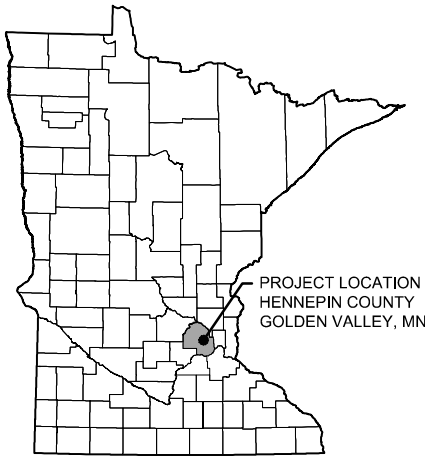


BASSETT CREEK MAIN STEM RESTORATION - PHASE 1

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION



MINNESOTA COUNTY MAP

CONTACTS:

ENGINEER CONTACT:

Jessica Olson
Barr Engineering Co.
325 South Lake Avenue
Duluth, MN 55802
218-259-7118
jolson@barr.com

OWNER'S REPRESENTATIVE CONTACT:

Laura Jester
Bassett Creek Watershed Management Commission
P.O. Box 270825
Golden Valley, MN 55427
952-270-1990
laura.jester@keystonewaters.com

PROPERTY OWNER'S REPRESENTATIVE:

Drew Chirpich
City of Golden Valley
7800 Golden Valley Road
Golden Valley, MN 55427
763-593-8044
dchirpich@goldenvalleymn.gov

GENERAL NOTES:

- CONTOUR DATA SHOWN IN THIS PLAN SET IS BASED ON SURVEY PERFORMED BY BARR ENGINEERING IN MARCH 2025 (LiDAR DRONE) AND APRIL 2025 (SURVEY-GRADE GPS).
- IMAGERY: NEARMAP PICTOMETRY LTD, AUGUST 2024.
- HORIZONTAL DATUM AND COORDINATE SYSTEM: HENNEPIN COUNTY COORDINATES, NAD83, US SURVEY FEET.
- VERTICAL DATUM: NAVD88.



GOPHER STATE ONE CALL:
CALL BEFORE YOU DIG.
1-800-252-1166



1 PLAN: PROJECT LOCATION
0 400 800
SCALE IN FEET

INDEX OF SHEETS

- G-01 TITLE SHEET, PROJECT LOCATION AND SHEET INDEX
G-02 ESTIMATED QUANTITIES, GENERAL NOTES, AND LEGEND
~~G-03 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)~~
~~G-04 STORMWATER POLLUTION PREVENTION PLAN (SWPPP)~~
G-05 EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN (STA. 0+00 - 9+00)
G-06 EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN (STA. 9+00 - 18+00)
G-07 EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN (STA. 18+00 - 27+00)
G-08 EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN (STA. 27+00 - 36+00)
G-09 EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN (STA. 36+00 - 45+00)
G-10 EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN (STA. 45+00 - 54+00)
G-11 EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN (STA. 54+00 - 63+00)
G-12 EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN (STA. 63+00 - 72+00)
G-13 EROSION CONTROL DETAILS

~~G-01 SITE LAYOUT~~

- C-02 STREAM RESTORATION PLAN & PROFILE (STA. 0+00 - 9+00)
C-03 STREAM RESTORATION PLAN & PROFILE (STA. 9+00 - 18+00)
C-04 STREAM RESTORATION PLAN & PROFILE (STA. 18+00 - 27+00)
C-05 STREAM RESTORATION PLAN & PROFILE (STA. 27+00 - 36+00)
C-06 STREAM RESTORATION PLAN & PROFILE (STA. 36+00 - 45+00)
C-07 STREAM RESTORATION PLAN & PROFILE (STA. 45+00 - 54+00)
C-08 STREAM RESTORATION PLAN & PROFILE (STA. 54+00 - 63+00)
C-09 STREAM RESTORATION PLAN & PROFILE (STA. 63+00 - 72+00)

~~C-10 STREAM CROSS SECTIONS~~

- C-11 STREAM STABILIZATION DETAILS
C-12 STREAM STABILIZATION DETAILS
C-13 STREAM STABILIZATION DETAILS
C-14 STREAM STABILIZATION DETAILS
C-15 STREAM STABILIZATION DETAILS
C-16 RAINWATER GARDEN DETAILS

~~R-01 RESTORATION PLAN (STA. 0+00 - 9+00)~~

- ~~R-02 RESTORATION PLAN (STA. 9+00 - 18+00)~~
~~R-03 RESTORATION PLAN (STA. 18+00 - 27+00)~~
~~R-04 RESTORATION PLAN (STA. 27+00 - 36+00)~~
~~R-05 RESTORATION PLAN (STA. 36+00 - 45+00)~~
~~R-06 RESTORATION PLAN (STA. 45+00 - 54+00)~~
~~R-07 RESTORATION PLAN (STA. 54+00 - 63+00)~~
~~R-08 RESTORATION PLAN (STA. 63+00 - 72+00)~~
~~R-09 RESTORATION DETAILS~~

INDEX ITEMS IN GRAY ARE PLACEHOLDERS
AND NOT INCLUDED IN THIS DRAWING SET.

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1/2" = 1' PLOT DATE: 7/9/2025 11:18 AM
CADD USER: BRIAN R. MICOLTE FILE: MDESIGN02372114_0002372114_G-01.DWG

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
TITLE SHEET, PROJECT LOCATION,
AND SHEET INDEX

BARR PROJECT #	23272114.00
DWG #	G-01
REV #	A

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

GENERAL NOTES:

TOPO AND CONTROL GROUND SURVEY CONDUCTED BY BARR ENGINEERING IN MARCH AND APRIL 2025 IN HENNEPIN COUNTY FEET PROJECTION.

IMAGERY: NEARMAP PICTOMETRY LTD, 2024.

- CONTRACTOR IS RESPONSIBLE TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES PRIOR TO WORK.
- MINIMIZE DISTURBANCE OF EXISTING VEGETATION, WITH THE EXCEPTION OF AREAS OF VEGETATION REMOVAL AS INDICATED ON THE DRAWINGS.
- DO NOT DISTURB TREES AND SHRUBS NOT MARKED FOR REMOVAL, INCLUDING MINIMIZING DISTURBANCE OF SOILS WITHIN THE TREE DRIPLINE, DO NOT STOCKPILE MATERIALS OR DRIVE VEHICLES/EQUIPMENT WITHIN TREE DRIPLINE(S) UNLESS APPROVED BY ENGINEER.
- AVOID OR MINIMIZE DISTURBANCE THROUGH ALL CONSTRUCTION ACCESS ROUTES, COORDINATE WITH CITY AND ADJACENT PROPERTY OWNERS TO FLAG SPECIFIC LANDSCAPING FOR PROTECTION.
- ALL EXISTING ROADS, PARKING LOTS, TRAILS, FENCES, SIGNS, OR SIMILAR SHALL BE PROTECTED DURING CONSTRUCTION, EXCEPT WHERE SHOWN ON PLANS FOR REMOVAL. CONTRACTOR RESPONSIBLE TO COORDINATE SURVEYS WITH THE CITY AND/OR OWNER TO DOCUMENT PRE-CONSTRUCTION EXISTING CONDITON ISSUES.
- CONTRACTOR SHALL INSTALL AND MAINTAIN ALL EROSION CONTROL BMPS PRIOR TO COMMENCEMENT OF GRADING FOR EACH LOCATION DURING CONSTRUCTION. EROSION CONTROL PLANS ARE PROVIDED INSIDE THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
- ALL GROUND DISTURBANCE GENERATED FROM GRADING ACTIVITIES SHALL BE STABILIZED AND RESTORED WITH TOPSOIL, SEED W/COVER CROP AND EROSION CONTROL BLANKET OR STRAW MULCH.
- CONTRACTOR TO MAINTAIN EXISTING STREAM BOTTOM WIDTH SO NOT TO DECREASE CREEK CROSS SECTIONAL AREA DURING RIPRAP INSTALLATION.
- CONSTRUCTION LIMITS AS SHOWN ARE APPROXIMATE FINAL CONSTRUCTION LIMITS TO BE COORDINATED WITH THE OWNER AND/OR ENGINEER AND STAKED IN THE FIELD.
- STREAM FEATURE LOCATIONS MAY BE FIELD FIT AS DIRECTED BY ENGINEER.
- SWEEP PAVEMENT DAILY, OR AS REQUIRED TO KEEP FROM TRACKING MATERIALS OFFSITE.
- REPAIR OR REMOVE ITEMS THAT ARE DAMAGED, REPAIR AND REPLACE DAMAGED ITEMS TO A CONDITION AT LEAST EQUAL TO THAT WHICH EXIST PRIOR TO THE START OF WORK.

13. OBTAIN ANY REQUIRED PERMITS, NOT PROVIDED BY THE ENGINEER, BEFORE PERFORMING TREE REMOVAL/PROTECTION NOTES:
- ADDITIONAL TREE REMOVALS MAY BE REQUESTED AND APPROVED AT TIME OF CONSTRUCTION.
 - ASH TREES MUST BE REMOVED BETWEEN OCTOBER 1ST AND APRIL 30TH AND TAKEN TO AN APPROVED SITE FOR DISPOSAL. CONTRACTOR MUST PROVIDE ASSURANCE THAT ASH TREES DO NOT LEAVE QUARANTINED AREA.
 - CONTRACTOR SHALL FOLLOW ALL ROAD RESTRICTION REGULATIONS WHEN REMOVING TREES.
 - LANDSCAPE ARCHITECT SHALL MARK ALL TREES FOR REMOVAL PRIOR TO ANY CONSTRUCTION ACTIVITY. COORDINATE WITH LANDSCAPE ARCHITECT TWO (2) WEEKS PRIOR TO CONSTRUCTION.
 - REMOVE AND DISPOSE OF ALL WOOD AND DEBRIS IN ACCORDANCE WITH ALL LOCAL RULES AND REGULATIONS.
 - CONTRACTOR TO VERIFY AND RECORD QUANTITY OF TREES REMOVED WITH DIAMETER GREATER THAN 6".
 - ALL TREES NOT MARKED FOR REMOVAL SHALL BE AVOIDED AND ANY GRADING OR COMPACTION WITHIN THE DRIPLINE SHALL BE MINIMIZED.
 - CONSTRUCTION MATERIALS, STOCKPILES, EQUIPMENT, AND TEMPORARY FACILITIES SHALL NOT BE STORED OR OPERATED WITHIN THE TREE PROTECTION ZONE (EQUAL TO DRIPLINE).
 - ROOTS OUTSIDE OF THE TREE PROTECTION ZONE EXPOSED OR DAMAGED DURING EXCAVATION OR OTHER CONSTRUCTION ACTIVITY SHALL BE CLEANLY CUT AS DIRECTED BY THE CITY FORESTER.
 - ADDITIONAL TREE PROTECTION MEASURES MAY BE REQUIRED.

EROSION & SEDIMENT CONTROL NOTES:

- INSTALL PERIMETER EROSION CONTROL AT THE LOCATIONS SHOWN ON THE PLANS PRIOR TO THE COMMENCEMENT OF ANY UPSLOPE LAND DISTURBANCE OR CONSTRUCTION ACTIVITIES.
- BEFORE BEGINNING CONSTRUCTION, INSTALL A TEMPORARY ROCK CONSTRUCTION ENTRANCE AT EACH POINT WHERE VEHICLES ENTER OR EXIT THE CONSTRUCTION SITE.
- INSTALL INLET PROTECTION AT ALL PUBLIC AND PRIVATE CATCH BASIN INLETS WHICH RECEIVE RUNOFF FROM THE DISTURBED AREAS. CONTRACTOR SHALL CLEAN, REMOVE SEDIMENT, OR REPLACE STORM DRAIN INLET PROTECTION DEVICES ON A ROUTINE BASIS SUCH THAT THE DEVICES ARE FULLY FUNCTIONAL FOR THE NEXT RAIN EVENT. SEDIMENT DEPOSITED IN AND/OR PLUGGING DRAINAGE SYSTEMS IS THE RESPONSIBILITY OF THE CONTRACTOR. HAY BALES OR FILTER FABRIC WRAPPED GRATES ARE NOT ALLOWED FOR INLET PROTECTION.
- LOCATE SOIL OR DIRT STOCKPILES NO LESS THAN 25 FEET FROM ANY PUBLIC OR PRIVATE ROADWAY OR DRAINAGE CHANNEL. IF REMAINING FOR MORE THAN SEVEN DAYS, STABILIZE THE STOCKPILES BY MULCHING, VEGETATIVE COVER, TARPS, OR OTHER MEANS. CONTROL EROSION FROM ALL STOCKPILES BY PLACING SILT BARRIERS AROUND THE PILES. TEMPORARY STOCKPILES LOCATED ON PAVED SURFACES MUST BE NO LESS THAN TWO FEET FROM THE DRAINAGE/GUTTER LINE AND SHALL BE COVERED IF LEFT MORE THAN 24 HOURS.
- NATURAL TOPOGRAPHY AND SOIL CONDITIONS MUST BE PROTECTED, INCLUDING RETENTION ONSITE OF NATIVE TOPSOIL TO THE GREATEST EXTENT POSSIBLE.
- ADDITIONAL MEASURES, SUCH AS HYDRAULIC MULCHING AND OTHER PRACTICES AS SPECIFIED BY THE WATERSHED MANAGEMENT COMMISSION MUST BE USED ON SLOPES OF 3:1 (H:V) OR STEEPER TO PROVIDE ADEQUATE STABILIZATION.
- CONSTRUCTION SITE WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE MUST BE PROPERLY MANAGED.
- ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMPS MUST BE MAINTAINED UNTIL COMPLETION OF CONSTRUCTION AND VEGETATION IS ESTABLISHED SUFFICIENTLY TO ENSURE STABILITY OF THE SITE, AS DETERMINED BY THE WATERSHED MANAGEMENT COMMISSION, AND ALL FINAL STABILIZATION REQUIREMENTS ARE ACHIEVED.
- ALL DISTURBED AREAS MUST BE STABILIZED WITHIN 7 CALENDAR DAYS AFTER LAND-DISTURBING WORK HAS TEMPORARILY OR PERMANENTLY CEASED ON A PROPERTY THAT DRAINS TO AN IMPAIRED WATER, WITHIN 14 DAYS ELSEWHERE.
- THE PERMITTEE MUST, AT A MINIMUM, INSPECT, MAINTAIN AND REPAIR ALL DISTURBED SURFACES AND ALL EROSION AND SEDIMENT CONTROL FACILITIES AND SOIL STABILIZATION MEASURES EVERY DAY WORK IS PERFORMED ON THE SITE AND AT LEAST WEEKLY UNTIL LAND-DISTURBING ACTIVITY HAS CEASED, THEREAFTER, THE PERMITTEE MUST PERFORM THESE RESPONSIBILITIES AT LEAST WEEKLY UNTIL VEGETATIVE COVER IS ESTABLISHED. THE PERMITTEE WILL MAINTAIN A LOG OF ACTIVITIES UNDER THIS SECTION FOR INSPECTION BY THE DISTRICT ON REQUEST.
- CHANGES TO APPROVED EROSION CONTROL PLAN MUST BE APPROVED BY THE EROSION CONTROL INSPECTOR PRIOR TO IMPLEMENTATION. CONTRACTOR TO PROVIDE INSTALLATION AND DETAILS FOR ALL PROPOSED ALTERNATE TYPE DEVICES.
- IF DEWATERING OR PUMPING OF WATER IS NECESSARY, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND/OR APPROVALS PRIOR TO DISCHARGE OF ANY WATER FROM THE SITE. IF THE DISCHARGE FROM THE DEWATERING OR PUMPING PROCESS IS TURBID OR CONTAINS SEDIMENT LADEN WATER, IT MUST BE TREATED THROUGH THE USE OF SEDIMENT TRAPS, VEGETATIVE FILTER STRIPS, OR OTHER SEDIMENT REDUCING MEASURES SUCH THAT THE DISCHARGE IS NOT VISIBLY DIFFERENT FROM THE RECEIVING WATER. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AT THE DISCHARGE POINT TO PREVENT SCOUR EROSION.
- ACTIVITIES MUST BE CONDUCTED SO AS TO MINIMIZE THE POTENTIAL TRANSFER OF AQUATIC INVASIVE SPECIES (E.G., ZEBRA MUSSELS, EURASIAN WATERMILFOIL, ETC.) TO THE MAXIMUM EXTENT POSSIBLE. SEE SECTION 4.6 OF THE SWPPP (SHEET G-03) FOR FURTHER DETAIL.
- WHEREVER CONSTRUCTION ACCESS ROUTE CROSSES EXISTING TRAILS, PROTECT WITH MATTING OR ENGINEER-APPROVED ALTERNATIVE.

STATEMENT OF ESTIMATED QUANTITIES

SEQ TO BE PROVIDED

MASTER LEGEND

- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING PROPERTY LINE
- EXISTING EASEMENT
- EXISTING STORM SEWER
- EXISTING SANITARY SEWER
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING WATERMAIN
- EXISTING UNDERGROUND FIBER OPTIC
- EXISTING FENCE
- EXISTING WETLAND DELINEATION
- OHWL
- 100-YEAR HWL
- CONSTRUCTION LIMITS
- EXISTING LIGHT POLE
- EXISTING UTILITY POLE
- EXISTING HYDRANT
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING TREE
- EXISTING TREE REMOVAL
- EXISTING TREE PROTECTION
- PROPOSED 5' CONTOUR
(NOT INCLUDED IN 50% PLANS)
- PROPOSED 1' CONTOUR
(NOT INCLUDED IN 50% PLANS)
- PROPOSED TREE PROTECTION FENCING
- TREE IDENTIFICATION NUMBER, SEE TABLE FOR TREE SURVEY AND TREE REMOVAL SUMMARY
- PROPOSED STORM SEWER
- RIPRAP
- TOE WOOD
- VRSS
- GRADING AREA
- GRADING WITH LIVE STAKES/PLANTINGS
- ROOT WAD
- BOULDER CROSS VANE
- J-HOOK BOULDER VANE
- COIR LOGS
- FASCINES
- SILT FENCE
- SEDIMENT CONTROL LOGS
- CONSTRUCTION ACCESS
- INLET PROTECTION

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

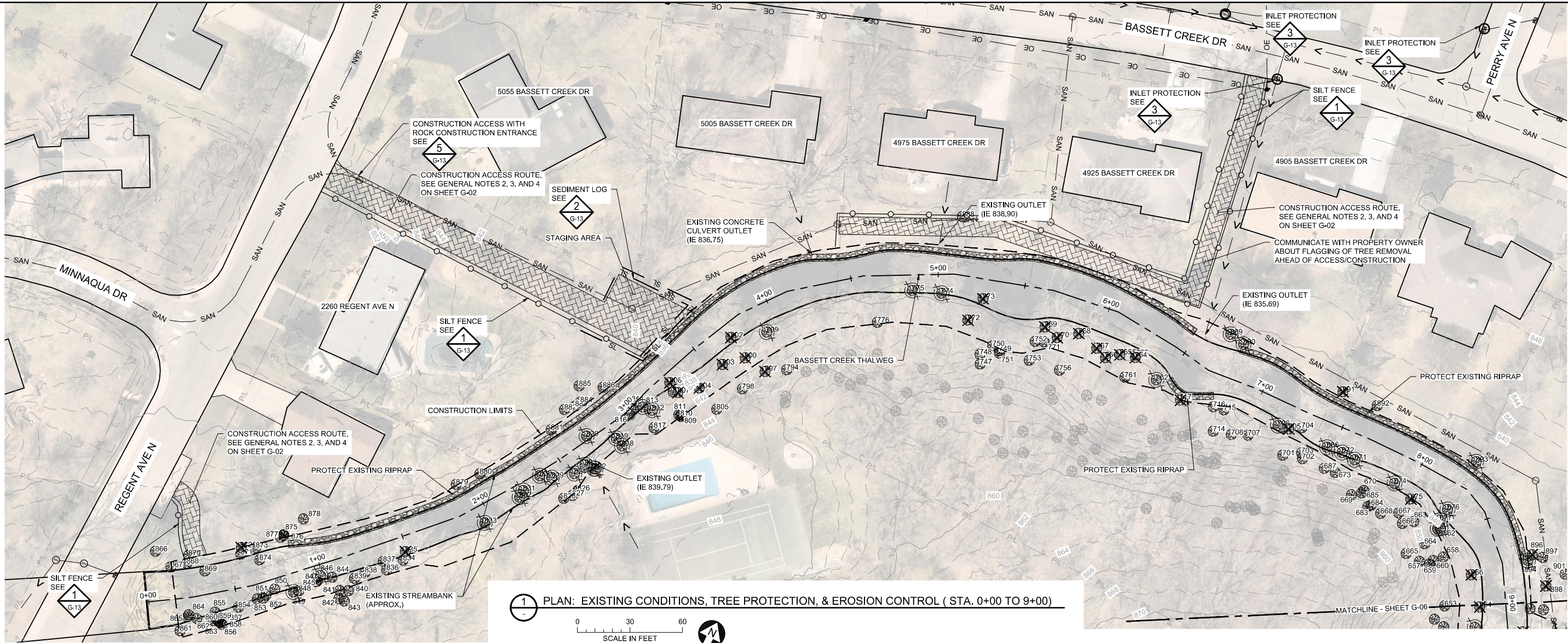
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
ESTIMATED QUANTITIES, GENERAL NOTES, AND LEGEND

BARR PROJECT #	23272114.00
DWG #	G-02
REV #	A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED 8 (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/9/2025 1:19 AM
CADD USER: BRIAN R. MINOLTE FILE: MDESIGN23272114.0023272114_G-05.DWG



TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
653	Ash/Green	12	Dead	
654	Box Elder	16	Dead	X
656	Box Elder	8	Dead	X
657	Basswood/American	20	Healthy	
658	Basswood/American	23	Healthy	
659	Basswood/American	8	Healthy	
660	Ironwood	5	Healthy	
661	Basswood/American	18	Healthy	
662	Basswood/American	23	Healthy	
663	Basswood/American	8	Healthy	
664	Basswood/American	13	Healthy	
665	Ironwood	4	Healthy	
666	Oak/Bur	23	Healthy	
667	Ironwood	4	Healthy	
668	Ironwood	5	Healthy	
669	Ironwood	8	Healthy	
670	Ironwood	7	Healthy	
671	Ironwood	7	Healthy	
672	Birch/Paper	13	Healthy	
673	Ironwood	5	Healthy	
674	Ironwood	4	Healthy	
675	Buckthorn	4	Healthy	X
676	Basswood/American	17	Healthy	
677	Basswood/American	8	Healthy	
683	Ash/Green	12	Dead	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
684	Ironwood	9	Healthy	
685	Ironwood	8	Healthy	
686	Ironwood	4	Healthy	
687	Ironwood	5	Healthy	
701	Basswood/American	25	Healthy	
702	Ironwood	9	Healthy	
703	Ironwood	6	Healthy	
704	Ash/Green	17	Dead	
705	Buckthorn	6	Healthy	X
706	Basswood/American	21	Healthy	
707	Basswood/American	25	Healthy	
708	Basswood/American	22	Healthy	
714	Ironwood	5	Healthy	
715	Kentucky Coffeetree	5	Healthy	
716	Box Elder	18	Healthy	
717	Buckthorn	5	Healthy	X
747	Basswood/American	25	Healthy	
748	Basswood/American	24	Dead	
749	Ironwood	5	Healthy	
750	Ironwood	4	Healthy	
751	Elm/American	12	Healthy	
752	Oak/Bur	15	Healthy	
753	Oak/Bur	18	Dead	
756	Oak/Bur	23	Healthy	
761	Box Elder	10	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
762	Box Elder	13	Healthy	
763	Ash/Black	6	Healthy	
764	Buckthorn	4	Healthy	X
765	Buckthorn	4	Healthy	X
766	Buckthorn	7	Healthy	X
767	Box Elder	10	Healthy	X
768	Ash/Green	7	Healthy	X
769	Buckthorn	6	Healthy	X
770	Buckthorn	4	Healthy	X
771	Ash/White	11	Dead	
772	Basswood/American	8	Healthy	X
773	Ash/Green	14	Dead	X
774	Basswood/American	23	Healthy	
775	Cedar/White	11	Healthy	
776	Box Elder	15	Healthy	
794	Box Elder	14	Healthy	
797	Buckthorn	5	Healthy	X
798	Oak/Bur	26	Dead	
799	Hackberry	12	Healthy	
800	Buckthorn	4	Healthy	X
802	Box Elder	13	Healthy	X
803	Box Elder	4	Healthy	X
804	Box Elder	12	Healthy	X
805	Maple/Red	13	Healthy	
806	Box Elder	15	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
807	Box Elder	5	Healthy	X
808	Elm/American	4	Healthy	X
809	Birch/River	12	Healthy	
810	Birch/River	11	Healthy	
811	Birch/River	11	Healthy	
812	Mulberry	5	Healthy	
813	Elm/American	5	Healthy	
814	Ash/Green	6	Healthy	
815	Ash/Green	6	Healthy	
816	Ash/Green	13	Healthy	
817	Maple/Silver	15	Healthy	
818	Maple/Silver	13	Healthy	
819	Ash/Green	6	Healthy	
820	Elm/American	9	Healthy	
821	Maple/Silver	16	Healthy	
822	Maple/Silver	13	Healthy	
823	Maple/Silver	10	Healthy	
824	Maple/Silver	16	Healthy	
825	Birch/River	16	Healthy	
826	Birch/River	10	Healthy	
827	Birch/River	15	Healthy	
828	Birch/River	9	Healthy	
829	Box Elder	10	Healthy	
830	Mulberry	8	Healthy	
831	Mulberry	14	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
832	Mulberry	16	Healthy	
833	Elm/American	4	Healthy	
834	Maple/Silver	26	Healthy	
835	Box Elder	8	Healthy	X
836	Ash/Green	5	Healthy	
837	Maple/Silver	23	Healthy	
838	Maple/Silver	14	Healthy	
839	Maple/Red	7	Healthy	
840	Cottonwood	11	Healthy	
841	Cottonwood	28	Healthy	
842	Maple/Silver	13	Healthy	
843	Maple/Silver	13	Healthy	
844	Ash/Green	4	Healthy	
845	Ash/Green	10	Healthy	
846	Elm/American	15	Healthy	
847	Ash/White	4	Dead	
848	Elm/American	11	Healthy	
849	Elm/American	12	Healthy	
850	Ash/Green	4	Dying	
851	Elm/American	5	Healthy	
852	Elm/American	4	Healthy	
853	Elm/American	5	Healthy	
854	Ash/Green	12	Dying	
855	Elm/American	12	Healthy	
856	Ash/Green	14	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
857	Ash/Green	4	Healthy	
858	Ash/Green	4	Healthy	
859	Elm/American	6	Healthy	
860	Elm/American	4	Healthy	
861	Ash/Green	14	Dying	
862	Elm/American	5	Healthy	
863	Ash/Green	17	Dying	
864	Ash/Green	16	Healthy	
865	Willow/Black	35	Healthy	
866	Pine/Austrian	16	Healthy	
867	Mulberry	11	Healthy	
868	Elm/American	5	Healthy	
869	Elm/American	6	Healthy	
870	Pine/Austrian	16	Healthy	
871	Elm/American	11	Healthy	
872	Buckthorn	4	Healthy	X
873	Elm/American	12	Healthy	
874	Elm/American	7	Healthy	
875	Elm/American	13	Healthy	
876	Ash/Green	8	Healthy	
877	Elm/American	5	Healthy	
878	Elm/American	17	Healthy	
879	Mulberry	5	Healthy	
880	Elm/American	4	Healthy	
881	Box Elder	10	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
882	Spruce/Black	8	Healthy	
883	Maple/Silver	13	Healthy	
884	Maple/Silver	17	Healthy	
885	Spruce/Black	15	Healthy	
886	Box Elder	5	Healthy	
888	Birch/River	25	Healthy	
889	Mulberry	7	Healthy	
890	Maple/Silver	26	Healthy	
891	Box Elder	25	Healthy	X
892	Elm/American	5	Healthy	
893	Oak/Pin	25	Healthy	
894	Elm/American	23	Healthy	
896	Buckthorn	5	Healthy	X
897	Elm/American	16	Healthy	
898	Buckthorn	5	Healthy	X
901	Elm/American	11	Healthy	

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

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.

