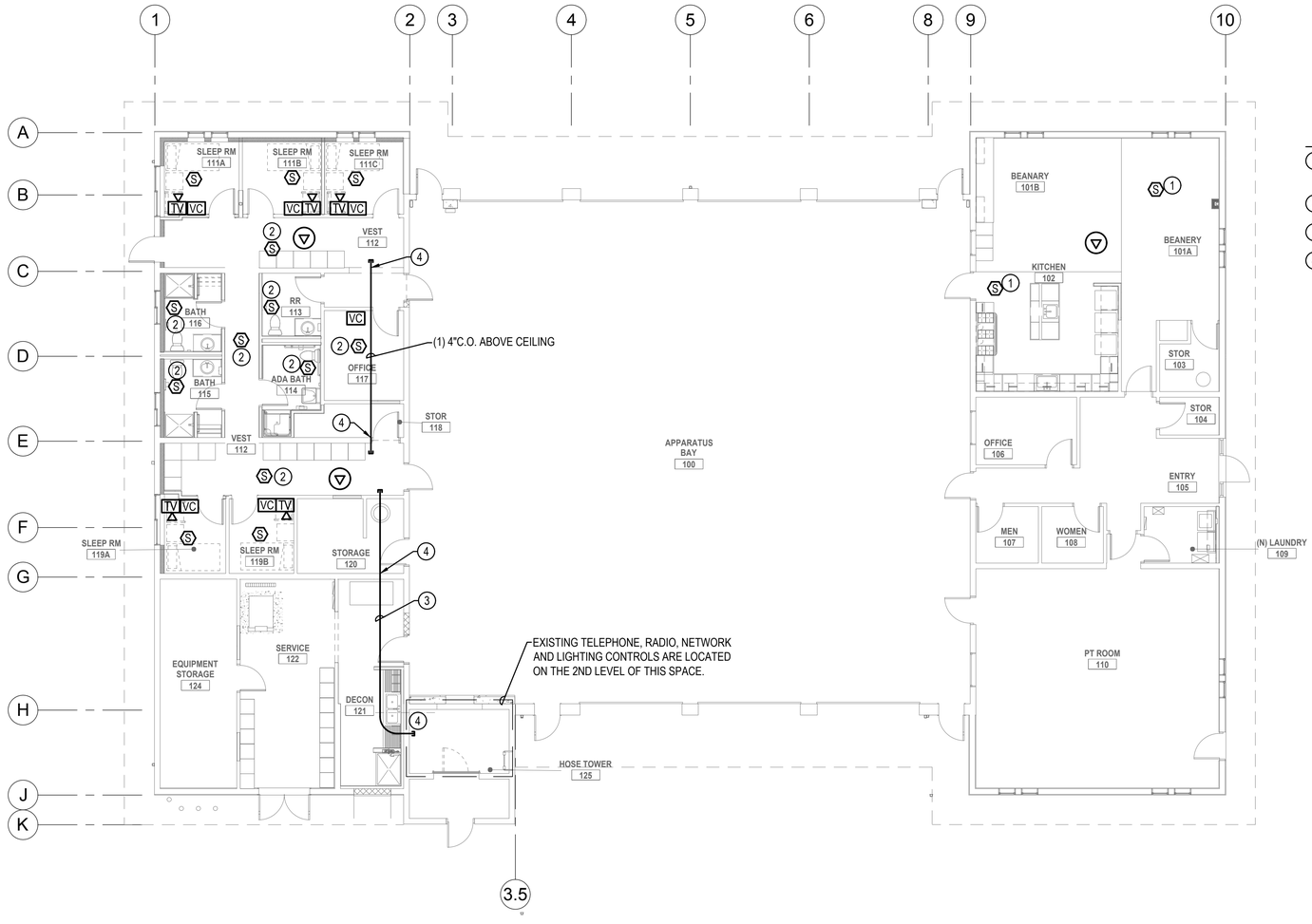
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

ELECTRICAL ROOF POWER PLAN

SHEET:

E-132



CONSTRUCTION NOTES

1. REINSTALL EXISTING CEILING SPEAKER & RECONNECT TO EXISTING ALERTING SYSTEM.
2. PROVIDE SPEAKER WITH INTEGRAL VOLUME CONTROL.
3. PROVIDE 4"C. ABOVE CEILING FROM 2ND LEVEL OF HOSE TOWER 125.
4. CORE DRILL THROUGH EXISTING CMU WALL.

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

N

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SYSTEMS PLAN

SHEET:

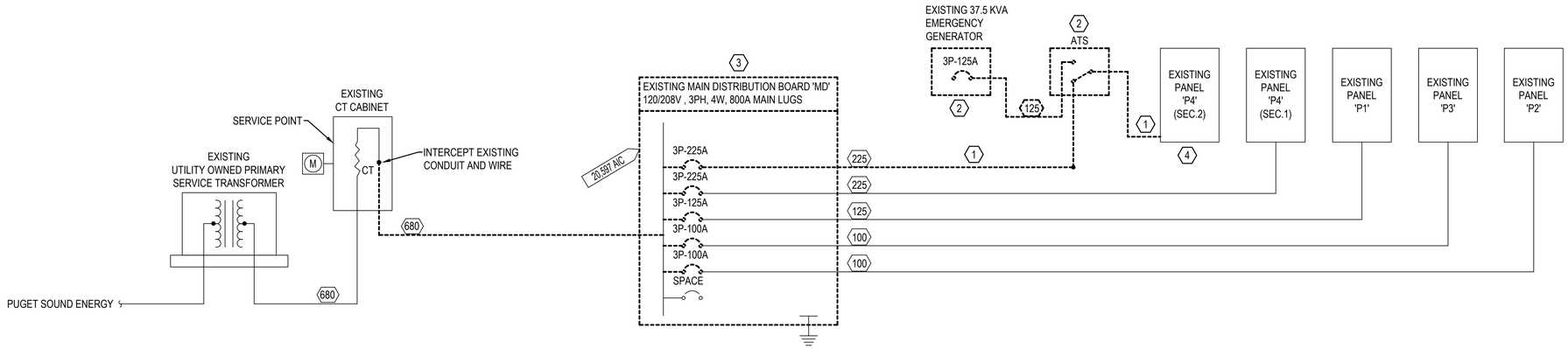
E-141

DEMOLITION NOTES

1. DISCONNECT AND REMOVE EXISTING CONDUIT AND FEEDER TO PANEL P4 (SECTION 2).
2. DISCONNECT AND REMOVE EXISTING AUTOMATIC TRANSFER SWITCH, GENERATOR AND ALL ACCESSORIES.
3. DISCONNECT AND REMOVE EXISTING SWITCHBOARD. NEW SWITCHBOARD TO BE LOCATED AT SAME LOCATION.
4. PROVIDE TEMPORARY CONNECTION FROM A GENERATOR TO SUPPORT LOADS ON THIS PANEL DURING REMOVAL AND REPLACEMENT OF THE MAIN DISTRIBUTION BOARD. THE EXISTING GENERATOR CAN BE UTILIZED TO SUPPORT POWER TO THE FACILITY TEMPORARY.

CONDUIT/FEEDER SCHEDULE

FEEDER NO.	CONDUIT/FEEDER DESCRIPTION	FEEDER AMPACITY
100	1-1/2"C., (4) #1 THW AL. GR.	100
125	2" C., (4) #2/0 THW AL & (1) #4 THW AL. GR.	135
225	2-1/2" C., (4) #4/0 CU. & (1) #4 GR.	230
680	(2) SETS OF 4"C., (4) 600 MCM AL & (1) #4/0 THW. AL. GR.	680



1 EXISTING ELECTRICAL ONE-LINE DIAGRAM
SCALE: DIAGRAMMATIC

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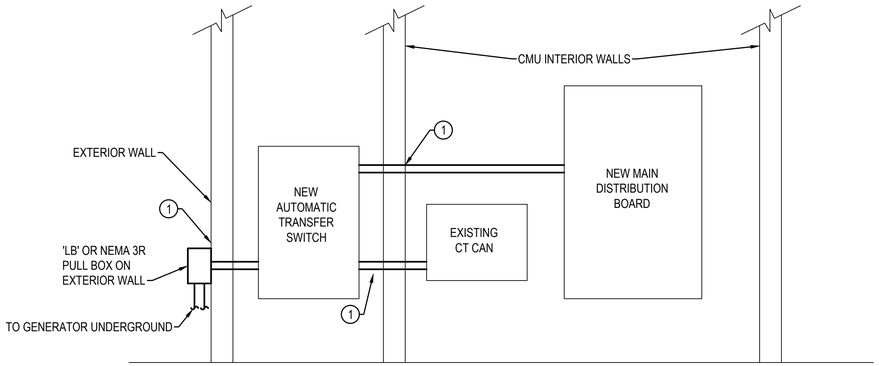
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

EXISTING ELECTRICAL ONE-LINE DIAGRAM

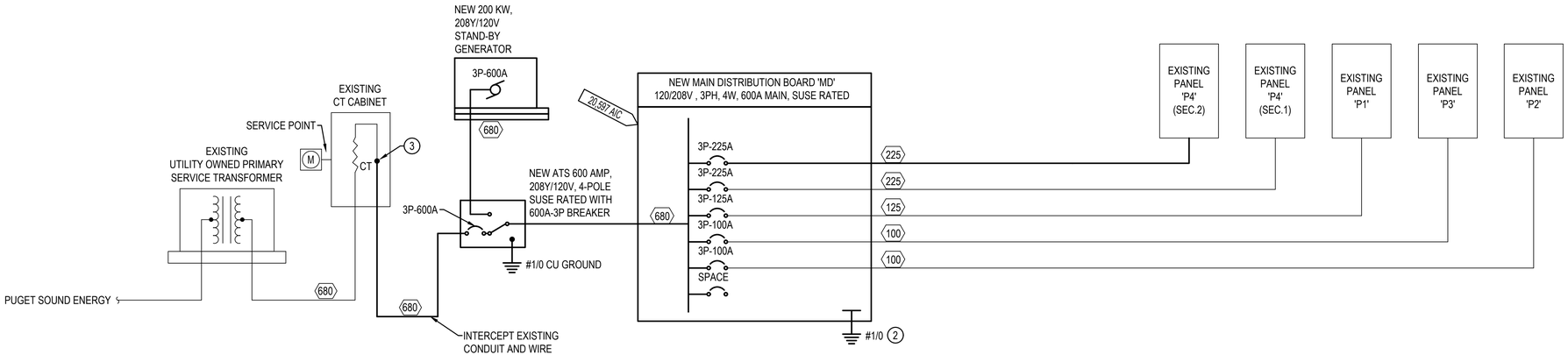
SHEET:

E-501



2 ELECTRICAL ROOM ELEVATION WEST WALL

SCALE: NOT TO SCALE



1 ELECTRICAL ONE-LINE DIAGRAM

SCALE: DIAGRAMMATIC

CONSTRUCTION NOTES

1. CORE DRILL THROUGH WALL FOR INSTALLATION OF CONDUITS.
2. RECONNECT TO EXISTING GROUNDING ELECTRODE.
3. PROVIDE SPLICING OF EXISTING CONDUCTORS.

