

GRANT STREET PEDESTRIAN MALL

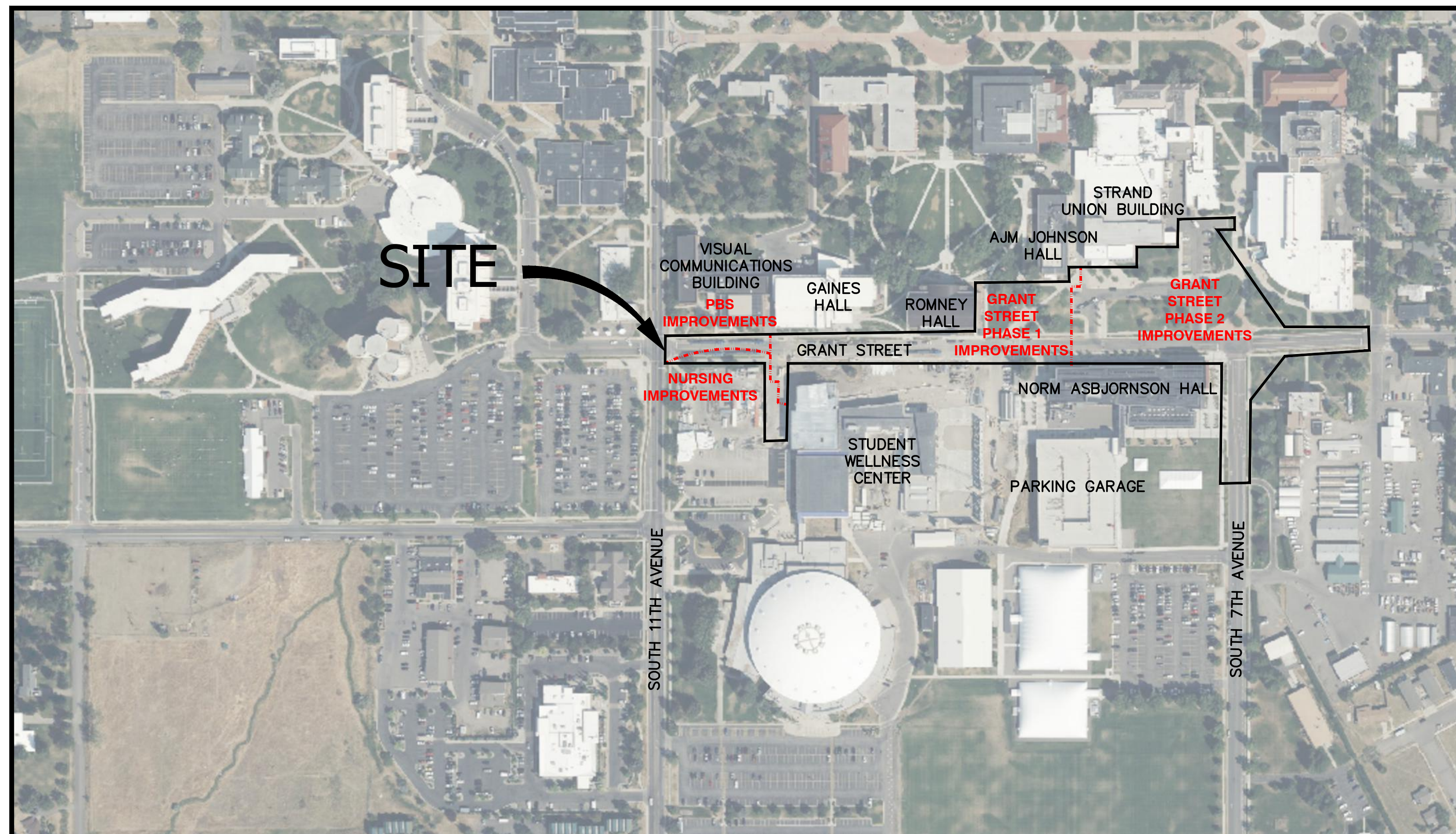
PPA#22-0001

A/E#2022-0202-3D

IMPROVEMENTS TO GRANT STREET FROM SOUTH 7TH AVENUE TO SOUTH 11TH AVENUE

PHASE 1: BOBCAT CIRCLE TO STRAND UNION BUILDING

PHASE 2: STRAND UNION BUILDING TO SOUTH 7TH AVENUE



SHEET	TITLE	
C1.1	COVER SHEET	1
C1.2	LEGEND, NOTES & ABBREVIATIONS	2
C1.3	SURVEY CONTROL	3
C2.1	EXISTING CONDITIONS & DEMOLITION PLAN	4
C2.2	EXISTING CONDITIONS & DEMOLITION PLAN	5
C2.3	EXISTING CONDITIONS & DEMOLITION PLAN	6
C2.4	EXISTING CONDITIONS & DEMOLITION PLAN	7
C3.1	OVERALL SITE LAYOUT	8
C3.2	SITE PLAN	9
C3.3	SITE PLAN	10
C3.4	SITE PLAN	11
C3.5	SITE PLAN	12
C4.1	PLAN & PROFILE MULTI-USE PATH STA 0+00 TO 4+20	13
C4.2	PLAN & PROFILE MULTI-USE PATH STA 4+20 TO 9+50	14
C4.3	PLAN & PROFILE MULTI-USE PATH STA 9+50 TO 13+50	15
C4.4	PLAN & PROFILE ROUNDABOUT STA 0+00 TO 4+50	16
C4.5	PLAN & PROFILE ROUNDABOUT STA 4+50 TO 6+25	17
C5.1	PLAN & PROFILE WEST STORM DRAIN	18
C5.2	PLAN & PROFILE EAST STORM DRAIN	19
C6.1	DETAILED GRADING	20
C6.2	DETAILED GRADING	21
C6.3	DETAILED GRADING	22
C6.4	DETAILED GRADING	23
C6.5	DETAILED GRADING	24
C6.6	DETAILED GRADING	25
C6.7	DETAILED GRADING	26
C6.8	DETAILED GRADING	27
C6.9	DETAILED GRADING	28
C6.10	DETAILED GRADING	29
C6.11	DETAILED GRADING	30
C7.1	DETAILS	31
C7.2	DETAILS	32
C8.1	SIGNAGE & STRIPING PLAN ROUNDABOUT	33
E1.1	ELECTRICAL SITE PLAN	34
E1.2	ELECTRICAL SITE PLAN	35
E1.3	ELECTRICAL SITE PLAN	36
E1.4	ELECTRICAL SITE PLAN	37
E1.5	ELECTRICAL DETAILS	38
L1.1	SCHEDULES AND NOTES	39
L1.2	OVERALL LANDSCAPE SITE PLAN	40
L1.3	LANDSCAPE SITE PLAN	41
L1.4	LANDSCAPE SITE PLAN	42
L1.5	LANDSCAPE SITE PLAN	43
L1.6	LANDSCAPE SITE PLAN	44
L2.1	PLANTING PLAN	45
L2.2	PLANTING PLAN	46
L2.3	PLANTING PLAN	47
L2.4	PLANTING PLAN	48
L3.1	LANDSCAPE DETAILS	49
L3.2	LANDSCAPE DETAILS	50
L3.3	LANDSCAPE DETAILS	51
L3.4	LANDSCAPE DETAILS	52
L3.5	LANDSCAPE DETAILS	53
L4.1	IRRIGATION SCHEDULE & NOTES	54
L4.2	OVERALL IRRIGATION PLAN	55
L4.3	IRRIGATION PLAN	56
L4.4	IRRIGATION PLAN	57
L4.5	IRRIGATION PLAN	58
L4.6	IRRIGATION PLAN	59
L5.1	IRRIGATION DETAILS	60

SANDERSON STEWART

Enduring Community Design



MSU-CPDC

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

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

1

FOR BIDDING

04/05/24

1

FOR BIDDING

04/05/24

1

FOR BIDDING

04/05/24

1

FOR BIDDING

04/05/24

1

FOR BIDDING

04/05/24

1

FOR BIDDING

04/05/24

1

FOR BIDDING

04/05/24

1

FOR BIDDING

04/05/24

1

FOR BIDDING

04/05/24

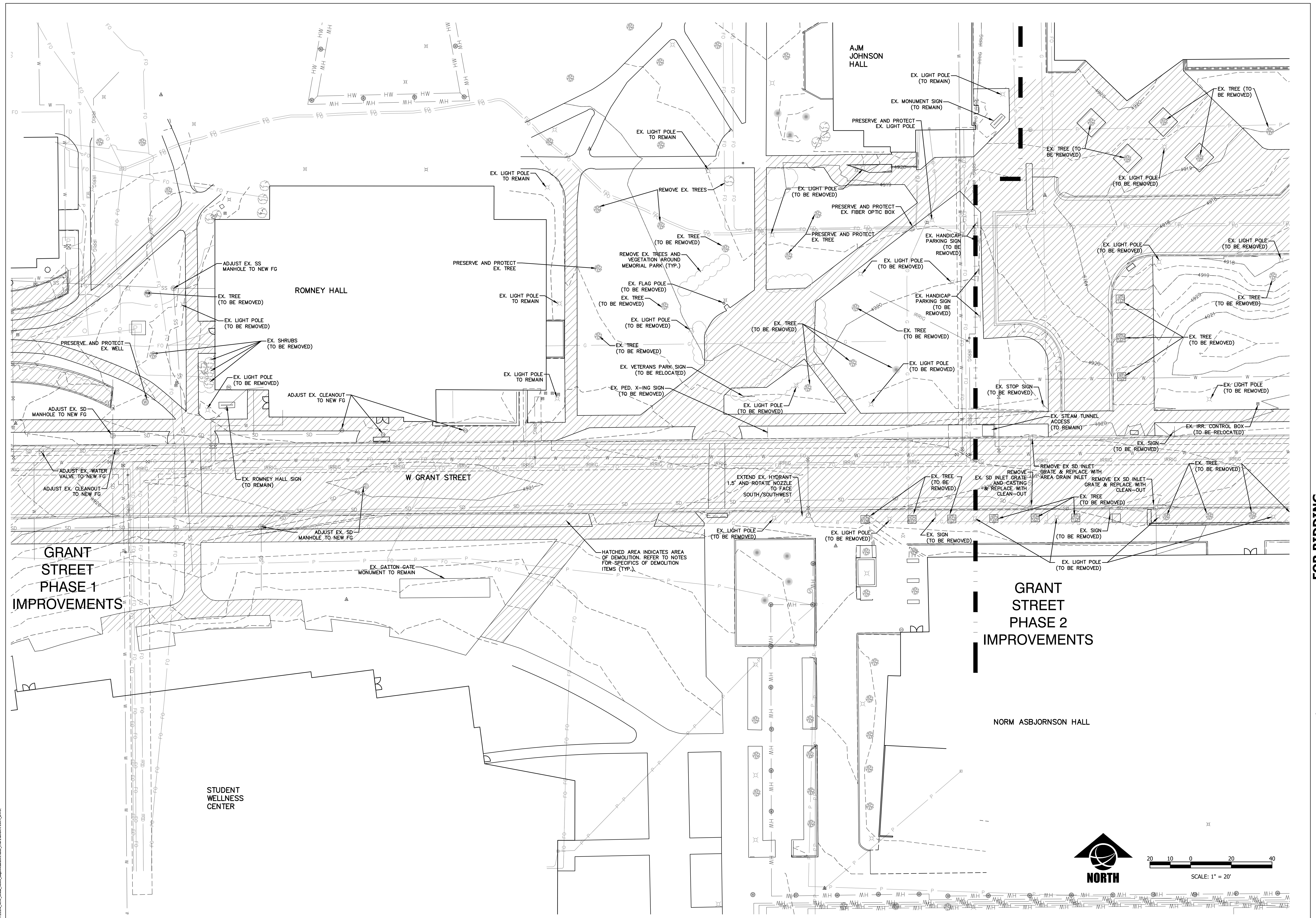
1

FOR BIDDING

04/05/24

1

MONTANA STATE UNIVERSITY, 2024, BOZEMAN, MONTANA, 59717-0001, 406.994.5413, WWW.MONTANASTATE.EDU



GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

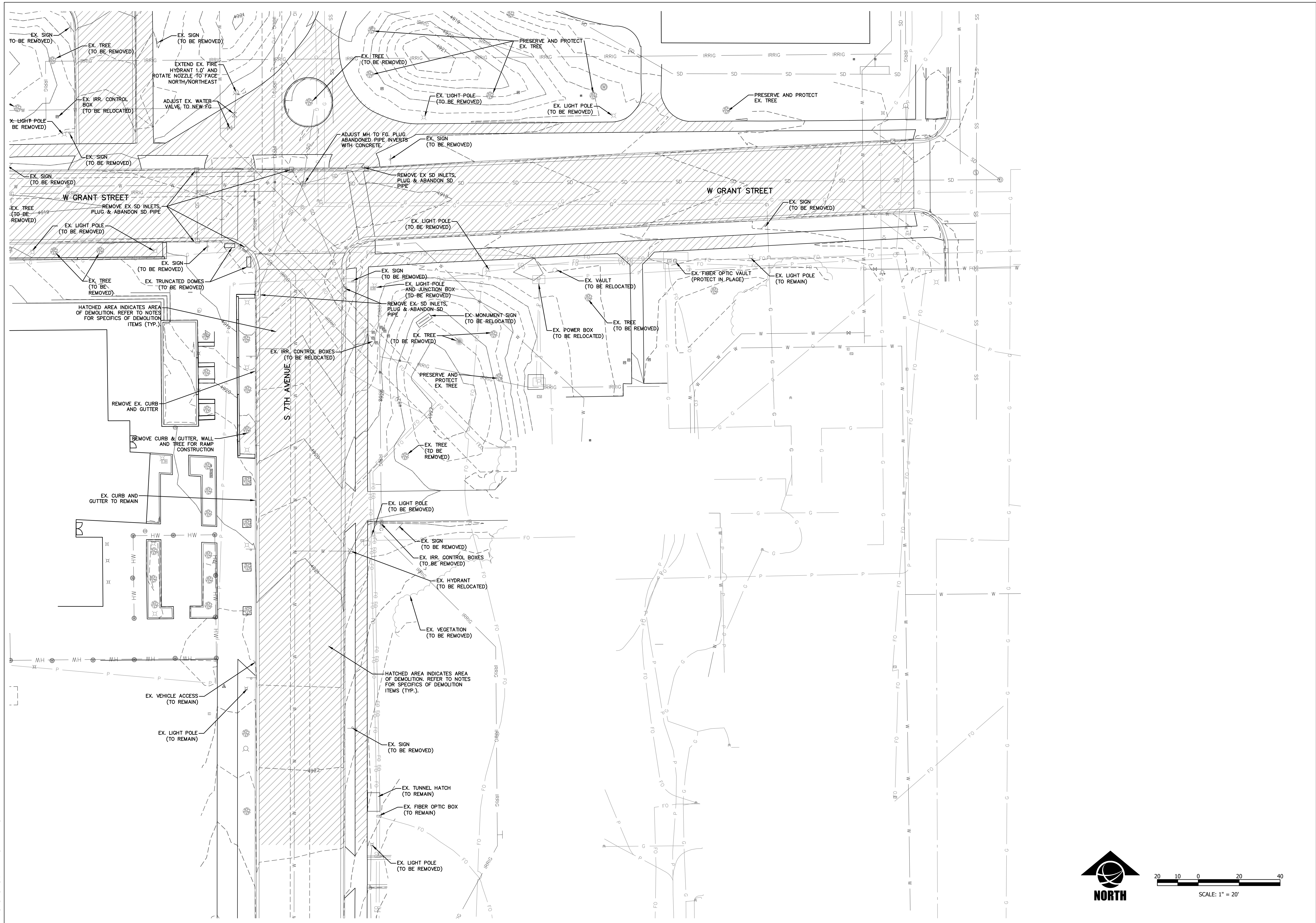


PPA#22-0001
A/E#2022-02-23D

22236
SHEET TITLE
EXISTING
CONDITIONS &
DEMOLITION PLAN

SHEET
C2.2

DATE
4/5/2024



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

GRANT STREET

PEDESTRIAN MALL

FOR BIDDING



DRAWN BY:	CMK/CE	
REVIEWED BY:	TP/DRS	
REV.	DESCRIPTION	DATE
Δ	FOR BIDDING	04/05/24

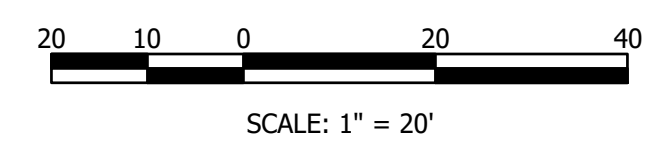
PPA#22-0001
 A/E#2022-02-23D

22236

SHEET TITLE
 EXISTING
 CONDITIONS &
 DEMOLITION PLAN

SHEET
C24

DATE
 4/5/2024



MDTL 2024.04.05 11:25AM MONTANA STATE UNIVERSITY PROJECT: GRANT STREET PEDESTRIAN MALL

GRANT STREET

PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV. DESCRIPTION DATE

FOR BIDDING 04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

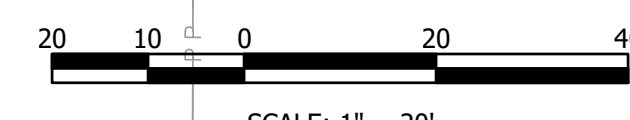
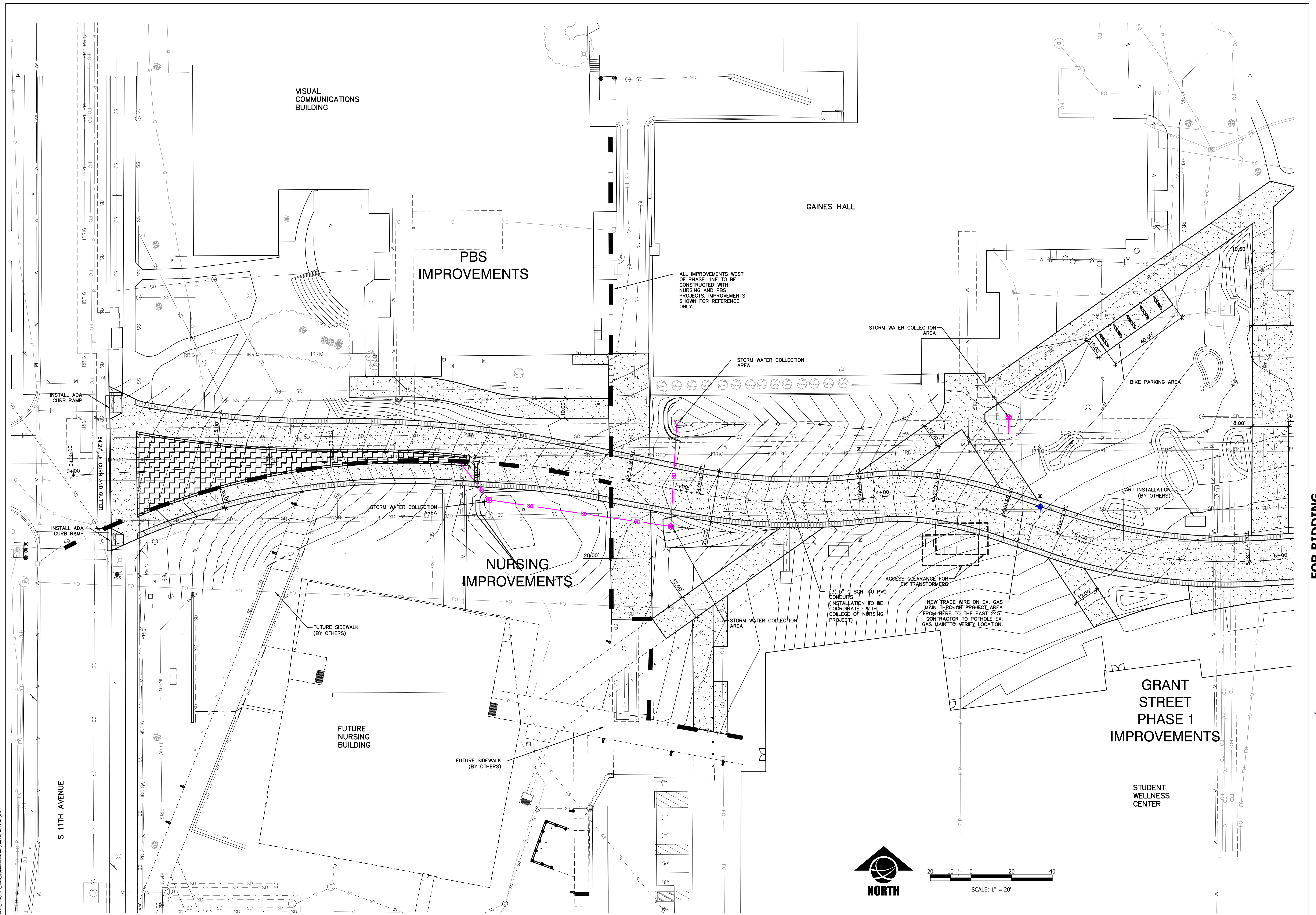
SITE PLAN

SHEET

C3.2

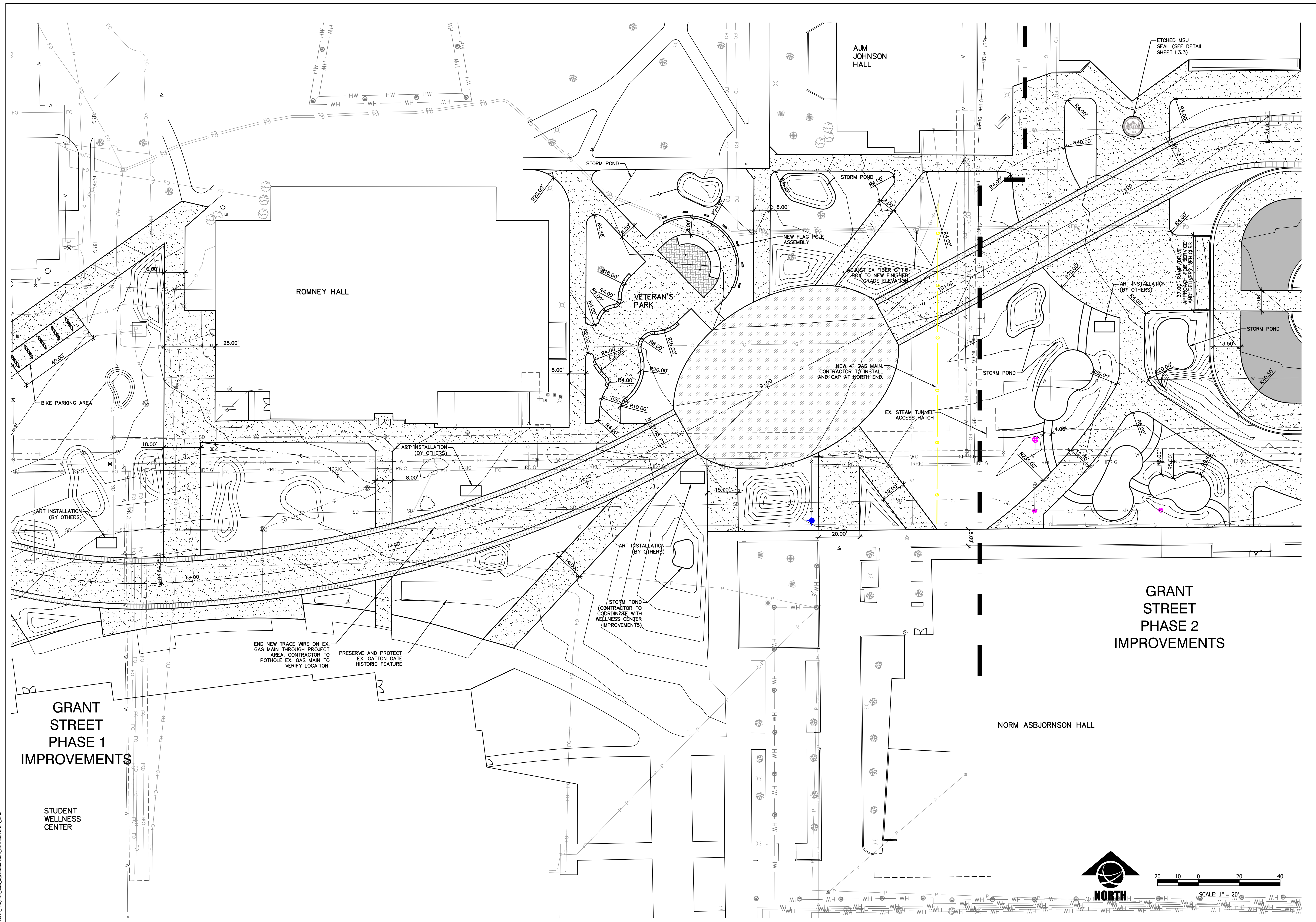
DATE

4/5/2024



S 11TH AVENUE

PROJECT: S 11TH AVENUE AND GRANT STREET PEDESTRIAN MALL IMPROVEMENTS, PHASE 1
DATE: 04/05/24
DRAWN BY: CMK/CE
CHECKED BY: TP/DRS



GRANT STREET PHASE 1 IMPROVEMENTS

STUDENT WELLNESS CENTER

ROMNEY HALL

VETERAN'S PARK

AJM JOHNSON HALL

NORM ASBJORNSON HALL

GRANT STREET PHASE 2 IMPROVEMENTS



SCALE: 1" = 20'



MSU-CPDC

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

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE	TP/DRS
REVIEWED BY:	DATE
REV. DESCRIPTION	DATE
FOR BIDDING	04/05/24

PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

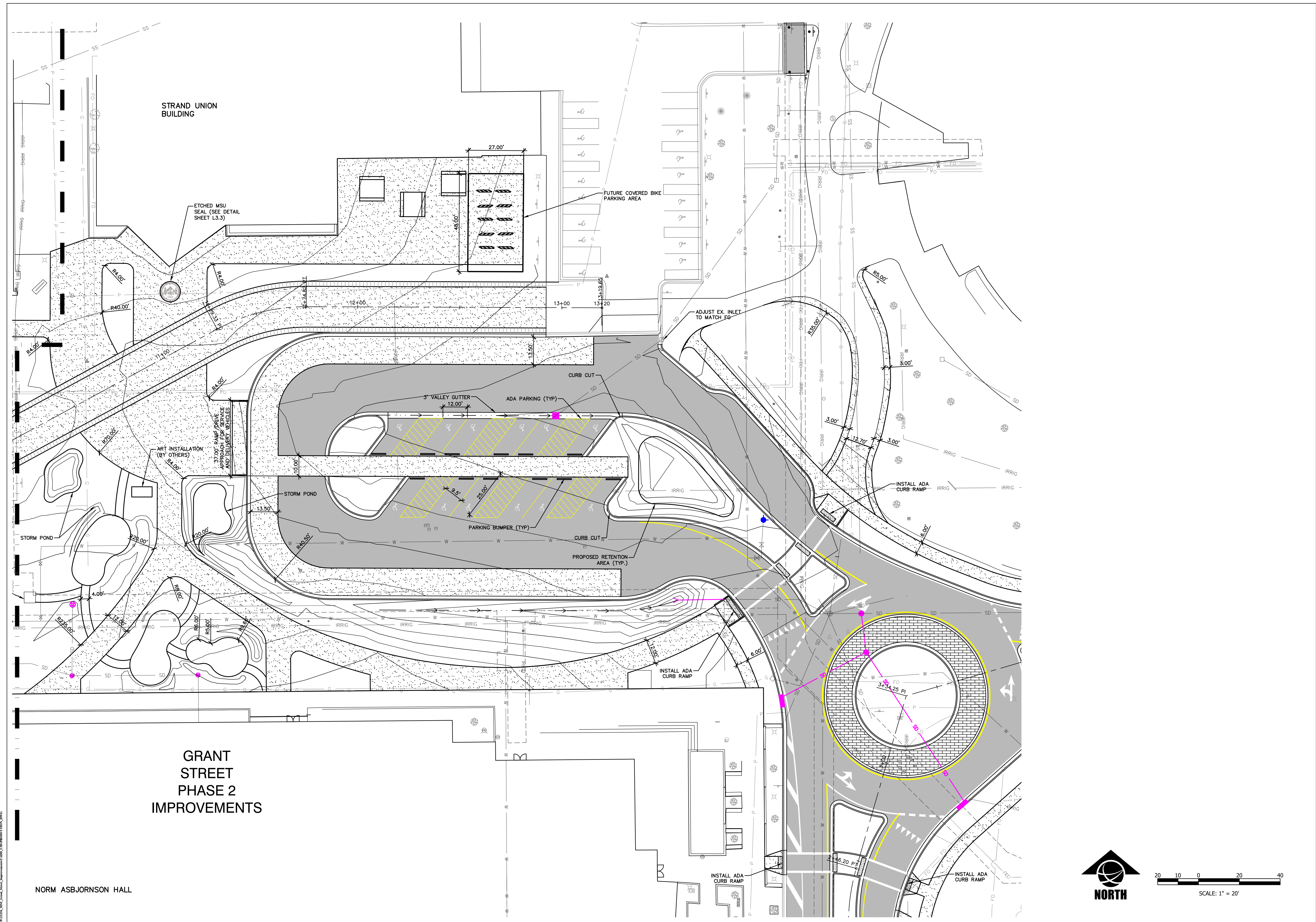
SITE PLAN

SHEET

C3.3

DATE

4/5/2024



GRANT STREET
 PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

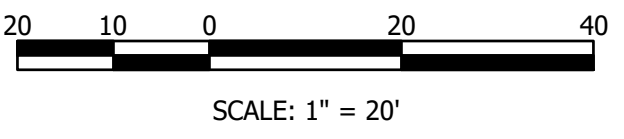


PPA#22-0001
 A/E#2022-02-23D

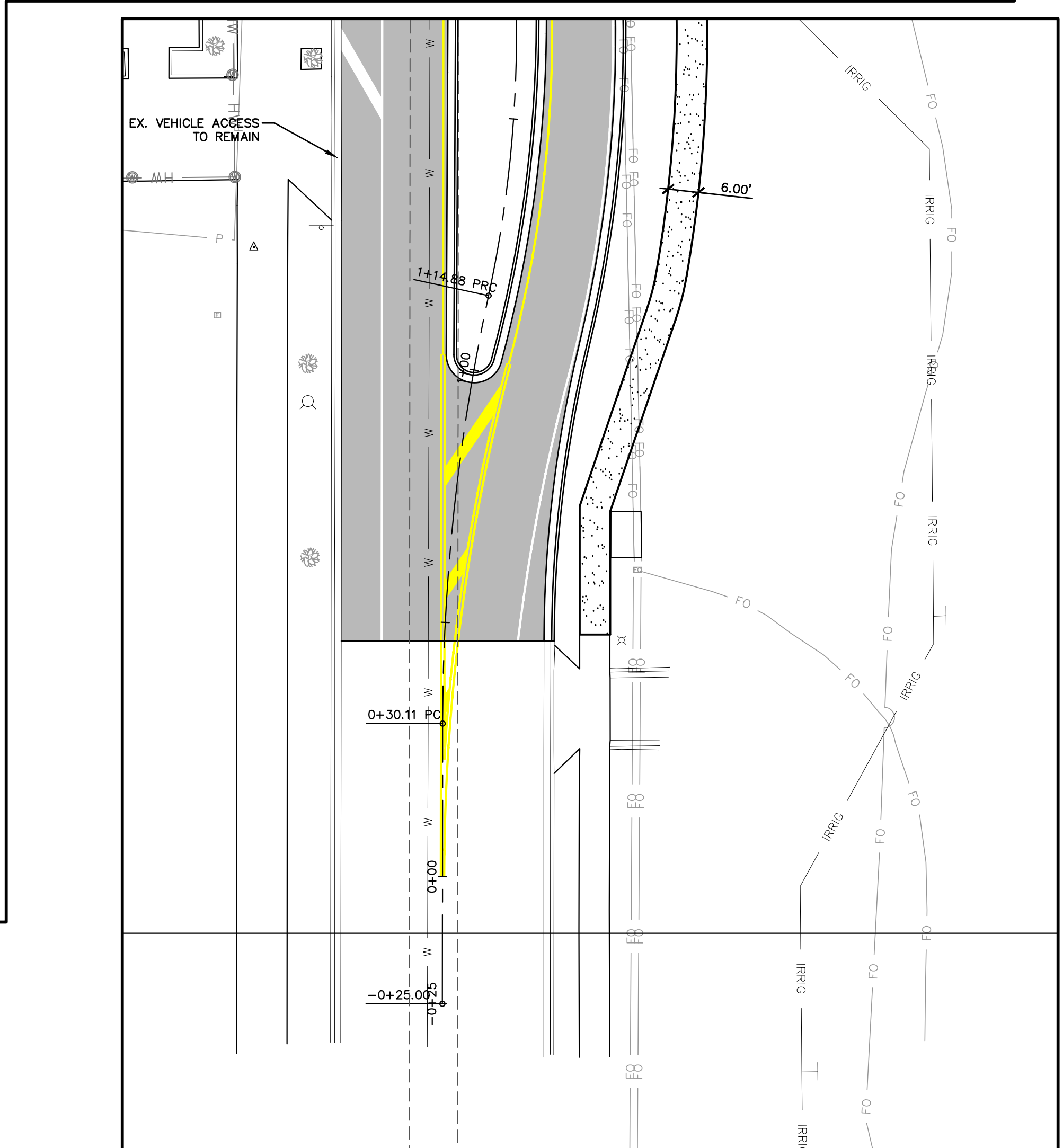
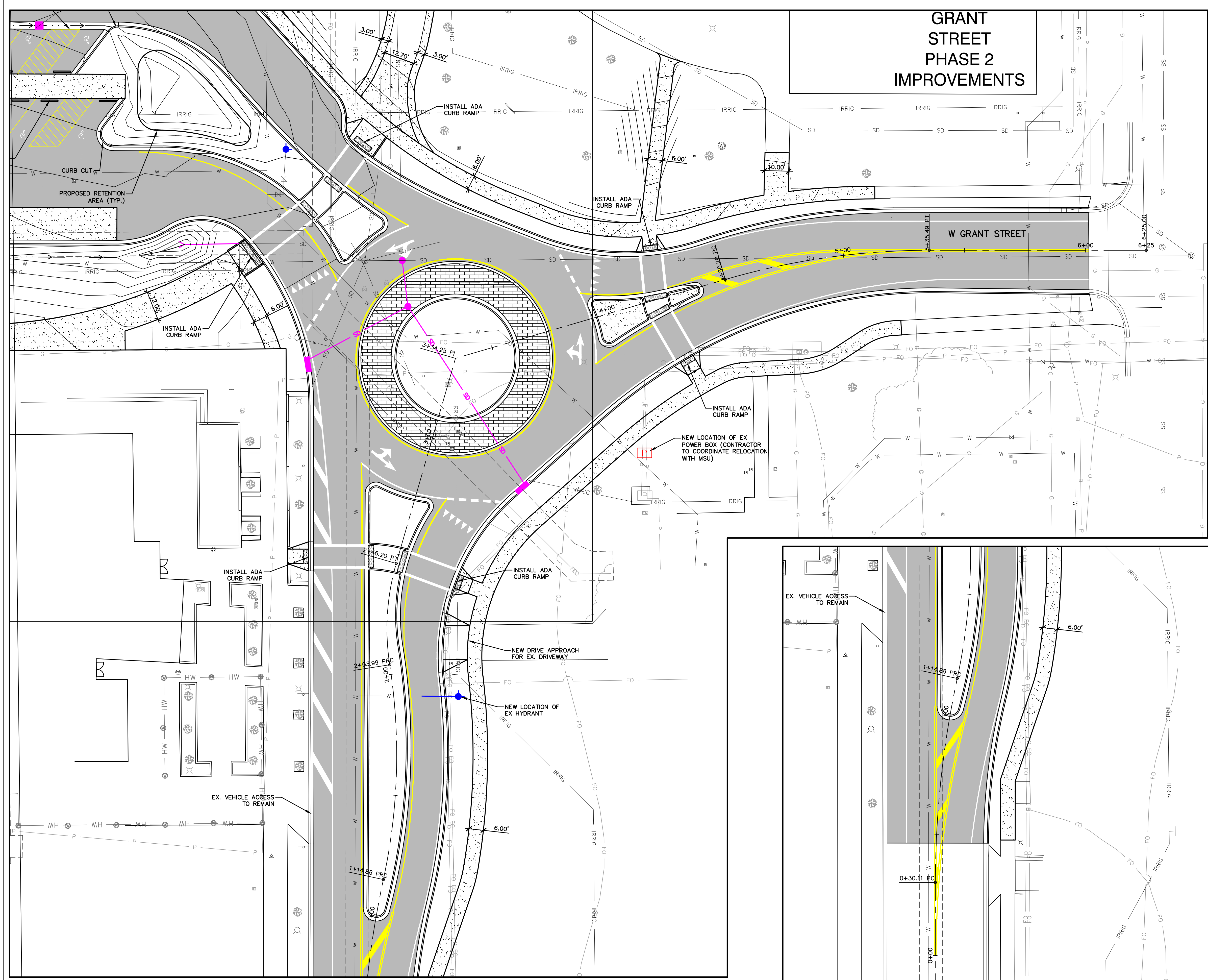
22236
 SHEET TITLE
 SITE PLAN

SHEET
C3.4

DATE
 4/5/2024

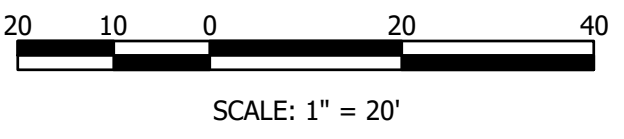


MONTANA STATE UNIVERSITY, 2024. ALL RIGHTS RESERVED. THIS DOCUMENT IS THE PROPERTY OF MONTANA STATE UNIVERSITY AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.



**GRANT STREET
PHASE 2
IMPROVEMENTS**

W GRANT STREET



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

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
Δ	FOR BIDDING	04/05/24

PPA#22-0001
A/E#2022-02-23D

22236
SHEET TITLE
SITE PLAN

SHEET
C3.5

DATE
4/5/2024

MSU-CPDC, 1000 University Ave., Bozeman, MT 59717-0001, 406.994.5413, www.msu.edu/CPDC

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV. DESCRIPTION DATE

1 FOR BIDDING 04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

PLAN & PROFILE

MULTI-USE PATH STA

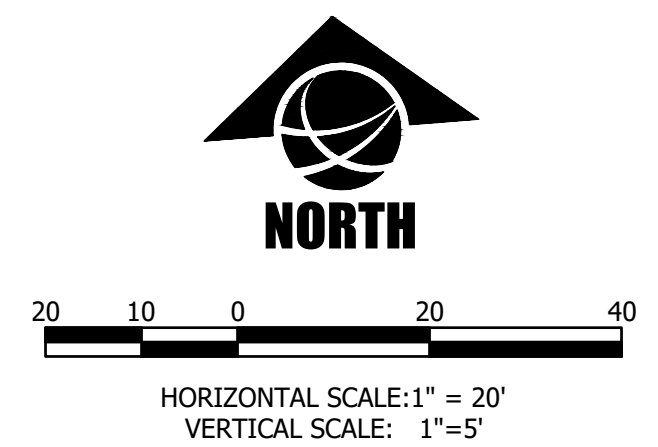
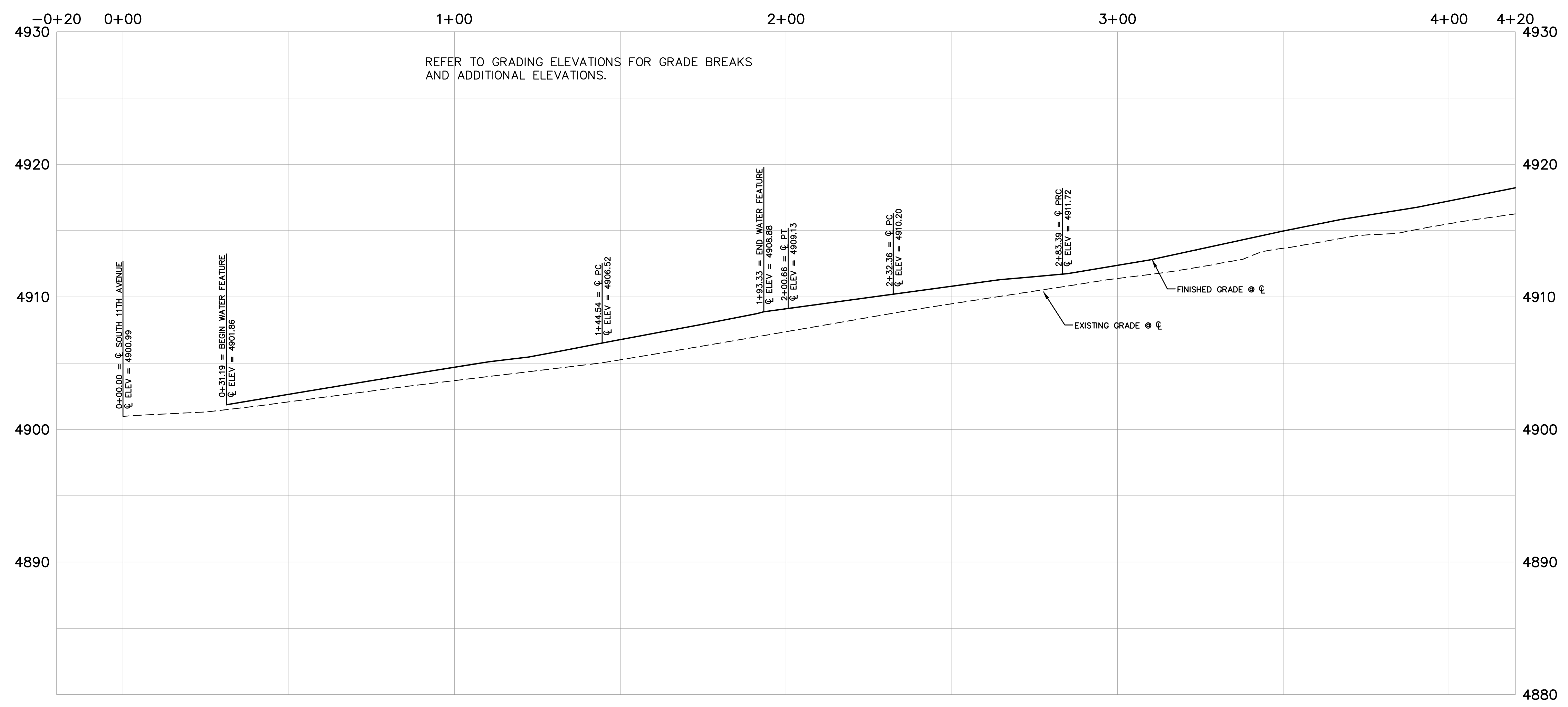
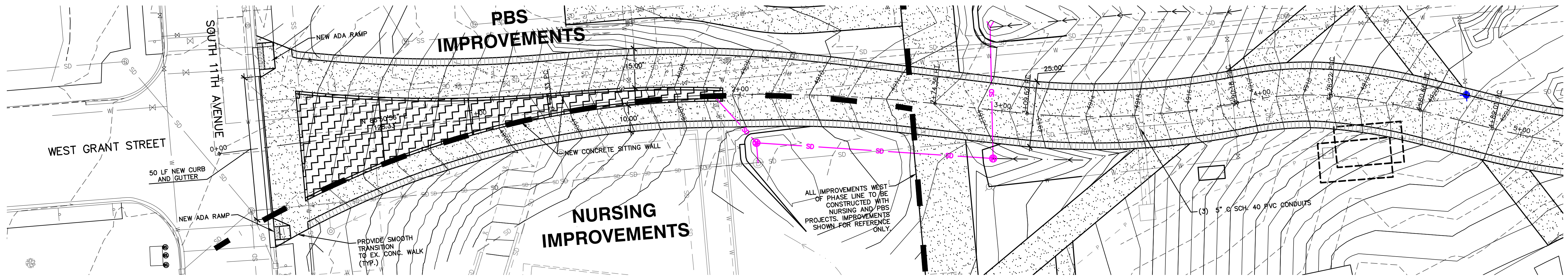
0+00 TO 4+20

SHEET

C4.1

DATE

4/5/2024



APP: 2024-04-05 11:58 AM 22236_PPA#22-0001_C4.1.dwg
PLOT: 2024-04-05 11:58 AM 22236_PPA#22-0001_C4.1.dwg
SCALE: 1/8" = 1'-0" (PLAN), 1/4" = 1'-0" (PROFILE)
DATE: 04/05/24 11:58 AM

GRANT STREET
PEDESTRIAN MALL

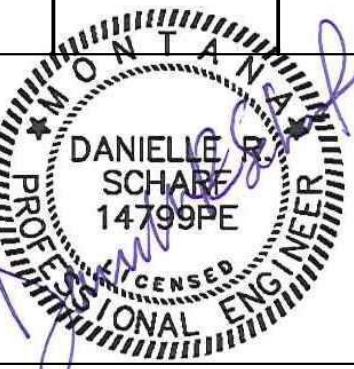
FOR BIDDING



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001

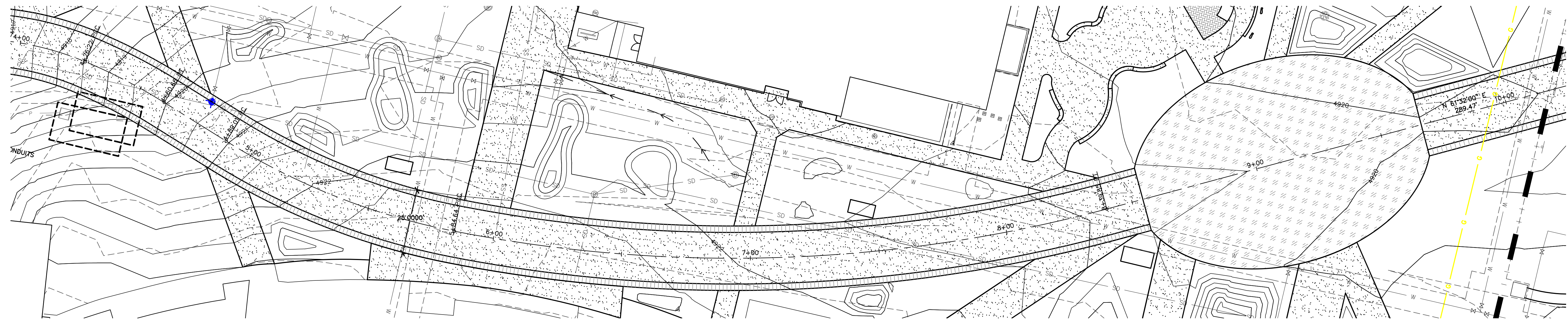
A/E#2022-02-23D

22236

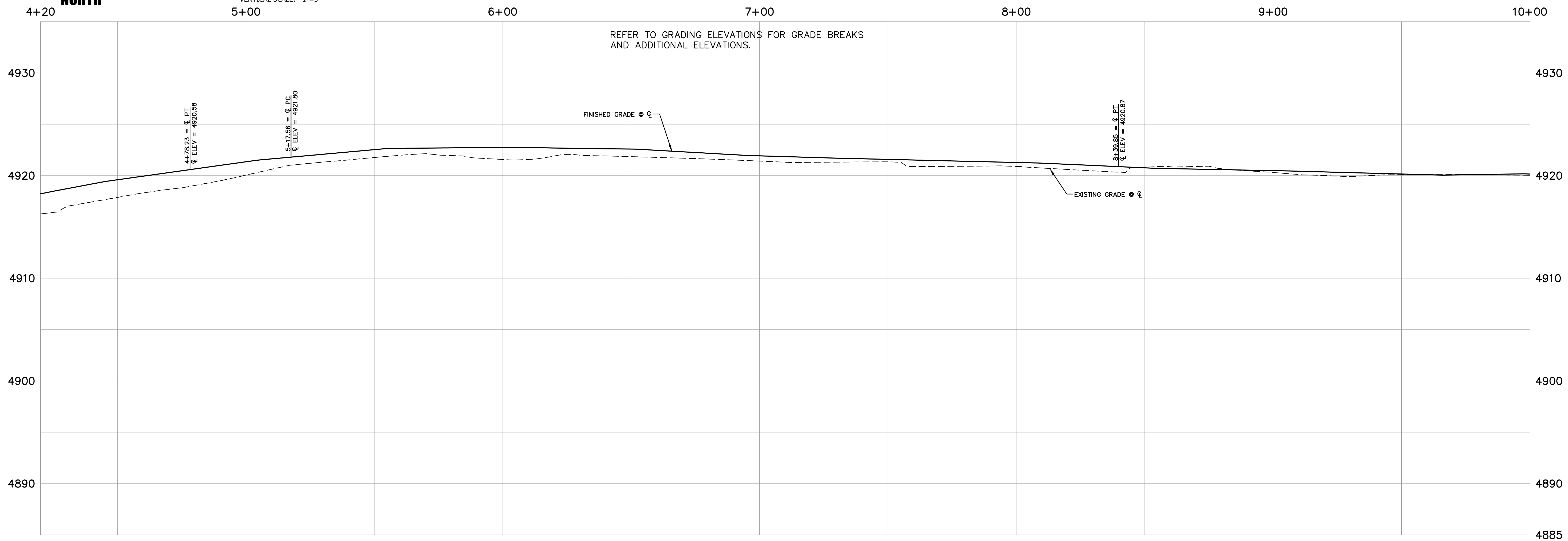
SHEET TITLE
PLAN & PROFILE
MULTI-USE PATH STA
4+20 TO 9+50

SHEET
C4.2

DATE
4/5/2024



HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



MDT 2024 04 05 10:00 AM 22236_PPA#22-0001_C4.2.dwg
 Project: PPA#22-0001 - Multi-Use Path Stationing 4+20 to 9+50
 Drawing: C4.2 - Profile
 Date: 4/5/2024 10:00 AM
 User: CMK

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE	
REVIEWED BY:	TP/DRS
REV.	DESCRIPTION DATE
1	FOR BIDDING 04/05/24



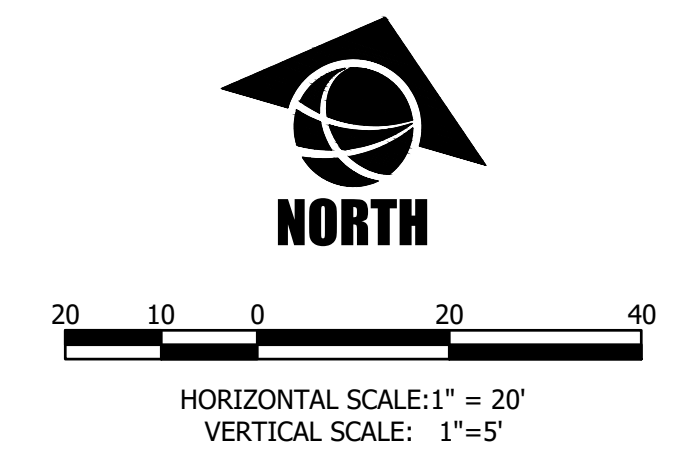
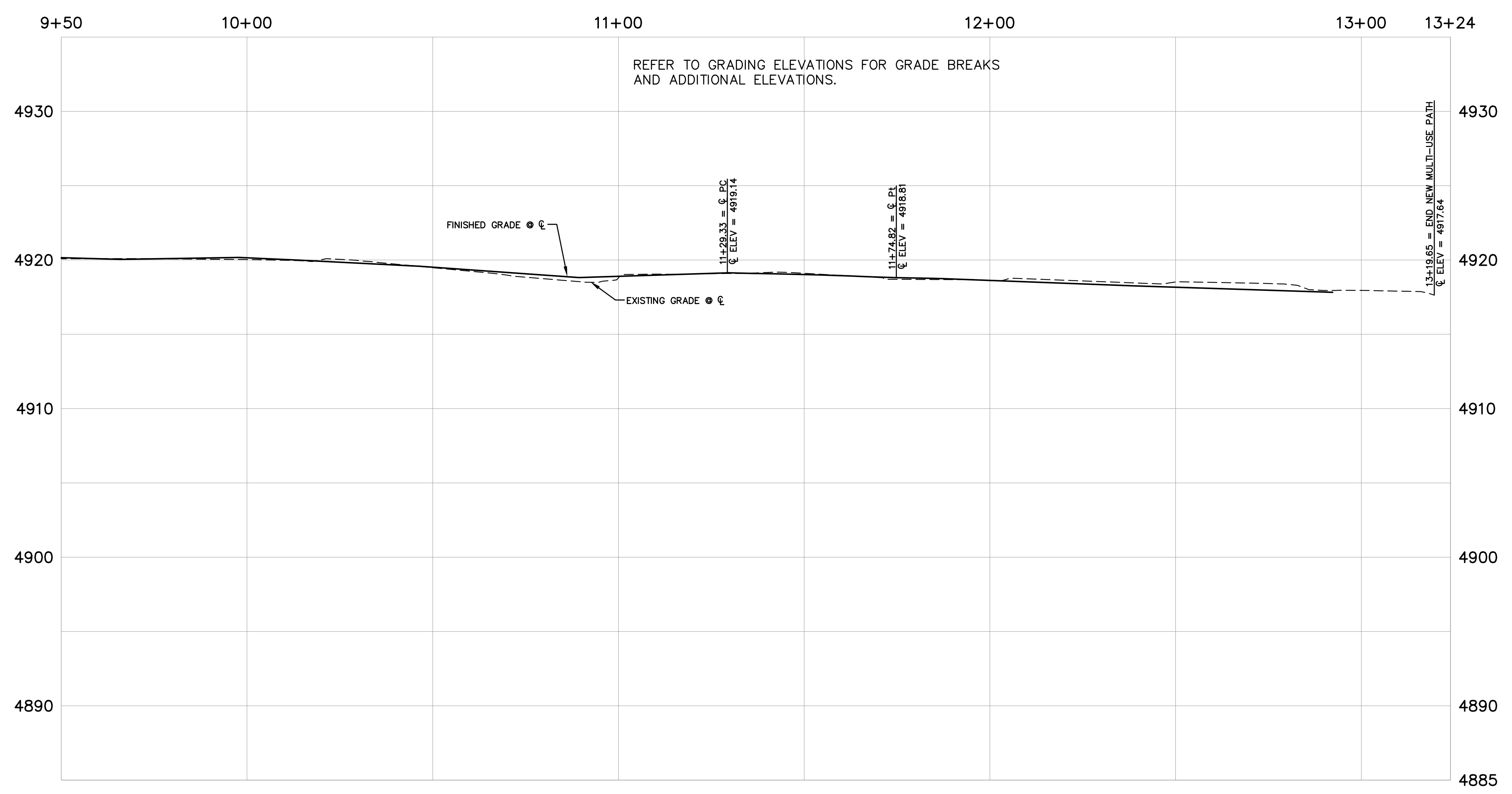
PPA#22-0001
A/E#2022-02-23D

