

STANDARD NOTES FOR EL PASO COUNTY GRADING & EROSION PLAN:

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 (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.
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 CONSTRUCTION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION MEASURES ARE IMPLEMENTED. TEMPORARY CONSTRUCTION CONTROL MEASURES MUST BE REMOVED PRIOR TO PERMIT CLOSEOUT.
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 SORTEST 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 THE 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).
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, UNCONTAMINATED GROUNDWATER 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 LABELS.
21. 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.
22. 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.
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 RMG-ROCKY MOUNTAIN GROUP, DATED OCTOBER 8, 2021 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
WOOD-PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

CHALLENGER HOMES FALCON HIGHLANDS SOUTH SITUATED IN SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO GRADING & EROSION CONTROL PLANS



LEGAL DESCRIPTION:

A PORTION OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO.

PROJECT DESCRIPTION:

378 SINGLE-FAMILY RESIDENTIAL LOT DEVELOPMENT OVER 125.5 ACRES.

FLOODPLAIN STATEMENT:

THE SUBJECT PROPERTY IS NOT LOCATED IN A DESIGNATED FLOODPLAIN AS SHOWN ON THE FEMA FLOOD INSURANCE RATE MAP 08041C0561G, EFFECTIVE DECEMBER 7, 2018.

NOTE:

DETENTION AND WATER QUALITY ARE PROVIDED IN THE EXISTING DOWNSTREAM WATER QUALITY AND DETENTION POND FACILITIES, POND 1, 2 & WU, LOCATED EAST OF THE PROPOSED DEVELOPMENT, NORTHWEST OF HIGHWAY 24.

DESCRIPTION OF CONSTRUCTION ACTIVITIES:

ANTICIPATED STARTING AND COMPLETION TIME PERIOD OF SITE GRADING:

SEPTEMBER 2023

EXPECTED DATE ON WHICH THE FINAL STABILIZATION WILL BE COMPLETED:

AUGUST 2024

TOTAL AREA OF THE SITE TO BE CLEARED, EXCAVATED, OR GRADED:

APPROXIMATELY 115 ACRES

RECEIVING WATERS:

ULTIMATE RECEIVING WATER IS SAND CREEK DRAINAGE BASIN AND FALCON DRAINAGE BASIN.

SOIL TYPE:

THE SITE IS UNDERLAIN BY BLAKELAND-FLUVAQUENTIC HAPLAQUOILS, HYDROLOGIC SOIL GROUP A.

OWNER:
CHALLENGER HOMES
8605 EXPLORER DRIVE
STE. 250
COLORADO SPRINGS, CO 80920
(719) 598-5192
CONTACT: JIM BYERS

SURVEYOR:
ATWELL, LLC.
143 UNION BLVD.
STE. 700
LAKEWOOD, CO 80228
(303) 462-1100
CONTACT: KENNETH SCHRAMM

WOODMEN HILLS METROPOLITAN DISTRICT:
8046 EASTVILLE ROAD
FALCON, CO 80831
(719) 495-2500
CONTACT: RYAN MANGINO

CIVIL ENGINEER:
ATWELL, LLC.
143 UNION BLVD.,
SUITE 700
LAKEWOOD, CO 80228
(303) 462-1100
CONTACT: DAN MADRUGA, PE

EL PASO COUNTY:
3275 AKERS DRIVE
COLORADO SPRINGS, CO 80922
(719) 520-6460
CONTACT: ELIZABETH NIJKAMP

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECT 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 PLAN.

Dan Madruga
ENGINEER OF RECORD SIGNATURE
DANIEL MADRUGA, PE

3/12/24
DATE

OWNER'S STATEMENT

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

Jim Byers
OWNER SIGNATURE
JIM BYERS

4/2/2024
DATE

EL PASO COUNTY

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 DIRECTOR'S DISCRETION.

4/22/2024
COUNTY ENGINEER / ECM ADMINISTRATOR
JOSHUA PALMER, P.E.

GENERAL NOTES:

1. EXISTING VEGETATION OF SITE IS APPROXIMATELY 97.0 PERCENT CONSISTING OF NATIVE GRASSES AND WEEDS.
2. CONCLUSIONS FROM SOILS/GEOTECHNICAL REPORT AND GEOLOGIC HAZARDS REPORT INCORPORATED IN GRADING DESIGN (SLOPES, EMBANKMENTS, MATERIALS, MITIGATION, ETC.)
3. THERE ARE NO LOCATIONS OF ANY DEDICATED ASPHALT / CONCRETE BATCH PLANTS.
4. THE USE OF CONSTRUCTION OFFICE TRAILERS REQUIRE PCD PERMITTING.
5. NO DEWATERING OPERATIONS ARE ANTICIPATED AT THIS TIME. IF THE CONTRACTOR DISCOVERS GROUNDWATER, ALL CONSTRUCTION SHALL STOP UNTIL PROPER PROCEDURES APPROVED BY THE ENGINEER OF RECORD AND EL PASO COUNTY ARE PUT IN PLACE.
6. THERE IS NO PROPOSED OFFSITE DISTURBANCE AND THERE ARE NO OFFSITE STORMWATER CONTROL MEASURES PROPOSED.
7. THERE ARE NO PROPOSED RETAINING WALLS LOCATED WITHIN COUNTY RIGHT-OF-WAY.
8. STRUCTURAL CONTROL MEASURES INCLUDE PONDS 1, 2, AND WU AND PROPOSED GRASSLINED SWALE.

BENCHMARK:

ELEVATIONS ARE BASED UPON SW COR SEC. 12, T13S, R65W, 6TH PM, FND. 3.25" ALUM. CAP. (ELEVATION: 6810.43=NAVOD88).

BASIS OF BEARINGS:

BEARINGS ARE BASED UPON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE SOUTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "AT&T CONSULTANTS PLS 38256" AND AT THE NORTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "PLS 4842".



Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESENT ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ©2023 ATWELL, LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL, LLC.

ATWELL
866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100

CHALLENGER HOMES

8605 EXPLORER DRIVE
SUITE 250
COLORADO SPRINGS, CO 80920
719-598-5192
JIM BYERS

CHALLENGER HOMES

FALCON HIGHLANDS SOUTH
EL PASO COUNTY, COLORADO
CONSTRUCTION PLANS

GRADING AND EROSION CONTROL PLAN
COVER

DATE 03/14/2022

A	1st SUBMITTAL TO EPC	03/14/2022 - RDL
B	2nd SUBMITTAL TO EPC	08/01/2022 - RDL
C	3rd SUBMITTAL TO EPC	04/08/2023 - RDL
D	4th SUBMITTAL TO EPC	07/06/2023 - RDL
E	5th SUBMITTAL TO EPC	03/06/2024 - RDL

REVISIONS



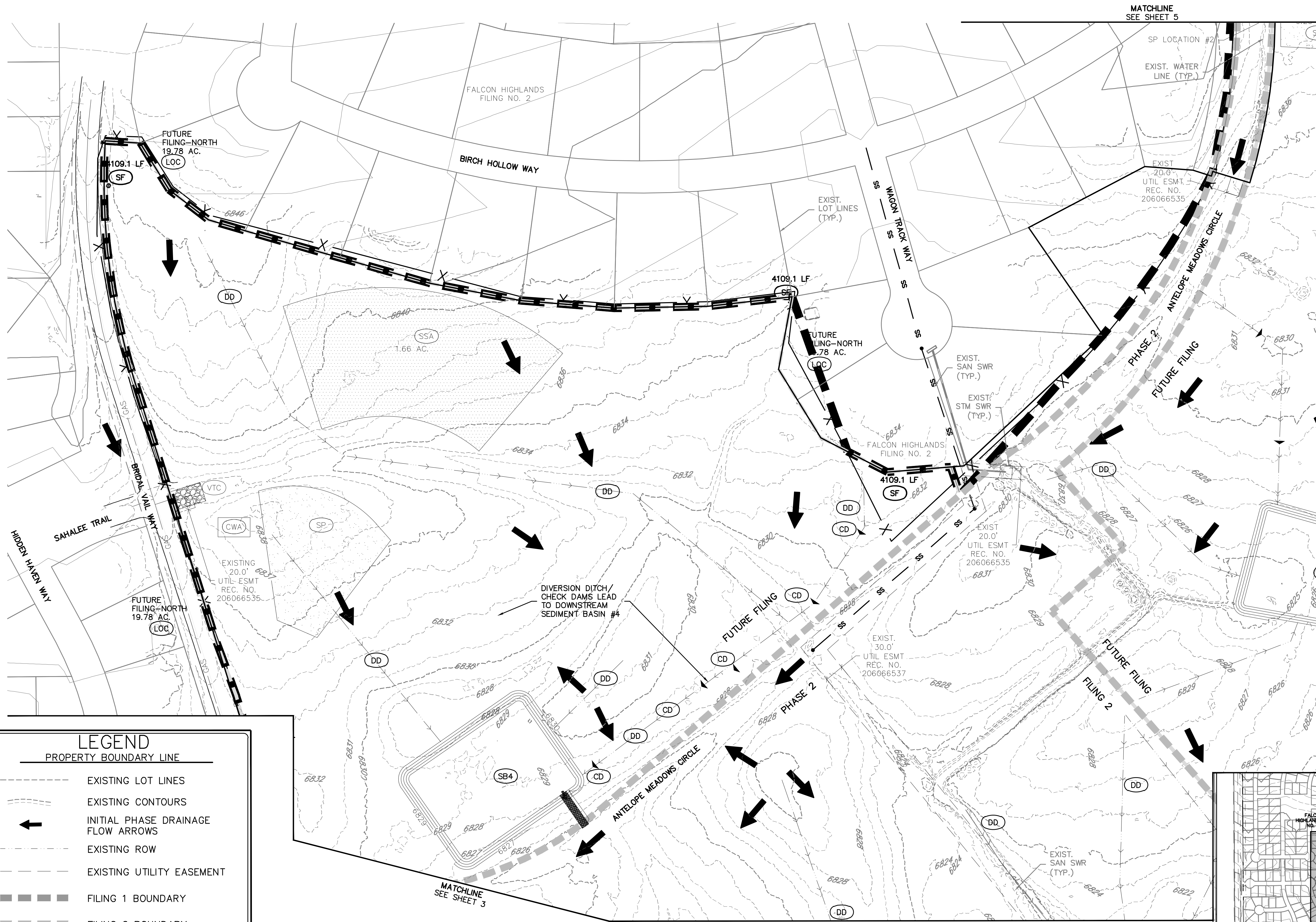
COUNTY FILE NO.:
PUDSP-22-005

DR. JD CH.
P.M. RDL

JOB 21005234

SHEET NO.

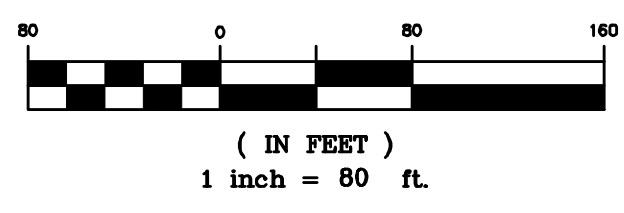
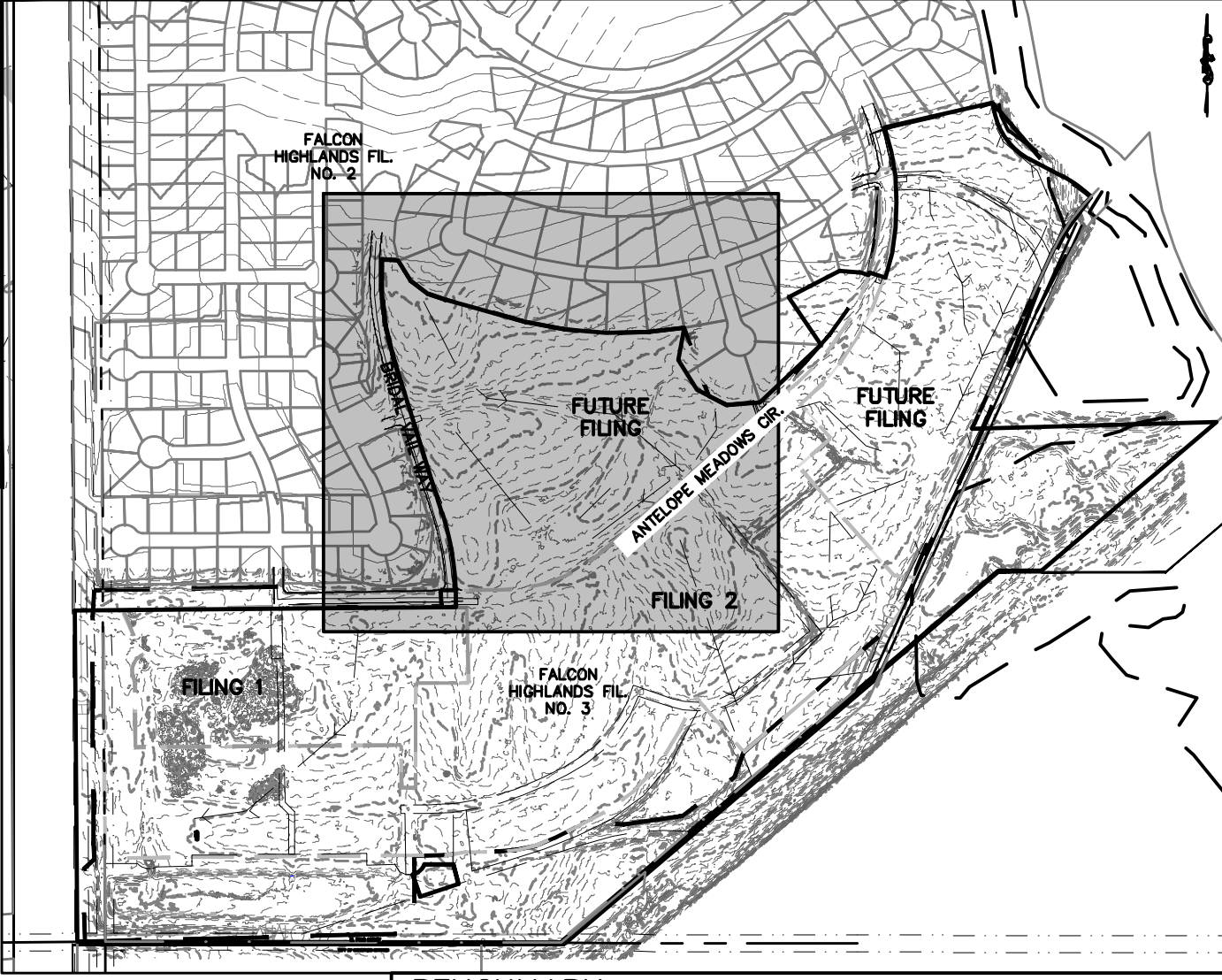
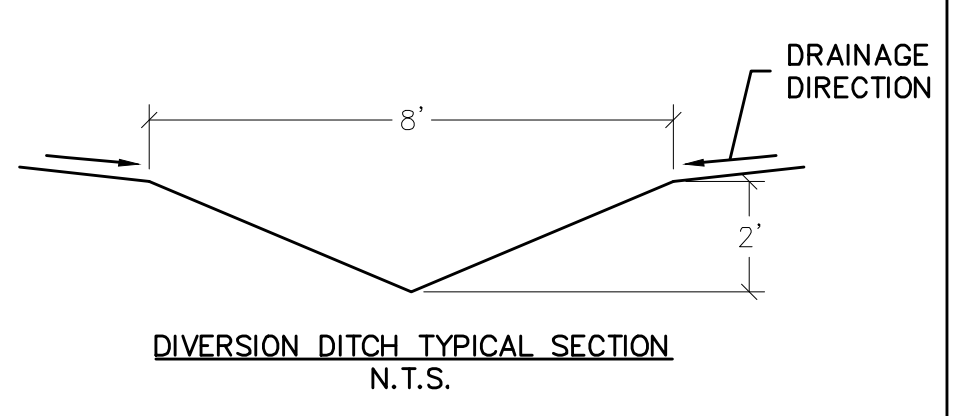
1



