

NOTES:
 (1) EXISTING VEGETATION CONSISTS OF NATIVE GRASSES AND SCATTERED SHRUBS.
 (2) NO EXISTING UTILITIES ARE LOCATED WITHIN THE LIMITS OF FILING NO. 5 ON-SITE GRADING.

TRACT D HANNAH RIDGE AT FEATHERGRASS FILING NO. 1
 (6.3) TW = 94.0 BW = 83.7
 (6.3) TW = 92.0 BW = 85.7
 (1.5) TW = 95.5 BW = 84.0
 (13.4) TW = 503.4 BW = 490.0
 (2) TW = 502.0 BW = 492.0
 (2) TW = 500.0 BW = 490.0
 (2) TW = 96.6 BW = 96.6
 (2) TW = 90.0 BW = 90.0
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SEE SHEET 3

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 COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
 WATER QUALITY CONTROL DIVISION
 WOOD - PERMITS
 4300 CHERRY CREEK DRIVE SOUTH
 DENVER, CO 80246-1530
 ATTN: PERMITS UNIT

NO PORTION OF THIS SITE IS LOCATED WITHIN A FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE RATE MAPS (F.I.R.M.) MAP NUMBER 08041C0752F AND EFFECTIVE DATE, MARCH 17, 1997.

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EXISTING VEGETATION CONSISTS OF TALL NATIVE GRASSES AND WEEDS WITH SPORADIC CACTI AND YUCCAS THROUGH-OUT THE SITE.

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STOCKPILE LOCATIONS FOR HOMEBUILDING TO BE ON EACH INDIVIDUAL LOT THAT IS BEING BUILT UPON.

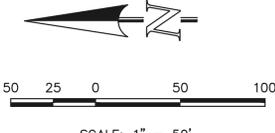
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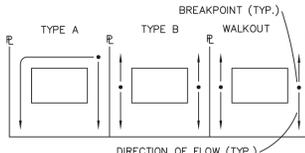
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ALL RETAINING WALLS TO BE STACKED BLOCK WALLS.
 BUILDING PERMIT REQUIRED FOR WALLS 4' OR TALLER.



LOCATION OF STAGING AREAS, STORAGE FOR MAINTENANCE EQUIPMENT, CONCRETE WASHOUT AREAS AND TEMPORARY DISPOSAL AREAS WILL BE ADDED TO THIS PLAN BY SWMP ADMINISTRATOR UPON COORDINATION WITH SELECTED CONTRACTOR AND SHALL BE WITHIN CONSTRUCTION SITE BOUNDARIES AS SHOWN.



LOT DRAINAGE TYPES

NOTE:
 SIDE LOT LINE SWALES ARE REQUIRED FOR ALL LOTS.

Grading and Erosion control plans reviewed under Construction drawing set.

LEGEND

- (6770) EXISTING CONTOUR
- 6770 PROPOSED CONTOUR
- FILING LINE
- BOUNDARY/R.O.W. LINE
- EXISTING FLOW DIRECTION
- PROPOSED FLOW
- "A" A LOT
- "B" B LOT
- "W/O" WALKOUT LOT
- "T" TRANSITION LOT
- "G" GARDEN LOT
- PROPOSED INLET
- PROPOSED STORM SEWER PIPE
- HP PROPOSED HIGH POINT
- LP PROPOSED LOW POINT
- (6770) TW = XX.XX BW = XXX.XX PROPOSED RETAINING WALL
- (TSB) TEMPORARY SEDIMENT BASIN
- (SF) SILT FENCE
- (IP) INLET PROTECTION
- (VTC) VEHICLE TRACKING CONTROL

NOTE:
 SEE SHEET 5 FOR LOT TEMPLATES
 SEE SHEET 5 FOR EROSION CONTROL DETAILS

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS 811 UTILITY NOTIFICATION CENTER OF COLORADO IT'S THE LAW	NO. REVISION	DATE	REVIEW:
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			KYLE R. CAMPBELL, COLORADO P.E. #29794

CLASSIC CONSULTING ENGINEERS & SURVEYORS
 619 N. Cascade Avenue, Suite 200
 Colorado Springs, Colorado 80903
 (719) 785-0790
 (719) 785-0799 (Fax)

HANNAH RIDGE AT FEATHERGRASS FILING NO. 5, 6 & 7 OVERLOT GRADING AND EROSION CONTROL PLAN

DESIGNED BY	KRC	SCALE	DATE	10/12/18
DRAWN BY	KC	(H) 1" = 50'	SHEET	2 OF 11
CHECKED BY	(V) 1" = NA	JOB NO.	1116.05	

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- NOTES:**
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 - (2) EXISTING SANITARY SEWER MAINLINE IS LOCATED WITHIN THE LIMITS OF ON-SITE GRADING.

