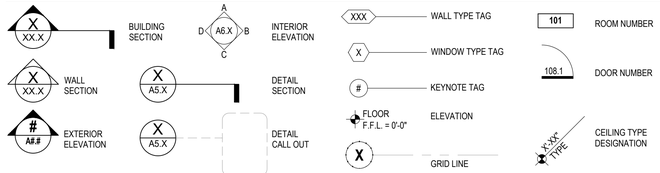
ATKINSON QUADRANGLE QUAD AB EXTERIOR REPAIRS - PPA 23-0833

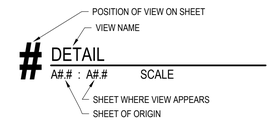
CONSTRUCTION DOCUMENTS

953-999 S 6TH AVE, BOZEMAN, MT 59715

DRAWING INDEX

EXPLANATION OF SYMBOLS





TYPICAL SHEET LAYOUT

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

ARCH D (24"x36")

DEFINITIONS

IN-KIND: NEW MATERIALS INDICATED TO MATCH IN-KIND SHALL REPLICATE EXACTLY, IN EVERY REGARD, THE ORIGINAL DETAIL, MATERIAL, TYPE, & FINISH OF ELEMENT TO BE REPLACED AS DETERMINED BY THE ARCHITECT.

TYPICAL (TYP.): AS USED IN THESE DOCUMENTS SHALL MEAN THE CONDITION IS THE SAME OR REPRESENTATIVE FOR ALL SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.

ALIGN: TO ACCURATELY LOCATE FINISHED FACES IN THE SAME PLANE.

EQUAL / APPROVED EQUAL: ANY EQUIPMENT OR MATERIAL, APPROVED BY THE ARCHITECT, AS EQUAL IN THE SALIENT CHARACTERISTICS TO THE EQUIPMENT OR MATERIAL ORIGINALLY INDICATED, INCLUDING: QUALITY, DURABILITY, APPEARANCE, STRENGTH, DESIGN AND PERFORMANCE.

PROJECT SCOPE

THE ATKINSON QUADRANGLE EXTERIOR REPAIRS PROJECT SCOPE IS BROKEN INTO A BASE BID AND TWO ALTERNATES. WORK FOR THE ALTERNATES IS DENOTED ON THE DRAWINGS. THE FOLLOWING SUMMARIES OF WORK ARE ABBREVIATED IN NATURE. REFER TO THE FULL PACKAGE FOR ADDITIONAL DETAIL.

BASE BID:
DOCUMENT, CAREFULLY REMOVE, AND REBUILD (E) CONCRETE WINDOW AND STAIR WELLS DESIGNATED ON DRAWINGS TO MATCH (E) CONDITIONS IN-KIND, REPAIR OTHER (E) CONCRETE WINDOW AND STAIR WELLS AS INDICATED, PROVIDE NEW TOP OF WALL ELEVATIONS TO COORDINATE WITH GRADING; TYPICALLY GRADE AROUND BUILDING AND WINDOW WELLS TO PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURE, PROVIDE (N) CONCRETE VALLEY GUTTER AT EAST SIDE OF QUAD A; CAREFULLY REMOVE AND REPLACE (E) GUARDRAILS AND HANDRAILS AT WINDOW AND STAIR WELLS WITH NEW CODE-COMPLIANT RAILINGS; CAREFULLY REMOVE, RESTORE, AND REINSTALL (E) WINDOWS AT WINDOW WELLS; CAREFULLY REMOVE TREES AND BUSHES IN THEIR ENTIRETY AS INDICATED, PROVIDE NEW PLANTINGS AND LANDSCAPE BEDS AS INDICATED; CAREFULLY REMOVE RUST AND (E) PAINT FINISH FROM FIRE ESCAPE, PREP AND REPAINT, CAREFULLY REMOVE AND REPLACE CONCRETE LANDINGS AT FIRE ESCAPES AS INDICATED, RETROFIT (E) FIRE ESCAPE CONNECTIONS AS INDICATED, PROVIDE (N) HEADERS AND CONNECTIONS AT WINDOWS AT FIRE ESCAPES AS INDICATED, CAREFULLY REMOVE AND REBUILD CONCRETE PODIUM AT QUAD CD FIRE ESCAPE TO MATCH (E) CONDITION IN-KIND.

ALTERNATE 1:
REPAIR AND REPOINT BRICK AS INDICATED, TYPICALLY AT PARAPETS, CHIMNEY CAPS, AND WINDOW SILLS; CLEAN ALL BRICK AND CONCRETE PARGE SURFACES, AREAS OF MORE INTENSIVE CLEANING INDICATED ON DRAWINGS.

ALTERNATE 2:
CAREFULLY REMOVE (E) COUNTER FLASHING AND PORCH ROOFS TO SOLID STRUCTURE AS INDICATED, INSTALL (N) WOOD SHINGLE ROOF ASSEMBLY AND COUNTER FLASHING; CAREFULLY REMOVE (E) FLAT PORCH ROOF ASSEMBLIES TO SOLID STRUCTURE AS INDICATED, INSTALL (N) MEMBRANE ROOF ASSEMBLY AND FLASHINGS; INSPECT WOOD PORCH ELEMENTS AND CAREFULLY REMOVE DETERIORATED ELEMENTS TO BE REPLACED IN-KIND; DOCUMENT AND CAREFULLY REMOVE QUAD D PORCH IN ITS ENTIRETY, SALVAGE GRANITE POST BASES FOR REINSTALLATION, RECONSTRUCT TO MATCH (E) CONDITION IN-KIND; SCRAPE, PREP, PRIME, AND PAINT EXPOSED WOOD ELEMENTS AT PORCHES, TYP; CAREFULLY REMOVE CONCRETE PORCH AND ENTRY STOOPS IN THEIR ENTIRETY AS INDICATED, DOCUMENT AND SALVAGE BRICK AND STONE CAPS, REBUILD STOOPS AND CAPS TO MATCH (E) CONDITION IN-KIND.

ARCHITECTURAL ABBREVIATIONS

AB	ANCHOR BOLT
ABV	ABOVE
A/C	AIR CONDITIONING
ACT	ACOUSTIC CEILING TILE
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECT(URAL)
AWN	AWNING
B/	BOTTOM OF
BD	BOARD
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM OR BENCHMARK
BRG	BEARING
BTWN	BETWEEN
BUR	BUILT-UP ROOF
CAB	CABINET
CJ	CONTROL JOINT
CL	CENTERLINE
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CG	CORNERGUARD
CPT	CARPET
CSMT	CASEMENT
CT	CERAMIC TILE
CTOP	COUNTERTOP
D	DEEP
DF	DRINKING FOUNTAIN
DH	DOUBLE HUNG
DIM(S)	DIMENSIONS
DISP	DISPENSER
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DTL	DETAIL
DWG	DRAWING
E	EAST
(E)	EXISTING
EA	EACH
EC	EXISTING COLUMN
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
EL	ELEVATION
ELEV	ELEVATOR
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION OR EXPOSED
EXT	EXTERIOR
FACP	FIRE ALARM CONTROL PANEL
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FFL	FINISH FLOOR LEVEL
FIN	FINISH
FIXT	FIXTURE
FLR	FLOOR
FND	FOUNDATION
FR	FRAME
FRMG	FRAMING
FT	FEET/FOOT OR FIRE TREATED
FTNG	FOOTING
FRP	FIBERGLASS REINFORCED PANEL
GA	GAUGE OR GAGE
GALV	GALVANIZED
GB	GYPSUM BOARD
GC	GENERAL CONTRACTOR
GL	GLASS, GLAZING
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
HC	HANDICAP
HDR	HEADER
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
HTD	HEATED
HVAC	HEATING/VENTILATION & AIR CONDITIONING
ID	INSIDE DIAMETER
INFO	INFORMATION
ISO	INSOCYANURATE
INSUL	INSULATE/ INSULATION
INT	INTERIOR
INV	INVERT
JT	JOINT
J-BOX	JUNCTION BOX
KIT	KITCHEN
L	LONG/ LENGTH
LAM	LAMINATE(D)
LAV	LAVATORY
LF	LINEAR FEET
LT	LIGHT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MASONRY OPENING
MTL	METAL
N	NORTH
(N)	NEW
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER OR OVERFLOW DRAIN
OPNG	OPENING
OPP	OPPOSITE
OSB	ORIENTED STRAND BOARD
OVHD	OVERHEAD
PL	PLATE
PLAM	PLASTIC LAMINATE
PLUMB	PLUMBING
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT
POLY	POLYESTER OR POLYOLEFIN
PSF	POUNDS PER SQUARE FOOT
PSI	POUND PER SQUARE INCH
PT	PRESSURE TREATED OR POINT
PVMT	PAVEMENT
PVT	PRIVATE
QT	QUARRY TILE
QTR	QUARTER
QTY	QUANTITY
R	RADIUS
RA	RETURN AIR
RB	RUBBER BASE
RD	ROOF DRAIN
RECY	RECYCLE(D)
REF	REFERENCE
REFRIG	REFRIGERATOR
REINF	REINFORCE(D)
REQD	REQUIRED
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RR	RESTROOM
S	SOUTH
SC	SOLID CORE
SCHED	SCHEDULE
SECT	SECTION
SF	SQUARE FEET
SFRM	SPRAY-APPLIED FIRE RESISTANT MATERIAL
SGL	SINGLE
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SPECS	SPECIFICATIONS
SOD	SLAB ON DECK
SOG	SLAB ON GRADE
SOH	SAME OPPOSITE HAND
SS	STAINLESS STEEL
ST	STONE TILE
STND	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
TEL	TELEPHONE
TEMP	TEMPERED
THK	THICK
THRESH	THRESHOLD
T.A.	TOP OF
TOBM	TOP OF BEAM
T.A.P.	TOP OF PLATE
T.O.S	TOP OF STEEL
T/	TOP OF
T&G	TONGUE AND GROOVE
TRANS	TRANSOM
TV	TELEVISION
TYP	TYPICAL
UL	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
VRF	VARIABLE REFRIGERANT FLOW
VT	VINYL TILE
VWC	VINYL WALL TILE
W	WIDE OR WEST
W/	WITH
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WG	WALL GUARD
WH	WATER HEATER
W/IN	WITHIN
W/O	WITHOUT
WP	WATERPROOF
WR	WATER RESISTANT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
#	NUMBER OR POUND
@	AT

PROJECT TEAM

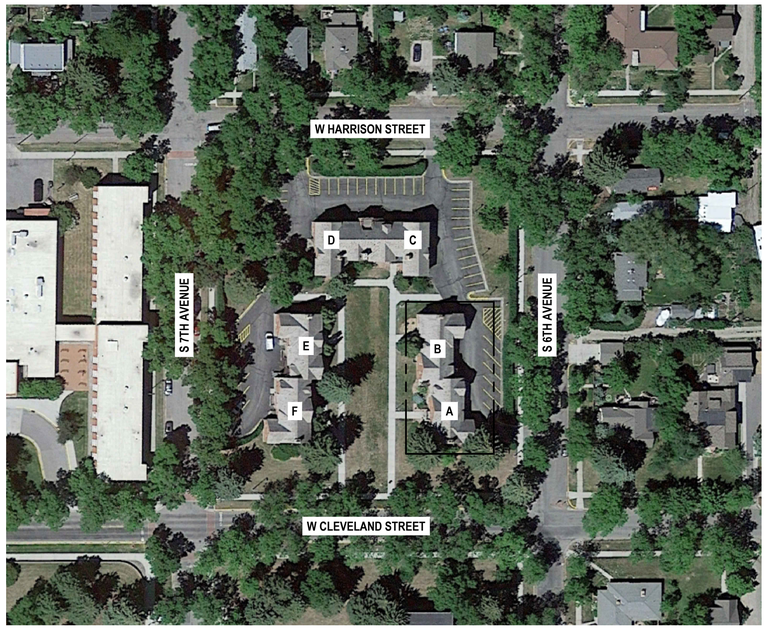
OWNER
MONTANA STATE UNIVERSITY
DONNY BEEBE - PROJECT MANAGER
PO BOX 172760
BOZEMAN, MONTANA 59717
DONALD.BEEBE@MONTANA.EDU

ARCHITECT
A&E DESIGN
DENNIS JOHNSON-BIGSAM
222 NORTH HIGGINS AVE.
MISSOULA, MONTANA 59802
406.721.5643

STRUCTURAL
DCI ENGINEERS
SAM FOX
1060 FOWLER AVENUE, SUITE 202
BOZEMAN, MONTANA 59718
406.556.8600

CIVIL & LANDSCAPE
SANBELL
BOBBY EGEBERG
106 EAST BABCOCK, STE L-1
BOZEMAN, MONTANA 59715
406.522.9876

VICINITY PLAN



GOOGLE EARTH, 2024

64 0 64 128
SCALE OF FEET

1/64" = 1'-0"

NORTH

STATE OF MONTANA
BILLINGS
DUSTIN W. EASON
3990
LICENSED ARCHITECT
MONTANA

sheet COVER SHEET
project ATKINSON QUADRANGLE EXTERIOR REPAIRS - PPA 23-0833
owner MONTANA STATE UNIVERSITY

project # 23123.00

revision date

phase
CONSTRUCTION DOCUMENTS

issue date
01.24.2025

COVER

P:\23123.00\Drawings & Models\AutoCAD\2D - Atkinson Quadrangle\23123.00 COVER QUAD AB.dwg Feb 24, 2025 - 12:14pm

LINETYPES

	EXISTING	PROPOSED
SANITARY SEWER	SS	SS
STORM DRAIN	SD	SD
WATER	W	W
CURB AND GUTTER		
EDGE OF ASPHALT	EDGE OF EX ASPHALT	
EDGE OF GRAVEL	EDGE OF EX GRAVEL	
FENCE - BARBED WIRE	X	X
FENCE - CHAINLINK/ WOVEN WIRE		
FENCE - VINYL	V	V
FENCE - WOOD		
FIBER OPTIC	FO	FO
GAS PIPELINE	G	G
LIQUID PROPANE PIPELINE	LP	LP
OIL PIPELINE	OIL	OIL
UNDERGROUND POWER	P	P
OVERHEAD POWER	OHP	P
TELEPHONE	T	T
TELEVISION/CABLE	TV	TV
CONTOUR	3157	3157
DEMO AREA		
PROPOSED ASPHALT		
PROPOSED CONCRETE		
PROPOSED GRAVEL		
PROPOSED LANDSCAPING REGRADE AREAS		

ABBREVIATIONS

AC = FINISHED GRADE AT ASPHALT
BC = FINISHED GRADE AT BUILDING CORNER
BRK = GRADE BREAK
BFV = BUTTERFLY VALVE
BVC = BEGIN VERTICAL CURVE
CS = CURB STOP
EA = FINISHED GRADE AT EDGE OF ASPHALT
EC = FINISHED GRADE AT EDGE OF CONCRETE
EVC = END VERTICAL CURVE
EW = FINISHED GRADE AT EDGE OF WALK
EX = APPROXIMATE EXISTING ELEVATION
FL = FINISHED GRADE AT FLOWLINE
FT = FEET
FG = FINISHED GRADE
GR = EXISTING GRADE AT GROUND
GV = GATE VALVE
HP = HIGH POINT
LF = LINEAL FOOT
LT = LEFT

PC = POINT OF CURVATURE
PI = POINT OF INTERSECTION
POC = POINT ON CURVE
PRC = POINT OF REVERSE CURVE
PT = POINT OF TANGENCY
PVI = POINT OF VERTICAL INTERSECTION
RED = REDUCER
RT = RIGHT
SD = STORM DRAIN
SDI = STORM DRAIN INLET
SDMH = STORM DRAIN MANHOLE
SRVC = SERVICE
SS = SANITARY SEWER
SSMH = SANITARY SEWER MANHOLE
TC = FINISHED GRADE AT TOP BACK OF CURB
TW = FINISHED GRADE AT TOP OF WALL
WTR = WATER
(TYP.) = TYPICAL

(#) KEYNOTE CALL OUT (SEE KEYNOTE LEGEND)

GRADING PLAN

1. CATCH CURB
2. SPILL CURB
3. TRANSITION FROM CATCH TO SPILL CURB
4. TAPER CURB HEAD 3'

CATCH CURB — TOP OF CURB - 0.38' = LIP; TOP OF CURB - 0.45' = FLOWLINE

SPILL CURB — TOP OF CURB - 0.58' = LIP; TOP OF CURB - 0.53' = FLOWLINE

SYMBOLS

- EXISTING WATER REDUCER
- PROPOSED WATER REDUCER
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING CURB STOP
- PROPOSED CURB STOP
- FIRE DEPT. CONNECTION
- WELL
- YARD HYDRANT
- EXISTING SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER MANHOLE
- SANITARY SEWER CLEAN OUT
- EXISTING STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- ROOF DRAIN
- TELEPHONE BOX
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- COMMUNICATIONS MANHOLE
- COMMUNICATIONS PEDESTAL
- FIBER OPTIC PEDESTAL
- GAS MANHOLE
- GAS METER
- GAS WELL
- GAS VALVE
- ELECTRIC JUNCTION BOX
- ELECTRIC PEDESTAL
- TRANSFORMER
- POWER MANHOLE
- POWER METER
- POWER POLE
- GUYWIRE
- LIGHT POLE
- SIGN
- BOLLARD
- EXISTING MONUMENT BOX
- PROPOSED MONUMENT BOX
- IRRIGATION BOX
- IRRIGATION VALVE
- BUSH
- CONIFEROUS TREE
- DECIDUOUS TREE
- SIGNAL POLE
- FOUND CORNER MONUMENT AS NOTED
- SET CORNER MONUMENT, REBAR WITH CAP
- BENCHMARK
- SECTION QUARTER CORNER
- SECTION CORNER

NOTE:

-EXISTING UNDERGROUND INSTALLATIONS & PRIVATE UTILITIES SHOWN ARE INDICATED ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THE ENGINEER DOES NOT GUARANTEE THE ACCURACY OF SUCH INFORMATION. SERVICE LINES (WATER, POWER, GAS, STORM, SEWER, TELEPHONE & TELEVISION) MAY NOT BE STRAIGHT LINES OR AS INDICATED ON THE PLANS. STATE LAW REQUIRES CONTRACTOR TO CALL ALL UTILITY COMPANIES BEFORE EXCAVATION FOR EXACT LOCATIONS.

-ALL IMPROVEMENTS SHALL BE PERFORMED IN ACCORDANCE WITH MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS 6TH EDITION, APRIL, 2010, AND THE CITY OF BOZEMAN STANDARD MODIFICATIONS, DATED MARCH 31, 2011, WITH ADDENDUM.

-UNLESS OTHERWISE SPECIFIED, ALL CONSTRUCTION LAYOUT AND STAKING SHALL BE PERFORMED UNDER THE RESPONSIBLE CHARGE OF A LAND SURVEYOR LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED AND BY A PARTY CHIEF OR ENGINEERING TECHNICIAN EXPERIENCED IN CONSTRUCTION LAYOUT AND STAKING TECHNIQUES AS ARE REQUIRED BY THE SPECIFIC TYPE OF WORK BEING PERFORMED.

MONTANA
ROBERT PAUL EGEBERG 60177PE
PROFESSIONAL ENGINEER
01/16/2025

sheet: LEGEND, NOTES AND ABBREVIATIONS
project: ATKINSON QUADRANGLE EXTERIOR REPAIRS
owner: MONTANA STATE UNIVERSITY

project # 23123.00

revision	date

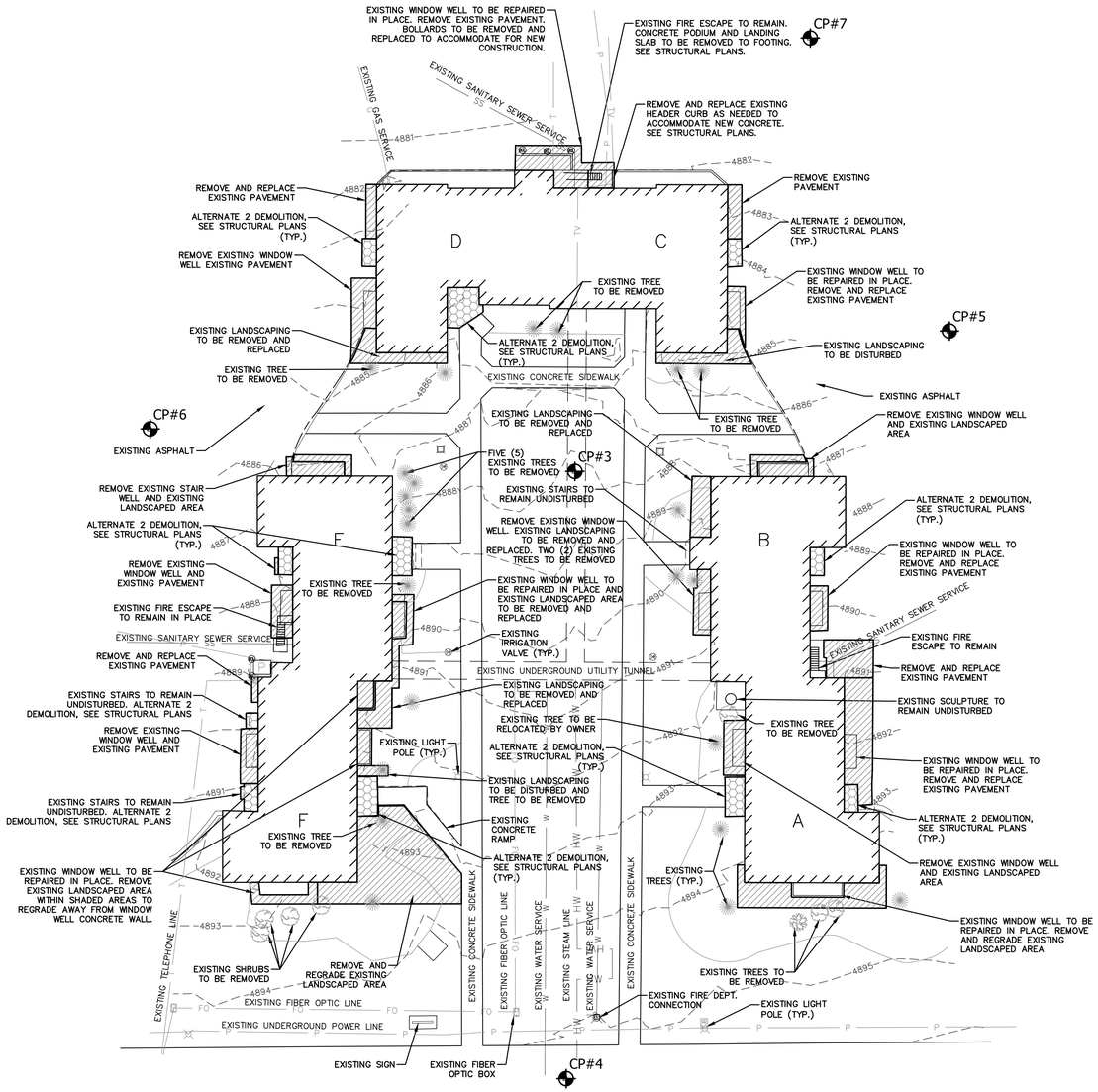
phase: CONSTRUCTION DOCUMENTS

issue date: 01.24.2025

C1.1

SITE DEMOLITION NOTES:

1. ALL LOCATIONS AND DIMENSIONS OF EXISTING AND PROPOSED FEATURES ARE APPROXIMATE AND THE PROJECT DRAWINGS MAY NOT INCLUDE ALL EXISTING FEATURES WITHIN THE PROJECT BOUNDARIES. THE CONTRACTOR SHALL THOROUGHLY REVIEW THE SITE PRIOR TO BIDDING AND CONSTRUCTION TO BECOME FAMILIAR WITH THE EXISTING SITE FEATURES AND CONDITIONS. IF DISCREPANCIES ARE FOUND BETWEEN THE PROJECT DRAWINGS AND FIELD CONDITIONS THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING AND PAYING FOR ALL PERMITS NECESSARY TO COMPLETE THE PROPOSED WORK INCLUDING DEMOLITION, RIGHT-OF-WAY AND ENVIRONMENTAL PERMITS.
3. ALL PUBLIC AND PRIVATE UTILITY TERMINATIONS, DISCONNECTS AND REMOVALS TO BE COORDINATED WITH THE APPLICABLE UTILITY PROVIDERS AND PERFORMED IN ACCORDANCE TO THEIR RESPECTIVE STANDARDS AND SPECIFICATIONS.
4. ALL EXISTING ASPHALT, CONCRETE, GRAVEL AND OTHER EXISTING FACULTIES TO BE REMOVED AND PROPERLY DISPOSED IN ACCORDANCE TO ALL FEDERAL, STATE AND LOCAL REGULATIONS.
5. ALL REMOVED, DISTURBED OR DAMAGED EXISTING ASPHALT, CURB AND GUTTER, PUBLIC SIDEWALK AND PAVEMENT MARKINGS WITHIN THE PUBLIC RIGHT-OF-WAY TO BE RESTORED IN ACCORDANCE TO CITY STANDARDS. ALL ASPHALT MATCH LINES SHALL BE SAW CUT TO PROVIDE FLUSH TRANSITION AND SEALED. REMOVE AND DISPOSE OF DISTURBED SIDEWALK TO THE NEAREST JOINT.
6. ALL EXCAVATIONS OR VOIDS CREATED DURING DEMOLITION SHALL BE BACKFILLED AND COMPACTED IN A CONTROLLED MANNER.
7. ALL TREES AND SHRUBS SHALL BE PROTECTED IN PLACE UNLESS OTHERWISE NOTED.
8. ALL DISTURBED AND REMOVED PAVEMENT AREAS SHALL BE REPAVED TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE EXISTING BUILDING AND WINDOW WELLS.
9. ALL DISTURBED LANDSCAPED AREAS SHALL BE REPLACED TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE EXISTING BUILDING AND WINDOW WELLS.
10. ALL WATER AND SANITARY SEWER UTILITY SERVICE LINES TO BE PROTECTED IN PLACE.
11. ALL DISTURBED IRRIGATION LINES TO BE REPAIRED TO MATCH EXISTING CONDITIONS.



PROJECT SURVEY CONTROL (LDP)

Point #	Northing (IFT)	Easting (IFT)	Elevation (USSF)	Description
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4	116316.42	380244.84	4895.18	CP /SPIKE
5	116527.56	380353.02	4884.38	CP /SPIKE
6	116499.91	380127.40	4885.36	CP /SPIKE
7	116610.31	380313.74	4879.68	CP /SPIKE

PROJECT DATUM: LOW DISTORTION PROJECTION
COORDINATE SYSTEM (LDP MT83-BOZ-IF) NORTH AMERICAN DATUM OF 1983
SURVEYED: 02/06/24 BY: CK

NORTH

20 10 0 20 40
SCALE: 1" = 20'

MONTANA
ROBERT PAUL EGEBERG
60177PE
REGISTERED PROFESSIONAL ENGINEER
01/16/2025

sheet EXISTING CONDITIONS AND DEMOLITION PLAN
project ATKINSON QUADRANGLE EXTERIOR REPAIRS
owner MONTANA STATE UNIVERSITY

