

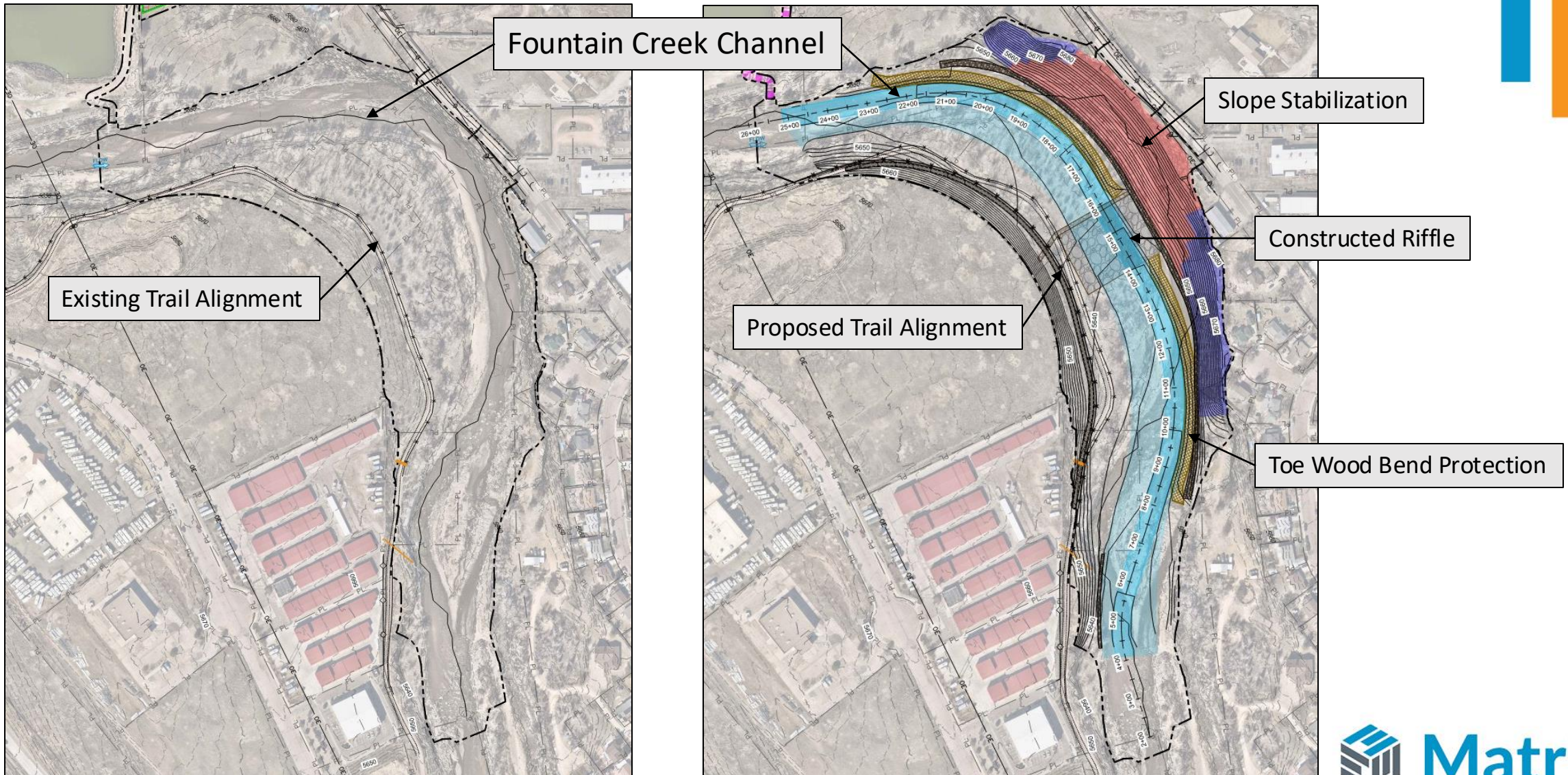
Southmoor Drive Channel Stabilization

Tori Mack, PE

February 4, 2025



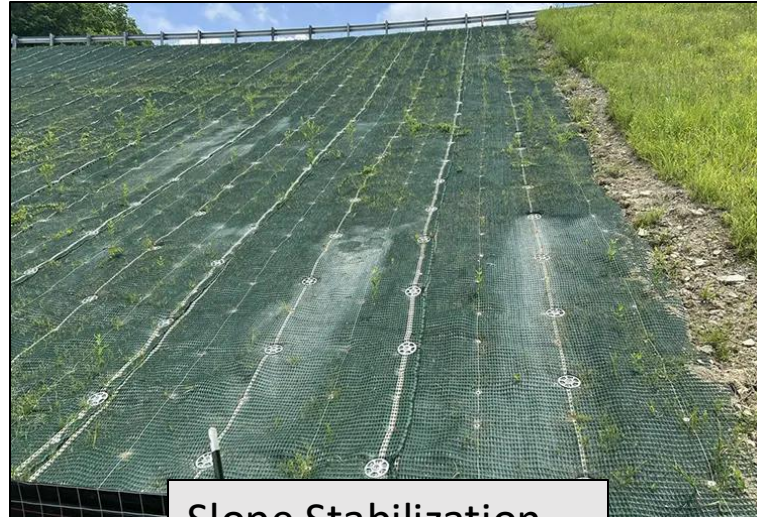
Project Layout



Project Components



Toe Wood Bend Protection
(FCWD/Matrix Project)



Slope Stabilization
(Manufacturer's website)



Constructed Riffle
(Matrix Project)

Pre-Construction



2020

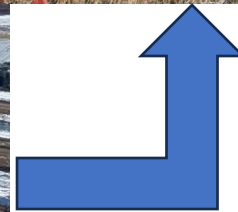
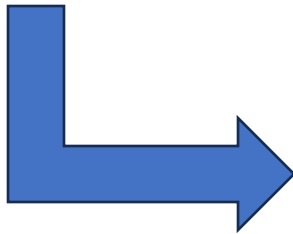