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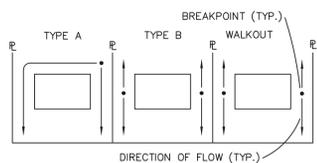
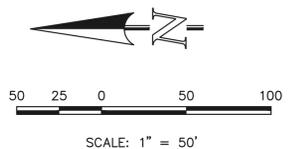
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KYLE R. CAMPBELL, COLORADO P.E. #29794	

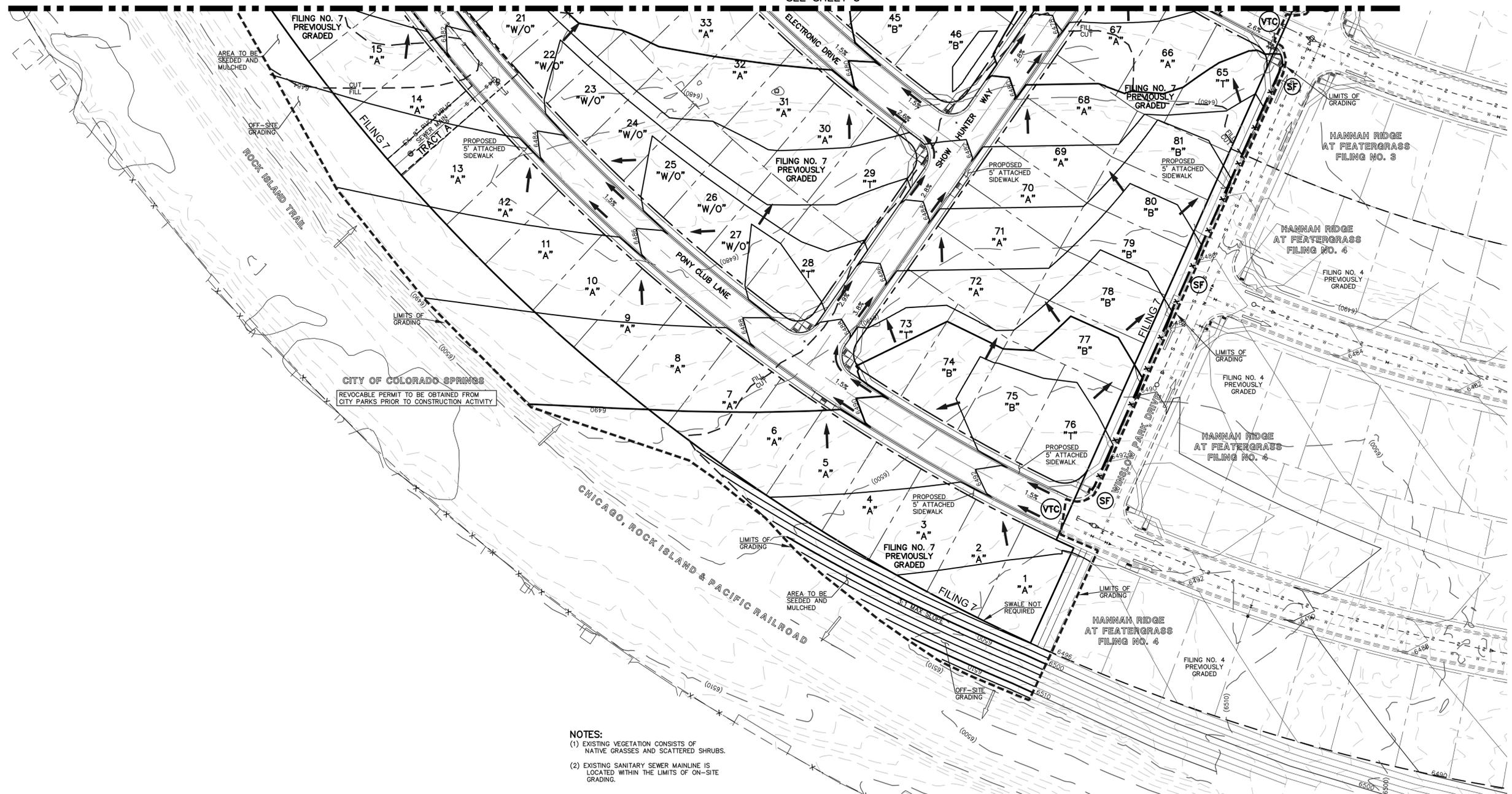
CLASSIC
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HANNAH RIDGE AT FEATHERGRASS
 FILING NO. 5, 6 & 7
 OVERLOT GRADING AND EROSION CONTROL PLAN

