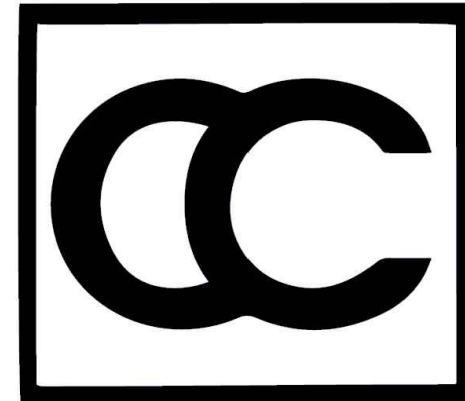


CIVIL CONSTRUCTION PLANS FOR MIDDLE SAND CREEK RESTORATION COON RAPIDS ANOKA COUNTY, MINNESOTA

CLIENT



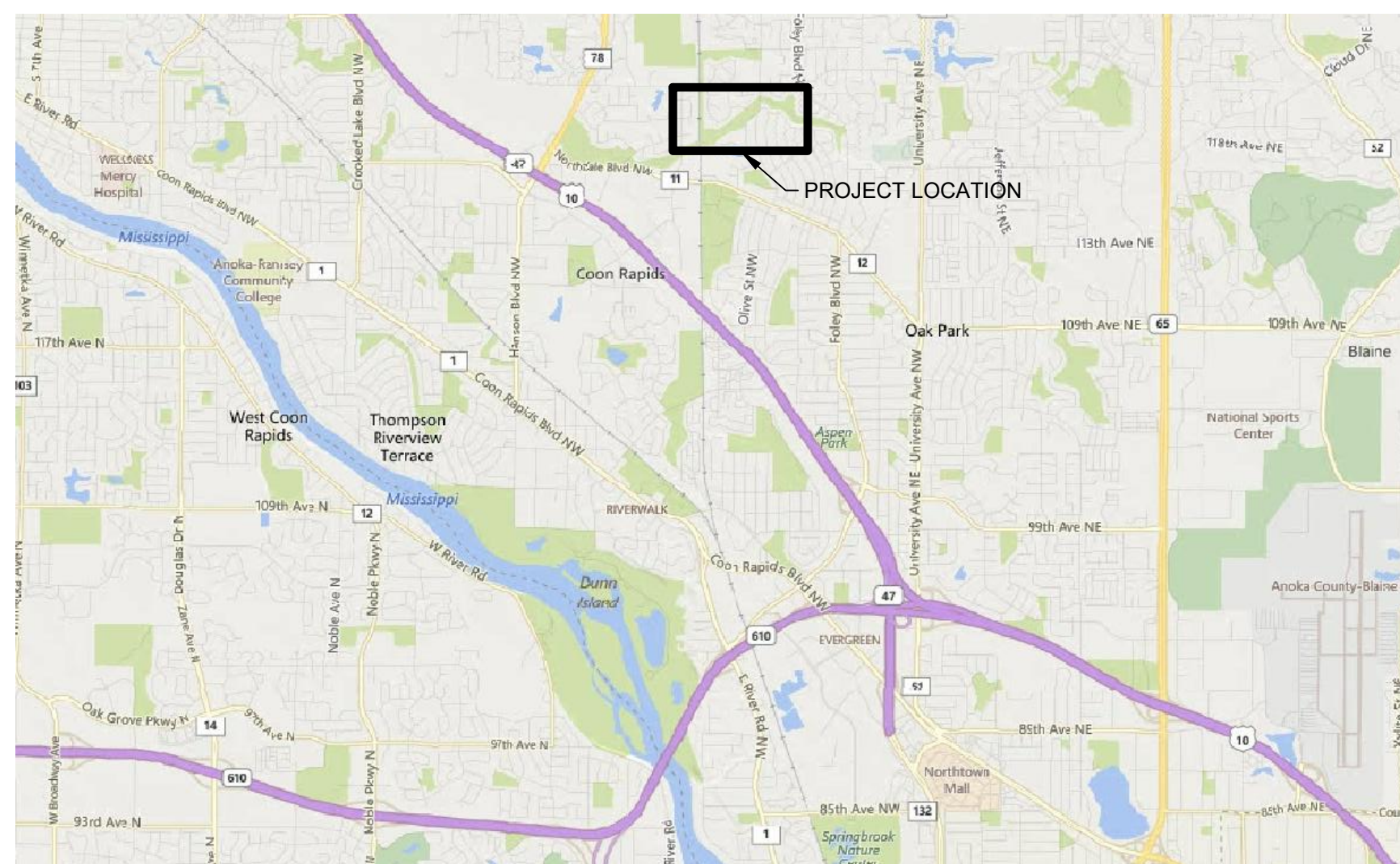
COON CREEK WATERSHED DISTRICT
13632 VAN BUREN STREET NE
HAM LAKE, MN 55304
763-755-0975
CONTACT - TIM KELLY, DISTRICT ADMINISTRATOR



WENCK ASSOCIATES, INC.
7500 OLSON MEMORIAL HIGHWAY
SUITE #300
GOLDEN VALLEY, MN 55427
(P) - 763-252-6851
CONTACT: ED MATTHIESEN, P.E.



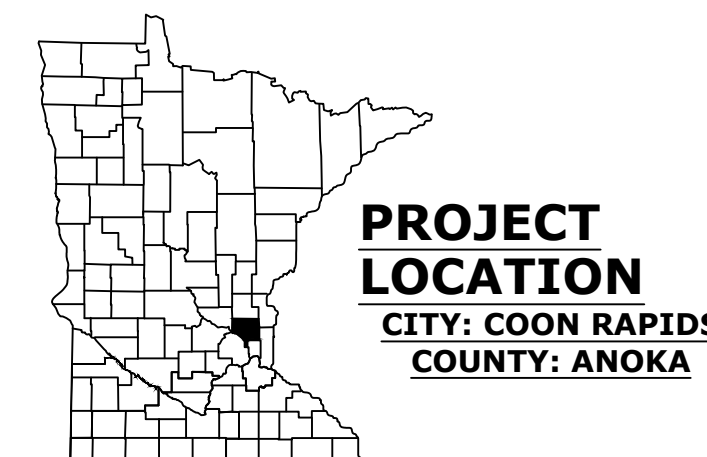
PROJECT LOCATION MAP
NOT TO SCALE



PROJECT VICINITY MAP
NOT TO SCALE

NOTES:

1. IF REPRODUCED, THE SCALES SHOWN ON THESE PLANS ARE BASED ON A 22"x34" SHEET.
2. ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO SUBSTANTIAL PROJECT COMPLETION AND THE FINAL CONNECTION OF SERVICES.
3. ALL GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, UTILITIES, AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS AND/OR PER OWNER'S DIRECTION.
4. CONTRACTOR SHALL CONFIRM THAT THE EXISTING CONDITIONS FOR THIS SITE MATCH WHAT IS SHOWN ON THE DRAWINGS INCLUDED PRIOR TO CONSTRUCTION.



Sheet List Table	
Sheet Number	Sheet Title
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C-101	EXISTING CONDITIONS AND REMOVALS
C-102	EXISTING CONDITIONS AND REMOVALS
C-200	PLAN AND PROFILE PHASE 1
C-201	PLAN AND PROFILE PHASE 1
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C-203	PLAN AND PROFILE PHASE 2
C-204	PLAN AND PROFILE PHASE 2
C-205	PLAN AND PROFILE PHASE 2
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C-300	CHANNEL STABILIZATION PHASE 1
C-301	CHANNEL STABILIZATION PHASE 1
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EC-100	SWPPP
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C-805	DETAILS
C-806	DETAILS

THIS PLANSET CONTAINS 38 SHEETS



SUB CONSULTANT:

CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

DATE	DESCRIPTION	ISSUE NO.	0	1
08/13/2019	90% DESIGN PLANS			
11/07/2019	100% DESIGN PLANS - ISSUED FOR PERMITS			

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

LICENSE NO.:
DATE:
PROJECT NO.: 1239-0102
DWN BY: NPW CHKD BY: SJB APPD BY: EAM
ISSUE DATE: NOV 2019
ISSUE NO.: 1
SHEET TITLE:
TITLE & INDEX
SHEET NO.:
G-100

GENERAL NOTES:

- 1. EXISTING CONDITIONS HAVE BEEN PROVIDED BY A COMBINATION OF HISTORIC PLANS FROM SURVEY INFORMATION FROM A SITE VISIT BY WATERSHED DISTRICT STAFF AND LIDAR. EXISTING FEATURES MAY NOT BE EXACT TO THEIR LOCATION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE CONDITIONS OF THE SITE AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM THE DRAWINGS.
2. ALL QUANTITIES ARE APPROXIMATE AND MAY VARY TO ALLOW COMPLETION OF WORK.
3. THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-2 ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA".
4. EXACT LOCATION OF UNDERGROUND UTILITIES SUCH AS GAS, TELEPHONE, FIBER OPTIC, PIPELINES, ELECTRICAL, AND CABLE TV ARE UNKNOWN. CONTRACTOR RESPONSIBLE FOR LOCATING PRIOR TO STARTING WORK.
5. CONTRACTOR SHOULD ANTICIPATE PRIVATE UTILITY CONFLICTS THROUGHOUT THE PROJECT SUB CUT AND TRENCH AREAS AND SHALL COORDINATE WITH PRIVATE UTILITY OWNERS.
6. THE RELOCATION AND OR PROTECTION OF ALL EXISTING UTILITIES MUST BE COORDINATED BY THE CONTRACTOR AND ANY COSTS FOR SUCH WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR EXTRA TIME AND EFFORT OF PROVISIONS NECESSARY TO WORK AROUND OR UNDER ANY UTILITIES.
7. INSTALL AND MAINTAIN EROSION CONTROL DEVICES AS SPECIFIED OR AS DIRECTED BY ENGINEER.
8. CONTRACTOR SHALL COMPLY WITH ALL STATE, COUNTY, AND CITY PERMITS.
9. MAINTAIN MAIL, GARBAGE, AND RECYCLING SERVICES TO PROPERTIES.
10. PROTECT EXISTING PAVEMENT AND SITE FEATURES, EXCEPT AS NOTED.
11. CONTRACTOR TO COORDINATE AND MAINTAIN ACCESS TO PROPERTIES.
12. MAINTAIN DRAINAGE CONVEYANCE DURING CONSTRUCTION (BOTH PIPED AND OVERLAND).
13. THE EXISTING PAVEMENT CONDITIONS HAVE BEEN DOCUMENTED, AND ANY DAMAGE TO THE EXISTING PAVEMENT, CURBING, AND STRIPING SHALL BE REPLACED BY THE CONTRACTOR, TO THE OWNERS SATISFACTION, AT NO ADDITIONAL COST TO THE OWNER.

REMOVAL NOTES:

- 1. FEATURES NOT SPECIFICALLY IDENTIFIED ON PLAN FOR SALVAGE OR REMOVAL THAT CONFLICT WITH CONSTRUCTION ARE TO BE REVIEWED WITH ENGINEER.

DEWATERING NOTES:

- 1. NO BID ITEM HAS BEEN PROVIDED FOR DEWATERING AS ALL DEWATERING WORK NECESSARY FOR CONSTRUCTION WILL BE CONSIDERED INCIDENTAL.
2. ENERGY DISSIPATION SHALL BE PROVIDED AT ALL DISCHARGE POINTS TO PREVENT SCOUR.
3. PROVIDE SILT BAGS FOR DEWATERING.
4. CONTRACTOR RESPONSIBLE TO SUBMIT DEWATERING PLAN TO ENGINEER FOR REVIEW. DEWATERING SHALL MEET ALL PERMIT REQUIREMENTS AND BE APPROVED PRIOR TO STARTING ANY CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR MUST DISCHARGE TURBID OR SEDIMENT-LADEN WATER RELATED TO DEWATERING OR BASIN DRAINING (E.G. PUMPED DISCHARGES, TRENCH/DITCH CUTS FOR DRAINAGE) TO A TEMPORARY OR PERMANENT SEDIMENTATION BASIN ON THE PROJECT SITE UNLESS INFEASIBLE. THE CONTRACTOR MAY DISCHARGE FROM THE TEMPORARY OR PERMANENT SEDIMENTATION BASINS TO THE SURFACE WATERS IF THE BASIN WATER HAS BEEN VISUALLY CHECKED TO ENSURE ADEQUATE TREATMENT HAS BEEN OBTAINED IN THE BASIN AND THAT NUISANCE CONDITIONS (SEE MINN. RULES 7050.0210, SUBPART 2) WILL NOT RESULT FROM THE DISCHARGE. IF THE WATER CANNOT BE DISCHARGED TO A SEDIMENTATION BASIN PRIOR TO ENTERING THE SURFACE WATER, IT MUST BE TREATED WITH THE APPROPRIATE BMPs, SUCH THAT THE DISCHARGE DOES NOT ADVERSELY AFFECT THE RECEIVING WATER OR DOWNSTREAM PROPERTIES. IF THE CONTRACTOR MUST DISCHARGE WATER THAT CONTAINS OIL OR GREASE, THE CONTRACTOR MUST USE AN OIL-WATER SEPARATOR OR SUITABLE FILTRATION DEVICE (E.G. CARTRIDGE FILTERS, ABSORBENTS PADS) PRIOR TO DISCHARGING THE WATER. THE CONTRACTOR MUST ENSURE THAT DISCHARGE POINTS ARE ADEQUATELY PROTECTED FROM EROSION AND SCOUR. THE DISCHARGE MUST BE DISPERSED OVER NATURAL ROCK RIPRAP, SAND BAGS, PLASTIC SHEETING, OR OTHER ACCEPTED ENERGY DISSIPATION MEASURES.
6. ALL WATER FROM DEWATERING OR BASIN-DRAINING ACTIVITIES MUST BE DISCHARGED IN A MANNER THAT DOES NOT CAUSE NUISANCE CONDITIONS, EROSION IN RECEIVING CHANNELS OR ON DOWNSLOPE PROPERTIES, OR INUNDATION IN WETLANDS CAUSING SIGNIFICANT ADVERSE IMPACT TO THE WETLAND.
7. IF THE CONTRACTOR IS USING FILTERS WITH BACKWASH WATER, THE CONTRACTOR MUST HAUL THE BACKWASH WATER AWAY FOR DISPOSAL, RETURN THE BACKWASH WATER TO THE BEGINNING OF THE TREATMENT PROCESS, OR INCORPORATE THE BACKWASH WATER INTO THE SITE IN A MANNER THAT DOES NOT CAUSE EROSION. THE CONTRACTOR MAY DISCHARGE BACKWASH WATER TO THE SANITARY SEWER IF PERMISSION IS GRANTED BY THE SANITARY SEWER AUTHORITY. THE CONTRACTOR MUST REPLACE AND CLEAN THE FILTER MEDIA USED IN DEWATERING DEVICES WHEN REQUIRED TO RETAIN ADEQUATE FUNCTION.

CONSTRUCTION SEQUENCING:

YEAR 1

- PHASE 1: (DECEMBER 2019 TO MARCH 2020 - YEAR 1)
1. PRIOR TO ANY CONSTRUCTION ACTIVITIES EROSION AND PERIMETER CONTROL MEASURES SHALL BE INSTALLED.
2. TREE REMOVALS AND HARVESTING.
3. NEW CHANNEL AREAS SHALL BE EXCAVATED OFF-LINE, WHEREVER POSSIBLE.
4. EROSION CONTROL BLANKETS, BIOENGINEERING PRACTICES, NATIVE SEEDING SHALL BE INSTALLED ALONG NEWLY CONSTRUCTED CHANNEL, WHEREVER POSSIBLE AND AS SHOWN ON PLANS.
5. ALL EXCAVATED CHANNEL & FLOODPLAIN MATERIALS NOT UTILIZED FOR CHANNEL PLUGS OR CHANNEL CONSTRUCTION SHALL BE STOCKPILED ONSITE.
6. ALL DISTURBED AREAS SHALL BE STABILIZED. AREAS TO BE DISTURBED IN SUBSEQUENT PHASES SHALL HAVE TEMPORARY STABILIZATION. AREAS NOT DISTURBED IN SUBSEQUENT PHASES SHALL RECEIVE PERMANENT VEGETATION AND EROSION CONTROL MEASURES.

PHASE 1.1: (APRIL 2020 TO OCTOBER 2020 - YEAR 1)

- 1. NO EXCAVATION OR LAND DISTURBANCE DURING THIS PHASE.
2. NEWLY EXCAVATED CHANNEL REMAINS OFF-LINE WHILE VEGETATION ESTABLISHES.
3. CONTRACTOR TO MONITOR EROSION CONTROL MEASURES AND VEGETATION ESTABLISHMENT AND COMPLETE MAINTENANCE AS NECESSARY.

WARNING:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CALLING FOR LOCATIONS OF ALL EXISTING UTILITIES. THEY SHALL COOPERATE WITH ALL UTILITY COMPANIES IN MAINTAINING THEIR SERVICE AND/OR RELOCATION OF LINES.

THE CONTRACTOR SHALL CONTACT GOPHER STATE ONE CALL AT 651-454-0002 AT LEAST 48 HOURS IN ADVANCE FOR THE LOCATIONS OF ALL UNDERGROUND WIRES, CABLES, CONDUITS, PIPES, MANHOLES, VALVES OR OTHER BURIED STRUCTURES BEFORE DIGGING. THE CONTRACTOR SHALL REPAIR OR REPLACE THE ABOVE WHEN DAMAGED DURING CONSTRUCTION AT NO COST TO THE OWNER.

CALL BEFORE YOU DIG
GOPHER STATE ONE CALL
TWIN CITY AREA: 651-454-0002
TOLL FREE 1-800-252-1166

GOVERNING SPECIFICATIONS:

- 1. THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" 2018 EDITION & LATEST SUPPLEMENTS.
2. CITY ENGINEERS ASSOCIATION OF MINNESOTA (CEAM) STANDARD UTILITIES SPECIFICATIONS (LATEST EDITION)
3. CITY OF COON RAPIDS CONSTRUCTION SPECIFICATIONS
4. ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCE WILL BE COMPLETED WITH IN THE CONSTRUCTION OF THIS PROJECT.

TRAFFIC CONTROL NOTES:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION STAGING, ON OR OFFSITE, AS NECESSARY TO COMPLETE THE WORK AS SPECIFIED IN THE PROJECT DOCUMENTS. A STAGING PLAN SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO ANY CONSTRUCTION RELATED ACTIVITIES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL. ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MMUTCD, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE ENGINEER, CITY, AND COUNTY FOR REVIEW AND APPROVAL PRIOR TO ANY CONSTRUCTION RELATED ACTIVITIES. PLANS SHALL COMPLY WITH ALL APPLICABLE PERMIT REQUIREMENTS.
3. TRAFFIC CONTROL SHALL ALSO INCLUDE ALL NECESSARY SIGNAGE AND MARKINGS REQUIRED FOR THE BOARDWALK CLOSURE (SIMILAR TO SIDEWALK CLOSURE). THIS SHALL INCLUDE ADVANCED WARNING SIGNS AND NECESSARY FENCING AND SIGNAGE TO PREVENT PEDESTRIANS FROM ACCESSING THE PROPOSED BOARDWALK CONNECTION AREA.

EROSION CONTROL NOTES:

- 1. SEE SHEETS EC-101 FOR EROSION AND SEDIMENT CONTROL MEASURES.
2. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED DEPENDING ON SITE CONDITIONS DURING CONSTRUCTION. COORDINATE WITH ENGINEER.
3. CONCRETE WASH-OUT SHALL COMPLETED OFF-SITE OR CONCRETE READY MIX TRUCKS SHALL BE SELF-CONTAINED.
4. ALL EROSION CONTROL DEVICES TO BE INSTALLED PRIOR TO COMMENCEMENT OF WORK, MAINTAINED IN ACCORDANCE WITH THE SWPPP, NPDES, AND SPECIFICATIONS THROUGHOUT DURATION OF PROJECT, AND REMOVED UPON ESTABLISHMENT OF FINAL STABILIZATION AS DIRECTED BY ENGINEER. EROSION CONTROL MEASURES USED FOR CONSTRUCTION SHALL NOT BE REMOVED UNTIL AUTHORIZED BY OWNER OR ENGINEER.
5. REMOVE TRACKED SEDIMENT FROM ALL PAVED SURFACES BOTH ON AND OFFSITE ON A DAILY BASIS (INCIDENTAL).
6. MINIMIZE DUST FROM CONSTRUCTION OPERATIONS BY PROVIDING WATER OR OTHER APPROVED METHOD ON A DAILY BASIS (INCIDENTAL).

HORIZONTAL AND VERTICAL CONTROL:

- 1. THE HORIZONTAL CONTROL FOR THIS PLAN IS ANOKA COUNTY COORDINATE RELATIVE TO SYSTEM NAD83(11).
2. THE VERTICAL CONTROL FOR THIS PLAN IS NAVD88.

YEAR 2

- PHASE 2: (NOVEMBER 2020 TO MARCH 2021 - YEAR 2)
1. REMAINING NEW CHANNEL FEATURES TO BE CONSTRUCTED.
2. EROSION CONTROL BLANKETS, BIOENGINEERING PRACTICES, NATIVE SEED SHALL BE INSTALLED ALONG REMAINING NEW CHANNEL ALIGNMENT.
3. NEW CHANNEL TO BE BROUGHT ONLINE AND CHANNEL PLUGS TO BE PLACED IN EXISTING CHANNEL.
4. ALL REMAINING EXCAVATED CHANNEL & FLOODPLAIN MATERIALS NOT UTILIZED FOR CHANNEL PLUGS OR CHANNEL CONSTRUCTION SHALL BE HAULED OFFSITE.
5. ALL DISTURBED AREAS SHALL BE STABILIZED WITH PERMANENT VEGETATION AND EROSION CONTROL MEASURES.

PHASE 2.1: (APRIL 2021 TO OCTOBER 2021 - YEAR 2)

- 1. NO EXCAVATION OR LAND DISTURBANCE DURING THIS PHASE.
2. CONTRACTOR TO MONITOR EROSION CONTROL MEASURES AND VEGETATION ESTABLISHMENT AND COMPLETE MAINTENANCE AS NECESSARY.

ABBREVIATIONS

Table with 2 columns: Abbreviation and Description. Includes BV BUTTERFLY VALVE, CL CENTER LINE, CL CLASS, CMP CORRUGATE METAL PIPE, CY CUBIC YARD, DIP DUCTILE IRON PIPE, EL./ELEV ELEVATION, EX EXISTING, FES FLARED END SECTION, F/F FACE TO FACE, FM FORCEMAIN, GV GATE VALVE, HDPE HIGH-DENSITY POLYETHYLENE, HP HIGH POINT, HWL HIGH WATER LEVEL, HYD HYDRANT, INV INVERT, LF LINEAL FEET, LP LOW POINT, MH MANHOLE, NWL NORMAL WATER LEVEL, PVC POLYVINYL CHLORIDE, R RADIUS, RCP REINFORCED CONCRETE PIPE, R/W RIGHT-OF-WAY, SF SQUARE FEET, STA STATION, SY SQUARE YARD, TNH TOP NUT HYDRANT, TYP TYPICAL, WM WATERMAIN

EXISTING SYMBOLS/LINES LEGEND

Table with 3 columns: Symbol, Description, and Notes. Includes symbols for STORM SEWER FLARED END SECTION, STORM SEWER CATCH BASIN/MANHOLE, STORM SEWER, HYDRANT, WATER MAIN, CONTOUR MINOR, CONTOUR MAJOR, PROPERTY LINE, PROJECT AREA LIMITS, ACCESS ROUTE BOUNDARY, RETAINING WALL, EXISTING FENCE, EXISTING CHANNEL, APPROXIMATE TREE LINE, WETLAND BOUNDARY, DECIDUOUS TREE, UTILITY POLE, LIGHT POLE, EDGE OF PAVEMENT, SIGN, MAILBOX, GUARD POST, PROPERTY IRON

PROPOSED SYMBOLS/LINES LEGEND

Table with 3 columns: Symbol, Description, and Notes. Includes symbols for STORM SEWER FLARED END SECTION, RIP RAP, STORM SEWER CATCH BASIN/MANHOLE, STORM SEWER, DRAINTILE, VEGETATED RIPRAP, GRADED BANKS, LOG TOE WITH ROOT WADS, BACKWATER POOL, CONTOUR MINOR, CONTOUR MAJOR, SPOT ELEVATION, BITUMINOUS, CONCRETE, DECIDUOUS TREE, ACCESS ROUTE BOUNDARY, EXISTING FENCE, PROPERTY LINE, WATER EDGE, RETAINING WALL, PROPOSED CHANNEL CENTERLINE, PROJECT AREA LIMITS

REMOVAL SYMBOLS/LINES LEGEND

Table with 2 columns: Symbol and Description. Includes symbol for TREE REMOVAL

EROSION CONTROL SYMBOLS/LINES LEGEND

Table with 2 columns: Symbol and Description. Includes symbols for EROSION CONTROL BLANKET AND MN SEED MIX 34-262, HYDROMULCH AND MN SEED MIX 34-262, TEMPORARY SEED & EROSION CONTROL BLANKET, SILT FENCE, FLOTATION SILT CURTAIN, INLET PROTECTION, BIOROLL



7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
COON CREEK
WATERSHED
DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

Table with 2 columns: ISSUE NO. and Description. Includes issues 0 and 1.

Table with 2 columns: DATE and Description. Includes dates 08/13/2019 and 11/07/2019.

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

LICENSE NO.:
DATE:

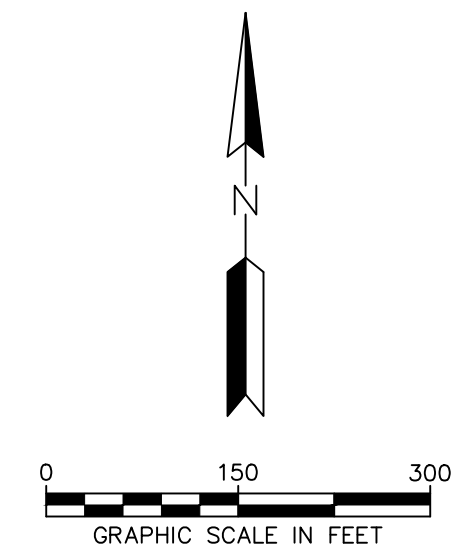
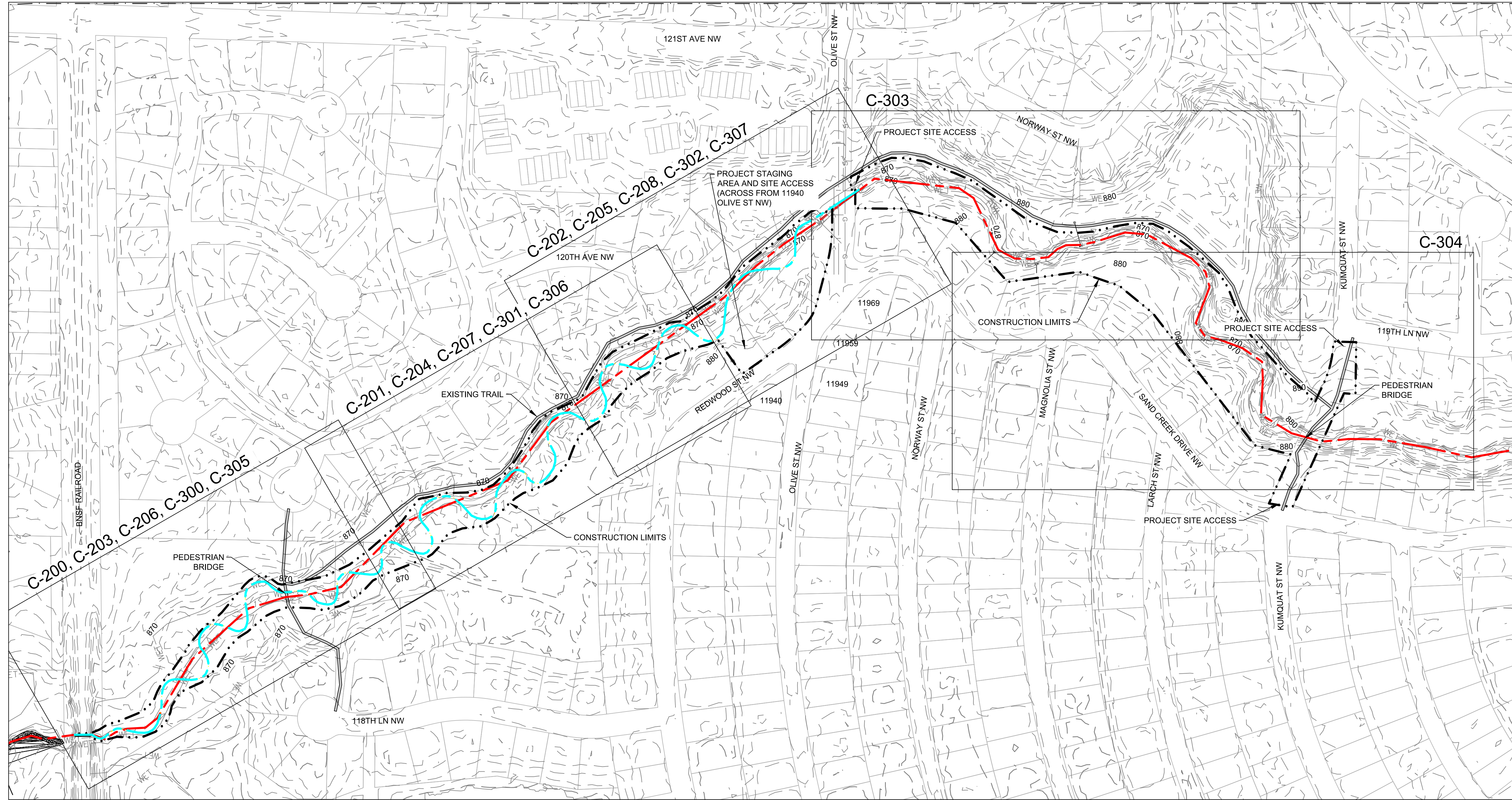
PROJECT NO.: 1239-0102

DWN BY: NPW, CHKD BY: SJB, APPD BY: EAM
ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
LEGEND & NOTES

SHEET NO.:
G-101



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 SUITE 300
 GOLDEN VALLEY, MN 55427
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SUB CONSULTANT:

CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
 COON RAPIDS MN

DATE	DESCRIPTION	ISSUE NO.
09/13/2019	90% DESIGN PLANS	0
11/7/2019	100% DESIGN PLANS - ISSUED FOR PERMITS	1

CERTIFICATION:
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LICENSURE NO.:
 DATE:

PROJECT NO.: 1239-0102

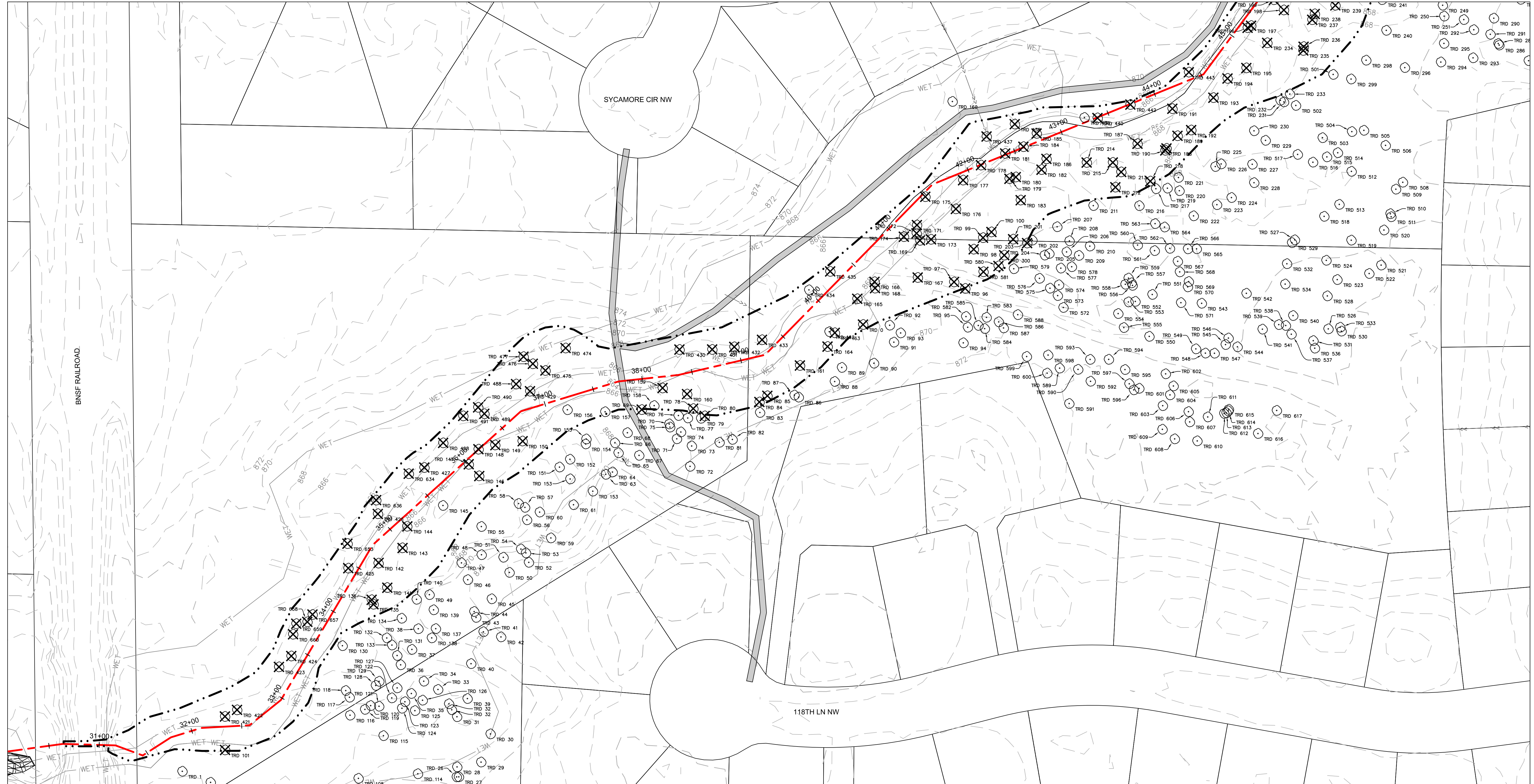
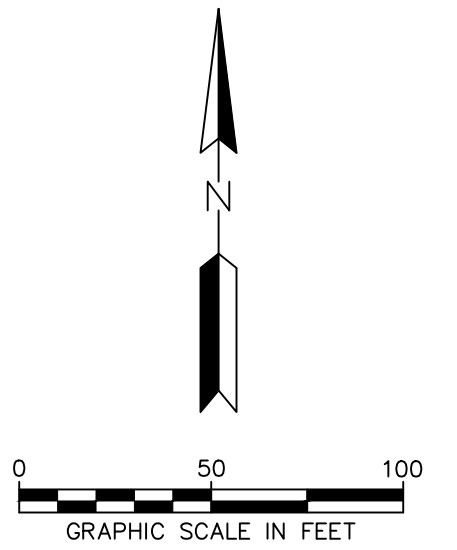
DWN BY: NPW CHKD BY: SJB APPD BY: EAM

ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
SITE OVERVIEW AND ACCESS

SHEET NO.:
C-100



ISSUE NO. 0 1

DATE: 08/13/2019 11/07/2019

DESCRIPTION: 90% DESIGN PLANS 100% DESIGN PLANS - ISSUED FOR PERMITS

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LICENSURE NO.:
DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM
ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
**EXISTING CONDITIONS
AND REMOVALS**

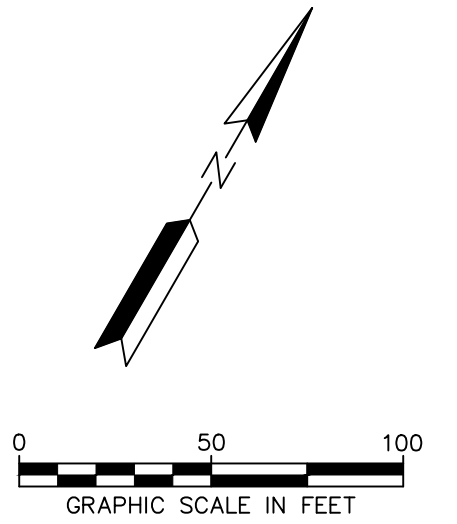
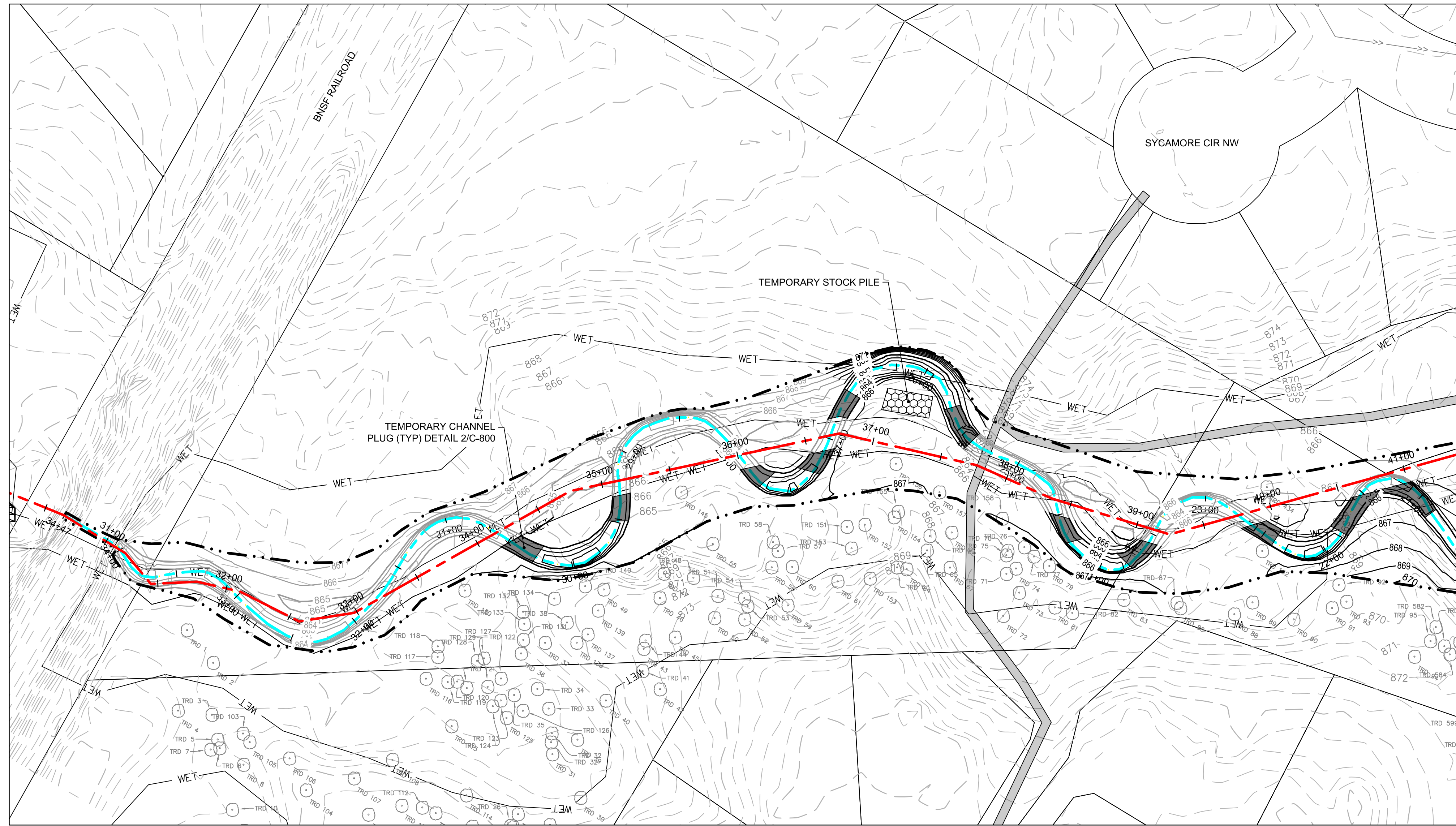
SHEET NO.:
C-101

- PHASE 1 GRADING**
- COMMON EX ONSITE ~ 1000 CU YD
 - COMMON EX ONSITE ~ 1000 CU YD (STOCKPILE)
 - COMMON EX OFFSITE ~ 5300 CU YD
- PHASE 2 GRADING**
- COMMON EX ONSITE ~ 2500 CU YD
 - COMMON EX OFFSITE ~ 750 CU YD

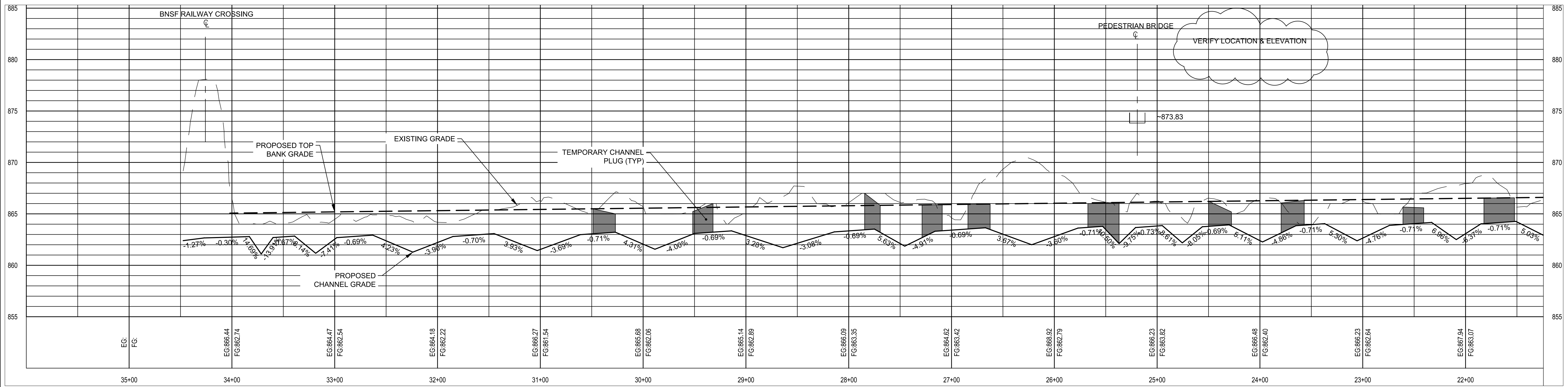
**COON CREEK
WATERSHED
DISTRICT**

MIDDLE SAND CREEK

COON RAPIDS MN



NEW CHANNEL PROFILE



CERTIFICATION:
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LICENSE NO.:
DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

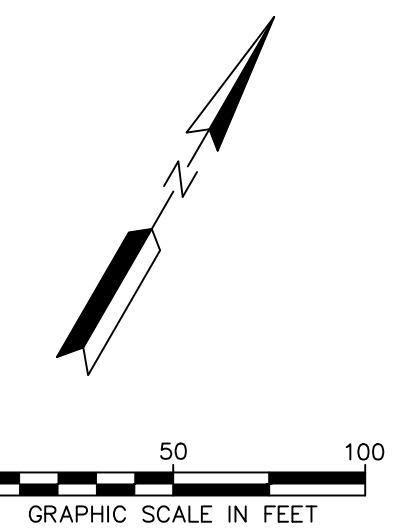
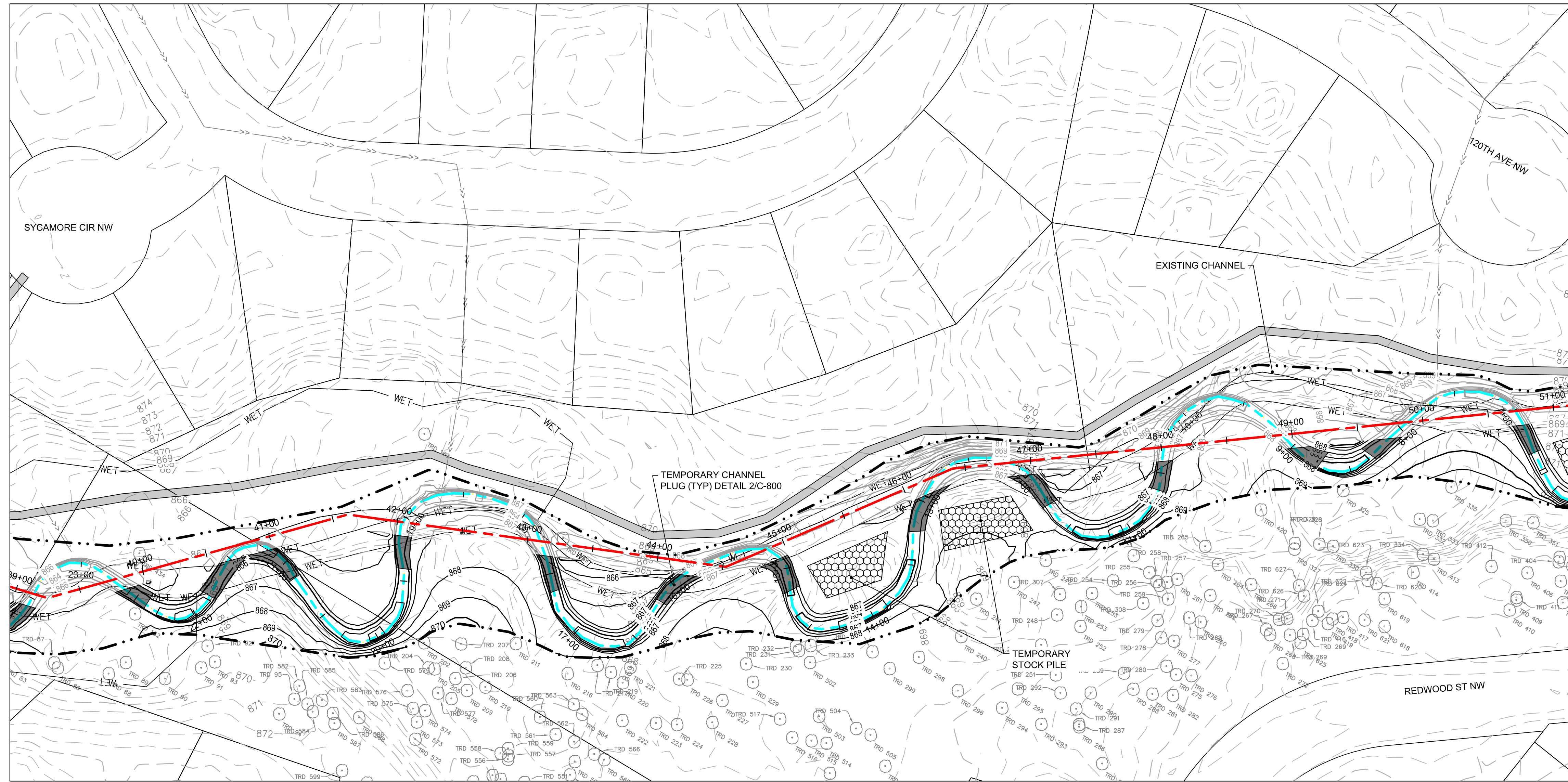
ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
**PLAN AND PROFILE
PHASE 1**

SHEET NO.:
C-200

11/7/2019 3:46:55 PM



- PHASE 1 GRADING**
- COMMON EX ONSITE ~ 1000 CU YD
 - COMMON EX ONSITE ~ 1000 CU YD (STOCKPILE)
 - COMMON EX OFFSITE ~ 5300 CU YD
- PHASE 2 GRADING**
- COMMON EX ONSITE ~ 2500 CU YD
 - COMMON EX OFFSITE ~ 750 CU YD

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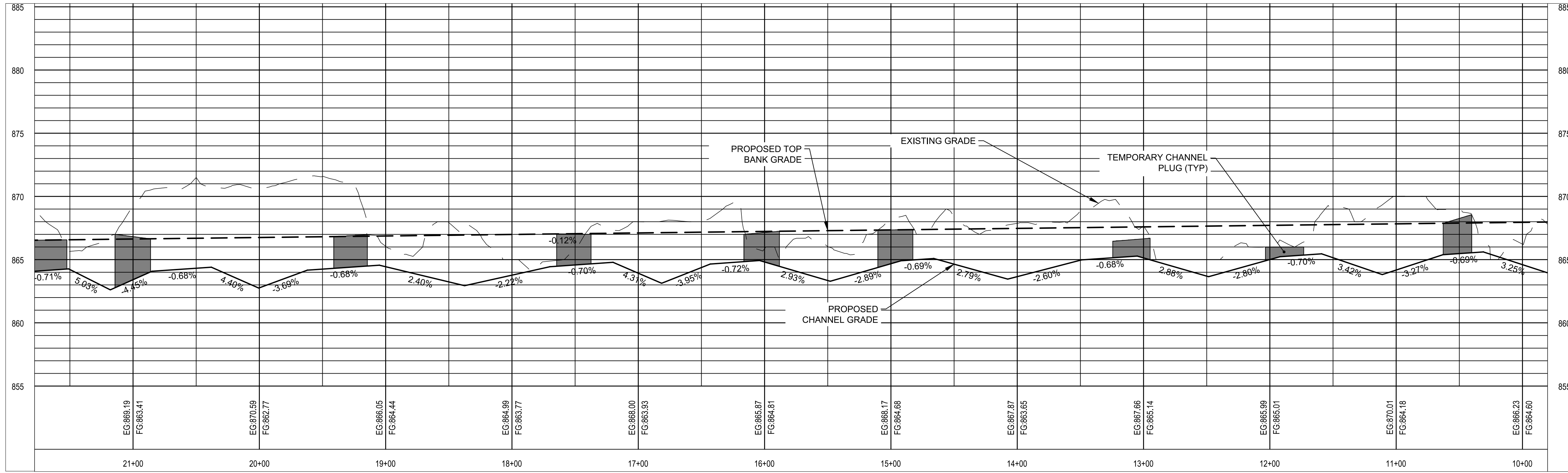
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WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

NEW CHANNEL PROFILE



ISSUE NO.	DESCRIPTION	DATE
0	90% DESIGN PLANS	09/13/2019
1	100% DESIGN PLANS - ISSUED FOR PERMITS	11/07/2019

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

LICENSURE NO.:
DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

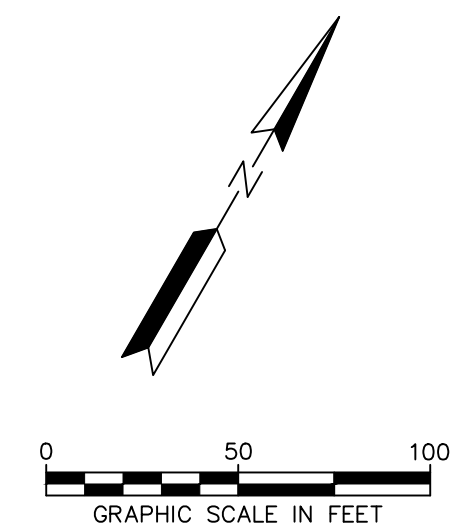
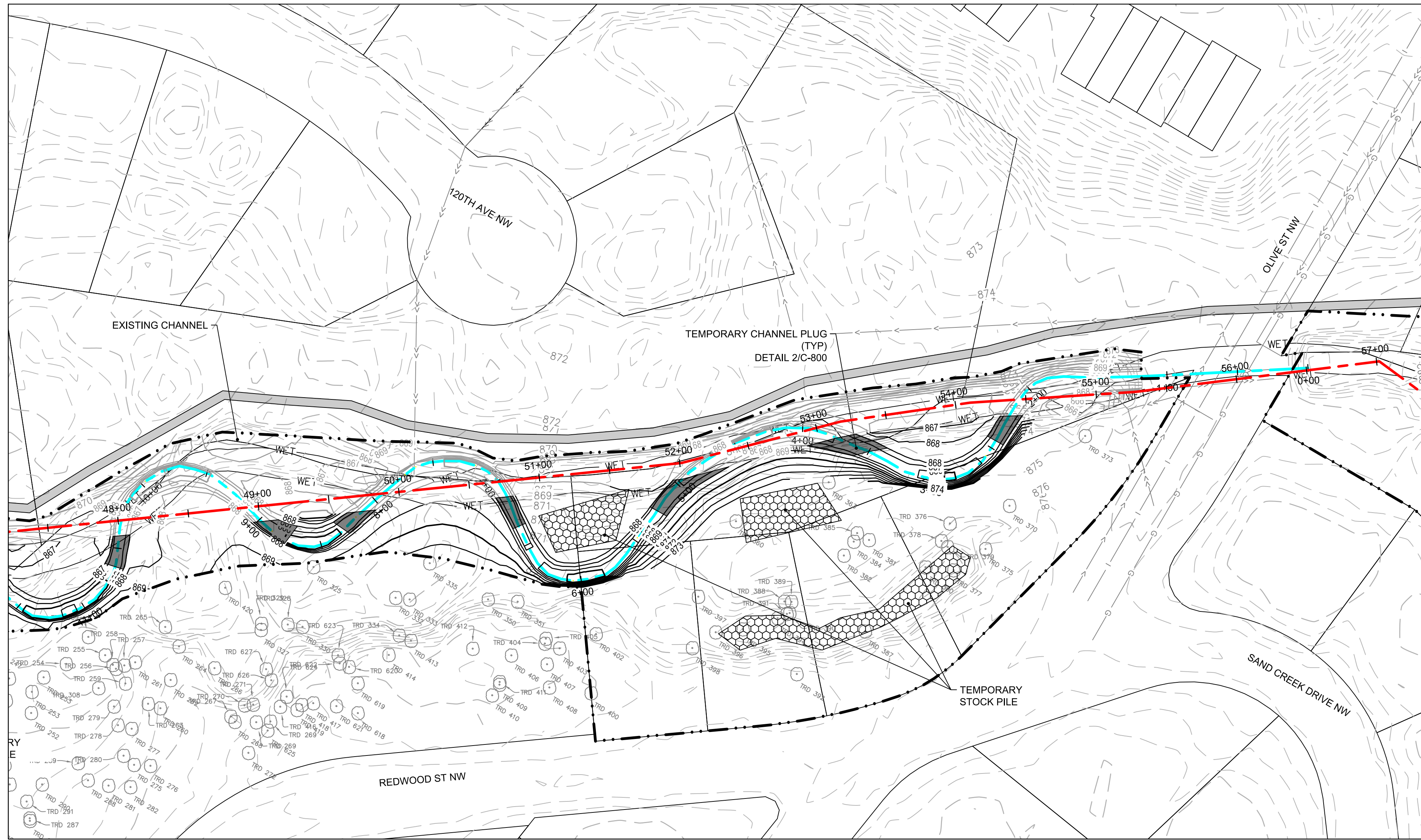
ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
PLAN AND PROFILE PHASE 1

