CREEKSIDE BIBLE CHURCH
2180 SOUTH INTERSTATE 25
PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
5.79 ACRES
CONSTRUCTION DRAWINGS

OWNER:
THE FIRST BAPTIST CHURCH OF
CASTLE ROCK, COLORADO
2180 S INTERSTATE 25
CASTLE ROCK, COLORADO 80104
(303) 688-3745
MR. CHARLES VAUGHAN

CIVIL ENGINEER:
CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, COLORADO 80228
(303) 917-1757
MR. JOE COCO

GENERAL NOTES:

1. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. FOR INFORMATION CONTACT: DENVER INTER-UTILITY GROUP, 1-800-922-1987 OR METRO DENVER 303-232-1991. POTHOLE EXISTING UTILITIES AS NECESSARY PRIOR TO CONSTRUCTION.
2. REPAIR OF ANY DAMAGE TO EXISTING IMPROVEMENTS OR LANDSCAPING IS THE RESPONSIBILITY OF THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
3. ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN AT THEIR EXPENSE ALL NECESSARY PERMITS.
4. ALL ELEVATIONS SHOWN ARE FLOW LINE UNLESS OTHERWISE NOTED.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND REPAIR OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION, WHETHER SHOWN ON THESE PLANS OR NOT. CONTRACTOR SHALL CONTACT REPRESENTATIVES OF THE RESPECTIVE UTILITIES AND HAVE ALL UTILITIES FIELD LOCATED PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL LOCATIONS OF EXISTING STRUCTURES AND UTILITIES SHOWN ON THE DRAWINGS, TO ASCERTAIN WHETHER ANY STRUCTURES AND UTILITIES MAY EXIST, AND REPAIR AND/OR REPLACE ANY STRUCTURES AND/OR UTILITIES THAT ARE DAMAGED BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH A SET OF "AS-BUILT" PLANS MARKED WITH ALL DEVIATIONS FROM THE CONSTRUCTION PLANS PRIOR TO FINAL ACCEPTANCE.
7. ALL CONCRETE FOR FLATWORK SHALL BE PER SOILS REPORT RECOMMENDATIONS.
8. EXPANSION JOINTS WILL BE PLACED IN ALL SIDEWALKS AT PC'S, PT'S, AND AT ANY FIXED OBJECTS, BUT IN NO CASE ANY FURTHER THAN 500 FEET APART.
9. CONTRACTOR SHALL HAVE A COPY OF THE APPROVED SOILS REPORT ON SITE.

DOUGLAS COUNTY STANDARD NOTES:

1. THE DOUGLAS COUNTY ENGINEERING DIRECTOR SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE ENGINEERING DIVISION HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL CONFORMANCE WITH THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS AND THE DOUGLAS COUNTY SUBDIVISION RESOLUTION OR ACCEPTED VARIANCES TO THOSE REGULATIONS. THE DOUGLAS COUNTY ENGINEERING DIRECTOR, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. THE OWNER AND ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF COLORADO WHOSE STAMP AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.
2. ALL CONSTRUCTION SHALL CONFORM TO DOUGLAS COUNTY STANDARDS. ANY CONSTRUCTION NOT SPECIFICALLY ADDRESSED BY THESE PLANS AND SPECIFICATIONS WILL BE BUILT IN COMPLIANCE WITH THE LATEST EDITION OF THE MOST STRINGENT OF THE FOLLOWING:
   - THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
   - THE COLORADO DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   - THE COLORADO DEPARTMENT OF TRANSPORTATION M STANDARDS
3. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DOUGLAS COUNTY ENGINEERING DIVISION AS APPLICABLE. THE COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL NOTIFY THE DOUGLAS COUNTY ENGINEERING INSPECTION DIVISION, 303-660-7487, A MINIMUM OF 24-HOURS AND A MAXIMUM OF 72-HOURS PRIOR TO STARTING CONSTRUCTION. CONTRACTOR SHALL NOTIFY DOUGLAS COUNTY ENGINEERING INSPECTION WHEN WORKING OUTSIDE OF THE PUBLIC RIGHT-OF-WAY ON ANY FACILITY THAT WILL BE CONVEYED TO THE COUNTY, URBAN DRAINAGE & FLOOD CONTROL DISTRICT, OR OTHER SPECIAL DISTRICT FOR MAINTENANCE (STORM SEWER, ENERGY DISSIPATERS, DETENTION OUTLET STRUCTURES, OR OTHER DRAINAGE INFRASTRUCTURES). FAILURE TO NOTIFY THE ENGINEERING INSPECTION DIVISION TO ALLOW THEM TO INSPECT THE CONSTRUCTION MAY RESULT IN NON-ACCEPTANCE OF THE FACILITY/INFRASTRUCTURE BY THE COUNTY AND/OR URBAN DRAINAGE.
5. CONSTRUCTION WILL NOT BEGIN UNTIL ALL APPLICABLE PERMITS HAVE BEEN ISSUED. IF A DOUGLAS COUNTY ENGINEERING INSPECTOR IS NOT AVAILABLE AFTER PROPER NOTICE OF CONSTRUCTION ACTIVITY HAS BEEN PROVIDED, THE PERMITTEE MAY COMMENCE WORK IN THE INSPECTOR'S ABSENCE. HOWEVER, DOUGLAS COUNTY RESERVES THE RIGHT NOT TO ACCEPT THE IMPROVEMENT IF SUBSEQUENT TESTING REVEALS AN IMPROPER INSTALLATION.
6. THE LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. FOR INFORMATION CONTACT: COLORADO 811, AT 1-800-922-1987 (WWW.COLORADO811.ORG).
7. THE CONTRACTOR SHALL HAVE ONE (1) COPY OF THE PLANS SIGNED BY THE DOUGLAS COUNTY ENGINEERING DIRECTOR, ONE (1) COPY OF THE ROADWAY DESIGN AND CONSTRUCTION STANDARDS, AS AMENDED, AND ALL APPLICABLE PERMITS AT THE JOB SITE AT ALL TIMES.
8. ALL PROPOSED STREET CUTS TO EXISTING PAVEMENTS FOR UTILITIES, STORM SEWER OR FOR OTHER PURPOSES ARE LISTED AND REFERENCED BELOW: NONE
9. A TRAFFIC CONTROL PLAN, IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, SHALL BE SUBMITTED TO DOUGLAS COUNTY FOR ACCEPTANCE WITH THE RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT APPLICATION. A RIGHT-OF-WAY USE AND CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT AN ACCEPTED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION.
10. THE CONSTRUCTION PLANS SHALL BE CONSIDERED VALID FOR THREE (3) YEARS FROM THE DATE OF COUNTY ACCEPTANCE, AFTER WHICH TIME THESE PLANS SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY DOUGLAS COUNTY.
11. DOUGLAS COUNTY STANDARD DETAILS SHALL NOT BE MODIFIED. ANY NON-STANDARD DETAILS WILL BE CLEARLY IDENTIFIED AS SUCH.
12. PAVING, INCLUDING CONSTRUCTION OF CURB AND GUTTER (WHEN USED), SHALL NOT START UNTIL A PAVEMENT DESIGN REPORT AND SUBGRADE COMPACTION TESTS ARE ACCEPTED BY THE ENGINEERING INSPECTION DIVISION FOR ALL PUBLIC AND PRIVATE ROADS.
13. STANDARD DOUGLAS COUNTY HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT MID-BLOCK LOCATIONS OPPOSITE OF ONE OF THE CURB RETURNS OF ALL "T" INTERSECTIONS AS IDENTIFIED ON THESE PLANS.
14. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.
15. ALL ELEVATIONS ARE ON UNITED STATES COAST AND GEODETIC SURVEY (USC&GS) (NAVD-88) DATUM WITH DATE. THE RANGE POINT OR MONUMENTS SHALL BE SHOWN ON CONSTRUCTION DRAWINGS.
16. ALL STORM SEWER IMPROVEMENTS (PUBLIC AND PRIVATE) INCLUDING, BUT NOT LIMITED TO, INLETS, PIPES, CULVERTS, CHANNELS, DITCHES, HYDRAULIC STRUCTURES, RIPRAP, DETENTION BASINS, FOREBAYS, MICROPOOLS, AND WATER QUALITY FACILITIES REQUIRE PERMITTING AND INSPECTIONS. PLEASE CONTACT THE DOUGLAS COUNTY ENGINEERING INSPECTIONS DIVISION AT 303- 660-7487 FOR PERMITTING REQUIREMENTS AND INSPECTIONS SCHEDULING.
17. TWO (2) MANHOLE ACCESS POINTS ARE REQUIRED ON ALL TYPE R CURB INLETS GREATER THAN OR EQUAL TO TEN (10) FEET IN LENGTH.
18. EPOXY COATED REBAR IS REQUIRED ON ALL DRAINAGE STRUCTURES.
19. DOUGLAS COUNTY REQUIRES CLASS D CONCRETE FOR ALL DRAINAGE STRUCTURES.
20. ALL RCP STORM SEWERS MUST USE ASTM C443 WATERTIGHT GASKETS PER THE CURRENT DOUGLAS COUNTY AND URBAN DRAINAGE DESIGN CRITERIA.
21. ALL RCP SHALL BE CLASS III STORM SEWER PIPE UNLESS OTHERWISE SPECIFIED.
22. JOINT RESTRAINTS ARE REQUIRED FOR A MINIMUM OF THE LAST TWO PIPE JOINTS AND FLARED END SECTION OF AN RCP OUTFALL.
23. PRECAST INLETS AND MANHOLE BASES ARE NOT ALLOWED.
24. TOE WALLS ARE REQUIRED ON FLARED END SECTIONS AT THE OUTLET END OF CULVERTS AND STORM SEWER OUTFALLS.
25. FILTER FABRIC IS REQUIRED UNDER ALL RIPRAP PADS.
26. THE PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF COLORADO, SIGNING THESE PLANS IS RESPONSIBLE FOR ENSURING THAT THE DETAILS INCLUDED ARE COMPATIBLE WITH THE STANDARD DOUGLAS COUNTY DETAILS CONTAINED IN THE LATEST VERSIONS OF THE CRITERIA MANUALS. THIS INCLUDES, BUT IS NOT LIMITED TO:
   - . DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS
   - . DOUGLAS COUNTY STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA
   - . DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA
   - . CDOT M & S STANDARDS
   - . MUTCD
   - . URBAN STORM DRAINAGE CRITERIA MANUAL VOLUMES 1,2 & 3
27. A TEMPORARY CONSTRUCTION ACCESS PERMIT FROM DOUGLAS COUNTY MAY BE REQUIRED FOR ANY PROJECT.

VICINITY MAP
1"=2000'

SHEET INDEX:

BENCHMARK:

SURVEY BENCHMARK: NGS X 395. ELEVATION 6357.60 (NAVD 88).

BASIS OF BEARING:

THE BEARINGS SHOWN HEREON ARE BASED UPON THE NORTH LINE OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH PM BEARING S89°06'50"E BETWEEN THE NW CORNER OF SECTION 27 BEING A 2.5" ALUM CAP LS 6935 AND THE NE CORNER OF SECTION 27 BEING A STONE WITH CROSS CHISELED ON TOP AT FENCE CORNER.

CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
OR 232-1991 IN METRO DENVER
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED PROFESSIONAL ENGINEER
33392
11/05/24

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
CONSTRUCTION DOCUMENTS
COVER SHEET

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:
C0.0

CONTRACT DRAWINGS FOR CONSTRUCTION OF

CREEKSIDE BIBLE CHURCH
2180 S INTERSTATE 25

A PART OF THE N 1/2 OF SEC. 27
TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
COUNTY OF DOUGLAS, STATE OF COLORADO
5.79 ACRES

SMALL SITE GESC PLANS

VICINITY MAP
1"=2000'

OWNER:
THE FIRST BAPTIST CHURCH OF CASTLE ROCK, COLORADO
2180 S INTERSTATE 25
CASTLE ROCK, COLORADO 80104
(303) 688-3745
MR. CHARLES VAUGHAN

CIVIL ENGINEER:
CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, COLORADO 80228
(303) 917-1757
MR. JOE COCO

LIST OF DRAWINGS

SHEET	DRAWING NO.	TITLE
	GENERAL DRAWINGS	
1	G1	COVER SHEET
	GESC DRAWINGS	
2	E1	OVERALL PLAN
3	E2	SMALL SITE GESC PLAN
	GESC STANDARD NOTES AND DETAILS	
4	E3	GESC DETAILS
5	E4	GESC DETAILS
6	E5	GESC DETAILS

BENCHMARK:

SURVEY BENCHMARK: NGS X 395. ELEVATION 6357.60 (NAVD 88).

BASIS OF BEARING:

THE BEARINGS SHOWN HEREON ARE BASED UPON THE NORTH LINE OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH PM BEARING S89°06'50"E BETWEEN THE NW CORNER OF SECTION 27 BEING A 2.5" ALUM CAP LS 6935 AND THE NE CORNER OF SECTION 27 BEING A STONE WITH CROSS CHISELED ON TOP AT FENCE CORNER.

CALL UTILITY NOTIFICATION
CENTER OF COLORADO
1-800-922-1987
OR 232-1991 IN METRO DENVER
CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE
FOR MARKING OF UNDERGROUND
MEMBER UTILITIES

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PREPARED UNDER MY DIRECT SUPERVISION IN ACCORDANCE WITH THE REQUIREMENTS OF THE GRADING, EROSION, AND SEDIMENT CONTROL (GESC) MANUAL OF DOUGLAS COUNTY AS AMENDED.

GESC PLANS PREPARED BY:

JOE COCO
FOR AND ON BEHALF OF
CKE ENGINEERING, INC.

11/04/24
DATE

33392
PE NUMBER: 33392

THE GRADING, EROSION AND SEDIMENT CONTROL PLAN INCLUDED HEREIN HAS BEEN PLACED IN THE DOUGLAS COUNTY FILE FOR THIS PROJECT AND APPEARS TO FULFILL APPLICABLE DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL CRITERIA, AS AMENDED. ADDITIONAL GRADING, EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE PERMITTEES DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED GESC PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS GESC PLAN SHALL RUN WITH THE LAND AND SHALL BE THE OBLIGATION OF THE PERMITTEES, UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED PROFESSIONAL ENGINEER
33392
11/04/24

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
CONSTRUCTION DOCUMENTS
GESC COVER SHEET

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

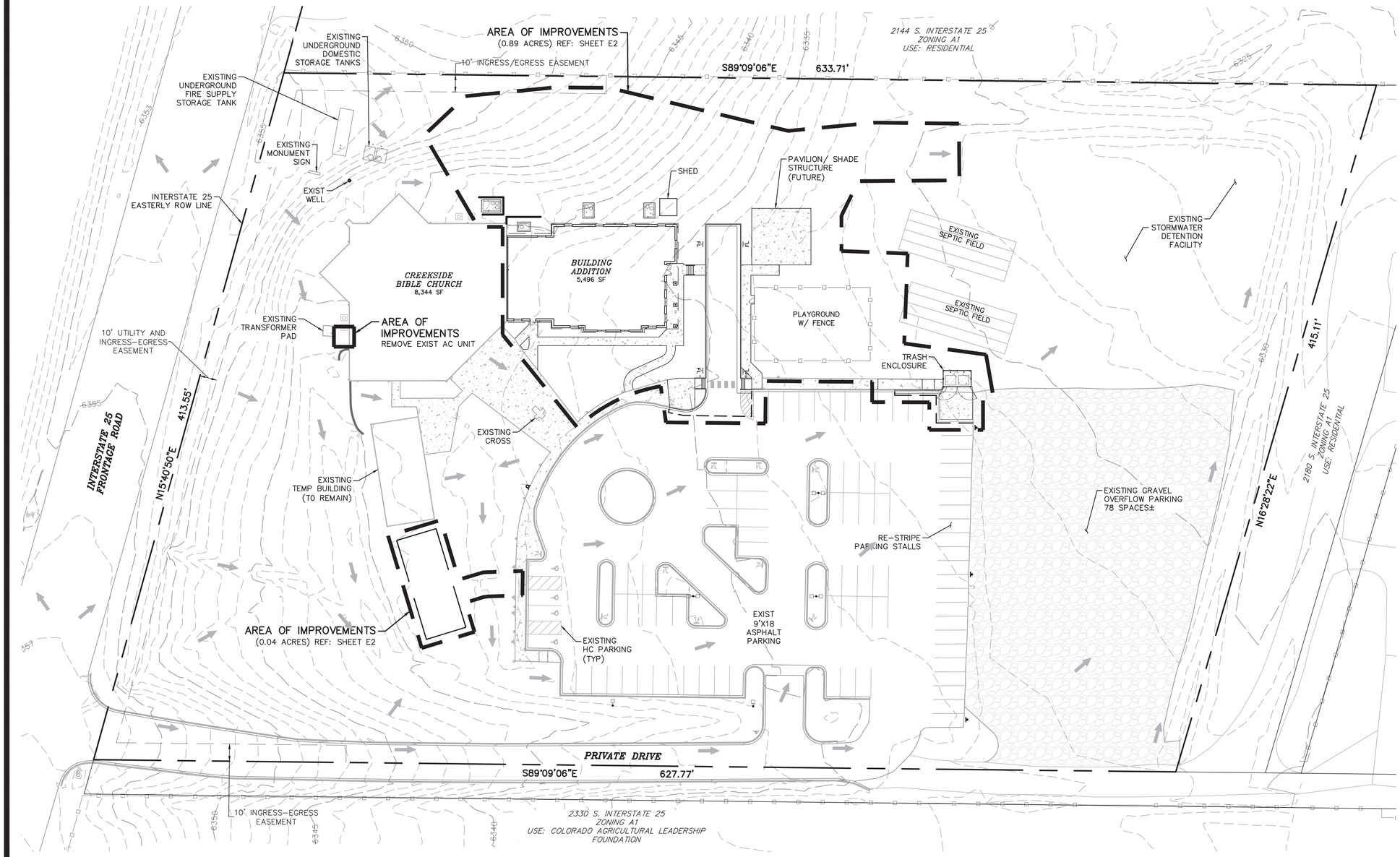
Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:

G1

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
SAN	SANITARY SEWER	
ST	STORM SEWER	
WAT	WATER LINE	
ELE	UNDERGROUND ELECTRIC	
COM	COMMUNICATIONS	
FO	FIBER OPTICS	
GAS	GAS LINE	
	FIRE HYDRANT	
SS	SANITARY MANHOLE	
D	STORM MANHOLE	
	LIGHT POLE	
	FENCE	
	SIGN	
	FIRE LANE SIGN	
	PROPERTY PIN	
	CONCRETE	



N

30 15 0 30 60

SCALE 1"= 30'

CKE Engineering assumes no responsibility for utility locations. The utilities shown on this drawing have been plotted from the best available information. It is, however, the contractors responsibility to field verify the location of all utilities prior to the commencement of any construction.

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED 33392 11/04/24 PROFESSIONAL ENGINEER

CREEKSIDE BIBLE CHURCH

2180 INTERSTATE 25

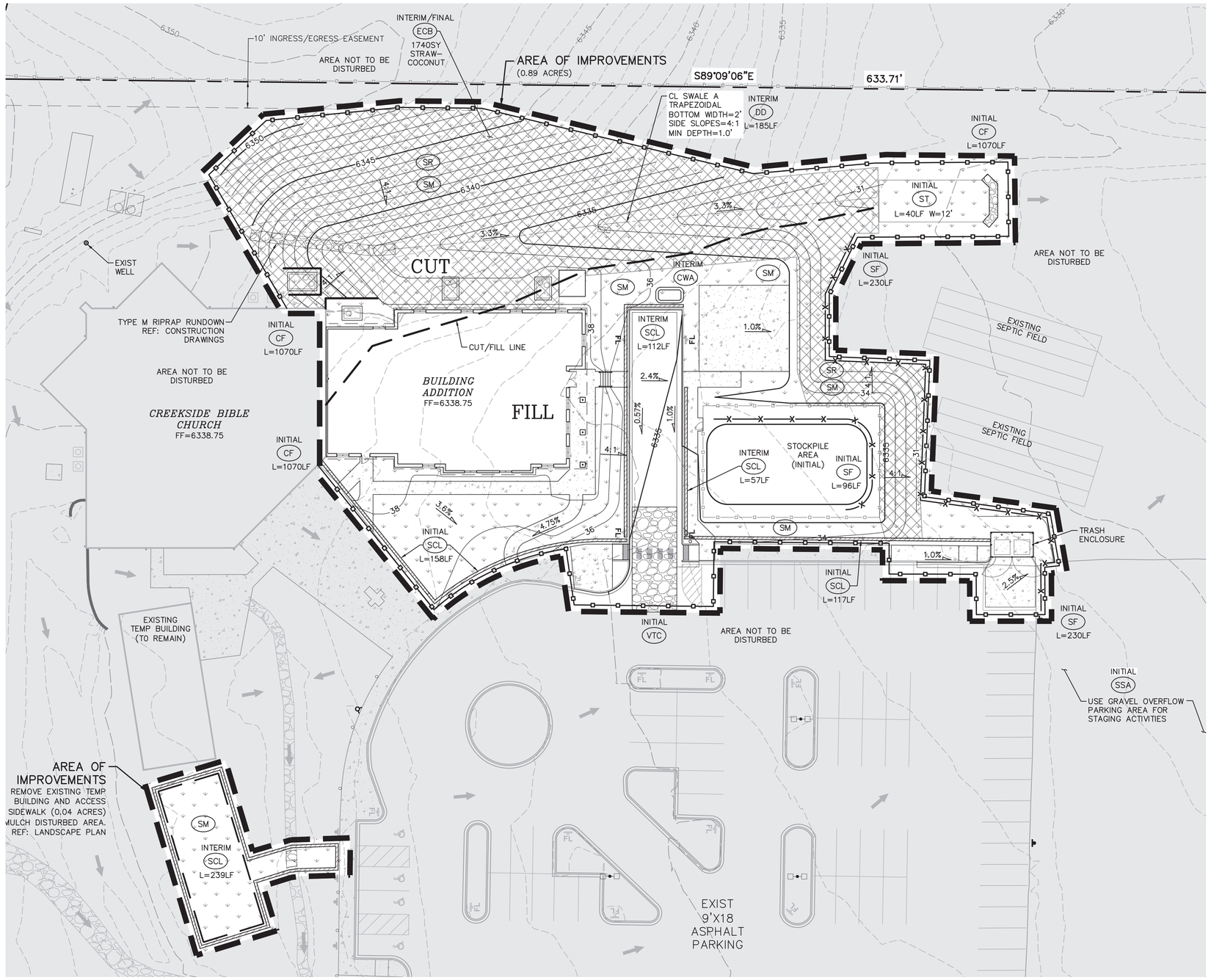
CONSTRUCTION DOCUMENTS
SITE PLAN

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:

E1



LEGEND

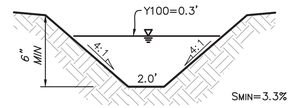
EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
DRIVE	DESCRIPTIONS	DRIVE
	FLOW ARROW	
	CONCRETE	

BMP LEGEND

	CD	CHECK DAM
	CB	COMPOST BLANKET
	CFB	COMPOST FILTER BERM
	CWA	CONCRETE WASHOUT AREA
	CF	CONSTRUCTION FENCE
	CM	CONSTRUCTION MARKER
	DW	DEWATERING
	DD	DIVERSION DITCH
	ECB	EROSION CONTROL BLANKET
	IP	INLET PROTECTION
	RCD	REINFORCED CHECK DAM
	RRB	REINFORCED ROCK BERM
	RRC	RRB FOR CULVERT PROTECTION
	SB	SEDIMENT BASIN
	SCL	SEDIMENT CONTROL LOG
	ST	SEDIMENT TRAP
	SM	SEEDING AND MULCHING
X	SF	SILT FENCE
	SSA	STABILIZED STAGING AREA
	SR	SURFACE ROUGHENING
	TSD	TEMPORARY SLOPE DRAIN
	TSC	TEMPORARY STREAM CROSSING
	TER	TERRACING
	VTC	VEHICLE TRACKING CONTROL
	WW	VTC WITH WHEEL WASH
		ROCK AND RIPRAP GRADATIONS
	LOC	LIMITS OF CONSTRUCTION

AREA OUTSIDE LIMITS OF CONSTRUCTION

AREA TO BE DRILL SEEDED AND CRIMP MULCHED

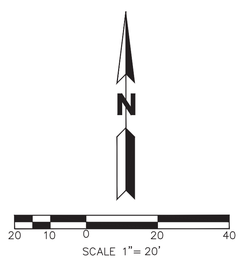


SWALE A
(N.T.S.)

NOTES:

1. SEE COVER SHEET OF DOUGLAS COUNTY STANDARD NOTES AND DETAILS (SHEET 1 OF 14) FOR LEGEND OF BMP NAMES AND SYMBOLS.
2. SHADED AREAS OUTSIDE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED. CONSTRUCTION FENCE OR CONSTRUCTION MARKERS TO DELINEATE LIMITS OF CONSTRUCTION SHALL BE INSTALLED PRIOR TO ANY OTHER WORK ON SITE.
3. ALL INTERIM BMPS, INCLUDING SEEDING AND MULCHING OF DISTURBED AREAS, MUST BE COMPLETED PRIOR TO ISSUANCE OF ANY CURB AND GUTTER PERMITS.
4. PRELIMINARY EARTHWORK SUMMARY:
   EXCAVATION: 687 CY
   EMBANKMENT: 1,236 CY
   ASSUMED 15% COMPACTION

   EARTHWORK IS FILL CONDITION. PRELIMINARY EARTHWORKS ARE AN ESTIMATE OF QUANTITIES. CONTRACTOR TO DETERMINE FINAL EARTHWORK QUANTITIES PRIOR TO BID.
5. SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINS, AND INLET AND OUTLET PROTECTION.
6. SURVEY BENCHMARK: NGS X 395. ELEVATION 6357.60 (NAVD 88).



ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR GRADING, EROSION AND SEDIMENT CONTROL IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED 33392 11/04/24 PROFESSIONAL ENGINEER

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25

CONSTRUCTION DOCUMENTS
SMALL SITE GESC PLAN

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:

