

CLARK FORK RIVER RESTORATION AND ACCESS - MADISON ST. & TOOLE PARK

CITY OF MISSOULA PARKS & RECREATION DEPARTMENT
MISSOULA, MONTANA
MAY 2024
RESPEC PROJECT NO. W0020.21001

DESIGNED	MDH
DRAWN	MDH
CHECKED	MAR
DATE	03/2024

RESPEC
WATER & NATURAL RESOURCES
3610 VALLEY COMMONS SUITE 4
BOZEMAN, MT 89718
PHONE: (406) 284-2525
WWW.RESPEC.COM

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NOT FOR CONSTRUCTION
5/2024



811

CITY OF MISSOULA
PARKS AND RECREATION
DEPARTMENT
600 CREGG LANE
MISSOULA, MT 59801

CLARK FORK RIVER
RESTORATION AND
ACCESS - MADISON ST.
& TOOLE PARK

COVER

MICHAEL ANTHONY ROTAR
REGISTERED PROFESSIONAL ENGINEER
STATE OF MONTANA NO. PEL-PE-LIC-13285
DATE
SHEET NUMBER:
G-00
SHEET



*ARCHITECTURAL RENDERING

N.T.S.
*TO BE UPDATED WITH FINAL DESIGN PLANS



PROJECT
VICINITY MAP
N.T.S.

SHEET INDEX TABLE	
SHEET NUMBER	SHEET TITLE
GENERAL	
G-00	COVER
G-01	SHEET INDEX
G-02	CONSTRUCTION QUANTITIES
G-03	CONSTRUCTION QUANTITIES
G-04	GENERAL NOTES ABBREVIATIONS AND LEGEND
CIVIL	
EX-01	EXISTING CONDITIONS - SOUTH BANK
C-01	SITE PLAN - SOUTH BANK
C-02	SITE PLAN - MADISON ST. BRIDGE
C-03	SITE PLAN - TOOLE PARK
C-04	SITE PLAN - WEST ACCESS
C-05	SITE PLAN - EAST ACCESS
C-06	GRADING PLAN - MADISON ST. BRIDGE
C-07	GRADING PLAN - TOOLE PARK
C-08	GRADING PLAN - WEST ACCESS
C-09	GRADING PLAN - EAST ACCESS
LANDSCAPE	
L-01	LANDSCAPE PLAN - MADISON ST. AND TOOLE PARK
L-02	LANDSCAPE PLAN - WEST AND EAST ACCESS
L-03	LANDSCAPE PLAN - NOTES
DETAILS	
D-01	DETAILS
D-02	DETAILS

DESIGNED <u>MDH</u>	DRAWN <u>MDH</u>	CHECKED <u>MAR</u>	DATE <u>03/2024</u>
 <p>RESPEC WATER & NATURAL RESOURCES 3610 VALLEY COMMONS DR SUITE 4 BOZEMAN, MT 59718 WWW.RESPEC.COM PHONE: (406) 284-2555</p>			
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SHEET INDEX	CLARK FORK RIVER RESTORATION AND ACCESS - MADISON ST. & TOOLE PARK	CITY OF MISSOULA PARKS AND RECREATION DEPARTMENT 600 CREGG LANE MISSOULA, MT 59801	SHEET NUMBER: G-01 SHEET

MADISON ST. BRIDGE ACCESS - CONSTRUCTION QUANTITIES		QUANTITY	UNIT
SITE WORK AND GRADING			
CLEARING AND GRUBBING	1	LS	
EXCAVATION	32	CY	
TOPSOIL	6	CY	
RIPRAP (MDT TYPE III)	5	CY	
VEGETATED RIPRAP (MDT TYPE III)	7	CY	
STABILIZATION GEOTEXTILE	94	SY	
EROSION CONTROL MATTING	40	SY	
HAUL OFF	32	CY	
GRAVEL TRAIL			
SURFACE COURSE (3/8" MINUS)	0.6	CY	
AGGREGATE BASE COURSE (1/4" MINUS)	0.8	CY	
FLAT STONE STAIRS			
FLAT STONE 3'-4' X 4' X 1' (L X W X H)	21	EA	
BEDDING GRAVEL (3/4" MINUS)	2	CY	
STRUCTURAL FILL	4	CY	
BOULDERS 2.0'-2.5' DIAMETER (FOR STAIR STRINGERS)	47	EA	
GROUT (STAIRS, BOULDER STRINGERS)	5	CY	
KEYSTONE ROCK (2.5' X 4' X 2.5')	1	EA	
LANDSCAPING			
UPLAND SMALL SHRUBS	39	EA	
UPLAND MEDIUM SHRUBS	2	EA	
UPLAND LARGE SHRUBS	1	EA	
SEEDING	26	SY	

TOOLE PARK ACCESS - CONSTRUCTION QUANTITIES		QUANTITY	UNIT
SITE WORK AND GRADING			
CLEARING AND GRUBBING	1	LS	
EXCAVATION	66	CY	
TOPSOIL	4	CY	
RIPRAP (MDT TYPE III)	19	CY	
VEGETATED RIPRAP (MDT TYPE III)	5	CY	
STABILIZATION GEOTEXTILE	72	SY	
EROSION CONTROL MATTING	30	SY	
HAUL OFF	66	CY	
GRAVEL TRAIL			
SURFACE COURSE (3/8" MINUS)	0.6	CY	
AGGREGATE BASE COURSE (1/4" MINUS)	0.8	CY	
FLAT STONE STAIRS			
FLAT STONE 3'-4' X 4' X 1' (L X W X H)	11	EA	
TERRACE BOULDERS 4' X 4' X 4' (L X W X H)	15	EA	
BEDDING GRAVEL (3/4" MINUS)	3	CY	
STRUCTURAL FILL	6	CY	
BOULDERS 2.0'-2.5' DIAMETER (FOR STAIR STRINGERS)	12	EA	
GROUT (STAIRS, BOULDER STRINGERS)	5	CY	
KEYSTONE ROCK (2.5' X 4' X 2.5')	1	EA	
LANDSCAPING			
UPLAND SMALL SHRUBS	96	EA	
UPLAND MEDIUM SHRUBS	9	EA	
UPLAND LARGE SHRUBS	3	EA	
SEEDING	115	SY	

BEARTRACKS TO MADISON ST. SOUTH BANK QUANTITIES		QUANTITY	UNIT
WOODEN FENCE		2192	LF

DESIGNED	MDH	DRAWN	MDH	CHECKED	MAR	03/2024	REVISION
  PRELIMINARY NOT FOR CONSTRUCTION 5/2024							
STAMP: 90% REVISION: N/E/M  Know what's below. Call before you dig.							
CONSTRUCTION QUANTITIES	CLARK FORK RIVER RESTORATION AND ACCESS - MADISON ST. & TOOLE PARK	CITY OF MISSOULA PARKS AND RECREATION DEPARTMENT 600 CREGG LANE MISSOULA, MT 59801					
SHEET NUMBER: G-02 SHEET							

WEST RIVER ACCESS - CONSTRUCTION QUANTITIES			QUANTITY	UNIT
SITE WORK AND GRADING				
CLEARING AND GRUBBING	1	LS		
EXCAVATION	48	CY		
TOPSOIL	4	CY		
RIPRAP (MDT TYPE III)	12	CY		
VEGETATED RIPRAP (MDT TYPE III)	14	CY		
STABILIZATION GEOTEXTILE	52	SY		
EROSION CONTROL MATTING	15	SY		
HAUL OFF	48	CY		
GRAVEL TRAIL				
SURFACE COURSE (3/8" MINUS)	0.6	CY		
AGGREGATE BASE COURSE (1/4" MINUS)	0.8	CY		
FLAT STONE STAIRS				
FLAT STONE 3'-4' X 4' X 1' (L X W X H)	10	EA		
BEDDING GRAVEL (3/4" MINUS)	1	CY		
STRUCTURAL FILL	2	CY		
BOULDERS 2.0'-2.5' DIAMETER (FOR STAIR STRINGERS)	14	EA		
GROUT (STAIRS, BOULDER STRINGERS)	3	CY		
KEYSTONE ROCK (2.5' X 4' X 2.5')	1	EA		
LANDSCAPING				
UPLAND SMALL SHRUBS	39	EA		
UPLAND MEDIUM SHRUBS	6	EA		
UPLAND LARGE SHRUBS	1	EA		
WILLOW PLANTINGS	41	EA		
SEEDING	58	SY		

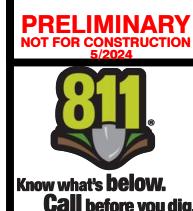
EAST RIVER ACCESS - CONSTRUCTION QUANTITIES			QUANTITY	UNIT
SITE WORK AND GRADING				
CLEARING AND GRUBBING	1	LS		
EXCAVATION	79	CY		
TOPSOIL	6	CY		
RIPRAP (MDT TYPE III)	15	CY		
VEGETATED RIPRAP (MDT TYPE III)	36	CY		
STABILIZATION GEOTEXTILE	97	SY		
EROSION CONTROL MATTING	27	SY		
HAUL OFF	79	CY		
GRAVEL TRAIL				
SURFACE COURSE (3/8" MINUS)	1.0	CY		
AGGREGATE BASE COURSE (1/4" MINUS)	1.3	CY		
FLAT STONE STAIRS				
FLAT STONE 3'-4' X 4' X 1' (L X W X H)	18	EA		
BEDDING GRAVEL (3/4" MINUS)	2	CY		
STRUCTURAL FILL	6	CY		
BOULDERS 2.0'-2.5' DIAMETER (FOR STAIR STRINGERS)	18	EA		
GROUT (STAIRS, BOULDER STRINGERS)	5	CY		
KEYSTONE ROCK (2.5' X 4' X 2.5')	1	EA		
LANDSCAPING				
UPLAND SMALL SHRUBS	78	EA		
UPLAND MEDIUM SHRUBS	8	EA		
UPLAND LARGE SHRUBS	3	EA		
WILLOW PLANTINGS	60	EA		
SEEDING	142	SY		

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DRAWN	MDH
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DATE 03/2024	

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WATER & NATURAL RESOURCES
360 VALLEY COMMONS SR. SUITE 4
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PHONE: (406) 284-2556

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CITY OF MISSOULA
PARKS AND RECREATION
DEPARTMENT
600 CREGG LANE
MISSOULA, MT 59801

CLARK FORK RIVER
RESTORATION AND
ACCESS - MADISON ST.
& TOOLE PARK

CONSTRUCTION
QUANTITIES

SHEET NUMBER: G-02
SHEET

GENERAL NOTES:

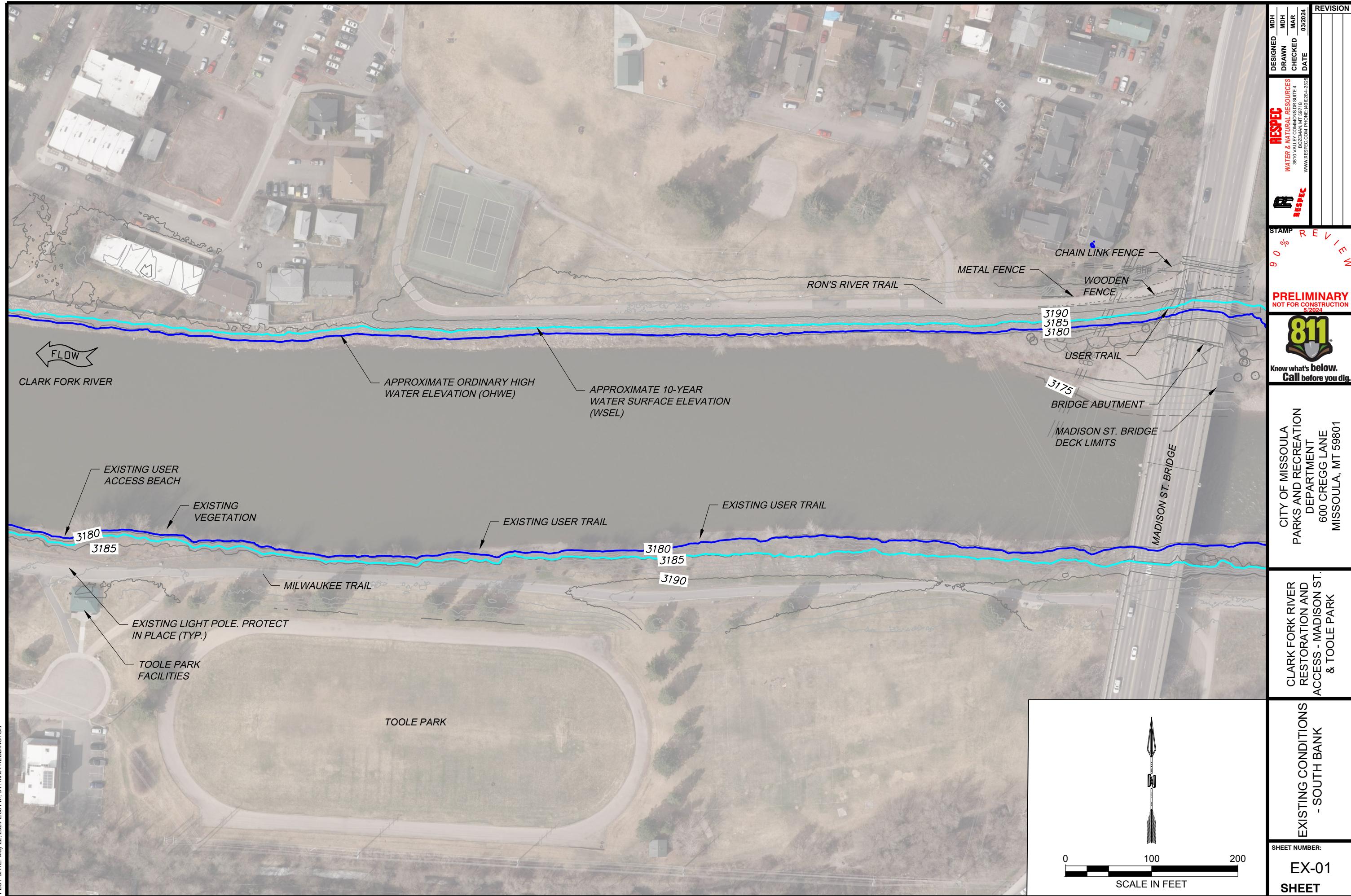
1. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES AND DETERMINE LOCATION OF ALL UNDERGROUND UTILITIES BEFORE COMMENCING WORK. **CALL 811** (OR ONE CALL UTILITY LOCATE: 1-800-424-5555) A MINIMUM OF 72-HOURS BEFORE WORK IS PLANNED. CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND PROPERLY REPAIRING ANY AND ALL DAMAGED UTILITIES.
2. ANY UTILITY LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. ALL UTILITY LOCATIONS ARE SUBJECT TO THE ACCURACY OF THE LOCATION METHOD AND SUBJECT TO RELOCATION FROM THE TIME THAT THESE DRAWINGS WERE PREPARED.
3. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE APPROVED PLANS AND A COPY OF ANY PERMITS AND EXTENSION AGREEMENTS NEEDED FOR THE JOB, ON-SITE AT ALL TIMES.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF ALL PERSONNEL, ALL SITE VISITORS, AND THE GENERAL PUBLIC WHO MAY BE AFFECTED BY THE CONSTRUCTION. THIS INCLUDES BUT IS NOT LIMITED TO GENERAL AND CHANNEL EXCAVATION, SHORING, TRAFFIC CONTROL, AND SECURITY. SHOULD CONSTRUCTION ACTIVITIES NECESSITATE TEMPORARY FULL OR PARTIAL CLOSURE OF ROADWAYS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND MANAGING THE CLOSURE.
5. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY CONFLICTS FOUND BETWEEN THE CONSTRUCTION PLANS AND CONDITIONS ENCOUNTERED IN THE FIELD.
6. CONTRACTOR SHALL, UNLESS OTHERWISE DIRECTED, REPLACE ALL SIGNS, FENCES, CABLES, APPROACH DELINEATORS, OR OTHER FEATURES THAT MAY BE REMOVED TO ACCESS THE CONSTRUCTION AREA. CONTRACTOR SHALL VERIFY THE NATURE AND EXTENT OF ANY OF THESE FEATURES PRIOR TO BIDDING THE WORK. COST OF THIS WORK SHALL BE INCIDENTAL TO THE PROJECT UNLESS OTHERWISE STATED IN THE CONTRACT DOCUMENTS.
7. CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS AND RESTRICTIONS FOUND IN REGULATORY PERMITS OBTAINED BY THE ENGINEER.
8. LEGAL LOAD LIMIT REQUIREMENTS SHALL BE ADHERED TO ON ALL STATE HIGHWAYS, COUNTY ROADS, AND CITY STREETS.
9. THE CONTRACTOR IS TO PROVIDE THEIR OWN WATER FOR COMPACTION AND DUST ABATEMENT.
10. CONSTRUCTION SHALL COMPLY WITH THESE PLANS IN ADDITION TO THE CONTRACT DOCUMENTS AND SPECIFICATIONS.
11. ALL EQUIPMENT USED ONSITE WILL BE CLEAN AND WASHED PRIOR TO ARRIVAL TO THE PROJECT AREAS. ALL IMPORTED MATERIAL MUST BE CERTIFIED AS WEED FREE.
12. EMERGENCY SPILL KITS WILL BE MAINTAINED ON EACH PIECE OF EQUIPMENT, OR IN AN AREA THAT CAN RAPIDLY BE REACHED.
13. ALL WORK IN OR ADJACENT TO THE RIVER WILL BE DONE DURING LOW FLOWS.
14. STRUCTURAL BMPs, SUCH AS SILT FENCE, STRAW BALES OR WATTLES SHALL BE USED TO ISOLATE CONSTRUCTION ALONG THE ACTIVE CHANNEL AND ALL OTHER WATER BODIES. CONDUCT ONGOING MONITORING AND REPAIR (AS NEEDED) OF SEDIMENT BARRIERS DURING PROJECT IMPLEMENTATION.
15. DURING POST-PROJECT SEDIMENT BARRIER REMOVAL, REMOVE OR PERMANENTLY STABILIZE SEDIMENT TRAPPED BY SEDIMENT BARRIERS.
16. ALL EXPOSED SOILS WILL BE STABILIZED ONCE CONSTRUCTION IS COMPLETED. SOILS WILL BE STABILIZED USING VARIOUS TECHNIQUES AS DESCRIBED IN THIS PLAN INCLUDING, SEEDING, SOD TRANSPLANT AND PLANTING.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SAVING AND PROTECTING ALL EXISTING TREES AND VEGETATION WHERE REMOVAL FOR CONSTRUCTION IS NOT MANDATORY.