SHEET NO.:
C-201

M:\1239\102\CAD\CIVIC 200 Phase 1 Plan & Profile.dwg



- PHASE 1 GRADING
- COMMON EX ONSITE ~ 1000 CU YD
 - COMMON EX ONSITE ~ 1000 CU YD (STOCKPILE)
 - COMMON EX OFFSITE ~ 5300 CU YD
- PHASE 2 GRADING
- COMMON EX ONSITE ~ 2500 CU YD
 - COMMON EX OFFSITE ~ 750 CU YD

ISSUE NO.	DATE	DESCRIPTION
0	09/13/2019	90% DESIGN PLANS
1	11/7/2019	100% DESIGN PLANS - ISSUED FOR PERMITS

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

LICENSE NO.:
 DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

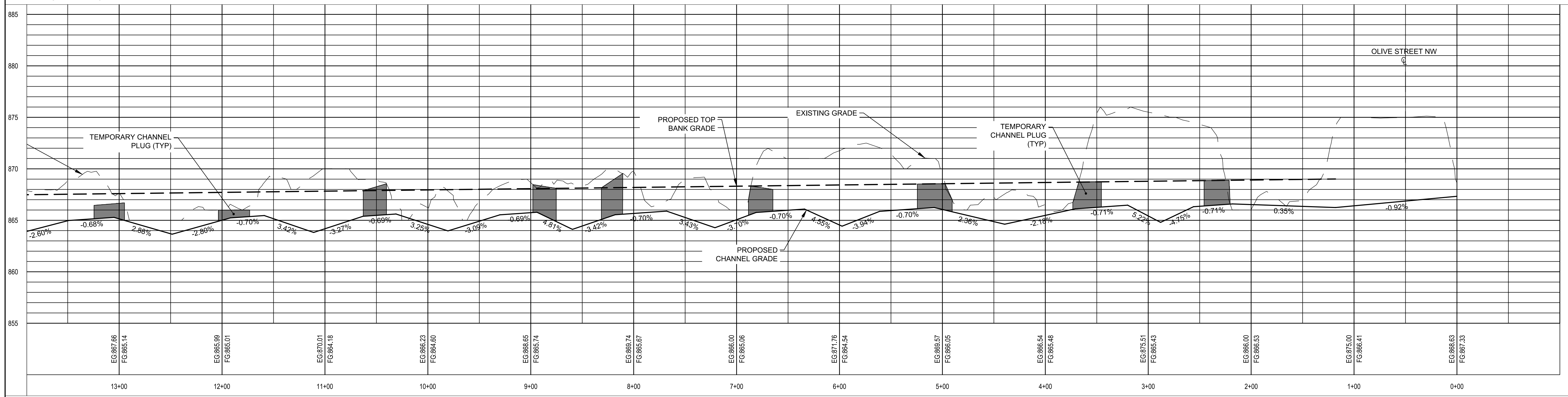
ISSUE DATE: NOV 2019

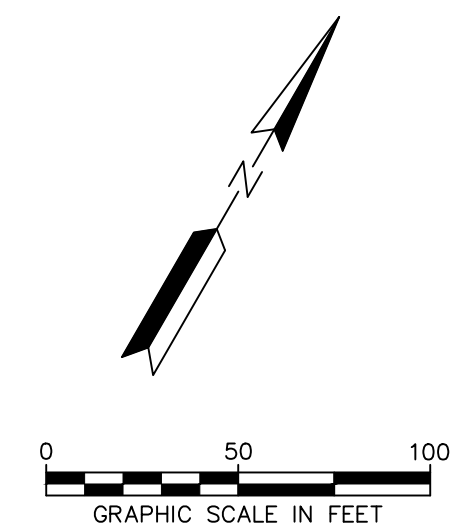
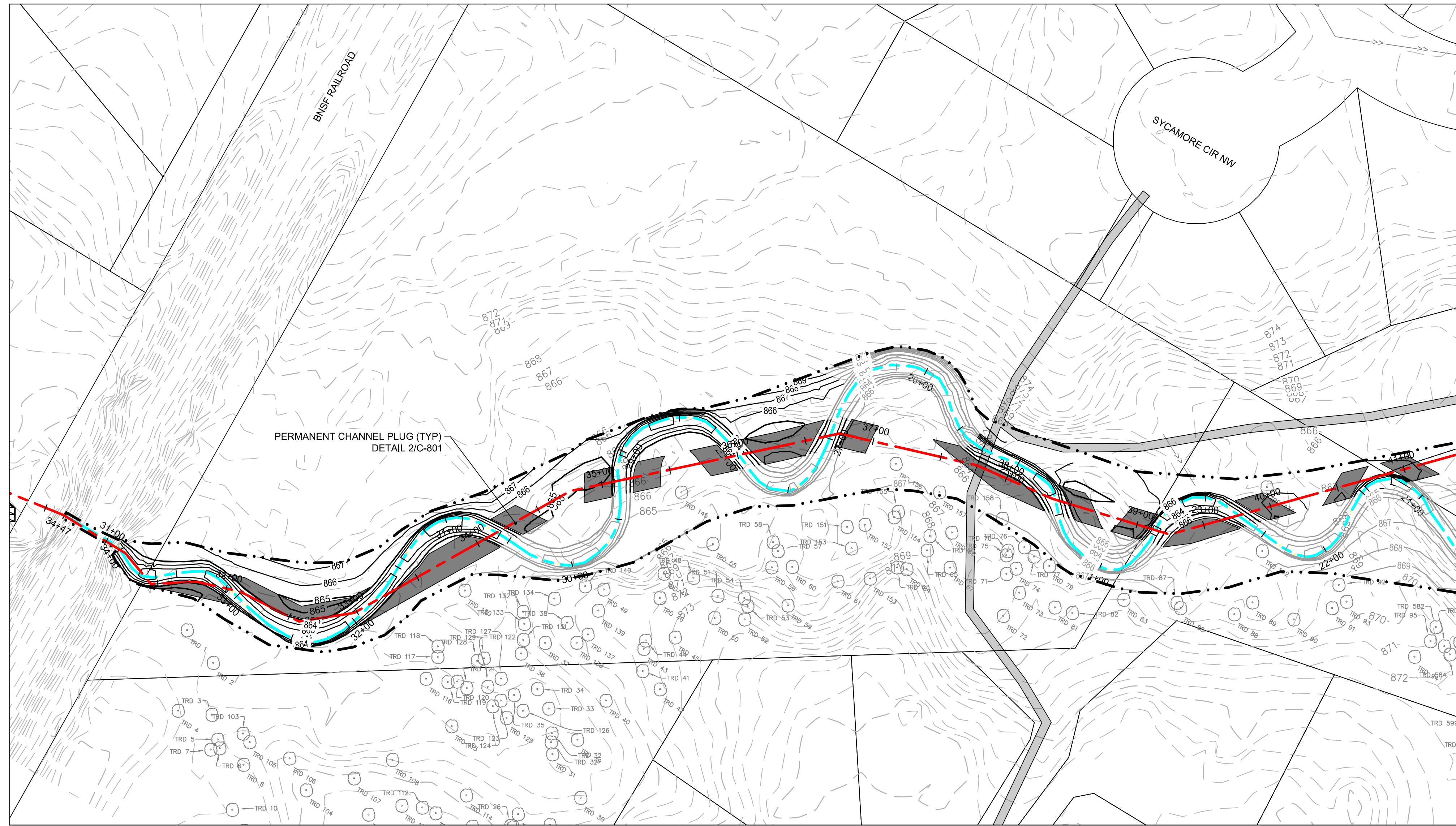
ISSUE NO.: 1

SHEET TITLE:
PLAN AND PROFILE PHASE 1

SHEET NO.:
C-202

NEW CHANNEL PROFILE





- PHASE 1 GRADING**
- COMMON EX ONSITE ~ 1000 CU YD
 - COMMON EX ONSITE ~ 1000 CU YD (STOCKPILE)
 - COMMON EX OFFSITE ~ 5300 CU YD
- PHASE 2 GRADING**
- COMMON EX ONSITE ~ 2500 CU YD
 - COMMON EX OFFSITE ~ 750 CU YD

SUB CONSULTANT:
 CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
 COON RAPIDS MN

ISSUE NO.	DESCRIPTION	DATE
0	90% DESIGN PLANS	09/13/2019
1	100% DESIGN PLANS - ISSUED FOR PERMITS	11/07/2019

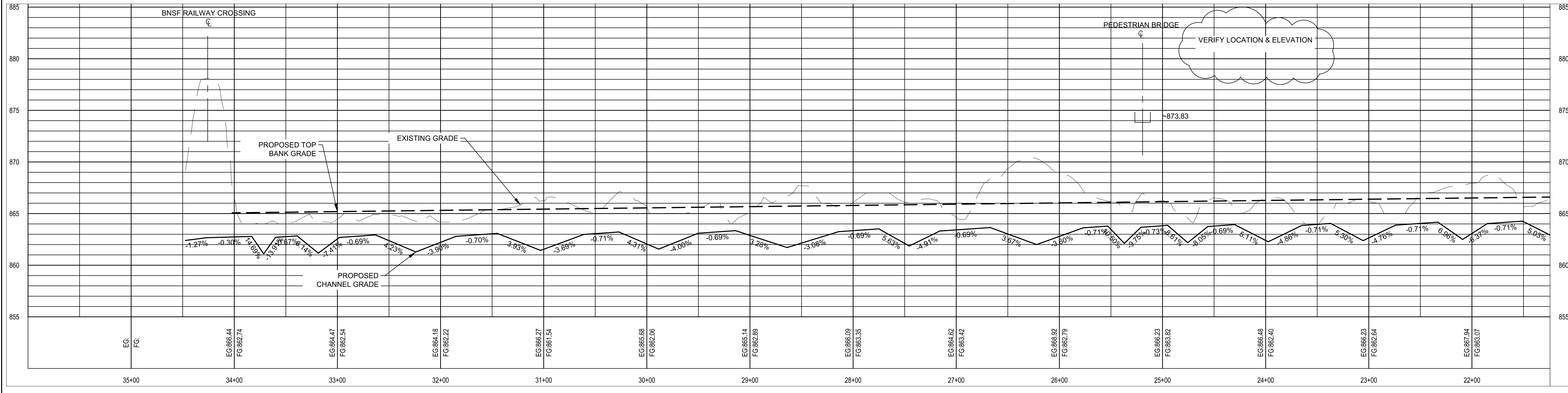
CERTIFICATION:
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LICENSURE NO.:
 DATE:

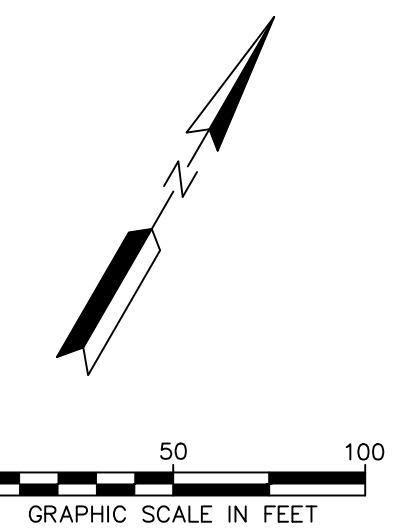
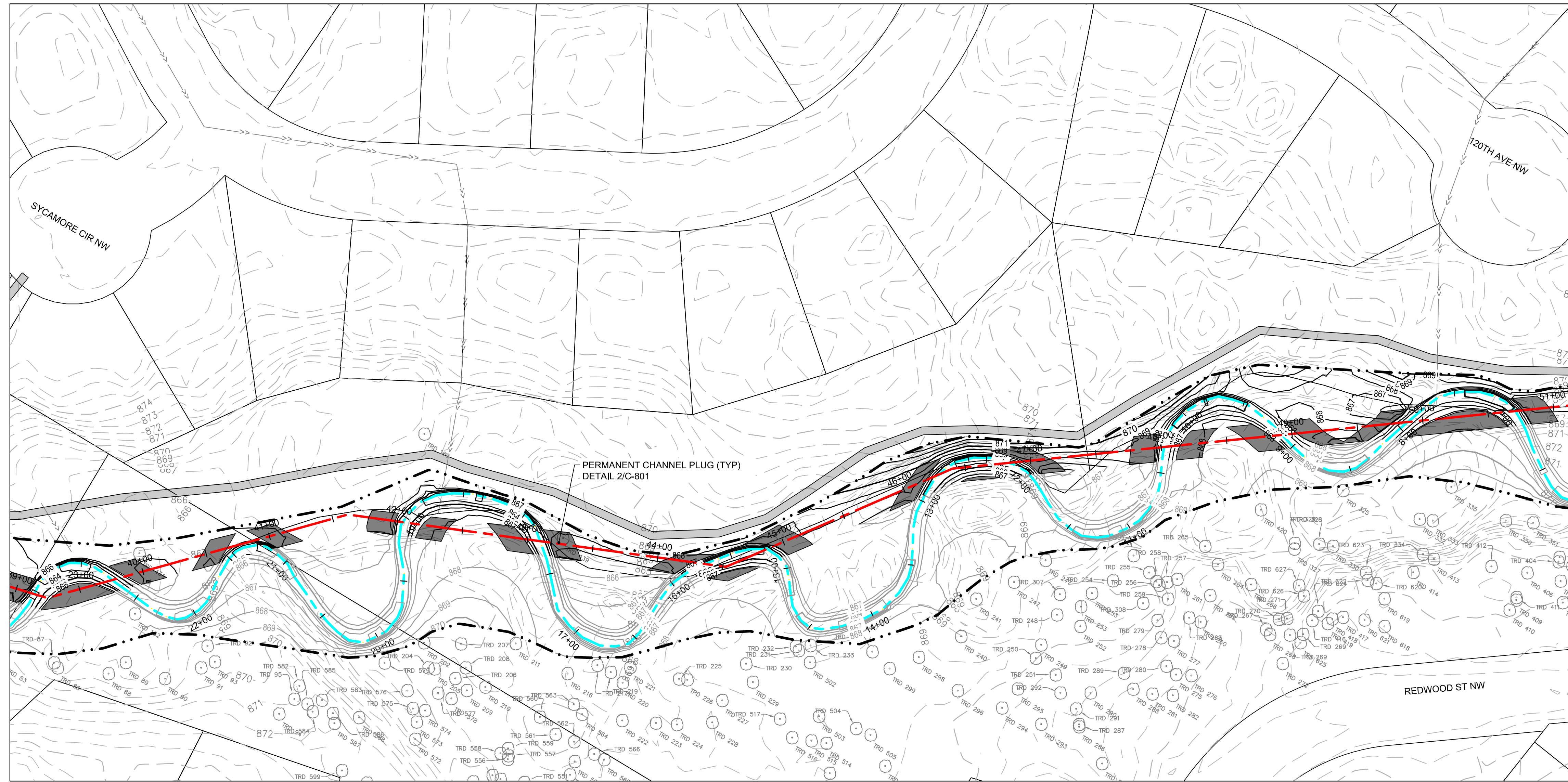
PROJECT NO.: 1239-0102
 DWN BY: NPW
 CHKD BY: SJB
 APPD BY: EAM
 ISSUE DATE: NOV 2019

SHEET TITLE:
PLAN AND PROFILE PHASE 2
 SHEET NO.:
C-203

NEW CHANNEL PROFILE



11/7/2019 3:46:04 PM



- PHASE 1 GRADING**
- COMMON EX ONSITE ~ 1000 CU YD
 - COMMON EX ONSITE ~ 1000 CU YD (STOCKPILE)
 - COMMON EX OFFSITE ~ 5300 CU YD
- PHASE 2 GRADING**
- COMMON EX ONSITE ~ 2500 CU YD
 - COMMON EX OFFSITE ~ 750 CU YD

WENCK
Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

ISSUE NO.	DESCRIPTION	DATE
0	90% DESIGN PLANS	09/13/2019
1	100% DESIGN PLANS - ISSUED FOR PERMITS	11/7/2019

CERTIFICATION:
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LIC. NO.:
DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

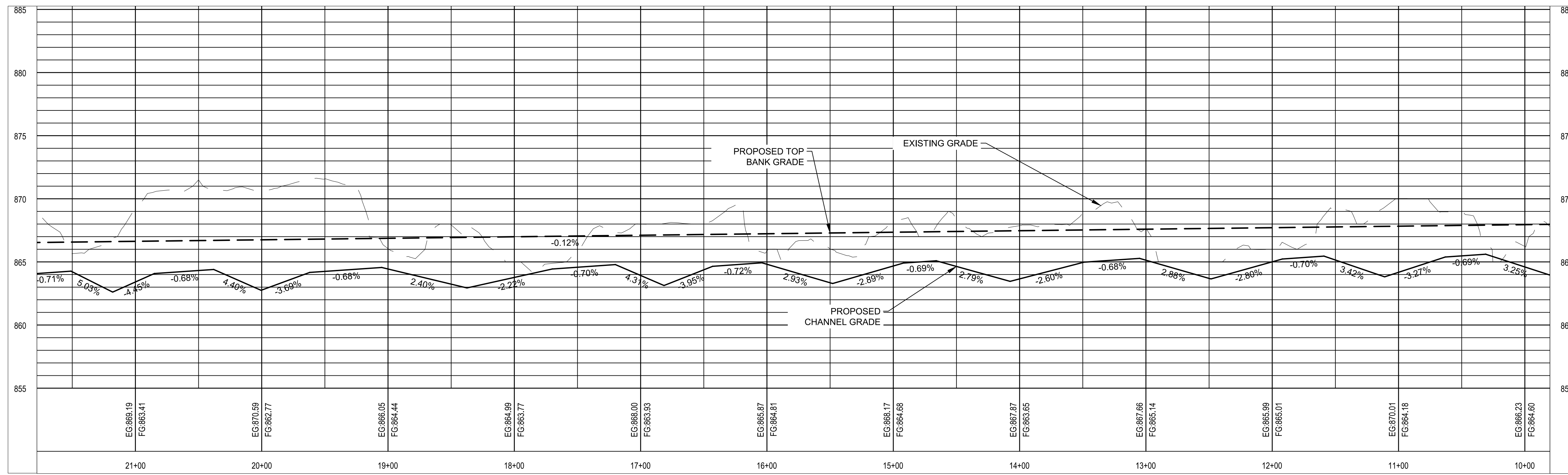
ISSUE DATE: NOV 2019

ISSUE NO.: 1

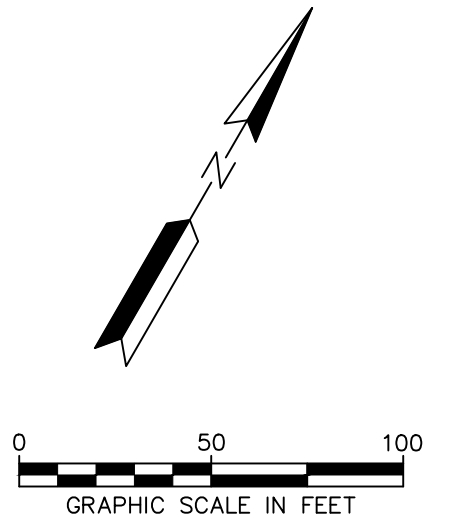
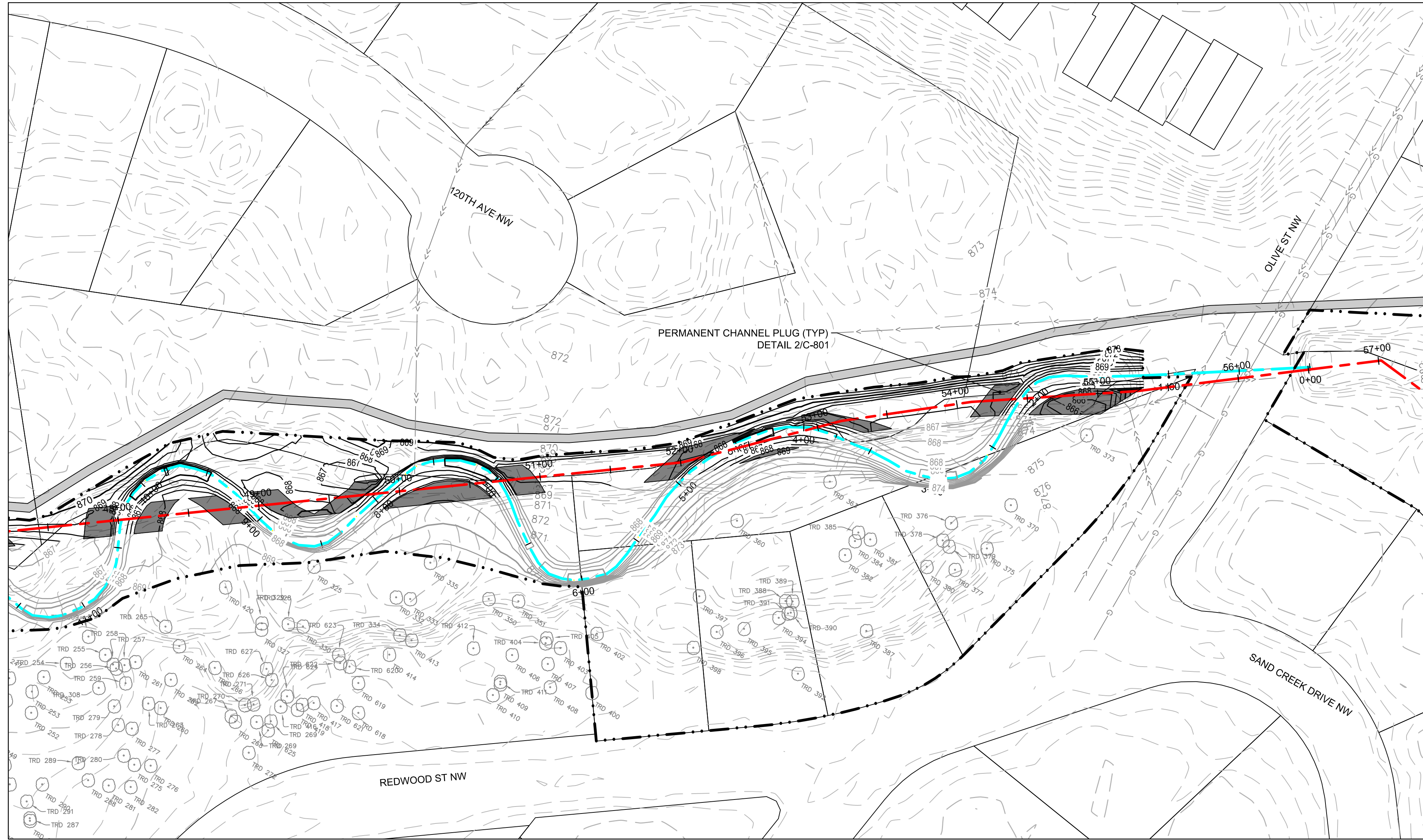
SHEET TITLE:
PLAN AND PROFILE PHASE 2

SHEET NO.:
C-204

NEW CHANNEL PROFILE



M:\1239\102\CAD\CIVIC 200 Phase 2 Plan & Profile_Proposed.dwg



- PHASE 1 GRADING
- COMMON EX ONSITE ~ 1000 CU YD
 - COMMON EX ONSITE ~ 1000 CU YD (STOCKPILE)
 - COMMON EX OFFSITE ~ 5300 CU YD
- PHASE 2 GRADING
- COMMON EX ONSITE ~ 2500 CU YD
 - COMMON EX OFFSITE ~ 750 CU YD

WENCK
Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

ISSUE NO.	DATE	DESCRIPTION
0	08/13/2019	90% DESIGN PLANS
1	11/7/2019	100% DESIGN PLANS - ISSUED FOR PERMITS

CERTIFICATION:
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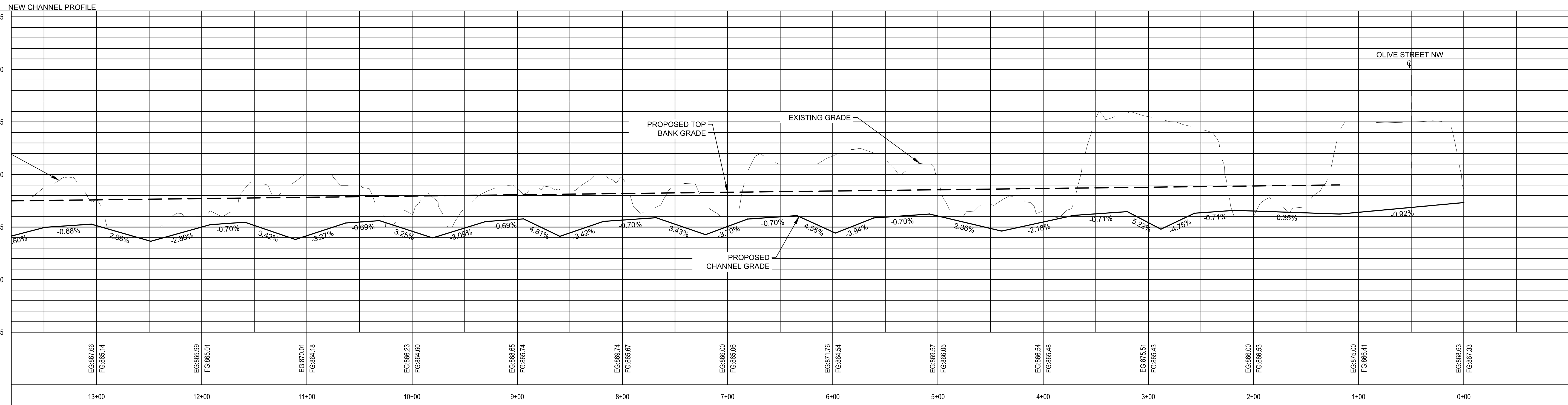
LICENSE NO.:
DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

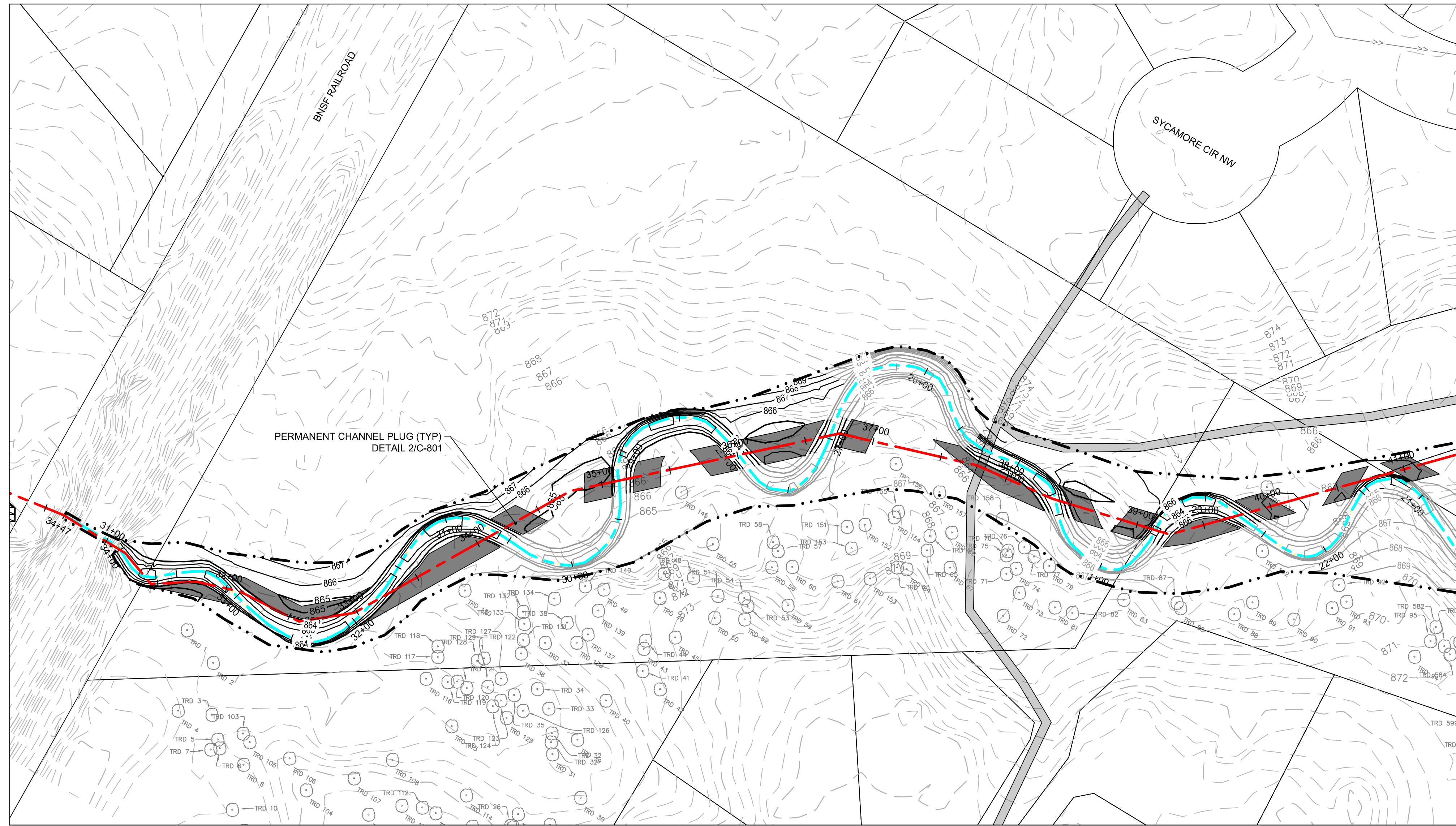
ISSUE DATE: NOV 2019

ISSUE NO.: 1



SHEET TITLE:
PLAN AND PROFILE PHASE 2

SHEET NO.:
C-205



- PHASE 1 GRADING
- COMMON EX ONSITE ~ 1000 CU YD
 - COMMON EX ONSITE ~ 1000 CU YD (STOCKPILE)
 - COMMON EX OFFSITE ~ 5300 CU YD
- PHASE 2 GRADING
- COMMON EX ONSITE ~ 2500 CU YD
 - COMMON EX OFFSITE ~ 750 CU YD

WENCK
Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

ISSUE NO.	DESCRIPTION	DATE
0	90% DESIGN PLANS	09/13/2019
1	100% DESIGN PLANS - ISSUED FOR PERMITS	11/7/2019

CERTIFICATION:
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NAME: _____
LICENSE NO.: _____
DATE: _____

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

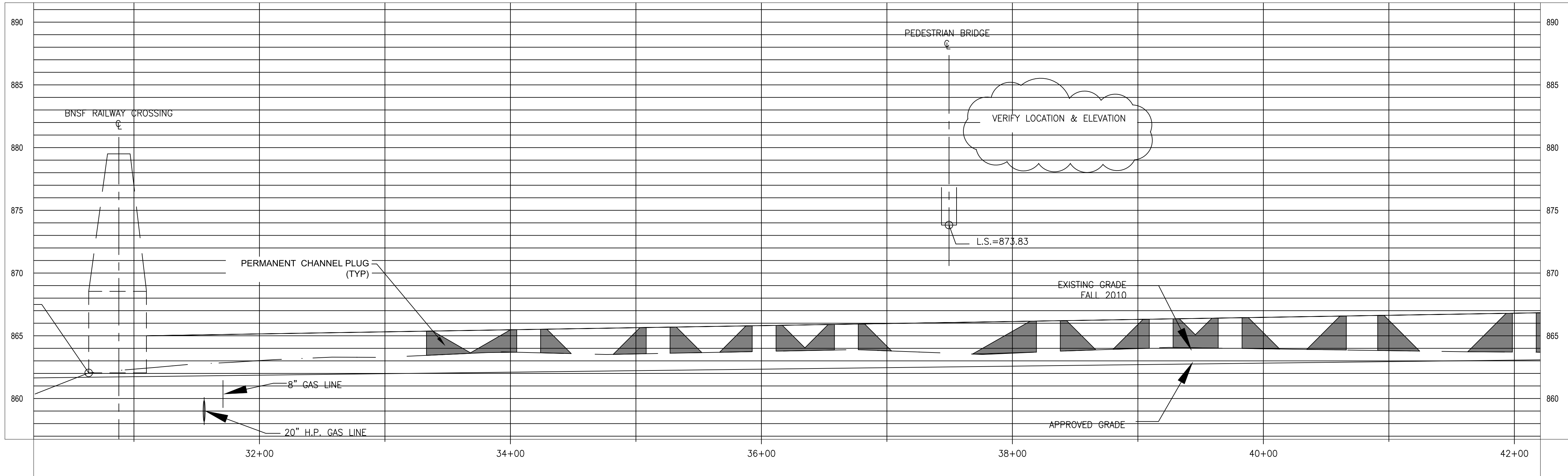
ISSUE DATE: NOV 2019

ISSUE NO.: 1

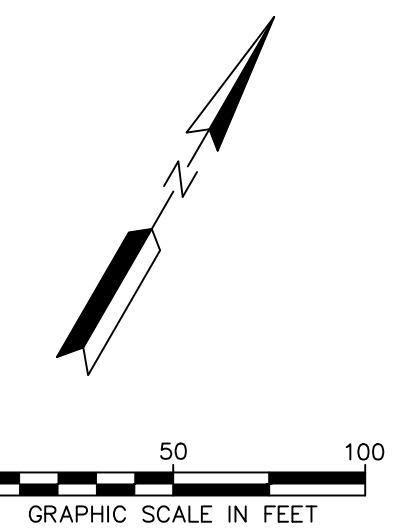
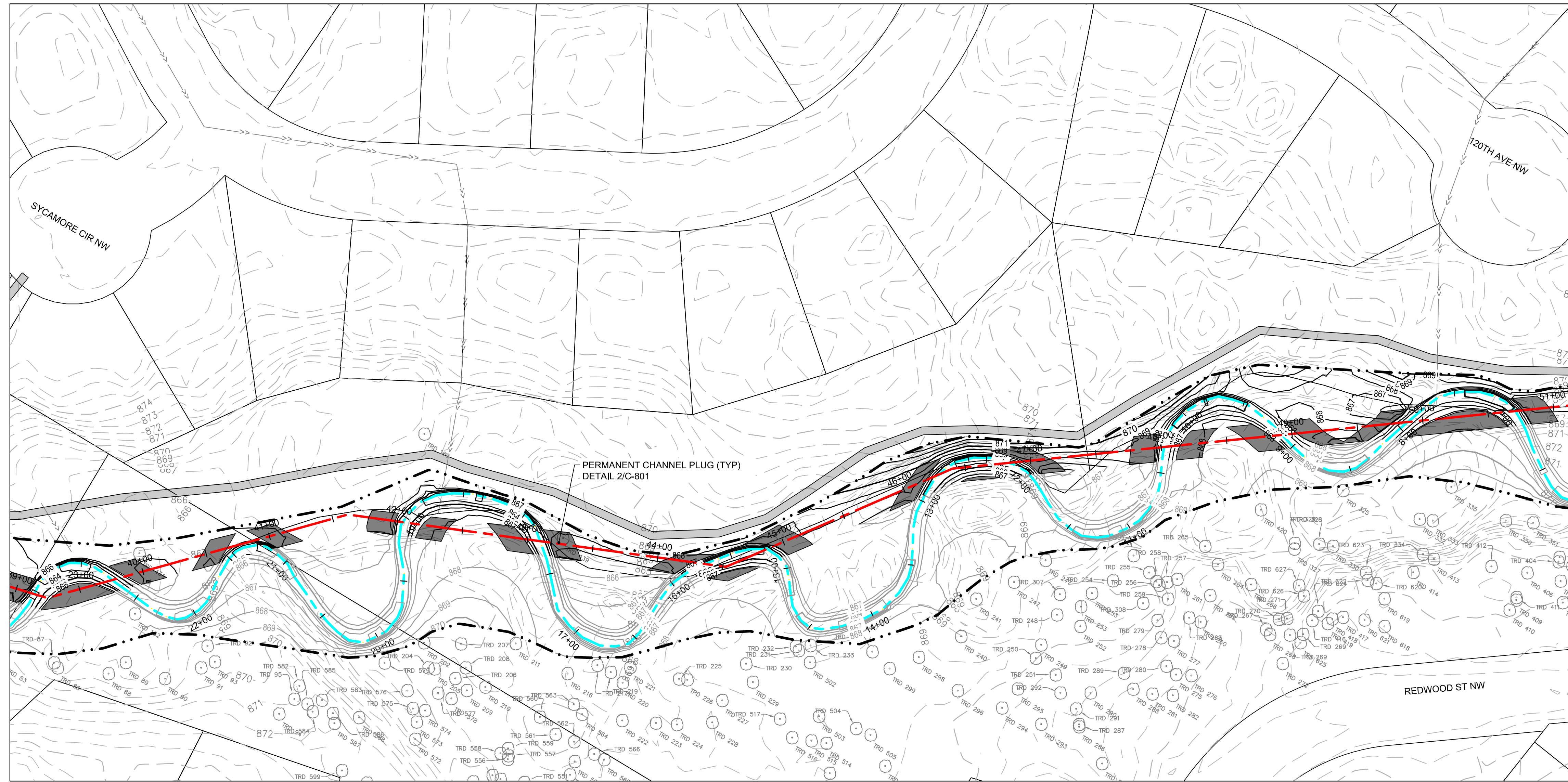
SHEET TITLE:
PLAN AND PROFILE PHASE 2

SHEET NO.:
C-206

OLD CHANNEL PROFILE



11/7/2019 3:46:06 PM



- PHASE 1 GRADING
- COMMON EX ONSITE ~ 1000 CU YD
 - COMMON EX ONSITE ~ 1000 CU YD (STOCKPILE)
 - COMMON EX OFFSITE ~ 5300 CU YD
- PHASE 2 GRADING
- COMMON EX ONSITE ~ 2500 CU YD
 - COMMON EX OFFSITE ~ 750 CU YD

Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

ISSUE NO.	DESCRIPTION	DATE
0	90% DESIGN PLANS	09/13/2019
1	100% DESIGN PLANS - ISSUED FOR PERMITS	11/7/2019

CERTIFICATION:

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NAME: _____
LICENSE NO.: _____
DATE: _____

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

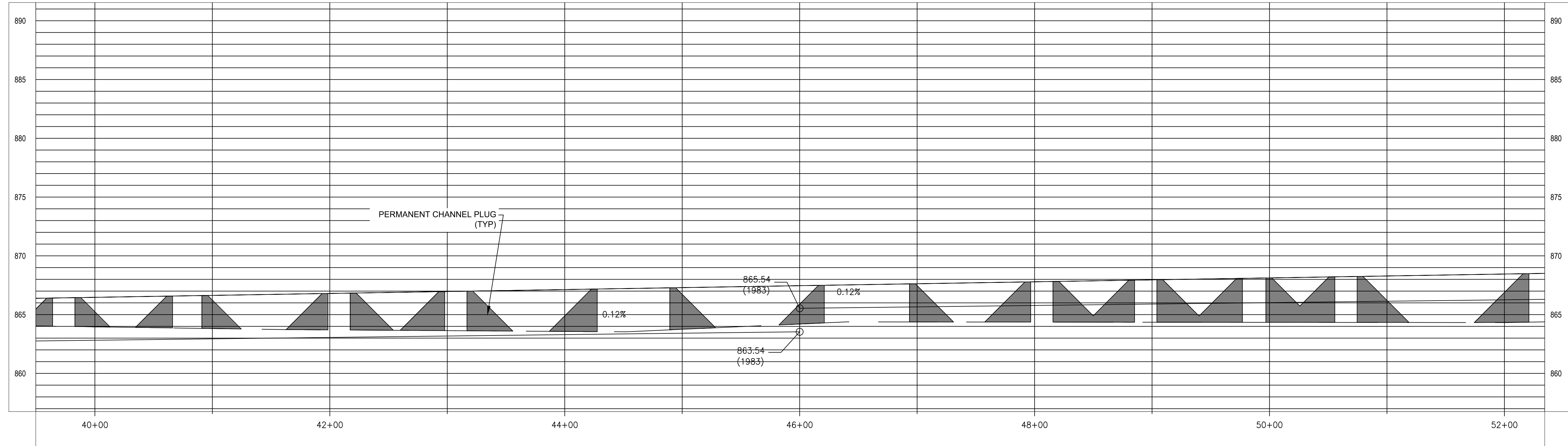
ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
**PLAN AND PROFILE
PHASE 2**

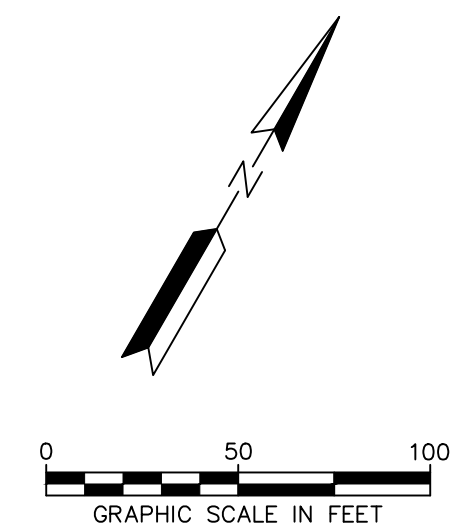
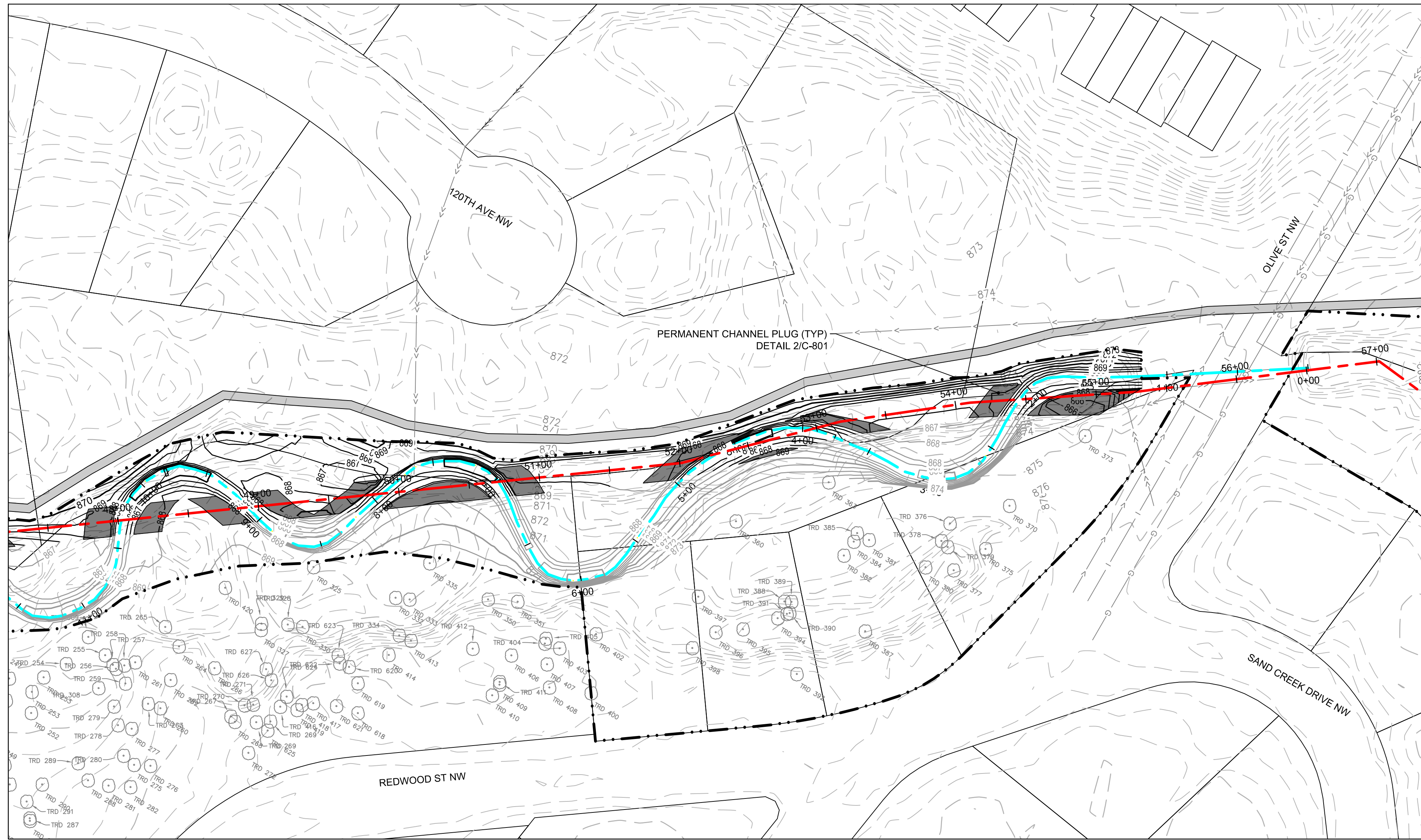
SHEET NO.:
C-207

OLD CHANNEL PROFILE



M:\1239\102\CAD\CIVIC 200 Phase 2 Plan & Profile_Proposed.dwg

11/7/2019 3:46:25 PM



- GRADING:
- 8455 CU. YD. CUT
 - 3320 CU. YD. FILL
 - 5135 CU. YD. NET CUT

WENCK
 Responsive partner.
 Exceptional outcomes.

