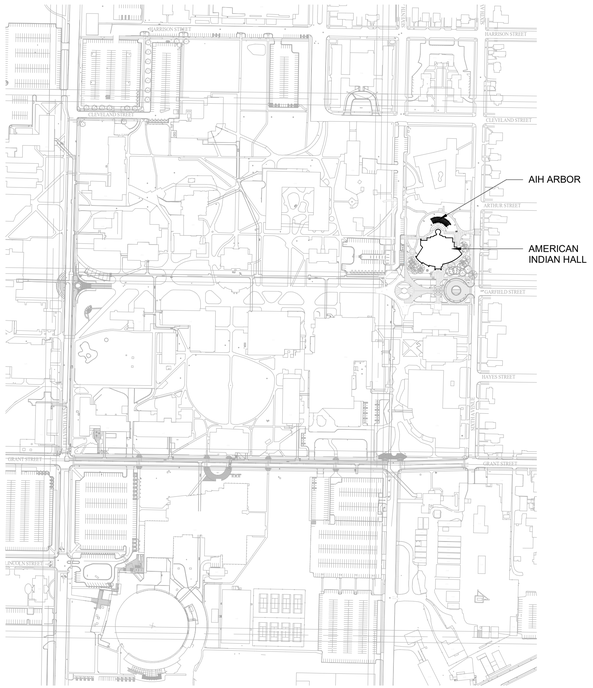
AMERICAN INDIAN HALL ARBOR

MONTANA STATE UNIVERSITY, BOZEMAN, MONTANA



VICINITY MAP
1" = 300'-0"

GENERAL NOTES

ALL WORK INCLUDED IN THIS CONTRACT, SHALL COMPLY WITH THE LATEST EDITION OF INTERNATIONAL BUILDING CODE, INTERNATIONAL PLUMBING CODE, INTERNATIONAL MECHANICAL CODE, ICC ELECTRICAL CODE, AND ALL OTHER LAWS, CODES, OF LOCAL, COUNTY, STATE, AND LOCAL JURISDICTION INVOLVED.

THE GENERAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO STARTING THE WORK. THE CONTRACTOR SHALL VERIFY GRADES, SITE CONDITIONS, AND COMPARE THAT WITH THE DIMENSIONS SHOWN ON THE DRAWINGS. WHERE CONFLICT EXISTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT UPON RECOGNITION OF ANY DISCREPANCY.

THE CONTRACTOR SHALL CAREFULLY STUDY ALL PLANS AND DRAWINGS, AND SHALL REPORT IMMEDIATELY TO THE ARCHITECT ANY ERRORS, INCONSISTENCIES OR OMISSIONS THEY MAY DISCOVER. THE CONTRACTOR SHALL NOT WORK WITHOUT DRAWINGS. THE CONTRACTOR SHALL CONSULT THE ARCHITECT OR SUBMIT SHOP DRAWINGS AND/OR LITERATURE TO THE ARCHITECT FOR APPROVAL PRIOR TO STARTING THE WORK.

THE GENERAL CONTRACTOR SHALL GIVE ALL NOTICES AND SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF PUBLIC AUTHORITY BEARING ON THE PERFORMANCE OF THE WORK. IF THE CONTRACTOR OBSERVES THAT ANY OF THE CONTRACT DOCUMENTS ARE AT VARIANCE THEREWITH IN ANY RESPECT THEY SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY CHANGES REQUIRING ADJUSTMENT WITH APPROPRIATE MODIFICATION.

ONLY APPROVED 'CONSTRUCTION SET' MARKED DRAWINGS INCORPORATING ALL ADDENDUM AND DIMENSION CLARIFICATIONS SHALL BE USED DURING THE EXECUTION OF THE WORK.

THE CONTRACTOR SHALL USE WRITTEN DIMENSIONS ONLY, OR AS DIRECTED BY ARCHITECT. THE CONTRACTOR SHALL NOT SCALE DRAWINGS.

CROSS REFERENCES SHOWN ON DRAWINGS DO NOT NECESSARILY INDICATE ALL LIKE CONDITIONS AND DO NOT LIMIT APPLICATION OF ANY DRAWING OR DETAIL. THEY MAY APPLY TO OTHER, SAME, OR SIMILAR CONDITIONS NOT REFERENCED.

INTERIOR WALL DIMENSIONS (FOR NEW WALLS ONLY) ARE TO FACE OF STUD FRAMING UNLESS OTHERWISE NOTED.

SECTION AND INTERIOR ELEVATION DIMENSIONS ARE TO THE TOP OF CONCRETE OR METAL DECKING UNLESS OTHERWISE NOTED.

CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION AND COORDINATION OF SUBCONTRACTORS WORK TO SECURE COMPLIANCE OF DRAWINGS AND SPECIFICATIONS, THE ACCURATE LOCATION OF STRUCTURE MEMBERS, AND OPENINGS FOR MECHANICAL, ELECTRICAL, STAIRS, ELEVATORS, AND MISCELLANEOUS EQUIPMENT.

CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF ALL OPENINGS FOR MECHANICAL AND ELECTRICAL EQUIPMENT WITH RESPECTIVE SUB-CONTRACTORS, AS WELL AS SHOP DRAWINGS REVIEWED BY THE ARCHITECT.

CONTRACTOR SHALL VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT AND PROVIDE ALL BUCK-OUT BLOCKING AND BACKING REQUIRED BY THIS CONTRACT AND OTHERS.

WHERE PIPING, CONDUIT, AND/OR DUCTS PASS THROUGH FIRE RATED WALLS, PACK AROUND OPENINGS WITH SAFING OR SPRAY INSULATION. PROVIDE FIRE DAMPERS WHERE NECESSARY.

ABBREVIATIONS

ALUM.	ALUMINUM
ANN.	ANNUNCIATOR
BD.	BOARD
BLCK'G.	BLOCKING
CAB.	CABINET
CER.	CERAMIC
CLR.	CLEARANCE
BOARD	
COMP.	COMPOSITE
CONC.	CONCRETE
INSTALLED	
CONF.	CONFERENCE
CORR.	CORRIDOR
C.M.U.	CONCRETE MASONRY UNIT
C.T.	CERAMIC TILE
CUST.	CUSTOM
D.F.	DRINKING FOUNTAIN
DISP.	DISPENSER
D.M.	DRYMARK BOARD
DR.	DRAWER
E.I.F.S.	EXTERIOR INSULATION FINISH SYSTEM
E.P.S.	EXTRUDED POLYSTYRENE
ELEV.	ELEVATION
F.D.	FLOOR DRAIN
F.E.	FIRE EXTINGUISHER
F.F.	FINISH FLOOR
F.S.	FLOOR SINK
FLR.	FLOORING
FDN.	FOUNDATION
F.O.	FACE OF
G.B.	GYPSUM WALLBOARD
GWB	GYPSUM WALLBOARD
GYP. BD.	GYPSUM WALLBOARD
TILE	
HC.	HANDICAPPED
H.M.	HOLLOW METAL
INSUL.	INSULATION
JAN.	JANITOR
MECH.	MECHANICAL
MFG.	MANUFACTURER
M.R.	MOISTURE RESISTANT
MTL.	METAL
N.I.C.	NOT IN CONTRACT
O.C.	ON CENTER
O.S.B.	ORIENTED STRAND
O.F.C.I.	OWNER FURNISHED CONTRACTOR
O.F.O.I.	OWNER FURNISHED OWNER INSTALLED
P.	PAINT
P. LAM.	PLASTIC LAMINATE
P.T.	PAPER TOWEL
PRE-FIN.	PRE-FINISHED
PVC.	POLYVINYLCHLORIDE
R.	RADIUS
REC.	RECESSED
REST.	RESTROOM
REQ'D.	REQUIRED
S.	STAIN
S.C.	SOLID CORE
S.F.	SQUARE FEET
S.V.	SHEET VINYL
SIM.	SIMILAR
SPECS.	SPECIFICATIONS
STOR.	STORAGE
T.B.	TACK BOARD
T.O.	TOP OF
T.P.	TOILET PAPER
TYP.	TYPICAL
V.B.	VAPOR BARRIER
V.C.T.	VINYL COMPOSITION
VER.	VERIFY
W/	WITH
W/O	WITHOUT

NOTES AND SYMBOLS

- 1 / A1.0 — DETAIL REFERENCE
- 100 — DOOR NUMBER
- 1 / A3.0 — SECTION CUT
- A — WINDOW TYPE
- 1 / A4.0 — INTERIOR ELEVATION
- 1 — NOTE REFERENCE
- ROOM / 100 — ROOM NUMBER
- A — WALL TYPE

MATERIALS LEGEND

- EARTH
- STEEL
- COMPACTED GRAVEL
- FINISH WOOD
- CONCRETE
- BATT INSUL.
- BRICK
- RIGID INSUL.
- C.M.U.
- GYP. BD.

PROJECT TEAM:

OWNER
STATE OF MONTANA
HELENA, MONTANA
(406) 444-3104

AGENCY
MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
(406) 994-5413

ARCHITECT
THINKONE
BOZEMAN, MONTANA
(406) 586-7020

LANDSCAPE
DESIGN 5
BOZEMAN, MONTANA
(406) 587-4873

STRUCTURAL
MORRISON-MAIERLE, INC.
BOZEMAN, MONTANA
(406) 587-0721

MECH. ELECT. PLUMB.
ASSOCIATED CONSTRUCTION ENGINEERING
BELGRADE, MONTANA
(406) 388-3320

SCHEDULE OF DRAWINGS:

GENERAL

NO.	DRAWING SHEET
A0.0	COVER SHEET
A0.1	CODE REVIEW

SITE DEVELOPMENT

NO.	DRAWING SHEET
SD1.0	ARCHITECTURAL SITE PLAN

LANDSCAPE

NO.	DRAWING SHEET
L0.0	LANDSCAPE SITE PLAN
L0.1	LANDSCAPE LOD CONSTRUCTION PLAN
L0.2	NOTES AND LEGENDS
L2.0	LANDSCAPE HARDSCAPE
L2.1	LANDSCAPE ENLARGEMENT HARDSCAPE
L3.0	LANDSCAPE PLANTING PLAN
L5.0	LANDSCAPE DETAILS SHEET
L5.1	LANDSCAPE DETAILS SHEET
L7.0	LANDSCAPE DESIGN INTENT IMAGERY

STRUCTURAL

NO.	DRAWING SHEET
S000	GENERAL STRUCTURAL NOTES
S001	STATEMENT OF SPECIAL INSPECTIONS
S102	ARBOR SLAB/FND PLAN
S103	OUTDOOR ARBOR FRAMING PLAN
S104	OUTDOOR ARBOR SECTION

ARCHITECTURAL

NO.	DRAWING SHEET
A1.0	FIRST FLOOR PLAN
A1.1	ROOF PLAN & RCP
A2.0	EXTERIOR ELEVATIONS
A2.1	EXTERIOR PERSPECTIVES
A3.0	SECTIONS AND DETAILS

PLUMBING

NO.	DRAWING SHEET
P1.0	PLUMBING PLANS

ELECTRICAL

NO.	DRAWING SHEET
E1.0	ELECTRICAL COVER SHEET
E1.1	ELECTRICAL PLANS

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FAX: 406.994.5665

ISSUE FOR BID

AMERICAN INDIAN HALL OUTDOOR CLASSROOM
MONTANA STATE UNIVERSITY

THINK ONE ARCHITECTURE

DRAWN BY: **Author**
REVIEWED BY **Checker**

REV.	DESCRIPTION	DATE

STATE OF MONTANA — BOZEMAN — WILLIAM A. HANSON — 9801 — LICENSED ARCHITECT

PPA#22-0644

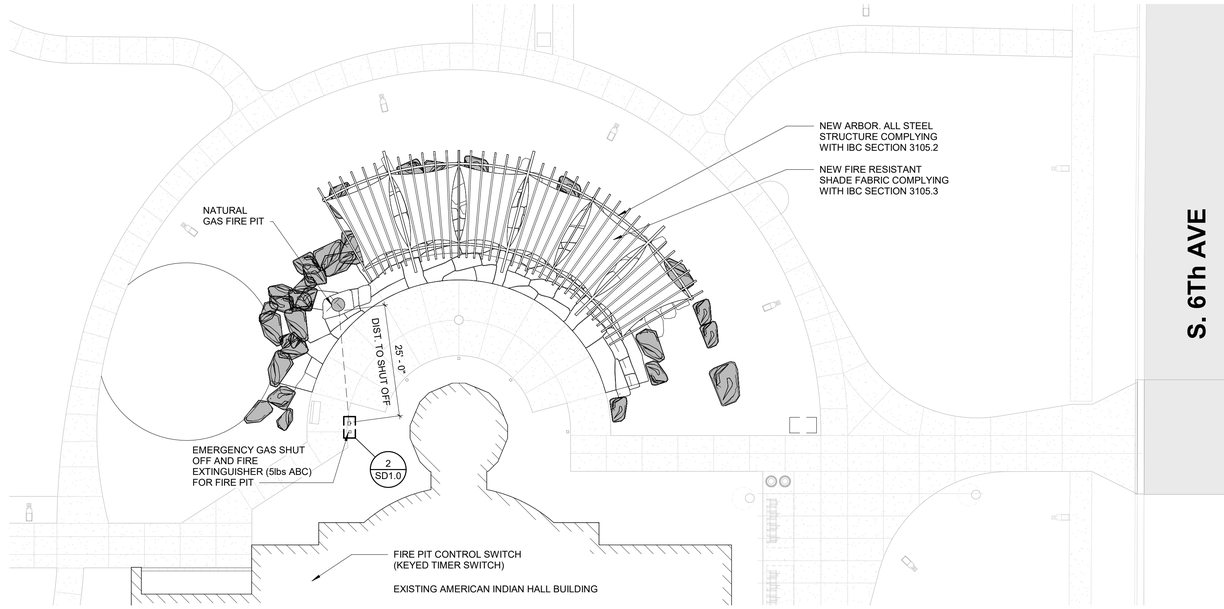
A/E#00-00-00

CONSULTANT #2307

SHEET TITLE
COVER SHEET

SHEET
A0.0

DATE
5/29/24



1 / A0.1 **CODE REVIEW PLAN**

1/16" = 1'-0"

ISSUE FOR BID

AMERICAN INDIAN HALL OUTDOOR CLASSROOM

MONTANA STATE UNIVERSITY

MONTANA STATE UNIVERSITY

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

THINK ONE ARCHITECTS

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

STATE OF MONTANA · BOZEMAN · WILLIAM A. HANSON · 19974 · REGISTERED ARCHITECT

PPA#22-0644

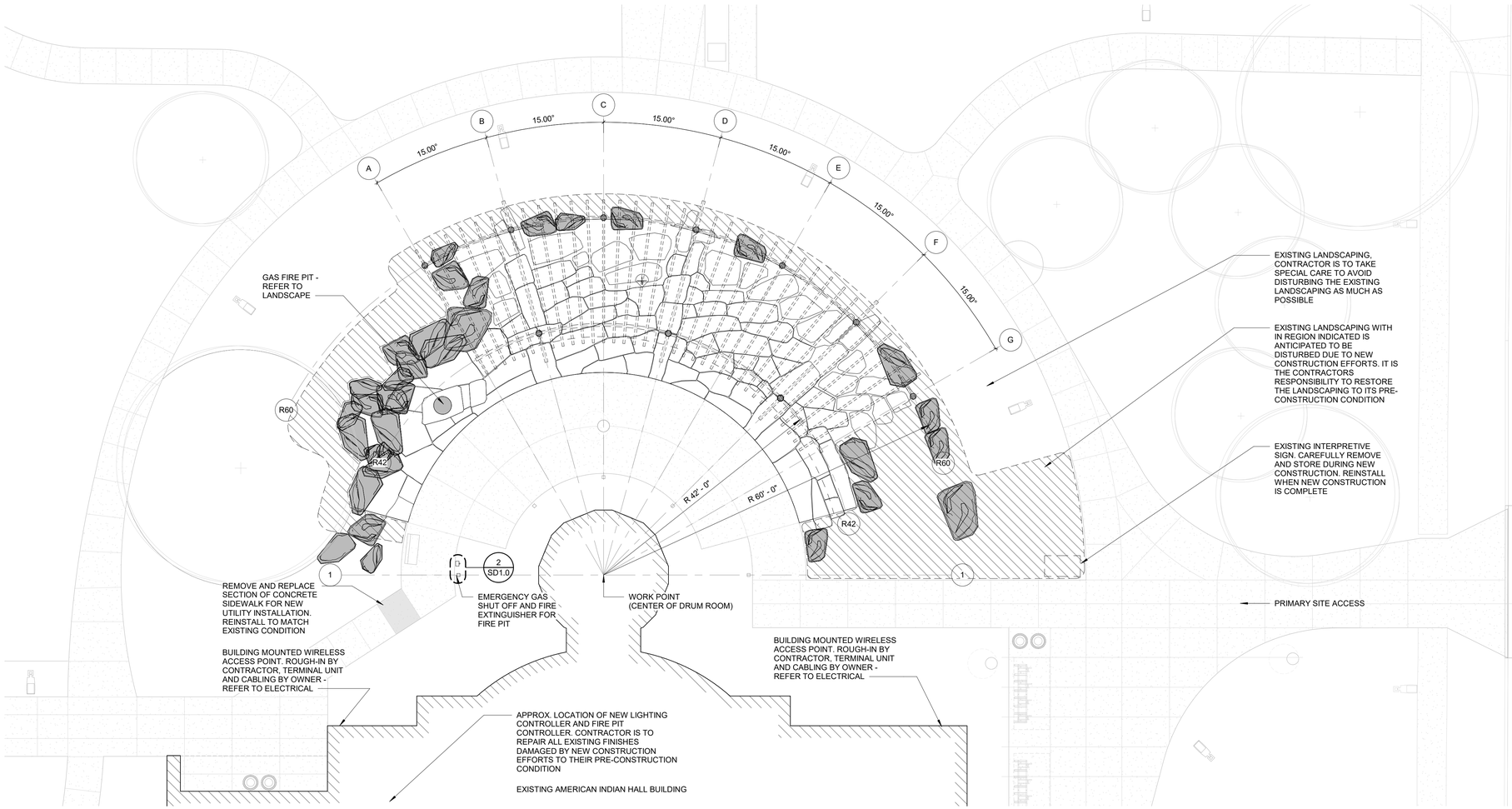
A/E#00-00-00

CONSULTANT #2307

SHEET TITLE
CODE REVIEW

SHEET
A0.1

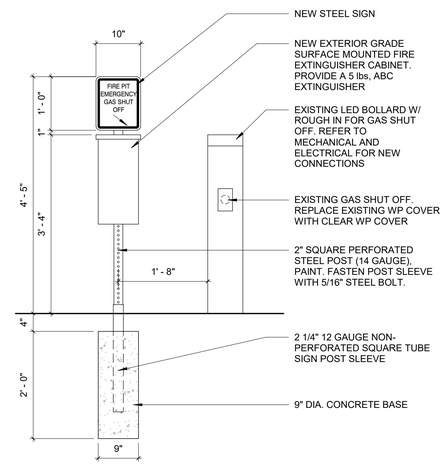
DATE
5/29/24



1 SD1.0 SITE PLAN

1" = 10'-0"

NORTH



2 SD1.0 FIRE PIT SIGNAGE

3/4" = 1'-0"

ISSUE FOR BID

AMERICAN INDIAN HALL OUTDOOR CLASSROOM

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THINK|ONE

DRAWN BY: Author		
REVIEWED BY Checker		
REV.	DESCRIPTION	DATE

STATE OF MONTANA · BOZEMAN · WILLIAM A. HANSON · 10078 · MONTANA · LICENSED ARCHITECT

PPA#22-0644

A/E#00-00-00

CONSULTANT #2307

SHEET TITLE
SITE PLAN

SHEET
SD1.0

DATE
5/29/24

SHEET INDEX

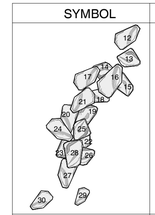
KEYNOTES

1. EXISTING LANDSCAPING
2. LANDSCAPE PHASE 2 LIMIT OF DISTURBANCE
3. EXISTING CONCRETE WALKS AND DRIVES
4. SIGN TO BE REMOVED AND REINSTALL UPON PROJECT COMPLETION
5. EXISTING PLANTING BEDS TO BE PROTECTED
6. JUMBO FORMAT FLAGSTONE - WINDSOR GRAY
7. STACKED BOULDER SITTING AREA - DEEP CREEK
8. BEAM BOULDERS - DEEP CREEK
9. ARBOR - SEE STRUCTURAL
10. BOULDER FIRE PIT WITH MATCHING SEAT - TO MATCH SITE BOULDERS

SITE MATERIALS SCHEDULE

SYMBOL	PRODUCT
	NATIVE SEED
	WOOD MULCH MINI NUGGET
	ROCK BARK MULCH
	PERENNIAL AND SHRUB BEDS
	EXISTING CONCRETE

SITE STONE SCHEDULE

SYMBOL	PRODUCT
	DEEP CREEK FIRE PIT BOULDERS
	DEEP CREEK BEAM BOULDERS
	JUMBO FORMAT FLAGSTONE

SITE AMENITY SCHEDULE

SYMBOL	PRODUCT
	BOULDER FIRE PIT AND BENCH

HATCH PATTERN AND LINE TYPE LEGEND

	NATIVE GRASS SEED MIX
	ROCK BARK MULCH
	WOOD MULCH
	VEGETABLE GARDENS
	CRUSHER FINES : -OUTDOOR CLASS ROOM PATIO - REVIEW SITE CONDITIONS FOR NEW STONE WORK
BT — BT	BURIED TELEPHONE
SS — SS	SEWER LINE
W — W	WATER LINE
BP — BP	BURIED POWER
SD — SD	STORM DRAIN
OHP	OVERHEAD POWER
IRR	EXISTING IRRIGATION
NG — NG	NATURAL GAS
	PHASE 2 LIMIT BOUNDARY
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
8615	EXISTING MINOR CONTOUR

SEE SHEET
L0.2 FOR FULL SCHEDULES

1 / L0.0 Landscape Site Plan
1"=10'-0"

0 5 10 20

N

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FAX: 406.994.5665

AMERICAN INDIAN HALL OUTDOOR CLASSROOM

MONTANA STATE UNIVERSITY

think one
DESIGN.5 landscape architecture

DRAWN BY: -
REVIEWED BY: -

REV.	DESCRIPTION	DATE
	75% review set	4/24/24
	100% Bid Set	5/29/24

STATE OF MONTANA
TROY SCHERER
270
LICENSED LANDSCAPE ARCHITECT

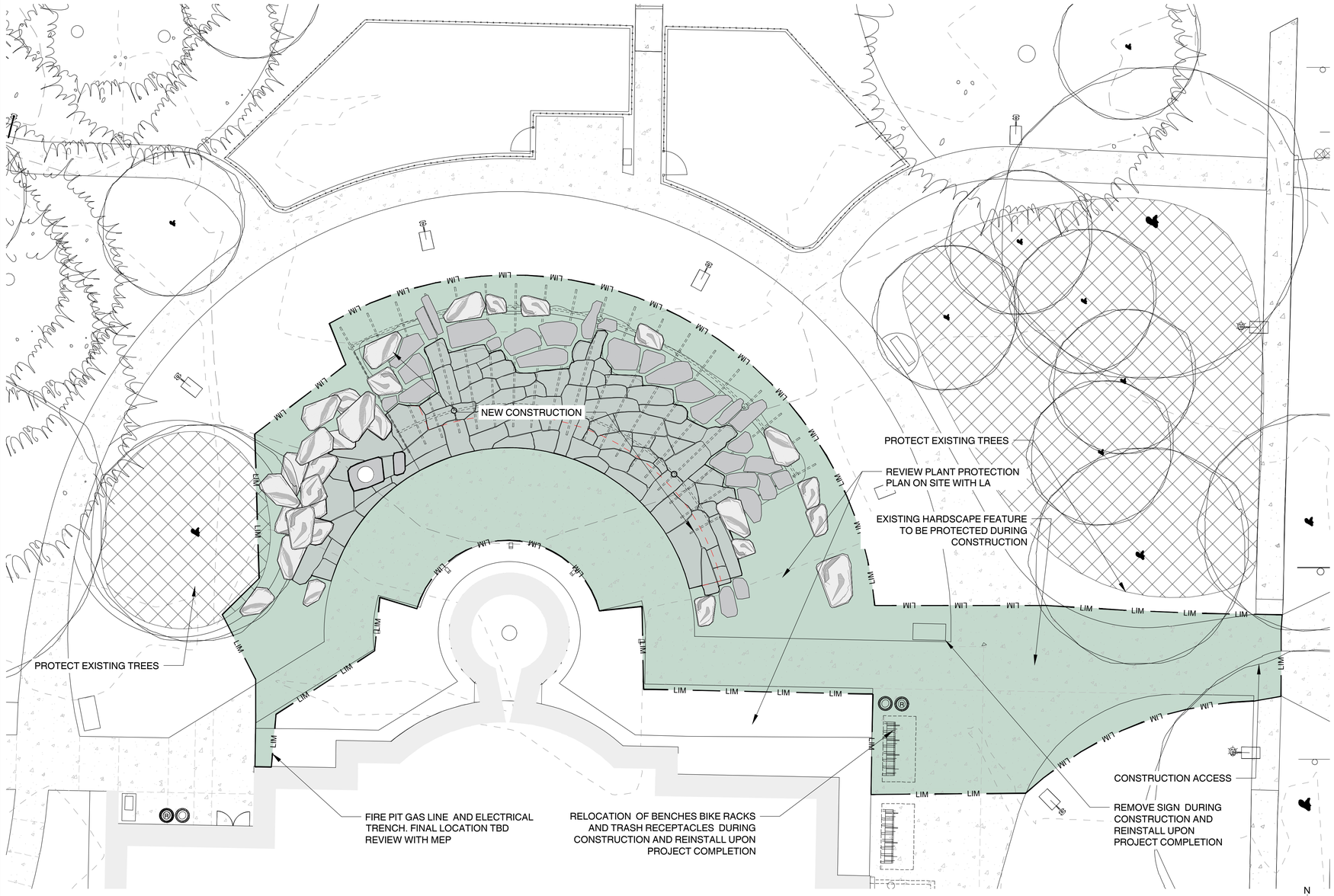
PPA#22-0644

A/E#00-00-00

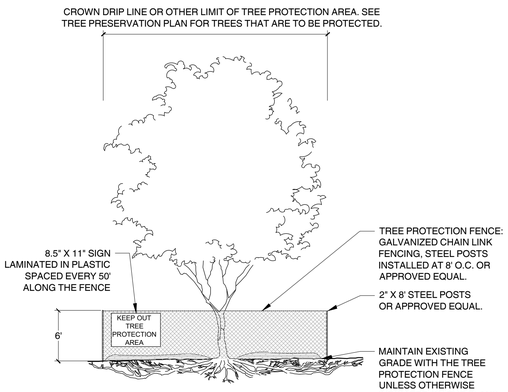
SHEET TITLE
LANDSCAPE SITE PLAN

SHEET
L0.0

DATE
5.29.24

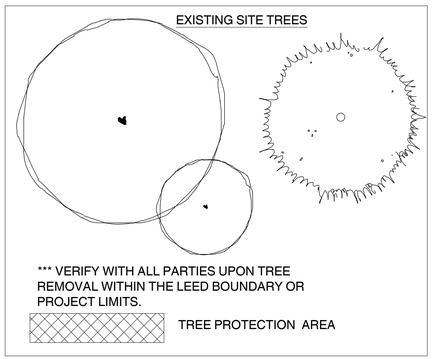


1 L0.1 Tree Protection Plan
1"=10'-0"



NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL TREE PROTECTION REQUIREMENTS.
2. NO PRUNING SHALL BE PERFORMED EXCEPT BY APPROVED MSU ARBORIST.
3. NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING INCLUDING DURING FENCE INSTALLATION AND REMOVAL.
4. SEE SITE PLAN FOR ANY MODIFICATIONS WITH THE TREE PROTECTION AREA.