PRINTED NAME: _____

SIGNATURE: _____

DATE: _____ LICENSE #: _____

-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION

BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

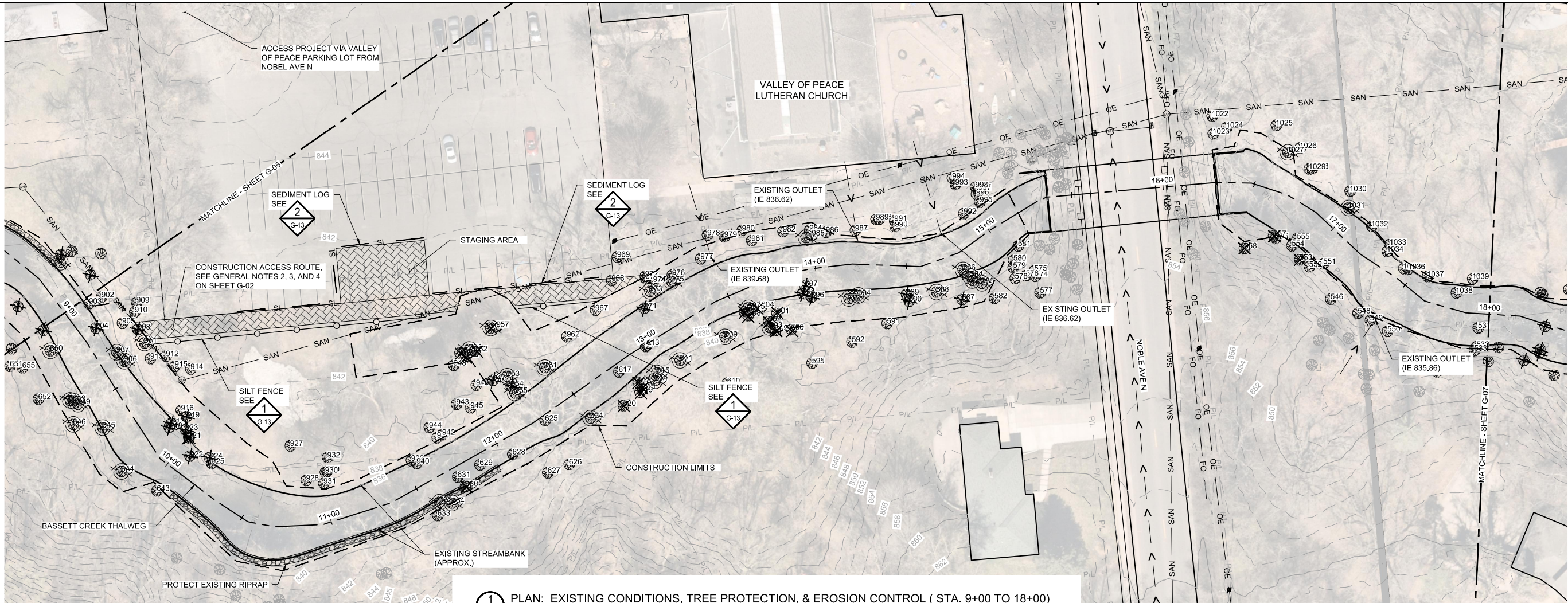
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 1010411545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN
(STA. 0+00 TO 9+00)

BARR PROJECT #	23272114.00
DWG #	G-05
REV #	A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED 8 (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/8/2025 3:31 PM
CADD USER: BRIAN R. MIHOLTE FILE: MDESIGN02372114.002372114_G-05.DWG



1 PLAN: EXISTING CONDITIONS, TREE PROTECTION, & EROSION CONTROL (STA. 9+00 TO 18+00)



TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
531	Ash/Green	8	Healthy	
532	Ironwood	4	Healthy	
533	Hackberry	4	Healthy	
534	Basswood/American	22	Healthy	
535	Hackberry	5	Healthy	
546	Ironwood	8	Healthy	
548	Ironwood	5	Healthy	
549	Ironwood	7	Healthy	
550	Ironwood	7	Healthy	
551	Ironwood	7	Healthy	
552	Ironwood	7	Healthy	
553	Buckthorn	4	Healthy	X
554	Birch/Paper	5	Dead	
555	Ash/Green	5	Healthy	
556	Ash/Green	6	Healthy	X
557	Buckthorn	5	Healthy	X
558	Buckthorn	5	Healthy	X
574	Box Elder	9	Healthy	
575	Ash/Green	7	Healthy	
576	Maple/Silver	11	Healthy	
577	Ash/Green	6	Healthy	
578	Ash/Green	4	Healthy	
579	Ash/Green	12	Healthy	
580	Ash/Green	7	Healthy	
581	Elm/Siberian	6	Healthy	
582	Ash/Green	7	Healthy	
583	Cottonwood	10	Healthy	
584	Cottonwood	10	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
585	Box Elder	9	Healthy	
586	Maple/Silver	8	Healthy	
587	Box Elder	13	Dead	X
588	Walnut/Black	4	Healthy	
589	Ash/Green	10	Dead	X
590	Ash/Green	4	Healthy	X
591	Box Elder	14	Healthy	
592	Ash/Green	4	Healthy	
593	Box Elder	13	Healthy	
594	Box Elder	10	Healthy	
595	Box Elder	11	Healthy	
596	Ash/Green	15	Dead	X
597	Box Elder	9	Healthy	X
598	Elm/American	4	Healthy	X
599	Buckthorn	6	Healthy	X
600	Buckthorn	4	Healthy	X
601	Buckthorn	6	Healthy	X
602	Buckthorn	4	Healthy	X
603	Cottonwood	46	Healthy	
604	Mulberry	4	Healthy	
605	Buckthorn	5	Healthy	X
606	Buckthorn	6	Healthy	X
607	Basswood/American	12	Healthy	
608	Buckthorn	7	Healthy	X
609	Basswood/American	5	Healthy	
610	Cottonwood	40	Healthy	
611	Basswood/American	11	Healthy	
612	Basswood/American	6	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
613	Basswood/American	12	Healthy	
614	Basswood/American	6	Healthy	
615	Basswood/American	9	Healthy	
616	Buckthorn	4	Healthy	X
617	Basswood/American	11	Healthy	
618	Buckthorn	4	Healthy	X
619	Buckthorn	6	Healthy	X
620	Buckthorn	4	Healthy	X
624	Basswood/American	7	Healthy	
625	Cottonwood	45	Healthy	
626	Burning Bush	5	Healthy	
627	Basswood/American	7	Healthy	
628	Box Elder	15	Healthy	
629	Cherry/Sp	5	Healthy	
630	Buckthorn	4	Healthy	X
631	Box Elder	4	Healthy	
632	Basswood/American	6	Healthy	
633	Basswood/American	16	Healthy	
634	Basswood/American	7	Healthy	
643	Ash/Green	4	Healthy	
644	Mulberry	10	Healthy	
645	Box Elder	13	Healthy	
646	Box Elder	13	Healthy	
647	Box Elder	10	Healthy	
648	Buckeye	5	Healthy	
649	Box Elder	15	Healthy	
650	Box Elder	16	Healthy	
651	Box Elder	8	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
652	Box Elder	15	Healthy	
655	Buckthorn	5	Healthy	
902	Cottonwood	36	Healthy	
903	Elm/American	8	Healthy	
904	Ash/White	4	Healthy	X
905	Cottonwood	36	Healthy	
906	Basswood/American	7	Healthy	
907	Box Elder	12	Healthy	
908	Cottonwood	10	Dead	X
909	Basswood/American	11	Healthy	
910	Basswood/American	13	Healthy	
911	Box Elder	10	Healthy	
912	Elm/American	7	Healthy	
913	Cottonwood	31	Healthy	
914	Ash/Green	7	Healthy	
915	Elm/American	12	Healthy	
916	Elm/American	12	Healthy	
917	Ash/Green	7	Healthy	X
918	Ash/Green	5	Healthy	X
919	Ash/Green	11	Dead	X
920	Box Elder	13	Dead	
921	Buckthorn	4	Healthy	X
922	Ash/Green	13	Healthy	X
923	Ash/Green	10	Healthy	X
924	Ash/Green	13	Dead	X
925	Elm/American	8	Healthy	
927	Ash/Green	10	Healthy	
928	Elm/American	7	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
929	Ash/Black	5	Healthy	
930	Ash/Black	4	Healthy	
931	Elm/American	17	Healthy	
932	Elm/American	23	Healthy	
939	Basswood/American	10	Healthy	
940	Basswood/American	14	Healthy	
941	Elm/American	16	Healthy	
942	Elm/American	16	Healthy	
943	Elm/American	9	Healthy	
944	Elm/American	11	Healthy	
945	Box Elder	12	Healthy	
946	Ash/Green	12	Healthy	
947	Ash/Green	8	Dead	X
948	Maple/Red	7	Healthy	
949	Buckthorn	4	Healthy	X
950	Buckthorn	4	Healthy	X
951	Maple/Red	4	Healthy	
952	Buckthorn	4	Healthy	X
953	Mulberry	5	Healthy	
954	Honeysuckle/Tatarian	5	Healthy	X
955	Hackberry	4	Healthy	
956	Buckthorn	5	Healthy	X
957	Mulberry	5	Healthy	
961	Box Elder	12	Healthy	
962	Elm/American	11	Healthy	
967	Ash/Green	10	Healthy	
968	Elm/American	17	Healthy	
969	Buckeye	4	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
970	Ash/Green	6	Healthy	
971	Box Elder	5	Healthy	X
972	Elm/American	6	Healthy	
973	Cottonwood	32	Healthy	
974	Elm/American	4	Healthy	
975	Elm/American	10	Healthy	
976	Mulberry	13	Healthy	
977	Elm/American	4	Healthy	
978	Ash/Green	4	Healthy	
979	Box Elder	4	Healthy	
980	Ash/Green	6	Healthy	
981	Box Elder	15	Healthy	
982	Mulberry	13	Healthy	
983	Hackberry	5	Healthy	
984	Elm/American	8	Healthy	
985	Elm/American	16	Healthy	
986	Mulberry	8	Healthy	
987	Mulberry	4	Healthy	
988	Ash/Green	15	Healthy	
989	Cherry/Sp	4	Healthy	
990	Cottonwood	33	Healthy	
991	Box Elder	16	Healthy	
992	Elm/American	5	Healthy	
993	Mulberry	5	Healthy	
994	Mulberry	6	Healthy	
995	Ash/Green	4	Healthy	
996	Maple/Red	11	Dead	
997	Mulberry	14	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
998	Cherry/Sp	4	Healthy	
1022	Cottonwood	40	Healthy	
1023	Elm/American	10	Healthy	
1024	Elm/American	10	Healthy	
1025	Willow/Black	35	Dead	
1026	Hackberry	9	Healthy	
1027	Elm/American	8	Healthy	
1028	Hackberry	13	Healthy	
1029	Hackberry	10	Healthy	
1030	Hackberry	4	Healthy	
1031	Maple/Silver	11	Healthy	
1032	Ash/Green	18	Healthy	
1033	Hackberry	18	Healthy	
1034	Hackberry	16	Healthy	
1035	Maple/Silver	12	Healthy	
1036	Ash/Green	5	Healthy	
1037	Ash/Green	18	Dying	
1038	Box Elder	17	Healthy	
1039	Ash/Green	17	Healthy	

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

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.

PRINTED NAME: _____

SIGNATURE: _____

DATE: _____ LICENSE #: _____

-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION



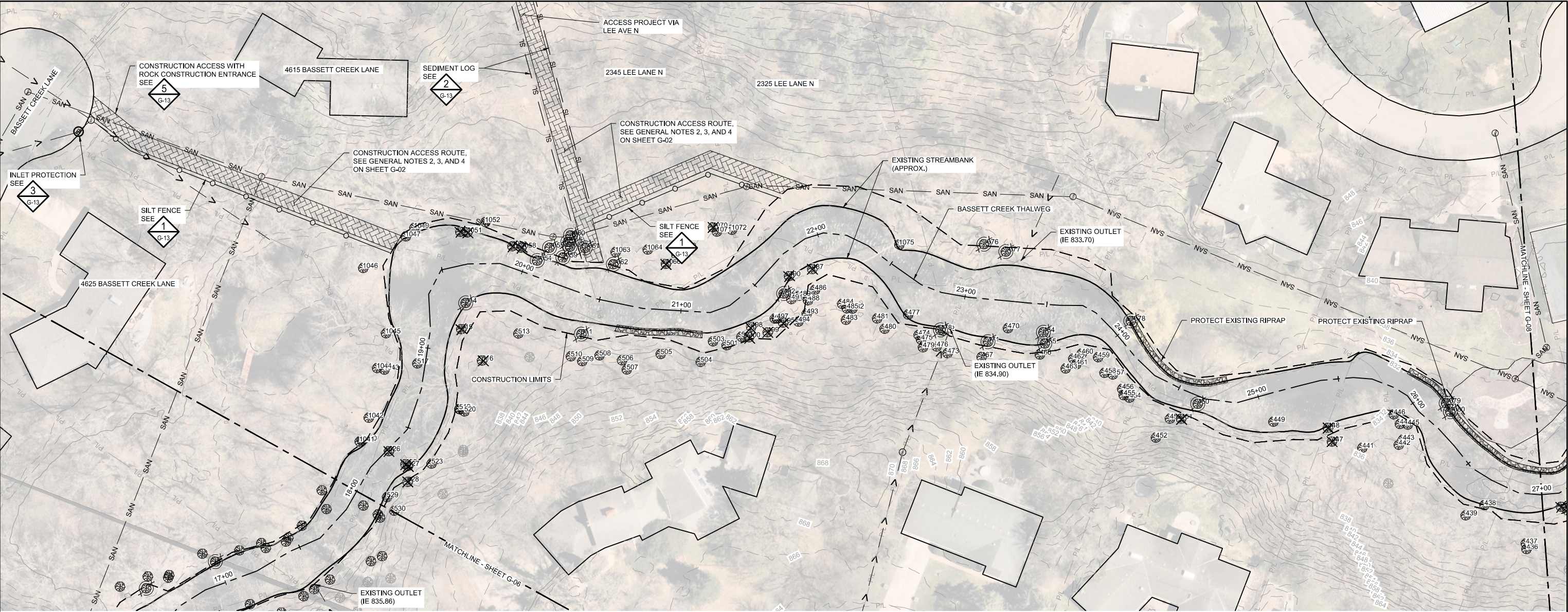
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 1010411545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN
(STA. 9+00 TO 18+00)

BARR PROJECT #	23272114.00
DWG #	G-06
REV #	A



1 PLAN: EXISTING CONDITIONS, TREE PROTECTION, & EROSION CONTROL (STA. 18+00 TO 27+00)



TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
436	Box Elder	13	Healthy		457	Hackberry	11	Healthy		477	Basswood/American	10	Healthy		497	Box Elder	20	Healthy		518	Maple/Silver	32	Healthy		1051	Buckthorn	6	Healthy	X
437	Box Elder	15	Healthy		458	Hackberry	13	Healthy		478	Hackberry	10	Healthy		498	Buckthorn	4	Healthy	X	519	Box Elder	6	Healthy		1052	Box Elder	20	Healthy	
438	Elm/American	15	Healthy		459	Box Elder	8	Dead		479	Basswood/American	4	Healthy		499	Buckthorn	4	Healthy	X	520	Ash/Green	4	Healthy		1053	Box Elder	10	Healthy	X
439	Ash/Green	10	Healthy		460	Box Elder	5	Dead		480	Walnut/Black	8	Healthy		500	Buckthorn	4	Healthy	X	523	Box Elder	6	Healthy		1054	Cottonwood	31	Healthy	
441	Box Elder	15	Healthy		461	Cherry/Sp	5	Healthy		481	Box Elder	19	Dead		501	Box Elder	7	Healthy		525	Buckthorn	4	Healthy	X	1055	Cottonwood	31	Healthy	
442	Box Elder	11	Healthy		462	Box Elder	20	Healthy		482	Box Elder	18	Dying		502	Basswood/American	23	Dead		526	Buckthorn	5	Healthy	X	1056	Cottonwood	36	Healthy	
443	Box Elder	13	Healthy		463	Cherry/Black	5	Healthy		483	Cherry/Sp	6	Healthy		503	Box Elder	4	Healthy		527	Buckthorn	4	Healthy	X	1057	Elm/American	31	Healthy	
444	Box Elder	14	Healthy		464	Cherry/Black	8	Healthy		484	Cherry/Sp	10	Healthy		504	Basswood/American	18	Healthy		528	Buckthorn	4	Healthy	X	1058	Box Elder	10	Healthy	X
445	Elm/Siberian	5	Healthy		465	Cherry/Sp	7	Healthy		485	Box Elder	9	Healthy		505	Basswood/American	21	Healthy		529	Ironwood	7	Healthy		1059	Box Elder	12	Healthy	
446	Box Elder	12	Healthy		466	Box Elder	7	Healthy		486	Canada Plum	4	Healthy		506	Ash/White	10	Healthy		530	Box Elder	9	Healthy		1060	Box Elder	9	Healthy	
447	Buckthorn	6	Healthy	X	467	Box Elder	13	Dead		487	Buckthorn	7	Healthy	X	507	Ash/Green	15	Healthy		1040	Ash/Green	5	Healthy		1061	Box Elder	13	Healthy	
448	Buckthorn	5	Healthy	X	468	Cherry/Sp	8	Healthy		488	Cherry/Sp	7	Healthy		508	Box Elder	13	Healthy		1041	Ash/Green	8	Healthy		1062	Box Elder	12	Healthy	
449	Mulberry	7	Healthy		469	Box Elder	14	Healthy		489	Cherry/Sp	6	Healthy		509	Basswood/American	14	Healthy		1042	Maple/Silver	16	Healthy		1063	Ash/Green	4	Healthy	
450	Elm/American	13	Healthy		470	Basswood/American	6	Healthy		490	Box Elder	11	Healthy	X	510	Basswood/American	10	Healthy		1043	Hackberry	11	Healthy		1064	Box Elder	5	Healthy	
451	Buckthorn	4	Healthy	X	471	Basswood/American	15	Healthy		491	Maple/Silver	15	Healthy		511	Oak/Bur	22	Healthy		1044	Ash/Green	11	Healthy		1065	Box Elder	7	Healthy	
452	Basswood/American	12	Healthy		472	Ash/Green	11	Dead		492	Maple/Silver	10	Healthy		513	Elm/American	8	Healthy		1045	Maple/Silver	27	Healthy		1066	Buckthorn	9	Healthy	X
453	Box Elder	13	Healthy		473	Ash/Green	15	Dead		493	Cherry/Sp	9	Healthy		514	Hackberry	9	Healthy		1046	Ash/Green	18	Healthy		1067	Cottonwood	32	Healthy	
454	Hackberry	10	Healthy		474	Cherry/Sp	5	Healthy		494	Cherry/Sp	10	Healthy		515	Ash/Green	10	Dead	X	1047	Ash/Green	4	Healthy		1068	Ash/Green	10	Healthy	
455	Hackberry	7	Healthy		475	Basswood/American	18	Healthy		495	Buckthorn	5	Healthy	X	516	Buckthorn	5	Healthy	X	1049	Ash/Green	9	Healthy		1069	Elm/American	10	Healthy	
456	Hackberry	4	Healthy		476	Basswood/American	8	Healthy		496	Hackberry	4	Healthy		517	Box Elder	11	Healthy		1050	Box Elder	5	Healthy	X	1070	Buckthorn	6	Healthy	X

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.