2023



2024

Construction

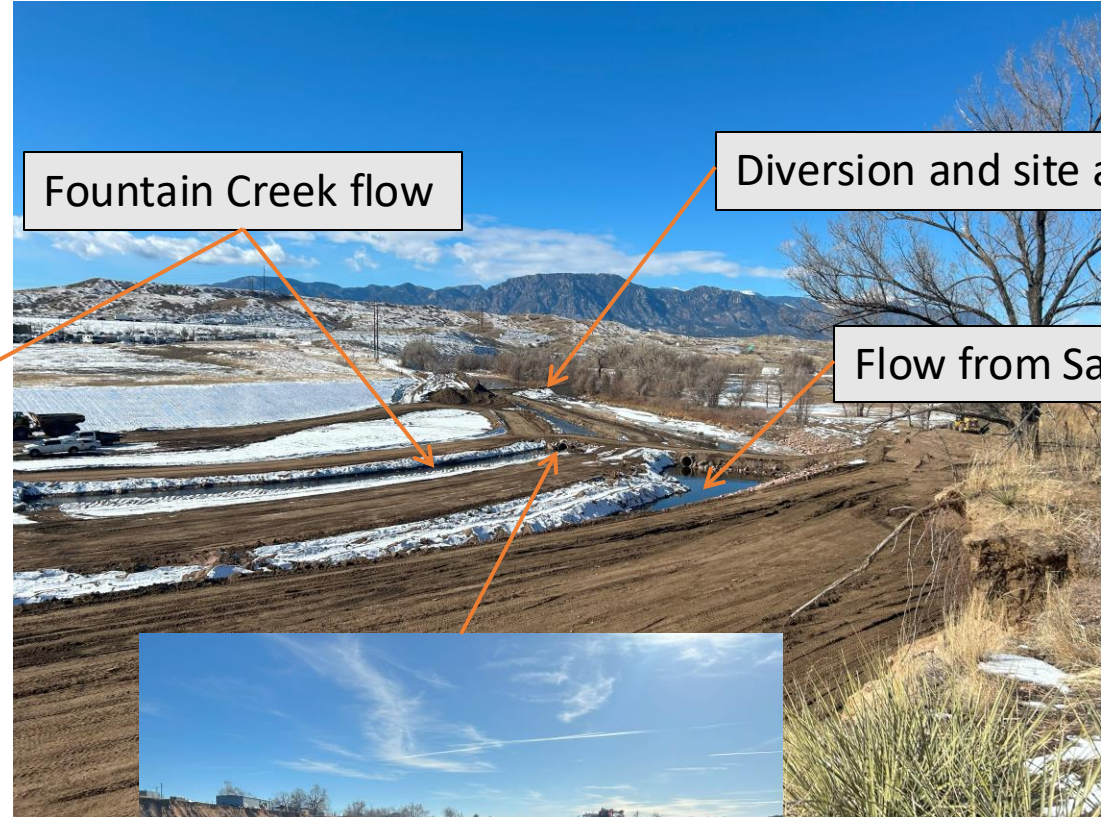


Construction Status

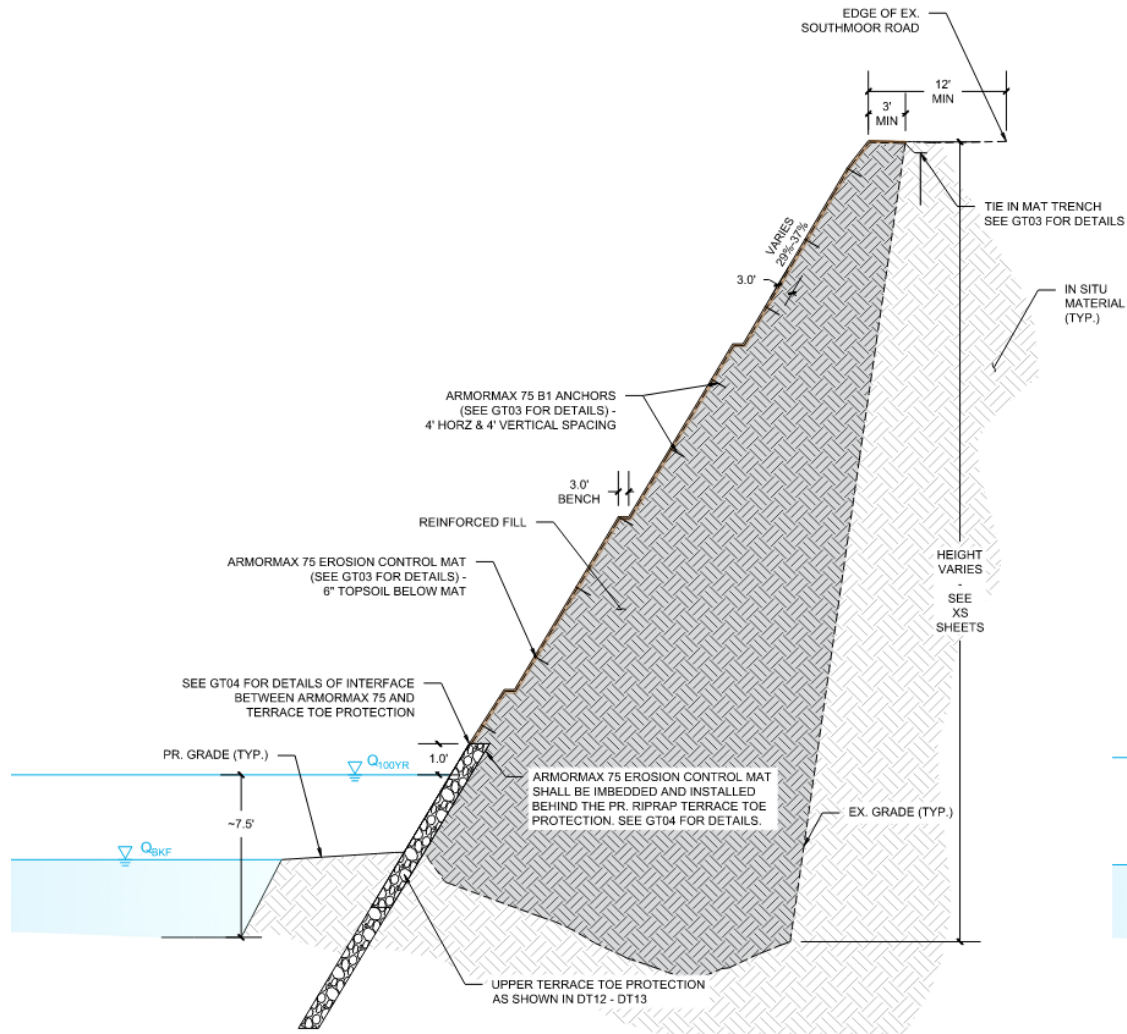
- Channel Diversion
- Bank Construction
- Terrace Toe Protection
- Installation of Riffle
- All Toe Wood Delivered



