



BEFORE YOU DIG CALL
1-800-257-7777 OR DIAL 811

TAYLOR CREEK STREAM RESTORATION

BID NO. XXXXX

WATERSHED PROTECTION AND RESTORATION OFFICE
HARFORD COUNTY, MARYLAND

GENERAL NOTES

1. SPECIFICATIONS: ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH MARYLAND STATE HIGHWAY ADMINISTRATIONS STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS LATEST EDITION AND ANY ADDENDA THERETO.

2. UTILITIES: UTILITY LOCATIONS SHOWN ON THE PLANS ARE BASED ON LIMITED INFORMATION AVAILABLE. HOWEVER, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACCURACY OF THIS INFORMATION. THE COST OF REPAIR OR REPLACEMENT OF ANY SUCH FACILITIES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE BORNE BY HIM/HER.

3. CONTACT "MISS UTILITY" PHONE 1-800-257-7777, 48 HOURS PRIOR TO THE START OF WORK. THERE SHOULD BE NO EXCAVATION UNTIL THE LOCATIONS OF UNDERGROUND UTILITIES HAVE BEEN DETERMINED.

4. STANDARD DETAILS: REFERENCE MADE TO STANDARDS ARE TAKEN FROM THE HARFORD COUNTY ROAD CODE "BOOK OF STANDARD DETAILS" AND FROM THE MARYLAND STATE HIGHWAY ADMINISTRATION'S BOOK OF STANDARDS-HIGHWAY AND INCIDENTAL STRUCTURES. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY THAT THE STANDARD DRAWINGS IN HIS/HER POSSESSION ARE THE LATEST REVISED STANDARDS UP TO AND INCLUDING THE DATE OF THE ADVERTISEMENT OF THIS CONTRACT.

5. RIGHT-OF-WAY LINES: RIGHT-OF-WAY LINES SHOWN ON THESE PLANS WERE BASED ON BEST AVAILABLE PLAT AND DEED RECORDS AND HARFORD COUNTY CADASTRAL GIS DATA. NO BOUNDARY SURVEY WAS COMPLETED, THEREFORE, THESE LINES DO NOT REPRESENT THE OFFICIAL PROPERTY ACQUISITION LINES. FOR OFFICIAL FEE RIGHT-OF-WAY AND EASEMENT INFORMATION, SEE THE APPROPRIATE RIGHT-OF-WAY PLATS.

6. SOIL CONSERVATION: THE CONTRACTOR SHALL NOT DISTURB THE EXISTING VEGETATION OUTSIDE THE LIMITS OF DISTURBANCE. STOCKPILING AND STAGING WILL NOT BE ALLOWED ON SITE. THE CONTRACTOR MUST SECURE AN OFF-SITE AREA AND ANY NECESSARY PERMITS. SOIL STABILIZATION WILL CONFORM TO 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. THE CONTRACTOR WILL OBTAIN APPROVAL OF THE HARFORD COUNTY SOIL CONSERVATION DISTRICT FOR HIS/HER PLANS CONTROLLING SEDIMENT EROSION FOR THE BORROW AREA AND DISPOSING OF ANY WASTE EXCAVATION.

7. EXISTING MAILBOXES AND EXISTING SIGNS: ALL EXISTING MAILBOXES, SIGNS AND PAPER BOXES DISTURBED DURING CONSTRUCTION SHALL BE TEMPORARILY RESET IMMEDIATELY AND PERMANENTLY RESET AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE INCIDENTAL TO ALL OTHER ITEMS IN THE CONTRACT.

8. SURVEYS:

TOPOGRAPHIC SURVEY PERFORMED BY BAYLAND CONSULTANTS & DESIGNERS, INC., DATED MARCH 2023.

HORIZONTAL AND VERTICAL CONTROL ESTABLISHED FROM REAL TIME KINEMATIC (RTK) GLOBAL POSITIONING SYSTEM (GPS) CONTROL POINTS. TRAVERSE POINTS ARE IRON REBAR UNLESS OTHERWISE SPECIFIED. COORDINATES AND BEARINGS SHOWN HEREON ARE REFERRED TO THE MARYLAND COORDINATE SYSTEM (NAD83/1991). ELEVATIONS SHOWN HEREON ARE REFERRED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD'88).

INT	NORTHING	EASTING	ELEVATION	DESCRIPTION
TPS1	639,408.44	1,495,452.91	60.16	MAG/DISK
TPS2	639,039.55	1,495,676.40	68.80	MAG/DISK
TPS3	637,165.39	1,494,657.28	17.51	MAG/DISK
TPS4	637,498.66	1,495,004.69	23.02	REBAR W/ YELLOW CAP
TPS5	637,747.42	1,495,072.33	31.20	REBAR W/ YELLOW CAP
TPS6	637,964.24	1,495,221.17	29.58	REBAR W/ YELLOW CAP
TPS7	638,165.21	1,495,193.93	25.13	REBAR W/ YELLOW CAP
TPS8	638,430.79	1,495,167.35	30.10	REBAR W/ YELLOW CAP
TPS9	638,654.96	1,495,214.34	35.88	REBAR W/ YELLOW CAP
TPS10	638,870.79	1,495,217.99	41.00	REBAR W/ YELLOW CAP
TPS11	639,209.59	1,495,206.36	52.44	REBAR W/ YELLOW CAP

ONLY THOSE CONTROL POINTS SHOWN ON THESE PLANS ARE TO BE USED FOR THE CONSTRUCTION OF THIS PROJECT.

8. CONTOURS AND PLANIMETRICS SHOWN OUTSIDE OF LIMIT OF FIELD RUN SURVEY ARE BASED ON 2020 MARYLAND LIDAR ONE FOOT INTERVAL TOPOGRAPHY AND 2017, 2018, 2019, 2022 AND 2023 HARFORD COUNTY GIS DATA.

9. ONLY TREES WITH A 12" DIAMETER OR GREATER WITHIN THE STUDY AREA WERE FIELD LOCATED AND ARE SHOWN ON THE PLANS.

10. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE OF LIMIT OF WORK ARE NOT SHOWN ON PLANS.

11. FEMA FIRM PANEL #24025C0261E EFFECTIVE APRIL 9, 2016 SHOWS THAT THE PROJECT SITE IS NOT WITHIN THE 100-YEAR FLOODPLAIN LIMITS.

12. TAYLOR CREEK IS A TRIBUTARY TO THE GUNPOWDER RIVER (MD WATERSHED BASIN CODE 02-13-08-01) WHICH IS A USE 1 STREAM WITH STREAM CLOSURE PERIOD FROM MARCH 1ST THROUGH JUNE 15TH.

13. THE PROJECT SITE IS NOT WITHIN THE CRITICAL AREA.

PROJECT SUMMARY

TOTAL LENGTH OF STREAM RESTORED: 3,553 LF

STREAM USE CLASS: I

STREAM CLOSURE PERIOD: MARCH 1ST THROUGH JUNE 15TH

THIS PROJECT CONSISTS OF 3,553 LF OF STREAM RESTORATION INTENDED TO MEET THE REQUIREMENTS OF THE COUNTY'S MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT. NO NEW IMPERVIOUS AREA IS PROPOSED, NO EXISTING IMPERVIOUS AREA IS BEING REDEVELOPED AND SITE DRAINAGE PATTERNS ARE MAINTAINED. THEREFORE, CONVENTIONAL STORMWATER MANAGEMENT IS NOT REQUIRED FOR THE SITE.

PROPOSED STREAM RESTORATION	STREAM LENGTH (LF)	POLLUTANT REDUCTION CREDITS			IMPERVIOUS AREA TREATED (ACRES)
		TN (LBS/YR)	TP (LBS/YR)	TSS (TONS/YR)	
	3,553	1,270.0	346.7	770.2	139.1*

* ACCOUNTING FOR STORMWATER WASTELOAD ALLOCATIONS AND IMPERVIOUS ACRES TREATED (VERSION DATE IS NOVEMBER 2021)

Owner: _____

Prepared By: _____



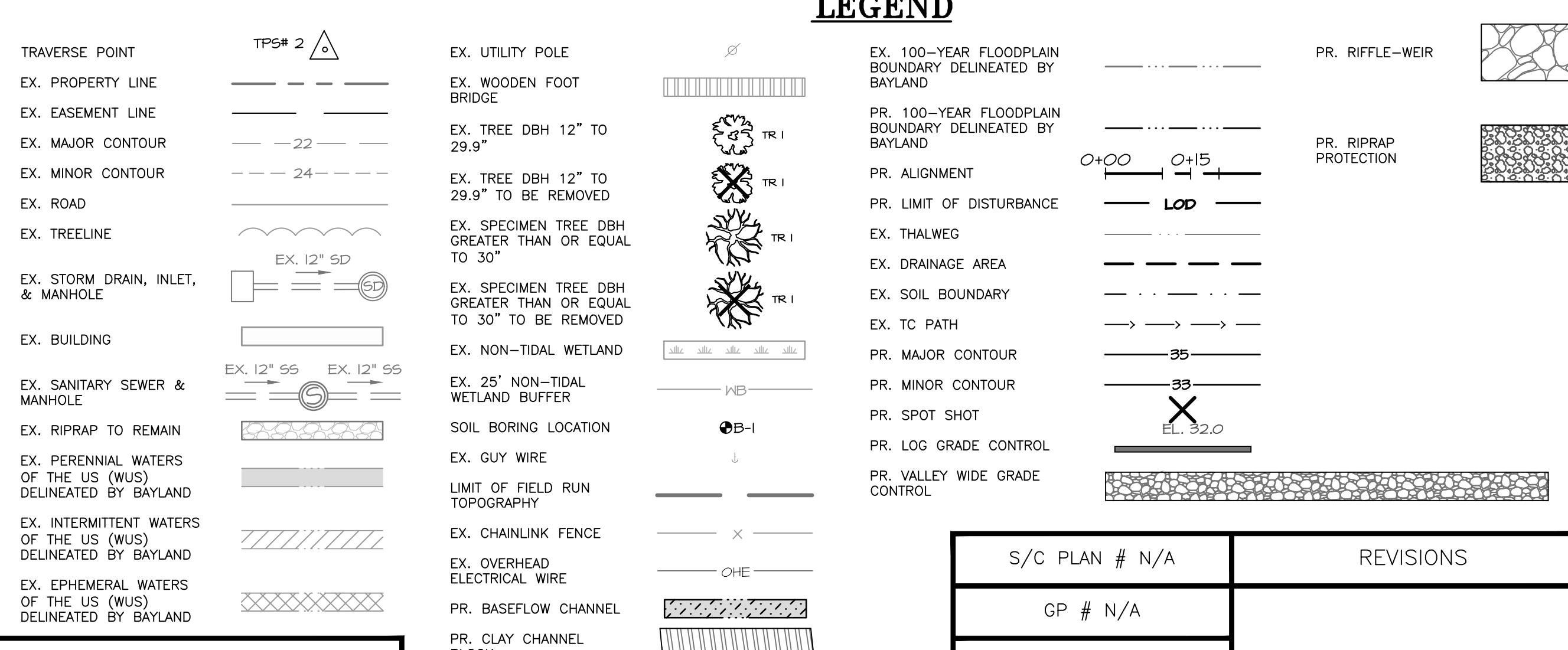
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BAYLAND JOB NO. 4_4601



LOCATION MAP

SCALE: 1"=600'

LEGEND



DEVELOPER'S/LANDOWNER'S CERTIFICATION

I/WE CERTIFY THAT ALL PROPOSED WORK SHOWN ON THESE CONSTRUCTION DRAWING(S) WILL BE ACCOMPLISHED PURSUANT TO THESE PLANS. I/WE ALSO UNDERSTAND THAT IT IS MY/OUR RESPONSIBILITY TO HAVE THE CONSTRUCTION SUPERVISED AND CERTIFIED, INCLUDING THE SUBMITTAL OF "AS-BUILT" PLANS WITHIN 30 DAYS OF COMPLETION, BY A REGISTERED PROFESSIONAL ENGINEER.

OWNER/DEVELOPER SIGNATURE

DATE

PRINTED NAME

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THIS PLAN HAS BEEN PREPARED BY ME, OR UNDER MY SUPERVISION, AND MEETS THE MINIMUM STANDARDS OF THE HARFORD COUNTY DEPARTMENT OF PUBLIC WORKS, AND/OR UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, AND/OR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION.

ENGINEER'S SIGNATURE

DATE

SEAN CRAWFORD

200966

PRINTED NAME

MD PE REGISTRATION NO.

FIELD VERIFICATION

I HEREBY CERTIFY THAT I COMPLETED A FIELD VERIFICATION TO THE INFORMATION SHOWN ON THE PLANS, APRIL 12, 2023, AND THAT THE INFORMATION SHOWN ON THE PLANS IS IN AGREEMENT WITH THE ACTUAL FIELD CONDITIONS.

ENGINEER'S SIGNATURE

DATE

SEAN CRAWFORD

200966

PRINTED NAME

MD PE REGISTRATION NO.

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE FACILITY SHOWN ON THIS PLAN WAS CONSTRUCTED AS SHOWN ON THE "AS-BUILT" PLANS AND MEETS THE APPROVED PLANS AND SPECIFICATIONS.

ENGINEER'S SIGNATURE

DATE

PRINTED NAME

MD PE REGISTRATION NO.

HARFORD SOIL CONSERVATION DISTRICT SMALL POND APPROVAL

DISTRICT OFFICIAL

DATE

TECHNICAL REVIEW FOR DISTRICT

HARFORD COUNTY DEPT. OF PUBLIC WORKS

DATE

30% DESIGN DRAWINGS

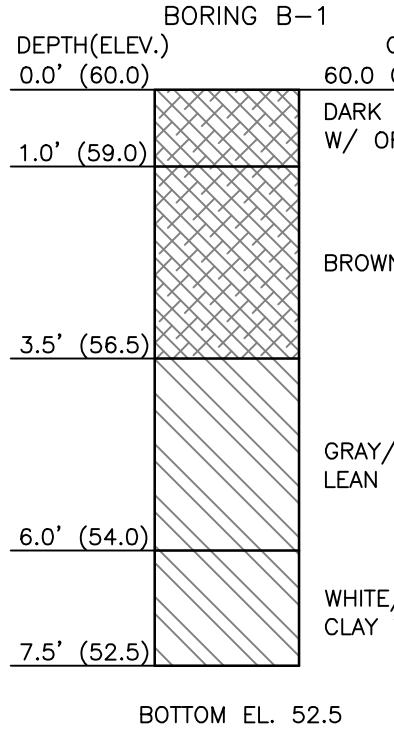
HARFORD COUNTY, MARYLAND

**TAYLOR CREEK STREAM RESTORATION
TITLE SHEET**

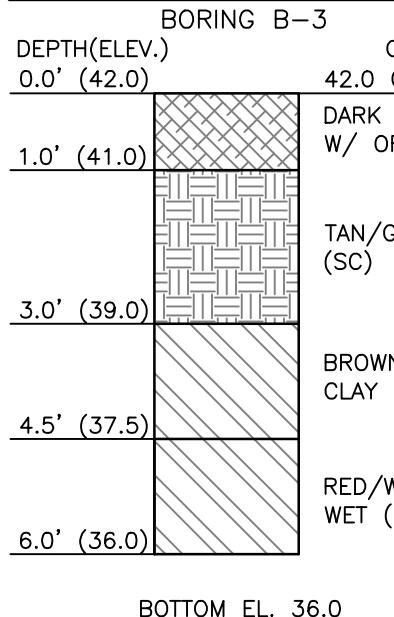
DRAWN BY : MJG	REVISIONS
DESIGNED BY : MKS/KJM	SCALE : AS SHOWN
REVIEWED BY : SMC/CMS	DATE : 05/30/23
DRAWING NO. GN-01 OF GN-03	SHEET NO. 1 OF 29

HO: DWG ID :
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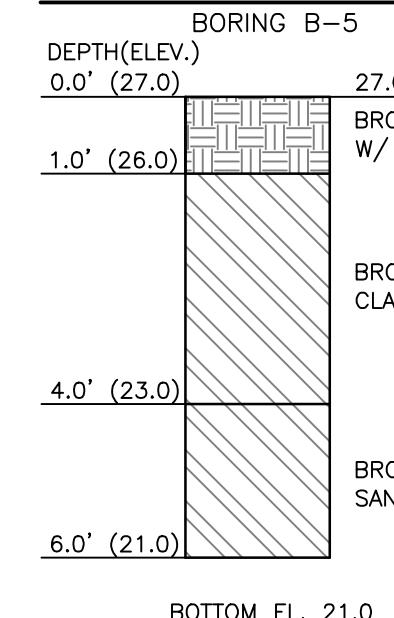
SOIL BORING LOG



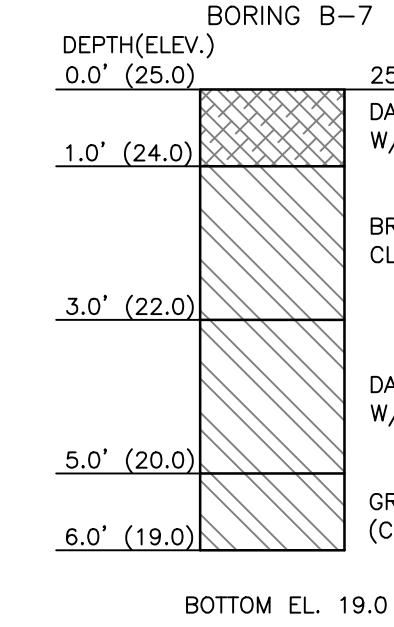
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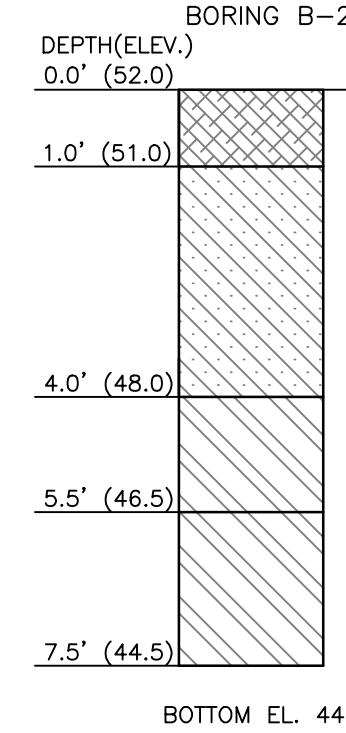
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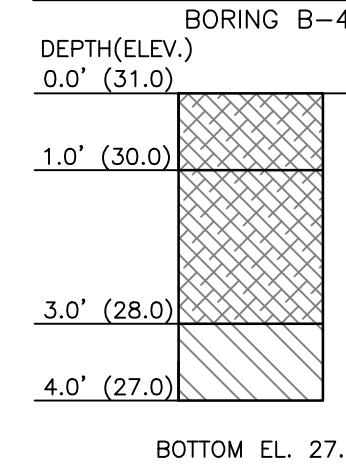
SOIL BORING LOG



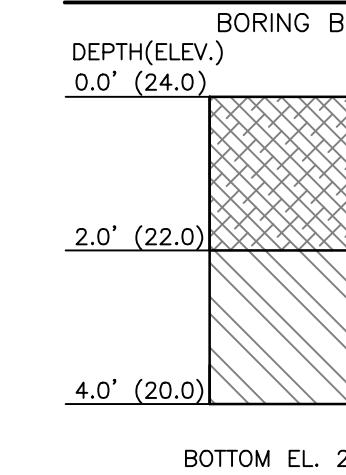
SOIL BORING LOG



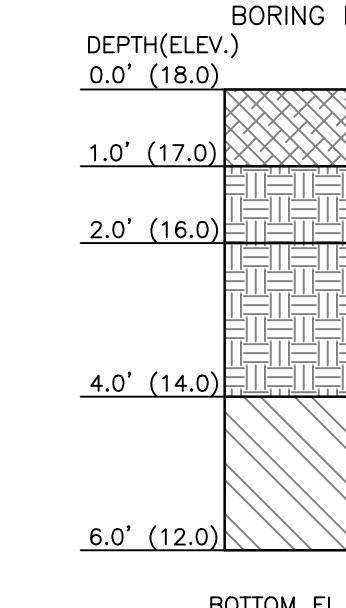
SOIL BORING LOG



SOIL BORING LOG



SOIL BORING LOG



SOIL CLASSIFICATION

SOIL SAMPLE NUMBER	DEPTH (FT)	LIQUID LIMIT (LL)	PLASTIC LIMIT (PL)	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	USCS CLASSIFICATION
B-2	5.5-7.5	48	25	23	85	CL
B-4	3.0-4.0	26	17	9	58	CL
B-5	1.0-4.0	31	22	9	59	CL
B-8	2.0-4.0	23	11	12	47	SC

SOIL BULK DENSITY

SOIL SAMPLE NUMBER	DEPTH (FT)	BULK DENSITY (LBS/FT ³)	USCS CLASSIFICATION
B-1	6.0-6.5	99.26	--
B-3	2.5-3.0	91.14	--
B-4	3.0-4.0	103.01	CL
B-5	1.0-4.0	88.02	CL
B-6	3.0-3.5	88.02	--
B-8	2.0-4.0	104.25	SC

Notes:
1. SOIL BORING LOGS ARE NOT TO SCALE.
2. BORING LAYER IDENTIFIED IN THE SOIL CLASSIFICATION TABLE HAVE UNDERGONE LABORATORY TESTING AND FORMAL USCS CLASSIFICATION PROCEDURES. ALL OTHER BORING LOGS ARE BASED ON VISUAL FIELD CLASSIFICATION ONLY.
3. SOIL BORINGS WERE CONDUCTED BY BAYLAND IN SEPTEMBER 2022 AND APRIL 2023. THE CONDITIONS INDICATED BY SOIL BORINGS AS SPECIFIED ON THE CONTRACT DRAWINGS APPLY ONLY AT THE SPECIFIC LOCATION OF EACH BORING. AT THE TIME THAT THE BORINGS WERE MADE, IT WAS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE CONDITIONS ON THE GROUND. THE OWNER AND DESIGN CONSULTANTS ASSUME NO RESPONSIBILITY WHATSOEVER IN RESPECT TO THE SUFFICIENCY OF ACCURACY OF THESE INVESTIGATIONS, AND THERE IS NO WARRANTY OR GUARANTEE THAT CONDITIONS OTHER THAN THOSE IDENTIFIED BY THE SUBSURFACE INVESTIGATIONS WILL NOT BE ENCOUNTERED.

BayLand
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www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX
EG-SWMENG- XXXXX-XXXX #XXXX
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.

GENERAL GEOTECHNICAL NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SUBGRADE INSPECTIONS AND SOIL COMPACTION TESTING ASSOCIATED WITH THE PROPOSED WORK. THIS WORK SHALL BE COMPLETED BY OR UNDER THE SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF MARYLAND, IF REQUESTED BY THE OWNER/DEVELOPER OR AS INDICATED ON THE APPROVED PLANS. THIS ENGINEER IS HEREBY REFERRED TO AS THE GEOTECHNICAL ENGINEER AND SHALL BE FROM AN INDEPENDENT FIRM FROM THAT OF THE CONTRACTOR.
- ALL FILL AREAS SHALL BE CLEANED OF ALL VEGETATION AND DEBRIS. STRIPPED OF ALL TOPSOIL, AND THEN SCARIFIED TO A MINIMUM DEPTH OF 12 INCHES PRIOR TO THE PLACEMENT OF FILL. FILL MATERIAL SHALL BE PLACED IN CONTROLLED LIFTS WITH A MAXIMUM THICKNESS OF 8" PRIOR TO COMPACTION THAT IS CONTINUOUS OVER THE ENTIRE AREA WHERE FILL IS TO BE PLACED. EACH LAYER OF FILL SHALL BE COMPACTION WITH THE MINIMUM NUMBER OF PASSES NECESSARY TO PRODUCE A FULL ASYMPTOTIC COMPACTION.
- FOR STRUCTURAL AREAS, UNLESS OTHERWISE NOTED BY THE APPROVED PLANS, COMPACTION SHALL BE CARRIED OUT WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT TO A DRY DENSITY OF 95% OF THE MAXIMUM DENSITY (STANDARD PROCTOR DENSITY PER ASTM D-698 AND ASHTO METHOD T-99).
- FOR VEGETATIVE AREAS, UNLESS OTHERWISE NOTED BY THE APPROVED PLANS, COMPACTION SHALL BE CARRIED OUT AT A LESS THAN OPTIMUM MOISTURE CONTENT (E.G., AT A WATER CONTENT OF LESS THAN 13% ON A SOIL HAVING AN OPTIMUM CONTENT OF 15%) TO A DRY DENSITY OF BETWEEN 80% AND 85% OF THE MAXIMUM DENSITY (STANDARD PROCTOR DENSITY PER ASTM D-698).
- ALL SOILS USED IN FILL AND BACKFILL MUST BE MOISTENED OR AERATED TO WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT, WHERE THE SOIL LAYER IS TOO DRY, THE CONTRACTOR MUST APPLY WATER UNIFORMLY USING APPROVED EQUIPMENT TO INCREASE THE MOISTURE CONTENT TO WITHIN 2% OF THE OPTIMUM. WHERE THE SOIL LAYER IS TOO WET, THE CONTRACTOR MUST DRY THE SOILS BY PLOWING OR DISKING TO AERATE THE SOIL AND REDUCE THE MOISTURE CONTENT TO WITHIN 2% OF THE OPTIMUM.
- IF THE EXISTING ON SITE MATERIAL IS ROCKY, THEN THE SAME CAN BE USED UP TO 9 INCHES BELOW THE FINAL ELEVATION OR SUBBASE. THE REMAINING FILL MUST BE SELECT EARTH FILL. SOFT SPOTS IDENTIFIED DURING COMPACTION SHALL BE UNDERCUT AND BACKFILLED APPROPRIATELY.
- ALL SELECT EARTH FILL SHALL BE FREE FROM ORGANICS, FROZEN MATERIAL, AND ROCKS/STONES GREATER THAN 2 INCHES IN ANY DIMENSION. ALL FILL MATERIAL MUST BE FREE FROM WASTE METAL PRODUCTS, UNSIGHTLY DEBRIS, TOXIC MATERIAL OR OTHER DELETERIOUS MATERIALS.
- ALL IMPORTED FILL MATERIAL SHALL HAVE A MINIMUM DENSITY OF 105 POUNDS PER CUBIC FOOT FOR THE MAXIMUM DRY DENSITY ACCORDING TO AASHTO T-180, METHOD C AND SHALL NOT HAVE A LIQUID LIMIT GREATER THAN 30 NOR A PLASTICITY INDEX GREATER THAN 6 ACCORDING TO ASTM D-4318. ALL OTHER MATERIALS SHALL MEET THE REQUIREMENTS STATED IN CATEGORY 900 OF THE LATEST EDITION OF THE MARYLAND STATE HIGHWAY ADMINISTRATION (MSHA) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.
- NRCS-MD POND CODE NO. 378 STANDARDS/SPECIFICATIONS (MD-378) SHALL SUPERSEDE THESE NOTES FOR ANY FILL SUBJECT TO MD-378 WHEN THESE NOTES ARE LESS STRINGENT AND/OR IN THE CASE OF CONFLICT. ANY REFERENCE TO THE ENGINEER IN THE MD-378 SHALL BE THE PROFESSIONAL ENGINEER WHO SIGNED AND SEALED THE DESIGN PLANS. ANY REFERENCE TO THE GEOTECHNICAL ENGINEER SHALL BE THE GEOTECHNICAL ENGINEER IN THESE GENERAL NOTES.
- THE CONTRACTOR SHALL SUBMIT ALL REQUIRED PROCTOR DENSITY RESULTS OF TESTED FILL TO THE OWNER/DEVELOPER FOR REVIEW AND ACCEPTANCE. AT A MINIMUM, COMPACTION TESTS SHALL BE COMPLETED FOR EVERY LIFT OF FILL AND THE TESTING FREQUENCY SHALL BE AT COMPACTATION TEST PER LIFT AND AT LEAST TWO COMPACTATION TESTS PER DAY. THE GEOTECHNICAL ENGINEER SHALL SUPPLY THE OWNER/DEVELOPER WITH CERTIFIED COMPACTION TEST RESULTS, INCLUDING CERTIFICATION OF PIPE BEDDING SUBGRADE AND/OR FILL SUBGRADE, WHERE APPROPRIATE.
- ALL REQUIRED INSPECTIONS, TESTS, SUPPORTING DATA, REPORTS, AND CERTIFICATIONS SHALL BE PROVIDED TO THE OWNER/DEVELOPER AND SHALL BE SIGNED AND SEALED BY THE GEOTECHNICAL ENGINEER. DAILY INSPECTION REPORTS, IF REQUESTED, MAY BE PROVIDED WITHOUT BEING IMMEDIATELY SIGNED AND SEALED BY THE GEOTECHNICAL ENGINEER. THESE REPORTS SHALL BE COMPILED, REVIEWED, SIGNED AND SEALED, AND SUBMITTED TO THE OWNER/DEVELOPER NO LATER THAN 30 DAYS AFTER THE COMPLETION OF THE PROJECT.