22236

SHEET TITLE
PLAN & PROFILE
MULTI-USE PATH STA
9+50 TO 13+50

SHEET
C4.3

DATE
4/5/2024



APP: 22-0001-02-23D-01-01.dwg, DATE: 04/05/24, TIME: 10:00 AM, USER: CMK, PLOT: 04/05/24, 10:00 AM, PLOT: 04/05/24, 10:00 AM, PLOT: 04/05/24, 10:00 AM

GRANT STREET

PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV. DESCRIPTION DATE

1 FOR BIDDING 04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

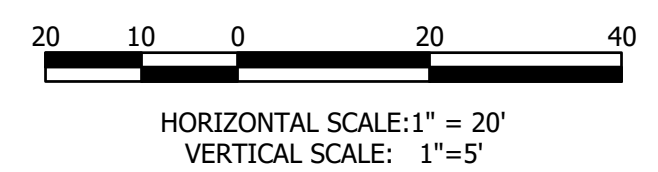
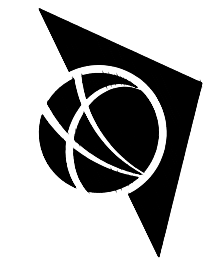
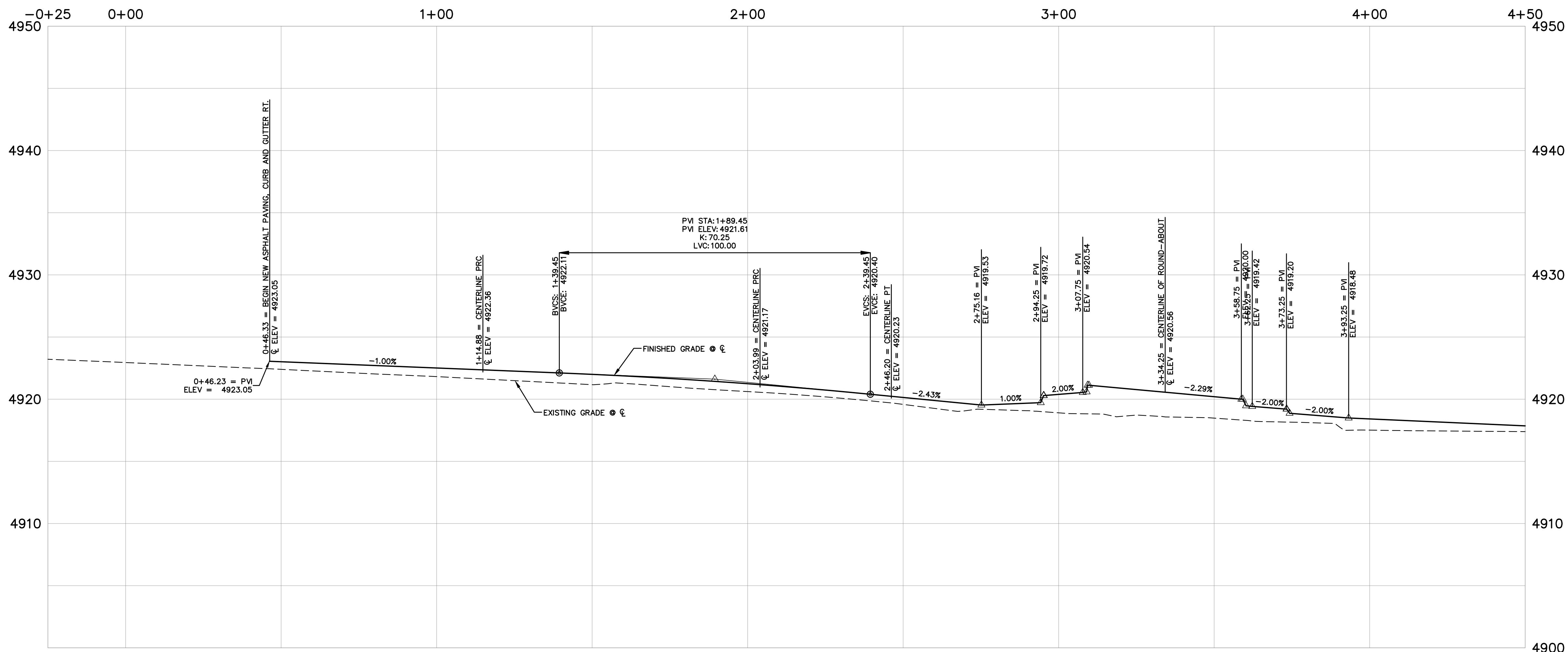
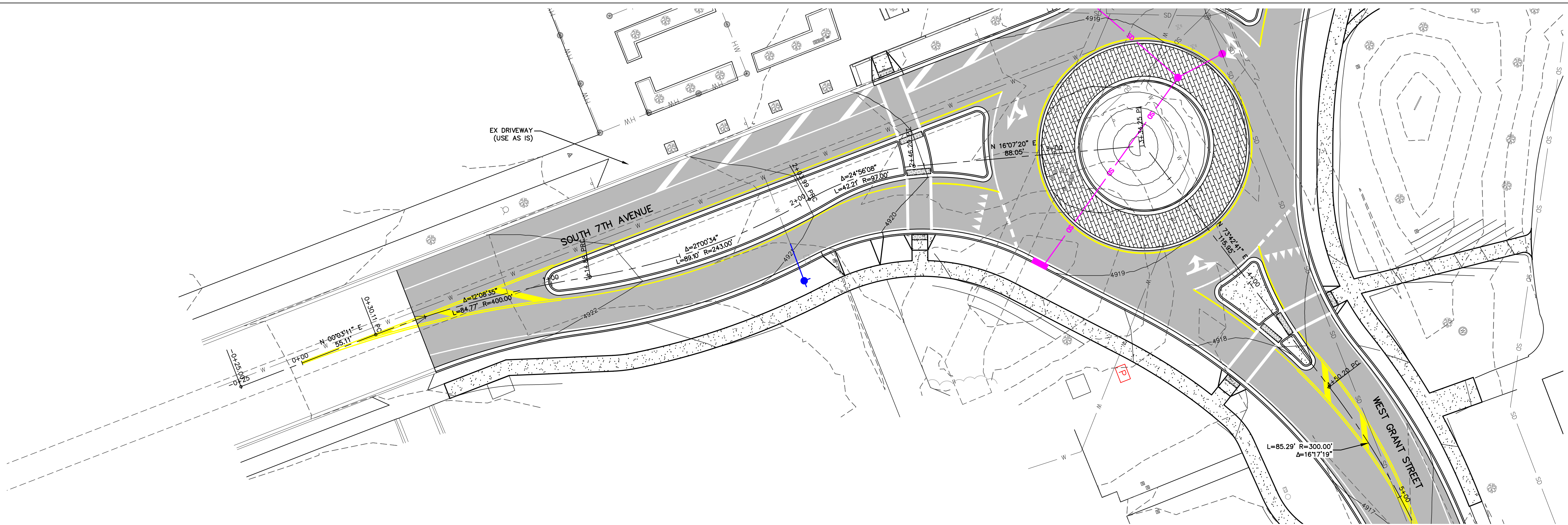
SHEET TITLE
PLAN & PROFILE
ROUNDABOUT STA
0+00 TO 4+50

SHEET

C4.4

DATE

4/5/2024



DATE PLOTTED: 04/05/24 11:25:34 AM USER: CMK/CE PLOTTER: HP DesignJet T1100e

GRANT STREET

PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

1

FOR BIDDING

04/05/24

14799PE

PROFESSIONAL ENGINEER

STATE OF MONTANA

DANIELLE R. SCHAEFER

14799PE

PROFESSIONAL ENGINEER

STATE OF MONTANA

PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

PLAN & PROFILE

ROUNDABOUT STA

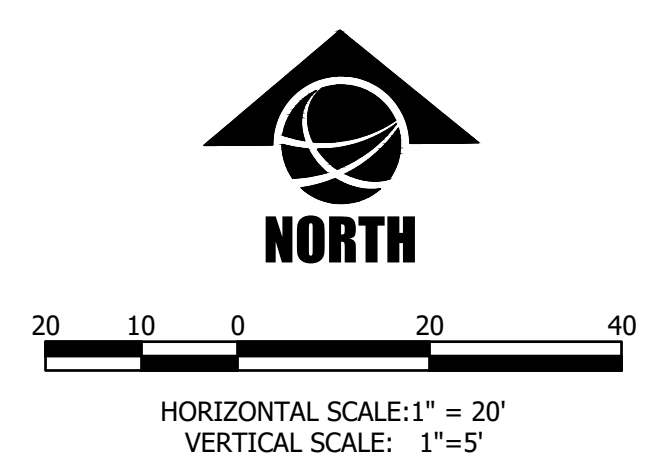
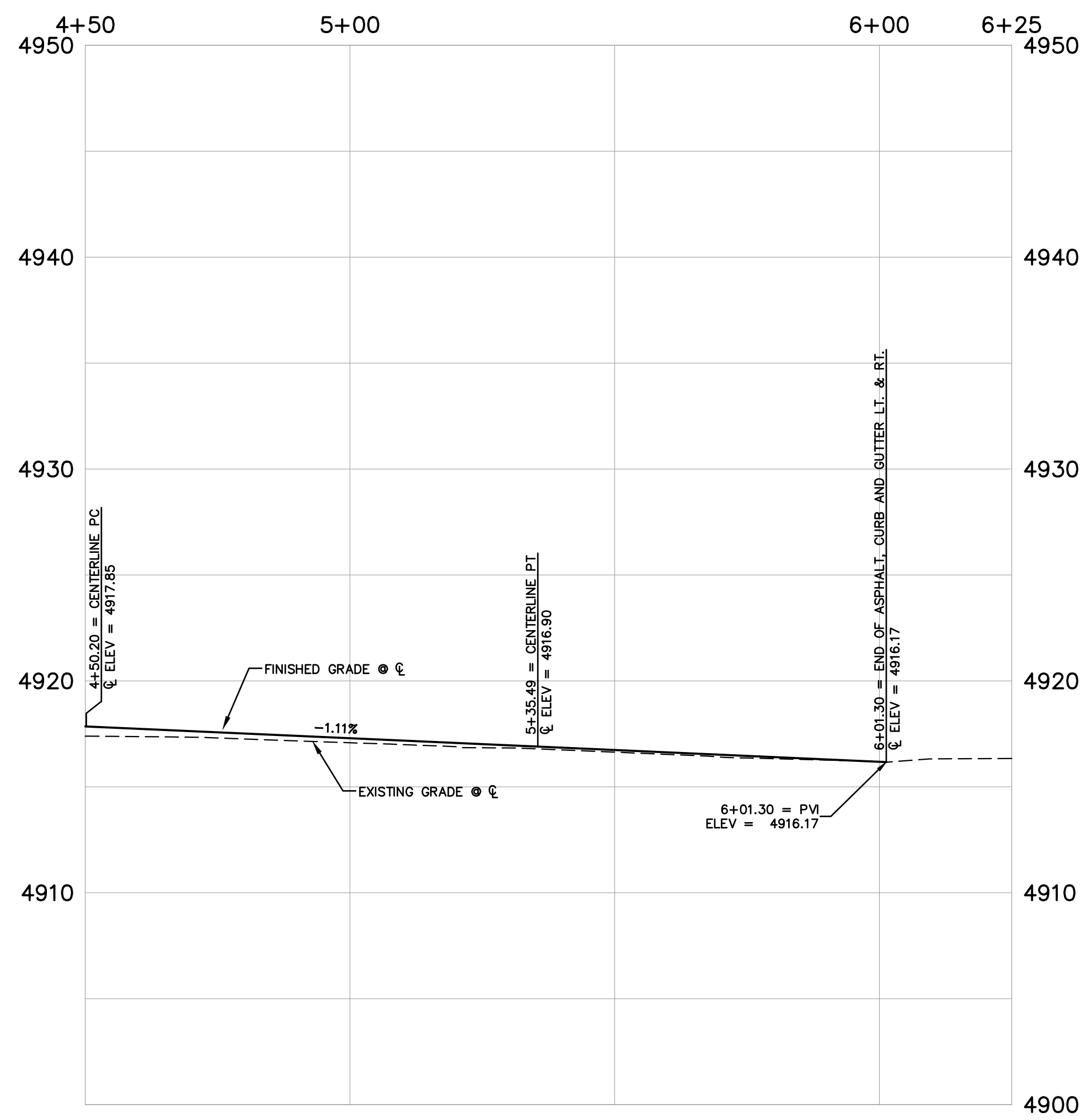
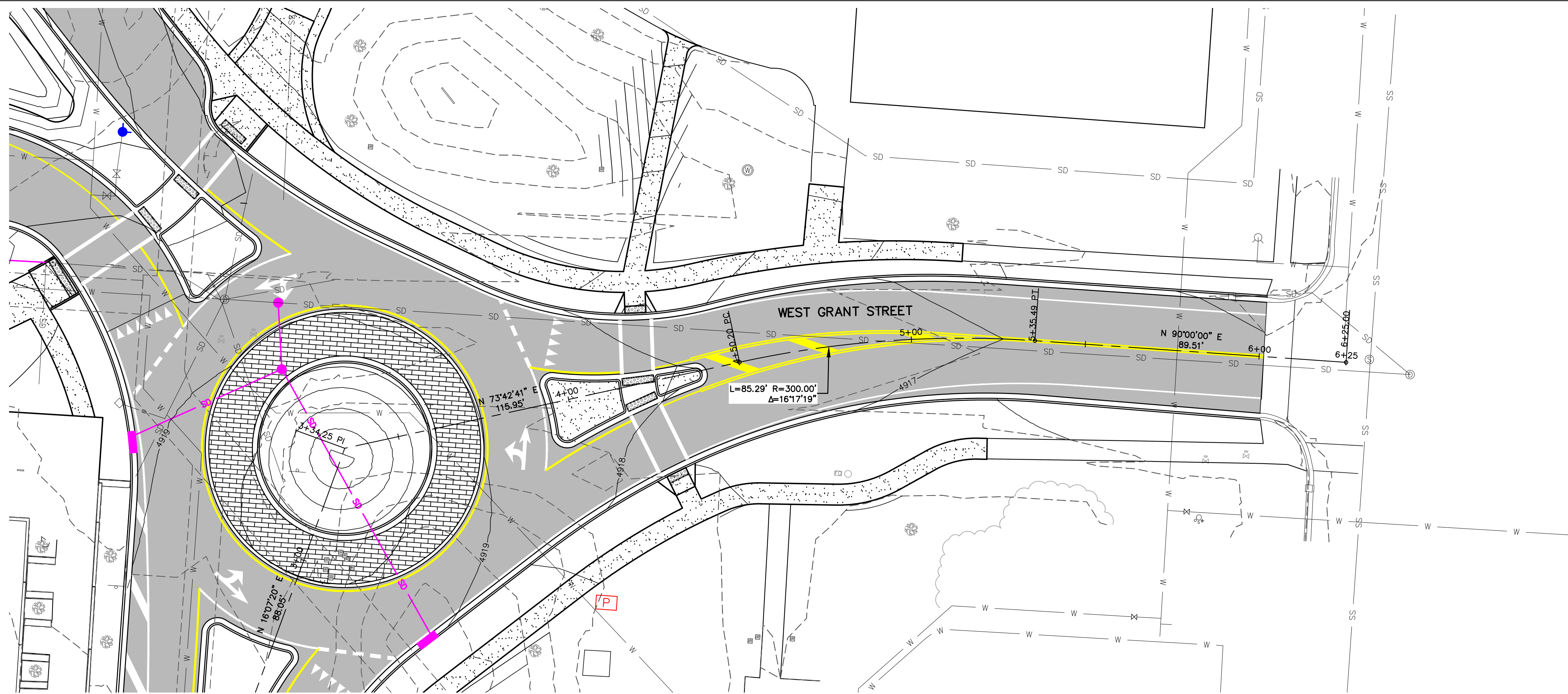
4+50 TO 6+25

SHEET

C4.5

DATE

4/5/2024



APP'D: [Signature] DATE: 4/5/2024
 DRAWN: [Signature] DATE: 4/5/2024
 CHECKED: [Signature] DATE: 4/5/2024
 PROJECT: PPA#22-0001



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV. DESCRIPTION DATE

1 FOR BIDDING 04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

PLAN & PROFILE WEST

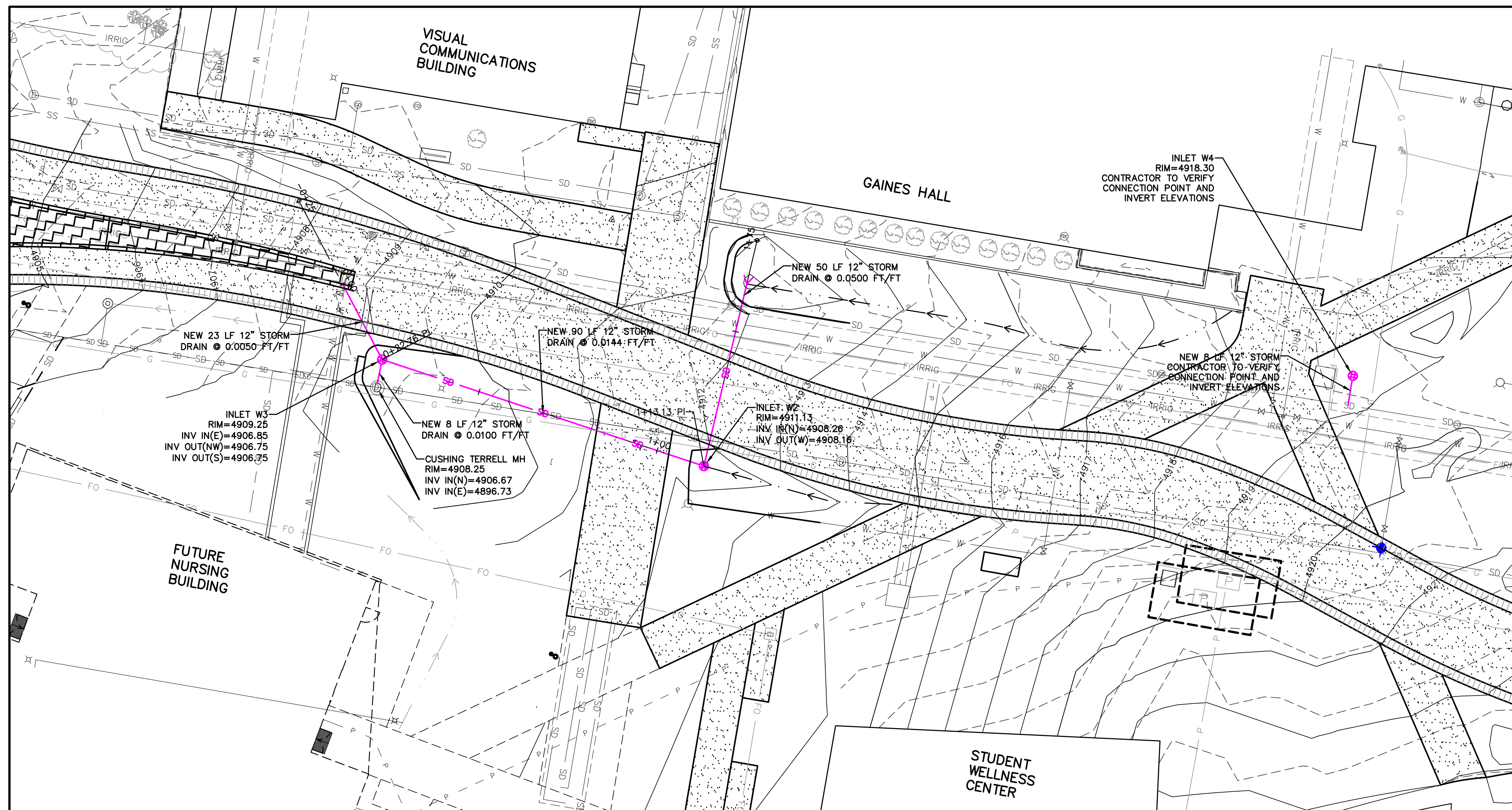
STORM DRAIN

SHEET

C5.1

DATE

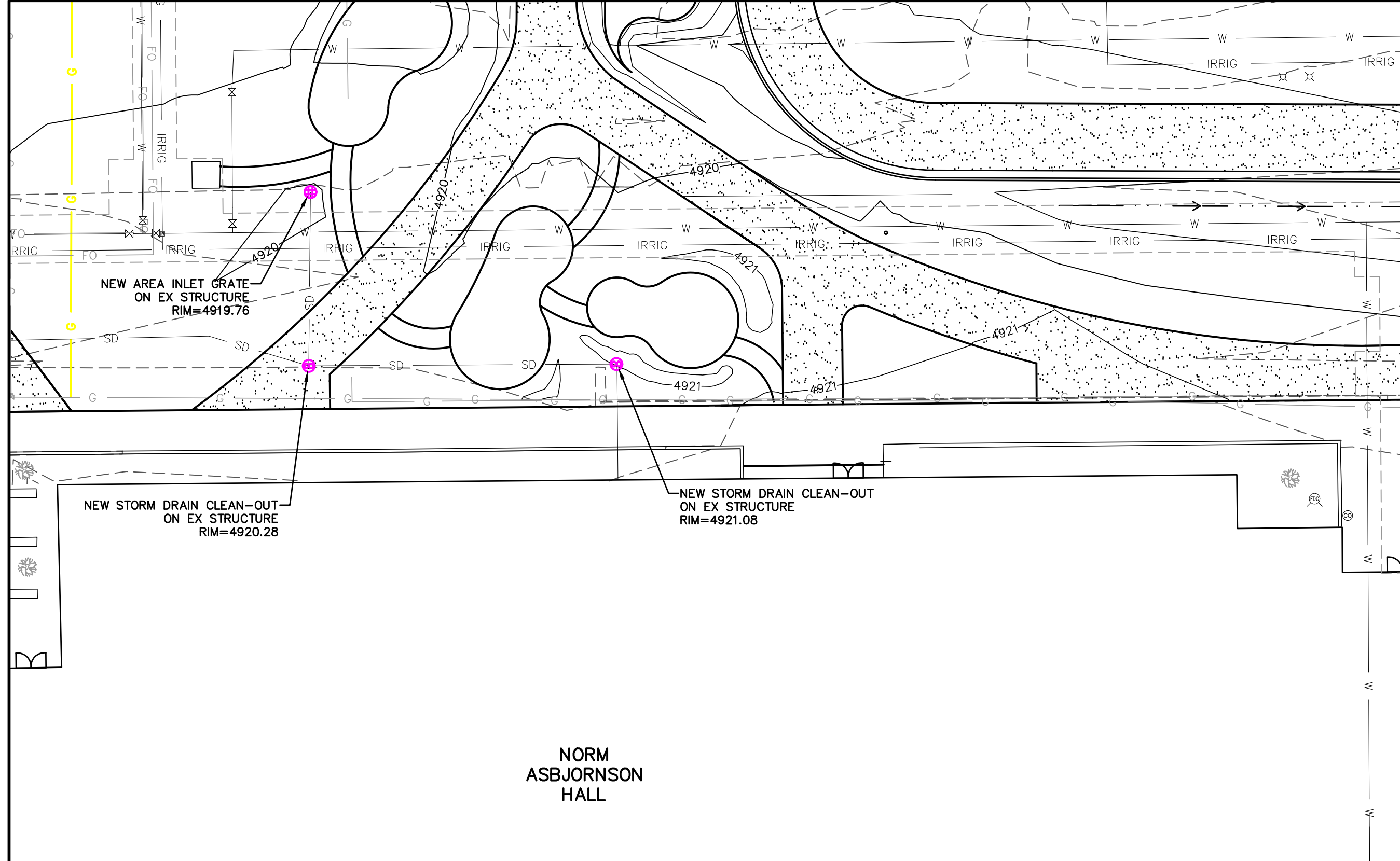
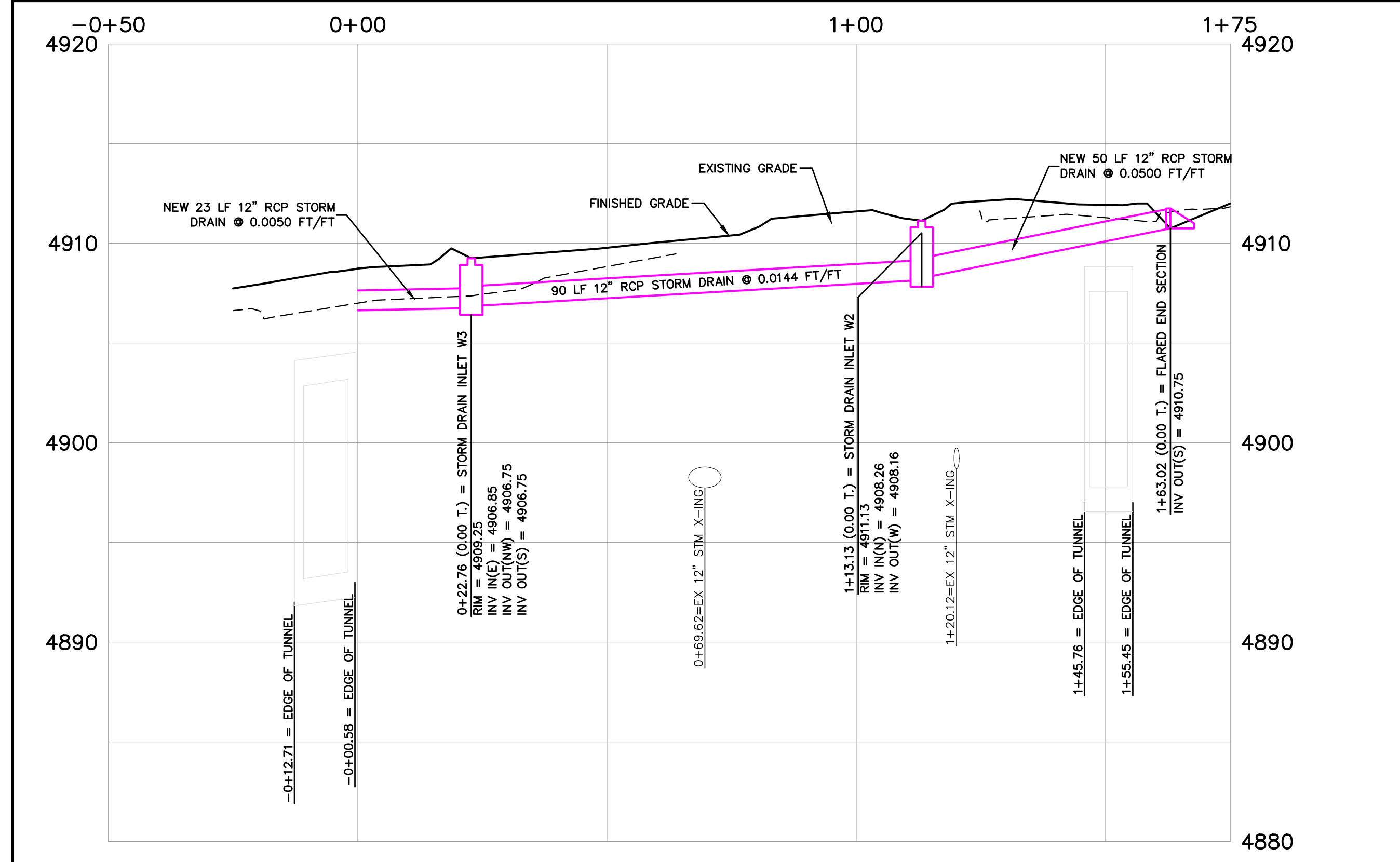
4/5/2024



HORIZONTAL SCALE: 1" = 20'

VERTICAL SCALE: 1" = 5'

SCALE SHOWN IS ACCURATE WHEN PRINTED ON 22X34 SHEET WITH 1:1 PLOT SCALE. DOUBLE HORIZONTAL AND VERTICAL SCALES ON 11X17 SHEET WITH 1:2 PLOT SCALE.



MDT 2024.04.15 11:00 AM 22236_PPA#22-0001_A/E#2022-02-23D_SHEET C5.1 PLAN & PROFILE WEST STORM DRAIN.dwg
 2024.04.15 11:00 AM 22236_PPA#22-0001_A/E#2022-02-23D_SHEET C5.1 PLAN & PROFILE WEST STORM DRAIN.dwg

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE	
REVIEWED BY:	TP/DRS
REV. DESCRIPTION	DATE
△ FOR BIDDING	04/05/24

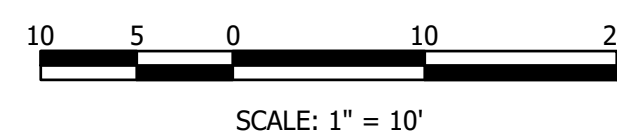
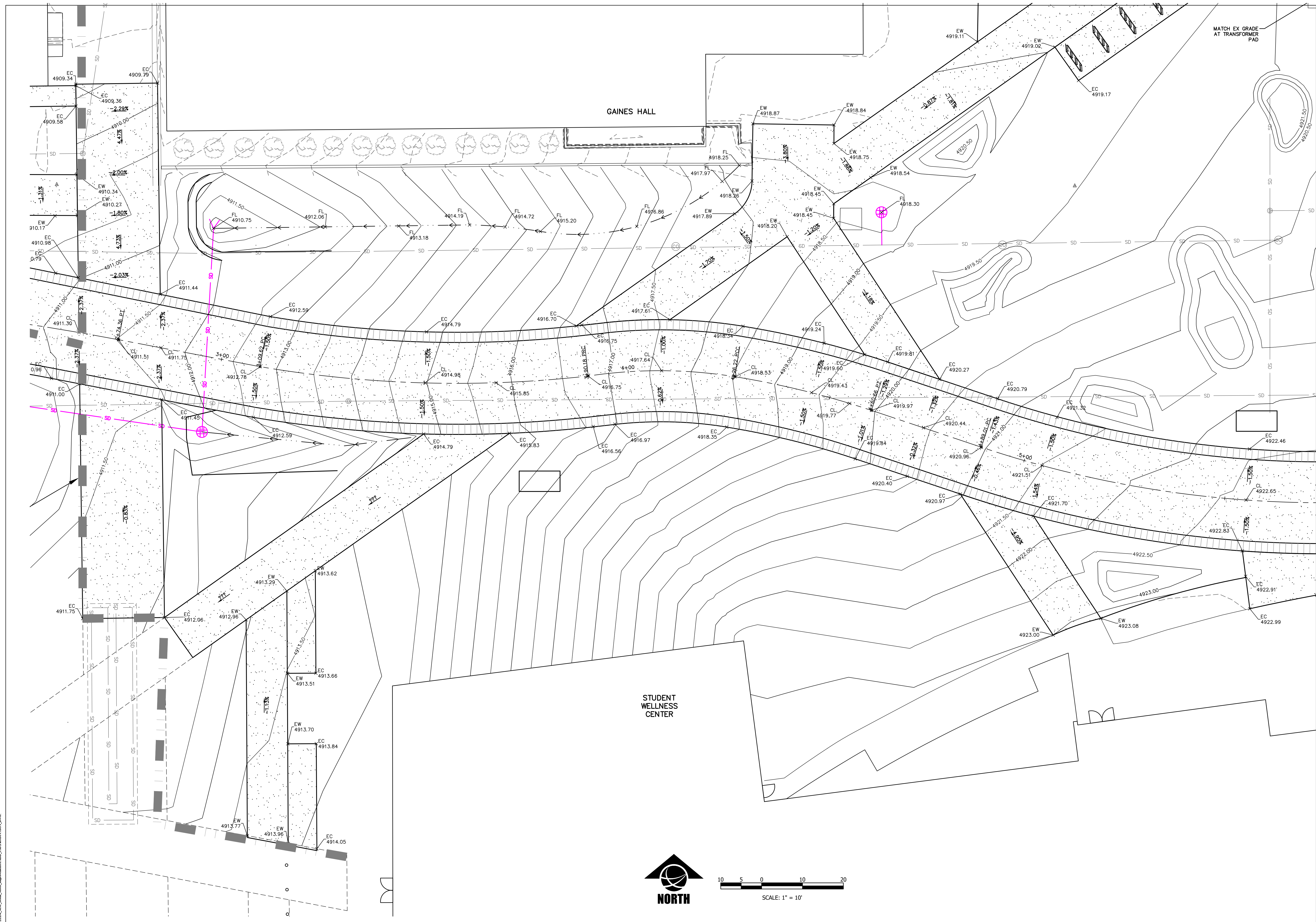


PPA#22-0001
A/E#2022-02-23D

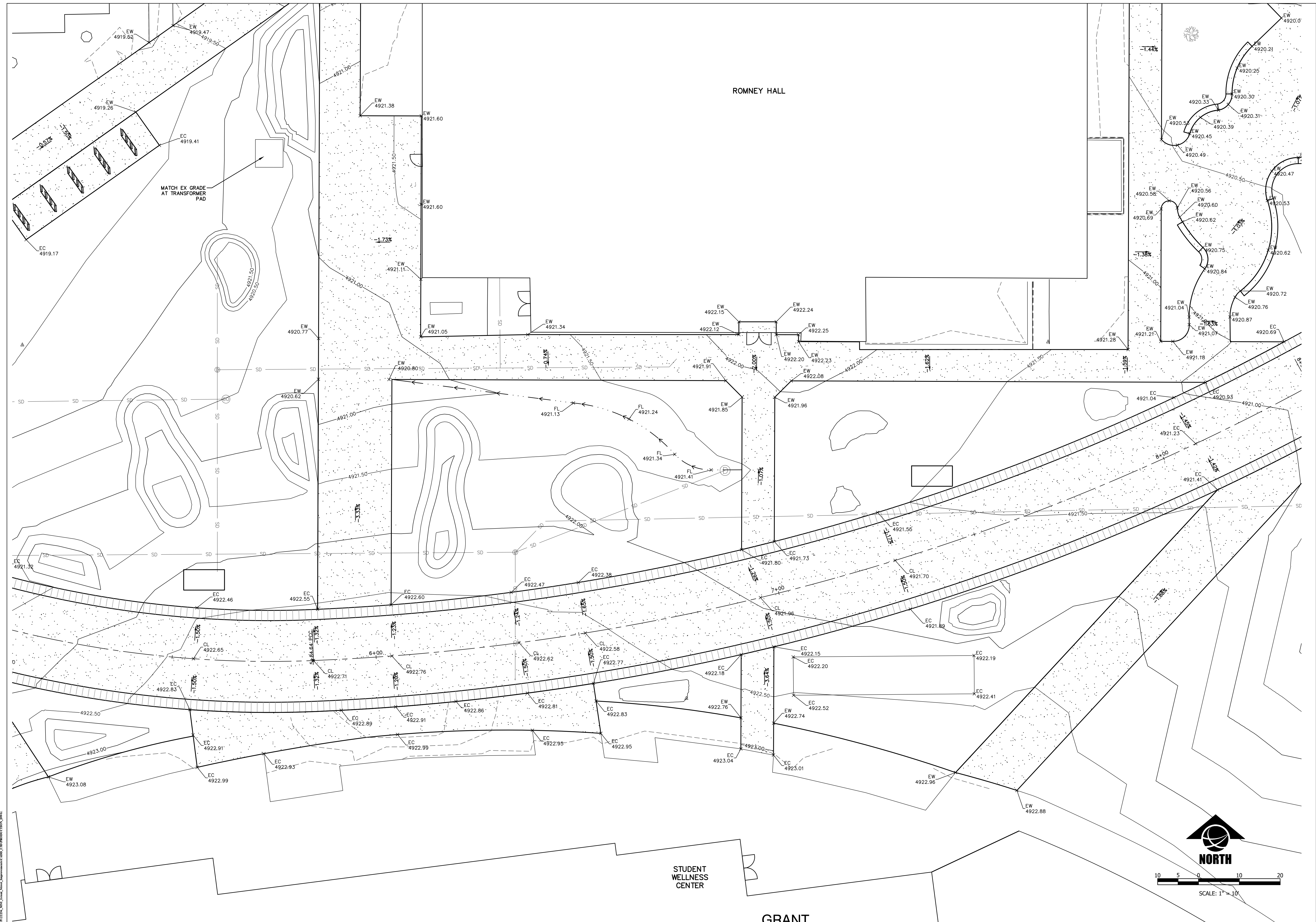
22236
SHEET TITLE
DETAILED GRADING

SHEET
C6.2

DATE
4/5/2024



MONTANA STATE UNIVERSITY
 COLLEGE OF ARCHITECTURE AND DESIGN
 1475 EAST WALKER AVENUE
 BOZEMAN, MONTANA 59717-3000
 TEL: 406.994.5413 FAX: 406.994.5665
 WWW.MONTANASTATEUNIVERSITY.EDU



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

GRANT STREET
 PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE
 REVIEWED BY: TP/DRS

REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001

A/E#2022-02-23D

22236
 SHEET TITLE
 DETAILED GRADING

SHEET
C6.3

DATE
 4/5/2024

MDTL 2024.04.05 11:58 AM 22236 GRADING.DWG 14799PE CMK/CE
 2024.04.05 11:58 AM 22236 GRADING.DWG 14799PE TP/DRS
 2024.04.05 11:58 AM 22236 GRADING.DWG 14799PE CMK/CE



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

GRANT STREET

PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

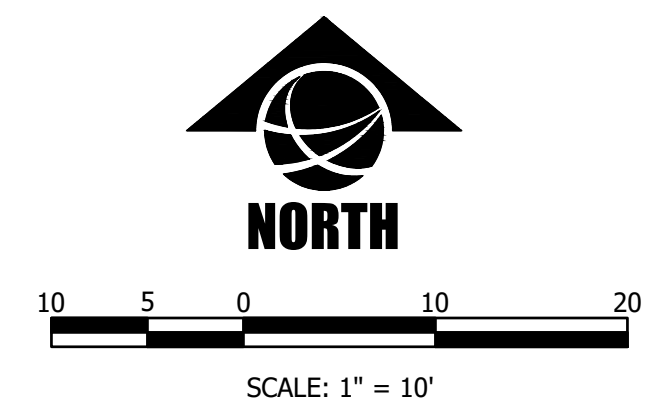


PPA#22-0001
 A/E#2022-02-23D

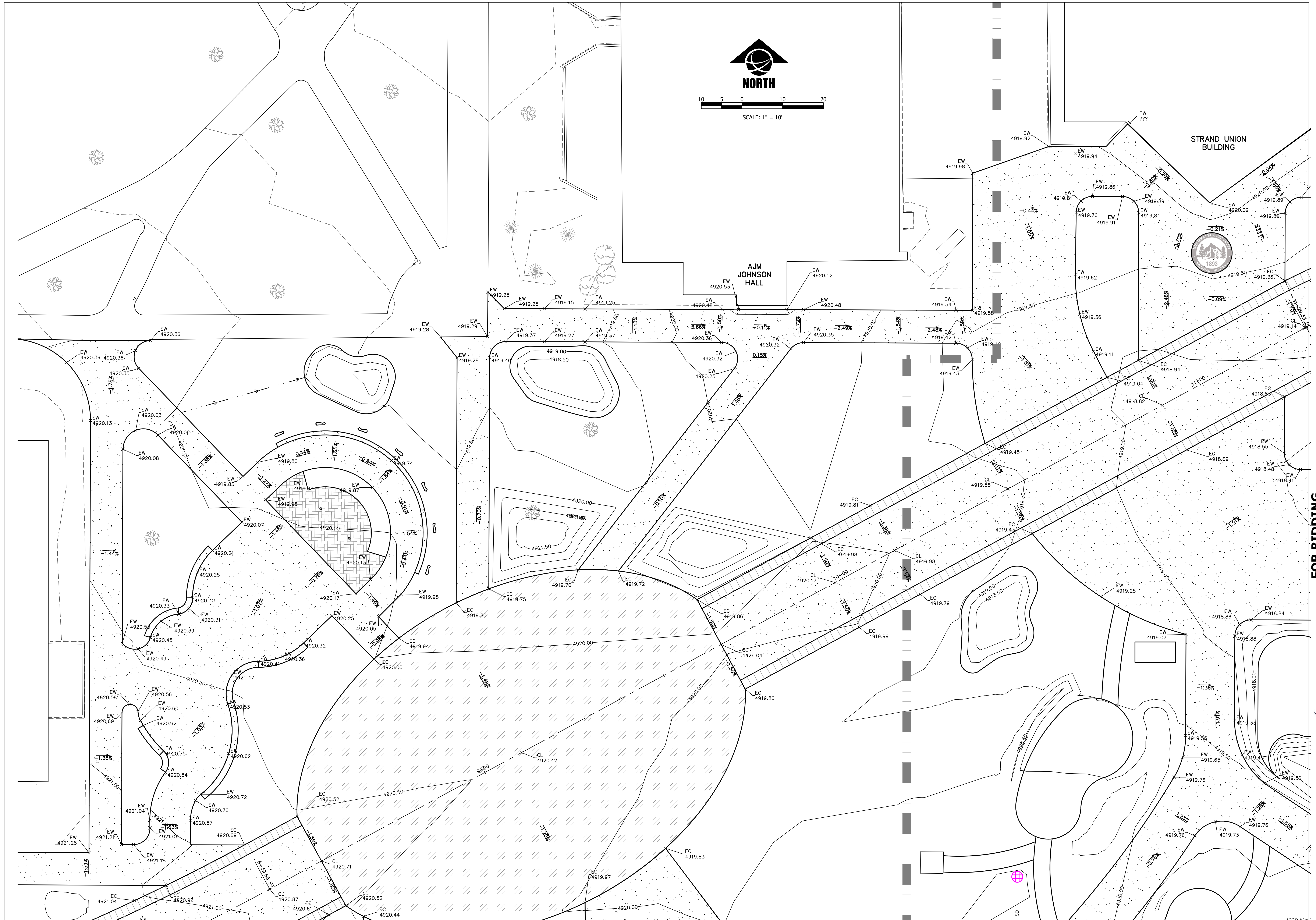
22236
 SHEET TITLE
 DETAILED GRADING

SHEET
C6.5

DATE
 4/5/2024



MONTANA STATE UNIVERSITY
 ARCHITECTURAL & ENGINEERING
 14799 PE
 DANIELLE R. SCHAEFER
 PROFESSIONAL ENGINEER
 STATE OF MONTANA
 LICENSE NO. 14799PE



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

GRANT STREET

PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE
 REVIEWED BY: TP/DRS

REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001

A/E#2022-02-23D

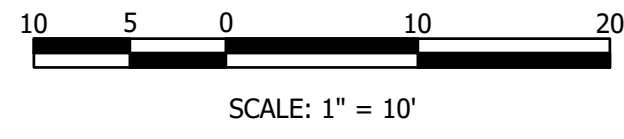
22236

SHEET TITLE
 DETAILED GRADING

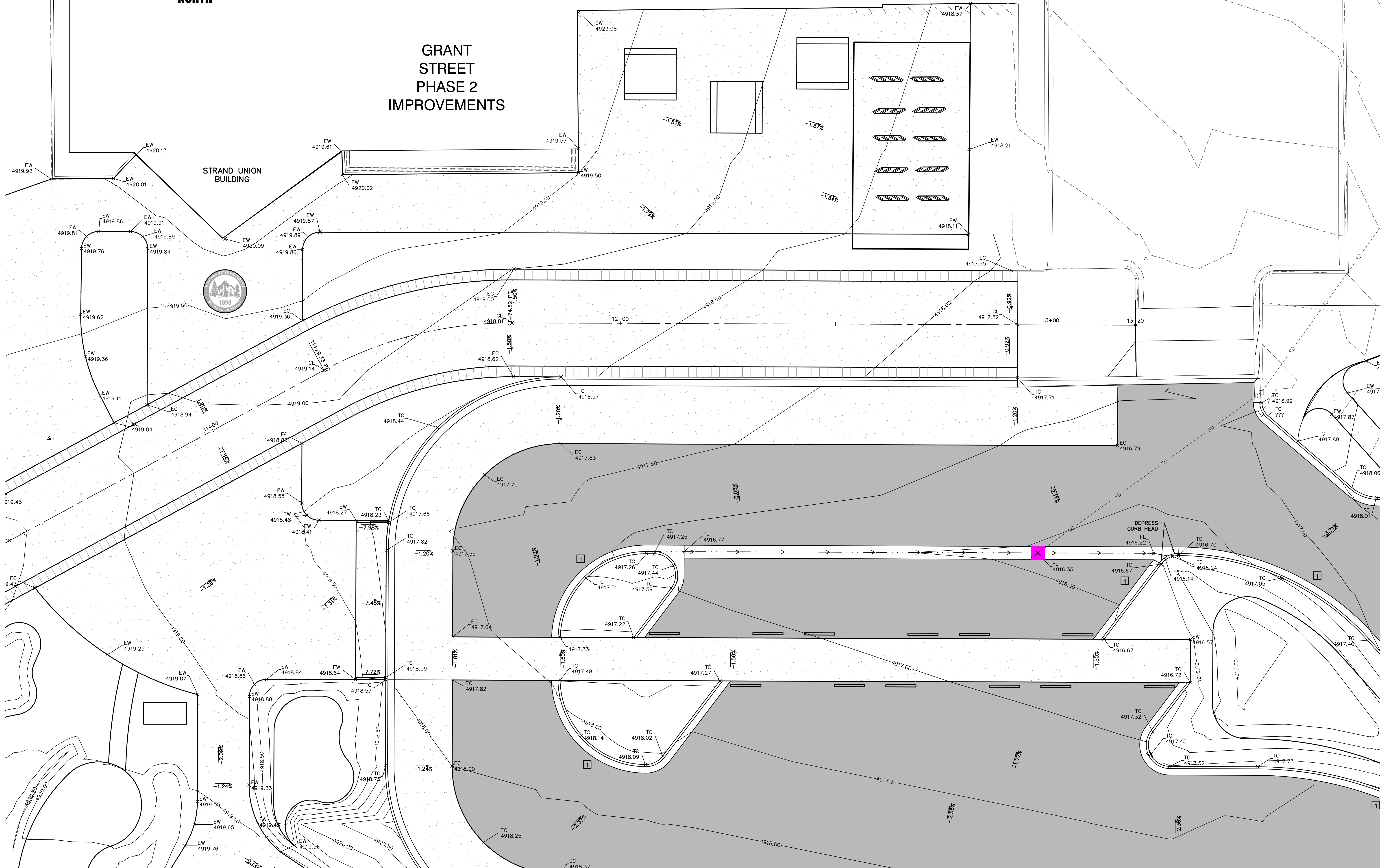
SHEET
C6.6

DATE
 4/5/2024

NOT TO SCALE. SEE PLAN FOR DIMENSIONS. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.