E2

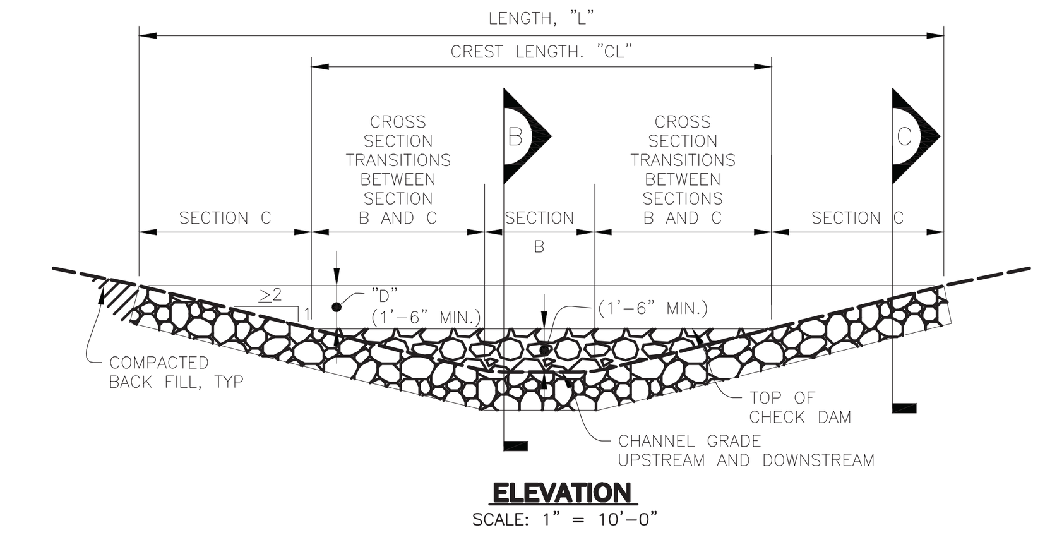
3 OF 6

GRADING, EROSION, AND SEDIMENT CONTROL (GESC) GENERAL NOTES

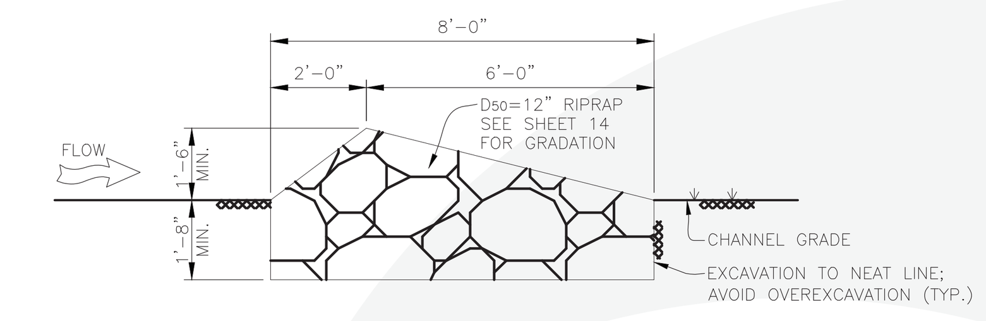
1. THE DOUGLAS COUNTY ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL COMPLIANCE WITH THE DOUGLAS COUNTY GRADING, EROSION AND SEDIMENT CONTROL (GESC) CRITERIA MANUAL. THE DOUGLAS COUNTY DIRECTOR OF ENGINEERING SERVICES, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY (OTHER THAN AS STATED ABOVE) FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS.
2. THE ADEQUACY OF THIS GESC PLAN LIES WITH THE ORIGINAL DESIGN ENGINEER.
3. THE GESC PLAN SHALL BE CONSIDERED VALID FOR TWO (2) YEARS FROM THE DATE OF ACCEPTANCE BY DOUGLAS COUNTY, AFTER WHICH TIME THE PLAN SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY DOUGLAS COUNTY.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING. DOUGLAS COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO THE GESC MANUAL, GESC PLAN OR GESC PERMIT.
5. THE PLACEMENT OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPs) SHALL BE IN ACCORDANCE WITH THE DOUGLAS COUNTY ACCEPTED GESC PLAN AND THE DOUGLAS COUNTY GESC MANUAL, AS AMENDED.
6. ANY VARIATION IN MATERIAL, TYPE OR LOCATION OF EROSION AND SEDIMENT CONTROL BMPs FROM THE DOUGLAS COUNTY ACCEPTED GESC PLAN WILL REQUIRE APPROVAL FROM AN ACCOUNTABLE REPRESENTATIVE OF THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING.
7. AFTER THE GESC PLAN HAS BEEN ACCEPTED, THE GESC PERMIT APPLIED FOR, FEES AND FISCAL SECURITY SUBMITTED TO THE COUNTY, AND THE GESC FIELD MANUAL OBTAINED AND REVIEWED, THE CONTRACTOR MAY INSTALL THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL BMPs INDICATED ON THE ACCEPTED GESC PLAN.
8. THE FIRST BMP TO BE INSTALLED ON THE SITE SHALL BE CONSTRUCTION FENCE, MARKERS, OR OTHER APPROVED MEANS OF DEFINING THE LIMITS OF CONSTRUCTION, INCLUDING CONSTRUCTION LIMITS ADJACENT TO STREAM CORRIDORS AND OTHER AREAS TO BE PRESERVED.
9. AFTER INSTALLATION OF THE INITIAL-STAGE EROSION AND SEDIMENT CONTROL BMPs, THE PERMITTEE SHALL CALL THE DOUGLAS COUNTY ENGINEERING PERMITS STAFF AT 303-660-7487 TO SCHEDULE A PRECONSTRUCTION MEETING AT THE PROJECT SITE. THE REQUEST SHALL BE MADE A MINIMUM OF THREE BUSINESS DAYS PRIOR TO THE REQUESTED MEETING TIME. NO CONSTRUCTION ACTIVITIES SHALL BE PLANNED WITHIN 24 HOURS AFTER THE PRECONSTRUCTION MEETING.
10. THE OWNER OR OWNER'S REPRESENTATIVE, THE GESC MANAGER, THE GENERAL CONTRACTOR, AND THE GRADING SUBCONTRACTOR, IF DIFFERENT FROM THE GENERAL CONTRACTOR, MUST ATTEND THE PRECONSTRUCTION MEETING. IF ANY OF THE REQUIRED PARTICIPANTS FAIL TO ATTEND THE PRECONSTRUCTION MEETING, OR IF THE GESC FIELD MANUAL IS NOT ON SITE, OR IF THE INSTALLATION OF THE INITIAL BMPs ARE NOT APPROVED BY THE DOUGLAS COUNTY GESC INSPECTOR, THE APPLICANT WILL HAVE TO PAY A REINSPECTION FEE, ADDRESS ANY PROBLEMS WITH BMP INSTALLATION, AND CALL TO RESCHEDULE THE MEETING, WITH A CORRESPONDING DELAY IN THE START OF CONSTRUCTION. DOUGLAS COUNTY STRONGLY ENCOURAGES THE APPLICANT TO HAVE THE ENGINEER OF RECORD AT THE PRECONSTRUCTION MEETING.
11. CONSTRUCTION SHALL NOT BEGIN UNTIL THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR APPROVES THE INSTALLATION OF THE INITIAL BMPs AND THE APPROVED GESC PERMIT IS PICKED UP FROM THE COUNTY AND IS IN-HAND ON THE SITE. THE COMPLETED PERMIT WILL BE AVAILABLE WITHIN 24-HOURS AFTER THE INSTALLATION OF THE INITIAL BMPs ARE APPROVED.
12. THE GESC MANAGER SHALL STRICTLY ADHERE TO THE DOUGLAS COUNTY-APPROVED LIMITS OF CONSTRUCTION AT ALL TIMES. THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING MUST APPROVE ANY CHANGES TO THE LIMITS OF CONSTRUCTION AND, AT THE DISCRETION OF THE ENGINEERING DIVISION, ADDITIONAL EROSION/SEDIMENT CONTROLS MAY BE REQUIRED IN ANY ADDITIONAL AREAS OF CONSTRUCTION.
13. THE MAXIMUM AREA OF CONSTRUCTION SHALL BE LIMITED TO 40 ACRES (70 ACRES IF APPROVED FOR SOIL MITIGATION OPERATIONS) TO REDUCE THE AMOUNT OF LAND DISTURBED AT ANY ONE TIME. LARGER SITES SHALL BE DIVIDED INTO PHASES THAT ARE EACH 40 (OR 70) ACRES OR LESS IN SIZE. THESE PROJECTS SHALL CONDUCT GRADING ACTIVITIES IN ACCORDANCE WITH THE ACCEPTED GESC PLAN. BMP INSTALLATION AND APPROVAL BY DOUGLAS COUNTY AT THE START AND COMPLETION OF EACH PHASE SHALL BE CONDUCTED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE GESC MANUAL AND/OR GESC FIELD MANUAL.
14. PRIOR TO ANY CONSTRUCTION ACTIVITY, THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES. FOR INFORMATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT 1-800-922-1987 OR FAX AT 303-534-6700.
15. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS.
16. THE GESC PERMIT SHALL BE VALID FOR A PERIOD OF ONE (1) YEAR.
17. A COPY OF THE GESC PERMIT, ACCEPTED GESC PLANS AND THE GESC FIELD MANUAL SHALL BE ON SITE AT ALL TIMES.
18. THE GESC MANAGER SHALL BE RESPONSIBLE FOR ENSURING THAT THE SITE REMAINS IN COMPLIANCE WITH THE GESC PERMIT AND SHALL BE THE PERMITTEE'S CONTACT PERSON WITH THE COUNTY FOR ALL MATTERS PERTAINING TO THE GESC PERMIT. THE GESC MANAGER SHALL BE PRESENT AT THE SITE THE MAJORITY OF THE TIME AND SHALL BE AVAILABLE THROUGH A 24-HOUR CONTACT NUMBER. IN THE EVENT THAT THE CONTRACTOR'S GESC MANAGER IS NOT ON SITE AND CANNOT BE REACHED DURING A VIOLATION, THE ALTERNATE GESC MANAGER SHALL BE CONTACTED. IF NEITHER THE GESC MANAGER NOR ALTERNATE GESC MANAGER CAN BE CONTACTED DURING ANY VIOLATION, A STOP WORK ORDER SHALL BE ISSUED.
19. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE THROUGH THE DOUGLAS COUNTY-APPROVED ACCESS POINT. A VEHICLE TRACKING CONTROL PAD IS REQUIRED AT ALL ACCESS POINTS ON THE SITE. ADDITIONAL STABILIZED CONSTRUCTION ENTRANCES MAY BE ADDED WITH AUTHORIZATION FROM THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING.
20. THE GESC MANAGER IS RESPONSIBLE FOR CLEANUP OF SEDIMENT OR CONSTRUCTION DEBRIS TRACKED ONTO ADJACENT PAVED AREAS. PAVED AREAS INCLUDING STREETS ARE TO BE KEPT CLEAN THROUGHOUT BUILD-OUT AND SHALL BE CLEANED, WITH A STREET SWEEPER OR SIMILAR DEVICE, AT FIRST NOTICE OF ACCIDENTAL TRACKING OR AT THE DISCRETION OF THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR. STREET WASHING IS NOT ALLOWED. DOUGLAS COUNTY RESERVES THE RIGHT TO REQUIRE ADDITIONAL MEASURES TO ENSURE AREA STREETS ARE KEPT FREE OF SEDIMENT AND/OR CONSTRUCTION DEBRIS.
21. APPROVED EROSION AND SEDIMENT CONTROL BMPs SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. AT A MINIMUM, THE GESC MANAGER SHALL INSPECT ALL BMPs IN ACCORDANCE WITH THE ACCEPTED GESC PLAN AND GESC MANUAL. LEVEL III VIOLATIONS SHALL BE CORRECTED IMMEDIATELY AFTER THE PERMITTEE(S) NOTICE THE VIOLATION(S) OR ARE NOTIFIED OF THE VIOLATION(S). GENERALLY DOUGLAS COUNTY WILL REINSPECT FOR COMPLIANCE WITHIN 48 HOURS OF NOTIFICATION OF LEVEL III VIOLATIONS. LEVEL II VIOLATIONS SHALL BE CORRECTED IMEDIATELY, OR AS DIRECTED BY A DOUGLAS COUNTY EROSION CONTROL INSPECTOR. ACCUMULATED SEDIMENT AND CONSTRUCTION DEBRIS SHALL BE REMOVED AND PROPERLY DISPOSED.
22. STRAW BALES ARE NOT A DOUGLAS COUNTY ACCEPTED SEDIMENT CONTROL BMP.
23. TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN THE LOCATION SHOWN ON THE ACCEPTED GESC PLAN. THE GESC MANAGER SHALL SCHEDULE AN INSPECTION WITH THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR AS SOON AS TOPSOIL STRIPPING IS COMPLETED. FAILURE TO SCHEDULE SUCH INSPECTION OR FAILURE TO STOCKPILE TOPSOIL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER. THE STOP WORK ORDER SHALL REMAIN IN PLACE UNTIL TOPSOIL IS STOCKPILED ON SITE OR APPROPRIATE SOIL AMENDMENTS ARE STOCKPILED ON SITE.
24. THE ACCEPTED GESC PLAN MAY REQUIRE CHANGES OR ALTERATIONS AFTER APPROVAL TO MEET CHANGING SITE OR PROJECT CONDITIONS OR TO ADDRESS INEFFICIENCIES IN DESIGN OR INSTALLATION. THE GESC MANAGER SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER AND DOUGLAS COUNTY PUBLIC WORKS ENGINEERING FOR ANY PROPOSED CHANGES.
25. LINING OF TEMPORARY SWALES AND DITCHES SHALL BE IN ACCORDANCE WITH THE GESC CRITERIA MANUAL.
26. NO PERMANENT EARTH SLOPES GREATER THAN 3:1 SHALL BE ALLOWED.
27. ANY SETTLEMENT OR SOIL ACCUMULATIONS BEYOND THE LIMITS OF CONSTRUCTION DUE TO GRADING OR EROSION SHALL BE REPAIRED IMMEDIATELY BY THE GESC MANAGER. THE GESC MANAGER SHALL BE HELD RESPONSIBLE FOR OBTAINING ACCESS RIGHTS TO ADJACENT PROPERTY, IF NEEDED, AND REMEDIATING ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, WETLANDS, PROPERTIES, ETC. RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
28. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
29. SOILS THAT WILL BE STOCKPILED FOR MORE THAN THIRTY (30) DAYS SHALL BE SEEDED AND MULCHED WITHIN FOURTEEN (14) DAYS OF STOCKPILE CONSTRUCTION. NO STOCKPILES SHALL BE PLACED WITHIN ONE HUNDRED (100) FEET OF A DRAINAGE WAY UNLESS APPROVED BY THE DOUGLAS COUNTY PUBLIC WORKS ENGINEERING.
30. ALL CHEMICAL OR HAZARDOUS MATERIAL SPILLS WHICH MAY ENTER WATERS OF THE STATE OF COLORADO, WHICH INCLUDE BUT ARE NOT LIMITED TO, SURFACE WATER, GROUND WATER AND DRY GULLIES OR STORM SEWER LEADING TO SURFACE WATER, SHALL BE IMMEDIATELY REPORTED TO THE CDPHE PER CRS 25-8-601, AND DOUGLAS COUNTY. RELEASES OF PETROLEUM PRODUCTS AND CERTAIN HAZARDOUS SUBSTANCES LISTED UNDER THE FEDERAL CLEAN WATER ACT (40 CFR PART 116) MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER AS WELL AS THE CDPHE. CONTACT INFORMATION FOR CDPHE, DOUGLAS COUNTY AND THE NATIONAL RESPONSE CENTER CAN BE FOUND IN APPENDIX A OF THE GESC MANUAL, AS AMENDED. SPILLS THAT POSE AN IMMEDIATE RISK TO HUMAN LIFE SHALL BE REPORTED TO 911. FAILURE TO REPORT AND CLEAN UP ANY SPILL SHALL RESULT IN ISSUANCE OF A STOP WORK ORDER.
31. ALL WORK ON SITE SHALL STAY A MINIMUM OF ONE HUNDRED (100) FEET AWAY FROM ANY DRAINAGEWAY, WETLAND, ETC. UNLESS OTHERWISE NOTED ON AN ACCEPTED DOUGLAS COUNTY GESC PLAN.
32. ALL PROJECTS SHALL BALANCE EARTHWORK QUANTITIES ON SITE. IN THE EVENT A VARIANCE IS GRANTED BY THE COUNTY DIRECTOR OF ENGINEERING SERVICES TO ALLOW IMPORT OR EXPORT OF MATERIAL, THE PERMITEE SHALL HAVE A GESC PERMIT IN HAND FOR THE IMPORT OR EXPORT SITE PRIOR TO ANY TRANSPORTING OF EARTHEN MATERIAL. THE GESC MANAGER SHALL NOTIFY THE DOUGLAS COUNTY GESC INSPECTOR OF THE LOCATION AND PERMIT NUMBERS OF BOTH THE EXPORTING AND IMPORTING SITES PRIOR TO ANY IMPORT/ EXPORT OPERATIONS.
33. THE USE OF REBAR, STEEL STAKES OR STEEL FENCE POSTS FOR STAKING OR SUPPORT OF ANY EROSION OR SEDIMENT CONTROL BMP IS PROHIBITED (EXCEPT STEEL TEE-POSTS FOR USE IN SUPPORTING CONSTRUCTION FENCE).
34. THE CLEANING OF CONCRETE DELIVERY TRUCK CHUTES IS RESTRICTED TO APPROVED CONCRETE WASH OUT LOCATIONS ON THE JOB SITE. THE DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. ALL CONCRETE WASTE SHALL BE PROPERLY CLEANED UP AND DISPOSED AT AN APPROPRIATE LOCATION.
35. ALL DEWATERING ON SITE SHALL BE COORDINATED WITH A DOUGLAS COUNTY GESC INSPECTOR AND BE FREE OF SEDIMENT IN ACCORDANCE WITH THE GESC MANUAL.
36. ALL PERMANENT INSTALLATIONS OF PIPES FOR STORM SEWERS, SLOPE DRAINS, AND CULVERTS, TOGETHER WITH RIPRAP APRONS OR OTHER INLET AND OUTLET PROTECTION, REQUIRE INSPECTION BY DOUGLAS COUNTY PUBLIC WORKS ENGINEERING (SEPARATE FROM GESC INSPECTIONS).
37. ALL DISTURBED AREAS SHALL BE DRILL SEEDED AND CRIMP MULCHED IN ACCORDANCE WITH THE GESC CRITERIA MANUAL WITHIN THIRTY DAYS OF INITIAL EXPOSURE OR WITHIN FOURTEEN (14) DAYS OF SUBSTANTIAL COMPLETION (AS DEFINED BY DOUGLAS COUNTY) OF AN AREA, WHICHEVER IS LESS. THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.
38. ALL SLOPES STEEPER THEN 4:1 REQUIRED EROSION CONTROL BLANKETING.
39. HYDRAULIC SEEDING AND HYDRAULIC MULCHING ARE NOT AN ACCEPTABLE METHOD OF SEEDING OR MULCHING IN DOUGLAS COUNTY.
40. NO CURB AND GUTTER PERMITS SHALL BE ISSUED UNTIL ALL DISTURBED AREAS ARE DRILL SEEDED AND CRIMP MULCHED.
41. NO PAVING PERMITS SHALL BE ISSUED UNTIL ALL INTERIM INLET PROTECTION IS INSTALLED AND APPROVED BY THE EROSION CONTROL INSPECTOR.
42. A FINAL GESC INSPECTION SHALL BE CONDUCTED FOR CERTIFICATE OR TEMPORARY CERTIFICATE OF OCCUPANCY OR INITIAL ACCEPTANCE.
43. ALL REMAINING AREAS THAT ARE NOT LANDSCAPED OR OTHERWISE STABILIZED SHALL BE COVERED WITH EROSION CONTROL BLANKETING. ALL EROSION CONTROL BLANKETS AND NETTING SHALL BE MADE OF 100% NATURAL AND BIODEGRADABLE MATERIAL; NO PLASTIC OR OTHER SYNTHETIC MATERIAL, EVEN IF PHOTODEGRADABLE, SHALL BE ALLOWED. SEEDING IS NOT REQUIRED UNDER BLANKETS THAT ARE USED FOR TEMPORARY EROSION CONTROL IN AREAS THAT ARE NOT LANDSCAPED OR OTHERWISE STABILIZED.

BMP LEGEND

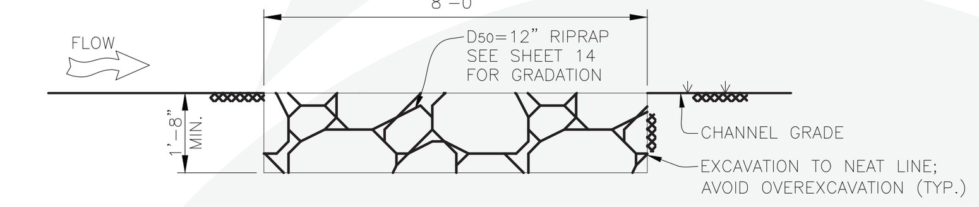
DETAIL NO.	SHEET NO.		BMP LEGEND
1	1	CD	CHECK DAM
2	1	CB	COMPOST BLANKET
3	1	CFB	COMPOST FILTER BERM
4	1	CWA	CONCRETE WASHOUT AREA
5	1	CF	CONSTRUCTION FENCE
6	1	CM	CONSTRUCTION MARKERS
7	1	DW	DEWATERING
8	1	DD	DIVERSION DITCH
9	2	ECB	EROSION CONTROL BLANKET
10	2	IP	INLET PROTECTION
11	2	RCD	REINFORCED CHECK DAM
12	2	RRB	REINFORCED ROCK BERM
13	2	RRC	RRB FOR CULVERT PROTECTION
14	2	SB	SEDIMENT BASIN
15	3	SCL	SEDIMENT CONTROL LOG
16	3	ST	SEDIMENT TRAP
17	3	SM	SEEDING AND MULCHING
18	3	SF	SILT FENCE
19	3	SSA	STABILIZED STAGING AREA
20	3	SR	SURFACE ROUGHENING
21	3	TSD	TEMPORARY SLOPE DRAIN
22	3	TSC	TEMPORARY STREAM CROSSING
23	3	TER	TERRACING
24	3	VTC	VEHICLE TRACKING CONTROL
25	3	WW	VTC WITH WHEEL WASH
	1		ROCK AND RIPRAP GRADATIONS
		LOC	LIMITS OF CONSTRUCTION



ELEVATION
SCALE: 1" = 10'-0"



SECTION B
SCALE: 1/4" = 1'-0"



SECTION C
SCALE: 1/4" = 1'-0"

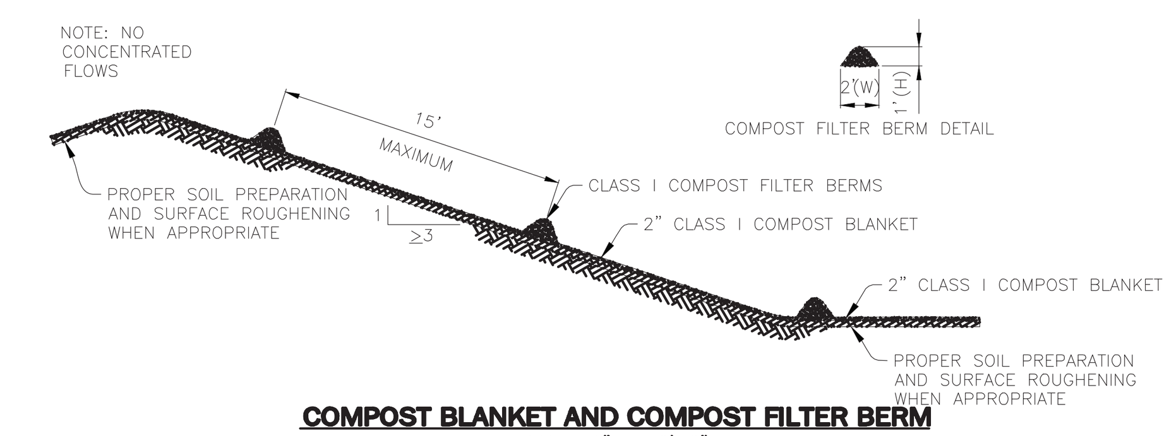
CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS 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 GESC PLAN SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
3. RIPRAP UTILIZED FOR CHECK DAMS SHALL HAVE A D_{50} MEDIAN STONE SIZE OF 12".
4. RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-8".
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. THE GESC MANAGER SHALL INSPECT CHECK DAMS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
3. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY.
4. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACK FILL. ANY DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

CD CHECK DAM 1



COMPOST BLANKET AND COMPOST FILTER BERM
SCALE: 1" = 10'-0"

COMPOST BLANKET NOTES:

1. SEE PLAN VIEW FOR AREA OF COMPOST BLANKET.
2. MAY BE USED IN PLACE OF STRAW MULCH OR EROSION CONTROL BLANKET IN AREAS WHERE ACCESS IS DIFFICULT DUE TO LANDSCAPING OR OTHER OBJECTS OR IN AREAS WHERE A SMOOTH TURF GRASS FINISH IS DESIRED.
3. SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL; SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
4. SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
5. WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
6. SHALL BE EVENLY APPLIED AT A DEPTH OF 2 INCH.
7. MAYBE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
8. SEEDING SHALL BE DRILLED PRIOR TO THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
9. COMPOST FILTER BERM SHALL BE UTILIZED ON SLOPES WITH A MAXIMUM SPACING OF 15 FEET PER THE REQUIREMENTS FOUND IN THE COMPOST FILTER BERM SECTION.
10. THE GESC MANAGER SHALL INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.
11. COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

PARAMETERS	CLASS I COMPOST FOR COMPOST BLANKET
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 – 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS PERCENTAGE OF GERMINATION/VIGOR	80+/80+
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE N RATIO	< 4
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	20:1
TESTED FOR CLOPYRALID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30–60 %
ORGANIC MATTER CONTENT	25–45 % OF DRY WEIGHT
PARTICLE SIZE DISTRIBUTION	3" (75mm) 100% PASSING 1" (25mm) 95% TO 100% PASSING 3/4" (19mm) 85% TO 90% PASSING 3/8" (9.5mm) 50% TO 60% PASSING #4 20 TO 35% PASSING
PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	MUST BE REPORTED
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	STA + CLOPYRALID
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLES 1 & 3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW

NOTE: CLOPYRALID IS THE COMMON NAME OF A HERBICIDE THAT KILLS BROAD-LEAVED WEEDS SUCH AS DANDELIONS, CLOVER AND THISTLE.

CB COMPOST BLANKET 2

COMPOST FILTER BERM NOTES:

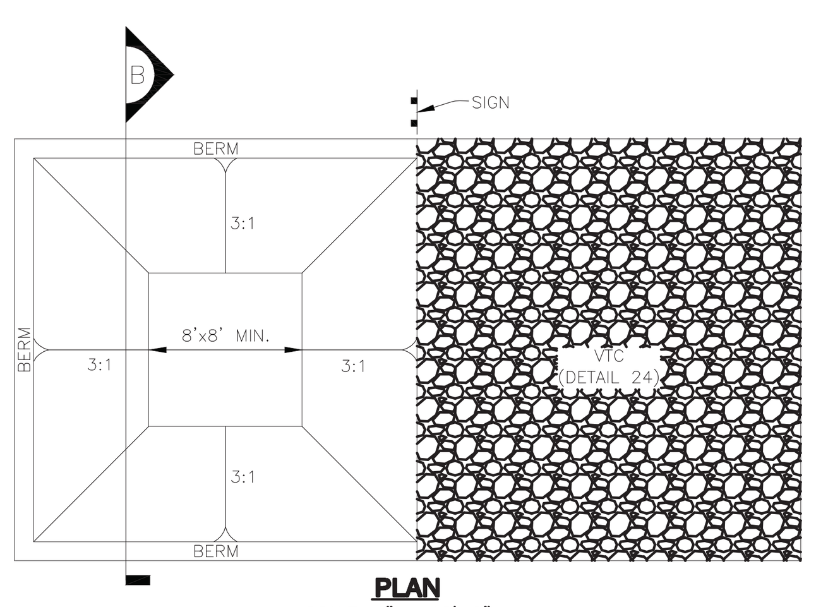
1. SEE PLAN VIEW FOR LENGTH OF COMPOST FILTER BERM.
2. SHALL BE APPLIED TO ALL SLOPES RECEIVING A COMPOST BLANKET AT 15' INCREMENTS.
3. FILTER BERMS SHALL RUN PARALLEL TO THE CONTOUR.
4. FILTER BERMS SHALL BE A MINIMUM OF 1' H x 2' W.
5. FILTER BERMS SHALL BE APPLIED UTILIZING PNEUMATIC BLOWER, OR BY HAND.
6. SHALL ONLY BE UTILIZED IN AREAS WHERE SHEET FLOW CONDITIONS PREVAIL; SHALL BE PROHIBITED IN AREAS OF POSSIBLE CONCENTRATED FLOW.
7. SOIL PREPARATION SHALL BE COMPLETE PER THE SPECIFICATIONS OUTLINED IN THESE CRITERIA PRIOR TO APPLICATION.
8. WHEN TURF GRASS FINISH IS NOT DESIRED, SURFACE ROUGHENING ON SLOPES SHALL TAKE PLACE PRIOR TO APPLICATION.
9. SEEDING SHALL BE DRILLED BEFORE THE APPLICATION OF COMPOST OR SEED MAY BE COMBINED AND BLOWN WITH THE PNEUMATIC BLOWER.
10. THE GESC MANAGER SHALL INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.
11. COMPOST USED IN THE APPLICATION OF THE COMPOST BLANKET SHALL BE A CLASS I COMPOST AS DEFINED BY THE FOLLOWING PHYSICAL, CHEMICAL, AND BIOLOGICAL PARAMETERS:

PARAMETERS	CLASS I COMPOST FOR COMPOST FILTER BERM
MINIMUM STABILITY INDICATOR	STABLE TO VERY STABLE
SOLUBLE SALTS	MAXIMUM 5mmhos/cm
PH	6.0 – 8.0
AG INDEX	> 10
MATURITY INDICATOR EXPRESSED AS PERCENTAGE OF GERMINATION/VIGOR	80+/80+
MATURITY INDICATOR EXPRESSED AS AMMONIA N/ NITRATE N RATIO	< 4
MATURITY INDICATOR EXPRESSED AS CARBON TO NITROGEN RATIO	20:1
TESTED FOR CLOPYRALID	YES/NEGATIVE RESULT
MOISTURE CONTENT	30–60 %
ORGANIC MATTER CONTENT	25–45 % OF DRY WEIGHT
PARTICLE SIZE DISTRIBUTION	3" (75mm) 100% PASSING 1" (25mm) 95% TO 100% PASSING 3/4" (19mm) 85% TO 90% PASSING 3/8" (9.5mm) 50% TO 60% PASSING #4 20 TO 35% PASSING
PRIMARY, SECONDARY NUTRIENTS; TRACE ELEMENT	MUST BE REPORTED
TESTING AND TEST REPORT SUBMITTAL REQUIREMENTS	STA + CLOPYRALID
ORGANIC MATTER PER CUBIC YARD	MUST REPORT
CHEMICAL CONTAMINANTS	MEET OR EXCEED US EPA CLASS A STANDARD, 40 CFR 503.1 TABLES 1 & 3 LEVELS
MINIMUM MANUFACTURING/PRODUCTION REQUIREMENT	FULLY PERMITTED UNDER COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, HAZARDOUS MATERIALS AND WASTE MANAGEMENT DIVISION
RISK FACTOR RELATING TO PLANT GERMINATION AND HEALTH	LOW

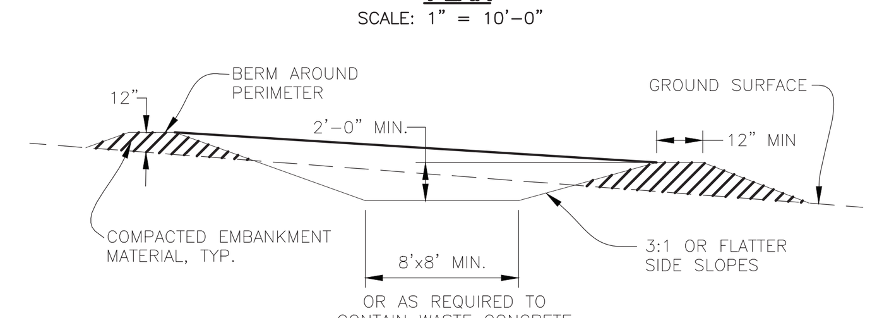
NOTE: IF A BIOSOLID COMPOST IS TO BE UTILIZED IT SHALL BE PRODUCED BY A FACILITY IN POSSESSION OF A VALID NOTICE OF AUTHORIZATION (NOA) FOR THE UNRESTRICTED USE AND DISTRIBUTION BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT. THE NOA SHALL BE PROVIDED UPON REQUEST TO DOUGLAS COUNTY.

NOTE: A LAB TEST DETAILING THE CHEMICAL, PHYSICAL, AND BIOLOGICAL PARAMETERS SHALL BE PROVIDED UPON REQUEST BY DOUGLAS COUNTY.

CFB COMPOST FILTER BERM 3



PLAN
SCALE: 1" = 10'-0"



SECTION B
SCALE: 1" = 10'-0"

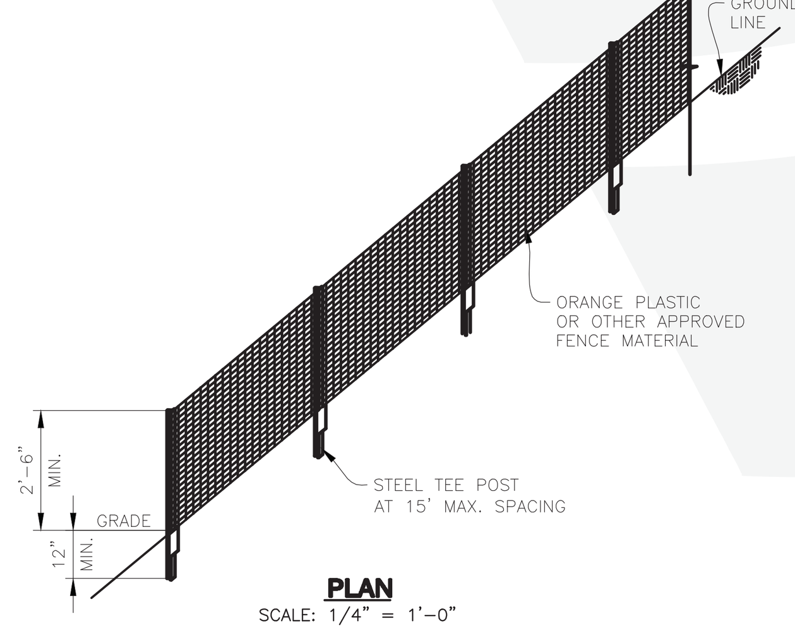
CONCRETE WASHOUT AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CONCRETE WASHOUT AREA.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT ON SITE.
3. VEHICLE TRACKING CONTROL (DETAIL 24) IS REQUIRED AT THE ACCESS POINT.
4. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE WASHOUT AREA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT AREA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
5. EXCAVATED MATERIAL SHALL BE UTILIZED IN PERIMETER BERM CONSTRUCTION.
6. DURABLE PORTABLE CONCRETE WASHOUT BASINS OR TUBS MAY BE USED WITH THE APPROVAL OF THE EROSION CONTROL INSPECTOR.

CONCRETE WASHOUT AREA MAINTENANCE NOTES

1. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED AND ENLARGED OR CLEANED OUT AS NECESSARY TO MAINTAIN CAPACITY FOR WASTED CONCRETE.
2. AT THE END OF CONSTRUCTION, ALL CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT AN APPROVED WASTE SITE.
3. WHEN THE CONCRETE WASHOUT AREA IS REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.
4. INSPECT WEEKLY, DURING AND AFTER ANY STORM EVENT.

CWA CONCRETE WASHOUT AREA 4



PLAN
SCALE: 1/4" = 1'-0"

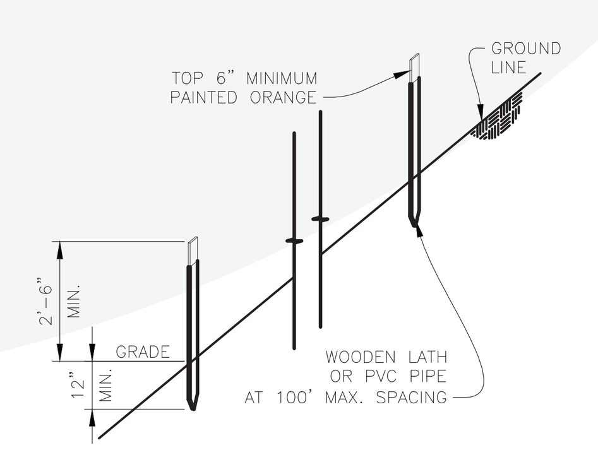
CONSTRUCTION FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - TYPE OF CONSTRUCTION LIMIT INDICATOR (FENCE OR MARKERS).
   - LOCATION AND LENGTH OF FENCE OR LINE OF MARKERS.
2. CONSTRUCTION FENCE OR MARKERS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO OTHER BMPS AND ANY LAND-DISTURBING ACTIVITIES.
3. STEEL TEE POSTS SHALL BE UTILIZED FOR SUPPORT OF CONSTRUCTION FENCE. MAXIMUM SPACING FOR TEE POSTS SHALL BE 15'.

CONSTRUCTION FENCE MAINTENANCE NOTES

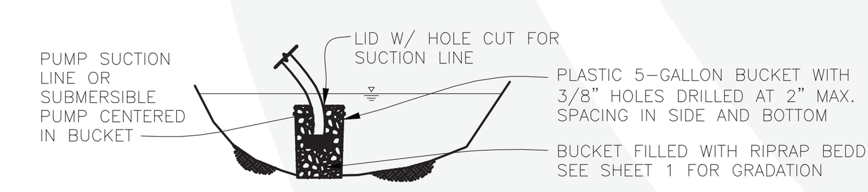
1. ANY DAMAGED FENCE OR MARKERS SHALL BE REPAIRED ON A DAILY BASIS.
2. FENCE OR MARKERS SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF ANY DISTURBED AREA EXISTS AFTER FENCE REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

CF CONSTRUCTION FENCE 5



(ALTERNATIVE TO CONSTRUCTION FENCE)
SCALE: 1/4" = 1-0"

CM CONSTRUCTION MARKERS 6



ALTERNATIVE FOR DRAINING POND ALREADY FILLED WITH WATER
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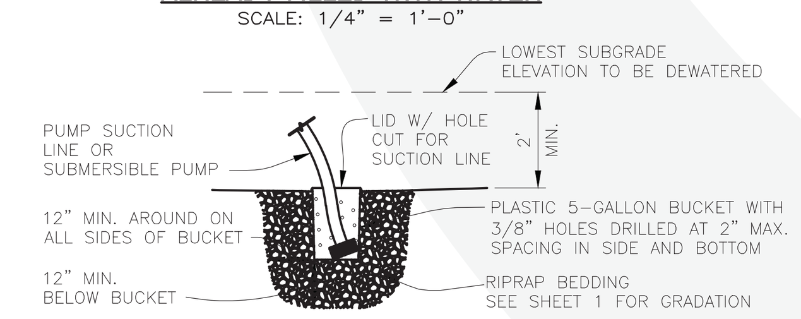
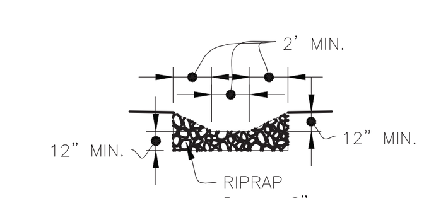
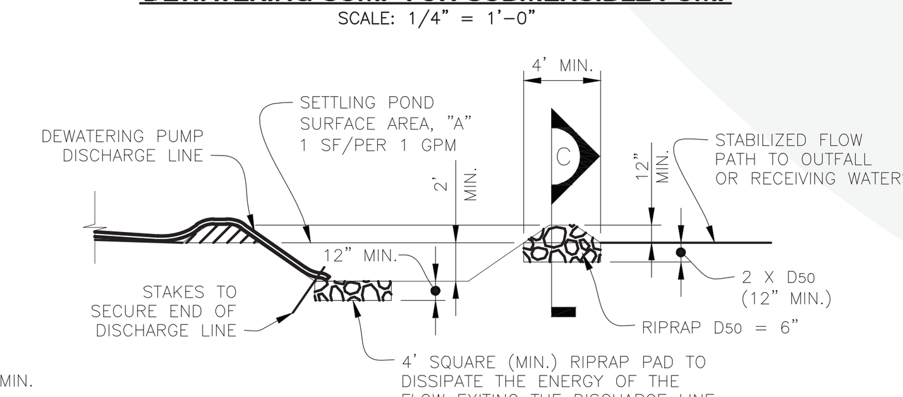


DEWATERING SUMP FOR SUBMERSIBLE PUMP
SCALE: 1/4" = 1'-0"



BASIN OUTLET - SECTION C
SCALE: 1" = 10'-0"



SUMP DISCHARGE SETTLING BASIN
SCALE: 1" = 10'-0"

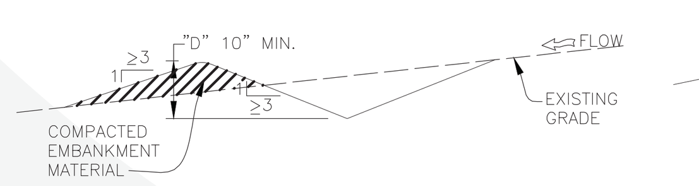
DEWATERING INSTALLATION NOTES

1. THE PERMITTEE(S) SHALL SCHEDULE AN ONSITE INSPECTION WITH THE EROSION CONTROL INSPECTOR PRIOR TO ANY SITE DEWATERING OPERATIONS BEGIN.
2. THE GESC MANAGER SHALL OBTAIN A CONSTRUCTION DEWATERING PERMIT (DEWATERING PERMIT) FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) PRIOR TO ANY DEWATERING OPERATIONS THAT REQUIRE A DEWATERING PERMIT.
3. AT A MINIMUM, THE DEWATERING BMPs SHALL CONSIST OF THE FOLLOWING:
   PRE-FILTER ON THE SUCTION END OF THE PUMP/HOSE.
   FILTER BMP PRIOR TO FINAL DISCHARGE, AND
   ENERGY DISSIPATING BMP AT THE DISCHARGE END OF THE HOSE/PUMP.
4. THE TYPE AND PLACEMENT OF DEWATERING CONTROLS SHALL BE COORDINATED WITH, AND APPROVED BY, THE EROSION CONTROL INSPECTOR PRIOR TO THE DISCHARGE OF ANY WATER.

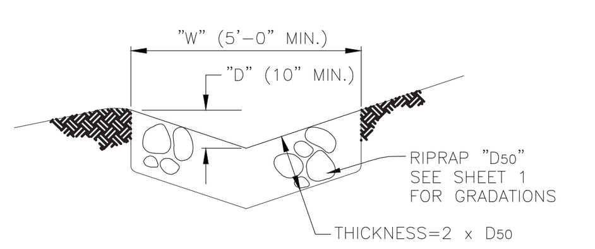
DEWATERING MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT DEWATERING SYSTEMS AND PERFORM ANY NECESSARY REPAIRS OR MAINTENANCE ON A HOURLY BASIS.
2. TEMPORARY SETTLING BASINS SHALL BE REMOVED WHEN NO LONGER NEEDED FOR DEWATERING OPERATIONS. ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

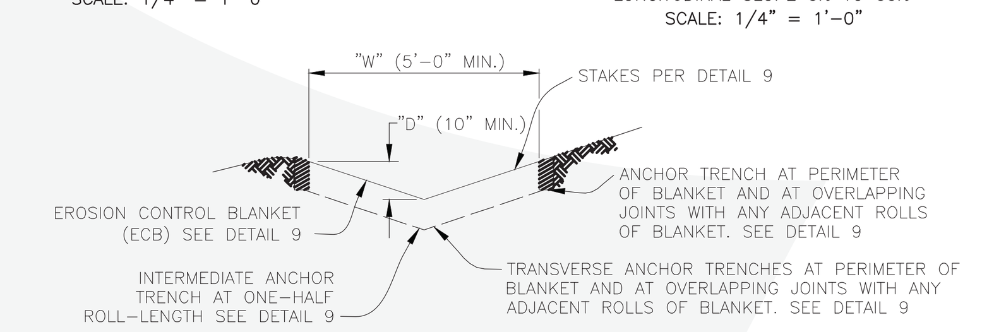
DW DEWATERING 7



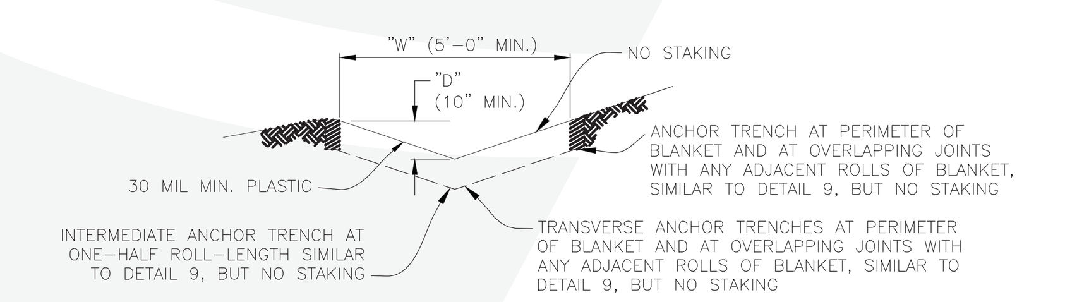
UNLINED
LONGITUDINAL SLOPE ≤ 0.5%
SCALE: 1/4" = 1'-0"



RIPRAP LINED
LONGITUDINAL SLOPE 3% TO 33%
SCALE: 1/4" = 1'-0"



EROSION CONTROL BLANKET (ECB) LINED
LONGITUDINAL SLOPE 0.5% TO 3%
SCALE: 1/4" = 1'-0"



PLASTIC LINED
LONGITUDINAL SLOPE 3% TO 33%
SCALE: 1/4" = 1'-0"

DIVERSION DITCH INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF DIVERSION DITCH.
   - TYPE OF DITCH (UNLINED, ECB LINED, PLASTIC LINED OR RIPRAP LINED).
   - LENGTH OF EACH TYPE OF DITCH.
   - DEPTH, "D", AND WIDTH, "W" DIMENSIONS.
   - FOR ECB LINED DITCH, EROSION CONTROL BLANKET TYPE (SEE DETAIL 9).
   - FOR RIPRAP LINED DITCH, SIZE OF RIPRAP, "D50".
2. SEE DRAINAGE PLANS FOR DETAILS OF ANY PERMANENT CONVEYANCE FACILITIES OR DIVERSION DITCHES EXCEEDING A 2-YEAR FLOW RATE OF 10 CFS.
3. DIVERSION DITCHES INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
4. FOR ECB LINED DITCHES, INSTALLATION OF EROSION CONTROL BLANKET SHALL CONFORM TO THE REQUIREMENTS OF DETAIL 9.
5. IN LOCATIONS WHERE CONSTRUCTION TRAFFIC MUST CROSS A DIVERSION DITCH, THE PERMITTEES SHALL INSTALL A TEMPORARY CULVERT WITH A MINIMUM DIAMETER OF 12-INCHES.

