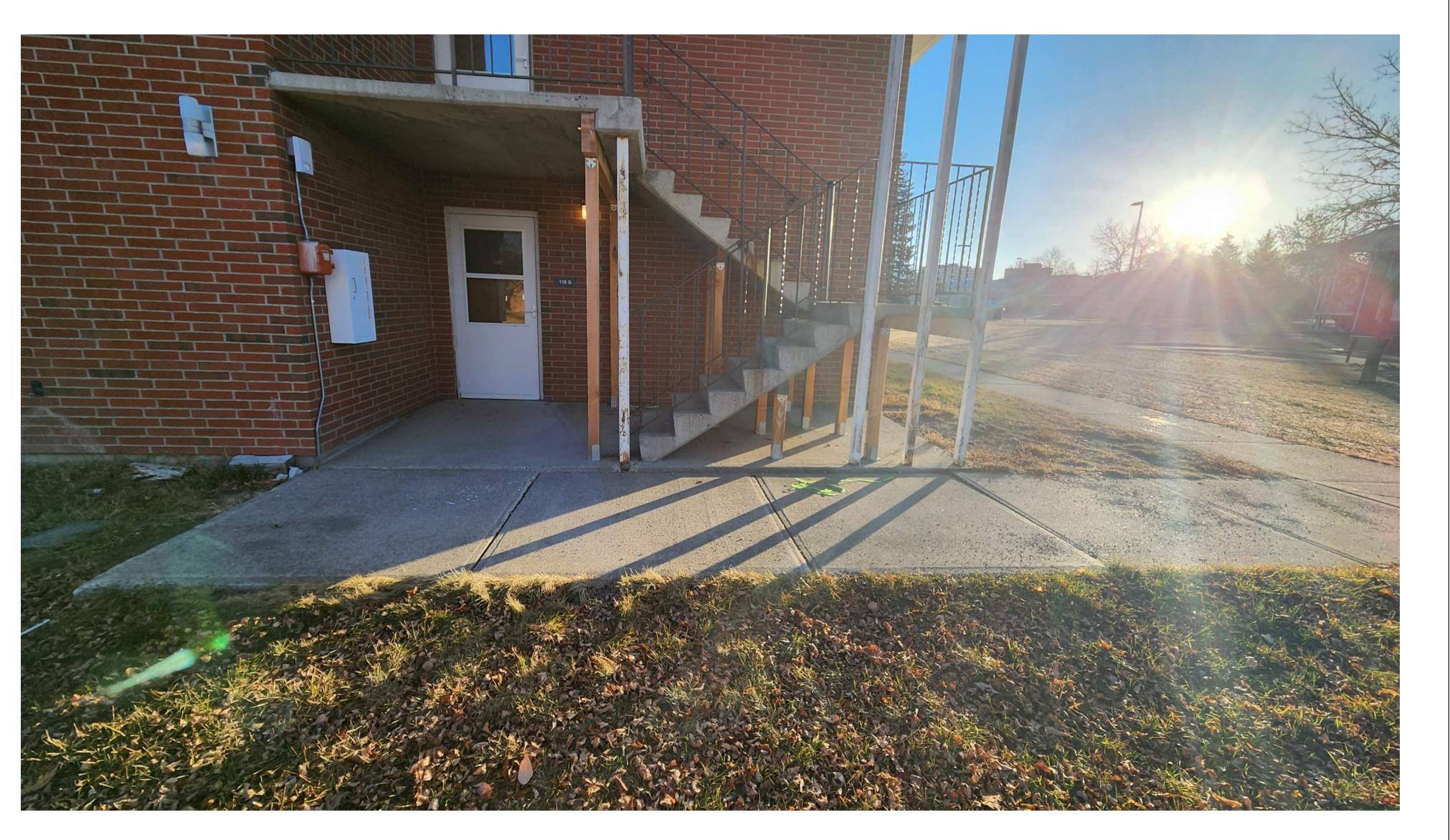
JULIA MARTIN WEST REMODEL

118 JULIA MARTIN WEST BOZEMAN, MT 59715

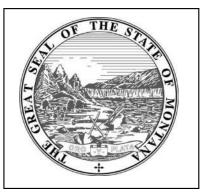
ISSUE DATE: 03/29/2024

MSU PPA#: 23-0741

A&E PROJECT NUMBER: 23123 - 2A





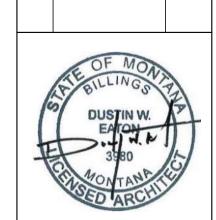


MSU-CPDC
IONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

MARTIN WEST EMODEL



DRAWN BY: **Author**REVIEWED BY**Checker**REV. DESCRIPTION DATE



PPA #: 23-

A&E PROJ #:

A/E# 23-0

SHEET TITLE
COVER SHEET

SHEET

G0.0

ARCHITECTURAL ABBREVIATIONS

AB	ANCHOR BOLT	GA	GAUGE	R
ABV	ABOVE	GALV	GALVANIZED	RA
A/C	AIR CONDITIONING	GB	GYPSUM BOARD	RB
ACT	ACOUSTICAL CEILING TILE	GC	GENERAL CONTRACTOR	RD
ADDL	ADDITIONAL	GL	GLASS, GLAZING	RECY
ADJ	ADJUSTABLE	GWB	GYPSUM WALL BOARD	REF
AFF	ABOVE FINISH FLOOR	GYP	GYPSUM	REFRI
ALT	ALTERNATE			
ALUM	ALUMINUM	HC	HANDICAP	REINF
ARCH	ARCHITECT(URAL)	HDR	HEADER	REQD
AWN	AWNING	HDW	HARDWARE	RM
		HM	HOLLOW METAL	RO

BOTTOM OF HR HOUR BOARD HT BLDG BUILDING HEIGHT HTD HEATED BLKG BLOCKING HVAC HEATING/VENTILATION & AIR BEAM OR BENCHMARK BRG BEARING CONDITIONING BTWN BETWEEN INSIDE DIAMETER INFO INFORMATION ISOCYANURATE CONTROL JOINT INSUL INSULATE / INSULATED / INSULATION

BUR BUILT-UP ROOF CL CLG CENTERLINE INTERIOR INVERT CEILING CMU CONCRETE MASONRY UNIT CO CLEAN OUT JOINT COL COLUMN J-BOX JUNCTION BOX CONC CONCRETE KIT KITCHEN CONT CONTINUOUS CONST CONSTRUCTION CORNER GUARD LONG / LENGTH

LAM

MTL METAL

NOM NOMINAL

NORTH

NTS NOT TO SCALE

OC ON CENTER

OPNG OPENING

OVHD OVERHEAD

PLUMB PLUMBING

PVMT PAVEMENT

QT QUARRY TILE QTR QUARTER QTY QUANTITY

PLYWD PLYWOOD

PNL PANEL

PNT PAINT

OPP

OSB

PSI

NIC NOT IN CONTRACT

OPPOSITE

PLAM PLASTIC LAMINATE

OUTSIDE DIAMETER OR OVERFLOW

ORIENTED STRAND BOARD

POUNDS PER SQUARE FOOT

POUNDS PER SQUARE INCH

FIRE RATING NOTE:

1-HOUR RATED WALLS TO COMPLY WITH UL Des U419

LAMINATE(D)

CSMT CASEMENT LAV LAVATORY LF LINEAR FEET CERAMIC TILE LIGHT DEEP MAS MASONRY DRINKING FOUNTAIN MATL MATERIAL DOUBLE HUNG DIM(S) DIMENSIONS MAX MAXIMUM DISPENSER MECH MECHANIC(AL) DOWN MEZZ MEZZANINÈ DOOR MFR MANUFACTURER DOWNSPOUT MANHOLE DETAIL MIN MINIMUM DWG DRAWING MISC MISCELLANEOUS MASONRY OPENING

EA EC EACH EXISTING COLUMN **EXPANSION JOINT** ELEC ELECTRICAL **ELEVATION** ELEV ELEVATOR EQ EQUAL EQUIP EQUIPMENT EWC ELECTRIC WATER COOLER

BM

CJ

CPT

DF

DH

DISP

DN

DS

DTL

CARPET

EXH EXHAUST EXIST EXISTING EXPANSION OR EXPOSED EXP EXT EXTERIOR FD FLOOR DRAIN FIRE EXTINGUISHER FIRE EXTINGUISHER CABINET FINISH FLOOR

F.F. FIN FINISH FLOOR FND FOUNDATION FR FRAME FRMG FRAMING FEET/FOOT OR FIRE TREATED

FTG FOOTING FTNG FOOTING FRP FIBERGLASS REINFORCED PANEL FRT FIRE RETARDANT TREATED

RADIUS RETURN AIR RUBBER BASE **ROOF DRAIN** RECYCLE(D) REFERENCE RIG REFRIGERATOR OR REFRIGERATION NF REINFORCE QD REQUIRED ROOM ROUGH OPENING HORIZ HORIZONTAL ROW RIGHT OF WAY

SC SOLID CORE SCH SCHEDULE SCHED SCHEDULED SECT SECTION SF SQUARE FEET SFRM SPRAY APPLIED FIRE RESISTIVE MATERIAL SINGLE SGL SHEET SIM

SHTG SHEATHING SIMILAR SPECS SPECIFICATIONS SOD SLAB ON DECK SOG SLAB ON GRADE SOH SAME OPPOSITE HAND SS STAINLESS STEEL ST STONE TILE STD STANDARD STND STANDARD STL STEEL STRUCT STRUCTURAL TEMP TEMPERED THK THICK THRESH THRESHOLD

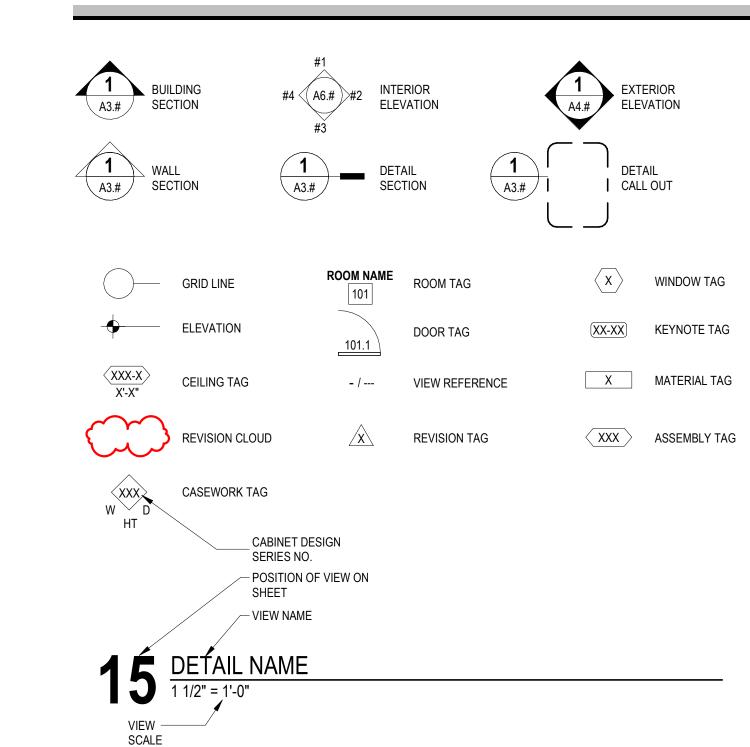
T.O. TOP OF TOBM TOP OF BEAM T.O.BM. TOP OF BEAM T.O.P. TOP OF PLATE T.O.S. TOP OF STEEL TOP OF T&G TONGUE AND GROOVE TELEPHONE THK THICK TRANS TRANSOM TV TELEVISION TYP TYPICAL

> UNDERWRITERS LABORATORY UNO UNLESS NOTED OTHERWISE VB VINYL BASE VCT VINYL COMPOSITION TILE VERT VERTICAL VEST VESTIBULE VIF VERIFY IN FIELD VP VENEER PLASTER VR VAPOR RETARDER VT VINYL TILE VWC VINYL WALL COVERING W WIDE OR WEST W/ WITH WOOD

WDW WINDOW WALL GUARD WATER HEATER WITHIN W/O WITHOUT WATERPROOF WATER RESISTANT WEIGHT WELDED WIRE FABRIC

NUMBER OR POUND

EXPLANATION OF SYMBOLS



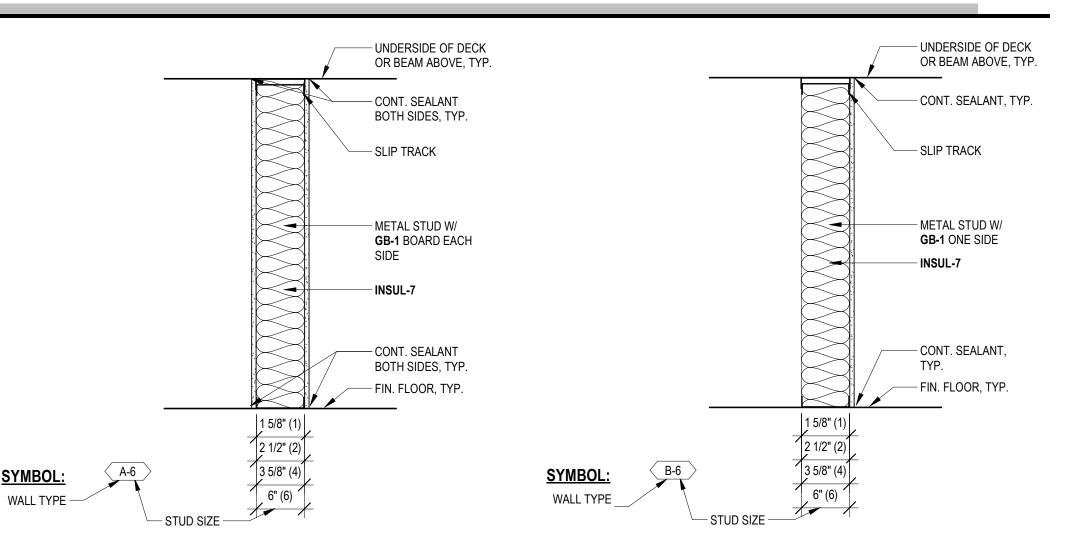
TYPICAL S	HEET VIEV	V NUMBER	ING LAYOU	JΤ
1	2	3	4	
5	6	7	8	
9	10	11	12	
13	14	15	16	

ARCH D (24"x36")

1	2	3	4	5	
6	7	8	9	10	
11	12	13	14	15	
16	17	18	19	20	
ARCH E1 (30"x42")	1	1	1	

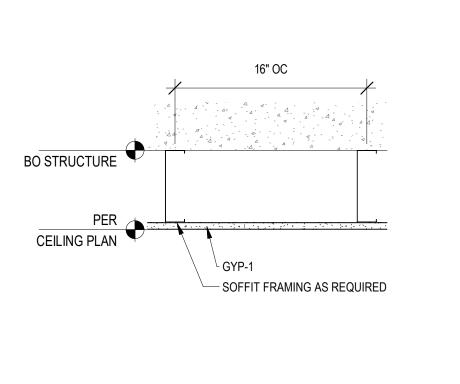
WALL ASSEMBLIES

A SERIES PARTITION



B SERIES PARTITION

CEILING ASSEMBLIES



SOF-1 GYP SOFFIT

ARCHITECTURAL DRAWINGS

GENERAL SHEETS

SHEET NAME SHEET NO. COVER SHEET G0.1 GENERAL INFORMATION G1.0 CODE SUMMARY G2.1 LEVEL 1 CODE PLAN

DEMOLITION SHEETS

SHEET NO. SHEET NAME D2.1 AA2 DEMOLITION PLAN

ARCHITECTURAL SHEETS

SHEET NO. SHEET NAME LEVEL 1 FLOOR PLAN A6.1 INTERIOR ELEVATIONS A6.2 CASEWORK DETAILS SCHEDULES

MECHANICAL SHEETS

MECHANICAL COVER SHEET M1.1 MECHANICAL DEMO PLANS M2.1 MECHANICAL PLANS

PLUMBING SHEETS

PLUMBING COVER SHEET P1.1 PLUMBING DEMO PLANS P2.1 PLUMBING PLANS

ELECTRICAL SHEETS

E1.0 ELECTRICAL COVER SHEET E2.0 ELECTRICAL DEMO PLANS E3.0 ELECTRICAL POWER & SPECIAL SYSTEM PLANS E4.0 ELECTRICAL LIGHTING PLANS

DETAILS

E5.0 **ELECTRICAL SCHEDULES** ELECTRICAL DETAILS

PROJECT TEAM

OWNER

MONTANA STATE UNIVERSITY CULBERTSON HALL 100 BOZEMAN, MT 59717

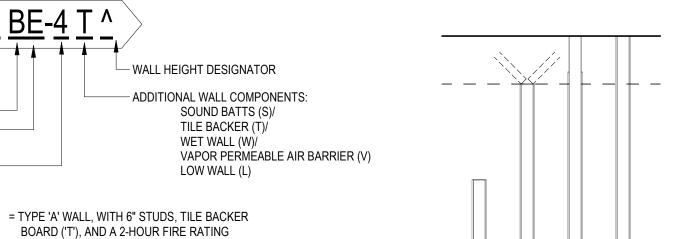
ARCHITECT

A&E ARCHITECTS 515 W. ASPEN ST. SUITE 200A BOZEMAN, MT 59715 406.453.7310

MEP ENGINEERS

ACE INC 12 N. BROADWAY SECOND FLOOR BELGRADE MT, 59714

۸ = +



WALL HEIGHT DESIGNATIONS: CEILING PARTIAL HEIGHT WALL

B.O. STRUCTURE

BRACE FRAMING AS REQUIRED EXTEND STUDS TO B.O. STRUCTURE ABOVE, EXTEND GYPSUM WALLBOARD 6" ABOVE CEILING MIN.

TO UNDERSIDE OF CEILING,

WALLS NOT TAGGED WITH THE ABOVE MODIFIERS TO EXTEND STUDS AND GYPSUM WALLBOARD TO B.O. STRUCTURE ABOVE

WALL TYPE LEGEND

(PER U.L. DESCRIPTION)

FIRE RATING -

TYPE (A - Z)

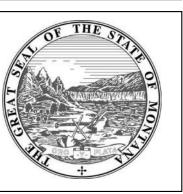
WIDTH

INDICATES EXISTING

METAL FRAMING

STUD/MATERIAL





MSU-CPDC MONTANA STATE UNIVERSIT BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665

WE **MARTIN** REMOD JULIA

MIT/BID SE

DRAWN BY: Author REVIEWED BY**Checker** REV. DESCRIPTION DATE

PPA #: 23-0741

A/E # 23-0741 A&E PROJ #: 23123_2A

SHEET TITLE **GENERAL INFORMATION**

SHEET G0.1

DATE

2020 NATIONAL ELECTRICAL CODE 2017 ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES (ICC/ANSI 117.1)

BUILDING OCCUPANCY DATA

RESIDENTIAL GROUP R-2 (PER IBC 310.3)

GENERAL BUILDING HEIGHTS AND AREAS

INCLUDES ALL CONDITIONED BUILDING AREAS INCLUDING MECHANICAL SHAFTS, ELEVATOR SHAFTS, AND STAIRWELLS MAIN LEVEL 01 = 2915 SF SECOND LEVEL 02 = 2915 SF TOTAL BUILDING SF = 5830 SF

PER IBC TABLES 504.3, 504.4

PRIMARY OCCUPANCY CLASSIFICATION	TYPE OF CONSTRUCTION	NUMBER OF STORIES / ALLOWABLE	BUILDING HEIGHT / ALLOWABLE
R-2	III-B	4	55'

PER IBC TABLE 506.2

OCCUPANCY CLASSIFICATION	TYPE OF CONSTRUCTION	AREA / ALLOWABLE
R-2	III-B	16,000 SF

BUILDING CONSTRUCTION

CONSTRUCTION TYPE:	III-B
TYPE X REQUIRED FIRE R PRIMARY STRUCTURAL FI BEARING WALLS	ESISTANCE PER TABLE 601: RAME:

PRIMARY STRUCTURAL FRAME:	UF
BEARING WALLS	
EXTERIOR:	2 F
INTERIOR:	0 F
NONBEARING WALLS AND PARTITIONS PER TABLE 602:	
EXTERIOR:	0 F
NONBEARING WALLS AND PARTITIONS:	
INTERIOR:	0 H
FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS:	0 H
ROOF CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS:	0 F

SEPARATION DISTANCES PER TABLE 602:

FIRE SEPARATION DISTANCE, TYPE X, MIXED USE OCCUPANCY (X1, X2, X3, X4)

FIRE DISTANCE	OCCUPANCY (X1, X2)	OCCUPANCY (X3, X4
X<5'	- HR	- HR
5' < X < 10	- HR	- HR
10 < X < 30	- HR	- HR
X > 30	- HR	- HR

FIRE AND SMOKE PROTECTION FEATURES

VERTICAL SEPARATION OF OPENINGS (PER SECTION 705.8.5)

THIS SECTION SHALL NOT APPLY TO BUILDINGS THAT ARE THREE STORIES OF LESS ABOVE GRADE PLANE.

FIRE WALL FIRE-RESISTANCE RATINGS (PER TABLE 706.4)

FIRE BARRIERS (PER SECTION 707)

REQUIRED AT SHAFT ENCLOSURES PER 713.4 REQUIRED AT INTERIOR EXIT STAIRWAYS PER 1022.1 (1 HOUR)

REQUIRED AT EXIT PASSAGEWAYS PER 1023.3

FIRE PARTITIONS (PER SECTION 708)

SHAFT ENCLOSURES (PER SECTION 713)

SHAFT ENCLOSURES SHALL BE CONSTRUCTED AS FIRE BARRIERS IN ACCORDANCE WITH SECTION 707. SHAFT ENCLOSURES SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN 2 HOURS WHERE CONNECTING FOUR STORIES OR MORE, AND NOT LESS THAN 1 HOUR WHERE CONNECTING LESS THAN FOUR STORIES.

ELEVATOR LOBBY (PER SECTION 713.14)

ENCLOSED ELEVATOR LOBBIES ARE NOT REQUIRED WHERE THE BUILDING IS PROTECTED BY AN AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.3.1.1 OR 903.3.1.2

OPENING PROTECTIVES (PER SECTION 716) EXIT ENCLOSURE DOORS: 1 1/2 HOUR SHAFT ACCESS AT 2 HOUR WALLS: 1 1/2 HOUR SHAFT ACCESS AT 1 HOUR WALLS: 1 HOUR

DOORS IN OTHER FIRE BARRIERS: 3/4 HOUR FIRE DOORS SHALL BE SELF-CLOSING OR AUTOMATIC CLOSING

FIRE AND SMOKE PROTECTION FEATURES

DUCTS AND AIR TRANSFER OPENINGS (PER SECTION 717)

DUCTS THAT PENETRATE FIRE-RESISTANCE-RATE ASSEMBLIES AND ARE NOT REQUIRED BY THIS SECTION TO HAVE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF SECTION 714.2 THROUGH 714.3.3. DUCTS THAT PENETRATE HORIZONTAL ASSEMBLIES NOT REQUIRED TO BE CONTAINED WITHIN A SHAFT AND NOT REQUIRED BY THIS SECTION TO HAVE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF SECTIONS

DUCTS THAT PENETRATE NONFIRE-RESISTANCE-RATED ASSEMBLIES. THE SPACE AROUND A DUCT PENETRATING A NONFIRE-RESISTANCE-RATED FLOOR ASSEMBLY SHALL COMPLY WITH SECTION 717.6.3.

CONCEALED SPACES (PER SECTION 718)

FIREBLOCKING AND DRAFTSTOPPING SHALL BE INSTALLED IN COMBUSTIBLE CONCEALED LOCATIONS IN ACCORDANCE WITH SECTION 718. FIREBLOCKING SHALL COMPLY WITH SECTION 718.2. DRAFTSTOPPING IN FLOOR/CEILING SPACES AND ATTIC SPACES SHALL COMPLY WITH SECTION 718.3 AND 718.4, RESPECTIVELY. THE PERMITTED USE OF COMBUSTIBLE MATERIALS IN CONCEALED SPACES OF BUILDINGS OF TYPE I OR II CONSTRUCTION SHALL BE LIMITED TO THE APPLICATIONS INDICATED IN SECTION 718.5.

PLUMBING CALCULATIONS

OCCUPANCY GROUP	(OCCUPANT LOAD	
R-2	8 PERSONS	S (4 MEN + 4 WOMEN)	
	TOTAL:	4 MEN, 4 WOMEN 2 DWELLING UNITS	

	OCCUPANCY GROUP	WATER CLOSET	RATIO	LAVATORY	RATIO	BATHTUB / SHOWER	RATIO	WASHING MACHINE	RATIO
	R-2	2	1:DWELLING	2	1:DWELLING	2	1:DWELLING	2	1:20 DWELINGS
,	TOTAL REQUIRED:	2		2		2		1	
	TOTAL PROVIDED:	2		2		2		2	

<u>.</u>	
SYMBOLS INDICATE ACCESSIBLE MOUNTING HEIGHTS. REFER TO	
SPECIFICATION SECTION AND ID SCHEDULE SHEET A9.1.3 FOR PROJECT	
SPECIFIC ADDITIONAL INFORMATION	

- SUBMIT ACCESSORIES FOR REVIEW. ALL TOILET ROOM FIXTURES AND ACCESSORIES TO BE ADA COMPLIANT. PROVIDE BLOCKING FOR ACCESSORY MOUNTING
- ALL TOILET ROOMS TO HAVE A COAT HOOK INSTALLED ON THE DOOR AT THE APPROPRIATE HEIGHT PER ADA.
- COORDINATE MOUNTING HEIGHT WITH OFCI ACCESSORIES. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. DIMENSIONS TO FIXTURE ARE FROM FACE OF INTERIOR FINISH. REFER TO FINISH SCHEDULE FOR FINISH LEGEND AND ADDITIONAL
- INFORMATION. CENTER MIRROR AND WALL SCONCES ON LAVATORY FAUCET, TYP.

TOILET ACCESSORIES:

10-01	=	36" HORIZONTAL GRAB BAR
10-02	=	42" HORIZONTAL GRAB BAR
10-03	=	18" VERTICAL GRAB BAR
10-04	=	WALL-MOUNTED URINAL
10-05	=	INFANT CHANGING STATION
10-06	=	TOILET PAPER DISPENSER
10-07	=	SANITARY NAPKIN DISPOSAL
10-08	=	TOILET SEAT COVER DISPENSER
10-09	=	PL-2 LAVATORY

SOAP DISPENSER COMBINATION TRASH

PROVIDE BLOCKING FOR ACCESSORY MOUNTING

RECEPTACLE/PAPER TOWEL DISPENSER 36" MOP & BROOM HOLDER 10-13 = 10-14 =

PAPER TOWEL DISPENSER 10-15 = COAT HOOK

ADA CLEARANCES 10-01 10-08 10-15 10-11 10-14 NOTE: ALL DIMENSIONS ARE FINISH UNLESS OTHERWISE NOTED TYP. STALL SUBMIT ACCESSORIES FOR REVIEW WALL/ PARTITION ALL TOILET ROOM FIXTURES AND ACCESSORIES TO BE A.D.A.

TYPICAL MOUNTING HEIGHTS

BUILDING EXITING - EGRESS

OCCUPANT LOAD (PER TABLE 1004.1.2)

SEE EGRESS PLANS FOR OCCUPANCY TYPE AND OCCUPANT LOAD PER AREA BASED ON TABLE 1004.1.2

MEANS OF EGRESS WIDTH (PER SECTION 1005)

STAIRWAYS: 0.3 INCHES PER OCCUPANT (EXCEPTION: IF BUILDING IS SPRINKLERED, APPLY .02 INCHES PER OCCUPANT) OTHER COMPONENTS: 0.2 PER OCCUPANT (EXCEPTION: IF BUILDING IS SPRINKLERED, APPLY .15 INCHES PER OCCUPANT)

EMERGENCY EGRESS LIGHTING TO BE A MINIMUM OF 1 FOOT CANDLE AT WALKING SURFACE FOR A MINIMUM DURATION OF 90 MINUTES AND SHALL CONSIST OF STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR.