18. IF WOUNDING OF SAVED TREES OCCUR, A NON-TOXIC WOUND DRESSING MUST BE APPLIED IMMEDIATELY. EXCAVATORS MUST HAVE A NON-TOXIC TREE WOUND DRESSING WITH THEM ON CONSTRUCTION SITES.
19. ALL REMOVED ITEMS SHALL BECOME THE CONTRACTOR'S PROPERTY TO BE DISPOSED OF IN AN APPROVED MANNER IN ACCORDANCE WITH REGULATION BY THE OWNER AT NO ADDITIONAL EXPENSE TO THE OWNER, UNLESS SPECIFIED WITHIN THE PLANS. NO CONCRETE, RUBBLE, OR EXTRA MATERIALS SHALL BE BACKFILLED ON SITE.
20. MATERIAL STOCK PILE AREAS, ACCESS ROUTES, AND EQUIPMENT STORAGE AREAS WILL BE DISCUSSED AND APPROVED DURING THE PRECONSTRUCTION MEETING.
21. MATERIALS STORED ON THE SITE WHICH MIGHT CONTRIBUTE POLLUTANTS TO RUNOFF SHALL BE LOCATED IN AN ENCLOSED, COVERED, AND LOCKABLE CONTAINER. THESE MATERIALS ARE EXPECTED TO CONSIST MAINLY OF FERTILIZERS, FUELS, AND MACHINERY LUBRICANTS.
22. ALL EXISTING AND PROPOSED CONTOURS ARE LABELED IN FEET. ALL SLOPES ARE SHOWN AS DIAGRAMMATIC AND SHALL BE ROUNDED AT THE TOP AND BOTTOM.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CLEANUP OF THE PROJECT SITE AND SURROUNDING AREAS ON A DAILY BASIS AND OF ANY TRASH OR MUD ON THE SITE AS A RESULT OF CONSTRUCTION.
24. THE CONTRACTOR SHALL RESTORE ALL STAGING AND STOCKPILING AREAS TO THEIR ORIGINAL CONDITION OR BETTER THAN EXISTING UPON COMPLETION OF THE PROJECT. THE COST TO RESTORE THESE AREAS SHALL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK.
25. THE CONTRACTOR SHALL MAINTAIN ALL HAUL ROUTES AND RESTORE THEM TO THEIR ORIGINAL CONDITION OR BETTER THAN EXISTING UPON COMPLETION OF USE AT NO EXPENSE TO THE OWNER.
26. ALL PAVED HAUL ROUTES SHALL BE MAINTAINED FREE OF MUD AND DEBRIS RESULTING FROM CONSTRUCTION OPERATIONS.
27. CONTRACTOR IS RESPONSIBLE FOR REPAIRING/REPLACING ALL DAMAGED INFRASTRUCTURE.
28. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM ENGINEER. THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
29. ALL ESTIMATES OF QUANTITIES SHALL BE VERIFIED BY THE CONTRACTOR/SUBCONTRACTOR, WHO SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES AND PROVIDING THE WORK AND MATERIALS AS SHOWN ON THE PLANS. QUANTITY ESTIMATES ARE PROVIDED FOR GUIDANCE PURPOSES ONLY, AND SHOULD NOT BE USED AS A BASIS FOR PRICING.
30. DEWATERING ACTIVITIES MAY BE REQUIRED FOR CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A UNITED STATES ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT 33 TEMPORARY CONSTRUCTION, ACCESS AND DEWATERING PERMIT, ALONG WITH ANY OTHER RELEVANT PERMITS REQUIRED FOR CONSTRUCTION DEWATERING.
31. ALL FLOW RATES REFERENCED IN THE DRAWINGS ARE RELATIVE TO USGS GAGE 12340500 CLARK FORK ABOVE MISSOULA, MT AND DO NOT EQUAL ACTUAL FLOWS AT THE PROJECT SITE.

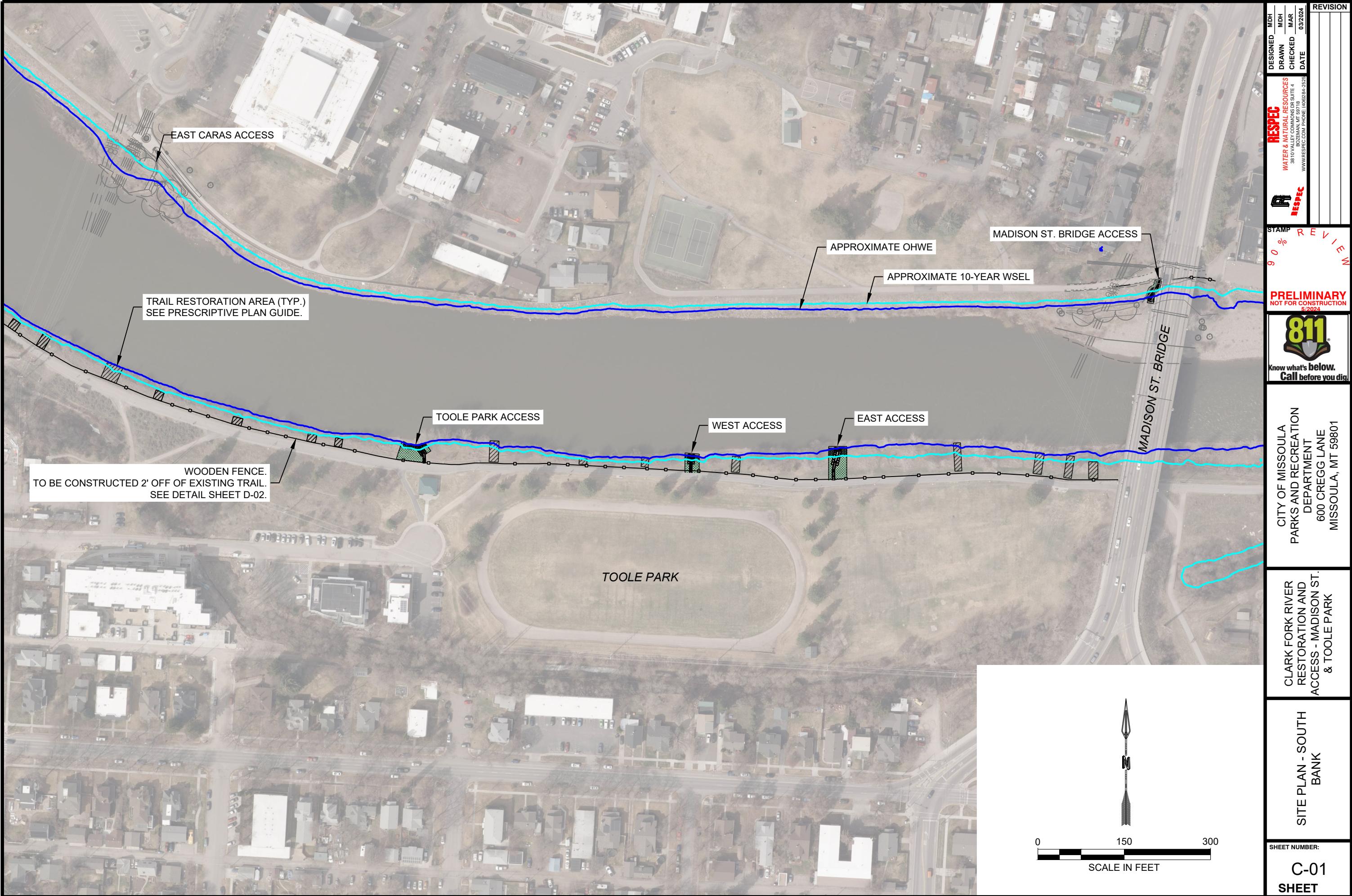
GENERAL LEGEND		
ITEM	EXISTING	PROPOSED
OVERHEAD POWER	— OH —	
GRADING LIMITS	■■■■	
MAJOR CONTOUR	— ##### —	
MINOR CONTOUR	— — — —	
EXISTING MAJOR CONTOUR	— ##### —	
EXISTING MINOR CONTOUR	— — — —	
SLOPE ARROW	X.X:1	X.X:1
SLOPE ARROW	X.X%	X.X%

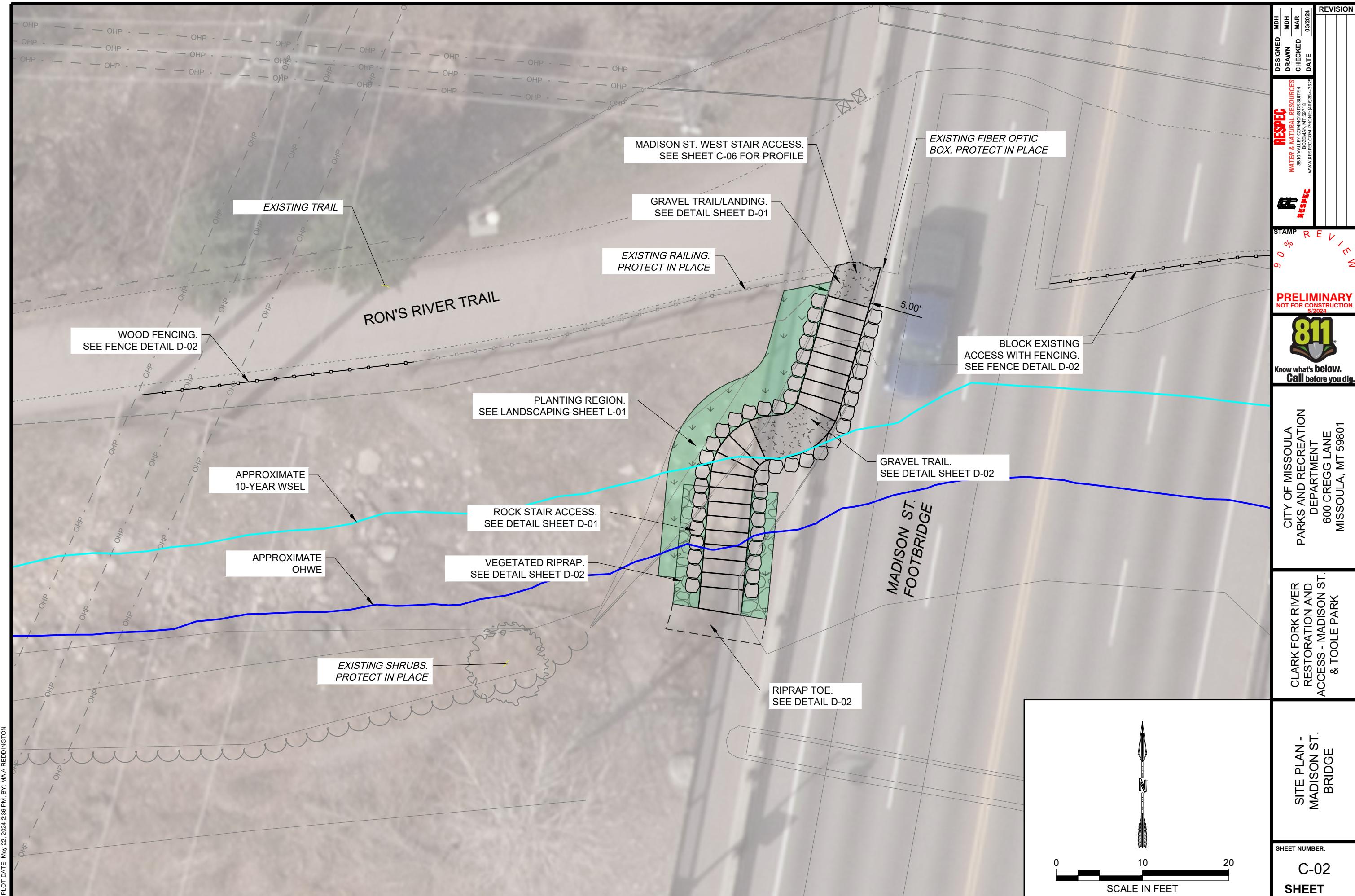
SITE LEGEND		
ITEM	EXISTING	PROPOSED
GRAVEL TRAIL	[]	[]
RIPRAP	[]	[]
ROCK STAIR	[] [] []	[] [] []
BENCH	[]	[]
FENCE	—□—□—□—	—□—□—□—
PLANTING REGION	—○—○—○—	[]
TREE	○	○
APPROXIMATE ORDINARY HIGH WATER ELEVATION (OHWE)	—	—
APPROXIMATE 10-YEAR WATER SURFACE ELEVATION (WSEL)	—	—