GRADING AND EROSION CONTROL LEGEND		
(SF)		SILT FENCE
(IPO)		ON-GRADE INLET PROTECTION
(IPS)		SUMP INLET PROTECTION
(RRC)		CULVERT PROTECTION
(VTC)		VEHICLE TRACKING CONTROL
(CWA)		CONCRETE WASHOUT AREA
(SSA)		STABILIZED STAGING AREA
(SM)		SEEDING AND MULCHING
(LOC)		LIMITS OF CONSTRUCTION/DISTURBANCE
(DD)		DIVERSION DITCH
(ECB)		EROSION CONTROL BLANKET
(SP)		STOCK PILE
(RS)		ROCK SOCKS
(SB)		SEDIMENT BASIN
(CD)		CHECK DAMS
(IP)		INLET PROTECTION
(RCD)		REINFORCED CHECK DAM
(CF)		CONSTRUCTION FENCE

LEGEND	
PROPERTY BOUNDARY LINE	
	EXISTING LOT LINES
	EXISTING CONTOURS
	INITIAL PHASE DRAINAGE FLOW ARROWS
	EXISTING ROW
	EXISTING UTILITY EASEMENT
	FILING 1 BOUNDARY
	FILING 2 BOUNDARY
	FUTURE FILING
	SECTION LINES
	SB OVERFLOW SPILLWAY PROTECTION

- GRADING AND EROSION CONTROL NOTES:**
- SILT FENCE TO BE REMOVED AFTER PLACEMENT OF ECB OR SEEDING & MULCHING OF LOTS HAS REACH 70% VEGETATION AND BEEN APPROVED BY THE EPC STORMWATER INSPECTOR.
 - INLET PROTECTION TO BE REMOVED AFTER DEVELOPMENT AND STABILIZATION OF LOTS.
 - VTC TO BE REMOVED UPON COMPLETION OF PAVING OPERATIONS.
 - SEE COVER SHEET FOR EL PASO COUNTY STANDARD GRADING & EROSION PLAN NOTES.
 - SHADED BMP'S WERE INSTALLED IN INITIAL OR INTERIM STAGES AND SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
 - THE LIMITS OF CONSTRUCTION / DISTURBANCE SHOWN ARE FOR ALL FILINGS. IT IS THE INTENTION TO PERMANENTLY STABILIZE FUTURE FILINGS 3 AND 4 TO HAVE TEMPORARY BMP'S REMOVED.



BENCHMARK:
ELEVATIONS ARE BASED UPON SW COR SEC. 12, T13S, R65W, 6TH PM, FND. 3.25" ALUM. CAP. (ELEVATION: 6810.43=NAVD88).

BASIS OF BEARINGS:
BEARINGS ARE BASED UPON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE SOUTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "AZTEC CONSULTANTS PLS 38256" AND AT THE NORTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "PLS 4842".

Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION, SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ©2023 ATWELL, LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL, LLC.

866.850.4200 www.atwell-group.com
143 UNION SQUARE, SUITE 700
LAKEWOOD, CO 80228
303.462.1100

CHALLENGER HOMES	CHALLENGER HOMES
8605 EXPLORER DRIVE SUITE 250 COLORADO SPRINGS, CO 80920	FALCON HIGHLANDS, SOUTH EL PASO COUNTY, COLORADO CONSTRUCTION PLAN
719-598-5192 JIM BYERS	GRADING AND EROSION CONTROL PLAN INITIAL GEP

CLIENT	DATE
CHALLENGER HOMES	03/14/2022
1st SUBMITTAL TO EPC	03/14/2022 - RDL
2nd SUBMITTAL TO EPC	08/31/2022 - RDL
3rd SUBMITTAL TO EPC	04/18/2023 - RDL
4th SUBMITTAL TO EPC	07/20/2023 - RDL
5th SUBMITTAL TO EPC	03/09/2024 - RDL

REVISIONS
36834 03/12/24 PROFESSIONAL ENGINEER

COUNTY FILE NO.:	PUDSP-22-005
DR.	JD
CH.	CH.
P.M.	RDL
JOB	21005234
SHEET NO.	2

CAD FILE: 21005234-GECP-INITIAL.DWG



Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2023 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL
866.850.4200 www.atwell-group.com
143 UNION SQUARE, SUITE 700
LAKEWOOD, CO 80228
303.462.1100



CHALLENGER HOMES
8605 EXPLORER DRIVE
SUITE 250
COLORADO SPRINGS, CO 80920
719-598-5192
JIM BYERS

CHALLENGER HOMES
FALCON HIGHLANDS SOUTH
EL PASO COUNTY, COLORADO
CONSTRUCTION PLANS
GRADING AND EROSION CONTROL PLAN
INITIAL GECP

CLIENT

DATE 03/14/2022

A 1st SUBMITTAL TO EPC 03/14/2022 - RDL
B 2nd SUBMITTAL TO EPC 08/31/2022 - RDL
C 3rd SUBMITTAL TO EPC 04/18/2023 - RDL
D 4th SUBMITTAL TO EPC 07/20/2023 - RDL
E 5th SUBMITTAL TO EPC 03/09/2024 - RDL

REVISIONS



COUNTY FILE NO.:
PUDSP-22-005

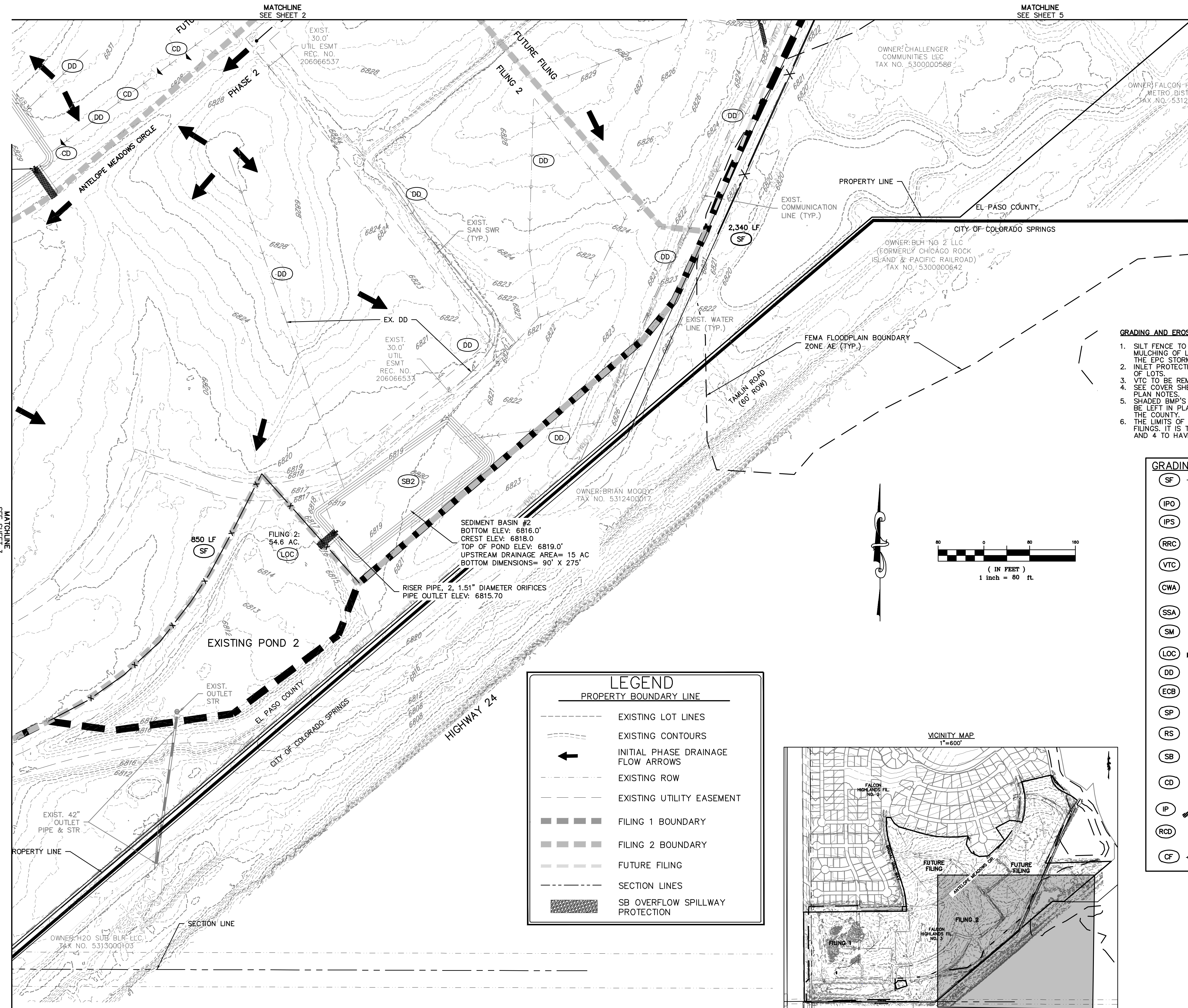
DR. JD CH.
P.M. RDL

JOB 21005234

SHEET NO.

4

CAD FILE: 21005234-GECP-INITIAL.DWG



GRADING AND EROSION CONTROL NOTES:

1. SILT FENCE TO BE REMOVED AFTER PLACEMENT OF ECB OR SEEDING & MULCHING OF LOTS HAS REACH 70% VEGETATION AND BEEN APPROVED BY THE EPC STORMWATER INSPECTOR.
2. INLET PROTECTION TO BE REMOVED AFTER DEVELOPMENT AND STABILIZATION OF LOTS.
3. VTC TO BE REMOVED UPON COMPLETION OF PAVING OPERATIONS.
4. SEE COVER SHEET FOR EL PASO COUNTY STANDARD GRADING & EROSION PLAN NOTES.
5. SHADED BMP'S WERE INSTALLED IN INITIAL OR INTERIM STAGES AND SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
6. THE LIMITS OF CONSTRUCTION / DISTURBANCE SHOWN ARE FOR ALL FILINGS. IT IS THE INTENTION TO PERMANENTLY STABILIZE FUTURE FILINGS 3 AND 4 TO HAVE TEMPORARY BMP'S REMOVED.