CONDUIT/FEEDER SCHEDULE

FEEDER NO.	CONDUIT/FEEDER DESCRIPTION	FEEDER AMPACITY
100	1-1/2"C., (4) #1 THW AL. GR.	100
125	2" C., (4) #2/0 THW AL & (1) #4 THW AL. GR.	135
225	2-1/2" C., (4) #4/0 CU. & (1) #4 GR.	230
680	(2) SETS OF 4"C., (4) 600 MCM AL & (1) #4/0 THW. AL. GR.	680

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NEW ELECTRICAL ONE-LINE DIAGRAM

SHEET:

E-502

PANEL: MD (EXISITING) — 3 PH — 4 WIRE — VOLTAGE: 208Y/120V — 800A MLO
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 18 — SF MAINS: — 65,000AIC MINIMUM

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
SF	8450		1	3		18133			3		2		9683	SF
SF	6500	PANEL P1 (EXISTING)	3				15184				4	PANEL P3 (EXISTING)	8684	SF
SF	6975		5		125			10508		100	6		3533	SF
SF	4600		7	3		30368			3		8		25768	SF
SF	5850	PANEL P2 (EXISTING)	9				31243				10	PANEL P4 SEC.1 (EXISTING)	25393	SF
SF	5750		11		100			23014		225	12		17264	SF
			13			6740			3		14		6740	SF
		SPACE	15				6000				16	PANEL P4 SEC.2 (EXISTING)	6000	SF
			17					10050		225	18		10050	SF
	38125	TOTAL			THIS PANEL->	55241	52427	43572				TOTAL	113115	

LIGHTING(125%) = 52675.00 — 55241 — 52427 — 43572
RECEPTS<=10000(100%) = 10000.00 — LARGEST MOTOR(125%) = 0.00 — KITCHEN LOADS(65%) = 0.00
RECEPTS>10000(50%) = 2200.00 — OTHER MOTORS(100%) = 55900.00 — APPLIANCES(100%) = 26300.00
RECEPTS TOTAL = 12200.00 — MOTOR TOTAL = 55900.00 — DEDICATED(100%) = 0.00
ELECTRIC HEAT(100%) = 3000.00 — WATER HEATERS(100%) = 9500.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 151,240.00
TOTAL CONNECTED CURRENT (A): 419.80
TOTAL DEMAND LOAD (VA): 159,575.00
TOTAL DEMAND CURRENT (A) 442.94

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: MD (NEW) — 3 PH — 4 WIRE — VOLTAGE: 208Y/120V — 600A MLO
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: SERVICE ENTRANCE RATED — POLES: 30 — SF MAINS: — 22,000 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
SF	**8990**		1	3		21091			3		2		**12101**	**SF**
SF	**7048**	**PANEL P1 (EXISTING) REVISED**	3				17117				4	**PANEL P3 (EXISTING) REVISED**	**10069**	**SF**
SF	**8901**		5		125			18210		100	6		**9309**	**SF**
SF	**7659**		7	3		27776			3		8		**20117**	**SF**
SF	**8386**	**PANEL P2 (EXISTING) REVISED**	9				28128				10	**PANEL P4 SEC.1 (EXISTING) REVISED**	**19742**	**SF**
SF	**10922**		11		100			29538		225	12		**18616**	**SF**
A	**8500**		13	3		14140			3		14		**5640**	**SF**
A	**8500**	**EXTRACTOR**	15				14900				16	**PANEL P4 SEC.2 (EXISTING) REVISED**	**6400**	**SF**
A	**8500**		17		80			18024		225	18		**9524**	**SF**
A	**6000**		19	2		6000					20	SPACE		
A	**6000**	**NEW DRYER - DECON**	21		60		6000				22	SPACE		
		SPACE	23								24	SPACE		
		SPACE	25								26	SPACE		
		SPACE	27								28	SPACE		
		SPACE	29								30	SPACE		
	89406	TOTAL			THIS PANEL->	69007	66145	65772				TOTAL	111518	

LIGHTING(125%) = 47862.50 — 69007 — 66145 — 65772
RECEPTS<=10000(100%) = 10000.00 — LARGEST MOTOR(125%) = 10350.00 — KITCHEN LOADS(65%) = 975.00
RECEPTS>10000(50%) = 1060.00 — OTHER MOTORS(100%) = 30746.00 — APPLIANCES(100%) = 51360.00
RECEPTS TOTAL = 11060.00 — MOTOR TOTAL = 50096.00 — DEDICATED(100%) = 3378.00
ELECTRIC HEAT(100%) = 41250.00 — WATER HEATERS(100%) = 5000.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 200,924.00
TOTAL CONNECTED CURRENT (A): 557.71
TOTAL DEMAND LOAD (VA): 210,981.50
TOTAL DEMAND CURRENT (A) 585.63

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
ITEMS IN BOLD INDICATES NEW OR REVISED LOADS.

PANEL: P1 (EXISTING) — 3 PH — 4 WIRE — VOLTAGE: 208Y/120V — 225A MCB
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 42 — SF MAINS: — 65,000AIC MINIMUM

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
L	750	LIGHTS - APPARATUS RM * 2	1	1	20	1850			1	20	2	LIGHTS - SERVICE RM	1100	L
L	750	LIGHTS - APPARATUS RM * 2	3	1	20		1550		1	20	4	LIGHTS - HOSE TOWER	800	L
L	750	LIGHTS - APPARATUS RM * 2	5	1	20			2250	1	20	6	LIGHTS - FRONT FLOODLIGHTS	1500	L
L	750	LIGHTS - APPARATUS RM * 2	7	1	20	1750			1	20	8	LIGHTS - REAR FLOODLIGHTS	1000	L
L	750	LIGHTS - APPARATUS RM * 2	9	1	20		1750		1	20	10	LIGHTS - REAR FLOODLIGHTS	1000	L
		SPARE	11	1	20				1	20	12	SPARE		
R	800	RECEP'S - MEN'S DORM	13	1	20	1600			1	20	14	RECEP'S - WOMEN'S DORM	800	R
R	1000	RECEP'S - MEN'S DORM	15	1	20		1800		1	20	16	RECEP'S - WOMEN'S DORM	800	R
R	600	RECEP'S - SERVICE	17	1	20			1800	1	20	18	RECEP'S - TOILET RMS & BATT. CHIEF	1200	R
R	800	RECEP'S - SERVICE	19	1	20	800			1	20	20	SPARE		
R	1000	RECEP'S - PLUGMOLD	21	1	20		1000		1	20	22	SPARE		
L	1425	EXTERIOR POLELIGHTS * 1	23	1	20			2925	1	20	24	EXTERIOR PRACTICE FLOODLIGHTS	1500	L
L	950	EXTERIOR POLELIGHTS * 1	25	1	20	2450			1	20	26	EXTERIOR PRACTICE FLOODLIGHTS	1500	L
L	400	TRAFFIC LIGHT	27	1	20		400				28	SPACE ONLY		
		SPACE ONLY	29								30	SPACE ONLY		
		SPACE ONLY	31								32	SPACE ONLY		
		SPACE ONLY	33								34	SPACE ONLY		
		SPACE ONLY	35								36	SPACE ONLY		
		SPACE ONLY	37								38	SPACE ONLY		
		SPACE ONLY	39								40	SPACE ONLY		
		SPACE ONLY	41								42	SPACE ONLY		
	10725	TOTAL			THIS PANEL->	8450	6500	6975				TOTAL	11200	

LIGHTING(125%) = 18656.25 — 8450 — 6500 — 6975
RECEPTS<=10000(100%) = 7000.00 — LARGEST MOTOR(125%) = 0.00 — KITCHEN LOADS(65%) = 0.00
RECEPTS>10000(50%) = 0.00 — OTHER MOTORS(100%) = 0.00 — APPLIANCES(100%) = 0.00
RECEPTS TOTAL = 7000.00 — MOTOR TOTAL = 0.00 — DEDICATED(100%) = 0.00
ELECTRIC HEAT(100%) = 0.00 — WATER HEATERS(100%) = 0.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 21,925.00
TOTAL CONNECTED CURRENT (A): 60.86
TOTAL DEMAND LOAD (VA): 25,656.25
TOTAL DEMAND CURRENT (A) 71.21

