FINAL GRADING AND EROSION CONTROL PLANS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FALCON, CO 80831 - EL PASO COUNTY
CHALLENGER COMMUNITIES, LLC

PCD-ENGINEERING REVIEW COMMENTS IN BLUE BOXES WITH BLUE TEXT

Engineering Review
06/21/2021 10:24:06 PM
dsdrice
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EPC Planning & Community Development Department

EPC STORMWATER REVIEW COMMENTS IN ORANGE BOXES WITH BLACK TEXT

Reviewed by:
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Stormwater Engineer I
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719-675-2654

PROJECT CONTACTS

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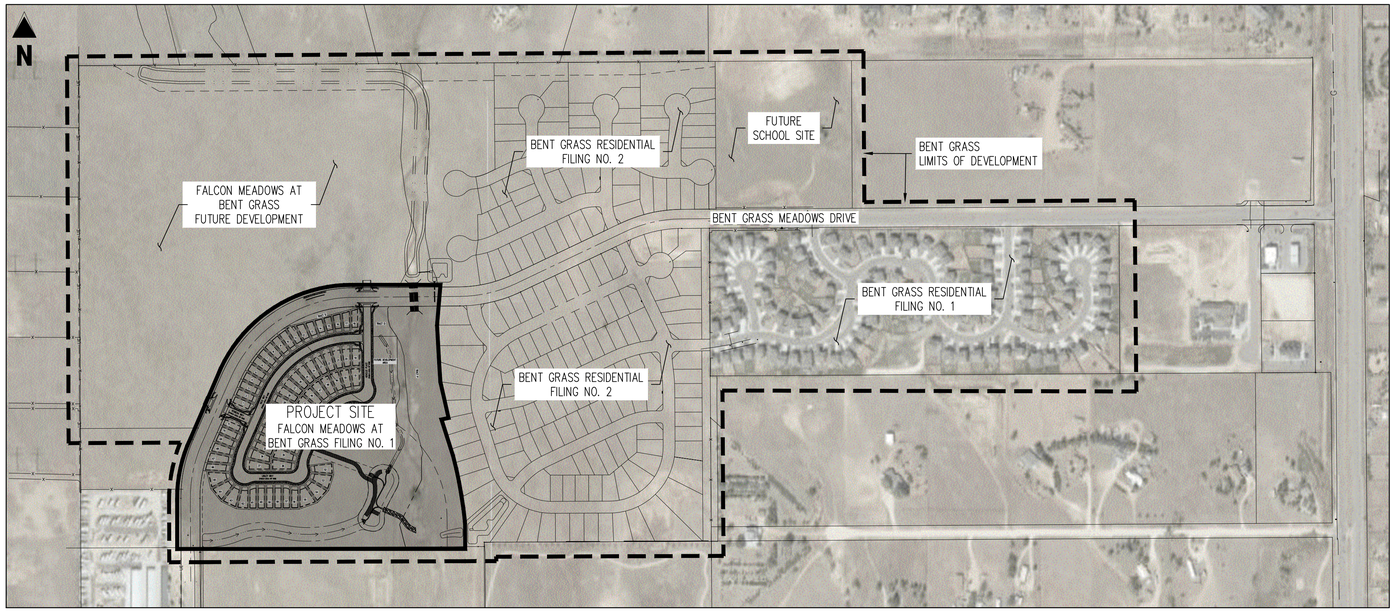
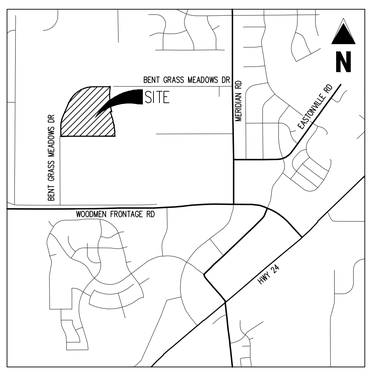


SITE MAP
SCALE: 1"=300'



VICINITY MAP
1"=2,000'

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 THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY AN NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.

RONALD G. DENNIS, COLORADO P.E. NO. 0051622 — DATE

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

LEE EISENHEIM
CHALLENGER COMMUNITIES, LLC — 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 DIRECTORS DISCRETION.

JENNIFER IRVINE, P.E.
COUNTY ENGINEER / ECM ADMINISTRATOR — DATE

SHEET INDEX

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SEE FALCON MEADOWS AT BENT GRASS FILING NO. 1 ROADWAY AND STORM SEWER CONSTRUCTION PLANS FOR ROADWAY AND STORM SEWER IMPROVEMENTS

SEE FALCON MEADOWS AT BENT GRASS FILING NO. 1 UTILITY CONSTRUCTION PLANS FOR WATER AND SANITARY IMPROVEMENTS

BASIS OF BEARINGS
ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS N00°13'46"W AND MONUMENTED AS SHOWN:

BENCHMARK
THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4. MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

CAUTION – NOTICE TO CONTRACTOR
1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

Know what's below. Call before you dig.

Add text:
PCD Filing No.:
SF-21-020

Galloway
1155 Kelly Johnson Blvd., Suite 305
Colorado Springs, CO 80920
719.900.7220
GallowayUS.com

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERIDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL COVER SHEET

G0.0
Sheet 1 of 22

H:\Challenger Homes\000018 El Paso County (CLH000018 Bent Grass Filing 2)\CAD\CLH000018 - ECM_GEC Cover Sheet Bentgrass.dwg, Claire Johnson, 2/25/2021

STANDARD NOTES FOR GEC PLANS

1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFFSITE 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 TO 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. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR AND 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 MAY CONTRIBUTE POLLUTANTS TO STORMWATER. TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.

6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES IS 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 PRIOR TO IMPLEMENTATION.

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. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE STABILIZED.

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 PLAN 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 DEFINED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE HYDROLOGY OR HYDRAULICS OF A PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.

10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.

11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED.

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 RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUT SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY.

14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.

15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.

16. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER 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. BMPS MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.

17. VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

18. 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.

19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEM 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 CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR, IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

22. BULK STORAGE OF PETROLEUM PRODUCTS OR OTHER LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL HAVE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.

24. INDIVIDUALS 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 INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.

26. PRIOR TO ACTUAL CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.

28. THE SOILS REPORT, TITLED "BENT GRASS RESIDENTIAL, FILING NO. 2 EL PASO COUNTY, COLORADO" FOR THIS SITE HAS BEEN PREPARED BY ROCKY MOUNTAIN GROUP, JOB NO. 176147, DATED JUNE 22, 2020 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 1 ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

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

STANDARD NOTES FOR CONSTRUCTION PLANS

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).

3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
   A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   C. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   D. CDOT M & S STANDARDS

4. 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. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.

5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.

6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) – INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.

7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.

8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.

9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.

10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.

11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.

12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.

13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]

14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.

15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

EROSION CONTROL NOTES

1. AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 1 ACRE OR MORE, THE OWNER OR OPERATOR OF THE CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY CONTROL DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

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

2. ALL DISTURBED AREAS TO BE RESEEDED UPON COMPLETION OF OVERLOT GRADING AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED OR WITHIN 60 DAYS, WHICHEVER IS LESS TIME.

3. CONSTRUCTION FENCE AND SILT FENCE OFFSET FOR CLARITY. CONTRACTOR TO ENSURE BMPS ARE PLACED DOWNSTREAM OF DISTURBED AREAS TO PREVENT SEDIMENT FROM LEAVING THE SITE.

4. BENT GRASS MEADOWS DRIVE SHALL BE STREET SWEPT AND INSPECTED ON A REGULAR BASIS DURING CONSTRUCTION.

5. NO NOTABLE EXISTING VEGETATION EXISTS ON THE SITE, APART FROM NATIVE GRASSES AND WEEDS. THE EXISTING SOIL TYPES WITHIN THE PROPERTY CONSISTS OF COLUMBINE GRAVELLY SANDY LOAM, BLAKELAND-FLUVAQUENTIC HAPLAQUOLLS, AND BLAKELAND LOAMY SAND. ALL SOILS ARE DEFINED AS HAVING A HYDROLOGIC SOIL GROUP OF A, AS DETERMINED BY THE NRCS WEB SOIL SURVEY FOR EL PASO COUNTY AREA.

Revise note to be more in line with:
DCM Vol 2 - Section 3.2 - General Principles – Basic Grading, Erosion and Stormwater Quality Requirements and General Prohibitions #16.

Revise these notes to match those shown on the GEC Checklist.

GENERAL CONSTRUCTION NOTES

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.

2. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPLACED AT THE CONTRACTORS EXPENSE AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.

3. ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.

4. ALL BACKFILL, SUB-BASE AND / OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED TO THE SOILS ENGINEERS RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION.

5. ALL STATIONING IS CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE INDICATED.

6. ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO THE EPC ECM APPENDIX K – 1.2C.

7. ALL INTERSECTION ACCESSES TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLES AND THERE SHALL BE NO OBSTRUCTIONS GREATER THAN 18" IN THIS AREA.

8. ALL CULVERT AND STORM PIPES SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (HDPE), OR REINFORCED CONCRETE PIPE (RCP), ALL CULVERTS SHALL BE PLACED COMPLETE WITH FLARED END SECTIONS. ADEQUACY OF MATERIAL THICKNESS FOR ANY CSP INSTALLED SHALL BE VERIFIED BY OWNERS GEOTECHNICAL ENGINEER TO SUPPORT MINIMUM 50 YEAR DESIGN LIFE. CULVERTS MUST CONFORM TO EPC ECM SECTION 3.32 – CULVERTS.

9. ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED FOR ROADS SHALL BE PER DESIGN REPORT BY OWNERS GEOTECHNICAL ENGINEER. OWNERS GEOTECHNICAL ENGINEER TO BE ON SITE AT TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.

10. TYPE M RIP-RAP WITH 4" OF TYPE II GRANULAR BEDDING AND MIRAFI 180N OR EQUAL MAY BE SUBSTITUTED WHERE TYPE L RIP-RAP WITH MIRAFI FW 700 OR EQUAL IS SPECIFIED.

11. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH ANY AND ALL APPLICABLE EL PASO COUNTY STANDARDS AND WITH WOODMAN HILLS METRO DISTRICT CONSULTING ENGINEER APPROVAL.

12. ALL POTABLE WATER MAINS SHALL BE AWWA C900-SDR18 PVC WITH PUSH-ON SINGLE GASKET TYPE JOINTS AND SHALL MEET THE REQUIREMENTS OF ANSI / NSF 61.

13. ALL WATER MAIN FITTINGS SHALL BE MADE FROM GRAY-IRON OR DUCTILE IRON AND FURNISHED WITH MECHANICAL JOINT ENDS. ALL FITTINGS SHALL HAVE A PRESSURE RATING OF 250 PSI AND SHALL MEET THE REQUIREMENTS OF ANSI / NSF 61.

14. ALL WATER LINE BENDS, TEES, BLOW-OFFS AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST BY USING CONCRETE THRUST BLOCKS AND / OR RODDING AND RESTRAINED PIPE PER THE WOODMEN HILLS METRO DISTRICT CONSULTING ENGINEER APPROVAL.

15. MAXIMUM DEFLECTION OF 8" OR 12" PVC WATER MAIN JOINTS IS 4 DEGREES. CORRESPONDING MINIMUM CURVE RADIUS IS 286'. ADDITIONAL 11.25° OR 22.5° BENDS MAY BE REQUIRED FOR PROPER ALIGNMENT.

16. CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED AS-BUILTS OF ALL WATER MAIN, STORM SEWER AND SANITARY SEWER MAIN INSTALLATIONS, INCLUDING ACCURATE DISTANCES OF MAIN LINES, VALVES, FITTINGS, MANHOLES AND LOCATIONS OF WATER AND SEWER SERVICES.

17. SANITARY SEWER PIPE AND FITTINGS: PVC 4" – 8" ASTM D3034, TYPE PSM, SDR 35: PUSH-ON JOINTS AND MOLDED RUBBER GASKETS MAXIMUM HORIZONTAL DEFLECTIONS, AFTER INSTALLATION AND BACK FILLING SHALL NOT EXCEED 3% OF THE PIPE DIAMETER. (MINIMUM CURVE RADIUS IS 100' FOR 8" PVC SANITARY SEWER MAIN)

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERIDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

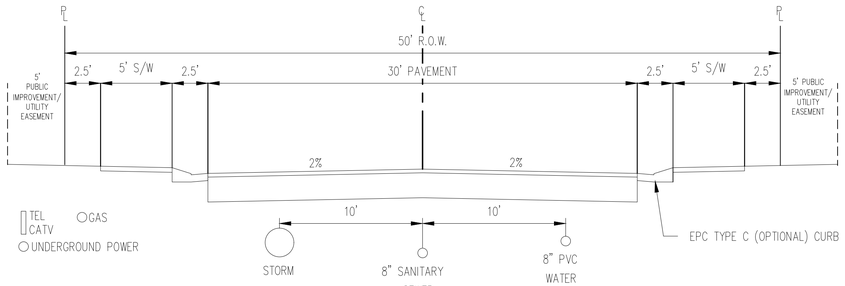
#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL NOTES

G0.1
Sheet 2 of 22

H:\Challenger Homes\ACDO_El Paso County\CLH000018 Bent Grass Filing 2\ACDO\CDS\CLH018_ACDO_GEC Cover Notes Standard.dwg, Caleb Johnson, 2/22/2021



TYPICAL STREET SECTION – URBAN LOCAL ROADWAY
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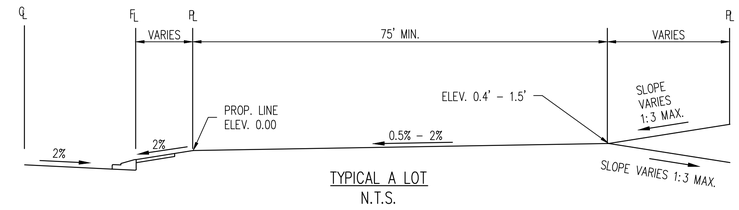
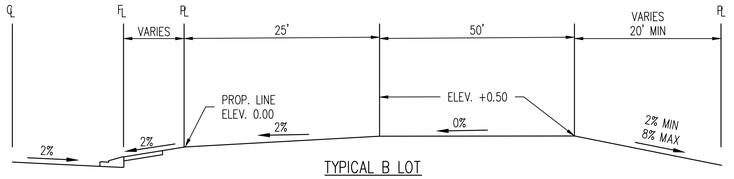


TYPICAL A LOT
N.T.S.



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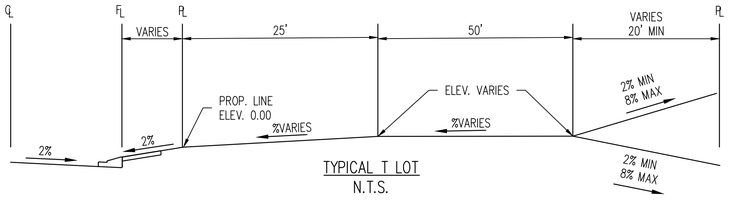
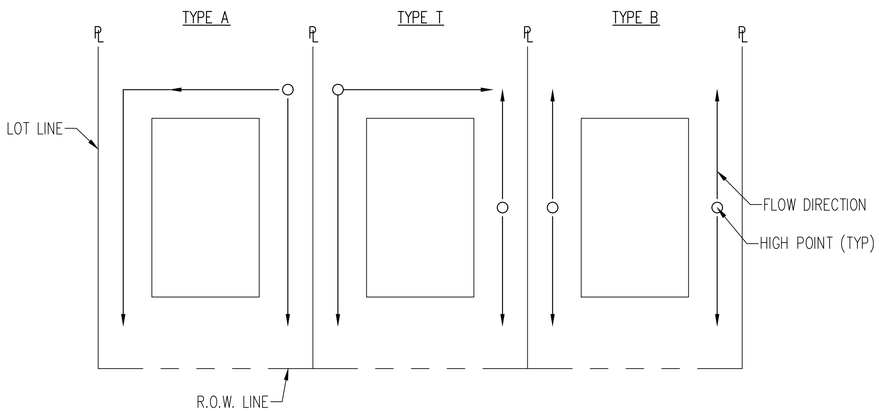


TYPICAL T LOT
N.T.S.