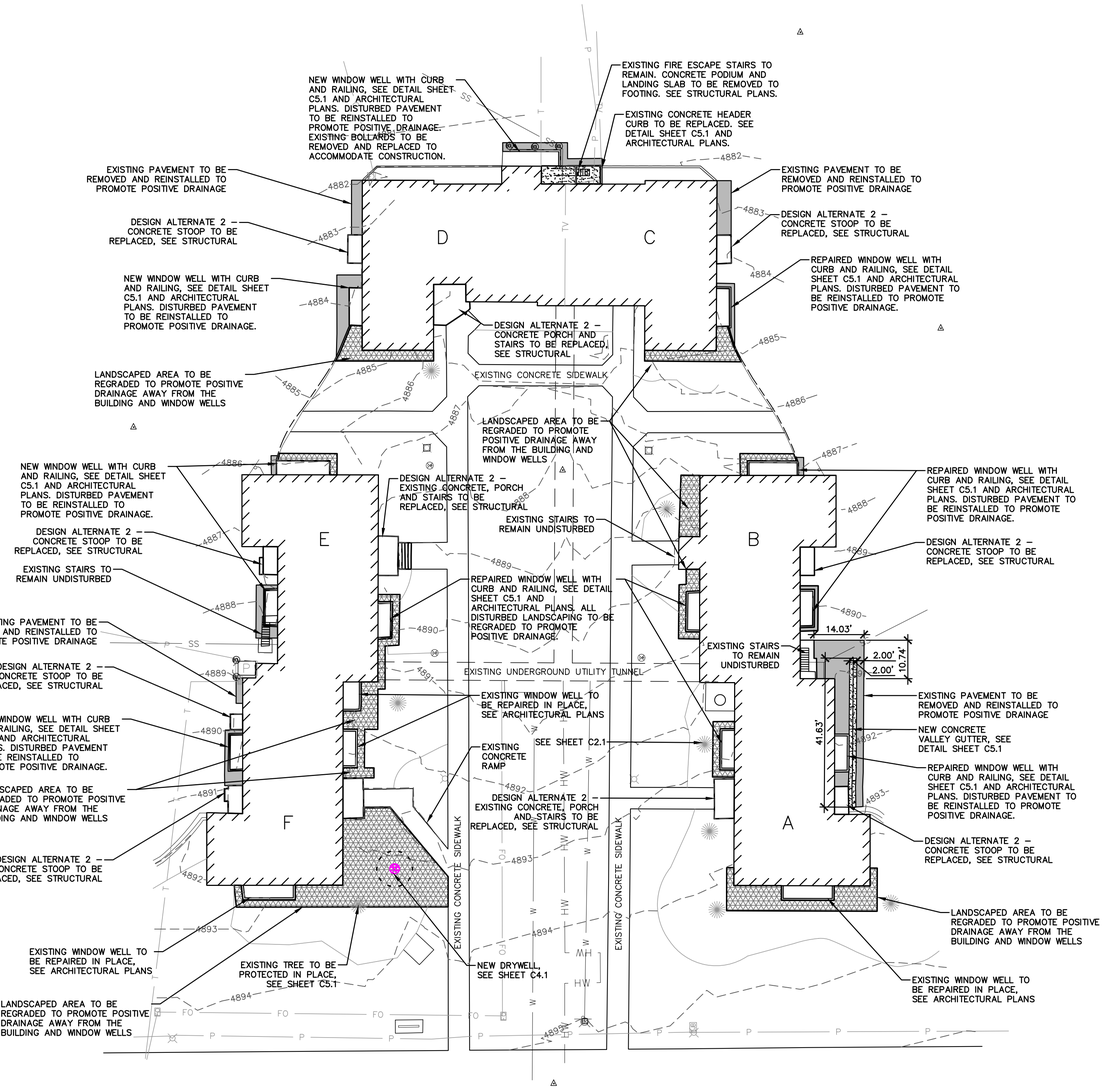
project # 23123.00

revision date

phase
CONSTRUCTION DOCUMENTS

issue date
01.24.2025

C2.1



MONTANA
ROBERT PAUL ICEBERG
60177PE
PROFESSIONAL ENGINEER
01/16/2025

ATKINSON QUADRANGLE EXTERIOR REPAIRS

sheet SITE PLAN
project ATKINSON QUADRANGLE EXTERIOR REPAIRS
owner MONTANA STATE UNIVERSITY

project # 23123.00

revision date

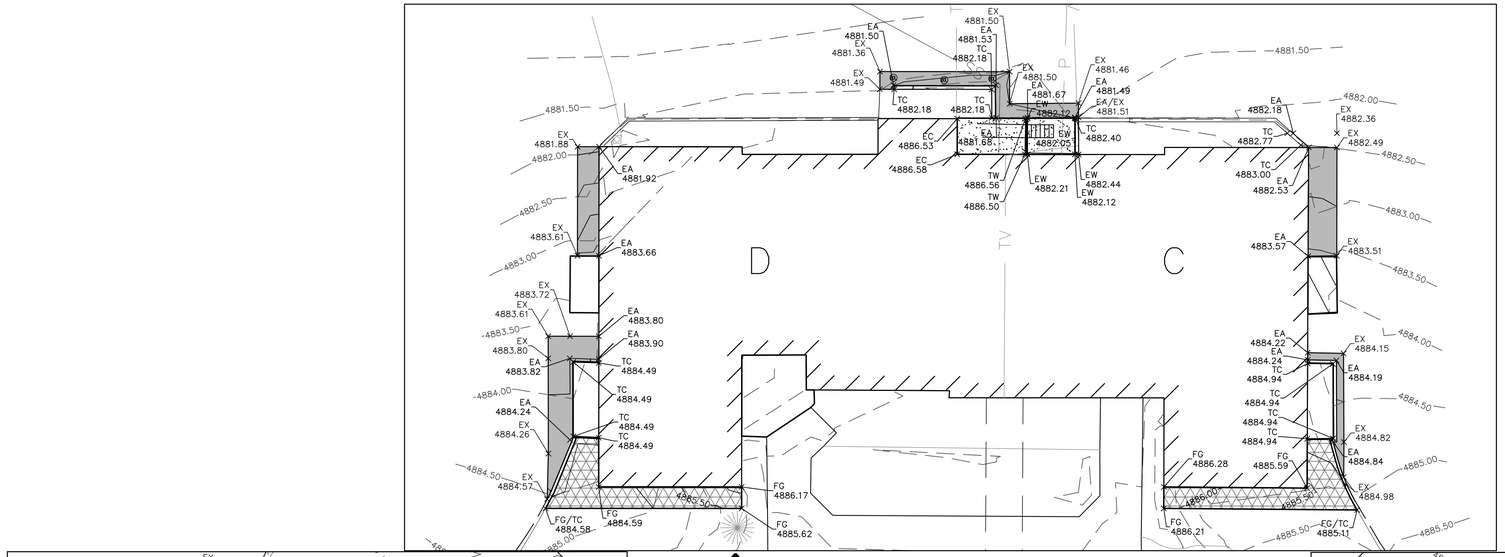
phase
CONSTRUCTION DOCUMENTS

NORTH

20 10 0 20 40
SCALE: 1" = 20'

issue date
01.24.2025

C3.1

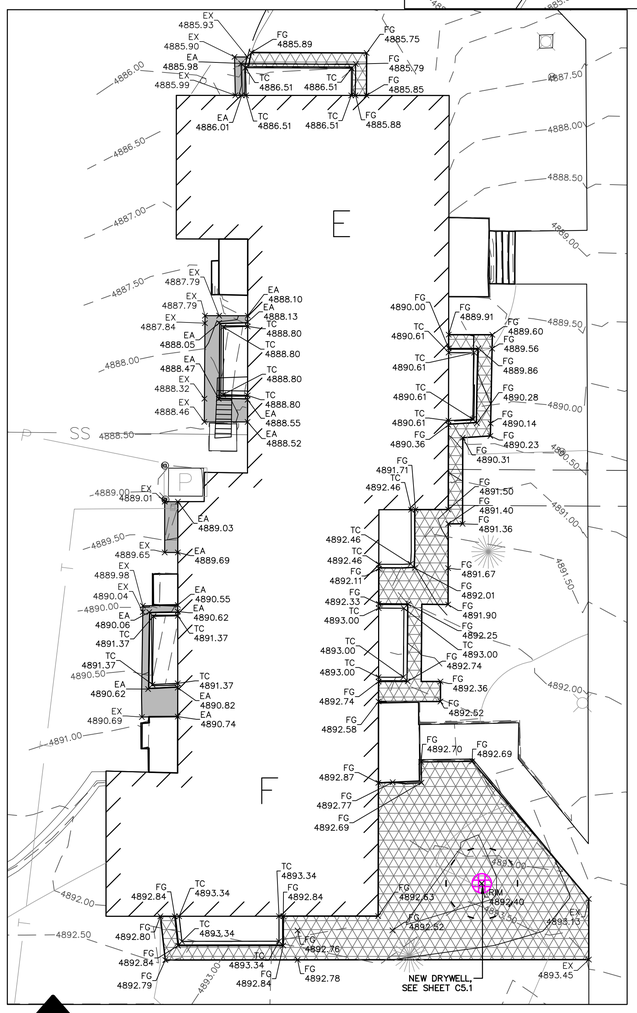


NORTH

GRADING PLAN

10 5 0 10 20

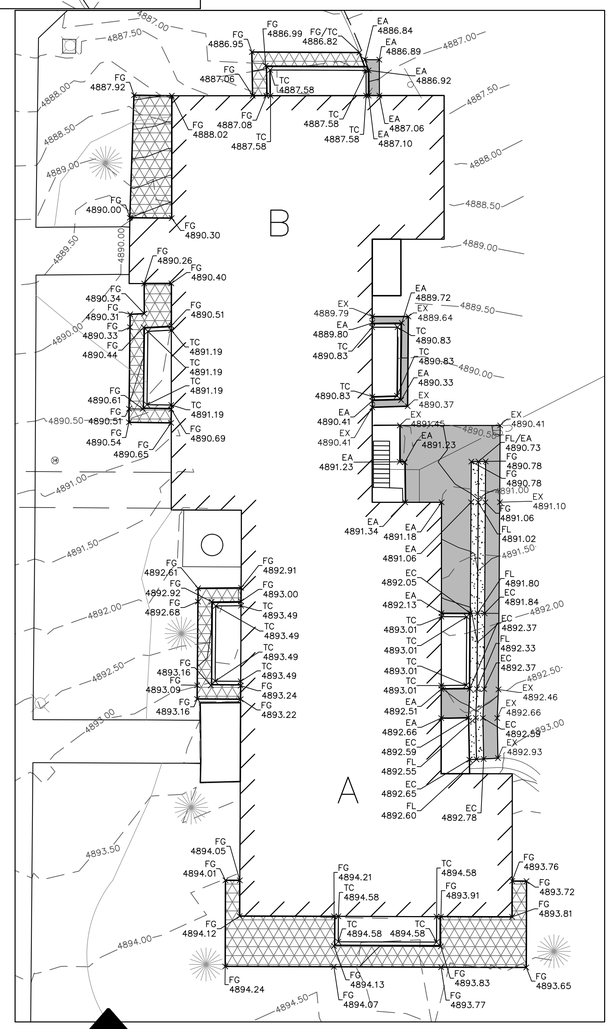
SCALE: 1" = 10'



GRADING PLAN

10 5 0 10 20

SCALE: 1" = 10'



GRADING PLAN

10 5 0 10 20

SCALE: 1" = 10'

P:\23312_MSU_Student_Housing_Facilities_Task_#2\CADD_C3D\PRODUCTION_DWG\23312_QUAD GRADING PROD.dwg GRADING AND DRAINAGE PLAN 1/24/2025 5:28:19 PM Aarielh, 1:1

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MONTANA
ROBERT PAUL
EDEBERG
60177PE
LICENSED
PROFESSIONAL ENGINEER
01/16/2025

sheet GRADING AND DRAINAGE PLAN

project ATKINSON QUADRANGLE EXTERIOR REPAIRS

owner MONTANA STATE UNIVERSITY

project # 23123.00

revision	date

phase
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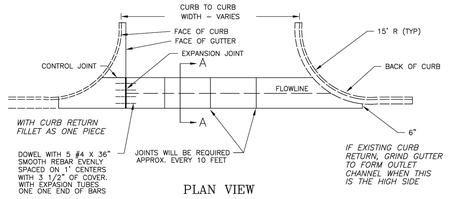
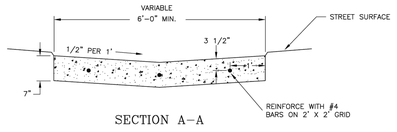
issue date
01.24.2025

C4.1



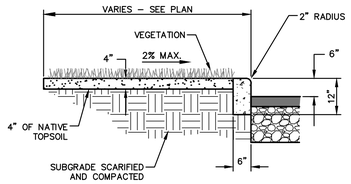
PLAN VIEW



SECTION A–A

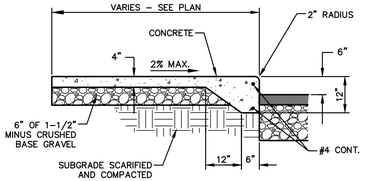
NOTES: THE WIDTH WITH PROPORTIONAL INVERT MAY VARY TO SATISFY THE DESIGN REQUIREMENTS OF INDIVIDUAL APPLICATIONS. FINISHED STREET SURFACE TO BE 1/8" TO 1/4" ABOVE EDGES OF DOUBLE GUTTER.

CITY OF BOZEMAN STANDARD DRAWING	SCALE: NONE	DOUBLE GUTTER DETAIL FOR STREET INTERSECTION	NO. 02529-1 DEC. 2003



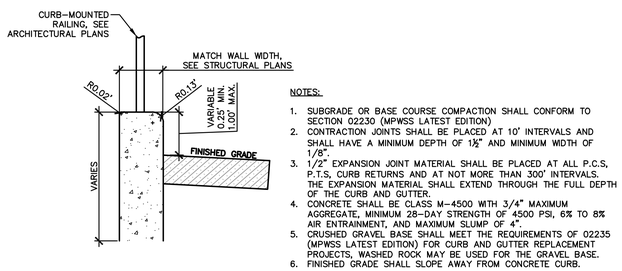
HEADER CURB DETAIL

NOT TO SCALE



THICKENED EDGE WALK DETAIL

NOT TO SCALE

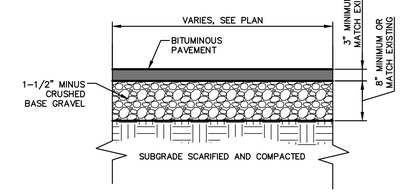


NOTES:

1. SUBGRADE OR BASE COURSE COMPACTION SHALL CONFORM TO SECTION 02230 (MPWSS LATEST EDITION)
2. CONTRACTION JOINTS SHALL BE PLACED AT 10' INTERVALS AND SHALL HAVE A MINIMUM DEPTH OF 1½" AND MINIMUM WIDTH OF 1/8".
3. 1/2" EXPANSION JOINT MATERIAL SHALL BE PLACED AT ALL P.C.S, P.T.S, CURB RETURNS AND AT NOT MORE THAN 300' INTERVALS. THE EXPANSION MATERIAL SHALL EXTEND THROUGH THE FULL DEPTH OF THE CURB AND GUTTER.
4. CONCRETE SHALL BE CLASS M–4500 WITH 3/4" MAXIMUM AGGREGATE, MINIMUM 28–DAY STRENGTH OF 4500 PSI, 6% TO 8% AIR ENTRAINMENT, AND MAXIMUM SLUMP OF 4".
5. CRUSHED GRAVEL BASE SHALL MEET THE REQUIREMENTS OF 02235 (MPWSS LATEST EDITION) FOR CURB AND GUTTER REPLACEMENT PROJECTS, WASHED ROCK MAY BE USED FOR THE GRAVEL BASE.
6. FINISHED GRADE SHALL SLOPE AWAY FROM CONCRETE CURB.

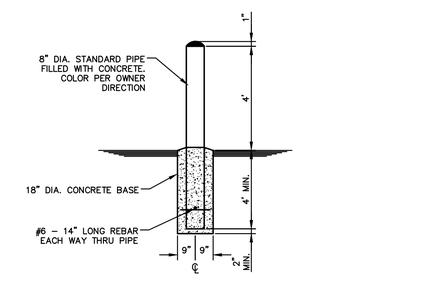
WINDOW WELL VERTICAL CURB DETAIL

NOT TO SCALE



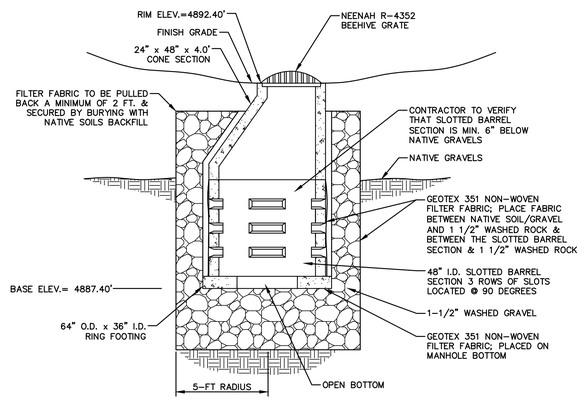
ASPHALT PAVEMENT PATCH SECTION

NOT TO SCALE



BOLLARD DETAIL

NOT TO SCALE



SLOTTED DRYWELL MANHOLE DETAIL

NOT TO SCALE

MONTANA
ROBERT PAUL EGEBERG
60177PE
REGISTERED PROFESSIONAL ENGINEER
03/29/2024

sheet DETAILS
project ATKINSON QUADRANGLE EXTERIOR REPAIRS - PPA 23-0833
owner MONTANA STATE UNIVERSITY

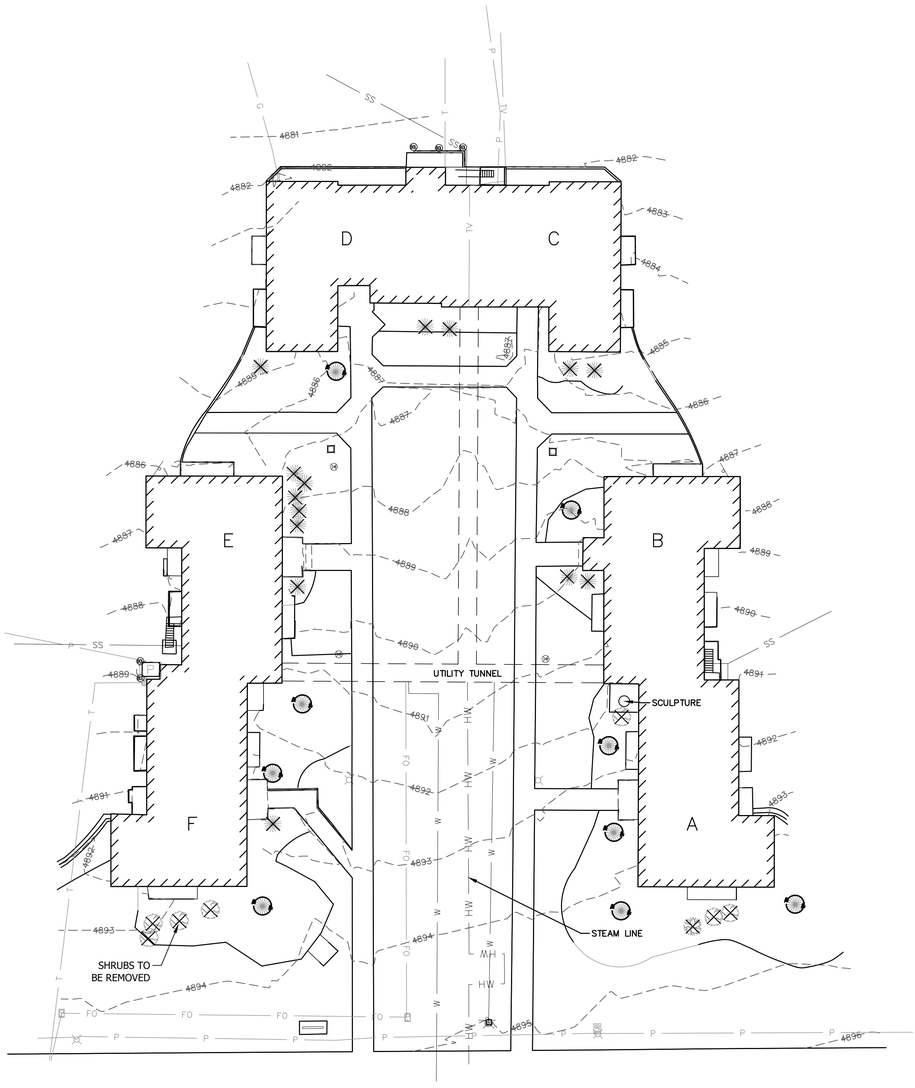
project # 23123.00

revision date

phase
CONSTRUCTION DOCUMENTS

issue date
01.24.2025

C5.1



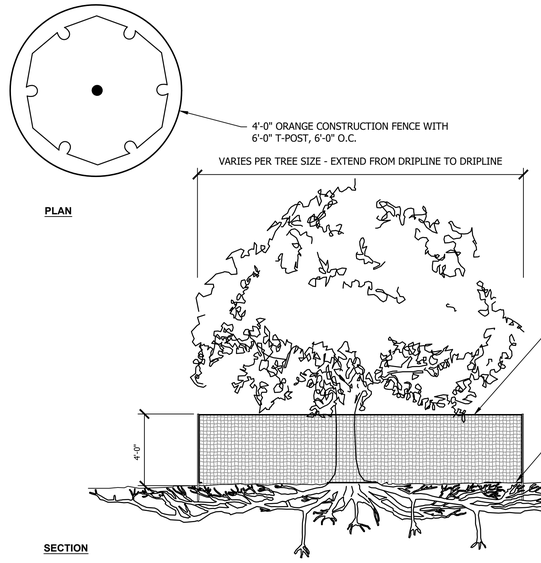
LEGEND

EXISTING TREE PROTECT IN PLACE

EXISTING TREE TO BE REMOVED
(TOTAL TREES REMOVED = 18)

TREE PROTECTION NOTES

1. TREE REMOVAL BY CONTRACTOR.
2. PRIOR TO DEMOLITION OR CONSTRUCTION ACTIVITY, ALL TREES TO REMAIN WITHIN THE CONSTRUCTION LIMITS SHALL BE TAGGED WITH ORANGE OR PINK SURVEYOR FLAGGING. OWNER'S REPRESENTATIVE SHALL VERIFY TAGGED TREES ARE THOSE TO BE PROTECTED.
3. ALL EXISTING VEGETATION WITHIN THE TREE PROTECTION ZONE SHALL REMAIN AND BE PROTECTED.
4. TREE STUMPS TO BE REMOVED WITH CLEARING AND GRUBBING.
5. NO CONSTRUCTION ACTIVITIES SHALL BE PERMITTED IN THE TREE PROTECTION ZONE. INCLUDING, BUT NOT LIMITED TO, MATERIALS STORAGE, TRUCK OR MATERIALS WASHOUT, OR OTHER SITE WORK ASSOCIATED WITH THIS PROJECT.
6. DAMAGE TO TREES OR BRANCHES DURING CONSTRUCTION ACTIVITIES, WHETHER FROM THE GROUND OR OVERHEAD CRANE, SHALL INCUR A FINE OF $500 PER OCCURRENCE. NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY UPON OCCURRENCE OF DAMAGE.
7. DO NOT CHANGE OR ALTER GRADES WITHIN THE TREE PROTECTION ZONE.
8. CUT OFF EXPOSED ROOTS WHERE FOUND ALONG GRADING AND CLEARING LIMITS. CLEANLY CUT ROOTS, AVOIDING TEARS. COVER ALL EXPOSED ROOTS WITH ORGANIC MULCH, COMPOST OR TOPSOIL.
9. DEMOLITION AND REMOVAL ACTIVITIES SHALL AVOID TREE PROTECTION AREAS AND AVOID BRANCHES OF TREES TO REMAIN.
10. CONTRACTOR SHALL REMOVE AND DISPOSE OF OFF SITE ALL TREE LIMBS, TRUNKS, AND STUMPS.



NOTES:
1. IN AREAS WHERE GRADING EXTENDS INTO EXISTING TREE DRIPLINES, CONTRACTOR SHALL HAND GRADE.
2. REMOVAL OF TREE PROTECTION FENCE DURING CONSTRUCTION WILL RESULT IN A $500 PER INCIDENT, PER DAY FINE TO THE CONTRACTOR.
3. TREE PROTECTION FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
4. ANY DAMAGED FENCE SHALL BE REPAIRED ON A DAILY BASIS.
5. DEAD TREES, SHRUBS, OR UNDERGROWTH SHALL BE CUT FLUSH WITH ADJACENT GRADE. THERE SHALL BE NO SOIL DISTURBANCE UNDER THE DRIPLINE OF THE TREE TO REMAIN.
6. BOULEVARD TREE PROTECTION FENCING TO BE ADJUSTED TO REFLECT THE WIDTH OF THE TREE LAWN OR TREE GRATE AREA WHERE PROVIDING FENCING TO THE DRIPLINE EXTENTS IS NOT POSSIBLE.
7. PROVIDE SUPPLEMENTAL WATER DURING CONSTRUCTION.

1 TREE PROTECTION
N.T.S.

NORTH

20 10 0 20 40
SCALE: 1" = 20'

STATE OF MONTANA
JORIE M CREEL
No. 25787
LICENSED LANDSCAPE ARCHITECT
02/03/2025

ATKINSON QUADRANGLE EXTERIOR REPAIRS - PPA# 23-0833

sheet TREE PROTECTION PLAN
project ATKINSON QUADRANGLE EXTERIOR REPAIRS - PPA# 23-0833
owner MONTANA STATE UNIVERSITY

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L1.1

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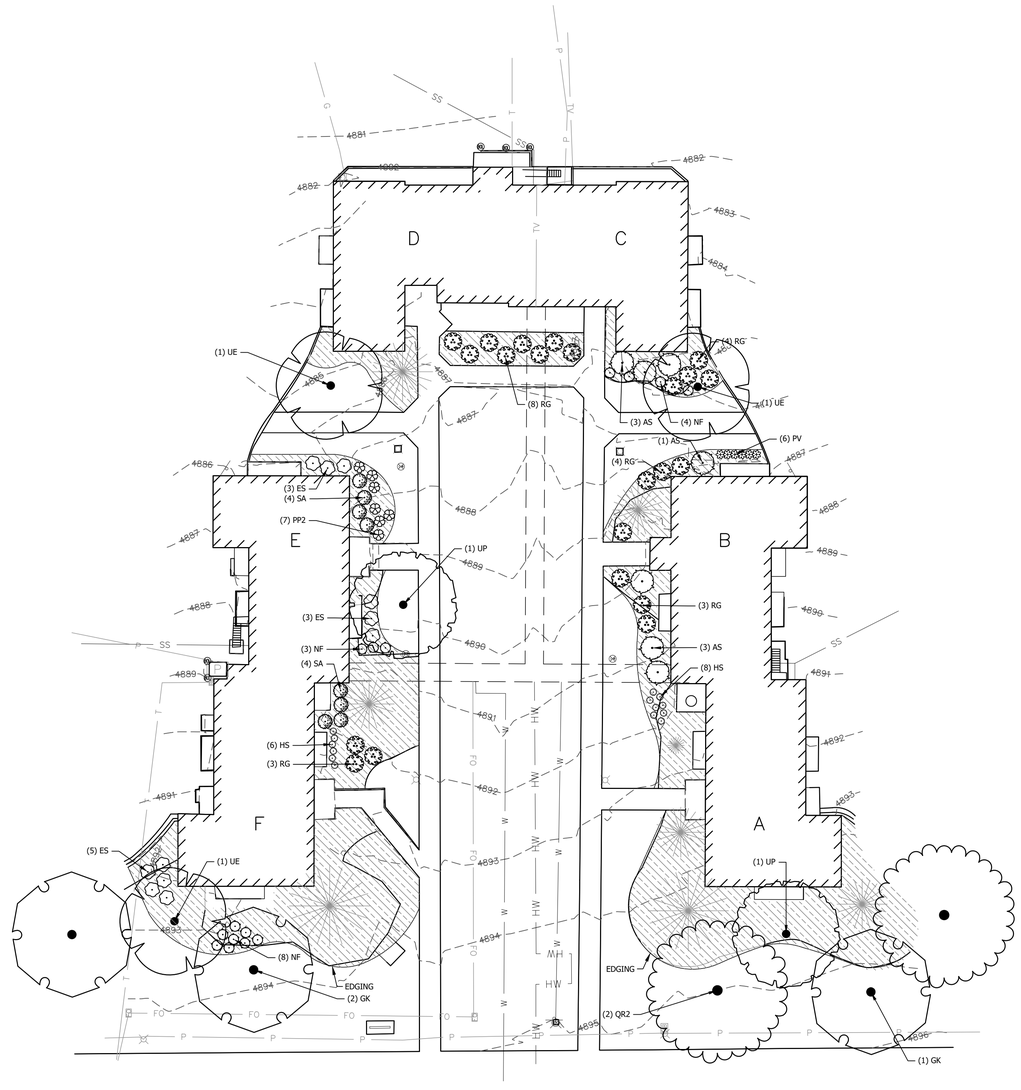

LEGEND

	GK	GYMNOCLADUS DIOICUS / KENTUCKY COFFEETREE	3" CAL	3
	QR2	QUERCUS RUBRA / NORTHERN RED OAK	3" CAL	2
	UE	ULMUS DAVIDIANA JAPONICA 'MORTON' / ACCOLADE® ELM	3" CAL	3
	UP	ULMUS X 'MORTON GLOSSY' / TRIUMPH™ ELM	3" CAL	2
SHRUBS				
	AS	AMELANCHIER ALNIFOLIA / SERVICEBERRY	5 GAL	7
	ES	EUONYMUS ALATUS 'SELECT' / FIREBALL® BURNING BUSH	5 GAL	11
	NF	NEPETA X FAASSENII / CATMINT	5 GAL	15
	PP2	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL	7
	RG	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL	22
	SA	SYMPHORICARPOS ALBUS / COMMON WHITE SNOWBERRY	5 GAL	8
GRASSES				
	HS	HELICTOTRICHON SEMPERVIRENS / BLUE OAT GRASS	2 GAL	14
	PV	PANICUM VIRGATUM / SWITCH GRASS	2 GAL	6
SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	QTY
SITE				
	OM	ORGANIC MULCH	MULCH	6,114 SF

EXISTING TREE

GENERAL NOTES

1. THE CONTRACTOR SHALL OBTAIN, AT THEIR OWN EXPENSE, APPLICABLE LICENSES, STANDARDS, PERMITS, ETC. WHICH ARE NECESSARY TO PERFORM THE WORK.
2. THE CONTRACTOR SHALL LOCATE, CLEARLY MARK AND MAINTAIN EXISTING UTILITIES ON THE SITE PRIOR TO WORK START UP. CALL FOR UTILITY LOCATES PRIOR TO COMMENCING WORK.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND REPAIR OF UTILITIES IF DAMAGED. REPAIR SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER
4. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. ANY DEVIATION FROM THESE PLANS MUST BE APPROVED BY OWNER OR LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
5. LIMIT OF WORK IS AS INDICATED ON THE PLANS.
6. COORDINATE SITE ACCESS, STAGING, STORAGE AND CLEANOUT AREAS WITH OWNER'S REPRESENTATIVE.
7. TREE STUMPS TO BE REMOVED WITH CLEARING AND GRUBBING.

PLANTING NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES. GRAPHIC QUANTITIES TAKE PRECEDENCE OVER WRITTEN QUANTITIES.
2. ALL LANDSCAPE AREAS SHALL RECEIVE SOIL PREPARATION AS SPECIFIED.
3. ALL EXISTING GRASS STAND AREAS DISTURBED BY CONSTRUCTION OPERATIONS SHALL BE SOIL PREPARED AND SEEDED BY THE CONTRACTOR.
4. EXISTING TURF AREAS THAT ARE DISTURBED DURING CONSTRUCTION, ESTABLISHMENT AND THE MAINTENANCE PERIOD SHALL BE RESTORED WITH NEW SOD TO MATCH EXISTING TURF SPECIES.
5. ALL LANDSCAPE MATERIALS SHALL BE INSTALLED ACCORDING TO SOUND HORTICULTURAL PRACTICES AND AMERICAN NURSERY STANDARDS IN A MANNER DESIGNED TO ENCOURAGE QUICK ESTABLISHMENT AND HEALTHY GROWTH.
6. REPAIR DISTURBED AREAS BENEATH SHRUBS BY HAND.
7. REPAIR AND RESEED STAGING AREA.
8. CONTRACTOR SHALL COORDINATE IRRIGATION AND PLANTING WORK SUCH THAT INSTALLED IRRIGATION EQUIPMENT SHALL NOT CAUSE ADJUSTMENT OF PLANTING LOCATIONS CONTRARY TO THE PLANS. IF IRRIGATION EQUIPMENT IS INSTALLED IN LOCATIONS OBSTRUCTING THE INTENDED LOCATIONS OF THE PLANTINGS, NOTIFY THE LANDSCAPE ARCHITECT FOR CLARIFICATION.
9. THE CONTRACTOR SHALL WARRANTY ALL CONTRACTED WORK AND MATERIALS FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION HAS BEEN ISSUED BY THE OWNER'S REPRESENTATIVE FOR THE ENTIRE PROJECT UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS OR SPECIFICATIONS.
10. PLANTING BEDS TO BE AMENDED WITH A MIN. 12" DEPTH TOPSOIL PRIOR TO PLANTING.
11. AREAS TO BE SODDED TO BE AMENDED WITH A MIN. 4" DEPTH TOPSOIL PRIOR TO SODDING.
12. AREAS TO BE SEEDED TO BE AMENDED WITH A MIN. 2" DEPTH COMPOST PRIOR TO SEEDING.
13. ALL PLANTING MATERIAL SHALL BE APPROVED ON-SITE BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

IRRIGATION NOTES

1. NEW TREES, SHRUBS AND GRASSES SHALL HAVE SUPPLEMENTAL WATER FOR THE FIRST 2 GROWING SEASONS.
2. CONTRACTOR SHALL COORDINATE WITH OWNER FOR ADJUSTMENTS, ADDITIONS, DELETIONS TO THE EXISTING IRRIGATION SYSTEM.