GRADING AND EROSION CONTROL LEGEND

(SF)		SILT FENCE
(IPO)		ON-GRADE INLET PROTECTION
(IPS)		SUMP INLET PROTECTION
(RRC)		CULVERT PROTECTION
(VTC)		VEHICLE TRACKING CONTROL
(CWA)		CONCRETE WASHOUT AREA
(SSA)		STABILIZED STAGING AREA
(SM)		SEEDING AND MULCHING
(LOC)		LIMITS OF CONSTRUCTION/ DISTURBANCE
(DD)		DIVERSION DITCH
(ECB)		EROSION CONTROL BLANKET
(SP)		STOCK PILE
(RS)		ROCK SOCKS
(SB)		SEDIMENT BASIN
(CD)		CHECK DAMS
(IP)		INLET PROTECTION
(RCD)		REINFORCED CHECK DAM
(CF)		CONSTRUCTION FENCE

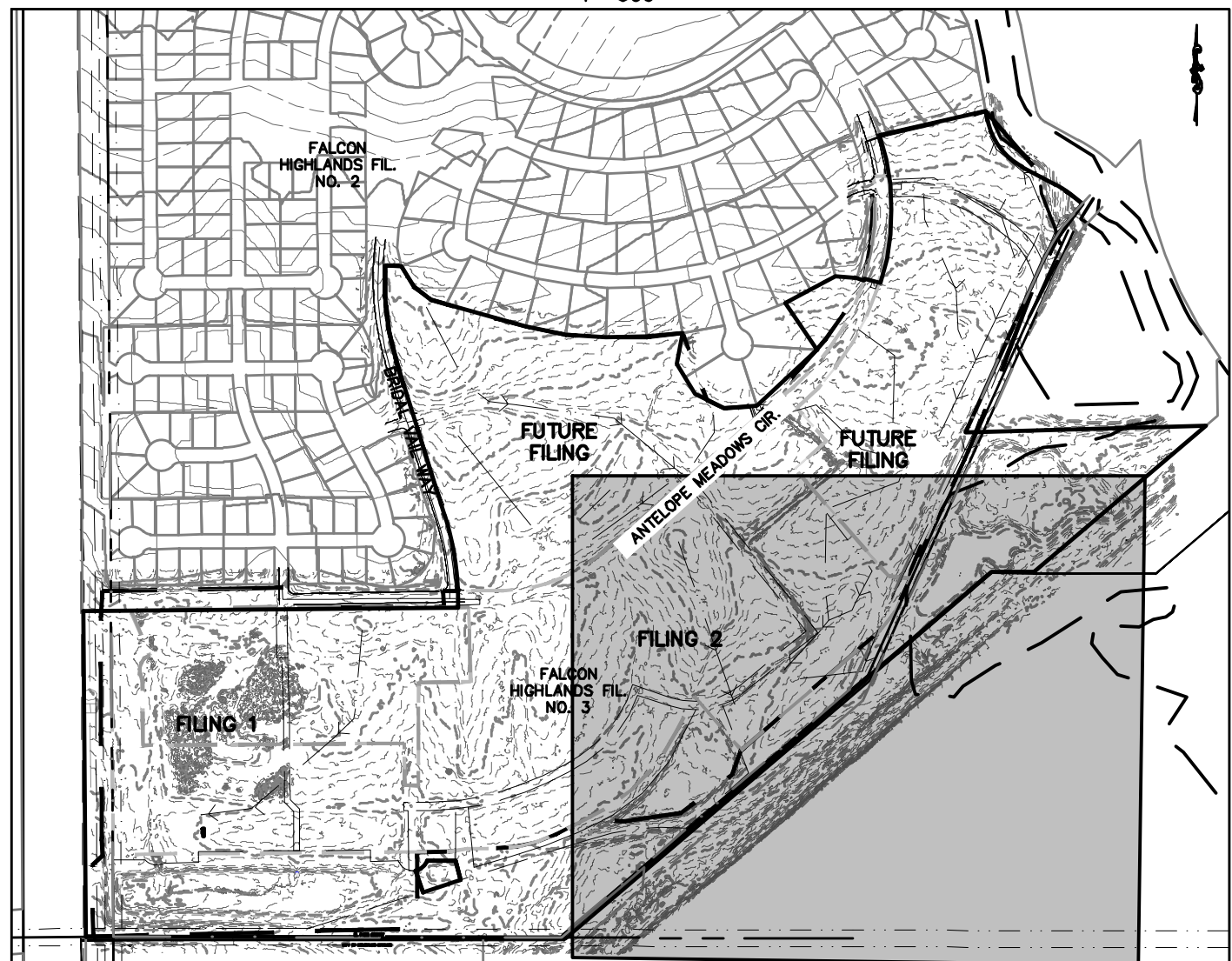
LEGEND

PROPERTY BOUNDARY LINE

	EXISTING LOT LINES
	EXISTING CONTOURS
	INITIAL PHASE DRAINAGE FLOW ARROWS
	EXISTING ROW
	EXISTING UTILITY EASEMENT
	FILING 1 BOUNDARY
	FILING 2 BOUNDARY
	FUTURE FILING
	SECTION LINES
	SB OVERFLOW SPILLWAY PROTECTION

VICINITY MAP

1"=600'

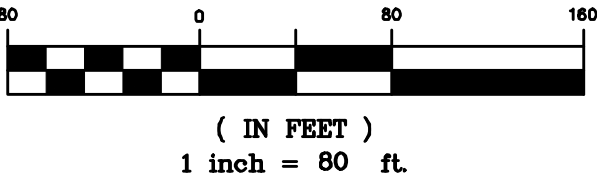
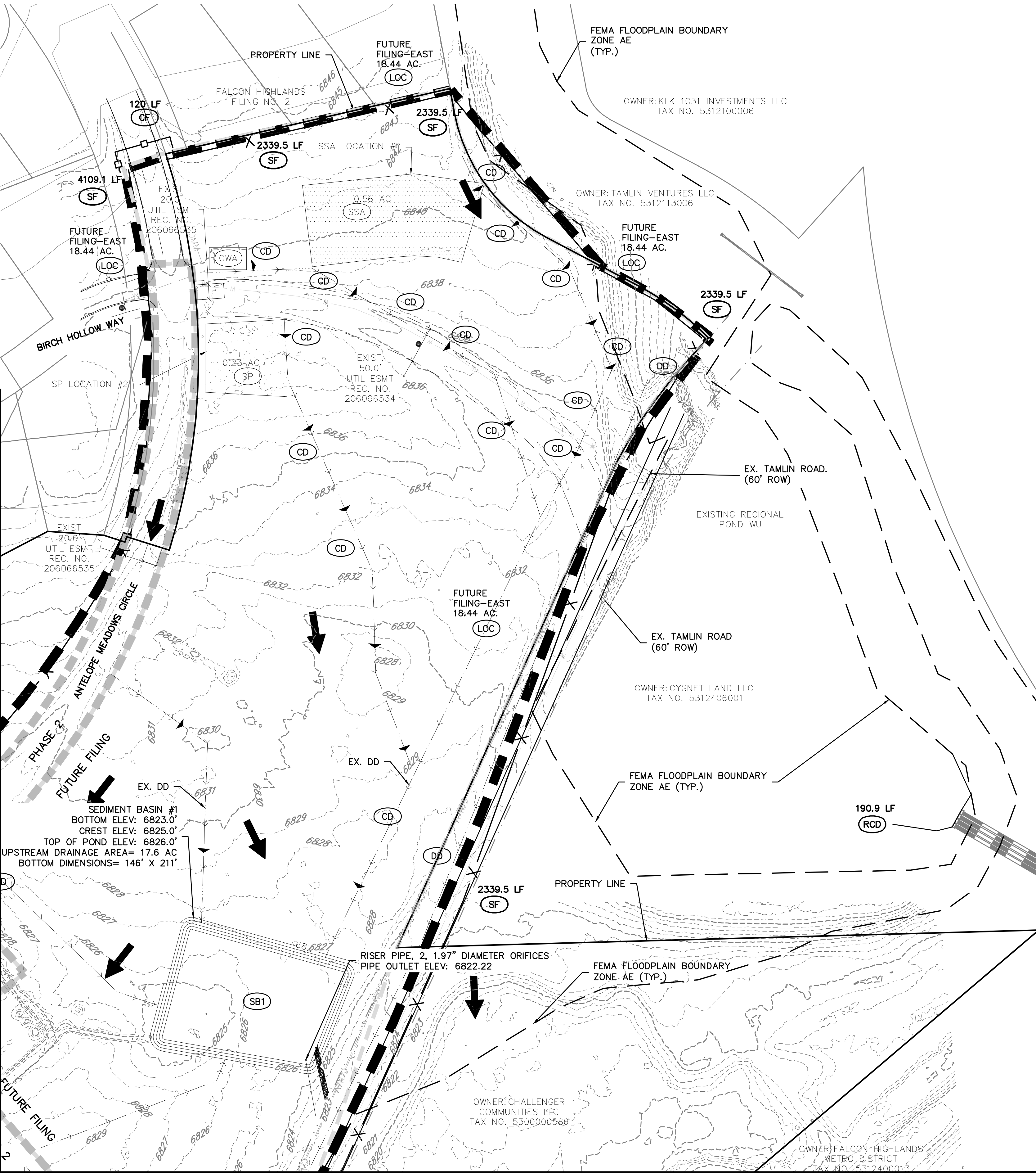


BENCHMARK:

ELEVATIONS ARE BASED UPON SW COR SEC. 12, T13S, R65W, 6TH PM, FND. 3.25" ALUM. CAP. (ELEVATION: 6810.43=NAVD88).

BASIS OF BEARINGS:

BEARINGS ARE BASED UPON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE SOUTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "AZTEC CONSULTANTS PLS 38256" AND AT THE NORTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "PLS 4842".



GRADING AND EROSION CONTROL NOTES:

1. SILT FENCE TO BE REMOVED AFTER PLACEMENT OF ECB OR SEEDING & MULCHING OF LOTS HAS REACHED 70% VEGETATION AND BEEN APPROVED BY THE EPC STORMWATER INSPECTOR.
2. INLET PROTECTION TO BE REMOVED AFTER DEVELOPMENT AND STABILIZATION OF LOTS.
3. VTC TO BE REMOVED UPON COMPLETION OF PAVING OPERATIONS.
4. SEE COVER SHEET FOR EL PASO COUNTY STANDARD GRADING & EROSION PLAN NOTES.
5. SHADED BMP'S WERE INSTALLED IN INITIAL OR INTERIM STAGES AND SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
6. THE LIMITS OF CONSTRUCTION / DISTURBANCE SHOWN ARE FOR ALL FILINGS. IT IS THE INTENTION TO PERMANENTLY STABILIZE FUTURE FILINGS 3 AND 4 TO HAVE TEMPORARY BMP'S REMOVED.

GRADING AND EROSION CONTROL LEGEND

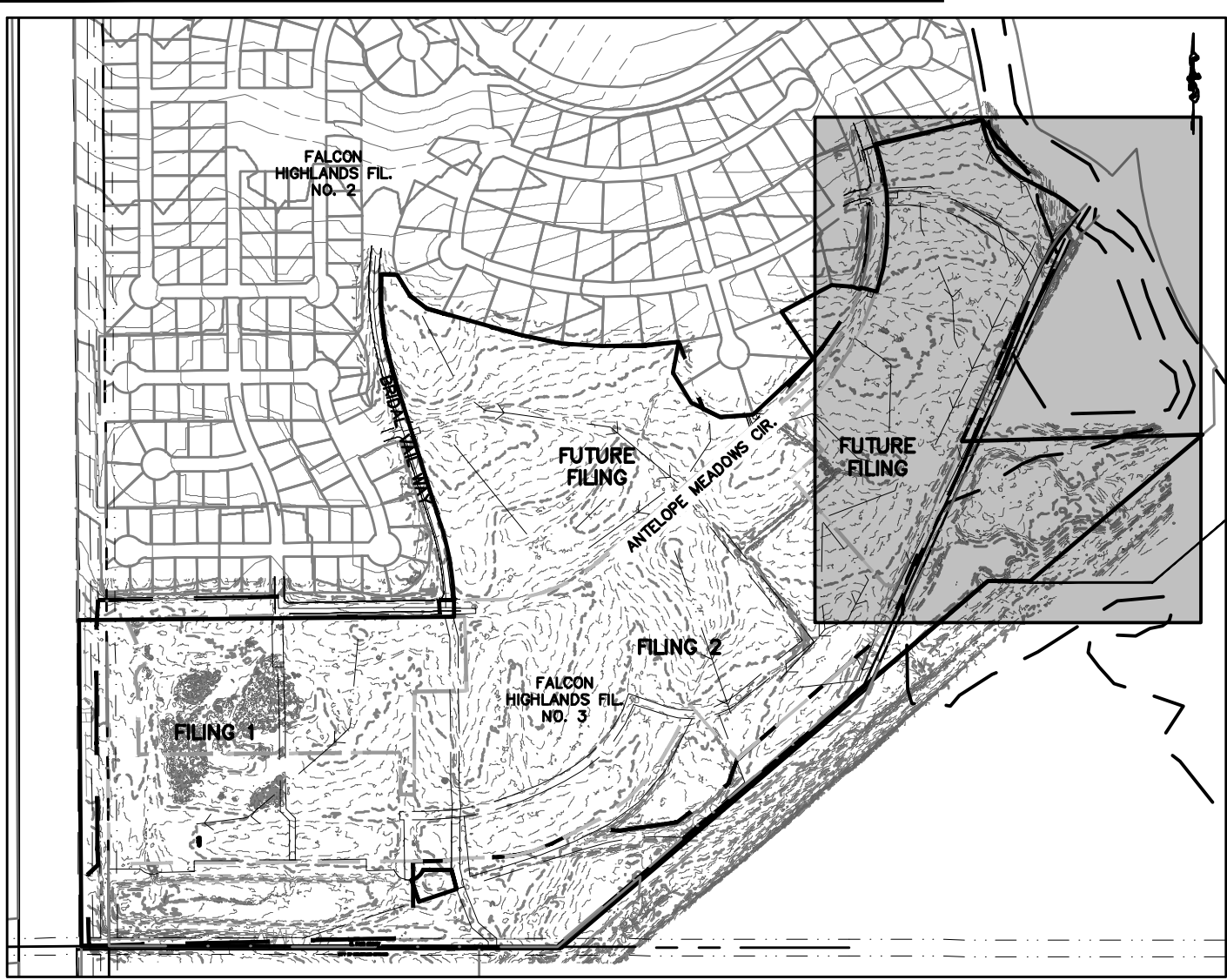
(SF)		SILT FENCE
(IPO)		ON-GRADE INLET PROTECTION
(IPS)		SUMP INLET PROTECTION
(RRC)		CULVERT PROTECTION
(VTC)		VEHICLE TRACKING CONTROL
(CWA)		CONCRETE WASHOUT AREA
(SSA)		STABILIZED STAGING AREA
(SM)		SEEDING AND MULCHING
(LOC)		LIMITS OF CONSTRUCTION/DISTURBANCE
(DD)		DIVERSION DITCH
(EGB)		EROSION CONTROL BLANKET
(SP)		STOCK PILE
(RS)		ROCK SOCKS
(SB)		SEDIMENT BASIN
(CD)		CHECK DAMS
(IP)		INLET PROTECTION
(RCD)		REINFORCED CHECK DAM
(CF)		CONSTRUCTION FENCE

LEGEND

	PROPERTY BOUNDARY LINE
	EXISTING LOT LINES
	EXISTING CONTOURS
	INITIAL PHASE DRAINAGE FLOW ARROWS
	EXISTING ROW
	EXISTING UTILITY EASEMENT
	FILING 1 BOUNDARY
	FILING 2 BOUNDARY
	FUTURE FILING
	SECTION LINES
	SB OVERFLOW SPILLWAY PROTECTION

BENCHMARK:
ELEVATIONS ARE BASED UPON SW COR SEC. 12, T13S, R65W, 6TH PM, FND. 3.25" ALUM. CAP. (ELEVATION: 6810.43=NAVD88).