NOTES:
1. TRANSITION LOTS IDENTIFIED BY A "T" ARE INCLUDED TO INDICATE LOTS THAT WILL REQUIRE HOME BUILDERS TO PREPARE A SITE SPECIFIC GRADING PLAN TO DETAIL THE GRADING TRANSITION FROM TYPE A/B LOTS TO GARDEN/WALKOUT LOTS
2. THE DEVELOPER/HOME BUILDER SHALL INSTALL SIDE LOT SWALES TO MINIMIZE THE LOT TO LOT DRAINAGE.



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FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

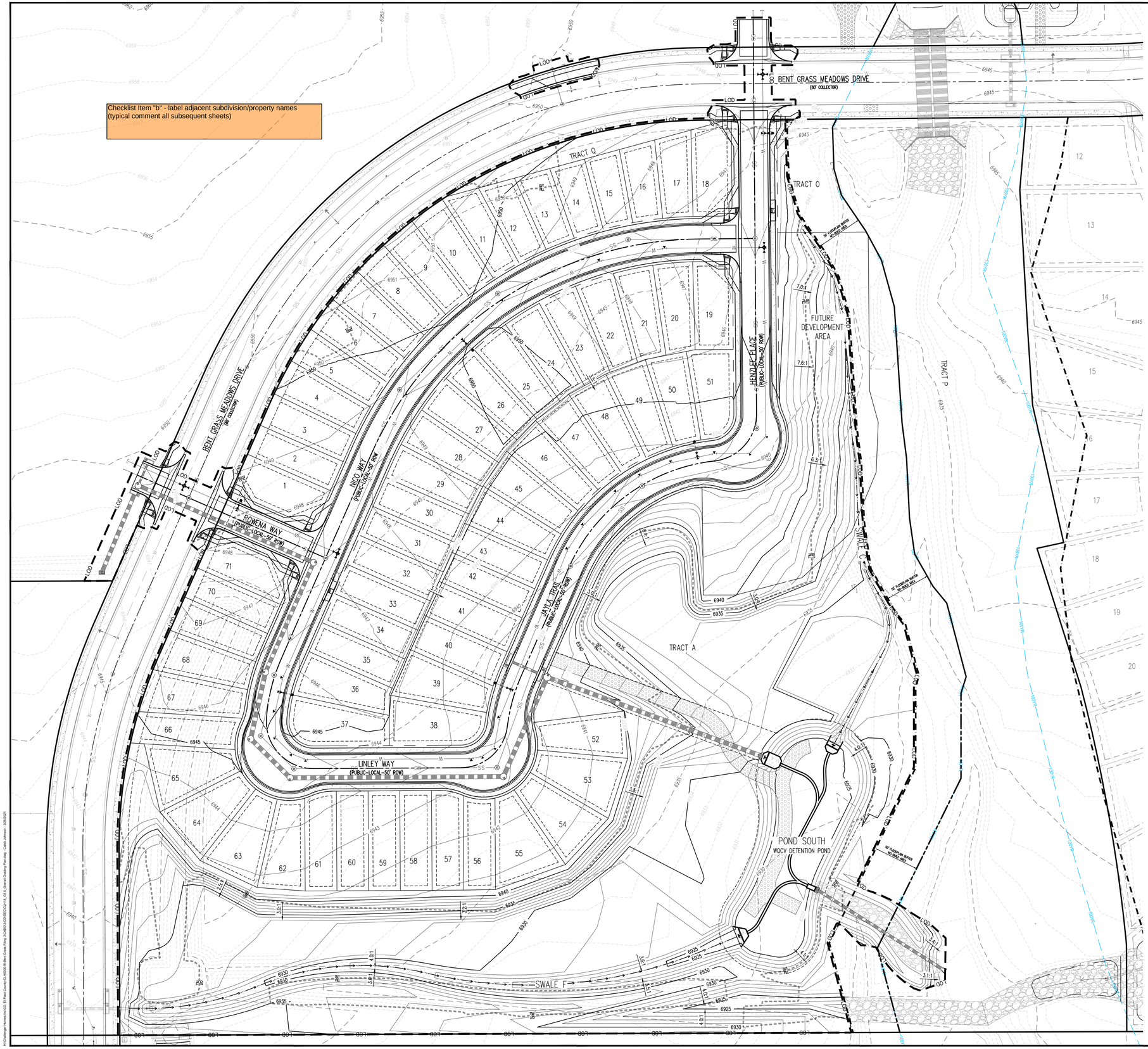
Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL TYPICAL SECTIONS

G0.2
Sheet 3 of 22

W:\Challenger Homes Inc\CDs El Paso County\CLH000018 Bent Grass Filing 1\CAD\LDD\SECOVLT4_G0.2_GEC Cover Notes Sections.dwg, Estelle Johnson, 2/18/2021

Checklist Item "b" - label adjacent subdivision/property names (typical comment all subsequent sheets)



N

0 10 20 50

SCALE: 1"=50'

LEGEND

- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE TO BE REMOVED
- PROPOSED RIGHT OF WAY LINE
- EXISTING LOT LINE
- PROPOSED LOT LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING SUBDIVISION BUFFER
- 6940 EXISTING MAJOR CONTOUR
- 6941 EXISTING MINOR CONTOUR
- 6940 PROPOSED MAJOR CONTOUR
- 6939 PROPOSED MINOR CONTOUR
- EXISTING STORM DRAIN PIPE
- PROPOSED STORM DRAIN PIPE
- W EXISTING WATER LINE
- W PROPOSED WATER LINE
- SS EXISTING SANITARY SEWER LINE
- SS PROPOSED SANITARY SEWER LINE
- EXISTING DRAINAGE FEATURE OUTLINE
- PROPOSED DRAINAGE FEATURE OUTLINE
- EXISTING SWALE WITH FLOW DIRECTION
- PROPOSED SWALE WITH FLOW DIRECTION
- 100YR 100-YEAR FEMA FLOODPLAIN
- CUT / FILL
- 100-YEAR FLOODPLAIN 50-FT BUFFER
- PROPOSED 1" TO 2" CRUSHED ROCK
- PROPOSED RIP RAP
- EXISTING CONCRETE PAVING
- EXISTING CDOT CLASS 6 GRAVEL
- EXISTING 1" TO 2" CRUSHED ROCK
- EXISTING RIP RAP
- EXISTING GROUTED BOULDERS
- 113 PROPOSED LOT #
- 161 EXISTING LOT # (BENT GRASS FILING NO. 2)
- PROPOSED ADA RAMP
- 55.00 HP SPOT ELEVATION – HIGH POINT
- 55.00 LP SPOT ELEVATION – LOW POINT
- 55.00 FG SPOT ELEVATION – FINISH GRADE
- 2.00% EXISTING SLOPE (PERCENT)
- 4:1 EXISTING SLOPE (RISE:RUN)
- 2.00% PROPOSED SLOPE (PERCENT)
- 4:1 PROPOSED SLOPE (RISE:RUN)
- FLOW ARROW

NOTES

1. ADD 6900 TO ALL SPOT ELEVATIONS
2. THE PLAN SHALL NOT SUBSTANTIALLY CHANGE THE DEPTH OF COVER, OR ACCESS TO UTILITY FACILITIES. ADDITIONALLY, THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO UTILITY FACILITIES TO ACCOMMODATE THE PLAN, MUST BE DISCUSSED AND AGREED TO BY THE AFFECTED UTILITY PRIOR TO IMPLEMENTING THE PLAN. THE RESULTING COST TO RELOCATE OR PROTECT UTILITIES, OR PROVIDE INTERIM ACCESS IS AT THE EXPENSE OF THE PLAN APPLICANT.

EROSION CONTROL PHASING SCHEDULE

PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, AND CURB SOCKS ALONG BENT GRASS MEADOWS DRIVE
INTERIM	CONVERT EXISTING SEDIMENT BASIN FROM "EARLY GRADING & EROSION CONTROL PLANS" TO THE PROPOSED WATER QUALITY CAPTURE VOLUME DETENTION BASIN W/ ALL PERMANENT CONTROL MEASURES. THEN, INSTALL STABILIZED STAGING AREA, VEHICLE TRACKING CONTROL AT ENTRANCES, AND CONCRETE WASHOUT AREA. THEN OVERLOT GRADE THE ENTIRE PROJECT SITE AS SHOWN ON PLAN VIEW, INSTALL STRAW BALE BARRIERS ALONG INTERNAL ROADWAYS, AND INSTALL CHECK DAMS ALONG PROPOSED SWALES. FINALLY, INSTALL PROPOSED STORM SEWER. CONTRACTOR TO USE EXTREME CAUTION TO NOT DAMAGE THE WATER AND WASTEWATER IMPROVEMENTS COMPLETED IN THE EARLY METRO DISTRICT IMPROVEMENTS PLAN SET.
FINAL	CONSTRUCT CURB/GUTTER AND PAVEMENT. CONSTRUCT GAS/ELECTRIC/CABLE/PHONE IN ROW AREAS. REMOVE CONSTRUCTION BMP'S ONCE VERTICAL CONSTRUCTION OF HOUSES AND APPLICABLE LANDSCAPING IS COMPLETE.

BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS N00°13'46"W AND MONUMENTED AS SHOWN:

BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4. MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

CAUTION – NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERIDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

OVERALL GRADING PLAN AND CUT & FILL MAP

G1.0

Sheet 4 of 22

I:\Challenger Homes\18000_El Paso County (CLH000018 Bent Grass Way SCHEMA\CDS\DESIGN\PLAN SHEETS\G1.0 Overall Grading Plan.dwg, Claire Johnson, 2/8/2021

EROSION CONTROL LEGEND

- LOD — LIMITS OF DISTURBANCE / CONSTRUCTION
- SF — SILT FENCE
- CF — CONSTRUCTION FENCE
- IPS — SUMP INLET PROTECTION (IP-3)
- IPO — ON-GRADE INLET PROTECTION
- CS — CURB SOCKS
- VTC — VEHICLE TRACKING CONTROL
- CWA — CONCRETE WASHOUT AREA
- SSA — STABILIZED STAGING AREA
- SC — PROPOSED SAWCUT LINE
- PT — PORTABLE TOILET
- SPL — STOCKPILE
- CD — CHECK DAM
- RR — RIPRAP OUTFALL PADS
- SP — SITE POSTING (CONTACTS AND PERMITS)
- WP — WASHOUT POSTING
- SBB — STRAW BALE BARRIER
- SB — SEDIMENT BASIN

LEGEND

- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE TO BE REMOVED
- PROPOSED RIGHT OF WAY LINE
- EXISTING LOT LINE
- PROPOSED LOT LINE
- EXISTING EASEMENT
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- PROPOSED DRAINAGE FEATURE OUTLINE
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- CUT / FILL
- 100-YEAR FLOODPLAIN 50-FT BUFFER
- FLOW ARROW

- PROPOSED 1" TO 2" CRUSHED ROCK
- PROPOSED RIP RAP
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- 4:1 EXISTING SLOPE (RISE:RUN)
- 2.00% PROPOSED SLOPE (PERCENT)
- 4:1 PROPOSED SLOPE (RISE:RUN)

show flow arrows on plans (typical comment for all sheets)

BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS N00°13'46"W AND MONUMENTED AS SHOWN:

BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4, MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

CAUTION – NOTICE TO CONTRACTOR

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EROSION CONTROL PHASING SCHEDULE

PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, AND CURB SOCKS ALONG BENT GRASS MEADOWS DRIVE
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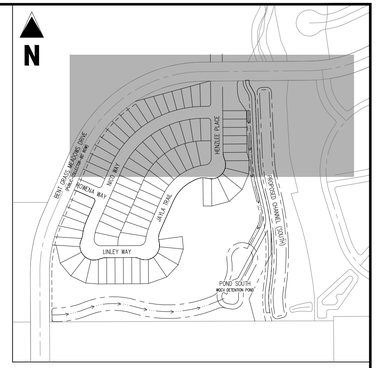
FINAL	CONSTRUCT CURB/GUTTER AND PAVEMENT. CONSTRUCT GAS/ELECTRIC/CABLE/PHONE IN ROW AREAS. REMOVE CONSTRUCTION BMP'S ONCE VERTICAL CONSTRUCTION OF HOUSES AND APPLICABLE LANDSCAPING IS COMPLETE.

N

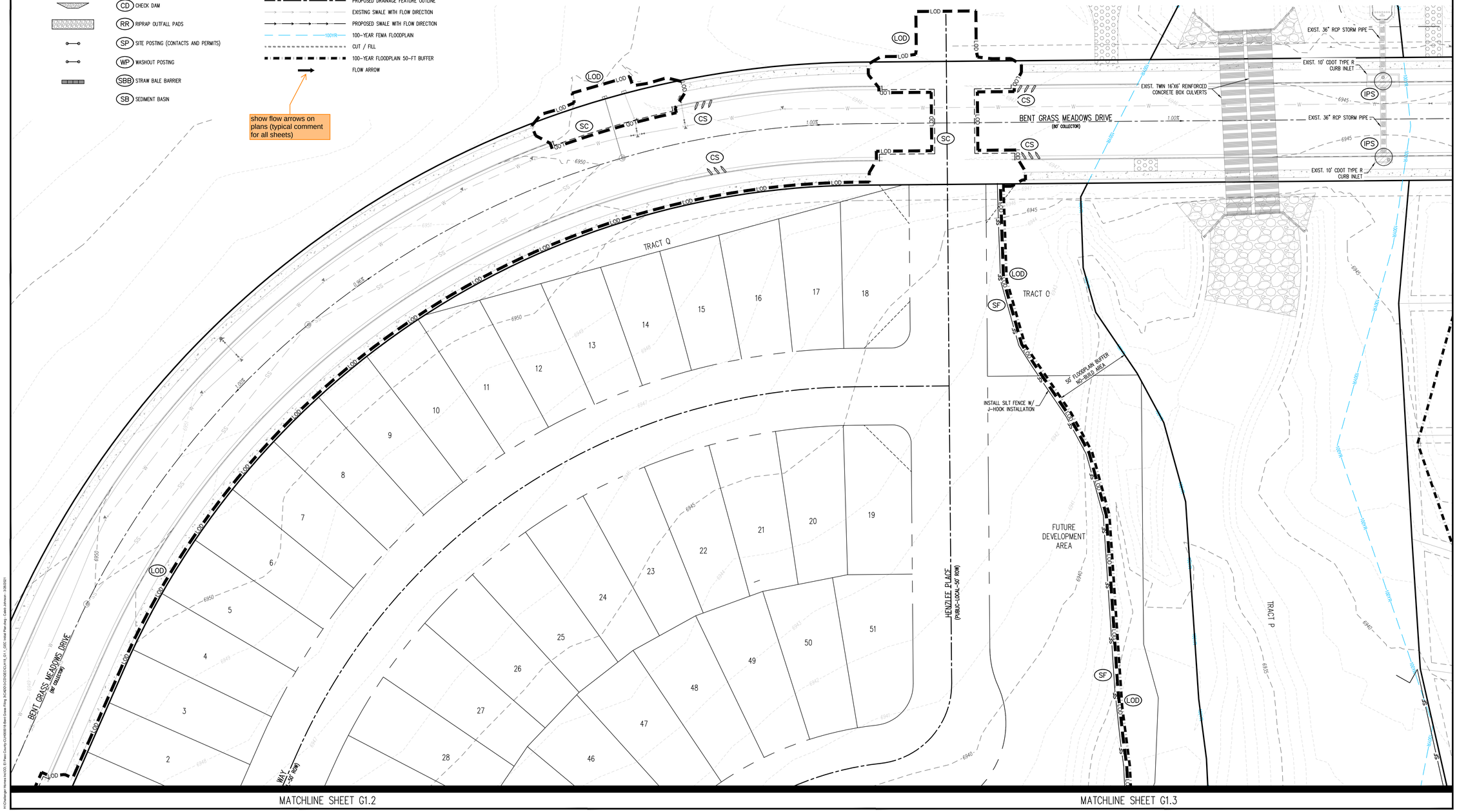
0 15 30

SCALE: 1"=30'



KEY MAP

SCALE: 1"=300'



MATCHLINE SHEET G1.2

MATCHLINE SHEET G1.3

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#	Date	Issue / Description	Init.