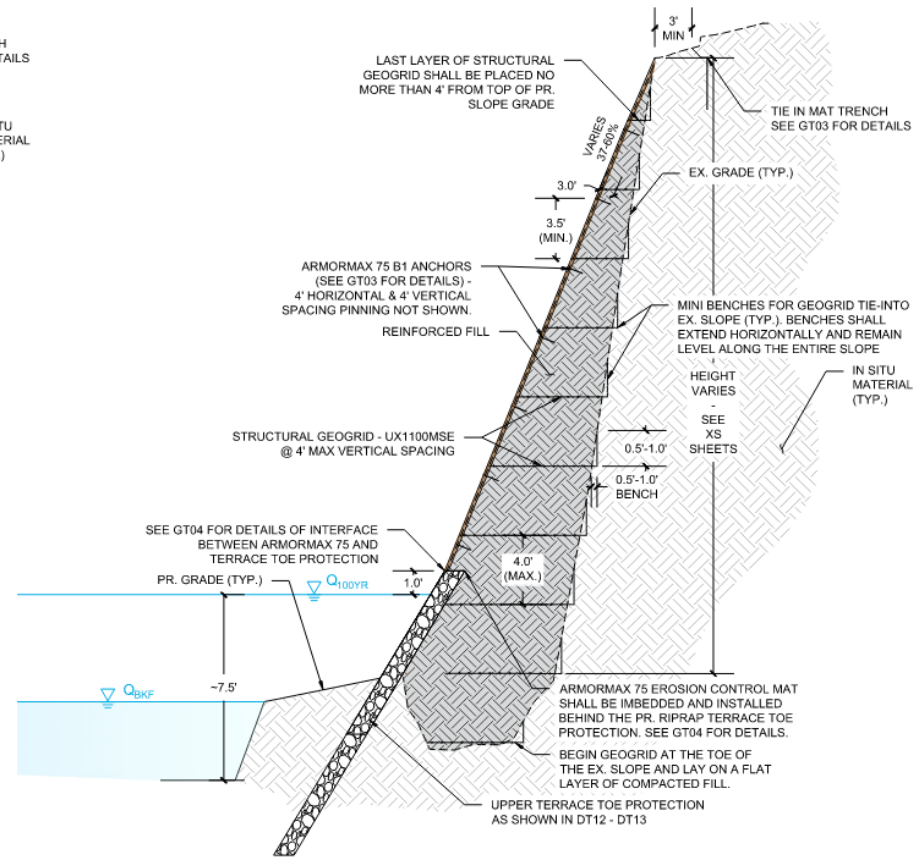
Channel Diversion



Bank Stabilization



**SLOPE STABILIZATION DETAILED SECTIONS W/
EROSION CONTROL MAT - 29% - 37% SLOPES**
5 TO 1 VERTICAL EXAGGERATION



**SLOPE STABILIZATION DETAILED SECTIONS W/ STRUCTURAL
GEOGRID AND EROSION CONTROL MAT - 37% - 60% SLOPES**
5 TO 1 VERTICAL EXAGGERATION