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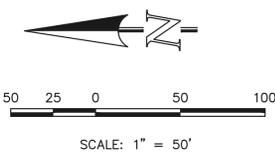
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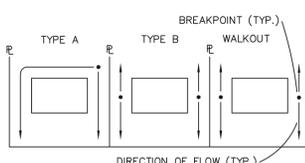
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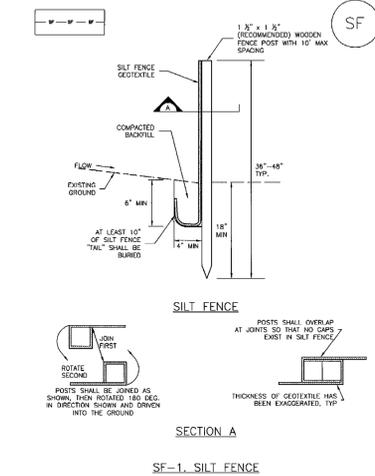
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CLASSIC CONSULTING ENGINEERS AND SURVEYORS

Silt Fence (SF)

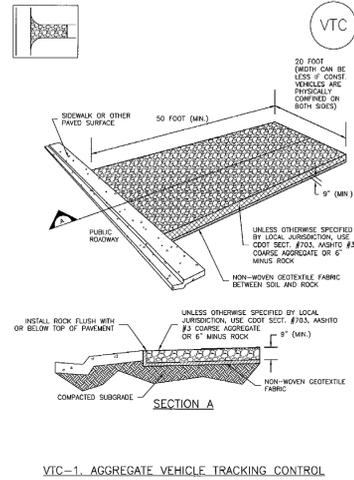
SC-1



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Vehicle Tracking Control (VTC)

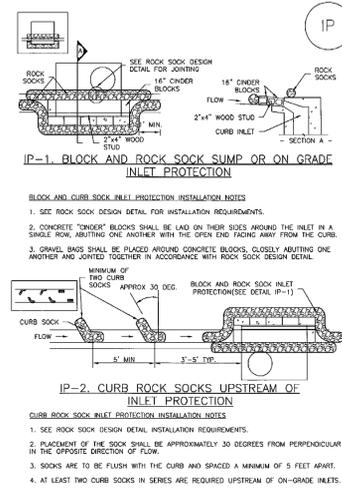
SM-4



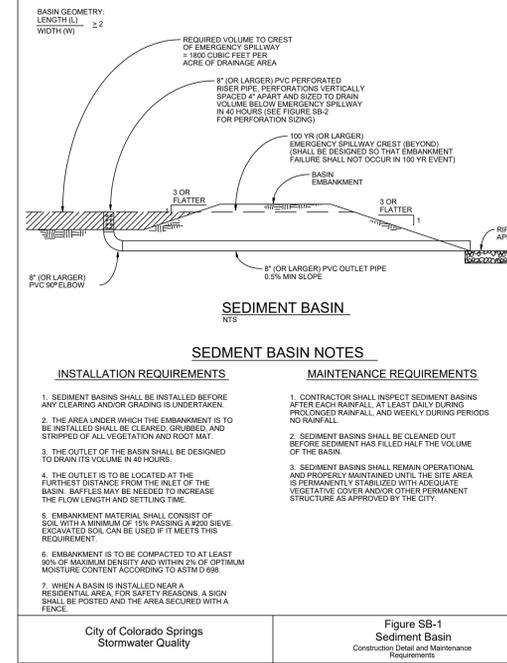
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SC-6

Inlet Protection (IP)



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City of Colorado Springs Stormwater Quality Figure SB-1 Sediment Basin Construction Detail and Maintenance Requirements

TABLE SB-1

Depth (ft)	Depth at Outlet (ft)							
	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
2	15.04	7.71	5.10	3.76	2.86	2.41	2.02	1.73
1	7.52	3.86	2.55	1.88	1.48	1.21	1.01	0.87
0.6	4.51	2.31	1.53	1.13	0.89	0.72	0.61	0.52
0.4	3.01	1.54	1.02	0.75	0.59	0.48	0.40	0.35
0.2	1.50	0.77	0.51	0.38	0.30	0.24	0.20	0.17
0.1	0.75	0.39	0.26	0.19	0.15	0.12	0.10	0.09
0.06	0.45	0.23	0.15	0.11	0.09	0.07	0.06	0.05
0.04	0.30	0.15	0.10	0.08	0.06	0.05	0.04	0.03
0.02	0.15	0.08	0.05	0.04	0.03	0.02	0.02	0.02
0.01	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01

