LEGAL DESCRIPTION:

BEING LOT 2, MULE DEER BUSINESS PARK FILING NO. 1 AND A TRACT OF LAND LOCATED IN THE EAST 1 OF SECTION 29, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, EL PSO COUNTY COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF AKERS DRIVE (80 FEET MDE) AS PLATTED IN MULE DEER BUSINESS PARK FILING NO. 1, RECORDED WITH RECEPTION NO. 206712353 IN THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER, POINT BEING ON THE SOUTHERLY RIGHT-OF-WAY OF NORTH CAREFREE CIRCLE (120 FEET WIDE) AS PLATTED IN PRONGHORN MEADOWS FILING NO. 1, RECORDED WITH RECEPTION NO. 202165571 OF SAID RECORDS:

THE FOLLOWING FIVE (5) COURSES ARE ON THE EASTERLY RIGHT-OF-WAY OF SAID AKERS DRIVE; 1) THENCE SOO"41'40"E A DISTANCE OF 552.96 FEET TO A POINT OF CURVE TO THE LEFT;

2) THENCE ON THE ARC OF SAID CURVE, HAVING A RADIUS OF 960.00 FEET, A DELTA ANGLE OF 04'35'19", AN ARC LENGTH OF 76.88 FEET, WHOSE LONG CHORD BEARS S02'59'19"E A DISTANCE OF 76.86 FEET;

3) THENCE S05'16'59"E A DISTANCE OF 277.56 FEET TO THE NORTHWEST CORNER OF LOT 2, OF SAID MULE DEER BUSINESS PARK FILING NO. 1;

4) THENCE S0576'59"E ON THE WESTERLY LINE OF SAID LOT 2, A DISTANCE OF 142.31 FEET TO A POINT OF CURVE TO THE RIGHT;

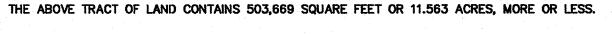
5) THENCE ON THE ARC OF SAID CURVE AND SAID WESTERLY LINE OF LOT 2, HAVE A RADIUS OF 1040.00 FEET, A DELTA ANGLE OF 03'59'26", AN ARC LENGTH OF 72.43 FEET, WHOSE LONG CHORD BEARS S0317'16"E A DISTANCE OF 72.42 FEET TOT HE SOUTHWEST CORNER OF SAID LOT

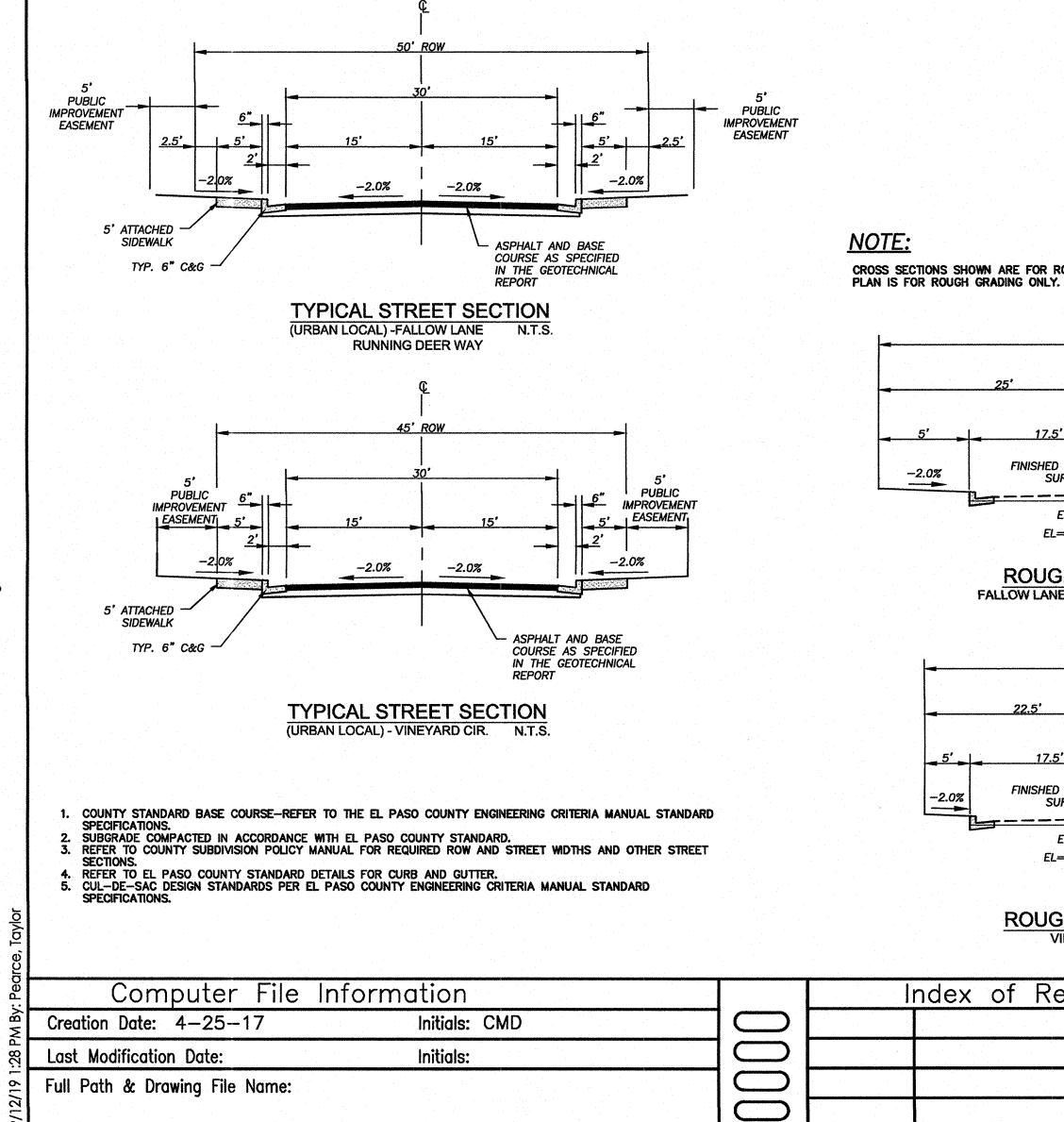
THENCE N88'42'27"E ONO THE SOUTH LINE OF SAID LOT 2, A DISTANCE OF 413.10 FEET TO THE SOUTHEAST CORNER OF SAID LOT 2;

THENCE NO0'02'55"E ON THE EAST LINE OF SAID LOT 2, A DISTANCE OF 209.74 FEET TOT HE NORTHEAST CORNER OF SAID LOT 2;

THENCE NO0'02'55"E A DISTANCE OF 906.69 FEET TO A POINT ON THE SOUSTHERLY RIGHT-OF-WAY OF SAID NORTH CAREFREE CIRCLE;

THENCE S896"18'20"W ON SAID SOUTHERLY RIGHT-OF-WAY, A DISTANCE OF 467.50 FEET TO THE POINT OF BEGINNING.