GRANT STREET PHASE 2 IMPROVEMENTS



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

GRANT STREET PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE
REVIEWED BY: TP/DRS

REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

DETAILED GRADING

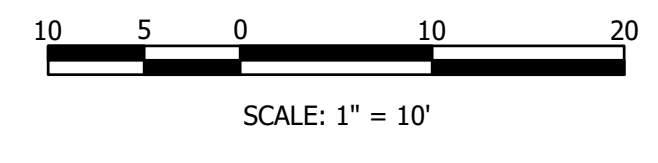
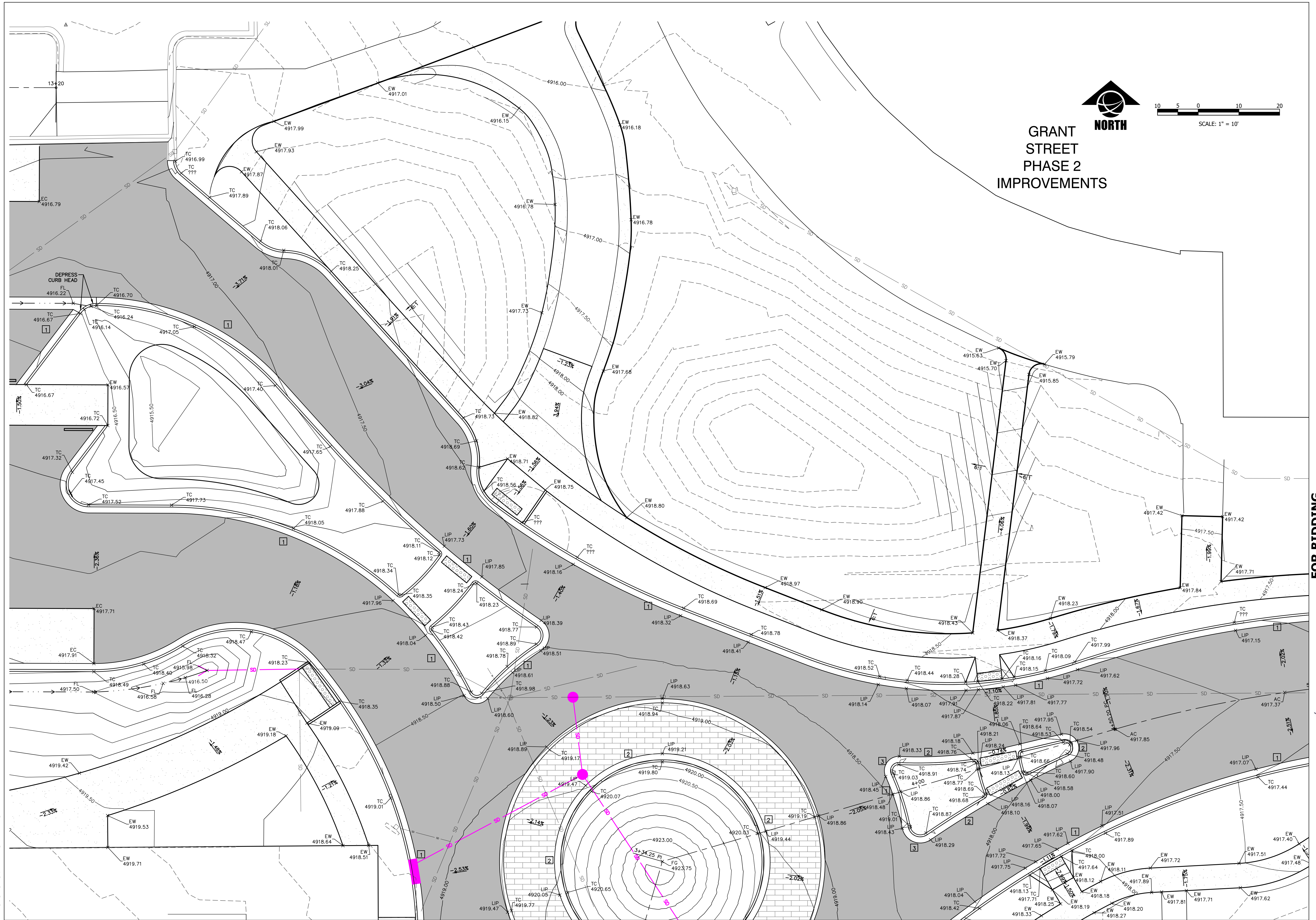
SHEET

C6.8

DATE

4/5/2024

DATE PLOTTED: 4/11/2024 10:58:22 AM
DRAWING: GRANT_STREET_PHASE_2_IMPROVEMENTS.dwg
PROJECT: GRANT STREET PEDESTRIAN MALL PHASE 2 IMPROVEMENTS
DRAWN BY: CMK/CE
CHECKED BY: TP/DRS
DATE PLOTTED: 4/11/2024 10:58:22 AM



**GRANT STREET
PHASE 2
IMPROVEMENTS**



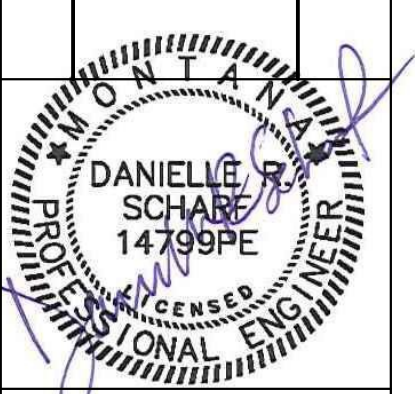
MSU-CPDC
MONTANA STATE UNIVERSITY
BOZEMAN, MONTANA
PHONE: 406.994.5413
FAX: 406.994.5665

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



REV.	DESCRIPTION	TP/DRS	DATE
1	FOR BIDDING		04/05/24



PPA#22-0001

A/E#2022-02-23D

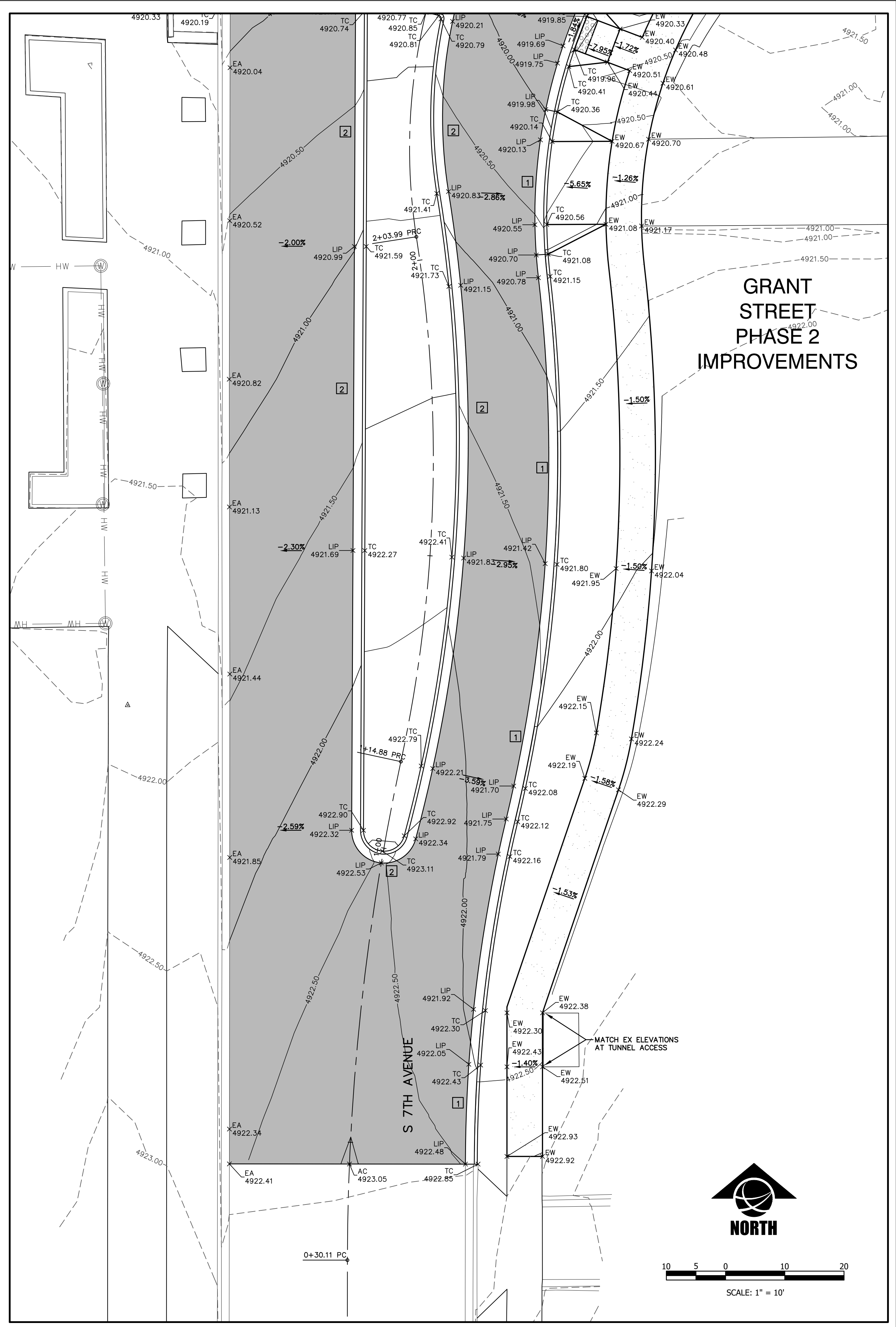
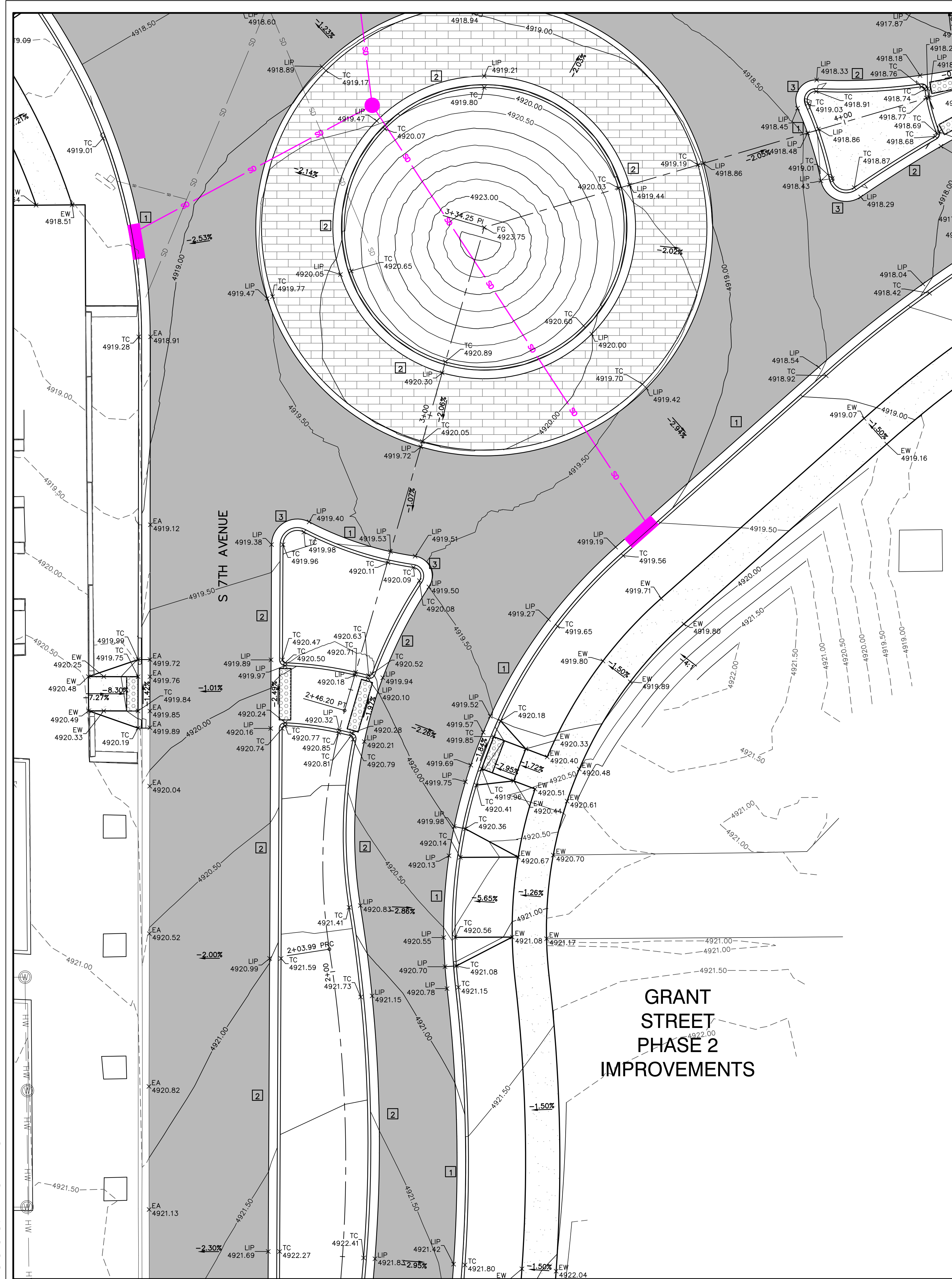
22236

SHEET TITLE
DETAILED GRADING

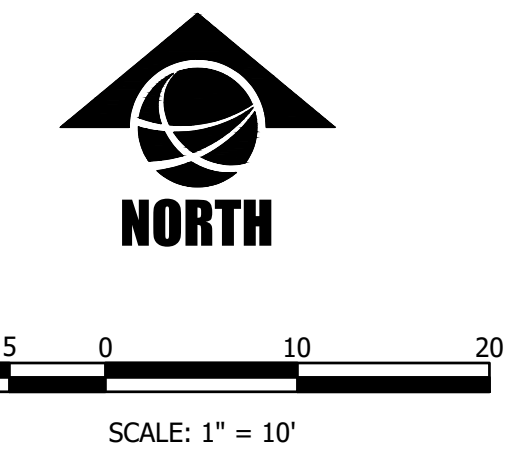
SHEET
C6.9

DATE
4/5/2024

MONTANA STATE UNIVERSITY - BOZEMAN, MONTANA
 1000 UNIVERSITY AVENUE, BOZEMAN, MONTANA 59717-0001
 TEL: 406.994.5413 FAX: 406.994.5665
 WWW.MSU.EDU



**GRANT STREET
PHASE 2
IMPROVEMENTS**



GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY:	CMK/CE	
REVIEWED BY:	TP/DRS	
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE
DETAILED GRADING

SHEET
C6.10

DATE
4/5/2024

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV. DESCRIPTION DATE

FOR BIDDING 04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

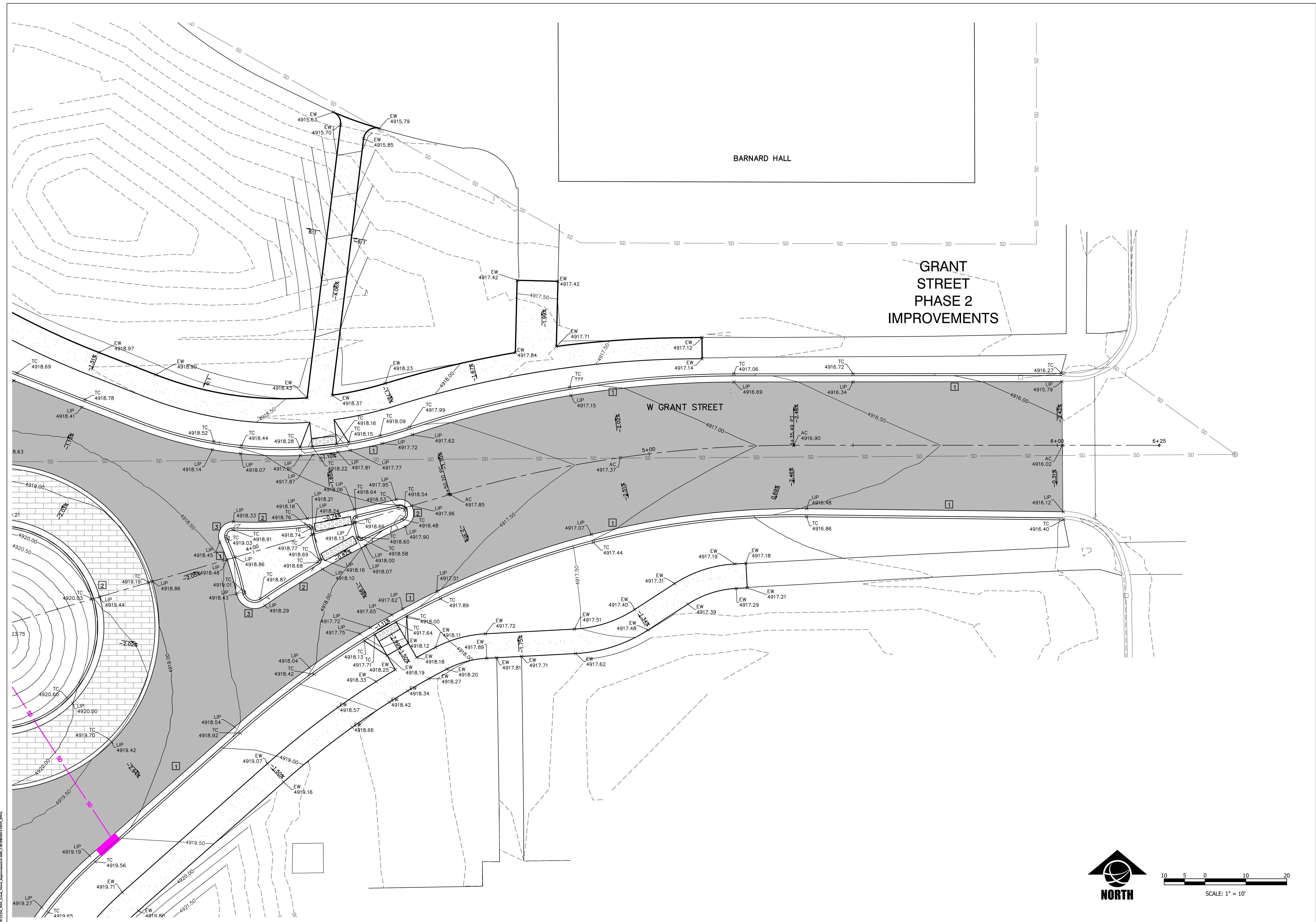
DETAILED GRADING

SHEET

C6.11

DATE

4/5/2024



MDT, Inc. Project: 22236, GRANT STREET IMPROVEMENTS, PHASE 2, PEDESTRIAN MALL, BOZEMAN, MONTANA. DATE: 04/05/24. DRAWN BY: CMK/CE. CHECKED BY: TP/DRS.

FOR BIDDING



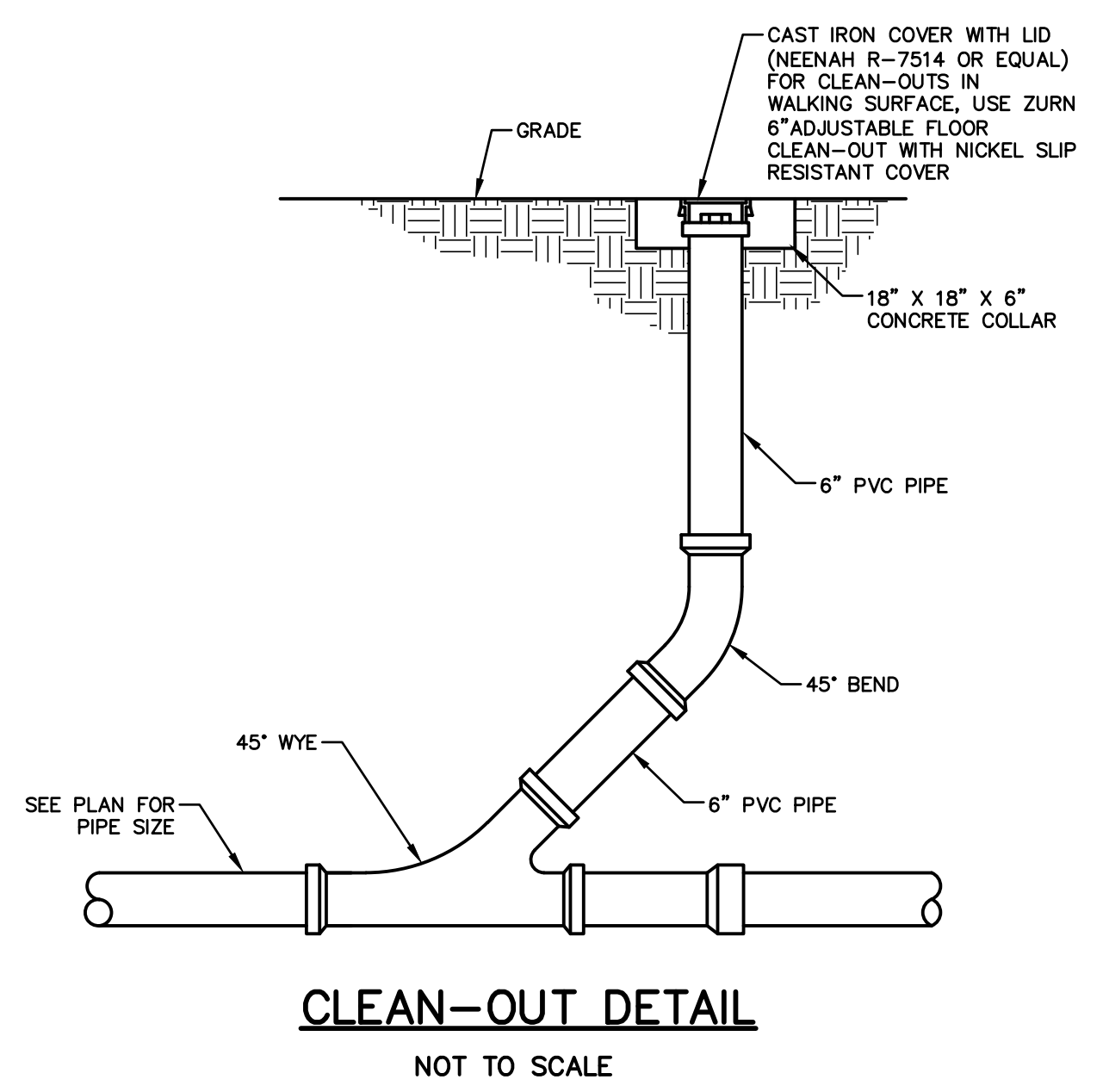
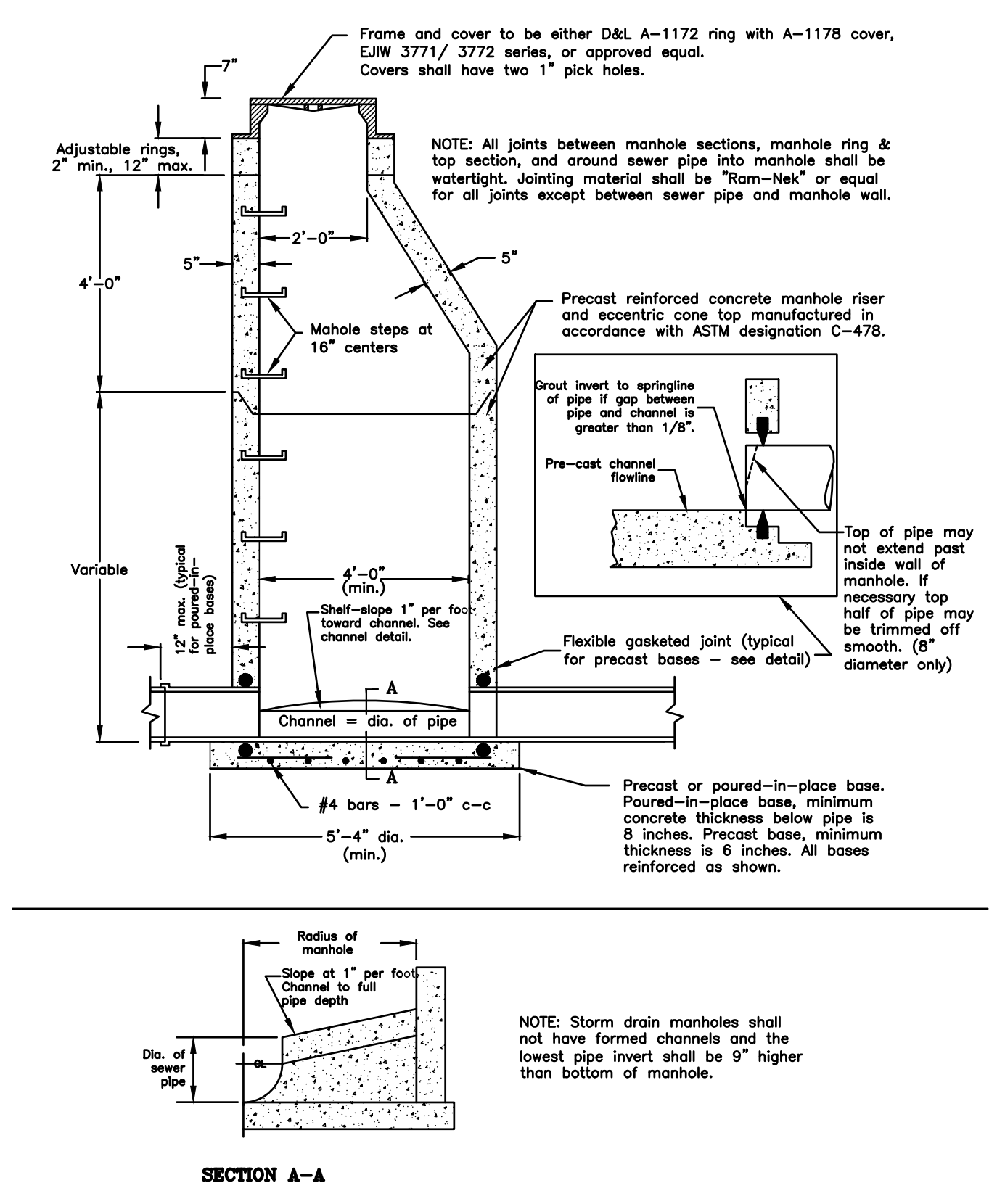
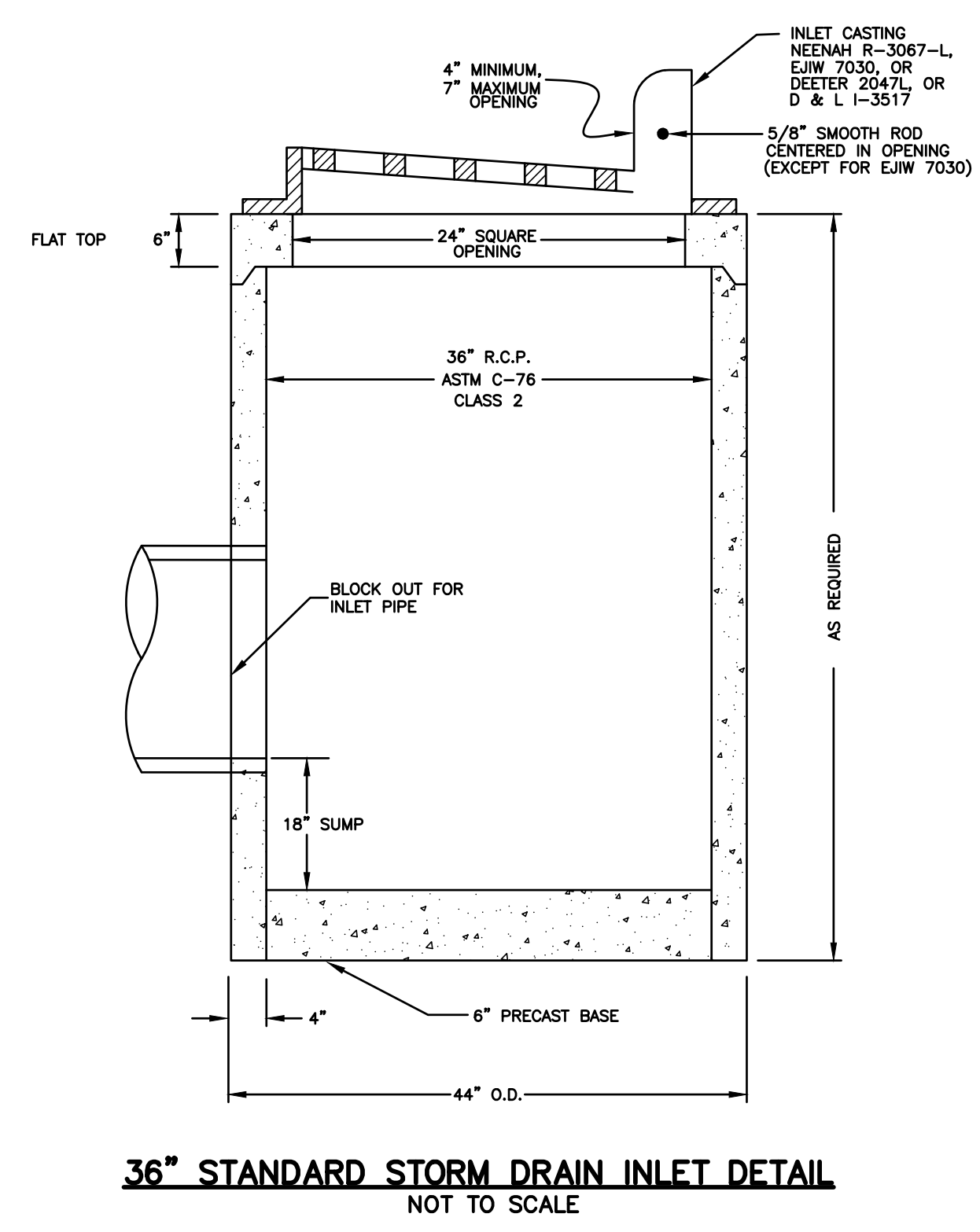
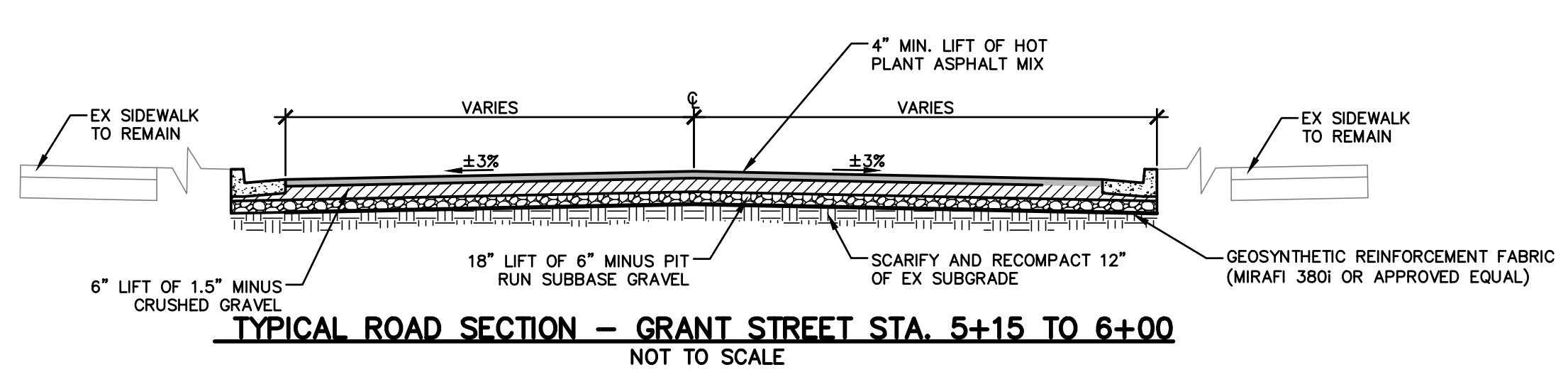
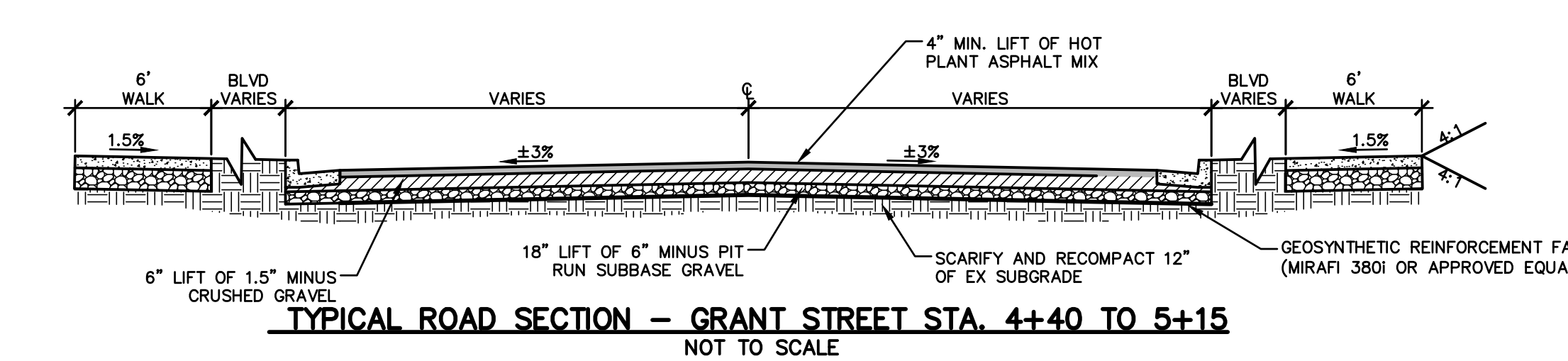
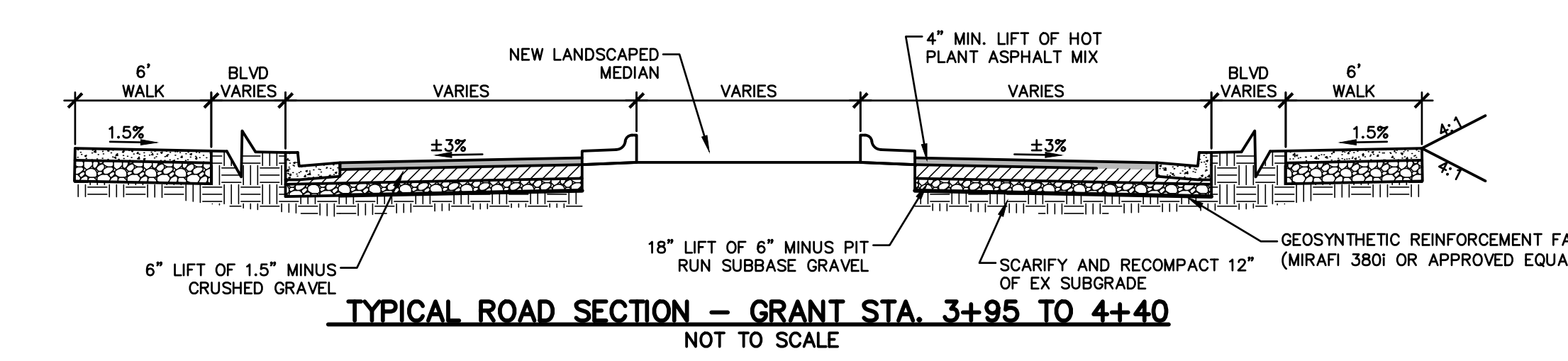
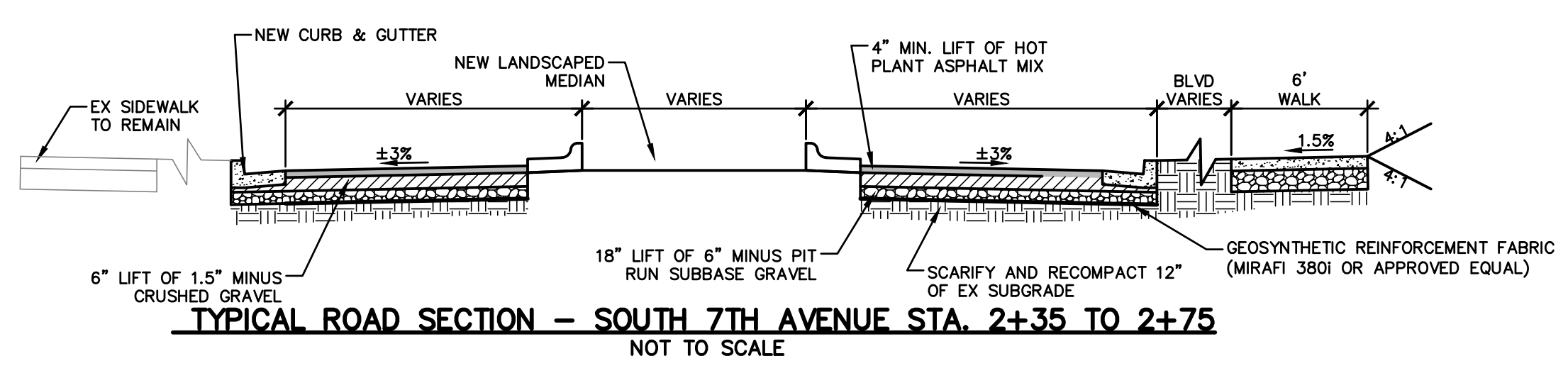
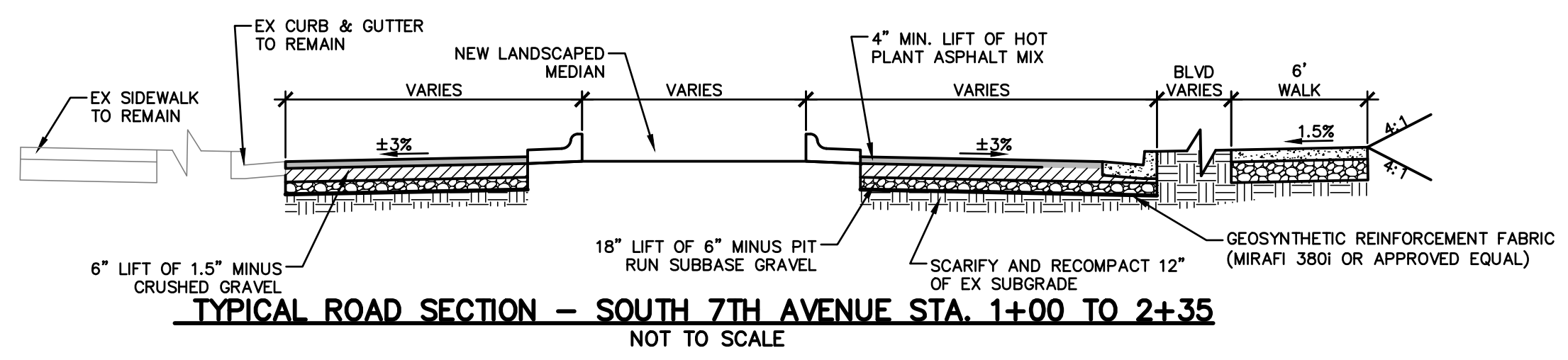
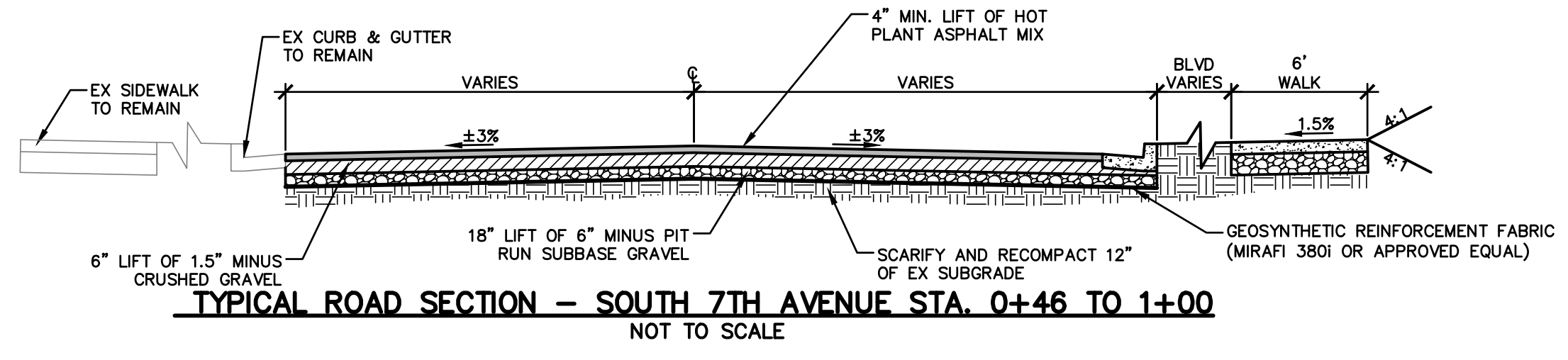
DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001
A/E#2022-02-23D

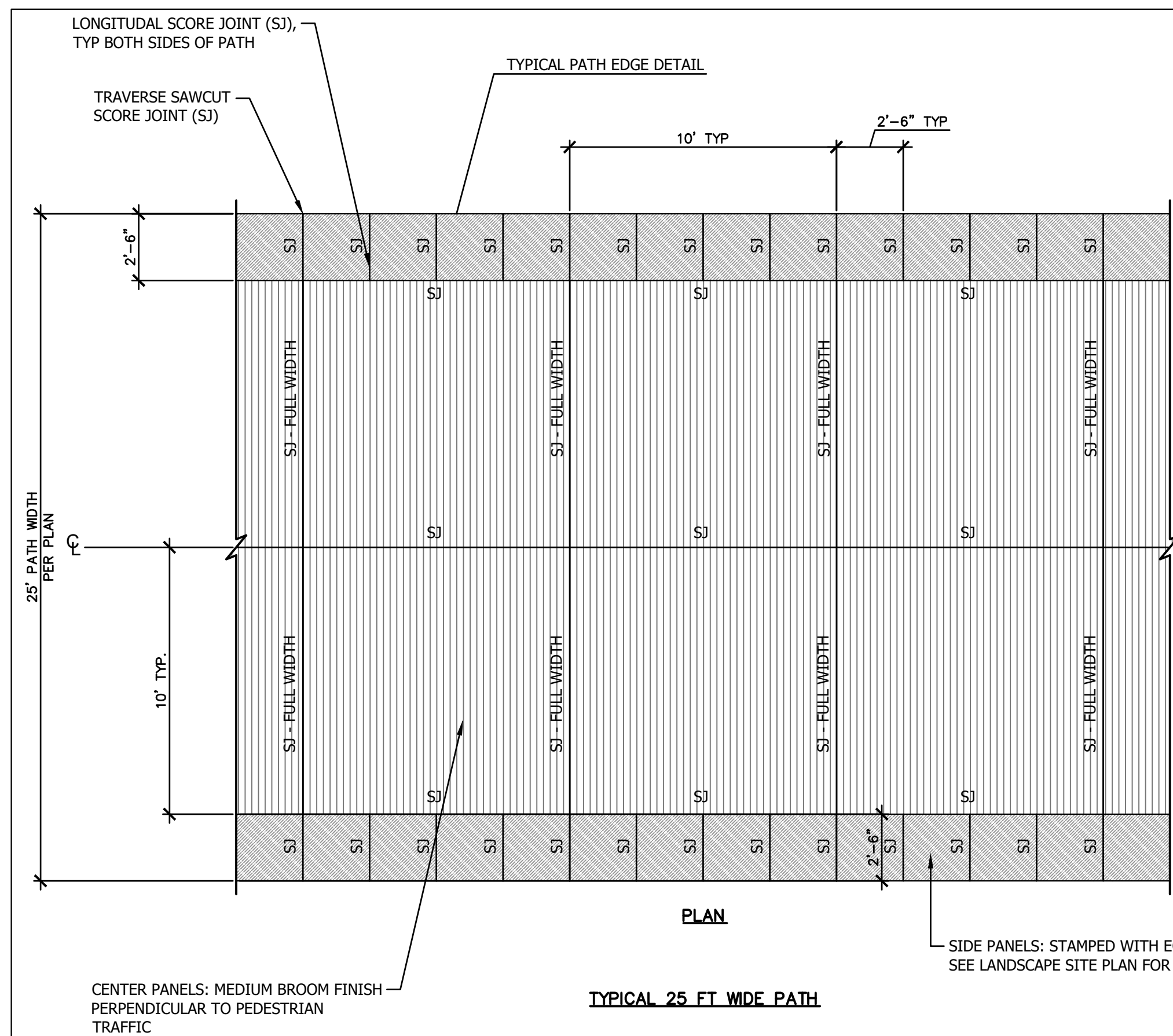
22236
SHEET TITLE
DETAILS

SHEET
C7.1

DATE
4/5/2024



APP'D: [Signature] DATE: 04/05/24
PROJECT: GRANT STREET PEDESTRIAN MALL, BOZEMAN, MT
DRAWN BY: CMK/CE
CHECKED BY: [Signature]
DATE: 04/05/24



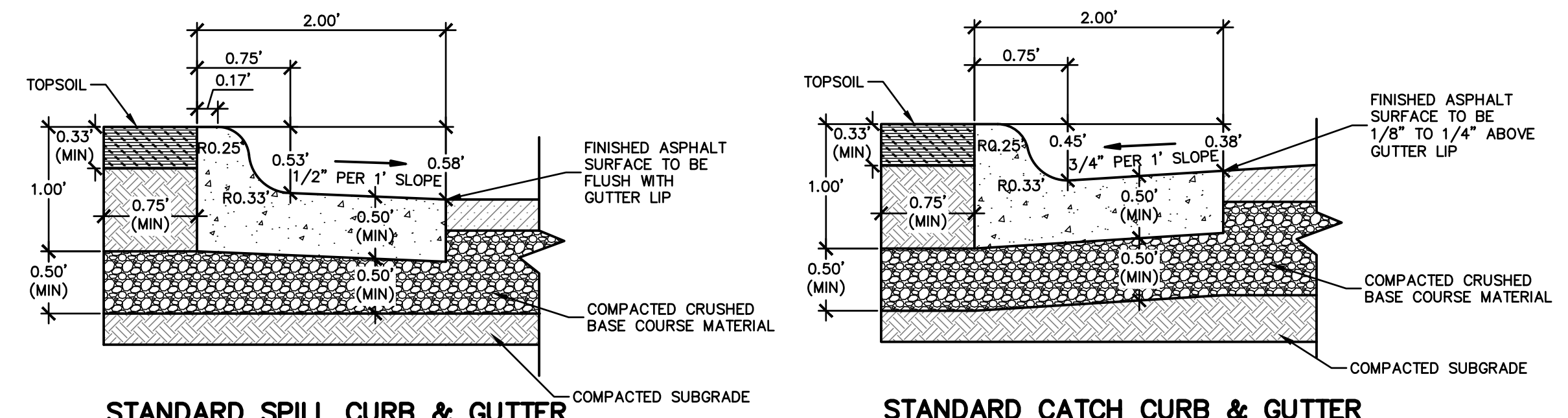
NOTES:

- CONCRETE JOINTS, SEE TYPICAL PEDESTRIAN TRAIL CONCRETE JOINT DETAIL.
- SEE DETAIL 1 ON SHEET L3.5 FOR CUSTOM CONCRETE STAMPS DETAIL.
- STAMPS TO BE APPLIED IN AN UPRIGHT DIRECTION; THE TOP OF THE PATTERN SHOULD ALIGN WITH THE OUTSIDE EDGE SO THAT THE PATTERN IS VIEWABLE WHILE STANDING ON THE MAIN PATH AND LOOKING OUTWARDS TOWARDS THE PATH EDGE

LEGEND:

