

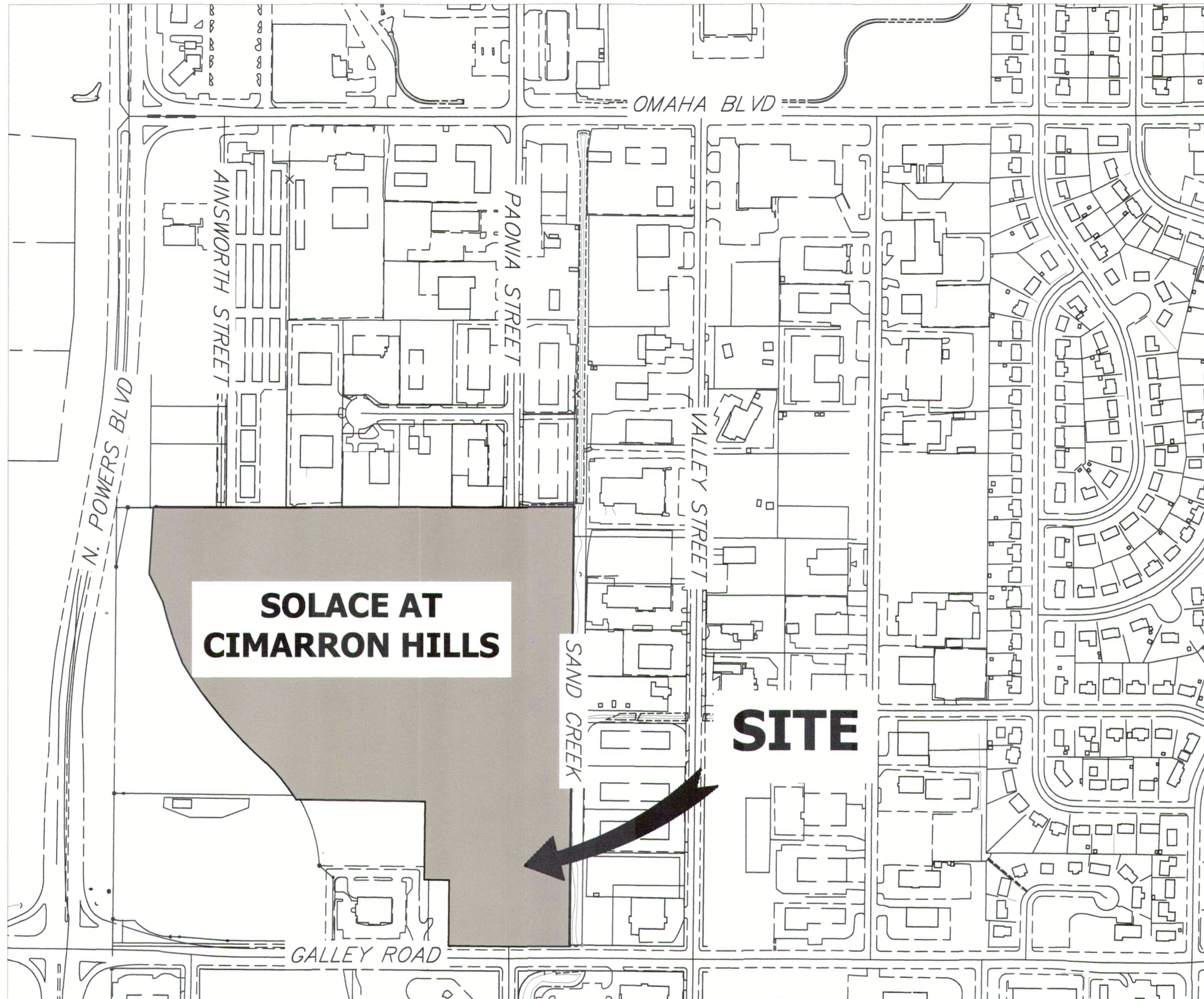
SOLACE APARTMENTS FILING NO. 1

A PORTION OF SECTION 7, TOWNSHIP 14 SOUTH, RANGE 65 WEST OF THE P.M.
EL PASO COUNTY, COLORADO

GRADING AND EROSION CONTROL PLANS

ABBREVIATIONS

AC	ACRE	FDP	FINAL DEVELOPMENT PLAN	PL	PROPERTY LINE
AD	ALGEBRAIC DIFFERENCE	FDR	FINAL DRAINAGE REPORT	PR	PROPOSED
AH	AHEAD	FES	FINISHED END SECTION	PRC	POINT OF REVERSE CURVATURE
ARCH	ARCHITECT	FG	FINISHED GRADE	PT	POINT OF TANGENCY
ASCE	AMERICAN SOCIETY OF CIVIL ENGINEERS	FH	FIRE HYDRANT	PV	PLUG VALVE
ASSY	ASSEMBLY	FL	FLOWLINE	PVC	POLYVINYL CHLORIDE
AVE	AVENUE	FLING	FLING	R	RADIUS
BB	BOX BASE	FO	FIBER OPTIC CABLE	RCP	REINFORCED CONCRETE PIPE
BK	BACK	GB	GRADE BREAK	RD	ROAD
BNDY	BOUNDARY	GE	GAS EASEMENT	ROW	RIGHT OF WAY
BOP	BOTTOM OF PIPE	GIS	GEOGRAPHIC INFORMATION SYSTEM	RT	RIGHT
BOV	BLOW OFF VALVE	GL	GAS LINE	S	SOUTH
BFV	BUTTERFLY VALVE	GPS	GLOBAL POSITIONING SYSTEM	STE	STEEL
BLVD	BOULEVARD	GV	GATE VALVE	SAN	SANITARY SEWER
BW	BOTTOM OF WALL	HC	HANDICAP	SF	SQUARE FEET
C&G	CURB & GUTTER	HDC	HIGH DEFLECTION COUPLING	ST	STREET
CATV	CABLE TELEVISION	HDPE	HIGH DENSITY POLYETHYLENE	STA	STATION
CB	CATCH BASIN	HGL	HYDRAULIC GRADE LINE	STM	STORM SEWER
CBC	CONCRETE BOX CULVERT	HOA	HOME OWNERS ASSOCIATION	SY	SQUARE YARD
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION	HP	HIGH POINT	SY-IN	SQUARE YARD INCH
CDS	CUL-DE-SAC	I	INLET	TB	THRUST BLOCK
CFS	CUBIC FEET PER SECOND	IE	IRRIGATION EASEMENT	TBC	TOP BACK OF CURB
CL	CENTER LINE	INT	INTERSECTION	TBW	TOP BACK OF WALK
CLOMR	CONDITIONAL LETTER OF MAP REVISION	INV	INVERT	TEL	TELEPHONE
CLR	CLEAR	IRR	IRRIGATION	TOA	TOP OF ASPHALT
CMP	CORRUGATED METAL PIPE	KB	KICK (THRUST) BLOCK	TOB	TOP OF BOX
CO	CLEAN OUT	LE	LANDSCAPE EASEMENT	TOC	TOP OF CURB OR CONCRETE
CONC	CONCRETE	LF	LINEAR FEET	TOF	TOP OF FOUNDATION
CR	CIRCLE	LN	LANE	TOP	TOP OF PIPE
CSP	CORRUGATED STEEL PIPE	LQ	LETTER OF MAP REVISION	TW	TOP OF WALL
CT	COURT	LS	LOW POINT	TYP	TYPICAL
CTRB	CONCRETE THRUST REDUCER	LT	LEFT	UDFCD	URBAN DRAINAGE AND FLOOD CONTROL DISTRICT
CY	CUBIC YARD	MAX	MAXIMUM	UE	UTILITY EASEMENT
DBPS	DRAINAGE BASIN PLANNING STUDY	MDDP	MASTER DEVELOPMENT	U&DE	UTILITY & DRAINAGE EASEMENT
DE	DRAINAGE EASEMENT	MDP	MASTER DEVELOPMENT	UGE	UNDERGROUND ELECTRIC
DIA	DIAMETER	MP	MANHOLE	VCP	VITRIFIED CLAY PIPE
DIP	DUCTILE IRON PIPE	N	NORTH	VPC	VERTICAL POINT OF CURVATURE
DR	DRIVE	NRCP	NON-REINFORCED CONCRETE PIPE	VPI	VERTICAL POINT OF INTERSECTION
DRC	DESIGN REVIEW COMMITTEE	ODP	OFFICIAL DEVELOPMENT PLAN	VPT	VERTICAL POINT OF TANGENCY
DU	DWELLING UNITS	OHE	OVERHEAD ELECTRIC	VTC	VEHICLE TRACKING CONTROL
E	EAST	OHU	OVERHEAD UTILITY	W	WEST
EGL	ENERGY GRADE LINE	PC	POINT OF CURVATURE	WL	WATER LINE
EL	ELEVATION	PCC	POINT OF COMPOUND CURVATURE	WM	WATER MAIN
ELEC	ELECTRIC	PCR	POINT OF CURB RETURN	WRD	WATER RESOURCES DEPARTMENT
EOA	EDGE OF ASPHALT	PDP	PRELIMINARY DEVELOPMENT PLAN	WS	WATER SURFACE
ESMT	EASEMENT	PE	PROFESSIONAL ENGINEER	WSE	WATER SURFACE ELEVATION
EST	ESTIMATE	PI	POINT OF INTERSECTION	WTR	WATER
EX	EXISTING	PKWY	PARKWAY	YR	YEAR