7500 OLSON MEMORIAL HWY
 SUITE 300
 GOLDEN VALLEY, MN 55427
 PHONE: 763-252-6800
 FAX: 952-831-1268
 WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
**COON CREEK
 WATERSHED
 DISTRICT**

PROJECT TITLE:
MIDDLE SAND CREEK
 COON RAPIDS MN

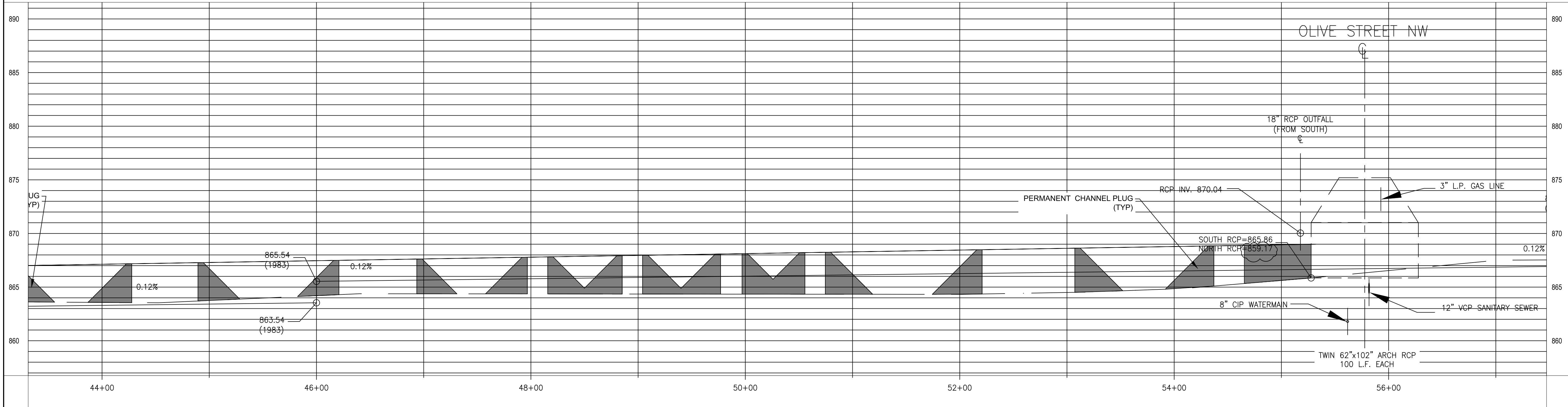
ISSUE NO.	DESCRIPTION	DATE
0	90% DESIGN PLANS	09/13/2019
1	100% DESIGN PLANS - ISSUED FOR PERMITS	11/07/2019

CERTIFICATION:
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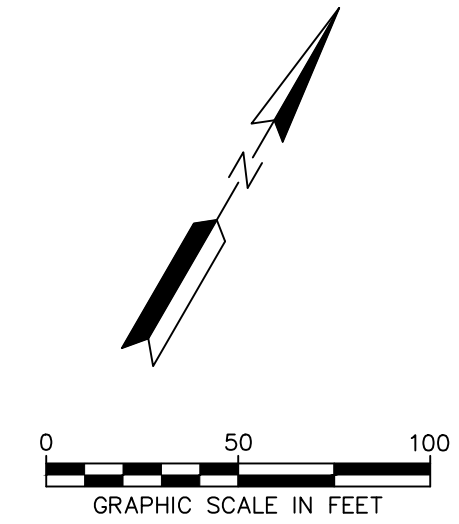
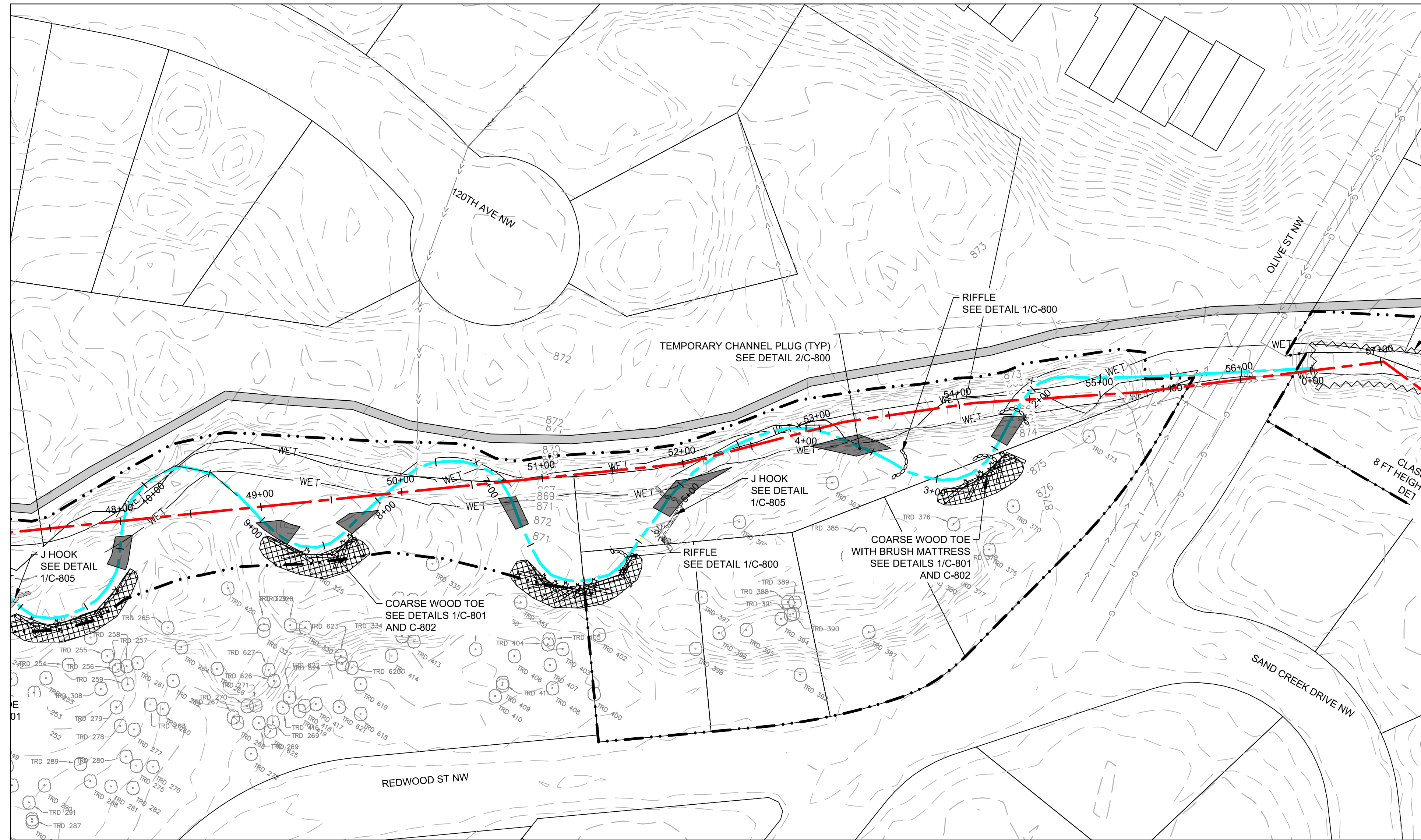
LICENS. NO.:
 DATE:

PROJECT NO.: 1239-0102
 DWN BY: NPW CHKD BY: SJB APPD BY: EAM
 ISSUE DATE: NOV 2019
 ISSUE NO.: 1
 SHEET TITLE:
**PLAN AND PROFILE
 PHASE 2**
 SHEET NO.:
C-208

OLD CHANNEL PROFILE



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Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
**COON CREEK
WATERSHED
DISTRICT**

PROJECT TITLE:
**MIDDLE SAND CREEK
CHANNEL STABILIZATION
COON RAPIDS MN**

DATE	DESCRIPTION	ISSUE NO.
09/13/2019	90% DESIGN PLANS	0
11/07/2019	100% DESIGN PLANS - ISSUED FOR PERMITS	1

CERTIFICATION:
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LICENSURE NO.:
DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

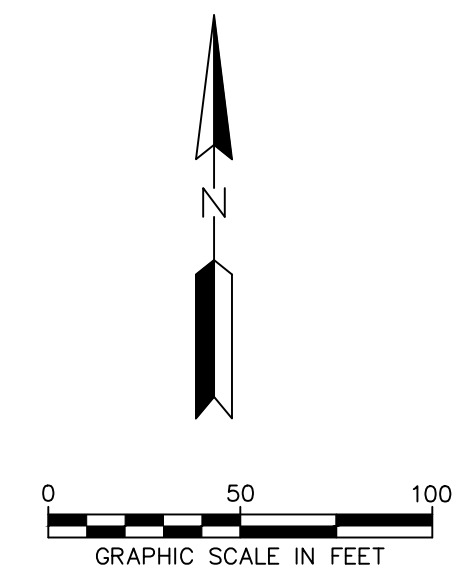
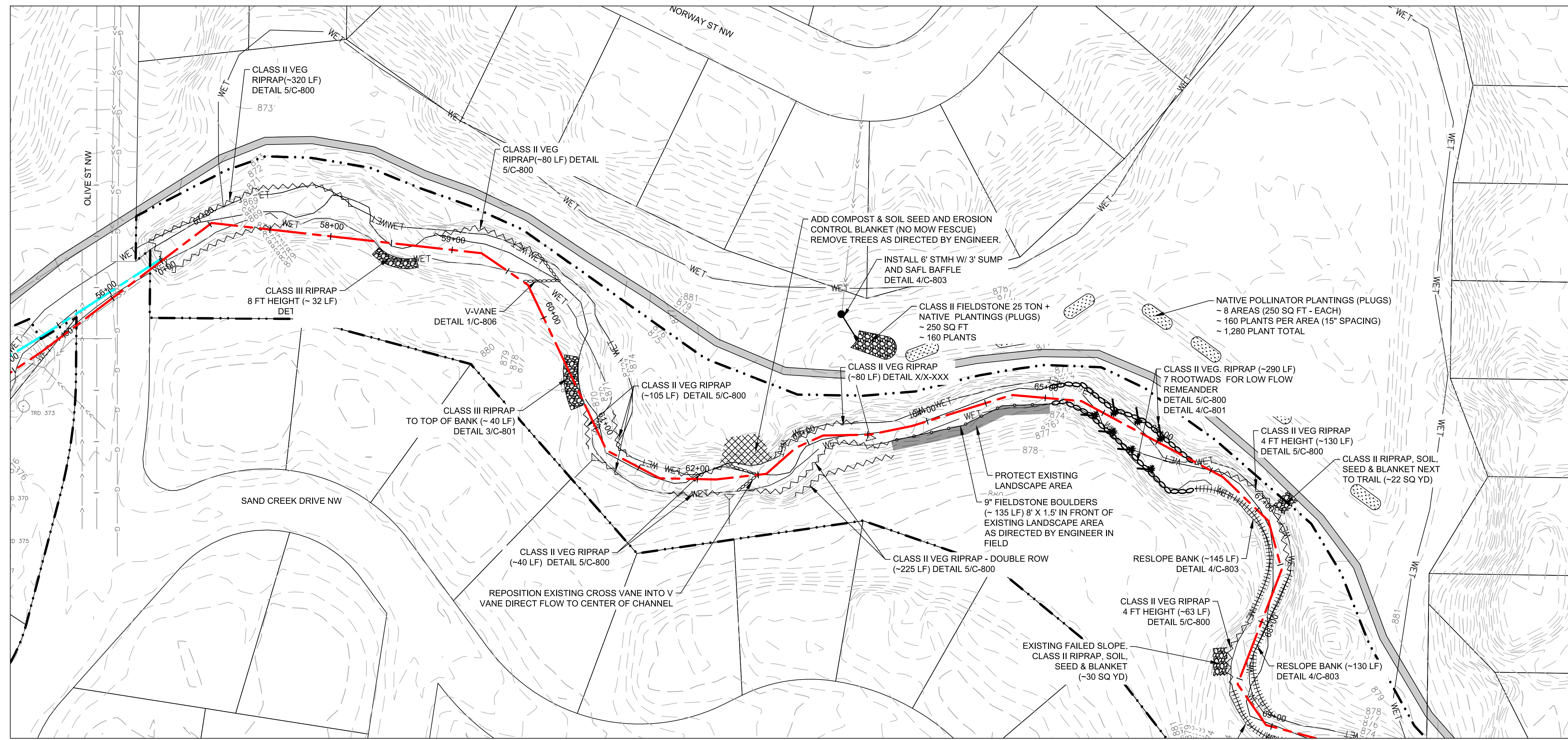
ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
**CHANNEL
STABILIZATION
PHASE 1**

SHEET NO.:
C-302

11/7/2019 3:56:21 PM



WENCK
 Responsive partner.
 Exceptional outcomes.
 7500 OLSON MEMORIAL HWY
 SUITE 300
 GOLDEN VALLEY, MN 55427
 PHONE: 763-252-6800
 FAX: 952-831-1268
 WWW.WENCK.COM

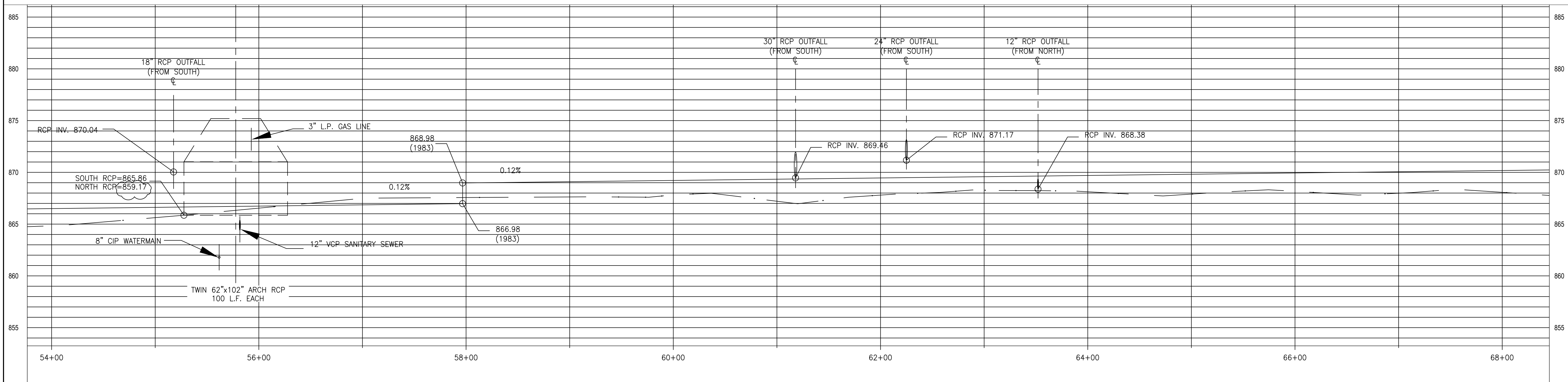
SUB CONSULTANT:
 CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
 COON RAPIDS MN

ISSUE NO.	DESCRIPTION	DATE
0	90% DESIGN PLANS	09/13/2019
1	100% DESIGN PLANS - ISSUED FOR PERMITS	11/07/2019

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LIC. NO.:
 DATE:

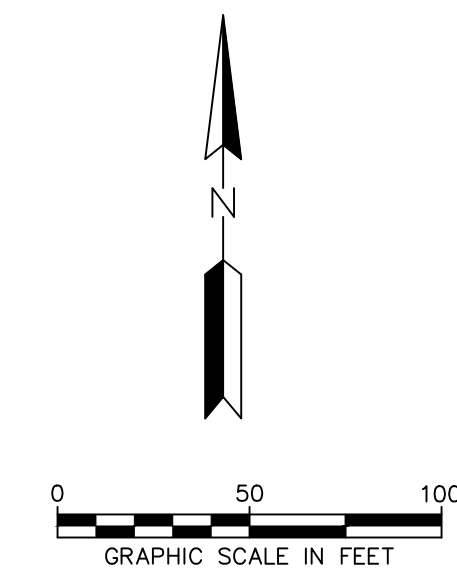
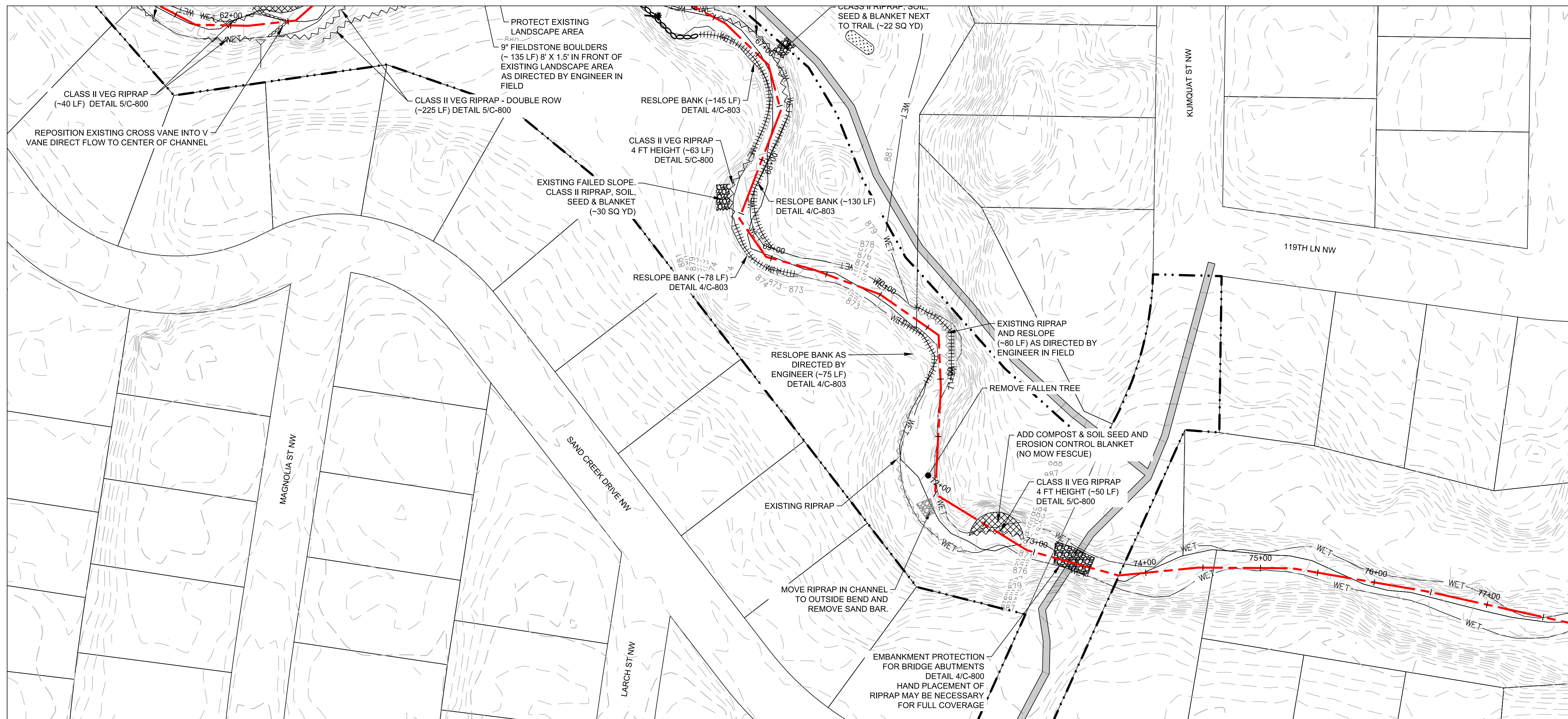


PROJECT NO.: 1239-0102
 DWN BY: NPW
 CHKD BY: SJB
 APPD BY: EAM
 ISSUE DATE: NOV 2019
 ISSUE NO.: 1

SHEET TITLE:
CHANNEL STABILIZATION PHASE 1
 SHEET NO.:
C-303

M:\1239\102\CAD\CIVIC 300 Channel Stabilization - Phase 1.dwg

11/7/2019 3:50:31 PM



WENCK
 Responsive partner. Exceptional outcomes.
 7500 OLSON MEMORIAL HWY
 SUITE 300
 GOLDEN VALLEY, MN 55427
 PHONE: 763-252-6800
 FAX: 952-831-1268
 WWW.WENCK.COM

SUB CONSULTANT:
 CLIENT:
COON CREEK WATERSHED DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
 COON RAPIDS MN

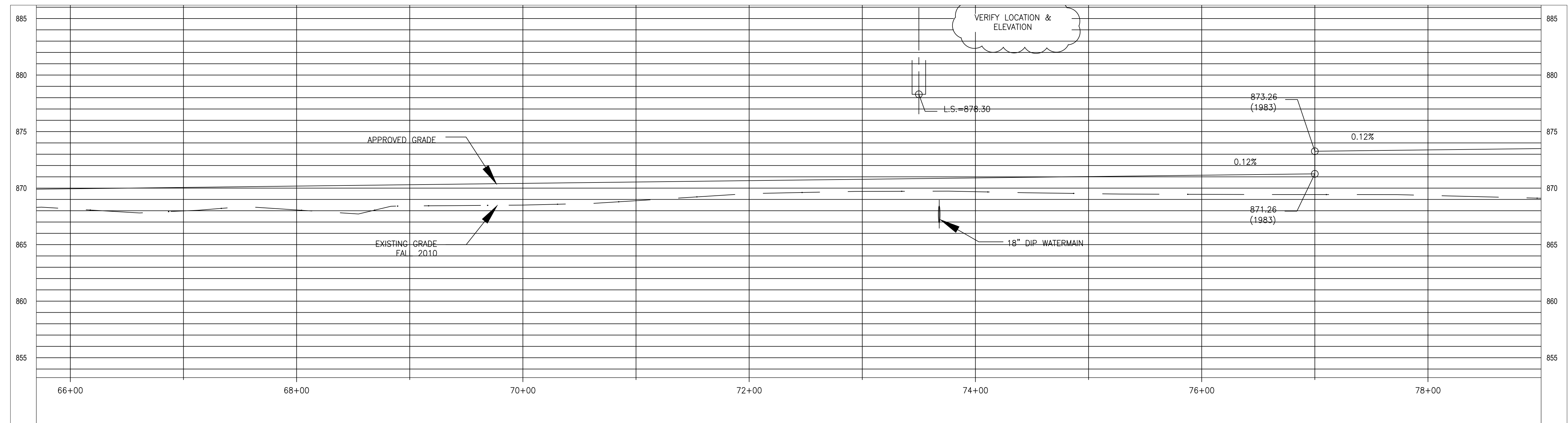
ISSUE NO.	DESCRIPTION
0	90% DESIGN PLANS
1	100% DESIGN PLANS - ISSUED FOR PERMITS

DATE	DESCRIPTION
09/13/2019	90% DESIGN PLANS
11/07/2019	100% DESIGN PLANS - ISSUED FOR PERMITS

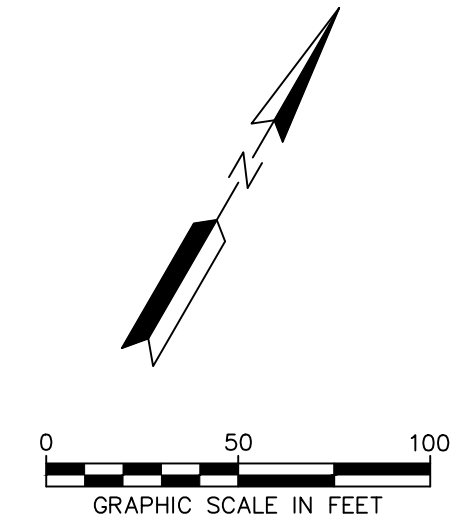
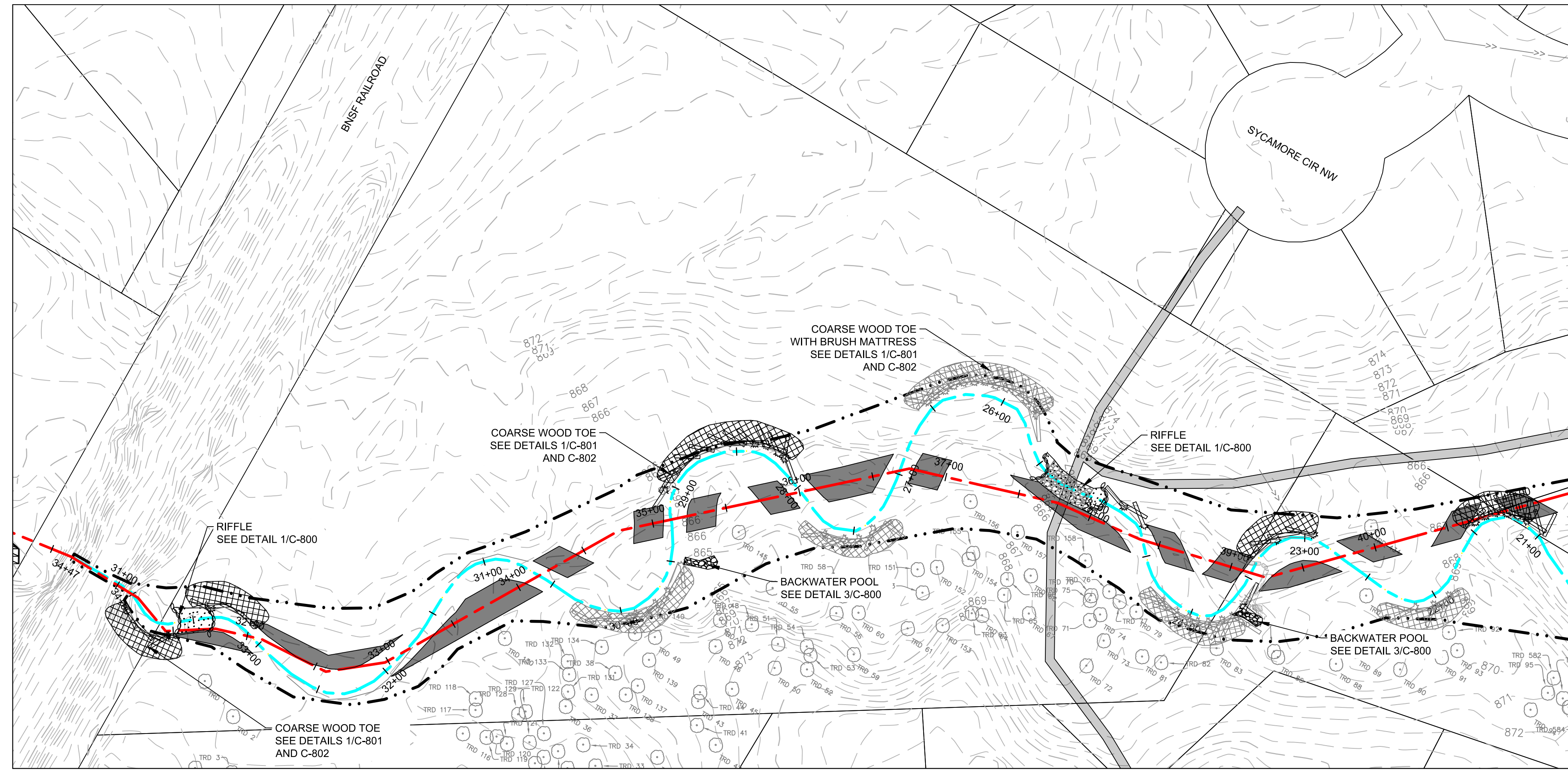
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 LICENSE NO.:
 DATE:

PROJECT NO.: 1239-0102
 DWN BY: NPW
 CHKD BY: SJB
 APPD BY: EAM
 ISSUE DATE: NOV 2019

ISSUE NO.: 1
 SHEET TITLE:
CHANNEL STABILIZATION PHASE 1
 SHEET NO.:
C-304



M:\1239\102\CAD\CIVIC 300 Channel Stabilization - Phase 1.dwg



Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
COON CREEK
WATERSHED
DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

DATE	DESCRIPTION	ISSUE NO.
09/13/2019	90% DESIGN PLANS	0
11/07/2019	100% DESIGN PLANS - ISSUED FOR PERMITS	1

CERTIFICATION:
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LICENSURE NO.:
DATE:

PROJECT NO.: 1239-0102

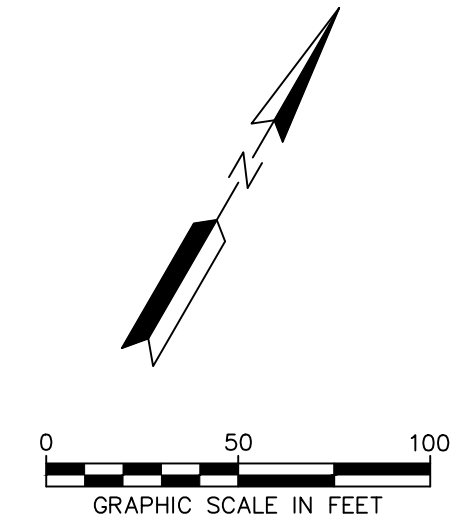
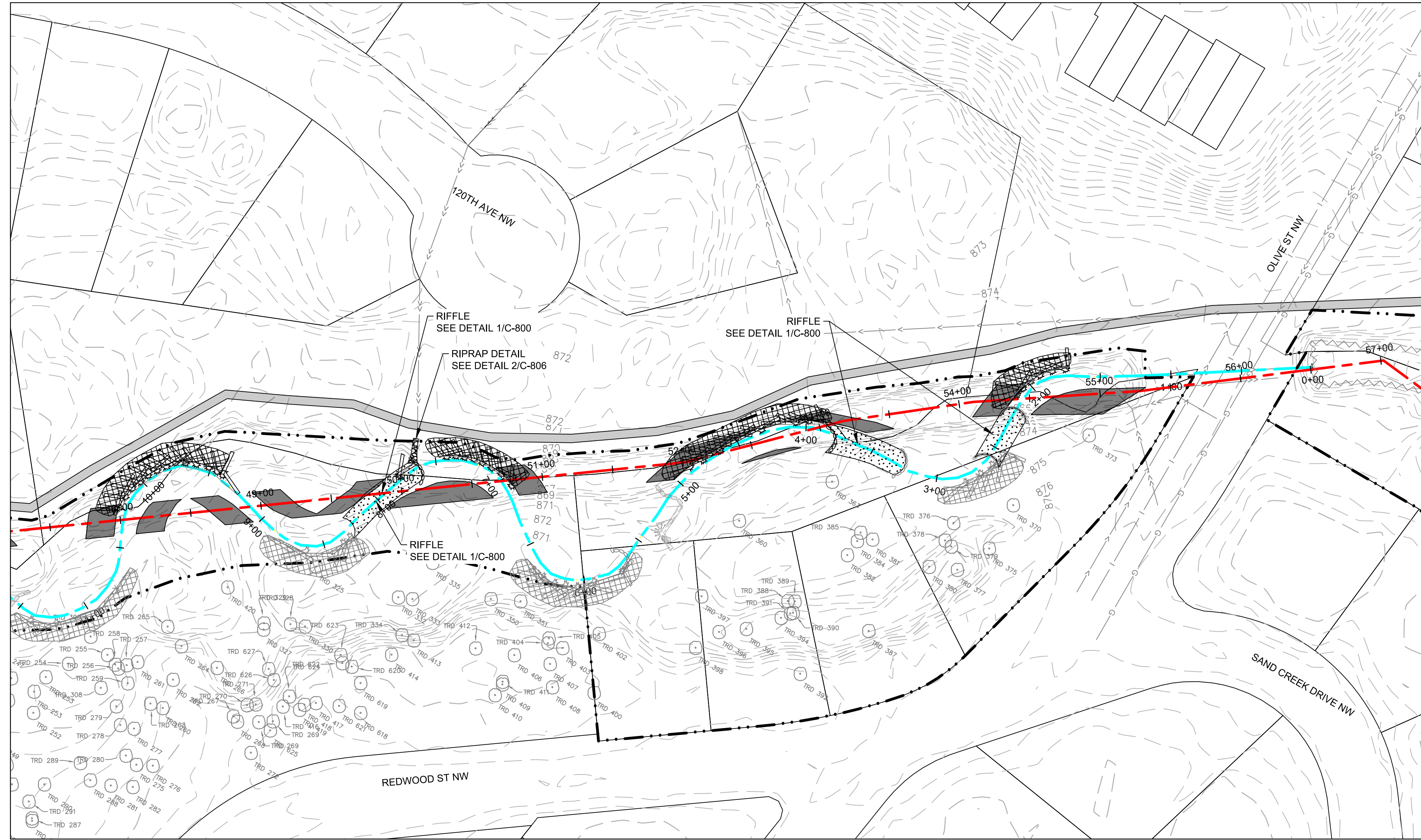
DWN BY: NPW CHK'D BY: SJB APP'D BY: EAM

ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
CHANNEL
STABILIZATION
PHASE 2

SHEET NO.:
C-305



Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
COON CREEK
WATERSHED
DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

DATE	DESCRIPTION	ISSUE NO.
09/13/2019	90% DESIGN PLANS	0
11/07/2019	100% DESIGN PLANS - ISSUED FOR PERMITS	1

CERTIFICATION:
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LICENSURE NO.:
DATE:

PROJECT NO.: 1239-0102

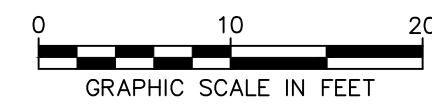
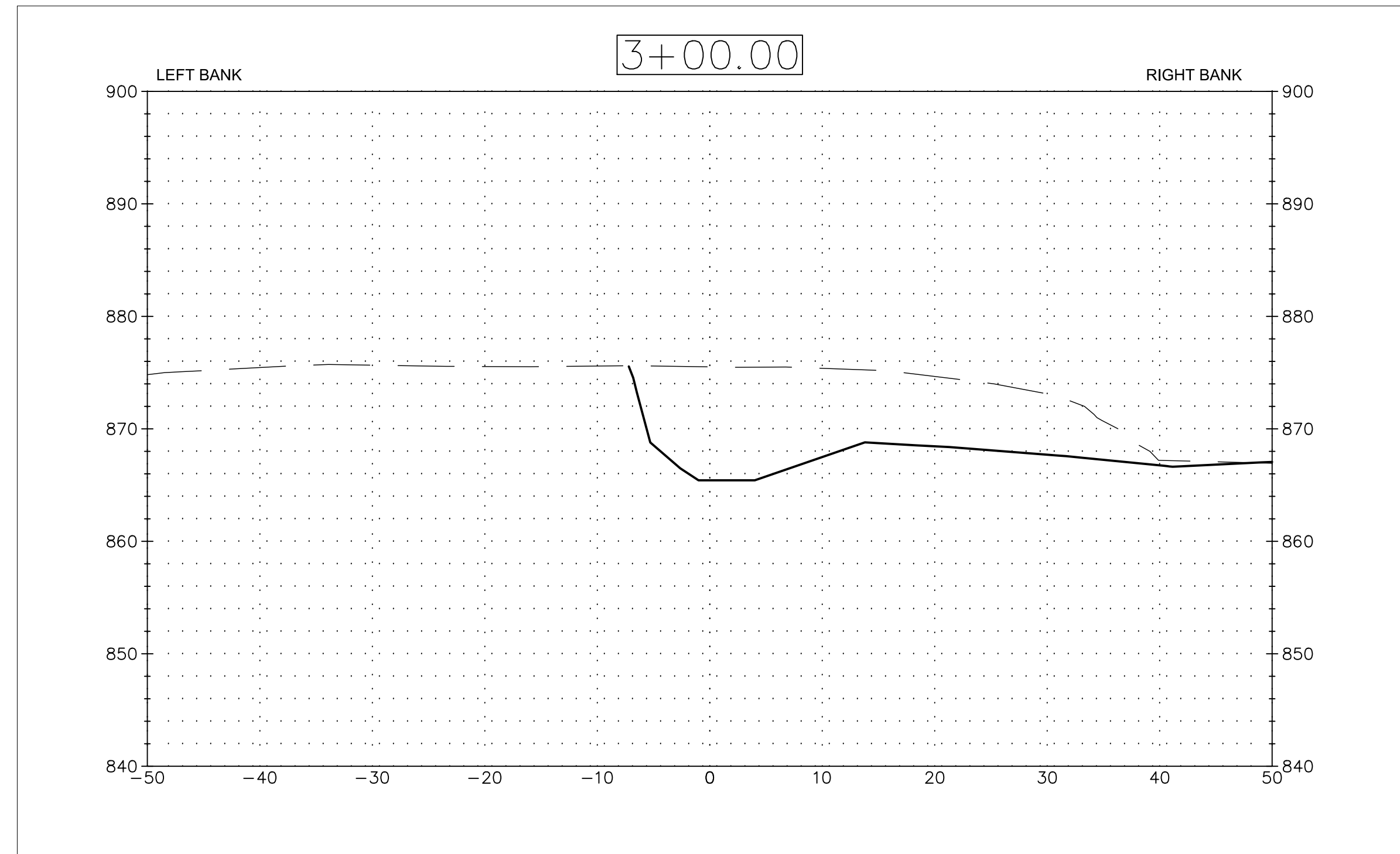
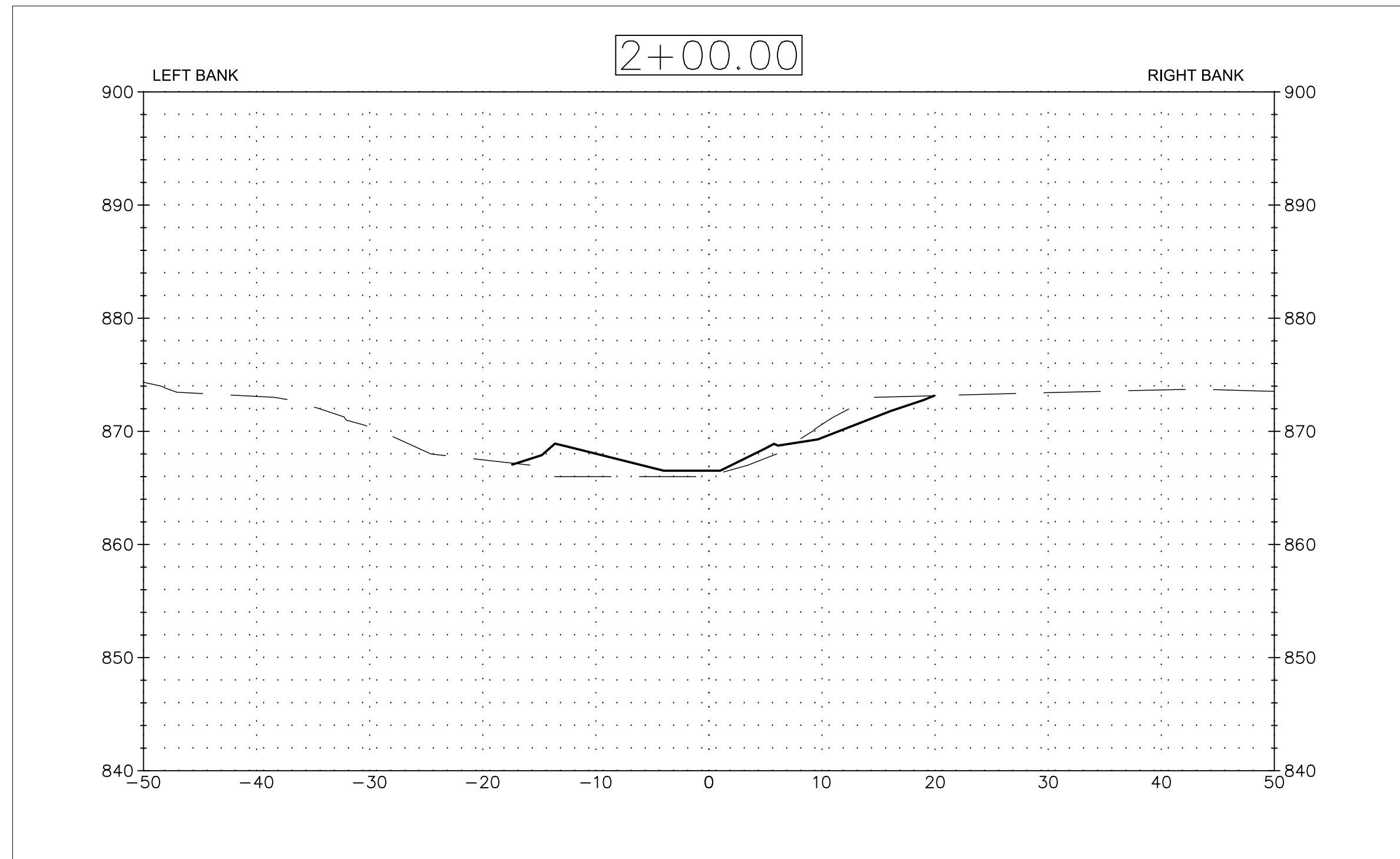
DWN BY: NPW CHKD BY: SJB APPD BY: EAM

ISSUE DATE: NOV 2019

ISSUE NO.: 1

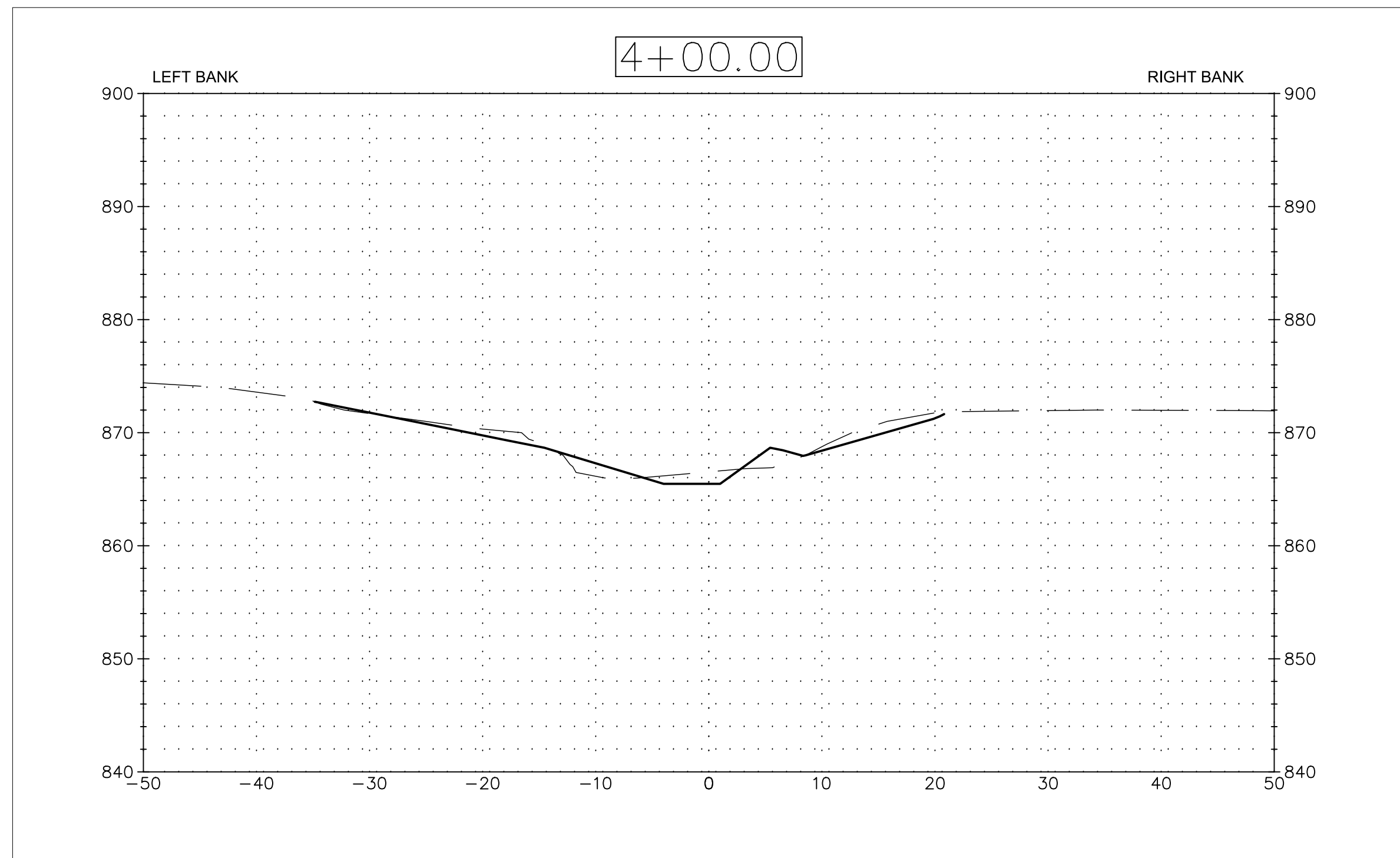
SHEET TITLE:
CHANNEL
STABILIZATION
PHASE 2

SHEET NO.:
C-307



LEGEND

- PROPOSED FINISHED GRADE
- - - - - EXISTING GRADE



Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:

COON CREEK
WATERSHED
DISTRICT

MIDDLE SAND CREEK

COON RAPIDS MN

PROJECT TITLE:

ISSUE NO.:

0

1

DESCRIPTION:

90% DESIGN PLANS

100% DESIGN PLANS

ISSUED FOR PERMITS

CERTIFICATION:

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

LICENSE NO.:

DATE:

PROJECT NO.:

1239-0102

DWN BY:

CHKD BY:

APPD BY:

NPW

SJB

EAM

ISSUE DATE:

NOV 2019

ISSUE NO.:

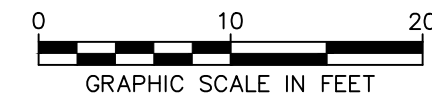
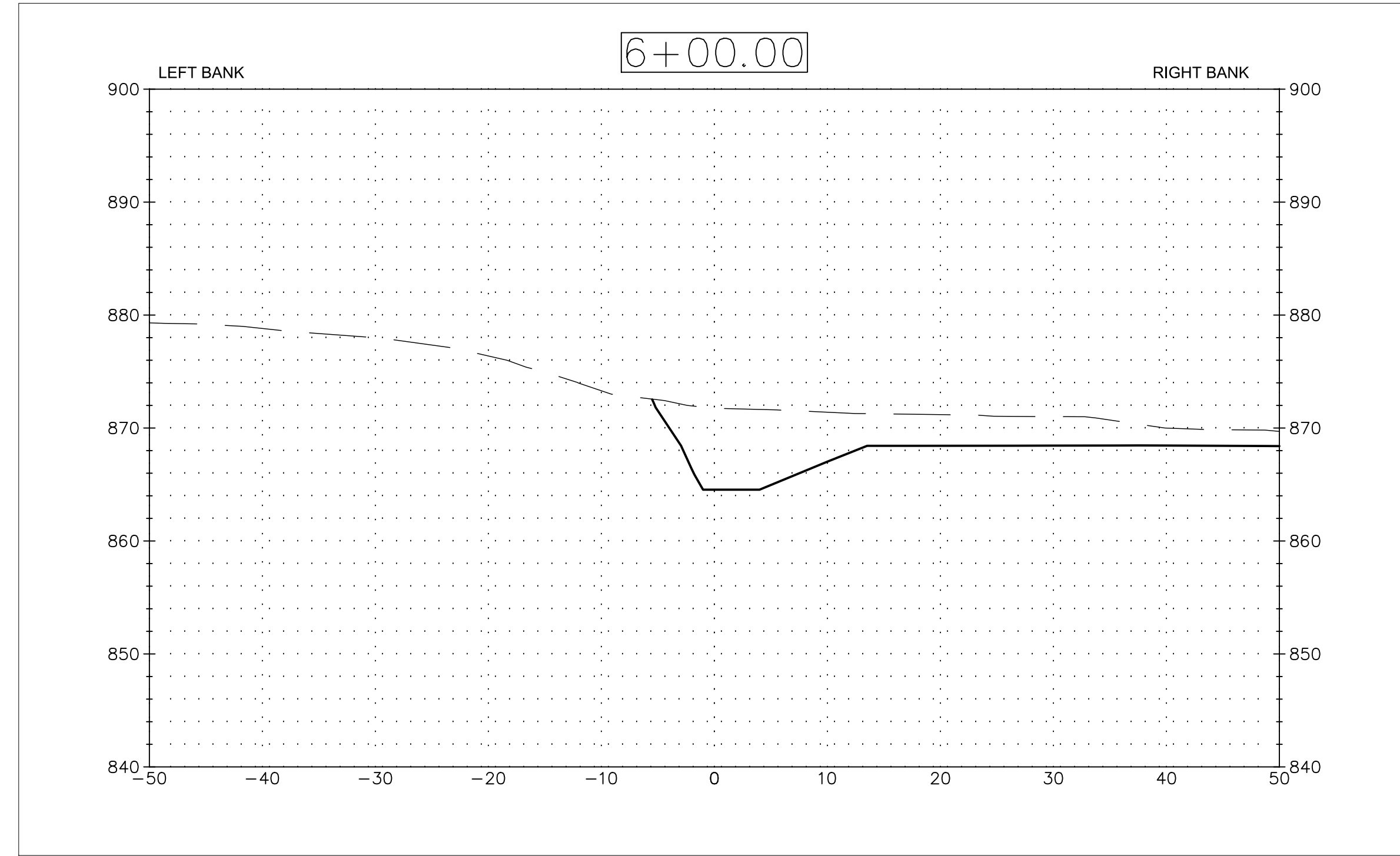
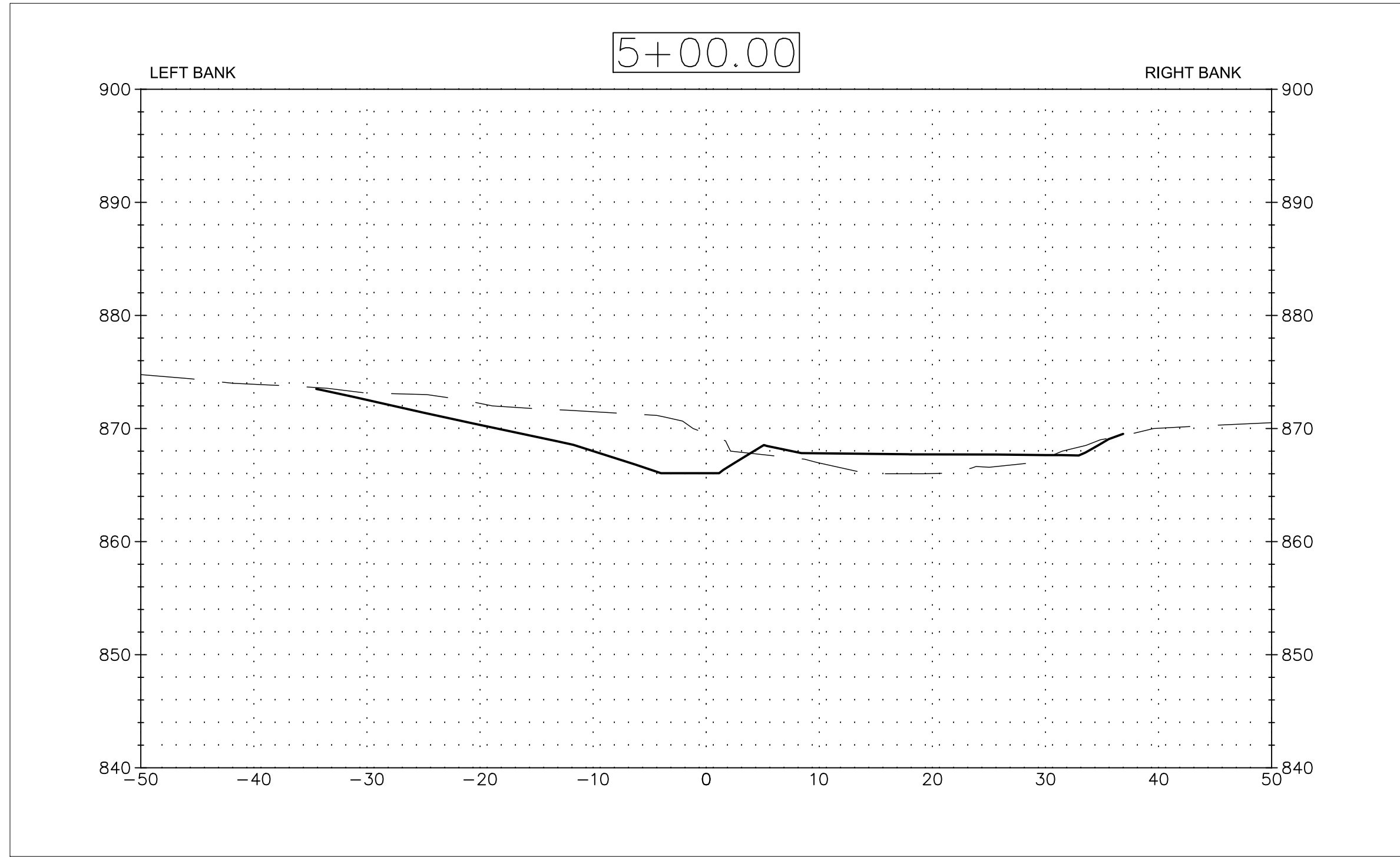
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SHEET TITLE:

CROSS SECTIONS

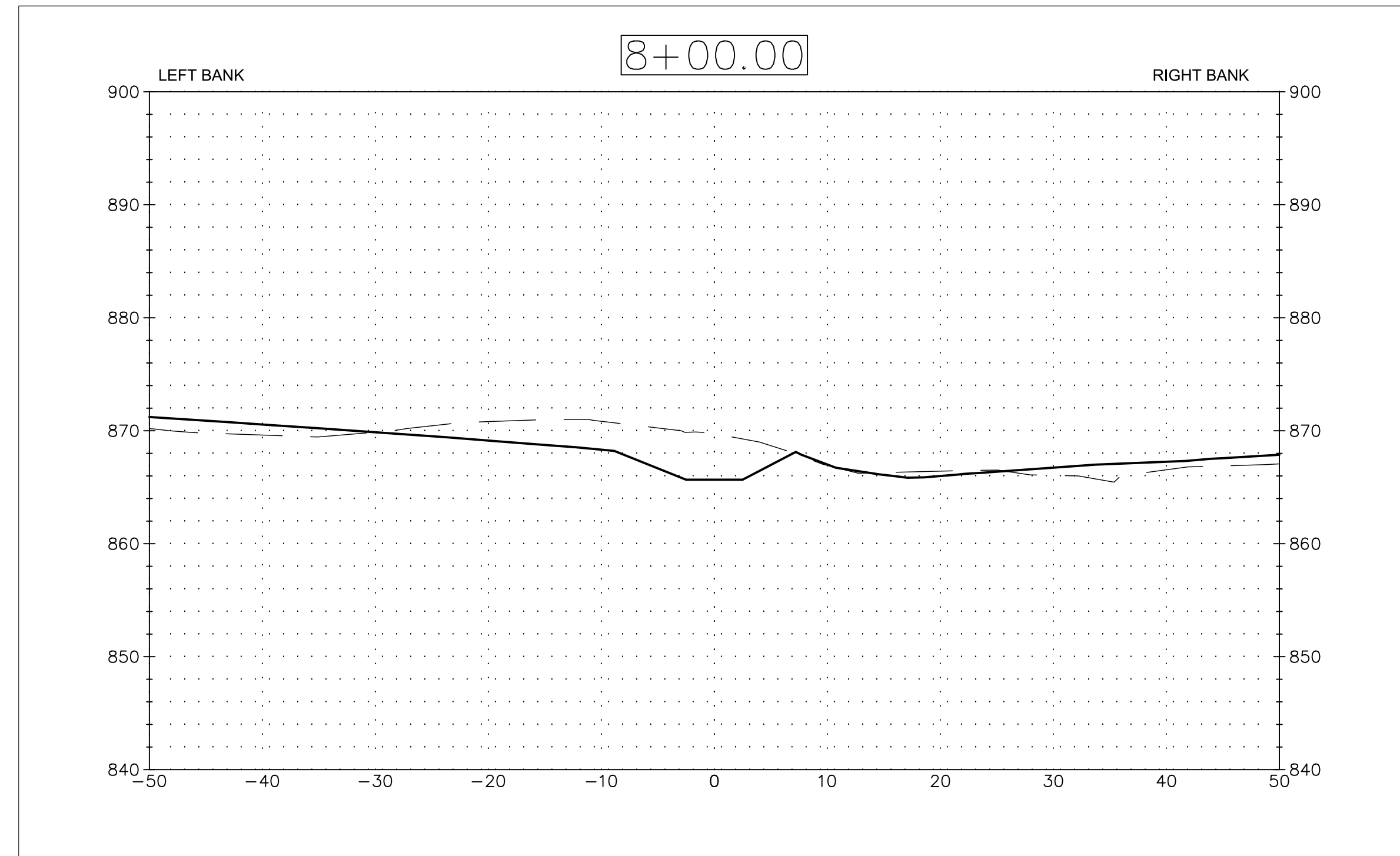
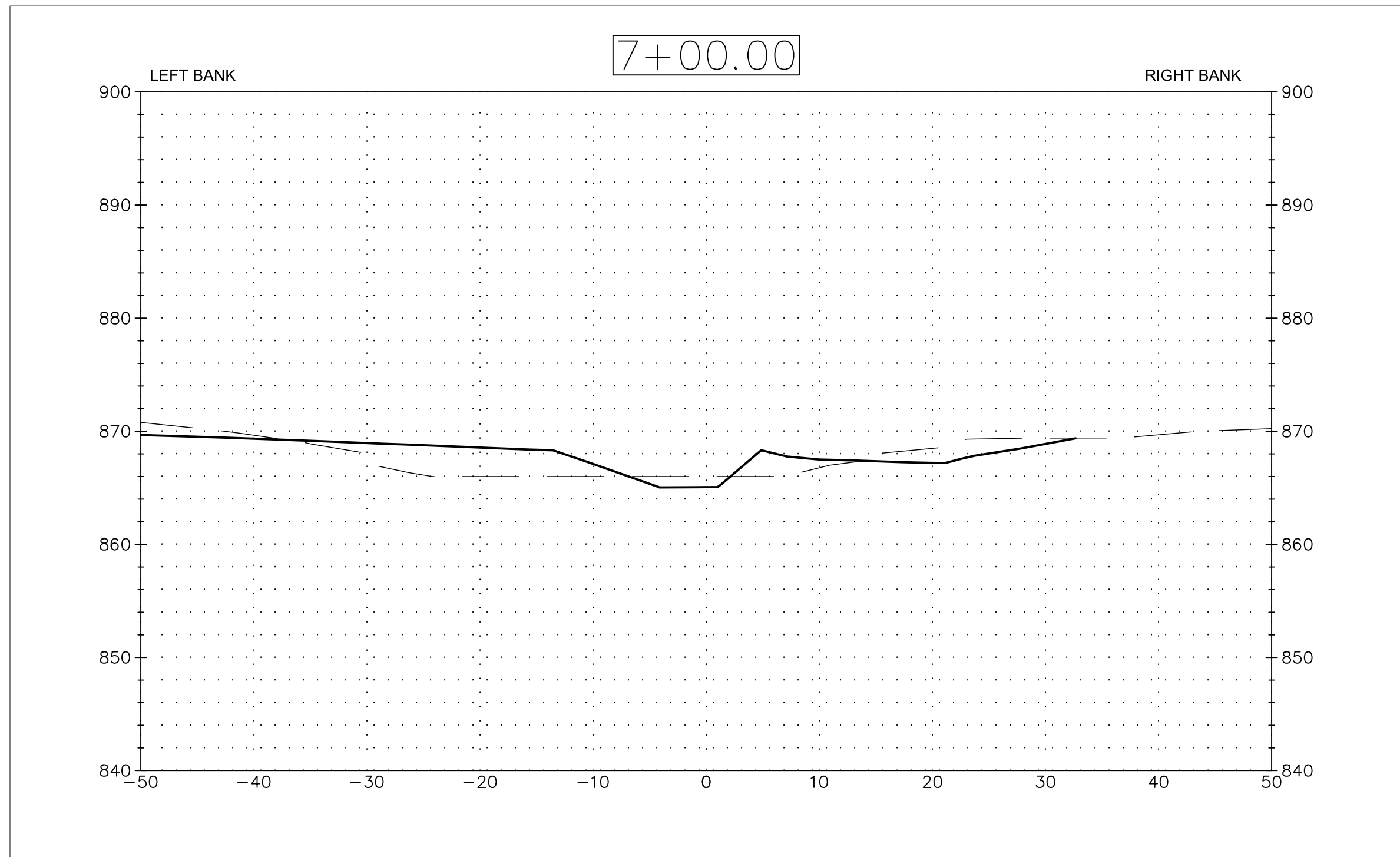
SHEET NO.:

C-401



LEGEND

- PROPOSED FINISHED GRADE
- - - - - EXISTING GRADE



Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:

COON CREEK
WATERSHED
DISTRICT

MIDDLE SAND CREEK

COON RAPIDS MN

PROJECT TITLE:

