

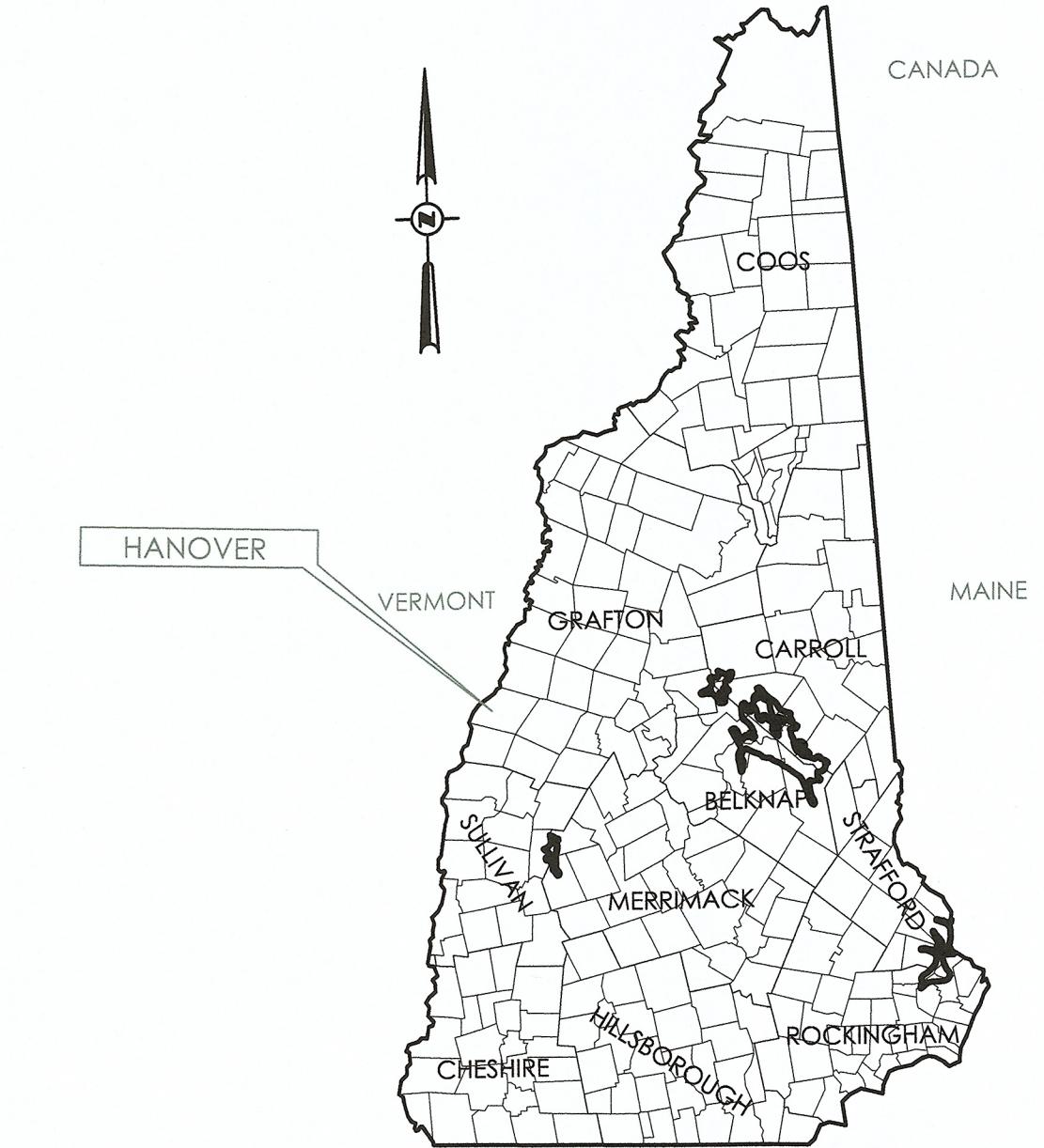
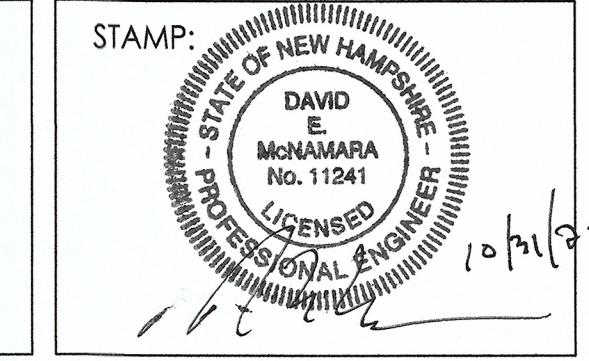


DEPARTMENT OF PUBLIC WORKS
TOWN OF HANOVER, NH
COUNTY OF GRAFTON

GIRL BROOK TRAIL REHABILITATION

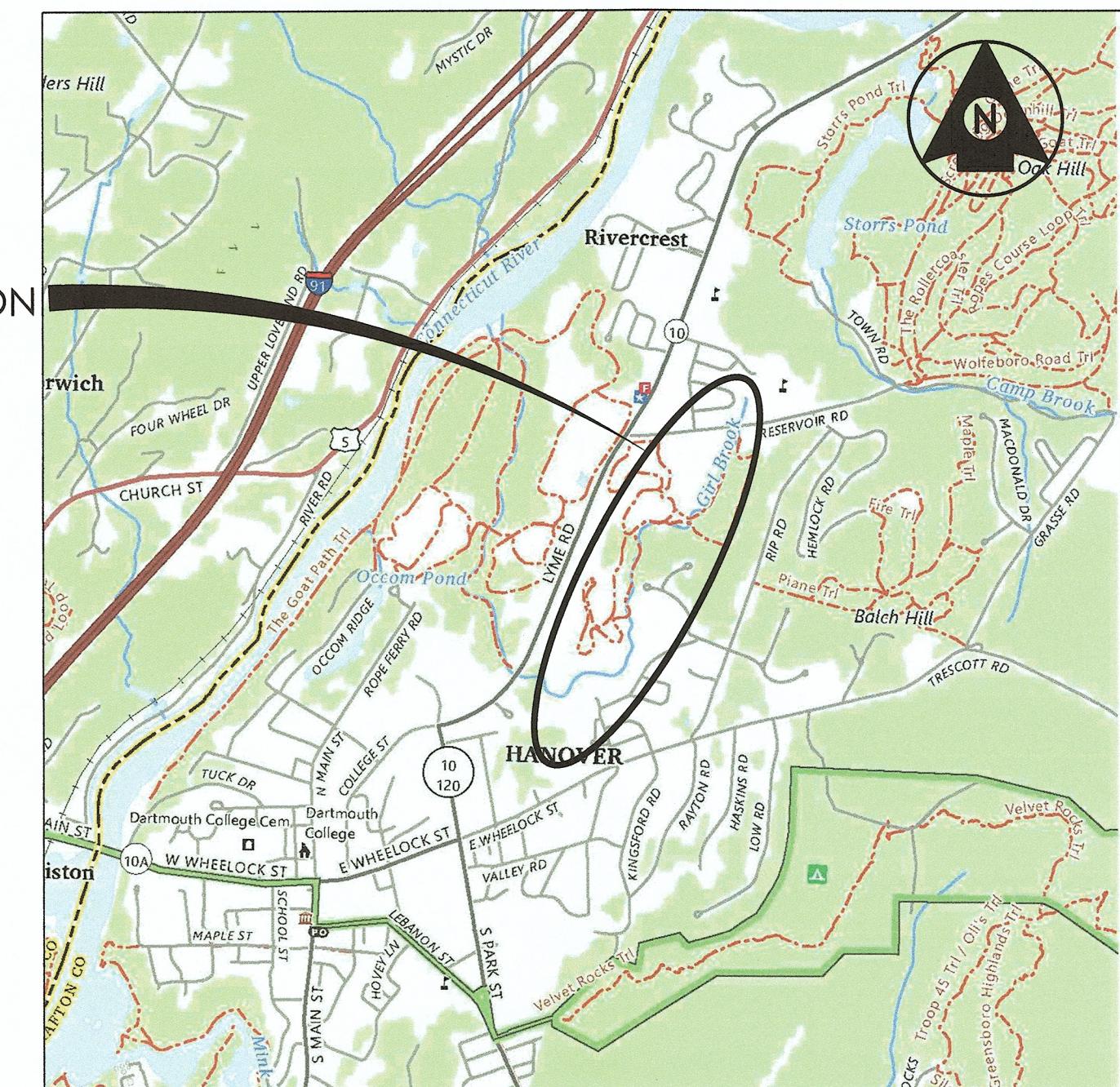
AUGUST 2025

PLANS PREPARED BY:
STANTEC CONSULTING SERVICES, INC.
5 DARTMOUTH DR, SUITE 200, AUBURN, NH 03032
TEL (603) 669-8672 FAX (603) 669-7636



LOCATION MAP

PROJECT LOCATION

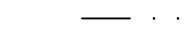
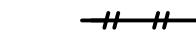
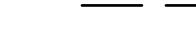
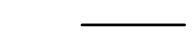
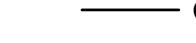
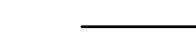
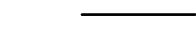
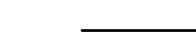
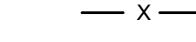
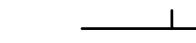


VICINITY MAP
0 1000' 2000'

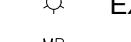
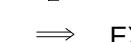
NHDOT PROJECT NUMBER: 44015
STANTEC PROJECT NUMBER: 179450927

CIVIL LEGENDS

PROPOSED LEGEND

PROPOSED BOUND	— 100 —	PROPOSED MAJOR CONTOUR
PROPOSED BENCHMARK	— 98 —	PROPOSED MINOR CONTOUR
PROPOSED CATCH BASIN (SQUARE)	X 95.5	PROPOSED SPOT ELEVATION
PROPOSED CATCH BASIN (ROUND)		PROPOSED RAILROAD TRACKS
PROPOSED COMMUNICATION MANHOLE		
PROPOSED CURB INLET		
PROPOSED DRAIN MANHOLE (DMH)		
PROPOSED DRILL HOLE		
PROPOSED ELECTRICAL MANHOLE		
PROPOSED GUY POLE		
PROPOSED SURVEY POINT		
PROPOSED IRON PIN		
PROPOSED NATURAL GAS MANHOLE		
PROPOSED HYDRANT		
PROPOSED SANITARY SEWER MANHOLE (SMH)		
PROPOSED SINGLE POLE SIGN		
PROPOSED DOUBLE POLE SIGN		
PROPOSED TELEPHONE MANHOLE		
TP1		
PROPOSED TEST PIT		
B1		
PROPOSED BORING		
PROPOSED UTILITY POLE		
PROPOSED WATER SHUTOFF		
PROPOSED GATE VALVE		
PROPOSED WELL		
PROPOSED FLOOD LIGHT		
PROPOSED LIGHT POST		
PROPOSED DRAINAGE FLOW		
PROPOSED CONIFEROUS TREE		
PROPOSED DECIDUOUS TREE		

EXISTING LEGEND

EXISTING BOUND	— 100 —	EXISTING MAJOR CONTOUR
EXISTING BENCHMARK	— 98 —	EXISTING MINOR CONTOUR
EXISTING SURVEY POINT		EXISTING DITCH/SWALE
EXISTING CATCH BASIN (SQUARE)		EXISTING RAILROAD TRACKS
EXISTING CATCH BASIN (ROUND)		EXISTING EDGE OF WATER
EXISTING COMMUNICATION MANHOLE		EXISTING CURB INLET
EXISTING DRAIN MANHOLE (DMH)		EXISTING DRAIN MANHOLE (DMH)
EXISTING ELECTRICAL MANHOLE		EXISTING ELECTRICAL MANHOLE
EXISTING GUY POLE		EXISTING GUY POLE
EXISTING HYDRANT		EXISTING HYDRANT
EXISTING IRON PIN		EXISTING IRON PIN
EXISTING NATURAL GAS MANHOLE		EXISTING NATURAL GAS MANHOLE
EXISTING SEWER MANHOLE (SMH)		EXISTING SEWER MANHOLE (SMH)
EXISTING SINGLE POLE SIGN		EXISTING SINGLE POLE SIGN
EXISTING DOUBLE POLE SIGN		EXISTING DOUBLE POLE SIGN
EXISTING FLOOD LIGHT		EXISTING FLOOD LIGHT
EXISTING LIGHT POST		EXISTING LIGHT POST
EXISTING MAILBOX		EXISTING MAILBOX
EXISTING DRAINAGE FLOW		EXISTING DRAINAGE FLOW
EXISTING TEST PIT		EXISTING TEST PIT
EXISTING BORING		EXISTING BORING
EXISTING STUMP		EXISTING STUMP
EXISTING CONIFEROUS TREE		EXISTING CONIFEROUS TREE
EXISTING DECIDUOUS TREE		EXISTING DECIDUOUS TREE
EXISTING WETLAND		EXISTING WETLAND
EXISTING TELEPHONE MANHOLE		EXISTING TELEPHONE MANHOLE
EXISTING UTILITY POLE		EXISTING UTILITY POLE
EXISTING WATER SHUTOFF		EXISTING WATER SHUTOFF
EXISTING GATE VALVE		EXISTING GATE VALVE
EXISTING WELL		EXISTING WELL