2 L0.1 Existing Tree Protection
3/8"-1'



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FAX: 406.994.5665

AMERICAN INDIAN HALL OUTDOOR CLASSROOM

MONTANA STATE UNIVERSITY

think one
DESIGN.5 landscape architecture

DRAWN BY:	-	
REVIEWED BY:	-	
REV.	DESCRIPTION	DATE
	75% review set	4/24/24
	100% Bid Set	5/29/24

STATE OF MONTANA
TROY SCHERER
270
LICENSED LANDSCAPE ARCHITECT

PPA#22-0644

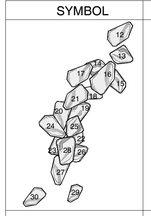
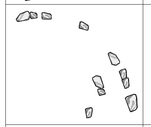
A/E#00-00-00

SHEET TITLE
LANDSCAPE CONSTRUCTION LOD PLAN

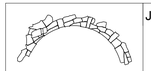
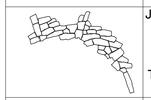
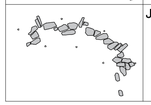
SHEET
L0.1

DATE
5.29.24

SITE STONE SCHEDULE

SYMBOL	PRODUCT	QUANTITY	DESCRIPTION	CONTACT
	DEEP CREEK FIRE PIT BOULDERS	19 EACH BOULDERS	TYPE: DEEP CREEK SIZE SEE BOULDER SCHEDULE COLOR: GRAYS AND EARTH TONS SEE SHEETS L2.0,L2.1, L5.0 DETAIL 11 & L5.1 DETAILS 1 & 2;SEE SHEET L7.0 FOR DESIGN NOTES:FEATURE BOULDER TO BE SELECTED AND OR REVIEWED WITH LANDSCAPE ARCHITECT	SELECT STONE 1-888-237-1000 INFO@SELECTSTONE.COM
	DEEP CREEK BEAM BOULDERS	11 EACH	TYPE: DEEP CREEK (RECTILINEAR) SIZE SEE BOULDER SCHEDULE COLOR: GRAYS AND EARTH TONS SEE SHEETS L2.0,L2.1, L5.0 DETAIL 11 & L5.1 DETAILS 1 & 2 NOTES:FEATURE BOULDER TO BE SELECTED AND OR REVIEWED WITH LANDSCAPE ARCHITECT	SELECT STONE 1-888-237-1000 INFO@SELECTSTONE.COM
	JUMBO FORMAT FLAGSTONE (WINDSOR GRAY)	APPROX. 1,950 SF	TYPE: WINDSOR GRAY SIZE: JUMBO FORMAT & 2" THICKNESS COLOR: GRAY AND GRAY TANS SHEET L5.1 DETAILS 3-6; SEE SHEET L7.0 FOR FLAGSTONE DESIGN LAYOUT INTENT NOTES:REVIEW LAYOUT WITH LA FOR APPROVAL	SELECT STONE 1-888-237-1000 INFO@SELECTSTONE.COM

STONE INSTALL METHODS

	JUMBO FORMAT FLAGSTONE (WINDSOR GRAY) MORTAR SET	APPROX. 700 SF	INSTALL: NATURAL CUT AND FIT STONE SET ON 4" CONCRETE RAT SLAB W/ #4 REBAR SEE SHEET L5.1 DETAILS 3 & 4 NOTES: STONE LAYOUT INTENT PER PLAN. $\frac{1}{4}$"-$\frac{1}{2}$" MAX JOINTS-REVIEW GROUT TYPE & COLOR ON SITE	CONTRACTOR
	JUMBO FORMAT FLAGSTONE (WINDSOR GREY) TIGHT JOINT FIT SAND SET	APPROX. 790 SF	INSTALL: NATURAL CUT AND FIX SAND SET STONE. SEE SHEET L5.1 DETAILS 3,5 & 6 NOTES: STONE LAYOUT INTENT PER PLAN. $\frac{1}{2}$" JOINTS	CONTRACTOR
	JUMBO FORMAT FLAGSTONE (WINDSOR GREY) LOOSE JOINT SAND SET	APPROX. 480 SF	INSTALL: LOOSE JOINT NATURAL STONE. SAND SET SEE SHEET L 5.1 DETAILS 5 & 6 NOTES:STONE LAYOUT INTENT PER PLAN. JOINT SIZE 3"-6" PER PLAN THYME PLANTING WITH-IN GAPS	CONTRACTOR

SITE AMENITY SCHEDULE

SYMBOL	PRODUCT	QUANTITY	DESCRIPTION	CONTACT
	BOULDER FIRE PIT AND BENCH	1	SIZE: APPROX 6'-6"X18"X4' CUSTOM BOULDER FIRE PIT W/ COVER BURNER: CFBO 360k BTUS WARMING TRENDS; FILL WITH FIRE PEBBLES- SKU AFG-LSTONE-CG-15 IGNITION: 24V ELECTRONIC IGNITION WITH MANUAL ON / OFF AND EMERGENCY SHUT OFF SEE SHEETS L 2.0, L2.1, & L5.1 DETAILS 2,7 & 8 NOTE:18"X4'X2' MATCHING BOULDER BENCH POLISHED ONE FACE AND TOP.	BOULDER AND MECHANICS MONTANA HARDSCAPES 406-579-6554 MONTANAHARDSCAPES.COM PEBBLES AND COVER MONTANA FIRE PITS 2302 MCDONALD AVE MISSOULA, MT 59801 (833) 228-5244 MONTANAFIREPITS.COM

SITE MATERIALS SCHEDULE

SYMBOL	PRODUCT	QUANTITY	DESCRIPTION	CONTACT
	NATIVE SEED	TO BE REPAIRED AS NEEDED	MATCH EXISTING MIX RECOMMENDED DRILL SEEDING RATE OF 10 LBS/1000 SQFT. FOR BEST RESULTS DRILL SEED IN 4 DIRECTIONS. SHEET L5.0 DETAILS 8 & 10	CIRCLE S SEEDS: 14990 MADISON FRONTAGE RD. THREE FORKS, MT 59752 406-285-3269 circles@circlesseeds.com
	WOOD MULCH MINI NUGGET	TO BE REPAIRED AS NEEDED	MID AMERICA MULCH PINE BARK MINI NUGGET LAY @ 3" DEPTH SEE SHEET L5.0 DETAIL 9	WESTERN PINES MANHATTAN, MT 406-X282-7827
	ROCK BARK MULCH	TO BE REPAIRED AS NEEDED	1"-1.5" ROCK BARK MULCH LAY @ 3" DEPTH SEE SHEET L5.0	SCENIC CITY TRUCKING & LANDSCAPING BELGRADE, MT 406-388-7771
	PERENNIAL AND SHRUB BEDS	TO BE REPAIRED AS NEEDED	SEE SHEET L3.0, L5.0 DETAILS 5-9 PLANTING BED	CONTRACTOR
	EXISTING CONCRETE	TO BE REPAIRED AS NEEDED		CONTRACTOR

BOULDER SCHEDULE

SYMBOL	LENGTH	WIDTH	HEIGHT	BURIED DEPTH	DESCRIPTION
1	4'-6"	2'-6"	2'-0"	6"-8" MIN	SITTING BOULDERS
2	7'-0"	3'-0"	3'-0"	6"-8" MIN	LANDSCAPE
3	6'-0"	3'-0"	2'-6"	6"-8" MIN	LANDSCAPE
4	3-0"	2'-6"	2'-0"		SITTING BOULDERS
5	5'-0"	2'-6"	3'-0"	6"-8" MIN	SITTING BOULDERS
6	5'-0"	2'-6"	3'-0"		SITTING BOULDERS
7	6'-0"	3'-0"	2'-0"	6"-8" MIN	SITTING BOULDERS
8	5'-0"	2'-6"	2'-0"	6"-8" MIN	SITTING BOULDERS
9	5'-0"	2'-6"	2'-0"	6"-8" MIN	SITTING BOULDERS
10	3'-0"	2'-6"	2'-0"		SITTING BOULDERS
11	6'-0"	3'-0"	2'-0"		SITTING BOULDERS
12	7'-0"	3'-0"	2'-6"	6"-8" MIN	SITTING BOULDERS
13	4'-0"	4'-0"	2'-0"		LANDSCAPE
14	4'-0"	3'-0"	2'-0"	6"-8" MIN	
15	6'-0"	3'-0"	2'-0"		SITTING BOULDERS- SUPPORT
16	8'-6"	3'-0"	1'-6"		STACKED ACCENT
17	7'-0"	2'-0"	1'-6"		SLANTED ACCENT
18	6'-6"	3'-0"	2'-0"	6"-8" MIN	SITTING BOULDERS- SUPPORT
19	5'-0"	3'-0"	2'-0"		SITTING BOULDERS- SUPPORT
20	8'-0"	3'-0"	2'-0"		
21	6'-6"	2'-0"	2'-0"		STACKED ACCENT
22	4'-0"	4'-6"	2'-0"	6"-8" MIN	SITTING BOULDERS- SUPPORT
23	5'-5"	3'-0"	2'-0"		
24	6'-6"	2'-0"	1'-6"		SLANTED ACCENT
25	4'-0"	3'-0"	1'-6"		STACKED ACCENT
26	5'-6"	3'-0"	2'-0"		SITTING BOULDERS- SUPPORT
27	7'-0"	3'-0"	2'-0"		SITTING BOULDERS- SUPPORT
28	6'-6"	2'-0"	2'-0"		STACKED ACCENT
29	4'-0"	2'-0"	2'-0"	6"-8" MIN	LANDSCAPE
30	6'-0"	2'-6"	3'-0"	6"-8" MIN	LANDSCAPE

*** SIZES ARE APPROXIMATE TO HELP WITH OVERALL INTENT
FEATURE BOULDERS TO BE SELECTED OR
APPROVED BY LANDSCAPE ARCHITECT SITE
PLACED PER DESIGN LOCATIONS

FLAGSTONE BASE LAYOUT SCHEDULE

SYMBOL	PRODUCT	QUANTITY	DESCRIPTION	CONTACT
	CONCRETE RAT SLAB MORTAR SET	700 SF	INSTALL: 4" CONCRETE RAT SLAB W/ #7 REBAR SEE SHEET L5.1 DETAILS 3 & 4 NOTES: MORTAR SET FLAGSTONE $\frac{1}{4}$"- $\frac{1}{2}$" JOINT GAP	CONTRACTOR
	SAND SET BASE TIGHT JOINT	790 SF	INSTALL: GRAVEL AND SAND BASE SEE SHEET L5.1 DETAILS 3,5 &6 NOTES: SAND SET FLAGSTONE STONE. REVIEW SITE CONDITIONS $\frac{1}{2}$" JOINT GAP	CONTRACTOR
	SAND SET BASE - LOOSE JOINT	480 SF STONE BASE 340 SF PLANTING SOIL IN JOINTS	INSTALL: LOOSE JOINT NATURAL STONE. SAND SET SEE SHEET L 5.1 DETAILS 5 & 6 NOTES: SAND SET FLAGSTONE STONE. 3"-6" JOINT GAP	CONTRACTOR

FLAT WORK WINDSOR GRAY JUMBO FORMAT NOTES

1. PROVIDE PHOTOGRAPHS AND SAMPLES OF WINDSOR GRAY JUMBO FORMAT WITH TEXTURES AND RANGES OF COLORS. STONE SHALL BE GRAY TONES IN COLOR.
   WINDSOR GRAY: DEMONSTRATE MATERIAL AND METHODS TO BE USED: PROVIDE MOCK UP FIRST15-20 SF STONES (SAND SET)
2. CONSTRUCT STONE FEATURES IN ACCORDANCE WITH THE DRAWINGS AND THE APPROVED SAMPLE MOCKUP PANEL.
3. REVIEW STONE WITH LANDSCAPE ARCHITECT PRESENT.
4. REVIEW GROUT TYPE AND COLOR ON SITE WITH LA BEFORE INSTALLED.
5. SOURCE OF MATERIALS: OBTAIN MATERIALS FOR STONE MASONRY WORK FROM A SINGLE SOURCE.
6. WINDSOR GRAY: PROVIDE NATURAL STONE AS FOLLOWS: DIMENSIONS SHALL BE APPROX PER PLAN LISTED IN SCHEDULE L0.2. STONE COLOR SHALL BE “GRAY TONES”. FIELD VERIFY ON SITE TO ENSURE SIZES WILL FIT AT INSTALLED LOCATIONS.
7. FINAL CLEANING USING STIFF NYLON OR BRISTLE BRUSHES AND CLEAN WATER, WHICH IS SPRAY-APPLIED AT A LOW PRESSURE.THE USE OF METAL SCRAPERS OR BRUSHES IS NOT PERMITTED. THE USE OF ACID OR ALKALI CLEANING AGENTS IS NOT PERMITTED.
8. THE LAYOUT SHALL BE REVIEW ON SITE WITH THE LANDSCAPE ARCHITECT BEFORE SETTING
9. THE CONTRACTOR SHALL MAINTAIN AND KEEP IN GOOD REPAIR, THE IMPROVEMENTS COVERED BY THESE PLANS AND SPECIFICATIONS DURING THE LIFE OF THIS CONTRACT.
   THE CONTRACTOR SHALL INDEMNIFY THE OWNER AGAINST ANY REPAIRS WHICH MAY BECOME NECESSARY TO ANY PART OF THE WORK PERFORMED AND TO ITEMS OF EQUIPMENT, AND SYSTEMS PROCURED FOR OR FURNISHED UNDER THIS CONTRACT, ARISING FROM DEFECTIVE WORKMANSHIP OR MATERIALS USED THEREIN, FOR A PERIOD OF (1) YEAR FROM THE DATE

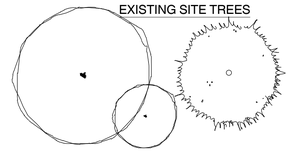
PLANT SCHEDULE (PHASE 2 PLANTS)

SYMBOL	BOTANICAL NAME COMMON NAME	SIZE	TYPE	SPACING	QUANTITY	MATURE HEIGHT	MATURE SPREAD
	PERENNIALS & GRASSES						
	THYMUS SERPYLLUM 'ELFIN' CREEPING THYME	4"	POT	6" OC	800	6"- 8"	12'

NATIVE SEED MIX OR APPROVED EQUAL

Name of Grass	Proportion by %	Percent Purity	Percent Germination
Slender Wheatgrass	25%	95%	85%
Bluebunch / Snake River Wheatgrass	25%	95%	85%
Nevada Bluegrass	15%	95%	85%
Mountain Brome	13%	95%	85%
Western Wheatgrass	10%	95%	85%
Thickspike Wheatgrass *‘ Critana’*	10%	95%	85%
Blue Flax	2%	95%	85%

EXISTING SITE TREES



EXISTING TREES TO REMAIN IN LEED BOUNDARY
TOTAL COUNT: 33

*** VERIFY WITH ALL PARTIES UPON TREE REMOVAL WITHIN THE LEED BOUNDARY OR PROJECT LIMITS.

LANDSCAPE INSTALL NOTES

1. PLACE TREES, SHRUBS, AND PLANT MATERIAL WITH LANDSCAPE ARCHITECT PRESENT.
2. MSU SPECIFICATION TO BE FOLLOWED UNLESS NOTED OTHERWISE
3. ALL PLANT MATERIAL SHALL CONFORM TO THE CURRENT AMERICAN STANDARD FOR NURSERY STOCK.
4. VERIFY ALL QUANTITIES. ILLUSTRATED PLAN SHALL DICTATE COUNT.
5. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT THE WRITTEN CONSENT OF THE LANDSCAPE ARCHITECT. ALL REQUESTS SHOULD BE SUBMITTED TO DESIGN 5 LANDSCAPE ARCHITECTURE. 406-587-4873 OR TROY@DESIGN5LA.COM.
6. LANDSCAPE ARCHITECT SHALL MEET WITH LANDSCAPE CONTRACTOR ON SITE, AT PREDETERMINED INTERVALS TO DISCUSS PROGRESS, QUESTIONS, AND PRODUCT PLACEMENT.
7. OPEN NATIVE SEED AREAS PER DESIGN AND TILLED IN PRIOR TO SEED INSTALLATION. COMPLETE REMOVAL OF ALL TURF GRASS MUST BE REMOVED BY CONTRACTOR TO INSURE NO RE-GROWTH WILL OCCUR. MEAN AND METHODS PROVIDED BY CONTRACTOR BEFORE START DATE.
8. NATIVE SEED AREAS WITH IN TREE PROTECTION LIMITS TO HAVE 1" MINIMUM TOPSOIL WITH 1" COMPOST TILLED IN AT 3" DEPTH PRIOR TO SEED INSTALLATION. COMPLETE REMOVAL OF ALL TURF GRASS MUST BE REMOVED BY CONTRACTOR TO INSURE NO RE-GROWTH WILL OCCUR. MEAN AND METHODS PROVIDED BY CONTRACTOR BEFORE START DATE. NO CUTTING TREE ROOTS LARGER THAN 1" WITHOUT THE EXPRESS WRITTEN CONSENT MSU ARBORIST
9. ALL BEDS AROUND BUILDING PERIMETER SHALL HAVE A WEED BARRIER INSTALLED BETWEEN THE SOIL AND COVERING LAYER OF ROCK BARK PER PLAN. DRIP IRRIGATION SHALL BE PLACED ABOVE WEED FABRIC, BUT UNDER MULCH AND PINNED IN PLACE.
10. ALL TREES SHALL BE STAKED FOR A MINIMUM OF 2 YEARS. REMOVE STAKES AFTER 2 YEARS.
11. ALL TREES AND OTHER SIGNIFICANT LANDSCAPING FEATURES MUST BE PLANTED A MINIMUM OF 10' OF SEPARATION FROM WATER AND SEWER SERVICES.
12. ALL EDGING SHALL BE $\frac{3}{16}$"x 4" NATURAL STEEL ON STRAIGHT RUNS AND $\frac{1}{8}$" X 4" NATURAL STEEL FOR CURVED RUNS (OR AS OTHERWISE SPECIFIED IN DETAILS). TAC WELD TO #4 REBAR DRIVEN A MINIMUM OF 18" DEEP.
13. ALL AREAS ON SITE DISTURBED BY CONSTRUCTION ACTIVITIES NOT INDICATED ON LANDSCAPE PLAN ARE TO BE RECLAIMED AND RE-ESTABLISHED, VERIFY DISTURBANCE AREA IN FIELD.
14. PERMANENT UNDERGROUND IRRIGATION SYSTEM TO BE INSTALLED AT TIME OF LANDSCAPE INSTALLATION. IRRIGATION TO BE INSTALLED IN ACCORDANCE WITH ALL STATE, LOCAL CODES, ORDINANCES AND MSU SPECIFICATIONS UNLESS NOTED OTHERWISE. 1,500 SF NETAFIM TO BE REPLACED

DEEP CREEK BOULDER NOTES

1. PROVIDE PHOTOGRAPHS AND SAMPLES OF DEEP CREEK WITH TEXTURES AND RANGES OF COLORS. STONE SHALL BE GRAY & EARTH TONES IN COLOR.
   DEEP CREEK: DEMONSTRATE MATERIAL AND METHODS TO BE USED: PROVIDE MOCK UP FIRST 5-6 BOULDERS (2) ROWS HIGH.
2. CONSTRUCT BOULDER FEATURES IN ACCORDANCE WITH THE DRAWINGS AND THE APPROVED SAMPLE MOCKUP PANEL.
3. REVIEW BOULDERS WITH LANDSCAPE ARCHITECT PRESENT.
4. REVIEW BOULDERS ON SITE WITH LA BEFORE INSTALLED.
5. SOURCE OF MATERIALS: OBTAIN MATERIALS FOR BOULDER WORK FROM A SINGLE SOURCE.
6. DEEP CREEK: PROVIDE NATURAL STONE AS FOLLOWS: DIMENSIONS SHALL BE APPROX PER PLAN LISTED IN BOULDER SCHEDULE L0.2. STONE COLOR SHALL BE “GRAY TONES”. FIELD VERIFY ON SITE TO ENSURE SIZES WILL FIT AT INSTALLED LOCATIONS.
7. FINAL CLEANING USING STIFF NYLON OR BRISTLE BRUSHES AND CLEAN WATER, WHICH IS SPRAY-APPLIED AT A LOW PRESSURE.THE USE OF METAL SCRAPERS OR BRUSHES IS NOT PERMITTED. THE USE OF ACID OR ALKALI CLEANING AGENTS IS NOT PERMITTED.
8. THE LAYOUT SHALL BE REVIEW ON SITE WITH THE LANDSCAPE ARCHITECT BEFORE SETTING
9. THE CONTRACTOR SHALL MAINTAIN AND KEEP IN GOOD REPAIR, THE IMPROVEMENTS COVERED BY THESE PLANS AND SPECIFICATIONS DURING THE LIFE OF THIS CONTRACT.
   THE CONTRACTOR SHALL INDEMNIFY THE OWNER AGAINST ANY REPAIRS WHICH MAY BECOME NECESSARY TO ANY PART OF THE WORK PERFORMED AND TO ITEMS OF EQUIPMENT, AND SYSTEMS PROCURED FOR OR FURNISHED UNDER THIS CONTRACT, ARISING FROM DEFECTIVE WORKMANSHIP OR MATERIALS USED THEREIN, FOR A PERIOD OF (1) YEAR FROM THE DATE

SITE MEETING TO DETERMINE FINAL CONSTRUCTION LIM

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AMERICAN INDIAN HALL OUTDOOR CLASSROOM
MONTANA STATE UNIVERSITY

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DESIGN.5 landscape architecture

DRAWN BY:	-	
REVIEWED BY:	-	
REV.	DESCRIPTION	DATE
	75% review set	4/24/24
	100% Bid Set	5/29/24
	RFQ 1	5/29/24

STATE OF MONTANA
TROY SCHERER
270
LICENSED LANDSCAPE ARCHITECT

PPA#22-0644

A/E#00-00-00

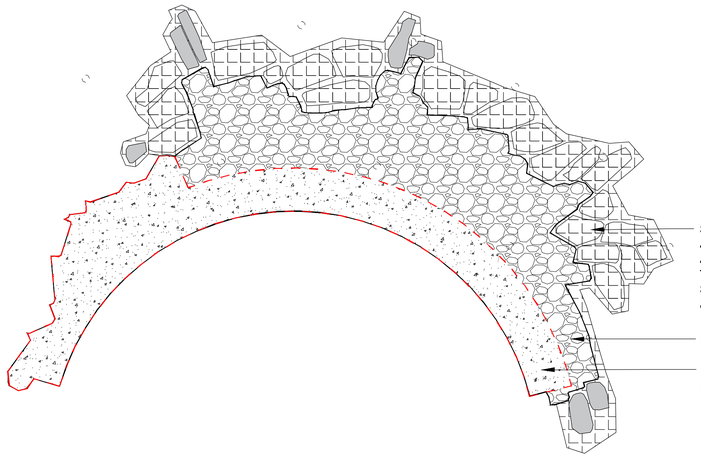
SHEET TITLE
NOTES AND LEGENDS

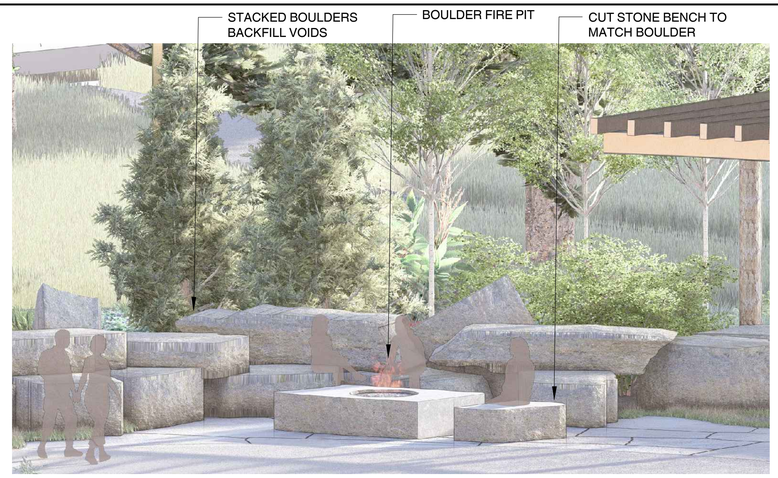
SHEET
L0.2

DATE
5.29.24

FLAGSTONE BASE LAYOUT SCHEDULE

SYMBOL	PRODUCT
	CONCRETE RAT SLAB
	SAND-SET TIGHT JOINT
	SAND SET BASE





3 L2.0 Boulder Design Intent Imagery
NTS

SITE STONE SCHEDULE

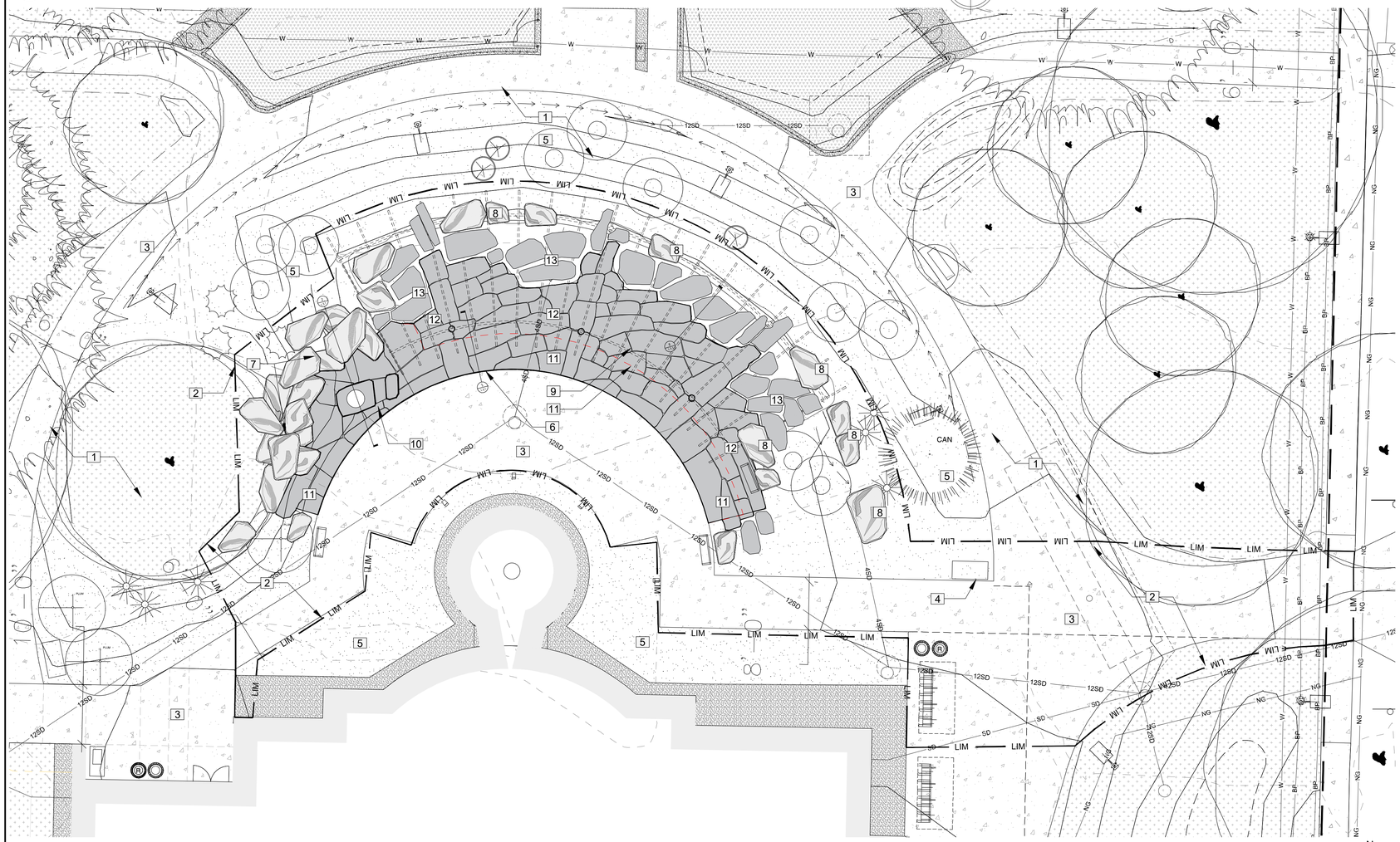
SYMBOL	PRODUCT
	DEEP CREEK FIRE PIT BOULDERS
	DEEP CREEK BEAM BOULDERS
	JUMBO FORMAT FLAGSTONE

