





Purchasing Division
Finance Department
Room 120
411 West First Street
Duluth, Minnesota 55802

 218-730-5340
 purchasing@duluthmn.gov

Addendum 3
Solicitation 24-99198
Spirit Mountain Snowmobile Trail Construction

This addendum serves to notify all bidders of the following changes to the solicitation documents:

- Plan sheet 3 is revised and is attached to this addendum.
- Plan sheet 6 is revised and is attached to this addendum.
- Plan sheet 7 is revised and is attached to this addendum.
- Attached are four photos of the timber bridge that is outlined in the revised plan sheet.
- The Bid Form in BidExpress has been updated and is attached to this addendum.

Please acknowledge receipt of this Addendum by checking the acknowledgement box within the www.bidexpress.com solicitation.

Posted: **February 8, 2024**

CONSTRUCTION NOTES

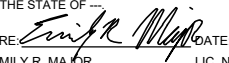
1. CLEARING OPERATIONS COMPLETED PREVIOUSLY BY OTHERS.
2. GRUBBING PAY ITEMS SHALL INCLUDE ALL LABOR AND MATERIALS ASSOCIATED WITH REMOVING ALL WOODY VEGETATION FROM THE LOWER NORDIC SKI CENTER TRAIL CORRIDORS. BRUSH AND STUMPS MAY BE CHIPPED AND DISTRIBUTED ONSITE. DISTRIBUTED MATERIAL MAY NOT EXCEED 4" DEPTH OR BE DISTRIBUTED IN WETLANDS. BRUSH AND STUMPS MAY BE BURNED AT DESIGNATED AREAS ONSITE. CONTRACTOR TO OBTAIN PRIOR CITY APPROVAL AND REQUIRED BURN PERMITS AS NECESSARY.
2. NATURAL STONE RETAINING WALL PAY ITEM SHALL INCLUDE ALL LABOR AND MATERIALS ASSOCIATED WITH CONSTRUCTING SHORT NATURAL STONE RETAINING WALLS WHERE NECESSARY TO MINIMIZE SOIL DISTURBANCES. NATURAL STONES FOR RETAINING WALLS EXIST ONSITE BUT MUST BE GATHERED AND INSTALLED BY CONTRACTOR.
3. COMMON EXCAVATION ITEM INCLUDES MATERIALS AND LABOR ASSOCIATED WITH GRADING TRAIL TO MAXIMUM CROSS SLOPE OF 5%. TRAIL CENTERLINE PROFILE IS EXPECTED TO REMAIN NEAR EXISTING GRADE WITH MINOR EXCAVATION TO CREATE THE TRAIL TYPICAL SECTION PER DETAILS. IT IS EXPECTED THAT EXCESS MATERIAL WILL BE DISTRIBUTED ONSITE, SEEDED AND STABILIZED PER THE SWPPP. STABILIZING EFFORTS FOR AREAS OF EXCESS FILL WILL BE CONSIDERED INCIDENTAL TO COMMON EXCAVATION PAY ITEM. CONTRACTOR MAY UTILIZE EXISTING OR CREATE NEW BORROW PITS WHERE APPROPRIATE TO GENERATE FILL MATERIAL. ALL DISTURBED AREAS TO BE SEEDED AND STABILIZED PER THE SWPPP. SEEDING AND STABILIZATION FOR BORROW PITS SHALL BE CONSIDERED INCIDENTAL.
4. GEOTEXTILE FABRIC ITEM TO INCLUDE LABOR AND MATERIALS ASSOCIATED WITH REINFORCING THE TRAIL OVER STORMWATER PIPING.
5. TRAIL GATE TYPE SPECIAL ITEM TO INCLUDE LABOR AND MATERIALS ASSOCIATED WITH FURNISHING AND INSTALLING SINGLE SWING GATES PER DETAILS. TRAIL GATES TO RESTRICT ALL MOTORIZED ACCESS OT THE TRAIL EXCEPT MAINTENANCE VEHICLES.
6. EROSION CONTROL BLANKET ITEM TO INCLUDE LABOR AND MATERIALS ASSOCIATED WITH STABILIZING ANY TRAIL GRADES OR BACKSLOPES GREATER THAN 1:3. STONE RETAINING WALLS MAY BE CONSTRUCTED IN LIEU OF 1:3 BACKSLOPES.
7. SEEDING ITEM SHALL INCLUDE ALL LABOR AND MATERIALS ASSOCIATED WITH STABILIZING THE TRAIL GRADE AND BACKSLOPES PER THE SWPPP. ALL DISTURBED AREAS MUST BE RE-ESTABLISHED WITH THE SPECIFIED SEED MIX.
8. STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AT SKYLINE PARKWAY.
9. SNOWMAKING UTILITY DESIGN COMPLETED BY OTHERS. SNOW PRODUCTION UTILITIES SHOWN FOR REFERENCE ONLY.
10. WORK OUTSIDE OF WETLANDS MAY BEGIN ONCE THE CONTRACTOR HAS RECEIVED THE NOTICE TO PROCEED FROM THE CITY. WORK INSIDE THE WETLANDS IS RESTRICTED TO CLEARING ACTIVITIES ONLY UNTIL WETLAND MITIGATION PROCESS HAS BEEN COMPLETED. NO GROUND DISTURBING ACTIVITIES ARE ALLOWED UNTIL THE MITIGATION PROCESS HAS BEEN COMPLETED.
11. FERTILIZER SHALL BE APPLIED PER THE SWPPP AND INCLUDED AS INCIDENTAL.
12. OWNER RESERVES THE RIGHT TO MAKE ADJUSTMENTS TO ALIGNMENTS IN THE FIELD DURING CONSTRUCTION OF TRAILS AT THEIR DISCRETION. UNIT PRICE QUANTITY ADJUSTMENTS SHALL BE ESTABLISHED AT THE TIME OF PROPOSED ADJUSTMENTS AND AGREED UPON BY OWNER AND CONTRACTOR.
13. CULVERT LOCATIONS SHALL BE FIELD VERIFIED SO THAT CULVERTS ARE PLACED IN APPROPRIATE LOCATIONS TO PROMOTE POSITIVE DRAINAGE. LOCATIONS MUST BE APPROVED BY OWNER PRIOR TO CULVERT PLACEMENT.