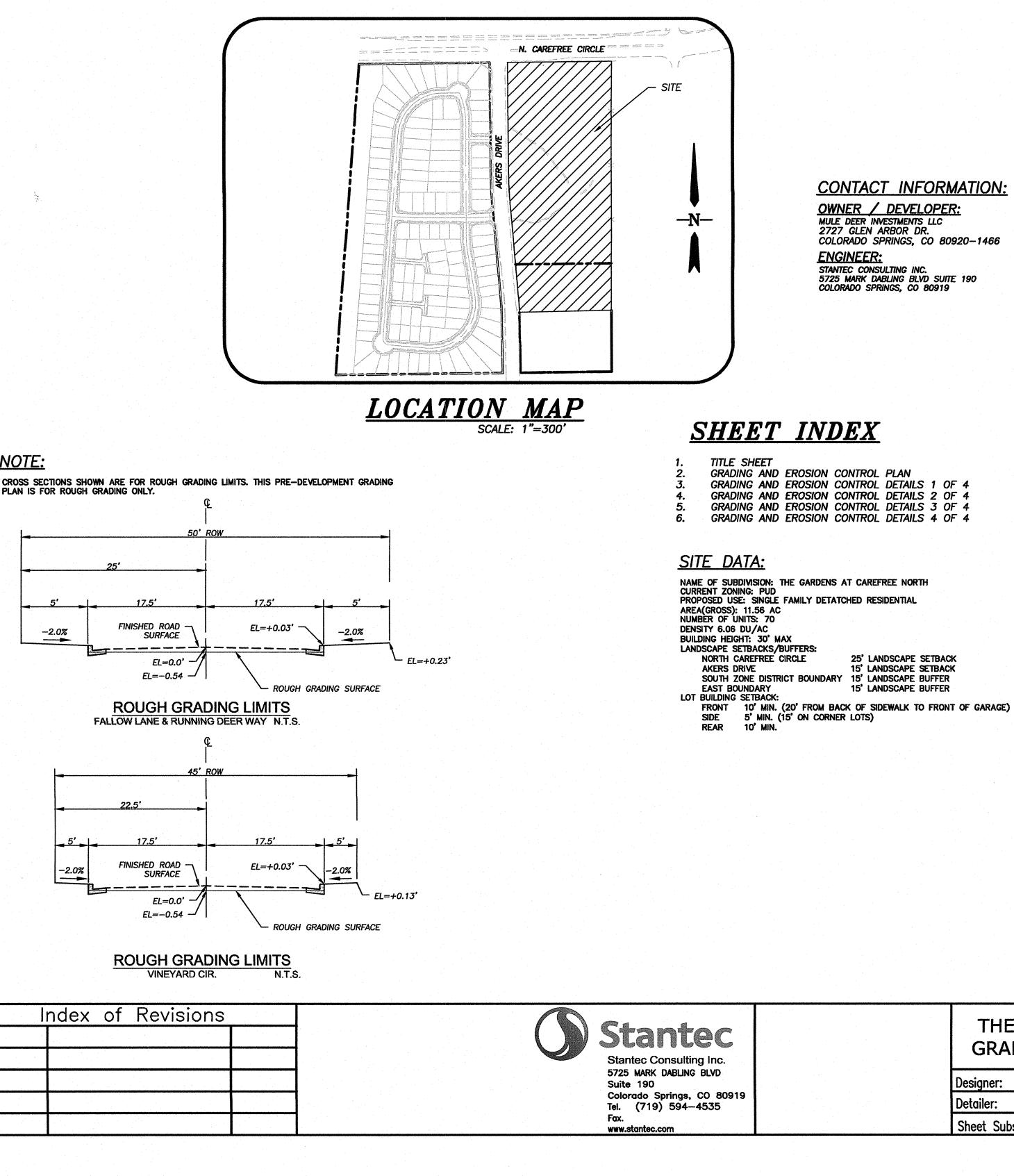


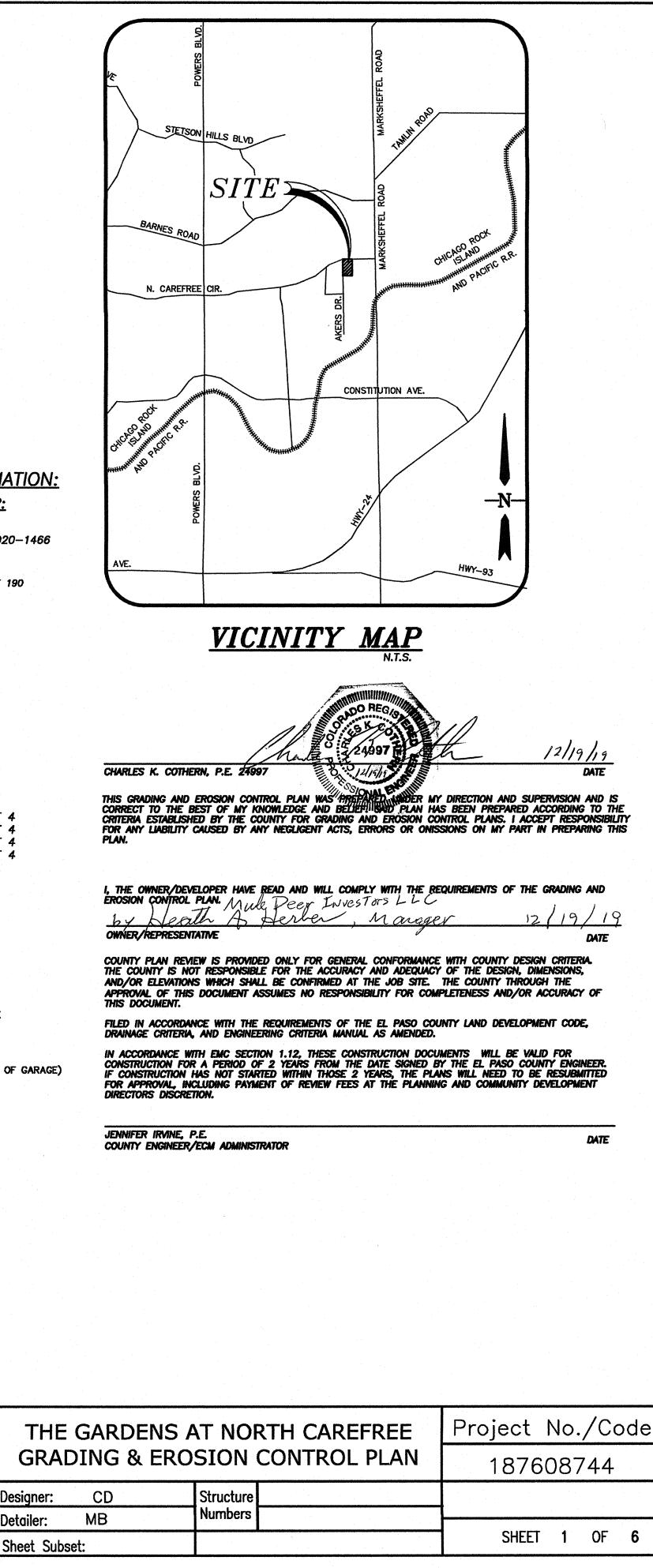
Units: Feet

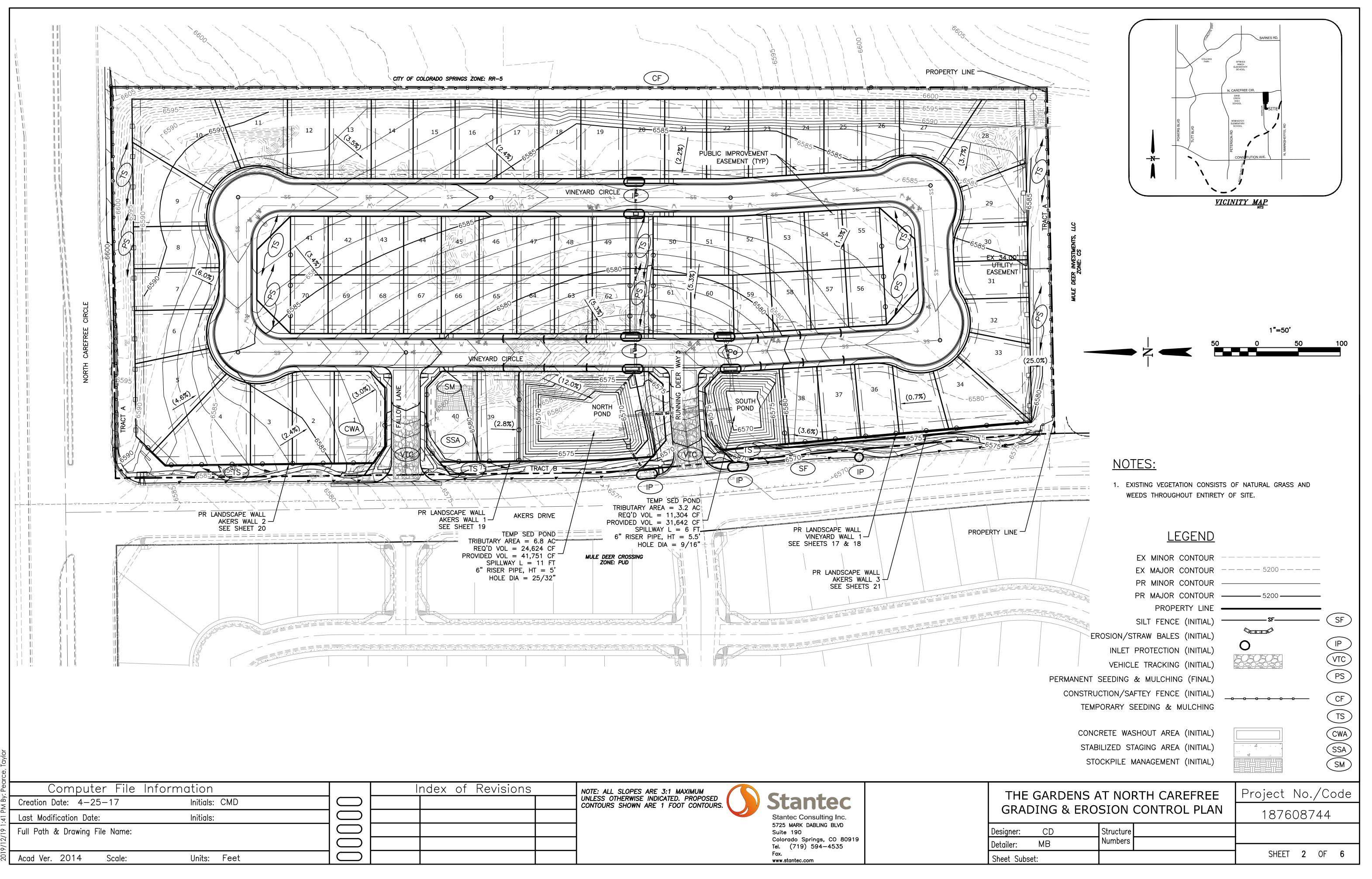
Scale:

Acad Ver. 2014

THE GARDENS AT NORTH CAREFREE GRADING AND