STONE INSTALL METHODS

	JUMBO FORMAT FLAGSTONE MORTAR SET
	JUMBO FORMAT FLAGSTONE TIGHT JOINT FIT SAND SET
	JUMBO FORMAT FLAGSTONE LOOSE JOINT SAND SET

2 L2.0 Flagstone Base Installation Plan
1"=10'-0"

N
0 5 10 20



1 L2.0 Hardscape Plan
1"=10'-0"

N
0 5 10 20

SITE MATERIALS SCHEDULE

SYMBOL	PRODUCT
	NATIVE SEED
	WOOD MULCH MINI NUGGET
	ROCK BARK MULCH
	PERENNIAL AND SHRUB BEDS
	EXISTING CONCRETE

SITE AMENITY SCHEDULE

SYMBOL	PRODUCT
	BOULDER FIRE PIT AND BENCH

SEE SHEET
L0.2 FOR FULL SCHEDULES

KEYNOTES

1. EXISTING LANDSCAPING
2. LANDSCAPE PHASE 2 LIMIT OF DISTURBANCE
3. EXISTING CONCRETE WALKS AND DRIVES
4. SIGN TO BE REMOVED AND REINSTALL UPON PROJECT COMPLETION
5. EXISTING PLANTING BEDS TO BE PROTECTED
6. EXISTING CONCRETE TRANSITION TO JUMBO FORMAT FLAGSTONE - WINDSOR GRAY
7. STACKED BOULDER SITTING AREA - DEEP CREEK
8. BEAM BOULDERS - DEEP CREEK
9. ARBOR - SEE STRUCTURAL
10. BOULDER FIRE PIT WITH MATCHING BENCH - PICTURE WILL BE PROVIDE BY MANUFACTURE
11. RAT SLAB UNDERLAYMENT BREAK- MORTAR SET FLAGSTONE
12. ½" JOINT SAND SET FLAGSTONE
13. 3"-6" LOOSE JOINT SAND SET FLAGSTONE-THYME PLANTING IN JOINTS

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STATE OF MONTANA
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270
LICENSED LANDSCAPE ARCHITECT

PPA#22-0644

A/E#00-00-00

SHEET TITLE
HARDSCAPE PLAN

SHEET
L2.0

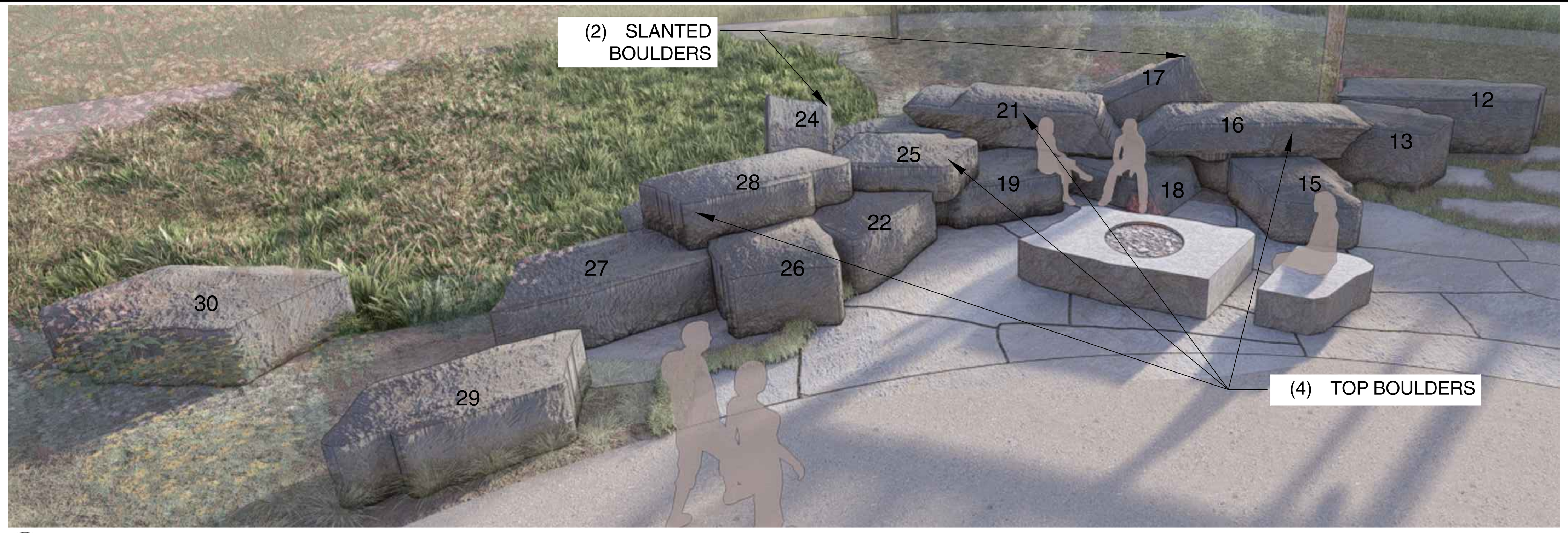
DATE
5.29.24

SITE STONE SCHEDULE

SYMBOL	PRODUCT
	DEEP CREEK FIRE PIT BOULDERS
	DEEP CREEK BEAM BOULDERS
	JUMBO FORMAT FLAGSTONE

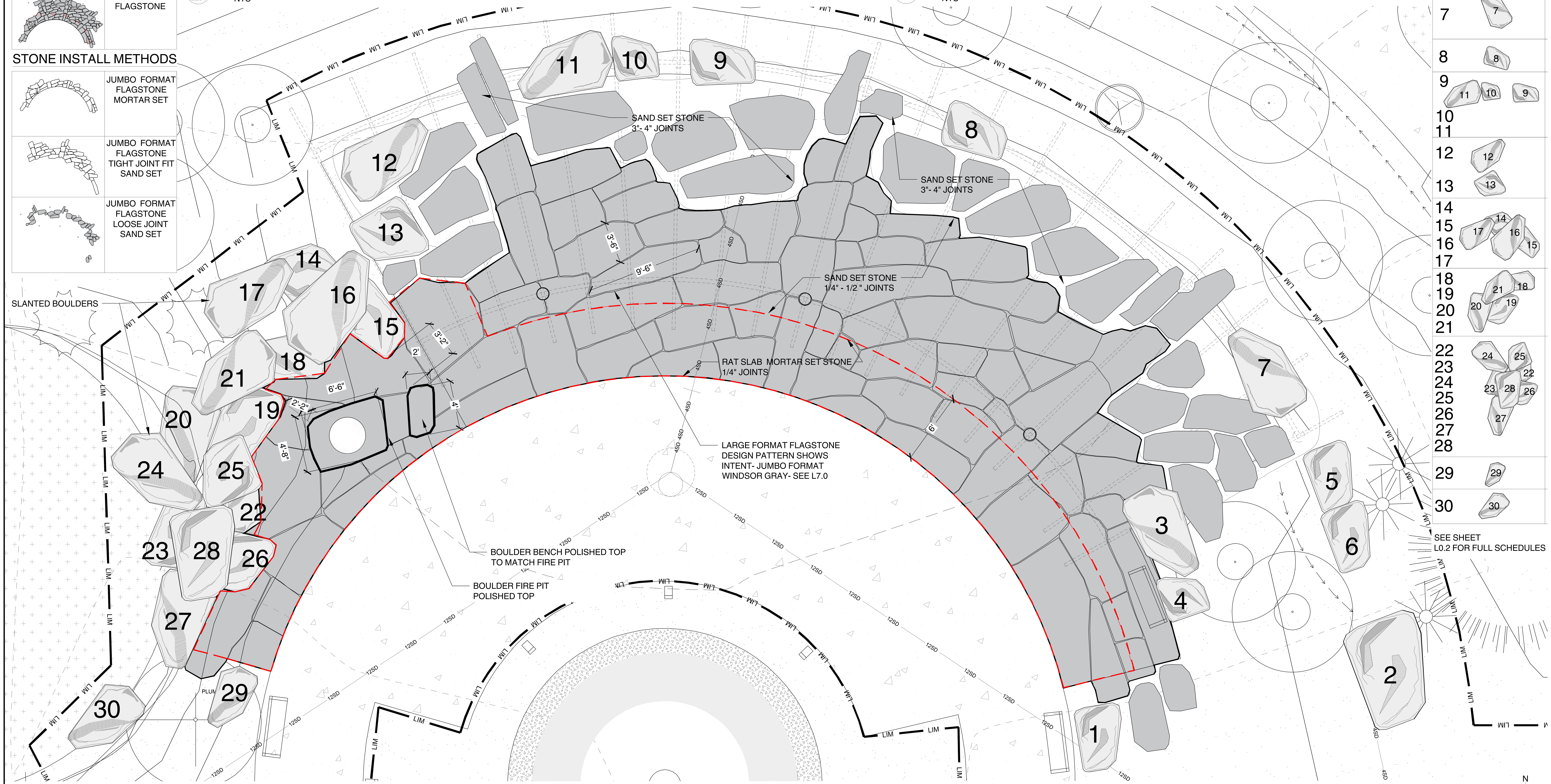
STONE INSTALL METHODS

	JUMBO FORMAT FLAGSTONE MORTAR SET
	JUMBO FORMAT FLAGSTONE TIGHT JOINT FIT SAND SET
	JUMBO FORMAT FLAGSTONE LOOSE JOINT SAND SET



2 L2.1 Fire Pit Boulder Layout (Front)
NTS

3 L2.1 Fire Pit Boulder Layout (Back)
NTS



1 L2.1 Hardscape Enlargement Plan
1/4"=1'-0"

SYMBOL
1
2
3
4
5
6
7
8
9 10 11
12
13
14 15 16 17
18 19 20 21
22 23 24 25 26 27 28
29
30

SEE SHEET L0.2 FOR FULL SCHEDULES

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STATE OF MONTANA
TROY SCHERER
270
LICENSED LANDSCAPE ARCHITECT

PPA#22-0644

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SHEET TITLE
ENLARGEMENT HARDSCAPE PLAN

SHEET
L2.1

DATE
5.29.24

1 L3.0 Creeping Thyme Design Intent Imagery
NTS

SITE STONE SCHEDULE

SYMBOL	PRODUCT
	DEEP CREEK FIRE PIT BOULDERS
	DEEP CREEK BEAM BOULDERS
	JUMBO FORMAT FLAGSTONE

SITE MATERIALS SCHEDULE

SYMBOL	PRODUCT
	NATIVE SEED
	WOOD MULCH MINI NUGGET
	ROCK BARK MULCH
	PERENNIAL AND SHRUB BEDS
	EXISTING CONCRETE

SEE SHEET
L0.2 FOR FULL SCHEDULES

SITE AMENITY SCHEDULE

SYMBOL	PRODUCT
	BOULDER FIRE PIT AND BENCH

NEW PERENNIALS (PHASE 2)

PLANT SCHEDULE (PHASE 2 PLANTS)

280 SF NEW NETAFIM IRRIGATION

SYMBOL	BOTANICAL NAME COMMON NAME	SIZE	TYPE	SPACING	QUANTITY	MATURE HEIGHT	MATURE SPREAD
	PERENNIALS & GRASSES						
	THYMUS SERPYLLUM 'ELFIN' CREEPING THYME	4"	POT	6" OC	800	6"- 8"	12'

SITE REVIEW PLANTING STORAGE BEFORE CONSTRUCTION

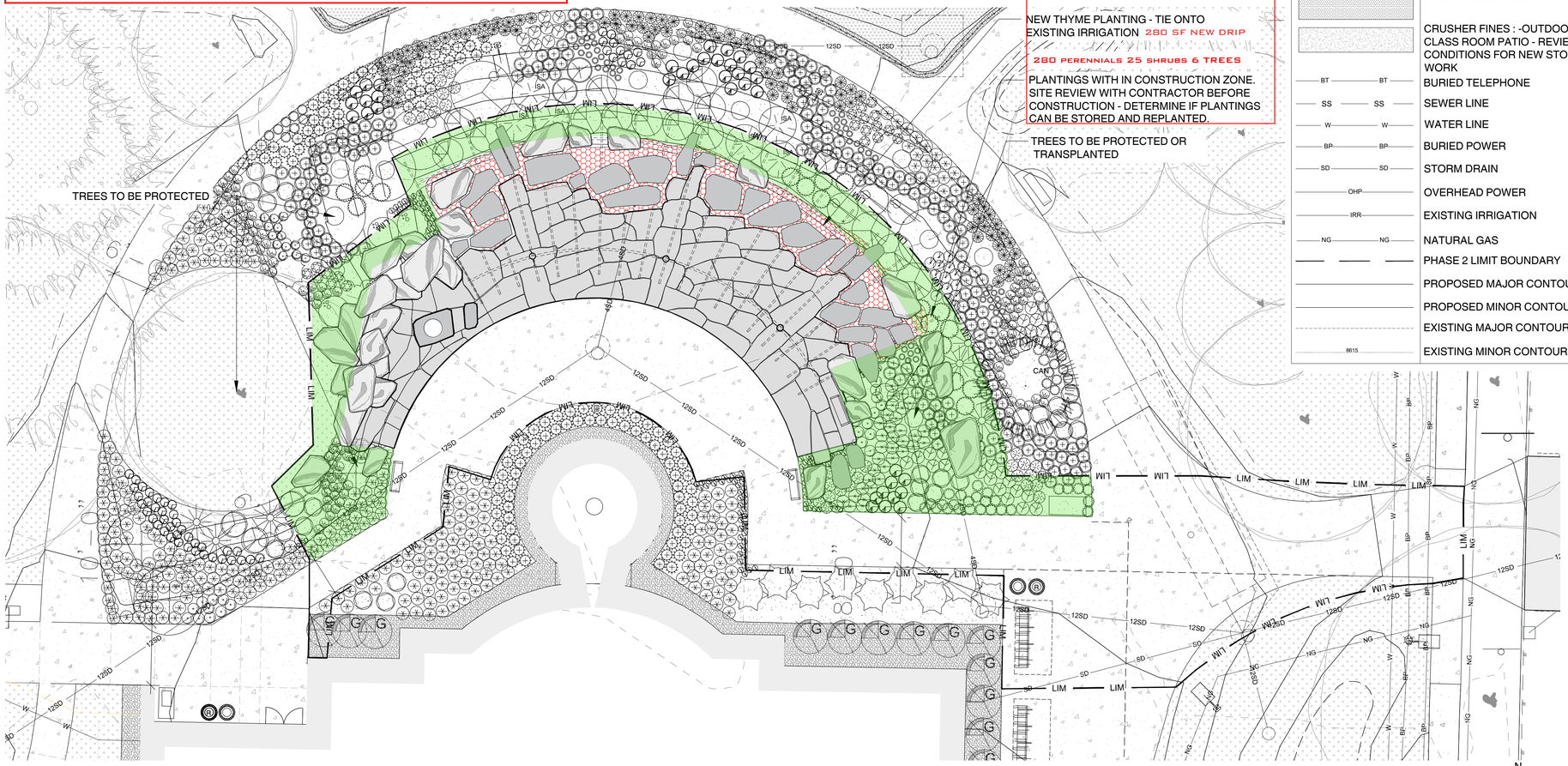
NEW THYME PLANTING - TIE ONTO EXISTING IRRIGATION 280 SF NEW DRIP

280 PERENNIALS 25 SHRUBS 6 TREES

PLANTINGS WITH IN CONSTRUCTION ZONE. SITE REVIEW WITH CONTRACTOR BEFORE CONSTRUCTION - DETERMINE IF PLANTINGS CAN BE STORED AND REPLANTED.

TREES TO BE PROTECTED OR TRANSPLANTED

TREES TO BE PROTECTED



1 L3.0 Landscape Planting Plan Enlargement
1"=10'-0"

0 5 10 20

N

PLANT SCHEDULE

EXISTING PLANTINGS

SYMBOL	BOTANICAL NAME COMMON NAME
	TREES
	CERCOCARPUS LEDIFOLIUS CURLLEAF MOUNTIAN MAHOGANY
	JUNIPERUS VIRGINIANA 'SKYROCKET' - SKYROCKET JUNIPER
	JUNIPERUS VIRGINIANA 'TAYLOR' RED CEDAR TAYLOR
PLM	PRUNUS DOMESTICA MOUNT ROYAL PLUM
CAN	PRUNUS VIRGINIANA 'CANADA RED'- CANADA RED CHOKECHERRY
	POPULUS TREMULOIDES QUAKING ASPEN- MULTI-STEM/ SINGLE STEM
	SHRUBS
	AMELANCHIER ALNIFOLIA 'REGENT' REGENT SERVICEBERRY
	CHRYSOTHAMNUS VISCIDIFLORUS LOW RABBITBRUSH (SUB ERICAMERIA NAUSEOSA DWARF RABBITBRUSH)
ISA	CORNUS SERICEA 'ISANTI' ISANTI DOGWOOD
	PHILADELPHUS LEWISII LEWIS MOCKORANGE
	PRUNUS BESSEYI WESTERN SANDCHERRY
	PRUNUS VIRGINIANA COMMON CHOKECHERRY
	RHUS TRILOBATA THREE LEAFED SUMAC
	RIBES AUREUM GOLDEN CURRANT
G	RIBS 'PIXWELL' PIXWELL GOOSEBERRY
	ROSA RUGOSA MOJE HAMMARBERG ROSE
	SHEPHERDIA ARGENTEA SILVER BUFFALO BERRY
	SYMPHORICARPOS ALBUS SNOWBERRY
	PERENNIALS & GRASSES
	ACHILLEA MILLIEFOLIUM WHITE YARROW
	ANTENNARIA MICROPHYLLA LITTLE LEAF PUSSYTOES
	ARTEMISIA LUDOVICIANA MONTANA WHITE SAGE
	ASCLEPIAS INCARNATA "ICE BALLET" MILKWEED (SUB -ASCLEPIAS INCARNATA)
	ASCLEPSIA TUBEROSA BUTTERFLY WEED
	ECHINACEA PURPUREA PURPLE CONEFLOWER (SUB E. ANGUSTIFOLIA)
	ECHINACEA PURPUREA ECHINACEA 'MAGNUS' (SUB E. ANGUSTIFOLIA)
	FRAGARIA VESCA WILD STRAWBERRY (SUB F. VIRGINIANA)
	GAILLARDIA ARISTATA BLANKETFLOWER
	GERANIUM MACULATUM WILD GERANIUM (SUB G. VISCOSSISSIMUM)
	HIEROCHOE ORORATA SWEET GRASS
	KOELERIA MACRANTHA JUNE GRASS
	LIATRIS SPICATA 'KOBOLD' COMMON GAYFEATHER (SUB LIATRIS PUNCTATA)
	LUPINUS POLYPHYLLUS BIG LEAF LUPINE (SUB PENSTEMON EATONII)
	MONARDA DIDYMA RED BEEBALM (SUB MONARDA FISTULOSA)
	OENOTHERA BIENNIS EVENING PRIMROSE
	PENSTEMON STRICTUS PENSTEMON ROCKY MOUNTAIN
	RATIBIDA COLUMNIFERA PRAIRIE CONEFLOWER
	SCHIZACHYRIUM SCOPARIUM LITTLE BLUESTEM
	CAMPANULA 'RAPIDO BLUE' RAPIDO BLUE BELLFLOWER (SUB- CAMPULA ROTUNIFOLIA)
	THYMUS PRAECOX 'ELFIN' ELFIN THYME

HATCH PATTERN AND LINE TYPE LEGEND

	NATIVE GRASS SEED MIX
	ROCK BARK MULCH
	WOOD MULCH
	VEGETABLE GARDENS
	CRUSHER FINES : -OUTDOOR CLASS ROOM PATIO - REVIEW SITE CONDITIONS FOR NEW STONE WORK
BT BT	BURIED TELEPHONE
SS SS	SEWER LINE
W W	WATER LINE
BP BP	BURIED POWER
SD SD	STORM DRAIN
OHP	OVERHEAD POWER
IRR	EXISTING IRRIGATION
NG NG	NATURAL GAS
	PHASE 2 LIMIT BOUNDARY
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
8615	EXISTING MINOR CONTOUR

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REV.	DESCRIPTION	DATE
	75% review set	4/24/24
	100% Bid Set	5/29/24
	REV 1	9/25/24

STATE OF MONTANA
TROY SCHERER
270
LICENSED LANDSCAPE ARCHITECT

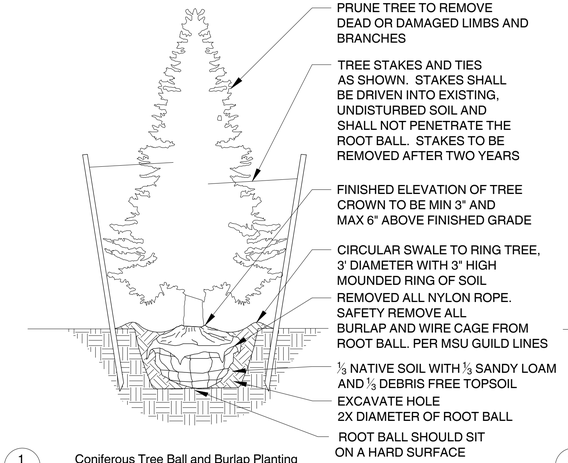
PPA#22-0644

A/E#00-00-00

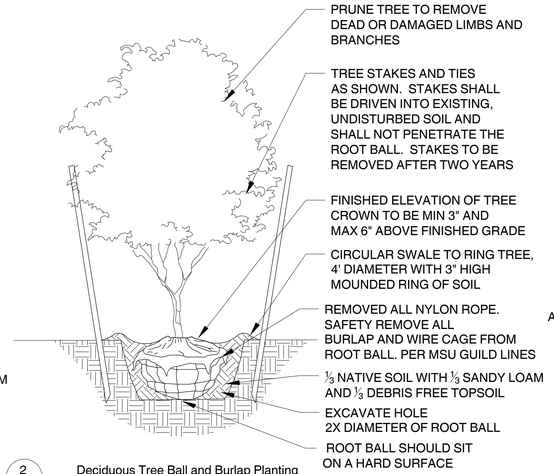
SHEET TITLE
LANDSCAPE PLAN

SHEET
L3.0

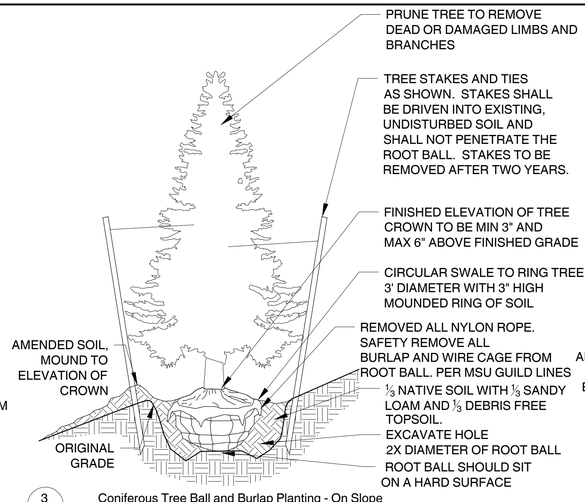
DATE
5.29.24



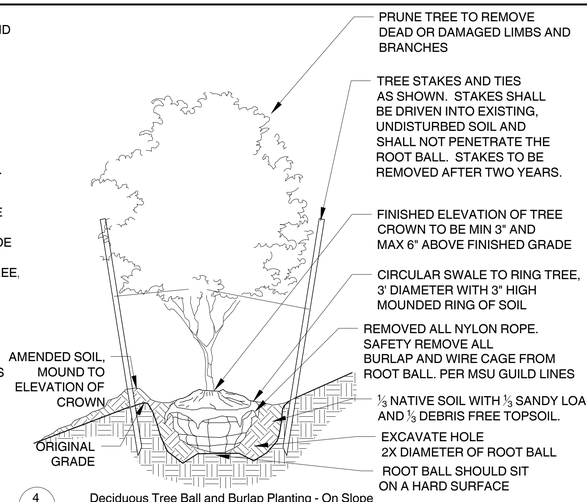
1 L5.0 Coniferous Tree Ball and Burlap Planting
3/8" = 1'-0"



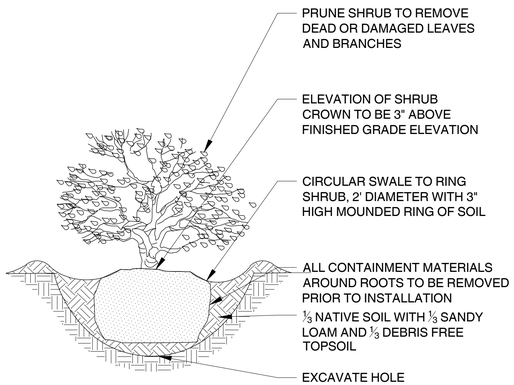
2 L5.0 Deciduous Tree Ball and Burlap Planting
3/8" = 1'-0"



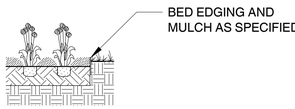
3 L5.0 Coniferous Tree Ball and Burlap Planting - On Slope
3/8" = 1'-0"

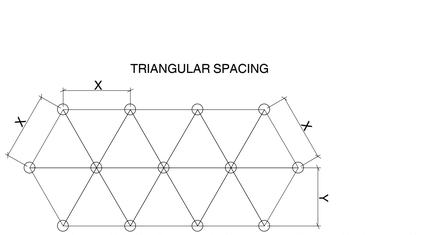


4 L5.0 Deciduous Tree Ball and Burlap Planting - On Slope
3/8" = 1'-0"



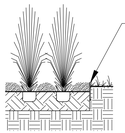
5 L5.0 Shrub Planting
3/4" = 1'-0"

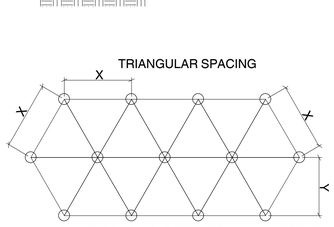




X = PLANT SPACING. REFER TO PLANT LEGEND FOR SPACING
Y = SPACING BETWEEN ROWS. 86% OF X
◯= PLANT LOCATION

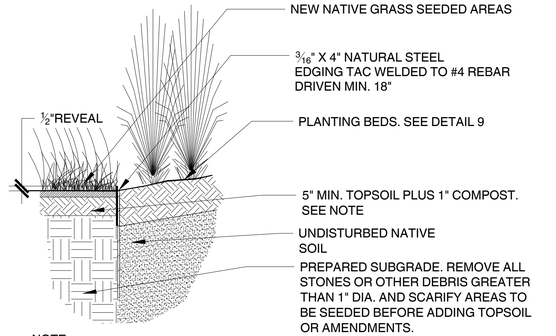
6 L5.0 Perennial Planting
1/2" = 1'-0"





X = PLANT SPACING. REFER TO PLANT LEGEND FOR SPACING
Y = SPACING BETWEEN ROWS. 86% OF X
◯= PLANT LOCATION

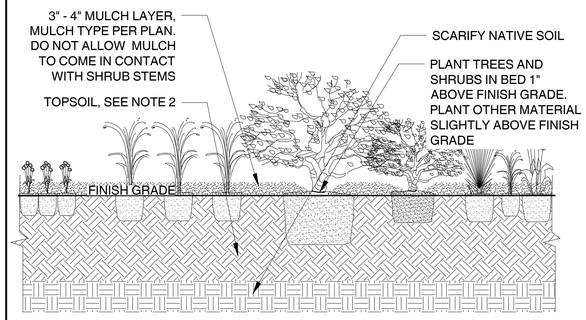
7 L5.0 Ornamental Grass Planting
1/2" = 1'-0"



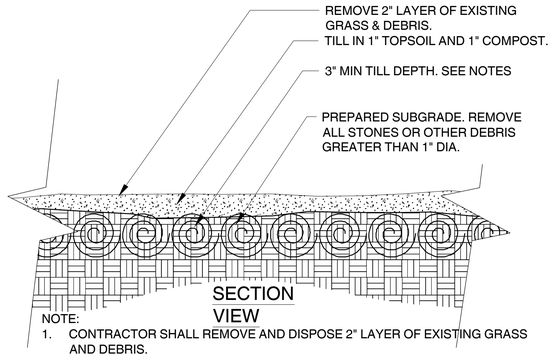
NOTE:
1. CONTRACTOR SHALL REMOVE AND DISPOSE 2" LAYER OF EXISTING GRASS AND DEBRIS, THEN EXCAVATE 4" SOIL AND STOCKPILE.
2. AT TIME OF INSTALLATION CLEAN UP ALL CONSTRUCTION DEBRIS AND SCARIFY AREAS AT 1" DEPTH. MUST BE REVIEWED AND OBSERVED BY LANDSCAPE ARCHITECT PRIOR TO PREP AND PLANTING.
3. TILL IN 5" MINIMUM DEPTH OF TOPSOIL.
4. TILL IN 1" MINIMUM DEPTH OF COMPOST.
5. FINE GRADE SMOOTHLY BEFORE SEEDING.

