









GENERAL NOTES:

1. UNLESS OTHERWISE STATED, ALL COMPACTION SHALL BE PER SECTION 200 OF THE CITY SPECIFICATIONS.
2. ANY EXCAVATION SHALL BE DEWATERED TO THE EXTENT REQUIRED FOR CONSTRUCTION OPERATIONS TO PROCEED UNDER DRY CONDITIONS. DIKES, CHANNELS, FLUMES, DRAINS, SUMPS, PUMPING EQUIPMENT, AND OTHER TEMPORARY DIVERSION AND PROTECTIVE WORKS SHALL BE CONSTRUCTED, FURNISHED, INSTALLED, OPERATED, AND MAINTAINED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL COSTS TO OBTAIN REQUIRED DEWATERING AND DISCHARGE PERMITS SHALL BE INCLUDED IN THE WORK.
3. WATER SHALL BE USED AS A DUST CONTROL WHERE REQUIRED. THIS WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE WORK.
4. UNDER NO CIRCUMSTANCES WILL ANY EXCESS MATERIAL BE DISPOSED OF IN WETLANDS OR WATERWAYS. REMOVED ASPHALT WILL NOT BE DISPOSED OF IN ANY MANNER THAT WOULD ALLOW THIS MATERIAL TO COME IN CONTACT WITH GROUND WATER. THE CONTRACTOR SHALL SUBMIT A DISPOSAL PLAN TO THE ENGINEER FOR APPROVAL.
5. THE CONTRACTOR SHALL LIMIT CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE LIMITS OF DISTURBANCE AND TOES OF SLOPES AS SHOWN IN THE PLANS AND CROSS-SECTIONS. ANY DISTURBANCE BEYOND THESE LIMITS SHALL BE RESTORED TO THE ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. CONSTRUCTION ACTIVITIES, IN ADDITION TO THE NORMAL CONSTRUCTION PROCEDURES, SHALL INCLUDE VEHICLE AND EQUIPMENT PARKING, DISPOSAL OF LITTER, AND ANY OTHER ACTIVITY WHICH WOULD ALTER EXISTING CONDITIONS.
6. UNLESS OTHERWISE SPECIFIED, REMOVALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR. REMOVALS SHALL BE DISPOSED OF OUTSIDE OF THE PROJECT LIMITS, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
7. THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.
8. THE CONTRACTOR SHALL MAINTAIN DRAINAGE DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE REPAIR OF DAMAGES RESULTING FROM DRAINAGE AND RUNOFF IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR AND COST SHALL BE INCLUDED IN THE WORK.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF THE WORK. ANY CONCRETE SUFFERING DAMAGE SUCH AS GRAFFITI, TACK COAT SPRAY, FOOTPRINTS, RAIN DAMAGE, ETC. WILL BE REMOVED AND REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S COST PRIOR TO FINAL ACCEPTANCE PAYMENT. IF ANY CONCRETE MUST BE REPLACED BECAUSE OF RAVELING AT THE JOINTS, RANDOM CRACKING, FOOTPRINTS, GRAFFITI, ETC. THE ENTIRE SLAB OR STONE MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE.
10. THE CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION DESIGNATED TO REMAIN FROM DAMAGE DURING CONSTRUCTION OPERATIONS. ANY MONUMENTS DISTURBED BY THE CONTRACTOR THAT ARE NOT DESIGNATED FOR RELOCATION SHALL BE RESET AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR AND ENGINEER SHALL NOTE THOSE MONUMENTS IN THE FIELD PRIOR TO CONSTRUCTION.
11. THE CONTRACTOR WILL BE RESPONSIBLE FOR PLACING TRAFFIC CONTROL DEVICES SO THAT THE WORK ZONES ARE IN FULL COMPLIANCE WITH THE MUTCD, AND CITY STANDARDS.
12. CONTRACTOR TO LOCATE ALL UTILITIES HORIZONTALLY AND VERTICALLY AND NOTIFY ENGINEER TO ADDRESS ANY CONFLICTS.
13. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN DAILY ON-SITE GPS SURVEY CONTROL.
14. BANKFULL CHANNEL EXTENTS SHOWN ON THE PLAN SHEETS ARE FOR GENERAL REPRESENTATION ONLY. BANKFULL CHANNEL SHALL BE CONSTRUCTED ACCORDING TO THE GRADING PLAN, CROSS-SECTION, AND PROFILE.
15. CONSTRUCTION TOLERANCES:
 - 15.1. HORIZONTAL = PER PLAN
 - 15.2. VERTICAL = 0.10 FEET (ALL STRUCTURES & WITHIN BANKFULL CHANNEL)
 - 15.3. VERTICAL = 0.20 FEET (FLOODPLAIN GRADING)
16. CHANGES TO THESE DESIGN PLANS SHALL NOT BE ALLOWED UNLESS APPROVED IN WRITING BY THE DESIGN ENGINEER RESPONSIBLE FOR SIGNING AND SEALING THESE PLANS.
17. PROJECT IS DESIGNED USING A BANKFULL CHANNEL FLOW OF 10 CFS.