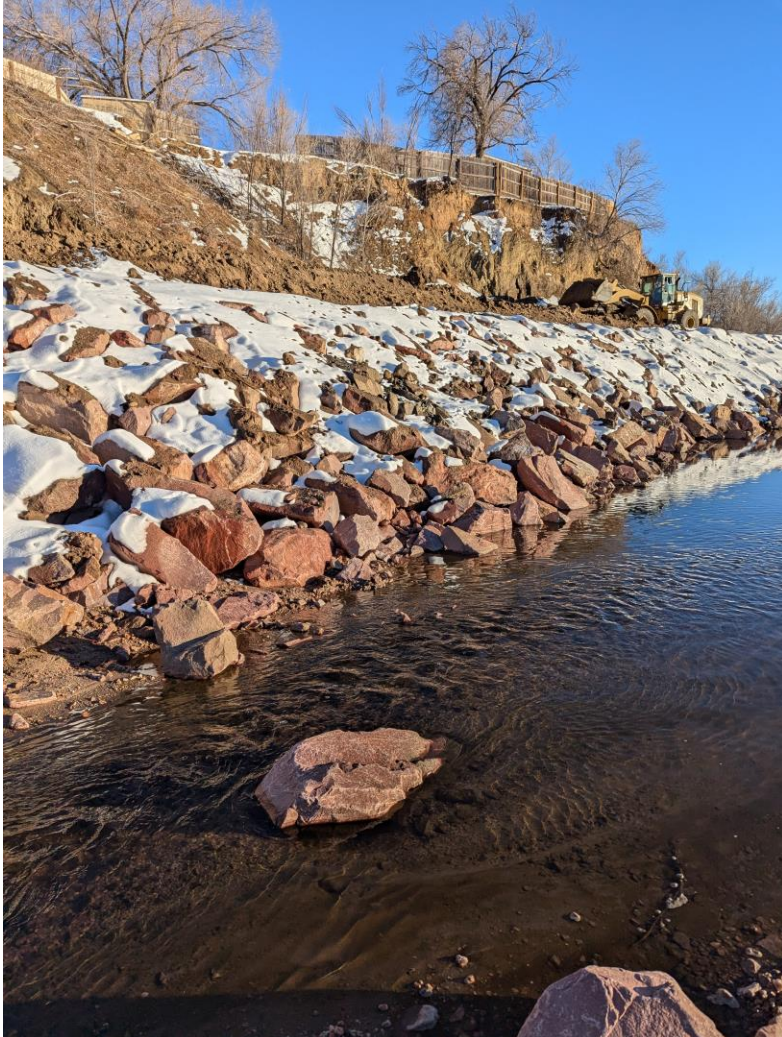
Bank Stabilization



Installation of geogrid



Terrace Toe Protection



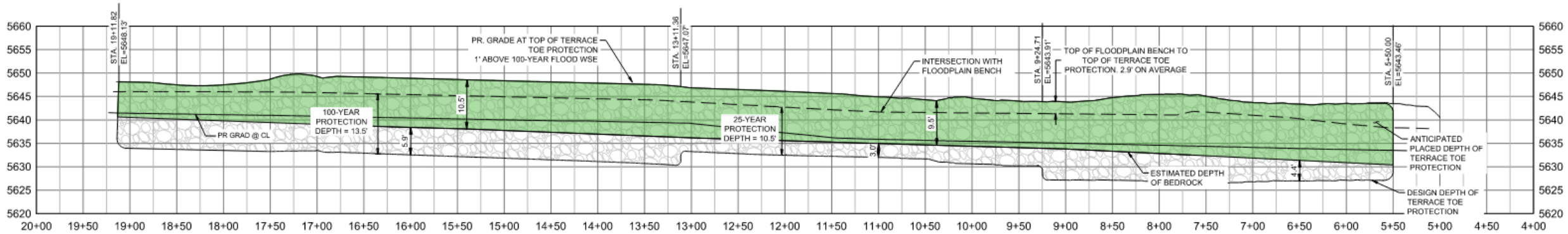
Constructed Riffle Installation



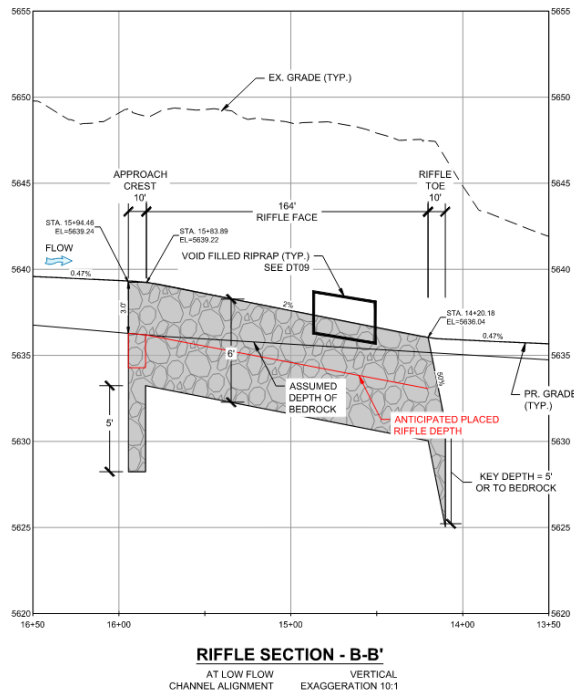
Eastern end of riffle sill



Depth to Bedrock



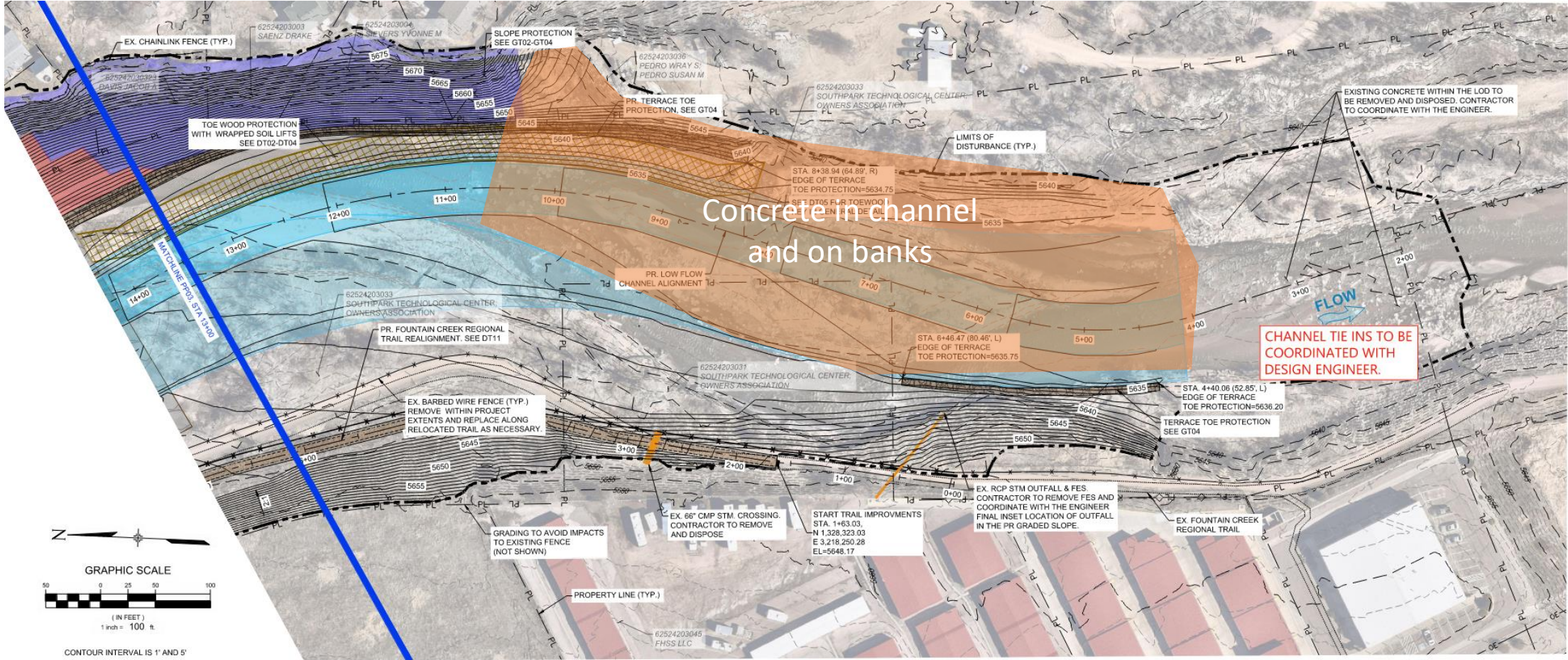