DIVERSION DITCH MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT DIVERSION DITCHES WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. DIVERSION DITCHES ARE TO REMAIN IN PLACE UNTIL THE END OF CONSTRUCTION, OR, IF APPROVED BY THE COUNTY, LEFT IN PLACE.
3. IF DIVERSION DITCHES ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

DD DIVERSION DITCH 8

TABLE 1. RIPRAP GRADATIONS

D50 MEDIAN STONE SIZE (INCHES)	% OF MATERIAL SMALLER THAN TYPICAL STONE	TYPICAL STONE EQUIVALENT DIAMETER (INCHES)	TYPICAL STONE WEIGHT (POUNDS)
6	70 – 100 50 – 70 35 – 50 2 – 10	12 9 6 2	85 35 10 0.4
9	70 – 100 50 – 70 35 – 50 2 – 10	15 12 9 3	160 85 35 1.3
12	70 – 100 50 – 70 35 – 50 2 – 10	21 18 12 4	440 275 85 3
18	100 50 – 70 35 – 50 2 – 10	30 24 18 6	1280 650 275 10
24	100 50 – 70 35 – 50 2 – 10	42 33 24 9	3500 1700 650 35

TABLE 2. RIPRAP BEDDING

SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	CLASS A
3"	100
1 1/2"	20 – 90
NO. 4	0 – 20
NO. 200	0 – 3
MATCHES SPECIFICATIONS FOR CDOT CLASS A FILTER MATERIAL AND UDFCD TYPE 1 BEDDING. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

TABLE 3. 1 1/2" CRUSHED ROCK

SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1 1/2"	90 – 100
1"	20 – 55
3/4"	0 – 15
3/8"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK AND RIPRAP GRADATIONS

Sheet Revisions		
1	DOUGLAS COUNTY REISSUE	1/13

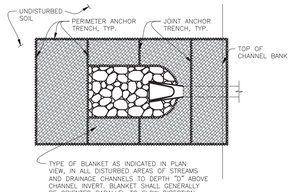
NOTE: SCALES SHOWN ARE FOR 24"x36" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.

DOUGLAS COUNTY
DEPARTMENT OF PUBLIC WORKS ENGINEERING

GESC GRADING, EROSION, AND SEDIMENT CONTROL

GESC PLAN STANDARD NOTES AND DETAILS

SHEET 1 OF 3



IN DISTURBED AREAS OF STREAMS AND DRAINAGE CHANNELS
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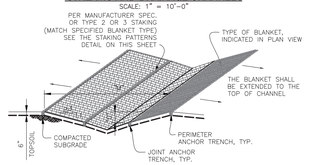

IN DIVERSION DITCH OR SMALL DITCH DRAINAGEWAY
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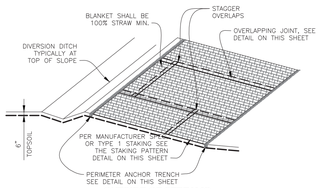

OUTSIDE OF STREAMS AND DRAINAGE CHANNELS
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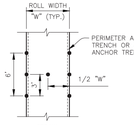
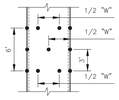
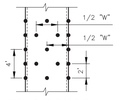
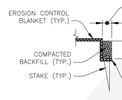


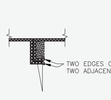




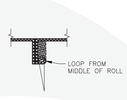
STAKING PATTERNS
SCALE: 1" = 10'-0"
SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION. IF NO MANUFACTURER'S SPECIFICATION IS AVAILABLE USE THE ACCEPTABLE STAKING PATTERN (AS SHOWN ABOVE).



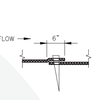
PERIMETER ANCHOR TRENCH
SCALE: 1/2" = 1'-0"



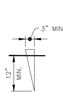
JOINT ANCHOR TRENCH
SCALE: 1/2" = 1'-0"



INTERMEDIATE ANCHOR TRENCH
SCALE: 1/2" = 1'-0"



OVERLAPPING JOINT
SCALE: 1/2" = 1'-0"



WOOD STAKE DETAIL
SCALE: 1/2" = 1'-0"
MINIMUM THICKNESS 1/2"

EROSION CONTROL BLANKET INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF PERIMETER OF EROSION CONTROL BLANKET.
   - TYPE OF BLANKET (STRAW, STRAW-COCONUT, COCONUT, OR EXCELSIOR).
   - AREA "A" IN SQUARE YARDS OF EACH TYPE OF BLANKET.
2. ALL EROSION CONTROL BLANKETS AND NETTING SHALL BE MADE OF 100% NATURAL AND BIODEGRADABLE MATERIAL; NO PLASTIC OR OTHER SYNTHETIC MATERIAL, EVEN IF PHOTO DEGRADABLE, SHALL BE ALLOWED.
3. IN AREAS WHERE EROSION CONTROL BLANKET IS SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING BELOW THE BLANKET IN ACCORDANCE WITH THE REQUIREMENTS OF DETAIL 17, SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO BLANKET INSTALLATION AND THE BLANKET SHALL BE IN FULL CONTACT WITH SUBGRADE, NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
4. PERIMETER ANCHOR TRENCH SHALL BE USED AT OUTSIDE PERIMETER OF ALL BLANKET AREAS.
5. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL BLANKET INSTALLATIONS IN A DRAINAGEWAY EXCEPT STRAW, WHICH MAY USE AN OVERLAPPING JOINT.
6. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF THE ROLL LENGTH FOR COCONUT AND EXCELSIOR BLANKETS.
7. THE OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF BLANKETS TOGETHER FOR BLANKETS ON SLOPES.
8. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKET SHALL CONFORM TO TABLE 7.1.

EROSION CONTROL BLANKET INSTALLATION NOTES – CONTINUED

9. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKET SHALL BE RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 17.
10. SEE DRAINAGE DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION MEASURES THAT MAY EXCEED THE DESIGN CONDITIONS ASSOCIATED WITH THE DETAILS ABOVE.
11. METAL STAKES OR STAPLES MAY BE USED FOR EROSION CONTROL BLANKET INSTALLATIONS OUTSIDE OF DRAINAGE CHANNELS.

TABLE 7.1 – EROSION CONTROL BLANKET TYPE

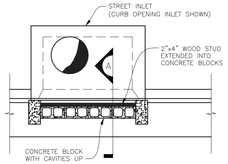
TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	NETTING MIN.
STRAW*	–	100%	–	DOUBLE/NATURAL
STRAW–COCONUT	30% MIN.	70% MAX.	–	DOUBLE/NATURAL
COCONUT	100%	–	–	DOUBLE/NATURAL
EXCELSIOR	–	–	100%	DOUBLE/NATURAL

* FOR OUTSIDE OF STREAMS AND DRAINAGE CHANNELS

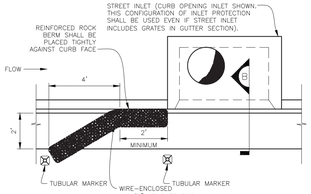
EROSION CONTROL BLANKET MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT EROSION CONTROL BLANKETS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
2. EROSION CONTROL BLANKET IS TO BE LEFT IN PLACE UNLESS REQUESTED TO BE REMOVED BY THE COUNTY.
3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE RE-INSTALLED. ANY SUBGRADE AREAS BELOW THE BLANKET THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND THE EROSION CONTROL BLANKET REINSTALLED.

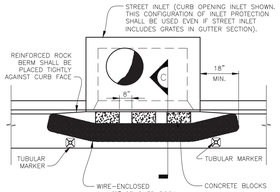
ECB **EROSION CONTROL BLANKET** 9



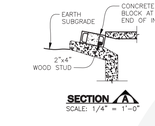
INTERIM CONFIGURATION (BEFORE PAVING) STREET INLET - PLAN
SCALE: 1/4" = 1'-0"



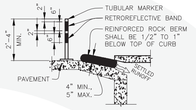
STREET INLET ON CONTINUOUS GRADE (AFTER PAVING) - PLAN
SCALE: 1/4" = 1'-0"



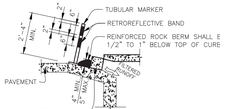
STREET INLET IN SUMP (AFTER PAVING) - PLAN
SCALE: 1/4" = 1'-0"



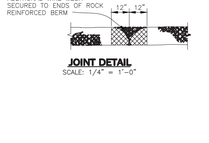
SECTION A
SCALE: 1/4" = 1'-0"



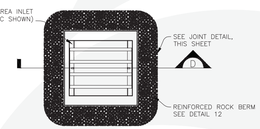
SECTION B
SCALE: 1/4" = 1'-0"



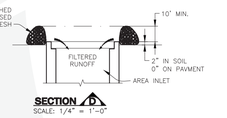
SECTION C
SCALE: 1/4" = 1'-0"



JOINT DETAIL
SCALE: 1/4" = 1'-0"



AREA INLET - PLAN
SCALE: 1/4" = 1'-0"



SECTION D
SCALE: 1/4" = 1'-0"

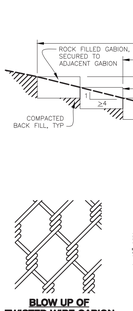
INLET PROTECTION INSTALLATION NOTES

1. INTERIM CONFIGURATION OF INLET PROTECTION IN STREETS SHALL BE INSTALLED WITHIN 48-HOURS OF POURING INLET. INLET PROTECTION (AFTER PAVEMENT) SHALL BE INSTALLED WITHIN 48 HOURS AFTER PAVING IS PLACED.
2. INLET PROTECTION AT AREA INLETS SHALL BE INSTALLED WITHIN 48-HOURS OF POURING INLET.
3. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON SHEET 1 (1-1/2"). RECYCLED CONCRETE MEETING THIS GRADATION MAY BE USED.
4. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"). ROLL WIDTH SHALL BE 48-INCHES.
5. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
6. REINFORCED ROCK BERM SHALL BE CONSTRUCTED IN ONE PIECE OR SHALL BE CONSTRUCTED USING JOINT DETAIL.
7. TUBULAR MARKERS SHALL MEET REQUIREMENTS OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED.
8. THE TOP OF REINFORCED ROCK BERM SHALL BE 1/2"-1" BELOW TOP OF CURB.

INLET PROTECTION MAINTENANCE NOTES

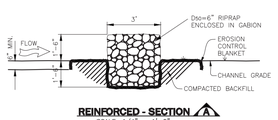
1. THE GESC MANAGER SHALL INSPECT INLET PROTECTION WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY. MORE FREQUENT INSPECTIONS AND REPAIRS SHALL BE REQUIRED DURING WINTER CONDITIONS DUE TO FREEZE/THAW PROBLEMS.
2. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF ROCK BERM IS WITHIN 2-1/2 INCHES OF THE CREST.
3. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED, UNLESS THE COUNTY APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
4. WHEN INLET PROTECTION AT AREA INLETS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

IP **INLET PROTECTION** 10



REINFORCED - ELEVATION
SCALE: 1" = 10'-0"

SCALE: NTS



REINFORCED - SECTION A
SCALE: 1/4" = 1'-0"

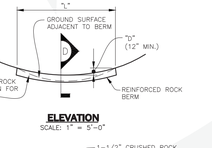
REINFORCED CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS 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 GESC PLAN SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
3. REINFORCED CHECK DAMS, GABIONS SHALL HAVE GALVANIZED TWISTED WIRE NETTING WITH A MAXIMUM OPENING DIMENSION OF 4-1/2" AND A MINIMUM WIRE THICKNESS OF 0.10", WIRE "HOG RINGS" AT 4' SPACING OR OTHER APPROVED MEANS SHALL BE USED AT ALL GABION SEAMS AND TO SECURE THE GABION TO THE ADJACENT GABION.
4. RIPRAP UTILIZED FOR CHECK DAMS SHALL HAVE A D_{50} MEDIAN STONE SIZE OF 12".
5. THE CHECK DAM SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'-6".
6. EROSION BLANKET SHALL BE PLACED IN THE REINFORCED CHECK DAM TRENCH EXTENDING A MINIMUM OF 1'-6" ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF THE REINFORCED CHECK DAM.

REINFORCED CHECK DAM MAINTENANCE NOTES

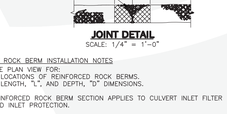
1. THE GESC MANAGER SHALL INSPECT CHECK DAMS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CHECK DAM IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
3. CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY.
4. WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACK FILL. ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

RCD **REINFORCED CHECK DAM** 11



ELEVATION
SCALE: 1" = 5'-0"

SECTION B
SCALE: 1/4" = 1'-0"



JOINT DETAIL
SCALE: 1/4" = 1'-0"

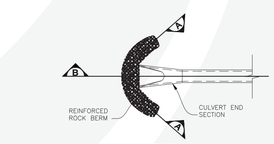
REINFORCED ROCK BERM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF REINFORCED ROCK BERMS.
   - LENGTH, "L", AND DEPTH, "D" DIMENSIONS.
2. REINFORCED ROCK BERM SECTION APPLIES TO CULVERT INLET FILTER AND INLET PROTECTION.
3. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON SHEET 1 (1-1/2"). RECYCLED CONCRETE MEETING THIS GRADATION MAY BE USED.
4. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"). ROLL WIDTH SHALL BE 48-INCHES.
5. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
6. FOR CONCENTRATED FLOW AREAS THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.

REINFORCED ROCK BERM MAINTENANCE NOTES

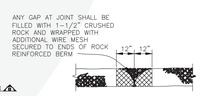
1. THE GESC MANAGER SHALL INSPECT REINFORCED ROCK BERM WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF REINFORCED ROCK BERM SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS WITHIN 5 INCHES OF THE CREST.
3. REINFORCED ROCK BERMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED.
4. WHEN REINFORCED ROCK BERMS ARE REMOVED, ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

RRB **REINFORCED ROCK BERM** 12

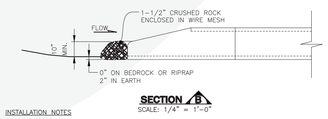


PLAN
SCALE: 1" = 10'-0"

SECTION A
SCALE: 1" = 10'-0"



JOINT DETAIL
SCALE: 1/4" = 1'-0"



SECTION B
SCALE: 1/4" = 1'-0"

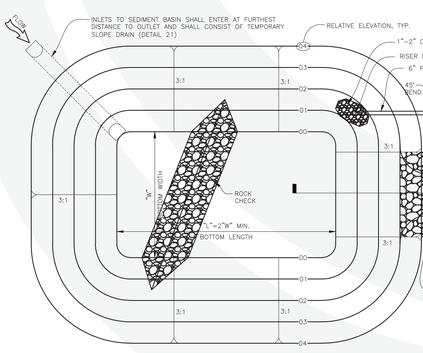
INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CULVERT INLET FILTERS.
   - LENGTH, "L", AND DEPTH, "D".
2. CRUSHED ROCK SHALL BE FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON SHEET 1 (1-1/2"). RECYCLED CONCRETE MEETING THIS GRADATION MAY BE USED.
3. WIRE MESH SHALL BE FABRICATED OF 20 GAUGE WIRE TWISTED INTO A MESH WITH A MAXIMUM OPENING OF 1.0 INCH (COMMONLY TERMED "CHICKEN WIRE"). ROLL WIDTH SHALL BE 48-INCHES.
4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6-INCH CENTERS ALONG ALL JOINTS AND AT 2-INCH CENTERS ON ENDS OF BERM.
5. THE ENDS OF THE REINFORCED ROCK BERM SHALL BE 12" HIGHER THAN THE CENTER OF THE BERM.

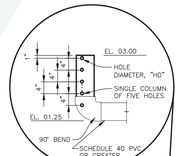
MAINTENANCE NOTES

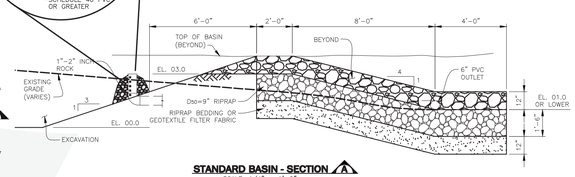
1. THE GESC MANAGER SHALL INSPECT CULVERT INLET FILTER WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF CULVERT INLET FILTER SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF FILTER IS WITHIN 5 INCHES OF THE CREST.
3. RRB FOR CULVERT PROTECTION ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY.
4. WHEN CULVERT INLET FILTERS ARE REMOVED, ANY DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

RRC **RRB FOR CULVERT PROTECTION** 13

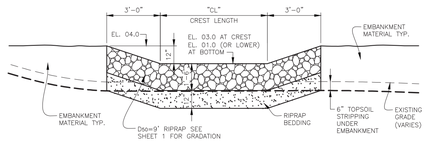


STANDARD BASIN - PLAN
SCALE: 1" = 10'-0"





STANDARD BASIN - SECTION A
SCALE: 1/4" = 1'-0"



STANDARD BASIN - SECTION B
SCALE: 1/4" = 1'-0"

SEDIMENT BASIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF SEDIMENT BASIN.
   - TYPE OF BASIN (STANDARD BASIN OR NON-STANDARD BASIN).
   - FOR STANDARD BASIN, CREST LENGTH, "CL", BOTTOM WIDTH, "W", AND HOLE DIAMETER, "HD".
   - FOR NON-STANDARD 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 INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY.
4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY WITHIN 2 PERCENTAGE POINTS OF OPTIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
6. PIPE SCH 40 OR GREATER SHALL BE USED.
7. THE DETAILS SHOWN ON THIS SHEET PERTAIN TO STANDARD SEDIMENT BASIN(S) IDENTIFIED ON THE GESC PLAN VIEW DRAWINGS USED 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.

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	16	2.0	7/16
2	22	4.0	5/8
3	27	6.0	3/4
4	31	8.0	7/8
5	35	10.0	1.0
6	38	12.0	1 1/8
7	41	14.0	1 1/4
8	44	16.0	1 1/4
9	47	18.0	1 3/8
10	49	20.0	1 3/8
11	52	22.0	1 1/2
12	54	24.0	1 1/2
13	56	26.0	1 5/8
14	59	28.0	1 5/8
15	61	30.0	1 5/8

SEDIMENT BASIN MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT SEDIMENT BASIN WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT AS NECESSARY.
2. SEDIMENT ACCUMULATED IN SEDIMENT BASIN SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS 1.0 FOOT.
3. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY.
4. IF SEDIMENT BASINS ARE REMOVED, THE DISTURBED AREA SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

SB **SEDIMENT BASIN** 14

Sheet Revisions		
1	DOUGLAS COUNTY REISSUE	1/13

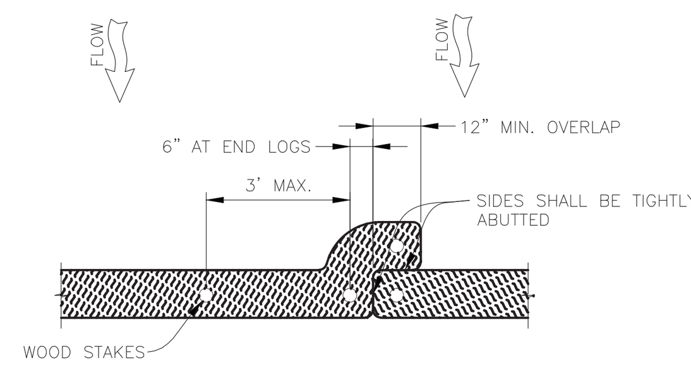
NOTE: SCALES SHOWN ARE FOR 24"x36" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.

DOUGLAS COUNTY
DEPARTMENT OF PUBLIC WORKS ENGINEERING

GESC GRADING, EROSION, AND SEDIMENT CONTROL

GESC PLAN STANDARD NOTES AND DETAILS

SHEET 2 OF 3



PLAN
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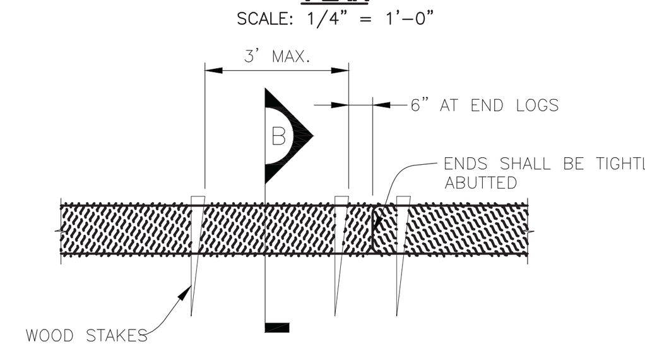

ELEVATION
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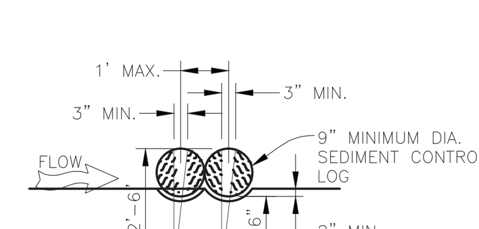


SECTION B
SCALE: 1/4" = 1'-0"

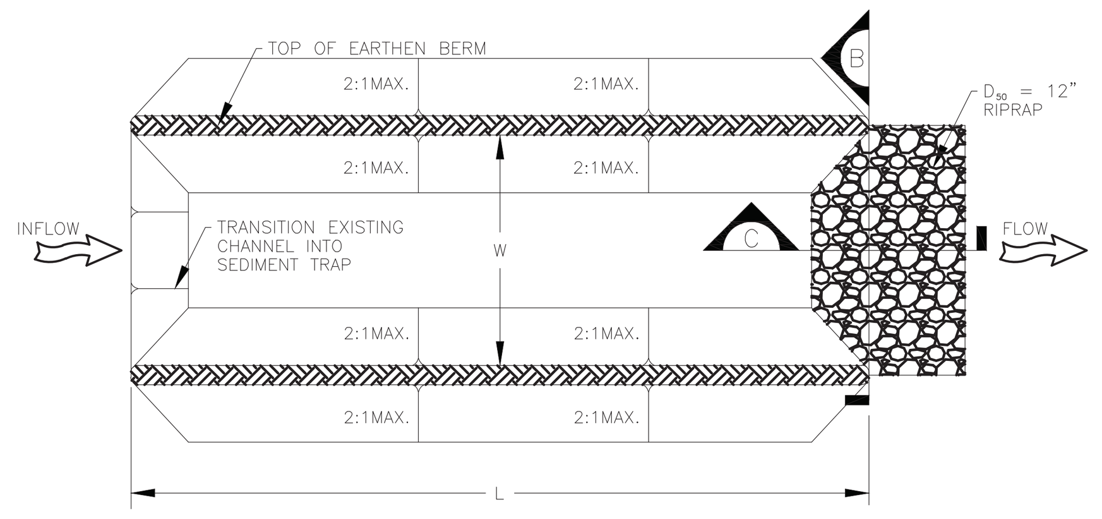
SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION AND LENGTH OF SEDIMENT CONTROL LOG.
2. SEDIMENT CONTROL LOGS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
4. NOT FOR USE IN CONCENTRATED FLOW AREAS.
5. THE SEDIMENT CONTROL LOG SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 2".

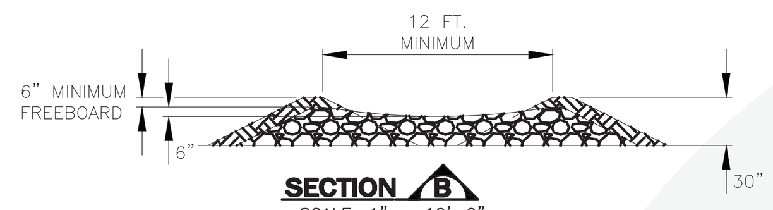
SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT SEDIMENT CONTROL LOGS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOGS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE CREST OF LOG.
3. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

(SCL) SEDIMENT CONTROL LOG (15)



PLAN
SCALE: 1" = 10'-0"



SECTION B
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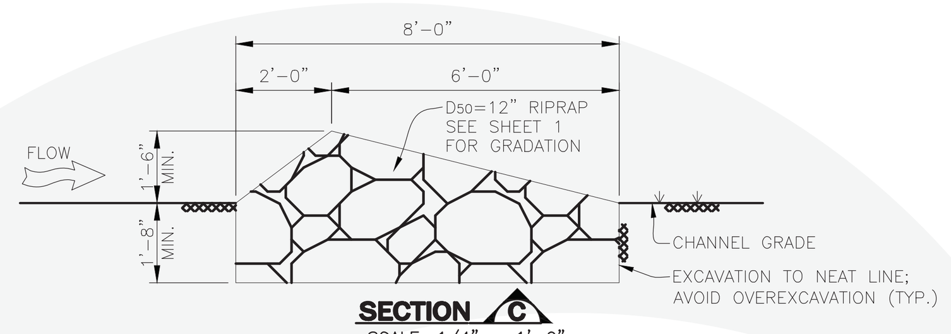


SECTION C
SCALE: 1/4" = 1'-0"

SEDIMENT TRAP INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION, LENGTH AND WIDTH OF SEDIMENT TRAP.
2. SEDIMENT TRAPS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
3. SEDIMENT TRAP BERM SHALL BE CONSTRUCTED FROM MATERIAL FROM EXCAVATION. THE BERM SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
4. RIPRAP OUTLET SHALL BE CONSTRUCTED WITH D_{50}=12" RIPRAP WITH A MINIMUM OVERFLOW OF 6".
5. THE TOP OF THE EARTHEN BERM SHALL BE A MINIMUM OF 6" HIGHER THAN THE TOP OF THE RIPRAP OUTLET STRUCTURE.
6. THE ENDS OF THE RIPRAP OUTLET STRUCTURE SHALL BE MINIMUM OF 6" HIGHER THAN THE CENTER OF THE OUTLET STRUCTURE.

SEDIMENT TRAP MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT SEDIMENT TRAPS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF RIPRAP SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE RIPRAP OUTLET STRUCTURE.
3. SEDIMENT TRAPS SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVERAGE IS APPROVED BY THE COUNTY.
4. WHEN SEDIMENT TRAPS ARE REMOVED THE DISTURBED AREA SHALL BE DRILLED SEEDED AND CRIMP MULCHED OR STABILIZED IN A MANNER APPROVED BY THE COUNTY.

(ST) SEDIMENT TRAP (16)

SEEDING AND MULCHING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - AREA OF SEEDING AND MULCHING.
   - TYPE OF SEED MIX (PERMANENT, TEMPORARY, OR LOW-GROWTH).
2. ALL BRANDS FURNISHED SHALL BE FREE FROM SUCH NOXIOUS SEEDS AS RUSSIAN OR CANADIAN THISTLE, COARSE FESCUE, EUROPEAN BINDWEED, JOHNSON GRASS, KNAP WEED AND LEAFY SPURGE.
3. THE SEEDER SHALL FURNISH TO THE CONTRACTOR A SIGNED STATEMENT CERTIFYING THAT THE SEED FURNISHED IS FROM A LOT THAT HAS BEEN TESTED BY A RECOGNIZED LABORATORY. SEED WHICH HAS BECOME WET, MOLDY, OR OTHERWISE DAMAGED IN TRANSIT OR IN STORAGE WILL NOT BE ACCEPTABLE. SEED TICKETS SHALL BE PROVIDED TO DOUGLAS COUNTY UPON REQUEST.
4. DRILL SEEDING MIX SHALL CONFORM TO THE TABLE ON THE RIGHT:
5. IF THE SEED AVAILABLE ON THE MARKET DOES NOT MEET THE MINIMUM PURITY AND GERMINATION PERCENTAGES SPECIFIED, THE SUBCONTRACTOR MUST COMPENSATE FOR A LESSER PERCENTAGE OF PURITY OR GERMINATION BY FURNISHING SUFFICIENT ADDITIONAL SEED TO EQUAL THE SPECIFIED PRODUCT. THE TAGS FROM THE SEED MIXES MUST BE SUPPLIED TO THE CONTRACTOR AND FORWARDED TO THE DOUGLAS COUNTY EROSION CONTROL INSPECTOR.
6. THE FORMULA USED FOR DETERMINING THE QUANTITY OF PURE LIVE SEED (PLS) SHALL BE (POUNDS OF SEED) X (PURITY) X (GERMINATION) = POUNDS OF PURE LIVE SEED (PLS).
7. PERMANENT SEED MIX SHALL BE USED UNLESS OTHERWISE APPROVED BY THE COUNTY.
8. ALL AREAS TO BE SEEDED AND MULCHED SHALL HAVE NATIVE TOPSOIL OR APPROVED SOIL AMENDMENTS SPREAD TO A DEPTH OF AT LEAST 6 INCHES (LOOSE DEPTH). HAUL ROADS AND OTHER COMPACTED AREAS SHALL BE LOOSENED TO A DEPTH OF 6 INCHES PRIOR TO SPREADING TOPSOIL.
9. SOIL IS TO BE THOROUGHLY LOOSENED (TILLED) TO A DEPTH OF AT LEAST 6 INCHES PRIOR TO SEEDING. THE TOP 6 INCHES OF THE SEED BED SHALL BE FREE OF ROCKS GREATER THAN 4 INCHES AND SOIL CLODS GREATER THAN 2 INCHES. SEEDING OVER ANY COMPACTED AREAS THAT HAVEN'T BEEN THOROUGHLY LOOSENED SHALL BE REJECTED.
10. SEED IS TO BE APPLIED USING A MECHANICAL DRILL TO A DEPTH NOT LESS THAN 1/4 INCH AND NOT MORE THAN 3/4 INCH. ROW SPACING SHALL BE NO MORE THAN 6 INCHES. MATERIAL USED FOR MULCH SHALL CONSIST OF LONG-STEMMED STRAW. AT LEAST 50 PERCENT OF THE MULCH, BY WEIGHT, SHALL BE 10 INCHES OR MORE IN LENGTH. MULCH SHALL BE APPLIED AND MECHANICALLY ANCHORED TO A DEPTH OF AT LEAST 2 INCHES. MULCH SHALL BE APPLIED AT A RATE OF 4000 LB. OF STRAW PER ACRE.
11. IF THE PERMITTEE DEMONSTRATES TO THE COUNTY THAT IT IS NOT POSSIBLE TO DRILL SEED, SEED IS TO BE UNIFORMLY BROADCAST AT TWO TIMES THE DRILLED RATE, THEN LIGHTLY HARROWED TO PROVIDE A SEED DEPTH OF APPROXIMATELY 1/4 INCH, THEN ROLLED TO COMPACT, THEN MULCHED AS SPECIFIED ABOVE.
12. SEEDING AND MULCHING SHALL BE COMPLETED WITHIN 30 DAYS OF INITIAL EXPOSURE OR 14 DAYS AFTER GRADING IS SUBSTANTIALLY COMPLETE IN A GIVEN AREA (AS DEFINED BY THE COUNTY). THIS MAY REQUIRE MULTIPLE MOBILIZATIONS FOR SEEDING AND MULCHING.
13. MULCH SHALL BE APPLIED WITHIN 24-HOURS OF SEEDING.
14. TACKIFIER SHOULD BE UTILIZED TO HELP WITH STRAW DISPLACEMENT.

SEEDING AND MULCHING MAINTENANCE NOTES

1. SEEDED AND MULCHED AREAS SHALL BE INSPECTED FOR REQUIRED COVERAGE MONTHLY FOR A PERIOD OF TWO YEARS FOLLOWING INITIAL SEEDING. REPAIRS AND RE-SEEDING AND MULCHING SHALL BE UNDERTAKEN AFTER THE FIRST GROWING SEASON FOR ANY AREAS FAILING TO MEET THE REQUIRED COVERAGE.
2. REQUIRED COVERAGE FOR STANDARD, OPEN SPACE AND LOW GROWTH SEED MIXES SHALL BE DEFINED AS FOLLOWS:
   1. THREE (3) PLANTS PER SQUARE FOOT WITH A MINIMUM HEIGHT OF 3 INCHES. THE 3 PLANTS PER SQUARE FOOT SHALL BE OF THE VARIETY AND SPECIES FOUND IN THE DOUGLAS COUNTY-APPROVED MIX.
   2. NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR EQUIVALENT).
   3. FREE OF ERODED AREAS.
   4. FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE GESC MANUAL.
3. REQUIRED COVERAGE FOR TURF GRASS AREAS SHALL BE DEFINED AS FOLLOWS:
   1. AT LEAST 80% VEGETATIVE COVER OF GRASS SPECIES PLANTED.
   2. NO BARE AREAS LARGER THAN 4 SQUARE FEET (TWO-FEET BY TWO-FEET OR EQUIVALENT).
   3. FREE OF ERODED AREAS.
   4. FREE FROM INFESTATION OF NOXIOUS WEEDS IN ACCORDANCE WITH SECTION 6.4 OF THE GESC MANUAL.
4. RILL AND GULLY EROSION SHALL BE FILLED WITH TOPSOIL PRIOR TO RESEEDING. THE RESEEDING METHOD SHALL BE APPROVED BY THE COUNTY.