STATEMENT OF ESTIMATED QUANTITIES

LINE ITEM NO.	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITIES	NOTES
1	2021.501	MOBILIZATION	LUMP SUM	1	
2	2100.601	PEDESTRIAN BRIDGE (SUPERSTRUCTURE)	LUMP SUM	1	INCLUDES PLACING OF TEMPORARY ABUTMENTS AND SALVAGED BRIDGE STRUCTURE
3	2101.505	GRUBBING	EACH	64.00	
4	2105.607	COMMON EXCAVATION	CU YD	500	
5	2105.607	COMMON BORROW (LV)	CU YD	197	
6	2112.519	SUBGRADE PREPARATION	ROAD STA	51	
7	2118.507	AGGREGATE SURFACING (CV) CLASS SPECIAL	CU YD	10	CRUSHED LIMESTONE SURFACING
8	2118.507	AGGREGATE SURFACING (CV) CLASS 5	CU YD	280	
9	2501.502	18" CS PIPE APRON	EACH	2	
10	2501.503	12" HDPE PIPE CULVERT	LIN FT	214	
11	2501.503	18" HDPE PIPE CULVERT	LIN FT	124	
12	2511.507	RANDOM RIPRAP CLASS IV	CU YD	56	
13	2540.618	NATURAL STONE RETAINING WALL	LIN FT	450	ESTIMATED 667 LF AT A NOMINAL HEIGHT OF 2 FT
14		ROCK ARMORING	SQ YD	30	
15	2563.601	TRAFFIC CONTROL	LUMP SUM	1	
16	2564.502	SIGN PANEL TYPE C	SQ FT	34	INCLUDES INSTALLATION AND SIGN POSTS. SEE SIGN SCHEDULE
17	2573.502	STORM DRAIN INLET PROTECTION	EACH	3	
18	2573.502	CULVERT END CONTROLS	EACH	16	
19	2573.503	SEDIMENT CONTROL LOG TYPE COMPOST	LIN FT	8941	
20	2573.602	ROCK DITCH CHECK	EACH	44	
21	2575.505	SEEDING	ACRE	1.53	
22	2575.508	SEED MIXTURE 36-311	POUND	51	WOODLAND EDGE NORTHEAST. APPLICATION RATE = 33.5 LBS/ACRE
23	2575.604	ROLLED EROSION PREVENTION CATEGORY 25	SQ YD	5523	PLACE ON ALL SLOPES STEEPER THAN 1:3 (33.33%)
24	2104.503	REMOVE PIPE CULVERT	LIN FT	34	REMOVAL OF EXISTING APRONS INCIDENTAL
25	2557.503	WIRE FENCE DESIGN 72V-9322	LIN FT	320	

PLOT DATE: Feb 08, 2024 - 12:41pm
FILENAME: K:\a\iduluth_City\20747000\04_Production\01_CAD\02_Sheets\GENERAL LAYOUT.dwg

NO.	DATE	BY	DESCRIPTION OF REVISIONS
3	2/8/24	ERM	REVISED SEQ TABLE
1	2/2/24	ERM	REVISED SEQ TABLE

DESIGNED	ERM	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED ---- UNDER THE LAWS OF THE STATE OF ----  SIGNATURE: _____ DATE: 1/25/2024 NAME: EMILY R. MAJOR LIC. NO.: 52201
DRAWN	IDR	
CHECKED	ERM	