Notes

Revision

Issued

Permit/Seal

Client/Project Logo

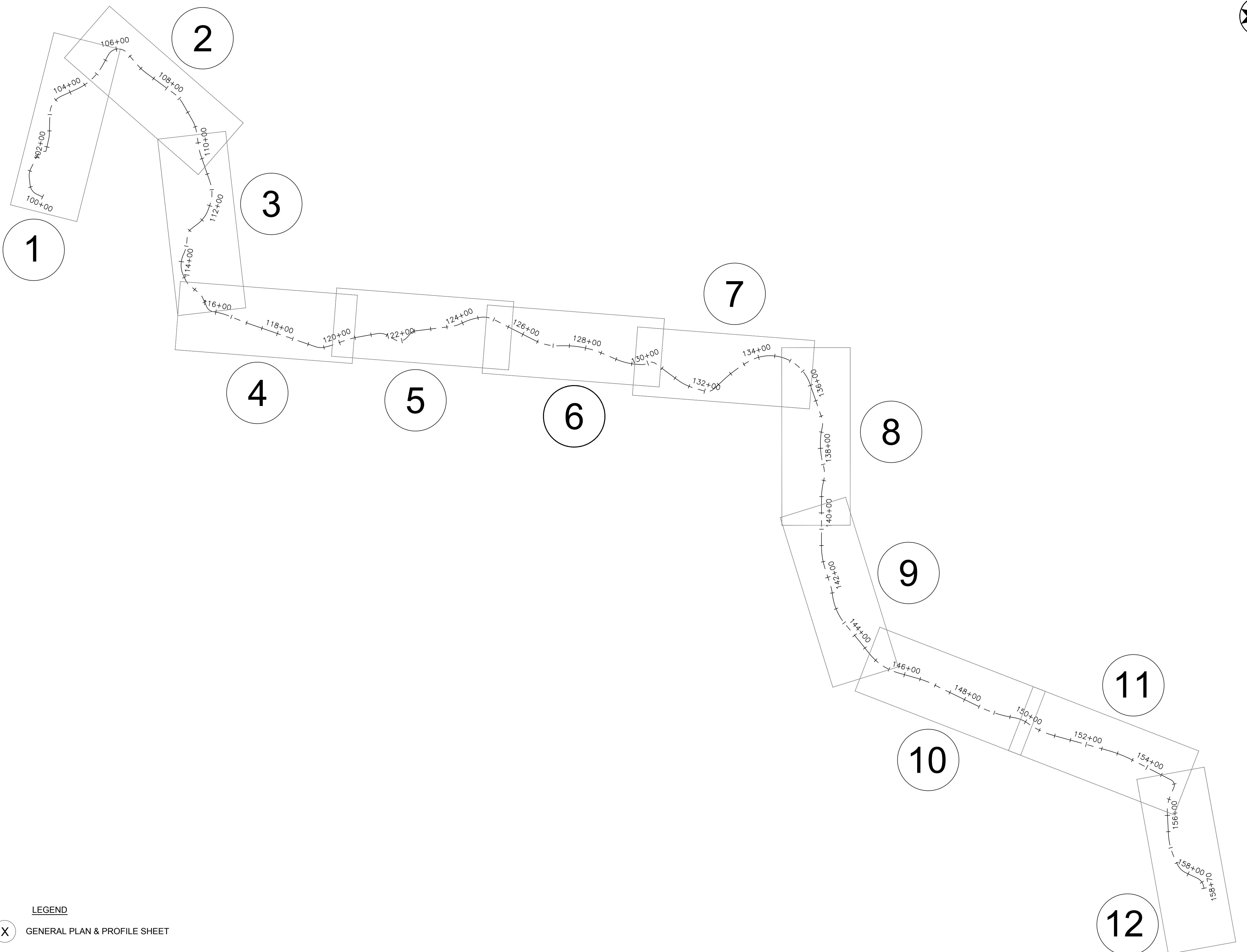
Client/Project
TOWN OF HANOVER, NH

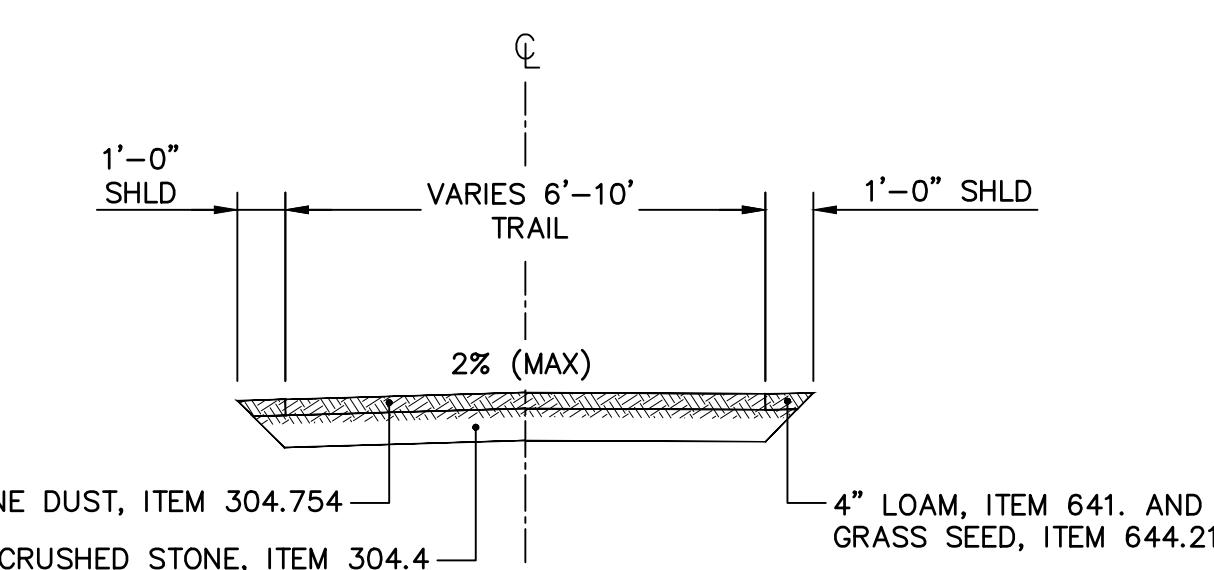
GIRL BROOK TRAIL REHABILITATION

Hanover, New Hampshire

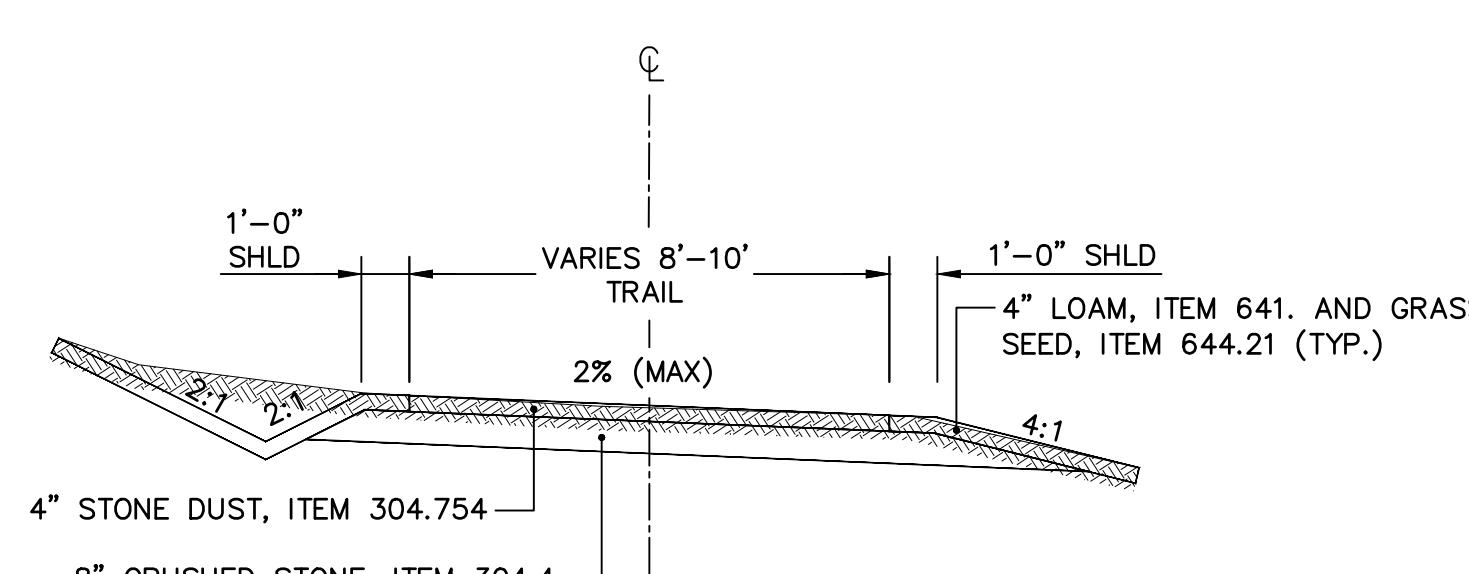
Title
LEGEND & SYMBOLS

Project No.
179450927
Scale
AS NOTED
Revision Sheet
0 3 of 21
Drawing No.
C-003

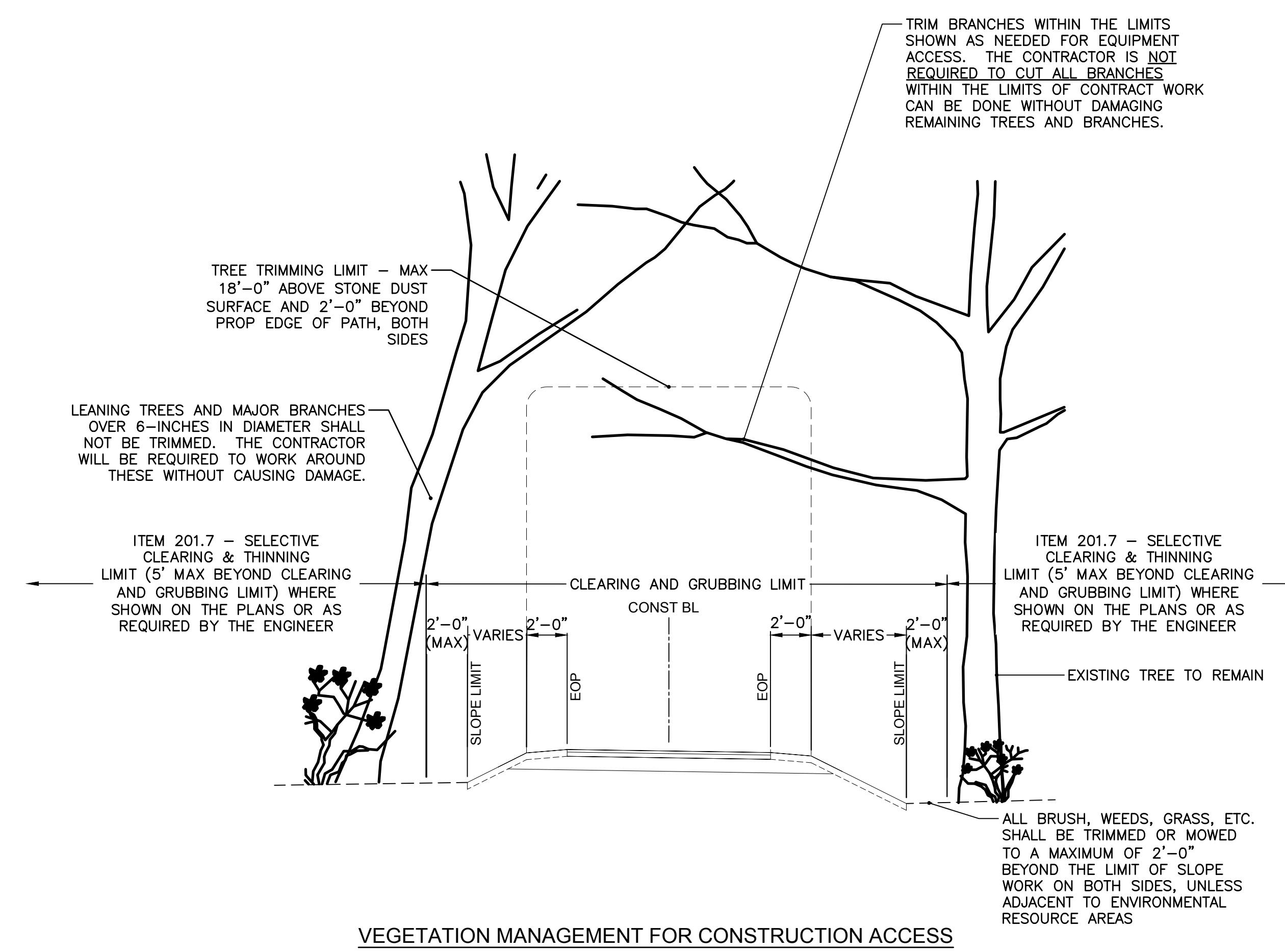


**TYPICAL SECTION 01**

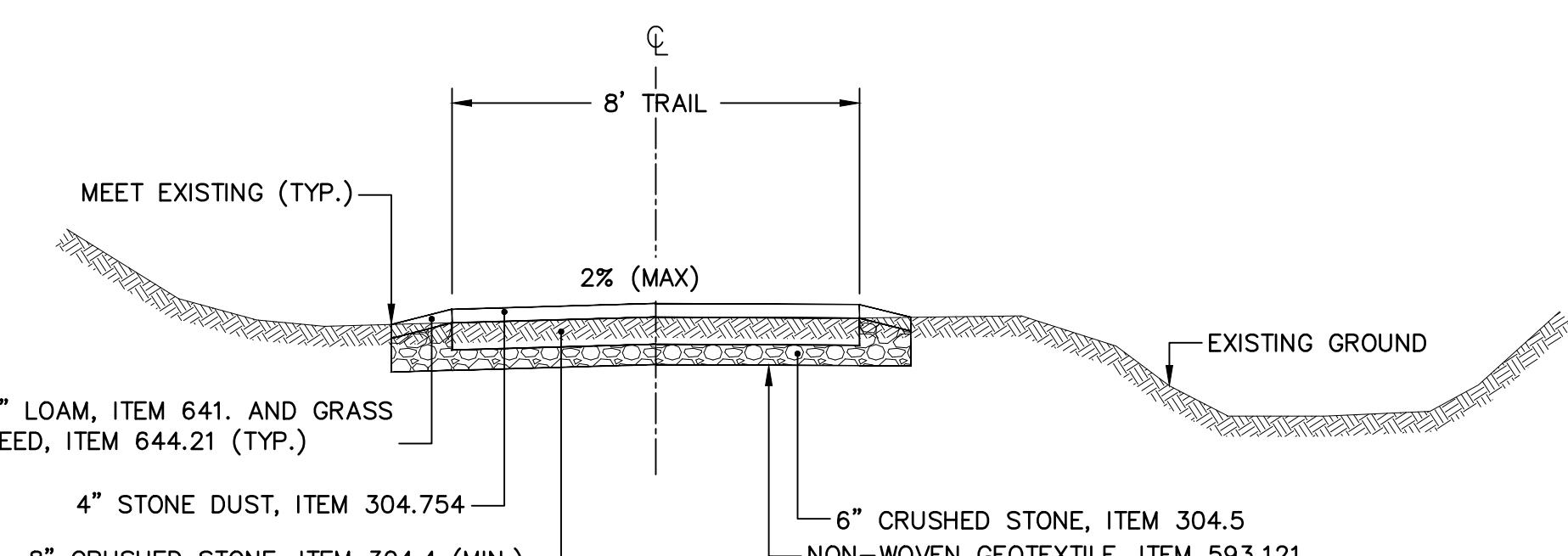
NOT TO SCALE
 UTILIZE THIS TYPICAL, UNLESS NOTED AS
 TYPICAL SECTION 02 OR TYPICAL SECTION 03

**TYPICAL SECTION 02**

NOT TO SCALE
 FROM STA. 108+00 TO STA. 109+50
 FROM STA. 112+00 TO STA. 115+00
 FROM STA. 139+00 TO STA. 141+50

**VEGETATION MANAGEMENT FOR CONSTRUCTION ACCESS**

NOT TO SCALE

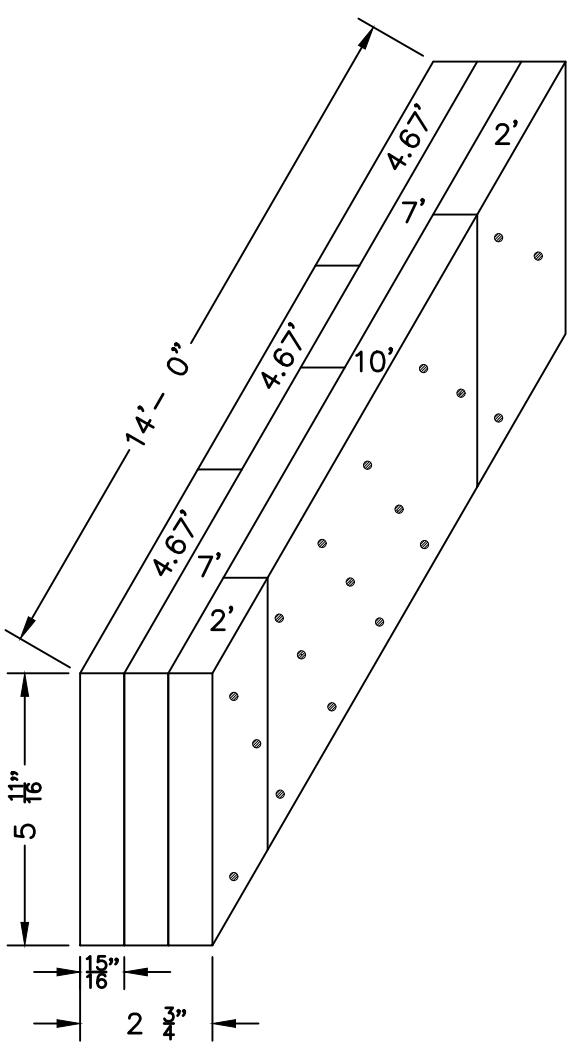
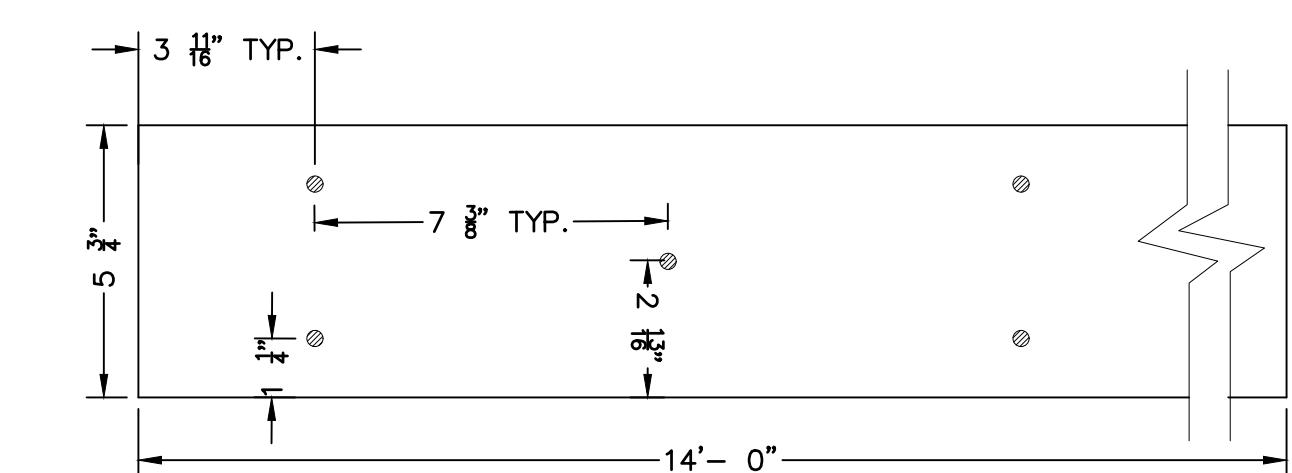
**WETLAND TRAIL SECTION 03**

NOT TO SCALE
 FROM STA. 104+27 TO STA. 105+04
 FROM STA. 122+32 TO STA. 124+72
 FROM STA. 127+02 TO STA. 129+24
 FROM STA. 136+10 TO STA. 138+40
 FROM STA. 141+50 TO STA. 144+63
 FROM STA. 149+36 TO STA. 153+40

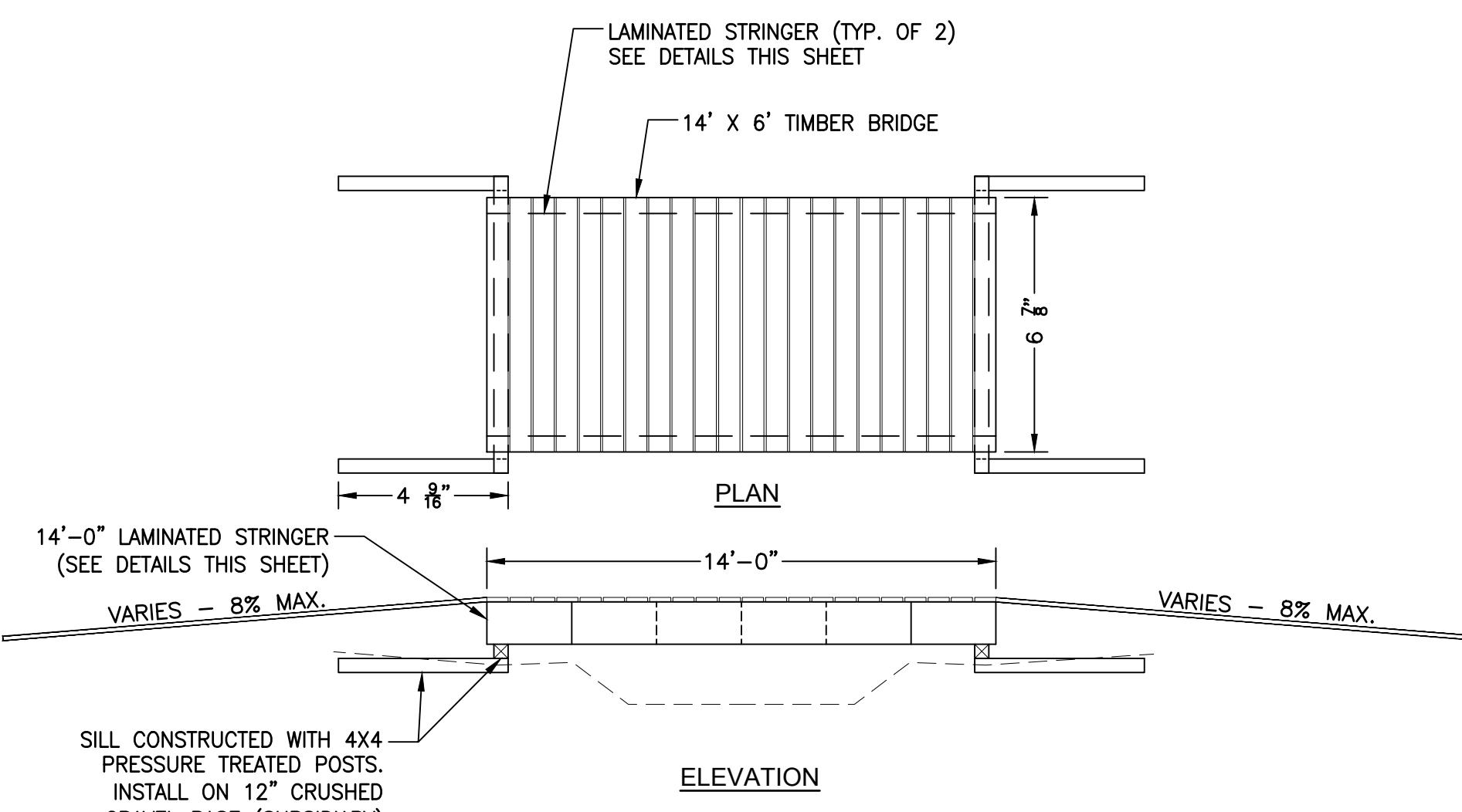
VEGETATION MANAGEMENT FOR CONSTRUCTION ACCESS NOTES:

1. THE INTENT IS TO PRESERVE AS MUCH NATURAL VEGETATION AS FEASIBLE. A 2-FT MINIMUM OFFSET FROM THE EDGE OF PATH MUST REMAIN CLEAR OF TREES.
2. ALL TREES REQUIRING REMOVAL SHALL BE MARKED AND APPROVED BY THE ENGINEER PRIOR TO REMOVAL.
3. CLEARING AND GRUBBING AND SELECTIVE CLEARING SHALL NOT OCCUR WITHIN WETLAND AREAS.