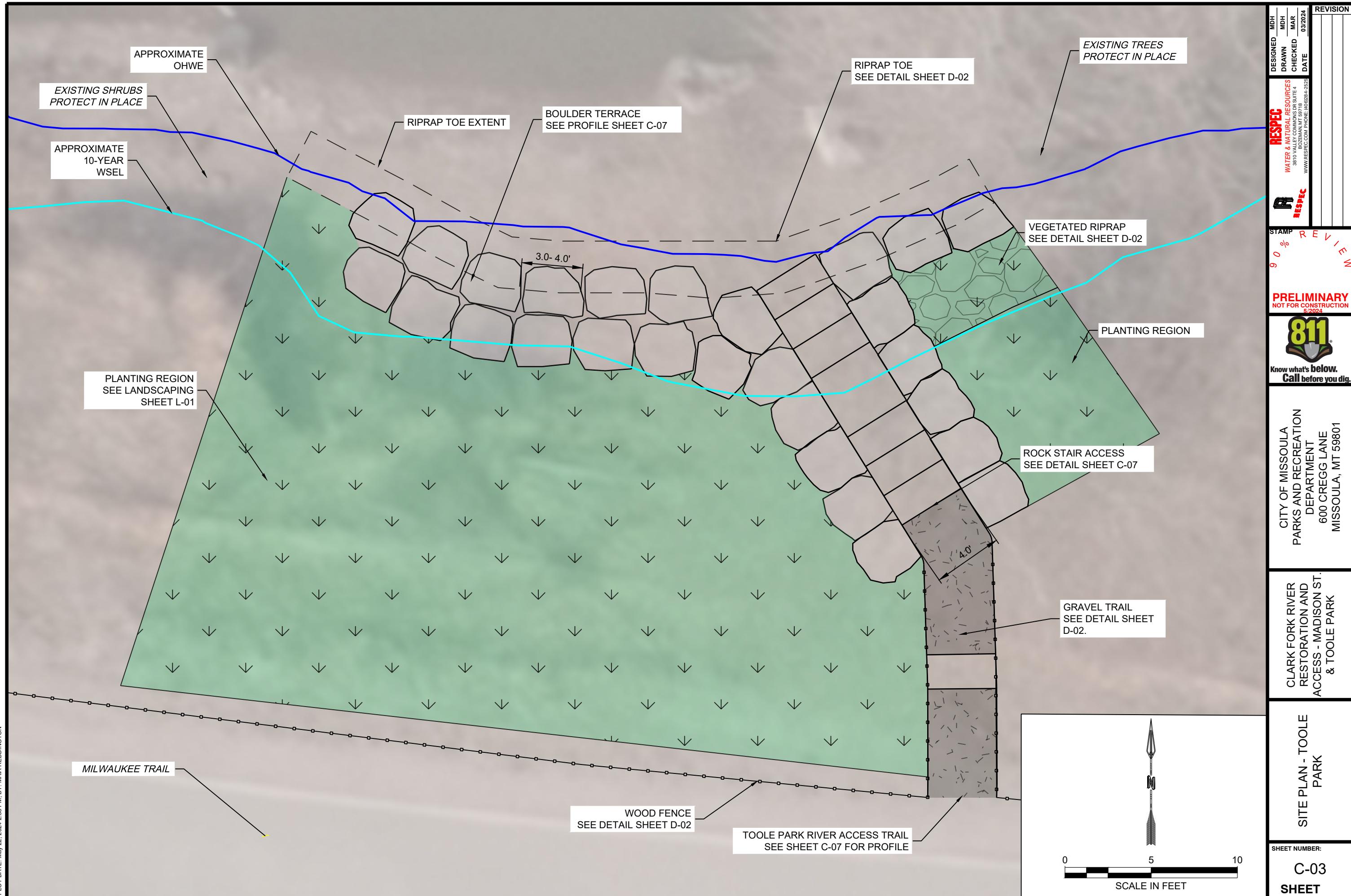
GENERAL NOTES	ABBREVIATIONS AND LEGEND	SHEET NUMBER: G-04
CLARK FORK RIVER RESTORATION AND ACCESS - MADISON ST. & TOOLE PARK	CITY OF MISSOULA PARKS AND RECREATION DEPARTMENT 600 CREGG LANE MISSOULA, MT 59801	SHEET
GENERAL NOTES	ABBREVIATIONS AND LEGEND	SHEET NUMBER: G-04
<div style="display: flex; justify-content: space-between; align-items: center;"> REVISION 03/2024 </div> <div style="display: flex; justify-content: space-between; align-items: center;"> DESIGNED MAR </div> <div style="display: flex; justify-content: space-between; align-items: center;"> DRAWN MAR </div> <div style="display: flex; justify-content: space-between; align-items: center;"> CHECKED MAR </div> <div style="display: flex; justify-content: space-between; align-items: center;"> DATE 03/2024 </div>		REVISION
<div style="display: flex; justify-content: space-between; align-items: center;"> RESPEC WATER & NATURAL RESOURCES 360 VALLEY COMMONS SR. SITE 4 BOZEMAN, MT 89718 WWW.RESPEC.COM PHONE: 406-254-2545 </div> <div style="display: flex; justify-content: space-between; align-items: center;"> RESPEC 90% REV N </div> <div style="display: flex; justify-content: space-between; align-items: center;"> PRELIMINARY NOT FOR CONSTRUCTION 5/2024 </div> <div style="display: flex; justify-content: space-between; align-items: center;"> 811 Know what's below. Call before you dig. </div>		

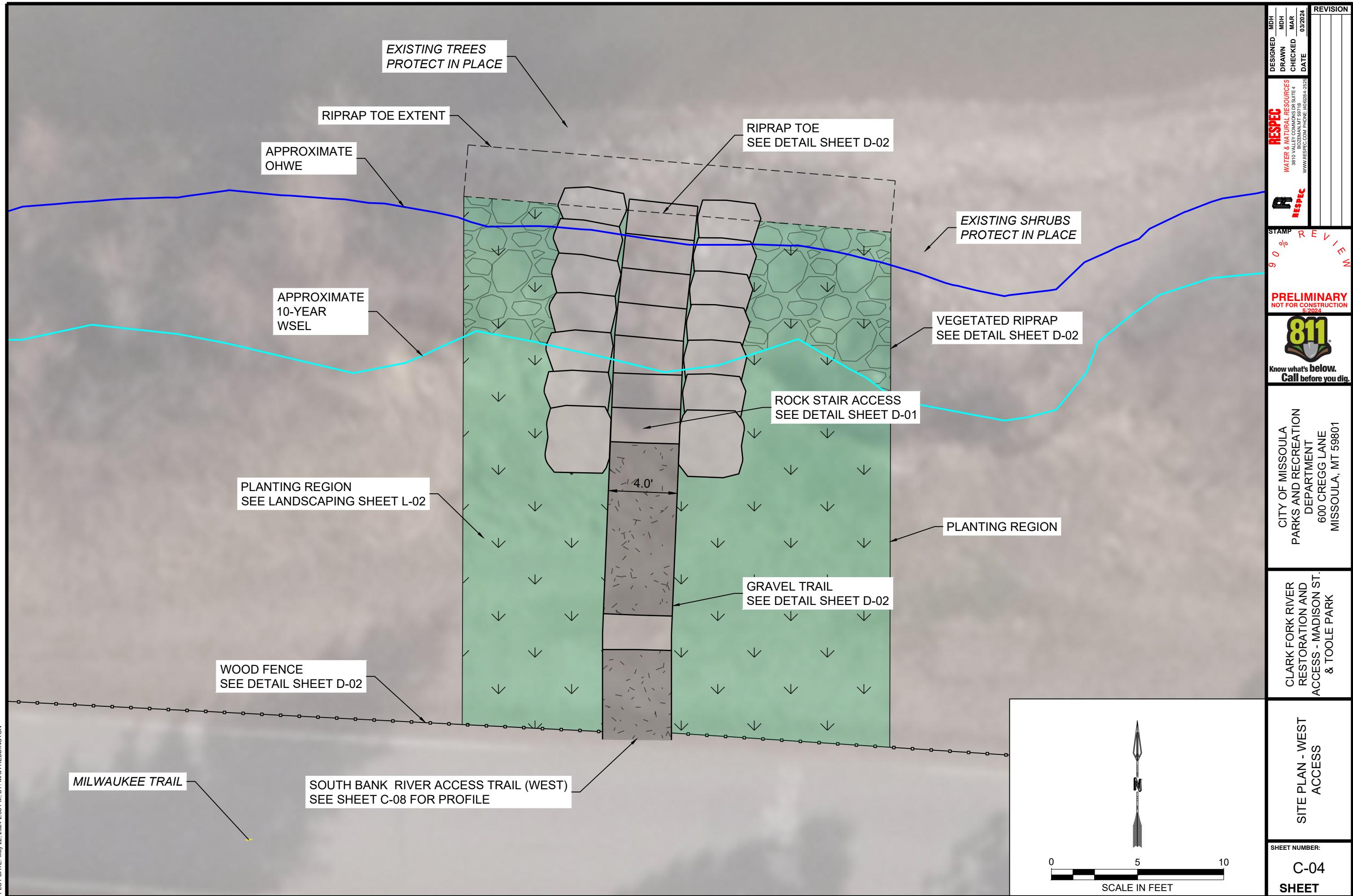


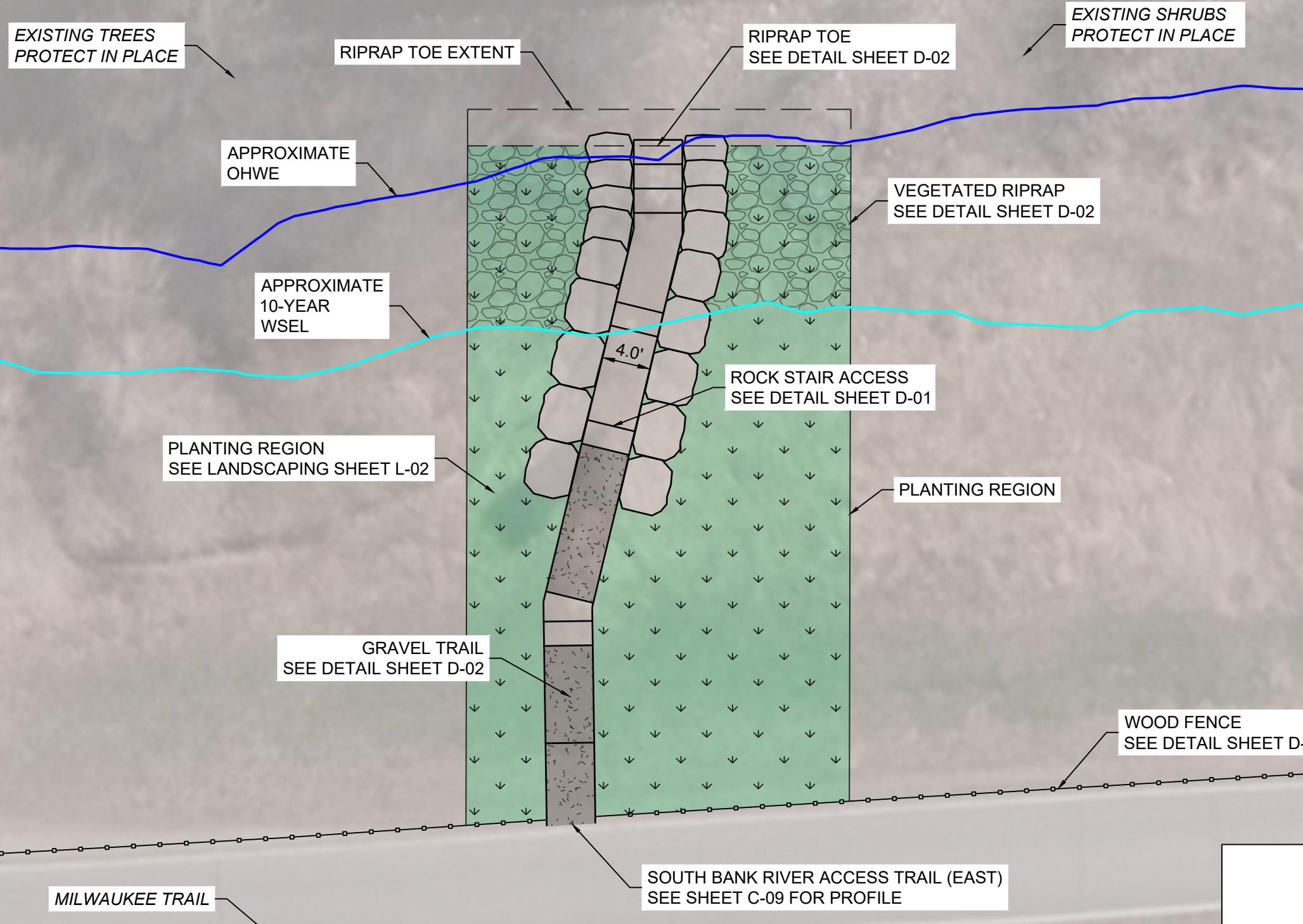
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PLOT DATE: May 22, 2024 3:35 PM; BY: MAIA REDDINGTON











