

MARKAY RIDGE STREAMBANK STABILIZATION

TYSON LIEN & BOB MARRS

GOLDEN VALLEY, MINNESOTA

2014

GENERAL NOTES

EXISTING TOPOGRAPHY DATA:
EXISTING TOPOGRAPHY IS BASED FROM AVAILABLE 2011 LIDAR DATA FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES. PARCEL AND PLANIMETRIC DATA IS FROM THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES AND HENNEPIN COUNTY GIS. ADDITIONAL REVIEW OF RECENT AREIAL PHOTOGRAPHY WAS UTILIZED TO SUPPLEMENT AND REVISE DATA. CONTRACOTR SHOULD VERIFY EXISTING ELEVATIONS PRIOR TO STARTING CONSTRUCTION.

- NOTES:**
1.

THE OWNER AND THE OWNER'S REPRESENTATIVE SHALL BE NOTIFIED 48 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
2.

OWNER'S REPRESENTATIVE SHALL BE RITA WEAVER OR DAN MIELKE AND CAN BE REACHED AT: OFFICE:(651) 644-4389.
3.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES PRIOR TO START OF CONSTRUCTION FOR EXACT LOCATIONS OF ALL UTILITIES AND THEIR PROTECTION DURING CONSTRUCTION. CONTACT GOPHER STATE ONE CALL AT (800) 252-1166 OR (651) 454-0002. OR <http://mnticketentry.korterraweb.com> AT LEAST TWO BUSINESS DAYS PRIOR TO THE START OF EXCAVATION. NO FIELD LOCATION OF EXISTING UTILITIES WAS CONDUCTED FOR THIS PLAN SET.
4.

IF UTILITIES ARE ENCOUNTERED THAT CONFLICT WITH NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE OWNER'S REPRESENTATIVE IMMEDIATELY.
5.

THE CONTRACTOR SHALL NOT ENTER ADJACENT PRIVATE PROPERTY UNLESS AUTHORIZED BY THE PROPERTY OWNER.
6.

POINT COORDINATES AND VERTICAL DATAM

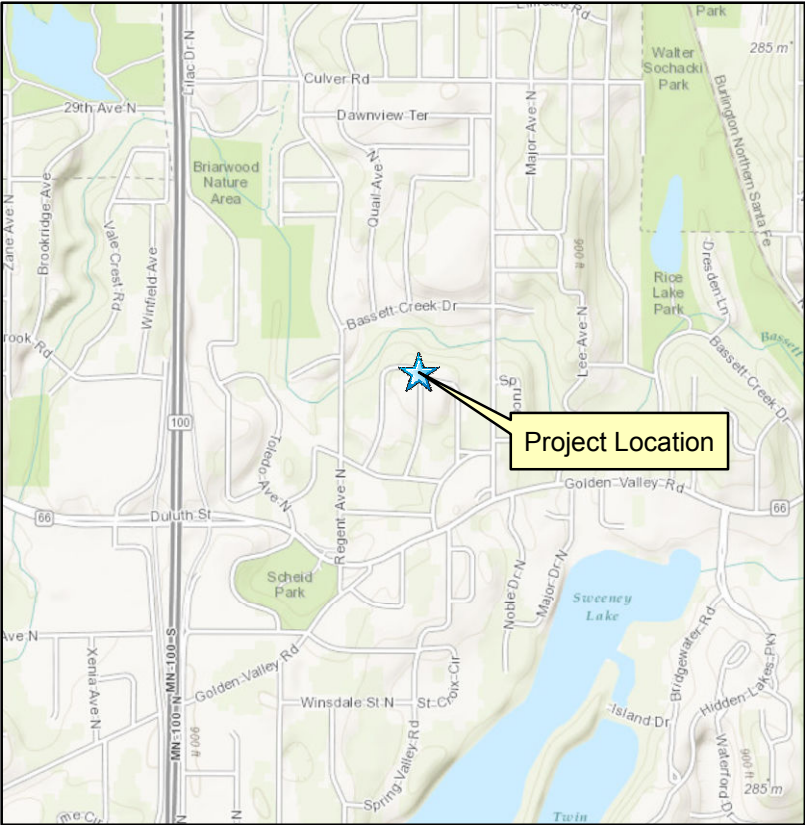
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HORIZONTAL COORDINATES STATED IN THIS PLAN ARE IN NAD 1983 STATEPLANE MINNESOTA SOUTH (US FEET).

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VERTICAL: ALL ELEVATIONS ARE GIVEN IN NAVD88 DATUM.