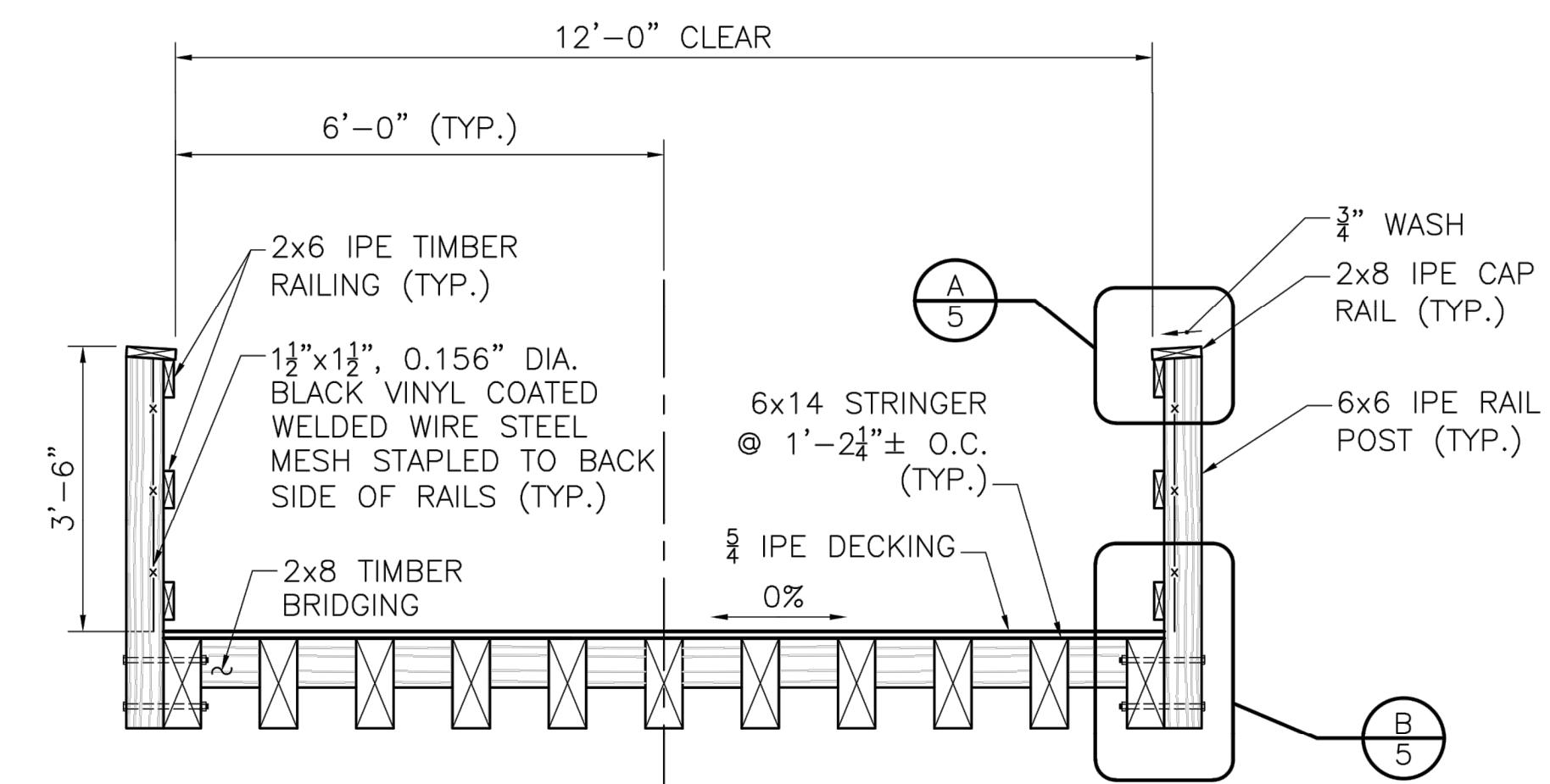
D


LAMINATED STRINGER DETAILS
 NOT TO SCALE
**NAILING PATTERN (TYP.)**

C


TIMBER BRIDGE DETAILS
 NOT TO SCALE

B


TYPICAL BRIDGE SECTION
 NOT TO SCALE

Revision _____ By _____ Appd _____ YYYY.MM.DD

Issued _____ By _____ Appd _____ YYYY.MM.DD

File Name: 50927.DTL

I.J.G. Dwn. I.J.G. Dsgn. D.E.M. Chkd. 2025-10-29

Permit/Seal

Client/Project Logo

Client/Project
TOWN OF HANOVER, NH

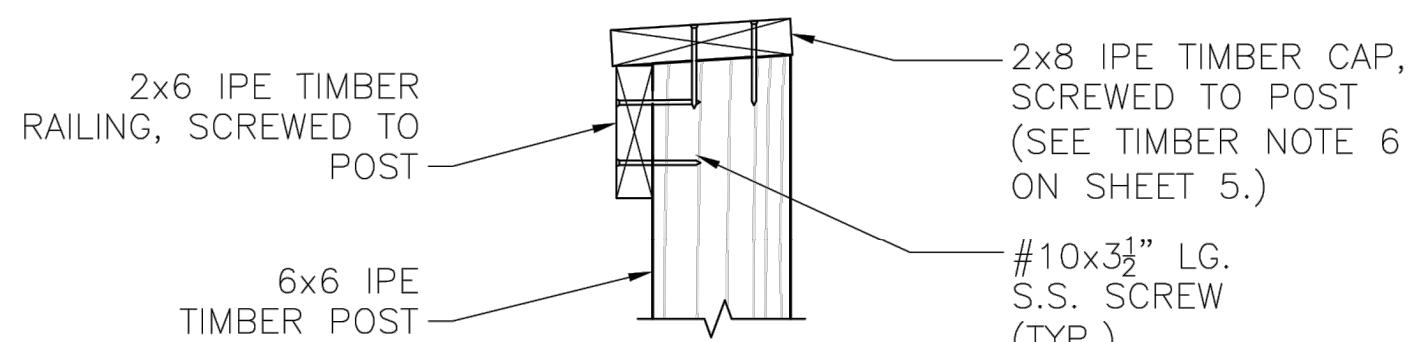
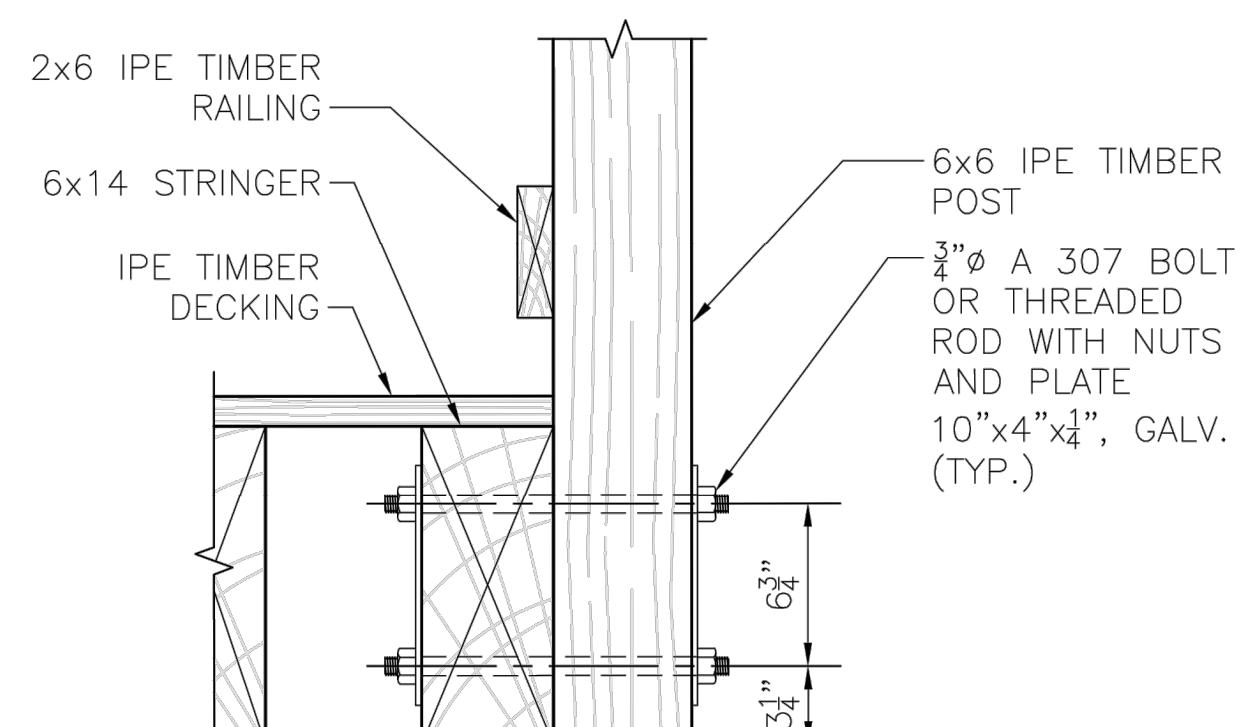
GIRL BROOK TRAIL REHABILITATION

Hanover, New Hampshire

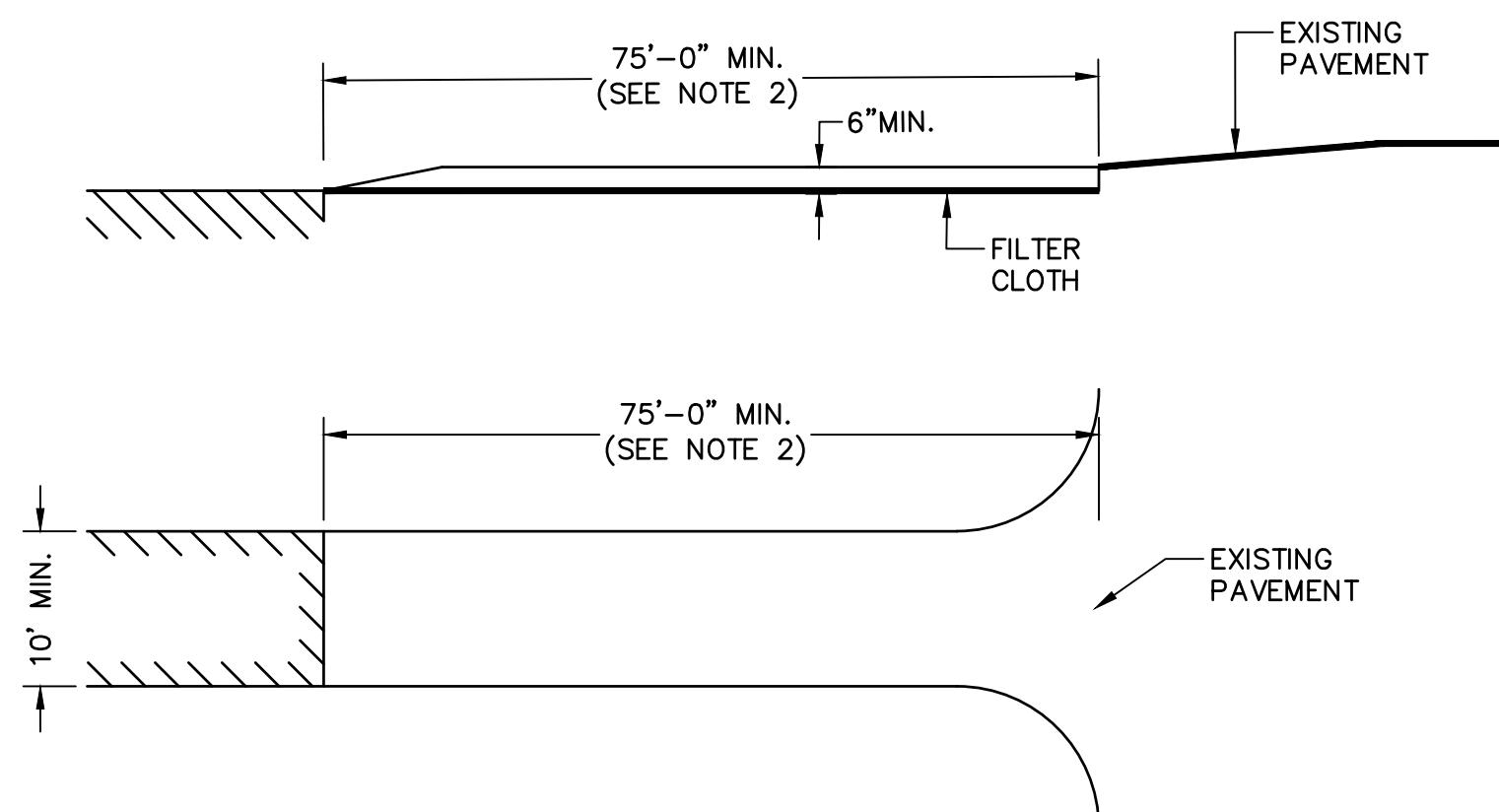
Title
**CONSTRUCTION DETAILS
(SHEET 02 OF 05)**

Project No. 179450927 Scale AS NOTED

Revision 0 Sheet 6 of 21 Drawing No. DTL-02


DETAIL AT TOP OF HAND RAIL
 NOT TO SCALE

DETAIL AT LOWER HAND RAIL
 NOT TO SCALE

D

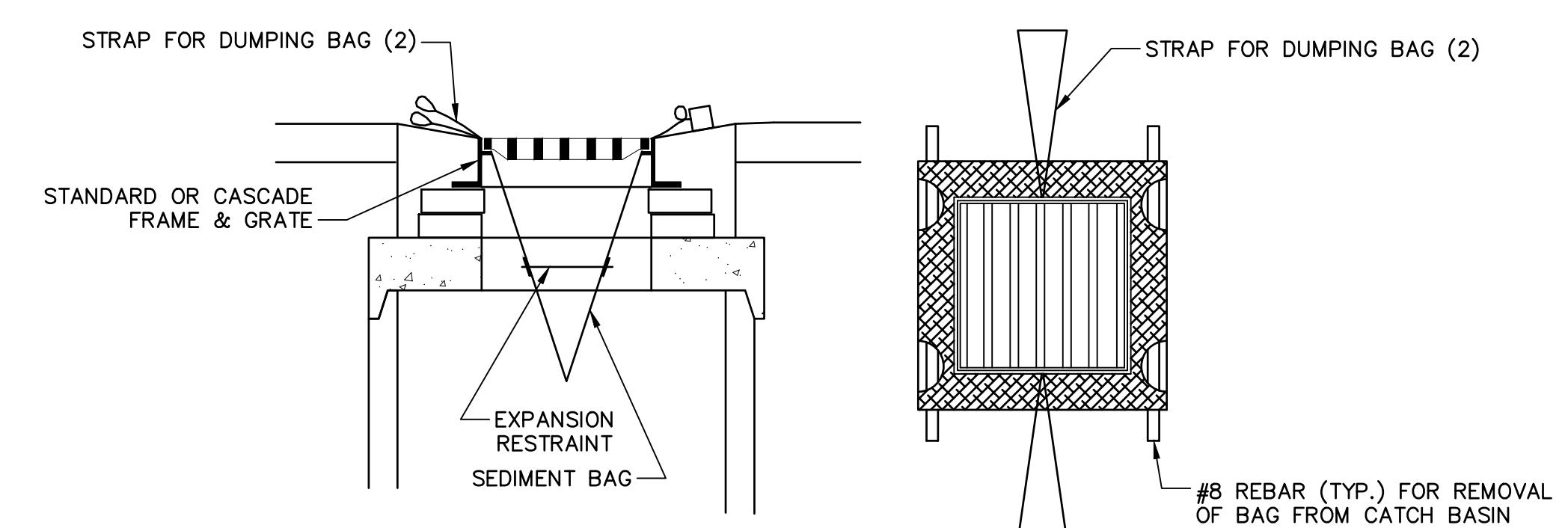
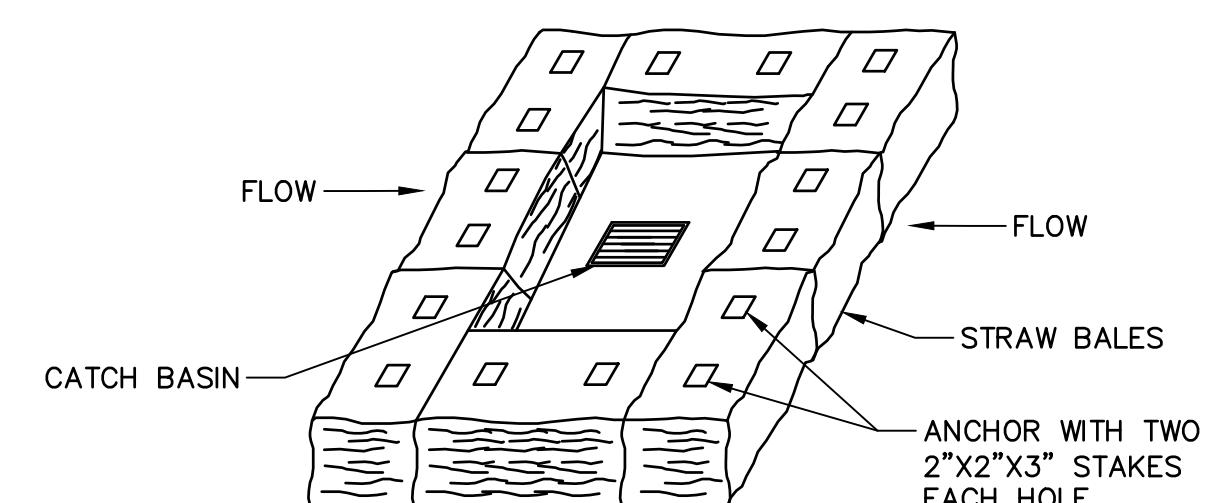