0 10 20
SCALE IN FEET

SHEET NUMBER:
C-05
SHEET

SITE PLAN - EAST ACCESS

CLARK FORK RIVER RESTORATION AND ACCESS - MADISON ST. & TOOLE PARK

CITY OF MISSOULA PARKS AND RECREATION DEPARTMENT 600 CREGG LANE MISSOULA, MT 59801

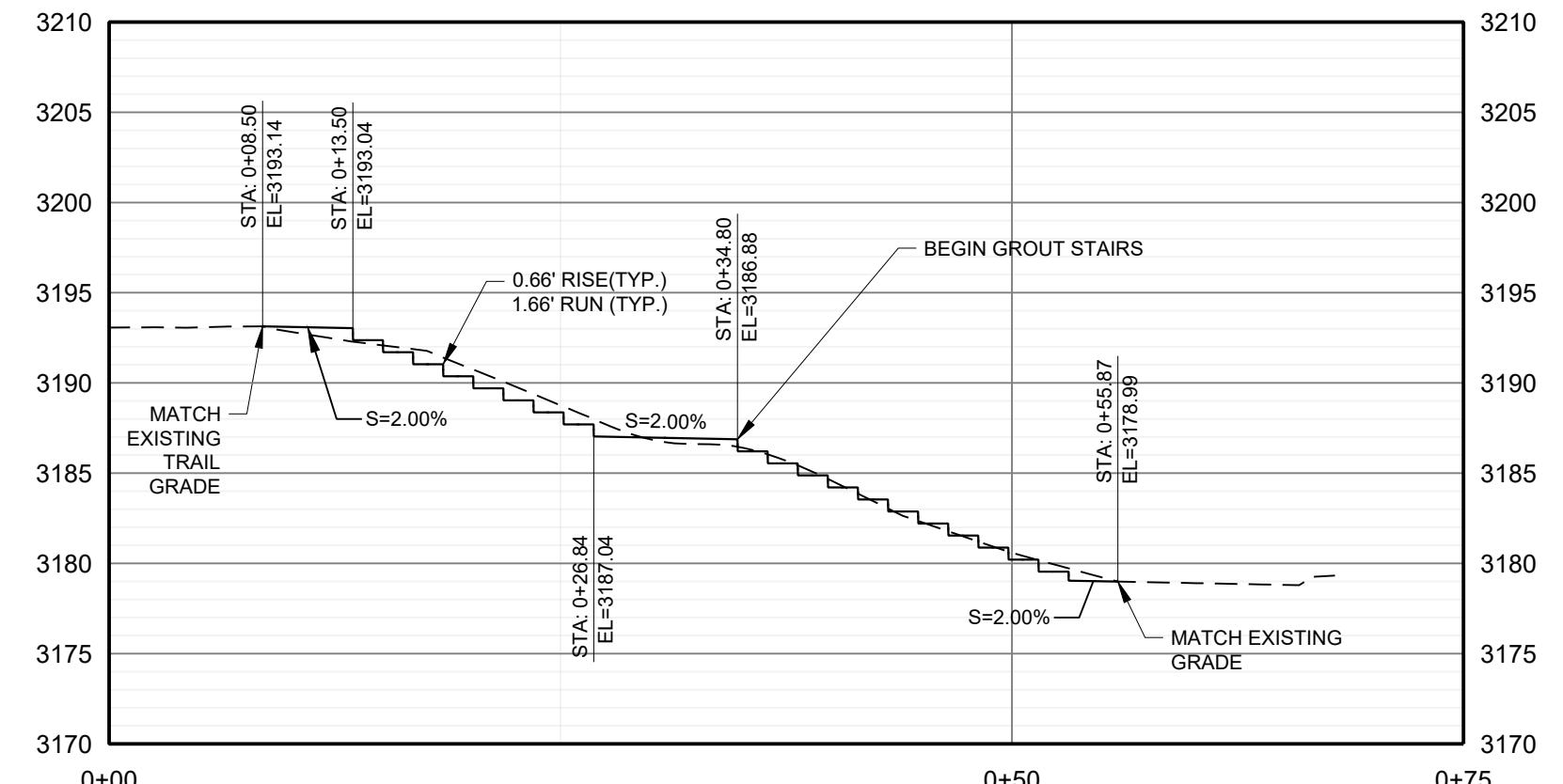
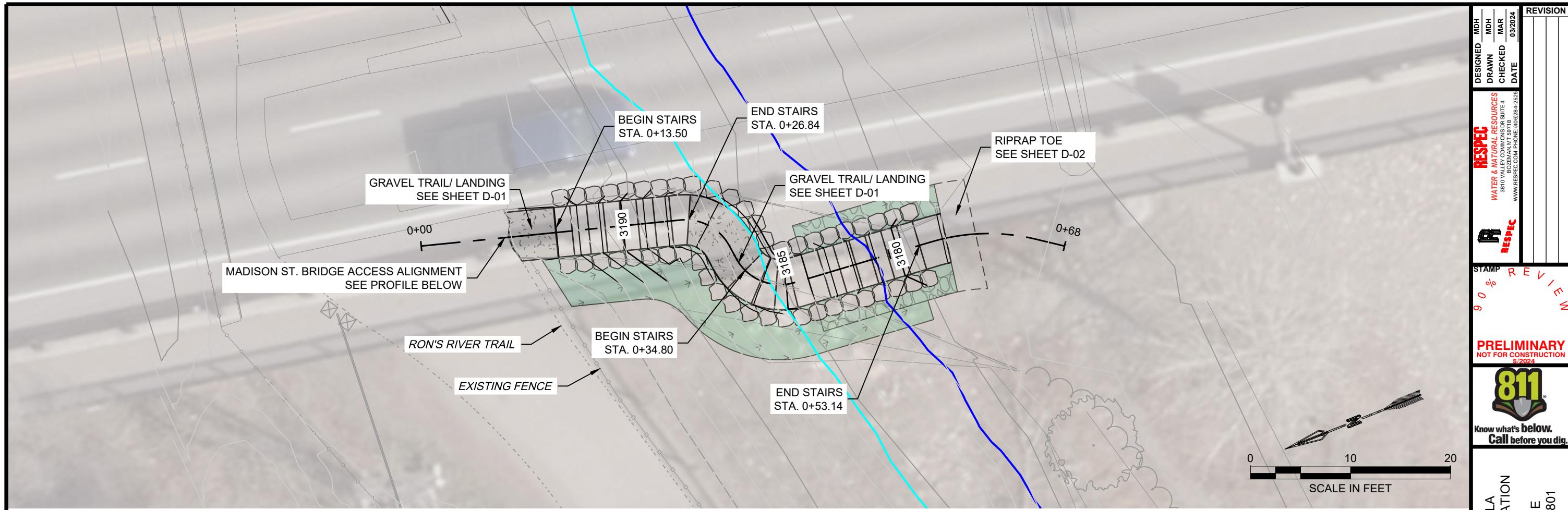
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DESIGNED MDH
DRAWN MDH
CHECKED MAR
DATE 03/2024
REVISION



MADISON BRIDGE - STAIR ACCESS PROFILE
HORZ. SCALE 1" = 10'
VERT. SCALE: 1" = 1'

PROPOSED GROUND
EXISTING GROUND

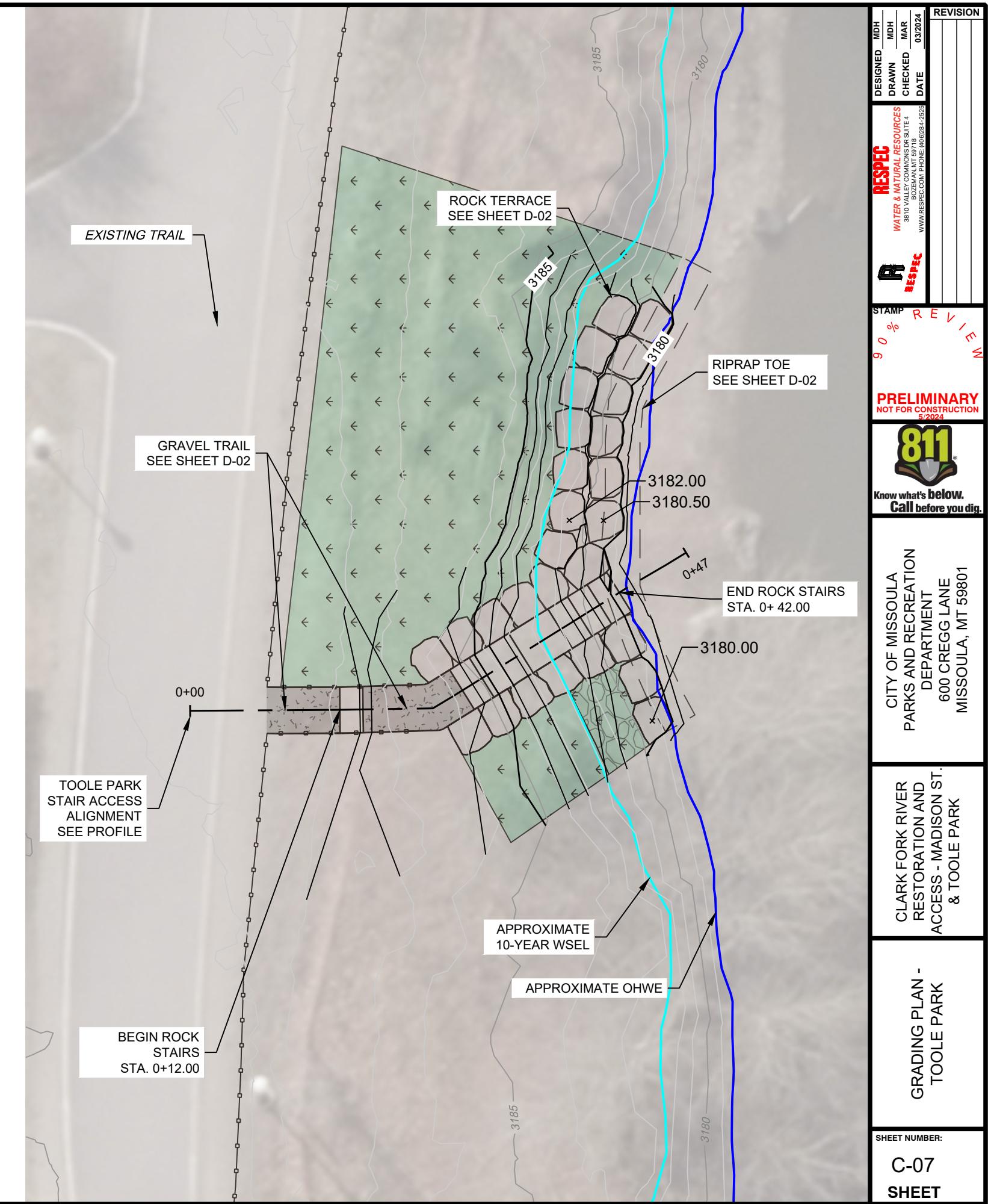
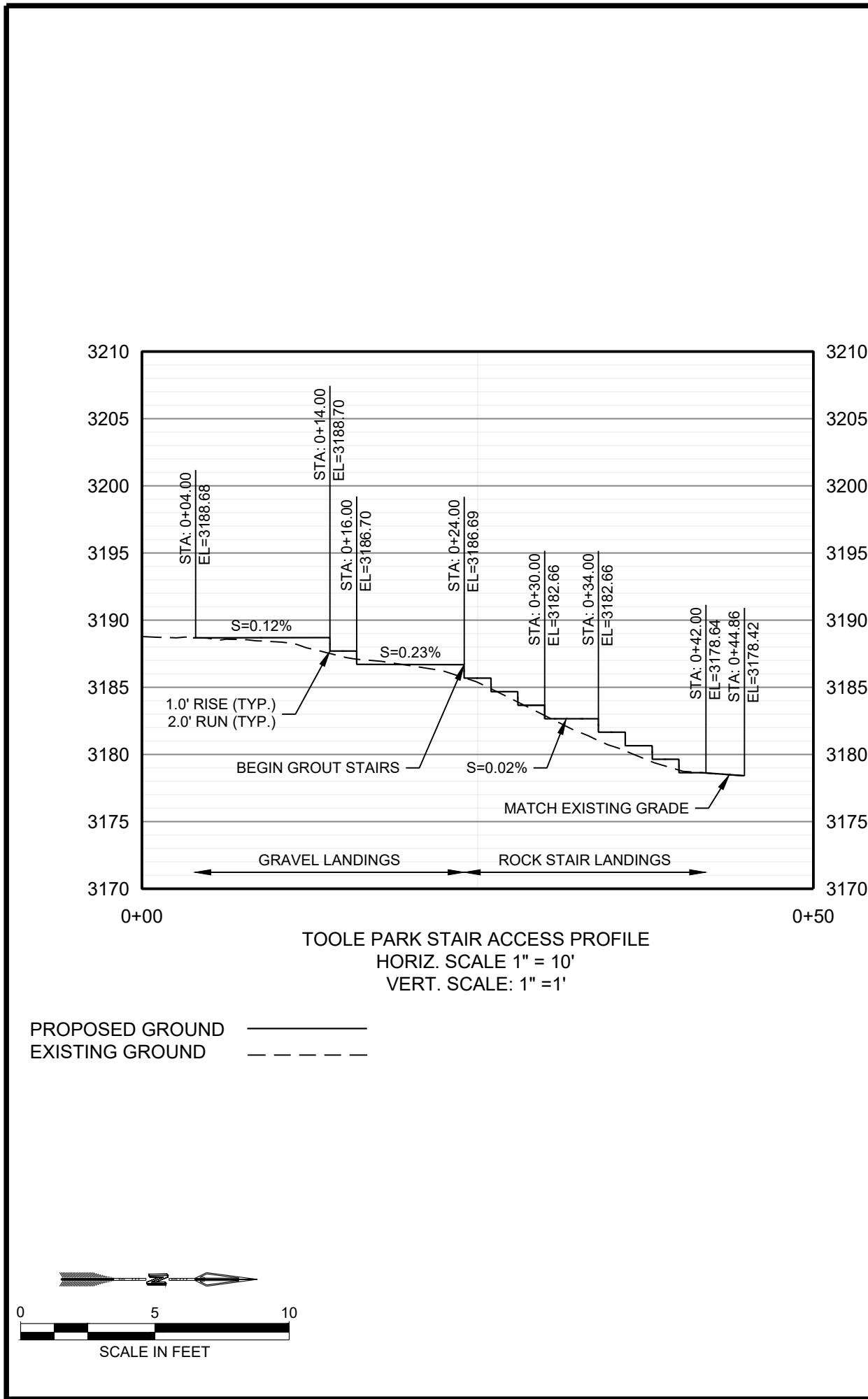
GRADING PLAN - MADISON ST. BRIDGE	CLARK FORK RIVER RESTORATION AND ACCESS - MADISON ST. & TOOLE PARK	CITY OF MISSOULA PARKS AND RECREATION DEPARTMENT 600 CREGG LANE MISSOULA, MT 59801
SHEET NUMBER: C-06		
SHEET		
REVISION	03/2024	03/2024
DESIGNED DRAWN CHECKED DATE	MDH MDH MAR 03/2024	MAR 03/2024