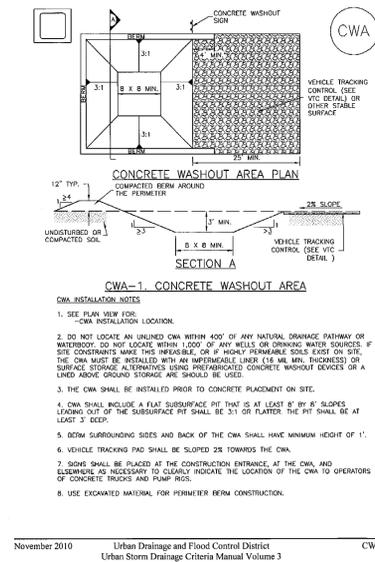
TABLE SB-2

Circular Perforation Sizing	Hole Diameter (in)	Hole Diameter (ft)	Area per Row (in ²)	
			n=1	n=3
1/4	0.250	0.05	0.10	0.15
3/8	0.375	0.08	0.15	0.23
1/2	0.500	0.12	0.22	0.33
5/8	0.625	0.15	0.30	0.45
3/4	0.750	0.19	0.39	0.59
7/8	0.875	0.23	0.48	0.75
1	1.000	0.28	0.59	0.88
1 1/8	1.125	0.33	0.72	1.03
1 1/4	1.250	0.38	0.86	1.20
1 3/8	1.375	0.43	1.00	1.39
1 1/2	1.500	0.49	1.15	1.60
1 5/8	1.625	0.55	1.31	1.83
1 3/4	1.750	0.61	1.48	2.09
1 7/8	1.875	0.68	1.66	2.37
2	2.000	0.75	1.86	2.68

City of Colorado Springs Stormwater Quality Figure SB-2 Outlet Sizing Application Techniques and Maintenance Requirements

Concrete Washout Area (CWA)

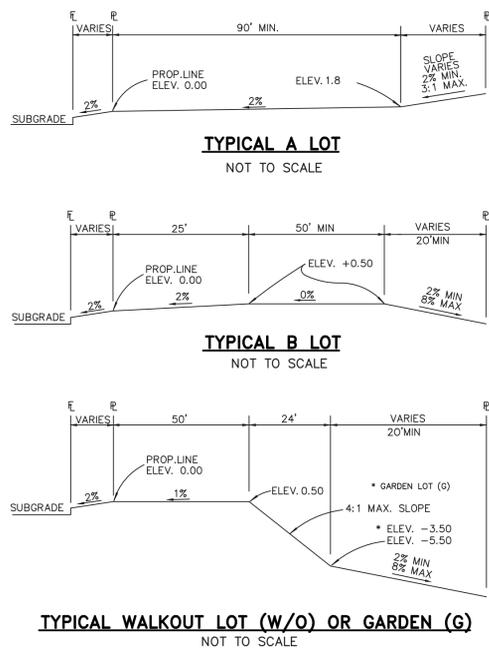
MM-1



November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 CWA-3

- MM-1 Concrete Washout Area (CWA)**
- CWA MAINTENANCE NOTES**
1. BEFORE BMPs GO INTO SERVICE, 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. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN PITS SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
 5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS FROM THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE AT A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
 6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
 7. WHEN THE CWA IS READY, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- OTHER ADAPTED FROM DODGE COUNTY, COLORADO AND THE CITY OF PUEBLO, COLORADO, NOT AVAILABLE IN AUTHOR'S NOTE. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USDS STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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TYPICAL WALKOUT LOT (W/O) OR GARDEN (G) NOT TO SCALE

NOTE:
"T" LOTS OR "TRANSITION" LOTS OCCUR IN PLACES WHERE BOTH PROPERTY LINES CANNOT BE GRADED AS THE TYPICAL STANDARD LOT TEMPLATES SHOWN. THESE LOTS WILL STILL BE GRADED TO CREATE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE.

NOTE:
SIDE LOT SWALES WILL BE PROVIDED WHERE APPROPRIATE.