DOUGLAS COUNTY PERMANENT DRILL SEEDING MIX

SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BIG BLUESTEM	KAW	PNWS	10	1.1
YELLOW INDIANGRASS	CHEYENNE	PNWS	10	1
SWITCHGRASS	BLACKWELL	PNWS	10	0.4
SIDEOATS GRAMA	VAUGHN	PNWB	10	0.9
WESTERN WHEATGRASS	ARRIBA	PNCS	10	1.6
BLUE GRAMA	HACHITA	PNWB	10	0.3
THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
PRAIRIE SANDREED	GOSHEN	PNWS	10	0.7
GREEN NEEDLEGRASS	LODORM	PNCB	10	1
SLENDER WHEATGRASS	PRYOR	PNCB	5	0.6
STREAMBANK WHEATGRASS	SODAR	PNCS	5	0.6
			TOTAL	9.2

DOUGLAS COUNTY TEMPORARY DRILL SEEDING MIX

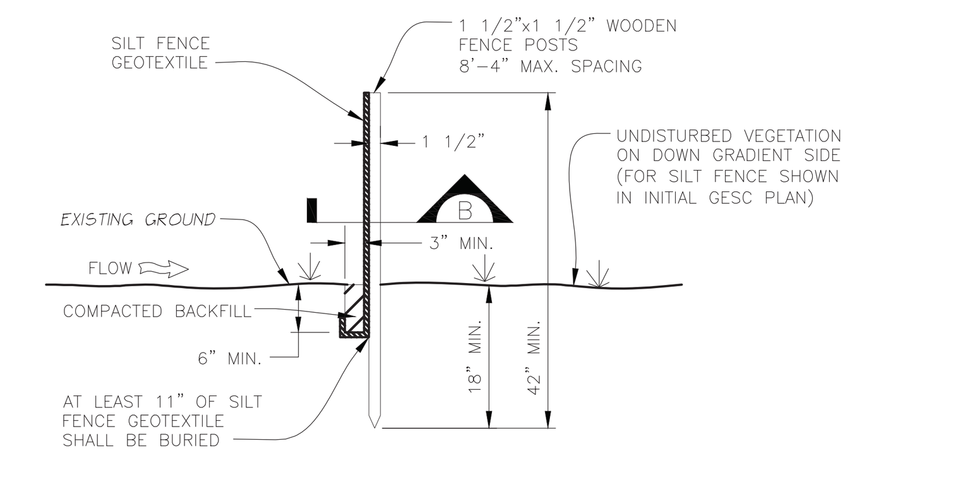
SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
SMOOTH BROMEGRASS	LINCOLN	PICS	30	3.9
INTERMEDIATE WHEATGRASS	OAHE	PICS	30	4.5
PUBESCENT WHEATGRASS	LUNA	PICS	30	4.2
ANNUAL RYEGRASS	N/A	AICB	10	0.8
			TOTAL	13.4

DOUGLAS COUNTY LOW-GROWTH DRILL SEEDING MIX

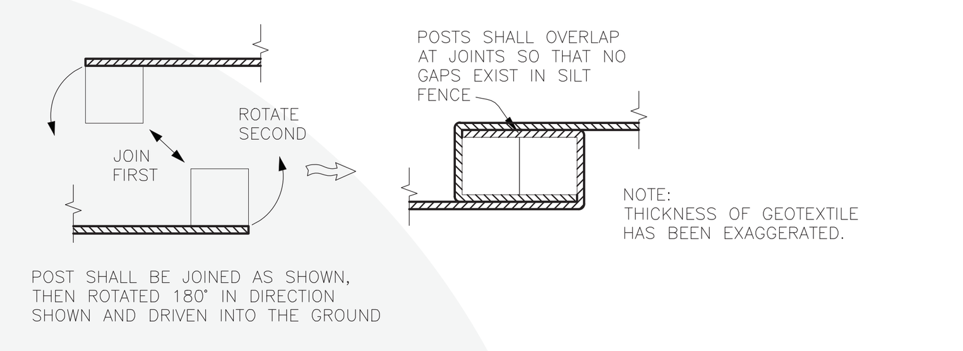
SPECIES	VARIETY	NOTES	% IN MIX	POUNDS OF PLS PER ACRE
BUFFALOGRASS	TEXOKA	PNWS	20	3.2
BLUE GRAMA	HACHITA	PNWB	20	0.6
WESTERN WHEATGRASS	ARRIBA	PNCS	20	3.2
SIDEOATS GRAMA	VAUGHN	PNWB	20	1.8
THICKSPIKE WHEATGRASS	CRITANA	PNCS	10	1
STREAMBANK WHEATGRASS	SODAR	PNCS	10	1.2
			TOTAL	11.0

NOTES:
P=PERENNIAL
A=ANNUAL
N=NATIVE
I=INTRODUCED
W=WARM SEASON
C=COOL SEASON
S=SOD FORMER
B=BUNCHGRASS

(SM) SEEDING AND MULCHING (17)



ELEVATION
SCALE: 1/2" = 1'-0"



JOINTS - SECTION B
SCALE: N.T.S.

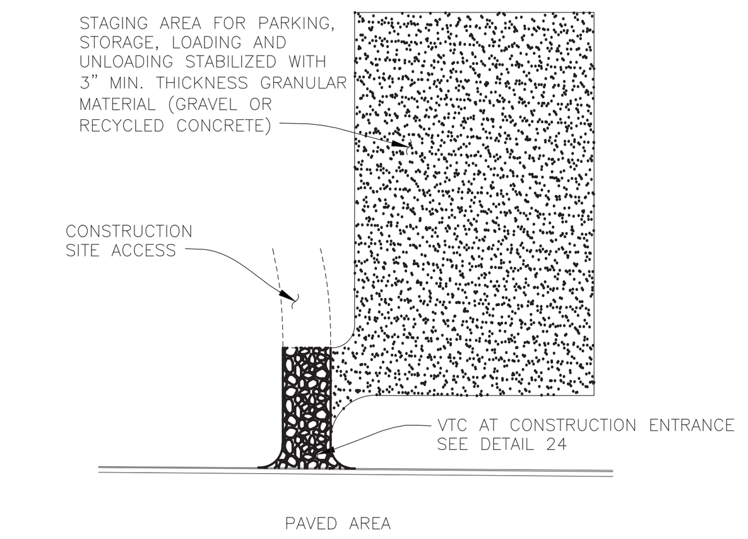
SILT FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION AND LENGTH OF FENCE.
2. ANCHOR TRENCH SHALL BE EXCAVATED WITH TRENCHER, OR WITH SILT FENCE INSTALLATION MACHINE; NO ROAD GRADERS, BACKHOES, ETC. SHALL BE USED. TRENCH SHALL BE COMPACTED BY HAND, WITH "JUMPING JACK", OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
3. SILT FENCE GEOTEXTILE SHALL MEET THE FOLLOWING REQUIREMENTS:
   - 6-TO 12-GALLONS PER MINUTE PER SQUARE FOOT FLOW CAPACITY.
   - 90 LB. TENSILE STRENGTH PER ASTM D4622.
   - UV DESIGN AT 500 HRS MIN. 70% STRENGTH RETAINED PER ASTM D4355.
4. SILT FENCE INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT SILT FENCE DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT REACHES A DEPTH OF 6-INCHES.
3. SILT FENCE SHALL BE REMOVED WHEN THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS APPROVED BY THE COUNTY. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

(SF) SILT FENCE (18)



PLAN
SCALE: N.T.S.

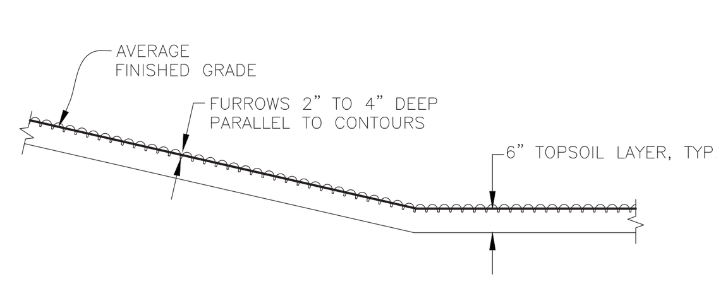
STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR GENERAL LOCATION OF STAGING AREA. CONTRACTOR MAY MODIFY LOCATION AND SIZE OF STABILIZED STAGING AREA WITH COUNTY APPROVAL.
2. STABILIZED STAGING AREA SHALL BE LARGE ENOUGH TO FULLY CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
3. IF REQUIRED BY THE COUNTY, SITE ACCESS ROADS SHALL BE STABILIZED IN THE SAME MANNER AS THE STAGING AREA.
4. STAGING AREA SHALL BE STABILIZED PRIOR TO ANY OTHER OPERATIONS ON THE SITE.
5. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM OF 3" OF GRANULAR MATERIAL (GRAVEL OR RECYCLED CONCRETE).

STABILIZED STAGING AREA MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT THE STABILIZED STAGING AREA WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. GESC MANAGER SHALL PROVIDE ADDITIONAL THICKNESS OF GRANULAR MATERIAL IF ANY RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.
3. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING AND LOADING OPERATIONS.
4. ANY ACCUMULATED DIRT OR MUD SHALL BE REMOVED FROM THE SURFACE OF THE STABILIZED STAGING AREA.
5. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE COUNTY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.

(SSA) STABILIZED STAGING AREA (19)



ELEVATION
SCALE: 1/4" = 1'-0"

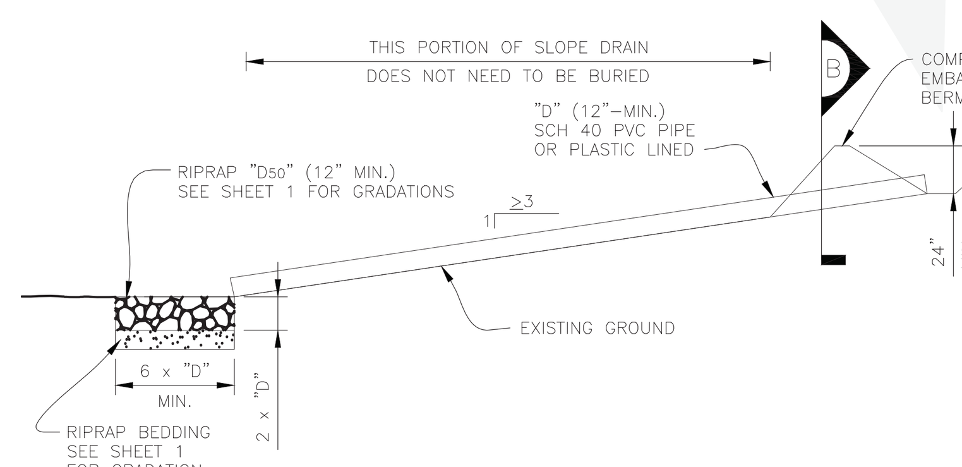
SURFACE ROUGHENING INSTALLATION NOTES

1. SURFACE ROUGHENING SHALL BE PROVIDED ON ALL FINISHED GRADES (SLOPES AND "FLAT" AREAS) WITHIN 2 DAYS OF COMPLETION OF FINISHED GRADE (FOR AREAS NOT RECEIVING TOPSOIL) OR WITHIN 2 DAYS OF TOPSOIL PLACEMENT.
2. AREAS WHERE BUILDING FOUNDATIONS, PAVEMENT, OR SOD IS TO BE PLACED WITHIN 7-DAYS OF FINISHED GRADING DO NOT NEED TO BE SURFACE ROUGHENED.
3. DISTURBED SURFACES SHALL BE ROUGHENED USING RIPPING OR TILLING EQUIPMENT ON THE CONTOUR OR TRACKING UP AND DOWN A SLOPE USING EQUIPMENT TREADS.

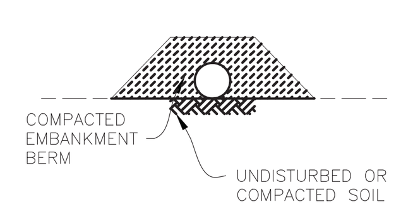
SURFACE ROUGHENING MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT THE SURFACE ROUGHENING WEEKLY, DURING AND AFTER ANY STORM EVENT, AND MAKE REPAIRS.
2. VEHICLES AND EQUIPMENT SHALL GENERALLY BE CONFINED TO ACCESS DRIVES AND SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SURFACE ROUGHENED.
3. IN NON-TURF GRASS FINISHED AREAS, SEEDING AND MULCHING SHALL TAKE PLACE DIRECTLY OVER SURFACE ROUGHENED AREAS WITHOUT FIRST SMOOTHING OUT THE SURFACE.
4. IN AREAS NOT SEEDED AND MULCHED AFTER SURFACE ROUGHENING, SURFACES SHALL BE RE-ROUGHENED AS NECESSARY TO MAINTAIN GROOVE DEPTH AND SMOOTH OVER ANY RILL EROSION.

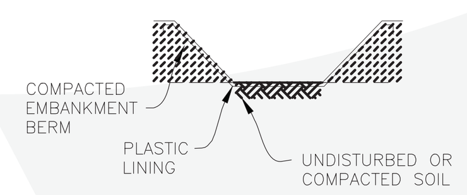
(SR) SURFACE ROUGHENING (20)



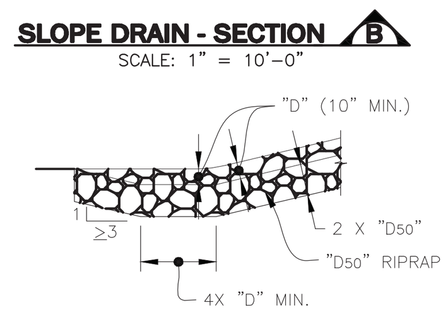
ELEVATION
SCALE: 1" = 10'-0"



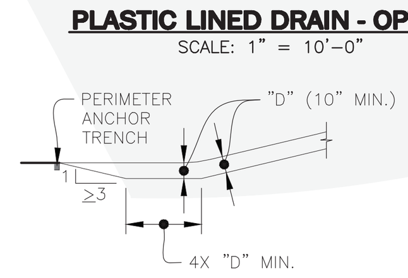
SLOPE DRAIN - SECTION B
SCALE: 1" = 10'-0"



PLASTIC LINED DRAIN - OPTION
SCALE: 1" = 10'-0"



TERMINATION OF RIPRAP LINED SLOPE DRAIN
SCALE: 1" = 10'-0"



TERMINATION OF PLASTIC LINED SLOPE DRAIN
SCALE: 1" = 10'-0"

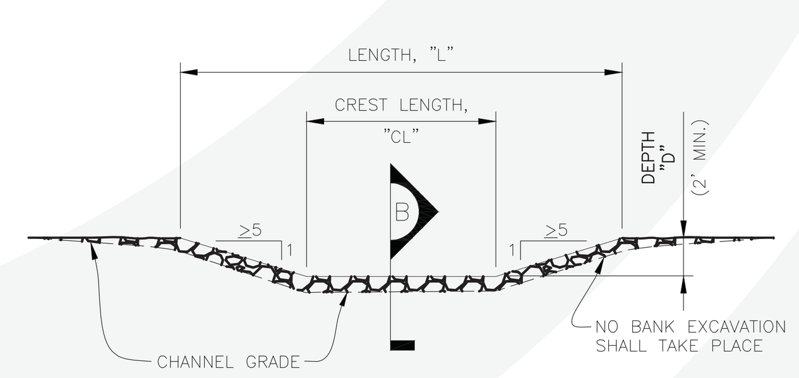
SLOPE DRAIN INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION AND LENGTH OF SLOPE DRAIN.
   - PIPE DIAMETER, "D", AND RIPRAP SIZE, "D50".
2. SLOPE DRAIN DIMENSIONS SHALL BE CONSIDERED MINIMUM DIMENSIONS; CONTRACTOR MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO SLOPE OR SLOPE DRAIN DURING RUNOFF EVENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. SLOPE DRAINS INDICATED ON INITIAL GESC PLAN SHALL BE INSTALLED PRIOR TO ANY UPSTREAM LAND-DISTURBING ACTIVITIES.
4. FOR TEMPORARY SLOPE DRAINS, PIPE MAY BE INSTALLED ON TOP OF SLOPE; HOWEVER, 12" MIN. COVER AT TOP OF SLOPE SHALL BE PROVIDED.
5. A RIPRAP PAD SHALL BE PLACED AT THE OUTFALL OF THE SLOPE DRAIN.

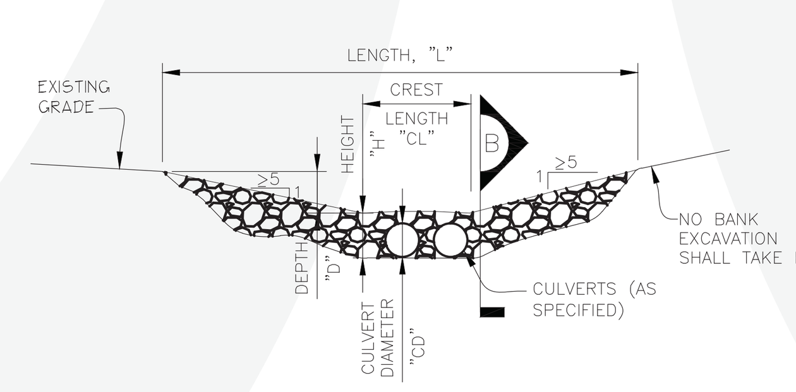
SLOPE DRAIN MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT SLOPE DRAINS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS AS NECESSARY.
2. TEMPORARY SLOPE DRAINS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION. WHEN SLOPE DRAINS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

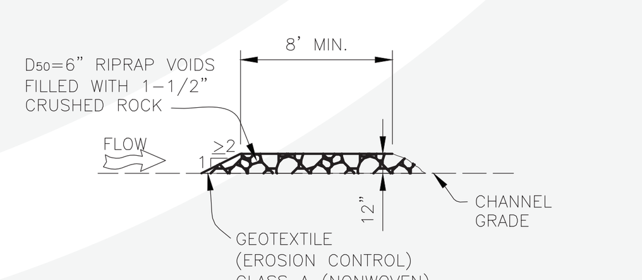
(TSD) TEMPORARY SLOPE DRAIN (21)



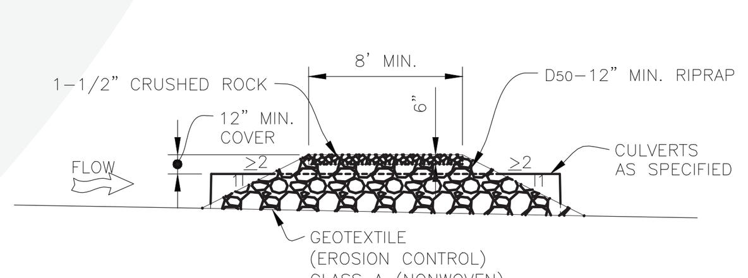
FORD CROSSING ELEVATION
SCALE: 1" = 10'-0"



CULVERT CROSSING ELEVATION
SCALE: 1" = 10'-0"



FORD CROSSING - SECTION B
SCALE: 1" = 10'-0"



CULVERT CROSSING - SECTION B
SCALE: 1" = 10'-0"

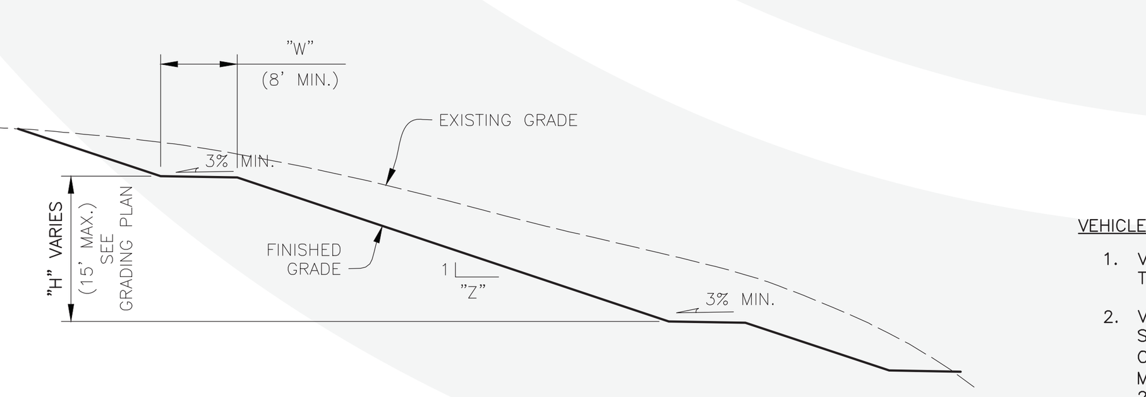
TEMPORARY STREAM CROSSING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF TEMPORARY STREAM CROSSING.
   - STREAM CROSSING TYPE (FORD OR CULVERT).
   - FOR FORD CROSSING: LENGTH, "L", CREST LENGTH, "CL", AND DEPTH, "D".
   - FOR CULVERT CROSSING : LENGTH, "L", CREST LENGTH, "CL", CROSSING HEIGHT, "H", DEPTH, "D", CULVERT DIAMETER, "CD", AND NUMBER, TYPE AND CLASS OR GAUGE OF CULVERTS.
2. TEMPORARY STREAM CROSSING DIMENSIONS, D50, AND NUMBER OF CULVERTS INDICATED (FOR CULVERT CROSSING) SHALL BE CONSIDERED MINIMUM DIMENSIONS; ENGINEER MAY ELECT TO INSTALL LARGER FACILITIES. ANY DAMAGE TO STREAM CROSSING OR EXISTING STREAM CHANNEL DURING BASEFLOW OR FLOOD EVENTS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. SEE SHEET 1 FOR RIPRAP AND 1-1/2" CRUSHED ROCK GRADATIONS.
4. FOR A TEMPORARY STREAM CROSSING THAT WILL CARRY LOADS, THE TEMPORARY STREAM CROSSING MUST BE DESIGNED BY THE DESIGN ENGINEER.

TEMPORARY STREAM CROSSING MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT STREAM CROSSINGS WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF STREAM CROSSINGS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH UPSTREAM OF CROSSING IS WITHIN 6-INCHES OF THE CREST (FORD CROSSING) OR GREATER THAN AN AVERAGE DEPTH OF 12-INCHES (CULVERT CROSSING).
3. STREAM CROSSINGS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION.
4. WHEN STREAM CROSSINGS ARE REMOVED, THE DISTURBED AREA SHALL BE DRILL SEEDED AND CRIMP MULCHED AND COVERED WITH EROSION CONTROL BLANKET OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE COUNTY.

(TSC) TEMPORARY STREAM CROSSING (22)



ELEVATION
SCALE: 1/4" = 1'-0"

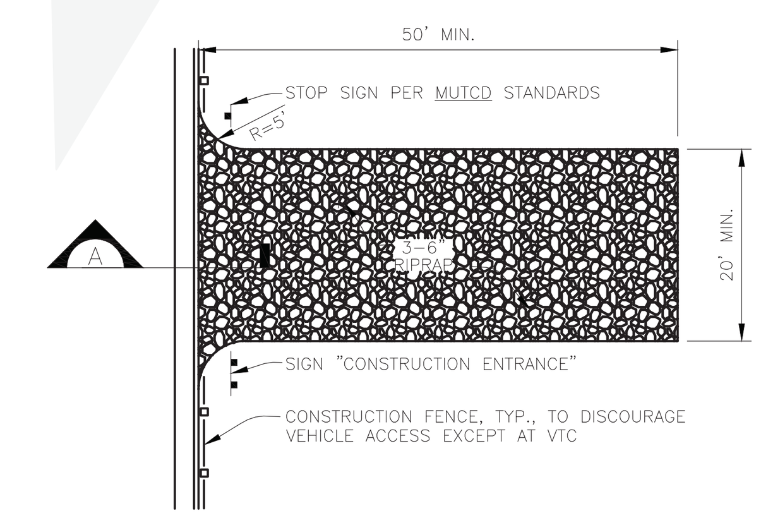
TERRACING INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - WIDTH, "W", AND SLOPE, "Z".
2. TERRACING IS NOT REQUIRED FOR SLOPES OF 4 TO 1 OR FLATTER.
3. EARTH (VEGETATED) SLOPES STEEPER THAN 3 TO 1 ARE NOT ALLOWED ON THE SITE.

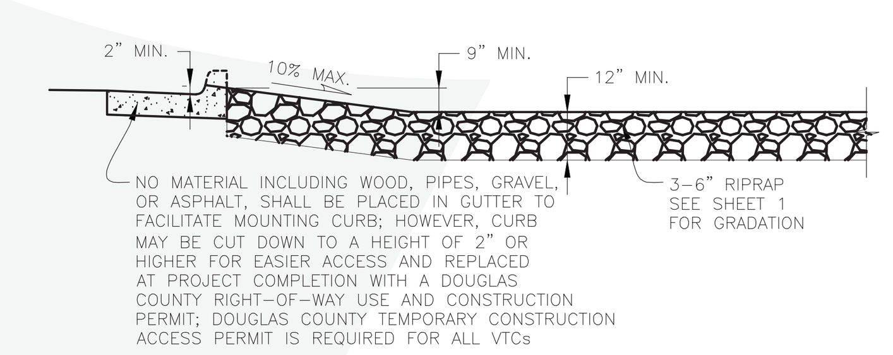
TERRACING MAINTENANCE NOTES

1. THE GESC MANAGER SHALL INSPECT THE TERRACING WEEKLY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. ANY RILL EROSION OCCURRING ON SLOPES SHALL BE REPAIRED AND RESEEDED AND MULCHED IN ACCORDANCE WITH DETAIL 17.

(TER) TERRACING (23)



PLAN
SCALE: 1" = 20'-0"



SECTION A
SCALE: 1/4" = 1'-0"

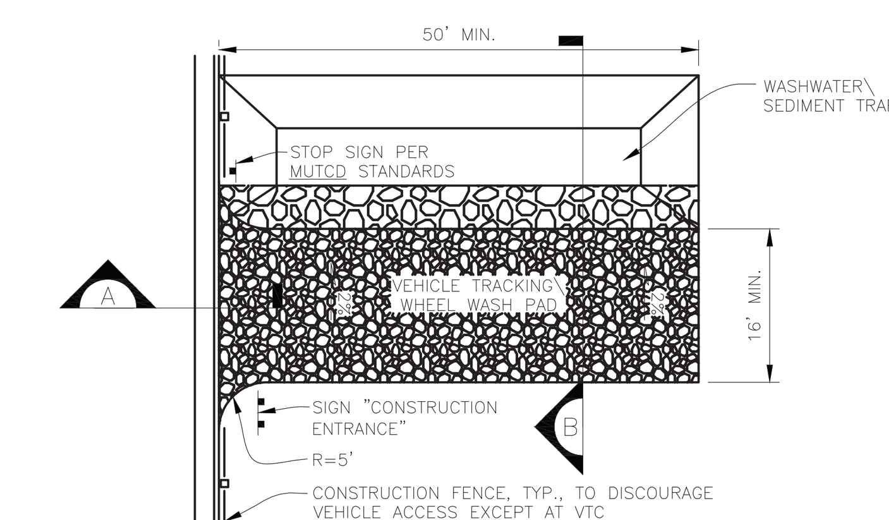
VEHICLE TRACKING CONTROL INSTALLATION NOTES

1. VEHICLE TRACKING CONTROL PADS SHALL BE INSTALLED AT EVERY ACCESS POINT TO SITE.
2. VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE. THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 6". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTIONS.
3. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY PERMITTEE.
4. A DOUGLAS COUNTY TEMPORARY CONSTRUCTION ACCESS PERMIT IS REQUIRED FOR EACH POINT ONTO DOUGLAS COUNTY R.O.W.
5. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.

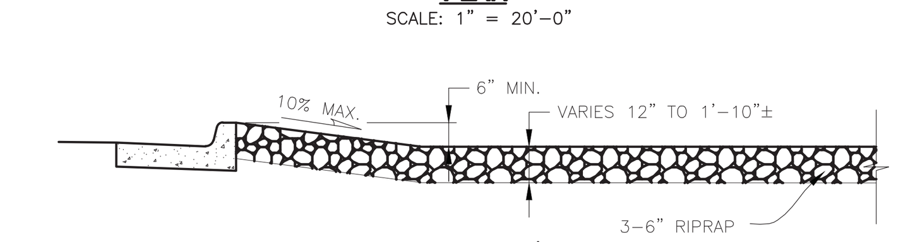
VEHICLE TRACKING CONTROL MAINTENANCE NOTES

1. GESC MANAGER SHALL INSPECT VEHICLE TRACKING CONTROL DAILY. GRAVEL SURFACE SHALL BE CLEAN AND LOOSE ENOUGH TO RUT SLIGHTLY UNDER WHEEL LOADS AND CAUSE LOOSE GRAVEL TO DISLODGE MUD FROM TIRES. WHEN GRAVEL BECOMES COMPACTED OR FILLED WITH SEDIMENT SO THAT THE EFFECTIVENESS OF THE PAD IS DIMINISHED, CONTRACTOR SHALL RIP, TURN OVER, OR OTHERWISE LOOSEN GRAVEL, PLACE ADDITIONAL NEW GRAVEL, OR REPLACE WITH NEW GRAVEL AS NECESSARY TO RESTORE EFFECTIVENESS.
2. VEHICLE TRACKING CONTROL SHALL BE REMOVED AT THE END OF CONSTRUCTION, THE GRAVEL MATERIAL REMOVED OR, IF APPROVED BY THE COUNTY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.

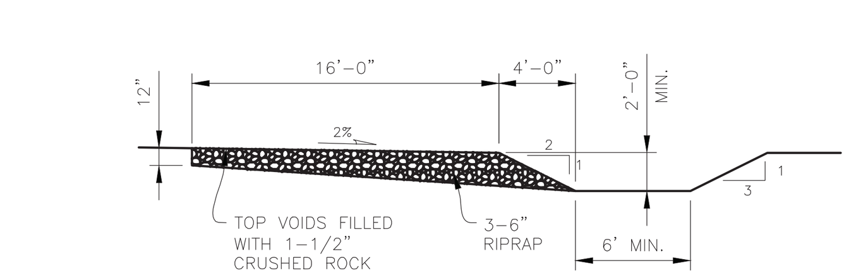
(VTC) VEHICLE TRACKING CONTROL (24)



PLAN
SCALE: 1" = 20'-0"



SECTION A
SCALE: 1/4" = 1'-0"



SECTION B
SCALE: 1" = 10'-0"

VEHICLE TRACKING CONTROL WITH WHEEL WASH INSTALLATION NOTES

1. ALTHOUGH NOT NORMALLY USED, THE COUNTY RESERVES THE RIGHT TO REQUIRE VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES AT SITES WHERE TRACKING ONTO PAVED AREAS BECOMES A SIGNIFICANT PROBLEM.
2. IF VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES ARE REQUIRED, ALL WHEELS ON EVERY VEHICLE LEAVING THE SITE SHALL BE CLEANED OF MUD USING A PRESSURE-WASHER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A WATER SOURCE.
3. VEHICLE TRACKING CONTROL PADS SHALL CONSIST OF HARD, DENSE, DURABLE STONE, ANGULAR IN SHAPE AND RESISTANT TO WEATHERING. ROUNDED STONE OR BOULDERS WILL NOT BE ACCEPTABLE. THE STONES SHALL BE 3" WITH A MAXIMUM SIZE OF 6". THE STONE SHALL HAVE A SPECIFIC GRAVITY OF AT LEAST 2.6. CONTROL OF GRADATION WILL BE BY VISUAL INSPECTIONS.
4. ANY CRACKED OR DAMAGED CURB AND GUTTER AND SIDEWALK SHALL BE REPLACED BY CONTRACTOR.
5. A STOP SIGN INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AS AMENDED, SHALL BE INSTALLED FOR EXITING TRAFFIC AT THE VTC.

VEHICLE TRACKING CONTROL WITH WHEEL WASH MAINTENANCE NOTES

1. GESC MANAGER SHALL INSPECT VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITIES DAILY. ACCUMULATED SEDIMENTS SHALL BE REMOVED FROM PAD SURFACE.
2. ACCUMULATED SEDIMENT IN THE WASHWATER/SEDIMENT TRAP SHALL BE REMOVED WHEN THE SEDIMENT DEPTH REACHES AN AVERAGE OF 12-INCHES.
3. VEHICLE TRACKING CONTROL WITH WHEEL WASH FACILITY SHALL BE REMOVED AT THE END OF CONSTRUCTION, THE RIPRAP MATERIAL REMOVED OR, IF APPROVED BY THE COUNTY, USED ON SITE, AND THE AREA TOPSOILED, DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED.

(WW) VTC WITH WHEEL WASH (25)

Sheet Revisions

1	DOUGLAS COUNTY REISSUE	1/13

NOTE: SCALES SHOWN ARE FOR 24"x36" SHEETS; ADJUST ACCORDINGLY FOR 11"x17" SHEETS.

DOUGLAS COUNTY
DEPARTMENT OF PUBLIC WORKS ENGINEERING

GESC GRADING, EROSION, AND SEDIMENT CONTROL

GESC PLAN STANDARD NOTES AND DETAILS

SHEET 3 OF 3

2180 SOUTH INTERSTATE 25, 5TH REVISION

PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.

5.55 ACRES

SITE IMPROVEMENT PLAN

SP2024-058 (REVISION TO US02-003)

OWNER:
THE FIRST BAPTIST CHURCH OF
CASTLE ROCK, COLORADO
2180 S INTERSTATE 25
CASTLE ROCK, COLORADO 80104
(303) 688-3745
MR. CHARLES VAUGHAN

CIVIL ENGINEER:
CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, COLORADO 80228
(303) 917-1757
MR. JOE COCO

ARCHITECT:
LEE ARCHITECTS
2525 S. WADSWORTH BLVD, SUITE 21
DENVER, COLORADO 80227
(303) 989-4500
MR. KEVIN CALME

LANDSCAPE ARCHITECT:
NURTURE DESIGN
8047 LODGEPOLE TRAIL
LONE TREE, COLORADO 80125
(970) 779-0799
MS. KELLY HYZY

PURPOSE:

TO CONSTRUCT A 5,496 SF RELIGIOUS EDUCATION BUILDING ADDITION INCLUDING THE FOLLOWING:
1. CONSTRUCT A FIRE LANE EAST OF THE BUILDING ADDITION.
2. REMOVE AN EXISTING 1,400SF MODULAR BUILDING.
3. RELOCATE AND CONSTRUCT A NEW TRASH ENCLOSURE.
4. RELOCATE THE EXISTING PLAYGROUND.
5. RELOCATE THE EXISTING PAVILION SHELTER.

MODIFICATIONS TO THE PREVIOUSLY APPROVED USR SITE PLAN US02-003.

ITEM	CURRENTLY APPROVED	THIS REVISION
BUILDING FOOTPRINT/ SIZE	40,000	15,506
ACCESSORY STRUCTURES	0	0
PARKING/ DRIVES	91,472	82,981
SIDEWALKS/PATIOS	4,051	8,761
LANDSCAPE	106,234	144,903
SEATS IN SANCUARY	560	250
PARKING SPACES	163	85 (PAVED) + 78 (OVERFLOW)

FUTURE PHASES NOTE:

FOR ALL FUTURE PHASES, THE APPLICANT SHALL SUBMIT A REVISED SITE IMPROVEMENT PLAN OF THE PHASE FOR WHICH A PERMIT IS REQUESTED. THIS REVISED SIP SHALL BE APPROVED PRIOR TO ISSUANCE OF A BUILDING PERMIT.

PUBLIC RIGHT-OF-WAY IMPROVEMENTS NOTE:

SIP IMPROVEMENTS CONSTRUCTED IN THE PUBLIC RIGHT-OF-WAY SHALL BE OWNED BY DOUGLAS COUNTY, EXCEPT THAT THE MAINTENANCE OF THE PAVEMENT AND LANDSCAPING WITHIN THE ACCESS TO THE SITE SHALL REMAIN WITH THE OWNER/ DEVELOPER.

LEGAL DESCRIPTION:

A PARCEL OF LAND SITUATED IN THE NORTH 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF DOUGLAS, STATE OF COLORADO, AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHEAST CORNER OF SAID SECTION 27; THENCE NORTH 89 DEGREES 06 MINUTES 50 SECONDS WEST, ALONG THE NORTH LINE OF SAID SECTION, A DISTANCE OF 2726.17 FEET TO THE EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY 25; THENCE SOUTH 15 DEGREES 40 MINUTES 50 SECONDS WEST, ALONG SAID EASTERLY RIGHT OF WAY LINE, A DISTANCE OF 933.24 FEET TO THE POINT OF BEGINNING;

THENCE SOUTH 89 DEGREES 09 MINUTES 06 SECONDS EAST, ALONG THE SOUTHERLY LINE OF THE PARCEL OF LAND DESCRIBED IN BOOK 1172 AT PAGE 2301 OF THE DOUGLAS COUNTY RECORDS, A DISTANCE OF 633.71 FEET; THENCE SOUTH 16 DEGREES 28 MINUTES 22 SECONDS WEST, A DISTANCE OF 415.10 FEET; THENCE NORTH 89 DEGREES 09 MINUTES 06 SECONDS WEST, A DISTANCE OF 627.77 FEET TO SAID EASTERLY RIGHT OF WAY LINE OF INTERSTATE HIGHWAY 25; THENCE NORTH 15 DEGREES 40 MINUTES 50 SECONDS EAST, ALONG SAID EASTERLY LINE, A DISTANCE OF 413.55 FEET TO THE POINT OF BEGINNING.