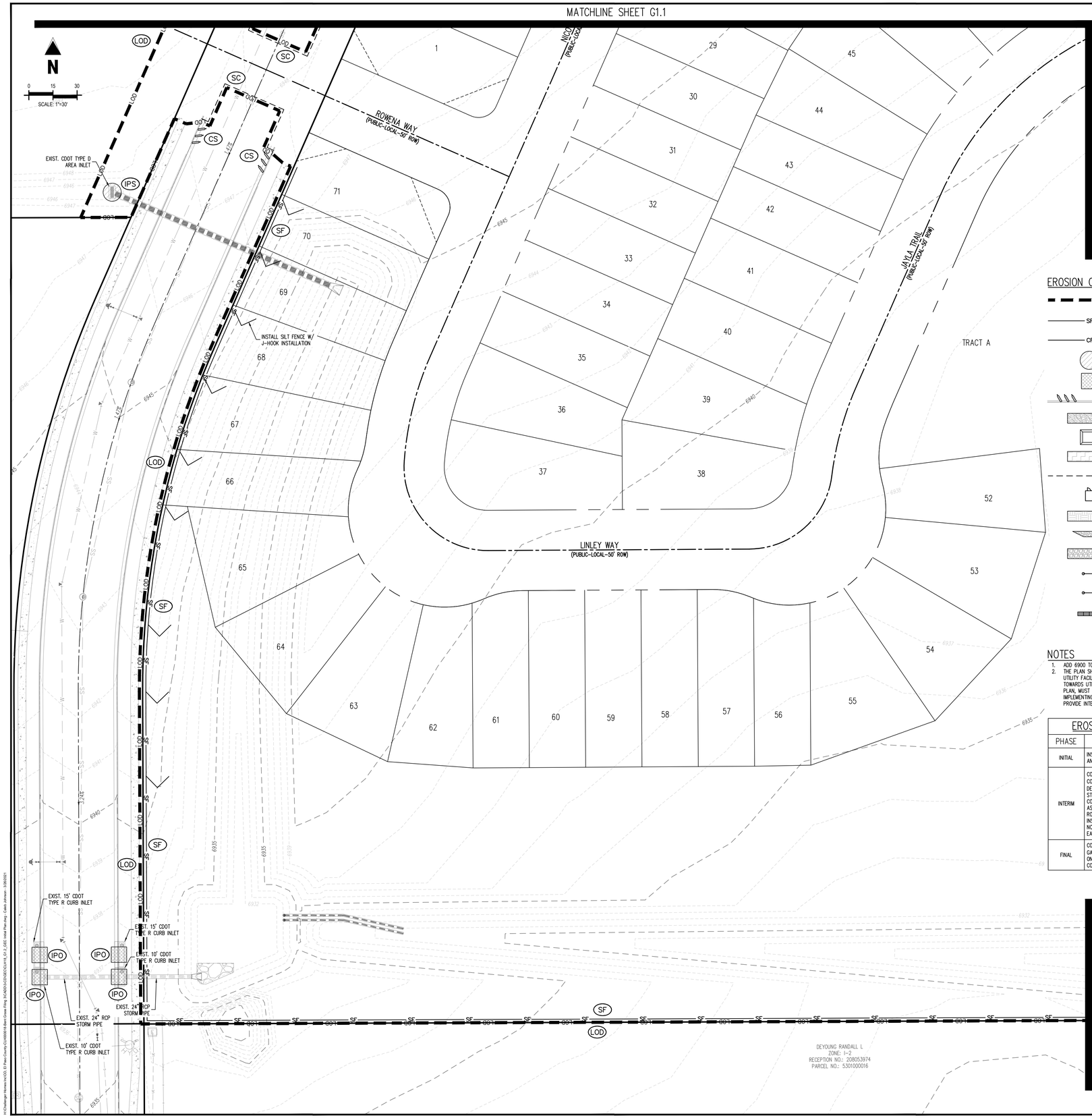
Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

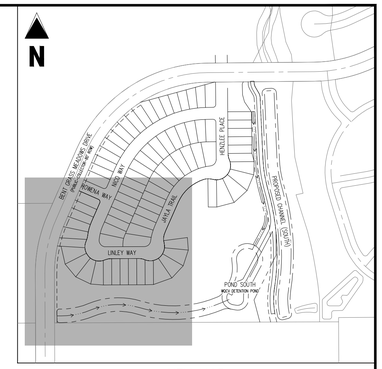
GRADING & EROSION CONTROL INITIAL PLAN

G1.1

Sheet 5 of 22

N:\Challenger Homes\CLH000...\Project Survey\Civil\Bent Grass Filing No 1\CAD\Civil\CLH000018 Bent Grass Filing No 1\CAD\Civil\CLH000018_G1.1_GRD Initial Plan.dwg, Evelyn Johnson, 2/18/2021





KEY MAP
SCALE: 1"=300'

EROSION CONTROL LEGEND

LOD	LOD	LIMITS OF DISTURBANCE / CONSTRUCTION
SF	SF	SILT FENCE
CF	CF	CONSTRUCTION FENCE
	IPS	SUMP INLET PROTECTION (IP-3)
	IPO	ON-GRADE INLET PROTECTION
	CS	CURB SOCKS
	VTC	VEHICLE TRACKING CONTROL
	CWA	CONCRETE WASHOUT AREA
	SSA	STABILIZED STAGING AREA
SC	SC	PROPOSED SAWCUT LINE
	PT	PORTABLE TOILET
	SPL	STOCKPILE
	CD	CHECK DAM
	RR	RIPRAP OUTFALL PADS
	SP	SITE POSTING (CONTACTS AND PERMITS)
	WP	WASHOUT POSTING
	SBB	STRAW BALE BARRIER
	SB	SEDIMENT BASIN

LEGEND

- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE TO BE REMOVED
- PROPOSED RIGHT OF WAY LINE
- EXISTING LOT LINE
- PROPOSED LOT LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING SUBDIVISION BUFFER
- EXISTING MAJOR CONTOUR (6940)
- EXISTING MINOR CONTOUR (6941)
- PROPOSED MAJOR CONTOUR (6940)
- PROPOSED MINOR CONTOUR (6939)
- EXISTING STORM DRAIN PIPE
- PROPOSED STORM DRAIN PIPE
- EXISTING WATER LINE (W)
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- PROPOSED RIP RAP
- EXISTING CONCRETE PAVING
- EXISTING CDOT CLASS 6 GRAVEL
- EXISTING 1" TO 2" CRUSHED ROCK
- EXISTING RIP RAP
- EXISTING GROUTED BOULDERS
- 113 PROPOSED LOT #
- 161 EXISTING LOT # (BENT GRASS FILING NO. 2)
- PROPOSED ADA RAMP
- 55.00 HP SPOT ELEVATION – HIGH POINT
- 55.00 LP SPOT ELEVATION – LOW POINT
- 55.00 FG SPOT ELEVATION – FINISH GRADE
- 2.00% EXISTING SLOPE (PERCENT)
- 4:1 EXISTING SLOPE (RISE:RUN)
- 2.00% PROPOSED SLOPE (PERCENT)
- 4:1 PROPOSED SLOPE (RISE:RUN)
- FLOW ARROW

NOTES

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EROSION CONTROL PHASING SCHEDULE

PHASE	DESCRIPTION
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BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4. MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNTIES, LLC

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

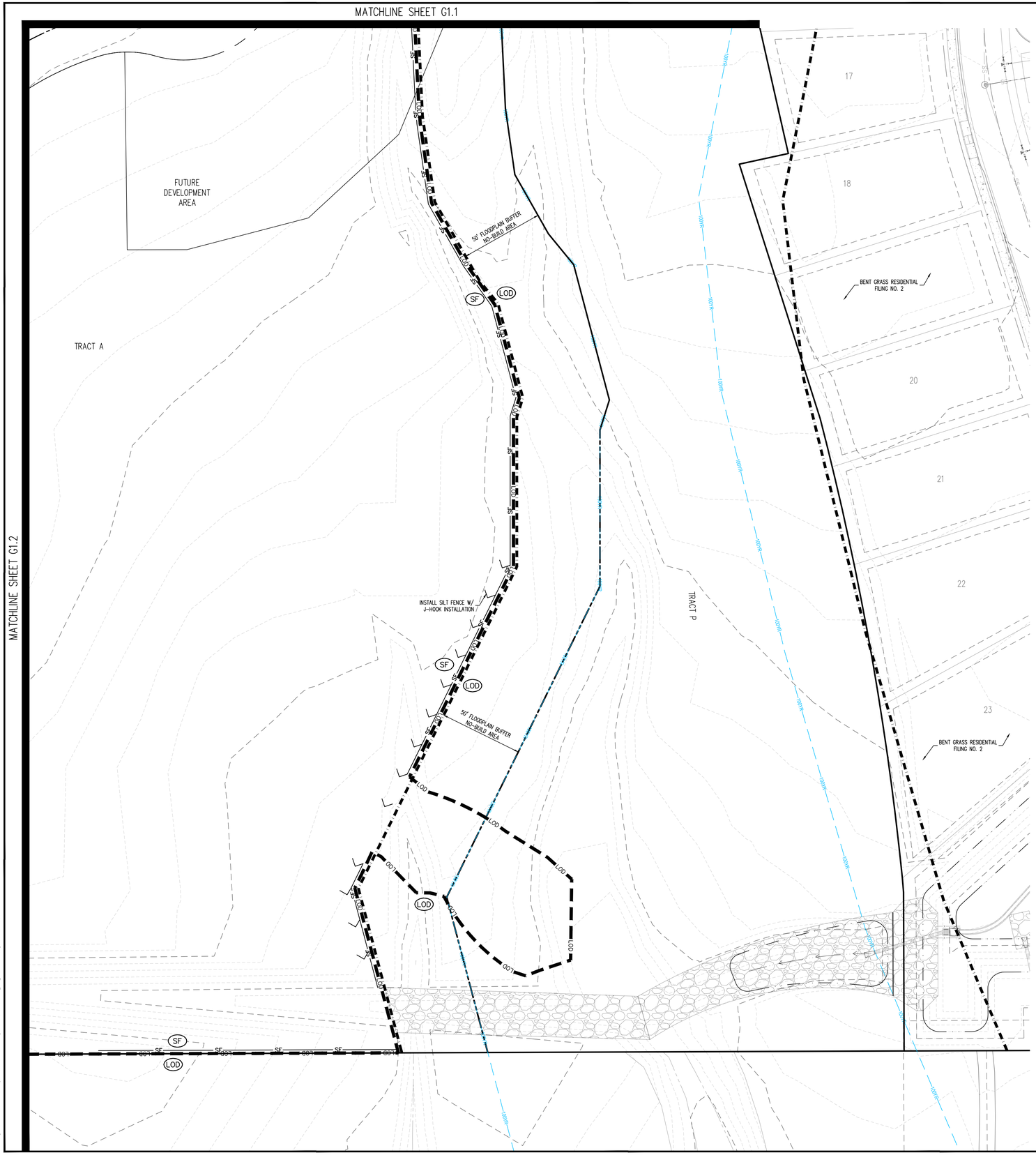
#	Date	Issue / Description	Init.

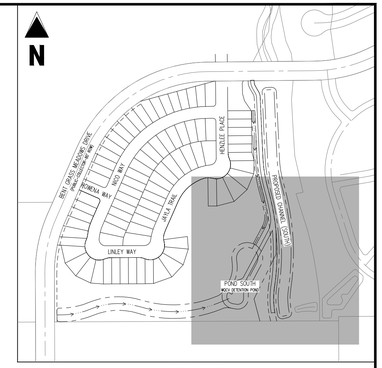
Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL INITIAL PLAN

G1.2
Sheet 6 of 22

I:\Challenger Homes\CLH000 - El Paso County\CLH000018 Bent Grass Filing No 1\CAD\GRADING\CLH000018_G1.2_GEC Initial Plan.dwg, Cathy Johnson, 2/26/2021





KEY MAP
SCALE: 1"=300'

EROSION CONTROL LEGEND

- LOD — LIMITS OF DISTURBANCE / CONSTRUCTION
- SF — SILT FENCE
- CF — CONSTRUCTION FENCE
- IPS — SUMP INLET PROTECTION (IP-3)
- IPO — ON-GRADE INLET PROTECTION
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CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL INITIAL PLAN

G1.3
Sheet 7 of 22

N:\Challenger Homes\CDO_El Paso County (CLH000018 Bent Grass Filing 1)\CAD\SUDS\SECTION 5_G1.3_GEC Initial Plan.dwg, Cullen Johnson, 2/18/2021

EROSION CONTROL LEGEND

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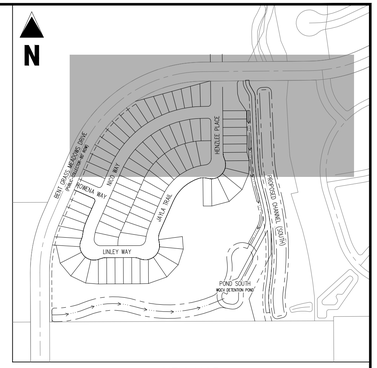
N

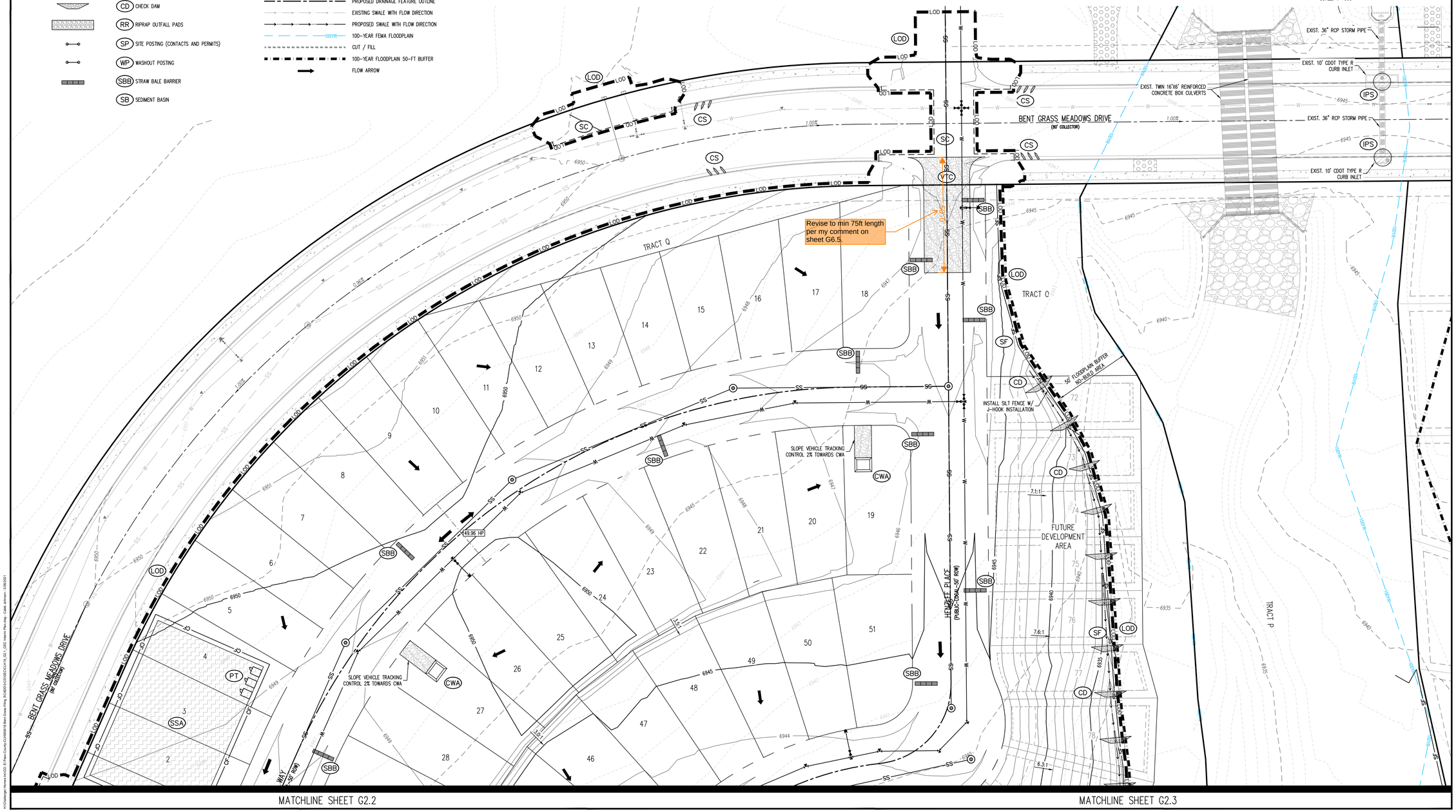
0 15 30

SCALE: 1"=30'