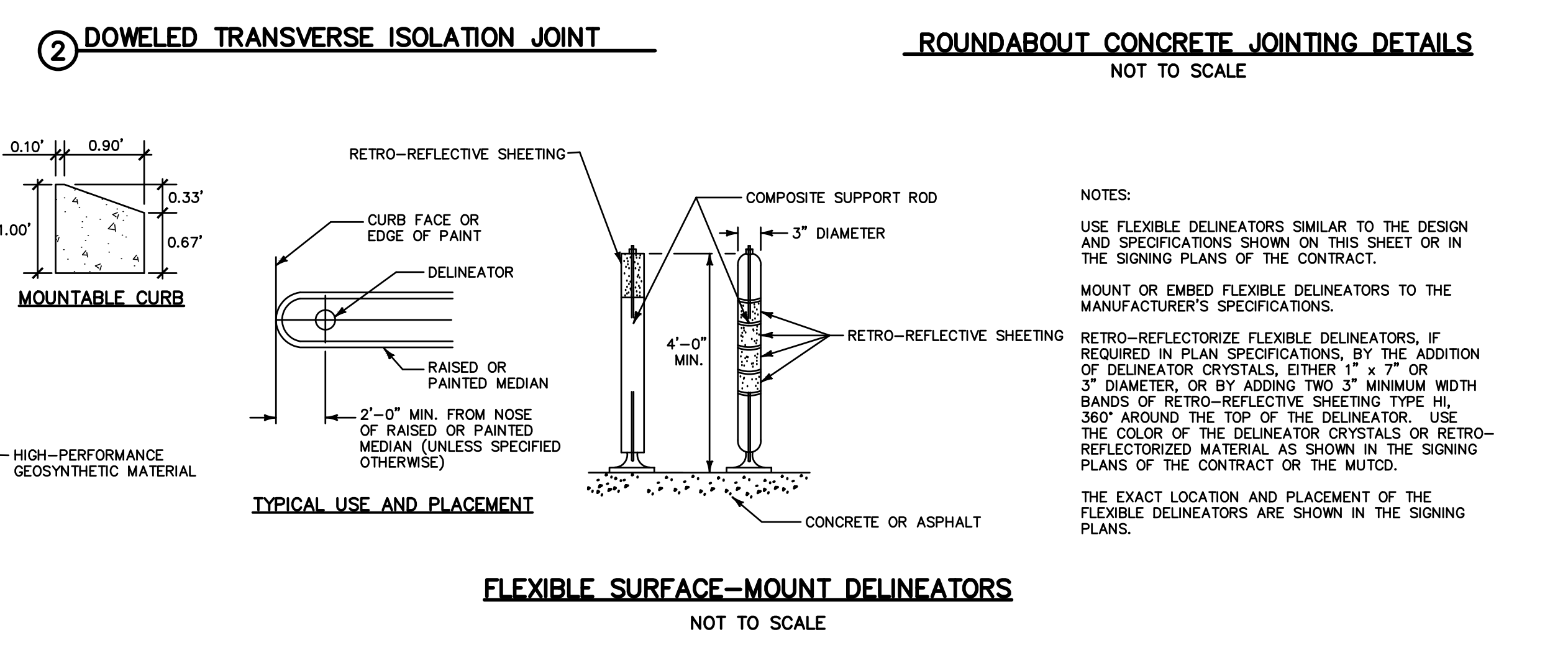
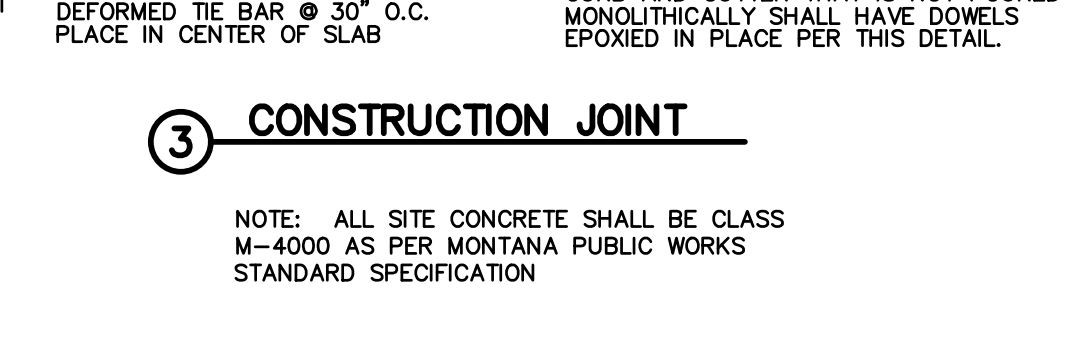
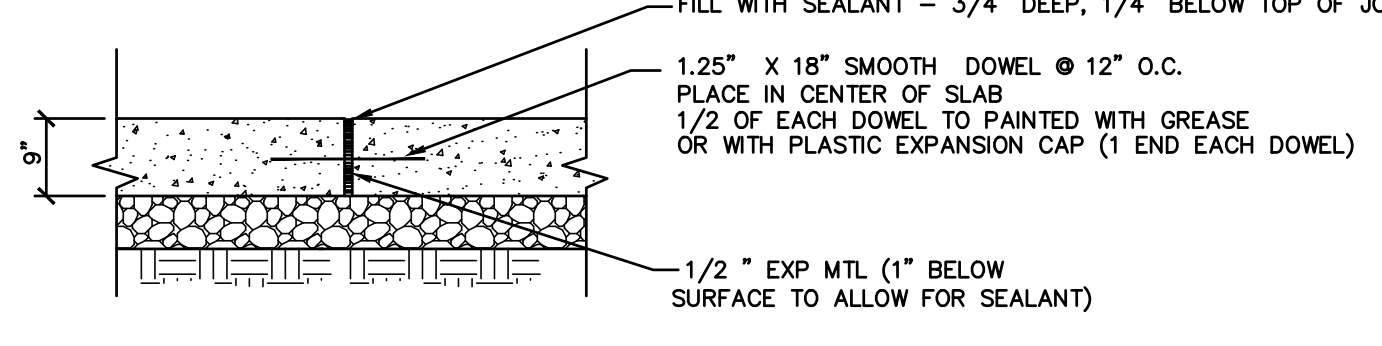
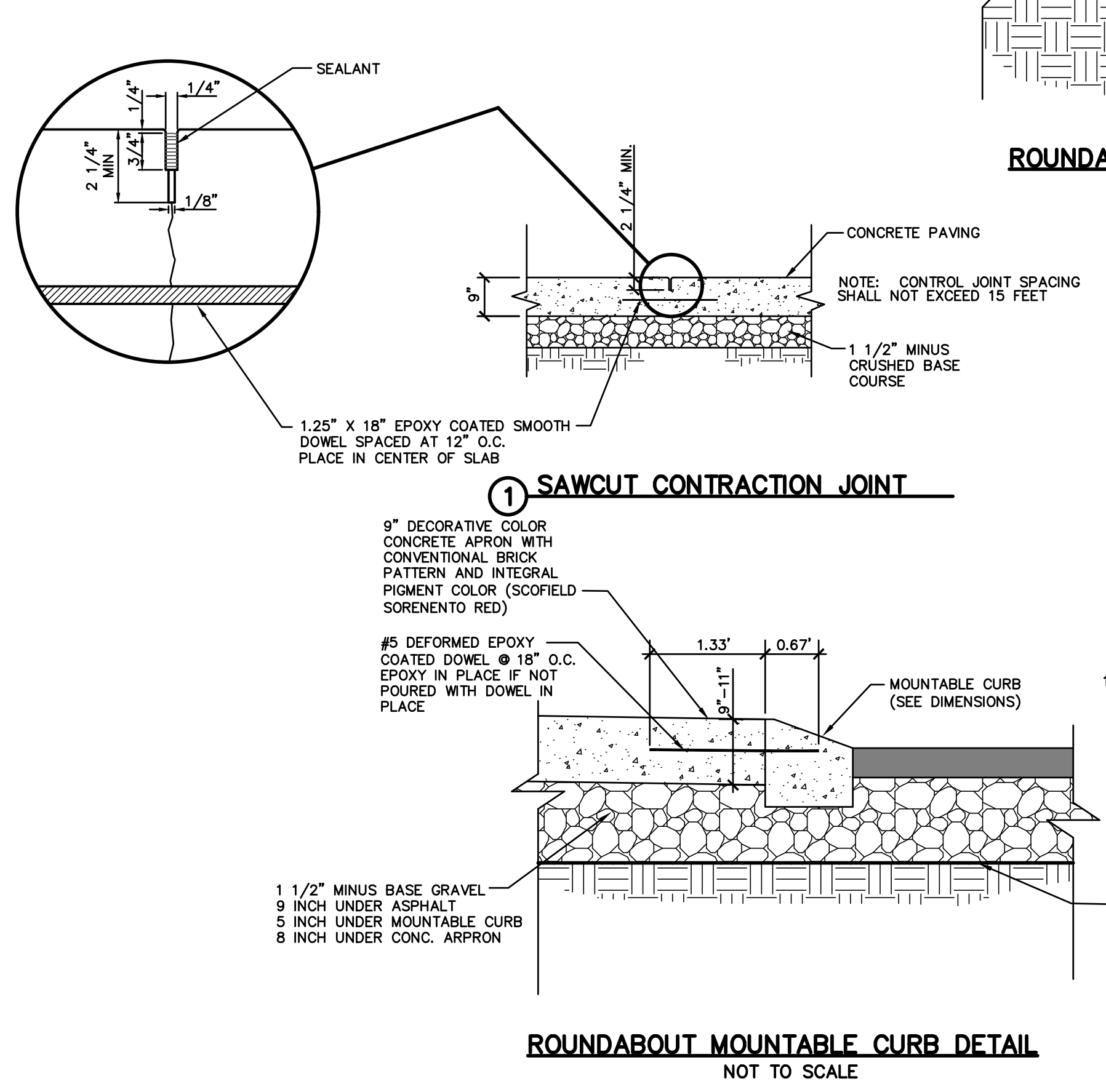
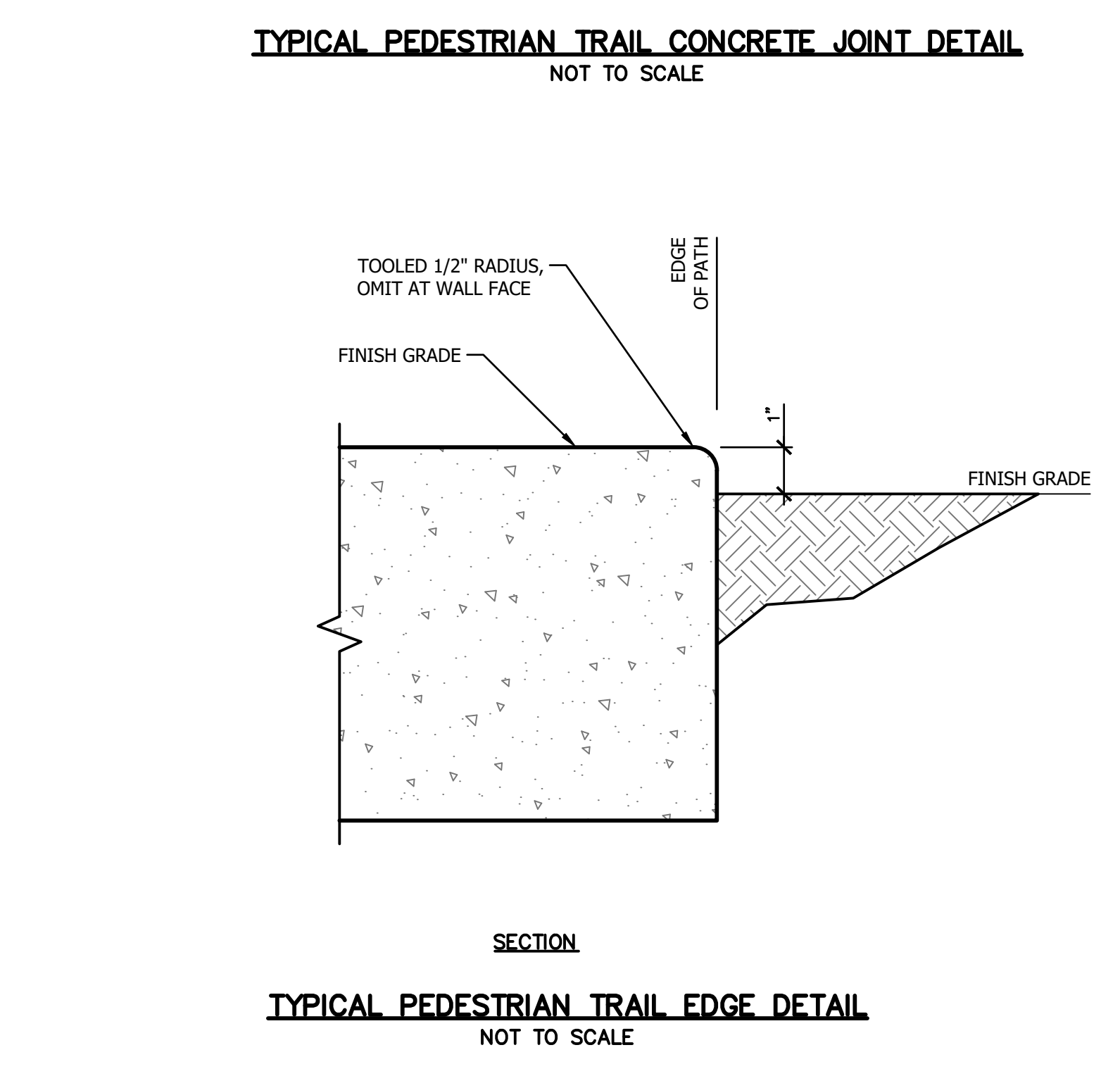
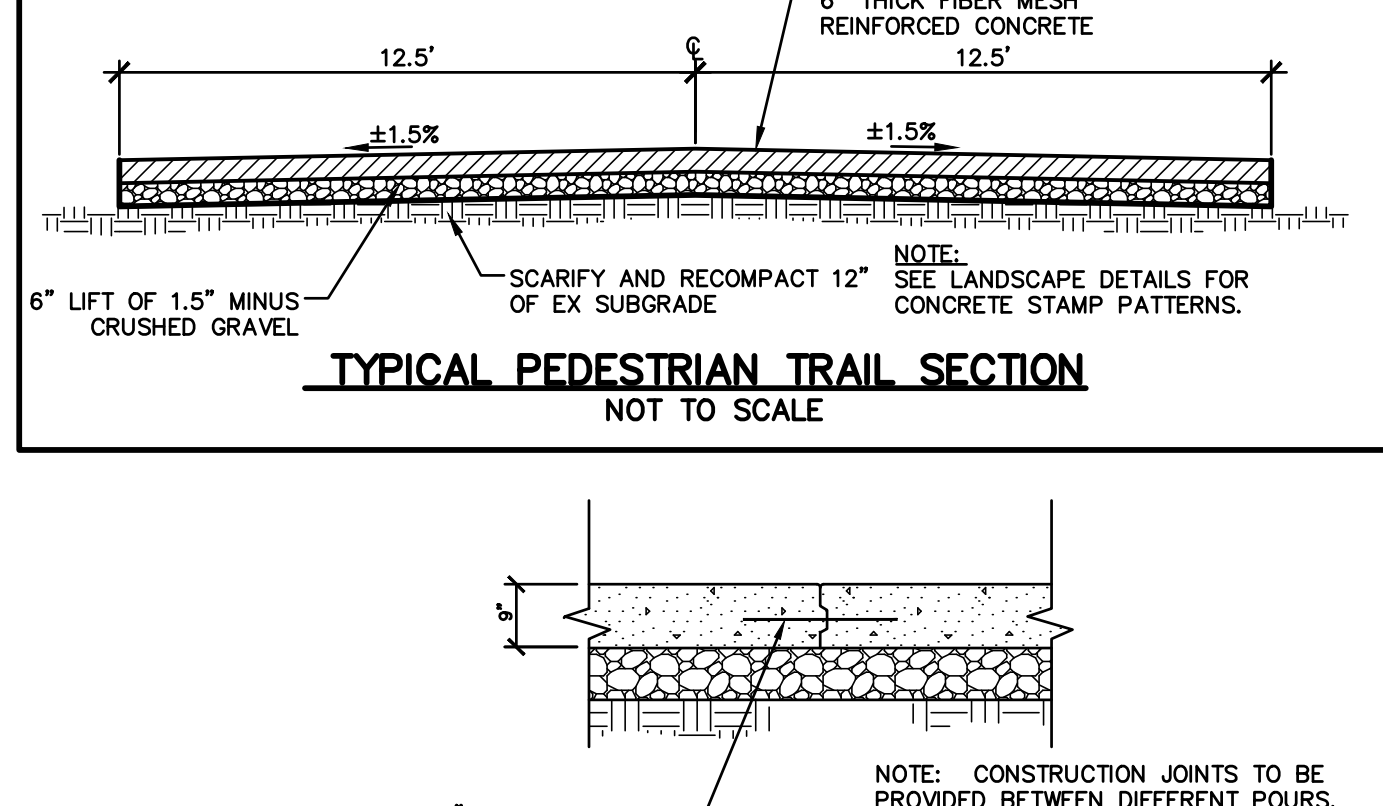
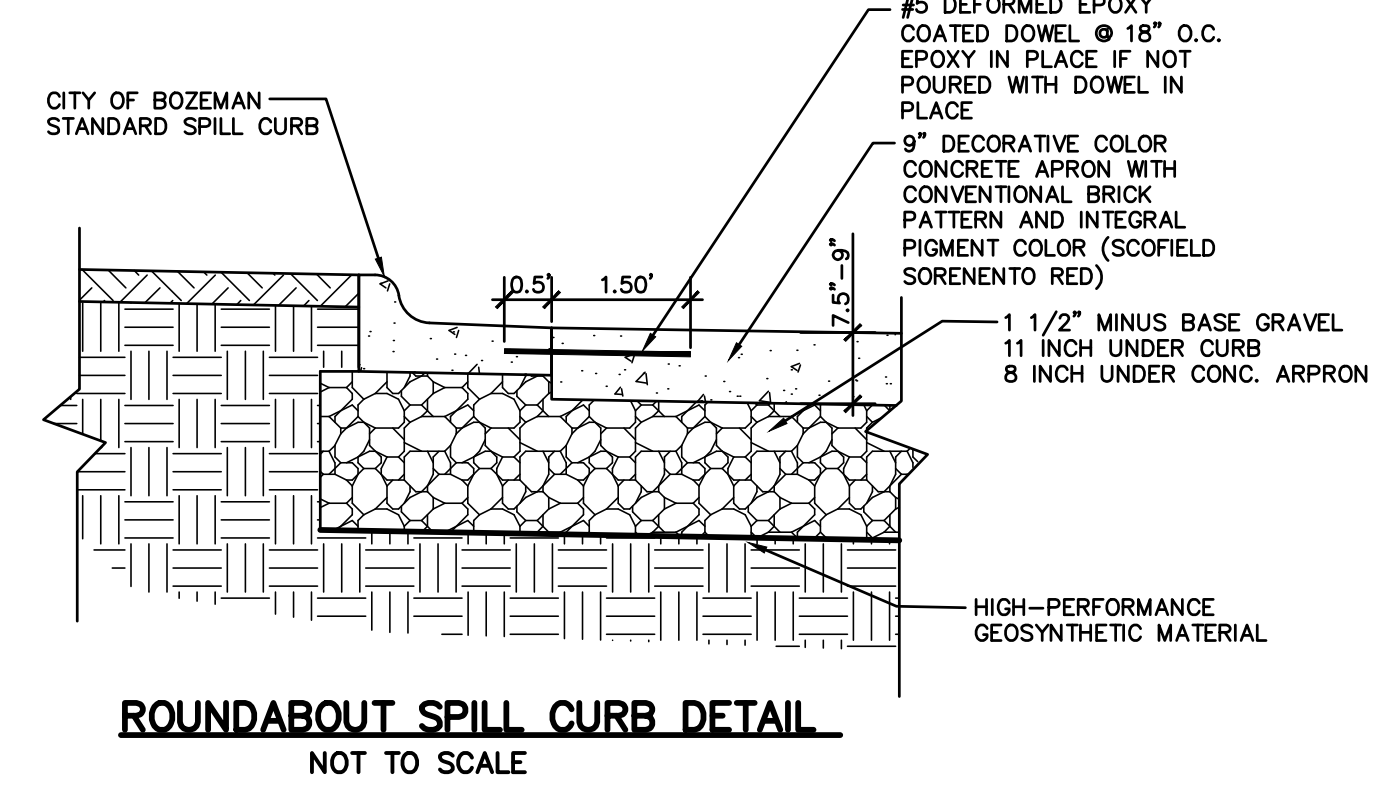
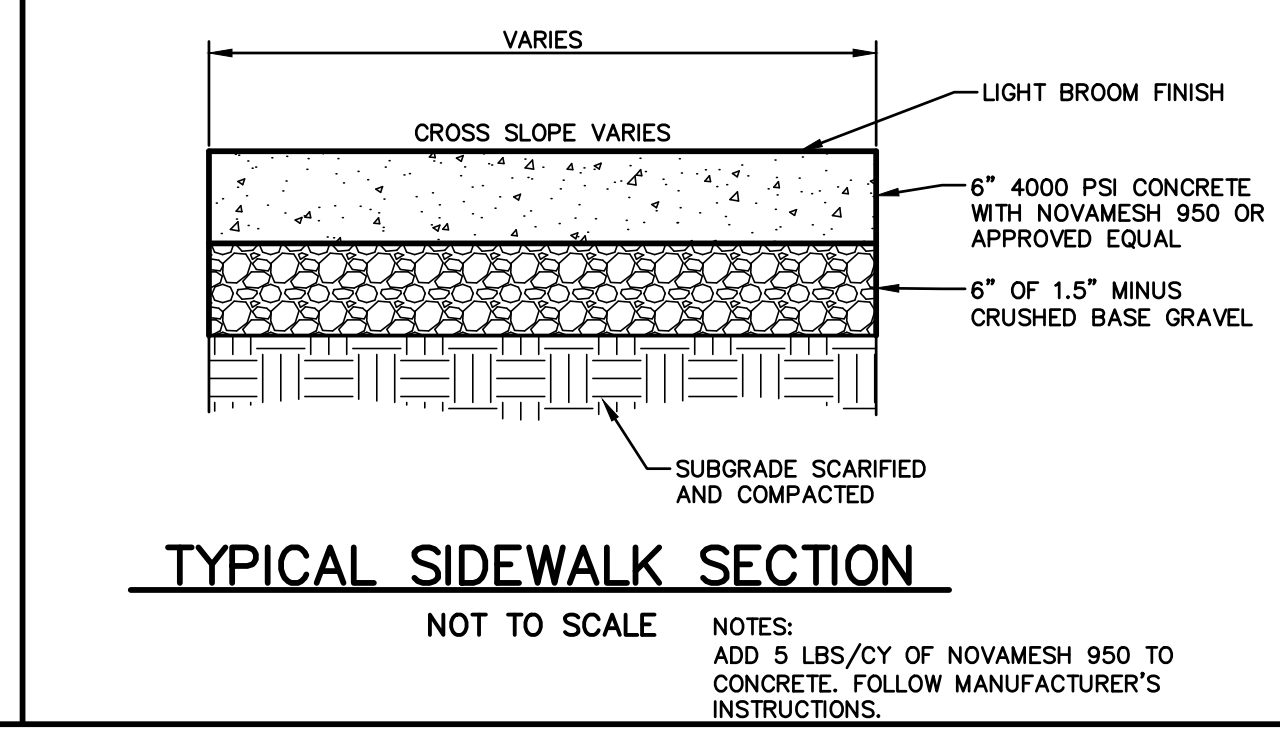
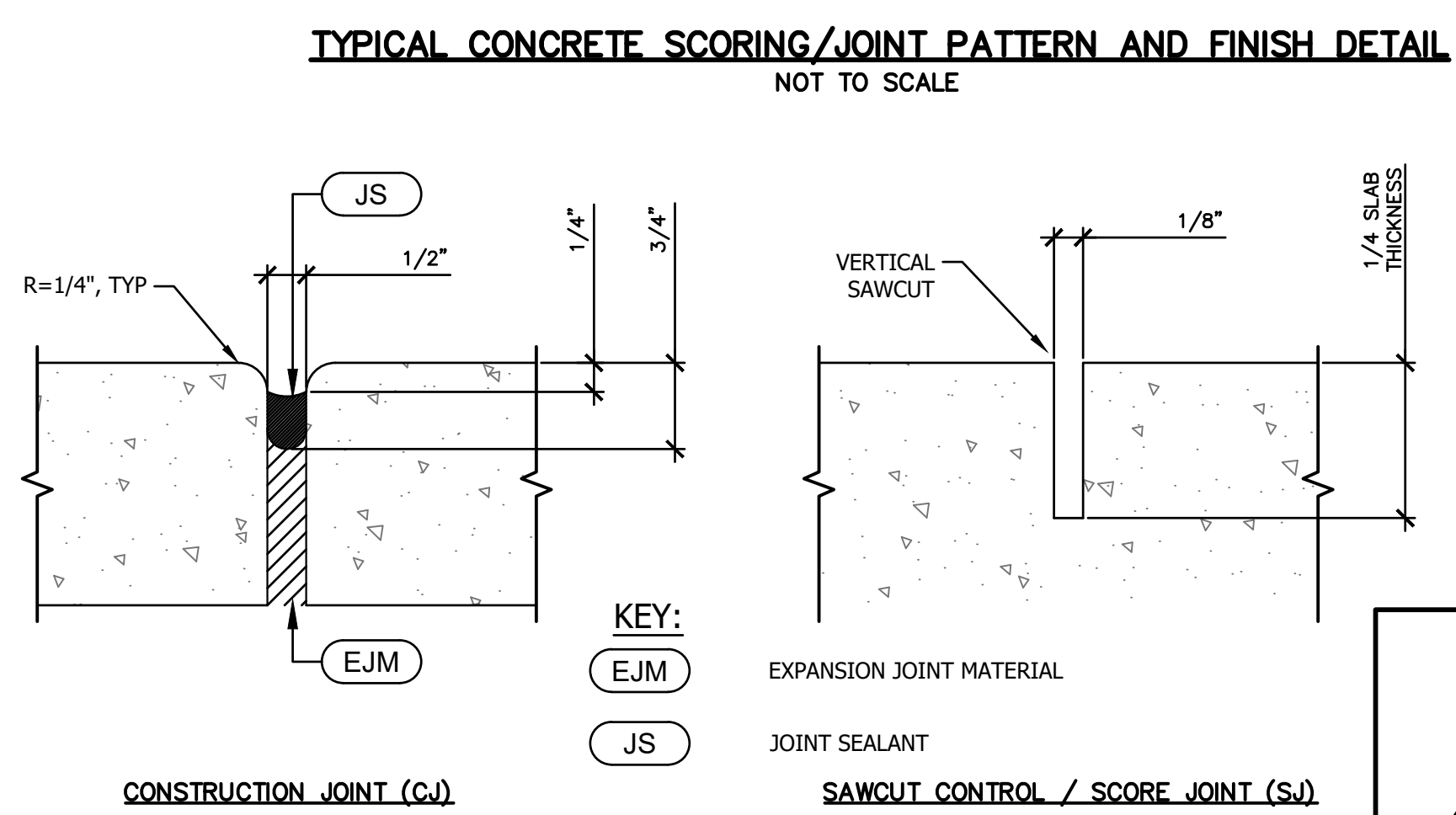
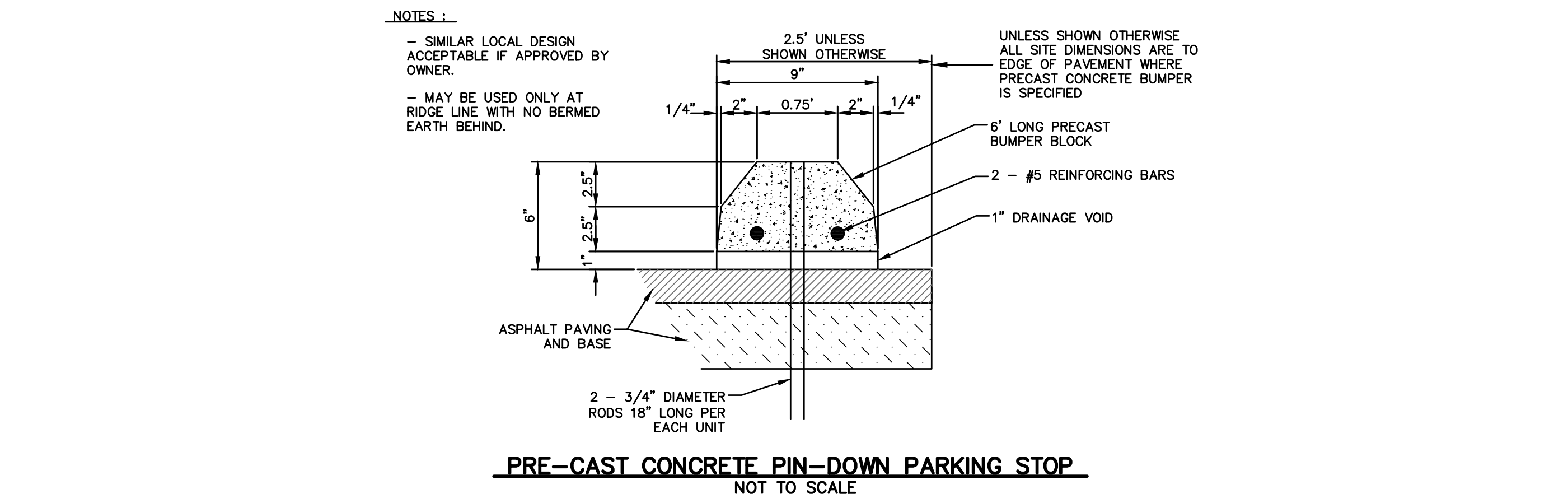
CJ CONSTRUCTION JOINT (EXPANSION)

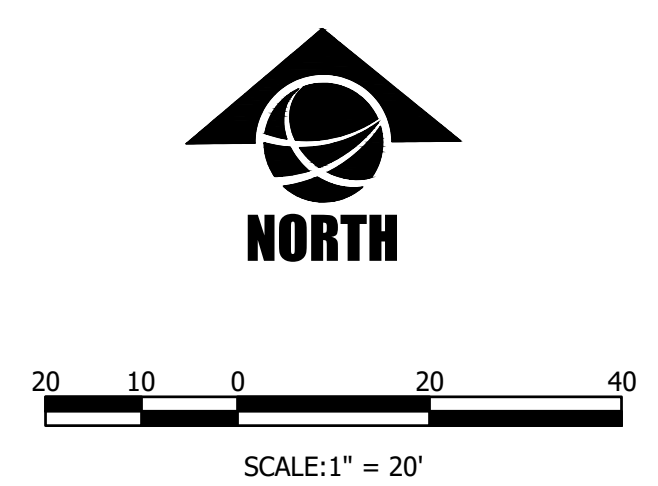
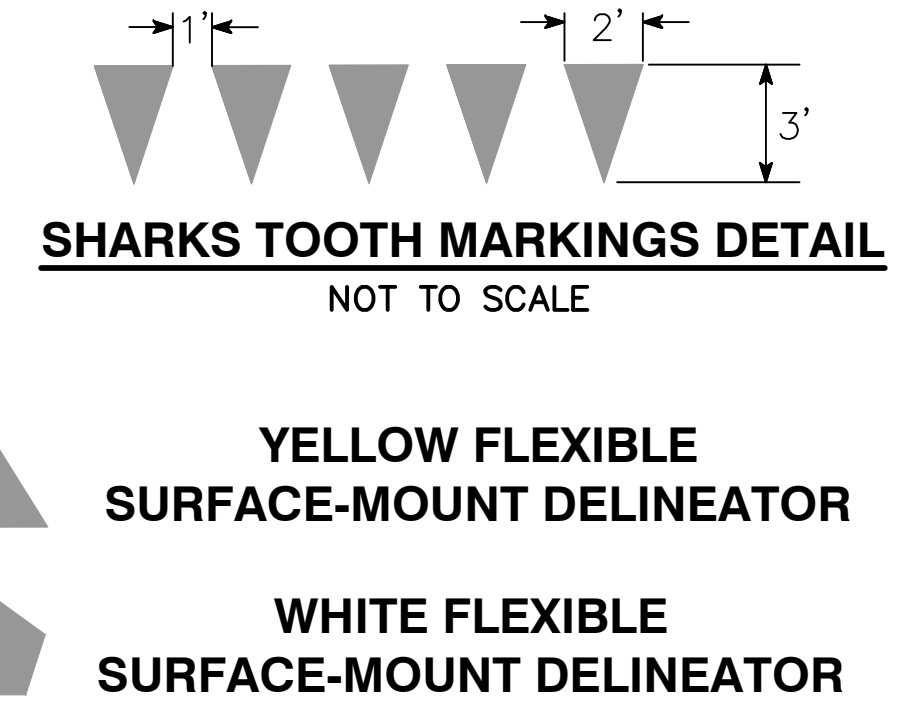
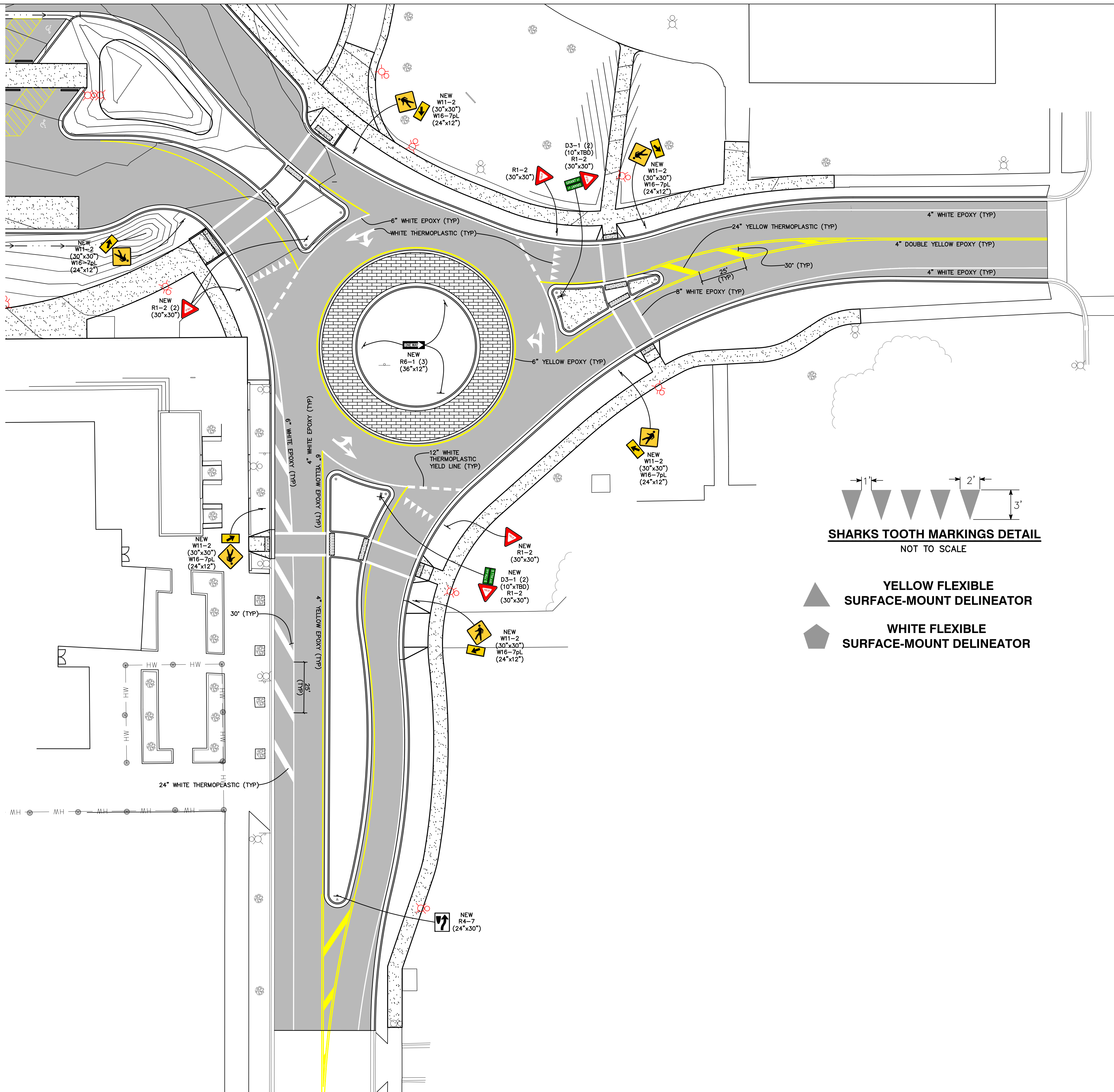
SJ SAWCUT CONTROL / SCORE JOINT



NOTES:

- SUBGRADE OR BASE COURSE COMPACTION SHALL CONFORM TO SECTION 02230 (MPWSS LATEST EDITION)
- CONSTRUCTION JOINTS SHALL BE PLACED AT 10' INTERVALS AND SHALL HAVE A MINIMUM DEPTH OF 3/4" AND MINIMUM WIDTH OF 1/8"
- 1/2" EXPANSION JOINT MATERIAL SHALL BE PLACED AT ALL P.C.S., P.T.S., CURB RETURNS AND AT NOT MORE THAN 300' INTERVALS. THE EXPANSION MATERIAL SHALL EXTEND THROUGH THE FULL DEPTH OF THE CURB AND GUTTER.
- NO CURB AND GUTTER SHALL BE PLACED WITHOUT A FINAL FORM INSPECTION BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
- CONCRETE SHALL BE CLASS M-4000.
- CRUSHED GRAVEL BASE SHALL MEET THE REQUIREMENTS OF 02235 (MPWSS LATEST EDITION) FOR CURB AND GUTTER REPLACEMENT PROJECTS, WASHED ROCK MAY BE USED FOR THE GRAVEL BASE.





GRANT STREET
PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

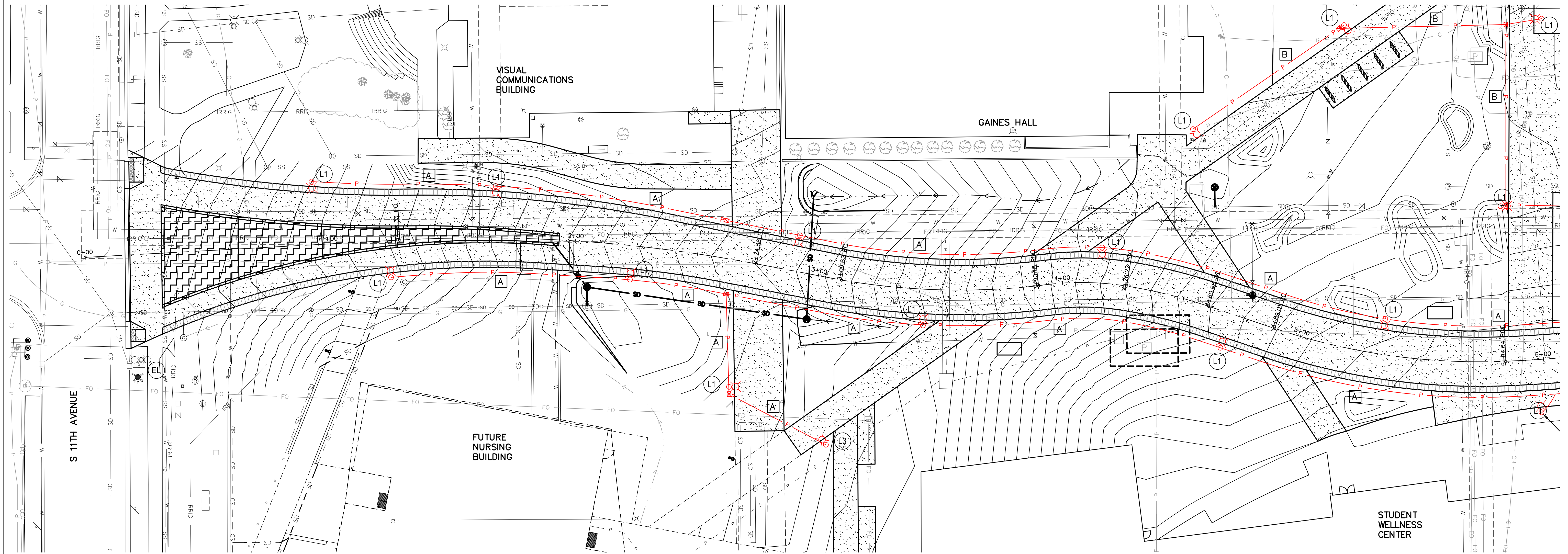
PPA#22-0001
A/E#2022-02-23D

22236
SHEET TITLE
SIGNAGE & STRIPING
PLAN ROUNDABOUT

SHEET
C8.1

DATE
4/5/2024

MONTANA STATE UNIVERSITY
 22236
 SIGNAGE & STRIPING
 PLAN ROUNDABOUT
 4/5/2024
 CMK/CE
 DANIELLE R. SCHAR
 14799PE
 PROFESSIONAL ENGINEER
 MONTANA



ELECTRICAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH CIVIL AND GENERAL CONTRACTOR FOR ROUTING, TRENCHING, AND DEMOLITION.
2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH CIVIL DRAWINGS FOR ADDITIONAL WORK.
3. NOT ALL UTILITIES AND ELECTRICAL WORK IS SHOWN ON THIS DRAWING.
4. EXISTING LIGHT FIXTURE TO REMAIN SHOWN FOR REFERENCE AND OVERALL SITE POLE REPLACEMENT MAPPING. REWORK UNDERGROUND CIRCUITRY AS REQUIRED TO REMAIN CONNECTED ELECTRONICALLY COMPLETE.
5. EXISTING LIGHT FIXTURE TO BE REMOVED AND RETURNED TO OWNER FOR RETENTION. REMOVE CIRCUIT CONDUIT BACK TO SOURCE.

CONDUIT RUNS:

- A** - 1 OF 2" PVC CONDUIT
 2 OF AWG NO. 8 CONDUCTOR
 1 OF AWG NO. 10 CONDUCTOR
- B** - 2 OF 2" PVC CONDUIT
 2 OF AWG NO. 8 CONDUCTOR
 2 OF AWG NO. 10 CONDUCTOR

NOTE: CONDUIT RUN B SPARE CONDUIT SHALL BE CAPPED WITH 1 OF AWG NO. 10 AND 2500# PULL TAPE PLACED INSIDE CONDUIT.



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

GRANT STREET
 PEDESTRIAN MALL

FOR BIDDING



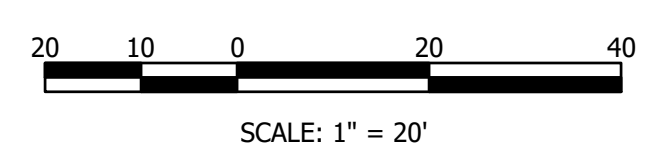
DRAWN BY: CMK/CE		
REVIEWED BY: TP/DRS		
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001
 A/E#2022-02-23D

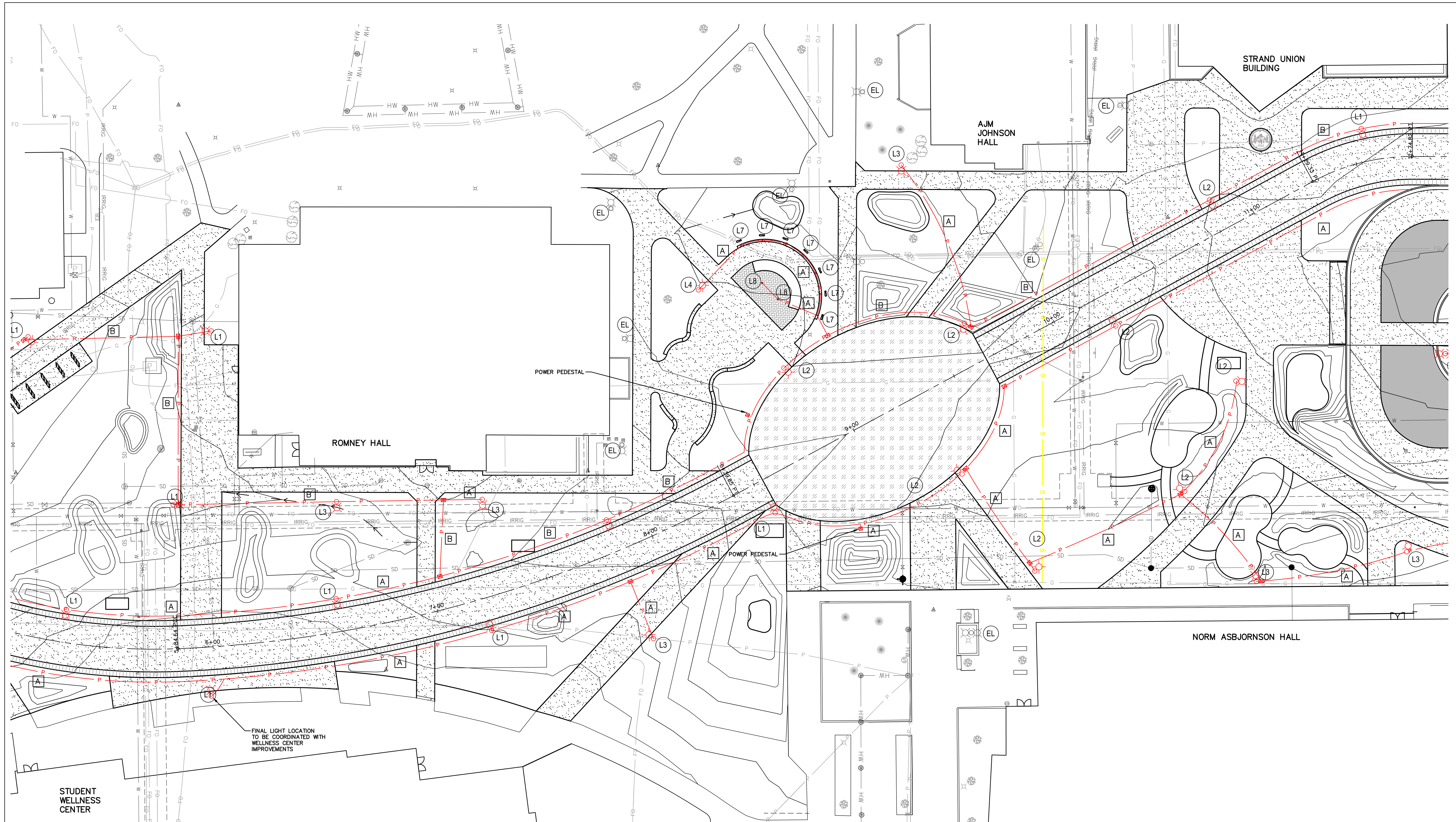
22236
SHEET TITLE
 ELECTRICAL SITE PLAN

SHEET
E1.1

DATE
 4/5/2024



MONTANA STATE UNIVERSITY - CPDC PROJECTS
 22236 - ELECTRICAL SITE PLAN
 4/5/2024

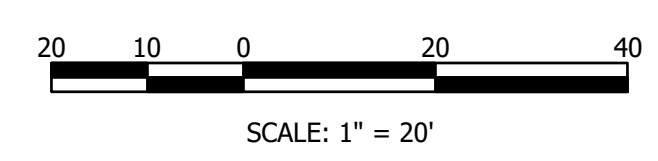


- ELECTRICAL NOTES:**
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH CIVIL AND GENERAL CONTRACTOR FOR ROUTING, TRENCHING, AND DEMOLITION.
 2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH CIVIL DRAWINGS FOR ADDITIONAL WORK.
 3. NOT ALL UTILITIES AND ELECTRICAL WORK IS SHOWN ON THIS DRAWING.
 4. EXISTING LIGHT FIXTURE TO REMAIN SHOWN FOR REFERENCE AND OVERALL SITE POLE REPLACEMENT MAPPING, REWORK UNDERGROUND CIRCUITRY AS REQUIRED TO REMAIN CONNECTED ELECTRONICALLY COMPLETE.
 5. EXISTING LIGHT FIXTURE TO BE REMOVED AND RETURNED TO OWNER FOR RETENTION. REMOVE CIRCUIT CONDUIT BACK TO SOURCE.

- CONDUIT RUNS:**
- A** - 1 OF 2" PVC CONDUIT
2 OF AWG NO. 8 CONDUCTOR
1 OF AWG NO. 10 CONDUCTOR
 - B** - 2 OF 2" PVC CONDUIT
2 OF AWG NO. 8 CONDUCTOR
2 OF AWG NO. 10 CONDUCTOR

NOTE: CONDUIT RUN B SPARE CONDUIT SHALL BE CAPPED WITH 1 OF AWG NO. 10 AND 2500# PULL TAPE PLACED INSIDE CONDUIT.

FINAL LIGHT LOCATION TO BE COORDINATED WITH WELLNESS CENTER IMPROVEMENTS



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

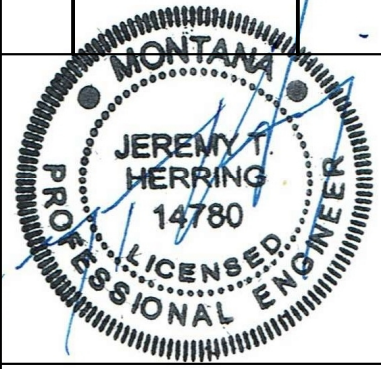
GRANT STREET

PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE	
REV.	TP/DRS
DESCRIPTION	DATE
FOR BIDDING	04/05/24

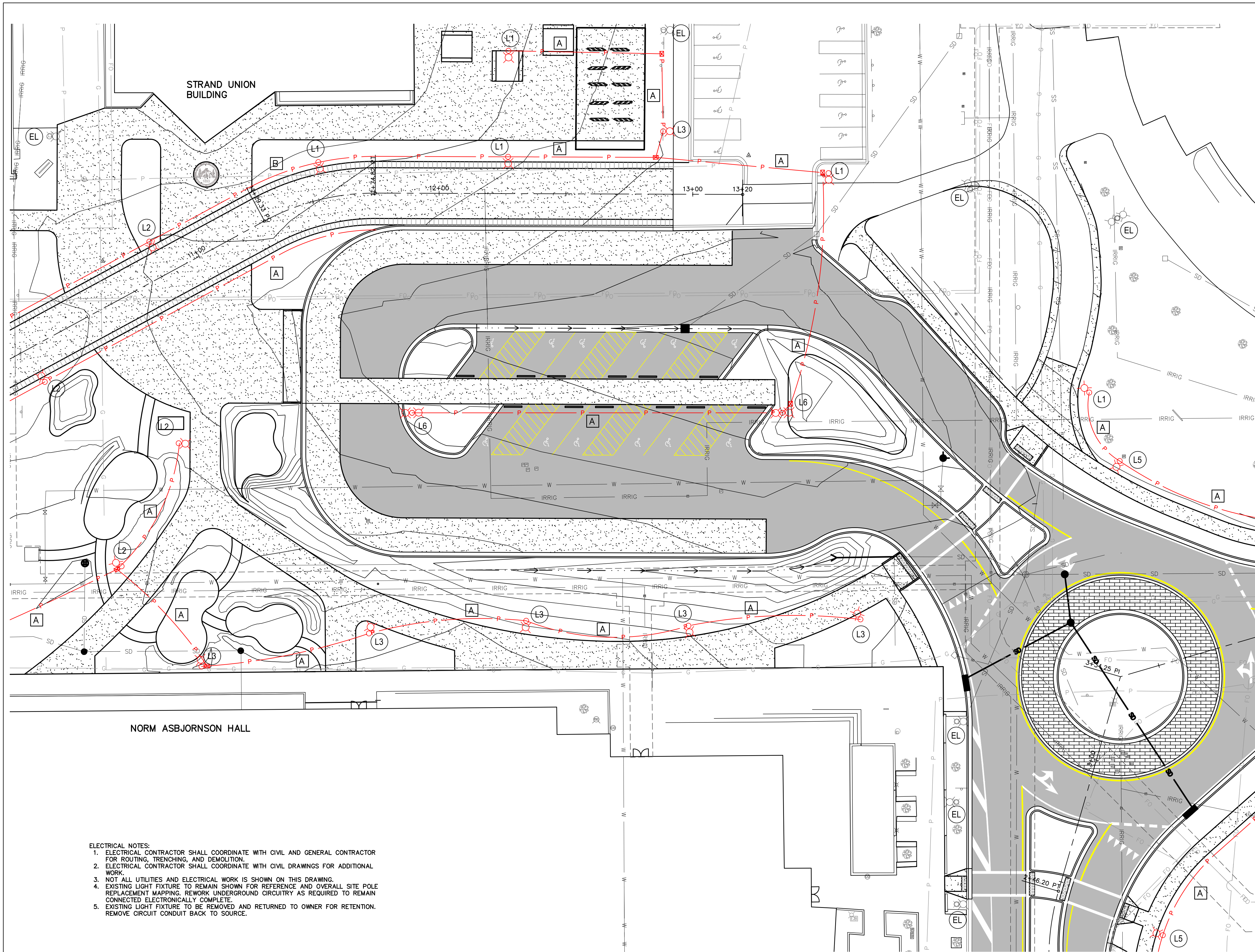


PPA#22-0001
A/E#2022-02-23D

22236
SHEET TITLE
ELECTRICAL SITE PLAN

SHEET
E1.2

DATE
4/5/2024

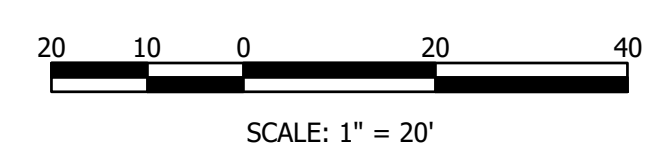


- ELECTRICAL NOTES:**
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH CIVIL AND GENERAL CONTRACTOR FOR ROUTING, TRENCHING, AND DEMOLITION.
 2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH CIVIL DRAWINGS FOR ADDITIONAL WORK.
 3. NOT ALL UTILITIES AND ELECTRICAL WORK IS SHOWN ON THIS DRAWING.
 4. EXISTING LIGHT FIXTURE TO REMAIN SHOWN FOR REFERENCE AND OVERALL SITE POLE REPLACEMENT MAPPING. REWORK UNDERGROUND CIRCUITRY AS REQUIRED TO REMAIN CONNECTED ELECTRONICALLY COMPLETE.
 5. EXISTING LIGHT FIXTURE TO BE REMOVED AND RETURNED TO OWNER FOR RETENTION. REMOVE CIRCUIT CONDUIT BACK TO SOURCE.

- CONDUIT RUNS:**
- A** - 1 OF 2" PVC CONDUIT
2 OF AWG NO. 8 CONDUCTOR
1 OF AWG NO. 10 CONDUCTOR
 - B** - 2 OF 2" PVC CONDUIT
2 OF AWG NO. 8 CONDUCTOR
2 OF AWG NO. 10 CONDUCTOR

NOTE: CONDUIT RUN B SPARE CONDUIT SHALL BE CAPPED WITH 1 OF AWG NO. 10 AND 2500# PULL TAPE PLACED INSIDE CONDUIT.

MONTANA STATE UNIVERSITY - BOZEMAN, MONTANA
 406.994.5413
 406.994.5665



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

GRANT STREET

PEDESTRIAN MALL

FOR BIDDING



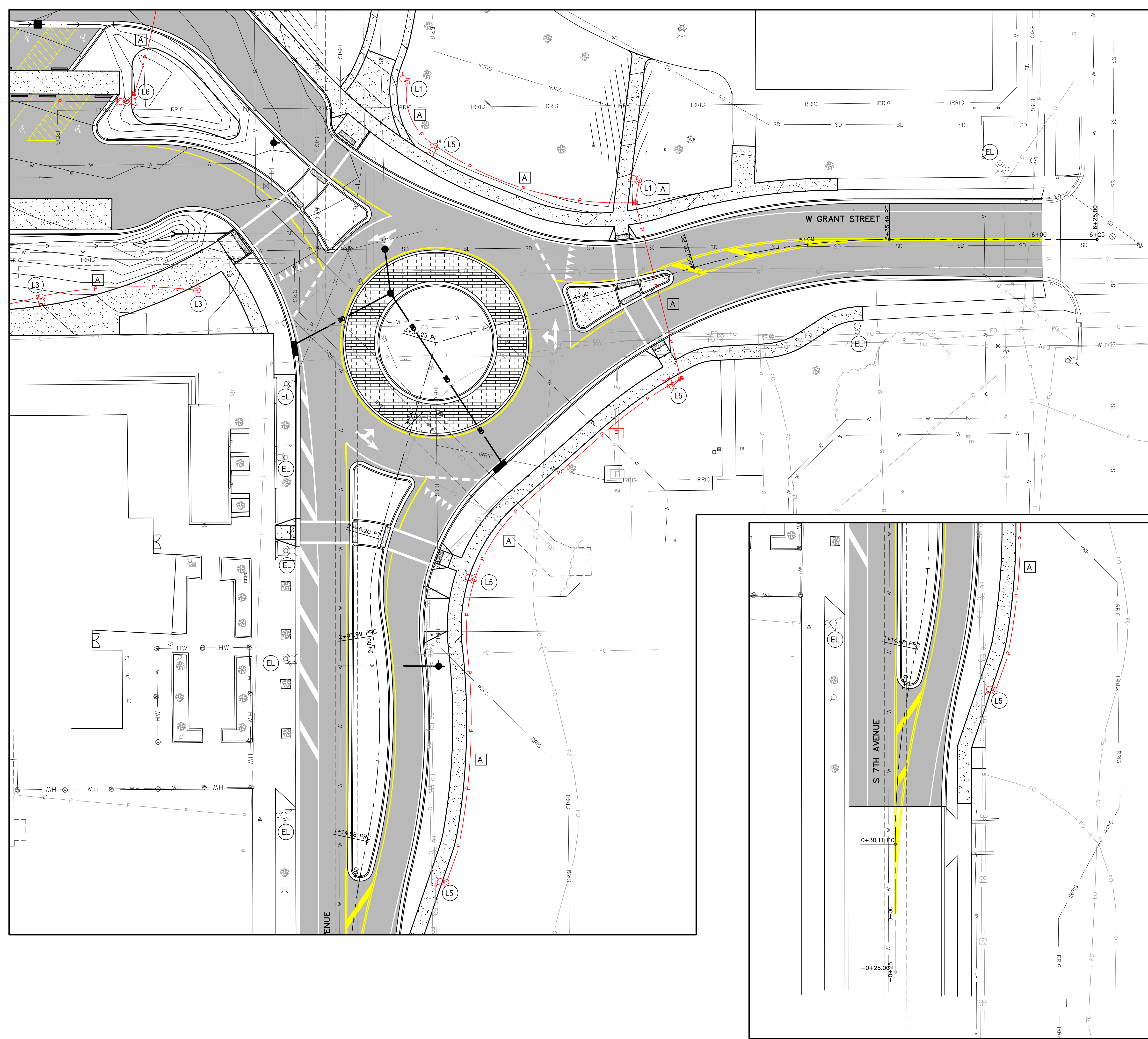
DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001
 A/E#2022-02-23D

22236
SHEET TITLE
 ELECTRICAL SITE PLAN

SHEET
E1.3

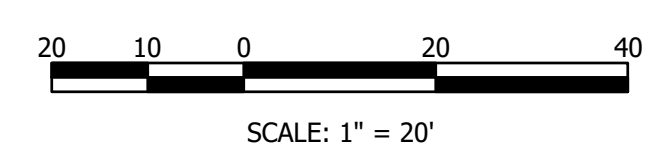
DATE
 4/5/2024



- ELECTRICAL NOTES:**
1. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH CIVIL AND GENERAL CONTRACTOR FOR ROUTING, TRENCHING, AND DEMOLITION.
 2. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH CIVIL DRAWINGS FOR ADDITIONAL WORK.
 3. NOT ALL UTILITIES AND ELECTRICAL WORK IS SHOWN ON THIS DRAWING.
 4. EXISTING LIGHT FIXTURE TO REMAIN SHOWN FOR REFERENCE AND OVERALL SITE POLE REPLACEMENT MAPPING. REWORK UNDERGROUND CIRCUITRY AS REQUIRED TO REMAIN CONNECTED ELECTRICALLY COMPLETE.
 5. EXISTING LIGHT FIXTURE TO BE REMOVED AND RETURNED TO OWNER FOR RETENTION. REMOVE CIRCUIT CONDUIT BACK TO SOURCE.

- CONDUIT RUNS:**
- A** - 1 OF 2" PVC CONDUIT
2 OF AWG NO. 8 CONDUCTOR
1 OF AWG NO. 10 CONDUCTOR
 - B** - 2 OF 2" PVC CONDUIT
2 OF AWG NO. 8 CONDUCTOR
2 OF AWG NO. 10 CONDUCTOR

NOTE: CONDUIT RUN B SPARE CONDUIT SHALL BE CAPPED WITH 1 OF AWG NO. 10 AND 2500# FULL TAPE PLACED INSIDE CONDUIT.