BASIS OF BEARINGS:
BEARINGS ARE BASED UPON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE SOUTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "AZTEC CONSULTANTS PLS 38256" AND AT THE NORTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "PLS 4842".



Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ©2023 ATWELL, LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL, LLC.

866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100

CHALLENGER HOMES

8605 EXPLORER DRIVE
SUITE 250
COLORADO SPRINGS, CO 80920
719-598-5192
JIM BYERS

CHALLENGER HOMES

FALCON HIGHLANDS SOUTH
EL PASO COUNTY, COLORADO
CONSTRUCTION PLANS
GRADING AND EROSION CONTROL PLAN
INITIAL GEP

CLIENT

DATE 03/14/2022

A	1st SUBMITTAL TO EPC	03/14/2022 - RDL
B	2nd SUBMITTAL TO EPC	08/31/2022 - RDL
C	3rd SUBMITTAL TO EPC	04/18/2023 - RDL
D	4th SUBMITTAL TO EPC	07/20/2023 - RDL
E	5th SUBMITTAL TO EPC	03/09/2024 - RDL

REVISIONS

COUNTY FILE NO.:
PUDSP-22-005

DR.	JD	CH.
P.M.	RDL	

JOB 21005234

SHEET NO. 5

CAD FILE: 21005234-GEOP-INITIAL.DWG



Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OR OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2024 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL
866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100

CHALLENGER HOMES

8605 EXPLORER DRIVE
SUITE 250
COLORADO SPRINGS, CO 80920

719-598-5192
JIM BYERS

CHALLENGER HOMES

FALCON HIGHLANDS SOUTH
EL PASO COUNTY, COLORADO
CONSTRUCTION PLANS

GRADING AND EROSION CONTROL PLAN
INTERIM GEOP

CLIENT

DATE 03/14/2022

1st SUBMITTAL TO EPC 03/14/2022 - RDL
2nd SUBMITTAL TO EPC 08/31/2022 - RDL
3rd SUBMITTAL TO EPC 04/18/2023 - RDL
4th SUBMITTAL TO EPC 07/20/2023 - RDL
5th SUBMITTAL TO EPC 03/09/2024 - RDL

REVISIONS



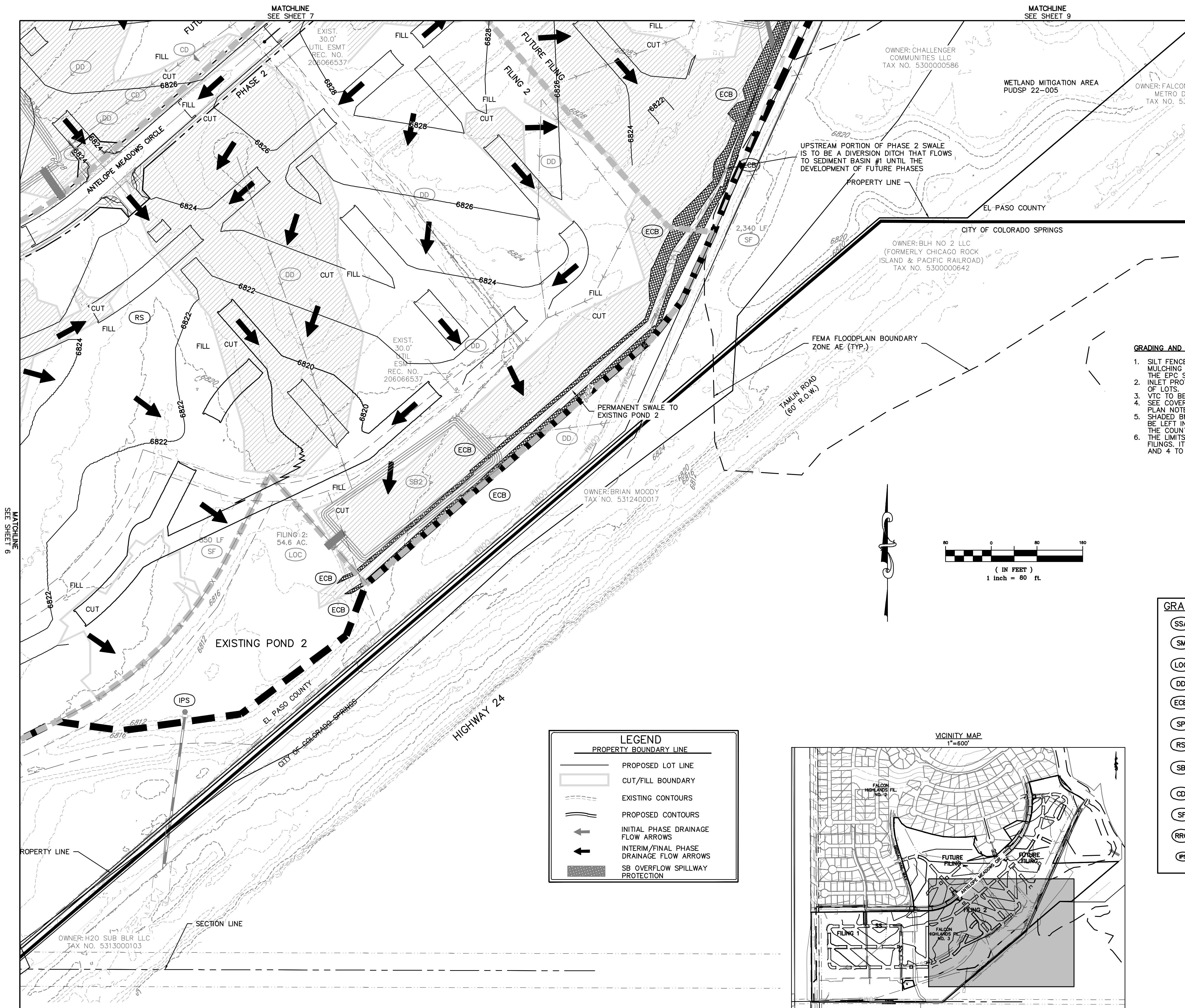
COUNTY FILE NO.:
PUDSP-22-005

DR. JD CH.
P.M. RDL

JOB 21005234

SHEET NO.

8



GRADING AND EROSION CONTROL NOTES:

1. SILT FENCE TO BE REMOVED AFTER PLACEMENT OF ECB OR SEEDING & MULCHING OF LOTS HAS REACH 70% VEGETATION AND BEEN APPROVED BY THE EPC STORMWATER INSPECTOR.
2. INLET PROTECTION TO BE REMOVED AFTER DEVELOPMENT AND STABILIZATION OF LOTS.
3. VTC TO BE REMOVED UPON COMPLETION OF PAVING OPERATIONS.
4. SEE COVER SHEET FOR EL PASO COUNTY STANDARD GRADING & EROSION PLAN NOTES.
5. SHADED BMP'S WERE INSTALLED IN INITIAL OR INTERIM STAGES AND SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
6. THE LIMITS OF CONSTRUCTION / DISTURBANCE SHOWN ARE FOR ALL FILINGS. IT IS THE INTENTION TO PERMANENTLY STABILIZE FUTURE FILINGS 3 AND 4 TO HAVE TEMPORARY BMP'S REMOVED.

GRADING AND EROSION CONTROL LEGEND

(SSA)		STABILIZED STAGING AREA
(SM)		SEEDING AND MULCHING
(LOC)		LIMITS OF CONSTRUCTION/DISTURBANCE
(DD)		DIVERSION DITCH
(ECB)		EROSION CONTROL BLANKET
(SP)		STOCK PILE
(RS)		ROCK SOCKS
(SB)		SEDIMENT BASIN
(CD)		CHECK DAMS
(SF)		SILT FENCE
(RRC)		RRB FOR CULVERT PROTECTION
(IPS)		SUMP INLET PROTECTION

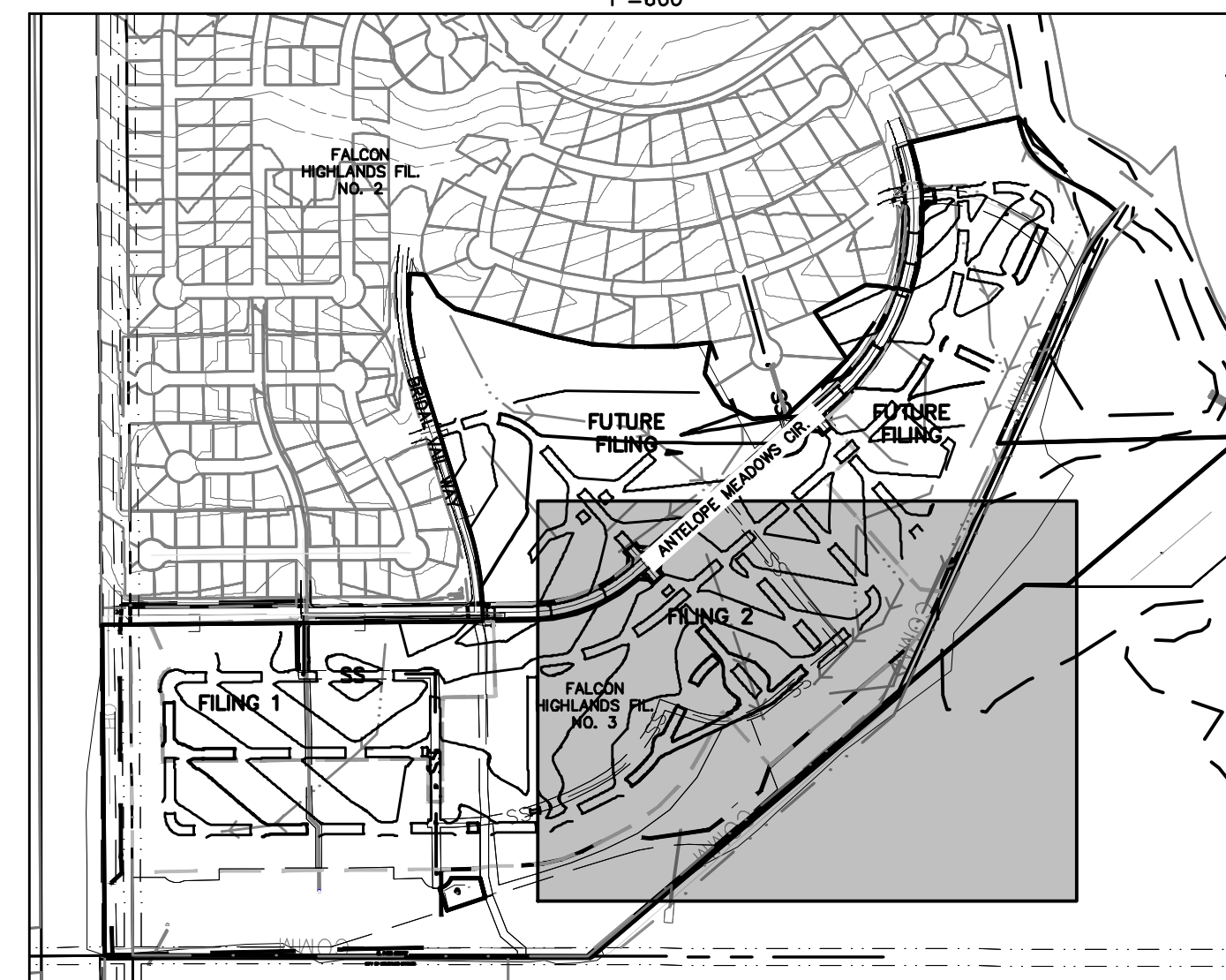
LEGEND

PROPERTY BOUNDARY LINE

	PROPOSED LOT LINE
	CUT/FILL BOUNDARY
	EXISTING CONTOURS
	PROPOSED CONTOURS
	INITIAL PHASE DRAINAGE FLOW ARROWS
	INTERIM/FINAL PHASE DRAINAGE FLOW ARROWS
	SB OVERFLOW SPILLWAY PROTECTION