8 L5.0 Native Seed Prep Outside Of Tree Protection Limits / Steel Edger
1" = 1'-0"

NOTE:
1. REMOVE 2" ALL GRASS DEBRIS. EXCAVATE 10" DEPTH AND STOCKPILE PRIOR TO ADDING NEW SOIL .
2. 12" OF SOIL TO BE ADDED:
   2.1. BEFORE INSTALLATIONS OF SOIL SCARIFY NATIVE SOIL
   2.2. TILL 4" OF STOCKPILED TOPSOIL WITH NATIVE SOIL
   2.3. WITH THE REMAINING 6" OF TOPSOIL, MIX IN 2" COMPOST. THEN ADD THIS 8" LAYER TO PLANTING BED AND TILL IN.
3. VEGETABLE GARDEN BEDS SHALL NOT TO HAVE MULCH LAYER



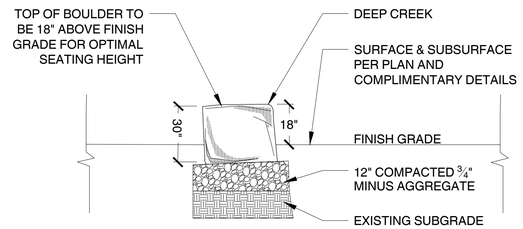
9 L5.0 Planting Bed and Vegetable Gardens
3/4" = 1'-0"



NOTE:
1. CONTRACTOR SHALL REMOVE AND DISPOSE 2" LAYER OF EXISTING GRASS AND DEBRIS.
2. AT TIME OF INSTALLATION CLEAN UP ALL CONSTRUCTION DEBRIS AND SCARIFY AREAS AT 1" DEPTH. MUST BE REVIEWED AND OBSERVED BY LANDSCAPE ARCHITECT PRIOR TO PREP AND PLANTING.
3. NO CUTTING TREE ROOTS LARGER THAN 2" WITHOUT THE EXPRESS WRITTEN CONSENT MSU ARBORIST.
4. TILL IN 1" MINIMUM OF TOPSOIL AND 1"MINIMUM OF COMPOST AT 3" DEPTH
5. HAND TILLING MAYBE NECESSARY AROUND EXISTING TREE ROOTS. REVIEW WITH LANDSCAPE ARCHITECT PRIOR TO TILLING.
6. FINE GRADE SMOOTHLY BEFORE SEEDING.

10 L5.0 Native Seed Prep Within Tree Protection Limits
3/4" = 1'-0"

NOTE:
1.DIMENSIONS ON SHEET L 0.2
2. STONE COLOR SHALL BE GRAY'S & EARTH TONES.
3. BOULDER SHALL BE SELECTED WITH FLAT TOP FOR SITTING



11 L5.0 Freestanding Boulder Beam (Deep Creek)
3/8" = 1'-0"

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AMERICAN INDIAN HALL OF OUTDOOR CLASSROOM

MONTANA STATE UNIVERSITY

think one
DESIGN.5 landscape architecture

DRAWN BY: -		
REVIEWED BY: -		
REV.	DESCRIPTION	DATE
	75% review set	4/24/24
	100% Bid Set	5/29/24
	REV 1	9/09/24

STATE OF MONTANA
TROY SCHERER 270
LICENSED LANDSCAPE ARCHITECT

PPA#22-0644

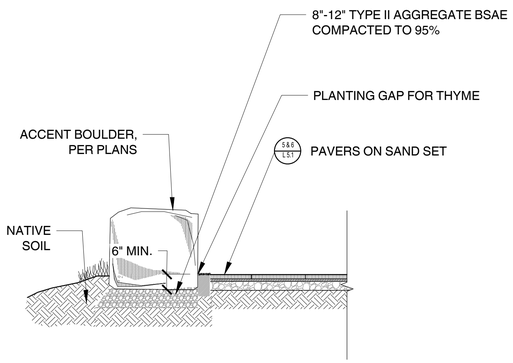
A/E#00-00-00

SHEET TITLE
LANDSCAPE DETAILS

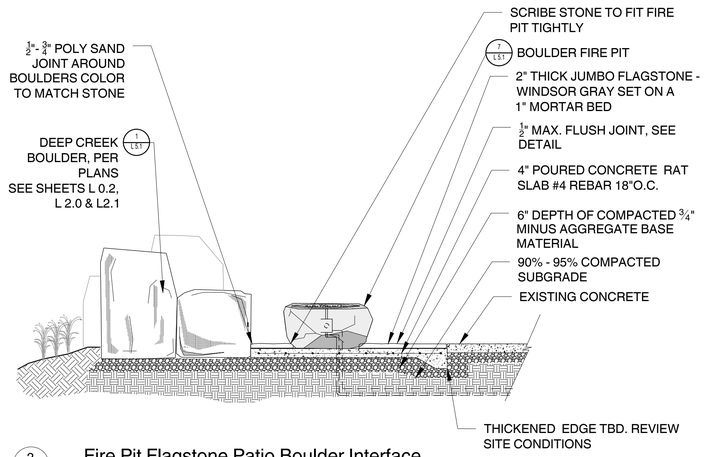
SHEET
L5.0

DATE
5.29.24

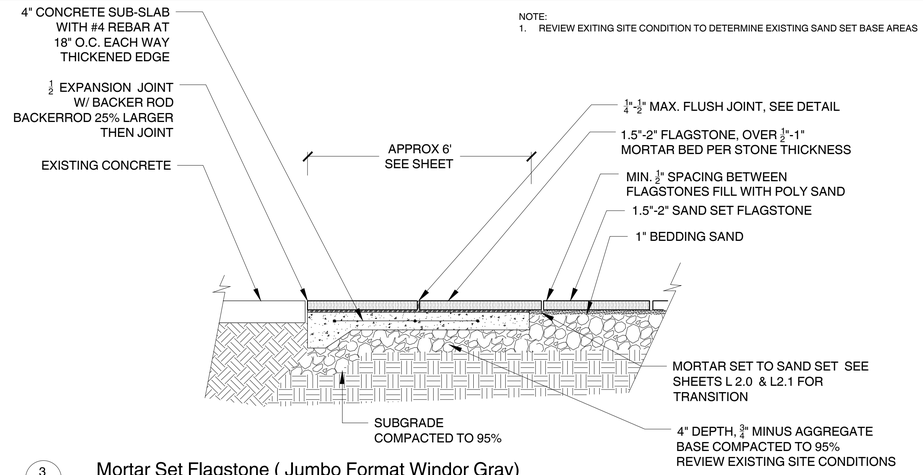
NOTE:
SAND SET PATIO NO SNOW-MELT



1 L5.1 Patio Boulder Interface
3/8" = 1'-0"

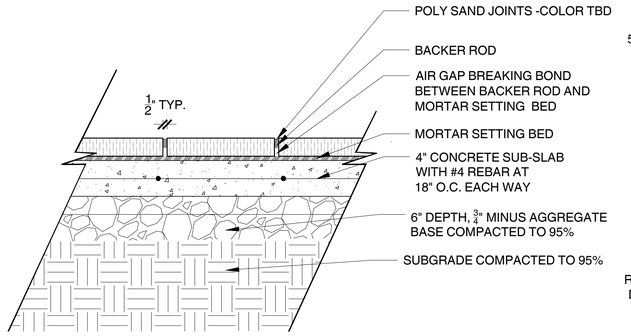


2 L5.1 Fire Pit Flagstone Patio Boulder Interface
3/8" = 1'-0"



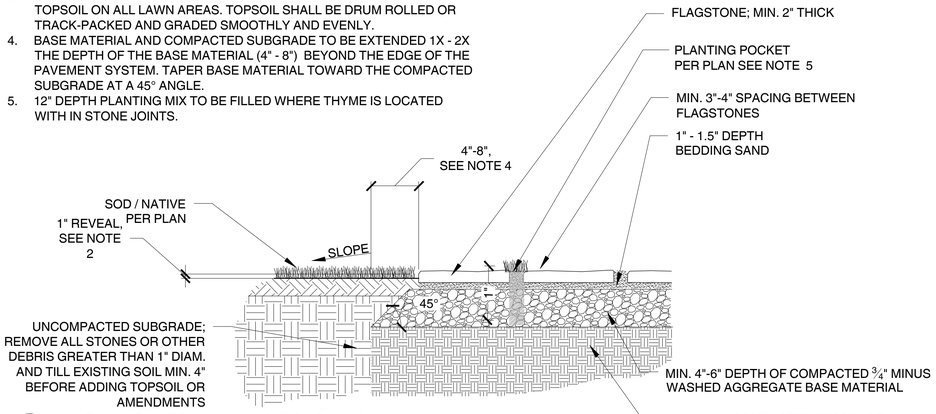
NOTE:
1. REVIEW EXITING SITE CONDITION TO DETERMINE EXISTING SAND SET BASE AREAS

3 L5.1 Mortar Set Flagstone (Jumbo Format Windor Gray)
3/4" = 1'-0"



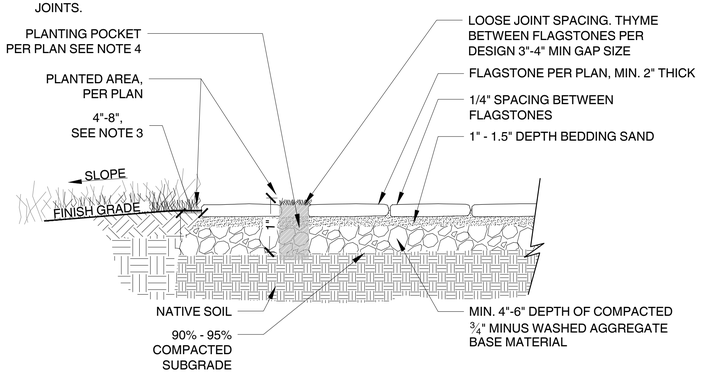
4 L5.1 Joint Detail for Mortar Set Pavers
1 1/2" = 1'-0"

NOTE:
1. SLOPE PLANTED AREAS AWAY FROM PAVED AREAS.
2. FINISH GRADES AT PAVEMENT EDGES MUST BE AT A LEVEL SUCH THAT THE ESTABLISHED TURF SURFACE WILL BE ONE (1) INCH BELOW TOP OF PAVEMENT FOR A MINIMUM DISTANCE OF SIX (6) FEET FROM THE EDGE.
3. CONTRACTOR SHALL PROVIDE A 3" MINIMUM DEPTH OF COMPACTED TOPSOIL ON ALL LAWN AREAS. TOPSOIL SHALL BE DRUM ROLLED OR TRACK-PACKED AND GRADED SMOOTHLY AND EVENLY.
4. BASE MATERIAL AND COMPACTED SUBGRADE TO BE EXTENDED 1X - 2X THE DEPTH OF THE BASE MATERIAL (4" - 8") BEYOND THE EDGE OF THE PAVEMENT SYSTEM. TAPER BASE MATERIAL TOWARD THE COMPACTED SUBGRADE AT A 45° ANGLE.
5. 12" DEPTH PLANTING MIX TO BE FILLED WHERE THYME IS LOCATED WITH IN STONE JOINTS.

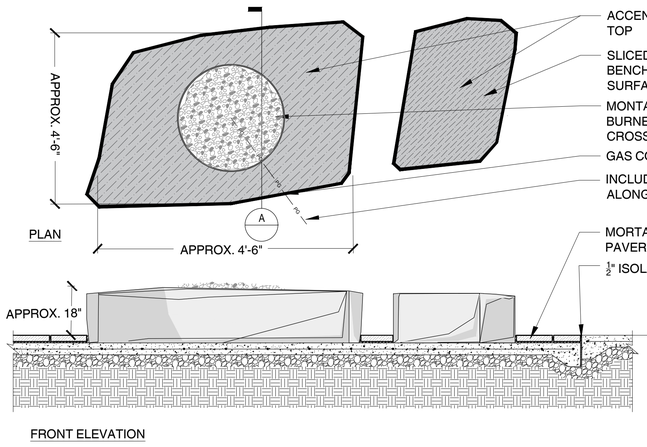


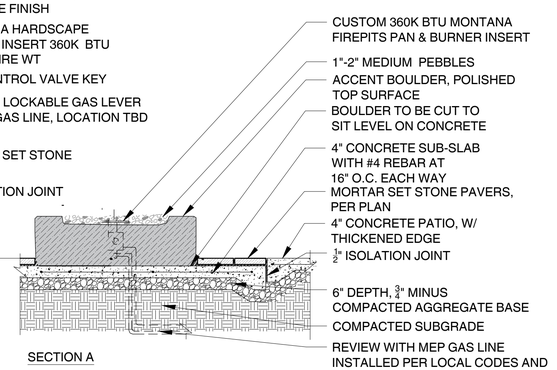
5 L5.1 Sand Set Flagstone - Wide Spacing
1" = 1'-0"

NOTE:
1. SLOPE PLANTED AREAS AWAY FROM PAVED AREAS
2. FINISH GRADE AT PAVEMENT EDGE MUST BE AT A LEVEL SUCH THAT THE ESTABLISHED PLANTED SURFACE WILL BE ONE (1) INCH BELOW TOP OF PAVEMENT FOR A MINIMUM DISTANCE OF SIX (6) FEET FROM THE EDGE
3. BASE MATERIAL AND COMPACTED SUBGRADE TO BE EXTENDED 1X - 2X THE DEPTH OF THE BASE MATERIAL (4" - 8") BEYOND THE EDGE OF THE PAVEMENT SYSTEM. TAPER BASE MATERIAL TOWARD THE COMPACTED SUBGRADE AT A 45° ANGLE
4. 12" DEPTH PLANTING MIX TO BE FILLED WHERE THYME IS LOCATED WITH IN STONE JOINTS.



6 L5.1 Sand Set Flagstone - Thin Spacing
1" = 1'-0"





BOULDER
APPROX. 6'-6" X 18" X 4'6" FIRE PIT BOULDER
MONTANA HARDSCAPES
406-579-6554
MONTANAHARDSCAPES.COM

BURNER
CFBO 360K CROSSFIRE BURNING WITH PAN

NOTES:
1. REVIEW MEP FOR ALL GAS AND ELECTRICAL INSTALLATION .
2. CONTRACTOR TO PROVIDE GAS LINE FOR 360K BTUS.

7 L5.1 Custom Polished Boulder Fire Pit & Bench - MT Hardscapes
1/2" = 1'-0"

8 L5.1 Custom Polished Bouder (Example) - MT Hardscapes
N.T.S.

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AMERICAN INDIAN HALL OUTDOOR CLASSROOM
MONTANA STATE UNIVERSITY

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REVIEWED BY:	-	
REV.	DESCRIPTION	DATE
	75% review set	4/24/24
	100% Bid Set	5/29/24

STATE OF MONTANA
TROY SCHERER
270
LICENSED LANDSCAPE ARCHITECT

PPA#22-0644

A/E#00-00-00

SHEET TITLE
LANDSCAPE DETAILS

SHEET
L5.1

DATE
5.29.24

1 L7.0 Jumbo Format Windsor Gray Flagstone - Cut and Fit Layout Design Intent
NTS

2 L7.0 Jumbo Format Windsor Gray Flagstone - Cut and Fit Layout Design Intent
NTS

3 L7.0 Jumbo Format Windsor Gray Flagstone - Examples
NTS

4 L7.0 Fire Pit & Boulder Stacking Design Intent
NTS

5 L7.0 Fire Pit & Boulder Design Intent - Night View
NTS

6 L7.0 Boulder & Fire Pit - Examples
NTS

7 L7.0 Overall - East Entrance
NTS

7 L7.0 Overall - West Entrance
NTS

7 L7.0 Overall - Arbor
NTS

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AMERICAN INDIAN HALL OUTDOOR CLASSROOM

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DESIGN.5 landscape architecture

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REV.	DESCRIPTION	DATE
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	100% Bid Set	5/29/24

STATE OF MONTANA
TROY SCHERER
270
LICENSED LANDSCAPE ARCHITECT

PPA#22-0644

A/E#00-00-00

SHEET TITLE
DESIGN INTENT IMAGERY

SHEET
L7.0

DATE
5.29.24

GENERAL STRUCTURAL NOTES:

GENERAL:

1. THESE DRAWINGS HAVE BEEN PREPARED SOLELY FOR USE IN THE CONSTRUCTION OF _____ AT THE LOCATION OF _____. POSSESSION OF THESE DRAWINGS DOES NOT GRANT A LICENSE TO CONSTRUCT OR FABRICATE THE WHOLE, OR PARTS OF THIS PROJECT IN OTHER LOCATIONS.

2. STRUCTURAL DRAWINGS ARE A PORTION OF THE CONTRACT DOCUMENTS AND ARE INTENDED TO BE USED WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND SITE CIVIL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REQUIREMENTS FROM THESE DRAWINGS INCLUDING BUT NOT LIMITED TO DIMENSIONS, BLOCKOUTS, OPENINGS, SLEEVES, EMBEDDED ITEMS, ETC. INTO THEIR SHOP DRAWINGS AND WORK. NOTIFY THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD OF ANY DISCREPANCIES OR IF ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN OR NOTED.

3. DO NOT SCALE OR RESIZE THE DRAWINGS IN ANY MANNER. ANY ADJUSTMENTS TO THE SIZE OR SCALE OF THE DRAWINGS MAY RESULT IN MISINTERPRETATION OF CRITICAL DIMENSIONS AND DETAILS.

4. THE STRUCTURAL DRAWINGS ARE INTENDED TO SHOW THE GENERAL CHARACTER AND EXTENT OF THE PROJECT AND ARE NOT INTENDED TO SHOW ALL DETAILS OF WORK. USE ENTIRE DETAIL SHEETS AND SPECIFIC DETAILS REFERENCED IN THE PLANS AS "TYPICAL" WHEREVER THEY APPLY. USE DETAILS ON ENTIRE SHEETS WITH "TYPICAL" IN THE NAME WHEREVER THEY APPLY.

5. WHERE DESCREPANCIES OCCUR BETWEEN THE GENERAL STRUCTURAL 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 SHALL INCLUDE 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. CONFLICTS BETWEEN THE CONTRACT DOCUMENTS SHALL NOT BE A BASIS FOR ADJUSTMENT IN CONTRACT PRICE.

6. THE CONTRACTOR SHALL FURNISH THE PRODUCTS SPECIFIED ON THE DRAWINGS. SUBSTITUTIONS WILL BE CONSIDERED ONLY IF THE CONTRACTOR PROVIDES DOCUMENTATION TO PROVE THE ALTERNATIVE EQUALS OR EXCEEDS THE STRUCTURAL PERFORMANCE CHARACTERISTICS OF THE SPECIFIED PRODUCT.

7. **CODE REQUIREMENTS:**
   A. ALL WORK SHALL BE IN STRICT COMPLIANCE WITH:
   B. 2021 INTERNATIONAL BUILDING CODE (IBC) AS AMENDED BY THE STATE OF MONTANA (INTERNATIONAL BUILDING CODE, 2021 EDITION, EFFECTIVE JUNE 11, 2022)

1. **TEMPORARY CONDITIONS:**
   A. THE STRUCTURAL DRAWINGS REPRESNT THE STRUCTURE IN THE FINAL CONSTRUCTED CONDITION, CONTRACTOR SHALL PROVIDE ALL NECESSARY TEMPORARY SUPPORT PRIOR TO COMPLETION OF VERTICAL AND LATERAL LOAD SYSTEMS. MORRISON-MAIERLE HAS NOT BEEN RETAINED TO PROVIDE ANY SERVICES RELATED TO JOB SITE SAFETY PRECAUTIONS, OR TO REVIEW THE MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES FOR THE CONTRACTOR TO PERFORM WORK. UNLESS WE ARE SPECIFICALLY RETAINED AND COMPENSATED TO DO OTHERWISE, OUR WORK IS LIMITED TO THE FINAL DESIGN OF THE WORK DESCRIBED ON OUR DRAWINGS FOR THIS PROJECT.
   B. CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.
   C. BASEMENT WALLS WHICH TIE TO UPPER SLABS SHALL NOT BE BACKFILLED UNTIL THE UPPER SLABS REACH FULL STRENGTH UNLESS ADEQUATE BRACING IS PROVIDED AT THE TOP OF THE WALL.

2. **EXISTING CONDITIONS:**
   A. EXISTING BUILDING/SITE DIMENSIONS AND ASSUMED CONDITIONS ARE TO BE VERIFIED IN THE FIELD AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/STRUCTURAL ENGINEER OF RECORD OF ALL DISCREPANCIES WHICH REQUIRE A SIGNIFICANT CHANGE IN THE DESIGN AND/OR CONSTRUCTION FROM THAT SHOWN ON THE DRAWINGS.

DESIGN CRITERIA:

1. DESIGN IS BASED ON THE FOLLOWING LOADING FOR THE BASIS OF STRENGTH, PERFORMANCE, AND SERVICEABILITY OF THE STRUCTURE:

DESIGN CRITERIA		
SNOW LOAD CRITERIA (IBC 1603.1.3)		
DESIGN ROOF SNOW LOAD	46 PSF (NOT APPLIED TO SUN SHADE)	
WIND LOAD CRITERIA (IBC 1603.1.4)		
BASIC DESIGN WIND SPEED	V = 120 MPH	
RISK CATEGORY	II	
WIND EXPOSURE	B	
INTERNAL PRESSURE COFFICIENT	GCpi = +/- 0.18	
SEISMIC LOAD CRITERIA (IBC 1603.1.5)		
RISK CATEGORY	II	
SEISMIC IMPORTANCE FACTOR	Ie = 1.0	
MAPPED SPECTRAL RESPONSE	Ss = 0.XXX	S1 = 0.XXX
SITE CLASS	D	
DESIGN SPECTRAL RESPONSE	Sds = 0.XXX	Sd1 = 0.XXX
SEISMIC DESIGN CATEGORY	D	
BASIC SEISMIC FORCE RESISTING SYSTEM (SFRS)	X DIRECTION (E/W)	Z DIRECTION (N/S)
	SPECIAL REINFORCED CONCRETE SHEAR WALLS	SPECIAL REINFORCED CONCRETE SHEAR WALLS
DESIGN BASE SHEAR	XXX KIPS	XXX KIPS
SEISMIC RESPONSE COEFFICIENT	0.XXX	0.XXX
RESPONSE MODIFICATION FACTOR	5.0	5.0
ANALYSIS PROCEDURE USED	EQUIVALENT LATERAL FORCE	EQUIVALENT LATERAL FORCE

STRUCTURAL OBSERVATIONS:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ENGINEER OF RECORD A MINIMUM OF 24 HOURS IN ADVANCE OF REQUIRED/LISTED OBSERVATION STAGES BELOW. CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE OBSERVER. APPROVAL BY THE MUNICIPAL INSPECTOR DOES NOT PRECLUDE OBSERVATIONS BY THE ENGINEER OF RECORD AND APPROVAL BY THE ENGINEER OF RECORD DOES NOT PRECLUDE THE INSPECTION PROCESS BY THE MUNICIPAL INSPECTOR AND ANY OTHER CODE REQUIREMENTS FOR INSPECTION.

2. UPON COMPLETION OF WORK THE STRUCTURAL OBSERVER SHALL SUBMIT A REPORT TO THE OWNER AND BUILDING OFFICIAL ATTESTING TO THE VISUAL OBSERVATION MADE. THE REPORT SHALL IDENTIFY ANY REPORTED DEFICIENCIES WHICH HAVE NOT BEEN RESOLVED.

EARTHWORK:

1. A GEOTECHNICAL INVESTIGATION AND REPORT HAS BEEN PREVIOUSLY COMPLETED BY ALLIED ENGINEERING SERVICES, INC. REFER TO COMPLETED GEOTECHNICAL REPORT FOR RECOMMENDATIONS ON SITE PREPARATIONS, FILL SPECIFICATIONS AND SITE SPECIFIC CONSTRUCTION CONSIDERATIONS.

CAST-IN-PLACE CONCRETE:

1. CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301, *SPECIFICATION FOR STRUCTURAL CONCRETE*, AND ACI 117, *SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS*, UNLESS NOTED OTHERWISE.

2. AVERAGE CONCRETE STRENGTH DETERMINED BY JOB CAST LAB CURED CYLINDER PER ASTM C39 TO BE AS INDICATED BELOW PLUS INCREASE DEPENDING ON THE PLANT'S STANDARD DEVIATION AS SPECIFIED IN ACI 318. MINIMUM CONCRETE PROPERTIES SHALL BE AS FOLLOWS:

CONCRETE PROPERTIES

USE	EXPOSURE	MIN COMPRESSIVE STRENGTH	TEST AGE DAYS	AIR CONTENT	MAX WATER TO CEMENT RATIO	MAX AGGERGATE SIZE
EXTERIOR FOOTINGS AND WALLS	F2	4,500 PSI	28	6% +/- 1.5%	0.45	1"
INTERIOR FOOTINGS AND WALLS	F0	4,000 PSI	28	--	0.45	1"
EXTERIOR SLABS ON GRADE	F1	3,500 PSI	28	4.5% +/- 1.5%	0.55	1"
INTERIOR SLABS ON GRADE	F0	3,500 PSI	28	--	0.50	1"
INTERIOR SLAB ON METAL DECK	F0	3,500 PSI	28	--	0.50	3/4"
POST TENSIONED SLABS & BEAMS	F0	5,000 PSI	28	--	0.45	3/4"
COLUMNS AND SHEARWALLS	F0	5,000 PSI	56	--	0.45	3/4"
DRILLED PIERS	F0	3,000 PSI	28	--	0.45	3/4"
MAT FOUNDATIONS	F1	5,000 PSI	28	--	0.45	1"
		6,250 PSI	90			

3. **CONCRETE IS EXPOSURE CLASS W0 OR W1, CLASS C0 OR C1 AND CLASS S0 UNLESS OTHERWISE NOTED.**

4. THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS ALONG WITH TEST DATA A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE. ADDITIONAL WATER SHALL NOT BE ADDED TO THE CONCRETE MIX AT THE JOBSITE UNLESS SPECIFICALLY NOTED IN THE MIX DESIGN.