PRINTED NAME: _____

SIGNATURE: _____

DATE: _____ LICENSE #: _____

-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW		
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION		



BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 1010411545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

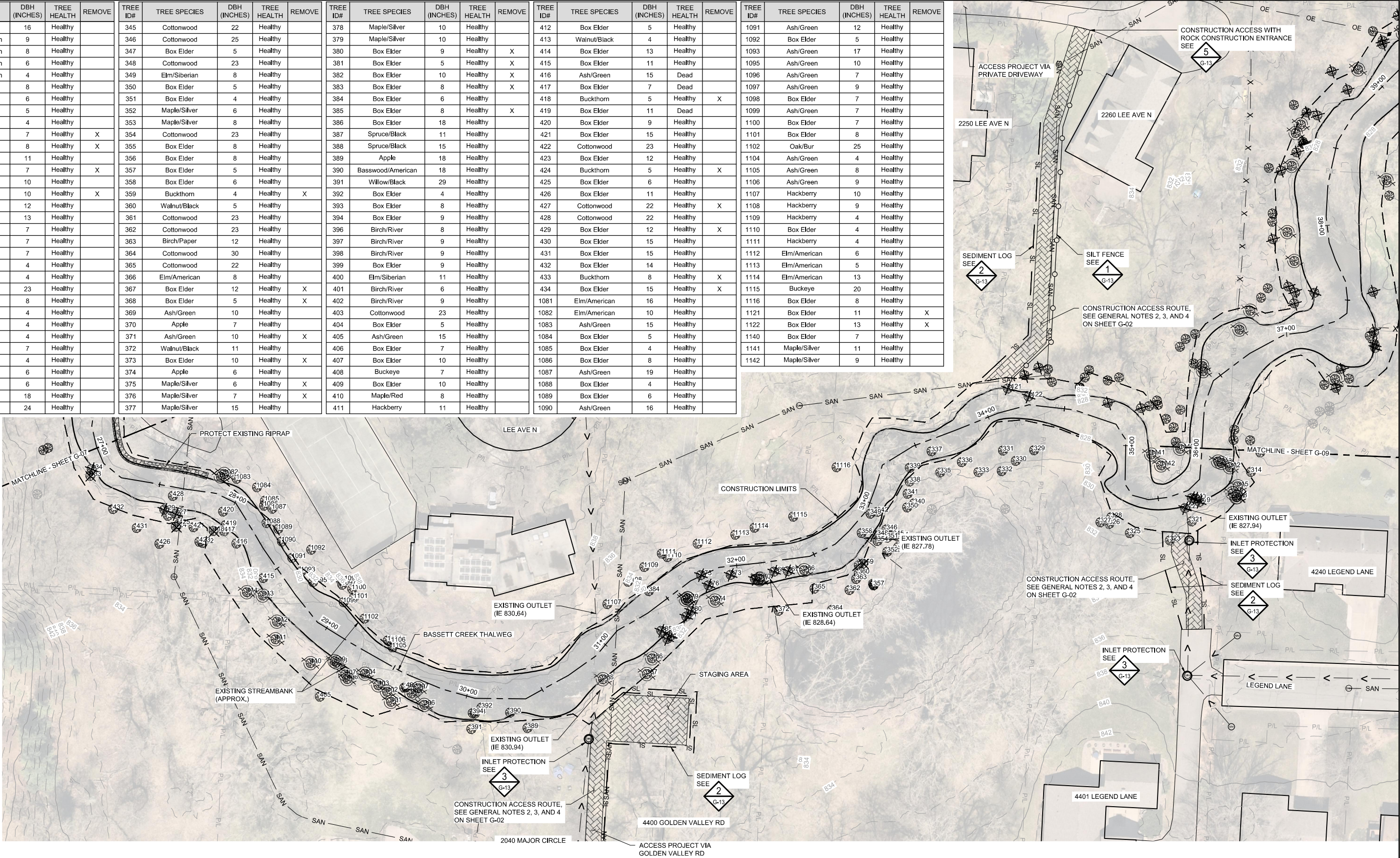
BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN
(STA. 18+00 TO 27+00)

BARR PROJECT #	23272114.00
DWG #	G-07
REV #	A

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

ORIGINAL DRAWING SIZE: ANSI FULL BLEED 8 (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/8/2025 3:31 PM
CADD USER: BRIAN R. MIKOLTE FILE: MDESIGN23272114.0023272114_G-05.DWG

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
307	Maple/Silver	16	Healthy		345	Cottonwood	22	Healthy		378	Maple/Silver	10	Healthy		412	Box Elder	5	Healthy		1091	Ash/Green	12	Healthy	
311	Basswood/American	9	Healthy		346	Cottonwood	25	Healthy		379	Maple/Silver	10	Healthy		413	Walnut/Black	4	Healthy		1092	Box Elder	5	Healthy	
312	Basswood/American	8	Healthy		347	Box Elder	5	Healthy		380	Box Elder	9	Healthy	X	414	Box Elder	13	Healthy		1093	Ash/Green	17	Healthy	
313	Basswood/American	6	Healthy		348	Cottonwood	23	Healthy		381	Box Elder	5	Healthy	X	415	Box Elder	11	Healthy		1095	Ash/Green	10	Healthy	
314	Basswood/American	4	Healthy		349	Elm/Siberian	8	Healthy		382	Box Elder	10	Healthy	X	416	Ash/Green	15	Dead		1096	Ash/Green	7	Healthy	
315	Birch/River	8	Healthy		350	Box Elder	5	Healthy		383	Box Elder	8	Healthy	X	417	Box Elder	7	Dead		1097	Ash/Green	9	Healthy	
316	Birch/River	6	Healthy		351	Box Elder	4	Healthy		384	Box Elder	6	Healthy		418	Buckthorn	5	Healthy	X	1098	Box Elder	7	Healthy	
317	Birch/River	5	Healthy		352	Maple/Silver	6	Healthy		385	Box Elder	8	Healthy	X	419	Box Elder	11	Dead		1099	Ash/Green	7	Healthy	
318	Birch/River	4	Healthy		353	Maple/Silver	8	Healthy		386	Box Elder	18	Healthy		420	Box Elder	9	Healthy		1100	Box Elder	7	Healthy	
319	Box Elder	7	Healthy	X	354	Cottonwood	23	Healthy		387	Spruce/Black	11	Healthy		421	Box Elder	15	Healthy		1101	Box Elder	8	Healthy	
320	Box Elder	8	Healthy	X	355	Box Elder	8	Healthy		388	Spruce/Black	15	Healthy		422	Cottonwood	23	Healthy		1102	Oak/Bur	25	Healthy	
321	Ash/Green	11	Healthy		356	Box Elder	8	Healthy		389	Apple	18	Healthy		423	Box Elder	12	Healthy		1104	Ash/Green	4	Healthy	
322	Ash/Green	7	Healthy	X	357	Box Elder	5	Healthy		390	Basswood/American	18	Healthy		424	Buckthorn	5	Healthy	X	1105	Ash/Green	8	Healthy	
323	Buckeye	10	Healthy		358	Box Elder	6	Healthy		391	Willow/Black	29	Healthy		425	Box Elder	6	Healthy		1106	Ash/Green	9	Healthy	
324	Box Elder	10	Healthy	X	359	Buckthorn	4	Healthy	X	392	Box Elder	4	Healthy		426	Box Elder	11	Healthy		1107	Hackberry	10	Healthy	
325	Apple	12	Healthy		360	Walnut/Black	5	Healthy		393	Box Elder	8	Healthy		427	Cottonwood	22	Healthy	X	1108	Hackberry	9	Healthy	
326	Apple	13	Healthy		361	Cottonwood	23	Healthy		394	Box Elder	9	Healthy		428	Cottonwood	22	Healthy		1109	Hackberry	4	Healthy	
327	Box Elder	7	Healthy		362	Cottonwood	23	Healthy		396	Birch/River	8	Healthy		429	Box Elder	12	Healthy	X	1110	Box Elder	4	Healthy	
328	Box Elder	7	Healthy		363	Birch/Paper	12	Healthy		397	Birch/River	9	Healthy		430	Box Elder	15	Healthy		1111	Hackberry	4	Healthy	
329	Box Elder	7	Healthy		364	Cottonwood	30	Healthy		398	Birch/River	9	Healthy		431	Box Elder	15	Healthy		1112	Elm/American	6	Healthy	
330	Box Elder	4	Healthy		365	Cottonwood	22	Healthy		399	Box Elder	9	Healthy		432	Box Elder	14	Healthy		1113	Elm/American	5	Healthy	
331	Apple	4	Healthy		366	Elm/American	8	Healthy		400	Elm/Siberian	11	Healthy		433	Buckthorn	8	Healthy	X	1114	Elm/American	13	Healthy	
332	Elm/American	23	Healthy		367	Box Elder	12	Healthy	X	401	Birch/River	6	Healthy		434	Box Elder	15	Healthy	X	1115	Buckeye	20	Healthy	
333	Box Elder	8	Healthy	X	368	Box Elder	5	Healthy	X	402	Birch/River	9	Healthy		1081	Elm/American	16	Healthy		1116	Box Elder	8	Healthy	
335	Box Elder	4	Healthy		369	Ash/Green	10	Healthy		403	Cottonwood	23	Healthy		1082	Elm/American	10	Healthy		1121	Box Elder	11	Healthy	X
336	Elm/Siberian	4	Healthy		370	Apple	7	Healthy		404	Box Elder	5	Healthy		1083	Ash/Green	15	Healthy		1122	Box Elder	13	Healthy	X
337	Elm/Siberian	4	Healthy		371	Ash/Green	10	Healthy	X	405	Ash/Green	15	Healthy		1084	Box Elder	5	Healthy		1140	Box Elder	7	Healthy	
338	Box Elder	7	Healthy		372	Walnut/Black	11	Healthy		406	Box Elder	7	Healthy		1085	Box Elder	4	Healthy		1141	Maple/Silver	11	Healthy	
339	Box Elder	4	Healthy		373	Box Elder	10	Healthy	X	407	Box Elder	10	Healthy		1086	Box Elder	8	Healthy		1142	Maple/Silver	9	Healthy	
340	Box Elder	6	Healthy		374	Apple	6	Healthy		408	Buckeye	7	Healthy		1087	Ash/Green	19	Healthy						
341	Apple	6	Healthy		375	Maple/Silver	6	Healthy	X	409	Box Elder	10	Healthy		1088	Box Elder	4	Healthy						
342	Cottonwood	18	Healthy		376	Maple/Silver	7	Healthy	X	410	Maple/Red	8	Healthy		1089	Box Elder	6	Healthy						
344	Cottonwood	24	Healthy		377	Maple/Silver	15	Healthy		411	Hackberry	11	Healthy		1090	Ash/Green	16	Healthy						



1 PLAN: EXISTING CONDITIONS, TREE PROTECTION, & EROSION CONTROL (STA. 27+00 TO 35+00)



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.

PRINTED NAME: _____

SIGNATURE: _____

DATE: _____ LICENSE #: _____

-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION



BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

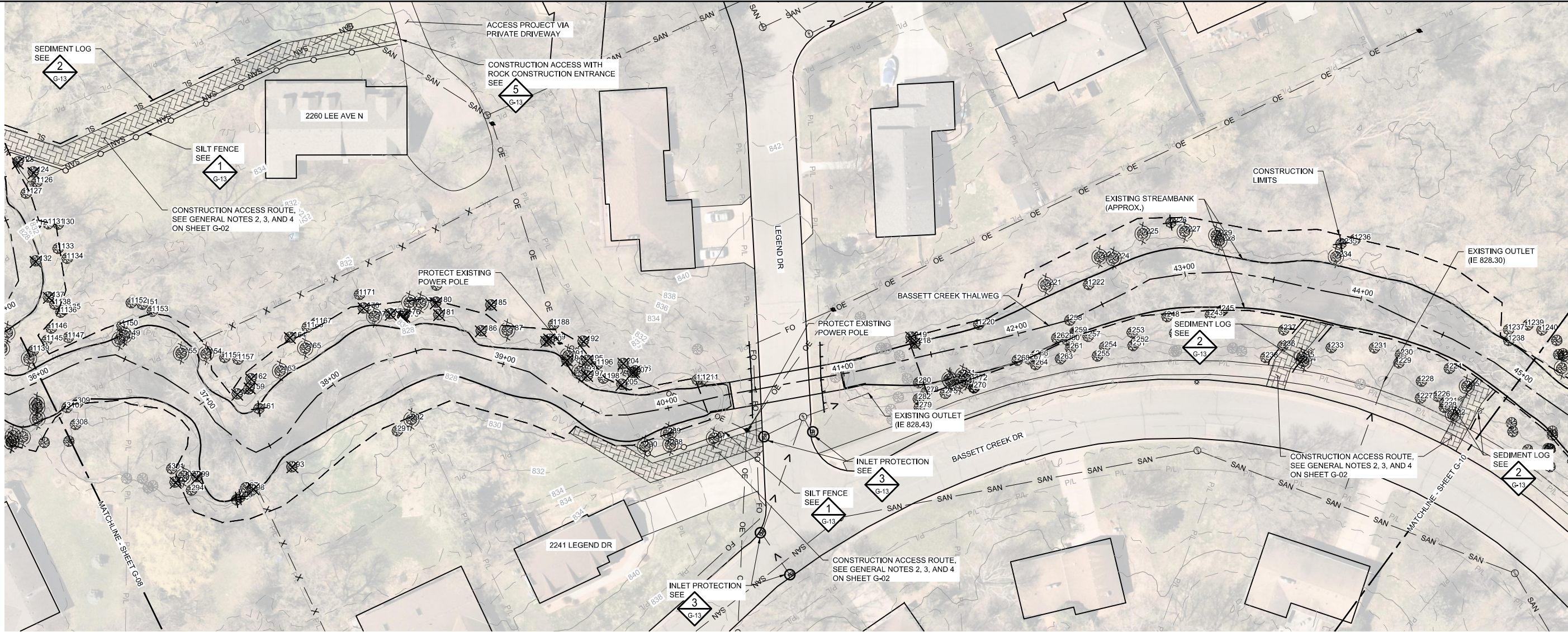
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE I
GOLDEN VALLEY, MINNESOTA
EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN
(STA. 27+00 TO 36+00)

BARR PROJECT #	23272114.00
DWG #	G-08
REV #	A

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



1 PLAN: EXISTING CONDITIONS, TREE PROTECTION, & EROSION CONTROL (STA. 36+00 TO 45+00)



TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE	TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE					
221	Box Elder	21	Healthy		253	Box Elder	10	Healthy		278	Elm/American	4	Healthy		1126	Box Elder	4	Healthy		1156	Maple/Silver	26	Healthy		1187	Ash/White	18	Healthy		1225	Box Elder	13	Healthy	
222	Hackberry	4	Healthy		254	Box Elder	13	Healthy		279	Maple/Red	5	Healthy		1127	Elm/American	15	Healthy		1157	Apple	6	Healthy		1188	Hackberry	14	Healthy		1226	Box Elder	12	Dying	X
223	Ash/Green	4	Healthy		255	Elm/American	9	Healthy		280	Maple/Silver	5	Healthy		1128	Hackberry	16	Healthy		1158	Buckthorn	7	Healthy	X	1189	Ash/Green	5	Healthy	X	1227	Willow/Black	26	Dying	
224	Elm/Siberian	5	Healthy		256	Ash/Green	11	Dead		282	Maple/Silver	4	Healthy		1129	Box Elder	13	Healthy		1159	Buckthorn	5	Healthy	X	1190	Buckthorn	6	Healthy	X	1228	Box Elder	23	Healthy	
225	Box Elder	13	Healthy		257	Basswood/American	15	Healthy		287	Elm/Siberian	4	Healthy		1130	Box Elder	17	Healthy		1161	Ash/Green	7	Healthy	X	1191	Maple/Red	12	Healthy		1229	Box Elder	23	Healthy	
226	Box Elder	16	Healthy		258	Basswood/American	5	Healthy		288	Elm/Siberian	5	Healthy		1131	Box Elder	6	Healthy		1162	Buckthorn	7	Healthy	X	1192	Buckthorn	6	Healthy	X	1234	Buckeye	4	Healthy	
227	Box Elder	8	Healthy		259	Box Elder	10	Healthy		289	Elm/Siberian	4	Healthy		1132	Buckthorn	6	Healthy	X	1163	Catalpa	19	Healthy		1193	Box Elder	12	Healthy		1235	Box Elder	20	Dead	X
228	Box Elder	15	Healthy		260	Apple	4	Healthy		290	Maple/Silver	4	Healthy		1133	Ash/Green	18	Healthy		1164	Buckthorn	6	Healthy	X	1194	Buckthorn	6	Healthy	X	1236	Ash/Green	18	Healthy	
229	Maple/Silver	13	Healthy		261	Elm/American	5	Healthy		291	Box Elder	14	Healthy		1134	Box Elder	9	Healthy		1165	Box Elder	13	Healthy		1195	Buckthorn	8	Healthy	X	1237	Box Elder	19	Healthy	
230	Maple/Silver	28	Healthy		262	Cherry/Sp	6	Healthy		292	Box Elder	12	Healthy		1135	Box Elder	8	Healthy		1166	Hackberry	22	Healthy		1196	Ash/Green	18	Healthy		1238	Box Elder	13	Healthy	
231	Box Elder	13	Healthy		263	Box Elder	14	Healthy		293	Buckthorn	5	Healthy	X	1136	Box Elder	4	Healthy		1167	Box Elder	11	Healthy		1197	Buckthorn	5	Healthy	X	1239	Box Elder	15	Healthy	
233	Box Elder	11	Healthy		264	Apple	5	Healthy		294	Box Elder	5	Healthy		1137	Buckthorn	4	Healthy	X	1170	Buckthorn	6	Healthy	X	1198	Canada Plum	6	Healthy		1240	Cottonwood	26	Healthy	
234	Walnut/Black	6	Healthy		265	Apple	10	Healthy		295	Box Elder	15	Healthy	X	1138	Box Elder	17	Healthy		1171	Box Elder	20	Healthy		1204	Buckthorn	4	Healthy	X					
235	Box Elder	23	Healthy		266	Apple	5	Healthy		296	Box Elder	18	Healthy	X	1139	Box Elder	6	Dead		1172	Box Elder	12	Healthy		1205	Buckthorn	5	Healthy	X					
236	Ash/Green	4	Healthy		267	Box Elder	12	Healthy		297	Box Elder	13	Dead	X	1145	Box Elder	7	Dead		1173	Buckthorn	4	Healthy	X	1206	Buckthorn	5	Healthy	X					
237	Maple/Silver	5	Healthy		268	Box Elder	13	Healthy		298	Buckthorn	6	Healthy	X	1146	Box Elder	7	Healthy		1174	Box Elder	11	Healthy		1207	Buckthorn	6	Healthy	X					
238	Ash/Green	5	Healthy		269	Box Elder	8	Healthy		299	Buckthorn	4	Healthy	X	1147	Maple/Silver	21	Healthy		1175	Buckthorn	5	Healthy	X	1210	Maple/Silver	5	Healthy						
243	Walnut/Black	4	Healthy		270	Elm/American	14	Healthy		300	Buckthorn	4	Healthy	X	1148	Maple/Silver	22	Healthy		1176	Buckthorn	4	Healthy	X	1211	Maple/Silver	4	Healthy						
244	Maple/Silver	5	Healthy		271	Elm/Siberian	14	Healthy		301	Elm/American	20	Healthy		1149	Maple/Silver	10	Healthy		1177	Hackberry	25	Healthy		1218	Buckthorn	4	Healthy	X					
245	Maple/Silver	6	Healthy		272	Elm/Siberian	5	Healthy		302	Elm/American	6	Healthy		1150	Oak/Bur	18	Dead		1178	Box Elder	9	Healthy		1219	Buckthorn	4	Healthy	X					
246	Box Elder	15	Healthy		273	Box Elder	7	Healthy		308	Maple/Silver	11	Healthy		1151	Elm/American	22	Healthy		1179	Box Elder	12	Healthy		1220	Box Elder	20	Healthy						
247	Cottonwood	23	Healthy		274	Box Elder	11	Healthy		309	Box Elder	12	Healthy		1152	Elm/American	10	Healthy		1180	Buckthorn	5	Healthy	X	1221	Box Elder	12	Healthy						
248	Maple/Silver	4	Healthy		275	Elm/American	15	Healthy		310	Box Elder	13	Healthy		1153	Box Elder	15	Healthy		1181	Buckthorn	4	Healthy	X	1222	Box Elder	20	Dying						
251	Box Elder	9	Healthy		276	Elm/American	13	Healthy		1123	Buckthorn	5	Healthy	X	1154	Hackberry	7	Healthy		1185	Buckthorn	7	Healthy	X	1223	Box Elder	20	Healthy						
252	Elm/American	17	Healthy		277	Elm/American	8	Healthy		1124	Buckthorn	4	Healthy	X	1155	Hackberry	9	Healthy		1186	Buckthorn	6	Healthy	X	1224	Box Elder	20	Healthy						

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

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.

PRINTED NAME _____

SIGNATURE _____

DATE _____ LICENSE # _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

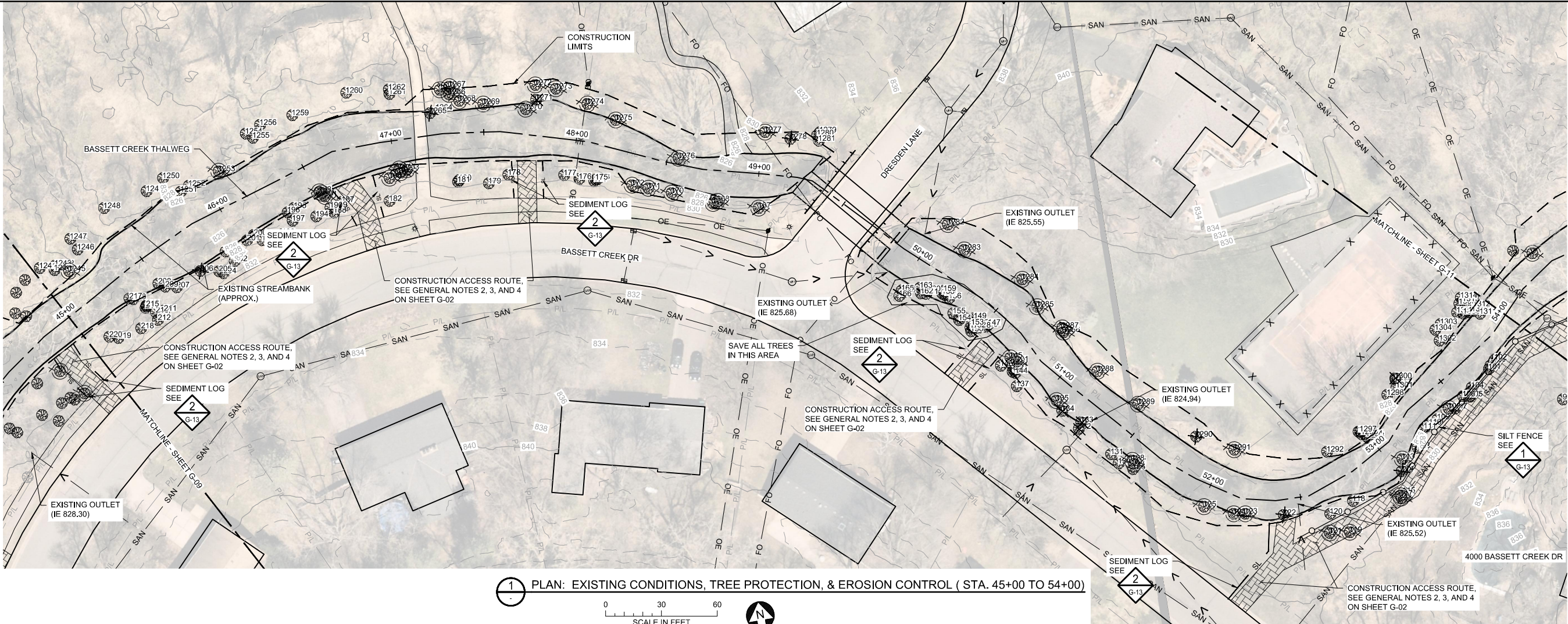
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE I
GOLDEN VALLEY, MINNESOTA
EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN
(STA. 36+00 TO 45+00)

BARR PROJECT #	23272114.00
DWG #	G-09
REV #	A

ORIGINAL DRAWING SIZE: ANSI FULL BLEED 8 (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/8/2025 3:33 PM
CADD USER: BRIAN R. MICOLTE FILE: MDESIGN02372114.002372114_G-05.DWG



1 PLAN: EXISTING CONDITIONS, TREE PROTECTION, & EROSION CONTROL (STA. 45+00 TO 54+00)

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
98	Basswood/American	23	Healthy	
99	Maple/Silver	16	Healthy	
100	Maple/Silver	6	Healthy	
101	Maple/Silver	6	Healthy	
102	Maple/Silver	9	Healthy	
103	Maple/Silver	7	Healthy	
104	Maple/Silver	10	Healthy	
105	Box Elder	5	Healthy	
106	Maple/Silver	8	Healthy	
107	Maple/Silver	5	Healthy	
108	Maple/Silver	12	Healthy	
109	Box Elder	14	Healthy	
110	Box Elder	8	Healthy	
111	Maple/Silver	10	Healthy	
112	Box Elder	4	Healthy	
113	Maple/Silver	13	Healthy	
114	Maple/Silver	7	Healthy	X
115	Box Elder	9	Healthy	
116	Maple/Sugar	17	Healthy	
117	Maple/Silver	12	Healthy	
118	Maple/Silver	16	Healthy	
119	Box Elder	12	Healthy	
120	Maple/Silver	23	Healthy	
121	Box Elder	11	Healthy	
122	Box Elder	6	Healthy	X
123	Walnut/Black	6	Healthy	
124	Box Elder	13	Healthy	
125	Walnut/Black	9	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
126	Box Elder	15	Healthy	
127	Box Elder	12	Healthy	
128	Box Elder	12	Healthy	
130	Box Elder	7	Healthy	
131	Box Elder	6	Healthy	
132	Buckthorn	8	Healthy	X
133	Buckthorn	8	Healthy	X
134	Buckthorn	6	Healthy	X
135	Walnut/Black	6	Healthy	
137	Buckeye	5	Healthy	
138	Ash/Green	6	Healthy	
139	Ash/Green	6	Healthy	
140	Ash/Green	6	Healthy	
141	Maple/Silver	11	Healthy	
142	Maple/Silver	12	Healthy	
143	Maple/Silver	5	Healthy	
144	Maple/Silver	5	Healthy	
145	Maple/Silver	12	Healthy	
146	Maple/Silver	4	Healthy	
147	Maple/Silver	15	Healthy	
148	Maple/Silver	13	Healthy	
149	Maple/Silver	8	Healthy	
150	Ash/Green	7	Healthy	
151	Maple/Silver	6	Healthy	
152	Maple/Silver	13	Healthy	
153	Maple/Silver	10	Healthy	
154	Elm/American	13	Healthy	
155	Maple/Silver	8	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
156	Maple/Silver	9	Dead	
157	Maple/Silver	7	Healthy	
158	Maple/Silver	11	Healthy	
159	Maple/Silver	7	Healthy	
160	Maple/Silver	5	Healthy	
161	Maple/Silver	15	Healthy	
162	Maple/Silver	9	Healthy	
163	Box Elder	14	Healthy	
164	Ash/Green	10	Healthy	
165	Ash/Green	8	Healthy	
166	Ash/Green	10	Healthy	
167	Hackberry	4	Healthy	
168	Box Elder	16	Healthy	
169	Elm/American	15	Healthy	
170	Box Elder	16	Healthy	
171	Box Elder	15	Healthy	
172	Box Elder	13	Healthy	
173	Elm/Siberian	12	Healthy	
174	Hackberry	9	Healthy	
175	Hackberry	9	Dying	
176	Hackberry	5	Healthy	
177	Box Elder	12	Healthy	
178	Walnut/Black	4	Healthy	
179	Elm/American	14	Healthy	
180	Box Elder	6	Healthy	
181	Box Elder	5	Healthy	
182	Box Elder	5	Healthy	
183	Maple/Silver	11	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
184	Maple/Silver	13	Healthy	
185	Maple/Silver	7	Healthy	
186	Maple/Silver	4	Healthy	
187	Box Elder	4	Healthy	
188	Box Elder	4	Healthy	
189	Box Elder	7	Healthy	
190	Box Elder	4	Healthy	
191	Maple/Silver	6	Healthy	
192	Maple/Silver	6	Healthy	
193	Maple/Silver	22	Healthy	
194	Box Elder	11	Healthy	
195	Ash/Green	6	Dead	
196	Canada Plum	6	Healthy	
197	Elm/American	10	Healthy	
198	Ash/Green	4	Healthy	
199	Buckeye	14	Healthy	
200	Box Elder	14	Healthy	
201	Basswood/American	6	Healthy	
202	Box Elder	13	Dead	
203	Box Elder	16	Healthy	
204	Box Elder	12	Healthy	
205	Box Elder	11	Healthy	
206	Elm/American	5	Healthy	X
207	Elm/American	12	Healthy	
208	Maple/Silver	20	Healthy	
209	Box Elder	5	Healthy	
210	Cottonwood	22	Healthy	
211	Box Elder	10	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
212	Cottonwood	25	Healthy	
213	Box Elder	12	Healthy	
214	Cottonwood	22	Healthy	
215	Cottonwood	9	Healthy	
216	Maple/Silver	10	Healthy	
217	Maple/Silver	11	Healthy	
218	Cottonwood	22	Healthy	
219	Cottonwood	24	Healthy	
220	Box Elder	5	Healthy	
1241	Box Elder	4	Healthy	
1242	Box Elder	6	Healthy	
1243	Willow/Black	23	Healthy	
1244	Willow/Black	23	Healthy	
1245	Box Elder	13	Healthy	
1246	Box Elder	7	Healthy	
1247	Box Elder	10	Healthy	
1248	Box Elder	13	Healthy	
1249	Box Elder	12	Healthy	
1250	Box Elder	13	Healthy	
1251	Box Elder	9	Healthy	
1252	Box Elder	18	Healthy	
1253	Box Elder	14	Healthy	
1254	Box Elder	12	Healthy	
1255	Box Elder	10	Healthy	
1256	Box Elder	17	Dead	
1259	Box Elder	12	Healthy	
1260	Box Elder	22	Healthy	
1261	Box Elder	15	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
1262	Box Elder	18	Healthy	
1263	Box Elder	11	Healthy	
1264	Ash/Green	15	Healthy	
1265	Box Elder	12	Dead	X
1266	Ash/Green	12	Healthy	
1267	Ash/Green	13	Healthy	
1268	Box Elder	13	Healthy	
1269	Box Elder	19	Healthy	
1270	Box Elder	14	Healthy	
1271	Buckthorn	4	Healthy	X
1272	Box Elder	22	Healthy	
1273	Box Elder	24	Healthy	
1274	Walnut/Black	4	Healthy	
1275	Box Elder	16	Healthy	
1276	Maple/Silver	45	Healthy	
1277	Box Elder	10	Healthy	
1278	Ash/Green	10	Healthy	X
1279	Hackberry	5	Healthy	
1280	Hackberry	4	Healthy	
1281	Maple/Red	4	Healthy	
1282	Honeylocust	9	Healthy	
1283	Apple	11	Healthy	
1284	Spruce Sp.	8	Healthy	
1285	Ash/Green	25	Healthy	
1286	Box Elder	5	Healthy	
1287	Box Elder	6	Healthy	
1288	Maple/Silver	15	Healthy	
1289	Mulberry	17	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
1290	Ash/Green	10	Healthy	X
1291	Ash/Green	15	Healthy	
1292	Maple/Silver	14	Healthy	
1293	Maple/Silver	16	Dying	
1294	Maple/Silver	18	Healthy	
1295	Maple/Silver	19	Healthy	
1296	Maple/Silver	30	Healthy	
1297	Maple/Silver	9	Healthy	
1298	Maple/Silver	6	Healthy	
1299	Mulberry	7	Healthy	
1300	Buckthorn	7	Healthy	X
1301	Maple/Silver	4	Healthy	
1302	Maple/Silver	16	Healthy	
1303	Maple/Silver	13	Healthy	
1304	Maple/Silver	7	Healthy	
1306	Maple/Silver	11	Healthy	
1307	Maple/Silver	15	Healthy	
1308	Maple/Silver	8	Healthy	
1309	Maple/Silver	6	Healthy	
1310	Maple/Silver	13	Healthy	
1311	Maple/Silver	6	Healthy	
1312	Maple/Silver	5	Healthy	
1313	Maple/Silver	9	Healthy	
1314	Maple/Silver	10	Healthy	

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

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.