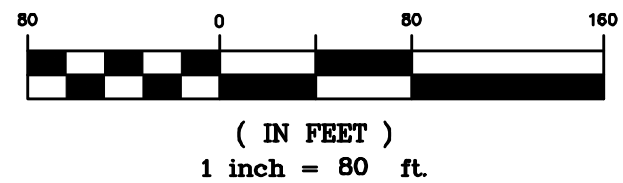
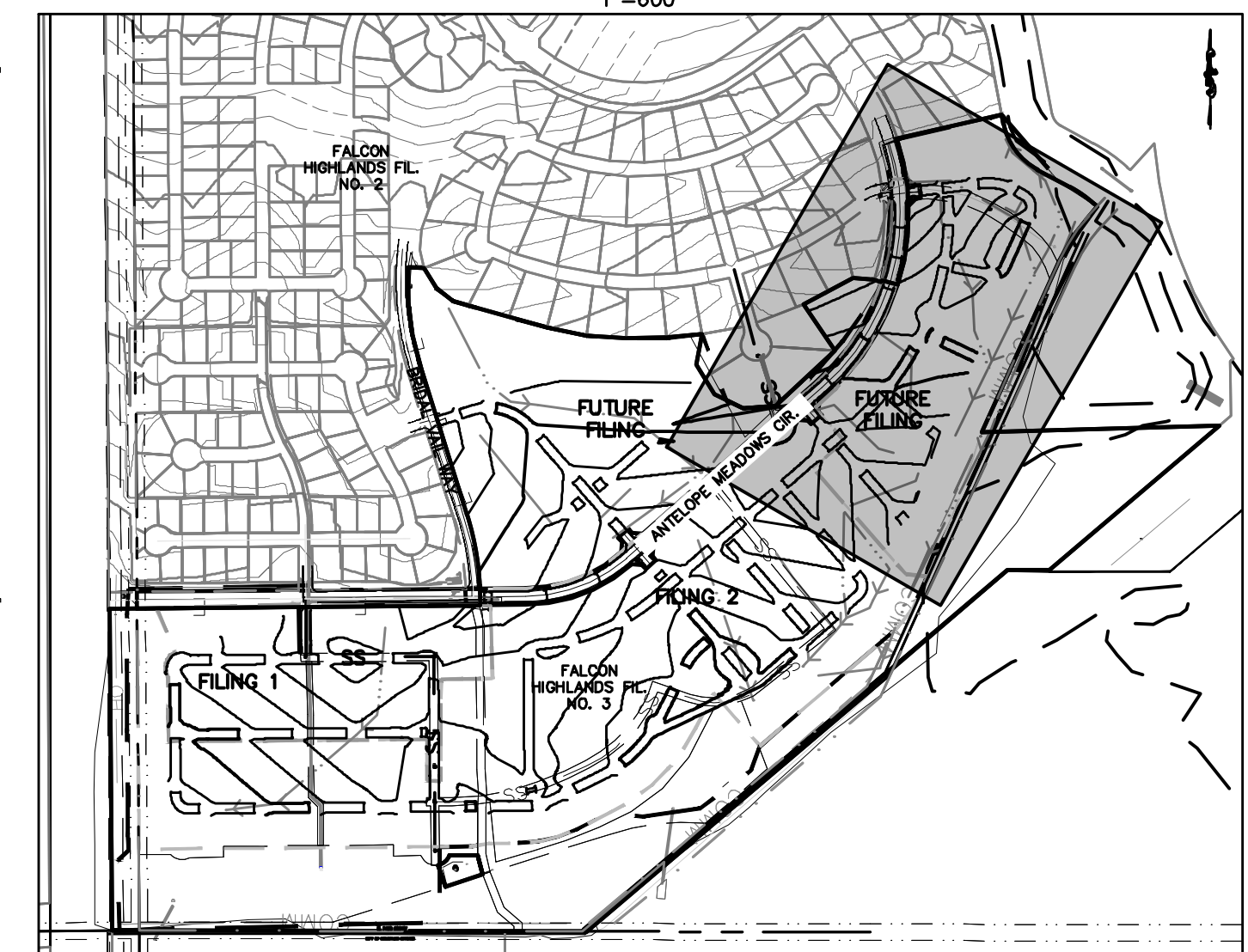
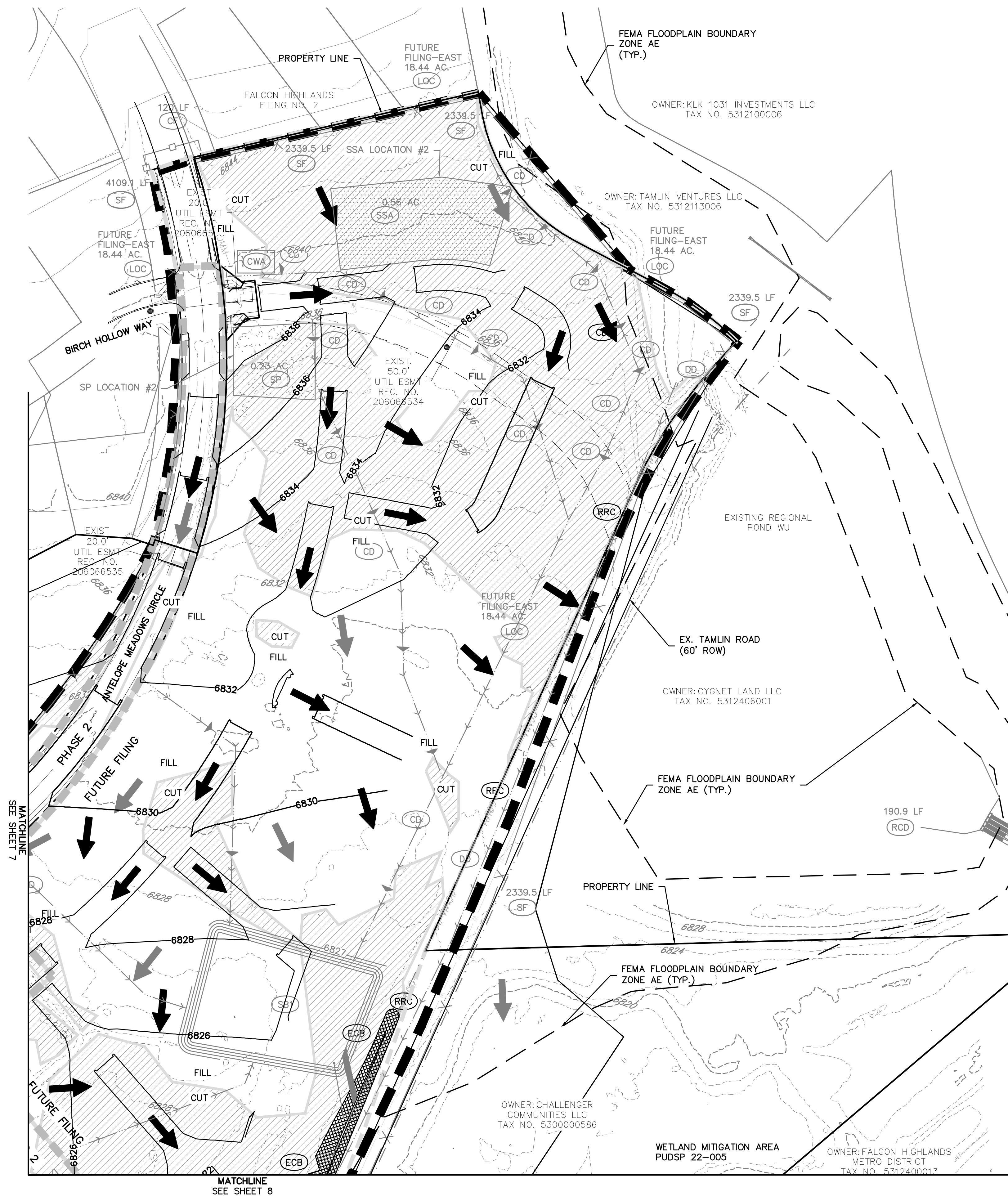
VICINITY MAP

1"=600'



BENCHMARK:
ELEVATIONS ARE BASED UPON SW COR SEC. 12, T13S, R65W, 6TH PM, FND. 3.25" ALUM. CAP.
(ELEVATION: 6810.43=NAVD88).

BASIS OF BEARINGS:
BEARINGS ARE BASED UPON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE SOUTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "AZTEC CONSULTANTS PLS 38256" AND AT THE NORTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "PLS 4842".



LEGEND
PROPERTY BOUNDARY LINE

- PROPOSED LOT LINE
- CUT/FILL BOUNDARY
- EXISTING CONTOURS
- PROPOSED CONTOURS
- INITIAL PHASE DRAINAGE FLOW ARROWS
- INTERIM/FINAL PHASE DRAINAGE FLOW ARROWS
- SB OVERFLOW SPILLWAY PROTECTION

- GRADING AND EROSION CONTROL NOTES:**
1. SILT FENCE TO BE REMOVED AFTER PLACEMENT OF ECB OR SEEDING & MULCHING OF LOTS HAS REACH 70% VEGETATION AND BEEN APPROVED BY THE EPC STORMWATER INSPECTOR.
 2. INLET PROTECTION TO BE REMOVED AFTER DEVELOPMENT AND STABILIZATION OF LOTS.
 3. VTC TO BE REMOVED UPON COMPLETION OF PAVING OPERATIONS.
 4. SEE COVER SHEET FOR EL PASO COUNTY STANDARD GRADING & EROSION PLAN NOTES.
 5. SHADED BMP'S WERE INSTALLED IN INITIAL OR INTERIM STAGES AND SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
 6. THE LIMITS OF CONSTRUCTION / DISTURBANCE SHOWN ARE FOR ALL FILINGS. IT IS THE INTENTION TO PERMANENTLY STABILIZE FUTURE FILINGS 3 AND 4 TO HAVE TEMPORARY BMP'S REMOVED.

GRADING AND EROSION CONTROL LEGEND

(SSA)		STABILIZED STAGING AREA
(SM)		SEEDING AND MULCHING
(LOC)		LIMITS OF CONSTRUCTION/DISTURBANCE
(DD)		DIVERSION DITCH
(ECB)		EROSION CONTROL BLANKET
(SP)		STOCK PILE
(RS)		ROCK SOCKS
(SB)		SEDIMENT BASIN
(CD)		CHECK DAMS
(SF)		SILT FENCE
(RRC)		RRB FOR CULVERT PROTECTION
(IPS)		SUMP INLET PROTECTION

BENCHMARK:
ELEVATIONS ARE BASED UPON SW COR SEC. 12, T13S, R65W, 6TH PM, FND. 3.25" ALUM. CAP. (ELEVATION: 6810.43=NAVD88).

BASIS OF BEARINGS:
BEARINGS ARE BASED UPON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE SOUTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "AZTEC CONSULTANTS PLS 38256" AND AT THE NORTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "PLS 4842".

Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

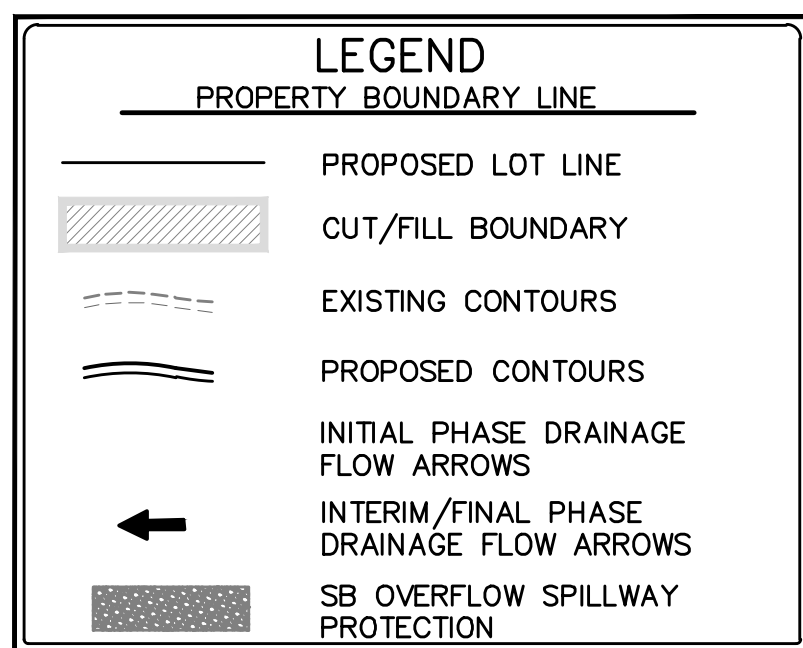
NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ©2024 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

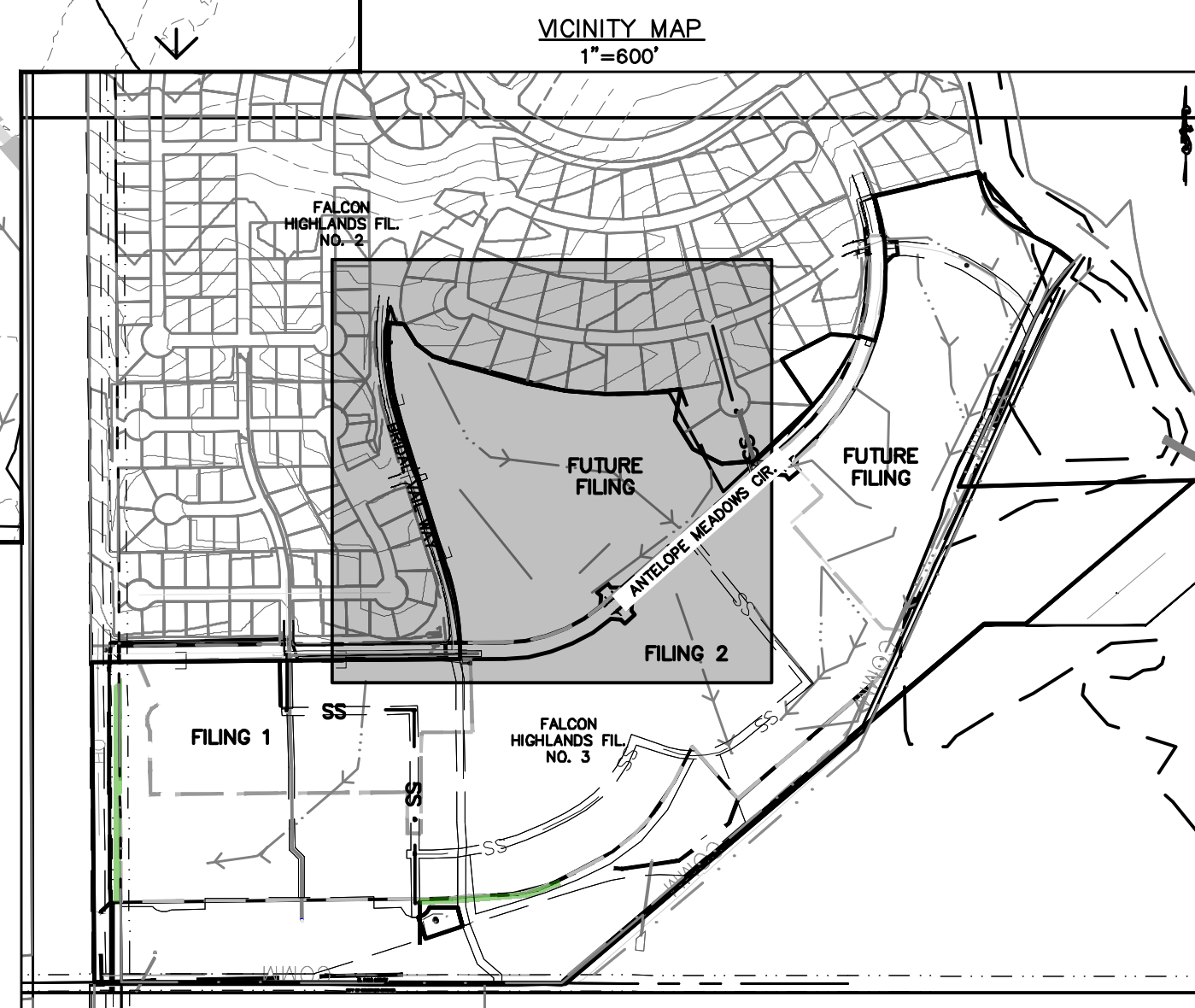
ATWELL
866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100