EROSION CONTROL PLAN EL PASO COUNTY, STATE OF COLORADO







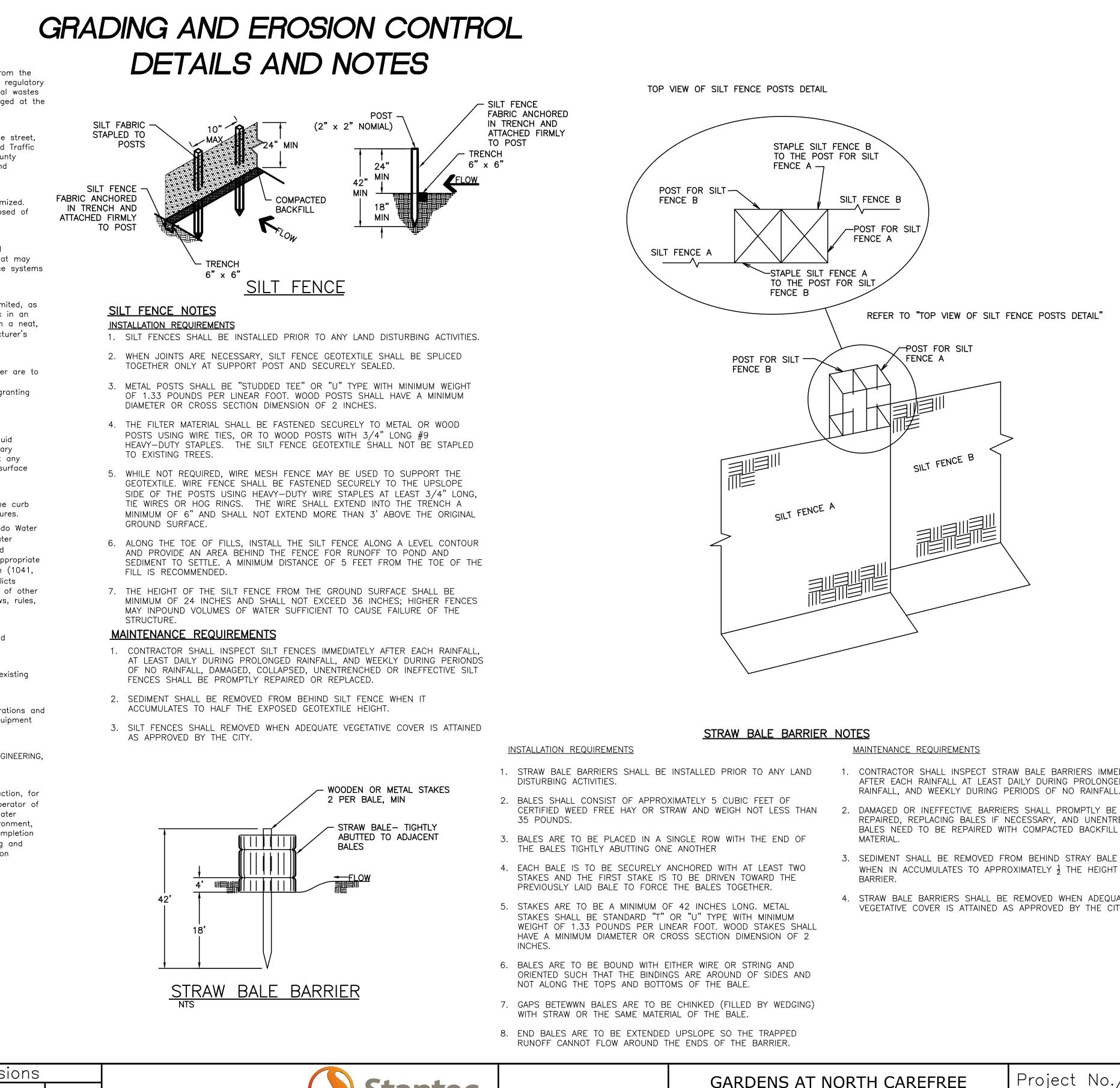
V:\52876\active\187608744-Mule Deer\CAD\Sheets\GEC Plan Set\02 - Grading And Erosion Control Plan.dw