LEGEND:

-  SOIL LIFT WITH BRUSH TOE (SEE DETAIL)
-  EXISTING TREE
-  BANKFULL CHANNEL
-  PROPOSED SIDE CHANNEL
-  EXISTING THALWEG
-  PROPOSED THALWEG
-  TOE OF SLOPE
-  TREE PRESERVATION AREA



WATERVATION
 123 G Street, Suite 18
 Salida, CO 81201
 www.water-vation.com

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Horizontal Scale & Orientation

Legend

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Client/Project
CORE CONSULTANTS, INC
TIMBER RIDGE SAND CREEK MITIGATION

COLORADO SPRINGS, CO

Project Milestone
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

Sheet Name
NOTES

2021009009 1" = 100'
 Project No. Horizontal Scale

Sheet 2 of 6

COLORADO STREAM QUANTIFICATION TOOL DEBIT SUMMARY



FUNCTIONAL LOSS SUMMARY									
Stream ID by Reach	Outstanding Water	Debit Option	Existing Stream Length	Existing Condition Score	Proposed Length	Impact Severity Tier	Proposed Condition Score	Change in Functional Feet	Flow Permanence and Stream Order
Sand Creek R1	No	1	641	0.48	641		0.43	-32.05	E2
Sand Creek R2	No	1	527	0.44	527		0.38	-31.62	E2
Sand Creek R3	No	1	239	0.52	239		0.47	-11.95	E2
Tributary 1	No	2	100	0.81	0	Tier 5	0	-81	E1
Tributary 2	No	1	295	0.46	295		0.4	-17.7	E1
Total Functional Loss (Debits in FF):								-174.32	

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SAND CREEK REACH 1 SUMMARY

FUNCTIONAL CHANGE SUMMARY	
Change in Overall Condition	0.06
Existing Stream Length (ft)	641
Proposed Stream Length (ft)	779.14
Change in Stream Length (ft)	138.14
Existing Functional Feet (FF)	282.7
Proposed Functional Feet (FF)	390.3
Proposed FF - Existing FF (ΔFF)	107.7
Yield (ΔFF/ Proposed LF)	0.14
ΔFF from Flow Alteration Module	
Total Proposed FF - Existing FF (ΔFF)	107.7

SAND CREEK REACH 2 SUMMARY

FUNCTIONAL CHANGE SUMMARY	
Change in Overall Condition	0.07
Existing Stream Length (ft)	527
Proposed Stream Length (ft)	589.33
Change in Stream Length (ft)	62.33
Existing Functional Feet (FF)	213.4
Proposed Functional Feet (FF)	277.6
Proposed FF - Existing FF (ΔFF)	64.1
Yield (ΔFF/ Proposed LF)	0.11
ΔFF from Flow Alteration Module	
Total Proposed FF - Existing FF (ΔFF)	64.1