CHALLENGER HOMES	8605 EXPLORER DRIVE SUITE 250 COLORADO SPRINGS, CO 80920	719-598-5192	JIM BYERS
	CHALLENGER HOMES FALCON HIGHLANDS SOUTH EL PASO COUNTY, COLORADO CONSTRUCTION PLANS GRADING AND EROSION CONTROL PLAN INTERIM GEOP		
CLIENT	CHALLENGER HOMES		
DATE	03/14/2022		
A	1st SUBMITTAL TO EPC 03/14/2022 - RDL		
B	2nd SUBMITTAL TO EPC 08/31/2022 - RDL		
C	3rd SUBMITTAL TO EPC 04/18/2023 - RDL		
D	4th SUBMITTAL TO EPC 07/20/2023 - RDM		
E	5th SUBMITTAL TO EPC 03/09/2024 - RDM		
REVISIONS			
COUNTY FILE NO.: PUDSP-22-005			
DR.	JD	CH.	
P.M.	RDL		
JOB	21005234		
SHEET NO.	9		

CAD FILE: 21005234-GEOP-INTERIM.DWG



1. SILT FENCE TO BE REMOVED AFTER PLACEMENT OF ECB OR SEEDING & MULCHING OF LOTS HAS REACHED 70% VEGETATION AND BEEN APPROVED BY THE CITY ENGINEER.
2. INLET PROTECTION TO BE REMOVED AFTER DEVELOPMENT AND STABILIZATION OF LOTS.
3. VEGETATION TO BE REMOVED UPON COMPLETION OF PAVING OPERATIONS.
4. SEE COVER SHEET FOR EL PASO COUNTY STANDARD GRADING & EROSION PLAN NOTES.
5. SHADED BMP'S WERE INSTALLED IN INITIAL OR INTERIM STAGES AND SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
6. THE LIMITS OF CONSTRUCTION / DISTURBANCE SHOWN ARE FOR ALL PERMANENTLY STABILIZED AREAS. TEMPORARILY STABILIZE FUTURE FILINGS 3 AND 4 TO HAVE TEMPORARY BMP'S REMOVED.



BASIS OF BEARINGS:
BEARINGS ARE BASED UPON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE SOUTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "AZTEC CONSULTANTS PLS 38256" AND AT THE NORTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "PLS 4842".



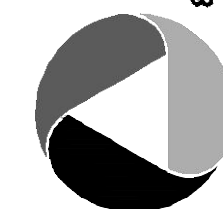
Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2024 ATWELL, LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL, LLC.

ATWELL
866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100



CHALLENGER HOMES

8605 EXPLORER DRIVE
SUITE 250
COLORADO SPRINGS, CO 80920

719-598-5192
JIM BYERS

CHALLENGER HOMES

FALCON HIGHLANDS SOUTH
EL PASO COUNTY, COLORADO
CONSTRUCTION PLANS

GRADING AND EROSION CONTROL PLAN
FINAL GECP

CLIENT

DATE

03/14/2022

1st SUBMITTAL TO EPC
2nd SUBMITTAL TO EPC
3rd SUBMITTAL TO EPC
4th SUBMITTAL TO EPC
5th SUBMITTAL TO EPC

03/14/2022 - RDL
08/31/2022 - RDL
04/18/2023 - RDL
07/20/2023 - RDL
03/09/2024 - RDL

REVISIONS



COUNTY FILE NO.:
PUDSP-22-005

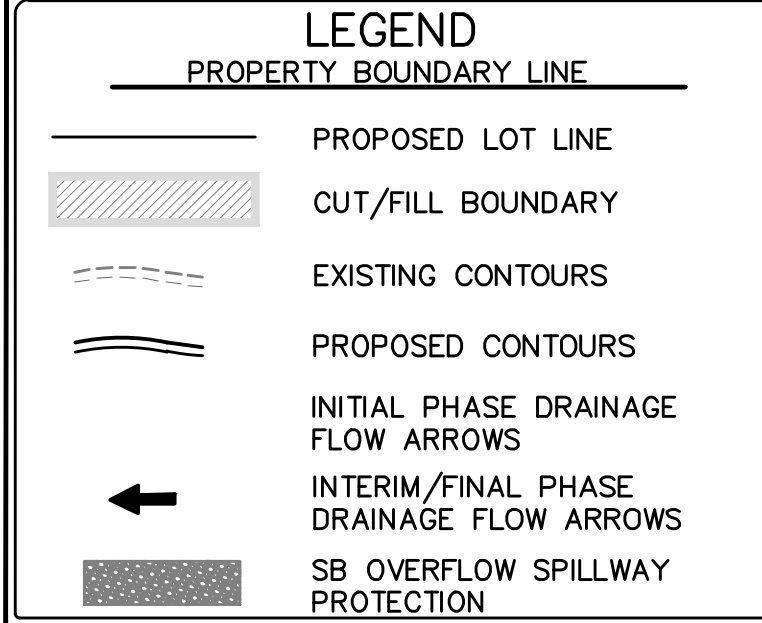
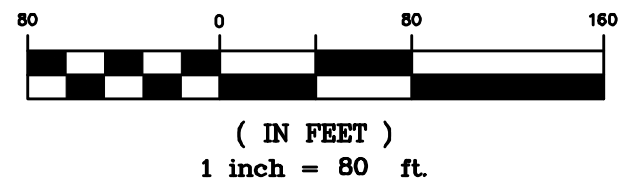
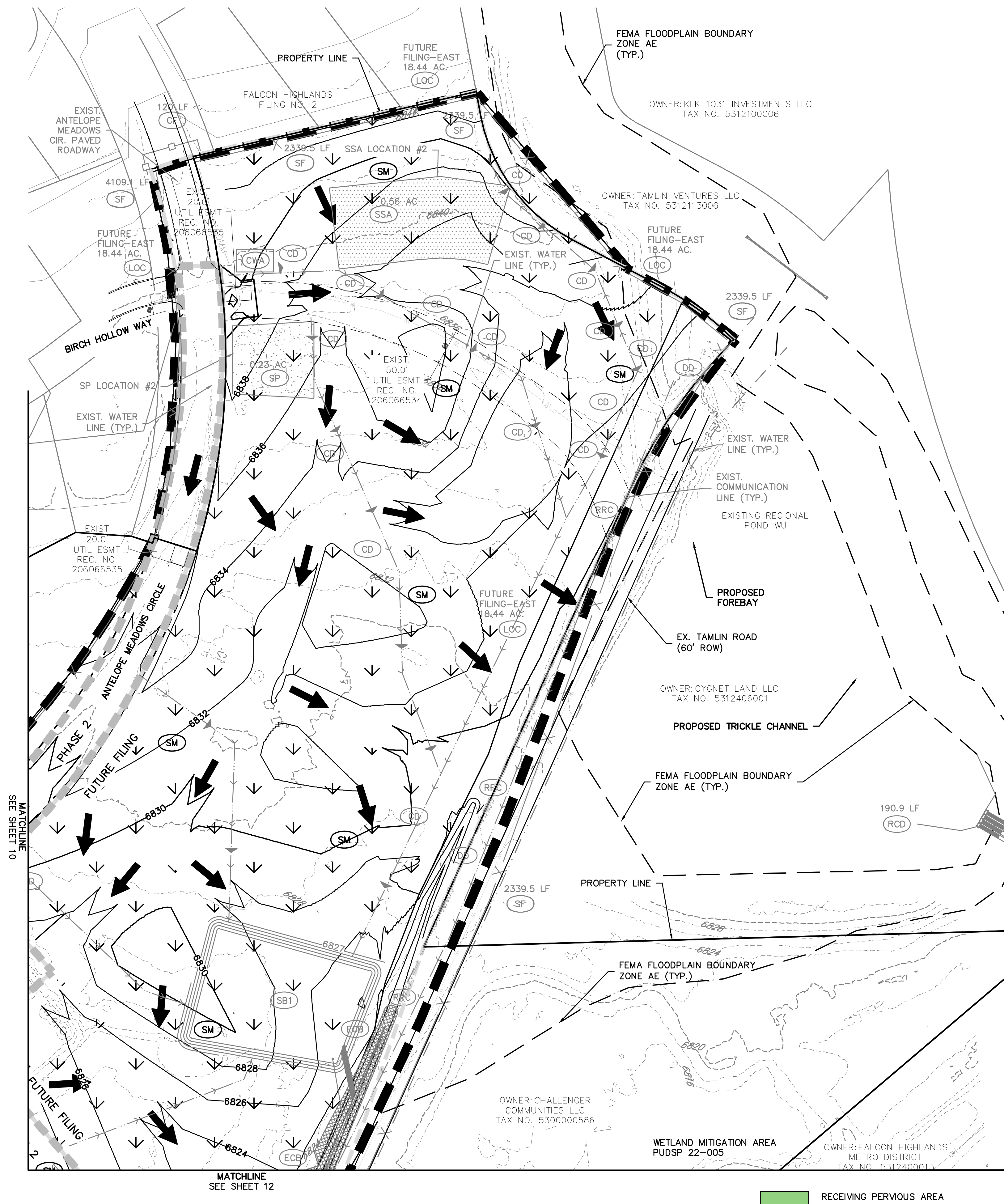
DR: JD CH:

P.M. RDL

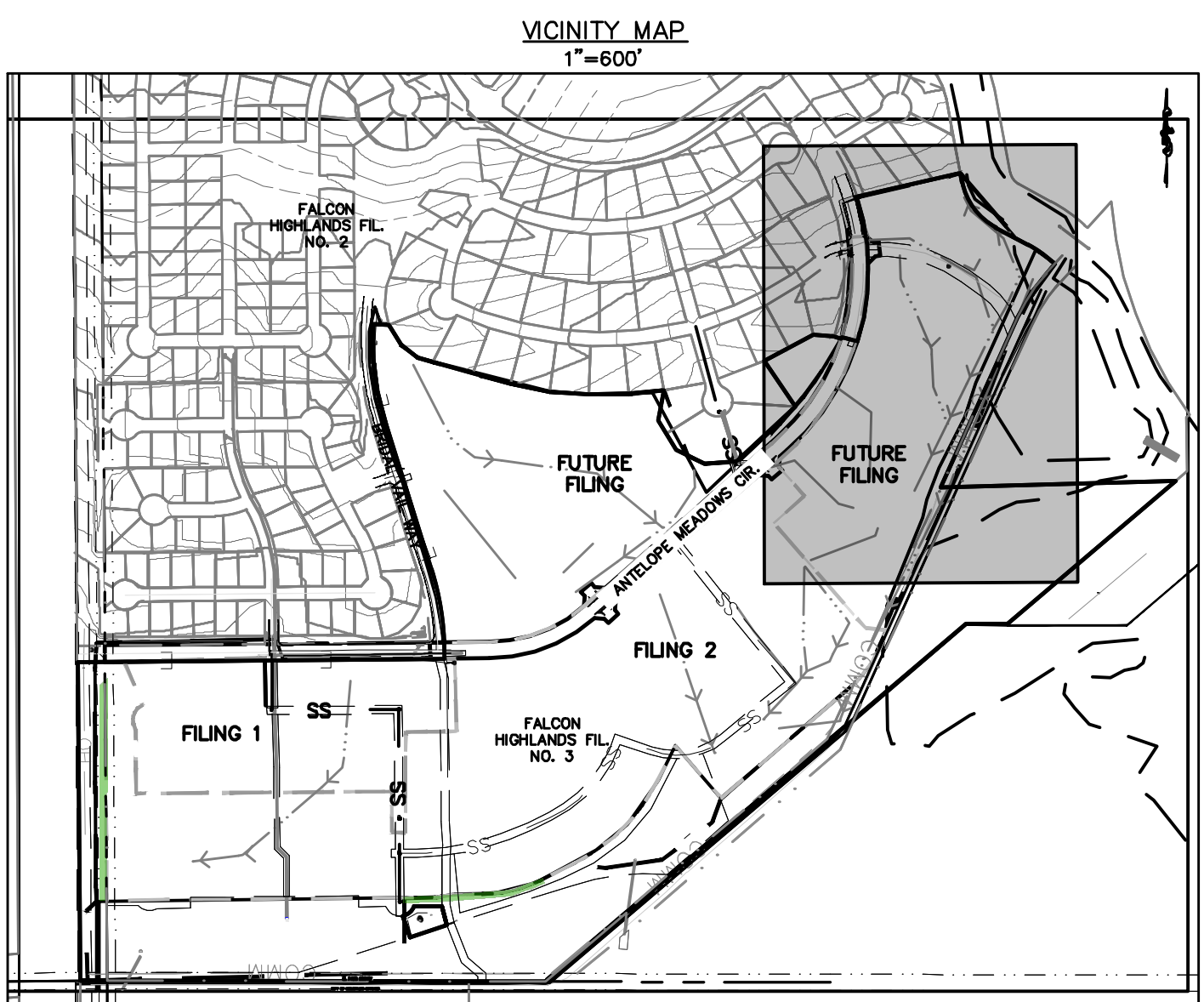
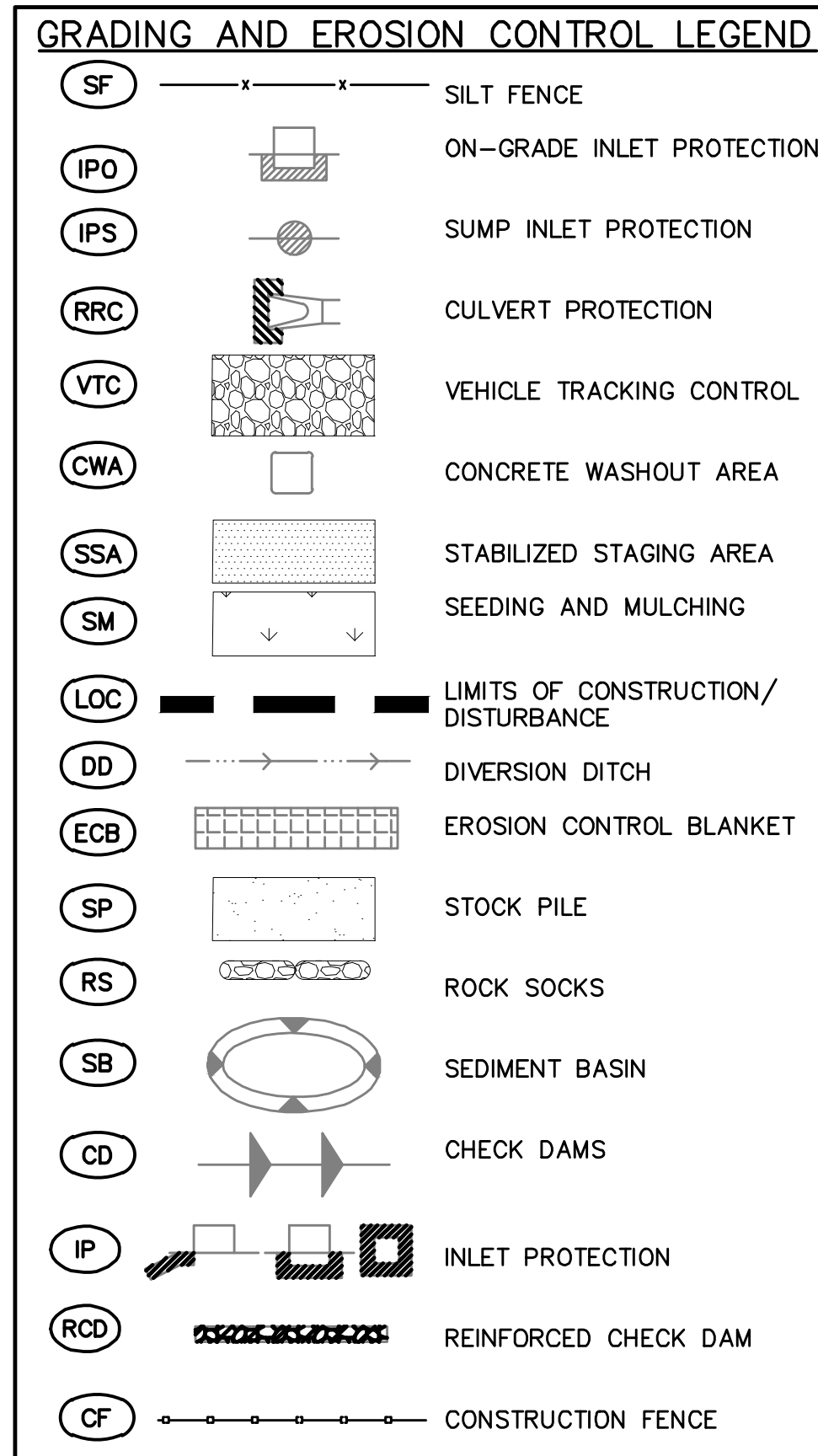
JOB: 21005234

