4-WAY COMMERCIAL CONSTRUCTION DOCUMENTS EL PASO COUNTY, COLORADO

JUNE 2026

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HORIZONTAL CONTROL POINTS

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1415135.852	3267991.670	6894.469	HCP
101	1416170.355	3266721.922	6918.323	HCP
102	1415597.419	3266230.288	6921.790	HCP
103	1415219.162	3265387.806	6920.060	HCP

ALL HCPS ARE 5/8" REBAR, FLUSH WITH GROUND

SITE BENCHMARK

POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
SBM84	SQUARE CUT ON CURB INLET, NORTH OF STAPLETON ROAD	6915.540	1415727.090	3266940.787

BASIS OF BEARINGS

NAD 83 COLORADO STATE PLANE, CENTRAL ZONE, GROUND COORDINATES.

LINETYPE LEGEND

- EXISTING ELECTRIC (UNDERGROUND)
- EXISTING ELECTRIC (OVERHEAD)
- PROPOSED ELECTRIC (UNDERGROUND)
- EXISTING CABLE TV (UNDERGROUND)
- EXISTING TELEPHONE (UNDERGROUND)
- EXISTING FIBER OPTIC (UNDERGROUND)
- EXISTING WATER MAIN
- PROPOSED WATER MAIN
- PROPOSED WATER SERVICE
- EXISTING STORM SEWER
- PROPOSED STORM SEWER (PRIVATE)
- EXISTING GAS (UNDERGROUND)
- PROPOSED GAS (UNDERGROUND)
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- EXISTING CENTERLINE OF TRAVELWAY
- EXISTING FENCE
- PROPOSED FENCE
- PROPOSED UTILITY EASEMENT
- SIGHT TRIANGLE

SYMBOL LEGEND

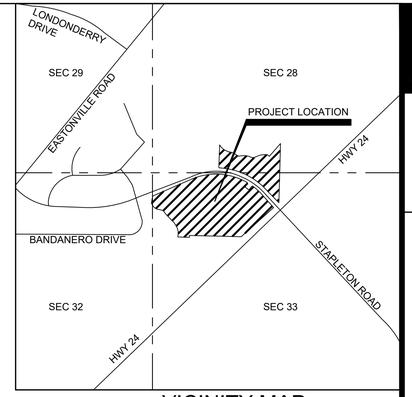
- BENCHMARK
- LIGHT POLE (EXISTING)
- POWER POLE (EXISTING)
- ELECTRIC MANHOLE (EXISTING)
- ELECTRIC PANEL (EXISTING)
- STREET SIGN (EXISTING)
- STREET SIGN (EXISTING)
- STREET SIGN (PROPOSED)
- FENCE GATE POST (EXISTING)
- STORM SEWER MANHOLE (EXISTING)
- FIRE SPRINKLER VALVE (EXISTING)
- WATER SPIGOT (EXISTING)
- WATER VALVE (EXISTING)
- FIRE HYDRANT (EXISTING)
- WATER WELL (EXISTING)
- WATER VALVE (PROPOSED)
- WATER LINE FITTING (PROPOSED)
- FIRE HYDRANT (PROPOSED)
- TREE (EXISTING)
- BOLLARD (PROPOSED)

HATCH LEGEND

- PROPOSED ASPHALT PAVEMENT
- PROPOSED ASPHALT MILLINGS
- PROPOSED CONCRETE PAVEMENT
- PROPOSED BUILDING
- PROPOSED RIPRAP
- PROPOSED GRAVEL ROAD
- PROPOSED ASPHALT PAVEMENT (FUTURE)
- WELL EASEMENT (EXISTING)
- UTILITY EASEMENT (EXISTING)
- UTILITY EASEMENT (PROPOSED)
- DRAINAGE EASEMENT (PROPOSED)
- UTILITY & DRAINAGE EASEMENT (PROPOSED)
- SIGHT TRIANGLE EASEMENT (PROPOSED)



SITE MAP
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

EL PASO COUNTY STANDARD CONSTRUCTION NOTES:

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
   A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   C. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   D. CDOT M AND S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORKS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE, AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL VOLUME 1, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.
16. EL PASO COUNTY DOES NOT OWN AND IS NOT RESPONSIBLE FOR THE UNDERDRAINS OR GROUNDWATER DISCHARGE SYSTEMS SHOWN ON THESE PLANS AND ASSUMES NO LIABILITY FOR WATER RIGHTS ADMINISTRATION BY APPROVING THESE PLANS. MAINTENANCE AND WATER RIGHTS ARE THE RESPONSIBILITY OF THE DEVELOPER AND 4-WAY RANCH COMMERCIAL METROPOLITAN DISTRICT.

DESIGN ENGINEER STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

BRETT LOUK, P.E. # 0055474 — DATE

OWNER/DEVELOPER STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS..

KEVIN O'NEIL, MANAGING PARTNER — DATE
KO1515 LLC
P.O. BOX 1385
COLORADO SPRINGS, CO 80901

EL PASO COUNTY STATEMENT

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

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

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

JOSHUA J. PALMER, P.E. — DATE
COUNTY ENGINEER/ECM ADMINISTRATOR

4-WAY RANCH METROPOLITAN DISTRICT NO. 2

THESE CONSTRUCTION DOCUMENTS HAVE BEEN REVIEWED AND APPROVED FOR SANITARY SEWER, WATER MAIN, AND ASSOCIATED UTILITY SERVICE CONSTRUCTION.

FOR AND ON BEHALF OF THE 4-WAY RANCH METRO DISTRICT NO. 2 — DATE

AGENCIES

OWNER/DEVELOPER/APPICANT:
KEVIN O'NEIL
KO1515, LLC
PO BOX 1385
COLORADO SPRINGS, CO 80901

COUNTY ENGINEERING:
EL PASO COUNTY
DEPARTMENT OF PUBLIC WORKS
3275 AKERS DRIVE
COLORADO SPRINGS, CO 80922
(719) 520-6460

CIVIL ENGINEER:
BRETT LOUK
SMH CONSULTANTS, P.A.
620 N TEJON STREET, SUITE 201
COLORADO SPRINGS, CO 80903
(719) 465-2145

METROPOLITAN DISTRICT:
4-WAY METROPOLITAN DISTRICT #2
614 N TEJON STREET
COLORADO SPRINGS, CO 80903
(719) 447-1777

SURVEYOR:
TIM SLOAN
SMH CONSULTANTS, P.A.
620 N TEJON STREET, SUITE 201
COLORADO SPRINGS, CO 80903
(719) 465-2145

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

COLORADO:
P: 800-922-1987

The utilities as shown on this drawing were developed from the information available. This is not implied nor intended to be the complete inventory of utilities in this area. It is the clients/contractors responsibility to verify the location of all utilities (whether shown or not) and protect said utilities from any damage.

NOTES:
1. ALL CONSTRUCTION ACTIVITIES SHALL BE COORDINATED WITH THE COUNTY OF EL PASO AND THE OWNER.

2. CONSTRUCTION METHODS AND MATERIALS NOT SPECIFIED ON THESE PLANS SHALL MEET OR EXCEED STANDARD SPECIFICATIONS OF THE COUNTY OF EL PASO.

3. ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF THE PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH, AND IN ACCORDANCE WITH, REGULATIONS OF THE AUTHORITIES CONCERNED.

4. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM APPROPRIATE REGULATORY AGENCIES (IF APPLICABLE) PRIOR TO COMMENCING WORK.

WARRANTY / DISCLAIMER:

THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER SMH CONSULTANTS NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE SMH CONSULTANTS INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON THE SITE.

SAFETY NOTICE TO CONTRACTOR:

IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

CAUTION - NOTICE TO CONTRACTOR:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST THE EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.

PCD FILE NO: PPR2347

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4-WAY COMMERCIAL
CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION DESCRIPTION	(DESCRIPTION)
REVISION DATE	00/00/000

TITLE SHEET

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 1

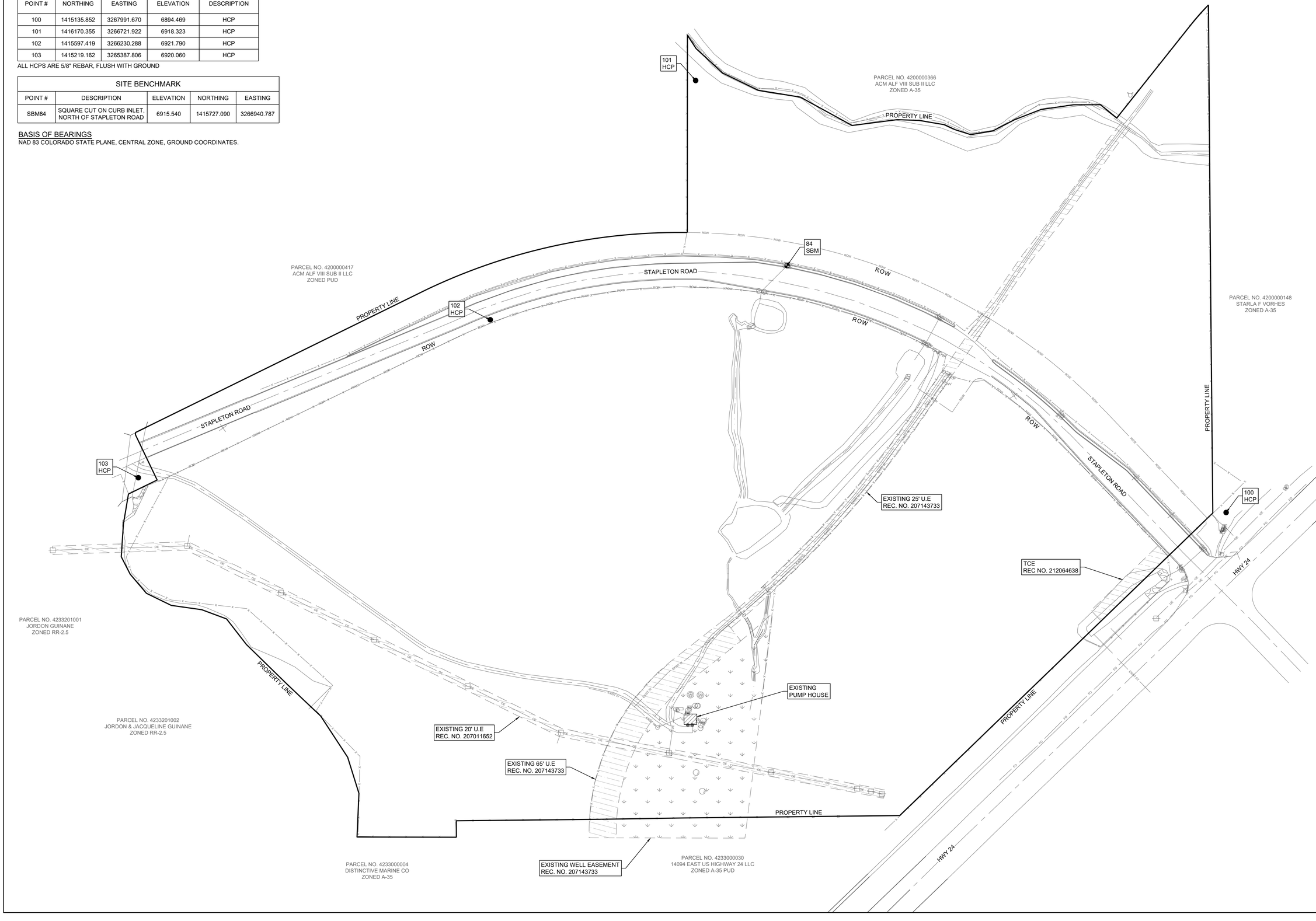
TOTAL SHEETS 48

HORIZONTAL CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1415135.852	3267991.670	6894.469	HCP
101	1416170.355	3266721.922	6918.323	HCP
102	1415597.419	3266230.288	6921.790	HCP
103	1415219.162	3265387.806	6920.060	HCP

ALL HCPS ARE 5/8" REBAR, FLUSH WITH GROUND

SITE BENCHMARK				
POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
SBM84	SQUARE CUT ON CURB INLET, NORTH OF STAPLETON ROAD	6915.540	1415727.090	3266940.787

BASIS OF BEARINGS
NAD 83 COLORADO STATE PLANE, CENTRAL ZONE, GROUND COORDINATES.



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Colorado Springs, CO
(719) 465-2145

4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION
00/00/00		(DESCRIPTION)

SURVEY CONTROL PLAN

NORTH

100' 50' 0' 100'
SCALE: 1" = 100'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 2

TOTAL SHEETS 48

NOTES:

1. ALL SOIL BROUGHT TO THE SITE, AND IN SITU, SHALL BE COMPACTED BY ROLLING WITH A SHEEPSFOOT ROLLER OR BY MECHANICAL TAMPING. THE SHEEPSFOOT ROLLER, WHEN FULLY LOADED, SHALL HAVE A LOAD ON EACH TAMPER FOOT NO LESS THAN 200 POUNDS PER SQUARE INCH OF CROSS-SECTIONAL AREA. ENOUGH MOISTURE SHALL BE PRESENT IN THE SOIL TO OBTAIN A DENSITY EQUAL TO OR GREATER THAN 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR DENSITY TEST BEFORE PLACING THE NEXT LIFT. EACH LIFT SHALL CONSIST OF 8-INCH LOOSE LIFTS OR LESS PRIOR TO COMPACTION. FILL MATERIAL SHALL BE APPROVED BY A LICENSED ENGINEER.
2. SITE SHALL BE GRADED TO DRAIN AT THE COMPLETION OF THE DEMOLITION.
3. ALL DEMOLITION DEBRIS SHALL BE REMOVED FROM THE SITE. NO ON-SITE BURYING OF DEBRIS WILL BE ALLOWED.
4. ALL HAUL SITES SELECTED FOR COLLECTION OF DEBRIS SHALL BE APPROVED BY THE OWNER/ENGINEER.
5. ANY EXISTING UTILITIES THAT ARE NOT NOTED TO BE REMOVED/RELOACTED, AND ARE DAMAGED DURING CONSTRUCTION, SHALL BE REPAIRED BY THE CONTRACTOR.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS AND APPROVALS FROM APPROPRIATE REGULATORY AGENCIES (IF APPLICABLE) PRIOR TO COMMENCING DEMOLITION AND DEBRIS REMOVAL.
7. IN LOCATIONS WHERE PROPOSED IMPROVEMENTS ARE NOT LOCATED, REMOVE STUMPS, ROOTS, AND OTHER DEBRIS PROTRUDING THROUGH GROUND SURFACE TO A DEPTH OF 24-INCHES BELOW FINISH SUBGRADE ELEVATION. IN ALL OTHER LOCATIONS, COMPLETE REMOVAL IS REQUIRED.
8. ALL TREES NOT NOTED AS BEING REMOVED ARE TO BE SAVED AND SHALL BE PROTECTED DURING CONSTRUCTION.
9. ALL STRIPPED TOPSOIL SHALL BE STOCKPILED FOR RE-USE.

LEGEND

- EXISTING FENCE TO BE REMOVED
- OE — EXISTING OVERHEAD ELECTRIC TO BE REMOVED/RELOCATED
- EXISTING DIRT/GRAVEL ROAD TO BE REMOVED
- EXISTING ASPHALT TO BE REMOVED

EXISTING POND #2 TO REMAIN (WQ ONLY)

EXISTING POND #4 TO REMAIN (STOCK POND)

EXISTING POND #3 TO REMAIN (STOCK POND)

EXISTING WATERLINES TO REMAIN (12" PVC & 8" PVC)

REMOVE ROADWAY EMBANKMENT & RE-ESTABLISH DRAINAGEWAY CONTRACTOR TO FIELD VERIFY DEPTH OF WATERLINE

REMOVE EXISTING 15" HDPE CULVERT (20 LF)

REMOVE EXISTING 15" HDPE CULVERT (20 LF)

EXISTING 10' WIDTH DIRT ACCESS ROAD

EXISTING 13' WIDTH GRAVEL ACCESS ROAD

REMOVE 392 SY OF EXISTING GRAVEL ROAD

REMOVE 9 LF OF EXISTING CURB & GUTTER

REMOVE 188 LF OF EXISTING WIRE FENCE AND METAL GATES (2)

REMOVE 77 SY OF EXISTING ASPHALT SAWCUT FULL DEPTH

REMOVE 910 SY OF EXISTING DIRT ROAD

REMOVE 645 LF OF EXISTING WIRE FENCE

REMOVE 940 LF OF EXISTING WIRE FENCE

END REMOVAL OF EXISTING FENCE

EXISTING PUMP HOUSE

REMOVE EXISTING ELECTRIC POWER POLE COORDINATE WITH MOUNTAIN VIEW ELECTRIC

REMOVE 105 LF OF EXISTING WIRE FENCE

REMOVE 100 LF OF EXISTING WIRE FENCE

REMOVE 98 LF OF EXISTING WIRE FENCE

RELOCATE APPROX. 300 LF OF EXISTING OVERHEAD ELECTRIC COORDINATE WITH MOUNTAIN VIEW ELECTRIC

REMOVE EXISTING ELECTRIC POWER POLE COORDINATE WITH MOUNTAIN VIEW ELECTRIC

REMOVE EXISTING ELECTRIC POWER POLE COORDINATE WITH MOUNTAIN VIEW ELECTRIC

REMOVE EXISTING ELECTRIC POWER POLE COORDINATE WITH MOUNTAIN VIEW ELECTRIC

TCE REC NO. 212064638

EXISTING POND #5 TO REMAIN (STOCK POND)

STAPLETON ROAD

PROPERTY LINE

HWY 24

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION
00/00/00		(DESCRIPTION)

DEMOLITION PLAN

NORTH

SCALE: 1" = 60'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 3

TOTAL SHEETS 48

EASEMENT LEGEND

- WELL EASEMENT (EXISTING)
- UTILITY EASEMENT (EXISTING)
- UTILITY EASEMENT (PROPOSED)
- DRAINAGE EASEMENT (PROPOSED)
- UTILITY & DRAINAGE EASEMENT (PROPOSED)

EXISTING OVERHEAD ELECTRIC
EXISTING 65' U.E REC. NO. 207143733
CONNECT TO EXISTING 8" WATERLINE COODINATE WITH 4-WAY METROPOLITAN DISTRICT #2
10.00' PROP. U.E.
R400.00' FIRE HYDRANT RADIUS (TYP.)
EXISTING 25' U.E REC. NO. 207143733
65.00'
25.00'
EXISTING FIRE HYDRANT
EXISTING PUMP HOUSE
EXISTING 12" WATERLINES (2) CONTRACTOR TO FIELD VERIFY EXISTING DEPTH AND LOCATION
EXISTING 20' U.E REC. NO. 207011652
20.00'
PROPOSED PUBLIC WATERLINE A (8" C900)
PROPOSED 8" C900 WATERLINE STUB
80.00' PROP. U.E & D.E.
40.00'
10.00' ℄ TO WATER (TYP.)
PROPOSED GAS STUB
PROPOSED 8" C900 WATERLINE STUB
21.00' ℄ TO GAS (TYP.)
80.00' PROP U.E & D.E.
PROPOSED 5' CDOT TYPE R CURB INLET
EXISTING CURB INLET RIM:6905.11 ℄ (IN)(N):6900.41 ℄ (OUT)(S):6899.27
EXISTING 24" RCP STORM SEWER
STAPLETON ROAD
ROW
EXISTING 24" RCP STORM SEWER
EXISTING CURB INLET RIM:6907.25 ℄ (OUT)(S):6901.25
PROPOSED GAS SERVICE COORDINATE WITH COLORADO SPRINGS UTILITIES FOR CONTINUATION
PROPOSED ELECTRIC SERVICE COORDINATE WITH MOUNTAIN VIEW ELECTRIC ASSOCIATION FOR CONTINUATION
EXISTING 25' U.E REC. NO. 207143733
DUMONT DRIVE
PROPOSED TRANSFORMER
PROPOSED FIRE HYDRANT
5.00' PROP. U.E.
100.00' EXISTING ROW
PROPOSED 12" HDPE (STORM SEWER D)
10.00' PROP. D.E.
PROPOSED PRIVATE WATERLINE B (6" C900)
PROPOSED BUILDING (3)
INSTALL ELETRIC SERVICE LINE COORDINATE WITH MEP
INSTALL 3/4" WATER SERVICE LINE AND 3/4" WATER METER COORDINATE WITH MEP
INSTALL GAS SERVICE LINE COORDINATE WITH MEP
MINI-STORAGE WAREHOUSE
24.00' PROP. D.E.
PROPOSED 6" C900 WATERLINE STUB
PROPOSED GAS STUB
PROPOSED WATER METER
PROPOSED PRIVATE WATERLINE B (6" C900)
130.00' ROW
SPEED LIMIT
10.00' PROP. U.E.
PROPOSED 6" C900 WATERLINE STUB
PROPOSED FIRE HYDRANT
PROPERTY LINE
EXISTING WELL EASEMENT REC. NO. 207143733
PROPOSED 18" HDPE (STORM SEWER A)
EXISTING OVERHEAD ELECTRIC TO BE REMOVED/RELOCATED COORDINATE WITH MOUNTAIN VIEW ELECTRIC
PROPOSED BUILDING (FUTURE)
EXTENDED DETENTION BASIN A
PROPOSED PRIVATE WATERLINE B (6" C900)
PROPOSED BUILDING (FUTURE) (4)
PROPOSED 18" HDPE (STORM SEWER C)
PROPOSED 6' BERM SEE MISC. DETAILS
PROP. D.E.
PROP. D.E.
PROPOSED 36" HDPE (STORM SEWER B)
PROPOSED BUILDING (FUTURE)
40.00'
PROPERTY LINE
EXISTING 24" RCP STORM SEWER
EXISTING 24" RCP STORM SEWER
EXISTING DUAL 36" CMP STORM SEWER
EXISTING 4'X4' RCB CULVERT
EXISTING FIBER OPTIC
EXISTING 24" RCP STORM SEWER ℄ (IN)(N):6880.64 ℄ (OUT)(S):6880.42
EXISTING 15" STEEL OVERFLOW PIPE ℄ (IN)(N):6882.29 ℄ (OUT)(S):6882.15
EXISTING CURB INLET RIM:6885.86 ℄ (OUT)(S):6882.19
EXISTING 24" STORM SEWER
EXISTING UNDERGROUND ELECTRIC
EXISTING CURB INLET RIM:6885.04 ℄ (IN)(N):6881.77 ℄ (OUT)(S):6881.04
HWY 24
HWY 24

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

UTILITY PLAN

NORTH

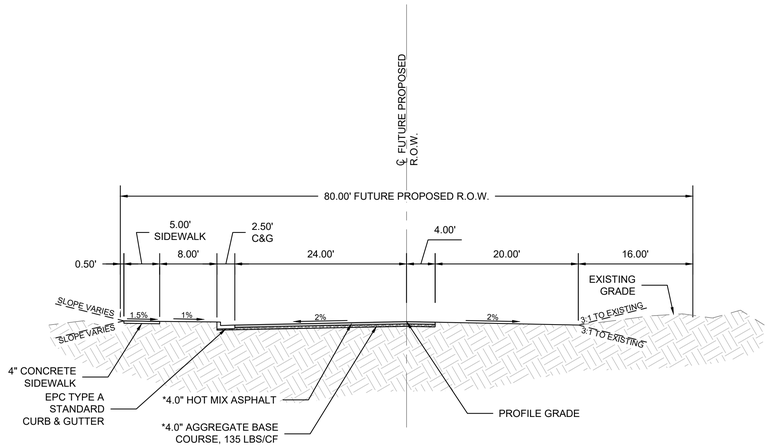
SCALE: 1" = 50'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

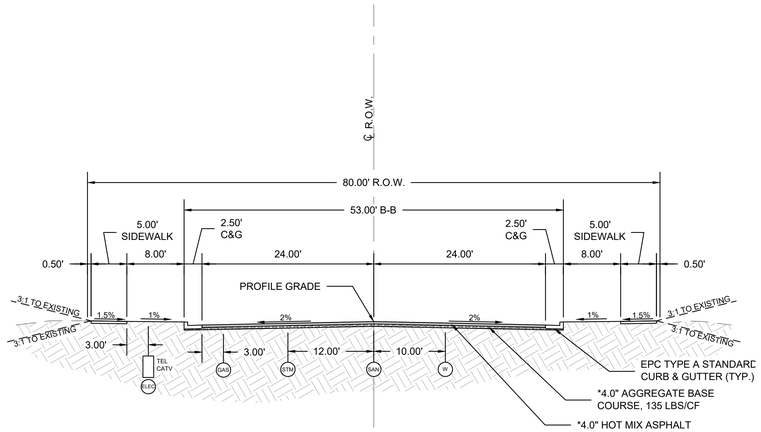
SHEET # 4

TOTAL SHEETS 48



DUMONT DRIVE INTERIM CROSS SECTION

STA:
303+64.23 TO 306+85.65
DESIGN SPEED: 40 MPH
SPEED LIMIT: 35 MPH



DUMONT DRIVE ULTIMATE CROSS SECTION (FUTURE)

(URBAN NON-RESIDENTIAL COLLECTOR)
DESIGN SPEED: 40 MPH
SPEED LIMIT: 35 MPH

NOTES:

*PAVEMENT DESIGN PRESENTED IN THESE CONSTRUCTION DOCUMENTS ARE BASED ON THE "GEOTECHNICAL AND PAVEMENT DESIGN REPORT FOR 4 WAY COMMERCIAL, PHASE 1 - STORAGE FACILITY", COMPLETED BY ENTECH ENGINEERING INC., JANUARY 10TH, 2025. THESE ARE ESTIMATES OF THE FINAL PROPOSED PAVEMENT SECTION. THE FINAL PAVEMENT DESIGN WILL BE SUBMITTED TO EL PASO COUNTY PRIOR TO APPROVAL.

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION
00/00/00	△	(DESCRIPTION)

TYPICAL SECTIONS

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 5

TOTAL SHEETS 48

ALIGNMENT CURVE TABLE										
CURVE #	PC	PT	DELTA	DEGREE OF CURVATURE	RADIUS	LENGTH	TANGENT	SECANT	CHORD LENGTH	MID-ORDINATE
C1	301+95.38	303+89.10	11°22'20"	5°52'14"	976.00'	193.72'	97.18'	4.83'	193.40'	4.80'

ALIGNMENT LINE TABLE						
SEGMENT #	LENGTH	BEARING	START STATION	END STATION	START COORDINATE	END COORDINATE
L1	195.38'	S34° 35' 28.97"W	300+00.00	301+95.38	N:1415523.25 E:3267361.99	N:1415362.41 E:3267251.07

CURB RETURN CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C2	68.06'	40.50'	96°17'07"
C3	64.02'	40.50'	90°34'23"

CURB RETURN LINE TABLE		
LINE #	LENGTH	BEARING
L3	11.30'	N54° 31' 58.92"W

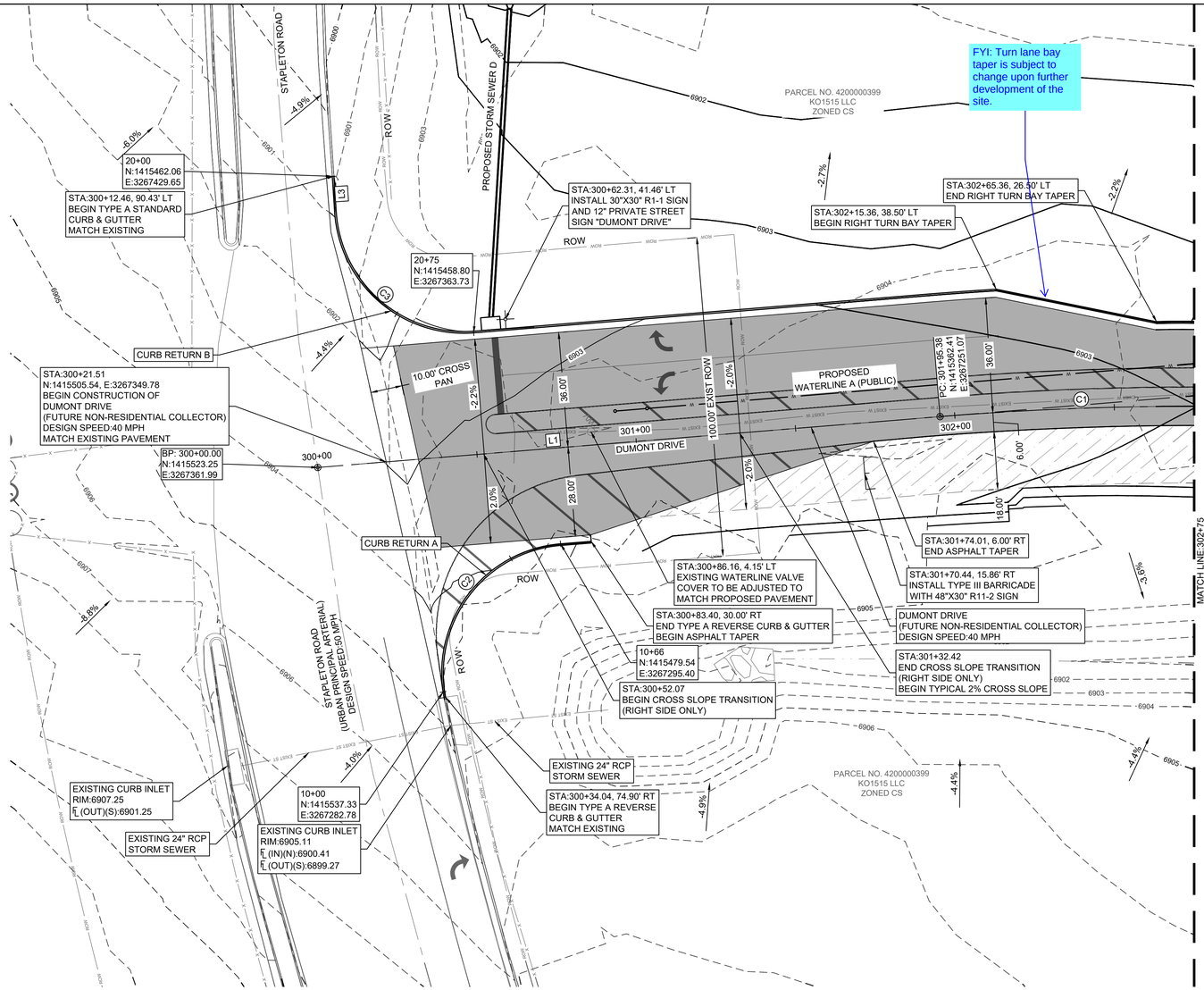
HORIZONTAL CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1415135.852	3267991.670	6894.469	HCP
101	1416170.355	3266721.922	6918.323	HCP
102	1415597.419	3266230.288	6921.790	HCP
103	1415219.162	3265387.806	6920.060	HCP

ALL HCPS ARE 5/8" REBAR, FLUSH WITH GROUND

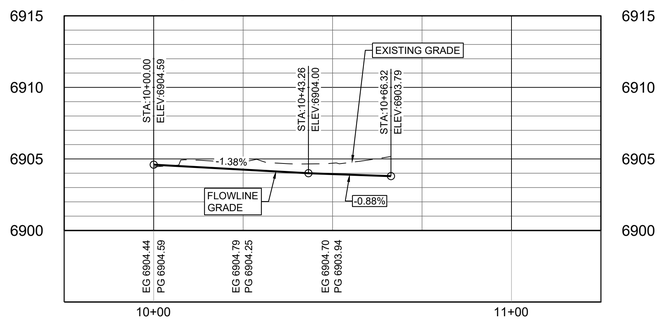
SITE BENCHMARK				
POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
SBM84	SQUARE CUT ON CURB INLET, NORTH OF STAPLETON ROAD	6915.540	1415727.090	3266940.787

NOTES:

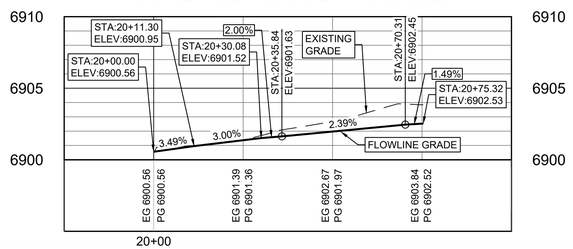
1. ALL SIGNS AND PAVEMENT MARKING DEVICES SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND EL PASO COUNTY STANDARD SPECIFICATIONS.
2. ALL SIGNS SHOWN ON THE STRIPING AND SIGNING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
3. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
4. SIGHT TRIANGLES AT THE INTERSECTION OF DUMONT DRIVE AND STAPLETON ROAD EXCEED THE MINIMUM 555' INTERSECTION SIGHT DISTANCE FOR 50 MPH DESIGN SPEED. (ECM SECTION 2.3.7.C.5)
5. DUE TO THEIR LOCATION, NO PROJECT SURVEY CONTROL POINTS CAN BE SEEN ON THIS SHEET. SEE SURVEY CONTROL PLAN FOR THE LOCATION OF ALL HORIZONTAL CONTROL AND BENCHMARK LOCATIONS.