5. SLEEVES, OPENINGS, CONDUITS AND OTHER EMBEDDED ITEMS IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE THIRD OF THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER AND SHALL BE APPROVED BY THE EOR BEFORE POURING.

6. CURING OF CONCRETE SHALL COMPLY WITH ACI 308, UNLESS NOTED OTHERWISE.

7. WHERE CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE CLEANED AND ROUGHENED TO A MINIMUM 1/4" AMPLITUDE.

8. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE CORNERS UNLESS NOTED OTHERWISE.

REINFORCING STEEL:

1. REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING PROPERTIES:

REINFORCEMENT STEEL PROPERTIES

USE	REINFORCEMENT SIZE	SPECIFICATION
GENERAL USE	#7 & SMALLER	ASTM A615, GRADE 60
BEAMS AND COLUMNS	#8 & LARGER	ASTM A706
SHEARWALLS & MOMENT FRAMES	ALL	ASTM A706
REINFORCEMENT TO BE WELDED	ALL	ASTM A706
WELDED WIRE REINFORCEMENT	ALL	ASTM A1064

2. REINFORCING STEEL TO BE WELDED SHALL USE ONLY LOW HYDROGEN ELECTRODES. ALL WELDING TO BE IN COMPLIANCE WITH AWS D1.4. WELD REINFORCING STEEL ONLY WHERE INDICATED ON THE DRAWINGS. WELDING OR TACK WELDING OF REINFORCEMENT BARS TO OTHER BARS OR STEEL COMPONENTS IS PROHIBITED.

3. REINFORCING STEEL IN BEAMS AND SLABS SHALL BE SUPPORTED ON CONCRETE DOBBIES, OR APPROVED CHAIRS IN SUFFICIENT NUMBERS TO SUPPORT THE BARS WITHOUT SETTLEMENT. FABRICATE AND INSTALL REINFORCING STEEL ACCORDING TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES - ACI STANDARD 315.

4. CONTACT LAP ALL REINFORCING BARS PER THE TYPICAL LAP SPLICE LENGTH SCHEDULE, EXCEPT AS NOTED ON DRAWINGS. MECHANICAL SPLICES NOTED ON THE DRAWINGS SHALL BE DAYTON SUPERIOR BAR-LOCK OR APPROVED WITH A CURRENT ICC-ES OR IAPMO-ES EVALUATION REPORT.

GRADE 60 REINFORCING STEEL LAP SPLICE LENGTH AND DEVELOPMENT LENGTH

BAR SIZE	f'c = 3,000 PSI					f'c = 4,000 PSI					f'c = 5,000 PSI				
	MISC BARS		TOP BARS (SEE NOTE 3)		HOOK BARS	MISC BARS		TOP BARS (SEE NOTE 3)		HOOK BARS	MISC BARS		TOP BARS (SEE NOTE 3)		HOOK BARS
	Ld	LAP	Ld	LAP	Ldh	Ld	LAP	Ld	LAP	Ldh	Ld	LAP	Ld	LAP	Ldh
#3	17	22	22	28	9	15	19	29	25	8	13	17	17	22	7
#4	22	29	29	38	11	19	25	25	33	10	17	23	23	29	9
#5	28	36	36	47	14	24	31	31	41	12	22	28	28	36	11
#6	33	43	43	56	17	29	37	37	49	15	26	34	34	44	13
#7	48	63	63	81	20	42	54	54	71	17	38	49	49	63	15
#8	55	72	72	93	22	48	62	62	81	19	43	56	56	72	17
#9	62	81	81	105	25	54	70	70	91	22	48	63	63	81	20
#10	70	91	91	118	28	61	79	79	102	25	54	71	71	92	22
#11	78	101	101	131	31	67	87	87	114	27	60	78	78	102	24

1. ALL TABULATED VALUES ARE IN INCHES, FOR GRADE 60, UNCOATED REINFORING, NORMAL WEIGHT CONCRETE WITH CLEAR SPACING AND CLEAR COVER GREATER THAN THE BAR DIAMETER.
2. IT SHALL BE PERMITTED TO INTERPOLATE BETWEEN CONCRETE STRENGTHS OR USE THE NEXT LOWER CONCRETE STRENGTH.
3. TOP BARS ARE ANY HORIZ BAR PLACED SUCH THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE BAR IN ANY SINGLE POUR. HORIZ WALL BARS ARE CONSIDERED TOP BARS.
4. LAP SPLICES ARE FOR NON-LATERAL LOAD RESISTING ELEMENTS. FOR REBAR LAPS SPLICES AT LATERAL LOAD RESISTING ELEMENTS, REFERENCE PLANS AND ELEVATIONS.
5. Ld = DEVELOPMENT LENGTH IN TENSION OF DEFORMED BAR
   Ldh = DEVELOPMENT LENGTH IN TENSION OF DEFORMED BAR OR DEFORMED WIRE WITH A STANDARD HOOK
   LAP = LAP SPLICE LENGTH OF DEFORMED BAR OR DEFORMED WIRE

5. REINFORCING STEEL SHALL BE PROTECTED BY PLACING BARS WITH A MINIMUM COVER, UNLESS NOTED OTHERWISE.

REINFORCING STEEL CONCRETE COVER

USE	CLEAR COVER
SLABS	3/4"
BEAMS AND COLUMNS	1-1/2" (TO STIRRUPS OR TIES)
WALLS (INTERIOR FACES)	3/4"
CONCRETE CAST AGAINST EARTH	3"
CONCRETE EXPOSED TO WEATHER OR EARTH	1-1/2" (FOR #5 OR SMALLER), 2" (FOR #6 AND LARGER)

6. PROVIDE DOWELS FROM FOOTINGS TO MATCH ALL VERTICAL WALL, PILASTER AND COLUMN REINFORCING. PROVIDE CORNER BARS TO MATCH HORIZONTAL REINFORCING IN WALLS AND FOOTINGS AT ALL CORNERS AND INTERSECTIONS. CONTINUE HORIZONTAL WALL BARS THROUGH PILASTERS COLUMNS AND INTERSECTING WALLS.

STRUCTURAL STEEL

1. DESIGN, FABRICATION AND ERECTION OF STEEL MEMBERS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AISC 360 *SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS* AND AISC 303 *CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES*.. STRUCTURAL STEEL SHALL BE:

STRUCTURAL STEEL

SHAPE	MATERIAL SPECIFICATION AND GRADE
WIDE FLANGE (W-SHAPES)	ASTM A992, GRADE 50
CHANNELS (C-SHAPES)	ASTM A36, GRADE 36
ANGLES (L-SHAPES)	ASTM A36, GRADE 36
STRUCTURAL TEES (WT-SHAPES)	ASTM A992, GRADE 50
HOLLOW STRUCTURAL SECTIONS (HSS)	ASTM A500, GRADE C
STRUCTURAL PIPES	ASTM A53, GRADE B
PLATES	ASTM A36, GRADE 36
PLATES NOTED AS "GR. 50"	ASTM A572, GRADE 50

2. BOLTS SHALL CONFORM TO THE ASTM AND RCSC SPECIFICATIONS FOR JOINTS USING GROUP A OR GROUP B HIGH STRENGTH BOLTS. BOLTS SHALL BE INSTALLED SNUG-TIGHT UNLESS NOTED OTHERWISE. WHERE SLIP CRITICAL IS SPECIFIED ON PLANS, ALL FAYING SURFACES SHALL BE PREPARED AS REQUIRED FOR CLASS A OR BETTER SLIP CRITICAL JOINTS. ALL BOLTS SPECIFIED AS SLIP CRICIAL AND UTILIZED IN SEISMIC FORCE RESISTING ELEMENTS SHALL BE FULLY TENSIONED.

3. ANCHOR RODS SHALL CONFORM TO ASTM F1554, GRADE 36 UNLESS NOTED OTHERWISE. ANCHOR RODS TO BE WELDED SHALL CONFORM TO ASTM F1554, GRADE 55. THREADED RODS SHALL CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE.

4. WELDING SHALL CONFORM TO AWS D1.1, *STRUCTURAL WELDING CODE - STEEL* WITH PREQUALIFIED WELDING PROCESSES EXCEPT AS MODIFIED BY AISC 360 SECTION J2. WELDING SHALL BE COMPLETED BY AWS-CERTIFIED WELDERS.

5. WELDS SHALL BE MADE USING E70XX ELECTRODES FOR SHIELDED METAL ARC WELDING (SMAW) AND E71TX WIRE FOR FLUX-CORED ARC WELDING (FCAW) PROCESSES. FOR COMPLETE JOINT PENETRATION WELDS ASSOCIATED WITH MEMBER SPLICES AND CONNECTIONS NOT PART OF THE SEISMIC FORCE RESISTING SYSTEM, WELDS SHALL BE MADE WITH FILLER METAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT 40°F.

6. FIELD WELDING SYMBOLS HAVE NOT NECESSARLY BEEN INDICATED ON THE DRAWING. WHERE SHOWN, PROPER FIELD WELDING PER AWS SHALL BE USED. WHERE NO FIELD WELDING SYMBOLS ARE SHOWN, IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE USE OF SHOP AND FIELD WELDS.

7. ERECTION AIDS ARE TO BE DETERMINED AND PROVIDED BY THE CONTRACTOR. THE CONTRACTOR'S ERECTOR AND FABRICATOR SHALL COORDINATE THE TYPE AND QUANTITY OF ERECTION AIDS. THE CONTRACTOR IS SOLELY REPONSIBLE FOR ERECTION SEQUENCING, TEMPORARY BRACING, SAFETY OF WORKERS, AND OVERALL COMPLIANCE WITH APPLICABLE OSHA REQUIREMENTS.

8. PROVIDE WEEP HOLES AT EXTERIOR CLOSED SECTIONS WHERE MOISTURE MAY ACCUMULATE.

9. SEE ARCHITECTURAL FOR ADDITIONAL REQUIRED STEEL PENETRATIONS FOR MEP, OR OTHER DISCIPLINES.

FOR CONSTRUCTION

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DRAWN BY: DRP		
REVIEWED BY: NJM		
REV.	DESCRIPTION	DATE

PPA#22-0644

CONSULTANT#2200.044

SHEET TITLE
GEN. STRUCT. NOTES

SHEET
S000

DATE
2024-05-29

STATEMENT OF SPECIAL INSPECTION AND TESTING NOTES:

1. SPECIAL INSPECTIONS SHALL CONFORM TO SECTION 1705 OF THE 2021 IBC, CONTRACT DOCUMENTS AND APPROVED SUBMITTALS. REFER TO SPECIAL INSPECTION AND TESTING TABLES FOR PROJECT REQUIREMENTS.

2. SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY MEETING THE REQUIREMENTS OF ASTM E329 (MATERIALS). THE INSPECTION AND TESTING AGENCY SHALL FURNISH TO THE STRUCTURAL ENGINEER/ ARCHITECT A COPY OF THEIR SCOPE OF ACCREDITATION. SPECIAL INSPECTORS SHALL BE APPROVED BY THE BUILDING OFFICIAL. WELDING INSPECTORS SHALL BE QUALIFIED PER SECTION 6.1.4.1(1) OF AWS D1.1.

3. THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND NOTED IN THE INSPECTION REPORTS. ISSUES REQUIRING IMMEDIATE CORRECTIVE ACTIONS OR ENGINEERING INPUT ARE TO BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY UPON DISCOVERY.

4. THE CONSTRUCTION OR WORK FOR WHICH SPECIAL INSPECTION IS REQUIRED SHALL REMAIN ACCESSIBLE AND EXPOSED FOR SPECIAL INSPECTION PURPOSES UNTIL COMPLETION OF THE REQUIRED SPECIAL INSPECTIONS.

5. THE SPECIAL INSPECTOR AND GEOTECHNICAL ENGINEER SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, STRUCTURAL ENGINEER, ARCHITECT, CONTRACTOR, AND OWNER. THE SPECIAL INSPECTION AGENCY SHALL SUBMIT A FINAL REPORT STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED AND IS IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THAT ALL DISCREPANCIES NOTED IN THE INSPECTION REPORTS HAVE BEEN CORRECTED.

6. QUALITY ASSURANCE (QA) IS REQUIRED FOR STRUCTURAL STEEL ITEMS PER AISC 360 AND 341 UNLESS SPECIFICALLY NOTED OTHERWISE. QUALITY CONTROL (QC) TO BE PROVIDED BY THE FABRICATOR, ERECTOR OR OTHER RESPONSIBLE CONTRACTOR AS APPLICABLE. CONTRACTOR AND SPECIAL INSPECTOR TO DOCUMENT QUALITY CONTROL AS REQUIRED IN AISC 360 SECTION N3 AND AISC 341 SECTION J2

7. **INSPECTION TYPES:**
   - CONTINUOUS : THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED.
   - PERIODIC : THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK.
   - OBSERVE (O) : OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS. OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS.
   - PERFORM (P) : INSPECTIONS SHALL BE PERFORMED PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM.
   - DOCUMENT (D): INDICATES CONTRACTOR AND SPECIAL INSPECTOR TO PROVIDE DOCUMENTATION IN ACCORDANCE WITH AISC 341.

8. SPECIAL INSPECTION OF MECHANICAL POST INSTALLED ANCHORS SHALL BE IN STRICT CONFORMANCE WITH THE ICC REPORT AND MANUFACTURER'S INSTALLATION REQUIREMENTS. ANCHOR INSTALLERS SHALL BE QUALIFIED AS REQUIRED BY JURISDICTION REQUIREMENTS.
   - INSPECTION REPORTS SHALL IDENTIFY NAMES OF INSTALLERS.
   - SPECIAL INSPECTOR SHALL PROVIDE DOCUMENTATION AT THE END OF ANCHOR INSTALLATIONS STATING THAT THE ANCHORS WERE INSPECTED PER APPROVED ANCHOR EVALUATION REPORT.

9. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE MAIN WIND-OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND-OR SEISMIC- RESISTING COMPONENT LISTED IN THE TABLES SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING
   - ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.
   - ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
   - PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND DISTRIBUTION OF THE REPORTS.
   - IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

GENERAL - SPECIAL INSPECTIONS

SYSTEM OR MATERIAL	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 7)		REMARKS
			CONTINUOUS	PERIODIC	
FABRICATORS	1705.11 1704.2.5				SPECIAL INSPECTION IS REQUIRED FOR STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES FABRICATED ON THE PREMISES OF A FABRICATOR'S SHOP. SPECIAL INSPECTIONS SHALL BE PERFORMED DURING FABRICATION. PERFORMING SPECIAL INSPECTIONS IS NOT REQUIRED, WHERE FABRICATOR HAS BEEN APPROVED AS AN APPROVED FABRICATOR, PER IBC SECTION 1704.2.5.1 - STEEL FABRICATORS AND INSTALLERS CERTIFIED THROUGH AISC COMPLY WITH THIS PROVISION. THE FABRICATOR AND OR INSTALLER MUST STILL COMPLETE AND DOCUMENT THE QUALITY CONTROL TASKS AND NON-DESTRUCTIVE TESTING OUTLINED IN AISC 360 AND AISC 341, AS APPLICABLE.
DEFERRED SUBMITTALS				X	SPECIAL INSPECTION REQUIREMENTS FOR DEFERRED SUBMITTAL ITEMS, INCLUDING REQUIREMENTS FOR DESIGNATED SEISMIC SYSTEMS IN ACCORDANCE WITH IBC SECTION 1705.13.4 IF APPLICABLE. TO BE SPECIFIED BY THE SYSTEM ENGINEER AND INCLUDED WITH DEFERRED SUBMITAL DOCUMENTS.
SUBMITTALS TO THE BUILDING OFFICIAL	1704.5			X	CERTIFICATES OF COMPLIANCE, REPORTS OF PRE-CONSTRUCTION TESTS, OR REPORTS OF MATERIAL PROPERTIES SHALL BE SUBMITTED TO TH...
PRE-ENGINEERED STRUCTURES	1705.1.1	MBMA	X	X	REFER TO DEFERRED SUBMITTALS AND FABRICATORS REQUIREMENTS
FIBER-REINFORCED COMPOSITE SYSTEMS	1705.1.1	AC178		X	MATERIALS AND INSTALLATION SPECIAL INSPECTIONS PER ICC REPORT
POST INSTALLED ADHESIVE ANCHORS WITH SUSTAINED TENSION LOADS INSTALLED HORIZONTALLY OR AT AN UPWARD INCLINE IN HARDENED CONCRETE AND COMPLETED MASONRY			X		SPECIAL INSPECTION OF MECHANICAL POST INSTALLED ANCHORS SHALL BE IN STRICT CONFORMANCE WITH THE ICC REPORT AND MANUFACTURER'S INSTALLATION REQUIREMENTS. ANCHOR INSTALLERS SHALL BE QUALIFIED AS REQUIRED BY JURISDICTION REQUIREMENTS.INSPECTION - REPORTS SHALL IDENTIFY NAMES OF INSTALLERS.
POST INSTALLED MECHANICAL ANCHORS AND ADHESIVE ANCHORS (EXCLUDING CONDITIONS NOTED ABOVE) IN HARDENED CONCRETE AND COMPLETED MASONRY				X	
WIND RESISTING COMPONENTS - SPECIAL INSPECTIONS					
ROOF COVERING, ROOF DECK AND ROOF FRAMING CONNECTIONS	1705.12.3			X	
EXTERIOR WALL COVERING AND WALL CONNECTIONS TO ROOF AND FLOOR DIAPHRAGMS AND FRAMING	1705.12.3			X	

CONCRETE - SPECIAL INSPECTIONS

SYSTEM OR MATERIAL	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 7)		REMARKS
			CONTINUOUS	PERIODIC	
GENERAL	1705.3 1901.6	ACI 318: 26.13			SPECIAL INSPECTIONS OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 1705.3 OF THE IBC AND SECTION 26.13 OF ACI 318.
REINFORCING STEEL AND (POST TENSIONED/PRETENSIONED) TENDON PLACEMENT	1901.5	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3		X	REINFORCING TO COMPLY WITH ALL CODE PROTECTION, SPACING AND TOLERANCE LIMITS.
WELDING REINFORCING STEEL	1705.3.1 1705.3.2 1903.1 1903.2	AWS D1.4 ACI 318: 26.6.4			
1. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706				X	
2. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16" FILLET				X	
3. ALL OTHER REINFORCING STEEL WELDING,			X		
INSPECT ANCHORS/BOLTS CAST IN CONCRETE	-	ACI 318:	X	X	ALL CAST-IN-PLACE ANCHORS/BOLTS SHALL BE VISUALLY INSPECTED. REFERENCE STEEL INSPECTIONS FOR ADDITIONAL INSTALLATION, MATERIAL AND WELDING INSPECTIONS OF STEEL ITEMS EMBEDDED IN CONCRETE (HEADED STUDS, DBA's, ETC.)
VERIFYING USE OF REQUIRED MIX DESIGN(S)	1904.1 1904.2 1908	ACI 318: CH. 19, 26.4.3, 26.4.4		X	
CONCRETE SPECIMENS FOR TESTING		ASTM C172 ASTM C31 ACI 318: 26.5, 26.12	X		PRIOR TO CONCRETE PLACEMENT, FABRICATE CONCRETE SPECIMENS FOR TESTING. SEE THE CONCRETE TESTING TABLE FOR ADDITIONAL INFORMATION.
CONCRETE/SHOTCRETE PLACEMENT	1908	ACI 318: 26.5, 26.13.3.2(a)	X		
CONCRETE/SHOTCRETE CURING	1908.1	ACI 318: 26.5.3 - 26.5.5		X	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURES AND TECHNIQUES
APPLICATION OF PRESTRESSING FORCES AT PRESTRESSED / POST-TENSIONED CONCRETE		ACI 318: 26.10, 26.13.3.2	X		
GROUTING OF BONDED PRESTRESSING TENDONS AT PRESTRESSED / POST-TENSIONED CONCRETE		ACI 318: 26,10, 26.13.3.2	X		
VERIFICATION OF IN-SITU CONCRETE STRENGTH PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE		ACI 318: 26.11.2		X	
VERIFICATION OF IN-SITU CONCRETE PRIOR TO REMOVAL OF FORMS AND SHORES FROM ELEVATED BEAMS AND SLABS		ACI 318: 26.11.2		X	
ERECTION OF PRECAST MEMBERS		ACI 318: 26.9, 26.13.3.3		X	ALL CONNECTIONS VISUALLY INSPECTED. REFER TO ANCHOR BOLT AND WELDING REQUIREMENTS.
VERIFICATION OF FORMWORK		ACI 318: 26.11.1.2(b), 26.13.3.3		X	SPECIAL INSPECTIONS APPLY TO SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED
EMBEDDED ITEMS IN CONCRETE				X	ALL NON-STRUCTURAL EMBEDDED ITEMS, SUCH AS CONDUITS, PIPES AND SLEEVES, SHALL BE REVIEWED FOR CONFORMANCE WITH STRUCTURAL DOCUMENTS FOR SIZE, SPACING, LOCATION, EDGE DISTANCE AND TRIM...
REINFORCING STEEL MECHANICAL COUPLERS, TERMINATORS AND FORMSAVERS		ICC EVALUATION REPORTS		X	
REINFORCING STEEL PLACEMENT IN SPECIAL MOMENT RESISTING FRAMES	-	ACI 318 26.13.1.4, 26.13.3.2	X		INSPECTOR TO BE QUALIFIED TO PERFORM THESE INSPECTIONS

CONCRETE - TESTING

SYSTEM OR MATERIAL	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 7)	REMARKS
CONCRETE STRENGTH	1705.3 ASTM C172 ASTM C31 ACI 318 26.12, ACI 318 26.5	ASTM C39	EACH 150 CY NOR LESS THAN EACH 5000 SF OF SLAB OR WALL PLACED EACH SHIFT	FABRICATE SPECIMENS AT TIME FRESH CONCRETE IS PLACED
CONCRETE SLUMP		ASTM C143		
CONCRETE AIR CONTENT		ASTM C231		
CONCRETE TEMPERATURE		ASTM C1064		
SHOTCRETE STRENGTH	1705.3 1908.1	ASTM C42 ASTM C1140	EACH 50 CY NOR LESS THAN EACH 5000 SF OF WALL PLACED EACH SHIFT	UNREINFORCED SPECIMEN TAKEN FROM THE IN-PLACE OR FROM TEST PANELS
SHOTCRETE TEST PANEL	1705.3 1908.1	ACI 506.2 ASTM C 1140	PANELS SHALL BE PROVIDED FOR EACH NOZZLEMAN, MIX DESIGN AND SHOT ANGLE USED ON THE PROJECT	PANEL SIZE AND QUANTITY SHALL BE AS REQUIRED TO OBTAIN REQUIRED CONFORMING TEST CYLINDERS AND MINIMUM SIZES PER PROJECT AND CODE REQUIREMENTS

STEEL - SPECIAL INSPECTIONS

SYSTEM OR MATERIAL	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 7)		REMARKS
			CONTINUOUS/ PERFORM	PERIODIC/ OBSERVE	
CONTRACTOR QUALITY CONTROL REQUIREMENTS		AISC 360 CHAPTER N	X	X	CONTRACTOR TO PROVIDE QUALITY CONTROL FOR ALL ITEMS INDICATED TO BE OBSERVED AND/OR PERFORMED IN TABLE BELOW
STEEL FABRICATION					
FABRICATION OF STRUCTURAL ELEMENTS	1704.2.5.1	AISC 360		X	REFER TO INSPECTION OF FABRICATOR...
MATERIAL VERIFICATION OF STRUCTURAL STEEL COMPONENTS	1705.2	ASTM A6 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS AISC 360 A3.1 AISC 360 N2.1		X	CERTIFIED MILL TEST REPORTS
MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS, AND WASHERS	OSSC 1705.2.1.2 AISC 360 M2.6 OSSC TABLE 1705.2-1	AISC 360 A3.3 AISC 360 N3.2 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS RCSC 2.1		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF ANCHOR BOLTS AND THREADED RODS		AISC 360 A3.4 AISC 360 N3.2 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF WELD FILLER METALS	1705.2.1.1 TABLE 1705.2-5	AISC 360 A3.5 AISC 360 N3.2APPLICABLE AWS A5 DOCUMENTS		X	MANUFACTURER'S CERTIFIED TEST REPORTS
PLACEMENT OF ANCHOR RODS AND OTHER EMBEDMENTS SUPPORTING STRUCTURAL STEEL- VERIFY THE DIAMETER, GRADE, TYPE, AND LENGTH OF THE ANCHOR ROD OR EMBEDDED ITEM AND THE EXTENT OR DEPTH OF EMBEDMENT INTO THE CONCRETE PRIOR TO PLACEMENT OF CONCRETE	1705.2	AISC N5.8		X	
INSPECT THE FABRICATED STEEL OR ERECTED STEEL FRAME TO VERIFY COMPLIANCE WITH THE DETAILS AS SHOWN ON THE CONSTRUCTIONS DOCUMENTS, SUCH AS BRACES, STIFFENERS, MEMBER LOCATIONS, AND PROPER APPLICATION OF JOINT DETAILS AT EACH CONNECTION	1705.2	AISCN5.8		X	

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FOR CONSTRUCTION

AMERICAN INDIAN HALL OUTDOOR CLASSROOM

MONTANA STATE UNIVERSITY

THINK ONE ARCHITECTS

DRAWN BY: DRP		
REVIEWED BY: NJM		
REV.	DESCRIPTION	DATE

NICHOLAS J. MEMMOTT
PROFESSIONAL ENGINEER
15739, PE
05/29/24

PPA#22-0644

CONSULTANT#2200.044

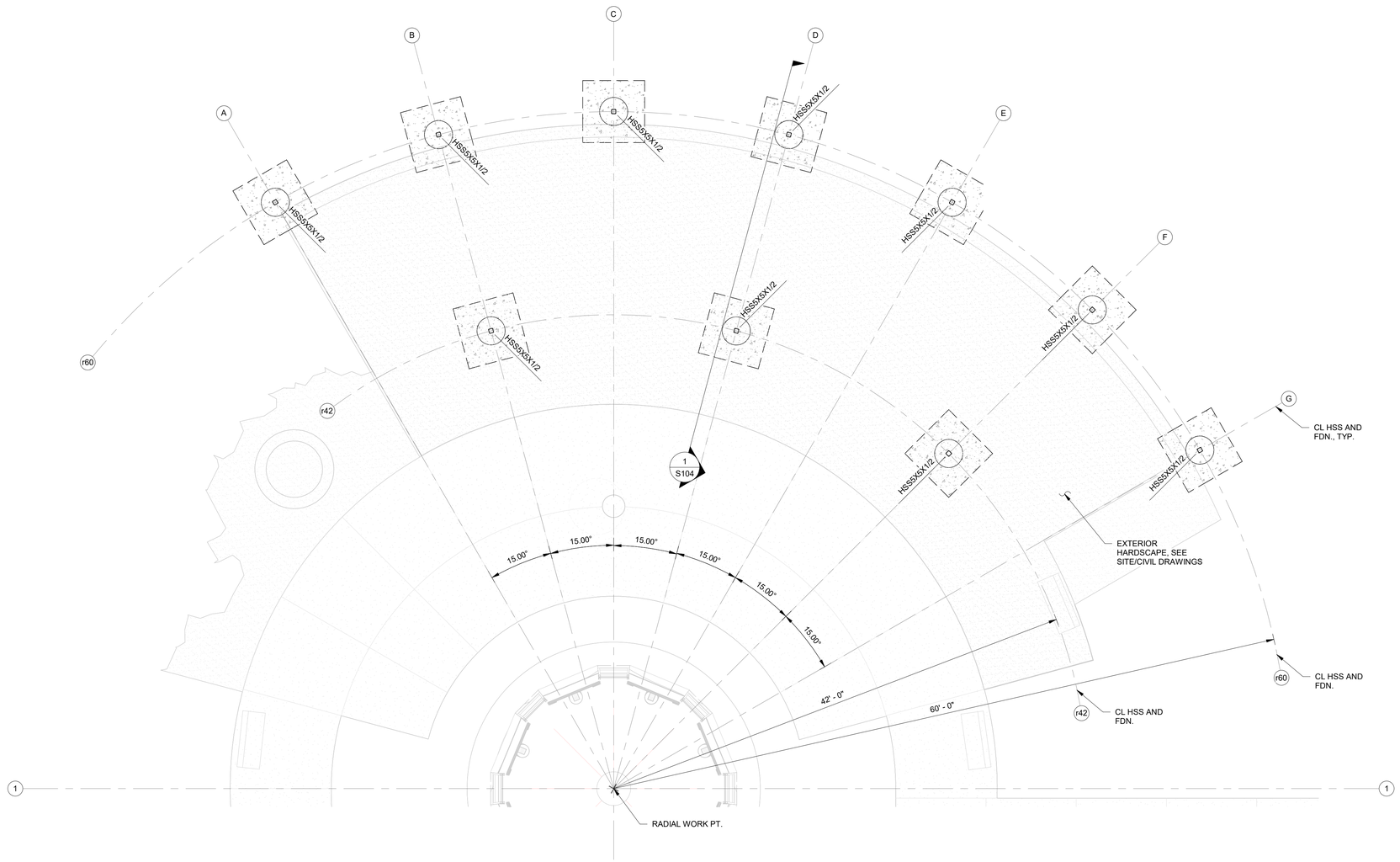
SHEET TITLE
STATEMENT OF SPECIAL INSPEC.