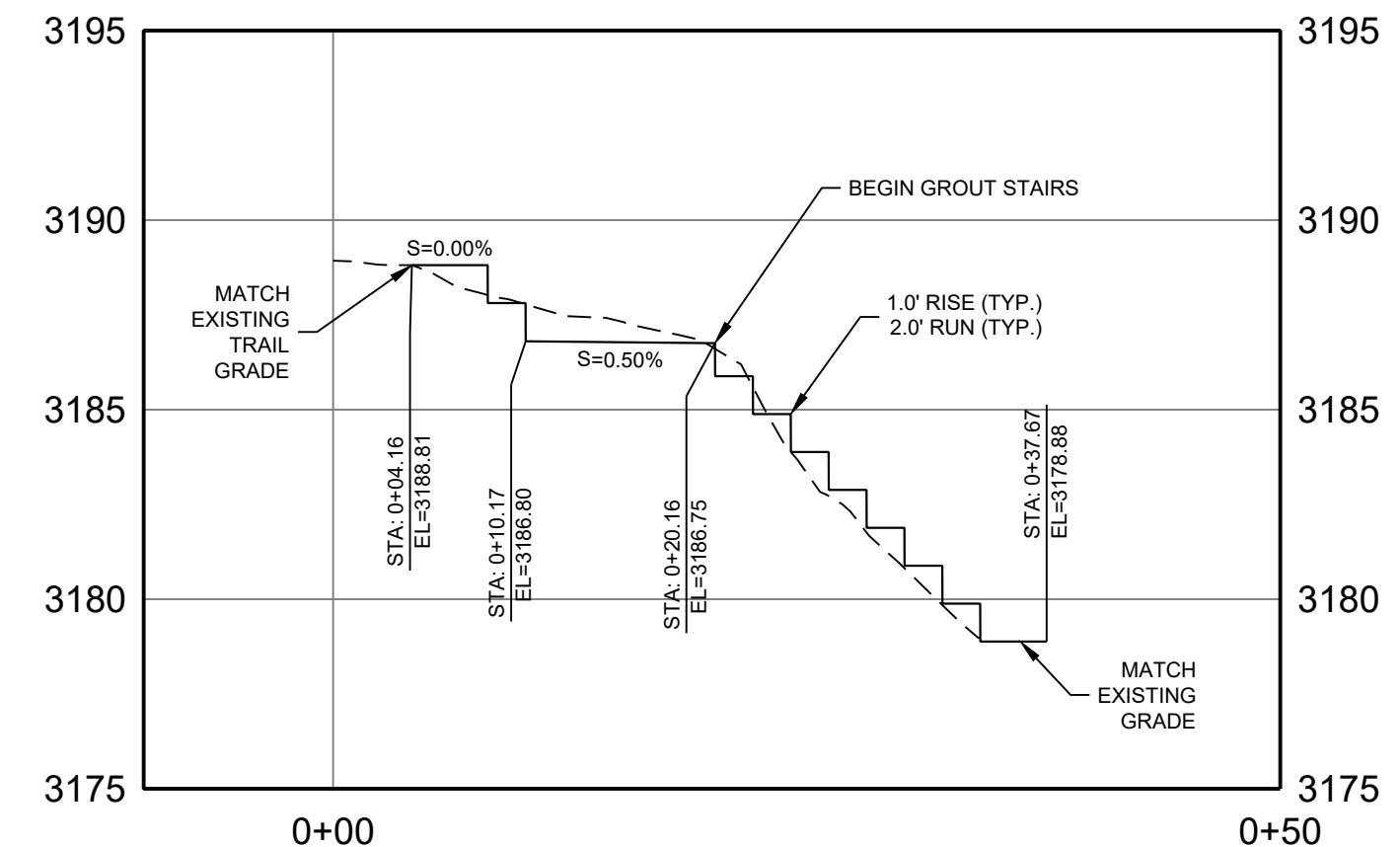
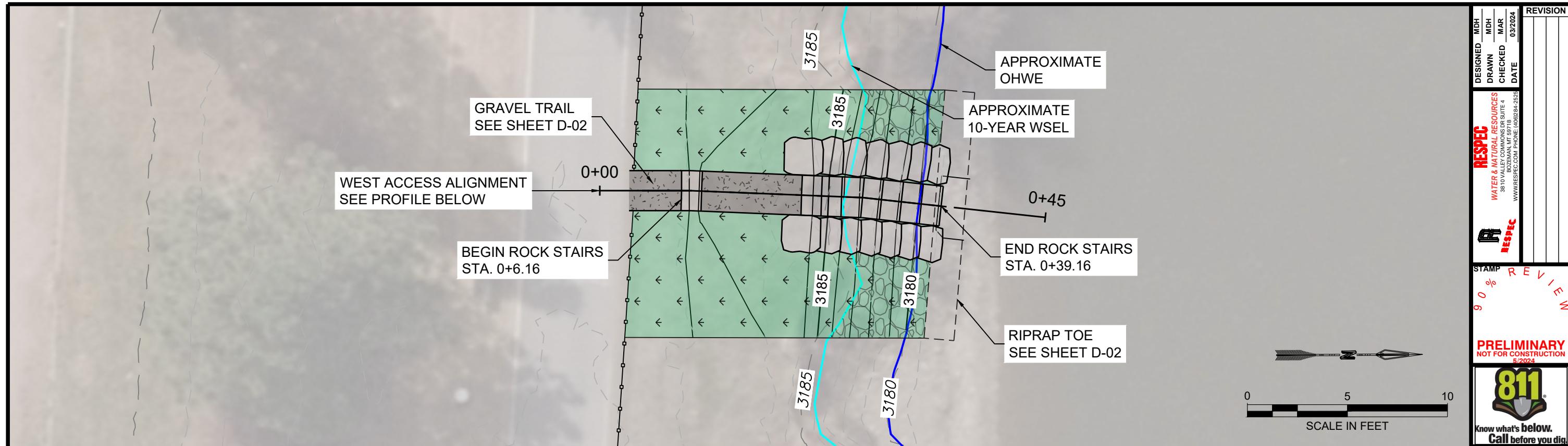
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WATER & NATURAL RESOURCES
3010 VALLEY COMMONS SITE 4
BOZEMAN, MT 59718
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5/2024







WEST ACCESS STAIRS PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 5'

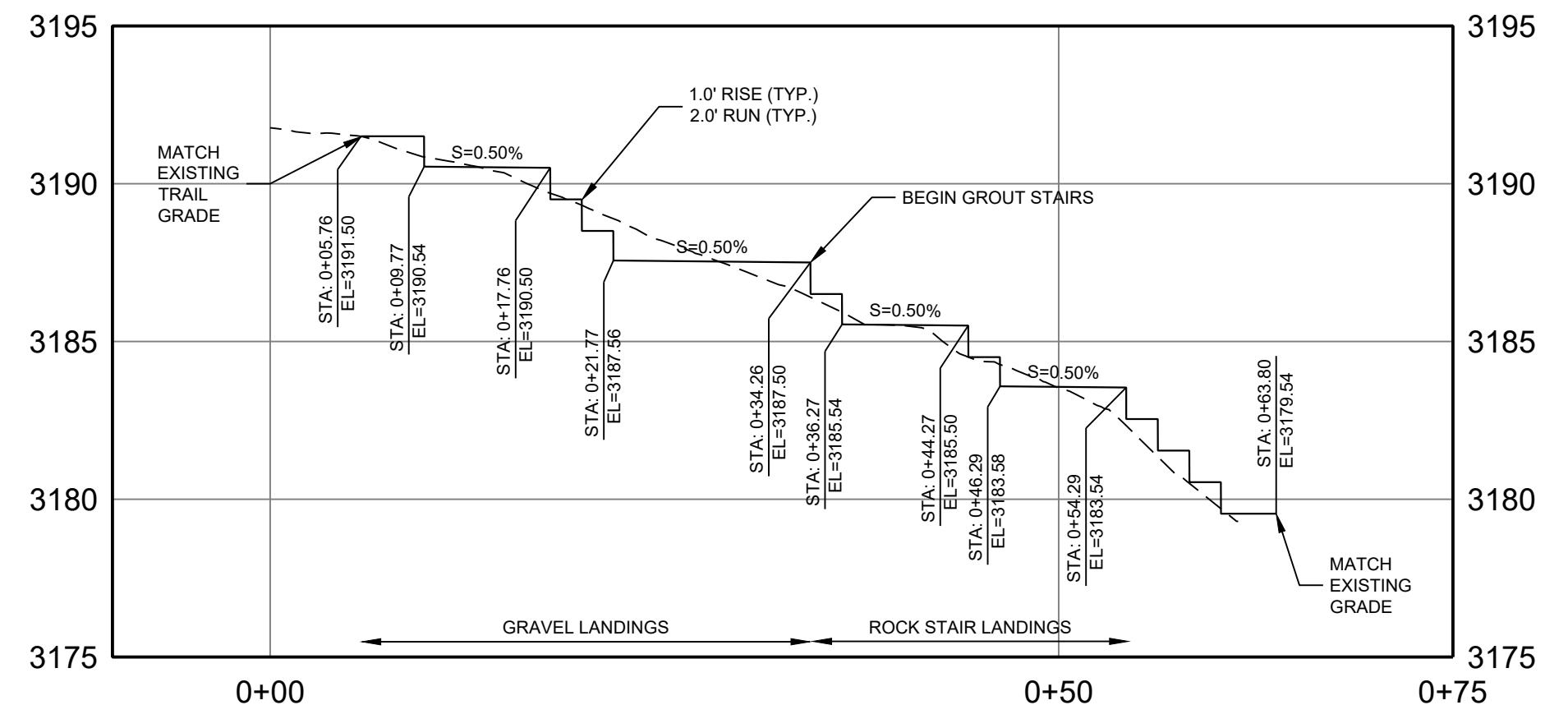
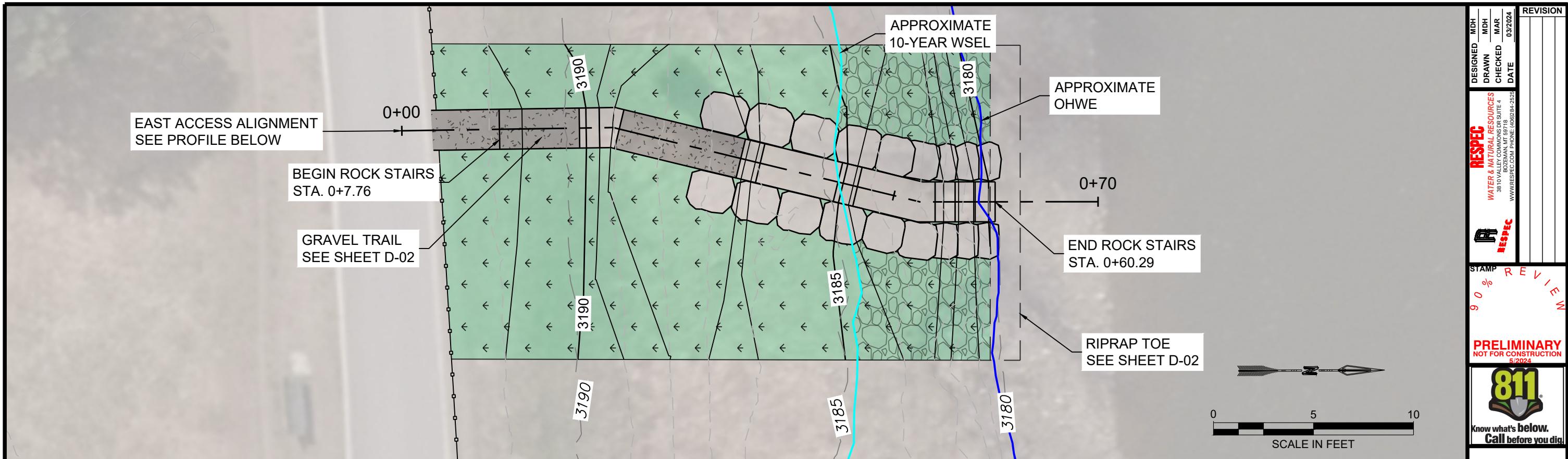
PROPOSED GROUND
EXISTING GROUND

GRADING PLAN -
WEST ACCESS

CLARK FORK RIVER
RESTORATION AND
ACCESS - MADISON ST.
& TOOLE PARK

CITY OF MISSOULA
PARKS AND RECREATION
DEPARTMENT
600 CREGG LANE
MISSOULA, MT 59801

SHEET NUMBER:
C-08
SHEET

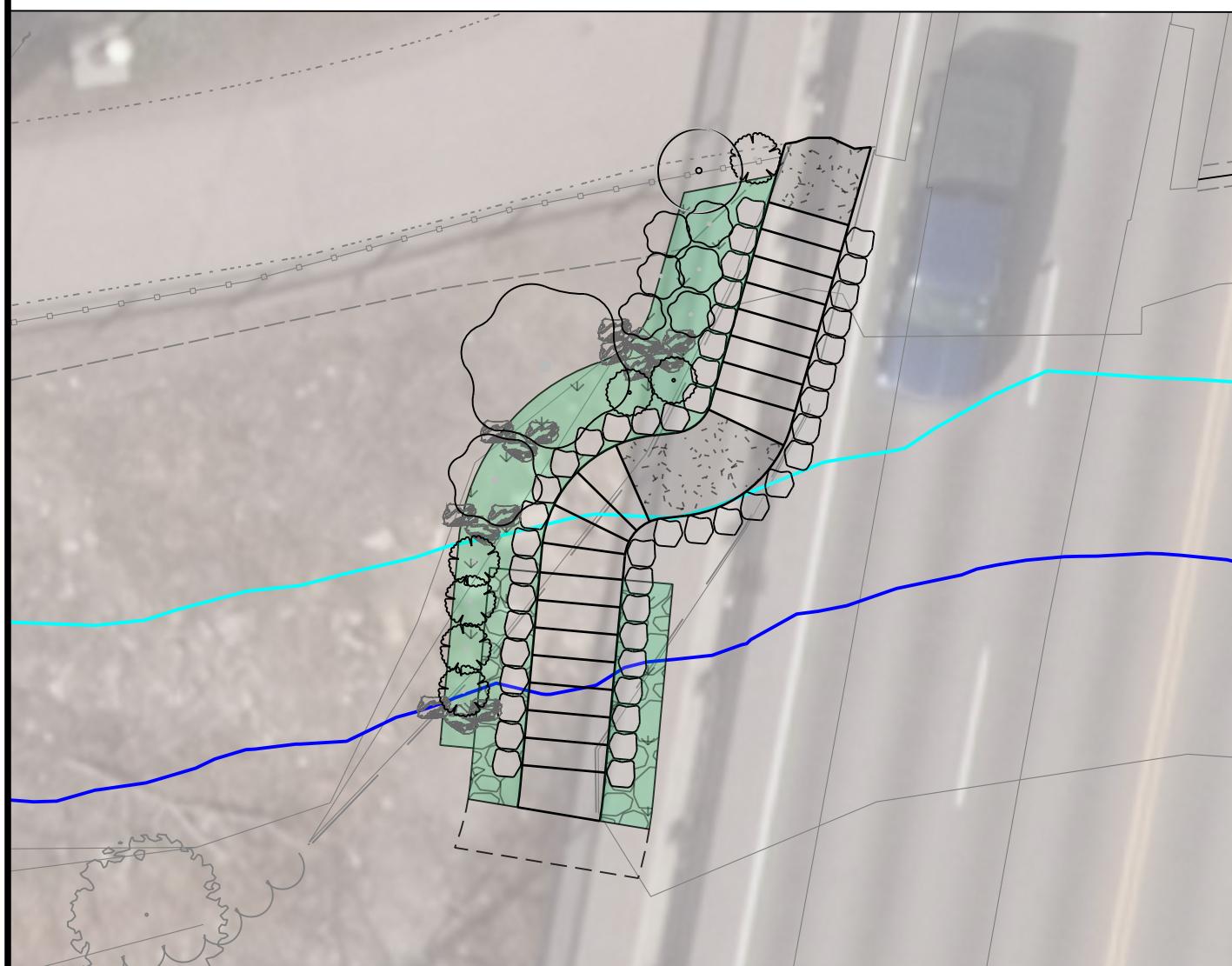


EAST ACCESS STAIRS PROFILE
HORIZ. SCALE: 1" = 10'
VERT. SCALE: 1" = 5'