11 E. Superior Street, Suite 420
Duluth, MN 55802
218.724.8578
tkda.com

**SPIRIT MOUNTAIN
SNOWMOBILE TRAILS
CITY OF DULUTH, MINNESOTA**

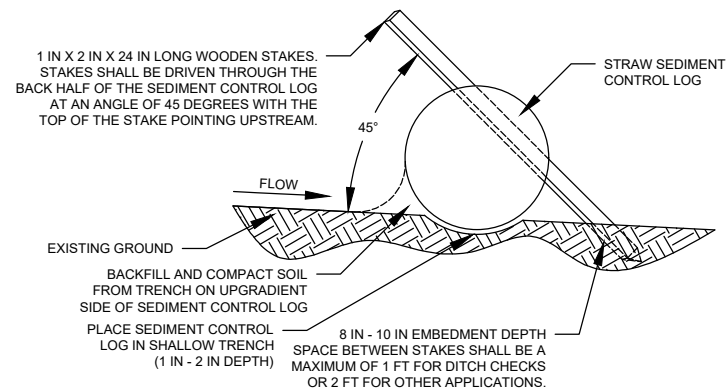
**STATEMENT OF
ESTIMATED QUANTITIES**

PROJ. NO. 20747.000
DRAWING NO. 3

SEDIMENT AND EROSION CONTROL NOTES:

THE CONTRACTOR SHALL SEQUENCE THEIR WORK AS FOLLOWS:

1. INSTALL SILT FENCE PRIOR TO GRADING OPERATIONS AND MAINTAIN THROUGHOUT CONSTRUCTION.
2. PROVIDE INTERIM INLET PROTECTION WITH SILT FENCE OR EQUIVALENT MEASURES FOR EXISTING CB'S AND/OR CULVERTS ON THE PROJECT SITE AND ANY OFF-SITE CB'S AND/OR CULVERTS RECEIVING DRAINAGE FROM THE PROJECT SITE.
3. INSTALL ROCK CONSTRUCTION ENTRANCE.
4. PROVIDE TEMPORARY COVER SEEDING ON ANY AREAS NOT WORKED FOR 21 DAYS ON FLATTER THAN 10:1 SLOPES, 14 DAYS ON 10:1 TO 3:1 SLOPES AND 7 DAYS ON STEEPER THAN 3:1 SLOPES.
5. COMPLETE GRADING OPERATIONS AND INSTALL PAVEMENTS, ESTABLISH TURF AND PROVIDE OTHER SITE IMPROVEMENTS.
6. INSTALL PERMANENT EROSION CONTROL (SODDING, SEEDING, MULCHING, EROSION CONTROL BLANKET, RIP RAP ETC.) ON ALL AREAS NOT ALREADY COMPLETED WITH FINAL TURF ESTABLISHMENT OR OTHER EROSION CONTROL.
7. REMOVE ROCK CONSTRUCTION ENTRANCE(S).
8. REMOVE SILT FENCE, ROCK CONSTRUCTION ENTRANCE AND CB INLET PROTECTION AFTER TURF IS ESTABLISHED.
9. NATURAL GROUND TRENCH, REMOVE ROCKS, OR PROTRUSIONS PRIOR TO PIPE PLACEMENT.



1 SEDIMENT CONTROL LOG DETAIL
6 NO SCALE

BRIDGE MATERIALS SCHEDULE			
ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITIES	NOTES
BRIDGE DECK SECTION	EACH	4	DIMENSIONS 8 FT X 16 FT
DECKING BOARDS	EACH	32	2X10 BOARDS, 8 FT LENGTHS
STRINGERS	EACH	7	2X10 BOARDS, 16 FT LENGTHS
TELEPHONE POLES	EACH	9	12 INCH AVERAGE DIAMETER, 32 FT LENGTHS

NOTE: THIS TABLE IS PROVIDED FOR INFORMATION ONLY. THESE MATERIALS ARE PROVIDED TO THE CONTRACTOR BY THE OWNER FOR THE SOLE PURPOSE OF CONSTRUCTING THE PEDESTRIAN BRIDGE (SUPERSTRUCTURE) BID ITEM. ANY UNUSED MATERIALS SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE RETURNED TO THE SPIRIT MOUNTAIN MAINTENANCE GARAGE YARD BY THE CONTRACTOR.