SHEET
S001

DATE
2024-05-29

FLOOR PLAN NOTES

1. PROJECT DATUM ELEVATION = 100' - 0" AT TOP OF EXISTING CONCRETE SURFACE (SEE CIVIL DRAWINGS FOR ABSOLUTE ELEVATION). ALL SPOT ELEVATIONS ARE IN REFERENCE TO THE DATUM ELEVATION.



1 OUTDOOR ARBOR - SLAB/FDN PLAN
3/16" = 1'-0" REF: 1/S104

FOR CONSTRUCTION

AMERICAN INDIAN HALL OUTDOOR CLASSROOM

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THINK|ONE

DRAWN BY: DRP		
REVIEWED BY: NJM		
REV.	DESCRIPTION	DATE

REGISTERED ARCHITECT
NICHOLAS J. MEMMOTT
05/29/24

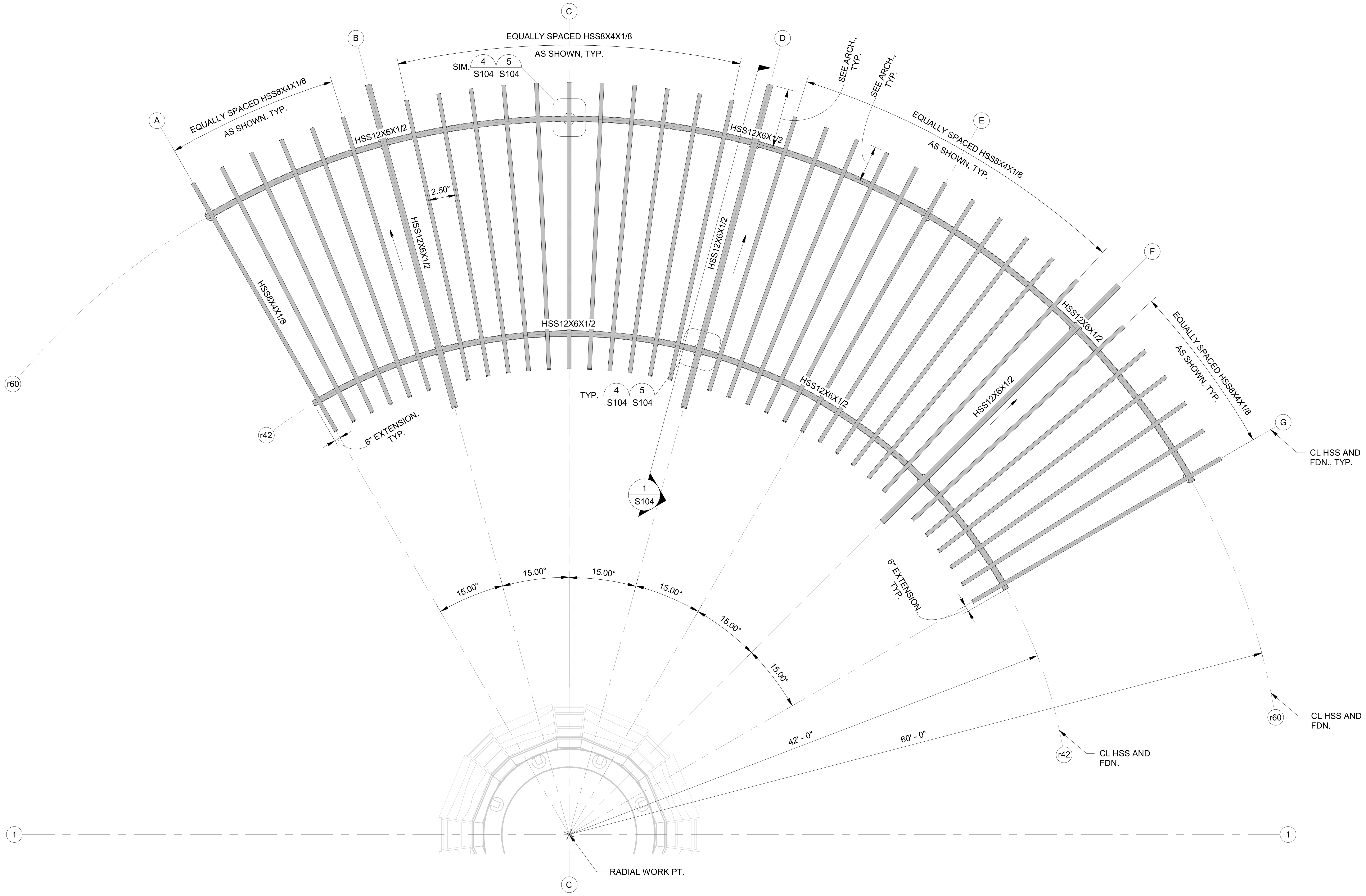
PPA#22-0644

CONSULTANT#2200.044

SHEET TITLE
ARBOR
FDN./SLAB PLAN

SHEET
S102

DATE
2024-05-29



1 OUTDOOR ARBOR - FRAMING PLAN

3/16" = 1'-0" REF: 3/S104

N

ROOF PLAN NOTES

1. PROJECT DATUM ELEVATION = 100' - 0" AT TOP OF EXISTING CONCRETE SURFACE (SEE CIVIL DRAWINGS FOR ABSOLUTE ELEVATION). ALL SPOT ELEVATIONS ARE IN REFERENCE TO THE DATUM ELEVATION.
2. UNLESS NOTED OTHERWISE, BEAMS AND/OR JOISTS ARE EQUALLY SPACED BETWEEN COLUMNS.

FOR CONSTRUCTION

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AMERICAN INDIAN HALL OUTDOOR CLASSROOM
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THINK ONE

DRAWN BY: DRP
REVIEWED BY: NJM

REV.	DESCRIPTION	DATE

05/29/24

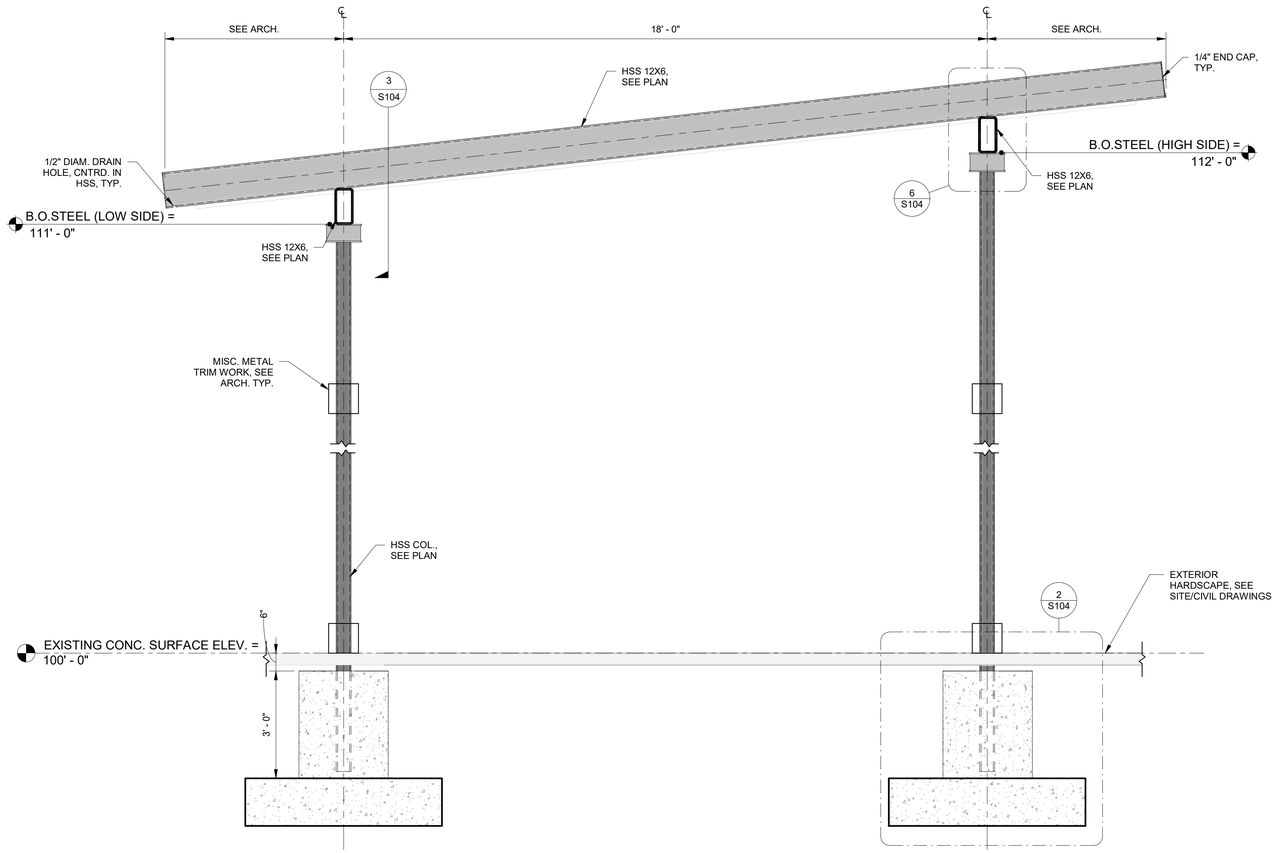
PPA#22-0644

CONSULTANT#2200.044

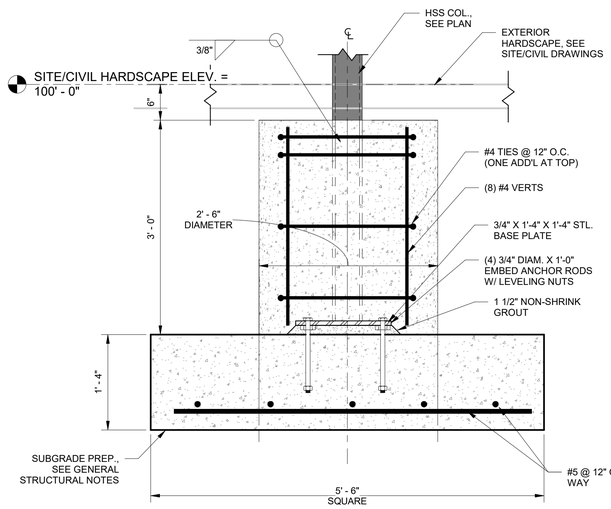
SHEET TITLE
ARBOR FRAMING PLAN

SHEET
S103

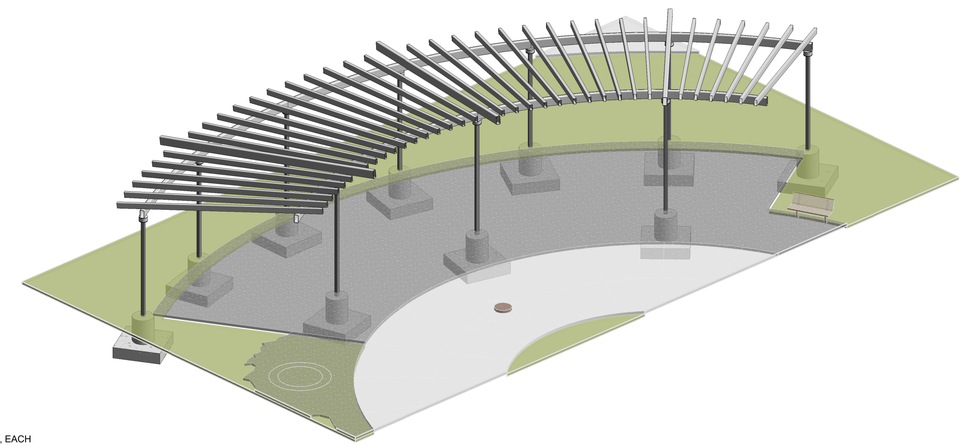
DATE
2024-05-29



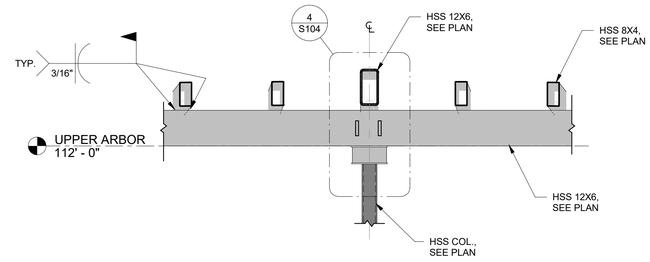
1 OUTDOOR ARBOR SECTION
1/2" = 1'-0" REF: 1/S102



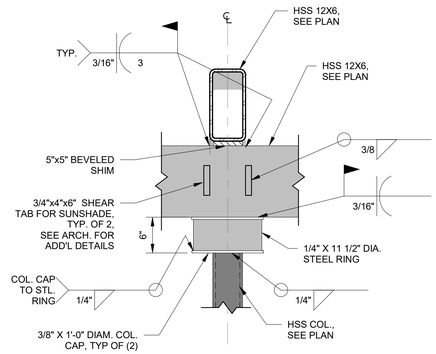
2 OUTDOOR ARBOR FOUNDATION DETAIL
1" = 1'-0" REF: 1/S104



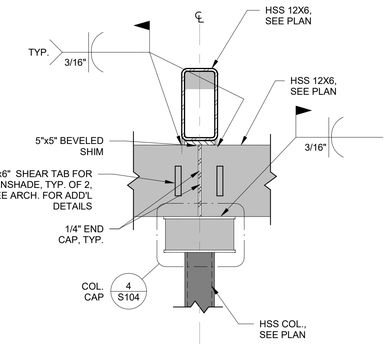
7 3D PERSPECTIVE
NTS



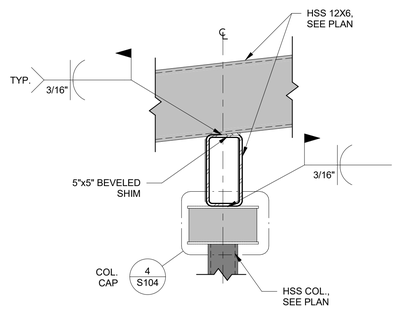
3 OUTDOOR ARBOR SECTION
1/2" = 1'-0" REF: 1/S104



4 OUTDOOR ARBOR SECTION
1" = 1'-0" REF: 3/S104



5 OUTDOOR ARBOR SECTION @ SPLICE
1" = 1'-0"



6 OUTDOOR ARBOR SECTION
1" = 1'-0" REF: 1/S104

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FOR CONSTRUCTION

AMERICAN INDIAN HALL OUTDOOR CLASSROOM

MONTANA STATE UNIVERSITY

THINK ONE

DRAWN BY: DRP		
REVIEWED BY: NJM		
REV.	DESCRIPTION	DATE

Nate J. Meuwly
STATE OF MONTANA
No. 15739 PE
05/29/24

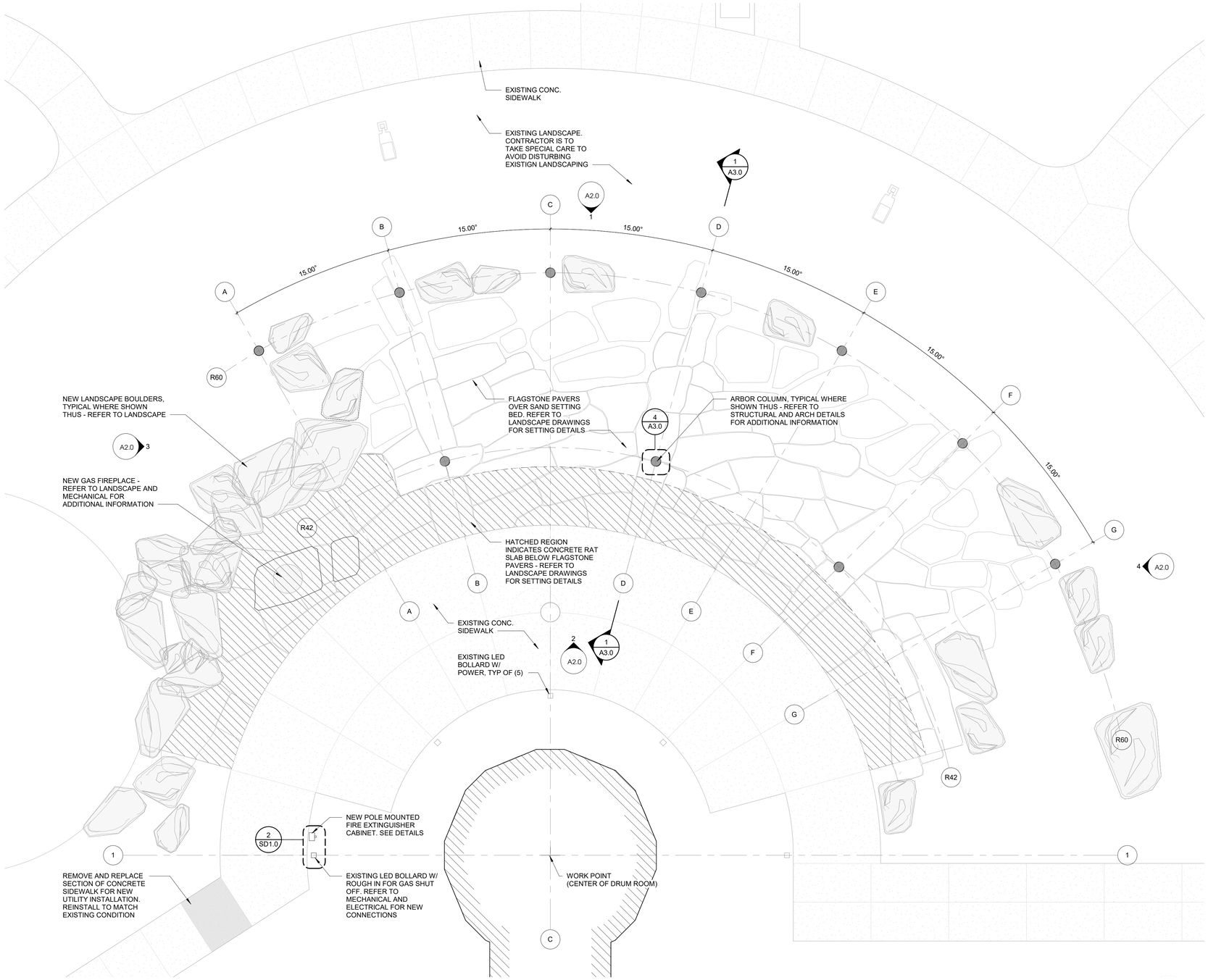
PPA#22-0644

CONSULTANT#2200.044

SHEET TITLE
ARBOR - DETAILS AND SECTIONS

SHEET
S104

DATE
2024-05-29



1 A1.0 **FIRST FLOOR PLAN**
3/16" = 1'-0"

NORTH

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

THINK ONE ARCHITECTS

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

STATE OF MONTANA · BOZEMAN · WILLIAM A. HANSON · 18976 · REGISTERED ARCHITECT

PPA#22-0644

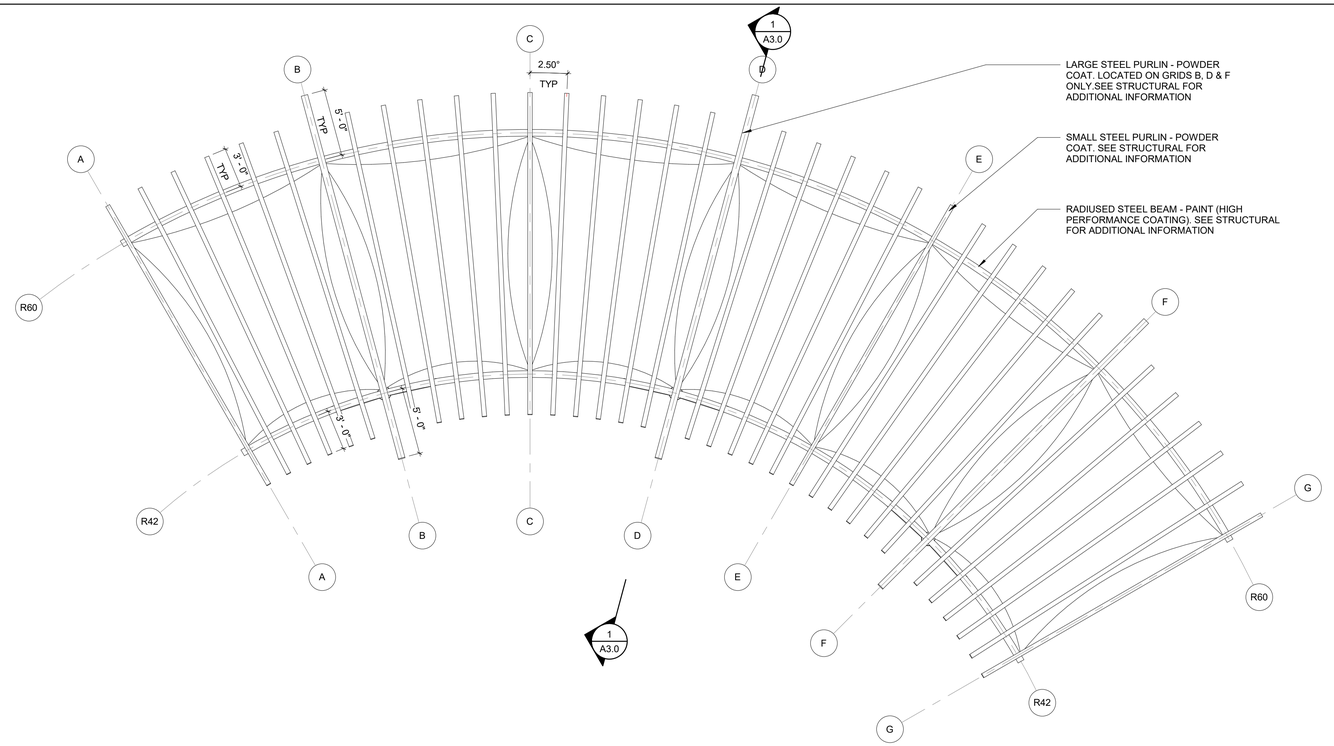
A/E#00-00-00

CONSULTANT #2307

SHEET TITLE
FIRST FLOOR PLAN

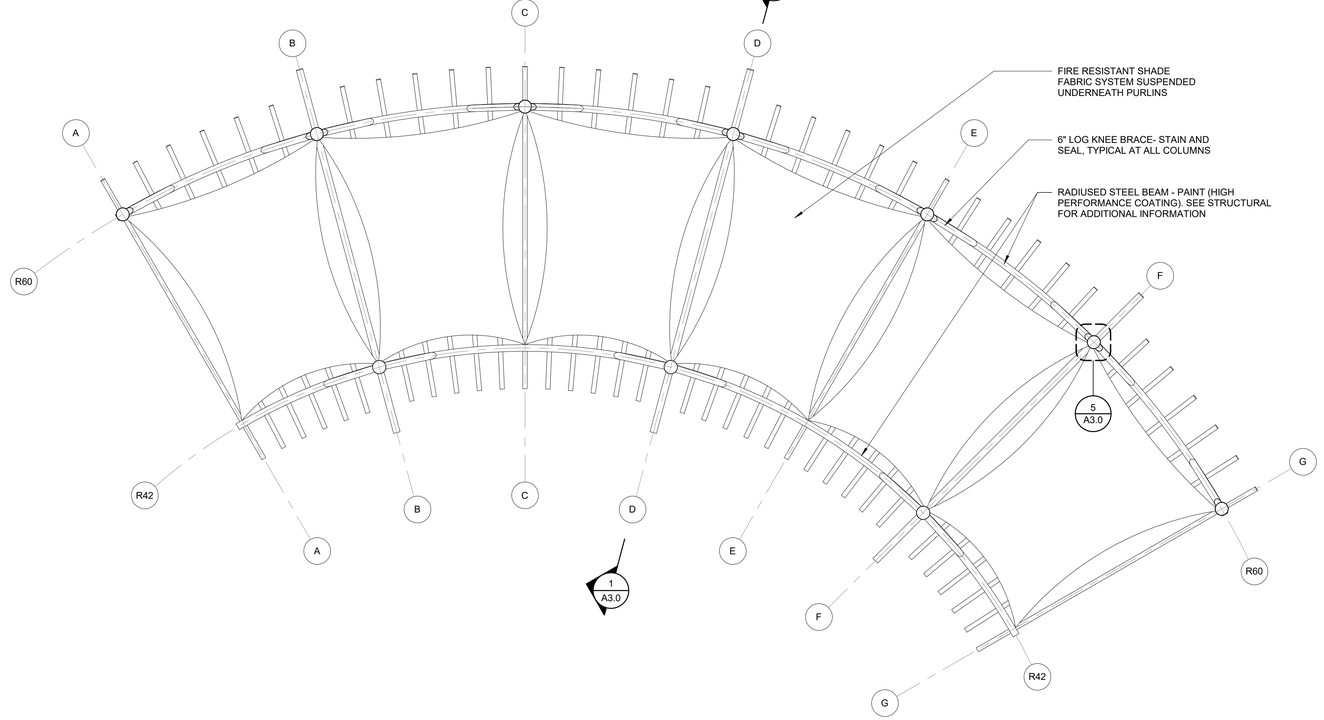
SHEET
A1.0

DATE
5/29/24



ROOF PLAN

2 / A1.1 — 3/16" = 1'-0"