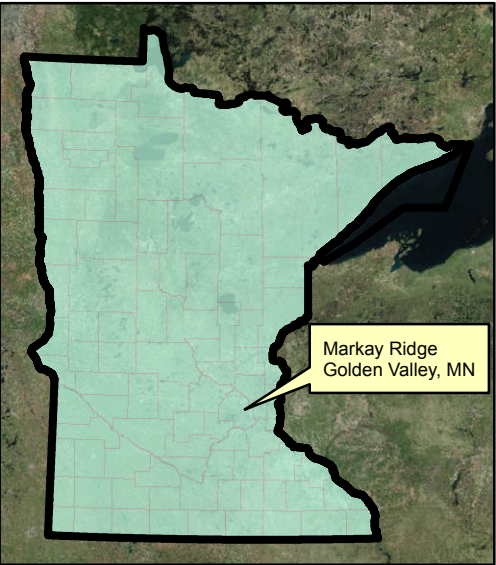
LOCATION MAP

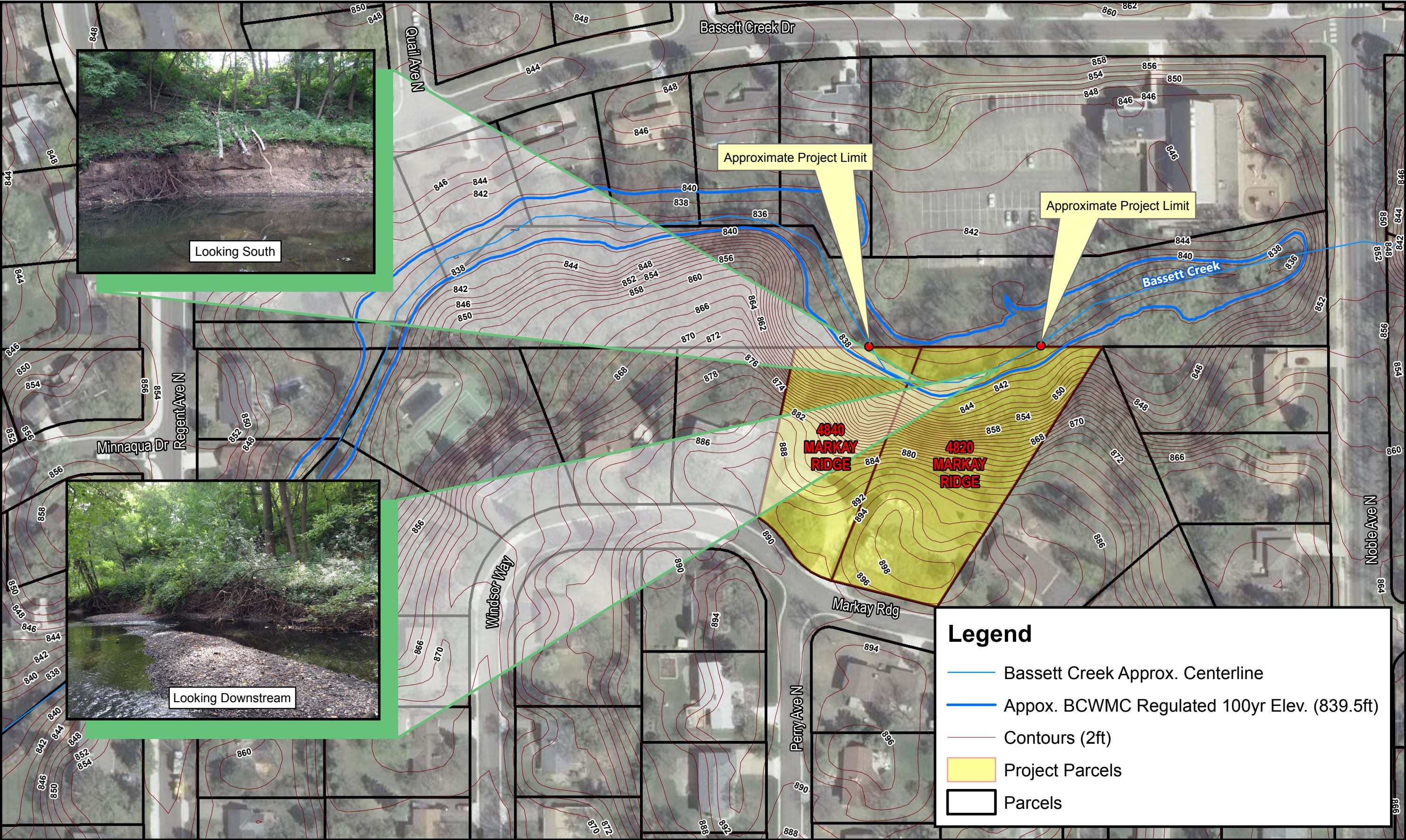


Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, I-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
Sources: Esri, DeLorme, NAVTEQ, TomTom, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, and the GIS User Community

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Legend

Bassett Creek Approx. Centerline

Appox. BCWMC Regulated 100yr Elev. (839.5ft)

Contours (2ft)