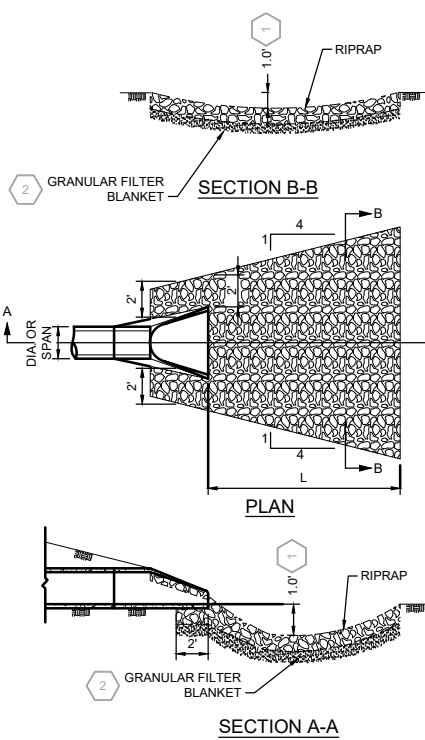


TABLE OF QUANTITIES RIPRAP AT OUTLETS

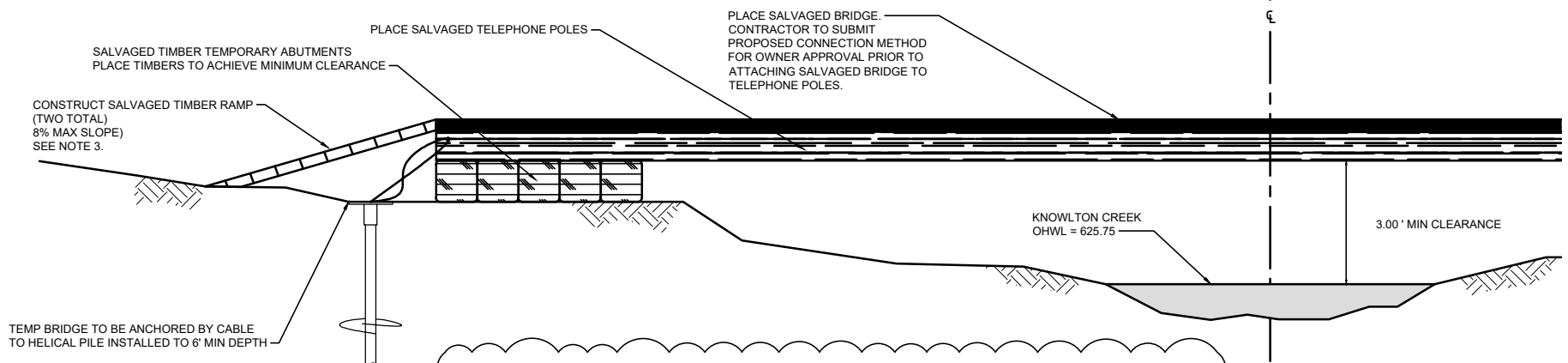
DIA OF ROUND PIPE (IN.)	L (FT.)	CLASS II d_{50} 6"		CLASS III d_{50} 9"		CLASS IV d_{50} 12"	
		12" DEPTH RIPRAP (CU. YDS.)	6" DEPTH GRANULAR FILTER (CU. YDS.)	18" DEPTH RIPRAP (CU. YDS.)	9" DEPTH GRANULAR FILTER (CU. YDS.)	24" DEPTH RIPRAP (CU. YDS.)	12" DEPTH GRANULAR FILTER (CU. YDS.)
12	8	2.8	1.4	4.1	2.1	5.5	2.8
15	8	2.9	1.5	4.4	2.2	5.8	2.9
18	10	3.9	2.0	5.9	3.0	7.8	3.9
21	10	4.2	2.1	6.3	3.2	8.4	4.2
24	12	5.5	2.8	8.3	4.2	11.0	5.5
27	12	5.8	2.9	8.7	4.4	11.6	5.8
30	14	7.3	3.7	10.9	5.5	14.5	7.3
36	16	9.2	4.6	13.8	6.9	18.3	9.2
42	18	10.9	5.5	16.3	8.2	21.7	10.9
48	20	12.9	6.5	19.4	9.7	25.8	12.9

TABLE OF QUANTITIES RIPRAP AT OUTLETS

SPAN OF PIPE ARCH (IN.)	L (FT.)	CLASS II d_{50} 6"		CLASS III d_{50} 9"		CLASS IV d_{50} 12"	
		12" DEPTH RIPRAP (CU. YDS.)	6" DEPTH GRANULAR FILTER (CU. YDS.)	18" DEPTH RIPRAP (CU. YDS.)	9" DEPTH GRANULAR FILTER (CU. YDS.)	24" DEPTH RIPRAP (CU. YDS.)	12" DEPTH GRANULAR FILTER (CU. YDS.)
22	10	3.9	2.0	5.9	3.0	7.8	3.9
28	12	5.5	2.8	8.2	4.1	10.9	5.5
36	14	7.2	3.8	10.8	5.4	14.3	7.2
43	16	9.2	4.6	13.7	6.9	18.3	9.2
51	18	10.9	5.5	16.3	8.2	21.7	10.9
58	20	12.7	6.4	19.0	9.5	25.4	12.7

- NOTES:
1. PIPE SIZES LARGER THAN THOSE SHOWN REQUIRE A SPECIAL DESIGN.
 2. REQUIREMENTS FOR RIPRAP SIZE AND THICKNESS AND GRANULAR FILTER BLANKET WILL BE DESIGNED WITH THE PLANS.
- KEY NOTES:
1. FOR PIPES GREATER THAN OR EQUAL TO 30", USE 1.5'
 2. THE CONTRACTOR, AT HIS OPTION, MAY SUBSTITUTE A GEOTEXTILE FABRIC, SPEC. 3733, FOR THE GRANULAR FILTER BLANKET UNLESS OTHERWISE SPECIFIED IN THE PLANS. THE FABRIC SHOULD COVER THE AREA OF THE RIPRAP AND EXTEND UNDER THE APRON 3 FT.