EXIT DOOR REQUIREMENTS (PER SECTION 1008)

SINGLE LEAF MINIMUM CLEAR WIDTH = 32" PER 1008.1.2 DOORS SHALL SWING IN DIRECTION OF EGRESS TRAVEL WHERE SERVING A ROOM/ OR AREA CONTAINING AN OCCUPANT LOAD OF

STAIRWAYS (PER SECTION 1009)

MINIMUM WIDTH = 44" PER 1009.8 STAIRWAY LANDINGS: THERE SHALL BE A FLOOR OR LANDING AT THE TOP AND BOTTOM OF EACH STAIRWAY. THE WIDTH OF THE LANDINGS SHALL NOT BE LESS THAN THE WIDTH OF THE STAIRWAYS THEY SERVE. CLEARANCES FOR DOOR SWINGS INTO STAIRWAY, TYPE OF RUN, AND WHEELCHAIR SPACE REQUIREMENTS SHALL BE MET UNDER THIS PROVISION.

EXIT SIGNS (PER SECTION 1011)

ALL EXIT AND EXIT ACCESS DOORS SHALL BE MARKED BY AN APPROVED EXIT SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL.

EXIT ACCESS - COMMON PATH OF TRAVEL (PER SECTION 1014.3) MAXIMUM DISTANCE OF COMMON PATH OF TRAVEL:

OCCUPANCY TYPE WITH SPRINKLER SYSTEM B, S 100 FT

75 FT ALL OTHERS MAXIMUM ACTUAL DISTANCE = X'

EXIT ACCESS TRAVEL DISTANCE (PER SECTION 1016)

PER 402.8.5 MAXIMUM ALLOWABLE DISTANCE = DISTANCE OF TRAVEL FROM ANY POINT TO EXIT IN COVERED MALL BUILDING SHALL NOT BE GREATER THAN 200'. SEE EGRESS PLANS FOR LOCATIONS OF MAXIMUM ACTUAL DISTANCES.

CORRIDORS FOR OCCUPANCIES A, B, M, S, IN BUILDING EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN

MINIMUM WIDTH = 44" / DEAD ENDS (OCCUPANCY B, M, S) = 50' MAX DEAD ENDS (OCCUPANCY A) = 20' MAX (VERIFY)

ACCORDANCE WITH SECTION 903.3.1 OR 903.3.1.2 ARE NOT REQUIRED TO BE RATED.

EXIT PASSAGEWAYS (PER SECTION 1023)

PER 402.8.6.1 EXIT PASSAGEWAYS: WHERE EXIT PASSAGEWAYS PROVIDE A SECONDARY MEANS OF EGRESS FROM A TENANT SPACE, DOORWAYS TO THE EXIT PASSAGEWAY SHALL BE PROTECTED BY A 1-HOUR FIRE DOOR ASSEMBLIES THAT ARE SELF OR AUTOMATIC CLOSING BY SMOKE DETECTION IN ACCORDANCE WITH SECTION 716.5.9.3

ELEVATOR: HOISTWAY ENCLOSURES (PER SECTION 3002)

PER 3002.7 COMMON ENCLOSURE WITHIN STAIRWAY: ELEVATORS SHALL NOT BE IN A COMMON SHAFT ENCLOSURE WITH A STAIRWAY. SEPARATE PROTECTIVE ENCLOSURES IN COMPLIANCE WITH SECTION 713 ARE REQUIRED FOR EACH.

OCCUPANT LOAD

LEVEL	OCCUPANCY TYPE	AREA	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
LEVEL 1	R-2	684 SF	200 SF	4
LEVEL 1	R-2	775 SF	200 SF	4
LEVEL 1	R-2	775 SF	200 SF	4

ACCESSIBILITY

SECTION 1103 SCOPING REQUIREMENTS - 1103.1 WHERE REQUIRED.

SITES, BUILDINGS, STRUCTURES, FACILITIES, ELEMENTS AND SPACES, TEMPORARY OR PERMANENT, SHALL BE ACCESSIBLE TO PERSONS WITH PHYSICAL DISABILITIES.

1103.2.3 EMPLOYEE WORK AREAS. SPACES AND ELEMENTS WITHIN EMPLOYEE WORK AREAS SHALL ONLY BE REQUIRED TO COMPLY WITH SECTION 907.5.2.3.2, 1007, AND 1104.3.1 AND SHALL BE DESIGNED AND CONSTRUCTION SO THAT INDIVIDUALS WITH DISABILITIES CAN APPROACH, ENTER, AND EXIT THE WORK AREAS.

1103.2.8 LIMITED ACCESS SPACES. NONOCCUPIABLE SPACES ACCESSED ONLY BY LADDERS, CATWALKS, CRAWLSPACES, FREIGHT ELEVATORS OR VERY NARROW PASSAGEWAYS ARE NOT REQUIRED TO BE ACCESSIBLE.

1103.2.9 EQUIPMENT SPACES. SPACES FREQUENTED ONLY BY PERSONNEL FOR MAINTENANCE, REPAIR OR MONITORING OF EQUIPMENT ARE NOT REQUIRED TO BE ACCESSIBLE.

2203.2.15 WALK IN COOLERS AND FREEZERS. WALK IN COOLERS AND FREEZERS INTENDED FOR EMPLOYEE USE ONLY ARE NOT REQUIRED TO BE ACCESSIBLE.

SECTION 1104 ACCESSIBLE ROUTES - 1104.5 LOCATION.

ACCESSIBLE ROUTES SHALL COINCIDE WITH OR BE LOCATED IN THE SAME AREA AS A GENERAL CIRCULATION PATH. WHERE THE CIRCULATION PATH IS INTERIOR, THE ACCESSIBLE ROUTE SHALL ALSO BE INTERIOR. WHERE ONLY ONE ACCESSIBLE ROUTE IS PROVIDED, THE ACCESSIBLE ROUTE SHALL NOT PASS THROUGH KITCHENS, STORAGE ROOMS, RESTROOMS, CLOSETS, OR SIMILAR SPACES.

1105.1 PUBLIC ENTRANCES.

IN ADDITION TO ACCESSIBLE ENTRANCES REQUIRED BY SECTION 1105.1.1 THROUGH 1105.1.6, AT LEAST 60 PERCENT OF ALL PUBLIC ENTRANCES SHALL BE ACCESSIBLE.

EXCEPTIONS: LOADING AND SERVICE ENTRANCES THAT ARE NOT THE ONLY ENTRANCE TO A TENANT SPACE.

1105.1.6 TENANT SPACES. AT LEAST ONE ACCESSIBLE ENTRANCE SHALL BE PROVIDED TO EACH TENANT.

SECTION 1106 PARKING AND PASSENGER LOADING FACILITIES - 1106.1 REQUIRED. WHERE PARKING IS PROVIDED, ACCESSIBLE PARKING SPACES SHALL BE PROVIDED IN COMPLIANCE WITH TABLE 1106.1, EXCEPT

AS REQUIRED BY SECTION 1106.2 THROUGH 1106.4.

1106.6 LOCATION. ACCESSIBLE PARKING SPACES SHALL BE LOCATED ON THE SHORTEST ACCESSIBLE ROUTE OF TRAVEL FROM ADJACENT PARKING TO AN ACCESSIBLE BUILDING ENTRANCE.

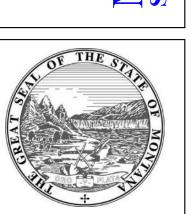
SECTION 1110 SIGNAGE - 1110.1 SIGNS.

REQUIRED ACCESSIBLE ELEMENTS SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESSIBILITY AT THE FOLLOWING LOCATIONS: ACCESSIBLE PARKING SPACES, PASSENGER LOADING ZONES, ROOMS, ENTRANCES, CHECK-OUT AISLES, FAMILY OR ASSISTED-USE TOILET AND BATHING ROOMS, AREAS OF REFUGE, AND

NEAREST LIKE ACCESSIBLE ELEMENT SHALL BE PROVIDED AT THE FOLLOWING LOCATIONS STATED IN 1110.2 AND INCLUDE THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.

1110.4 VARIABLE MESSAGE SIGNS - TRANSPORTATION FACILITIES. WHERE PROVIDED IN TRANSPORTATION FACILITIES. VARIABLE MESSAGE SIGNS CONVEYING TRANSPORTATION-RELATED INFORMATION SHALL COMPLY WITH SECTION 1110.4

EXTERIOR AREAS. IN ADDITIONAL 1110.2 DIRECTIONAL SIGNAGE. DIRECTIONAL SIGNAGE INDICATING THE ROUTE TO THE

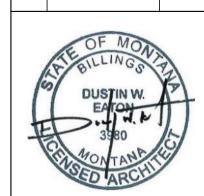


MSU-CPDC MONTANA STATE UNIVERSIT BOZEMAN, MONTANA

> PHONE: 406.994.5413 FAX: 406.994.5665

MARTIN E

DRAWN BY: Author REVIEWED BY**Checker** REV. DESCRIPTION DATE



PPA #: 23-0741

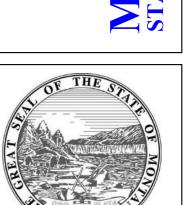
A/E # 23-0741 A&E PROJ #: 23123_2A

SHEET TITLE **CODE SUMMARY**

SHEET







MSU-CPDC

MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413

PHONE: 406.994.5413 FAX: 406.994.5665

JULIA MARTIN WEST
REMODEL

DRAWN BY: **Author**REVIEWED BY**Checker**REV. DESCRIPTION DATE



PPA #: 23-0741

A/E # 23-0741 A&E PROJ #: 23123_2A

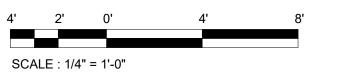
SHEET TITLE

LEVEL 1 CODE

PLAN SHEET

G2.1

13 ADD ALTERNATE 2 LEVEL 1 DEMO

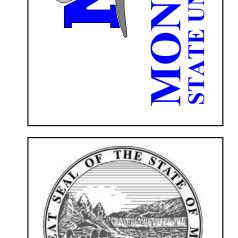




KEYNOTES

VERIFY AND MAINTAIN INTEGRITY OF FIRE RATED WALLS DURING CONSTRUCTION DURATION; REPAIR ANY EXISTING BREACHES OF FIRE RATED ENVELOPE ON BOTH SIDES WITH COMPATIBLE MATERIAL CARRYING UL DESIGNATION.

DEMO EXISTING WALL STUDS.



MSU-CPDC

WEST

MARTIN

JULL

BID

REMODE

BOZEMAN, MONTANA PHONE: 406.994.5413

MONTANA STATE UNIVERSIT FAX: 406.994.5665

DEMOLITION NOTES

DEMOLITION LEGEND

- - - INDICATES BUILT ITEM TO BE REMOVED

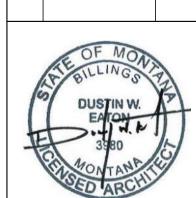
O INDICATES LIGHT FIXTURE TO BE REMOVED

IT IS THE CONTRACTOR'S RESPONSIBILITY TO FAMILIARIZE HIMSELF/ HERSELF WITH THE SCOPE

HATCH INDICATES AREA NOT IN SCOPE OF WORK

- THE DEMOLITION NOTES PROVIDE A GENERAL DESCRIPTION OF THE ITEMS AND AREAS REQUIRING REMOVAL. THE CONTRACTOR SHALL FIELD VERIFY ACTUAL QUANTITIES AND LOCATIONS OF ALL INDICATED ITEMS AS NECESSARY TO COMPLETE THE SCOPE OF WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- COORDINATE WITH OWNER FOR ANY EQUIPMENT TO BE SALVAGED. UNLESS SPECIFICALLY SCHEDULED FOR REUSE, DEMOLISHED MATERIALS SHALL BECOME THE POSSESSION OF THE CONTRACTOR AND SHALL BE IMMEDIATELY REMOVED FROM THE SITE.
- REMOVE MATERIALS FROM SITE AND DISPOSE OF IN A LEGAL MANNER AT NO ADDITIONAL
- DEBRIS FROM THE DEMOLITION SHALL NOT BE ALLOWED TO ACCUMULATE WITHIN THE BUILDING
- REMOVE FROM SITE ANY CONTAMINATED, VERMIN INFESTED, OR DANGEROUS MATERIALS ENCOUNTERED AND DISPOSE OF BY SAFE MEANS SO AS NOT TO ENDANGER HEALTH OF WORKERS AND PUBLIC.
- 7. BURNING OF MATERIALS ON SITE IS NOT PERMITTED.
- CLEAN-UP: MUST MEET GOVERNING DUST CONTROL CODES.
- NOTIFY AFFECTED UTILITY COMPANIES BEFORE STARTING WORK AND COMPLY WITH THEIR
- PREVENT MOVEMENT OR SETTLEMENT OF ADJACENT STRUCTURES. PROVIDE BRACING AND
- CARRY OUT DEMOLITION WORK TO CAUSE AS LITTLE INCONVENIENCE TO ANY ADJACENT OCCUPIED BUILDING OR SITE AS POSSIBLE AND WITH MINIMUM INTERFERENCE TO PUBLIC OR PRIVATE ACCESSES. MAINTAIN PROTECTED EGRESS AND ACCESS AT ALL TIMES.
- CONTRACTOR SHALL PROVIDE TEMPORARY DUST AND CONSTRUCTION SEPARATION WALLS AS REQUIRED TO SHIELD THE PUBLIC FROM NOISE, DUST, WEATHER, AND OTHER HAZARDS THAT MAY BE EXPOSED AS A RESULT OF THE DEMOLITION WORK.
- PERFORM CUTTING OF EXISTING CONCRETE AND MASONRY WITH SAWS AND CORE DRILLS. DO NOT USE JACK-HAMMERS EXCEPT WHERE PERMITTED BY OWNER.
- BREAK CONCRETE AND MASONRY INTO SECTIONS LESS THAN 3 FEET IN ANY DIMENSION.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO INSURE EXISTING STRUCTURAL ELEMENTS REMAIN UNDAMAGED THROUGHOUT CONSTRUCTION, UNLESS SPECIFICALLY NOTED ON DEMOLITION PLAN. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO IDENTIFY AND PROVIDE ANY SHORING, BRACING, OR TEMPORARY STRUCTURE, AND TO COORDINATE WITH STRUCTURAL ENGINEER AS REQUIRED.
- ALL PUBLIC UTILITIES TO REMAIN IN OPERATION THROUGHOUT CONSTRUCTION. CONTRACTOR TO COORDINATE ANY TEMPORARY SERVICES REQUIRED TO MAINTAIN BUSINESS OPERATIONS.
- SEE ENGINEERING DRAWINGS FOR DUCTWORK, DIFFUSER, PLENUM BOX, ETC. DEMOLITION AND/OR PROTECTION. COORDINATE WITH MECHANICAL ENGINEER.
- FIRE SAFETY MUST BE MAINTAINED FOR ALL PERSONNEL WORKING ON THE FLOOR. ALL FIRE STAIRS, ALARMS, SPEAKERS, ETC. MUST REMAIN ACCESSIBLE AND OPERABLE AT ALL TIMES. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT THIS EQUIPMENT. IMMEDIATELY NOTIFY BUILDING SECURITY AND BUILDING MANAGER OF DAMAGED OR DISABLED SYSTEMS AND REPAIR OR REPLACE DAMAGED SYSTEMS IMMEDIATELY. RELOCATION OF SMOKE DETECTORS, PUBLIC ADDRESS SPEAKERS AND FIRE ALARM EQUIPMENT, NECESSITATED BY NEW CONSTRUCTION, SHALL BE ACCOMPLISHED AS A FIRST PRIORITY, AND PER THE PLANS.
- IF ANY QUESTIONS ARISE AS TO THE REMOVAL OF ANY MATERIAL, CLARIFY THE POINT IN QUESTION WITH THE OWNER BEFORE PROCEEDING. IMMEDIATELY STOP WORK IF HAZARDOUS MATERIALS ARE FOUND AND CONTACT THE OWNER'S REPRESENTATIVE.
- REMOVAL OF ANY EQUIPMENT, CABLING SWITCHES, AND CONDUIT PERTAINING TO DATA/COMMUNICATIONS AND TELEPHONE SHALL BE VERIFIED WITH TELEPHONE COMPANIES, SERVICE OWNER OR TENANT DATA/COMMUNICATIONS REPRESENTATIVE AS REQUIRED TO PREVENT NEW CONSTRUCTION DELAYS.
- PROVIDE FOR FIRE PROOFING REPAIR AS REQUIRED AT STRUCTURAL STEEL, TO THE ORIGINAL RATING WHERE CONSTRUCTION TRADES REMOVE EXISTING FIRE PROOFING. REPAIR ANY DAMAGE OR PENETRATIONS IN RATED ASSEMBLIES TO CONFORM TO THEIR ORIGINAL LISTING REQUIREMENTS AND TO MAINTAIN FIRE PROTECTION AND SEPARATION AS ORIGINALLY
- AT COMPLETION OF DEMOLITION WORK, THE CONSTRUCTION AREA(S) SHALL BE LEFT IN "BROOM CLEAN" CONDITION. ALL DEBRIS AND MISCELLANEOUS MATERIAL SHALL BE REMOVED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING AND/OR REPAIRING ANY DAMAGE CAUSED BY HIM OR HIS SUBCONTRACTORS. REFINISH TO MATCH EXISTING ADJACENT FINISH, OR AS NOTED HEREIN.
- FOR AREAS NOT IN DEMOLITION SCOPE OF WORK, PROTECT AS REQUIRED, ALL SURFACES, EQUIPMENT, FIXTURES AND HARDWARE DURING DEMOLITION AND/OR CONSTRUCTION.
- PRIOR TO DEMOLITION, INVESTIGATE WALLS FOR CONCEALED PIPING AND INFORM OWNER/ARCHITECT OF ANY CONDITION NOT DOCUMENTED IN CONTRACT DRAWINGS. DEMO DESIGNATED WALL BASES, WALL FRAMING, BATT INSULATION AND GYPSUM BOARD. DEMO CONDUITS AND RECEPTACLES, REFERENCE ELECTRICAL DEMO PLAN FOR ADDITIONAL
- ALL EXISTING DIRECTIONAL SIGNAGE TO BE REMOVED UNLESS NOTED OTHERWISE.
- WHERE NOTED, REMOVE FLOORING DOWN TO TOP OF CONC. SLAB, INCLUDING ADHESIVES, TRANSITION STRIPS, AND OTHER ASSOCIATED ELEMENTS, TYP., UNLESS NOTED OTHERWISE. PREPARE REMAINING SURFACES TO RECEIVE NEW FINISHES.

DRAWN BY: **Author** REVIEWED BY**Checker** REV. DESCRIPTION DATE

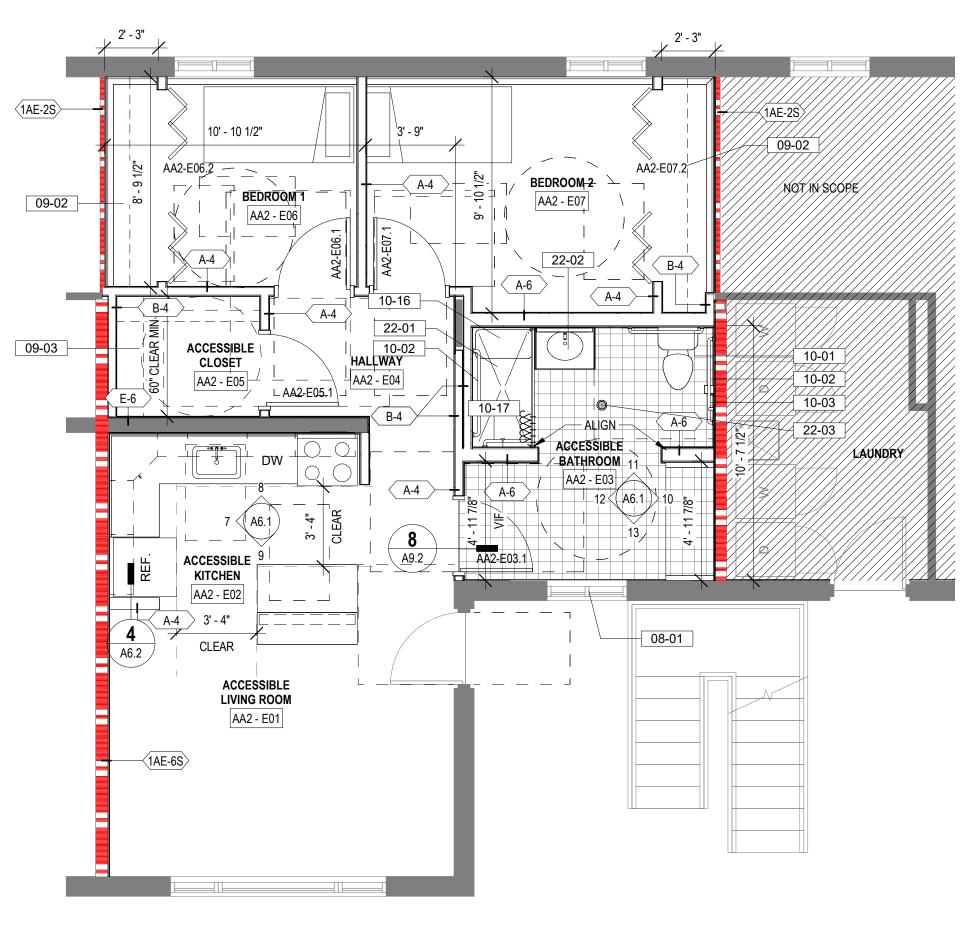


PPA #: 23-0741

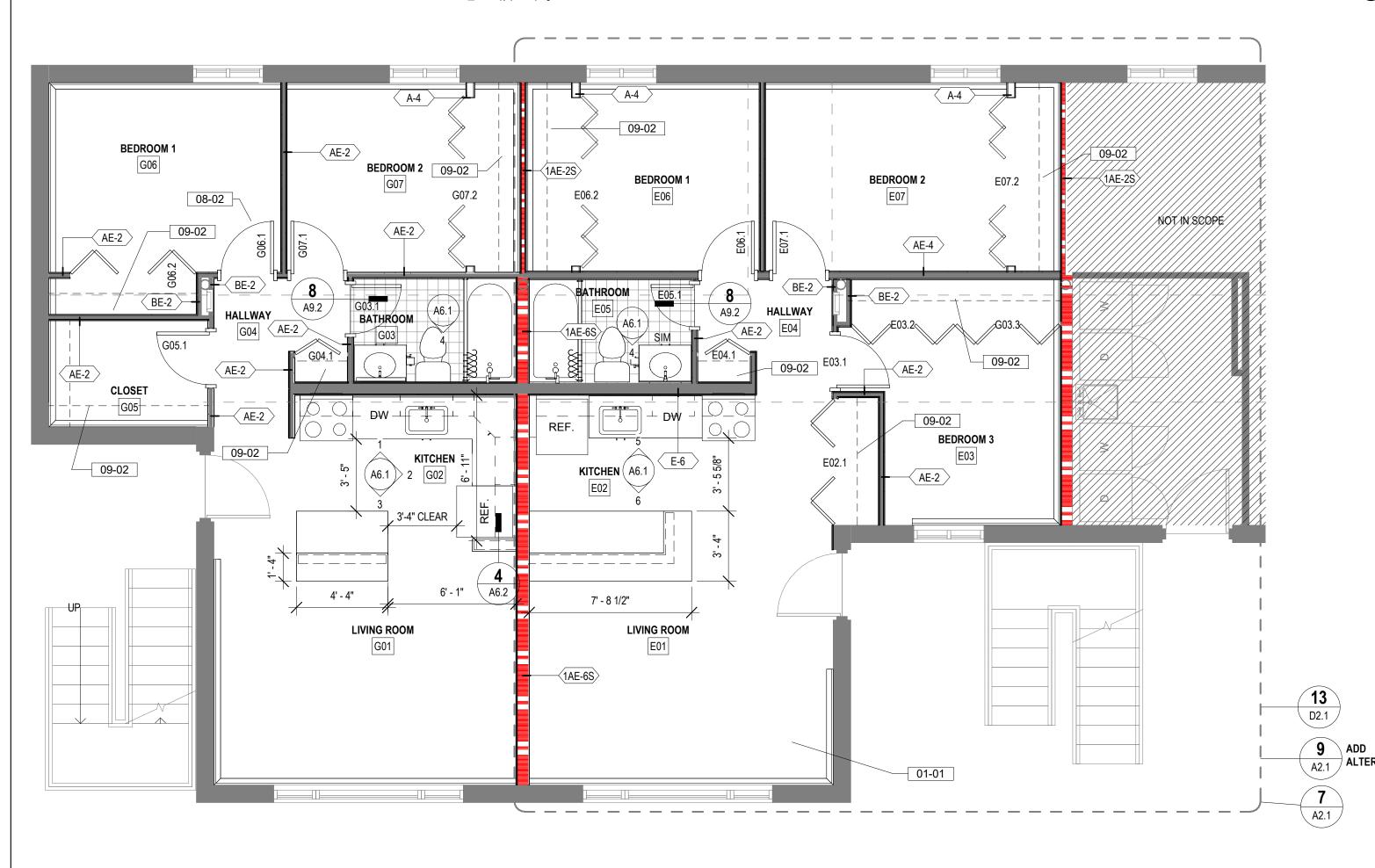
A/E # 23-0741

A&E PROJ #: 23123_2A

SHEET TITLE **AA2 DEMOLITION**

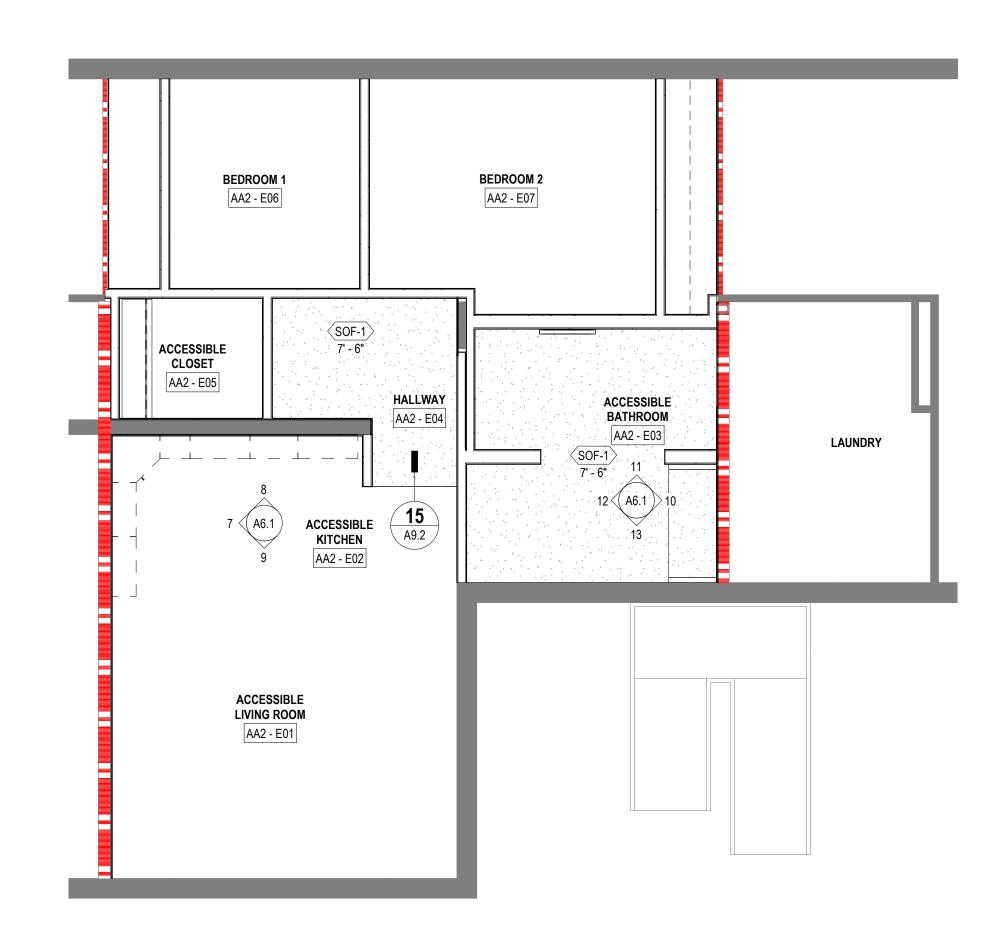


ADD ALTERNATE 2 - ACCESSIBLE UNIT G 1/4" = 1'-0"



13 LEVEL 1 - BASE BID

1/4" = 1'-0"



ADD ALTERNATE 2 - LEVEL 1 RCP

ALTERNATE 2

NORTH

SCALE: 1/4" = 1'-0"

KEYNOTES

- BASE BID REFLECTS SCOPE OF WORK COVERED PER INSURANCE CLAIM #31613 08-01
 - PROVIDE WINDOW PRIVACY FILM
- 08-02 VERIFY QUANTITY AND DIMENSIONS OF EXISITNG DOOR FRAMES FOR REUSE.
- 09-02 ROD AND SHELF 09-03
- MAINTAIN ADA KNEE AND TOE SPACE BELOW ROD AND SHELF 10-01 TA-4 36" HORIZONTAL GRAB BAR
- 10-02 TA-5 42" HORIZONTAL GRAB BAR
- 10-03 TA-3 18" VERTICAL GRAB BAR
- 10-16 ACCESSIBLE SHOWER SEAT 10-17
 - 20" HORIZONTAL GRAB BAR INTEGRAL SHOWER INSERT. CONFIRM CLEAR SPACE REQUIREMENTS W/
- 22-01 PLUMBING DRAWINGS.
- 22-02 SINK W/ KNEE AND TOE SPACE. SEE PLUMBING DRAWINGS. 22-03 FLOOR DRAIN, SEE PLUMBING DRAWINGS.