VICINITY MAP
SCALE: 1" = 300'

SHEET INDEX

1	COVER SHEET
2	GENERAL NOTES
3-4	INITIAL GRADING AND EROSION CONTROL PLANS
5-6	INTERIM GRADING AND EROSION CONTROL PLANS
7-8	FINAL GRADING AND EROSION CONTROL PLANS
9-12	GRADING AND EROSION CONTROL DETAILS
TOTAL	12

EL PASO COUNTY STATEMENT

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

APPROVED
Engineering Department
11/30/2021 11:19:17 AM
dndrikamp

COUNTY ENGINEER/ECM ADMINISTRATOR

EPC Planning & Community
Development Department

OWNER/DEVELOPER STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

Dane Olmstead
DANE OLMSTEAD

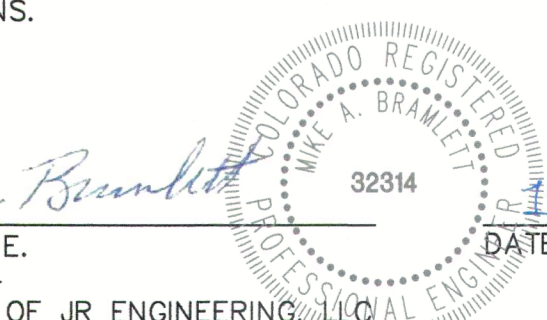
11/12/2021
DATE

CS POWERS & GALLEY LLC
510 S NEIL ST
CHAMPAIGN, IL 61820

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLANS.

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC



OWNER

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P~734.216.2577

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GEOTECHNICAL ENGINEER

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Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING ABOVE GROUND AND 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 ABOVE GROUND AND UNDERGROUND UTILITIES.

PCD FILE #: SF-20-032

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
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(734) 216-2577

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A Westman Company
Central 303-740-9888 • Colorado Springs 719-589-2888
Fort Collins 970-491-9888 • www.jrengineering.com

DATE	BY	REVISION	No.	1"=300'	H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
				N/A			11/11/21	JRM	JRM	

SOLACE APARTMENTS
FILING NO. 1
COVER SHEET

SHEET 1 OF 12

JOB NO. 25174.00

1. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PLANNING AND COMMUNITY DEVELOPMENT AND A PRECONSTRUCTION CONFERENCE IS HELD WITH PLANNING AND COMMUNITY DEVELOPMENT INSPECTIONS.
2. 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.
3. 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.
4. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) 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.
5. 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.
6. 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.
7. 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. 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.
8. 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.
9. 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.
10. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
11. 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 AS TO EXPOSE MINIMUM 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.
12. 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 LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
13. 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.
14. 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.
15. 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.
16. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
17. 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.
18. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY. LITTER IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES SHALL BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
19. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
20. 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.
21. 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 LABELS.
22. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE 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.
23. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
24. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
25. 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 (E.g., NEPDES, 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.
26. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
27. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
28. 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.
29. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CTL THOMPSON INCORPORATION (DECEMBER 2019) AND SHALL BE CONSIDERED A PART OF THESE PLANS.

PCD FILE #: SF-20-032

Feature	Symbol	Feature	Symbol
CHASE LINE		CHASE LINE	
MATCH LINE		MATCH LINE	
SECTION LINE		SECTION LINE	
BOUNDARY LINE		BOUNDARY LINE	
PROPERTY LINE		PROPERTY LINE	
EASEMENT LINE		EASEMENT LINE	
RIGHT OF WAY		RIGHT OF WAY	
R.O.W. A LINE		R.O.W. A LINE	
CENTERLINE		CENTERLINE	
CITY LIMITS		CITY LIMITS	
WIRE FENCE		WIRE FENCE	
CHAIN LINK FENCE		CHAIN LINK FENCE	
WOOD FENCE		WOOD FENCE	
MASONRY FENCE		MASONRY FENCE	
GUARDRAIL		GUARDRAIL	
CONC. BARRIER		CONC. BARRIER	
CABLE TV		CABLE TV	
ELECTRIC		ELECTRIC	
FIBER OPTIC		FIBER OPTIC	
GAS MAIN		GAS MAIN	
IRRIGATION MAIN		IRRIGATION MAIN	
OIL/PETRO. MAIN		OIL/PETRO. MAIN	
OVERHEAD UTILITY		OVERHEAD UTILITY	
SANITARY SEWER		SANITARY SEWER	
STORM DRAIN		STORM DRAIN	
TELEPHONE		TELEPHONE	
WATER MAIN		WATER MAIN	
RAW WATER LINE		RAW WATER LINE	
SWALE/WATERWAY FLOWLINE		SWALE/WATERWAY FLOWLINE	
DIVERSION DITCH		DIVERSION DITCH	
DIVERSION CHANNEL		DIVERSION CHANNEL	
MAJOR DRAINAGE BASIN		MAJOR DRAINAGE BASIN	
MINOR DRAINAGE BASIN		MINOR DRAINAGE BASIN	
TOP OF SLOPE		TOP OF SLOPE	
TOE OF SLOPE		TOE OF SLOPE	
EDGE OF WATER		EDGE OF WATER	
INDEX CONTOUR		INDEX CONTOUR	
INTERMEDIATE CONTOUR		INTERMEDIATE CONTOUR	
DEPRESSION CONT. (INDEX)		DEPRESSION CONT. (INDEX)	
DEPRESSION CONT. (INTER)		DEPRESSION CONT. (INTER)	
TOP OF CUTS		TOP OF CUTS	
TOE OF FILLS		TOE OF FILLS	
CUT AND FILL LINE		CUT AND FILL LINE	
SILT FENCE		SILT FENCE	
100 YEAR FLOODPLAIN		100 YEAR FLOODPLAIN	
500 YEAR FLOODPLAIN		500 YEAR FLOODPLAIN	
FLOODWAY		FLOODWAY	
BASE FLOOD ELEVATION		BASE FLOOD ELEVATION	
EDGE OF WETLANDS		EDGE OF WETLANDS	
STONE WALL		STONE WALL	
STORMWATER FLOW ARROWS		STORMWATER FLOW ARROWS	