CONSTRUCTION SPECIFICATIONS:

- STONE FOR A STABILIZED CONSTRUCTION ENTRANCE SHALL BE 3 INCH MINIMUM STONE, RECLAIMED STONE, OR RECYCLED CONCRETE EQUIVALENT.
- THE LENGTH OF THE STABILIZED ENTRANCE MAY BE REDUCED TO 50 FEET IF A 3 INCH TO 6 INCH HIGH BERM IS INSTALLED AT THE ENTRANCE OF THE PROJECT SITE.
- THE THICKNESS OF THE STONE FOR THE STABILIZED ENTRANCE SHALL NOT BE LESS THAN 6 INCHES.
- THE WIDTH OF THE ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF THE ENTRANCE WHERE INGRESS OR EGRESS OCCURS OR 10 FEET, WHICHEVER IS GREATER.
- GEOTEXTILE FILTER CLOTH SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING THE STONE.
- ALL SURFACE WATER THAT IS FLOWING TO OR DIVERTED TOWARDS THE CONSTRUCTION ENTRANCE SHALL BE PIPED BEHNEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A BERM WITH 5:1 SLOPES THAT CAN BE CROSSED BY VEHICLES MAY BE SUBSTITUTED FOR THE PIPE.
- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIRS AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENTS. ALL SEDIMENTS SPILLED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED PROMPTLY.
- WHEELS SHALL BE CLEANED TO REMOVE MUD PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- FOR UNDERGROUND INFILTRATION BASINS:
 - DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH CONSTRUCTION EQUIPMENT. IF FEASIBLE, PERFORM EXCAVATIONS WITH EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION SYSTEM.
 - AFTER THE INFILTRATION SYSTEM AREA IS EXCAVATED TO THE FINAL DESIGN ELEVATION, THE FLOOR SHOULD BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW TO RESTORE INFILTRATION RATES, FOLLOWED BY A PASS WITH A LEVELING DRAG.
 - DO NOT PLACE INFILTRATION SYSTEMS INTO SERVICE UNTIL THE CONTRIBUTING AREAS HAVE BEEN FULLY STABILIZED.

STABILIZED CONSTRUCTION ENTRANCE
NOT TO SCALE

B

SEDIMENT CONTROL BAG AT CATCH BASIN
NOT TO SCALE

NOTE:

MAINTAIN EXISTING FILTERS FOR THE DURATION OF CONSTRUCTION.

Revision

By Appd YYYY.MM.DD

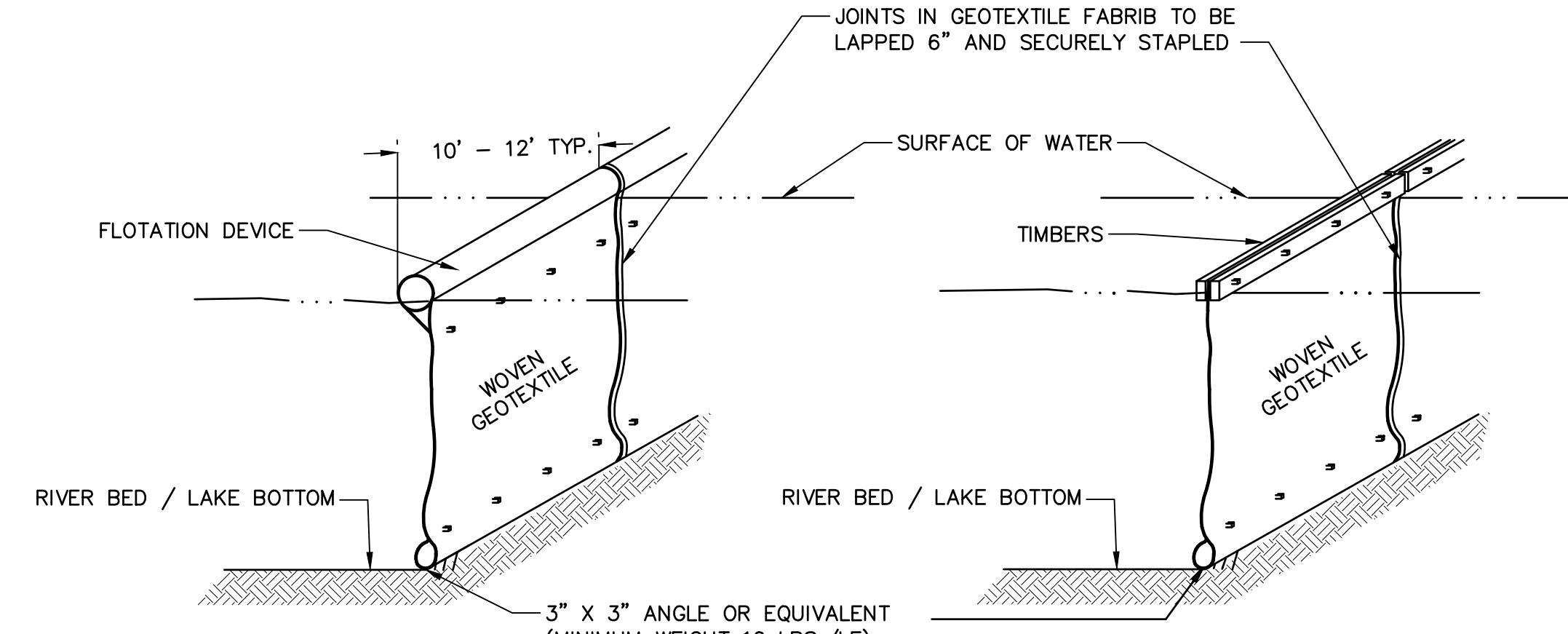
Issued

By Appd YYYY.MM.DD

File Name: 50927.DIL IJG Dwn. TUG DEM 2025-10-29
Dsgn. Chkd. YYYY.MM.DD

Permit/Seal

Client/Project Logo



NOTE:

THESE ARE SUGGESTED CONSTRUCTED METHODS. ACTUAL METHOD TO BE APPROVED BY THE ENGINEER

A

SILT SCREEN DETAIL
NOT TO SCALEClient/Project
TOWN OF HANOVER, NH

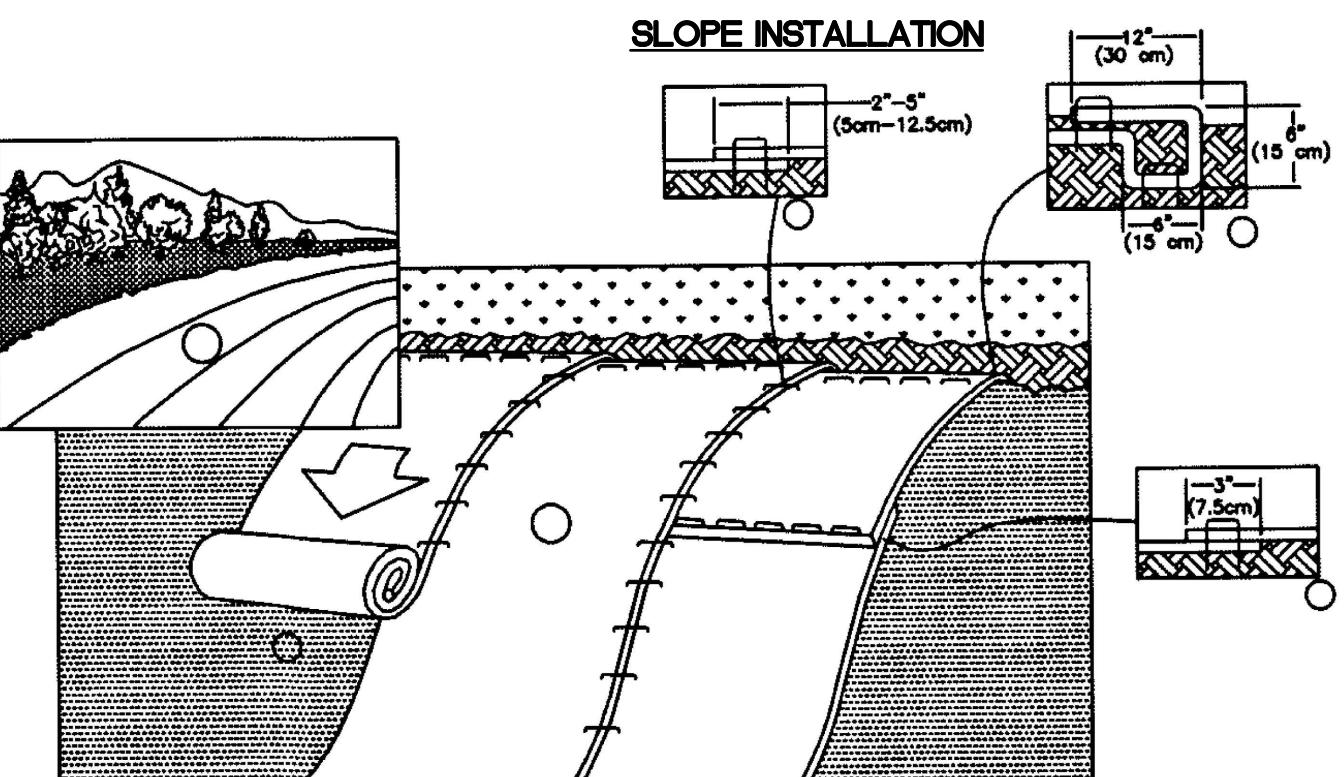
GIRL BROOK TRAIL REHABILITATION

Hanover, New Hampshire

Title
CONSTRUCTION DETAILS
(SHEET 03 OF 05)

Project No. 179450927 Scale AS NOTED
Revision 0 Sheet 7 of 21 Drawing No. DET-03

SLOPE INSTALLATION

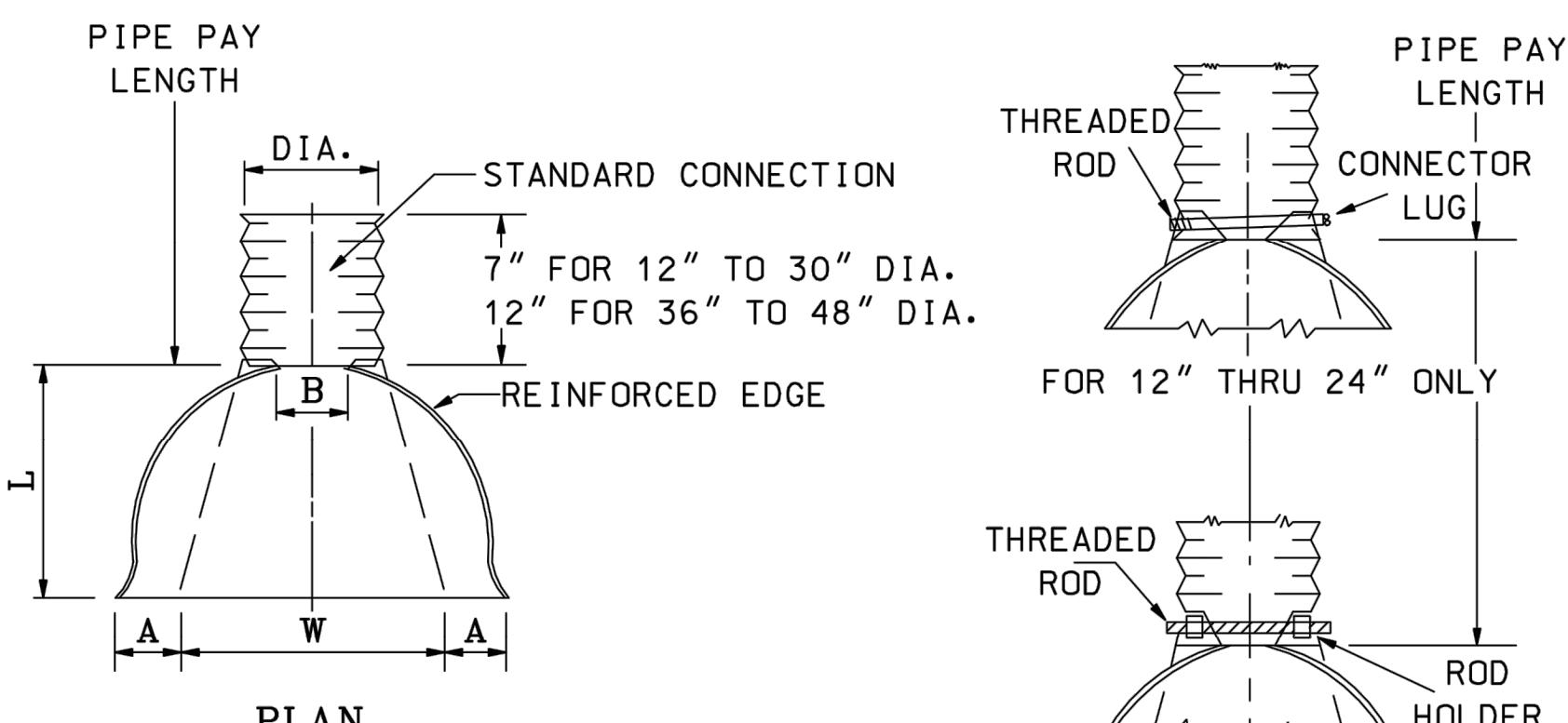


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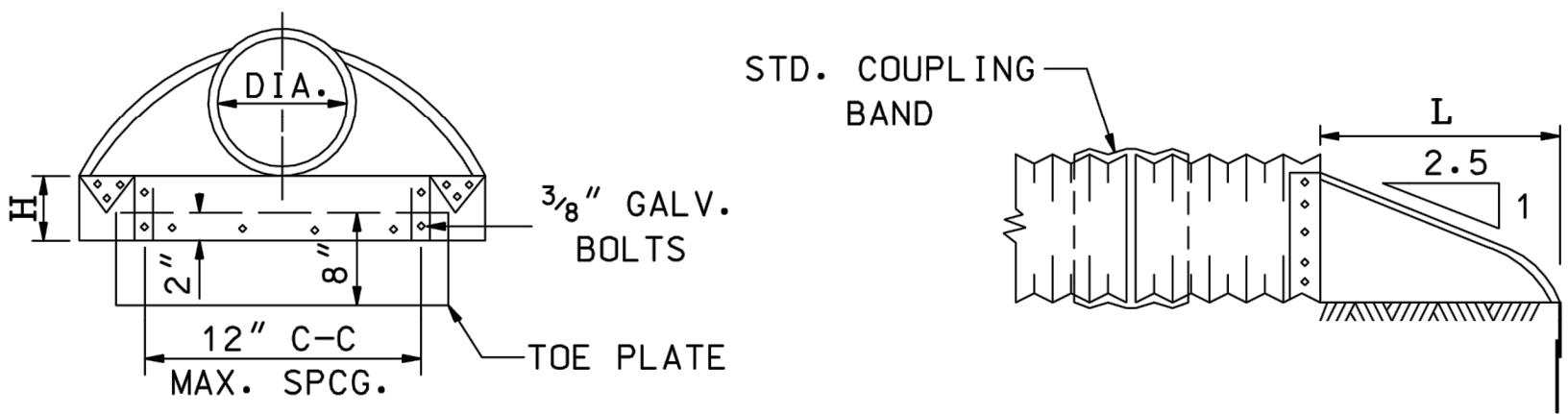
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. (NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.)
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP's EXTENDED BEYOND THE IP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOILS SURFACE. RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATION AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM™, STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2"-5" OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP's WIDTH.
6. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