ABBREVIATIONS

AC	ACRES	MIN.	MINIMUM
BLDG	BUILDING	O.C.	OFF-CENTER
CCB	CLAY CHANNEL BLOCK	PERM.	PERMANENT
C/L	CENTERLINE	PR.	PROPOSED
CMP	CORRUGATED METAL PIPE	PVC	POLYVINYL CHLORIDE
DBH	DIAMETER AT BREAST HEIGHT	RCP	REINFORCED CONCRETE PIPE
DWG	DRAWING	RW	RIFLE-WEIR
EA	EACH	SCE	STABILIZED CONSTRUCTION ENTRANCE
ELEV.	ELEVATION	SD	STORM DRAIN
EW	ENDWALL	SF	SQUARE FEET
EX.	EXISTING	SS	SANITARY SEWER
FT.	FEET	STA.	STATION
HVF	HIGH VISIBILITY FENCE	STD	STANDARD
HW	HEADWALL	SY.	SQUARE YARDS
IN.	INCHES	TBR.	TO BE REMOVED
INV.	INVERT	TOB	TOP OF BANK
LB	POUNDS	TPS	TRaverse POINT
LGC	LOG GRADE CONTROL	TYP.	TYPICAL
LF	LINEAR FEET	VWG	VALLEY WIDE GRADE CONTROL
LOD	LIMIT OF DISTURBANCE	W	WATER MAIN
MAX.	MAXIMUM	WSE	WATER SURFACE ELEVATION
MB	MOUNTABLE BERM	XS	CROSS-SECTION
MH	MANHOLE	YR.	YEAR

GENERAL CONSTRUCTION NOTES

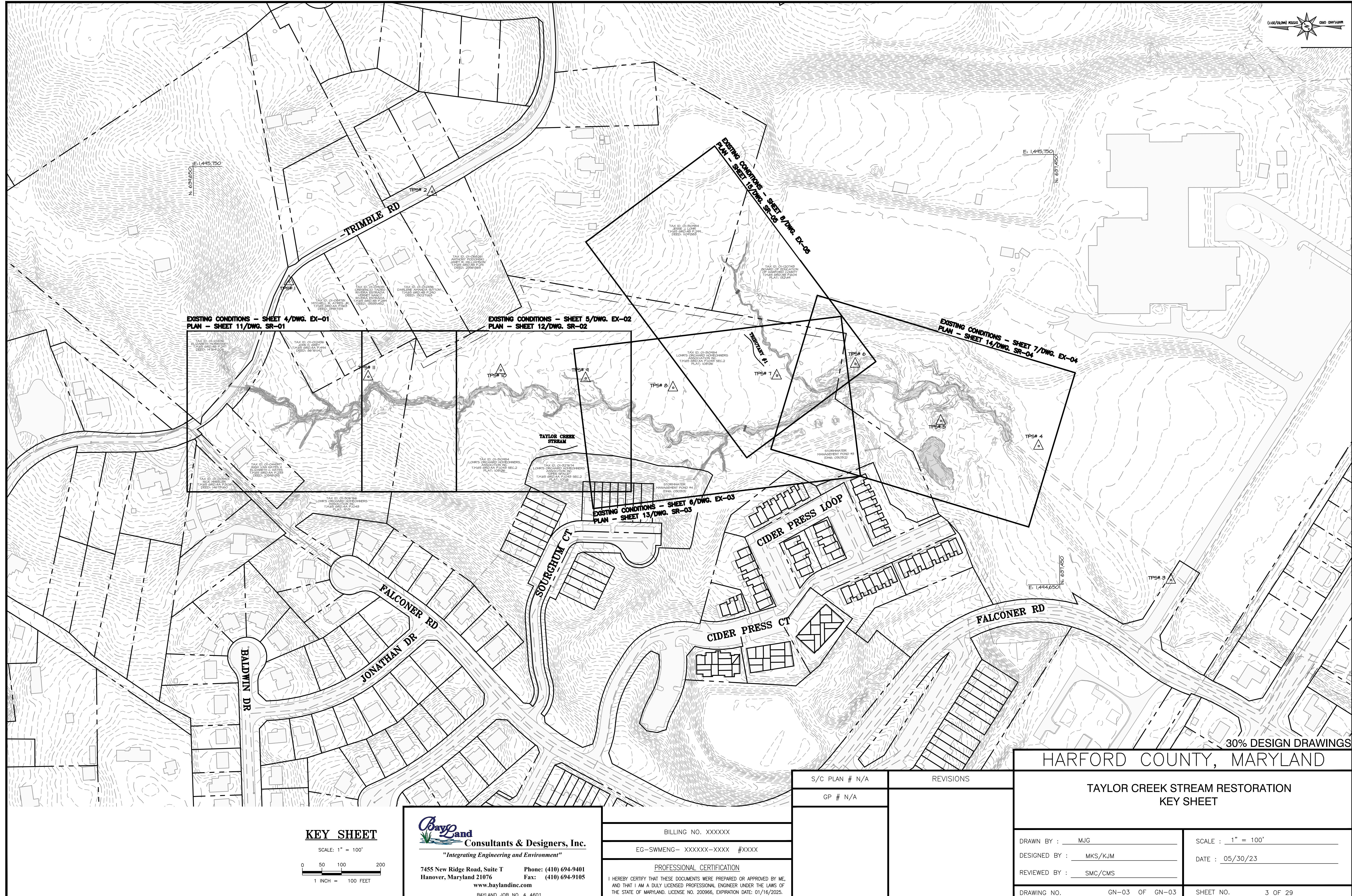
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE HARFORD COUNTY STANDARD SPECIFICATIONS OR DETAILS FOR CONSTRUCTION UNLESS OTHERWISE NOTED. THE STATE HIGHWAY ADMINISTRATION'S HIGHWAY'S STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS AND THE BOOK OF STANDARDS FOR HIGHWAY & INCIDENTAL STRUCTURES SHALL BE USED IF NO HARFORD COUNTY STANDARD OR DETAIL EXIST.
- THE EXISTING UTILITIES AND OBSTRUCTIONS SHOWN ARE FROM THE BEST AVAILABLE RECORDS AND SHALL BE VERIFIED BY THE CONTRACTOR TO THEIR SATISFACTION PRIOR TO CONSTRUCTION. NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PROTECT EXISTING SERVICES AND MAINS AND ANY DAMAGE TO THEM SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S OWN EXPENSE.
- THE CONTRACTOR SHALL CONTACT "MISS UTILITY" AT 1-800-257-7777 A MINIMUM OF 48 HOURS IN ADVANCE OF ANY EXCAVATION, BORING, PILE DRIVING AND/OR DIGGING FOR THE LOCATION OF GAS, ELECTRIC, TELEPHONE, WATER AND SEWER LINES.
- MECHANICAL EXCAVATION SHALL NOT BE CONDUCTED WITHIN 3 FEET HORIZONTALLY OR WITHIN 2 FEET VERTICALLY OF KNOWN UTILITY LOCATIONS. HAND OR SOFT DIGGING SHALL BE DONE WITHIN THESE LIMITS. UNDERGROUND UTILITIES, ONCE UNCOVERED, SHALL BE PROTECTED FROM BEING STRUCK BY EQUIPMENT.
- IT SHALL BE DISTINCTLY UNDERSTOOD THAT FAILURE TO MENTION SPECIFICALLY ANY WORK WHICH WOULD NATURALLY BE REQUIRED TO COMPLETE THE PROJECT SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLETE SUCH WORK.
- NO TREES SHALL BE REMOVED UNLESS PRIOR APPROVAL IS OBTAINED OR EXPLICITLY SHOWN ON THE PLANS TO BE REMOVED. ALL TREES TO REMAIN WITHIN AND/OR NEAR THE WORK AREA SHALL BE PROTECTED AS NECESSARY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIALS TESTING INCLUDING CONCRETE, FLOWABLE FILL, HOT MIX ASPHALT AND FILL COMPACTION. ALL MATERIALS TESTING SHALL BE PERFORMED BY THE CONTRACTOR AND SHALL BE COMPENSATED AS PART OF THE APPROPRIATE PAY ITEM.
- ALL DISTURBED AREAS SHALL HAVE PERMANENT OR TEMPORARY STABILIZATION COMPLETED WITHIN:
8.A. END OF THE WORK DAY FOR AREAS WITHIN WATERWAYS.
8.B. THREE CALENDAR DAYS ON SLOPES GREATER THAN 3:1 AND TO THE SURFACE OF ALL PERIMETER SEDIMENT CONTROLS.
8.C. SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS.
8.D. ALL STABILIZATION MUST BE IN ACCORDANCE WITH MARYLAND DEPARTMENT OF AGRICULTURE (MDA) FERTILIZER LAW.
- ALL DISTURBED AREAS WITH SLOPES GREATER THAN 3:1 SHALL BE STABILIZED WITH 100% BIODEGRADABLE SOIL STABILIZATION MATTING THAT HAS A SUFFICIENT DESIGN SHEAR STRESS FOR THE APPLICATION OR AS SHOWN ON THE APPROVED SEDIMENT AND EROSION CONTROL PLANS.
- ALL PERMANENTLY STABILIZED AREAS SHALL INCLUDE A MINIMUM OF 4" OF TOPSOIL PER THE 2011 MDE SPECIFICATIONS.
- ALL STAKING, RESTAKING, AND CUT SHEETS SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR OR PROFESSIONAL ENGINEER AT THE CONTRACTOR'S EXPENSE.
- ALL CONSTRUCTION TO BE PERFORMED IN ACCORDANCE WITH STATE OF MARYLAND OCCUPATIONAL SAFETY LAWS.
- ALL ROADS SHALL BE CLEANED AND CLEARED BY THE END OF EACH DAY. ANY MUD OR ROCKS TRACKED ON THE ROADWAYS SHALL BE SWEEPED BEFORE THE END OF SHIFT EACH DAY.
- CONTRACTOR SHALL RESTORE ALL AREAS IMPACTED BY CONSTRUCTION ACTIVITY. THIS SHALL INCLUDE BUT IS NOT LIMITED TO GRASS AREAS, ROADS, PAVED AREAS, ETC...

PROJECT INFORMATION

- OWNER/DEVELOPER:
HARFORD COUNTY DEPARTMENT OF PUBLIC WORKS WATERSHED PROTECTION AND RESTORATION OFFICE
CONTACT: BETSY COLLINS
EMAIL: BACOLINS@HARFORDCOUNTYMD.GOV
1212 SOUTH BOND STREET, 1ST FLOOR
BEL AIR, MD 21014
- OWNER/DEVELOPER INFORMATION:
BAYLAND CONSULTANTS & DESIGNERS, INC.
- ENGINEER:
BAYLAND CONSULTANTS & DESIGNERS, INC.
- ENGINEER INFORMATION:
7455 NEW RIDGE ROAD, SUITE T HANOVER, MARYLAND 21076 PH: 410-694-9401
- TAX MAP: 65
- PARCEL: 604
- LOT: N/A
- DEED REF: 638/105
- DISTRICT: 01
- ZONING: R2 URBAN RESIDENTIAL
- PROPERTY AREA: 69.33 ACRES
- WATERSHED: GUNPOWDER RIVER
- STREAM USE DESIGNATION: I
- CRITICAL AREA: NO

30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND



MATCHLINE REFER TO SHEET 4/DWG EX-OI

EXISTING CONDITIONS

SCALE: 1" = 20'



A scale bar with three vertical tick marks labeled 10, 20, and 40. The first tick mark is at the left end of a thick black line. The second tick mark is at the right end of a shorter black line. The third tick mark is at the right end of a third black line. The distance between the first and second tick marks is labeled '20'. The distance between the second and third tick marks is also labeled '20'.

BayLand Consultants & Designers, Inc.

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www.baylandinc.com

NOTES:
1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.

2 FOR SOIL BORING LOGS SEE SHEET 2/DWG GN-02

2. FOR SOIL BORING LOGS, SEE SHEET 2/DWG GN-02.
3. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE.

3. RUCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE.
4. EXISTING SUITABLE ROCK WITHIN THE LIMITS OF PROPOSED GRADING SHOULD

4. EXISTING SUITABLE ROCK WITHIN THE LIMITS OF PROPOSED CUTS
BE REMOVED, STOCKPILED AND RE-USED ON SITE IF IT MEET

BE REMOVED, SECURED AND RE USED ON SITE IF IT MEETS MINIMUM
SPECIFICATIONS PER THE CONTRACT DOCUMENTS AND IS APPROVED BY THE
ENGINEER.

5. WETLAND DELINEATION WAS PERFORMED BY RAYLAND CONSULTANTS AND

5. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BLUFFERS

DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.

MATCHLINE REFER TO SHEET 6/DWG EX-03

RESTORATION INSURANCE

40 30% DESIGN DRAWINGS
HARFORD COUNTY MARYLAND

TAYLOR CREEK STREAM RESTORATION EXISTING CONDITIONS

SCALE : 1" = 20'

DATE : 05/05/20

Journal of Oral Rehabilitation 2006 33: 103–109 © 2006 Blackwell Publishing Ltd 109

SHEET NO. 5 OF 29

AWN BY : <u>MJG</u>	SCALE : <u>1" = 20'</u>
SIGNED BY : <u>MKS/KJM</u>	DATE : <u>05/30/23</u>
VIEWED BY : <u>SMC/CMS</u>	
AWING NO. <u>EX-02</u> OF <u>EX-05</u>	SHEET NO. <u>5</u> OF <u>29</u>

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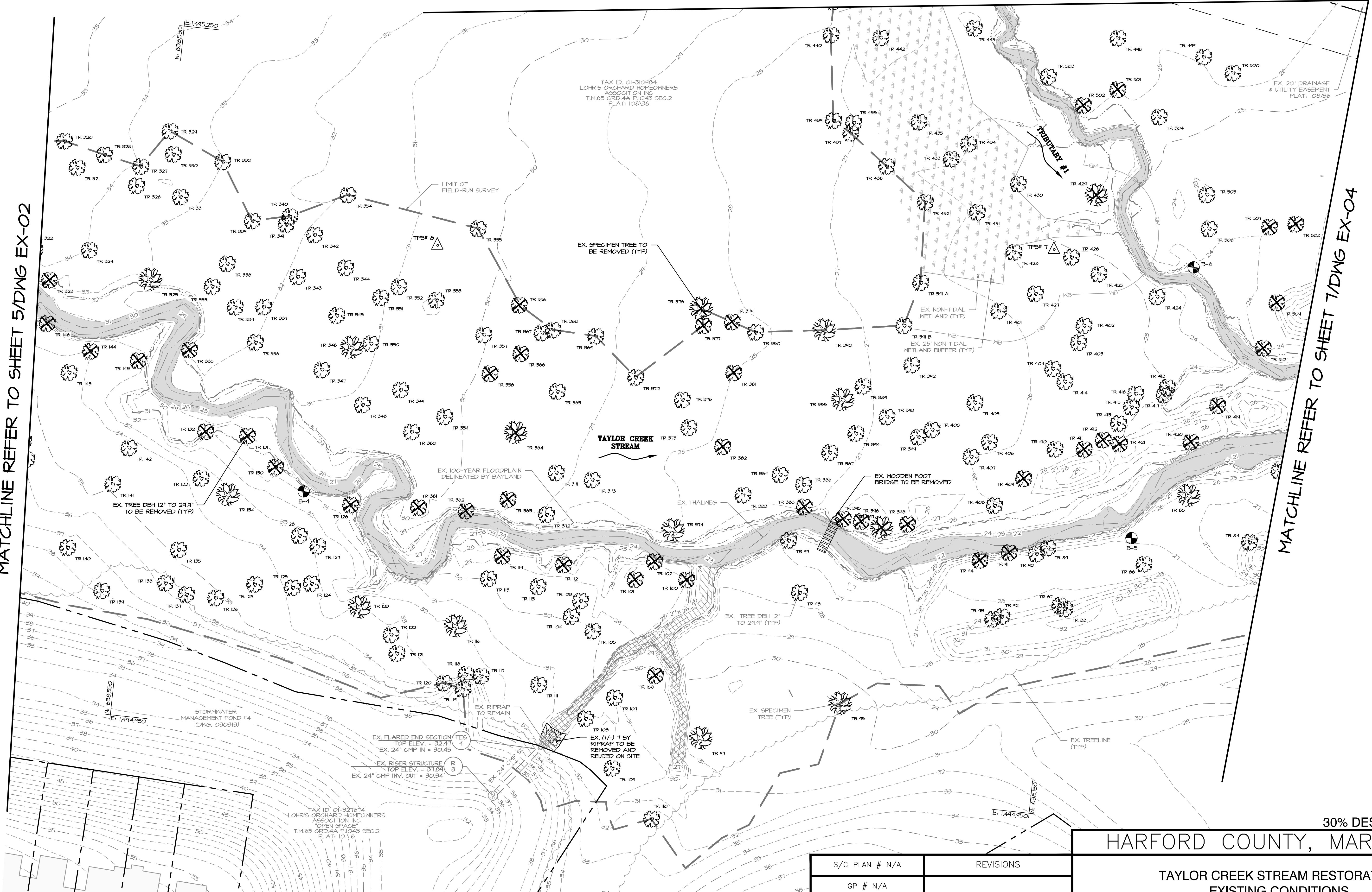
601_EXD02

601_EXD02

MATCHLINE REFER TO SHEET 8/DWG EX-05

MATCHLINE REFER TO SHEET 5/DWG EX-02

MATCHLINE REFER TO SHEET 7/DWG EX-04



BID No.:

HOG DWG ID No.:

30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
EXISTING CONDITIONS

S/C PLAN # N/A	REVISIONS
GP # N/A	
BILLING NO. XXXXXX	
EG-SWMENG- XXXXX-XXXX #XXXX	
PROFESSIONAL CERTIFICATION	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.	
DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/30/23
REVIEWED BY : SMC/CMS	
DRAWING NO. EX-03 OF EX-05	SHEET NO. 6 OF 29

NOTES:

1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. FOR SOIL BORING LOGS, SEE SHEET 2/DWG GN-02.
3. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE.
4. EXISTING SUITABLE ROCK WITHIN THE LIMITS OF PROPOSED GRADING SHOULD BE REMOVED, STOCKPILED AND RE-USED ON SITE IF IT MEETS MATERIAL SPECIFICATIONS PER THE CONTRACT DOCUMENTS AND IS APPROVED BY THE ENGINEER.
5. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.

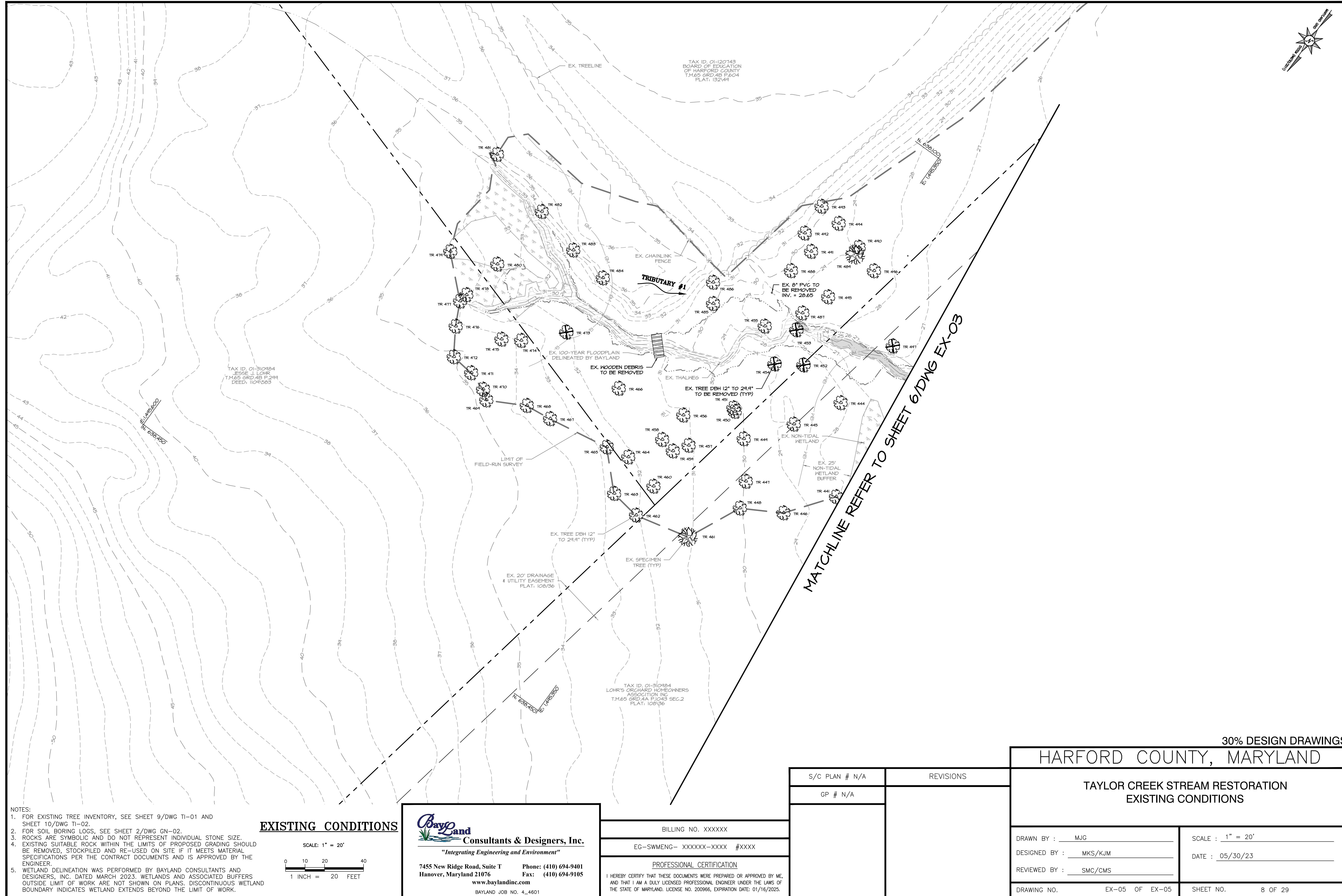
EXISTING CONDITIONS

SCALE: 1" = 20'
0 10 20 40
1 INCH = 20 FEET

BayLand
Consultants & Designers, Inc.
"Integrating Engineering and Environment"

7455 New Ridge Road, Suite T Phone: (410) 694-9401
Hanover, Maryland 21076 Fax: (410) 694-9105
www.baylandinc.com
BAYLAND JOB NO. 4_4601

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.



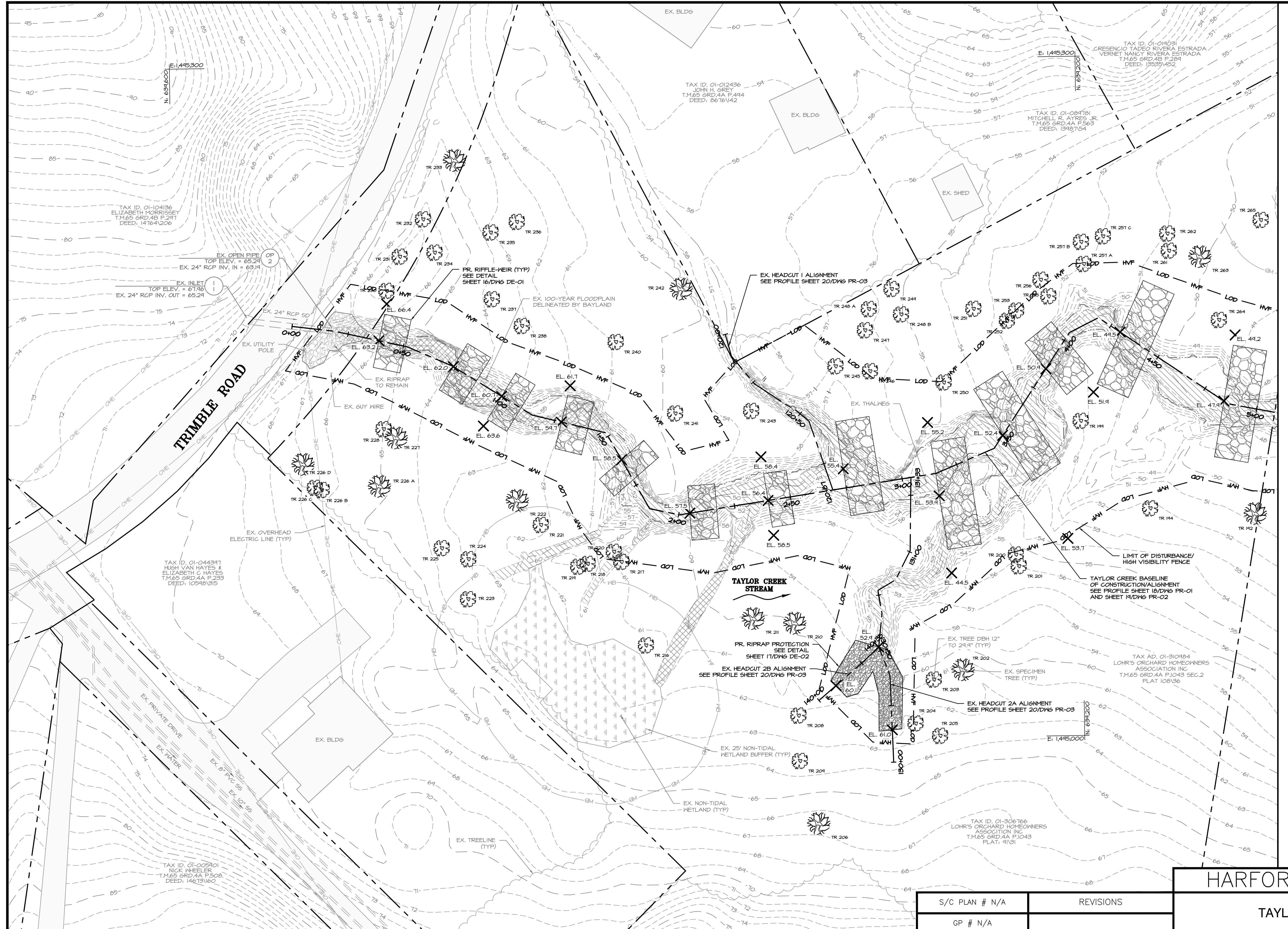
TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 01	27.1	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	GOOD
TR 02	15.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 03	35.0	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 04	25.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 05	32.8	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 06	18.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 07	13.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 08	14.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 09	16.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 10 (TBR.)	15.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 11	12.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 12	24.8	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 13	17.7	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 14	18.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 15	16.2	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 16 (TBR.)	14.3, 7.9	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 17 (TBR.)	24.5	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FAIR
TR 18 (TBR.)	13.8	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 19	14.2	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 20 (TBR.)	21.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 21 (TBR.)	27.9	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 22 (TBR.)	14.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 23	23.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 24 (TBR.)	17.5, 16.9	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 26 (TBR.)	14.2	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 27 (TBR.)	16.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 28	19.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 29	21.5	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 30 (TBR.)	39.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 31	19.8, 17.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 33	17.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 34	19.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 35 (TBR.)	22.1	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 36 (TBR.)	18.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 37 (TBR.)	19.3	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 38 (TBR.)	26.1	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 39 (TBR.)	18.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 40 (TBR.)	27.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 41 (TBR.)	20.4	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 42 (TBR.)	17.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 43 (TBR.)	20.6	PS	PRUNUS SEROTINA	BLACK CHERRY	GOOD
TR 44 (TBR.)	30.5	DEAD	N/A	N/A	DEAD
TR 45 (TBR.)	19.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 46 (TBR.)	15.8, 15.6	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 48	14.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 49	18.7	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 50	13.0	PST	PINUS STROBUS	EASTERN WHITE PINE	FAIR
TR 51	16.9	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 52 (TBR.)	24.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 53 (TBR.)	22.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 54 (TBR.)	14.6	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 55 (TBR.)	14.5	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 56	13.7	TD	TAXODIUM DISTICHUM	BALD CYPRESS	GOOD
TR 57 (TBR.)	25.0	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 58 (TBR.)	15.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 59 (TBR.)	18.9, 7.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 60 (TBR.)	12.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 61 (TBR.)	12.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 62 (TBR.)	14.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 63 (TBR.)	24.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 64 (TBR.)	18.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 65 (TBR.)	13.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 66 (TBR.)	12.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 67 (TBR.)	14.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 68 (TBR.)	13.7	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 69 (TBR.)	16.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 70 (TBR.)	15.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 71 (TBR.)	12.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 72 (TBR.)	24.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 73 (TBR.)	13.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 74 (TBR.)	14.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 75 (TBR.)	13.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 76 (TBR.)	16.8	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 77	12.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 78	12.3	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 79 (TBR.)	15.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 80 (TBR.)	13.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 81 (TBR.)	14.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 82	26.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 83	15.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 84	16.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 85	31.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 86	14.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 87	18.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 88	12.3	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 89	14.7	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 90	17.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 91 (TBR.)	14.3	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 92	17.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 93	13.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 94 (TBR.)	19.9	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 95	44.0, 34.9, 18.5	PO	PLATANUS OCCIDENTALIS	AMERICAN SYCAMORE	FAIR
TR 97	43.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 98	19.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 99	26.4	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 100 (TBR.)	17.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 101 (TBR.)	22.0	QA	QUERCUS ALBA	WHITE OAK	FAIR
TR 102 (TBR.)	21.1	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 103	27.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 104	19.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 105	23.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 106 (TBR.)	29.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 107	16.9	PS	PRUNUS SEROTINA	BLACK CHERRY	FAIR
TR 108	13.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 109	13.7	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 110	23.9	QPA	QUERCUS PALUSTRIS	PIN OAK	FAIR
TR 111	28.6	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	POOR
TR 112 (TBR.)	21.2	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	POOR
TR 113	17.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 114 (TBR.)	20.5	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 115	12.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 116	30.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 117	15.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 118	22.0	LT	LIRIODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 119	12.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 120	12.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 121	14.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 122	20.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 123					