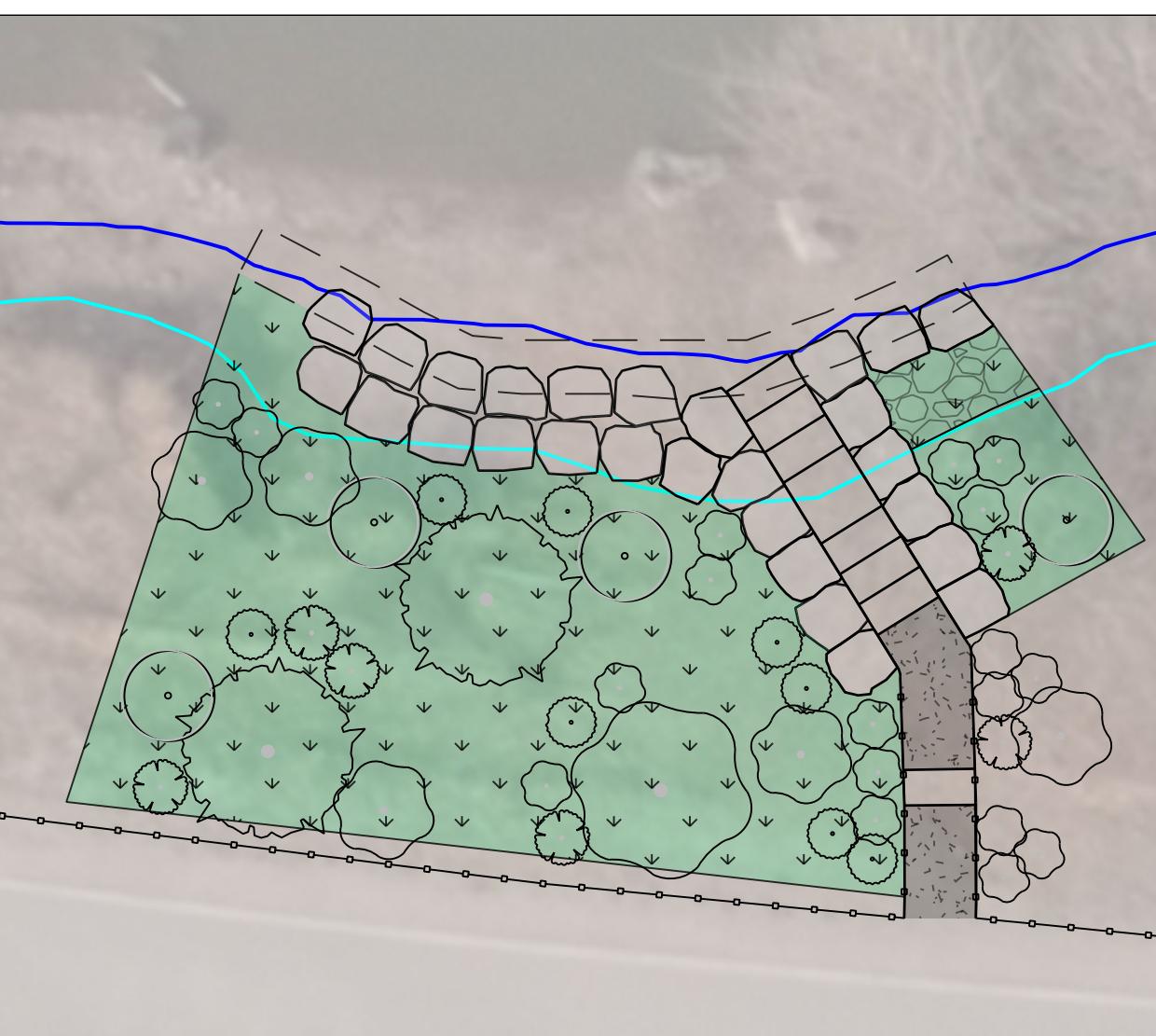
PROPOSED GROUND EXISTING GROUND

NAME: N:\\PROJECTS\\SW020\\201-001-CFR RESTORATION & ACCESS\\CAD\\SHEETS\\ACCESS DESIGN\\MADISON ST. SHEET SET\\CFR R&A\\MADISON ST_S_EAST SITE_GRADING PLAN.DWG
PILOT DATE: Mar 22, 2024, 2:38 PM RV: MAIA REFININGTON

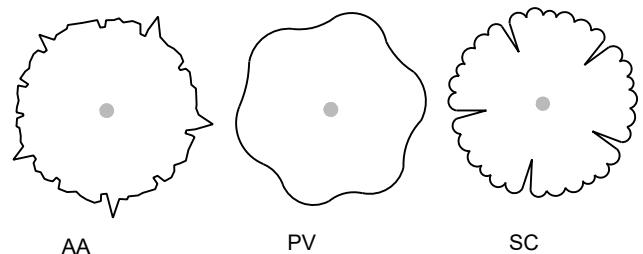
MADISON ST. BRIDGE ACCESS



TOOLE PARK ACCESS

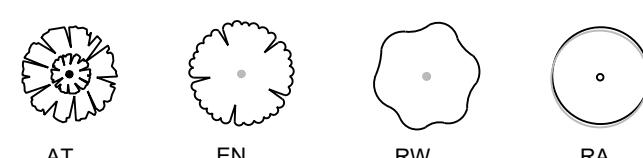


UPLAND LARGE SHRUBS



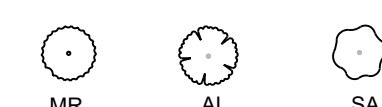
AA PV SC

UPLAND MEDIUM SHRUBS



AT EN RW RA

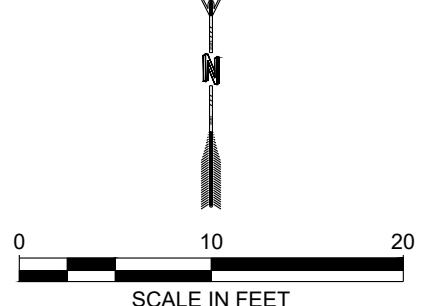
UPLAND SMALL SHRUBS



MR AL SA

NOTE:

ALL UPLAND SMALL SHRUB
SYMBOLS REPRESENT A CLUSTER
OF THREE SHRUBS PLANTED 18"
APART

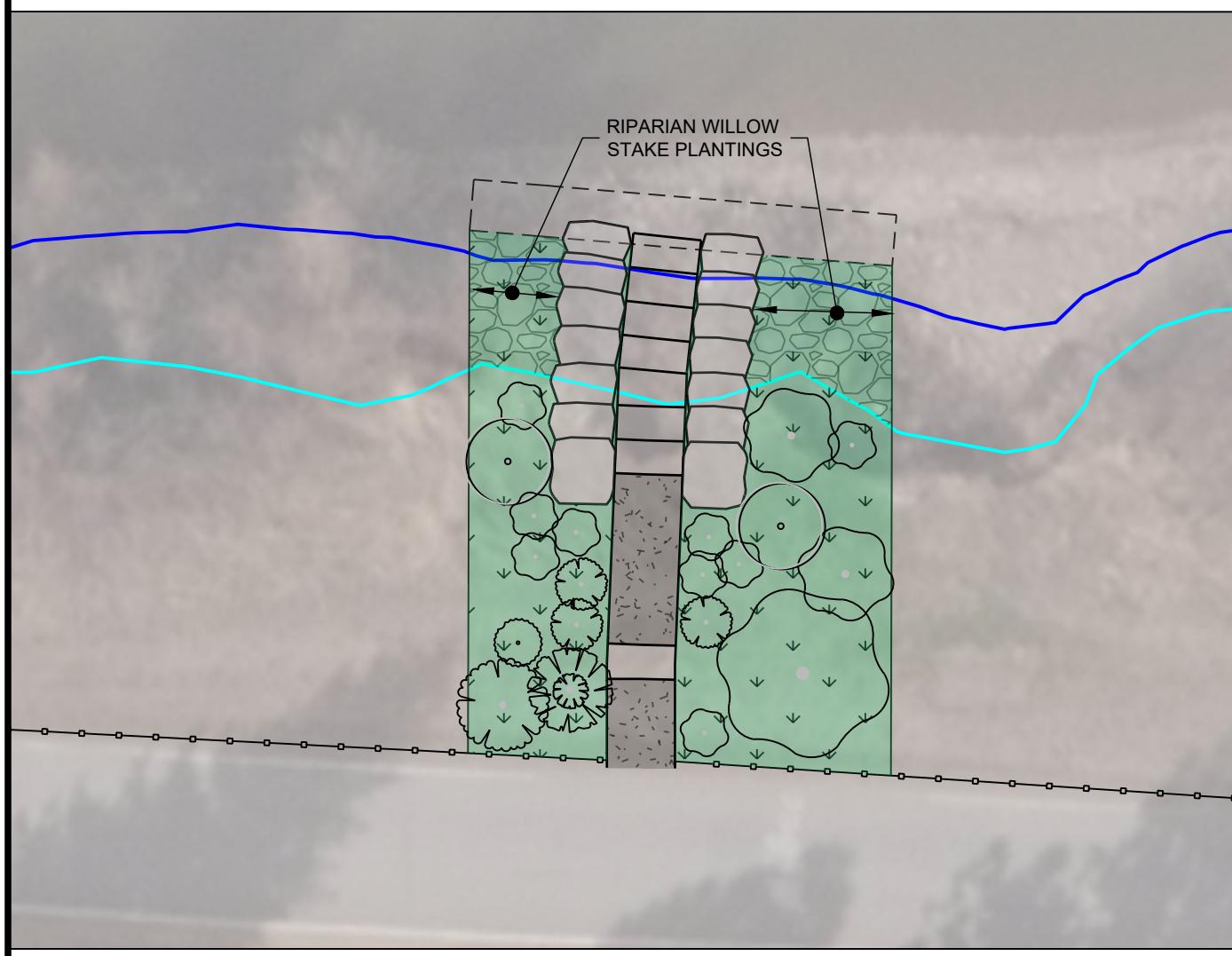


SCALE IN FEET

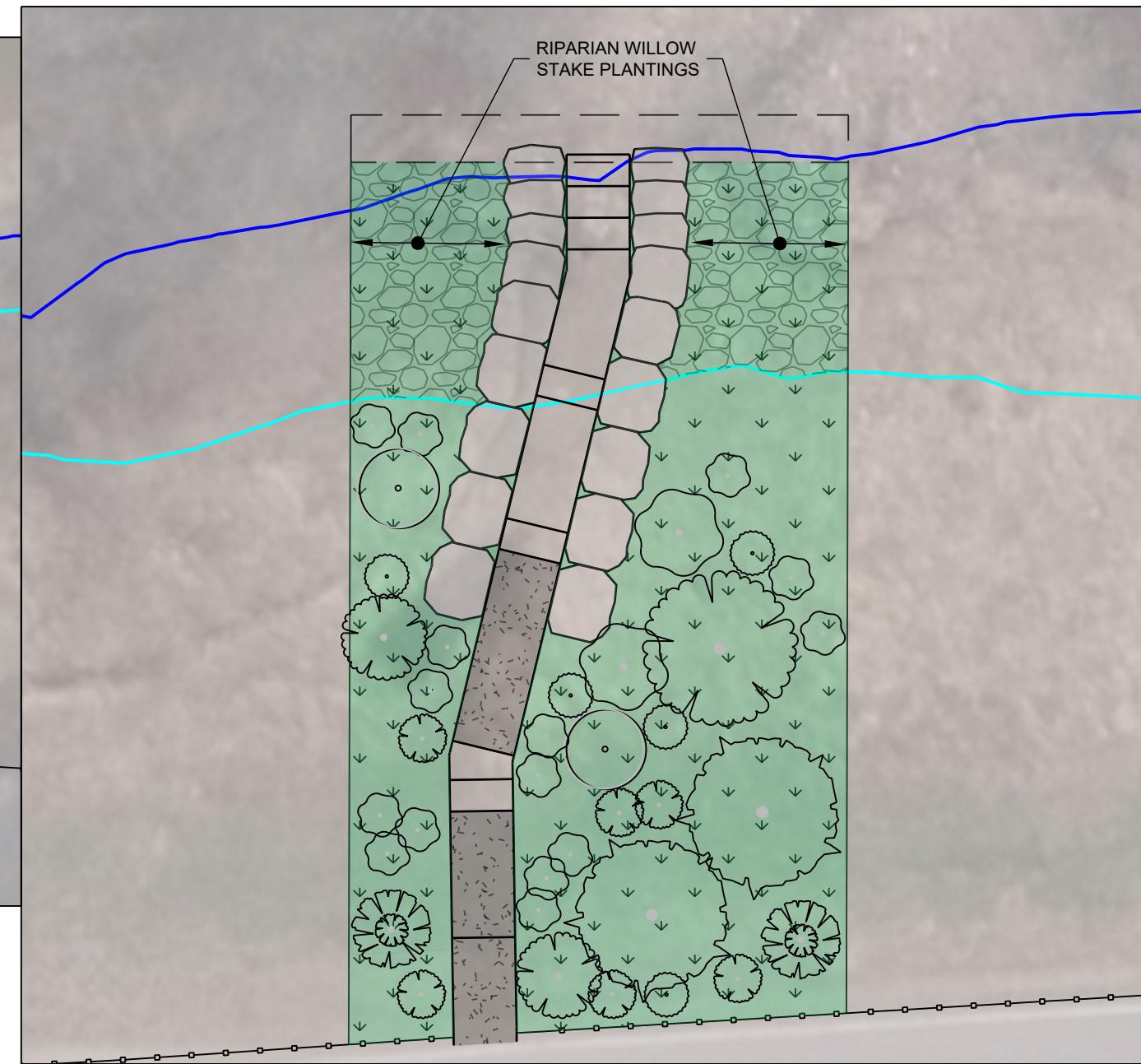
LANDSCAPE PLAN -
MADISON ST. AND
TOOLE PARK
SHEET NUMBER:
L-01
SHEET

DESIGNED MDH DRAWN MDH CHECKED MAR DATE 03/2024
RESPEC
WATER & NATURAL RESOURCES
360 VALLEY COMMONS SITE 4
BOZEMAN, MT 59718
WWW.RESPEC.COM PHONE: (406)284-2545
STAMP 90% R E V 1 M
PRELIMINARY
NOT FOR CONSTRUCTION
5/2024
811
Know what's below.
Call before you dig.