EROSION CONTROL BLANKET DETAIL

NOT TO SCALE



ALTERNATE CONNECTIONS



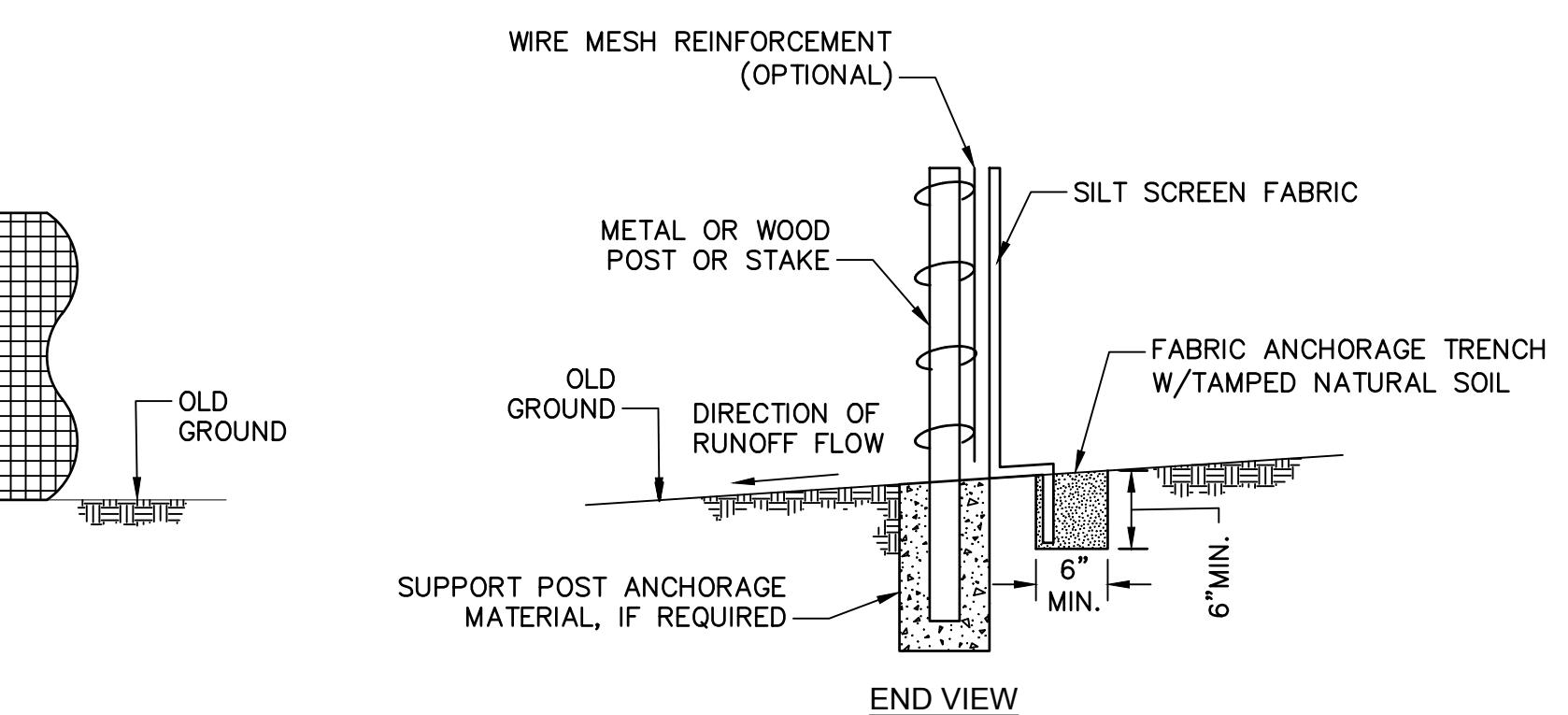
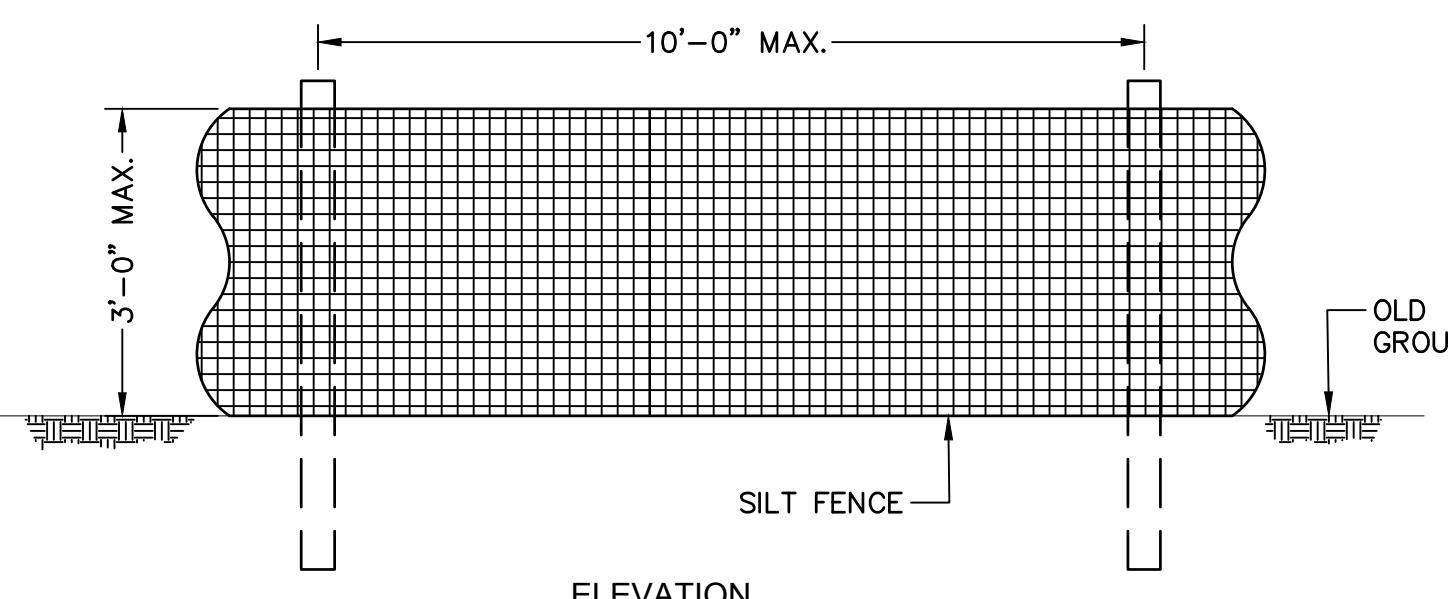
TYPICAL CROSS-SECTION

END SECTION FOR PLASTIC &
CORRUGATED STEEL PIPE

NOT TO SCALE

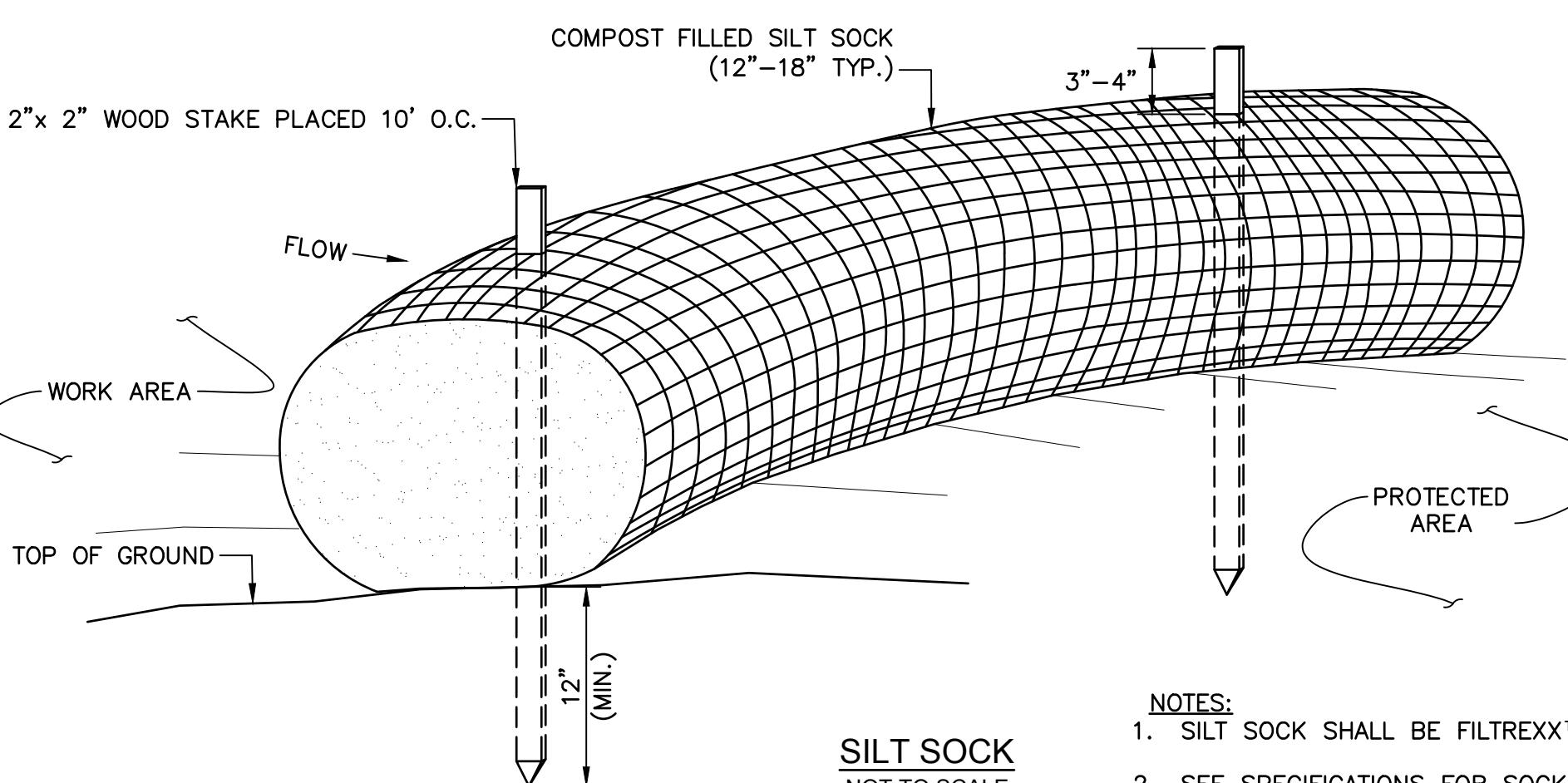
GENERAL NOTES

1. END SECTION FOR 12" TO 30" DIA. PIPE IN ONE PIECE. FOR 36" TO 48" DIA. PIPE TO BE MADE FROM TWO SHEETS JOINED BY RIVETING OR BOLTING ON CENTER LINE.
2. CONNECTOR SECTION, CORNER PLATE AND TOE PLATE TO BE SAME THICKNESS AS END SECTION AND EACH TO BE GALVANIZED.



SILT FENCE DETAIL

NOT TO SCALE



SILT SOCK
NOT TO SCALE

NOTES:

1. SILT SOCK SHALL BE FILTREXX™ SILTSOXX™ OR APPROVED EQUIVALENT.
2. SEE SPECIFICATIONS FOR SOCK SIZE AND COMPOST FILL REQUIREMENTS.
3. SILT SOCK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED AS NEEDED.
4. AFTER IMPACT AREA HAS BEEN FULLY STABILIZED, THE COMPOST MATERIAL SHALL BE DISPERSED ON SITE, AS DETERMINED BY THE ENGINEER.

ITEM NO.	PIPE DIA.	METAL GAGE	DIMENSIONS				
			A (1") MAX. TOL.	B (1") MAX. TOL.	H (1 1/2") TOL.	L (1 1/2") TOL.	W (2") TOL.
603.34112	12"	16	6"	6"	6"	21"	24"
603.34115	15"	16	7"	8"	6"	26"	30"
603.34118	18"	16	8"	13"	6"	31"	36"
603.34124	24"	16	10"	16"	6"	41"	48"
603.34130	30"	14	12"	16"	8"	51"	60"
603.34136	36"	14	14"	19"	9"	60"	72"
603.34142	42"	12	16"	22"	11"	69"	84"
603.34148	48"	12	18"	27"	12"	78"	90"

EROSION CONTROL NOTES AND STRATEGIES

1. Erosion Control/Stormwater Control Selection, Sequencing and Maintenance
 - 1.1. Comply with RSA 485-A:17 Terrain Alteration.
 - 1.2. Install and maintain all erosion control/stormwater controls in accordance with the New Hampshire Stormwater Management Manual, Volume 3, Erosion and Sediment Controls During Construction, December 2008 (BMP Manual), available from the NH Department of Environmental Services (NHDES).
 - 1.3. Install erosion control/stormwater control measures prior to the start of work and in accordance with the manufacturer's recommendations.
 - 1.4. Select erosion control/stormwater control measures based on the size and nature of the project and physical characteristics of the site, including slope, soil type, vegetative cover, and proximity to jurisdictional areas.
 - 1.5. Install perimeter controls prior to earth disturbing activities.
 - 1.6. Install stormwater treatment ponds and drainage swales before rough grading the site.
 - 1.7. Clean, replace, and augment stormwater control measures and infiltration basins as necessary to prevent sedimentation beyond project limits throughout the project duration.
 - 1.8. Inspect erosion and sediment control measures in accordance with Section 645 of the specifications, weekly, and within 24 hours (during normal work hours), of any storm event greater than 0.25 inches of rain in a 24-hour period.
 - 1.9. Contain stockpiles with temporary perimeter controls. Protect inactive soil stockpiles with soil stabilization measures (temporary erosion control seed mix and mulch, soil binder) or cover them with anchored tarps. If the stockpile is to remain undisturbed for more than 14 days, mulch the stockpile.
 - 1.10. Maintain temporary erosion and stormwater control measures in place until the area has been permanently stabilized.
 - 1.11. An area is considered stable if one of the following has occurred:
 - Base course gravels have been installed in areas to be paved;
 - A minimum of 85% vegetative growth has been established;
 - A minimum of 3' of non-erosive material such as stone or rip-rap has been installed;
 - Temporary slope stabilization has been properly installed (see Table 1).
 - 1.12. Direct runoff to temporary practices until permanent stormwater infrastructure is constructed and stabilized.
 - 1.13. Use temporary mulching, permanent mulching, temporary vegetative cover, and permanent vegetative cover to reduce the need for dust control. Use mechanical sweepers on paved surfaces where necessary to prevent dust buildup. Apply water, or other dust inhibiting agents or tackifiers.
 - 1.14. Plan activities to account for sensitive site conditions
 - Sequence construction to limit the duration and area of exposed soils.
 - Clearly flag areas to be protected in the field and provide construction barrier to prevent trafficking outside of work areas.
 - Protect and maximize existing native vegetation and natural forest buffers between construction activities and sensitive areas.
 - When work is undertaken in a flowing watercourse, implement stream flow diversion methods prior to any excavation or filling activity.
 - 1.15. Utilize storm drain inlet protection to prevent sediment from entering a storm drainage system prior to the permanent stabilization of the contributing disturbed area.
 - 1.16. Use care to ensure that sediments do not enter any existing catch basins during construction. Place temporary inlet protection at inlets in areas of soil disturbance that are subject to sedimentation.
 - 1.17. Construct, stabilize, and maintain temporary and permanent ditches in a manner that will minimize scour. Direct temporary and permanent ditches to drain to sediment basins or stormwater collection areas.
 - 1.18. Supplement channel protection measures with perimeter control measures when ditch lines occur at the bottom of long fill slopes. Install the perimeter controls on the fill slope to minimize the potential for fill slope sediment deposits in the ditch line.
 - 1.19. Divert sediment laden water away from drainage inlet structures to the extent possible.
 - 1.20. Install sediment barriers and sediment traps at drainage inlets to prevent sediment from entering the drainage system.
 - 1.21. Clean catch basins, drainage pipes, and culverts if significant sediment is deposited.
 - 1.22. Construct and stabilize dewatering infiltration basins prior to any excavation that may require dewatering.
 - 1.23. Place and stabilize temporary sediment basins or traps at locations where concentrated flow (channels and pipes) discharge to the surrounding environment from areas of unstabilized earth disturbing activities.
 - 1.24. Stabilize, to appropriate anticipated velocities, conveyance channels or pumping systems needed to convey construction stormwater to basins and discharge locations prior to use.
 - 1.25. Size temporary sediment basins to contain the 2-year, 24 hour storm event.
 - 1.26. Size temporary sediment traps to contain 3,600 cubic feet of storage for each acre of drainage area.
 - 1.27. Construct detention basins to accommodate the 2-year, 24-hour storm event.
2. Construction Planning
 - 2.1. Divert off site runoff or clean water away from the construction activities to reduce the volume that needs to be treated on site.
 - 2.2. Divert storm runoff from upslope drainage areas away from disturbed areas, slopes and around active work areas to a stabilized outlet location.
 - 2.3. Construct impermeable barriers, as necessary, to collect or divert concentrated flows from work or disturbed areas.
 - 2.4. Locate staging areas and stockpiles outside of wetlands jurisdiction.
 - 2.5. Do not store, maintain, or repair mobile heavy equipment in wetlands, unless equipment cannot be practicably removed and secondary containment is provided.
 - 2.6. Provide a water truck to control excessive dust, at the discretion of the Contract Administrator.
3. Site Stabilization
 - 3.1. Stabilize all areas of unstabilized soil as soon as practicable, but no later than 45 days after initial disturbance.
 - 3.2. Limit unstabilized soil to a maximum of 5 acres unless documentation is provided that demonstrates that cuts and fills are such that 5 acres is unreasonable.
 - 3.3. Use erosion control seed mix in all inactive construction areas that will not be permanently seeded within two weeks of disturbance and prior to September 15th of any given year in order to achieve vegetative stabilization prior to the end of the growing season.
 - 3.4. Apply, and reapply as necessary, soil tackifiers in accordance with the manufacturer's specifications to minimize soil and mulch loss until permanent vegetation is established.
 - 3.5. Stabilize basins, ditches and swales prior to directing runoff to them.
 - 3.6. Stabilize roadway and parking areas within 72 hours of achieving finished grade.
 - 3.7. Stabilize cut and fill slopes within 72 hours of achieving finished grade.
 - 3.8. When temporarily stabilizing soils and slopes, utilize the techniques outlined in Table 1.
 - 3.9. Stabilize all areas that can be stabilized prior to opening up new areas to construction activities.
 - 3.10. Utilize Table 1 when selecting temporary soil stabilization measures.
 - 3.11. Divert off-site water through the project in an appropriate manner so as not to disturb the upstream or downstream soils, vegetation or hydrology beyond the permitted area.
 - 3.12. Install and maintain construction exits anywhere traffic leaves a construction site onto a public right-of-way.
 - 3.13. Sweep all construction related debris and soil from the adjacent paved roadways, as necessary.