<i>STORM SEWER</i>		
MANHOLE	⊙	●
STORM INLET		■
AREA INLET - SQUARE	□	
AREA INLET - ROUND	○	
FLARED END SECTION	▷	◁
RIPRAP		
 <i>SANITARY SEWER</i>		
LINE MARKER	<i>Mkr San</i> ∇	
SERVICE MARKER	△	
CLEAN-OUT	○	—
MANHOLE W/ DIRECTIONAL FLOW ARROW	⊙↻	●↻
 <i>WATER LINE</i>		
LINE MARKER	<i>Mkr W</i> ∇	
SERVICE MARKER	△	
FIRE HYDRANT	⊕	●
FIRE CONNECTION		⌘
MANHOLE	⊙	●
BEND		⌵
BLOW-OFF VALVE	⊗	⌵
WELL	⊙WELL	●WELL
METER	⊙	●
VALVE	⊗	⊗
REDUCER		⌵
THRUST BLOCK		⌵
CROSS		⊕
PLUG W/ THRUST BLOCK	⌵	⌵
TEE		⊕
REVERSE ANCHOR		⌵
ANODE		⊙
AIR & VACUUM VALVE ASSEMBLY		⊕
TRANSMISSION BLOW-OFF ASSEMBLY		⊕
 <i>GAS LINE</i>		
MARKER	<i>Mkr G</i> ∇	
SERVICE MARKER	△	
METER	⊙	●
VALVE	⊗	⊗
PLUG	⌵	⌵
TEE		⊕
 <i>DRY UTILITIES</i>		
CABLE TV MARKER	<i>Mkr TV</i> ∇	
CABLE TELEVISION PEDESTAL	▢	
ELECTRIC MARKER	<i>Mkr E</i> ∇	
ELECTRIC SERVICE MARKER	△	
ELECTRICAL PEDESTAL	▢	
ELECTRICAL METER	⊙	●
ELECTRICAL MANHOLE	⊙	●
FIBER-OPTIC MARKER	<i>Mkr FO</i> ∇	
IRRIGATION PEDESTAL	▢	
TELEPHONE MARKER	<i>Mkr T</i> ∇	
TELEPHONE PEDESTAL	▢	
TELEPHONE MANHOLE	⊙	●
UTILITY POLE	⌵	⌵
GUY ANCHOR	⌵	⌵
GUY POLE	⌵	⌵


CHECK DAM	(CD)	
CONSTRUCTION ROAD STABILIZATION	(CRS)	
CURB SOCK INLET PROTECTION	(CS)	
CONCRETE WASHOUT AREA	(CWA)	
DIVERSION DITCH AND DIKE, TEMPORARY	(DD)	
DIVERSION CHANNEL, TEMPORARY	(DV)	
DEWATERING	(DW)	
EROSION CONTROL BLANKET	(ECB)	
INLET FILTER	(IF)	
INLET PROTECTION	(IP)	
MULCHING	(MU)	
OUTLET PROTECTION	(OP)	
PAVED FLUME	(PF)	
PERMANENT SEEDING	(PS)	
REINFORCED CONCRETE DAM	(RCD)	
ROUGH CUT STREET CONTROL	(RCS)	
SEDIMENT BASIN	(SB)	
SEDIMENT CONTROL LOG	(SCL)	
SILT FENCE	(SF)	
SURFACE ROUGHENING	(SR)	
STABILIZED STAGING AREA	(SSA)	
SEDIMENT TRAP	(ST)	
STRAW BALE BARRIER	(STB)	
TERRACING	(TER)	
TEMPORARY SEEDING	(TS)	
TEMPORARY STREAM CROSSING CULVERT/BRIDGE	(TSC C)	
TEMPORARY STREAM CROSSING FORD TYPE	(TSC F)	
TEMPORARY SLOPE DRAIN	(TSD)	
VEHICLE TRACKING CONTROL	(VTC)	
VEHICLE TRACKING CONTROL WITH WASH RACK	(WR)	
CONSTRUCTION MARKER	(CM)	
LIMITS OF CONSTRUCTION	(LOC)	

ENGINEER'S STATEMENT

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING, LLC

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, JR ENGINEER APPROVES THEIR USE ONLY FOR THE PURPOSE DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR
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CHAMPAIGN, IL 61820
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 **J·R ENGINEERING**
A Westrian Company

Centennial 303-740-9983 • Colorado Springs 719-592-2583
Fort Collins 970-491-9888 • www.jrengineering.com

	H-SCALE	N/A	No.	REVISION	BY	DATE
	V-SCALE	N/A				
	DATE	11/11/21				
	DESIGNED BY	JRM				
	DRAWN BY	JRM				
	CHECKED BY					

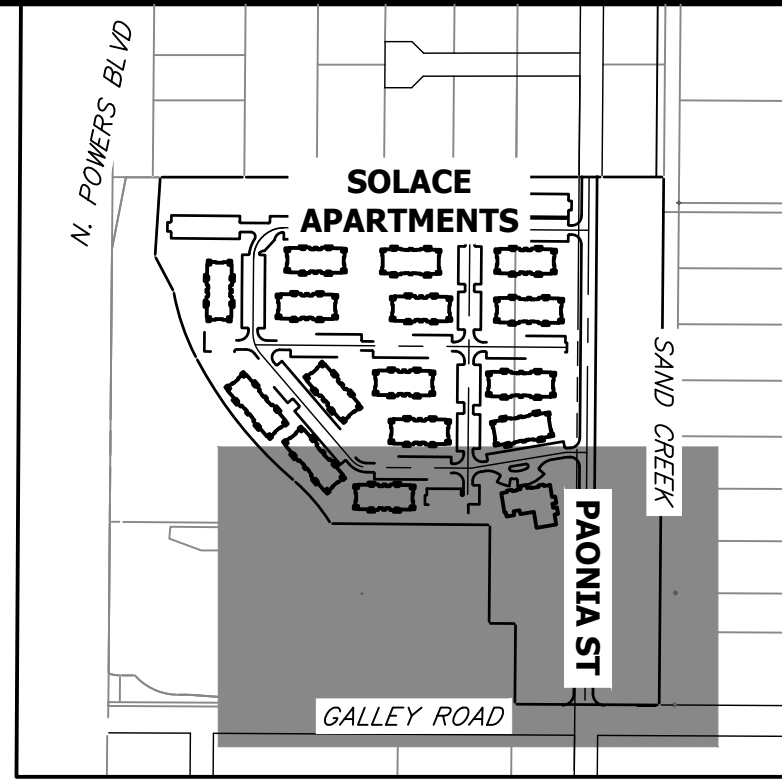
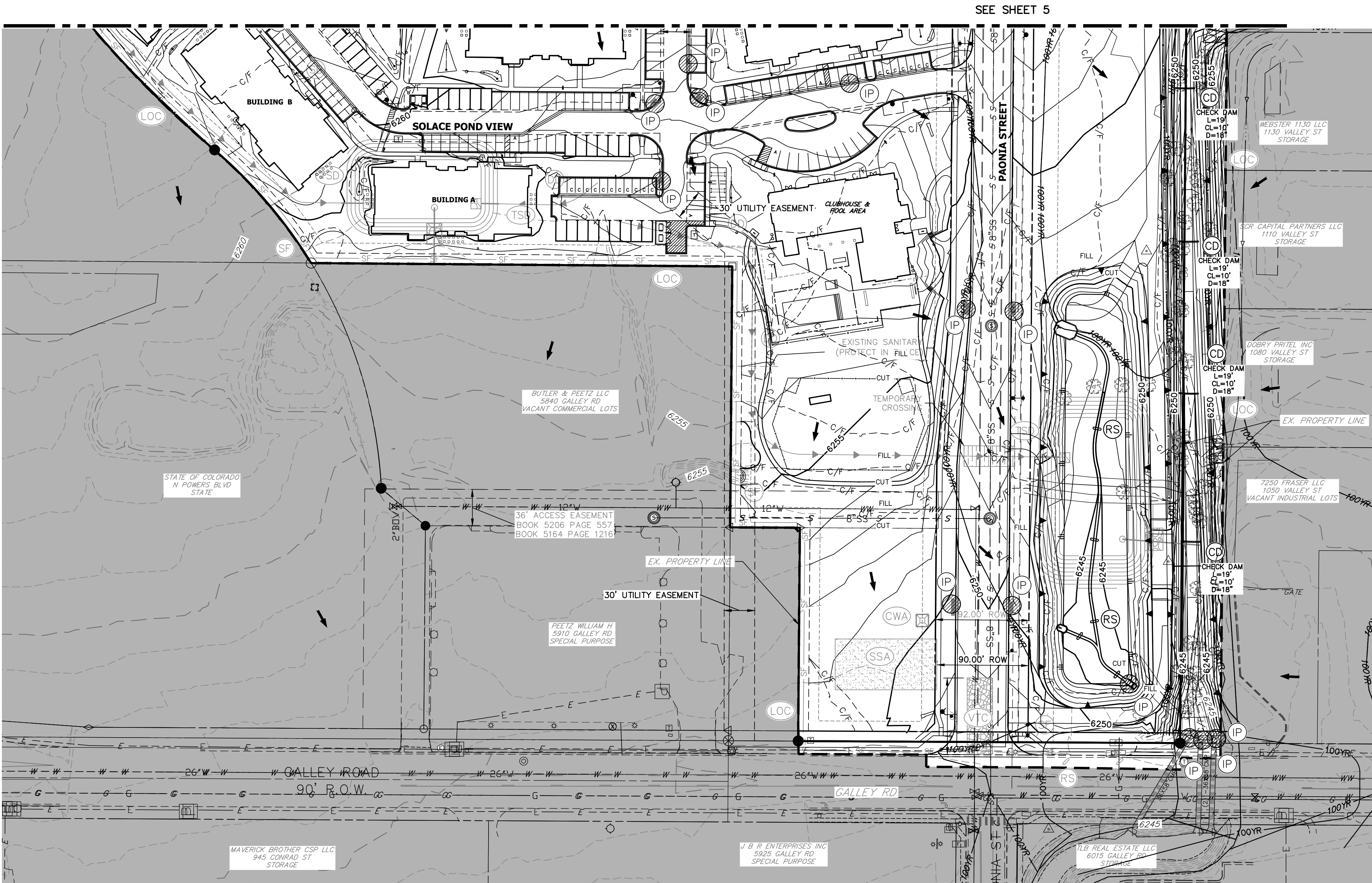
SOLACE APARTMENTS FILING
 NO. 1
 GRADING & EROSION
 CONTROL DETAILS & LEGEND