Legend

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Permit-Seal

TOTAL FUNCTIONAL LOSS: -174.32 + FUNCTIONAL UPLIFT: 107.7 + 64.164 = - 2.5 FF NET

ADDITIONAL MITIGATION PROVIDED WITHIN THE SAND CREEK WETLAND/STREAM COMPLEX FROM THE COMPENSATORY MITIGATION PLAN, THE RETREAT AT TIMBER RIDGE RESIDENTIAL DEVELOPMENT - FILING NO. 1. PLAN PROVIDES 0.44 ACRES OF WETLAND MITIGATION.

Provide a plan showing the areas to be preserved and added for mitigation.

Provide a report describing the wetlands construction.

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 CORE CONSULTANTS, INC
 TIMBER RIDGE SAND CREEK MITIGATION

COLORADO SPRINGS, CO

Project Milestone
 CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

Sheet Name
 CSQT SUMMARY

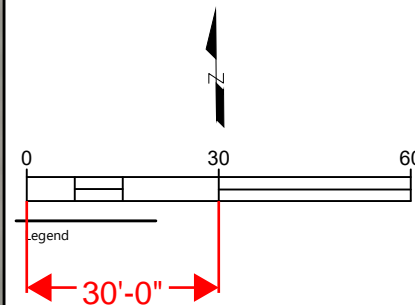
2021009009 1" = 100'
 Project No. Horizontal Scale

C:\Users\matthew_olson\OneDrive\Documents\Drawings\Drawings\2021009009_Timber Ridge\CSQT_CAD\Draw_Hatch\REVISION_COVER.dwg
 2022/06/04 09:13 AM By: Matthew Johnson

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Horizontal Scale & Orientation



Provide bankfull channel cross-section and profile.



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CORE CONSULTANTS, INC
TIMBER RIDGE SAND CREEK MITIGATION

COLORADO SPRINGS, CO

Project Milestone
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

Sheet Name
PLAN - (1)

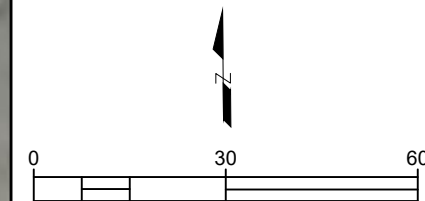
2021009009 1" = 30'
Project No. Horizontal Scale

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Horizontal Scale & Orientation



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Client/Project
CORE CONSULTANTS, INC
TIMBER RIDGE SAND CREEK MITIGATION

COLORADO SPRINGS, CO

Project Milestone
CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

Sheet Name
PLAN - (2)

2021009009 1" = 30'
Project No. Horizontal Scale

Show the proposed lots, grade control structures, bank stabilization, pond outfalls, etc.

This alignment is not shown on CDs or GEC Plan or modeled in the drainage report.

Is this getting a little close to the tree?

APPROXIMATE TREE LOCATION (TYP)

END SAND CREEK REACH 1
BEGIN SAND CREEK REACH 2
STATION 7+79.14

VEGETATION RESTORATION WITHIN VALLEY BOTTOM

PROPOSED BANKFULL CHANNEL

END STREAM MITIGATION WORK
STATION 12+72

PROPOSED SIDE CHANNEL

EXISTING TRIBUTARY 1

APPROXIMATE TOE OF SLOPE (TYP)

EXISTING THALWEG (FALL, 2021)