**TERRACE TOE PROTECTION
AS SHOWN ON 100% PLANS**



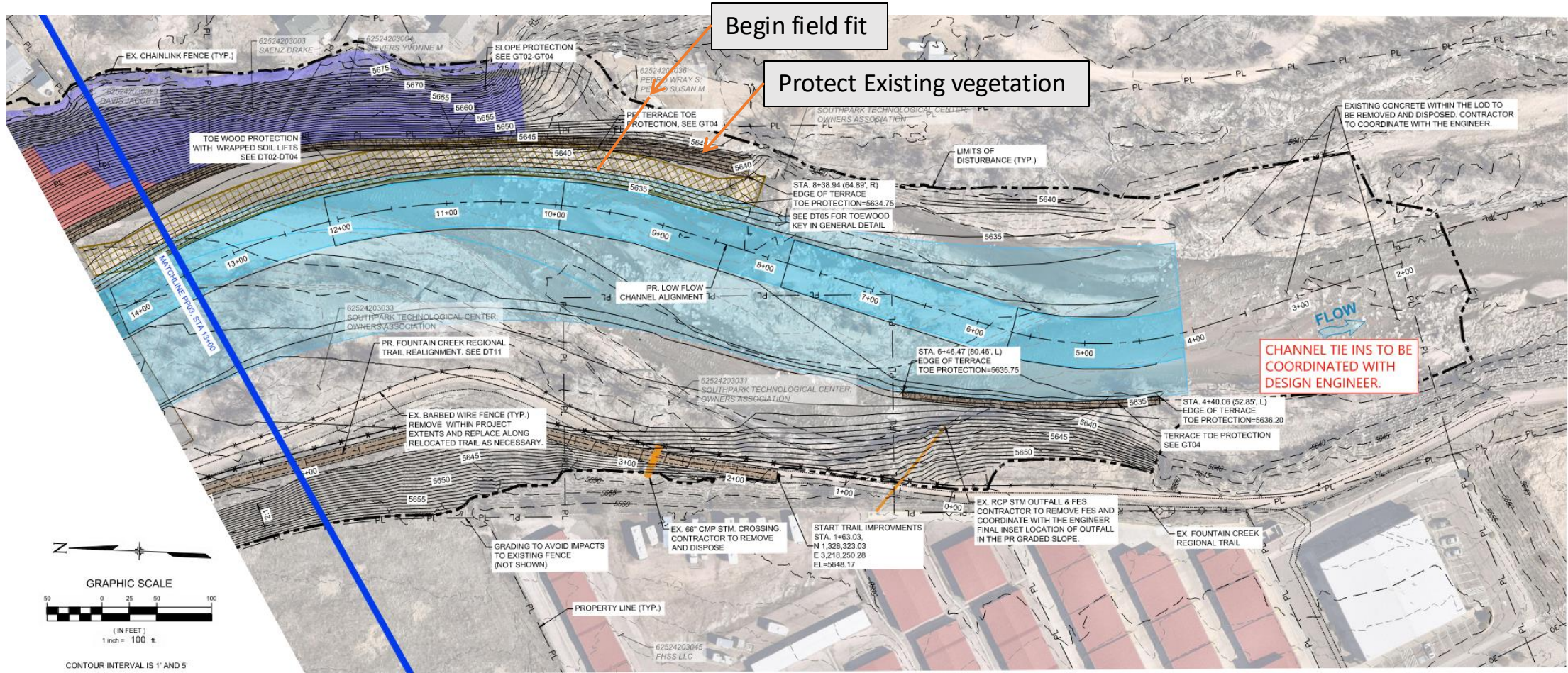
	100% Design Plan		Anticipated Placed Material, Engineer's Estimate		Anticipated Placed Material, Contractor's Estimate (1/6/25)		Anticipated Savings from 100% Design Estimate
	Quantity (TN)	Cost	Quantity (TN)	Cost	Quantity (TN)	Cost	
Terrace Toe Protection	9,833	\$ 909,552.50	6,638	\$ 614,015.00	6,561 to 6,661	\$606,892.50 to \$616,142.50	\$ 293,410.00
Riffle	13,180	\$ 1,604,665.00	6,624	\$ 806,472.00			\$ 798,193.00
Unit Costs: Terrace Toe Protection Riprap = \$92.50/TN Riffle Riprap = \$121.75/TN						Total	\$ 1,091,603.00