SHEET 2 OF 12

JOB NO. 25174.00



EPC 11/30/21



LEGEND

SEDIMENT BASIN	(SB)		TOE
SILT FENCE	(SF)		TOP
CONSTRUCTION FENCE	(CF)		
STABILIZED STAGING AREA	(SSA)		
CONSTRUCTION MARKER	(CM)		
VEHICLE TRACKING CONTROL	(VTC)		
TEMPORARY STOCK PILE	(TSP)		
EROSION CONTROL BLANKET	(ECB)		
INLET PROTECTION	(IP)		
OUTLET PROTECTION	(OP)		
DIVERSION DITCH AND DIKE, TEMPORARY	(DD)		
CUT AND FILL LINE			C/F
LIMITS OF CONSTRUCTION/DISTURBANCE	(LOC)		
CONCRETE WASHOUT AREA	(CWA)		
SEEDING & MULCHING & SURFACE ROUGHENING	(SM) (SR)		
TEMPORARY SLOPE DRAIN	(TSD)		
CHECK DAM	(CD)		
ROCK SOCKS	(RS)		
STORMWATER FLOW ARROWS			

BMP PHASING

INITIAL:
1) INSTALL VTC
2) INSTALL CWA
3) ESTABLISH SSA
4) INSTALL CONSTRUCTION MARKERS
5) INSTALL SILT FENCE
6) INSTALL SEDIMENT BASINS
7) INSTALL DIVERSION DITCHES

INTERIM:
1) LOCATE/INSTALL TEMPORARY STOCKPILE
2) MAINTAIN ALL BMPs
3) INSTALL RS
4) INSTALL INLET AND OUTLET PROTECTION

FINAL:
1) INSTALL MULCH AND PERMANENT SEEDING IN ALL DISTURBED AREAS
2) REMOVE SILT FENCE AFTER STABILIZED

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLANS.

Mike A. Bramlett, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING

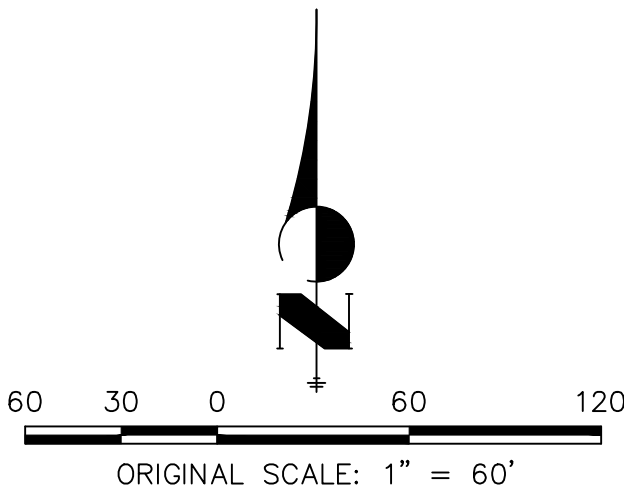
DATE 11/11/21

NOTES

1. REFER TO THE STORMWATER MANAGEMENT PLAN (SWMP) FOR A DETAILED DESCRIPTION OF THE MAINTENANCE PROGRAMS FOR EROSION CONTROL FACILITIES.
2. ALL DISTURBED AREAS NOT TO BE PAVED SHALL BE PERMANENTLY SEEDED PER THE PAWNEE BUTTES SEED INC - "LOW GROW NATIVE MIX" OR APPROVED EQUAL. SEE SHEET 8 FOR SEED MIX DETAILS.
3. P.I.E = PUBLIC IMPROVEMENTS EASEMENT
4. THIS PROJECT DOES NOT ANTICIPATE THE USE OF BATCH PLANTS ONSITE.
5. EXISTING VEGETATION ON-SITE IS NATIVE MEADOW GRASSES W/ APPROXIMATELY 70% COVERAGE.



Know what's below.
Call before you dig.