4. Slope Protection
 - 4.1. Intercept and divert storm runoff from upslope drainage areas away from unprotected and newly established areas and slopes to a stabilized outlet or conveyance.
 - 4.2. Consider how groundwater seepage on cut slopes may impact slope stability and incorporate appropriate measures to minimize erosion.
 - 4.3. Convey storm water down the slope in a stabilized channel or slope drain.
 - 4.4. The outer face of the fill slope should be in a loose, ruffled condition prior to turf establishment.

5. Winter Construction
 - 5.1. To minimize erosion and sedimentation impacts, limit the extent and duration of winter excavation and earthwork activities. The maximum amount of disturbed earth shall not exceed a total of 5 acres from May 1st through October 15th, or exceed one acre during winter months, unless the contractor demonstrates to the Department that the additional area of disturbance is necessary to meet the contractor's Critical Path Method (CPM) schedule, and the contractor has adequate resources available to ensure that environmental requirements will be met.
 - 5.2. Construction performed any time between October 15th and May 1st of any year is considered winter construction. During winter construction:
 - Stabilize all proposed vegetation areas which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, in accordance with Table 1.
 - Stabilize all ditches or swales which do not exhibit a minimum of 85% vegetative growth by October 15th, or which are disturbed after October 15th, in accordance with Table 1.
 - Protect incomplete road surfaces, where base course gravels have not been installed, and where work has stopped for the season after October 15th, in accordance with Table 1.
 - Unless a winter construction plan has been approved by NHDOT, conduct winter excavation and earthwork such that no more than 1 acre of the project is without stabilization an any one time.

6. Wildlife Protection Measures
 - 6.1. Report all observations of threatened and endangered species on the project site to the Department's Bureau of Environment by phone at 603-271-3226 or by email at Bureau1@dot.nh.gov, indicating in the subject line the project name, number, and that a threatened/endangered species was found.
 - 6.2. Photograph the observed species and nearby elements of habitat or areas of land disturbance and provide them to the Department's Bureau of Environment at the above email address.
 - 6.3. In the event that a threatened or endangered species is observed on the project during work, the species shall not be disturbed, handled, or harmed prior to receiving direction from the Bureau of Environment.
 - 6.4. Utilize wildlife friendly erosion control methods when:
 - Erosion control blankets are used,
 - A protected species or habitat is documented,
 - The proposed work is in or adjacent to a priority resource area, and/or when specifically requested by NHB or NHFG

GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES
TABLE 1

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES ²				ROLLED EROSION CONTROL BLANKETS ³			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DNSB	DNSCB	DNCB
SLOPES¹												
STeeper than 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES ¹	YES ¹	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
3:1 SLOPE	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO
4:1 SLOPE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
WINTER STABILIZATION												
4T/AC	YES	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
CHANNELS												
LOW FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
HIGH FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DNSB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DNSCB	2 NET STRAW-COCONUT BLANKET
CB	COMPOST BLANKET	FRM	FIBER REINFORCED MEDIUM	DNCB	2 NET COCONUT BLANKET

NOTES:

1. All slope stabilization options assume a slope length ≤ 10 times the horizontal distance component of the slope, in feet.
2. Do not apply products containing polyacrylamide (PAM) directly to, or within 100 feet of any surface water without NHDES approval.
3. Install all methods in Table 1 per the manufacturer's recommendation for time of year and steepness of slope.



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File Name: 50927.DIL
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Permit/Seal

Client/Project Logo

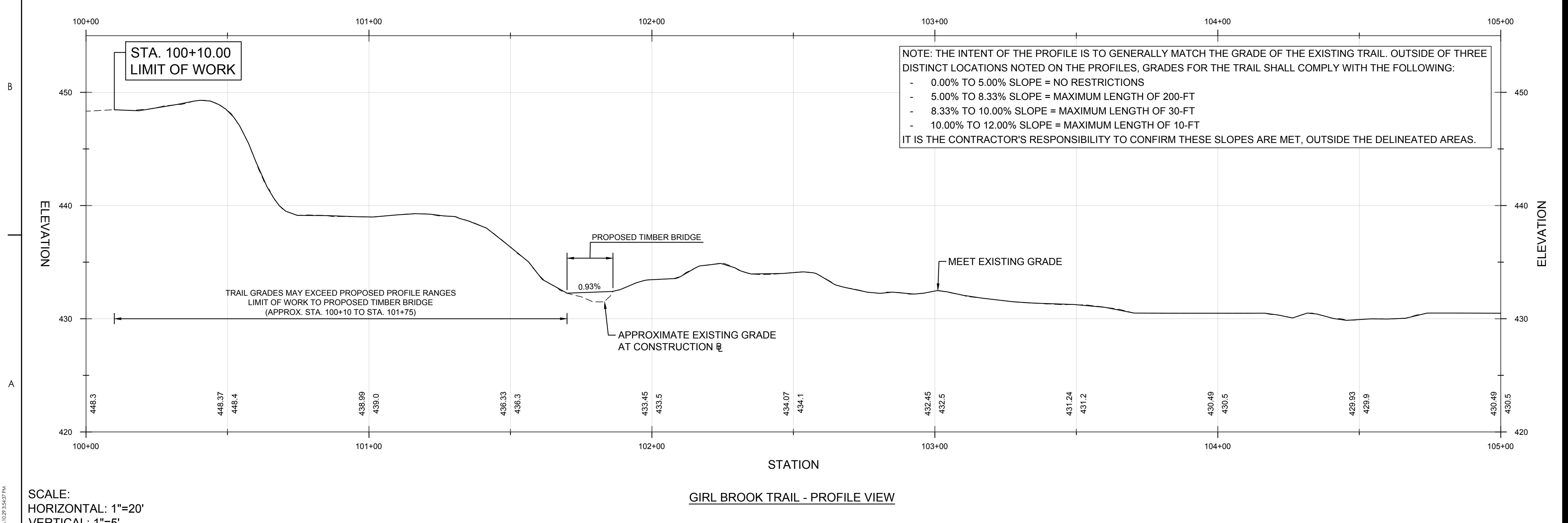
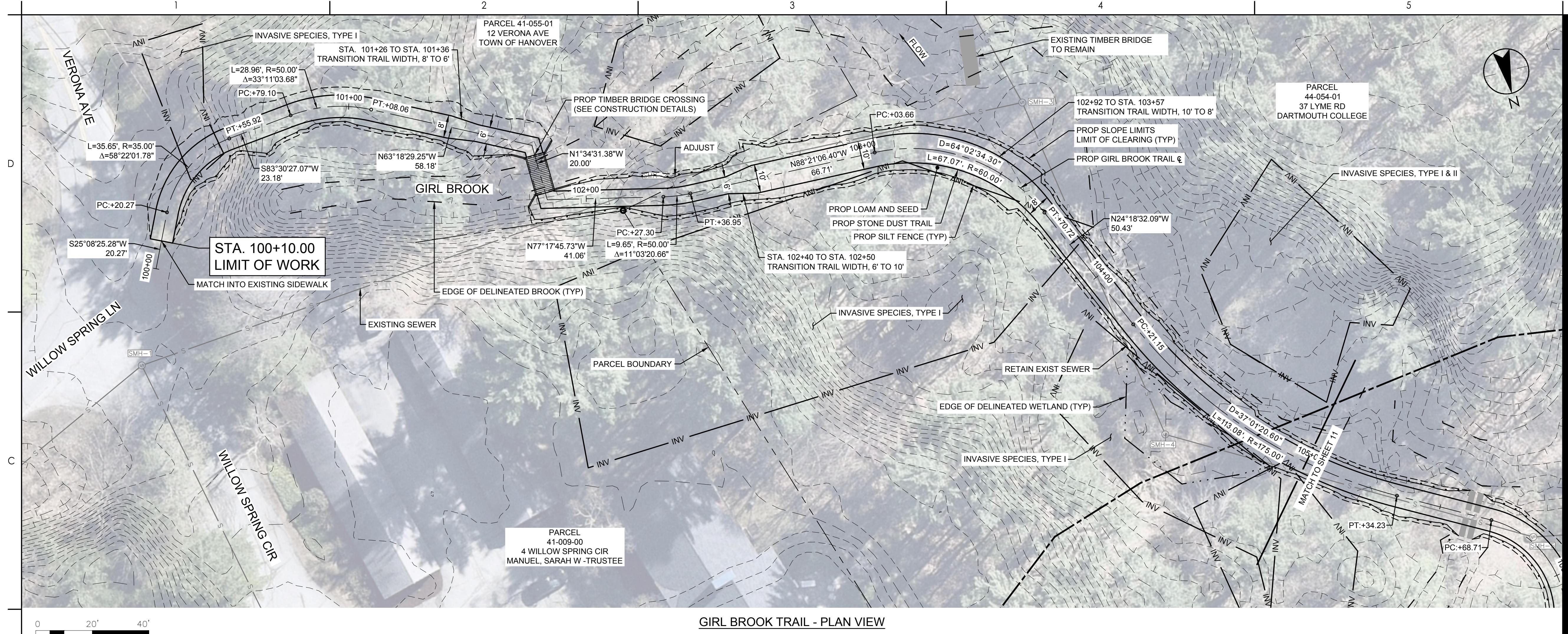
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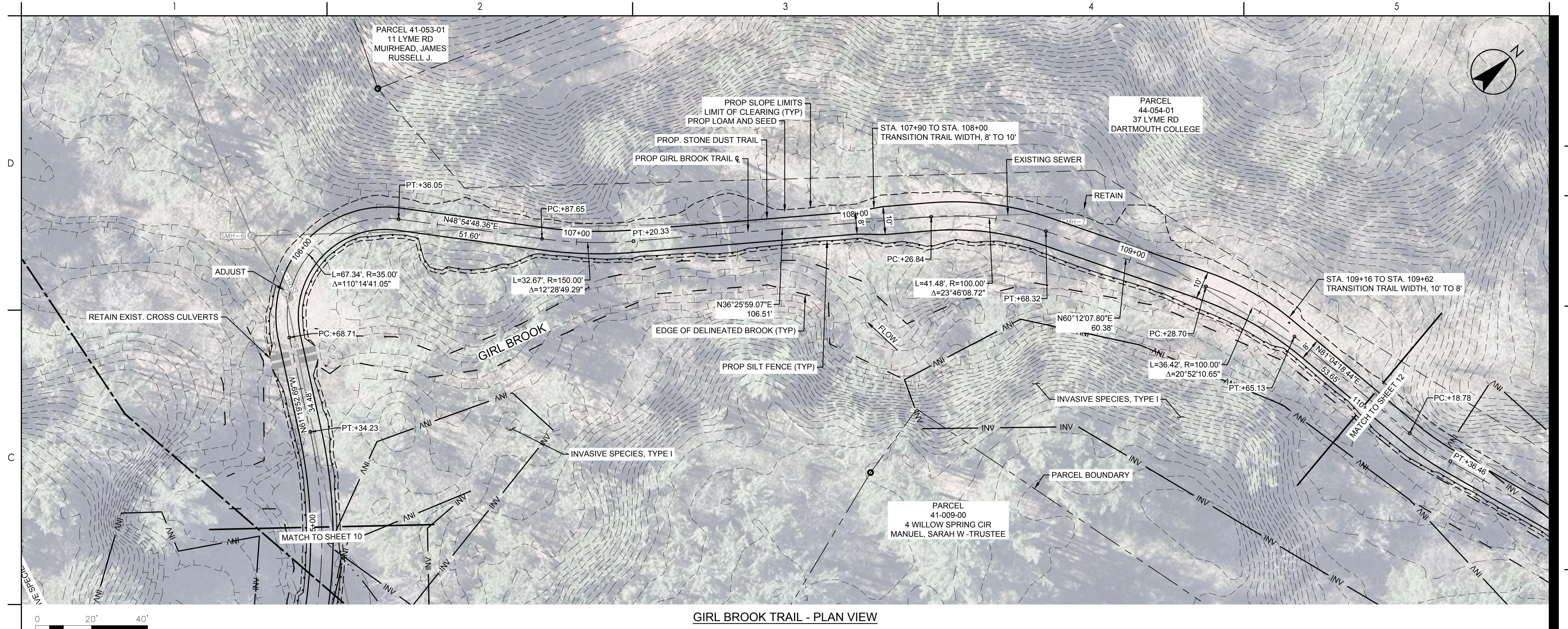
GIRL BROOK TRAIL REHABILITATION

Hanover, New Hampshire

Title
CONSTRUCTION DETAILS
(SHEET 05 OF 05)

Project No. 179450927
Scale AS NOTED
Revision Sheet 0 Drawing No. 9 of 21
0 DET-05





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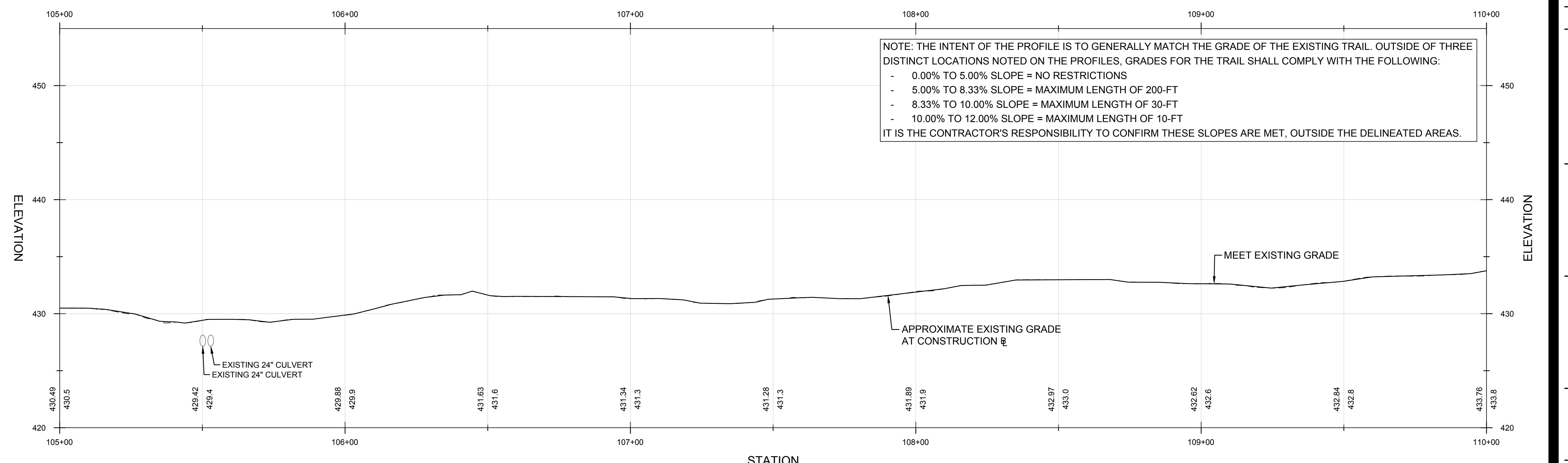
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GIRI BROOK TRAIL REHABILITATION

Hanover, New Hampshire

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**GENERAL PLAN & PROFILE
SHEET 02 OF 12**