VICINITY MAP
1"=2000'

SHEET INDEX

SITE DATA TABLE:

ITEM	SF	% OF GROSS SITE
SITE AREA	252,151	100%
* Building Footprint	15,506	6.2%
* Parking/ Drives	53,979	21.4%
* Overflow Parking (Gravel)	29,002	11.5%
* Sidewalks/ Patios	8,761	3.5%
HARDSCAPE TOTAL	107,248	42.6%
* Planted Area	15,922	6.3%
* Existing Vegetation	128,981	51.1%
LANDSCAPED TOTAL	144,903	57.4%

ITEM	DESCRIPTION
Building: 1 Story + Temp Building	15,506 sq. ft. TOTAL
Parking:	
* Required Seats 250	84 (1sp/ 3 seats)
* Total Required Parking	84
* Full Sized Parking Provided	63
* Compact Parking Provided	22 (26%)
* Total Provided Parking	85 (+78 Overflow)
* Handicap Parking Required	4 (1 van)
* Handicap Parking Provided	4 (1 van)

SITE SPECIFIC NOTES:

1. THIS SITE IMPROVEMENT PLAN (SIP) IS FOR A CHURCH WITH A MAXIMUM SEATING CAPACITY IN THE MAIN WORSHIP AREA OF NO MORE THAN 250 SEATS.
2. THE TRAFFIC IMPACT STUDY SUBMITTED TO AND ACCEPTED BY DOUGLAS COUNTY ENGINEERING ESTIMATES 562 VEHICLE-TRIPS ON A TYPICAL SUNDAY BASED UPON TWO REGULAR SERVICES. ACCESS TO THE INTERSTATE 25 FRONTAGE ROAD IS APPROVED BY THE COLORADO DEPARTMENT OF TRANSPORTATION AND DOUGLAS COUNTY.
3. THE CHURCH WILL OBTAIN APPROVAL OF A PUBLIC WATER SYSTEM FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) AS A TRANSIENT NON-COMMUNITY DRINKING WATER SYSTEM AND ABIDE BY ALL ONGOING CDPHE REQUIREMENTS FOR SUCH SYSTEM.
4. THE FIRE SUPPRESSION SYSTEM WILL BE DESIGNED AND INSTALLED AS REQUIRED BY COUNTY CODE AND THE LOCAL FIRE DEPARTMENT. WATER WILL BE PROVIDED BY ON-SITE UNDERGROUND STORAGE TANKS AND WILL BE MAINTAINED FOR ACCESS AND USE BY THE FIRE DEPARTMENT.

APPROVAL CERTIFICATE

THIS SITE IMPROVEMENT PLAN HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH DOUGLAS COUNTY REGULATIONS.

ENGINEERING SERVICES DATE

PLANNING SERVICES DATE

- FAILURE TO OBTAIN A BUILDING PERMIT WITHIN THREE (3) YEARS AFTER THE DATE OF THE SIP APPROVAL, AS NOTED ON THE NOTICE OF ACTION – FINAL STATUS, SHALL CAUSE THE UNBUILT PORTION OF THIS SIP TO BE NULL AND VOID, UNLESS AN EXTENSION WAS GRANTED.
- ACCEPTANCE OF SITE CONSTRUCTION DRAWINGS BY DOUGLAS COUNTY ENGINEERING SERVICES SHALL BE REQUIRED (AS APPLICABLE) PRIOR TO ISSUANCE OF BUILDING PERMITS. ACCEPTANCE OF SITE CONSTRUCTION DRAWINGS EXPIRES THREE YEARS AFTER THE DATE OF SIGNATURE.
- SIGNS SHOWN HEREON ARE NOT APPROVED. ALL SIGNS REQUIRE APPROVAL OF A SIGN PERMIT IN ACCORDANCE WITH THE SIGN STANDARDS SECTION OF THE DOUGLAS COUNTY ZONING RESOLUTION.

THE UNDERSIGNED AS THE OWNER OR OWNER'S REPRESENTATIVE OF THE LANDS DESCRIBED HEREIN HEREBY AGREE ON BEHALF OF ITSELF AND ITS SUCCESSORS AND ASSIGNS TO DEVELOP AND MAINTAIN THE PROPERTY DESCRIBED HEREON IN ACCORDANCE AND COMPLIANCE WITH THIS APPROVED SIP AND THE DOUGLAS COUNTY ZONING RESOLUTION.

THE FIRST BAPTIST CHURCH OF CASTLE ROCK, COLORADO A COLORADO NONPROFIT CORPORATION

BY: _____

TITLE: _____

DATE: _____

ATTEST: (IF CORP)

SECRETARY/ TREASURER

STATE OF COLORADO } SS
COUNTY OF _____ }

ACKNOWLEDGED BEFORE ME THIS_____ DAY OF_____, 2024, BY _____
AS_____ AND _____ AS _____ OF
THE FIRST BAPTIST CHURCH OF CASTLE ROCK, COLORADO A COLORADO NONPROFIT CORPORATION

MY COMMISSION EXPIRES:_____

WITNESS MY HAND AND OFFICIAL SEAL. _____
NOTARY PUBLIC

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN
COVER SHEET

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	08/26/24	JC
3	3RD SUBMITTAL	09/30/24	JC
4	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:

2180 SOUTH INTERSTATE 25, 5TH REVISION

PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.

5.55 ACRES

SITE IMPROVEMENT PLAN

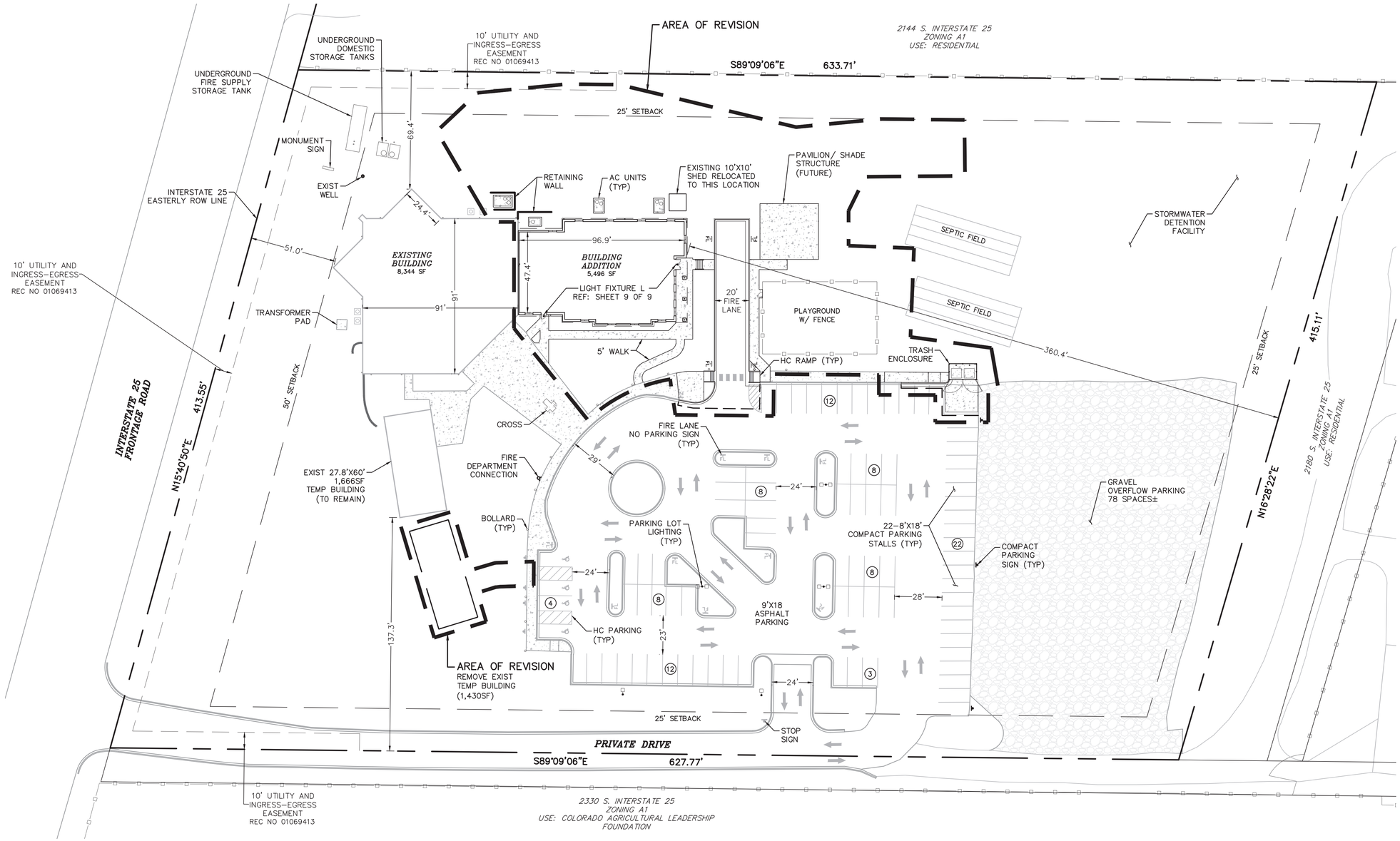
SP2024-058 (REVISION TO US02-003)

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
SAN	SANITARY SEWER	
ST	STORM SEWER	
WAT	WATER LINE	
ELE	UNDERGROUND ELECTRIC	
COM	COMMUNICATIONS	
FO	FIBER OPTICS	
GAS	GAS LINE	
	FIRE HYDRANT	
SS	SANITARY MANHOLE	
D	STORM MANHOLE	
	LIGHT POLE	
	FENCE	
	SIGN	
	FIRE LANE SIGN	
	PROPERTY PIN	
	CONCRETE	

NOTES:

1. DIMENSIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
2. ALL SIDEWALKS SHALL BE CONCRETE. ALL PARKING AND DRIVES FOR REQUIRED PARKING SHALL BE ASPHALT. OVERFLOW PARKING SHALL BE GRAVEL.



FUTURE PHASES NOTE:

FOR ALL FUTURE PHASES, THE APPLICANT SHALL SUBMIT A REVISED SITE IMPROVEMENT PLAN OF THE PHASE FOR WHICH A PERMIT IS REQUESTED. THIS REVISED SIP SHALL BE APPROVED PRIOR TO ISSUANCE OF A BUILDING PERMIT.

APPROVAL CERTIFICATE

PLANNING	INITIALS/DATE
OWNER	INITIALS/DATE
LESSEE (IF APPLICABLE)	INITIALS/DATE

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN
SITE PLAN

No.	Description of Revisions	Date	Name
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PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.

5.55 ACRES

SITE IMPROVEMENT PLAN

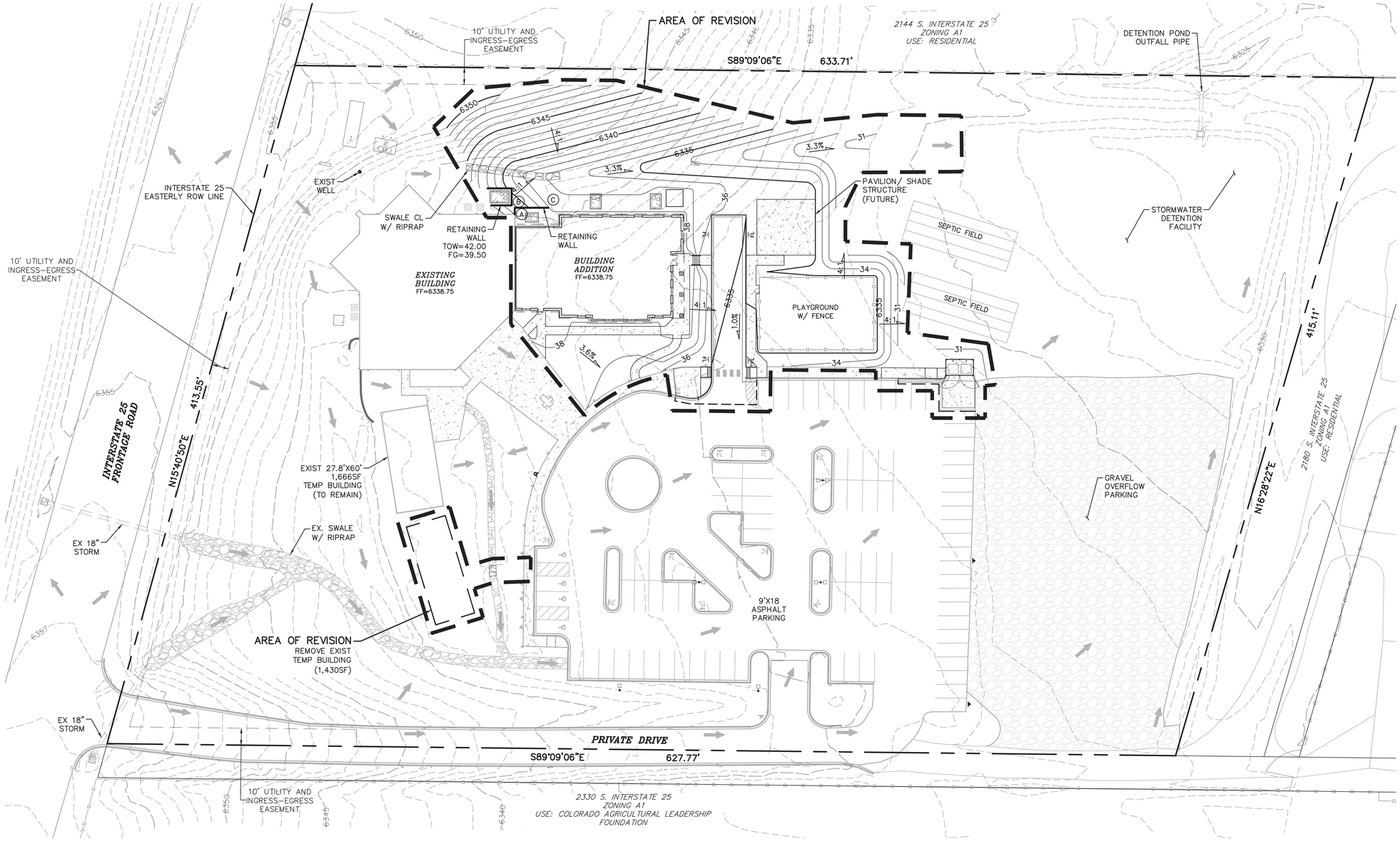
SP2024-058 (REVISION TO US02-003)

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
SAN	SANITARY SEWER	
ST	STORM SEWER	
WAT	WATER LINE	
ELE	UNDERGROUND ELECTRIC	
COM	COMMUNICATIONS	
FO	FIBER OPTICS	
GAS	GAS LINE	
	FIRE HYDRANT	
SS	SANITARY MANHOLE	
D	STORM MANHOLE	
	LIGHT POLE	
	FENCE	
	SIGN	
	FIRE LANE SIGN	
	PROPERTY PIN	
	CONCRETE	

NOTES:

1. ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
2. ALL SIDEWALKS SHALL HAVE A MAXIMUM 2% CROSS SLOPE.



RETAINING WALL ELEVATIONS

- (A) TOW=42.00 FG=38.70
- (B) TOW=41.25 FG=38.50
- (C) TOW=38.10 FG=38.10

30 15 0 30 60

SCALE 1"= 30'

NOTE: THESE PLANS ARE NOT FOR CONSTRUCTION. REFER TO THE APPROVED GRADING, EROSION, AND SEDIMENT CONTROL (GESC) PLANS.

FUTURE PHASES NOTE:

FOR ALL FUTURE PHASES, THE APPLICANT SHALL SUBMIT A REVISED SITE IMPROVEMENT PLAN OF THE PHASE FOR WHICH A PERMIT IS REQUESTED. THIS REVISED SIP SHALL BE APPROVED PRIOR TO ISSUANCE OF A BUILDING PERMIT.

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CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN
GRADING PLAN

No.	Description of Revisions	Date	Name
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2180 SOUTH INTERSTATE 25, 5TH REVISION
PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
5.55 ACRES
SITE IMPROVEMENT PLAN
SP2024-058 (REVISION TO USR02-003)

PLANT LEGEND:

SYMBOLS NOT TO SCALE:

DECIDUOUS TREES

ABB.	BOTANIC	COMMON	INSTALLED SIZE	QTY	%	WATER USAGE
QUU	*Quercus undulata*	Wavyleaf Oak	2.5" Cal.	1	20%	L
CEO	*'Celtis occidentalis*	Western Hackberry	2.5" Cal.	4	80%	M
			TOTAL 5			

EVERGREEN TREES

ABB.	BOTANIC	COMMON	INSTALLED SIZE	QTY	%	WATER USAGE
PSM	*Pseudotsuga menziesii*	Douglas Fir	8'	1	100%	M
			TOTAL 1			

SYMBOLS TO SCALE:

DECIDUOUS SHRUBS

ABB.	BOTANIC	COMMON	INSTALLED SIZE	QTY	%	WATER USAGE
CHM	*Chamaebatiara millefolium*	Fernbush	5 Gal.	3	17%	Z
PEA	*Perovskia artiplicifolia*	Russian Sage	5 Gal.	6	33%	L
RAG	*Rhus aromatica* 'Grow-Low'	Gro-Low Fragrant Sumac	5 Gal.	9	50%	Z
			TOTAL 18			

EVERGREEN SHRUBS

ABB.	BOTANIC	COMMON	INSTALLED SIZE	QTY	%	WATER USAGE
ARM	*Arctostaphylos coloradoensis* 'Manzanita'	Panchito manzanita	5 Gal.	15	50%	Z
DTB	*Daphne transatlantica* 'Blafra'	Eternal Fragrance Daphne	5 Gal.	9	30%	L
HEP	*Hesperaloe parviflora*	Red Yucca	5 Gal.	6	20%	Z
			TOTAL 30			

ORNAMENTAL GRASSES

ABB.	BOTANIC	COMMON	INSTALLED SIZE	QTY	%	WATER USAGE
CAK	*Calamagrostis acutiflora* 'Karl Foerster'	Feather Reed Grass	1 Gal.	5	38%	L
BOG	*Bouteloua gracillis* 'Blonde Ambition'	Blonde Ambition Blue Grama	1 Gal.	8	62%	L
			TOTAL 13			

PERENNIALS

ABB.	BOTANIC	COMMON	INSTALLED SIZE	QTY	%	WATER USAGE
AGR	*Agastache rupestris*	Sunset Hyssop	1 Gal.	7	30%	L
TEC	*Teucrium chamadrys*	Germander	1 Gal.	9	39%	L
ZAG	*Zauschneria garrettii*	Hummingbird Flower	1 Gal.	7	30%	L
			TOTAL 23			

HYDROZONE CLASSIFICATION NOTES:

1. **HIGH HYDROZONE** AN AREA PREDOMINANTLY CONSISTING OF COOL SEASON TURFGRASS AND SHOULD NOT USE MORE THAN 24.9 GALLONS PER SQUARE FOOT OF WATER PER SEASON IN AN AVERAGE YEAR.
1. **MODERATE HYDROZONE** ANY AREA THAT WILL INCLUDE PLANT MATERIAL GENERALLY REQUIRING 11.4 GALLONS PER SQUARE FOOT PER SEASON OR MORE OF SUPPLEMENTAL WATER IN AN AVERAGE YEAR.
2. **LOW HYDROZONE** ANY AREAS THAT DO NOT GENERALLY REQUIRE MORE THAN 3.5 GALLONS PER SQUARE FOOT PER SEASON OF SUPPLEMENTAL WATER IN AN AVERAGE YEAR.
3. **XERIC HYDROZONE** ANY AREA NEEDING NO WATER OR ONLY TEMPORARY WATER FOR RE-ESTABLISHMENT IN NORMAL WEATHER CONDITIONS. INCLUDES HARDSCAPED, MULCHED AND ARTIFICIAL TURF AREAS NOT CONTAINING PLAN MATERIAL.

DETAIL LEGEND:

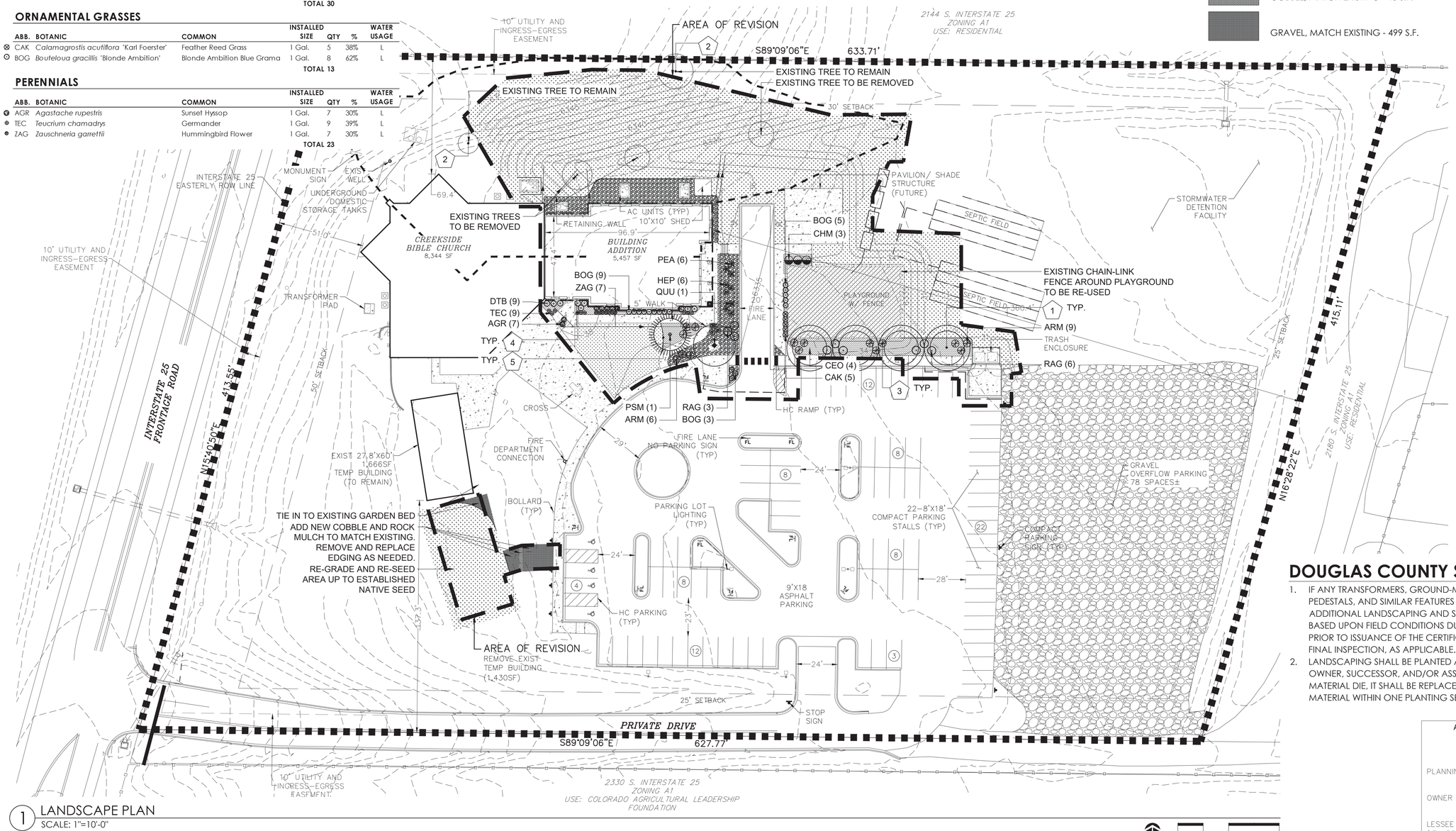
1. TREE PLANTING, RE: 1, SHEET 5
2. EXISTING TREE PLANTING, RE: 2, SHEET 5
3. SHRUB PLANTING, RE: 3, SHEET 5
4. PERENNIAL & ORNAMENTAL GRASS PLANTING, RE: 4, SHEET 5
5. EDGE RESTRAINT, RE: 5, SHEET 5

LIVING MATERIAL:

- DOUGLAS COUNTY PERMANENT SEED MIX & WESTERN WILDFLOWER MIX. 19,233 S.F. TEMPORARY OVER-HEAD SPRAY IRRIGATION UNTIL ESTABLISHMENT (APPOX. 3 YEARS).
- BLUE GRASS/FESCUE BLEND SOD - 1,636 S.F.

NON-LIVING MATERIAL:

- FIBAR ENGINEERED PLAYGROUND FIBER MULCH - 2,857 S.F.
- 3/4" CLEAR CREEK GREY ROCK - 2,312 S.F.
- STANDARD GREY CONCRETE, BROOM FINISH - 3,927 S.F.
- 3" SHREDDED MULCH - 2,019 S.F. NO WEED BARRIER FABRIC UNDER MULCH
- COBBLE, MATCH EXISTING - 43 S.F.
- GRAVEL, MATCH EXISTING - 499 S.F.



1 LANDSCAPE PLAN
SCALE: 1"=10'-0"

DOUGLAS COUNTY SIP NOTES:

1. IF ANY TRANSFORMERS, GROUND-MOUNTED HVAC UNITS, UTILITY PEDESTALS, AND SIMILAR FEATURES ARE NOT SHOWN ON THE SIP, ADDITIONAL LANDSCAPING AND SCREENING MAY BE REQUIRED BASED UPON FIELD CONDITIONS DURING THE SITE INSPECTION PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, OR FINAL INSPECTION, AS APPLICABLE.
2. LANDSCAPING SHALL BE PLANTED AND MAINTAINED BY THE OWNER, SUCCESSOR, AND/OR ASSIGNS. SHOULD ANY PLANT MATERIAL DIE, IT SHALL BE REPLACED WITH SIMILAR PLANT MATERIAL WITHIN ONE PLANTING SEASON.

APPROVAL CERTIFICATE

PLANNING	INITIALS/DATE
OWNER	INITIALS/DATE
LESSEE (IF APPLICABLE)	INITIALS/DATE

NurTure Design
LANDSCAPE ARCHITECTURE
KELLY HYZY, PLA
970.779.0799

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN

No.	Description of Revisions	Date	Name
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LANDSCAPE PLAN

2180 SOUTH INTERSTATE 25, 5TH REVISION
PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
5.55 ACRES
SITE IMPROVEMENT PLAN
SP2024-058 (REVISION TO US02-003)

GENERAL NOTES:

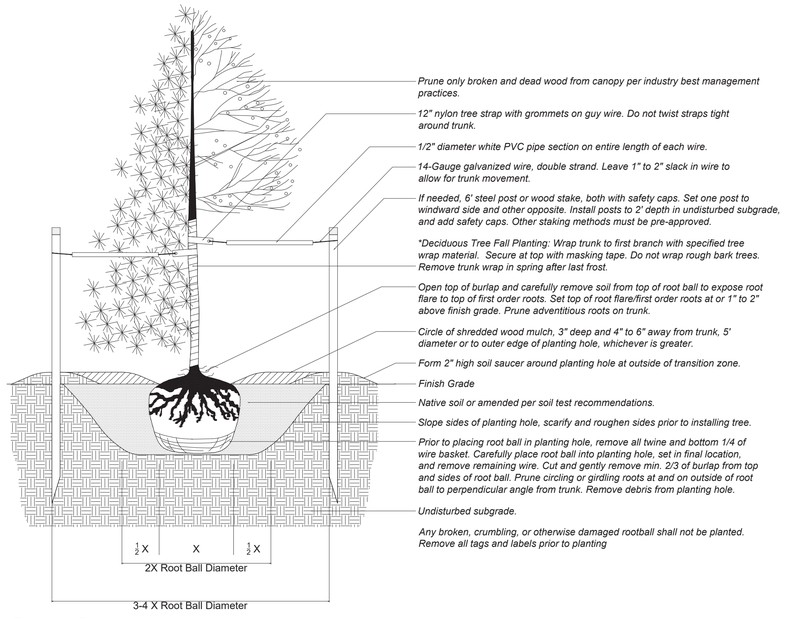
1. CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL CODES AND REGULATIONS.
2. CONTRACTOR TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO BEFORE DIGGING, INCLUDING BUT NOT LIMITED TO, TRENCHING, SHRUB AND TREE PLANTING PITS. IF UTILITIES OCCUR WITHIN (3) THREE FEET OF PROPOSED FOOTINGS, THE CONTRACTOR SHALL REPORT SUCH CONDITIONS TO THE OWNER.
3. CONTRACTOR IS RESPONSIBLE FOR FULL ON-SITE INVESTIGATIONS AS NEEDED IN ORDER TO GAIN A FULL UNDERSTANDING OF EXISTING CONDITIONS PRIOR TO CONSTRUCTION. FAILURE TO INSPECT THE SITE PRIOR TO CONSTRUCTION SHALL NOT BE CAUSE FOR REQUESTING ADDITIONAL MONIES BY THE CONTRACTOR.
4. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK.
5. THE LANDSCAPE ARCHITECT IS NOT RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR FOR SAFETY PRECAUTIONS OR PROBLEMS UTILIZED IN CONNECTION WITH THE WORK, AND HE/SHE WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. VERIFY ALL CONDITIONS AT THE JOB SITE AND NOTIFY LANDSCAPE ARCHITECT AND THE OWNER'S REP. IMMEDIATELY OF ANY DIMENSIONAL ERRORS, OMISSIONS OR DISCREPANCIES PRIOR TO ANY DEMOLITION OR CONSTRUCTION.

LANDSCAPE NOTES:

1. ALL NEW LANDSCAPE AND IRRIGATION SHALL BE UNDER WARRANTY FOR A PERIOD OF (1) YEAR. THE WARRANTY PERIOD SHALL COMMENCE ONCE ALL PUNCH LIST ITEMS ARE SATISFACTORY COMPLETED AND A LETTER OF FINAL COMPLETION IS PROVIDED FROM THE OWNER'S REPRESENTATIVE. ALL LANDSCAPE AND IRRIGATION MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR 1 YEAR AFTER THE FINAL COMPLETION IS PROVIDED IN WRITING.
2. PLANT MATERIAL AND BED LOCATIONS TO BE STAKED BY THE LANDSCAPE CONTRACTOR FOR REVIEW BY THE OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. ALL ADJUSTMENTS SHALL BE MADE BY THE CONTRACTOR. THE CONTRACTOR SHALL NOT DIG PLANT PITS UNTIL LOCATIONS ARE APPROVED.
3. ROUGH GRADING TO PLUS OR MINUS ONE TENTH OF A FOOT BY GENERAL CONTRACTOR. LANDSCAPE CONTRACTOR TO PROVIDE FINISH GRADING IN ALL LANDSCAPE AREAS. LANDSCAPE CONTRACTOR TO APPROVE ROUGH GRADES PRIOR TO MOBILIZATION. MOBILIZATION ON THE PART OF THE LANDSCAPE CONTRACTOR WILL INDICATE THAT ROUGH GRADING IS ACCEPTABLE TO THE LANDSCAPE CONTRACTOR, AND THEREFORE BE RESPONSIBLE FOR PROVIDING ALL FINISHED GRADES TO MEET THE CIVIL GRADING PLANS.
4. TREES AND SHRUBS WILL BE INSPECTED ON-SITE. LANDSCAPE PLANT MATERIALS MAY BE REJECTED AT ANY TIME DUE TO ISSUES OF QUALITY.
5. ALL PLANT MATERIAL SHALL MEET OR EXCEED CURRENT AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1 AND THE COLORADO NURSERY ACT AND ACCOMPANYING RULE AND REGULATIONS.

SOIL PREPARATION:

1. APPLY AMENDMENTS IN TURF AND PLANTING BEDS TO THESE SPECIFICATIONS UNLESS SOILS REPORT STATES OTHERWISE:
   - 1.1. AGED ORGANIC MATTER: 4 CUBIC YARDS PER 1000 S.F. FREE OF WEED OR OTHER NOXIOUS PLANT SEEDS, LUMPS, STONES, OR OTHER FOREIGN CONTAMINANTS HARMFUL TO PLANT LIFE.
     - 1.1.1. ACCEPTABLE COMPOST PRODUCT: CLASS I COMPOST, SUCH AS ECOGRO OR BIO-COMP, AS PROVIDED BY A1 ORGANICS, EATON, CO, OR APPROVED EQUAL.
   - 1.2. MILORGANITE NATURAL SLOW RELEASE FERTILIZER OR EQUAL: SEE MANUFACTURERS RECOMMENDATIONS FOR LAWN AND BED APPLICATION RATES.
2. AFTER APPLYING SOIL AMENDMENTS, THOROUGHLY TILL AREA TO DEPTH OF 6" MINIMUM, BY TILLING UNTIL SOIL IS WELL PULVERIZED AND THOROUGHLY MIXED.
3. FINISH GRADE TO BE BELOW THE EDGE OF PAVEMENT OR EDGE RESTRAINT, PRIOR TO SODDING, PLANTING OR REPLACING GROUND-COVER MATERIAL:
   - 3.1. SODDED AREAS: ALLOW 1 INCH FOR SOD
   - 3.2. PLANTING AND GRAVEL AREAS: ALLOW 4 INCHES FOR WOOD OR GRAVEL MULCH.



*Trunk-wrap Tape on new plnanted trees only:

1. Two layers of crinkled paper cemented together with bituminous material, 4 inches (102 mm) wide min.
2. Wrap trees with trunk-wrap tape. start at base of trunk and spiral cover trunk to height of first branches. overlap wrap, exposing half the width, and securely attach without causing girdling. do not use staples. inspect tree trunks for injury, improper pruning, and insect infestation and take corrective measures required before wrapping. do not wrap rough bark, populus or gleditsia trees. remove wrap in spring.
   - 2.1. No tree shall be wrapped after may 21 or before november 1.
   - 2.2. All deciduous trees shall be wrapped by nov. 15. remove tree wrap by may 15.
3. Contractor shall be responsible for wrapping and unwrapping trees during the warranty period.

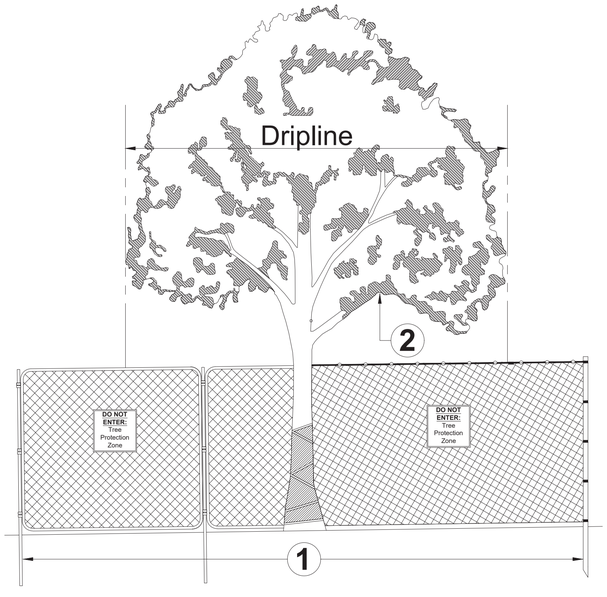
1 TREE PLANTING
SCALE: N.T.S.

IRRIGATION CONCEPT:

1. AN AUTOMATIC IRRIGATION SYSTEM SHALL BE INSTALLED AND OPERATIONAL BY THE TIME OF FINAL INSPECTION. THE ENTIRE IRRIGATION SYSTEM SHALL BE INSTALLED BY A QUALIFIED IRRIGATION CONTRACTOR.
2. THE IRRIGATION SYSTEM WILL OPERATE ON POTABLE WELL WATER, AND THE SYSTEM WILL HAVE APPROPRIATE BACK-FLOW PREVENTION DEVICES INSTALLED TO PREVENT CONTAMINATION OF THE POTABLE SOURCE.
3. ALL NON-TURF PLANTED AREAS WILL BE DRIP IRRIGATION.
4. SODDED/SEEDED AREAS SHALL BE IRRIGATED WITH SPRAY OR ROTOR HEADS AT 100% HEAD-TO-HEAD COVERAGE.
5. ALL PLANTS WITH SIMILAR HYDRO-ZONE CHARACTERS SHALL BE PLACED ON A VALVE DEDICATED TO PROVIDE THE NECESSARY WATER REQUIREMENTS SPECIFIC TO THAT HYDRO-ZONE.
6. THE IRRIGATION SYSTEM SHALL DESIGNED AND INSTALLED, THE MINIMUM EXTEND POSSIBLE, TO CONSERVE WATER BY USING THE FOLLOWING DEVISES AND SYSTEMS: MATCHED PRECIPITATION RATE TECHNOLOGY ON ROTO AND SPRAY HEADS (WHEREVER POSSIBLE), RAIN SENSORS, AND MULTI-PROGRAM COMPUTERIZED IRRIGATION CONTROLLERS FEATURING SENSORY INPUT CAPABILITIES.
7. IRRIGATION BACK-FLOW PREVENTER SHALL BE SCREENED BY LANDSCAPING, IRRIGATION CONTROLLER SHALL BE SCREENED BY LANDSCAPING. EQUIPMENT SHALL BE IN A VANDAL PROOF LOCKABLE CABINET OR LOCATED WITHIN THE BUILDING UTILITY CLOSET.