2 RIPRAP AT CULVERT OUTLETS
6 NO SCALE



- CONSTRUCTION NOTES:
1. BRIDGE TO BE INSTALLED PER MN DNR TEMPORARY BRIDGE STANDARDS.
 2. CONTRACTOR UNIT PRICE TO INCLUDE TRANSPORT OF SALVAGED BRIDGE AND MATERIALS (SEE TABLE ABOVE), ABUTMENT TIMBERS AND TELEPHONE POLES FROM SPIRIT MOUNTAIN MAINTENANCE GARAGE TO BRIDGE SITE, PLACEMENT OF SALVAGED TIMBERS, INSTALLATION OF HELICAL PILE ANCHOR AND CABLE TETHER, AND CONSTRUCTION AND INSTALLATION OF TWO WOODEN PLANK RAMPS ON EACH SIDE OF BRIDGE.
 3. BRIDGE DECK SECTIONS SHALL BE PLACED SO THAT TWO SECTIONS ARE SIDE BY SIDE TO CREATE FINAL BRIDGE DECK DIMENSIONS OF 16 FT X 32 FT.
 4. CONTRACTOR SHALL USE THE DECKING BOARDS PROVIDED BY OWNER (SEE TABLE ABOVE) TO CONSTRUCT SALVAGED TIMBER RAMP ON EACH END OF BRIDGE.
 5. PROPOSED RAMP CONSTRUCTION, CONNECTION OF RAMP TO BRIDGE DECK, AND TETHER METHOD TO HELICAL PILE SHALL BE SUBMITTED TO CITY AND ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

3 PEDESTRIAN BRIDGE (SUPERSTRUCTURE)
6 NO SCALE

PLOT DATE: Feb 07, 2024 - 3:36pm
FILENAME: K:\a\duluth_City\2024\7000\04_Production\01_CAD\02_Sheets\DETAILS.dwg

NO.	DATE	BY	DESCRIPTION OF REVISIONS
2	2/7/24	ERM	ADDED BRIDGE INFORMATION AND NOTES
1	2/2/24	ERM	REVISED BRIDGE DETAIL

DESIGNED: ERM
DRAWN: IDR
CHECKED: ERM

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

SIGNATURE: *Emily R. Major* DATE: 1/25/2024
NAME: EMILY R. MAJOR LIC. NO.: 52201

11 E. Superior Street, Suite 420
Duluth, MN 55802
218.724.8578
tkda.com

**SPIRIT MOUNTAIN
SNOWMOBILE TRAILS
CITY OF DULUTH, MINNESOTA**

DETAILS

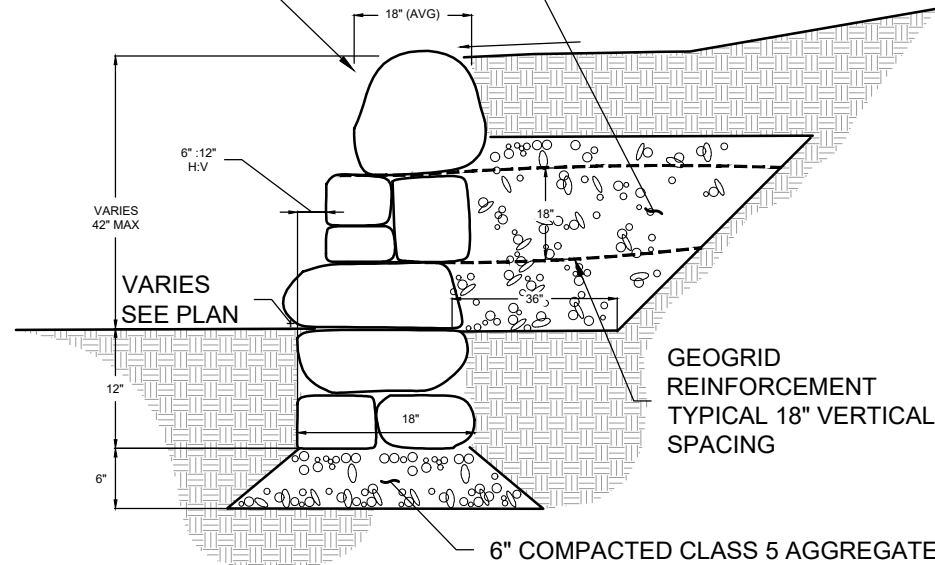
PROJ. NO. 20747.000
DRAWING NO. 6

NOTES:

1. STONE RETAINING WALL NECESSARY WHERE BACKSLOPE EXCEEDS 1:3 (H:V) SLOPE.
2. PAYMENT FOR STONE, GEOGRID, CLASS 5 AGGREGATE AND AND FREE DRAINING AGGREGATE SHALL BE CONSIDERED INCIDENTAL TO THE STONE RETAINING WALL PAY ITEM.
3. SUITABLE STONES (24" MINIMUM NOMINAL DIAMETER STONE SIZE) TO BE SALVAGED ONSITE. AVAILABILITY VARIES BETWEEN BRIDGE LOCATIONS. STONES NEED NOT BE CUT TO SQUARE BUT DRY STACKED. IMPORTED STONE SHALL BE CONSIDERED INCIDENTAL TO THE STONE RETAINING WALL PAY ITEM.