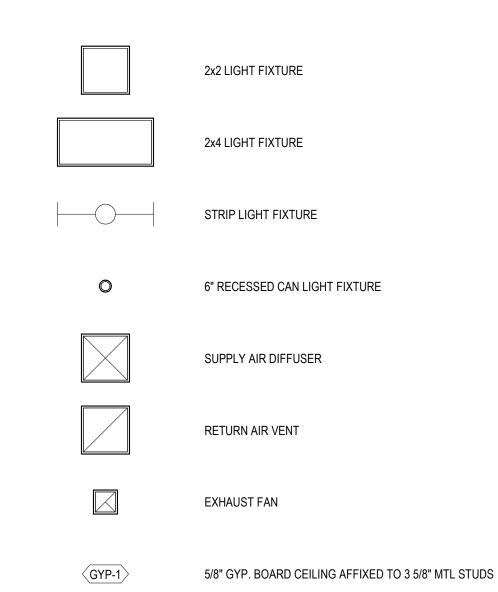
FLOOR PLAN NOTES

- REFER TO STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. ALL INFORMATION REGARDING EXISTING CONDITIONS IS BASED UPON OWNER-SUPPLIED DOCUMENTS AND MAY NOT PRECISELY REFLECT FIELD CONDITIONS.
- THE CONTRACTOR SHALL NOT CONSIDER CONSTRUCTION NOTES TO BE ALL-INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT AND ASSESS EACH AREA AND TO FULFILL THE INTENT OF THE CONTRACT DOCUMENTS. CONTRACTOR SHALL COORDINATE ARCHITECTURAL CONSTRUCTION DRAWING AND NOTES WITH CIVIL, STRUCTURAL AND MECHANICAL, ELECTRICAL & PLUMBING NOTES AND
- FIELD VERIFY ALL DIMENSIONS. DO NOT SCALE DRAWINGS.
- ALL FINISHES AND MATERIALS SHALL BE PROPERLY INTEGRATED TO ENSURE A UNIFORM APPEARANCE AND SEAMLESS TRANSITION.
- PROVIDE ALL BACKING FOR MILLWORK, GRAB BARS, AND ANY AND ALL WALL MOUNTED EQUIPMENT OR ACCESSORIES; COORDINATE LOCATIONS.
- ALL DIMENSIONS ARE FROM STRUCTURAL OR UNFINISHED FACE OF STUD, UNLESS OTHERWISE NOTED.
- GENERAL CONTRACTOR SHALL COORDINATE ALL ASPECTS OF THE BUILDING CONSTRUCTION.
- PROVIDE A SMOOTH AND LEVEL FINISH FLOOR, TYP. PATCH AND REPAIR ALL INCONSISTENCIES IN FLOOR ELEVATIONS.
- PATCH AND REPAIR ANY / ALL WALL SURFACES AS REQUIRED TO PROVIDE SUITABLE SUBSTRATE FOR
- U.L. ASSEMBLIES DESCRIBED ARE FOR REFERENCE ONLY. THE GENERAL CONTRACTOR SHALL COORDINATE AND VERIFY THE INSTALLATION OF THE DESCRIBED SYSTEM(S).
- REFER TO DOOR AND FRAME SCHEDULE FOR DOORS REQUIRING ADA ACCESS CONTROL.
- LOCATE THE HINGE SIDE JAMB OF DOORS 4" FROM ADJACENT PERPENDICULAR WALL, UNLESS NOTED
- PROVIDE ACOUSTICAL SEALANT AROUND WALL EDGES, TOP AND BOTTOM, AND PENETRATIONS, AND INSTALL PUTTY PADS AROUND ELECTRICAL BOXES WHERE PARTITION CONTAINS ACOUSTICAL
- REFER TO SPECIFICATIONS FOR CODE REQUIRED SIGNAGE. PROVIDE ADDITIONAL SIGNAGE AS MAY BE REQUIRED BY REQUEST OF THE FIRE MARSHAL AND/OR BUILDING CODE OFFICIAL.

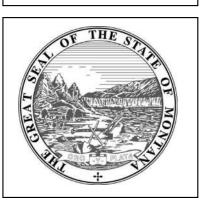
RCP NOTES

- REFER TO ELECTRICAL SHEETS FOR FIXTURE TYPES, SWITCHING, AND SPECIAL
- REFER TO MECHANICAL SHEETS FOR DIFFUSER AND DUCTING LAYOUTS.
- REFERENCE EXTERIOR FINISH LEGEND FOR EXTERIOR PAINT COLORS; REFERENCE FINISH SCHEDULE FOR INTERIOR PAINT COLORS AND FINISH.
- 4. CEILING HEIGHTS ARE IN REFERENCE TO "ABOVE FINISH FLOOR" BELOW. (A.F.F.)

RCP LEGEND







MSU-CPDC MONTANA STATE UNIVERSIT BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665

WE

REMODE MARTIN JULL BID



DRAWN BY: Author REVIEWED BY**Checker** REV. DESCRIPTION DATE

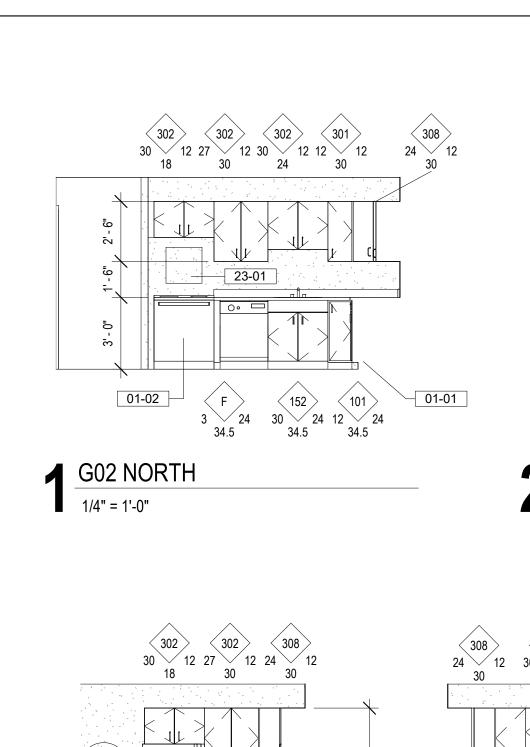
> PPA #: 23-0741

23-0741 A/E # A&E PROJ #: 23123_2A

SHEET TITLE **LEVEL 1 FLOOR PLAN**

SHEET

A2.1



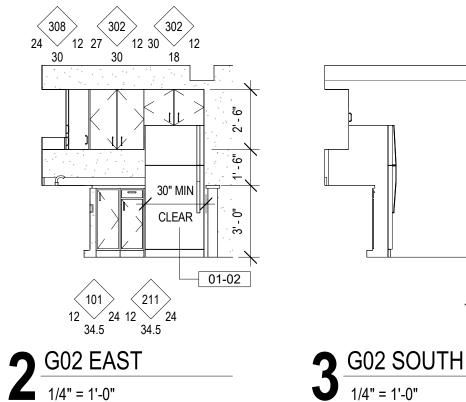
A6.2

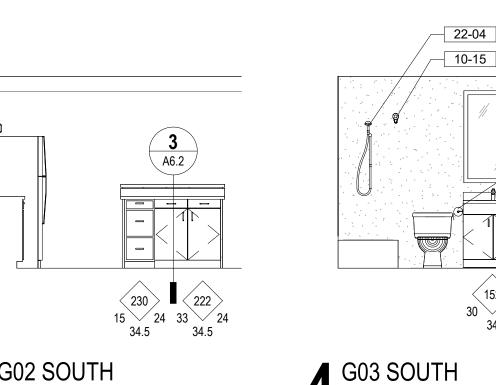
1/4" = 1'-0"

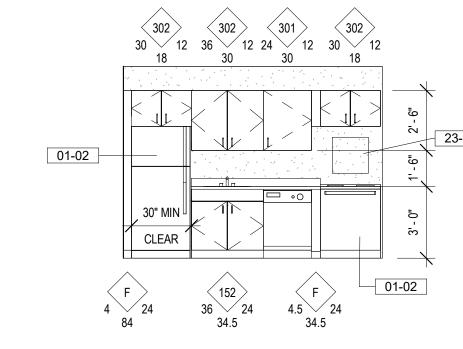
10-15

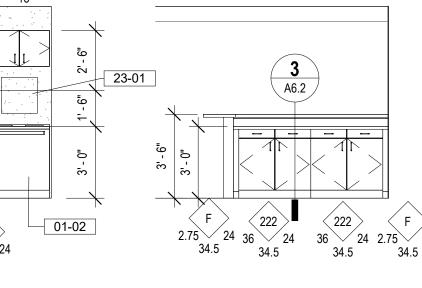
10-17 ←

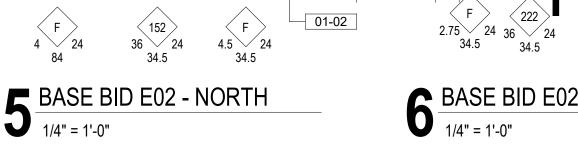
13 AA2 - E03 SOUTH
1/4" = 1'-0"

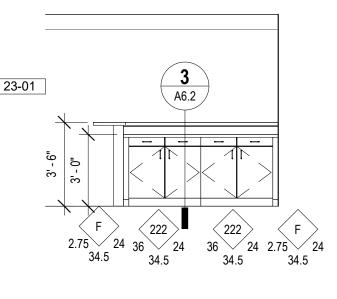




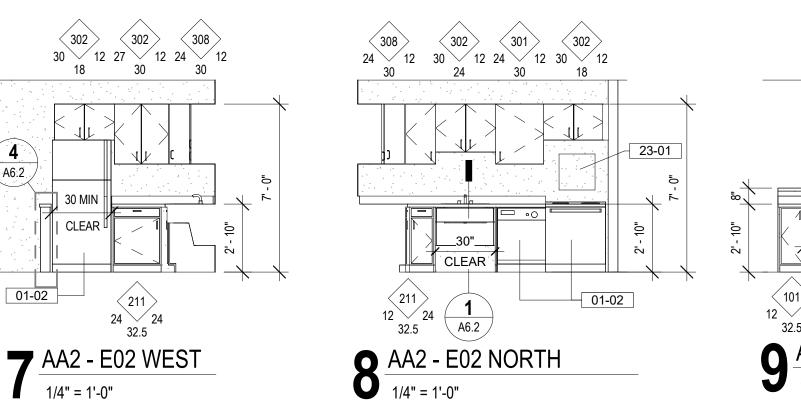


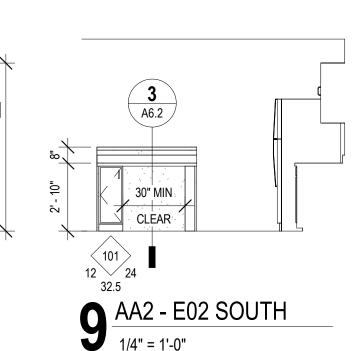


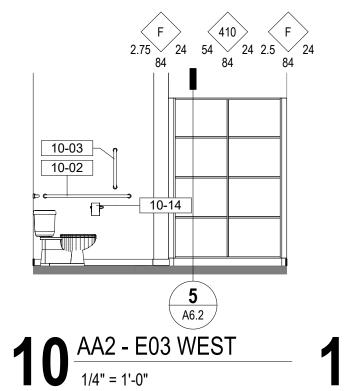










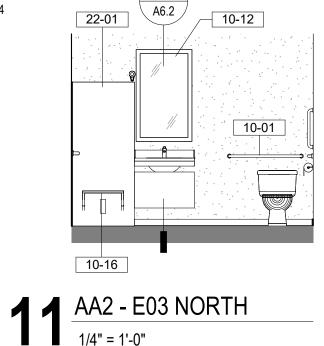


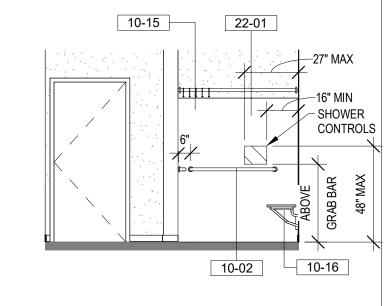
152

30 21

10-12

10-06



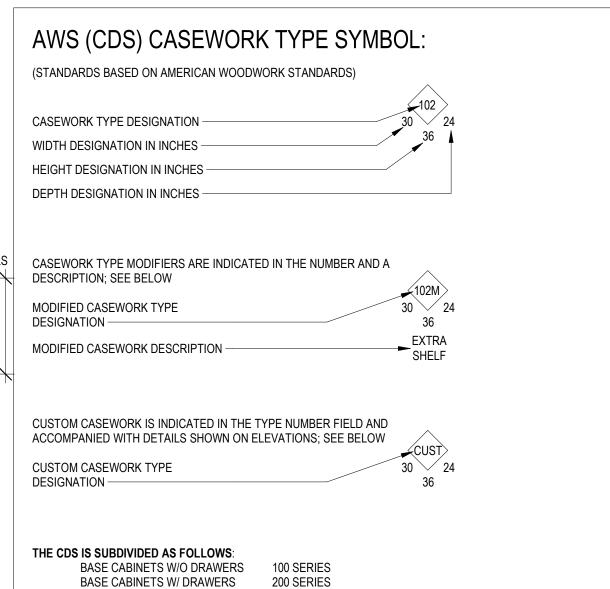


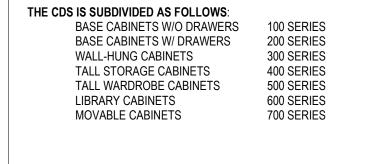
 $12^{\frac{AA2 - E03 EAST}{1/4" = 1'-0"}}$

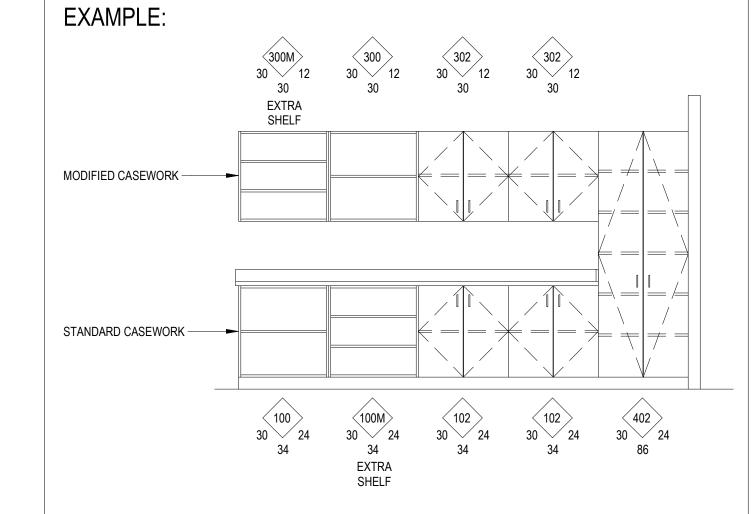
KEYNOTES

- BASE BID REFLECTS SCOPE OF WORK COVERED PER INSURANCE CLAIM #31613 01-01 01-02 10-01 TA-4 36" HORIZONTAL GRAB BAR 10-02 TA-5 42" HORIZONTAL GRAB BAR 10-03 TA-3 18" VERTICAL GRAB BAR 10-06 TA-6 TOILET TISSUE DISPENSER 10-12 TA-16 MIRROR 10-14
 - TA-13 PAPER TOWEL DISPENSER 10-15 SHOWER ROD
 - 10-16 ACCESSIBLE SHOWER SEAT 10-17 20" HORIZONTAL GRAB BAR
 - INTEGRAL SHOWER INSERT. CONFIRM CLEAR SPACE REQUIREMENTS W/ PLUMBING DRAWINGS. 22-01
- 22-04 SHOWER HEAD, SEE PLUMING DRAWINGS. 23-01 EXISTING VENT TO REMAIN

CASEWORK LEGEND

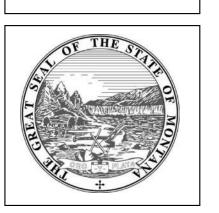






GENERAL NOTES: (REFER TO AWS APPENDIX A FOR TYPE DESCRIPTIONS) 1. 100 OR 200 SERIES CABINETS MAY BE CONVERTED INTO MOVEABLE CABINETS BY PREFIXING A"7"TO THE NUMBER. (EXAMPLE: 7-102- 36"x30"x18 [7-102-914 mm x 762 mm x 457 mm]).

- MOVEABLE CABINETS SHALL BE EQUIPPED WITH ADEQUATE APPROVED CASTERS FOR THE INTENDED LOAD CAPACITY.
- CDS #'s 728, 729, 735, 736, 737, 738, AND 739 REQUIRE METAL ANGLE REINFORCED CORNERS. CARTS AND ROLLING TALL STORAGE CABINETS WITH DOORS, LACKING ANY HORIZONTAL; AND/OR VERTICAL STABILIZING DIVIDERS, REQUIRE A DIAPHRAGM BOTTOM; SPECIFICALLY CDS #'s 702, 712, 716, 722, 743,744, 746, 747,
- WARDROBE CABINETS (500 SERIES) WITH DOORS REQUIRE A FRAMED MIRROR N ONE DOOR, AND CABINETS # 533 AND 534 REQUIRE A PAPER ROLLER/CUTTER AND SLIDE-OUT TILTING PAPER SHELVES. CART STORAGE CABINETS ARE REQUIRED TO HAVE HARDWOOD SIDE GUIDES, SPECIFICALLY CDS #'s 160, 161, AND
- CERAMICS DRYING CABINETS ARE REQUIRED TO HAVE GALVANIZED METAL FRAME SHELVES WITH WIRE
- MESH, SPECIFICALLY CDS #'s 198 199, AND 459.
- FILE DRAWERS REQUIRE FULL-EXTENSION SLIDES AND A FILE-HANGING SYSTEM, SPECIFICALLY CDS #'s 223, 224, 230, 231, 240, 242, 253, 255, 531, 532, AND 533. WARDROBE CABINETS ARE REQUIRED TO HAVE A SHELF, POLE, AND FRAMED MIRROR WHEN CLOSED WITH
- HINGED DOORS, SPECIFICALLY, CDS #'s 501, 511, 512, 522, 530, 531, 532, AND 552. 10. HD SUPPORT BRACKETS ALLIGN WITH STUD FRAMING 32" O.C MAX SPACING



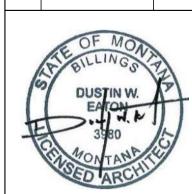
MSU-CPDC MONTANA STATE UNIVERSIT BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665

WE

A MARTIN REMODEL JULIA MIT/BID



DRAWN BY: Author REVIEWED BY**Checker** REV. DESCRIPTION DATE

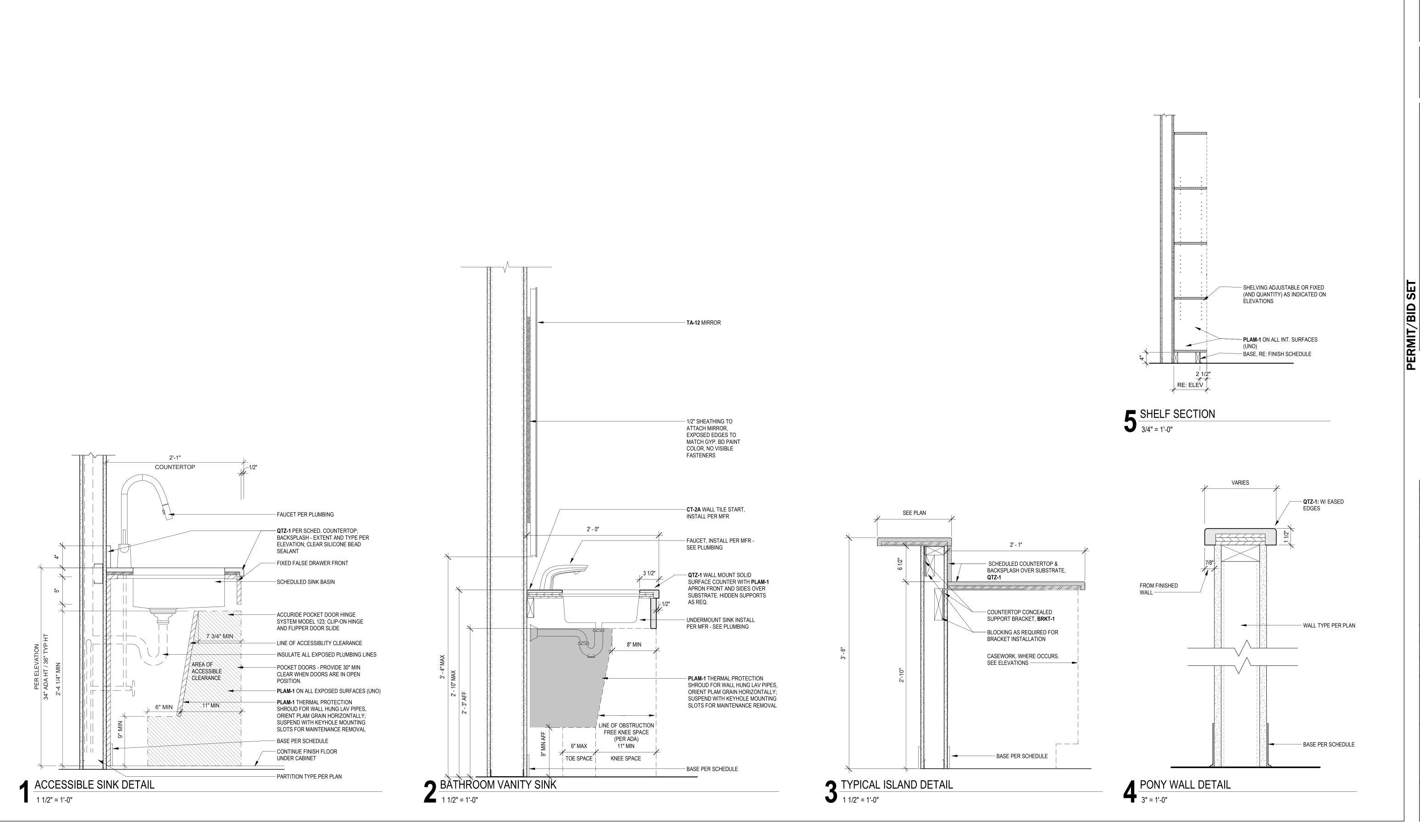


PPA #: 23-0741

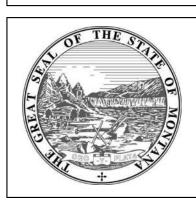
A/E # 23-0741 A&E PROJ #: 23123_2A

SHEET TITLE **INTERIOR ELEVATIONS**

SHEET





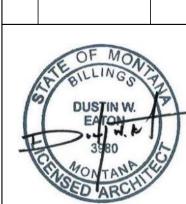


MSU-CPDC MONTANA STATE UNIVERSITY BOZEMAN, MONTANA

PHONE: 406.994.5413 FAX: 406.994.5665

WEST A MARTIN REMODEL JULIA

DRAWN BY: Author REVIEWED BYChecker REV. DESCRIPTION DATE



PPA #: 23-0741

A/E # 23-0741

23123_2A A&E PROJ #: SHEET TITLE

CASEWORK DETAILS

SHEET A6.2

						D	OOR SCH	EDULE	- UNIT	G			
		DIMENSIONS				OOOR			FRAME				
DOOR NUMBER	WIDTH	HEIGHT	THICKNESS	DOOR TYPE	DOOR PANEL TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	HARDWARE	FIRE RATING	COMMENTS
G03.1	2' - 4"	6' - 8"	1 3/4"	A	FLUSH	WOOD	PER MANUFACTURER	SALVAGE	НМ	PAINT	PRIVACY LOCKSET		VERIFY DIMENSIONS OF EXISTING FRAME. THOROUGHLY CLEAN AND PREP FRAME FOR PAINT PREP FOR CORRECT HARDWARE SET.
G03.3	5' - 0"	6' - 8"	1 1/2"	С	BIFOLD	WOOD	PER MANUFACTURER	С	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		
G04.1	2' - 6"	6' - 8"	1 1/2"	В	BIFOLD	WOOD	PER MANUFACTURER	В	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		
G05.1	2' - 6"	6' - 8"	1 3/4"	A	FLUSH	WOOD	PER MANUFACTURER	SALVAGE	НМ	PAINT	PASSAGE LOCKSET		VERIFY DIMENSIONS OF EXISTING FRAME. THOROUGHLY CLEAN AND PREP FRAME FOR PAINT PREP FOR CORRECT HARDWARE SET.
G06.1	2' - 6"	6' - 8"	1 3/4"	A	FLUSH	WOOD	PER MANUFACTURER	SALVAGE	НМ	PAINT	PRIVACY LOCKSET		VERIFY DIMENSIONS OF EXISTING FRAME. THOROUGHLY CLEAN AND PREP FRAME FOR PAINT PREP FOR CORRECT HARDWARE SET.
G06.2	6' - 0"	6' - 8"	1 1/2"	С	BIFOLD	WOOD	PER MANUFACTURER	С	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		
G07.1	2' - 6"	6' - 8"	1 3/4"	A	FLUSH	WOOD	PER MANUFACTURER	SALVAGE	НМ	PAINT	PRIVACY LOCKSET		VERIFY DIMENSIONS OF EXISTING FRAME. THOROUGHLY CLEAN AND PREP FRAME FOR PAINT PREP FOR CORRECT HARDWARE SET.
G07.2	8' - 0"	6' - 8"	1 1/2"	D	BIFOLD	WOOD	PER MANUFACTURER	С	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		