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: P1 (EXISTING) REVISED — 3 PH — 4 WIRE — VOLTAGE: 208Y/120V — 225A MCB
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 42 — SF MAINS: — 10,000 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
L	750	LIGHTS - APPARATUS RM * 2	1	1	20	1242			1	20	2	**LIGHTS - 119C, 122, 124**	**492**	**L**
L	750	LIGHTS - APPARATUS RM * 2	3	1	20		750		1	20	4	**SPARE**		
L	750	LIGHTS - APPARATUS RM * 2	5	1	20			2250	1	20	6	LIGHTS - FRONT FLOODLIGHTS	1500	L
L	750	LIGHTS - APPARATUS RM * 2	7	1	20	1750			1	20	8	LIGHTS - REAR FLOODLIGHTS	1000	L
L	750	LIGHTS - APPARATUS RM * 2	9	1	20		1750		1	20	10	LIGHTS - REAR FLOODLIGHTS	1000	L
D	**1000**	**SMOKE/FIRE DAMPERS**	11	1	20			1000	1	20	12	SPARE		
R	**900**	**RECEPT. RM. 111A, 111B, 111C, 112**	13	1	20	1800			1	20	14	**RECEPT. RM. 113,114,119A-C,**	**900**	**R**
R	**720**	**RECEPT. RM. 111A, 111B, 111C, 100**	15	1	20		1620		1	20	16	**RECEPT. RM. 112,117**	**900**	**R**
R	**900**	**RECEPT. ROOF**	17	1	20			1800	1	20	18	**RECEPT. RM. 119A,115,116,117**	**900**	**R**
D	**500**	**MECH CONTROLLER**	19	1	20	1000			1	20	20	**GEN. BATTERY CHARGER**	**500**	D
R	1000	RECEP'S - PLUGMOLD	21	1	20		2000		1	20	22	**GEN. BLOCK HEATER**	**1000**	D
L	1425	EXTERIOR POLELIGHTS * 1	23	1	20			2925	1	20	24	EXTERIOR PRACTICE FLOODLIGHTS	1500	L
L	950	EXTERIOR POLELIGHTS * 1	25	1	20	2450			1	20	26	EXTERIOR PRACTICE FLOODLIGHTS	1500	L
L	400	TRAFFIC LIGHT	27	1	20		928		**1**	**20**	28	**EF-2 (ON ROOF) (NOTE 1)**	**528**	**MO**
D	**178**	**BC-1 (NOTE 1)**	29	**1**	**20**			926	**2**		30	**ERV-1 (ON ROOF) (NOTE 1)**	**748**	**MO**
		SPACE ONLY	31			748				**20**	32		**748**	**MO**
		SPACE ONLY	33								34	SPACE ONLY		
		SPACE ONLY	35								36	SPACE ONLY		
		SPACE ONLY	37								38	SPACE ONLY		
		SPACE ONLY	39								40	SPACE ONLY		
		SPACE ONLY	41								42	SPACE ONLY		
	11723	TOTAL			THIS PANEL->	8990	7048	8901				TOTAL	13216	

LIGHTING(125%) = 16896.25 — 8990 — 7048 — 8901
RECEPTS<=10000(100%) = 6220.00 — LARGEST MOTOR(125%) = 0.00 — KITCHEN LOADS(65%) = 0.00
RECEPTS>10000(50%) = 0.00 — OTHER MOTORS(100%) = 2024.00 — APPLIANCES(100%) = 0.00
RECEPTS TOTAL = 6220.00 — MOTOR TOTAL = 2024.00 — DEDICATED(100%) = 3178.00
ELECTRIC HEAT(100%) = 0.00 — WATER HEATERS(100%) = 0.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 24,939.00
TOTAL CONNECTED CURRENT (A): 69.22
TOTAL DEMAND LOAD (VA): 28,318.25
TOTAL DEMAND CURRENT (A) 78.60

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
ITEMS IN BOLD INDICATES NEW OR REVISED LOADS. NOTE1: PROVIDE NEW CIRCUIT BREAKER. SIZE AS INDICATED.

PANEL: P2 (EXISTING) — 3 PH — 4 WIRE — VOLTAGE: 208Y/120V — 100A MCB
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 42 — SF MAINS: — 65,000AIC MINIMUM

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
L	1000	LIGHTS - CLRM	1	1	20	1600			1	20	2	RECEP'S - BEANERY	600	R
L	800	LIGHTS - STOR. RMS & ENTRY	3	1	20		1400		1	20	4	RECEP'S - BEANERY	600	R
		SPARE	5	1	20			1500	1	20	6	RECEP'S - KITCHEN	1500	R
R	1000	RECEP'S - CLRM	7	1	20	2500			1	20	8	RECEP'R - KITCHEN	1500	R
R	1000	RECEP'S - CLRM	9	1	20		2200		1	20	10	DISHWASHER	1200	A
R	1200	RECEP'S - OFFICE & ENTRY	11	1	20			2000	1	20	12	DISPOSER	800	A
MO	300	H.W.C. PUMP	13	1	15	500			1	15	14	EXH. FAN-GEN RM	200	A
WH	2250	H.W. TANK	15	2			2250				16	SPACE ONLY		
WH	2250		17		30			2250			18	SPACE ONLY		
		SPACE ONLY	19								20	SPACE ONLY		
		SPACE ONLY	21								22	SPACE ONLY		
		SPACE ONLY	23								24	SPACE ONLY		
		SPACE ONLY	25								26	SPACE ONLY		
		SPACE ONLY	27								28	SPACE ONLY		
		SPACE ONLY	29								30	SPACE ONLY		
		SPACE ONLY	31								32	SPACE ONLY		
		SPACE ONLY	33								34	SPACE ONLY		
		SPACE ONLY	35								36	SPACE ONLY		
		SPACE ONLY	37								38	SPACE ONLY		
		SPACE ONLY	39								40	SPACE ONLY		
		SPACE ONLY	41								42	SPACE ONLY		
	9800	TOTAL			THIS PANEL->	4600	5850	5750				TOTAL	6400	

LIGHTING(125%) = 2250.00 — 4600 — 5850 — 5750
RECEPTS<=10000(100%) = 7400.00 — LARGEST MOTOR(125%) = 0.00 — KITCHEN LOADS(65%) = 0.00
RECEPTS>10000(50%) = 0.00 — OTHER MOTORS(100%) = 300.00 — APPLIANCES(100%) = 2200.00
RECEPTS TOTAL = 7400.00 — MOTOR TOTAL = 300.00 — DEDICATED(100%) = 0.00
ELECTRIC HEAT(100%) = 0.00 — WATER HEATERS(100%) = 4500.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 16,200.00
TOTAL CONNECTED CURRENT (A): 44.97
TOTAL DEMAND LOAD (VA): 16,650.00
TOTAL DEMAND CURRENT (A) 46.22

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: P2 (EXISTING) REVISED — 3 PH — 4 WIRE — VOLTAGE: 208Y/120V — 100A MCB
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 42 — SF MAINS: — 10,000 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
L	1000	LIGHTS - CLRM	1	1	20	1540			1	20	2	**RECEP'S - BEANERY 101**	**540**	**R**
L	**784**	**LIGHTS - STOR. RMS & ENTRY, 109**	3	1	20		1324		1	20	4	**RECEP'S - BEANERY 101**	**540**	**R**
		SPARE	5	1	20			720	1	20	6	**RECEPT. KITCHEN 102**	**720**	**R**
R	1000	RECEP'S - CLRM	7	1	20	1900			1	20	8	**RECEPT. KITCHEN 102**	**900**	**R**
R	1000	RECEP'S - CLRM	9	1	20		2000		1	20	10	**DISHWASHER, KITCHEN 102**	**1000**	**A**
R	1200	RECEP'S - OFFICE & ENTRY	11	1	20			3160	1	20	12	**GARBGE DISPOSAL, KITCHEN 102**	**1960**	**A**
MO	**83**	**CIRC PUMP 2**	13	1	15	283			1	15	14	EXH. FAN-GEN RM	200	A
WH	**2250**	**H.W. TANK**	15	2			2450		**1**	**20**	16	**WASHER , RM 109 (NOTE 1)**	**200**	**A**
WH	**2250**		17		30			4250	**2**		18	**DRYER , RM 109 (NOTE 1)**	**2000**	**A**
K	**1000**	**INSTA-HOT, KITCHEN 102 (NOTE 1)**	19	**1**	**20**	**3000**				**30**	20		**2000**	**A**
K	**500**	**HOOD, KITCHEN 102 (NOTE 1)**	21	**1**	**20**		1436		**3**		22		**936**	**MO**
D	**200**	**GAS SOLENOID (NOTE 1)**	23	**1**	**20**			1136			24	**EF-1 (ON ROOF) (NOTE 1)**	**936**	**MO**
		SPACE ONLY	25			936				**20**	26		**936**	**MO**
		SPACE ONLY	27				1176		**1**	**20**	28	**KEF (ON ROOF) (NOTE 1)**	**1176**	**MO**
		SPACE ONLY	29					1656	**1**	**20**	30	**SF-1 (NOTE 1)**	**1656**	**MO**
		SPACE ONLY	31								32	SPACE ONLY		
		SPACE ONLY	33								34	SPACE ONLY		
		SPACE ONLY	35								36	SPACE ONLY		
		SPACE ONLY	37								38	SPACE ONLY		
		SPACE ONLY	39								40	SPACE ONLY		
		SPACE ONLY	41								42	SPACE ONLY		
	11267	TOTAL			THIS PANEL->	7659	8386	10922				TOTAL	15700	

LIGHTING(125%) = 2230.00 — 7659 — 8386 — 10922
RECEPTS<=10000(100%) = 5900.00 — LARGEST MOTOR(125%) = 0.00 — KITCHEN LOADS(65%) = 975.00
RECEPTS>10000(50%) = 0.00 — OTHER MOTORS(100%) = 5723.00 — APPLIANCES(100%) = 7360.00
RECEPTS TOTAL = 5900.00 — MOTOR TOTAL = 5723.00 — DEDICATED(100%) = 200.00
ELECTRIC HEAT(100%) = 0.00 — WATER HEATERS(100%) = 4500.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 26,967.00
TOTAL CONNECTED CURRENT (A): 74.85
TOTAL DEMAND LOAD (VA): 26,888.00
TOTAL DEMAND CURRENT (A) 74.63

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
ITEMS IN BOLD INDICATES NEW OR REVISED LOADS. NOTE1: PROVIDE NEW CIRCUIT BREAKER. SIZE AS INDICATED.