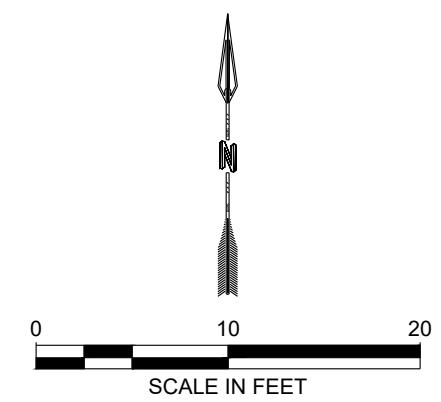
WEST ACCESS



EAST ACCESS



NOTE:
ALL UPLAND SMALL SHRUB
SYMBOLS REPRESENT A CLUSTER
OF THREE SHRUBS PLANTED 18"
APART



LANDSCAPE PLAN -
WEST AND EAST
ACCESES
SHEET NUMBER:
L-02
SHEET

RESPEC
WATER & NATURAL RESOURCES
360 VALLEY COMMONS SITE 4
BOZEMAN, MT 59718
WWW.RESPEC.COM PHONE: (406) 294-2555
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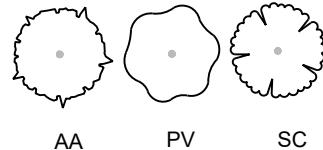
CITY OF MISSOULA
PARKS AND RECREATION
DEPARTMENT
600 CREGG LANE
MISSOULA, MT 59801

CLARK FORK RIVER
RESTORATION AND
ACCESS - MADISON ST.
& TOOLE PARK

UPLAND MEDIUM SHRUBS		QUANTITIES	UPLAND SMALL SHRUBS		QUANTITIES	UPLAND LARGE SHRUBS		QUANTITIES
*USE LIBERALLY (#5 CONTAINER GROWN AND MULTI-STEM FORM)			*USE BETWEEN LARGER SHRUBS (#1 CONTAINER)			*USE SPARINGLY TO KEEP SIGHT LINES OPEN (#10 CONTAINER AND MULTI-STEM FORM)		
ARTEMISIA TRIDENTATA	SILVER SAGEBRUSH (AT)	3	MAHONIA REPENS	CREEPING OREGON GRAPE (MR)	48	AMELANCHIER ALNIFOLIA	SERVICEBERRY (AA)	4
ERICAMERIA NAUSEOSA	RUBBER RABBITBRUSH (EN)	3	ARTEMISIA LUDOVICIANA	WHITE SAGE (AL)	60	PRUNUS VIRGINIANA	CHOKECHERRY (PV)	3
ROSA WOODSII	WOODS ROSE (RW)	10	SYMPHORICARPOS ALBUS	COMMON SNOWBERRY (SA)	144	SAMBUCUS CANADENSIS	ELDERBERRY (SC)	1
RIBES AUREUM	GOLDEN CURRENT (RA)	9						

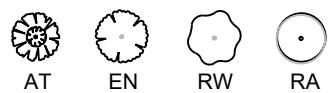
GRASS MIX		UPLAND PERENNIALS		RIPARIAN LARGE SHRUBS	
*SEED IN BETWEEN PLANTINGS (35 LB PER ACRE)	*SEED IN BETWEEN PLANTINGS (10 LB PER ACRE)			*LIVE STAKING @/DIRECTLY ABOVE OHW	
FESTUCA IDAHOENSIS	IDAHO FESCUE (60%)	SOLIDAGO CANADENSIS	GOLDENROD (10%)	CORNUS SERICEA	RED TWIG DOGWOOD
KOELERIA MACRANTHA	PRARIE JUNEGRASS (10%)	GAILLARDIA ARISTATA	BLANKET FLOWER (25%)	SALIX EXIGUA	SANDBAR WILLOW
POA SECUNDA	SANDBERG BLUEGRASS (10%)	ACHILLEA MILLEFOLIUM	WHITE YARROW (25%)		
AGROPYRON SMITH II	WESTERN WHEATGRASS (10%)	PENSTEMON PROCERUS	PENSTEMON (10%)		
PSEUDOROEGERNIA SPICATA	BLUEBUNCH WHEATGRASS (10%)	ARTEMISIA FRIGIDA	FRINGED SAGE (20%)		

UPLAND LARGE SHRUBS



AA PV SC

UPLAND MEDIUM SHRUBS



AT EN RW RA

UPLAND SMALL SHRUBS



MR AL SA

PLANTING NOTES

- ALL PLANTS TO BE WARRANTED 1 YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
- ALL PLANTS ARE TO BE NATIVE SPECIES. CULTIVATED VARIETIES OR HYBRIDS WILL NOT BE ACCEPTED.
- ENSURE ALL BACK FILL, FINE GRADING, AND ADJACENT HARDSCAPE WORK IS COMPLETE AND REVIEWED BY LANDSCAPE ARCHITECT BEFORE SEEDING OR PLANTING.
- EXCAVATION: WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS, NOTIFY LANDSCAPE ARCHITECT BEFORE PLANTING.
- COORDINATE INSTALLATION OF PLANTING MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF PLANT MATERIAL REQUIRED.
- ALL PLANTS SHALL BE TRUE TO NAME AND MEET ALL CONDITIONS OF THESE SPECIFICATIONS. ANY PLANT WHICH IS NOT TRUE TO NAME AS INDICATED BY FORM, LEAF, FLOWER, OR FRUITING CHARACTERISTICS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR TO NOTIFY CITY OF MISSOULA PARKS DEPARTMENT TWO WEEKS PRIOR TO PLANT MATERIAL BEING DELIVERED TO THE SITE FOR INSPECTION/APPROVAL.
- TOPSOIL TO MEET SPECIFICATIONS FOUND IN THE PARKS AND RECREATION DESIGN MANUAL. SUBMIT SOURCE INFORMATION AND SAMPLE TO ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
- MULCH TO BE SHREDDED CEDAR WOOD MULCH. MOUNTAIN WEST PRODUCTS "GORILLA HAIR" IS AN APPROVED SOURCE. MULCH SHALL BE PLACED IN THE FOLLOWING AVERAGE THICKNESS AND FINISH LEVEL WITH ADJACENT FINISH GRADES. MULCH SHALL NOT BE PLACED AGAINST TRUNKS OR STEMS.
- PLANTING RINGS: 3" DEPTH OF MULCH (FOR PLANTING RINGS, MULCH WITH SPECIFIED DEPTH TO THE DRIPLINE). PLANTING GROUPINGS TO BE MULCHED CONTINUOUSLY. MULCH SHALL BE PULLED BACK TO EXPOSE ROOT FLAIR OF ALL PLANTINGS. PLANT STEMS BURIED WITH MULCH WILL NOT BE ACCEPTED.

9.2 MULCH BACKFILLED SURFACES OF PITS, PLANTED AREAS, NON-IRRIGATED ZONES, AND OTHER AREAS INDICATED.

- CONTRACTOR RESPONSIBLE FOR WATERING AND UPKEEP OF ALL PLANTINGS UNTIL FINAL ACCEPTANCE. ALL PLANTINGS MUST BE WATERED REGULARLY TO ENSURE PROPER ESTABLISHMENT.
- PLANTING LAYOUT IS CONCEPTUAL. FINAL LAYOUT TO BE APPROVED BY ENGINEER OR OWNER ON SITE.
- REFER TO MISSOULA PARKS AND REC DEPT. STANDARD DETAIL PR-101 FOR TREE PLANTING DETAIL, AND PR-103 FOR SHRUB PLANTING DETAIL
- WILLOW STAKES WILL BE PLANTED NEAR THE APPROXIMATE ORDINARY HIGH WATER SURFACE ELEVATION, PER THE TYPICAL SECTION, IN NEWLY GRADED AREAS. 3 STAKES WILL BE PLANTED PER LINEAR FOOT OF BANK TREATMENT. WILLOW STAKES SHALL BE 5'-6" LONG. WILLOW STAKES THAT ARE HARVESTED BY THE CONTRACTOR SHALL BE CUT CLEAN, WITHOUT STRIPPING THE BARK, AT AN ANGLE. WILLOWS SHALL BE SOAKED IN WATER PRIOR TO PLANTING ON-SITE. CONTRACTOR TO PLANT DURING SPRING OR FALL UNLESS OTHERWISE APPROVED BY OWNER OR ENGINEER.

DRYLAND SEED MIX NOTES

- ALL AREAS DISTURBED WITHIN CONSTRUCTION LIMITS, WHERE NOT SPECIFIED TO BE ANOTHER MATERIAL PER PLAN, SHALL BE RE-ESTABLISHED WITH DRYLAND SEED MIX, AS SPECIFIED.
- PROVIDE DOCUMENTATION OF SEED ORIGIN AND PURITY TO LANDSCAPE ARCHITECT PRIOR TO SEEDING.
- SOW SEED MIXES ON DISTURBED AREAS AFTER ALL GRADING ACTIVITIES HAVE BEEN COMPLETED.
- PREPARE SEED BED PRIOR TO SEEDING PER PLANS.
- ACCEPTABLE SEEDING DATES ARE APRIL 15 - JUNE 20 IN THE SPRING, OR SEPTEMBER 20 - OCTOBER 20 IN THE FALL. WRITTEN PERMISSION MUST BE GRANTED BY THE CITY OF MISSOULA TO PERFORM SEEDING OPERATIONS ON ANY OTHER DATES OF THE YEAR.
- USE BROADCAST SEEDING METHOD, RAKE SEED THOROUGHLY INTO TOP $\frac{1}{2}$ " OF SEED BED WITH HARD RAKE. SEED MUST BE APPLIED AT THE SPECIFIED RATE.
- DRYLAND GRASS MIX AND WILDFLOWER MIX TO BE SEDED AT SPECIFIED RATES ACROSS ALL DISTURBED AREAS PER PLANS.
- SEED ESTABLISHMENT PERIOD COMMENCES UPON FINAL ACCEPTANCE AND SHALL CONSIST OF FIRST GROWING SEASON, OR UNTIL A HEALTHY, WELL-ROOTED, VIABLE MEADOW HAS BEEN ESTABLISHED, FREE OF NOXIOUS WEEDS, AND BARE AREAS. CONTRACTOR TO REQUEST A FINAL INSPECTION BY CITY OF MISSOULA TO DETERMINE THE END OF THE SEED ESTABLISHMENT PERIOD.
- MONITOR THE SITE DURING THIS PERIOD TO DETECT AREAS OF WEED COLONIZATION. TREAT ALL NOXIOUS WEEDS (AS CURRENTLY DEFINED BY DEPARTMENT OF AGRICULTURE) WITH HERBICIDE OR MANUAL REMOVAL AS SOON AS DETECTED.
- AFTER INITIAL GERMINATION PREPARE AND RE-SEED ANY BARE SPOTS GREATER THAN 2 SQUARE FEET.
- IF AREAS OF BARE GROUND PERSIST AFTER FIRST GROWING SEASON RESEED PER PLAN.