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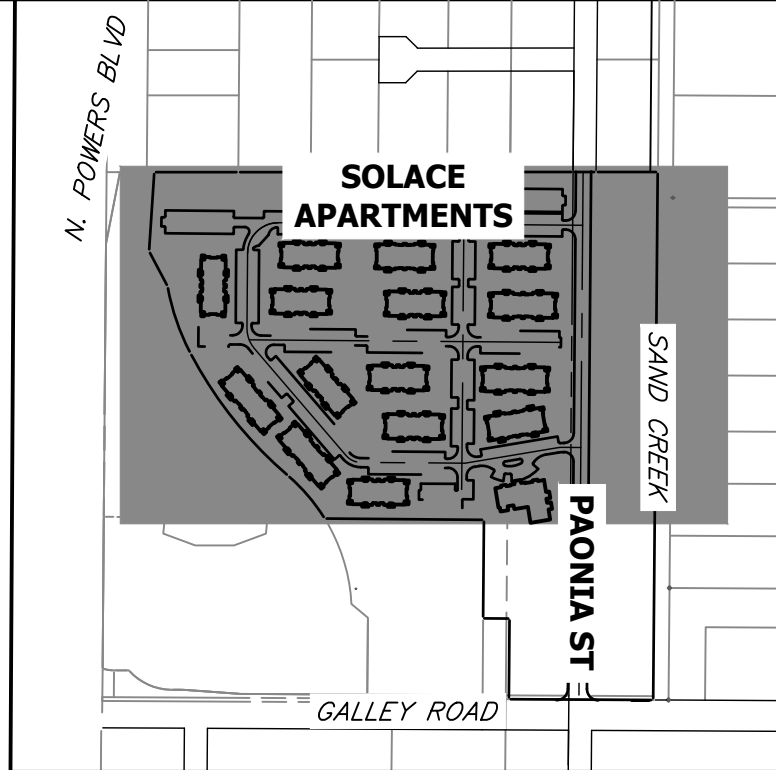
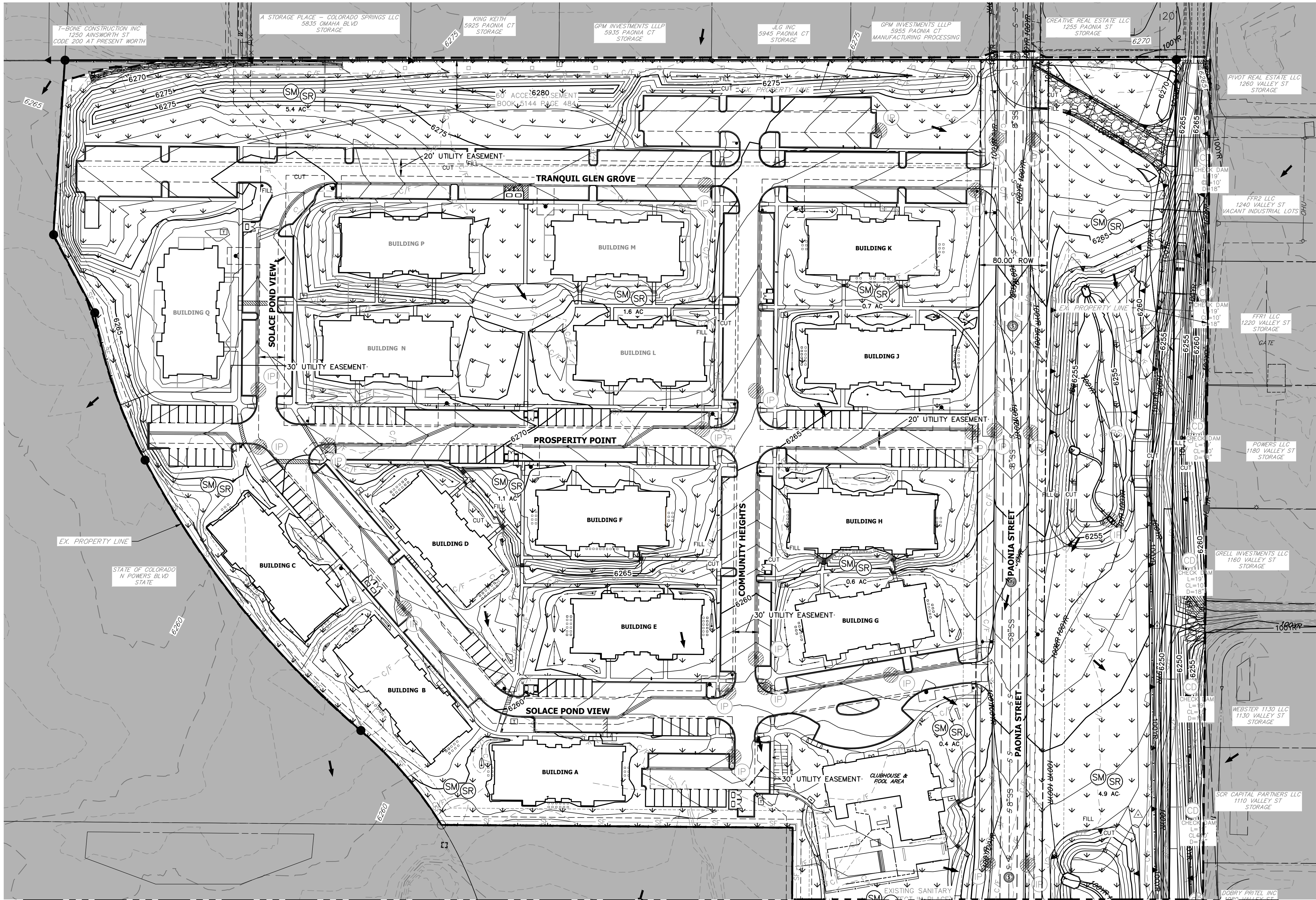
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No.	REVISION	BY	DATE

H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
1"=60'	N/A	11/11/21	JRM	JRM	JRM

SOLACE APARTMENTS FILING NO. 1
INTERIM GRADING AND EROSION CONTROL PLANS



LEGEND	
SEDIMENT BASIN	(SB) TOE TOP
SILT FENCE	(SF) SF
CONSTRUCTION FENCE	(CF) CF
STABILIZED STAGING AREA	(SSA) [Pattern]
CONSTRUCTION MARKER	(CM) [Symbol]
VEHICLE TRACKING CONTROL	(VTC) [Pattern]
TEMPORARY STOCK PILE	(TSP) [Symbol]
EROSION CONTROL BLANKET	(ECB) [Pattern]
INLET PROTECTION	(IP) [Symbol]
OUTLET PROTECTION	(OP) [Symbol]
DIVERSION DITCH AND DIKE, TEMPORARY	(DD) [Symbol]
CUT AND FILL LINE	--- C/F --- C/F ---
LIMITS OF CONSTRUCTION/DISTURBANCE	(LOC) [Symbol]
CONCRETE WASHOUT AREA	(CWA) [Symbol]
SEEDING & MULCHING & SURFACE ROUGHENING	(SM) (SR) [Symbol]
TEMPORARY SLOPE DRAIN	(TSD) [Symbol]
CHECK DAM	(CD) [Symbol]
ROCK SOCKS	(RS) [Symbol]
STORMWATER FLOW ARROWS	[Arrow]
PROPERTY LINES	---

BMP PHASING

- INITIAL:
- 1) INSTALL VTC
 - 2) INSTALL CWA
 - 3) ESTABLISH SSA
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- INTERIM:
- 1) LOCATE/INSTALL TEMPORARY STOCKPILE
 - 2) MAINTAIN ALL BMPs
 - 3) INSTALL RS
 - 4) INSTALL INLET AND OUTLET PROTECTION
- FINAL:
- 1) INSTALL MULCH AND PERMANENT SEEDING IN ALL DISTURBED AREAS
 - 2) REMOVE SILT FENCE AFTER STABILIZED

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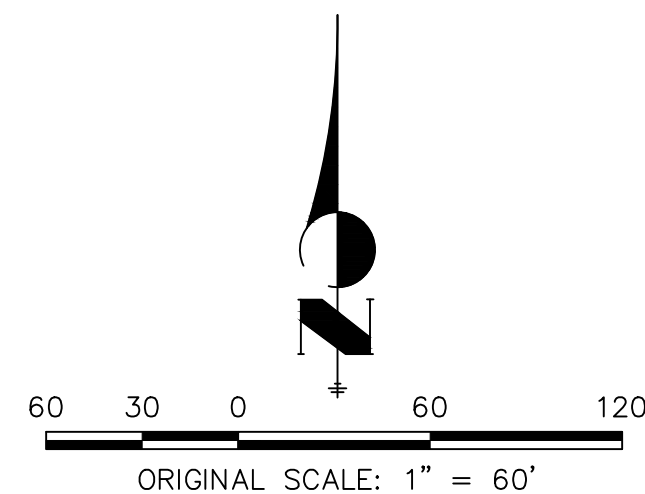
32314
11/11/21
DATE



- NOTES**
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 4. THIS PROJECT DOES NOT ANTICIPATE THE USE OF BATCH PLANTS ON-SITE.
 5. EXISTING VEGETATION ON-SITE IS NATIVE MEADOW GRASSES W/ APPROXIMATELY 70% COVERAGE.