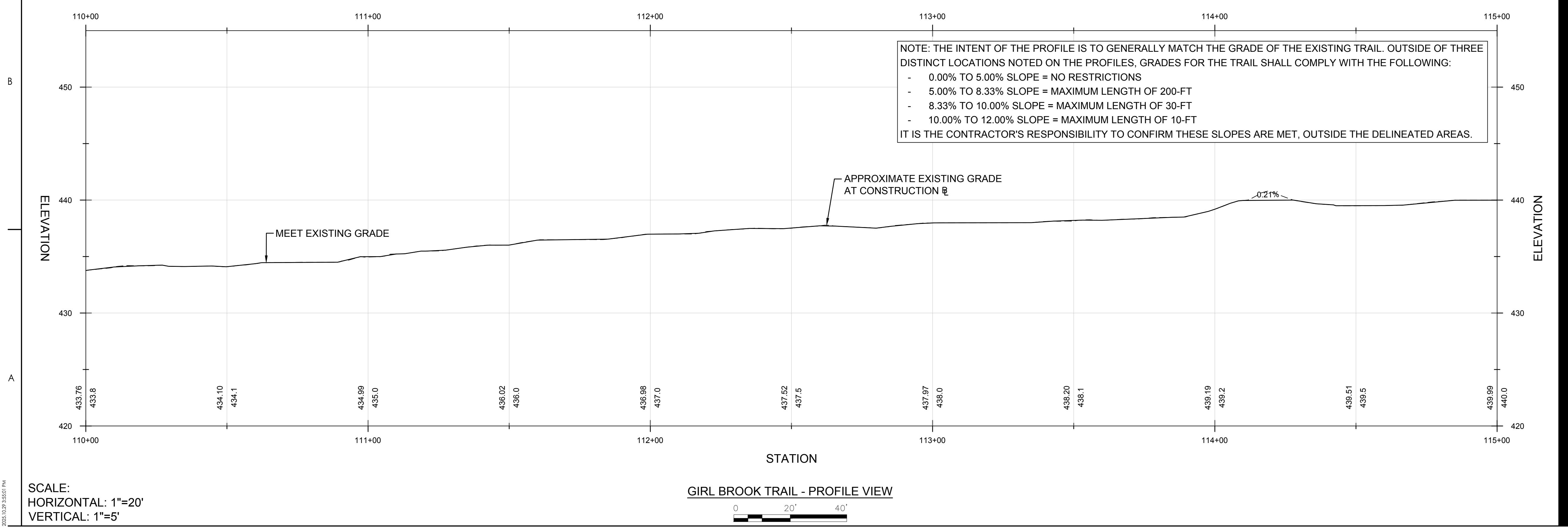
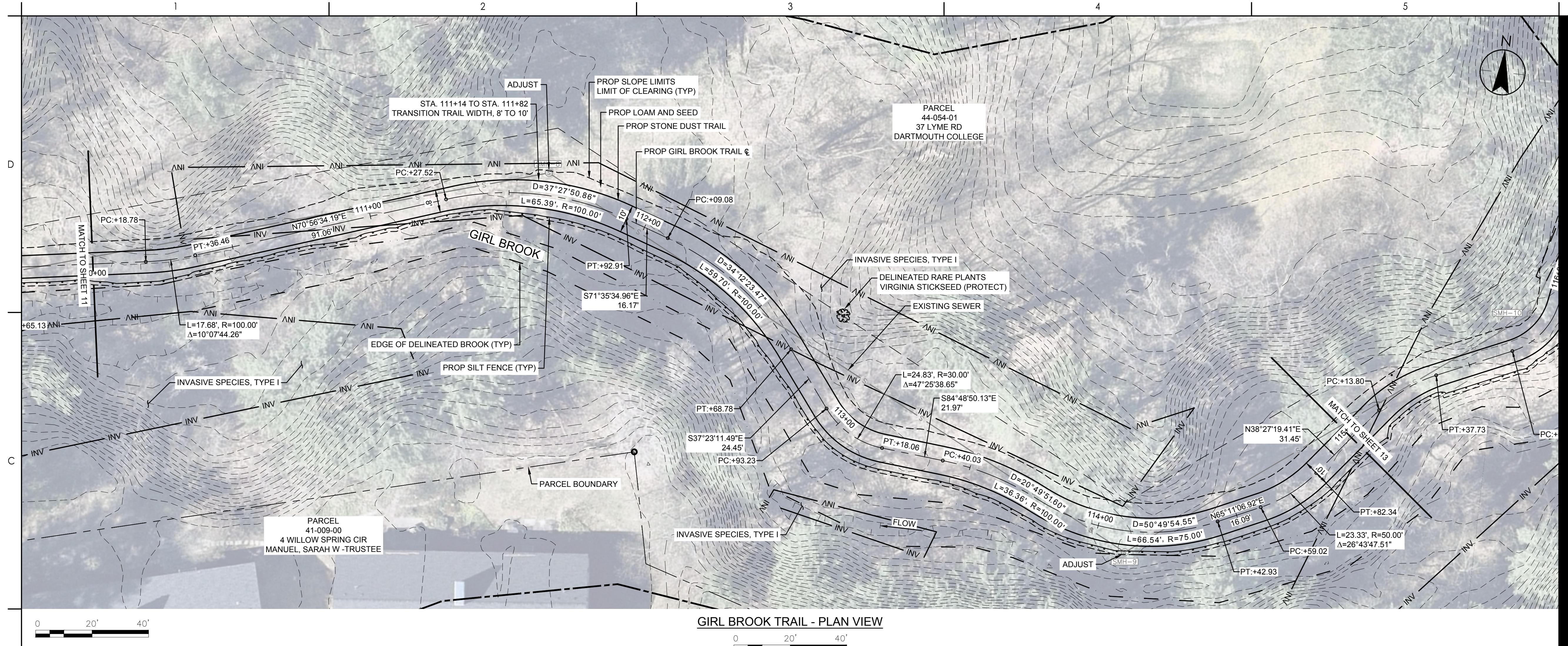
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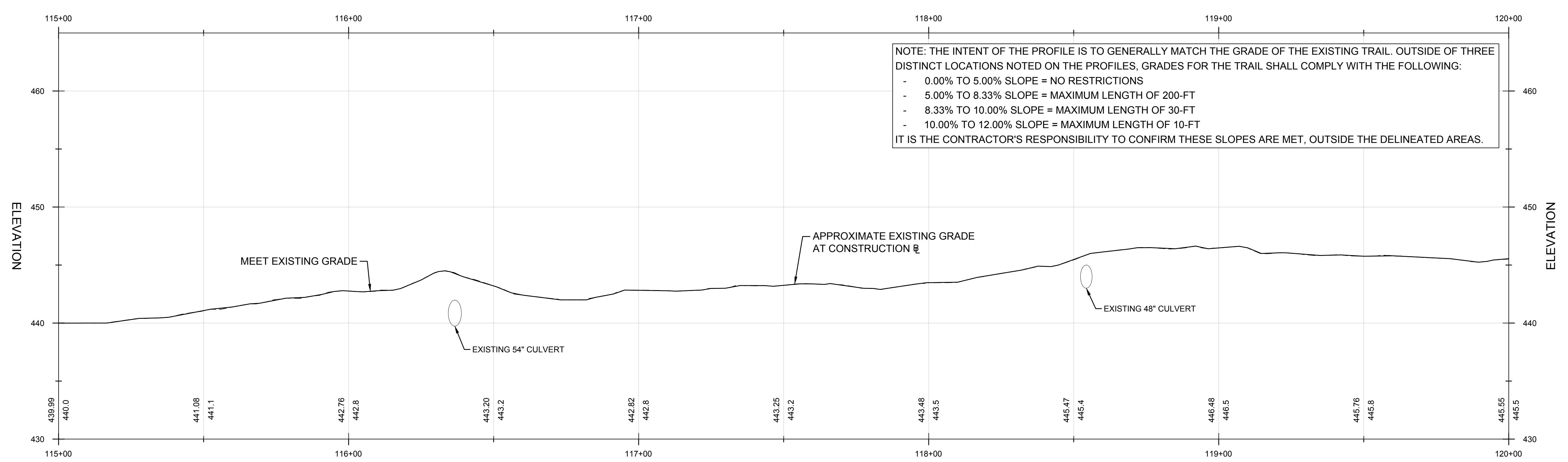
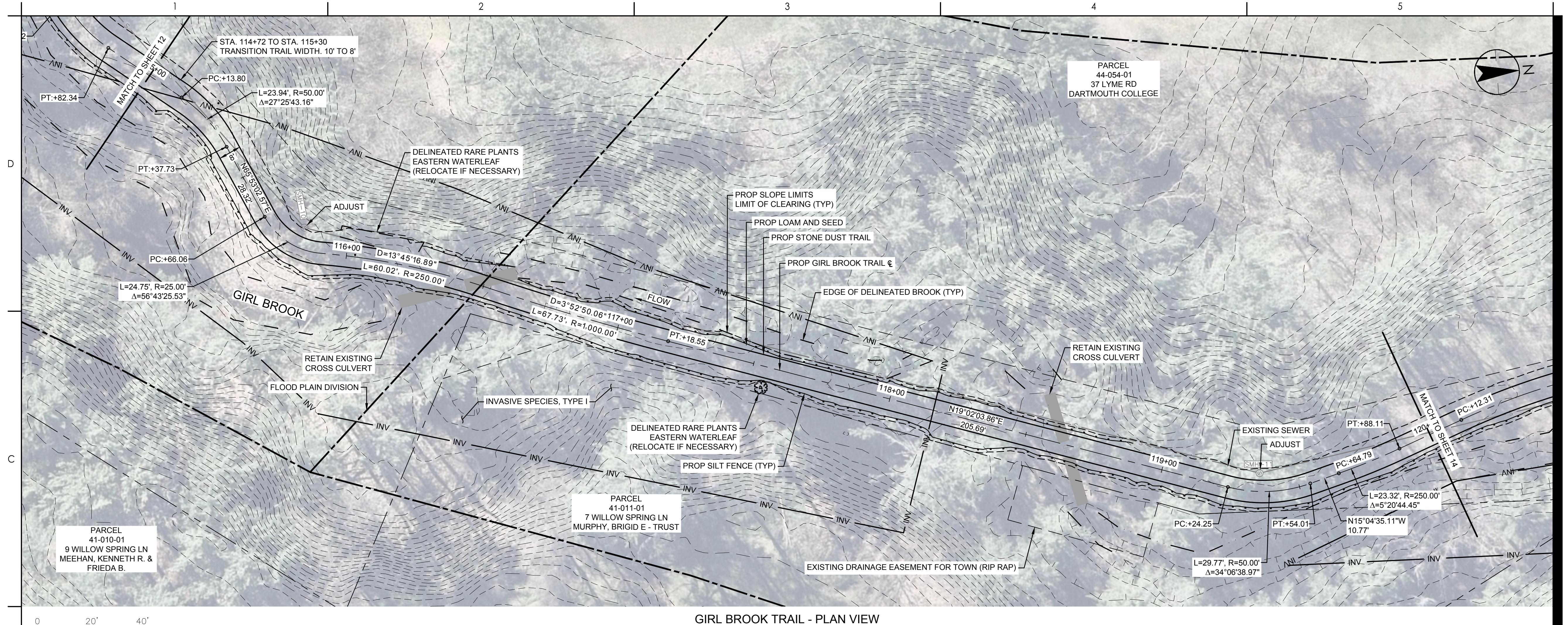