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 319	18.8	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 320	17.1	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 321	17.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 322	29.7	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 323 (TBR.)	14.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 324	15.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 325	32.2	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 326	15.2, 5.8	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 327	28.5	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 328	19.6	AR	ACER RUBRUM	RED MAPLE	GOOD
TR 329	16.5	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 330	18.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 331	17.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 332	23.0	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 333	16.6, 12.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 334	16.4	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	POOR
TR 335 (TBR.)	25.2	QA	QUERCUS ALBA	WHITE OAK	FAIR
TR 336	18.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 337	18.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 338	15.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 339	15.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 340	18.1	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 341	21.0	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 342	16.9	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	POOR
TR 343	15.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 344	16.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 345	15.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 346	40.5	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 347	18.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 348	13.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 349	22.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 350	13.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 351	17.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 352	17.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 353	25.9	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 354	18.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 355	17.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 356 (TBR.)	20.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 357	27.5	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 358 (TBR.)	18.7	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 359	18.8	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 360	16.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 361 (TBR.)	24.1	AR	ACER RUBRUM	RED MAPLE	FAIR
TR 362 (TBR.)	12.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 363 (TBR.)	15.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 364 (TBR.)	37.8	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 365	18.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 366 (TBR.)	19.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 367	18.7	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 368	14.9	NS	NYSSA SYLVATICA	BLACK TUPELO	FAIR
TR 369	13.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 370	23.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 371	15.4	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 372	25.5	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 373	28.0	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 374	31.0	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 375	12.7	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 376	12.6	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 377 (TBR.)	23.4	DEAD	N/A	N/A	DEAD
TR 378 (TBR.)	30.5	QPH	QUERCUS PHELLOS	WILLOW OAK	GOOD
TR 379 (TBR.)	21.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 380	14.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 381 (TBR.)	15.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 382 (TBR.)	22.5	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 383	22.6	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 384	16.4	PS	PRUNUS SEROTINA	BLACK CHERRY	GOOD
TR 385 (TBR.)	21.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 386	17.3	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 387	14.7	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 388	31.1	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 389	21.9	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 390	30.0	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 391 A	18.4	QPA	QUERCUS PALUSTRIS	PIN OAK	GOOD
TR 391 B	22.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 392	25.5	QA	QUERCUS ALBA	WHITE OAK	GOOD
TR 393	13.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 394	13.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 395 (TBR.)	13.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD

TBR = TO BE REMOVED

TREE NUMBER	DBH, IN	ABBREVIATION	SCIENTIFIC NAME	COMMON NAME	CONDITION
TR 396 (TBR.)	14.7	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 397 (TBR.)	40.2	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 398 (TBR.)	16.5	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 399	14.3	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 400	24.1	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 401	23.7	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 402	23.4	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 403	13.6	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 404	21.5	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 405	19.6	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 406	19.9	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 407	20.9	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 408	18.6	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 409 (TBR.)	16.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 410	17.7	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 411 (TBR.)	25.0	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 412 (TBR.)	25.0	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 413	21.1	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 414	14.3	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 415	19.9	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 416	16.7	PS	PRUNUS SEROTINA	BLACK CHERRY	GOOD
TR 417	21.4	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 418	21.6	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	FAIR
TR 419 (TBR.)	24.7	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 420 (TBR.)	12.2	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 421 (TBR.)	12.0	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 422 (TBR.)	16.9	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 423 (TBR.)	16.7	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 424	26.1	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 425	26.1	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 426	16.8	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	GOOD
TR 427	21.1	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 428	26.5	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 429 (TBR.)	30.9	LT	LIRODENDRON TULIPIFERA	TULIP POPLAR	GOOD
TR 430	20.0	NS	NYSSA SYLVATICA	BLACK TUPELO	GOOD
TR 431	22.3	LS	LIQUIDAMBAR STYRACIFLUA	SWEET GUM	FAIR
TR 432	24.5	LS			



MATCHLINE REFER TO SHEET 12/DWG SR-02

30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION PLAN

S/C PLAN # N/A	REVISIONS
GP # N/A	
DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	
REVIEWED BY : SMC/CMS	
DRAWING NO. SR-01	OF SR-05
SHEET NO. 11 OF 29	

NOTES:

1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
2. FOR SOIL BORING LOGS, SEE SHEET 2/DWG GN-02.
3. ROCKS ARE SYMBOLIC AND DO NOT REPRESENT INDIVIDUAL STONE SIZE.
4. EXISTING SUITABLE ROCK WITHIN THE LIMITS OF PROPOSED GRADING SHOULD BE REMOVED, STOCKPILED AND RE-USED ON SITE IF IT MEETS MATERIAL SPECIFICATIONS PER THE CONTRACT DOCUMENTS AND IS APPROVED BY THE ENGINEER.
5. WETLAND DELINEATION WAS PERFORMED BY BAYLAND CONSULTANTS AND DESIGNERS, INC. DATED MARCH 2023. WETLANDS AND ASSOCIATED BUFFERS OUTSIDE LIMIT OF WORK ARE NOT SHOWN ON PLANS. DISCONTINUOUS WETLAND BOUNDARY INDICATES WETLAND EXTENDS BEYOND THE LIMIT OF WORK.
6. FOR STRUCTURE DETAILS SEE SHEET 16/DWG DE-01 AND SHEET 17/DWG DE-02.
7. ROCK FOR RIFFLE-WEIR APRONS AND RUNS NOT SHOWN IN PLAN VIEW. FOR EXTENTS OF ROCK, REFER TO THE DETAILS.

PLAN-STREAM

SCALE: 1" = 20'
0 10 20 40
1 INCH = 20 FEET

 **BayLand** Consultants & Designers, Inc.
"Integrating Engineering and Environment"

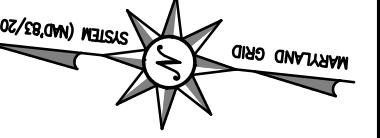
7455 New Ridge Road, Suite T Phone: (410) 694-9401
Hanover, Maryland 21076 Fax: (410) 694-9105
www.baylandinc.com
BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX
EG-SWMENG- XXXXX-XXXX #XXXX
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.

(100/5000 FEET)
000 ON 000

11

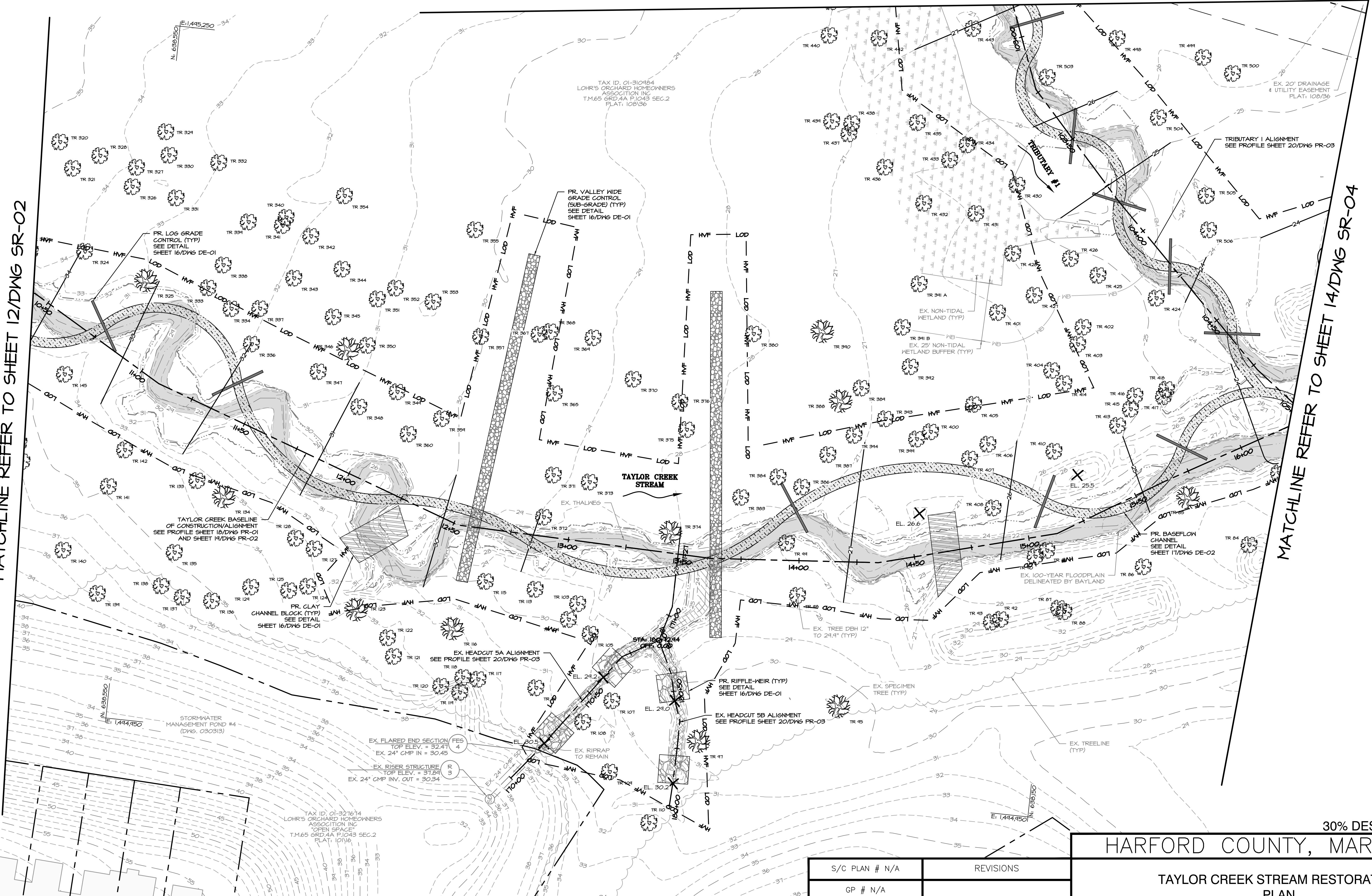
11



MATCHLINE REFER TO SHEET 15/DWG SR-05

MATCHLINE REFER TO SHEET 12/DWG SR-02

MATCHLINE REFER TO SHEET 14/DWG SR-04



NOTES:

1. FOR EXISTING TREE INVENTORY, SEE SHEET 9/DWG TI-01 AND SHEET 10/DWG TI-02.
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6. FOR STRUCTURE DETAILS SEE SHEET 16/DWG DE-01 AND SHEET 17/DWG DE-02.
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PLAN-STREAM

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0 10 20 40
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PROFESSIONAL CERTIFICATION

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S/C PLAN # N/A

REVISIONS

GP # N/A

BILLING NO. XXXXXX

EG-SWMENG- XXXXX-XXXX #XXXX

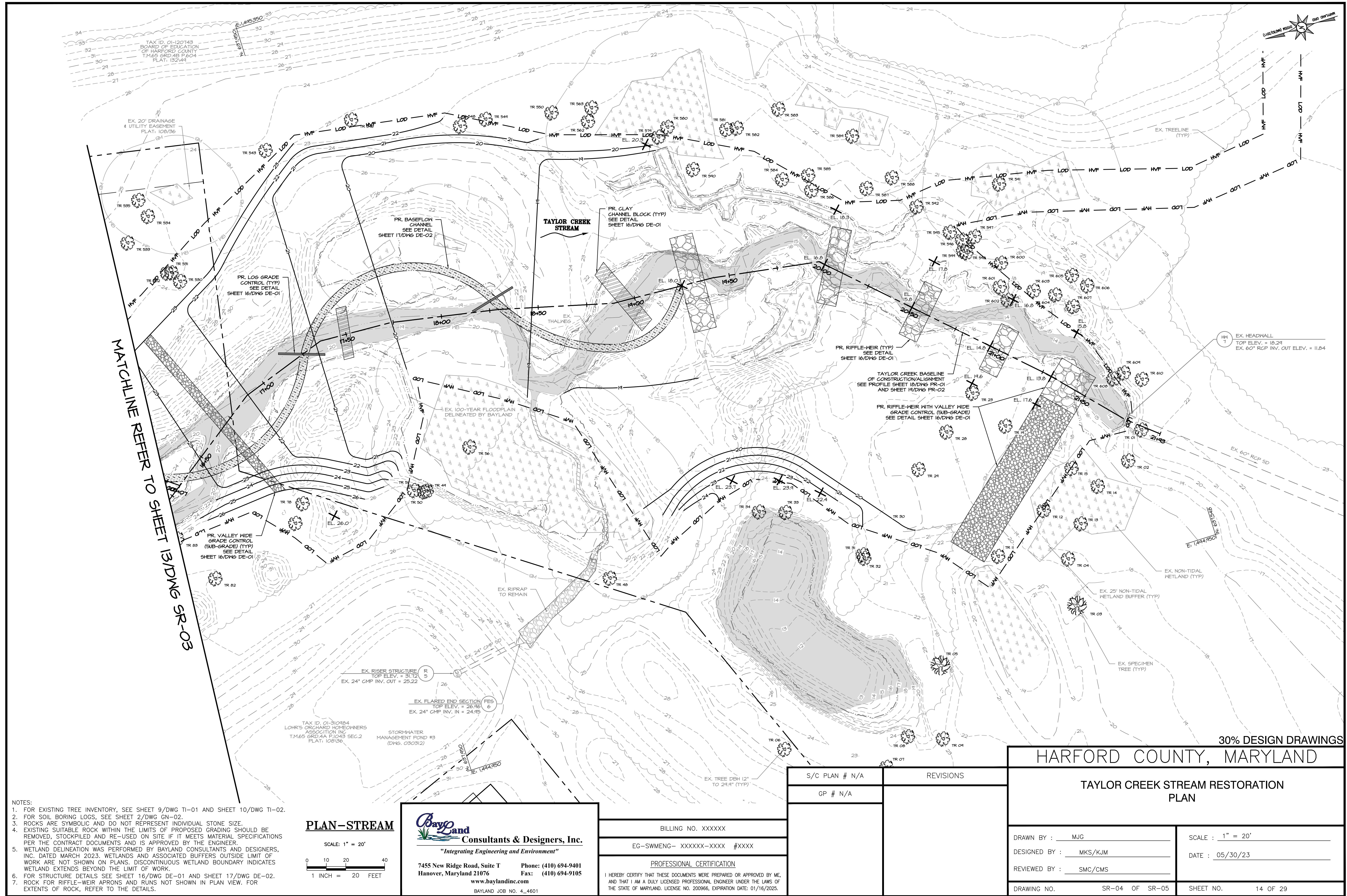
TAYLOR CREEK STREAM RESTORATION PLAN

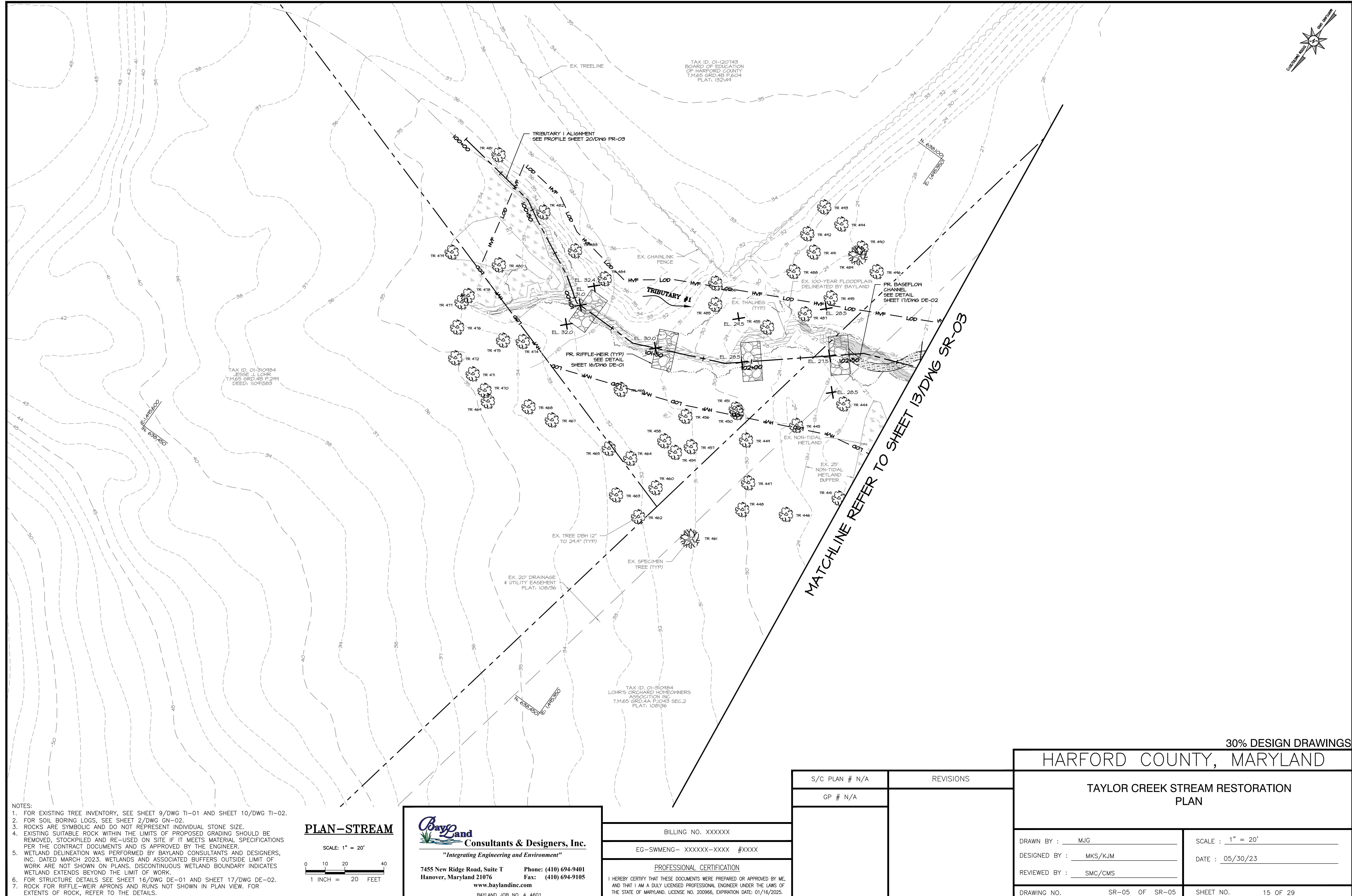
DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/30/23
REVIEWED BY : SMC/CMS	
DRAWING NO. SR-03 OF SR-05	SHEET NO. 13 OF 29

BID No.:

HGS DWG ID No.:

SCALE : 1" = 1 inch





NOTES:

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7. ROCK FOR RIFFLE-WEIR APRONS AND RUNS NOT SHOWN IN PLAN VIEW. FOR EXTENTS OF ROCK, REFER TO THE DETAILS.

PLAN–STREAM

BayLand Consultants & Designers Inc.

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S/C PLAN # N/A	REVISIONS	TAYLOR CREEK STREAM RESTORATION PLAN			
GP # N/A					
		DRAWN BY : MJG		SCALE : 1" = 20'	
		DESIGNED BY : MKS/KJM		DATE : 05/30/23	
		REVIEWED BY : SMC/CMS			
		DRAWING NO.	SR-05 OF SR-05	SHEET NO.	15 OF 29

30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION PLAN

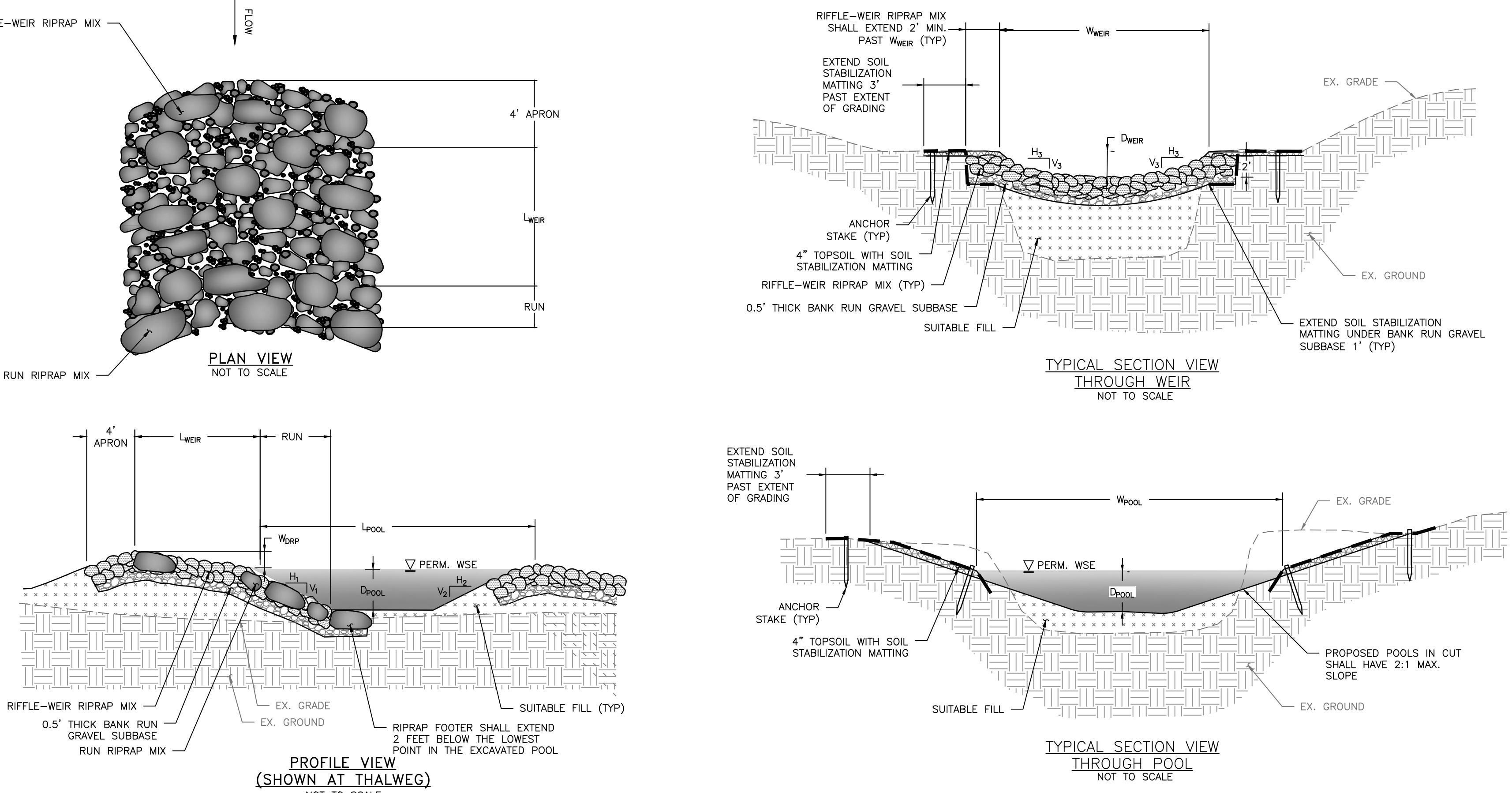
DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/30/23
REVIEWED BY : SMC/CMS	
DRAWING NO. SR-05 OF SR-05	SHEET NO. 15 OF 29

RIFFLE-WEIR CONSTRUCTION SPECIFICATIONS

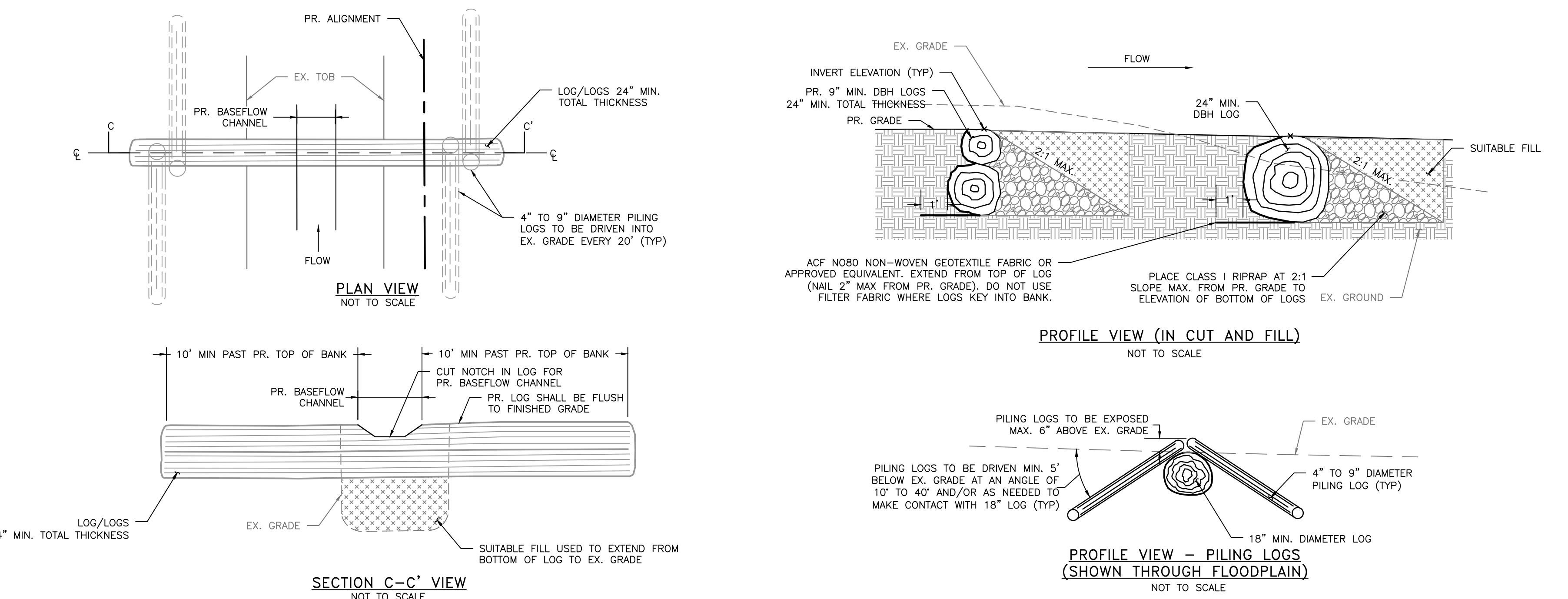
FOR MATERIAL AND SUBMITTAL REQUIREMENTS SEE THE TECHNICAL SPECIFICATIONS.