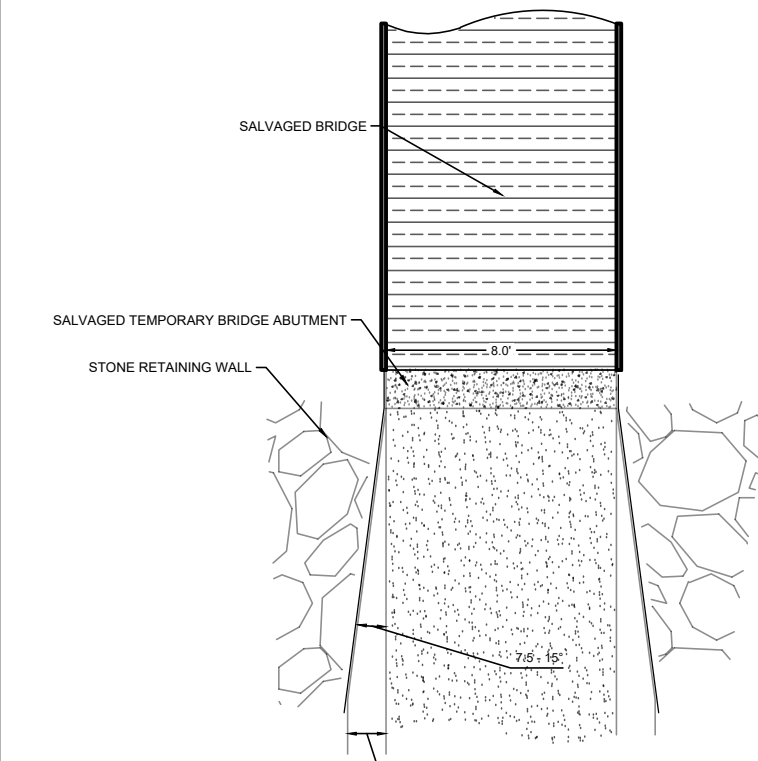
DRY STACKED NATURAL STONE RETAINING WALL

12" FREE DRAINING AGGREGATE



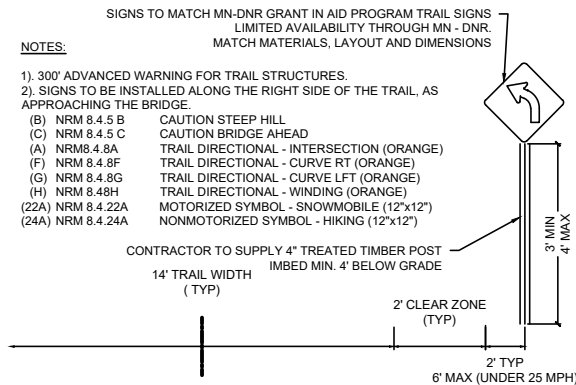
1 STONE RETAINING WALL

NO SCALE



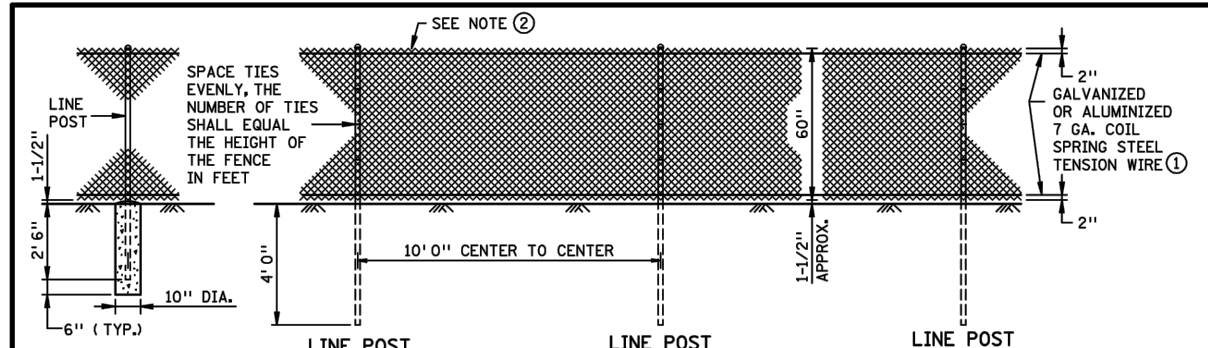
3 BRIDGE ABUTMENT LAYOUT - TYP.