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SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 2015137

BID SET

ISSUED: MARCH 24, 2017

REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

PANEL SCHEDULES

SHEET:

E-601

PANEL: P3 (EXISTING) — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 225A MCB
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 42 — SF MAINS: — 65,000AIC MINIMUM

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR P	CIR BRKR AMP	A	B	C	CIR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
L	1500	APPARATUS RM. REEL	1	1	20	3000			1	20	2	APPARATUS RM. DROP CORDS	1500	L
L	1500	APPARATUS RM. REEL	3	1	20		3000		1	20	4	APPARATUS RM. DROP CORDS	1500	L
L	1500	APPARATUS RM. REEL	5	1	20			1800	1	15	6	H.W.C. PUMP	300	MO
L	1500	APPARATUS RM. REEL	7	1	20	1500			1	20	8	SPARE		
A	500	REF. DRINK FOUNT.	9	1	20		500		1	20	10	SPARE		
A	800	WASHER	11	1	20			800	1	20	12	SPARE		
A	2000	DRYER	13	2		4250			2		14	H.W. TANK	2250	WH
A	2000		15		30		4250			30	16		2250	WH
A	933		17	3				933			18	SPACE ONLY		
A	933	AIR COMPRESSOR	19			933					20	SPACE ONLY		
A	934		21		15		934				22	SPACE ONLY		
		SPACE ONLY	23								24	SPACE ONLY		
		SPACE ONLY	25								26	SPACE ONLY		
		SPACE ONLY	27								28	SPACE ONLY		
		SPACE ONLY	29								30	SPACE ONLY		
		SPACE ONLY	31								32	SPACE ONLY		
		SPACE ONLY	33								34	SPACE ONLY		
		SPACE ONLY	35								36	SPACE ONLY		
		SPACE ONLY	37								38	SPACE ONLY		
		SPACE ONLY	39								40	SPACE ONLY		
		SPACE ONLY	41								42	SPACE ONLY		
	14100	TOTAL			THIS PANEL->	9683	8684	3533				TOTAL	7800	
						9683	8684	3533						

LIGHTING(125%) = 11250.00 — RECEPTS<=10000(100%) = 0.00 — RECEPTS>10000(50%) = 0.00 — RECEPTS TOTAL = 0.00 — ELECTRIC HEAT(100%) = 0.00
LARGEST MOTOR(125%) = 0.00 — OTHER MOTORS(100%) = 300.00 — MOTOR TOTAL = 300.00 — WATER HEATERS(100%) = 4500.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 8100.00 — DEDICATED(100%) = 0.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 21,900.00
TOTAL CONNECTED CURRENT (A): 60.79
TOTAL DEMAND LOAD (VA): 24,150.00
TOTAL DEMAND CURRENT (A) 67.03

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: P3 (EXISTING) REVISED — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 225A MCB
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 42 — SF MAINS: — 10,000 AIC

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR P	CIR BRKR AMP	A	B	C	CIR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
L	1500	APPARATUS RM. REEL	1	1	20	3000			1	20	2	APPARATUS RM. DROP CORDS	1500	L
L	1500	APPARATUS RM. REEL	3	1	20		3000		1	20	4	APPARATUS RM. DROP CORDS	1500	L
L	1500	APPARATUS RM. REEL	5	1	20			1583	1	15	6	**CIRC PUMP 1**	**83**	**ML**
L	1500	APPARATUS RM. REEL	7	1	20	1500			1	20	8	SPARE		
A	500	REF. DRINK FOUNT.	9	1	20		500		1	20	10	SPARE		
		SPARE	11	1	20				1	20	12	SPARE		
		SPARE	13	2					2		14	**SPARE**		
			15		30					30	16			
A	933		17	3				1216	**2**		18	**FC-1, FC-2, FC-3, FC-4,**	**283**	**MO**
A	933	AIR COMPRESSOR	19			1216				**20**	20	**FC-5, FC-6,FC-7 (NOTE 1)**	**283**	**MO**
A	934		21		15		3694		**3**		22		**2760**	**ML**
H	**750**	**RCP 1-1, RCP 1-2 (NOTE 1)**	23	**2**				3510			24	**CM-1 (NOTE 1)**	**2760**	**ML**
H	**750**		25		**20**	3510				**30**	26		**2760**	**ML**
H	**750**	**RCP 1-3, RCP 1-4 (NOTE 1)**	27	**2**			750				28			
H	**750**		29		**20**			1500	**2**		30	**EWH 1-1 (NOTE 1)**	**750**	**H**
H	**375**	**RCP 1-5 (NOTE 1)**	31	**2**		1125				**20**	32		**750**	**H**
H	**375**		33		**20**		1125		**2**		34	**EWH 1-2 (NOTE 1)**	**750**	**H**
H	**750**	**EWH 1-3 (NOTE 1)**	35	**2**				1500		**20**	36		**750**	**H**
H	**750**		37		**20**	1750			**2**		38	**EIH-1 (NOTE 1)**	**1000**	**H**
		SPACE ONLY	39				1000			**20**	40		**1000**	**H**
		SPACE ONLY	41								42	SPACE ONLY		
	14550	TOTAL			THIS PANEL->	12101	10069	9309				TOTAL	16929	
						12101	10069	9309						

LIGHTING(125%) = 11250.00 — RECEPTS<=10000(100%) = 0.00 — RECEPTS>10000(50%) = 0.00 — RECEPTS TOTAL = 0.00 — ELECTRIC HEAT(100%) = 10250.00
LARGEST MOTOR(125%) = 10350.00 — OTHER MOTORS(100%) = 649.00 — MOTOR TOTAL = 10999.00 — WATER HEATERS(100%) = 0.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 3300.00 — DEDICATED(100%) = 0.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 31,479.00
TOTAL CONNECTED CURRENT (A): 87.38
TOTAL DEMAND LOAD (VA): 35,799.00
TOTAL DEMAND CURRENT (A) 99.37

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

ITEMS IN BOLD INDICATES NEW OR REVISED LOADS. NOTE1: PROVIDE NEW CIRCUIT BREAKER. SIZE AS INDICATED.

PANEL: P4 SEC.1 (EXISTING) — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 225A MLO
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 30 — SF MAINS: — 10,000AIC MINIMUM

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR P	CIR BRKR AMP	A	B	C	CIR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
MO	3992		1	3		7984			3		2		3992	MO
MO	3992	A.C. UNIT	3				7984				4	A.C. UNIT	3992	MO
MO	3991		5		60			7982		60	6		3991	MO
MO	3992		7	3		7984			3		8		3992	MO
MO	3992	A.C. UNIT	9				7984				10	A.C. UNIT	3992	MO
MO	3991		11		60			7982		60	12		3991	MO
A	4000	OLD RANGE	13	2		8000			2		14	OLD RANGE	4000	A
A	4000		15		50		8000			50	16		4000	A
		SPACE	17	1	20			800	3		18		800	MO
L	1000	LIGHTS - EXTERIOR	19	1	20	1800					20	DOOR OPERATORS	800	MO
L	625	LIGHTS - EXTERIOR	21	1	20		1425			15	22		800	MO
L	500	LIGHTS - EXTERIOR	23	1	20			500	1	20	24	SPACE		
		SPACE	25	1	20				1	20	26	SPACE		
		SPACE	27	1	20				1	20	28	SPACE		
		SPACE	29	1	20				1	20	30	SPACE		
	34075	TOTAL			THIS PANEL->	25768	25393	17264				TOTAL	34350	
						25768	25393	17264						

LIGHTING(125%) = 2656.25 — RECEPTS<=10000(100%) = 0.00 — RECEPTS>10000(50%) = 0.00 — RECEPTS TOTAL = 0.00 — ELECTRIC HEAT(100%) = 0.00
LARGEST MOTOR(125%) = 0.00 — OTHER MOTORS(100%) = 50300.00 — MOTOR TOTAL = 50300.00 — WATER HEATERS(100%) = 0.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 16000.00 — DEDICATED(100%) = 0.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 68,425.00
TOTAL CONNECTED CURRENT (A): 189.93
TOTAL DEMAND LOAD (VA): 68,956.25
TOTAL DEMAND CURRENT (A) 191.40

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: P4 SEC.1 (EXISTING) REVISED — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 225A MLO
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 30 — SF MAINS: — 10,000 AIC

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR P	CIR BRKR AMP	A	B	C	CIR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
MO	3992		1	3		9992			**3**		2		**6000**	H
MO	3992	A.C. UNIT	3				9992				4	**DH-1 (NOTE 1)**	**6000**	H
MO	3991		5		60			9991		**70**	6		**6000**	H
MO	3992		7	3		7325			**3**		8		**3333**	H
MO	3992	A.C. UNIT	9				7325				10	**DH-2 (NOTE 1)**	**3333**	H
MO	3991		11		60			7325		**40**	12		**3334**	H
		SPARE	13	2		1000			**1**	**20**	14	**MICROWAVE, KITCHEN 102 (NOTE 1)**	**1000**	**A**
			15		50		1000		**1**	**20**	16	**MICROWAVE, KITCHEN 102 (NOTE 1)**	**1000**	**A**
		SPACE	17	1	20			800	3		18		800	MO
L	1000	LIGHTS - EXTERIOR	19	1	20	1800					20	DOOR OPERATORS	800	MO
L	625	LIGHTS - EXTERIOR	21	1	20		1425			15	22		800	MO
L	500	LIGHTS - EXTERIOR	23	1	20			500	1	20	24	SPACE		
		SPACE	25	1	20				1	20	26	SPACE		
		SPACE	27	1	20				1	20	28	SPACE		
		SPACE	29	1	20				1	20	30	SPACE		
	26075	TOTAL			THIS PANEL->	20117	19742	18616				TOTAL	32400	
						20117	19742	18616						

LIGHTING(125%) = 2656.25 — RECEPTS<=10000(100%) = 0.00 — RECEPTS>10000(50%) = 0.00 — RECEPTS TOTAL = 0.00 — ELECTRIC HEAT(100%) = 28000.00
LARGEST MOTOR(125%) = 0.00 — OTHER MOTORS(100%) = 26350.00 — MOTOR TOTAL = 26350.00 — WATER HEATERS(100%) = 0.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 2000.00 — DEDICATED(100%) = 0.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 58,475.00
TOTAL CONNECTED CURRENT (A): 162.31
TOTAL DEMAND LOAD (VA): 59,006.25
TOTAL DEMAND CURRENT (A) 163.78

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

ITEMS IN BOLD INDICATES NEW OR REVISED LOADS. NOTE1: PROVIDE NEW CIRCUIT BREAKER. SIZE AS INDICATED.