CONSTRUCTION

1. THE RIFFLE-WEIRS SHALL BE INSTALLED ACCORDING TO THE SEQUENCE OF CONSTRUCTION, THE CONSTRUCTION DRAWINGS, THESE SPECIFICATIONS, AND AS DIRECTED BY THE COUNTY.
2. THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO CONSTRUCT, INSTALL, AND MAINTAIN THE RIFFLE-WEIRS AS SHOWN ON THE CONTRACT DRAWINGS AND DESCRIBED IN THESE SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.
3. THE CONTRACTOR SHALL REVIEW THE DETAILS AND SPECIFICATIONS WITH THE ENGINEER PRIOR TO CONSTRUCTION.
4. USING PUMP AROUND TECHNIQUES, THE STREAM SHALL BE DIVERTED AND THE CONSTRUCTION AREA DEWATERED AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLANS.
5. THE CONTRACTOR SHALL STAKE OUT THE EXTENTS OF EACH STRUCTURE AND IF REQUIRED, REVIEW THE STAKEOUT WITH THE ENGINEER PRIOR TO CONSTRUCTION.
6. SUITABLE FILL SHALL BE USED FOR FILLING THE FACILITY BOTTOM TO ACHIEVE THE GRADE NECESSARY FOR THE INSTALLATION OF THE WEIR. SUITABLE FILL SHALL BE PLACED IN LIFTS NO MORE THAN EIGHT (8) INCHES THICK AND COMPACTED. COMPACTION TESTING MAY BE REQUIRED AT THE DISCRETION OF THE INSPECTOR AT NO ADDITIONAL COST TO THE COUNTY.
7. RIPRAP FOOTER SHALL BE PLACED AT THE INTERFACE OF THE POOLS AND WEIRS AS SHOWN ON THE CONSTRUCTION DRAWINGS. RIPRAP FOOTER MUST EXTEND A MINIMUM OF TWO FEET BELOW THE PROPOSED POOL INVERT AND TWO FEET DOWNSTREAM INTO THE POOL TO PREVENT UNDERMINING. BANK RUN GRAVEL SUBBASE SHALL BE USED TO SEPARATE THE SUITABLE FILL AND THE RIPRAP THAT LINE THE FACILITY BOTTOM. ADDITIONAL RIFFLE-WEIR RIPRAP MIX SHALL BE PLACED ADJACENT TO THE FOOTER AT THE WEIR ELEVATION UPSTREAM OF THE FOOTER BOULDERS TO FORM THE WEIR CHANNEL PARABOLIC SHAPE. RIPRAP SHALL BE ARRANGED HORIZONTALLY IN THE CENTER OF THE CHANNEL AND THE ARMS ON EITHER SIDE OF THE CHANNEL SHALL BE EXTENDED PARABOLICALLY AT APPROXIMATELY A 20 DEGREE ANGLE LONGITUDINALLY TO THE CENTER OF THE POOL OR AS DIRECTED BY THE COUNTY. THE RIPRAP SHALL BE ARRANGED TO MAXIMIZE INTERLOCKING. THE FACE OF THE RIPRAP SHALL BE TILTED DOWNSTREAM TO OCCUPY HALF OF THE INCLINE MADE UP OVER THE ENTIRE LENGTH OF THE WEIR.
8. ONCE THE RUNS HAVE BEEN PLACED, FILL WITH RIFFLE-WEIR RIPRAP MIX TO FORM THE BACKSIDE OF THE WEIR. A MINIMUM OF SIX (6) INCHES OF BANK RUN GRAVEL SUBBASE SHALL BE USED TO SEPARATE THE SUITABLE FILL OR EXISTING GRADE AND THE BACKSIDE OF THE WEIR. A SMALL RIPRAP APRON SHALL BE PLACED WHERE THE RIPRAP MEETS THE POOL ON THE DOWNSTREAM SIDE. SMALL AND LARGE STONES SHALL BE MIXED TO MINIMIZE VOID SPACE.
9. RIFFLE-WEIR RIPRAP MIX SHOULD BE PLACED IN LAYERS AND STREAMBED MATERIAL SHALL BE WASHED INTO THE MIX AFTER EACH LAYER IS PLACED TO MINIMIZE VOID SPACE EXCEPT FOR THE TOP 4 INCHES WHICH DO NOT REQUIRE STREAMBED MATERIAL. STONE SHALL BE PLACED IN A MANNER SO THAT IT SHINGLES IN A DOWNSTREAM DIRECTION, MINIMIZES VOID SPACE AND PROMOTES INTERLOCKING. DUMPING OF STONE WILL NOT BE PERMITTED. VOID SPACE MUST BE MINIMIZED TO THE SATISFACTION OF THE COUNTY PRIOR TO ACCEPTANCE OF EACH CONSTRUCTED WEIR.
10. SURFACE ELEVATIONS OF THE STRUCTURES SHALL CONFORM TO THE PROPOSED DESIGN STREAM PROFILES AND CROSS SECTIONS SPECIFIED IN THE CONTRACT DOCUMENTS. TOLERANCES OF THE FINISHED STRUCTURE ARE AS FOLLOWS:



RIFFLE-WEIR DETAILS



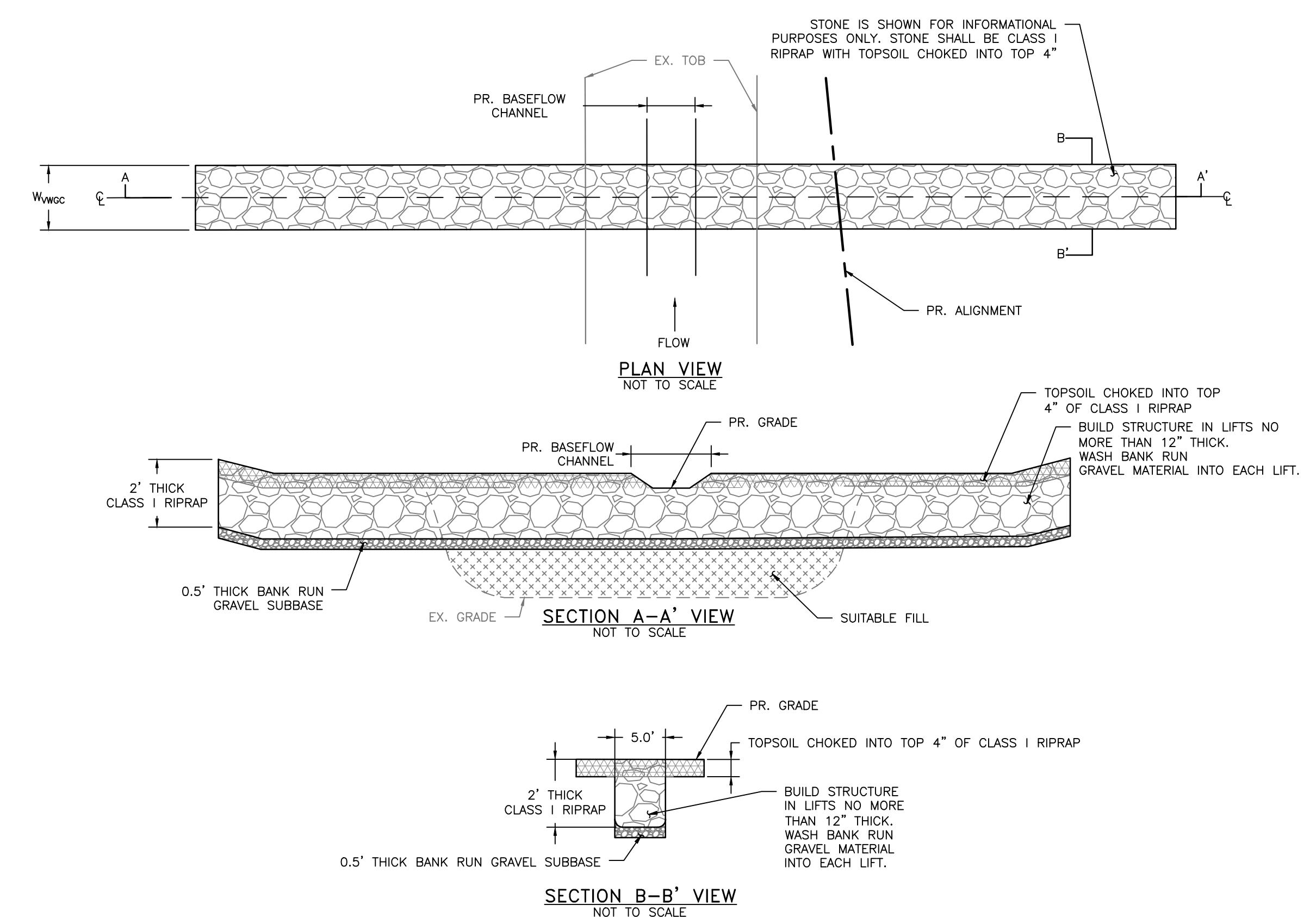
LOG GRADE CONTROL DETAILS

NOT TO SCALE

OG GRADE CONTROL NOTES:

- LOGS SHALL OVERLAP 2.0' MIN. AND SHALL BE STAGGERED IF MULTIPLE FLOODPLAIN LOGS ARE UTILIZED TO ACHIEVE THE REQUIRED TOTAL FLOODPLAIN LENGTH.
- UP TO TWO LOGS MAY BE UTILIZED TO ACHIEVE REQUIRED MINIMUM THICKNESS OF 24", AND EACH LOG SHALL BE 9" MIN. DBH. THE LARGEST, HARDEST LOGS WITH HIGH SPECIFIC GRAVITIES SHALL BE FAVORED FOR USE. LOGS MEETING THE 24" MIN. DBH REQUIREMENT SHALL BE UTILIZED FIRST AND THE SUPPLY THEREOF SHALL BE EXHAUSTED PRIOR TO EXERCISING THE TWO LOG OPTION.
- THE TOP ELEVATION OF THE ENTIRE LOG WITHIN THE BASEFLOW CHANNEL SHALL BE NO CLOSER THAN 0.3' TO THE TOP OF BANK. IF THE LOG IS NOT COMPLETELY STRAIGHT, THE LOW POINT OF THE LOG SHALL BE CENTERED IN THE BASEFLOW CHANNEL. IF THIS IS NOT POSSIBLE, A 2" DEEP BY 6" WIDE NOTCH SHALL BE CUT IN THE LOG IN THE CENTER OF THE BASEFLOW CHANNEL.

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VALLEY WIDE GRADE CONTROL DETAILS

NOT TO SCALE

VALLEY WIDE GRADE CONTROL NOTES:

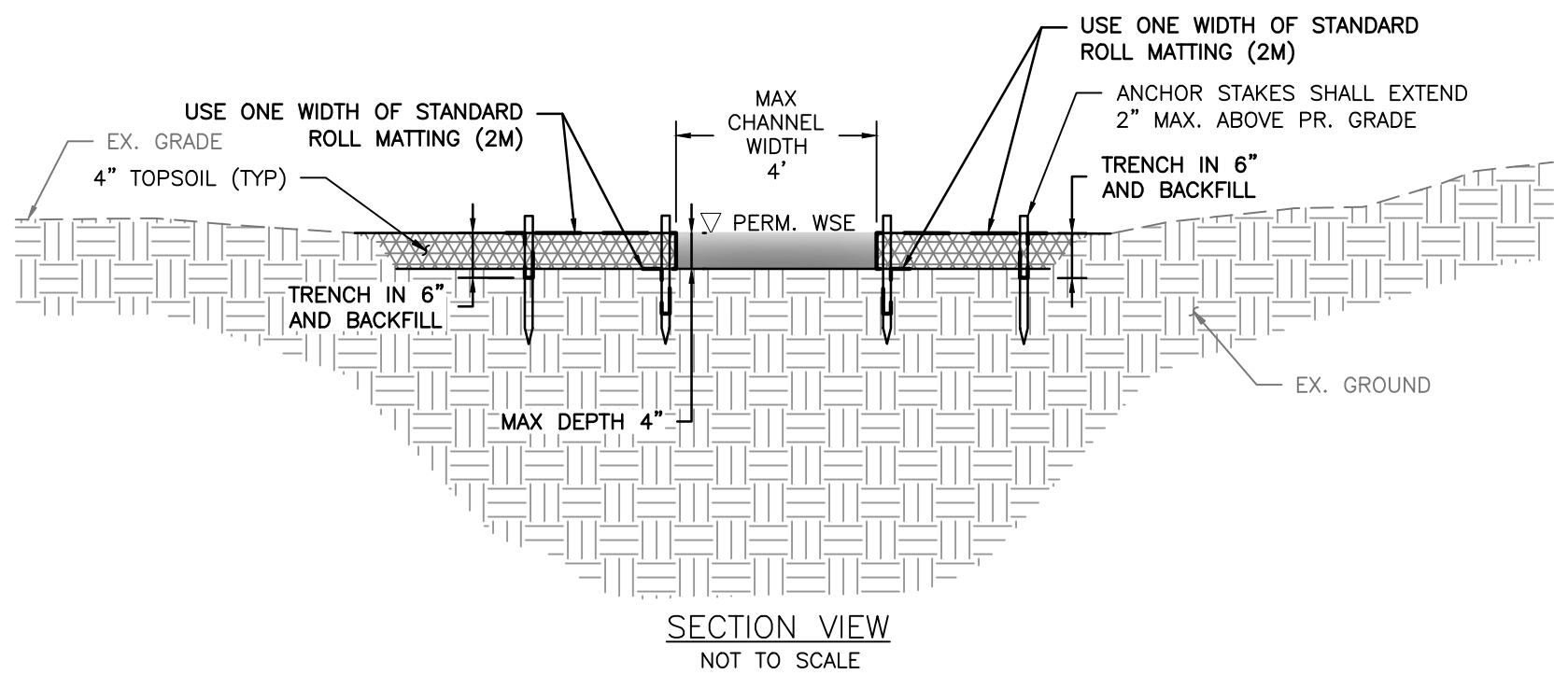
1. IN THE FLOODPLAIN AND OTHER AREAS WITH UNCONSOLIDATED SOIL, PLACE BANK RUN GRAVEL AS NEEDED TO CREATE A STABLE SUBBASE FOR THE ROCK STRUCTURE. CONTRACTOR SHALL TRACK OVER BANK RUN GRAVEL MULTIPLE TIMES TO UNIFORMLY COMPACT AND ENSURE STABLE SUBBASE.
2. SEE PROFILE AND CROSS-SECTIONS FOR PROPOSED GRADES.
3. BANK RUN GRAVEL SHALL BE WASHED INTO EACH LIFT OF CLASS I RIPRAP THAT IS PLACED TO FILL/MINIMIZE VOID SPACE IN CLASS I RIPRAP EXTENDING ACROSS THE FLOODPLAIN. MINIMIZING VOID SPACE IN THE CLASS I RIPRAP IS ESSENTIAL TO THE SUCCESS OF THE VALLEY WIDE GRADE CONTROL STRUCTURE TO ENSURE SURFACE FLOW ACROSS THE FLOODPLAIN.
4. PLACE RIPRAP IN 12-INCH THICK LIFTS. BANK RUN GRAVEL SHALL BE WASHED INTO EACH LIFT OF RIPRAP TO MINIMIZE VOID SPACE AND ENSURE SURFACE FLOW.
5. SMALL AND LARGE STONES SHALL BE MIXED TO MINIMIZE VOID SPACES. STONE MUST BE PLACED IN A MANNER TO PROMOTE INTERLOCKING. DUMPING OF STONE WILL NOT BE PERMITTED.
6. STONE MUST BE BLUE/GREY/BROWN IN COLOR. NO WHITE STONE SHALL BE ALLOWED.

30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION DETAILS

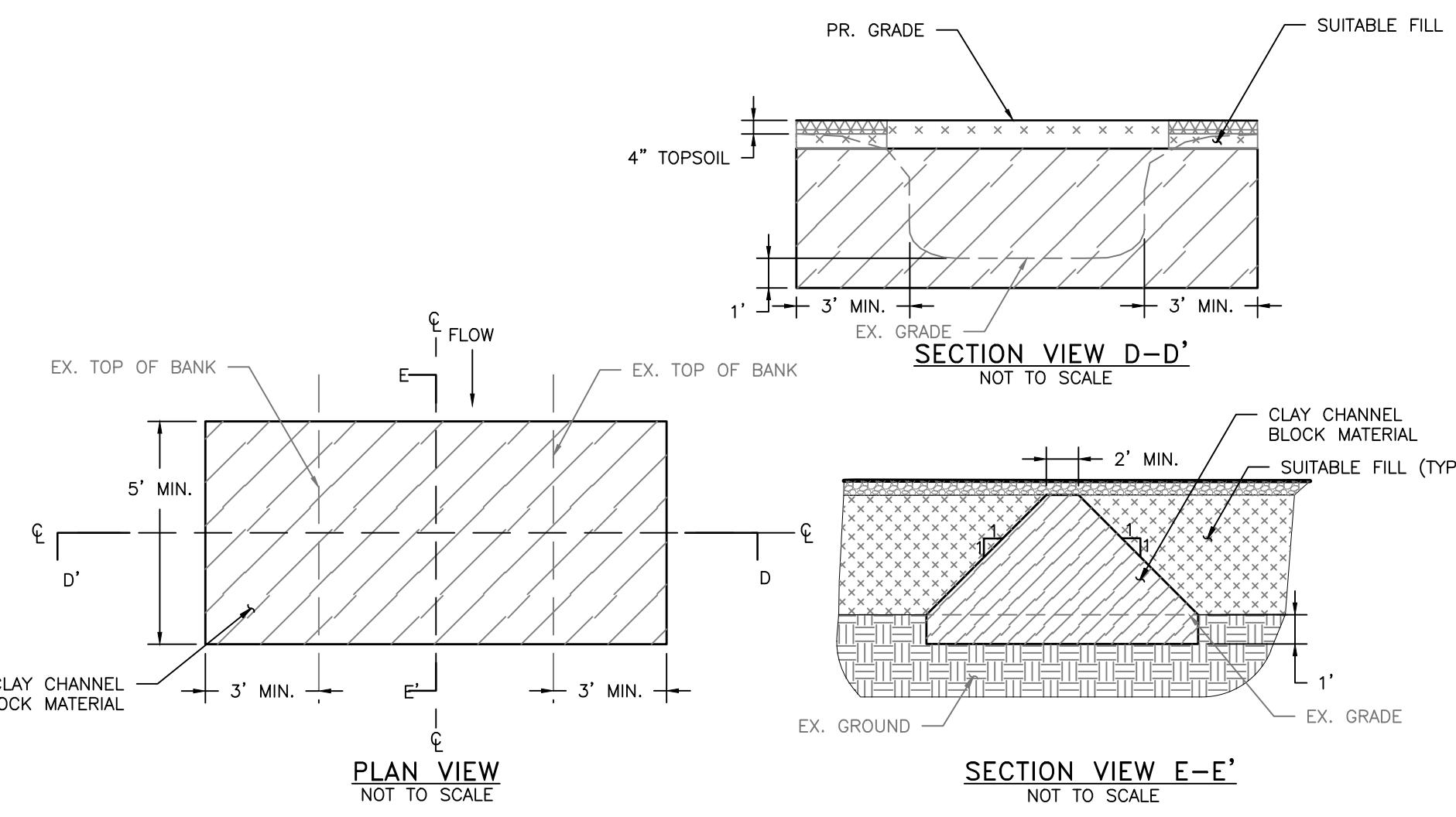
S/C PLAN # N/A	REVISIONS	TAYLOR CREEK STREAM RESTORATION DETAILS		
GP # N/A		DRAWN BY : MJG	SCALE : AS SHOWN	
		DESIGNED BY : MKS/KJM	DATE : 05/30/23	
		REVIEWED BY : SMC/CMS		
		DRAWING NO. DE-01 OF DE-02	SHEET NO. 16 OF 29	



BASEFLOW CHANNEL DETAIL

NOT TO SCALE

PERMANENT STABILIZATION FOR DISTURBED FLOODPLAIN/TERRACE ADJACENT TO THE RESTORED STREAM CHANNEL WILL CONSIST OF BIODEGRADABLE SOIL STABILIZATION MATTING WITH 4 INCHES OF TOPSOIL AND SEED INCLUDING AT THE BASEFLOW CHANNEL AS SHOWN ON THIS SHEET AND AT THE DIRECTION OF THE COUNTY AND/OR ENGINEER.

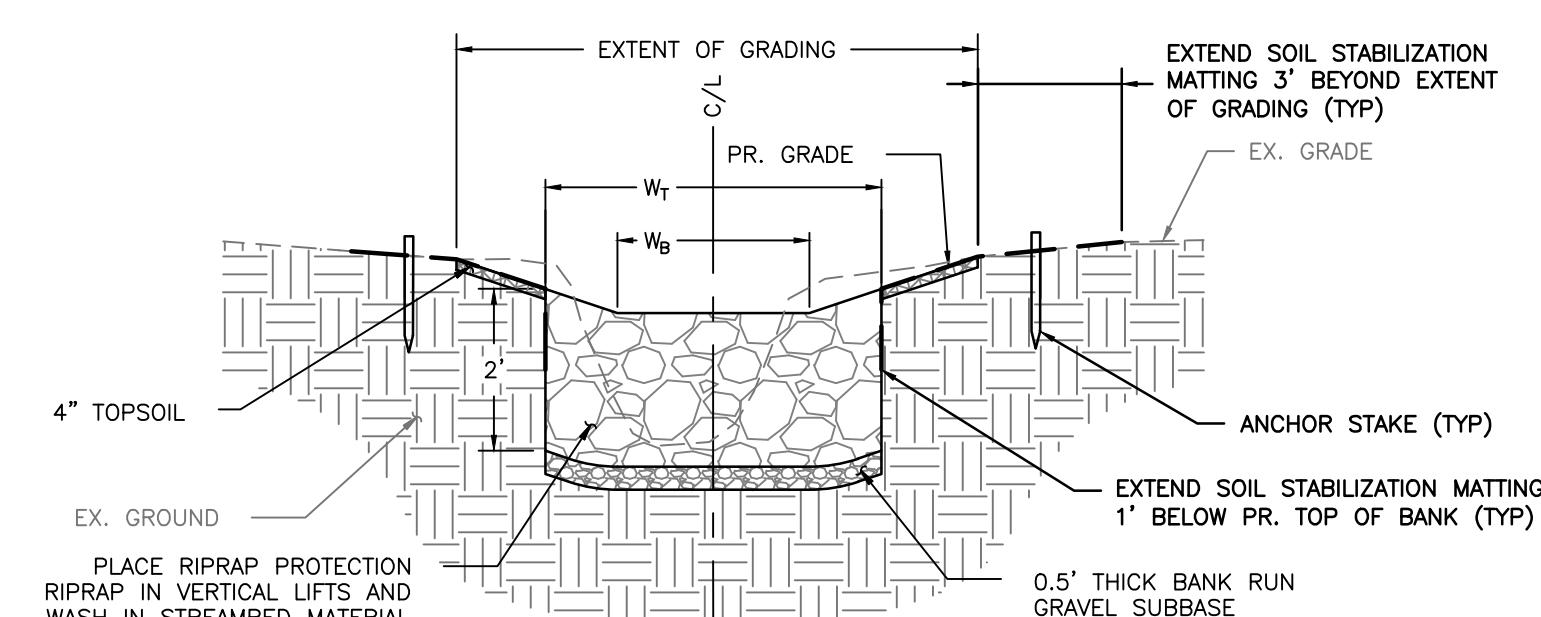


CLAY CHANNEL BLOCK DETAILS

NOT TO SCALE

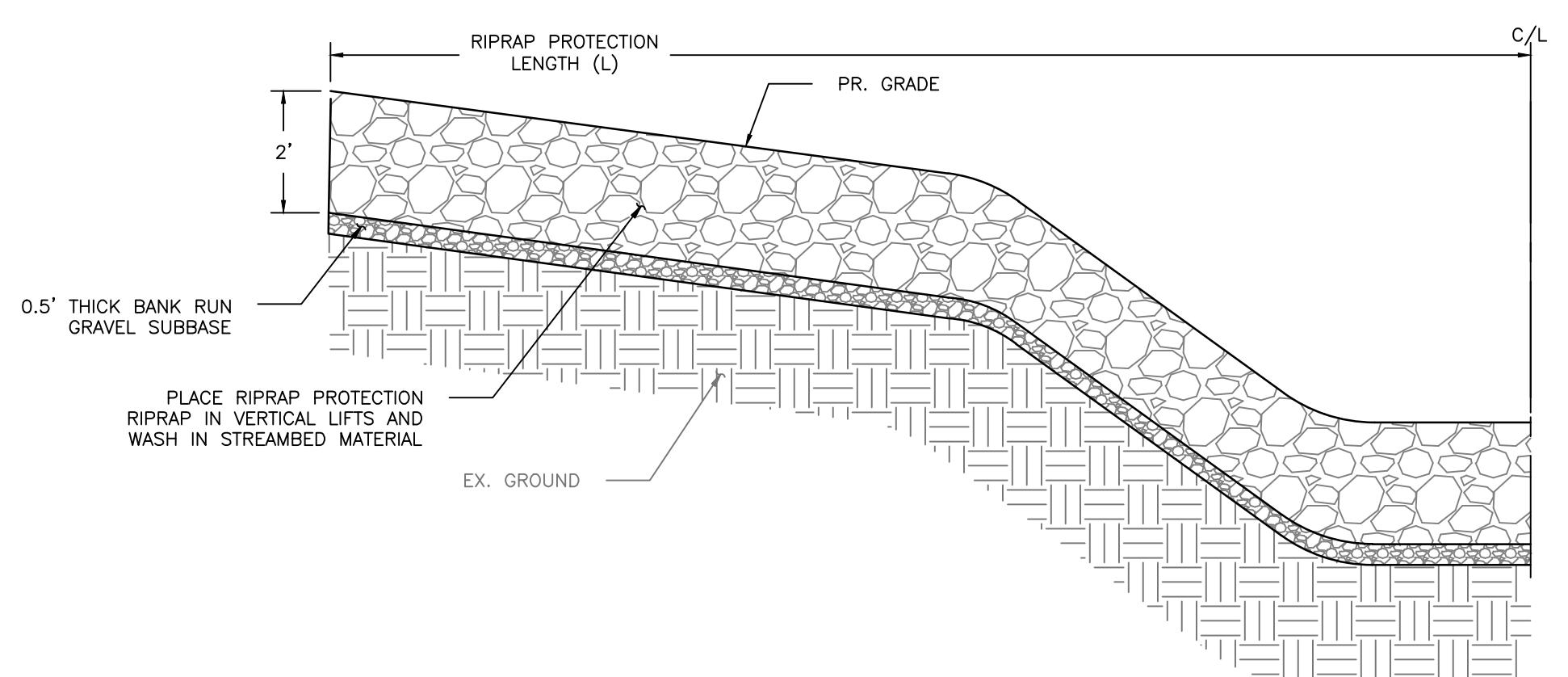
CLAY CHANNEL BLOCK NOTES:

1. CLAY CHANNEL BLOCK MATERIAL (CLAY FILL) SHALL CONFORM TO UNIFIED SOIL CLASSIFICATION SYSTEM (USCS) DESIGNATIONS SC, CH, OR CL WITH A MINIMUM OF 35 PERCENT PASSING THE #200 SIEVE. CLAY FILL SHALL NOT BE CONTAMINATED BY ROOTS, STUMPS, WOOD, RUBBISH, STONES GREATER THAN 2", AND FROZEN OR OBJECTIONABLE MATERIAL. MATERIAL USED FOR CLAY CHANNEL BLOCK CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER PRIOR TO USE.
2. CLAY CHANNEL BLOCK MATERIAL SHALL BE COMPAKTED TO ASSURE MAXIMUM DENSITY AND MINIMUM PERMEABILITY. COMPACTED CLAY FILL SHALL CONFORM TO A MINIMUM 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASHTH METHOD T-99 OR ASTM D698. CLAY FILL SHALL BE PLACED IN 8-INCH MAX. LIFTS. EACH LIFT SHALL BE COMPACTED WITH CONSTRUCTION EQUIPMENT, ROLLERS, AND/OR HAND TAMERS. COMPACTION OF EACH CLAY CHANNEL BLOCK SHALL BE TESTED BY THE ON-SITE GEOTECHNICAL ENGINEER AND RESULTS OF THE COMPACTION TESTING SHALL BE SUBMITTED TO THE COUNTY FOR APPROVAL.
3. IN INSTANCES WHERE GROUNDWATER IS ENCOUNTERED DURING EXCAVATION FOR, OR DURING INSTALLATION OF CLAY CHANNEL BLOCKS, THE CONTRACTOR SHALL NEED TO DRAWDOWN THE PIT, OR OTHER DEWATERING DEVICE, TO DRAWDOWN LOCAL GROUNDWATER AND ALLOW FOR REQUIRED COMPACTION.
4. CLAY CHANNEL BLOCK DIMENSIONS MAY BE ADJUSTED IN THE FIELD UNDER THE SUPERVISION OF THE COUNTY.