811
Know what's below.
Call before you dig.

PREPARED FOR		BY		DATE	
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CHAMPAIGN, IL 61820					
OFFICE PHONE (734) 216-2577					
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SOLACE APARTMENTS FILING NO. 1		H-SCALE 1"=60'		V-SCALE N/A	
FINAL GRADING AND EROSION CONTROL PLANS		DATE 11/11/21		DESIGNED BY JRM	
				DRAWN BY JRM	
				CHECKED BY	
SHEET 7 OF 12					
JOB NO. 25174.00					



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EPC 11/30/21



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SILT FENCE	(SF) ——— SF ———	
CONSTRUCTION FENCE	(CF) ——— CF ———	
STABILIZED STAGING AREA	(SSA)	
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DIVERSION DITCH AND DIKE, TEMPORARY	(DD) ———→ ———→	
CUT AND FILL LINE	————— C/F ——— C/F ———	
LIMITS OF CONSTRUCTION/DISTURBANCE		
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CHECK DAM	(CD) ————	
ROCK SOCKS	(RS)	
STORMWATER FLOW ARROWS		
PROPERTY LINES	————— - - - - -	

INITIAL:

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No.	REVISION	BY	DATE
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H-SCALE	1"=60'
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SOLACE APARTMENTS FILING
NO. 1

SHEET	8	OF	12
JOB NO.	25174.00		

RECOMMENDED ANNUAL GRASSES				
SPECIES (COMMON NAME)	GROWTH SEASON	SEEDING DATE	POUNDS OF PURE LIVE SEED (PLS) (PLS/ACRE)	PLANTING DEPTH (INCHES)
1. OATS	COOL	MARCH 16 - APRIL 30	35-50	1-2
2. SPRING WHEAT	COOL	MARCH 16 - APRIL 30	25-35	1-2
3. SPRING BARLEY	COOL	MARCH 16 - APRIL 30	25-35	1-2
4. ANNUAL RYEGRASS	COOL	MARCH 16 - JUNE 30	10-15	1/2
5. MULLET	WARM	MAY 16 - JULY 15	3-15	1/2-3/4
6. SUDANGRASS	WARM	MAY 16 - JULY 15	5-10	1/2-3/4
7. SORGHUM	WARM	MAY 16 - JULY 15	5-10	1/2-3/4
8. WINTER WHEAT	COOL	SEPTEMBER 1 - 30	20-35	1-2
9. WINTER BARLEY	COOL	SEPTEMBER 1 - 30	20-35	1-2
10. WINTER RYE	COOL	SEPTEMBER 1 - 30	20-35	1-2
11. TRITICALE	COOL	SEPTEMBER 1 - 30	25-40	1-2

THIS TABLE WAS TAKEN FROM UDFCD FOR RECOMMENDED ANNUAL GRASSES FOR THE DENVER METROPOLITAN AREA. THIS TABLE MAY BE USED UNLESS A SITE-SPECIFIC SEED MIX IS REQUESTED AND APPROVED.

TABLE TS-1

TEMPORARY SEEDING NOTES

INSTALLATION REQUIREMENTS	MAINTENANCE REQUIREMENTS
<ol style="list-style-type: none"> 1. DISTURBED AREAS ARE TO BE SEEDDED WITHIN 21 DAYS AFTER CONSTRUCTION ACTIVITY OR GRADING ENDS IF SEASON ALLOWS. 2. IF NECESSARY, SOIL IS TO BE CONDITIONED FOR PLANT GROWTH BY APPLYING TOPSOIL, FERTILIZER, OR LIME. 3. SOIL IS TO BE TILLED IMMEDIATELY PRIOR TO APPLYING SEEDS. COMPACT SOILS ESPECIALLY NEED TO BE LOOSENED. 4. SEEDBED DEPTH IS TO BE 4 INCHES FOR SLOPES FLATTER THAN 2:1, AND 1 INCH FOR SLOPES STEEPER THAN 2:1. 5. ANNUAL GRASSES LISTED IN TABLE TS-1 ARE TO BE USED FOR TEMPORARY SEEDING. SEED MIXES ARE NOT TO CONTAIN ANY NOXIOUS WEED SEEDS INCLUDING RUSSIAN OR CANADIAN THISTLE, KNAWEED, PURPLE LOOSESTRIPE, EUROPEAN BINDWEED, JOHNSON GRASS, AND LEAFY SPURGE. 6. TABLE TS-1 ALSO PROVIDES REQUIREMENTS FOR SEEDING RATES, SEEDING DATES, AND PLANTING DEPTHS FOR THE APPROVED TYPES OF ANNUAL GRASSES. 7. SEEDING IS TO BE APPLIED USING MECHANICAL TYPE DRILLS EXCEPT WHERE SLOPES ARE STEEP OR ACCESS IS LIMITED THEN HYDRAULIC SEEDING MAY BE USED. 8. ALL SEEDDED AREAS ARE TO BE MULCHED (SEE FACTSHEET ON MULCHING). 9. IF HYDRAULIC SEEDING IS USED THEN HYDRAULIC MULCHING SHALL BE DONE SEPARATELY TO AVOID SEEDS BECOMING ENCAPSULATED IN THE MULCH. 	<ol style="list-style-type: none"> 1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL SEEDDED AREAS TO ENSURE GROWTH. 2. AREAS WHERE GROWTH IS NOT OCCURRING QUICKLY OR THE MULCH HAS BEEN REMOVED SHALL BE RE-SEEDDED AS SOON AS POSSIBLE AND RE-MULCHED IF NEEDED. 3. SEEDDED AREAS ARE NOT TO BE DRIVEN OVER WITH CONSTRUCTION EQUIPMENT OR VEHICLES.

City of Colorado Springs
Stormwater Quality

Figure TS-1
Temporary Seeding
Construction Detail and Maintenance Requirements

Case 3
At the top of a steep slope.

Case 4
Downstream of a slope drain (see slope drain fact sheet)

Case 1
Placed on perimeter of site
Drainage area <1.0 AC
See Table TSW-1

Case 2
Placed on perimeter of site
Drainage area >1.0 AC
See Table TSW-1

Sediment Basin

Temporary Swale, Typical

Construction Site Perimeter

5500

5510

Table TSW-1

Temporary Swale Used as Perimeter Control	Case 1 DA < 1.0 AC	Case 2 DA > 1.0 AC
Continuous Grade	OK ⁽¹⁾	OK ⁽¹⁾
Area of Concentrated Flow	NO ⁽³⁾	NO ⁽²⁾

(1) Silt Fence or Straw Bale Barrier may be used as alternative to a Temporary Swale.

(2) With Temporary Swales Sediment Basin is required for concentrated flow from drainage areas > 1.0 AC.

(3) Check Dam is required at concentrated flow for drainage areas >1.0 acres.