PRINTED NAME: _____

SIGNATURE: _____

DATE: _____ LICENSE #: _____

-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION

BARR

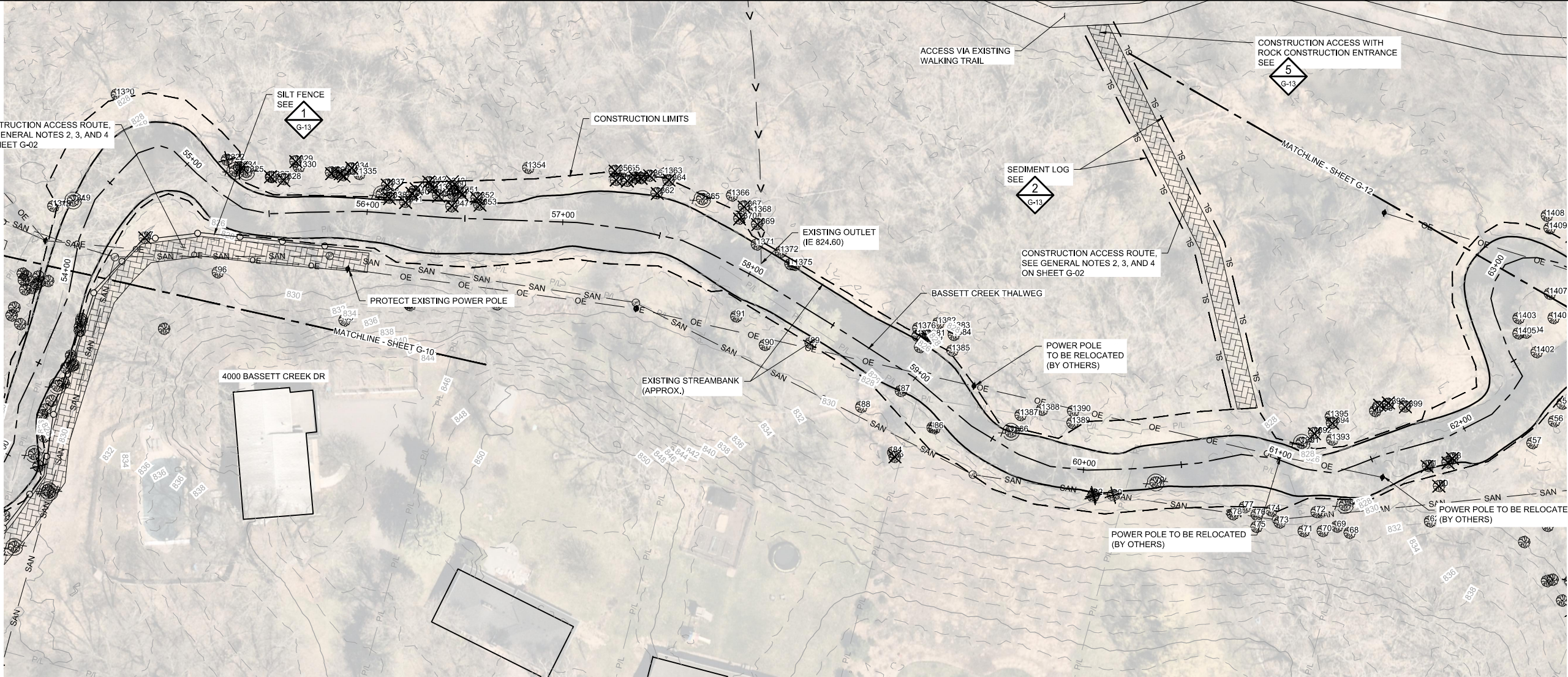
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 1010411545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE I
GOLDEN VALLEY, MINNESOTA
EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN
(STA. 45+00 TO 54+00)

BARR PROJECT #	23272114.00
DWG #	G-10
REV #	A



1 PLAN: EXISTING CONDITIONS, TREE PROTECTION, & EROSION CONTROL (STA. 54+00 TO 63+00)



TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
55	Box Elder	12	Healthy	
56	Ash/Green	23	Healthy	
57	Box Elder	8	Healthy	
58	Buckthorn	5	Healthy	X
59	Buckthorn	7	Healthy	X
60	Buckthorn	4	Healthy	X
61	Buckthorn	6	Healthy	X
62	Basswood/American	13	Healthy	
66	Cottonwood	26	Healthy	
68	Ash/Green	11	Dying	
69	Box Elder	5	Healthy	
70	Ash/Green	4	Healthy	
71	Ash/Green	8	Healthy	
72	Box Elder	16	Healthy	
73	Ash/Green	4	Healthy	
74	Ash/Green	4	Healthy	
75	Ash/Green	5	Healthy	
76	Apple	8	Healthy	
77	Ash/Green	6	Healthy	
78	Box Elder	5	Healthy	
79	Elm/Siberian	13	Healthy	
80	Box Elder	8	Healthy	X
81	Box Elder	13	Healthy	X
82	Box Elder	8	Healthy	X

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
83	Willow/Black	26	Healthy	X
84	Spruce/Black	11	Healthy	
85	Box Elder	10	Healthy	
86	Box Elder	9	Healthy	
87	Spruce/Black	6	Dead	
88	Oak/White	25	Healthy	
89	Spruce Sp.	11	Healthy	
90	Spruce Sp.	12	Healthy	
91	Spruce/Black	14	Healthy	
92	Ash/Green	14	Healthy	
93	Ash/Green	14	Healthy	
94	Ash/Green	12	Healthy	
95	Oak/Bur	30	Healthy	
96	Basswood/American	30	Healthy	
97	Ash/Green	12	Dead	
1318	Box Elder	28	Healthy	
1319	Box Elder	18	Healthy	
1320	Willow/Black	24	Healthy	
1322	Ash/Green	12	Dead	X
1323	Box Elder	15	Healthy	
1324	Buckthorn	4	Healthy	X
1325	Cottonwood	14	Healthy	
1326	Buckthorn	6	Healthy	X
1327	Box Elder	16	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
1328	Buckthorn	13	Healthy	X
1329	Buckthorn	8	Healthy	X
1330	Box Elder	9	Healthy	
1331	Buckthorn	6	Healthy	X
1332	Buckthorn	9	Healthy	X
1333	Buckthorn	5	Healthy	X
1334	Buckthorn	9	Healthy	X
1335	Box Elder	12	Healthy	
1336	Box Elder	11	Healthy	
1337	Buckthorn	6	Healthy	X
1338	Buckthorn	5	Healthy	X
1339	Buckthorn	5	Healthy	X
1340	Buckthorn	5	Healthy	X
1341	Buckthorn	5	Healthy	X
1342	Buckthorn	5	Healthy	X
1343	Buckthorn	5	Healthy	X
1344	Buckthorn	5	Healthy	X
1345	Ash/Green	10	Healthy	
1346	Ash/Green	16	Healthy	
1347	Buckthorn	4	Healthy	X
1348	Buckthorn	4	Healthy	X
1349	Buckthorn	9	Healthy	X
1350	Box Elder	12	Dead	X
1351	Buckthorn	4	Healthy	X

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
1352	Buckthorn	4	Healthy	X
1353	Buckthorn	4	Healthy	X
1354	Maple/Silver	36	Healthy	
1355	Ash/Green	19	Healthy	
1356	Buckthorn	5	Healthy	X
1357	Buckthorn	5	Healthy	X
1358	Buckthorn	4	Healthy	X
1359	Buckthorn	4	Healthy	X
1360	Buckthorn	4	Healthy	X
1361	Buckthorn	4	Healthy	X
1362	Buckthorn	6	Healthy	X
1363	Ash/Green	12	Healthy	
1364	Buckthorn	5	Healthy	X
1365	Maple/Silver	35	Healthy	
1366	Ash/Green	22	Healthy	
1367	Buckthorn	5	Healthy	X
1368	Ash/Green	5	Healthy	
1369	Buckthorn	5	Healthy	X
1370	Buckthorn	4	Healthy	X
1371	Ash/Green	6	Healthy	
1372	Ash/Green	12	Healthy	
1373	Ash/Green	10	Healthy	
1374	Ash/Green	16	Healthy	
1375	Ash/Green	13	Healthy	

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
1376	Box Elder	12	Healthy	
1377	Box Elder	8	Healthy	
1378	Box Elder	13	Healthy	
1379	Buckthorn	7	Healthy	X
1380	Buckthorn	6	Healthy	X
1381	Buckthorn	4	Healthy	X
1382	Buckthorn	4	Dead	X
1383	Ash/Green	5	Healthy	
1384	Ash/Green	4	Healthy	
1385	Buckthorn	4	Dead	X
1386	Box Elder	15	Healthy	
1387	Cottonwood	23	Healthy	
1388	Cottonwood	39	Healthy	
1389	Ash/Green	4	Healthy	
1390	Cottonwood	20	Healthy	
1391	Cottonwood	38	Healthy	
1392	Buckthorn	5	Healthy	X
1393	Elm/American	5	Healthy	
1394	Buckthorn	8	Healthy	X
1395	Cottonwood	23	Healthy	
1396	Box Elder	12	Healthy	
1397	Buckthorn	6	Healthy	X
1398	Buckthorn	6	Healthy	X
1399	Buckthorn	5	Healthy	X

TREE ID#	TREE SPECIES	DBH (INCHES)	TREE HEALTH	REMOVE
1402	Ash/Green	6	Healthy	
1403	Ash/Green	13	Healthy	
1404	Ash/Green	13	Healthy	
1405	Ash/Green	5	Healthy	
1406	Box Elder	16	Healthy	
1407	Ash/Green	13	Healthy	
1408	Box Elder	4	Healthy	
1409	Ash/Green	8	Healthy	

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.

PRINTED NAME: _____

SIGNATURE: _____

DATE: _____ LICENSE #: _____

-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION



BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

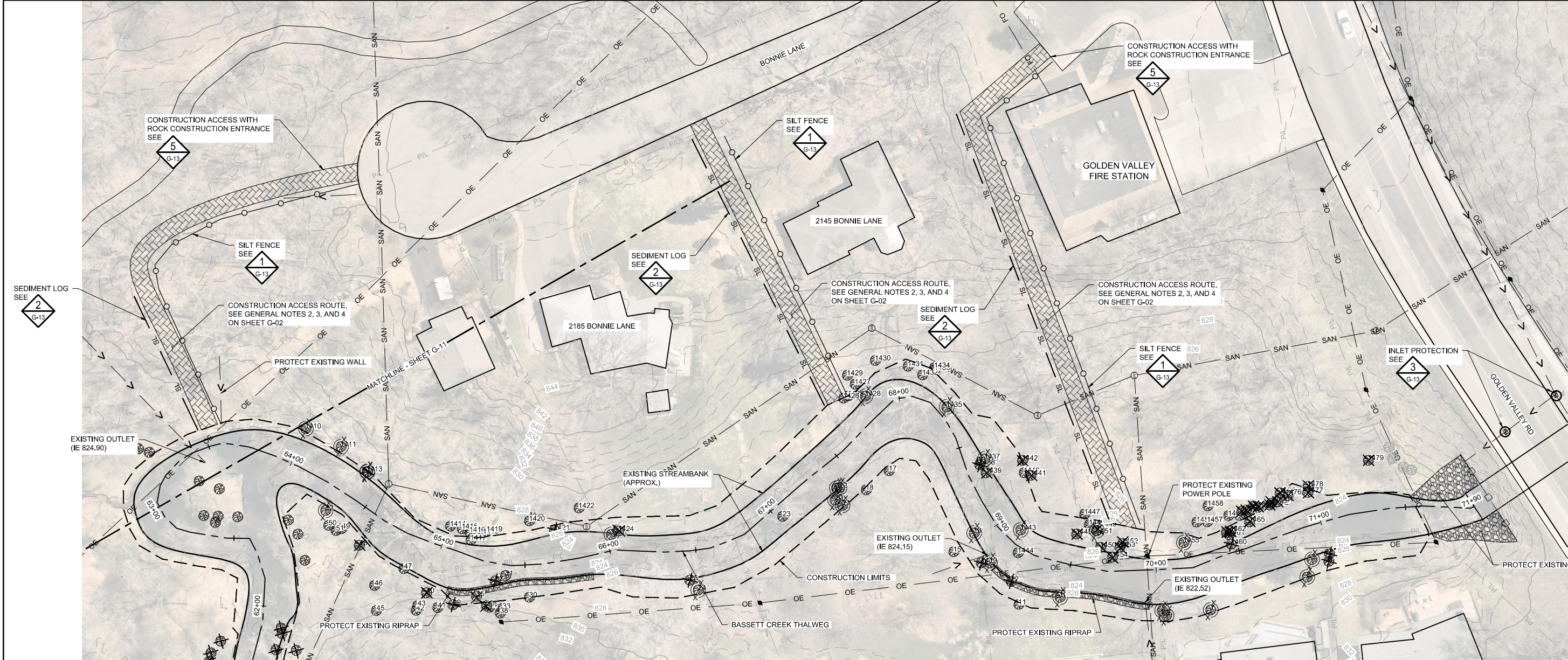
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 1010411545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE I
GOLDEN VALLEY, MINNESOTA
EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN
(STA. 54+00 TO 63+00)

BARR PROJECT #	23272114.00
DWG #	G-11
REV #	A

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



1 PLAN: EXISTING CONDITIONS, TREE PROTECTION, & EROSION CONTROL (STA. 63+00 TO 72+00)



3	Box Elder	7	Healthy	X
4	Ash/Green	5	Healthy	X
5	Hackberry	4	Healthy	
6	Cedar/White	11	Healthy	
7	Maple/Silver	23	Healthy	
8	Maple/Silver	21	Healthy	
9	Maple/Silver	16	Healthy	
10	Oak/Swamp White	10	Healthy	
11	Basswood/American	23	Healthy	
12	Ash/Green	5	Healthy	X
13	Maple/Red	7	Healthy	
14	Ash/Green	5	Healthy	X
15	Ash/Green	5	Healthy	
16	Box Elder	7	Healthy	
17	Maple/Sugar	16	Healthy	
18	Cottonwood	33	Healthy	
19	Box Elder	4	Healthy	
20	Box Elder	5	Healthy	
21	Box Elder	5	Healthy	
22	Maple/Silver	14	Healthy	

23	Ash/Green	20	Healthy	
24	Maple/Silver	33	Healthy	
25	Ash/Green	4	Healthy	X
30	Box Elder	11	Healthy	
31	Box Elder	4	Dying	X
32	Box Elder	9	Healthy	X
33	Box Elder	4	Healthy	
34	Ash/Green	25	Healthy	
35	Buckthorn	4	Healthy	X
36	Buckthorn	5	Healthy	X
38	Hackberry	5	Healthy	
39	Ash/Green	14	Dead	X
40	Buckthorn	6	Healthy	X
41	Box Elder	5	Dead	
42	Box Elder	4	Healthy	
43	Box Elder	9	Healthy	
45	Hackberry	4	Healthy	
46	Box Elder	4	Healthy	
47	Ash/Green	4	Healthy	
48	Buckthorn	4	Healthy	X

49	Box Elder	8	Healthy	
50	Ash/Green	10	Healthy	
51	Ash/Green	11	Healthy	
52	Box Elder	12	Healthy	
1410	Box Elder	16	Healthy	
1411	Box Elder	11	Healthy	
1412	Cottonwood	26	Healthy	
1413	Cottonwood	24	Healthy	
1414	Cottonwood	26	Healthy	
1415	Cottonwood	24	Healthy	
1416	Ash/Green	5	Healthy	
1417	Ash/White	4	Healthy	
1418	Cottonwood	33	Healthy	
1419	Box Elder	4	Healthy	
1420	Hackberry	8	Healthy	
1421	Box Elder	9	Healthy	X
1422	Box Elder	12	Healthy	
1423	Maple/Silver	24	Healthy	
1424	Buckthorn	4	Healthy	X
1425	Maple/Silver	12	Healthy	

1426	Maple/Silver	14	Healthy	
1427	Maple/Silver	18	Healthy	
1428	Maple/Silver	18	Healthy	
1429	Maple/Silver	18	Healthy	
1430	Box Elder	13	Healthy	
1431	Hackberry	14	Healthy	
1432	Hackberry	14	Healthy	
1433	Hackberry	15	Healthy	
1434	Hackberry	10	Healthy	
1435	Cottonwood	30	Healthy	
1436	Ash/Green	10	Healthy	
1437	Maple/Amur	6	Healthy	
1438	Ash/Green	14	Healthy	X
1439	Buckthorn	7	Healthy	X
1440	Box Elder	6	Healthy	
1441	Buckthorn	9	Healthy	X
1442	Buckthorn	8	Healthy	X
1443	Walnut/Black	4	Healthy	
1444	Maple/Silver	4	Healthy	
1445	Buckthorn	10	Healthy	X

1446	Box Elder	12	Dead	
1447	Ash/Green	10	Healthy	
1448	Buckthorn	7	Healthy	X
1449	Ash/Green	18	Healthy	
1450	Buckthorn	7	Healthy	X
1451	Ash/Green	15	Healthy	
1452	Buckthorn	5	Healthy	X
1453	Buckthorn	4	Healthy	X
1454	Buckthorn	4	Healthy	X
1455	Box Elder	8	Healthy	
1456	Box Elder	14	Healthy	
1457	Box Elder	5	Healthy	
1458	Box Elder	13	Healthy	
1459	Buckthorn	4	Healthy	X
1460	Ash/Green	4	Healthy	X
1461	Buckthorn	4	Healthy	X
1462	Buckthorn	5	Healthy	X
1463	Box Elder	6	Healthy	
1464	Willow/Black	39	Healthy	
1465	Buckthorn	8	Healthy	X

1466	Buckthorn	4	Healthy	X
1467	Buckthorn	4	Healthy	X
1468	Buckthorn	4	Healthy	X
1469	Buckthorn	4	Healthy	X
1470	Buckthorn	4	Healthy	X
1471	Buckthorn	4	Healthy	X
1472	Buckthorn	5	Healthy	X
1473	Buckthorn	5	Healthy	X
1474	Basswood/American	16	Dead	
1475	Buckthorn	7	Healthy	X
1476	Ash/Black	13	Healthy	
1477	Buckthorn	5	Healthy	X
1478	Buckthorn	5	Healthy	X
1479	Buckthorn	4	Healthy	X

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.

PRINTED NAME: _____

SIGNATURE: _____

DATE: _____ LICENSE # _____

-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION



BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

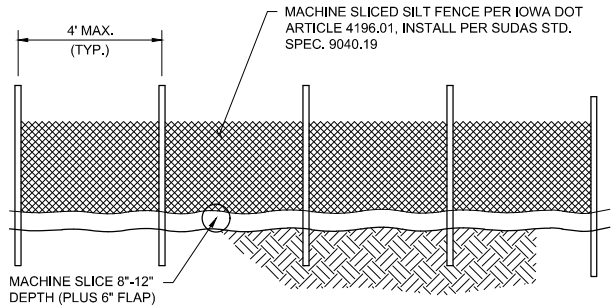
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

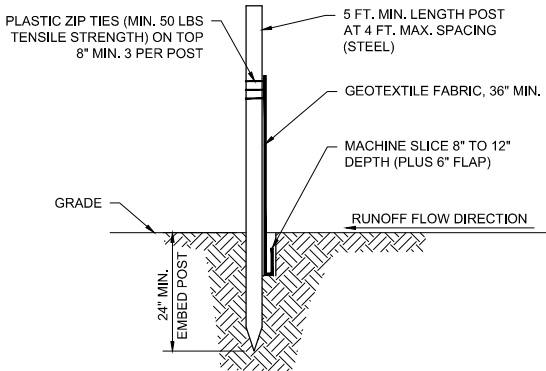
BASSETT CREEK MAIN STEM RESTORATION - PHASE I
GOLDEN VALLEY, MINNESOTA
EXISTING CONDITIONS, TREE PROTECTION & EROSION CONTROL PLAN
(STA. 63+00 TO 72+00)

BARR PROJECT #	23272114.00
DWG #	G-12
REV #	A

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



DOWNSTREAM VIEW

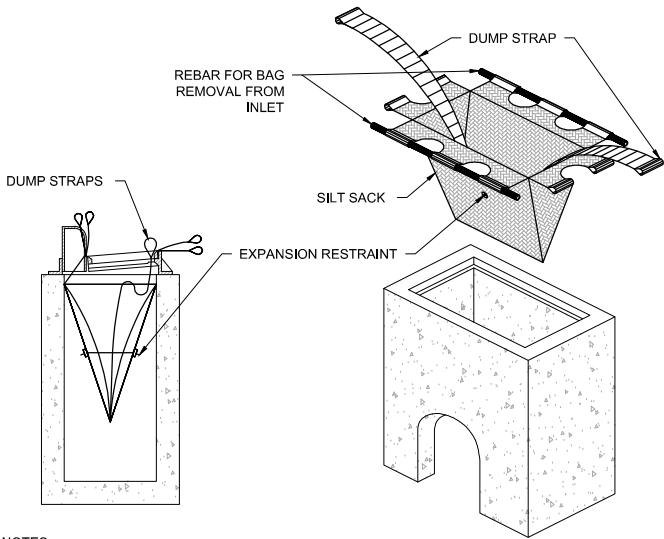


SECTION VIEW

NOTES:

1. INSTALL SILT FENCE PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED AND MAINTAIN THROUGHOUT THE CONSTRUCTION PERIOD. REMOVE SILT FENCE AND ANY ACCUMULATED SEDIMENT IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.
2. SILT FENCE MATERIALS SHALL MEET THE REQUIREMENTS OF IOWA DOT ARTICLE 4196.01 AND INSTALLATION SHALL MEET THE REQUIREMENTS OF SUDAS STD. SPEC. 9040.19.
3. NO HOLES OR GAPS SHALL BE PRESENT IN/UNDER SILT FENCE. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
4. REMOVE ACCUMULATED SEDIMENT WHEN BUILD UP REACHES 1/3 OF FENCE HEIGHT. OR INSTALL A SECOND SILT FENCE DOWNSTREAM OF THE ORIGINAL FENCE AT A SUITABLE DISTANCE.
5. WHEN SPLICES ARE NECESSARY MAKE SPLICE AT POST ACCORDING TO SPLICE DETAIL. PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POST OF THE FIRST FENCE. ROTATE BOTH POSTS TOGETHER AT LEAST 180 DEGREES TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL. CUT THE FABRIC NEAR THE BOTTOM OF THE POSTS TO ACCOMMODATE THE 6 INCH FLAP, THEN DRIVE BOTH POSTS AND BURY THE FLAP AND COMPACT BACKFILL.