ISSUE NO.	DESCRIPTION	DATE
0	90% DESIGN PLANS	09/13/2019
1	100% DESIGN PLANS - ISSUED FOR PERMITS	11/7/2019

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

LICENS. NO.:
DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

ISSUE DATE: NOV 2019

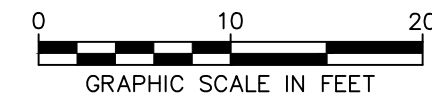
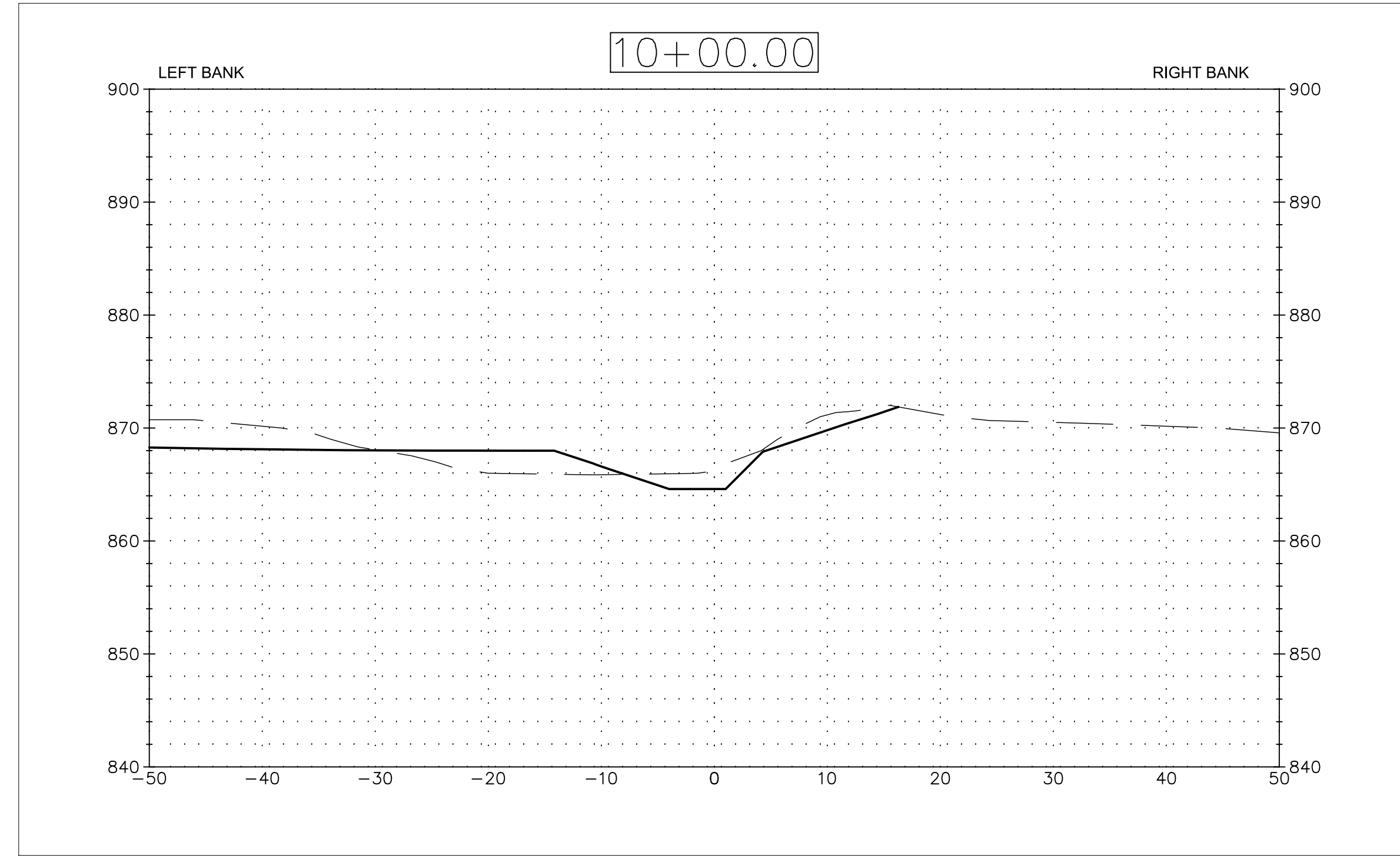
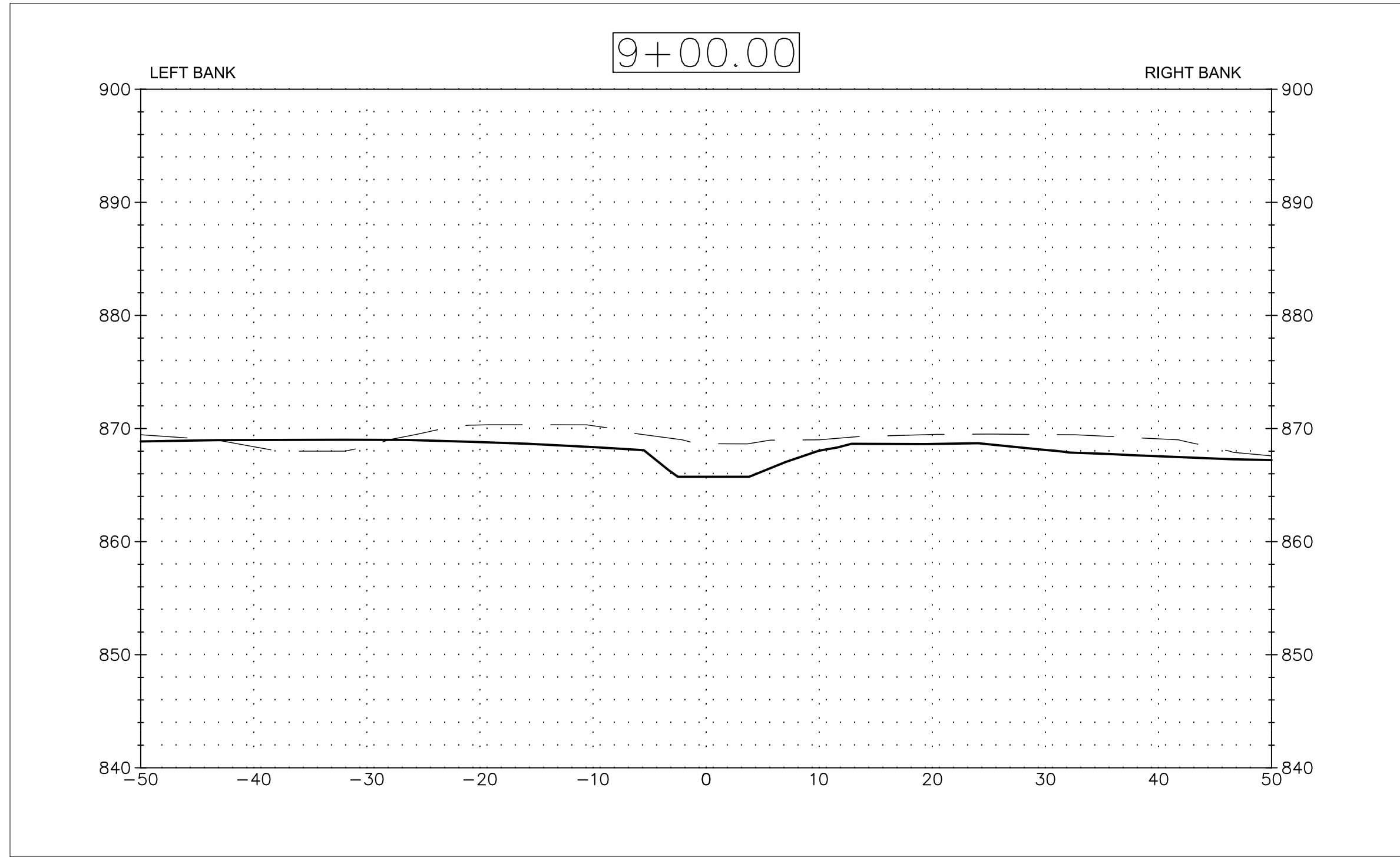
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SHEET TITLE:

CROSS SECTIONS

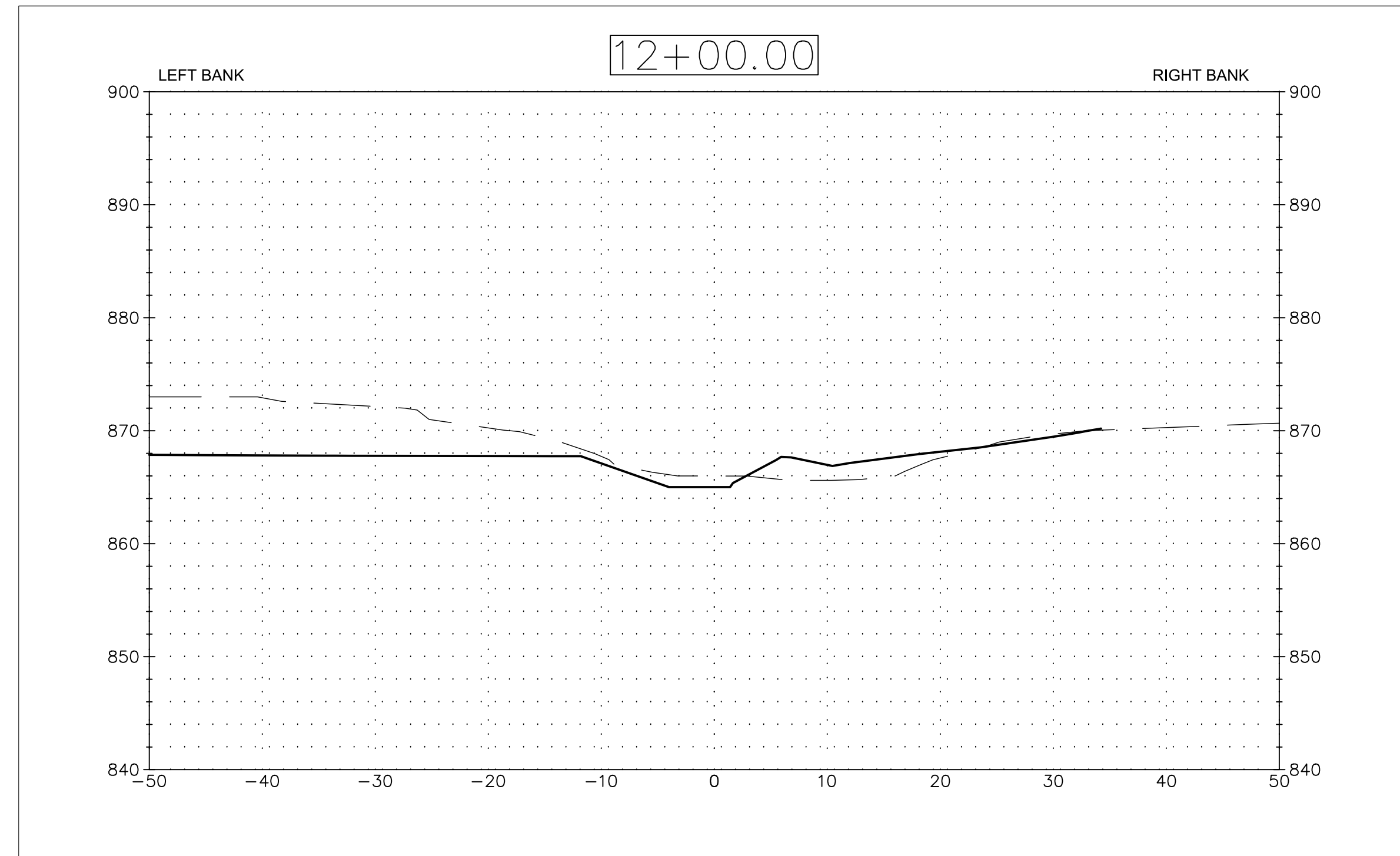
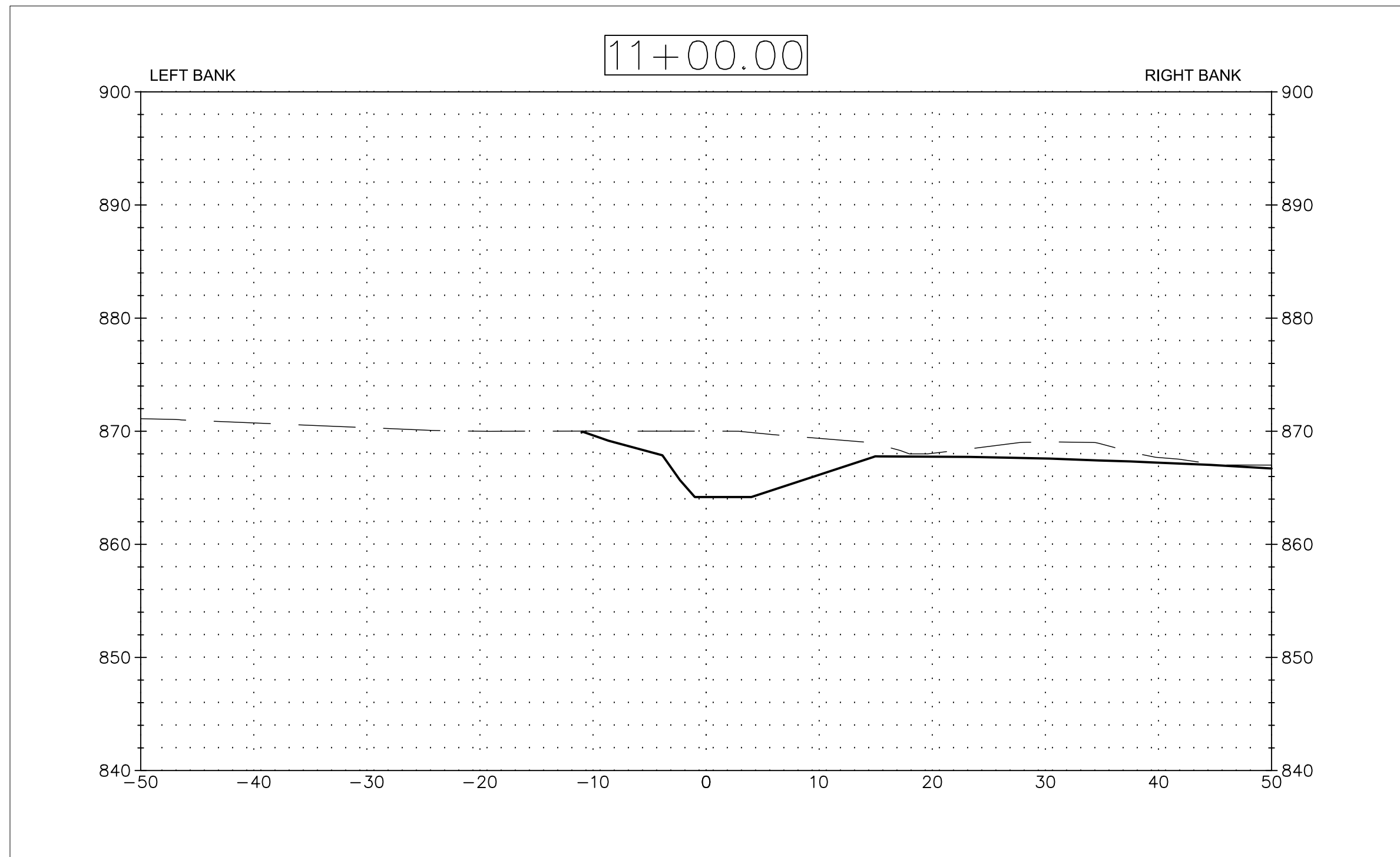
SHEET NO.:

C-402



LEGEND

- PROPOSED FINISHED GRADE
- - - EXISTING GRADE



Responsive partner.
Exceptional outcomes.

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SUB CONSULTANT:

CLIENT:

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WATERSHED
DISTRICT

MIDDLE SAND CREEK
COON RAPIDS MN

PROJECT TITLE:

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DWN BY: NPW CHKD BY: SJB APPD BY: EAM

ISSUE DATE: NOV 2019

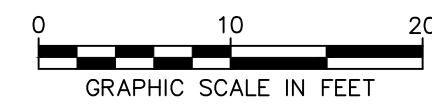
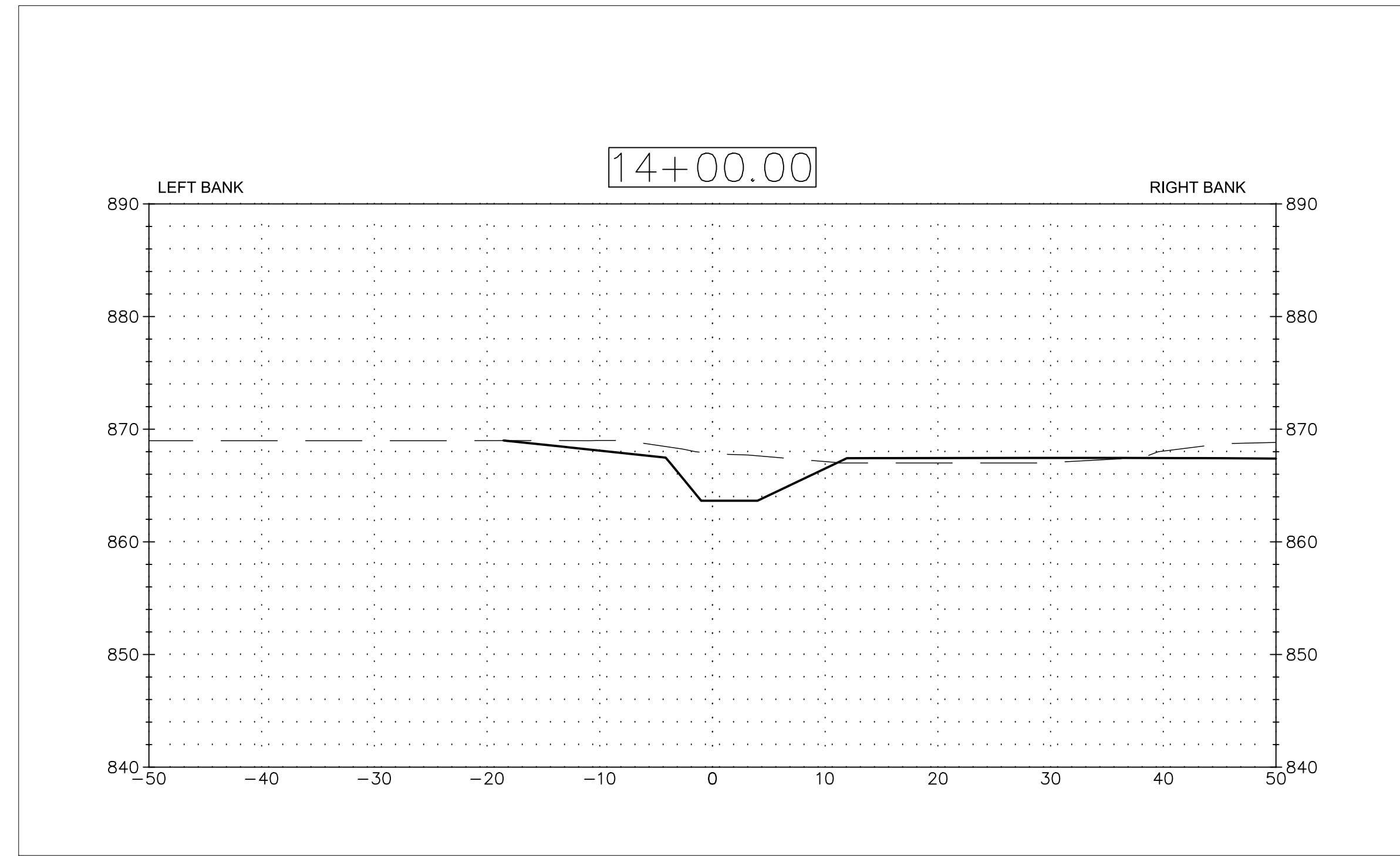
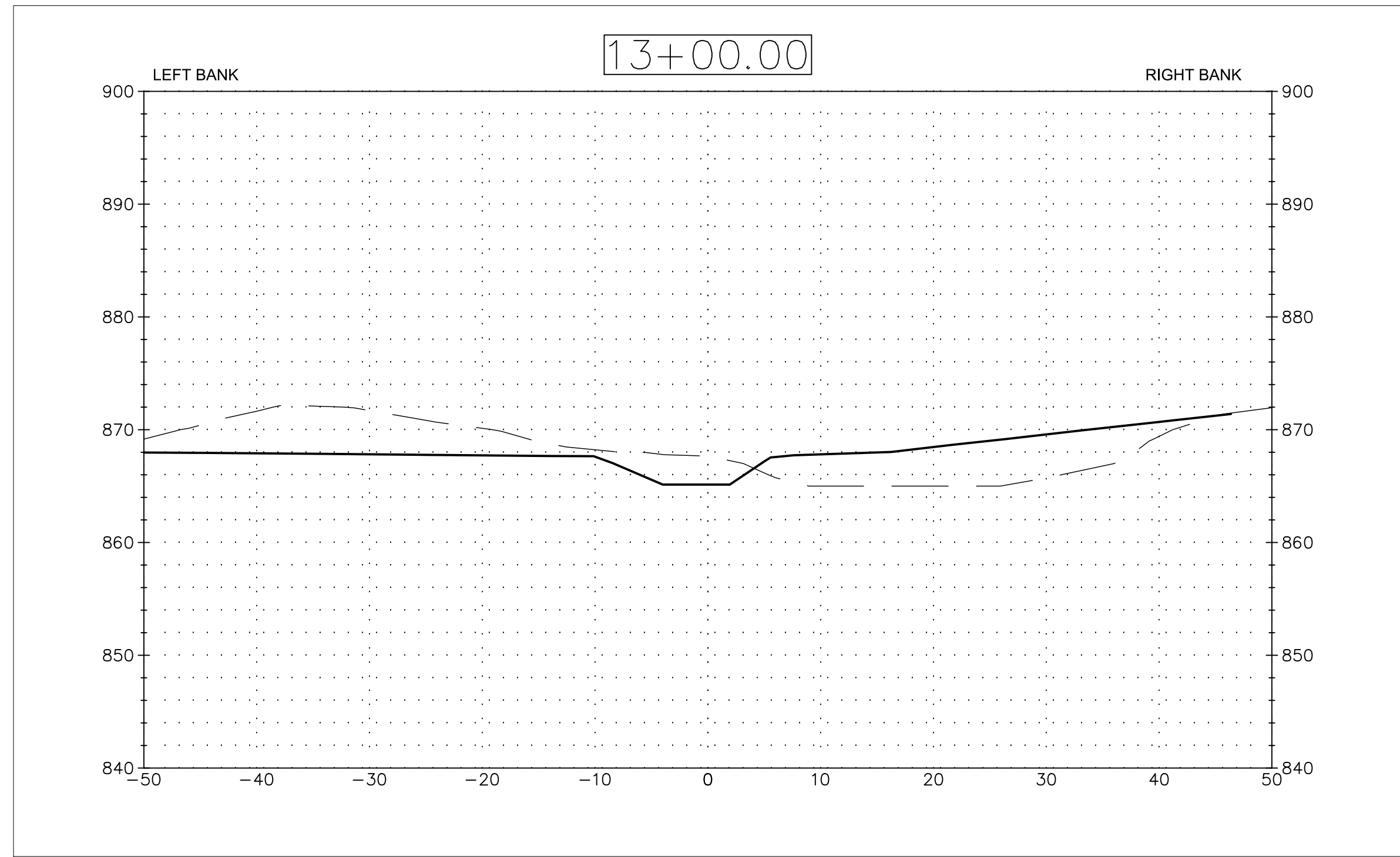
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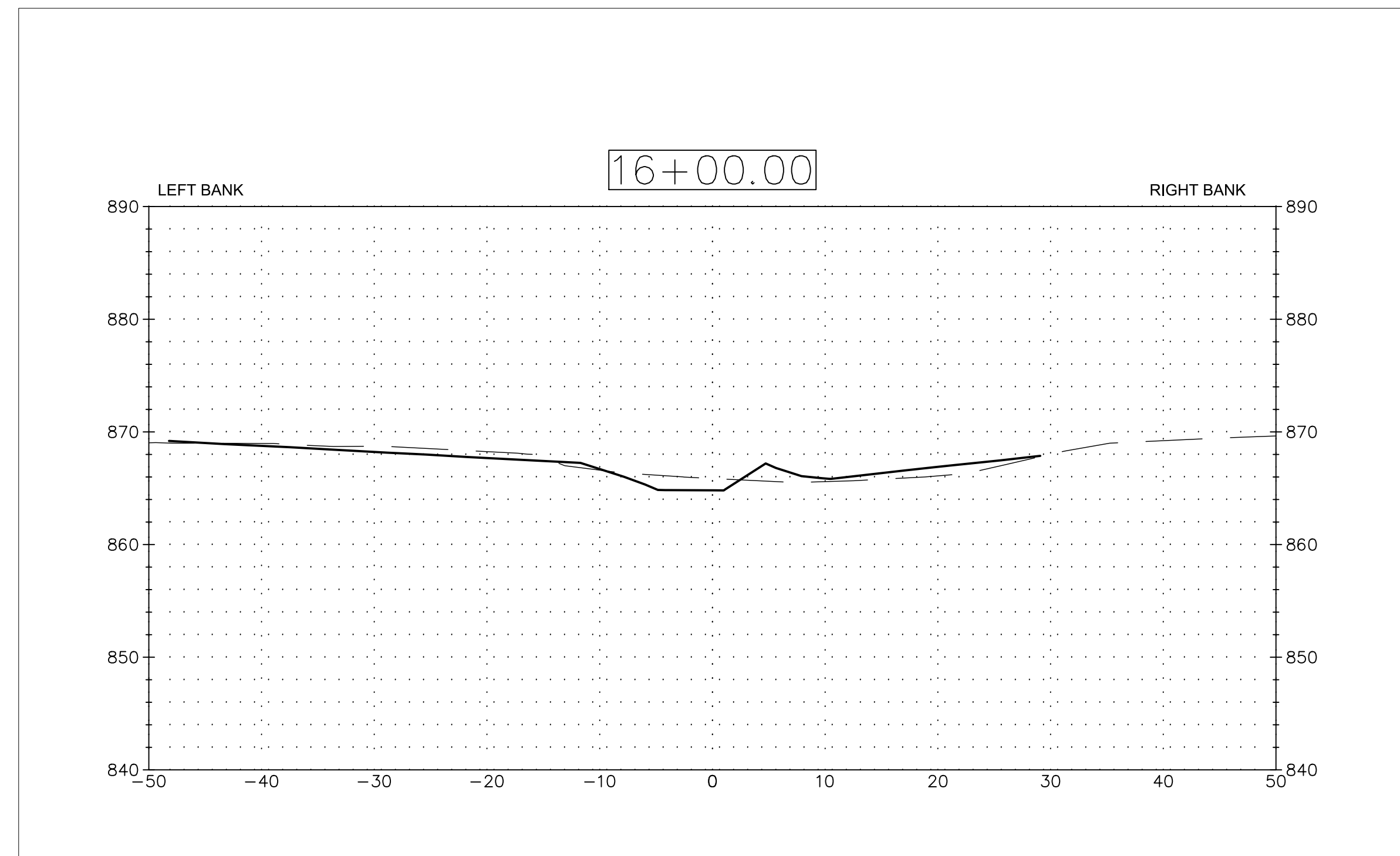
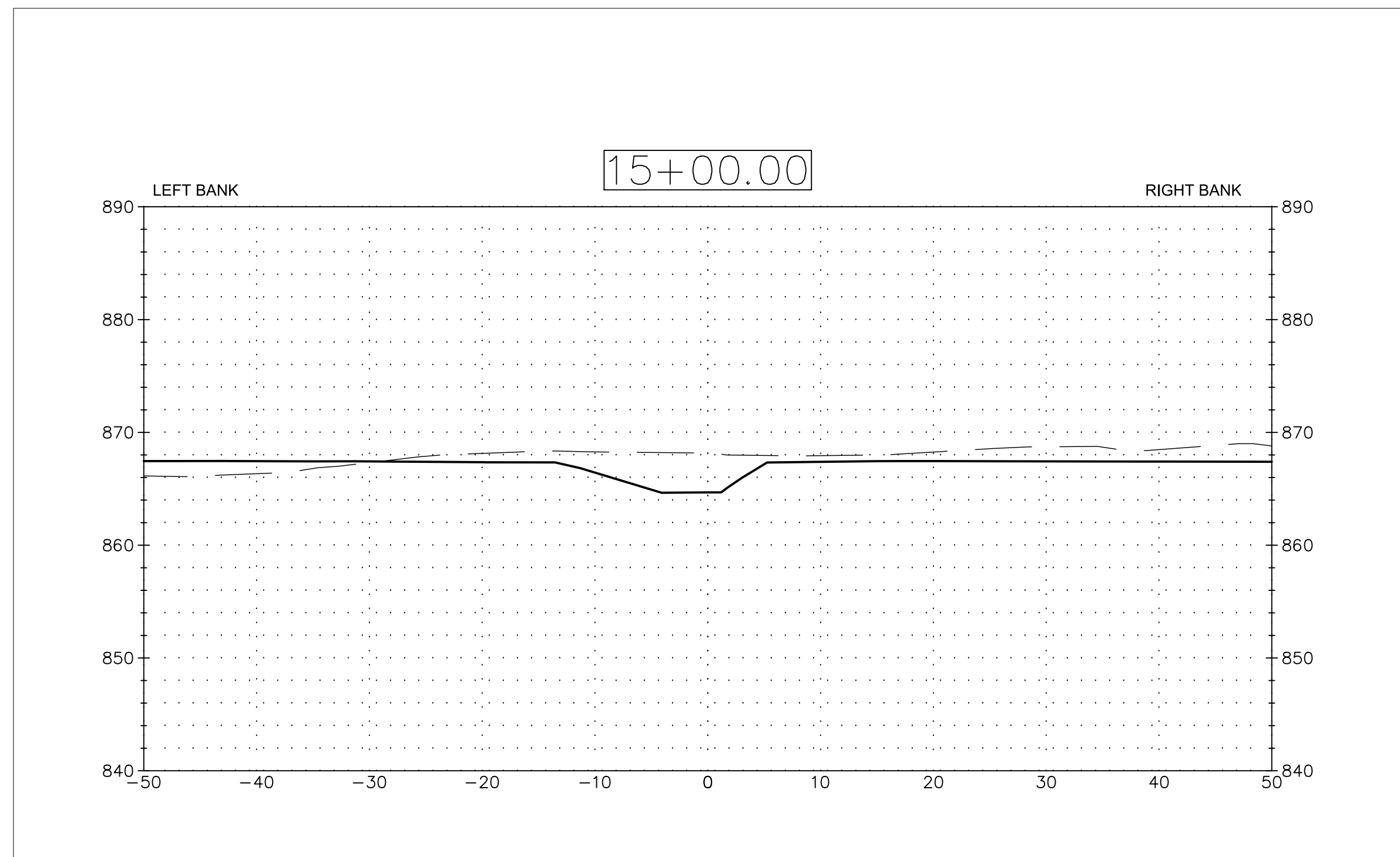
SHEET NO.:

C-403



LEGEND

- PROPOSED FINISHED GRADE
- - - EXISTING GRADE



Responsive partner.
Exceptional outcomes.

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SUB CONSULTANT:

CLIENT:

COON CREEK
WATERSHED
DISTRICT

MIDDLE SAND CREEK

COON RAPIDS MN

PROJECT TITLE:

ISSUE NO:

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DESCRIPTION:

90% DESIGN PLANS 100% DESIGN PLANS ISSUED FOR PERMITS

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09/13/2019 11/7/2019

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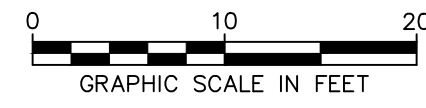
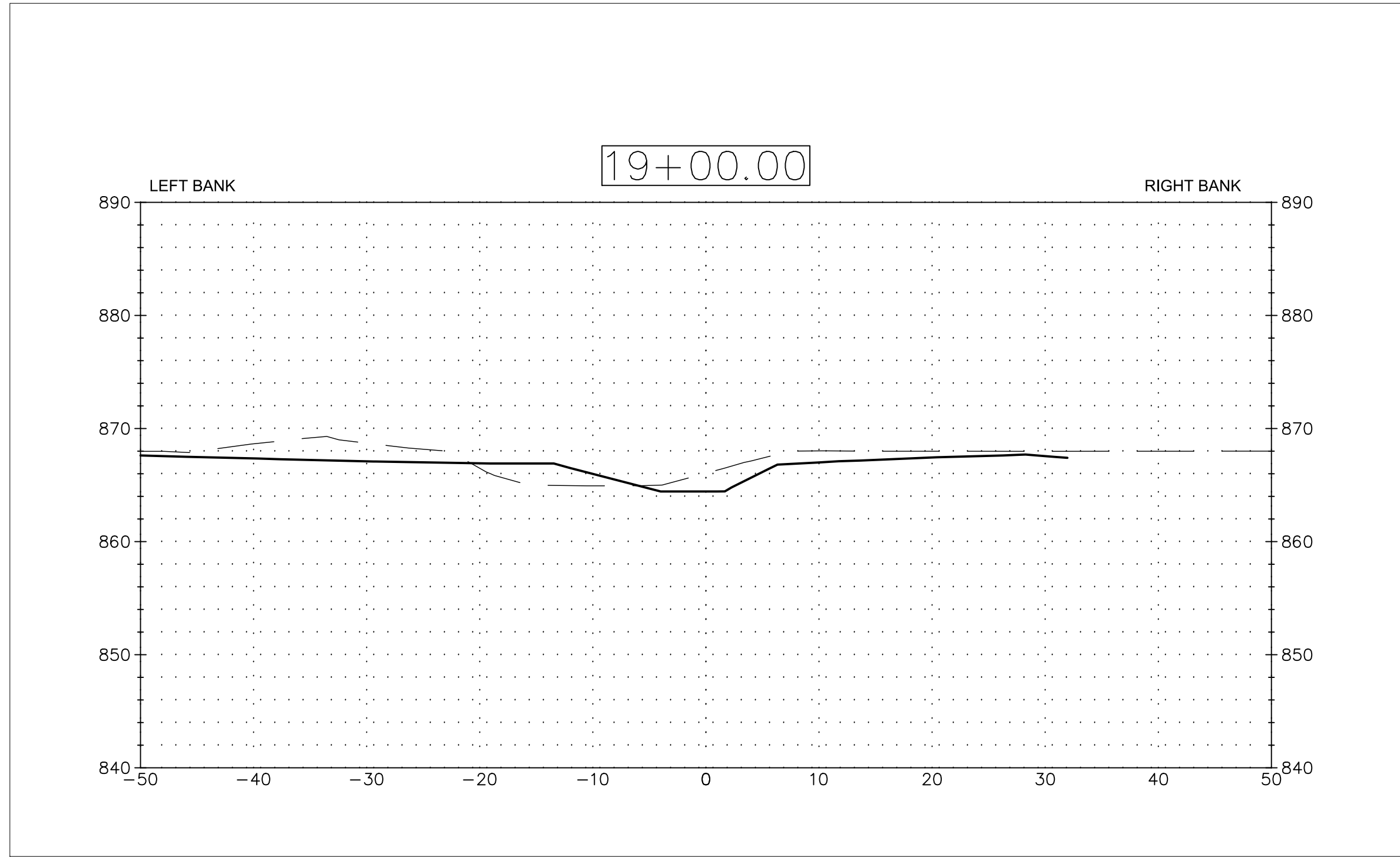
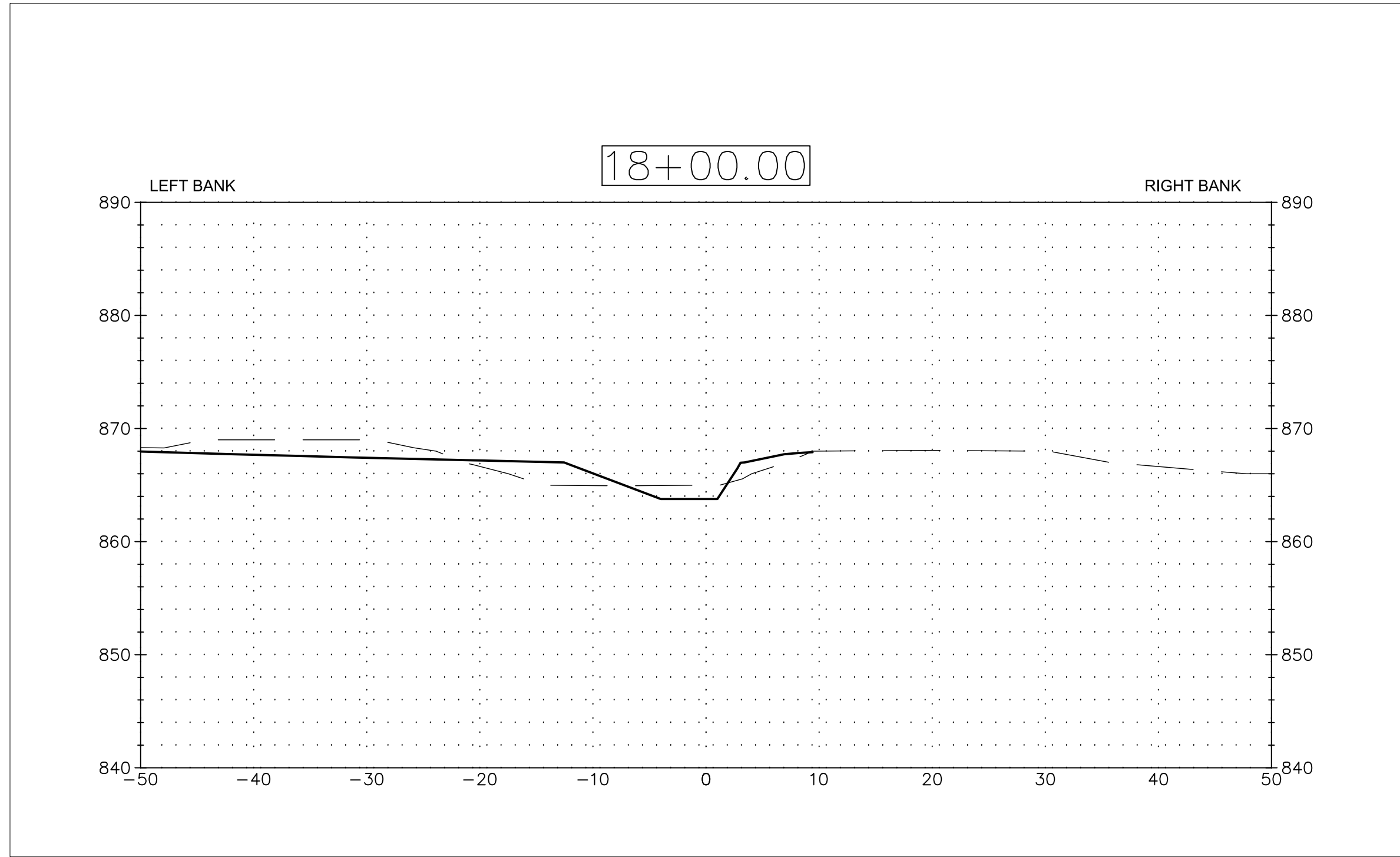
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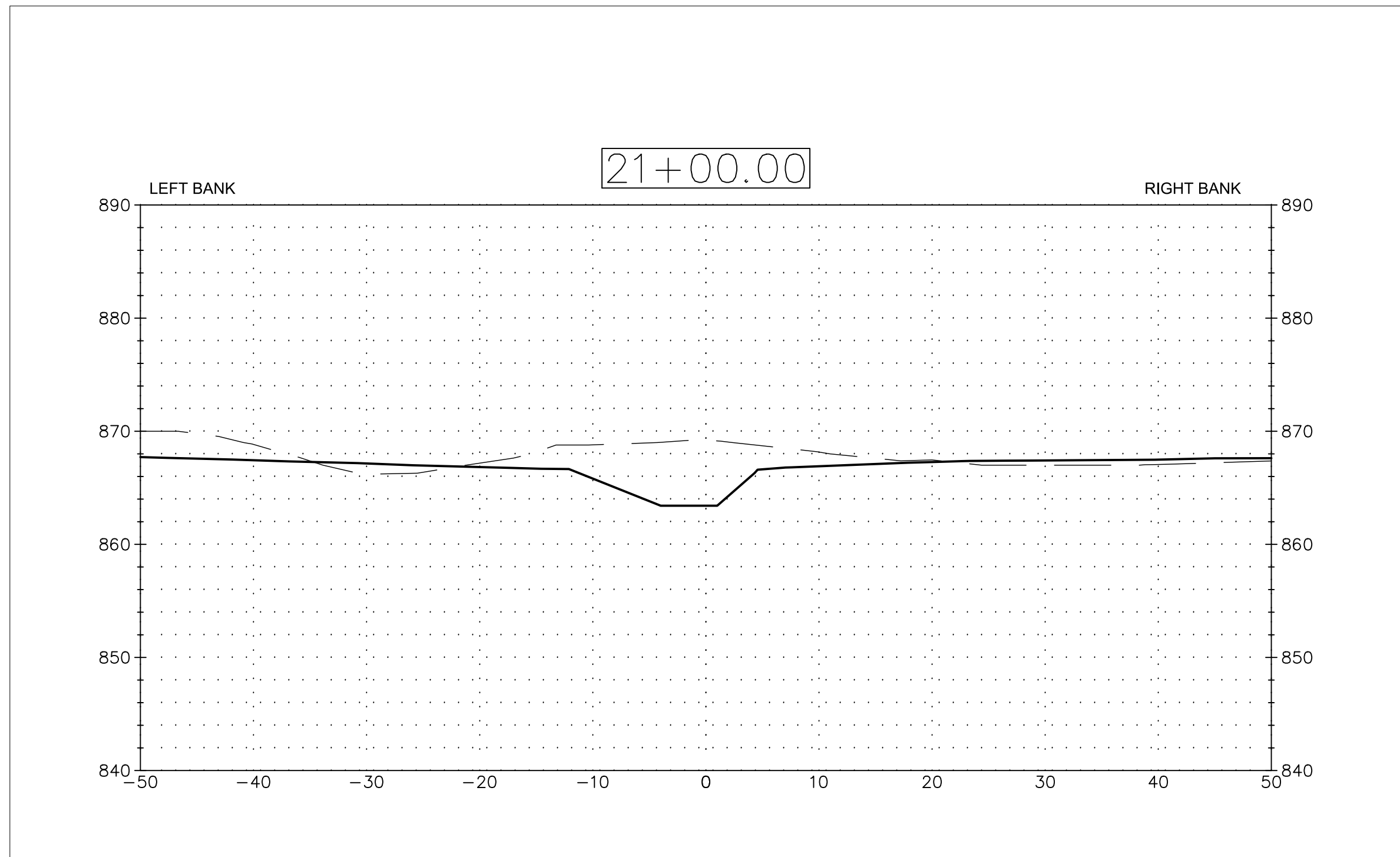
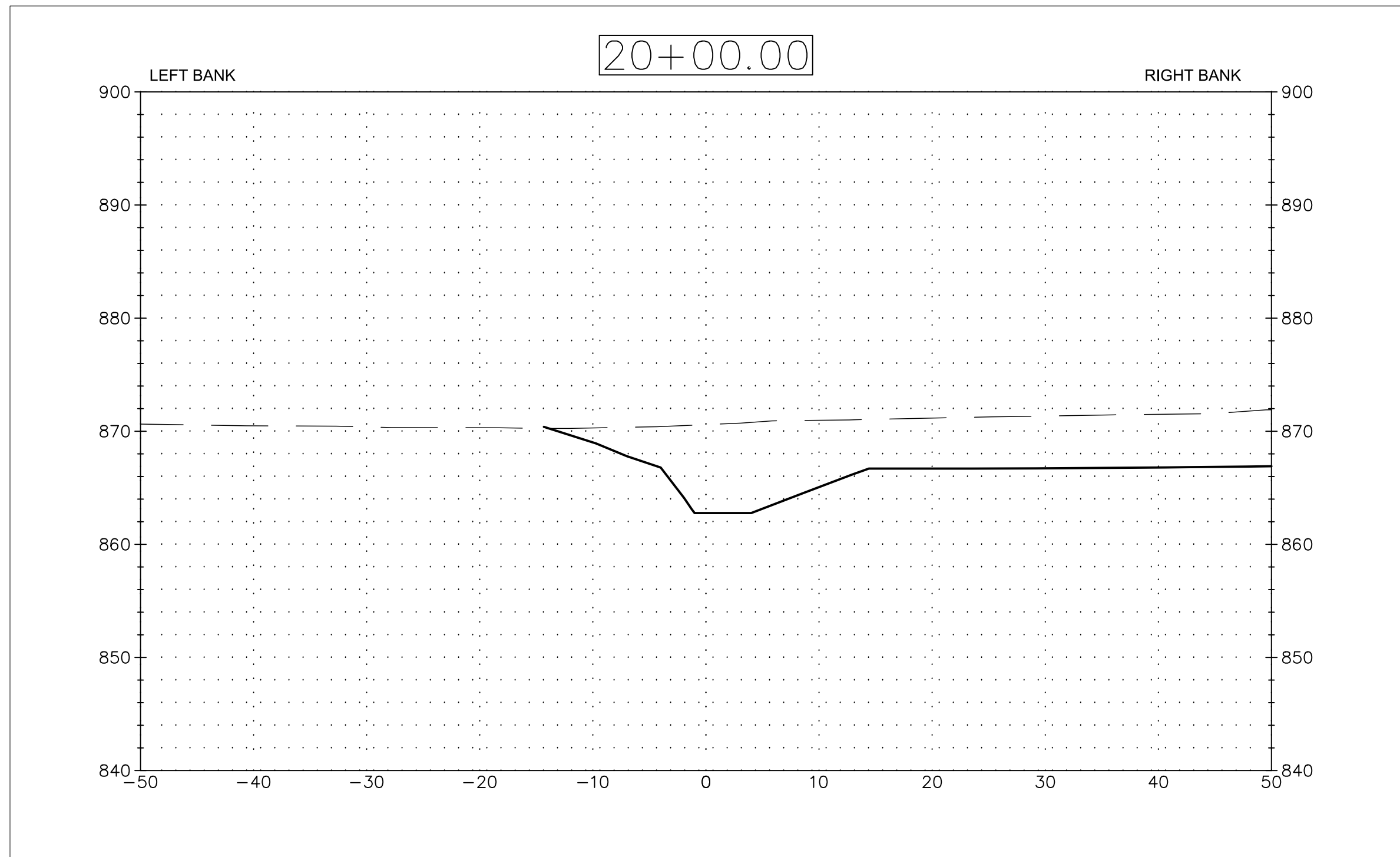
SHEET NO.:

C-404



LEGEND

- PROPOSED FINISHED GRADE
- - - - - EXISTING GRADE



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Exceptional outcomes.