SEED ESTABLISHMENT NOTES:

1. IF POSSIBLE, SEED SHALL BE DRILL SEEDED IN EARLY SPRING.
2. THE LANDSCAPE CONTRACTOR SHALL SEED ALL NATIVE SEED AREAS AS SOON AS POSSIBLE AFTER COMPLETION OF GRADING OPERATIONS. SOIL PREPARATION MEASURES IN A AREAS TO BE SEEDED SHALL BE COMPLETED PRIOR TO SEEDING.
3. FOR PROPER ESTABLISHMENT SEED SHALL BE INSTALLED WHEN AT LEAST THREE MONTHS REMAIN IN THE GROWING SEASON. IF LESS THAN THREE MONTHS REMAIN IN THE GROWING SEASON, AT THE TIME OF SEEDING, THE LANDSCAPE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT AND OWNER. THE IRRIGATION SYSTEM FOR SEEDED AREAS SHALL BE FULLY OPERATION AT THE TIME OF SEEDING.
4. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ADDITIONAL CORRECTIVE MEASURES, AT HIS OWN COST, TO SATISFY ESTABLISHMENT REQUIREMENTS AND ENSURE TIMELY CLOSEOUT. THESE MEASURES MAY INCLUDE, AT THE OWNER'S OPTION, RE-SEEDING OF SPARSELY GERMINATED AREAS.



Area 1: Tree Protection Zone and Critical Root Zone Protection
The Tree Protection Zone (TPZ) shall be equal to dripline or 1.5 feet radially from the tree for every one inch of trunk diameter at breast height (DBH = 4.5' above soil line), whichever is greater.

A. Min 6' in height steel chain link fence is required. Steel chain link fence panels or rolls are acceptable.
   1. When chain link rolls are installed, it shall be fastened to heavy duty steel posts with safety caps at minimum five (5) attachment points with 12-gauge wire, including points at top and bottom. Weave wire through top of roll to eliminate sag.
   2. Posts shall be driven 2' to 3' below grade and spaced at max. five to ten foot (5' - 10') o.c. intervals. Fencing must be kept taut at all times.
   3. TPZ, shall be maintained in the location and condition until site improvments are completed.

Area 2: Canopy Protection
Protect canopy and minimize damage. Prune as needed for any clearance issues prior to performing work.

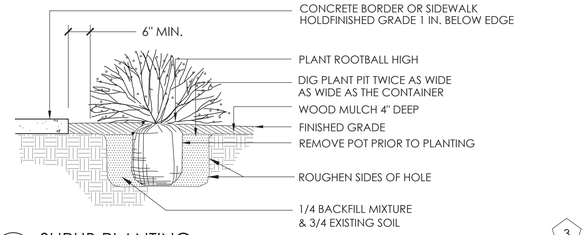
Notes

- TPZ shall not be resized, modified, removed, or altered in any manner.
- Entrance/access to the TPZ is not permitted.
- No materials, debris, equipment, or site amenities shall be stored within the TPZ.
- While TPZ fencing is in place, trees shall be deep-root watered at an interval of once every two weeks when temperatures are at or above 40 degrees F. Trees shall be watered at the rate of twenty-five (25) gallons per inch DBH.

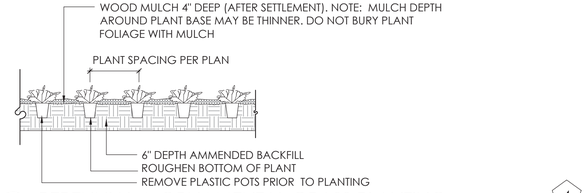
2 EXISTING TREE PROTECTION
SCALE: N.T.S.

MULCHING NOTES:

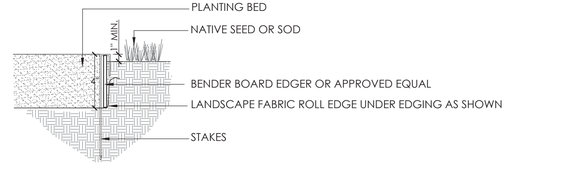
1. MULCH IN PLANTING BEDS AND AROUND TREES; SHRUB BED/PLANTING AREAS SHALL BE MULCHED TO A DEPTH OF 4 IN.
2. NO WEED BARRIER FABRIC SHALL BE INSTALLED UNDER WOOD OR 3/4" ROCK MULCH OR ON TOP OF TREE ROOT-BALLS. WEED BARRIER FABRIC TO BE USED ONLY UNDER ROCK MULCH WITHOUT PLANTINGS.
3. MULCH SHALL BE NATURAL SHREDDED WESTERN CEDAR NOT LARGER THAN FOUR INCHES (4") IN LENGTH AND CERTIFIED PATHOGEN, WEED AND CHEMICAL FREE. MULCH TO BE HARVESTED IN A SUSTAINABLE MANNER FROM A LOCAL SOURCE.
4. SURFACE COVERAGE SHALL BE A MINIMUM 3FT RADIUS FROM THE TRUNK FOR TREES WHERE POSSIBLE; AND MULCH SHALL BE KEPT A MINIMUM OF 4-6IN AWAY FROM TREE TRUNKS AND NOT TOUCHING THE BASE OF OTHER WOODY LANDSCAPE PLANTS.
5. NO EXPOSED GROUND SHALL BE LEFT SHOWING ANYWHERE ON THE PROJECT AFTER MULCH HAS BEEN INSTALLED.
6. ALL PLANTING AREAS WITH SLOPES 4:1 OR STEEPER SHALL RECEIVE COCONUT FIBER EROSION CONTROL NETTING FROM ROLLS OR APPROVED TACKIFIER.



3 SHRUB PLANTING
SCALE: N.T.S.



4 PERENNIAL & ORNAMENTAL GRASS PLANTING
SCALE: N.T.S.



NOTES:
1. CONTRACTOR TO SUBMIT SAMPLE PRIOR TO ORDERING MATERIAL OR DELIVERING TO SITE.
2. NO EDGER REQUIRED WHEN MULCH ADJACENT TO PAVEMENT, BORDER, OR WALLS.
3. SET ALL EDGING 1" ABOVE FINISH GRADE AS SHOWN.
4. EDGING SHALL BE INSTALLED AT ALL TRANSITIONS INCLUDING:
   - 4.1. GRAVEL OR WOOD MULCH NEXT TO NATIVE GRASS OR SOD
5. EDGING SHALL ABUT CONCRETE CURBS AND WALKS PERPENDICULAR, AND SHALL BE FLUSH WITH GRADES OF CONCRETE.
6. ALL JOINTS TO BE SECURELY STAKED.
7. CONTRACTOR SHALL CUT TOP EDGE(S) AS NEEDED TO BE PARALLEL WITH GRADE.

5 EDGE RESTRAINT
SCALE: N.T.S.

APPROVAL CERTIFICATE

PLANNING _____ INITIALS/DATE
OWNER _____ INITIALS/DATE
LESSEE (IF APPLICABLE) _____ INITIALS/DATE

NurTure Design
LANDSCAPE ARCHITECTURE
KELLY HYZY, PLA
970.779.0799

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN

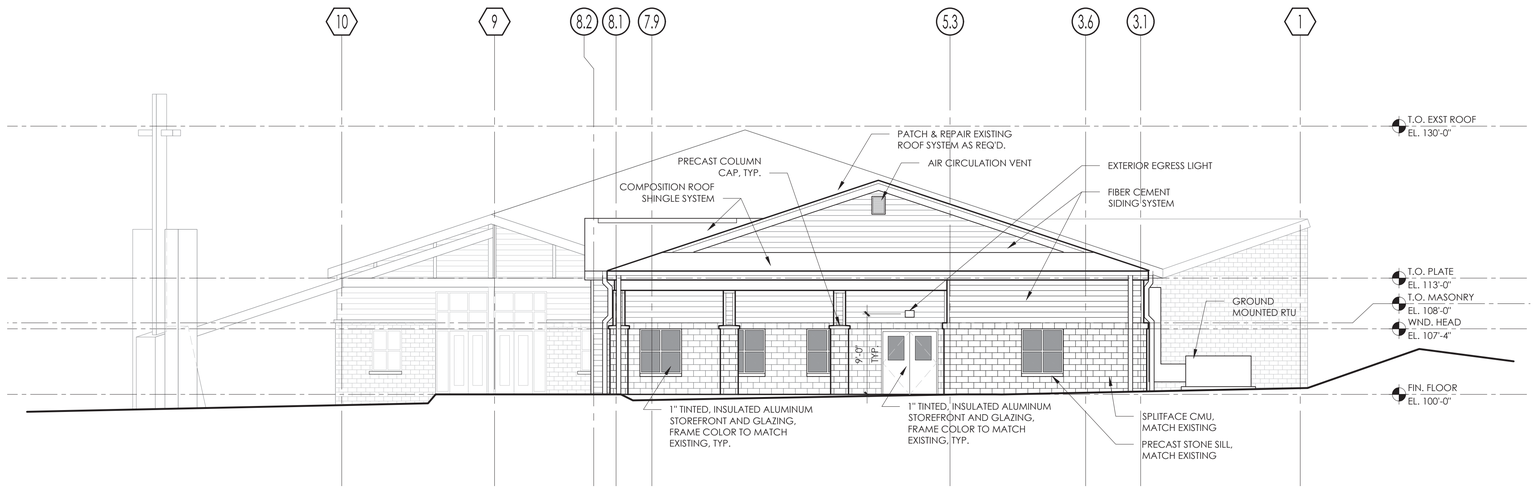
No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JS
2	2ND SUBMITTAL	9/26/24	JS
3	3RD SUBMITTAL	09/25/24	JS
4	SUBMITTED FOR APPROVAL	11/04/24	JS

Date: JULY 2024
Job Number:
Design By: K. HYZY
Drawn By: K. HYZY
Checked By: K. HYZY

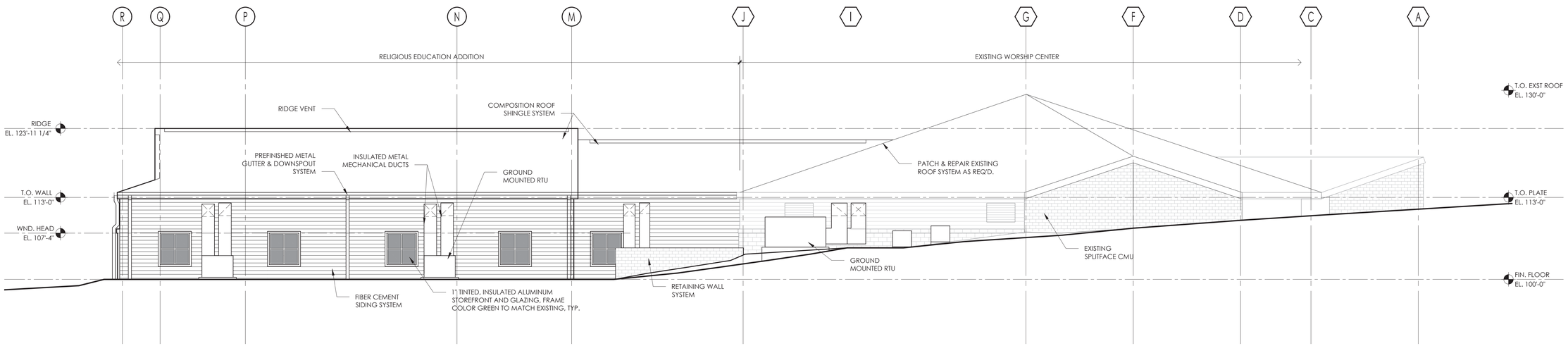
Sheet Number:
LANDSCAPE NOTES & DETAILS

2180 SOUTH INTERSTATE 25, 5TH REVISION

PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
5.55 ACRES
SITE IMPROVEMENT PLAN
SP2024-058 (REVISION TO US02-003)



2 EAST ELEVATION
1/8" = 1'-0"



1 NORTH ELEVATION
1/8" = 1'-0"

DCZR:
The building elevations shown and approved hereon are intended to demonstrate how all HVAC shall be screened according to Douglas County Zoning resolution requirements. It is the applicant's responsibility to ensure that screening occurs in the field as demonstrated by these plans regardless of curb requirements, mechanical plan changes, or other circumstances. Failure to provide screening may result in delay of final inspections and/or issuance of a certificate of occupancy.

APPROVAL CERTIFICATE

PLANNING	**INITIALS/DATE**
OWNER	**INITIALS/DATE**
LESSEE (IF APPLICABLE)	**INITIALS/DATE**

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN

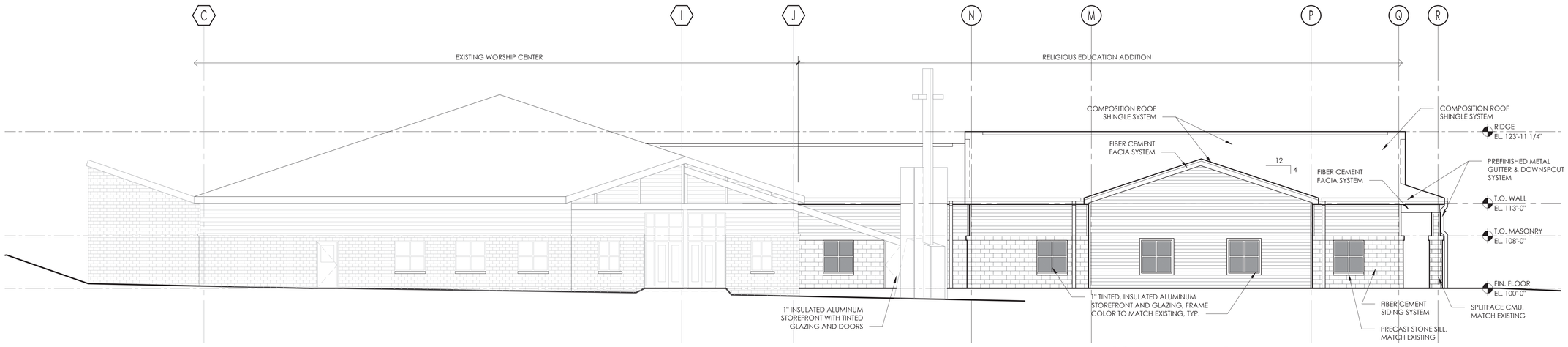
No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	08/26/24	JC
3	3RD SUBMITTAL	09/30/24	JC
4	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

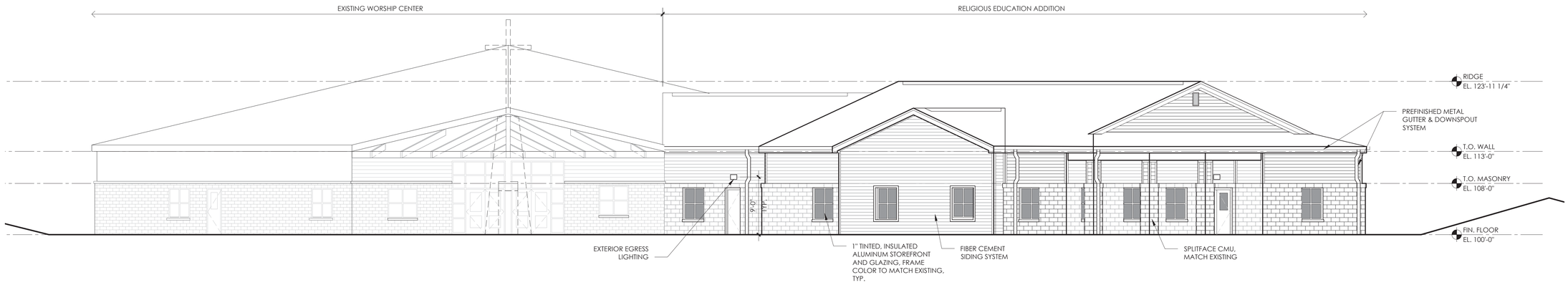
Sheet Number:

2180 SOUTH INTERSTATE 25, 5TH REVISION

PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
5.55 ACRES
SITE IMPROVEMENT PLAN
SP2024-058 (REVISION TO US02-003)



2 SOUTH ELEVATION
1/8" = 1'-0"



1 SOUTH-EAST ELEVATION
1/8" = 1'-0"

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APPROVAL CERTIFICATE	
PLANNING	INITIALS/DATE
OWNER	INITIALS/DATE
LESSEE (IF APPLICABLE)	INITIALS/DATE

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN

No.	Description of Revisions	Date	Name
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Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

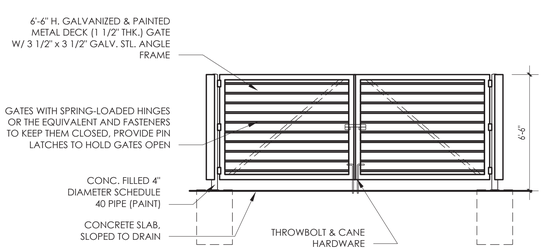
Sheet Number:

2180 SOUTH INTERSTATE 25, 5TH REVISION

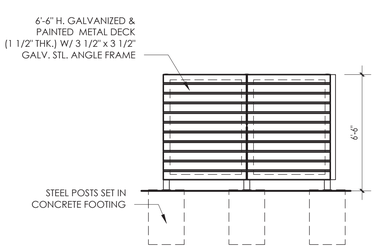
PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
5.55 ACRES
SITE IMPROVEMENT PLAN
SP2024-058 (REVISION TO US02-003)

EXTERIOR BUILDING FINISHES

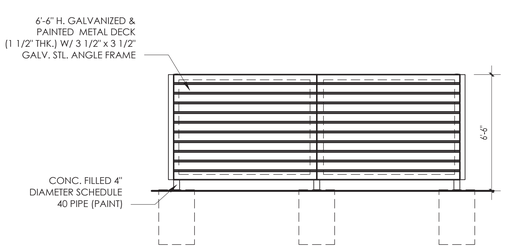
- COMPOSITION SHINGLE SYSTEM:
  OWENS CORNING, DURATION, CHATEAU GREEN
  TO MATCH EXISTING
- FIBER CEMENT SIDING:
  HARDI SIDING OR EQUAL
  COLOR TO MATCH EXISTING
- SPLIT FACE CMU:
  ANCHOR BLOCK CO.- SANTA FE #506
  TO MATCH EXISTING
- GUTTERS, DOWNSPOUTS, TRASH ENCLOSURE & MISC. METALS:
  SHERWIN WILLIAMS SW6326 HENNA SHADE
  TO MATCH EXISTING
- ALUMINUM STOREFRONT WINDOWS:
  TO MATCH EXISTING



FRONT



SIDE



BACK

3 TRASH ENCLOSURE ELEVATIONS
1/4" = 1'-0"

DCZR:
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APPROVAL CERTIFICATE

PLANNING	**INITIALS/DATE**
OWNER	**INITIALS/DATE**
LESSEE (IF APPLICABLE)	**INITIALS/DATE**

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN

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Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:

2180 SOUTH INTERSTATE 25, 5TH REVISION

PART OF THE N 1/2 OF SECTION 27, TOWNSHIP 8 SOUTH, RANGE 67 WEST OF THE 6TH P.M.
5.55 ACRES
SITE IMPROVEMENT PLAN
SP2024-058 (REVISION TO US02-003)

LUMINAIRE SCHEDULE

REMARKS:
1.

TAG	DESCRIPTION	MOUNTING	MANUFACTURER	MODEL	VOLT	LAMP						REMARKS
						QTY	WATTS	SOURCE	TEMP	LUMENS	DIMMING	
L	EM SCONCE	SURFACE	LITHONIA	WPX1 LED P1 30K MVOLT E4WH	120 V		11	LED	3000K	1550	-	-

NOTES:

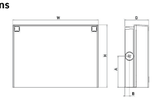
1. REFERENCE SITE PLAN (SHEET 2 OF 9) AND EXTERIOR BUILDING ELEVATIONS FOR LOCATIONS OF PROPOSED LIGHT FIXTURE L.
2. PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY OR CONDUCTING FINAL INSPECTIONS, DOUGLAS COUNTY SHALL CONDUCT AN EVENING SITE VISIT TO ENSURE ILLUMINATION LEVELS GENERATED BY THE LIGHTING: MEET ALL COUNTY CRITERIA AS WELL AS THOSE INDICATED ON THE APPROVED SITE IMPROVEMENT PLAN; DO NOT CREATE DISABILITY GLARE ON ADJACENT PROPERTIES; AND THAT ALL FIXTURES ARE FULL CUTOFF AS DEFINED BY THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA. IN THE EVENT LIGHTING LEVELS DO NOT MEET THESE CRITERIA, REMEDIAL ACTION MAY INCLUDE RE-LAMPING WITH LOWER WATTAGE BULBS, RELOCATING FIXTURES, SHIELDING FIXTURES, REMOVING FIXTURES, OR REPLACING FIXTURES. IT SHALL BE THE RESPONSIBILITY OF THE APPLICANT TO ENSURE ALL SITE LIGHTING COMPLIES WITH LIGHTING STANDARDS SECTION OF THE DOUGLAS COUNTY ZONING RESOLUTION PRIOR TO REQUESTING ISSUANCE OF A CERTIFICATE OF OCCUPANCY AND/OR FINAL INSPECTIONS.

WPX LED
Wall Packs

Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications



Front View Side View

Luminaire	Height (H)	Width (W)	Depth (D)	Side Conduit Location		Weight
				A	B	
WPX1	8.1" (20.6 cm)	11.1" (28.3 cm)	3.2" (8.1 cm)	4.0" (10.3 cm)	0.6" (1.6 cm)	6.1 lbs (2.8kg)
WPX2	9.1" (23.1 cm)	12.3" (31.1 cm)	4.1" (10.5 cm)	4.5" (11.5 cm)	0.7" (1.7 cm)	8.2 lbs (3.7kg)
WPX3	9.5" (24.1 cm)	13.0" (33.0 cm)	5.5" (13.7 cm)	4.7" (12.0 cm)	0.7" (1.7 cm)	11.0 lbs (5.0kg)

Introduction

The WPX LED wall packs are energy-efficient, cost-effective, and aesthetically appealing solutions for both HID wall pack replacement and new construction opportunities. Available in three sizes, the WPX family delivers 1,550 to 9,200 lumens with a wide, uniform distribution.

The WPX full cut-off solutions fully cover the footprint of the HID glass wall packs that they replace, providing a neat installation and an upgraded appearance. Reliable IP66 construction and excellent LED lumen maintenance ensure a long service life. Photocell and emergency egress battery options make WPX ideal for every wall mounted lighting application.

Ordering Information

EXAMPLE: WPX2 LED 40K MVOLT DDBXD

Series		Color Temperature		Voltage		Options		Finish	
WPX1 LED P1	1,550 Lumens, 11W [1]	30K	3000K	MVOLT	120V - 277V	(blank)	None	DDBXD	Dark bronze
WPX1 LED P2	2,900 Lumens, 24W	40K	4000K	347	347V [3]	E4WH	Emergency battery backup, CEC compliant (4W, 0°C min) [2]	DWHXD	White
WPX2 LED	6,000 Lumens, 47W	50K	5000K			E14WC	Emergency battery backup, CEC compliant (14W, -20°C min) [2]	DBLXD	Black
WPX3 LED	9,200 Lumens, 69W					PE	Photocell [3]	Note: For other options, consult factory.	

Note: The lumen output and input power shown in the ordering tree are average representations of all configuration options. Specific values are available on request.

NOTES
1. All WPX wall packs come with 6kV surge protection standard, except WPX1 LED P1 package, which comes with 2.5kV surge protection standard. Add SPD6KV option to get WPX1 LED P1 with 6kV surge protection.
   Sample nomenclature: WPX1 LED P1 40K MVOLT SPD6KV DDBXD
2. Battery pack options only available on WPX1 and WPX2.
3. Battery pack options not available with 347V or PE options.

FEATURES & SPECIFICATIONS

INTENDED USE
The WPX LED wall packs are designed to provide a cost-effective, energy-efficient solution for the one-for-one replacement of existing HID wall packs. The WPX1, WPX2 and WPX3 are ideal for replacing up to 150W, 250W, and 400W HID luminaires respectively. WPX luminaires deliver a uniform, wide distribution. WPX is rated for -40°C to 40°C.

CONSTRUCTION
WPX feature a die-cast aluminum main body with optimal thermal management that both enhances LED efficacy and extends component life. The luminaires are IP66 rated, and sealed against moisture or environmental contaminants.

ELECTRICAL
Light engine(s) configurations consist of high-efficacy LEDs and LED lumen maintenance of L90>100,000 hours. Color temperature (CCT) options of 3000K, 4000K and 5000K with minimum CRI of 70. Electronic drivers ensure system power factor >90% and THD <20%. All luminaires have 6kV surge protection (Note: WPX1 LED P1 package comes with a standard surge protection rating of 2.5kV. It can be ordered with an optional 6kV surge protection).
All photocell (PE) operate on MVOLT (120V - 277V) input.

Note: The standard WPX LED wall pack luminaires come with field-adjustable drive current feature. This feature allows tuning the output current of the LED drivers to adjust the lumen output (to dim the luminaire).

INSTALLATION
WPX can be mounted directly over a standard electrical junction box. Three 1/2 inch conduit ports on three sides allow for surface conduit wiring. A port on the back surface allows poke-through conduit wiring on surfaces that don't have an electrical junction box. Wiring can be made in the integral wiring compartment in all cases. WPX is only recommended for installations with LEDs facing downwards.

LISTINGS
CSA Certified to meet U.S. and Canadian standards. Suitable for wet locations. IP66 Rated. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25°C. Specifications subject to change without notice.

Performance Data

Electrical Load

Luminaire	Input Power (W)	120V	208V	240V	277V	347V
WPX1 LED P1	11W	0.09	0.05	0.05	0.04	0.03
WPX1 LED P2	24W	0.20	0.12	0.10	0.09	0.07
WPX2	47W	0.39	0.23	0.20	0.17	0.14
WPX3	69W	0.58	0.33	0.29	0.25	0.20

Projected LED Lumen Maintenance
Data references the extrapolated performance projections in a 25°C ambient, based on 6,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).
To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	50,000	75,000	100,000
Lumen Maintenance Factor	>0.94	>0.92	>0.90

HID Replacement Guide

Luminaire	Equivalent HID Lamp	WPX Input Power
WPX1 LED P1	100W	11W
WPX1 LED P2	150W	24W
WPX2	250W	47W
WPX3	400W	69W

Lumen Output

Luminaire	Color Temperature	Lumen Output
WPX1 LED P1	3000K	1,537
	4000K	1,568
	5000K	1,602
WPX1 LED P2	3000K	2,748
	4000K	2,912
	5000K	2,954
WPX2	3000K	5,739
	4000K	5,896
	5000K	6,201
WPX3	3000K	8,984
	4000K	9,269
	5000K	9,393

Lumen Ambient Temperature (LAT) Multipliers
Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

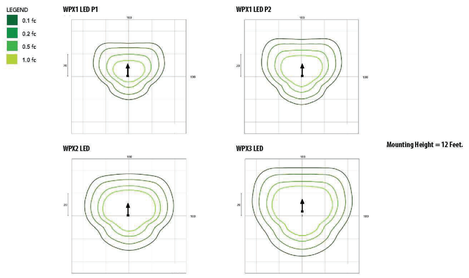
Ambient	Ambient	Lumen Multiplier
0°C	32°F	1.05
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Emergency Egress Battery Packs
The emergency battery backup is integral to the luminaire — no external housing or back box is required. The emergency battery will power the luminaire for a minimum duration of 90 minutes and deliver minimum initial output of 550 lumens. Both battery pack options are CEC compliant.

Battery Type	Minimum Temperature Rating	Power (Watts)	Controls Option	Ordering Example
Standard	0°C	4W	E4WH	WPX2 LED 40K MVOLT **E4WH** DDBXD
Cold Weather	-20°C	14W	E14WC	WPX2 LED 40K MVOLT **E14WC** DDBXD

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WPX LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards



LITHONIA LIGHTING.
COMMERCIAL OUTDOOR
One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
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WPX LED
Rev. 07/01/24

APPROVAL CERTIFICATE

PLANNING _____ INITIALS/DATE
OWNER _____ INITIALS/DATE
LESSEE (IF APPLICABLE) _____ INITIALS/DATE

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN
LIGHTING DETAILS

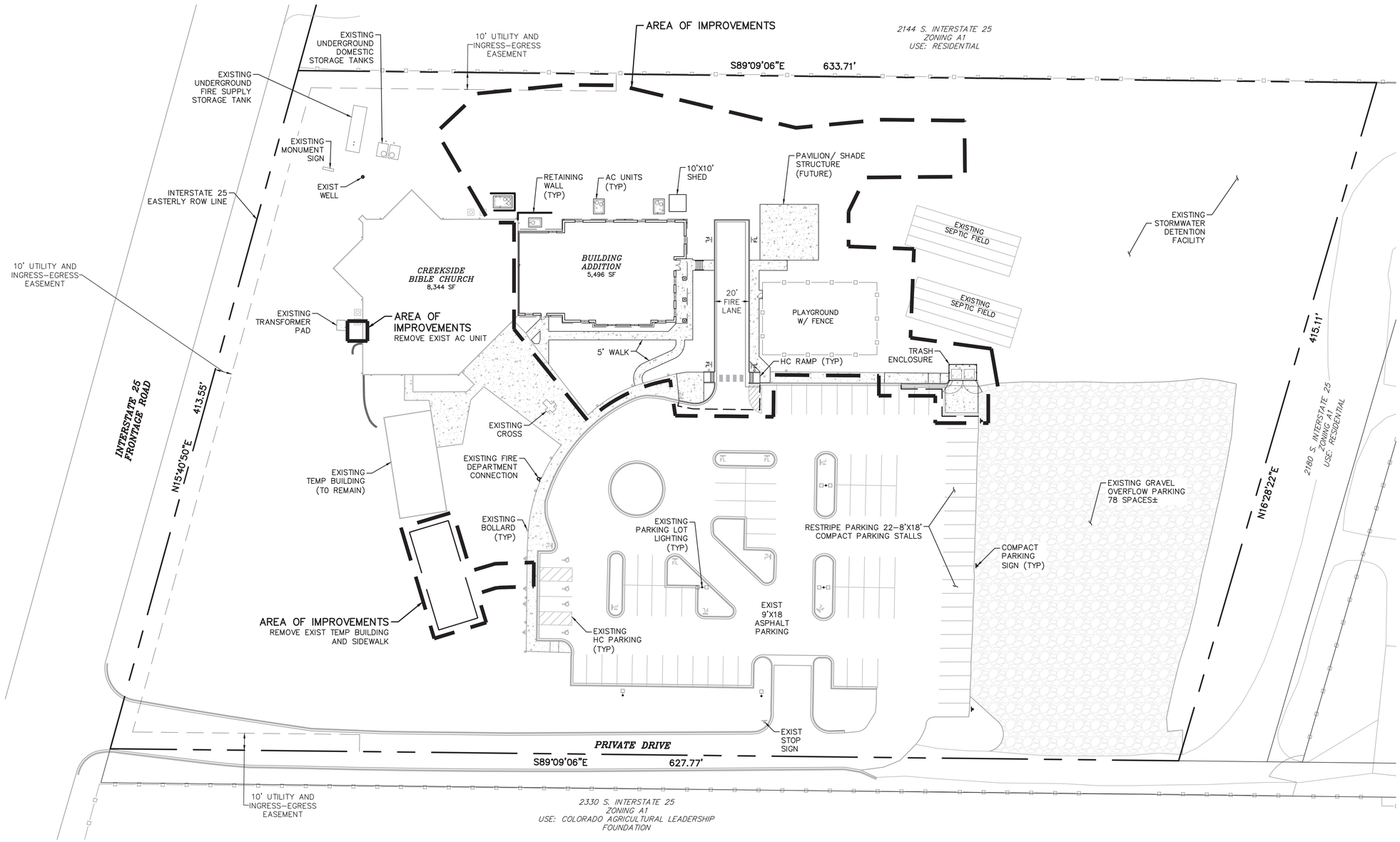
No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	08/26/24	JC
3	3RD SUBMITTAL	09/30/24	JC
4	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
SAN	SANITARY SEWER	
ST	STORM SEWER	
WAT	WATER LINE	
ELE	UNDERGROUND ELECTRIC	
COM	COMMUNICATIONS	
FO	FIBER OPTICS	
GAS	GAS LINE	
	FIRE HYDRANT	
SS	SANITARY MANHOLE	
D	STORM MANHOLE	
	LIGHT POLE	
X	FENCE	
	SIGN	
	FIRE LANE SIGN	
	PROPERTY PIN	
	CONCRETE	



30 15 0 30 60
SCALE 1"= 30'

CKE Engineering assumes no responsibility for utility locations. The utilities shown on this drawing have been plotted from the best available information. It is, however, the contractors responsibility to field verify the location of all utilities prior to the commencement of any construction.

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED PROFESSIONAL ENGINEER
33392
11/05/24

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25

CONSTRUCTION DOCUMENTS
OVERALL SITE PLAN

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

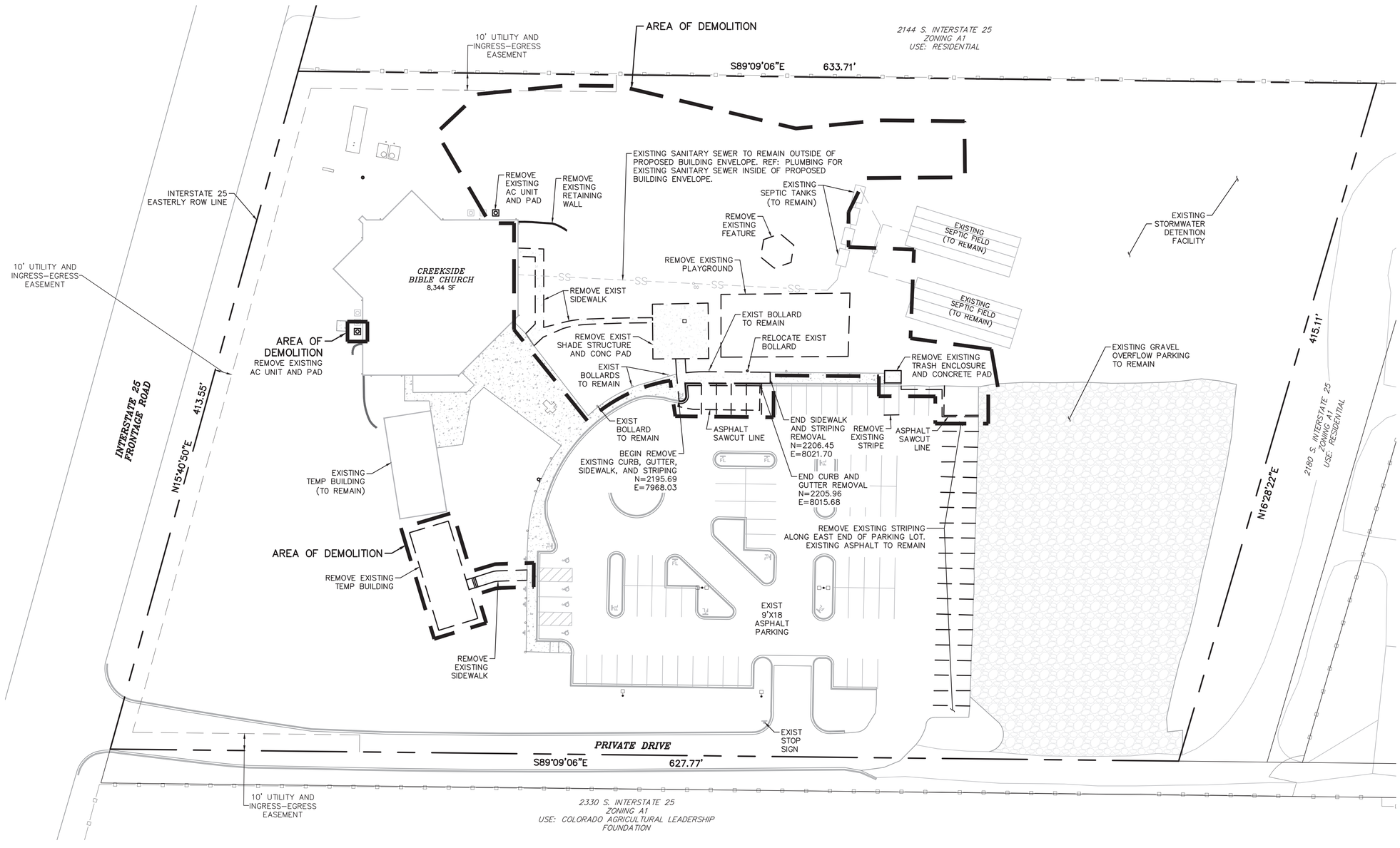
Sheet Number:
C1.0

NOTES:

1. EXISTING ITEMS TO BE DEMOLISHED ARE SHOWN BOLD AND DASHED. EXISTING ITEMS TO REMAIN ARE SHOWN SCREENED.
2. SAWCUT ASPHALT TO BE REMOVED. REMOVE CONCRETE TO THE NEAREST JOINT.
3. REMOVE ASPHALT MIN 2LF FROM PROPOSED CURB AND GUTTER OR PROPOSED CONCRETE IMPROVEMENTS.
4. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FROM PLANS.