Project Parcels

Parcels

Drawn By: MSL Job Date: 2014

Approved: DWM Job Number: 20140037

GIS Date: 9/22/2014 9:53:02 AM

GIS File: Markay Ridge.mxd

NO.	DATE	BY	REVISION DESCRIPTION

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SIGNATURE: _____

DATE: 9/22/2014

DANIEL MIELKE

REG. NO. 50925

I+3G

HRGreen

EXISTING CONDITIONS

MARKAY RIDGE

STREAMBANK STABILIZATION

0

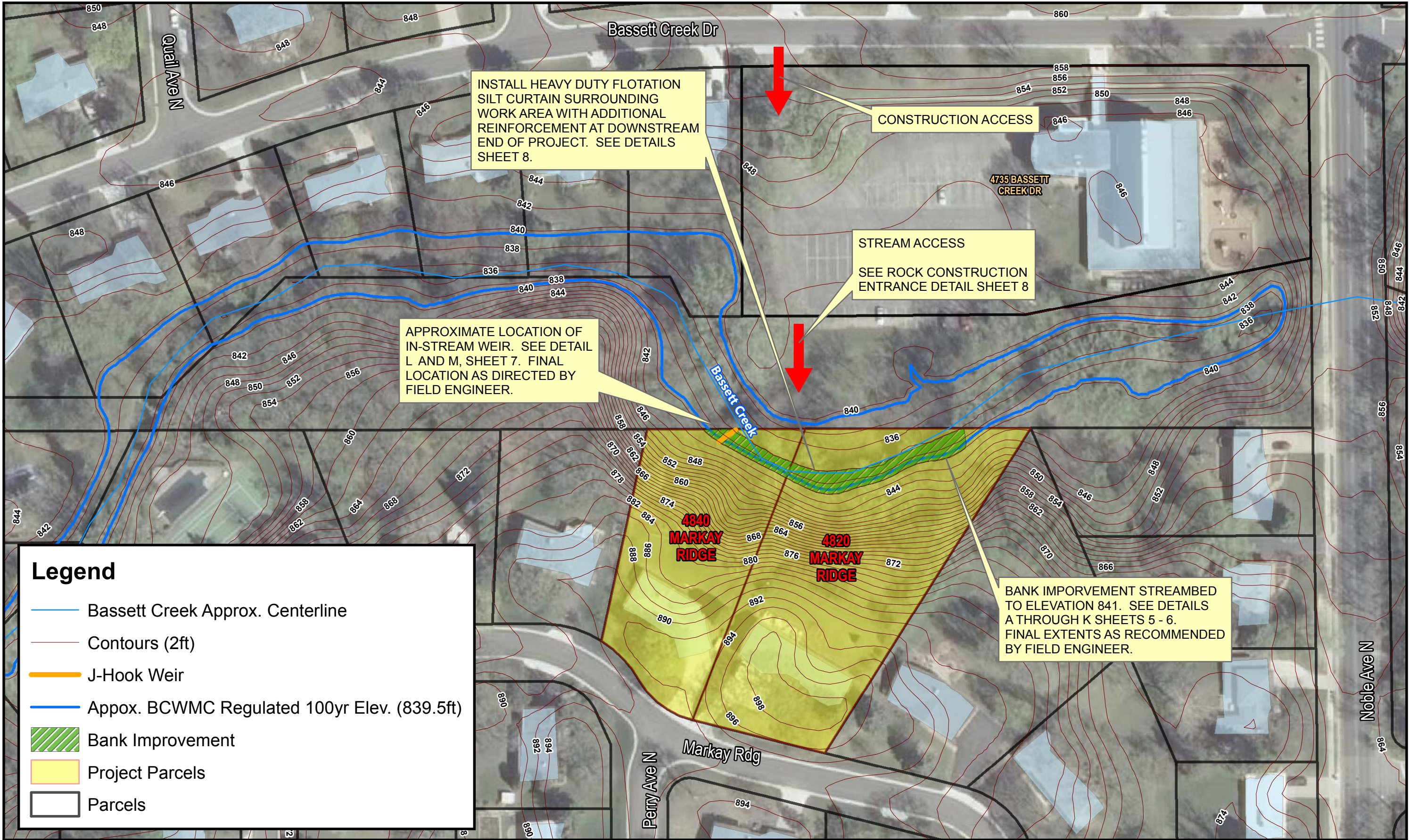
Feet

100

1 inch = 100 feet

SHEET NO.

2.0



Legend

Bassett Creek Approx. Centerline

Contours (2ft)

J-Hook Weir

Appox. BCWMC Regulated 100yr Elev. (839.5ft)

Bank Improvement

Project Parcels

Parcels

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HRGreen

PROPOSED RESTORATION PLAN

MARKAY RIDGE

STREAMBANK STABILIZATION

0 80

Feet

1 inch = 80 feet

N

SHEET NO.

3.0

CONSTRUCTION NOTES

1. ALL IMPROVEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

2. WORK DESCRIBED HEREIN CONSISTS OF FURNISHING AND TRANSPORTING ALL MATERIALS AND EQUIPMENT REQUIRED TO STABILIZE STREAM BANK EROSION. THE CONTRACTOR SHALL FURNISH, TRANSPORT, AND INSTALL ALL SEED, AND PERFORM ALL SOIL PREPARATION AND SUCH AUXILIARY WORK AS MAY BE NECESSARY TO COMPLETE WORK IN ACCORDANCE WITH THE SPECIFICATIONS AND PLANS. THE CONTRACTOR SHALL FURNISH ALL REQUIRED MATERIALS, EQUIPMENT, TOOLS, LABOR, AND INCIDENTALS, UNLESS OTHERWISE PROVIDED IN THE SPECIFICATIONS OR PLANS.

3. EXCEPT AS SPECIFICALLY DESCRIBED IN THE PLANS AND SPECIFICATIONS, THE FOLLOWING DOCUMENTS SHALL PREVAIL:

A. ALL PERTINENT CODES, STANDARDS, ORDINANCES OF THE CITY OF GOLDEN VALLEY AND BASSET CREEK WATERSHED COMMISSION WHERE APPLICABLE.

B. STANDARD SPECIFICATIONS FOR CONSTRUCTION (MNDOT SPECIFICATIONS) 2014 EDITION BY THE MINNESOTA DEPARTMENT OF TRANSPORTATION;

C. OSHA AND ALL OTHER APPLICABLE SAFETY STANDARDS.

4. UNLESS SPECIFIED OTHERWISE WITHIN THIS PLAN SET, THE CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S SPECIFICATIONS FOR ALL MATERIALS. IN THE EVENT OF ANY INCONSISTENCIES BETWEEN THE MANUFACTURER'S SPECIFICATIONS AND THESE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE OWNER'S REPRESENTATIVE IMMEDIATELY BEFORE CONTINUING WORK SO THAT THE INCONSISTENCIES MAY BE RESOLVED. THE EROSION CONTROL BLANKET SHALL BE SUBMITTED FOR REVIEW BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

5. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR CONSTRUCTION EXCEPT FOR BASSETT CREEK'S WATERSHED PERMIT AND CITY OF GOLDEN VALLEYS STORMWATER MANAGEMENT PERMIT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL AND ADEQUATE TRAFFIC CONTROL SIGNAGE AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC AND PUBLIC WATERS.

6. CONTRACTOR WILL BE RESPONSIBLE FOR THE CITY OF GOLDEN VALLEY'S TEMPORARY EROSION CONTROL SECURITY DEPOSIT, AND THE CITY OF GOLDEN VALLEY'S ROW PERMIT REQUIRED FOR TEMPORARY ACCESS.

7. CONTRACTOR IS PRIOR TO BIDDING, RESPONSIBLE FOR PREPARING HIS OR HER OWN ESTIMATE OF MATERIAL QUANTITIES, BASED ON FIELD MEASUREMENTS.

8. DISCREPANCIES SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE.

9. ALL EXISTING SURVEY MONUMENTS, UTILITIES, INFRASTRUCTURE, LANDSCAPING SHALL BE PROTECTED DURING CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING OR REPAIRING ANY DAMAGES AT NO ADDITIONAL COST AND SHALL MEET THE SATISFACTION OF THE OWNER AND THE OWNER'S REPRESENTATIVE.
9. DEWATERING WILL BE CONSIDERED INCIDENTAL TO EXCAVATION AT NO ADDITIONAL COST AND WILL ADHERE TO REGULATORY STANDARDS OF THE STATE OF MINNESOTA. IF DEWATERING IS NECESSARY, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO OPERATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY NECESSARY DEWATERING PERMITS.

10. CONSTRUCTION VEHICLE LOAD EXCEEDING 50,000 POUNDS WILL NOT BE ALLOWED TO ENTER THE CHURCH PARKING LOT WITHOUT PRIOR APPROVAL BY THE OWNER AND OWNER REPRESENTATIVE. ANY DISTURBANCES TO THE PAVEMENT, LANDSCAPING, ETC. WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST. ANY DEEMED IMPROVEMENTS TO AMEND DISTRUBANCES MUST BE COMPLETED TO THE SATISFACTION OF THE CHURCH AND PARKING LOT OWNER AND SHALL THE RESPONSIBILITY OF THE CONTRACTOR.

11. ANY EROSION CONTROL MEASURES, IN ADDITION TO THOSE OUTLINED IN THE PLANS AND WHICH ARE DEEMED NECESSARY BY THE OWNER AND/OR OWNER'S REPRESENTATIVE SHALL BE IMPLEMENTED BY THE CONTRACTOR.