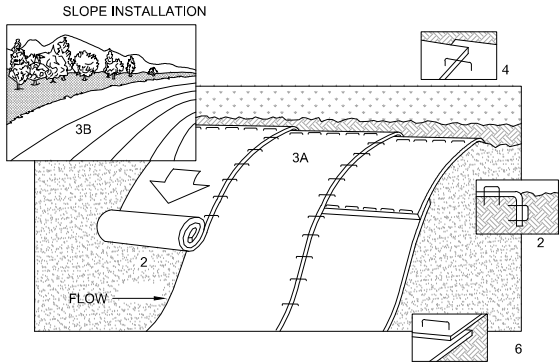
1
-
DETAIL: SILT FENCE - MACHINE SLICED
NOT TO SCALE



NOTES:

1. INSTALL INLET PROTECTION PRIOR TO ANY GRADING WORK IN THE AREA TO BE PROTECTED OR IMMEDIATELY FOLLOWING ANY CATCHBASIN INSTALLATION AND MAINTAIN THROUGHOUT THE CONSTRUCTION PERIOD.
2. MATERIALS SHALL BE SUFFICIENT TO ALLOW FLOW WHILE BLOCKING SEDIMENT. NO HOLES OR GAPS SHALL BE PRESENT IN/AROUND FILTER SACK.
3. CLEAN FILTER SACK AND REMOVE ACCUMULATED SEDIMENT AS REQUIRED TO ALLOW FLOW INTO THE CATCHBASIN AND PREVENT SEDIMENT FROM LEAVING THE DEVICE.
4. REMOVE DEVICE AND ANY ACCUMULATED SEDIMENT IN CONJUNCTION WITH THE FINAL GRADING AND SITE STABILIZATION.

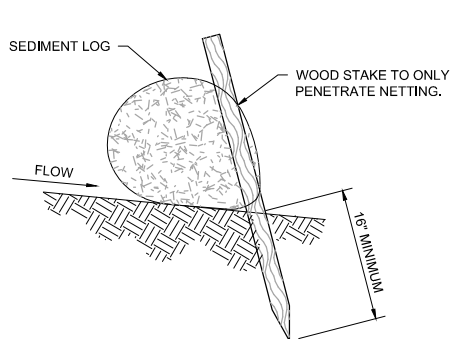
3
-
DETAIL: INLET PROTECTION, FILTER SACK TYPE
NOT TO SCALE



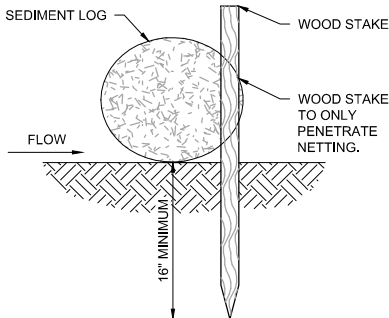
NOTES:

1. REFER TO MANUFACTURER RECOMMENDATIONS FOR STAPLE PATTERNS FOR SLOPE INSTALLATIONS.
2. PREPARE SOIL BY LOOSENING TOP 1-2 INCHES AND APPLY SEED (AND FERTILIZER WHERE REQUIRED) PRIOR TO INSTALLING BLANKETS. GROUND SHOULD BE SMOOTH AND FREE OF DEBRIS.
3. BEGIN (A) AT THE TOP OF THE SLOPE AND ROLL THE BLANKETS DOWN OR (B) AT ONE END OF THE SLOPE AND ROLL THE BLANKETS HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 6" OVERLAP, WITH THE UPHILL BLANKET ON TOP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
6. BLANKET MATERIALS SHALL BE AS SPECIFIED OR AS APPROVED BY ENGINEER.

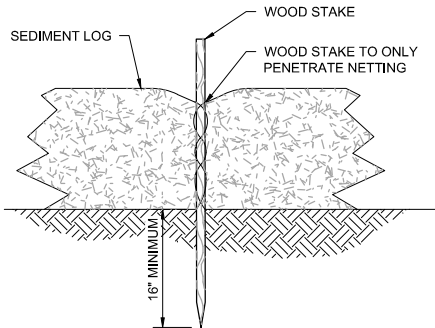
4
-
DETAIL: EROSION CONTROL BLANKET - INSTALLATION
NOT TO SCALE



SIDE VIEW ON SLOPE



SIDE VIEW FLAT

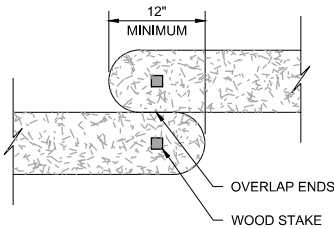


FRONT VIEW

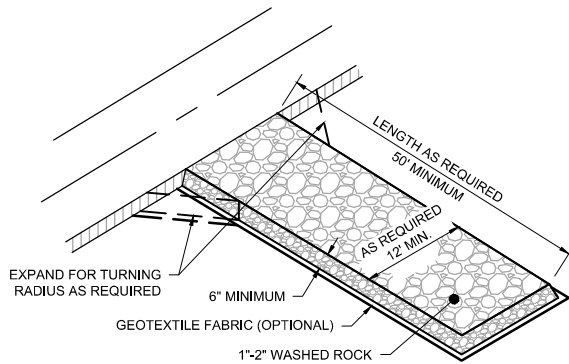
NOTES:

1. INSTALL SEDIMENT LOG ALONG CONTOURS (CONSTANT ELEVATION).
2. NO GAPS SHALL BE PRESENT UNDER SEDIMENT LOG. PREPARE AREA AS NEEDED TO SMOOTH SURFACE OR REMOVE DEBRIS.
3. REMOVE ACCUMULATED SEDIMENT WHEN REACHING 1/3 OF LOG HEIGHT.
4. MAINTAIN SEDIMENT LOG THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACED AS REQUIRED.

2
-
DETAIL: SEDIMENT LOG - STAKING
NOT TO SCALE



TOP VIEW



NOTES:

1. MAINTAIN ENTRANCE THROUGHOUT THE CONSTRUCTION PERIOD AND REPAIR OR REPLACE AS REQUIRED TO PREVENT TRACKING OFFSITE.
2. REMOVE ENTRANCE IN CONJUNCTION WITH FINAL GRADING AND SITE STABILIZATION.
3. INCLUDE WASH-OFF BERM WITH A MINIMUM HEIGHT OF 2 FEET ABOVE THE ADJACENT ROADWAY AND WITH MAXIMUM SIDE SLOPES OF 4:1

5
-
DETAIL: CONSTRUCTION ENTRANCE - ROCK
NOT TO SCALE

ORIGINAL DRAWING SIZE: ANSI FULL BLEED 8 (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/9/2025 11:20 AM
CADD USER: BRIAN R. MICOLTE FILE: INDESIGN23272114.00023272114_G-13.DWG

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.

PRINTED NAME: -
SIGNATURE: -
DATE: - LICENSE #: -

-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	

BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

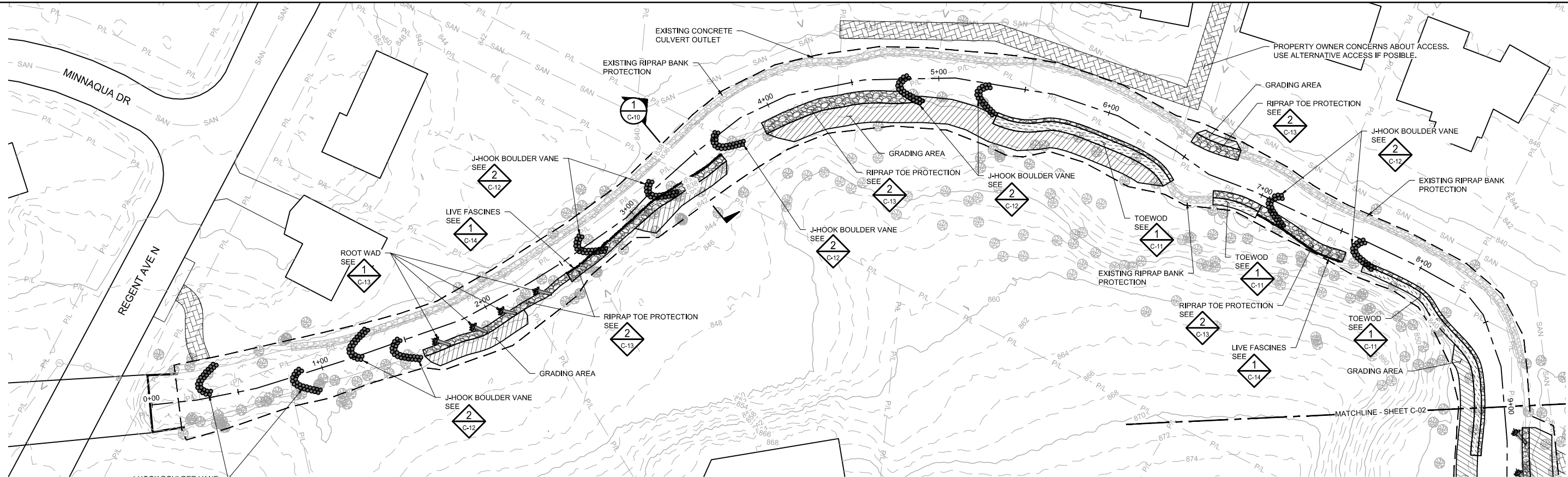
BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
EROSION CONTROL DETAILS

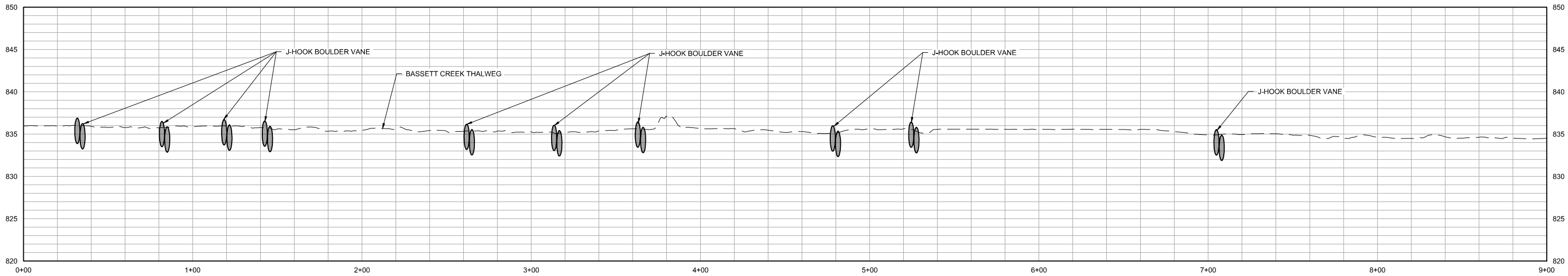
BARR PROJECT #
23272114.00
DWG #
G-13
REV #
A

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

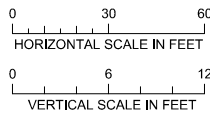
ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 11:30 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114\DWG\23272114_C-02.DWG



1 PLAN: STREAM RESTORATION (0+00 TO 9+00)



2 PROFILE: STREAM RESTORATION (0+00 TO 9+00)



50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	

BARR

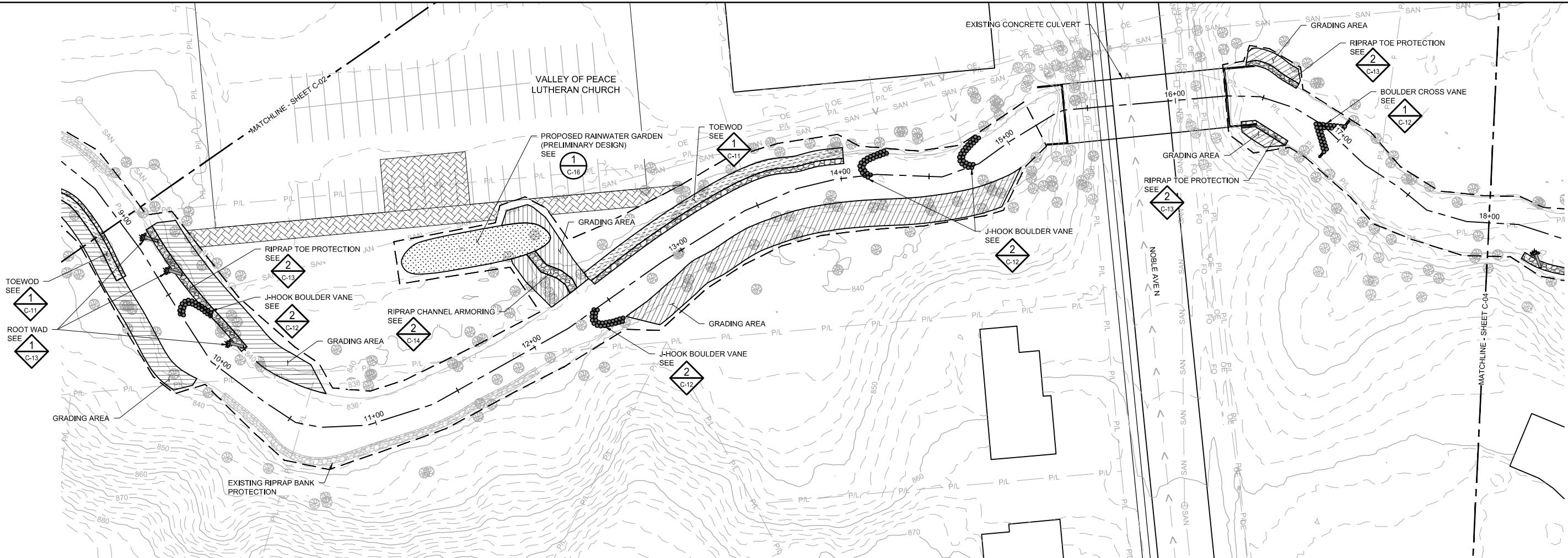
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

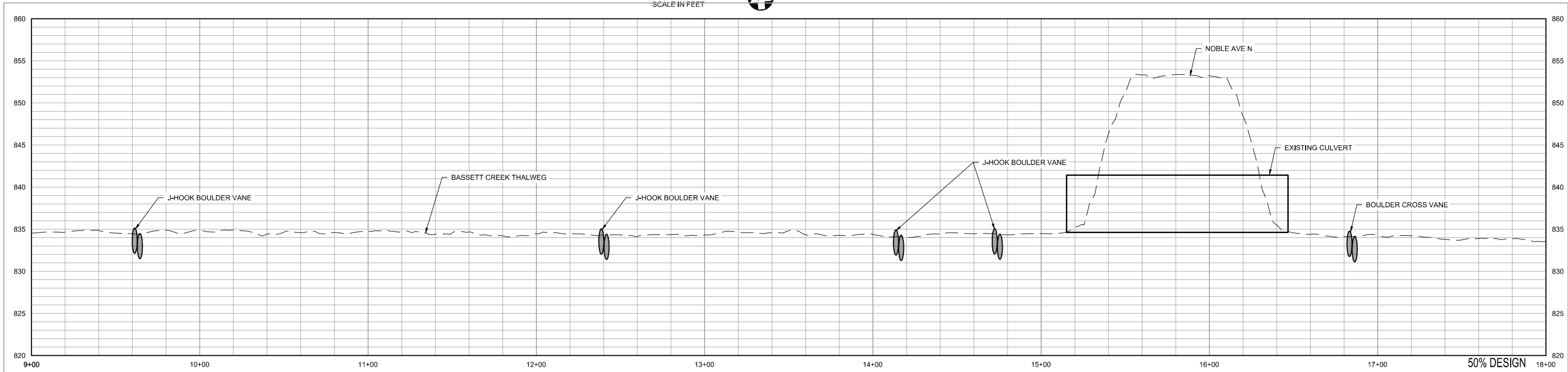
BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM RESTORATION
PLAN & PROFILE
(STA. 0+00 TO 9+00)

BARR PROJECT #	23272114.00
DWG #	C-02
REV #	A



1 PLAN: STREAM RESTORATION (9+00 TO 18+00)



2 PROFILE: STREAM RESTORATION (9+00 TO 18+00)

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 11:28 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114_00\23272114_C-03.DWG

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION

BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

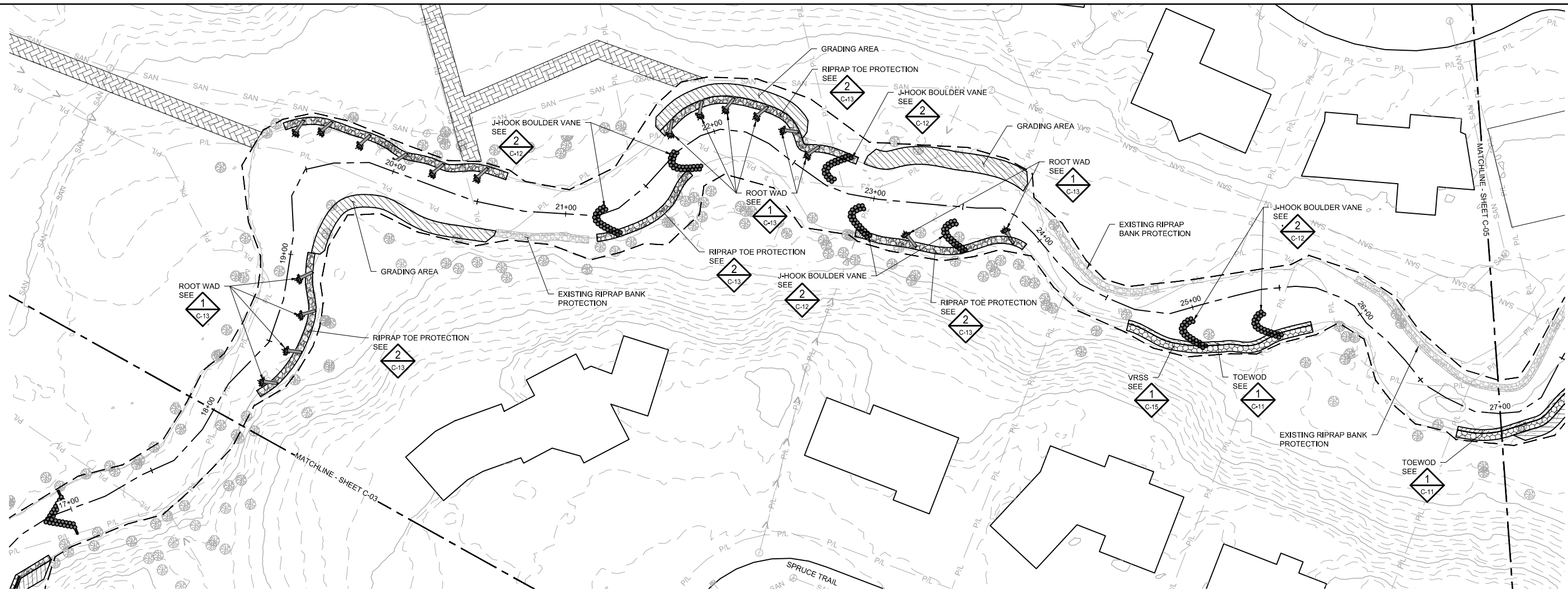
BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM RESTORATION
PLAN & PROFILE
(STA. 9+00 TO 18+00)

BARR PROJECT #	23272114.00
DWG #	C-03
REV #	A

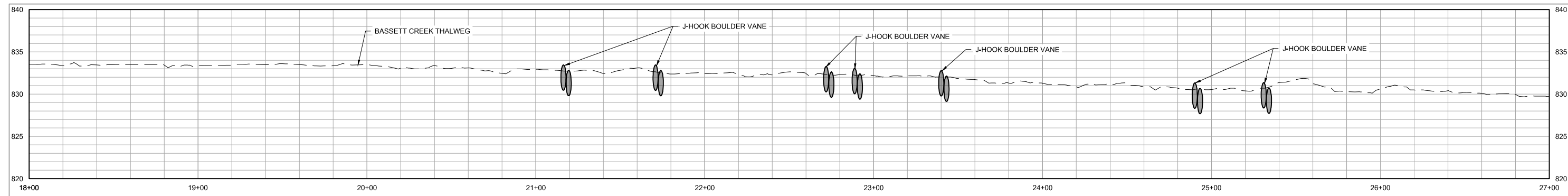
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 11:27 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114.DWG



1 PLAN: STREAM RESTORATION (18+00 TO 27+00)

0 30 60
SCALE IN FEET



2 PROFILE: STREAM RESTORATION (18+00 TO 27+00)

0 30 60
HORIZONTAL SCALE IN FEET

0 6 12
VERTICAL SCALE IN FEET

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.

PRINTED NAME _____
SIGNATURE _____
DATE _____ LICENSE # _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



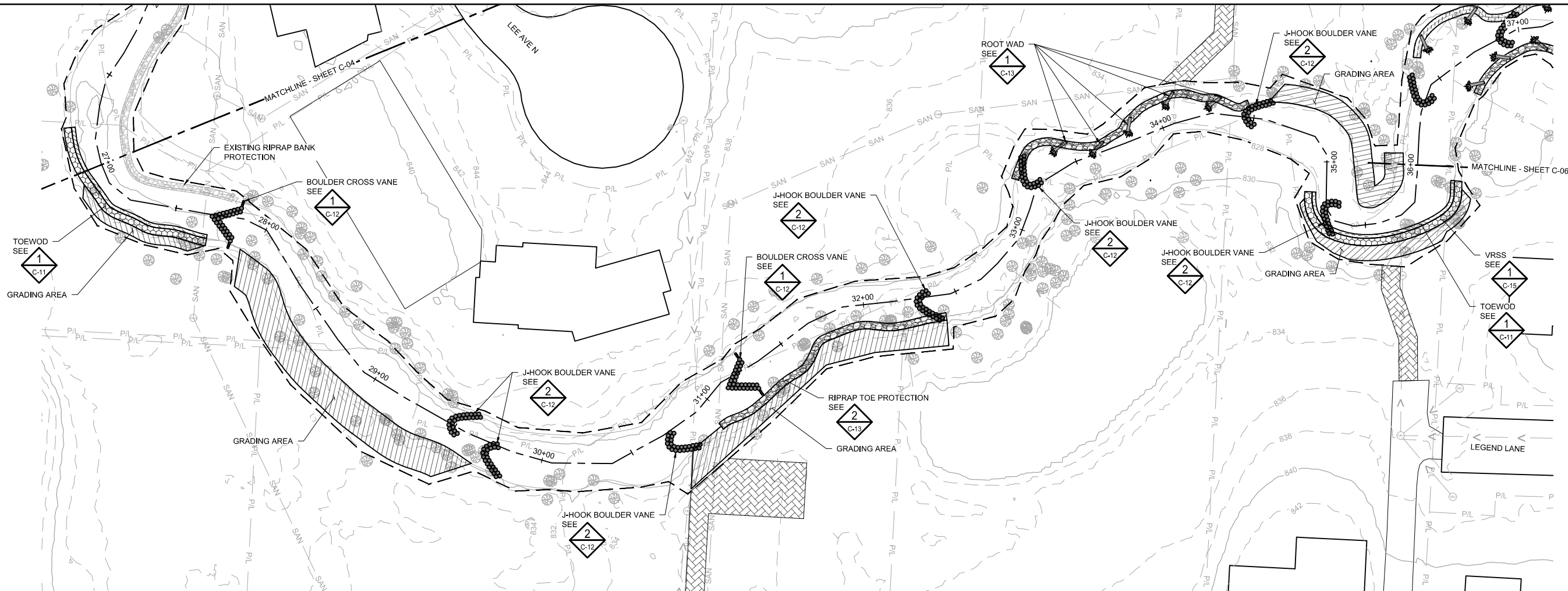
BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

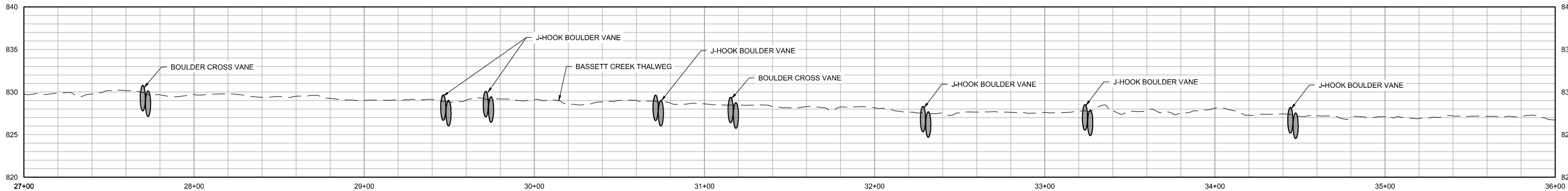
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION GOLDEN VALLEY, MINNESOTA	BASSETT CREEK MAIN STEM RESTORATION- PHASE 1 GOLDEN VALLEY, MINNESOTA		BARR PROJECT # 23272114.00
	STREAM RESTORATION PLAN & PROFILE (STA. 18+00 TO 27+00)		DWG # C-04
			REV # A

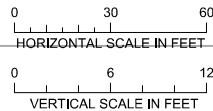
50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



1 PLAN: STREAM RESTORATION (27+00 TO 36+00)



2 PROFILE: STREAM RESTORATION (27+00 TO 36+00)



50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

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.