PANEL: P4 SEC.2 (EXISTING) — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 225A MLO
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 30 — SF MAINS: — 10,000AIC MINIMUM

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR P	CIR BRKR AMP	A	B	C	CIR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
L	240	EXIT LIGHTS	1	1	20	240			1	20	2	SPACE		
L	600	PATHWAY LIGHTS	3	1	20		600		1	20	4	SPACE		
L	1300	KITCHEN AND LOUNGE LIGHTS	5	1	20			2950	1	20	6	DORM LIGHTS - SOUTH	1650	L
L	1700	OFFICE, TOILETS, CLEANING ROOM	7	1	20	3200			1	20	8	DORM LIGHTS AND GEN ROOM LTS	1500	L
L	1250	LIGHTS - APPARATUS BAY	9	1	20		1250		1	20	10	SPACE		
L	750	LIGHTS - APPARATUS BAY	11	1	20			2250	1	20	12	KITCHEN RECEPTACLES	1500	L
L	500	L.V. LIGHT CONTROL	13	1	20	2000			1	20	14	KITCHEN RECEPTACLES	1500	L
H	1500	TRK BAY HEATERS	15	1	20		2300		1	20	16	RECEPTS - HOSE TOWER	800	L
H	2500	FA PANEL	17	1	20			3000	1	20	18	WATER HEATER FOR GEN.	500	WH
		UNIT HEATERS, APPAR. RM, FUEL FARM	19	1	20				1	20	20	SPACE		
MO	550	FUEL PUMP	21	2			550		1	20	22			
MO	550		23		20			550	1	20	24	SPACE		
MO	800		25	3		1300			3		26		500	MO
MO	800	DOOR OPERATORS	27				1300				28	EXHAUST SYSTEM	500	MO
MO	800		29		15			1300		20	30		500	MO
	13840	TOTAL			THIS PANEL->	6740	6000	10050				TOTAL	8950	
						6740	6000	10050						

LIGHTING(125%) = 17862.50 — RECEPTS<=10000(100%) = 0.00 — RECEPTS>10000(50%) = 0.00 — RECEPTS TOTAL = 0.00 — ELECTRIC HEAT(100%) = 3000.00
LARGEST MOTOR(125%) = 0.00 — OTHER MOTORS(100%) = 5000.00 — MOTOR TOTAL = 5000.00 — WATER HEATERS(100%) = 500.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 0.00 — DEDICATED(100%) = 0.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 22,790.00
TOTAL CONNECTED CURRENT (A): 63.26
TOTAL DEMAND LOAD (VA): 26,362.50
TOTAL DEMAND CURRENT (A) 73.17

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: P4 SEC.2 (EXISTING) REVISED — 3 PH 4 WIRE — VOLTAGE: 208Y/120V — 225A MLO
LOC: — MOUNT: SURFACE — FEED: BOTTOM
TYPE: — POLES: 30 — SF MAINS: — 10,000 AIC

LOAD TYPE	LOAD	CIRCUIT DIRECTORY	CIR. NO.	CIR P	CIR BRKR AMP	A	B	C	CIR P	CIR BRKR AMP	CIR. NO.	CIRCUIT DIRECTORY	LOAD	LOAD TYPE
L	240	EXIT LIGHTS	1	1	20	240			1	20	2	SPACE		
L	600	PATHWAY LIGHTS	3	1	20		600		1	20	4	SPACE		
L	**1300**	**LIGHTS - 101, KITCHEN 102**	5	1	20			2024	1	20	6	**LIGHTS - 111A-C, 112 THRU 118, 119A-E**	**724**	**L**
L	1700	OFFICE, TOILETS, CLEANING ROOM	7	1	20	1700			1	20	8	**SPARE**		
L	1250	LIGHTS - APPARATUS BAY	9	1	20		1250		1	20	10	SPACE		
L	750	LIGHTS - APPARATUS BAY	11	1	20			2250	1	20	12	KITCHEN RECEPTACLES	1500	L
L	500	L.V. LIGHT CONTROL	13	1	20	2000			1	20	14	KITCHEN RECEPTACLES	1500	L
H	1500	TRK BAY HEATERS	15	1	20		2300		1	20	16	RECEPTS - HOSE TOWER	800	L
H	2500	FA PANEL	17	1	20			3000	1	20	18	WATER HEATER FOR GEN.	500	WH
		UNIT HEATERS, APPAR. RM, FUEL FARM	19	1	20	400			**1**	**20**	20	**REF. KITCHEN 102 (NOTE 1)**	**400**	**A**
MO	550	FUEL PUMP	21	2			950		**1**	**20**	22	**REF. KITCHEN 102 (NOTE 1)**	**400**	**A**
MO	550		23		20			950	**1**	**20**	24	**REF. KITCHEN 102 (NOTE 1)**	**400**	**A**
MO	800		25	3		1300			3		26		500	MO
MO	800	DOOR OPERATORS	27				1300				28	EXHAUST SYSTEM	500	MO
MO	800		29		15			1300		20	30		500	MO
	13840	TOTAL			THIS PANEL->	5640	6400	9524				TOTAL	7724	
						5640	6400	9524						

LIGHTING(125%) = 14830.00 — RECEPTS<=10000(100%) = 0.00 — RECEPTS>10000(50%) = 0.00 — RECEPTS TOTAL = 0.00 — ELECTRIC HEAT(100%) = 3000.00
LARGEST MOTOR(125%) = 0.00 — OTHER MOTORS(100%) = 5000.00 — MOTOR TOTAL = 5000.00 — WATER HEATERS(100%) = 500.00
KITCHEN LOADS(65%) = 0.00 — APPLIANCES(100%) = 1200.00 — DEDICATED(100%) = 0.00 — MISC(100%) = 0.00

TOTAL CONNECTED LOAD (VA): 21,564.00
TOTAL CONNECTED CURRENT (A): 59.86
TOTAL DEMAND LOAD (VA): 24,530.00
TOTAL DEMAND CURRENT (A) 68.09

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

ITEMS IN BOLD INDICATES NEW OR REVISED LOADS. NOTE1: PROVIDE NEW CIRCUIT BREAKER. SIZE AS INDICATED.

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CHARLES A. HEANEY — STATE OF WASHINGTON — 12006 — REGISTERED PROFESSIONAL ENGINEER
4/13/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 2015137

BID SET

ISSUED: MARCH 24, 2017

REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

PANEL SCHEDULES

SHEET:

E-602

FIRE ALARM SYSTEM LEGEND

SYMBOL	DESCRIPTION
P	MANUAL PULL STATION - WALL MOUNT OPERABLE PART BETWEEN 42" AND 48" ABOVE FINISH FLOOR
	SMOKE DETECTOR (CEILING MOUNTED)
	HEAT DETECTOR (CEILING MOUNTED)
TS	SPRINKLER SYSTEM TAMPER SWITCH
FS	SPRINKLER SYSTEM FLOW SWITCH
C/O	CARBON MONOXIDE SENSOR
	SPRINKLER SYSTEM ALARM BELL (24 VOLTS D.C.)
	FIRE ALARM CLEAR (WHITE) STROBE ONLY - WALL MOUNTED WITH THE ENTIRE STROBE LENS NOT LESS THAN 80" OR MORE THAN 96" ABOVE THE FINISHED FLOOR OR NOT MORE THAN 6" BELOW THE CEILING, WHICHEVER IS LOWER
	COMBINATION HORN / STROBE - WALL MOUNTED WITH THE ENTIRE STROBE LENS NOT LESS THAN 80" OR MORE THAN 96" ABOVE THE FINISHED FLOOR OR NOT MORE THAN 6" BELOW THE CEILING, WHICHEVER IS LOWER
	COMBINATION HORN / STROBE - CEILING MOUNTED
AES	AES WIRELESS TRANSCEIVER
M	MONITOR MODULE
R	RELAY MODULE
GMAP	GRAPHIC MAP
PIV	SPRINKLER POST INDICATOR VALVE (OUTSIDE)

MISCELLANEOUS

SYMBOL	DESCRIPTION
1	CONSTRUCTION NOTES
1	RISER CONSTRUCTION NOTES
$	ALL NEW DEVICES INDICATED WITH A DARK CONTINUOUS LINE TYPE
$	ALL EXISTING DEVICES THAT ARE TO BE RETAINED ARE INDICATED WITH A LIGHT CONTINUOUS LINE TYPE
FA	FA INDICATES FIRE ALARM
LF	LF INDICATES LOW FREQUENCY HORN (520Hz)
SB	SB INDICATES SOUNDER BASE
W	W INDICATES WEATHERPROOF DEVICE
S	S INDICATES SURFACE MOUNT