NORTH

20 10 0 20 40

SCALE: 1" = 20'

STATE OF MONTANA
JORIE M CREEL
No. 25787
LICENSED LANDSCAPE ARCHITECT
02/03/2025

sheet LANDSCAPE PLAN
project ATKINSON QUADRANGLE EXTERIOR REPAIRS - PPA# 23-0833
owner MONTANA STATE UNIVERSITY

project # 23123.00

revision date

phase
CONSTRUCTION DOCUMENTS

issue date
02.24.2025

L1.2

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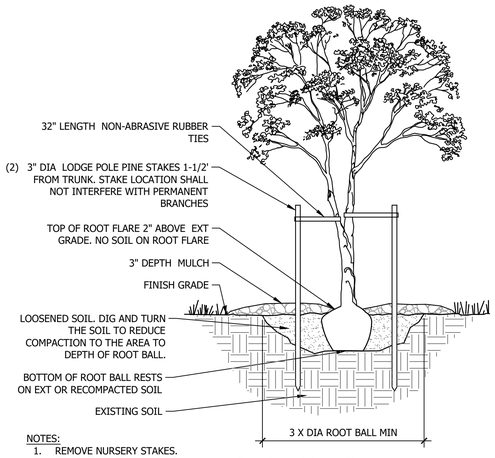
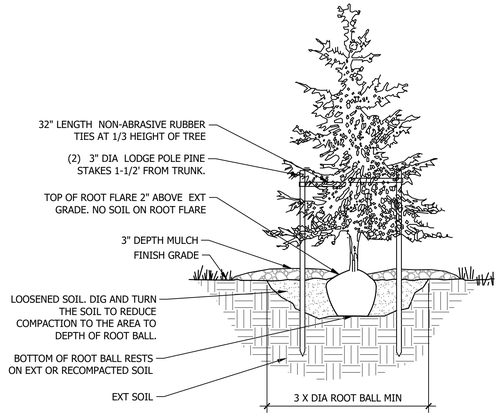


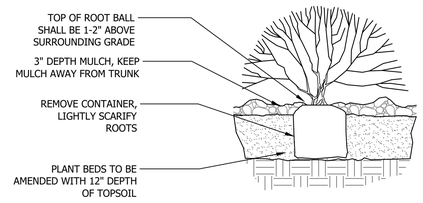
NOTES:
1. REMOVE NURSERY STAKES.
2. PRUNE DEAD OR DAMAGED LIMBS IMMEDIATELY AFTER PLANTING.
3. REMOVE WIRE TIES AND BURLAP FROM ROOT BALL.
4. PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER COMPACT. WHEN PLANTING PIT HAS BEEN BACKFILLED, POUR WATER AROUND ROOT BALL TO SETTLE THE SOIL.
5. BACKFILL WITH AMENDED SOIL.
6. REMOVE STAKES FOLLOWING FIRST GROWING SEASON.
7. RAKE SUBGRADE AND REMOVE ALL DEBRIS GREATER THAN 1/2" IN DIA. INCLUDING ROCKS, CONCRETE, ORGANIC DEBRIS, AND OR CONSTRUCTION DEBRIS.
8. PROVIDE SUPPLEMENTAL WATER FOR THE FIRST YEAR FOLLOWING INSTALLATION.

1 DECIDUOUS TREE
N.T.S.



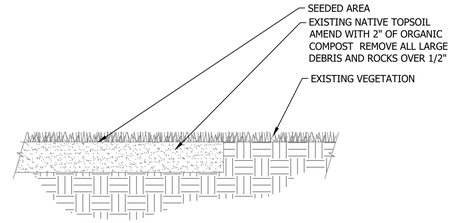
NOTES:
1. REMOVE NURSERY STAKES.
2. PRUNE DEAD OR DAMAGED LIMBS IMMEDIATELY AFTER PLANTING.
3. REMOVE WIRE TIES AND BURLAP FROM TOP 1/2 OF ROOT BALL.
4. REMOVE ALL BASKETS.
5. PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER COMPACT. WHEN PLANTING PIT HAS BEEN BACKFILLED, POUR WATER AROUND ROOT BALL TO SETTLE THE SOIL.
6. BACKFILL WITH AMENDED SOIL.
7. REMOVE STAKES FOLLOWING FIRST GROWING SEASON.
8. RAKE SUBGRADE AND REMOVE ALL DEBRIS GREATER THAN 1/2" IN DIA. INCLUDING ROCKS, CONCRETE, ORGANIC DEBRIS, AND OR CONSTRUCTION DEBRIS.
9. PROVIDE SUPPLEMENTAL WATER FOR THE FIRST YEAR FOLLOWING INSTALLATION.

2 CONIFEROUS TREE
N.T.S.



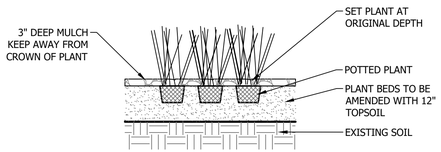
NOTES:
1. SHRUBS WITH BROKEN OR CRUMBLING ROOT BALLS WILL BE REJECTED. CONTAINER REMOVAL WILL NOT BE AN EXCUSE FOR DAMAGED ROOT BALLS.
2. TOP OF MULCH TO BE 1" BELOW ADJ WALKWAY, CURB, EDGING, OR OTHER SURFACE.
3. PRUNE OUT ALL DAMAGED OR DEAD WOOD.
4. ALL PLANT MATERIAL TO BE INSPECTED UPON DELIVERY. REJECTED MATERIALS TO BE IMMEDIATELY RETURNED TO SOURCE.
6. RAKE SUBGRADE AND REMOVE ALL DEBRIS GREATER THAN 1/2" IN DIA. INCLUDING ROCKS, CONCRETE, ORGANIC DEBRIS, AND OR CONSTRUCTION DEBRIS.

3 SHRUB PLANTING
N.T.S.



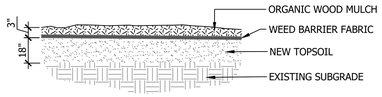
NOTE:
1. EXISTING TOPSOIL WILL BE PLACED BY SITE WORK CONTRACTOR TO ROUGH GRADE
2. LANDSCAPE CONTRACTOR SHALL AMEND SOIL WITH 2" DEPTH OF ORGANIC COMPOST AND TILL INTO EXISTING TOPSOIL AND PREPARE FOR SEEDING..
3. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL GRADING AND SEEDING PREPARATION.
4. SEED MIX TO BE APPROVED BY MONTANA STATE UNIVERSITY.

4 SEEDING
N.T.S.

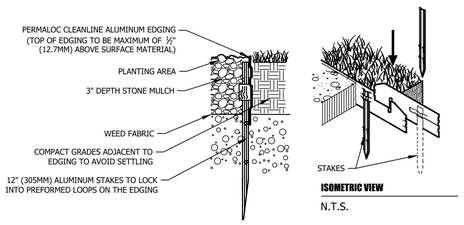


NOTES:
1. REMOVE SPENT FLOWERS PRIOR TO PLANTING.
2. LOOSEN ROOT MASS AT BOTTOM OF ROOTBALL.
3. STRIP TOP OF ROOTBALL ¼" OF SURFACE GROWING MEDIA AND COVER WITH ¼" PLANTING MIX PLUS SURFACE MULCH.
4. QUANTITY AND SPACING AS NOTED IN PLANT SCHEDULE.

5 PERENNIAL/GRASS/GROUNDCOVER PLANTING
N.T.S.



6 ORGANIC WOOD MULCH
N.T.S.



ISOMETRIC VIEW
N.T.S.

NOTES:
1. SUBMIT SAMPLE AND SPECIFICATION OF EDGER FOR APPROVAL
2. EDGER CORNERS SHALL BE BENT TO REQUIRED ANGLE TO FORM CONTINUOUS EDGER. CORNER JOINTS NOT ACCEPTABLE

7 EDGING ALUMINUM
N.T.S.

STATE OF MONTANA
JORIE M CREEL
No. 25787
LICENSED LANDSCAPE ARCHITECT
03/03/2025

sheet LANDSCAPE DETAILS

project ATKINSON QUADRANGLE EXTERIOR REPAIRS - PPA 23-0833

owner MONTANA STATE UNIVERSITY

project # 23123.00

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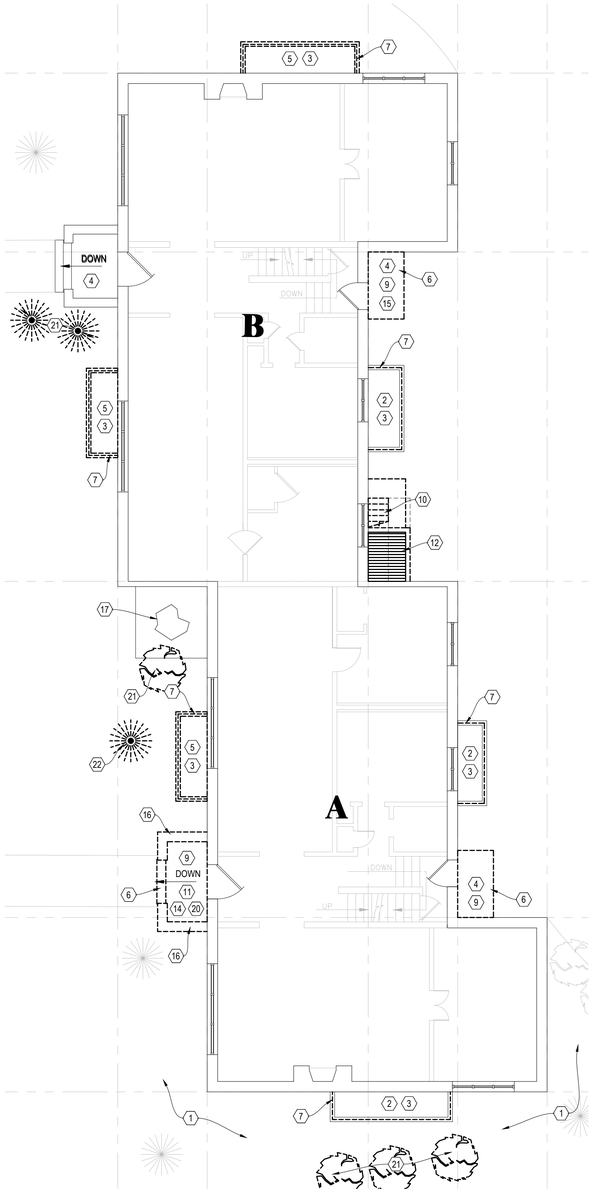
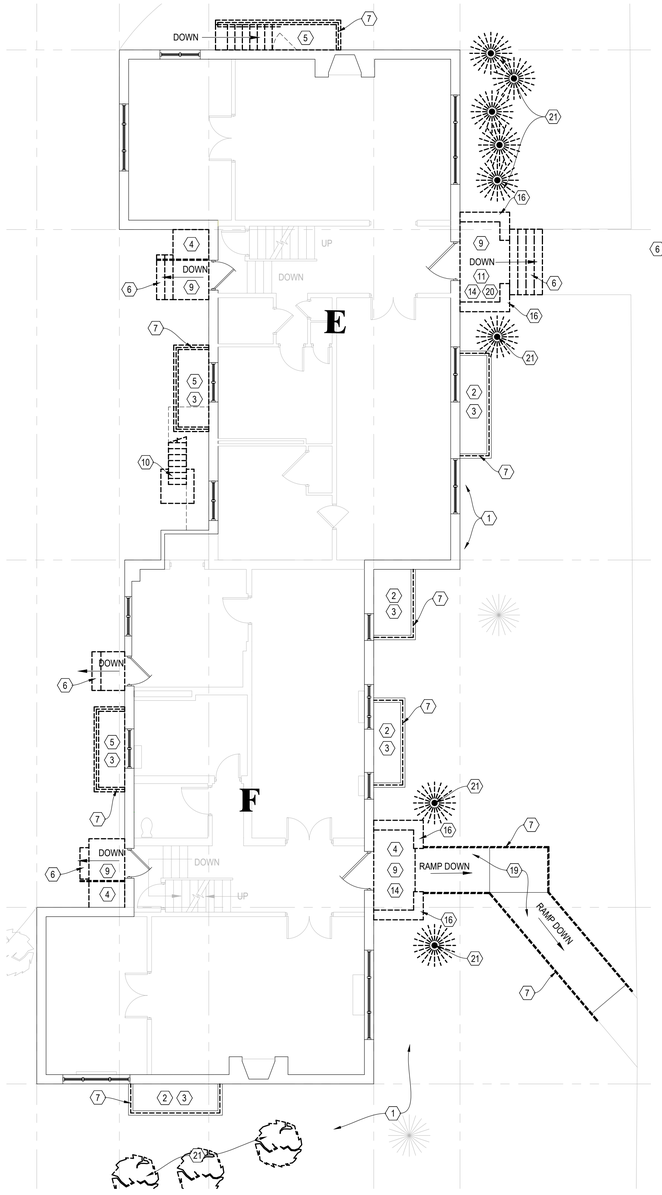
L2.1



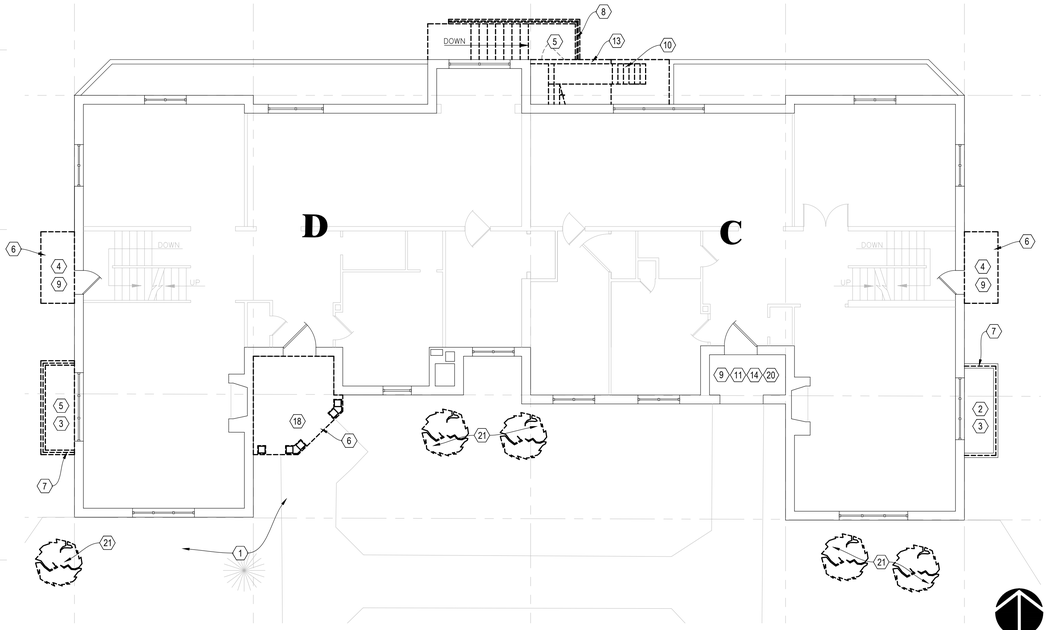
9 QUAD AB - FLOOR PLAN
D2.1 : D2.1 1/8" = 1'-0"

NORTH



10 QUAD EF - FLOOR PLAN
D2.1 : D2.1 1/8" = 1'-0"

NORTH



3 QUAD CD - FLOOR PLAN
D2.1 : D2.1 1/8" = 1'-0"

NORTH

KEYNOTES

#	KEYNOTES
1	TRIM OVERHANGING AND ENCROACHING VEGETATION ADJACENT TO BUILDINGS. ACHIEVE MINIMUM 24" SEPARATION FROM STRUCTURES, TYP. ADDITIONALLY REMOVE VEGETATION INDICATED OR REQUIRED.
2	(E) WINDOW WELL / STAIR WELL TO REMAIN. PREPARE AREA FOR REPAIRS AND (N) CONCRETE CURB - SEE STRUCTURAL.
3	CAREFULLY REMOVE AND SALVAGE (E) WINDOWS AT WINDOW WELL. WINDOWS TO BE RESTORED, REFINISHED, AND PREPARED FOR REINSTALLATION IN ORIGINAL LOCATION, SEE A4.1-A4.3 FOR WINDOW ARRANGEMENT AND COUNT.
4	ALTERNATE 2 - CAREFULLY REMOVE (E) COUNTERFLASHING AND PORCH ROOF TO SOLID STRUCTURE, PREPARE FOR INSTALLATION OF (N) WOOD SHINGLE ROOF ASSEMBLY AND COUNTERFLASHING IN NEW WORK.
5	DOCUMENT EXISTING CONDITIONS AND CAREFULLY REMOVE (E) WINDOW OR STAIR WELL FOR REPLACEMENT IN-KIND. PREPARE FOR NEW WORK.
6	ALTERNATE 2 - CAREFULLY REMOVE (E) CONCRETE STOOP IN ITS ENTIRETY AND PREPARE FOR NEW WORK.
7	CAREFULLY REMOVE (E) METAL RAILS, ATTACHMENTS, AND ACCESSORIES IN THEIR ENTIRETY.
8	CAREFULLY REMOVE AND SALVAGE (E) GUARDRAIL, REPAIR AND REFINISH, PREPARE FOR REINSTALLATION IN NEW WORK.
9	ALTERNATE 2 - REMOVE ALL DAMAGED OR DETERIORATED FINISHES AND STRUCTURE AT PORCHES TO SOLID CONSTRUCTION. REPAIR ELEMENTS AND PREPARE FOR (N) FINISH. CAREFULLY REMOVE AND SALVAGE (E) LIGHT FIXTURES AS REQD. FOR REINSTALLATION.
10	CAREFULLY REMOVE ALL RUST AND REPAIR FIRE ESCAPE COMPONENTS IN-PLACE. COORDINATE NEW WORK WITH STRUCTURAL. PREPARE FOR NEW FINISH.
11	ALTERNATE 2 - CAREFULLY REMOVE AND DOCUMENT DETERIORATED BALUSTER AND RAIL COMPONENTS ABOVE FOR IN-KIND REPLACEMENT IN NEW WORK.
12	CAREFULLY REMOVE RUSTED GRATE COVER AT FIRE ESCAPE, PREPARE FOR NEW WORK.
13	CAREFULLY REMOVE (E) CONCRETE PODIUM AND TOPPING SLAB IN ITS ENTIRETY. COORDINATE LIMITED REMOVAL, SALVAGE, AND REPAIR AND/OR SHORING OF FIRE ESCAPE COMPONENTS AFFECTED. PREPARE FOR REINSTALLATION.
14	ALTERNATE 2 - CAREFULLY REMOVE ALL DETERIORATED PORCH STRUCTURAL ELEMENTS. COORDINATE REPLACEMENT WITH STRUCTURAL IN-KIND.
15	ALTERNATE 2 - CAREFULLY REMOVE ALL SOFFIT FINISH - SALVAGE ALL SOUND MATERIAL, REMOVE PAINT, AND PREPARE FOR REINSTALLATION.
16	ALTERNATE 2 - DOCUMENT, LABEL, AND CAREFULLY REMOVE AND SALVAGE (E) BRICK AND GRANITE CAP. COORDINATE REINSTALLATION WITHIN THE WORK.
17	PROTECT (E) SCULPTURE IN-PLACE.
18	ALTERNATE 2 - DOCUMENT AND CAREFULLY REMOVE (E) PORCH IN ITS ENTIRETY FOR RECONSTRUCTION IN-KIND, SALVAGE GRANITE POST BASES AND SOUND BRICK FOR REINSTALLATION.
19	(E) RAMP TO REMAIN IN-PLACE.
20	ALTERNATE 2 - CAREFULLY REMOVE (E) ROOF ASSEMBLY TO SOLID STRUCTURE. PREPARE FOR INSTALLATION OF (N) MEMBRANE ROOF ASSEMBLY IN NEW WORK.
21	CAREFULLY REMOVE (E) TREE OR BUSH IN ITS ENTIRETY.
22	COORDINATE RELOCATION OF (E) TREE AND COMMEMORATIVE SIGNAGE WITH OWNER.

8 0 8 16
SCALE OF FEET
1/8" = 1'-0"

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D2.1

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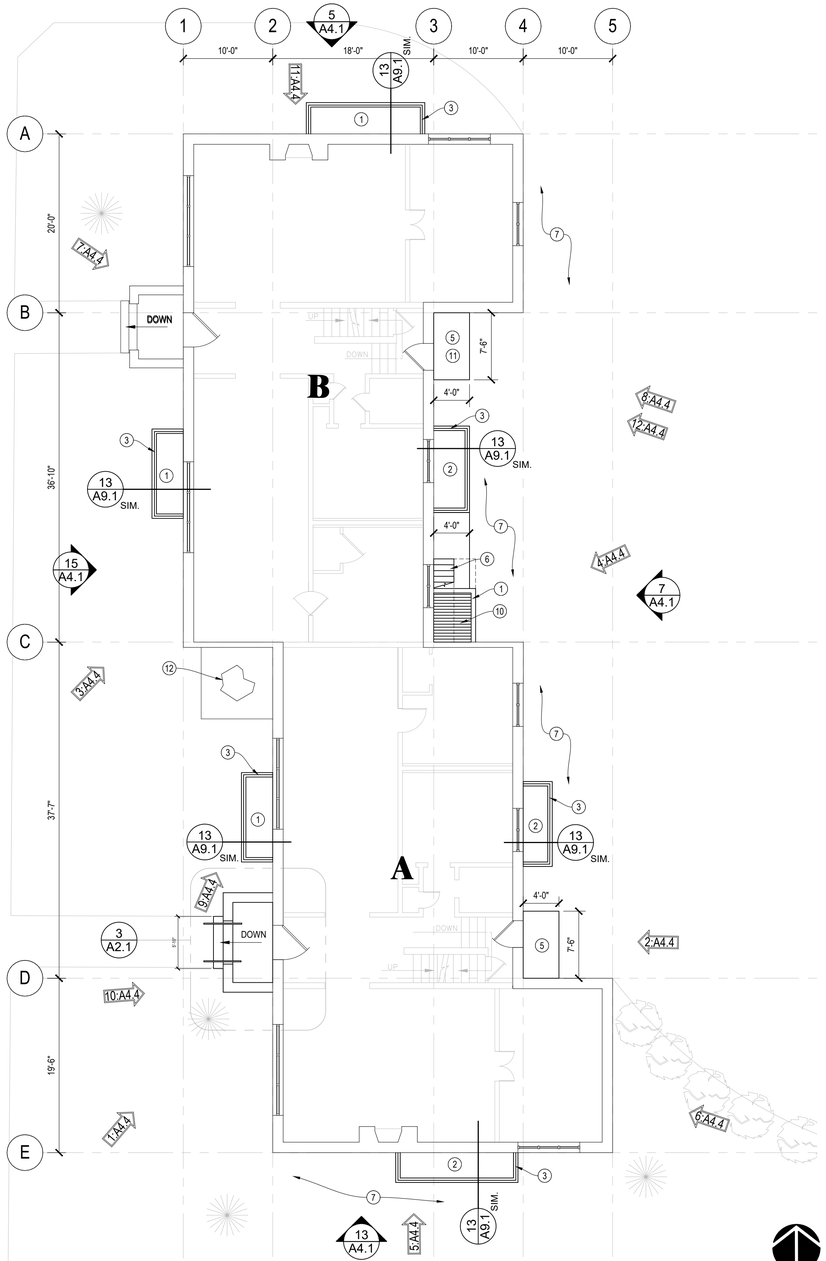
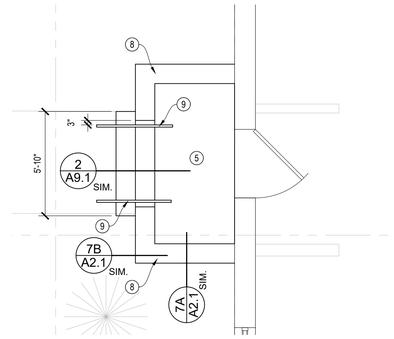


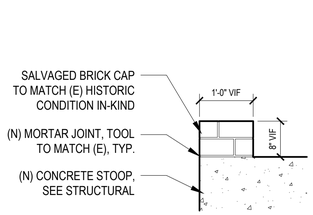
9 QUAD AB - FLOOR PLAN
A2.1 : A2.1 1/8" = 1'-0"

NORTH



3 QUAD A MAIN ENTRY - ENLARGED PLAN
A2.1 : A2.1 1/4" = 1'-0"

NORTH



7 TYPICAL BRICK AND GRANITE CAP AT PORCH
A2.1 : A2.1 3/4" = 1'-0"

KEYNOTES

1	REPLACE CONCRETE WINDOW WELL WITH (N) CONCRETE WINDOW WELL. COORDINATE EXTENTS WITH EXISTING TO MATCH IN-KIND SIZE. COORDINATE (N) TOP ELEVATION WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
2	STABILIZE AND REPAIR CRACKING/DAMAGED CONCRETE WINDOW WELL. REFERENCE STRUCTURAL REQUIREMENTS FOR ADDITIONAL INFORMATION. COORDINATE EXTENT. PROVIDE CONCRETE EXTENSION TO NEW ELEVATION - COORDINATE WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
3	PROVIDE AND INSTALL (N) METAL GUARDRAIL - POWDER COAT FINISH. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
4	NOT USED.
5	ALTERNATE 2 - PROVIDE (N) CONCRETE STAIR AND LANDING TO MATCH IN-KIND HISTORIC. COORDINATE REINSTALLATION OF SALVAGED FINISH COMPONENTS IN ORIGINAL LOCATIONS. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
6	COORDINATE CLEANING AND REMOVAL OF ALL LOOSE, DAMAGED, AND DETERIORATED FINISH/RUST IN ITS ENTIRETY. REPAIR AND STRUCTURALLY STABILIZE FIRE ESCAPE COMPONENTS AND CONNECTIONS PER STRUCTURAL. PRIME AND PAINT IN ITS ENTIRETY. (N) CONCRETE LANDING AT BASE, SEE STRUCTURAL.
7	REGRADE TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND ASSOCIATED CONSTRUCTIONS - COORDINATE EXTENT AND FINISH WITH CIVIL FOR TIE-IN TO EXISTING.
8	ALTERNATE 2 - RECONSTRUCT BRICK AND GRANITE CAP TO MATCH (E) HISTORIC CONDITION IN-KIND. SEE 7/A2.1.
9	ALTERNATE 2 - (N) METAL HANDRAIL. POWDER COAT FINISH - SEE 2/A9.1. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
10	(N) GALVANIZED METAL BAR GRATE COVER, 1" X 1/4" FLAT BAR SPACED AT 2" OC TO MATCH (E).
11	ALTERNATE 2 - INSTALL SALVAGED AND (N) SOFFIT FINISH AT PORCH TO MATCH IN-KIND HISTORIC. PRIME AND PAINT.
12	PROTECT (E) SCULPTURE IN-PLACE.

GENERAL NOTES

1. FIELD VERIFY DIMENSIONS. DO NOT SCALE DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
2. REFER TO ALL DRAWINGS FOR ADDITIONAL INFORMATION.
3. SEE COVER FOR DESCRIPTION OF BASE BID AND ALTERNATES.
4. AS PART OF ALTERNATE 2 - CLEAN ALL BRICK AND CONCRETE PARGE COATINGS, AREAS OF MORE INTENSIVE CLEANING ARE CALLED OUT IN THE DRAWINGS.
5. REGRADE AROUND ENTIRE BUILDING AS REQUIRED TO DIRECT DRAINAGE AWAY FROM THE BUILDING, SEE CIVIL.