PRINTED NAME _____
SIGNATURE _____
DATE _____ LICENSE # _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BARR

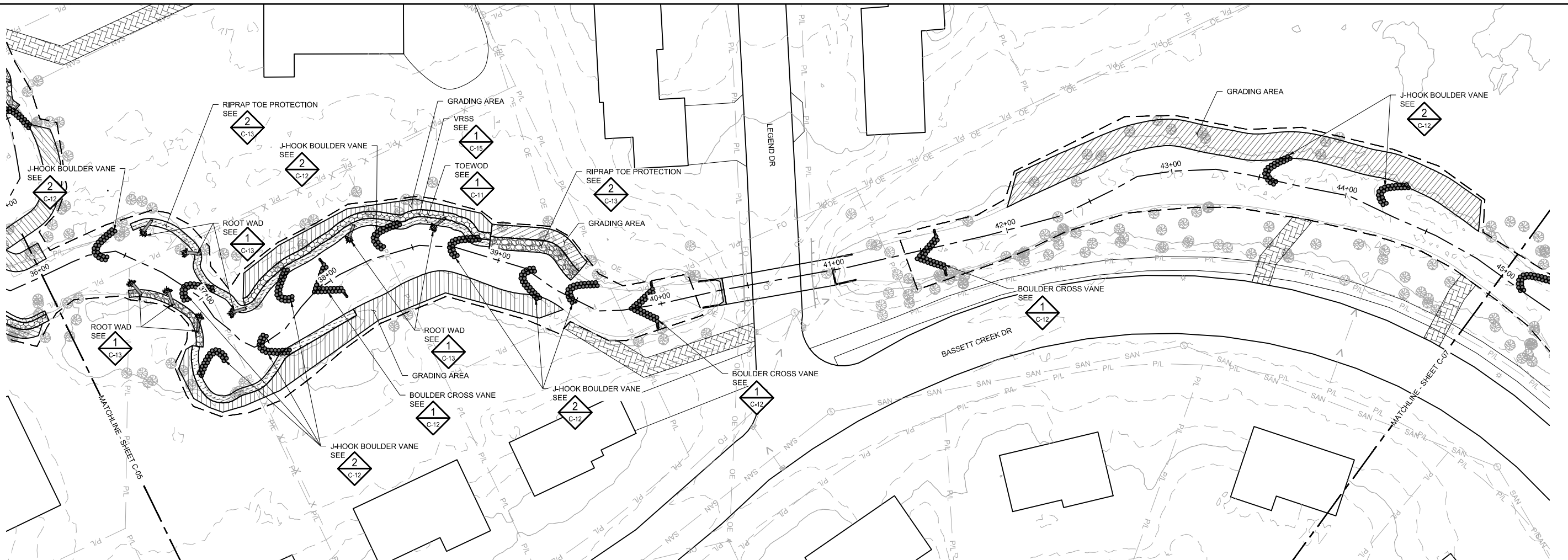
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 1010411545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

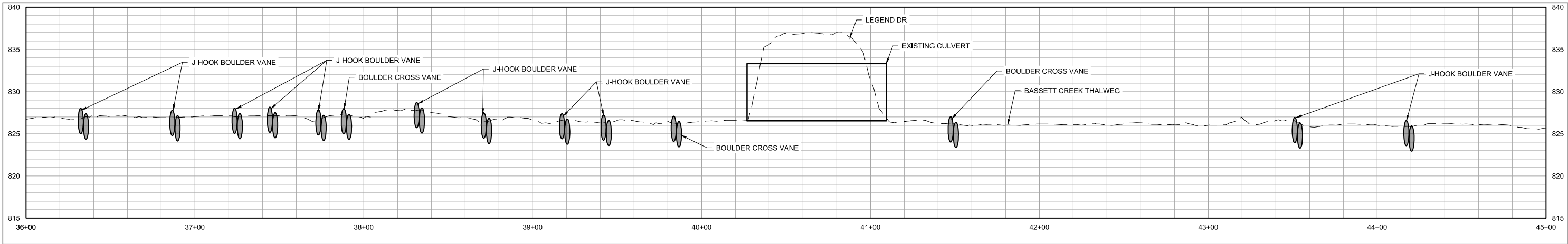
BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM RESTORATION
PLAN & PROFILE
(STA. 27+00 TO 36+00)

BARR PROJECT #	23272114.00
DWG #	C-05
REV #	A



1 PLAN: STREAM RESTORATION (36+00 TO 45+00)

0 30 60
SCALE IN FEET



2 PROFILE: STREAM RESTORATION (36+00 TO 45+00)

0 30 60
HORIZONTAL SCALE IN FEET

0 6 12
VERTICAL SCALE IN FEET

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 11:34 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114\00\23272114_C-06.DWG

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

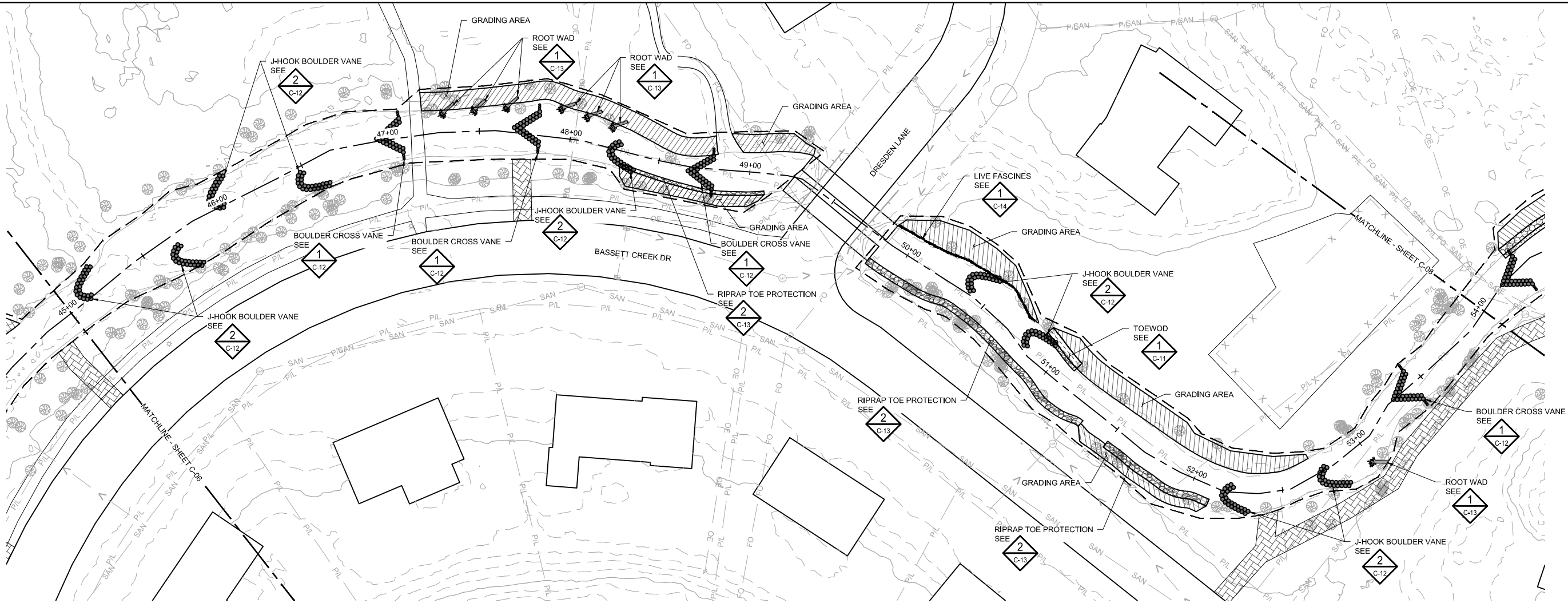
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

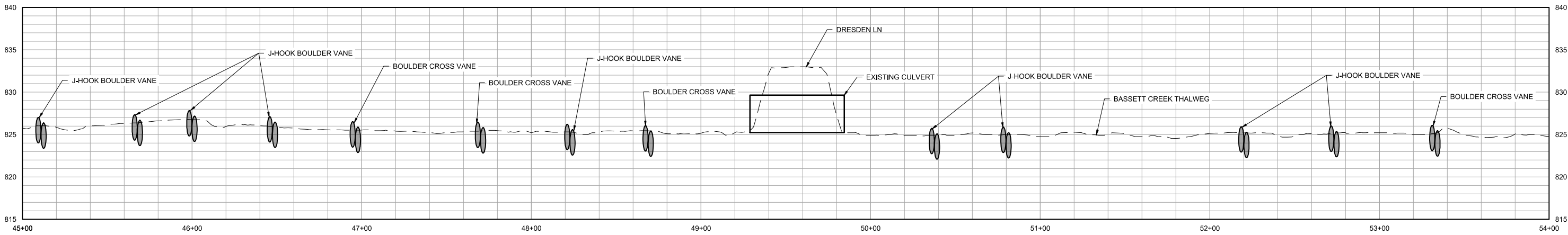
BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM RESTORATION
PLAN & PROFILE
(STA. 36+00 TO 45+00)

BARR PROJECT #	23272114.00
DWG #	C-06
REV #	A

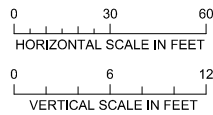
50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



1 PLAN: STREAM RESTORATION (45+00 TO 54+00)



2 PROFILE: STREAM RESTORATION (45+00 TO 54+00)



ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 11:37 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114\00\23272114_C-02.DWG

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

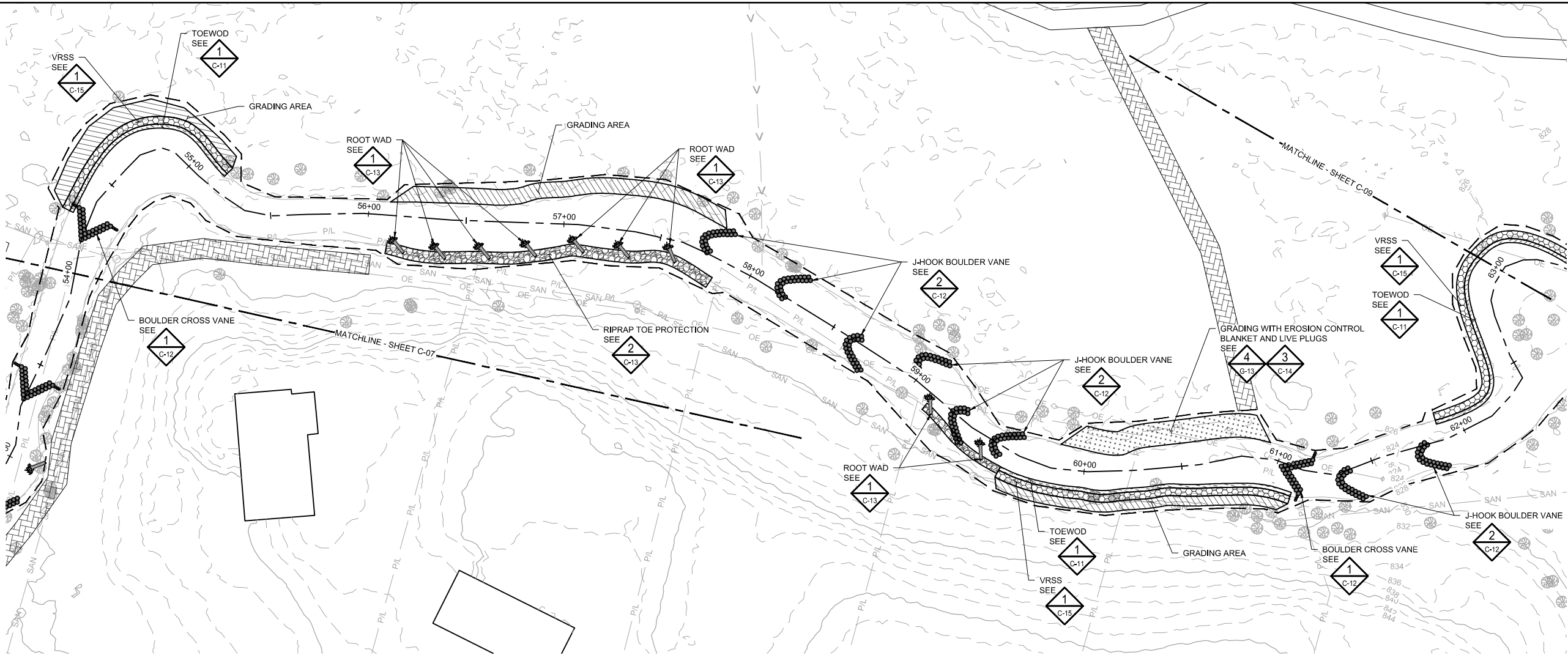
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM RESTORATION
PLAN & PROFILE
(STA. 45+00 TO 54+00)

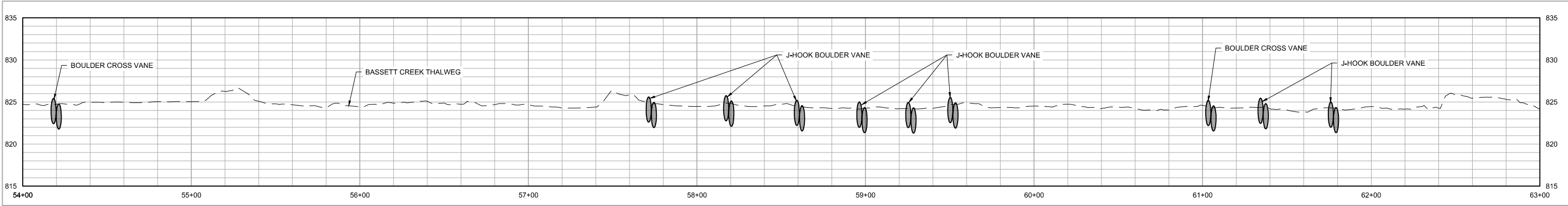
BARR PROJECT #	23272114.00
DWG #	C-07
REV #	A

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



1 PLAN: STREAM RESTORATION (54+00 TO 63+00)

0 30 60
SCALE IN FEET



2 PROFILE: STREAM RESTORATION (54+00 TO 63+00)

0 30 60
HORIZONTAL SCALE IN FEET

0 6 12
VERTICAL SCALE IN FEET

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 11:42 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114\00\23272114_C-08.DWG

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

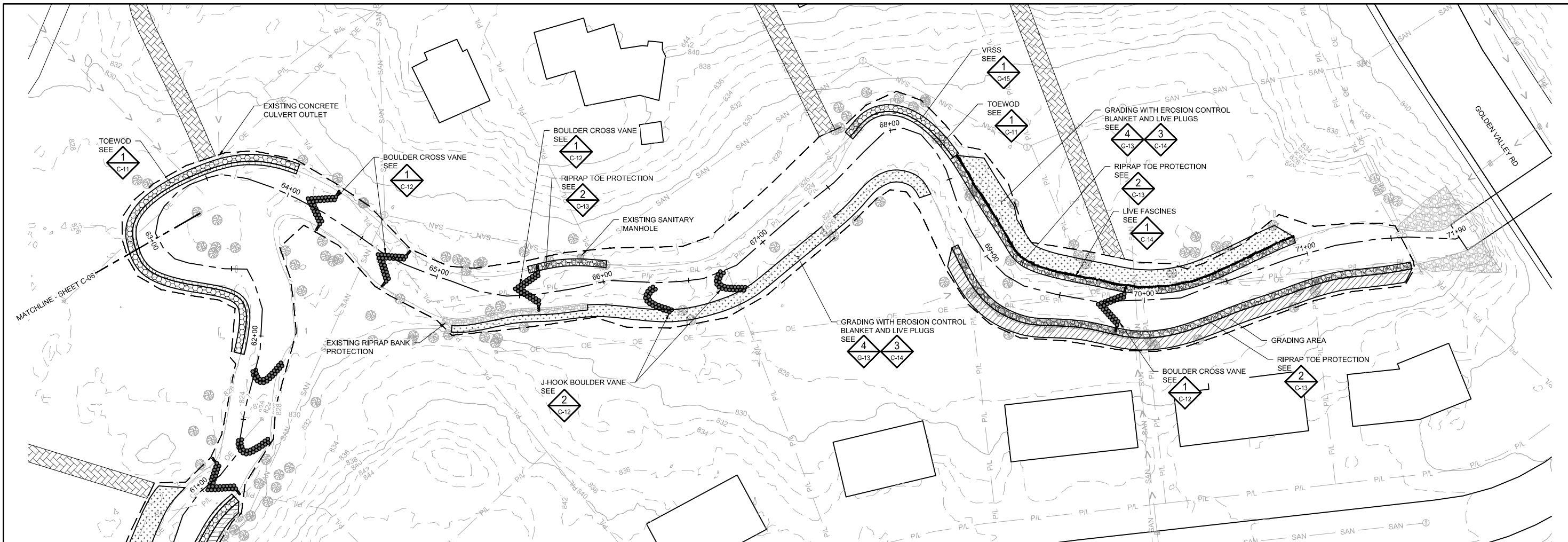
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 1010411545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

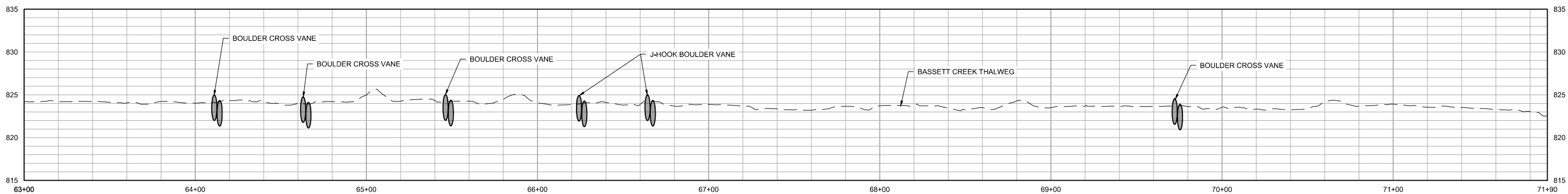
BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM RESTORATION
PLAN & PROFILE
(STA. 54+00 TO 63+00)

BARR PROJECT #	23272114.00
DWG #	C-08
REV #	A

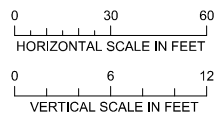
50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



1 PLAN: STREAM RESTORATION (63+00 TO 72+00)



2 PROFILE: STREAM RESTORATION (63+00 TO 72+00)



ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 11:53 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114.00\23272114_C-09.DWG

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM RESTORATION
PLAN & PROFILE
(STA. 63+00 TO 72+00)

BARR PROJECT #	23272114.00
DWG #	C-09
REV #	A

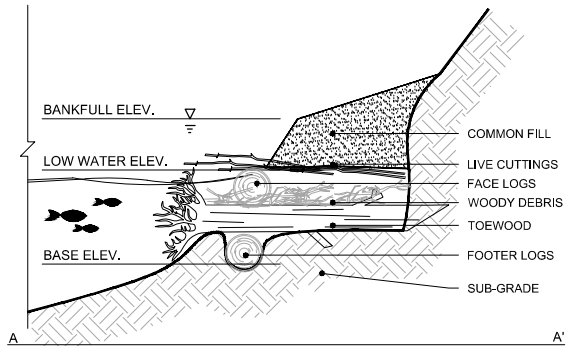
50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1/2" = 1' PLOT DATE: 7/4/2025 10:38 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114\DWG\23272114_C-11.DWG

1. INSTALLATION SUMMARY

ENGINEER OR OWNER'S REPRESENTATIVE MUST BE PRESENT FOR INSTALLATION OF TOEWOOD BENCH.

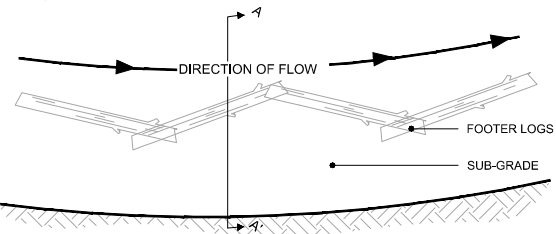
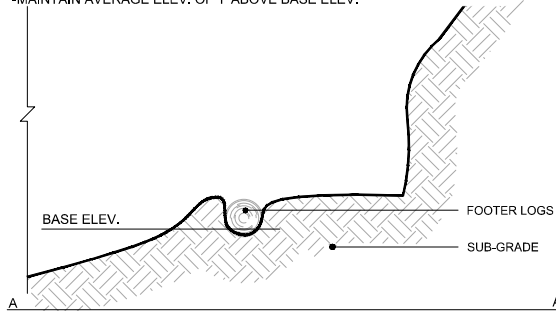
THE DRAWINGS ON THIS PAGE ARE NOT TO SCALE.



2. SUBGRADE AND FOOTER LOGS

SPECIFICATION:
-8" TO 1" DIAMETER
-LIMBS REMOVED
-APPROX 10' LENGTH

PLACEMENT:
-EXCAVATE TO BASE ELEVATION - CONTRACTOR SHALL MAKE EFFORT TO SEPARATE GRANULAR AND FINE FILL NATIVE MATERIAL FOR USE IN STEPS 4 AND 6.
-PLACE FOOTER LOGS 30 DEGREES FROM PARALLEL TO STREAM FLOW WITH ENDS STACKED CREATING A ZIG ZAG PATTERN (PLAN VIEW BELOW)
-MAINTAIN AVERAGE ELEV. OF 1' ABOVE BASE ELEV.

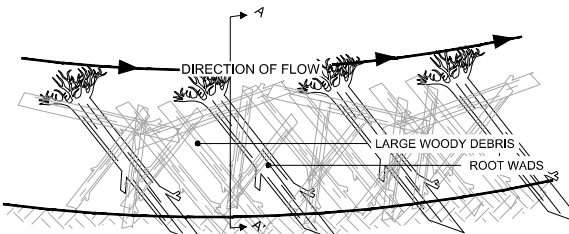
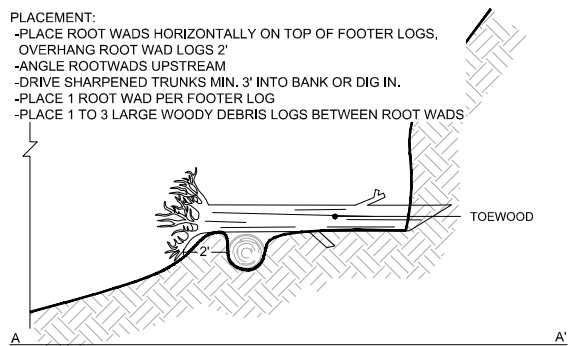


3. ROOT WADS & LRG WOODY DEBRIS

ROOT WAD SPECIFICATION:
-8" MIN DIAMETER
-LENGTH INDICATED IN DESIGN CROSS SECTION OR 8' MIN.
-LIMBS REMOVED
-ROOT WADS LEFT INTACT
-ENDS SHARPENED TO A POINT

LARGE WOODY DEBRIS SPECIFICATION:
-4" MIN DIAMETER

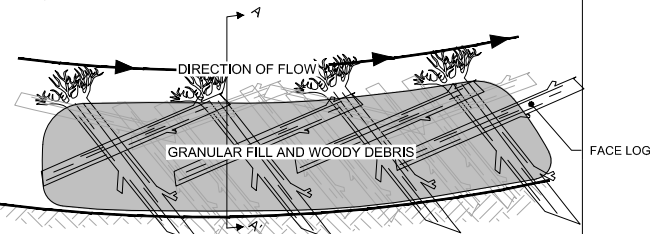
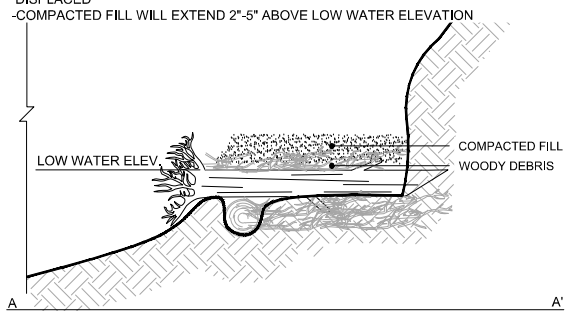
PLACEMENT:
-PLACE ROOT WADS HORIZONTALLY ON TOP OF FOOTER LOGS, OVERHANG ROOT WAD LOGS 2'
-ANGLE ROOTWADS UPSTREAM
-DRIVE SHARPENED TRUNKS MIN. 3' INTO BANK OR DIG IN.
-PLACE 1 ROOT WAD PER FOOTER LOG
-PLACE 1 TO 3 LARGE WOODY DEBRIS LOGS BETWEEN ROOT WADS



4. WOODY DEBRIS & GRANULAR FILL

SPECIFICATION:
-WOODY MATERIAL (COMPOSED OF SMALL LIMBS AND BRANCHES, APPROX. 4" MAX DIAMETER AND SMALLER)
-DO NOT USE ROTTEN WOODY MATERIAL
-NATIVE GRANULAR FILL

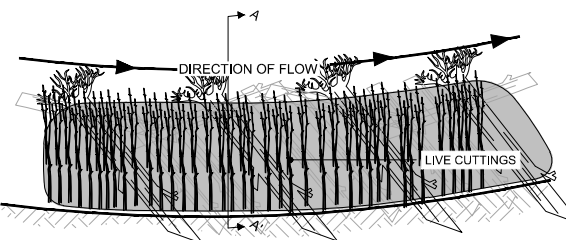
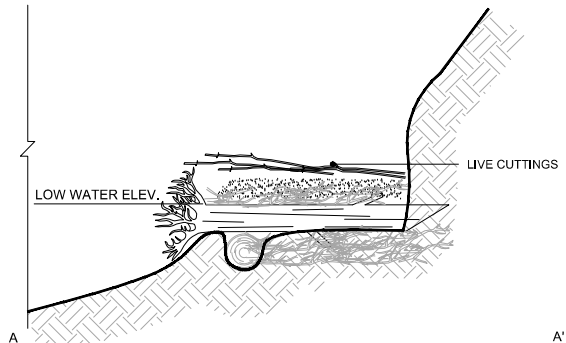
PLACEMENT:
-FILL BETWEEN FOOTER LOGS AND TOEWOOD WITH WOODY DEBRIS
-STACK WOODY DEBRIS TO LOW WATER ELEVATION
-LAYER NATIVE GRANULAR FILL ON TOP OF WOODY DEBRIS
-COMPACT SO THAT SETTLING OF FILL IS MINIMIZED BUT DEBRIS IS NOT DISPLACED
-COMPACTED FILL WILL EXTEND 2"-5" ABOVE LOW WATER ELEVATION