NO SCALE

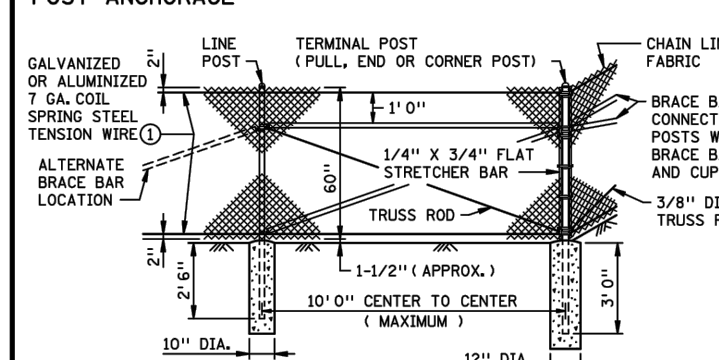


4 TRAIL TRAFFIC WARNING SIGN

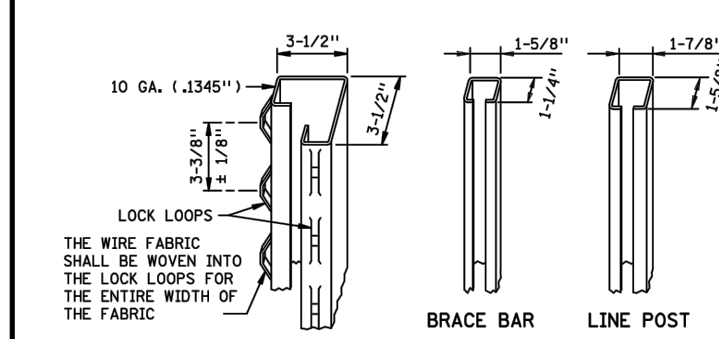
NO SCALE



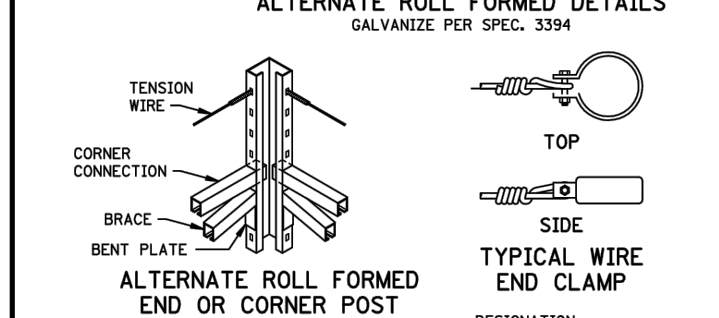
ALTERNATE LINE POST ANCHORAGE



PULL, END OR CORNER POST & ADJACENT LINE POST



ALTERNATE ROLL FORMED DETAILS GALVANIZE PER SPEC. 3394



ALTERNATE ROLL FORMED END OR CORNER POST TOP & BRACE RAIL CORNER CONNECTION

NOTES:

- TERMINAL POSTS SHALL BE: END, CORNER OR PULL POSTS, 8'-0" LONG NPS (NOMINAL PIPE SIZE) 2" NOMINAL (NOM.) INSIDE DIAMETER (I.D.) AASHTO M181, 3.65 LBS./FT. OR ASTM F1043 ROLL FORMED, (3-1/2" X 3-1/2") 5.10 LBS./FT.
- LINE POSTS SHALL BE: 7' 6" (CONCRETE BASE ONLY) OR 9'-0" LONG NPS 1-1/2" NOM. I.D. AASHTO M181, 2.72 LBS./FT. OR ASTM F1043 ROLL FORMED (1-5/8" X 1-7/8") 2.40 LBS./FT. MIN.
- BRACE BARS SHALL BE: NPS 1-1/4" NOM. I.D. AASHTO M181, 2.27 LBS./FT. OR ASTM F1043 ROLL FORMED (1-1/4" X 1-5/8") 1.35 LBS./FT.
- PULL POST SPACING NOT TO EXCEED 500 FT.
- CHAIN LINK FABRIC SHALL BE: 9 GA., 2 IN. MESH WITH KNUCKLED SELVAGE TOP AND BOTTOM, AND CONFORM TO THE REQUIREMENTS OF AASHTO M181 TYPE II OR IV. DESIGN 60-9322 SHALL BE FURNISHED IN TYPE II (ALUMINUM COATED STEEL). DESIGN 60V-9322 SHALL BE TYPE IV (VINYL COATED FABRIC).
- WIRE TIES MAY BE 9 GA. GALVANIZED OR ALUMINIZED STEEL OR 0.179 IN. MIN. ALUMINUM ALLOY CONFORMING TO ASTM B211, ALLOY 1100-H18. USE 12 GA. GALVANIZED STEEL OR 9 GAGE ALUMINUM ALLOY 1350-H19 HOG RINGS FOR TENSION WIRE TIES.
- WHERE THE FENCE MUST CROSS SMALL BODIES OF WATER, SUCH AS PONDS THAT FREEZE DURING THE WINTER, USE 11 GA. GALVANIZED OR ALUMINIZED STEEL OR 0.149 IN. ALUMINUM TIES. PROVIDE ONLY 2 TIES BETWEEN LINE POSTS.
- WHEN THE DRIVEN LINE POST ANCHORAGE IS USED, THE REQUIREMENTS FOR THE ALTERNATE CONCRETE ANCHORAGE IS WAIVED.
- A CONCRETE ANCHORAGE SHALL BE USED FOR ALL TERMINAL POSTS AND FOR FIRST LINE POST(S) ADJACENT TO THE TERMINAL POSTS.
- THE TOP OF THE CONCRETE ANCHORAGE SHALL BE CROWNED 1 IN. ABOVE THE NATURAL GROUND.
- ① A BOTTOM TENSION WIRE IS REQUIRED ONLY WHEN THE FENCE IS 10 FT. OR LESS FROM THE EDGE OF A ROADWAY SHOULDER.
- ② FENCES WITH A TENSION WIRE SHALL HAVE EITHER: AN ASTM F552 LINE POST CAP (LOOP TYPE), WITH THE TENSION WIRE PASSING THROUGH THE POST CAP WHEN USING ROUND POSTS; OR USE METHOD SHOWN IN "ALTERNATE ROLL FORMED END OR CORNER POST" DETAIL, IF USING ALTERNATE POSTS. A HOG RING SHALL ATTACH THE TENSION WIRE TO THE FABRIC AND SHALL BE LOCATED NO MORE THAN 6 IN. ON EACH SIDE OF A POST. ADDITIONAL HOG RINGS SHALL BE SPACED A MAXIMUM 18 IN. APART.
- SEE SHEET 2 OF 2 FOR GATE DETAILS.