12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSTALLATION AND MAINTENANCE OF ALL TEMPORARY AND PERMANENT EROSION CONTROL DEVICES. THE CONTRACTOR SHALL INSPECT, MAINTAIN, AND DOCUMENT EROSION CONTROL MEASURES

13. THE TEMPORARY EROSION CONTROL MEASURES SHALL BE PLACE EFFECTIVELY UNTIL ALL THE PERMANENT EROSION CONTROL ITEMS ARE FULLY FUNCTIONAL.

14. SOILS TRACKED FROM THE SITE BY MOTOR VEHICLES MUST BE CLEANED DAILY (OR MORE FREQUENTLY, AS NECESSARY) FROM PAVED ROADWAY SURFACES THROUGHOUT THE DURATION OF CONSTRUCTION.

15. EXPOSED SOIL AREAS MUST BE STABILIZED AS SOON AS POSSIBLE, BUT IN NO CASE LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY HAS TEMPORARILY OR PERMANENTLY CEASED.

16. TEMPORARY OR PERMANENT MULCH TO BE UNIFORMLY APPLIED BY MECHANICAL OR HYDRAULIC MEANS AND STABILIZED BY DISC-ANCHORING OR USE OF HYDRAULIC SOIL STABILIZERS.

17. TEMPORARY VEGETATIVE COVER MUST CONSIST OF A SUITABLE, FAST-GROWING, DENSE GRASS SEED MIX SPREAD AT 1.5 TIMES THE USUAL RATE PER ACRE. IF TEMPORARY COVER IS TO REMAIN IN PLACE BEYOND THE PRESENT GROWING SEASON, TWO-THIRDS OF THE SEED MIX SHALL BE COMPOSED OF PERENNIAL GRASSES.

18. PERMANENT VEGETATION COVER CONSISTING MUST BE SOD, A SUITABLE GRASS-SEED MIXTURE, OR A COMBINATION THEREOF. SEEDED AREAS SHALL BE EITHER MULCHED OR COVERED BY FIBROUS BLANKETS TO PROTECT SEEDS AND LIMIT EROSION.

19. IF MORE THAN 3 ROCK LIFTS ARE NEEDED (TOTAL HEIGHT > 6 FEET ABOVE STREAMBED) CONTRACTOR IS RESPONSIBLE FOR A GEOTECHNICAL EVALUATION OF STABILITY.

Drawn By: MSL Job Date: 2014

Approved: DWM Job Number: 20140037


GIS Date: 9/22/2014 9:53:02 AM

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SIGNATURE: DATE: 9/22/2014 DANIEL MIELKE REG. NO. 50925



PROPOSED RESTORATION

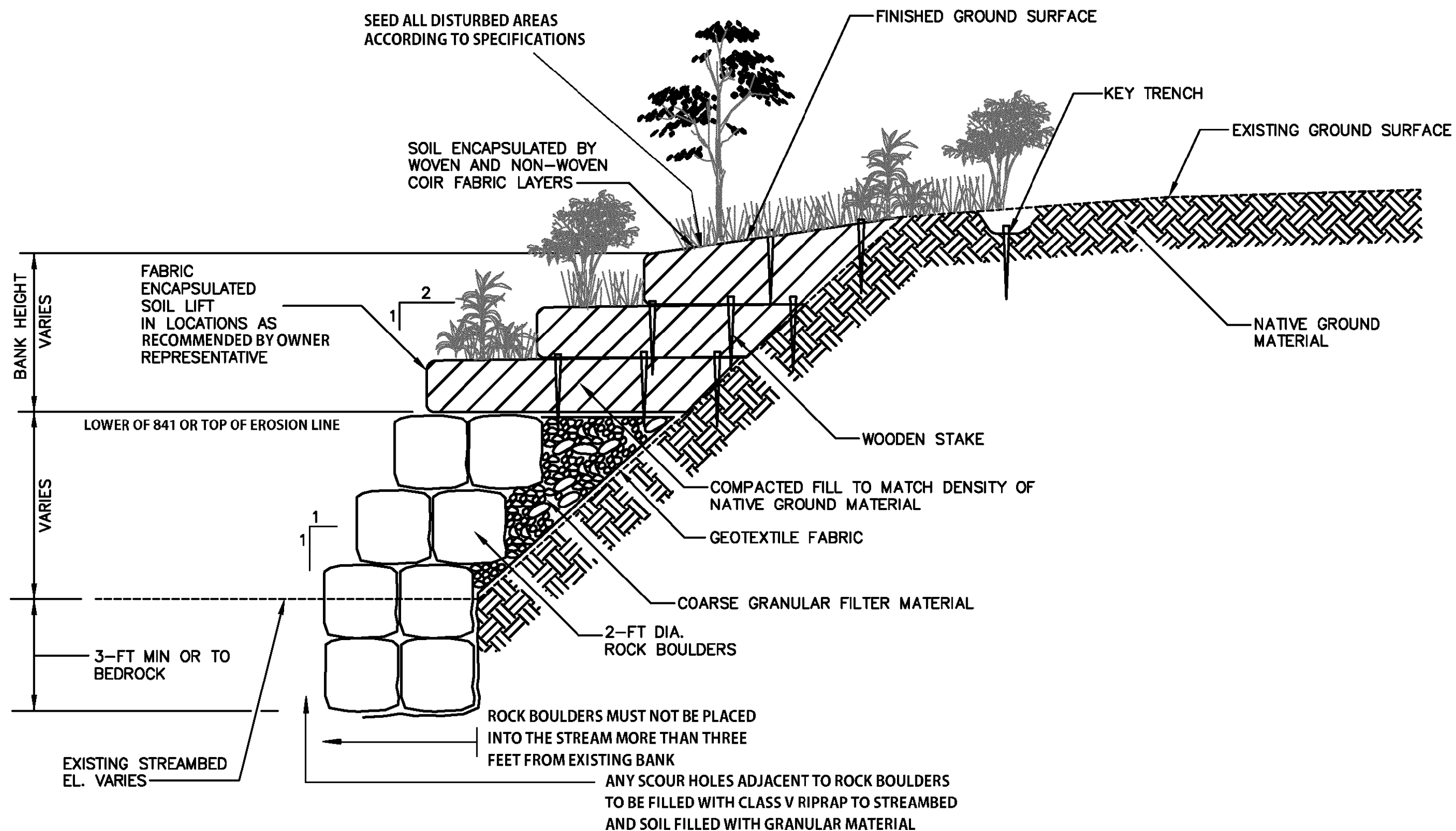
CONSTRUCTION NOTES

MARKAY RIDGE

STREAMBANK STABILIZATION

SHEET NO.