8 0 8 16
SCALE OF FEET
1/8" = 1'-0"

4 0 4 8
SCALE OF FEET
1/4" = 1'-0"

0 2 4
SCALE OF FEET
3/4" = 1'-0"

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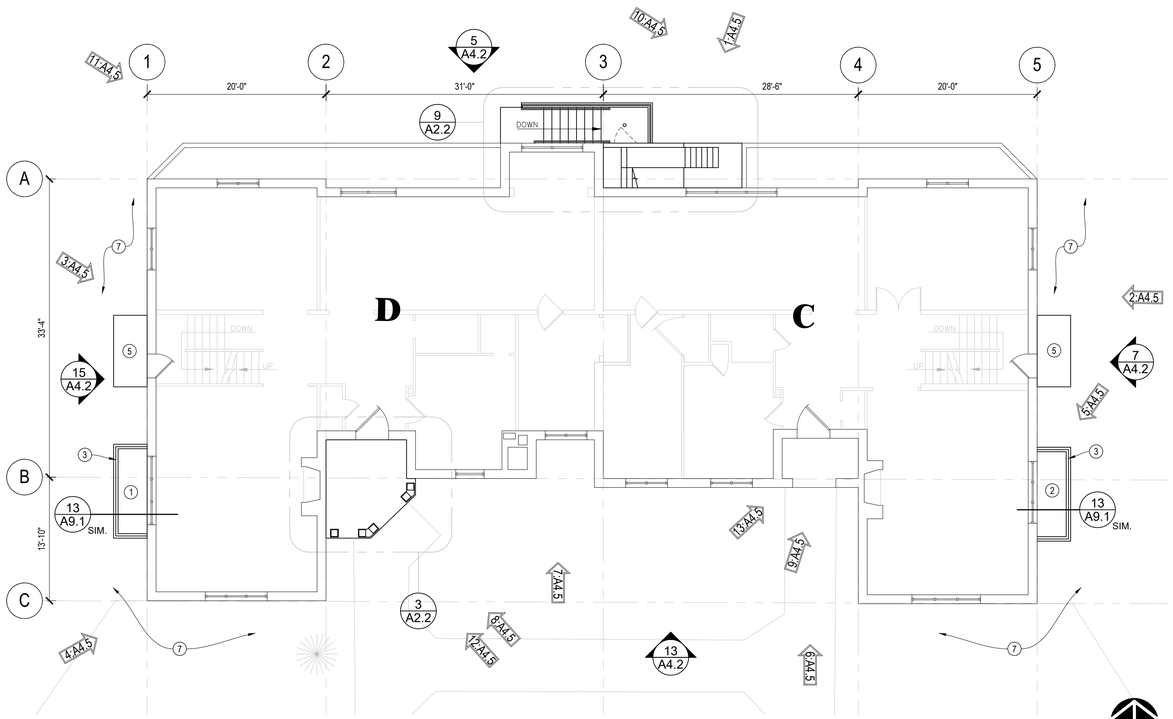
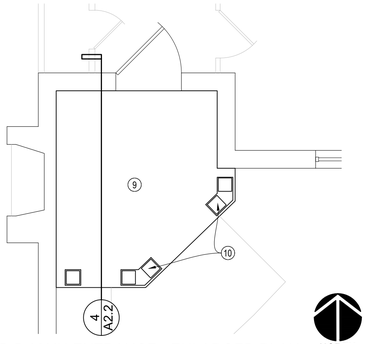
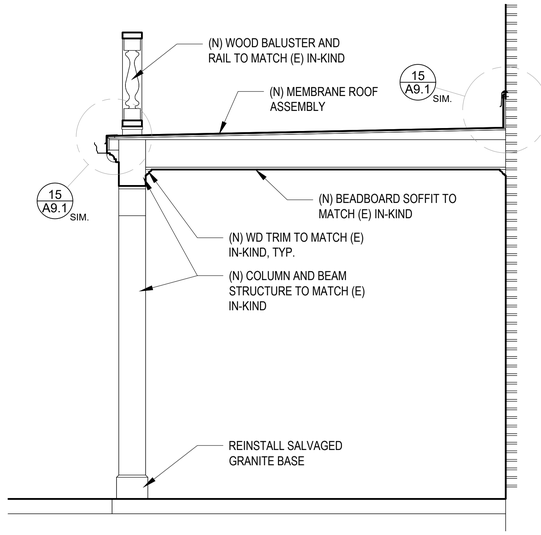


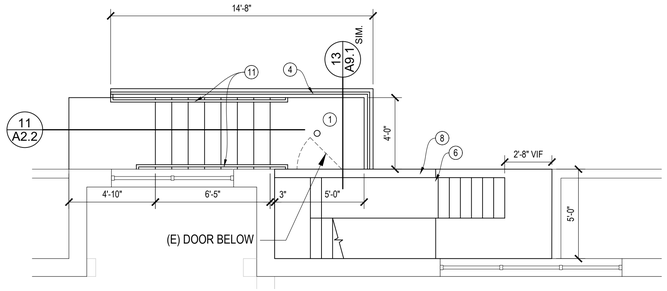
5 QUAD CD - FLOOR PLAN
A2.2 : A2.2 1/8" = 1'-0"



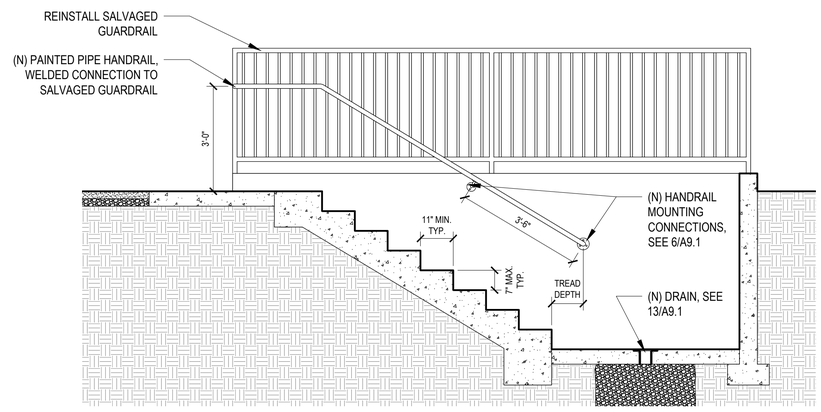
3 QUAD D MAIN ENTRANCE - ENLARGED PLAN
A2.2 : A2.2 1/4" = 1'-0"



4 QUAD D MAIN ENTRANCE - SECTION
A2.2 : A2.2 1/2" = 1'-0"



9 QUAD D NORTH STAIRS - ENLARGED PLAN
A2.2 : A2.2 1/4" = 1'-0"



11 QUAD D NORTH STAIRWELL - SECTION
A2.2 : A2.2 1/2" = 1'-0"

KEYNOTES

#	
1	REPLACE CONCRETE WINDOW/STAIR WELL WITH (N) CONCRETE WINDOW/STAIR WELL. COORDINATE EXTENTS WITH EXISTING TO MATCH IN-KIND SIZE. COORDINATE (N) TOP ELEVATION WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
2	STABILIZE AND REPAIR CRACKING/DAMAGED CONCRETE WINDOW WELL. REFERENCE STRUCTURAL REQUIREMENTS FOR ADDITIONAL INFORMATION. COORDINATE EXTENT. PROVIDE CONCRETE EXTENSION TO NEW ELEVATION - COORDINATE WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
3	PROVIDE AND INSTALL (N) METAL GUARDRAIL - POWDER COAT FINISH. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
4	CLEAN/REPAIR AND REINSTALL EXISTING METAL GUARDRAIL - PRIME AND PAINT. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
5	ALTERNATE 2 - PROVIDE (N) CONCRETE STAIR AND LANDING TO MATCH IN-KIND HISTORIC. COORDINATE REINSTALLATION OF SALVAGED FINISH COMPONENTS IN ORIGINAL LOCATIONS. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
6	COORDINATE CLEANING AND REMOVAL OF ALL LOOSE, DAMAGED, AND DETERIORATED FINISH/RUST IN ITS ENTIRETY. REPAIR AND STRUCTURALLY STABILIZE FIRE ESCAPE COMPONENTS AND CONNECTIONS PER STRUCTURAL. PRIME AND PAINT IN ITS ENTIRETY. (N) CONCRETE LANDING AT BASE, SEE STRUCTURAL.
7	REGRADE TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND ASSOCIATED CONSTRUCTIONS - COORDINATE EXTENT AND FINISH WITH CIVIL FOR TIE-IN TO EXISTING.
8	ALTERNATE 2 - RECONSTRUCT CONCRETE PODIUM AND TOPPING SLAB TO MATCH (E) HISTORIC CONDITION IN-KIND. REINSTALL SALVAGED PORTION OF FIRE ESCAPE. SEE STRUCTURAL FOR ADDITIONAL INFORMATION. COORDINATE WITH (N) GRADING.
9	ALTERNATE 2 - PROVIDE AND INSTALL (N) CONCRETE SLAB AT ENTRY TO MATCH (E) IN-KIND. COORDINATE ELEVATION WITH NEW GRADES, SEE STRUCTURAL.
10	ALTERNATE 2 - COORDINATE RECONSTRUCTION OF PORCH TO MATCH IN-KIND HISTORIC APPEARANCE. SEE STRUCTURAL FOR ADDITIONAL INFORMATION. PRIME AND PAINT.
11	(N) PIPE HANDRAIL, PRIME AND PAINT.

GENERAL NOTES

1. FIELD VERIFY DIMENSIONS. DO NOT SCALE DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
2. REFER TO ALL DRAWINGS FOR ADDITIONAL INFORMATION.
3. SEE COVER FOR DESCRIPTION OF BASE BID AND ALTERNATES.
4. AS PART OF ALTERNATE 2 - CLEAN ALL BRICK AND CONCRETE PARGE COATINGS, AREAS OF MORE INTENSIVE CLEANING ARE CALLED OUT IN THE DRAWINGS.
5. REGRADE AROUND ENTIRE BUILDING AS REQUIRED TO DIRECT DRAINAGE AWAY FROM THE BUILDING, SEE CIVIL.

8 0 8 16 — SCALE OF FEET — 1/8" = 1'-0"

4 0 4 8 — SCALE OF FEET — 1/4" = 1'-0"

2 0 2 4 — SCALE OF FEET — 1/2" = 1'-0"

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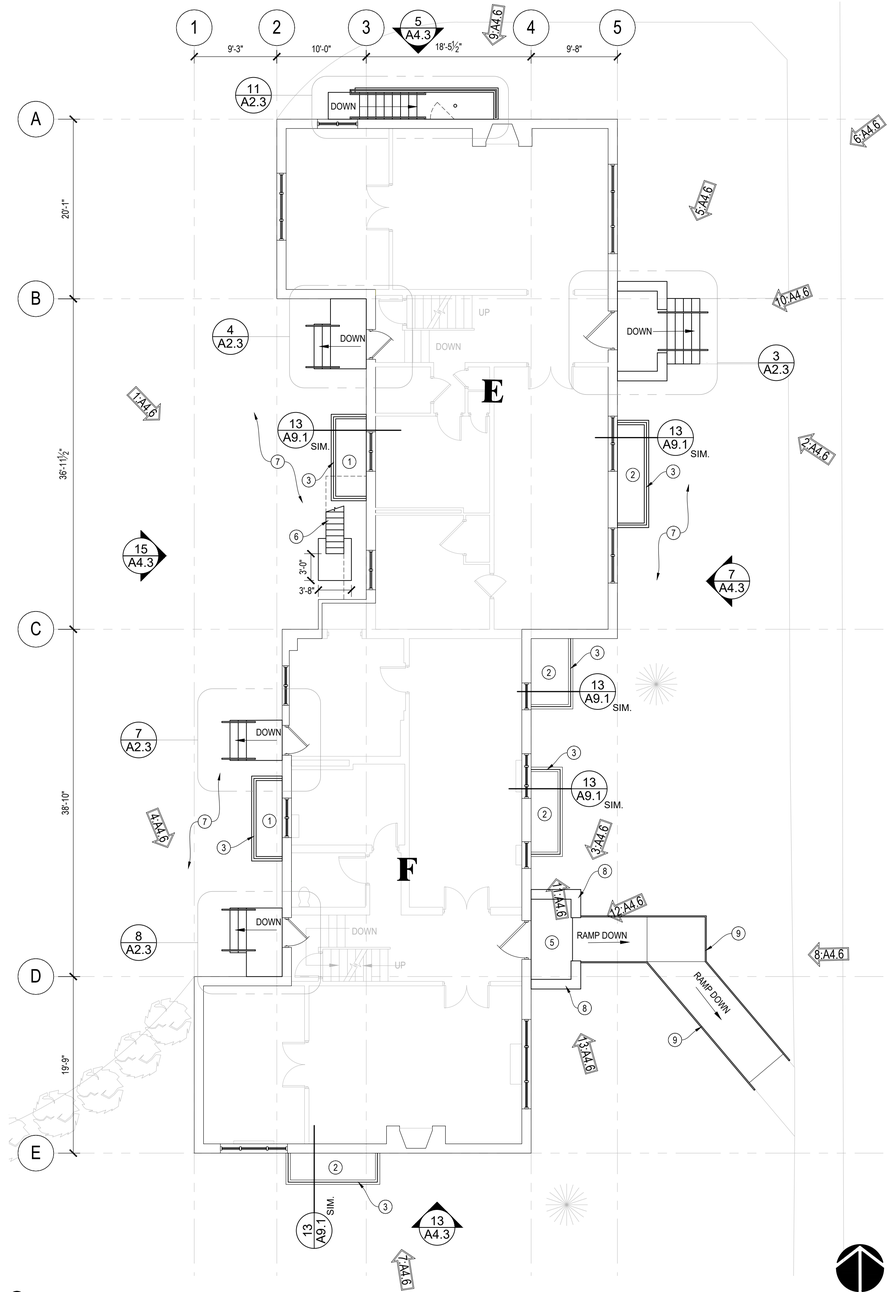
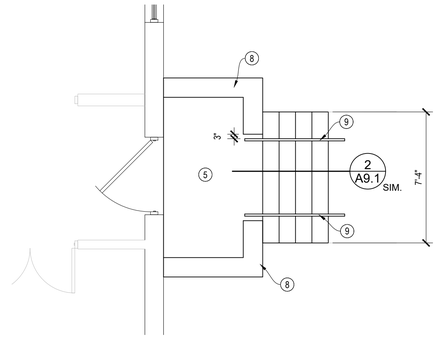
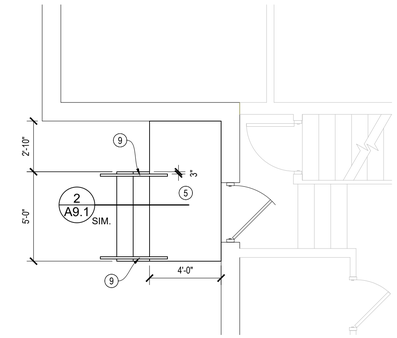


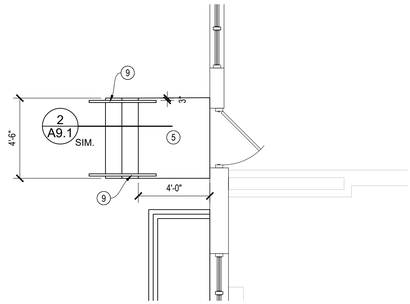
9 QUAD EF - FLOOR PLAN
A2.3 : A2.3 1/8" = 1'-0"



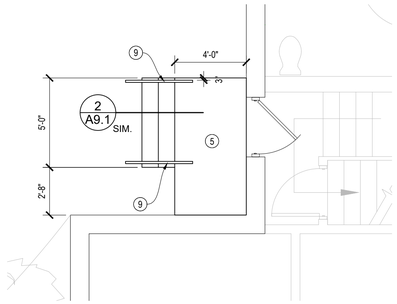
3 QUAD E MAIN EAST ENTRANCE - ENLARGED PLAN
A2.3 : A2.3 1/4" = 1'-0"



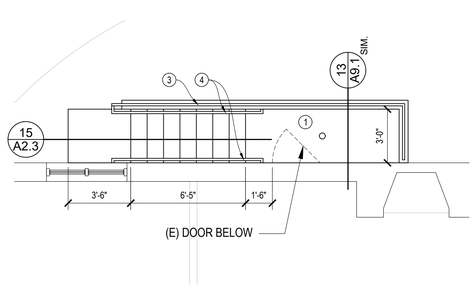
4 QUAD E WEST ENTRANCE - ENLARGED PLAN
A2.3 : A2.3 1/4" = 1'-0"



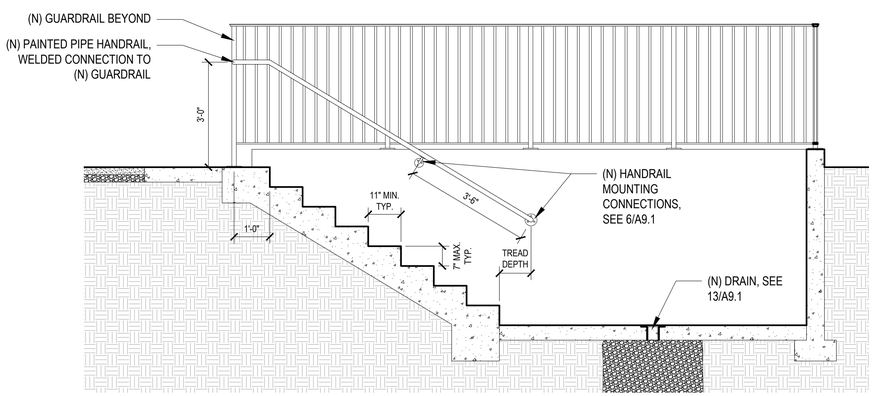
7 QUAD F SECONDARY WEST ENTRANCE - ENLARGED PLAN
A2.3 : A2.3 1/4" = 1'-0"



8 QUAD F MAIN WEST ENTRANCE - ENLARGED PLAN
A2.3 : A2.3 1/4" = 1'-0"



11 QUAD E NORTH STAIRWELL - ENLARGED PLAN
A2.3 : A2.3 1/4" = 1'-0"



15 QUAD E NORTH STAIRWELL - SECTION
A2.3 : A2.3 1/2" = 1'-0"

KEYNOTES

#	
1	REPLACE CONCRETE WINDOW/STAIR WELL WITH (N) CONCRETE WINDOW/STAIR WELL. COORDINATE EXTENTS WITH EXISTING TO MATCH IN-KIND SIZE. COORDINATE (N) TOP ELEVATION WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
2	STABILIZE AND REPAIR CRACKING/DAMAGED CONCRETE WINDOW WELL. REFERENCE STRUCTURAL REQUIREMENTS FOR ADDITIONAL INFORMATION. COORDINATE EXTENT. PROVIDE CONCRETE EXTENSION TO NEW ELEVATION - COORDINATE WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
3	PROVIDE AND INSTALL (N) METAL GUARDRAIL - POWDER COAT FINISH. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
4	PROVIDE AND INSTALL (N) METAL HANDRAIL - PRIME AND PAINT. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
5	ALTERNATE 2 - PROVIDE (N) CONCRETE STAIR AND LANDING TO MATCH IN-KIND HISTORIC. COORDINATE REINSTALLATION OF SALVAGED FINISH COMPONENTS IN ORIGINAL LOCATIONS. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
6	COORDINATE CLEANING AND REMOVAL OF ALL LOOSE, DAMAGED, AND DETERIORATED FINISH/RUST IN ITS ENTIRETY. REPAIR AND STRUCTURALLY STABILIZE FIRE ESCAPE COMPONENTS AND CONNECTIONS PER STRUCTURAL. PRIME AND PAINT IN ITS ENTIRETY. (N) CONCRETE LANDING AT BASE, SEE STRUCTURAL.
7	REGRADE TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND ASSOCIATED CONSTRUCTIONS - COORDINATE EXTENT AND FINISH WITH CIVIL FOR TIE-IN TO EXISTING.
8	ALTERNATE 2 - RECONSTRUCT BRICK AND GRANITE CAP TO MATCH (E) HISTORIC CONDITION IN-KIND. SEE 7/A2.1.
9	ALTERNATE 2 - (N) METAL HANDRAIL, POWDER COAT FINISH - SEE 2/A9.1. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.

GENERAL NOTES

1. FIELD VERIFY DIMENSIONS. DO NOT SCALE DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
2. REFER TO ALL DRAWINGS FOR ADDITIONAL INFORMATION.
3. SEE COVER FOR DESCRIPTION OF BASE BID AND ALTERNATES.
4. AS PART OF ALTERNATE 2 - CLEAN ALL BRICK AND CONCRETE PARGE COATINGS, AREAS OF MORE INTENSIVE CLEANING ARE CALLED OUT IN THE DRAWINGS.
5. REGRADE AROUND ENTIRE BUILDING AS REQUIRED TO DIRECT DRAINAGE AWAY FROM THE BUILDING, SEE CIVIL.

8 0 8 16 1/8" = 1'-0"
SCALE OF FEET

4 0 4 8 1/4" = 1'-0"
SCALE OF FEET

2 0 2 4 1/2" = 1'-0"
SCALE OF FEET

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A2.3

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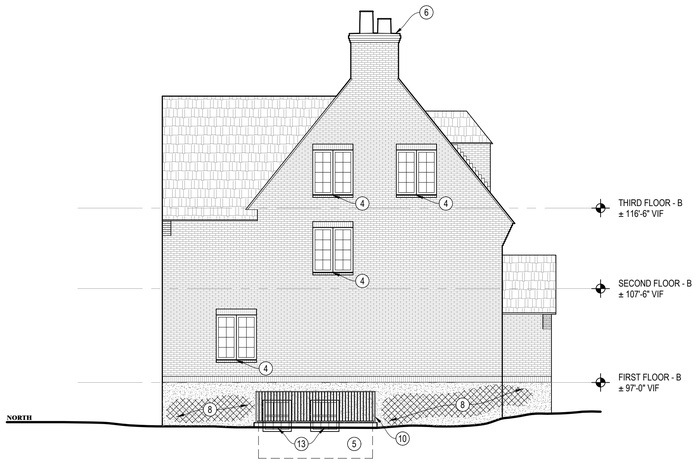
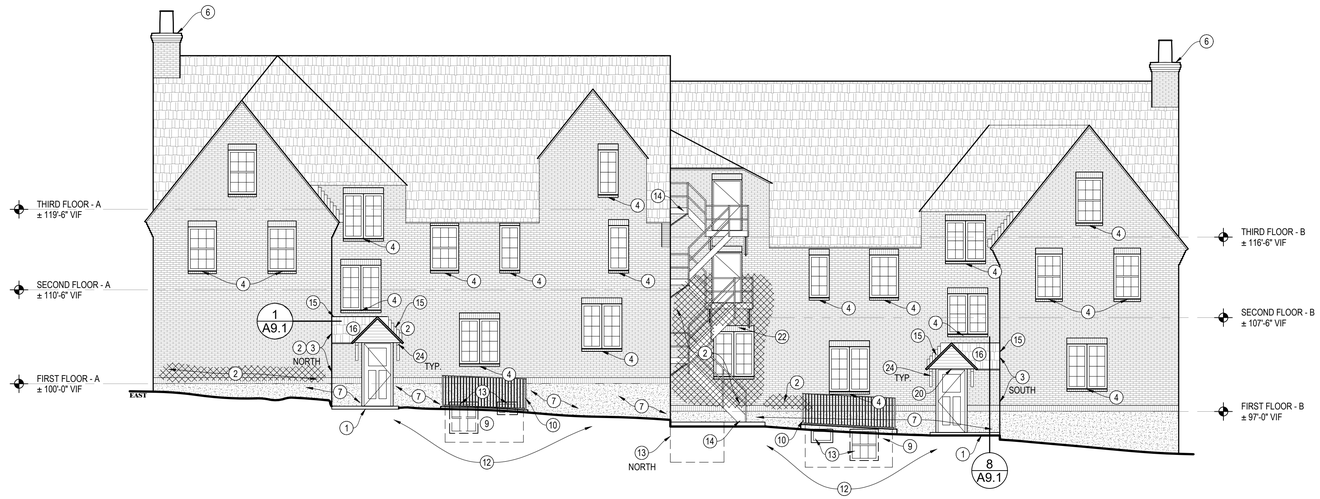


5 QUAD AB - NORTH ELEVATION

A2.1 : A4.1 1/8" = 1'-0"



7 QUAD AB - EAST ELEVATION

A2.1 : A4.1 1/8" = 1'-0"

13 QUAD AB - SOUTH ELEVATION

A2.1 : A4.1 1/8" = 1'-0"

15 QUAD AB - WEST ELEVATION

A2.1 : A4.1 1/8" = 1'-0"

KEYNOTES

#	KEYNOTES
1	ALTERNATE 2 - PROVIDE (N) CONCRETE STAIR AND LANDING TO MATCH IN-KIND HISTORIC. COORDINATE REINSTALLATION OF SALVAGED FINISH COMPONENTS IN ORIGINAL LOCATIONS. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
2	ALTERNATE 1 - CLEAN BRICK, MORTAR, AND ASSOCIATED MASONRY FINISHES TO REMOVE BIOLOGICAL GROWTH, GRAFFITI, AND OTHER DISCOLORATION. COORDINATE EXTENT WITH FIELD CONDITIONS.
3	ALTERNATE 1 - REPAIR AND REPOINT DAMAGED MASONRY/MORTAR. FIELD COORDINATE EXTENT - ASSUME MINIMUM 7.5% OF TOTAL BUILDING AREA.
4	ALTERNATE 1 - REPAIR AND REPOINT DAMAGED MASONRY WINDOW SILL AND ADJACENT FIELD/CASING. FIELD COORDINATE EXTENT.
5	REPLACE CONCRETE WINDOW WELL WITH (N) CONCRETE WINDOW WELL. COORDINATE EXTENTS WITH EXISTING TO MATCH IN-KIND SIZE. COORDINATE (N) TOP ELEVATION WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
6	ALTERNATE 1 - CLEAN, REPAIR, AND REPOINT BRICK AND MORTAR AT (E) CHIMNEY, PROVIDE NEW POWDER COATED METAL CAP TO SEAL UNUSED FLUES.
7	ALTERNATE 1 - CLEAN AND REPAIR MASONRY PARGE COAT FINISH OF ALL BIOLOGICAL GROWTH, GRAFFITI, DISCOLORATION, CRACKING, SPALLING, AND DELAMINATION - FIELD COORDINATE EXTENT.
8	ALTERNATE 1 - CLEAN MASONRY PARGE COAT FINISH OF ALL BIOLOGICAL GROWTH, GRAFFITI, AND OTHER DISCOLORATION - FIELD COORDINATE EXTENT.
9	STABILIZE AND REPAIR CRACKING/DAMAGED CONCRETE WINDOW WELL. REFERENCE STRUCTURAL REQUIREMENTS FOR ADDITIONAL INFORMATION. COORDINATE EXTENT. PROVIDE CONCRETE EXTENSION TO NEW ELEVATION - COORDINATE WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.

KEYNOTES

#	KEYNOTES
10	PROVIDE AND INSTALL (N) METAL GUARDRAIL - POWDER COAT FINISH. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
11	NOT USED.
12	REGRADE TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND ASSOCIATED CONSTRUCTIONS - COORDINATE EXTENT AND FINISH WITH CIVIL FOR TIE-IN TO EXISTING.
13	REPAIR AND RESTORE (E) WOOD WINDOW. COORDINATE REMOVAL/REINSTALLATION AS NECESSARY. PRIME AND PAINT.
14	COORDINATE CLEANING AND REMOVAL OF ALL LOOSE, DAMAGED, AND DETERIORATED FINISH/RUST IN ITS ENTIRETY. REPAIR AND STRUCTURALLY STABILIZE FIRE ESCAPE COMPONENTS AND CONNECTIONS PER STRUCTURAL. PRIME AND PAINT IN ITS ENTIRETY.
15	ALTERNATE 2 - (N) METAL COUNTER FLASHING, SEE DETAILS 1/A9.1 AND 7/A9.1. COORDINATE WITH FIELD CONDITIONS.
16	ALTERNATE 2 - (N) WOOD SHINGLE ROOF ASSEMBLY.
17	ALTERNATE 2 - RECONSTRUCT BRICK AND GRANITE CAP TO MATCH (E) CONDITION IN-KIND.
18	ALTERNATE 2 - (N) METAL HANDRAIL, POWDER COAT FINISH - SEE 2/A9.1. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
19	ALTERNATE 2 - RECONSTRUCT BALUSTRADE RAILING, BRACKETS, TRIMS, AND MISC. COMPONENTS TO MATCH IN-KIND HISTORIC - PRIME AND PAINT. SEE 10/A4.4.
20	ALTERNATE 2 - INSTALL SALVAGED AND NEW SOFFIT FINISH TO MATCH IN-KIND HISTORIC. PRIME AND PAINT.
21	PROTECT (E) SCULPTURE IN-PLACE.

KEYNOTES

#	KEYNOTES
22	(N) WINDOW HEADER, SEE STRUCTURAL.
23	ALTERNATE 2 - (N) MEMBRANE ROOF ASSEMBLY, SEE 15/A9.1.
24	ALTERNATE 2 - PROVIDE AND INSTALL NEW REPLICA PORCH ELEMENTS TO REPLACE ALL DAMAGED COMPONENTS IN-KIND. PRIME AND PAINT. REINSTALL SALVAGED LIGHT FIXTURES TO MATCH (E) CONDITION IN-KIND.

GENERAL NOTES

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2. REFER TO ALL DRAWINGS FOR ADDITIONAL INFORMATION.
3. SEE COVER FOR DESCRIPTION OF BASE BID AND ALTERNATES.
4. AS PART OF ALTERNATE 2 - CLEAN ALL BRICK AND CONCRETE PARGE COATINGS, AREAS OF MORE INTENSIVE CLEANING ARE CALLED OUT IN THE DRAWINGS.
5. REGRADE AROUND ENTIRE BUILDING AS REQUIRED TO DIRECT DRAINAGE AWAY FROM THE BUILDING, SEE CIVIL.

8 0 8 16

SCALE OF FEET 1/8" = 1'-0"

STATE OF MONTANA
BILLINGS
DUSTIN W. EATON
3980
MONTANA
LICENSED ARCHITECT

sheet ELEVATIONS - QUAD AB

project ATKINSON QUADRANGLE EXTERIOR REPAIRS

owner MONTANA STATE UNIVERSITY

project # 23123.00

revision date

phase
CONSTRUCTION DOCUMENTS

issue date
01.24.2025

A4.1

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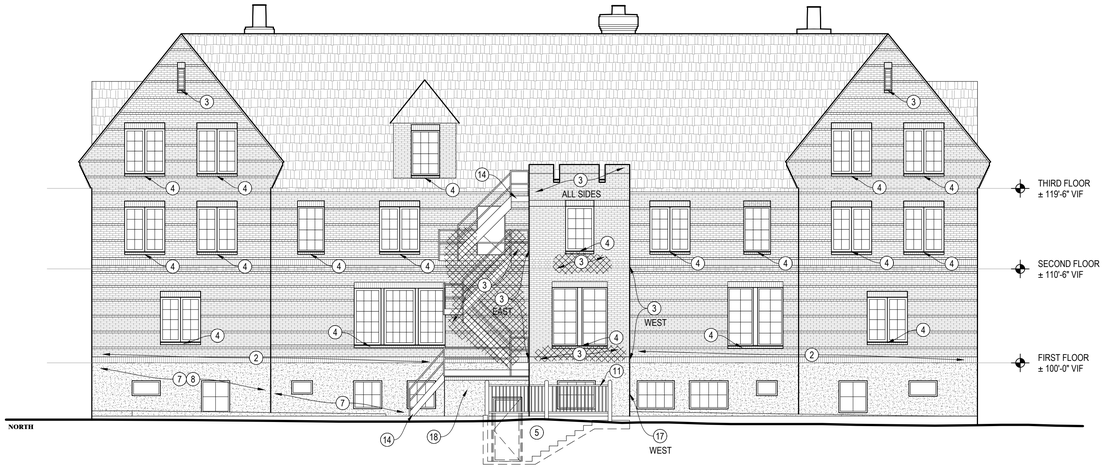
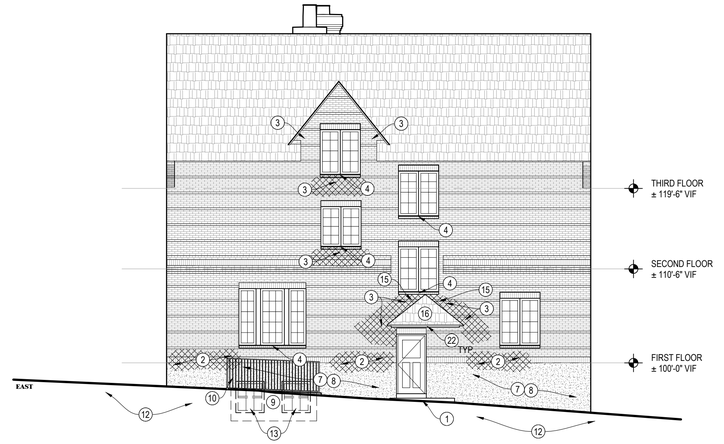


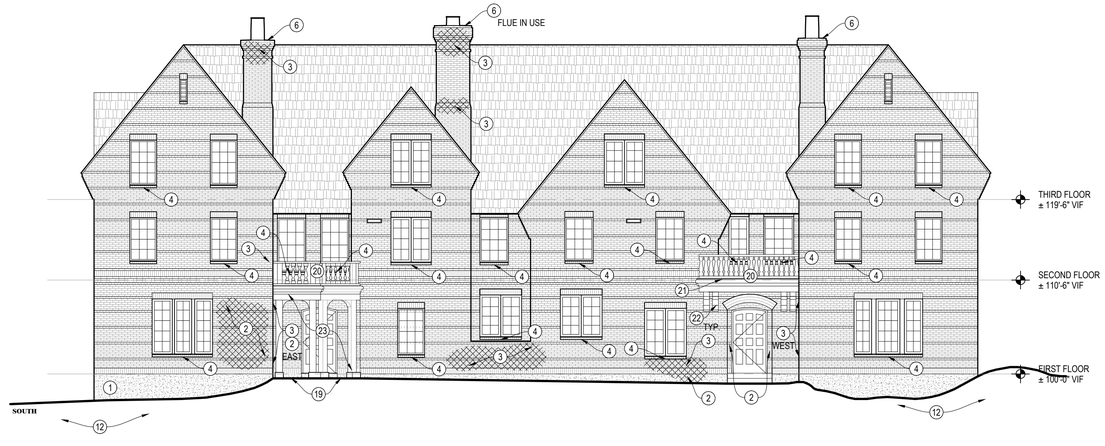
5 QUAD CD - NORTH ELEVATION

A2.2 : A4.2 1/8" = 1'-0"



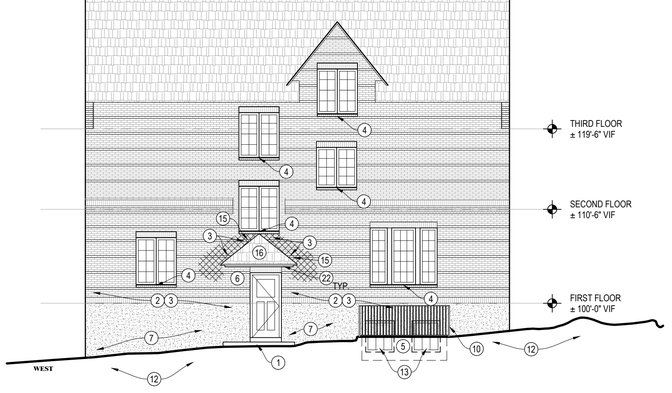
7 QUAD CD - EAST ELEVATION

A2.2 : A4.2 1/8" = 1'-0"



13 QUAD CD - SOUTH ELEVATION

A2.2 : A4.2 1/8" = 1'-0"



15 QUAD CD - WEST ELEVATION

A2.2 : A4.2 1/8" = 1'-0"

KEYNOTES

#	
1	ALTERNATE 2 - PROVIDE (N) CONCRETE STAIR AND LANDING TO MATCH IN-KIND HISTORIC. COORDINATE REINSTALLATION OF SALVAGED FINISH COMPONENTS IN ORIGINAL LOCATIONS. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
2	ALTERNATE 1 - CLEAN BRICK, MORTAR, AND ASSOCIATED MASONRY FINISHES TO REMOVE BIOLOGICAL GROWTH, GRAFFITI, AND OTHER DISCOLORATION. COORDINATE EXTENT WITH FIELD CONDITIONS.
3	ALTERNATE 1 - REPAIR AND REPOINT DAMAGED MASONRY/MORTAR. FIELD COORDINATE EXTENT - ASSUME MINIMUM 7.5% OF TOTAL BUILDING AREA.
4	ALTERNATE 1 - REPAIR AND REPOINT DAMAGED MASONRY WINDOW SILL AND ADJACENT FIELD/CASING. FIELD COORDINATE EXTENT.
5	REPLACE CONCRETE WINDOW WELL WITH (N) CONCRETE WINDOW WELL. COORDINATE EXTENTS WITH EXISTING TO MATCH IN-KIND SIZE. COORDINATE (N) TOP ELEVATION WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
6	ALTERNATE 1 - CLEAN, REPAIR, AND REPOINT BRICK AND MORTAR AT (E) CHIMNEY, PROVIDE NEW POWDER COATED METAL CAP TO SEAL UNUSED FLUES.
7	ALTERNATE 1 - CLEAN AND REPAIR MASONRY PARGE COAT FINISH OF ALL BIOLOGICAL GROWTH, GRAFFITI, DISCOLORATION, CRACKING, SPALLING, AND DELAMINATION - FIELD COORDINATE EXTENT.
8	ALTERNATE 1 - CLEAN MASONRY PARGE COAT FINISH OF ALL BIOLOGICAL GROWTH, GRAFFITI, AND OTHER DISCOLORATION - FIELD COORDINATE EXTENT.
9	STABILIZE AND REPAIR CRACKING/DAMAGED CONCRETE WINDOW WELL. REFERENCE STRUCTURAL REQUIREMENTS FOR ADDITIONAL INFORMATION. COORDINATE EXTENT. PROVIDE CONCRETE EXTENSION TO NEW ELEVATION - COORDINATE WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.