FIRE ALARM FLOOR PLAN GENERAL NOTES

1. PROVIDE ALL MATERIALS, EQUIPMENT, LABOR, DESIGN AND PROGRAMMING FOR A COMPLETE, INTELLIGENT (ANALOG) AND ADDRESSABLE (DIGITAL) LOW VOLTAGE 24 VOLT D.C., FULLY OPERATIONAL FIRE ALARM SYSTEM. ALL EQUIPMENT PROVIDED FOR THIS PROJECT SHALL BE NEW, CURRENTLY MANUFACTURED, AND SHALL BE DELIVERED TO THE PROJECT SITE WITH THE ORIGINAL FACTORY SEAL INTACT. MATERIALS AND WORKMANSHIP SHALL FULLY COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.F.P.A. #70), NATIONAL FIRE ALARM AND SIGNALING CODE (N.F.P.A. #72), AND THE LAWS AND REGULATIONS OF WASHINGTON STATE.
2. CORE DRILLED HOLES SHALL NOT PENETRATE THROUGH ANY STRUCTURAL BEAMS, REBAR CONCRETE SLABS, AND / OR WALLS THAT MAY COMPROMISE THE STRUCTURAL INTEGRITY OF THE BUILDING.
3. WHEN PENETRATING FIRE RATED WALLS, FLOORS, OR CEILINGS, THE CONTRACTOR SHALL UTILIZE APPROVED FIRE RATED PENETRATION METHODS. THE FIRE RATING OF THE WALLS, FLOORS, OR CEILINGS SHALL BE MAINTAINED AFTER THE CONDUIT HAS BEEN INSTALLED.
4. PRIOR TO ROUGH-IN, COORDINATE EXACT LOCATIONS OF FIRE ALARM APPLIANCES AND DEVICES WITH THE GENERAL ELECTRICAL CONTRACTORS.
5. EXISTING CONDUITS MAY BE REUSED BY THE FIRE ALARM SYSTEM CONTRACTOR IF DEEMED NECESSARY.
6. THE GENERAL CONTRACTOR AND FIRE ALARM SYSTEM CONTRACTOR SHALL COORDINATE ALL CUTTING, PATCHING AND FINISH WORK.
7. ALL MANUAL PULL STATIONS SHALL BE DUAL ACTION, KEY OPERABLE. THE USE OF BREAK GLASS FRONT STATIONS ARE NOT ALLOWED.
8. THE BASIS FOR THE VISUAL NOTIFICATION APPLIANCES (STROBES) INDICATED ON THE CONTRACT DOCUMENTS IS THE UTILIZATION OF (75) CANDELA (C.D.) AT A 44'-0" X 44'-0" SPACING FOR CEILING MOUNTED APPLIANCES AND 45'-0" X 45'-0" SPACING FOR WALL MOUNTED APPLIANCES. IF THE FIRE ALARM SYSTEM CONTRACTOR DECIDES TO INSTALL LOWER OUTPUT VISUAL APPLIANCES, IT BECOMES THE RESPONSIBILITY OF THE FIRE ALARM SYSTEM CONTRACTOR TO MEET THE MINIMUM CANDELA (C.D.) RATING AT THE LISTED MAXIMUM ROOM SIZE INDICATED IN TABLE 18.5.5.4.1(A) FOR WALL MOUNTED VISIBLE APPLIANCES OR TABLE 18.5.5.4.1(B) FOR CEILING MOUNTED VISIBLE APPLIANCES IN THE 2013 EDITION OF N.F.P.A. #72.
9. PROVIDE NEW CIRCUIT LABELS AND DIRECTORY CARDS FOR PANELS ALTERED AND / OR ADDED BY THIS CONTRACT.
10. ALL ADDRESSABLE DEVICES AND DETECTOR BASES SHALL BE PERMANENTLY AND CLEARLY LABELED WITH THE DEVICE ADDRESS IN A READILY VISIBLE LOCATION DIRECTLY ON THE DEVICE.
11. THE FIRE ALARM SYSTEM CONTRACTOR SHALL PROVIDE CARBON MONOXIDE DETECTION IN SPACES WITH FOSSIL FUEL BURNING APPLIANCES, EQUIPMENT, STOVES, OR FIRE PLACES.

FIRE ALARM FLOOR PLAN CONSTRUCTION NOTES

1. THE FIRE ALARM SYSTEM CONTRACTOR SHALL PROVIDE PLYWOOD BACK BOARD(S) ON WALLS THAT ARE NOT CMU OR CONCRETE AND USED TO MOUNT ENCLOSURES OF ANY KIND. PLYWOOD BACKING BOARD(S) SHALL BE SECURELY FASTENED TO THE WALL, BE A MINIMUM OF ¾", APA EXTERIOR GRADE ACX, VOID-FREE (MOUNTED WITH THE SMOOTH SIDE OUT), AND FIRE RETARDANT WITH A FLAME SPREAD RATING NOT MORE THAN 25 WHEN TESTED ACCORDING TO ASTM E-84. SUBMIT A PICTURE OF THE INSTALLED PLYWOOD TO THE ARCHITECT / ENGINEER FOR APPROVAL PRIOR TO APPLYING (3) COATS OF EGG SHELL WHITE FIRE RETARDANT PAINT.
2. SEE THE FIRE ALARM RISER DIAGRAM ON SHEET FA0.02 FOR MORE INFORMATION.
3. FIRE SPRINKLER SYSTEM SWITCHES ARE EXISTING. THE SWITCHES SHALL BE WIRED AND CONNECTED TO THE NEW FIRE ALARM SYSTEM BY THE ELECTRICAL CONTRACTOR. SEE THE FIRE SPRINKLER SYSTEM DRAWINGS FOR EXACT QUANTITIES AND LOCATIONS OF ALL FIRE SPRINKLER SWITCHES, WHICH SHALL BE MONITORED BY THE FIRE ALARM SYSTEM. IF REPLACED, THESE SWITCHES SHALL BE PROVIDED AND INSTALLED BY SPRINKLER SYSTEM CONTRACTOR.
4. THE 24 VOLTS D.C. SPRINKLER SYSTEM ALARM BELL SHALL BE PROVIDED BY THE FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL WIRE AND CONNECT THE ALARM BELL TO THE FIRE ALARM SYSTEM CONTROL PANEL (FMCP) AND THE FIRE ALARM CONTRACTOR SHALL PROGRAM THE ALARM BELL TO ACTIVATE UPON THE FLOW OF WATER.
5. THE FIRE ALARM SYSTEM CONTRACTOR SHALL PROVIDE A RELAY MODULE TO INITIATE CLOSURE OF THE GAS SOLENOID VALVE UPON ACTIVATION OF THE FIRE ALARM SYSTEM.
6. LOCATION OF AES ANTENNA IF SIGNAL STRENGTH REQUIRES OUTDOOR ANTENNA.
7. THE FIRE ALARM SYSTEM CONTRACTOR SHALL PROVIDE A RELAY MODULE FOR CONNECTION TO THE EXISTING MAGNETIC DOOR HOLDERS. THE MAGNETIC DOOR HOLDER SHALL RELEASE UPON RECEIVING AN ALARM SIGNAL FORM THE FIRE ALARM SYSTEM CONTROL PANEL.
8. SMOKE DETECTOR FOR EXISTING MAGNETIC DOOR HOLDER RELEASE SHALL BE LOCATED WITHIN 5'-0" OF THE DOOR IT IS SERVING AND INSTALLED ALONG THE CENTERLINE OF THE DOOR OPENING.

FIRE ALARM SYSTEM EQUIPMENT REQUIREMENTS

1. THE FIRE ALARM SYSTEM SHALL BE FULLY FUNCTIONAL WITHOUT THE USE OF PRIMARY POWER. THE FIRE ALARM SYSTEM SHALL BE PROVIDED WITH A MINIMUM OF 24 HOURS OF STANDBY OPERATION FOLLOWED BY AN ADDITIONAL 5 MINUTES OF ALARM OPERATION.
2. ALL BATTERIES SHALL PROVIDE AT LEAST 25% SPARE CAPACITY.
3. FIRE ALARM SYSTEMS: THE FIRE ALARM SYSTEM CONTROL PANEL (FACP) MAY INCLUDE INTERNAL POWER SUPPLIES. THE FIRE ALARM SYSTEM POWER SUPPLIES (FAPS) ARE SHOWN FOR REFERENCE ONLY. PROVIDE ADDITIONAL QUANTITIES OF POWER SUPPLIES AS REQUIRED FOR A COMPLETE AND FULLY FUNCTIONAL SYSTEM. THE FIRE ALARM SYSTEM CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE ELECTRICAL CONTRACTOR FOR ALL POWER CONNECTION. THE FIRE ALARM SYSTEM CONTRACTOR SHALL BE RESPONSIBLE FOR THE ELECTRICAL COSTS ASSOCIATED WITH ALL NON-COORDINATED POWER CONNECTIONS.
4. PROVIDE 25% SPARE CAPACITY FOR NOTIFICATION POWER SUPPLIES.
5. PROVIDE MULTIPLE INITIATING DEVICE CIRCUITS AND SIGNALING LINE CIRCUITS SO THAT FAILURE OF ONE CIRCUIT DOES NOT CAUSE THE FACILITY TO LOOSE OVER 50% OF ITS DETECTION CAPABILITY PER FLOOR.
6. PROVIDE A MINIMUM OF 2 ISOLATION MODULES PER CIRCUIT.
7. PROVIDE BATTERY CALCULATIONS FOR ALL FIRE ALARM SYSTEMS.

FIRE ALARM AUDIBILITY REQUIREMENTS

THE FIRE ALARM SYSTEM CONTRACTOR SHALL PERFORM AUDIBILITY TESTING IN EACH SPACE OF THE BUILDING PRIOR TO ACCEPTANCE TESTING. DOCUMENTATION OF DECIBEL (dB) VALUES RECORDED IN ALL SPACES SHALL BE PROVIDED TO THE ARCHITECT / ENGINEER PRIOR TO ACCEPTANCE TESTING.