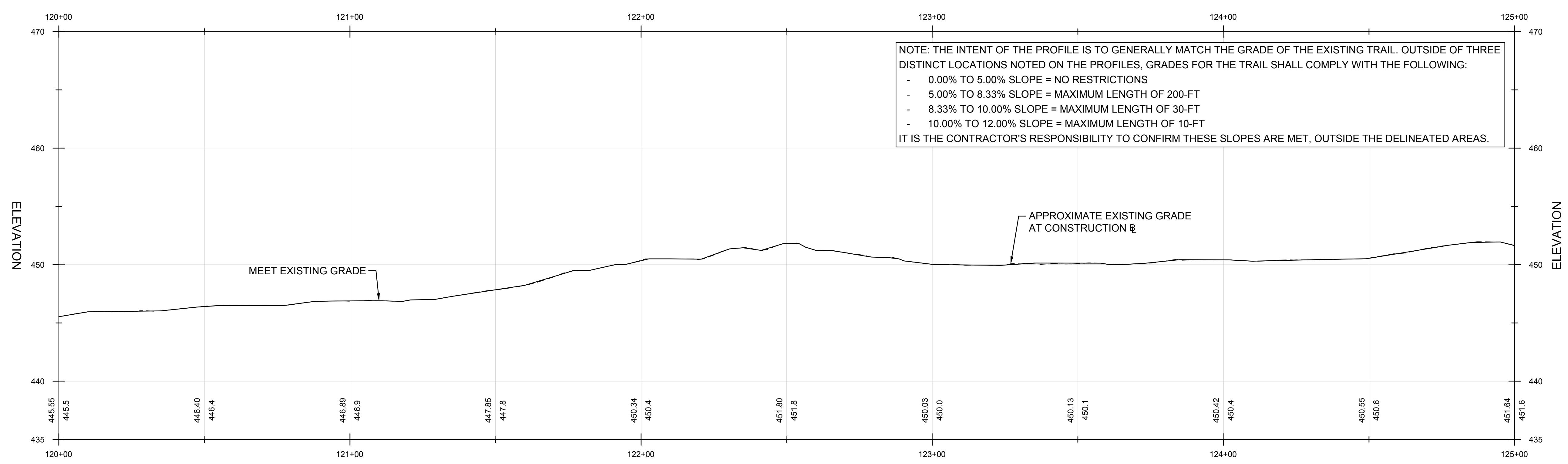
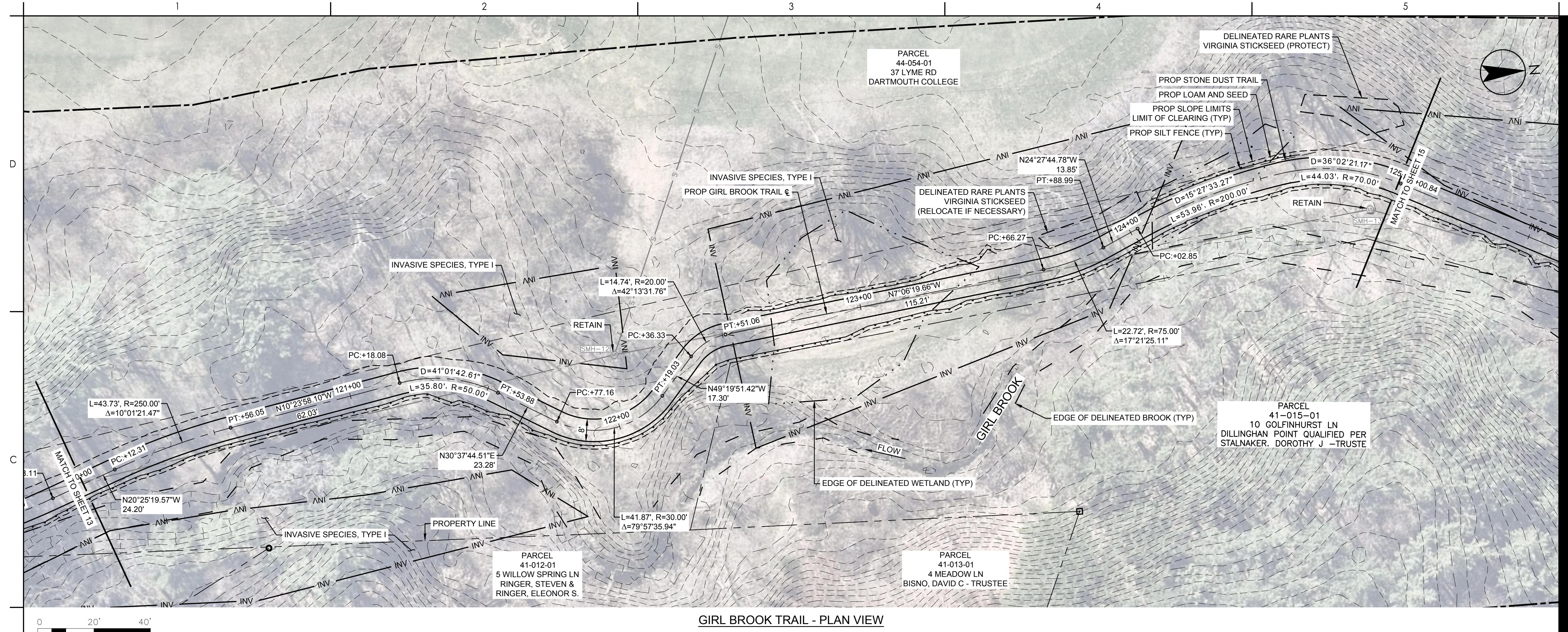
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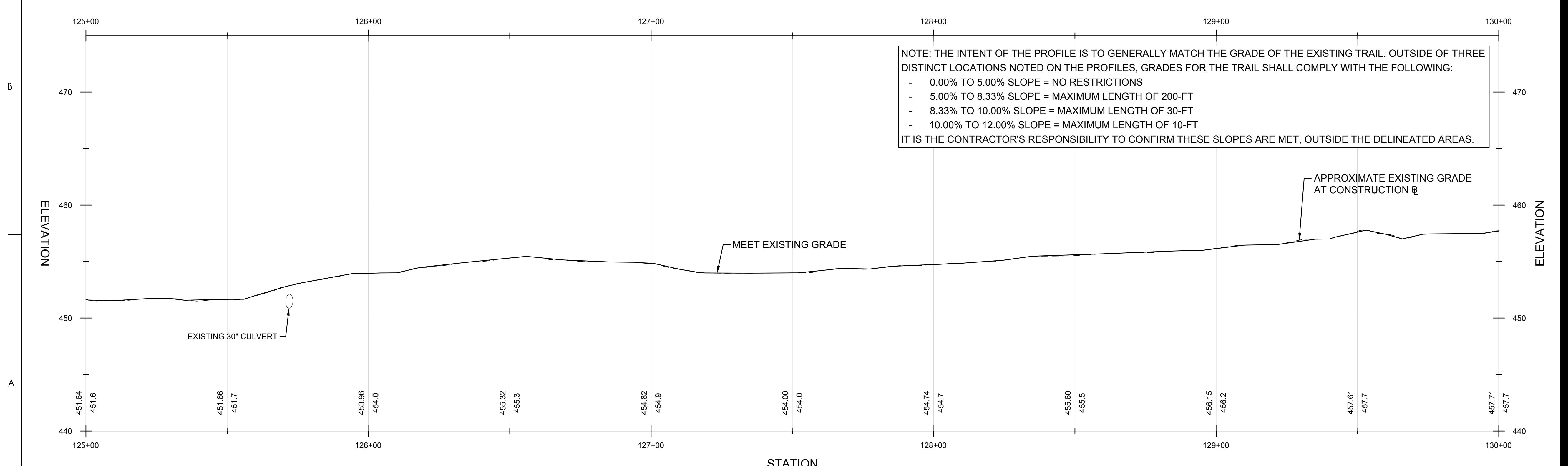
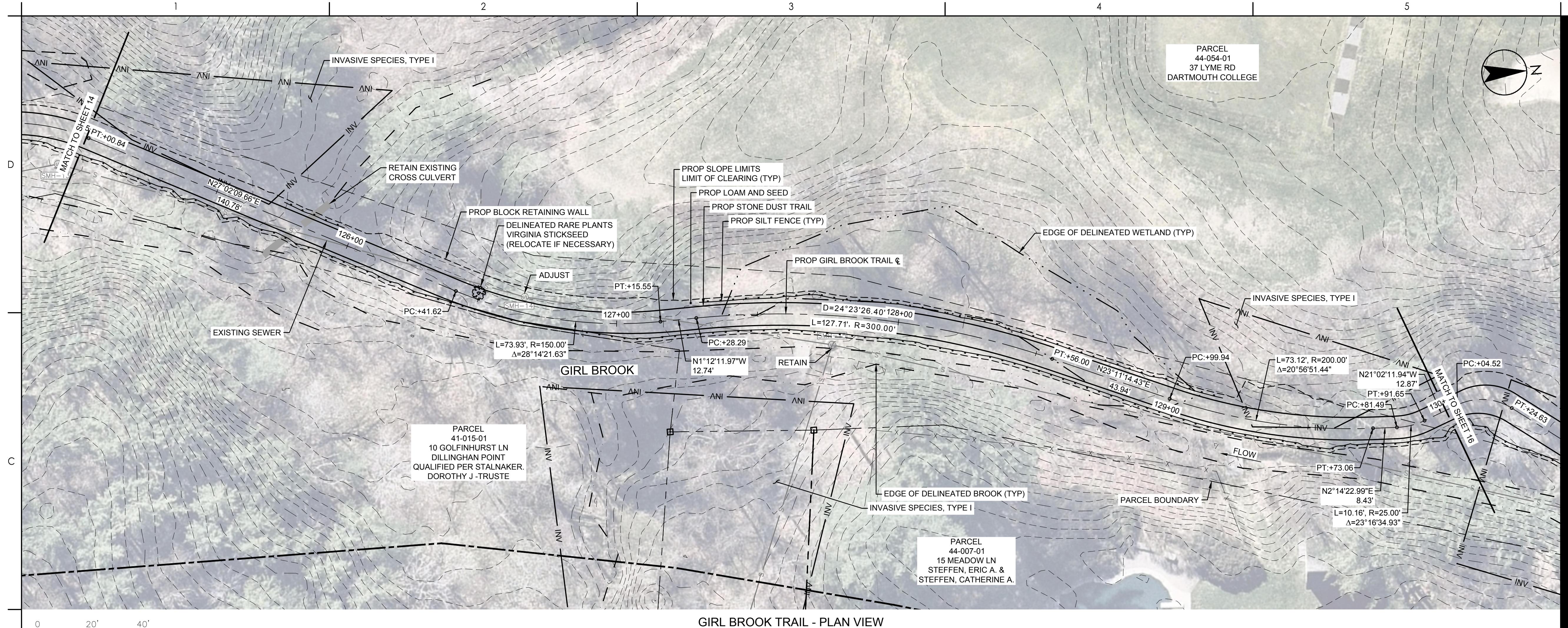
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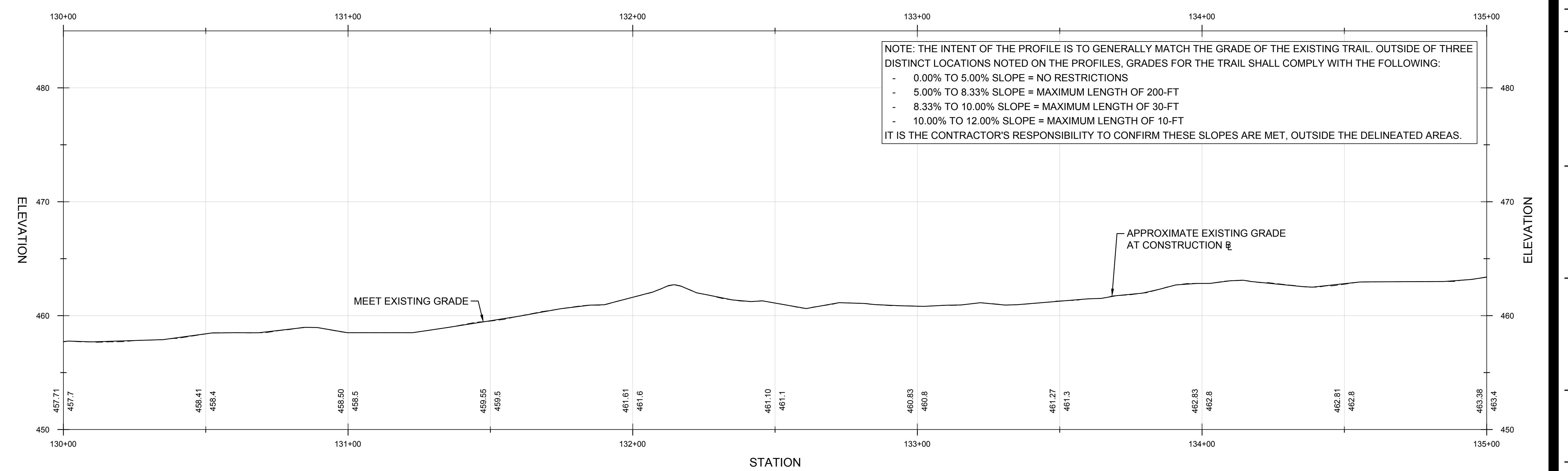
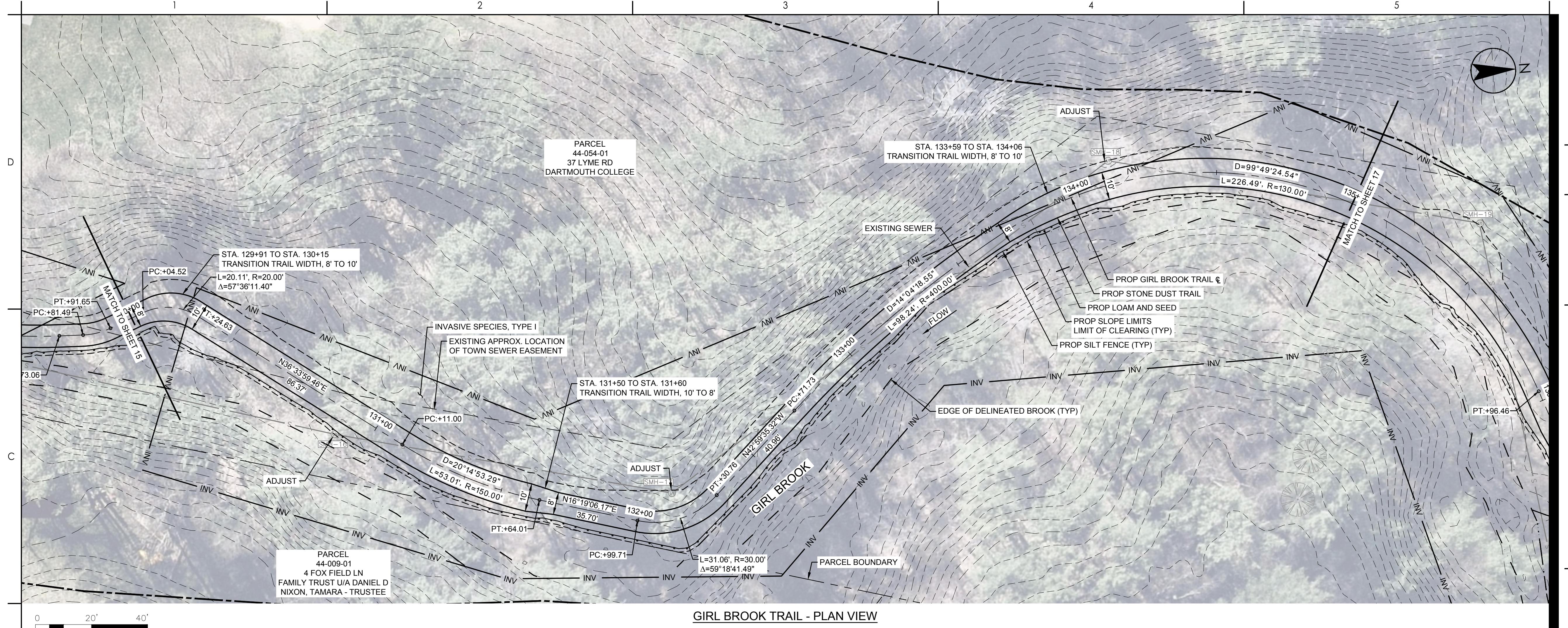
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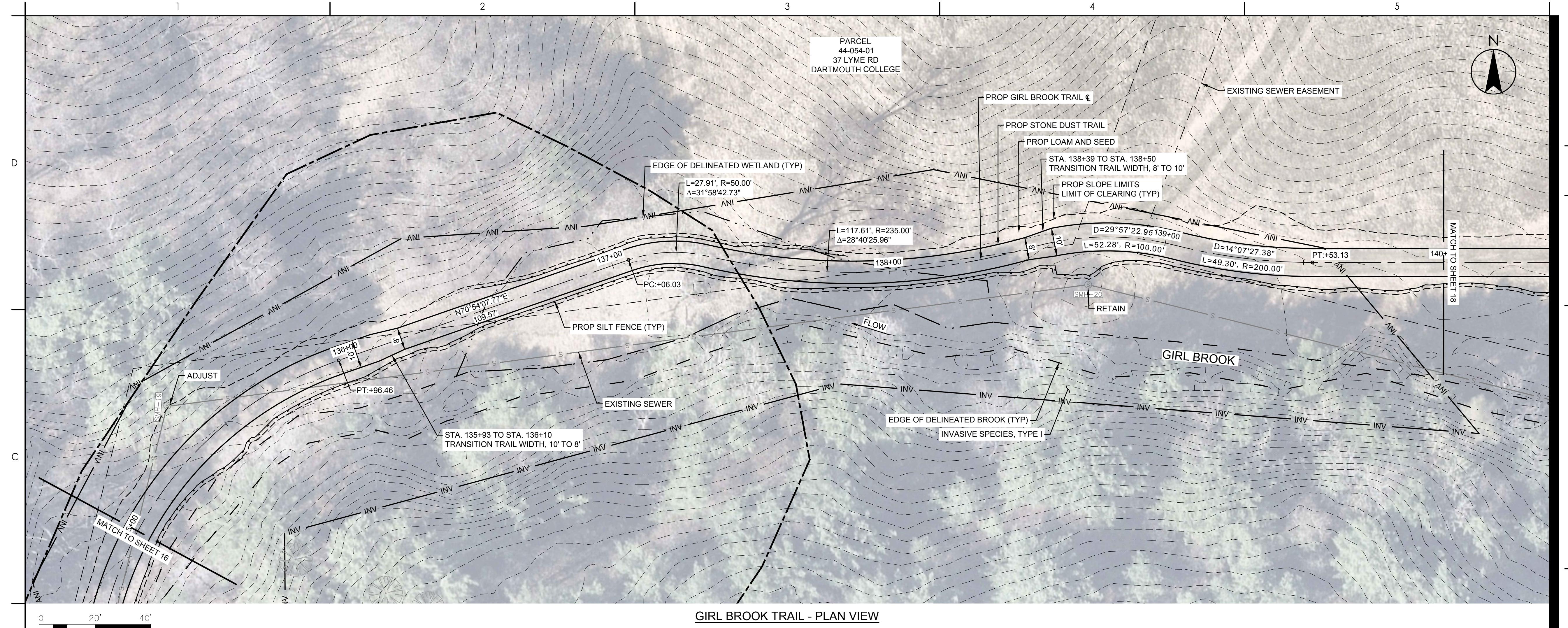






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Chapter 1 (Part 1) - Page 1

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TOWN OF HANOVER, NH

GIRI BROOK TRAIL REHABILITATION

Hanover, New Hampshire

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GENERAL PLAN & PROFILE
(SHEET 08 OF 12)

Project No.
179450927

179450927
Revision Sheet

0 17 of 21 GEN-08

NOTE: THE INTENT OF THE PROFILE IS TO GENERALLY MATCH THE GRADE OF THE EXISTING TRAIL OUTSIDE OF THREE DISTINCT LOCATIONS NOTED ON THE PROFILES. GRADES FOR THE TRAIL SHALL COMPLY WITH THE FOLLOWING:

- 0.00% TO 5.00% SLOPE = NO RESTRICTIONS
- 5.00% TO 8.33% SLOPE = MAXIMUM LENGTH OF 200-FT
- 8.33% TO 10.00% SLOPE = MAXIMUM LENGTH OF 30-FT
- 10.00% TO 12.00% SLOPE = MAXIMUM LENGTH OF 10-FT

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THESE SLOPES ARE MET OUTSIDE THE DELINEATED AREAS.

MEET EXISTING GRADE

APPROXIMATE EXISTING GRADE AT CONSTRUCTION

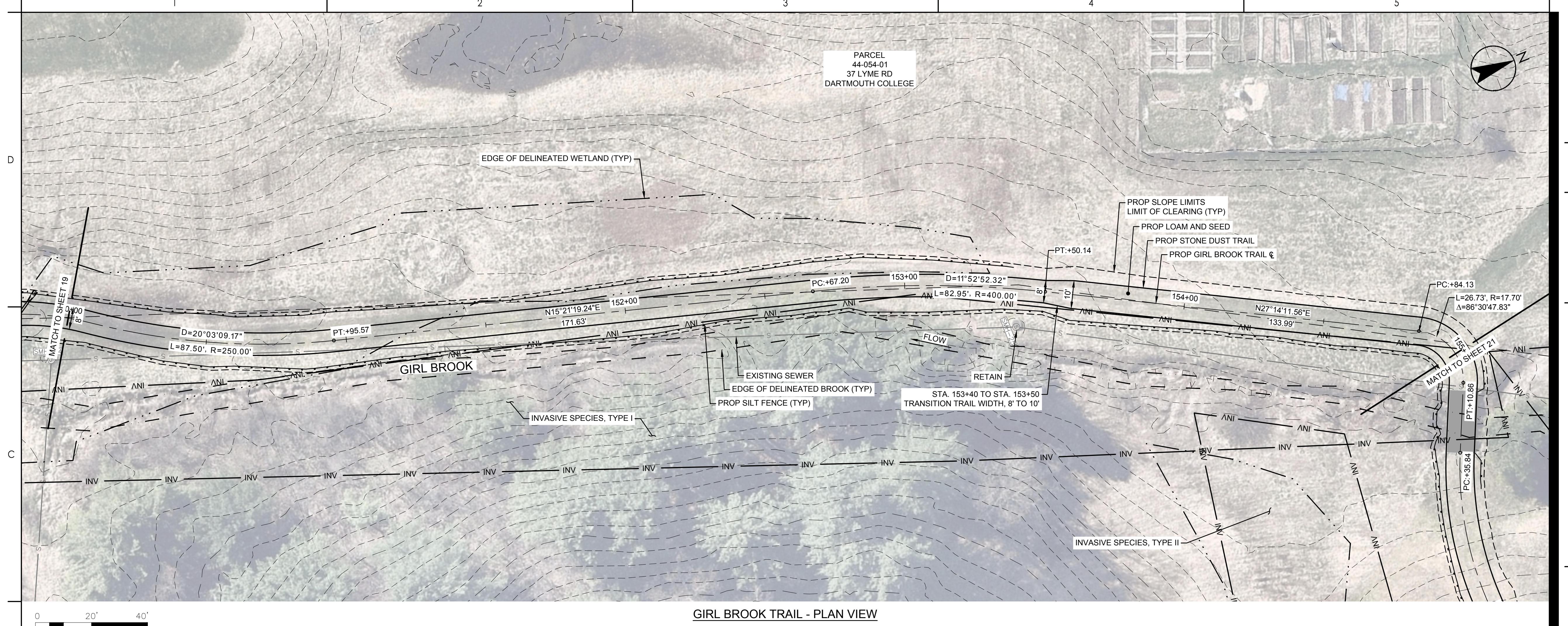
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135+10	463.4
135+20	465.96
135+30	465.9
135+40	467.32
135+50	467.3
135+60	465.5
135+70	465.93
135+80	466.59
135+90	466.66
135+100	468.65
135+110	469.88
135+120	469.9
135+130	470.96
135+140	471.0

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

GIBI BROOK TRAIL - PROFILE VIEW

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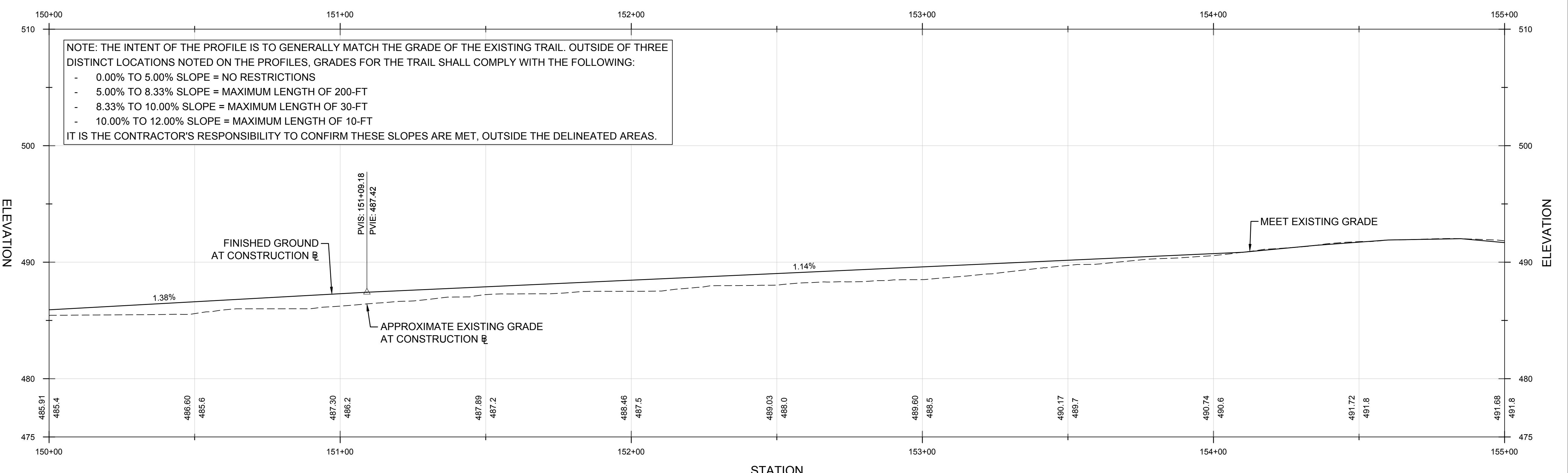


GIRL BROOK TRAIL - PLAN VIEW

NOTE: THE INTENT OF THE PROFILE IS TO GENERALLY MATCH THE GRADE OF THE EXISTING TRAIL. OUTSIDE OF THREE DISTINCT LOCATIONS NOTED ON THE PROFILES, GRADES FOR THE TRAIL SHALL COMPLY WITH THE FOLLOWING:

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- 5.00% TO 8.33% SLOPE = MAXIMUM LENGTH OF 200-FT
- 8.33% TO 10.00% SLOPE = MAXIMUM LENGTH OF 30-FT
- 10.00% TO 12.00% SLOPE = MAXIMUM LENGTH OF 10-FT

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THESE SLOPES ARE MET OUTSIDE THE DEINFECTED AREAS



GIRL BROOK TRAIL - PROFILE VIEW

SCALE:
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VERTICAL : 1"=5'

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0 20 of 21 GEN-11

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