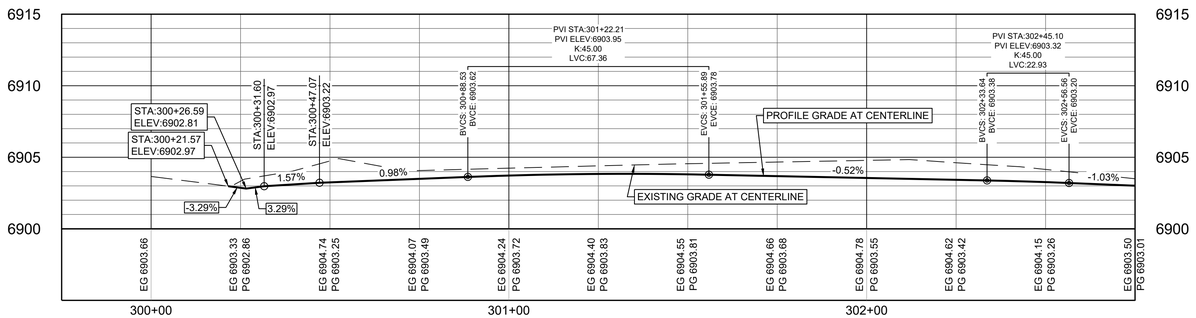
CURB RETURN A PROFILE



CURB RETURN B PROFILE



DUMONT DRIVE PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DESCRIPTION (DESCRIPTION)	
REVISION DATE	00/00/00

DUMONT DRIVE PLAN & PROFILE

NORTH

SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 6

TOTAL SHEETS 48

ALIGNMENT CURVE TABLE

CURVE #	PC	PT	DELTA	DEGREE OF CURVATURE	RADIUS	LENGTH	TANGENT	SECANT	CHORD LENGTH	MID-ORDINATE
C1	301+95.38	303+89.10	11°22'20"	5°52'14"	976.00'	193.72'	97.18'	4.83'	193.40'	4.80'

CURB RETURN CURVE TABLE

CURVE #	LENGTH	RADIUS	DELTA
C4	37.09'	25.50'	83°20'21"
C5	40.71'	25.50'	91°27'36"
C6	31.40'	25.50'	70°32'41"
C7	10.51'	5.50'	109°27'19"

NOTES:

1. ALL SIGNS AND PAVEMENT MARKING DEVICES SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND EL PASO COUNTY STANDARD SPECIFICATIONS.
2. ALL SIGNS SHOWN ON THE STRIPING AND SIGNING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
3. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
4. DUE TO THEIR LOCATION, NO PROJECT SURVEY CONTROL POINTS CAN BE SEEN ON THIS SHEET. SEE SURVEY CONTROL PLAN FOR THE LOCATION OF ALL HORIZONTAL CONTROL AND BENCHMARK LOCATIONS.

ALIGNMENT LINE TABLE

SEGMENT #	LENGTH	BEARING	START STATION	END STATION	START COORDINATE	END COORDINATE
L2	354.40'	S45° 57' 49.28"W	303+89.10	307+43.50	N:1415214.86 E:3267126.03	N:1414968.51 E:3266871.26

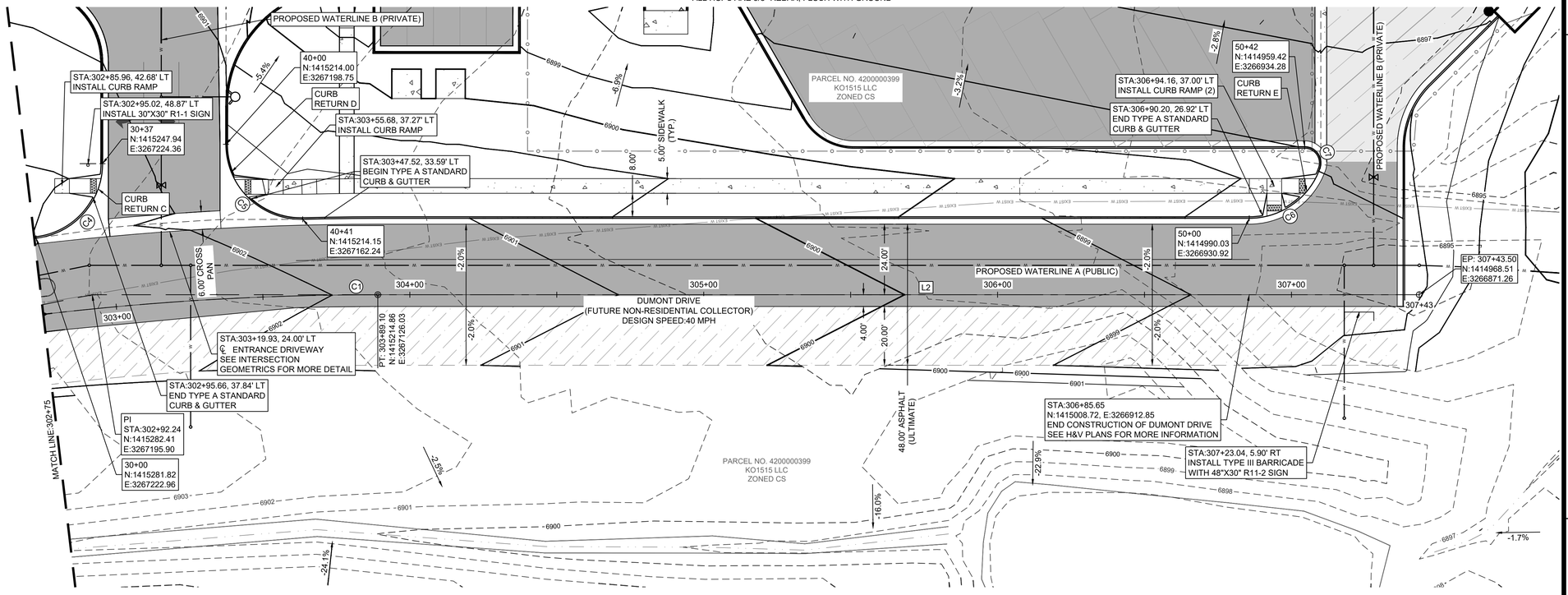
HORIZONTAL CONTROL POINTS

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1415135.852	3267991.670	6894.469	HCP
101	1416170.355	3266721.922	6918.323	HCP
102	1415597.419	3266230.288	6921.790	HCP
103	1415219.162	3265387.806	6920.060	HCP

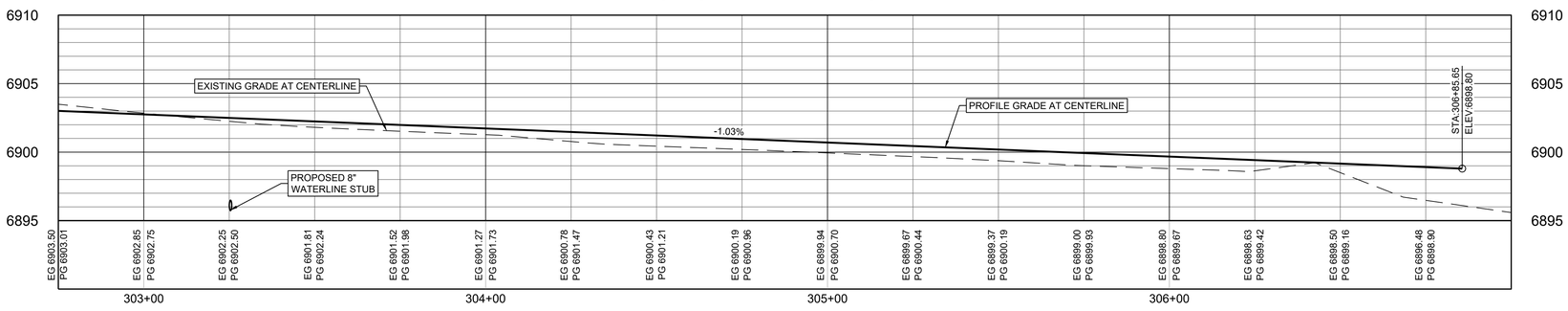
ALL HCPS ARE 5/8" REBAR, FLUSH WITH GROUND

SITE BENCHMARK

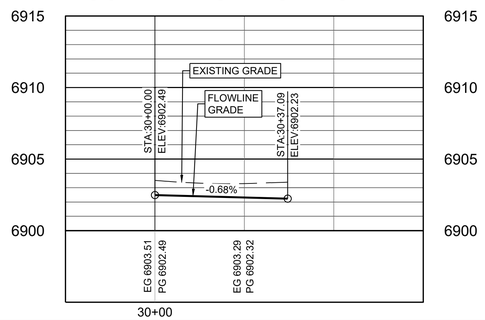
POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
SBM84	SQUARE CUT ON CURB INLET, NORTH OF STAPLETON ROAD	6915.540	1415727.090	3266940.787



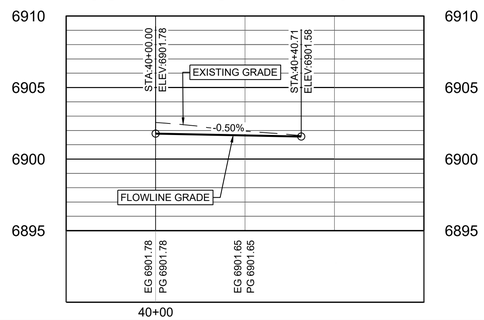
DUMONT DRIVE PROFILE



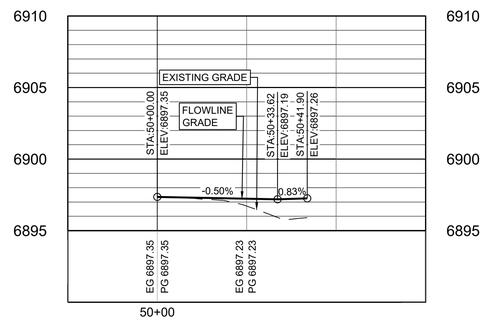
CURB RETURN C PROFILE



CURB RETURN D PROFILE



CURB RETURN E PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DESCRIPTION (DESCRIPTION)

REVISION DATE 00/00/00

DUMONT DRIVE PLAN & PROFILE

NORTH

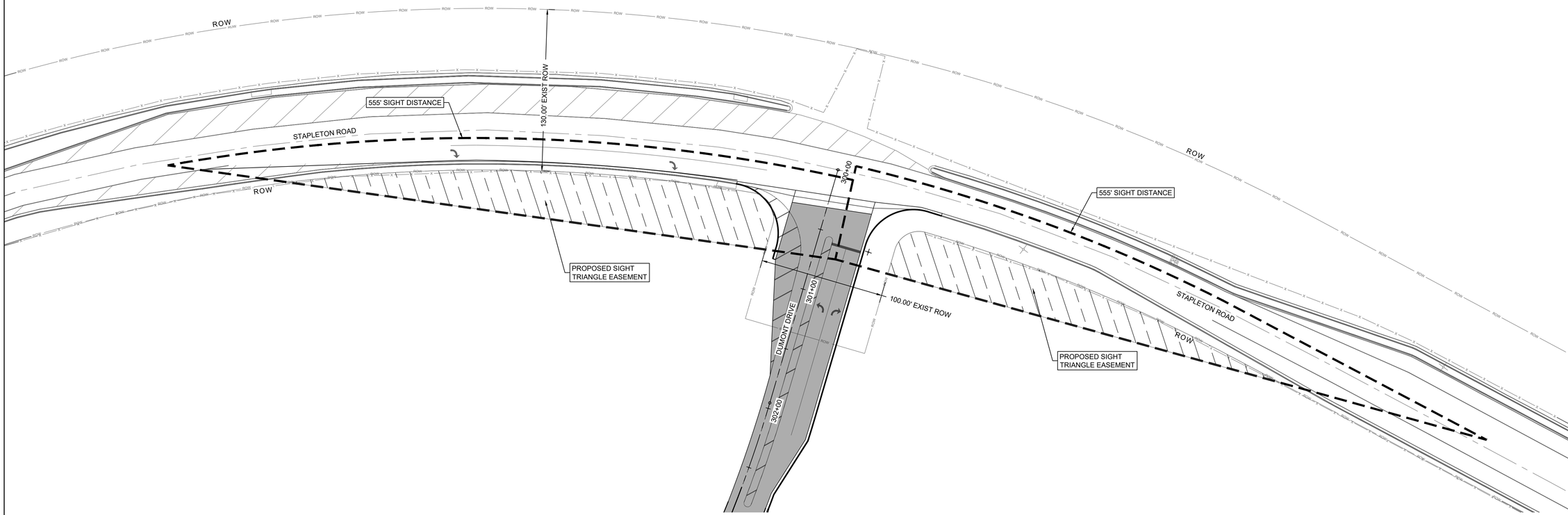
SCALE: 1" = 20'

PROJECT #: 2412-0471
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DATE: 06/11/2026

SHEET # 7

TOTAL SHEETS 48



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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DESCRIPTION	(DESCRIPTION)
△	. . . . .
REVISION DATE	00/00/00

SIGHT TRIANGLE EXHIBIT

NORTH

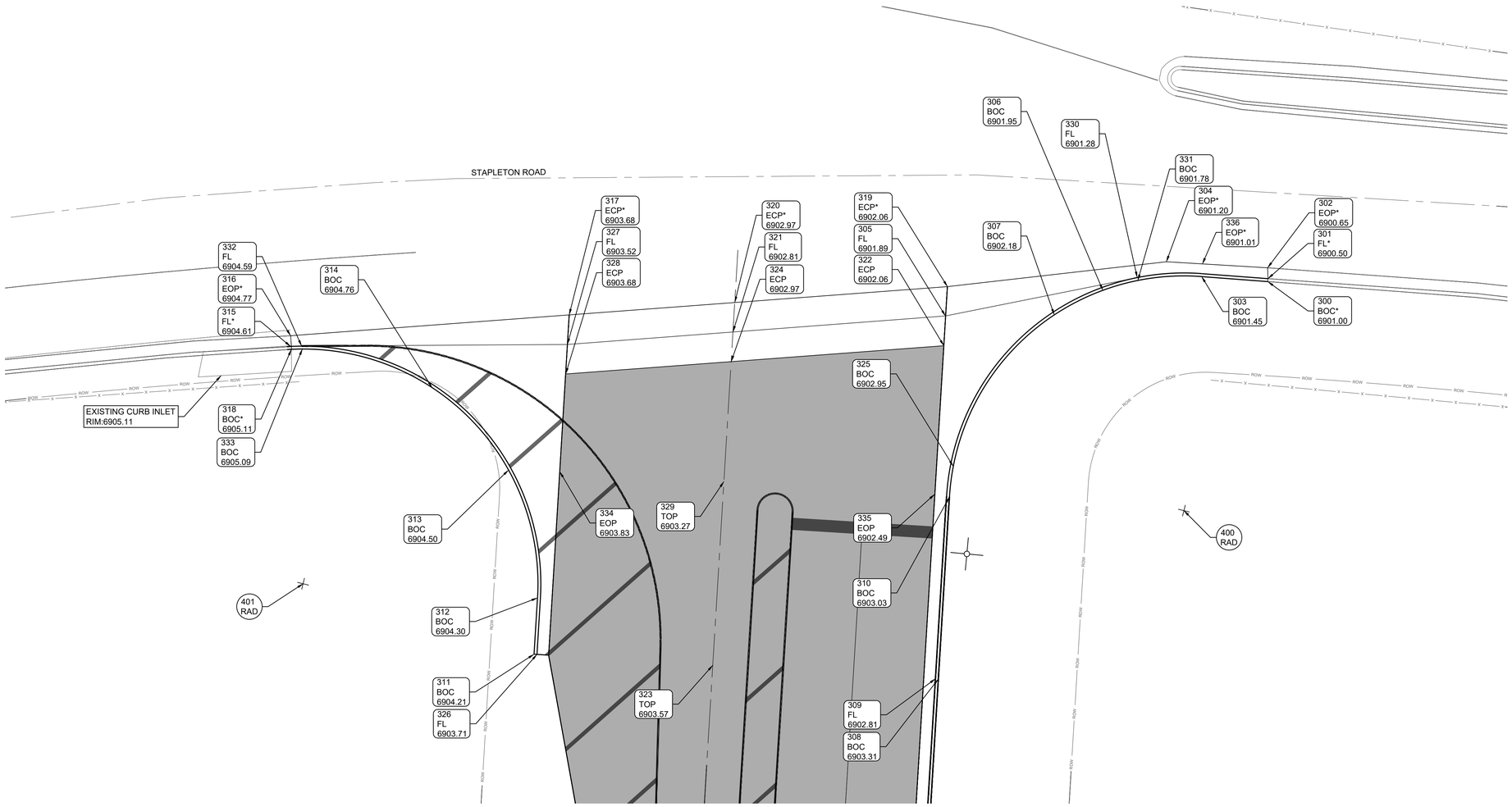
40' 20' 0' 40'
SCALE: 1" = 40'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 8

TOTAL SHEETS 48



DUMONT DRIVE AND STAPLETON ROAD
INTERSECTION DETAIL

LEGEND

BOC	BACK OF CURB
BOR	BOTTOM OF RAMP
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SIDEWALK
ECP	EDGE OF CROSS PAN
FL	FLOWLINE
RAD	RADUIS POINT
TOP	TOP OF PAVEMENT
TOR	TOP OF RAMP
*	MATCH EXISTING
	COORDINATE POINT
	RADIUS POINT

INTERSECTION COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
300	1415461.66	3267429.36	6901.00	BOC*
301	1415462.07	3267429.64	6900.50	FL*
302	1415463.68	3267430.54	6900.65	EOP*
303	1415468.21	3267420.15	6901.45	BOC
304	1415473.48	3267416.32	6901.20	EOP*
305	1415485.03	3267379.32	6901.89	FL
306	1415474.91	3267404.53	6901.95	BOC
307	1415475.60	3267395.29	6902.18	BOC
308	1415432.70	3267346.31	6903.31	BOC
309	1415432.98	3267345.90	6902.81	FL
310	1415458.29	3267363.98	6903.03	BOC
311	1415471.90	3267289.53	6904.21	BOC
312	1415479.82	3267294.99	6904.30	BOC
313	1415501.02	3267302.03	6904.50	BOC
314	1415519.76	3267298.16	6904.76	BOC
315	1415538.25	3267281.14	6904.61	FL*
316	1415539.80	3267282.09	6904.77	EOP*
317	1415518.32	3267324.55	6903.68	ECP*
318	1415537.75	3267281.00	6905.11	BOC*
319	1415489.13	3267382.19	6902.06	ECP*
320	1415505.54	3267349.78	6902.97	ECP*
321	1415501.41	3267346.93	6902.81	FL
322	1415480.82	3267376.46	6902.06	ECP
323	1415454.55	3267314.61	6903.57	TOP
324	1415497.24	3267344.05	6902.97	ECP
325	1415462.39	3267367.21	6902.95	BOC
326	1415471.62	3267289.94	6903.71	FL
327	1415514.17	3267321.68	6903.52	FL
328	1415510.00	3267318.83	6903.68	ECP
329	1415480.39	3267332.43	6903.27	TOP
330	1415473.74	3267410.67	6901.28	FL
331	1415473.27	3267410.50	6901.78	BOC
332	1415537.33	3267282.78	6904.59	FL
333	1415536.83	3267282.63	6905.09	BOC
334	1415496.29	3267309.37	6903.83	EOP
335	1415459.97	3267362.04	6902.49	EOP
336	1415469.99	3267421.38	6901.01	EOP*

RADIUS POINTS

POINT #	NORTHING	EASTING	RADIUS	DESCRIPTION
400	1415435.63	3267396.94	40.00'	RAD
401	1415502.53	3267262.06	40.00'	RAD

NOTE:
ALL RADIUS LENGTHS REPRESENT THE DISTANCE FROM CENTER TO BACK OF CURB, UNLESS NOTED OTHERWISE.

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CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION DESCRIPTION (DESCRIPTION)
REVISION DATE 00/00/00

INTERSECTION GEOMETRICS

NORTH

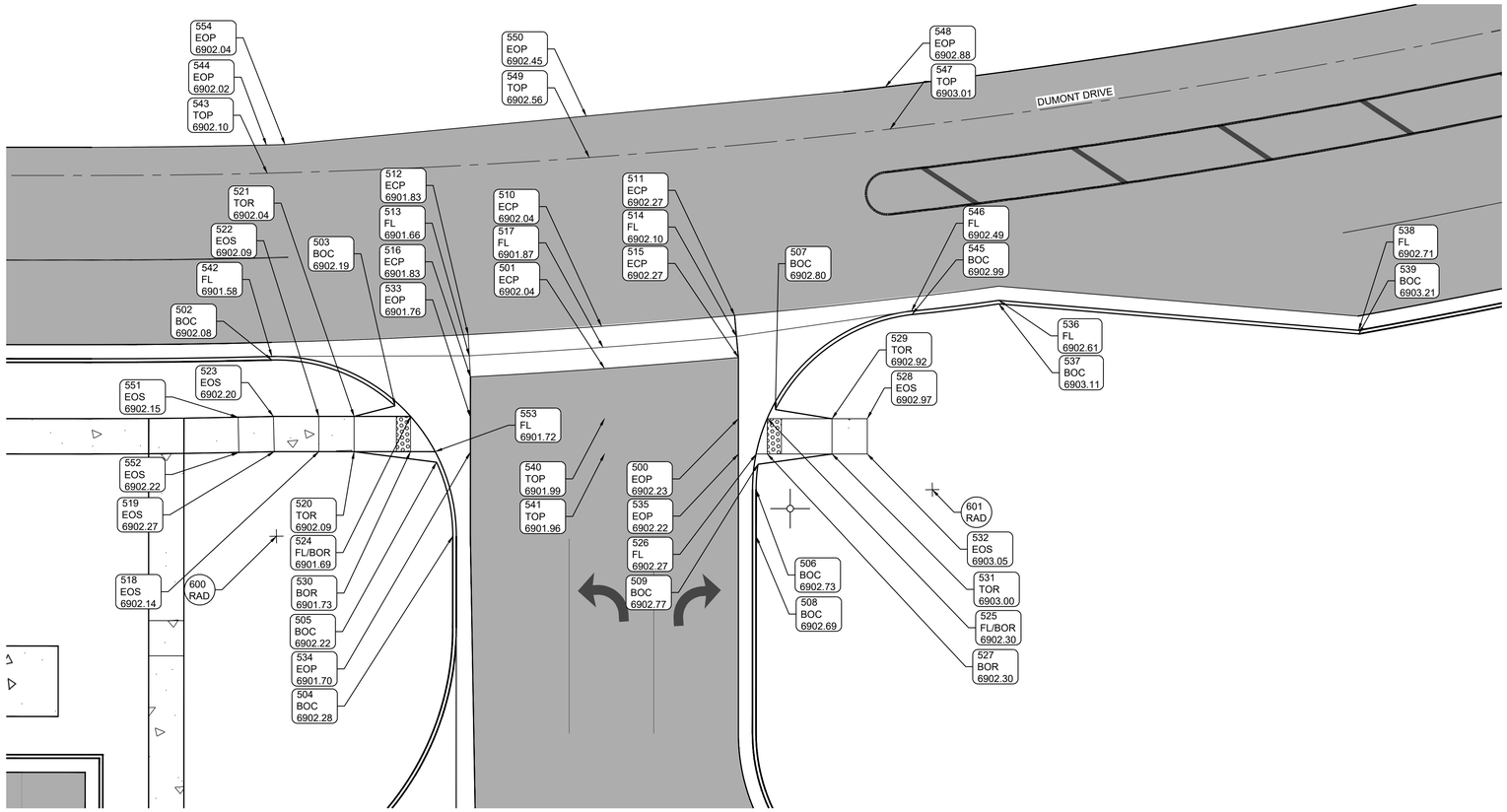
10' 5' 0' 10'
SCALE: 1" = 10'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 9

TOTAL SHEETS 48



DUMONT DRIVE AND ENTRANCE DRIVE
INTERSECTION DETAIL

LEGEND

BOC	BACK OF CURB
BOR	BOTTOM OF RAMP
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SIDEWALK
ECP	EDGE OF CROSS PAN
FL	FLOWLINE
RAD	RADUIS POINT
TOP	TOP OF PAVEMENT
TOR	TOP OF RAMP
	COORDINATE POINT
	RADIUS POINT

INTERSECTION COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
500	1415253.78	3267215.93	6902.23	EOP
501	1415245.71	3267197.32	6902.04	ECP
502	1415213.80	3267162.59	6902.08	BOC
503	1415221.26	3267179.66	6902.19	BOC
504	1415213.65	3267198.40	6902.28	BOC
505	1415219.59	3267189.44	6902.22	BOC
506	1415248.29	3267224.72	6902.73	BOC
507	1415258.36	3267218.78	6902.80	BOC
508	1415243.54	3267229.31	6902.69	BOC
509	1415251.06	3267222.41	6902.77	BOC
510	1415249.71	3267192.85	6902.04	ECP
511	1415263.94	3267205.34	6902.27	ECP
512	1415235.72	3267180.09	6901.83	ECP
513	1415233.68	3267182.29	6901.66	FL
514	1415261.99	3267207.61	6902.10	FL
515	1415260.03	3267209.89	6902.27	ECP
516	1415231.63	3267184.48	6901.83	ECP
517	1415247.71	3267195.08	6901.87	FL
518	1415209.07	3267176.40	6902.14	EOS
519	1415204.68	3267171.86	6902.27	EOS
520	1415212.55	3267180.00	6902.09	TOR
521	1415216.14	3267176.52	6902.04	TOR
522	1415212.66	3267172.93	6902.09	EOS
523	1415208.19	3267168.30	6902.20	EOS
524	1415221.70	3267182.28	6901.69	FL/BOR
525	1415256.63	3267218.87	6902.30	FL/BOR
526	1415251.94	3267221.21	6902.27	FL
527	1415253.03	3267222.34	6902.30	BOR
528	1415266.48	3267229.06	6902.97	EOS
529	1415263.01	3267225.46	6902.92	TOR
530	1415218.11	3267185.75	6901.73	BOR
531	1415259.41	3267228.94	6903.00	TOR
532	1415262.89	3267232.53	6903.05	EOS
533	1415227.53	3267188.45	6901.76	EOP
534	1415223.96	3267191.90	6901.70	EOP
535	1415250.19	3267219.40	6902.22	EOP
536	1415291.51	3267230.80	6902.61	FL

INTERSECTION COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
537	1415291.16	3267231.15	6903.11	BOC
538	1415323.92	3267270.43	6902.71	FL
539	1415323.58	3267270.80	6903.21	BOC
540	1415240.59	3267202.28	6901.99	TOP
541	1415236.99	3267205.75	6901.96	TOP
542	1415214.15	3267162.24	6901.58	FL
543	1415232.37	3267143.69	6902.10	TOP
544	1415235.17	3267140.84	6902.02	EOP
545	1415281.50	3267223.35	6902.99	BOC
546	1415281.82	3267222.96	6902.49	FL
547	1415298.28	3267202.84	6903.01	TOP
548	1415302.09	3267198.19	6902.88	EOP
549	1415265.71	3267174.96	6902.56	TOP
550	1415269.64	3267170.57	6902.45	EOP
551	1415204.63	3267164.78	6902.15	EOS
552	1415201.11	3267168.33	6902.22	EOS
553	1415220.54	3267188.26	6901.72	FL
554	1415237.05	3267142.67	6902.04	EOP

RADIUS POINTS

POINT #	NORTHING	EASTING	RADIUS	DESCRIPTION
600	1415196.27	3267180.42	25.00'	RAD
601	1415265.66	3267242.69	25.00'	RAD

NOTE:
ALL RADIUS LENGTHS REPRESENT THE DISTANCE FROM CENTER TO BACK OF CURB, UNLESS NOTED OTHERWISE.