4.0



TYPICAL CROSS SECTION: STREAM BANK STABILIZATION

NOT TO SCALE

A

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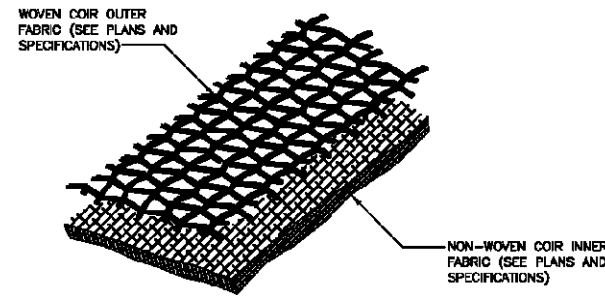
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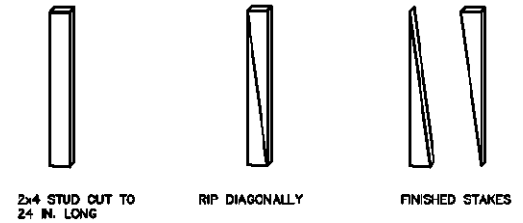


PROPOSED RESTORATION
DETAILS
MARKAY RIDGE
STREAMBANK STABILIZATION

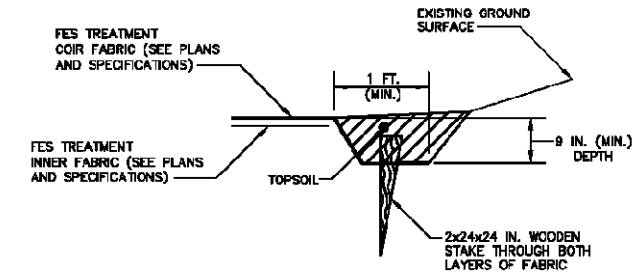
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5.0



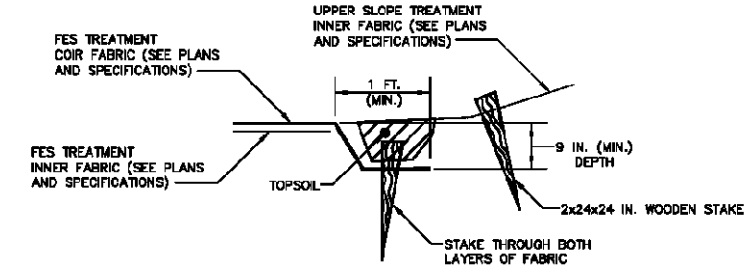
TYPICAL DETAIL: FABRIC LAYERING: (B)
NOT TO SCALE



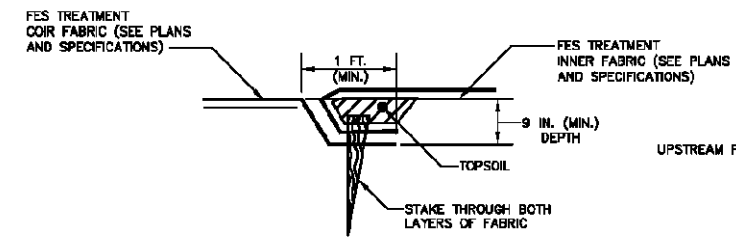
DETAILS: WOODEN STAKE CONSTRUCTION (C)
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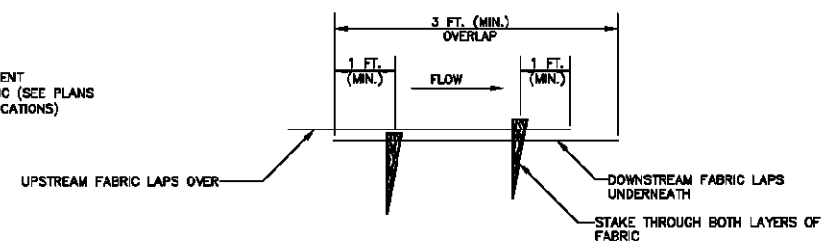
KEY TRENCH (F)
NOT TO SCALE