						DOOR	SCHEDUL	E - UNI	T E BAS	SE BID			
		DIMENSIONS	3			DOOR			FRAME	-			
DOOR NUMBER	WIDTH	HEIGHT	THICKNESS	DOOR TYPE	DOOR PANEL TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	HARDWARE	FIRE RATING	COMMENTS
E02.1	6' - 0"	6' - 8"	1 1/2"	С	BIFOLD	WOOD	PER MANUFACTURER	С	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		
E03.1	2' - 6"	6' - 8"	1 3/4"	A	FLUSH	WOOD	PER MANUFACTUER	SALVAGE	HM	PAINT	PRIVACY LOCKSET		VERIFY DIMENSIONS OF EXISTING FRAME. THOROUGHLY CLEAN AND PREP FRAME FOR PAINT. PREP FOR CORRECT HARDWARE SET.
E03.2	5' - 0"	6' - 8"	1 1/2"	С	BIFOLD	WOOD	PER MANUFACTURER	С	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		
E04.1	2' - 6"	6' - 8"	1 1/2"	В	BIFOLD	WOOD	PER MANUFACTURER	В	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		
E05.1	2' - 0"	6' - 8"	1 3/4"	A	FLUSH	WOOD	PER MANUFACTUER	SALVAGE	HM	PAINT	PRIVACY LOCKSET		VERIFY DIMENSIONS OF EXISTING FRAME. THOROUGHLY CLEAN AND PREP FRAME FOR PAINT. PREP FOR CORRECT HARDWARE SET.
E06.1	2' - 6"	6' - 8"	1 3/4"	A	FLUSH	WOOD	PER MANUFACTUER	SALVAGE	HM	PAINT	PRIVACY LOCKSET		VERIFY DIMENSIONS OF EXISTING FRAME. THOROUGHLY CLEAN AND PREP FRAME FOR PAINT. PREP FOR CORRECT HARDWARE SET.
E06.2	8' - 0"	6' - 8"	1 1/2"	D	BIFOLD	WOOD	PER MANUFACTURER	С	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		
E07.1	2' - 6"	6' - 8"	1 3/4"	A	FLUSH	WOOD	PER MANUFACTUER	SALVAGE	HM	PAINT	PRIVACY LOCKSET		VERIFY DIMENSIONS OF EXISTING FRAME. THOROUGHLY CLEAN AND PREP FRAME FOR PAINT. PREP FOR CORRECT HARDWARE SET.
E07.2	8' - 0"	6' - 8"	1 1/2"	D	BIFOLD	WOOD	PER MANUFACTURER	С	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		

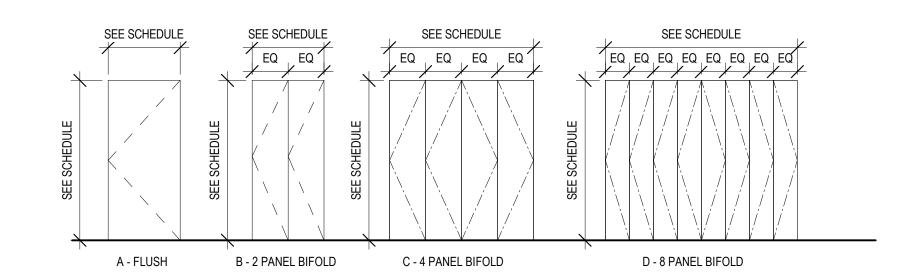
					DOOF	R SCHI	EDULE - U	NIT E A	ADD AL	TERNATE	2		
		DIMENSIONS	8		[DOOR			FRAME				
DOOR					DOOR	DOOR		FRAME	FRAME				
NUMBER	WIDTH	HEIGHT	THICKNESS	DOOR TYPE	PANEL TYPE	MATERIAL	DOOR FINISH	TYPE	MATERIAL	FRAME FINISH	HARDWARE	FIRE RATING	COMMENTS
AA2-E03.1	3' - 0"	6' - 8"	1 3/4"	A	FLUSH	WOOD	PER MANUFACTUER	Α	WOOD	PER MANUFACTUERER	PRIVACY LOCKSET		
AA2-E05.1	3' - 0"	6' - 8"	1 3/4"	Α	FLUSH	WOOD	PER MANUFACTUER	Α	WOOD	PER MANUFACTUERER	PASSAGE LOCKSET		
AA2-E06.1	3' - 0"	6' - 8"	1 3/4"	Α	FLUSH	WOOD	PER MANUFACTUER	Α	WOOD	PER MANUFACTUERER	PRIVACY LOCKSET		
AA2-E06.2	8' - 0"	6' - 8"	1 1/2"	D	BIFOLD	WOOD	PER MANUFACTURER	С	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		
AA2-E07.1	3' - 0"	6' - 8"	1 3/4"	Α	FLUSH	WOOD	PER MANUFACTUER	Α	WOOD	PER MANUFACTUERER	PRIVACY LOCKSET		
AA2-E07.2	8' - 0"	6' - 8"	1 1/2"	D	BIFOLD	WOOD	PER MANUFACTURER	С	WOOD	PER MANUFACTUERER	BIFOLD HARDWARE		

					FINISH LEC	GEND		
MATERIAL ID	IMAG E	MATERIAL TYPE	APPLICATION INCLUDES BUT NOT LIMITED TO	MANUFACTURER	PRODUCT STYLE / TYPE	COLOR / FINISH	DIMENSIONS	REMARKS
9 FINISHES								
GT-1		EPOXY GROUT	USE WITH TILE-1 AND TILE-2	MAPEI	KERAPOXY CQ	SAHARA BEIGE #5011	-	1/8" JOINT, TYP
PLAM-1		PLASTIC LAMINATE	CASEWORK, TYP	WILSONART	PLASTIC LAMINATE	8212K-28 PHANTOM ECRU	SHEET SIZE PER APPLICATION	
PT-1		INTERIOR PAINT	TYPICAL WALLS	SHERWIN WILLIAMS	SW DURATION MATTE	SW 7541 GRECIAN IVORY; SHEEN: MATTE / EGGSHELL	-	SCRUBBABLE THROUGHOUT
PT-2		INTERIOR PAINT	TYPICAL CEILINGS	SHERWIN WILLIAMS	SW SUPERPAINT	SW 7541 GRECIAN IVORY; SHEEN: FLAT	-	
PT-3		INTERIOR PAINT	DOOR FRAMES/TRIM	SHERWIN WILLIAMS	SW PROCLASSIC WATERBORNE INTERIOR ACRYLIC ENAMEL	SW 7047 PORPOISE; SHEEN: SEMI GLOSS	-	
QTZ-1	. N = 2	QUARTZ SLAB	KITCHEN COUNTERTOPS	CAESARSTONE	QUARTZ SLAB COUNTER	5111 H STATUARIO NUVO	SLAB SIZE PER APPLICATION	
RB-1		RESILIENT BASE	TYPICAL THROUGHOUT	TARKETT	H3 MANDALAY MILLWORK BASE	29 MOONROCK	3" BASE	
RF-1	dia	RESILIENT FLOORING	TYPICAL THROUGHOUT	PATCRAFT	TIMBER GROVE II 5MM	HEATHER I559V	6" X 48" PLANK	INSTALL STAGGER PATTERN
TD-1		FLOOR TRANSITION STRIP	TILE TO RESILIENT TRANSITION	SCHLUTER	RENO-U TRANSITION	AT - SATIN NICKEL ANODIZED ALUMINUM	SIZE PER APPLICATION	
TILE-1			BATHROOMS - WALLS AND FLOORS PER INDICATED EXTENTS	EMSER	STERLINA II	DOVE	12" X 24"	INSTALL STAGGER PATTERN
TILE-2		PORCELAIN TILE BULLNOSE BASE	BATHROOMS - BASE AT GYP WALLS, TYP	EMSER	STERLINA II	DOVE	3" X 12" SBN MATTE	ALIGN GROUT JOINTS WITH FLOOR TILE WHERE POSSIBLE

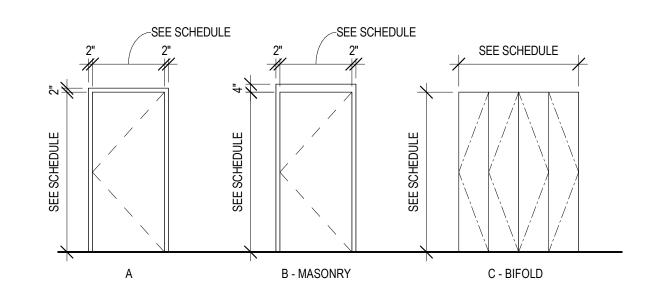
		l	JNIT G R	OOM FI	NISH S	CHEDUI	_E		
						WALLS			
NUMBER	NAME	AREA	CEILING FINISH	WALL FINISH - NORTH	WALL FINISH - EAST	WALL FINISH - SOUTH	WALL FINISH - WEST	BASE FINISH	FLOOR FINISH
004	L IV (IV IO DOOM	454.05	DT 0	DT 4	DT 4		let 4		lne 4
G01	LIVING ROOM	154 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
G02	KITCHEN	77 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
G03	BATHROOM	38 SF	PT-2	PT-1	PT-1	PT-1	PT-1	TILE-2	TILE-1
G04	HALLWAY	29 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
G05	CLOSET	39 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
G06	BEDROOM 1	99 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
G07	BEDROOM 2	100 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1

		UNII E	KOOM	FINISH S	CHED	OLF (RA	12F RID		
						WALLS			
					WALL				-
			CEILING	WALL FINISH	FINISH -	WALL FINISH	WALL FINISH		FLOOR
NUMBER	NAME	AREA	FINISH	- NORTH	EAST	- SOUTH	- WEST	BASE FINISH	FINISH
E01	LIVING ROOM	154 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
E02	KITCHEN	109 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
E03	BEDROOM 3	86 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
E04	HALLWAY	29 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
E05	BATHROOM	38 SF	PT-2	PT-1	PT-1	PT-1	PT-1	TILE-2	TILE-1
E06	BEDROOM 1	99 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
E07	BEDROOM 2	125 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1

	UNIT	E ROC	OM FINIS	H SCHE	DULE (ADD AL	TERNA	TE 1)	
						WALLS		-	
NUMBER	NAME	AREA	CEILING FINISH	WALL FINISH - NORTH	WALL FINISH - EAST	WALL FINISH - SOUTH	WALL FINISH - WEST	BASE FINISH	FLOOR FINISH
AA2 - E01	ACCESSIBLE LIVING ROOM	153 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
AA2 - E02	ACCESSIBLE KITCHEN	108 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
AA2 - E03	ACCESSIBLE BATHROOM	105 SF	PT-2	PT-1	PT-1	PT-1	PT-1	TILE-2	TILE-1
AA2 - E04	HALLWAY	40 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
AA2 - E05	ACCESSIBLE CLOSET	30 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
AA2 - E06	BEDROOM 1	69 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
AA2 - E07	BEDROOM 2	137 SF	PT-2	PT-1	PT-1	PT-1	PT-1	RB-1	RF-1
AA2 - LR	LAUNDRY	95 SF							

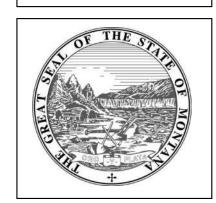


DOOR PANEL TYPE ELEVATIONS



DOOR FRAME TYPE ELEVATIONS





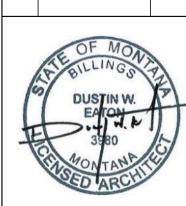
MSU-CPDC

MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

JULIA MARTIN WEST
REMODEL



DRAWN BY: **Author**REVIEWED BY**Checker**REV. DESCRIPTION DATE



PPA #: 23-0741

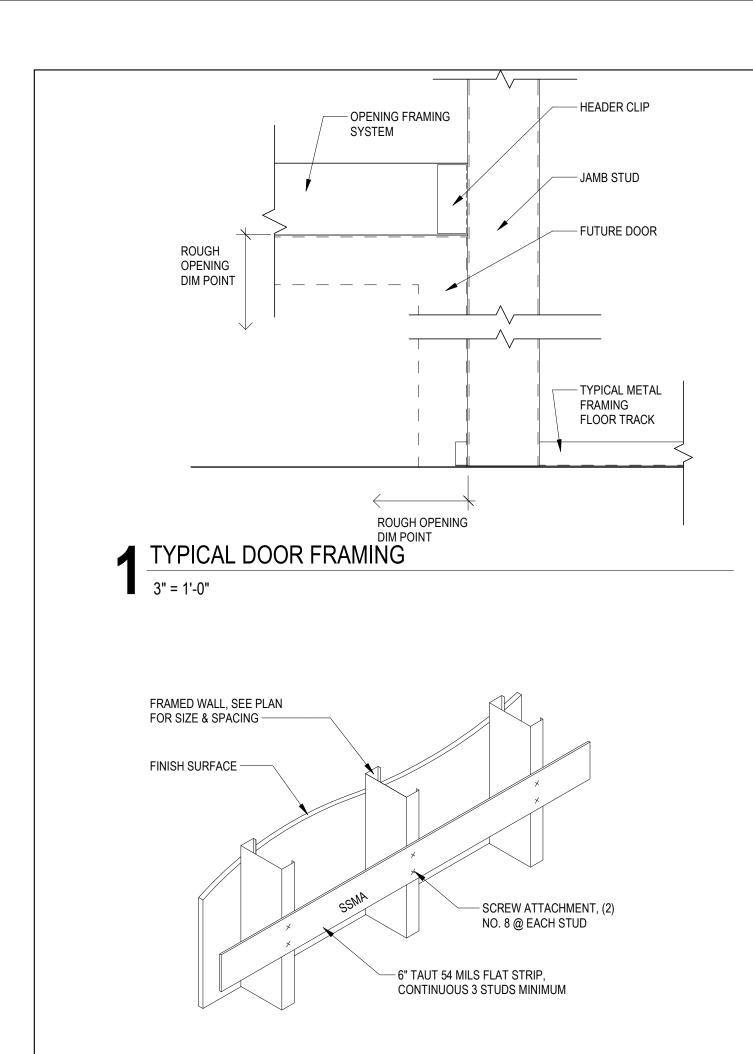
A/E # 23-0741

A&E PROJ #: 23-0741

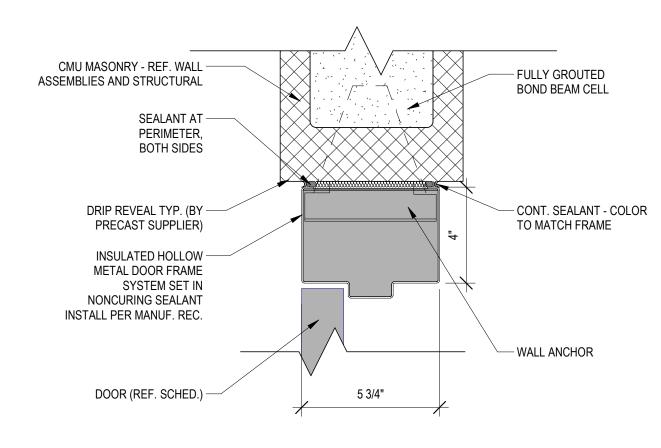
SHEET TITLE SCHEDULES

SHEET

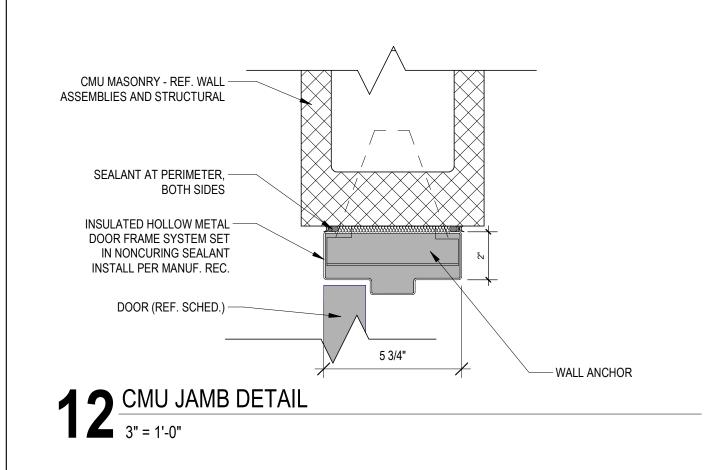
A9.1

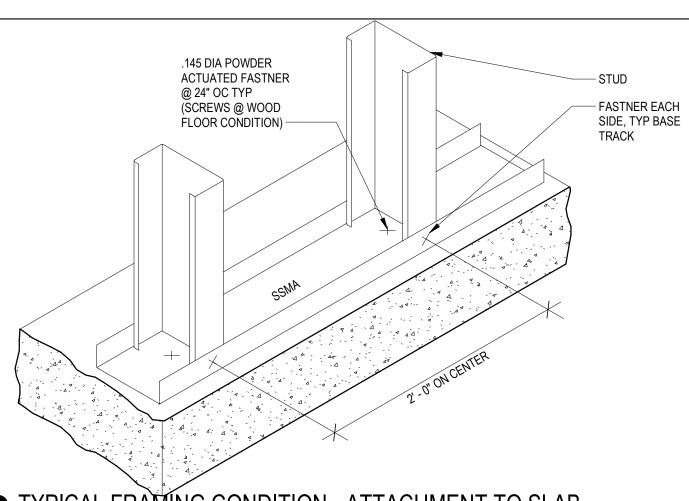




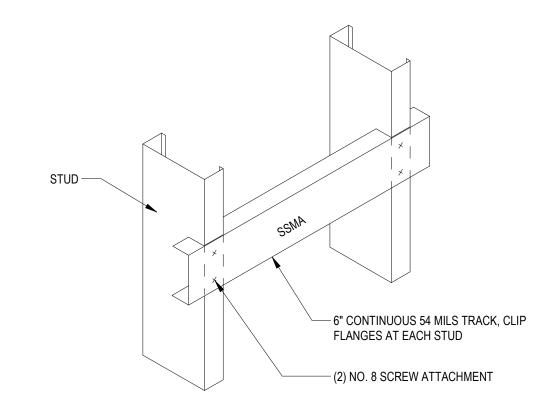


9 CMU HEAD DETAIL
3" = 1'-0"



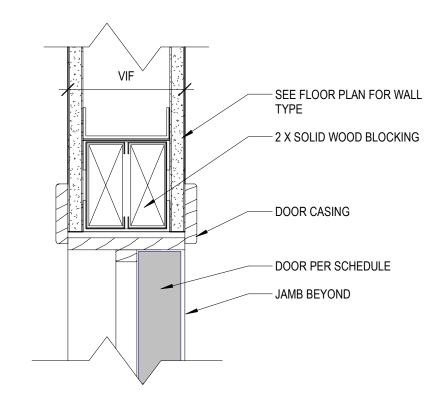


2 TYPICAL FRAMING CONDITION - ATTACHMENT TO SLAB

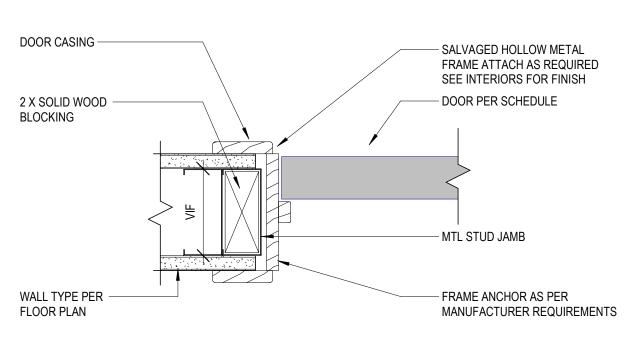


GRAB BARS, HANDRAILS, WALL HUNG CASEWORK @ SHELVING AND AS NOTED

6 HEAVY WALL BLOCKING - USE FOR LOADS UP TO 000 POUNDS NOT TO SCALE

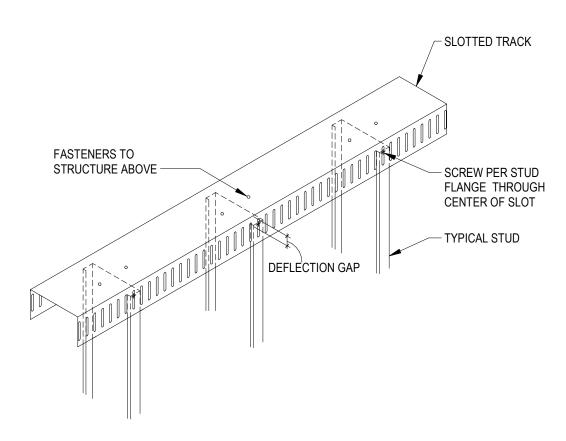


10 INTERIOR WOOD DOOR HEAD DETAIL 3'' = 1'-0''

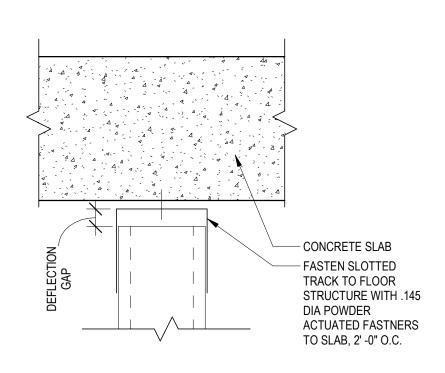


13 INTERIOR WOOD DOOR JAMB DETAIL

3" = 1'-0"

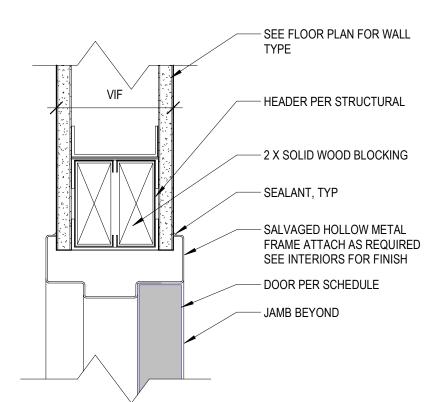


3 DEFLECTION HEAD - SLOTTED TRACK
NOT TO SCALE

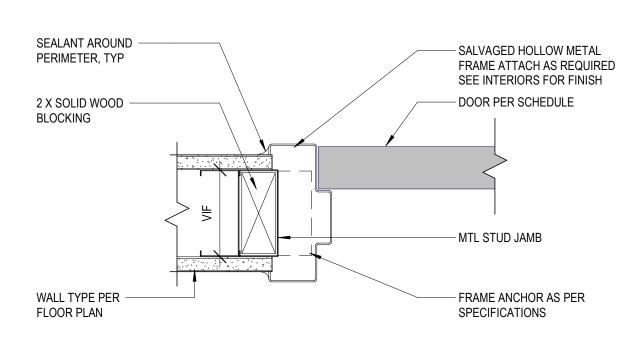


7 DEFLECTION HEAD

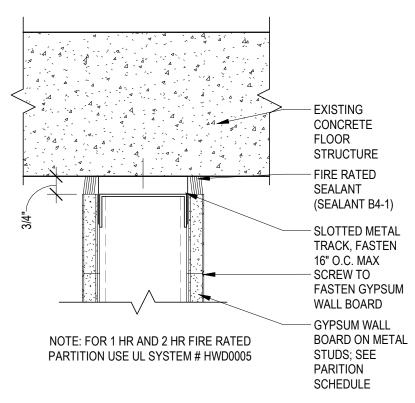
NOT TO SCALE



1 1 INTERIOR HM DOOR HEAD DETAIL 3'' = 1'-0''

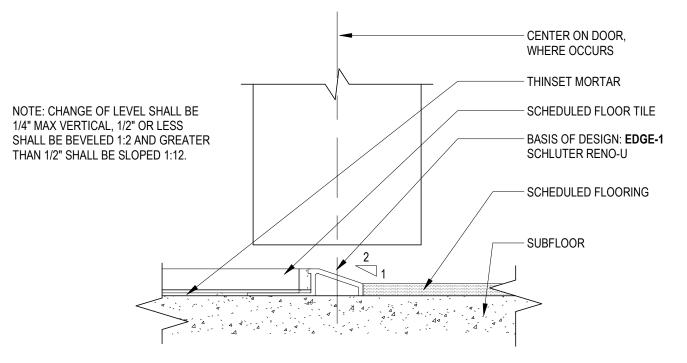


1 4 INTERIOR HM DOOR JAMB DETAIL 3'' = 1'-0''



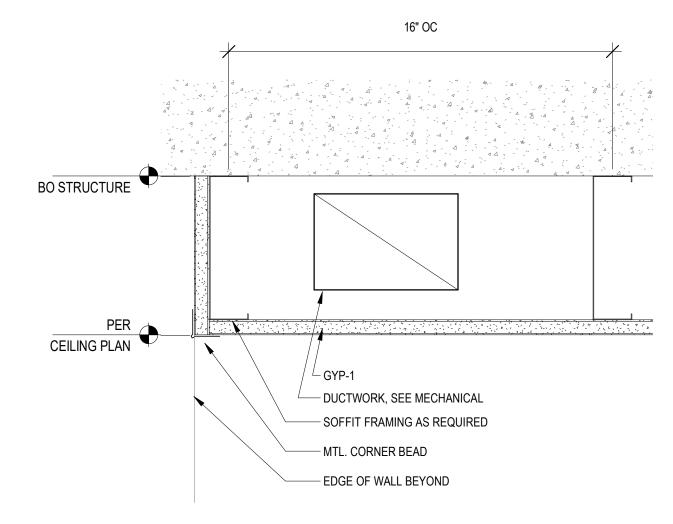
4 FIRE RATED DEFLECTION HEAD

3" = 1'-0"



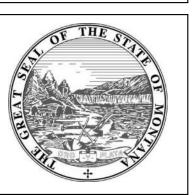
FLOOR TRANSITION DETAIL

12" = 1'-0"



15 SOFFIT EDGE DETAIL
3" = 1'-0"



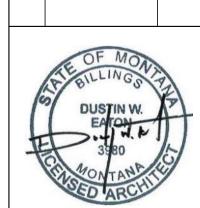


MSU-CPDC
MONTANA STATE UNIVERSIT
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

JULIA MARTIN WEST
REMODEL

CSE

DRAWN BY: **Author**REVIEWED BY**Checker**REV. DESCRIPTION DATE



PPA #: 23-0741 A/E # 23-0741

A&E PROJ #: 23123_2A

SHEET TITLE

DETAILS

SHEET A9.2

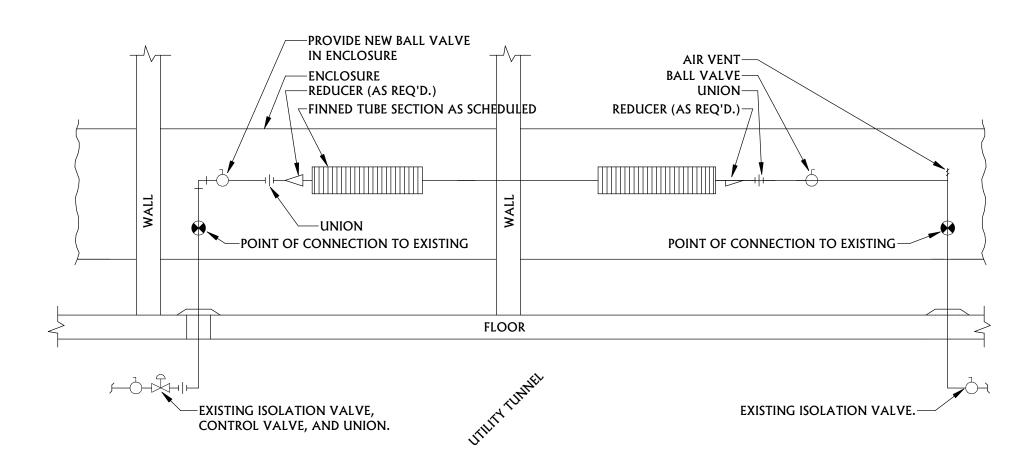
		FINN	IED PIP	E RAD	IATI	ON S	CHEDU	JLE -	HOT	WAT	ΓER		
PLAN	MANILIE	MODEL NUMBER	MATERIAL		ENCL	OSURE			ELEMEN	Γ PERFOR	MANCE		DEMARKS
CODE	MANUF.	MODEL NUMBER	MATERIAL	TYPE	HEIGHT	DEPTH	LENGTH	LENGTH	MBH	EWT	LWT	GPM	REMARKS
FT-5	SIGMA	WALLFIN SBBN-S	STEEL	WALL - SLOPED TOP	10"	3/34"	SEE PLANS	60"	3.9	180	160	1	BAKE ENAMEL
FT-6	SIGMA	WALLFIN SBBN-S	STEEL	WALL - SLOPED TOP	10"	3 3/4"	SEE PLANS	72"	4.7	180	160	1	BAKED ENAMEL COLOR BY ARCH
FT-8	SIGMA	WALLFIN SBBN-S	STEEL	WALL - SLOPED TOP	10"	3 3/4"	SEE PLANS	96"	6.2	180	160	1	BAKED ENAMEL COLOR BY ARCH
FT-10	SIGMA	WALLFIN SBBN-S	STEEL	WALL - SLOPED TOP	10"	3 3/4"	SEE PLANS	120"	7.8	180	160	1	BAKED ENAMEL COLOR BY ARCH
FT-12	SIGMA	WALLFIN SBBN-S	STEEL	WALL - SLOPED TOP	10"	3 3/4"	SEE PLANS	144"	9.3	180	160	1	BAKED ENAMEL COLOR BY ARCH

NARROW WALL FINNED TUBE ELEMENT WITH SLOPED-TOP NARROW ENCLOSURE

- CONTRACTOR SHALL PROVIDE AND INSTALL ENCLOSURE EXTENTS TO WALL AND AS INDICATED ON THE MECHANICAL PLANS. PROVIDE ALL CORNERS, HANGERS, TRIM, AND END CAPS AS REQUIRED FOR A COMPLETE INSTALLATION.
- SYSTEM CONTROL VALVE IS EXISTING AND INSTALLED IN THE UTILITY TUNNEL. PROVIDE WITH NEW ISOLATION VALVES AND MANUAL AIR VENTS AS REQUIRED. PROVIDE KEYED ACCESS DOORS
- AT VALVE LOCATIONS. COORDINATE WITH EXISTING CONDITIONS AS REQUIRED. PROVIDE STANDARD COLOR CHART FOR SELECTION BY OWNER/ARCHITECT.