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(913) 444-9615
Colorado Springs, CO
(719) 465-2145

4-WAY COMMERCIAL
CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION DESCRIPTION (DESCRIPTION)
REVISION DATE 00/00/00

INTERSECTION GEOMETRICS

NORTH

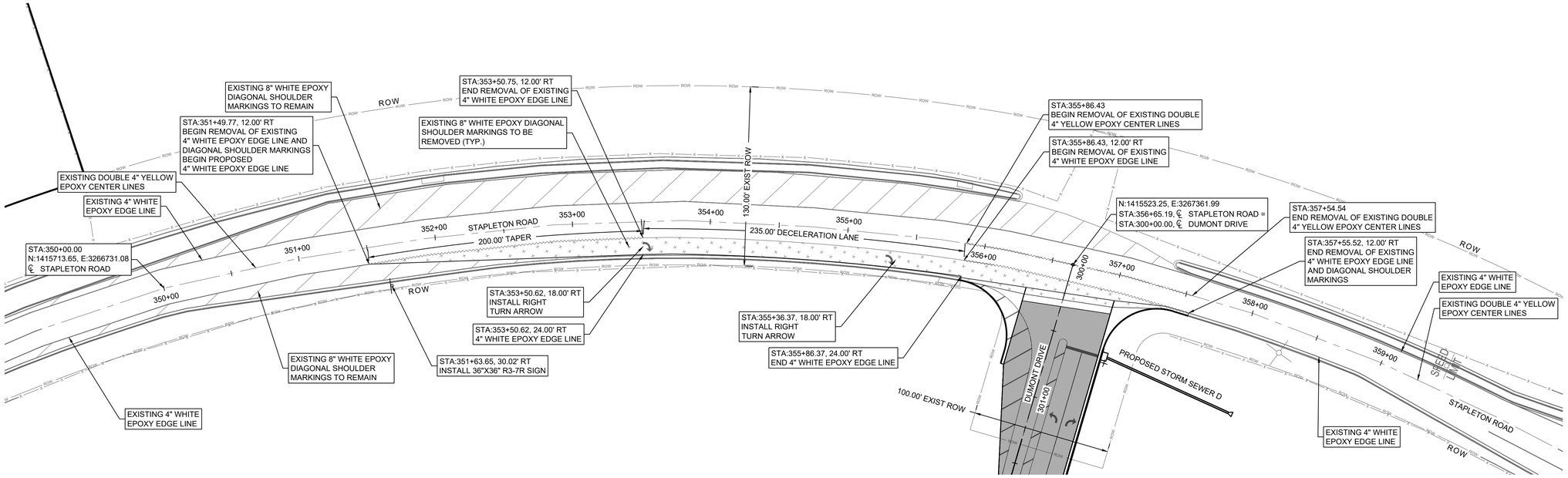
10' 5' 0' 10'
SCALE: 1" = 10'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 10

TOTAL SHEETS 48



STAPLETON ROAD PAVEMENT MARKING PLAN
SCALE:1"-40'

EL PASO COUNTY STANDARD SIGNING AND STRIPING NOTES:

1. ALL SIGNS AND PAVEMENT MARKING DEVICES SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS (DPW).
4. ALL SIGNS SHOWN ON THE STRIPING AND SIGNING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
6. ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
7. ALL STREET NAME SIGNS SHALL HAVE “D” SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4” UPPER-LOWER CASE LETTERING ON 8” BLANK AND NON-LOCAL ROADWAY SIGNS BEING 6” LETTERING, UPPER-LOWER CASE ON 12” BLANK, WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 35 MPH OR HIGHER SHALL HAVE 8” UPPER-LOWER CASE LETTERING ON 12” BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE FHWA STANDARD HIGHWAY SIGNS: 2004 EDITION WITH 2012 SUPPLEMENT. SIGNAL POLE MOUNTED AND OVERHEAD STREET NAME SIGNS SHALL BE PER MUTCD SIZE STANDARDS.
8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM DIAMOND GRADE RETROFLECTIVE SHEETING THAT MEETS ASTM D4956 TYPE XI SHEETING REQUIREMENTS.
9. ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE DESIGN.
10. ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.125" MINIMUM THICKNESS.
11. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 24" WIDE AND A MINIMUM OF 9' LONG. CROSSWALKS SHALL BE INLAID IN ACCORDANCE WITH SECTION 627 OF THE 2025 CDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION.
12. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE.
13. ALL LONGITUDINAL LINES SHALL BE A MINIMUM 18 MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-627-1.
14. ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH CDOT STANDARD S-614-1 OR MUTCD FIGURE 2A-2.
15. THE CONTRACTOR SHALL NOTIFY EL PASO DPW - INSPECTIONS (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
16. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DPW PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

LEGEND

- EXISTING PAVEMENT MARKINGS TO BE REMOVED
- EXISTING PAVEMENT MARKINGS TO REMAIN (8" GORE MARKINGS)
- EXISTING PAVEMENT MARKINGS TO BE REMOVED (8" GORE MARKINGS)

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION	DESCRIPTION	DATE
		00/00/00

PAVEMENT MARKING & TRAFFIC CONTROL PLAN

NORTH

40' 20' 0' 40'
SCALE: 1" = 40'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 11

TOTAL SHEETS 48

LEGEND

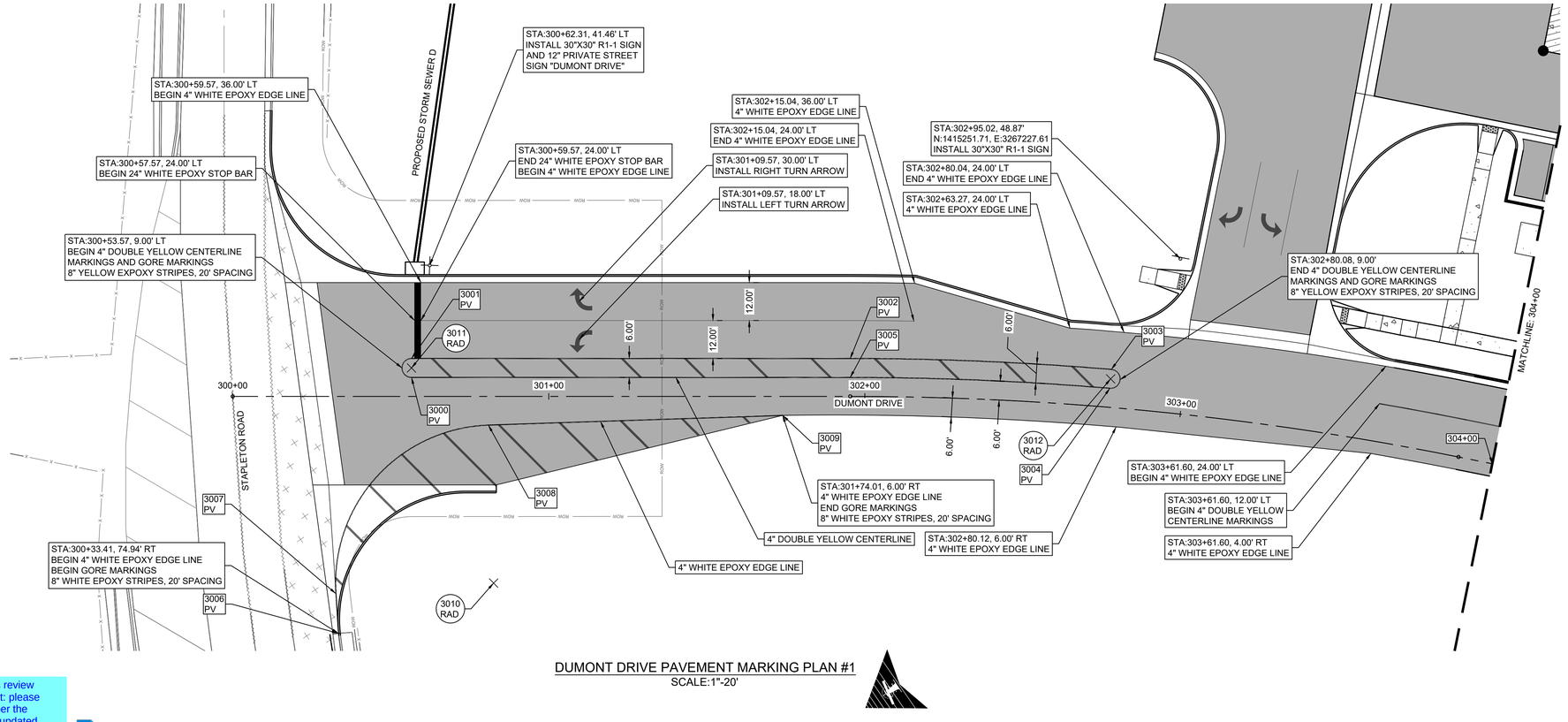
PV	PAVEMENT MARKING EDGE
RAD	RADIUS
	COORDINATE POINT
	RADIUS POINT

PAVEMENT MARKING POINTS

POINT #	NORTHING	EASTING	DESCRIPTION
3000	1415473.28	3267334.81	PV
3001	1415469.87	3267339.75	PV
3002	1415355.59	3267260.95	PV
3003	1415289.53	3267211.18	PV
3004	1415293.34	3267206.54	PV
3005	1415359.00	3267256.01	PV
3006	1415538.29	3267281.33	PV
3007	1415531.78	3267292.09	PV
3008	1415461.81	3267308.59	PV
3009	1415383.40	3267258.26	PV

RADIUS POINTS

POINT #	NORTHING	EASTING	RADIUS	DESCRIPTION
3010	1415488.82	3267266.51	50.00'	RAD
3011	1415471.57	3267337.28	3.00'	RAD
3012	1415291.43	3267208.86	3.00'	RAD

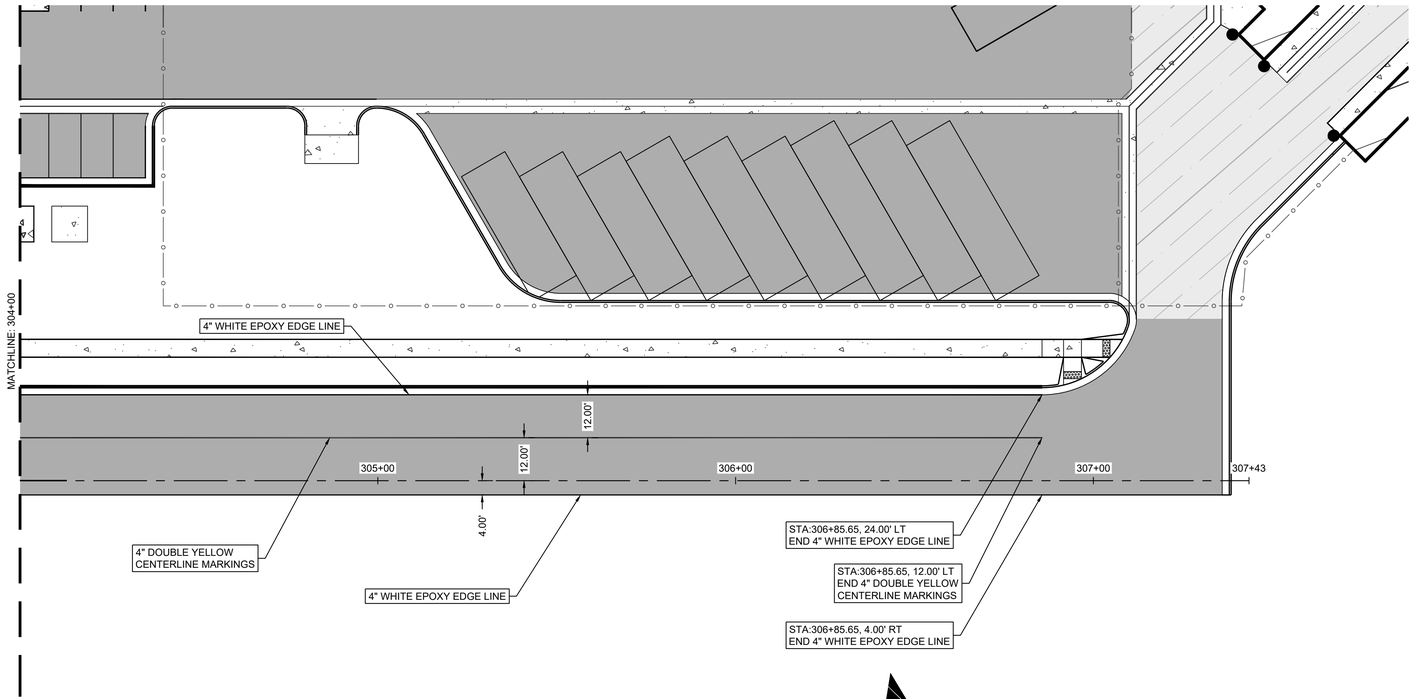


DUMONT DRIVE PAVEMENT MARKING PLAN #1
SCALE:1"-20'

Previous review comment: please update per the recently updated signing and striping notes, see attached Review 4: Unresolved

EL PASO COUNTY STANDARD SIGNING AND STRIPING NOTES:

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DUMONT DRIVE PAVEMENT MARKING PLAN #2
SCALE:1"-20'

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(719) 465-2145

4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/000	(DESCRIPTION)

PAVEMENT MARKING & TRAFFIC CONTROL PLAN

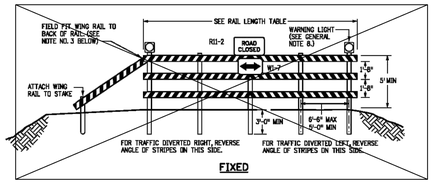
20' 10' 0' 20'
SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

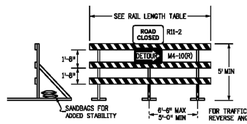
DATE: 06/11/2026

SHEET # 12

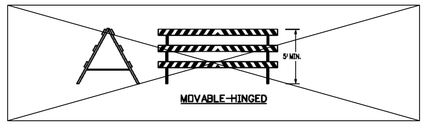
TOTAL SHEETS 48



FIXED



MOVABLE-SKIDS



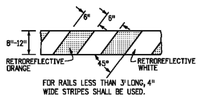
MOVABLE-HINGED

TYPICAL TYPE 3 BARRICADES

1. TYPE 3 BARRICADES HAVE 3 RELFECTORIZED RAIL FACES IF FACING TRAFFIC IN ONE DIRECTION AND 6 IF FACING TRAFFIC IN TWO DIRECTIONS.
2. THE PORTION OF THE POST ABOVE THE GROUND LINE SHALL BE PAINTED IN ACCORDANCE WITH THE APPROPRIATE GENERAL NOTE.
3. DETACHABLE EXTENSION WING RAILS FOR BYPASSING OF CONSTRUCTION EQUIPMENT ARE PERMITTED, WHEN NECESSARY, ON FIXED OR MOVABLE TYPE 3 BARRICADES. THE LENGTH SHALL BE ADEQUATE TO CLOSE THE BORROW PIT AND/OR SHOULDER AS REQUIRED.

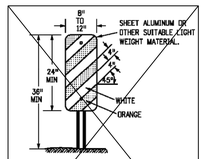
RAIL LENGTH TABLE

TYPE 3 BARRICADE		LENGTH
FIXED	MOVABLE	
F - A	M - A	9'- 14'
F - B	M - B	15'- 24'
F - C	M - C	25'- 35'
F - D	M - D	> 35'



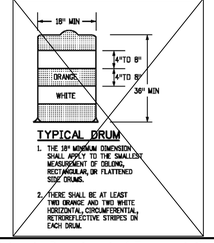
FOR RAILS LESS THAN 3', LONG, 4" WIDE STRIPES SHALL BE USED.

RAIL STRIPING DETAIL



TYPICAL VERTICAL PANEL

1. IF SPECIAL PANELS 3'OR GREATER IN HEIGHT ARE REQUIRED, THEN 6" STRIPES SHALL BE USED.
2. IF FIXED PLACEMENT IS REQUIRED, MOUNT ON DELINEATOR POST. SEE COLORADO STANDARD PLAN S-612-1.



TYPICAL DRUM

1. THE 18" MINIMUM DIMENSION SHALL APPLY TO THE SMALLEST MEASUREMENT OF OBLONG, RECTANGULAR, OR FLATTENED SIDE DRUMS.
2. THERE SHALL BE AT LEAST TWO ORANGE AND TWO WHITE HORIZONTAL, CIRCUMFERENTIAL RETROREFLECTIVE STRIPES ON EACH DRUM.

GENERAL NOTES

1. THE VARIOUS TYPES, COMBINATIONS AND APPLICATIONS OF SIGNS AND WARNING LIGHTS FOR BARRICADES REQUIRED FOR EACH PROJECT SHALL BE:
   A. AS SPECIFIED OR DETAILED IN THE PLANS.
   B. AS SHOWN IN APPLICABLE TYPICAL ILLUSTRATIONS.
   C. AS CALLED FOR AND SUBJECT TO APPROVAL BY THE ENGINEER.
2. TEMPORARY AND PERMANENT TYPE 3 BARRICADES SHALL BE FABRICATED FROM APPROVED CRASH TESTED MATERIALS.SEE SECTION 614 AND 630 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION FOR ADDITIONAL REQUIREMENTS.
3. ALL PAINTING SHALL CONFORM WITH THE FOLLOWING:
   A. THE APPLICABLE SECTION OF 508 OF THE STANDARD SPECIFICATIONS.
   B. ALL SKIDS, BRACES AND POSTS SHALL BE PAINTED WITH 2 COATS OF EXTERIOR WHITE PAINT.
   C. THE BACKSIDES OF RAILS AND VERTICAL PANEL CHANNELIZING DEVICES FACING ONE DIRECTION OF TRAFFIC ONLY SHALL BE PAINTED WITH EXTERIOR WHITE PAINT.
   D. ALUMINUM OR GALVANIZED STEEL SKIDS, BRACES AND POSTS SHALL NOT BE PAINTED.
4. ALL STRIPED SURFACES SHALL CONFORM WITH THE FOLLOWING:
   A. THE ENTIRE AREA OF ORANGE AND WHITE STRIPES SHALL BE FABRICATED AS ONE PIECE.
   B. HORIZONTAL RAILS, WING RAILS AND VERTICAL PANEL CHANNELIZING DEVICES SHALL HAVE ORANGE AND WHITE STRIPES ON THE FACE SIDE(S) SLANTING DOWNWARD AT A 45° ANGLE TOWARD THE SIDE(S) TO WHICH TRAFFIC IS TO PASS OR TURN.
   C. PERMANENT BARRICADES SHALL HAVE RETROREFLECTIVE RED AND WHITE STRIPES. THEY MAY BE USED AT LOCATIONS TO MARK THE END OF A ROAD, STREET OR HIGHWAY THAT ENDS AT A "T" INTERSECTION, OR WHERE THERE IS NO CROSSROAD OR OUTLET.
   D. ALL RETROREFLECTIVE SHEETING SHALL CONFORM TO ASTM D4956:
      1. ORANGE AND WHITE SHALL BE TYPE IV MINIMUM.
      2. RED AND WHITE SHALL BE TYPE IV MINIMUM.
5. FOR ALL WOODEN BARRICADE COMPONENTS NOMINAL LUMBER DIMENSIONS ARE SATISFACTORY.
6. ALL SCREWS, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED OR CADMIUM PLATED.
7. STABILITY OF BARRICADES AND CHANNELIZING DEVICES SHALL CONFORM WITH THE FOLLOWING:
   A. SKIDS (BASES) OF MOVABLE BARRICADES SHALL BE WEIGHTED WITH SANDBAGS ONLY WHERE NECESSARY TO PROVIDE STABILITY
   B. NO MOVABLE OR PORTABLE DEVICE SHALL BE WEIGHTED BY ANY METHOD OR WITH ANY MATERIAL THAT WOULD MAKE THEM HAZARDOUS TO MOTORISTS.
8. WARNING LIGHTS USED WITH BARRICADES, DRUMS AND VERTICAL PANELS SHALL CONFORM WITH THE FOLLOWING:
   A. USE FLASHING WARNING LIGHTS WHEN DEVICES ARE USED SINGLY, AND STEADY BURN LIGHTS WHEN THEY ARE USED IN A SERIES FOR CHANNELIZATION.
   B. THEY SHALL BE POSITIONED ABOVE THE TOP RAIL OF BARRICADES OR ON TOP OF DRUMS AND VERTICAL PANELS.
9. CONCRETE BARRIER (TEMPORARY) SHALL CONFORM WITH:
   A. PRECAST CONCRETE BARRIER AS SHOWN ON COLORADO STANDARD PLAN M-606-14.
   B. BARRIER REFLECTORS SHALL BE INSTALLED THAT MEET THE REQUIREMENTS OF STANDARD TYPICAL DELINEATOR INSTALLATIONS, EXCEPT THE MAXIMUM SPACING SHALL BE 50', AND THEY WILL NOT BE PAID FOR BUT ARE INCLUDED IN THE COST OF THE BARRIER.
   C. CONCRETE BARRIER END TREATMENT SHALL BE IN ACCORDANCE WITH CLEAR ZONE CRITERIA, AND PLACED AS SHOWN ON THE PLANS.
10. SIGN PANELS MOUNTED ON BARRICADES WILL BE PAID FOR SEPARATELY.

Computer File Information		Sheet Revisions	
Creation Date: 07/04/12		Date:	Comments
Created By: JSW			
Last Modification Date: 07/31/19			
Last Modified By: AVU			
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English			

Colorado Department of Transportation
2829 W. Howard Pl.
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Traffic & Safety Engineering MKB

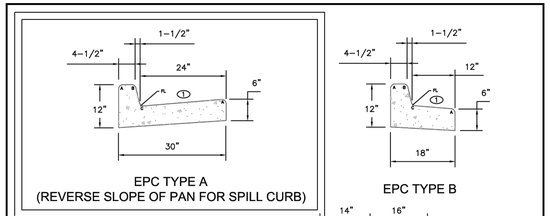
BARRICADES, DRUMS, CONCRETE BARRIERS (TEMP) & VERTICAL PANELS

Issued By: Traffic & Safety Engineering Branch July 31, 2019

STANDARD PLAN NO. S-630-2

Standard Sheet No. 1 of 1

Project Sheet Number:



LEGEND FOR RADII	
A	1/8" TO 1/4"
B	1-1/2"
C	1-1/2" TO 2"

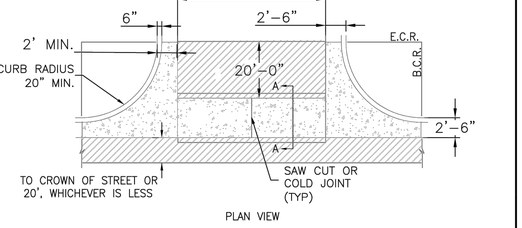
① – GUTTER CROSS SLOPES SHALL BE 1/2 IN./FT. WHEN DRAINING AWAY FROM CURB AND 1 IN./FT. WHEN DRAINING TOWARD CURB.

NOTE: SIDEWALK/CURB & GUTTER SHALL NOT BE POURED MONOLITHICALLY

SCALE: NOT TO SCALE

6/23/20
DATE APPROVED:
Joshua J. Palmer
DEPARTMENT OF PUBLIC WORKS

Typical Curb and Gutter Details
Standard Drawing
REVISION DATE: 7/18/23
FILE NAME: SD_2-20



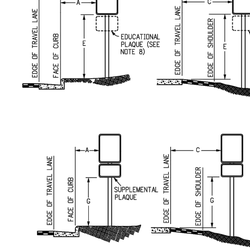
NOTES

1. W = WIDTH SHALL BE 6' FOR LOCAL, 8' FOR COLLECTORS, AND 10' FOR ARTERIAL ROADS.
2. T = SQUARED-OFF RETURN TO BE POURED MONOLITHICALLY, 8" PCC FOR LOCAL ROADS, 9" FOR COLLECTORS WITH 6x6 – 4.4 W.W.F. OR #4 REINFORCING BAR @ 18" EACH WAY.
3. ▨ = 3" MINIMUM ASPHALT DEPTH (2 LIFTS).
4. DESIGN TO SPECIFY ELEVATIONS AT PI AND PCR.

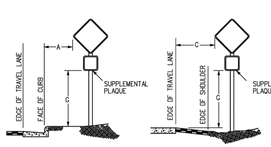
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8/11/11
DATE APPROVED:
André P. Brackin
DEPARTMENT OF TRANSPORTATION

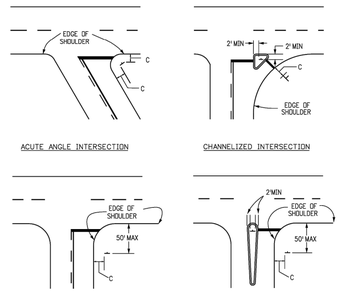
Typical Cross Pan Layout Detail
Standard Drawing
REVISION DATE: 12/8/15
FILE NAME: SD_2-26



REGULATORY, RECREATIONAL AND CULTURAL INFORMATION SIGN PLACEMENT



WARNING SIGN PLACEMENT



TYPICAL LOCATIONS-STOP SIGNS AND YIELD SIGNS

GENERAL NOTES

1. THE ENGINEER WILL ESTABLISH GRADES AND LOCATIONS FOR ALL SIGN POSTS IN ACCORDANCE WITH DETAILS SHOWN ON THE PLANS.
2. SPECIAL CARE SHALL BE TAKEN IN SIGN LOCATION TO ENSURE AN UNOBSTRUCTED VIEW OF EACH SIGN.
3. MINIMUM POST EMBEDMENT SHALL BE 3 FEET FOR U-2 POSTS AND 4-INCH X 4-INCH TIMBER POSTS, AND 5 FEET FOR 6-INCH X 6-INCH TIMBER POSTS. SEE S-614-6 AND S-614-8 FOR FOOTING DEPTH. 6-INCH BY 6-INCH TIMBER POSTS SHALL BE PROVIDED WITH TWO 2-INCH DIAMETER HOLES THROUGH THE NEUTRAL AXIS AT RIGHT ANGLES TO THE ROADWAY FOR INDUCED BREAKAWAY FUNCTION, ONE DRILLED AT 4 INCHES AND ONE AT 18 INCHES ABOVE THE GROUND LEVEL.
4. IF A SHOULDER IS WIDER THAN 6 FEET, THE MINIMUM LATERAL OFFSET DISTANCE SHOULD BE 6 FEET FROM THE EDGE OF SHOULDER, EXCEPT FOR MILE MARKER SIGNS. SEE FIGURE 2A-2(II) OF THE 2009 MUTCD.
5. NORMAL LATERAL PLACEMENT IS MEASURED FROM THE EDGE OF THE TRAVEL LANE.
6. IN URBAN AREAS, A LATERAL CLEARANCE OF 1 FOOT FROM THE CURB FACE IS PERMISSIBLE WHERE SIDEWALK WIDTH IS LIMITED OR WHERE EXISTING POLES ARE CLOSE TO THE CURB.
7. TYPICAL POST MOUNTING HEIGHTS FROM GROUND TO BOTTOM OF SIGN PANEL ARE 7 OR 8 FEET. OTHER HEIGHTS MAY BE REQUIRED WHEN SIGNS ARE MOUNTED ON STEEPER FILL OR CUT SLOPES.
8. "EDUCATIONAL PLAQUES" ACCOMPANYING SYMBOL SIGNS WILL NOT BE CONSIDERED WHEN DETERMINING THE VERTICAL PLACEMENT OF SYMBOL SIGNS. FOR INFORMATION OF EDUCATIONAL PLAQUES, SEE PAGE 3 OF THE 2021 CDOT GUIDE SIGNING POLICIES & PROCEDURES, AND SECTION 2A.06 OF THE 2009 MUTCD.
9. WHEN LATERAL PLACEMENT IS 30 FEET OR MORE FOR SIGNS WITHOUT A SUPPLEMENTAL PLAQUE, VERTICAL PLACEMENT D MAY BE REDUCED TO 5 FT. WHEN LATERAL PLACEMENT IS 50 FEET OR MORE FOR SIGNS WITH A SUPPLEMENTAL PANEL, VERTICAL PLACEMENT F DOES NOT DOES NOT APPLY – USE ONLY VERTICAL PLACEMENT H.
10. NORMAL ANGULAR PLACEMENT IS 0 DEGREES. SIGNS CLOSER THAN 30 FEET SHOULD BE TURNED SLIGHTLY AWAY TO MINIMIZE SPECULAR REFLECTION. SIGNS PLACED 30 FEET OR MORE SHOULD GENERALLY BE TURNED TOWARD THE ROAD.
11. THE EXIT PANEL IS MOUNTED ON THE RIGHT HAND SIDE FOR RIGHT HAND EXITS AND THE LEFT HAND SIDE FOR LEFT HAND EXITS.
12. POST SHALL BE INSTALLED PLUMB. VERTICAL DEVIATION SHALL NOT EXCEED ½-INCH IN 10 FT.
13. ON ALL TWO-LANE, UNDIVIDED HIGHWAYS, THE MILE MARKER AND POST SHALL BE INSTALLED ON THE RIGHT SHOULDER IN THE ASCENDING DIRECTION WITH THE MILE MARKER PANELS DISPLAYED ON THE FRONT AND BACK SIDE OF THE POST.
14. ON ALL UNDIVIDED MULTI-LANE AND DIVIDED HIGHWAYS, AND INTERSTATES, THE MILE MARKER AND POST SHALL BE INSTALLED ON THE OUTSIDE SHOULDER (OR SIDEWALK IF APPLICABLE) IN BOTH DIRECTIONS OF TRAVEL.
15. VERTICAL SPACING BETWEEN SIGN PANELS SHALL BE 1 TO 1½ INCH, TYPICAL.