SEEDING GUIDELINES

- 1. SEEDBED PREPARATION**
THE SEEDBED SHOULD BE WELL-SETTLED AND FIRM, BUT FRAGILE ENOUGH THAT THE SEED CAN BE PLACED AT THE SPECIFIED DEPTHS. COMPETITIVE STANDS OF WEEDS THAT ARE PRESENT BEFORE SEEDING MUST BE CONTROLLED BY SHALLOW TILLAGE OR BY APPLICATION OF HERBICIDES. SOILS THAT HAVE BEEN OVER-COMPACTED BY TRAFFIC OR EQUIPMENT, ESPECIALLY WHEN WET, SHOULD BE TILLED TO BREAK UP ROOTING-RESTRICTIVE LAYERS, THAN HARROWED, ROLLED, OR PACKED TO PREPARE THE REQUIRED FIRM SEEDBED.
 - 2. FERTILIZER**
FERTILIZER SHOULD BE APPLIED AT A RATE OF 50 POUNDS OF AVAILABLE NITROGEN PER ACRE AND 40 POUNDS OF AVAILABLE PHOSPHATE PER ACRE. THE TIME OF APPLICATION SHOULD BE IMMEDIATELY PRIOR TO SEEDING, AT THE TIME OF SEEDING, OR IMMEDIATELY FOLLOWING SEEDING, DEPENDING ON THE KIND OF FERTILIZER AND TYPE OF EQUIPMENT USED.
 - 3. SEEDING**
SEED SHOULD BE PLANTED WITH A GRASS DRILL ON ALL SLOPES OF SOIL WITH MINIMUM OF 10% PASSING A #20 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT.
SEED PLANTED WITH A DRILL SHOULD BE COVERED WITH SOIL TO A DEPTH OF 1/4 TO 3/4 INCH. SEED PLANTED BY THE BROADCAST METHOD SHOULD BE INCORPORATED INTO THE SOIL SURFACE, NOT TO EXCEED A DEPTH OF 3/4 INCH, BY RAKING, HARROWING, OR OTHER PROVEN METHOD.
THE TIME OF SEEDING IS FROM OCTOBER 15TH - MAY 31ST. SEED PLANTED IN THE LATE FALL WILL REMAIN DORMANT UNTIL SPRING, WHEN IT WILL GERMINATE.
 - 4. MULCHING**
SEEDED AREAS SHOULD BE MULCHED TO CONSERVE MOISTURE, PREVENT SURFACE COMPACTION OR CRUSTING; REDUCE RUNOFF AND EROSION; CONTROL INSECTS; AND HELP ESTABLISH PLANT COVER.
NATIVE HAY OR STRAW SHOULD BE APPLIED AT A RATE OF 4,000 POUNDS PER ACRE AND CRIMPED INTO THE GROUND. ON SLOPES GREATER THAN 3:1, AN AGRONOMY BLANKET SHOULD BE USED.
 - 5. SUPPLEMENTAL WATER**
IN LOW RAINFALL AREAS, WHERE WATER IS AVAILABLE AND WHERE RAPID ESTABLISHMENT IS NEEDED, IRRIGATION OF NEW SEEDING SHOULD BE PERFORMED DURING THE FIRST GROWING SEASON. WATER SHOULD BE APPLIED AT APPROXIMATELY ONE WEEK INTERVALS, AT A RATE OF 3/4 TO 1 INCH PER APPLICATION, WHEN RAINFALL IS DEFICIENT FOR PLANT DEVELOPMENT.
- 1.) THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NON-EXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
 - 2.) DURING GRADING OPERATIONS, LOCATE AND SET THE STRAW BALE CHECK DAMS AND SILT FENCES AS SHOWN ON THE EROSION CONTROL PLAN. AT THIS TIME RESEED ALL DISTURBED AREAS WITH AN EL PASO COUNTY APPROVED SEED MIX.
 - 3.) SEEDING APPLICATION: DRILLED TO A DEPTH OF .25" TO .50" INTO SOIL WHERE POSSIBLE. BROADCAST AND RAKED TO COVER ON STEEPER THAN 3:1 SLOPES WHERE ACCESS IS LIMITED OR UNSAFE FOR EQUIPMENT.
 - 4.) MULCHING REQUIREMENT AND APPLICATION: 1.5 TONS PER ACRE NATIVE HAY MECHANICALLY CRIMPED INTO SOIL.
 - 5.) THE STRAW BALE CHECK DAMS AND SILT FENCES SHALL BE KEPT IN PLACE AND MAINTAINED UNTIL EROSION AND SEDIMENTATION POTENTIAL IS MITIGATED. REMOVAL OF SILT AND SEDIMENT COLLECTED BY THE STRAW BALES IS REQUIRED ONCE IT REACHES HALF THE HEIGHT OF THE STRAW BALES OR SILT FENCE.
 - 6.) DISTURBED SOIL SHALL BE VEGETATED WITHIN 60 DAYS AFTER SUBSTANTIAL FINAL GRADING IS COMPLETE. PROVIDE TEMPORARY VEGETATION TO DISTURBED AREAS THAT WILL HAVE A PERIOD OF EXPOSURE OF 6 MONTHS OR LONGER PRIOR TO FINAL STABILIZATION.
 - 7.) ALL FACILITIES, VEGETATION AND OTHER ITEMS REQUIRED BY THE APPROVED FINAL GRADING, EROSION CONTROL AND RECLAMATION PLAN SHALL BE PROPERLY MAINTAINED BY THE OWNERS OF THE PROPERTY. SUCH MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO KEEPING ALL EROSION CONTROL FACILITIES IN GOOD ORDER AND FUNCTIONAL, REPAIRING ANY EROSION DAMAGE THAT OCCURS, KEEPING ALL VEGETATION HEALTHY AND IN GROWING CONDITION AND REPLACING ANY DEAD VEGETATION AS SOON AS PRACTICABLE.
 - 8.) ALL SILT FENCES ARE TO BE REGULARLY INSPECTED AND REPAIRED AS NEEDED.
 - 9.) THE CONTRACTOR SHALL PROVIDE VEHICLE TRACKING CONTROL FACILITIES FOR EACH ENTRANCE/EXIT TO THE SITE. THE CONTRACTOR SHALL SUBMIT A PLAN WHICH WILL ASSURE USAGE OF THIS FACILITY BY ALL VEHICLES LEAVING THE SITE.
 - 10.) EROSION CONTROL MEASURES SHALL BE CHECKED AFTER EACH STORM EVENT AND REPAIRED WHEN NECESSARY.
 - 11.) CONTRACTOR SHALL MAINTAIN ALL TEMPORARY EROSION CONTROL FACILITIES IN GOOD WORKING ORDER UNTIL SUCH TIME AS PERMANENT FACILITIES ARE IN PLACE AND THE CONSTRUCTION MANAGER HAS APPROVED THEIR REMOVAL.
 - 12.) ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
 - 13.) THE EROSION CONTROL MEASURES OUTLINED ON THE PLAN ARE THE RESPONSIBILITY OF THE DEVELOPER TO MONITOR AND REPLACE, REGRADE AND REBUILD AS NECESSARY UNTIL VEGETATION IS ESTABLISHED.
 - 14.) MAXIMUM ACREAGE OPEN AT ANY GIVEN TIME IS TO BE 30 ACRES.