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
SAN	SANITARY SEWER	
ST	STORM SEWER	
WAT	WATER LINE	
ELE	UNDERGROUND ELECTRIC	
COM	COMMUNICATIONS	
FO	FIBER OPTICS	
GAS	GAS LINE	
	FIRE HYDRANT	
SS	SANITARY MANHOLE	
D	STORM MANHOLE	
	LIGHT POLE	
X	FENCE	
	SIGN	
	FIRE LANE SIGN	
	PROPERTY PIN	
	CONCRETE	



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COLORADO REGISTERED 33392 11/05/24 PROFESSIONAL ENGINEER

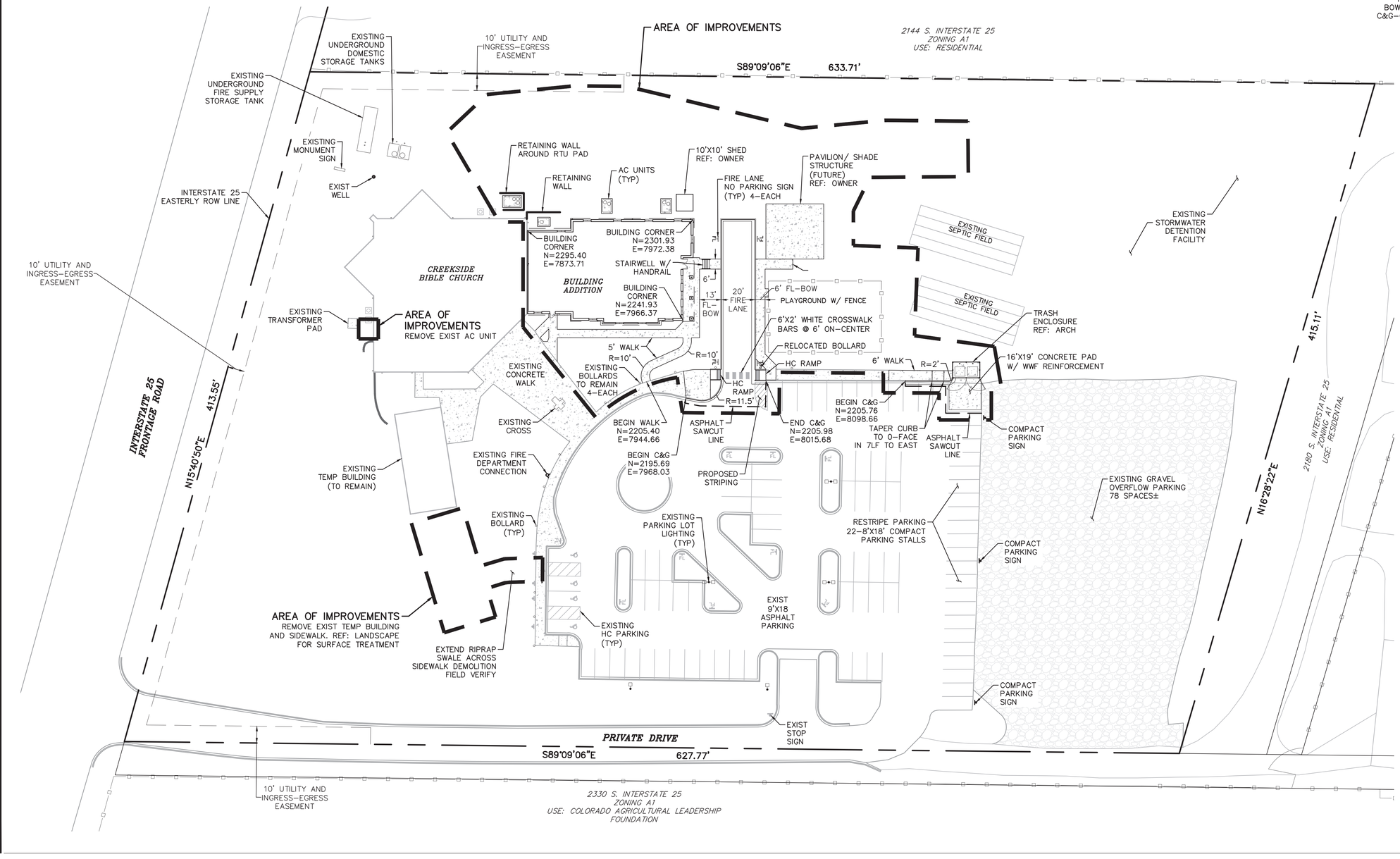
CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25

CONSTRUCTION DOCUMENTS
DEMOLITION PLAN

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:
C2.0



ASPHALT OR CONCRETE ON EXCAVATED/ PREPARED SUB-GRADE PER OWNERS APPROVED SOILS REPORT OR GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

PAVEMENT SECTION

NOTES:

1. ALL DIMENSIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
2. 1' GUTTER DENOTES SPILL CURB; 2' GUTTER DENOTES CATCH CURB.
3. REFERENCE SHEET C4.0 AND C4.1 FOR SITE DETAILS.
4. SIDEWALKS SHALL BE MIN 4" THICK WITH A MAXIMUM 2% CROSS-SLOPE.
5. OVEREXCAVATE, SCARIFY SUBGRADE SOILS, MOISTURE CONDITION AND COMPACT PER GEOTECHNICAL ENGINEER FOR ALL EXTERIOR FLATWORK.
6. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FROM PLANS.
7. SAWCUT EXISTING ASPHALT ADJACENT TO PROPOSED PAVING. REMOVE CONCRETE TO THE NEAREST JOINT.
8. REMOVE ASPHALT MIN 2LF FROM PROPOSED CURB AND GUTTER OR CONCRETE. PATCH BACK ASPHALT TO PROPOSED IMPROVEMENTS
9. ALL SIGNAGE AND STRIPING SHALL CONFORM TO DOUGLAS COUNTY STANDARDS AND SPECIFICATIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION.

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
SAN	SANITARY SEWER	
ST	STORM SEWER	
WAT	WATER LINE	
ELE	UNDERGROUND ELECTRIC	
COM	COMMUNICATIONS	
FO	FIBER OPTICS	
GAS	GAS LINE	
	FIRE HYDRANT	
SS	SANITARY MANHOLE	
D	STORM MANHOLE	
	LIGHT POLE	
	FENCE	
	SIGN	
	FIRE LANE SIGN	
	PROPERTY PIN	
	CONCRETE	

ABBREVIATIONS:
FL-FLOW LINE
BOW-BACK OF WALK
C&G-CURB AND GUTTER

CKE Engineering assumes no responsibility for utility locations. The utilities shown on this drawing have been plotted from the best available information. It is, however, the contractors responsibility to field verify the location of all utilities prior to the commencement of any construction.

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED 33392 11/05/24 PROFESSIONAL ENGINEER

CREEKSIDE BIBLE CHURCH

2180 INTERSTATE 25

CONSTRUCTION DOCUMENTS
HORIZONTAL CONTROL PLAN

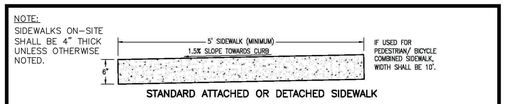
No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

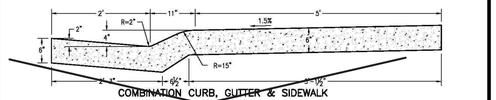
Sheet Number:

C3.0

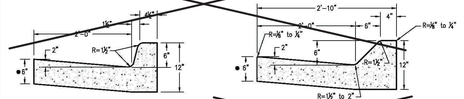
NOTE:
SIDEWALKS ON-SITE SHALL BE 4" THICK UNLESS OTHERWISE NOTED.



STANDARD ATTACHED OR DETACHED SIDEWALK

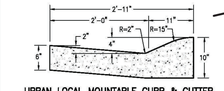


COMBINATION CURB, GUTTER & SIDEWALK

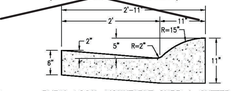


VERTICAL CURB & GUTTER

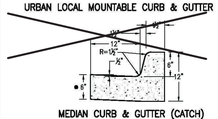
HIGH SPEED MOUNTABLE CURB & GUTTER
(DESIGN SPEED OF 35 M.P.H. OR HIGHER)



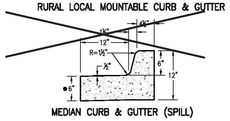
URBAN LOCAL MOUNTABLE CURB & GUTTER



RURAL LOCAL MOUNTABLE CURB & GUTTER



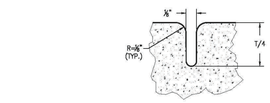
MEDIAN CURB & GUTTER (CATCH)



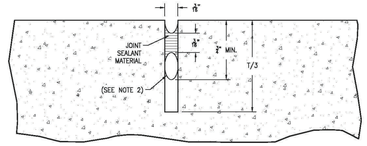
MEDIAN CURB & GUTTER (SPILL)

NOTES:
1. IF A SIDEWALK IS PLACED BEHIND THE CURB BUT IS NOT PLACED MONOLITHICALLY, EXPANSION JOINT MATERIAL AND A SILICONE BASE SEALER MUST BE APPLIED BETWEEN THE SIDEWALK AND THE CURB.
2. SEE DRAWING NUMBER SP.33a FOR DETAIL FOR TRENCH DRAIN.
3. SEE DRAWING NUMBER SP.31 AND SP.32 FOR CONCRETE JOINTS.
- GUTTER THICKNESS SHALL BE INCREASED TO MATCH CONCRETE PAVEMENT THICKNESS

APPROVED BY DOUGLAS COUNTY	CURB & GUTTERS AND SIDEWALKS	Issued: 05/2013
Janet Herman		Revised: 10/2021
JANET HERMAN, P.E. DIRECTOR OF PUBLIC WORKS ENGINEERING	DOUGLAS COUNTY COLORADO	Drawing No. **SP.17**
DATE 10/1/2021		

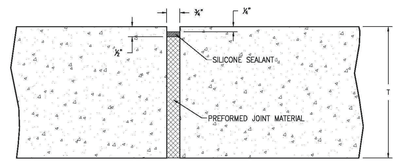


CONTRACTION OR WEAKEN PLANE JOINT
N.T.S.



NOTE: WASH & BLOW OUT WITH FORCED AIR UNTIL DRY BEFORE APPLYING SEALANT MATERIAL.

SAWED JOINT
N.T.S.



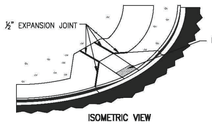
EXPANSION JOINT
N.T.S.

NOTES:
1. JOINT SEALANT MATERIAL MUST BE ON CDOT APPROVED PRODUCTS LIST.
2. ⅜" DIA. BACKER ROD.

APPROVED BY DOUGLAS COUNTY	CONCRETE JOINTS	Issued: 05/2013
Janet Herman		Revised: 07/2020
JANET HERMAN, P.E. DIRECTOR OF PUBLIC WORKS ENGINEERING	DOUGLAS COUNTY COLORADO	Drawing No. **SP.31**
DATE 06/18/2021		

CURB RAMP GENERAL NOTES:

1. IN ACCORDANCE WITH CRS43-2-107(2), ADA COMPLIANT CURB RAMPS SHALL BE PROVIDED AT ALL PEDESTRIAN CROSSINGS AND AT PUBLIC TRANSPORTATION STOPS WHERE WALKWAYS INTERSECT A CURB. THESE LOCATIONS USUALLY INCLUDE, BUT ARE NOT LIMITED TO STREET CROSSINGS AT INTERSECTIONS AND AT DESIGNATED MID-BLOCK LOCATIONS.
2. THE FOLLOWING CURB RAMP TYPES ARE GENERAL REPRESENTATIONS. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT), M STANDARD PLANS, LATEST EDITION PROVIDE ADDITIONAL ACCEPTABLE DETAILS. SEE DETAILED RAMP LAYOUTS ON THE PLANS FOR CONSTRUCTION.
3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF DOUGLAS COUNTY.
4. SIDEWALKS SHALL BE RAMPED WHERE A DRIVEWAY IS EXTENDED ACROSS THE WALK.
5. DETAILS SHOWN IN THE PLAN SHALL APPLY TO ALL CONSTRUCTION OR RECONSTRUCTION OF STREETS, CURBS OR SIDEWALKS PER CURB RAMP DETAILS.
6. IN NEW CONSTRUCTION, RAMP AND CURB MAY BE POURED MONOLITHICALLY.
7. RAMP AND WINGS SHALL BE POURED MONOLITHICALLY.
8. MINIMUM WIDTH OF RAMPS SHALL BE 4 FEET AND RAMP SLOPES SHALL NOT BE STEEPER THAN 7.5%.
9. MAINTAIN BACK OF WALK ELEVATION AT 1.5% SLOPE FROM TOP OF CURB.
10. CONCRETE FOR SIDEWALK RAMPS SHALL BE CLASS "D".
11. A ½" EXPANSION JOINT SHALL BE REQUIRED WHERE THE CONCRETE RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
12. DRAINAGE STRUCTURES SHALL NOT BE PLACED IN LINE WITH RAMPS. LOCATION OF THE RAMP SHALL TAKE PRECEDENCE OVER LOCATION OF THE DRAINAGE STRUCTURE.



ISOMETRIC VIEW

DETECTABLE WARNING AREA NOTES

1. DETECTABLE WARNING AREAS SHALL BE INSTALLED WITHIN CURB RAMPS AT ALL SIDEWALK/STREET TRANSITIONS, AS DESCRIBED BY THE AMERICAN'S WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG), LATEST REVISION.
2. DETECTABLE WARNING DEVICES SHALL BE TRUNCATED DOME WARNING DEVICES. COLOR SHALL BE BRICK RED, TILE RED, OR OTHER EQUIVALENT COLOR TO PROVIDE COLOR CONTRAST WITH ADJACENT SURFACES, AS REQUIRED BY ADAAG SECTION 4.29.2. THE COUNTY ENGINEER MUST APPROVE THE TRUNCATED DOME WARNING AREA COLOR PRIOR TO CONSTRUCTION.
3. CONTRASTING COLOR REQUIREMENT SHALL BE MET BY TRUNCATED DOME SECTIONS AND NOT BY USE OF COLORED CONCRETE.
4. DETECTABLE WARNING SHALL BE ON CDOT'S APPROVED MATERIALS LIST. A SAMPLE OF THE DETECTABLE WARNING (TRUNCATED DOMES) TO BE USED ON THE PROJECT SHALL BE SUBMITTED TO AND ACCEPTED BY THE COUNTY ENGINEER PRIOR TO CONSTRUCTION.
5. ALL DETECTABLE WARNING AREAS SHALL START A MINIMUM OF 6 INCHES AND A MAXIMUM OF 5 FEET FROM THE FLOW LINE OF THE CURB UNLESS INSTALLED AT CUT-THROUGH REFUGE ISLANDS, IN WHICH CASE THE DWA WILL START AT THE EDGE OF THE ISLAND. ALL DETECTABLE WARNING AREAS SHALL BE 24 INCHES IN LENGTH AND COVER THE COMPLETE WIDTH OF THE RAMP AREA ONLY.
6. SURFACE APPLIED TRUNCATED DOME PANELS ARE ONLY ALLOWED ON PRE-EXISTING CURB RAMPS AND ARE NOT ALLOWED IN NEW CONSTRUCTION.

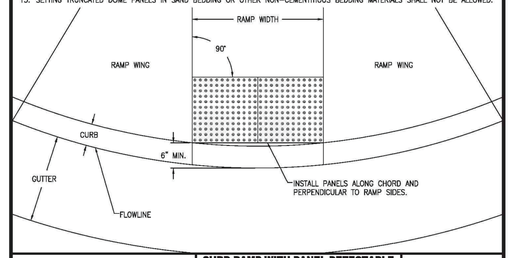
APPROVED BY DOUGLAS COUNTY	CURB RAMP & DETECTABLE WARNING AREA NOTES	Issued: 05/2013
Janet Herman		Revised: 05/2021
JANET HERMAN, P.E. DIRECTOR OF PUBLIC WORKS ENGINEERING	DOUGLAS COUNTY COLORADO	Drawing No. **SP.18a**
DATE 06/18/2021		

Panel Installation Notes:

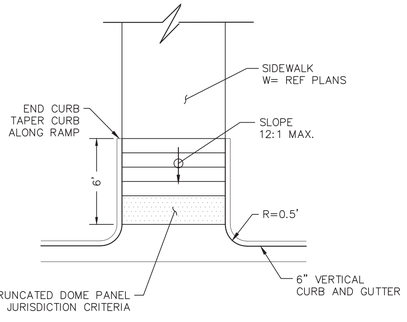
1. DETECTABLE WARNING PANELS, 24" X 24" OR 24" X 30" IN SIZE, SHALL BE PREFABRICATED REDORSH WITH TRUNCATED DOMES AND COMPLY WITH ADA REQUIREMENTS. ONLY FULL PANELS SHALL BE USED TO OBTAIN SPECIFIC RAMP THROAT WIDTH, (I.E. TWO 24" PANELS FOR A 4' RAMP, TWO 30" PANELS FOR A 5' RAMP, ETC.)
2. PRIOR TO START OF WORK, CONTRACTOR SHALL SUBMIT, TO DOUGLAS COUNTY FOR APPROVAL, A SAMPLE PANEL AND DOCUMENTATION FROM THE MANUFACTURER. PANEL SURFACE SHALL HAVE A MINIMUM OF 70% LIGHT REFLECTIVITY CONTRAST WITH THE ADJOINING SURFACE. PANELS SHALL ONLY BE SELECTED FROM THE APPROVED PRODUCT LIST BELOW:

PRODUCT NAME	MANUFACTURER	PRODUCER SUPPLIER CODE
CAST-IN-PLACE	Pioneer Detectable, LLC	GEN130004
Cast-In-Place Tactile	ADA Solutions, Inc.	GEN100123
DURALAST	Ej USA, Inc.	GEN130020
Detectable Warning Paving Slab	StoneBit Concepts	GEN100341
TekWay Dome-Tiles	StrongGo LLC	GEN100343
Tuftile Cast Iron Tile/Radius-Wedge (CIP)	Tuftile, Inc.	GEN150088

3. PANELS SHALL BE PLACED AS SHOWN, WITH DOME PATTERN IN A SQUARE GRID AND ALIGNED IN THE DIRECTION OF TRAVEL. A STEEL TEMPLATE SHALL BE USED TO ENSURE PROPER ALIGNMENT AND UNIFORM GRADE.
4. REMOVE THE PROPER AMOUNT OF CONCRETE WITHIN THE TEMPLATE FOR AN ACCURATE INSTALLATION. ONCE TO THE PROPER DEPTH, FLOAT THE AREA TO RECEIVE THE PANELS UNTIL A SMOOTH PASTE HAS DEVELOPED.
5. WET THE BACK SIDE OF EACH PANEL AND TROWEL SOME CONCRETE PASTE OR APPROVED BONDING AGENT OVER THE WET SURFACE FOR BETTER ADHERENCE.
6. SET THE FIRST PANEL ON THE FRESHLY PREPARED SURFACE. DO NOT PRESS DOWN HARD ON THE PANEL, BUT PREFERABLY TWIST FROM SIDE TO SIDE. SET PANEL WITH RUBBER MALLET TO PROPER DEPTH SO THAT THE BASE OF THE TRUNCATED DOME IS AT THE SAME ELEVATION AS THE ADJOINING RAMP SURFACE.
7. SET SUCCESSIVE PANELS WITH A TIGHT BUTT JOINT AGAINST THE PREVIOUSLY SET PANEL. PROVIDE A ¼" GAP BETWEEN PANELS.
8. FLOAT FRESH CONCRETE AROUND PANELS. FINISH AND BROOM SURROUNDING CONCRETE AS SPECIFIED. CLEAN ANY CONCRETE OFF PANELS WITH A SPONGE.
9. PROVIDE 1" DEEP TOOL JOINTS AT CORNERS OF DETECTABLE WARNING AREA, AND TOOL AROUND PANELS WITH ¼" RADIUS EDGER.
10. WHEN CUT PANELS ARE REQUIRED, CUT SECTIONS SHALL NOT SIGNIFICANTLY IMPACT OVERALL TRUNCATED DOMES PATTERN AND CUT DOMES SHALL BE BEVELED AT A 45-DEGREE ANGLE TO CREATE A SMOOTH TRANSITION.
11. ANY PANELS THAT ARE DAMAGED DURING TRANSPORT OR INSTALLATION WILL BE REJECTED AND SHALL NOT BE INSTALLED.
12. CLEAN OUT ¼" JOINT(S) BETWEEN PANELS AND SEAL WITH EPOXY.
13. SETTING TRUNCATED DOME PANELS IN SAND BEDDING OR OTHER NON-CEMENTITIOUS BEDDING MATERIALS SHALL NOT BE ALLOWED.



	CURB RAMP WITH PANEL DETECTABLE WARNING AREA INSTALLATION	Issued: 05/2013
		Revised: 09/2017
	DOUGLAS COUNTY COLORADO	Drawing No. **SP.18b**



DIRECTIONAL HANDICAP RAMP DETAIL
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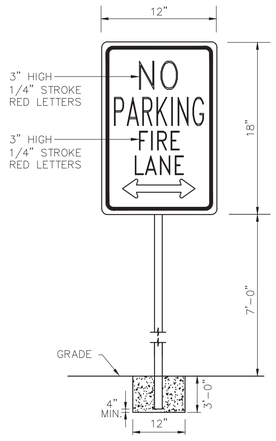
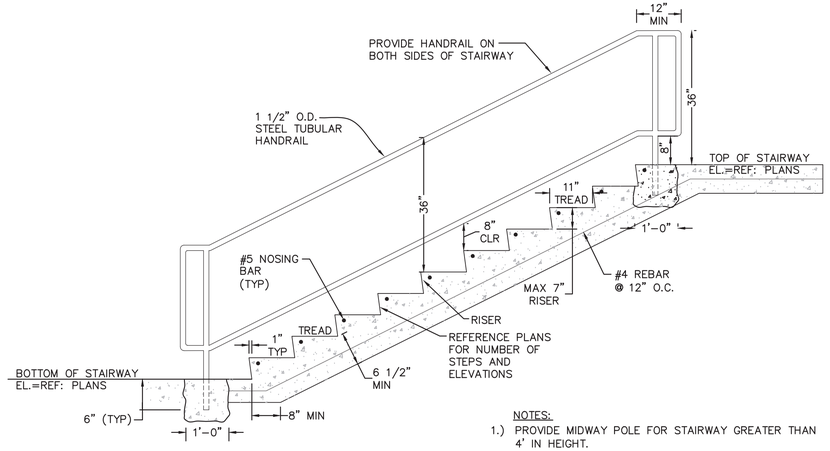


FIRE LANE SIGNAGE
N.T.S.

COMPACT CAR PARKING SIGNAGE
N.T.S.



NOTES:
1.) PROVIDE MIDWAY POLE FOR STAIRWAY GREATER THAN 4' IN HEIGHT.
2.) ALL POSTS AND RAILING SHALL BE SCHEDULE 40 HOT-DIP GALVANIZED PIPE.
3.) RAILING SHALL BE WELDED (ALL AROUND) TO POSTS AND SHARP CORNERS GROUND SMOOTH.
4.) ALL RAILING SYSTEMS SHALL HAVE A PRIMER AND FINISH COAT (3 MILS EACH) OF TYPE I, ZINC DUST/ZINC OXIDE LINSEED OIL PAINT, OR APPROVED EQUAL.
5.) COLOR BLACK UNLESS OTHERWISE NOTED BY ARCHITECT

STAIRWELL DETAIL
N.T.S.

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED 33392 11/05/24 PROFESSIONAL ENGINEER

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN
DETAIL SHEET

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	08/26/24	JC
3	3RD SUBMITTAL	09/30/24	JC
4	SUBMITTED FOR APPROVAL	11/04/24	JC

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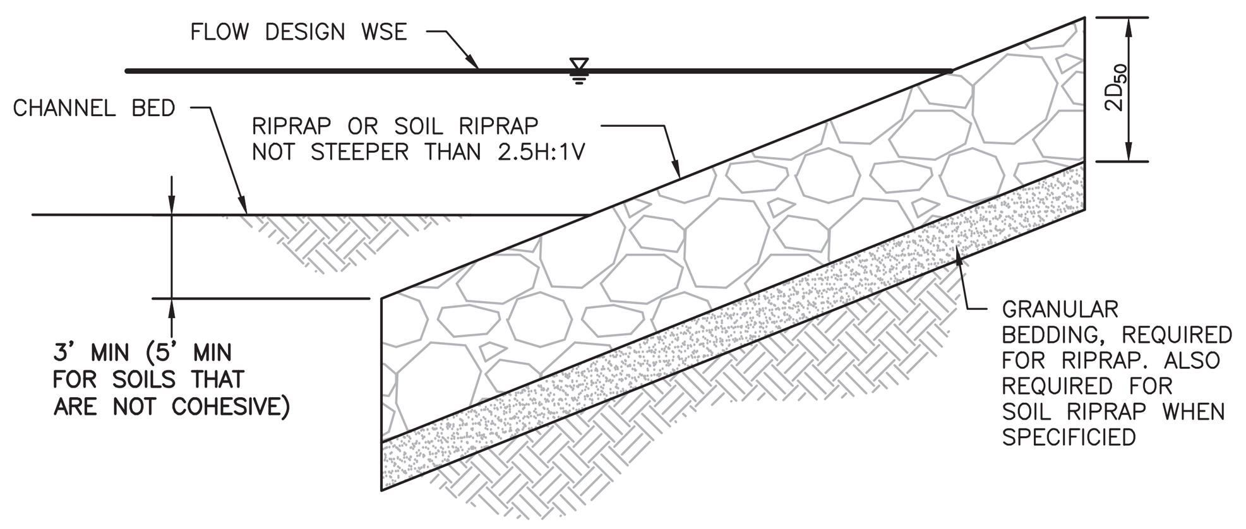


RIPRAP DESIGNATION	% SMALLER THAN GIVEN SIZE BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	D_{50}* (INCHES)
TYPE VL	70 – 100 50 – 70 35 – 50 2 – 10	12 9 6 2	6
TYPE L	70 – 100 50 – 70 35 – 50 2 – 10	15 12 9 3	9
TYPE M	70 – 100 50 – 70 35 – 50 2 – 10	21 18 12 4	12
TYPE H	70 – 100 50 – 70 35 – 50 2 – 10	30 24 18 6	18
*D_{50} = MEAN ROCK SIZE			

SOIL RIPRAP PLACEMENT AND GRADATION

SOIL RIPRAP NOTES:

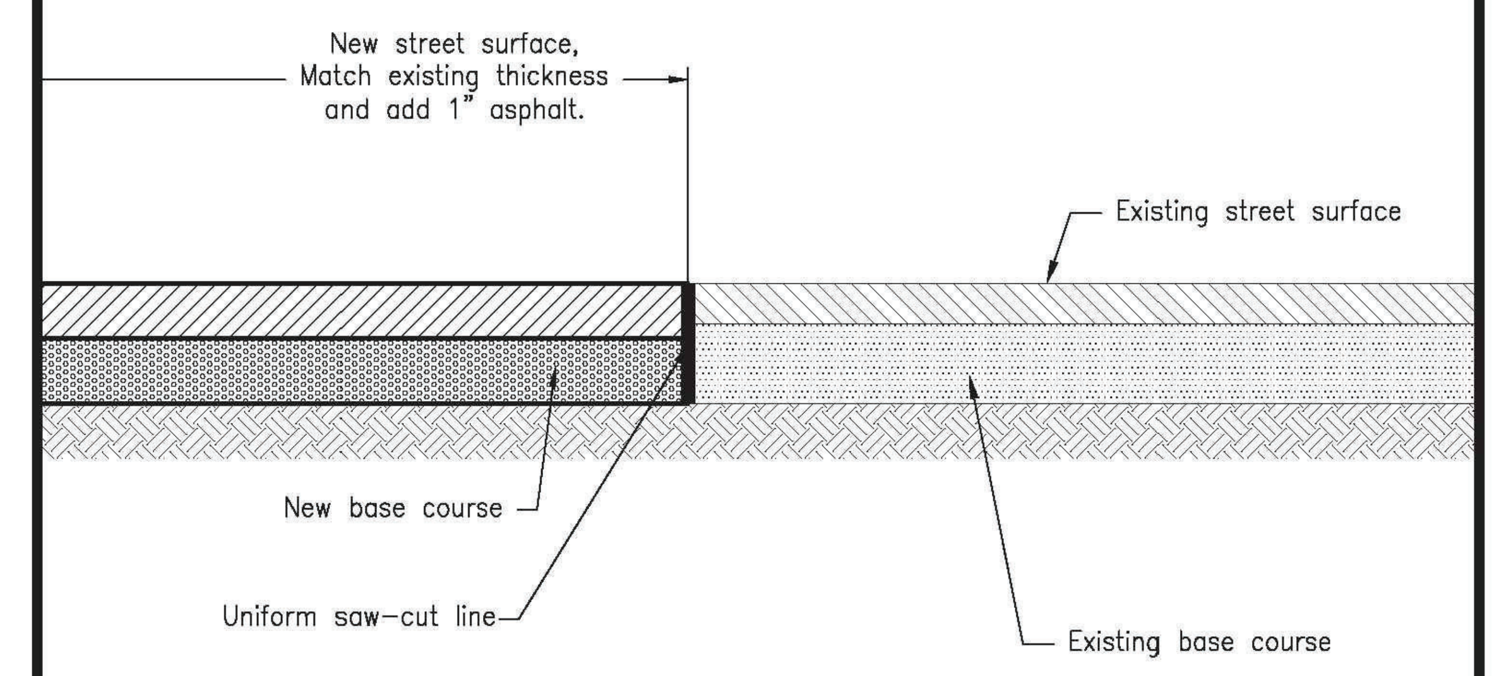
1. ELEVATION TOLERANCES FOR THE SOIL RIPRAP SHALL BE 0.10 FEET. THICKNESS OF SOIL RIPRAP SHALL BE NO LESS THAN THICKNESS SHOWN AND NO MORE THAN 2–INCHES GREATER THAN THE THICKNESS SHOWN.
2. WHERE "SOIL RIPRAP" IS DESIGNATED ON THE CONTRACT DRAWINGS, RIPRAP VOIDS ARE TO BE FILLED WITH NATIVE SOIL. THE RIPRAP SHALL BE PRE–MIXED WITH THE NATIVE SOIL AT THE FOLLOWING PROPORTIONS BY VOLUME: 65 PERCENT RIPRAP AND 35 PERCENT SOIL. THE SOIL USED FOR MIXING SHALL BE NATIVE TOPSOIL AND SHALL HAVE A MINIMUM FINES CONTENT OF 15 PERCENT. THE SOIL RIPRAP SHALL BE INSTALLED IN A MANNER THAT RESULTS IN A DENSE, INTERLOCKED LAYER OF RIPRAP WITH RIPRAP VOIDS FILLED COMPLETELY WITH SOIL. SEGREGATION OF MATERIALS SHALL BE AVOIDED AND IN NO CASE SHALL THE COMBINED MATERIAL CONSIST PRIMARILY OF SOIL; THE DENSITY AND INTERLOCKING NATURE OF RIPRAP IN THE MIXED MATERIAL SHALL ESSENTIALLY BE THE SAME AS IF THE RIPRAP WAS PLACED WITHOUT SOIL.
3. WHERE SPECIFIED (TYPICALLY AS "BURIED SOIL RIPRAP"), A SURFACE LAYER OF TOPSOIL SHALL BE PLACED OVER THE SOIL RIPRAP ACCORDING TO THE THICKNESS SPECIFIED ON THE CONTRACT DRAWINGS. THE TOPSOIL SURFACE LAYER SHALL BE COMPACTED TO APPROXIMATELY 85% OF MAXIMUM DENSITY AND WITHIN TWO PERCENTAGE POINTS OF OPTIMUM MOISTURE IN ACCORDANCE WITH ASTM D698. TOPSOIL SHALL BE ADDED TO ANY AREAS THAT SETTLE.
4. ALL SOIL RIPRAP THAT IS BURIED WITH TOPSOIL SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ANY TOPSOIL PLACEMENT.

GRADATION FOR GRANULAR BEDDING		
U.S. STANDARD SIEVE SIZE	PERCENT PASSING BY WEIGHT	
	TYPE I CDOT SECT. 703.01	TYPE II CDOT SECT. 703.09 CLASS A
3 INCHES	–	90 – 100
1½ INCHES	–	–
¾ INCHES	–	20 – 90
⅜ INCHES	100	–
#4	95 – 100	0 – 20
#16	45 – 80	–
#50	10 – 30	–
#100	2 – 10	–
#200	0 – 2	0 – 3

RIPRAP BEDDING

THICKNESS REQUIREMENTS FOR GRANULAR BEDDING			
RIPRAP DESIGNATION	MINIMUM BEDDING THICKNESS (INCHES)		
	FINE–GRAINED SOILS [1]		COARSE–GRAINED SOILS [2]
	TYPE I (LOWER LAYER)	TYPE II (UPPER LAYER)	TYPE II
VL (D_{50} = 6 IN)	4	4	6
L (D_{50} = 9 IN)	4	4	6
M (D_{50} = 12 IN)	4	4	6
H (D_{50} = 18 IN)	4	6	8
VH (D_{50} = 24 IN)	4	6	8

NOTES:
1. MAY SUBSTITUTE ONE 12–INCH LAYER OF TYPE II BEDDING. THE SUBSTITUTION OF ONE LAYER OF TYPE II BEDDING SHALL NOT BE PERMITTED AT DROP STRUCTURES. THE USE OF A COMBINATION OF FILTER FABRIC AND TYPE II BEDDING AT DROP STRUCTURES IS ACCEPTABLE.
2. FIFTY PERCENT OR MORE BY WEIGHT RETAINED ON THE #40 SIEVE.