PLACEMENT TABLES

KEY	LATERAL PLACEMENT: ALL CLASSES OF STREETS AND HIGHWAYS MINIMUM	NORMAL
A	2'-0"	15'-0" PLUS CURB
B	2'-0"	30'-0" OR MORE INCLUDES CURB
C	2'-0"	6'-0" PLUS EDGE OF 6" WIDE SHOULDER IF NONE 15'-0" FROM EDGE OF TRAVEL LANE

KEY	VERTICAL PLACEMENT: FREEWAYS AND EXPRESSWAYS MIN.	MAX.	CONVENTIONAL STREETS AND HIGHWAYS URBAN MIN.	URBAN MAX.	RURAL MIN.	RURAL MAX.
D	7'-0" OR NOTE NO. 9	12'-0"	7'-0"	8'-0"	5'-0"	8'-0"
E	7'-0"	8'-0"	7'-0"	8'-0"	5'-0"	8'-0"
F	8'-0" OR NOTE NO. 9	12'-0"	8'-0"	9'-0"	5'-0"	9'-0"
G	6'-0"	7'-0"	6'-0"	7'-0"	4'-0"	7'-0"
H	5'-0"	10'-0"	5'-0"	7'-0"	4'-0"	7'-0"

Computer File Information		Sheet Revisions	
Creation Date: 07/04/12		Date:	Comments
Created By: KCM	KCM	03/01/24	Revised notes 3. and 8.
Last Modification Date: 03/01/24			
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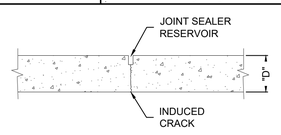
GROUND SIGN PLACEMENT

Issued By: Traffic & Safety Engineering Branch July 31, 2019

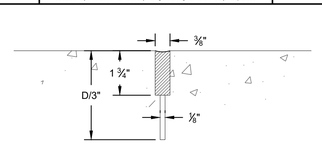
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Standard Sheet No. 1 of 2

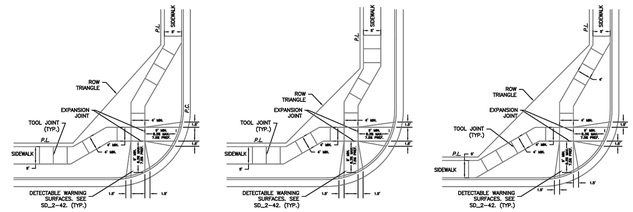
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CONTROL JOINT DETAIL
NOT TO SCALE



JOINT SEALER RESERVOIR
NOT TO SCALE



SCALE: NOT TO SCALE

6/23/20
DATE APPROVED:
Jennifer E. Irvine
DEPARTMENT OF PUBLIC WORKS

Pedestrian Curb Ramp Detail
Standard Drawing
REVISION DATE: 6/23/20
FILE NAME: SD_2-40

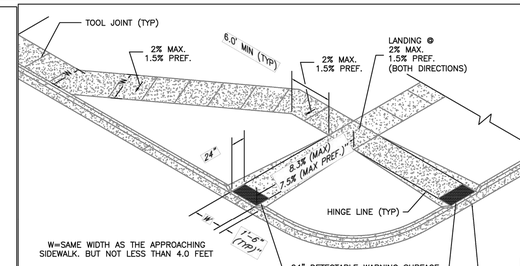


SIGN DIMENSIONS											
	A	B	C	D	E	F	G	H	J	K	P	Q
	VAR	8	0.375	2	4 D	3 D	3	3 (MIN)	3	1	2.25	1.5
C	VAR	12	0.5	3	6 D	4 D	5	4.5 (MIN)	4.5	1.5	3	2

COLORS: LEGEND, BORDER –WHITE (RETROREFLECTIVE)
BACKGROUND –GREEN (RETROREFLECTIVE)

NOTES:
REFERENCE SUPPLEMENTAL SPECIFICATION

Sign Detail
Scale: NTS



PEDESTRIAN RAMP NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ENGINEERING CRITERIA MANUAL AND ADA REQUIREMENTS.
2. CONTRACTOR TO NOTIFY ENGINEERING DIVISION INSPECTION STAFF 48 HOURS PRIOR TO CONCRETE PLACEMENT.
3. PEDESTRIAN CURB RAMP CONSTRUCTION SHALL BE A MINIMUM 4,500 PSI CONCRETE, MINIMUM 4" THICK, NON-COLORED, NON-SCORED, COARSE BROOM FINISH.
4. PEDESTRIAN CURB RAMP LOCATION AND LENGTH MAY REQUIRE MODIFICATION TO MAINTAIN THE 8.3% MAXIMUM RUNNING RAMP SLOPE DUE TO STREET INTERSECTION GRADES AND/OR ALIGNMENTS. SEE ECM SECTION 6.3.6 FOR PEDESTRIAN PUSHBUTTON LOCATION REQUIREMENTS.
5. DETECTABLE WARNING SURFACE SHALL START A MINIMUM OF 6" BUT NOT MORE THAN 8" FROM THE FLOWLINE OF THE CURB AT ANY POINT.
6. DETECTABLE WARNING SURFACE SHALL BE PREFABRICATED, CAST IRON (PATINA NATURAL FINISH) AND IN ACCORDANCE WITH ECM CHAPTER 6 AND SD_2-42. THERMOPLASTIC TRUNCATED DOMES AND PAVERS WILL NOT BE ACCEPTED.
7. THE DETECTABLE WARNING SURFACE SHALL BE 24" IN LENGTH AND THE FULL WIDTH OF THE RAMP.
8. PEDESTRIAN CURB RAMP WIDTH REQUIRED IS SAME AS APPROACHING SIDEWALK; 4' MINIMUM.
9. ALL PEDESTRIAN CURB RAMPS WILL BE PERPENDICULAR TO TRAFFIC WITH THE EXCEPTION OF MID-BLOCK OR TERMINAL RAMPS WHICH MAY BE PARALLEL SUBJECT TO APPROVAL.
10. DRAINAGE STRUCTURES, TRAFFIC SIGNAL/SIGNAGE, UTILITIES/JUNCTION BOXES, OR OTHER OBSTRUCTIONS WITHIN PROPOSED PEDESTRIAN CURB RAMP AREAS AND LANDINGS ARE PROHIBITED.
11. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A RAMP SHALL NOT EXCEED 5%.

GENERAL NOTES

1. WHERE THE 1'–6" FLARED SIDE(S) OF A PERPENDICULAR CURB RAMP IS (ARE) CONTIGUOUS WITH A PEDESTRIAN OR HARD SURFACE AREA (PEDESTRIAN CIRCULATION PATH), THE MAXIMUM FLARE SLOPE SHALL NOT EXCEED 10:1.
2. PEDESTRIAN WALKWAY (PEDESTRIAN ACCESS ROUTE) AND/OR LOCATION OF EXISTING OR FUTURE PEDESTRIAN RAMP'S ON OPPOSITE CORNERS SHALL BE REVIEWED BEFORE CONSTRUCTING NEW RAMPS.
3. AT MARKED PEDESTRIAN CROSSINGS, THE BOTTOM OF THE RAMPS, EXCLUSIVE OF THE FLARE SIDES, SHALL BE TOTALLY CONTAINED WITHIN THE MARKINGS.

6/23/20
DATE APPROVED:
Jennifer E. Irvine
DEPARTMENT OF PUBLIC WORKS

Pedestrian Curb Ramp Detail
Standard Drawing
REVISION DATE: 6/23/20
FILE NAME: SD_2-41

Computer File Information		Index of Revisions			
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Acad. Ver.: Civ3D 2020 Scale: n/a	Units: Feet				

El Paso County Department of Public Works
3275 Akers Drive
Colorado Springs, Colorado 80922-1547
Ph: 719-520-6460 Fax: 719-520-6878
Division of Transportation

As Constructed: No Revisions / Revised: / Void:

Private Road Detail
Designer: JP Structure:
Detailer: DAN Numbers:
Sheet/Subset: Subset Sheets: of

Project No./Code: EPC
Standard Drawing
Sheet Number: 1

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4-WAY COMMERCIAL
CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION (DESCRIPTION)
00/00/00		

PAVING & TRAFFIC CONTROL DETAILS

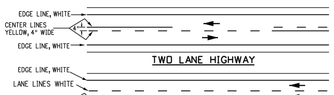
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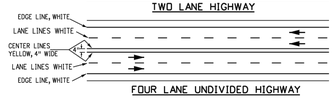
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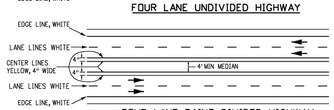
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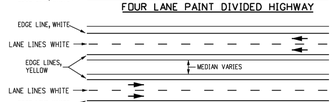
TWO LANE HIGHWAY



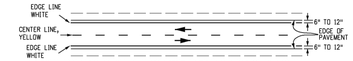
FOUR LANE UNDIVIDED HIGHWAY



FOUR LANE PAINT DIVIDED HIGHWAY



FOUR LANE DIVIDED HIGHWAY

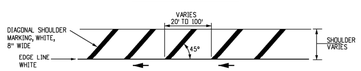


NOTE: EDGE LINES ARE NOT TO BE USED WHEN TRAVELED WAY IS LESS THAN 20 FEET.

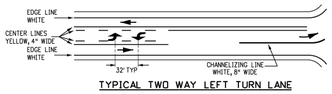
NO SHOULDER OR UNSURFACED SHOULDER



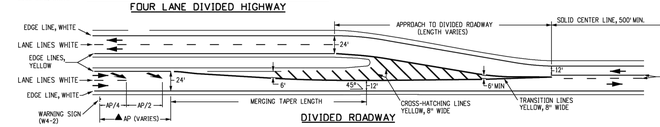
SHOULDER SURFACED



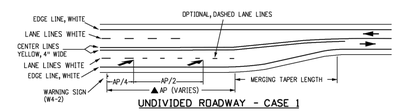
EDGE LINE WITH OPTIONAL DIAGONAL SHOULDER MARKING



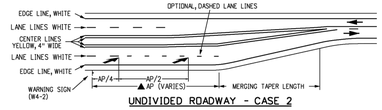
TYPICAL TWO WAY LEFT TURN LANE



DIVIDED ROADWAY



UNDIVIDED ROADWAY - CASE 1



UNDIVIDED ROADWAY - CASE 2

TYPICAL PAVEMENT WIDTH TRANSITION MARKINGS

GENERAL NOTES
(CONTINUED FROM SHEET NO.1)

10. CROSS-HATCHING LINES
    a. SOLID WHITE OR YELLOW, 8 INCHES WIDE-45 DEGREE DIAGONAL, SPACED AT 25 FEET INTERVALS. THESE LINES ARE OPTIONAL AND MAY BE PLACED AT LOCATIONS INDICATED ON THE PLANS OR DETERMINED BY THE ENGINEER. YELLOW SHALL BE USED FOR PAINTED MEDIANS OR PAVEMENT WIDTH TRANSITIONS ONLY.
    b. OPTIONAL DIAGONAL SHOULDER MARKINGS SHALL BE SOLID WHITE, 8 INCHES WIDE, SPACED AT INTERVALS OF 20 FEET MINIMUM TO 100 FEET MAXIMUM.
11. PARKING LINES
    SOLID WHITE, 3 INCHES WIDE-DIAGONAL OR PARALLEL AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
12. STOP LINES
    SOLID WHITE, 24 INCHES WIDE-EXTEND PARALLEL TO INTERSECTED ROADWAY ACROSS ALL APPROACH LANES OR AS INDICATED AT LOCATIONS ON THE PLANS. LOCATE AT THE DESIRED STOPPING POINT, NOT MORE THAN 30 FEET, NOR LESS THAN 4 FEET FROM THE NEAREST EDGE OF THE INTERSECTED TRAFFIC LANE.
13. YIELD LINES
    a. SOLID WHITE, THE INDIVIDUAL TRIANGLES COMPRISING YIELD LINES SHALL HAVE A BASE OF 12 TO 24 INCHES WIDE AND A HEIGHT EQUAL TO 1.5 TIMES THE BASE AND SHALL BE PARALLEL TO THE INTERSECTED ROADWAY ACROSS ALL APPROACH LANES OR AS INDICATED AT LOCATIONS ON THE PLANS.
    b. THE SPACE BETWEEN EACH TRIANGLE SHALL BE 3 TO 12 INCHES.
14. CROSSWALK LINES
    a. SOLID WHITE, 12 INCHES WIDE FOR TRANSVERSE LINE TYPE EXTEND ACROSS ENTIRE WIDTH OF PAVEMENT. IF NO ADVANCE STOP LINE IS PROVIDED, INCREASE THE WIDTH OF THE CROSSWALK LINES TO 24 INCHES.THE DISTANCE BETWEEN THE LINES IS USUALLY DETERMINED BY THE WIDTH OF THE SIDEWALKS CONNECTED, IN ANY CASE THIS SHALL NOT BE LESS THAN 6 FEET.
    b. COMPLICATED AND/OR CHANNELIZED INTERSECTIONS AND MID-BLOCK CROSSWALKS SHALL BE SOLID WHITE, 12 INCHES TO 24 INCHES WIDE AND 8 TO 10 FEET LONG FOR LONGITUDINAL LINE TYPE AS DETAILED IN THE PLANS OR AS DIRECTED BY THE ENGINEER.
15. WORD, ARROW AND SYMBOL MARKINGS
    ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH "THE STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" ADOPTED BY THE FEDERAL HIGHWAY ADMINISTRATION.
16. MERGING TAPER LENGTH
    L = MINIMUM LENGTH OF TAPER.
    S = DESIGN SPEED FOR NEW CONSTRUCTION OR NUMERICAL VALUE OF THE POSTED SPEED LIMIT OF THE 85TH PERCENTILE SPEED OF EXISTING TRAFFIC.
    W = WIDTH TRANSITIONED.
    FORMULA FOR SPEED 45 MPH OR MORE, L=SxW
    FOR SPEED 40 MPH OR LESS, $L=\frac{WS^2}{60}$
17. TRANSITION LINES
    SOLID YELLOW, 8 INCHES WIDE. THESE LINES ARE USED WHERE ADDITIONAL EMPHASIS OR VISIBILITY IS DESIRABLE AT PAVEMENT WIDTH TRANSITIONS. PLACE AT LOCATIONS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
18. SPEED MEASURING MARKING
    SOLID WHITE, 24 INCHES EXTEND 4 FEET FROM OUTSIDE OF EDGE LINES ON SHOULDERS.
19. ALL SPACING IS DETERMINED CENTER ON CENTER EXCEPT FOR DOUBLE LINES.

▲ NOTE:
AP = ADVANCE PLACEMENT DISTANCE FROM THE LANE ENDS SIGN (W4-2) TO THE BEGINNING OF THE MERGING TAPER. SEE SECTION 2C OF THE MUTCD FOR ADVANCE PLACEMENT DISTANCES.

LEGEND
→ Direction of Travel

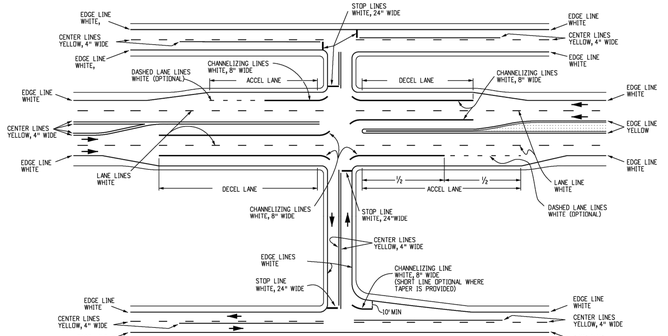
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Last Modification Date: 12/20/24	R-5	04/30/24	LANE REDUCTION ARROWS ADDED
Last Modified By: NRIVERA	R-4	04/14/23	ADD GENERAL NOTE 13 & UPDATE NUMBER OF SHEETS
CAD Ver.:MicroStation V8 Scale:Not to Scale Units: English	R-3	07/22/22	GENERAL NOTES UPDATE

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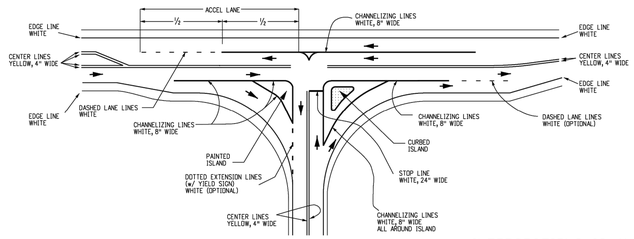
PAVEMENT MARKINGS

STANDARD PLAN NO. S-627-1
Standard Sheet No. 2 of 11
Project Sheet Number:

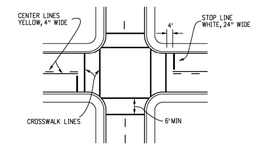
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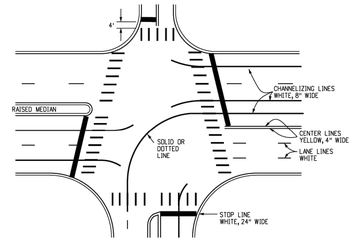
TYPICAL INTERSECTION MARKINGS



TYPICAL ISLAND MARKINGS



TYPICAL TRANSVERSE LINE CROSSWALK MARKINGS



TYPICAL CONTINENTAL CROSSWALK MARKINGS

CROSSWALK LINE DETAIL



LEGEND
→ Direction of Travel

CONTINENTAL CROSSWALK NOTES

1. CENTER CROSSWALKS ON CURB RAMPS. IF SUCH RAMPS ARE NOT PROVIDED, CENTER ON SIGNAL POLES WHEREVER PRACTICAL.
2. CENTER CROSSWALKS ON EDGE LINES, LANE LINES AND CHANNELIZING LINES.
3. CENTER CROSSWALKS BETWEEN ADJACENT LINES.
4. MARKINGS SHALL NOT BE WITHIN WHEEL PATH OF VEHICLES.
5. CENTER ON EXTENDED FLOW LINE.
6. LINES AND SPACES TO APPROXIMATE ADJACENT PATTERN.

INTERSECTIONS, ISLANDS AND CROSSWALKS

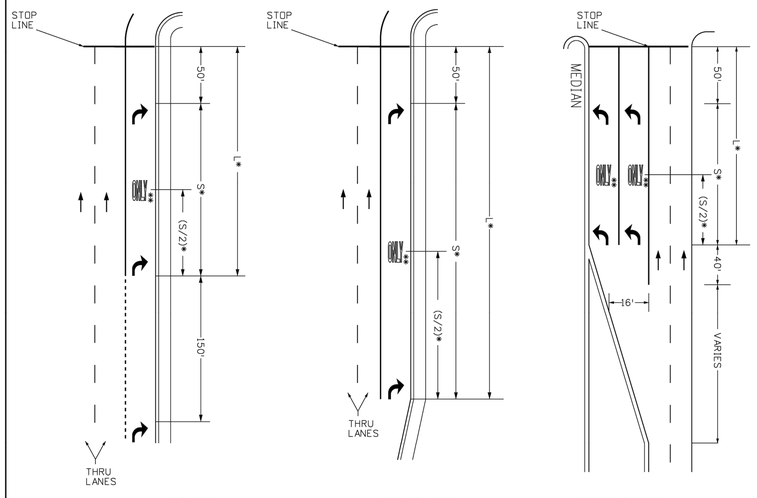
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Created By: JSW	R-5	12/20/24	UPDATED DASHED LANE LINES
Last Modification Date: 12/20/24	R-4	04/14/23	UPDATED NUMBER OF SHEETS
Last Modified By: NRIVERA	R-3	07/22/22	CHANGED ACCELERATION LINES TO DASHED LANE LINES
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	R-2	02/16/21	ADDED DEC. TAPER TO TYPICAL ISLAND MARKINGS

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PAVEMENT MARKINGS

STANDARD PLAN NO. S-627-1
Standard Sheet No. 3 of 11
Project Sheet Number:

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LANE DROP | POCKET LANE | DOUBLE TURNING

ARROW PLACEMENTS AT INTERSECTIONS

GENERAL NOTES

1. THE SPACING, IN THE TABLE APPLIES TO LEFT & RIGHT TURN LANES.
2. ** 'ONLY' MARKING IS OPTIONAL. CONTACT REGION TRAFFIC ENGINEER FOR DIRECTION.
3. WHEN ONE (1) ARROW IS USED, IT SHALL BE PLACED AT THE BEGINNING OF THE FULL WIDTH TURN LANE, OTHERWISE USE THE TABLE BELOW FOR ARROW PLACEMENT.

LENGTH (L)	LEFT AND RIGHT TURN ARROW		NO. OF 'ONLY' PER LANE
	NO. OF ARROWS PER LANE	SPACING (S)	
L < 200'	1	NA	NA
200' - 350'	2	EVENLY SPACED BETWEEN 150'-300'	1
350' - 650'	3		2
650' - 950'	4		3
950' ≤	≥5		≥4

*L (LENGTH) AND *S (SPACING) PROVIDED IN THE TABLE ABOVE WILL HELP DETERMINE THE NUMBER OF ARROWS AND ONLY MARKINGS NEEDED PER LANE.

LEGEND
→ Direction of Travel

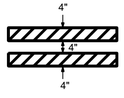
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Last Modified By: AVu			
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PAVEMENT MARKINGS

STANDARD PLAN NO. S-627-1
Standard Sheet No. 5 of 11
Project Sheet Number:

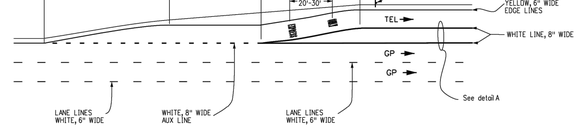
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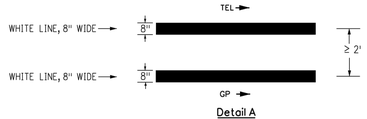
DOUBLE YELLOW CENTERLINE SPACING DETAIL NOT TO SCALE

NOTES:

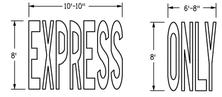
ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).



TYPICAL ENTRANCE MARKING FOR BUFFER WIDTH ≥2' AND WHERE BUFFER CROSSING IS PROHIBITED



Detail A



GENERAL NOTES

1. For transition taper use 25:1 ratio.
2. For access zone entrance taper length use:
   L = S x W
   L = MINIMUM LENGTH OF TAPER
   S = DESIGN SPEED FOR NEW CONSTRUCTION OR NUMERICAL VALUE OF THE POSTED SPEED LIMIT
   W = WIDTH TRANSITIONED
3. If buffer space is wider than 4 feet, chevron markings are required (See MUCTD Section 3B.24 and figure 30.2(A)).
4. For each section prohibiting entering and exiting movements, the R3-50_CO sign shall be installed within 300 feet of the start of the express lane. Additional R3-50_CO signing shall be installed as shown in the plans.
5. For each section prohibiting entering and exiting movements, an EXPRESS ONLY marking should be placed within 50 feet of the start of the express lane.
6. EXPRESS ONLY markings should supplement the signs.

LEGEND
TEL - TOLL/EXPRESS LANE
GP - GENERAL PURPOSE LANE

TOLL EXPRESS LANE PAVEMENT MARKINGS

Computer File Information		Sheet Revisions	
Creation Date: 07/31/19		Date:	Comments
Created By: EButta	R-3	12/20/24	REVISED LANE LINE TYPES
Last Modification Date: 12/20/24	R-2	04/14/23	ADD LEGEND & UPDATED SHEET NUMBER
Last Modified By: NRIVERA	R-1	04/17/20	STRIPING LAYOUT & GENERAL NOTE UPDATE
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English			

Colorado Department of Transportation
2829 W. Howard Pl.
Denver, CO 80204
Phone: 303-757-9654
FAX: 303-757-9219
Traffic Safety & Engineering EB

PAVEMENT MARKINGS

STANDARD PLAN NO. S-627-1
Standard Sheet No. 8 of 11
Project Sheet Number:

Issued By: Traffic Safety & Engineering Branch July 31, 2019

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4-WAY COMMERCIAL
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EL PASO COUNTY, CO

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	. . . . .	
	. . . . .	

PAVING & TRAFFIC CONTROL DETAILS

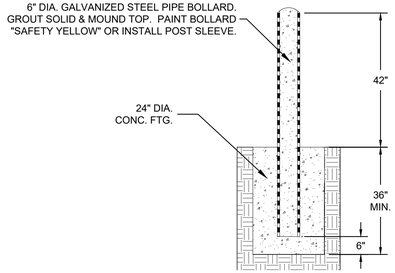
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PROJECT #: 2412-0471
CHECKED BY: BML
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DATE: 06/11/2026

SHEET # 14

TOTAL SHEETS 48

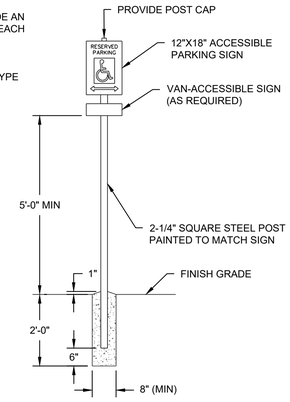


TYPICAL BOLLARD DETAIL
NOT TO SCALE

NOTE:

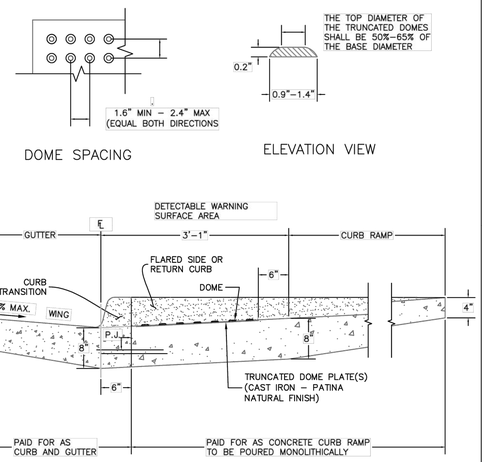
THE CONTRACTOR SHALL PROVIDE AN ACCESSIBLE PARKING SIGN FOR EACH ACCESSIBLE PARKING SPACE

THE ACCESSIBLE PARKING SIGNS PROVIDED SHALL CONFORM TO TYPE "R7-8" IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".



ACCESSIBLE STALL SIGN DETAIL
NOT TO SCALE

TRUNCATED DOME DETAILS



P.J.= PERMISSABLE JOINT WITH EPOXY-COATED DEFORMED NO. 4 BARS CONFORMING TO AASHTO M 284 AT 18 IN. SPACING

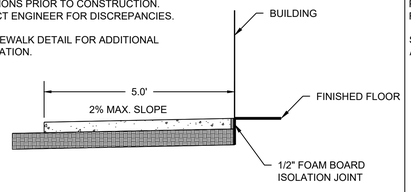
SIDE CROSS SECTION VIEW OF
DETECTABLE WARNING SURFACE, CURB AND GUTTER

6/23/20 DATE APPROVED:	Detectable Warning Surface Details Standard Drawing
Jennifer E. Irvine DEPARTMENT OF PUBLIC WORKS	REVISION DATE: 6/23/20 · FILE NAME: SD_2-42

NOTE:

CONTRACTOR SHALL VERIFY WALL BASE FLASHING DETAILS AND FOUNDATION EDGE CONDITIONS PRIOR TO CONSTRUCTION. CONTACT ENGINEER FOR DISCREPANCIES.

SEE SIDEWALK DETAIL FOR ADDITIONAL INFORMATION.

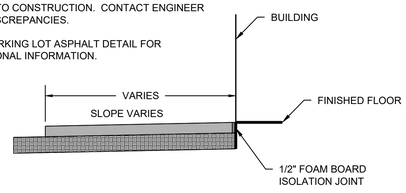


SIDEWALK ADJACENT TO BUILDING DETAIL
NOT TO SCALE

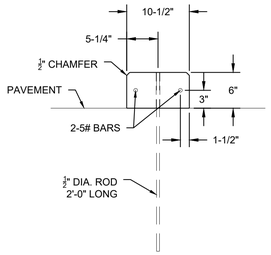
NOTE:

CONTRACTOR SHALL VERIFY WALL BASE FLASHING DETAILS AND FOUNDATION EDGE CONDITIONS PRIOR TO CONSTRUCTION. CONTACT ENGINEER FOR DISCREPANCIES.

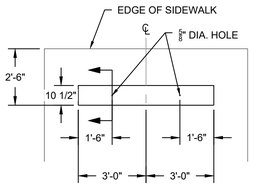
SEE PARKING LOT ASPHALT DETAIL FOR ADDITIONAL INFORMATION.



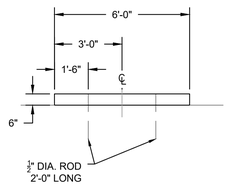
ASPHALT ADJACENT TO BUILDING DETAIL
NOT TO SCALE



CONCRETE WHEEL STOP SECTION DETAIL
NOT TO SCALE



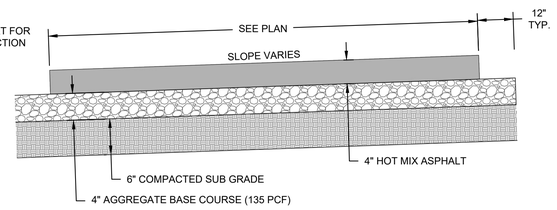
CONCRETE WHEEL STOP PLAN DETAIL
NOT TO SCALE



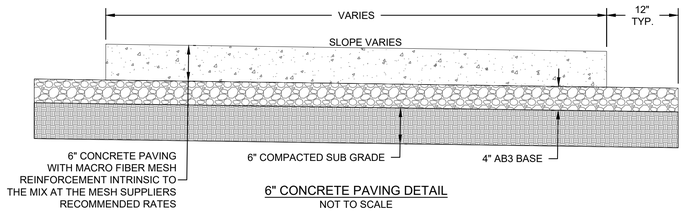
CONCRETE WHEEL STOP ELEVATION DETAIL
NOT TO SCALE

NOTE:

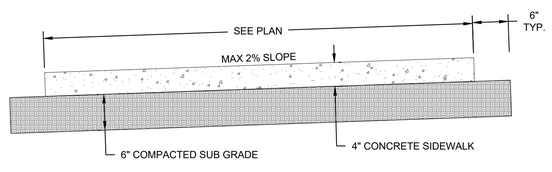
SEE GEOTECHNICAL REPORT FOR ADDITIONAL PAVEMENT SECTION INFORMATION.