KEYNOTES

#	
10	PROVIDE AND INSTALL (N) METAL GUARDRAIL - POWDER COAT FINISH. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
11	NOT USED.
12	REGRADE TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND ASSOCIATED CONSTRUCTIONS - COORDINATE EXTENT AND FINISH WITH CIVIL FOR TIE-IN TO EXISTING.
13	REPAIR AND RESTORE (E) WOOD WINDOW. COORDINATE REMOVAL/REINSTALLATION AS NECESSARY. PRIME AND PAINT.
14	COORDINATE CLEANING AND REMOVAL OF ALL LOOSE, DAMAGED, AND DETERIORATED FINISH/RUST IN ITS ENTIRETY. REPAIR AND STRUCTURALLY STABILIZE FIRE ESCAPE COMPONENTS AND CONNECTIONS PER STRUCTURAL. PRIME AND PAINT IN ITS ENTIRETY.
15	ALTERNATE 2 - (N) METAL COUNTER FLASHING, SEE DETAILS 1/A9.1 AND 7/A9.1. COORDINATE WITH FIELD CONDITIONS.
16	ALTERNATE 2 - (N) WOOD SHINGLE ROOF ASSEMBLY.
17	INFILL (E) OPENING.
18	ALTERNATE 2 - RECONSTRUCT CONCRETE PODIUM AND TOPPING SLAB TO MATCH (E) HISTORIC CONDITION IN-KIND. REINSTALL SALVAGED PORTION OF FIRE ESCAPE. SEE STRUCTURAL FOR ADDITIONAL INFORMATION. COORDINATE WITH (N) GRADING.
19	ALTERNATE 2 - PROVIDE AND INSTALL (N) CONCRETE SLAB AT ENTRY TO MATCH (E) IN-KIND. COORDINATE ELEVATION WITH NEW GRADES, SEE STRUCTURAL.
20	ALTERNATE 2 - RECONSTRUCT BALUSTRADE RAILING, BRACKETS, TRIMS, AND MISC. COMPONENTS TO MATCH IN-KIND HISTORIC - PRIME AND PAINT.

KEYNOTES

#	
21	ALTERNATE 2 - (N) MEMBRANE ROOF ASSEMBLY, SEE 15/A9.1.
22	ALTERNATE 2 - PROVIDE AND INSTALL NEW REPLICA PORCH ELEMENTS TO REPLACE ALL DAMAGED COMPONENTS IN-KIND. PRIME AND PAINT.
23	ALTERNATE 2 - PROVIDE AND INSTALL NEW REPLICA PORCH ELEMENTS TO REPLACE ALL DAMAGED COMPONENTS IN-KIND. PRIME AND PAINT. REINSTALL SALVAGED LIGHT FIXTURES TO MATCH (E) CONDITION IN-KIND.

GENERAL NOTES

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8 0 8 16 1/8" = 1'-0"

SCALE OF FEET

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3980
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sheet ELEVATIONS - QUAD CD

project ATKINSON QUADRANGLE EXTERIOR REPAIRS

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project # 23123.00

revision	date

phase
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A4.2

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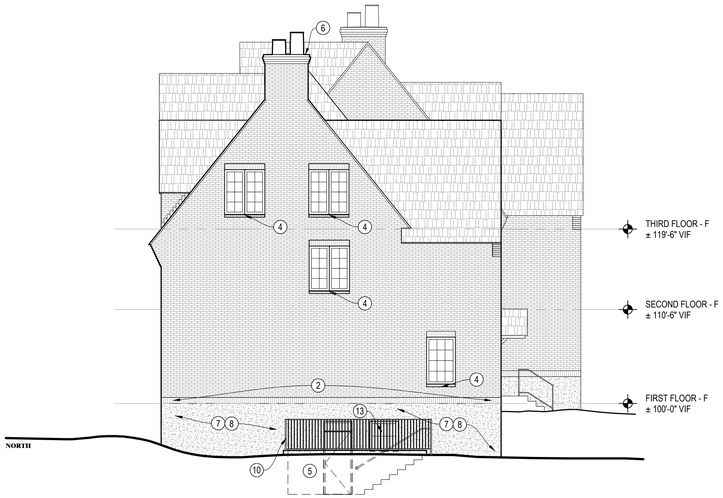
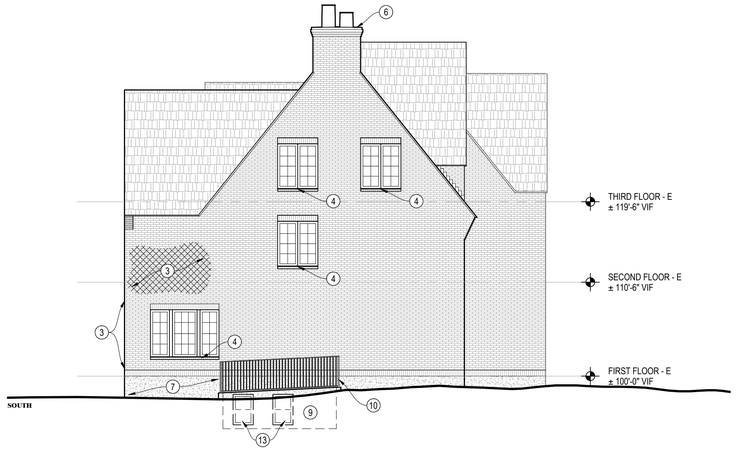


5 QUAD EF - NORTH ELEVATION

A2.3 : A4.3 1/8" = 1'-0"

7 QUAD EF - EAST ELEVATION

A2.3 : A4.3 1/8" = 1'-0"



13 QUAD EF - SOUTH ELEVATION

A2.3 : A4.3 1/8" = 1'-0"

15 QUAD EF - WEST ELEVATION

A2.3 : A4.3 1/8" = 1'-0"

#	KEYNOTES
1	ALTERNATE 2 - PROVIDE (N) CONCRETE STAIR AND LANDING TO MATCH IN-KIND HISTORIC. COORDINATE REINSTALLATION OF SALVAGED FINISH COMPONENTS IN ORIGINAL LOCATIONS. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
2	ALTERNATE 1 - CLEAN BRICK, MORTAR, AND ASSOCIATED MASONRY FINISHES TO REMOVE BIOLOGICAL GROWTH, GRAFFITI, AND OTHER DISCOLORATION. COORDINATE EXTENT WITH FIELD CONDITIONS.
3	ALTERNATE 1 - REPAIR AND REPOINT DAMAGED MASONRY/MORTAR. FIELD COORDINATE EXTENT - ASSUME MINIMUM 7.5% OF TOTAL BUILDING AREA.
4	ALTERNATE 1 - REPAIR AND REPOINT DAMAGED MASONRY WINDOW SILL AND ADJACENT FIELD/CASING. FIELD COORDINATE EXTENT.
5	REPLACE CONCRETE WINDOW WELL WITH (N) CONCRETE WINDOW WELL. COORDINATE EXTENTS WITH EXISTING TO MATCH IN-KIND SIZE. COORDINATE (N) TOP ELEVATION WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
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8	ALTERNATE 1 - CLEAN MASONRY PARGE COAT FINISH OF ALL BIOLOGICAL GROWTH, GRAFFITI, AND OTHER DISCOLORATION - FIELD COORDINATE EXTENT.
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#	KEYNOTES
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12	REGRADE TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND ASSOCIATED CONSTRUCTIONS - COORDINATE EXTENT AND FINISH WITH CIVIL FOR TIE-IN TO EXISTING.
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15	ALTERNATE 2 - (N) METAL COUNTER FLASHING, SEE DETAILS 1/A9.1 AND 7/A9.1. COORDINATE WITH FIELD CONDITIONS.
16	ALTERNATE 2 - (N) WOOD SHINGLE ROOF ASSEMBLY.
17	ALTERNATE 2 - RECONSTRUCT BRICK AND GRANITE CAP TO MATCH (E) CONDITION IN-KIND.
18	ALTERNATE 2 - (N) METAL HANDRAIL, POWDER COAT FINISH - SEE 2/A9.1. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
19	ALTERNATE 2 - RECONSTRUCT BALUSTRADE RAILING, BRACKETS, TRIMS, AND MISC. COMPONENTS TO MATCH IN-KIND HISTORIC - PRIME AND PAINT. SEE 10/A4.4.
20	ALTERNATE 1 - PATCH HOLES IN (E) BRICK AT THIS LOCATION.
21	ALTERNATE 1 - REPAIR AND REPOINT (E) BRICK PARAPET.

#	KEYNOTES
22	(N) WINDOW HEADER, SEE STRUCTURAL.
23	ALTERNATE 2 - (N) MEMBRANE ROOF ASSEMBLY, SEE 15/A9.1.
24	ALTERNATE 2 - PROVIDE AND INSTALL NEW REPLICA PORCH ELEMENTS TO REPLACE ALL DAMAGED COMPONENTS IN-KIND. PRIME AND PAINT. REINSTALL SALVAGED LIGHT FIXTURES TO MATCH (E) CONDITION IN-KIND.

GENERAL NOTES

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8 0 8 16
SCALE OF FEET
1/8" = 1'-0"

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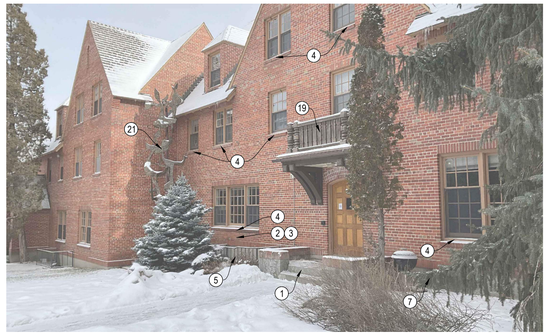
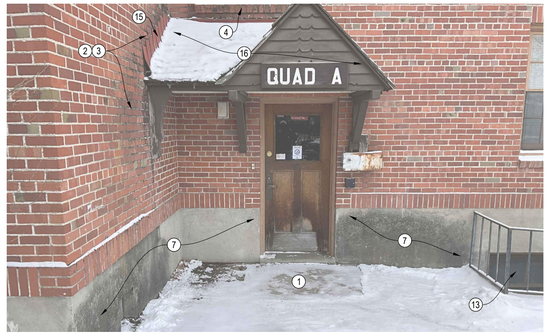
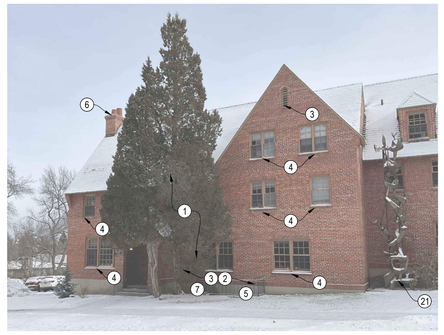


1 QUAD A WEST ENTRY
A2.1 : A4.4 PHOTOGRAPH



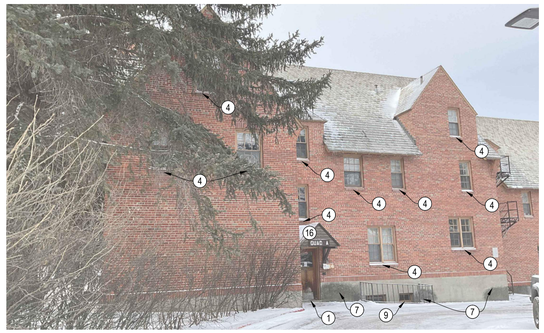
2 QUAD A EAST ENTRY
A2.1 : A4.4 PHOTOGRAPH



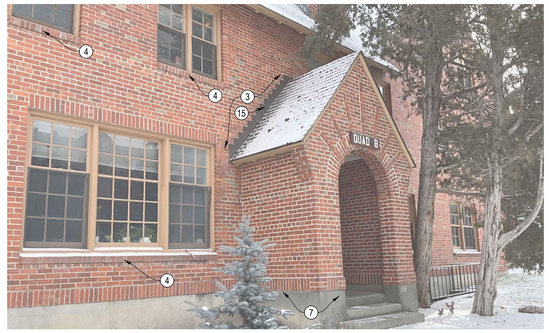
3 QUAD B WEST ENTRY
A2.1 : A4.4 PHOTOGRAPH

4 QUAD B STAIR
A2.1 : A4.4 PHOTOGRAPH

5 QUAD A SOUTH ELEVATION
A2.1 : A4.4 PHOTOGRAPH



6 QUAD A EAST ELEVATION
A2.1 : A4.4 PHOTOGRAPH

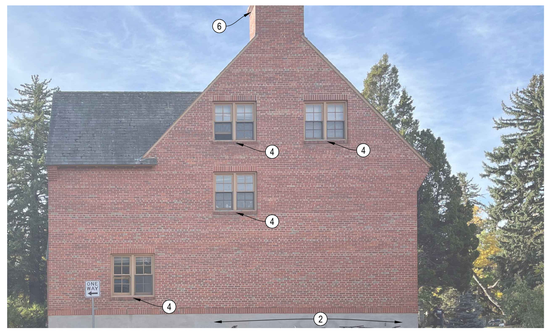


7 QUAD B WEST ENTRY
A2.1 : A4.4 PHOTOGRAPH

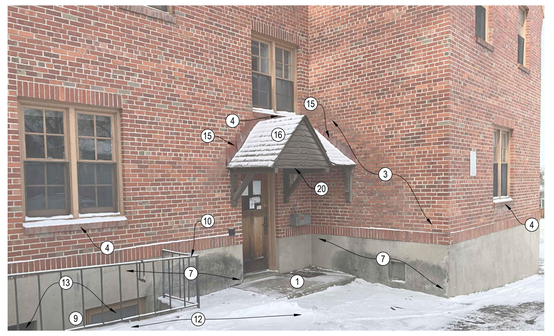
8 QUAD B UPPER EAST ELEVATION
A2.1 : A4.4 PHOTOGRAPH

9 QUAD A WINDOW WELL
A2.1 : A4.4 PHOTOGRAPH

10 QUAD A WEST ENTRY
A2.1 : A4.4 PHOTOGRAPH



11 QUAD B NORTH ELEVATION
A2.1 : A4.4 PHOTOGRAPH



12 QUAD B LOWER EAST ELEVATION / ENTRY
A2.1 : A4.4 PHOTOGRAPH

KEYNOTES

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KEYNOTES

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16	ALTERNATE 2 - (N) WOOD SHINGLE ROOF ASSEMBLY.
17	ALTERNATE 2 - RECONSTRUCT BRICK AND GRANITE CAP TO MATCH (E) CONDITION IN-KIND.
18	ALTERNATE 2 - (N) METAL HANDRAIL, POWDER COAT FINISH - SEE 2/A9.1. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
19	ALTERNATE 2 - RECONSTRUCT BALUSTRADE RAILING, BRACKETS, TRIMS, AND MISC. COMPONENTS TO MATCH IN-KIND HISTORIC - PRIME AND PAINT.
20	ALTERNATE 2 - INSTALL SALVAGED AND NEW SOFFIT FINISH TO MATCH IN-KIND HISTORIC. PRIME AND PAINT.
21	PROTECT (E) SCULPTURE IN-PLACE.

KEYNOTES

#	
22	(N) WINDOW HEADER, SEE STRUCTURAL.
23	ALTERNATE 2 - (N) MEMBRANE ROOF ASSEMBLY, SEE 15/A9.1.
24	ALTERNATE 2 - PROVIDE AND INSTALL NEW REPLICA PORCH ELEMENTS TO REPLACE ALL DAMAGED COMPONENTS IN-KIND. PRIME AND PAINT. REINSTALL SALVAGED LIGHT FIXTURES TO MATCH (E) CONDITION IN-KIND.

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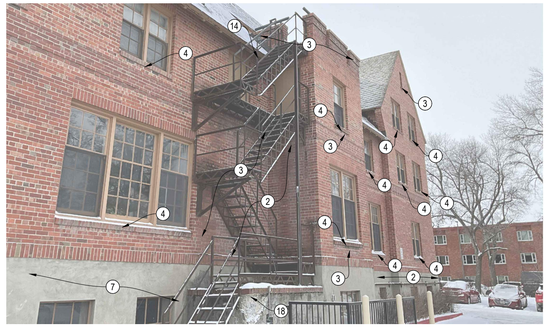
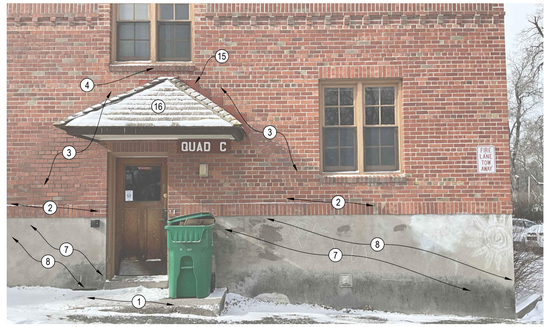
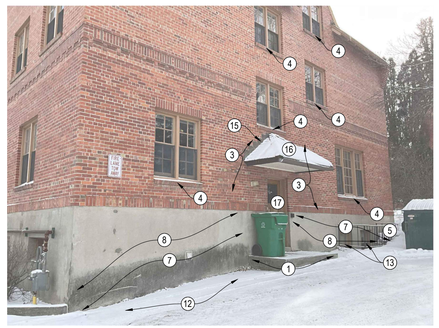


1 QUAD C STAIR
A2.2 : A4.5 PHOTOGRAPH



2 QUAD C EAST ENTRY
A2.2 : A4.5 PHOTOGRAPH

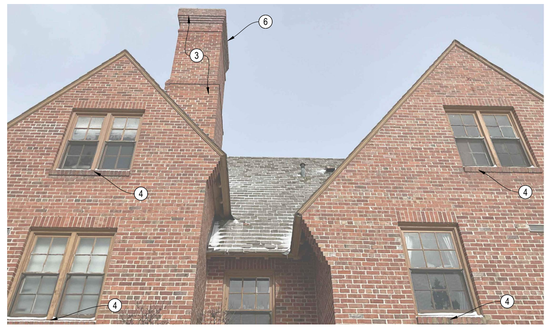


3 QUAD D WEST ENTRY
A2.2 : A4.5 PHOTOGRAPH

4 QUAD D SOUTHWEST ELEVATION
A2.2 : A4.5 PHOTOGRAPH

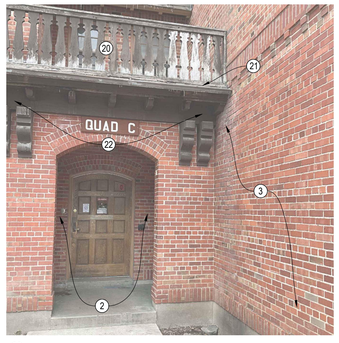
5 QUAD C WINDOW WELL
A2.2 : A4.5 PHOTOGRAPH

6 QUAD C SOUTH ELEVATION
A2.2 : A4.5 PHOTOGRAPH

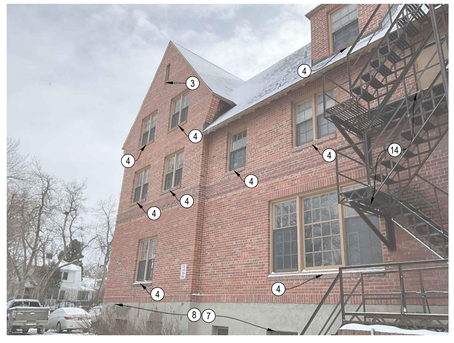


7 QUAD D SOUTH ELEVATION
A2.2 : A4.5 PHOTOGRAPH

8 QUAD D SOUTH PORCH
A2.2 : A4.5 PHOTOGRAPH

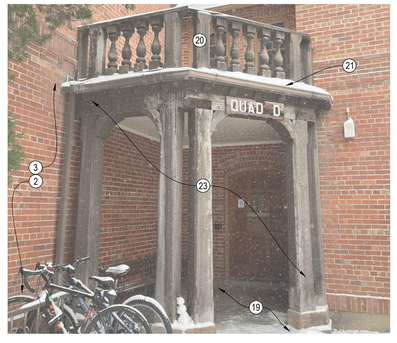


9 QUAD C SOUTH ENTRY
A2.2 : A4.5 PHOTOGRAPH



10 QUAD C NORTH ELEVATION
A2.2 : A4.5 PHOTOGRAPH

11 QUAD D NORTH ELEVATION
A2.2 : A4.5 PHOTOGRAPH



12 QUAD D SOUTH ENTRY
A2.2 : A4.5 PHOTOGRAPH

13 QUAD C SOUTH ENTRY DETAIL
A2.2 : A4.5 PHOTOGRAPH

KEYNOTES

#	
1	ALTERNATE 2 - PROVIDE (N) CONCRETE STAIR AND LANDING TO MATCH IN-KIND HISTORIC. COORDINATE REINSTALLATION OF SALVAGED FINISH COMPONENTS IN ORIGINAL LOCATIONS. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
2	ALTERNATE 1 - CLEAN BRICK, MORTAR, AND ASSOCIATED MASONRY FINISHES TO REMOVE BIOLOGICAL GROWTH, GRAFFITI, AND OTHER DISCOLORATION. COORDINATE EXTENT WITH FIELD CONDITIONS.
3	ALTERNATE 1 - REPAIR AND REPOINT DAMAGED MASONRY/MORTAR. FIELD COORDINATE EXTENT - ASSUME MINIMUM 7.5% OF TOTAL BUILDING AREA.
4	ALTERNATE 1 - REPAIR AND REPOINT DAMAGED MASONRY WINDOW SILL AND ADJACENT FIELD/CASING. FIELD COORDINATE EXTENT.
5	REPLACE CONCRETE WINDOW WELL WITH (N) CONCRETE WINDOW WELL. COORDINATE EXTENTS WITH EXISTING TO MATCH IN-KIND SIZE. COORDINATE (N) TOP ELEVATION WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.
6	ALTERNATE 1 - CLEAN, REPAIR, AND REPOINT BRICK AND MORTAR AT (E) CHIMNEY, PROVIDE NEW POWDER COATED METAL CAP TO SEAL UNUSED FLUES.
7	ALTERNATE 1 - CLEAN AND REPAIR MASONRY PARGE COAT FINISH OF ALL BIOLOGICAL GROWTH, GRAFFITI, DISCOLORATION, CRACKING, SPALLING, AND DELAMINATION - FIELD COORDINATE EXTENT.
8	ALTERNATE 1 - CLEAN MASONRY PARGE COAT FINISH OF ALL BIOLOGICAL GROWTH, GRAFFITI, AND OTHER DISCOLORATION - FIELD COORDINATE EXTENT.
9	STABILIZE AND REPAIR CRACKING/DAMAGED CONCRETE WINDOW WELL. REFERENCE STRUCTURAL REQUIREMENTS FOR ADDITIONAL INFORMATION. COORDINATE EXTENT. PROVIDE CONCRETE EXTENSION TO NEW ELEVATION - COORDINATE WITH CIVIL AND ADJACENT GRADING. SEE DETAIL 13/A9.1 FOR ADDITIONAL INFORMATION.

KEYNOTES

#	
10	PROVIDE AND INSTALL (N) METAL GUARDRAIL - POWDER COAT FINISH. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
11	NOT USED.
12	REGRADE TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDING AND ASSOCIATED CONSTRUCTIONS - COORDINATE EXTENT AND FINISH WITH CIVIL FOR TIE-IN TO EXISTING.
13	REPAIR AND RESTORE (E) WOOD WINDOW. COORDINATE REMOVAL/REINSTALLATION AS NECESSARY. PRIME AND PAINT.
14	COORDINATE CLEANING AND REMOVAL OF ALL LOOSE, DAMAGED, AND DETERIORATED FINISH/RUST IN ITS ENTIRETY. REPAIR AND STRUCTURALLY STABILIZE FIRE ESCAPE COMPONENTS AND CONNECTIONS PER STRUCTURAL. PRIME AND PAINT IN ITS ENTIRETY.
15	ALTERNATE 2 - (N) METAL COUNTER FLASHING, SEE DETAILS 1/A9.1 AND 7/A9.1. COORDINATE WITH FIELD CONDITIONS.
16	ALTERNATE 2 - (N) WOOD SHINGLE ROOF ASSEMBLY.
17	INFILL (E) OPENING.
18	ALTERNATE 2 - RECONSTRUCT CONCRETE PODIUM AND TOPPING SLAB TO MATCH (E) HISTORIC CONDITION IN-KIND. REINSTALL SALVAGED PORTION OF FIRE ESCAPE. SEE STRUCTURAL FOR ADDITIONAL INFORMATION. COORDINATE WITH (N) GRADING.
19	ALTERNATE 2 - PROVIDE AND INSTALL (N) CONCRETE SLAB AT ENTRY TO MATCH (E) IN-KIND. COORDINATE ELEVATION WITH NEW GRADES, SEE STRUCTURAL.
20	ALTERNATE 2 - RECONSTRUCT BALUSTRADE RAILING, BRACKETS, TRIMS, AND MISC. COMPONENTS TO MATCH IN-KIND HISTORIC - PRIME AND PAINT.

KEYNOTES

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21	ALTERNATE 2 - (N) MEMBRANE ROOF ASSEMBLY, SEE 15/A9.1.
22	ALTERNATE 2 - PROVIDE AND INSTALL NEW REPLICA PORCH ELEMENTS TO REPLACE ALL DAMAGED COMPONENTS IN-KIND. PRIME AND PAINT.
23	ALTERNATE 2 - PROVIDE AND INSTALL NEW REPLICA PORCH ELEMENTS TO REPLACE ALL DAMAGED COMPONENTS IN-KIND. PRIME AND PAINT. REINSTALL SALVAGED LIGHT FIXTURES TO MATCH (E) CONDITION IN-KIND.

GENERAL NOTES

1. FIELD VERIFY DIMENSIONS. DO NOT SCALE DRAWINGS. NOTIFY ARCHITECT OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.
2. REFER TO ALL DRAWINGS FOR ADDITIONAL INFORMATION.
3. SEE COVER FOR DESCRIPTION OF BASE BID AND ALTERNATES.
4. AS PART OF ALTERNATE 2 - CLEAN ALL BRICK AND CONCRETE PARGE COATINGS, AREAS OF MORE INTENSIVE CLEANING ARE CALLED OUT IN THE DRAWINGS.
5. REGRADE AROUND ENTIRE BUILDING AS REQUIRED TO DIRECT DRAINAGE AWAY FROM THE BUILDING, SEE CIVIL.