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

GRANT STREET

PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE	
REVIEWED BY:	TP/DRS
REV. DESCRIPTION	DATE
FOR BIDDING	04/05/24

PPA#22-0001
A/E#2022-02-23D

22236
SHEET TITLE
ELECTRICAL SITE PLAN

SHEET
E1.4

DATE
4/5/2024

M:\2022\22236\22236_ELEC\22236_ELEC_SHEET\22236_ELEC_SHEET_01.dwg
 04/05/24 10:00 AM
 JEREMY T. HERRING, P.E.
 14780



DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
△	FOR BIDDING	04/05/24

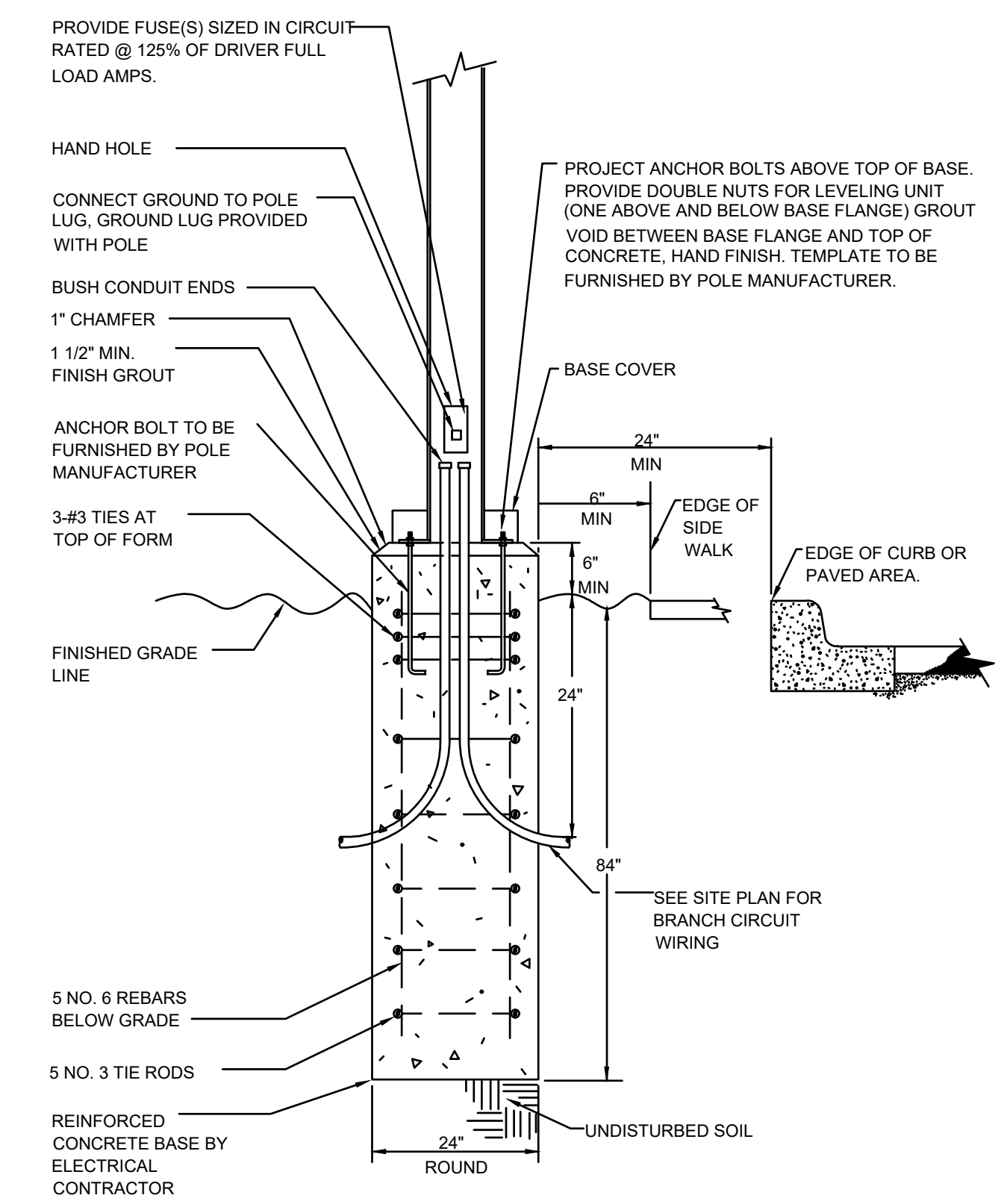
PPA#22-0001
 A/E#2022-02-23D

22236
 SHEET TITLE
 ELECTRICAL DETAILS

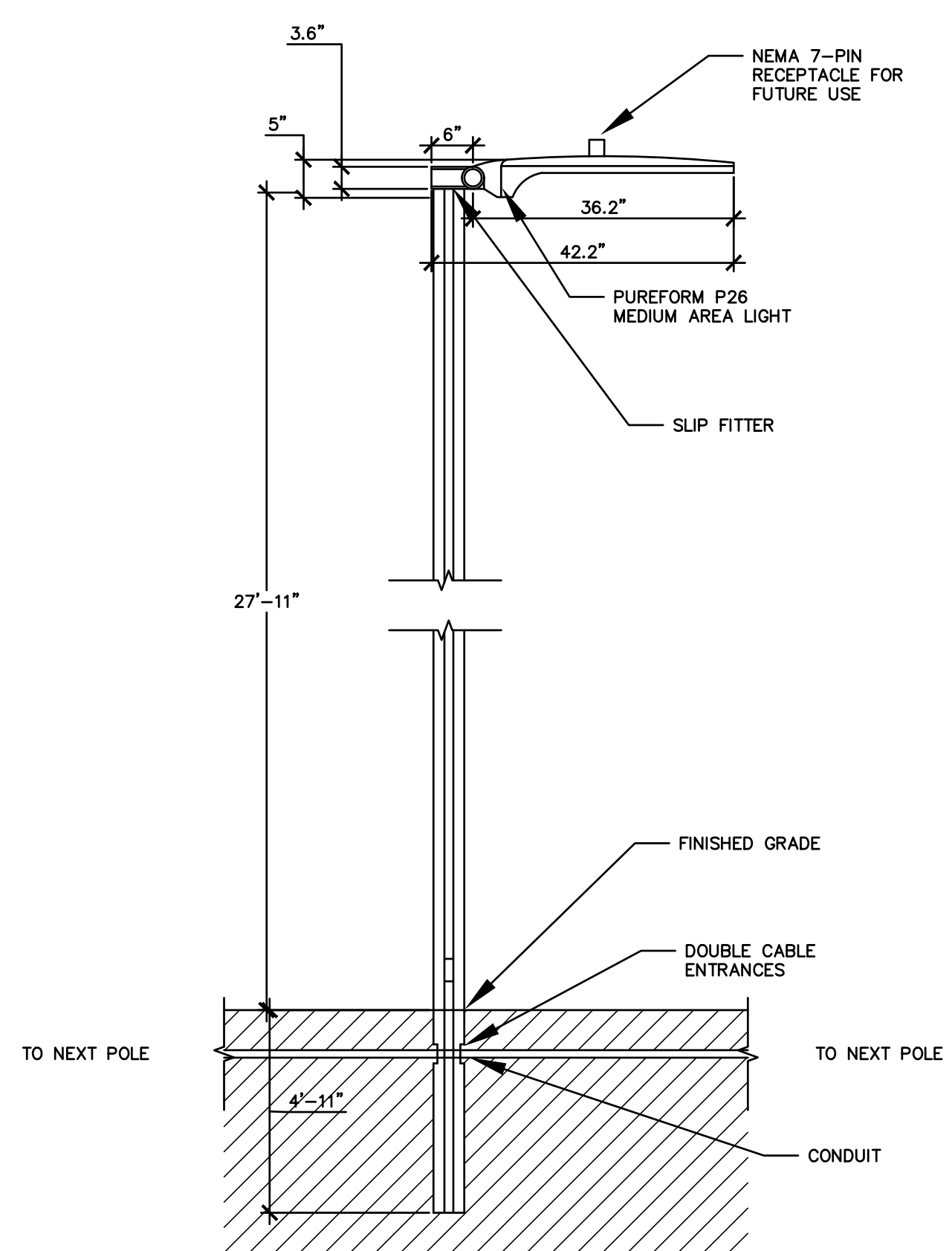
SHEET
E1.5

DATE
 4/5/2024

CALLOUT	MANUFACTURER	MODEL	MOUNTING	"MOUNTING HEIGHT"	"LAMP BALLAST"	INPUT WATTS	VOLTS	DESCRIPTION
EL	GARDCO	EXISTING LIGHTS						
L1	GARDCO	"P26 - 196L - 11.50 - WW - G2 - 2 PTF2- P26/34 - 1/90 - BZ"	SLIP FITTER	16.5000	DRIVER	51.0000	277.0000	
L2	GARDCO	"P26 - 196L - 11.50 - WW - G2 - 3 PTF2- P26/34 - 1/90 - BZ"	SLIP FITTER	16.5000	DRIVER	51.0000	277.0000	
L3	GARDCO	"P26 - 196L - 650 - WW - G2 - 2 PTF2- P26/34 - 1/90 - BZ"	SLIP FITTER	16.5000	DRIVER	30.0000	277.0000	
L4	GARDCO	"P26 - 196L - 450 - WW - G2 - 3 PTF2- P26/34 - 1/90 - BZ"	SLIP FITTER	16.5000	DRIVER	21.0000	277.0000	
L5	GARDCO	"P26 - 64L - 600 - WW - G2 - 3 PTF2- P26/34 - 1/90 - BZ"	SLIP FITTER	30.0000	DRIVER	114.0000	277.0000	
L6	GARDCO	"P26 - 48L - 600 - WW - G2 - 4 PTF2- P26/34 - 2/180 - BZ"	SLIP FITTER	28.0000	DRIVER	89.0000	277.0000	DUAL ALARM
L7	HADCO	SL43 - 27W - NW - ADA - MED	GROUND	0.0000		27.0000	120/277	In-ground Line Voltage ADA Walkover Commercial Flagpole Lighting Fixture (Flagpole Warehouse)
L8	Intertek	Internal Halyard Beacon	POLE	25.0000		7.0000	110.0000	



LIGHT POLE BASE DETAIL
 NOT TO SCALE



AMERON 25' DIRECT BURY POLE DETAIL
 NOT TO SCALE

PLANT SCHEDULE

SYMBOL	CODE	BOTANICAL / COMMON NAME	SIZE	QTY
CONIFEROUS TREES				
	JS	JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNIPER	5'-6" TALL	7
	PE2	PICEA ENGELMANNII / ENGELMANN SPRUCE	5'-6" TALL	9
	PL	PINUS FLEXILIS / LIMBER PINE	5'-6" TALL	6
	PP	PINUS PONDEROSA / PONDEROSA PINE	5'-6" TALL	4
	PM	PSEUDOTSUGA MENZIESII GLAUCA / ROCKY MOUNTAIN DOUGLAS FIR	5'-6" TALL	5
DECIDUOUS TREES				
	AG	ACER GLABRUM / ROCKY MOUNTAIN MAPLE	1 1/2 IN	4
	AG3	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / AUTUMN BRILLIANCE APPLE SERVICEBERRY	1 1/2 IN	5
	PT	POPULUS TREMULOIDES / QUAKING ASPEN	1 1/2 IN	6
	PA	PRUNUS AMERICANA / AMERICAN PLUM	1 1/2 IN	3
	PC2	PRUNUS VIRGINIANA / CHOKECHERRY	1 1/2 IN	3
	UP	ULMUS X 'MORTON GLOSSY' / TRIUMPH™ ELM	1 1/2 IN	13
SHRUBS				
	AS	AMELANCHIER ALNIFOLIA / SERVICEBERRY	5 GAL	6
	AT	ARTEMISIA TRIDENTATA / BIG SAGEBRUSH	5 GAL	246
	CR	CORNUS SERICEA / RED TWIG DOGWOOD	5 GAL	19
	EN	ERICAMERIA NAUSEOSA / RUBBER RABBITBRUSH	5 GAL	78
	ES	EUONYMUS ALATUS 'SELECT' / FIREBALL® BURNING BUSH	5 GAL	15
	HD	HOLIDISCUS DISCOLOR / OCEANSPRAY	5 GAL	5
	JJ	JUNIPERUS COMMUNIS / COMMON JUNIPER	5 GAL	6
	PW	PHILADELPHUS LEWISII / WILD MOCKORANGE	5 GAL	15
	RG	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL	15
	RT	RHUS TRILOBATA / SKUNKBUSH SUMAC	5 GAL	18
	RW	ROSA WOODSII / MOUNTAIN ROSE	5 GAL	39
	SP	SALIX DISCOLOR / PUSSY WILLOW	5 GAL	1
	SA2	SHEPHERDIA ARGENTEA / SILVER BUFFALO BERRY	5 GAL	9
	SB	SPIRAEA BETULIFOLIA / BIRCHLEAF SPIREA	5 GAL	25
	SA	SYMPHORICARPOS ALBUS / COMMON WHITE SNOWBERRY	5 GAL	18
	YG	YUCCA GLAUCA / SOAPWEED	5 GAL	159
GRASSES				
	AG2	ANDROPOGON GERARDII / BIG BLUESTEM	2 GAL	50
	HS	HELICTOTRICHON SEMPERVIRENS / BLUE OAT GRASS	2 GAL	38
	PV	PANICUM VIRGATUM / SWITCH GRASS	2 GAL	40

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	SPACING	QTY
GROUND COVER					
	AU	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK	1 GAL		23
	JH	JUNIPERUS HORIZONTALIS / CREEPING JUNIPER	1 GAL		31
PERENNIALS					
	AM	ACHILLEA MILLEFOLIUM / COMMON YARROW	1 GAL		35
	HX	HEUCHERA X 'CHERRY TRUFFLES' / DOLCE® CHERRY TRUFFLES CORAL BELLS	1 GAL		19
	VR	VERONICA SPICATA 'ROYAL CANDLES' / ROYAL CANDLES SPIKE SPEEDWELL	1 GAL		51
GROUND COVERS					
	AW	ALPINE WILDFLOWERS MIX SEE SEED MIX SCHEDULE.	SEED		1,094 SF
	CG	CANYON/BREAKS NATIVE GRASS MIX SEE SEED MIX SCHEDULE.	SEED		11,943 SF
	FM	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX SEE SEED MIX SCHEDULE.	SEED		15,777 SF
	MG	MEADOW GRASS MIX SEE SEED MIX SCHEDULE.	SEED		19,825 SF
	ST	MSU STANDARD IRRIGATED GRASS SEE SEED MIX SCHEDULE.	SEED		20,909 SF
	SO	SOD SOD SHALL BE FROM A COMMERCIAL SOD FARM LOCATED IN THE GALLATIN VALLEY.	SOD		893 SF
SITE					
	CF	CRUSHER FINES 3"-4" DEPTH.	ROCK		18,170 SF
	MC	MIXED SIZE COBBLE 3"-12" MIXED SIZE COBBLE.	ROCK		4,168 SF
	OM	ORGANIC MULCH DOUGLAS FIR BARK WITH A CHIP SIZE OF 1 1/2" - 2" AVERAGE. 3" DEPTH.	MULCH		6,274 SF
	RM	ROCK MULCH 1 1/2" ROUND, NATIVE, WASHED, RIVER ROCK. 3" DEPTH.	ROCK		3,191 SF

SEED MIX SCHEDULE

1. SEE SPECIFICATIONS FOR APPLICATION METHODS AND RATES.

SEED MIX NAME:	
ALPINE WILDFLOWER MIX (20 POUNDS PER ACRE)	INTERMOUNTAIN NATIVE WILDFLOWER SEED MIX. APPLEWOOD SEED CO.: ARROWLEAF BALSAMROOT, DEERHORN CLARKIA, GLOBE GILIA, LEWIS FLAX, MOUNTAIN LUPINE, MUNRO'S GLOBEMALLOW, OREGON SUNSHINE, PALE EVENING PRIMROSE, PALMER PENSTEMON, ROCKY MOUNTAIN BEEPLANT, ROCKY MOUNTAIN PENSTEMON, SULPHUR FLOWER, UTAH SWEETVETCH, YELLOW GAILLARDIA
CANYON/BREAKS NATIVE GRASS MIX	ROSANA WESTERN WHEATGRASS - 25% NEZPAR INDIAN RICEGRASS - 16% LARB HILLS SANDBERG BLUEGRASS - 16% COLUMBIA BLUEBUNCH WHEATGRASS - 16% PUEBLO BOTTLEBRUSH SQUIRELLTAIL - 9% SAND DROPSEED - 9% REVENUE SLENDER WHEATGRASS - 9%
FOOTHILLS NATIVE GRASS AND WILDFLOWERS MIX	REVENUE SLENDER WHEATGRASS - 19% ANATONE BLUEBUNCH WHEATGRASS - 18% SHERMAN BIG BLUEGRASS - 14% WINCHESTER IDAHO FESCUE - 14% ROSANA WESTERN WHEATGRASS - 9% CRITANA THICKSPIKE WHEATGRASS - 9% GARNET MOUNTAIN BROME - 9% PRAIRIE JUNEGRASS - 2% APPAR BLUE FLAX - 2% STILLWATER PRAIRIE CONEFLOWER - 2% VNS BLANKETFLOWER - 2%
MEADOW GRASS MIX	ROSANA WESTERN WHEATGRASS - 25% BAD RIVER BLUE GRAMA - 16% LODORM GREEN NEEDLEGRASS - 16% PRAIRIE JUNEGRASS - 16% ITASCA LITTLE BLUESTEM - 9% LARB HILLS SANDBERG BLUEGRASS - 9% KILLDEER SIDE-OATS GRAMA - 9%
MSU STANDARD IRRIGATED GRASS (MINIMUM 3 POUNDS PER 1,000 SF)	'MIDNIGHT' KENTUCKY BLUEGRASS 'RUGBY II' KENTUCKY BLUEGRASS 'RAM I' KENTUCKY BLUEGRASS 'DELWARE' DWARF PEREN. RYE GRASS

GENERAL NOTES

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

PLANTING NOTES

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



MSU-CPDC

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

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING

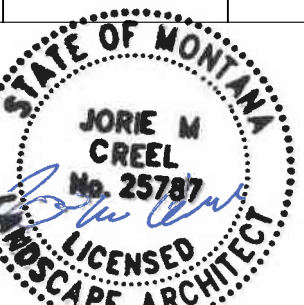


DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV. DESCRIPTION DATE

1 FOR BIDDING 04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE
SCHEDULES AND NOTES

SHEET

L1.1

DATE

4/5/2024

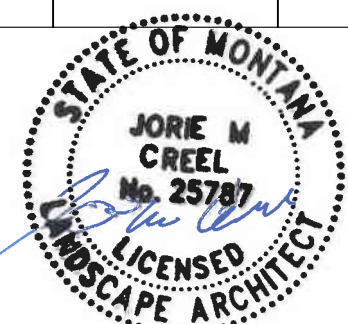


UULC
UTILITIES UNDERGROUND LOCATION CENTER
MONTANA ONE CALL
CALL BEFORE YOU DIG!
1-800-424-5555
www.Callbeforeyoudig.org

FOR BIDDING



DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



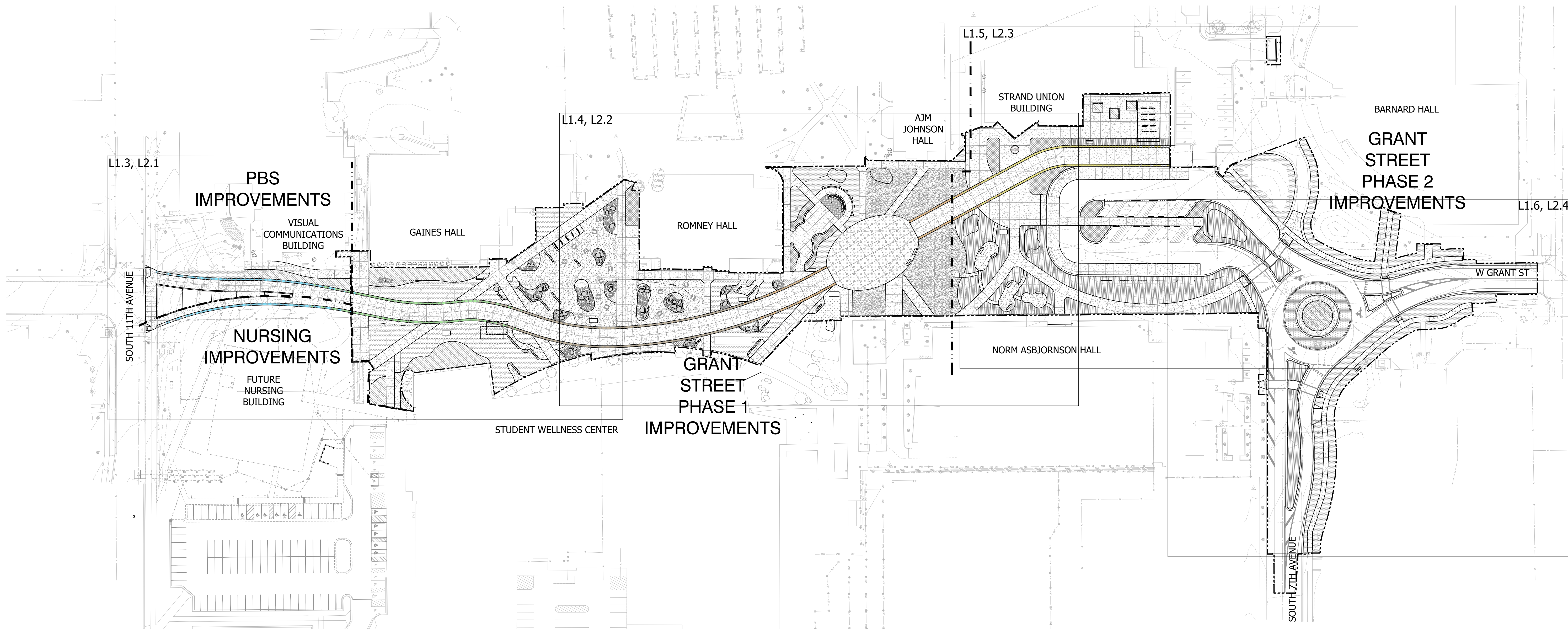
PPA#22-0001
A/E#2022-02-23D

22236

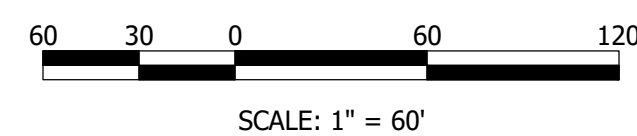
SHEET TITLE
OVERALL LANDSCAPE
SITE PLAN

SHEET
L1.2

DATE
4/5/2024



OVERALL LANDSCAPE SITE PLAN



LEGEND

- LIMIT OF WORK
- PHASE LINE
- LANDSCAPE EDGING
- EXISTING VEGETATION
- BENCH
- PATIO SEATING
- BOULDERS
- STONE SEATING

CONCRETE STAMP PATTERN

- WATER ECOZONE STAMP AREA
- FOREST ECOZONE STAMP AREA
- MOUNTAIN ECOZONE STAMP AREA
- CANYON ECOZONE STAMP AREA
- GRASSLANDS ECOZONE STAMP AREA

GROUND COVERS

	ALPINE WILDFLOWERS MIX
	CANYON/BREAKS NATIVE GRASS MIX
	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX
	MEADOW GRASS MIX
	MSU STANDARD IRRIGATED GRASS
	SOD

SITE

	CRUSHER FINES
	MIXED SIZE COBBLE
	ORGANIC MULCH
	ROCK MULCH
	SPARKLE CONCRETE
	HERRINGBONE PATTERN STAMPED CONCRETE
	ROUNDBOUT STAMPED CONCRETE



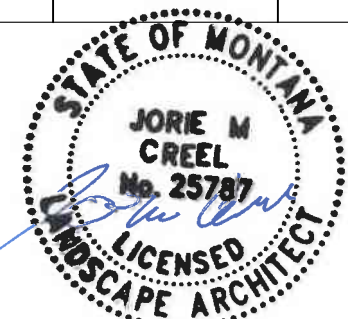
UULC
UTILITIES UNDERGROUND LOCATION CENTER
MONTANA ONE CALL
CALL BEFORE YOU DIG!
1-800-424-5555
www.Callbeforeyoudig.org

MSU-CPDC Project 22236 - Overall Landscape Site Plan, PPA#22-0001, A/E#2022-02-23D, 22236, 4/5/2024, Jorie M. Creel, Licensed Landscape Architect, No. 25787, State of Montana

FOR BIDDING



DRAWN BY:	CMK/CE	TP/DRS
REVIEWED BY:		
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

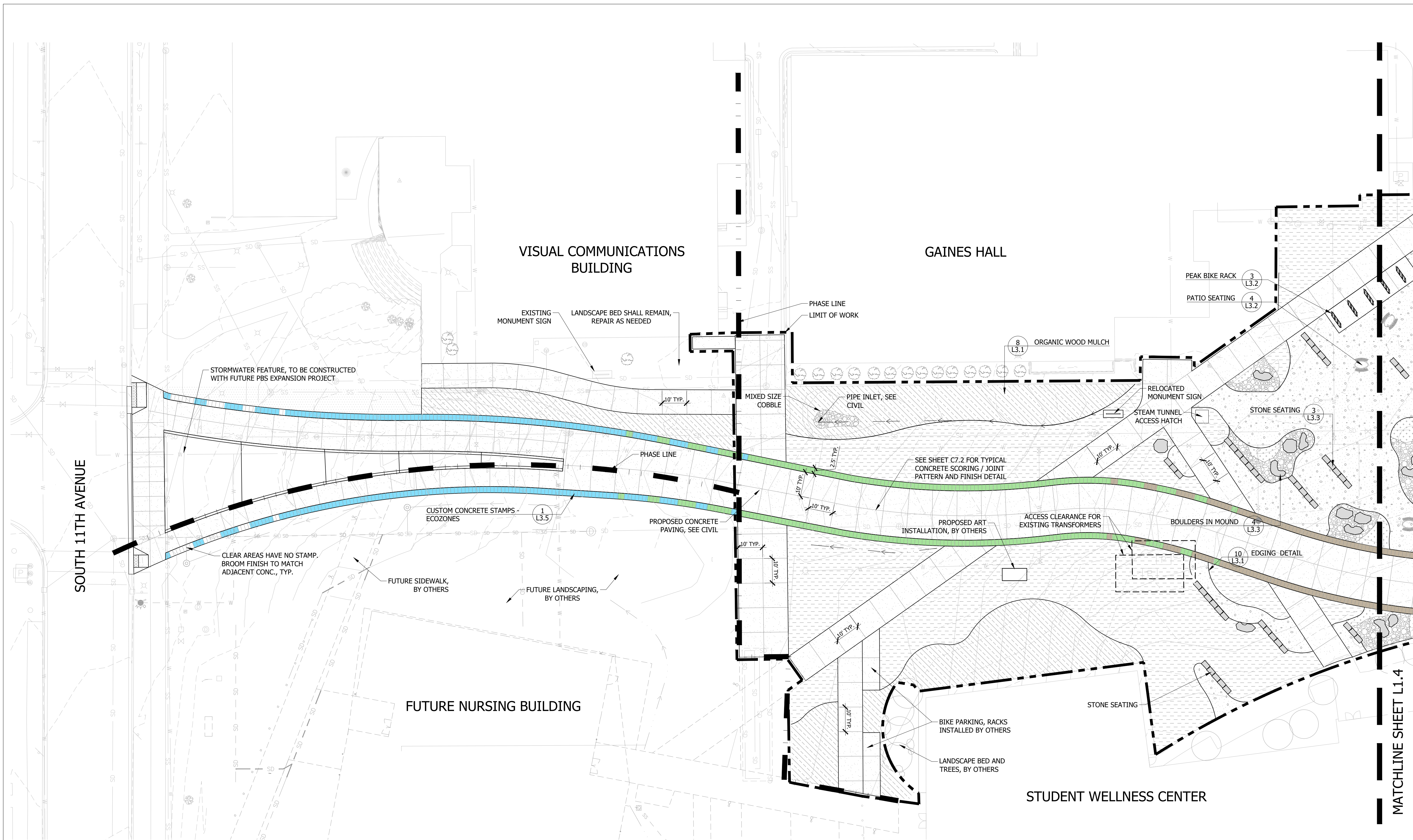


PPA#22-0001
A/E#2022-02-23D

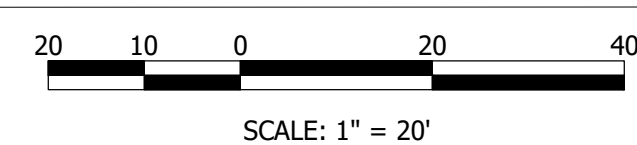
22236
SHEET TITLE
LANDSCAPE SITE PLAN

SHEET
L1.3

DATE
4/5/2024



LANDSCAPE SITE PLAN



LEGEND

- LIMIT OF WORK
- PHASE LINE
- LANDSCAPE EDGING
- EXISTING VEGETATION
- BENCH
- PATIO SEATING
- BOULDERS
- STONE SEATING

CONCRETE STAMP PATTERN

- WATER ECOZONE STAMP AREA
- FOREST ECOZONE STAMP AREA
- MOUNTAIN ECOZONE STAMP AREA
- CANYON ECOZONE STAMP AREA
- GRASSLANDS ECOZONE STAMP AREA

GROUND COVERS

	ALPINE WILDFLOWERS MIX
	CANYON/BREAKS NATIVE GRASS MIX
	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX
	MEADOW GRASS MIX
	MSU STANDARD IRRIGATED GRASS
	SOD

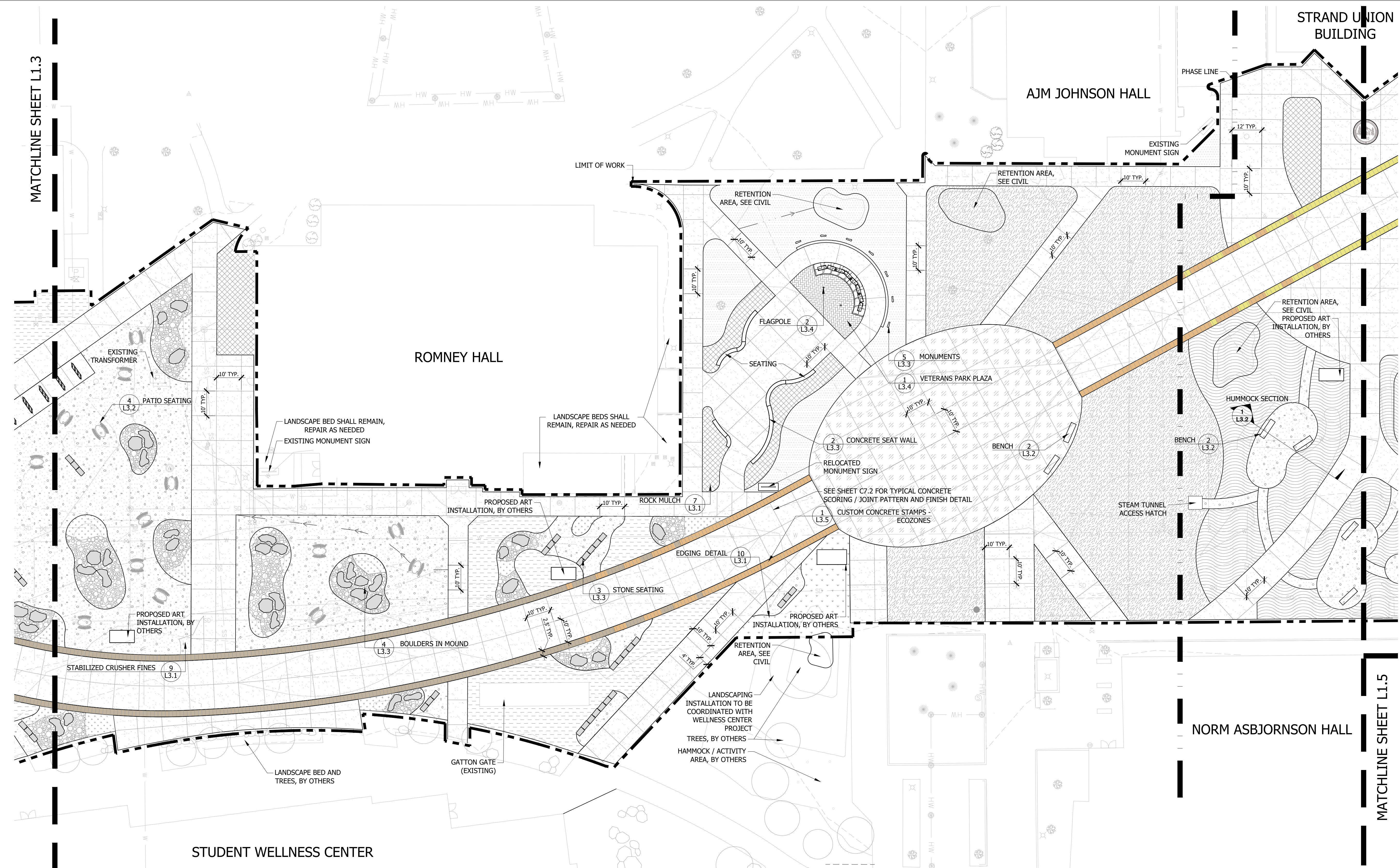
SITE

	CRUSHER FINES
	MIXED SIZE COBBLE
	ORGANIC MULCH
	ROCK MULCH
	SPARKLE CONCRETE
	HERRINGBONE PATTERN STAMPED CONCRETE
	ROUNDOABOUT STAMPED CONCRETE



UULC
UTILITIES UNDERGROUND LOCATION CENTER
MONTANA ONE CALL
CALL BEFORE YOU DIG!
1-800-424-5555
www.Callbeforeyoudig.org

MATCHLINE SHEET L1.3



ROMNEY HALL

AJM JOHNSON HALL

STRAND UNION BUILDING

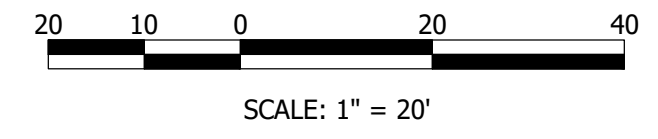
NORM ASBJORNSON HALL

STUDENT WELLNESS CENTER

MATCHLINE SHEET L1.5



LANDSCAPE SITE PLAN



LEGEND

- LIMIT OF WORK
- PHASE LINE
- LANDSCAPE EDGING
- EXISTING VEGETATION
- BENCH
- PATIO SEATING
- BOULDERS
- STONE SEATING

CONCRETE STAMP PATTERN

- WATER ECOZONE STAMP AREA
- FOREST ECOZONE STAMP AREA
- MOUNTAIN ECOZONE STAMP AREA
- CANYON ECOZONE STAMP AREA
- GRASSLANDS ECOZONE STAMP AREA

GROUND COVERS

	ALPINE WILDFLOWERS MIX
	CANYON/BREAKS NATIVE GRASS MIX
	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX
	MEADOW GRASS MIX
	MSU STANDARD IRRIGATED GRASS
	SOD

SITE

	CRUSHER FINES
	MIXED SIZE COBBLE
	ORGANIC MULCH
	ROCK MULCH
	SPARKLE CONCRETE
	HERRINGBONE PATTERN STAMPED CONCRETE
	ROUNDBOUT STAMPED CONCRETE



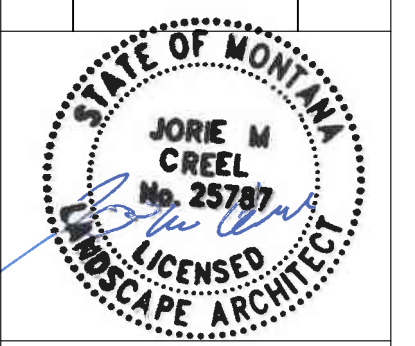
MSU-CPDC
 MONTANA STATE UNIVERSITY
 BOZEMAN, MONTANA
 PHONE: 406.994.5413
 FAX: 406.994.5665

GRANT STREET
 PEDESTRIAN MALL

FOR BIDDING



DRAWN BY:	CMK/CE	TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001
 A/E#2022-02-23D
 22236
SHEET TITLE
 LANDSCAPE SITE PLAN

SHEET
L1.4
 DATE
 4/5/2024



UULG
 UTILITIES UNDERGROUND LOCATION CENTER
 MONTANA ONE CALL
 CALL BEFORE YOU DIG!
 1-800-424-5555
 www.CallBeforeYouDig.org

FOR BIDDING



DRAWN BY:	CMK/CE
REVIEWED BY:	TP/DRS
REV.	DESCRIPTION DATE
1	FOR BIDDING 04/05/24

PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

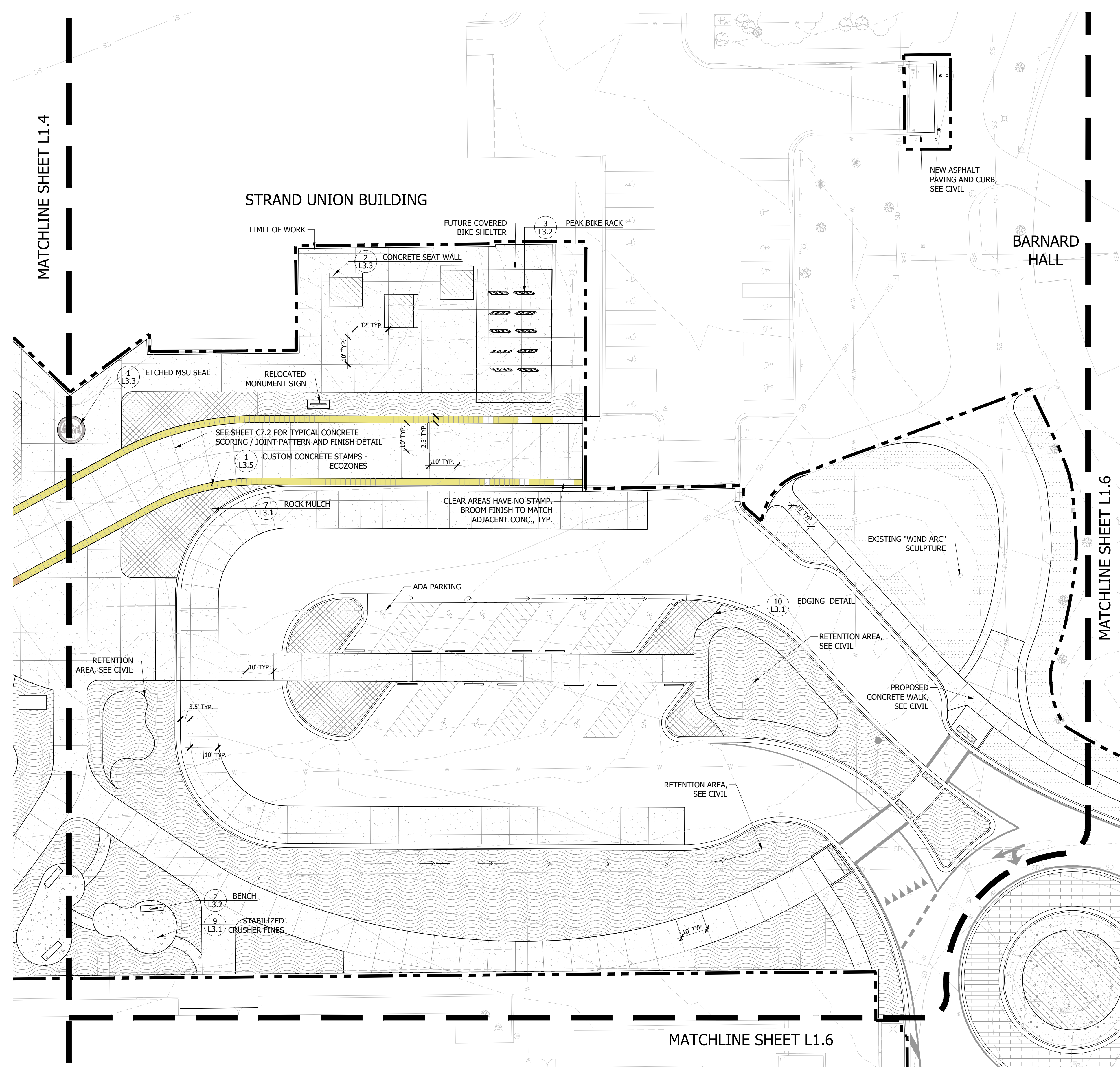
LANDSCAPE SITE PLAN

SHEET

L1.5

DATE

4/5/2024



LEGEND

- LIMIT OF WORK
- PHASE LINE
- LANDSCAPE EDGING
- EXISTING VEGETATION
- BENCH
- PATIO SEATING
- BOULDERS
- STONE SEATING

CONCRETE STAMP PATTERN

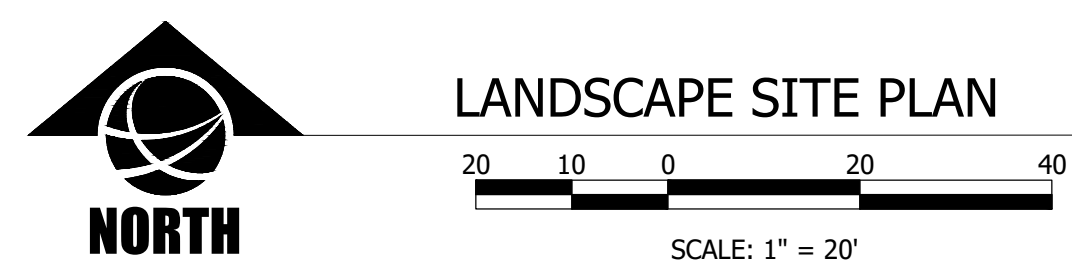
- WATER ECOZONE STAMP AREA
- FOREST ECOZONE STAMP AREA
- MOUNTAIN ECOZONE STAMP AREA
- CANYON ECOZONE STAMP AREA
- GRASSLANDS ECOZONE STAMP AREA

GROUND COVERS

	ALPINE WILDFLOWERS MIX
	CANYON/BREAKS NATIVE GRASS MIX
	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX
	MEADOW GRASS MIX
	MSU STANDARD IRRIGATED GRASS
	SOD

SITE

	CRUSHER FINES
	MIXED SIZE COBBLE
	ORGANIC MULCH
	ROCK MULCH
	SPARKLE CONCRETE
	HERRINGBONE PATTERN STAMPED CONCRETE
	ROUNDBOUT STAMPED CONCRETE



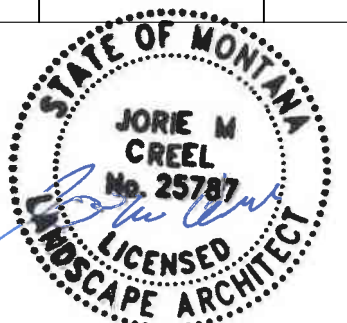
UULC
UTILITIES UNDERGROUND LOCATION CENTER
MONTANA ONE CALL
CALL BEFORE YOU DIG!
1-800-424-5555
www.Callbeforeyoudig.org

MSU-CPDC Project: 22236 - Grant Street Pedestrian Mall, MSU-CPDC, Bozeman, MT
 Drawn by: CMK/CE, 4/5/2024
 Checked by: TP/DRS, 4/5/2024
 MSU-CPDC Project: 22236 - Grant Street Pedestrian Mall, MSU-CPDC, Bozeman, MT

FOR BIDDING



DRAWN BY: CMK/CE		
REVIEWED BY: TP/DRS		
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

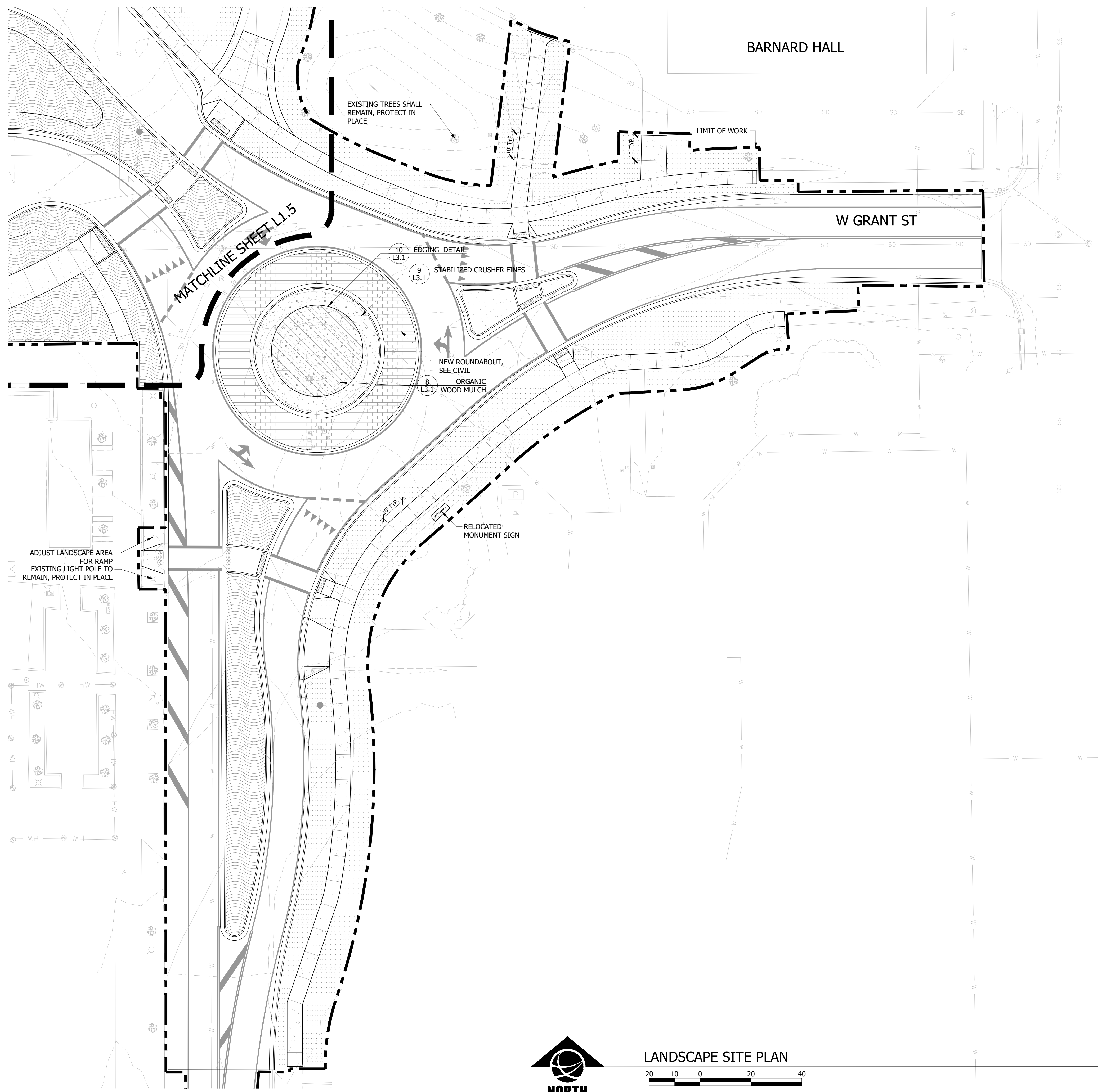
LANDSCAPE SITE PLAN

SHEET

L1.6

DATE

4/5/2024



LEGEND

- LIMIT OF WORK
- PHASE LINE
- LANDSCAPE EDGING
- EXISTING VEGETATION
- BENCH
- PATIO SEATING
- BOULDERS
- STONE SEATING

CONCRETE STAMP PATTERN

- WATER ECOZONE STAMP AREA
- FOREST ECOZONE STAMP AREA
- MOUNTAIN ECOZONE STAMP AREA
- CANYON ECOZONE STAMP AREA
- GRASSLANDS ECOZONE STAMP AREA

GROUND COVERS

	ALPINE WILDFLOWERS MIX
	CANYON/BREAKS NATIVE GRASS MIX
	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX
	MEADOW GRASS MIX
	MSU STANDARD IRRIGATED GRASS
	SOD

SITE

	CRUSHER FINES
	MIXED SIZE COBBLE
	ORGANIC MULCH
	ROCK MULCH
	SPARKLE CONCRETE
	HERRINGBONE PATTERN STAMPED CONCRETE
	ROUNDOABOUT STAMPED CONCRETE



LANDSCAPE SITE PLAN
SCALE: 1" = 20'

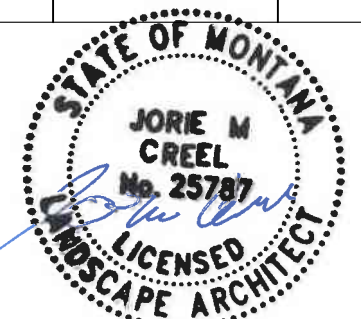


UULC
UTILITIES UNDERGROUND LOCATION CENTER
MONTANA ONE CALL
CALL BEFORE YOU DIG!
1-800-424-5555
www.Callbeforeyoudig.org

MSU-CPDC Project 22236, L1.6, PPA#22-0001, A/E#2022-02-23D, 22236, 4/5/2024, Jorie M. Creel, Licensed Landscape Architect, No. 25787, CMK/CE, TP/DRS, MSU-CPDC, BOZEMAN, MONTANA



DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

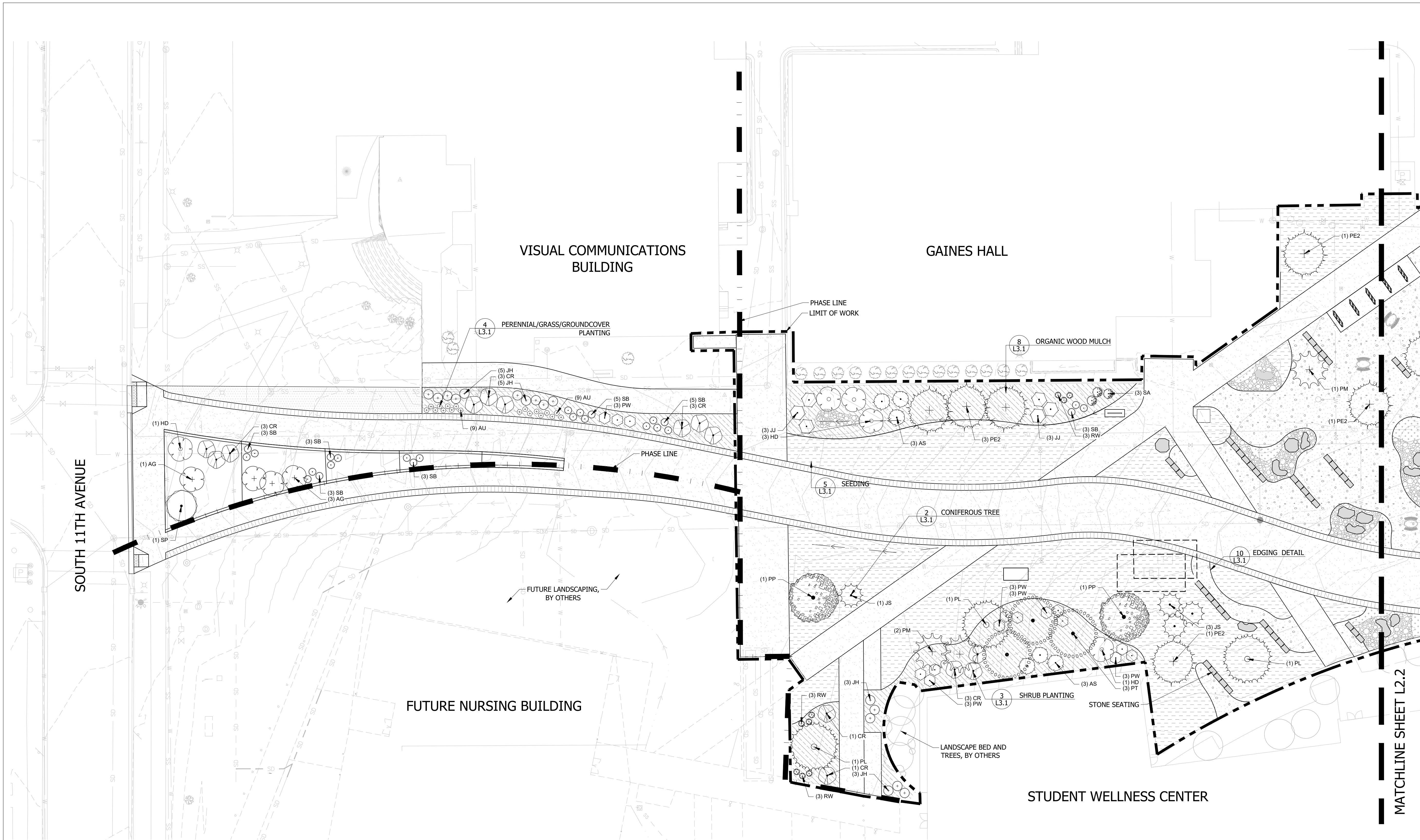
PLANTING PLAN

SHEET

L2.1

DATE

4/5/2024



SOUTH 11TH AVENUE

VISUAL COMMUNICATIONS BUILDING

GAINES HALL

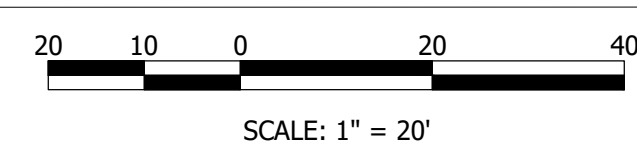
FUTURE NURSING BUILDING

STUDENT WELLNESS CENTER

MATCHLINE SHEET L2.2



PLANTING PLAN



LEGEND

- LIMIT OF WORK
- PHASE LINE
- LANDSCAPE EDGING
- EXISTING VEGETATION
- BENCH
- PATIO SEATING
- BOULDERS
- STONE SEATING

GROUND COVERS

	ALPINE WILDFLOWERS MIX
	CANYON/BREAKS NATIVE GRASS MIX
	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX
	MEADOW GRASS MIX
	MSU STANDARD IRRIGATED GRASS
	SOD

SITE

	CRUSHER FINES
	MIXED SIZE COBBLE
	ORGANIC MULCH
	ROCK MULCH
	SPARKLE CONCRETE
	HERRINGBONE PATTERN STAMPED CONCRETE
	ROUNDBOUT STAMPED CONCRETE



UULC
UTILITIES UNDERGROUND LOCATION CENTER
MONTANA ONE CALL
CALL BEFORE YOU DIG!
1-800-424-5555
www.Callbeforeyoudig.org

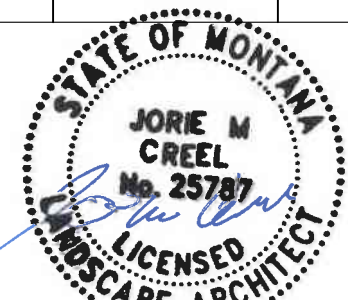


DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV. DESCRIPTION DATE

1 FOR BIDDING 04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

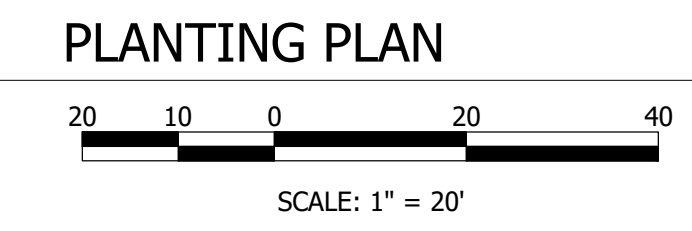
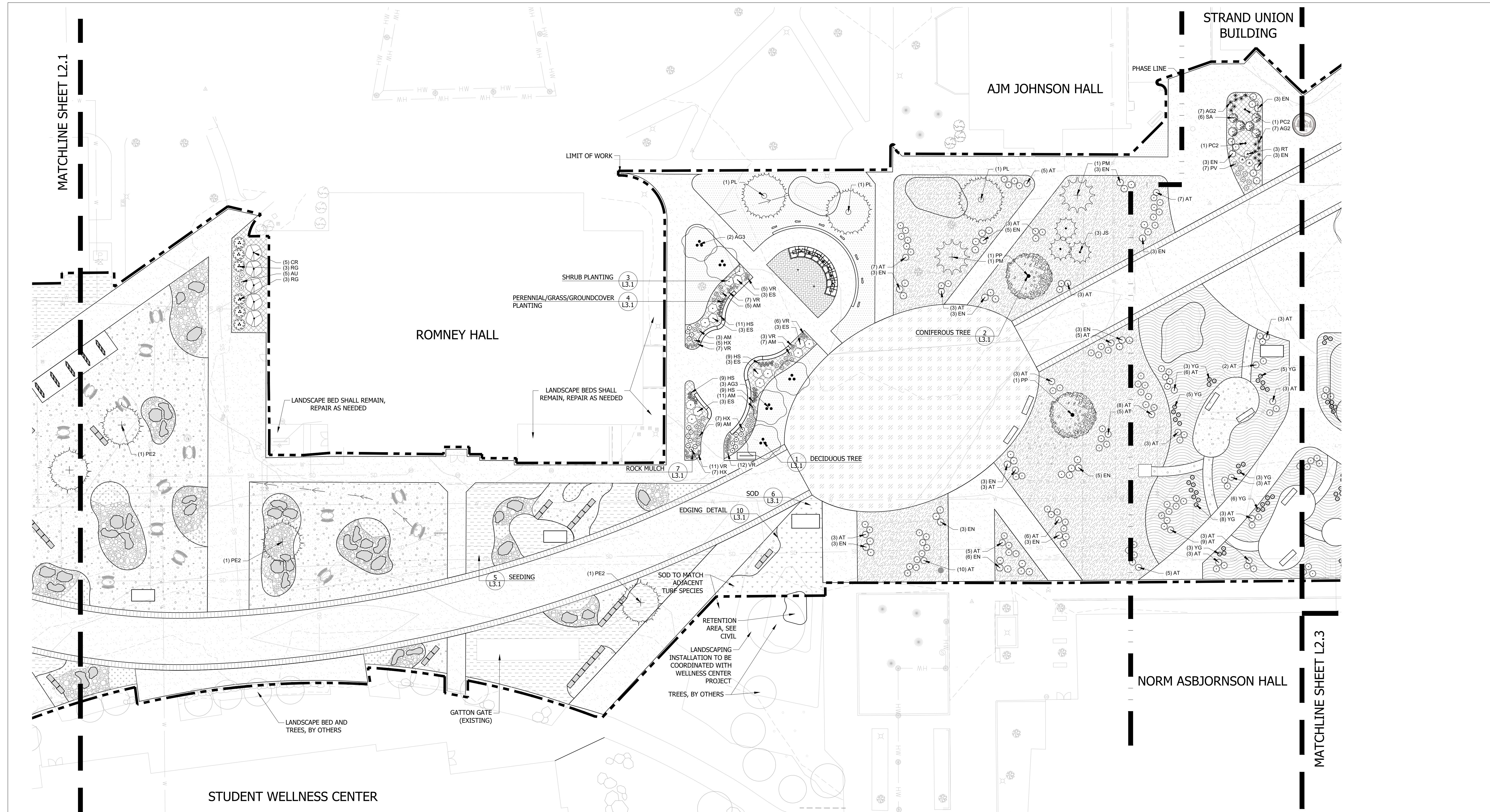
PLANTING PLAN

SHEET

L2.2

DATE

4/5/2024



LEGEND

- LIMIT OF WORK
- PHASE LINE
- LANDSCAPE EDGING
- EXISTING VEGETATION
- BENCH
- PATIO SEATING
- BOULDERS
- STONE SEATING

GROUND COVERS

	ALPINE WILDFLOWERS MIX
	CANYON/BREAKS NATIVE GRASS MIX
	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX
	MEADOW GRASS MIX
	MSU STANDARD IRRIGATED GRASS
	SOD