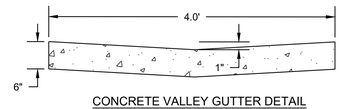
PARKING LOT ASPHALT DETAIL
NOT TO SCALE



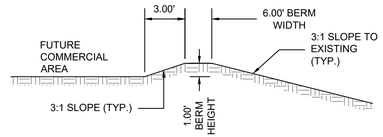
6" CONCRETE PAVING DETAIL
NOT TO SCALE



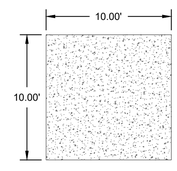
SIDEWALK DETAIL
NOT TO SCALE



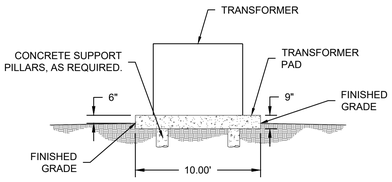
CONCRETE VALLEY GUTTER DETAIL
NOT TO SCALE



OVERLOT GRADING BERM DETAIL
NOT TO SCALE



TRANSFORMER PAD PLAN DETAIL
NOT TO SCALE



TRANSFORMER PAD PROFILE DETAIL
NOT TO SCALE

NOTE:

PROVIDE 3' MINIMUM CLEARANCE AT THE BACK AND SIDES AND 10' MINIMUM CLEARANCE AT THE FRONT OF THE TRANSFORMER.

TRANSFORMER DOORS SHALL OPEN TOWARDS THE FRONT OF THE TRANSFORMER.

COORDINATE CONSTRUCTION AND LOCATION WITH MEP.

CONSTRUCTION SHALL CONFORM TO MOUNTAIN VIEW ELECTRIC ASSOCIATION SERVICE STANDARDS.

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

MISCELLANEOUS DETAILS

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 15

TOTAL SHEETS 48

EXISTING 8" WATERLINE
CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH DURING CONSTRUCTION
COORDINATE WITH 4-WAY METROPOLITAN DISTRICT #2

STA:200+02.00
N:1414682.88, E:3266564.69
INSTALL 8" GATE VALVE (A2)

N 41°58'46" E 2.00'

N 41°58'46" E 48.00'

STA:200+50.00
N:1414718.56, E:3266596.79
2° DEFLECTION

N 45°57'49" E 20.00'

STA:200+90.00
N:1414746.86, E:3266625.06
2° DEFLECTION

N 47°57'49" E 20.00'

N 43°57'49" E 20.00'

STA:200+70.00
N:1414732.95, E:3266610.68
2° DEFLECTION

STA:201+10.00
N:1414760.25, E:3266639.91
2° DEFLECTION

BEGIN PUBLIC WATERLINE A
STA:200+00.00
N:1414681.39, E:3266563.35
CONNECT TO EXISTING 8" WATERLINE
INSTALL TAPPING SLEEVE AND VALVE (A1)
CONTRACTOR TO FIELD VERIFY DEPTH AND LOCATION
COORDINATE WITH 4-WAY METROPOLITAN DISTRICT #2

200+00 | 201+00 | 202+00 | 203+00 | 204+00

10.00' PROP. U.E.

65.00' EXIST. U.E.

EXISTING 12" WATERLINE (2)
CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH DURING CONSTRUCTION
COORDINATE WITH 4-WAY METROPOLITAN DISTRICT #2

N 49°58'19" E 291.81'

25.00' EXIST. U.E.

STA:203+82.97
PROPOSED STORM SEWER CROSSING

EXISTING 25' U.E
REC. NO. 207143733

EXISTING 65' U.E
REC. NO. 207143733

EXISTING WELL (TYP.)

EXISTING FIRE HYDRANT

EXISTING OVERHEAD ELECTRIC

EXISTING PUMP HOUSE

20.00' EXIST. U.E.

EXISTING 20' U.E
REC. NO. 207011652

STA:204+37.35, WATERLINE A = STA:250+00.00, WATERLINE B
N:1414972.12, E:3266889.38
INSTALL 8"X8"X6" MJ TEE (A3)
CONNECT TO WATERLINE B

STA:204+21.81
N:1414961.32, E:3266878.21
2° DEFLECTION

N 47°57'49" E 20.00'

STA:204+01.81
N:1414947.93, E:3266863.36
2° DEFLECTION

S 45°57'49" W 15.54'

STA:204+47.35, 52.00' LT
N:1415016.46, E:3266860.43
INSTALL 8" CAP & TEMPORARY BLOW-OFF ASSEMBLY

MATCH LINE:205+50

N 44°02'11" W 52.00'

STA:204+47.35
N:1414979.08, E:3266896.57
INSTALL 8"X8"X8" MJ TEE (A4)

10.00' (TYP.)

DUMONT DRIVE

PROP. 80.00' U.E. & D.E.

205+00

S 45°57'49" W 392.54'

N 45°57'49" E 10.00'

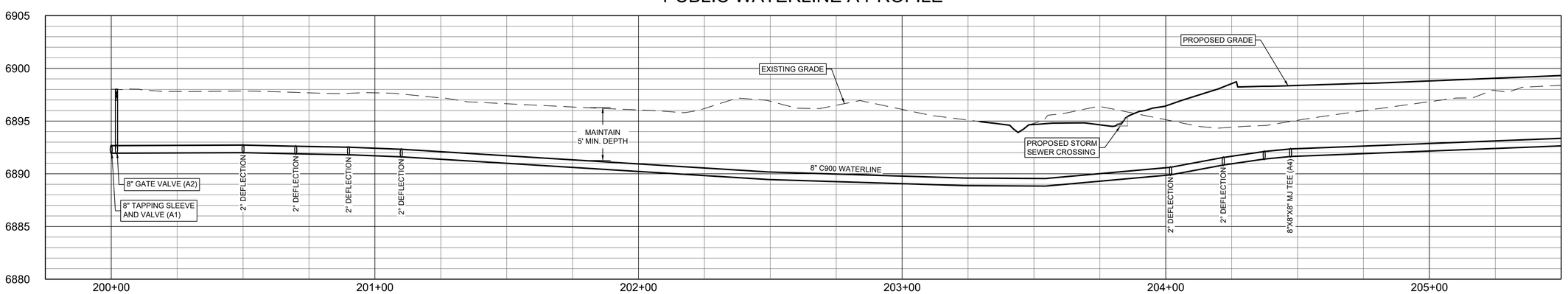
24.00' PROP. D.E.

PROPOSED WATERLINE B (PRIVATE)

NOTES:

1. CONTRACTOR TO COORDINATE ALL WATERLINE INSTALLATION WITH OWNER AND 4-WAY METROPOLITAN DISTRICT #2.
2. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
3. DO NOT EXCEED 2° DEFLECTION AT JOINTS, FOR THE PURPOSE OF THESE PLANS, DEFLECTIONS HAVE BEEN SPACED EVERY 20' AS NECESSARY.

PUBLIC WATERLINE A PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

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WATERLINE A PLAN & PROFILE

NORTH

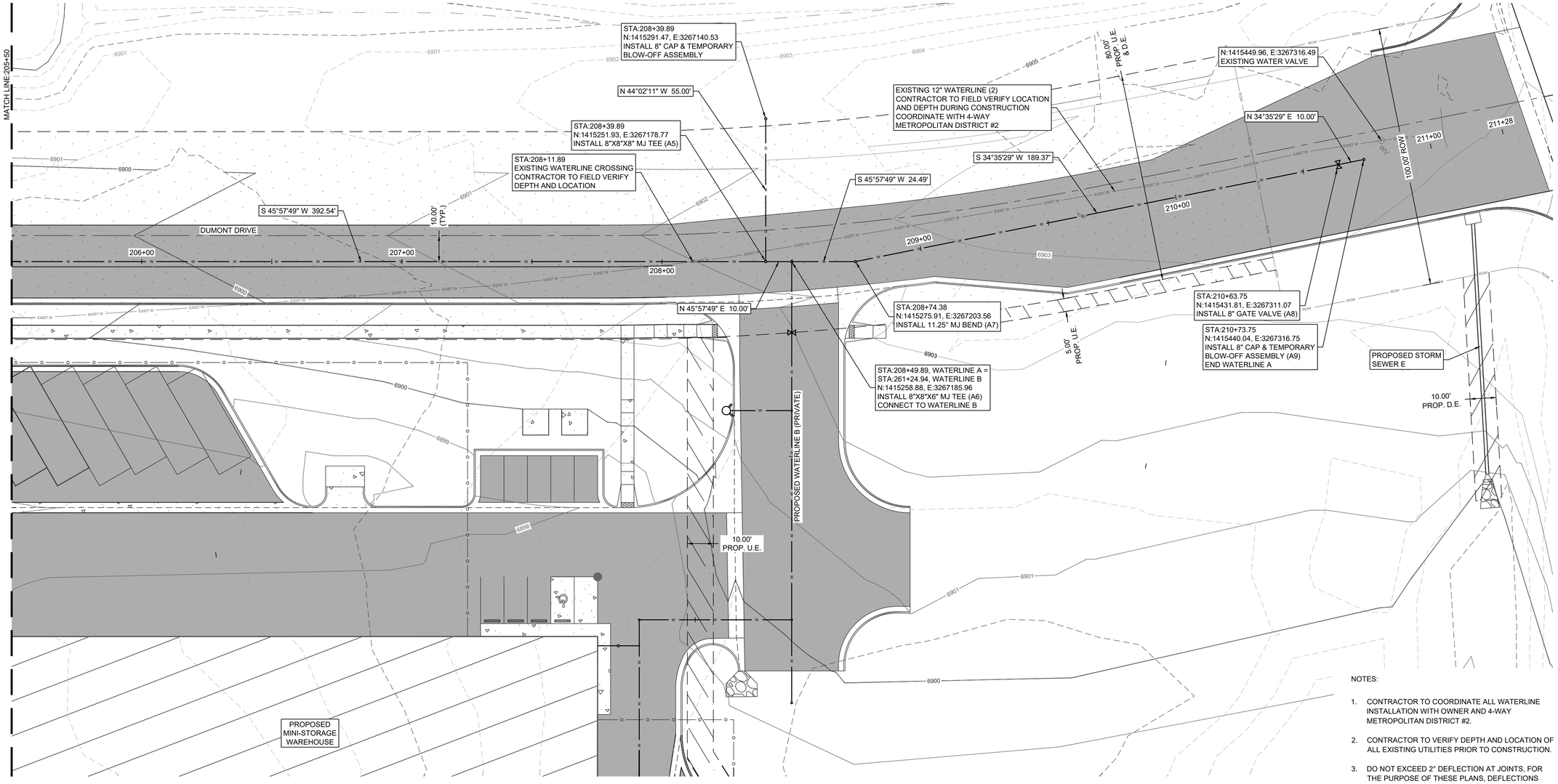
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PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 16

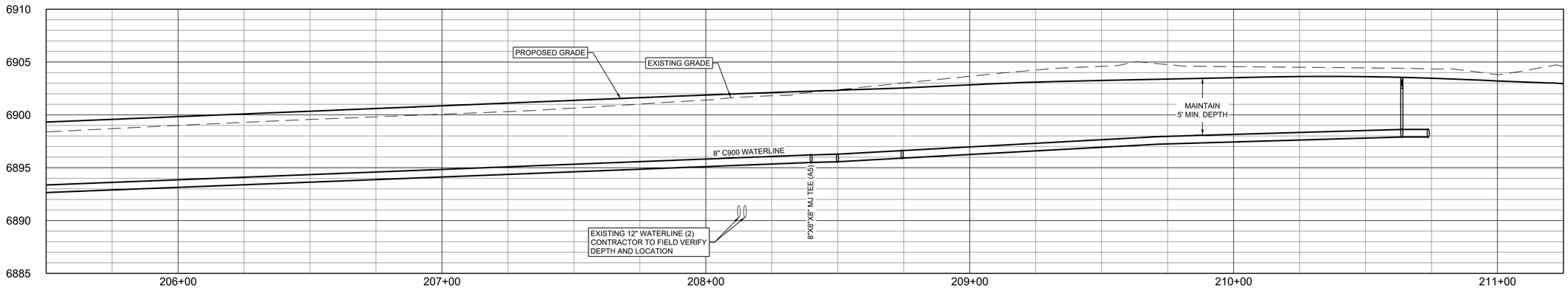
TOTAL SHEETS 48



NOTES:

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PUBLIC WATERLINE A PROFILE



VERTICAL SCALE: 1" = 5'

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00/00/000

NORTH

SCALE: 1" = 20'

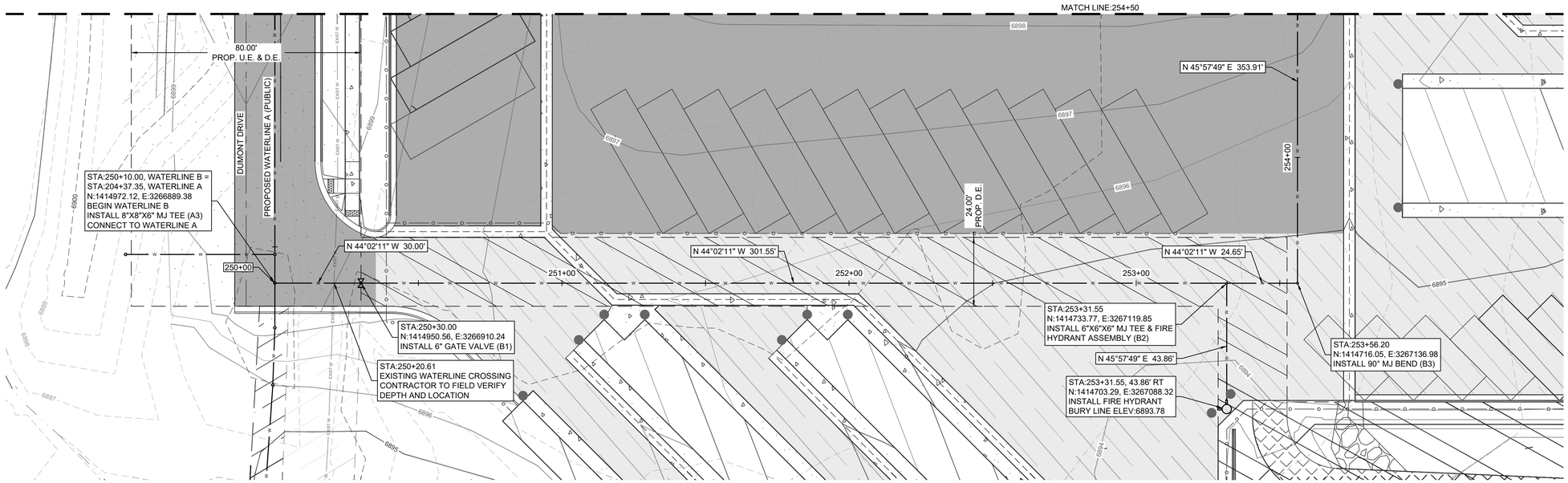
PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 17

TOTAL SHEETS 48

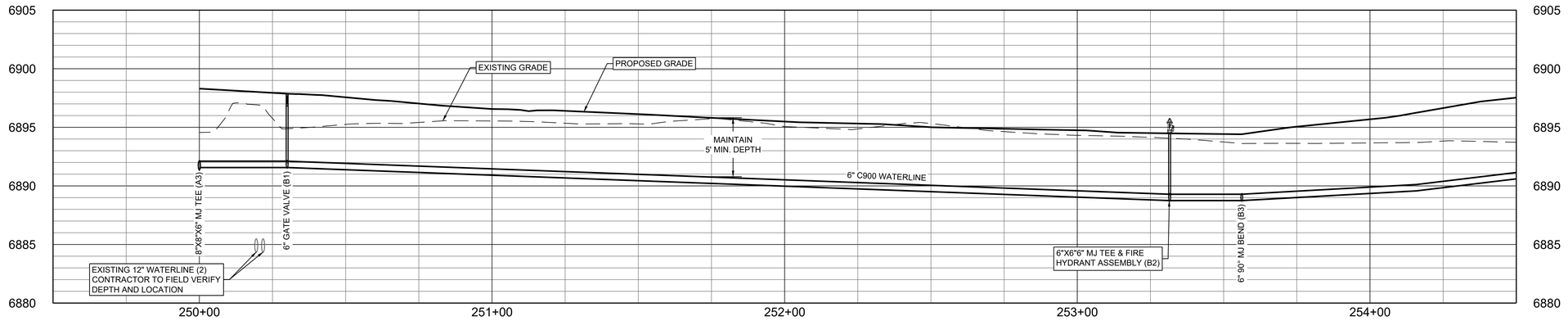
WATERLINE A PLAN & PROFILE



NOTES:

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PRIVATE WATERLINE B PROFILE



VERTICAL SCALE: 1" = 5'

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CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DESCRIPTION (DESCRIPTION)

REVISION DATE 00/00/000

WATERLINE B PLAN & PROFILE

NORTH

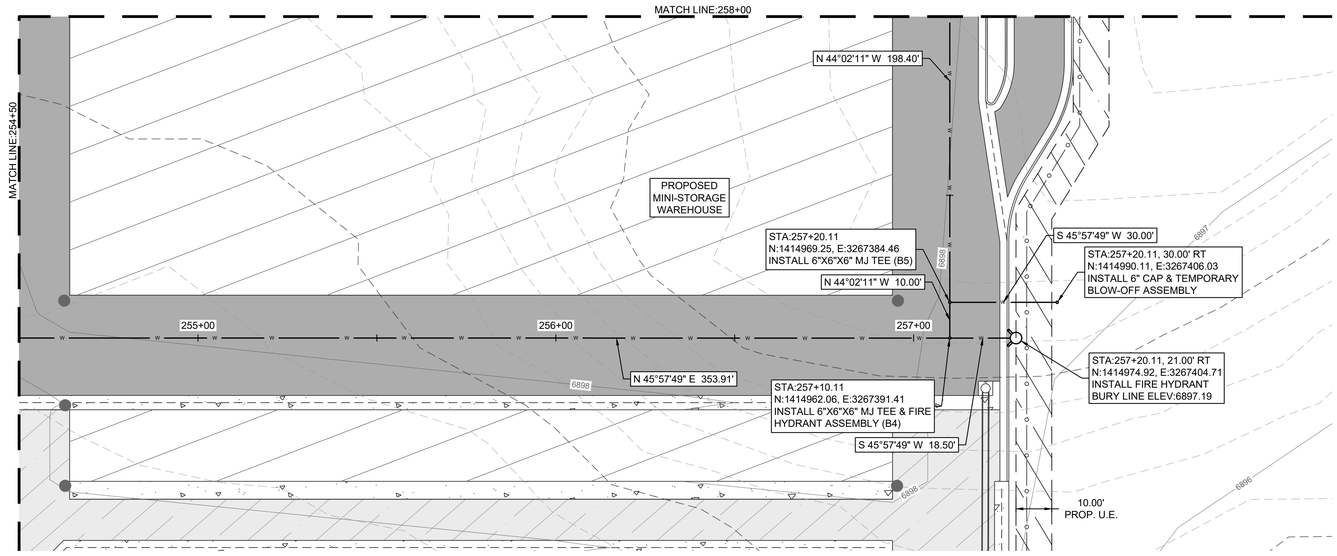
20' 10' 0' 20'
SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 18

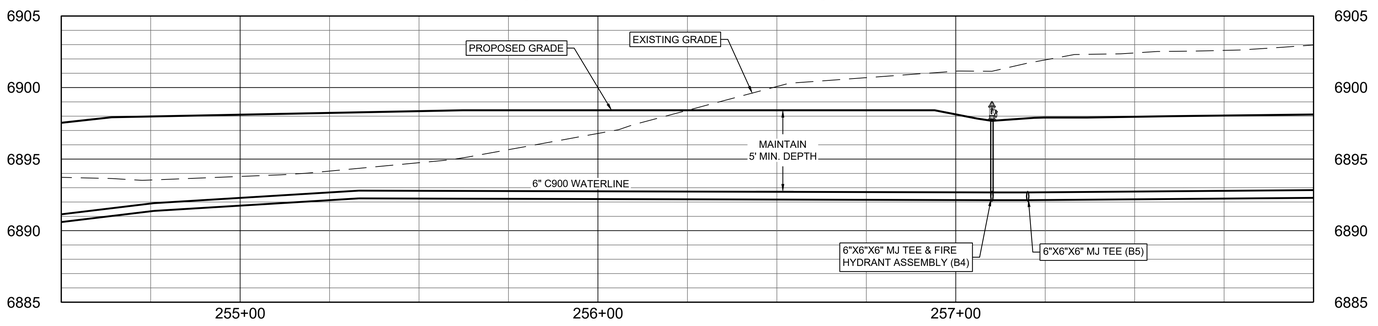
TOTAL SHEETS 48



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PRIVATE WATERLINE B PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION
00/00/00		(DESCRIPTION)

WATERLINE B PLAN & PROFILE

NORTH

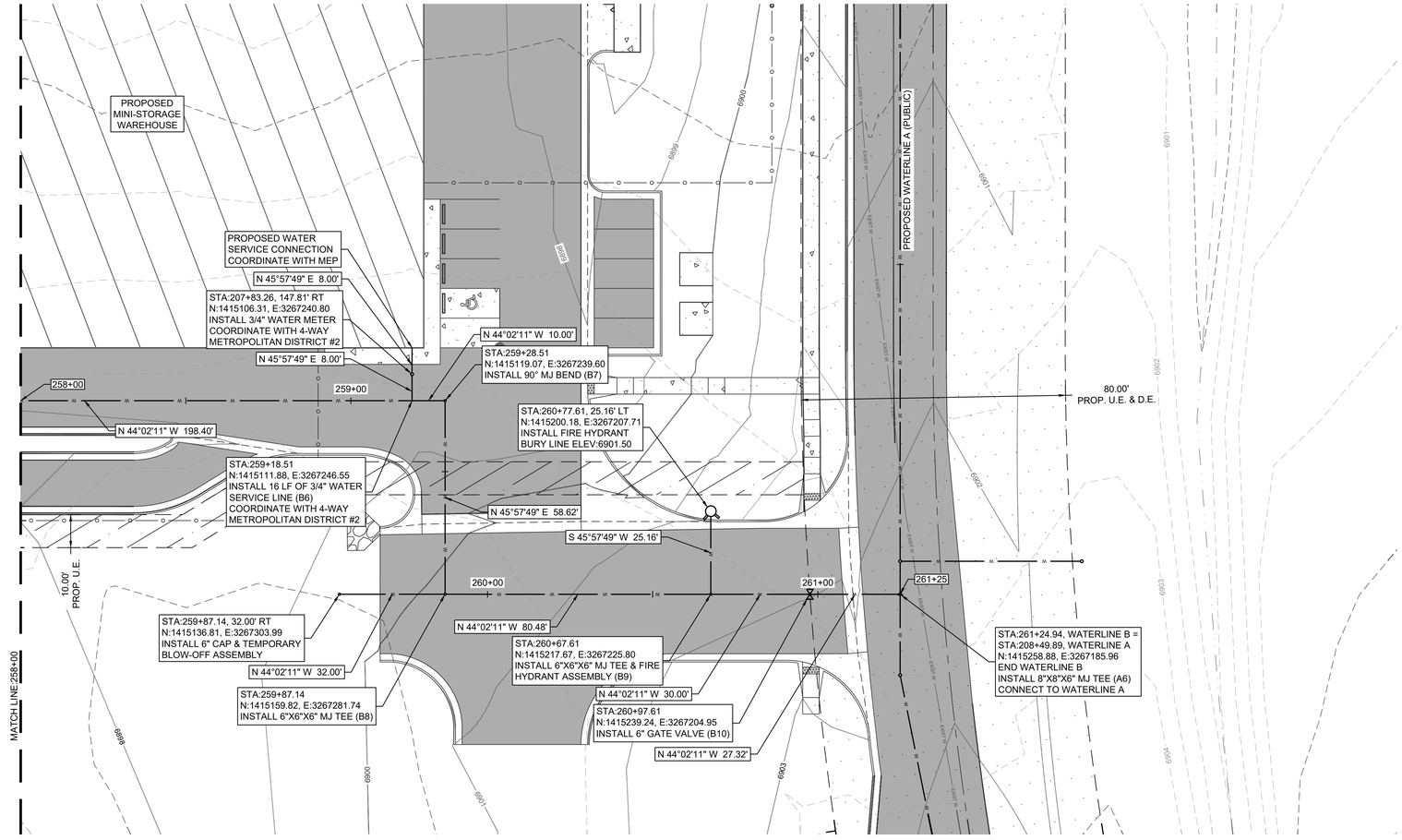
SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 19

TOTAL SHEETS 48



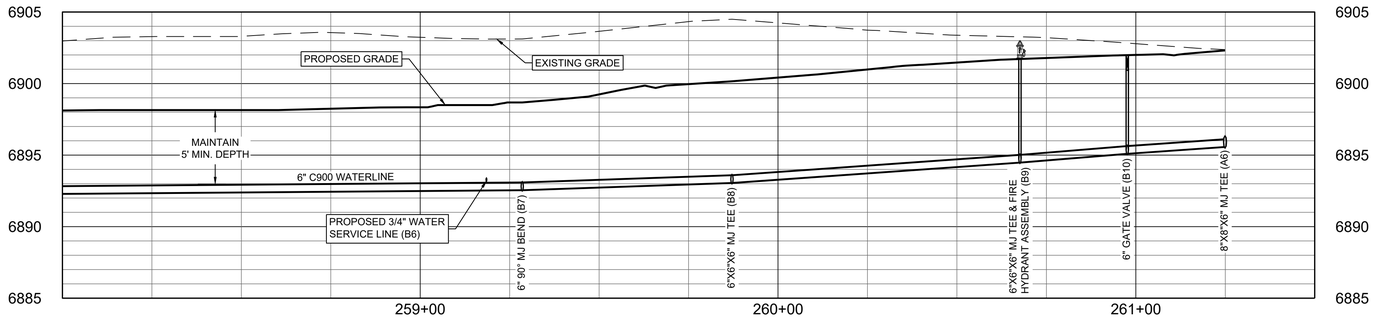
WATERLINE SERVICE INFORMATION

PIPE	WATERLINE STATION	SIDE	LENGTH
3/4" WATER SERVICE	259+28.51	LT	16.0'

NOTES:

1. CONTRACTOR TO COORDINATE ALL WATERLINE INSTALLATION WITH OWNER AND 4-WAY METROPOLITAN DISTRICT #2.
2. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
3. DO NOT EXCEED 2° DEFLECTION AT JOINTS, FOR THE PURPOSE OF THESE PLANS, DEFLECTIONS HAVE BEEN SPACED EVERY 20' AS NECESSARY.