City of Colorado Springs
Storm Water Quality

Figure TSW-1
Temporary Swale
Application Examples

DEV/M/153722.CS.CM/P/TSP-19-199

3-49

<p>A. EXCAVATED SWALE</p> <p>B. SWALE FORMED BY BERM</p> <p>C. SWALE FORMED BY CUT AND FILL</p>	<p>TEMPORARY SWALE</p> <p>NTS</p> <p>TEMPORARY SWALE NOTES</p> <table> <tr> <th>INSTALLATION REQUIREMENTS</th><th>MAINTENANCE REQUIREMENTS</th></tr> <tr> <td> <ol style="list-style-type: none"> 1. TEMPORARY SWALES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES. 2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT. 3. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT. 4. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698. 5. SWALES WITH SLOPE > 2% SHALL BE LINED, SEE FIGURE TSW-3. 6. SWALES ARE TO DRAIN INTO A SEDIMENT BASIN OR OTHER STABILIZED OUTLET. 7. Z SHALL BE 3 OR GREATER. </td><td> <ol style="list-style-type: none"> 1. CONTRACTOR SHALL INSPECT SWALES AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. 2. SWALES SHALL BE ROUTINELY CLEARED OF ANY DEBRIS OR ACCUMULATION OF SEDIMENT. 3. ERODED SLOPES OR DAMAGED LININGS SHALL IMMEDIATELY BE REPAIRED. 4. TEMPORARY SWALES SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE SITE AREA IS PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY. </td></tr> </table> <p>City of Colorado Springs Stormwater Quality</p> <p>Figure TSW-2 Temporary Swale Construction Detail and Maintenance Requirements</p>	INSTALLATION REQUIREMENTS	MAINTENANCE REQUIREMENTS	<ol style="list-style-type: none"> 1. TEMPORARY SWALES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES. 2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT. 3. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT. 4. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698. 5. SWALES WITH SLOPE > 2% SHALL BE LINED, SEE FIGURE TSW-3. 6. SWALES ARE TO DRAIN INTO A SEDIMENT BASIN OR OTHER STABILIZED OUTLET. 7. Z SHALL BE 3 OR GREATER. 	<ol style="list-style-type: none"> 1. CONTRACTOR SHALL INSPECT SWALES AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. 2. SWALES SHALL BE ROUTINELY CLEARED OF ANY DEBRIS OR ACCUMULATION OF SEDIMENT. 3. ERODED SLOPES OR DAMAGED LININGS SHALL IMMEDIATELY BE REPAIRED. 4. TEMPORARY SWALES SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE SITE AREA IS PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY.
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<p>A. EROSION CONTROL FABRIC 2% SLOPE < 5% AND VELOCITY < 8 FPS</p> <p>B. RIPRAP SLOPE < 5% OR VELOCITY > 8 FPS</p>	<p>SWALE LINING</p> <p>NTS</p> <p>SWALE LINING NOTES</p> <table> <tr> <th>INSTALLATION REQUIREMENTS</th><th>MAINTENANCE REQUIREMENTS</th></tr> <tr> <td> <ol style="list-style-type: none"> 1. REFER TO THE EROSION CONTROL BLANKETS FACTSHEET FOR PROPER INSTALLATION OF EROSION CONTROL FABRIC LINING. 2. SWALES WITH EASILY ERODIBLE SOILS AND SLOPES LESS THAN 2%, SHALL BE LINED WITH EROSION CONTROL FABRIC. 3. VELOCITIES FOR EROSION CONTROL FABRICS SHALL NOT EXCEED 8 FPS. SWALES WITH VELOCITIES GREATER THAN 8 FPS SHALL BE LINED WITH RIP RAP. </td><td> <ol style="list-style-type: none"> 1. CONTRACTOR SHALL INSPECT SWALE LININGS AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. 2. DAMAGED LININGS SHALL IMMEDIATELY BE REPAIRED. 3. REFER TO THE EROSION CONTROL BLANKETS FACTSHEET FOR PROPER MAINTENANCE. 4. DISPLACED RIPRAP OR COARSE AGGREGATE IS TO BE REPLACED AS SOON AS POSSIBLE. 5. SWALE LININGS ARE TO REMAIN IN PLACE AND BE PROPERLY MAINTAINED UNTIL THE TEMPORARY SWALE IS REMOVED. </td></tr> </table> <p>City of Colorado Springs Stormwater Quality</p> <p>Figure TSW-3 Swale Linings Construction Detail and Maintenance</p>	INSTALLATION REQUIREMENTS	MAINTENANCE REQUIREMENTS	<ol style="list-style-type: none"> 1. REFER TO THE EROSION CONTROL BLANKETS FACTSHEET FOR PROPER INSTALLATION OF EROSION CONTROL FABRIC LINING. 2. SWALES WITH EASILY ERODIBLE SOILS AND SLOPES LESS THAN 2%, SHALL BE LINED WITH EROSION CONTROL FABRIC. 3. VELOCITIES FOR EROSION CONTROL FABRICS SHALL NOT EXCEED 8 FPS. SWALES WITH VELOCITIES GREATER THAN 8 FPS SHALL BE LINED WITH RIP RAP. 	<ol style="list-style-type: none"> 1. CONTRACTOR SHALL INSPECT SWALE LININGS AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. 2. DAMAGED LININGS SHALL IMMEDIATELY BE REPAIRED. 3. REFER TO THE EROSION CONTROL BLANKETS FACTSHEET FOR PROPER MAINTENANCE. 4. DISPLACED RIPRAP OR COARSE AGGREGATE IS TO BE REPLACED AS SOON AS POSSIBLE. 5. SWALE LININGS ARE TO REMAIN IN PLACE AND BE PROPERLY MAINTAINED UNTIL THE TEMPORARY SWALE IS REMOVED.
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Table VT-1

	Case 1	Case 2
Gravel Thickness	9"	3"
Filter Fabric	YES	NO

CASE 1
Construction
Entrance

City of Colorado Springs
Storm Water Quality

Figure VT-1
Vehicle Tracking
Application Examples

DEM/M/153722 CS CS/PG/V-1-19-69

3-53

<p>PLAN</p> <p>SECTION</p>	<p>VEHICLE TRACKING</p> <p>NTS</p> <p>VEHICLE TRACKING NOTES</p> <table> <tr> <th>INSTALLATION REQUIREMENTS</th><th>MAINTENANCE REQUIREMENTS</th></tr> <tr> <td> <ol style="list-style-type: none"> 1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING. 2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP. 3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE. 4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED. 5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP. </td><td> <ol style="list-style-type: none"> 1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS. 2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY. 3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS. 4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY. 5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION. </td></tr> </table> <p>City of Colorado Springs Stormwater Quality</p> <p>Figure VT-2 Vehicle Tracking Application Examples</p>	INSTALLATION REQUIREMENTS	MAINTENANCE REQUIREMENTS	<ol style="list-style-type: none"> 1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING. 2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP. 3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE. 4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED. 5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP. 	<ol style="list-style-type: none"> 1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS. 2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY. 3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS. 4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY. 5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.
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EC-8 Temporary Outlet Protection (TOP)