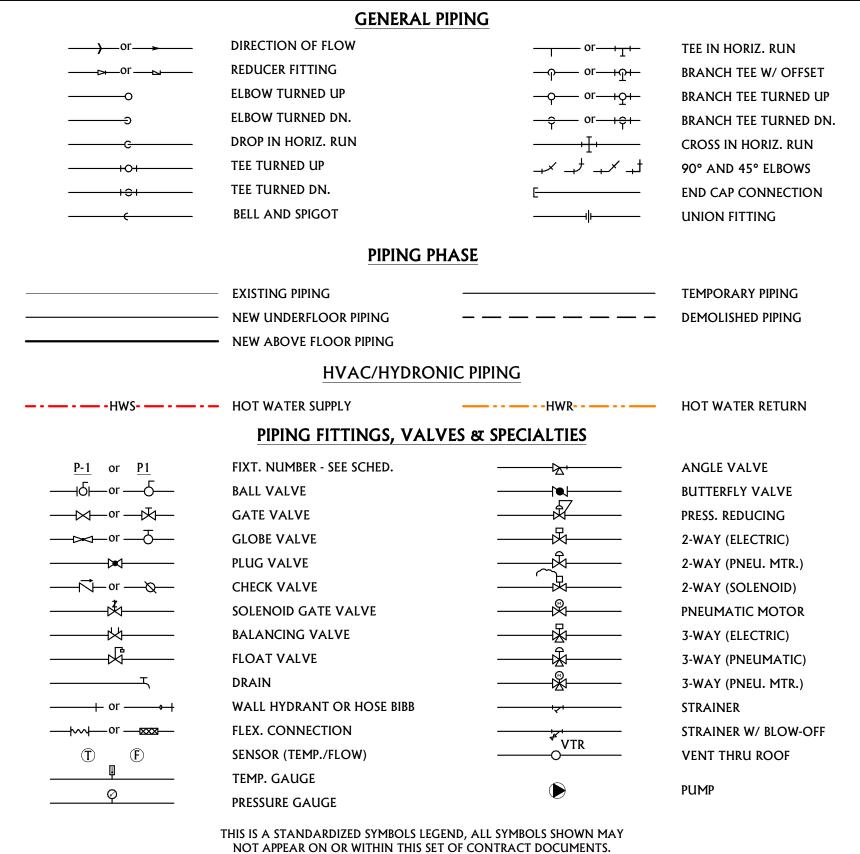
			GR	AILLE -	REGIST	TER - D	IFFUSER	SCH	IEDULE	
PLAN CODE	MANUF.	MODEL Number	FUNCTION	FACE SIZE	NECK SIZE	MATERIAL	FINISH	CFM	VOLUME DAMPER	REMARKS
EG-1	NAILOR	6145H	EXHAUST	6" X 6"	4" ø	STEEL	BAKED ENAMEL WHITE	35	CVR-GM	LOUVERED STEEL GRILLE WITH 3/4" BLADE SPACING PROVIDE WITH GRILLE PLENUM BOX AND CONSTAN VOLUME DAMPER " NAILOR CVR-GM" OR EQUAL. PROVIDE AS SIDE-INLET CONFIGURATION.

- PROVIDE ALL DUCT TRANSITIONS TO AND FROM GRILLES/REGISTERS/DIFFUSERS (GRD'S) AS REQUIRED. CONTRACTOR TO VERIFY CEILING TYPE AND PROVIDE CORRECT FRAMES, CONNECTORS, AND FINISH TYPE AND COLOR FOR ALL AIR DIFFUSION PRODUCTS PRIOR TO PROCUREMENT. REFER TO
- ARCHITECTURAL REFLECTED CEILING PLANS FOR ALL TYPE AND LOCATIONS OF CEILINGS. PROVIDE MANUFACTURE STANDARD COLOR CHART WITH SHOP DRAWINGS. COLOR / FINISH SELECTION BY ARCHITECT
- REFER TO THE MECHANICAL DRAWINGS AND DETAILS FOR FURTHER REQUIREMENTS.



FINNED-PIPE RADIATOR DETAIL

MECHANICAL SYMBOLS LEGEND



PIPING MATERIALS SCHEDULE

BUILDING HEATING HOT WATER PIPING:

FOR HOT WATER HEATING PIPING 2" AND SMALLER, CONTRACTOR SHALL PROVIDE ANY OF THE FOLLOWING: HARD COPPER TUBE, TYPE L; CAST-OR WROUGHT-COPPER, SOLDER-JOINT FITTINGS; AND SOLDERED JOINTS. HARD COPPER TUBE, TYPE L; COPPER PRESSURE-SEALED-JOINT FITTINGS, AND PRESSURE SEALED JOINTS.

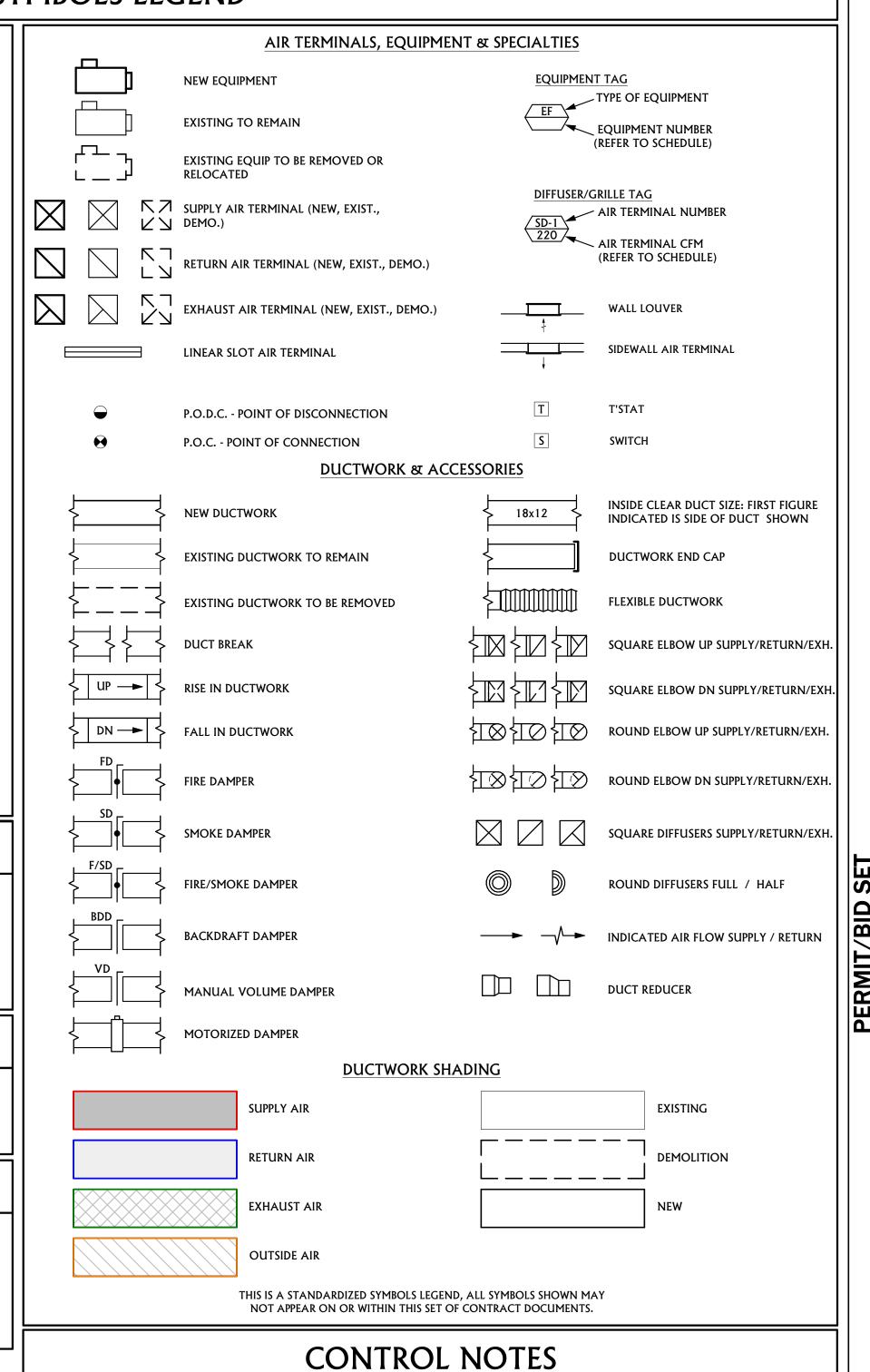
INDOOR PIPING 1 1/2" AND SMALLER SHALL BE PROVIDED WITH 1" FIBERGLASS INSULATION WITH ASJ VAPOR BARRIER. INDOOR PIPING LARGER THAN 1 1/2" SHALL BE PROVIDED WITH 2" FIBERGLASS INSULATION WITH AS] VAPOR BARRIER. *INSULATION MAY BE OMITTED FROM PIPING WITHIN FINNED PIPE RADIATION ENCLOSURES.

CHEMICAL TREATMENT NOTES

- THE BUILDING HEAT PUMP LOOP SHALL BE A PRE-MIX SOLUTION OF 65% WATER AND 35% PROPYLENE GLYCOL WITH CORROSION
- THE HEATING HOT WATER LOOP SHALL BE A PRE-MIX SOLUTION OF 65% WATER AND 35% PROPYLENE GLYCOL WITH CORROSION INHIBITORS.

DUCTWORK CONSTRUCTION SCHEDULE

- GENERAL EXHAUST DUCTWORK SHALL BE CONSTRUCTED AS LOW-PRESSURE DUCTWORK OPERATING AT STATIC PRESSURE LESS THAN
- UN-INSULATED AND UN-LINED DUCTWORK SHALL INCLUDE THE FOLLOWING
- ALL INTERIOR EXHAUST DUCTWORK UNLESS OTHERWISE NOTED
- ALL DUCT DIMENSIONS SHOWN ON PLANS ARE CLEAR INTERIOR DIMENSIONS.



- ELECTRICAL CONTRACTOR SHALL PROVIDE BOX AND CONDUIT TO ACCESSIBLE UTILITY TUNNEL FOR NEW THERMOSTATS.
- MECHANICAL CONTRACTOR SHALL PROVIDE AND PULL CONTROL WIRE AS REQUIRED FROM THERMOSTAT TO UNIT.

FIRE CAULKING

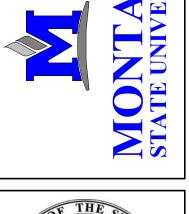
FIRE CAULK/SEAL ALL PENETRATIONS THROUGH RATED WALLS AND FLOORS AS NEEDED TO PREVENT THE PASSAGE OF SMOKE. SEE M#.## FOR FIRE CAULKING DETAILS.

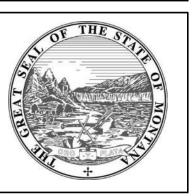
TEST AND BALANCE NOTES

- TEST AND BALANCE WORK IS TO BE IN ACCORDANCE WITH NEBB STANDARDS.
- CONTRACTOR SHALL PROVIDE TEST AND BALANCE SERVICES FOR VAV AIR HANDLER SYSTEMS, EXHAUST SYSTEMS, AND DOMESTIC HOT WATER RECIRCULATION SYSTEM.
- CONTRACTOR SHALL PROVIDE A FINAL REPORT INCLUDING ALL SYSTEM RESULTS. REPORT SHALL NOTE ANY NON-TYPICAL SYSTEM CHARECTERISTICS ENCOUTERED DURING THE TESTING PERIOD AND ANY MESURED VALUES EXCEEDING +/- 10% FROM SCHEDULED DESIGN PARAMATERS UNLESS OTHERWISE NOTED BELOW.
- A. -0% TO +10% FOR EXHAUST SYSTEMS. -0% TO + 10% FOR FRESH AIR SYSTEMS. -5% TO +10% FOR VAV SYSTEMS.

MECHA	NICAL	SHEET	LIST

MECHANICAL COVER SHEET MECHANICAL DEMO PLANS MECHANICAL PLANS



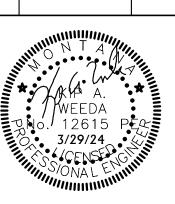


MSU-CPDC ONTANA STATE UNIVERSIT BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665

RE



DRAWN BY: NT REVIEWED BY: **KW** REV. DESCRIPTION DATE



PPA #: 23-0741 23-0741

A/E # A&E PROJ #: 23123_2A

SHEET TITLE **MECHANICAL COVER SHEET**

SHEET



MECHANICAL GENERAL DEMOLITION NOTES

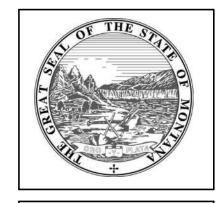
- A MECHANICAL CONTRACTOR SHALL CUT ALL FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO PERFORM THE WORK DEPICTED IN THESE CONTRACT DOCUMENTS AND SPECIFICATIONS. GENERAL CONTRACTOR SHALL PATCH ALL ASSOCIATED FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
- B COORDINATE HVAC AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AS REQUIRED.
- C THE INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM EXISTING DRAWINGS AND FIELD OBSERVATIONS. FIELD VERIFY ALL EXISTING CONDITIONS AND PROVIDE DEMOLITION AS REQUIRED TO ACCOMMODATE EXISTING CONSTRUCTION.
- D NOTIFY THE OWNER OF ANY SYSTEM SHUT-DOWNS AND APPROXIMATE SHUT-DOWN TIME PRIOR TO COMMENCING WITH WORK.
- E CONTRACTOR SHALL REMOVE ALL DEMOLISHED MATERIALS FROM BUILDING, UNLESS SPECIFICALLY NOTED TO BE ABANDONED IN PLACE.
- F DRAWINGS SHOW GENERAL LOCATIONS OF MATERIALS TO BE REMOVED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXTENT OF WORK REQUIRED FOR A COMPLETE SYSTEM REMOVAL
- G OWNER HAS FIRST RIGHT OF REFUSAL FOR ALL EQUIPMENT/MATERIAL CALLED OUT TO BE REMOVED. CONTRACTOR SHALL PRESENT ALL DEMO'D EQUIPMENT/MATERIAL TO OWNER PRIOR TO REMOVING FROM SITE.
- H DEMO ALL T-STATS AND CONTROLS ASSOCIATED WITH DEMO'D MECHANICAL EQUIPMENT.

MECHANICAL KEYNOTES

EXISTING EXHAUST DUCTWORK TO REMAIN.

- EXISTING THERMOSTAT AT APPROXIMATE LOCATION TO REMAIN.
- BATHROOM AND CAP.
- *ADD ALTERNATE 2* DISCONNECT EXISTING DUCTWORK SERVING EXISTING *ADD ALTERNATE 2* REMOVE EXISTING THERMOSTAT AT APPROXIMATE LOCATION. REMOVE ASSOCIATED WIRING BACK TO EXISTING ZONE CONTROL VALVE IN TUNNEL.
- BELOW. REMOVE CONDUIT FOR THERMOSTAT SERVING SPACE ABOVE. *ADD ALTERNATE 2* REMOVE PIPING AT APPROXIMATE LOCATION AS REQUIRED TO
- ACCOMMODATE REMODEL WORK. SEE M2.1 FOR COORDINATION.



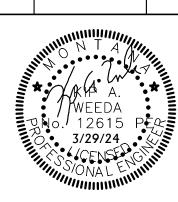


IONTANA STATE UNIVERSIT BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665

REMODE MARTIN JULIA MIT/BID SE



DRAWN BY: **NT** REVIEWED BY: KW REV. DESCRIPTION DATE



PPA #:

A/E #

23-0741 23123_2A A&E PROJ #:

23-0741

SHEET TITLE **MECHANICAL DEMO PLANS**

SHEET

M1.1



MECHANICAL GENERAL NOTES

- A CONTRACTOR SHALL CUT ALL FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO PERFORM THE WORK DEPICTED IN THESE CONTRACT DOCUMENTS AND SPECIFICATIONS.

 GENERAL CONTRACTOR SHALL PATCH ALL ASSOCIATED FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
- B COORDINATE EXACT LOCATION OF DIFFUSERS AND GRILLES WITH REFLECTED CEILING PLAN AND LIGHTING LAYOUT.
- C COORDINATE HVAC AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AS REQUIRED.
- D ALL CEILING DIFFUSERS TO BE 4-WAY UNLESS OTHERWISE NOTED.
- E ALL DUCT DIMENSIONS SHOWN ON PLANS ARE CLEAR INTERIOR DIMENSIONS.

 F SEAL ALL MECHANICAL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH
- UL-APPROVED FIRE RATED SYSTEM.

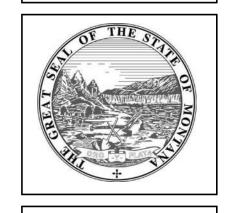
 G MAINTAIN CODE REQUIRED CLEARANCES FROM ELECTRICAL PANELS.
- H CONTRACTOR SHALL REFER TO MECHANICAL DETAILS FOR ADDITIONAL WORK REQUIREMENTS.

MECHANICAL KEYNOTES

- PROVIDE ACTIVE FINNED-TUBE SECTION AT APPROXIMATE LOCATION AND PROVIDE ENCLOSURE EXTENTS AS SHOWN. PIPE ADJOINING SECTIONS IN SERIES AS REQUIRED.
- CONNECT TO EXISTING PIPING AT APPROXIMATE LOCATION.

 ADD ALTERNATE 2 EXTEND PIPING IN EXISTING WALL TO NEW FINNED-TUBE
- ENCLOSURE.
- *ADD ALTERNATE 2* CONNECT DUCTWORK TO EXISTING AND ROUTE OVER IN SOFFIT TO SERVE RESTROOM.
- *ADD ALTERNATE 2" RELOCATE THERMOSTAT AND INSTALL AT 44" A.F.F.
 THERMOSTAT SHALL BE ADA COMPLIANT AND COMPATIBLE WITH THE EXISTING STEAM
 CONTROL VALVE. RELOCATE CONDUIT AND WIRING FROM THERMOSTAT SERVING
 SPACE ABOVE. COORDINATE WITH EXISTING CONDITIONS AS REQUIRED.
- INSULATE EXISTING HEATING WATER SUPPLY AND RETURN PIPING AT APPROXIMATE LOCATION TO FULLEST EXTENT POSSIBLE. INSULATION SHALL BE 1 1/2" FIBERGLASS WITH ASJ VAPOR BARRIER.

MONTANA STATE UNIVERSITY



MSU-CPDC

MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

JULIA MARTIN WEST
REMODEL

C&E



DRAWN BY: NT
REVIEWED BY: KW
REV. DESCRIPTION DATE



PPA #:

PA #: 23-0741

A/E # 23-0741

A&E PROJ #: 23123_2A

SHEET TITLE
MECHANICAL

PLANS SHEET

M2 1

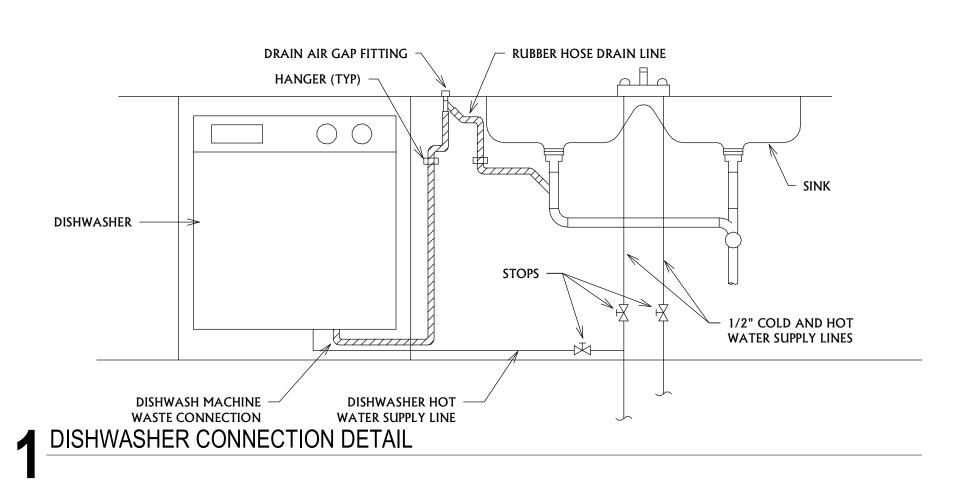
				PLUMBING I	FIXTURE SCHEDUL	E						
PLAN								ROUGH	I-IN SIZE			
CODE	ITEM	MANUFACTURER	MODEL NUMBER	MATERIAL & FINISH	TRIM	CW	HW	SAN	VENT	ASSE 1070 MIX VALVE	REMARKS	
BT-1	ALCOVE BATHTUB	AMERICAN STANDARD	2390.202 (LH DRAIN) 2391.202 (RH DRAIN)	ACID RESISTANT PORCELAIN - WHITE	TRIP LEVER DRAIN W/ OVERFLOW			2"	2"	-	30" X 60" ALCOVE BATHTUB WITH ABOVE-FLOOR ROUGH INSTALLATION. PROVIDE TUB WITH TRIP LEVER DRAIN AND	
D1 1	BATH/SHOWER VALVE AND TRIM	AMERICAN STANDARD	TU075508	CHROME PLATED BRASS		1/2"	1/2"			-	OVERFLOW. PROVIDE PRESSURE BALANCE MIX VALVE, TUB-SPOUT AND 1.75 GPM SHOWERHEAD AND VALVE TRIM.	
FD-1	FLOOR DRAIN	SIOUX CHIEF	842-2PSQ	PVC BODY NICEL-BRONZE STRAINER	TRAP GUARD			2"	2"		PVC BODY FLOOR DRAIN WITH 5" SQUARE NICKEL BRONZE GRATE.	
LAV-1	DROP-IN LAVATORY BASIN	AMERICAN STANDARD	0476.037	VITREOUS CHINA - WHITE				1 1/4"	1 1/4"		20" OVAL DROP-IN LAVATORY BASIN WITH 4" CENTERSET HOLES. PROVIDE WITH 4" CENTERSET, 0.5 GPM MANUAL FAUCET WITH SINGLE-HANDLE CONTROL. MOUNT TO	
	MANUAL LAVATORY FAUCET	AMERICAN STANDARD	7075.056	CHROME PLATED BRASS	GRID DRAIN WITH POP-UP HOLE AND ROD	1/2"	1/2"			х	CONFORM WITH APPLICABLE ICC A117.1 AND A.N.S.I. REQUIREMENTS.	
S-1	DROP-IN KITCHEN SINK BASIN	CECO	457-4-5.5	22 GA STAINLESS STEEL	BASKET STRAINER			2"	1 1/2"		25" X 22" x 5 1/2" DROP-IN STAINLESS STEEL SINK WITH THREE-HOLE WIDESPREAD PUNCHING. PROVIDE WITH GRID-STRAINER AND OFFSET P-TRAP. PROVIDE WITH 1.5 GPM	
3-1	SINGLE-HANDLE MANUAL SINK FAUCET	AMERICAN STANDARD 7074.000 CHROME PLATED BRASS			1/2"	1/2"			х	SINGLE-HANDLE FAUCET WITH 8" SWING SPOUT. MOUNT TO CONFORM WITH APPLICABLE ICC A117.1 AND A.N.S.I. REQUIREMENTS.		
SH-1	ACCESSIBLE SHOWER BASIN	BESTBATH	4LSS26331A75B.V2	GELCOAT FIBERGLASS W/ INTEGRAL BACKING	GRAB BARS SEAT - FOLDING T-SHAPED WATERSTOPPER KIT NO-CAULK BRASS DRAIN			2"	2"		*ALTERNATE 2* 63' X 33" MULTI-PIECE ACCSSIBLE SHOWER ENCLOSURE. PROVIDE WITH CENTER DRAIN. PROVIDE PRESSURE BALANCE MIX VALVE, 1.5 GPM FIXED SHOWERHEAD, 1.5 GPM HANDSHOWER, DIVERTER VALVE, AND VALVE TRIM. MOUNT TO	
	ACCESSIBLE SHOWER VALVE AND TRIM	AMERICAN STANDARD	TU662.213	CHROME PLATED BRASS		1/2"	1/2"				CONFORM WITH APPLICABLE ICC A117.1 AND A.N.S.I. REQUIREMENTS.	
WC-1	FLUSH-TANK, BACK-OUTLET WATER CLOSET	AMERICAN STANDARD	2878.100	VITREOUS CHINA - WHITE		1/2"		3"	2"		FLOOR-MOUNT REAR OUTLET, 1.28 GPF FLUSH TANK TOILET ACCESSIBLE-HEIGHT, ELONGATED TOILET BOWL. PROVIDE WITH HEAVY-DUTY TOILET SEAT WITH LID. COORDINATE TRIP LEVER	
WC-1	WATER CLOSET SEAT	BEMIS	1900SS	PLASTIC W/ STAINLESS STEEL HINGES							HANDING WITH RESTROOM CONFIGURATION. MOUNT TO CONFORM WITH APPLICABLE ICC A117.1 AND A.N.S.I. REQUIREMENTS.	