PRIVATE WATERLINE B PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION
00/00/000		(DESCRIPTION)

WATERLINE B PLAN & PROFILE

NORTH

SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

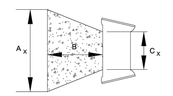
DATE: 06/11/2026

SHEET # 20

TOTAL SHEETS 48

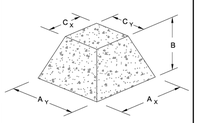
THRUST BLOCK DIMENSIONS and VOLUMES - PVC & DIP 250 psi

MAIN SIZE (in.)	TYPE OF FITTING	MINIMUM BEARING SURFACE AREA (ft^2)	MINIMUM A_x(ft)	MINIMUM A_y(ft)	MINIMUM C_x(ft)	MINIMUM C_y(ft)	MINIMUM B (ft)	APPROXIMATE VOLUME (yd^3)
4	11.25° BEND	1.00	1.00	1.00	0.25	0.33	2.00	0.25
4	22.5° BEND	2.00	1.41	1.41	0.21	0.33	2.00	0.25
4	45° BEND	3.50	1.87	1.87	0.42	0.33	2.00	0.25
4	TEE & DEAD END	4.75	2.18	2.18	0.67	0.33	2.00	0.25
6	11.25° BEND	2.00	1.41	1.41	0.25	0.50	2.00	0.25
6	22.5° BEND	3.75	1.94	1.94	0.38	0.50	2.00	0.25
6	45° BEND	7.25	2.69	2.69	0.58	0.50	2.00	0.25
6	TEE & DEAD END	9.50	3.08	3.08	0.83	0.50	2.00	0.50
8	11.25° BEND	3.25	1.80	1.80	0.34	0.67	2.00	0.25
8	22.5° BEND	6.50	2.55	2.55	0.48	0.67	2.00	0.25
8	45° BEND	12.50	3.57	3.50	0.67	0.67	2.00	0.50
8	TEE & DEAD END	16.25	4.64	3.50	1.08	0.67	2.00	0.75



THRUST BLOCK DIMENSIONS and VOLUMES - PVC (Maximum Static Pressure = 170 psi)

MAIN SIZE (in.)	TYPE OF FITTING	MINIMUM BEARING SURFACE AREA (ft^2)	MINIMUM A_x(ft)	MINIMUM A_y(ft)	MINIMUM C_x(ft)	MINIMUM C_y(ft)	MINIMUM B (ft)	APPROXIMATE VOLUME (yd^3)
12	11.25° BEND	4.75	2.18	2.18	0.43	1.00	2.00	0.25
12	22.5° BEND	9.25	3.04	3.04	0.64	1.00	2.00	0.50
12	45° BEND	18.00	4.92	3.66	1.00	1.00	2.00	0.75
12	TEE & DEAD END	23.50	6.42	3.66	1.46	1.00	2.48	1.00
16	11.25° BEND	8.00	2.83	2.83	0.44	1.33	2.00	0.50
16	22.5° BEND	16.00	4.27	3.75	0.66	1.33	2.00	0.75
16	45° BEND	31.00	8.27	3.75	1.00	1.33	3.64	1.75
16	TEE & DEAD END	40.50	10.80	3.75	1.92	1.33	4.44	3.00



THRUST BLOCK DIMENSIONS and VOLUMES - DIP (Maximum Static Pressure = 250 psi)

MAIN SIZE (in.)	TYPE OF FITTING	MINIMUM BEARING SURFACE AREA (ft^2)	MINIMUM A_x(ft)	MINIMUM A_y(ft)	MINIMUM C_x(ft)	MINIMUM C_y(ft)	MINIMUM B (ft)	APPROXIMATE VOLUME (yd^3)
12	11.25° BEND	6.75	2.60	2.60	0.43	1.00	2.00	0.50
12	22.5° BEND	13.50	3.69	3.66	0.64	1.00	2.00	0.50
12	45° BEND	26.25	7.17	3.66	1.00	1.00	3.09	1.50
12	TEE & DEAD END	34.25	9.36	3.66	1.46	1.00	3.95	2.25
16	11.25° BEND	11.75	3.43	3.43	0.44	1.33	2.00	0.50
16	22.5° BEND	23.25	6.20	3.75	0.66	1.33	2.77	1.00
16	45° BEND	45.50	12.13	3.75	1.00	1.33	5.57	4.00
16	TEE & DEAD END	59.50	15.87	3.75	1.92	1.33	6.98	6.50

NOTES:

1. THE MINIMUM BEARING SURFACE AREAS SHOWN ARE BASED ON A MAX STATIC PIPE PRESSURE OF 170/250 POUNDS PER SQUARE INCH PLUS A SAFETY FACTOR OF 1.5 AND AN ALLOWABLE SOIL BEARING CAPACITY OF 1500 POUNDS PER SQUARE FOOT. BEARING SURFACE AREA IS ROUNDED UP TO THE NEAREST 0.25 SQUARE FEET, REFERENCE AWWA M-23 AND M-41.
2. THE DESIGN ENGINEER IS RESPONSIBLE FOR VERIFYING ASSUMPTIONS BASED ON ACTUAL SITE CONDITIONS. IF SITE CONDITIONS VARY FROM THE ASSUMPTIONS THE DESIGN ENGINEER SHALL PROVIDE A SITE SPECIFIC DESIGN IN ACCORDANCE WITH AWWA M-23, PVC PIPE - DESIGN AND INSTALLATION AND AWWA M-41, DUCTILE-IRON PIPE AND FITTINGS. SITE SPECIFIC DESIGNS INCLUDING GEOTECHNICAL INFORMATION SHALL BE SUBMITTED TO COLORADO SPRINGS UTILITIES FOR REVIEW.
3. THE MINIMUM BEARING SURFACE AREA AND APPROXIMATE VOLUME OF CONCRETE SHALL BE SHOWN ON THE CONSTRUCTION PLANS FOR ALL CONCRETE THRUST BLOCKS. CONCRETE MIX SHALL BE PER MATERIAL CHAPTER 4.
4. THE APPROXIMATE VOLUMES SHOWN ARE BASED ON THE MINIMUM BEARING SURFACE AREA AND THE MINIMUM TRENCH DIMENSIONS. THE APPROXIMATE VOLUME IS ROUNDED UP TO THE NEAREST 0.25 CUBIC YARDS.
5. THESE CHARTS MAY ONLY BE USED IF THE BLOCK HEIGHT (Ay) IS EQUAL TO OR LESS THAN ONE HALF THE TOTAL DEPTH (Ht) FROM THE FINISHED GRADE TO THE BOTTOM OF THE BLOCK. THE MINIMUM DIMENSIONS SHOWN ARE BASED ON A PIPE DEPTH OF 5 FEET. SEE DETAIL DRAWING A4-3.
6. A SITE SPECIFIC DESIGN SHALL BE REQUIRED FOR PIPES LARGER THAN 16 INCHES OR MAX STATIC PIPE PRESSURES GREATER THAN 250 POUNDS PER SQUARE INCH. THE DESIGN ENGINEER HAS THE OPTION OF PROVIDING A SITE SPECIFIC DESIGN FOR PIPES SMALLER THAN 16 INCHES OR MAX STATIC PRESSURES LESS THAN 250 POUNDS PER SQUARE INCH.
7. ALL CALCULATIONS SHALL BE PROVIDED TO COLORADO SPRINGS UTILITIES FOR REVIEW.

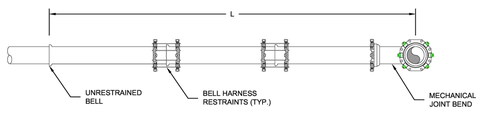
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CONCRETE THRUST REACTION BLOCKS

A4-2 — DATED 03/2014

L = MINIMUM RESTRAINED PIPE LENGTH (FEET)

PIPE DIAMETER		45° BEND			22-1/2° BEND			11-1/4° BEND			DEAD END VALVE OR PLUG, TO INCLUDE IN-LINE VALVES (SEE NOTE 9)		
MAX. STATIC PRESSURE (PSI)		<100	100-150	150-200	<100	100-150	150-200	<100	100-150	150-200	<100	100-150	150-200
6 INCH	DUCTILE IRON AND PVC	6	9	12	3	5	6	2	3	3	49	73	97
8 INCH	DUCTILE IRON AND PVC	8	12	16	4	6	8	2	3	4	63	94	125
12 INCH	DUCTILE IRON AND PVC	12	17	23	6	8	11	3	4	6	89	133	177
16 INCH	DUCTILE IRON AND PVC	15	22	29	7	11	14	4	5	7	USE CONCRETE REVERSE ANCHOR	USE CONCRETE REVERSE ANCHOR	USE CONCRETE REVERSE ANCHOR
20 INCH	DUCTILE IRON AND PVC	18	26	35	9	13	17	4	6	8			
24 INCH	DUCTILE IRON AND PVC	20	30	40	10	15	20	5	7	10			
30 INCH	DUCTILE IRON AND PVC	24	36	48	12	18	24	6	9	12			
36 INCH	DUCTILE IRON AND PVC	28	42	56	14	20	27	7	10	14			



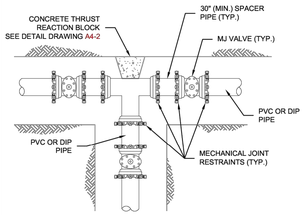
NOTES:

1. PRESSURE GREATER THAN 200 PSI REQUIRE SPECIAL DESIGN APPROVED BY SPRINGS UTILITIES. APPROVED BY COLORADO SPRINGS UTILITIES.
2. LENGTH IS BASED ON MINIMUM 5 FEET OF GROUND COVER AND SOIL COMPACTED ACCORDING TO CHAPTER 5 OF THESE WATER LESS. IF THE DEPTH IS LESS THAN 5 FEET RESTRAINED LENGTH MUST BE DESIGNED BY THE DESIGN ENGINEER.
3. APPROVED METHODS OF RESTRAINED PIPE BEYOND INITIAL FITTING SHALL BE IN ACCORDANCE WITH CHAPTER 4.
4. RESTRAINED PIPE LENGTH APPLIES TO CONDITIONS WHERE NO CONCRETE THRUST REACTION BLOCK IS PRESENT.
5. CALCULATIONS ARE BASED ON A POORLY GRADED SANDS, GRAVEL AND GRAVEL-SAND MIXTURE, LITTLE OR NO FINES, TYPE 4 BEDDING CONDITIONS - "PIPE BEDDED IN SAND, GRAVEL OR CRUSHED STONE TO A DEPTH OF 1/8 PIPE DIAMETER (4" MIN.)." FACTOR OF SAFETY 2:1.
6. FIGURES ARE BASED ON DIP WRAPPED IN POLYETHYLENE MATERIAL.
7. MEASUREMENTS ARE IN FEET.
8. USE CRA FOR DOWN TURNING BENDS.
9. RESTRAINED LENGTH FOR DEAD END MAY BE USED AT THE DISCRETION OF COLORADO SPRINGS UTILITIES.

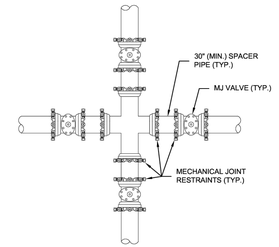
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RESTRAINED PIPE LENGTH (FEET) W/MECHANICAL JOINT RESTRAINTS

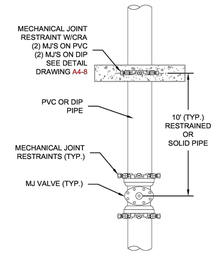
A4-4 — DATED 03/2014



TEE INSTALLATION



CROSS INSTALLATION



IN LINE VALVE INSTALLATION

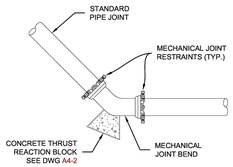
NOTES:

1. MECHANICAL JOINT RESTRAINTS SHALL BE APPROVED ACCORDING TO CHAPTER 4 FOR DIP AND PVC PIPE.
2. DUCTILE IRON FITTINGS AND PIPE SHALL BE WRAPPED IN POLYETHYLENE TUBING WHERE ADJACENT TO CONCRETE.

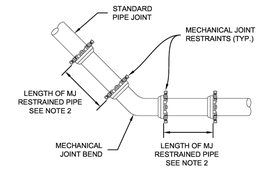
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VALVE AND FITTINGS W/ MECHANICAL JOINT RESTRAINTS

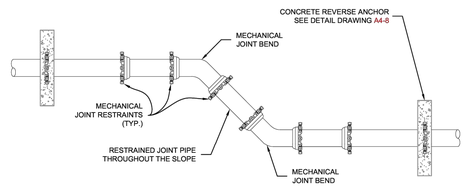
A4-5 — DATED 06/2015



HORIZONTAL BENDS W/MJ RESTRAINTS AND CTRB



HORIZONTAL BENDS W/MJ RESTRAINTS WITHOUT CTRB



VERTICAL BENDS W/ CONCRETE REVERSE ANCHORS ON SLOPES 10% OR GREATER

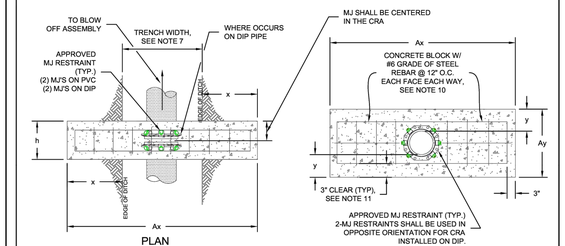
NOTES:

1. MECHANICAL JOINT RESTRAINTS SHALL BE APPROVED ACCORDING TO CHAPTER 4 FOR DIP AND PVC PIPE.
2. LENGTH OF PIPE REQUIRING JOINT RESTRAINT SHALL BE DETERMINED FROM CHART ON DETAIL DRAWING A4-4.
3. DUCTILE IRON FITTINGS AND PIPE SHALL BE WRAPPED IN POLYETHYLENE TUBING WHERE ADJACENT TO CONCRETE.

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BEND CONFIGURATIONS AND RESTRAINTS

A4-6 — DATED 06/2015



DIAMETER (in)	PRESSURE (psi)	x (in)	Ax (in)	y (in)	Ay (in)	Ab (sf)	h (in)	Vol (cy)
4	250	12	72	12	28.80	6.80	18	1.0
6	250	18	84	12	30.90	9.73	18	1.0
8	250	36	120	12	33.05	18.53	18	1.5
12	170	36	120	15	43.20	24.60	18	2.0
12	250	48	144	18	49.20	36.80	24	3.75
16	170	54	156	18	53.40	44.05	24	4.25
16	250	60	168	24	65.40	60.50	36	8.5

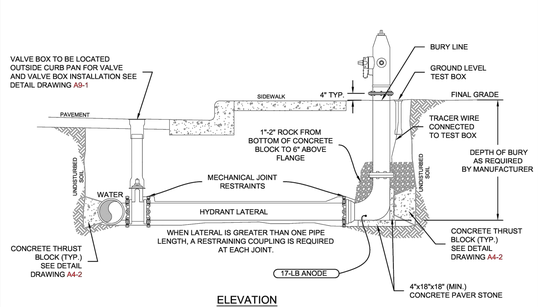
NOTES:

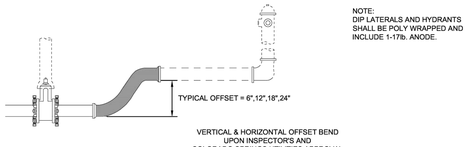
1. THE MINIMUM BEARING SURFACE AREAS SHOWN ARE BASED ON A MAX STATIC PIPE PRESSURE OF 170/250 POUNDS PER SQUARE INCH PLUS A SAFETY FACTOR OF 1.5, AND AN ALLOWABLE SOIL BEARING CAPACITY OF 1500 POUNDS PER SQUARE FOOT. FOR HDPE ADDITIONAL ASSUMPTIONS INCLUDE A MAX 50°-F TEMPERATURE CHANGE AND A POISSON RATIO OF 0.45. REFERENCE AWWA M-23, M-41 AND M-55.
2. THE DESIGN ENGINEER IS RESPONSIBLE FOR VERIFYING ASSUMPTION BASED ON ACTUAL SITE CONDITIONS. IF SITE VARY FROM THE ASSUMPTIONS THE DESIGN ENGINEER SHALL PROVIDE A SITE SPECIFIC DESIGN THAT SHALL BE IN ACCORDANCE WITH AWWA M-23, PVC PIPE - DESIGN AND INSTALLATION AND AWWA M-41, DUCTILE-IRON PIPE AND FITTINGS. SITE SPECIFIC DESIGNS USING GEOTECHNICAL INFORMATION SHALL BE SUBMITTED TO COLORADO SPRINGS UTILITIES FOR APPROVAL.
3. THE MINIMUM LATERAL BEARING SURFACE AREA (Ab) AND APPROXIMATE VOLUME OF CONCRETE (Vol) SHALL BE SHOWN ON THE CONSTRUCTION PLANS FOR ALL CONCRETE REVERSE ANCHORS.
4. THE APPROXIMATE VOLUMES SHOWN ARE BASED ON THE MINIMUM DIMENSIONS IN THE TABLE. THE APPROXIMATE VOLUME IS ROUNDED UP TO THE NEAREST 0.25 CUBIC YARDS.
5. A SITE SPECIFIC DESIGN SHALL BE REQUIRED FOR PIPES LARGER THAN 16 INCHES OR MAX STATIC PIPE PRESSURES GREATER THAN 250 POUNDS PER SQUARE INCH. THE DESIGN ENGINEER HAS THE OPTION OF PROVIDING A SITE SPECIFIC DESIGN FOR PIPES SMALLER THAN 16 INCHES OR MAX STATIC PRESSURES LESS THAN THE PRESSURE LISTED IN THE TABLE.
6. FOR CORROSION PROTECTION OF THE RODS SEE DETAIL DRAWING A8-11.
7. A TRENCH WIDTH OF 4 FEET AND 6" BEDDING UNDER THE PIPE ARE ASSUMED FOR BEARING CALCULATIONS, (Ax, Ay, x AND y).
8. THE DESIGN ENGINEER SHALL ENSURE THE CONSTRUCTION OF THE CONCRETE REVERSE ANCHOR SHALL NOT CONFLICT WITH OTHER UTILITIES.
9. DUCTILE IRON FITTINGS AND PIPE SHALL BE WRAPPED IN POLYETHYLENE TUBING WHERE ADJACENT TO CONCRETE.
10. THE REBAR IS TO BE POSITIONED CONSISTENTLY THROUGHOUT THE ENTIRE THREE-DIMENSIONAL (3D) VOLUME OF THE CRA TO PROVIDE REINFORCEMENT. THE MAXIMUM HORIZONTAL AND VERTICAL SPACING BETWEEN INDIVIDUAL RODS OF REBAR IS 12" ON CENTER (O.C.). THIS SPACING MAY DECREASE DEPENDING ON THE DIMENSIONS OF THE CRA BUT CANNOT EXCEED 12". THE SPACING USED BETWEEN RODS OF REBAR SHALL BE CONSISTENT THROUGHOUT THE CRA.
11. THERE SHALL BE A 3" CLEARANCE OF NON-REINFORCED CONCRETE ENCASING THE REINFORCED PORTION OF THE CRA ON ALL SIDES WITHIN THE 3D VOLUME. ANY DEVIATIONS FROM 3" OF CLEAR SPACE WILL REQUIRE CUSTOM CALCULATIONS PER SECTION 2.6.F.7.

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CONCRETE REVERSE ANCHOR FOR MECHANICAL JOINT RESTRAINTS

A4-8 — DATED 08/2023





NOTE:
DIP LATERALS AND HYDRANTS SHALL BE POLY WRAPPED AND INCLUDE 1-17lb. ANODE.

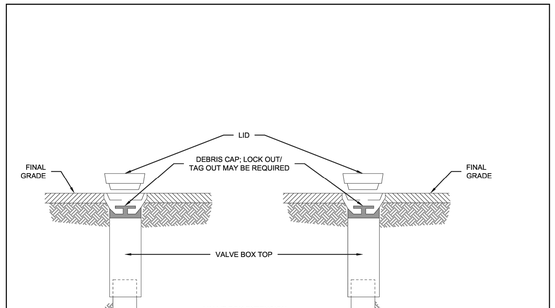
NOTES:

1. MECHANICAL JOINT RESTRAINTS SHALL BE INSTALLED PER DETAIL DRAWINGS A4-4, A4-5, & CHAPTER 5.
2. TRACER WIRE AND GROUND LEVEL TEST BOX TO BE INSTALLED WITH EACH FIRE HYDRANT. PLACE TEST BOX WITHIN 6" FROM THE HYDRANT.
3. REFERENCE DETAIL DRAWINGS A5-1 & A5-2 FOR FIRE HYDRANT LOCATION.
4. INSTALLATION OF A PRIVATE FIRE HYDRANT WILL REQUIRE A SECONDARY VALVE INSTALLED AT THE PROPERTY LINE.
5. HYDRANT BASE BLOCK SHALL BE PLACED ON UNDISTURBED EARTH.
6. DO NOT BLOCK WEEP HOLE WITH POLYWRAP.
7. COVER DRAIN ROCK WITH POLYWRAP PRIOR TO BACKFILL.
8. FOR HDPE HYDRANT CONNECTION SEE DETAIL DRAWING A10-9.
9. FOR PRIVATE FIRE HYDRANTS A SECONDARY VALVE SHALL BE INSTALLED ON THE PROPERTY LINE OR RIGHT-OF WAY LINE.

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FIRE HYDRANT INSTALLATION

A5-3 — DATED 03/2014



TYPICAL GATE VALVE BOX

MJ OR FLANGED BUTTERFLY VALVE
WITH ROTATED ACTUATOR VALVE BOX

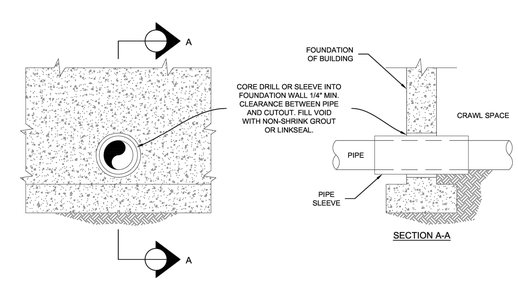
NOTES:

1. MAIN AND FIRE HYDRANT VALVES AND VALVE BOXES SHALL NOT BE IN THE CURB PAN, CURB OR SIDEWALK.
2. VALVE BOXES SHALL BE SLIP TYPE, PER CHAPTER 4.
3. DEBRIS CAPS SHALL BE INSTALLED AS CLOSE UNDER THE CAST IRON COVER WITHOUT INTERFERING WITH COVER OPERATIONS.
4. DEBRIS CAPS WITH FLEXIBLE SKIRTS SHALL BE TRIMMED TO PROVIDE A SMOOTH CONTACT WITH THE INTERIOR OF THE VALVE BOX.
5. FOR SERVICE LINES 4" AND GREATER, TRACER WIRE WILL BE BROUGHT UP IN THE SECONDARY VALVE BOX.

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VALVE BOX INSTALLATION

A9-1 — DATED 03/2014



BUILDING ENTRY ALTERNATIVES

NOTES:

1. WHERE COMPACTION CANNOT BE ACHIEVED UNDER THE WATER MAIN FLOWFILL SHALL BE USED.

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WATER SERVICE ENTRY POINT

B1-5 — DATED 01/2017

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4-WAY COMMERCIAL
CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

WATERLINE DETAILS

SCALE: NTS

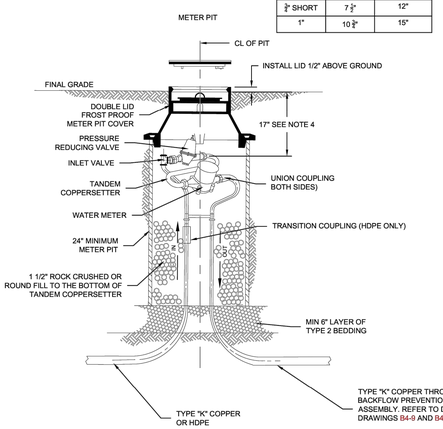
PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 21

TOTAL SHEETS 48

METER SIZE	METER LENGTH	LAY LENGTH W/ TAILPIECES
¾" SHORT	7 ¾"	12"
1"	10 ¾"	15"

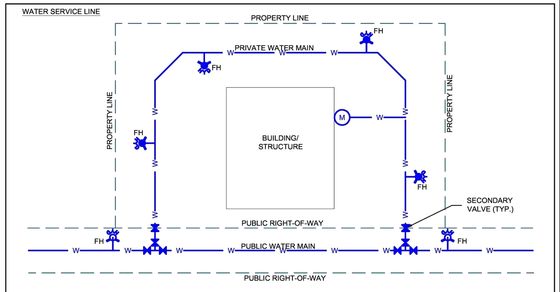


NOTES:

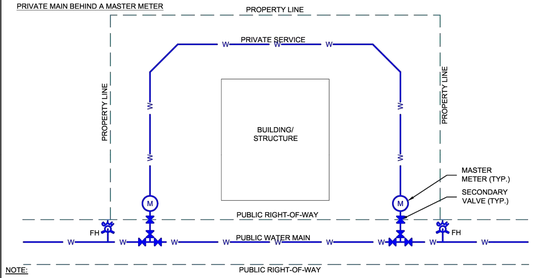
1. THE METER SHALL BE PROVIDED AND INSTALLED BY COLORADO SPRINGS UTILITIES.
2. REFERENCE SECTION 2.7 WATER SERVICE LINE DESIGN.
3. METER PIT SHALL BE INSTALLED IMMEDIATELY FOLLOWING THE CURB STOP.
4. METER AND PRESSURE REGULATOR ARE INSTALLED WITH AN APPROVED TANDEM COPPERSETTER. TANDEM COPPERSETTER SHALL BE 17" FROM THE TOP PIT LID/FINISH GRADE TO CENTER OF SETTER. TANDEM COPPERSETTER SHALL HAVE AN INLET VALVE ONLY.
5. METER PIT SHALL BE AN APPROVED PLASTIC PIT WITH A MINIMUM DIAMETER OF 24" BY 36" IN HEIGHT WITH A FROST PROOF COVER.
6. SERVICE LINE SHALL BE TYPE "K" COPPER BETWEEN THE TANDEM COPPERSETTER AND BACKFLOW ASSEMBLY TO PROVIDE METER STABILITY. TRANSITION TO HDPE MAY BE MADE BEFORE THE INLET SIDE OF THE TANDEM COPPERSETTER WITH AN APPROVED TRANSITION COUPLING LOCATED WITHIN THE METER PIT.
7. ALL FITTINGS IN THE METER LOOP SHALL BE SOLDERED, FLANGED OR THREADED. THE BACKFLOW PREVENTER SHALL BE SOLDERED OR FLANGED.
8. IF A BACKFLOW PREVENTION ASSEMBLY IS REQUIRED, IT MUST BE LOCATED BEFORE THE FIRST BRANCH LINE. FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS, INCLUDING LOCATION, SEE SECTION 2.7.N.

Colorado Springs Utilities	3/4" THRU 1" OUTSIDE METER FOR NON SINGLE-FAMILY-RESIDENTIAL CONNECTIONS TYPE "K" COPPER AND HDPE SERVICE	B4-2A DATED 07/2025

WATER SERVICE LINE



PRIVATE MAIN BEHIND A MASTER METER

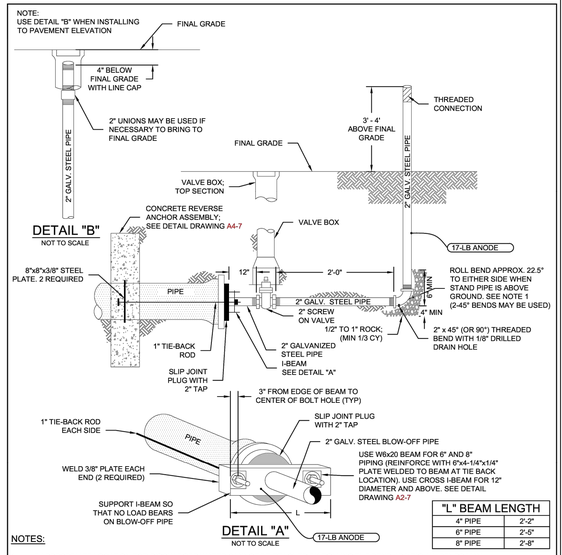


NOTE:

1. PRIVATE WATER MAINS BEHIND A MASTER METER ARE ALLOWED BUT NOT RECOMMENDED DUE TO FIRE FLOW AND BACKFLOW PREVENTION WATER METER REQUIREMENTS AND OWNERSHIP RESPONSIBILITIES.
2. BACKFLOW PREVENTION ASSEMBLY IS REQUIRED TO BE LOCATED AFTER MASTER METERED SYSTEM AND BEFORE FIRST BRANCH SERVICE LINE. SEE DETAIL DRAWING B4-9.
3. NON-SINGLE-FAMILY RESIDENTIAL CONNECTIONS REQUIRE THE INSTALLATION OF AN RP BACKFLOW PREVENTION ASSEMBLY SEE SECTION 2.7.N.
4. FOR EASEMENT WIDTHS SEE SECTION 2.6.E.
5. FIRE HYDRANTS ARE NOT ALLOWED AFTER THE MASTER METER.

Colorado Springs Utilities	NON-SINGLE-FAMILY-RESIDENTIAL CONNECTION AND APARTMENTS ONE PLATTED LOT AND ONE BUILDING RECEIVING SERVICE	A1-3 DATED 10/2020

NOTE:
USE DETAIL "B" WHEN INSTALLING TO PAVEMENT ELEVATION



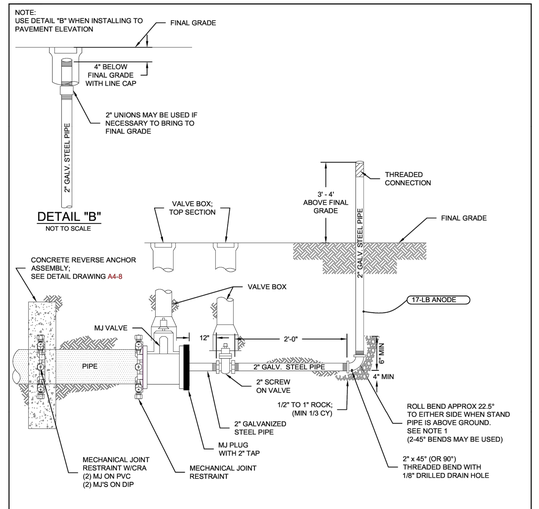
"L" BEAM LENGTH	
4" PIPE	2'-2"
6" PIPE	2'-5"
8" PIPE	2'-8"

NOTES:

1. IF APPROPRIATE LOCATION FOR DISCHARGED WATER CANNOT BE REACHED BY ROLLING THE BEND ADDITIONAL BENDS MAY BE REQUIRED BY THE COLORADO SPRINGS UTILITIES INSPECTOR.
2. COAT TIE RODS, BEAM AND GALVANIZED STEEL PIPE. SEE DETAIL DRAWING A8-11.
3. ENTIRE BLOW-OFF ASSEMBLY MUST BE ADEQUATELY SUPPORTED, CONCRETE PAVER STONES MAY BE REQUIRED.
4. PIPE DOPE APPROVED FOR USE IN POTABLE WATER SYSTEMS MUST BE USED ON ALL THREADED FITTINGS.
5. TEMPORARY BLOW-OFF VALVE ASSEMBLIES SHALL BE INSPECTED BY THE COLORADO SPRINGS UTILITIES INSPECTOR PRIOR TO BACKFILL. BACKFILL COMPACTION TO BE SAME AS PIPE COMPACTION SPECIFICATIONS.
6. 2" GALVANIZED PIPE MUST BE RATED TO 250 PSI AND CONFORM TO NSF-61 SPECIFICATIONS.
7. THERE SHALL BE NO SERVICE LINES CONNECTED BETWEEN THE LAST ISOLATION VALVE AND THE TEMPORARY BLOW-OFF ASSEMBLY.
8. TIE BACK RODS SHALL BE A MINIMUM ASTM A307 GRADE A STEEL WITH MINIMUM ASTM A-36 NUTS. STEEL BEAMS SHALL BE ASTM A992 GD 50.
9. ALL HOLES IN STEEL SHALL BE OVERSIZED HOLES.