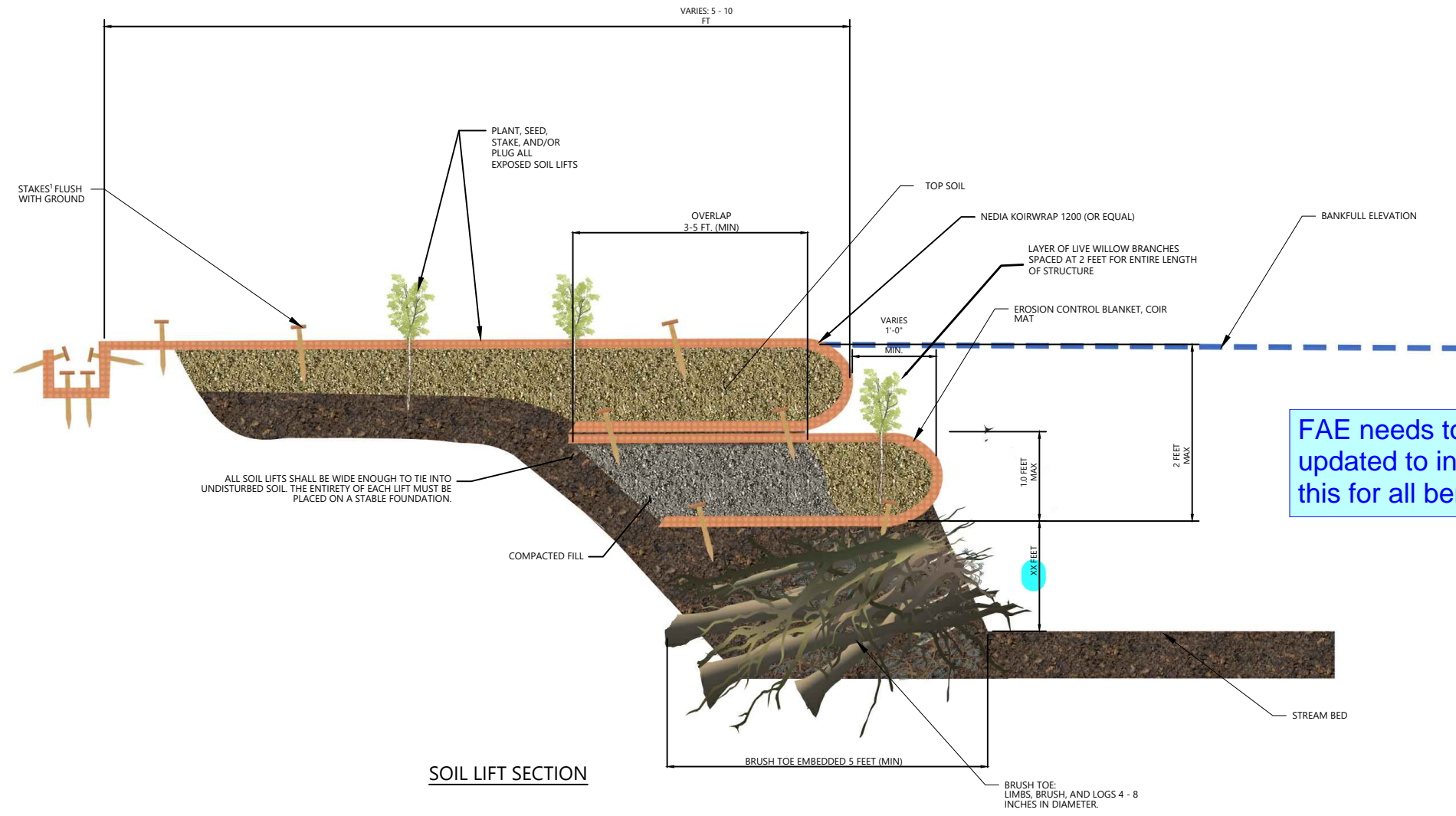
PROTECT BENDS WITH SOIL LIFTS (ALL BENDS)

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TIMBER RIDGE SAND CREEK MITIGATION

COLORADO SPRINGS, CO

Project Milestone
 CONCEPTUAL DESIGN - NOT FOR CONSTRUCTION

Sheet Name
 SOIL LIFT WITH BRUSH TOE

2021009009 Custom
 Project No. Horizontal Scale

Sheet 6 of 6