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS

- 1. Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of State Waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off-site waters, including wetlands.
- 2. Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards. including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing.
- 3. A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. Management of the SWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP shall be located on site at all times during construction and shall be kept up to date with work progress and changes in the field.
- 4. Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved GEC. A Preconstruction Meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County staff.
- 5. Control measures must be installed prior to commencement of activities that could contribute pollutants to stormwater. control measures for all slopes, channels, ditches, and disturbed land areas shall be installed immediately upon completion of the disturbance.
- 6. All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures are needed to ensure the continued effective performance of the control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Stormwater Management Plan.
- 7. Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days.
- 8. Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure.
- 9. All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that effect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation.
- 10. Earth disturbances shall be conducted in such a manner so as to effectively minimize accelerated soil erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a waters of the state unless shown to be infeasible and specifically requested and approved.
- 11. Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s).
- 12. Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the discharge of sediment off site.
- 13. Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to enter State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.
- 14. During dewatering operations of uncontaminated ground water may be discharged on site, but shall not leave the site in the form of surface runoff unless an approved State dewatering permit is in place.
- 15. Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1.

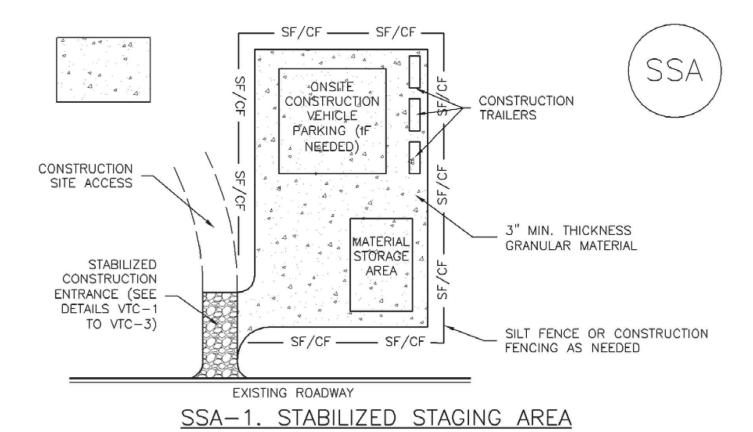
- 16. Contractor shall be responsible for the removal of all wastes from the construction site for disposal in accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried, dumped, or discharged at the site.
- 17. Waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. control measures may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances
- 18. Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up and properly disposed of immediately.
- 19. The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, soil, and sand that may accumulate in roads, storm drains and other drainage conveyance systems and stormwater appurtenances as a result of site development.
- 20. The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's lahels
- 21. No chemical(s) having the potential to be released in stormwater are to be stored or used onsite unless permission for the use of such chemical(s) is granted in writing by the ECM Administrator. In granting approval for the use of such chemical(s), special conditions and monitoring may be required.
- 22. Bulk storage of allowed petroleum products or other allowed liauid chemicals in excess of 55 gallons shall require adequate secondary containment protection to contain all spills onsite and to prevent any spilled materials from entering State Waters, any surface or subsurface storm drainage system or other facilities.
- 23. No person shall cause the impediment of stormwater flow in the curb and gutter or ditch except with approved sediment control measures.
- 24. Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8, CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041, NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other Federal, State, local, or County agencies, the most restrictive laws, rules, or regulations shall apply.
- 25. All construction traffic must enter/exit the site only at approved construction access points.
- 26. Prior to construction the permittee shall verify the location of existing utilities.
- 27. A water source shall be available on site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind.
- 28. The soils report for this site has been prepared by ENTECH ENGINEERING, INC and shall be considered a part of these plans.
- 29. At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (1) acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Health and Environment, Water Quality Division. The application contains certification of completion of a stormwater management plan (SWMP), of which this Grading and Erosion Control Plan may be a part. For information or application materials contact:
- Colorado Department of Public Health and Environment Water Quality Control Division WQCD - Permits 4300 Cherry Creek Drive South Denver, CO 80246-1530 Attn: Permits Unit

Computer File Information		Index of Revisions			
Creation Date: 4-25-17	Initials: CMD			Stantec	
Last Modification Date:	Initials:			Stantec Consulting Inc.	
Full Path & Drawing File Name:				5725 MARK DABLING BLVD Suite 190	Designer
				Colorado Springs, CO 80919 Tel. (719) 594—4535	Detailer:
Acad Ver. 2014 Scale:	Units: Feet			Fax. www.stantec.com	Sheet S



- . CONTRACTOR SHALL INSPECT STRAW BALE BARRIERS IMMEDIATELY AFTER EACH RAINFALL AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL.
- REPAIRED, REPLACING BALES IF NECESSARY, AND UNENTRENCHED BALES NEED TO BE REPAIRED WITH COMPACTED BACKFILL
- 3. SEDIMENT SHALL BE REMOVED FROM BEHIND STRAY BALE BARRIERS WHEN IN ACCUMULATES TO APPROXIMATELY ¹/₂ THE HEIGHT OF THE
- 4. STRAW BALE BARRIERS SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

GARDENS AT	Project No./Code					
GRADING AND EROSION DETAILS			187608744			
ner: CD	Structure					
er: MB	Numbers					
Subset:			SHEET	3	OF	6



STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR

-LOCATION OF STAGING AREA(S). -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