5. LIVE CUTTINGS

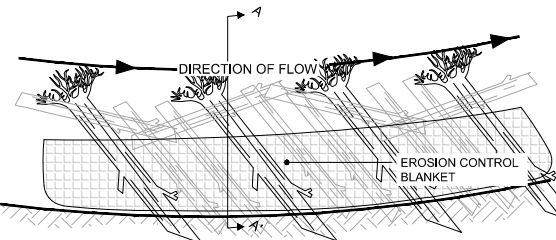
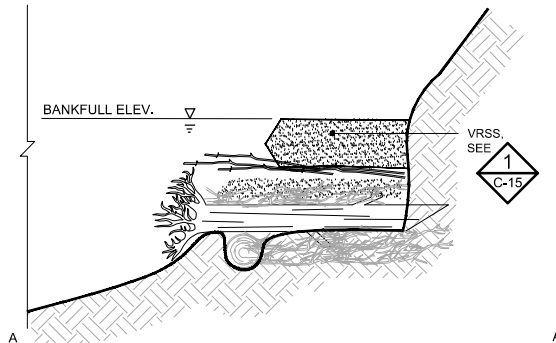
SPECIFICATION:
-SEE LIVE CUTTING DETAIL D-03 ON SHEET R-02

PLACEMENT:
-LAY CUTTINGS WITH A DENSITY OF 3 CUTTINGS PER LINEAL FOOT
-TOPS OF CUTTING WILL POINT TOWARD CHANNEL
-TRIM EXPOSED ENDS OF CUTTINGS, LEAVE NO MORE THAN 6" EXPOSED
-DEPOSIT NATIVE FILL OVER CUTTINGS AND WATER LIBERALLY, COMPRESS FILL TO 2"-4" THICK OVER CUTTINGS



6. UPPER BANK STABILIZATION (VARIES, SEE PLANS)

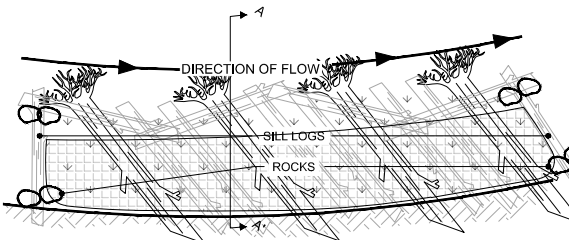
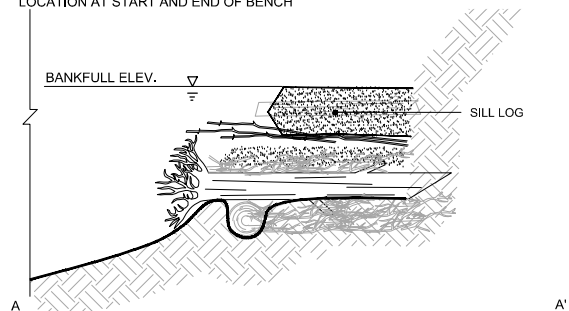
STABILIZE UPPER BANK AS SPECIFIED:
-SEE VRSS DETAIL
-SEE LANDSCAPE PLANS



7. SILL LOGS & TERMINATION

SPECIFICATION:
-10" MIN DIAMETER
-LIMBS REMOVED
-LENGTH DETERMINED BY WIDTH OF TOEWOOD BENCH

PLACEMENT:
-PLACE ONE SILL LOG AT THE START AND END OF THE TOEWOOD BENCH PERPENDICULAR TO THE DIRECTION OF FLOW.
-PLACE LARGE ROCKS ON TOP OF SILL LOG, TOP OF ROCK WILL MEET BANKFULL ELEVATION
-TRANSITION BANKFULL ELEVATION TO EXISTING GRADE AT DETERMINED LOCATION AT START AND END OF BENCH



1
-
DETAIL: TOE WOOD
NOT TO SCALE

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.

PRINTED NAME -
SIGNATURE -
DATE - LICENSE # -

-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
-	-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	

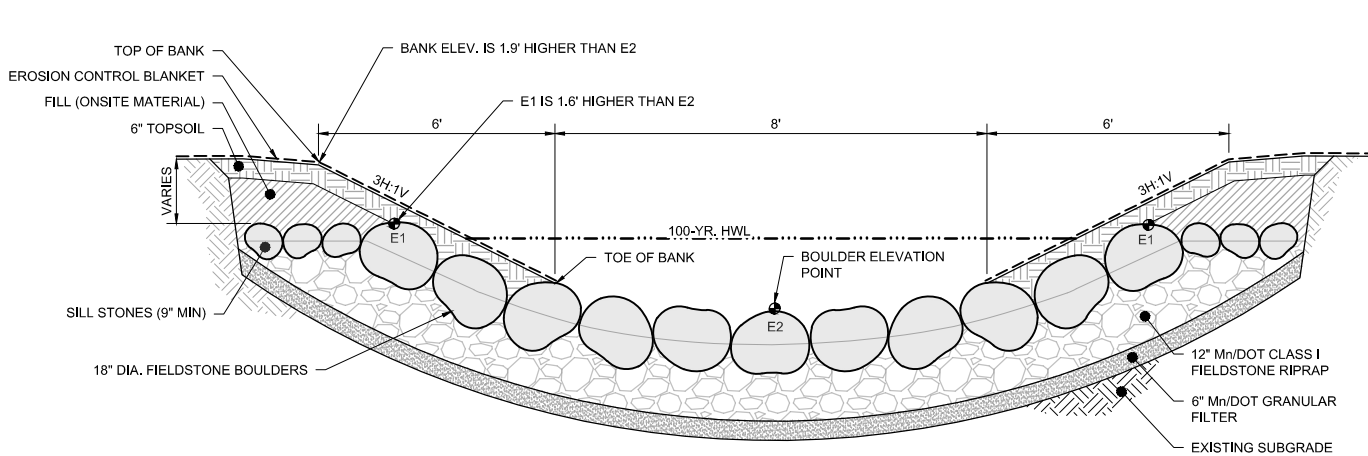
BARR
BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 1010411545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

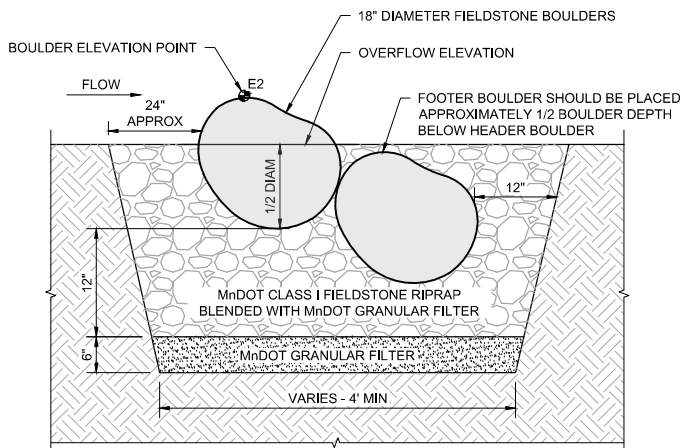
BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM STABILIZATION DETAILS

BARR PROJECT #	23272114.00
DWG #	C-11
REV #	A

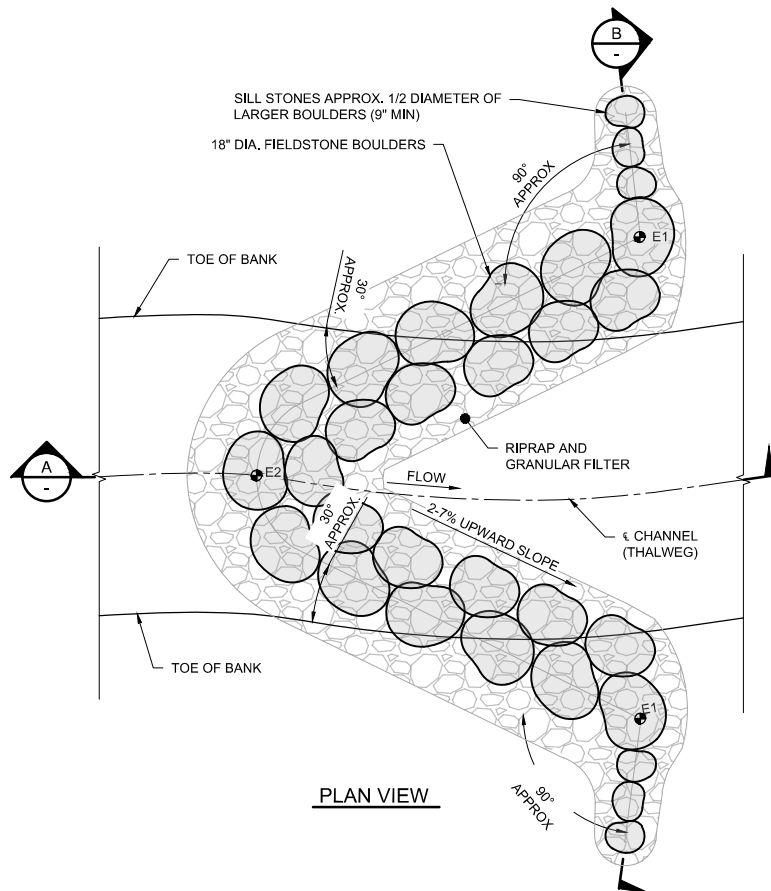
59% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



B SECTION: CROSS VANE - DOUBLE BOULDER
NOT TO SCALE

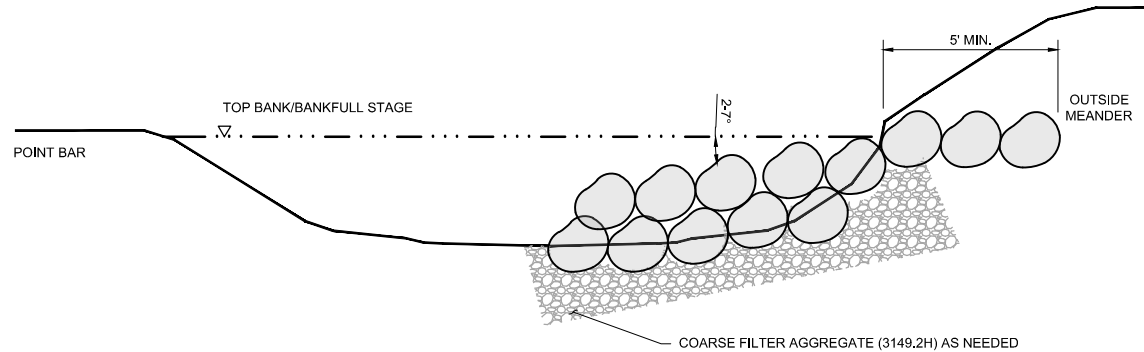


A SECTION: CROSS VANE - DOUBLE BOULDER
NOT TO SCALE

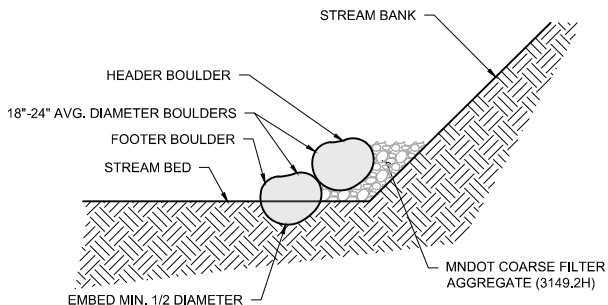


PLAN VIEW

1 DETAIL: CROSS VANE - DOUBLE BOULDER
NOT TO SCALE



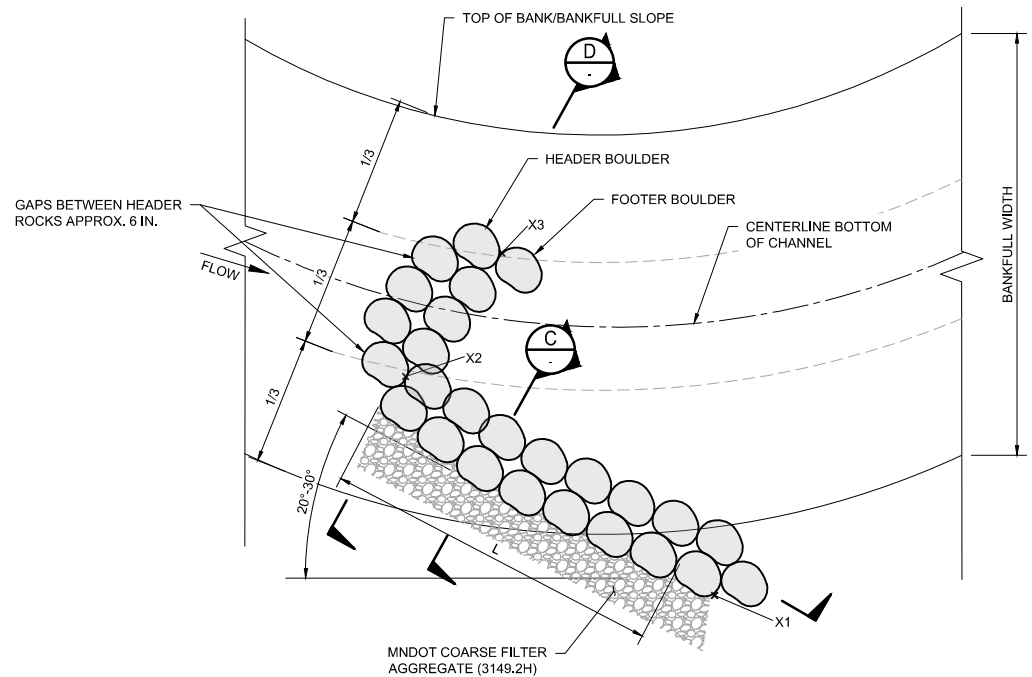
D SECTION: J-HOOK BOULDER VANE
NOT TO SCALE



C SECTION: J-HOOK BOULDER VANE
NOT TO SCALE

NOTES:

- COARSE BACKFILL (MNDOT COARSE FILTER AGGREGATE) SHALL BE PLACED TO A THICKNESS EQUAL TO THE DEPTH OF THE HEADER AND FOOTER BOULDERS AND SHALL EXTEND OUT FORM THE VANE ARMS TO THE STREAM BANK.
- THE VANE ARM OF THE BOULDER J-HOOK SHALL BE CONSTRUCTED FIRST, FOLLOWED BY THE HOOK.
- BOULDER J-HOOK VANES SHALL BE BUILT TYPICALLY AS FOLLOWS:
 - OVER EXCAVATE STREAM BED TO A DEPTH EQUAL TO THE TOTAL THICKNESS OF THE HEADER AND FOOTER BOULDERS.
 - PLACE FOOTER BOULDERS OF THE VANE ARM. THERE SHALL BE NO GAPS BETWEEN BOULDERS.
 - PLACE COARSE BACKFILL BEHIND THE FOOTER BOULDERS.
 - INSTALL HEADER BOULDERS ON THE VANE ARM ON TOP OF AND SET SLIGHTLY BACK FROM THE FOOTER BOULDERS (SUCH THAT PART OF THE HEADER BOULDER IS RESTING ON THE COARSE BACKFILL), HEADER BOULDERS SHALL SPAN THE SEAMS OF THE FOOTER BOULDERS. THERE SHALL BE NO GAPS BETWEEN BOULDERS.
 - PLACE COARSE BACKFILL BEHIND HEADER BOULDERS ENSURING THAT ANY VOIDS BETWEEN THE BOULDERS ARE FILLED.
 - PLACE EACH BOULDER TO FORM THE HOOK BY INSTALLING A FOOTER BOULDER, THEN A HEADER BOULDER. GAPS AS WIDE AS 1/4 TO 1/3 THE BOULDER DIAMETER SHALL BE LEFT BETWEEN THE HOOK BOULDERS.



2 DETAIL: J-HOOK BOULDER VANE
NOT TO SCALE

NOTES:

- CROSS VANE LOCATIONS AND ELEVATIONS ARE APPROXIMATE AND MAY BE MODIFIED IN THE FIELD BY THE ENGINEER.
- FINAL BOULDER PLACEMENT TO BE APPROVED BY THE ENGINEER IN THE FIELD. CONTRACTOR MAY BE REQUIRED TO ADJUST BOULDER ELEVATIONS AND ROTATION.
- THERE SHALL BE NO SIGNIFICANT GAPS BETWEEN BOULDERS. MNDOT CLASS I FIELDSTONE RIPRAP BLENDED WITH MNDOT GRANULAR FILTER SHALL BE PLACED ON THE UPSTREAM SIDE OF THE BOULDERS TO PLUG SMALL GAPS (MAY REQUIRE HAND PLACEMENT).
- BOULDERS OF AN UNSUITABLE SHAPE MAY BE RE-LOCATED OR REJECTED.
- INSTALL EROSION CONTROL BLANKET ON DISTURBED BANKS.



BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM STABILIZATION DETAILS

BARR PROJECT #	23272114.00
DWG #	C-12
REV #	A

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.

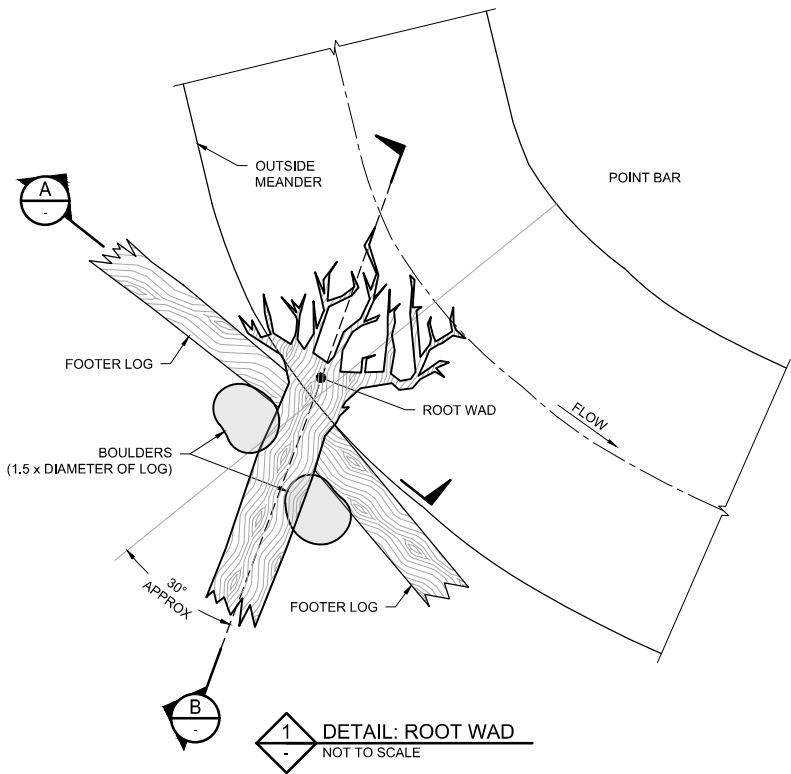
PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE # _____

#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW

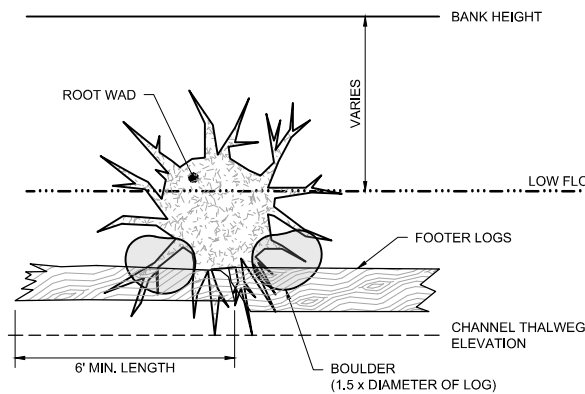
ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 10:31 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114\00\23272114_C-11.DWG

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

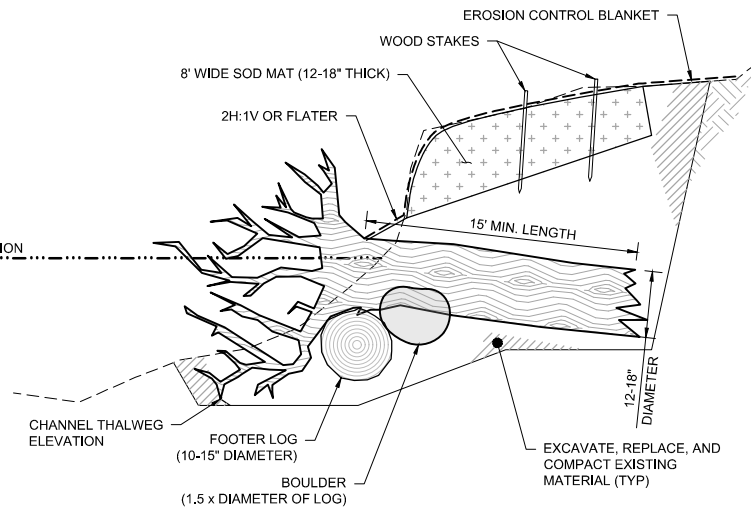
ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 10:27 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\2372114\DWG\2372114_C-11.DWG



1
-
-
DETAIL: ROOT WAD
NOT TO SCALE



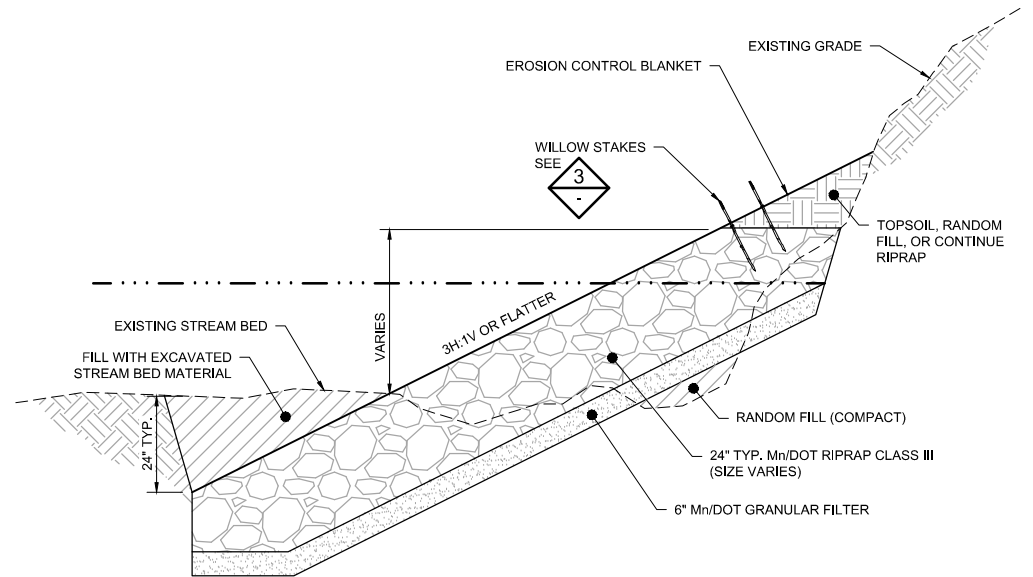
A
-
-
SECTION: ROOT WAD
NOT TO SCALE



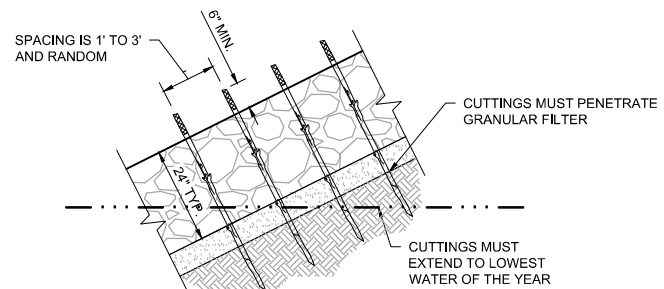
B
-
-
SECTION: ROOT WAD
NOT TO SCALE

GENERAL NOTES:

1. THE ENGINEER MUST BE NOTIFIED AT LEAST 3 DAYS PRIOR TO ROOT WAD INSTALLATION AND MUST BE ON SITE DURING INSTALLATION.
2. TO THE EXTENT POSSIBLE, ROOT WADS SHOULD BE CREATED FROM TREES THAT WILL BE REMOVED FROM THE SITES WITHIN THE PROJECT AREA.
3. CONSTRUCTION SHOULD PROCEED FROM DOWNSTREAM TO UPSTREAM IN AREAS WHERE MORE THAN ONE ROOT WAD WILL BE INSTALLED AS SHOWN ON THE DRAWINGS.
4. EXCAVATE A TRENCH ALONG THE STREAMBANK TOE FOR THE FOOTER LOGS.
5. PLACE THE FOOTER LOGS INTO THE TRENCH, WITH THE TOPS OF THE LOGS AT SPECIFIED ELEVATIONS FOR EACH SITE.
6. EXCAVATE A TRENCH IN WHICH TO PLACE THE ROOT WAD. IN SOFT SOILS IT MAY BE POSSIBLE TO DRIVE THE ROOT WAD INTO THE BANK WITH EQUIPMENT AFTER SHARPENING THE END TO A POINT. CARE SHALL BE TAKEN NOT TO DAMAGE THE ROOT WAD.
7. THE ROOT WAD MUST BE PLACED IN THE BANK SO THAT THE BACK OF THE ROOT FAN RESTS AGAINST THE FRONT OF THE FOOTER LOG.
8. THE ROOT FAN MUST BE PLACED SUCH THAT THE FAN IS ANGLED UPSTREAM AS SHOWN AND AS DIRECTED BY THE ENGINEER.
9. MOVING UPSTREAM, THE PROCESS IS REPEATED FOR EACH ADDITIONAL ROOT WAD AS SHOWN ON THE DRAWINGS.
10. LARGE BOULDERS ARE PLACED ON EITHER SIDE OF THE TRUNK OF EACH ROOTWAD.
11. PLACE BACK FILL OVER THE BOULDERS AS NECESSARY WITH A COARSE FILTER AGGREGATE (MN/DOT STANDARD SPECIFICATION 3142.2H) AND MATCH EXISTING GRADE WITH 6" OF TOPSOIL.
12. REVEGETATE AND STABILIZE WITH EROSION CONTROL BLANKET AS SPECIFIED FOR EACH SITE AS SHOWN IN THE DRAWINGS AND DIRECTED BY THE ENGINEER.
13. TRIM THE ROOTS THAT EXTEND ABOVE THE STREAM BANK TO A HEIGHT SLIGHTLY BELOW BANK HEIGHT AS DIRECTED BY THE ENGINEER.
14. USE SELECT ON-SITE TREES AS NOTED IN GENERAL NOTES.