NOTES:

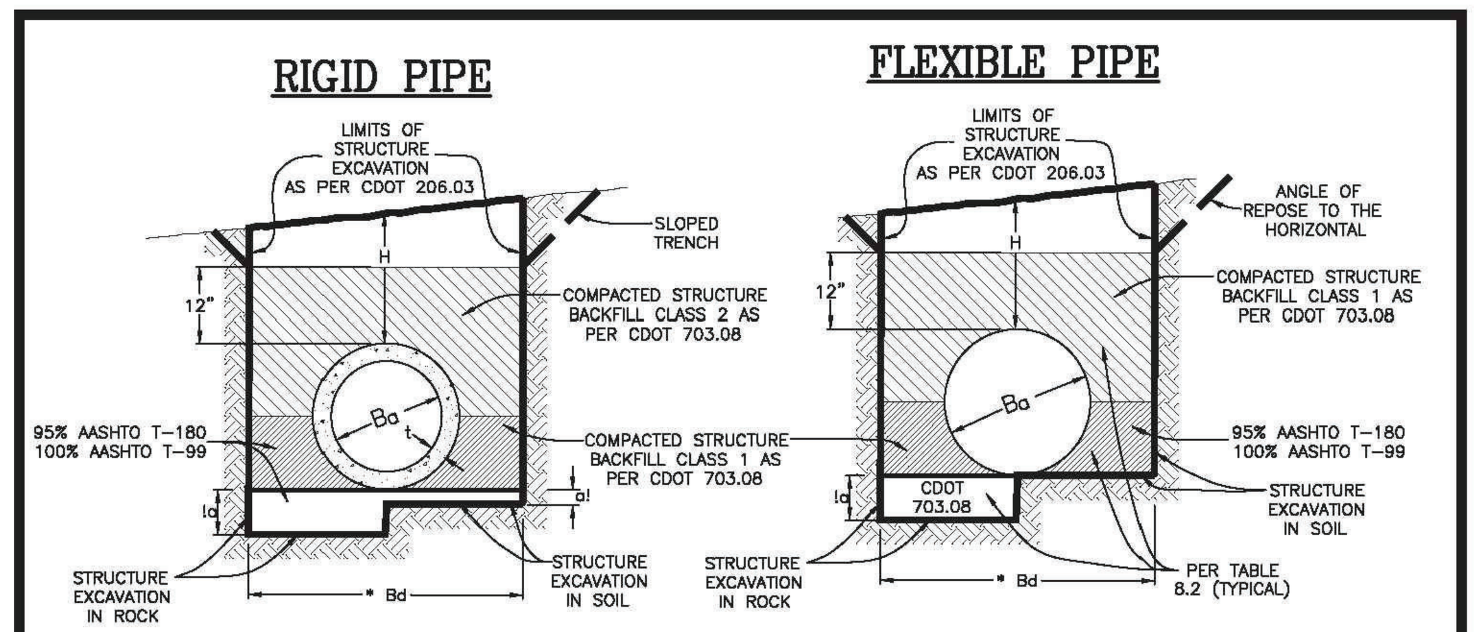
1. This Street Cut/Patching detail specifies requirements in addition to those specified in the latest edition of the Colorado Department of Transportation's Standard Specifications for Road and Bridge Construction.
2. A Construction Traffic Control Plan shall be submitted to and approved by Douglas County prior to issuance of Construction Permits in the County Right–Of–Way.
3. Pavement edges shall be saw–cut and kept to a neat vertical edge prior to paving.
4. Edges shall be tack coated prior to patching.

APPROVED BY DOUGLAS COUNTY
Janet Herman
JANET HERMAN, P.E.
DIRECTOR OF PUBLIC WORKS ENGINEERING
DATE 06/18/2021

ASPHALT STREET CUT/PATCHING

DOUGLAS COUNTY COLORADO

Issued: 05/2013
Revised: 05/2021
Drawing No. **SP.62**



MAXIMUM HEIGHT OF FILL OVER TOP OF PIPE IN FEET

REINFORCED CONCRETE

Ba in.	Min. Bd in. **	.01 INCH CRACK D–LOAD 1350 – PIPE CLASS III	2000 – IV	3000 – V
18	35	19	28	43
24	42	18	28	42
30	50	18	28	42
36	59	18	27	41
42	68	18	27	41
48	78	18	27	41
54	89	17	26	40
60	98	17	26	40
66	108	17	26	40
72	117	17	26	40
78	125	17	26	40
84	135	17	26	40
90	154	17	26	40
96	163	17	26	40
108	173	17	26	40
120	191	17	26	40
132	208	17	26	40
144	224	17	26	40

** Based on Bd=1.33(Ba+2t). Wall thickness can vary between manufacturers.

STEEL – 2 2/3" x 1/2" CORRUGATIONS

Ba in.	Bd ft.	H ABOVE TOP OF PIPE IN FEET: 1–15	16–20	21–25	26–30	31–35	36–40
		THICKNESS IN INCHES					
18–48	4–7	.064	.064	.064	.064	.064	.064
54	7.50	.079	.079	.079	.079	.079	.079
60	8.00	.079	.079	.079	.079	.109	.109
66	8.50	.079	.079	.109	.109	.138	.138
72	9.00	.079	.109	.109	.138	.168	.168
78	9.50	.109	.138	.138	.168		
84	10.00	.109	.138	.168			

LEGEND

H = Height of fill over top of pipe
Ba = inside diameter (I.D.) of pipe
* Bd = Trench Width
t = Wall thickness of pipe
CLSM = Controlled Low Strength Material
a = Loose granular bedding, as follows:
a=0" for Flexible Culverts in Soil.
a=3" for RCP Culvert in Soil.
a=12" for Culvert in Rock.

* TRENCH WIDTHS
RCP: Bd = Min. of 1.33(Ba+2t), or (Ba+2t)+12" (Per AASHTO Section 17)
CSP: Bd = Min. of Ba+4' (Per AASHTO Section 12)

! Bedding material for SOIL shall be Structural Backfill Class 1 or 2.
! Bedding material for ROCK shall be Structural Backfill Class 1.

GENERAL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS APPLICABLE TO THE PROJECT.
2. ALL TRENCH INSTALLATIONS SHALL BE IN ACCORDANCE WITH OSHA AND COLORADO DEPARTMENT OF TRANSPORTATION REGULATIONS.
3. THE USE OF NON–REINFORCED CONCRETE PIPE WILL NOT BE ALLOWED IN DOUGLAS COUNTY.

RCP DESIGN CRITERIA

Safety Factor = Per ASTM C76
Soil Weight = 120 lb. per cu. ft.
Bedding = Type 2

CSP DESIGN CRITERIA

(3"x1" CORRUGATIONS: 60 TO 84 Pipe shall be .064" thick (16 gauge) to H=40 ft.)

Soil Weight = 120 lb. per cu. ft.
Safety Factor for Seam Strength = 2.00
Bucking Stress Level = 1/2 Yield Strength
Load Factor (Backfill) = 95% Standard Density, AASHTO– T 99 (K=0.86)

ALL UTILITY REPAIRS MUST BE BACKFILLED WITH CLSM. SEE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS MANUAL FOR SPECIFIC DETAILS.

NOTE: All trenching shall comply with all State, Federal and O.S.H.A. safety requirements. It will be the responsibility of the Contractor to meet all safety requirements.

TO BE USED IN OPEN FIELDS OR PRIOR TO PAVING ROADS

APPROVED BY DOUGLAS COUNTY
Janet Herman
JANET HERMAN, P.E.
DIRECTOR OF PUBLIC WORKS ENGINEERING
DATE 06/18/2021

PIPE INSTALLATION IN TRENCH

DOUGLAS COUNTY COLORADO

Issued: 05/2013
Revised: 05/2021
Drawing No. **SP.46a**

NOTES:

1. This trench backfill detail specifies requirements in addition to those specified in the latest edition of the Colorado Department of Transportation's Standard Specifications for Road and Bridge Construction.
2. A construction traffic control plan shall be submitted to and approved by Douglas County prior to issuance of construction permits in the County right–of–way.
3. Trench shall be braced or shored as necessary for the safety of the workers and protection of other utilities or structures in accordance with applicable local, state and federal safety regulations.
4. The trench width shall be confined to those minimum dimensions, which will permit proper installation and acceptable pipe loading, as established by current local, state and federal Safety regulations.
5. Backfill compaction requirements: Minimum density will be determined in accordance with AASHTO T 99 or T 180 as defined by CDOT Standard Specifications Section 203.07 and CDOT 703.03. Except for CLSM.
6. Pavement edges shall be saw–cut. Edges shall be tack coated prior to patching.
7. All storm sewers shall be constructed so that a minimum cover is maintained to withstand AASHTO HS–20 loading on the pipe. The minimum cover to withstand live loading depends upon the pipe size, type and class, and soil bedding condition, but shall be not less than 1–foot at any point along the pipe. Other factors that affect the depth of the pipe are hydraulic grade line elevations, inlet depths, adjacent utilities or utility crossings, including water and sewer services lines along residential streets, and connections to existing storm sewer systems. The roadway subgrade, which supports the pavement section is typically plowed to a certain depth, moisture treated and compacted prior to the placement of the sub–base, base course, and surfacing. There are also instances where the subgrade material must be excavated and replaced or treated to a certain depth to mitigate swelling soils. These efforts can impact the storm sewer system if it has not been designed with adequate depth. The design engineer shall use the best information available, including pavement design or soils reports (if available) to ensure that storm sewer pipes have adequate depth.
8. Changes in design criteria will require compensating change in pipe design.
9. When pipe sewer is to be extended or replaced with pipe of different material, the connections shall conform to the detail shown on plans or be approved through Douglas County Engineering.
10. When two or more conduits are laid side–by–side, they shall be placed so that they are ½ outside diameter, or ½ outside span, or 3' apart, whichever is less. However, if end sections are used, the minimum spacing shall be 1' between the outside edge of end sections.
11. TRENCH INSTALLATION (per OSHA Standards):
    a. Trenches over 5 feet in depth shall be either shored or the trench walls shall be sloped no steeper than 3:1 to the angle of repose. If sloped, the bottom of the slope shall be a minimum of 1 foot above the top of the pipe.
    b. Shoring will be required when the bottom of the slope is more than 3 feet above the bottom of the trench.
    c. All sheeting or shoring to be removed.
12. CLSM may be used in place of Structural Backfill.
13. CLSM shall not exceed a strength over 100 p.s.i.

REFERENCE: Douglas County Drainage Manual and Colorado Department of Transportation "M" Standards.

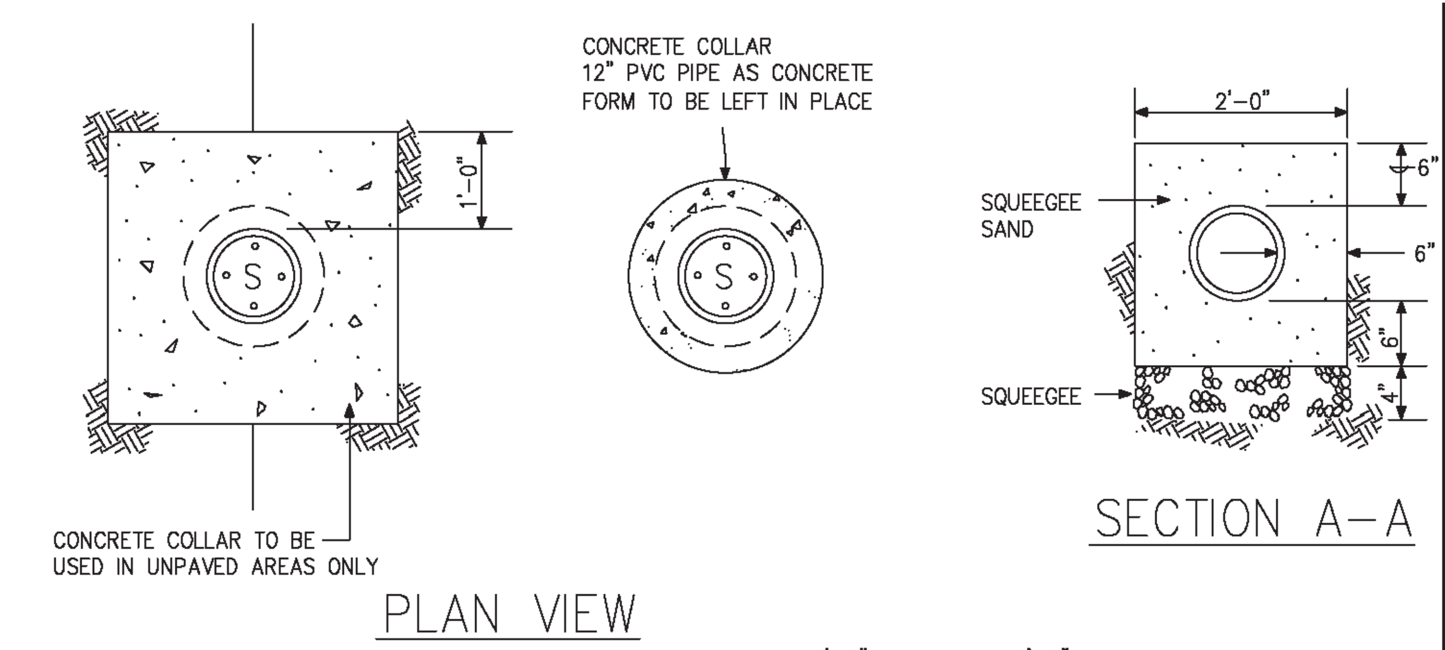
TO BE USED IN OPEN FIELDS OR PRIOR TO PAVING ROADS

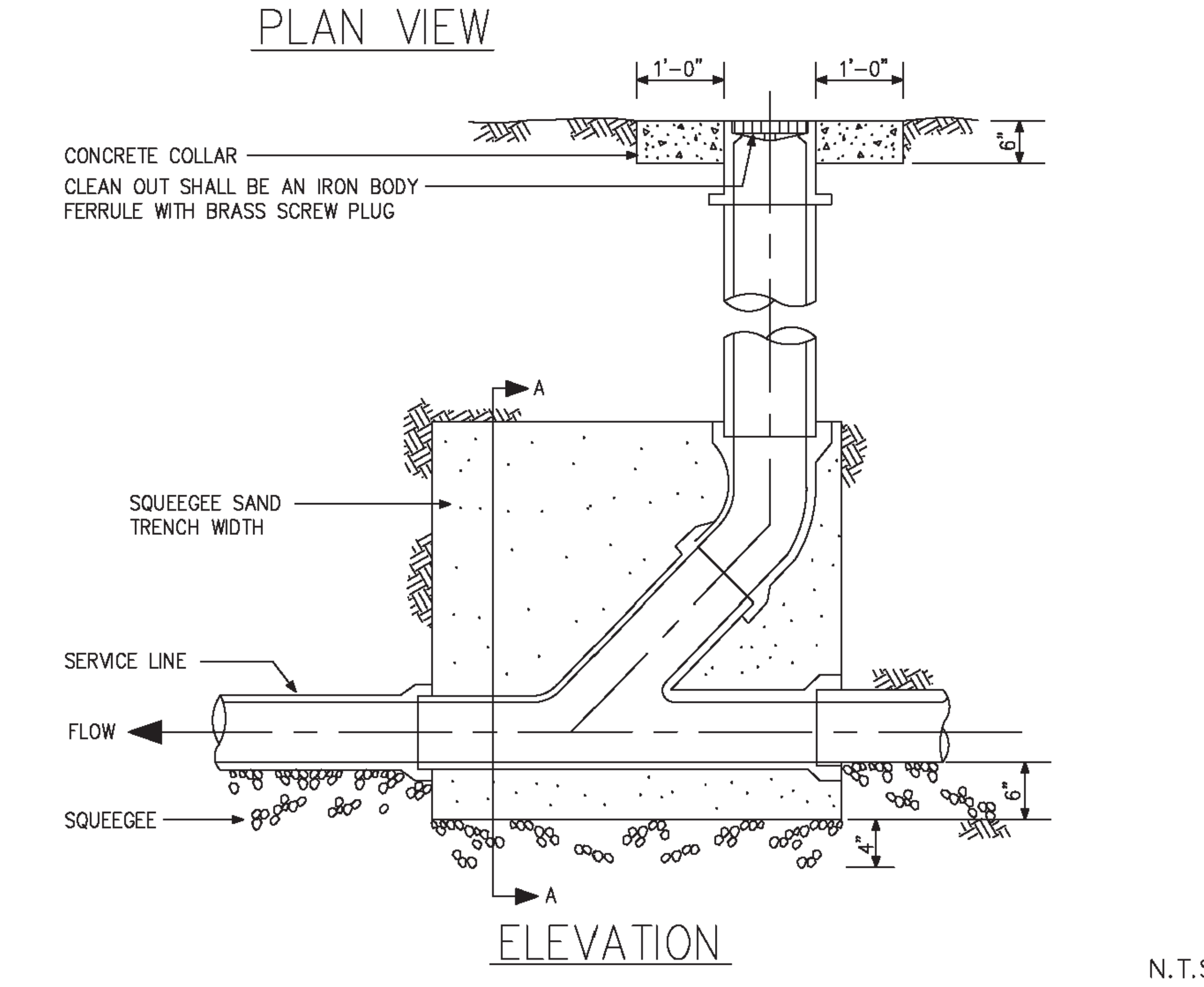
APPROVED BY DOUGLAS COUNTY
Janet Herman
JANET HERMAN, P.E.
DIRECTOR OF PUBLIC WORKS ENGINEERING
DATE 06/18/2021

PIPE INSTALLATION IN TRENCH NOTES

DOUGLAS COUNTY COLORADO

Issued: 05/2013
Revised: 05/2021
Drawing No. **SP.46b**





N.T.S.

CLEAN OUT DETAIL

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917–1757

COLORADO REGISTERED PROFESSIONAL ENGINEER
JOSEPH C. COCO
33392
11/05/24

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25
SITE IMPROVEMENT PLAN
DETAIL SHEET

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	08/26/24	JC
3	3RD SUBMITTAL	09/30/24	JC
4	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:
C4.1

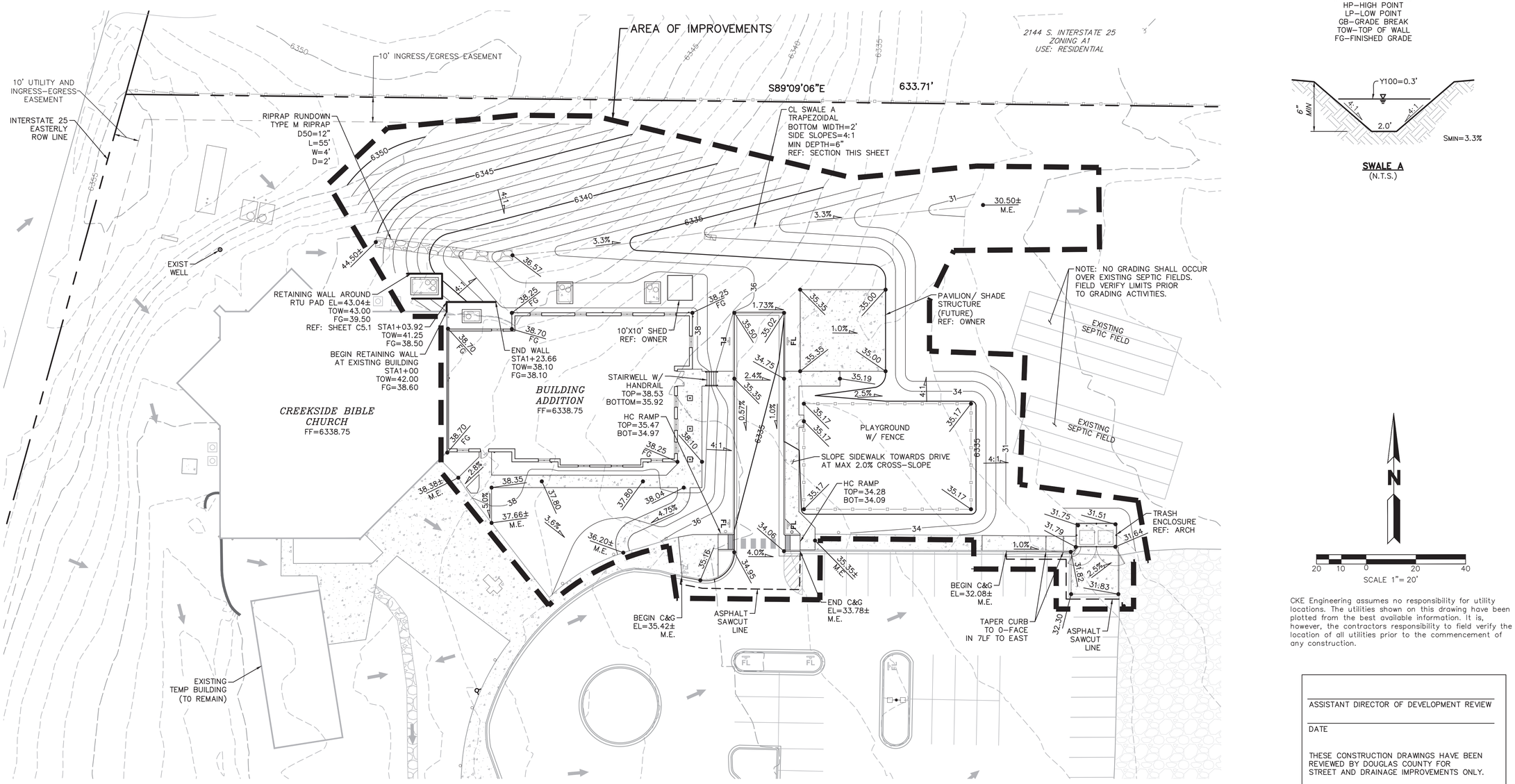
NOTES:

1. ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
2. 1' GUTTER DENOTES SPILL CURB; 2' GUTTER DENOTES CATCH CURB.
3. REFERENCE SHEETS C4.0 AND C4.1 FOR SITE DETAILS.
4. SIDEWALKS SHALL BE MIN 4" THICK WITH A MAXIMUM 2% CROSS-SLOPE.
5. OVEREXCAVATE, SCARIFY SUBGRADE SOILS, MOISTURE CONDITION AND COMPACT PER GEOTECHNICAL ENGINEER FOR ALL EXTERIOR FLATWORK.
6. SLOPE LANDSCAPE AREAS AWAY FROM BUILDING AT MIN 10% FOR 10 FEET UNLESS OTHERWISE NOTED. SLOPE PAVED AREAS AWAY FROM BUILDING AT MIN 2% UNLESS OTHERWISE NOTED. REFER TO SHEET C5.1 FOR GRADING AROUND THE BUILDING PERIMETER.
7. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FROM PLANS.
8. SAWCUT EXISTING ASPHALT ADJACENT TO PROPOSED PAVING. REMOVE CONCRETE TO THE NEAREST JOINT.
9. RETAINING WALLS ARE DESIGN/ BUILD. ELEVATIONS ARE PROVIDED TO ASSIST THE RETAINING WALL DESIGNER TO DETERMINE ELEVATIONS AND STEPS IN THE WALL. RETAINING WALL DESIGN PLANS SHALL SUPERCEDE THIS PLAN.
10. RETAINING WALL SHALL BE DRY STACK WITH TOP CAP. OBTAIN APPROVAL FORM OWNER/ ARCH FOR WALL MATERIAL/ COLOR PRIOR TO CONSTRUCTION.

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
SAN	SANITARY SEWER	
ST	STORM SEWER	
WAT	WATER LINE	
ELE	UNDERGROUND ELECTRIC	
COM	COMMUNICATIONS	
FO	FIBER OPTICS	
GAS	GAS LINE	
	FIRE HYDRANT	
SS	SANITARY MANHOLE	
D	STORM MANHOLE	
	LIGHT POLE	
	FENCE	
	SIGN	
	FIRE LANE SIGN	
	PROPERTY PIN	
	CONCRETE	

ABBREVIATIONS:
FL-FLOW LINE
EOA-EDGE OF ASPHALT
ME-MATCH EXISTING
HP-HIGH POINT
LP-LOW POINT
GB-GRADE BREAK
TOW-TOP OF WALL
FG-FINISHED GRADE



SWALE A
(N.T.S.)

CKE Engineering assumes no responsibility for utility locations. The utilities shown on this drawing have been plotted from the best available information. It is, however, the contractors responsibility to field verify the location of all utilities prior to the commencement of any construction.

ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

THESE CONSTRUCTION DRAWINGS HAVE BEEN REVIEWED BY DOUGLAS COUNTY FOR STREET AND DRAINAGE IMPROVEMENTS ONLY.

ENGINEERING DIVISION ACCEPTANCE BLOCK

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED 33392 PROFESSIONAL ENGINEER 11/05/24

CREEKSIDE BIBLE CHURCH
2180 INTERSTATE 25

CONSTRUCTION DOCUMENTS
DETAILED GRADING PLAN

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:
C5.0

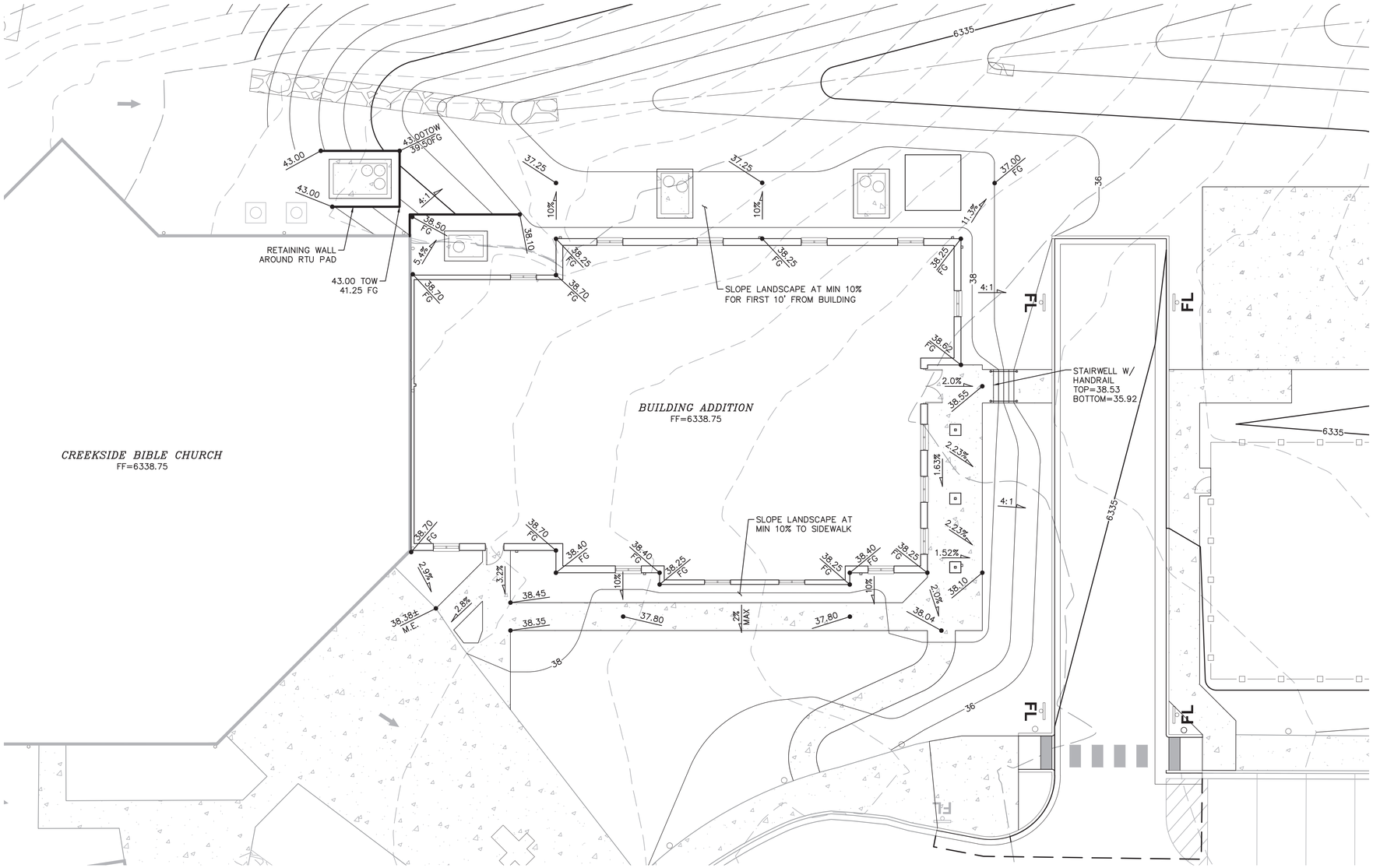
NOTES:

1. ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
2. 1' GUTTER DENOTES SPILL CURB; 2' GUTTER DENOTES CATCH CURB.
3. REFERENCE SHEETS C4.0 AND C4.1 FOR SITE DETAILS.
4. SIDEWALKS SHALL BE MIN 4" THICK WITH A MAXIMUM 2% CROSS-SLOPE.
5. OVEREXCAVATE, SCARIFY SUBGRADE SOILS, MOISTURE CONDITION AND COMPACT PER GEOTECHNICAL ENGINEER FOR ALL EXTERIOR FLATWORK.
6. SLOPE LANDSCAPE AREAS AWAY FROM BUILDING AT MIN 10% FOR 10 FEET UNLESS OTHERWISE NOTED. SLOPE PAVED AREAS AWAY FROM BUILDING AT MIN 2% UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FROM PLANS.

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
SAN	SANITARY SEWER	
ST	STORM SEWER	
WAT	WATER LINE	
ELE	UNDERGROUND ELECTRIC	
COM	COMMUNICATIONS	
FO	FIBER OPTICS	
GAS	GAS LINE	
	FIRE HYDRANT	
SS	SANITARY MANHOLE	
D	STORM MANHOLE	
	LIGHT POLE	
X	FENCE	
	SIGN	
	FIRE LANE SIGN	
	PROPERTY PIN	
	CONCRETE	

ABBREVIATIONS:
FL-FLOW LINE
EOA-EDGE OF ASPHALT
ME-MATCH EXISTING
HP-HIGH POINT
LP-LOW POINT
GB-GRADE BREAK
TOW-TOP OF WALL
FG-FINISHED GRADE


43.00
43.00 TOW 39.50 FG
43.00
4:1
38.50 FG
38.10
5.4%
38.25 FG
38.25 FG
38.70 FG
38.70 FG
RETAINING WALL AROUND RTU PAD
43.00 TOW 41.25 FG
SLOPE LANDSCAPE AT MIN 10% FOR FIRST 10' FROM BUILDING
37.25
10%
37.25
10%
6335
37.00 FG
36
11.3%
38.25 FG
38
4:1
FL
FL
38.62 FG
2.0%
38.55
STAIRWELL W/ HANDRAIL TOP=38.53 BOTTOM=35.92
BUILDING ADDITION
FF=6338.75
2.23%
1.63%
4:1
2.23%
6335
CREEKSIDE BIBLE CHURCH
FF=6338.75
SLOPE LANDSCAPE AT MIN 10% TO SIDEWALK
38.70 FG
38.70 FG
38.40 FG
38.40 FG
38.25 FG
38.25 FG
38.40 FG
38.25 FG
1.52%
2.95%
3.2%
10%
10%
38.45
2.88%
38.36± M.E.
38.35
37.80
2% MAX
37.80
38.04
2.0%
38.10
38
36
FL
FL
FL
10
5
0
10
20
SCALE 1"=10'

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ASSISTANT DIRECTOR OF DEVELOPMENT REVIEW

DATE

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ENGINEERING DIVISION ACCEPTANCE BLOCK

CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED
JOSEPH C. COCO
33392
11/05/24
PROFESSIONAL ENGINEER

CREEKSIDE BIBLE CHURCH

2180 INTERSTATE 25

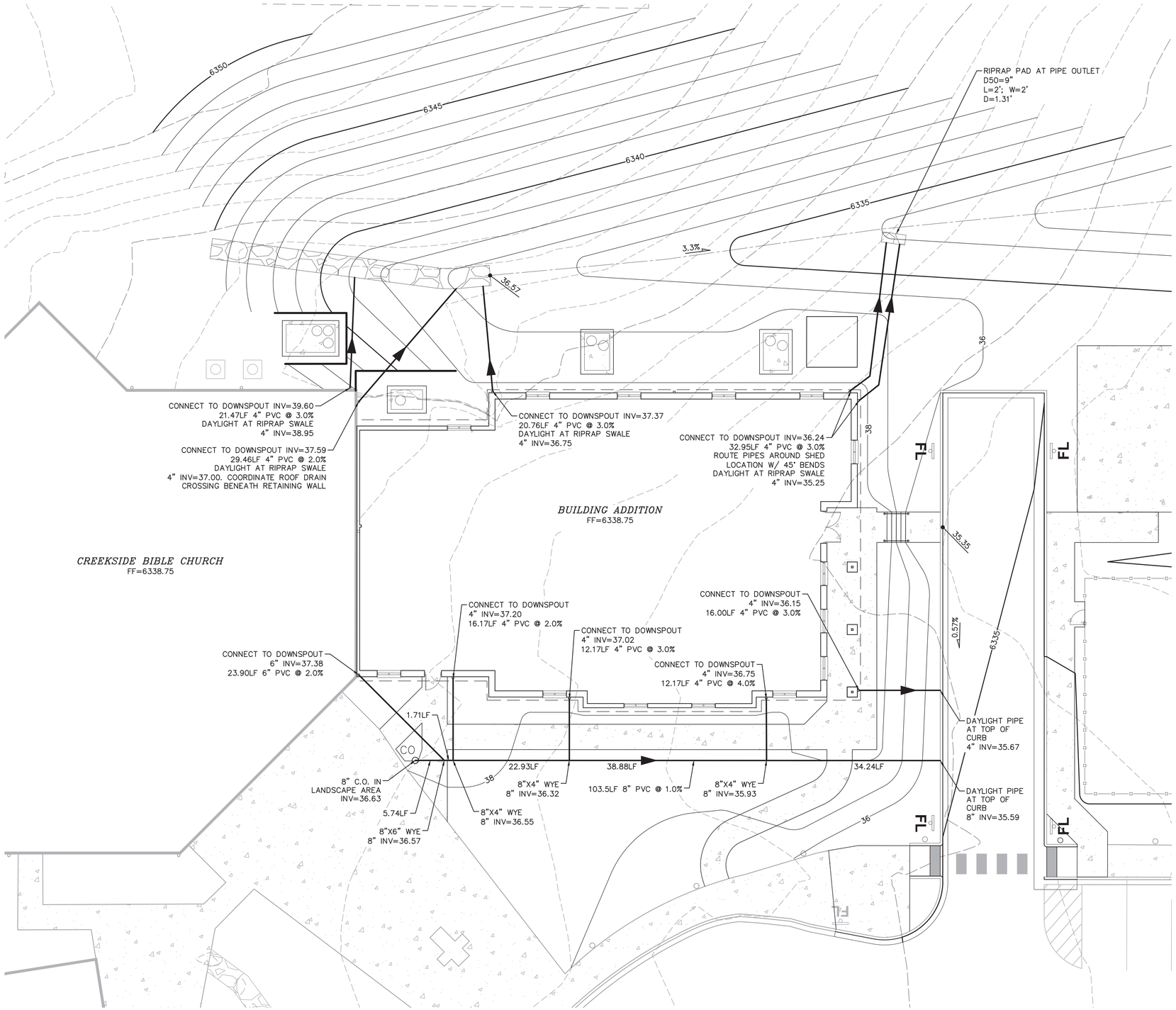
CONSTRUCTION DOCUMENTS
BUILDING PERIMETER - DETAILED GRADING

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024
Job Number:
Design By: J. COCO
Drawn By: J. COCO
Checked By: J. COCO

Sheet Number:

C5.1

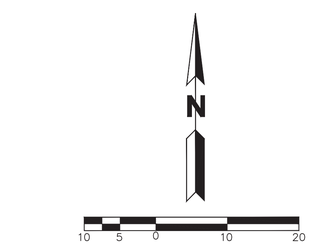


LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY	
	EASEMENT	
	CURB AND GUTTER	
5500	CONTOUR	5500
SAN	SANITARY SEWER	
ST	STORM SEWER	
WAT	WATER LINE	
ELE	UNDERGROUND ELECTRIC	
COM	COMMUNICATIONS	
FO	FIBER OPTICS	
GAS	GAS LINE	
	FIRE HYDRANT	
SS	SANITARY MANHOLE	
D	STORM MANHOLE	
	LIGHT POLE	
	FENCE	
	SIGN	
	FIRE LANE SIGN	
	PROPERTY PIN	
	CONCRETE	

NOTES:

1. ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
2. REFERENCE SHEETS C4.0 AND C4.1 FOR STORM DETAILS.
3. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FROM PLANS.
4. STORM SEWER SHALL BE SDR 35 PVC. ADS HDPE MAY BE USED IN LIEU OF PVC WITH APPROVAL FROM THE PROJECT OWNER.
5. PROVIDE RODENT SCREENS AT ALL PIPE DAYLIGHT LOCATIONS.



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CKE ENGINEERING, INC.
14257 W. EVANS CIRCLE
LAKEWOOD, CO. 80228
(303) 917-1757

COLORADO REGISTERED PROFESSIONAL ENGINEER
33392
11/05/24

CREEKSIDE BIBLE CHURCH

2180 INTERSTATE 25

CONSTRUCTION DOCUMENTS

ROOF DRAIN PLAN

No.	Description of Revisions	Date	Name
1	1ST SUBMITTAL	07/22/24	JC
2	2ND SUBMITTAL	09/30/24	JC
3	SUBMITTED FOR APPROVAL	11/04/24	JC

Date: JULY 2024

Job Number:

Design By: J. COCO

Drawn By: J. COCO

Checked By: J. COCO

Sheet Number:

C6.0