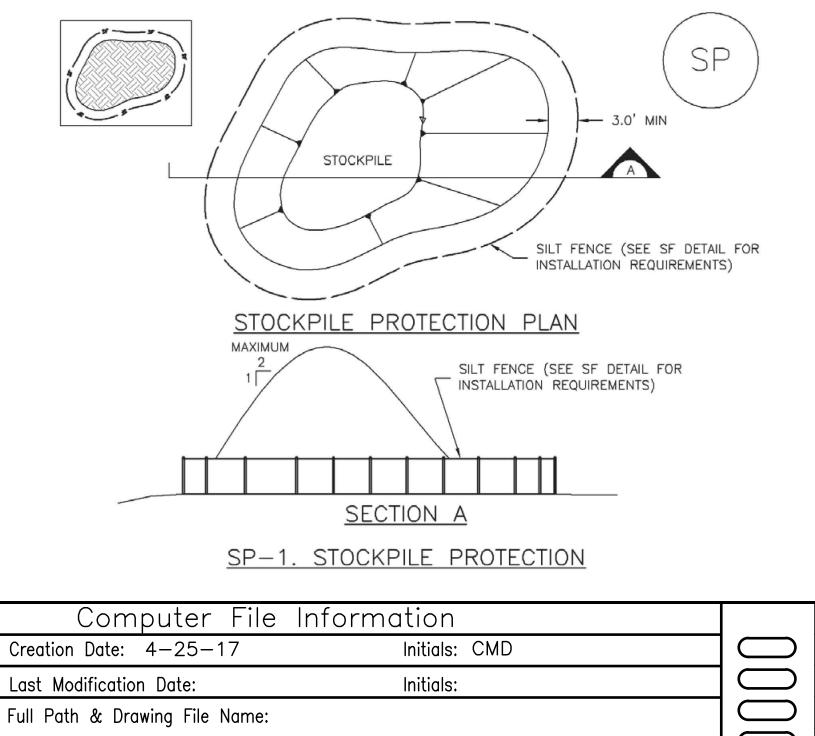
STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.



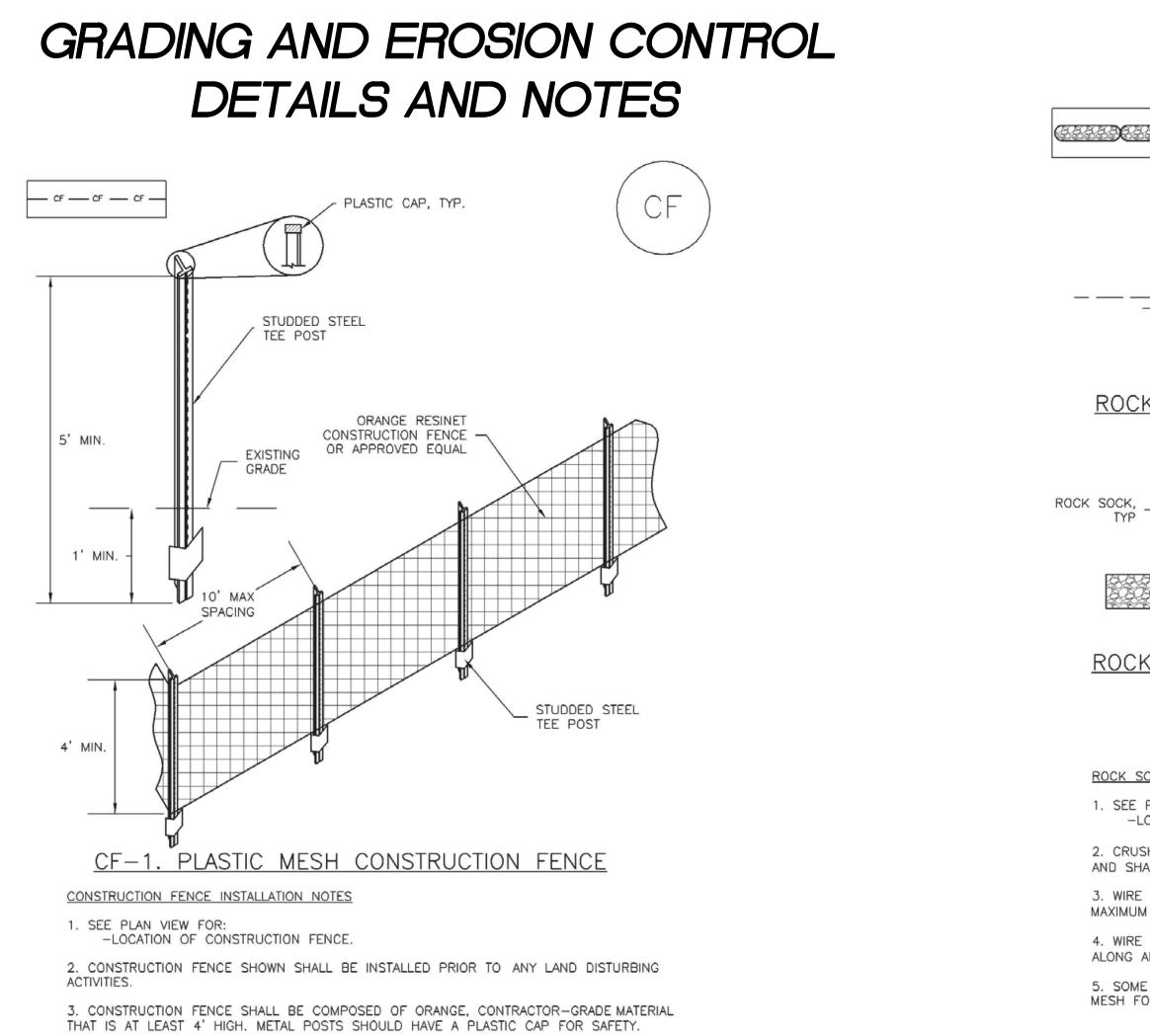
STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR: -LOCATION OF STOCKPILES. -TYPE OF STOCKPILE PROTECTION.

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

PERIMETER CONTROLS MAY NOT BE REQUIRED.

Computer File Inf	formation	Index of Revision	S		
Creation Date: 4-25-17	Initials: CMD			Stantec	
Last Modification Date:	Initials:			Stantec Consulting Inc.	
Full Path & Drawing File Name:				5725 MARK DABLING BLVD Suite 190	Designer
				Colorado Springs, CO 80919 Tel. (719) 594—4535	Detailer:
Acad Ver. 2014 Scale:	Units: Feet			Fax. www.stantec.com	Sheet S

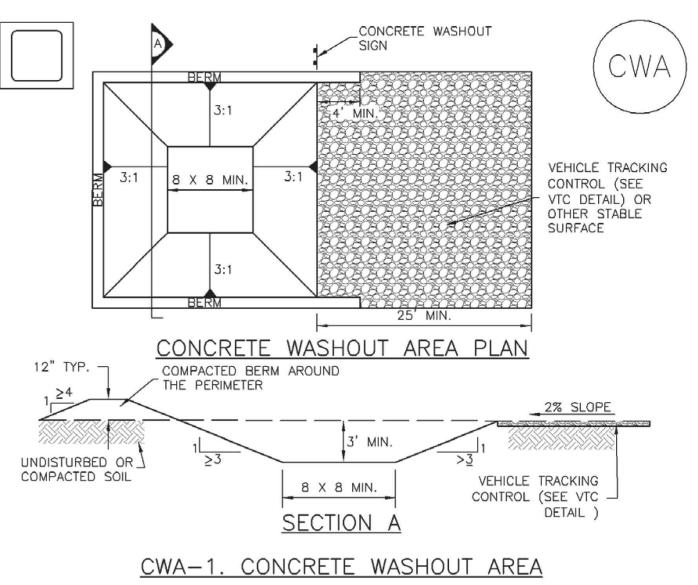


4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.