REFLECTED CEILING PLAN

1 / A1.1 — 3/16" = 1'-0"

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AMERICAN INDIAN HALL OUTDOOR CLASSROOM

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BOZEMAN, MONTANA
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THINK ONE ARCHITECTS

DRAWN BY: Author		
REVIEWED BY Checker		
REV.	DESCRIPTION	DATE

STATE OF MONTANA — BOZEMAN — WILLIAM A. HANSON — 18976 — REGISTERED ARCHITECT

PPA#22-0644

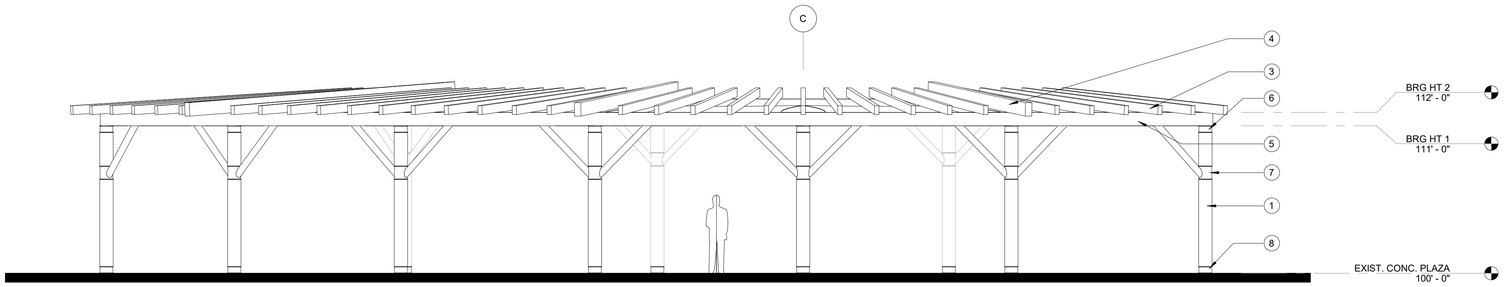
A/E#00-00-00

CONSULTANT #2307

SHEET TITLE
ROOF PLAN & RCP

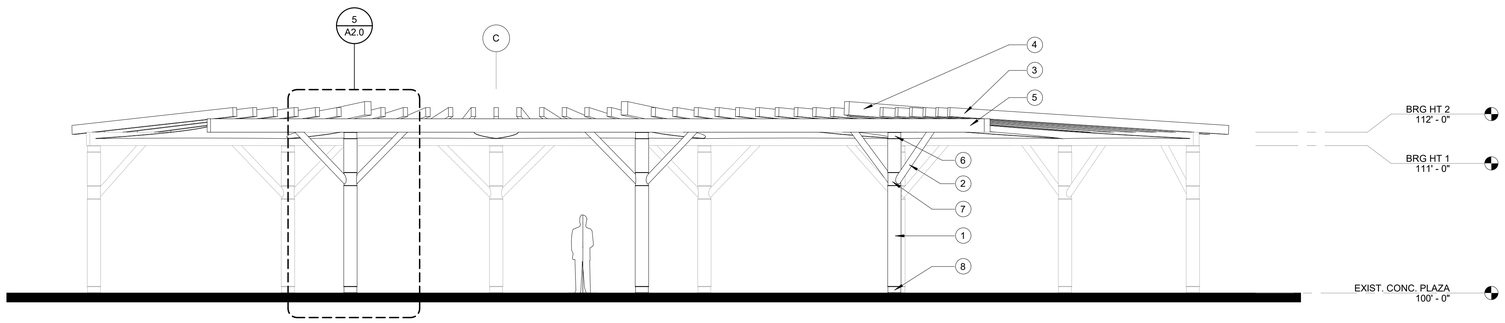
SHEET
A1.1

DATE
5/29/24



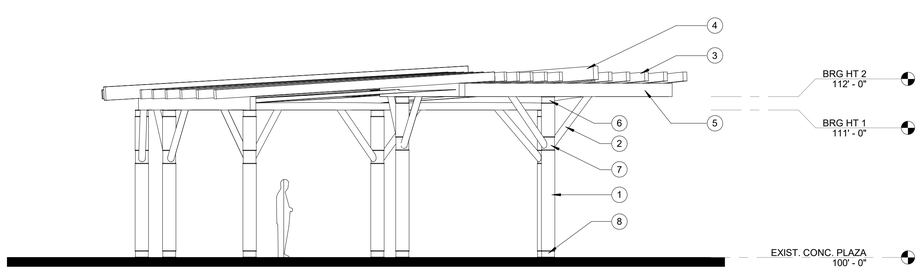
1 A2.0 NORTH ELEVATION

3/16" = 1'-0"



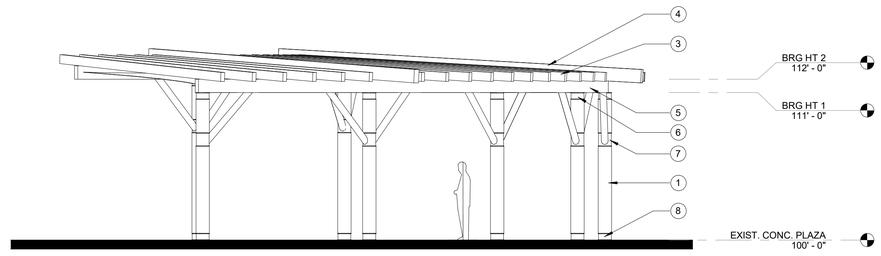
2 A2.0 SOUTH ELEVATION

3/16" = 1'-0"



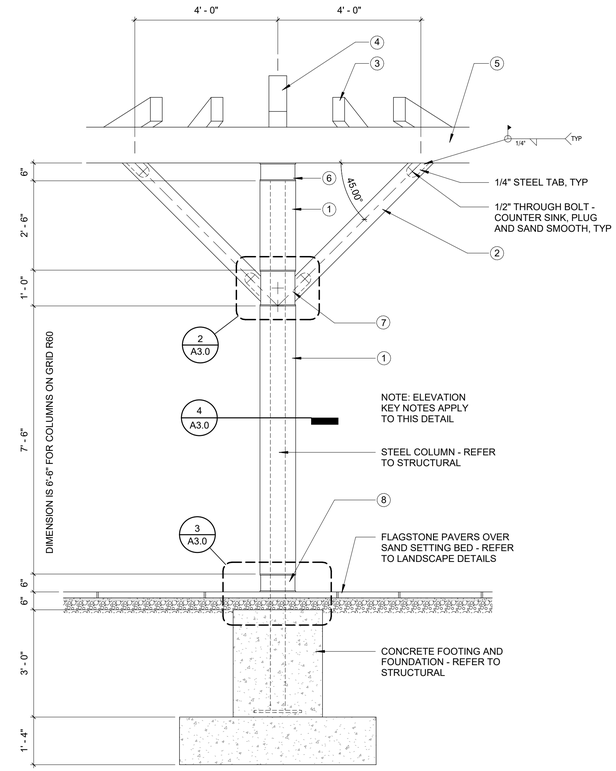
3 A2.0 WEST ELEVATION

3/16" = 1'-0"



4 A2.0 EAST ELEVATION

3/16" = 1'-0"



5 A2.0 ENLARGED COLUMN ELEVATION

1/2" = 1'-0"

KEYED NOTES FOR EXTERIOR ELEVATIONS

1	12" DIA. PEELED LOG COLUMN WRAP - STAIN & SEAL. SEE STRUCTURAL FOR STEEL COLUMN INFORMATION - TYP.
2	6" DIA. PEELED LOG KNEE BRACE - STAIN & SEAL. SEE DETAILS FOR ADDITIONAL INFORMATION
3	SMALL STEEL PURLIN - POWDER COAT. SEE STRUCTURAL FOR ADDITIONAL INFORMATION
4	LARGE STEEL PURLIN - POWDER COAT. LOCATED ON GRIDS B, D & F ONLY.SEE STRUCTURAL FOR ADDITIONAL INFORMATION
5	RADIUSED STEEL BEAM - PAINT (HIGH PERFORMANCE COATING. SEE STRUCTURAL FOR ADDITIONAL INFORMATION
6	12" DIA x 6" STEEL COLUMN CAP, POWDER COAT - REFER TO STRUCTURAL
7	12" DIA x 12" STEEL COLLAR, POWDER COAT - SEE DETAILS FOR ADDITIONAL INFORMATION
8	12" DIA x 6" STEEL BASE, POWDER COAT - SEE DETAILS FOR ADDITIONAL INFORMATION

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AMERICAN INDIAN HALL OUTDOOR CLASSROOM

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THINK ONE ARCHITECTURE

DRAWN BY: Author		
REVIEWED BY Checker		
REV.	DESCRIPTION	DATE

STATE OF MONTANA — BOZEMAN — WILLIAM A. HANSON — 1976 — MONTANA — LICENSED ARCHITECT

PPA#22-0644

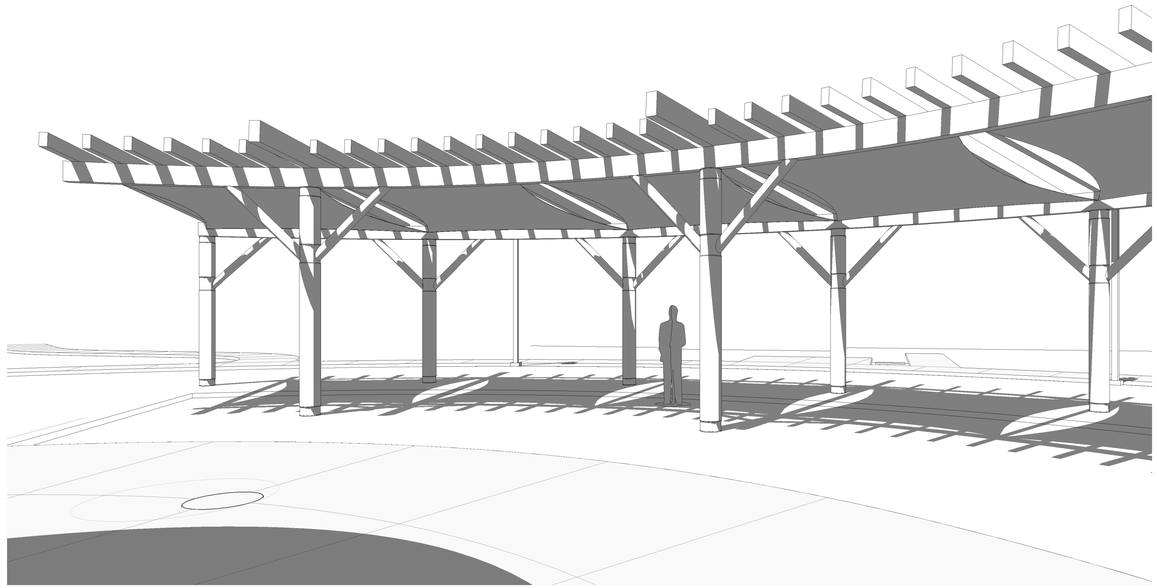
A/E#00-00-00

CONSULTANT #2307

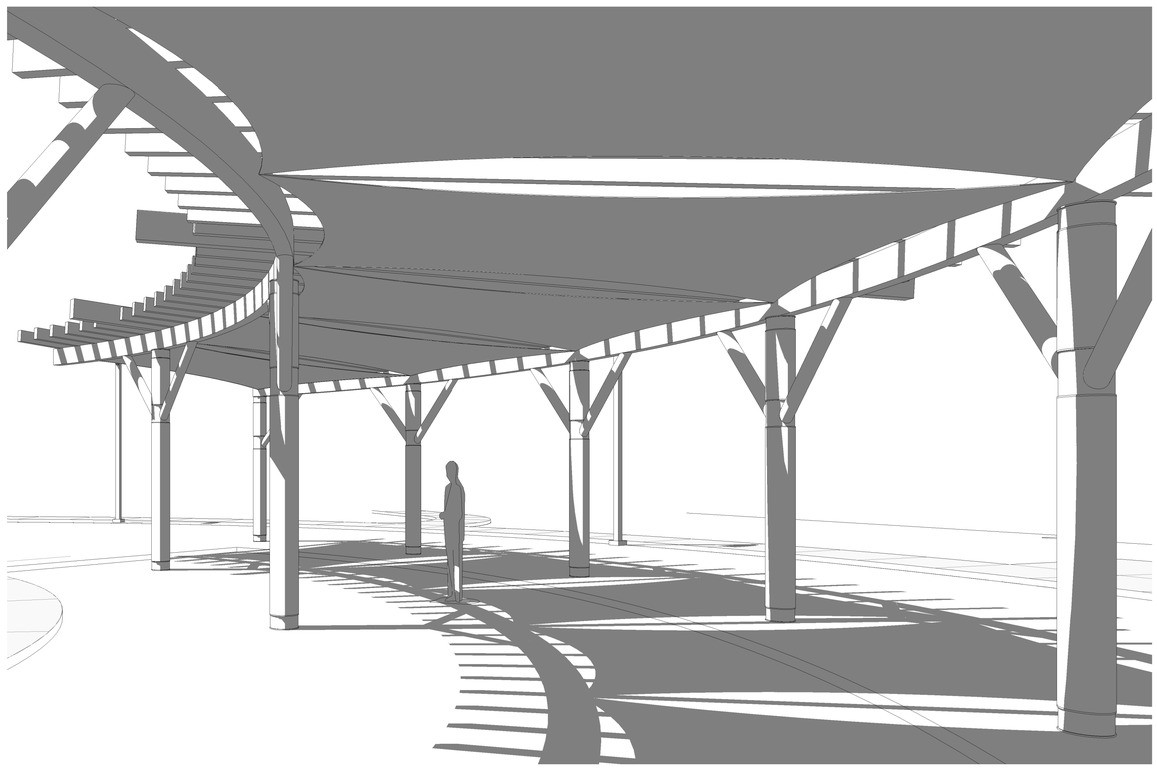
SHEET TITLE
EXTERIOR ELEVATIONS

SHEET
A2.0

DATE
5/29/24



1 A2.1 **3D View 1**



2 A2.1 **3D View 2**

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THINK ONE

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

STATE OF MONTANA
BOZEMAN
WILLIAM A. HANSON
10578
REGISTERED MONTANA ARCHITECT

PPA#22-0644

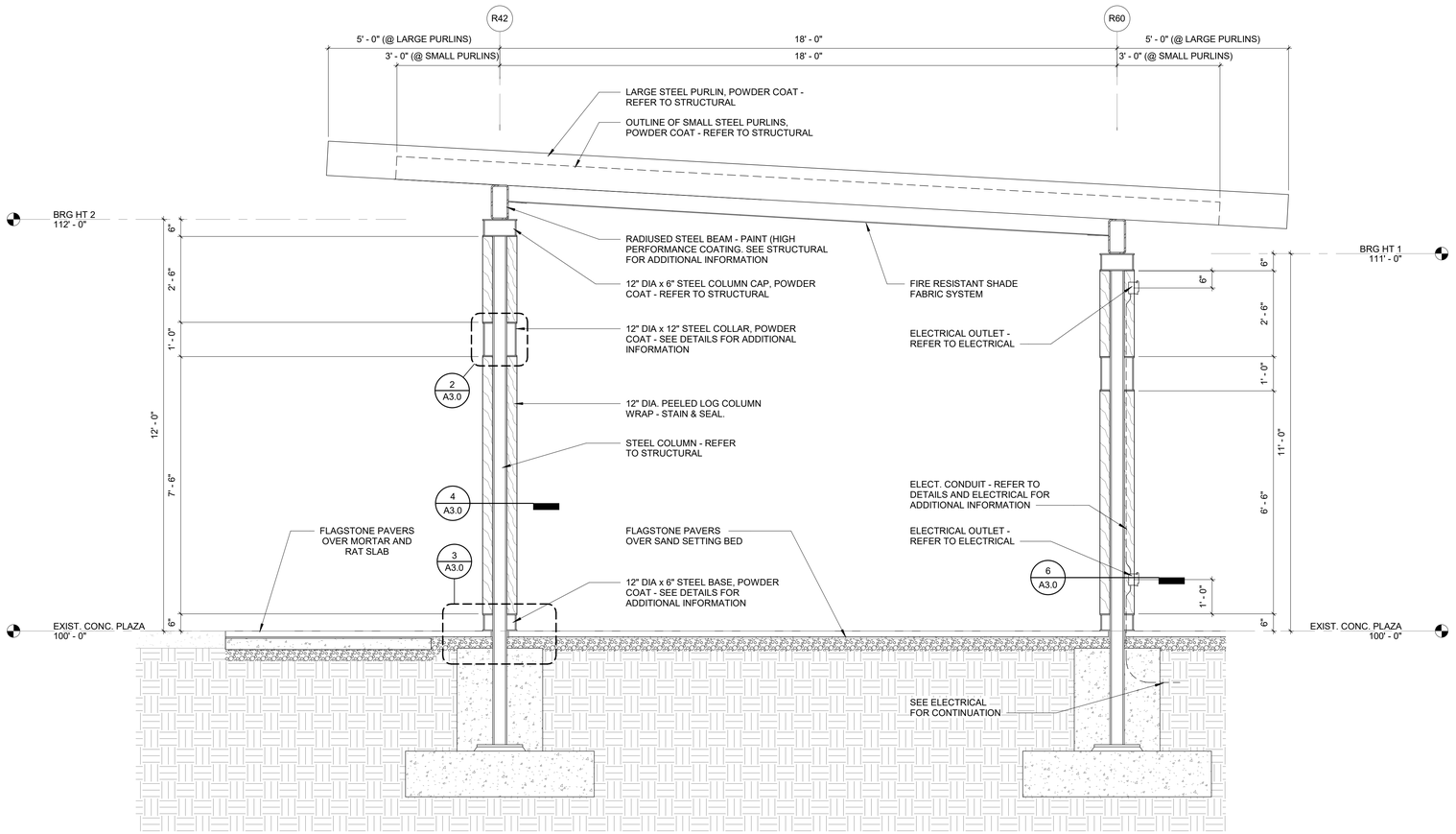
A/E#00-00-00

CONSULTANT #2307

SHEET TITLE
EXTERIOR PERSPECTIVES

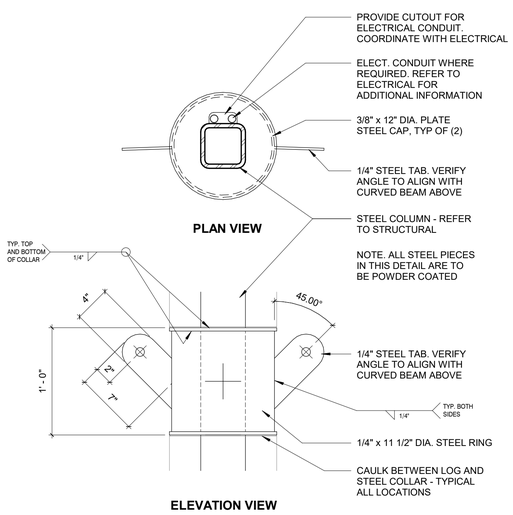
SHEET
A2.1

DATE
5/29/24



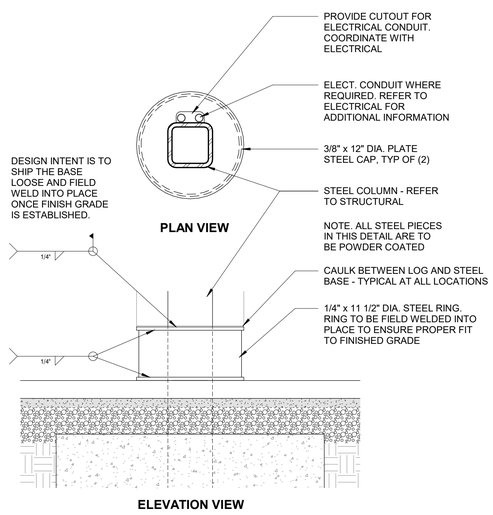
1 A3.0 ARBOR SECTION

1/2" = 1'-0"



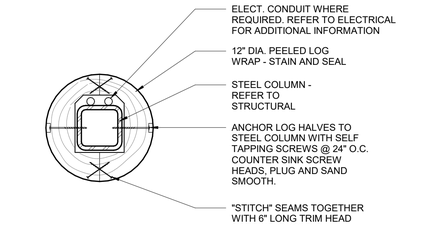
2 A3.0 STEEL COLLAR DETAIL

1 1/2" = 1'-0"



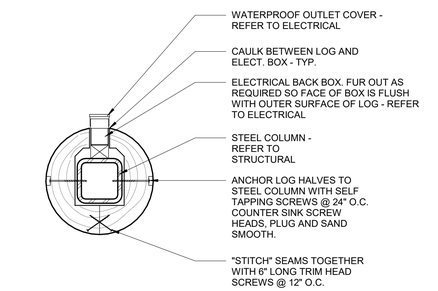
3 A3.0 STEEL BASE DETAIL

1 1/2" = 1'-0"



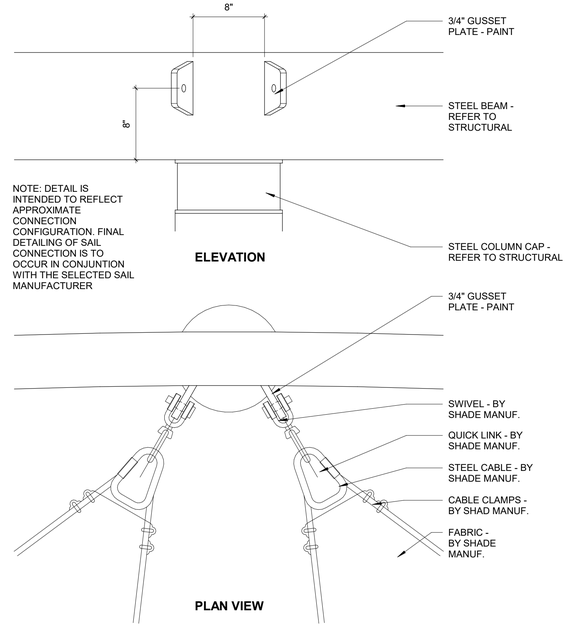
4 A3.0 LOG WRAP DETAIL

1 1/2" = 1'-0"



6 A3.0 LOG WRAP DETAIL @ ELECT. OUTLET

1 1/2" = 1'-0"



5 A3.0 SAIL ATTACHMENT DETAIL

1 1/2" = 1'-0"

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THINK ONE ARCHITECTURE

DRAWN BY: **Author**
REVIEWED BY **Checker**

REV.	DESCRIPTION	DATE

STATE OF MONTANA — BOZEMAN — WILLIAM A. HANSON — 10018 — REGISTERED ARCHITECT

PPA#22-0644

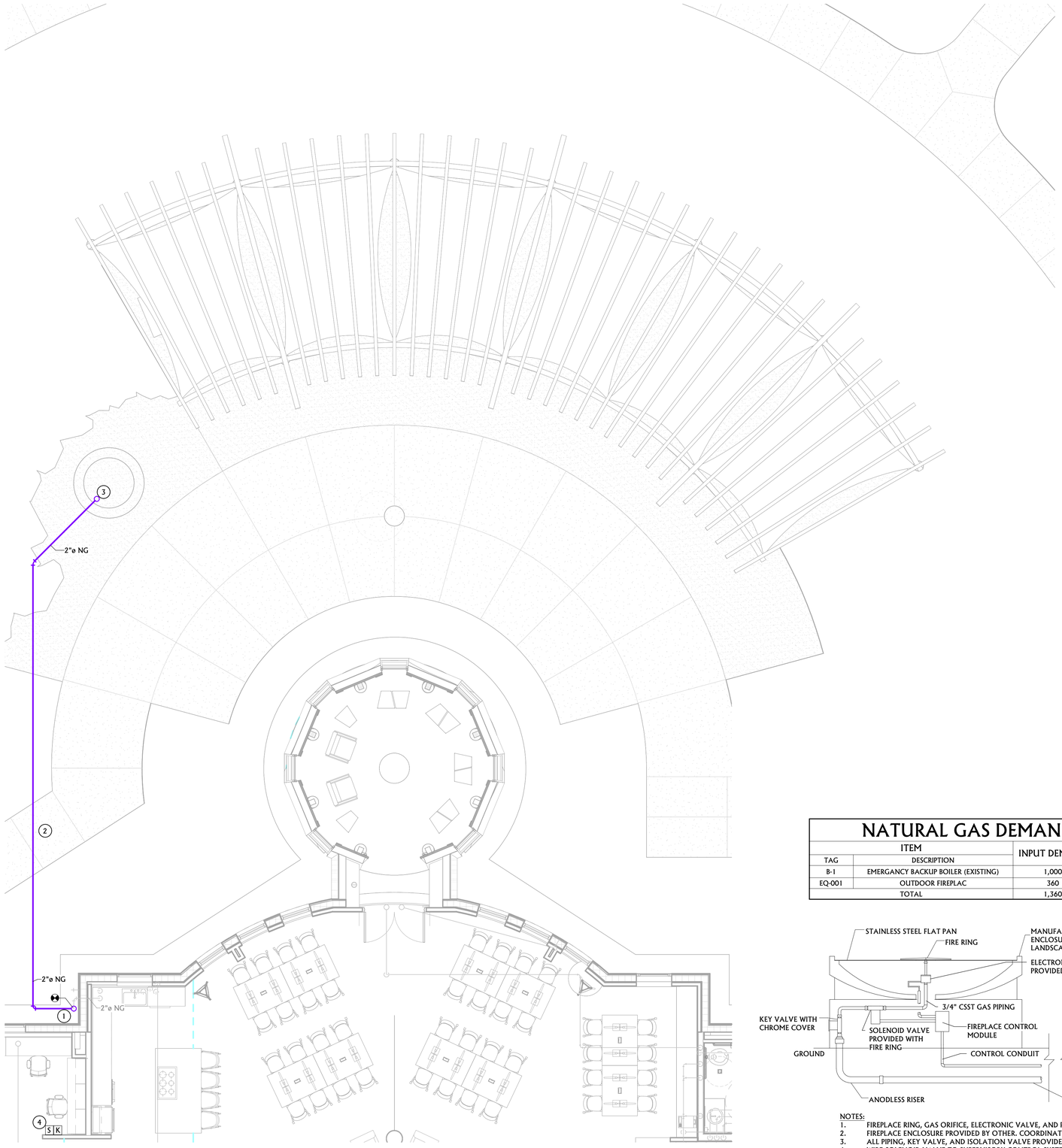
A/E#00-00-00

CONSULTANT #2307

SHEET TITLE
SECTIONS AND DETAILS

SHEET
A3.0

DATE
5/29/24



N

1 P1.0 PLUMBING SITE PLAN
3/16" = 1'-0"

PLUMBING SYMBOLS LEGEND

GENERAL PIPING

or	DIRECTION OF FLOW	or	TEE IN HORIZ. RUN
or	REDUCER FITTING	or	BRANCH TEE W/ OFFSET
	ELBOW TURNED UP	or	BRANCH TEE TURNED UP
	ELBOW TURNED DN.	or	BRANCH TEE TURNED DN.
	DROP IN HORIZ. RUN		CROSS IN HORIZ. RUN
	TEE TURNED UP		90° AND 45° ELBOWS
	TEE TURNED DN.		END CAP CONNECTION
	BELL AND SPIGOT		UNION FITTING

PIPING PHASE

NEW UNDERFLOOR PIPING

NEW ABOVE FLOOR PIPING

MISCELLANEOUS/MECHANICAL PIPING TYPES

G — NATURAL GAS

CD — CONDENSATE DRAIN

PIPING FITTINGS, VALVES & SPECIALTIES

NEW PLUMBING FIXTURE

P-1 or P1	FIXT. NUMBER - SEE SCHED.		ANGLE VALVE
or	BALL VALVE		BUTTERFLY VALVE
or	GATE VALVE		PRESS. REDUCING
or	GLOBE VALVE		2-WAY (ELECTRIC)
	PLUG VALVE		2-WAY (SOLENOID)
or	CHECK VALVE		3-WAY (ELECTRIC)
	SOLENOID GATE VALVE		STRAINER
	BALANCING VALVE		STRAINER W/ BLOW-OFF
	FLOAT VALVE	VTR	VENT THRU ROOF
	DRAIN		PUMP
or	WALL HYDRANT OR HOSE BIBB		P.O.C. - POINT OF CONNECTION
or	FLEX. CONNECTION		
(T) (F)	SENSOR (TEMP./FLOW)		
	TEMP. GAUGE		
	PRESSURE GAUGE		

THIS IS A STANDARDIZED SYMBOLS LEGEND, ALL SYMBOLS SHOWN MAY NOT APPEAR ON OR WITHIN THIS SET OF CONTRACT DOCUMENTS.