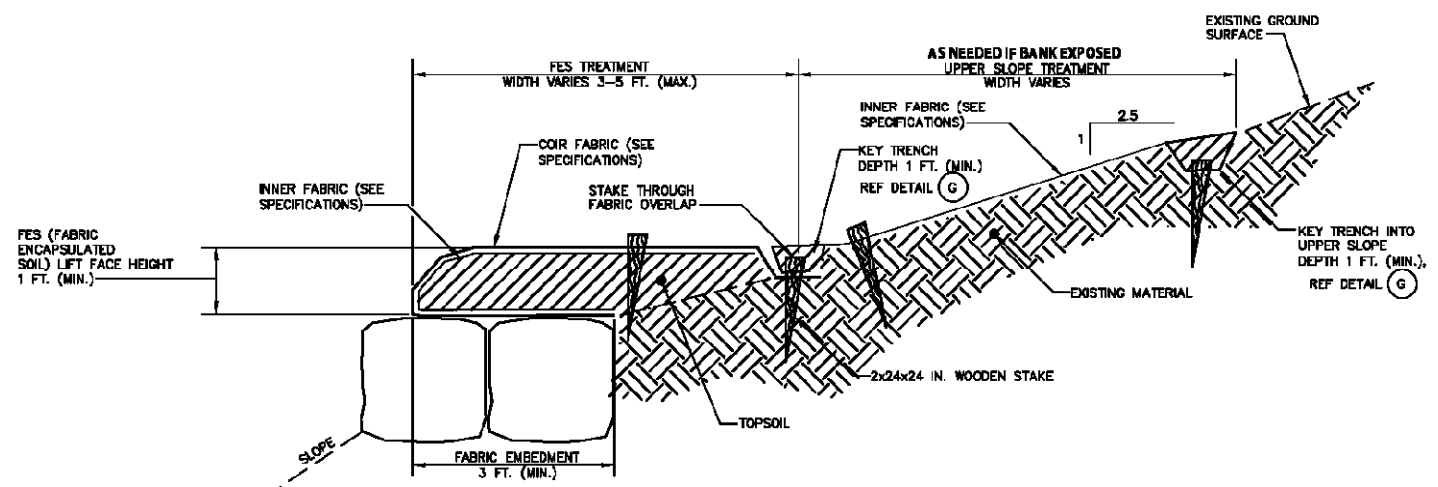
FABRIC OVERLAP (G)
NOT TO SCALE



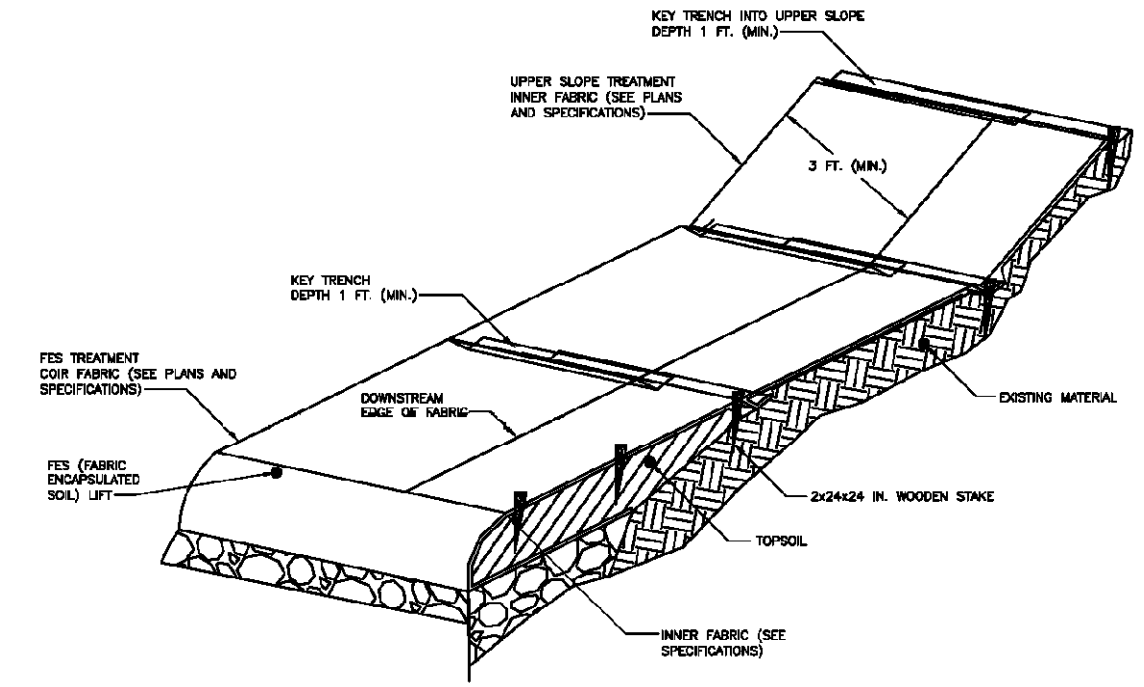
FABRIC OVERLAP (H)
NOT TO SCALE



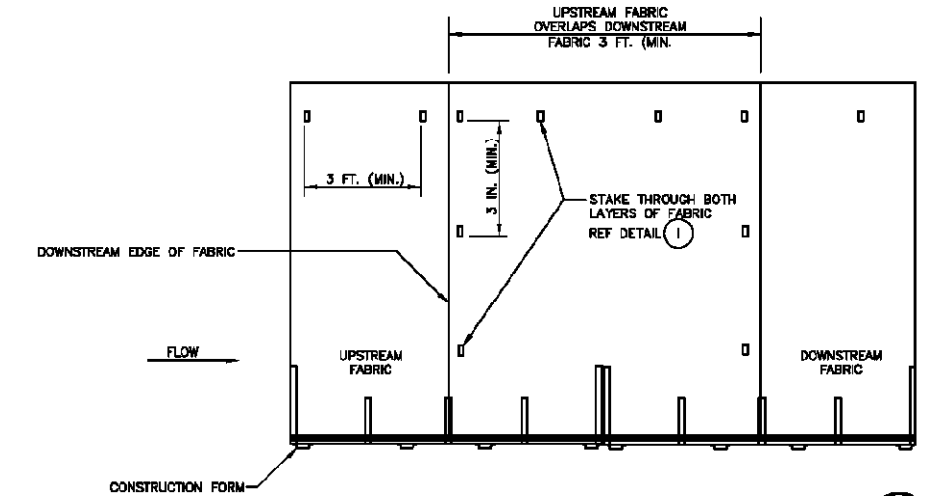
FABRIC OVERLAP (I)
NOT TO SCALE



TYPICAL CROSS-SECTION: FES (FABRIC ENCAPSULATED SOIL) LIFT TREATMENT (J)
NOT TO SCALE



ISOMETRIC: FES CONSTRUCTED LIFT (E)
NOT TO SCALE



DETAILS: FABRIC STAKING PLAN VIEW (K)
NOT TO SCALE

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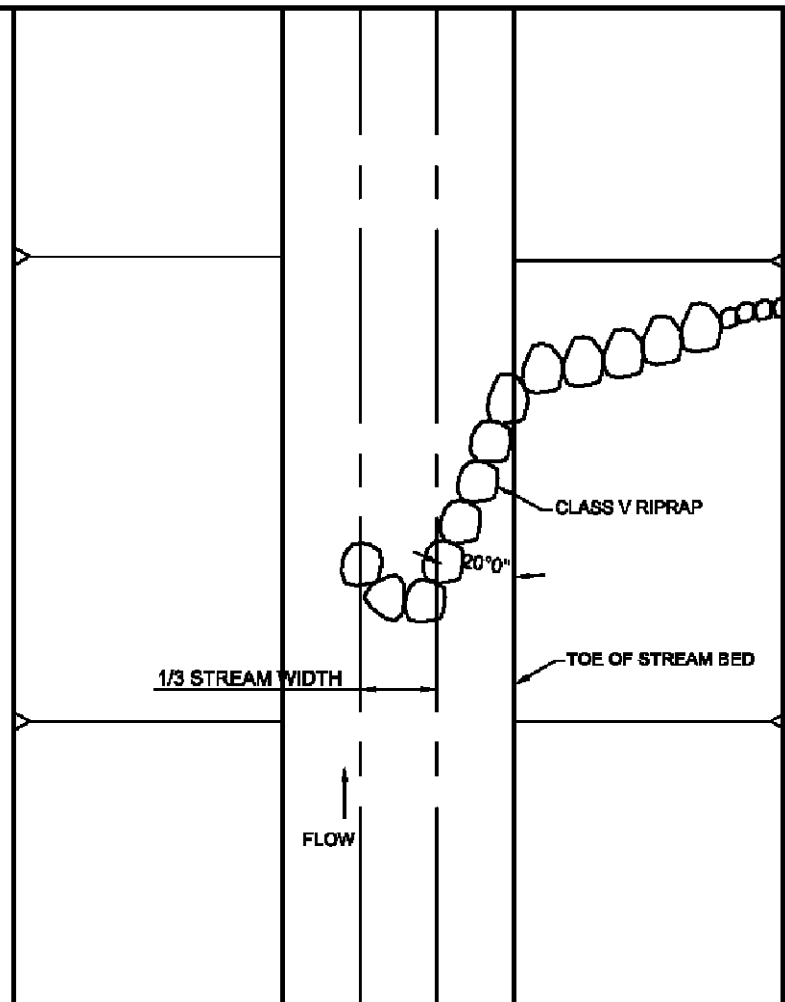