5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE



		\frown
		(RS)
1½" (MINUS) CRUSI	HED ROCK	
ENCLOSED IN WIRE	MESH 1½" (MINUS) ENCLOSED IN E TIE ENDS 7	CRUSHED ROCK WIRE MESH
O" ON BEDROCK OR HARD SURFACE, 2"	SURFACE CUR	O 6" MAX AT BS, OTHERWISE O" DEPENDING EXPECTED
CK SOCK SECTION		MENT LOADS
AMOUNT OF 12 WITH ADDITIONA REINFORCED SC BETWEEN ADJOI ADDITIONAL WIR	DINT SHALL BE FILLED WITH AN " (MINUS) CRUSHED ROCK AND L WIRE MESH SECURED TO END OCK. AS AN ALTERNATIVE TO FIL NING ROCK SOCKS WITH CRUSH E WRAPPING, ROCK SOCKS CAN YPICALLY 12-INCH OVERLAP) TO	WRAPPED S OF ROCK LING JOINTS ED ROCK AND BE
	GRADATION TABLE	
	SIEVE SIZE MASS PERCENT SQUARE MESH	
<u>CK SOCK JOINTING</u>	NO. 4	
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	5
SOCK INSTALLATION NOTES	¾" 0 – 5 MATCHES SPECIFICATIONS FO COARSE AGGREGATE FOR CO PER AASHTO M43. ALL ROCK	R NO. 4 DNCRETE
E PLAN VIEW FOR: -LOCATION(S) OF ROCK SOCKS. RUSHED ROCK SHALL BE 1½" (MINUS) IN S	FRACTURED FACE, ALL S	DES.
SHALL COMPLY WITH GRADATION SHOWN ON	N THIS SHEET (1½" MINUS).	
RE MESH SHALL BE FABRICATED OF 10 GA UM OPENING OF ½", RECOMMENDED MINIMI		ENT, WITH A
RE MESH SHALL BE SECURED USING "HOG G ALL JOINTS AND AT 2" CENTERS ON END		ENTERS
ME MUNICIPALITIES MAY ALLOW THE USE C FOR THE ROCK ENCLOSURE.	OF FILTER FABRIC AS AN ALTERN	ATIVE TO WIRE
RS-1. ROCK SOCK PE	RIMETER CONTROL	
CWA INSTALLATION NOTES		
1. SEE PLAN VIEW FOR:		
-CWA INSTALLATION LOCA		
WATERBODY. DO NOT LOCATE V SITE CONSTRAINTS MAKE THIS THE CWA MUST BE INSTALLED	D CWA WITHIN 400' OF ANY NAT WITHIN 1,000' OF ANY WELLS OF INFEASIBLE, OR IF HIGHLY PERM WITH AN IMPERMEABLE LINER (ES USING PREFABRICATED CONCF E ARE SHOULD BE USED.	E DRINKING WATER SOURCES. IF EABLE SOILS EXIST ON SITE, 6 MIL MIN. THICKNESS) OR
3. THE CWA SHALL BE INSTALL	ED PRIOR TO CONCRETE PLACE	MENT ON SITE.
	T SUBSURFACE PIT THAT IS AT L FACE PIT SHALL BE 3:1 OR FLA	
	AND BACK OF THE CWA SHALL	
7. SIGNS SHALL BE PLACED A	ALL BE SLOPED 2% TOWARDS TH T THE CONSTRUCTION ENTRANCE	AT THE CWA, AND
OF CONCRETE TRUCKS AND PU		
8. USE EXCAVATED MATERIAL P	OR PERIMETER BERM CONSTRUC	HON.
GARDENS AT NORTH	I CAREFREE	Project No./Code
GRADING AND EROSI		187608744
er: CD Structure		
er: MB Numbers		
Subset:		SHEET 4 OF 6

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-3 for appropriate seeding dates.

Species ^a (Common name)	Growth Season ^b	Pounds of Pure Live Seed (PLS)/acre [°]	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	1/2
5. Millet	Warm	3 - 15	1/2 - 3/4
6. Sudangrass	Warm	5-10	¹ / ₂ - ³ / ₄
7. Sorghum	Warm	5-10	1/2 - 3/4
8. Winter wheat	Cool	20–35	1 - 2
9. Winter barley	Cool	20-35	1 - 2
10. Winter rye	Cool	20–35	1 - 2
11. Triticale	Cool	25-40	1 - 2

Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

See Table TS/PS-3 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the Mulching BMP Fact Sheet for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

Computer File Infor	Index of Revisi				
Creation Date: 4—25—17	Initials: CMD				
Last Modification Date:	Initials:				
Full Path & Drawing File Name:					
Acad Ver. 2014 Scale:	Units: Feet				

GRADING AND EROSION CONTROL DETAILS AND NOTES

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses (cont.)

Common Name	Botanical Name	Growth Season ^b	Growth Form	Seeds/ Pound	Pounds of PLS/acre		
Sandy Soil Seed Mix							
Blue grama	Bouteloua gracilis	Warm	Sod-forming bunchgrass	825,000	0.5		
Camper little bluestem	Schizachyrium scoparium 'Camper'	Warm	Bunch	240,000	1.0		
Prairie sandreed	Calamovilfa longifolia	Warm	Open sod	274,000	1.0		
Sand dropseed	Sporobolus cryptandrus	Cool	Bunch	5,298,000	0.25		
Vaughn sideoats grama	Bouteloua curtipendula 'Vaughn'	Warm	Sod	191,000	2.0		
Arriba western wheatgrass	Agropyron smithii 'Arriba'	Cool	Sod	110,000	5.5		
Total					10.25		
Heavy Clay, Rocky Foothill Seed	Mix						
Ephriam crested wheatgrass ^d	Agropyron cristatum 'Ephriam'	Cool	Sod	175,000	1.5		
Oahe Intermediate wheatgrass	Agropyron intermedium 'Oahe'	Cool	Sod	115,000	5.5		
Vaughn sideoats grama ^e	Bouteloua curtipendula 'Vaughn'	Warm	Sod	191,000	2.0		
Lincoln smooth brome	Bromus inermis leyss 'Lincoln'	Cool	Sod	130,000	3.0		
Arriba western wheatgrass	Agropyron smithii 'Arriba'	Cool	Sod	110,000	5.5		
Total					17.5		
All of the above seeding mixes and rates are based on drill seeding followed by crimped straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Brillion Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation. See Table TS/PS-3 for seeding dates. If site is to be irrigated, the transition turf seed rates should be doubled.							
^d Crested wheatgrass should not b	be used on slopes steeper than 6H	to 1V.					
^e Can substitute 0.5 lbs PLS of bl	ue grama for the 2.0 lbs PLS of Va	aughn sideoats	grama.				