SCHEDULE OF ANTICIPATED CONSTRUCTION ACTIVITY:

1. INSTALL INITIAL BMP'S
2. INSPECTION OF INITIAL BMP'S BY COUNTY STAFF
3. PRECONSTRUCTION MEETING WITH COUNTY STAFF

BEFORE CONSTRUCTION UPON APPROVAL	ACTIVITY	COMPLETION	EROSION CONTROL
	ALL SITE ROADWAY GRADING AND UTILITY INSTALLATION	6 MONTHS	ALL SHOWN ON GRADING PLAN



HANNAH RIDGE AT FEATHERGRASS
FILING NO. 5, 6 & 7
OVERLOT GRADING AND EROSION CONTROL PLAN
DETAILS

DESIGNED BY: KRC SCALE: DATE: 10/12/18
 DRAWN BY: KC (H) 1"= N/A SHEET 5 OF 11
 CHECKED BY: (V) 1"= N/A JOB NO. 1116.05

48 HOURS BEFORE YOU DIG, CALL UTILITY LOCATORS
811
 UTILITY NOTIFICATION CENTER OF COLORADO
 IT'S THE LAW

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NO.	REVISION	DATE

REVIEW:
 PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF CLASSIC CONSULTING ENGINEERS AND SURVEYORS, LLC

KYLE R. CAMPBELL, COLORADO P.E. #29794 DATE

Markup Summary

Steve Kuehster (1)

Grading and
Erosion control
plans reviewed
under
Construction
drawing set.

Subject: text box
Page Label: 1
Author: Steve Kuehster
Date: 11/20/2018 9:27:13 AM
Color: ■

Grading and Erosion control plans reviewed under
Construction drawing set.