8 0 8 16
SCALE OF FEET
1/8" = 1'-0"

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project # 23123.00

revision date

phase
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issue date
01.24.2025

A4.5

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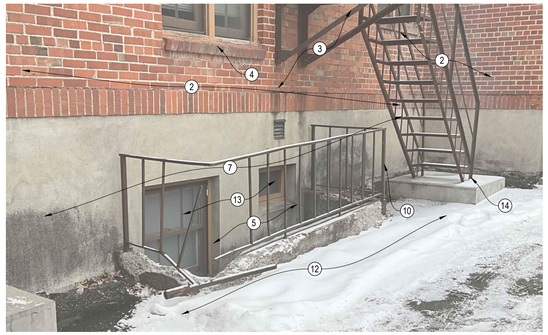
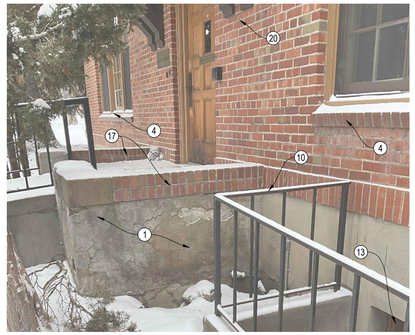
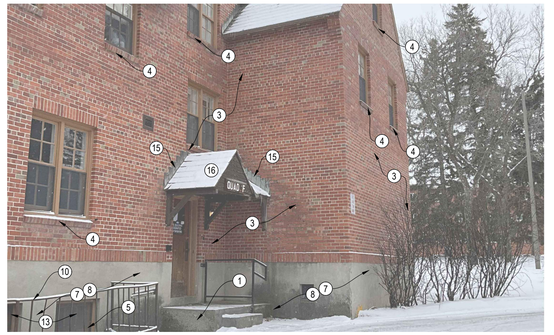


1 QUAD E WEST WINDOW WELL
A2.3 : A4.6 PHOTOGRAPH

2 QUAD E EAST ROOF
A2.3 : A4.6 PHOTOGRAPH

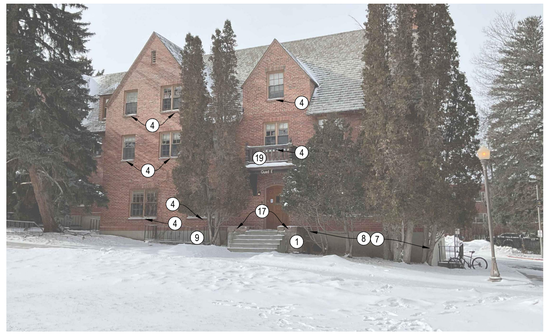


3 QUAD F EAST ENTRY
A2.3 : A4.6 PHOTOGRAPH

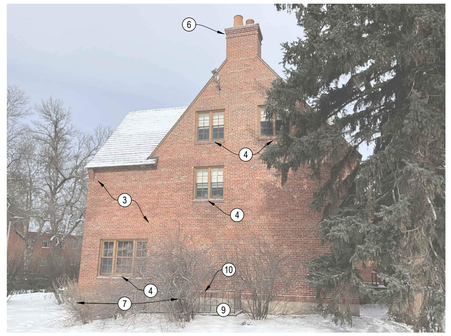


4 QUAD F WEST ENTRY
A2.3 : A4.6 PHOTOGRAPH

5 QUAD E CONCRETE STOOP
A2.3 : A4.6 PHOTOGRAPH

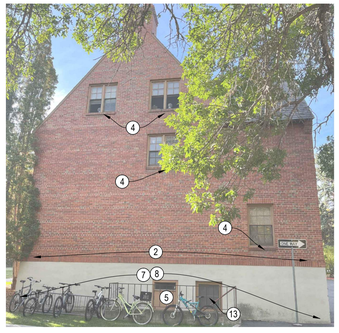


6 QUAD E EAST ELEVATION
A2.3 : A4.6 PHOTOGRAPH



7 QUAD F SOUTH ELEVATION
A2.3 : A4.6 PHOTOGRAPH

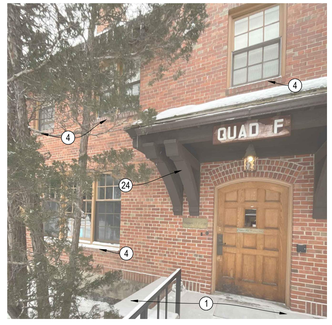
8 QUAD F EAST ELEVATION
A2.3 : A4.6 PHOTOGRAPH



9 QUAD E NORTH ELEVATION
A2.3 : A4.6 PHOTOGRAPH

10 QUAD E EAST ENTRY
A2.3 : A4.6 PHOTOGRAPH

11 QUAD F EAST WINDOW WELL
A2.3 : A4.6 PHOTOGRAPH



12 QUAD F EAST ENTRY
A2.3 : A4.6 PHOTOGRAPH

5 QUAD F EAST ENTRY DETAIL
A2.3 : A4.6 PHOTOGRAPH

KEYNOTES

#	
1	ALTERNATE 2 - PROVIDE (N) CONCRETE STAIR AND LANDING TO MATCH IN-KIND HISTORIC. COORDINATE REINSTALLATION OF SALVAGED FINISH COMPONENTS IN ORIGINAL LOCATIONS. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.
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15	ALTERNATE 2 - (N) METAL COUNTER FLASHING, SEE DETAILS 1/A9.1 AND 7/A9.1. COORDINATE WITH FIELD CONDITIONS.
16	ALTERNATE 2 - (N) WOOD SHINGLE ROOF ASSEMBLY.
17	ALTERNATE 2 - RECONSTRUCT BRICK AND GRANITE CAP TO MATCH (E) CONDITION IN-KIND.
18	ALTERNATE 2 - (N) METAL HANDRAIL, POWDER COAT FINISH - SEE 2/A9.1. COORDINATE INSTALLATION WITH NEW/EXISTING CONDITIONS.
19	ALTERNATE 2 - RECONSTRUCT BALUSTRADE RAILING, BRACKETS, TRIMS, AND MISC. COMPONENTS TO MATCH IN-KIND HISTORIC - PRIME AND PAINT. SEE 10/A4.4.
20	ALTERNATE 1 - PATCH HOLES IN (E) BRICK AT THIS LOCATION.
21	ALTERNATE 1 - REPAIR AND REPOINT (E) BRICK PARAPET.

KEYNOTES

#	
22	(N) WINDOW HEADER, SEE STRUCTURAL.
23	ALTERNATE 2 - (N) MEMBRANE ROOF ASSEMBLY, SEE 15/A9.1.
24	ALTERNATE 2 - PROVIDE AND INSTALL NEW REPLICA PORCH ELEMENTS TO REPLACE ALL DAMAGED COMPONENTS IN-KIND. PRIME AND PAINT. REINSTALL SALVAGED LIGHT FIXTURES TO MATCH (E) CONDITION IN-KIND.

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SCALE OF FEET
1/8" = 1'-0"

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A4.6

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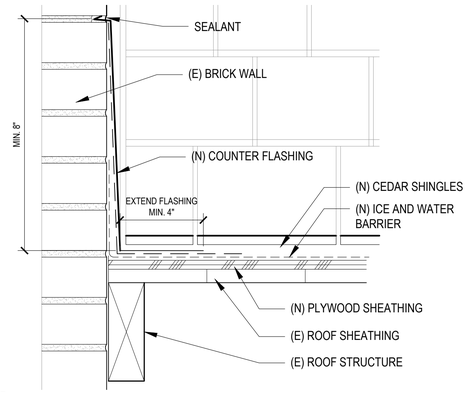
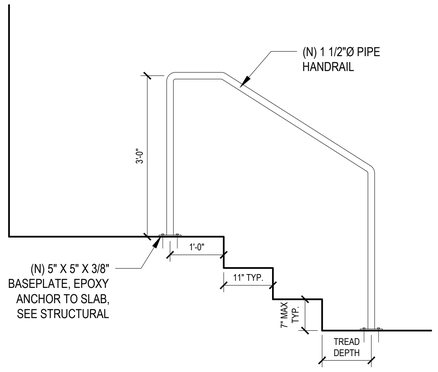
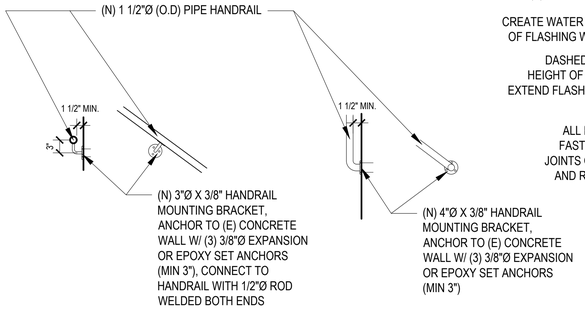


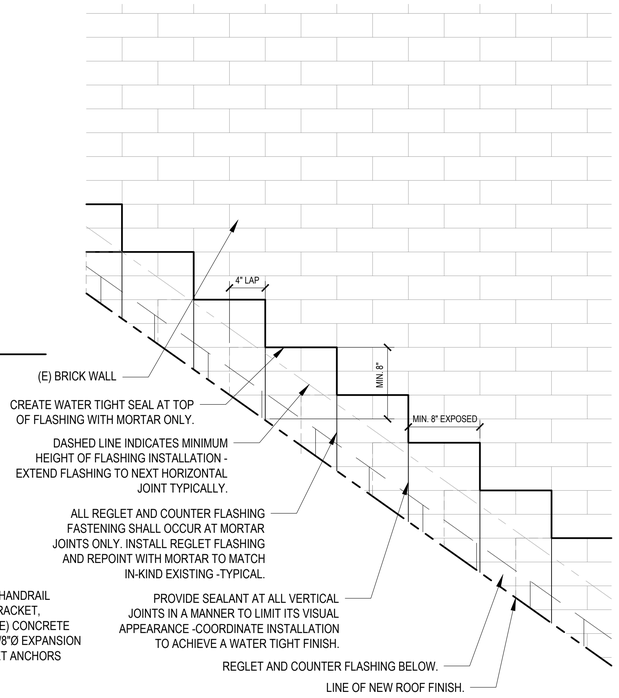
1 COUNTER FLASHING SECTION DETAIL
A4.1 : A9.1 3" = 1'-0"



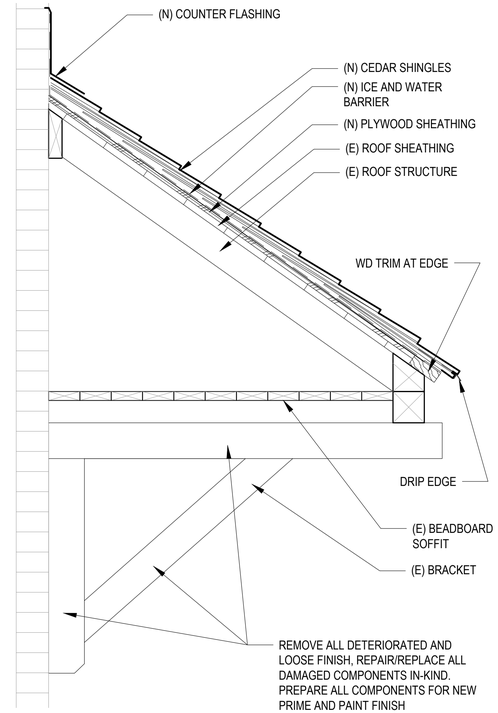
2 TYPICAL PIPE HANDRAIL DETAIL
A2.1 : A9.1 3/4" = 1'-0"



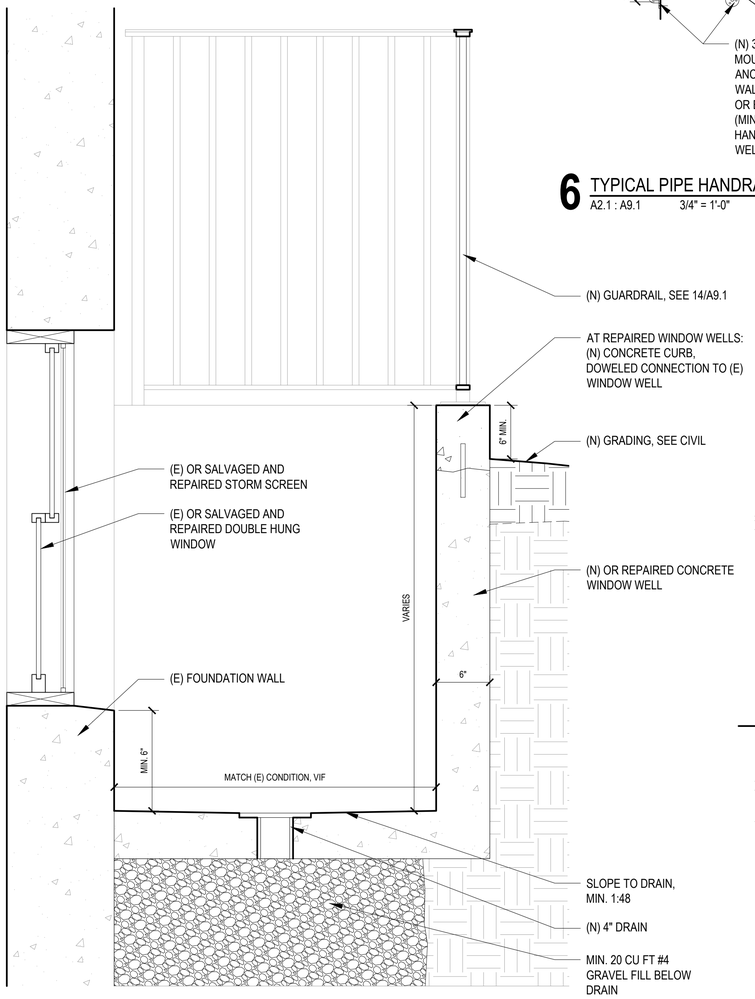
6 TYPICAL PIPE HANDRAIL MOUNTING DETAILS
A2.1 : A9.1 3/4" = 1'-0"



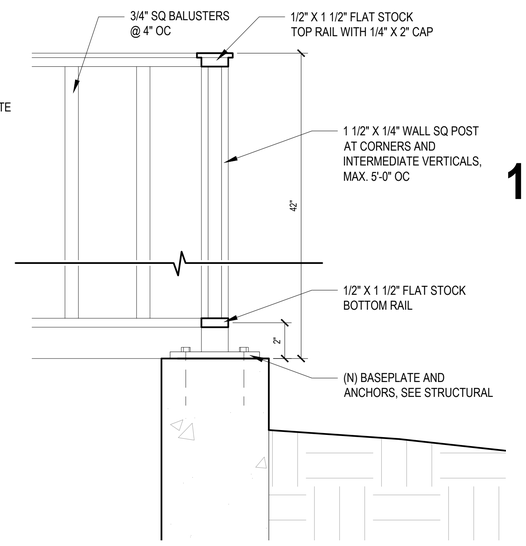
7 COUNTER FLASHING ELEVATION DETAIL
A4.1 : A9.1 1 1/2" = 1'-0"



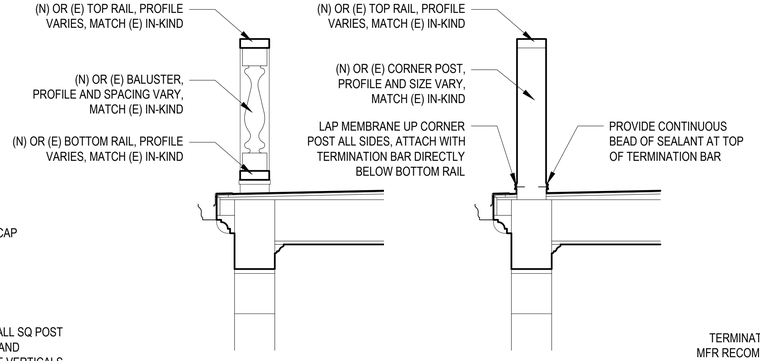
8 TYPICAL PORCH ROOF SECTION DETAIL
A4.1 : A9.1 1 1/2" = 1'-0"



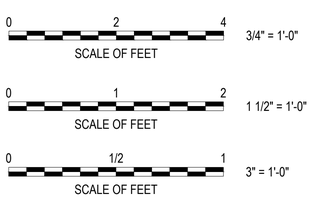
13 TYPICAL WINDOW WELL SECTION DETAIL
A2.1 : A9.1 1 1/2" = 1'-0"

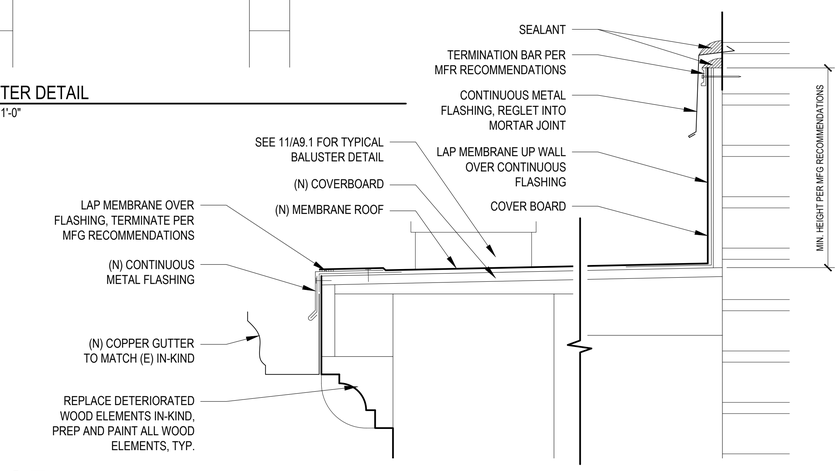


14 TYPICAL GUARDRAIL DETAIL
A9.1 : A9.1 3" = 1'-0"



11 TYPICAL BALUSTER DETAIL
A9.1 : A9.1 3/4" = 1'-0"





15 TYPICAL MEMBRANE ROOF DETAIL
A4.1 : A9.1 3" = 1'-0"

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A9.1

STRUCTURAL - GENERAL NOTES

GENERAL REQUIREMENTS

GOVERNING CODE: The design and construction of this project is governed by the **"International Building Code (IBC)", 2021 Edition**, hereafter referred to as the IBC, as adopted and modified by the State of Montana understood to be the Authority Having Jurisdiction (AHJ).

REFERENCE STANDARDS: Refer to Chapter 35 of 2021 IBC. Where other Standards are noted in the drawings, use the latest edition of the standard unless a specific date is indicated. Reference to a specific section in a code does not relieve the contractor from compliance with the entire standard.

DEFINITIONS: The following definitions cover the meanings of certain terms used in these notes:

- "**Architect/Engineer**" – The Architect of Record and the Structural Engineer of Record.
- "**Structural Engineer of Record**" **(SER)** – The structural engineer who is licensed to stamp & sign the structural documents for the project. The SER is responsible for the design of the Primary Structural System.
- **"Submit for review"** - Submit to the Architect/Engineer for review prior to fabrication or construction.
- "**Per Plan**" – Indicates references to the structural plans, elevations and structural general notes.
- "**Seismic Force Resisting System (SFRS)**" **–** A recognized structural system of components (beams, braces, drags, struts, collectors, diaphragms, columns, walls, etc) of the primary structure that are specially designed and proportioned to resist earthquake-induced ground motions and maintain stability of the structure. Fabrication and installation of components designated as part of the SFRS require the general contractor, subcontractor, or supplier who is responsible for any portion of SFRS fabrication or installation to comply with special requirements (including, but not limited to, material control, compliance certifications, personnel qualifications, documentation, reporting requirements, etc) and to provide the required Quality Control including the required coordination of Special Inspections (Quality Assurance – QA). Special provisions apply to any member designated as part of the SFRS. Refer to plans, elevations, details, Design Criteria and Symbols and Legends for applicable members and connections.
- **"Specialty Structural Engineer" (SSE) –** A professional engineer (PE or SE), licensed in the State where the project is located, (typically not the SER), who performs specialty structural engineering services for selected specialty-engineered elements identified in the Contract Documents, and who has experience and training in the Specialty. Documents stamped and signed by the SSE shall be completed by or under the direct supervision of the SSE.
- **"Bidder-designed" –** Components of the structure that require the general contractor, subcontractor, or supplier who is responsible for the design, fabrication and installation of specialty-engineered elements identified in the Contract Documents to retain the services of an SSE. Submittals of "Bidder-designed" elements shall be stamped and signed by the SSE.

STRUCTURAL DETAILS: The structural drawings are intended to show the general character and extent of the project and are not intended to show all details of the work. Use entire detail sheets and specific details referenced in the plans as "typical" wherever they apply. Similarly, use details on entire sheets with "typical" in the name wherever they apply.

STRUCTURAL RESPONSIBILITIES: The structural engineer (SER) is responsible for the strength and stability of the primary structure in its completed form.

COORDINATION: The Contractor is responsible for coordinating details and accuracy of the work; for confirming and correlating all quantities and dimensions; for selecting fabrication processes; for techniques of assembly; and for performing work in a safe and secure manner.

EXISTING CONDITIONS: Information shown on the drawings related to existing conditions represent the present knowledge, but without guarantee of accuracy. Report conditions that conflict with contract documents to the architect or SEOR. Do not deviate from the contract documents without written direction from the architect and/or SEOR. All existing dimensions and information shall be field verified prior to fabrication as required to coordinate with new construction.

MEANS, METHODS and SAFETY REQUIREMENTS: The contractor is responsible for the means and methods of construction and all job related safety standards such as OSHA and DOSH (Department of Occupational Safety and Health). Contractor is responsible to adhere to OSHA regulations regarding steel erection items specifically addressed in the latest OSHA regulations. Bolting and field welding at all member connections is to be completed prior to the release of the member from the hoisting mechanism unless reviewed and approved by the General Contractor's temporary bracing and shoring design engineer. The construction documents represent the completed structure. The contractor is responsible for means and methods of construction related to the intermediate structural conditions (i.e. movement of the structure due to moisture and thermal effects; construction sequence; temporary bracing, etc).

BRACING/SHORING DESIGN ENGINEER: The contractor shall, at his or her discretion, employ an SSE, a registered professional engineer for the design of any temporary bracing and shoring.

TEMPORARY SHORING, BRACING: The contractor is responsible for the strength and stability of the structure during construction and shall provide temporary shoring, bracing and other elements required to maintain stability until the structure is complete. It is the contractor's responsibility to be familiar with the work required in the construction documents and the requirements for executing it properly.

CONSTRUCTION LOADS: Loads on the structure during construction shall not exceed the design loads as noted in DESIGN CRITERIA & LOADS below or the capacity of partially completed construction as determined by the Contractor's SSE for Bracing/Shoring.

CHANGES IN LOADING: The contractor has the responsibility to notify the SER of any architectural, mechanical, electrical, or plumbing load imposed onto the structure that differs from, or that is not documented on the original Contract Documents (architectural / structural / mechanical / electrical or plumbing drawings). Provide documentation of location, load, size and anchorage of all undocumented loads in excess of 400 pounds. Provide marked-up structural plan indicating locations of any new equipment or loads. Submit plans to the Architect/Engineer for review prior to installation.

NOTE PRIORITIES: Plan and detail notes and specific loading data provided on individual plans and detail drawings supplements information in the Structural General Notes.

DISCREPANCIES: In case of discrepancies between the General Notes, Specifications, Plans/Details or Reference Standards, the Architect/Engineer shall determine which shall govern. Discrepancies shall be brought to the attention of the Architect/Engineer before proceeding with the work. Should any discrepancy be found in the Contract Documents, the Contractor will be deemed to have included in the price the most expensive way of completing the work, unless prior to the submission of the price, the Contractor asks for a decision from the Architect as to which shall govern. Accordingly, any conflict in or between the Contract Documents shall not be a basis for adjustment in the Contract Price.

SITE VERIFICATION: The contractor shall verify all dimensions and conditions at the site. Conflicts between the drawings and actual site conditions shall be brought to the attention of the Architect/Engineer before proceeding with the work.

ADJACENT UTILITIES: The contractor shall determine the location of all adjacent underground utilities prior to earthwork, foundations, shoring, and excavation. Any utility information shown on the drawings and details is approximate and not necessarily complete.

ALTERNATES: Alternate products of similar strength, nature and form for specified items may be submitted with adequate technical documentation (proper test report, etc.) to the Architect/Engineer for review. Alternate materials that are submitted without adequate technical documentation or that significantly deviate from the design intent of materials specified may be returned without review. Alternates that require substantial effort to review will not be reviewed unless authorized by the Owner.

DESIGN CRITERIA AND LOADS

DESIGN LIVE LOADS	AREA	LIVE LOADS (PSF) UNO	REMARKS & FOOTNOTES (4)
	Handrails & Pedestrian Guardrails	50 PLF or 200 LB (3)	(1)
	Stairs & Exits	100 PSF or 300 LB	Stair treads per note (2)

(1) Top rail shall be designed to resist 50 PLF line load or 200 lb point load applied in any direction at any point. Intermediate rails (all those except the handrail), balusters and panel fillers shall be designed to withstand a horizontally applied normal load of 50 LB on an area not to exceed 1 ft square. These three loads are to be considered separately with worst case used for design.

(2) Place 300 lb concentrated load over 2"x2" area at any point to produce maximum stress. Area load and concentrated load are to be considered separately with worst case used for design.

(3) Need not apply concurrently with other handrail and guardrail loads; applied over not more than 1 square foot.

(4) Unless otherwise noted, point loads to be distributed over a 2.5ft x 2.5ft area and located to produce maximum load effects on structural members.

SOILS AND FOUNDATION

REFERENCE STANDARDS: Conform to IBC Chapter 18 "Soils and Foundations."

GEOTECHNICAL REPORT: No geotechnical report was provided for this project. Presumptive soil load-bearing values provided in Table 1806.2 of the 2021 IBC were used for design.

CONTRACTOR'S RESPONSIBILITIES: Contractor shall be responsible to review the Geotechnical Report and shall follow the recommendations specified therein including, but not limited to, subgrade preparations, pile installation procedures, ground water management and steep slope Best Management Practices."

GEOTECHNICAL SUBGRADE INSPECTION: The Geotechnical Engineer shall inspect all sub-grades and prepared soil bearing surfaces, prior to placement of foundation reinforcing steel and concrete. Geotechnical Engineers shall provide a letter to the owner stating that soils are adequate to support the "Allowable Foundation Bearing Pressure(s)" shown below. Assumed values shall be field verified by the Building Official or the Geotechnical Engineer prior to placing concrete.

DESIGN SOIL VALUES:
Allowable Foundation Bearing Pressure..... 1500 PSF – Assumed

FOUNDATIONS and FOOTINGS: Foundations shall bear on either on competent native soil or compacted structural fill as per the geotechnical report. Exterior perimeter footings shall bear not less than 42 inches below finish grade, unless otherwise specified by the geotechnical engineer and/or the building official.

FOOTING DEPTH: Tops of footings shall be as shown on plans with vertical changes as indicated with steps in the footings; locations of steps shown as approximate and shall be coordinated with the civil grading plans.

SLABS-ON-GRADE: All slabs-on-grade shall bear on compacted structural fill or competent native soil per the geotechnical report. All moisture sensitive slabs-on-grade or those subject to receive moisture sensitive coatings/covering shall be provided with an appropriate capillary break and vapor barrier/retardant over the subgrade prepared and installed as noted in the geotechnical report, barrier manufacturer's written recommendations and coordinated with the finishes specified by the Architect.

CAST-IN-PLACE CONCRETE

REFERENCE STANDARDS: Conform to:
(1) ACI 301-10 "Specifications for Structural Concrete"
(2) IBC Chapter 19 "Concrete"
(3) ACI 318-14 "Building Code Requirements for Structural Concrete"
(4) ACI 117-10 "Specifications for Tolerances for Concrete Construction and Materials"

FIELD REFERENCE: The contractor shall keep a copy of ACI Field Reference manual, SP-15, "Standard Specifications for Structural Concrete (ACI 301) with Selected ACI and ASTM References."

CONCRETE MIXTURES: Conform to ACI 301 Section 4 "Concrete Mixtures" and IBC Section 1904.1.

MATERIALS: Conform to ACI 301 Section 4.2.1 "Materials" for requirements for cementitious materials, aggregates, mixing water and admixtures.

SUBMITTALS: Provide all submittals required by ACI 301 Section 4.1.2. Submit mix designs for each mix in the table below. Substantiating strength results from past tests shall not be older than 24 months per ACI 318 Section 26.4.3.1 (b).

TABLE OF MIX DESIGN REQUIREMENTS

Member Type/Location	Strength f'c (psi)	Test Age (days)	Nominal Maximum Aggregate	Exposure Class	Max W/C Ratio	Air Content	Notes (1 to 8 Typical UNO)
Foundations	4500	28	1"	F2	0.45	6%	-

Table of Mix Design Requirements Notes:

(1) W/C Ratio: Water–cementitious material ratios shall be based on the total weight of cementitious materials. Maximum ratios are controlled by strength noted in the Table of Mix Design Requirements and durability requirements given in ACI 318 Section 19.3.

(2) Cementitious Materials:
a. The use of fly ash, other pozzolans, silica fume, or slag shall conform to ACI 318 Sections 19.3.2 and 26.4.2.2. Maximum amount of fly ash shall be 25% of total cementitious content unless reviewed and approved otherwise by SER.
b. For concrete used in elevated floors, minimum cementitious-materials content shall conform to ACI 301 Table 4.2.2.1. Acceptance of lower cement content is contingent on providing supporting data to the SER for review and acceptance.
c. Cementitious materials shall conform to the relevant ASTM standards listed in ACI 318 Section 26.4.1.1.1(a).

(3) Air Content: Conform to ACI 318 Section 19.3.3.1. Minimum standards for exposure class are noted in the table. If freezing and thawing class is not noted, air content given is that required by the SER. Tolerance is ±1-½%. Air content shall be measured at point of placement.

(4) Aggregates shall conform to ASTM C33.

(5) Slump: Conform to ACI 301 Section 4.2.2.2. Slump shall be determined at point of placement.

(6) Chloride Content: Conform to ACI 318 Table 19.3.2.1.

(7) Non- chloride accelerator: Non-chloride accelerating admixture may be used in concrete placed at ambient temperatures below 50°F at the contractor's option.

(8) ACI 318, Section 19.3.1.1 exposure classes shall be assumed to be F0, S0, W0, and C0 unless different exposure classes are listed in the Table of Mix Design Requirements that modify these base requirements.

FORMWORK & RESHORING: Conform to ACI 301 Section 2 "Formwork and Form Accessories." Removal of Forms shall conform to Section 2.3.2 except strength indicated in Section 2.3.2.5 shall be 0.75 f' c.

MEASURING, MIXING, AND DELIVERY: Conform to ACI 301 Section 4.3.

HANDLING, PLACING, CONSTRUCTING AND CURING: Conform to ACI 301 Section 5. In addition, hot weather concreting shall conform to ACI 305R-10 and cold weather concreting shall conform to ACI 306R-10.

EMBEDDED ITEMS: Position and secure in place expansion joint material, anchors and other structural and non-structural embedded items before placing concrete. Contractor shall refer to mechanical, electrical, plumbing and architectural drawings and coordinate other embedded items.

GROUT: Use 7000 psi non-shrink grout under column base plates.
BONDING AGENT: Use MasterEmaco ADH 326. Apply in accordance with manufacturer's instructions.

CONCRETE PLACEMENT TOLERANCE: Conform to ACI 117-10 for concrete placement tolerance.

CONCRETE REINFORCEMENT

REFERENCE STANDARDS: Conform to:
(1) ACI 301-10 "Standard Specifications for Structural Concrete", Section 3 "Reinforcement and Reinforcement Supports."
(2) ACI SP-66(04) "ACI Detailing Manual"
(3) CRSI MSP-09, 28th Edition, "Manual of Standard Practice."
(4) ANSI/AWS D1.4: 2005, "Structural Welding Code - Reinforcing Steel."
(5) IBC Chapter 19-Concrete.
(6) ACI 318-14 "Building Code Requirements for Structural Concrete."
(7) ACI 117-10 "Specifications for Tolerances for Concrete Construction and Materials"

SUBMITTALS: Conform to ACI 301 Section 3.1.1 "Submittals." Submit placing drawings showing fabrication dimensions and placement locations of reinforcement and reinforcement supports.