	(Numbers in	l Grasses table reference Table TS/PS-1)	Perennia	ll Grasses	
Seeding Dates	Warm	Cool	Warm	Cool	
January 1–March 15			\checkmark	✓	
March 16–April 30	4	1,2,3	\checkmark	✓	
May 1–May 15	4		\checkmark		
May 16–June 30	4,5,6,7				
July 1–July 15	5,6,7				
July 16–August 31					
September 1–September 30		8,9,10,11			
October 1–December 31			\checkmark	✓	

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses

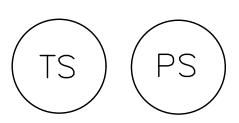
Common ^a Name	Botanical Name	Growth Season ^b	Growth Form	Seeds/ Pound	Pounds of PLS/acre
li Soil Seed Mix	· · ·				
sacaton	Sporobolus airoides	Cool	Bunch	1,750,000	0.25
vildrye	Elymus cinereus	Cool	Bunch	165,000	2.5
treambank wheatgrass	Agropyron riparium 'Sodar'	Cool	Sod	170,000	2.5
l wheatgrass	Agropyron elongatum 'Jose'	Cool	Bunch	79,000	7.0
western wheatgrass	Agropyron smithii 'Arriba'	Cool	Sod	110,000	5.5
					17.75
Loamy Soil Seed Mix					
n crested wheatgrass	Agropyron cristatum 'Ephriam'	Cool	Sod	175,000	2.0
ard fescue	Festuca ovina 'duriuscula'	Cool	Bunch	565,000	1.0
n smooth brome	Bromus inermis leyss 'Lincoln'	Cool	Sod	130,000	3.0
treambank wheatgrass	Agropyron riparium 'Sodar'	Cool	Sod	170,000	2.5
western wheatgrass	Agropyron smithii 'Arriba'	Cool	Sod	110,000	7.0
					15.5
Vater Table Soil Seed Mix			L 27	<u>.</u> .	
w foxtail	Alopecurus pratensis	Cool	Sod	900,000	0.5
9	Agrostis alba	Warm	Open sod	5,000,000	0.25
anarygrass	Phalaris arundinacea	Cool	Sod	68,000	0.5
n smooth brome	Bromus inermis leyss 'Lincoln'	Cool	Sod	130,000	3.0
der switchgrass	Panicum virgatum 'Pathfinder'	Warm	Sod	389,000	1.0
all wheatgrass	Agropyron elongatum 'Alkar'	Cool	Bunch	79,000	5.5
					10.75
tion Turf Seed Mix ^c			<u>.</u>	ž	
s Canadian bluegrass	Poa compressa 'Ruebens'	Cool	Sod	2,500,000	0.5
ard fescue	Festuca ovina 'duriuscula'	Cool	Bunch	565,000	1.0
n perennial ryegrass	Lolium perenne 'Citation'	Cool	Sod	247,000	3.0
n smooth brome	Bromus inermis leyss 'Lincoln'	Cool	Sod	130,000	3.0
Total					7.5

TEMPORARY AND PERMANENT SEEDING

Stantec Stantec Consulting Inc. 5725 MARK DABLING BLVD Suite 190 Colorado Springs, CO 80919 Tel. (719) 594-4535 Fax. www.stantec.com

Designe Detailer

Sheet



Can substitute 0.5 lbs PLS of blue grama for the 2.0 lbs PLS of Vaughn sideoats grama.

Table TS/PS-3. Seeding Dates for Annual and Perennial Grasses

GARDENS AT	Project No./Code	
GRADING AND	187608744	
er: CD	Structure Numbers	
er: MB Subset:		SHEET 5 OF 6

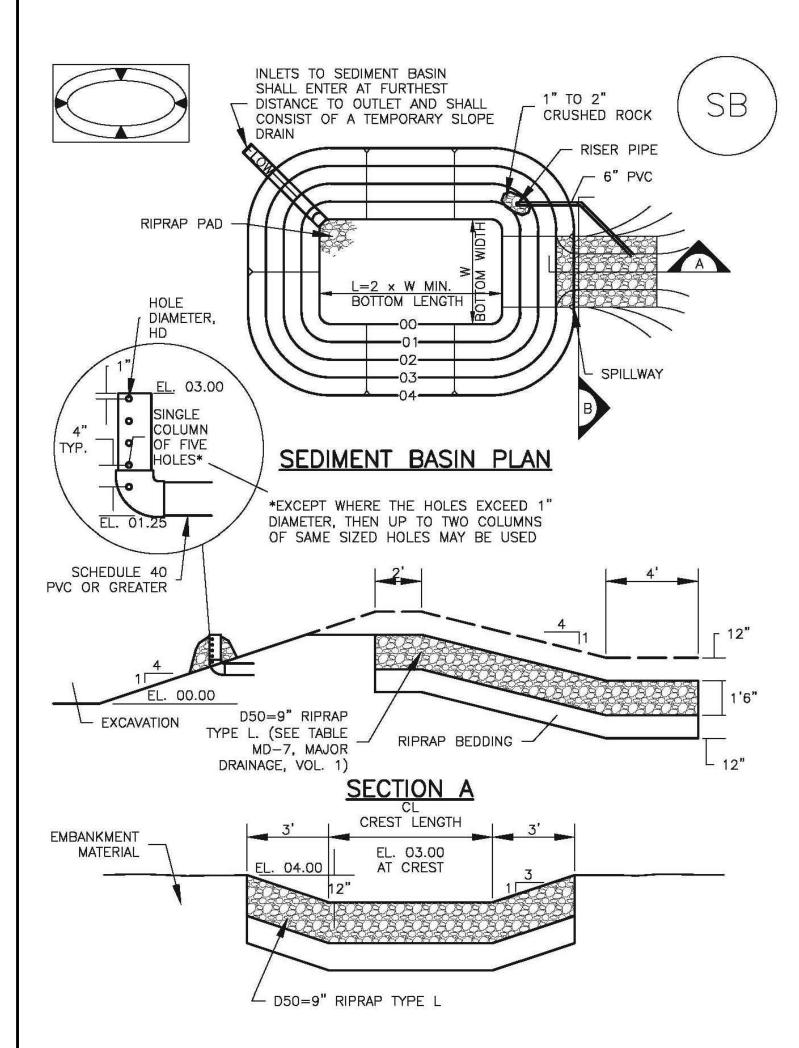


TABLE SB-1. S	ZING INFORMATI		
Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom (W), (ft)		
1	12 1/2		
2 3 4 5 6 7	21		
3	28 33 ½		
4			
5	38 ½ 43		
07	47 <i>X</i> 51 55		
8			
9			
10	58 1/4		
11	61		
12	64		
13	67 ½		
14	70 1/2		
15	73 X		

SEDIMENT BASIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:

-LOCATION OF SEDIMENT BASIN. -TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN). -FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD. -FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.