SECTION VIEW

NOT TO SCALE



PROFILE VIEW

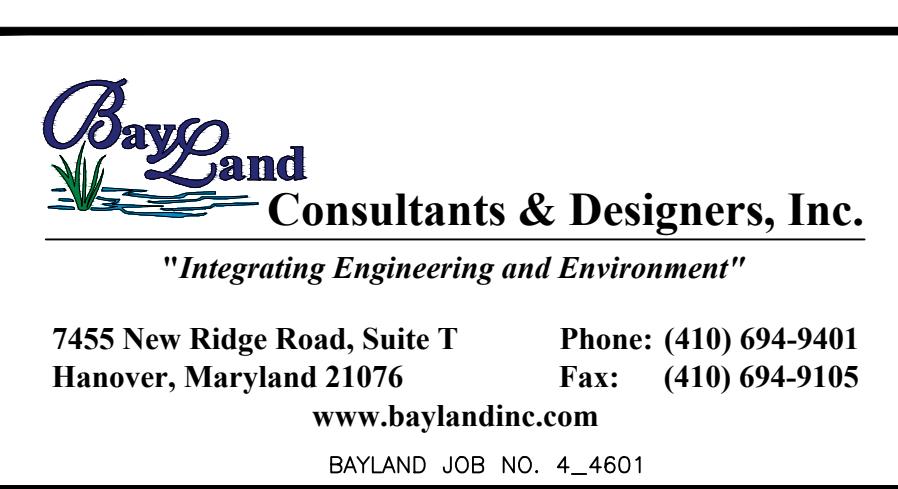
NOT TO SCALE

RIPRAP PROTECTION DETAILS

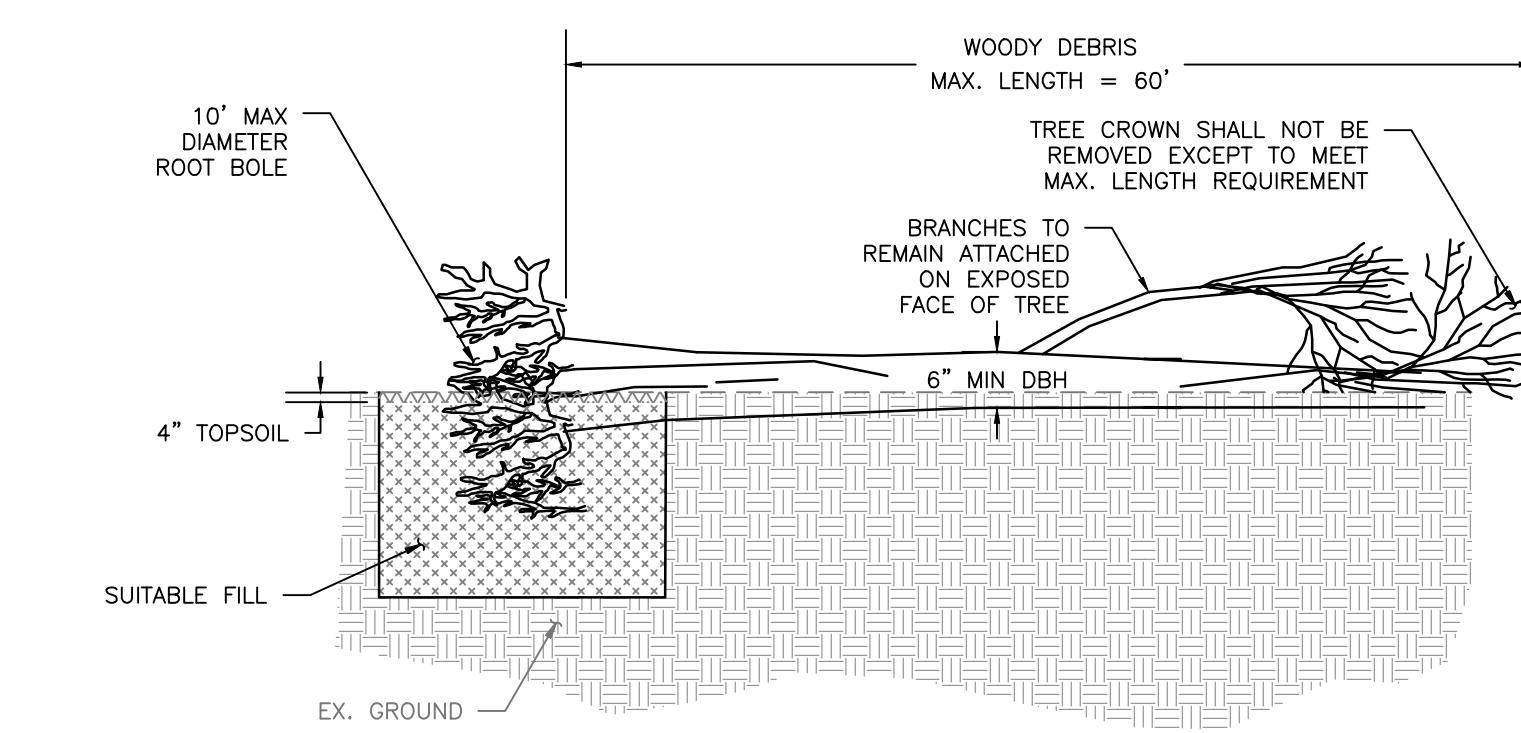
NOT TO SCALE

RIPRAP PROTECTION NOTES:

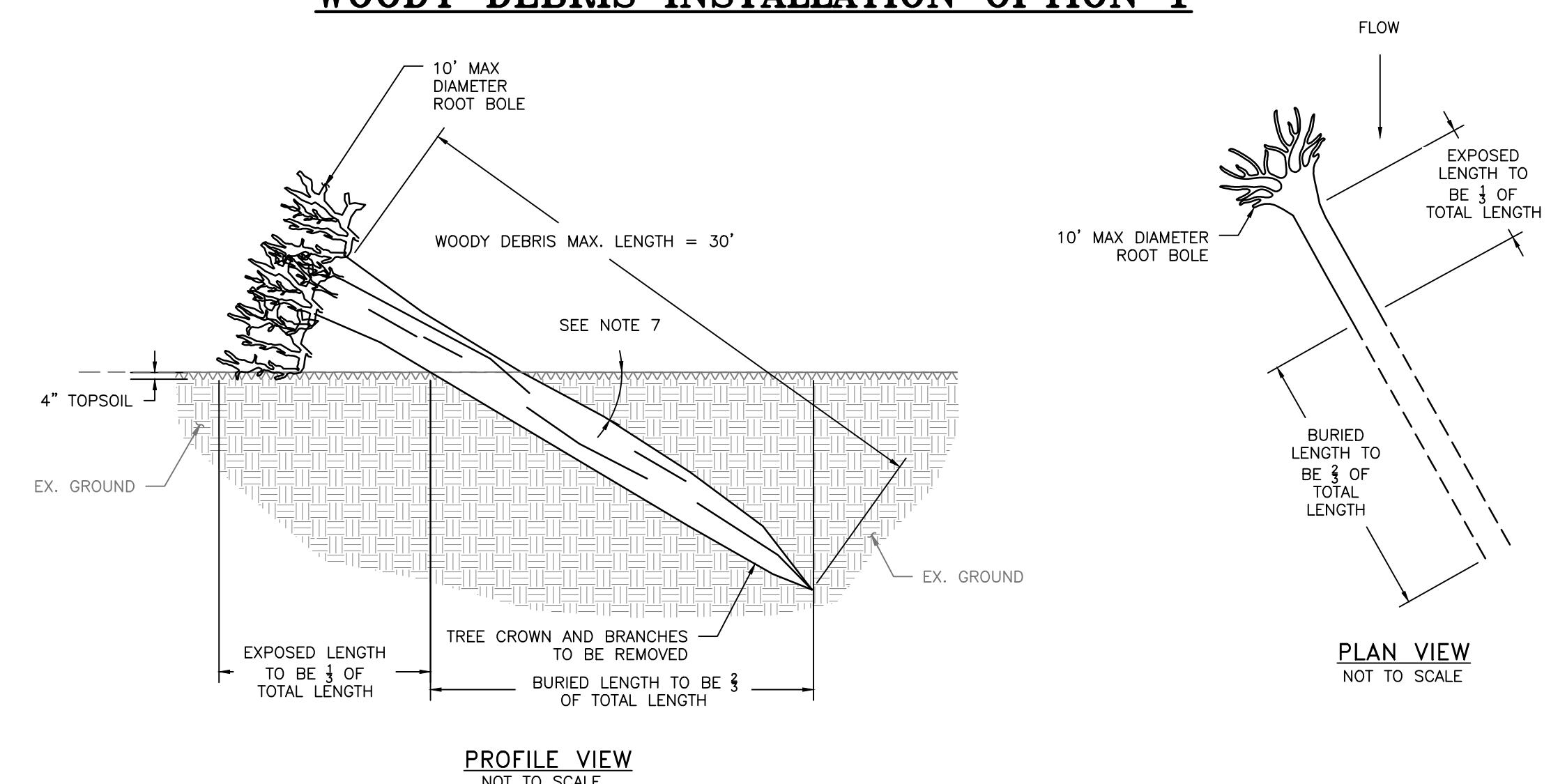
1. RIPRAP PROTECTION RIPRAP SHALL CONSIST OF 50% CL I RIPRAP AND 50% CL II RIPRAP MIX BY PARTS. RIPRAP SHALL BE MIXED PRIOR TO INSTALLATION.
2. SMALL AND LARGE STONES SHALL BE MIXED TO MINIMIZE VOID SPACES. STONE MUST BE PLACED IN A MANNER THAT PREVENTS OVERLOCKING OR CAMPING OF STONE. STONE NOT PERMITTED.
3. RIPRAP SHALL BE PLACED IN LAYERS WITH A MAXIMUM THICKNESS OF 12 INCHES. STREAMBED MATERIAL SHALL BE SHEDDED INTO EACH LIFT OF RIPRAP TO ENSURE SURFACE FLOW.
4. STONE MUST BE BLUE/GREY/BROWN IN COLOR. NO WHITE STONE SHALL BE ALLOWED.



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WOODY DEBRIS INSTALLATION OPTION 1



WOODY DEBRIS INSTALLATION OPTION 2

WOODY DEBRIS INSTALLATION OPTION 1 IS PREFERRED. WOODY DEBRIS INSTALLATION OPTION 2 MAY BE USED IN WET AREAS.

LARGE WOODY DEBRIS DETAILS

NOT TO SCALE

LARGE WOODY DEBRIS NOTES:

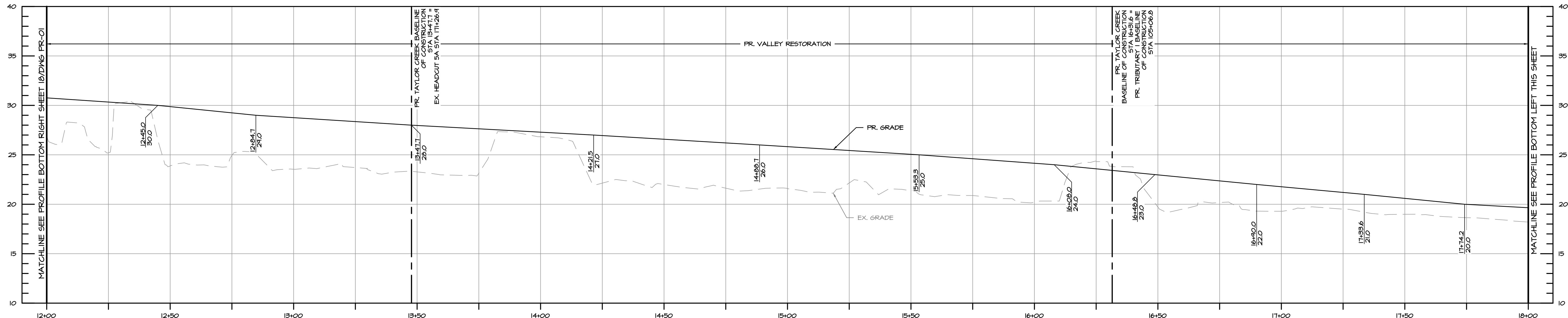
1. EXISTING TREES TO BE REMOVED WITHIN THE LIMIT OF DISTURBANCE SHALL NOT BE DISPOSED OF OFFSITE WITHOUT PERMISSION FROM THE COUNTY.
2. ALL REMOVED TREES THAT ARE NOT USED IN OTHER PROPOSED STRUCTURES SHALL BE PLACED WITHIN THE FLOODPLAIN FOLLOWING THE SPECIFICATIONS WITHIN THE WOODY DEBRIS DETAIL OR AT THE DIRECTION OF THE COUNTY.
3. WOODY DEBRIS SHALL BE PLACED AT THE DIRECTION OF THE ENGINEER/COUNTY AND WITHIN THE FLOODPLAIN A MINIMUM OF 5 FEET FROM THE PROPOSED CHANNEL TOP OF BANK AND VALLEY WALL TOE OF SLOPE AND A MINIMUM OF 10 FEET LATERAL AND VERTICAL CLEARANCE FROM ALL UTILITIES.
4. IF REQUIRED BY THE ENGINEER/COUNTY, BRANCHES SHALL BE PRUNED FROM PORTION OF TREE TO BE BURIED BELOW GRADE.
5. TIMBER USE IN PROPOSED WOODY DEBRIS STRUCTURE SHALL BE HARVESTED ON SITE. NO INVASIVE SPECIES SHALL BE UTILIZED.
6. WOODY DEBRIS SHALL ALWAYS BE ORIENTED WITH THE ROOT BOLE UPSTREAM.
7. ANGLE OF INSTALLATION MAY RANGE FROM 30 DEGREES TO VERTICAL (90 DEGREES) AS DIRECTED BY THE COUNTY.
8. WOODY DEBRIS INSTALLATION OPTION 1 IS PREFERRED. WOODY DEBRIS INSTALLATION OPTION 2 MAY BE USED IN WET AREAS.
9. WOODY DEBRIS PLACEMENT TO BE DIRECTED IN THE FIELD.

30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

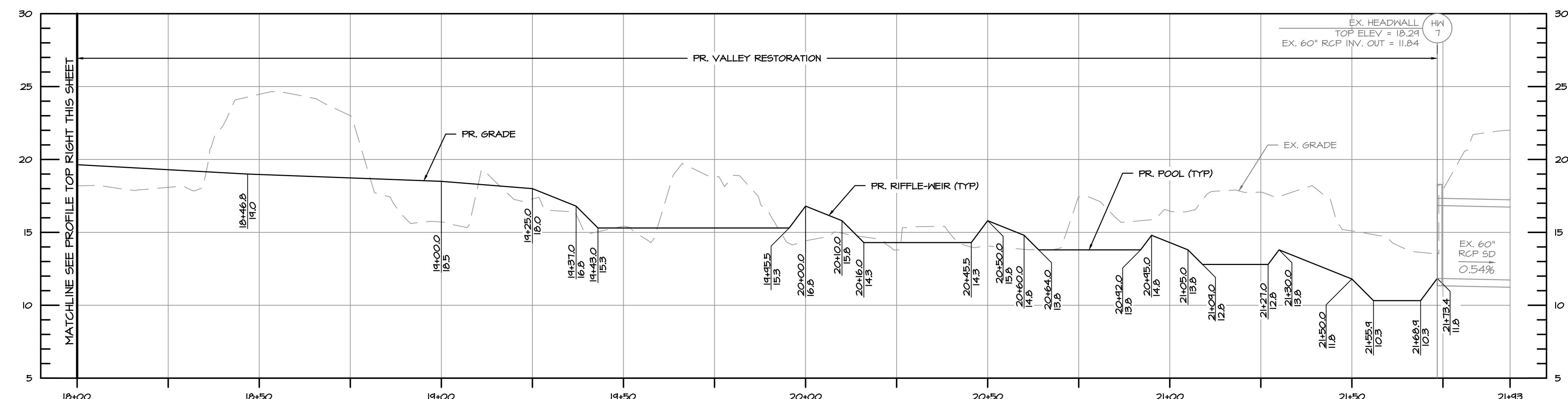
TAYLOR CREEK STREAM RESTORATION DETAILS

S/C PLAN # N/A	REVISIONS
GP # N/A	
BILLING NO. XXXXX	
EG-SWMENG- XXXXX-XXXX #XXXX	
PROFESSIONAL CERTIFICATION	
DRAWN BY : MJG	SCALE : AS SHOWN
DESIGNED BY : MKS/KJM	DATE : 05/30/23
REVIEWED BY : SMC/CMS	
DRAWING NO. DE-02 OF DE-02	SHEET NO. 17 OF 29



PROFILE TAYLOR CREEK BASELINE OF CONSTRUCTION STA: 12+00 TO STA: 18+00

SCALE: HORIZONTAL 1" = 20'
VERTICAL 1" = 5'



PROFILE TAYLOR CREEK BASELINE OF CONSTRUCTION STA: 18+00 TO STA: 21+93

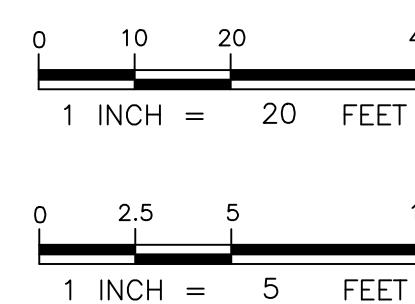
SCALE: HORIZONTAL 1" = 20'
VERTICAL 1" = 5'

30% DESIGN DRAWINGS

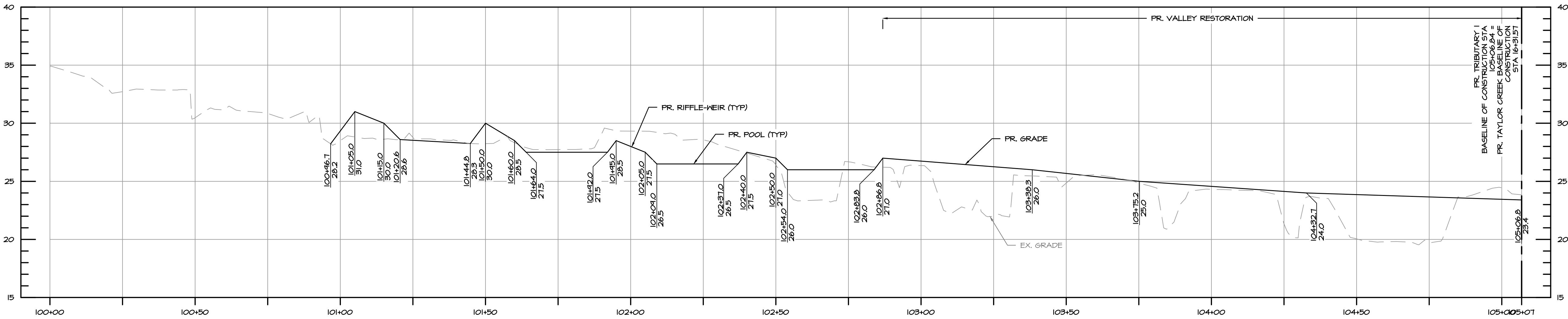
HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION PROFILE

S/C PLAN # N/A	REVISIONS
GP # N/A	
BILLING NO. XXXXXX	
EG-SWMENG- XXXXX-XXXX #XXXX	
PROFESSIONAL CERTIFICATION	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.	
DRAWN BY : MJG	SCALE : 1" = 20'
DESIGNED BY : MKS/KJM	DATE : 05/30/23
REVIEWED BY : SMC/CMS	
DRAWING NO. PR-02 OF PR-03	SHEET NO. 19 OF 29

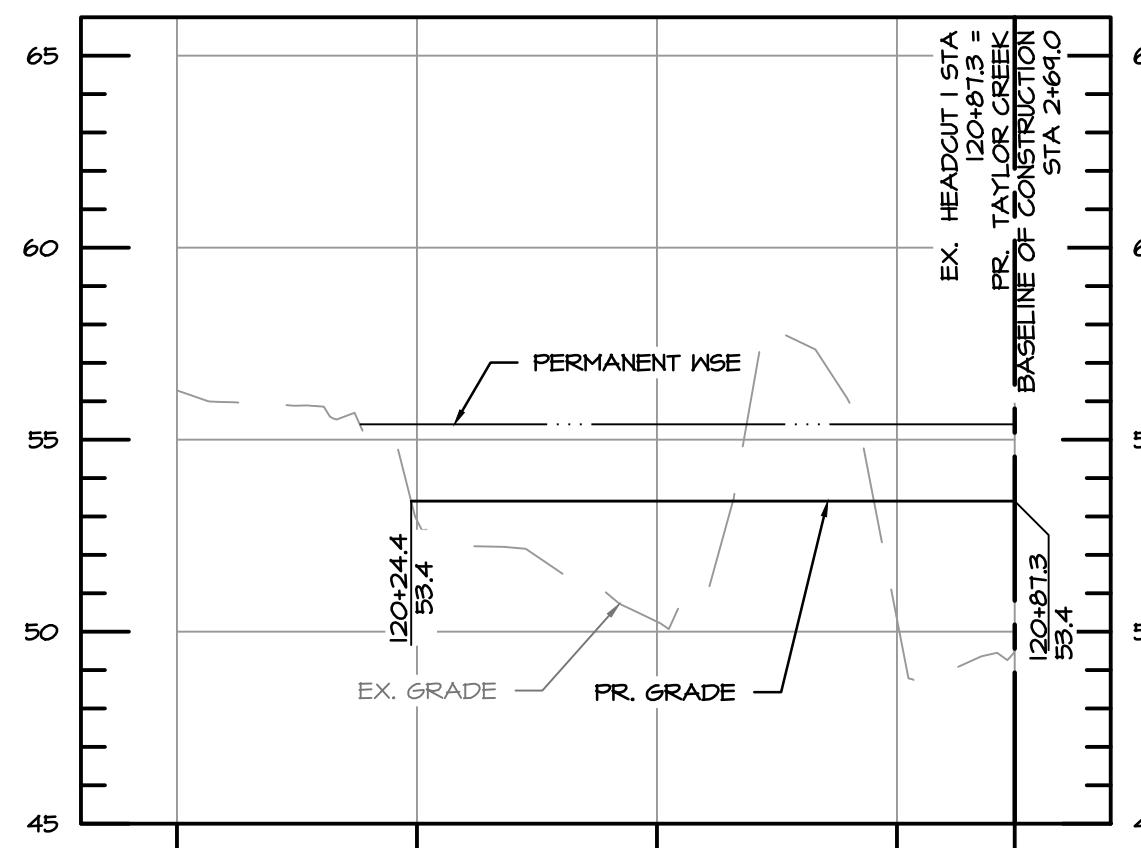


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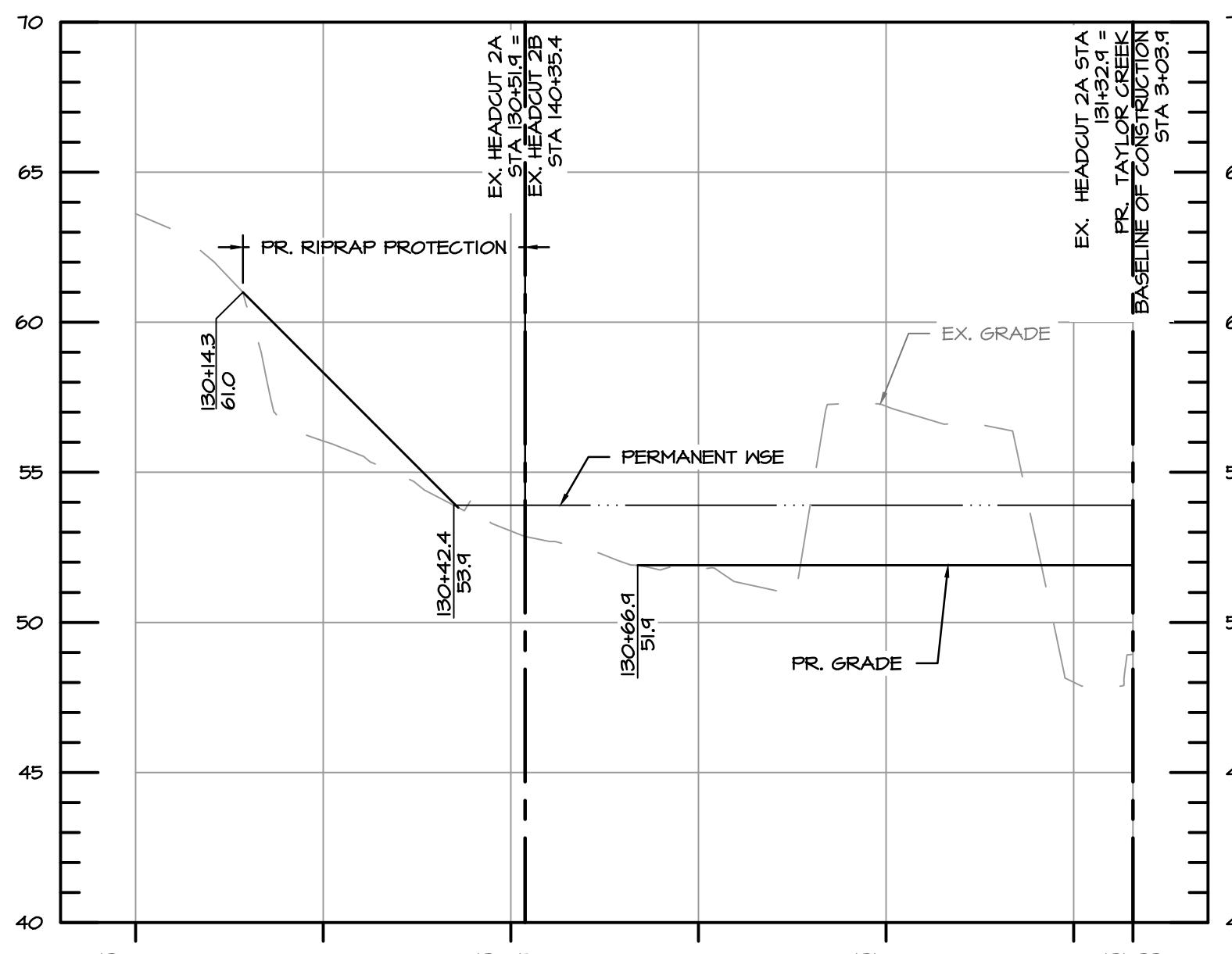
PROFILE TRIBUTARY 1 BASELINE OF CONSTRUCTION STA: 100+00 TO STA: 105+07

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



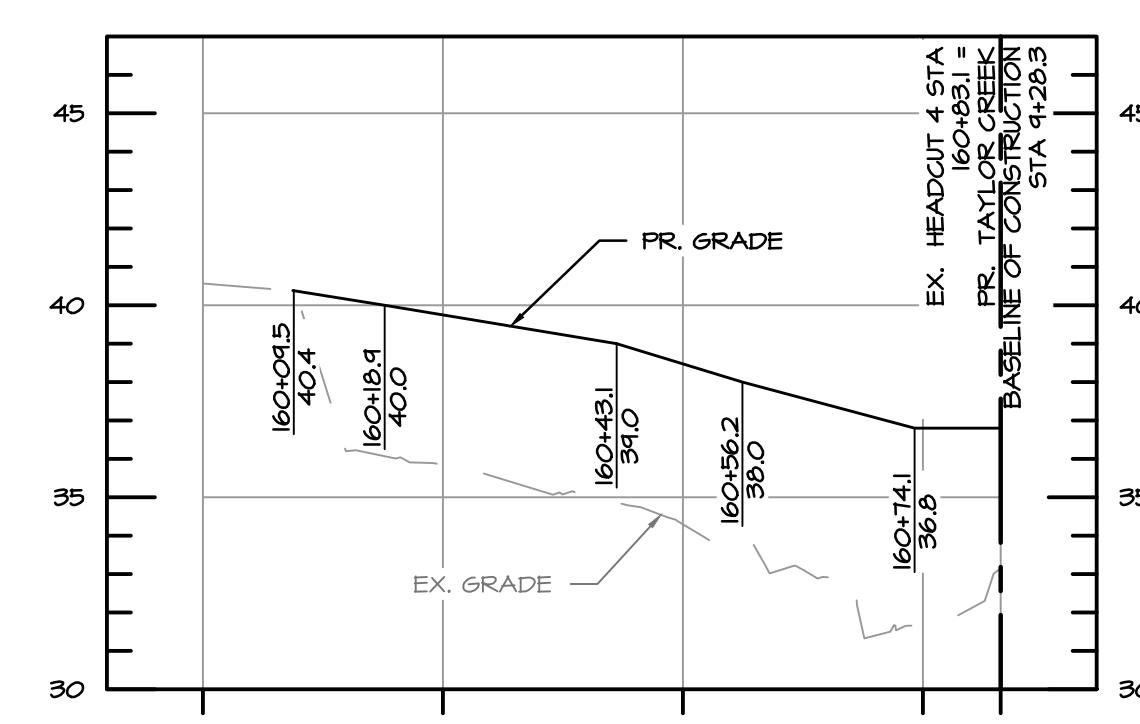
PROFILE EX. HEADCUT 1 STA: 120+00 TO STA: 120+87

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



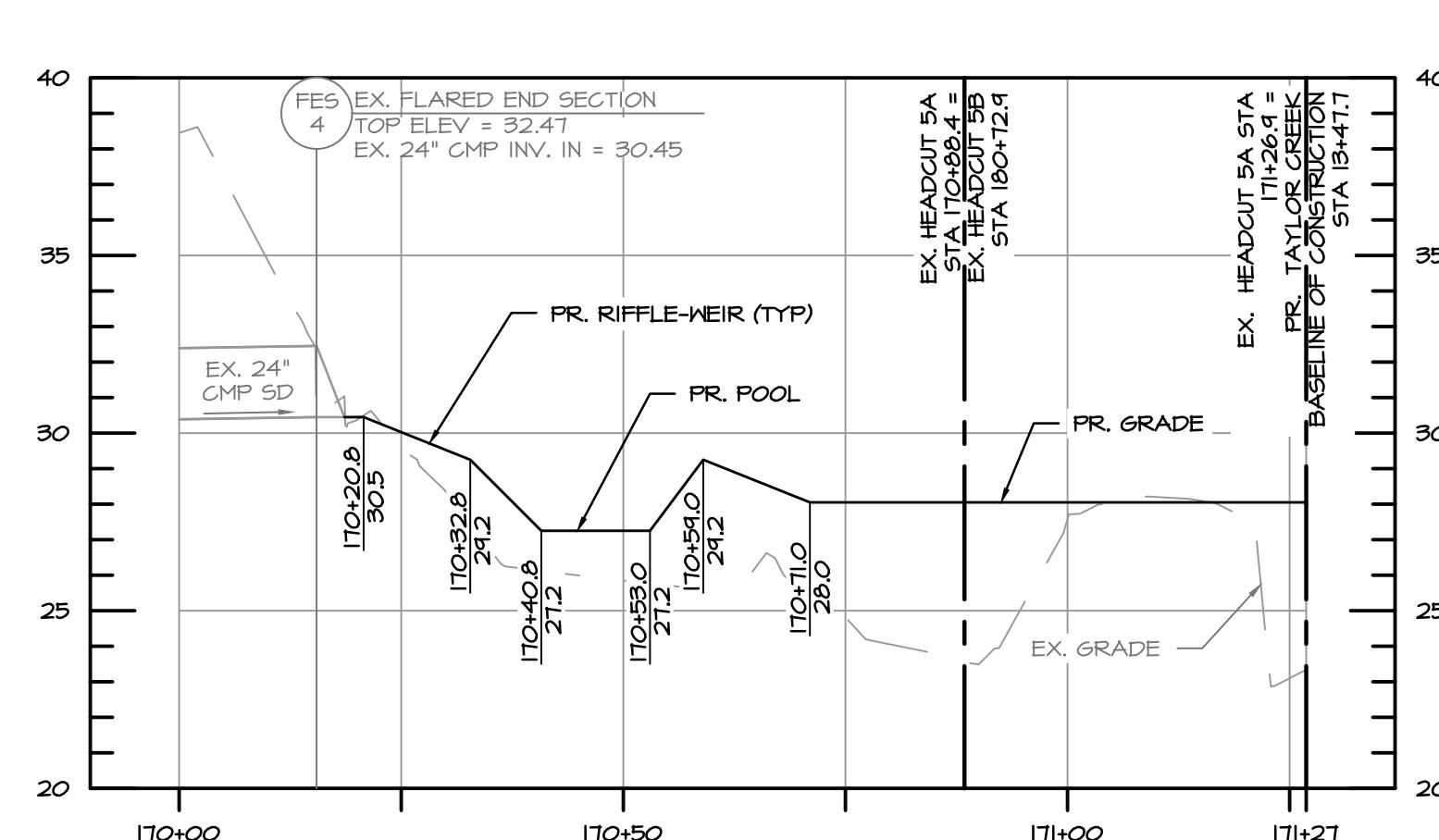
PROFILE EX HEADCUT 2B STA: 140+00 TO STA: 140+35