SITE

	CRUSHER FINES
	MIXED SIZE COBBLE
	ORGANIC MULCH
	ROCK MULCH
	SPARKLE CONCRETE
	HERRINGBONE PATTERN STAMPED CONCRETE
	ROUNDBOUT STAMPED CONCRETE



UULC
UTILITIES UNDERGROUND LOCATION CENTER
MONTANA ONE CALL
CALL BEFORE YOU DIG!
1-800-424-5555
www.Callbeforeyoudig.org

P:\22236_MSU_Grant_Street_WellnessCenterCAD_CAD\PRODUCTION_04052024_L2.2_PLANTING.dwg, L2.2_4/5/2024 4:38:02 PM, mcmorales, 11
 W:\22236_MSU_Grant_Street_WellnessCenterCAD_CAD\PRODUCTION_04052024_L2.2_PLANTING.dwg, L2.2_4/5/2024 4:38:02 PM, mcmorales, 11
 W:\22236_MSU_Grant_Street_WellnessCenterCAD_CAD\PRODUCTION_04052024_L2.2_PLANTING.dwg, L2.2_4/5/2024 4:38:02 PM, mcmorales, 11

FOR BIDDING

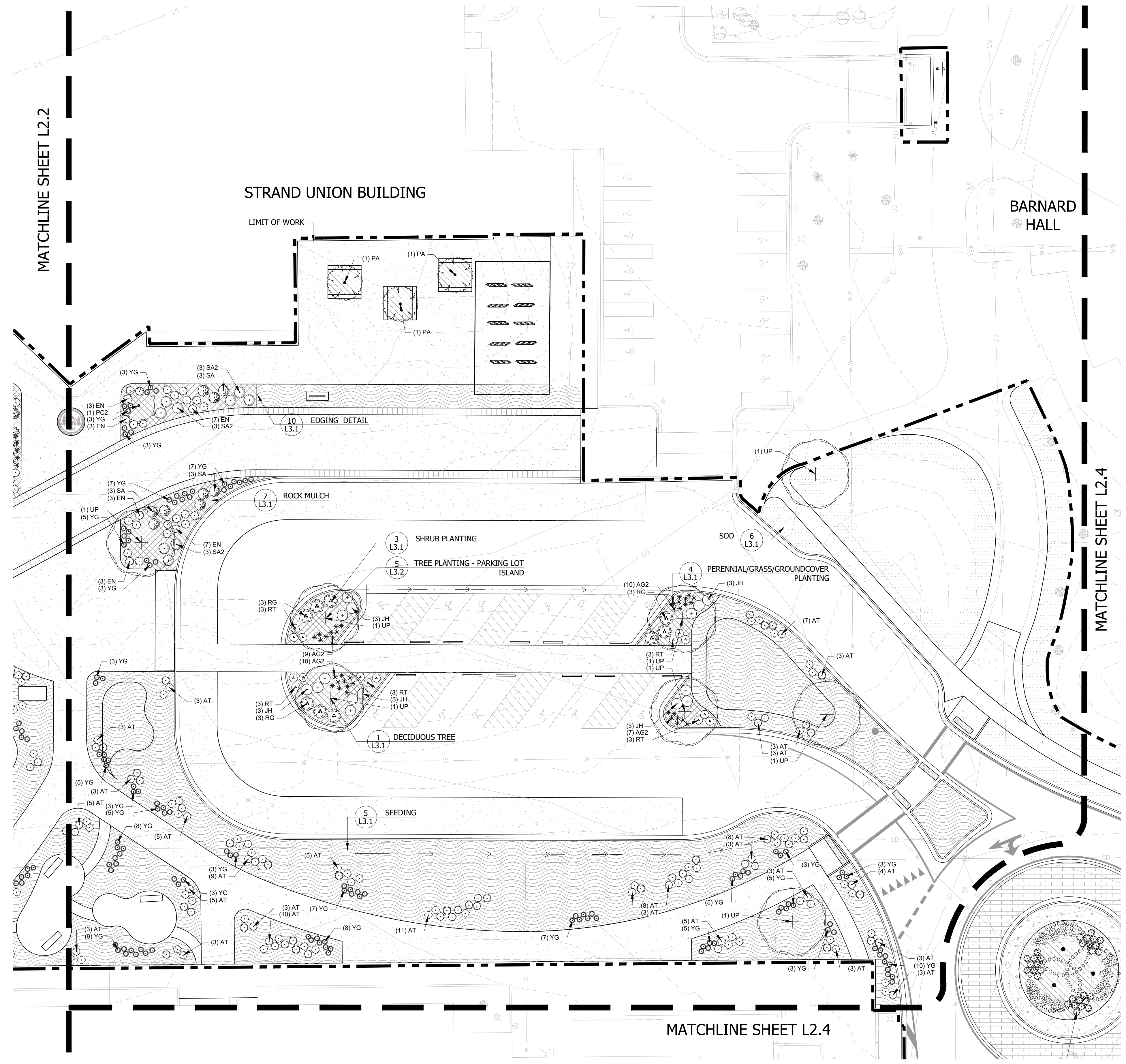


DRAWN BY: CMK/CE		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001
A/E#2022-02-23D

22236
SHEET TITLE
 PLANTING PLAN

SHEET
L2.3
DATE
 4/5/2024



LEGEND

- LIMIT OF WORK
- PHASE LINE
- LANDSCAPE EDGING
- EXISTING VEGETATION
- BENCH
- PATIO SEATING
- BOULDERS
- STONE SEATING

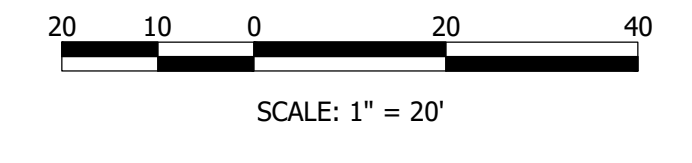
GROUND COVERS

	ALPINE WILDFLOWERS MIX
	CANYON/BREAKS NATIVE GRASS MIX
	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX
	MEADOW GRASS MIX
	MSU STANDARD IRRIGATED GRASS
	SOD

SITE

	CRUSHER FINES
	MIXED SIZE COBBLE
	ORGANIC MULCH
	ROCK MULCH
	SPARKLE CONCRETE
	HERRINGBONE PATTERN STAMPED CONCRETE
	ROUNDBOUT STAMPED CONCRETE

PLANTING PLAN



UULC
 UTILITIES UNDERGROUND LOCATION CENTER
 MONTANA ONE CALL
 CALL BEFORE YOU DIG!
 1-800-424-5555
 www.Callbeforeyoudig.org

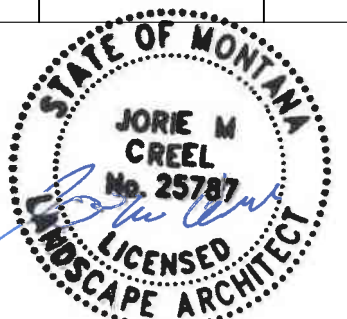
P:\22236_MSU_Grant_Street_LandscapeArchitecture_CAD\PRODUCTION\04052024\L2.3_PLANTING.dwg, L2.3_04052024.dwg (P) amw@msu.edu, 11
 04/05/2024 11:55 AM, 22236_MSU_Grant_Street_LandscapeArchitecture_CAD\PRODUCTION\04052024\L2.3_PLANTING.dwg, L2.3_04052024.dwg (P) amw@msu.edu, 11
 04/05/2024 11:55 AM, 22236_MSU_Grant_Street_LandscapeArchitecture_CAD\PRODUCTION\04052024\L2.3_PLANTING.dwg, L2.3_04052024.dwg (P) amw@msu.edu, 11

GRANT STREET
PEDESTRIAN MALL

FOR BIDDING

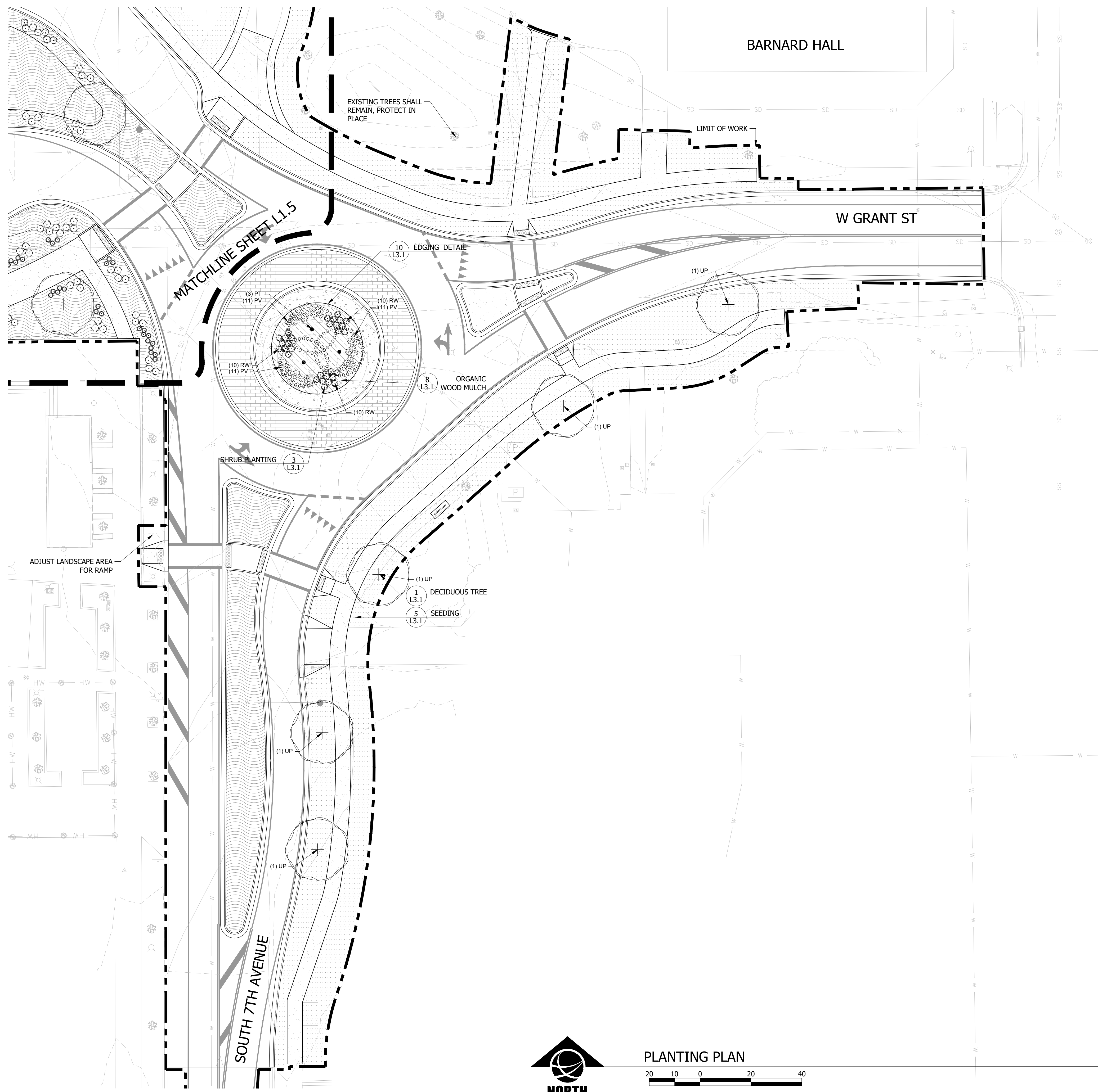


DRAWN BY: CMK/CE		
REVIEWED BY: TP/DRS		
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001
A/E#2022-02-23D
22236
SHEET TITLE
PLANTING PLAN

SHEET
L2.4
DATE
4/5/2024



LEGEND

- LIMIT OF WORK
- PHASE LINE
- LANDSCAPE EDGING
- EXISTING VEGETATION
- BENCH
- PATIO SEATING
- BOULDERS
- STONE SEATING

GROUND COVERS

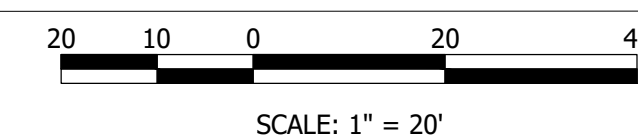
	ALPINE WILDFLOWERS MIX
	CANYON/BREAKS NATIVE GRASS MIX
	FOOTHILLS NATIVE GRASS AND WILDFLOWER MIX
	MEADOW GRASS MIX
	MSU STANDARD IRRIGATED GRASS
	SOD

SITE

	CRUSHER FINES
	MIXED SIZE COBBLE
	ORGANIC MULCH
	ROCK MULCH
	SPARKLE CONCRETE
	HERRINGBONE PATTERN STAMPED CONCRETE
	ROUNDBOUT STAMPED CONCRETE



PLANTING PLAN

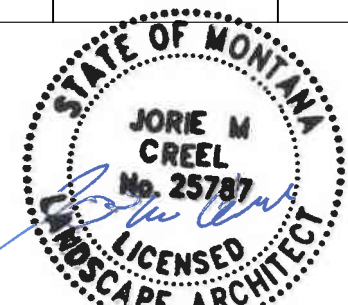


UULC
UTILITIES UNDERGROUND LOCATION CENTER
MONTANA ONE CALL
CALL BEFORE YOU DIG!
1-800-424-5555
www.Callbeforeyoudig.org

P:\22236_MSU_Grant_Street_Improvements\CADD_CADD\PRODUCTION_04052024\MSU_PLANTING.dwg, L2.4, 05/05/24 4:38:55 PM, smontano@msu.edu, 11
P:\22236_MSU_Grant_Street_Improvements\CADD_CADD\PRODUCTION_04052024\MSU_PLANTING.dwg, L2.4, 05/05/24 4:38:55 PM, smontano@msu.edu, 11



DRAWN BY: CMK/CE		
REVIEWED BY:		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

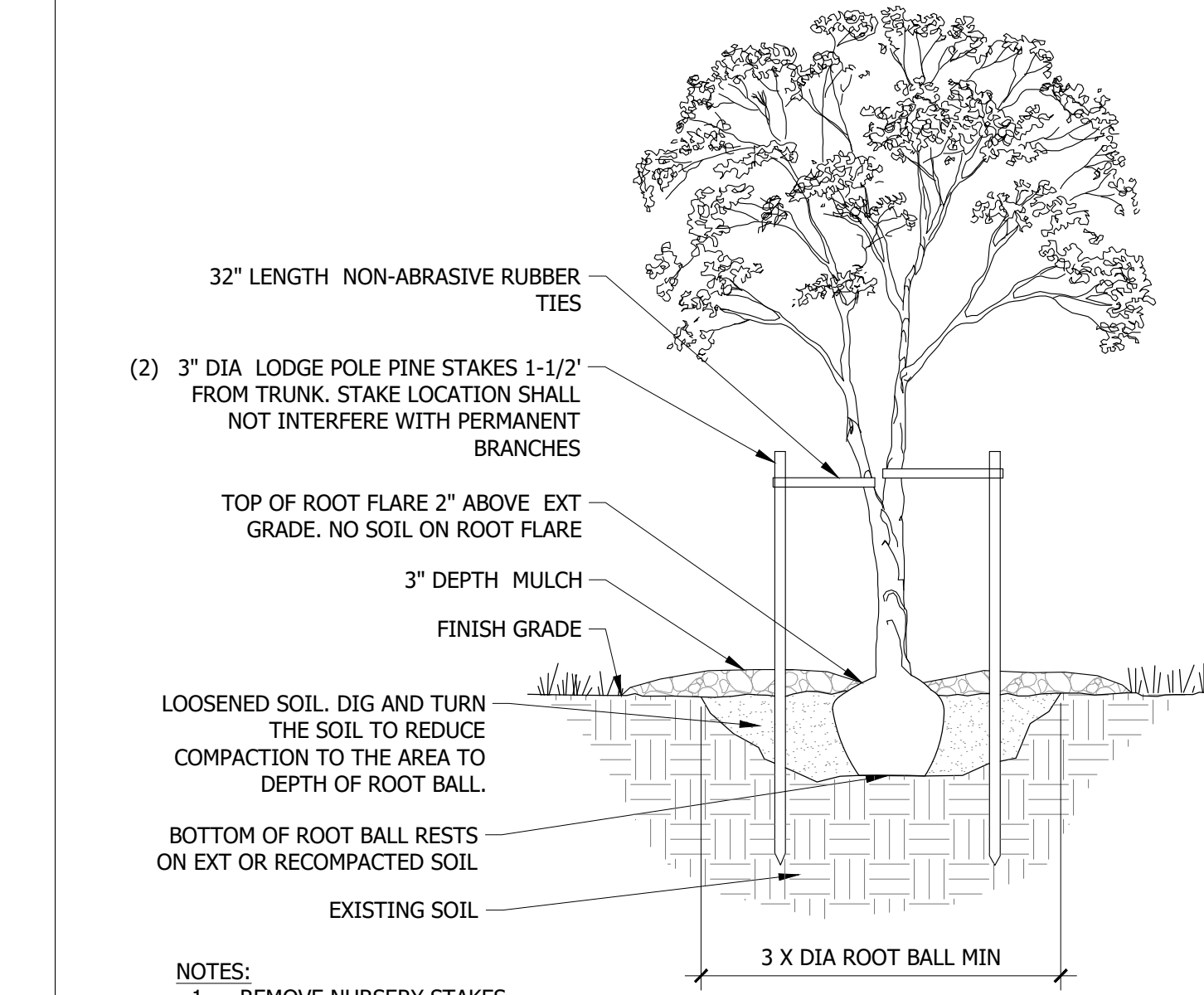
LANDSCAPE DETAILS

SHEET

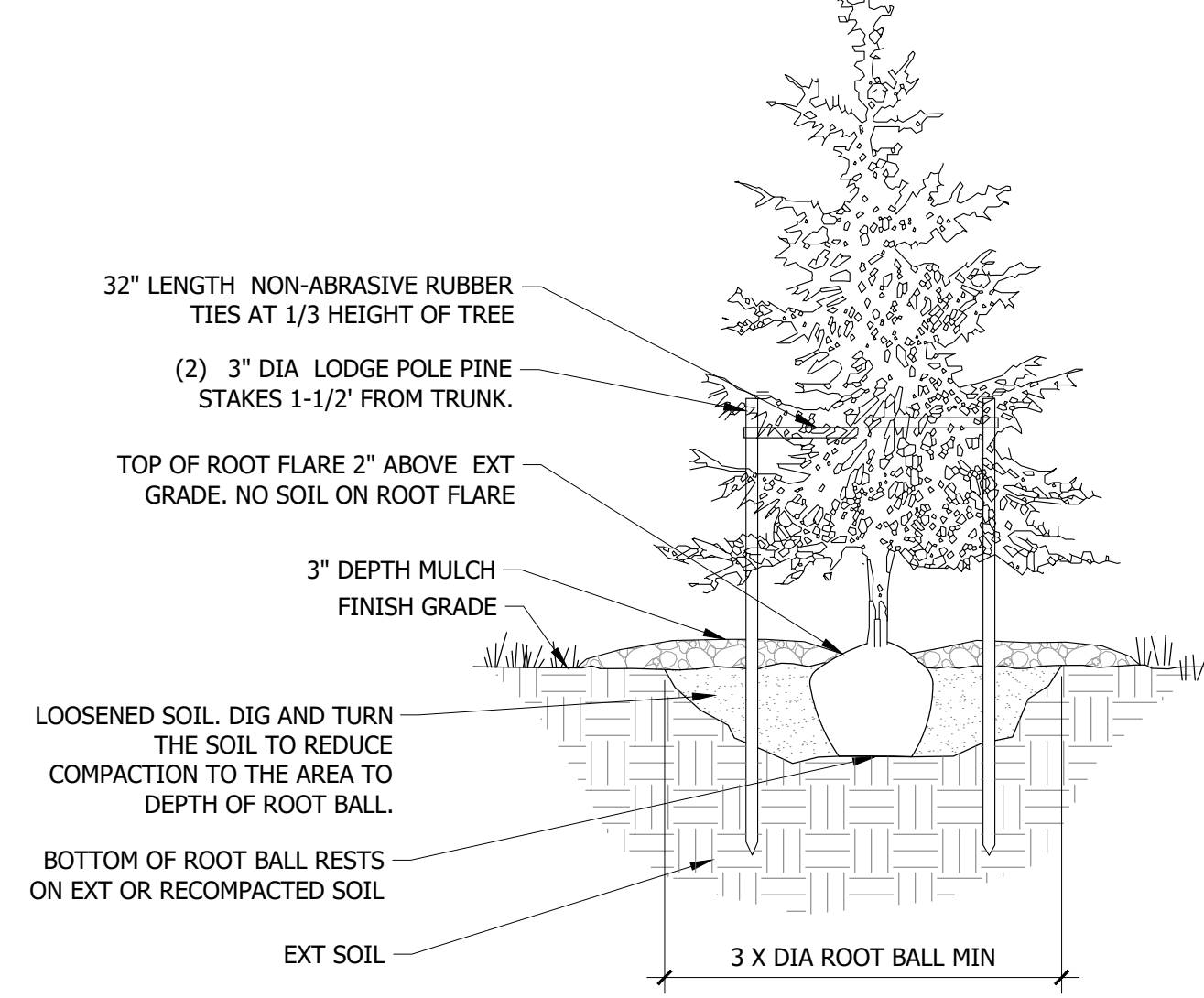
L3.1

DATE

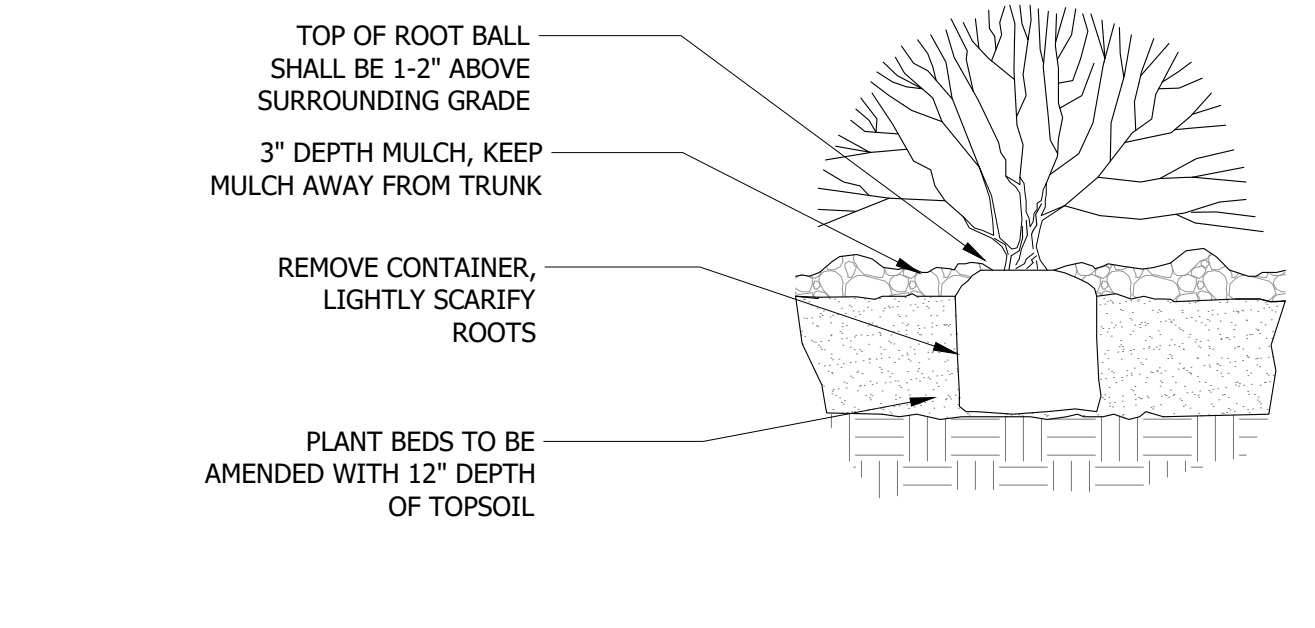
4/5/2024



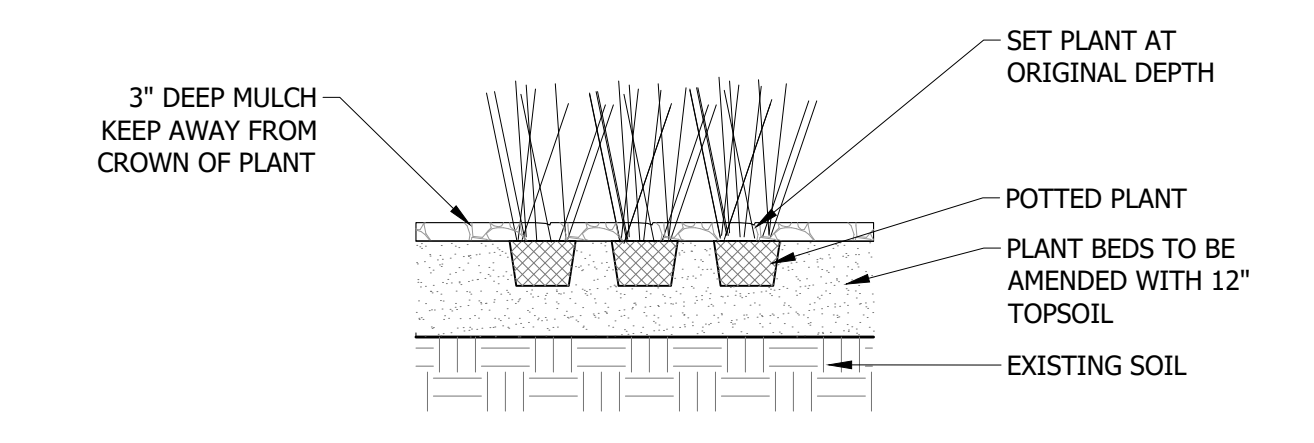
- 1 DECIDUOUS TREE**
N.T.S.
- NOTES:**
- REMOVE NURSERY STAKES.
 - PRUNE DEAD OR DAMAGED LIMBS IMMEDIATELY AFTER PLANTING.
 - REMOVE WIRE TIES AND BURLAP FROM ROOT BALL.
 - PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER COMPACT. WHEN PLANTING PIT HAS BEEN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



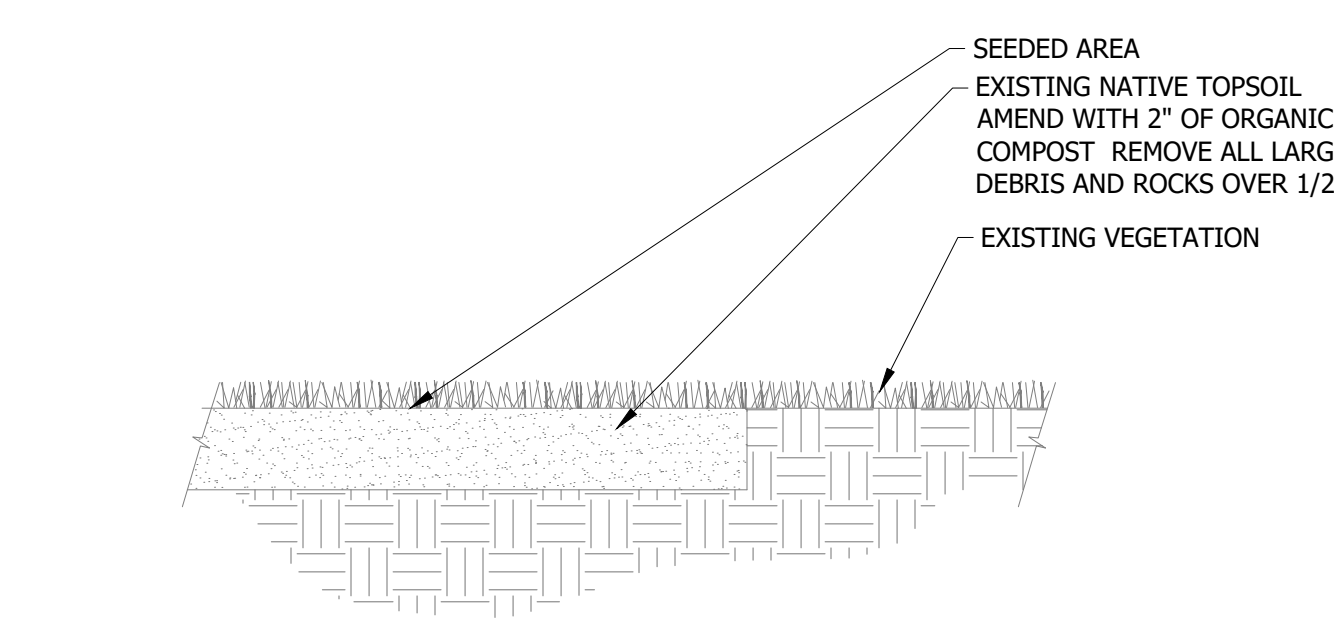
- 2 CONIFEROUS TREE**
N.T.S.
- NOTES:**
- REMOVE NURSERY STAKES.
 - PRUNE DEAD OR DAMAGED LIMBS IMMEDIATELY AFTER PLANTING.
 - REMOVE WIRE TIES AND BURLAP FROM TOP 1/2 OF ROOT BALL.
 - REMOVE ALL BASKETS.
 - PRIOR TO MULCHING, LIGHTLY TAMP SOIL AROUND ROOT BALL IN 6" LIFTS TO BRACE TREE. DO NOT OVER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



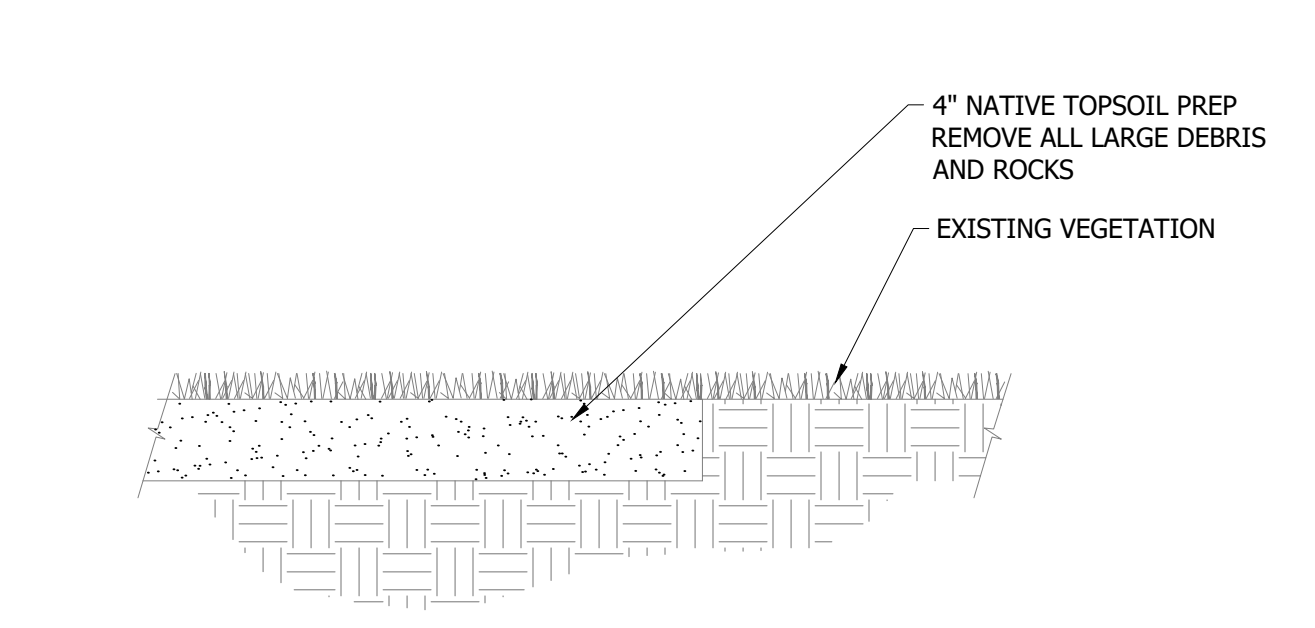
- 3 SHRUB PLANTING**
N.T.S.
- NOTES:**
- SHRUBS WITH BROKEN OR CRUMBLING ROOT BALLS WILL BE REJECTED. CONTAINER REMOVAL WILL NOT BE AN EXCUSE FOR DAMAGED ROOT BALLS.
 - TOP OF MULCH TO BE 1" BELOW ADJ. WALKWAY, CURB, EDGING, OR OTHER SURFACE.
 - PRUNE OUT ALL DAMAGED OR DEAD WOOD.
 - ALL PLANT MATERIAL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



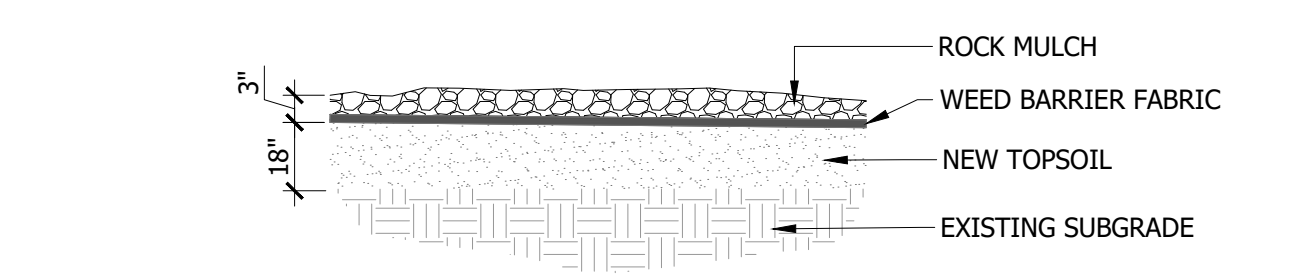
- 4 PERENNIAL/GRASS/GROUNDCOVER PLANTING**
N.T.S.
- NOTES:**
- REMOVE SPENT FLOWERS PRIOR TO PLANTING.
 - LOOSEN ROOT MASS AT BOTTOM OF ROOTBALL.
 - STRIP TOP OF ROOTBALL 1/4" OF SURFACE GROWING MEDIA AND COVER WITH 1/2" PLANTING MIX PLUS SURFACE MULCH.
 - QUANTITY AND SPACING AS NOTED IN PLANT SCHEDULE.



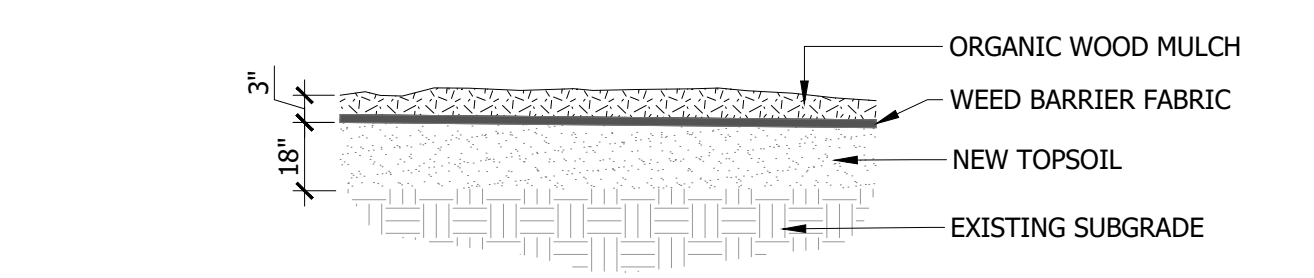
- 5 SEEDING**
N.T.S.
- NOTE:**
- EXISTING TOPSOIL WILL BE PLACED BY SITE WORK CONTRACTOR TO ROUGH GRADE
 - LANDSCAPE CONTRACTOR SHALL AMEND SOIL WITH 2" DEPTH OF ORGANIC COMPOST AND TILL INTO EXISTING TOPSOIL AND PREPARE FOR SEEDING.
 - LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINAL GRADING AND SEEDING PREPARATION.



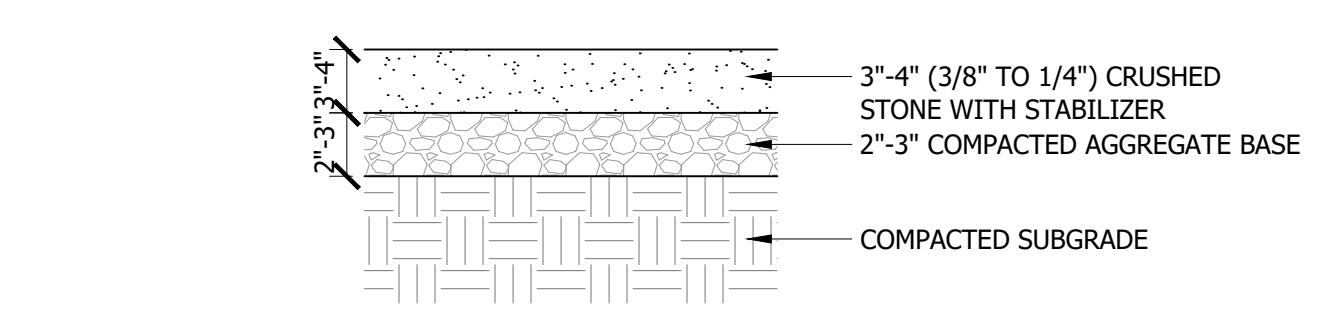
- 6 SOD**
N.T.S.
- NOTE:**
- SCARIFY SUBGRADE 12", RAKE SUBGRADE AND REMOVE ALL DEBRIS GREATER THAN 1/2" IN DIA. INCLUDING ROCKS, CONCRETE, ORGANIC DEBRIS, AND OR CONSTRUCTION DEBRIS.



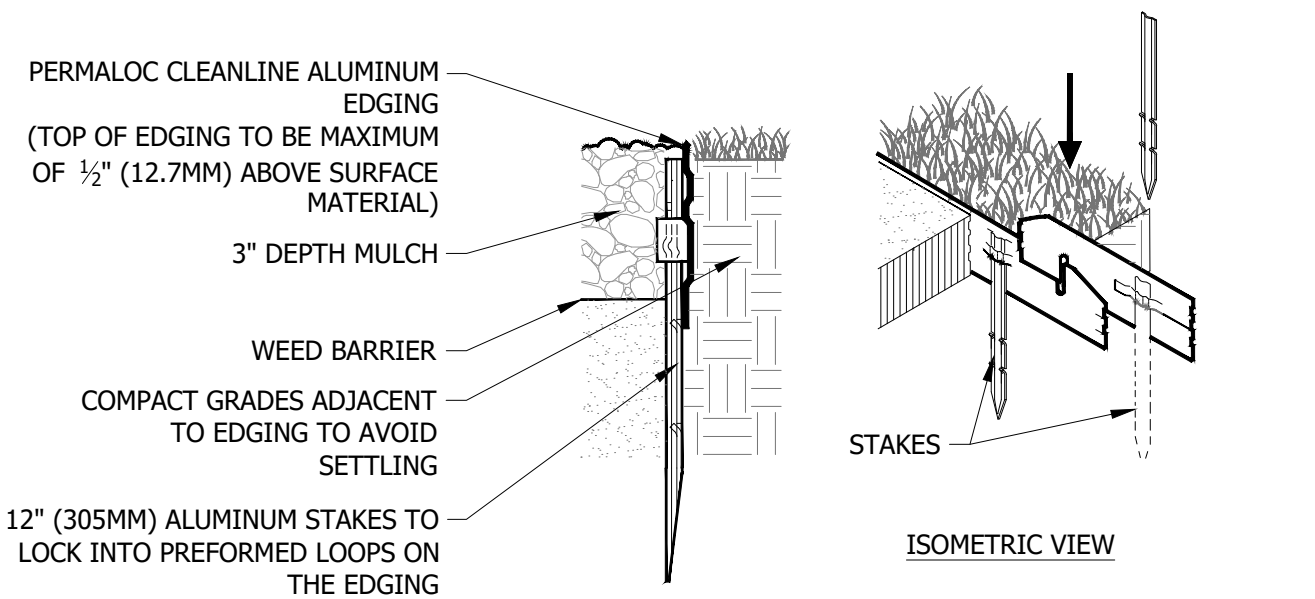
- 7 ROCK MULCH**
N.T.S.



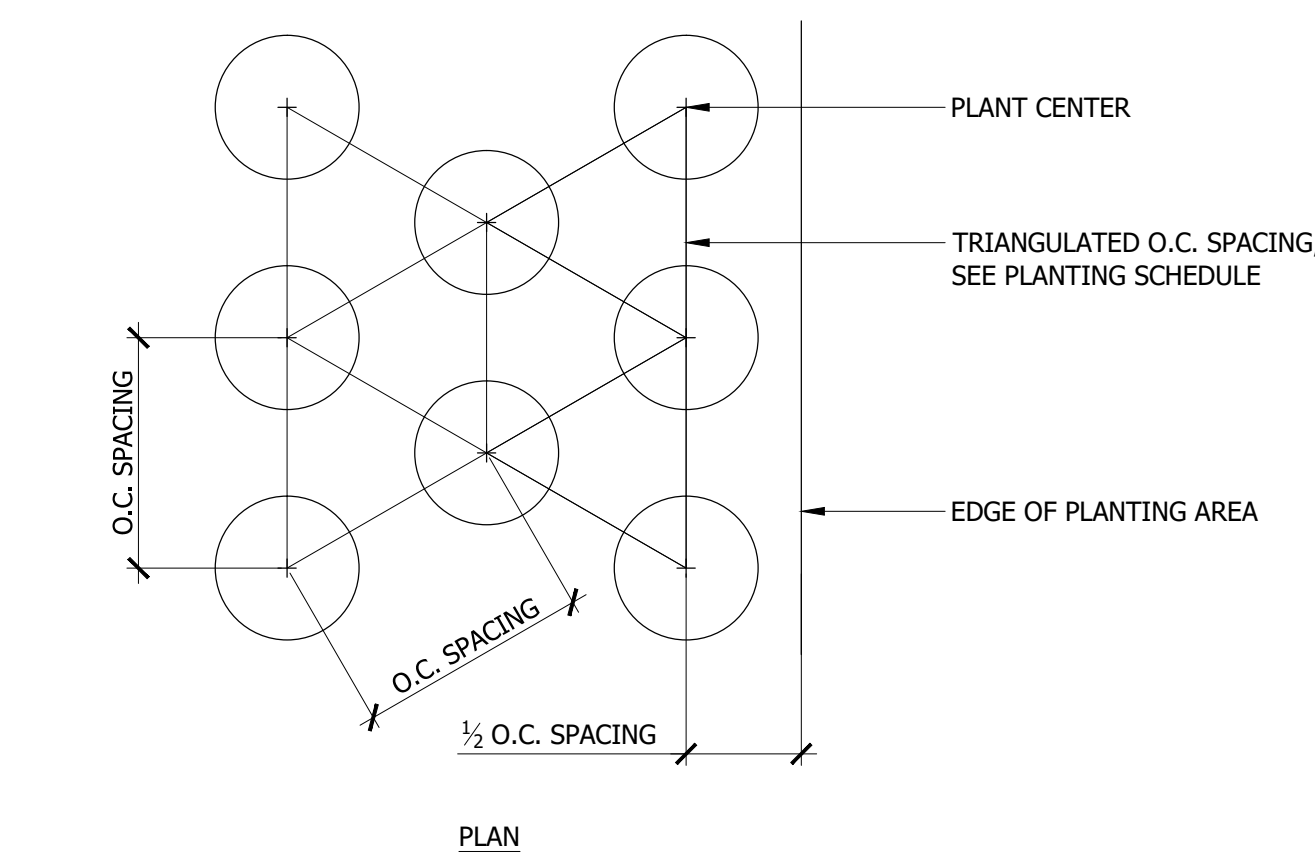
- 8 ORGANIC WOOD MULCH**
N.T.S.



- 9 STABILIZED CRUSHER FINES**
N.T.S.



- 10 EDGING DETAIL**
N.T.S.



- 11 GROUNDCOVER PLANT SPACING**
N.T.S.



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

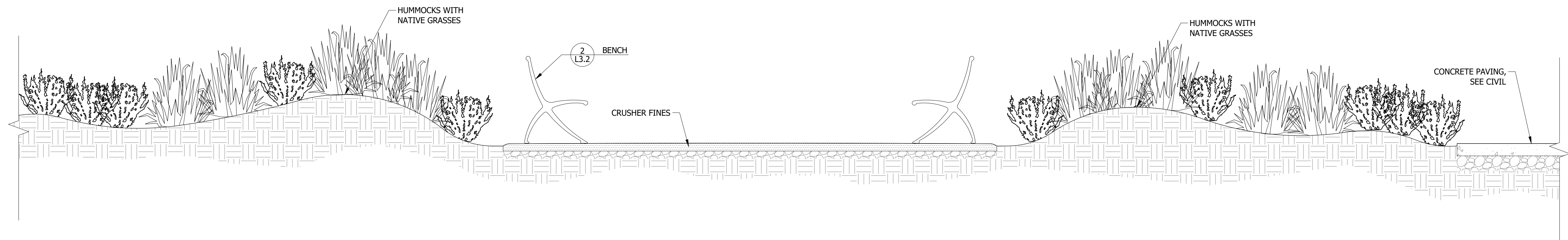
LANDSCAPE DETAILS

SHEET

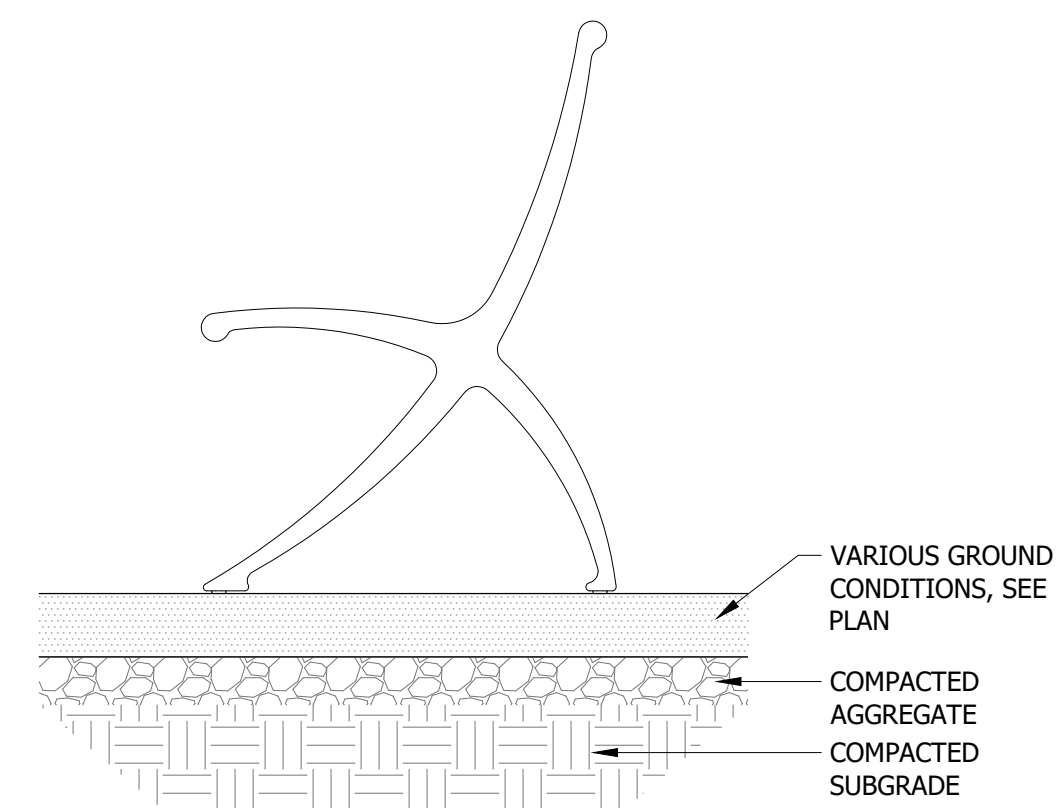
L3.2

DATE

4/5/2024

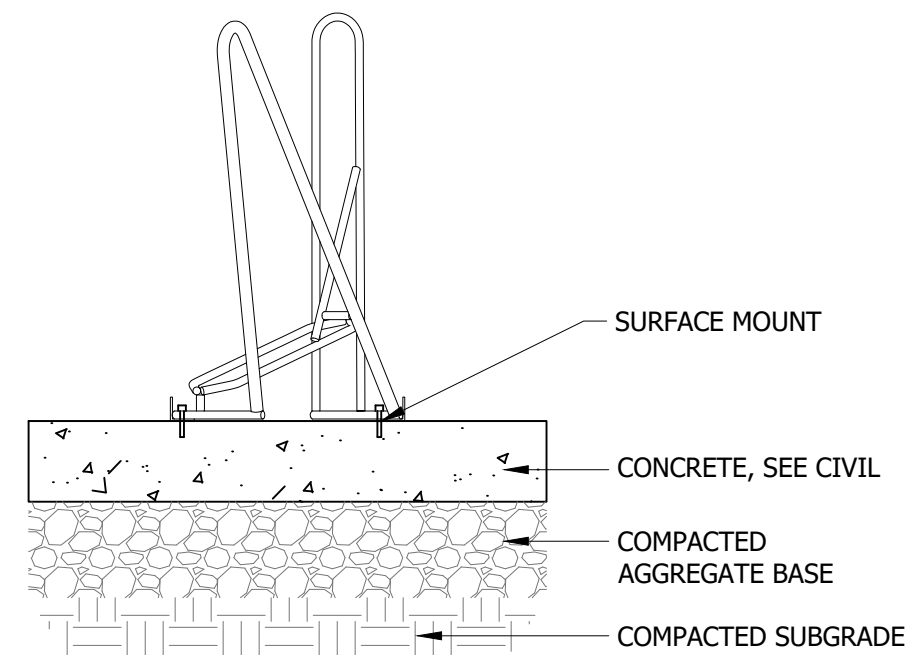


1 HUMMOCK SECTION
N.T.S.



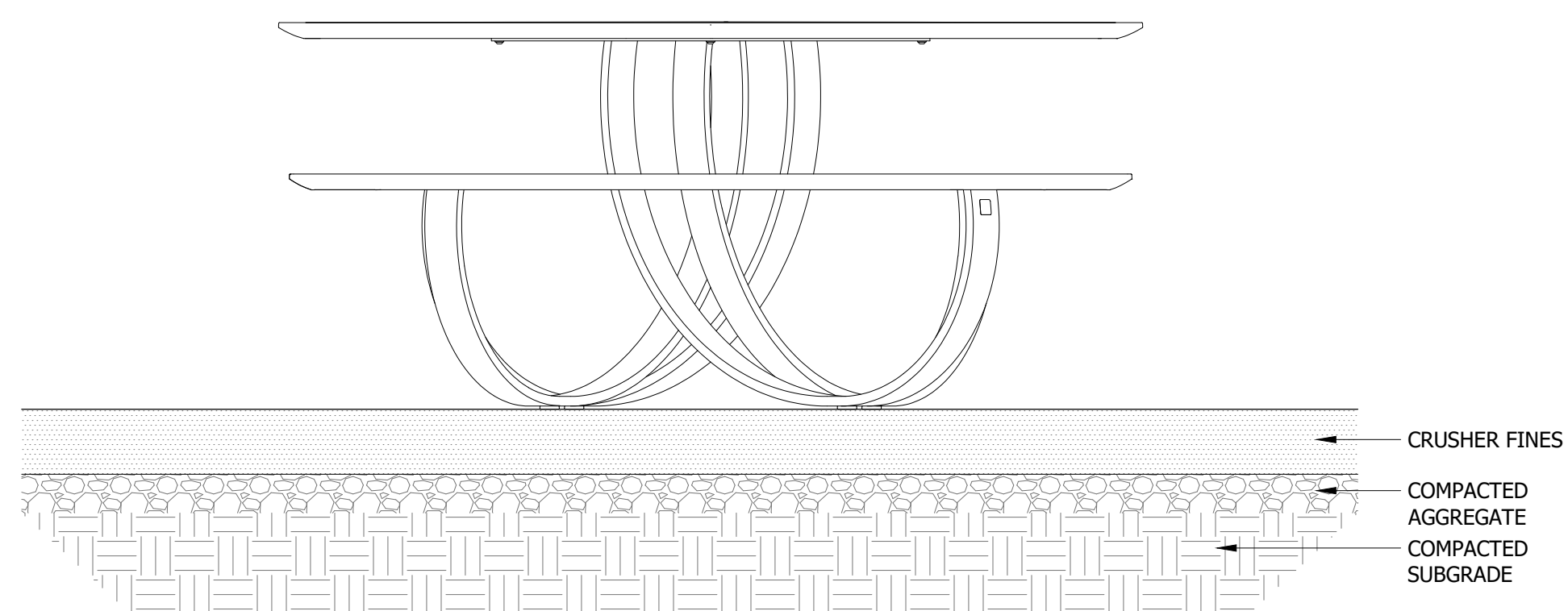
- NOTES:
1. BENCHES SHALL BE PARC VUE BENCH BY LANDSCAPE FORMS, POWDERCOATED SILVER METALLIC, OR APPROVED EQUAL.
 2. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
 3. FREESTANDING. SEE LANDSCAPE PLAN FOR LOCATION.