Colorado Springs Utilities	TEMPORARY BLOW-OFF ASSEMBLIES- 4", 6" & 8" MAINS WITH SLIP JOINT PLUG	A2-4 DATED 03/2014

NOTE:
USE DETAIL "B" WHEN INSTALLING TO PAVEMENT ELEVATION



NOTES:

1. IF APPROPRIATE LOCATION FOR DISCHARGED WATER CANNOT BE REACHED BY ROLLING THE BEND ADDITIONAL BENDS MAY BE REQUIRED BY THE COLORADO SPRINGS UTILITIES INSPECTOR.
2. COAT TIE RODS, BEAM AND GALVANIZED STEEL PIPE. SEE DETAIL DRAWING A8-11.
3. ENTIRE BLOW-OFF ASSEMBLY MUST BE ADEQUATELY SUPPORTED, CONCRETE PAVER STONES MAY BE REQUIRED.
4. PIPE DOPE APPROVED FOR USE IN POTABLE WATER SYSTEMS MUST BE USED ON ALL THREADED FITTINGS.
5. TEMPORARY BLOW-OFF VALVE ASSEMBLIES SHALL BE INSPECTED BY THE COLORADO SPRINGS UTILITIES INSPECTOR PRIOR TO BACKFILL. BACKFILL COMPACTION TO BE SAME AS AS PIPE COMPACTION SPECIFICATIONS.
6. 2" GALVANIZED PIPE MUST BE RATED TO 250 PSI AND CONFORM TO NSF-61 SPECIFICATIONS.
7. THE COLORADO SPRINGS UTILITIES INSPECTOR MAY REQUIRE TIE-BACK RODS IN ADDITION TO THE MJ RESTRAINTS DEPENDING ON FIELD CONDITIONS AND SYSTEM PRESSURES. SEE TIE-BACK ROD DETAIL DRAWING A2-4. IF THE MJ RESTRAINT CONFLICTS WITH THE PLATES FOR THE TIE RODS IN THE REVERSE ANCHOR, SUBMIT AN INDEPENDENT DESIGN TO MODIFY THE CROSS BEAM DESIGN AND TIE BACK ROD CONNECTIONS.
8. THERE SHALL BE NO SERVICE LINES CONNECTED BETWEEN THE LAST ISOLATION VALVE AND THE TEMPORARY BLOW-OFF ASSEMBLY.

Colorado Springs Utilities	TEMPORARY BLOW-OFF ASSEMBLIES- 4", 6" & 8" MAINS WITH MECHANICAL JOINT LINE CAP	A2-6 DATED 01/2017

PER SLIP JOINT OF DIP PIPE

PIPE DATA		DESIGN DEFLECTION (80% MAX.)		APPROX. RADIUS FOR DEFLECTING CURVES WITHOUT BENDS	
PIPE SIZE	MFRS. DEFL.	(HORZ. DEFL.)	(VERT. DEFL.)	20'L	18'L
4" 6" 8" 10" 12"	5°00'	4°00'	6.99%	286'	258'
14" 16"	4°00'	3°12'	5.59%	358'	322'
18" 20" 24" 30" 36"	3°00'	2°24'	4.19%	477'	430'
42"	2°00'	1°36'	2.79%	716'	645'

DATA FOR DIP PIPE

SHADED COLUMN IS MANUFACTURERS REFERENCE ONLY

PER SLIP JOINT OF PVC PIPE W/HIGH DEFLECTION COUPLINGS

PIPE DATA		MFRS. TOTAL JOINT DEFL.W/ COUPL.	DESIGN DEFLECTION (80% MAX.)		MIN. RADIUS FOR DEFLECTING CURVES WITH HIGH DEFL. COUPLINGS
	PIPE SIZE		(HORZ. DEFL.)	(VERT. DEFL.)	20'L
CLASS 305 (DR-14)	4"	5°00'	4°00'	6.99%	286'
	6"	5°00'	4°00'	6.99%	286'
	8"	5°00'	4°00'	6.99%	286'
	12"	5°00'	4°00'	6.99%	286'
CLASS 235 (DR-18)	16"	NO DEFLECTION COUPLINGS FOR 16" OR GREATER			

DATA FOR PVC PIPE

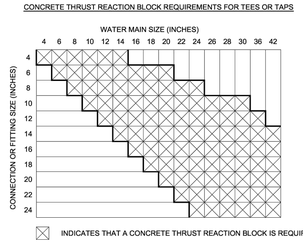
SHADED COLUMN IS MANUFACTURERS REFERENCE ONLY

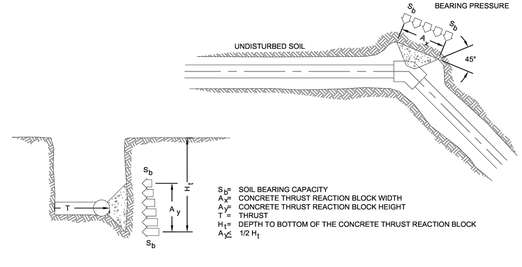
NOTES:

1. COLORADO SPRINGS UTILITIES USES A 1.25 SAFETY FACTOR TO AVOID OVER DEFLECTION OF THE PIPE.
2. SLIP JOINT PVC PIPE SHALL NOT BE DEFLECTED WITHOUT THE USE OF HIGH DEFLECTION COUPLINGS (HDC).

Colorado Springs Utilities	MAXIMUM PIPELINE DEFLECTION DATA FOR DIP AND PVC PIPE	A4-1 DATED 03/2014

CONCRETE THRUST REACTION BLOCK REQUIREMENTS FOR TEES OR TAPS

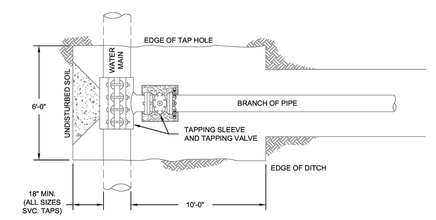




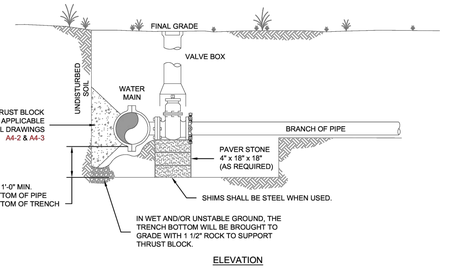
NOTES:

1. A SITE SPECIFIC DESIGN SHALL BE REQUIRED FOR CONNECTIONS OR FITTING SIZE COMBINATIONS NOT SHOWN ABOVE.
2. THE CONCRETE THRUST REACTION BLOCK SHALL BEAR AGAINST UNDISTURBED SOIL.
3. THE CONCRETE THRUST REACTION BLOCK SHALL BE INSTALLED WITH A 45° ANGLE FROM THE FITTING TO THE UNDISTURBED SOIL AS SHOWN IN THE DRAWING ABOVE.
4. REFER TO DETAIL DRAWING A4-2 FOR STANDARD CONCRETE THRUST REACTION BLOCK DIMENSIONS AND VOLUMES.
5. DUCTILE IRON FITTINGS AND PIPE SHALL BE WRAPPED IN POLYETHYLENE TUBING WHERE ADJACENT TO CONCRETE.

Colorado Springs Utilities	CONCRETE THRUST REACTION BLOCKS	A4-3 DATED 03/2014



PLAN VIEW



ELEVATION

NOTES:

1. 4" WATER SERVICE LINES TYPICALLY REQUIRE A TEE AND VALVE PER SECTION 2.6.C. THIS DRAWING MAY ONLY BE USED AT THE DISCRETION OF COLORADO SPRINGS UTILITIES.
2. TRENCH WALLS AND SHORING SHALL COMPLY WITH OSHA STANDARDS.
3. WHERE COMPACTION CANNOT BE ACHIEVED UNDER THE WATER MAIN FLOWFILL SHALL BE USED.
4. ATTACH ANODES FOR CATHODIC PROTECTION.

Colorado Springs Utilities	DETAILS FOR TAPS 4" AND OVER FOR DUCTILE OR PVC PIPE	B1-2 DATED 03/2014

SMH CONSULTANTS
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Landscape Architecture
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Dodge City, KS
(620) 255-1952
Kansas City
(913) 444-9615
Colorado Springs, CO
(719) 465-2145

4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

WATERLINE DETAILS

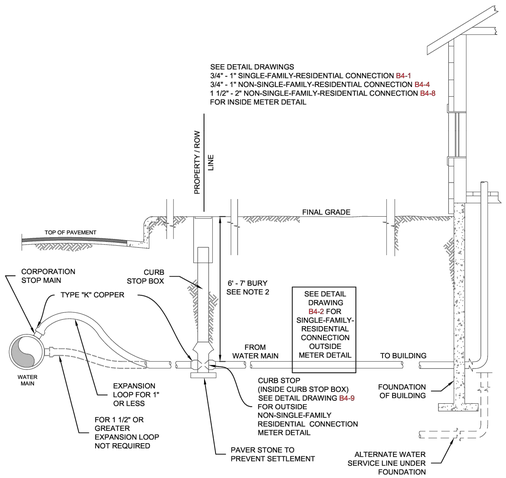
SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 22

TOTAL SHEETS 48

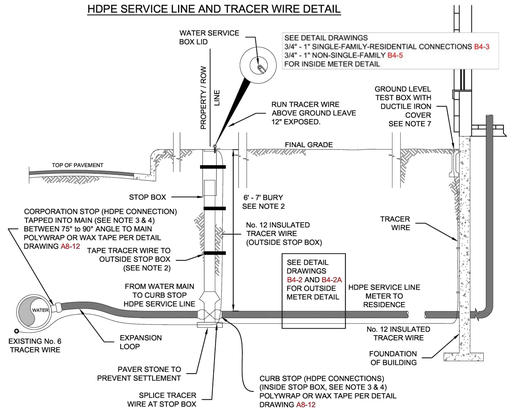


NOTES:

1. REFERENCE SECTION 2.7 WATER SERVICE LINE DESIGN.
2. FOR AREAS WITH DEEPER FROST DEPTHS SEE SECTION 2.6.G.1 FOR DEPTH OF BURY REQUIREMENTS.
3. SEE DETAIL DRAWING B4-9 FOR NON-SINGLE-FAMILY-RESIDENTIAL CONNECTION OUTSIDE METER DETAIL.

Colorado Springs Utilities It's how we're all connected	TYPICAL INSTALLATION FOR TYPE "K" COPPER SERVICE LINE, STOP BOX AND METER INSTALLATION 3/4" - 2"	B1-3 DATED 01/2017

HDPE SERVICE LINE AND TRACER WIRE DETAIL



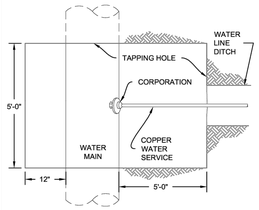
WATER SERVICE LINE NOTES:

1. NO. 12 INSULATED TRACER WIRE SHALL BE PLACED ALONG SERVICE LINE AND SHALL BE A CONTINUOUS (WITHOUT SPLICES) LENGTH, WITH THE EXCEPTION OF THE SPLICE AT THE STOP BOX WHICH SHALL BE MADE WITH A COPPER CRIMP OR SPLIT BOLT CONNECTOR.
2. FOR GRASS MOUNTAIN FALLS SEE SECTION 2.6.G.1 DEPTH OF BURY.
3. WHEN A NEW HDPE SERVICE IS CONNECTED TO A PVC MAIN, THE SERVICE LINE TRACER WIRE SHALL BE CONNECTED TO THE MAIN'S TRACER WIRE WITH A COPPER CRIMP OR SPLIT-BOLT CONNECTOR. THE TRACER WIRE IS THEN TAPED ALONG THE SERVICE LINE IN AT LEAST 3 LOCATIONS NOT TO EXCEED 10' SPACING. AT THE CURB BOX, THE TRACER WIRE WILL BE TAPED TO THE OUTSIDE OF THE CURB BOX IN AT LEAST THREE PLACES AND BROUGHT TO THE EXISTING GRADE ADJACENT TO THE CURB BOX COVER. 12" OF TRACER WIRE SHALL BE EXPOSED ABOVE GROUND THEN THE TRACER WIRE WILL BE SPLICED AT THE STOP BOX AND TAPED TO THE SERVICE LINE UNTIL IT REACHES THE FOUNDATION WALL. THE TRACER WIRE SHALL FOLLOW THE FOUNDATION WALL AND TERMINATE IN A GROUND LEVEL TEST BOX NO MORE THAN 12" FROM THE FOUNDATION WALL.
4. STIFFENERS SHALL BE INSTALLED WITHIN THE HDPE SERVICE LINE AT THE CONNECTION POINTS OF THE FITTINGS.
5. IF A BACKFLOW PREVENTION ASSEMBLY IS REQUIRED, IT MUST BE LOCATED BEFORE THE FIRST BRANCH LINE. FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS, INCLUDING LOCATION, SEE SECTION 2.7.N.
6. THE FINAL LOCATION OF THE GROUND LEVEL TEST BOX SHALL BE 12" FROM THE FOUNDATION OR THE SAME DISTANCE FROM THE FOUNDATION AS THE WASTEWATER SERVICE LINE CLEANOUT.
7. WHERE THE WATER SERVICE LINE AND WASTEWATER SERVICE LINE ARE LOCATED IN THE SAME TRENCH, THE TRACER WIRE MAY BE WRAPPED AND TAPPED AROUND THE OUTSIDE OF THE WASTEWATER CLEANOUT.

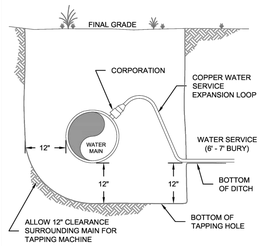
Colorado Springs Utilities It's how we're all connected	TYPICAL INSTALLATION FOR HDPE SERVICE LINE AND STOP BOX	B1-4 DATED 01/2017

TAPPING DETAIL FOR 3/4" AND 1" CONNECTION

SERVICE TAPS 3/4" & 1" CORPORATION ONLY (DIRECT TAPPING).



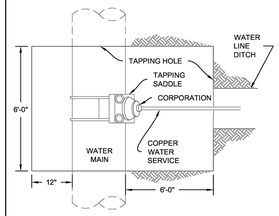
PLAN VIEW



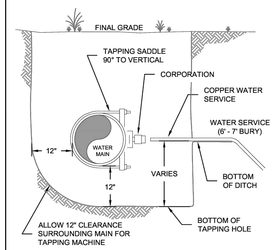
ELEVATION

TAPPING DETAIL FOR 1 1/2" AND 2" CONNECTION

SERVICE TAPS 1 1/2" & 2" TAPPING SADDLE.



PLAN VIEW

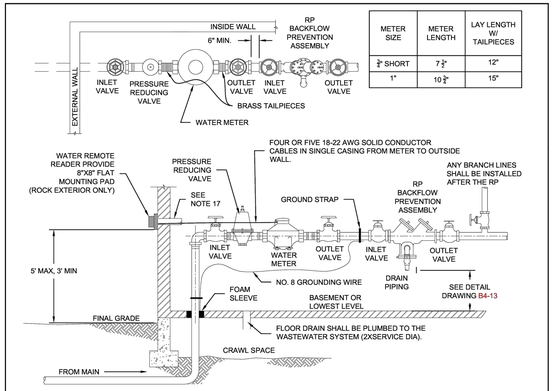


ELEVATION

NOTES:

1. TRENCH WALLS AND SHORING SHALL COMPLY WITH OSHA STANDARDS.
2. FOR HDPE TAPS USE A SIDEWALL FUSION TAPPING SADDLE CONFIGURATION AT 90° SEE SECTION 6.7.B.
3. TO BE READ IN CONJUNCTION WITH SECTION 2.7.C AND SECTION 5.21.E.
4. WHERE COMPACTION CANNOT BE ACHIEVED UNDER THE WATER MAIN FLOWFILL SHALL BE USED.
5. SEE DETAIL DRAWING A8-10 FOR CATHODIC PROTECTION.

Colorado Springs Utilities It's how we're all connected	TAPPING DETAILS 3/4" THRU 2" FOR TYPE "K" COPPER	B1-1 DATED 03/2014

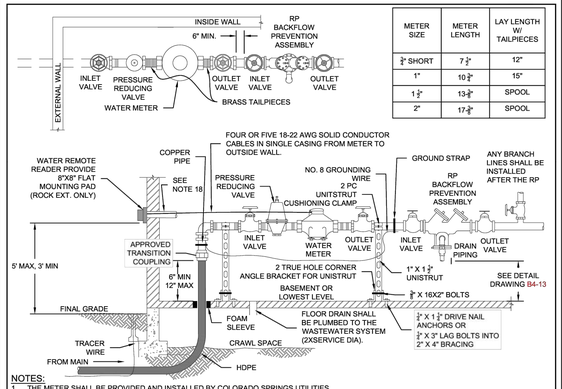


METER SIZE	METER LENGTH	LAY LENGTH W/ TAILPIECES
¾" SHORT	7 ¾"	12"
1"	10 ¾"	15"
1 ½"	13 ¾"	SPOOL
2"	17 ¾"	SPOOL

NOTES:

1. THE METER SHALL BE PROVIDED AND INSTALLED BY COLORADO SPRINGS UTILITIES.
2. REFERENCE SECTION 2.7.L (WATER METERS) FOR METER LOOP REQUIREMENTS.
3. METERS MUST BE LOCATED ON THE LOWEST FLOOR OF THE STRUCTURE. METERS SHALL NOT BE INSTALLED IN CRAWL SPACES, AREAS ONLY ACCESSIBLE BY LADDER, OR DESIGNATED STORAGE AREAS.
4. THE METER LOOP SHALL BE CONSTRUCTED OF COPPER, DUCTILE IRON OR STEEL.
5. ALL FITTINGS IN THE METER LOOP SHALL BE SOLDERED, FIXED FLANGED OR THREADED.
6. THE METER SHALL BE INSTALLED WITH THE CLEARANCES SHOWN IN DETAIL DRAWINGS B4-16 TO B4-22.
7. THE METER SHALL BE LOCATED WITHIN 5 FEET OF AN EXTERIOR WALL IMMEDIATELY FOLLOWING THE WATER SERVICE LINE'S POINT OF ENTRY, PER SECTION 2.7.F.1 AND 2.7.F.2.
8. IF AN OUTLET IS TO BE WITHIN 24" OF THE METER LOOP, IT MUST BE GFCI.
9. BRASS INLET AND OUTLET VALVES SHALL BE INSTALLED ON EACH SIDE OF THE METER. INLET AND OUTLET VALVES SHALL BE FULL OPENING, GATE OR BALL VALVES WHICH CLOSE IN DIRECTION OF FLOW. NO CONNECTIONS ARE ALLOWED BETWEEN THE INLET AND OUTLET VALVES.
10. A MINIMUM OF 1' OF COPPER IS REQUIRED AFTER THE METER EXCEPT WHERE A MANIFOLD (MANIBLOCK) SYSTEM IS USED DIRECTLY AFTER THE METER AND IS SUPPORTED.
11. GROUNDING IS REQUIRED TO ELIMINATE POTENTIAL FOR DISCHARGE OF STATIC ELECTRICITY CAUSED BY FLOW OF WATER THROUGH PIPING. GROUNDING STRAP NOT REQUIRED ON PREFABRICATED LOOPS.
12. REMOTE READER WIRE SHALL EXIT THE BUILDING THROUGH A DEDICATED HOLE FOR REMOTE READER WIRE USE ONLY. A MINIMUM OF 24 INCHES OF SLACK WIRE SHALL BE PROVIDED AT METER AND REMOTE READER.
13. AN 8 INCH X 8 INCH FLAT SPACE (ROCK EXTERIOR ONLY) SHALL BE PROVIDED FOR MOUNTING OF THE REMOTE READER ON THE EXTERNAL WALL. A MINIMUM OF 12 INCHES OF CLEARANCE FROM ANY VERTICAL PROTRUSION (ROOF DRAIN, CHIMNEY, GAS OR ELECTRIC METER, ETC.) SHALL BE MAINTAINED FROM THE REMOTE READER.
14. GAS FLEX LINE SERVICES SHALL BE LOCATED A MINIMUM OF 18" FROM THE METER LOOP.
15. A BACKFLOW PREVENTION ASSEMBLY IS REQUIRED, IT SHALL BE LOCATED BEFORE THE FIRST BRANCH LINE. FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS, INCLUDING LOCATION, SEE SECTION 2.7.N.
16. THE BACKFLOW PREVENTER SHALL BE SOLDERED OR FIXED FLANGED.
17. CONDUIT SHALL TERMINATE WITHIN 12" OF METER LOOP. METER WIRE SHALL BE ENCASED IN ½" CONDUIT AND SHALL PASS THROUGH THE CONDUIT EASILY. A FIELD TEST SHALL BE PERFORMED BY UTILITIES INSPECTORS TO ENSURE THE METER WIRE CAN BE PULLED THROUGH THE CONDUIT WITHOUT BREAKING OR OTHERWISE COMPROMISING THE METER WIRE.

Colorado Springs Utilities It's how we're all connected	TYPICAL INSTALLATION FOR 3/4" THRU 1" METERS INSIDE NON-SINGLE-FAMILY-RESIDENTIAL CONNECTION COPPER SERVICE	B4-4 DATED 07/2025



METER SIZE	METER LENGTH	LAY LENGTH W/ TAILPIECES
¾" SHORT	7 ¾"	12"
1"	10 ¾"	15"
1 ½"	13 ¾"	SPOOL
2"	17 ¾"	SPOOL

NOTES:

1. THE METER SHALL BE PROVIDED AND INSTALLED BY COLORADO SPRINGS UTILITIES.
2. REFERENCE SECTION 2.7.L (WATER METERS) FOR METER LOOP REQUIREMENTS.
3. METERS MUST BE LOCATED ON THE LOWEST FLOOR OF THE STRUCTURE. METERS SHALL NOT BE INSTALLED IN CRAWL SPACES, AREAS ONLY ACCESSIBLE BY LADDER, OR DESIGNATED STORAGE AREAS.
4. AN APPROVED TRANSITION COUPLING SHALL BE INSTALLED A MIN OF 6" AND A MAX OF 12" FROM THE FLOOR. THE METER LOOP SHALL BE CONSTRUCTED OF COPPER, DUCTILE IRON OR STEEL.
5. ALL FITTINGS IN THE METER LOOP SHALL BE SOLDERED, FIXED FLANGED OR THREADED.
6. THE METER SHALL BE INSTALLED WITH THE CLEARANCES SHOWN IN DETAIL DRAWINGS B4-16 TO B4-22.
7. THE METER SHALL BE LOCATED WITHIN 5 FEET OF AN EXTERIOR WALL IMMEDIATELY FOLLOWING THE WATER SERVICE LINE'S POINT OF ENTRY, PER SECTION 2.7.F.1 AND 2.7.F.2.
8. IF AN OUTLET IS TO BE WITHIN 24" OF THE METER LOOP, IT MUST BE GFCI.
9. BRASS INLET AND OUTLET VALVES SHALL BE INSTALLED ON EACH SIDE OF THE METER. INLET AND OUTLET VALVES SHALL BE FULL OPENING, GATE OR BALL VALVES WHICH CLOSE IN DIRECTION OF FLOW. NO CONNECTIONS ARE ALLOWED BETWEEN THE INLET AND OUTLET VALVES.
10. A MINIMUM OF 1' OF COPPER IS REQUIRED AFTER THE METER EXCEPT WHERE A MANIFOLD (MANIBLOCK) SYSTEM IS USED DIRECTLY AFTER THE METER AND IS SUPPORTED.
11. THE METER SHALL BE SECURED WITH UNISTRUT BEFORE AND AFTER THE INLET AND OUTLET VALVES AS SHOWN. UNISTRUT SHALL BE ANCHORED TO THE COPPER PIPE.
12. GROUNDING IS REQUIRED TO ELIMINATE POTENTIAL FOR DISCHARGE OF STATIC ELECTRICITY CAUSED BY FLOW OF WATER THROUGH PIPING. GROUNDING STRAP NOT REQUIRED ON PREFABRICATED LOOPS.
13. REMOTE READER WIRE SHALL EXIT THE BUILDING THROUGH A DEDICATED HOLE FOR REMOTE READER WIRE USE ONLY. A MINIMUM OF 24 INCHES OF SLACK WIRE SHALL BE PROVIDED AT METER AND REMOTE READER.
14. AN 8 INCH X 8 INCH FLAT SPACE SHALL BE PROVIDED FOR MOUNTING OF THE REMOTE READER ON THE EXTERNAL WALL. A MINIMUM OF 12 INCHES OF CLEARANCE FROM ANY VERTICAL PROTRUSION (ROOF DRAIN, CHIMNEY, GAS OR ELECTRIC METER, ETC.) SHALL BE MAINTAINED FROM THE REMOTE READER.
15. GAS FLEX LINE SERVICES SHALL BE LOCATED A MINIMUM OF 18" FROM THE METER LOOP.
16. A BACKFLOW PREVENTION ASSEMBLY IS REQUIRED, IT SHALL BE LOCATED BEFORE THE FIRST BRANCH LINE. FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS, INCLUDING LOCATION, SEE SECTION 2.7.N.
17. THE BACKFLOW PREVENTER SHALL BE SOLDERED OR FIXED FLANGED.
18. CONDUIT SHALL TERMINATE WITHIN 12" OF METER LOOP. METER WIRE SHALL BE ENCASED IN ½" CONDUIT AND SHALL PASS THROUGH THE CONDUIT EASILY. A FIELD TEST SHALL BE PERFORMED BY UTILITIES INSPECTORS TO ENSURE THE METER WIRE CAN BE PULLED THROUGH THE CONDUIT WITHOUT BREAKING OR OTHERWISE COMPROMISING THE METER WIRE.

Colorado Springs Utilities It's how we're all connected	TYPICAL INSTALLATION FOR 3/4" THRU 2" METERS INSIDE NON-SINGLE-FAMILY-RESIDENTIAL CONNECTION HDPE SERVICE	B4-5 DATED 07/2025

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION
00/00/00	△	(DESCRIPTION)

WATERLINE DETAILS

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 23

TOTAL SHEETS 48

BUILDING COORDINATES

POINT #	NORTHING	EASTING	DESCRIPTION
100	1415103.31	3267232.58	BLD
101	1414959.53	3267371.61	BLD
102	1414799.65	3267206.26	BLD
103	1414943.43	3267067.24	BLD
104	1414936.52	3267393.85	BLD^
105	1414922.14	3267407.75	BLD^
106	1414776.65	3267228.50	BLD^
107	1414762.27	3267242.41	BLD^
108	1414903.81	3267425.48	BLD^
109	1414889.43	3267439.38	BLD^
110	1414729.56	3267274.03	BLD^
111	1414743.94	3267260.13	BLD^
112	1414871.10	3267457.11	BLD^
113	1414856.72	3267471.01	BLD^
114	1414696.85	3267305.66	BLD^
115	1414711.23	3267291.76	BLD^
116	1414838.39	3267488.73	BLD^
117	1414824.01	3267502.64	BLD^
118	1414664.14	3267337.29	BLD^
119	1414678.52	3267323.39	BLD^
120	1414736.98	3267211.22	BLD^
121	1414636.33	3267308.53	BLD^
122	1414608.53	3267279.78	BLD^
123	1414709.18	3267182.46	BLD^
124	1414881.68	3266910.00	BLD
125	1414881.51	3266920.00	BLD
126	1414591.72	3266905.12	BLD
127	1414591.55	3266915.12	BLD
128	1414881.01	3266949.99	BLD
129	1414880.84	3266959.99	BLD
130	1414870.84	3266959.82	BLD
131	1414870.67	3266969.82	BLD
132	1414630.71	3266965.78	BLD
133	1414631.04	3266945.79	BLD
134	1414830.17	3266999.14	BLD
135	1414830.01	3267009.14	BLD
136	1414820.01	3267008.97	BLD
137	1414819.84	3267018.97	BLD
138	1414679.86	3267016.62	BLD
139	1414680.20	3266996.62	BLD
140	1414543.85	3267258.92	BLD^
141	1414529.47	3267272.82	BLD^
142	1414807.49	3267560.35	BLD^
143	1414821.86	3267546.45	BLD^

NOTE: BUILDING POINTS DENOTED WITH "^" ARE PROPOSED AS PHASE 2 IMPROVEMENTS, AND ARE SUBJECT TO CHANGE IN THE FUTURE

RADIUS POINTS

POINT #	NORTHING	EASTING	RADIUS	DESCRIPTION
700	1415916.50	3266447.60	826.50'	RAD
701	1415176.51	3267178.66	40.00'	RAD
702	1415106.43	3267156.54	5.00'	RAD
703	1415265.66	3267242.69	25.00'	RAD
704	1415084.14	3267133.48	5.00'	RAD
705	1415073.95	3267108.56	15.00'	RAD
706	1415196.27	3267180.42	25.00'	RAD
707	1415148.14	3267199.67	5.00'	RAD
708	1415066.76	3267115.51	5.00'	RAD
709	1415051.99	3267058.07	20.00'	RAD
710	1414963.38	3266930.46	5.00'	RAD
711	1414971.70	3266948.64	25.00'	RAD
712	1414915.17	3266888.06	30.00'	RAD
713	1415122.24	3267306.78	35.00'	RAD
714	1415048.14	3267301.92	15.00'/35.00'	RAD
715	1415066.63	3267306.30	1.00'	RAD
716	1415014.23	3267334.71	15.00'/35.00'	RAD
717	1415017.99	3267353.34	1.00'	RAD
718	1415016.60	3267408.93	35.00'	RAD
719	1415175.50	3267322.92	20.00'	RAD
720	1415240.80	3267266.73	25.00'	RAD
721	1415124.48	3267273.49	10.00'	RAD
722	1415128.90	3267287.82	25.00'	RAD

NOTE:
- ALL RADIUS LENGTHS REPRESENT DISTANCE TO BACK OF CURB FROM CENTER UNLESS OTHERWISE SPECIFIED.
- RADIUS POINT 700 NOT VISIBLE IN PLAN VIEW

BERM COORDINATES

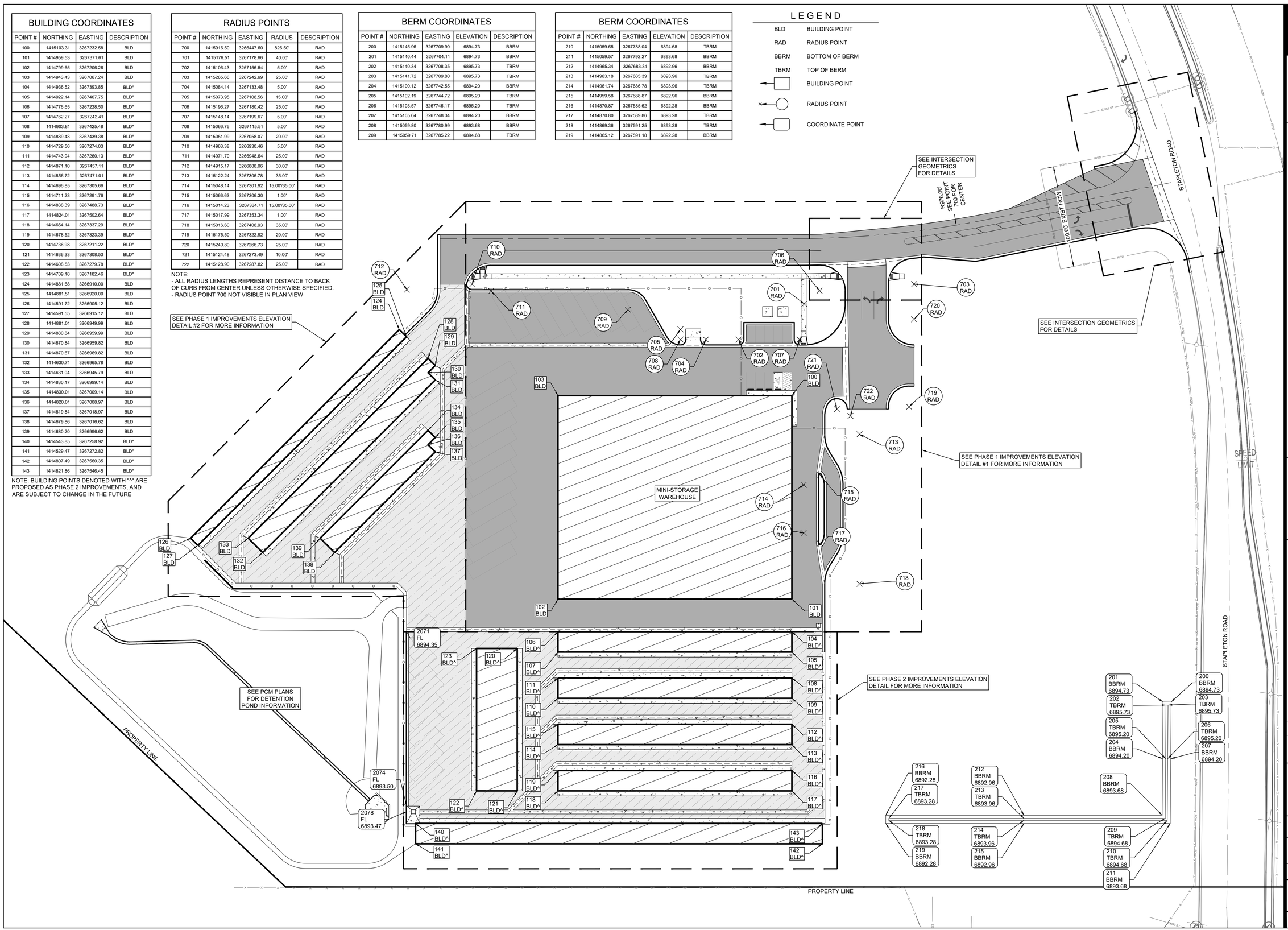
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
200	1415145.96	3267709.90	6894.73	BBRM
201	1415140.44	3267704.11	6894.73	BBRM
202	1415140.34	3267708.35	6895.73	TBRM
203	1415141.72	3267709.80	6895.73	TBRM
204	1415100.12	3267742.55	6894.20	BBRM
205	1415102.19	3267744.72	6895.20	TBRM
206	1415103.57	3267746.17	6895.20	TBRM
207	1415105.64	3267748.34	6894.20	BBRM
208	1415059.80	3267780.99	6893.68	BBRM
209	1415059.71	3267785.22	6894.68	TBRM

BERM COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
210	1415059.65	3267788.04	6894.68	TBRM
211	1415059.57	3267792.27	6893.68	BBRM
212	1414965.34	3267683.31	6892.96	BBRM
213	1414963.18	3267685.39	6893.96	TBRM
214	1414961.74	3267686.78	6893.96	TBRM
215	1414959.58	3267688.87	6892.96	BBRM
216	1414870.87	3267585.62	6892.28	BBRM
217	1414870.80	3267589.86	6893.28	TBRM
218	1414869.36	3267591.25	6893.28	TBRM
219	1414865.12	3267591.18	6892.28	BBRM

LEGEND

BLD	BUILDING POINT
RAD	RADIUS POINT
BBRM	BOTTOM OF BERM
TBRM	TOP OF BERM
	BUILDING POINT
	RADIUS POINT
	COORDINATE POINT



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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION (DESCRIPTION)
00/00/00	. . . . .