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



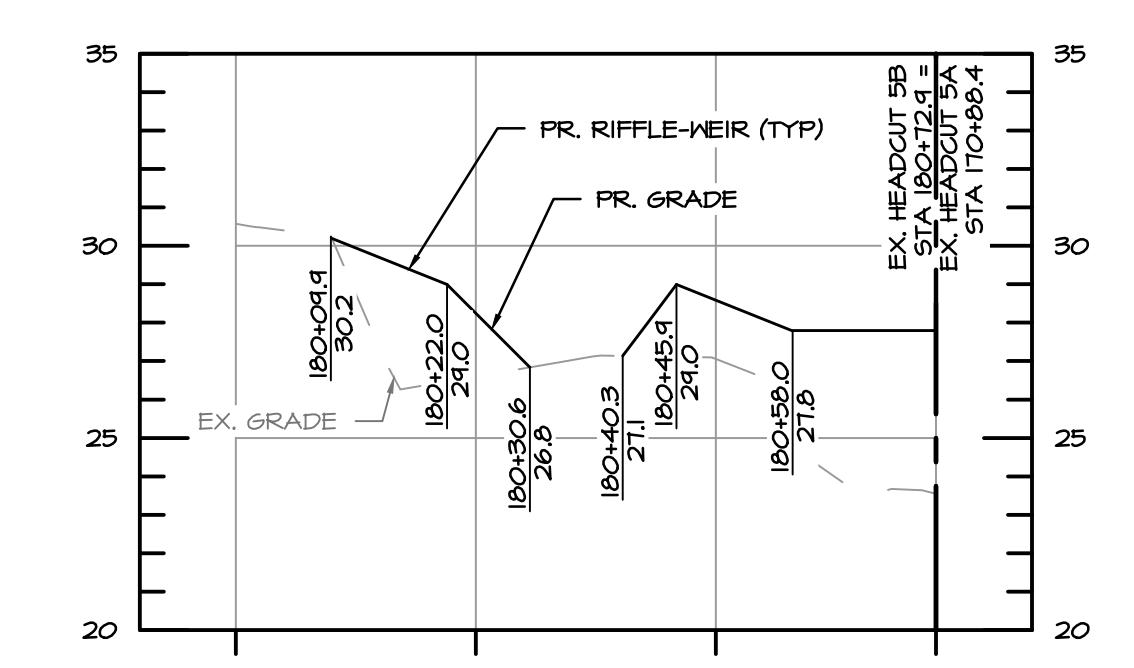
PROFILE EX. HEADCUT 4 STA: 160+00 TO STA: 160+83

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'



PROFILE EX. HEADCUT 5B STA: 180+00 TO STA: 180+73

SCALE: HORZ. 1" = 20'
VERT. 1" = 5'

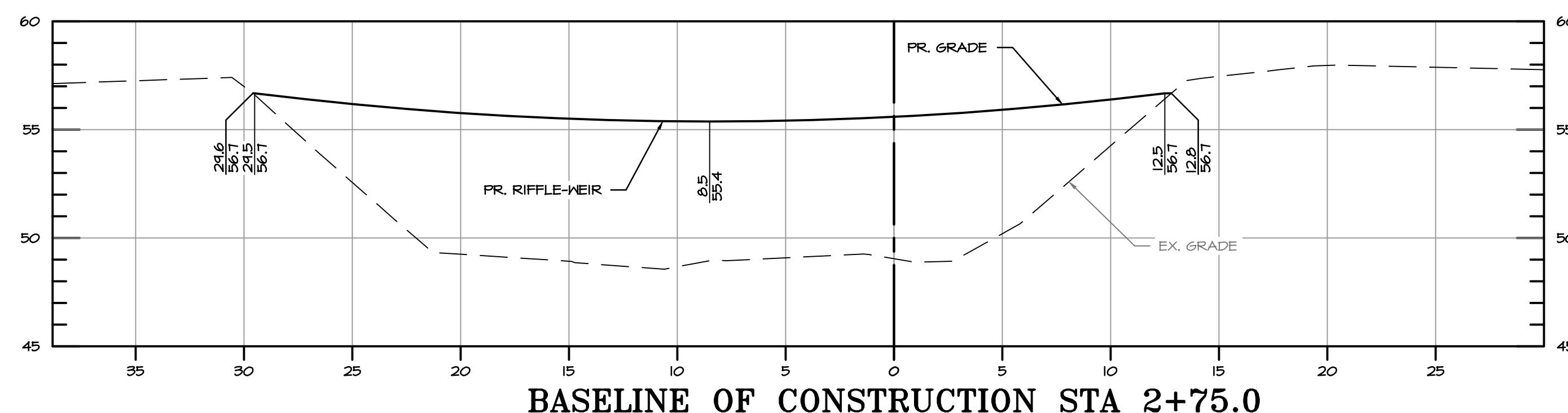
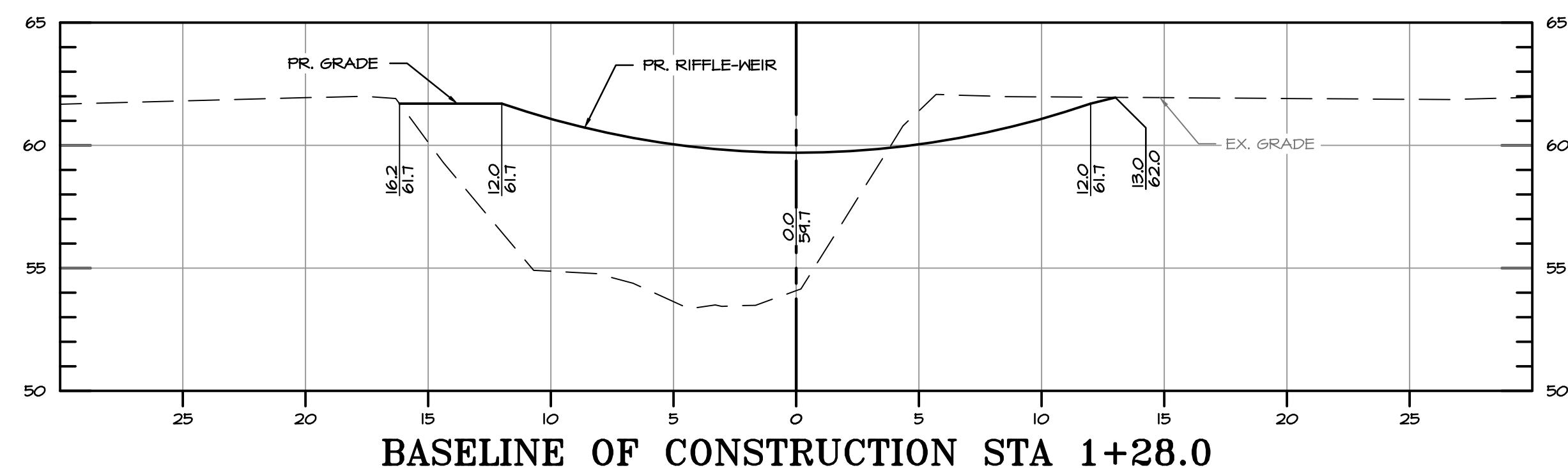
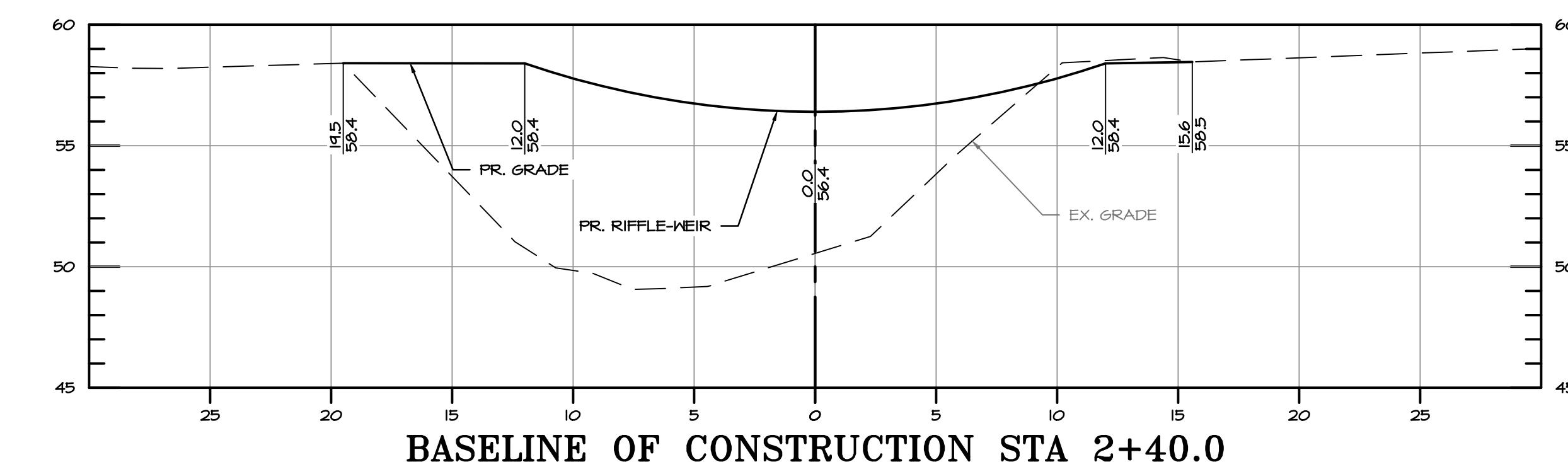
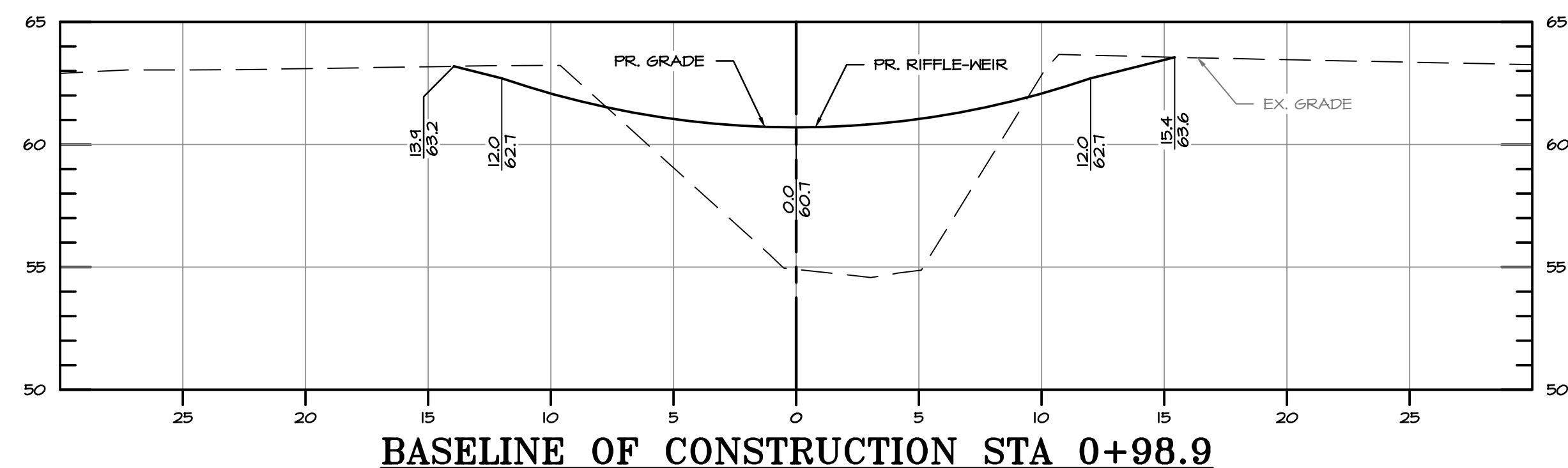
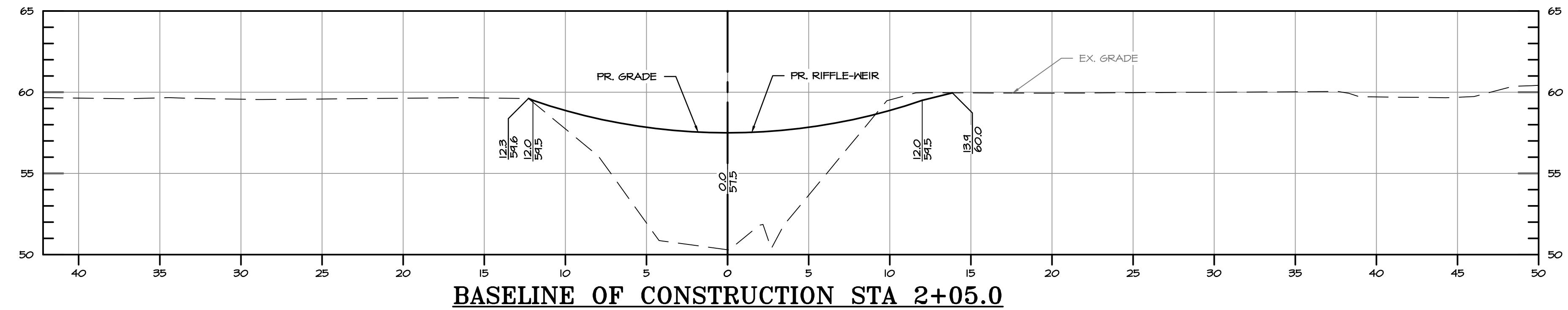
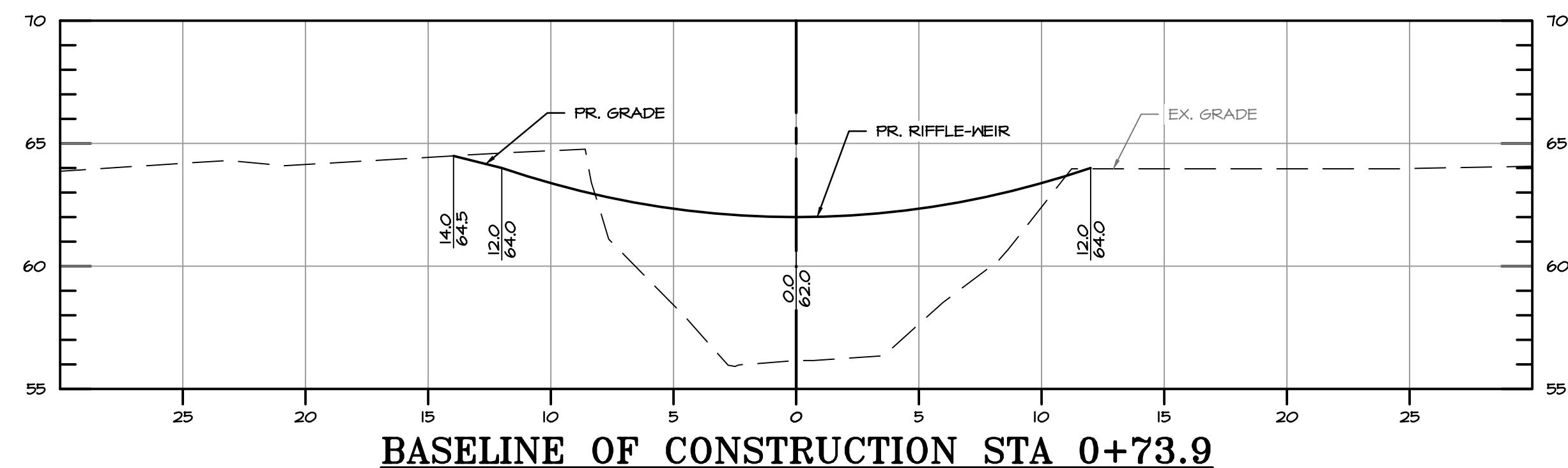
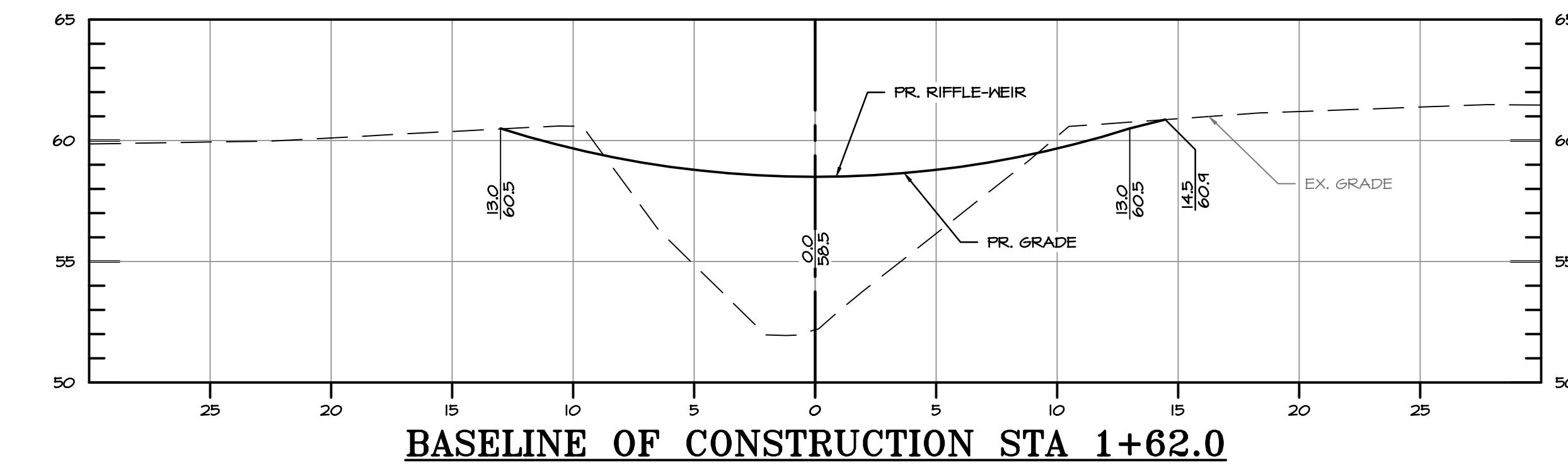
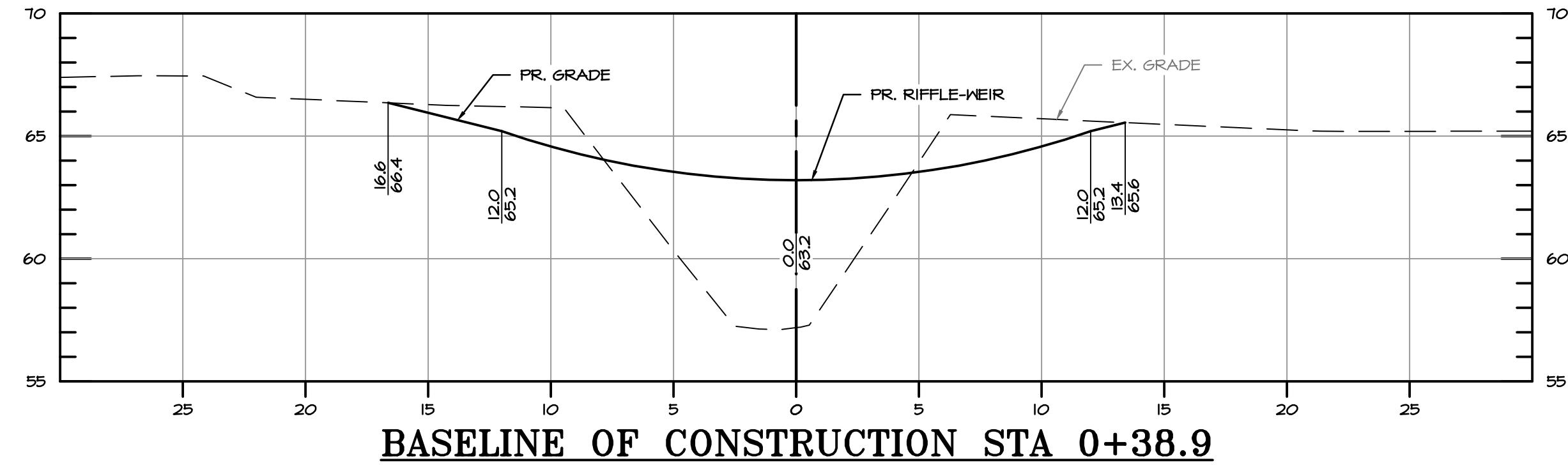


0% DESIGN DRAWINGS



1 INCH = 20 FEET

S/C PLAN # N/A	REVISIONS	TAYLOR CREEK STREAM RESTORATION PROFILE		
GP # N/A		DRAWN BY : MJG	SCALE : 1" = 20'	
		DESIGNED BY : MKS/KJM	DATE : 05/30/23	
		REVIEWED BY : SMC/CMS		
		DRAWING NO. PR-03 OF PR-03	SHEET NO. 20 OF 29	

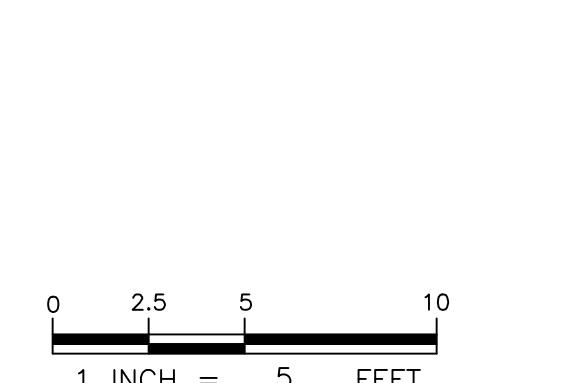
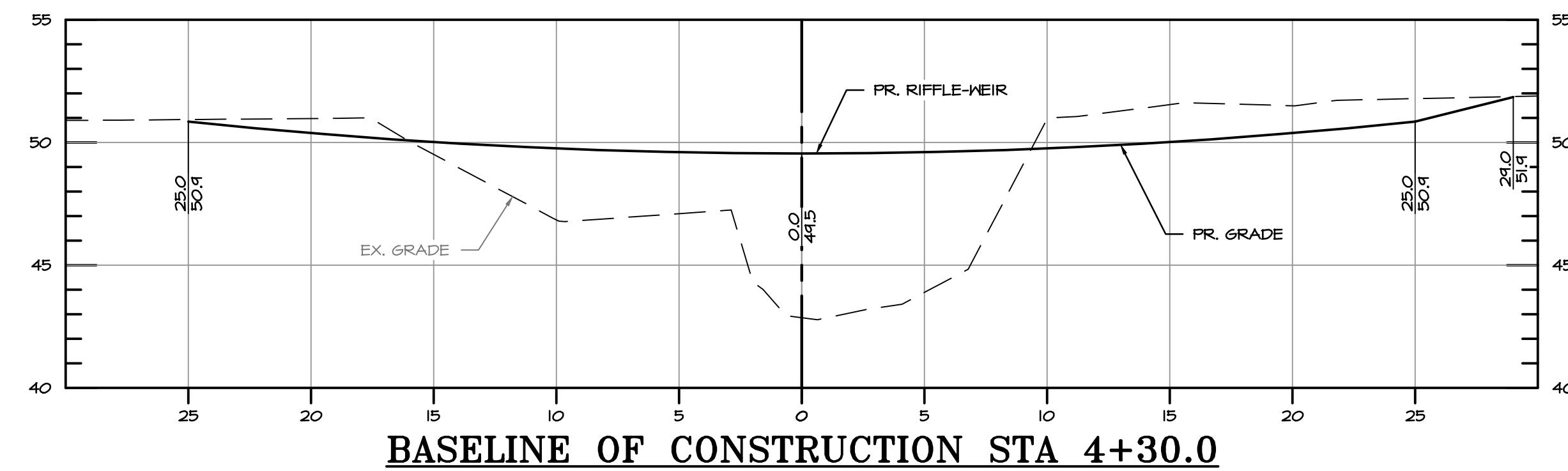
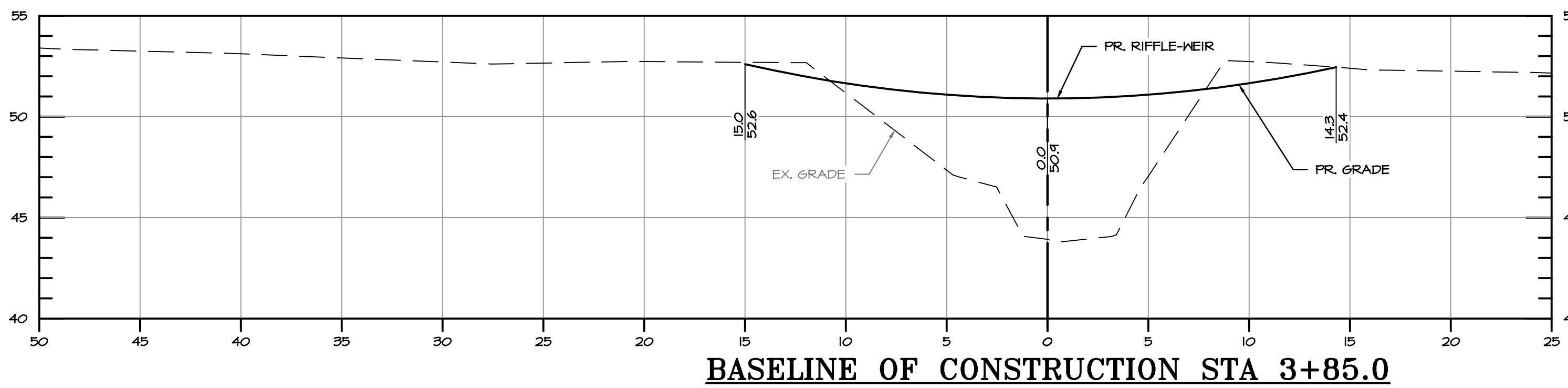
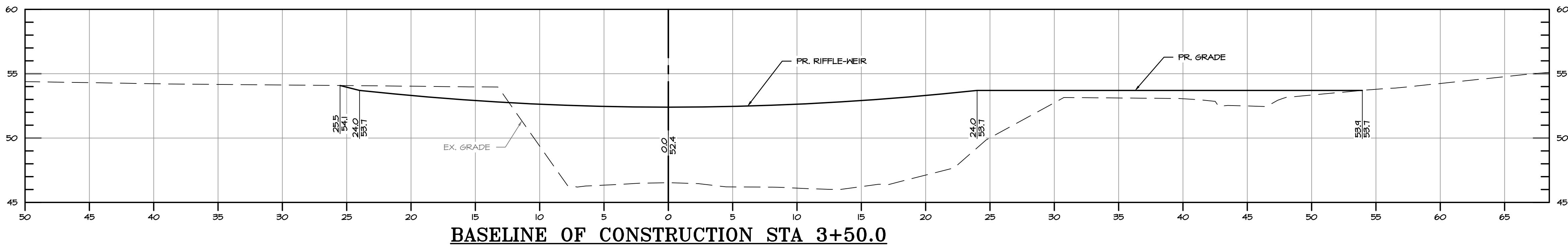
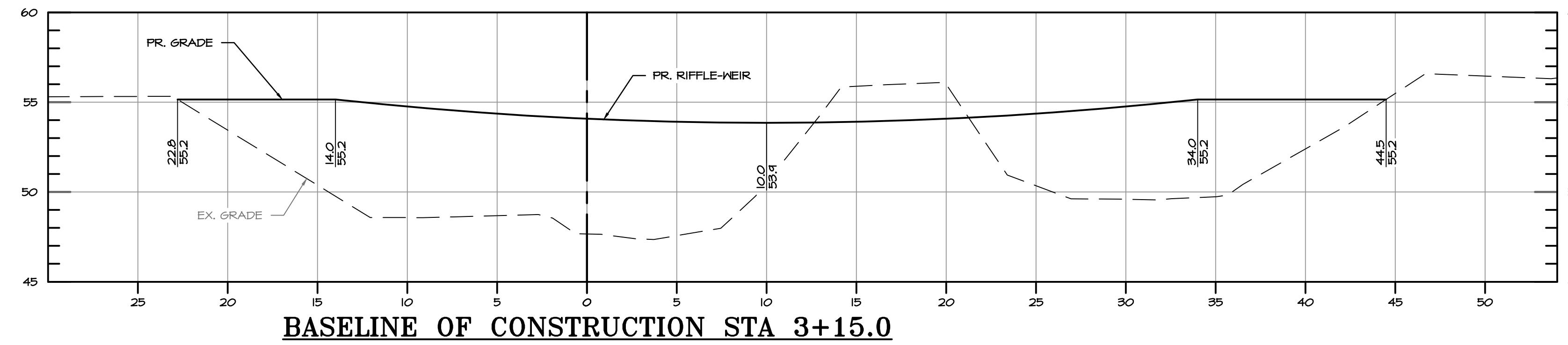


30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

S/C PLAN # N/A	REVISIONS	
GP # N/A		
BILLING NO. XXXXXX		
EG-SWMENG- XXXXX-XXXX #XXXX		
PROFESSIONAL CERTIFICATION		
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.		
DRAWN BY : MJG	SCALE : 1" = 5'	
DESIGNED BY : MKS/KJM		
REVIEWED BY : SMC/CMS		
DRAWING NO. XS-01 OF XS-08	SHEET NO. 21 OF 29	