SHEET NO.

13



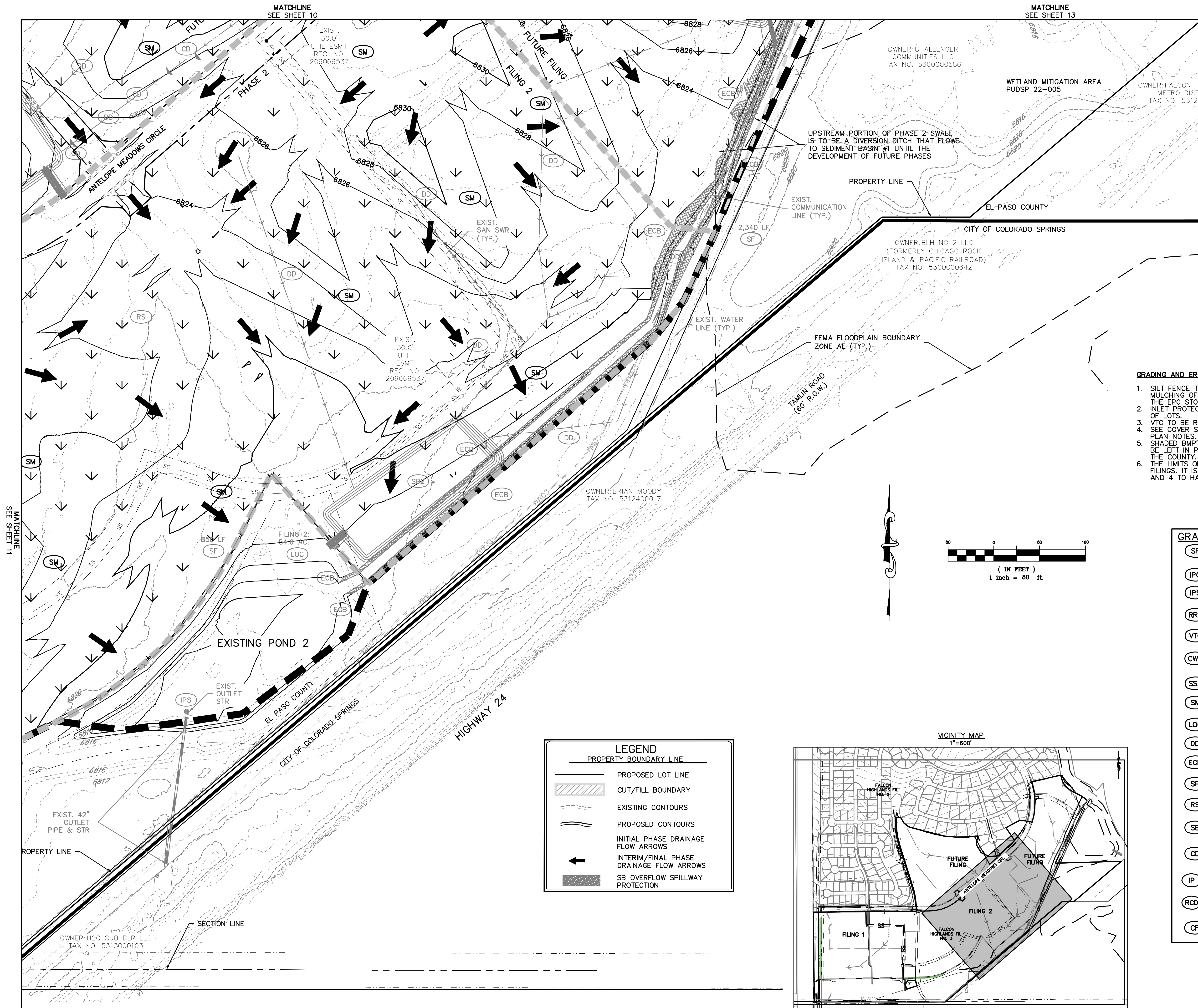
- GRADING AND EROSION CONTROL NOTES:**
1. SILT FENCE TO BE REMOVED AFTER PLACEMENT OF ECB OR SEEDING & MULCHING OF LOTS HAS REACH 70% VEGETATION AND BEEN APPROVED BY THE EPC STORMWATER INSPECTOR.
 2. INLET PROTECTION TO BE REMOVED AFTER DEVELOPMENT AND STABILIZATION OF LOTS.
 3. VTC TO BE REMOVED UPON COMPLETION OF PAVING OPERATIONS.
 4. SEE COVER SHEET FOR EL PASO COUNTY STANDARD GRADING & EROSION PLAN NOTES.
 5. SHADED BMP'S WERE INSTALLED IN INITIAL OR INTERIM STAGES AND SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY THE COUNTY.
 6. THE LIMITS OF CONSTRUCTION / DISTURBANCE SHOWN ARE FOR ALL FILINGS. IT IS THE INTENTION TO PERMANENTLY STABILIZE FUTURE FILINGS 3 AND 4 TO HAVE TEMPORARY BMP'S REMOVED.




BENCHMARK:
ELEVATIONS ARE BASED UPON SW COR SEC. 12, T13S, R65W, 6TH PM, FND. 3.25" ALUM. CAP. (ELEVATION: 6810.43=NAVD88).

BASIS OF BEARINGS:
BEARINGS ARE BASED UPON THE WEST LINE OF THE SOUTHWEST QUARTER OF SECTION 12, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, MONUMENTED AT THE SOUTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "AZTEC CONSULTANTS PLS 38256" AND AT THE NORTH END BY A FOUND 3-1/4" ALUMINUM CAP STAMPED "PLS 4842".

C:\PROJECTS\21005234\21005234-GEOP-FINAL.DWG: 17/03/24 2:34 PM: 21005234-GEOP-FINAL.DWG






Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2024 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.



866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100

CHALLENGER HOMES

8605 EXPLORER DRIVE
SUITE 250
COLORADO SPRINGS, CO 80920

719-598-5192
JIM BYERS

CHALLENGER HOMES


FALCON HIGHLANDS SOUTH
EL PASO COUNTY, COLORADO
CONSTRUCTION PLANS

GRADING AND EROSION CONTROL PLAN
FINAL GEOP

DATE: 03/14/2022

A	1st SUBMITTAL TO EPC	03/14/2022 - RDL
B	2nd SUBMITTAL TO EPC	08/31/2022 - RDL
C	3rd SUBMITTAL TO EPC	04/18/2023 - RDL
D	4th SUBMITTAL TO EPC	07/20/2023 - RDL
E	5th SUBMITTAL TO EPC	03/09/2024 - RDL

REVISIONS



COUNTY FILE NO.: PUDSP-22-005

DR: JD CH: CH

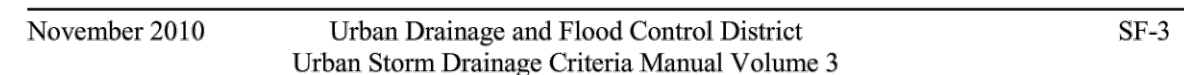
P.M. RDL

JOB: 21005234

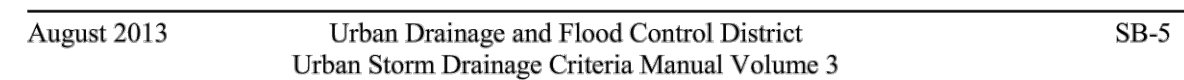
SHEET NO. 12

CAD FILE: 21005234-GEOP-FINAL.DWG

SC-1



SC-7



Silt Fence (SF)

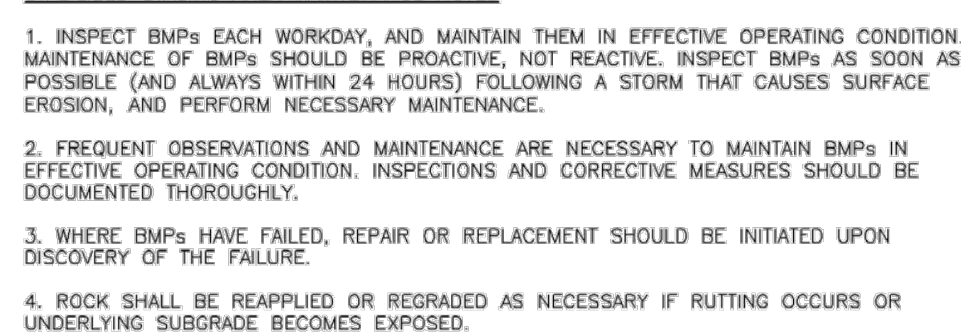
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

Sediment Basin (SB)

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, HO.
 - FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HO AND PIPE DIAMETER, DP.
2. NOT REDUCED.
3. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
4. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON BASINS AS A STORMWATER CONTROL.
5. 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 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
6. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
7. PIPE SCH 40 OR GREATER SHALL BE USED.
8. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S). FOR DRAINAGE AREAS LARGER THAN 15 ACRES, SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS

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

SM-6



SC-7

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.

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

Stabilized Staging Area (SSA)

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

COPYRIGHT © 2023 ATWELL LLC
REPRODUCTION SHALL BE MADE
WITHOUT THE PRIOR WRITTEN
CONSENT OF ATWELL LLC



CHALLENGER HOMES
8605 EXPLORER DRIVE
SUITE 250
COLORADO SPRINGS, CO 80901
719-598-5192
JIM BYERS

CHALLENGER HOMES
FALCON HIGHLANDS, SOUTH
EL PASO COUNTY, COLORADO
CONSTRUCTION PLANS
GRADING AND EROSION CONTROL PLAN
DETAIL C&B

DATE 03/14/2022

A	1st SUBMITTAL TO EPC	03/14/2022 - RD
B	2nd SUBMITTAL TO EPC	08/31/2022 - RD
C	3rd SUBMITTAL TO EPC	04/18/2023 - RD
D	4th SUBMITTAL TO EPC	07/20/2023 - D
E	5th SUBMITTAL TO EPC	03/06/2024 - D

REVISIONS



COUNTY FILE NO.:
PUDSP-22-005

DR.	JD	CH.
-----	----	-----

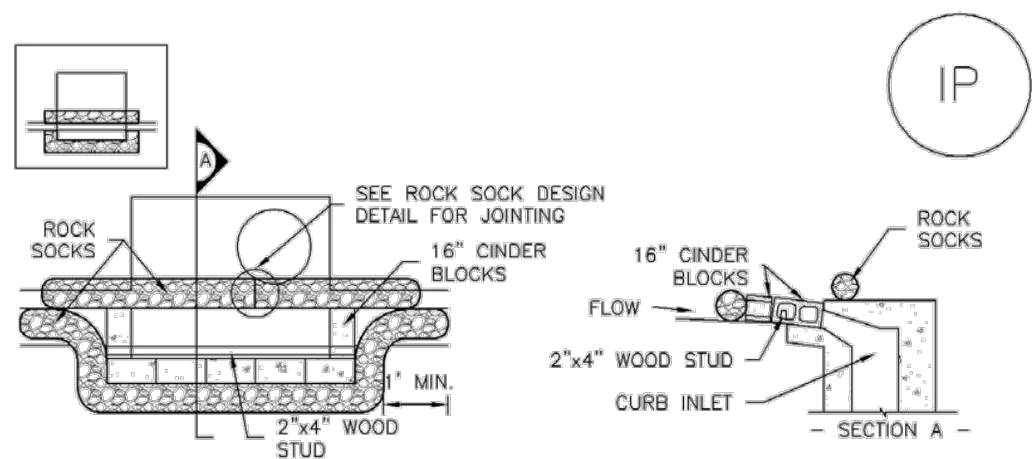
P.M. RDI

JOB 210052.34

SHEET NO.