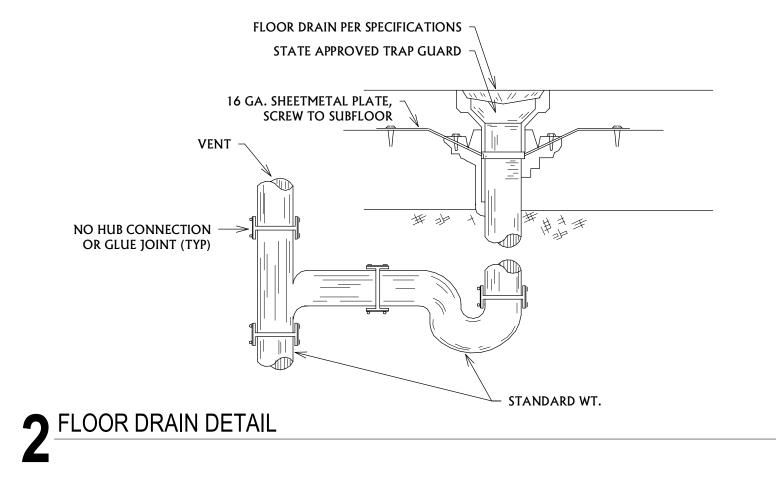
FIXTURE ROUGH-IN SIZES LISTED ABOVE FOR CW, HW, SAN, AND VENT ARE THE BRANCH RUN-OUT LINE SIZES TO THE FIXTURE. THE POINT-OF-CONNECTION AT THE FIXTURE MAY BE SMALLER OR LARGER PENDING ON THE SPECIFIC FIXTURE'S CONNECTION SIZES. CONTRACTOR TO MAKE THE APPROPRIATE CONNECTION SIZE TRANSITION AT THE FIXTURE.

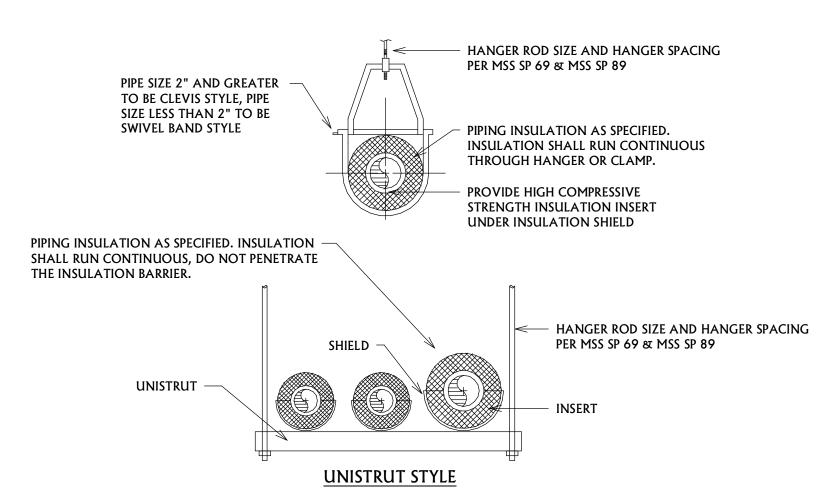
PROVIDE ALL FIXTURES WITH THE APPROPRIATE COMMERCIAL CARRIERS, CAST P-TRAPS, GRID STRAINERS, QUARTER-TURN BALL STOPS AND MIXING VALVES FOR A COMPLETE INSTALLATION. REFER TO THE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS.

VERIFY FLOOR FINISH AND FINISH THICKNESS BEFORE SETTING ANY FIXTURES.
CONTRACTOR SHALL SET SENSITIVITY AND DURATION OF ELECTRONIC METERED DEVICES AS INSTRUCTED BY THE OWNER.

ALL LAVATORIES AND SINKS TO BE PROVIDED WITH THERMOSTATIC MIXING VALVE TO TEMPER HOT WATER TO 110F, MIXING VALVE SHALL CONFORM TO ASSE 1070.
PROVIDE FLUSH MOUNTED LOCKABLE ACCESS PANELS AS NEEDED FOR PLUMBING ACCESSORY ACCESS. COORDINATE LOCATION WITH ARCHITECT AND G.C. PRIOR TO ACCESSORY AND DOOR INSTALLATION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR ACCESS DOOR REQUIREMENTS.

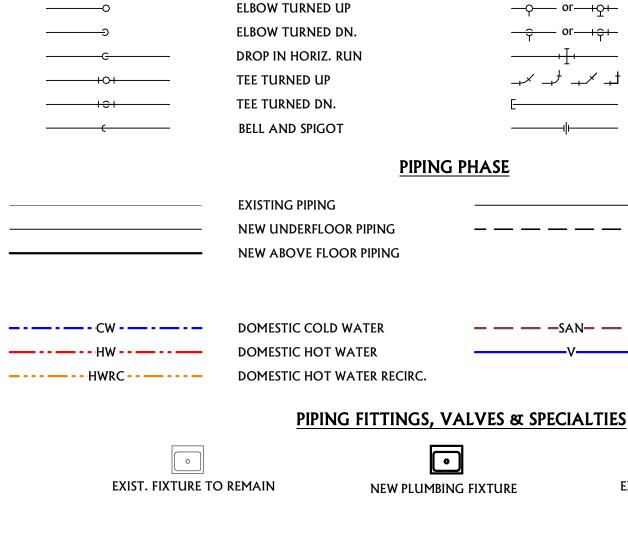






TRAPEZE SUPPORTED PIPING NOTES:
 FOR TRAPEZE SUPPORTED PIPING; 1-1/2" AND LESS PIPING INSTALL PROTECTION SHIELD AND PIPE CLAMP, INSULATION SHALL BE CONTINUOUS. 2" AND GREATER PIPING INSTALL THERMAL-HANGER SHIELD INSERT AND PIPE CLAMP, INSULATION SHALL BE CONTINUOUS.
 REFER TO THE PROJECT GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.

PIPE HANGER DETAILS



DIRECTION OF FLOW

REDUCER FITTING

→or**→**

<u>P-1</u> or <u>P1</u>	FIXT. NUMBER - SEE SCHED.		ANGLE VALVE
—- 5 —or —-5—	BALL VALVE		BUTTERFLY VALVE
——⋈— or ——	GATE VALVE	\	PRESS. REDUCING
——> or — Ō—	GLOBE VALVE		2-WAY (ELECTRIC)
	PLUG VALVE	——————————————————————————————————————	2-WAY (PNEU. MTR.)
—————————————————————————————————————	CHECK VALVE		2-WAY (SOLENOID)
*	SOLENOID GATE VALVE	®	PNEUMATIC MOTOR
<u>\</u>	BALANCING VALVE		3-WAY (ELECTRIC)
——————————————————————————————————————	FLOAT VALVE		3-WAY (PNEUMATIC)
<u></u>	DRAIN		3-WAY (PNEU. MTR.)
———— or ———	WALL HYDRANT OR HOSE BIBB		STRAINER
—	FLEX. CONNECTION	VTR	STRAINER W/ BLOW-OFF
① <u> </u>	SENSOR (TEMP./FLOW)	OVIR	VENT THRU ROOF
<u> </u>	TEMP. GAUGE	•	DI IMB
<u> </u>	PRESSURE GAUGE		PUMP
lack	FIDE EVENICINGUED	igoplus	P.O.D.C POINT OF DISCONNECTION
	FIRE EXTINGUISHER	$oldsymbol{\Theta}$	P.O.C POINT OF
•	FIRE SPRINKLER HEAD	9	CONNECTION
	THIS IS A STANDARDIZED SYMBOLS LE NOT APPEAR ON OR WITHIN THIS S		

PLUMBING SYMBOLS LEGEND

GENERAL PIPING

____ or____

—ი— or—<u>--</u>ე+-

PIPING MATERIALS SCHEDULE

DOMESTIC WATER PIPING (DOMESTIC COLD WATER, HOT WATER, HOT WATER RECIRCULATION): FOR ABOVE GROUND DOMESTIC WATER PIPING CONTRACTOR SHALL PROVIDE ANY OF THE FOLLOWING:

-HARD COPPER TUBE, TYPE L; CAST-OR WROUGHT-COPPER, SOLDER-JOINT FITTINGS; AND SOLDERED JOINTS. -HARD COPPER TUBE, TYPE L; COPPER PRESSURE-SEALED-JOINT FITTINGS, AND PRESSURE SEALED JOINTS.

INDOOR DOMESTIC COLD WATER PIPING 2" AND SMALLER SHALL BE PROVIDED WITH 1" FIBERGLASS INSULATION WITH ASJ VAPOR BARRIER. INDOOR DOMESTIC HOT WATER PIPING 1 1/2" AND SMALLER SHALL BE PROVIDED WITH 1" FIBERGLASS INSULATION WITH ASJ VAPOR BARRIER.

ALL PIPING INSULATION SHALL HAVE A FLAME SPREAD NOT EXCEEDING 25, A SMOKE DEVELOPMENT RATING NOT EXCEEDING 50, AND CONDUCTIVITY (K) NOT EXCEEDING 0.27 BTU PER INCH/H-SQ FT-°F.

SANITARY WASTE AND VENT PIPING:

PLUMBING PLANS

 ${\tt CONTRACTOR}\ Shall\ PROVIDE\ ANY\ OF\ THE\ FOLLOWING\ FOR\ UNDERGROUND\ SANITARY\ WASTE\ AND\ VENT\ PIPING:$

-SOLID-WALL PVC PIPE, DWV PATTERN PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED JOINTS.

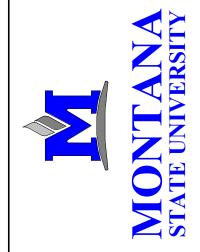
CONTRACTOR SHALL PROVIDE ANY OF THE FOLLOWING FOR ABOVE GROUND SANITARY WASTE AND VENT PIPING.

-SOLID-WALL PVC PIPE, DWV PATTERN PVC SOCKET FITTINGS, AND SOLVENT-CEMENTED JOINTS.

PROJECT SEISMIC RESTRAINT NOTES

- 1. MECHANICAL/PLUMBING SYSTEMS AND EQUIPMENT ON THIS PROJECT SHALL BE INSTALLED WITH SEISMIC RESTRAINTS IN ACCORDANCE WITH THE 2021 INTERNATIONAL BUILDING CODE (SEISMIC USE GROUP 'II', SEISMIC DESIGN CATEGORY 'D', COMPONENT IMPORTANCE FACTOR 1.0) AND THE LATEST EDITION OF SMACNA'S SEISMIC RESTRAINT MANUAL. SPRINKLER SYSTEMS AND EQUIPMENT SHALL BE INSTALLED WITH SEISMIC RESTRAINTS IN ACCORDANCE WITH THE LATEST EDITION OF NFPA 13.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE SHOP DRAWINGS AND PROFESSIONAL STRUCTURAL ENGINEER SEISMIC RESTRAINT DRAWINGS FOR REVIEW AND APPROVAL. SUBMIT SHOP DRAWING INFORMATION ON EACH MAJOR PIECE OF EQUIPMENT AND FOR EACH MAJOR CATEGORY OF COMMONLY INSTALLED EQUIPMENT.

		PLUMBING SHEET LIST	
0	PLUMBING COVER SHEET		
1	PLUMBING DEMO PLANS		



TEE IN HORIZ. RUN

BRANCH TEE W/ OFFSET

BRANCH TEE TURNED UP

BRANCH TEE TURNED DN.

CROSS IN HORIZ. RUN

90° AND 45° ELBOWS

END CAP CONNECTION

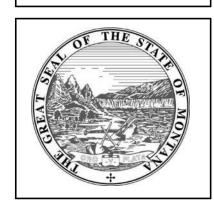
TEMPORARY PIPING

DEMOLISHED PIPING

SANITARY WASTE

EXIST. FIXT. TO BE REMOVED

UNION FITTING



MSU-CPDC
MONTANA STATE UNIVERSIT
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

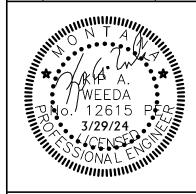
FAA: 400.994.3003

JULIA MARTIN WE REMODEL

ase



DRAWN BY: NT
REVIEWED BY: KW
REV. DESCRIPTION DATE



PPA #: 23-0741 A/E # 23-0741

A&E PROJ #: 23123_2A

SHEET TITLE
PLUMBING
COVER SHEET

SHEET

P0.0



SCALE : 1/4" = 1'-0"

PLUMBING GENERAL DEMOLITION NOTES

- A CONTRACTOR SHALL CUT ALL FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO PERFORM THE WORK DEPICTED IN THESE CONTRACT DOCUMENTS AND SPECIFICATIONS.

 GENERAL CONTRACTOR SHALL PATTER ALL ASSOCIATED FLOORS, WALLS, CEILINGS, AND
- ROOF AS REQUIRED TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.

 B COORDINATE HVAC AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AS
- THE INFORMATION SHOWN ON THIS DRAWING WAS OBTAINED FROM EXISTING DRAWINGS AND VISUAL FIELD OBSERVATIONS WHICH SHALL BE INCLUDED IN THE SCOPE OF WORK. FIELD VERIFY ALL EXISTING CONDITIONS AND PROVIDE DEMOLITION AS
- REQUIRED TO ACCOMMODATE CONSTRUCTION.

 D NOTIFY THE OWNER OF ANY SYSTEM SHUT-DOWNS AND APPROXIMATE SHUT-DOWN
- TIME PRIOR TO COMMENCING WITH WORK.

 CONTRACTOR SHALL REMOVE ALL DEMO'D MATERIALS FROM BUILDING, UNLESS
- SPECIFICALLY NOTED TO BE ABANDONED IN PLACE OR RE-USED.

 DRAWINGS SHOW GENERAL LOCATIONS OF MATERIALS TO BE REMOVED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE EXTENT OF WORK REQUIRED FOR A COMPLETE SYSTEM REMOVAL.
- G OWNER HAS FIRST RIGHT OF REFUSAL FOR ALL EQUIPMENT/MATERIAL CALLED OUT TO BE REMOVED. CONTRACTOR SHALL PRESENT ALL DEMO'D EQUIPMENT/MATERIAL TO OWNER PRIOR TO REMOVING FROM SITE.
- H SEAL ALL ABANDONED PLUMBING PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH UL-APPROVED FIRE RATED SYSTEM.
- CONTRACTOR SHALL REMOVE ALL HANGERS AND SUPPORTS SERVING EQUIPMENT AND PIPING DEMO'D IN THIS PROJECT. HANGERS WHICH ARE PERMANENTLY ATTACHED TO THE EXISTING STRUCTURE SHALL BE CUT BACK TO A MINIMUM OF NO LESS THAN 1" FROM THEIR EXISTING CONNECTION POINT TO THE EXISTING STRUCTURE. DEMO ALL ACCESSIBLE SEWER AND WATER LINES BACK TO AN ACTIVE MAIN. DEAD END LINES ARE NOT ACCEPTABLE.

PLUMBING KEYNOTES

EXISTING DOMESTIC PIPING IN PLUMBING WALL TO REMAIN FOR RECONNECTION TO

ADD ALTERNATE 2 REMOVE PIPING SERVING FIXTURE AT APPROXIMATE LOCATION AND CAP. SEE 2/P1.1 RISER DIAGRAM FOR COORDINATION.

THE STATE OF THE S

MSU-CPDC

MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

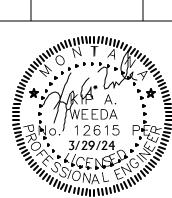
A MARTIN WEST REMODEL

MIT/BID SE

Cise 1



DRAWN BY: NT
REVIEWED BY: KW
REV. DESCRIPTION DATE



PPA #:

23-0741

A/E # 23-0741 A&E PROJ #: 23123_2A

SHEET TITLE
PLUMBING DEMO
PLANS

SHEET

P1.1



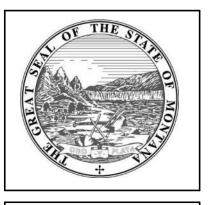
PLUMBING GENERAL NOTES

- A MECHANICAL CONTRACTOR SHALL CUT ALL FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO PERFORM THE WORK DEPICTED IN THESE CONTRACT DOCUMENTS AND SPECIFICATIONS. GENERAL CONTRACTOR SHALL PATCH ALL ASSOCIATED FLOORS, WALLS, CEILINGS, AND ROOF AS REQUIRED TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
- B COORDINATE HVAC AND PLUMBING EQUIPMENT WITH ALL OTHER TRADES AS REQUIRED.
- REFERENCE ARCHITECTURAL PLANS FOR EXACT FIXTURE LOCATIONS.
- D ALL VALVES LESS THAN 2" SHALL BE BALL VALVES UNLESS OTHERWISE NOTED.
- COORDINATE UNDERSLAB PIPING WITH FOOTINGS AND STEM WALLS. INSULATION ON ALL DOMESTIC COLD WATER PIPING SHALL BE PROVIDED WITH A CONTINUOUS VAPOR BARRIER. OVERSIZE HANGERS FOR INSULATION SO NO PENETRATION OF THE VAPOR BARRIER OCCURS. PROVIDE INSERTS AND SADDLES AS REQUIRED TO PREVENT INSULATION DAMAGE FROM SUPPORTS.
- G NO DOMESTIC WATER PIPING SHALL BE ROUTED IN ANY EXTERIOR WALLS. H PROVIDE ALL FLOOR DRAINS AND FLOOR SINKS WITH TRAP PRIMERS. PROVIDE WALL ACCESS PANEL FOR TRAP PRIMER ACCESS AS REQUIRED. ACCESS PANELS SHALL BE RATED WHERE REQUIRED.
- ALL UNDERFLOOR VENT SHALL BE MINIMUM 2".
- ALL UNDERFLOOR COPPER SHALL BE TYPE "K" SEAMLESS. PROVIDE CLEANOUTS ON ALL LINES SERVING SINKS AND URINALS.

PLUMBING KEYNOTES

- RECONNECT NEW FIXTURES TO EXISTING PIPING CONNECTIONS AS REQUIRED. PROVIDE ROUGH-IN APPURTENANCES INCLUDING, BUT NOT LIMITED TO, PLUMBING TRAPS, WASTE TAILPIECES, SUPPLY HOSES, ETC.
 - *ADD ALTERNATE 2* CONNECT TO EXISTING PIPING IN WALL AND EXTEND UP INTO CEILING SPACE AND OVER TO NEW PLUMBING FIXTURES.
 - *ADD ALTERNATE 2* ROUTE NEW DOMESTIC WATER PIPING DOWN IN WALL TO FIXTURE AND CONNECT. EXTEND WASTE PIPING DOWN AND FIELD COORDINATE EXACT POINT OF CONNECTION IN UTILITY TUNNEL. PROVIDE VENT PIPING AS REQUIRED TO SERVE
- INSULATE EXISTING DOMESTIC HOT WATER PIPING IN PLUMBING WALL TO FULLEST EXTENT POSSIBLE. INSULATION SHALL BE 1" FIBERGLASS WITH ASJ VAPOR BARRIER.





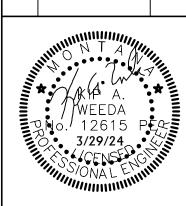
ONTANA STATE UNIVERSIT BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665

A MARTIN REMODEI JULIA MIT/BID SE





DRAWN BY: **NT** REVIEWED BY: **KW** REV. DESCRIPTION DATE



PPA #:

A/E #

23-0741 23123_2A A&E PROJ #:

SHEET TITLE

23-0741

PLUMBING PLANS SHEET

P2.1

WORK BY EC, SHOWN ON OTHERS PLANS

THE EC SHALL BE RESPONSIBLE FOR ALL THERMOSTAT ROUGH-IN FOR MECHANICAL SYSTEMS. SEE MECHANICAL DRAWINGS FOR LOCATIONS.

TELECOMMUNICATIONS SYSTEM NOTES

- 1. PROVIDE ROUGH-IN ONLY FOR COMMUNICATIONS OUTLETS AND WIRELESS ACCESS POINTS.
- 2. ALL CABLING, TERMINATIONS, TESTING, ETC. SHALL BE BY OWNER.
- 3. PROVIDE BACKBOX AND 1" CONDUIT WITH PULLSTRING FOR ALL COMMUNICATIONS OUTLETS AND WIRELESS ACCESS POINTS AND ROUTE TO RECESSED PULLBOX. SEE POWER & SPECIAL SYSTEMS PLANS FOR PULL BOX LOCATION.
- COORDINATE ALL REQUIREMENTS WITH OWNER'S IT REPRESENTATIVE PRIOR TO ROUGH-IN.

PROJECT NOTES

- 1. THE ELECTRICAL WORK SHALL INCLUDE ALL ITEMS, ARTICLES, MATERIALS, OPERATIONS, AND METHODS LISTED, MENTIONED OR SCHEDULED IN THESE DRAWINGS. ALL MATERIAL, EQUIPMENT AND LABOR SHALL BE FURNISHED TOGETHER WITH ALL INCIDENTAL ITEMS REQUIRED BY GOOD PRACTICE TO PROVIDE THE COMPLETE ELECTRICAL SYSTEM DESCRIBED.
- 2. EXAMINE AND REFER TO ALL ARCHITECTURAL, MECHANICAL AND STRUCTURAL DRAWINGS FOR CONSTRUCTION CONDITIONS WHICH MAY AFFECT THE ELECTRICAL WORK. INSPECT THE BUILDING SITE AND EXISTING FACILITIES FOR VERIFICATION OF PRESENT CONDITIONS. MAKE PROPER PROVISIONS FOR THESE CONDITIONS IN PERFORMANCE OF THE WORK AND COST THEREOF.
- 3. THE ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE PLANS AND SHALL NOT BE LESS THAN THE MINIMUM REQUIREMENTS OF ALL APPLICABLE SECTIONS OF THE LATEST CODES AND STANDARDS THAT ARE ADOPTED BY THE AUTHORITY HAVING JURISDICTION.
- 4. THE ELECTRICAL CONTRACTOR SHALL PAY ALL FEES AND ARRANGE FOR ALL PERMITS REQUIRED FOR WORK DONE UNDER HIS CONTRACT AND UNDER HIS SUPERVISION BY SUBCONTRACT.
- 5. THE ELECTRICAL CONTRACTOR SHALL AND HEREBY DOES WARRANT AND GUARANTEE THAT ALL WORK EXECUTED UNDER HIS CONTRACT WILL BE FREE FROM DEFECTS OF MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THIS WORK AND THAT HE WILL, AT HIS OWN EXPENSE, REPAIR AND/OR REPLACE ALL SUCH DEFECTIVE MATERIALS AND WORK DURING THE TERM OF THE WARRANTY.
- 6. MANUFACTURER'S TRADE NAMES AND CATALOG NUMBERS LISTED ARE INTENDED TO INDICATE THE QUALITY OF EQUIPMENT OR MATERIAL DESIRED.
 MANUFACTURERS NOT LISTED MUST HAVE PRIOR APPROVAL. WRITTEN PRIOR APPROVAL MUST BE OBTAINED FROM THE ARCHITECT SEVEN (7) BUSINESS DAYS PRIOR TO BID OPENING.
- 7. THE DRAWINGS ARE PARTLY DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EXACT LOCATIONS OF CONDUIT UNLESS SPECIFICALLY DIMENSIONED. THEY SHALL NOT BE USED FOR OBTAINING QUANTITIES OR LINEAL RUNS OF CONDUIT.
- 8. ALL WIRING DEVICES, INCLUDING SWITCHES AND RECEPTACLES SHALL BE SPECIFICATION GRADE. SWITCHES AND RECEPTACLES SHALL BE 20-AMPERE UNLESS OTHERWISE NOTED. DEVICES SHALL HAVE METALLIC COVER PLATES MOUNTED ON SURFACE BACK BOXES. ALL GFCI DEVICES AS SHOWN IN PLAN SHALL EQUAL ONE DEVICE. THE USE OF FEED THROUGH PROTECTION IS NOT ACCEPTABLE.
- 9. ALL CONDUCTORS SHALL BE COPPER. ALUMINUM CONDUCTORS WILL NOT BE PERMITTED. MINIMUM CONDUCTOR SIZE SHALL BE NO. 12 AWG. USE OF NM CABLE SHALL BE PERMITTED. UTILIZE NO. 10 AWG MINIMUM WIRE SIZE FROM PANEL BOARD TO FIRST LIGHTING FIXTURES AND FIRST RECEPTACLE FOR CIRCUIT RUNS OF 50 FEET OR MORE. PROVIDE DEDICATED NEUTRAL CONDUCTORS FOR ALL 120V CIRCUITS UTILIZED ON PROJECT AS COMBINING OF CIRCUITS TO UTILIZE A COMMON NEUTRAL IS NOT ACCEPTABLE.
- 10. PROVIDE DISCONNECT SWITCHES WHERE REQUIRED BY NEC. DISCONNECT SWITCHES SHALL BE HEAVY DUTY NEMA RATED, UL LISTED AND SERVICE ENTRANCE RATED WHERE REQUIRED.
- 11. REFER TO DEVICE MOUNTING HEIGHT DETAIL FOR INSTALLATION HEIGHT OF DEVICES IN PROJECT.
- 12. ALL NEW PANELBOARDS SHALL CONTAIN COPPER BUSSING, BOLT ON CIRCUIT BREAKERS AND FLUSH LOCKABLE TRIM COVER BOLTING TO FRONT OF CAN.
- 13. PROVIDE UPDATED TYPE WRITTEN PANEL DIRECTORIES FOR ALL PANELS AT PROJECT CLOSE AFFECTED BY REMODEL REGARDLESS IF EXISTING OR NEW PANEL. DIRECTORIES SHALL IDENTIFY/ DESCRIBE LOAD LOCATION. HAND WRITTEN DIRECTORIES ARE NOT ACCEPTABLE.
- 14. FIRE SEAL ALL CONDUIT PENETRATIONS WITH UL-LISTED FIRE RATED CAULKING MATERIALS / ASSEMBLY. WHERE REQUIRED BY APPLICABLE CODES FIRE SEAL ALL FIRE-RATED MEMBRANE PENETRATIONS.
- 15. LABEL ALL MOTOR STARTERS, DISCONNECTS AND PANEL BOARDS WITH SELF ADHESIVE BACKED ENGRAVED ACRYLIC LABELS WITH 1/2 INCH HIGH WHITE LETTERS ON A 1-1/2 INCH HIGH BLACK BACKGROUND LABEL.
- 16. UPON COMPLETION OF WORK, PREPARE A "BROCHURE OF EQUIPMENT" CONTAINING DATA PERTINENT TO EQUIPMENT AND SYSTEMS ON JOB. BINDERS CONTAINING MATERIALS SHALL BE (3) THREE RING BINDERS OF SUFFICIENT NUMBER TO HOLD ALL LITERATURE. CONTAINED IN BINDERS SHALL BE: INSTALLATION, MAINTENANCE, AND OPERATING INSTRUCTIONS FOR EACH PIECE OF EQUIPMENT; PARTS LISTS; WIRING DIAGRAMS; ONE CLEAN COPY OF EACH SHOP DRAWING THAT REFLECTS ANY REQUIRED SHOP DRAWING REVIEW COMMENTS AND LITERATURE SUBMITTAL; RECORD DRAWINGS, ETC.
- 17. EC SHALL MAINTAIN A CLEAN COPY OF AS-BUILDS ON SITE, NOTING ANY DEVIATIONS FROM PLAN. AT PROJECT CLOSE THE AS-BUILDS SHALL BE GIVEN TO THE ARCHITECT FOR USE IN PRODUCING ELECTRONIC AS-BUILD PLANS OF THE PROJECT.
- 8. VERIFY ALL EXISTING CONDITIONS THAT AFFECT ELECTRICAL WORK PRIOR TO SUBMITTING ANY PRICING. MAKE ALLOWANCE TO ACCOMMODATE ALL EXISTING CONDITIONS.
- PROVIDE ONE (1) PDF COPY OF MANUFACTURER'S LITERATURE AND/OR CERTIFIED PRINTS WITHIN THIRTY (30) DAYS OF AWARD OF CONTRACT FOR SHOP DRAWING REVIEW. MANUFACTURER'S LITERATURE SHOWING MORE THAN ONE ITEM SHALL BE CLEARLY MARKED AS TO WHICH ITEM IS BEING FURNISHED. EACH SUBMITTAL SHALL BE STAMPED AND SIGNED BY THE ELECTRICAL CONTRACTOR OR THEY WILL BE REJECTED AND RETURNED WITHOUT

ELECTRICAL LEGEND

COMMUNICATION DEVICES

_		
]	4 4	COMBINATION VOICE/ DATA DEVICE JACKS, BOX INDICATES FLOOR MOUNTIN
	$\nabla \nabla$	VOICE DEVICE JACK, BOX INDICATES FLOOR MOUNTING
	abla	CABLE TV JACK
	\forall	INTERCOM JACK
	ARMP	AREA OF RESCUE ASSISTANCE - MASTER STATION
	ARRP	AREA OF RESCUE ASSISTANCE - REMOTE STATION
	S	CEILING MOUNTED SPEAKER
	HS)	WALL MOUNTED SPEAKER
	v	WALL MOUNTED VOLUME CONTROLLER
J	$\begin{bmatrix} C & S & C \\ S & S \end{bmatrix}$	COMBINATION WALL SPEAKER/ CLOCK UNIT
	С	WALL CLOCK

	MISCELLANE	OU	IS LEGEND
W/	WITH	AFF	ABOVE FINISHED FLOOR
AC	ABOVE COUNTER	AFG	ABOVE FINISHED GRADE
EC	ELECTRICAL CONTRACTOR	WM	WIRE MOLD
(E)	EXISTING	GC	GENERAL CONTRACTOR
(R)	RELOCATED	GND	GROUND
(N)	NEW DEVICE	UG	UNDER GROUND
C	CONDUIT	BOD	BOTTOM OF DEVICE
BFG	BELOW FINISHED GRADE	TOD	TOP OF DEVICE
uc	UNDER COUNTER	COD	CENTER OF DEVICE
WP	WEATHER PROOF	BOF	BOTTOM OF FIXTURE
MC	MECHANICAL CONTRACTOR	PC	PLUMBING CONTRACTOR
1	REFER TO ELECTRICAL NOTES		
	HOMERUN TO ELECTRICAL PANEL		
.	NUMBER OF HASH MARKS INDICATES	NUMB	ER OF CURRENT CARRYING

CONDUCTORS. NO MARKS INDICATES TWO. GROUNDING CONDUCTOR NOT

NORMAL CIRCUIT CONCEALED IN WALL OR EXPOSED

UNDERGROUND OR BURIED CIRCUIT

SHOWN BUT SHALL BE INCLUDED IN ALL CONDUITS.