1. DECIBEL READINGS SHALL BE TAKEN AT A POINT 10'-0" FROM THE APPLIANCE AT AN ELEVATION OF 5'-0" ABOVE FINISHED FLOOR.
2. THE SOUND LEVEL SHALL BE A MINIMUM OF 15 DECIBELS (dBs) ABOVE THE AVERAGE AMBIENT SOUND LEVEL.
3. THE SOUND LEVEL SHALL BE A MINIMUM OF 5 DECIBELS (dBs) ABOVE THE MAXIMUM SOUND LEVEL HAVING A MINIMUM DURATION OF 60 SECONDS.
4. IN SPACES THAT DO NOT MEET THE MINIMUM AUDIBLE (dB) VALUES, THE FIRE ALARM SYSTEM CONTRACTOR SHALL PROVIDE ADDITIONAL AUDIBLE NOTIFICATION APPLIANCES UNTIL THE MINIMUM DECIBEL (dB) VALUES ARE OBTAINED.

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4/13/2017

SOUTH KING FIRE & RESCUE
FACILITY IMPROVEMENTS
FIRE STATION 61
3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 2015137

BID SET

ISSUED: MARCH 24, 2017

REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

FIRE ALARM SYSTEM LEGEND AND NOTES

SHEET:

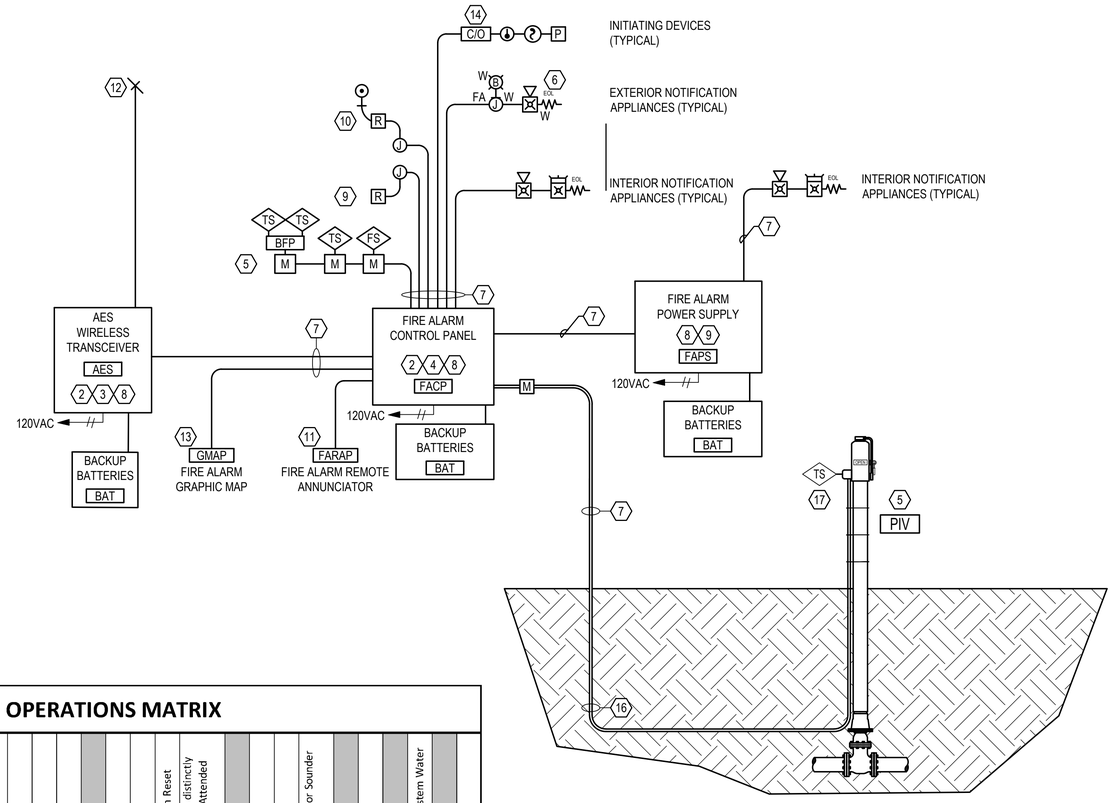
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FIRE ALARM SYSTEM RISER DIAGRAM CONSTRUCTION NOTES

1. THE RISER DIAGRAM IS DIAGRAMMATIC IN NATURE. IT DOES NOT SHOW ALL DEVICES AND DOES NOT REPRESENT ACTUAL CONDUIT OR CABLE ROUTING.
2. THE FIRE ALARM SYSTEM SHALL BE FULLY FUNCTIONAL WITHOUT THE USE OF PRIMARY POWER. THE FIRE ALARM SYSTEM SHALL BE PROVIDED WITH A MINIMUM OF 24 HOURS OF STANDBY OPERATION FOLLOWED BY AN ADDITIONAL 5 MINUTES OF ALARM OPERATION. ALL BATTERIES SHALL BE SIZED TO PROVIDE AT LEAST 20% ADDITIONAL SPARE CAPACITY. SEE THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. PROVIDE ALL NECESSARY EQUIPMENT, INTERFACES, OTHER APPURTENANCES, AND PROGRAMMING AS REQUIRED FOR COMMUNICATION TO THE CENTRAL STATION MONITORING COMPANY OR MONITORING STATION.
4. PROVIDE SYSTEM POWER SUPPLIES, WHERE REQUIRED.
5. FIRE SPRINKLER SYSTEM SWITCHES ARE EXISTING. THE SWITCHES SHALL BE WIRED AND CONNECTED TO THE NEW FIRE ALARM SYSTEM BY THE ELECTRICAL CONTRACTOR. SEE THE FIRE SPRINKLER SYSTEM DRAWINGS FOR EXACT QUANTITIES AND LOCATIONS OF ALL FIRE SPRINKLER SWITCHES, WHICH SHALL BE MONITORED BY THE FIRE ALARM SYSTEM. IF REPLACED, THESE SWITCHES SHALL BE PROVIDED AND INSTALLED BY SPRINKLER SYSTEM CONTRACTOR.
6. THE 24 VOLTS D.C. SPRINKLER SYSTEM ALARM BELL SHALL BE PROVIDED BY THE FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL WIRE AND CONNECT THE ALARM BELL TO THE FIRE ALARM SYSTEM CONTROL PANEL (FACP) AND THE FIRE ALARM CONTRACTOR SHALL PROGRAM THE ALARM BELL TO ACTIVATE UPON THE FLOW OF WATER.
7. PROVIDE SYSTEM CABLES FOR A FULLY FUNCTIONAL SYSTEM, AS REQUIRED.
8. PROVIDE SURGE PROTECTION ON ALL INCOMING PRIMARY POWER SUPPLIES SERVING FIRE ALARM SYSTEM PANELS.
9. THE FIRE ALARM SYSTEM CONTRACTOR SHALL PROVIDE A RELAY MODULE TO INITIATE CLOSURE OF THE KITCHEN GAS SOLENOID VALVE UPON ACTIVATION OF THE FIRE ALARM SYSTEM. (NO ANSUL SYSTEM)
10. THE FIRE ALARM / EMERGENCY COMMUNICATION SYSTEM CONTRACTOR SHALL PROVIDE A RELAY MODULE FOR CONNECTION TO THE EXISTING MAGNETIC DOOR HOLDERS. THE MAGNETIC DOOR HOLDER SHALL RELEASE UPON RECEIVING AN ALARM SIGNAL FORM THE FIRE ALARM / EMERGENCY COMMUNICATION SYSTEM CONTROL PANEL.
11. FIRE ALARM SYSTEM REMOTE ANNUNCIATOR PANEL INSTALLED IN LOCATION INDICATED ON THE CONTRACT DOCUMENTS.
12. FIRE ALARM SYSTEM CONTRACTOR SHALL MEASHURE AES SIGNAL STRENGTH. SIGNAL STRENGTH SHALL BE A NETCON 5 ORT BETTER. IF AN OUTDOOR ANTENNA IS REQUIRED, MOUNT ANTENNA SO IT REACHES ABOVE THE ROOF LINE OF THE BUILDING.
13. FIRE ALARM GRAPHIC MAP TO CONFORM TO CONTRACT DOCUMENTS AND BE PROVIDED AT MAIN ENTRANCE AND AT THE MAIN FACP.
14. FIRE ALARM SYSTEM CONTRACTOR SHALL PROVIDE CARBON MONOXIDE DETECTION IN SLEEPING AREAS AND NEAR FOSSIL FUEL BURNING EQUIPMENT.
15. SMOKE DETECTOR FOR EXISTING MAGNETIC DOOR HOLDER RELEASE SHALL BE LOCATED WITHIN 5'-0" OF THE DOOR IT IS SERVING AND INSTALLED ALONG THE CENTERLINE OF THE DOOR OPENING.
16. ALL WIRE RUN UNDERGROUND SHALL BE SUITABLE FOR WET LOCATIONS.
17. THE FIRE ALARM SYSTEM CONTRACTOR SHALL INSTALL 1" RIGID METAL CONDUIT FROM TERMINATION OF 1" PVC CONDUIT UP TO THE POST INDICATING VALVE TAMPER SWITCH. METAL CONDUIT SHALL BE SECURED TO THE POST INDICATING VALVE HOUSING WITH (3) STAINLESS STEEL HOSE CLAMPS,

FIRE ALARM SYSTEM TRANSMITTER ZONE SCHEDULE

ZONE #	DESCRIPTION
1	MANUAL PULL STATION ALARM
2	SMOKE DETECTOR ALARM
3	WATER FLOW ALARM
4	TAMPER SWITCH SUPERVISORY SIGNAL
5	CARBON MONOXIDE DETECTOR ALARM
6	SLEEPING UNIT SMOKE DETECTOR SUPERVISORY SIGNAL
7	SLEEPING UNIT SMOKE DETECTOR ALARM SIGNAL
8	FIRE ALARM PANEL TROUBLE SIGNAL
9	FIRE ALARM PANEL SUPERVISORY SIGNAL
10	COMMON TROUBLE
11	SPARE
12	SPARE
13	SPARE
14	SPARE
15	SPARE
16	SPARE
17	SPARE
18	SPARE
19	SPARE
20	SPARE



FIRE ALARM SYSTEM RISER DIAGRAM (1)

DIAGRAMMATIC

FIRE ALARM SYSTEM SEQUENCE OF OPERATIONS MATRIX

Notes:

1. If "Sequence of Operations" indicated here conflicts with specification, this "Sequence of Operations" supersedes specification sequence.
2. Provide a complete "Sequence of Operations" in accordance with N.F.P.A. #72 and contract documents.
3. This "Sequence of Operations" is considered to be the minimum amount of items required for this project. Provide additional Inputs and/or Outputs as required by the Authority Having Jurisdiction.