PLUMBING SHEET LIST - ARBOR

PLUMBING KEYNOTES

1	CONNECT TO EXISTING GAS STUB AND ISOLATION VALVE AT APPROXIMATE LOCATION AND EXTEND BELOW-GRADE TO NEW FIRE PIT.
2	REMOVE CONCRETE AS REQUIRED. COORDINATE ROUTING WITH EXISTING CONDITIONS TO MINIMIZE CONCRETE DEMOLITION AND REPLACEMENT.
3	ROUTE GAS TO FIRE PIT ENCLOSURE AND EQUIPMENT PROVIDED BY LANDSCAPE CONTRACTOR. SEE LANDSCAPE DRAWINGS FOR COORDINATION.
4	REMOVE EXISTING SWITCHES AND 2-GANG BOX AND PROVIDE TWO (2) NEW SINGLE-GANG BOXES. PROVIDE MORTISE CYLINDER KEY SWITCH AND 2-HOUR TIMER SWITCH. KEYSWITCH SHALL BE MAGLOCKS MCK-5 OR EQUAL WITH LED PILOT AND COORDINATE WITH MSU FACILITIES FOR KEY CYLINDER. PROVIDE TIMER SWITCH AS INTERMATIC #FF32H 2-HOUR MAX TIMER WITHOUT HOLD.

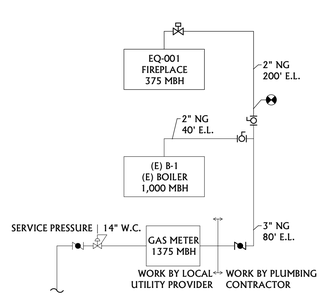
NATURAL GAS DEMAND SCHEDULE

ITEM		INPUT DEMAND	UNITS
TAG	DESCRIPTION		
B-1	EMERGANCY BACKUP BOILER (EXISTING)	1,000	MBH
EQ-001	OUTDOOR FIREPLAC	360	MBH
	TOTAL	1,360	MBH

NATURAL GAS DEMAND SCHEDULE NOTES:
1. EQUIPMENT INPUT DEMAND AT SITE ELEVATION IS BASED ON "ANSI Z21-13/CSA 4.9 INPUT RATING REQUIREMENTS AT SITE ELEVATION" OR THE PUBLISHED INPUT DEMAND RATING AT THE SITE ELEVATION BY THE EQUIPMENT MANUFACTURER.
2. SYSTEM DELIVERY PRESSURE TO BE MINIMUM 14" W.C. COORDINATE WITH THE LOCAL UTILITY PROVIDER.
3. MOST REMOTE FIXTURE – 300' EQUIVALENT PIPE LENGTH (EQ-001). PIPING SIZED IN ACCORDANCE WITH IFGC TABLE 402.4 USING THE BRANCH LENGTH METHOD, SCH. 40 METALIC PIPE, LESS THAN 2 PSI INLET PRESSURE, AND 0.5" PRESSURE DROP.
4. NOT USED.
5. PLUMBING CONTRACTOR SHALL PRIME AND PAINT ALL NATURAL GAS PIPING ON THE BUILDING EXTERIOR TO BATH THE BUILDING COLOR. COORDINATE WITH THE GENERAL CONTRACTOR.

NOTES:
1. FIREPLACE RING, GAS ORIFICE, ELECTRONIC VALVE, AND PILOT PROVIDED BY OTHER AND INSTALLED BY PLUMBING CONTRACTOR.
2. FIREPLACE ENCLOSURE PROVIDED BY OTHER. COORDINATE WITH ENCLOSURE CONSTRUCTION WITH PIPING AND ACCESS REQUIREMENTS.
3. ALL PIPING, KEY VALVE, AND ISOLATION VALVE PROVIDED BY PLUMBING CONTRACTOR.
4. WIRE SOLENOID VALVE TO SUPERVISORY CONTROL SYSTEM OR EMERGENCY SHUTOFF AS INDICATED. SEE PLUMBING DRAWINGS AND ELECTRICAL DRAWINGS FOR COORDINATION
5. INSTALL ALL FIREPLACE COMPONENTS PER MANUFACTURER RECOMMENDATION.

2 P1.0 OUTDOOR FIRE PIT CONNECTION DETAIL
NOT TO SCALE



3 P1.0 NATRUAL GAS SYSTEM SCHEMATIC
1/8" = 1'-0"

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AMERICAN INDIAN HALL OUTDOOR CLASSROOM

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

THINK ONE ARCHITECTURE

ACE INC
ASSOCIATES • CONSTRUCTION • ENGINEERING
ACE JOB 24BZ5922

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

MONTANA
JOHN A. WEEDA
12615 PE
5/29/24
LICENSED PROFESSIONAL ENGINEER

PPA#22-0644

A/E#00-00-00

CONSULTANT #2307

SHEET TITLE
PLUMBING PLANS

SHEET
P1.0

DATE
5/29/24

Panel: 1L3

Location: MECHANICAL 119ME
Supply From: LDP
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 16,000
Mains Type: MCB
Buss Rating: 225 A

Notes:
USE EXISTING SPARE 20A 1-POLE CIRCUIT BREAKER IN CIRCUIT 38 FOR NEW ARBOR RECEPTACLES.

CKT	Load Name	Trip	Poles	A	B	C	Poles	Trip	Load Name	CKT
1	Receptacle, WORK AREA 135B	20 A	1	1220			1	20 A	Receptacle, WORK AREA 135B	2
3	Receptacle, WORK AREA 135B	20 A	1		1040	1080	1	20 A	Receptacle, Room 159, 197VE	4
5	Receptacle, LARGE COLLABORATION 159	20 A	1			900 360	1	20 A	Receptacle, LARGE COLLABORATION 159	6
7	Receptacle, CORR-3 199CO-3	20 A	1	360	360		1	20 A	Receptacle, CORR-3 199CO-3	8
9	Receptacle, CORR-3 199CO-3	20 A	1		360	360	1	20 A	Receptacle, CORR-3 199CO-3	10
11	Receptacle, GUEST HOTEL OFFICE 163B	20 A	1			1220 1040	1	20 A	Receptacle, DIVERSITY & INCLUSION SUITE 163	12
13	Receptacle, DIVERSITY & INCLUSION SUITE 163	20 A	1	1040	1400		1	20 A	Receptacle, OFFICE 163A	14
15	Receptacle Room 199CO-4, 199CM, 198VE	20 A	1		720	360	1	20 A	Receptacle GALLERY 199CO	16
17	Receptacle GALLERY 199CO	20 A	1			360 360	1	20 A	Receptacle GALLERY 199CO	18
19	Receptacle GALLERY 199CO	20 A	1	360	900		1	20 A	Receptacle, LARGE CLASSROOM 166	20
21	Receptacle, LARGE CLASSROOM 166	20 A	1		900	1080	1	20 A	Receptacle, LARGE CLASSROOM 166	22
23	Receptacle, LARGE CLASSROOM 166	20 A	1			540 540	1	20 A	Receptacle, LARGE CLASSROOM 166	24
25	Receptacle, LARGE CLASSROOM 166	20 A	1	540	360		1	20 A	Receptacle, KITCHEN 135A	26
27	Receptacle, KITCHEN 135A	20 A	1		180	1220	1	20 A	Receptacle, OFFICE 135C	28
29	Receptacle, OFFICE 135D	20 A	1			1220 1220	1	20 A	Receptacle Room 135E	30
31	Receptacle, OFFICE 135F	20 A	1	1220	1220		1	20 A	Receptacle, STUDY 135G	32
33	Receptacle, PLAY 135H	20 A	1		900	900	1	20 A	Receptacle, Room 136, 199CO, 199CO-3	34
35	WORK AREA 135B	20 A	1			180 360	1	20 A	Receptacle	36
37	Receptacle GALLERY 199CO	20 A	1	360	1080		1	20 A	(N) EXTERIOR ARBOR RCPTS	38
39	Spare	20 A	1		0	0	1	20 A	Spare	40
41	Spare	20 A	1			0 0	1	20 A	Spare	42
			Total Load:	11100 VA	9100 VA	8300 VA				
			Total Amps:	94 A	77 A	69 A				

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Receptacle	28500 VA	67.54%	19250 VA	
Lighting	0 VA	0.00%	0 VA	**Total Conn. Load:** 28500 VA
				Total Est. Demand: 19250 VA
				Total Conn.: 79 A
				Total Est. Demand: 53 A

Notes:

ELECTRICAL LEGEND

MISCELLANEOUS LEGEND

W/	WITH	AFF	ABOVE FINISHED FLOOR
AC	ABOVE COUNTER	AFG	ABOVE FINISHED GRADE
EC	ELECTRICAL CONTRACTOR	WM	WIRE MOLD
(E)	EXISTING	GC	GENERAL CONTRACTOR
(R)	RELOCATED	GND	GROUND
(N)	NEW DEVICE	UG	UNDER GROUND
C	CONDUIT	BOD	BOTTOM OF DEVICE
BFG	BELOW FINISHED GRADE	TOD	TOP OF DEVICE
UC	UNDER COUNTER	COD	CENTER OF DEVICE
WP	WEATHER PROOF	BOF	BOTTOM OF FIXTURE
MC	MECHANICAL CONTRACTOR	PC	PLUMBING CONTRACTOR

- (1) REFER TO ELECTRICAL NOTES
- HOMERUN TO ELECTRICAL PANEL
- NUMBER OF HASH MARKS INDICATES NUMBER OF CURRENT CARRYING CONDUCTORS. NO MARKS INDICATES TWO. GROUNDING CONDUCTOR NOT SHOWN BUT SHALL BE INCLUDED IN ALL CONDUITS.
- NORMAL CIRCUIT CONCEALED IN WALL OR EXPOSED
- UNDERGROUND OR BURIED CIRCUIT

COMMUNICATION DEVICES

- TV TP COMBINATION VOICE/ DATA DEVICE JACKS, BOX INDICATES FLOOR MOUNTING

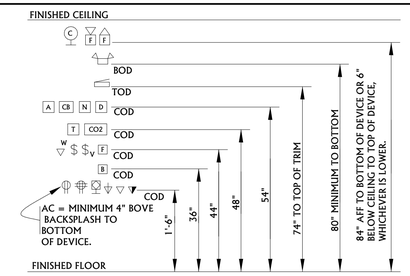
POWER DEVICES

- $ SINGLE POLE SWITCH, SUBSCRIPT INDICATES TYPE:
  P PILOT LIGHT
  2 2 POLE
  MC MOMENTARY CONTACT
  3 3-WAY
  4 4-WAY
  K KEYED
  D DIMMER
  LV LOW VOLTAGE
  T TIMER, 1 HOUR TIMER, MOTOR RATED FOR EXHAUST FANS
  OS OCCUPANCY SENSOR
- DUPLEX RECEPTACLE SUBSCRIPT INDICATES TYPE:
  WP WEATHERPROOF
  GFCI GROUND FAULT CIRCUIT INTERRUPTER
  AC ABOVE COUNTER
  IG ISOLATED GROUND
  TR TAMPER RESISTANT
  WR WEATHER RESISTANT
  FILLED CENTER INDICATES GFCI DEVICE
- DOUBLE DUPLEX RECEPTACLE, SUBSCRIPT ABOVE INDICATE TYPE
- DUPLEX RECEPTACLE IN FLOOR BOX
- DOUBLE DUPLEX RECEPTACLE IN FLOOR BOX
- SIMPLEX RECEPTACLE
- DUPLEX RECEPTACLE, CEILING MOUNTED. DEVICE AND COVER SHALL MATCH CEILING FINISH
- SWITCHED DUPLEX RECEPTACLE, BOX INDICATES DEVICE LOCATED IN FLOOR BOX
- 208V SINGLE PHASE RECEPTACLE, CONFIGURATION NOTED ON PLANS
- 208V THREE PHASE RECEPTACLE, CONFIGURATION NOTED ON PLANS
- SIMPLEX RECEPTACLE IN FLOOR BOX
- MUSHROOM HEAD PUSH BUTTON
- (P) PHOTO CELL
- (C) WALL MOUNTED CLOCK HANGER/ POWER RECEPTACLE
- OS CORNER WALL MOUNTED OCCUPANCY SENSOR
- OS_1 CEILING MOUNTED OCCUPANCY SENSOR, STYLE 1
- OS_2 CEILING MOUNTED OCCUPANCY SENSOR, STYLE 2
- OS_3 CEILING MOUNTED OCCUPANCY SENSOR, STYLE 3
- PP PP OCCUPANCY SENSOR POWER PACK, BOX INDICATES WALL MOUNTING
- SPECIAL PURPOSE CONNECTION, BRACKET INDICATES WALL MOUNTING, BOX INDICATES FLOOR MOUNTING
- JUNCTION BOX, BRACKET INDICATES WALL MOUNTING, BOX INDICATES FLOOR MOUNTING
- (M) MOTOR CONNECTION
- (R) RELAY
- NON-FUSED DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- COMBINATION STARTER/DISCONNECT SWITCH
- CONTACTOR
- $\$_M$ MANUAL MOTOR STARTER
- (AS) AQUASTAT BY PLUMBING CONTRACTOR, WIRED BY EC.
- VFD VARIABLE FREQUENCY DRIVE
- CO2 CO2 DETECTOR BY MC, ROUGH-IN BY EC
- T THERMOSTAT BY MC, ROUGH-IN BY EC
- PAD MOUNTED UTILITY TRANSFORMER
- ELECTRICAL PANEL - SEE PANEL SCHEDULES FOR MOUNTING CONFIGURATION

ELECTRICAL ABBREVIATIONS

A	AMP(S)	LTS	LIGHTS
ACCU	AIR CONDITIONING CONDENSING UNIT	LW	LIGHT WHITE
ACU	AIR CONDITIONING UNIT		
ADJ	ADJUSTABLE	MC	MECHANICAL CONTRACTOR
ADMIN	ADMINISTRATION	MOC	MOMENTARY CONTACT
AFF	ABOVE FINISH FLOOR	MCB	MAIN CIRCUIT BREAKER
AHU	AIR HANDLING UNIT	MDP	MAIN DISTRIBUTION PANEL
AL	ALUMINUM	MECH	MECHANICAL
AMP	AMPERE(S)	MIN	MINIMUM
APPL	APPLIANCE	MLO	MAIN LUGS ONLY
APPROX	APPROXIMATE	MP	MAIN PANEL
ATS	AUTOMATIC TRANSFER SWITCH	MTD	MOUNTED
		MFA	MINIMUM FEEDER AMPACITY
BLDG	BUILDING	MFG	MANUFACTURER
BRK	BREAKER		
BTU/HR	BRITISH THERMAL UNIT/HOUR	NIC	NOT IN CONTRACT
		NO	NUMBER
C	CONDUIT		OVER CURRENT PROTECTION
CB	CIRCUIT BREAKER	OCP	
CCT	CIRCUIT	OFF	OFFICE
CCTV	CLOSED CIRCUIT TELEVISION	OH	OVERHEAD
CUH	CABINET UNIT HEATER		
CFM	CUBIC FEET PER MINUTE	P	PHASE
COM	COMMUNICATION	PNL	PANEL
COMM	COMMISSARY	PREP	PREPARATION
COMP	COMPRESSOR	PROD	PRODUCE
COND	CONDENSER	P/I	PROVIDE & INSTALL
CONTR	CONTRACTOR		
CU	COPPER	RA	REMOTE ANNUNCIATOR
CTV	CABLE TELEVISION	RAF	RETURN AIR FAN
CW	COOL WHITE	RECP	RECEPTACLE
CWP	COLD WATER PUMP	RECPTS	RECEPTACLES
		REF	REFRIGERATOR
DIA	DIAMETER	REFR	REFRIGERANT
DISC	DISCONNECT	REQD	REQUIRED
DWG	DRAWING	RM	ROOM
		RMS	ROOM(S)
EC	ELECTRICAL CONTRACTOR	RR	RESTROOMS
EF	EXHAUST FAN	RS	RAPID START
ELEC	ELECTRIC		
EMD	ESTIMATED MAXIMUM DEMAND	SDP	SUB DISTRIBUTION PANEL
EMER	EMERGENCY	SER	SERVICE
ENGR	ENGINEER	SF	SUPPLY FAN
ETC	ETCETERA	SHT	SHEET
EWC	ELECTRIC WATER COOLER	SN	SOLID NEUTRAL
EXT	EXTERIOR	SP	SWITCH, PILOT
		SPECS	SPECIFICATIONS
FA	FIRE ALARM	SPST	SWITCH, SINGLE POLE-SINGLE THROW
FAC	FACILITY	STD	STANDARD
FACP	FIRE ALARM CONTROL PANEL	STL	STEEL
FIX	FIXTURE	STOR	STORAGE
FLA	FULL LOAD AMPS	SW	SWITCH
FT	FOOT		
		TBD	TELEPHONE BACK BOARD
GC	GENERAL CONTRACTOR	TV	TELEVISION
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TYP	TYPICAL
GFI	GROUND FAULT INTERRUPTER		
		UG	UNDERGROUND
HP	HORSEPOWER	UGE	UNDERGROUND ELECTRICAL
HPS	HIGH PRESSURE SODIUM	UGT	UNDERGROUND TELEPHONE
HID	HIGH INTENSITY DISCHARGE	UH	UNIT HEATER
HT	HEIGHT		
HTRS	HEATERS	V	VOLT(S)
HW	HOT WATER	VA	VOLT AMPERES
HWH	HOT WATER HEATER	VEST	VESTIBULE
HWP	HOT WATER PUMP		
HZ	HERTZ	W	WIRE
		W	WATT(S)
INC	INCORPORATED	W/	WITH
		WM	WATT MISER
J-BOX	JUNCTION BOX		
		XFMR	TRANSFORMER
KHZ	KILOHERTZ		
KIT	KITCHEN		
KVA	KILIVOLT AMPERE(S)		
KW	KILOWATT(S)		

INTERIOR MOUNTING HEIGHTS



ELECTRICAL SHEET LIST - ARBOR

ISSUE FOR BID

AMERICAN INDIAN HALL OUTDOOR CLASSROOM

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THINK ONE ARCHITECTURE

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

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5/29/2024
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PPA#22-0644

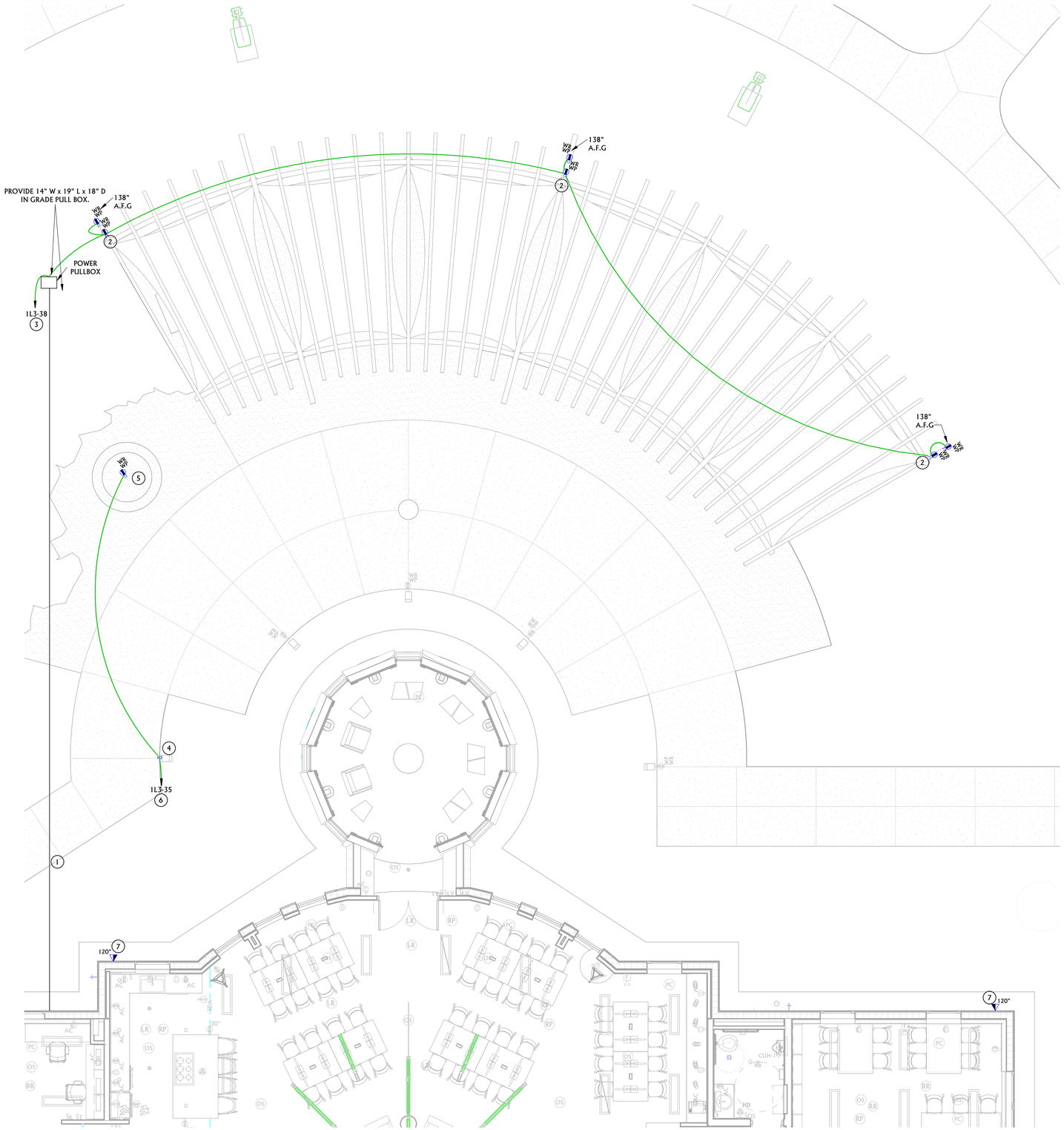
A/E#00-00-00

CONSULTANT #2307

SHEET TITLE
ELECTRICAL COVER SHEET

SHEET
E1.0

DATE
5/29/24



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1 E1.1 ELECTRICAL SITE PLAN

3/16" = 1'-0"

ELECTRICAL GENERAL NOTES

A	ELECTRICAL CONTRACTOR SHALL PROVIDE TAMPER RESISTIVE RECEPTACLES FOR ALL 120V WIRING DEVICES INSTALLED IN THE PROJECT INTERIOR REGARDLESS OF LOCATION.
B	EC SHALL HAVE ALL EXPOSED RACEWAY AND CONDUIT SUPPORT SYSTEMS INSTALLED PRIOR TO GC PAINTING OF AREA SUCH THAT ITEMS ARE PROPERLY PAINTED TO MATCH EXPOSED AREAS OF BUILDING. EC SHALL REMOVE ALL LABELS AND OTHER ITMES THAT WOULD IMPEDE PAINT ADHESION TO ELECTRICAL RACEWAY SYSTEMS. IF RACEWAY IS NOT IN PLACE PRIOR TO GC PAINTING THEN IT WILL BE THE EC'S RESPONSIBILTY TO PAINT SYSTEMS TO MATCH SURROUNDING FINISH COLOR.

ELECTRICAL KEYNOTES

1	ROUTE POWER CONDUIT IN SAME TRENCH AS NATURAL GAS MAINTAINING 12" HORIZONTAL CLEARANCE.
2	PROVIDE (1) 3/4" C UNDERGROUND FROM POWER PULLBOX TO COLUMN IN APPROXIMATE LOCATION. ROUTE CONDUIT THROUGH COLUMN SONOTUBE AND STUB UP AND SURFACE MOUNT TO STEEL COLUMN AND ROUTE TO LOWER RECEPTACLE. PROVIDE (1) 3/4"C FROM LOWER RECEPTACLE TO UPPER RECEPTACLE AND SURFACE MOUNT TO COLUMN. COORDINATE ROUTING OF CONDUIT WITH ARCHITECT AND ARCHITECTURAL PLANS. SEE ARCHITECTURAL PLANS FOR CONDUIT ROUTING DETAILS.
3	PROVIDE (1) 1"C FROM BUILDING INTERIOR TO POWER PULLBOX FOR RECEPTACLE WIRING. PROVIDE AWG #8 CU. CONDUCTORS FROM PANEL 1L3 TO POWER PULLBOX TO ACCOUNT FOR VOLTAGE DROP.
4	PROVIDE CONDUIT AND WRING FROM TIMER SWITCH TO BOLLARD. PROVIDE 120V EMERGENCY POWER OFF (EPO) SWITCH IN OUTDOOR WEATHER RATED ENCLOSURE AND MOUNT TO BOLLARD. SEE PLUMBING PLANS FOR TIMER SWITCH LOCATION.
5	PROVIDE POWER CONNECTION FOR GAS FIREPIT. PROVIDE CONDUIT AND WIRING FOR ELECTRIC IGNITER AND ELECTRIC GAS SOLENOID FROM NEW GAS FIREPLACE TO BOLLARD WITH EPO. ROUTE CONDUIT IN SAME TRENCH AS NATURAL GAS MAINTAINING 12" HORIZONTAL CLEARANCE. ROUTE WIRING THROUGH EPO SWITCH SUCH THAT ACTIVATION OF SWITCH KILLS POWER TO FIRE PIT. SIZE ALL CONDUIT AND WIRING PER MANUFACTURER'S RECOMMENDATIONS.
6	USE EXISTING 20A 1-POLE CIRCUIT BREAKER IN PANEL 1L3 FOR WIRING.
7	PROVIDE ROUGH IN FOR OUTDOOR WALL MOUNTED WIRELESS ACCESS POINT INCLUDING BACKBOX AND (1) 1 1/4" CONDUIT. ROUTE CONDUIT INTO ACCESSIBLE CEILING SPACE ABOVE ADJACENT INTERIOR ROOM. PROVIDE J-HOOKS EVERY 4 FEET FROM BUILDING POINT OF ENTRY TO NEAREST EXISTING CABLE TRAY OR J HOOKS. IF NECESSARY, PROVIDE 1 1/4" CONDUIT FROM INTERIOR ROOM THROUGH WALL IN ORDER TO REACH NEARAEST EXISTING CABLE TRAY OR J-HOOK. WIRING AND DEVICE TO BE BY MSU UIT. COORDINATE REQUIREMENTS AND MOUNTING HEIGHT WITH MSU UIT PRIOR TO ROUGH IN.

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