LANDSCAPE PLAN - NOTES

SHEET NUMBER: L-03
SHEET

DESIGNED	MDH	DRAWN	MDH	CHECKED	MAR	DATE	03/2024
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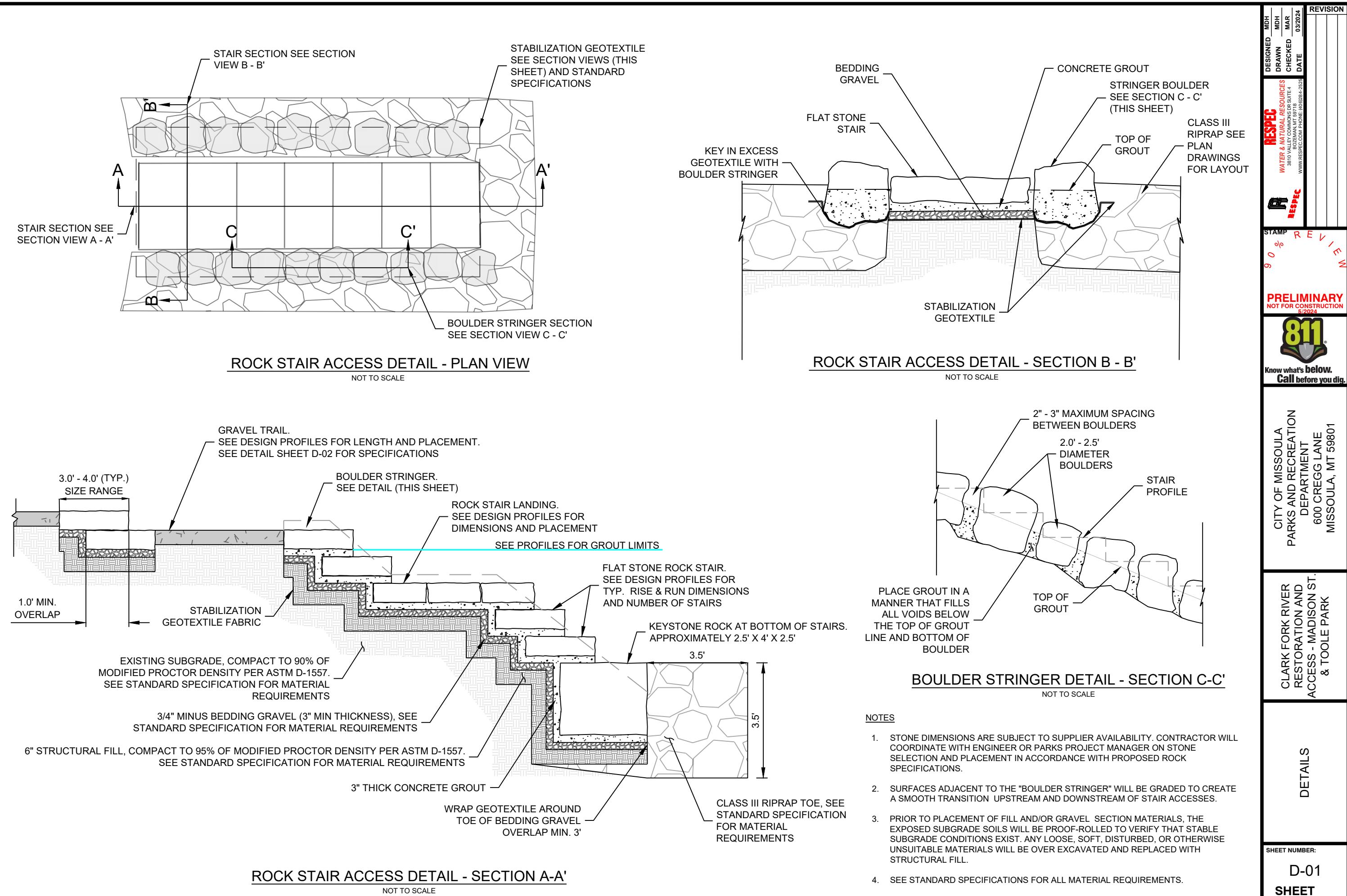
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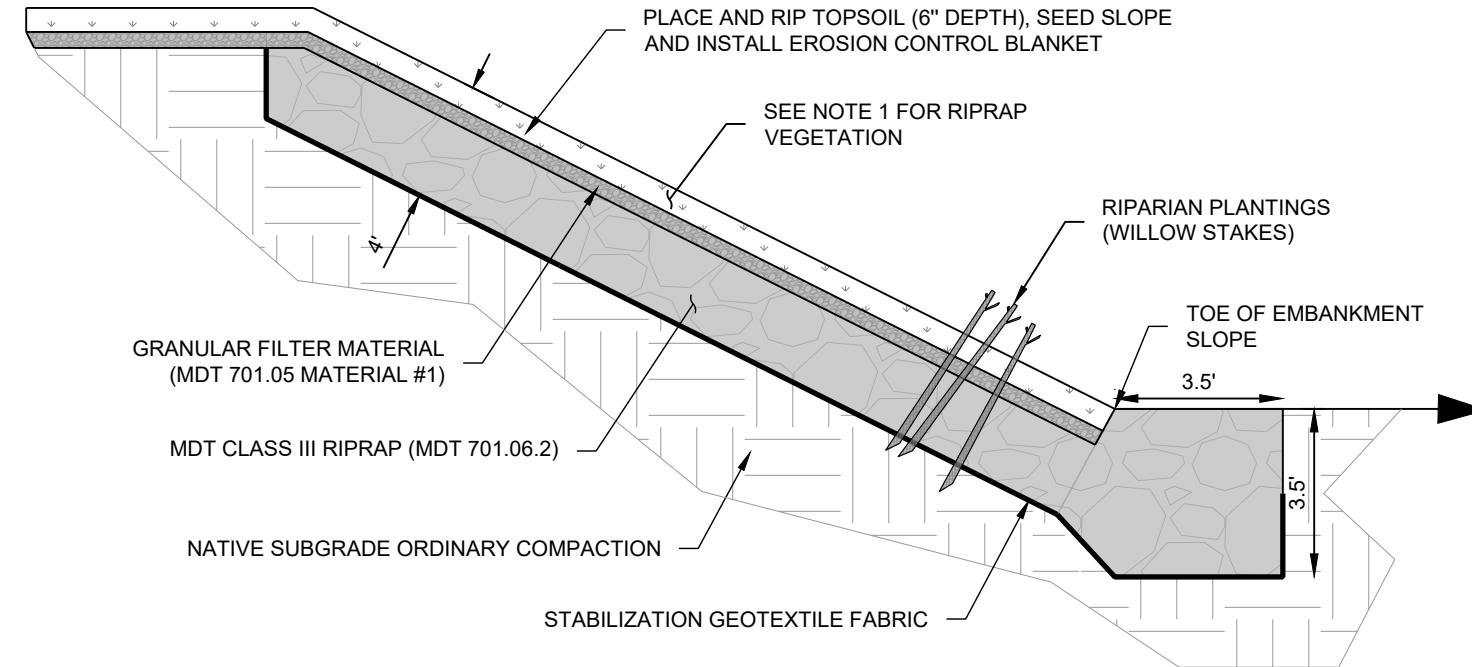
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5/2024



CITY OF MISSOULA
PARKS AND RECREATION
DEPARTMENT
600 CREGG LANE
MISSOULA, MT 59801

CLARK FORK RIVER
RESTORATION AND
ACCESS - MADISON ST.
& TOOLE PARK



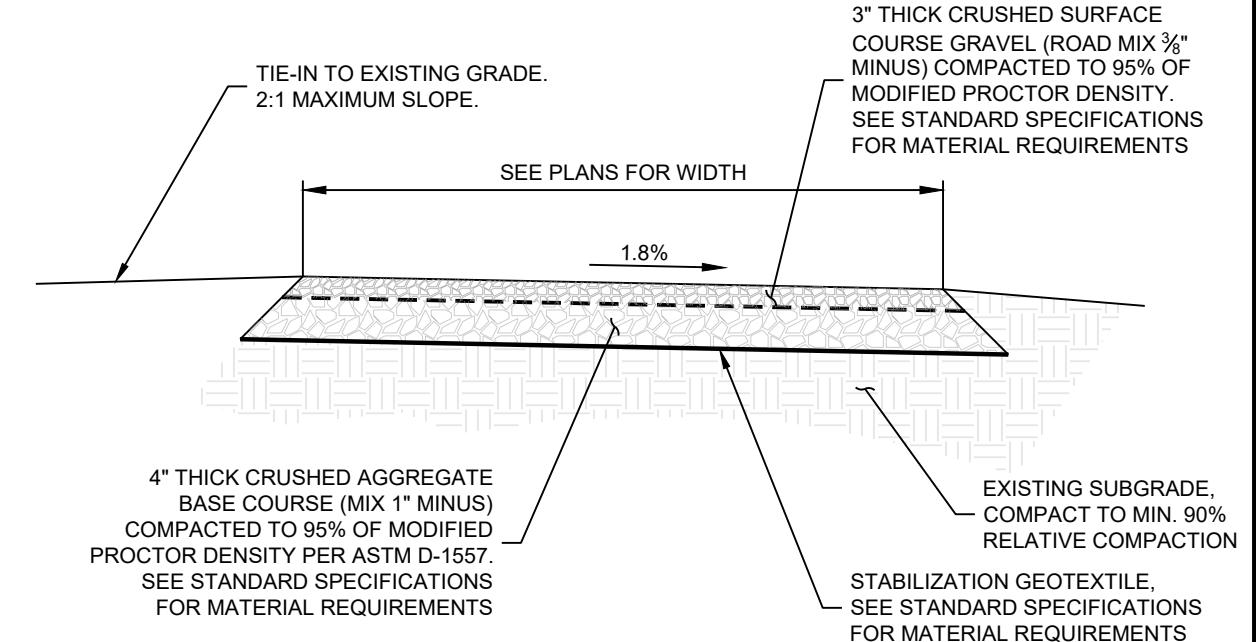
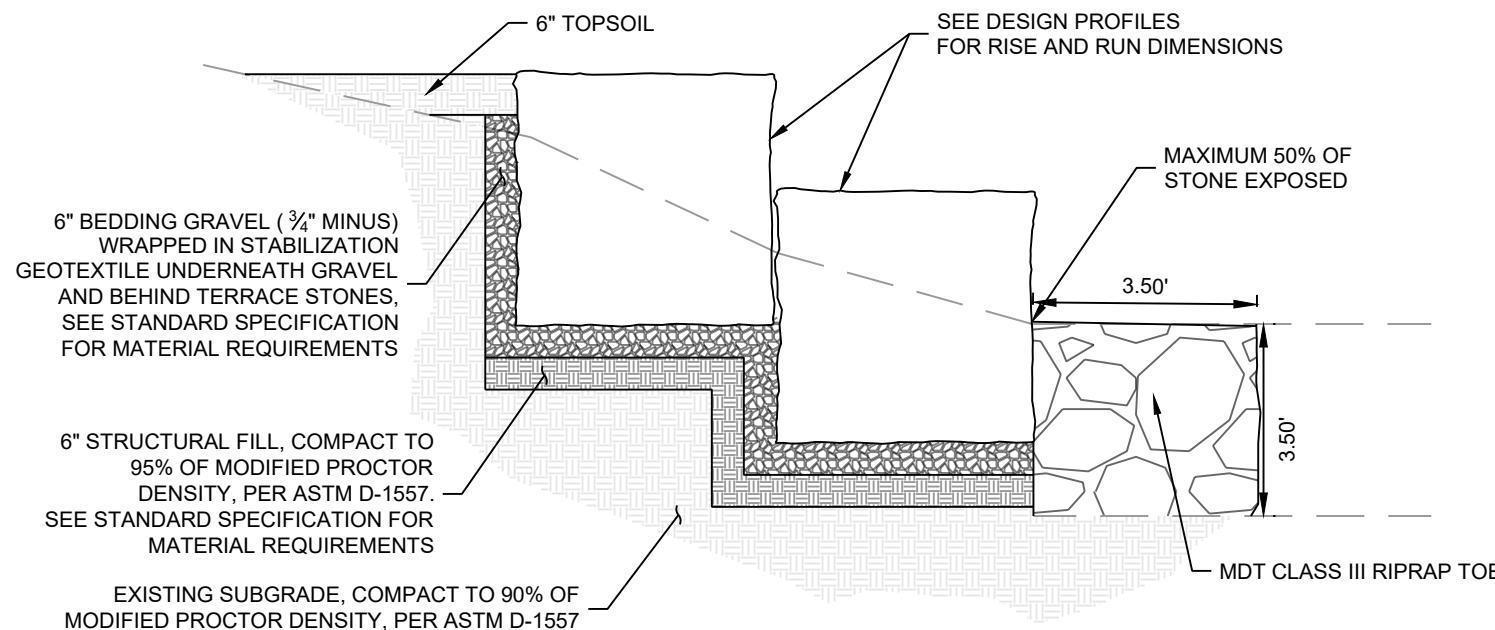


NOTE:

1. RIPRAP REVEGETATION: THIS WORK IS THE CONSTRUCTION REQUIREMENTS FOR REVEGETATION MATERIAL ON RIPRAP SURFACES ABOVE ORDINARY HIGH WATER MARK ELEVATION. CONSTRUCTION REQUIREMENTS ARE TO FILL THE SPACES AND VOIDS BETWEEN THE ROCKS WITH GRANULAR FILTER MATERIAL AND TOPSOIL FOLLOWING PLACEMENT OF RIPRAP, OR AT INTERVALS APPROPRIATE FOR THE SIZE AND CONFIGURATION OF THE INSTALLATION. ACCEPTABLE TOPSOIL TO MATCH MISSOULA PARKS AND RECREATION DESIGN MANUAL SECTION 4 IMPORTED TOPSOIL REQUIREMENTS. CONTRACTOR TO PLACE A SUFFICIENT AMOUNT OF GRANULAR FILTER MATERIAL OVER THE RIPRAP, SO THAT AFTER SETTLING, THE LEVEL OF GRANULAR FILTER MATERIAL COMES TO THE VERY TOP OF THE ROCK. PLACE THE TOPSOIL TO A 6-INCH DEPTH OVER THE GRANULAR FILTER MATERIAL. PLACE MATERIAL IN A MANNER THAT CREATES A SMOOTH, UNIFORM SURFACE FOR SEEDING AND PLACEMENT OF THE EROSION CONTROL BLANKET/MULCH. CONTRACTOR TO HAND BROADCAST SEED THE SOIL IMMEDIATELY AFTER PLACEMENT, REGARDLESS OF TIME OF YEAR, WITH THE SEED MIXTURE AND RATES SPECIFIED BY THE ENGINEER. SCARIFY THE SOIL IMMEDIATELY PRIOR TO AND FOLLOWING SEEDING TO INCORPORATE SEED TO A DEPTH OF $\frac{1}{2}$ INCH INTO THE SOIL.

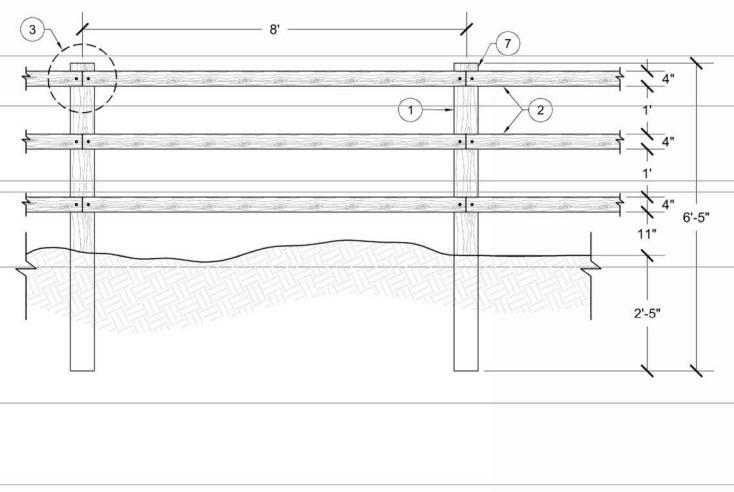
VEGETATED RIPRAP DETAIL - SECTION VIEW

NOT TO SCALE



KEY NOTES:

1. 6" DIAMETER TREATED WOOD POST
2. SMOOTH 4" DIAMETER TREATED WOOD RAILS (OUTSIDE FENCE)
3. REFERENCE BEVEL DETAIL
4. 1" MORTISE
5. 22.5 DEGREE CHAMFER TO THE INSIDE OF FENCE. FINISH CHAMFER WITH $\frac{1}{4}$ " ROUNDED EDGE.
6. EXTERIOR $\frac{5}{16}$ " X 6" STAR DRIVE LAG SCREW OR APPROVED EQUAL
7. TOP OF TOP RAIL - 2" BELOW TOP OF POST



DETAILS



CITY OF MISSOULA PARKS AND RECREATION DEPARTMENT 600 CREGG LANE MISSOULA, MT 59801

SHEET NUMBER: D-02
SHEET

REVISION
03/2024
DESIGNED MDH DRAWN MDH CHECKED MAR DATE 03/2024
RESPEC
WATER & NATURAL RESOURCES 360 VALLEY COMMONS SITE 4 BOX 2000 MONTANA 59718
WWW.RESPEC.COM PHONE: (406) 284-2525

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