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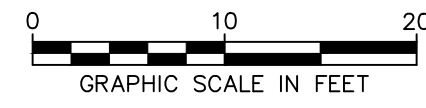
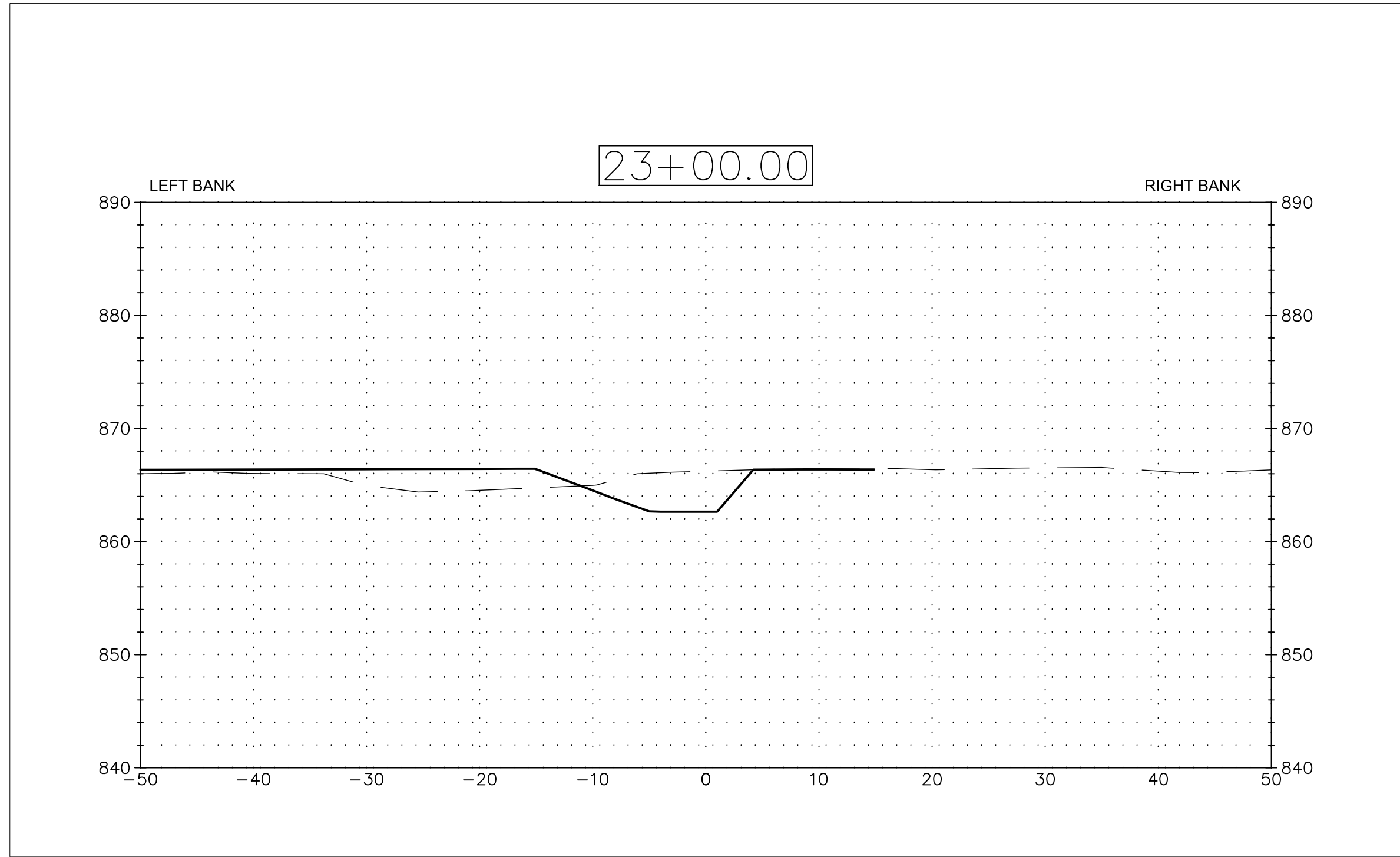
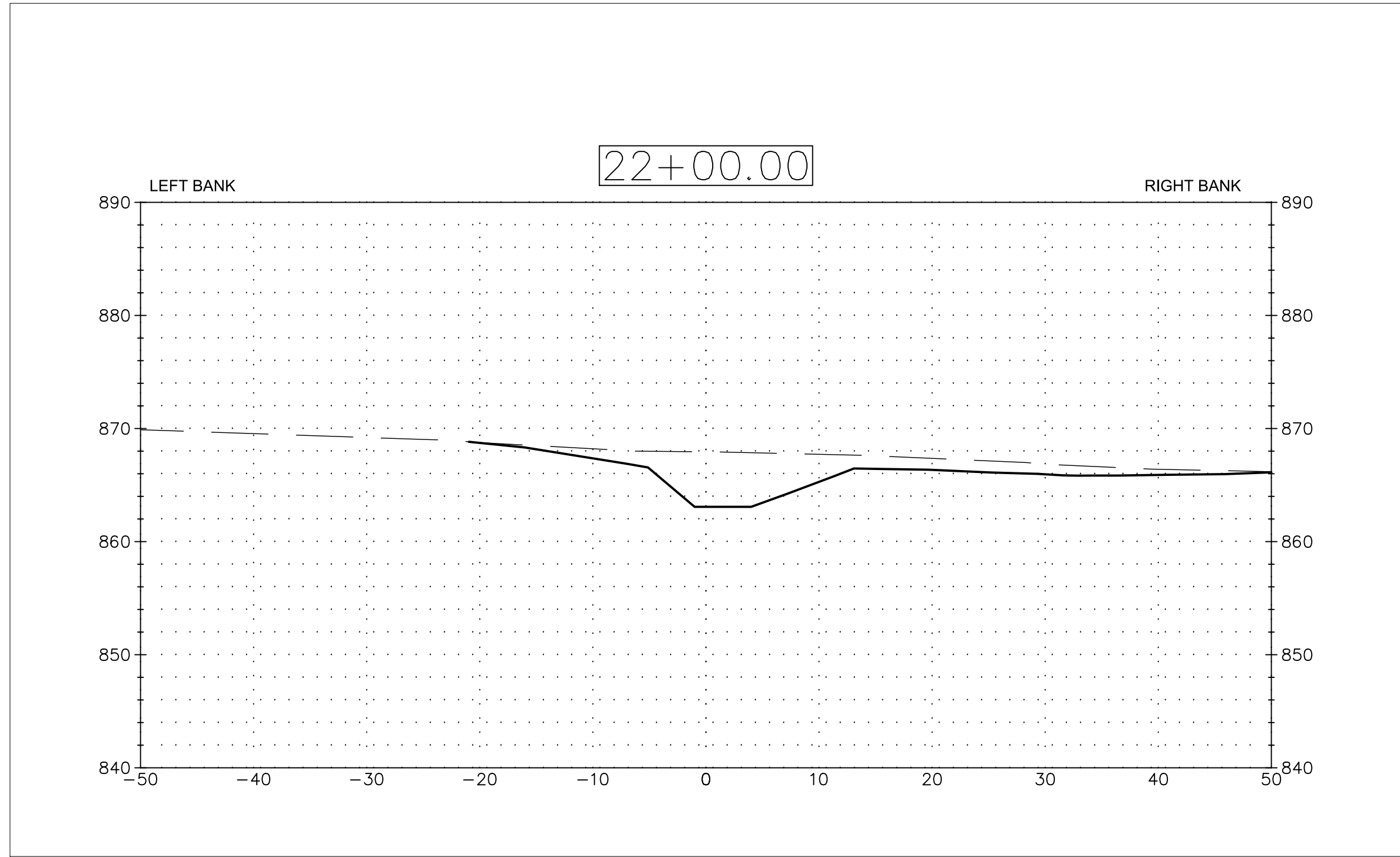
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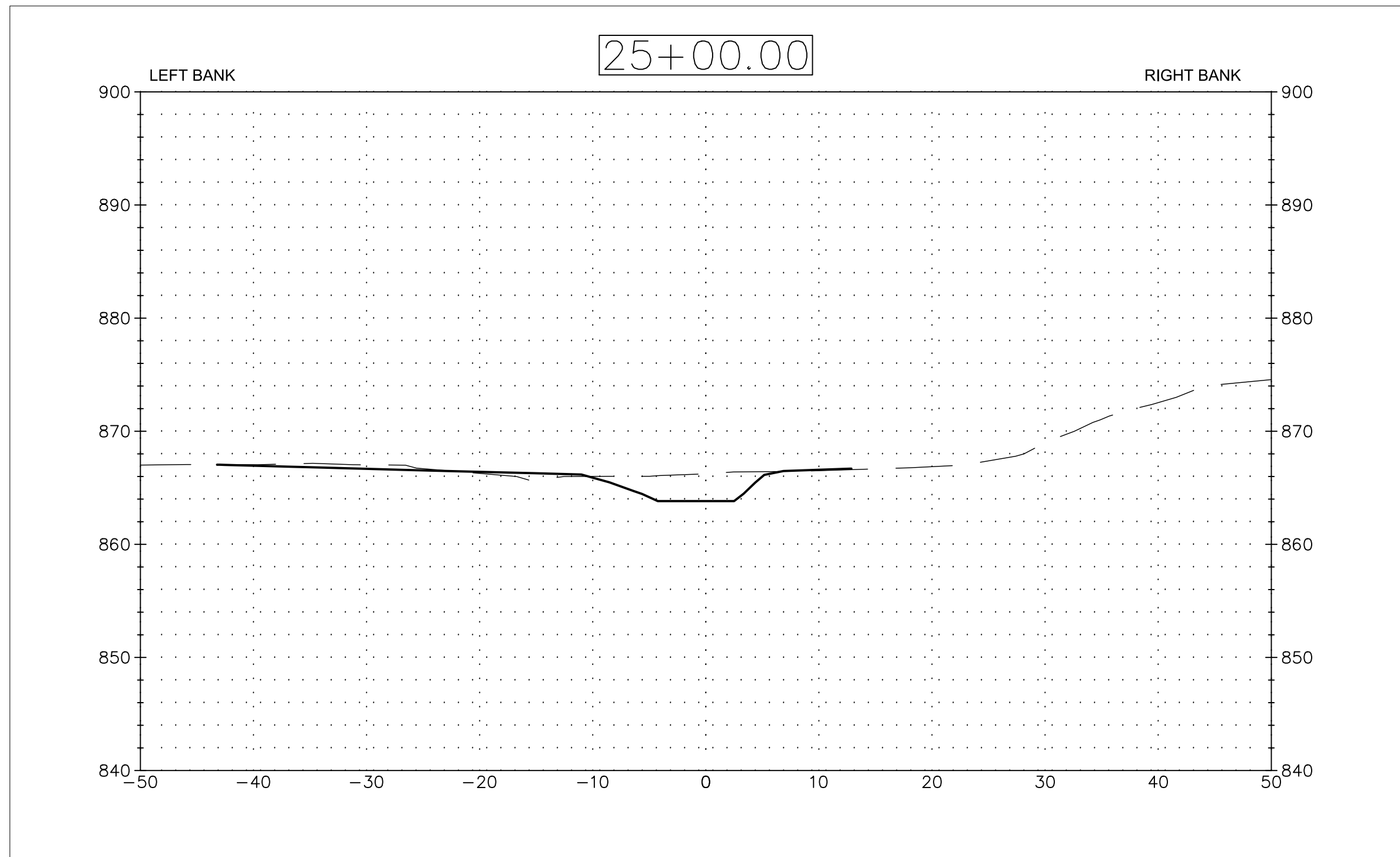
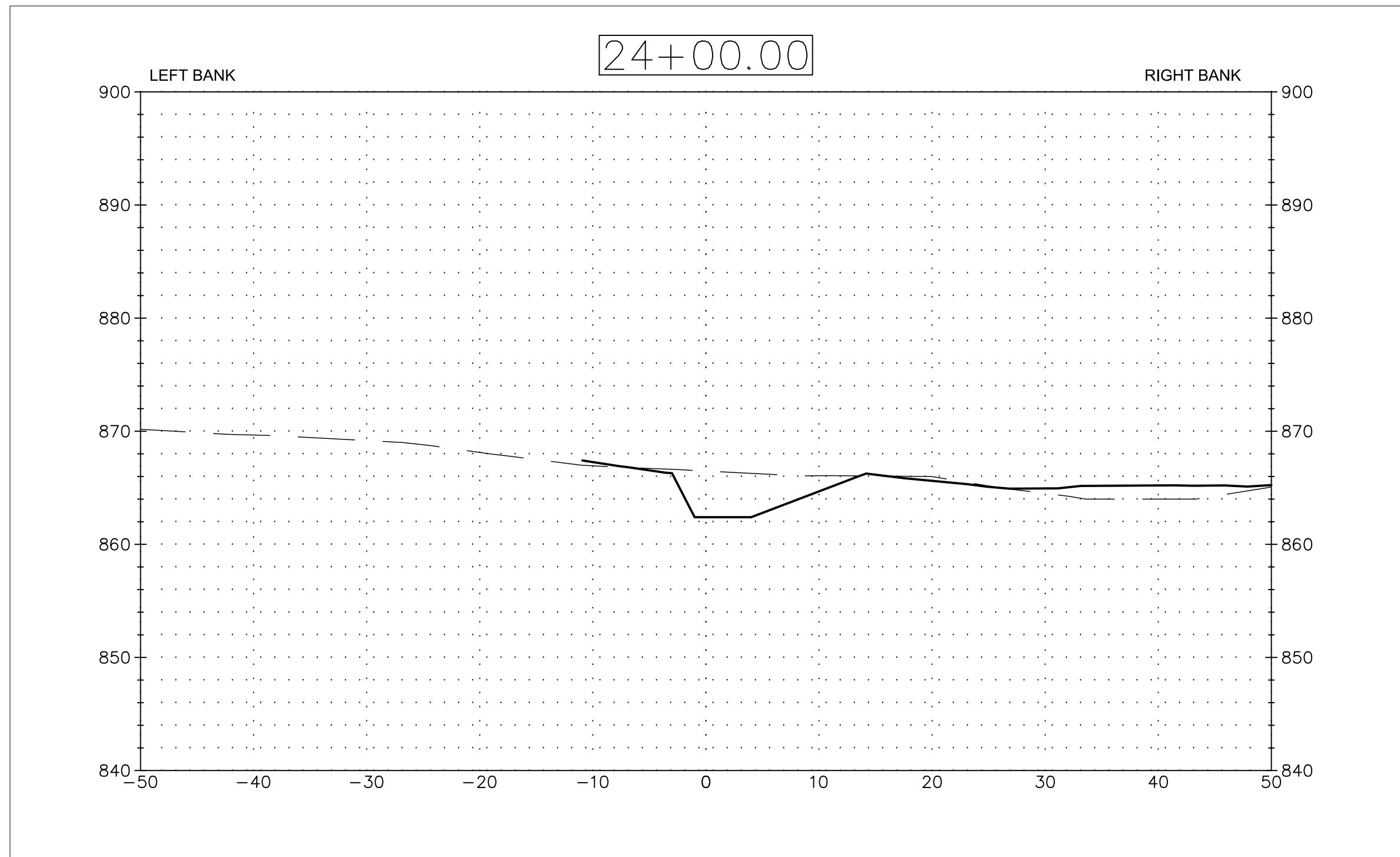
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C-405



LEGEND

- PROPOSED FINISHED GRADE
- - - - - EXISTING GRADE



Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
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GOLDEN VALLEY, MN 55427
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COON RAPIDS MN

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ISSUE DATE: NOV 2019

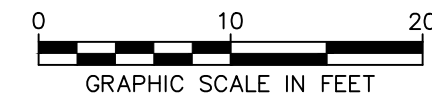
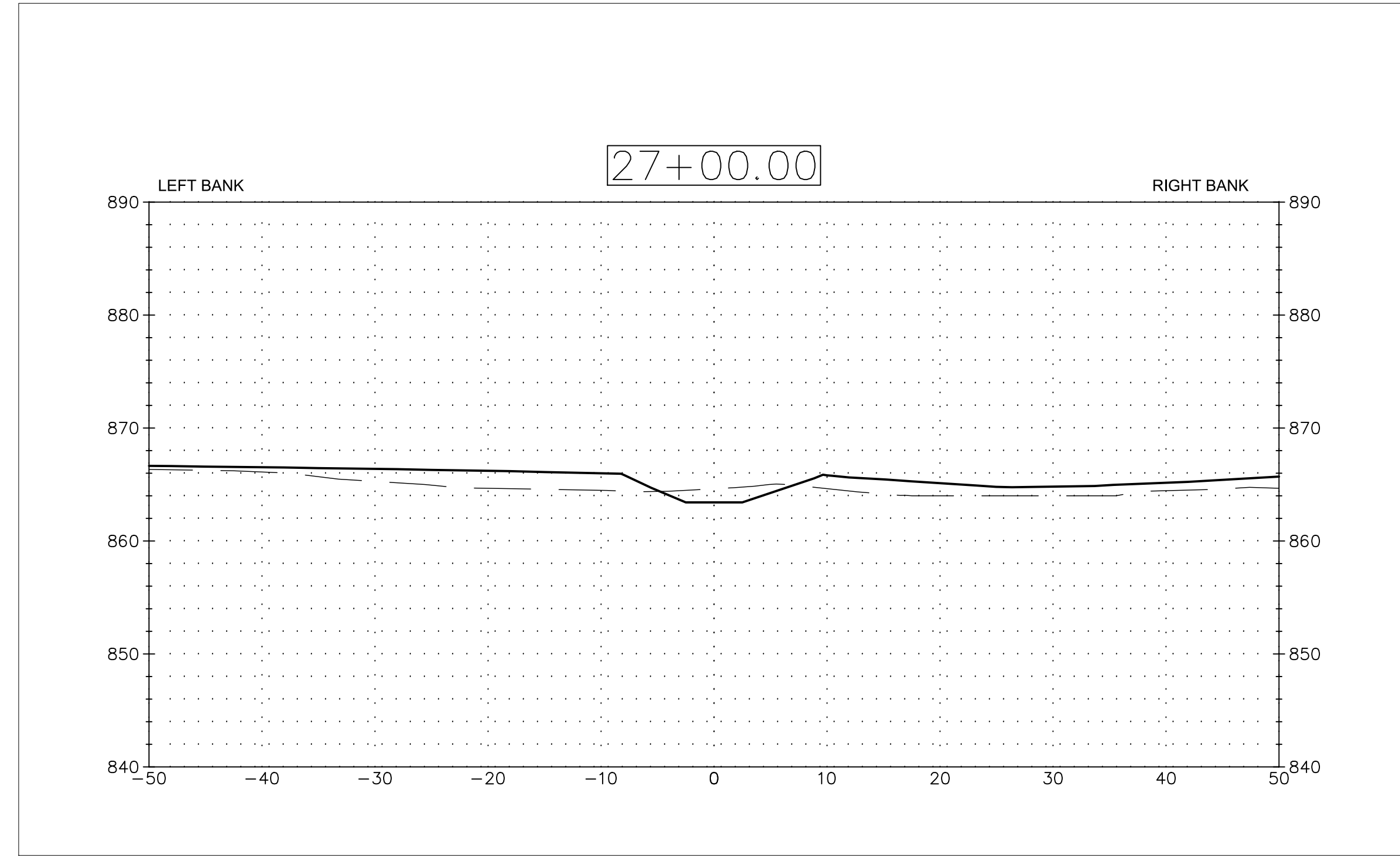
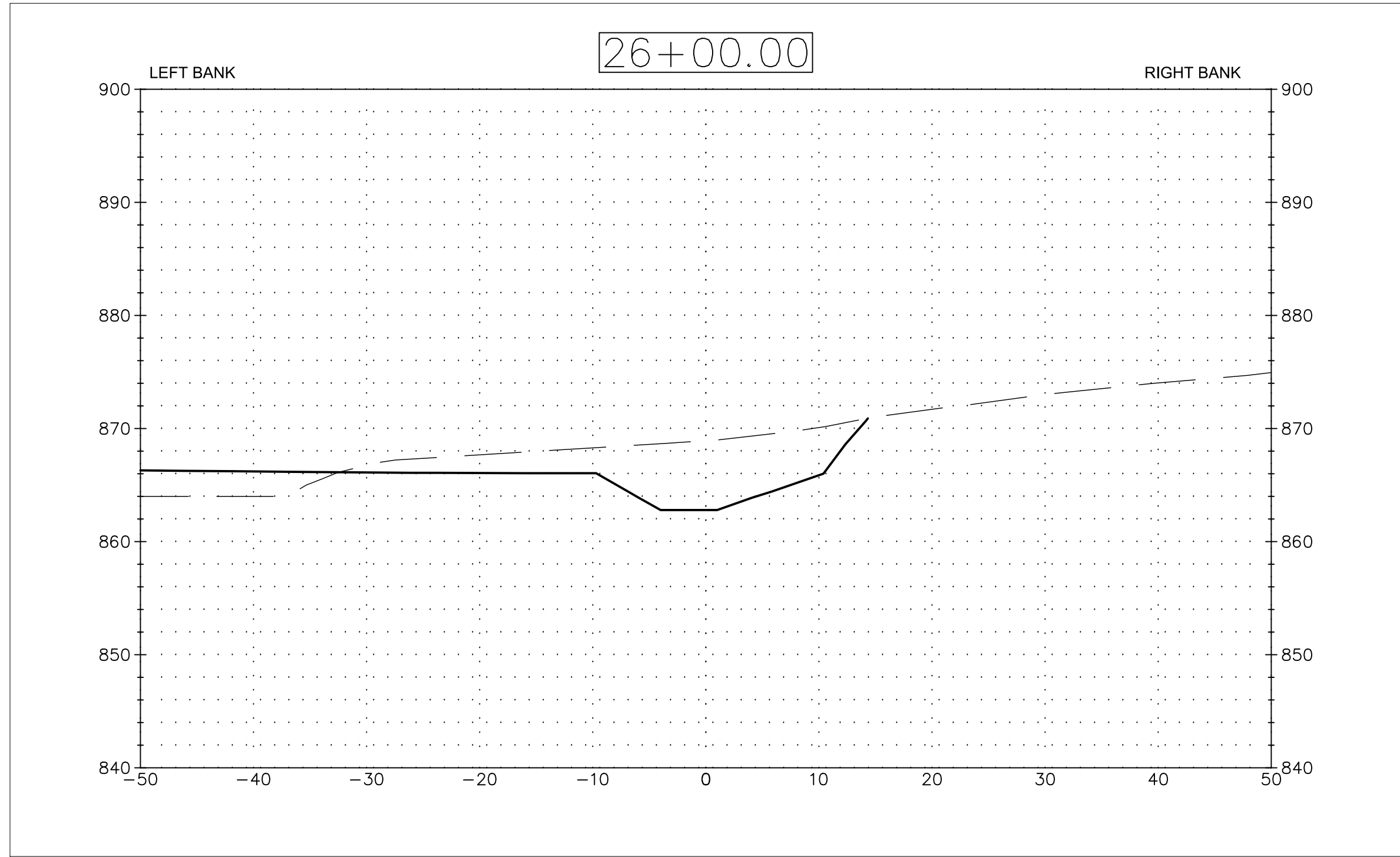
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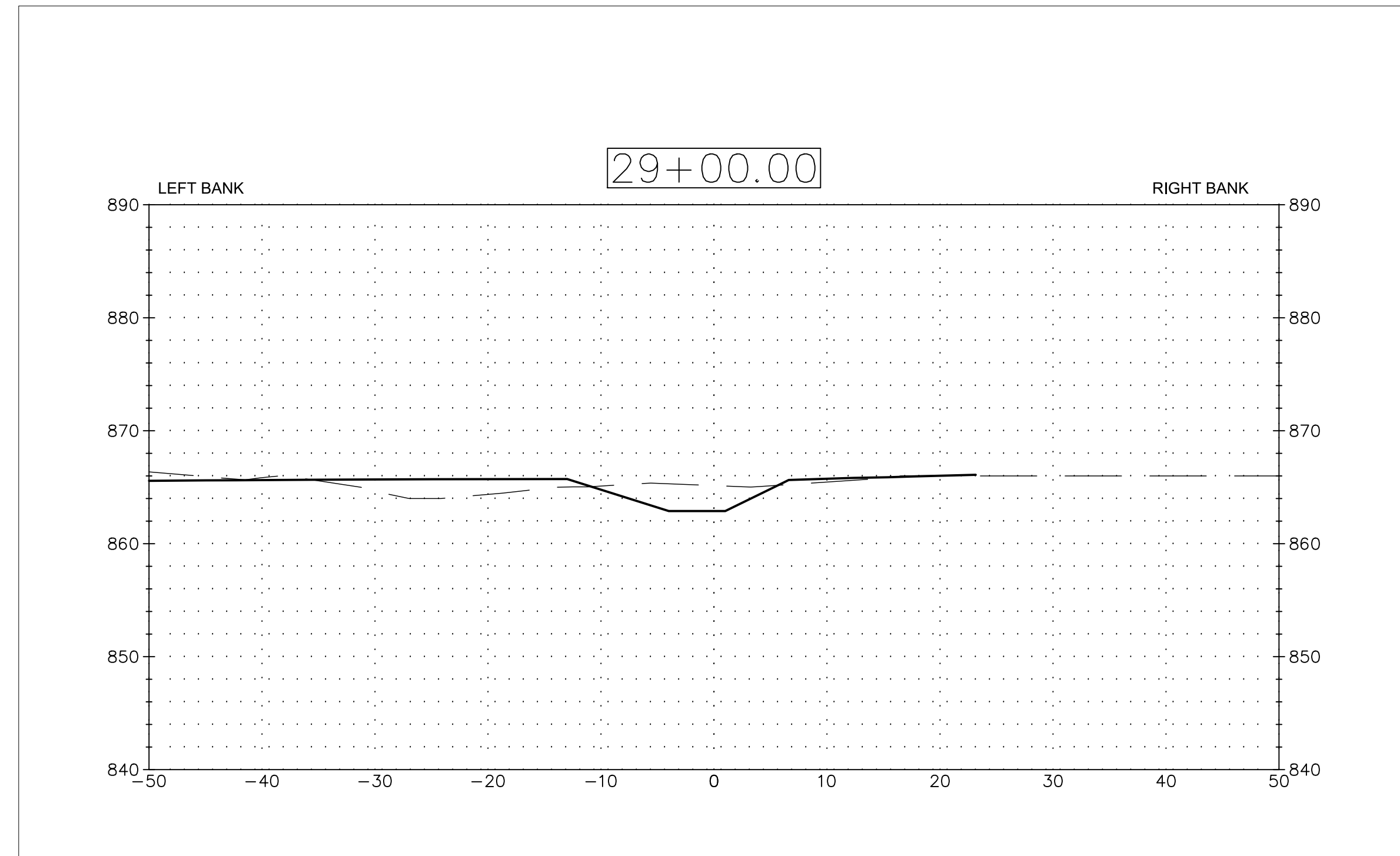
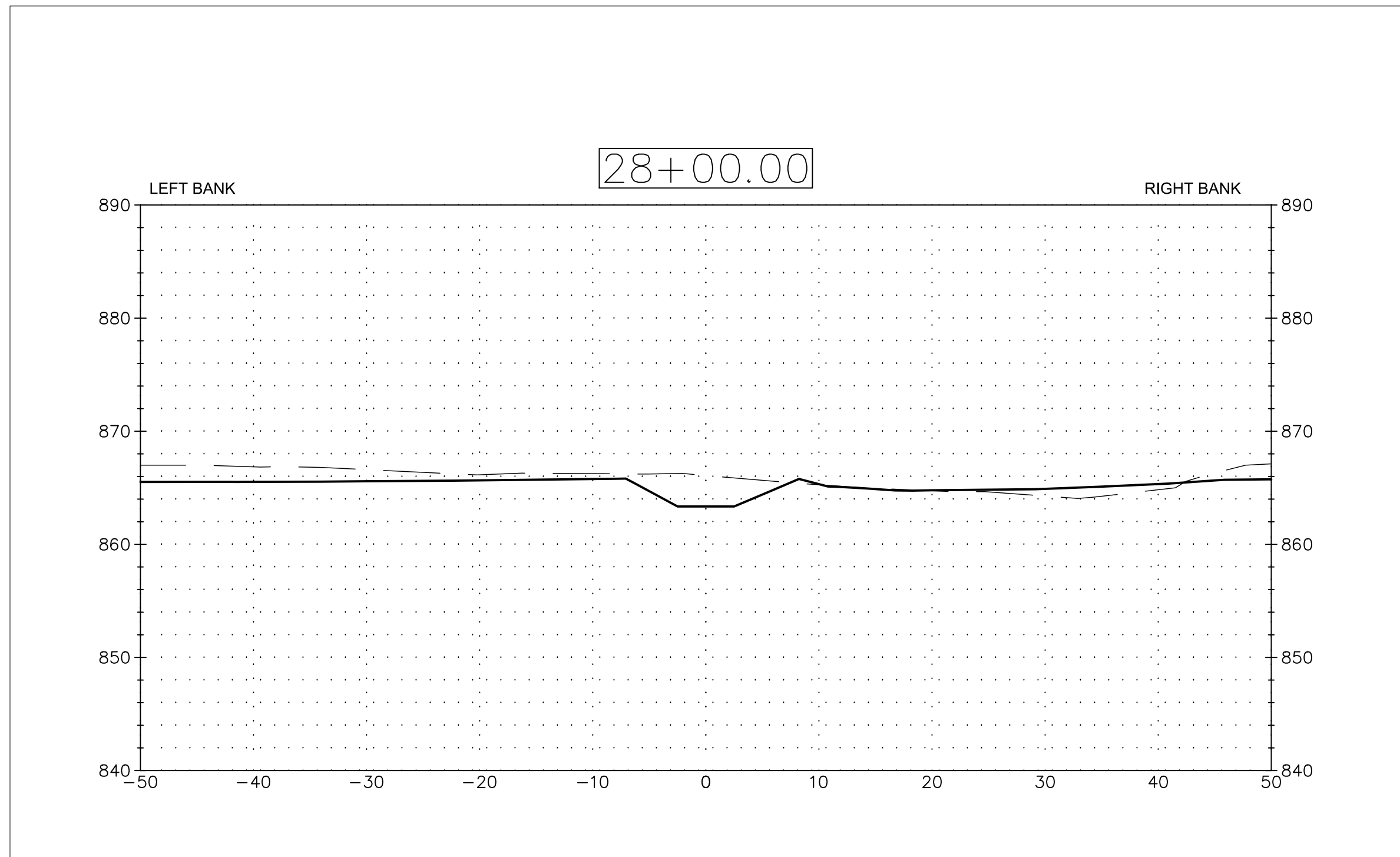
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LEGEND

- PROPOSED FINISHED GRADE
- - - - - EXISTING GRADE



Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
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SUB CONSULTANT:

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COON CREEK
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DISTRICT

MIDDLE SAND CREEK

COON RAPIDS MN

PROJECT TITLE:

ISSUE NO:

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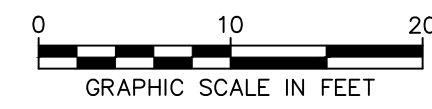
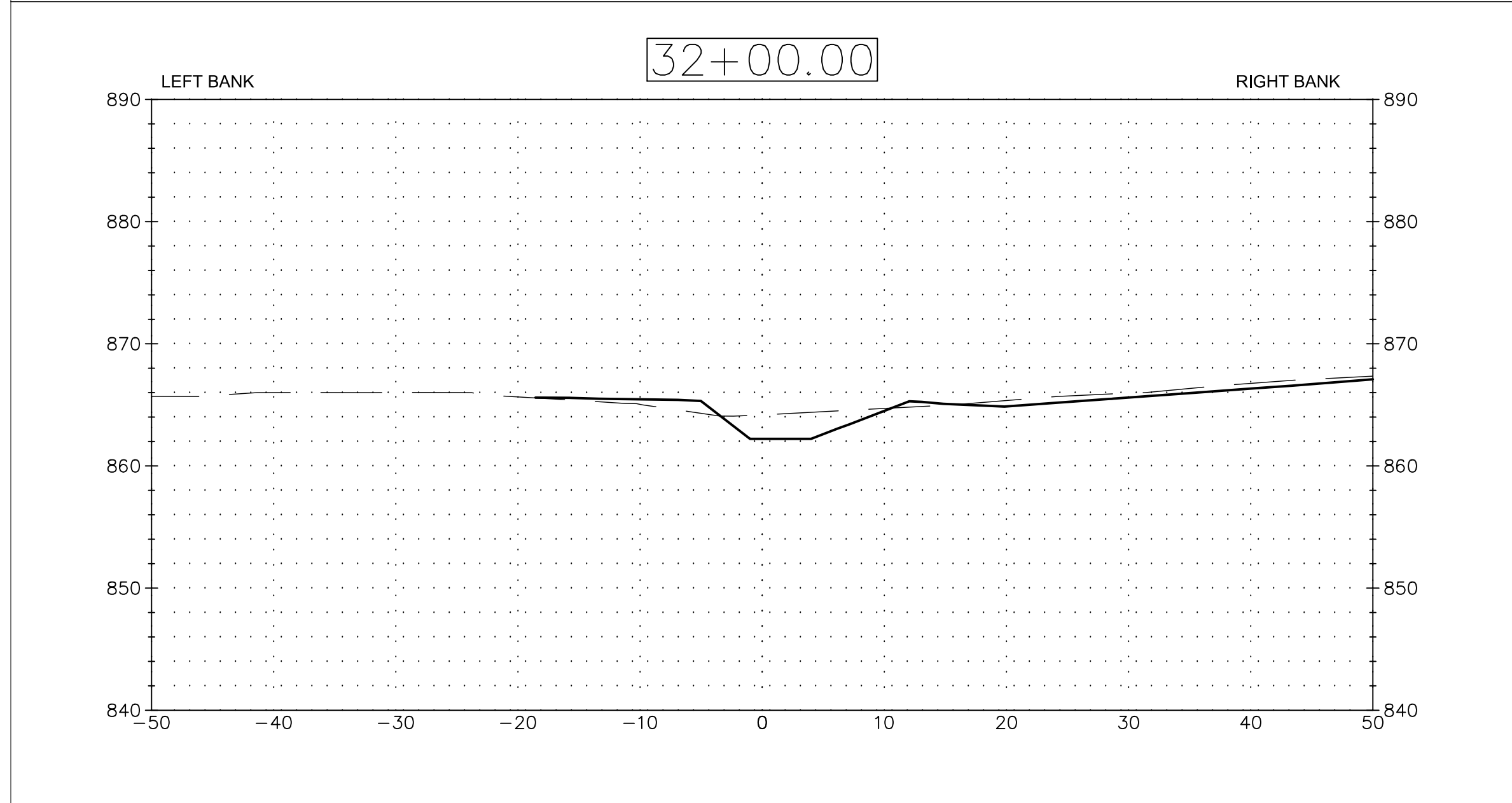
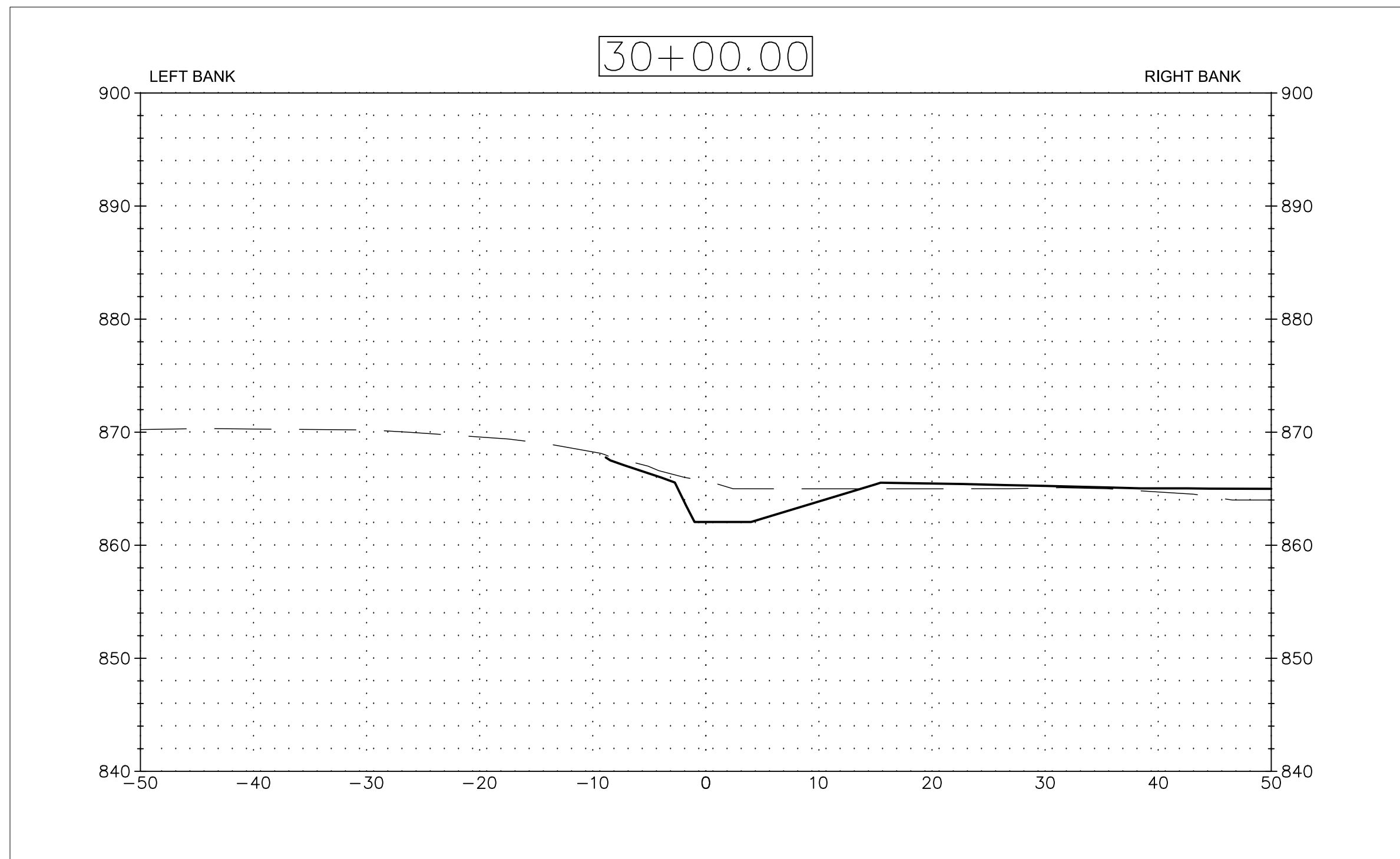
ISSUE NO.: 1

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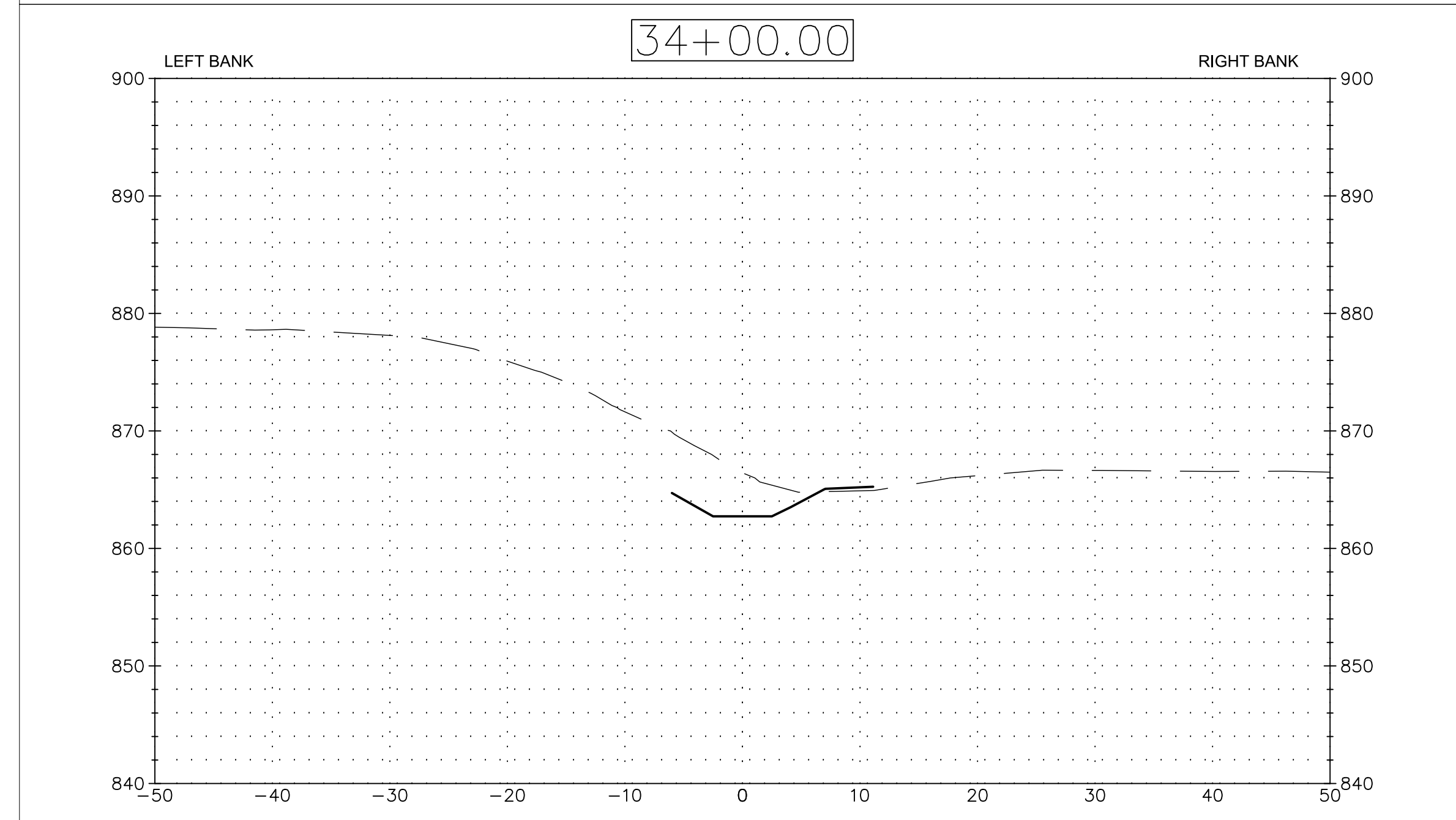
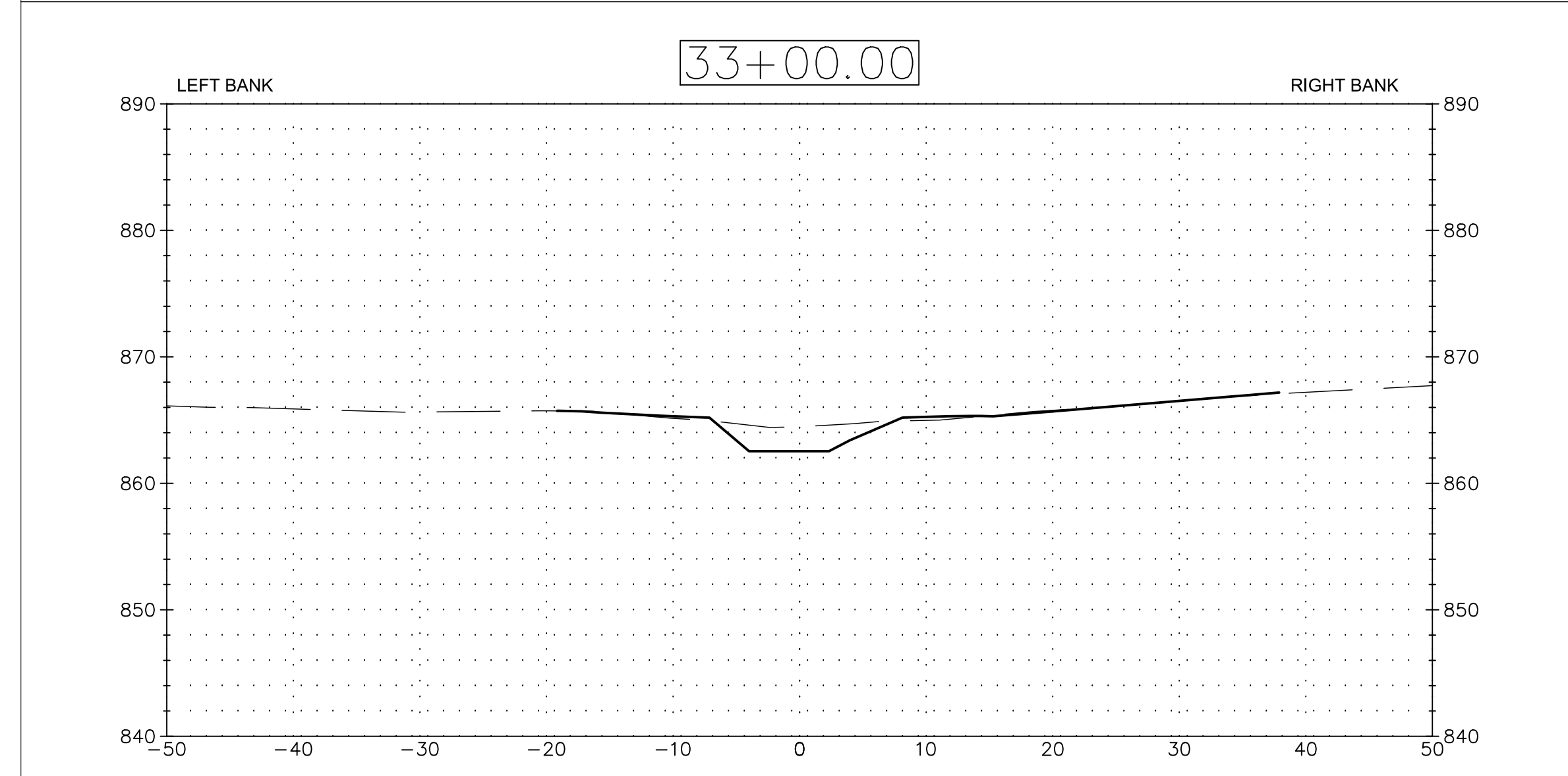
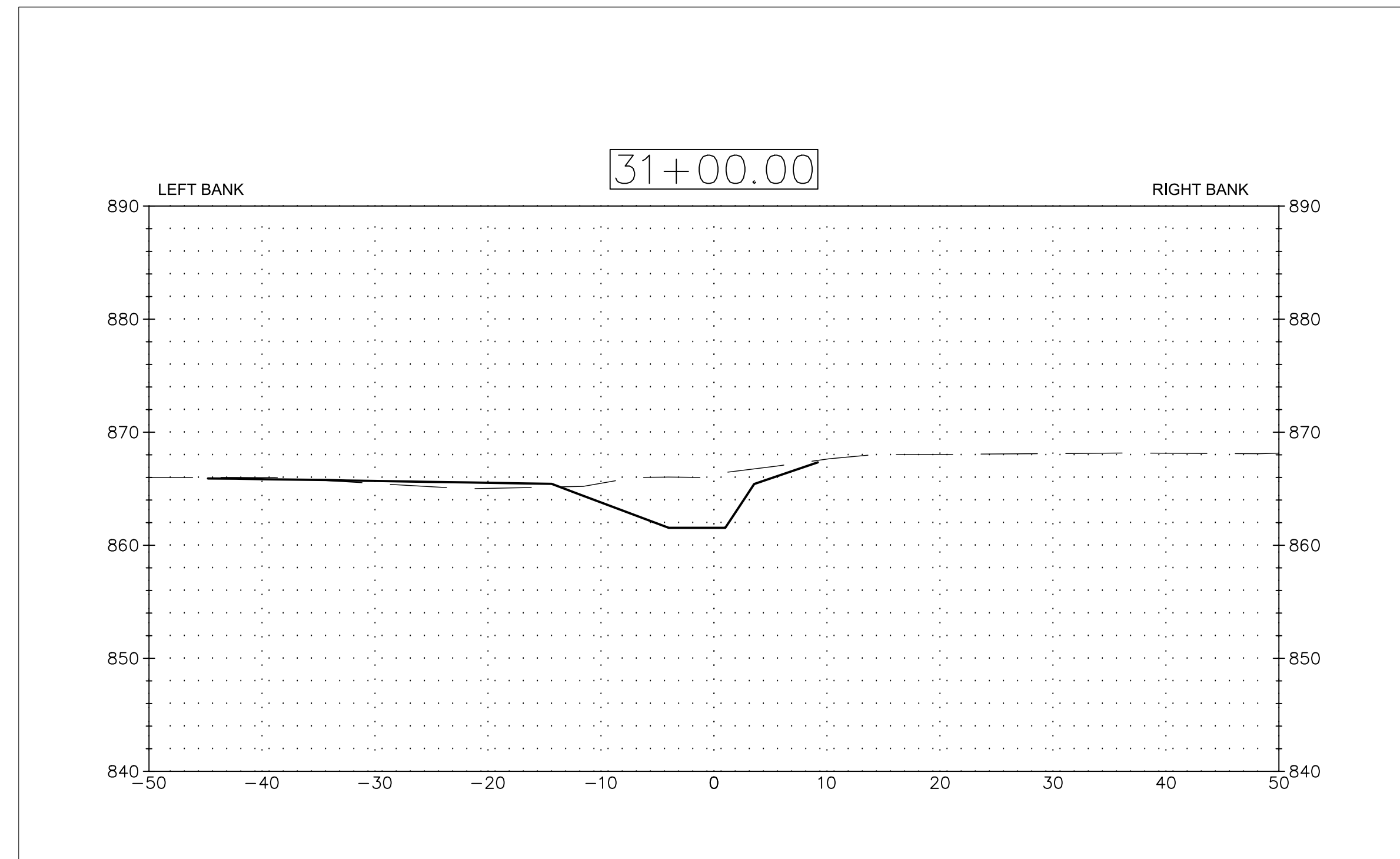
SHEET NO.:

C-407



LEGEND

- PROPOSED FINISHED GRADE
- - - EXISTING GRADE



Responsive partner.
Exceptional outcomes.

7500 OLSON MEMORIAL HWY
SUITE 300
GOLDEN VALLEY, MN 55427
PHONE: 763-252-6800
FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
**COON CREEK
WATERSHED
DISTRICT**

MIDDLE SAND CREEK
COON RAPIDS MN

PROJECT TITLE:

ISSUE NO.	DESCRIPTION
0	
1	

DATE	DESCRIPTION
09/13/2019	90% DESIGN PLANS
11/07/2019	100% DESIGN PLANS - ISSUED FOR PERMITS

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DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
CROSS SECTIONS

SHEET NO.:
C-408

PROJECT INFORMATION

PROJECT NAME: MIDDLE SAND CREEK
PROJECT LOCATION: CITY OF COON RAPIDS, MN
PROJECT TYPE: THIS PROJECT CONSISTS OF A STREAM REMEANDER. CONSTRUCTION ACTIVITIES WILL INCLUDE CLEARING AND GRUBBING, EXCAVATION, GRADING, STABILIZATION OF STREAM BANKS WITH ROOTWADS, WOODY MATERIAL, RIPRAP, AND NATIVE SEEDING.

TOTAL AREA DISTURBED BY CONSTRUCTION: APPROXIMATELY ±XX ACRES.
ESTIMATED CONSTRUCTION DATES: DECEMBER 2019 - OCTOBER 2021 (REFER TO CONSTRUCTION SEQUENCING NOTES ON SHEET G-101)
CUMULATIVE IMPERVIOUS SURFACE/PERMANENT STORMWATER MANAGEMENT REQUIREMENTS: THERE IS CURRENTLY APPROXIMATELY ±0.0 ACRES OF EXISTING IMPERVIOUS SURFACE IN THE PROJECT AREA. THE PROPOSED AREA OF IMPERVIOUS IS APPROXIMATELY ±0.0 ACRES RESULTING IN ±0.0 ACRES NET INCREASE IN IMPERVIOUS SURFACE.

PERMANENT STORMWATER MANAGEMENT SYSTEM IS NOT REQUIRED BECAUSE THERE IS NO INCREASE IN IMPERVIOUS AREA FOR THIS PROJECT.

THE PROJECT SITE IS LOCATED DIRECTLY ON SAND CREEK, WHICH IS LISTED AS IMPAIRED FOR AQUATIC LIFE AND AQUATIC RECREATION. THERE ARE CURRENT EPA APPROVED TMDLS FOR THE WATERBODY FOR E. COLI AND AQUATIC MACROINVERTEBRATE BIOASSESSMENTS.

PARTY RESPONSIBLE FOR LONG TERM OPERATION AND MAINTENANCE OF THE SITE (OWNER): COON CREEK WATERSHED DISTRICT
CONTACT NAME: JON JANKE, OPERATIONS & MAINTENANCE COORDINATOR
CONTACT PHONE: (763) 755-0975
CONTACT EMAIL: JJANKE@COONCREEKWD.ORG

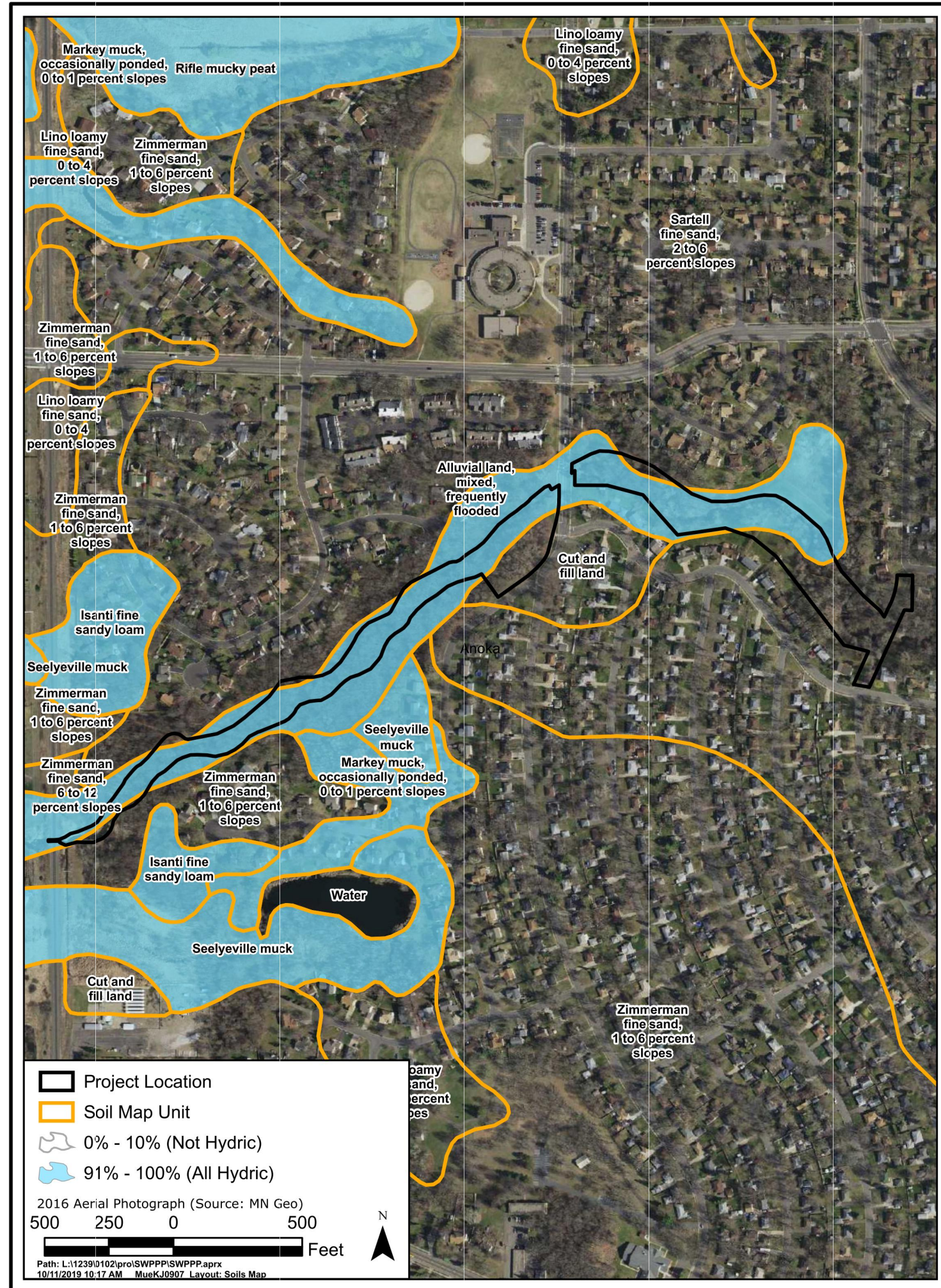
PARTY RESPONSIBLE FOR IMPLEMENTATION OF THE SWPPP (CONTRACTOR): TBD

CONTRACTOR SHALL PROVIDE A CHAIN OF RESPONSIBILITY WITH ALL OPERATORS ON THE SITE FOR INCORPORATION INTO THIS SWPPP DOCUMENT TO ENSURE THAT THE SWPPP WILL BE IMPLEMENTED AND STAY IN EFFECT UNTIL THE CONSTRUCTION PROJECT IS COMPLETE (THROUGH FINAL STABILIZATION AND NOT SUBMITTAL). CONTRACTOR SHALL ALSO PROVIDE DOCUMENTATION OF PERSONNEL TRAINING IN ACCORDANCE WITH THE PERMIT FOR INCORPORATION INTO THIS SWPPP DOCUMENT AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. CONTRACTOR IS RESPONSIBLE FOR KEEPING A FINAL SWPPP DOCUMENT, CONTAINING THE INFORMATION REQUIRED ABOVE, AT THE CONSTRUCTION SITE FOR THE DURATION OF THE PROJECT.

IN ACCORDANCE WITH PART 21.1 OF THE GENERAL PERMIT, THE PREPARER OF THIS DOCUMENT WAS TRAINED UNDER THE UNIVERSITY OF MINNESOTA EROSION AND SEDIMENT CONTROL CERTIFICATION PROGRAM.

PREPARED BY:
LOUIS SIGTERMANS, WENCK ASSOCIATES
LSIGTERMANS@WENCK.COM
(763) 252-6878
CERTIFICATION EXPIRATION: MAY 31, 2020

SOIL MAP



EROSION AND SEDIMENT CONTROL

PRIOR TO ANY SITE DISTURBANCE, AND AS REQUIRED AS CONSTRUCTION PROGRESSES, ANY PERMIT REQUIRED EROSION PREVENTION MEASURES AND SEDIMENT CONTROL DEVICES DESCRIBED BELOW WILL BE INSTALLED AT THE SITE.

- 1. SILT FENCE - INSTALL PER DETAIL ON SHEET C-803.
2. FLOATATION SILT CURTAIN - INSTALLED PER DETAIL ON SHEET C-803.
3. BIOROLL - INSTALL PER DETAIL ON SHEET C-803.
4. INLET PROTECTION - INSTALL PER DETAILS ON SHEET C-803.
5. CONSTRUCTION ENTRANCE - INSTALL PER DETAIL ON SHEET C-803.

ALL EXPOSED SOIL AREAS WITHIN THE CONSTRUCTION LIMITS WILL BE STABILIZED WITHIN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY (WILL NOT RESUME FOR A PERIOD EXCEEDING 7 CALENDAR DAYS) OR PERMANENTLY CEASED. STABILIZATION WILL BE INITIATED IMMEDIATELY. EXPOSED SOIL AREAS MUST HAVE TEMPORARY EROSION PROTECTION (SLASH MULCH, EROSION CONTROL BLANKET, SEED) OR PERMANENT COVER YEAR ROUND.

CONTRACTOR SHALL IMPLEMENT APPROPRIATE CONSTRUCTION PHASING, VEGETATIVE BUFFER STRIPS, HORIZONTAL SLOPE GRADING, AND OTHER CONSTRUCTION PRACTICES THAT MINIMIZE EROSION WHEN PRACTICAL. THE NORMAL WETTED PERIMETER OF ANY TEMPORARY OR PERMANENT DRAINAGE DITCH THAT DRAINS WATER FROM A CONSTRUCTION SITE, OR DIVERTS WATER AROUND A SITE, MUST BE STABILIZED WITHIN 200 LINEAL FEET FROM THE PROPERTY EDGE, OR FROM THE POINT OF DISCHARGE TO ANY SURFACE WATER. STABILIZATION MUST BE COMPLETED WITHIN 24 HOURS OF CONNECTING TO A SURFACE WATER. PIPE OUTLETS MUST BE PROVIDED WITH TEMPORARY OR PERMANENT ENERGY DISSIPATION WITHIN 24 HOURS OF CONNECTION TO A SURFACE WATER.