KEY MAP

SCALE: 1"=300'



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FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL INTERIM PLAN

G2.1

Sheet 8 of 22

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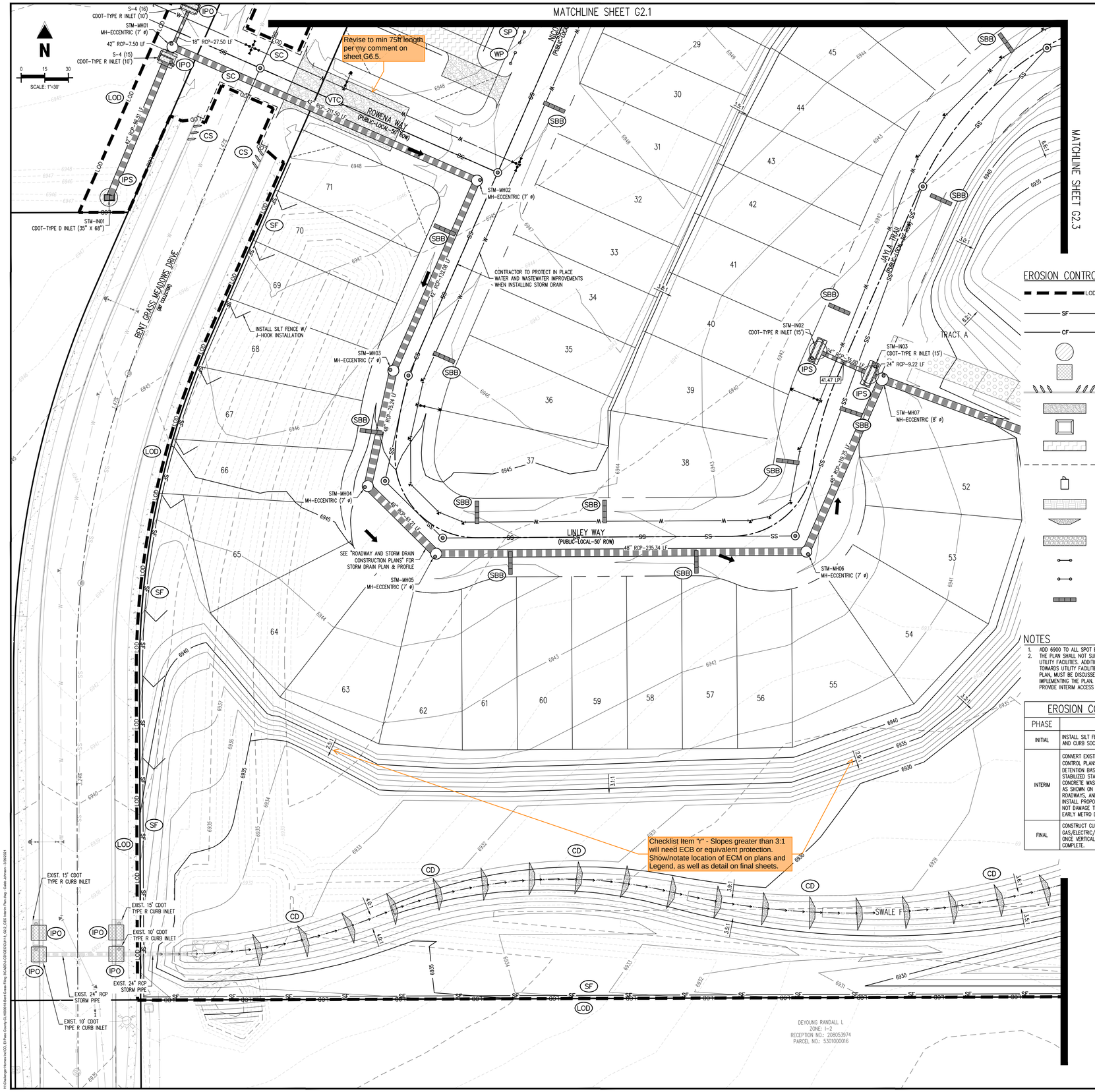

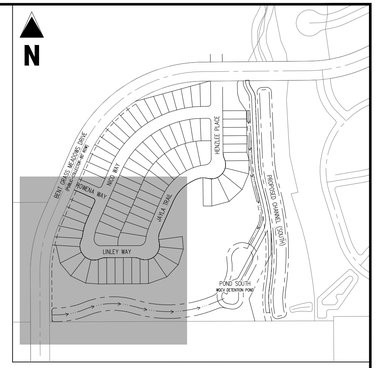

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EROSION CONTROL PHASING SCHEDULE

PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, AND CURB SOCKS ALONG BENT GRASS MEADOWS DRIVE
INTERIM	CONVERT EXISTING SEDIMENT BASIN FROM "EARLY GRADING & EROSION CONTROL PLANS" TO THE PROPOSED WATER QUALITY CAPTURE VOLUME DETENTION BASIN W/ ALL PERMANENT CONTROL MEASURES. THEN, INSTALL STABILIZED STAGING AREA, VEHICLE TRACKING CONTROL AT ENTRANCES, AND CONCRETE WASHOUT AREA. THEN OVERLOT GRADE THE ENTIRE PROJECT SITE AS SHOWN ON PLAN VIEW, INSTALL STRAW BALE BARRIERS ALONG INTERNAL ROADWAYS, AND INSTALL CHECK DAMS ALONG PROPOSED SWALES. FINALLY, INSTALL PROPOSED STORM SEWER. CONTRACTOR TO USE EXTREME CAUTION TO NOT DAMAGE THE WATER AND WASTEWATER IMPROVEMENTS COMPLETED IN THE EARLY METRO DISTRICT IMPROVEMENTS PLAN SET.
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BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS N00°13'46"W AND MONUMENTED AS SHOWN:

BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4; MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

CAUTION – NOTICE TO CONTRACTOR

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERIDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

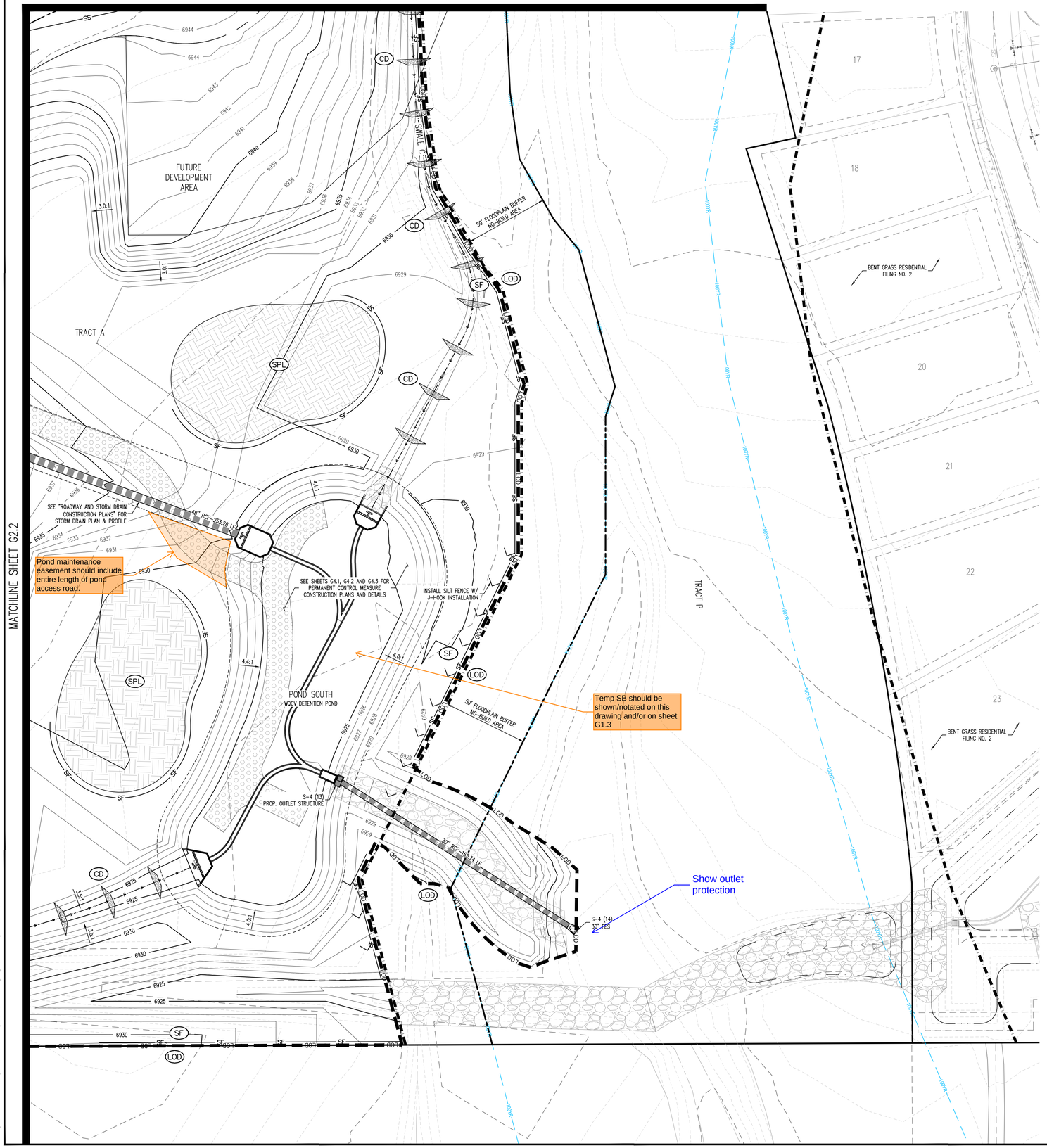
Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL INTERIM PLAN

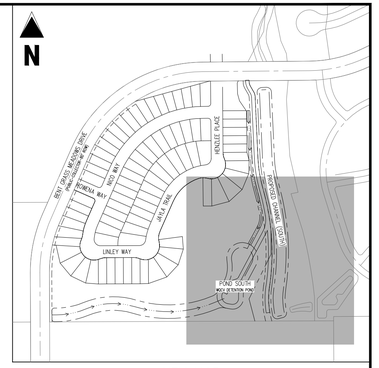
G2.2
Sheet 9 of 22

I:\Challenger Homes\HCDS, El Paso County (CLH000018)\Bent Grass Filing No 1\CAD\GRADING\CLH18_G2.2_GEC Interim Plan.dwg, Cathi Johnson, 1/28/2021

MATCHLINE SHEET G2.1



MATCHLINE SHEET G2.2



KEY MAP
SCALE: 1"=300'

EROSION CONTROL LEGEND

- LOD — LIMITS OF DISTURBANCE / CONSTRUCTION
- SF — SILT FENCE
- CF — CONSTRUCTION FENCE
- IPS — SUMP INLET PROTECTION (IP-3)
- IPO — ON-GRADE INLET PROTECTION
- CS — CURB SOCKS
- VTC — VEHICLE TRACKING CONTROL
- CWA — CONCRETE WASHOUT AREA
- SSA — STABILIZED STAGING AREA
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- SP — SITE POSTING (CONTACTS AND PERMITS)
- WP — WASHOUT POSTING
- SBB — STRAW BALE BARRIER
- SB — SEDIMENT BASIN

LEGEND

- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE TO BE REMOVED
- PROPOSED RIGHT OF WAY LINE
- EXISTING LOT LINE
- PROPOSED LOT LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING SUBDIVISION BUFFER
- EXISTING MAJOR CONTOUR (6940)
- EXISTING MINOR CONTOUR (6941)
- PROPOSED MAJOR CONTOUR (6940)
- PROPOSED MINOR CONTOUR (6939)
- EXISTING STORM DRAIN PIPE
- PROPOSED STORM DRAIN PIPE
- EXISTING WATER LINE (W)
- PROPOSED WATER LINE (W)
- EXISTING SANITARY SEWER LINE (SS)
- PROPOSED SANITARY SEWER LINE (SS)
- EXISTING DRAINAGE FEATURE OUTLINE
- PROPOSED DRAINAGE FEATURE OUTLINE
- EXISTING SWALE WITH FLOW DIRECTION
- PROPOSED SWALE WITH FLOW DIRECTION
- 100-YEAR FEMA FLOODPLAIN (100YR)
- CUT / FILL
- 100-YEAR FLOODPLAIN 50-FT BUFFER
- PROPOSED 1" TO 2" CRUSHED ROCK
- PROPOSED RIP RAP
- EXISTING CONCRETE PAVING
- EXISTING CDOT CLASS 6 GRAVEL
- EXISTING 1" TO 2" CRUSHED ROCK
- EXISTING RIP RAP
- EXISTING GROUTED BOULDERS
- PROPOSED LOT # (113)
- EXISTING LOT # (BENT GRASS FILING NO. 2) (161)
- PROPOSED ADA RAMP
- SPOT ELEVATION – HIGH POINT (55.00 HP)
- SPOT ELEVATION – LOW POINT (55.00 LP)
- SPOT ELEVATION – FINISH GRADE (55.00 FG)
- EXISTING SLOPE (PERCENT) (2.00%)
- EXISTING SLOPE (RISE:RUN) (4:1)
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FOR
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FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL INTERIM PLAN

G2.3
Sheet 10 of 22

W:\Challenger Homes\CH000...\El Paso County\CLH000018 Bent Grass Filing 1\CADD\CONSTRUCTION PLANS\G2.3 GRADING & EROSION CONTROL INTERIM PLAN.dwg - Caleb Johnson - 2/8/2021

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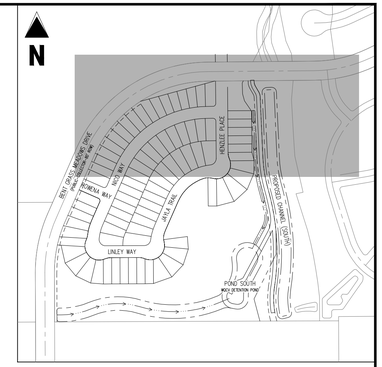
N

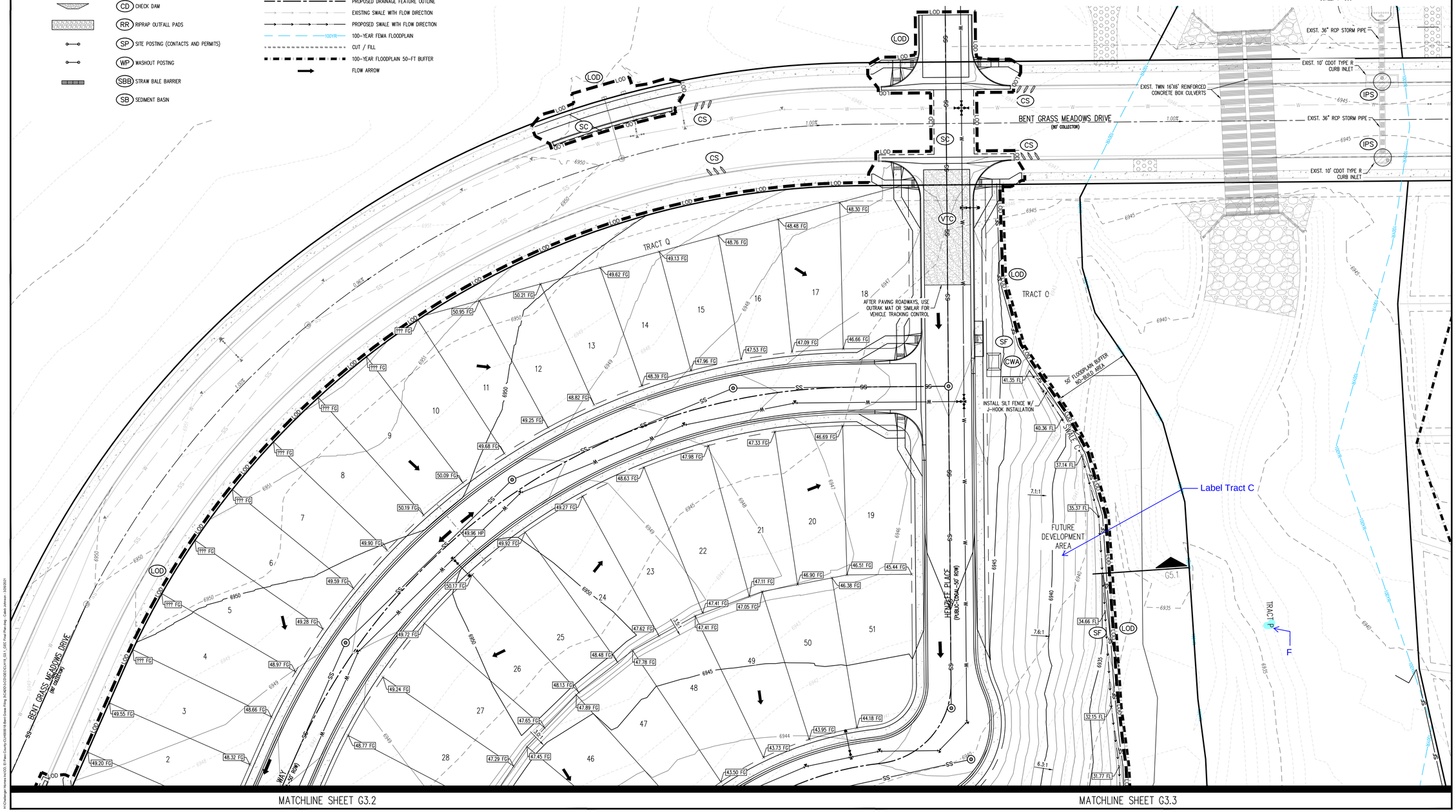
0 15 30

SCALE: 1"=30'



KEY MAP

SCALE: 1"=300'



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#	Date	Issue / Description	Init.