MATERIALS:
Reinforcing Bars .....ASTM A615, Grade 60, deformed bars.

FABRICATION: Conform to ACI 301, Section 3.2.2. "Fabrication", and ACI SP-66 "ACI Detailing Manual."

WELDING: Bars shall not be welded unless authorized. When authorized, conform to ACI 301, Section 3.2.2.2. "Welding", AWS D1.4, and provide ASTM A706, grade 60 reinforcement.

PLACING: Conform to ACI 301, Section 3.3.2 "Placing." Placing tolerances shall conform to ACI 117.

CONCRETE COVER: Conform to the following cover requirements unless noted otherwise in the drawings.
Concrete cast against earth .....3"
Concrete exposed to earth or weather .....2"

SPLICES: Conform to ACI 301, Section 3.3.2.7, "Splices". Refer to "Typical Lap Splice and Development Length Schedule" for typical reinforcement splices. Splices indicated on individual sheets shall control over the schedule. Mechanical connections may be used when approved by the SER.

FIELD BENDING: Conform to ACI 301 Section 3.3.2.8. "Field Bending or Straightening." Bar sizes #3 through #5 may be field bent cold the first time. Subsequent bends and other bar sizes require preheating. Do not twist bars. Bars shall not be bent past 45 degrees.

STRUCTURAL STEEL

REFERENCE STANDARDS: Conform to:
1) IBC Chapter 22 – "Steel"
2) ANSI/AISC 303-10 – "Code of Standard Practice for Steel Buildings & Bridges"
3) AISC – "Manual of Steel Construction", Fourteenth Edition (2010)
4) ANSI/AISC 360-10 – "Specification for Structural Steel Buildings"
5) AWS D1.1:2010 – "Structural Welding Code – Steel"
6) 2009 RCSC – "Specification for Structural Joints using High-Strength Bolts"
7) ANSI/AISC 341-10 – "Seismic Provisions for Structural Steel Buildings"
8) ANSI/AISC 358-10/358s1-11/358s2-14 – "Prequalified Connections for Special and Intermediate Steel Moment Frames for Seismic Applications Including Supplement No. 1 and Supplement No. 2
9) AWS D1.8:2009 – "Structural Welding Code – Seismic Supplement"

MATERIALS:
Structural steel materials shall conform to materials and requirements listed in AISC 360 section A3 including, but not limited to:
Wide Flange (W), Tee (WT) Shapes .....ASTM A992 Fy = 50 ksi
Channel (C) & Angle (L) Shapes .....ASTM A36, Fy = 36 ksi
Structural Plate (PL).....ASTM A36, Fy = 36 ksi
High Strength Plate (Gr 50 PL).....ASTM A572, Fy = 50 ksi
Hollow Structural Section – Square/Rect (HSS)..ASTM A500, Grade B Fy = 46 ksi
High Strength, Heavy Hex Structural Bolts.....ASTM A325/F1852, Type 1 or 3, Plain
High Strength, Heavy Hex Structural Bolts.....ASTM A490/F2280, Type 1 or 3, Plain
Heavy Hex Nuts .....ASTM A563, Grade and Finish per RCSC Table 2.1
Washers (Hardened Flat or Beveled).....ASTM F436, Grade and Finish per RCSC Table 2.1
Anchor Rods (Anchor Bolts, typical).....ASTM F1554, Gr. 36
Anchor Rods (High Strength).....ASTM F1554, Gr. 55 (weldable) per Supplement S1
Anchor Rods (High Strength).....ASTM F1554, Gr. 105

ANCHORAGE to CONCRETE:

1) COLUMN ANCHOR RODS and BASE PLATES: All columns (vertical member assemblies weighing over 300 pounds) shall be provided with a **minimum of four ¾" diameter anchor rods**. Column base plates shall be at least ¾" thick, unless noted otherwise. Cast-in-place anchor rods shall be provided unless otherwise approved by the Engineer. Unless noted otherwise, embedment of cast-in-place anchor rods shall be 12 times the anchor diameter (12D).

FABRICATION:

1) Conform to AISC 360 Section M2 "Fabrication" and AISC 303 Section 6 "Shop Fabrication".

2) Quality Control (QC) shall conform to:
a. AISC 360 Chapter N "Quality Control and Quality Assurance" and
b. AISC 303 Section 8 "Quality Control".
c. Fabricator and Erector shall establish and maintain written Quality Control (QC) procedures per AISC 360 section N3.
d. Fabricator shall perform self-inspections per AISC 360 section N5 to ensure that their work is performed in accordance with Code of Standard Practice, the AISC Specification, Contract Documents and the Applicable Building Code.
e. QC inspections may be coordinated with Quality Assurance inspections per Section N5.3 where fabricators QA procedures provide the necessary basis for material control, inspection, and control of the workmanship expected by the Special Inspector.

WELDING:

1) Welding shall conform to AWS D1.1 and D1.8 as applicable for Seismic elements with Prequalified Welding Processes except as modified by AISC 360 section J2 and AISC 341 as applicable. Welders shall be qualified in accordance with AWS D1.1 requirements.
2) Use 70ksi strength, low-hydrogen type electrodes (E7018) or E71T as appropriate for the process selected.
3) Welding of high strength anchor rods is prohibited unless approved by Engineer.
4) Welding of headed stud anchors shall be in accordance with AWS D1.1 Chapter 7 "Stud Welding".

ERECTION:
1) Conform to AISC 360 Section M4 "Erection" and AISC 303 Section 7 "Erection".
2) Conform to AISC 360 Chapter N "Quality Control and Quality Assurance" and AISC 303 Section 8.
a. The Erector shall maintain detailed erection quality control procedures that ensure that the work is performed in accordance with these requirements and the Contract Documents.
3) Steel work shall be carried up true and plumb within the limits defined in AISC 303 Section 7.13.
4) High strength bolting shall comply with the RCSC requirements including RCSC Section 7.2 "Required Testing", as applicable and AISC 360 Chapter J, Section M2.5 and Section N5.6.
5) Welding of HEADED STUD ANCHORS shall be in accordance with AWS D1.1 Chapter 7 "Stud Welding.
6) Provided Headed (Shear) Stud Anchors welded through the metal deck to tops of beams denoted in plans.
7) The contractor shall provide temporary bracing and safety protection required by AISC 360 Section M4.2 and AISC 303 Section 7.10 and 7.11.

PROTECTIVE COATING REQUIREMENTS:

1) SHOP PAINTING: Conform to AISC 360 Section M3 and AISC 303 Section 6.5 unless otherwise specified by the project specifications.

2) EXTERIOR STEEL: Exposed exterior steel shall be protected by either:
a. Paint with an exterior multi-coat system as per the project specifications. Field touch-up painting shall be per the project specifications.
b. Galvanizing: Unless protected with a paint system, exposed steel (outside the building envelope) shall be hot-dipped galvanized, where noted on the plans or otherwise indicated by the finishes specified by the Architect. Apply field touch-ups per project specifications.

3) Steel need not be primed or painted unless noted otherwise on the drawings or in the project specifications. Conform to AISC 360 Section M3 and AISC 303 Section 6.5 unless a multi-coat system is required per the project specifications.

POST-INSTALLED ANCHORS (INTO CONCRETE AND MASONRY)

REFERENCE STANDARDS: Conform to:
(1) IBC Chapter 19 "Concrete"
(2) ACI 318-19 "Building Code Requirements for Structural Concrete"
(3) IBC Chapter 21 "Masonry"
(4) TMS 402-16 "Building Code Requirements for Masonry Structures"

POST-INSTALLED ANCHORS: Install only where specifically shown in the details or allowed by SER. All post-Installed anchors types and locations shall be approved by the SER and shall have a current ICC-Evaluation Service Report that provides relevant design values necessary to validate the available strength exceeds the required strength. Submit current manufacturer's data and ICC ESR report to SER for approval regardless of whether or not it is a pre-approved anchor. Anchors shall be installed in strict accordance with ICC-ESR and the manufacturer's printed installation instructions (MPII) in conjunction with edge distance, spacing and embedment depth as indicated on the drawings. The contractor shall arrange for a manufacturer's field representative to provide installation training for all products to be used, prior to the commencement of work. Only trained installer shall perform post installed anchor installation. A record of training shall be kept on site and be made available to the SER as requested. Adhesive anchors installed in horizontally or upwardly inclined orientation shall be performed by a certified adhesive anchor installer (AAI) as certified through ACI/CRSI or approved equivalent. Proof of current certification shall be submitted to the engineer for approval prior to commencement of installation. No reinforcing bars shall be damaged during installation of post-installed anchors. Special inspection shall be per the TESTS and INSPECTIONS section. Anchor type, diameter and embedment shall be as indicated on drawings.

1. ADHESIVE ANCHORS: The following Adhesive-type anchoring systems have been used in the design and shall be used for anchorage to CONCRETE as applicable and in accordance with corresponding current ICC ESR report. Reference the corresponding ICC ESR report for required minimum age of concrete, concrete temperature range, moisture condition, light weight concrete, and hole drilling and preparation requirements. Drilled-in anchor embedment lengths shall be as shown on drawings, or not less than 7 times the anchor nominal diameter (7D). Adhesive anchors are to be installed in concrete aged a minimum of 21 days, unless otherwise specified in the ICC ESR report.
   a. HILTI "HIT-HY 200" – ICC ESR-3187 for anchorage to CONCRETE
2. SCREW ANCHORS: The following Screw type anchor is pre-approved for anchorage to CONCRETE or MASONRY in accordance with corresponding current ICC ESR report:
   a. SIMPSON "TITEN HD" – ICC ESR-2713 for CARBON STEEL to CONCRETE

STRUCTURAL SHEET LIST

SHEET NUMBER	SHEET TITLE
S1.0	STRUCTURAL - GENERAL NOTES
S1.1	STRUCTURAL - SPECIAL INSPECTIONS
S2.1	STRUCTURAL - QUAD AB - FLOOR PLAN
S2.2	STRUCTURAL - QUAD CD - FLOOR PLAN
S2.3	STRUCTURAL - QUAD EF - FLOOR PLAN
S3.0	STRUCTURAL - STAIR PROFILES
S4.1	STRUCTURAL - STAIR REPAIR DETAILS
S4.2	STRUCTURAL - DETAILS
Sheet Total: 8	

DRAWING LEGEND

MARK	DESCRIPTION	MARK	DESCRIPTION
F2.0	FOOTING SYMBOL (REFER TO SPREAD FOOTING SCHEDULE)	○	INDICATES HOLLOW STRUCTURAL SECTION (HSS) COLUMN OR STEEL PIPE COLUMN
2W4	SHEAR WALL SYMBOL (REFER TO SHEAR WALL SCHEDULE)	⊠	INDICATES WOOD POST
0	REVISION TRIANGLE	■	INDICATES BUNDLED STUDS
T/FTG = X'-X"	ELEVATION SYMBOL (T/ REFERS TO COMPONENT THAT THE ELEVATION REFERENCES)		INDICATES CONCRETE COLUMN
3	STUD BUBBLE (INDICATES NUMBER OF STUDS REQUIRED IF EXCEEDS NUMBER SPECIFIED IN PLAN NOTE)		INDICATES PRECAST CONCRETE COLUMN
	INDICATES STEP IN FOOTING (REFER TO TYPICAL STEP IN FOOTING DETAIL)		INDICATES MOMENT FRAME CONNECTION
X SX.X	DETAILS OR SECTION CUT (DETAIL NUMBER/SHEET NUMBER)		INDICATES CANTILEVER CONNECTION
00 S0.0	DETAILS OR SECTION CUT IN PLAN VIEW (DETAIL NUMBER/SHEET NUMBER)		INDICATES DRAG CONNECTION
XX/SXX.XX	INDICATES LOCATION OF CONCRETE WALLS, SHEAR WALLS OR BRACED FRAME ELEVATIONS		INDICATES WOOD OR STEEL STUD BEARING WALL LINE PER KEY ON SHEET
	STRUCTURAL EXTENT SYMBOL SINGLE ARROW - END OF EXTENT DOUBLE ARROW - CONTINUOUS EXTENT ALONG THE ELEMENT LINE UNTIL THE ELEMENT IS INTERRUPTED		INDICATES WOOD OR STEEL STUD SHEAR WALL LINE AND HOLD-DOWNS PER KEY ON SHEET
			INDICATES MASONRY/CMU WALL
	INDICATES DIRECTION OF DECK SPAN		INDICATES CONCRETE/TILT-UP CONCRETE WALL
I	INDICATES WIDE FLANGE COLUMN		INDICATES BEARING WALL BELOW
□	INDICATES HOLLOW STRUCTURAL SECTION (HSS) COLUMN OR TUBE STEEL (TS) COLUMN		INDICATES EXISTING WALL

ABBREVIATIONS

L	Angle	EXT	Exterior	PREFAB	Prefabricated
AB	Anchor Bolt	FD	Floor Drain	PSF	Pounds per Square Foot
ADDL	Additional	FDN	Foundation	PSI	Pounds Per Square Inch
ADH	Adhesive	FIN	Finish	PSL	Parallel Strand Lumber
ALT	Alternate	FLR	Floor	P-T	Post-Tensioned
ARCH	Architectural	FRT	Fire Retardant Treated	PT	Pressure Treated
B or BOT	Bottom	FTG	Footing	R	Radius
B/	Bottom Of	F/	Face of	RD	Roof Drain
BLDG	Building	GA	Gage	REF	Refer/Reference
BLKG	Blocking	GALV	Galvanized	REINF	Reinforcing
BMU	Brick Masonry Unit	GEOTECH	Geotechnical	REQD	Required
BP	Baseplate	GL	Glue Laminated Timber	RET	Retaining
BRG	Bearing	HDR	Header	SCBF	Special Concentric Braced Frame
BTWN	Between	HF	Hem-Fir	SCHED	Schedule
C	Camber	HGR	Hanger	SER	Structural Engineer of Record
C'BORE	Counterbore	HD	Hold-down	SFRS	Seismic Force-Resisting System
CL or ℄	Centerline	HORIZ	Horizontal	SHTHG	Sheathing
CIP	Cast in Place	HP	High Point	SIM	Similar
CJ	Construction or Control Joint	HSS = TS	(Hollow Structural Section)	SMF	Special Moment Frame
CJP	Complete Joint Penetration	IBC	International Building Code	SOG	Slab on Grade
CLR	Clear	ID	Inside Diameter	SPEC	Specification
CMU	Concrete Masonry Unit	IE	Invert Elevation	SQ	Square
COL	Column	IF	Inside Face	SR	Studrail
CONC	Concrete	INT	Interior	SF	Square Foot
CONN	Connection	k	Kips	SST	Stainless Steel
CONST	Construction	LF	Lineal Foot	STAGG	Stagger/Staggered
CONT	Continuous	LL	Live Load	STD	Standard
C'SINK	Countersink	LLBB	Long Leg Back-to-Back	STIFF	Stiffener
CTRD	Centered	LLH	Long Leg Horizontal	STL	Steel
DIA	Diameter	LLV	Long Leg Vertical	STRUCT	Structural
DB	Drop Beam	LP	Low Point	SYM	Symmetrical
DBA	Deformed Bar Anchor	LONGIT	Longitudinal	T	Top
DBL	Double	LSL	Laminated Strand Lumber	T/	Top Of
DEMO	Demolish	LVL	Laminated Veneer Lumber	T&B	Top & Bottom
DF	Douglas Fir	MAS	Masonry	TDS	Tie Down System
DIAG	Diagonal	MAX	Maximum	T&G	Tongue & Groove
DIST	Distributed	MECH	Mechanical	THKND	Thickened
DL	Dead Load	MEZZ	Mezzanine	THRD	Threaded
DN	Down	MFR	Manufacturer	THRU	Through
DP	Depth/Deep	MIN	Minimum	TRANSV	Transverse
DWG	Drawing	MISC	Miscellaneous	TYP	Typical
(E)	Existing	NIC	Not In Contract	UNO	Unless Noted Otherwise
EA	Each	NTS	Not To Scale	URM	Unreinforced Masonry
EF	Each Face	OC	On Center	UNT	Unit
EL	Elevation	OCBF	Ordinary Concentric Braced Frame	VERT	Vertical
ELEC	Electrical	OD	Outside Diameter	W	Wide
ELEV	Elevator	OF	Outside Face	W/	With
EMBED	Embedment	OPNG	Opening	W/O	Without
EQ	Equal	OPP	Opposite	WHS	Welded Headed Stud
EQUIP	Equipment	PL	Plate	WP	Working Point
EW	Each Way	PAF	Powder Actuated Fastener	WS	Wall Step
EXP	Expansion	PC	Precast	WWF	Welded Wire Fabric
EXP JT	Expansion Joint	PERP	Perpendicular	±	Plus or Minus
		PLWD	Plywood		

MONTANA
SAMANTHA L. FOX
No. 46846 PE
LICENSED PROFESSIONAL ENGINEER

DCI ENGINEERS
131 West Main
Missoula, Montana 59801
P: (406) 721-7315 www.dci-engineers.com
CIVIL / STRUCTURAL

sheet STRUCTURAL - GENERAL NOTES
project ATKINSON QUADRANGLE EXTERIOR REPAIRS
owner MONTANA STATE UNIVERSITY

project # 23123.00

revision date

phase
DESIGN DEVELOPMENT

a&e

issue date
01.24.2025
S1.0

SPECIAL INSPECTIONS

The following Statement and Schedules of Inspections are those Special Inspections and Tests that shall be performed for this project. Special Inspectors shall reference these plans and IBC Chapter 17 for all special inspection requirements.
The owner shall retain an "approved agency" per IBC 1703 to provide special inspections for this project. Special Inspectors shall be qualified persons per IBC 1704.2.1.
Special inspection reports shall be provided on a weekly basis. Submit copies of all inspection reports to the Architect/Engineer and the Authority Having Jurisdiction for review. In addition to special inspection reports and tests, submit reports and certificates noted in IBC 1704.5 to the Authority Having Jurisdiction. Final special inspection reports will be required by each special inspection firm per IBC 1704.2.4.

STATEMENT OF SPECIAL INSPECTIONS:
This statement of Special Inspections has been written with the understanding that the Building Official will:
- **Review and approve the qualifications of the Special Inspectors**
- **Monitor the special inspection activity on the project site to assure that Special Inspectors are qualified and performing their duty as state within this statement.**
- **Review all Special Inspection Reports submitted to them by the Special Inspector**
- **Perform inspections as required by IBC Section 110.3.**

The following Special Inspections are applicable to this project:
- **Special Inspections for Standard Buildings (per IBC 1705.1) REQUIRED**
- **Special Inspections for Seismic Resistance (per IBC 1705.13) NOT REQUIRED**
- **Testing for Seismic Resistance (per IBC 1705.14) NOT REQUIRED**
- **Special Inspections for Wind Resistance (per IBC 1705.12) NOT REQUIRED**

SPECIAL INSPECTION OF SHOP FABRICATED GRAVITY LOAD-BEARING MEMBERS AND ASSEMBLIES:
Special Inspection of shop fabricated Gravity Load Bearing Members & Assemblies shall be verified by the Special Inspector as stated in Section 1704.2.5

STRUCTURAL STEEL per IBC 1705.2.1

A qualified Special Inspector of an "approved agency" providing Quality Assurance (QA) Special Inspections for the project shall review and confirm the Fabricator and Erector's Quality Control (QC) procedures for completeness and adequacy relative to AISC 360-16 Chapter N, AISC 303-16 Code of Standard Practice, AWS D1.1-2015 Structural Welding Code and 2021 IBC code requirements for the fabricator's scope of work.

- QA Agency providing Special Inspections shall provide personnel meeting the minimum qualification requirements for Inspection and Nondestructive Testing NDT per AISC 360 Section N4.
- Verify Fabricator and Erector QC Program per AISC 360 Section N2.
- Inspection of welds and bolts by both QC and QA personnel shall be per the Schedule of Special Inspections below. All provisions of AWS D1.1 Structural Welding Code for statically loaded structures shall apply.
- Nondestructive Testing (NDT) of welds:
  - Non-Destructive Testing (NDT) of welded joints per AISC 360 N5.5 .
  - Risk Category for determination of extent of NDT per AISC 360 N5.5b is noted in the Design Criteria and Loads section of these General Requirements.
  - NDT performed shall be documented and reports shall identify the tested weld by piece mark and location of the piece.
  - For field work, the NDT report shall identify the tested weld by location in the structure, piece mark and location of the piece.
- Additional Inspection tasks per AISC 360 Section N5.8.
- Inspection for Composite Construction shall be done per AISC 360 Section N6.

POST-INSTALLED ANCHORS TO CONCRETE AND MASONRY: shall comply with IBC Section 1703. Inspections shall be in accordance with the requirements set forth in the approved ICC Evaluation Report and as indicated by the design requirements specified on the drawings. Refer to the POST INSTALLED ANCHORS section of these notes for anchors that are the basis of the design. Special inspector shall verify anchors are as specified in the POST INSTALLED ANCHORS section of these notes or as otherwise specified on the drawings. Substitutions require approval by the SER and require substantiating calculations and current 2021 IBC recognized ICC Evaluation Services (ES) Report. Special Inspector shall document in their Special Inspection Report compliance with each of the elements required within the applicable ICC Evaluation Services (ES) Report.

PREFABRICATED CONSTRUCTION: All prefabricated construction shall conform to IBC Section 1703.

SCHEDULES OF SPECIAL INSPECTIONS:

TABLE 1705.3
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD	IBC REFERENCE
1. Inspection, reinforcement, including pre-stressing tendons, and verify placement.	-	X	ACI 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	-
4. Inspect anchors post-installed in hardened concrete members:				
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads	X	-	ACI 318: 17.8.2.4	-
b. Mechanical anchors and adhesive anchors not defined in 4.a	-	X	ACI 318: 17.8.2	
5. Verify use of required design mix	-	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1, 1904.2
6. Prior to concrete placement, fabricate specimens, for strength tests, perform slump and air content tests, and determine the temperature of the concrete	X	-	ASTM C172 ASTM C31 ACI 318: 26.5, 26.12	1908.10
7. Inspect concrete and shotcrete placement for proper application techniques	X	-	ACI 318: 26.5	-
12. Inspect formwork for shape, location and dimensions of the concrete member being formed	-	X	ACI 318: 26.11.1.2 (b)	-

MINIMUM REQUIREMENTS FOR INSPECTIONS OF STRUCTURAL STEEL CONSTRUCTION

INSPECTION TASKS	QC	QA	REFERENCED STANDARD
INSPECTION TASKS PRIOR TO WELDING			
1. Welder qualification records and continuity records	P	O	AISC 360 TABLE N5.4-1
2. Welding procedure specifications (WPSs) available	P	P	AISC 360 TABLE N5.4-1
3. Manufacturing certifications for welding consumables available	P	P	AISC 360 TABLE N5.4-1
4. Material identification (type/grade)	O	O	AISC 360 TABLE N5.4-1
5. Welder Identification system	O	O	AISC 360 TABLE N5.4-1
6. Fit-up of groove welds (including joint geometry) • Joint preparation • Dimensions (alignment, root opening, root face, bevel) • Cleanliness (condition of steel surfaces) • Tacking (tack welding quality and location) • Backing type and fit (if applicable)	O	O	AISC 360 TABLE N5.4-1
7. Fit-up of fillet welds • Dimensions (alignment, gaps at root) • Cleanliness (condition of steel surfaces) • Tacking (tack weld quality and location)	O	O	AISC 360 TABLE N5.4-1
8. Check welding equipment	O	-	AISC 360 TABLE N5.4-1
INSPECTION TASKS DURING WELDING			
1. Use of qualified welders	O	O	AISC 360 TABLE N5.4-2
2. Control and handling of welding consumables • Packaging • Exposure control	O	O	AISC 360 TABLE N5.4-2
3. No welding over cracked tack welds	O	O	AISC 360 TABLE N5.4-2
4. Environmental conditions • Wind speed within limits • Precipitation and temperature	O	O	AISC 360 TABLE N5.4-2
5. WPS followed • Settings on welding equipment • Travel speed • Selected welding materials • Shielding gas type/flowrate • Preheat applied • Interpass temperature maintained (min/max) • Proper position (F, V, H, OH)	O	O	AISC 360 TABLE N5.4-2
6. Welding techniques • Interpass and final cleaning • Each pass within profile limitations • Each pass meets quality requirements	O	O	AISC 360 TABLE N5.4-2
INSPECTION TASKS AFTER WELDING			
1. Welds cleaned	O	O	AISC 360 TABLE N5.4-3
2. Size, length, and locations of welds	P	P	AISC 360 TABLE N5.4-3
3. Welds meet visual acceptance criteria • Crack prohibition • Weld/base-metal fusion • Crater cross section • Weld profiles • Weld size • Undercut • Porosity	P	P	AISC 360 TABLE N5.4-3
4. Arc strikes	P	P	AISC 360 TABLE N5.4-3
5. k-area	P	P	AISC 360 TABLE N5.4-3
6. Weld access holes in rolled heavy shapes and built-up heavy shapes	P	P	AISC 360 TABLE N5.4-3
7. Backing removed and weld tabs removed (if required)	P	P	AISC 360 TABLE N5.4-3
8. Repair activities	P	P	AISC 360 TABLE N5.4-3
9. Document acceptance or rejection of welded joint or member	P	P	AISC 360 TABLE N5.4-3
10. No prohibited welds have been added without the approval of the EOR	P	P	AISC 360 TABLE N5.4-3

INSPECTION TASKS PRIOR TO BOLTING			
1. Manufacturer's certifications available for fastener materials	O	P	AISC 360 TABLE N5.6-1
2. Fasteners marked in accordance with ASTM requirements	O	O	AISC 360 TABLE N5.6-1
3. Correct fasteners selected for the joint detail (grade, type, bolt length if threads are to be excluded from shear plane)	O	O	AISC 360 TABLE N5.6-1
4. Correct bolting procedure selected for joint detail	O	O	AISC 360 TABLE N5.6-1
5. Connecting elements, including the appropriate faying surface condition and hole preparation, if specified, meet applicable requirements	O	O	AISC 360 TABLE N5.6-1
6. Pre-installation verification testing by installation personnel observed and documented for fastener assemblies and methods used.	P	O	AISC 360 TABLE N5.6-1
7. Proper storage provided for bolts, nuts, washers and other fasteners components	O	O	AISC 360 TABLE N5.6-1
INSPECTION TASKS DURING BOLTING			
1. Fastener assemblies, of suitable condition, placed in all holes and washers are positioned as required	O	O	AISC 360 TABLE N5.6-2
2. Joint brought to the snug-tight condition prior to the pre-tensioning operation	O	O	AISC 360 TABLE N5.6-2
3. Fastener component not turned by the wrench prevented from rotating	O	O	AISC 360 TABLE N5.6-2
4. Fasteners are pre-tensioned in accordance with the RCSC Specification, progressing systematically from the most rigid point toward the free edges	O	O	AISC 360-10 TABLE N5.6-2
INSPECTION TASKS AFTER BOLTING			
1. Document acceptance or rejection of bolted connections	P	P	AISC 360 TABLE N5.6-3
INSPECTION OF STEEL ELEMENTS OF COMPOSITE CONSTRUCTION PRIOR TO CONCRETE PLACEMENT			
1. Placement and installation of steel deck	P	P	AISC 360 TABLE N6.1
2. Placement and installation of steel headed stud anchors	P	P	AISC 360 TABLE N6.1
3. Document acceptance or rejection of steel elements	P	P	AISC 360 TABLE N6.1

O - Observe these items on a random basis. Operations need not be delayed pending these inspections
P - Perform these tasks for each welded joint or member, each bolted connection, or each steel element

MONTANA
SAMANTHA L. FOX
No. 44844 PE
LICENSED PROFESSIONAL ENGINEER

DCI ENGINEERS
131 West Main
Missoula, Montana 59801
P: (406) 721-7315 www.dci-engineers.com
CIVIL / STRUCTURAL

sheet STRUCTURAL - SPECIAL INSPECTIONS
project ATKINSON QUADRANGLE EXTERIOR REPAIRS
owner MONTANA STATE UNIVERSITY

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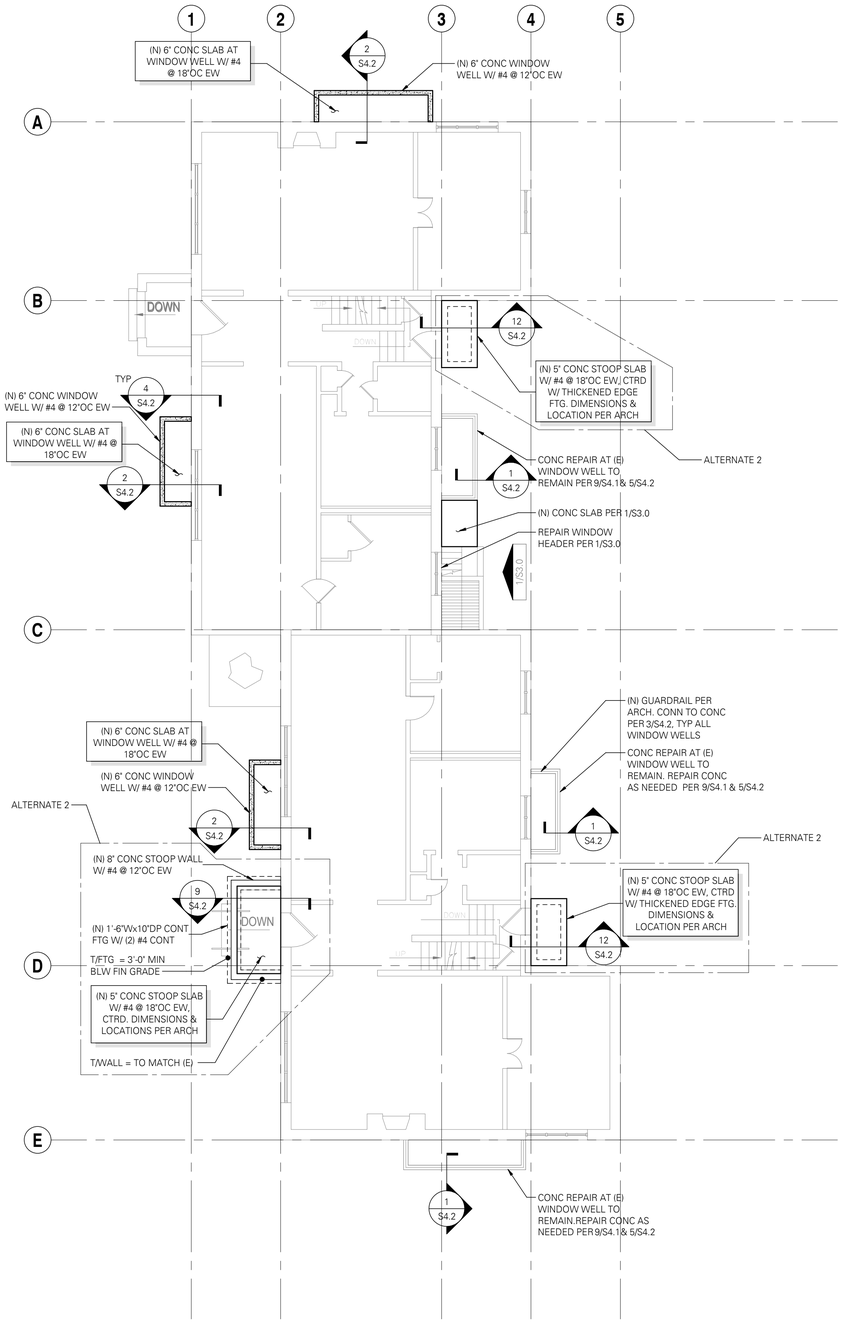
S1.1