SWPPP IMPLEMENTATION, PHASING, AND SEQUENCE OF CONSTRUCTION

BMP AND EROSION CONTROL INSTALLATION SEQUENCE SHALL BE AS FOLLOWS:

- 1. INSTALL SILT FENCE AND FLOATATION SILT CURTAIN AROUND THE DOWN GRADIENT PERIMETERS OF CONSTRUCTION EXTENTS.
2. INSTALL INLET PROTECTION AND CONSTRUCT STABILIZED CONSTRUCTION ENTRANCES.
3. PREPARE TEMPORARY STORAGE, PARKING, AND PHASING AREAS.
4. CONSTRUCT AND STABILIZE DIVERSIONS AND TEMPORARY SEDIMENT TRAPS/BASINS, IF NECESSARY.
5. PERFORM CLEARING AND GRUBBING OF THE SITE.
6. PERFORM SITE GRADING, EXCAVATION, STOCKPILING AND OTHER CONSTRUCTION ACTIVITIES AS INDICATED ON THE PLANS. REFER TO CONSTRUCTION SEQUENCING NOTES ON SHEET G-101 FOR MORE DETAIL.
7. TEMPORARILY SEED WITH PURE LIVE SEED THROUGHOUT CONSTRUCTION DISTURBED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE AS REQUIRED BY NPDES PERMIT.
8. PERFORM SITE RESTORATION ACTIVITIES FOR PERMANENT VEGETATIVE ESTABLISHMENT.
9. REMOVE SEDIMENT CONTROL DEVICES WHEN SITE HAS REACHED FINAL STABILIZATION.

SEDIMENT CONTROL PRACTICES MUST MINIMIZE SEDIMENT FROM ENTERING SURFACE WATERS. THE FOLLOWING MEASURES WILL BE TAKEN AS SEDIMENT CONTROL PRACTICES IN ORDER TO MINIMIZE SEDIMENTS FROM ENTERING SURFACE WATERS:

- 1. INSTALLATION OF SILT FENCING AND FLOATATION SILT CURTAIN ON ALL DOWN GRADIENT PERIMETERS PRIOR TO LAND DISTURBING ACTIVITIES.
2. INSTALLATION OF SILT FENCING OR SEDIMENT CONTROL LOGS AROUND SOIL STOCKPILES.
3. VEHICLE TRACKING BMP AT CONSTRUCTION SITE ENTRANCE/EXIT. STREET SWEEPING SHALL BE PERFORMED IF VEHICLE TRACKING BMPS ARE NOT ADEQUATE TO PREVENT SEDIMENT TRACKING. TRACKED SEDIMENT MUST BE REMOVED FROM ALL PAVED SURFACES BOTH ON AND OFFSITE WITHIN 24 HOURS OF DISCOVERY PER THE PERMIT.

THE FOLLOWING GUIDELINES WILL BE USED TO DETERMINE IF POLLUTION CONTROL DEVICES REQUIRE MAINTENANCE, REPAIR, OR REPLACEMENT:

- IF SEDIMENT CONTROL DEVICES SUCH AS SILT FENCE ARE FILLED TO 1/3 THE HEIGHT OF THE FENCE, REMOVE ALL SEDIMENT WITHIN 24 HOURS OF DETECTION OR NOTIFICATION.
-IF INLET PROTECTION DEVICES APPEAR PLUGGED WITH SEDIMENT, ARE FILLED TO 1/3 CAPACITY, OR HAVE STANDING WATER AROUND THEM, REMOVE THE SEDIMENT AND CLEAN OR REPLACE THE FILTER WITHIN 24 HOURS OF DETECTION OR NOTIFICATION.
-IF THE CONSTRUCTION ENTRANCE(S) ARE FILLED WITH SEDIMENT EITHER REPLACE THE ENTRANCE OR ADD ADDITIONAL MATERIAL WITH 24 HOURS OF DETECTION OR NOTIFICATION.
-IF SEDIMENT FROM THE SITE IS OBSERVED ON ADJACENT STREETS OR OTHER PROPERTIES, THE INSPECTOR SHALL IDENTIFY THE SOURCE AND DISCHARGE LOCATION OF THE SEDIMENT AND INSTRUCT TO IMPLEMENT ADDITIONAL EROSION AND SEDIMENT CONTROLS AT THOSE LOCATIONS TO PREVENT FUTURE DISCHARGES.
-IF BUILDING MATERIALS, CHEMICALS, OR GENERAL REFUSE IS BEING USED, STORED, DISPOSED OF, OR OTHERWISE MANAGED INAPPROPRIATELY, CORRECT SUCH DEFECTS WITHIN 24 HOURS OF DETECTION OR NOTIFICATION.
-IF EXCESSIVE SEDIMENTS OR DEBRIS ARE OBSERVED WITHIN DRAINAGEWAYS, THE INSPECTOR SHALL DETERMINE THE SOURCE AND DISCHARGE LOCATIONS OF SUCH MATERIALS. IF THE DISCHARGE HAS OCCURRED ON THE PROPERTY, REMOVE THE SEDIMENTS AND DEBRIS WITHIN 24 HOURS OF NOTIFICATION AND CORRECT THE SOURCE OF SUCH MATERIALS AS DIRECTED BY THE INSPECTOR

POLLUTION PREVENTION MEASURES

SOLID WASTE
SOLID WASTE, INCLUDING BUT NOT LIMITED TO, COLLECTED ASPHALT AND CONCRETE MILLINGS, FLOATING DEBRIS, PAPER, PLASTIC, FABRIC, CONSTRUCTION AND DEMOLITION DEBRIS AND OTHER WASTE MUST BE DISPOSED OF PROPERLY AND MUST COMPLY WITH MPCA DISPOSAL REQUIREMENTS.

HAZARDOUS MATERIALS
HAZARDOUS MATERIALS, INCLUDING BUT NOT LIMITED TO OIL, GASOLINE, PAINT AND ANY HAZARDOUS SUBSTANCE MUST BE PROPERLY STORED INCLUDING SECONDARY CONTAINMENTS, TO PREVENT SPILLS, LEAKS OR OTHER DISCHARGE. RESTRICTED ACCESS TO STORAGE AREAS MUST BE PROVIDED TO PREVENT VANDALISM. STORAGE AND DISPOSAL OF HAZARDOUS WASTE MUST BE IN COMPLIANCE WITH MPCA REGULATIONS.

CONSTRUCTION EQUIPMENT/VEHICLES
EXTERNAL WASHING OF TRUCKS AND OTHER CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. RUNOFF MUST BE CONTAINED AND WASTE PROPERLY DISPOSED OF. NO ENGINE DEGREASING IS ALLOWED ON SITE. REASONABLE STEPS TO PREVENT THE DISCHARGE OF SPILLED OR LEAKED CHEMICALS SHALL BE TAKEN. ADEQUATE SUPPLIES MUST BE AVAILABLE AT ALL TIMES TO CLEAN UP DISCHARGED MATERIALS; CONDUCT FUELING IN A CONTAINED AREA UNLESS INFESABLE.

CONCRETE WASHOUT AREA
CONCRETE WASHOUT WILL BE PERMITTED ON-SITE. CONTRACTOR SHALL FOLLOW ALL PERMIT REQUIREMENTS FOR CONCRETE WASHOUT. THE CONTRACTOR SHALL PROVIDE EFFECTIVE CONTAINMENT FOR ALL LIQUID AND SOLID WASTES GENERATED BY WASHOUT OPERATIONS. LIQUID AND SOLID WASHOUT WASTES MUST NOT CONTACT THE GROUND AND THE CONTAINMENT MUST BE DESIGNED TO PROHIBIT RUNOFF FROM THE WASHOUT OPERATIONS/AREAS. LIQUID AND SOLID WASTES MUST BE DISPOSED OF PROPERLY AND IN COMPLIANCE WITH MPCA RULES. A SIGN MUST BE INSTALLED ADJACENT TO EACH WASHOUT FACILITY THAT REQUIRES SITE PERSONNEL TO UTILIZE THE PROPER FACILITIES FOR CONCRETE WASHOUT AND DISPOSAL OF WASHOUT WASTES. CONTRACTOR SHALL REVISE SWPPP TO INDICATE WASHOUT LOCATION ONCE THE LOCATION HAS BEEN DETERMINED.

FERTILIZERS AND LANDSCAPE MATERIALS MUST BE UNDER COVER TO PREVENT THE DISCHARGE OF POLLUTANTS OR PROTECTED BY SIMILARLY EFFECTIVE MEANS DESIGNED TO MINIMIZE CONTACT WITH STORMWATER.

PORTABLE TOILETS MUST BE POSITIONED SO THAT THEY ARE SECURE AND WILL NOT BE TIPPED OR KNOCKED OVER - SANITARY WASTE MUST BE DISPOSED OF PROPERLY.

GENERAL SWPPP NOTES

IN THE EVENT THAT DEWATERING IS NECESSARY CONTRACTOR SHALL COMPLY WITH PERMIT PART 10.1. REQUIREMENTS FOR DEWATERING.

THIS SWPPP SHALL BE AMENDED BY THE CONTRACTOR IN ACCORDANCE WITH THE PERMIT AS NECESSARY TO INCLUDE ADDITIONAL REQUIREMENTS TO CORRECT PROBLEMS IDENTIFIED OR ADDRESS SITUATIONS PER PART 6.1 OF THE PERMIT.

THIS PROJECT IS NOT ANTICIPATED TO DISTURB GREATER THAN 5 ACRES, THEREFORE A TEMPORARY SEDIMENT BASIN WILL NOT BE REQUIRED. IF THE PROJECT WILL DISTURB 5 OR MORE ACRES THAT PROMOTE DRAINAGE TO A COMMON LOCATION, THIS SWPPP SHALL BE AMENDED BY THE CONTRACTOR IN ACCORDANCE WITH PART 14.1 OF THE GENERAL PERMIT TO INCLUDE TEMPORARY SEDIMENTATION BASINS.

FINAL STABILIZATION

ALL PERVIOUS AREAS DISTURBED BY CONSTRUCTION AS DESIGNATED WILL RECEIVE VEGETATIVE COVER ACCORDING TO THE PLANS AND SPECIFICATIONS AND WITHIN THE SPECIFIED VEGETATIVE TIME SCHEDULE. FINAL STABILIZATION WILL OCCUR WHEN THE SITE HAS A UNIFORM VEGETATIVE COVER WITH A DENSITY OF 70% OVER THE RESTORED PERVIOUS AREAS. ALL TEMPORARY SYNTHETIC EROSION PREVENTION AND SEDIMENT CONTROL BMPS (SUCH AS SILT FENCE) MUST BE REMOVED AS PART OF THE SITE FINAL STABILIZATION. ALL SEDIMENT MUST BE CLEANED OUT OF CONVEYANCES AND TEMPORARY SEDIMENTATION BASINS IF APPLICABLE. NOTICE OF TERMINATION (NOT) MUST BE SUBMITTED WITHIN 30 DAYS OF FINAL STABILIZATION.

IMPAIRED WATERS, SPECIAL WATERS, AND WETLANDS

THIS PROJECT IS LOCATED WITHIN ONE MILE OF, AND ULTIMATELY DISCHARGES TO, IMPAIRED AND SPECIAL WATERS. SAND CREEK IS LOCATED WITHIN THE PROJECT LOCATION AND IS LISTED AS IMPAIRED FOR E. COLI AND AQUATIC MACROINVERTEBRATE BIOASSESSMENTS. COON CREEK IS LOCATED WITHIN ONE MILE OF THE PROJECT LOCATION AND IS LISTED AS IMPAIRED FOR E. COLI AND AQUATIC MACROINVERTEBRATE BIOASSESSMENTS. DISCHARGE TO SPECIAL OR IMPAIRED WATERS REQUIRES IMPLEMENTATION OF PART 23.1 OF THE PERMIT AS INCORPORATED INTO THIS SWPPP DOCUMENT.

TEMPORARY WETLAND IMPACTS WILL BE MITIGATED ONSITE.

SWPPP DOCUMENTS

THE SWPPP IS COMPOSED OF, BUT NOT LIMITED TO, THE BELOW PROJECT DOCUMENTS. THESE DOCUMENTS SHALL BE KEPT ON THE PROJECT SITE AT ALL TIMES THROUGHOUT CONSTRUCTION. THE SWPPP SHALL BE AMENDED BY THE PERSON RESPONSIBLE TO INCLUDE ANY DOCUMENTS NECESSARY TO ENSURE ADHERENCE TO THE GENERAL PERMIT.

CIVIL CONSTRUCTION PLANS BY WENCK ASSOCIATES, INC. DATED SEPTEMBER 2019

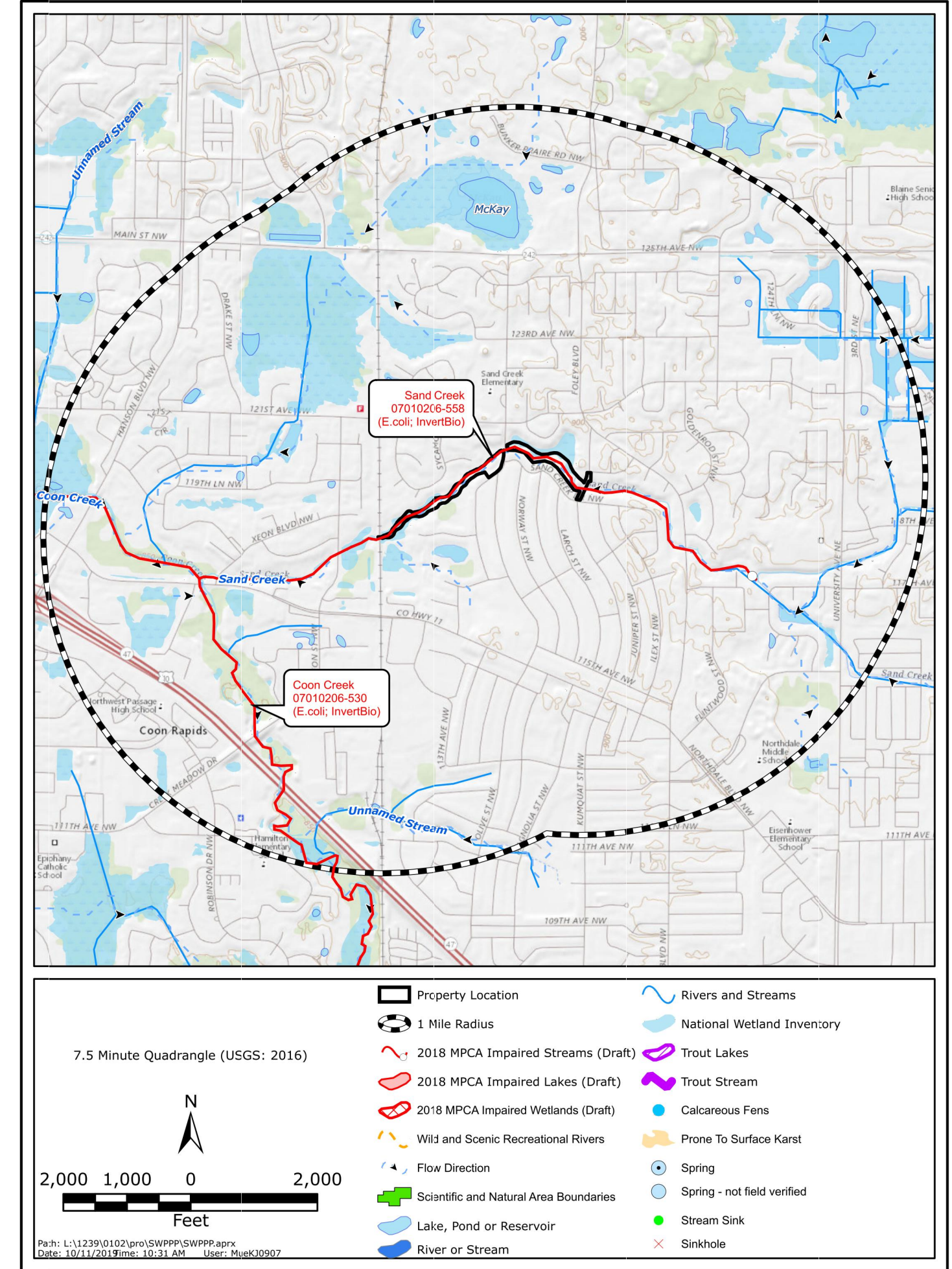
RECORD RETENTION - THE SWPPP, ALL CHANGES TO IT, AND INSPECTION AND MAINTENANCE RECORDS MUST BE KEPT ON-SITE DURING CONSTRUCTION; THE CONSTRUCTION DRAWINGS ARE INCORPORATED HEREIN BY REFERENCE, AND A COPY OF THE PLAN SET SHOULD BE KEPT ON-SITE WITH THE SWPPP RECORDS. THE OWNER MUST RETAIN A COPY OF THE SWPPP ALONG WITH THE FOLLOWING RECORDS FOR THREE (3) YEARS AFTER SUBMITTAL OF THE NOTICE OF TERMINATION:

- 1. ANY OTHER PERMITS REQUIRED FOR THE PROJECT;
2. RECORDS OF ALL INSPECTION AND MAINTENANCE CONDUCTED DURING CONSTRUCTION;
3. ALL PERMANENT OPERATIONS AND MAINTENANCE AGREEMENTS THAT HAVE BEEN IMPLEMENTED, INCLUDING ALL RIGHT OF WAY, CONTRACT, COVENANTS AND OTHER BINDING REQUIREMENTS REGARDING PERPETUAL MAINTENANCE; AND
4. ALL REQUIRED CALCULATIONS FOR DESIGN OF THE TEMPORARY AND PERMANENT STORMWATER MANAGEMENT SYSTEMS.

ESTIMATED BMP QUANTITIES

THE ADJACENT TABLE INDICATES THE ESTIMATED MATERIAL QUANTITIES NECESSARY TO IMPLEMENT THE TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMPS IDENTIFIED IN THIS SWPPP AND ON THE CONSTRUCTION DRAWINGS. TEMPORARY AND PERMANENT EROSION PREVENTION AND SEDIMENT CONTROL BMPS WILL BE INSTALLED/CONSTRUCTED WHEN NECESSARY AS CONSTRUCTION ACTIVITIES PROGRESS AND IN ACCORDANCE WITH THE NPDES PERMIT REQUIREMENTS.

Table with 1 column: BMP QUANTITIES. Row 1: STABILIZED CONSTRUCTION EXITS: XX EA. Row 2: FLOATATION SILT CURTAIN: ±XX LF. Row 3: SILT FENCE: ±XXX LF. Row 4: SEDIMENT CONTROL LOG: ±XXX LF. Row 5: NATIVE SEEDING: ±XX AC. Row 6: EROSION CONTROL BLANKET: ±XXXX SY.



INSPECTIONS

THE INSPECTION LOG WILL BE COMPLETED BY THE CONTRACTOR FOR THE CONSTRUCTION SITE. INSPECTOR(S): TBD - TRAINING DOCUMENTATION (PER PART 5.20 OF THE PERMIT) WILL BE INCORPORATED INTO THIS SWPPP AS SOON AS THE PERSONNEL FOR THE PROJECT HAVE BEEN DETERMINED. THE CONTRACTOR WILL MAKE CORRECTIONS OR REPAIRS REQUIRED TO COMPLY WITH THE PERMIT.

INSPECTIONS AT THE SITE WILL BE COMPLETED IN ACCORDANCE WITH THE PERMIT AS FOLLOWS: ONCE EVERY SEVEN (7) DAYS DURING ACTIVE CONSTRUCTION AND, WITHIN 24 HOURS AFTER A RAINFALL EVENT GREATER THAN 0.5 INCHES IN 24 HOURS.

- 1. THE INDIVIDUAL PERFORMING INSPECTIONS MUST BE TRAINED AS REQUIRED BY PART 11.2 OF THE PERMIT. TRAINING DOCUMENTATION SHALL BE PROVIDED BY THE CONTRACTOR FOR INCORPORATION INTO THE SWPPP. INSPECTIONS MUST INCLUDE STABILIZED AREAS, EROSION PREVENTION AND SEDIMENT CONTROL BMPS, AND INFILTRATION AREAS. CORRECTIVE ACTIONS MUST BE IDENTIFIED AND DATE OF CORRECTION MUST BE NOTED AS IDENTIFIED IN SECTION 11.11.D OF THE PERMIT. ANY OFF-SITE DISCHARGE MUST BE DOCUMENTED AS IDENTIFIED IN SECTION 11.11.F OF THE PERMIT. ANY AMENDMENTS TO THE SWPPP PROPOSED AS A RESULT OF THE INSPECTION MUST BE DOCUMENTED WITHIN SEVEN (7) CALENDAR DAYS. AN INSPECTION LOG IS ALSO ATTACHED; THE INSPECTION LOG AND SWPPP MUST BE KEPT ON-SITE FOR THE DURATION OF THE CONSTRUCTION PROJECT.

AT A MINIMUM, THE FOLLOWING SHALL BE COMPLETED DURING EACH INSPECTION:

- RECORD DATE AND TIME OF INSPECTION.
-RECORD RAINFALL RECORDS SINCE THE MOST RECENT INSPECTION.
-INSPECT THE SITE FOR EXCESS EROSION AND SEDIMENTATION.
-INSPECT THE SITE FOR DEBRIS, TRASH, AND SPILLS.
-INSPECT TEMPORARY EROSION AND SEDIMENTATION CONTROL DEVICES.
-INSPECT CONSTRUCTION ENTRANCES FOR SEDIMENT TRACKING ONTO PUBLIC STREETS.
-RECORD RECOMMENDED REPAIRS AND MODIFICATIONS TO EROSION AND SEDIMENT CONTROLS.
-RECOMMEND ANY NECESSARY CHANGES TO THIS SWPPP.
-RECORD REPAIRS AND MODIFICATIONS IMPLEMENTED SINCE PREVIOUS INSPECTIONS.
-INSPECT THE ADJACENT STREETS AND CURB AND GUTTER FOR SEDIMENT, LITTER, AND CONSTRUCTION DEBRIS.

THE CONTRACTOR MUST UPDATE THE SWPPP, INCLUDING THE JOBSITE BINDER AND SITE MAPS, TO REFLECT THE PROGRESS OF CONSTRUCTION ACTIVITIES AND GENERAL CHANGES TO THE PROJECT SITE. UPDATES SHALL BE MADE DAILY TO TRACK PROGRESS WHEN ANY OF THE FOLLOWING ACTIVITIES OCCUR: BMP INSTALLATION, MODIFICATION OR REMOVAL, CONSTRUCTION ACTIVITIES (E.G. PAVING, SEWER INSTALLATION, ETC), CLEARING, GRUBBING, GRADING, OR TEMPORARY AND PERMANENT STABILIZATION.

THE CONTRACTOR MUST UPDATE OR MODIFY THE SWPPP AS NEEDED TO PREVENT SEDIMENT DISCHARGE OR PROTECT WATER QUALITY. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE TO ENSURE COMPLIANCE WITH THE PERMIT AND PROTECTION OF DOWNSTREAM WATER QUALITY.



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SUB CONSULTANT:

CLIENT: COON CREEK WATERSHED DISTRICT

MIDDLE SAND CREEK

COON RAPIDS MN

PROJECT TITLE:

Table with columns: DATE, DESCRIPTION, ISSUE NO., and a grid for tracking issues.

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

LICENS. NO.: DATE:

PROJECT NO.: 1239-0102
DWN BY: NPW CHKD BY: SJB APPD BY: EAM

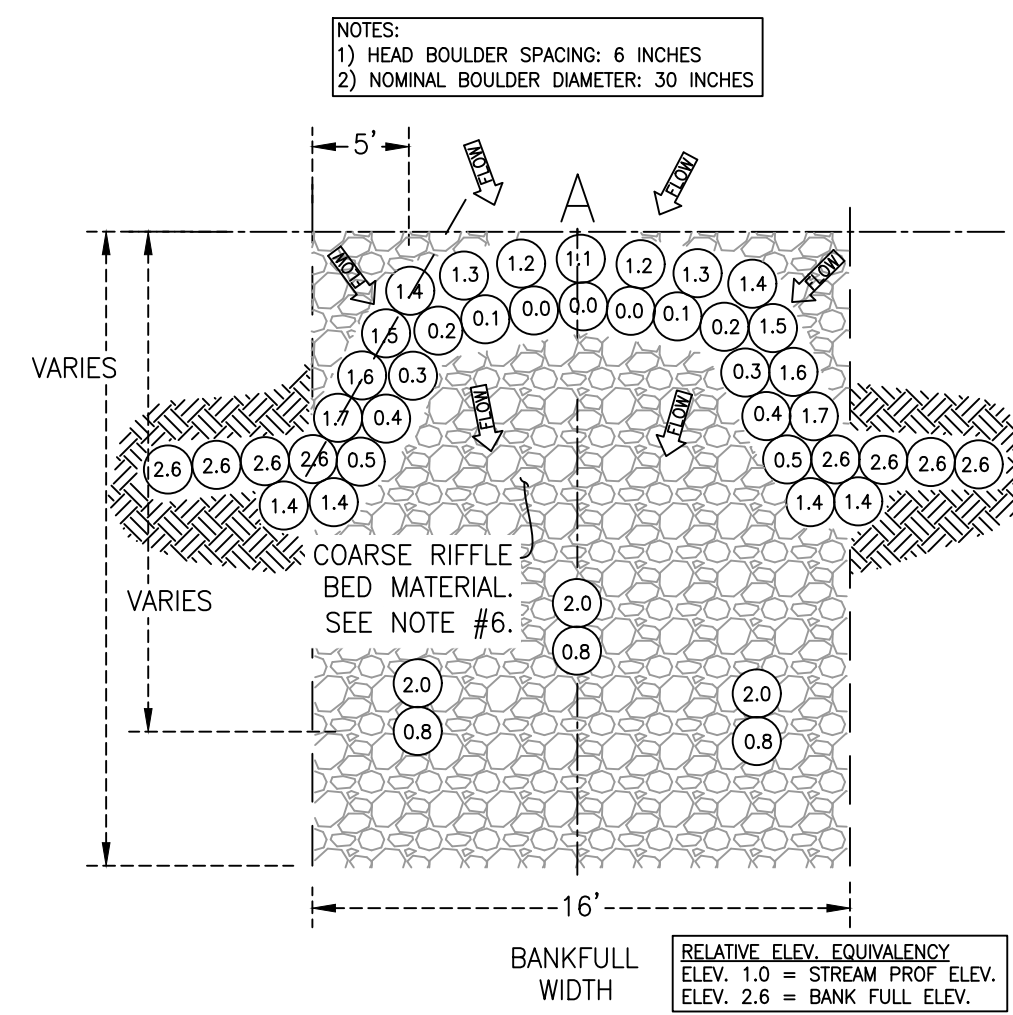
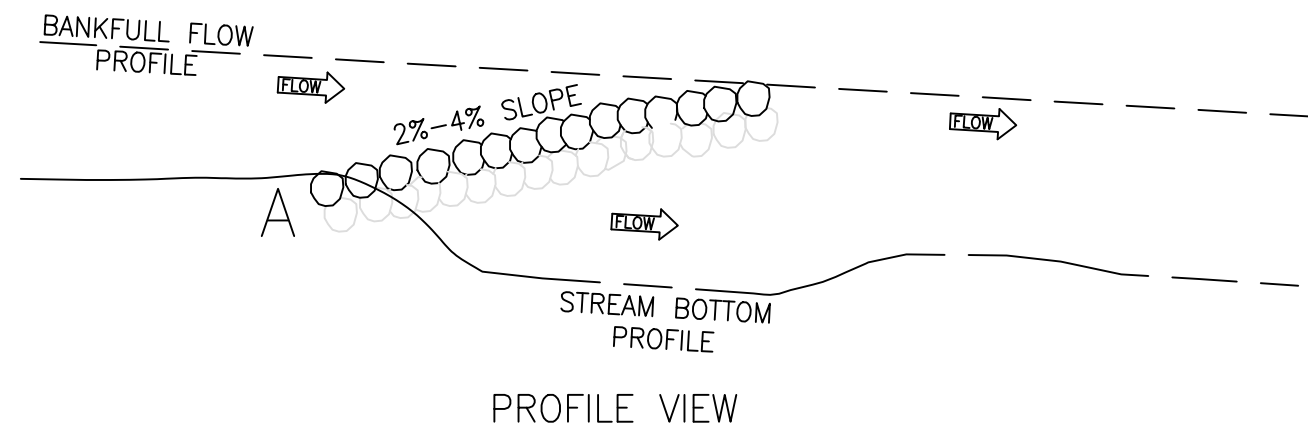
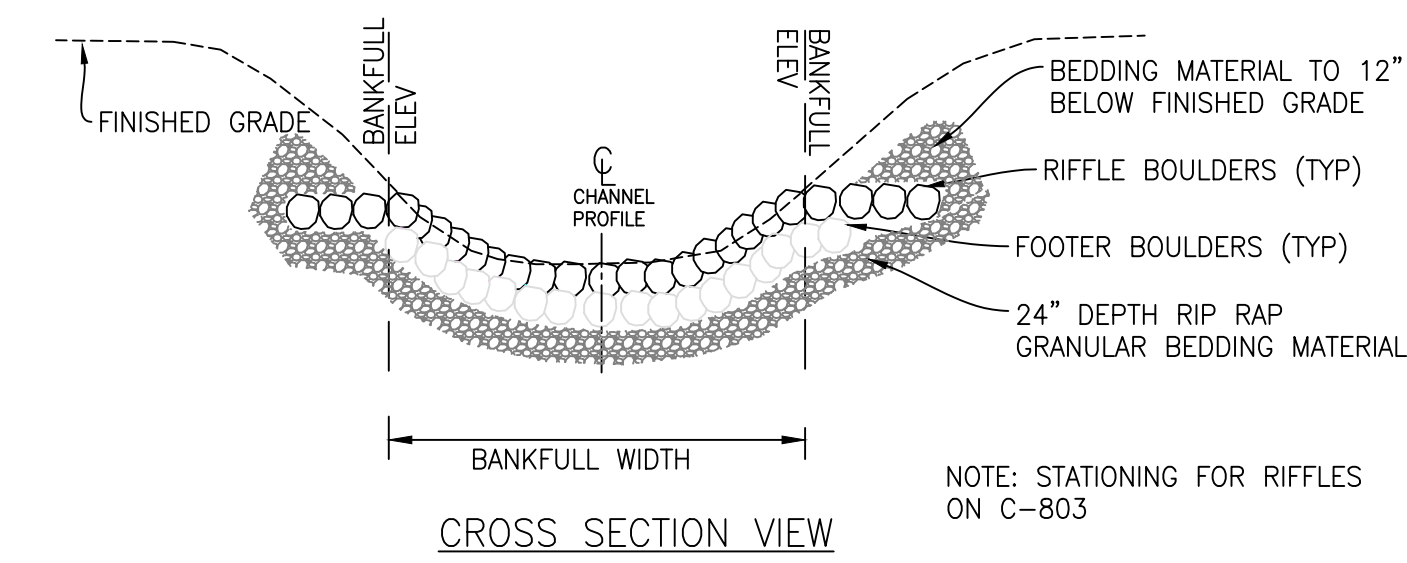
ISSUE DATE: NOV 2019

ISSUE NO.: 1

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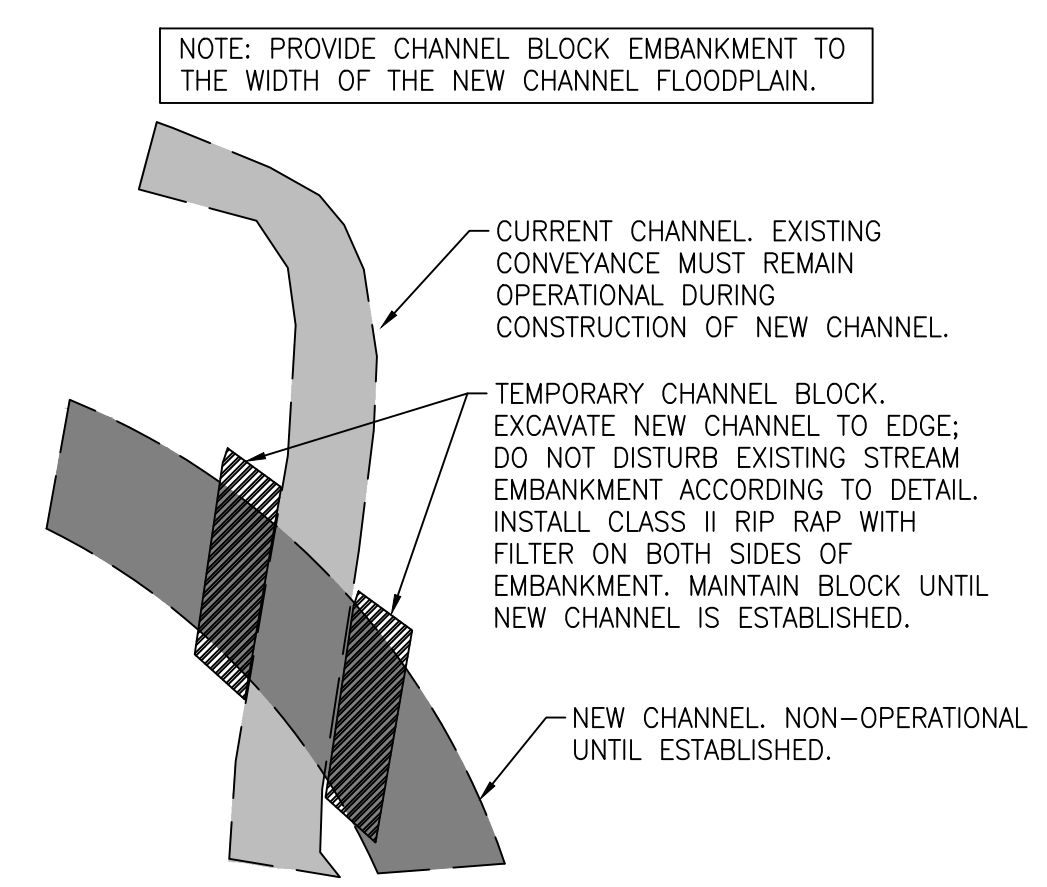
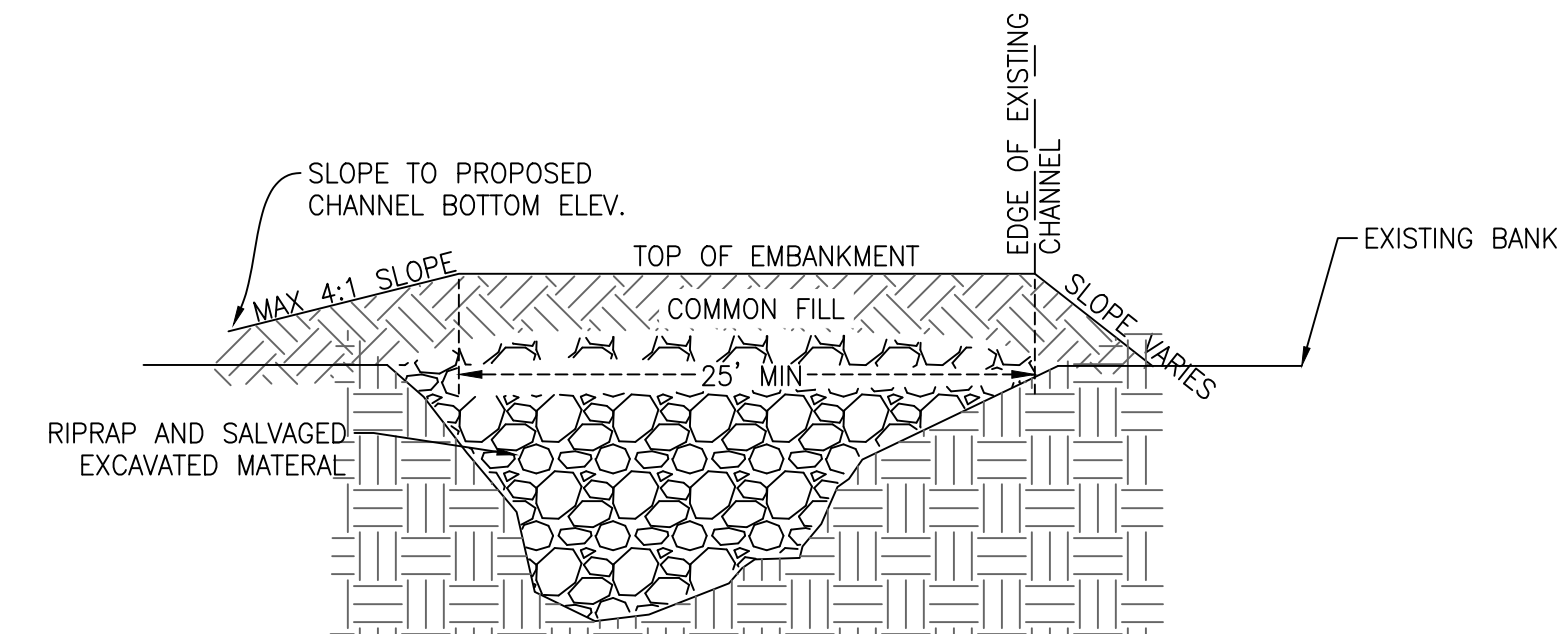
SWPPP

SHEET NO.: EC-100

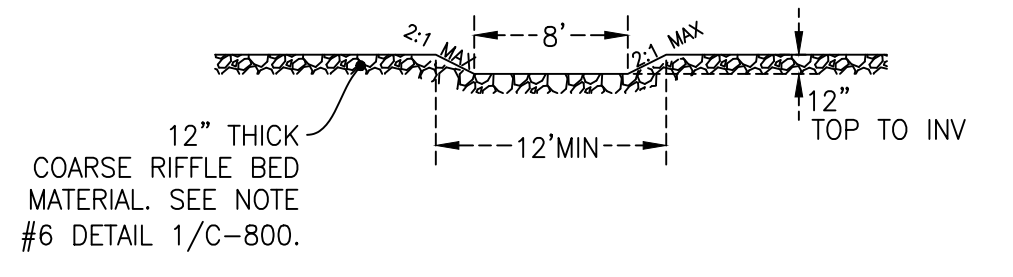
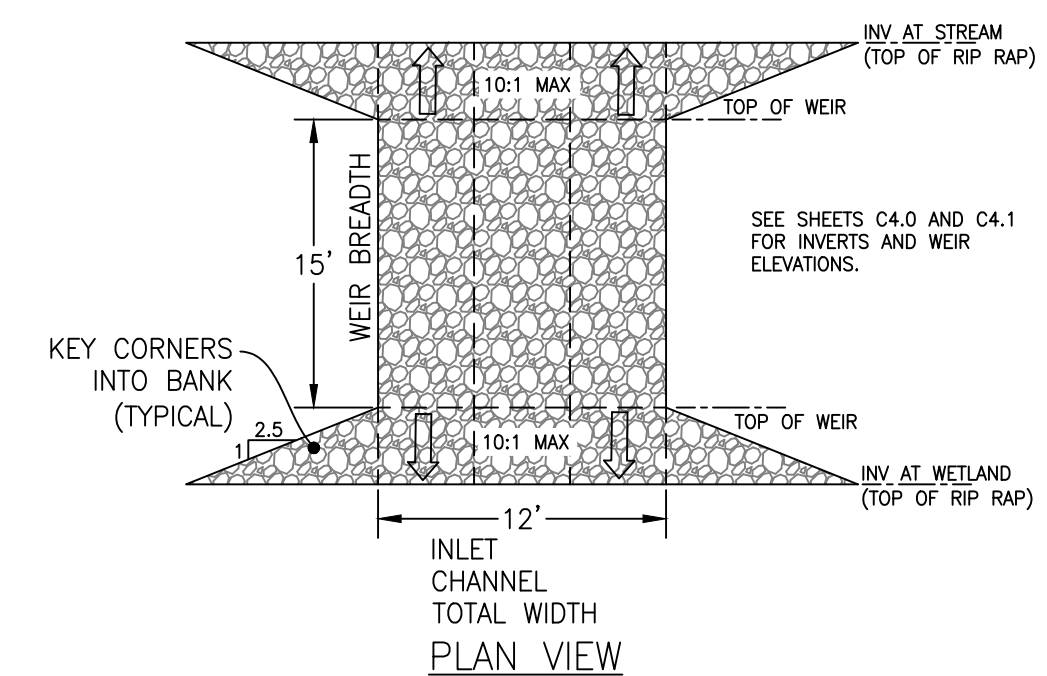
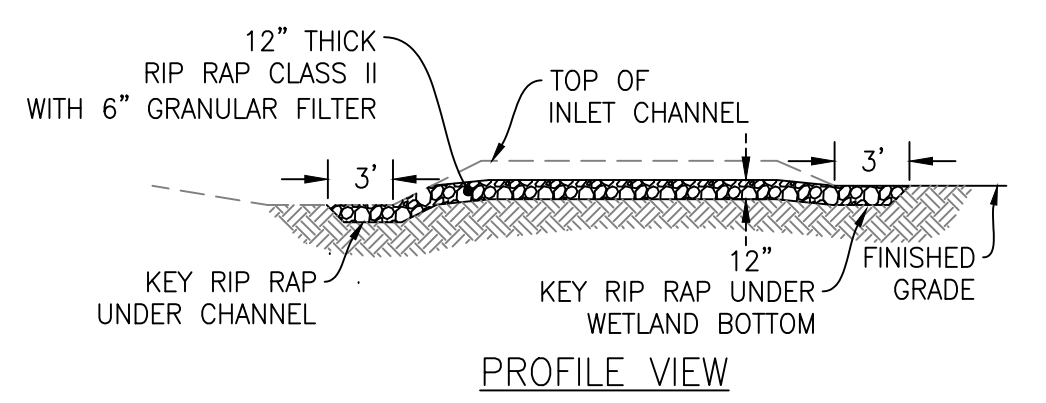


- RIFFLE CONSTRUCTION NOTES:**
1. BOULDER ELEVATIONS: TOP OF BOULDER ELEVATIONS AS SHOWN ARE RELATIVE BASED ON THE STREAM ALIGNMENT STATION AND PROFILE ELEVATION AT POINT 'A' FOR EACH RIFFLE DETAIL (THE "POINT" STONE OF EACH RIFFLE). REFER TO EQUIVALENCY TO ESTABLISH FIELD BUILD ELEVATIONS.
 2. BOULDERS: DIAMETERS AS SHOWN. ROUNDED BOULDERS WITH ROUGHENED FACES.
 3. BEDDING OF BOULDERS: GRANULAR FILTER MATERIAL PER MN/DOT 3601.2B1b. UTILIZE ANY ON-SITE COBBLE AND GRAVEL MATERIAL EXCAVATED FROM RIVER CHANNEL BEFORE USING IMPORTED FILTER MATERIAL (APPROVED BY THE ENGINEER).
 4. FOOTERS: TOP OF FOOTER BOULDER ELEVATION AS SHOWN. RIFFLE BOULDER SHALL BE SET ADJACENT TO AND UPSTREAM OF EACH FOOTER AND BURIED TO 1/2 OF ITS DIAMETER.
 5. SILL STONES: FULLY BURIED. TOP ELEVATION AT BANKFULL. ROCK INTERFACE AT SILL: 1/2 BANKFULL DEPTH.
 6. COARSE RIFFLE BED MATERIAL: SALVAGED COARSE MATERIAL FROM EXCAVATION 6-INCH MINUS OR IMPORTED RIP-RAP MN/DOT CLASS 1 AND CLASS 2 MIXED IN 50% PROPORTION LAID IN UNIFORM 6-INCH LAYER ACROSS BOTTOM OF PLANNED CROSS VANE OR RIFFLE AREA.
 7. REFER TO RIFFLE SCHEDULE SHEET C-804 AND PHASING PLANS FOR RIFFLE LOCATIONS AND POINT ELEVATIONS AS WELL AS FOR OPTIONS FOR BOULDER PLACEMENT.

1 RIFFLE DETAIL
C-800 NOT TO SCALE

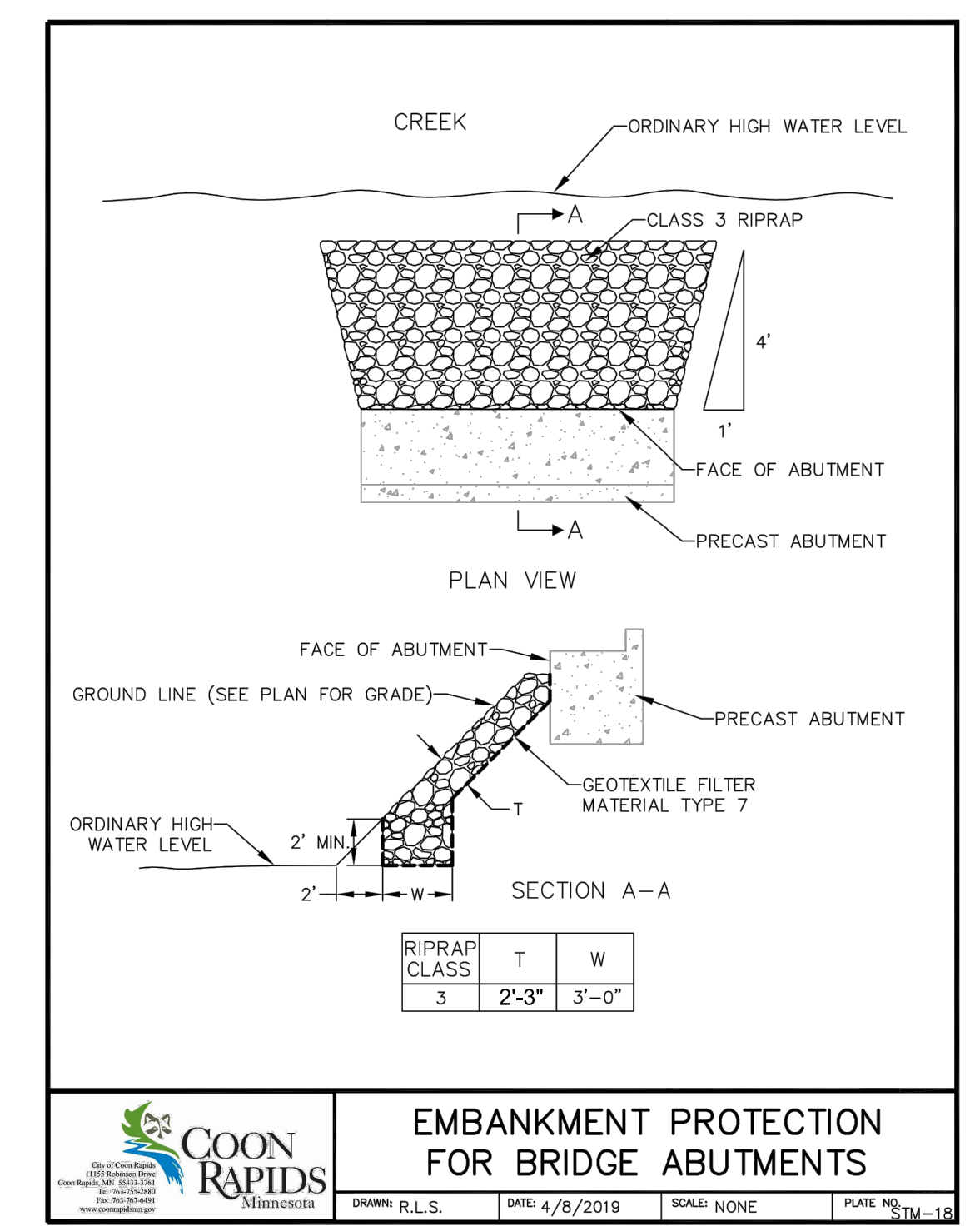


2 TEMPORARY CHANNEL BLOCK
C-800 NOT TO SCALE

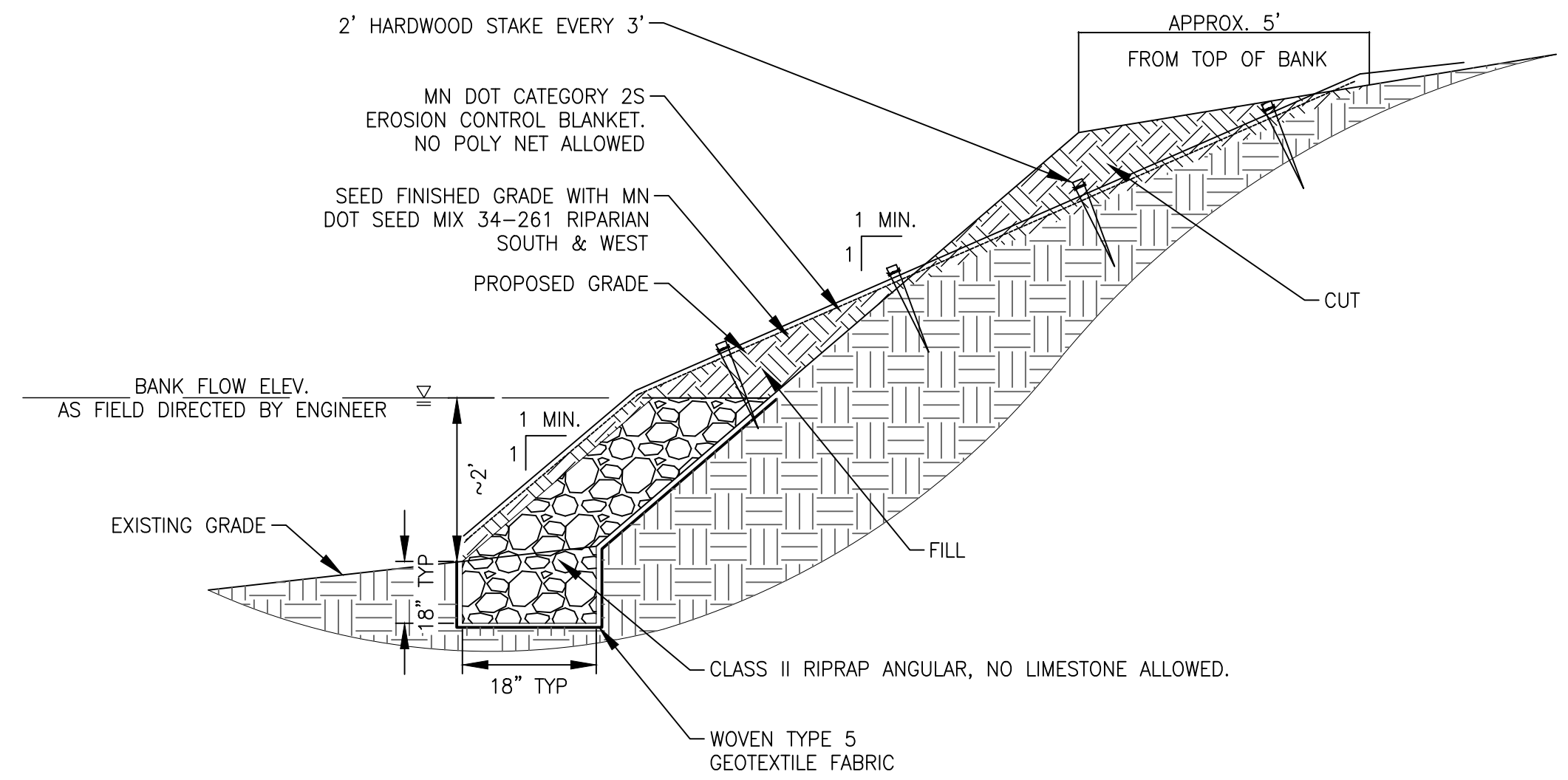


3 BACKWATER POOL CHANNEL CONNECTION
C-800 NOT TO SCALE

Bank No.	Station	Width (LF)	Length (LF)
Left 1	13+62	8	20
Left 2	23+73	8	18
Left 3	29+47	8	22



4 EMBANKMENT PROTECTION FOR BRIDGE ABUTMENTS
C-800 NOT TO SCALE



5 CLASS II VEGETATED RIPRAP TOE DETAIL
C-800 NOT TO SCALE

ISSUE NO.	DATE	DESCRIPTION
0		
1	08/13/2019	90% DESIGN PLANS
	11/07/2019	100% DESIGN PLANS - ISSUED FOR PERMITS

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

LICENSE NO.:
DATE:

PROJECT NO.: 1239-0102
DWN BY: NPW CHKD BY: SJB APPD BY: EAM
ISSUE DATE: NOV 2019

ISSUE NO.: 1
SHEET TITLE:
DETAILS
SHEET NO.:
C-800

11/7/2019 3:54:13 PM



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SUB CONSULTANT:

CLIENT:

COON CREEK WATERSHED DISTRICT

MIDDLE SAND CREEK COON RAPIDS MN

PROJECT TITLE:

ISSUE NO.	0	1
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DESCRIPTION:	90% DESIGN PLANS	ISSUED FOR PERMITS
	100% DESIGN PLANS	

DATE:	09/13/2019	11/07/2019
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CERTIFICATION:
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LICENS. NO.:
DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