	POWER DEVICES
\$	SINGLE POLE SWITCH, SUBSCRIPT INDICATES TYPE: 2 2-POLE 3 3-WAY 4 4-WAY D DIMMER K KEYED LV LOW VOLTAGE MC MOMENTARY CONTAC OS OCCUPANCY SENSOR P PILOT LIGHT T TIMER - 1 HOUR TIMER, MOTOR RATED FOR EXHAUST FANS
⊕ ●	DUPLEX RECEPTACLE SUBSCRIPT INDICATES TYPE: AC ABOVE COUNTER GFCI GROUND FAULT CIRCUIT INTERRUPTER IG ISOLATED GROUND TR TAMPER RESISTANT U USB WP WEATHERPROOF WR WEATHER-RESISTANT FILLED CENTER INDICATES GFCI DEVICE
₩₩	DOUBLE DUPLEX RECEPTACLE, SUBSCRIPT ABOVE INDICATE TYPE
	DUPLEX RECEPTACLE IN FLOOR BOX
	DOUBLE DUPLEX RECEPTACLE IN FLOOR BOX
φ	SIMPLEX RECEPTACLE
ф	DUPLEX RECEPTACLE, CEILING MOUNTED. DEVICE AND COVER SHALL MATCH CEILING FINISH
P	SWITCHED DUPLEX RECEPTACLE, BOX INDICATES DEVICE LOCATED IN FLOOR BOX
φ	208V SINGLE PHASE RECEPTACLE, CONFIGURATION NOTED ON PLANS
#	208V THREE PHASE RECEPTACLE, CONFIGURATION NOTED ON PLANS
Φ	SIMPLEX RECEPTACLE IN FLOOR BOX
	MUSHROOM HEAD PUSH BUTTON
PC	PHOTO CELL
⊢©	WALL MOUNTED CLOCK HANGER/ POWER RECEPTACLE
os	CORNER WALL MOUNTED OCCUPANCY SENSOR
©s ₁	CEILING MOUNTED OCCUPANCY SENSOR, STYLE 1
os ₂	CEILING MOUNTED OCCUPANCY SENSOR, STYLE 2
©\$ 3	CEILING MOUNTED OCCUPANCY SENSOR, STYLE 3
PP PP	OCCUPANCY SENSOR POWER PACK, BOX INDICATES WALL MOUNTING
9 🕭 🙆	SPECIAL PURPOSE CONNECTION, BRACKET INDICATES WALL MOUNTING, BOX INDICATES FLOOR MOUNTING
Q () ()	JUNCTION BOX, BRACKET INDICATES WALL MOUNTING, BOX INDICATES FLOOR MOUNTING
√ M ∕	MOTOR CONNECTION
R	RELAY
	NON-FUSED DISCONNECT SWITCH

LIGHTING DEVICES

ELECTRICAL PANEL - SEE PANEL SCHEDULES FOR MOUNTING CONFIGURATION

FUSED DISCONNECT SWITCH

MANUAL MOTOR STARTER

CO2 DETECTOR BY MC, ROUGH-IN BY EC

PAD MOUNTED UTILITY TRANSFORMER

THERMOSTAT BY MC, ROUGH-IN BY EC

VFD VARIABLE FREQUENCY DRIVE

COMBINATION STARTER/DISCONNECT SWITCH

(AS) AQUASTAT BY PLUMBING CONTRACTOR, WIRED BY EC.

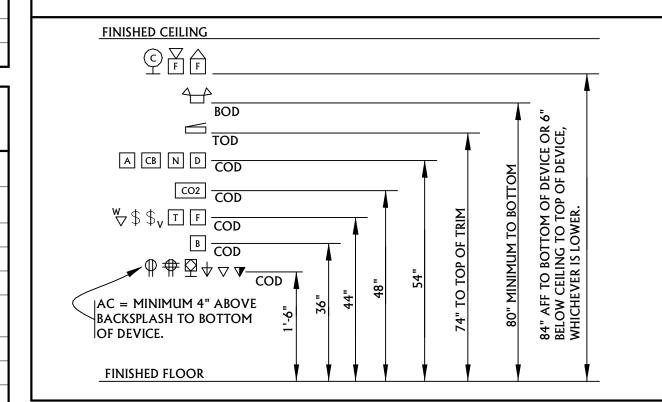
	LAY-IN OR RECESSED LIGHTING FIXTURE
0	SURFACE MOUNTED LIGHTING FIXTURE
• •)	DIRECT/ INDIRECT LIGHTING PENDANT MOUNTED FIXTURE.
•	SURFACE MOUNTED OR CHAIN HUNG STRIP FIXTURE
	WALL BRACKET LIGHTING FIXTURE
O C	RECESSED DOWN LIGHT, HALF MOON INDICATES WALL WASH TRIM AND DIRECTION.
-	SURFACE MOUNTED DOME FIXTURE
0	SURFACE MOUNTED DISK FIXTURE
Ю	WALL SCONCE FIXTURE
	FILLED CENTER OR SLASH INDICATES FIXTURE IS AN EMERGENCY DEVICE WITH EMERGENCY BATTERY PACK OR CONNECTED TO EMERGENCY POWER.
X X	EXIT SIGN, BRACKET INDICATES WALL MOUNTING. NUMBER OF FACES AND DIRECTION INDICATED BY FILLED AREAS.
R	REMOTE DOUBLE HEAD EGRESS FIXTURE
\bowtie	SITE GROUND MOUNTED FLOOD FIXTURE
4	DOUBLE HEAD WALL MOUNTED BATTERY PACK POWERED EGRESS FIXTURE.
←	SQUARE HEAD POLE MOUNTED SITE LIGHT FIXTURE.

ROUND HEAD POLE MOUNTED SITE LIGHT FIXTURE.

ELECTRICAL ABBREVIATIONS

A ACCU	AMP(S) AIR CONDITIONING CONDENSING UNIT	LTS LW	LIGHTS LIGHT WHITE
ACU AD]	AIR CONDITIONING UNIT ADJUSTABLE	MC	MECHANICAL CONTRACTO
ADMIN	ADMINISTRATION	MCA	MINIMUM CIRCUIT AMPS
AFF AHU	ABOVE FINISH FLOOR AIR HANDLING UNIT	MCB MDP	MAIN CIRCUIT BREAKER MAIN DISTRIBUTION PANEL
AL	ALUMINUM	MECH	MECHANICAL
AMP ADDI	AMPERE(S)	MFA	MINIMUM FEEDER AMPACIT
.PPL .PPROX	APPLIANCE APPROXIMATE	MFG MIN	MANUFACTURER
TS	AUTOMATIC TRANSFER SWITCH	MLO	MINIMUM MAIN LUGS ONLY
.DG RK TU/HR	BUILDING BREAKER BRITISH THERMAL UNIT/HOUR	MOC MOCP	MOMENTARY CONTACT MAXIMUM OVERCURRENT PROTECTION
4711K	CONDUIT CIRCUIT BREAKER	MP MTD	MAIN PANEL MOUNTED
ΓV	CIRCUIT Closed circuit television	NIC NO	NOT IN CONTRACT NUMBER
JH M	CABINET UNIT HEATER CUBIC FEET PER MINUTE	ОСР	OVERCURRENT PROTECTIO
MC	COMMUNICATION	OFF	OFFICE
OMM OMP	COMMISSARY COMPRESSOR	ОН	OVERHEAD
ND	CONDENSER	P	PHASE
NTR	CONTRACTOR	PNL	PANEL
I V	COPPER CABLE TELEVISION	PREP Prod	PREPARATION PRODUCE
W	COOL WHITE	P/I	PROVIDE & INSTALL
P	COLD WATER PUMP	RA	REMOTE ANNUNCIATOR
	DIAMETER	RAF	RETURN AIR FAN
	DISCONNECT	RECP RECPTS	RECEPTACLE RECEPTACLES
	DOOR POWER SUPPLY	REF	REFRIGERATOR
3	DRAWING	REFR	REFRIGERANT
	ELECTRICAL CONTRACTOR	REQD RM	REQUIRED Room
С	EXHAUST FAN	RMS	ROOM(S)
•	ELECTRIC ESTIMATED MAXIMUM DEMAND	RR	RESTROOMS
R	EMERGENCY	RS	RAPID START
R	ENGINEER ETCETERA	SDP	SUB DISTRIBUTION PANEL
	ELECTRIC WATER COOLER	SER	SERVICE SUPPLY FAN
•	EXTERIOR	SF SHT	SHEET
	FIRE ALARM	SN	SOLID NEUTRAL
С	FACILITY	SP	SWITCH, PILOT SPECIFICATIONS
CP	FIRE ALARM CONTROL PANEL	SPECS SPST	SWITCH, SINGLE POLE-
\	FIXTURE FULL LOAD AMPS		SINGLE THROW
	FOOT	STD STL	STANDARD STEEL
	CENTER AL CONTENT OFFICE	STOR	STORAGE
ī	GENERAL CONTRACTOR GROUND FAULT CIRCUIT INTERRUPTER	SW	SWITCH
CI I	GROUND FAULT INTERRUPTER	TBD	TELEPHONE BACK BOARD
	HODEFDOWED	TV	TELEVISION
S	HORSEPOWER HIGH PRESSURE SODIUM	TYP	TYPICAL
)	HIGH INTENSITY DISCHARGE	ug	UNDERGROUND
RS	HEIGHT HEATERS	UGE	UNDERGROUND ELECTRICA
'	HOT WATER	UGT UH	UNDERGROUND TELEPHON UNIT HEATER
/H	HOT WATER HEATER	un	
VP Z	HOT WATER PUMP HERTZ	V	VOLT AMBERES
C	INCORPORATED	VA VEST	VOLT AMPERES VESTIBULE
	JUNCTION BOX	W	WIRE
SOX		W	WATT(S)
łZ T	KILOHERTZ KITCHEN	W/ WM	WITH WATT MISER
'A	KILIVOLT AMPERE(S)		TRANSFORMER
	KILOWATT(S)	XFMR	I KAINOFUKIMEK

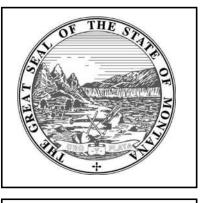
INTERIOR MOUNTING HEIGHTS



ELECTRICAL SHEET LIST

	LLLC I RICAL SHILL I LIST
E1.0	ELECTRICAL COVER SHEET
E2.0	ELECTRICAL DEMO PLANS
E3.0	ELECTRICAL POWER & SPECIAL SYSTEMS PLANS
E4.0	ELECTRICAL LIGHTING PLANS
E5.0	ELECTRICAL SCHEDULES
E9.0	ELECTRICAL DETAILS





MSU-CPDC ONTANA STATE UNIVERSITY BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665

IA MARTIN WES

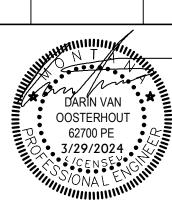
ase



DRAWN BY: ST

REVIEWED BY: DV

REV. DESCRIPTION DATE



PPA #: 23123_2A A/E # 23123_2A

A/E # 23123_2A A&E PROJ #: 22059.10

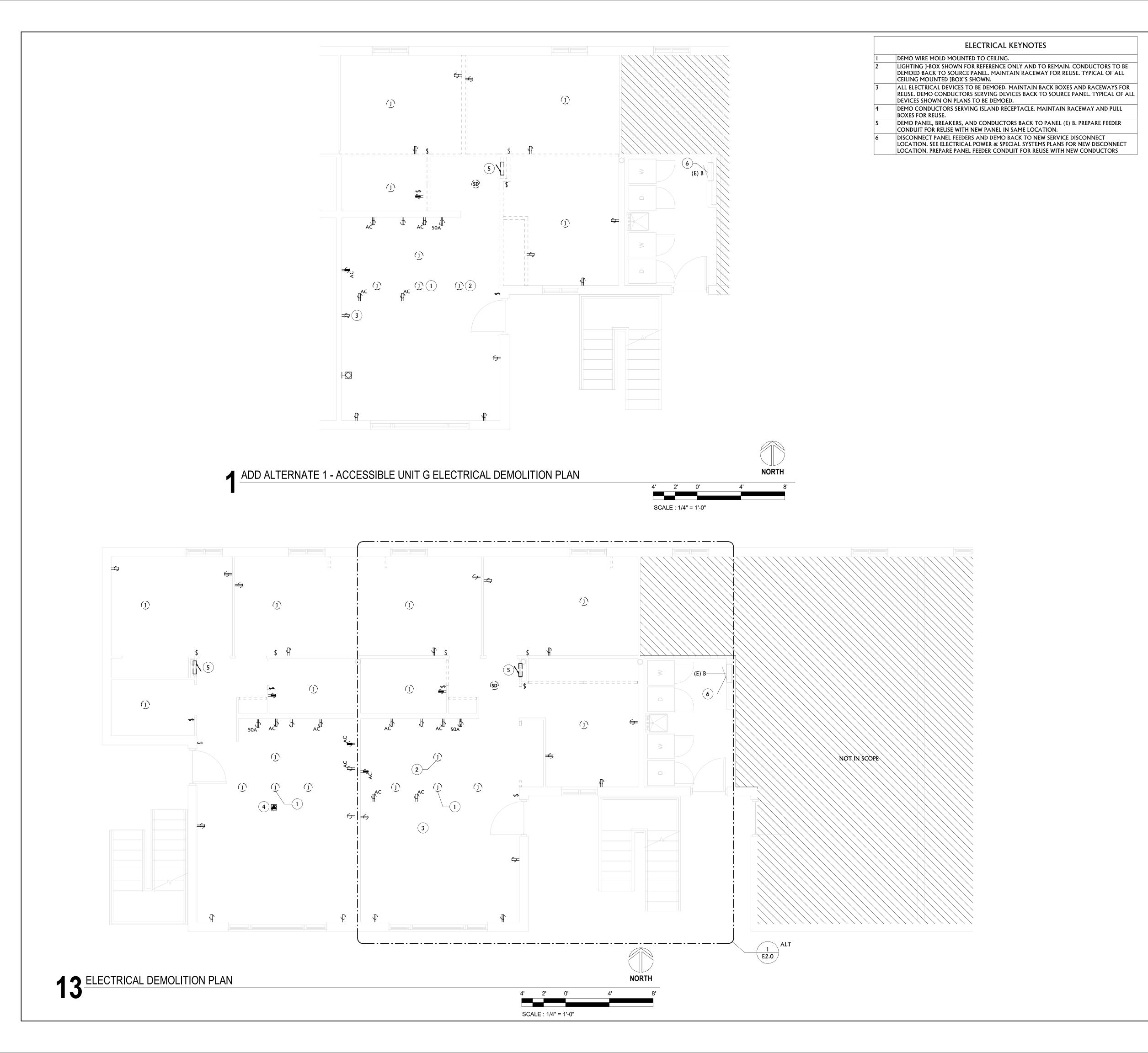
SHEET TITLE

ELECTRICAL

COVER SHEET

SHEET

DATE



ELECTRICAL GENERAL DEMOLITION NOTES

- A ELECTRICAL CONTRACTOR SHALL REMOVE ALL ELECTRICAL DEVICES IN AREAS OF THIS FACILITY AFFECTED BY REMODEL WORK INCLUDING BUT NOT LIMITED TO: JUNCTION BOXES, OUTLETS, LIGHTS, CABLE, CONDUIT AND WIRE. ALL DEVICES MAY NOT BE SHOWN ON THIS SHEET AND SITE INVESTIGATION IS REQUIRED FOR EXACT QUANTITIES. CONFIRM DEMOLITION SCOPE WITH GENERAL CONTRACTOR AT PRE-BID WALK AND RECYCLE WHERE FEASIBLE. DISPOSE OF ALL FLUORESCENT LAMPS AND BALLASTS IN A LEGAL AND ENVIRONMENTALLY FRIENDLY MANNER. PROVIDE PROPER DISPOSAL DOCUMENTATION STATING ITEMS DISPOSED OF AND QUANTITY TO OWNER FOR RETENTION
- B EXISTING CONDUITS STUBBED THROUGH THE FLOOR THAT ARE NOT REUSED OR ARE ABANDONED SHALL BE CUT AT THE FLOOR SURFACE, GROUND FLUSH AND FILLED WITH GROUT. FLOOR FINISH SHALL MATCH THAT OF EXISTING.
- C DEVICES SHOWN ARE BASED ON EXISTING PLANS AND LIMITED VISUAL FIELD OBSERVATIONS AND ARE ONLY INTENDED TO CONVEY SCOPE. DEMO OR MODIFY ALL EXISTING ELECTRICAL INSTALLATIONS AS REQUIRED TO SUPPORT PROJECT. FIELD VERIFY ALL CONDITIONS PRIOR TO BIDDING.
- D ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH NEC, STATE AND LOCAL BUILDING CODE.
- E RETURN ANY USABLE/ SALVAGEABLE ELECTRICAL DEVICES TO OWNER INCLUDING BUT NOT LIMITED TO: LIGHT FIXTURES, ELECTRICAL HEATERS, PANELS, CIRCUIT BREAKERS ETC. CONFIRM WITH OWNER ITEMS THAT ARE DESIRABLE FOR RETENTION.
- ALL DASHED ITEMS ON DEMOLITION PLANS ARE TO BE REMOVED UNLESS NOTED OTHERWISE. SOLID ITEMS ARE TO REMAIN OR TO BE RELOCATED AS NOTED. NOTE ITEMS SHOWN IN THE DEMOLITION PLANS ARE BASED ON "EXISTING DRAWINGS".

 ADDITIONAL ELECTRICAL ITEMS MAY BE ENCOUNTERED THAT ARE NOT SHOWN ALL GENERAL ELECTRICAL ITEMS IN THE AREA OF REMODEL ARE TO BE REMOVED THAT ARE AFFECTED BY REMODEL. VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING.
- G ANY WORK THAT REQUIRES POWER DISRUPTIONS SHALL BE SCHEDULED AND APPROVED BY THE OWNER. ALL WORK SHALL BE PERFORMED WITH NO DISRUPTION OF THE OWNER'S BUSINESS.

 H DISCONNECT AND REMOVE ALL ELECTRICAL FROM MECHANICAL EQUIPMENT SHOWN
- TO BE DEMOLISHED. SEE MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

 SOME DEVICES AND SYSTEMS THAT ARE NOT REMOVED MAY BE AFFECTED BY DEMOLITION AND CONSTRUCTION. PROVIDE ALL LABOR AND MATERIALS REQUIRED TO MAINTAIN OR RESTORE CONTINUITY AND FUNCTION OF ALL EXISTING DEVICES AND SYSTEMS THAT ARE NOT REMOVED BUT ARE AFFECTED BY DEMO OR CONSTRUCTION WORK
- J REMOVE ALL ABANDONED WIRE, RACEWAY AND CABLING IN THE PROJECT AREA.

 K PROVIDE UPDATED, TYPEWRITTEN DIRECTORIES FOR ALL EXISTING PANELS AFFECTED BY DEMOLITION WORK. LABEL ALL CIRCUIT BREAKERS THAT HAVE THEIR ENTIRE LOAD REMOVED AS 'SPARE'.
- L MAINTAIN OR RESTORE FUNCTIONALITY TO ALL SYSTEMS THAT ARE AFFECTED BY PROJECT PHASING. CONTRACTOR SHALL PROVIDE ALL WORK TO MAINTAIN, CONNECT, RECONNECT, MODIFY OR RESTORE THE FUNCTION OF ALL SYSTEMS THAT ARE AFFECTED IN ANY WAY BY PROJECT PHASING. PROVIDE ALL WORK FOR TEMPORARY CONNECTIONS OR SYSTEM MODIFICATIONS REQUIRED TO ACCOMMODATE PROJECT PHASING. REFER TO ARCHITECTURAL FOR PHASING INFORMATION.
- M ALL PANELS TO REMAIN IN SERVICE UNTIL NEW SERVICE AND DISTRIBUTION SYSTEM IS COMPLETE. CONNECT ALL LOADS REMAINING AFTER DEMO IS COMPLETE TO NEW PANELS. MODIFY AND EXTEND WIRING AS REQUIRED.





MSU-CPDC
ONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

FAX: 406.994.5665

JULIA MARTIN WIREMODEL





DRAWN BY: ST

REVIEWED BY: DV

REV. DESCRIPTION DATE



PPA #: 23123_2A

A/E # 23123_2A A&E PROJ #: 22059.10

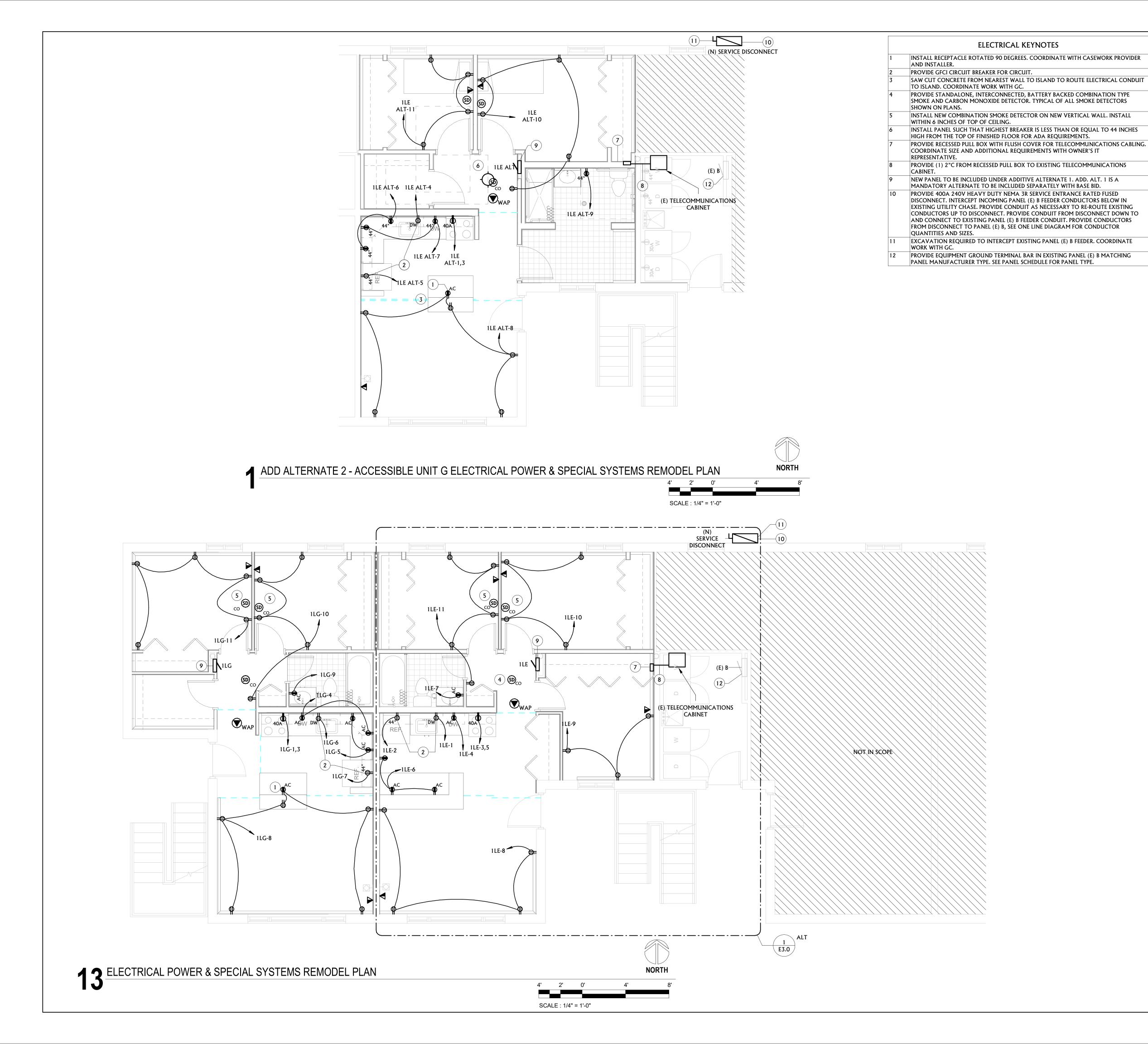
SHEET TITLE

ELECTRICAL

DEMO PLANS

SHEET

E2.0



ELECTRICAL POWER GENERAL NOTES

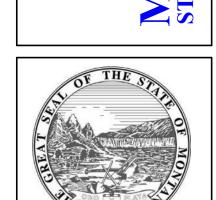
- A REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION ON DEVICE LOCATIONS, DIMENSIONS, ETC. CAREFULLY EXAMINE ARCHITECTURAL FLOOR PLANS, CEILING PLANS, ELEVATIONS, ETC. FOR INFORMATION THAT AFFECTS ELECTRICAL WORK. NOTIFY ARCHITECT/ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN
- ARCHITECTURAL AND ELECTRICAL PLANS.