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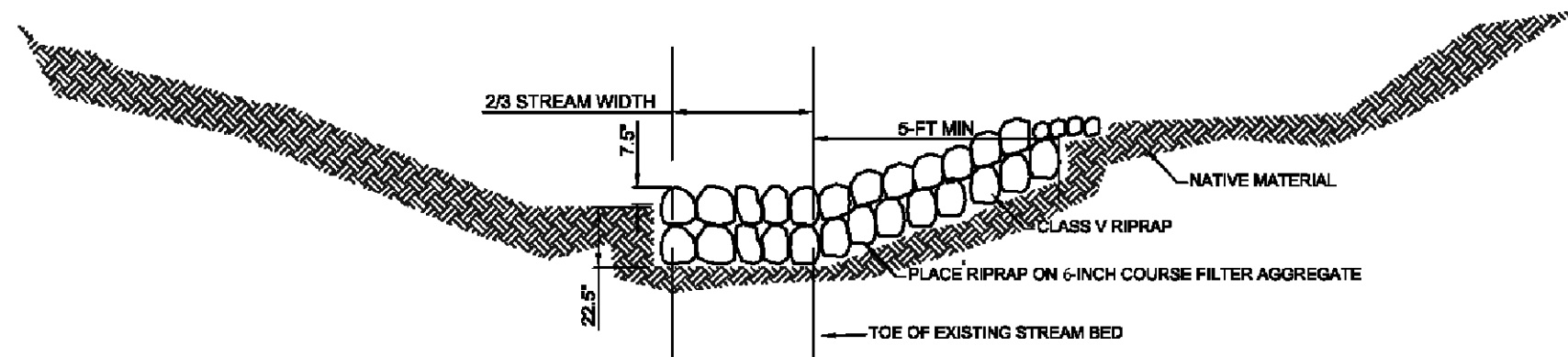
PROPOSED RESTORATION
 DETAILS
 MARKAY RIDGE
 STREAMBANK STABILIZATION



SHEET NO.
 6.0



DETAIL L
J-HOOK VANE PLAN VIEW



DETAIL M
J-HOOK VANE CROSS SECTION

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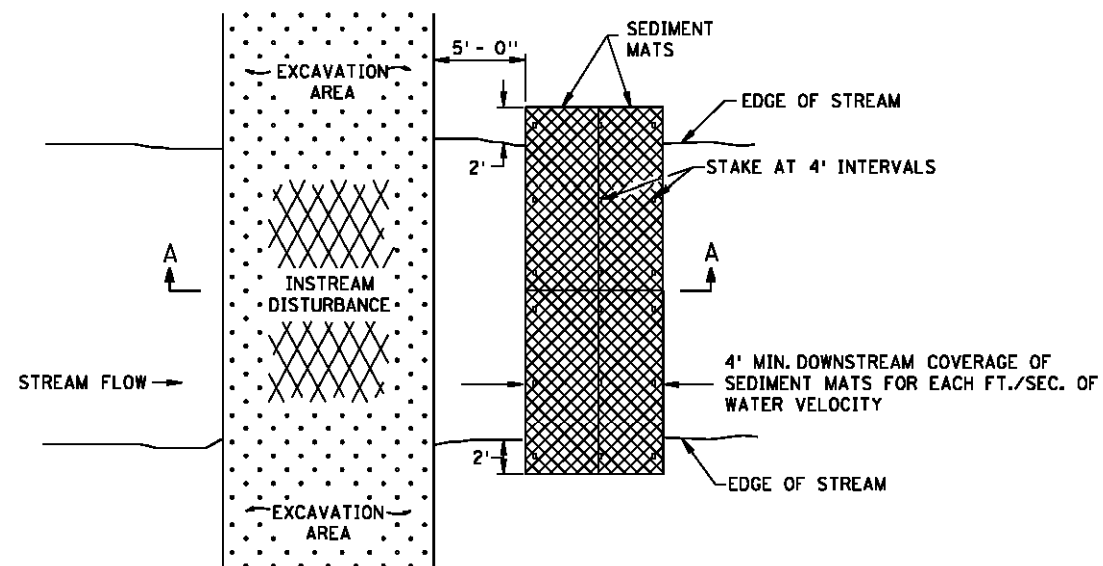
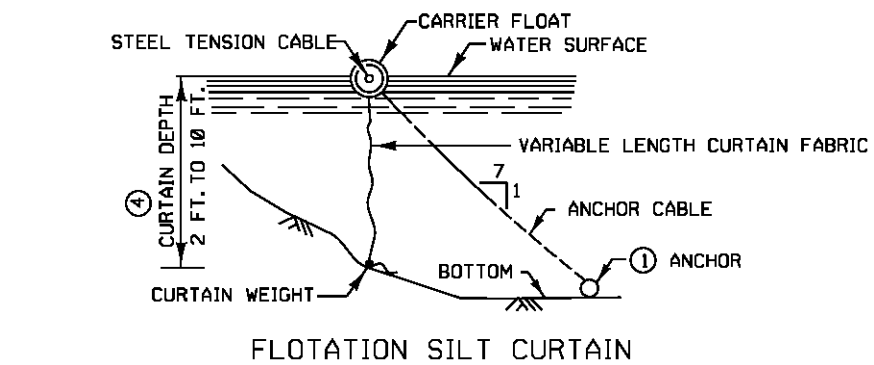
PROPOSED RESTORATION
 DETAILS
 MARKAY RIDGE
 STREAMBANK STABILIZATION