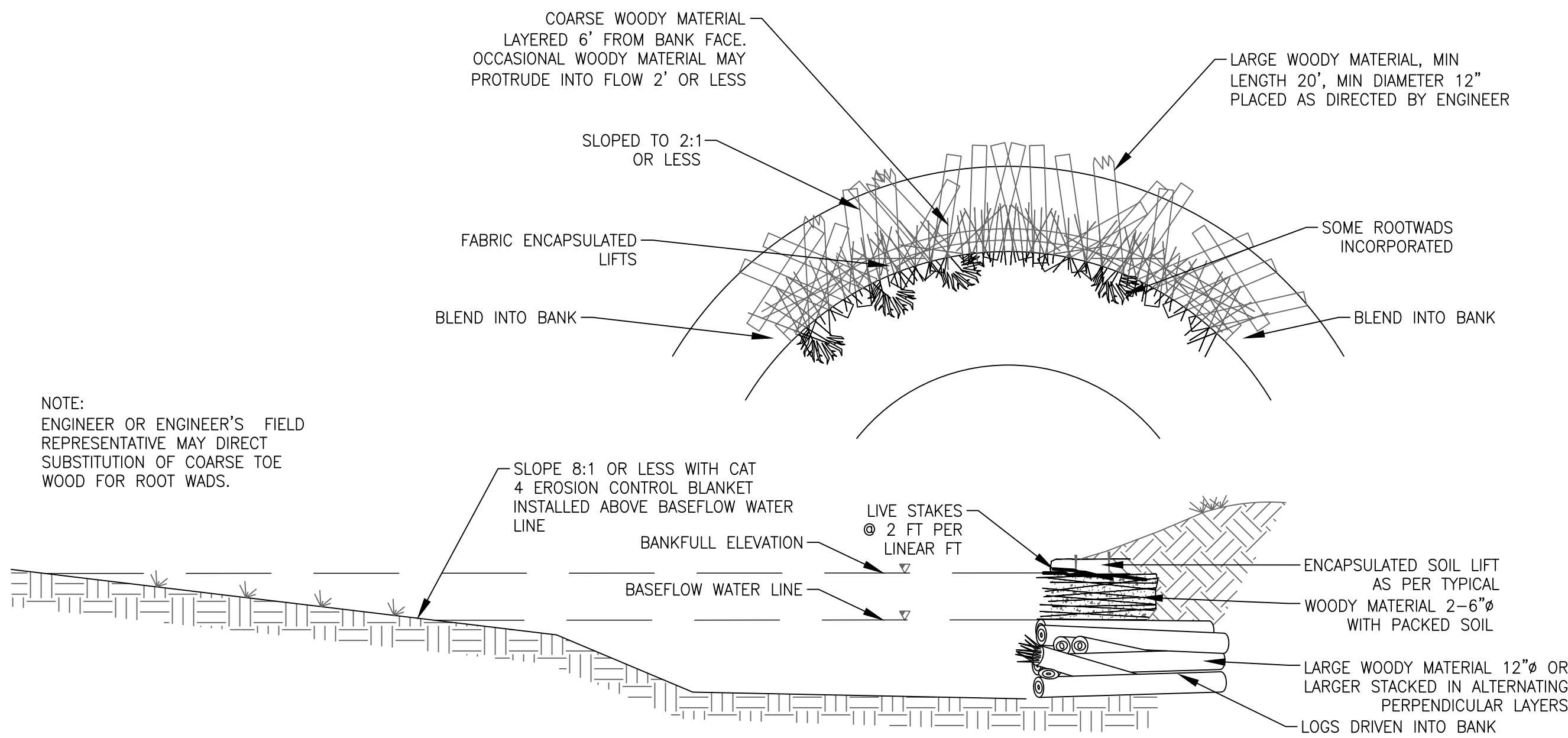
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ISSUE NO.: 1

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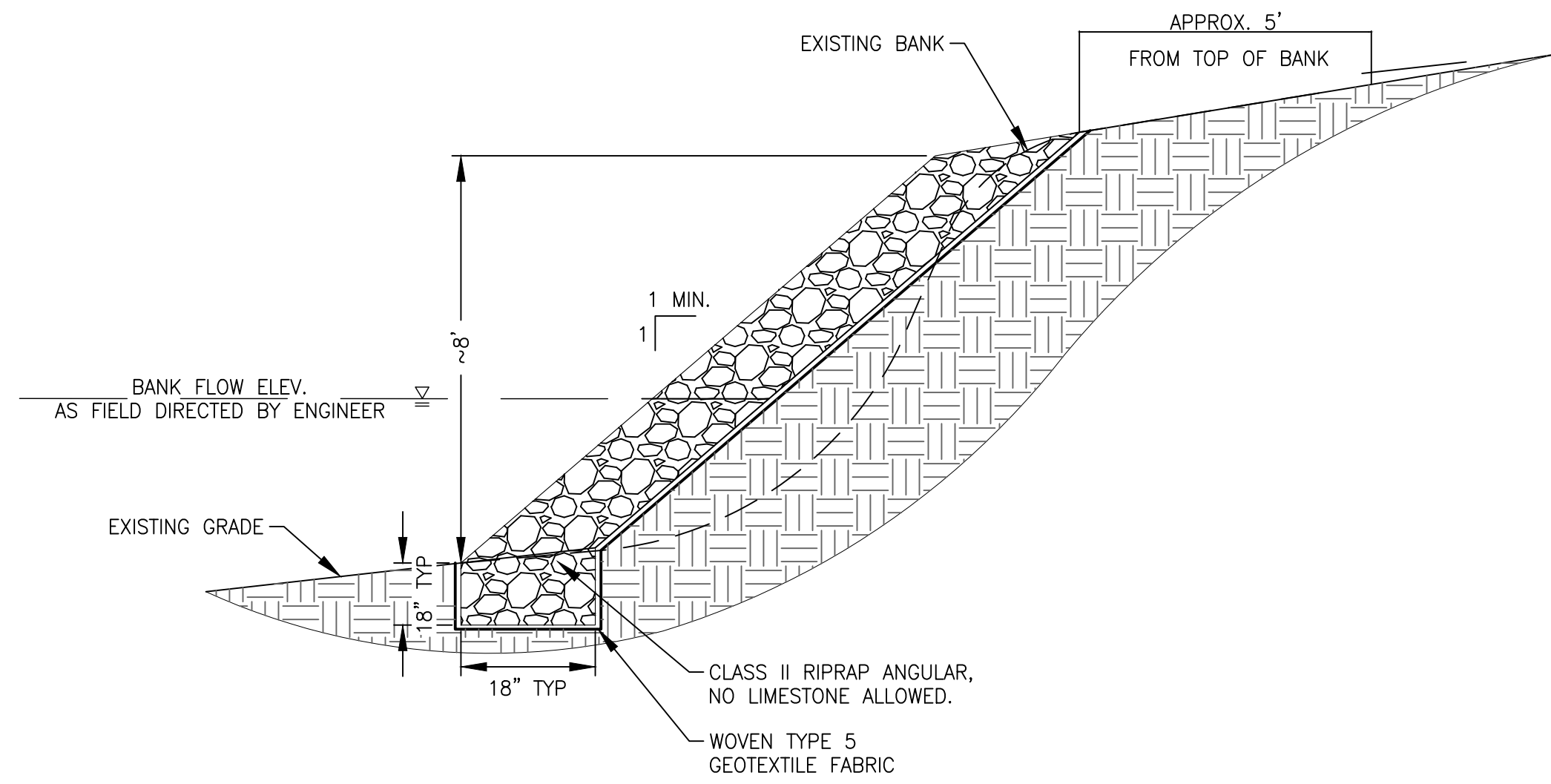
DETAILS

SHEET NO.: C-801

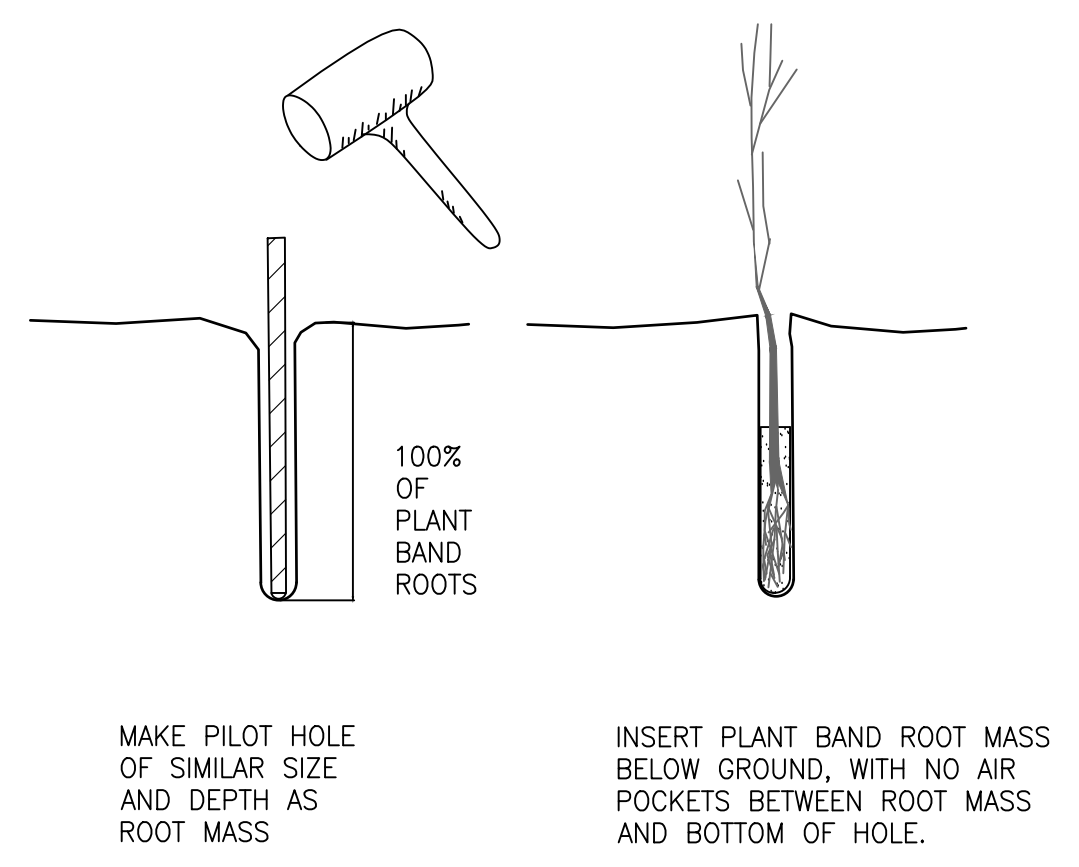


1 COARSE WOOD TOE C-801 NOT TO SCALE

NOTE: SEE C-802 FOR CONSTRUCTION SEQUENCE

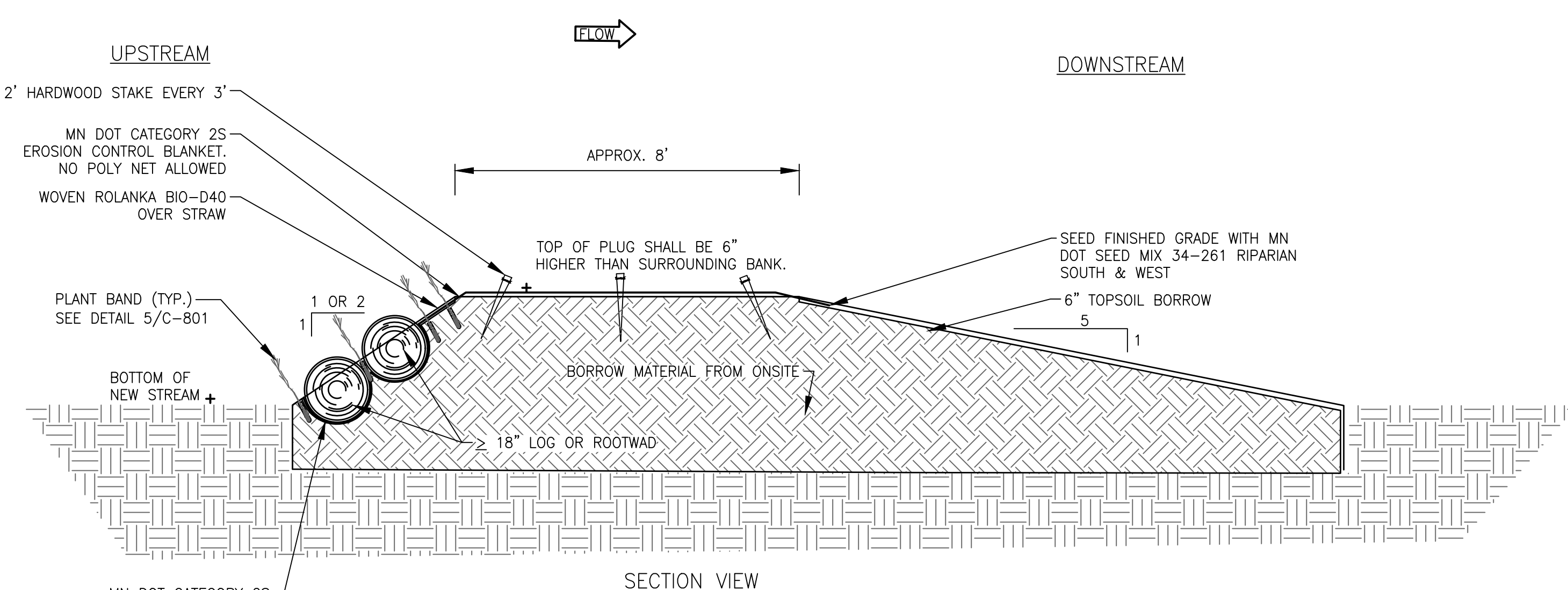


3 CLASS III RIPRAP DETAIL C-801 NOT TO SCALE

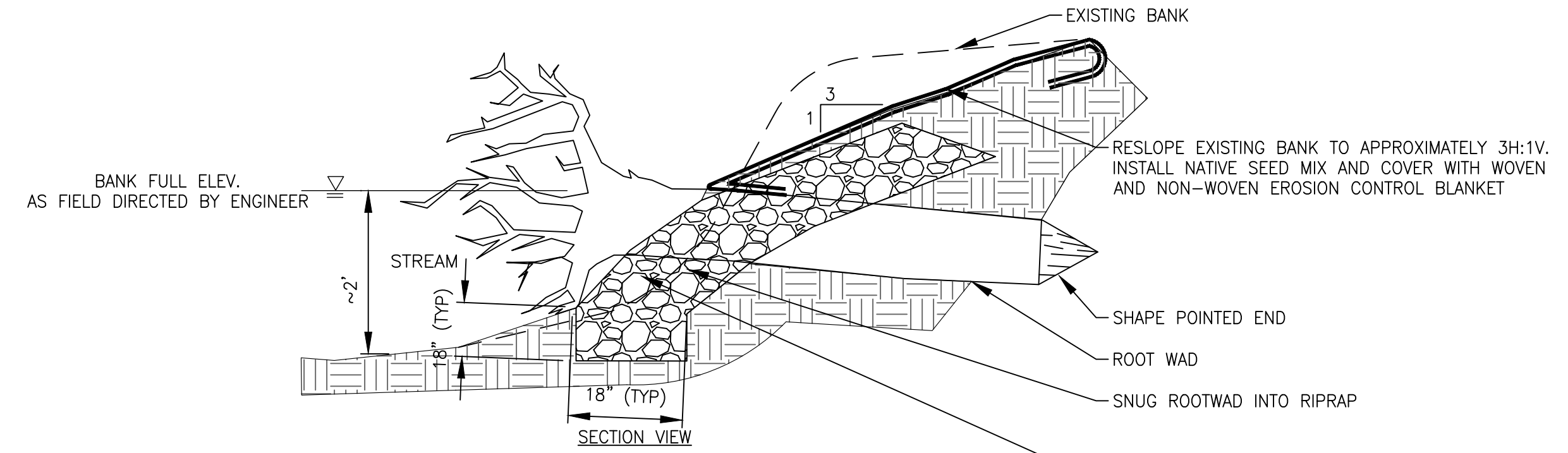
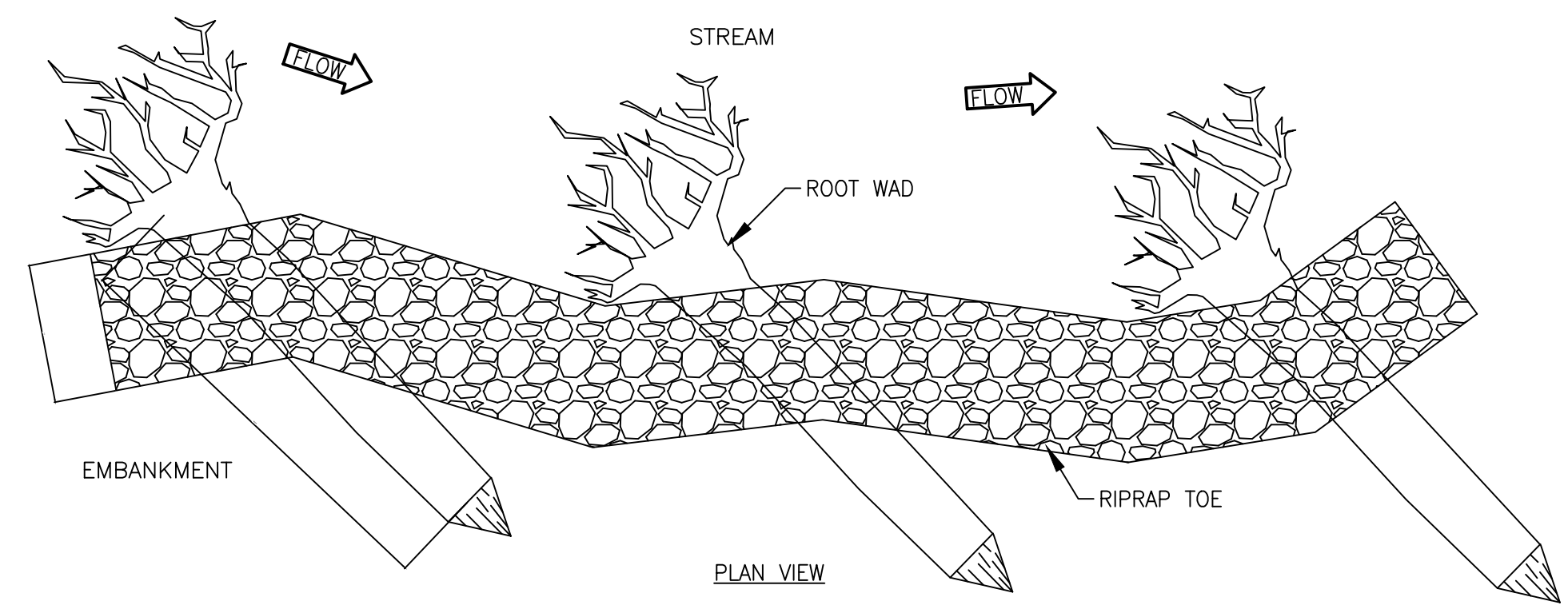


5 PLANT BAND INSTALLATION C-801 NOT TO SCALE

* STATIONING BY CHANNEL ALIGNMENT ** VIEWING DOWNSTREAM



2 PERMANENT CHANNEL PLUG C-801 NOT TO SCALE



NOTE:
1. RIPRAP BANK PRIOR TO ALLOWING WATER TO FLOW INTO STREAM.
2. REFERENCE 5/C-800 FOR MORE INFORMATION.

4 ROOTWAD WITH VEGETATED RIPRAP TOE C-801 NOT TO SCALE

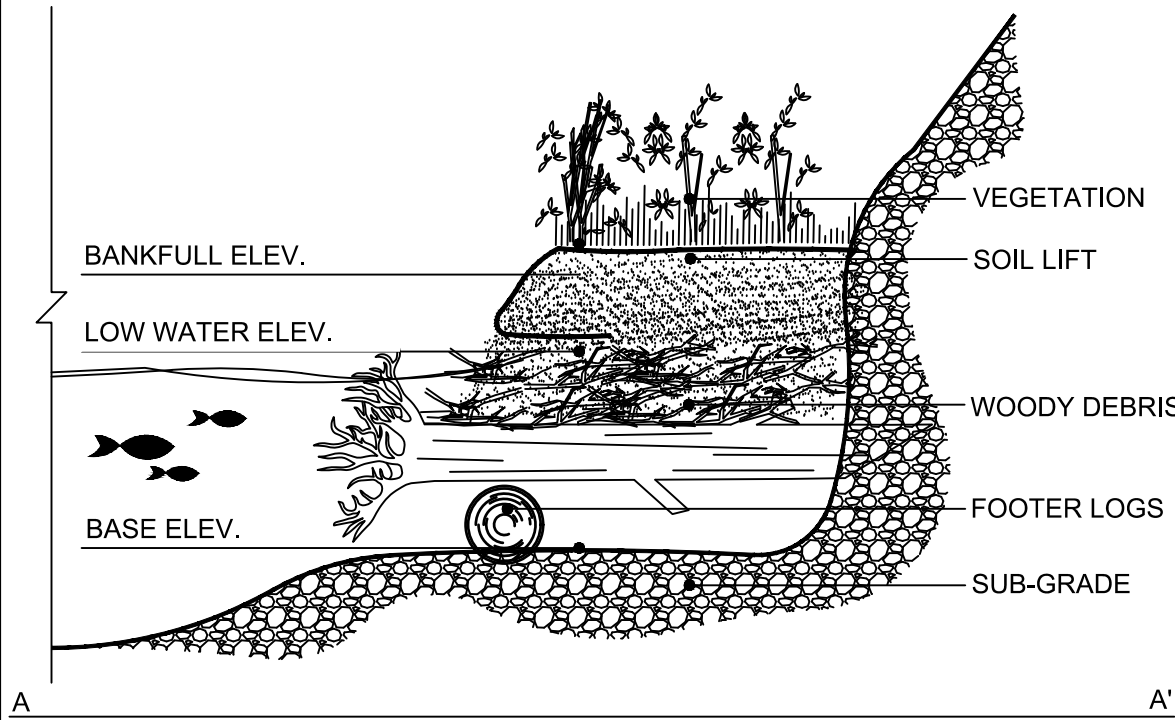
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1. INSTALLATION SUMMARY

TOEWOOD BENCH CONSTRUCTION WILL BE DONE IN DRY WEATHER/LOW WATER CONDITIONS.

ENGINEER OR CCWD REPRESENTATIVE MUST BE PRESENT FOR INSTALLATION OF TOEWOOD BENCH.

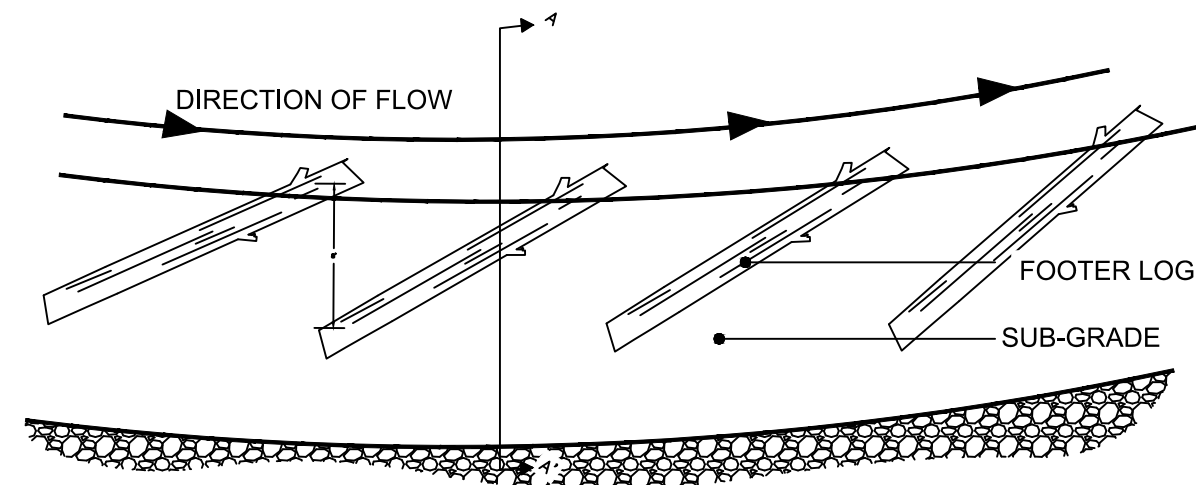
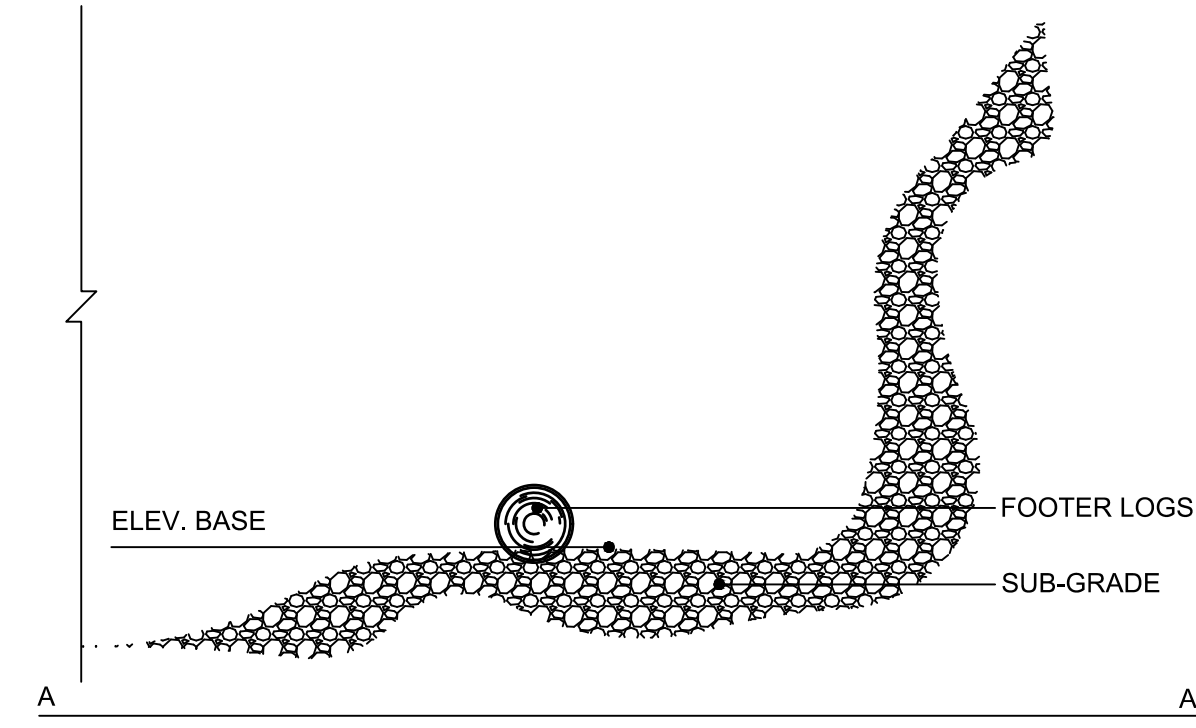
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2. SUBGRADE AND FOOTER LOGS

SPECIFICATION:
 -10" MINIMUM DIAMETER
 -LIMBS REMOVED
 -12' MINIMUM LENGTH

PLACEMENT:
 -EXCAVATE TO BASE ELEVATION
 -CONTRACTOR SHALL MAKE EFFORT TO SEPARATE GRANULAR AND FINE FILL NATIVE MATERIAL FOR USE IN STEPS 4 AND 5.
 -SPACE FOOTER LOGS ENDS 8' APART, PERPENDICULAR TO STREAM
 -KEY FOOTER LOGS 8' INTO BANK, 2' PROTRUDING INTO STREAM.

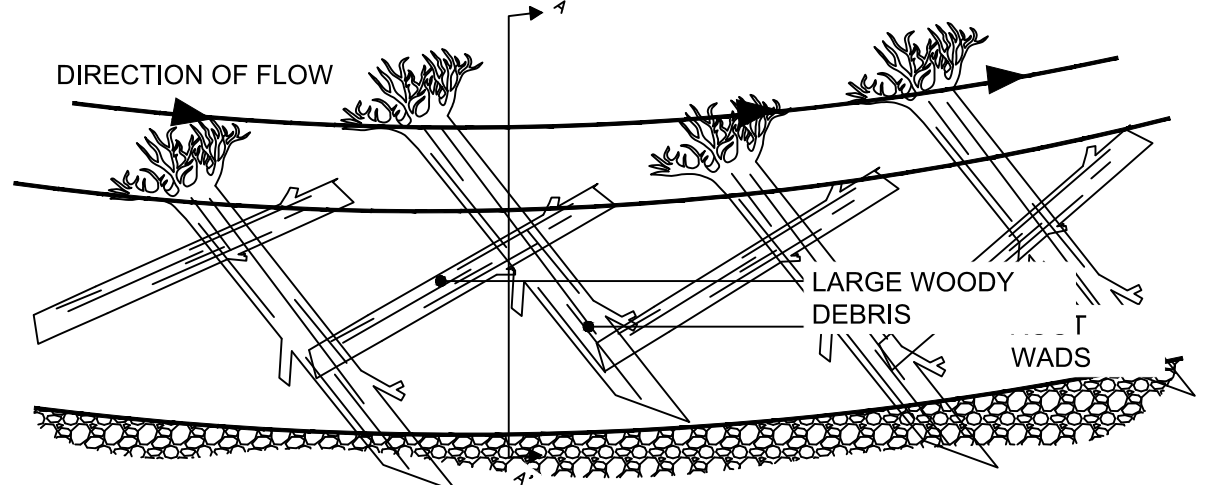
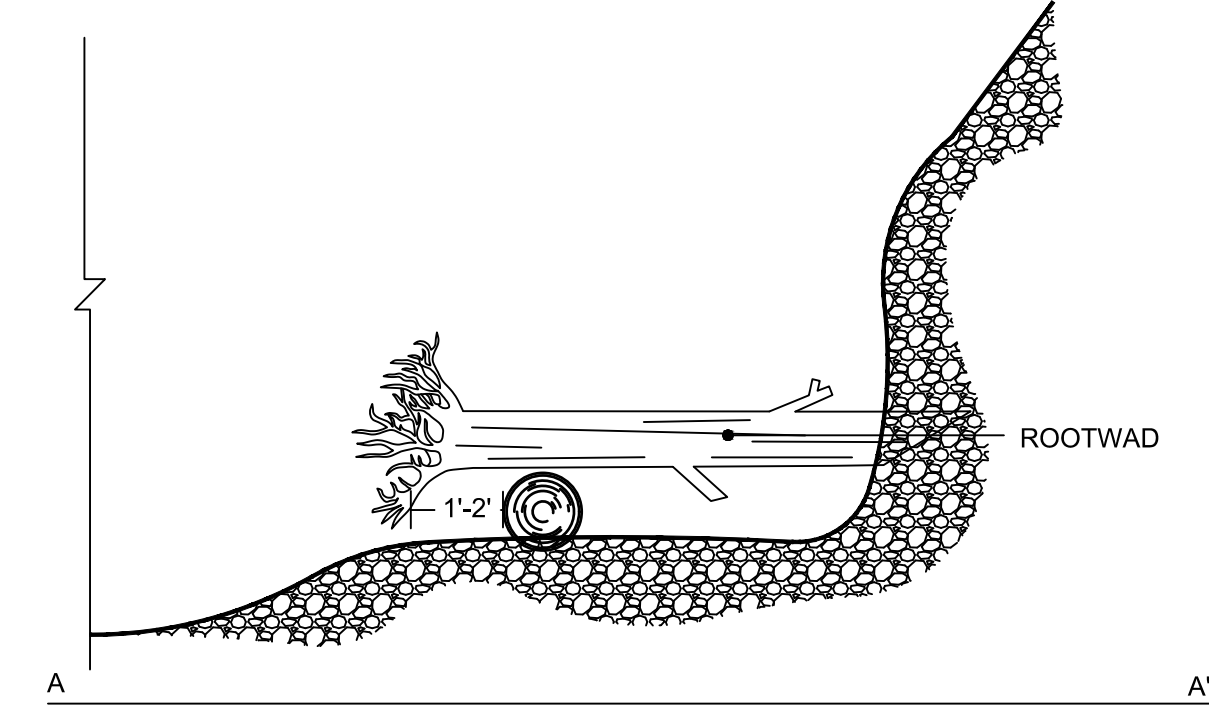


3. ROOTWAD PLACEMENT

ROOTWAD SPECIFICATION:
 -10" MIN DIAMETER
 -LOG LENGTH OF 10' MIN.
 -LIMBS SHALL BE REMOVED
 -ROOT WADS SHALL BE LEFT INTACT

PLACEMENT:
 -PLACE ROOTWADS ON TOP OF FOOTER LOGS AS SHOWN,
 OVERHANG ROOT WAD LOGS 1-2', VARY AND SHOWN SUCH THAT EVERY OTHER ROOT WAD IS PROTRUDING INTO STREAM

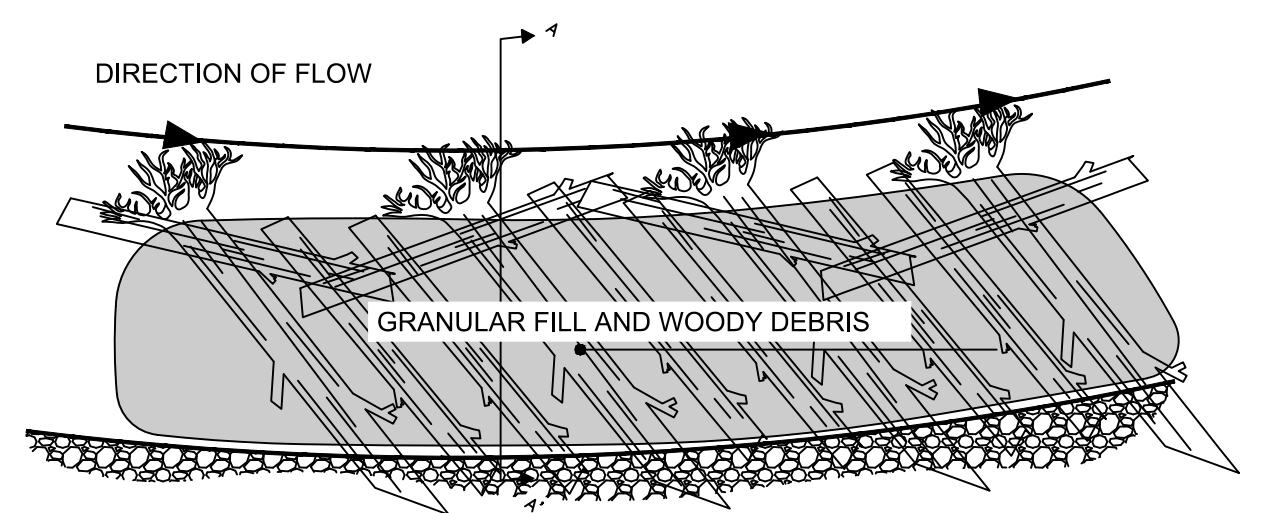
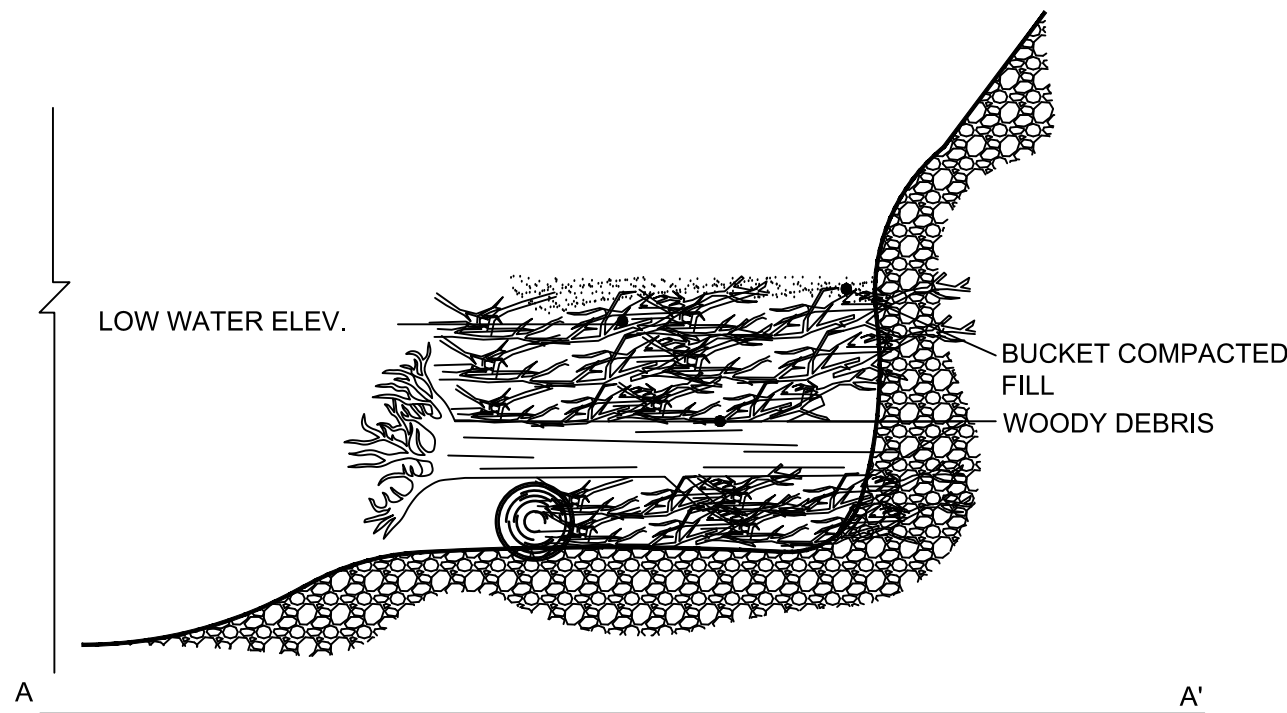
2 FEET
 -ANGLE ROOTWADS UPSTREAM AS DIRECTED IN FIELD
 -PLACE 1 ROOT WAD PER FOOTER LOG



4. WOODY DEBRIS PLACEMENT

WOODY MATERIAL SPECIFICATION:
 -WOODY MATERIAL (COMPOSED OF 75 % SMALL LIMBS AND BRANCHES, 25% MEDIUM SIZED MATERIAL (3-6" LIMBS), AND LOGS UP TO 10" IN DIAMETER (ONE PER FIVE FEET),
 -ALL MATERIAL SHALL BE FRESHLY CUT (NO ROTTEN LOGS OR LIMBS)

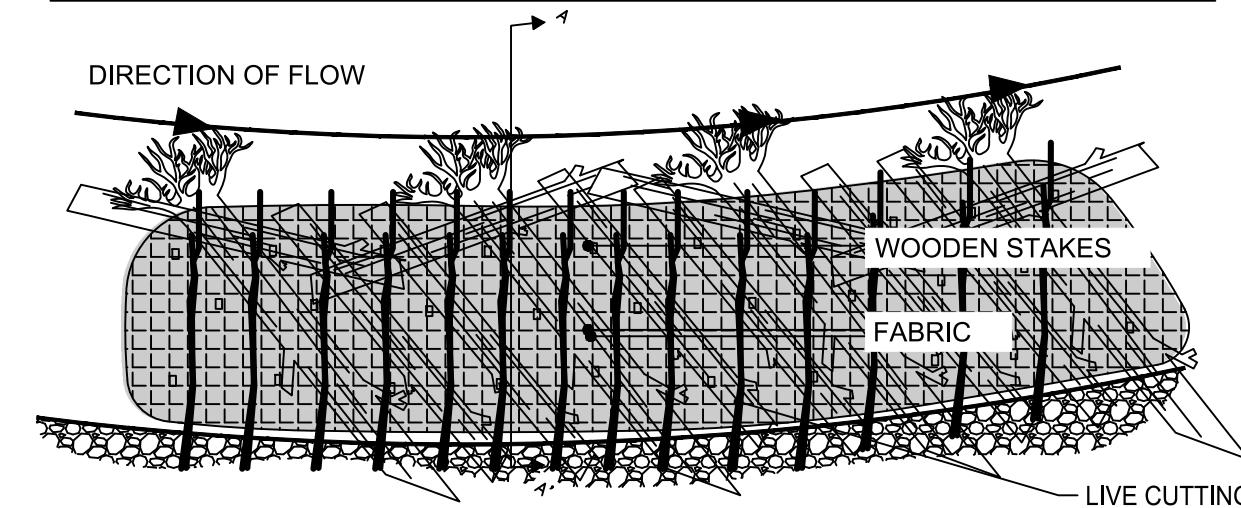
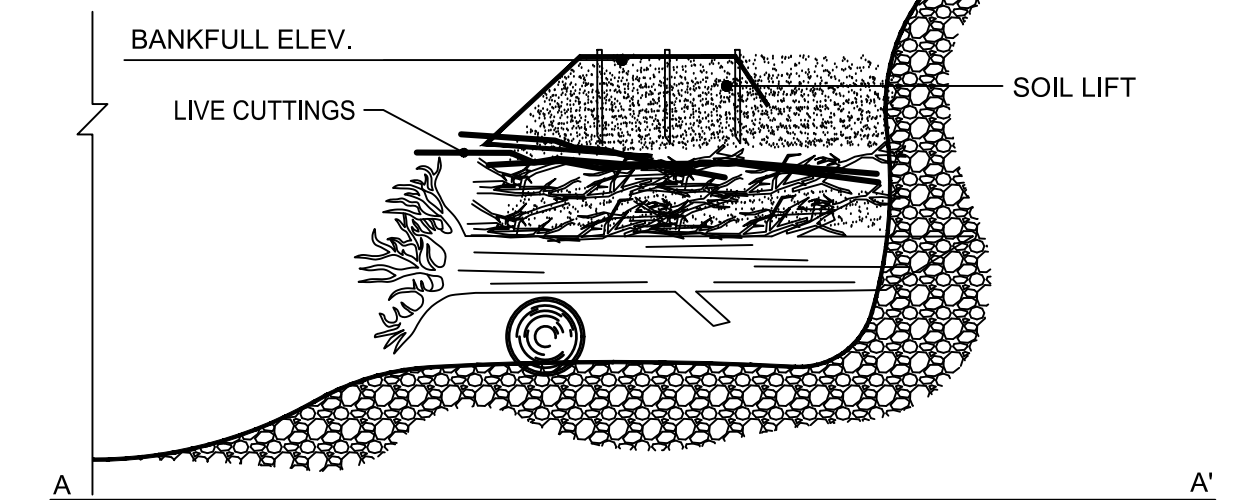
PLACEMENT:
 -FILL BETWEEN FOOTER LOGS AND ROOTWADS WITH WOODY MATERIAL
 -PLACE WOODY MATERIAL TO 0.5' ABOVE LOW WATER ELEVATION
 -LAYER GRANULAR FILL ON TOP OF WOODY DEBRIS
 -COMPACTED FILL SHALL BE PLACED SUCH THAT THE TOP IS 0.8' ABOVE LOW WATER ELEVATION



5. SOIL LIFT AND LIVE CUTTINGS

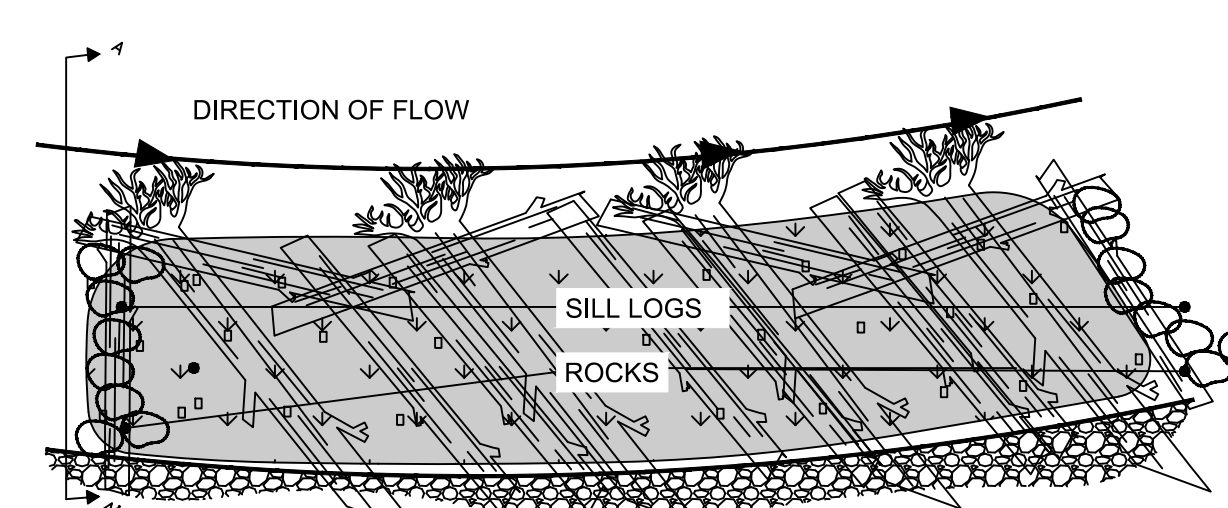
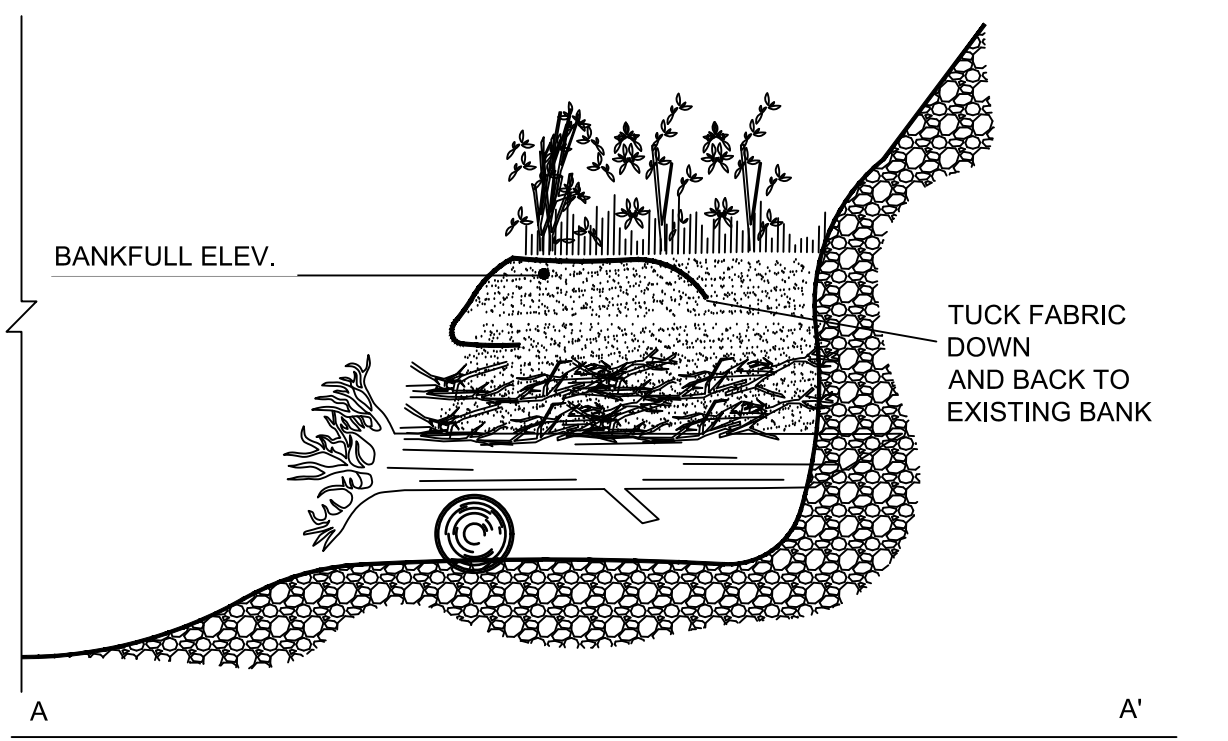
MATERIAL AND PLACEMENT SPECIFICATION:
 -BLANKET SHALL BE: MIN 9.8' WIDE ROLANKA BIOD-MAT 70, GEOCOIR 700, OR EQUAL BACKED WITH MNDOT CAT 3N EROSION CONTROL BLANKET WITH NATURAL NETTING
 -WOODEN STAKES: 18" WOODEN STAKES (2X4 CUT AT ANGLE OR EQUAL), PLACED AT MANUFACTURERS RECOMMENDED SPACING (3' MIN. TYP.) ALONG BLANKET.
 -LAY BLANKET ON TOP OF SOIL A MINIMUM OF 3 FEET BACK FROM FACE OF WOOD, ON TOP OF BENCH ENSURE THAT COIR BLANKET IS A MINIMUM OF 3 FEET BACK FROM TOP OF BENCH
 -PLACE FILL ON TOP OF BLANKET SLOPE AT 2:1 (H:V).
 -BEFORE WRAPPING UP BLANKET, SEED ALL AREAS WITH SEED MIX MN 34-261 AND RATE SPECIFIED IN ZONE 1 OF SEEDING AND PLANTING PLAN
 -BUCKET COMPACT UNTIL BANKFULL ELEVATION IS MET, GRADE TOP OF BENCH 2% TO EXISTING GROUND
 -TRENCH COCONUT BLANKET INTO GROUND 1.0' ALONG OUTSIDE OF BEND.

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



6. TERMINATION

PLACEMENT:
 -PLACE ONE SILL LOG AT THE START AND END OF THE TOEWOOD BENCH PERPENDICULAR TO THE DIRECTION OF FLOW.
 -PLACE LARGE BOULDERS ON TOP OF SILL LOG, TOP OF ROCK SHALL MEET BANKFULL ELEVATION.
 -TRENCH COIR BLANKET 1' ON UP AND DOWNSTREAM ENDS OF TOEWOOD BENCH.
 -TRANSITION BANKFULL BENCH TO EXISTING GRADE AS DIRECTED IN FIELD.



SCHEDULE OF COARSE WOOD TOE (Phase 1)

LIN FT	Station	Station End	Bankfull Elevation + 0.5'
50	2+50	3+00	869.34
80	5+60	6+40	868.98
60	8+30	8+90	868.62
95	10+65	11+50	868.37
105	13+65	14+70	868.03
65	16+45	17+10	867.68
85	19+60	20+45	867.30
50	21+85	22+35	867.03
55	23+75	24+30	866.92
90	25+70	26+60	866.56
50	27+25	27+75	866.39
80	29+50	30+30	866.11

SCHEDULE OF COARSE WOOD TOE (Phase 2)

LIN FT	Station	Station End	Bankfull Elevation + 0.5'
50	1+75	2+25	869.44
110	3+90	5+00	869.20
60	6+90	7+50	868.83
90	9+40	10+30	868.53
100	12+00	13+00	868.15
50	15+00	15+50	867.79
65	17+75	18+40	867.53
50	21+00	21+50	867.11
50	22+90	23+40	866.97
35	24+65	25+00	866.68
75	25+75	26+50	866.56



Responsive partner. Exceptional outcomes.