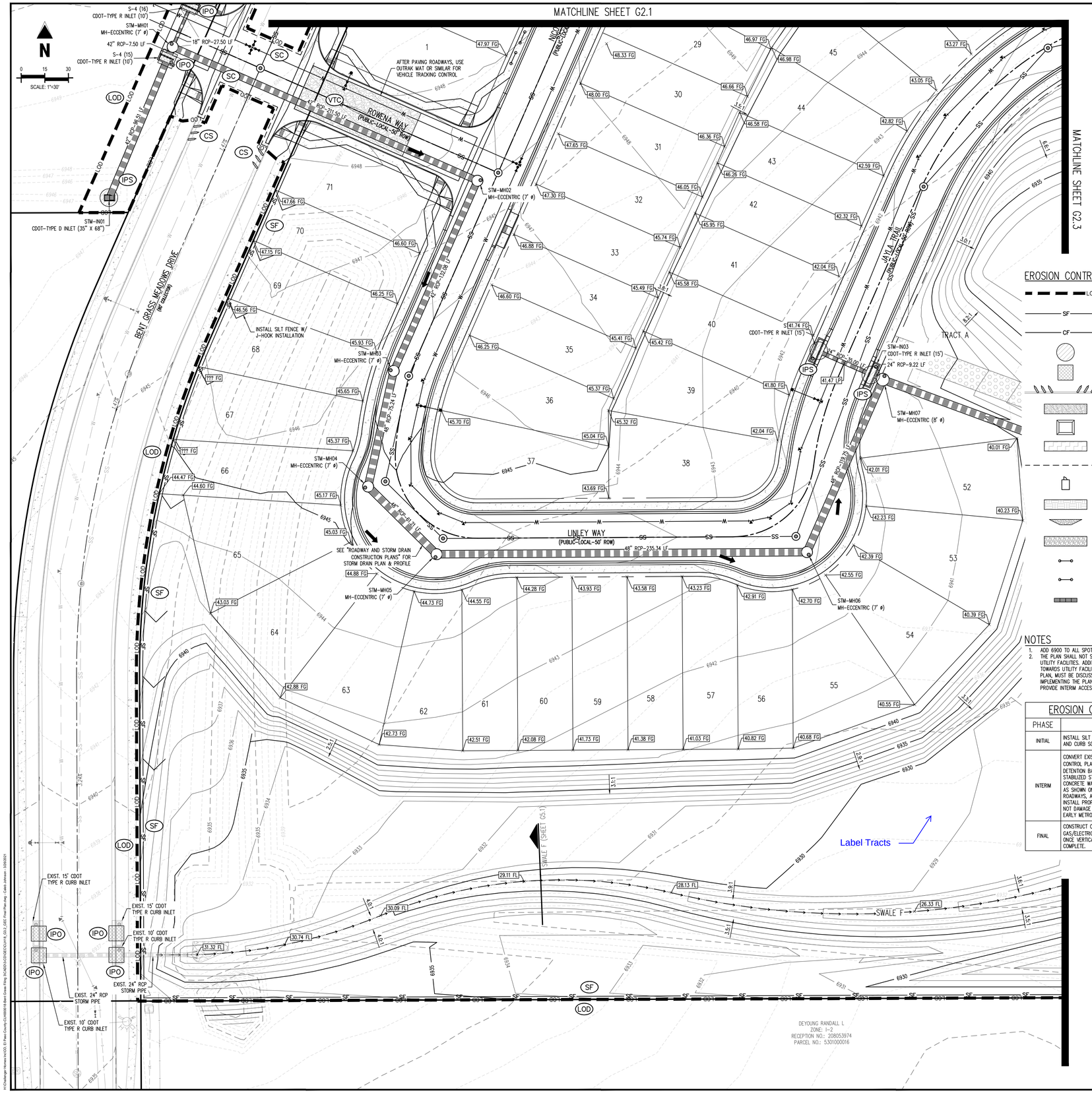
Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

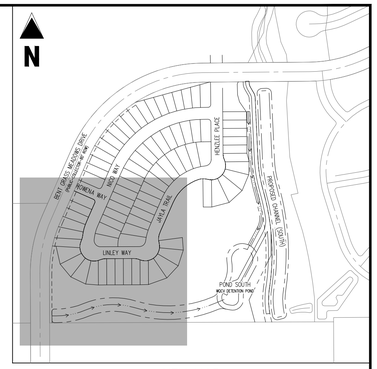
GRADING & EROSION CONTROL FINAL PLAN

G3.1

Sheet 11 of 22

H:\Challenger Homes\CLH000...\Engr\Grading\Erosion Control\CLH000018 Bent Grass Filing No 1\CAD\GRADING\EROSION CONTROL\CLH000018 EC1 - GRADING & EROSION CONTROL FINAL PLAN.dwg, Gabe Johnson, 3/5/2021





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THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4; MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24654 ELEVATION = 6947.67

CAUTION – NOTICE TO CONTRACTOR

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2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

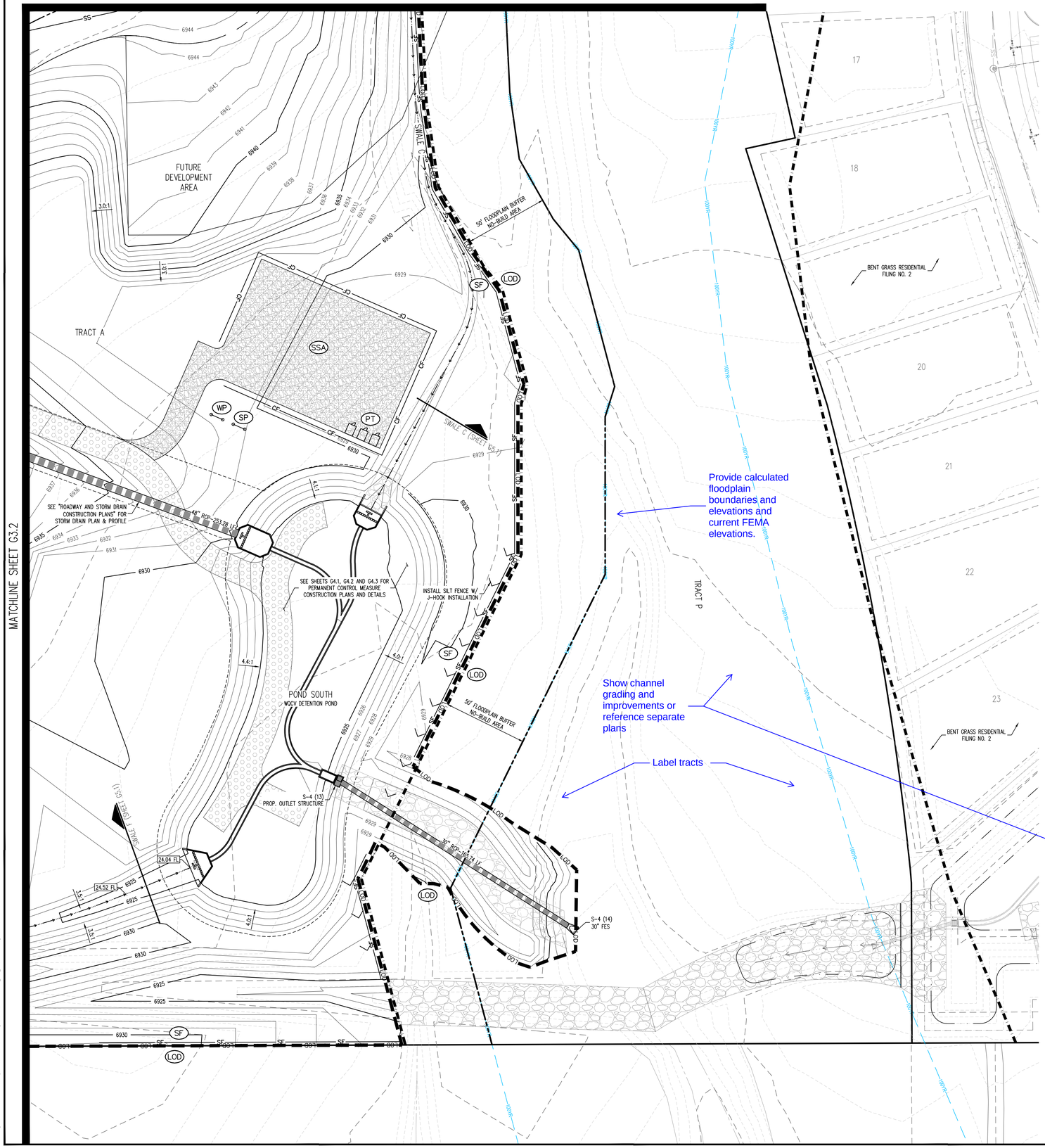
Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL FINAL PLAN

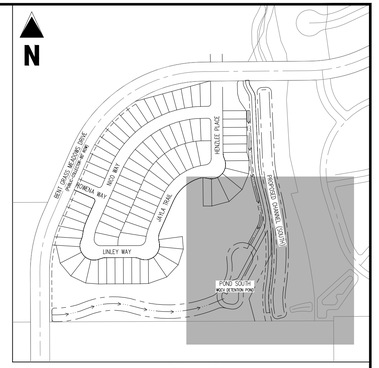
G3.2
Sheet 12 of 22

I:\Challenger Homes\14CDS_El Paso County (CLH000018)\Bent Grass Filing 1\CADD\COVER\CLH14_ECV_GEC Final Plat.dwg, Cover, Johnson, 2/18/2021

MATCHLINE SHEET G3.1



MATCHLINE SHEET G3.2



KEY MAP
SCALE: 1"=300'

EROSION CONTROL LEGEND

- LOD — LIMITS OF DISTURBANCE / CONSTRUCTION
- SF — SILT FENCE
- CF — CONSTRUCTION FENCE
- IPS — SUMP INLET PROTECTION (IP-3)
- IPO — ON-GRADE INLET PROTECTION
- CS — CURB SOCKS
- VTC — VEHICLE TRACKING CONTROL
- CWA — CONCRETE WASHOUT AREA
- SSA — STABILIZED STAGING AREA
- SC — PROPOSED SAWCUT LINE
- PT — PORTABLE TOILET
- SPL — STOCKPILE
- CD — CHECK DAM
- RR — RIPRAP OUTFALL PADS
- SP — SITE POSTING (CONTACTS AND PERMITS)
- WP — WASHOUT POSTING
- SBB — STRAW BALE BARRIER
- SB — SEDIMENT BASIN

LEGEND

- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE TO BE REMOVED
- PROPOSED RIGHT OF WAY LINE
- EXISTING LOT LINE
- PROPOSED LOT LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING SUBDIVISION BUFFER
- EXISTING MAJOR CONTOUR (6940)
- EXISTING MINOR CONTOUR (6941)
- PROPOSED MAJOR CONTOUR (6940)
- PROPOSED MINOR CONTOUR (6939)
- EXISTING STORM DRAIN PIPE
- PROPOSED STORM DRAIN PIPE
- EXISTING WATER LINE (W)
- PROPOSED WATER LINE (W)
- EXISTING SANITARY SEWER LINE (SS)
- PROPOSED SANITARY SEWER LINE (SS)
- EXISTING DRAINAGE FEATURE OUTLINE
- PROPOSED DRAINAGE FEATURE OUTLINE
- EXISTING SWALE WITH FLOW DIRECTION
- PROPOSED SWALE WITH FLOW DIRECTION
- 100-YEAR FEMA FLOODPLAIN (100YR)
- CUT / FILL
- 100-YEAR FLOODPLAIN 50-FT BUFFER
- PROPOSED 1" TO 2" CRUSHED ROCK
- PROPOSED RIP RAP
- EXISTING CONCRETE PAVING
- EXISTING CDOT CLASS 6 GRAVEL
- EXISTING 1" TO 2" CRUSHED ROCK
- EXISTING RIP RAP
- EXISTING GROUTED BOULDERS
- PROPOSED LOT # (113)
- EXISTING LOT # (BENT GRASS FILING NO. 2) (161)
- PROPOSED ADA RAMP
- SPOT ELEVATION – HIGH POINT (55.00 HP)
- SPOT ELEVATION – LOW POINT (55.00 LP)
- SPOT ELEVATION – FINISH GRADE (55.00 FG)
- EXISTING SLOPE (PERCENT) (2.00%)
- EXISTING SLOPE (RISE:RUN) (4:1)
- PROPOSED SLOPE (PERCENT) (2.00%)
- PROPOSED SLOPE (RISE:RUN) (4:1)
- FLOW ARROW

NOTES

1. ADD 6900 TO ALL SPOT ELEVATIONS
2. THE PLAN SHALL NOT SUBSTANTIALLY CHANGE THE DEPTH OF COVER, OR ACCESS TO UTILITY FACILITIES. ADDITIONALLY, THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARDS UTILITY FACILITIES. ANY CHANGES TO UTILITY FACILITIES TO ACCOMMODATE THE PLAN, MUST BE DISCUSSED AND AGREED TO BY THE AFFECTED UTILITY PRIOR TO IMPLEMENTING THE PLAN. THE RESULTING COST TO RELOCATE OR PROTECT UTILITIES, OR PROVIDE INTERIM ACCESS IS AT THE EXPENSE OF THE PLAN APPLICANT.

EROSION CONTROL PHASING SCHEDULE

PHASE	DESCRIPTION
INITIAL	INSTALL SILT FENCE, ALL INLET PROTECTION MEASURES ON EXISTING INLETS, AND CURB SOCKS ALONG BENT GRASS MEADOWS DRIVE
INTERIM	CONVERT EXISTING SEDIMENT BASIN FROM "EARLY GRADING & EROSION CONTROL PLANS" TO THE PROPOSED WATER QUALITY CAPTURE VOLUME DETENTION BASIN W/ ALL PERMANENT CONTROL MEASURES. THEN, INSTALL STABILIZED STAGING AREA, VEHICLE TRACKING CONTROL AT ENTRANCES, AND CONCRETE WASHOUT AREA. THEN OVERLOT GRADE THE ENTIRE PROJECT SITE AS SHOWN ON PLAN VIEW, INSTALL STRAW BALE BARRIERS ALONG INTERNAL ROADWAYS, AND INSTALL CHECK DAMS ALONG PROPOSED SWALES. FINALLY, INSTALL PROPOSED STORM SEWER. CONTRACTOR TO USE EXTREME CAUTION TO NOT DAMAGE THE WATER AND WASTEWATER IMPROVEMENTS COMPLETED IN THE EARLY METRO DISTRICT IMPROVEMENTS PLAN SET.
FINAL	CONSTRUCT CURB/GUTTER AND PAVEMENT. CONSTRUCT GAS/ELECTRIC/CABLE/PHONE IN ROW AREAS. REMOVE CONSTRUCTION BMP'S ONCE VERTICAL CONSTRUCTION OF HOUSES AND APPLICABLE LANDSCAPING IS COMPLETE.

BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS N00°13'46"W AND MONUMENTED AS SHOWN:

BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4, MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

CAUTION – NOTICE TO CONTRACTOR

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERIDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

GRADING & EROSION CONTROL FINAL PLAN

G3.3
Sheet 13 of 22

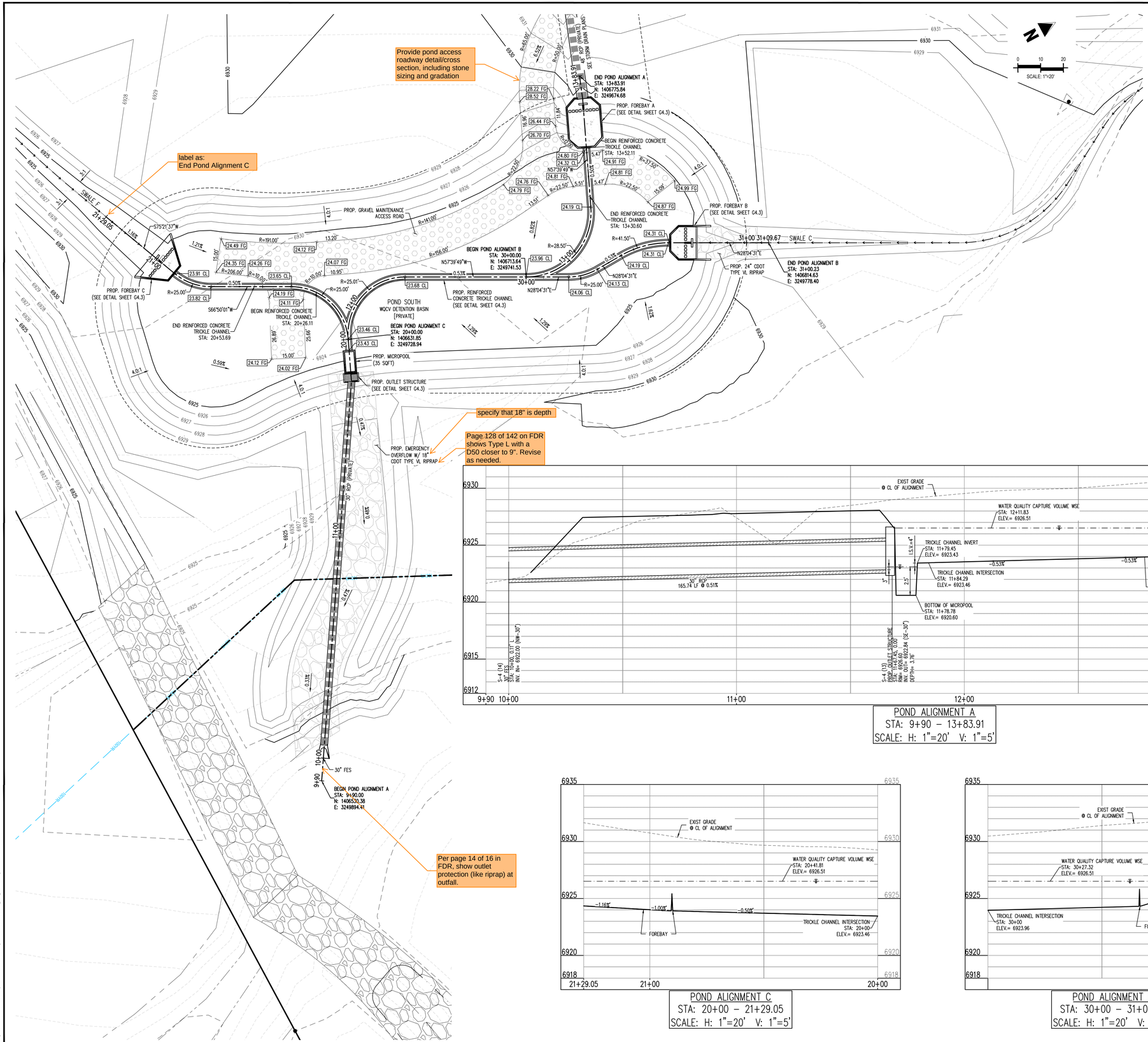
Provide pond access roadway detail/cross section, including stone sizing and gradation

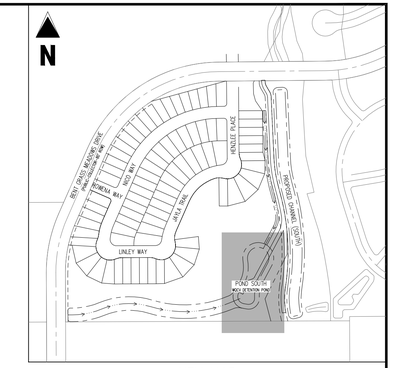
label as: End Pond Alignment C

specify that 18" is depth

Page 128 of 142 on FDR shows Type L with a D50 closer to 9". Revise as needed.

Per page 14 of 16 in FDR, show outlet protection (like riprap) at outfall.





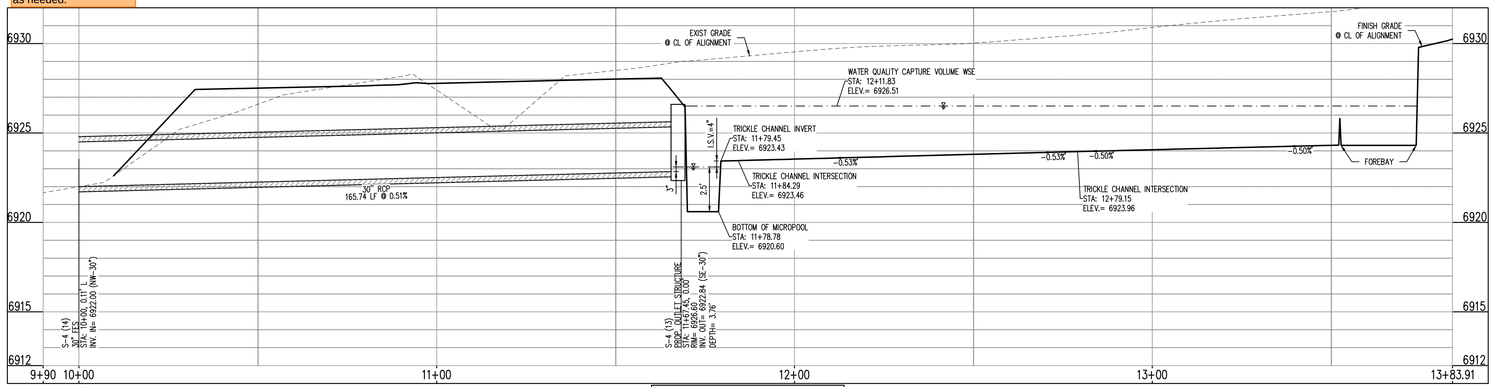
KEY MAP
SCALE: 1"=300'

LEGEND

- EXISTING MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- EXISTING PROPERTY BOUNDARY
- PROPOSED PROPERTY BOUNDARY
- 100 – YR FLOODPLAIN LINE
- PROPOSED STORM SEWER
- RIPRAP
- GRAVEL (CDOT CLASS 6)

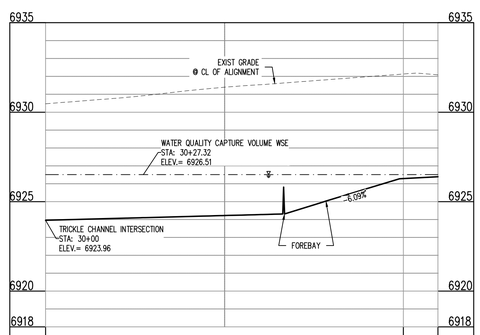
NOTES

1. ADD 6900 TO ALL SPOT ELEVATIONS.
2. ALL STORM PIPE SHALL BE RCP OR HDPE IN ACCORDANCE WITH COUNTY STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED.



POND ALIGNMENT A
STA: 9+90 – 13+83.91
SCALE: H: 1"=20' V: 1"=5'

POND ALIGNMENT C
STA: 20+00 – 21+29.05
SCALE: H: 1"=20' V: 1"=5'



POND ALIGNMENT B
STA: 30+00 – 31+09.67
SCALE: H: 1"=20' V: 1"=5'

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FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERIDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

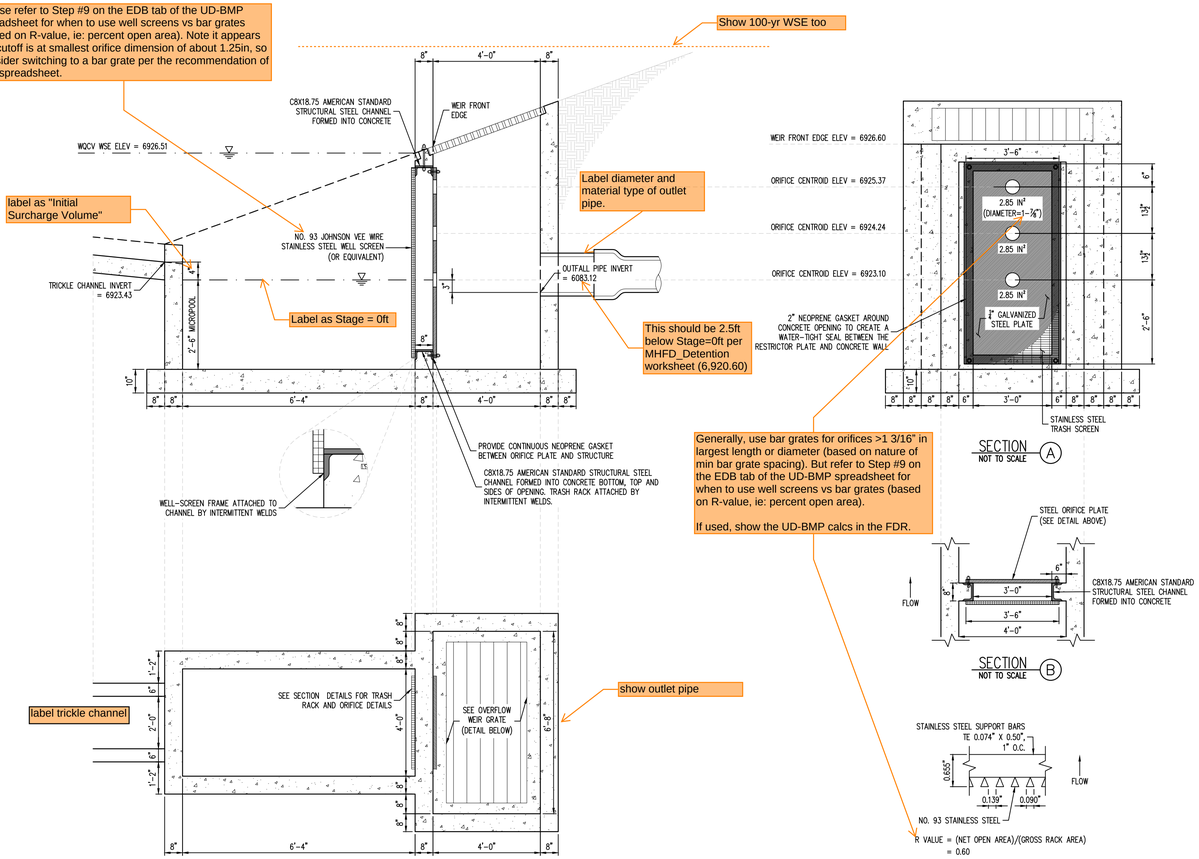
WATER QUALITY DETENTION POND

G4.1
Sheet 14 of 22

H:\Challenger Homes\#CDO_P\Civil Docs\CDs\WBR\Bent Grass Filing No1\#CDO_CDS\WBR\Sheets\ G4.1 - BMP Plan.dwg, Erika Johnson, 2/9/2021

Please refer to Step #9 on the EDB tab of the UD-BMP spreadsheet for when to use well screens vs bar grates (based on R-value, ie: percent open area). Note it appears the cutoff is at smallest orifice dimension of about 1.25in, so consider switching to a bar grate per the recommendation of that spreadsheet.

Show 100-yr WSE too



label as "Initial Surcharge Volume"

Label diameter and material type of outlet pipe.

Label as Stage = 0ft

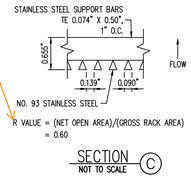
This should be 2.5ft below Stage=0ft per MHFD_Detention worksheet (6,920.60)

SECTION A
NOT TO SCALE

Generally, use bar grates for orifices >1 3/16" in largest length or diameter (based on nature of min bar grate spacing). But refer to Step #9 on the EDB tab of the UD-BMP spreadsheet for when to use well screens vs bar grates (based on R-value, ie: percent open area).

If used, show the UD-BMP calcs in the FDR.

SECTION B
NOT TO SCALE

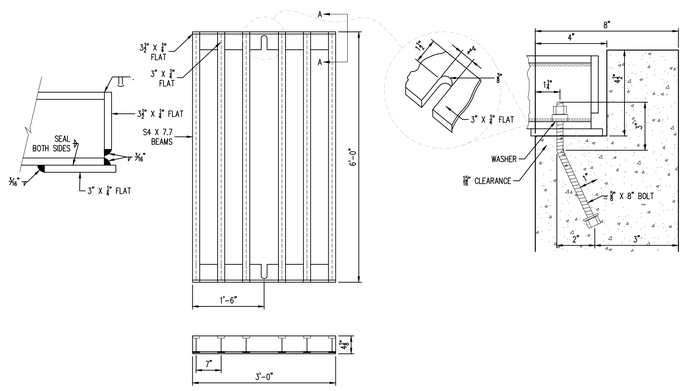


SECTION C
NOT TO SCALE

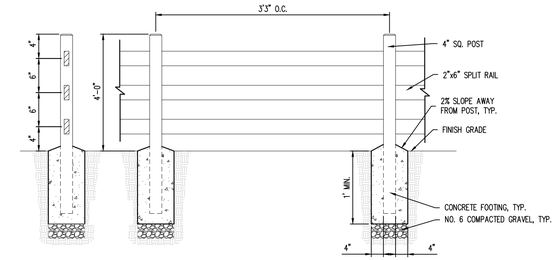
label trickle channel

show outlet pipe

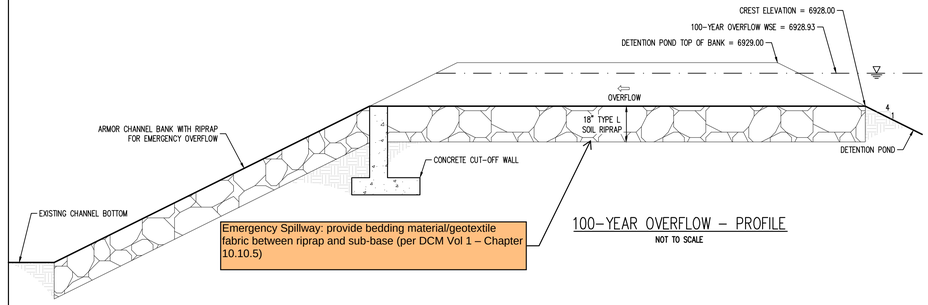
OUTLET STRUCTURE
NOT TO SCALE



OVERFLOW WEIR GRATE INSTALLATION
NOT TO SCALE

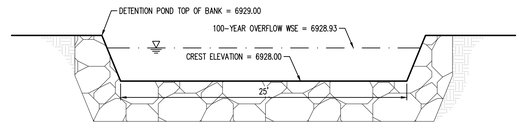


3-RAIL FENCE
NOT TO SCALE

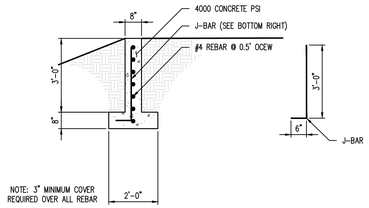


Emergency Spillway: provide bedding material/geotextile fabric between riprap and sub-base (per DCM Vol 1 – Chapter 10.10.5)

100-YEAR OVERFLOW – PROFILE
NOT TO SCALE



100-YEAR OVERFLOW – CROSS SECTION
NOT TO SCALE

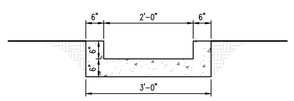


CUT-OFF WALL DETAIL
NOT TO SCALE

WARNING
THIS AREA IS A STORMWATER FACILITY
AND IS SUBJECT TO PERIODIC FLOODING

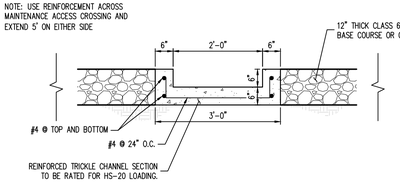
NOTES:
- THREE (3) SIGNS WITH THE ABOVE MESSAGE, EACH WITH A MINIMUM AREA OF 3 SQUARE FEET SHALL BE PROVIDED AROUND THE PERIMETER OF THE DETENTION POND, AS SHOWN ON THESE PLANS.
- SIGNS SHALL BE DURABLE MATERIALS, SUCH AS METAL OR PLASTIC, USING RED LETTERING ON A WHITE BACKGROUND.