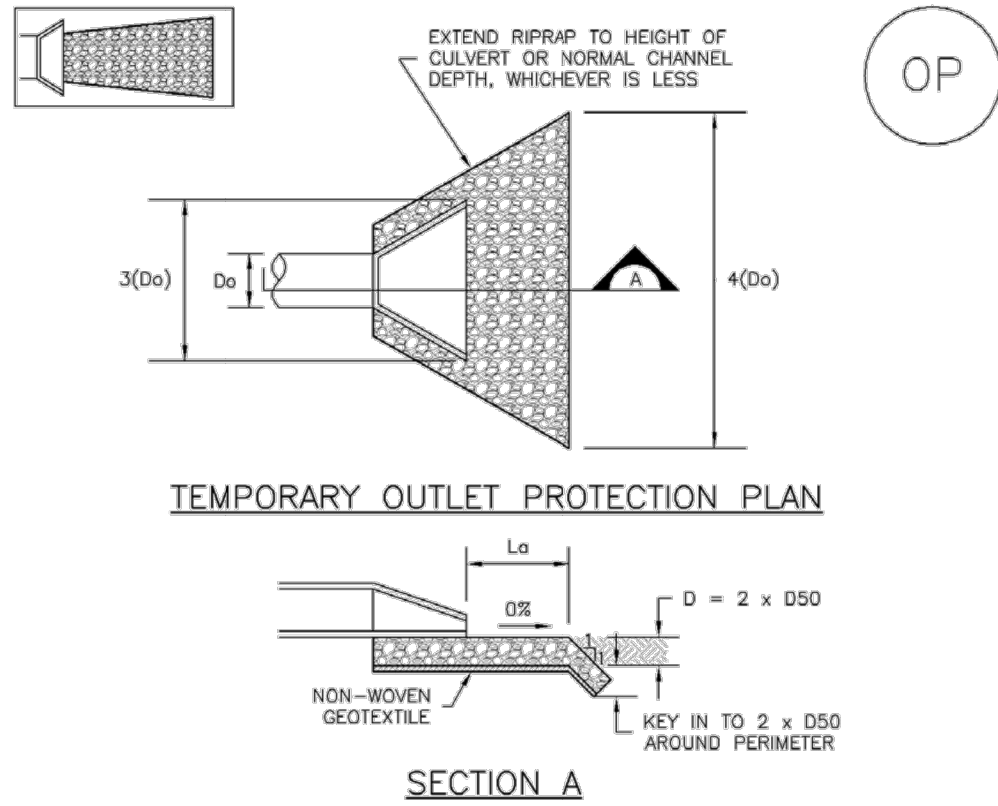


TABLE OP-1. TEMPORARY OUTLET PROTECTION SIZING TABLE			
PIPE DIAMETER, D _o (INCHES)	DISCHARGE, Q (CFS)	APRON LENGTH, L _a (FT)	RIPRAP D ₅₀ DIAMETER MIN (INCHES)
8	2.5 5	5 10	4 6
12	5 10	10 15	6 8
18	10 20 30	10 15 23	6 9 12
24	30 40 50 60	16 26 28 30	9 9 12 16

OP-1. TEMPORARY OUTLET PROTECTION

TOP-2 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 November 2010

Temporary Outlet Protection (TOP) EC-8

TEMPORARY OUTLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
 - LOCATION OF OUTLET PROTECTION.
 - DIMENSIONS OF OUTLET PROTECTION.
2. DETAIL IS INTENDED FOR PIPES WITH SLOPE < 10%. ADDITIONAL EVALUATION OF RIPRAP SIZING AND OUTLET PROTECTION DIMENSIONS REQUIRED FOR STEEPER SLOPES.
3. TEMPORARY OUTLET PROTECTION INFORMATION IS FOR OUTLETS INTENDED TO BE UTILIZED LESS THAN 2 YEARS.

TEMPORARY OUTLET PROTECTION INSPECTION AND 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.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM AURORA, COLORADO AND PREVIOUS VERSION OF VOLUME 3, NOT AVAILABLE IN AUTOCAD)

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

EPC 11/30/21

ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT

MIKE A. BRAMLETT, P.E.
COLORADO P.E. 32314
FOR AND ON BEHALF OF JR ENGINEERING

DATE 11/11/21

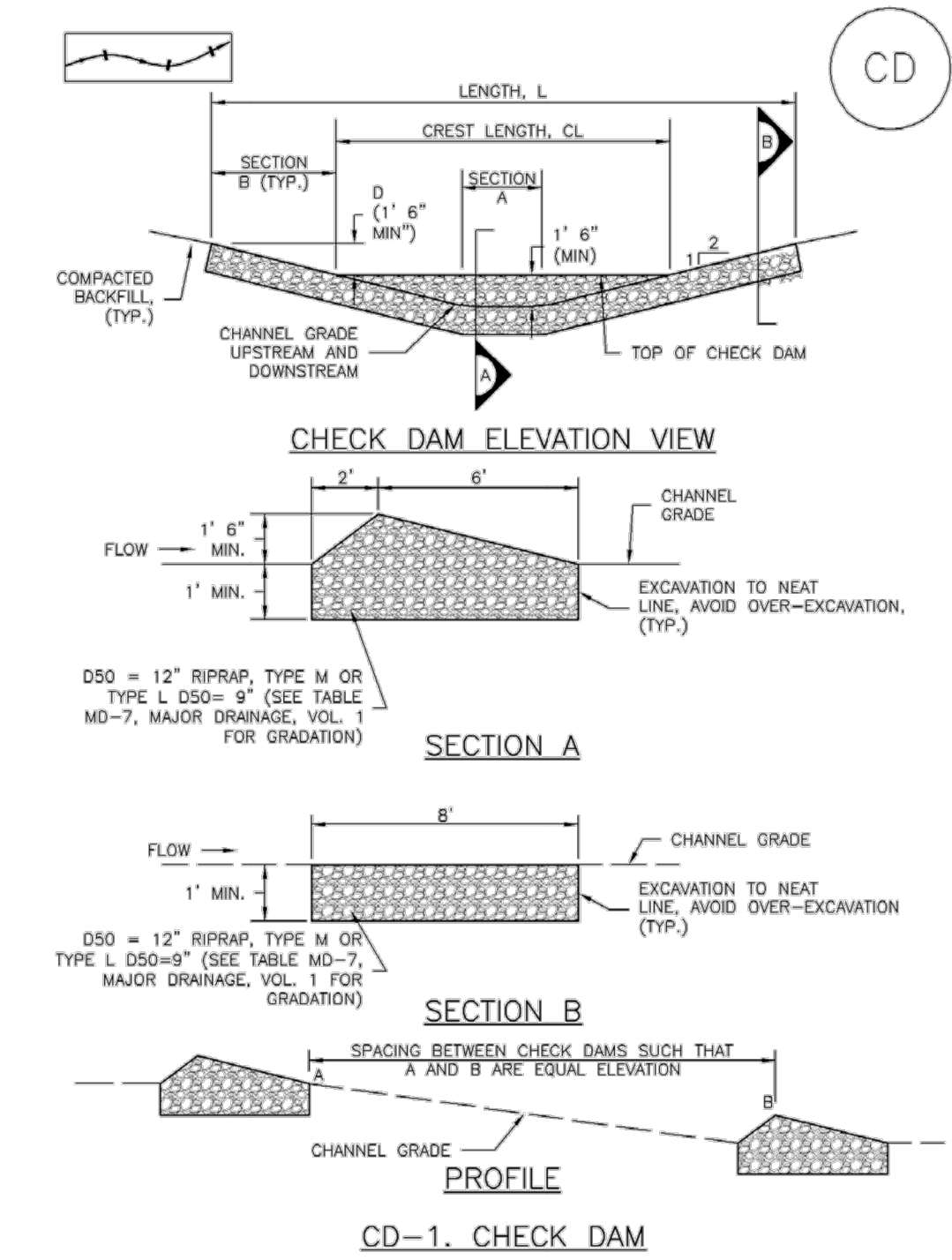
BY	DATE	REVISION	No.	N/A	N/A	H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY
								11/11/21	JRM	JRM	
SOLACE APARTMENTS FILING NO. 1 GRADING AND EROSION CONTROL DETAILS											
SHEET 10 OF 12											
JOB NO. 25174.00											



UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

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

CHECK DAM INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF CHECK DAMS.
 - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
 - LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).
- CHECK DAMS INDICATED ON INITIAL SWMP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES.
- RIPRAP UTILIZED FOR CHECK DAMS SHOULD BE OF APPROPRIATE SIZE FOR THE APPLICATION. TYPICAL TYPES OF RIPRAP USED FOR CHECK DAMS ARE TYPE M (D50 12") OR TYPE L (D50 9").
- RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'.
- THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1' 6" HIGHER THAN THE CENTER OF THE CHECK DAM.

CHECK DAM MAINTENANCE NOTES

- 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.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - SEDIMENT ACCUMULATED UPSTREAM OF THE CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN $\frac{1}{2}$ OF THE HEIGHT OF THE CREST.
 - CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
 - WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL. DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CD-4 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 November 2010



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PREPARED FOR CS POWERS & GALLEY LLC 510 S NEIL ST CHAMPAIGN, IL 61820 OFFICE PHONE (734) 216-2577 -----			
J.R. ENGINEERING A Western Company Central 303-740-9888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com			
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	V-SCALE	N/A	
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	No.	REVISION	
SHEET 12 OF 12			
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