SHEET NO.
 7.0

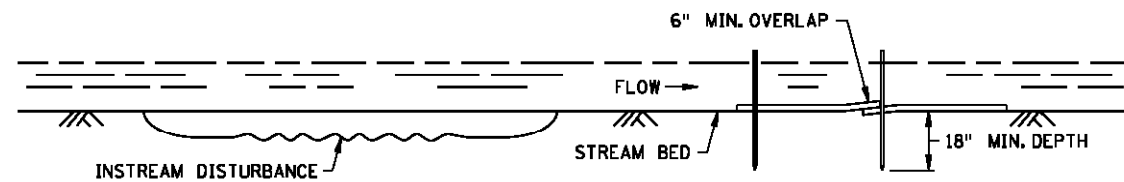
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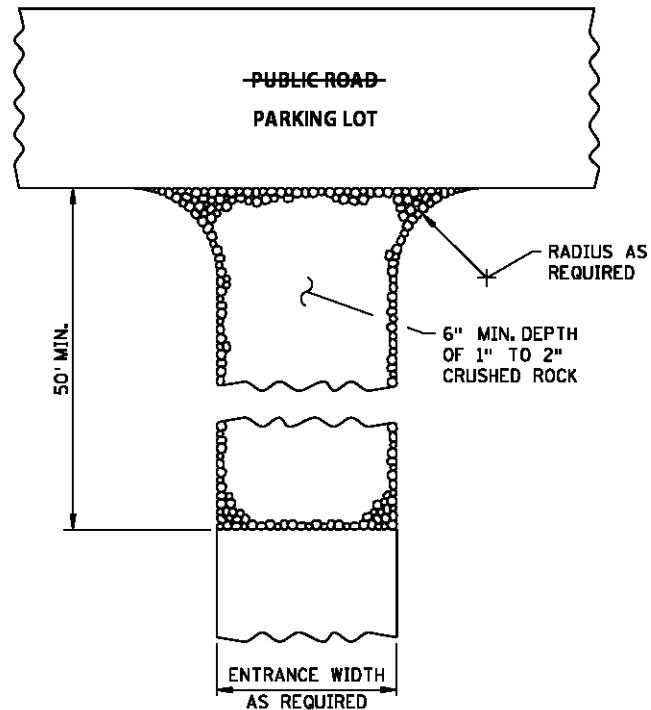
PLAN VIEW



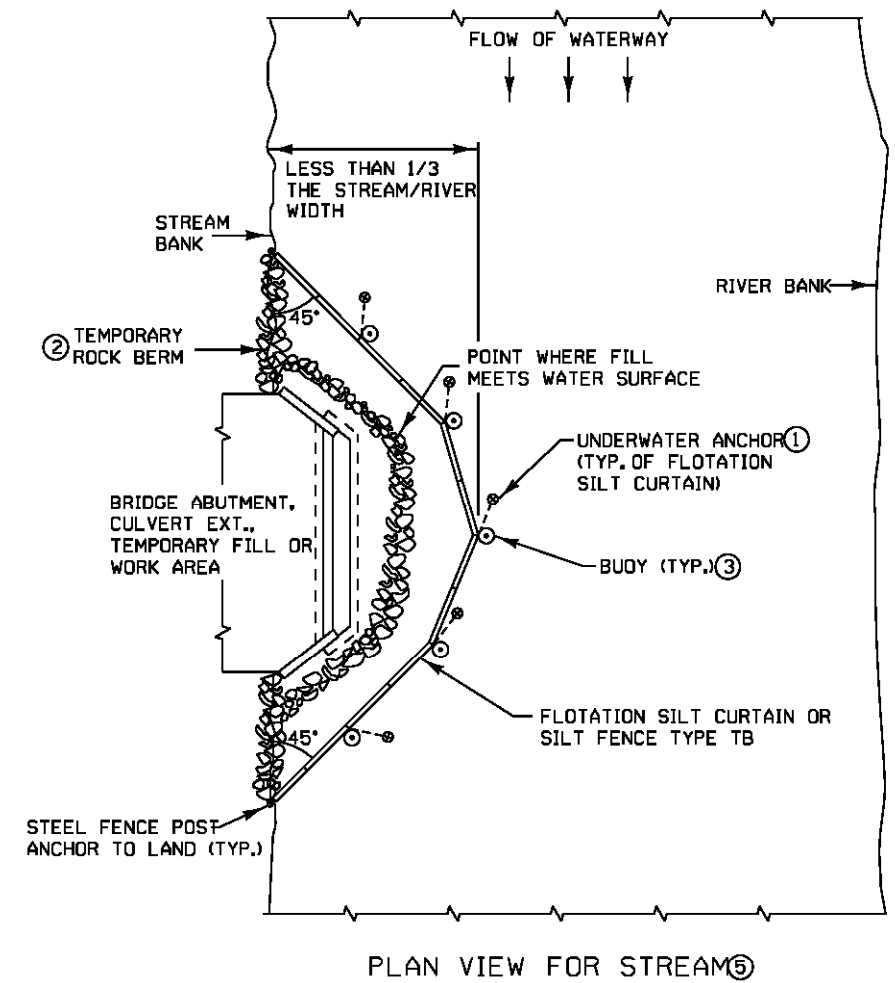
SECTION A-A

SEDIMENT MAT ⑥
TYPICAL STREAM BED INSTALLATION

DESIGN GUIDELINES:
MAXIMUM FLOW VELOCITY: 5 FT./SEC.
MAXIMUM FLOW DEPTH: 2 FT.



ROCK CONSTRUCTION ENTRANCE ①
TO STREAM



PLAN VIEW FOR STREAM ⑤

NOTES:

- ① FOR ANCHOR SPACING AND WEIGHT REQUIREMENTS, SEE SPEC. 2573.
- ② MINIMUM WATER DEPTH APPLIES TO THE DEEPEST POINT ALONG THE FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB FOR DETERMINING APPLICABILITY OF FLOTATION SILT CURTAIN OR SILT FENCE TYPE TB.
- ③ SILT CURTAIN SHOULD BE REMOVED WHEN THE AREA CONTRIBUTING DIRECT RUNOFF HAS BEEN TEMPORARILY OR PERMANENTLY STABILIZED. SILT CURTAIN SHOULD ALSO BE REMOVED BEFORE WINTER IF ICE UP OR ICE FLOW IS ANTICIPATED.

STANDARD SHEET NO. 5-297.405	TITLE: TEMPORARY SEDIMENT CONTROL MISCELLANEOUS DETAILS
STANDARD APPROVED: MARCH 29, 2012	
SHEET NO. 8 OF 8	