Estimate dated 1/7/25

Concrete in Channel



Concrete in Channel



Construction Costs

Value of Work Completed through Dec 2024	\$1,715,055
Balance to Finish Work	\$4,552,668
Total Contract Amount	\$6,267,724

- **As of Dec Pay App**

- 20% Contract value complete
- \$1,715,055 completed to date

- **Cost Adjustments**

- Cost of additional material import
- Reductions in riprap quantities
- Modifications to the trail

Timeline



Anticipated Construction Completion: May 30, 2025
Begin warranty and 5-year monitoring period

SOUTHMOOR DRIVE FOUNTAIN CREEK CHANNEL STABILIZATION SCHEDULE 4-Feb-25

Activity ID	Activity Name	Original Duration	Early Start	Early Finish	Nov 24'		Dec 24'		Jan 25'		Feb 25'		Mar 25'		Apr 25'		May 25'	
					1-15	16-31	1-15	16-30	1-15	16-31	1-5	16-28	1-15	16-31	1-15	16-30	1-15	16-30
SOUTHMOOR DRIVE FOUNTAIN CREEK CHANNEL STABILIZATION																		
A1000	Pre-construction Meeting	1	5-Nov-24	5-Nov-24	█													
A1010	Mobilization	7	11-Nov-24	17-Nov-24		█												
A1020	Erosion and Sediment Control	170	3-Dec-24	20-May-25			█	█	█	█	█	█	█	█	█	█	█	█
A1030	Clearing and Grubbing	15	4-Dec-24	19-Dec-24			█											
A1040	Water Control and Dewatering	134	17-Dec-24	30-Apr-25			█	█	█	█	█	█	█	█	█	█	█	█
A1050	Earthwork - Cut/Fill Onsite & Import Soil	64	17-Dec-24	19-Feb-25			█	█	█	█	█	█	█	█	█	█	█	█
A1060	Terrace Toe Protection	32	17-Dec-24	16-Jan-25			█	█	█	█	█	█	█	█	█	█	█	█
A1070	Cut Bank Stabilization	43	17-Dec-24	27-Jan-25			█	█	█	█	█	█	█	█	█	█	█	█
A1080	Construction Riffle	30	13-Feb-24	15-Mar-25							█	█	█	█	█	█	█	█
A1090	Toe Wood Root Wad, Foundation & Soil Lifts	42	20-Jan-24	2-Mar-25							█	█	█	█	█	█	█	█
A1100	Trail Base	5	15-May-24	20-May-25														█
A1110	Plantings and Revegetation	115	20-Jan-25	15-May-25								█	█	█	█	█	█	█
A1120	Divert Creek to New Channel	1	24-Apr-25	25-Apr-25														█
A1130	Demobilization	5	20-May-25	24-May-25														█
A1140	Start Maintenance and Warranty 2 Years	1	30-May-25	30-May-25														█

Legend

- Task Scheduled
- Task in Progress
- Task Complete



Questions