2 BENCH
N.T.S.



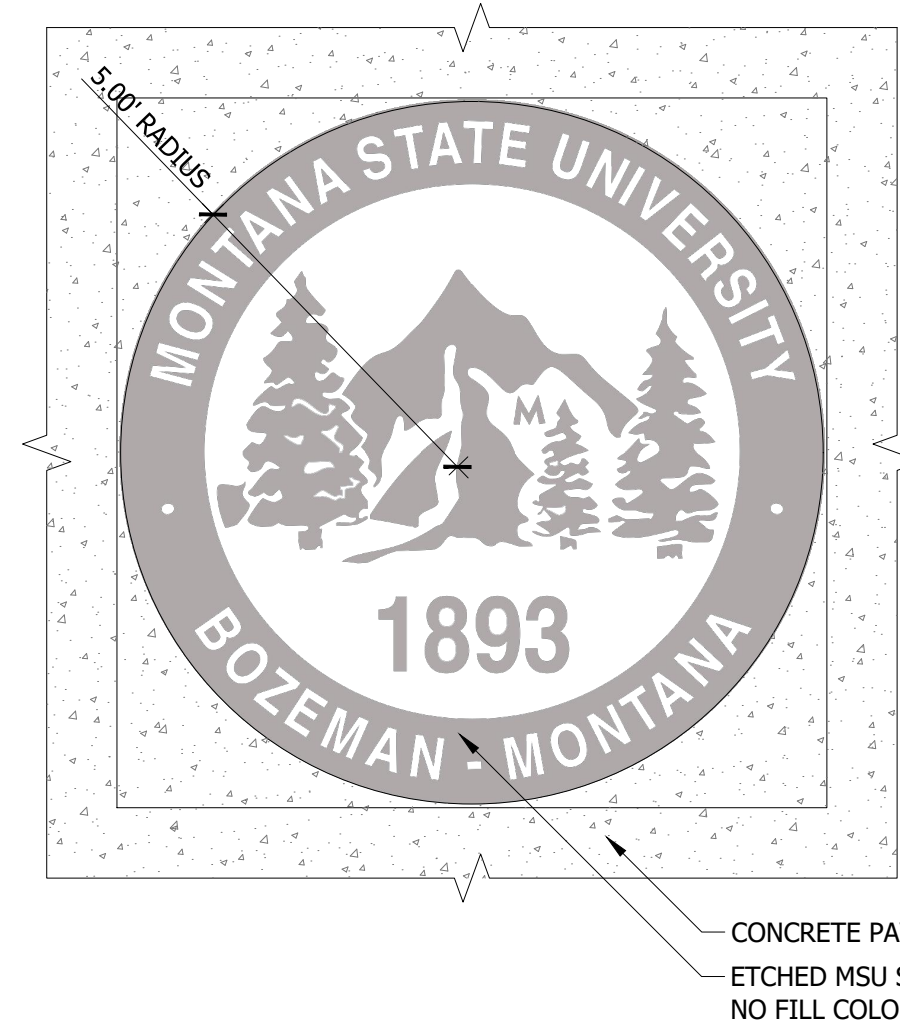
- NOTES:
1. BIKE RACKS TO BE 4-BIKE ANGLED RACKS, FROM PEAK RACKS.
 2. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
 3. ANCHOR BOLTS SHALL HAVE A MINIMUM CLEARANCE OF 3" OF CONCRETE BELOW ANCHOR BOLT OR ALL THREAD.
 4. SURFACE MOUNT. SEE LANDSCAPE PLAN FOR LOCATION.

3 PEAK BIKE RACK
N.T.S.

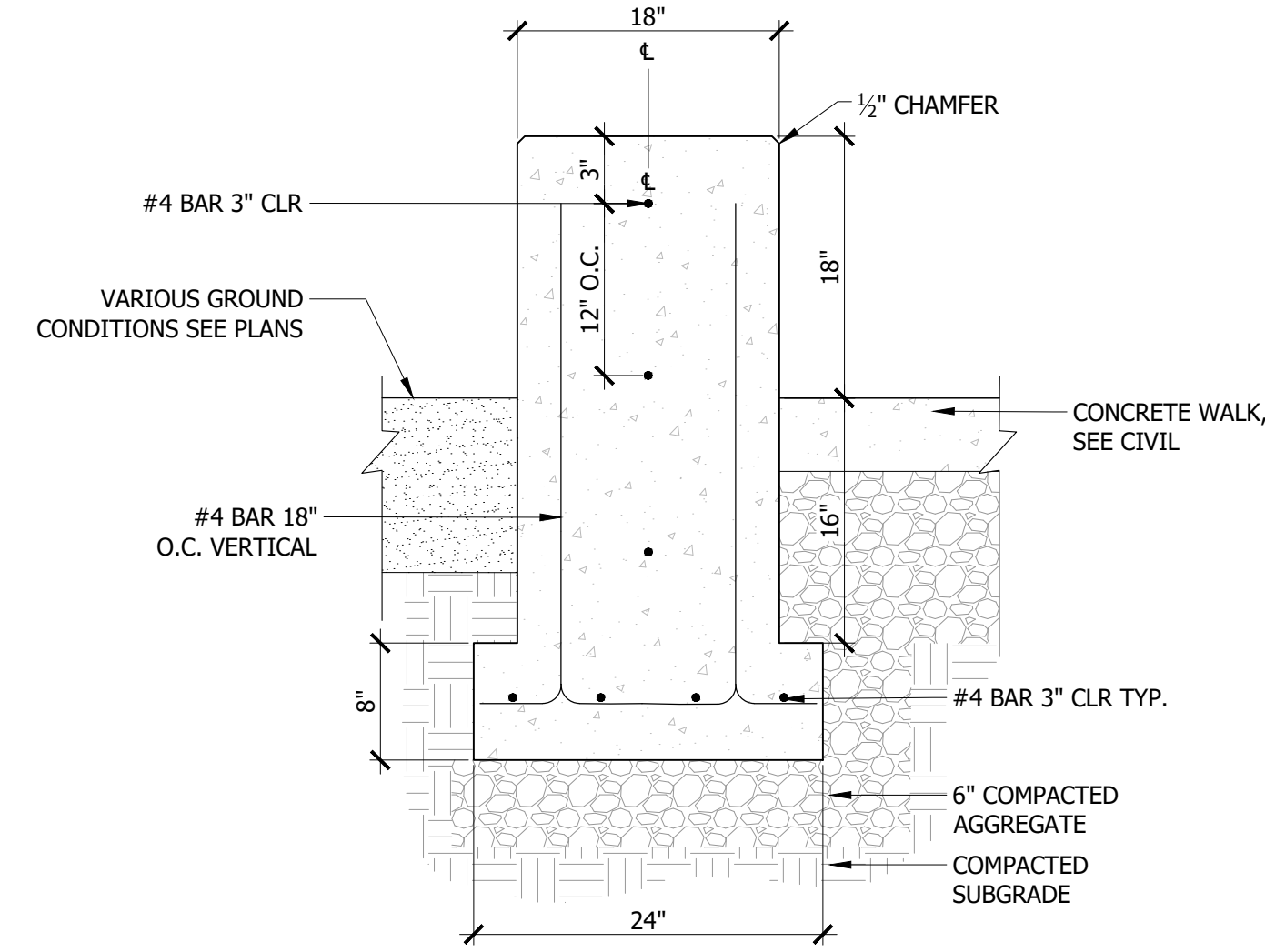


- NOTES:
1. TABLES SHALL BE CHARLIE TABLE BY LANDSCAPE FORMS, POWDERCOATED SILVER METALLIC, OR APPROVED EQUAL.
 2. INSTALL PER MANUFACTURER'S INSTRUCTIONS.
 3. FREESTANDING. SEE LANDSCAPE PLAN FOR LOCATION.

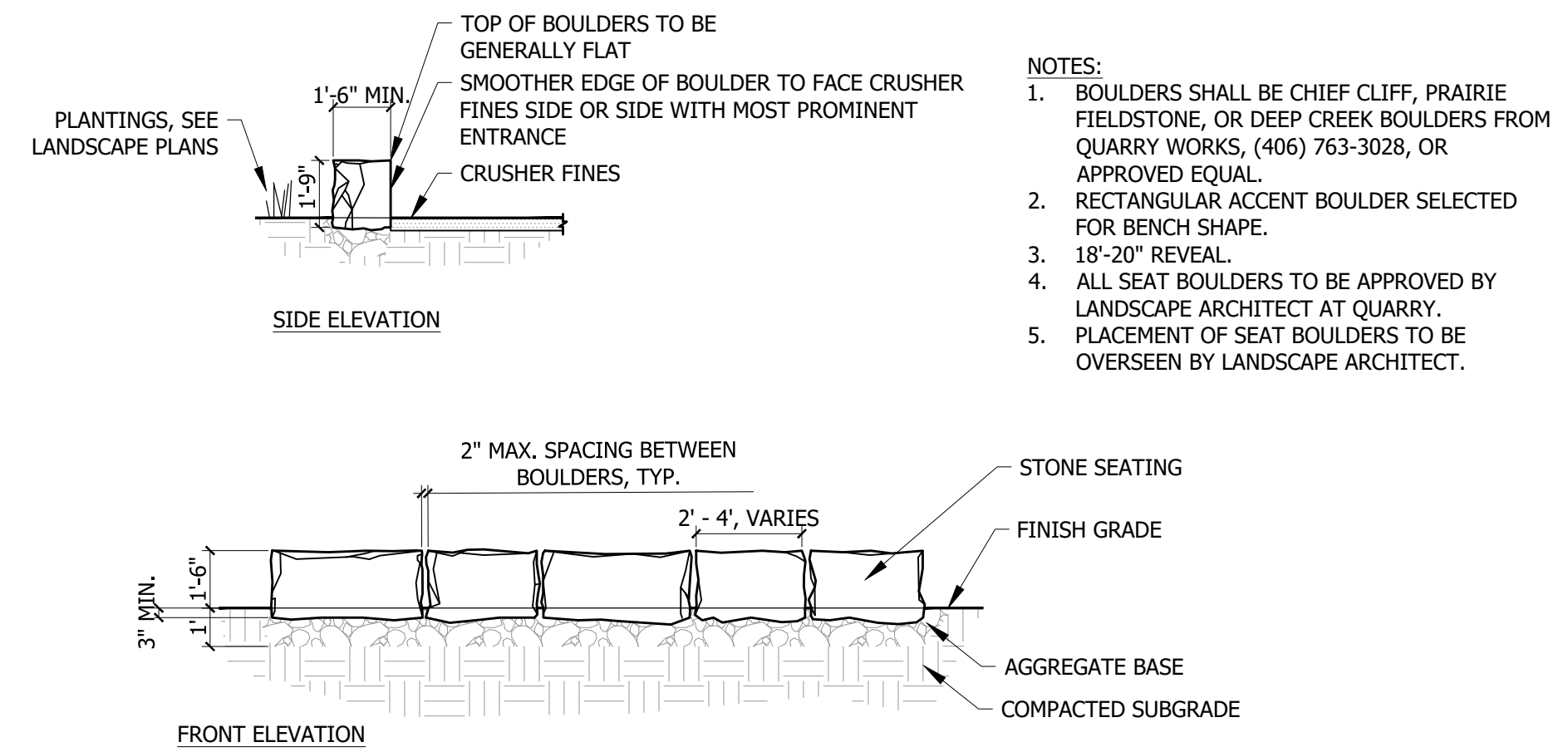
4 PATIO SEATING
N.T.S.



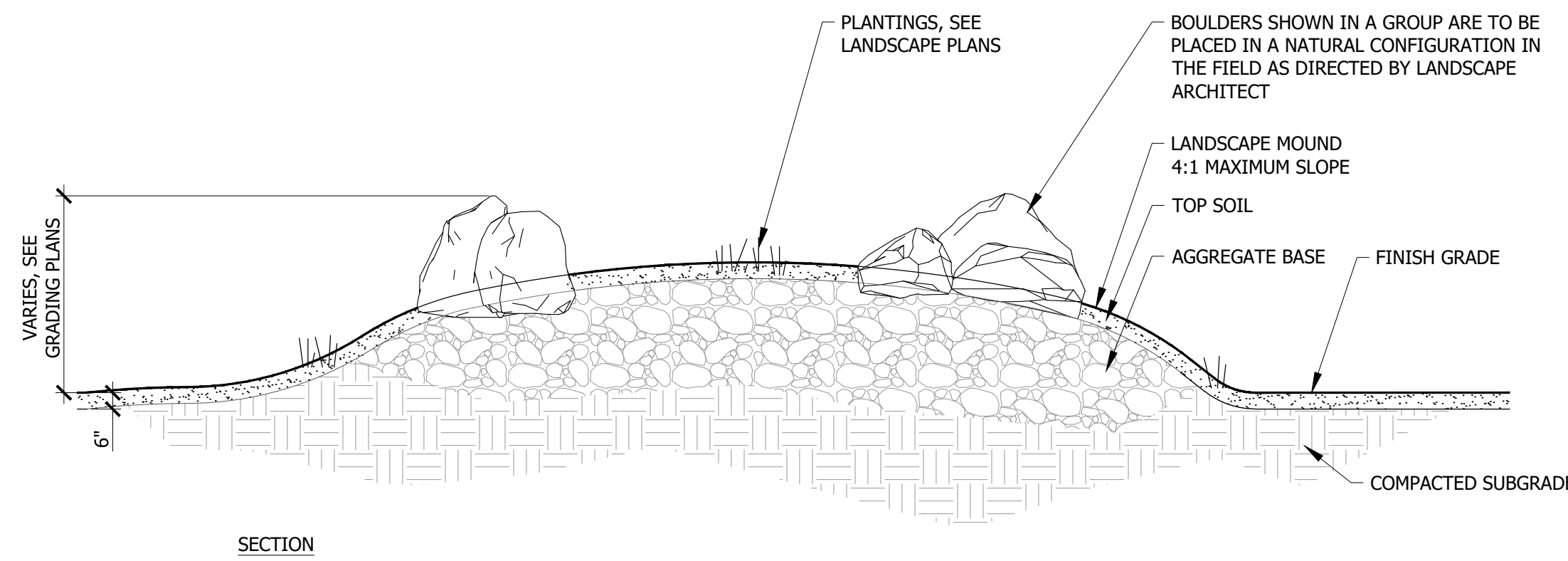
1 ETCHED MSU SEAL
N.T.S.



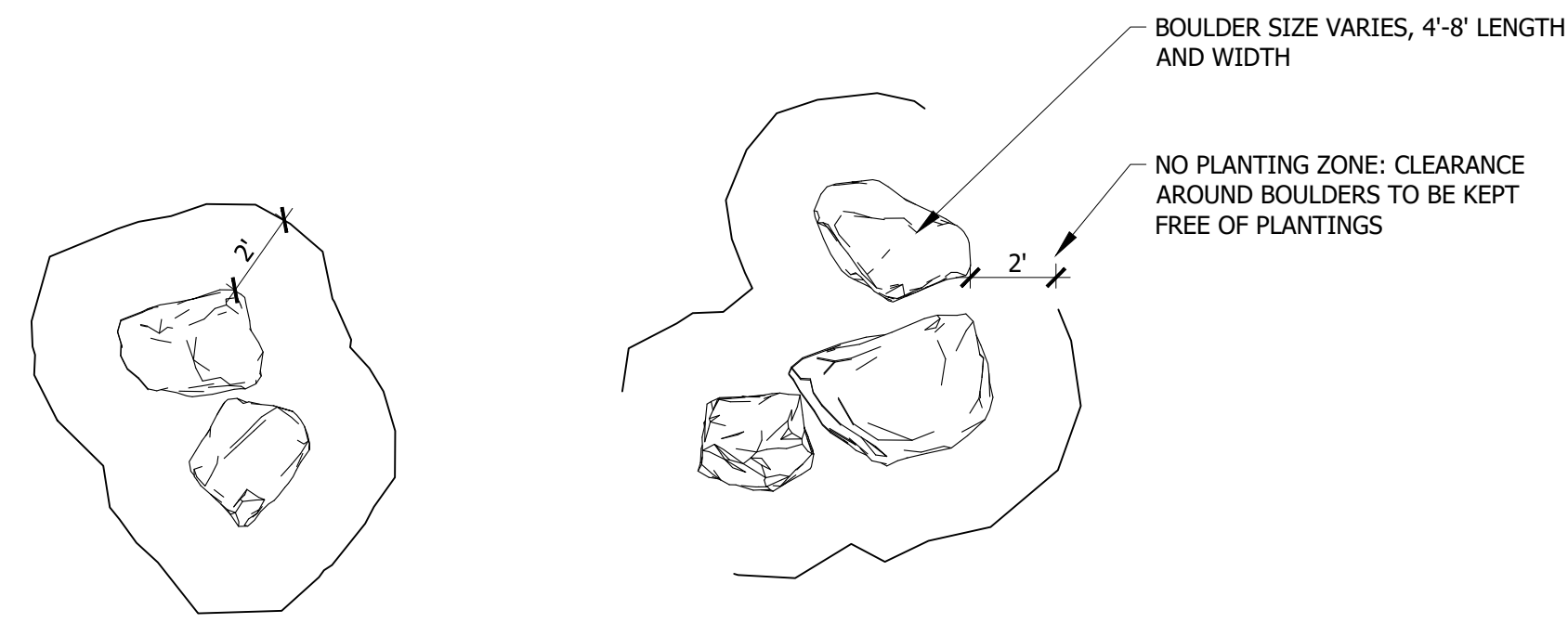
2 CONCRETE SEAT WALL
N.T.S.



3 STONE SEATING
N.T.S.



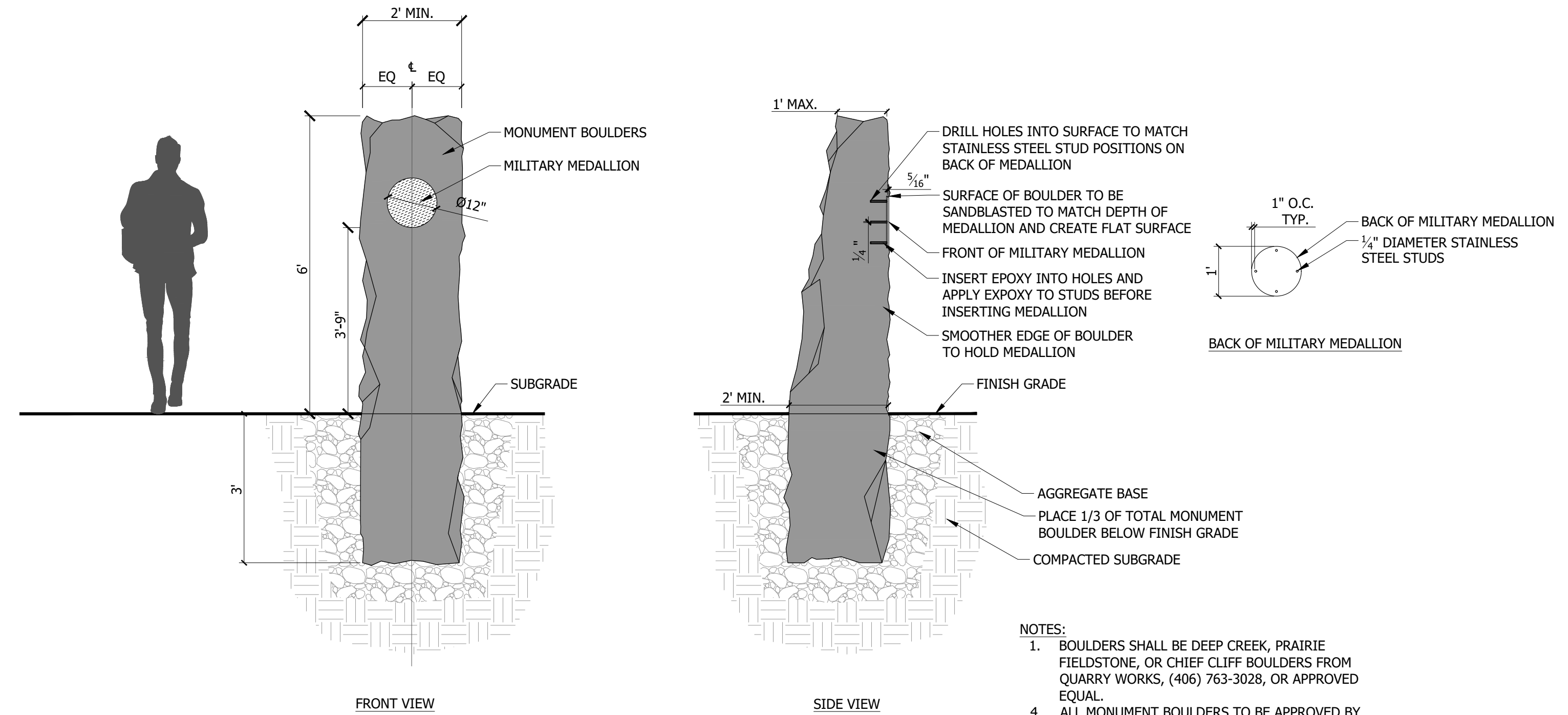
SECTION



PLAN VIEW

- NOTES:**
- BOULDERS SHALL BE PIPESTONE GRANITE BOULDERS FROM QUARRY WORKS, (406) 763-3028, OR APPROVED EQUAL.
 - BOULDERS SHALL BE WEATHERED BOULDERS WITH ROUNDED EDGES.
 - PLACE ALL BOULDERS SUCH THAT 1/3 OF THE TOTAL MASS OF EACH BOULDER IS BELOW FINISH GRADE.
 - LANDSCAPE MOUNDS TO BE NATURALLY SHAPED WITH SMOOTH TRANSITION BETWEEN CONTOUR LINES.
 - LANDSCAPE MOUND HEIGHTS TO VARY, SEE PLAN SHEETS C5.2 AND C5.3 FOR GRADING PLANS.
 - ALL BOULDERS TO BE APPROVED BY LANDSCAPE ARCHITECT AT QUARRY.
 - PLACEMENT OF BOULDERS TO BE OVERSEEN BY LANDSCAPE ARCHITECT.

4 BOULDERS IN MOUND
N.T.S.



FRONT VIEW

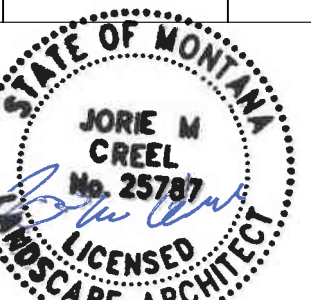
SIDE VIEW

- NOTES:**
- BOULDERS SHALL BE DEEP CREEK, PRAIRIE FIELDSTONE, OR CHIEF CLIFF BOULDERS FROM QUARRY WORKS, (406) 763-3028, OR APPROVED EQUAL.
 - ALL MONUMENT BOULDERS TO BE APPROVED BY LANDSCAPE ARCHITECT AT QUARRY.
 - PLACEMENT OF SEAT BOULDERS TO BE OVERSEEN BY LANDSCAPE ARCHITECT.

5 MONUMENTS
N.T.S.



DRAWN BY:	CMK/CE	TP/DRS
REVIEWED BY:		
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

LANDSCAPE DETAILS

SHEET

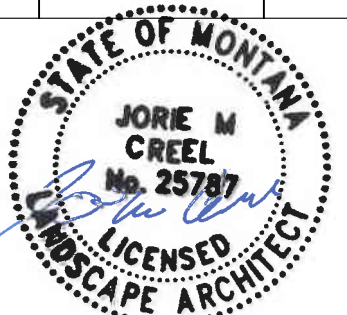
L3.3

DATE

4/5/2024



DRAWN BY: CMK/CE		
REV.	DESCRIPTION	TP/DRS DATE
1	FOR BIDDING	04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

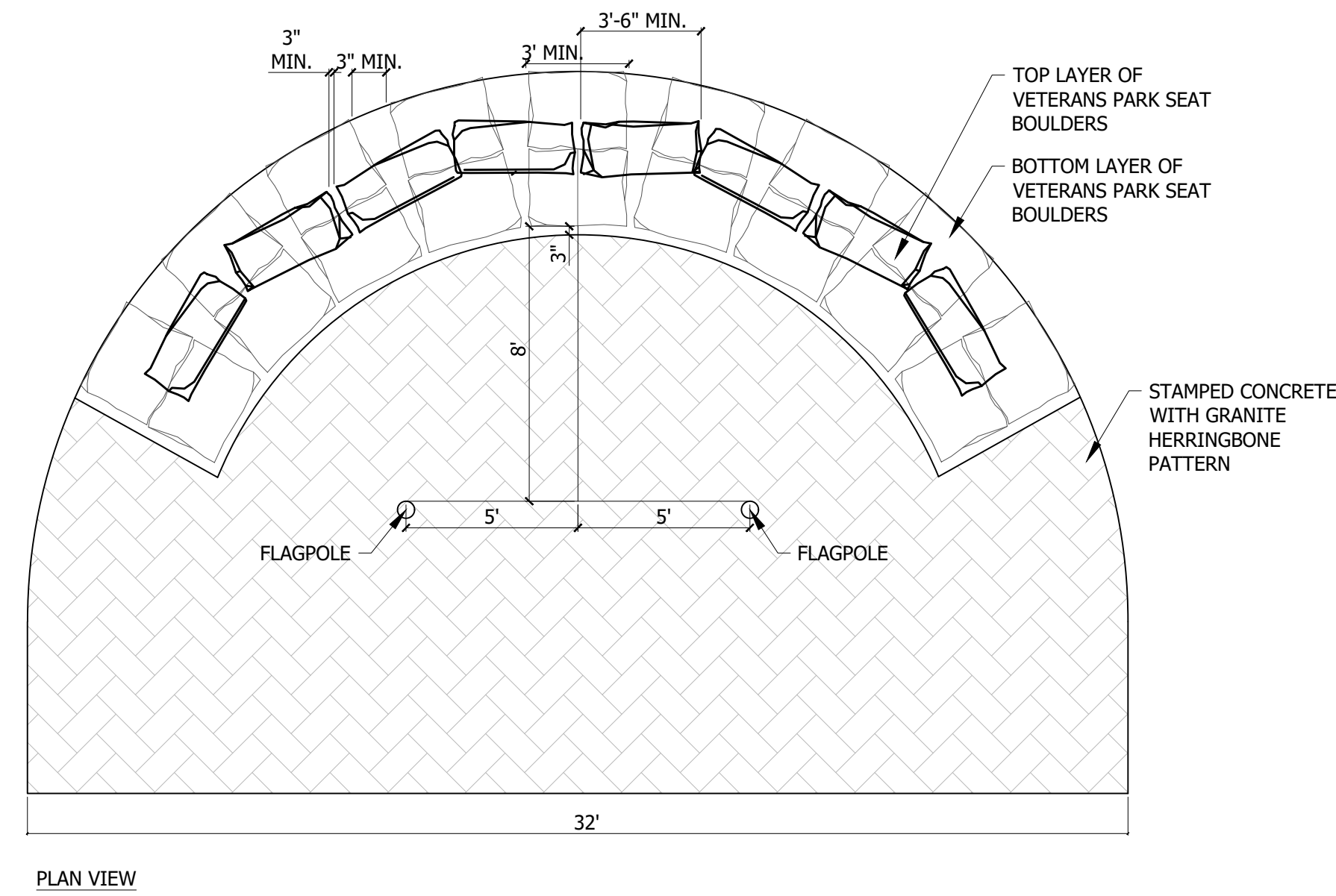
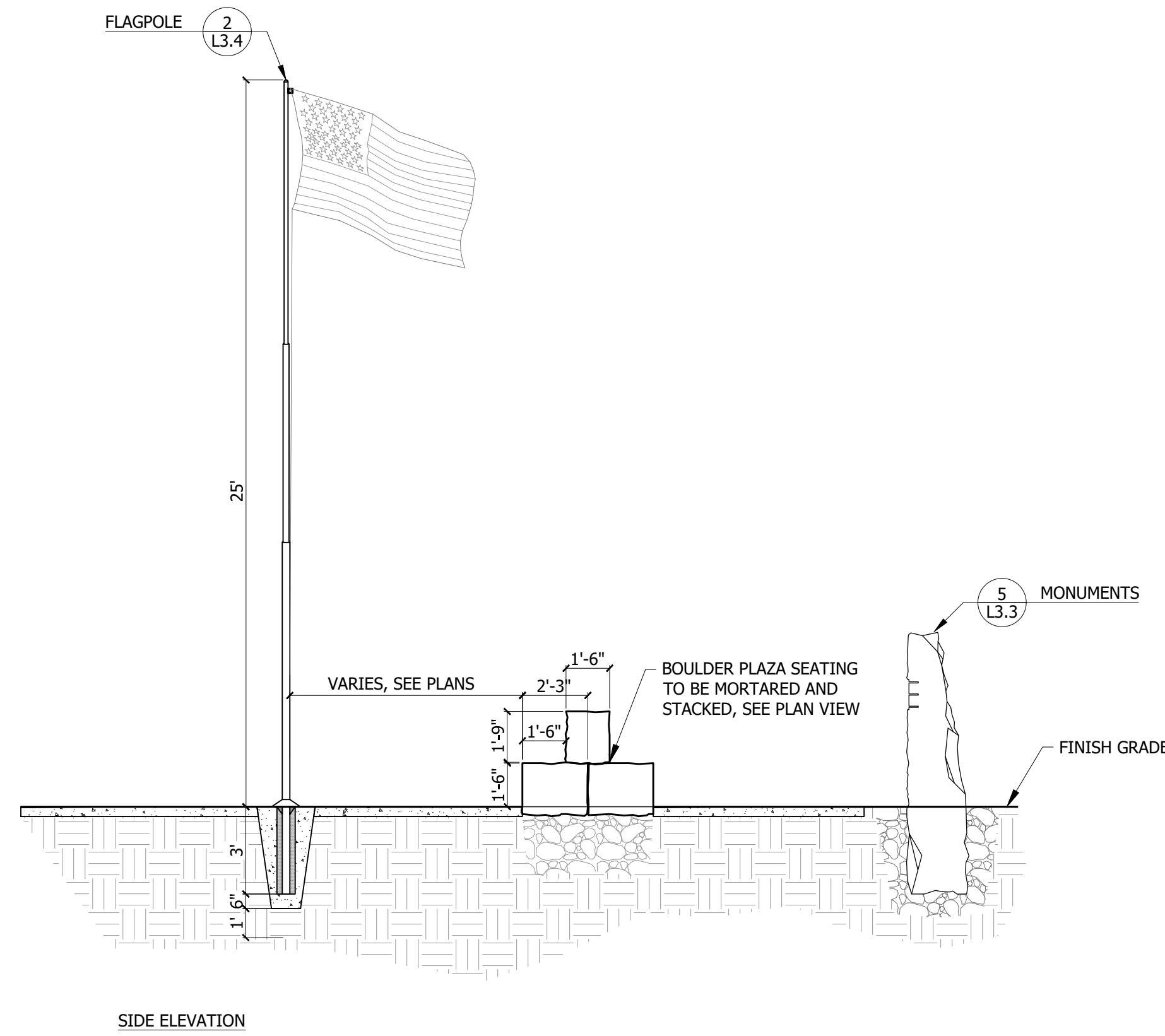
LANDSCAPE DETAILS

SHEET

L3.4

DATE

4/5/2024



- NOTES:
1. BOULDERS SHALL BE CHIEF CLIFF, PRAIRIE FIELDSTONE, OR DEEP CREEK BOULDERS FROM QUARRY WORKS, (406) 763-3028, OR APPROVED EQUAL.
 2. RECTANGULAR ACCENT BOULDER SELECTED FOR BENCH SHAPE.
 3. ALL SEAT BOULDERS TO BE APPROVED BY LANDSCAPE ARCHITECT AT QUARRY.
 4. PLACEMENT OF SEAT BOULDERS TO BE OVERSEEN BY LANDSCAPE ARCHITECT.

1 VETERANS PARK PLAZA
N.T.S.

ILLUMINATOR Model IL25
Max unflagged wind speed: 250 mph
Max flagged wind speed: 120+ mph

Pole Height	A	B	C	D	E	F	G
20	3'-0"	3'-6"	6"	12"	8"	12"	24"
25	3'-0"	3'-6"	6"	12"	8"	16"	30"
30	3'-0"	3'-6"	6"	12"	8"	16"	30"
35	3'-0"	4'-0"	6"	12"	8"	16"	35"
40	4'-0"	4'-6"	6"	12"	9"	18"	48"
45	4'-0"	4'-6"	6"	12"	9"	18"	48"
50	5'-0"	5'-6"	6"	12"	10"	20"	60"
60	6'-0"	6'-10"	10"	14"	12"	24"	72"
70	7'-0"	8'-0"	12"	16"	12"	24"	72"
80	8'-0"	9'-0"	12"	12"	12"	24"	72"

Truck Details
Aluminum body
Stainless steel ball bearings
Aluminum sheave
Cast aluminum spindle

Approximate flag pole height

25' Pole Height
Max flag size: 4' x 6'

Clear Cover (optional)

8" Clear

Shoe base option

Intertek

Project:	Ground set tapered aluminum flagpole: ALLOY 6063T6	Flagpole Warehouse	Date:
Location:	Exposed Height: 25'-0"	3500 Cantrell Industrial CT	Revision:
Architect:	Post diameter: 6"	Acworth, GA 30101	
Contractor:	Top diameter: 3.125"	www.flagpolewarehouse.com	
Customer:	Wall Thickness: 188"	Ship in: 1 Section	1-800-992-0956

ILLUMINATOR Model IL25
25' Pole Height

Pole Height	A	B	C	D	E	F	G
20	3'-0"	3'-6"	6"	12"	8"	12"	24"
25	3'-0"	3'-6"	6"	12"	8"	16"	30"
30	3'-0"	3'-6"	6"	12"	8"	16"	30"
35	3'-0"	4'-0"	6"	12"	8"	16"	35"
40	4'-0"	4'-6"	6"	12"	9"	18"	48"
45	4'-0"	4'-6"	6"	12"	9"	18"	48"
50	5'-0"	5'-6"	6"	12"	10"	20"	60"
60	6'-0"	6'-10"	10"	14"	12"	24"	72"
70	7'-0"	8'-0"	12"	16"	12"	24"	72"
80	8'-0"	9'-0"	12"	12"	12"	24"	72"

Securing your flag
Step 1: Slip a loop through the eye of the snap.
Step 2: Put the loop over the snap.
Step 3: Draw tight.

Aluminum flesh collar
3000 PSI concrete
Hardwood wedges (supplied by others)
Dry sand lightly tamped after setting pole
Foundation sleeve - 15 gal hot dip galvanized steel
Steel centering wedges
1/4" Steel base plate
1/4" Steel support plate, welded to grounding spike

Intertek

Project:	Ground set tapered aluminum flagpole: ALLOY 6063T6	Flagpole Warehouse	Date:
Location:	Exposed Height: 25'-0"	3500 Cantrell Industrial CT	Revision:
Architect:	Post diameter: 6"	Acworth, GA 30101	
Contractor:	Top diameter: 3.125"	www.flagpolewarehouse.com	
Customer:	Wall Thickness: 188"	Ship in: 1 Section	1-800-992-0956

COMMERCIAL FLAGPOLE LIGHTING FIXTURE
Its patented design lights the flag only and follows the flag as the wind blows it around the flagpole.

Internal Halyard Beacon
Features include:
• Revolving Internal Halyard Truck, 359 degrees
• Wire kit 10' past height of pole
• LED Bulb
• Utilizes a winch system to pull up and down the halyard
• Transformer inside fixture, 120V Supply / 12V Output.

External Halyard Beacon Included
Features include:
• Wiring, length of pole +10 feet
• 6" Flagpole Beacon
• Revolving 359 degrees
• LED Bulb
• Suitable for 3.5" top diameter poles
• Transformer inside fixture, 120V Supply / 12V Output.

Internal Halyard CAM System Beacon
Features include:
• Wire kit 10' past height of pole
• All Cam units require a pole top adapter
• 6" Flagpole Beacon
• Revolving 359 degrees
• LED Bulb
• Suitable for 20' to 40' poles
• Transformer inside fixture, 120V Supply / 12V Output.

Intertek

Project:	Ground set tapered aluminum flagpole: ALLOY 6063T6	Flagpole Warehouse	Date:
Location:	Exposed Height: 25'-0"	3500 Cantrell Industrial CT	Revision:
Architect:	Post diameter: 6"	Acworth, GA 30101	
Contractor:	Top diameter: 3.125"	www.flagpolewarehouse.com	
Customer:	Wall Thickness: 188"	Ship in: 1 Section	1-800-992-0956

2 FLAGPOLE
N.T.S.

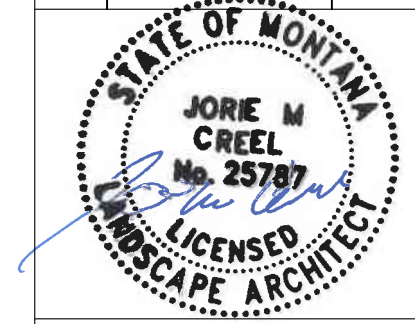
FOR BIDDING



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

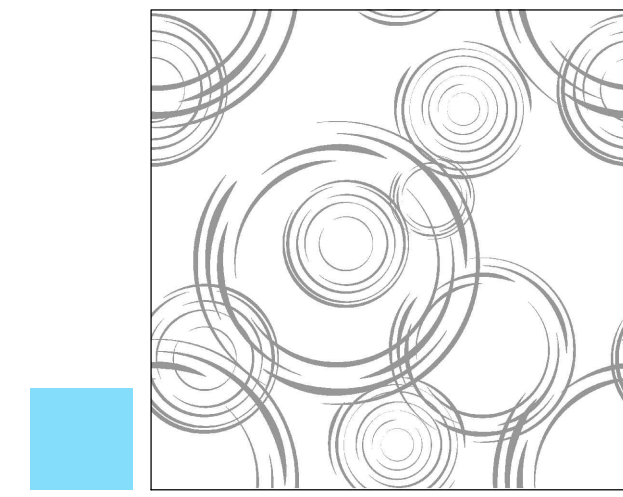
LANDSCAPE DETAILS

SHEET

L3.5

DATE

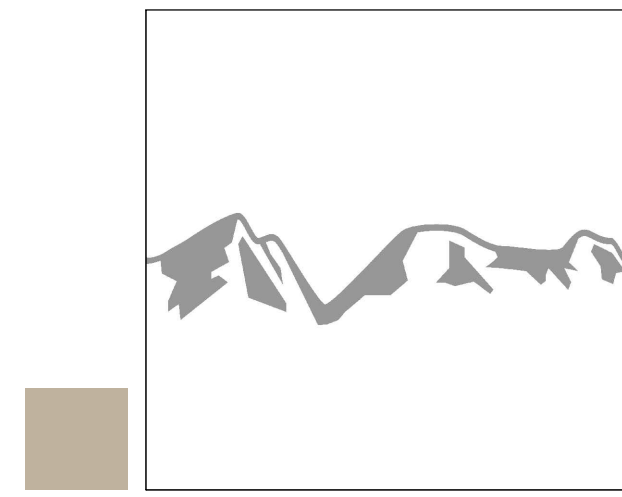
4/5/2024



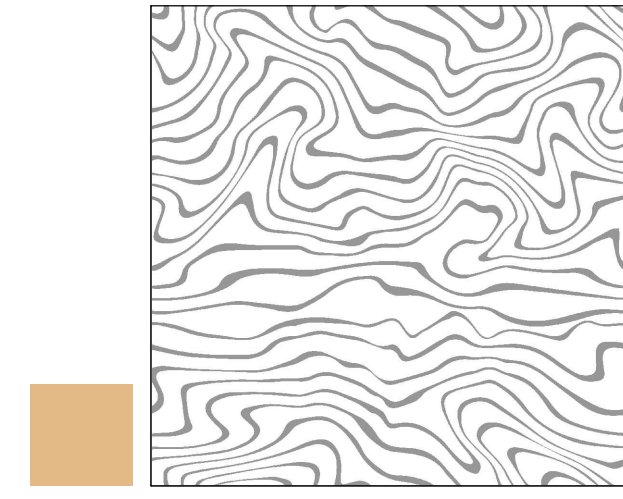
WATER ECOZONE STAMP



FOREST ECOZONE STAMP



MOUNTAIN ECOZONE STAMP



CANYON ECOZONE STAMP



GRASSLANDS ECOZONE STAMP

- NOTES:
1. SIZE: 2.5 FT X 2.5 FT (900 SQ IN)
 2. MATERIAL: FLEXIBLE RUBBER SKIN, 1/8" IMPRESSION DEPTH.
 3. APPLICATION: APPLY CONCRETE MOLD FORM RELEASE AGENT, CRETE LEASE 880 SPRAY TO STAMP. PRESS INTO FRESH CONCRETE, AND REMOVE IMMEDIATELY. STAMP SKIN TO BE ADHERED TO PIECE OF 2.5' X 2.5' WOOD BOARD TO ACT AS A 'STAMP'.
 4. ELECTRONIC VECTOR FILE OF EACH STAMP WILL BE PROVIDED TO THE CONTRACTOR.
 5. SEE SHEET C7.2 FOR TYPICAL CONCRETE SCORING / JOINT PATTERN AND FINISH DETAIL.

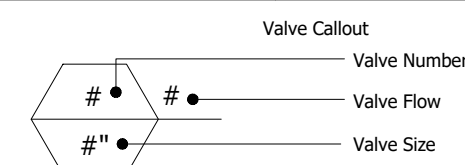
1 CUSTOM CONCRETE STAMPS - ECOZONES
N.T.S.

NOTE

ALL IRRIGATION COMPONENTS CONFORM WITH MONTANA STATE UNIVERSITY'S IRRIGATION GUIDELINES AND SPECIFICATIONS.
****IT IS THE RESPONSIBILITY OF THE BIDDING CONTRACTOR TO UNDERSTAND MSU SPECIFICATIONS AND GUIDELINES PRIOR TO BID IN ORDER TO INSTALL FINAL PRODUCT THAT WILL BE ACCEPTED AND APPROVED BY CLIENT****

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	RAIN BIRD 1804-SAM-PRS-NP 15 STRIP SERIES TURF SPRAY 4IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING. NON POTABLE PURPLE CAP.	6
	RAIN BIRD 1804-SAM-PRS-NP 5 SERIES MPR TURF SPRAY 4IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING. NON POTABLE PURPLE CAP.	4
	RAIN BIRD 1804-SAM-PRS-NP 8 SERIES MPR TURF SPRAY 4IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING. NON POTABLE PURPLE CAP.	67
	RAIN BIRD 1804-SAM-PRS-NP 10 SERIES MPR TURF SPRAY 4IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING. NON POTABLE PURPLE CAP.	15
	RAIN BIRD 1804-SAM-PRS-NP ADJ TURF SPRAY 4IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE. PRESSURE REGULATING. NON POTABLE PURPLE CAP.	5
	RAIN BIRD 1812-SAM-PRS-NP 8 SERIES MPR SHRUB SPRAY 12IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, PRESSURE REGULATING DEVICE, AND NON-POTABLE PURPLE CAP.	30
	RAIN BIRD 1812-SAM-PRS-NP ADJ SHRUB SPRAY 12IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2IN. NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, PRESSURE REGULATING DEVICE, AND NON-POTABLE PURPLE CAP.	91
	RAIN BIRD R-VAN-STRIP RD-04-SAM-P45-NP SHRUB ROTARY, 5FT.X15FT. (LCS AND RCS), 5FT.X30FT. (SST) HAND ADJUSTABLE MULTI-STREAM ROTARY W/ RD1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET. W/ NON-POTABLE PURPLE CAP.	8
	RAIN BIRD R-VAN14 RD-04-SAM-P45-NP TURF ROTARY, 8FT.-14FT. 45-270 DEGREES AND 360 DEGREES HAND ADJUSTABLE MULTI-STREAM ROTARY W/RD1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET. WITH NON-POTABLE PURPLE CAP.	135
	RAIN BIRD R-VAN18 RD-04-SAM-P45-NP TURF ROTARY, 13FT.-18FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/RD1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET. W/ NON-POTABLE PURPLE CAP.	36
	RAIN BIRD R-VAN24 RD-04-SAM-P45-NP TURF ROTARY, 17FT.-24FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/RD1800 TURF SPRAY BODY ON 4IN. POP-UP, WITH CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET. W/ NON-POTABLE PURPLE CAP.	30
	RAIN BIRD R-VAN14 RD-12-SAM-P45-NP SHRUB ROTARY, 8FT.-14FT. 45-270 DEGREES AND 360 DEGREES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/RD1800 SHRUB SPRAY BODY ON 12IN. POP-UP, W/ CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET. W/ NON-POTABLE PURPLE CAP.	245
	RAIN BIRD R-VAN18 RD-12-SAM-P45-NP SHRUB ROTARY, 13FT.-18FT. 45-270 DEGREES AND 360 DEGEES. HAND ADJUSTABLE MULTI-STREAM ROTARY W/RD1800 SHRUB SPRAY BODY ON 12IN. POP-UP, W/ CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET. W/ NON-POTABLE PURPLE CAP.	116
	RAIN BIRD R-VAN24 RD-12-SAM-P45-NP SHRUB ROTARY, 17FT.-24FT. 45-270 DEGREES AND 360 DEGREES HAND ADJUSTABLE MULTI-STREAM ROTARY W/RD1800 SHRUB SPRAY BODY ON 12IN. POP-UP, W/ CHECK VALVE AND 45 PSI IN-STEM PRESSURE REGULATOR. 1/2IN. NPT FEMALE THREADED INLET. W/ NON-POTABLE PURPLE CAP.	77
	RAIN BIRD 1804-1300AF FLOOD FLOOD BUBBLER 4.0IN. POP-UP, WITH A PA-80 ADAPTER.	151
	RAIN BIRD RWS-B-C-P W/ RWS-SOCK 1400 SERIES ROOT WATERING SYSTEM WITH 4IN. DIAMETER X 36IN. LONG WITH LOCKING GRATE, SEMI-RIGID MESH TUBE. CHECK VALVE, PURPLE GRATE, AND SAND SOCK. RAIN BIRD BUBBLER OPTION AS INDICATED: 1401 0.25 GPM, 1402 0.5 GPM, 1404 1.0 GPM, 1408 2.0 GPM.	8
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	
	RAIN BIRD PESB 1IN., 1-1/2IN., 2IN. PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. WITH SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.	
---	IRRIGATION LATERAL LINE: PVC SCHEDULE 40 1.5" MIN	
---	IRRIGATION MAINLINE: PVC SCHEDULE 40 WITH 14 AWG TRACER WIRE	
---	PIPE SLEEVE: PVC SCHEDULE 40 6" DIA MIN	



VALVE SCHEDULES

THE DESIGN OF THE IRRIGATION SYSTEM ASSUMES THAT THE VALVES LOCATIONS ARE PLACED IN RELATION TO THE EXISTING IRRIGATION MAINLINES AND AS-BUILT MAPS PROVIDED BY MSU. THE VALVES ASSOCIATED WITH EACH BUILDING ARE PLACED WITH PROXIMITY TO AN EXISTING CONTROLLER. EXISTING CONTROLLER CAPACITY AND AVAILABILITY MUST BE CHECKED AND COORDINATED WITH THE CAMPUS IRRIGATION STAFF. IF THERE IS NO AVAILABILITY WITHIN EXISTING CONTROLLERS, CONTACT LANDSCAPE ARCHITECT TO COORDINATE ALTERNATIVES.

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PESB	1-1/2"	TURF ROTARY	32.97	52	45	49.0		1.08 in/h
2	RAIN BIRD PESB	1-1/2"	TURF ROTARY	17.96	32	45	49.2		1.08 in/h
3	RAIN BIRD PESB	1-1/2"	SHRUB ROTARY	20.06	28	45	49.5		0.81 in/h

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PESB	1"	TURF SPRAY	17.78	30	30	32.8		2.49 in/h
2	RAIN BIRD PESB	1-1/2"	TURF SPRAY	19.79	38	30	34.3		2.28 in/h
3	RAIN BIRD PESB	1"	TURF ROTARY	3.35	7	45	46.6		1.41 in/h

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PESB	1-1/2"	SHRUB ROTARY	21.31	24	45	49.6		0.75 in/h
2	RAIN BIRD PESB	1-1/2"	BUBBLER	18	18	10	14.3		3.77 in/h
3	RAIN BIRD PESB	1-1/2"	SHRUB ROTARY	31.48	37	45	49.5		0.7 in/h
4	RAIN BIRD PESB	1-1/2"	TURF ROTARY	44.9	32	45	49.2		0.61 in/h
5	RAIN BIRD PESB	1-1/2"	TURF ROTARY	26.11	47	45	49.7		0.84 in/h
6	RAIN BIRD PESB	1-1/2"	SHRUB ROTARY	38.1	36	45	49.7		0.52 in/h
7	RAIN BIRD PESB	1-1/2"	SHRUB ROTARY	25.68	27	45	49.9		0.6 in/h
8	RAIN BIRD PESB	1-1/2"	SHRUB ROTARY	25.31	19	45	49.6		0.45 in/h
9	RAIN BIRD PESB	1-1/2"	TURF ROTARY	41.07	56	45	49.6		1.06 in/h
10	RAIN BIRD PESB	1"	BUBBLER	27	27	10	16.7		3.7 in/h
11	RAIN BIRD PESB	1"	SHRUB SPRAY	15.08	30	30	34.6		1.38 in/h
12	RAIN BIRD PESB	1"	SHRUB ROTARY	22.2	31	45	51.4		1.05 in/h
13	RAIN BIRD PESB	1"	SHRUB SPRAY	26.51	40	30	36.1		2.81 in/h

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PESB	1"	TURF ROTARY	8.68	14	45	47.0		0.84 in/h
2	RAIN BIRD PESB	1"	SHRUB ROTARY	24.29	49	45	49.6		0.67 in/h
3	RAIN BIRD PESB	1"	SHRUB SPRAY	25.64	51	30	37.5		3.14 in/h
4	RAIN BIRD PESB	1"	BUBBLER	9	12	20	22.1		2.77 in/h

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PESB	1-1/2"	SHRUB ROTARY	29.17	31	45	50.8		0.49 in/h
2	RAIN BIRD PESB	1"	BUBBLER	45	45	10	24.7		3.88 in/h
3	RAIN BIRD PESB	1"	SHRUB ROTARY	25.05	34	45	49.7		0.59 in/h
4	RAIN BIRD PESB	1"	BUBBLER	13	13	10	12.4		3.6 in/h

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PESB	1"	BUBBLER	25	25	10	16.0		3.91 in/h
2	RAIN BIRD PESB	1"	BUBBLER	2	2	10	11.4		3.74 in/h
3	RAIN BIRD PESB	1"	SHRUB ROTARY	39.25	55	45	55.7		0.8 in/h
4	RAIN BIRD PESB	1"	SHRUB ROTARY	3.85	8	45	46.7		0.62 in/h

NUMBER	MODEL	SIZE	TYPE	GPM	HEADS	DESIGN PSI	PSI	PSI @ POC	PRECIP
1	RAIN BIRD PESB	1"	SHRUB ROTARY	16.53	28	45	47.6		1.16 in/h
2	RAIN BIRD PESB	1"	BUBBLER	17	17	10	13.5		3.81 in/h
3	RAIN BIRD PESB	1"	TURF SPRAY	16.05	29	30	32.8		1.81 in/h



MSU-CPDC

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

GRANT STREET
 PEDESTRIAN MALL

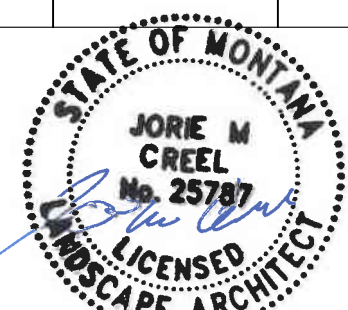
FOR BIDDING



DRAWN BY: CMK/CE

REVIEWED BY: TP/DRS

REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24



PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE
 IRRIGATION
 SCHEDULE & NOTES

SHEET

L4.1

DATE
 4/5/2024



UULC
 UTILITIES UNDERGROUND LOCATION CENTER
 MONTANA ONE CALL
 CALL BEFORE YOU DIG!
 1-800-424-5555
 www.Callbeforeyoudig.org

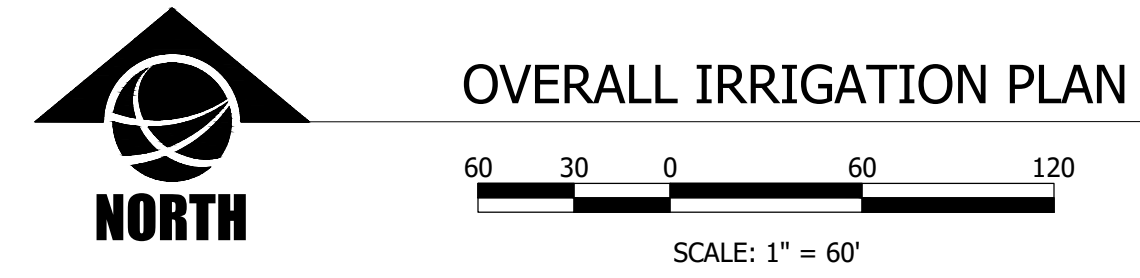
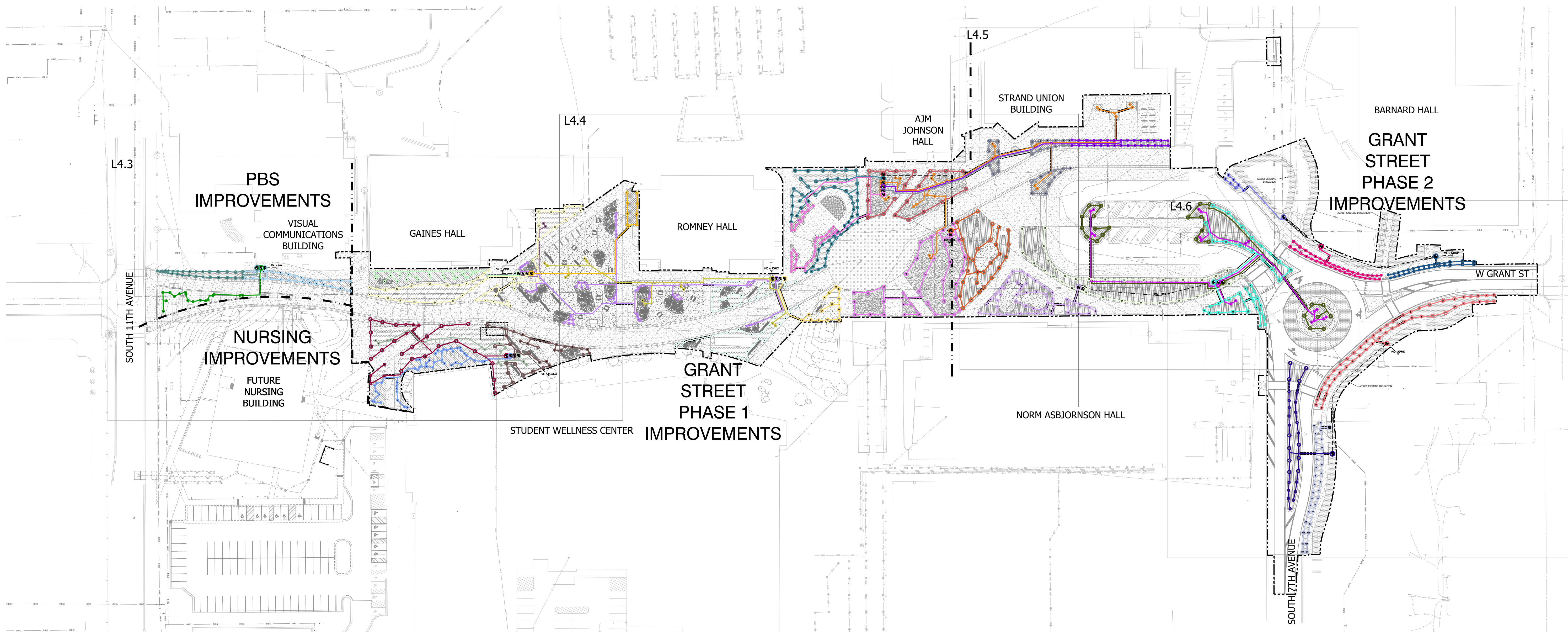
IRRIGATION NOTES

- THIS SYSTEM DESIGN ASSUMES A MINIMUM DYNAMIC PRESSURE FOR THE IRRIGATION SYSTEM OF 60 PSI AT THE VARIOUS EXISTING CONNECTION POINTS.
- THE IRRIGATION SYSTEM POINT-OF-CONNECTION SHALL BE AT VARIOUS LOCATIONS SHOWN. AVAILABLE WATER USAGE AT EACH POC SHALL BE VERIFIED. VERIFY EXACT LOCATION OF P.O.C. WITH OWNERS REPRESENTATIVE.
- ANY NEW IRRIGATION MAIN LINE TO BE 2" SCH 40 PVC PIPE PER MSU SPECIFICATIONS.
- ALL TREES TO BE IRRIGATED THROUGH DEDICATED BUBBLERS UNLESS OTHERWISE NOTED.
- ALL SHRUBS TO BE IRRIGATED THROUGH OVERHEAD SPRAY OR DEDICATED BUBBLERS. SEE PLANS FOR IRRIGATION TYPE FOR EACH SHRUB.
- CONTROLLER : VALVE LOCATIONS ARE DESIGNED TO BE WITHIN PROXIMITY TO EXISTING BUILDING LOCATIONS. CONTROLLER CAPACITY AND AVAILABILITY TO BE CONFIRMED WITH CAMPUS IRRIGATION STAFF. FINAL LOCATION TO BE APPROVED BY OWNERS REPRESENTATIVE.
- COORDINATE UTILITY LOCATES OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- DO NOT PROCEED WITH THE INSTALLATION OF THE IRRIGATION SYSTEM WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT MIGHT NOT HAVE CONSIDERED IN THE DESIGN PROCESS. IF DISCREPANCIES IN CONSTRUCTION DETAILS, LEGEND, NOTES OR SPECIFICATIONS ARE DISCOVERED, BRING ALL SUCH OBSTRUCTIONS OR DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- DRAWINGS ARE DIAGRAMMATIC. THEREFORE, THE FOLLOWING SHOULD BE NOTED:
 - ALTHOUGH IRRIGATION COMPONENTS MAY BE SHOWN OUTSIDE OF PLANTING AREAS FOR CLARITY, INSTALL IRRIGATION PIPE, WIRING, VALVES, ETC. IN LANDSCAPED AREAS AND WITH PROPERTY LINES.
 - TREE AND SHRUB LOCATION SHOWN ON LANDSCAPE PLANS TAKE PRECEDENCE OVER IRRIGATION EQUIPMENT LOCATIONS. AVOID CONFLICTS BETWEEN THE IRRIGATION SYSTEM, PLANTING MATERIALS, AND ARCHITECTURAL FEATURES.
- PROVIDE THE FOLLOWING COMPONENTS TO THE OWNER PRIOR TO THE COMPLETION OF THE PROJECT:
 - TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVES AND CONTROLLERS.
- THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF IRRIGATION SLEEVING. SCHEDULE 40 PVC SLEEVES ARE REQUIRED FOR BOTH PIPING AND ELECTRICAL WIRING AT EACH HARDSCAPE CROSSING. COORDINATE INSTALLATION OF SLEEVING WITH OTHER TRADES. ANY PIPE OR WIRE WHICH WAS NOT INSTALLED WILL REQUIRE HORIZONTAL BORING BY THE IRRIGATION CONTRACTOR. IRRIGATION CONTRACTOR TO COORDINATE WITH SITE CONTRACTOR FOR TIME OF INSTALLATION AND LOCATION OF ANY SLEEVE AND/OR CONDUIT INSTALLATION. LOCATION AND NUMBER OF SLEEVES IS THE RESPONSIBILITY OF THE CONTRACTOR. SLEEVES SHALL BE MARKED IN CONCRETE. (SEE SPEC). ALL PIPE SLEEVE SHALL BE 2 PIPE SIZES LARGER THAN THE PIPE TO BE INSTALLED THROUGH MIN 6" SLEEVE, UNLESS NOTED OTHERWISE. PROVIDE SEPARATE SLEEVES FOR BOTH 120V AND 24V WIRING. WIRE SLEEVES SHALL BE MIN 6" DIA.
- INSTALL TWO (2) #14 AWG CONTROL WIRES FROM CONTROLLER LOCATION TO EACH DEAD-END OF MAINLINE FOR USE AS SPARE INCASE OF CONTROL WIRE FAILURE. COIL 3 FEET OF WIRE IN VALVE BOX.
- CONTRACTOR SHALL BE REQUIRED TO START UP AND WINTERIZE SYSTEM FOR THE WARRANTY PERIOD, ONE YEAR FROM FINAL COMPLETION, AND MAKE ALL ADJUSTMENTS AND REPAIRS REQUIRED TO INSURE EFFICIENT OPERATION.
- CONTRACTOR SHALL PROVIDE ALL REQUIRED IRRIGATION WATER CONTROL, FILTRATION PRESSURE REGULATION, WASTE AND DRAINAGE REQUIREMENTS OF A COMPLETE MAINTENANCE SYSTEM.
- CONTRACTOR SHALL MAINTAIN AN ACCURATE CURRENT AS BUILT PLAN ON THE JOBSITE AT ALL TIMES.
- ALL VALVE BOXES TO BE SIZED PER MSU SPECIFICATIONS. VALVE LOCATIONS ARE DIAGRAMMATIC. LOCATE VALVES IN PLANTING BED AREAS WHEN POSSIBLE.
- CONTRACTOR SHALL REPAIR EXISTING IRRIGATION WHERE POSSIBLE.
- A COMPLETE LIST OF EQUIPMENT, SHOP DRAWING CATALOG CUTS, LAYOUT PERFORMANCE AND MAINTENANCE WARRANTY INFORMATION SHALL BE SUBMITTED TO THE OWNERS REPRESENTATIVE FOR APPROVAL PRIOR TO COMMENCING WORK. SAID INFORMATION SHALL BE COMPILED ALONG WITH AS-BUILT DRAWINGS AND MAINTENANCE INSTRUCTION AND SUBMITTED TO THE OWNERS REPRESENTATIVE FOR APPROVAL AT FINAL COMPLETION. CONTRACTOR SHALL DEMONSTRATE COMPLETE OPERATING SYSTEM AND MAINTENANCE TO OWNERS REPRESENTATIVE AND OWNERS MAINTENANCE AND OPERATING PERSONNEL.