7500 OLSON MEMORIAL HWY
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 GOLDEN VALLEY, MN 55427
 PHONE: 763-252-6800
 FAX: 952-831-1268
 WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
 COON CREEK WATERSHED DISTRICT

MIDDLE SAND CREEK

COON RAPIDS MN

PROJECT TITLE:

ISSUE NO.:

0

1

DESCRIPTION:

80% DESIGN PLANS

100% DESIGN PLANS

ISSUED FOR PERMITS

DATE:

08/13/2019

11/7/2019

CERTIFICATION:

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

LICENSE NO.:

DATE:

PROJECT NO.:

1239-0102

DWN BY:

NPW

CHKD BY:

SJB

APPD BY:

EAM

ISSUE DATE:

NOV 2019

ISSUE NO.:

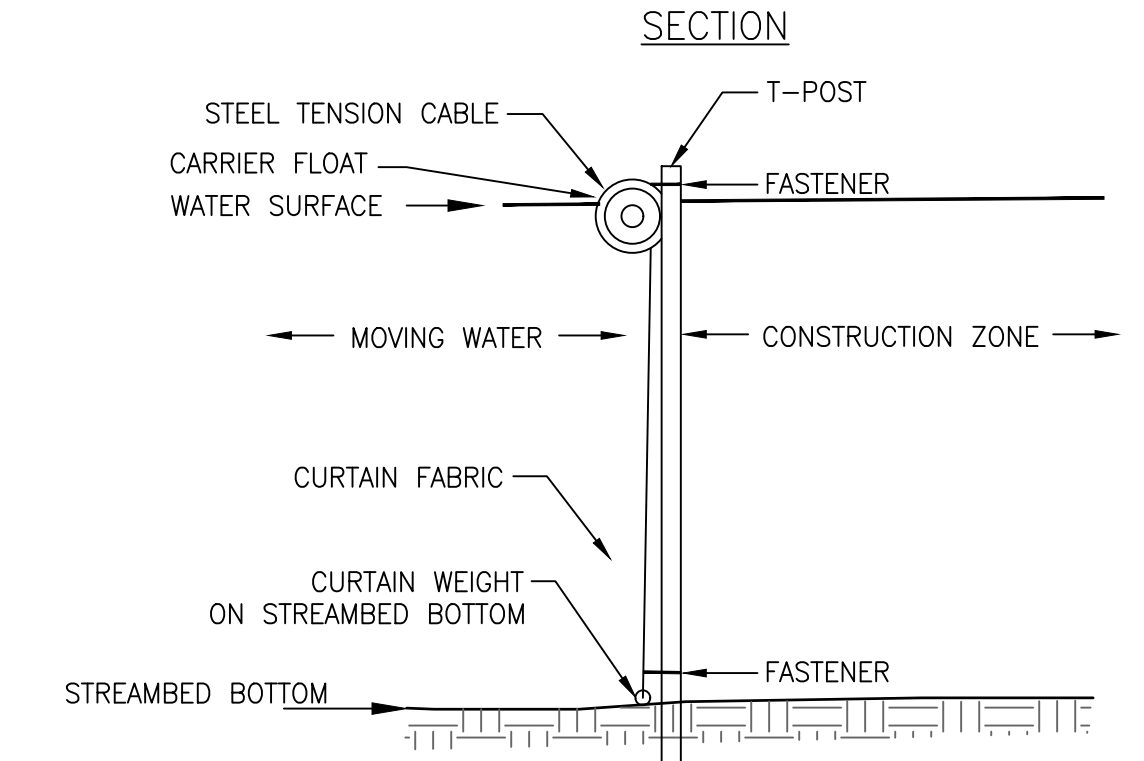
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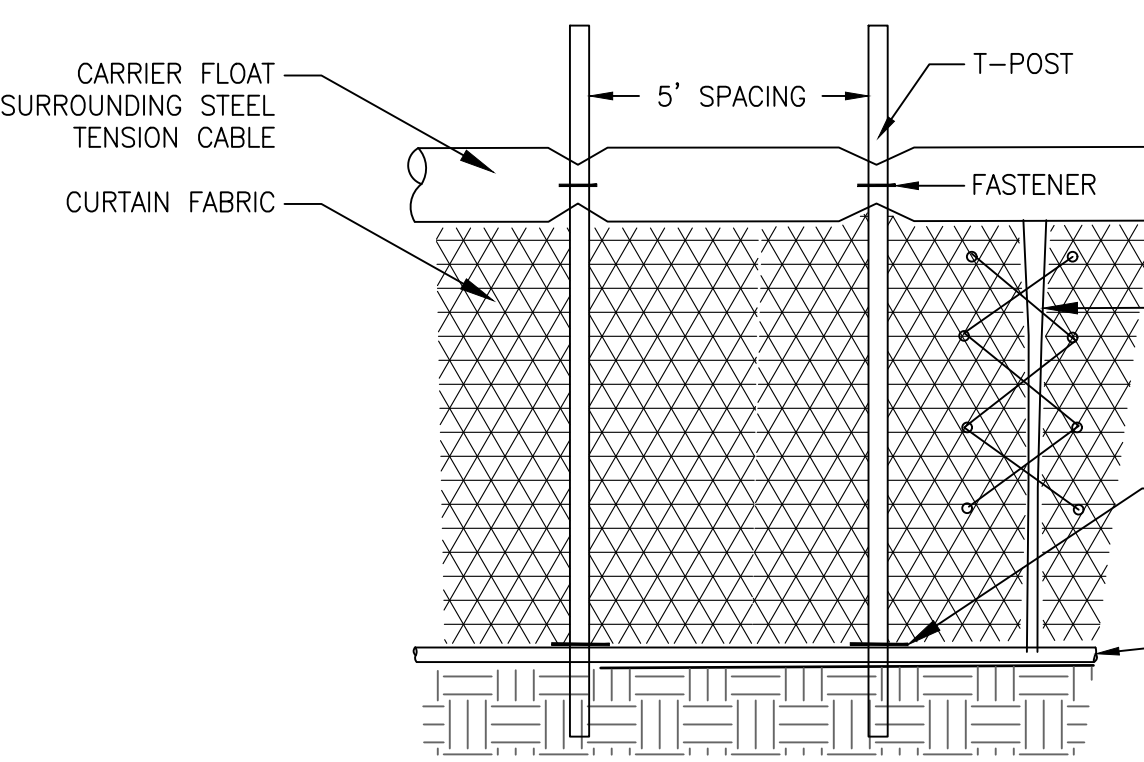
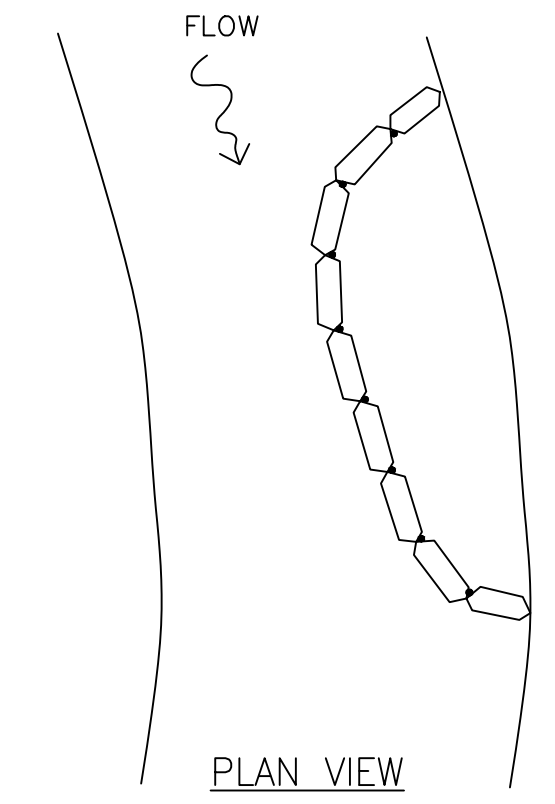
DETAILS

SHEET NO.:

C-802

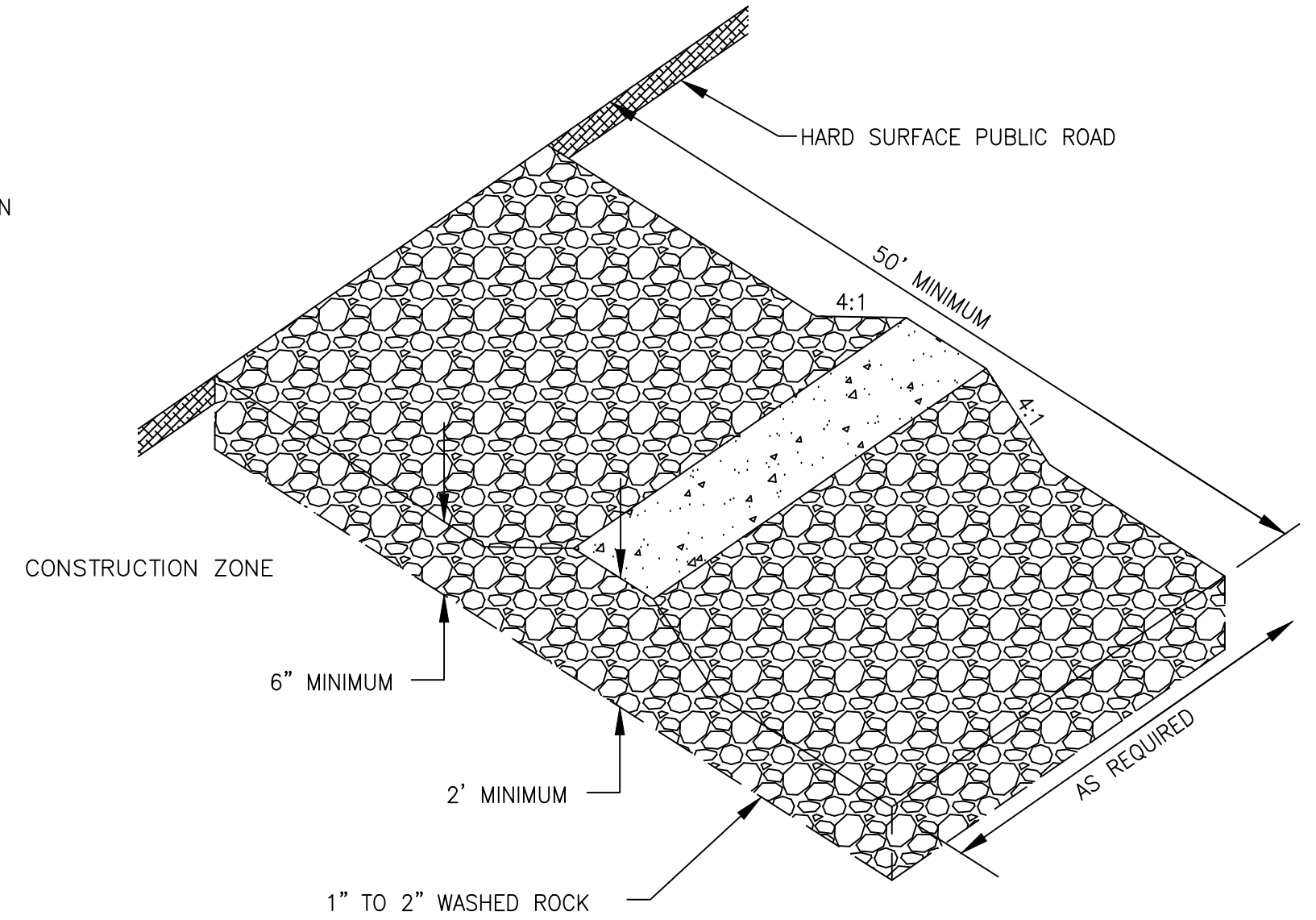


NOTE:
FLOATING SILT CURTAIN SHALL BE MOVED AS CONSTRUCTION MOVES TO MAINTAIN SEPARATION OF STREAM FLOW FROM CONSTRUCTION ZONE. CONTRACTOR TO WORK WITH ENGINEER & OWNER TO DEVELOP MOVING PLAN



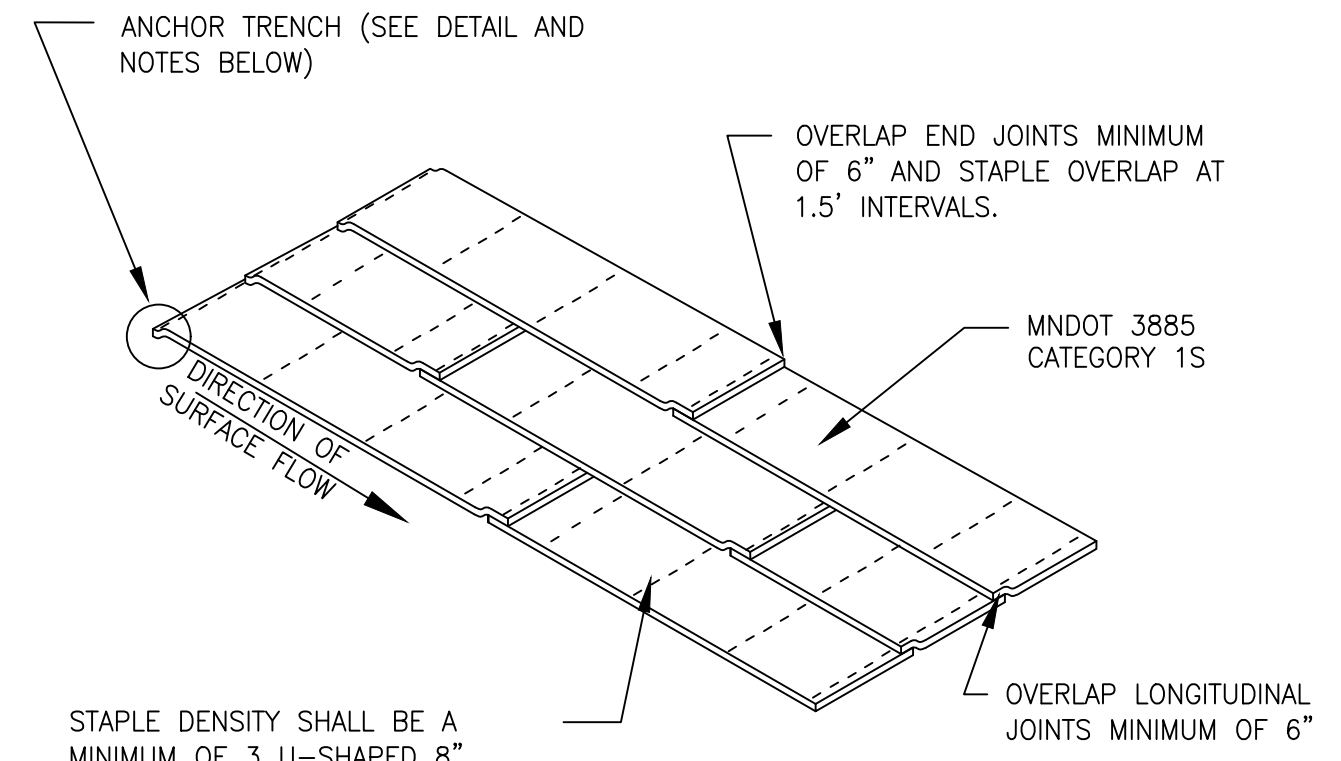
CONNECT ADJACENT PIECES OF FLOTATION SILT CURTAIN WITH 3/8" NYLON ROPE THROUGH GROMETS PER MANUFACTURER'S SPECIFICATIONS

1 FLOTATION SILT CURTAIN
C-803 NOT TO SCALE



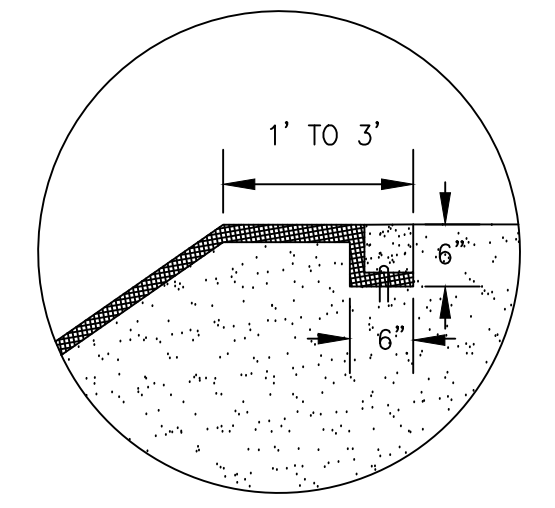
NOTES:
ROCK SIZE SHOULD BE 1" TO 2" IN SIZE SUCH AS MN/DOT CA-1 OR CA-2 COURSE AGGREGATE. (WASHED)
A GEOTEXTILE FABRIC MAY BE USED UNDER THE ROCK TO PREVENT MIGRATION OF THE UNDERLYING SOIL INTO THE STONE.

3 ROCK ENTRANCE TO CONSTRUCTION SITE
C-803 NOT TO SCALE

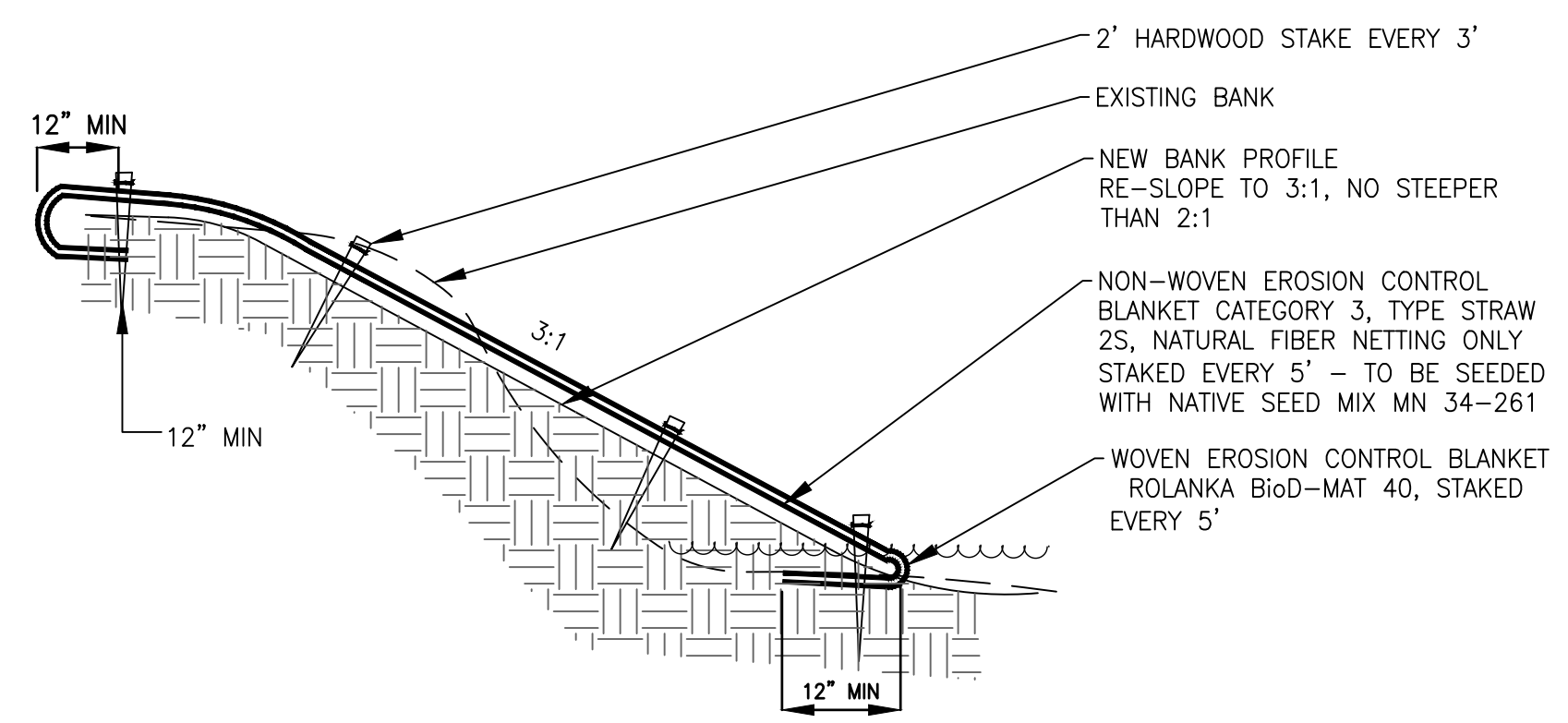


STAPLE DENSITY SHALL BE A MINIMUM OF 3 U-SHAPED 8", 11 GAUGE METAL STAPLES PER SQUARE YARD (THIS MAY VARY AS DIRECTED BY THE CITY).

- ANCHOR TRENCH**
1. DIG 6" X 6" TRENCH
 2. LAY BLANKET IN TRENCH
 3. STAPLE AT 1.5' INTERVALS
 4. BACKFILL WITH NATURAL SOIL AND COMPACT
 5. BLANKET LENGTH SHALL NOT EXCEED 100' WITHOUT AN ANCHOR TRENCH

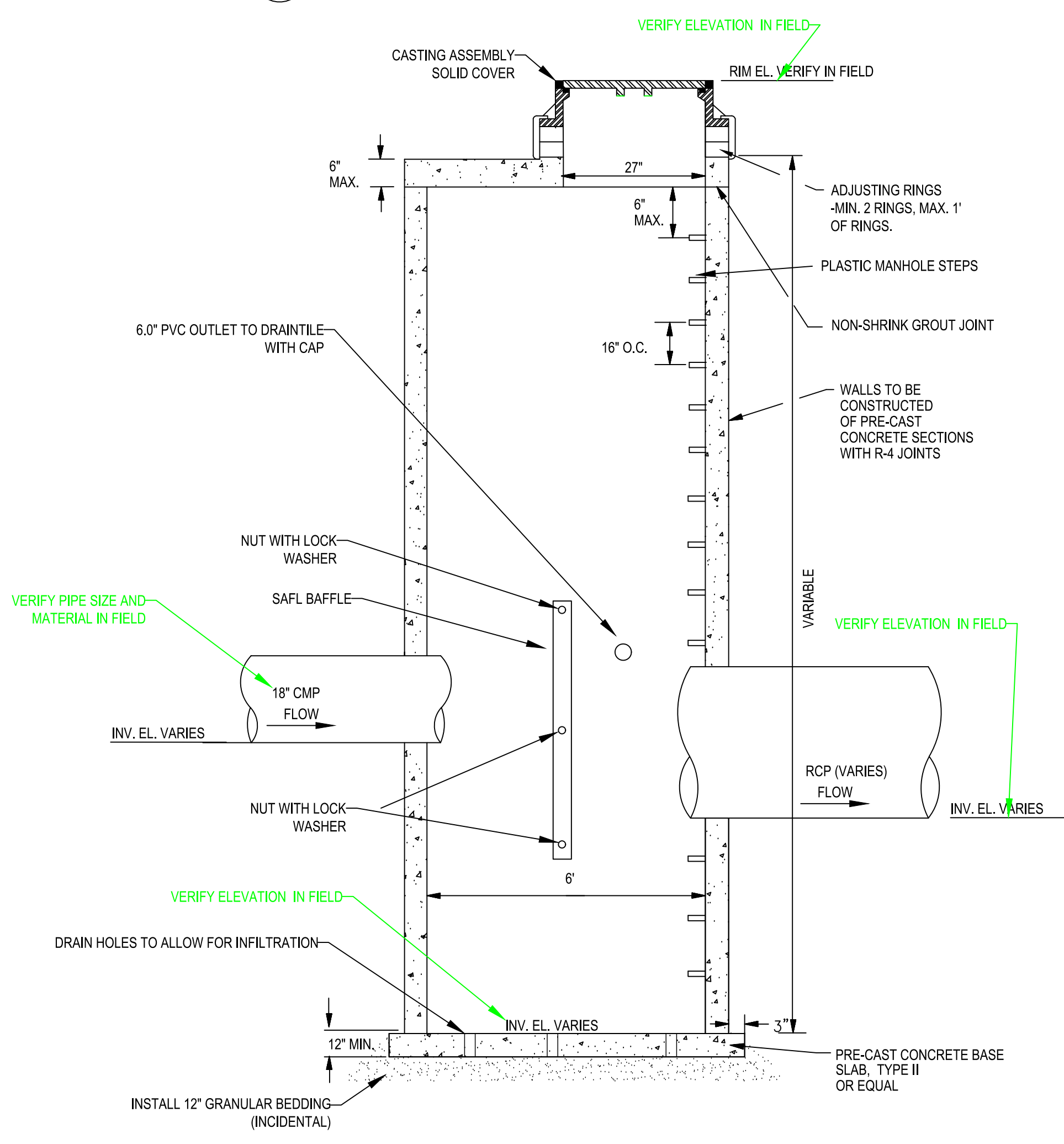


5 EROSION CONTROL BLANKET DETAIL
C-803 NOT TO SCALE



NOTE: PROVIDE FLOTATION SILT CURTAIN TO CONTAIN SOIL MATERIAL DURING BANK RESLOPING OPERATIONS. FLOTATION SILT CURTAIN SHALL BE MAINTAINED AND RELOCATED AS OPERATIONS OF BANK RESLOPING PROGRESS. FLOTATION SILT CURTAIN SHALL NOT BE RELOCATED UNTIL CURRENT SITE IS STABILIZED.

2 GRADED BANK
C-803 NOT TO SCALE

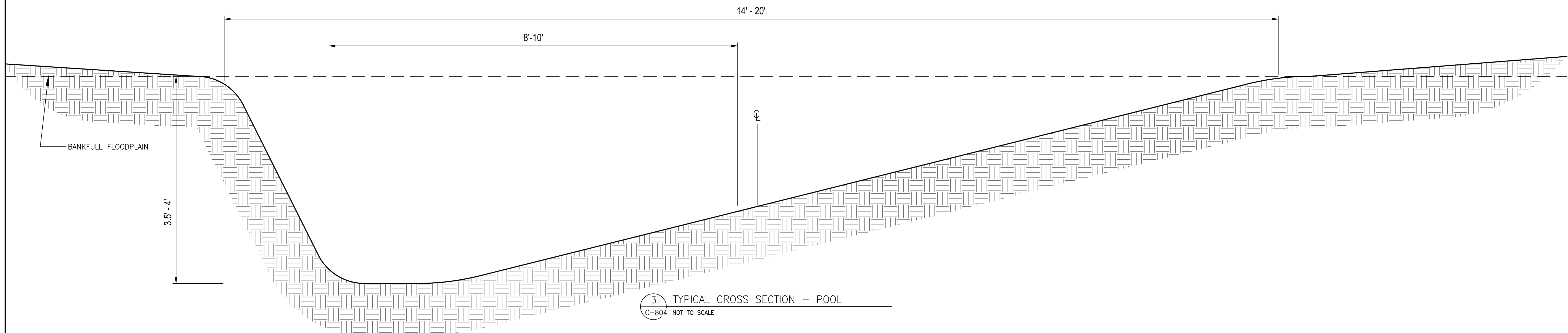
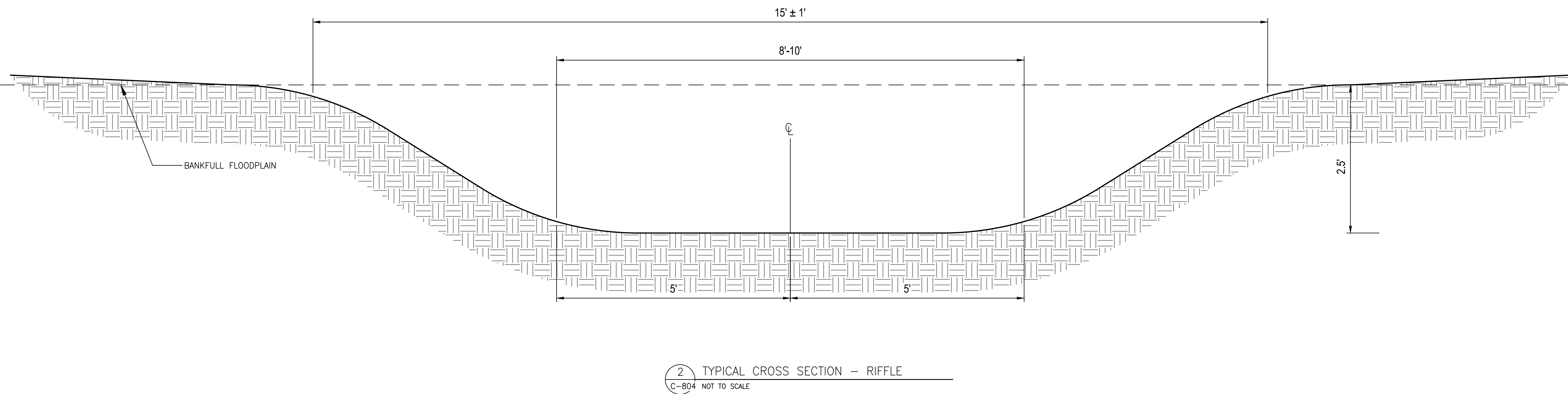
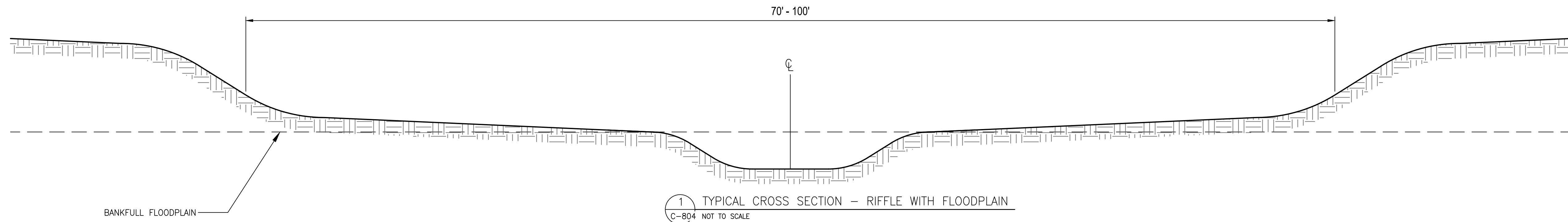


4 UNDERGROUND STORAGE CLEANOUT MANHOLE
C-803 NOT TO SCALE

SCHEDULE OF RIFFLES					
Length	No.	Point of Start	Point of End	Point "A" Elev	Description
38	1	2+18	2+56	866.59	1"-6" Gravel + 20"-24" Boulders
51	2	3+20	3+71	866.47	1"-6" Gravel + 20"-24" Boulders
53	3	5+08	5+61	866.24	Wood J-Hook + Boulders
47	4	6+34	6+81	866.09	Grading only
64	5	7+61	8+25	865.94	1"-6" Gravel + 18" boulders
36	6	8+94	9+30	865.78	Grading only
32	7	10+31	10+63	865.61	Grading only
33	8	11+59	11+92	865.46	Wood J-Hook
44	9	13+05	13+49	865.28	Grading only
26	10	14+66	14+92	865.09	Grading only
39	11	16+04	16+43	864.93	Grading only
50	12	17+20	17+70	864.79	1"-6" Gravel + 18" boulders
57	13	19+05	19+62	864.56	Grading only
47	14	20+38	20+85	864.40	Grading only
34	15	21+51	21+85	864.27	Grading only
41	16	22+33	22+74	864.17	Grading only
28	17	23+37	23+65	864.05	Wood J-Hook
26	18	24+30	24+56	863.93	Grading only
26	19	24+95	25+21	863.86	1"-6" Gravel + 20"-24" Boulders
25	20	25+53	25+77	863.79	Grading only
49	21	26+67	27+16	863.65	Grading only
30	22	27+75	28+14	863.52	Grading only
36	23	29+14	29+50	863.35	Grading only
34	24	30+27	30+61	863.22	Grading only
40	25	31+45	31+85	863.08	Grading only
35	26	32+63	32+98	862.93	Grading only
21	27	33+39	33+60	862.84	1"-6" Gravel + 20"-24" Boulders
18	28	33+83	34+01	862.79	Grading only

6 RIFFLE STATIONING
C-803 NOT TO SCALE

11/7/2019 3:54:27 PM



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FAX: 952-831-1268
WWW.WENCK.COM

SUB CONSULTANT:

CLIENT:
COON CREEK
WATERSHED
DISTRICT

PROJECT TITLE:
MIDDLE SAND CREEK
COON RAPIDS MN

ISSUE NO.	DESCRIPTION	DATE
0	90% DESIGN PLANS	09/13/2019
1	100% DESIGN PLANS - ISSUED FOR PERMITS	11/7/2019

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

LICENSURE NO.:
DATE:

PROJECT NO.: 1239-0102

DWN BY: NPW CHKD BY: SJB APPD BY: EAM

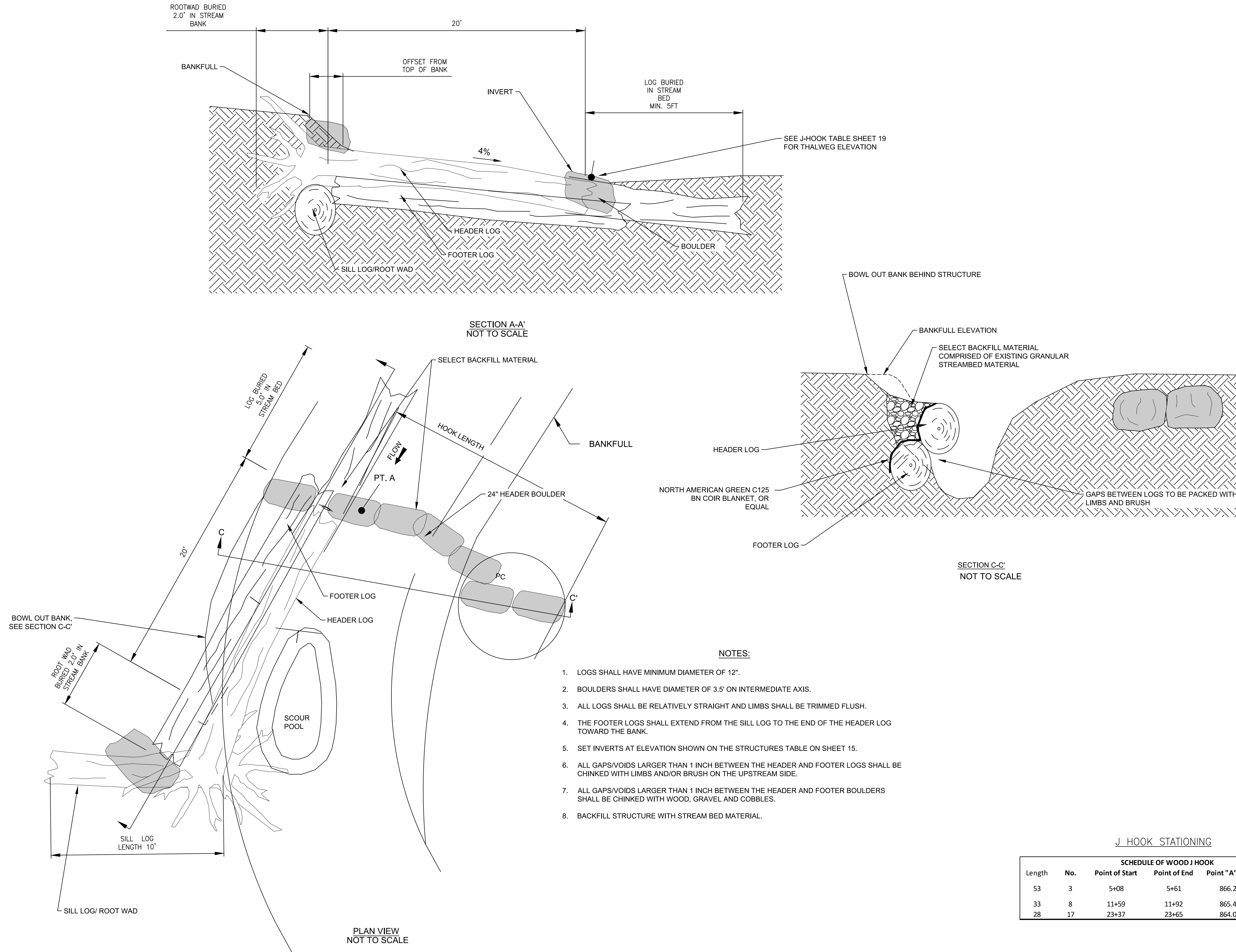
ISSUE DATE: NOV 2019

ISSUE NO.: 1

SHEET TITLE:
DETAILS

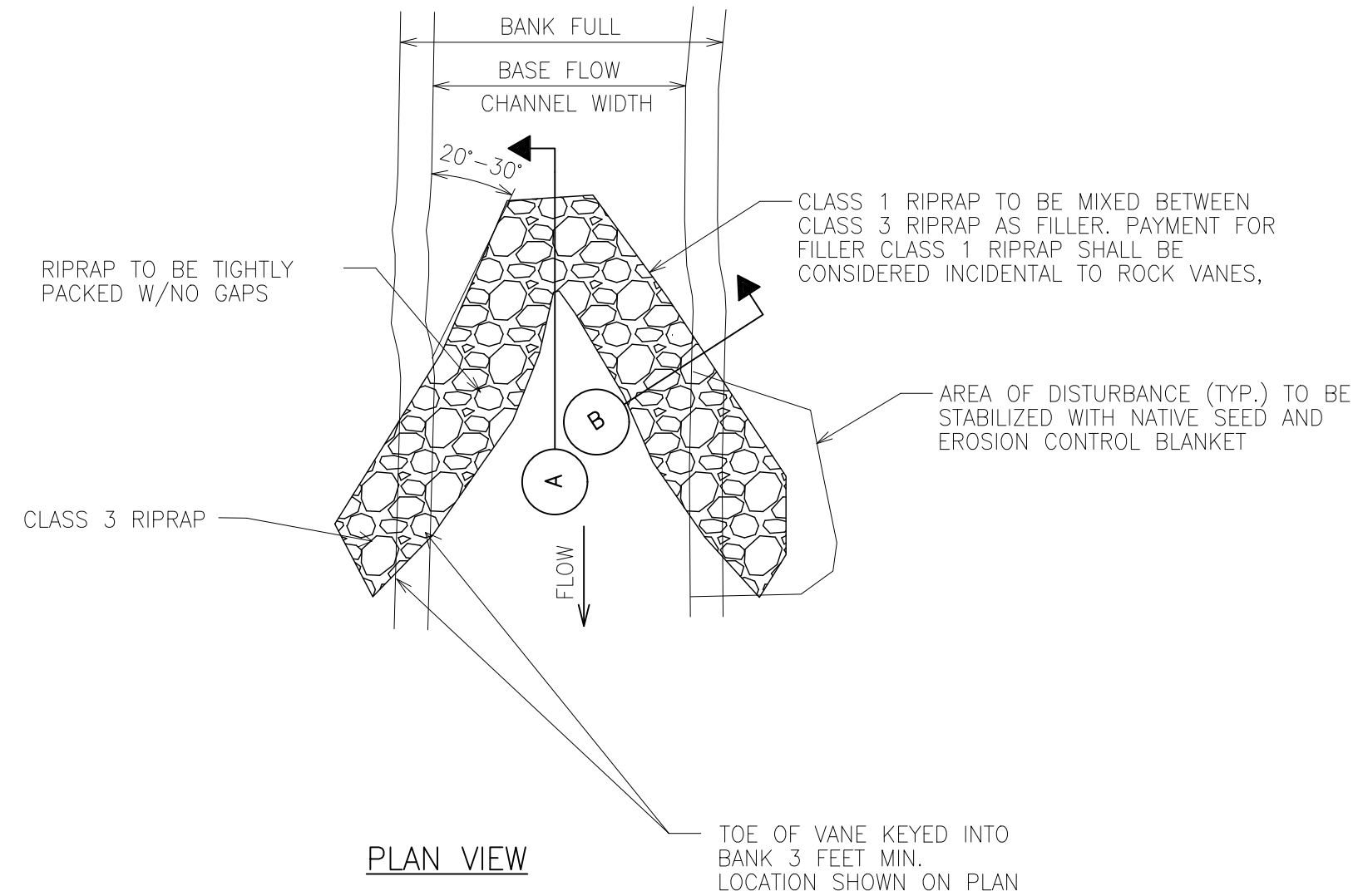
SHEET NO.:
C-804

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J HOOK STATIONING

SCHEDULE OF WOOD J HOOK					
Length	No.	Point of Start	Point of End	Point "A" Elev	Description
53	3	5+08	5+61	866.24	Wood J-Hook + Boulders
33	8	11+59	11+92	865.46	Wood J-Hook
28	17	23+37	23+65	864.05	Wood J-Hook



- NOTES:
1. FINAL PLACEMENT OF ROCK VANE TO BE FIELD VERIFIED BY ENGINEER.
 2. ALL VANES EXTEND UPSTREAM INTO FLOW OF CREEK.
 3. ALL RIPRAP TO BE GRANITE.

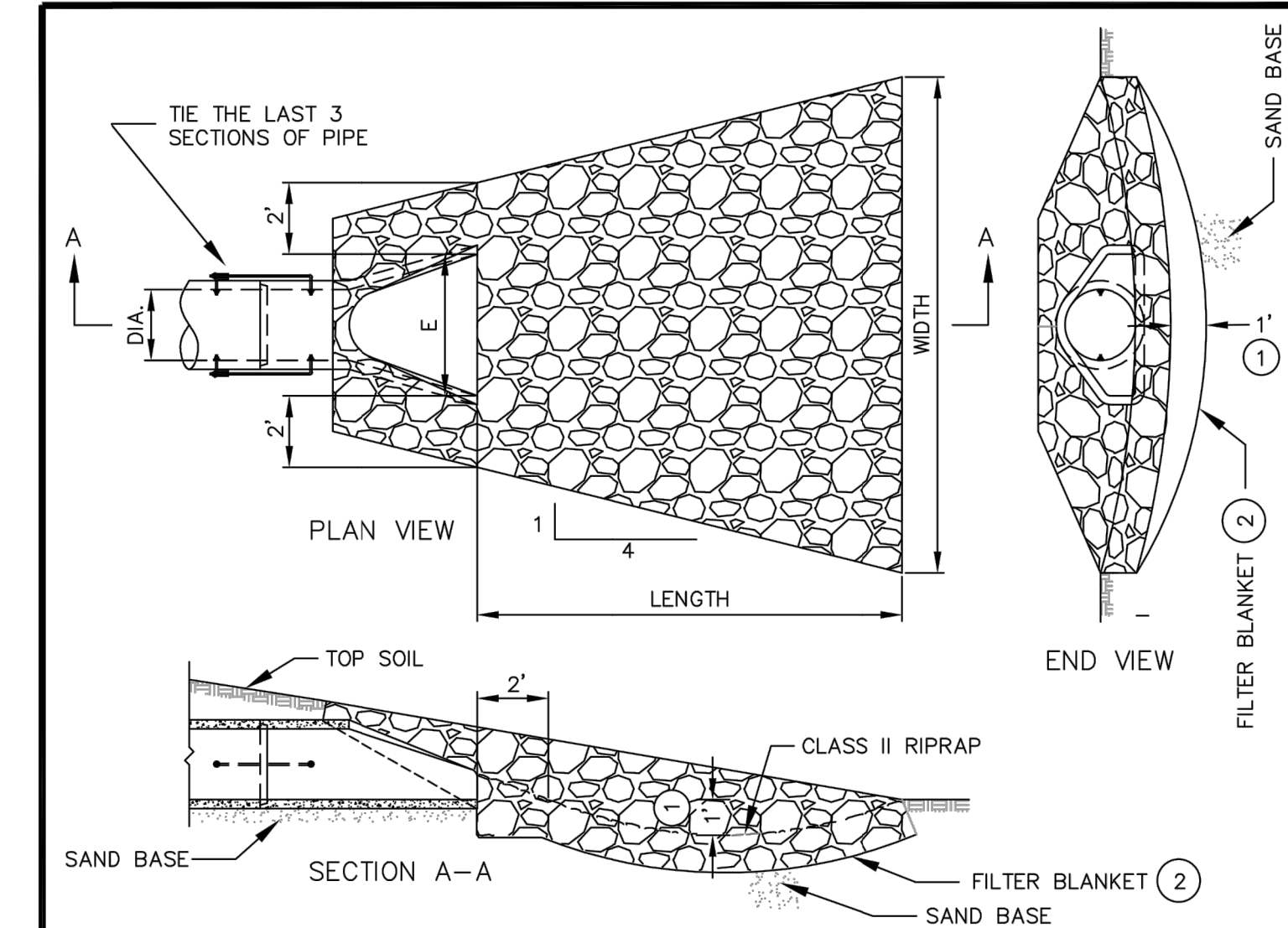
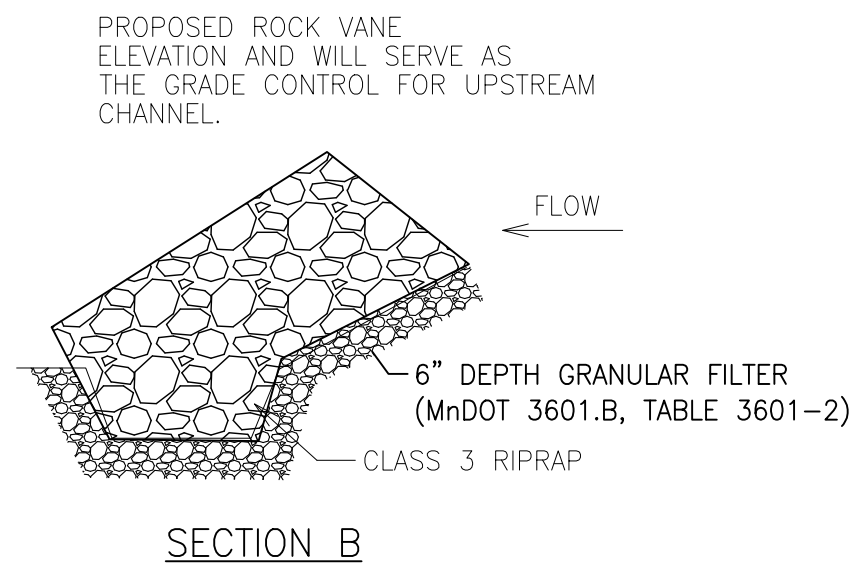
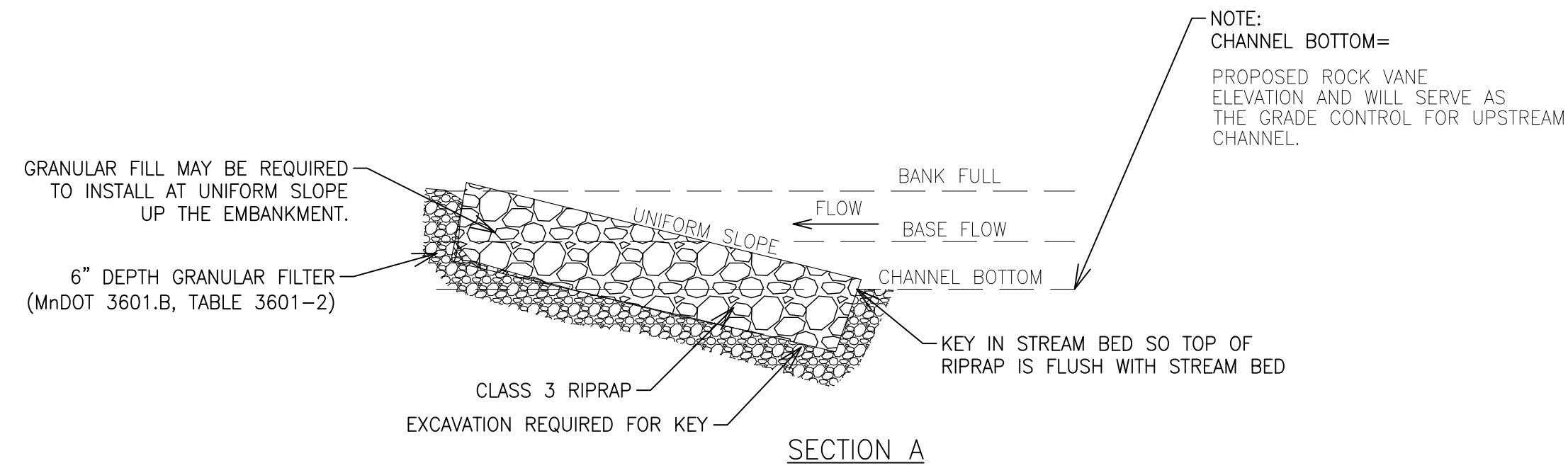


TABLE OF QUANTITIES FOR RIPRAP (RIPRAP TO BE FIELD STONE OR GRANITE)

DIA. OF PIPE (IN.)	LENGTH (FEET)	WIDTH (FEET)	E=WIDTH F.E.S.(IN.)	12" DEPTH CL II RIPRAP(CU.YDS.)
12	8	10	24	2.8
15	8	10.5	30	2.9
18	10	12.5	36	3.9
21	10	12.5	42	4.2
24	12	14	48	5.5
27	12	14.5	54	5.8
30	14	16	60	7.3
36	16	18	72	9.2
42	18	19.5	78	10.9
48	20	21	84	12.9

PIPE SIZES LARGER THAN THOSE SHOWN REQUIRE A SPECIAL DESIGN

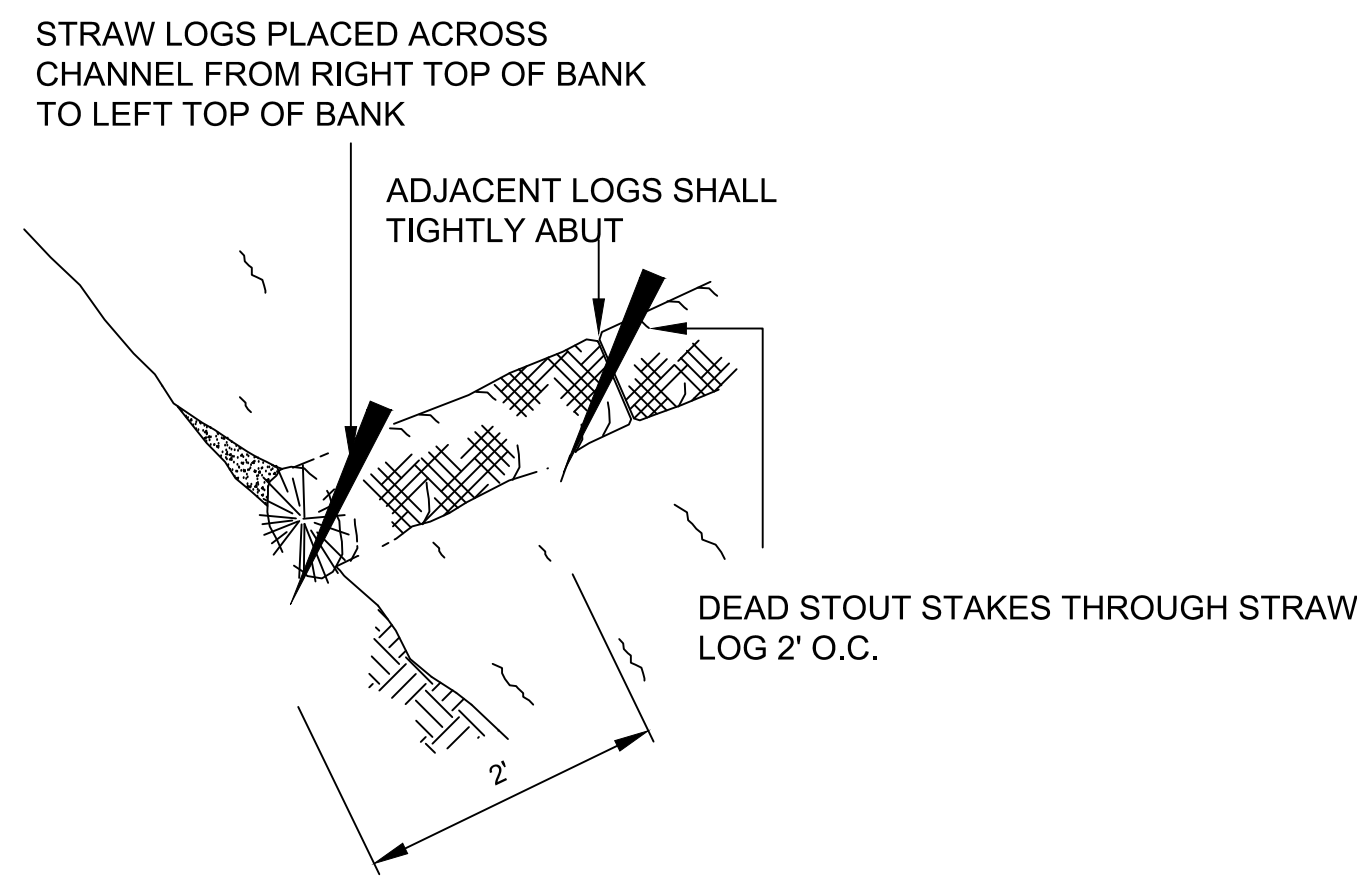


RIPRAP DETAIL (NO MOW STRIP)

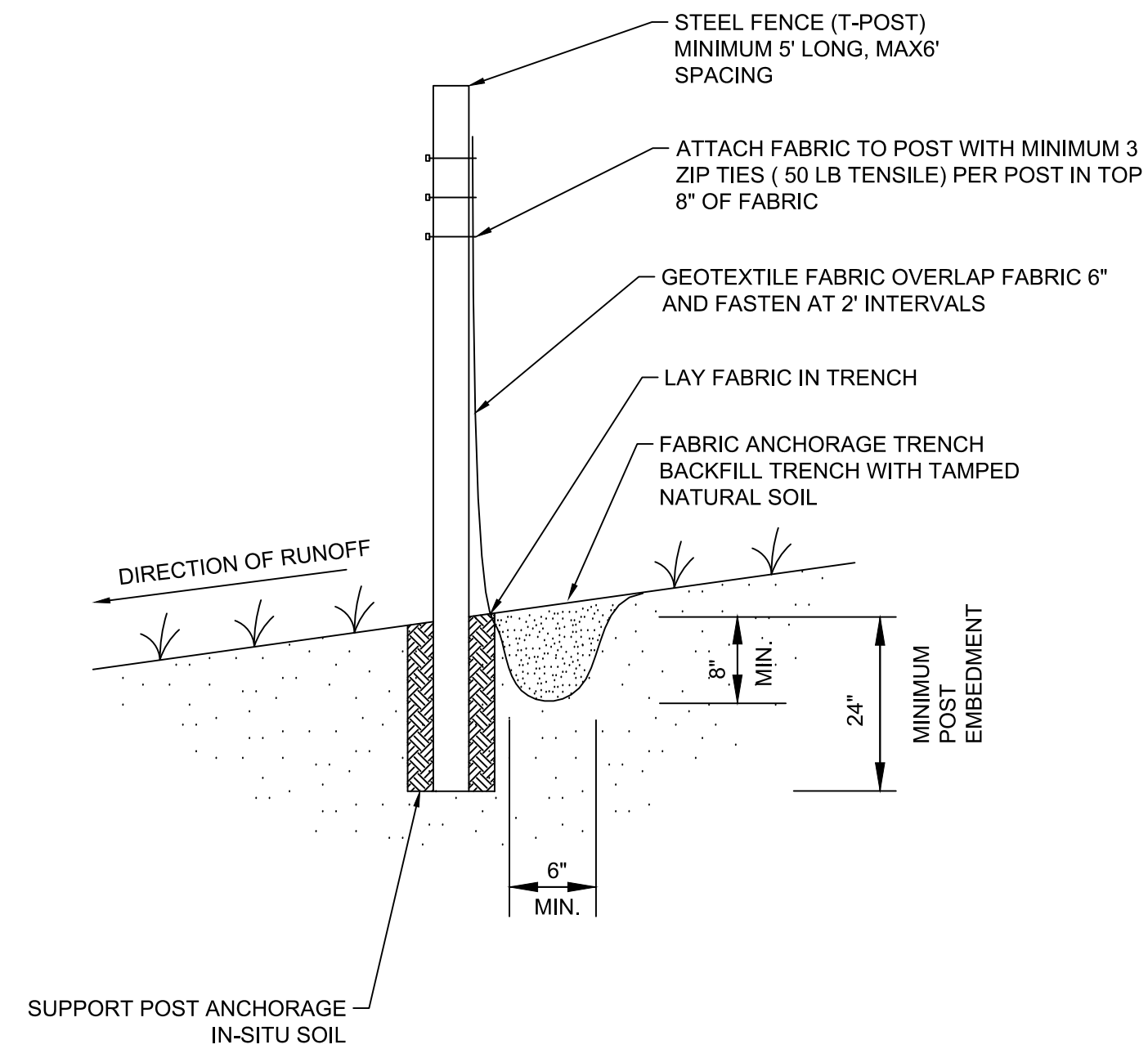
DRAWN: R.L.S. DATE: 11/28/2018 SCALE: NONE PLATE NO. STM-12

1 CROSS VANE
C-806 NOT TO SCALE

2 RIPRAP DETAIL
C-806 NOT TO SCALE



3 BIOROLL
C-806 NOT TO SCALE



4 SILT FENCE
C-806 NOT TO SCALE