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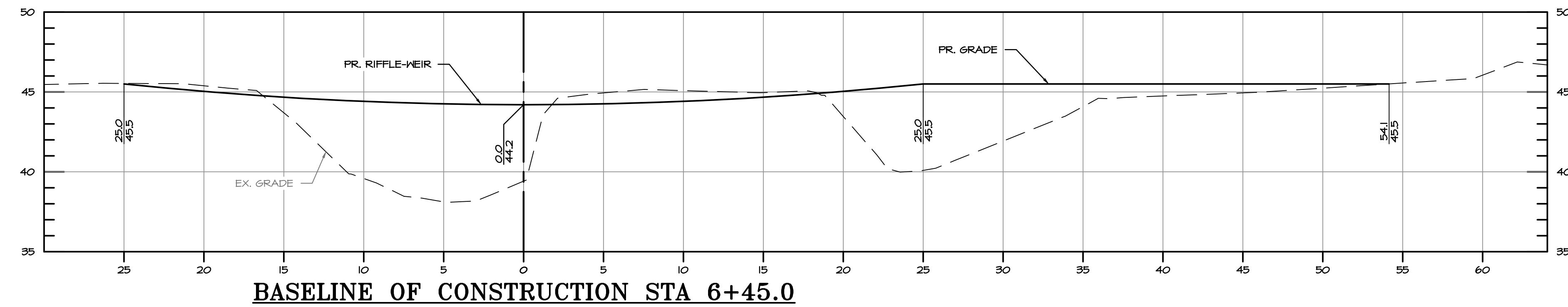
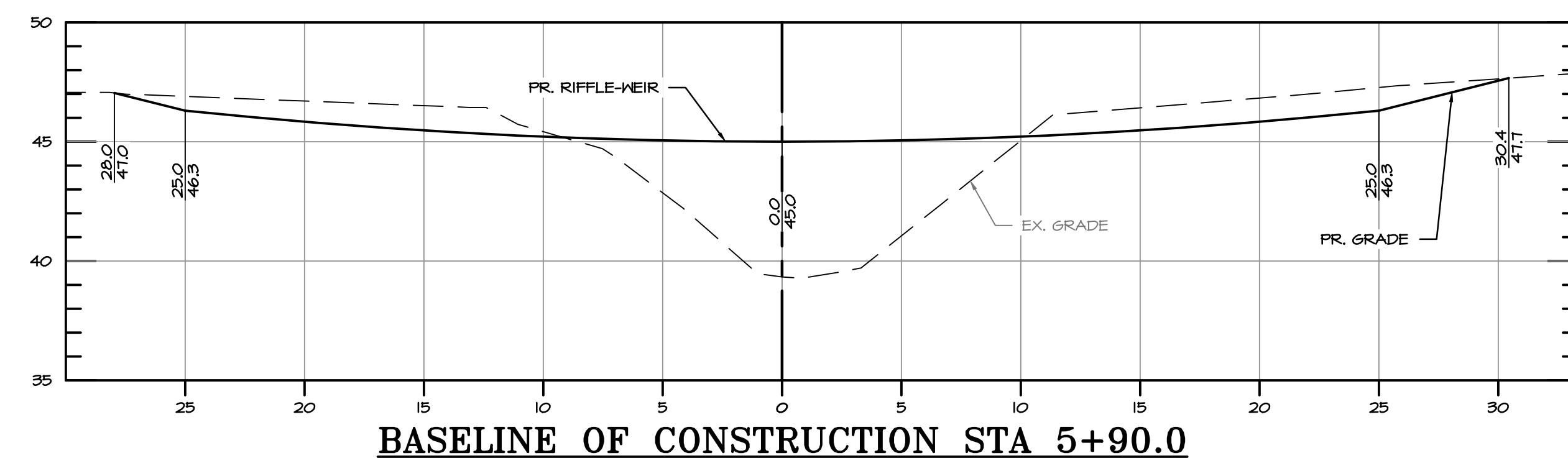
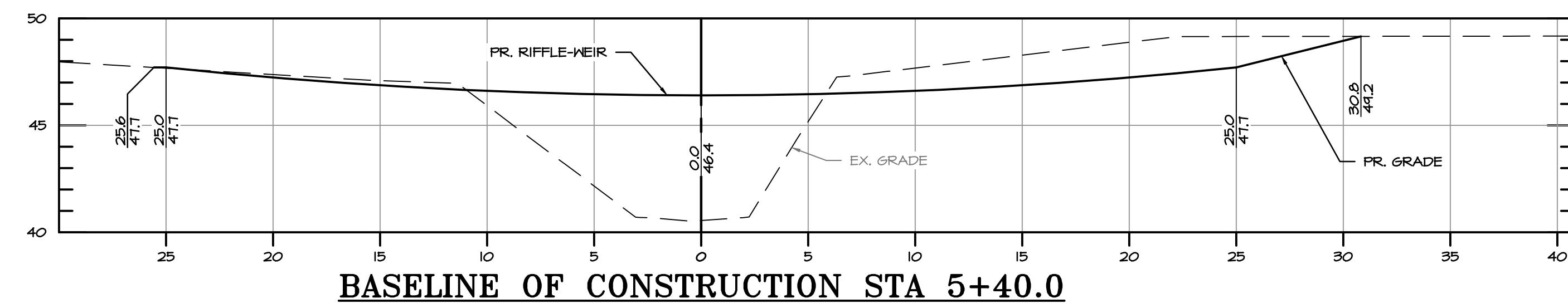
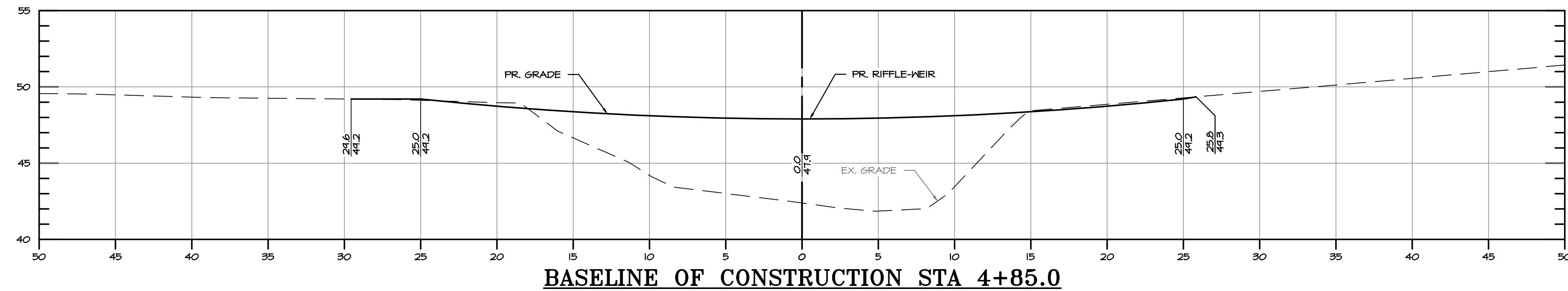
BILLING NO. XXXXXX
EG-SWMENG- XXXXXX-XXXX #XXXX
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME,
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MARYLAND, LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.

S/C PLAN # N/A	REVISIONS
GP # N/A	
DRAWN BY : MJG	SCALE : 1" = 5'
DESIGNED BY : MKS/KJM	DATE : 05/30/23
REVIEWED BY : SMC/CMS	
DRAWING NO. XS-02 OF XS-08	SHEET NO. 22 OF 29

30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

**TAYLOR CREEK STREAM RESTORATION
CROSS SECTION**



0% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION CROSS SECTION

S/C PLAN # N/A	REVISIONS	TAYLOR CREEK STREAM RESTORATION CROSS SECTION			
GP # N/A					
		DRAWN BY : MJG		SCALE : 1" = 5'	
		DESIGNED BY : MKS/KJM		DATE : 05/30/23	
		REVIEWED BY : SMC/CMS			
		DRAWING NO.	XS-03	OF	XS-08
				SHEET NO.	
				23 OF 29	



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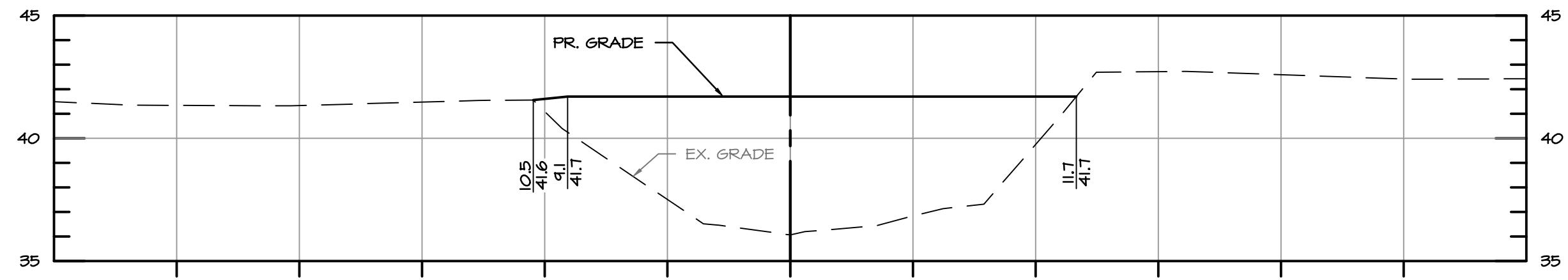
"Integrating Engineering and Environment"

7455 New Ridge Road, Suite T

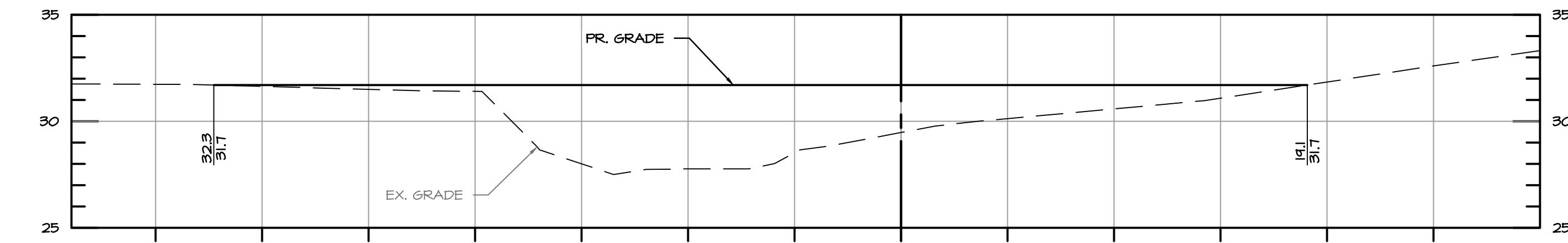
7455 New Ridge Road, Suite 1
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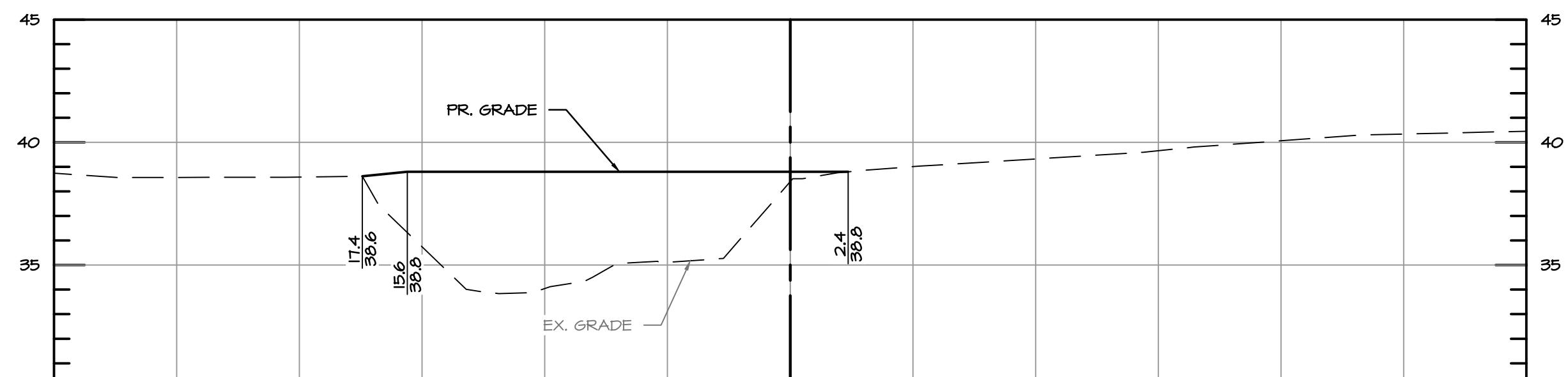
PROFESSIONAL CERTIFICATION



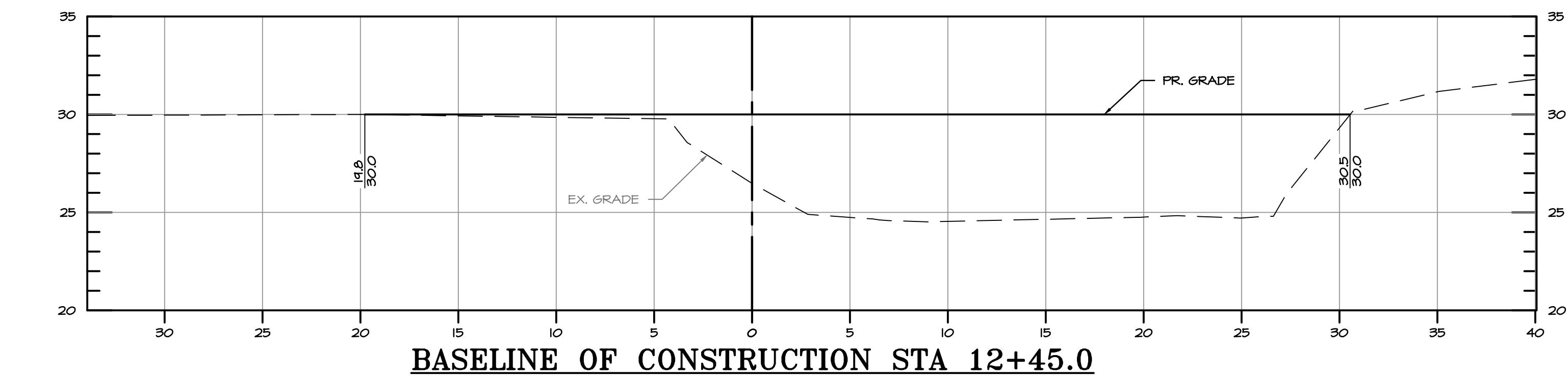
BASELINE OF CONSTRUCTION STA 7+50.0



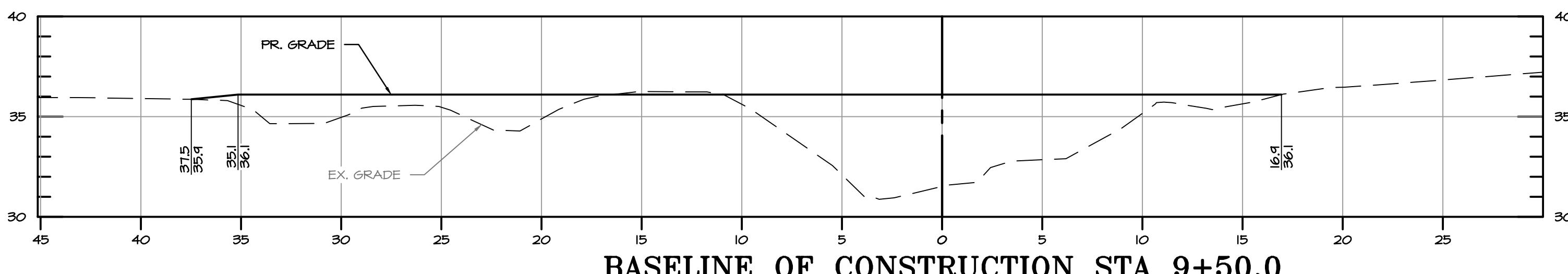
BASELINE OF CONSTRUCTION STA 11+50.0



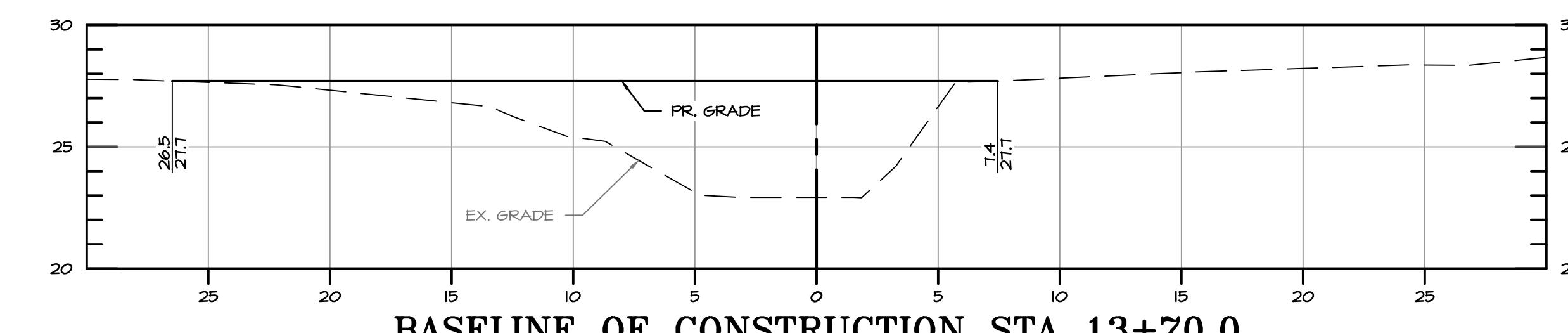
BASELINE OF CONSTRUCTION STA 8+50.0



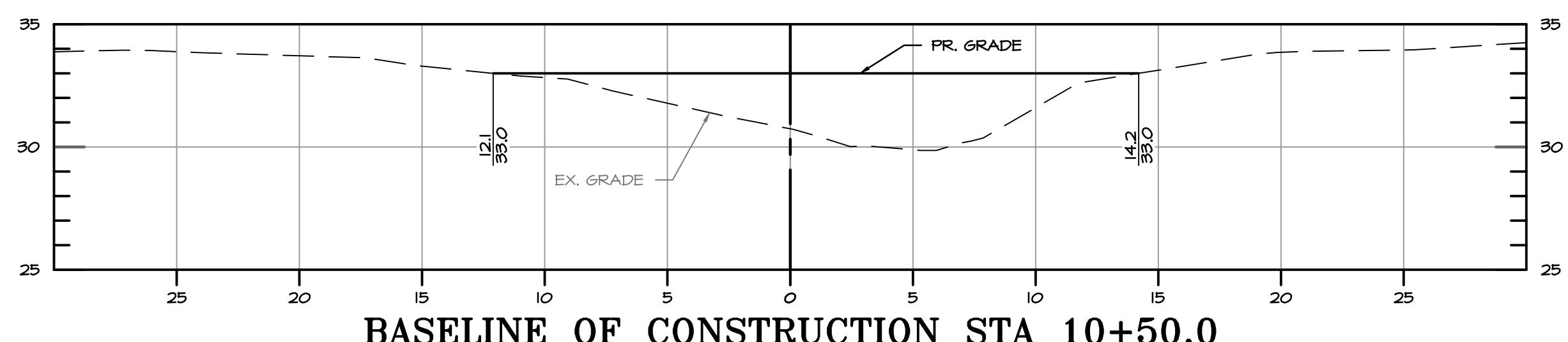
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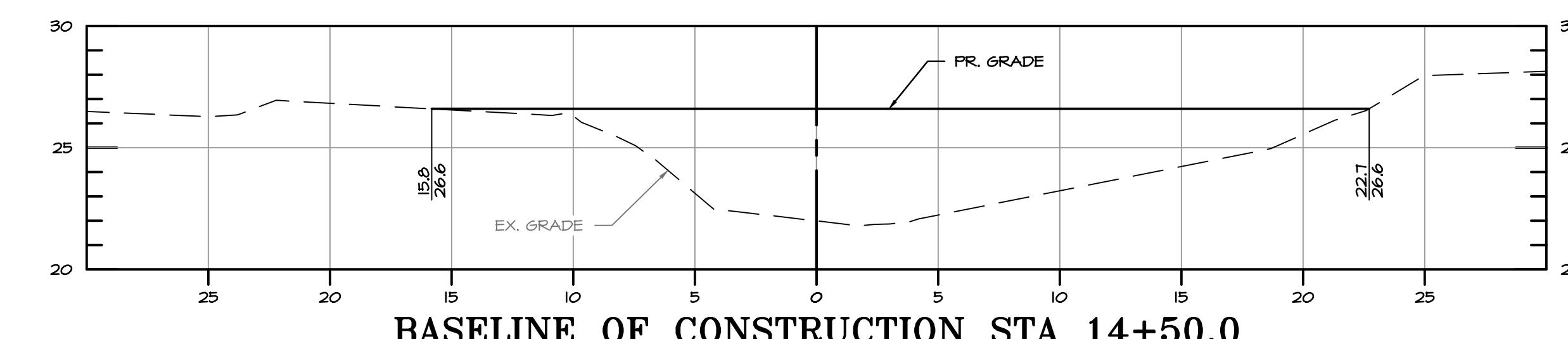
BASELINE OF CONSTRUCTION STA 9+50.0



BASELINE OF CONSTRUCTION STA 13+70.0



BASELINE OF CONSTRUCTION STA 10+50.0



BASELINE OF CONSTRUCTION STA 14+50.0

NOTE:
BASEFLOW CHANNEL IS NOT DRAWN IN CROSS SECTION VIEW.
FOR LOCATIONS, SEE SHEET 12/DWG SR-02 TO SHEET 14/DWG SR-04.
FOR DIMENSIONS, SEE SHEET 17/DWG DE-02.

0 2.5 5 10
1 INCH = 5 FEET

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BAYLAND JOB NO. 4_4601

BILLING NO. XXXXXX
EG-SWMENG- XXXXX-XXXX #XXXX
PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME,
AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MARYLAND, LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.

30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

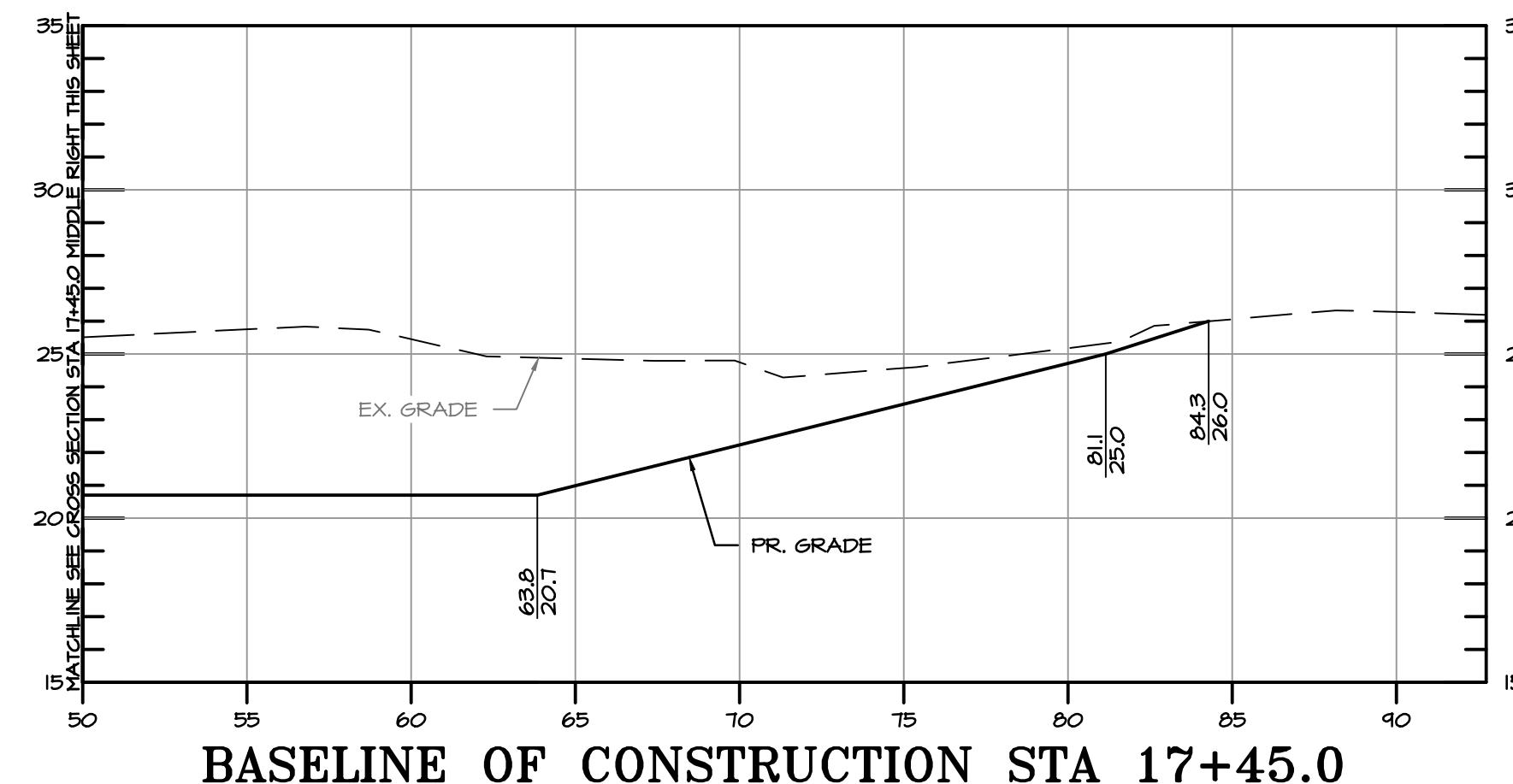
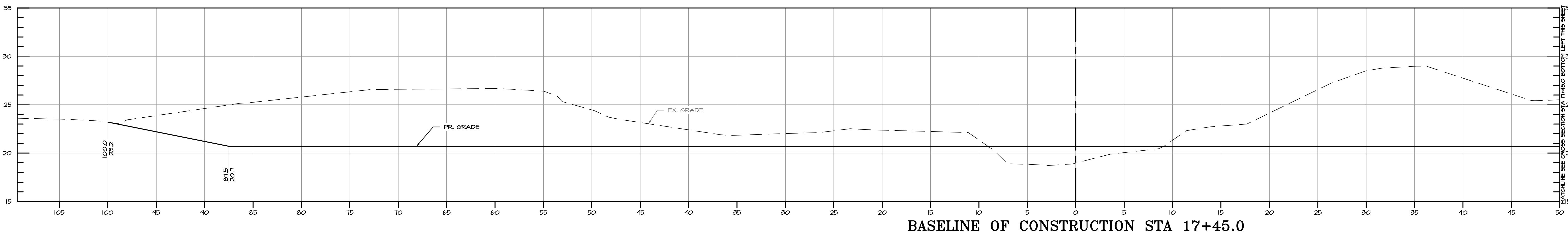
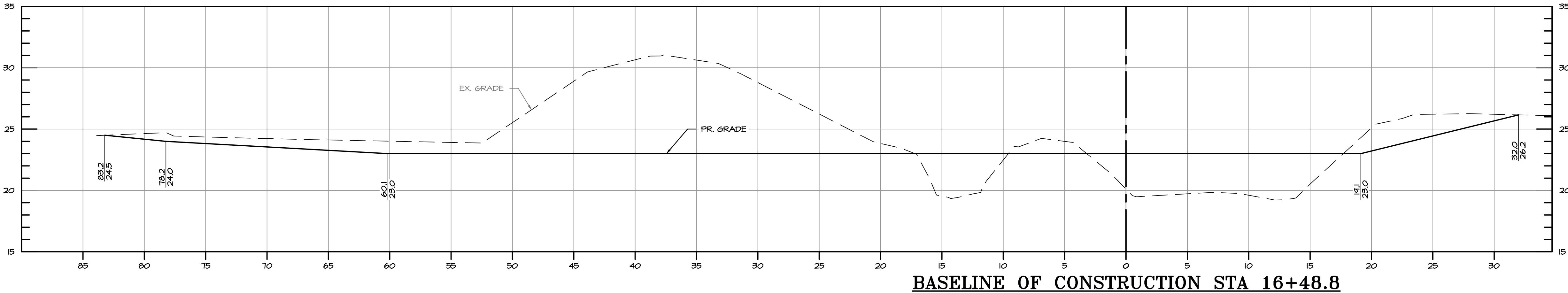
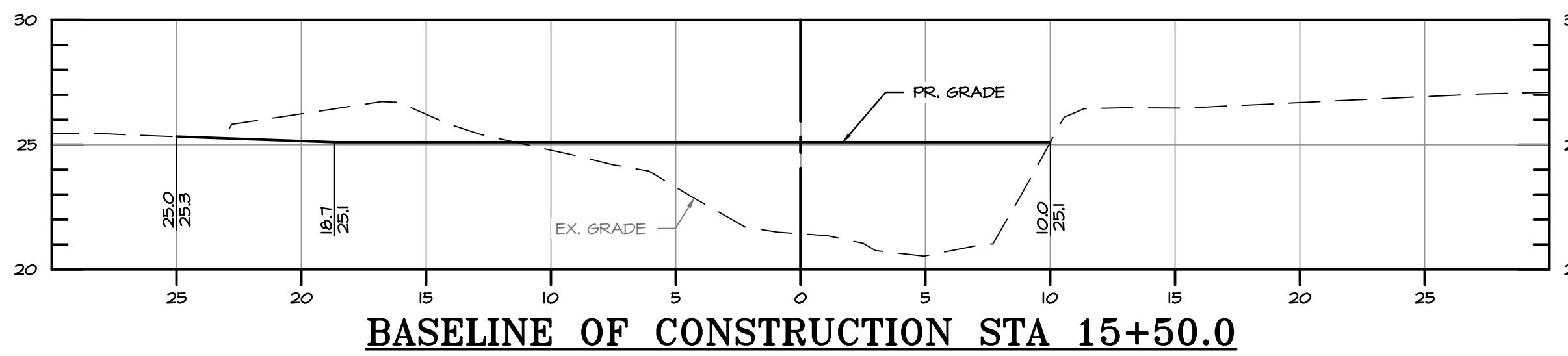
**TAYLOR CREEK STREAM RESTORATION
CROSS SECTION**

S/C PLAN # N/A	REVISIONS	
GP # N/A		
BILLING NO. XXXXXX		
EG-SWMENG- XXXXX-XXXX #XXXX		
PROFESSIONAL CERTIFICATION		
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.		
DRAWN BY : MJG	SCALE : 1" = 5'	
DESIGNED BY : MKS/KJM		
REVIEWED BY : SMC/CMS		
DRAWING NO. XS-04 OF XS-08	SHEET NO. 24 OF 29	

BID No.:

HGS DWG ID No.:

SCALE : 1" inch



NOTE:
BASEFLOW CHANNEL IS NOT DRAWN IN CROSS SECTION VIEW.
FOR LOCATIONS, SEE SHEET 12/DWG SR-02 TO SHEET 14/DWG SR-04.
FOR DIMENSIONS, SEE SHEET 17/DWG DE-02.