2
-
-
DETAIL: RIPRAP TOE PROTECTION
NOT TO SCALE



STAKE PLANTING

GENERAL NOTES:

1. USE WILLOW OR WILLOW TYPE ADVENTITIOUSLY ROOTABLE STOCK.
2. MATERIAL SHOULD BE FROM AN AREA WITH SIMILAR SOIL, CLIMATE, AND LOCATION RELATIVE TO THE STREAM.
3. THE MATERIAL SHALL BE AT LEAST TWO YEARS OLD AND FREE OF DISEASE, ROT, OR INSECT INFESTATION.
4. MATERIAL SHALL BE HARVESTED WHILE DORMANT AND SOAKED (1 TO 14 DAYS) BEFORE INSTALLATION.

3
-
-
DETAIL: WILLOW STAKES
NOT TO SCALE

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

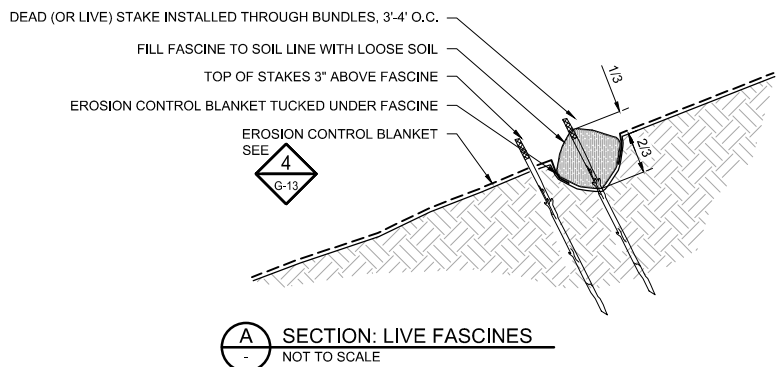
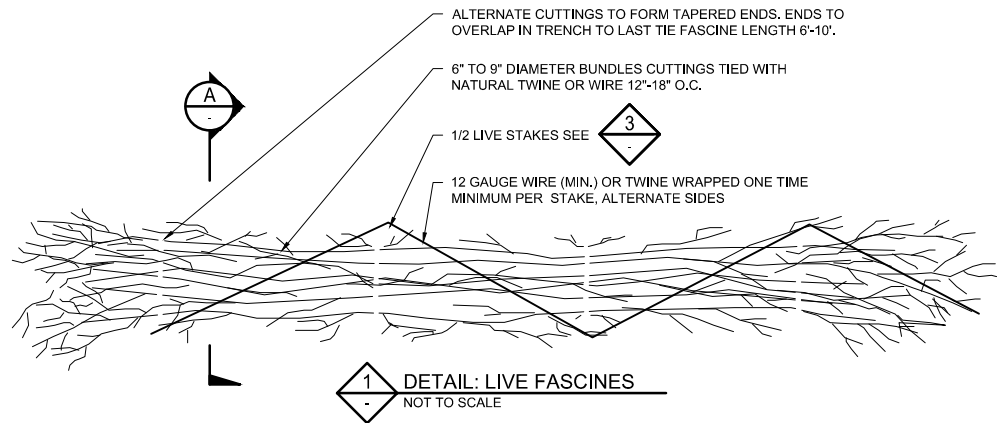
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM STABILIZATION DETAILS

BARR PROJECT #	23272114.00
DWG #	C-13
REV #	A



GENERAL

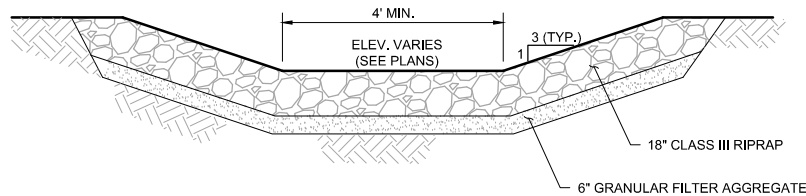
1. THE ENGINEER MUST BE NOTIFIED AT LEAST 3 DAYS PRIOR TO FASCINES INSTALLATION AND MUST BE ON SITE DURING INSTALLATION.
2. THE DORMANT CUTTINGS FOR FASCINES SHOULD ONLY BE INSTALLED DURING THE DORMANT SEASON, AFTER LEAF DROP IN THE FALL AND BEFORE BUD BREAK IN THE SPRING.
3. LIVE FASCINES ARE LIVE PLANT MATERIALS, HANDLE WITH CARE. SEE LIVE CUTTINGS DETAIL FOR SIZE, CARE, AND INSTALLATION METHODS.

PREPARATION

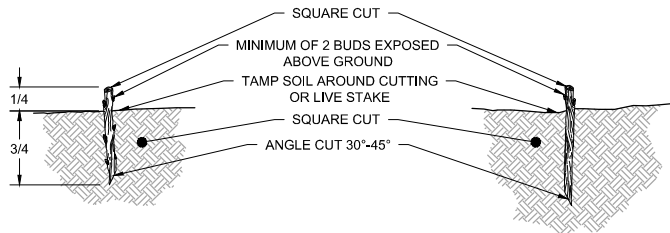
4. BRANCHES FOR FASCINE SHALL BE 1/2\"-2\" MINIMUM BUTT DIAMETER.
5. SOAK THE LIVE BRANCHES FOR A MINIMUM OF 24 HOURS (IDEALLY 5-7 DAYS) IN FLOWING WATER BEFORE PLANTING.
6. ASSEMBLE THE FASCINE BY LAYING OUT LIVE BRANCHES WITH THE CUT ENDS PLACED IN OPPOSITE DIRECTIONS IN A LONG SAUSAGE-LIKE BUNDLE.
7. TIE BUNDLES WITH TWINE AT 12\"-18\" INCREMENTS. FINISHED BUNDLES SHOULD BE 6-9\" IN DIAMETER.

PLACEMENT

8. CONSTRUCT FASCINES FROM LOWEST TO HIGHEST ELEVATION.
9. INSTALL FASCINES PARALLEL TO CONTOURS, UNLESS SPECIFIED OTHERWISE.
10. EXCAVATE A HORIZONTAL TRENCH ALONG THE SLOPE. THE TRENCH SHOULD BE ROUGHLY 2/3 THE DIAMETER OF THE FASCINE.
11. DISPOSE EXCAVATED SOIL ON-SITE ABOVE ORDINARY HIGH WATER LINE.
12. INSTALL EROSION CONTROL BLANKET ACROSS THE TRENCH AND CUT ALONG THE CENTERLINE OF THE TRENCH. STAKE ENDS OF BLANKET IN THE BOTTOM OF THE TRENCH. 6-8\" OF THE BLANKET SHOULD BE TUCKED UNDER THE FASCINE.
13. PLACE BUNDLES IN TRENCH, BACKFILL, COMPACT, AND WATER.
14. PLACE WOODEN (OR LIVE) STAKES AT A 3-4\" INTERVAL THROUGH THE CENTER OF THE BUNDLE. LEAVE 3 INCHES OF STAKES ABOVE THE BUNDLE.



2
DETAIL: RIPRAP CHANNEL ARMORING
NOT TO SCALE



LIVE CUTTING

LIVE STAKE

GENERAL NOTES:

1. LIVE STAKE OR CUTTING PLANTED PERPENDICULAR TO GROUND SURFACE.
2. SEE PLANT MATERIAL LIST FOR SPECIES LENGTH AND SPACING.
3. LIVE STAKES SHALL BE 1/4\" DIAMETER MINIMUM.
4. LIVE STAKES OR CUTTINGS TO HAVE PLANTING END CUT AT 45\" ANGLE AND DIPPED IN ROOTING HORMONE OR EQUIVALENT PRIOR TO INSTALLATION.
5. LIVE STAKES OR CUTTINGS TO BE KEPT WRAPPED OR KEPT WET AND OUT OF SUN DURING TRANSPORT/STAGING UNTIL INSTALLATION.

3
DETAIL: LIVE CUTTINGS OR LIVE STAKES
NOT TO SCALE

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/4/2025 10:25 AM
CADD USER: ERIC P. FITZGERALD FILE M:\DESIGN\23272114_00\23272114_C-11.DWG

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

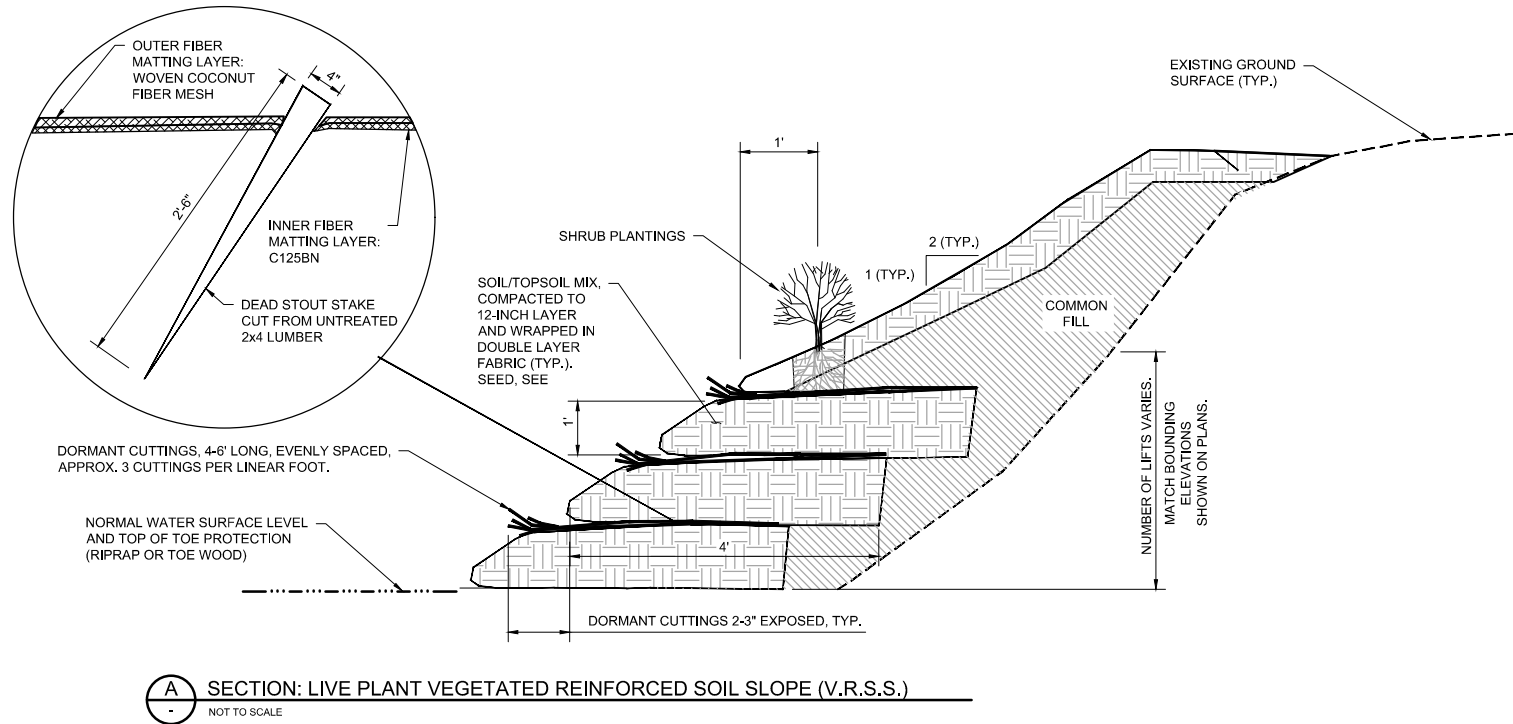
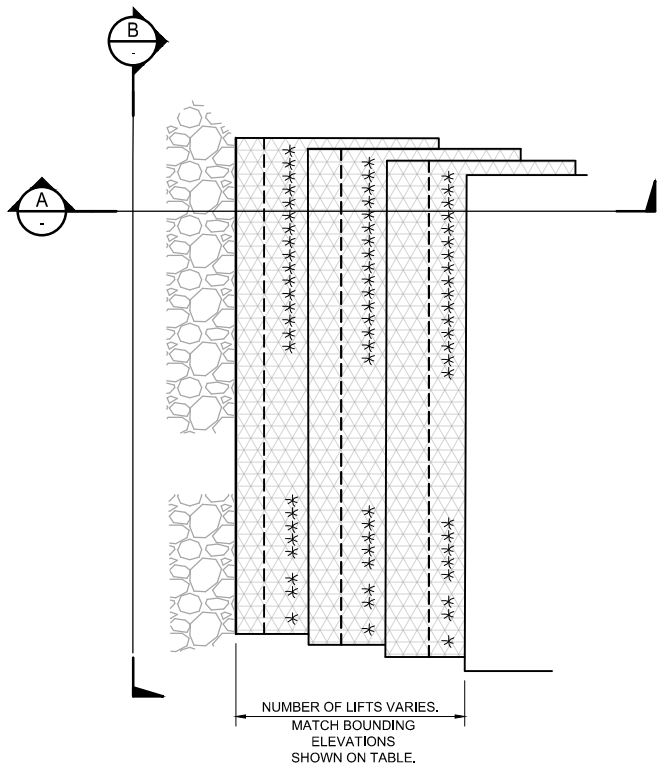
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM STABILIZATION DETAILS

BARR PROJECT #	23272114.00
DWG #	C-14
REV #	A

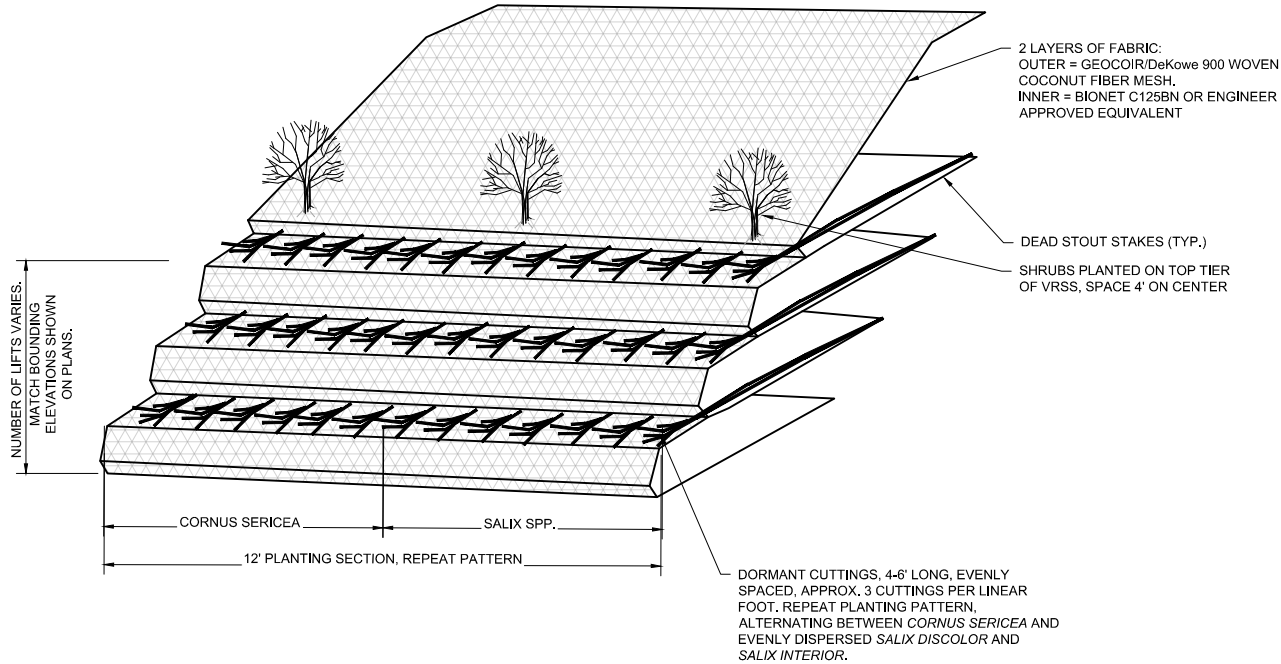
50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



DETAIL: LIVE PLANT VEGETATED REINFORCED SOIL SLOPE (V.R.S.S.)
NOT TO SCALE

NOTES:

1. THE ENGINEER MUST BE NOTIFIED AT LEAST 3 DAYS PRIOR TO ROOT WAD INSTALLATION AND MUST BE ON SITE DURING INSTALLATION.
2. SOAK DORMANT CUTTINGS FOR A MINIMUM OF 24 HOURS IN FLOWING WATER BEFORE PLANTING. SOAKING FOR 5-7 DAYS IS CONSIDERED IDEAL. THE DORMANT CUTTINGS SHOULD ONLY BE INSTALLED DURING THE DORMANT SEASON, AFTER LEAF DROP IN THE FALL AND BEFORE BUD BREAK IN THE SPRING. DORMANT CUTTINGS STORED IN COLD STORAGE WITH NO VISIBLE SIGN OF BUD BREAK MAY BE USED INTO LATE SPRING.
3. INSTALL RIPRAP AND GRANULAR FILTER AGGREGATE AS SPECIFIED IN SECTION 02375 AND AS SHOWN ON THE DRAWINGS.
4. EXCAVATE THE EXISTING STREAMBANK SLOPE SHOREWARD FROM AND LEVEL WITH THE TOP OF THE RIPRAP TO FORM A STABLE, UNDISTURBED SURFACE. A FLAT BENCH SHOULD BE CREATED FROM THE TOE OF THE STABLE CUT SLOPE TO THE TOE OF THE PROPOSED STREAM BANK RIPRAP.
5. DORMANT CUTTINGS ARE TO BE PLACED ON TOP OF THE RIPRAP EXCAVATED BENCH AT 3 BRANCHES PER LINEAR FOOT; THE BASAL END OF THE CUTTINGS SHOULD EXTEND AT LEAST 2 FOOT PAST THE BACK OF THE RIPRAP. NO MORE THAN 6 INCHES OF THE BUDDING END OF THE LIVE BRANCH SHOULD EXTEND PAST THE FRONT OF THE RIPRAP. COVER THE DORMANT CUTTINGS WITH TOPSOIL TO CREATE AN EVEN SURFACE FOR THE CONSTRUCTION OF THE FIRST SOIL LIFT.
6. LAY NATURAL FIBER MATTING ON BOTTOM OF THE BENCH, OVERLAPPING ADJACENT MATTING BY 1 FOOT. THE OUTER EXPOSED FIBER MATTING LAYER OF EACH SOIL LIFT SHALL BE GEOCOIR/DEKOWE 900 WOVEN COCONUT FIBER MESH, BIOD-MATTM 90, OR AN ENGINEER APPROVED EQUIVALENT.
7. THE INNER LAYER OF EACH SOIL LIFT SHALL BE BIONET C125BN OR AN ENGINEER APPROVED EQUIVALENT. LAY THE INNER LAYER OF BIONET ON TOP OF NATURAL FIBER MATTING OF EACH SOIL LIFT. FABRIC SHOULD BE INSTALLED SMOOTH WITH NO UNNECESSARY FOLDS OR WRINKLES. STAKE THE SHOREWARD END OF THE FIBER MATTING IN PLACE WITH WOODEN STAKES SPACED EVERY THREE FEET AS SHOWN ON THE DRAWINGS.
8. THE FIRST 6 TO 8 INCHES OF THE BOTTOM SOIL LIFT SHALL BE FILLED WITH GRAVEL AND SAND MATERIAL EXCAVATED FROM THE STREAM BED. THE TOP 6 TO 8 INCHES ON THE FRONT OF SURFACE LAYER SHOULD BE COMPRISED OF TOPSOIL MIX AS SHOWN ON THE DRAWINGS.
9. THE TOPSOIL LAYER SHALL BE SEEDED WITH THE VRSS SEED MIX AT 0.7 POUNDS PER 1,000 SQUARE FEET OF LIFT SURFACE AREA AS SHOWN ON THE DRAWINGS.
10. FOLD THE FIBER MATTING OVER THE FILL MATERIAL AND STAKE IN PLACE SO THE FABRIC IS TAUT AND SMOOTH WITH NO UNNECESSARY FOLDS OR WRINKLES. BACKFILL BEHIND THE BOTTOM SOIL LIFT WITH GRANULAR FILTER MATERIAL TO MEET THE EXISTING SLOPE AS SHOWN ON THE DRAWINGS.



SECTION: LIVE PLANT VEGETATED REINFORCED SOIL SLOPE (V.R.S.S.)
NOT TO SCALE

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1:2 PLOT DATE: 7/9/2025 11:21 AM
CADD USER: BRIAN R. MIHOLTE FILE: MDESIGN02372114.0002372114_C-11.DWG

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
-	-	-	-	-	-	
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW	
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION	



BARR

BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

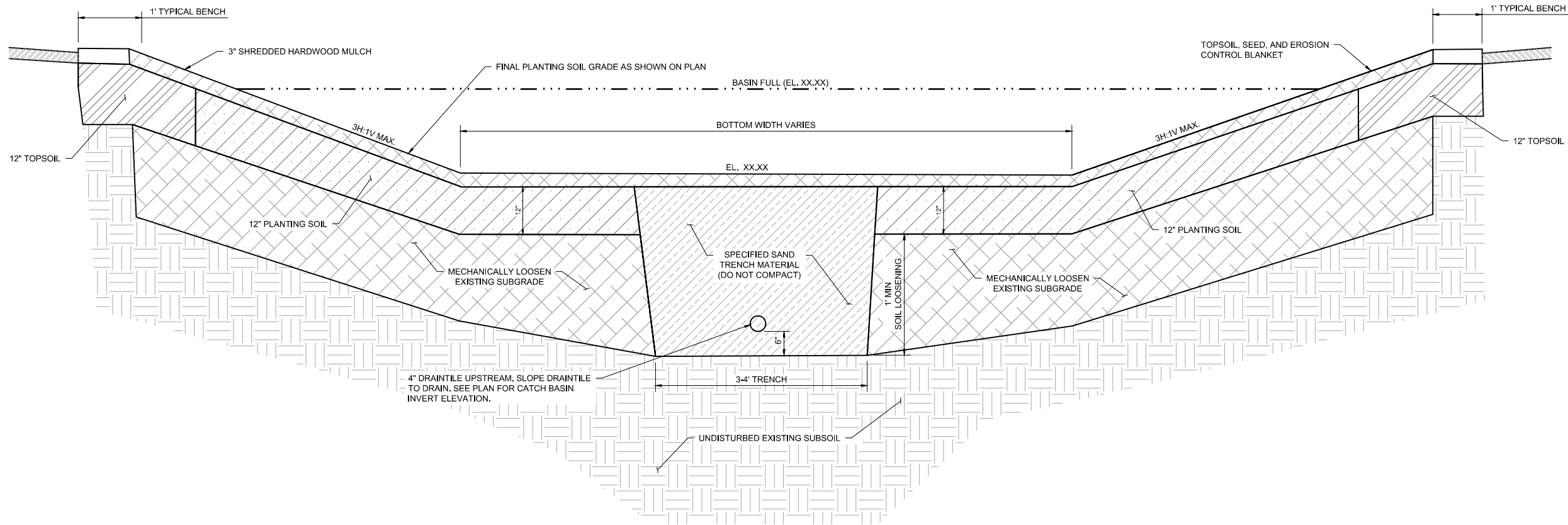
PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
STREAM STABILIZATION DETAILS

BARR PROJECT #	23272114.00
DWG #	C-15
REV #	A

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION



1 SECTION: RAINWATER GARDEN (PRELIMINARY DESIGN)
NOT TO SCALE

ORIGINAL DRAWING SIZE: ANSI FULL BLEED B (11.00 X 17.00 INCHES) PLOT SCALE: 1/2" = 1'-0" PLOT DATE: 7/9/2025 11:21 AM
CADD USER: BRIAN R. MICOLTE FILE: MDESIGN23272114.0023272114_C-11.DWG

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.

PRINTED NAME: _____
SIGNATURE: _____
DATE: _____ LICENSE #: _____

-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
A	EPF	JCO	JCO	06/20/2025	ISSUED FOR REVIEW
#	BY	CHK	APP	DATE	RELEASE/REVISION DESCRIPTION



BARR ENGINEERING CO.
4300 MARKETPOINTE DRIVE
SUITE 200
MINNEAPOLIS, MN 55435

PH: 1-800-632-2277
WWW.BARR.COM
MINNESOTA ENGINEERING FIRM
NUMBER 10104111545

BASSETT CREEK WATERSHED MANAGEMENT COMMISSION
GOLDEN VALLEY, MINNESOTA

BASSETT CREEK MAIN STEM RESTORATION - PHASE 1
GOLDEN VALLEY, MINNESOTA
RAINWATER GARDEN DETAILS

BARR PROJECT #	23272114.00
DWG #	C-16
REV #	A

50% DESIGN
ISSUED FOR REVIEW
NOT FOR CONSTRUCTION