 B ALL DARK ITEMS ARE NEW, UNLESS NOTED OTHERWISE. ALL SHADED ITEMS ARE EXISTING
- TO REMAIN.

 C ALL ITEMS DENOTED WITH AN (R) ARE RELOCATED OR REINSTALLED. ALL ITEMS
- DENOTED WITH AN (E) ARE EXISTING TO REMAIN.

 D EC SHALL COORDINATE EXACT FLOOR BOX LOCATION WITH ARCHITECTURAL FURNITURE PACKAGE PRIOR TO SETTING OF ANY BOXES, UNLESS SPECIFICALLY
- DIMENSIONED IN THE PLAN. SEE ARCHITECTURAL FURNITURE PLAN FOR DETAILS.

 E FIRE SEAL ALL PENETRATIONS IN FIRE RATED WALLS. COORDINATE WITH ARCHITECTURAL FOR LOCATIONS.



MSU-CPDC

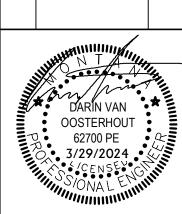
MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

JULIA MARTIN WEST REMODEL

C&E



DRAWN BY: ST
REVIEWED BY: DV
REV. DESCRIPTION DATE



PPA #: 23123_2A

A/E # 23123_2A

A&E PROJ #: 22059.1

ELECTRICAL
POWER &
SPECIAL SYSTEMS
PLANS

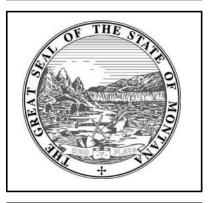
DATE



ELECTRICAL LIGHTING GENERAL NOTES

- A WHEN LIGHT SWITCHES ARE SHOWN LOCATED ON THE WALL THAT IS COMMON WITH THE END OF THE DOOR SWING INTO A SPACE. DO NOT LOCATE THE SWITCHES BEHIND THE DOOR, BUT RATHER A MINIMUM OF 6" FROM THE END OF THE SWING. VERIFY EXACT DOOR SWING PRIOR TO ROUGH-IN.
- B NOT ALL CIRCUITRY IS SHOWN FROM SWITCHES TO EACH CONTROLLED LIGHT FIXTURE(S). EC SHALL MATCH SWITCH SUBSCRIPT TO ASSOCIATED LIGHT FIXTURE(S) AND CONNECT COMPLETE.
- C EC SHALL PROVIDE A COMPLETE WIRING SYSTEM CONSISTING OF PROPER QUANTITY OF SWITCH LEGS, NEUTRALS AND HOT CIRCUITS FOR A FUNCTIONAL INSTALLATION.





MSU-CPDC
MONTANA STATE UNIVERSIT'
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

MIT/BID SET

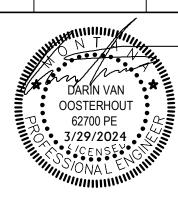
JULIA MARTIN WEST

REMODEL

C&E



DRAWN BY: ST
REVIEWED BY: DV
REV. DESCRIPTION DATE



PPA #: 23123_2A

A/E # 23123_2A A&E PROJ #: 22059.10

SHEET TITLE ELECTRICAL

LIGHTING PLANS
SHEET

E4.0

CKT Load Name CKT Load Name Trip Poles 1200 180 3500 540 GFCI DISHWASHER 1 20 A GFCI REFRIGERATOR 3500 180 1 20 A Receptacle 1 20 A Receptacle RANGE 6 180 720 1 20 A Receptacle 7 Receptacle 8 10 12 14 16 18 20 22 9 Receptacle 1 20 A Receptacle 900 154 1 20 A LIGHTING 1 20 A SPARE 11 Receptacle 20 A 1 0 0 13 SPARE 20 A 1 0 0 1 20 A SPARE 15 SPARE 17 SPACE 1 -- SPACE -- - 1 - SPACE
-- - 1 - SPACE
-- - SPACE 19 SPACE 21 SPACE 24 23 SPACE - 1

Total Load: 6680 VA 5634 VA Total Amps: 56 A 47 A

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Electric Range - 3.5 kW to 8.75 kW	7000 VA	80.00%	5600 VA	
Kitchen Equipment	1200 VA	100.00%	1200 VA	Total Conn. Load: 12314 VA
Receptacle	3960 VA	100.00%	3960 VA	Total Est. Demand: 10953 VA
Lighting	154 VA	125.00%	193 VA	Total Conn.: 51 A
				Total Est. Demand: 46 A

Panel: 1LE ALT		
Location: HALLWAY AA2 - E04	Volts: 240/120 Single	A.I.C. Rating: 10,000
Supply From:	Phases: 1	Mains Type: MLO
Mounting: Recessed	Wires: 3	Bus Rating: 100 A

PROVIDE PANEL WITH FEED-THROUGH LUGS FOR FEEDING PANEL IN UNIT ABOVE. PROVIDE COMBO AFCI + GFCI CIRCUIT BREAKERS FOR CIRCUITS INDICATED BELOW. ALL BREAKERS TO BE AFCI

CKT	Load Name	Trip	Poles		Ą	1	В	Poles	Trip	Load Name	CKT
1	RANGE	40 A	2	3500	154			1	20 A	LIGHTING	2
3	KANGE	10 A				3500	1200	1	20 A	GFCI DISHWASHER	4
5	GFCI REFRIGERATOR	20 A	1	180	360			1	20 A	Receptacle	6
7	Receptacle	20 A	1			360	1080	1	20 A	Receptacle	8
9	Receptacle	20 A	1	180	900			1	20 A	Receptacle	10
11	Receptacle	20 A	1			720	0	1	20 A	SPARE	12
13	SPARE	20 A	1	0	0			1	20 A	SPARE	14
15	SPARE	20 A	1			0		1		SPACE	16
17	SPACE		1					1		SPACE	18
19	SPACE		1					1		SPACE	20
21	SPACE		1					1		SPACE	22
23	SPACE		1					1		SPACE	24
23	SPACE		otal Load:	527	 4 VA		 O VA	1		SPACE	

Total Amps: 44 A

Enclosure: Type 1

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel	Totals
Electric Range - 3.5 kW to 8.75 kW	7000 VA	80.00%	5600 VA		
Kitchen Equipment	1380 VA	100.00%	1380 VA	Total Conn. Load:	12134 VA
Receptacle	3600 VA	100.00%	3600 VA	Total Est. Demand:	10773 VA
Lighting	154 VA	125.00%	193 VA	Total Conn.:	51 A
				Total Est. Demand:	45 A

	Receptacle	20 A	1	360	1200			1	20 A	GFCI DISHWASHER		6
7	GFCI REFRIGERATOR	20 A	1			180	1080	1	20 A	Receptacle		8
9	Receptacle	20 A	1	180	900			1	20 A	Receptacle		10
11	Receptacle	20 A	1			900	0	1	20 A	SPARE		12
13	SPARE	20 A	1	0	0			1	20 A	SPARE		14
15	SPARE	20 A	1			0		1		SPACE		16
17	SPACE		1					1		SPACE		18
19	SPACE		1					1		SPACE		20
21	SPACE		1					1		SPACE		22
23	SPACE		1					1		SPACE		24
			otal Load: otal Amps:		4 VA ! A		0 VA) A					
egend:												
oad Classific			Connected Load		Demand Factor		Estimated Demand			Panel Totals		
	ge - 3.5 kW to 8.75 kW	7000			80.00%		5600 VA					
itchen Equip	pment	1200			100.00%			1200 VA		Total Conn. Load:		
eceptacle		3960			100.00%			50 VA		Total Est. Demand:		
ghting		154	VA		125.00%)	19	3 VA		Total Conn.:		
otes:										Total Est. Demand:	46 A	
	Panel: (E) B Location: Supply From: (N) SERVICE											
		DISCONNECT			Phases:		Single			A.I.C. Rating: 10,000 Mains Type: MLO		
Notes: Existing P <i>A</i>	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R		90A 2-POI	.E CIRCUI	Phases: Wires:	1 3		5.				
XISTING PA	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R	EUSE EXISTING			Phases: Wires:	1 3 RS FOR NE		S. Poles	Trip	Mains Type: MLO Bus Rating: 400 A	e	СКТ
	Mounting: Recessed Enclosure: Type 1		90A 2-POI Poles		Phases: Wires:	1 3 RS FOR NE	EW PANELS		Trip 20 A	Mains Type: MLO	e	CKT 2
CKT	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name	EUSE EXISTING 9			Phases: Wires: T BREAKE	1 3 RS FOR NE	EW PANELS			Mains Type: MLO Bus Rating: 400 A Load Name (E) WASHER	e	
CKT	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name (E) TUNNEL LIGHTS	EUSE EXISTING S Trip 20 A			Phases: Wires: T BREAKE	1 3 RS FOR NE	EW PANELS		20 A	Mains Type: MLO Bus Rating: 400 A Load Name (E) WASHER		2
CKT 1 3	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name (E) TUNNEL LIGHTS (E) CIRCULATING PUMO	Trip 20 A 20 A		0	Phases: Wires: T BREAKE	1 3 RS FOR NE	EW PANELS		20 A 20 A	Mains Type: MLO Bus Rating: 400 A Load Name (E) WASHER (E) WASHER		2 4
CKT 1 3 5	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name (E) TUNNEL LIGHTS (E) CIRCULATING PUMO (E) ATTIC EXHUAST FAN	Trip 20 A 20 A 20 A		0	Phases: Wires: T BREAKE	1 3 RS FOR NE	B O	Poles 1 1 1	20 A 20 A 20 A	Mains Type: MLO Bus Rating: 400 A Load Name (E) WASHER (E) WASHER (E) OUTSIDE & LAUNDRY LICE		2 4 6
CKT 1 3 5 7	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name (E) TUNNEL LIGHTS (E) CIRCULATING PUMO (E) ATTIC EXHUAST FAN (E) TEMPERATURE CONTROL (E) PROVISION	Trip 20 A 20 A 20 A 20 A 20 A	Poles 1 1 1 1 1	0	Phases: Wires: T BREAKE A O	1 3 RS FOR NE	B O	Poles 1 1 1 1 1	20 A 20 A 20 A 20 A 20 A	Load Name (E) WASHER (E) WASHER (E) OUTSIDE & LAUNDRY LICE (E) PROVISION (E) PROVISION		2 4 6 8
CKT 1 3 5 7 9	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name (E) TUNNEL LIGHTS (E) CIRCULATING PUMO (E) ATTIC EXHUAST FAN (E) TEMPERATURE CONTROL	Trip 20 A 20 A 20 A 20 A	Poles 1 1 1 1	0	Phases: Wires: T BREAKE A O	1 3 3 RS FOR NE	B O	Poles 1 1 1 1	20 A 20 A 20 A 20 A	Mains Type: MLO Bus Rating: 400 A Load Name (E) WASHER (E) WASHER (E) OUTSIDE & LAUNDRY LICE (E) PROVISION		2 4 6 8 10
CKT 1 3 5 7 9 11	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name (E) TUNNEL LIGHTS (E) CIRCULATING PUMO (E) ATTIC EXHUAST FAN (E) TEMPERATURE CONTROL (E) PROVISION (E) HEAT PUMP	Trip 20 A 20 A 20 A 20 A 20 A 20 A	Poles 1 1 1 1 1 2	0 0	Phases: Wires: F BREAKE O O	1 3 3 RS FOR NE	B O	Poles 1 1 1 1 2	20 A 20 A 20 A 20 A 20 A 30 A	Mains Type: MLO Bus Rating: 400 A Load Name (E) WASHER (E) WASHER (E) OUTSIDE & LAUNDRY LIC (E) PROVISION (E) PROVISION (E) DRYER		2 4 6 8 10
CKT 1 3 5 7 9 11 13	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name (E) TUNNEL LIGHTS (E) CIRCULATING PUMO (E) ATTIC EXHUAST FAN (E) TEMPERATURE CONTROL (E) PROVISION	Trip 20 A 20 A 20 A 20 A 20 A	Poles 1 1 1 1 1	0 0	Phases: Wires: F BREAKE O O	O O	B O O	Poles 1 1 1 1 1	20 A 20 A 20 A 20 A 20 A	Load Name (E) WASHER (E) WASHER (E) OUTSIDE & LAUNDRY LICE (E) PROVISION (E) PROVISION		2 4 6 8 10 12 14
CKT 1 3 5 7 9 11 13 15	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name (E) TUNNEL LIGHTS (E) CIRCULATING PUMO (E) ATTIC EXHUAST FAN (E) TEMPERATURE CONTROL (E) PROVISION (E) HEAT PUMP (E) CONTACTOR	Trip 20 A 20 A 20 A 20 A 20 A 20 A 30 A	Poles 1 1 1 1 1 2 2	0 0	Phases: Wires: T BREAKE A O O O	O O	B O O	Poles 1 1 1 1 2 2	20 A 20 A 20 A 20 A 20 A 30 A	Mains Type: MLO Bus Rating: 400 A Load Name (E) WASHER (E) WASHER (E) OUTSIDE & LAUNDRY LIC (E) PROVISION (E) PROVISION (E) DRYER (E) DRYER		2 4 6 8 10 12 14
CKT 1 3 5 7 9 11 13 15 17	Mounting: Recessed Enclosure: Type 1 ANEL IS A SQUARE D NQO PANELBOARD. R Load Name (E) TUNNEL LIGHTS (E) CIRCULATING PUMO (E) ATTIC EXHUAST FAN (E) TEMPERATURE CONTROL (E) PROVISION (E) HEAT PUMP	Trip 20 A 20 A 20 A 20 A 20 A 20 A	Poles 1 1 1 1 1 2	0 0	Phases: Wires: T BREAKE A O O O	1 3 3 RS FOR NE	B O O O	Poles 1 1 1 1 2	20 A 20 A 20 A 20 A 20 A 30 A	Mains Type: MLO Bus Rating: 400 A Load Name (E) WASHER (E) WASHER (E) OUTSIDE & LAUNDRY LIC (E) PROVISION (E) PROVISION (E) DRYER (E) DRYER		2 4 6 8 10 12 14 16 18

Total Load:

Total Amps:

Connected Load

14000 VA

2400 VA

7920 VA

308 VA

11654 VA

97 A

Demand Factor

65.00%

100.00%

100.00%

125.00%

12974 VA

108 A

Estimated Demand

9100 VA

2400 VA

7920 VA

385 VA

Volts: 240/120 Single

| 3500 | 154 | 1 | 20 A | LIGHTING | | 3500 | 360 | 1 | 20 A | Receptacle | | 360 | 1200 | 1 | 20 A | GFCI DISHWASHER |

2 90 A (E) UNIT PANELS (2)

2 30 A (E) PROVISION

Phases: 1

Wires: 3

PROVIDE PANEL WITH FEED-THROUGH LUGS FOR FEEDING PANEL IN UNIT ABOVE. PROVIDE COMBO AFCI + GFCI CIRCUIT BREAKERS FOR CIRCUITS INDICATED BELOW. ALL OTHER BREAKERS TO BE

Trip Poles

20 A 1

A.I.C. Rating: 10,000

Mains Type: MLO

Bus Rating: 100 A

Load Name

CKT

4

6

26 28 30

Panel Totals

Total Conn. Load: 24628 VA

Total Est. Demand: 19805 VA

Total Conn.: 103 A

Total Est. Demand: 83 A

Panel: 1LG

Supply From: (E) B

Load Name

AFCI TYPE.

CKT

RANGE

(N) 1LG AND UNIT ABOVE

27 (E) SPACE

29 (E) SPACE

Electric Range - 3.5 kW to 8.75 kW

Load Classification

Kitchen Equipment

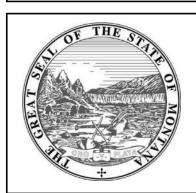
Mounting: Recessed

Enclosure: Type 1

Location: HALLWAY G04

			LUMINAIRE	SCHEDU	JLE		
CALLOUT	MANUFACTURER	MANUFACTURER	MODEL	MOUNTING	LAMP	ELECTRICAL DATA	DESCRIPTION
F3	HAMPTON BAY	<varies></varies>	EFG8012A-ORB	<varies></varies>	LED	120 V/1-18 VA	13" 2-LIGHT CIRCULAR LIGHT FIXTURE WITH OIL-RUBBED BRONZE FINISH. PROVIDE WITH (2) 60W EQUIVALENT E26 A19 3000K LED LIGHT BULBS.
F4	JUNO		JSBT 6IN SWW2 90CRI WL JSBTTRIM 6IN BZ M6	<varies></varies>	LED	120 V/1-18 VA	6" 3000K 1000 LUMEN WET LOCATION RATED DISK LIGHT. PROVIDE WITH BRONZE 6" TRIM.
V1	HAMPTON BAY	HAMPTON BAY	EGM1392A-3/ORB	SURFACE/WALL	LED	120 V/1-10 VA	16" 2-LIGHT DAMP RATED VANITY LIGHT WITH OIL-RUBBED BRONZE FINISH. PROVIDE WITH (2) 40W EQUIVALENT E26 A19 3000K LED LIGHT BULBS.





MSU-CPDC MONTANA STATE UNIVERSIT BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665

WE A MARTIN REMODEL JULIA MIT/BID SEI





DRAWN BY: ST			
REVII	EWED BY: DV		
REV.	DESCRIPTION	DATE	

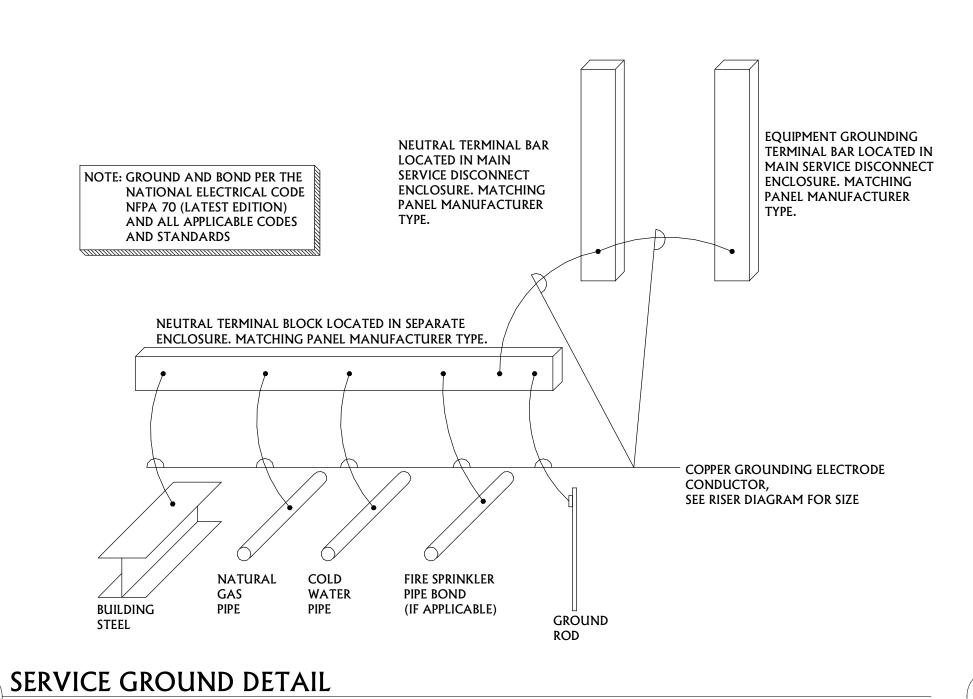


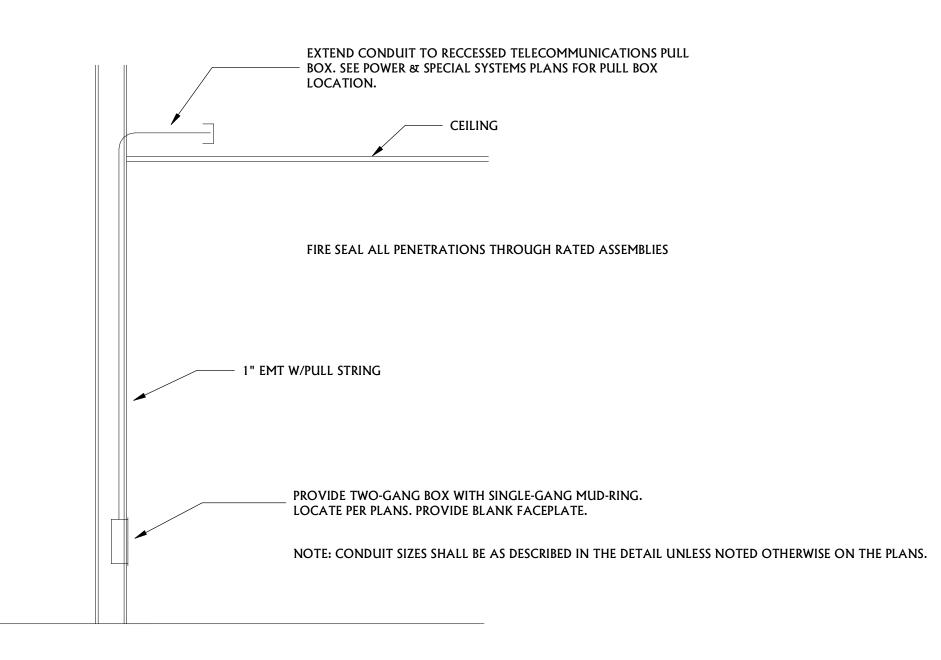
PPA #:	23123_
A/E #	23123_

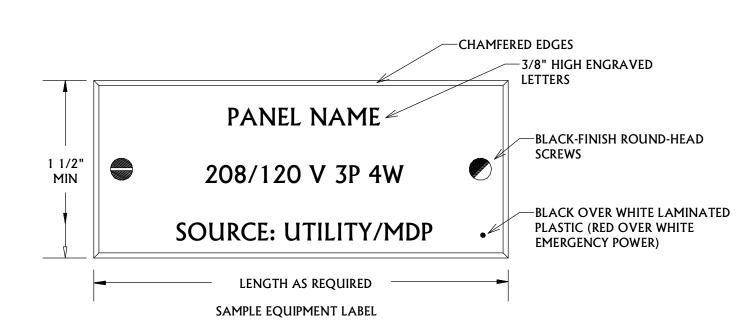
A&E PROJ #: 22059.10 SHEET TITLE

ELECTRICAL SCHEDULES SHEET

E5.0

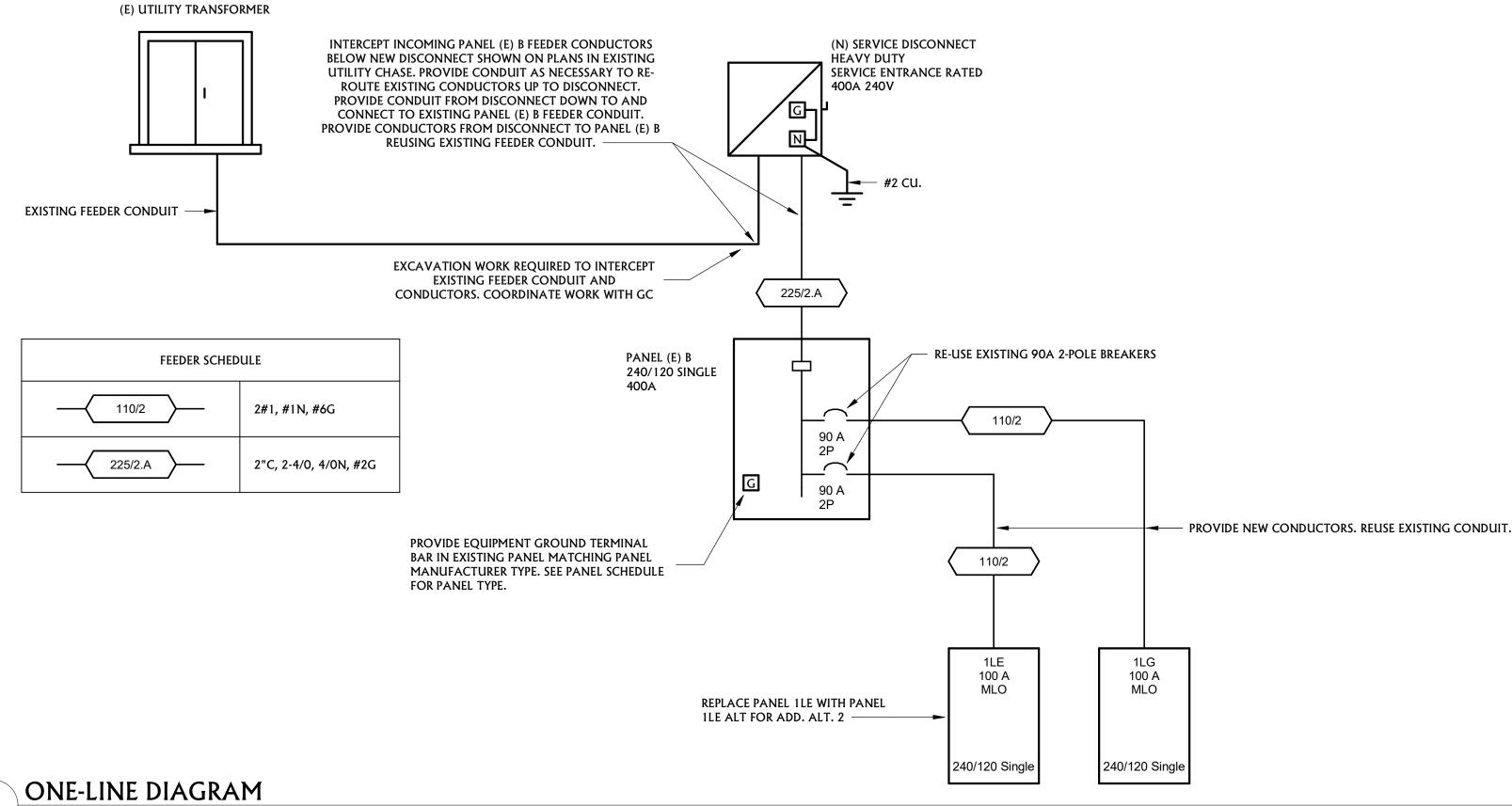








EUIPMENT IDENTIFICATION LABEL DETAIL







MSU-CPDC MONTANA STATE UNIVERSIT BOZEMAN, MONTANA PHONE: 406.994.5413 FAX: 406.994.5665

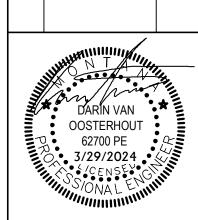
WE

A MARTIN REMODEI JULIA MIT/BID SE





DRAWN BY: **ST** REVIEWED BY: **DV** REV. DESCRIPTION DATE



PPA #: 23123_2A

A/E # 23123_2A A&E PROJ #: 22059.10

SHEET TITLE **ELECTRICAL**

DETAILS SHEET

E9.0