DETENTION POND SIGNAGE



CONCRETE TRICKLE CHANNEL
NOT TO SCALE

NOTE: USE REINFORCEMENT ACROSS MAINTENANCE ACCESS CROSSING AND EXTEND 5' ON EITHER SIDE



REINFORCED CONCRETE TRICKLE CHANNEL
NOT TO SCALE

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FOR
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FALCON, CO 80831 - EL PASO COUNTY

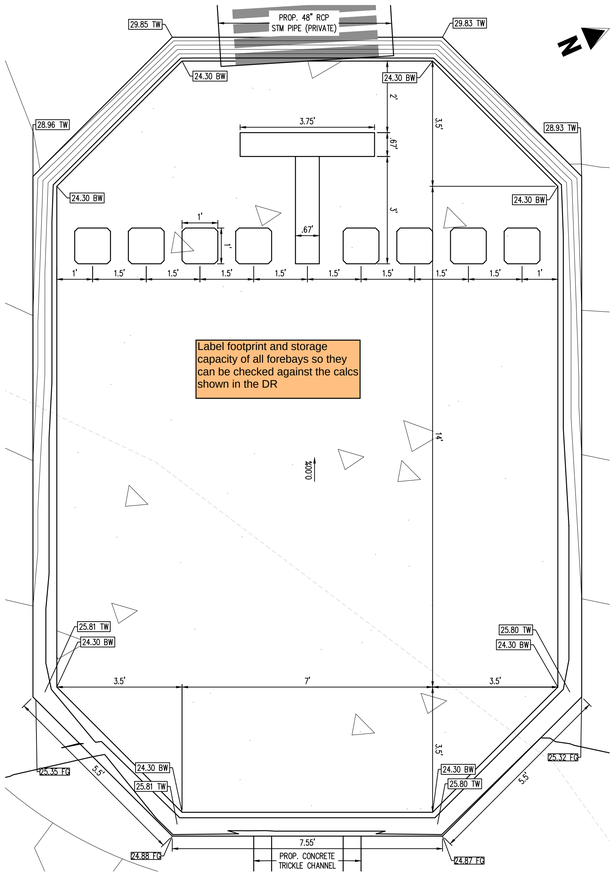
#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

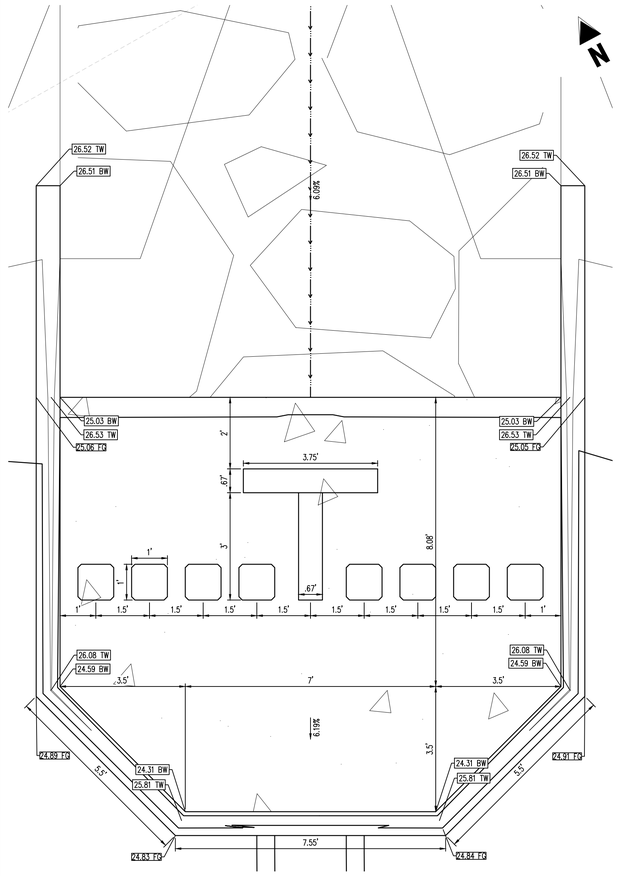
POND DETAILS

G4.2
Sheet 15 of 22

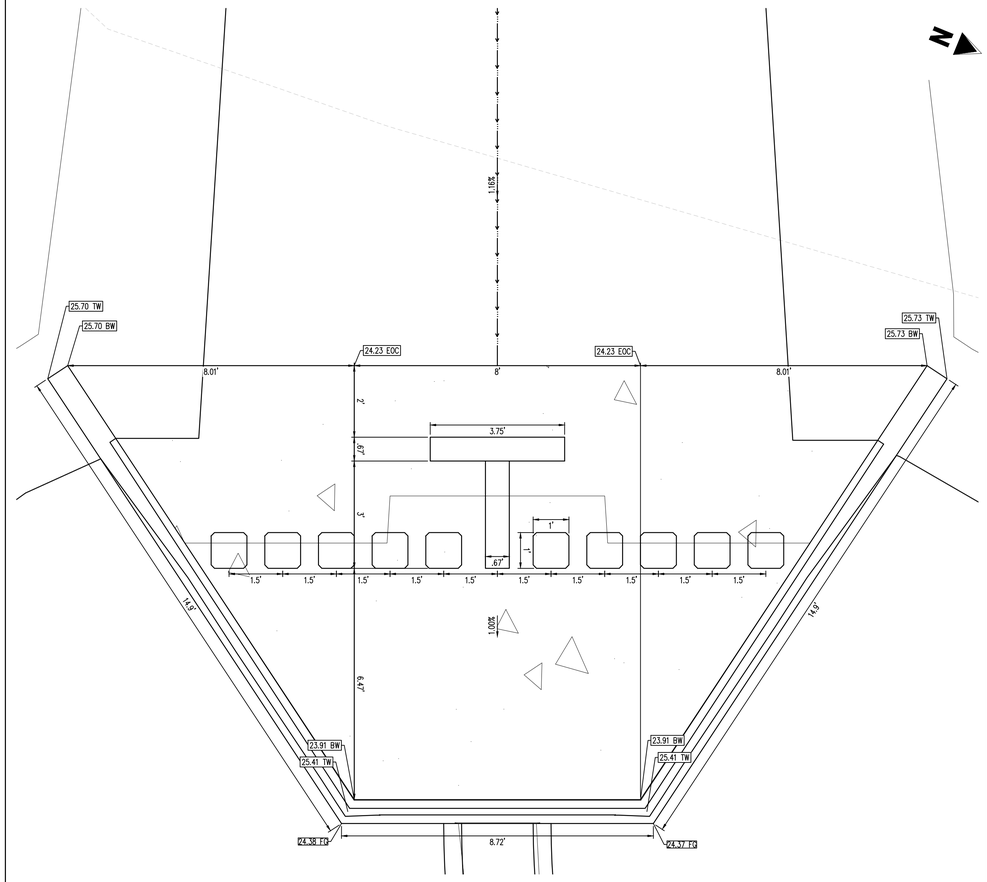
W:\Challenger Homes\CDS_El Paso County (CLH0000)\Bent Grass Filing 1\CAD\CLH0000_G4.2_BMP Details.dwg, Carol Johnson, 2/26/2021



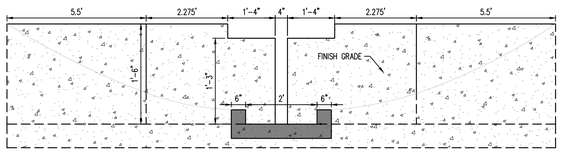
FOREBAY A DETAIL
SCALE: 1"=5'



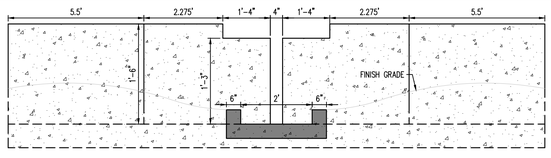
FOREBAY B DETAIL
SCALE: 1"=5'



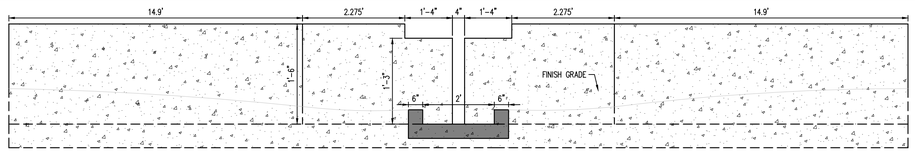
FOREBAY C DETAIL
SCALE: 1"=5'



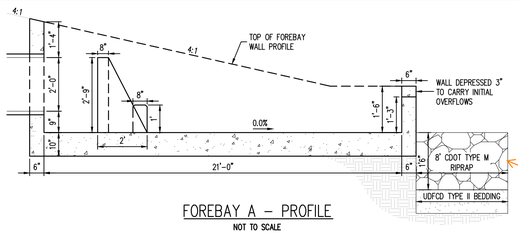
FOREBAY A – SLOT DETAIL
NOT TO SCALE



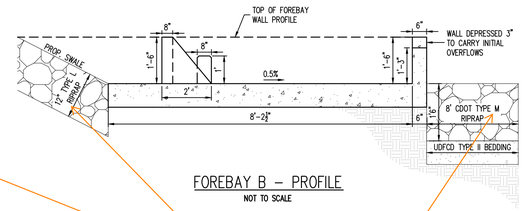
FOREBAY B – SLOT DETAIL
NOT TO SCALE



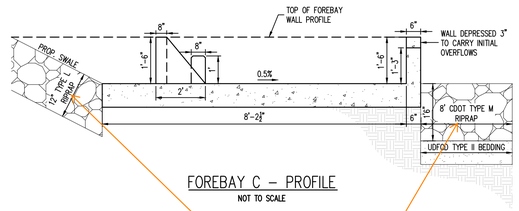
FOREBAY C – SLOT DETAIL
NOT TO SCALE



FOREBAY A – PROFILE
NOT TO SCALE



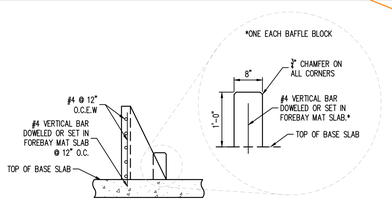
FOREBAY B – PROFILE
NOT TO SCALE



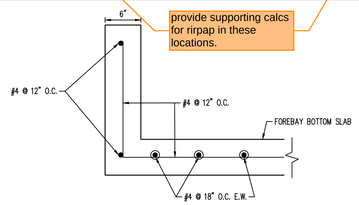
FOREBAY C – PROFILE
NOT TO SCALE

provide supporting calcs for rirpap in these locations.

provide supporting calcs for rirpap in these locations.



T–BAFFLES & BAFFLE BLOCKS A&B&C – REINFORCING DETAIL
NOT TO SCALE



FOREBAY A&B&C – REINFORCING DETAIL
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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERIDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

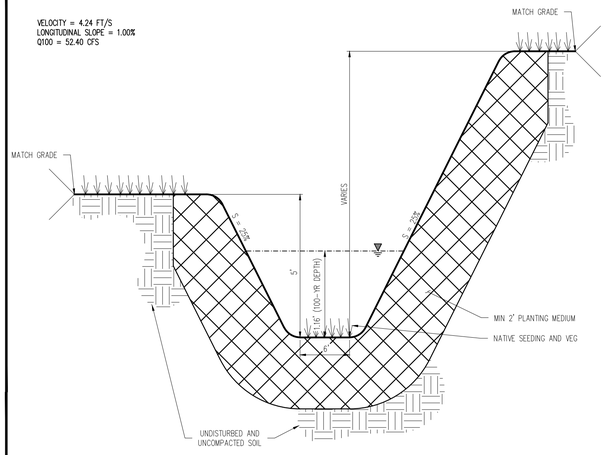
Project No:	CLH000018
Drawn By:	CMWJ
Checked By:	RGD
Date:	02/18/2021

POND DETAILS

G4.3
Sheet 16 of 22

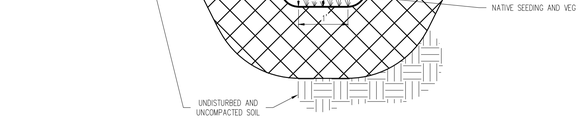
H:\Challenger Homes\clh000 El Paso County\CLH000018 Bent Grass Filing 3\CAD\SUDS\SUDS\CLH18_G4.3_BMP Details.dwg, Claire Johnson, 2/26/2021

VELOCITY = 4.24 FT/S
LONGITUDINAL SLOPE = 1.00%
Q100 = 52.40 CFS



DETAIL – SWALE F
NOT TO SCALE

VELOCITY = 3.28 FT/S
LONGITUDINAL SLOPE = 2.40%
Q100 = 4.50 CFS



DETAIL – SWALE C
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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERIDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	TPT
Checked By:	RGD
Date:	02/18/2021

SWALE CROSS SECTIONS

G5.1
Sheet 17 of 22

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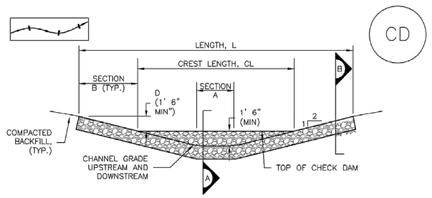
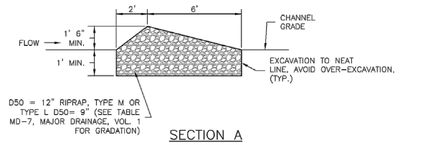
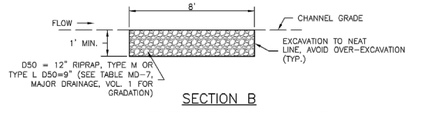


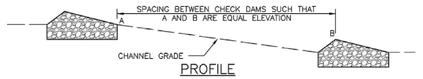
CHECK DAM ELEVATION VIEW



SECTION A



SECTION B



PROFILE

CD-1. CHECK DAM

CHECK DAM INSTALLATION NOTES

1. 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).

2. CHECK DAMS INDICATED ON INITIAL SWMP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES.

3. 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").

4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'.

5. 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

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.

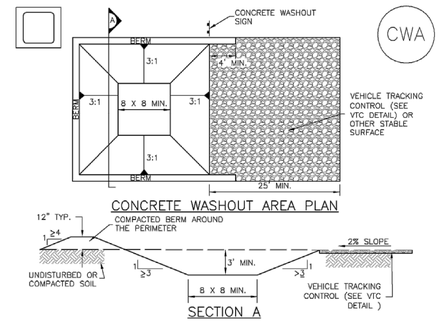
4. SEDIMENT ACCUMULATED UPSTREAM OF THE CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN ½ OF THE HEIGHT OF THE CREST.

5. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

6. 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.