APPROVED OCTOBER 21, 2008

M. Rakus
STATE DESIGN ENGINEER

DEPARTMENT OF TRANSPORTATION

CHAIN LINK FENCE
STEEL POSTS - LINE POSTS

SPECIFICATION REFERENCE

2557
REVISED 12-10-2008 M.J.E.

STANDARD PLATE NO.

9322K
1 OF 2

5 WIRE FENCE DESIGN 72V-9322

NO SCALE

PLOT DATE: Feb 08, 2024 - 12:45pm
FILENAME: K:\a\iduluth_City\20747000\04_Production\01_CAD\02_Sheets\DETAILS.dwg

NO.	DATE	BY	DESCRIPTION OF REVISIONS
3	2/8/24	ERM	REVISED FENCE DETAIL, REMOVED GATE DETAIL
1	2/2/24	ERM	ADDED FENCE DETAIL

DESIGNED	ERM	I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DRAWN	IDR	
CHECKED	ERM	SIGNATURE: <i>Emily R. Major</i> DATE: 1/25/2024 NAME: EMILY R. MAJOR LIC. NO.: 52201

11 E. Superior Street, Suite 420
Duluth, MN 55802
218.724.8578
tkda.com

TKDA

SPRIT MOUNTAIN
SNOWMOBILE TRAILS
CITY OF DULUTH, MINNESOTA

DETAILS

PROJ. NO. 20747.000
DRAWING NO. 7









ITEM NO.	MnDOT SPEC NO.	DESCRIPTION	UNIT	BASE QUANTITY
1	2021.501	MOBILIZATION	LUMP SUM	1
2	2100.601	PEDESTRIAN BRIDGE (SUPERSTRUCTURE)	LUMP SUM	1
3	2101.505	GRUBBING	EACH	64
4	2105.607	COMMON EXCAVATION	CUBIC YARD	500
5	2105.607	COMMON BORROW (LV)	CUBIC YARD	197
6	2112.519	SUBGRADE PREPARATION	ROAD STA	51
7	2118.507	AGGREGATE SURFACING (CV) CLASS SPECIAL	CUBIC YARD	10
8	2118.507	AGGREGATE SURFACING (CV) CLASS 2	CUBIC YARD	280
9	2501.502	18" CS PIPE APRON	EACH	2
10	2501.503	12" HDPE PIPE CULVERT	LINEAR FOOT	214
11	2501.503	18" HDPE PIPE CULVERT	LINEAR FOOT	124
12	2511.507	RANDOM RIPRAP CLASS III	CUBIC YARD	56
13	2540.618	NATURAL STONE RETAININT WALL	LINEAR FOOT	450
14	N/A	ROCK ARMORING	SQUARE YARD	30
15	2563.601	TRAFFIC CONTROL	LUMP SUM	1
16	2564.502	SIGN PANEL TYPE C	SQ FT	34
17	2573.502	STORM DRAIN INLET PROTECTION	EACH	3
18	2573.502	CULVERT END CONTROLS	EACH	16
19	2573.503	SEDIMENT CONTROL LOG TYPE COMPOST	LINEAR FOOT	8941
20	2573.602	ROCK DITCH CHECK	EACH	44
21	2575.502	SEEDING	ACRE	1.53
22	2575.508	SEED MIXTURE 36-311 (WOODLAND EDGE NE) (P)	POUND	51
23	2575.604	ROLLED EROSION PREVENTION CATEGORY 25	SQUARE YARD	5523
24	N/A	REMOVE PIPE CULVERT	LINEAR FOOT	24
25	N/A	WIRE FENCE DESIGN 72V-9322	LINEAR FOOT	320