16

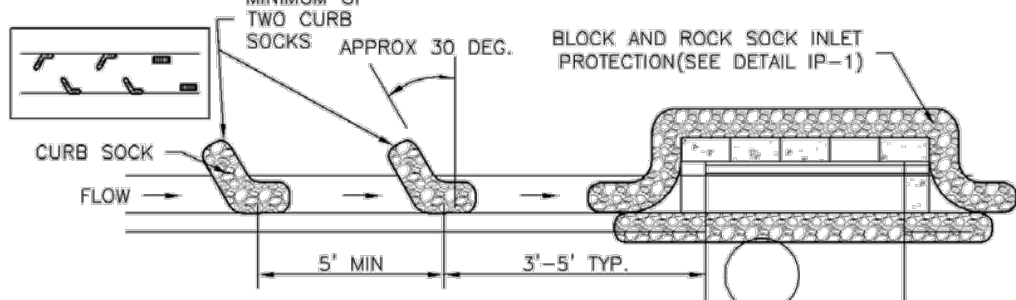
SC-6 Inlet Protection (IP)



IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

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. DOWEL BARS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.
2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.
4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.

IP-4 Urban Drainage and Flood Control District August 2013
Urban Storm Drainage Criteria Manual Volume 3

Mulching (MU) EC-4

Description

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints.

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.

Appropriate Uses

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

Design and Installation

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

A variety of mulches can be used effectively at construction sites. Consider the following:

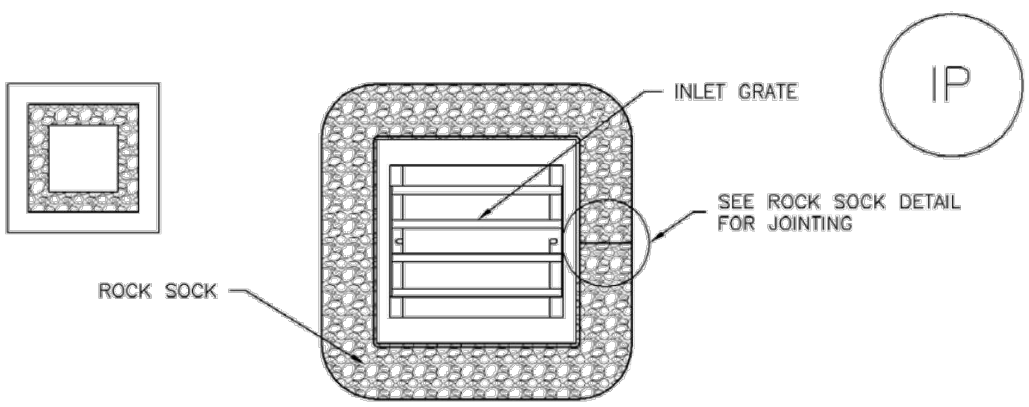
Mulch	
Functions	
Erosion Control	Yes
Sediment Control	Moderate
Site/Material Management	No

June 2012 Urban Drainage and Flood Control District MU-1
Urban Storm Drainage Criteria Manual Volume 3



Photograph MU-1. An area that was recently seeded, mulched, and crimped.

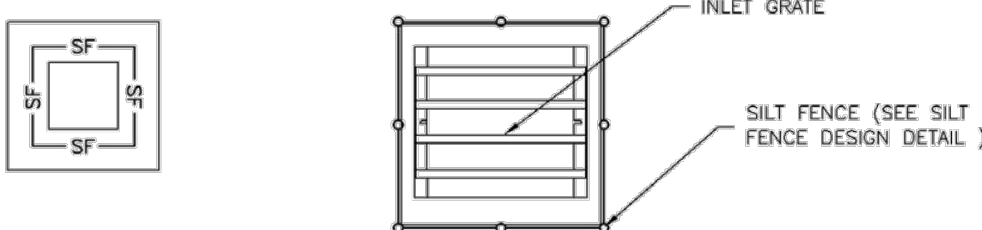
Inlet Protection (IP) SC-6



IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



IP-4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.
3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

August 2013 Urban Drainage and Flood Control District IP-5
Urban Storm Drainage Criteria Manual Volume 3

EC-4 Mulching (MU)

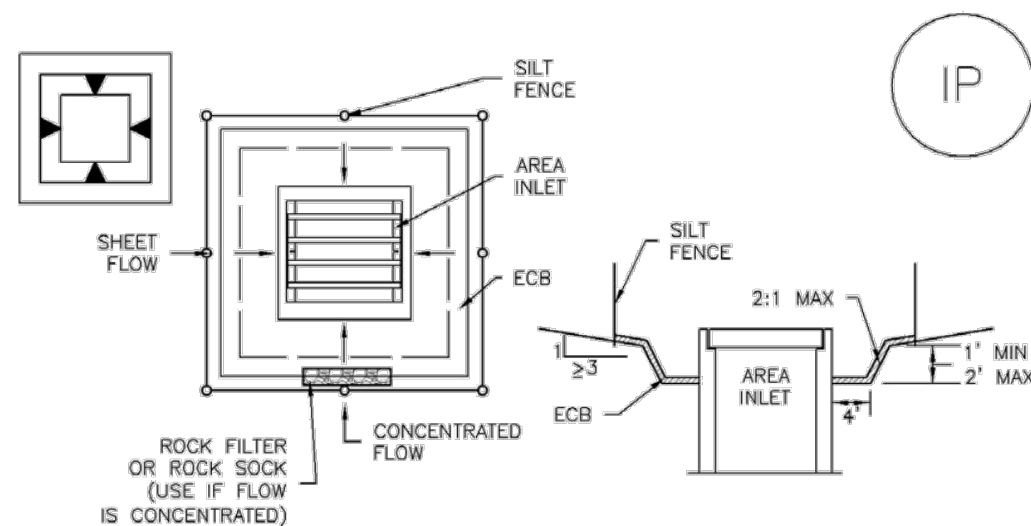
- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.
- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided above).
- On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.
- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydroseeding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.
- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or exelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)
- Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)
- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

Maintenance and Removal

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

MU-2 Urban Drainage and Flood Control District June 2012
Urban Storm Drainage Criteria Manual Volume 3

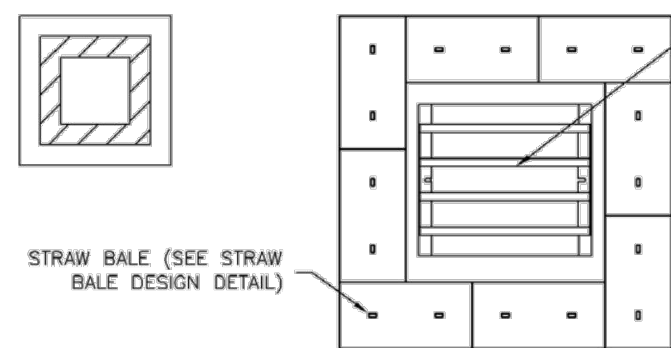
SC-6 Inlet Protection (IP)



IP-5. OVEREXCAVATION INLET PROTECTION

OVEREXCAVATION INLET PROTECTION INSTALLATION NOTES

1. THIS FORM OF INLET PROTECTION IS PRIMARILY APPLICABLE FOR SITES THAT HAVE NOT YET REACHED FINAL GRADE AND SHOULD BE USED ONLY FOR INLETS WITH A RELATIVELY SMALL CONTRIBUTING DRAINAGE AREA.
2. WHEN USING FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW.
3. SEDIMENT MUST BE PERIODICALLY REMOVED FROM THE OVEREXCAVATED AREA.



IP-6. STRAW BALE FOR SUMP INLET PROTECTION

STRAW BALE BARRIER INLET PROTECTION INSTALLATION NOTES

1. SEE STRAW BALE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH ENDS OF BALES TIGHTLY ABUTTING ONE ANOTHER.

IP-6 Urban Drainage and Flood Control District August 2013
Urban Storm Drainage Criteria Manual Volume 3

EC-2 Temporary and Permanent Seeding (TS/PS)

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

Species ^a (Common name)	Growth Season ^b	Pounds of Pure Live Seed (PLS)/acre ^c	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	½
5. Millet	Warm	3 - 15	½ - ¾
6. Winter wheat	Cool	20-35	1 - 2
7. Winter barley	Cool	20-35	1 - 2
8. Winter rye	Cool	20-35	1 - 2
9. Triticale	Cool	25-40	1 - 2

^a 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.

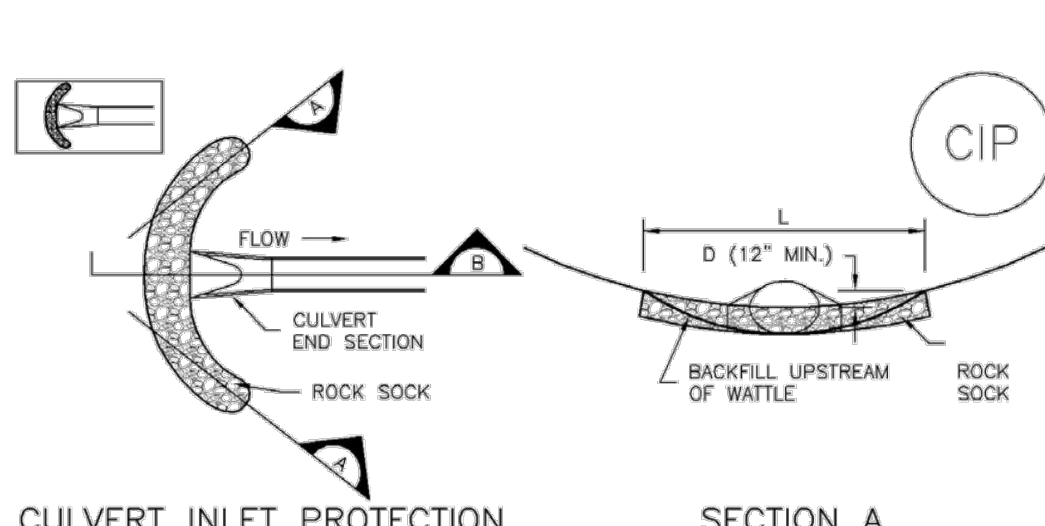
^b See Table TS/PS-2 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

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

TS/PS-4 Urban Drainage and Flood Control District January 2021
Urban Storm Drainage Criteria Manual Volume 3

This document was created by an application that isn't licensed to use novaPDF. Purchase a license to generate PDF files without this notice.

SC-6 Inlet Protection (IP)



CIP-1. CULVERT INLET PROTECTION

CULVERT INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION OF CULVERT INLET PROTECTION.
2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET PROTECTION 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. SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS ½ THE HEIGHT OF THE ROCK SOCK.
5. CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

August 2013 Urban Drainage and Flood Control District IP-7
Urban Storm Drainage Criteria Manual Volume 3

Temporary and Permanent Seeding (TS/PS) EC-2

Table TS/PS-2. Seeding Dates for Annual and Perennial Grasses

Seeding Dates	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
	Warm	Cool	Warm	Cool
January 1-March 15			✓	✓
March 16-April 30		1,2,3	✓	✓
May 1-May 15			✓	
May 16-June 30	5			
July 1-July 15	5			
July 16-August 31				
September 1-September 30		6, 7, 8, 9		
October 1-December 31			✓	✓

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 USDCM Volume 2 *Revegetation* Chapter and Volume 3 Mulching BMP Fact Sheet (EC-04) 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.

If a temporary annual seed was planted, the area should be reseeded with the desired perennial mix when there will be no further work in the area. To minimize competition between annual and perennial species, the annual mix needs time to mature and die before seeding the perennial mix. To increase success of the perennial mix, it should be seeded during the appropriate seeding dates the second year after the temporary annual mix was seeded. Alternatively, if this timeline is not feasible, the annual mix seed heads should be removed and then the area seeded with the perennial mix.

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.

January 2021 Urban Drainage and Flood Control District TS/PS-5
Urban Storm Drainage Criteria Manual Volume 3

This document was created by an application that isn't licensed to use novaPDF. Purchase a license to generate PDF files without this notice.



THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT ©2023 ATWELL, LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL, LLC.



CHALLENGER HOMES
8605 EXPLORER DRIVE
SUITE 250
COLORADO SPRINGS, CO 80920
719-598-5192
JIM BYERS

CHALLENGER HOMES
FALCON HIGHLANDS SOUTH
EL PASO COUNTY, COLORADO
CONSTRUCTION PLANS
GRADING AND EROSION CONTROL PLAN
DETAIL GCP

DATE 03/14/2022

A	1st SUBMITTAL TO EPC	03/14/2022 - RDL
B	2nd SUBMITTAL TO EPC	08/31/2022 - RDL
C	3rd SUBMITTAL TO EPC	04/18/2023 - RDL
D	4th SUBMITTAL TO EPC	07/02/2023 - RDL
E	5th SUBMITTAL TO EPC	03/02/2024 - RDL

REVISIONS

COUNTY FILE NO.: PUDSP-22-005

DR: JD CH:

P.M. RDL

JOB 21005234

SHEET NO.