IS NOT REDUCED.

THAT RELIES ON ON BASINS AS AS A STORMWATER CONTROL

PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.

DENSITY IN ACCORDANCE WITH ASTM D698.

6. PIPE SCH 40 OR GREATER SHALL BE USED.

FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR LARGER THAN 15 ACRES.

SEDIMENT BASIN MAINTENANCE NOTES

EROSION, AND PERFORM NECESSARY MAINTENANCE.

DOCUMENTED THOROUGHLY.

DISCOVERY OF THE FAILURE.

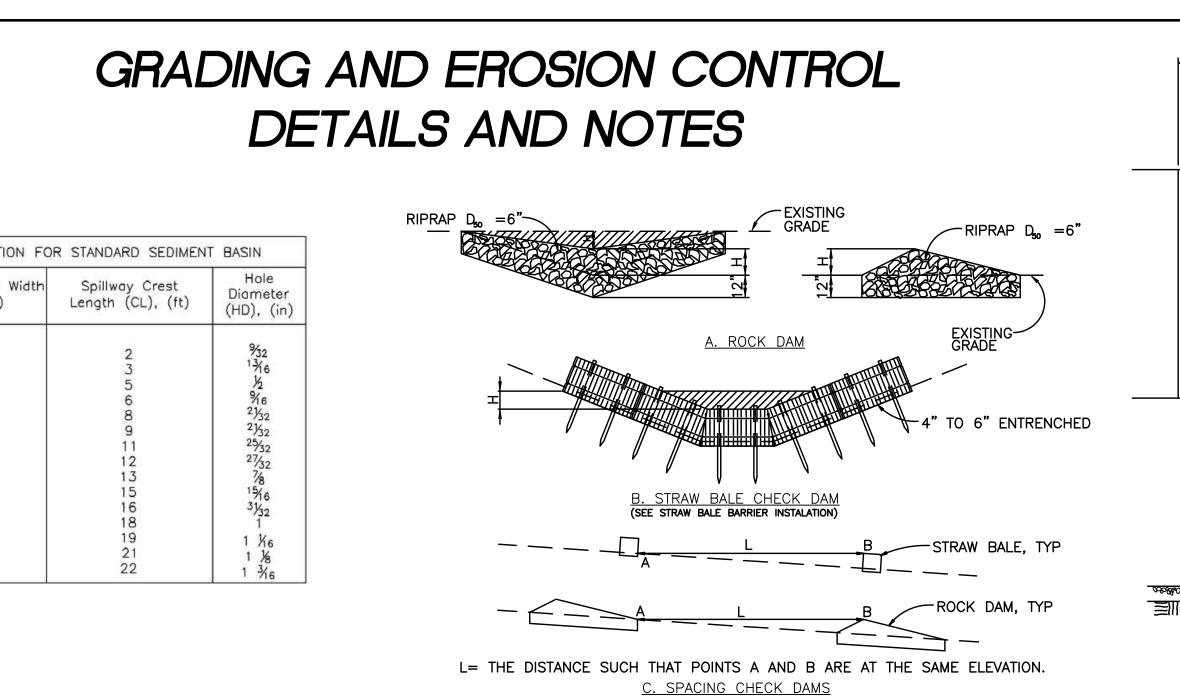
BELOW THE SPILLWAY CREST).

IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.

WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO) DIFFERENCES ARE NOTED.

: rea	Computer File In	formation	Index of Revision	ons		GAI
VM BY	Creation Date: 4—25—17	Initials: CMD			Stantec	GRA
4	Last Modification Date:	Initials:			Stantec Consulting Inc.	
1.2.7 9	Full Path & Drawing File Name:				5725 MARK DABLING BLVD Suite 190	Designer:
7/11					Colorado Springs, CO 80919 Tel. (719) 594—4535	Detailer:
701	Acad Ver. 2014 Scale:	Units: Feet			Fax. www.stantec.com	Sheet Subset:



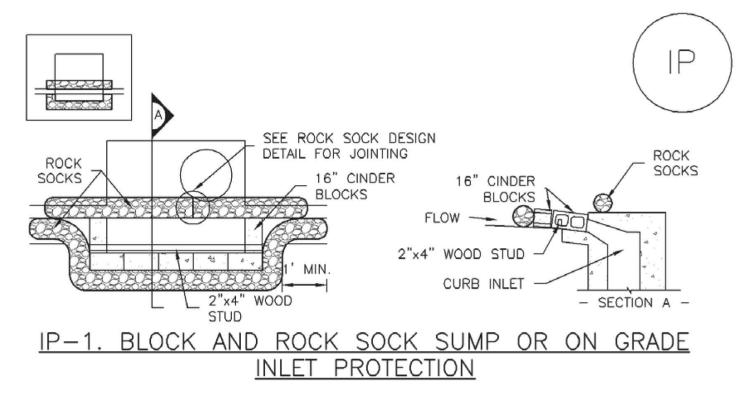
- 2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA
- 3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY
- 4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15
- 5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM
- 7. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS
- 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE, INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE
- 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE
- 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON
- 4. SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET
- 5. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA
- 6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN

CHECK DAM NOTES INSTALLATION REQUIREMENTS 1. STRAW BALES USED AS CHECK DAMS

CHECK DAM

- ARE TO MEET THE REQUIREMENTS STATED IN FIGURE SBB-2.
- 2. THE "H" DIMENSION SHALL BE SELECTED TO PROVIDE WEIR FLOW CONVEYANCE FOR 2-YEAR FLOW OR GREATER
- MAINTENANCE REQUIREMENTS 1. REGULAR INSPECTIONS ARE TO BE MADE
- OF ALL CHECK DAMS, ESPECIALLY AFTER STORM EVENTS.
- 2. REPLACE STONE AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT OF THE DAM.
- 3. ACCUMULATED SEDIMENT AND DEBRIS IS TO BE REMOVED FROM BEHIND THE DAMS AFTER EACH STORM OR WHEN 1/2 OF THE ORIGINAL HEIGHT OF THE DAM IS REACHED.
- 4. CHECK DAMS ARE TO REMAIN IN PLACE AND OPERATIONAL UNTIL THE DRAINAGE AREA AND CHANNEL ARE PERMANENTLY STABILIZED.
- 5. WHEN CHECK DAMS ARE REMOVED THE CHANNEL LINING OR VEGETATION IS TO BE RESTORED.

- EXCESSIVELY STEEP.



BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

- 1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- 2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.
- 3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.

- - OVERLAP.