System Inputs	System Outputs: Fire Alarm System Control Panel	Annunciate "Alarm Condition" at the Fire Alarm System Control Panel	Annunciate "Alarm Condition" at the Fire Alarm System Remote Annunciator	Transmit "Alarm Signal" to the Central Station Monitoring Company	Annunciate "Trouble Condition" at the Fire Alarm Control Panel	Annunciate "Trouble Condition" at the Fire Alarm Remote Annunciator	Transmit "Trouble Signal" to the Central Station Monitoring Company	Annunciate "Supervisory Condition" at the Fire Alarm Control Panel	Annunciate "Supervisory Condition" at the Fire Alarm Remote Annunciator	Transmit "Supervisory Signal" to the Central Station Monitoring Company	**Audible / Visual Notification Appliances**	Activate All Fire Alarm System Audible Notification Appliances	Activate All Fire Alarm System Visual Notification Appliances	Visual Notification Appliances Operation Maintained until Fire Alarm System Reset	Activation of Carbon Monoxide Detection Sensor shall Initiate a signal tha is distinctly different from a Fire Alarm and Transmit a Unique Signal to the Constantly Attended Location	**Residential / Living Units**	Activate Smoke Detector Sounder Base Alarm in sleeping Unit Room Only	Activate All Smoke Detector Sounder Base Alarms in Dwelling Unit Only	Activate All Occupant Audible Notification Appliances (except Smoke Detector Sounder Base Alarms) in the Building	**Doors Holders**	Release Door(s) to be Closed	**Fire Sprinkler Systems**	Local Sprinkler System Electric Bell Activation Upon the Flow of Sprinkler System Water	**Kitchens**	Natural Gas solenoid shutoff for Kitchen Cooking Appliances
Fire Alarm / Emergency Communication System:																										
Fire Alarm System Control Panel in Alarm Condition		X	X	X								X	X	X						X		X				X
Manual Pull Station		X	X	X								X	X	X						X		X				X
Smoke Detector		X	X	X								X	X	X						X		X				X
Fire Alarm System Control Panel in Trouble Condition					X	X	X																			
Notification Circuit Short					X	X	X																			
Single Break (Open) in Fire Alarm Circuit					X	X	X																			
Single Ground Fault in Fire Alarm Circuit					X	X	X																			
Fire Alarm Panel Primary Power Failure					X	X	X																			
Fire Alarm Panel Battery Failure					X	X	X																			
Fire Alarm System Control Panel in Supervisory Condition								X	X	X																
Carbon Monoxide Sensor in Commons Area		X	X	X									X	X	X											
Carbon Monoxide Sensor in Kitchens with Fossil Fuel Burning Equipment		X	X	X									X	X	X											X
Smoke Detectors for Door Hold Opens:																										
Smoke Detectors to Close Doors								X	X	X									X			X				
Residential / Sleeping Unit Smoke Detectors:																										
Smoke Detector with Sounder Base (Single Room Type Residential / Sleeping Unit)								X	X	X								X								
Smoke Detector with Sounder Base (Multiple Rooms in Residential / Sleeping Unit)		X	X	X								X	X	X					X			X				
Tampering of any Dwelling Unit Smoke Detector with Sounder Base					X	X	X																			
Wet Pipe Automatic Fire Protection Sprinkler Systems:																										
Water Flow Switch		X	X	X								X	X	X						X		X		X		
Control Valve Tamper Switch								X	X	X																
Post Indicating Valve Tamper Switch								X	X	X																

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CHARLES A. HEARON — STATE OF WASHINGTON — 12886 — REGISTERED PROFESSIONAL ENGINEER
4/13/2017

SOUTH KING FIRE & RESCUE FACILITY IMPROVEMENTS

FIRE STATION 61

3203 S 360th STREET, FEDERAL WAY, WASHINGTON

PROJECT # 2015137

BID SET

ISSUED: MARCH 24, 2017

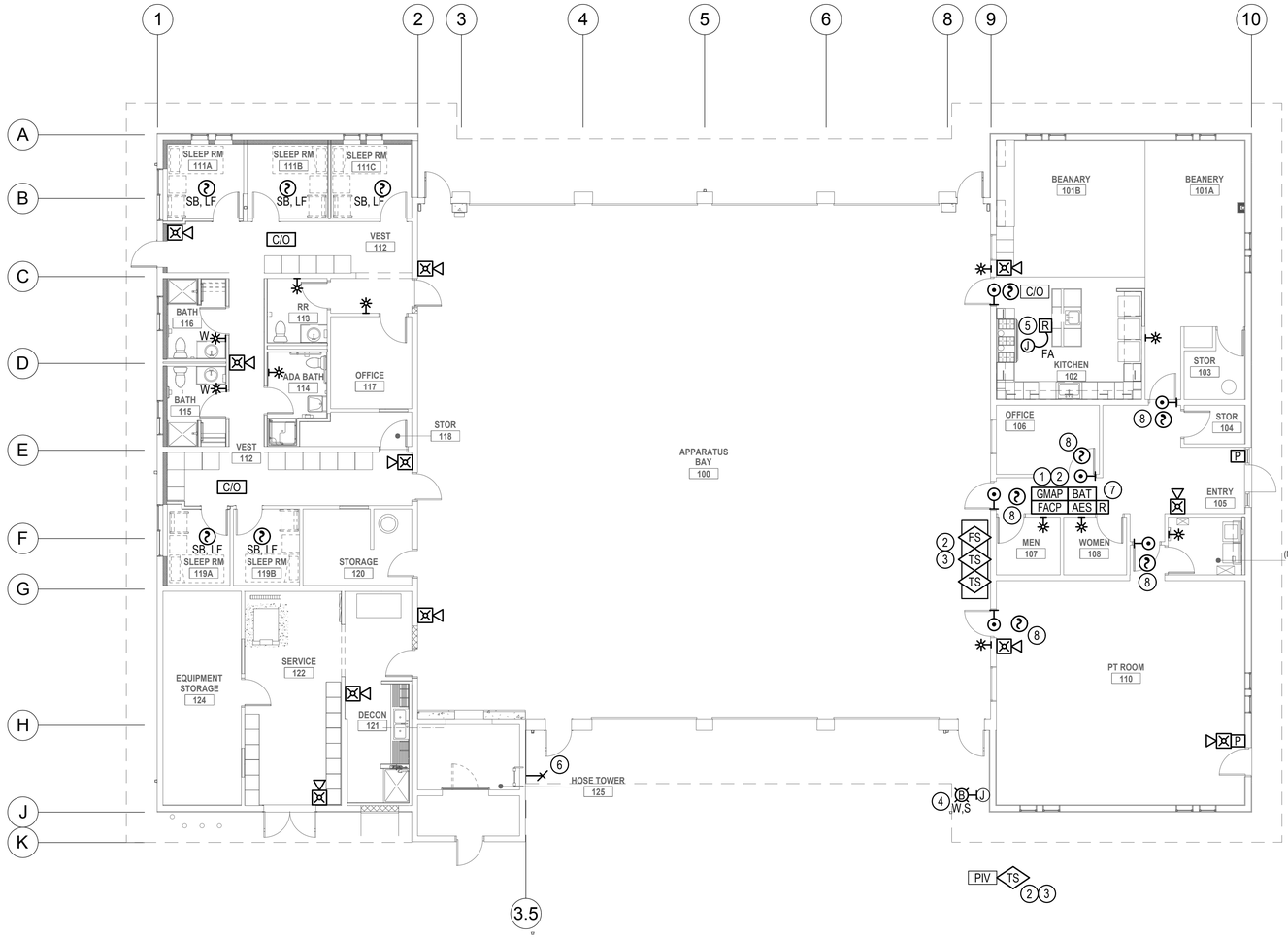
REVISION SCHEDULE

1	PLAN REVIEW	01.30.2017

FIRE ALARM RISER DIAGRAM AND SEQUENCE OF OPERATIONS MATRIX

SHEET:

FA0.02



1 FIRE ALARM FIRST FLOOR PLAN

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

N

GENERAL NOTES

1. SEE SHEET FA0.01 FOR FIRE ALARM SYSTEM FLOOR PLAN GENERAL AND CONSTRUCTION NOTES.
2. SEE SHEET FA0.01 FOR CABLING AND CONDUIT REQUIREMENTS AND FIRE ALARM SYSTEM REQUIREMENTS.
3. CEILING TYPES ARE SHOWN FOR REFERENCE ONLY AND ARE NOT PROVIDED TO INDICATE EXACT LAYOUTS.
4. CEILING MOUNTED DEVICES SHALL BE INSTALLED AT THE QUARTER POINT OR CENTER POINT OF 4'X2' ACOUSTICAL CEILING TILES AND CENTER POINT OF 2'X2' OR 1'X1' ACOUSTICAL CEILING TILES. CONSTRUCTION DOCUMENT FA401 THRU FA402 MAY NOT DEPICT THIS INSTALLATION DUE TO REFLECTED CEILING PLAN SHOWN BEING DIAGRAMMATICAL TO INDICATE CEILING TYPES, NOT EXACT ACOUSTICAL TILE LAYOUTS.
5. THE FIRE ALARM SYSTEM CONTRACTOR SHALL COORDINATE THE FIRE ALARM SYSTEM INSTALLATION WITH EXISTING ARCHITECTURAL FEATURES, H.V.A.C. GRILLES, ELECTRICAL LIGHTS, FIRE PROTECTION SPRINKLER HEADS, AND / OR EXISTING CONDITIONS.

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FIRE ALARM FIRST FLOOR PLAN

SHEET:

FA1.01