QUAD AB - FLOOR PLAN

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

PLAN NOTES:

1. STRUCTURAL GENERAL NOTES AND INSPECTION REQUIREMENTS PER S1.0.
2. BUILDINGS WILL REMAIN OCCUPIED DURING CONSTRUCTION. CONTRACTOR IS REQUIRED TO COORDINATE CLOSURE OF FIRE ESCAPES WITH OWNER AND CAMPUS FIRE MARSHAL TO ENSURE LIFE SAFETY OF BUILDING OCCUPANTS IS MAINTAINED DURING CONSTRUCTION.
3. CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO WORK. DO NOT SCALE FROM DRAWINGS.
4. CONTRACTOR IS RESPONSIBLE FOR SHORING OF EXISTING STRUCTURE DURING REPAIRS.
5. CONTACT DCI ENGINEERS IF CONDITIONS VARY FROM THOSE SHOWN ON PLAN.
6. TYPICAL REPAIR DETAILS OCCUR AT ALL (3) STAIR LOCATIONS, AND AT ALL INSTANCES.
7. QUAD SPECIFIC DETAILS ARE UNIQUE TO INDIVIDUAL STAIR LOCATIONS. REFER TO STAIR PROFILE FOR LOCATION OF REPAIR.
8. ALL STAIRS TO BE CLEANED OF SURFACE RUST, AND COATED WITH CORROSION RESISTANT PAINT. PROTECT ADJACENT SURFACES DURING WORK. COORDINATE WITH OWNER. COORDINATE PRODUCT SELECTION AND PRODUCT FINISH WITH OWNER AND ARCHITECT.
9. PROTECT ALL ADJACENT SURFACES DURING WORK.
10. ALL FOOTINGS AND SLABS TO BEAR ON COMPETENT NATIVE SOIL AND/OR STRUCTURAL FILL. SUBGRADE PREPARATION, STRUCTURAL FILL, FOOTING DRAINS, AND OTHER REQUIREMENTS PER GEOTECH REPORT AS NOTED IN THE STRUCTURAL GENERAL NOTES.
11. THE FOLLOWING ABBREVIATIONS ARE USED:
    (E) - EXISTING
    (N) - NEW
    (V) - VERIFY

MONTANA
SAMANTHA L. FOX
No. 44844 PE
LICENSED PROFESSIONAL ENGINEER

DCI ENGINEERS
131 West Main
Missoula, Montana 59801
P: (406) 721-7315 www.dci-engineers.com
CIVIL / STRUCTURAL

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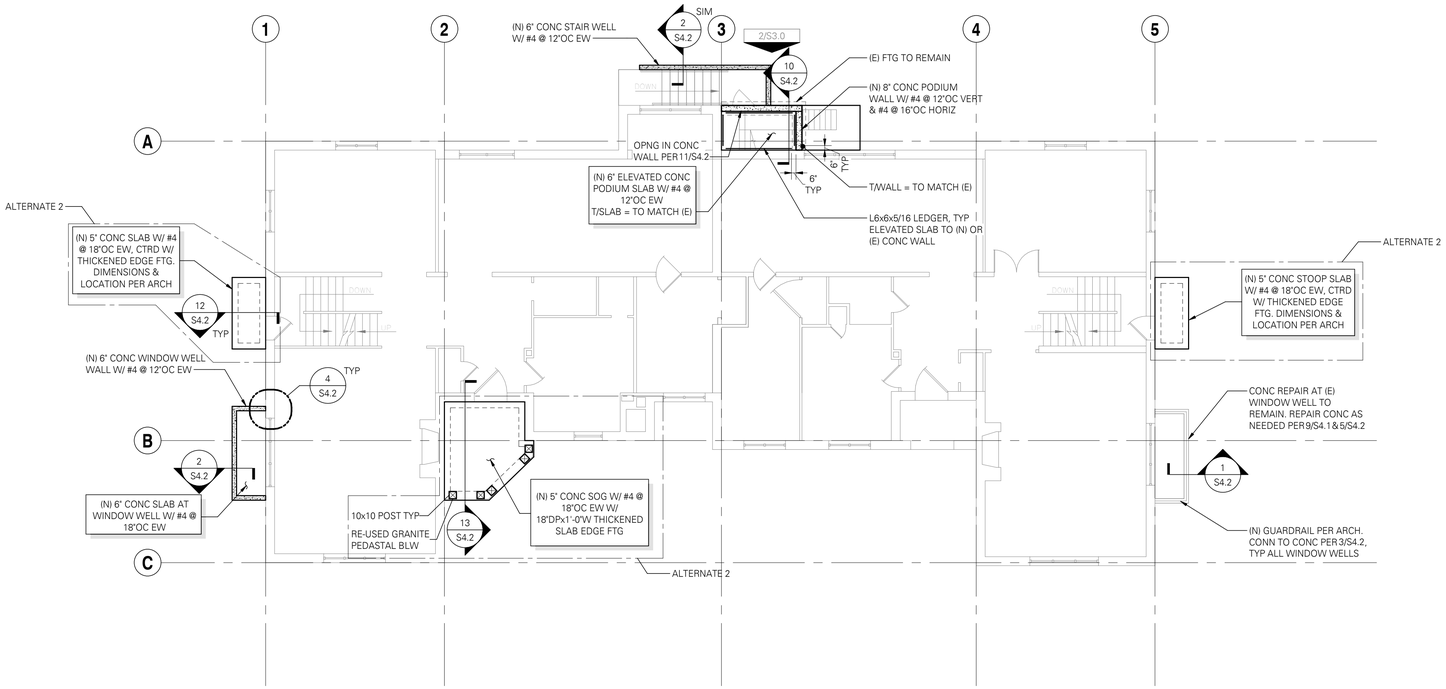

QUAD CD - FLOOR PLAN

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

PLAN NOTES:

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MONTANA
SAMANTHA L. FOX
No. 40846 PE
LICENSED PROFESSIONAL ENGINEER

DCI ENGINEERS
131 West Main
Missoula, Montana 59801
P: (406) 721-7315 www.dci-engineers.com
CIVIL / STRUCTURAL

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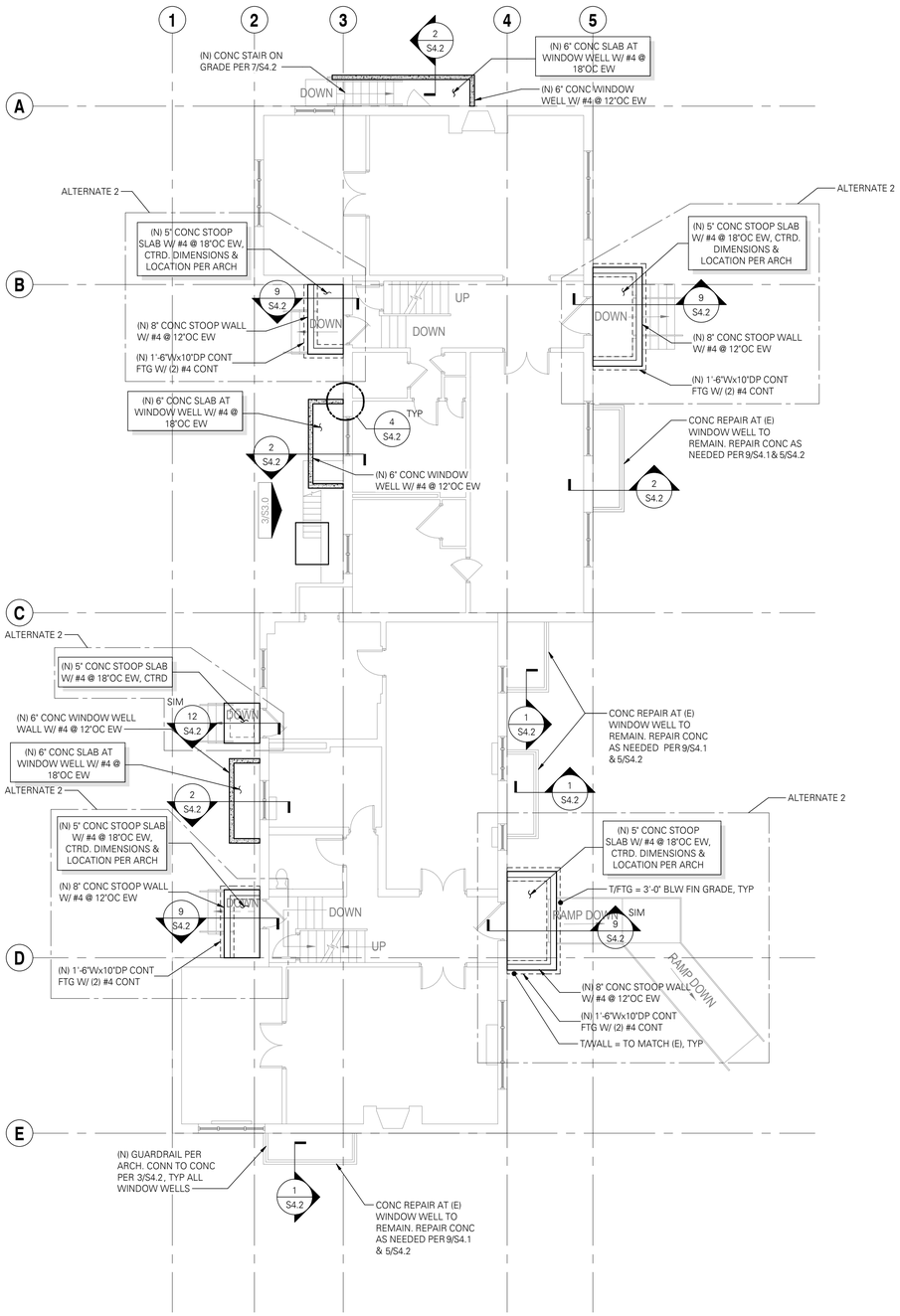

QUAD EF - FLOOR PLAN

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

PLAN NOTES:

1. STRUCTURAL GENERAL NOTES AND INSPECTION REQUIREMENTS PER S1.0.
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MONTANA
SAMANTHA L. FOX
No. 44844 PE
LICENSED PROFESSIONAL ENGINEER

DCI ENGINEERS
131 West Main
Missoula, Montana 59801
P: (406) 721-7315 www.dci-engineers.com
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S2.3

1 QUAD A STAIR PROFILE
SCALE: 1" = 1'-0"

2 QUAD C STAIR PROFILE
SCALE: 1" = 1'-0"

3 QUAD E STAIR PROFILE
SCALE: 1" = 1'-0"

REPAIR KEY

TYPICAL DETAIL - APPLIES TO ALL QUADS:

1. HANDRAIL CONNECTION RETROFIT - DETAIL 1/S4.1
2. KNEE BRACE CONNECTION RETROFIT - DETAIL 2/S4.1
3. (N) CONCRETE PIER FDN BELOW EA STRINGER - DETAIL 7/S4.1. REMOVE (E) CONC PAD AS REQ'D

QUAD SPECIFIC DETAILS:

4. (N) WINDOW HEAD (QUAD A) - DETAIL 4/S4.1
5. CORRODED STEEL REPAIR (QUAD C) - DETAIL 5/S4.1
6. (E) CONCRETE WALL TO BE REPLACED (QUAD C) - PER PLAN
7. (E) CONCRETE WINDOW WELL TO BE REPAIRED - PER PLAN
8. (E) CONCRETE WINDOW WELL TO BE REPLACED - PER PLAN

PLAN NOTES:

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MONTANA
SAMANTHA L. FOX
No. 40844 PE
LICENSED PROFESSIONAL ENGINEER

DCI engineers
131 West Main
Missoula, Montana 59801
P: (406) 721-7315 www.dci-engineers.com
CIVIL / STRUCTURAL

sheet STRUCTURAL - STAIR PROFILES

project ATKINSON QUADRANGLE EXTERIOR REPAIRS

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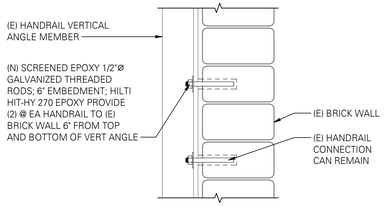
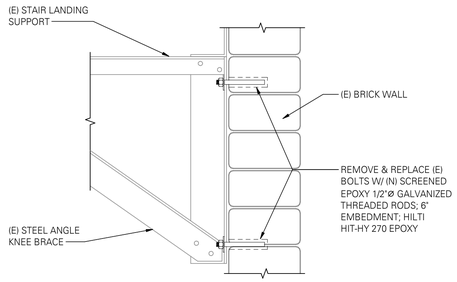


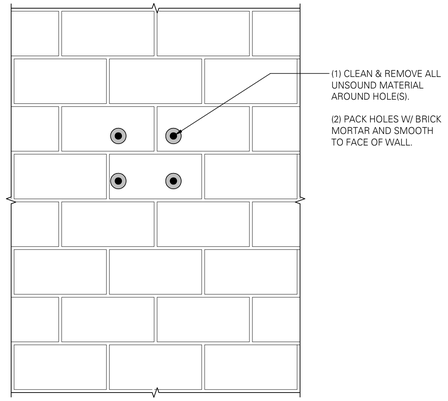
NOTE:
IF EXISTING BOLT HOLES ARE INTO UNSOUND MATERIAL, PATCH HOLES PER 3/S2.1 AND DRILL NEW HOLES IN NEXT SOUND BRICK.

1 HANDRAIL CONNECTION
SCALE: 1 1/2" = 1'-0"

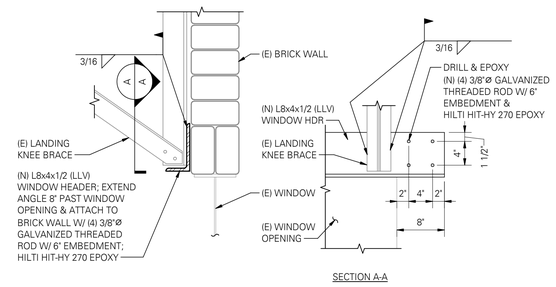


NOTE:
IF EXISTING BOLT HOLES ARE INTO UNSOUND MATERIAL, PATCH HOLES PER 3/S2.1 AND DRILL NEW HOLES IN NEXT SOUND BRICK.

2 STAIR LANDING KNEE BRACE CONNECTION
SCALE: 1 1/2" = 1'-0"

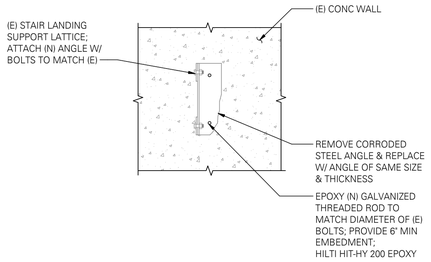


3 EXISTING BRICK HOLE REPAIR
SCALE: 1" = 1'-0"

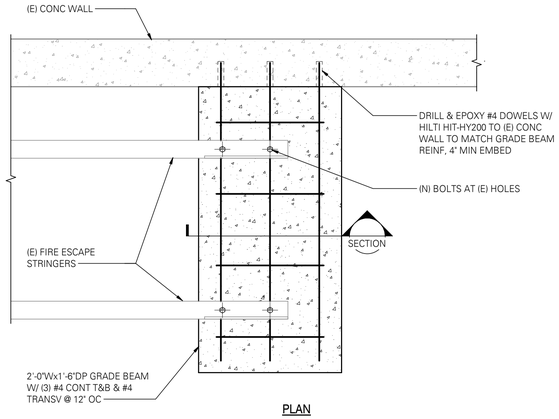


SECTION A-A

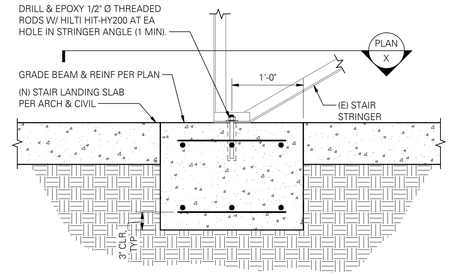
4 WINDOW HDR REPAIR
SCALE: 1" = 1'-0"



5 CORRODED STEEL REPLACEMENT
SCALE: 1" = 1'-0"



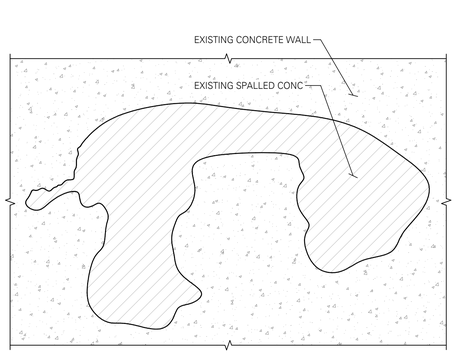
PLAN



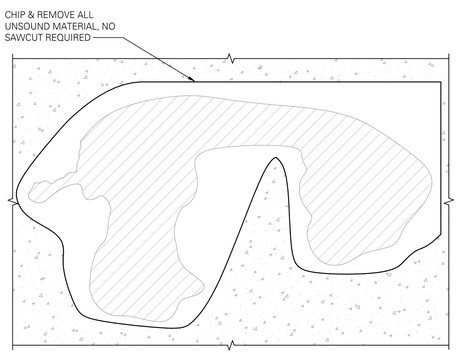
SECTION

NOTE:
1. LOCATE ALL UTILITES PRIOR TO EXCAVATION. COORDINATE W/ OWNER.
2. PROTECT EXISTING STRINGERS TO REMAIN DURING EXCAVATION AND CONCRETE POUR.

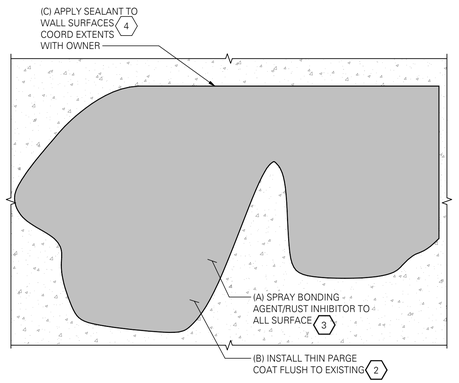
7 CONCRETE GRADE BEAM FOUNDATION
SCALE: 1" = 1'-0"



EXISTING CONDITION



STEP 1: PREP CONCRETE AREA



STEP 2: PROTECT & PATCH SURFACES

PRODUCT GUIDE:

1. EUCOPATCH - FAST-SETTING PATCHING AND REPAIR MATERIAL
2. EUCOCRETE - FLOWABLE MEDIUM DEPTH PATCH MATERIAL
3. DURAL PREP AC - BONDING AGENT & ANTI-CORROSION COATING
4. TAMOSEAL - FINISH COAT TO BE APPLIED TO EXTERIOR CONCRETE SURFACES

NOTE:
ALL PRODUCTS NOTED ARE MANUFACTURED BY THE EUCLID CHEMICAL COMPANY. CONTRACTOR TO SUBMIT DATA SHEETS FOR ANY ALTERNATE PRODUCT OR MANUFACTURER. WRITTEN APPROVAL REQUIRED PRIOR TO BIDDING FOR ANY SUBSTITUTION

9 SPALLING CONCRETE REPAIR
SCALE: 3/4" = 1'-0"

MONTANA
SAMANTHA L. FOX
No. 46846PE
LICENSED PROFESSIONAL ENGINEER

DCI ENGINEERS
131 West Main
Missoula, Montana 59801
P: (406) 721-7315 www.dci-engineers.com
CIVIL / STRUCTURAL

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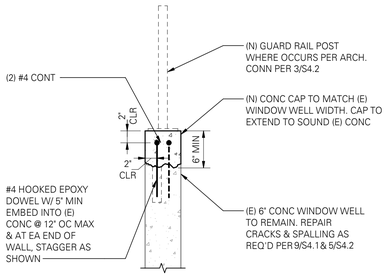
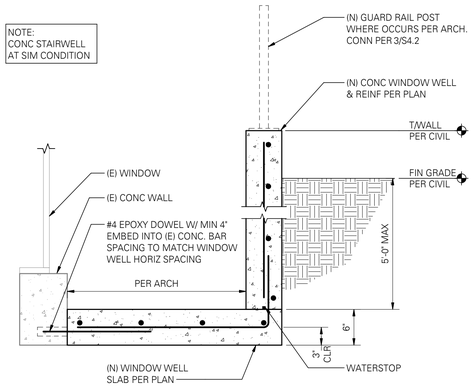


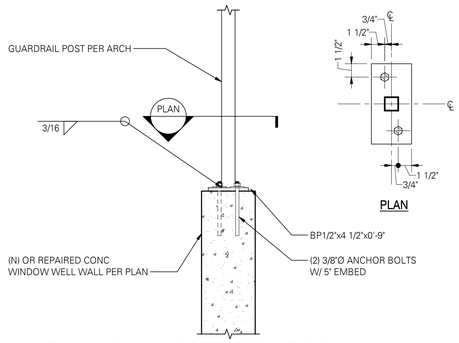
1 (N) CONCRETE CAP ON (E) WINDOW WELL

SCALE: 1" = 1'-0"



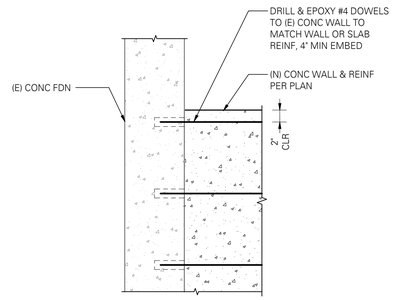
2 (N) CONCRETE WINDOW WELL

SCALE: 1" = 1'-0"



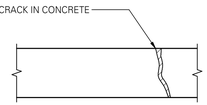
3 (N) GUARDRAIL POST CONNECTION TO CONCRETE WINDOW WELL

SCALE: 1 1/2" = 1'-0"

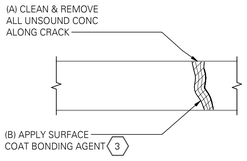


4 TYPICAL (N) TO (E) CONCRETE CONNECTION

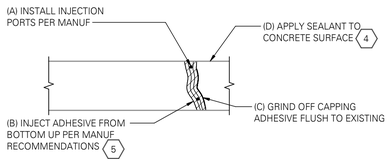
SCALE: 1" = 1'-0"



EXISTING CONDITION: ELEVATION VIEW



STEP 1: PREP CRACK AREA



STEP 2: INSTALL PORTS / EPOXY INJECTION
STEP 3: FINISH COAT

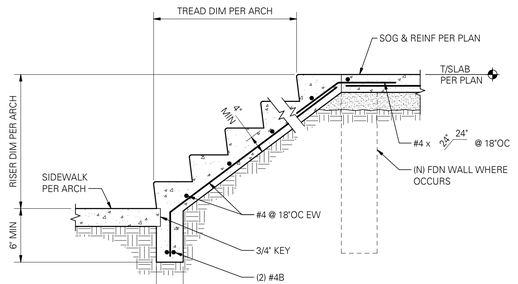
PRODUCT GUIDE:

1. EUCOPATCH-FAST-SETTING PATCHING AND REPAIR MATERIAL
2. EUCOPATCH-FLOWABLE MEDIUM DEPTH MATERIAL
3. DURAL PREP AC-BONDING AGENT & ANTI-CORROSION COATING
4. BARACADE WB244-WATER REPELLANT CONCRETE SEALER FOR ALL EXISTING CONCRETE SURFACES
5. DURALCRETE EPOXY SYSTEM-PRESSURE INJECTED HIGH STRENGTH EPOXY BONDING ADHESIVE FOR STRUCTURAL CRACK

NOTE:
ALL PRODUCTS NOTED ARE MANUFACTURED BY THE EUCLID CHEMICAL COMPANY. CONTRACTOR TO SUBMIT DATA SHEETS FOR ANY ALTERNATE PRODUCT OR MANUFACTURER. WRITTEN APPROVAL REQUIRED PRIOR TO BIDDING FOR ANY SUBSTITUTION.

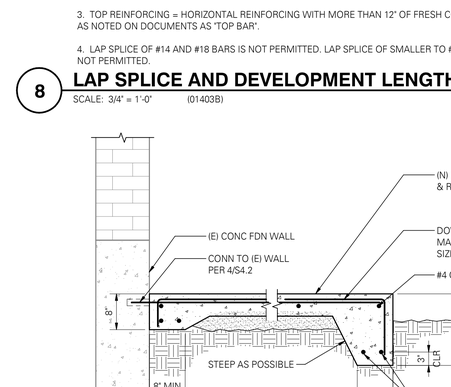
5 TYPICAL CRACKED CONCRETE REPAIR

SCALE: 3/4" = 1'-0"



7 TYPICAL STAIR ON GRADE

SCALE: 3/4" = 1'-0" (03800)

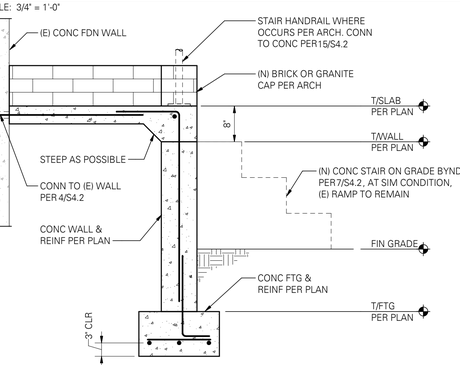


NOTES:

1. ALL TABULATED VALUES ARE IN INCHES.
2. ALL TABULATED VALUES ARE FOR UNCOATED REINFORCING AND NORMAL WEIGHT CONCRETE WITH CLEAR SPACING > db, CLEAR COVER > db AND MINIMUM STIRRUPS OR TIES THROUGHOUT Ld OR CLEAR SPACING > 2db AND CLEAR COVER > db.
3. TOP REINFORCING = HORIZONTAL REINFORCING WITH MORE THAN 12" OF FRESH CONCRETE BELOW OR AS NOTED ON DOCUMENTS AS "TOP BAR".
4. LAP SPLICE OF #14 AND #18 BARS IS NOT PERMITTED. LAP SPLICE OF SMALLER TO #14 AND #18 BARS IS NOT PERMITTED.

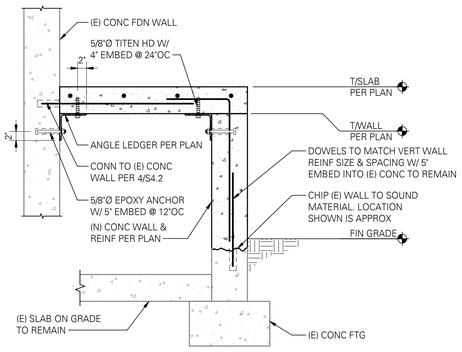
8 LAP SPLICE AND DEVELOPMENT LENGTH SCHEDULE

SCALE: 3/4" = 1'-0" (01403B)



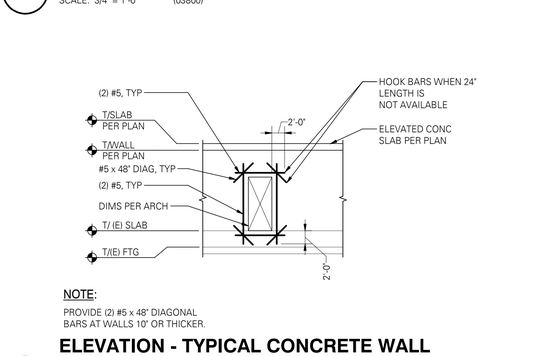
9 TYPICAL RAISED CONCRETE STOOP

SCALE: 3/4" = 1'-0"



10 (N) CONCRETE PODIUM WALL & SLAB - QUAD C

SCALE: 3/4" = 1'-0"



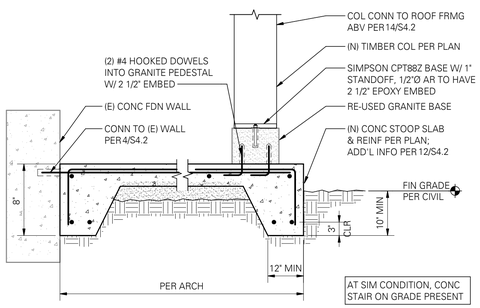
NOTE:
PROVIDE (2) #5 x 48" DIAGONAL BARS AT WALLS 10" OR THICKER.

11 ELEVATION - TYPICAL CONCRETE WALL OPENING REINFORCING

SCALE: 3/4" = 1'-0" (03401M)

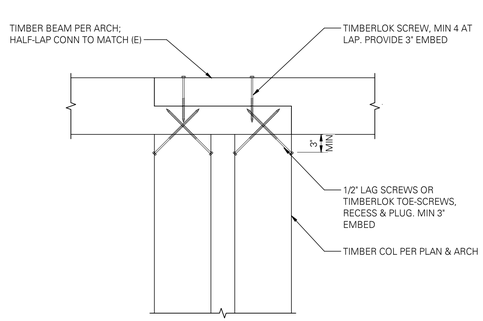
12 TYPICAL CONCRETE STOOP

SCALE: 3/4" = 1'-0" (03203M)



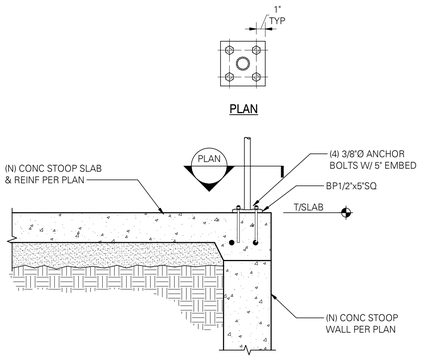
13 (N) CONCRETE STOOP WITH ROOF - QUADS 'C'-'D'

SCALE: 3/4" = 1'-0" (03203M)



14 (N) CONCRETE STOOP WITH ROOF - QUAD 'C'-'D'

SCALE: 1" = 1'-0"



15 TYPICAL HANDRAIL ANCHORAGE AT NEW STAIR

SCALE: 1" = 1'-0"

MONTANA
SAMANTHA L. FOX
No. 44844PE
LICENSED PROFESSIONAL ENGINEER

DCI ENGINEERS
131 West Main
Missoula, Montana 59801
P: (406) 721-7315 www.dci-engineers.com
CIVIL / STRUCTURAL

sheet STRUCTURAL - DETAILS
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S4.2