0 2.5 5 10
1 INCH = 5 FEET

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BAYLAND JOB NO. 4_4601

S/C PLAN # N/A	REVISIONS
GP # N/A	
BILLING NO. XXXXXX	
EG-SWMENG- XXXXX-XXXX #XXXX	
PROFESSIONAL CERTIFICATION	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.	

30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

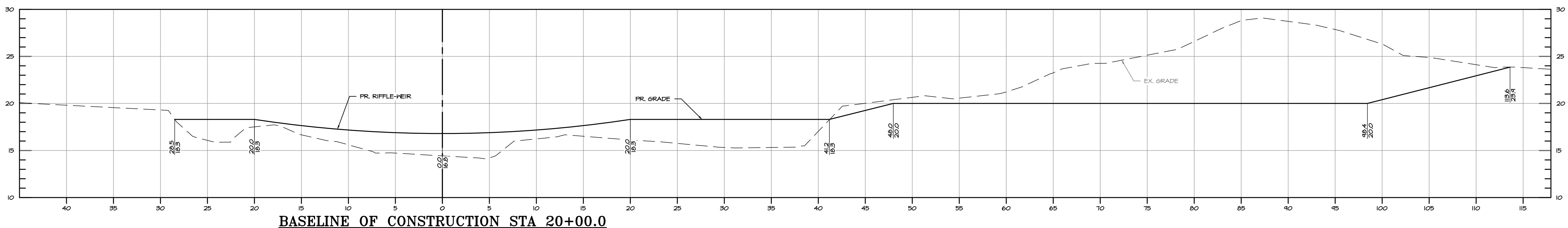
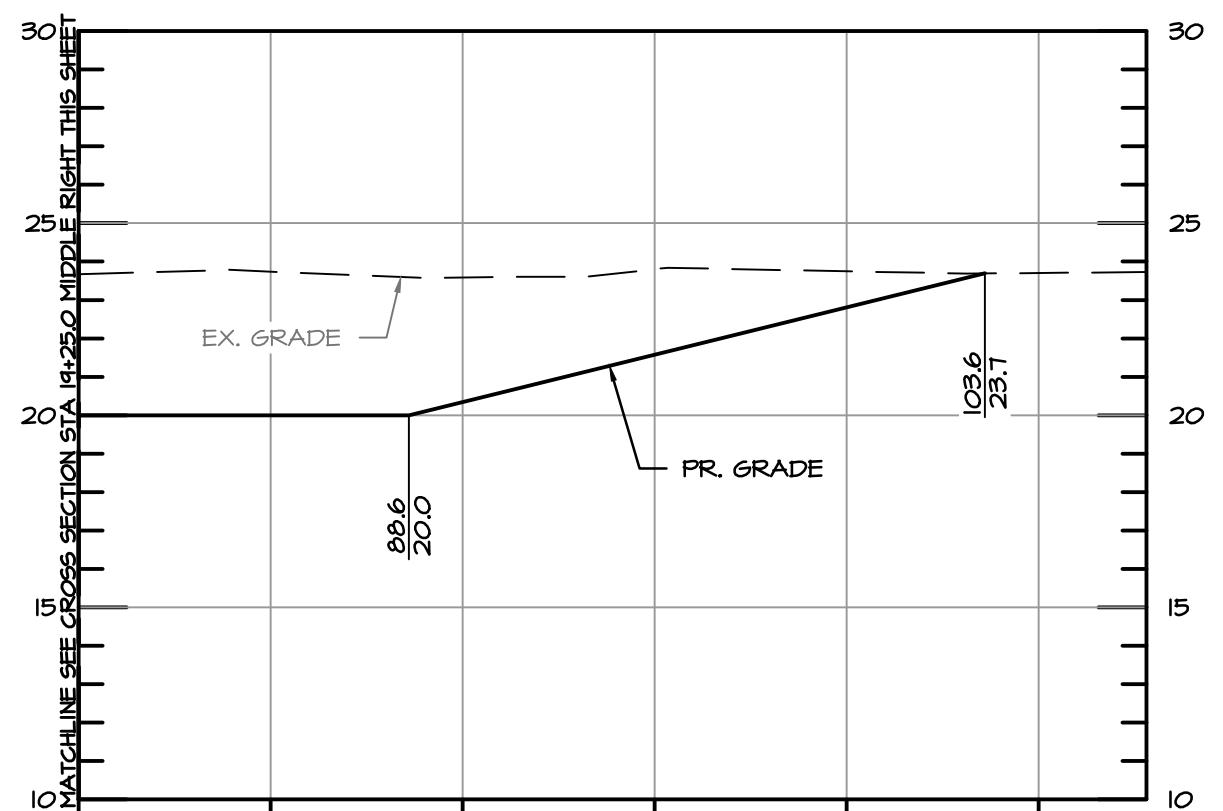
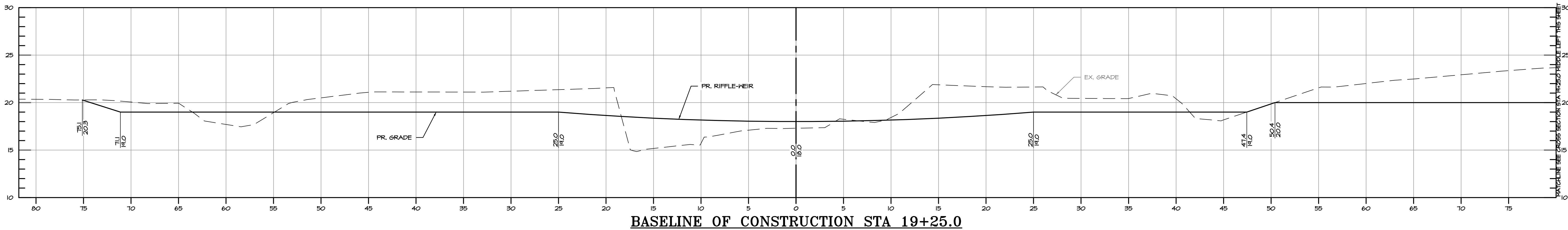
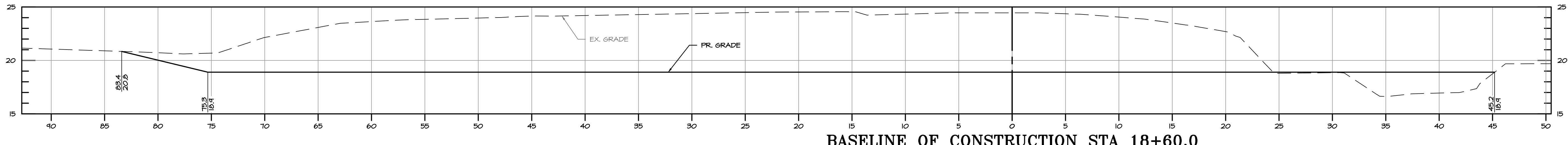
DRAWN BY : MJG	SCALE : 1" = 5'
DESIGNED BY : MKS/KJM	DATE : 05/30/23
REVIEWED BY : SMC/CMS	
DRAWING NO. XS-05 OF XS-08	SHEET NO. 25 OF 29

BID No.:

HCG DWG ID No.:

SCALE : 1" inch

Z:\4_4601_TAYLOR_CREEK_STREAM_RESTORATION\CAD Files\Sheet Files\4_4601_XS-A05.dwg



30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

S/C PLAN # N/A	REVISIONS
GP # N/A	
DRAWN BY : MJG	SCALE : 1" = 5'
DESIGNED BY : MKS/KJM	DATE : 05/30/23
REVIEWED BY : SMC/CMS	
DRAWING NO. XS-06 OF XS-08	SHEET NO. 26 OF 29

NOTE:
BASEFLOW CHANNEL IS NOT DRAWN IN CROSS SECTION VIEW.
FOR LOCATIONS, SEE SHEET 12/DWG SR-02 TO SHEET 14/DWG SR-04.
FOR DIMENSIONS, SEE SHEET 17/DWG DE-02.

0 2.5 5 10
1 INCH = 5 FEET

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BILLING NO. XXXXXX

EG-SWMENG- XXXXXX-XXXX #XXXX

PROFESSIONAL CERTIFICATION

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AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MARYLAND, LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.

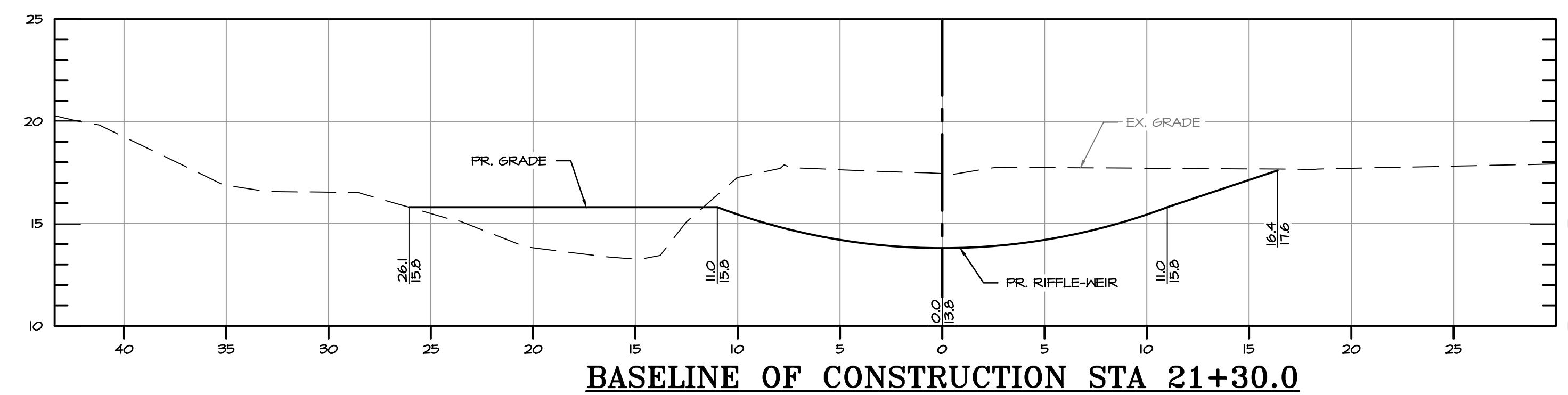
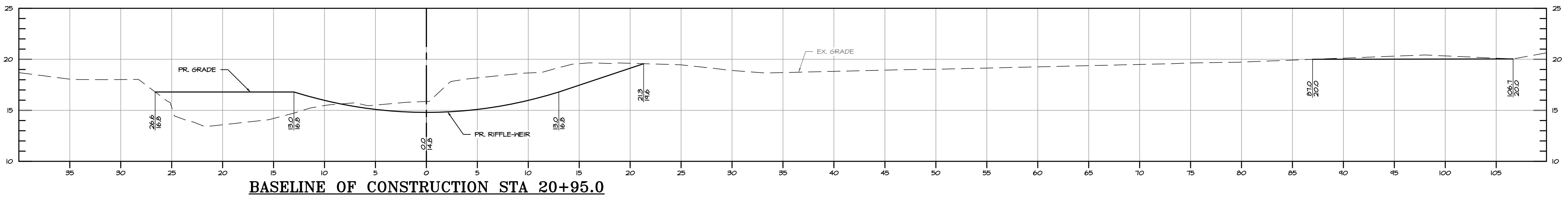
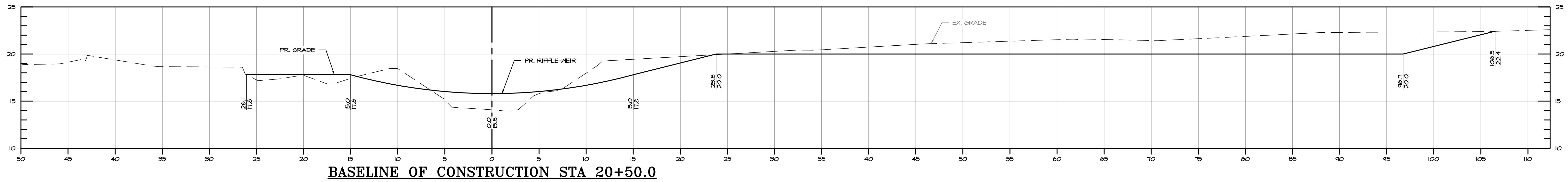
BID No.:

HCG DWG ID No.:

SCALE : 1" = 5'

DATE : 05/30/23

SHEET NO. 26 OF 29



30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

BID No.:

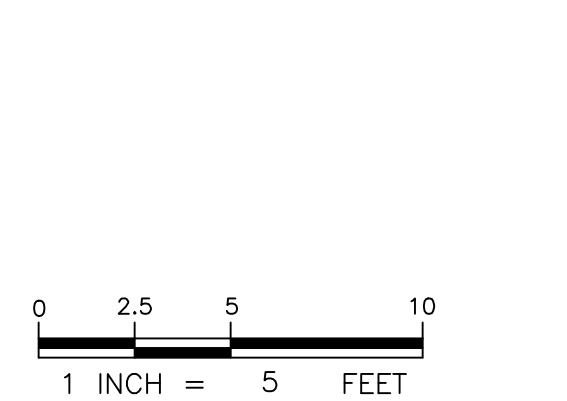
HCG DWG ID No.:

SCALE : 1" = 5'

DATE : 05/30/23

TAYLOR CREEK STREAM RESTORATION
CROSS SECTION

S/C PLAN # N/A	REVISIONS
GP # N/A	
BILLING NO. XXXXXX	
EG-SWMENG- XXXXX-XXXX #XXXX	
PROFESSIONAL CERTIFICATION	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.	
DRAWN BY : MJG	SCALE : 1" = 5'
DESIGNED BY : MKS/KJM	
REVIEWED BY : SMC/CMS	
DRAWING NO. XS-07 OF XS-08	SHEET NO. 27 OF 29

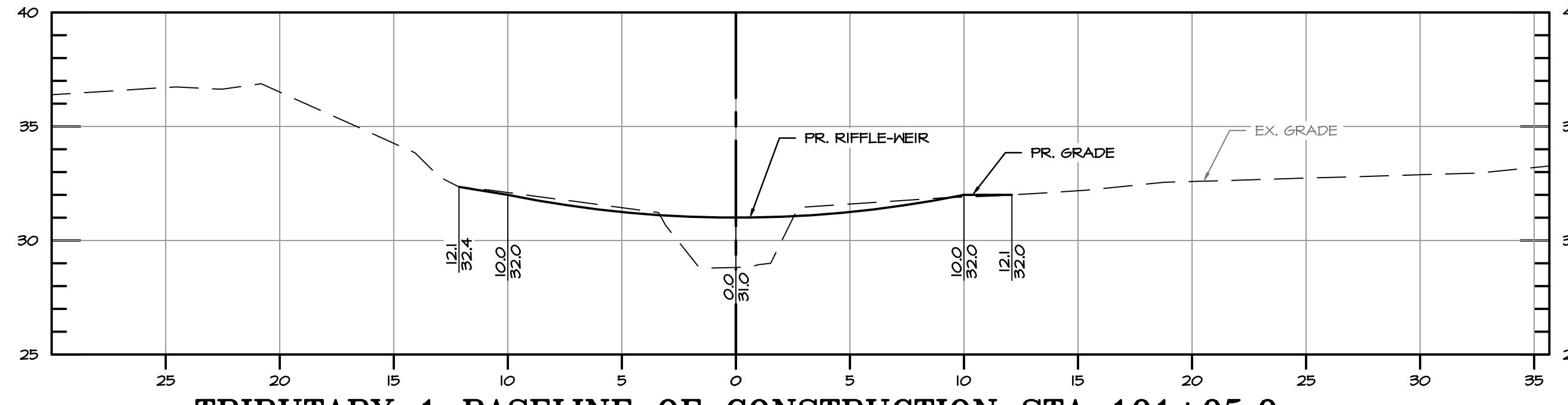


I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 200966, EXPIRATION DATE: 01/16/2025.

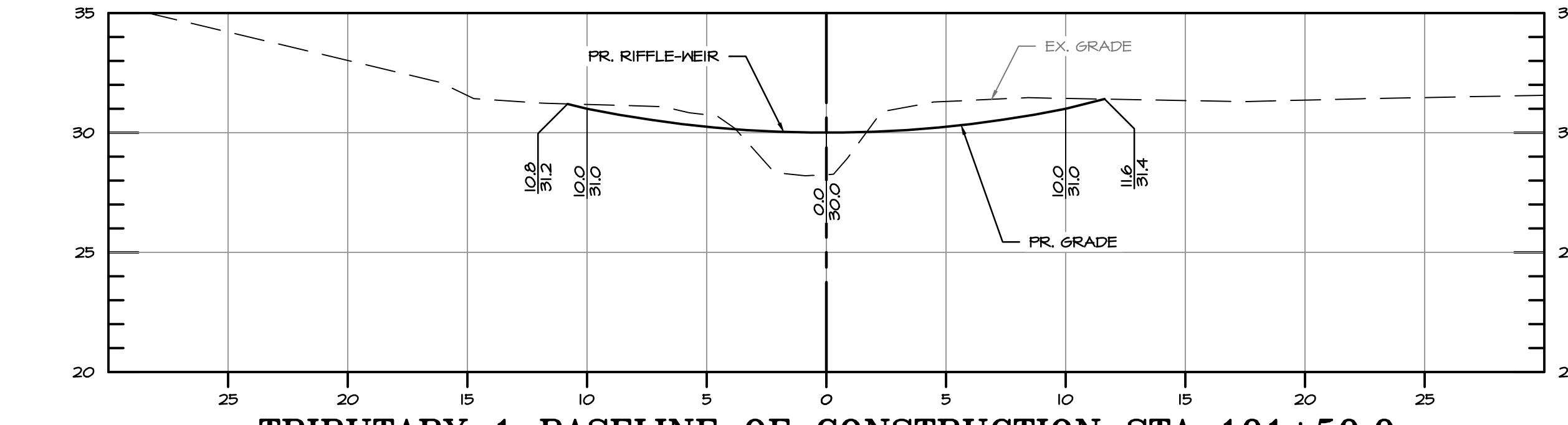
SCALE : 1" = 5'

DATE : 05/30/23

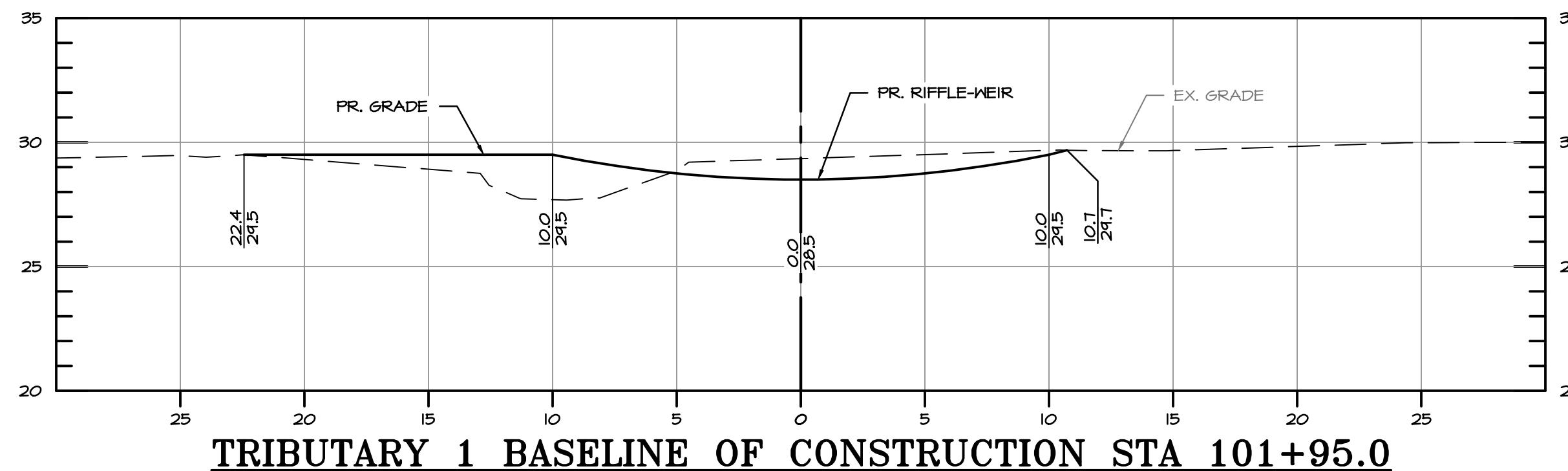
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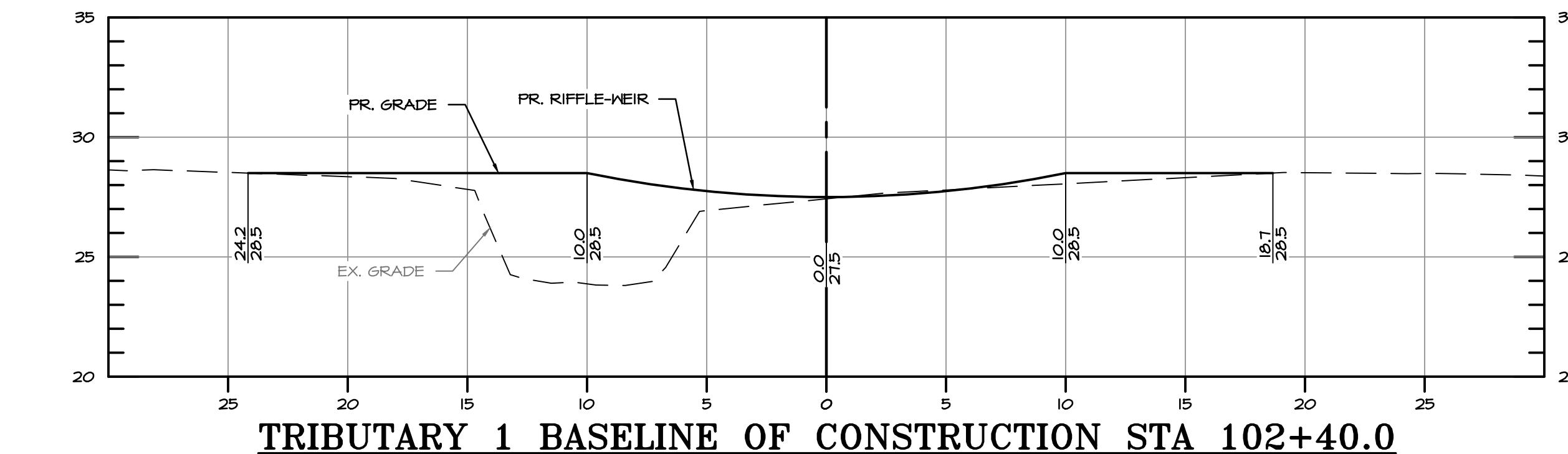
TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 101+05.0



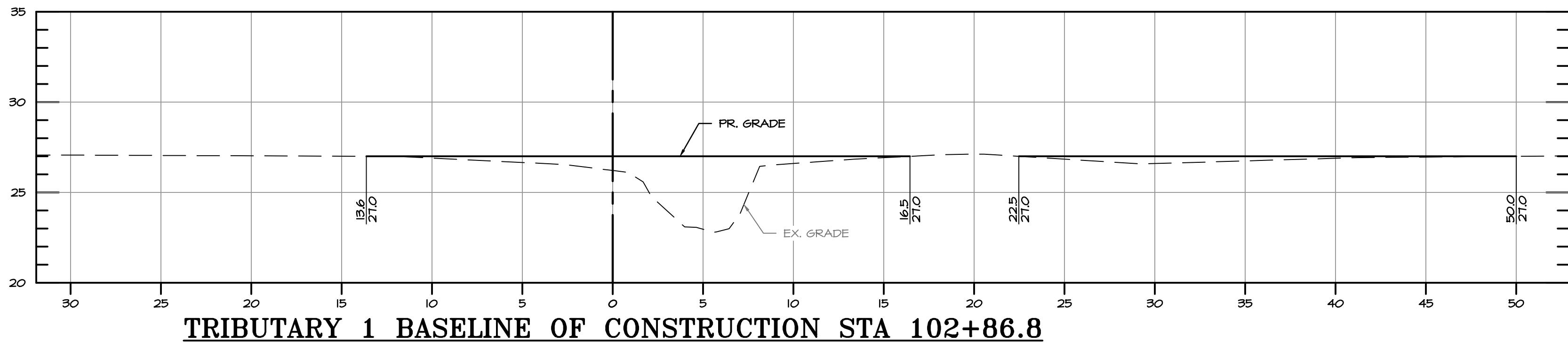
TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 101+50.0



TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 101+95.0



TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 102+40.0



TRIBUTARY 1 BASELINE OF CONSTRUCTION STA 102+86.8

NOTE:
BASEFLOW CHANNEL IS NOT DRAWN IN CROSS SECTION VIEW.
FOR LOCATIONS, SEE SHEET 12/DWG SR-02 TO SHEET 14/DWG SR-04.
FOR DIMENSIONS, SEE SHEET 17/DWG DE-02.

0 2.5 5 10
1 INCH = 5 FEET

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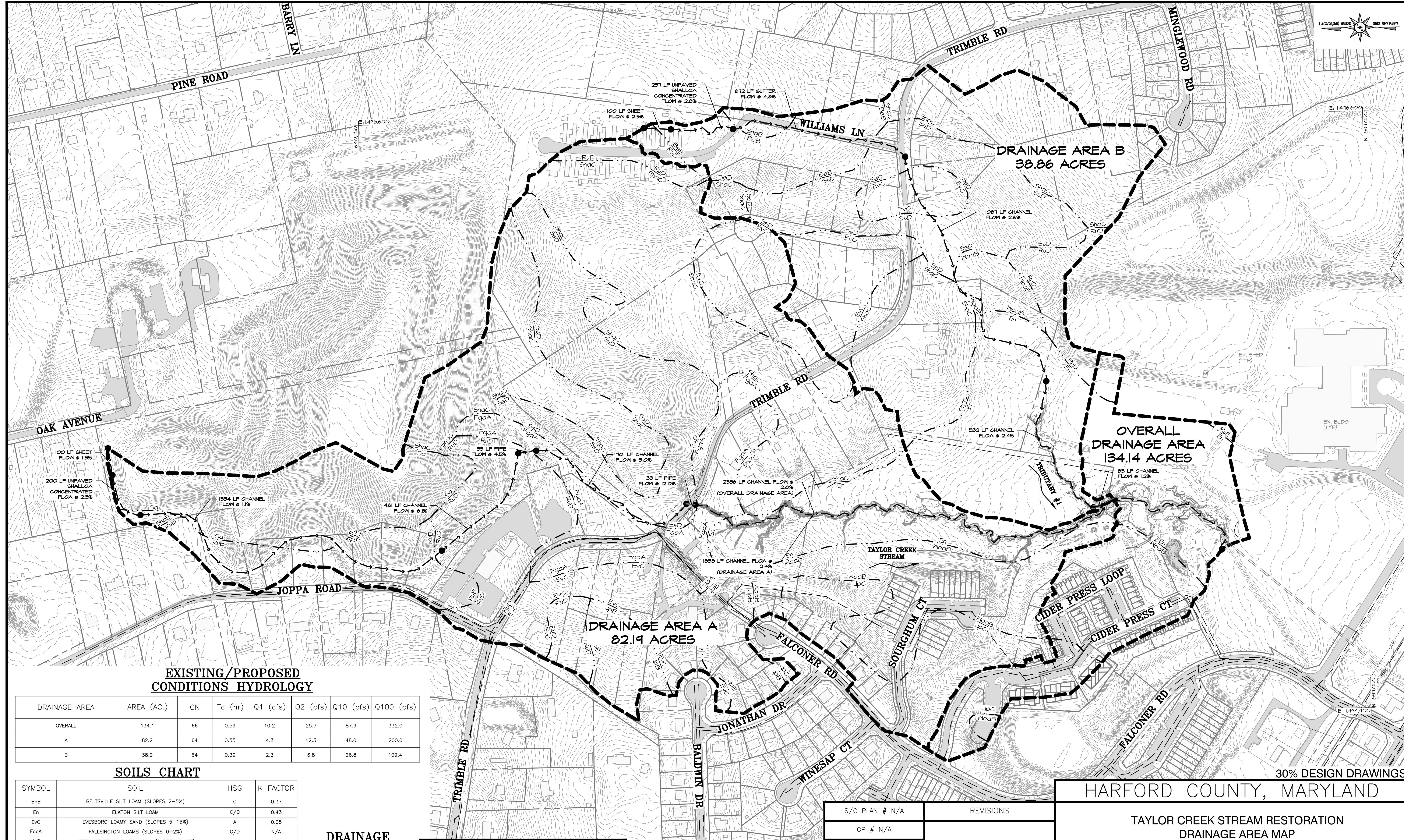
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AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
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30% DESIGN DRAWINGS

HARFORD COUNTY, MARYLAND

S/C PLAN # N/A	REVISIONS	TAYLOR CREEK STREAM RESTORATION CROSS SECTION	
GP # N/A		DRAWN BY : MJG	SCALE : 1" = 5'
		DESIGNED BY : MKS/KJM	DATE : 05/30/23
		REVIEWED BY : SMC/CMS	
		DRAWING NO. XS-08 OF XS-08	SHEET NO. 28 OF 29



S/C PLAN # N/A	REVISIONS
GP # N/A	
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	EG-SWMENG- XXXXX-XXXX #XXXX
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DRAWN BY : MJG	SCALE : 1" = 150'
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REVIEWED BY : SMC/CMS	
DRAWING NO. DA-01 OF DA-01	SHEET NO. 29 OF 29

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TAYLOR CREEK STREAM RESTORATION
DRAINAGE AREA MAP