NOTE

ALL IRRIGATION COMPONENTS CONFORM WITH MONTANA STATE UNIVERSITY'S IRRIGATION GUIDELINES AND SPECIFICATIONS.
 IT IS THE RESPONSIBILITY OF THE BIDDING CONTRACTOR TO UNDERSTAND MSU SPECIFICATIONS AND GUIDELINES PRIOR TO BID IN ORDER TO INSTALL FINAL PRODUCT THAT WILL BE ACCEPTED AND APPROVED BY CLIENT

LEGEND



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

GRANT STREET
 PEDESTRIAN MALL

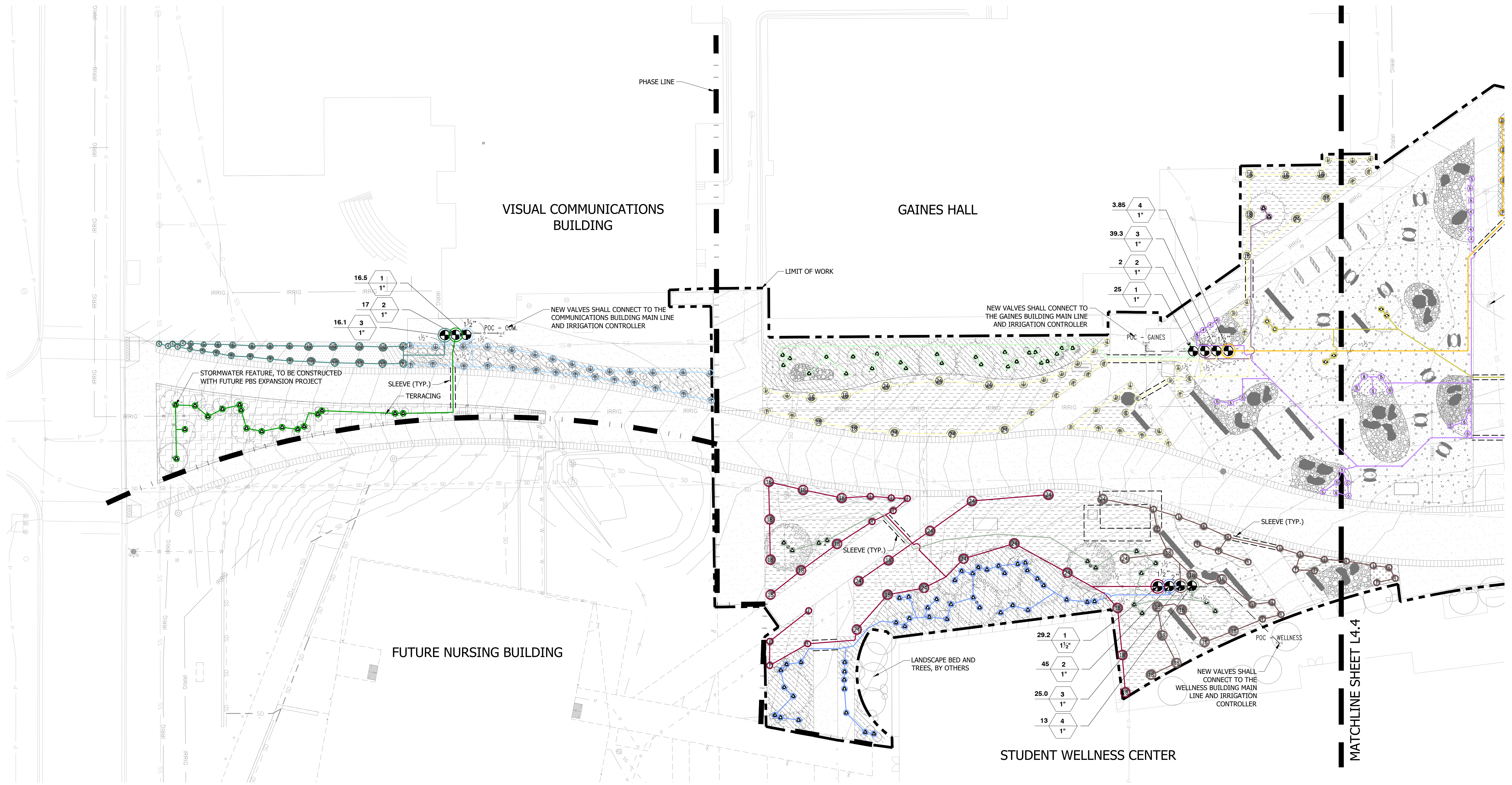
FOR BIDDING



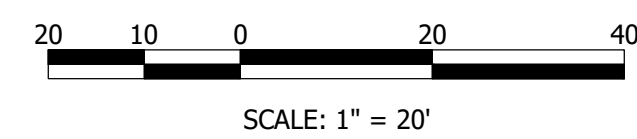
DRAWN BY: CMK/CE	TP/DRS
REVIEWED BY:	DATE
REV. DESCRIPTION	DATE
1 FOR BIDDING	04/05/24

PPA#22-0001
 A/E#2022-02-23D
 22236
SHEET TITLE
 OVERALL IRRIGATION PLAN

SHEET
L4.2
DATE
 4/5/2024



IRRIGATION PLAN

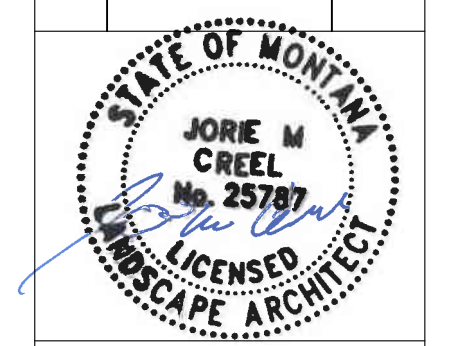


GRANT STREET
 PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE	TP/DRS
REVIEWED BY:	DATE
REV. 1	FOR BIDDING 04/05/24

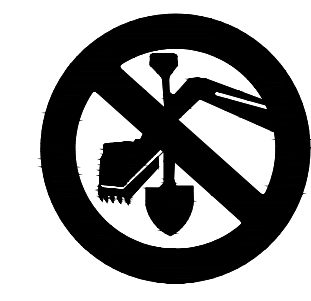


PPA#22-0001
 A/E#2022-02-23D

22236
 SHEET TITLE
 IRRIGATION PLAN

SHEET
L4.3

DATE
 4/5/2024



UULC
 UTILITIES UNDERGROUND LOCATION CENTER
 MONTANA ONE CALL
 CALL BEFORE YOU DIG!
 1-800-424-5555
 www.Callbeforeyoudig.org

MONTANA STATE UNIVERSITY, 2024. ALL RIGHTS RESERVED. MSU-CPDC. 2024. ALL RIGHTS RESERVED. MSU-CPDC. 2024. ALL RIGHTS RESERVED. MSU-CPDC. 2024. ALL RIGHTS RESERVED.

FOR BIDDING



REV.	DESCRIPTION	TP/DRS	DATE
1	FOR BIDDING		04/05/24

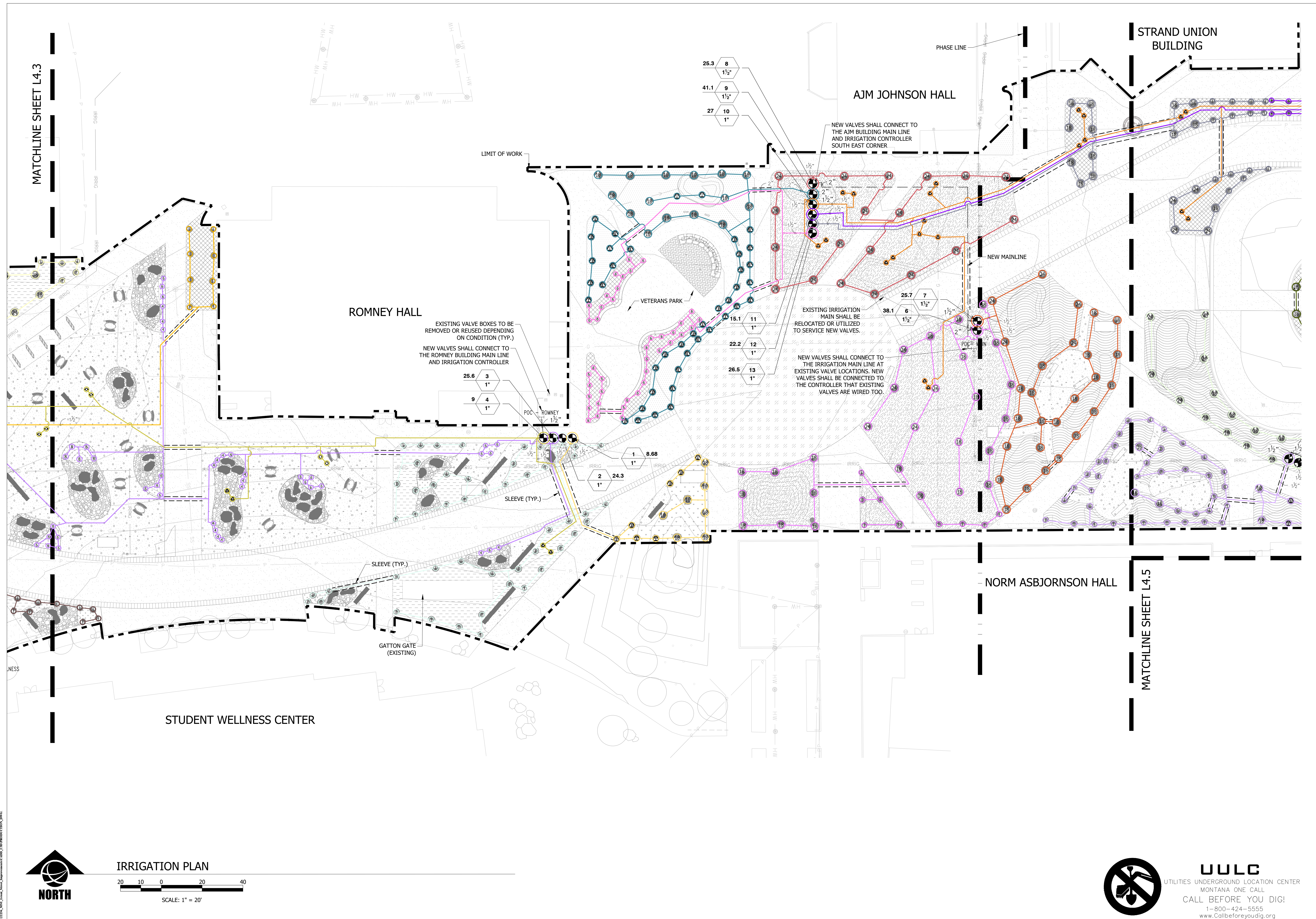
PPA#22-0001
 A/E#2022-02-23D

22236

SHEET TITLE
 IRRIGATION PLAN

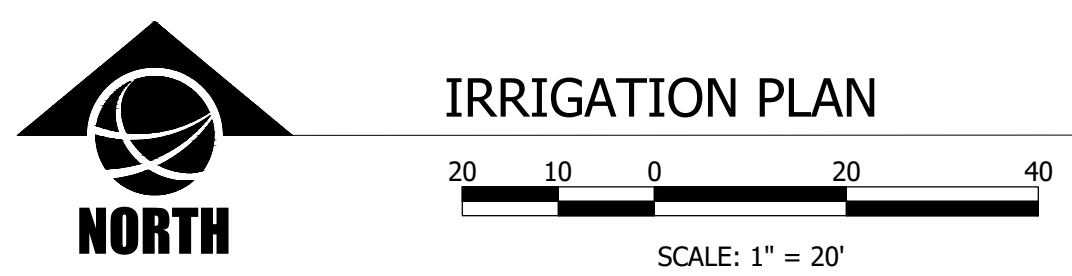
SHEET
L4.4

DATE
 4/5/2024



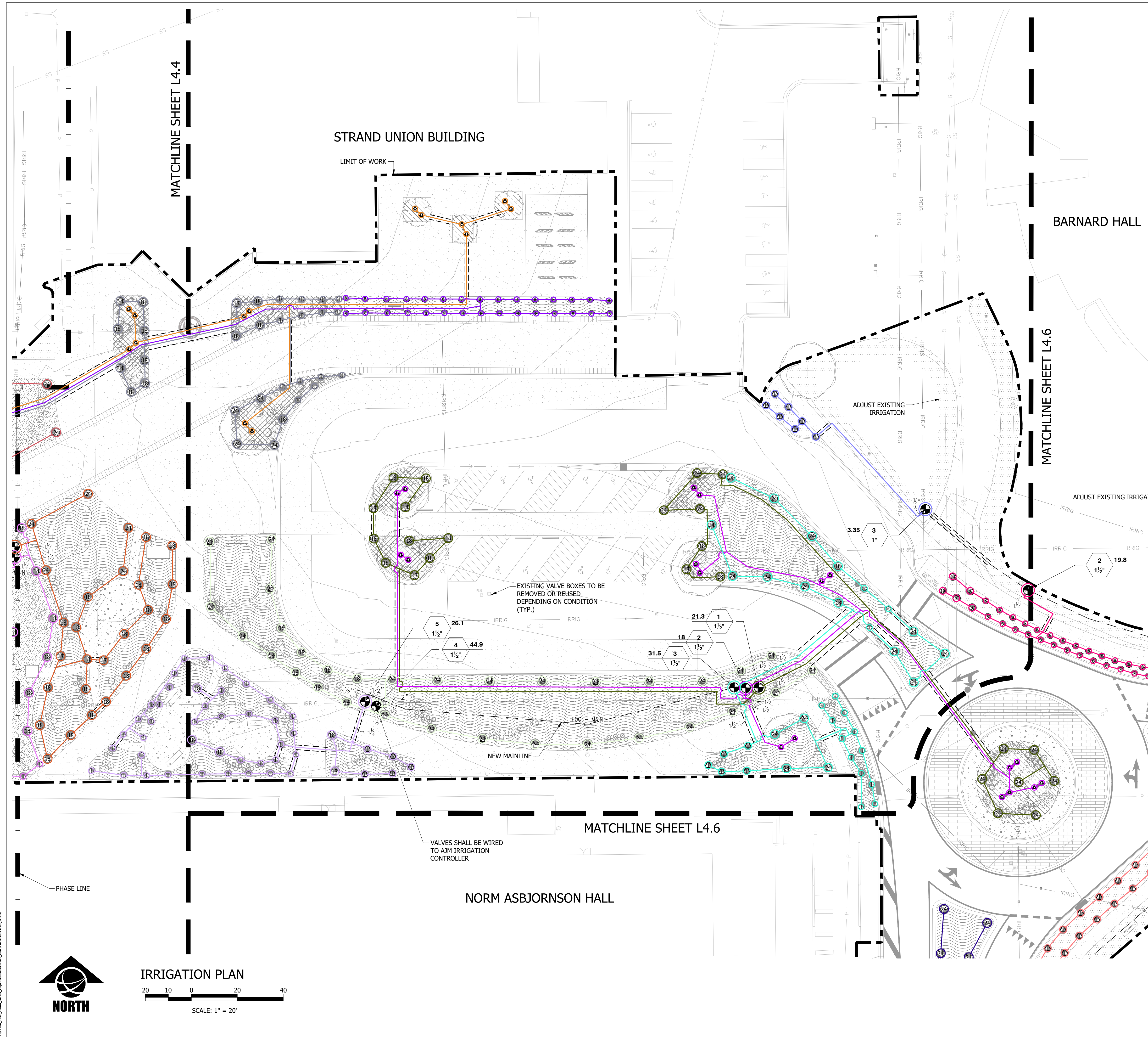
MATCHLINE SHEET L4.3

MATCHLINE SHEET L4.5

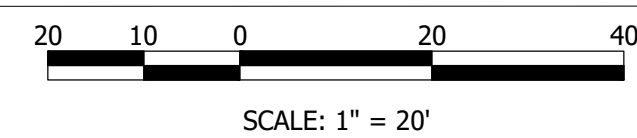


UULC
 UTILITIES UNDERGROUND LOCATION CENTER
 MONTANA ONE CALL
 CALL BEFORE YOU DIG!
 1-800-424-5555
 www.Callbeforeyoudig.org

DATE PLOTTED: 04/05/24 11:58 AM
 PLOTTER: HP DesignJet T1100e
 PLOT SCALE: 1" = 20'
 PLOT SHEET: L4.4
 PLOT TITLE: IRRIGATION PLAN
 PLOT USER: JORIE M. CREEL



IRRIGATION PLAN



MONTANA STATE UNIVERSITY
 ARCHITECTURAL RECORDS
 22236
 04/05/24
 UULC
 CALL BEFORE YOU DIG!



MSU-CPDC

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

GRANT STREET
 PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE		TP/DRS
REVIEWED BY:		TP/DRS
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

IRRIGATION PLAN

SHEET

L4.5

DATE

4/5/2024



UULC
 UTILITIES UNDERGROUND LOCATION CENTER
 MONTANA ONE CALL
 CALL BEFORE YOU DIG!
 1-800-424-5555
 www.Callbeforeyoudig.org

GRANT STREET
 PEDESTRIAN MALL

FOR BIDDING



DRAWN BY: CMK/CE		TP/DRS
REVIEWED BY:		DATE
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

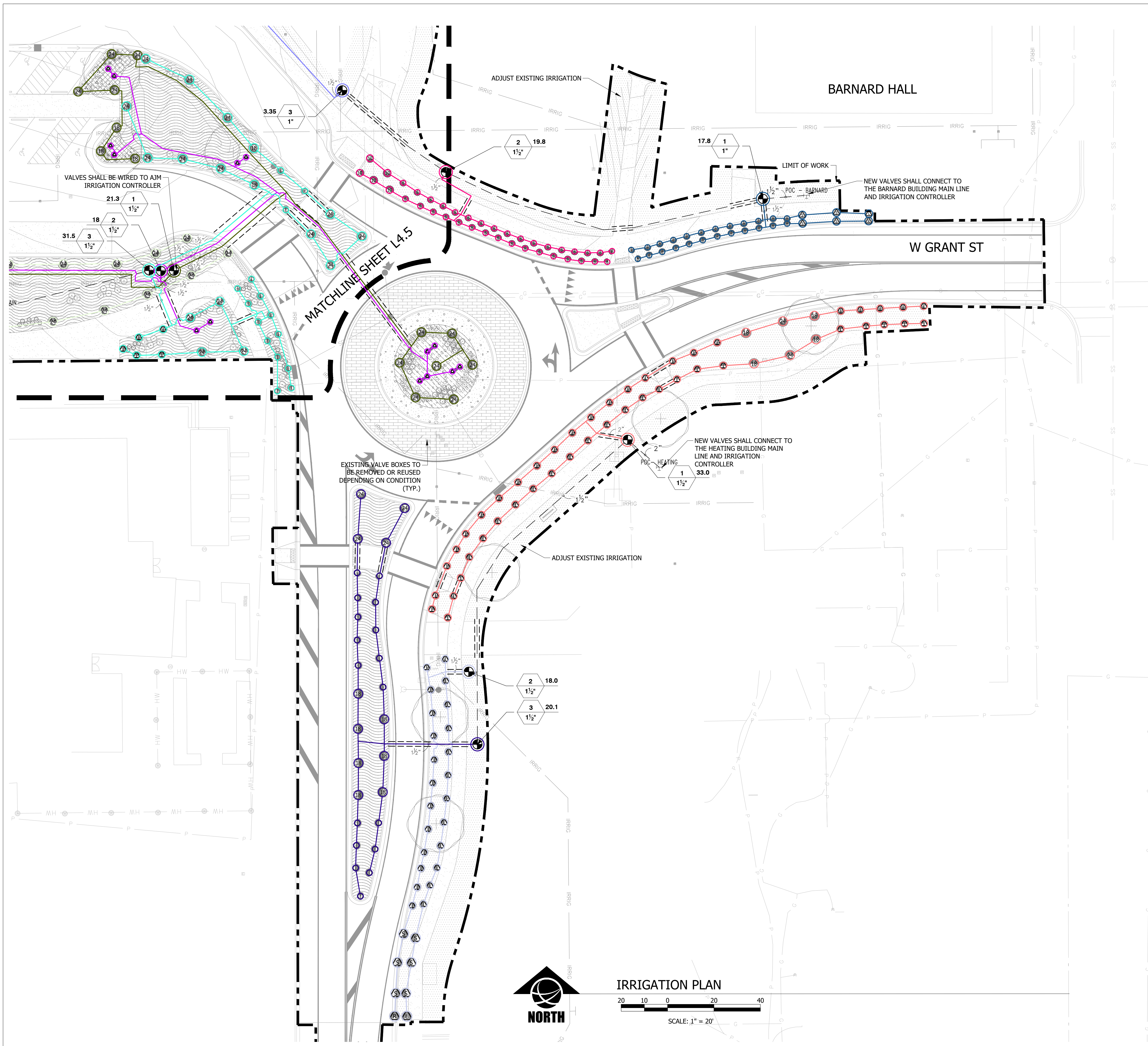
PPA#22-0001
 A/E#2022-02-23D

22236

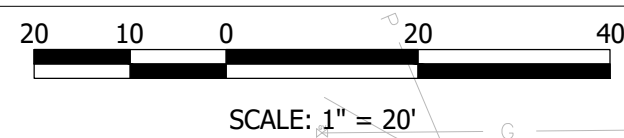
SHEET TITLE
 IRRIGATION PLAN

SHEET
L4.6

DATE
 4/5/2024

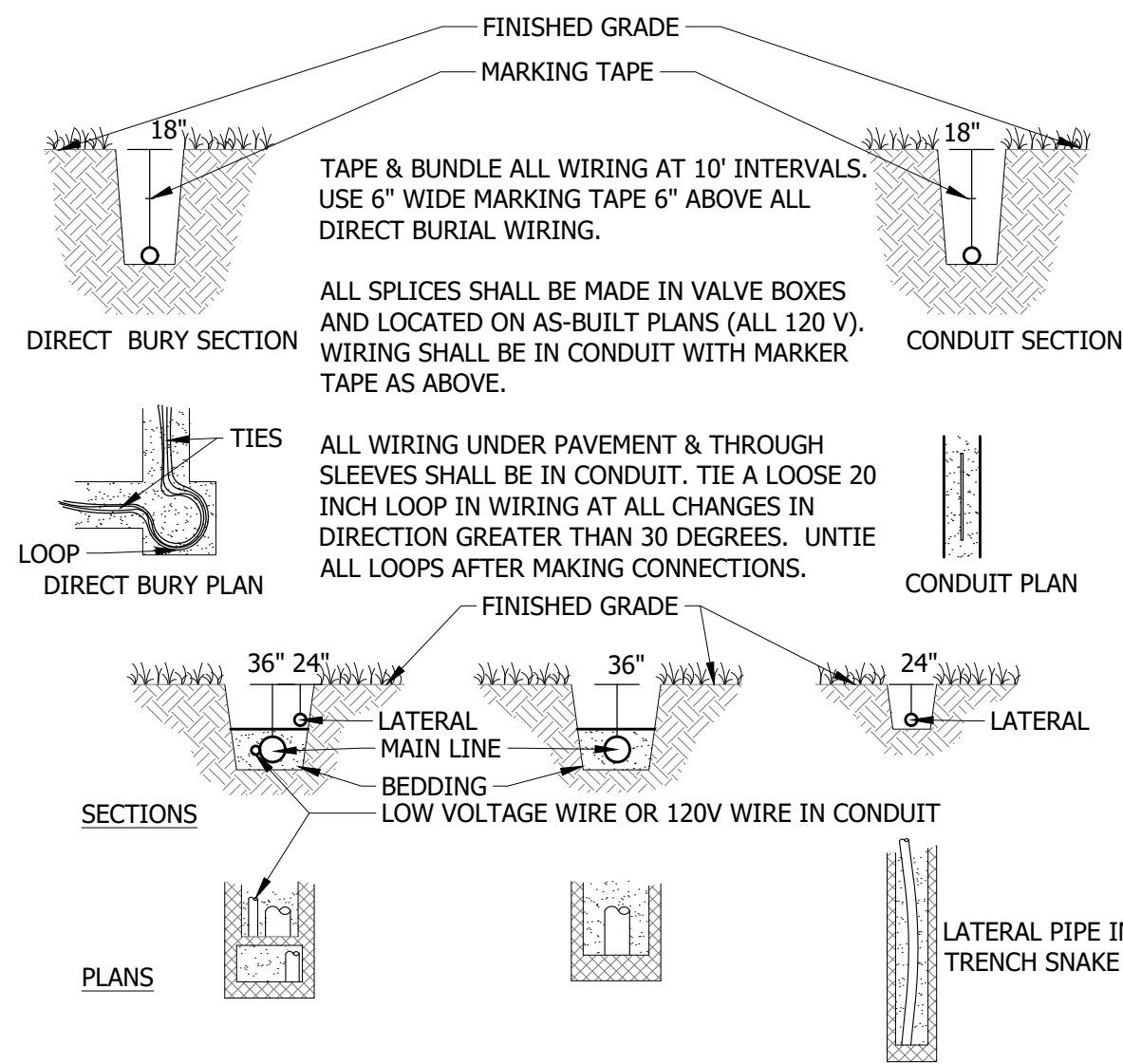


IRRIGATION PLAN



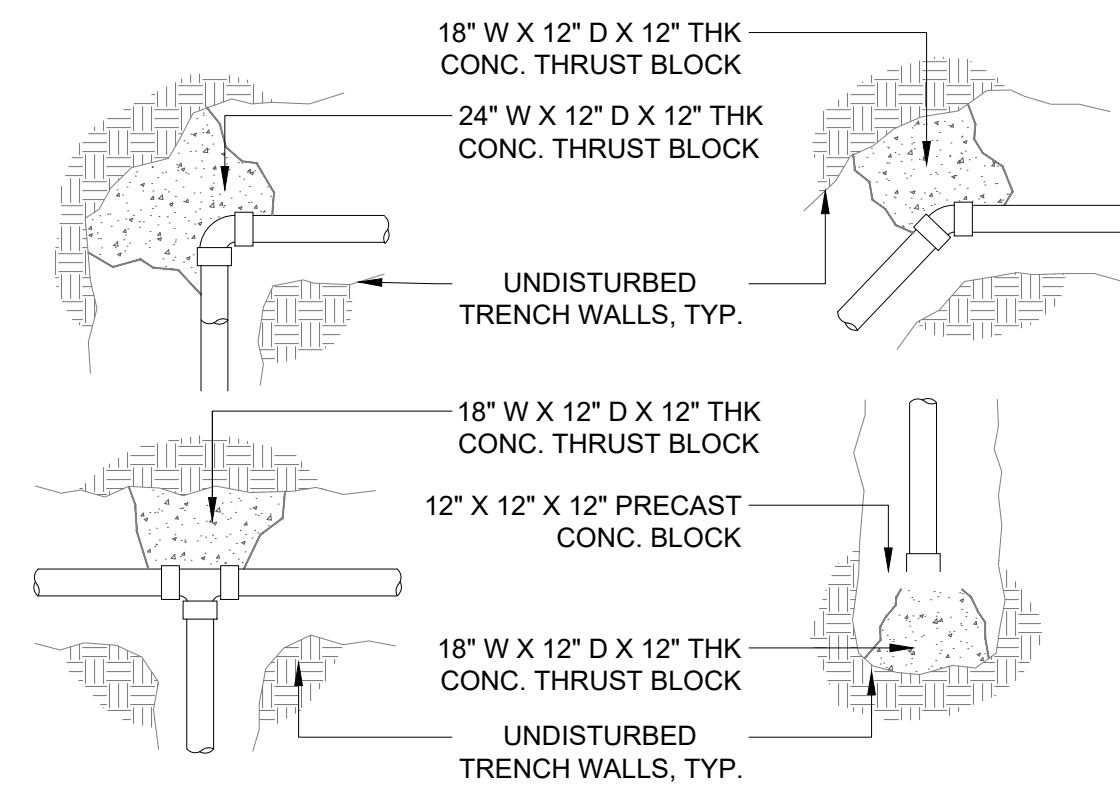
UULC
 UTILITIES UNDERGROUND LOCATION CENTER
 MONTANA ONE CALL
 CALL BEFORE YOU DIG!
 1-800-424-5555
 www.Callbeforeyoudig.org

4/15/24, 11:58 AM, 22236, L4.6, PPA#22-0001, A/E#2022-02-23D, CMK/CE, JORIE M. CREEL, LICENSED LANDSCAPE ARCHITECT, STATE OF MONTANA, NO. 25787



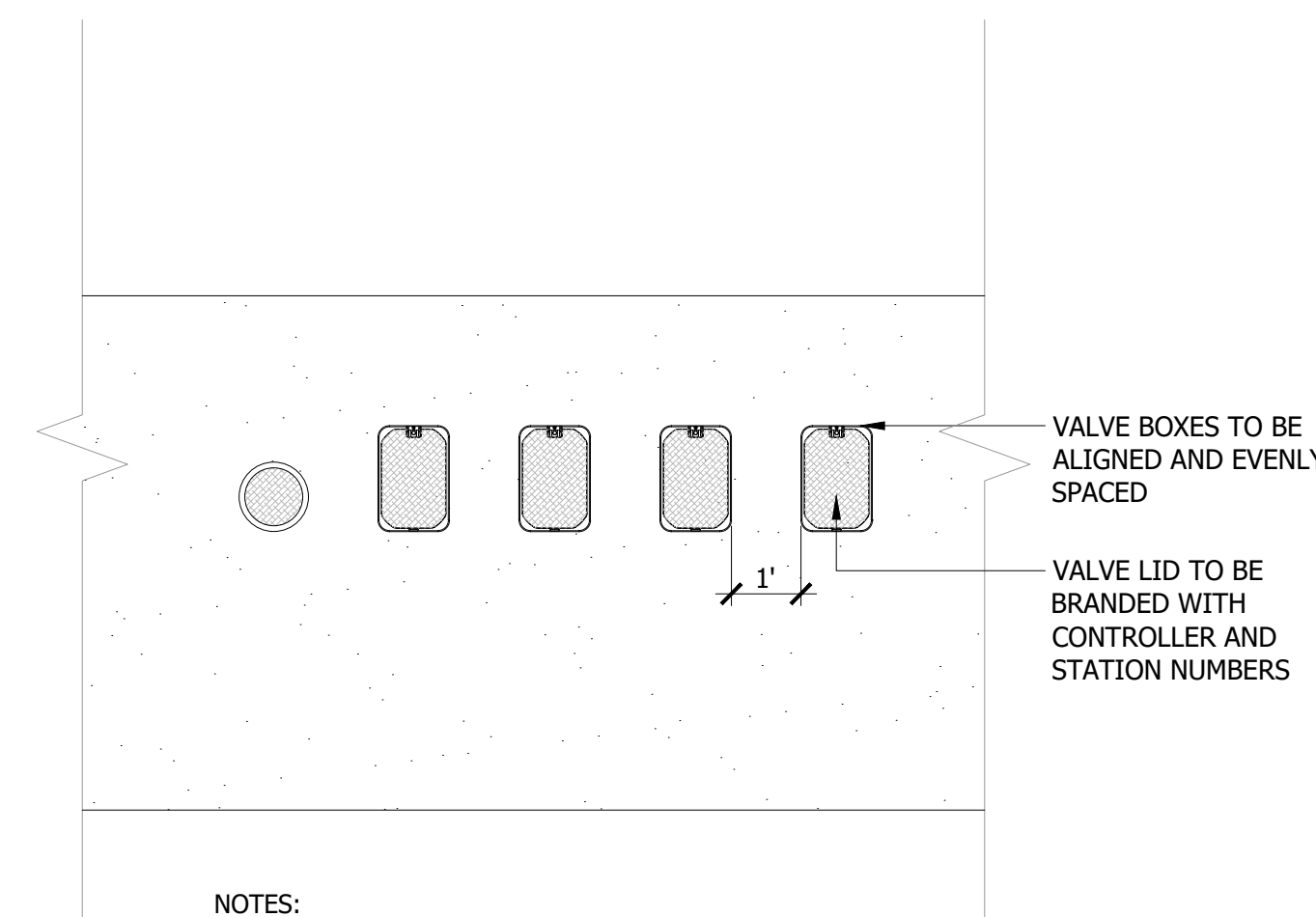
1 TRENCHING DETAILS

N.T.S.



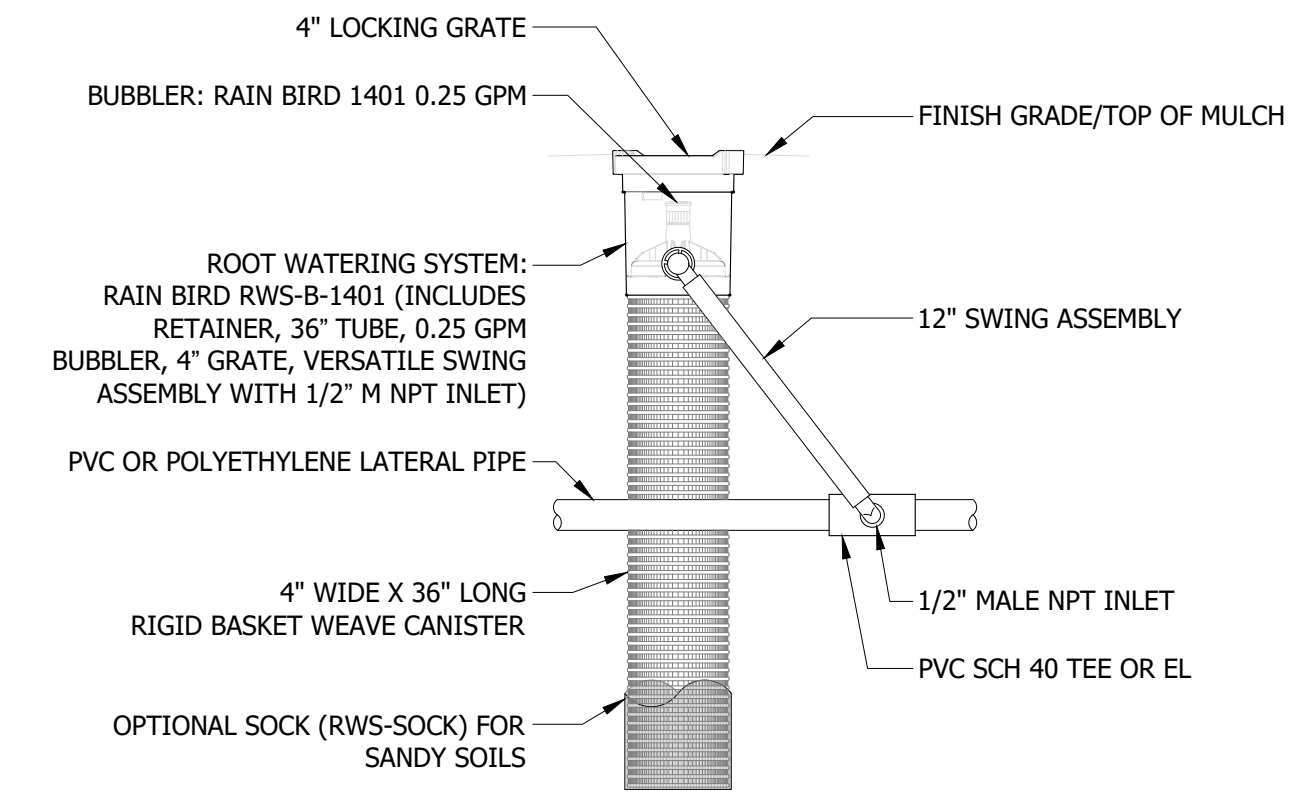
2 THRUST BLOCKING MAINLINE

N.T.S.



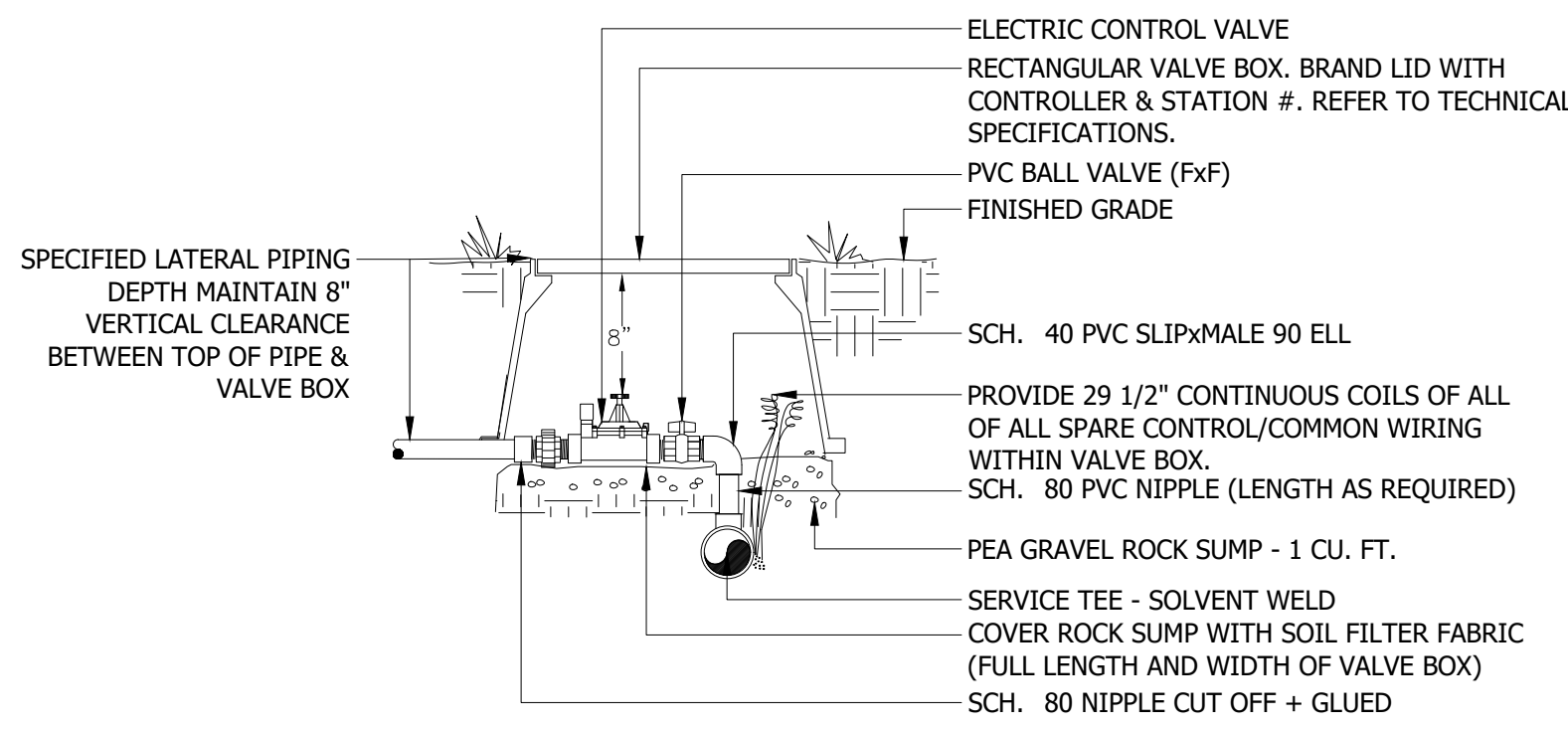
3 VALVE BOX PLACEMENT

N.T.S.



4 RAIN BIRD 1401 BUBBLER

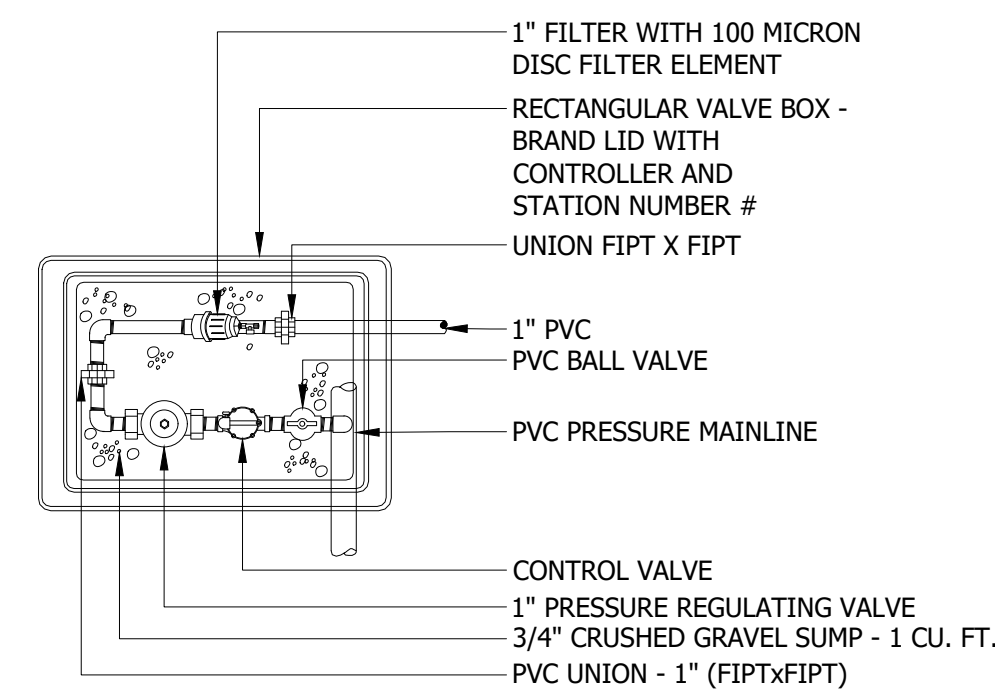
N.T.S.



- NOTES:
1. DIAMETERS OF PVC FITTINGS AND RISER SHALL EQUAL ELECTRIC CONTROL VALVE DIAMETER.
 2. VALVE BOXES SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO ADJACENT SIDEWALKS AND HARD SURFACES WHERE APPLICABLE.
 3. PROVIDE 4 FT. MIN. SEPARATION BETWEEN ALL BOXES.
 4. SEE SPECIFICATION FOR CONTROL VALVE INSTALLATION

5 ELECTRIC CONTROL VALVE

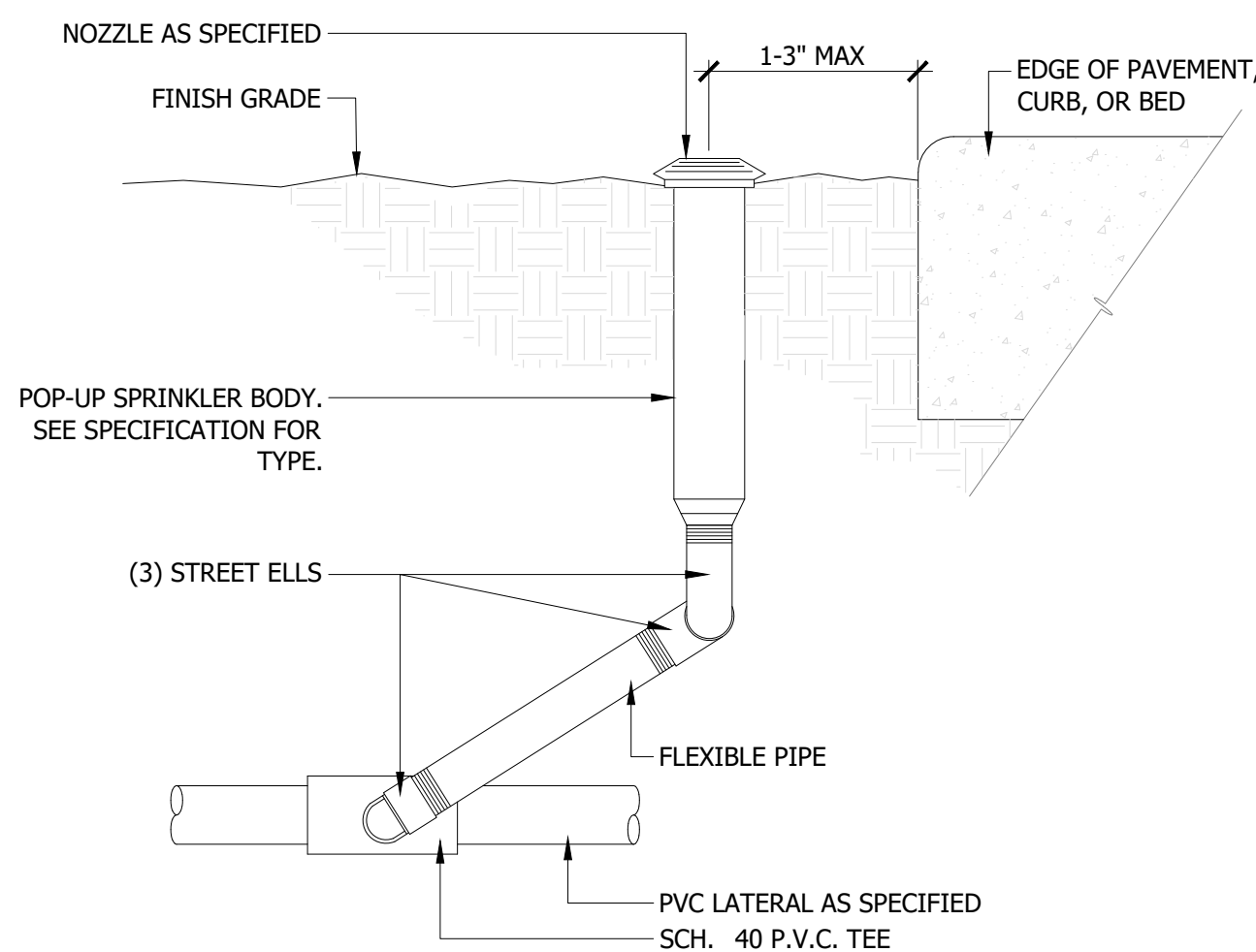
N.T.S.



- NOTES:
1. INSTALL ASSEMBLY TO REST ON GRAVEL SUMP. CONTAIN ENTIRE ASSEMBLY WITHIN BOX. VALVE BOX TO BE FLUSH WITH FINISH GRADE.

6 POP-UP SPRAY HEAD

N.T.S.



- NOTES:
1. NIPPLE AND STREET ELL DIAMETERS SHALL EQUAL INLET SIZE SPRAY BODY.
 2. ALL SPRAY HEADS SHALL BE BOTTOM INLET ONLY.

FOR BIDDING



DRAWN BY: CMK/CE		TP/DRS
REVIEWED BY:		
REV.	DESCRIPTION	DATE
1	FOR BIDDING	04/05/24

PPA#22-0001

A/E#2022-02-23D

22236

SHEET TITLE

IRRIGATION DETAILS

SHEET

L5.1

DATE

4/5/2024