CONCRETE WASHOUT AREA PLAN

SECTION A

CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA 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. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

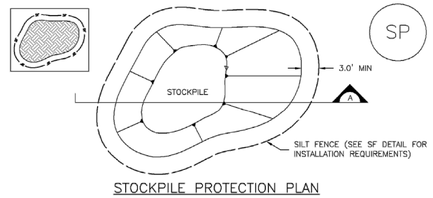
5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

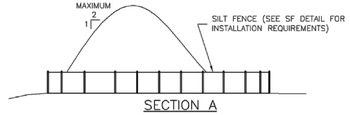
7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, 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.



STOCKPILE PROTECTION PLAN



SECTION A

SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

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

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

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

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

STOCKPILE 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.

STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

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

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

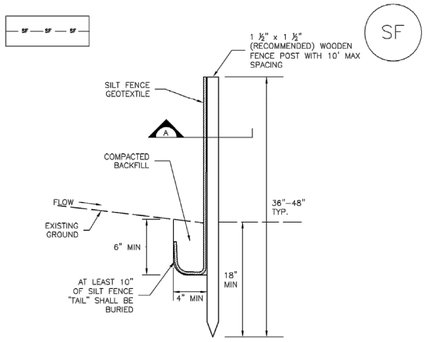
Project No:	CLH000018
Drawn By:	TPT
Checked By:	RGD
Date:	02/18/2021

GEC DETAILS

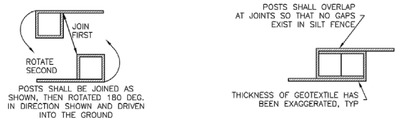
G6.1
Sheet 18 of 22

W:\Challenger Homes Inc\DOL El Paso County (CLH0000)\Bent Grass Filing 1\CAD\GEC\DETAILS\G6.1.dwg, 1:1, ANSI B (11.00 x 17.00 Inches), Tyler Pennington, 2/18/2021

Silt Fence (SF) SC-1



SILT FENCE



SECTION A

SF–1. SILT FENCE

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE 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 SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)

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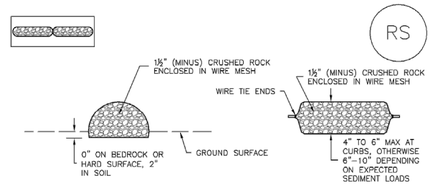
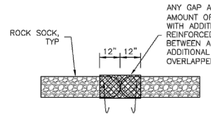
SC-5 Rock Sock (RS)



ROCK SOCK SECTION ROCK SOCK PLAN



ROCK SOCK JOINTING

ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF ½" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12–INCH OVERLAP) TO AVOID GAPS.

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE ½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (½" MINUS).

3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

Rock Sock (RS) SC-5

ROCK SOCK MAINTENANCE NOTES

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

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

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

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.

6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

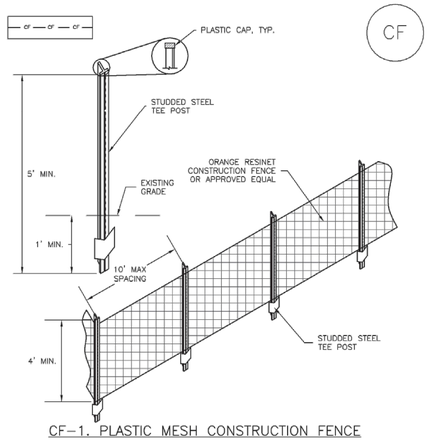
7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, 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.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

SM-3 Construction Fence (CF)



CF–1. PLASTIC MESH CONSTRUCTION FENCE

CONSTRUCTION FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF CONSTRUCTION FENCE.

2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR–GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.

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

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

Construction Fence (CF) SM-3

CONSTRUCTION FENCE 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. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

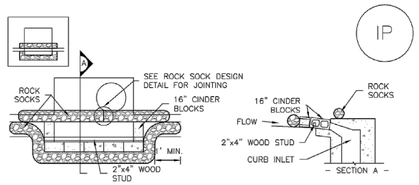
#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	TPT
Checked By:	RGD
Date:	02/18/2021

GEC DETAILS

G6.2
Sheet 19 of 22

H:\Challenger Homes\000018 - El Paso County (CLH000018 Bent Grass Filing 1)\CAD\SUBDIVISION\GEC DETAILS.dwg, 2/18/2021 8:44:56 AM, Chase Johnson, 1:1



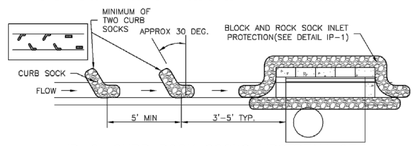
IP–1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

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. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP–2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

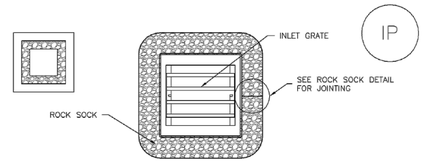
CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

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.

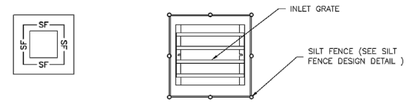


IP–3. ROCK SOCK SUMP/AREA INLET PROTECTION

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.

GENERAL INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION OF INLET PROTECTION.
   –TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6)

2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.

3. 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.

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 INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR ¼ OF THE HEIGHT FOR STRAW BALES.

5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.

6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, 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.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

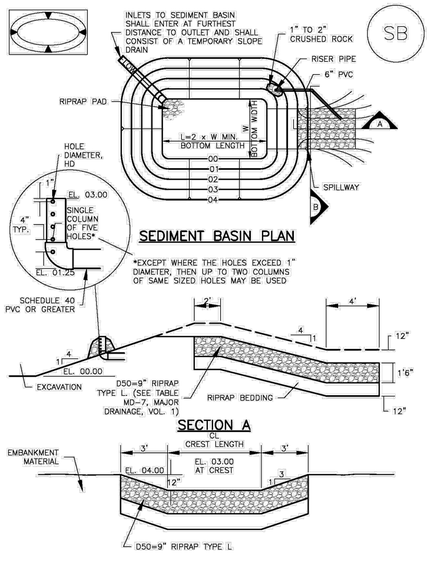


TABLE SB–1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 ½	2	3/32
2	21	3	5/16
3	28	5	1/2
4	33 ½	6	3/4
5	38 ½	8	7/32
6	43	9	21/32
7	47 ¼	11	25/32
8	51	12	29/32
9	55	13	1
10	58 ¼	15	1 1/16
11	61	16	1 5/32
12	64	18	1
13	67 ½	19	1 1/16
14	70 ½	21	1 3/8
15	73 ¼	22	1 3/16

SEDIMENT BASIN INSTALLATION NOTES

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

2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.

3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND–DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS AS A STORMWATER CONTROL.

4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.

5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.

6. PIPE SCH 40 OR GREATER SHALL BE USED.

7. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS 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 LARGER THAN 15 ACRES.

SEDIMENT BASIN 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 IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).

5. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.

6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

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.

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

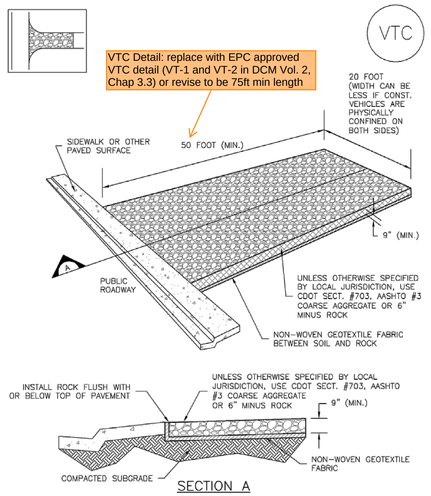
#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	TPT
Checked By:	RGD
Date:	02/18/2021

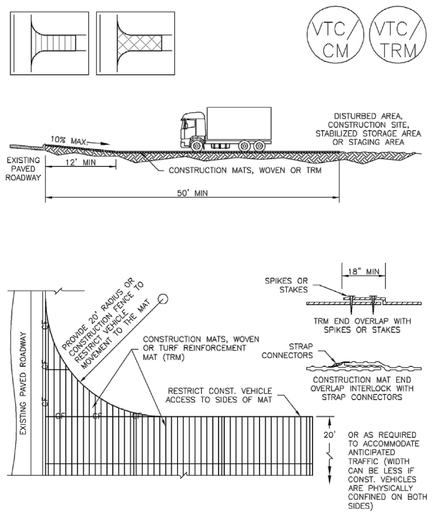
GEC DETAILS

G6.4
Sheet 20 of 22

H:\Challenger Homes\CH000...\El Paso County\DO\SB\FB Bent Grass Filing 1\CH000018 Bent Grass Filing 1 SB_GEC Details.dwg - Caleb Johnson - 2/26/2021



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL



VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   -LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   -TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.

4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

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

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

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

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

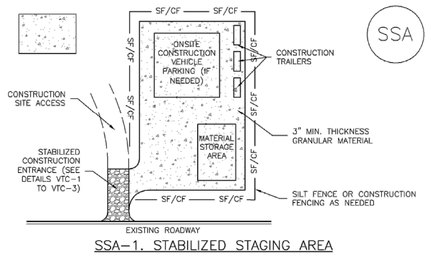
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

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 CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

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

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

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

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

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

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

STABILIZED STAGING AREA MAINTENANCE NOTES

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

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

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

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

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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.

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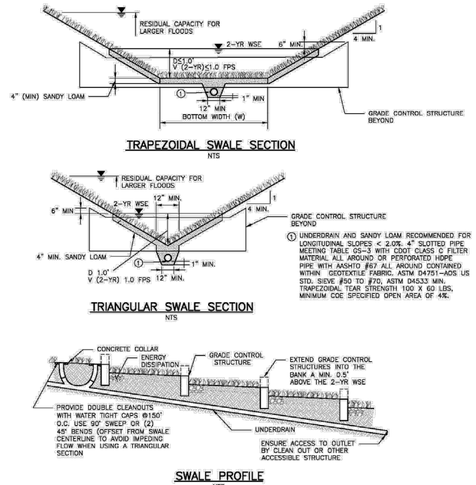

Figure GS-1. Grass Swale Profile and Sections

Design Example

The *UD-BMP* workbook, designed as a tool for both designer and reviewing agency is available at www.udfcd.org. This section provides a completed design form from this workbook as an example.

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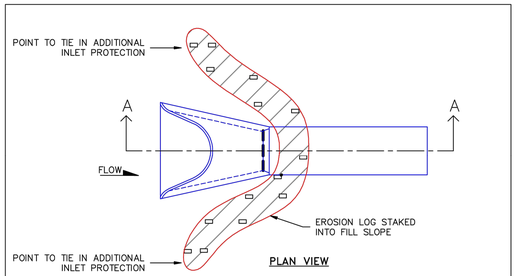
#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	TPT
Checked By:	RGD
Date:	02/18/2021

GEC DETAILS

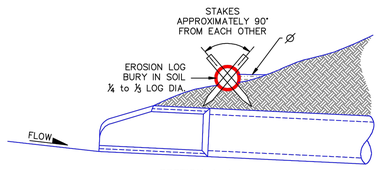
G6.5
Sheet 21 of 22

H:\Challenger Homes\140\03_El Paso County\01\0300\16 Bent Grass Filing 1\CAD\GEC\DETAILS\G6.5_GEC Details.dwg, Carla Johnson, 2/26/2021



PLAN VIEW

NOTE:
Ø REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE HALF OF EXPOSED LOG HEIGHT. INSPECTIONS SHALL BE PERFORMED FREQUENTLY FOR PROPER FUNCTION.

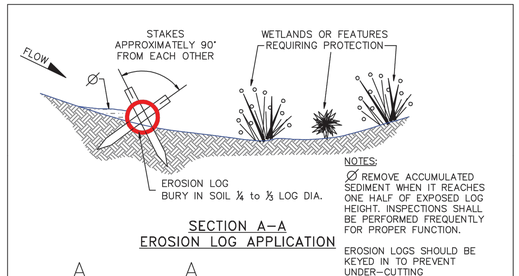


SECTION A–A

EROSION PROTECTION ABOVE CULVERT OUTLETS IS SIMILAR

EROSION LOGS SHOULD BE KEYED IN TO PREVENT UNDER–CUTTING

DATE APPROVED:		
1/1/08	Culvert Inlet and Outlet Protection Erosion Logs Above Inlets and Outlets For Slopes 3:1 or Steeper Standard Drawing	
John A. McCarty DEPARTMENT OF TRANSPORTATION	REVISION DATE: 7/17/07	FILE NAME: SD_3–86

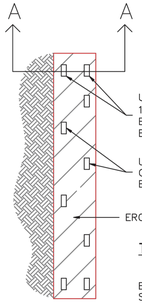


SECTION A–A
EROSION LOG APPLICATION

NOTES:
Ø REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE HALF OF EXPOSED LOG HEIGHT. INSPECTIONS SHALL BE PERFORMED FREQUENTLY FOR PROPER FUNCTION.

EROSION LOGS SHOULD BE KEYED IN TO PREVENT UNDER–CUTTING

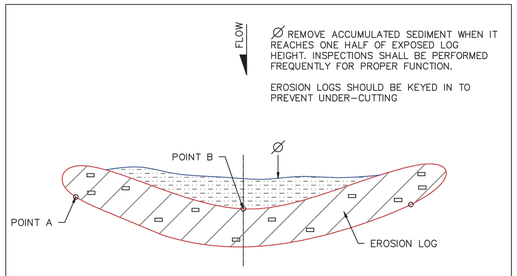
WHEN MORE THAN ONE EROSION LOG IS NEEDED, ENDS MUST BE TIGHTLY ABUTTED.



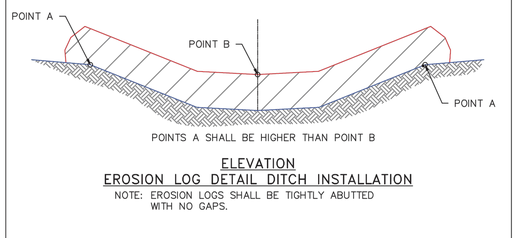
TYPICAL STAKE INSTALLATION

EROSION LOGS CAN ALSO BE USED ACROSS LONG SLOPES TO REDUCE EROSION AND SEDIMENT MOVEMENT

DATE APPROVED:		
1/1/08	Erosion Log Barrier Standard Drawing	
John A. McCarty DEPARTMENT OF TRANSPORTATION	REVISION DATE: 7/17/07	FILE NAME: SD_3–87



PLAN VIEW



POINTS A SHALL BE HIGHER THAN POINT B

ELEVATION
EROSION LOG DETAIL DITCH INSTALLATION
NOTE: EROSION LOGS SHALL BE TIGHTLY ABUTTED WITH NO GAPS.

DATE APPROVED:		
1/1/08	Erosion Log Check Dams Standard Drawing	
John A. McCarty DEPARTMENT OF TRANSPORTATION	REVISION DATE: 7/17/07	FILE NAME: SD_3–85

Include details for the following BMP's. Examples of acceptable details for each are provided:

Provide detail for ECB or equivalent protection as applicable per my comment on Sheet G2.2.

	Detail # and Source				
BMP	ECM (Appendix F)	DCM (Vol 2: Chap 3.3)	MHFD (USDCM Vol 3: Chap 7)	CoS - Stormwater Construction Manual	CDOT Standard Plans on M-208-1
Rolled Erosion Control Products		ECB-1, ECB-2	EC-6	X	
Seeding		TS-1	EC-2	X	
Straw Bale Barrier		SBB-2	SC-3		X

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GallowayUS.com

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CHALLENGER HOMES

CONSTRUCTION DOCUMENTS
FALCON MEADOWS AT BENT GRASS FILING NO. 1
FOR
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD
FALCON, CO 80831 - EL PASO COUNTY

#	Date	Issue / Description	Init.

Project No:	CLH000018
Drawn By:	TPT
Checked By:	RGD
Date:	02/18/2021

GEC DETAILS

G6.6
Sheet 22 of 22

H:\Challenger Homes\4000_El Paso County (CLH0001)\4 Bent Grass Filing 1\CAD\Civil\CLH0001-4 Bent Grass Filing 1 GEC Details.dwg, Caleb Johnson, 2/18/2021