HORIZONTAL & VERTICAL CONTROL PLAN

NORTH

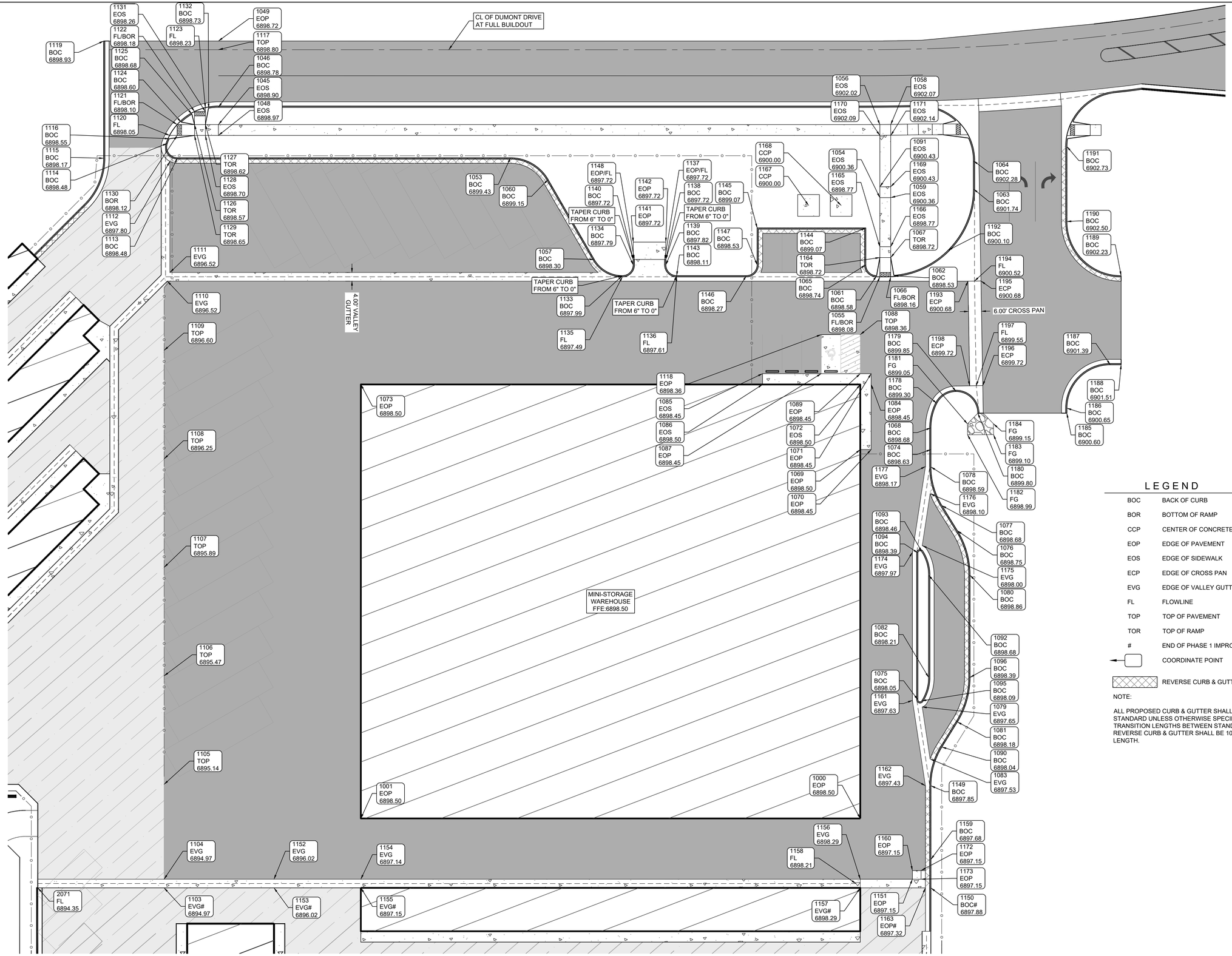
SCALE: 1" = 40'

PROJECT #: 2412-0471
CHECKED BY: BML
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DATE: 06/11/2026

SHEET # 24

TOTAL SHEETS 48



PHASE 1 IMPROVEMENTS
ELEVATION DETAIL #1

LEGEND

BOC	BACK OF CURB
BOR	BOTTOM OF RAMP
CCP	CENTER OF CONCRETE PAD
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SIDEWALK
ECP	EDGE OF CROSS PAN
EVG	EDGE OF VALLEY GUTTER
FL	FLOWLINE
TOP	TOP OF PAVEMENT
TOR	TOP OF RAMP
#	END OF PHASE 1 IMPROVEMENTS
	COORDINATE POINT
	REVERSE CURB & GUTTER

NOTE:

ALL PROPOSED CURB & GUTTER SHALL BE STANDARD UNLESS OTHERWISE SPECIFIED. TRANSITION LENGTHS BETWEEN STANDARD AND REVERSE CURB & GUTTER SHALL BE 10 FEET IN LENGTH.

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CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION	DATE	REVISION DESCRIPTION
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HORIZONTAL & VERTICAL CONTROL PLAN

NORTH

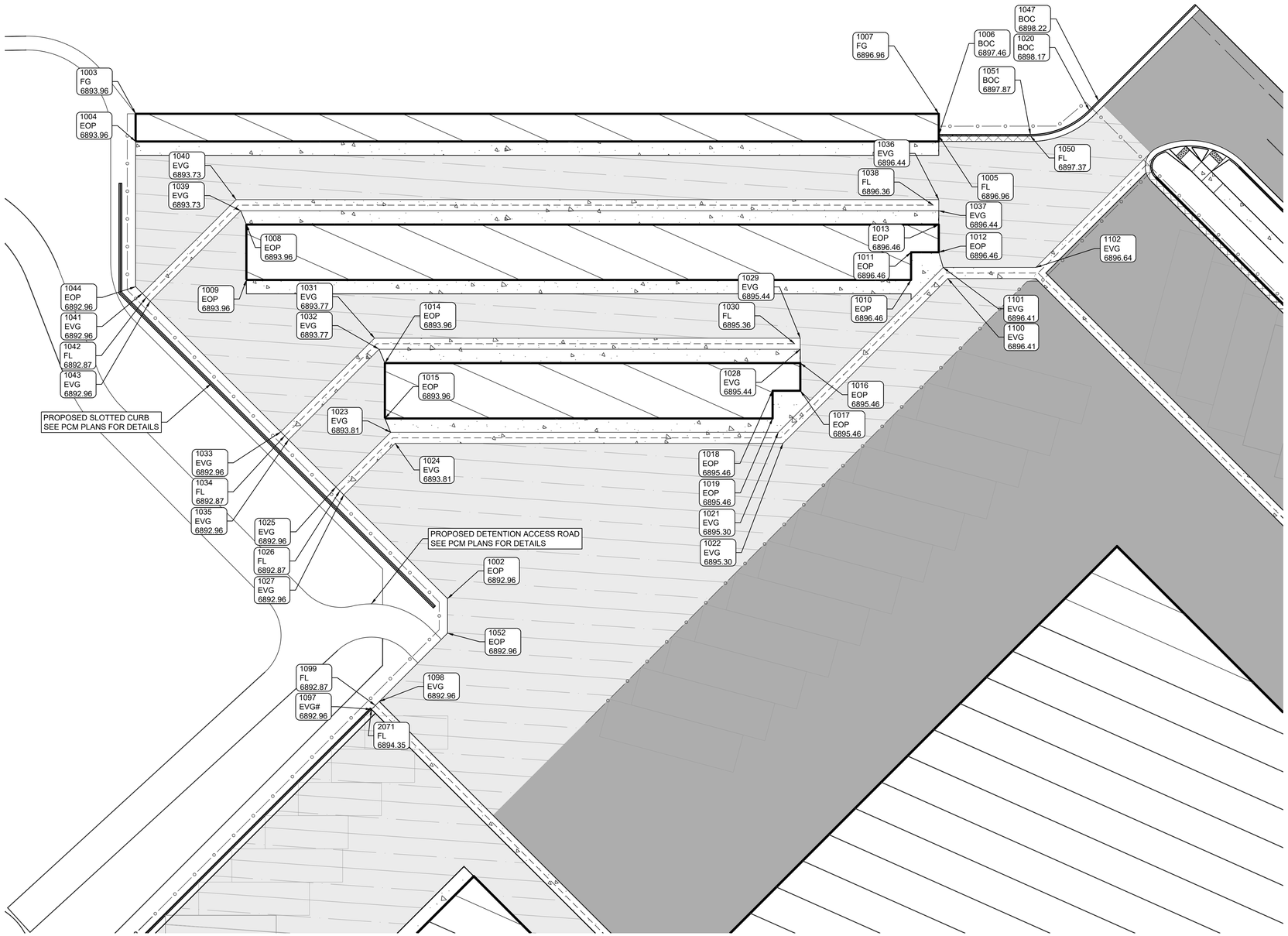
SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 25

TOTAL SHEETS 48



PHASE 1 IMPROVEMENTS
ELEVATION DETAIL #2

LEGEND

BOC	BACK OF CURB
EOP	EDGE OF PAVEMENT
EVG	EDGE OF VALLEY GUTTER
FG	FINISHED GRADE
FL	FLOWLINE
#	END OF PHASE 1 IMPROVEMENTS
	COORDINATE POINT
	REVERSE CURB & GUTTER

NOTE:

ALL PROPOSED CURB & GUTTER SHALL BE STANDARD UNLESS OTHERWISE SPECIFIED. TRANSITION LENGTHS BETWEEN STANDARD AND REVERSE CURB & GUTTER SHALL BE 10 FEET IN LENGTH.

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4-WAY COMMERCIAL
CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

HORIZONTAL & VERTICAL CONTROL PLAN

NORTH

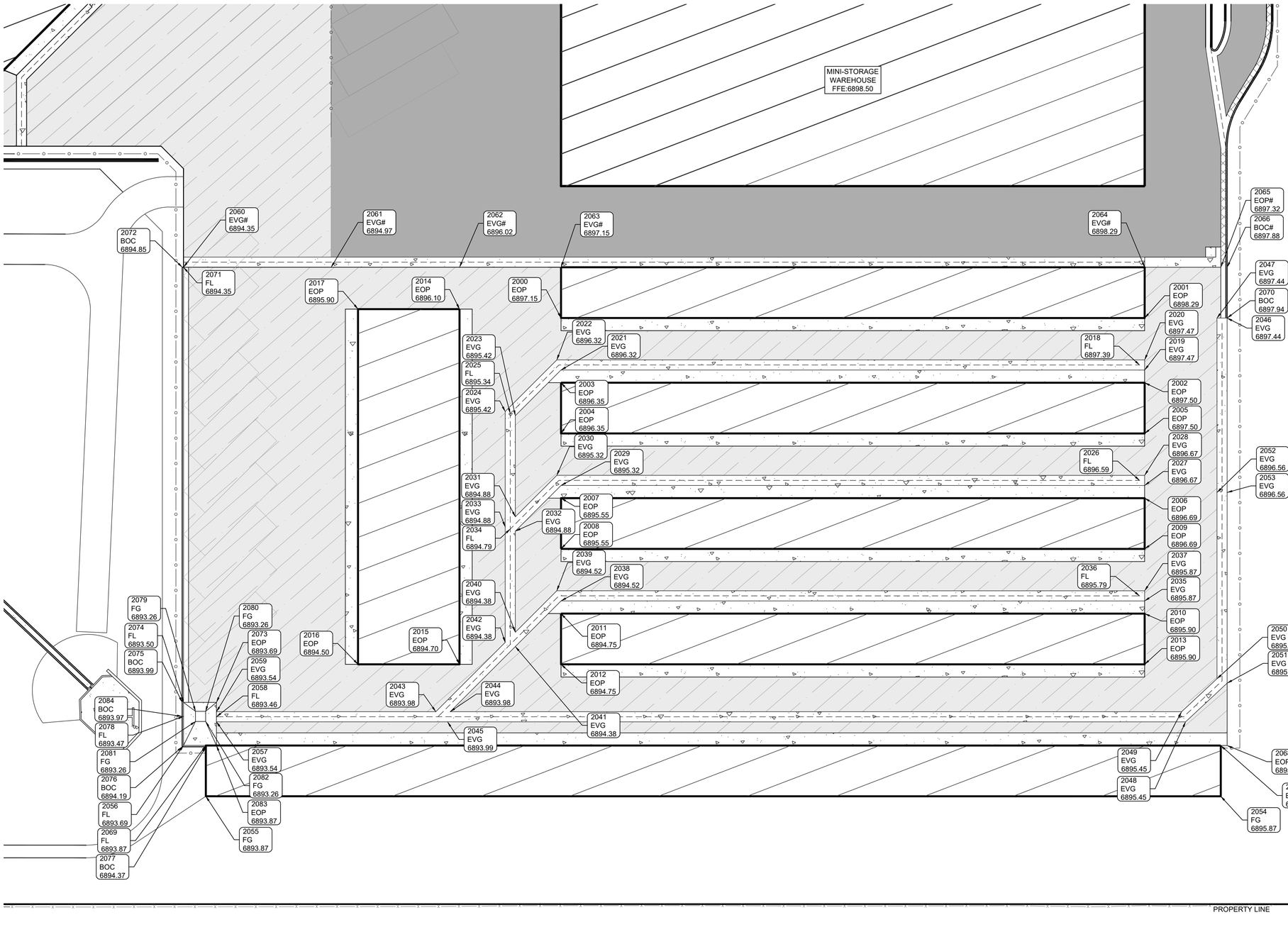
SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 26

TOTAL SHEETS 48



LEGEND

BOC	BACK OF CURB
EOP	EDGE OF PAVEMENT
EVG	EDGE OF VALLEY GUTTER
FG	FINISHED GRADE
FL	FLOWLINE
#	END OF PHASE 1 IMPROVEMENTS
	COORDINATE POINT

PHASE 2 IMPROVEMENTS
ELEVATION DETAIL

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CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DESCRIPTION
(DESCRIPTION)
REVISION DATE
00/00/00

HORIZONTAL & VERTICAL CONTROL PLAN

NORTH

20' 10' 0' 20'
SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 27

TOTAL SHEETS 48

PHASE 1 COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1000	1414959.53	3267371.61	6898.50	EOP
1001	1414799.65	3267206.26	6898.50	EOP
1002	1414701.39	3267082.05	6892.96	EOP
1003	1414591.72	3266905.12	6893.96	FG
1004	1414591.55	3266915.12	6893.96	EOP
1005	1414881.55	3266918.00	6896.96	FL
1006	1414881.55	3266917.50	6897.46	BOC
1007	1414881.68	3266910.00	6896.96	FG
1008	1414631.04	3266945.79	6893.96	EOP
1009	1414630.71	3266965.78	6893.96	EOP
1010	1414870.67	3266969.82	6896.46	EOP
1011	1414870.84	3266959.82	6896.46	EOP
1012	1414880.84	3266959.99	6896.46	EOP
1013	1414881.01	3266949.99	6896.46	EOP
1014	1414680.20	3266996.62	6893.96	EOP
1015	1414679.86	3267016.62	6893.96	EOP
1016	1414830.17	3266999.14	6895.46	EOP
1017	1414830.01	3267009.14	6895.46	EOP
1018	1414820.01	3267008.97	6895.46	EOP
1019	1414819.84	3267018.97	6895.46	EOP
1020	1414936.03	3266909.63	6898.17	BOC
1021	1414821.83	3267024.01	6895.30	EVG
1022	1414823.42	3267028.03	6895.30	EVG
1023	1414681.85	3267021.65	6893.81	EVG
1024	1414683.44	3267025.68	6893.81	EVG
1025	1414661.77	3267041.07	6892.96	EVG
1026	1414663.16	3267042.50	6892.87	FL
1027	1414664.55	3267043.94	6892.96	EVG
1028	1414830.25	3266994.14	6895.44	EVG
1029	1414830.31	3266990.15	6895.44	EVG
1030	1414828.28	3266992.11	6895.36	FL
1031	1414676.62	3266987.56	6893.77	EVG
1032	1414678.21	3266991.59	6893.77	EVG
1033	1414642.21	3267020.84	6892.96	EVG
1034	1414643.60	3267022.27	6892.87	FL
1035	1414644.99	3267023.71	6892.96	EVG
1036	1414881.16	3266940.99	6896.44	EVG
1037	1414881.09	3266944.99	6896.44	EVG
1038	1414879.13	3266942.96	6896.36	FL
1039	1414629.06	3266940.75	6893.73	EVG
1040	1414627.47	3266936.73	6893.73	EVG
1041	1414593.05	3266970.00	6892.96	EVG
1042	1414594.44	3266971.44	6892.87	FL
1043	1414595.83	3266972.88	6892.96	EVG
1044	1414590.67	3266967.54	6892.96	EOP
1045	1414983.92	3266936.83	6898.90	EOS
1046	1414989.67	3266931.27	6898.78	BOC
1047	1414939.46	3266906.31	6898.22	BOC
1048	1414980.32	3266940.30	6898.97	EOS
1049	1415011.60	3266910.07	6898.72	EOP
1050	1414914.66	3266918.55	6897.37	FL
1051	1414914.67	3266918.05	6897.87	BOC
1052	1414701.18	3267094.53	6892.96	EOP
1053	1415066.37	3267044.16	6899.43	BOC
1054	1415171.47	3267179.19	6900.36	EOS
1055	1415145.23	3267204.57	6898.08	FL/BOR
1056	1415195.66	3267155.81	6902.02	EOS
1057	1415059.53	3267104.43	6898.30	BOC
1058	1415199.13	3267159.40	6902.07	EOS
1059	1415174.95	3267182.79	6900.36	EOS
1060	1415071.22	3267063.57	6899.15	BOC
1061	1415144.54	3267203.15	6898.58	BOC
1062	1415150.10	3267208.90	6898.53	BOC
1063	1415204.32	3267207.42	6901.74	BOC
1064	1415213.65	3267198.40	6902.28	BOC
1065	1415144.66	3267196.08	6898.74	BOC
1066	1415148.70	3267208.17	6898.16	FL/BOR
1067	1415155.09	3267201.99	6898.72	TOR
1068	1415111.52	3267269.85	6898.68	BOC
1069	1415081.74	3267253.44	6898.50	EOP
1070	1415085.22	3267257.03	6898.45	EOP
1071	1415110.38	3267232.70	6898.45	EOP
1072	1415103.31	3267232.58	6898.50	EOS
1073	1414943.43	3267067.24	6898.50	EOP
1074	1415104.33	3267276.80	6898.63	BOC
1075	1415017.29	3267352.62	6898.05	BOC
1076	1415085.93	3267311.56	6898.75	BOC
1077	1415089.30	3267298.37	6898.68	BOC
1078	1415098.61	3267282.34	6898.59	BOC
1079	1415016.30	3267356.40	6897.65	EVG
1080	1415075.25	3267329.96	6898.86	BOC
1081	1415022.60	3267372.80	6898.18	BOC
1082	1415028.14	3267349.08	6898.21	BOC
1083	1415001.60	3267375.65	6897.53	EVG
1084	1415106.78	3267236.18	6898.45	EOP

PHASE 1 COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1085	1415075.62	3267196.76	6898.45	EOS
1086	1415072.03	3267200.23	6898.50	EOS
1087	1415094.39	3267216.17	6898.45	EOP
1088	1415119.84	3267216.60	6898.36	TOP
1089	1415106.90	3267229.11	6898.45	EOP
1090	1415009.30	3267375.72	6898.04	BOC
1091	1415175.07	3267175.72	6900.43	EOS
1092	1415062.04	3267316.30	6898.68	BOC
1093	1415067.60	3267306.54	6898.46	BOC
1094	1415065.94	3267305.58	6898.39	BOC
1095	1415018.20	3267354.31	6898.09	BOC
1096	1415041.34	3267362.74	6898.39	BOC
1097	1414673.23	3267121.55	6892.96	EVG#
1098	1414676.11	3267118.77	6892.96	EVG
1099	1414674.67	3267120.16	6892.87	FL
1100	1414883.92	3266969.53	6896.41	EVG
1101	1414882.33	3266965.50	6896.41	EVG
1102	1414915.78	3266966.06	6896.64	EVG
1103	1414713.66	3267163.37	6894.97	EVG#
1104	1414716.54	3267160.59	6894.97	EVG
1105	1414747.96	3267130.21	6895.14	TOP
1106	1414783.90	3267095.45	6895.47	TOP
1107	1414819.85	3267060.69	6895.89	TOP
1108	1414855.79	3267025.94	6896.25	TOP
1109	1414891.74	3266991.18	6896.60	TOP
1110	1414915.71	3266970.06	6896.52	EVG
1111	1414919.40	3266968.13	6896.52	EVG
1112	1414956.18	3266932.56	6897.80	EVG
1113	1414959.78	3266933.93	6898.48	BOC
1114	1414961.30	3266925.91	6898.48	BOC
1115	1414936.03	3266909.63	6898.17	BOC
1116	1414963.48	3266925.04	6898.55	BOC
1117	1415008.72	3266912.85	6898.80	TOP
1118	1415107.33	3267203.66	6898.36	EOP
1119	1414974.86	3266872.07	6898.93	BOC
1120	1414964.68	3266924.13	6898.05	FL
1121	1414970.71	3266923.16	6898.10	FL/BOR
1122	1414980.58	3266924.74	6898.18	FL/BOR
1123	1414985.33	3266927.10	6898.23	FL
1124	1414972.81	3266923.67	6898.60	BOC
1125	1414978.89	3266924.70	6898.68	BOC
1126	1414976.27	3266928.91	6898.57	TOR
1127	1414979.74	3266932.51	6898.62	TOR
1128	1414976.15	3266935.98	6898.70	EOS
1129	1414972.67	3266932.39	6898.65	TOR
1130	1414967.11	3266926.64	6898.12	BOR
1131	1414984.05	3266928.34	6898.26	EOS
1132	1414986.24	3266928.31	6898.73	BOC
1133	1415063.17	3267118.99	6897.99	BOC
1134	1415070.24	3267119.10	6897.79	BOC
1135	1415062.81	3267119.33	6897.49	FL
1136	1415080.19	3267137.31	6897.61	FL
1137	1415082.11	3267127.79	6897.72	EOP/FL
1138	1415082.46	3267128.15	6897.72	BOC
1139	1415080.66	3267129.89	6897.82	BOC
1140	1415072.03	3267117.37	6897.72	BOC
1141	1415077.79	3267111.81	6897.72	EOP
1142	1415088.21	3267122.59	6897.72	EOP
1143	1415080.54	3267136.96	6898.11	BOC
1144	1415156.88	3267184.26	6899.07	BOC
1145	1415122.13	3267148.31	6899.07	BOC
1146	1415102.84	3267160.01	6898.27	BOC
1147	1415109.91	3267160.13	6898.53	BOC
1148	1415072.38	3267117.73	6897.72	EOP/FL
1149	1414992.96	3267384.49	6897.85	BOC
1150	1414959.11	3267417.21	6897.88	BOC#
1151	1414956.09	3267408.33	6897.15	EOP
1152	1414751.72	3267196.97	6896.02	EVG
1153	1414748.84	3267199.75	6896.02	EVG#
1154	1414779.52	3267225.72	6897.14	EVG
1155	1414776.65	3267228.50	6897.15	EVG#
1156	1414939.40	3267391.07	6898.29	EVG
1157	1414936.52	3267393.85	6898.29	EVG#
1158	1414936.57	3267391.02	6898.21	FL
1159	1414968.55	3267408.09	6897.68	BOC
1160	1414958.96	3267405.55	6897.15	EOP
1161	1415015.35	3267351.04	6897.63	EVG
1162	1414991.22	3267382.69	6897.43	EVG
1163	1414957.38	3267415.42	6897.32	EOP#
1164	1415151.61	3267198.39	6898.72	TOR
1165	1415155.21	3267194.92	6898.77	EOS
1166	1415158.68	3267198.51	6898.77	EOS
1167	1415146.07	3267158.09	6900.00	CCP
1168	1415156.50	3267168.88	6900.00	CCP
1169	1415178.54	3267179.31	6900.43	EOS

PHASE 1 COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1170	1415192.06	3267159.28	6902.09	EOS
1171	1415195.56	3267162.90	6902.14	EOS
1172	1414961.74	3267408.42	6897.15	EOP
1173	1414958.87	3267411.20	6897.15	EOP
1174	1415064.43	3267303.59	6897.97	EVG
1175	1415069.75	3267304.71	6898.00	EVG
1176	1415089.49	3267290.67	6898.10	EVG
1177	1415096.98	3267280.43	6898.17	EVG
1178	1415121.53	3267263.93	6899.30	BOC
1179	1415131.67	3267266.53	6899.85	BOC
1180	1415131.43	3267280.68	6899.80	BOC
1181	1415124.54	3267280.71	6899.05	FG
1182	1415120.97	3267284.20	6898.99	FG
1183	1415129.35	3267292.76	6899.10	FG
1184	1415132.92	3267289.26	6899.15	FG
1185	1415159.93	3267310.15	6900.60	BOC
1186	1415161.60	3267308.54	6900.65	BOC
1187	1415189.88	3267309.02	6901.39	BOC
1188	1415193.35	3267312.61	6901.51	BOC
1189	1415222.83	3267284.11	6902.23	BOC
1190	1415223.42	3267248.76	6902.50	BOC
1191	1415248.29	3267224.72	6902.73	BOC
1192	1415175.84	3267218.66	6900.10	BOC
1193	1415171.99	3267235.13	6900.68	ECP
1194	1415174.11	3267237.25	6900.52	FL
1195	1415176.24	3267239.37	6900.68	ECP
1196	1415142.15	3267273.48	6899.72	ECP
1197	1415140.03	3267271.36	6899.55	FL
1198	1415137.91	3267269.24	6899.72	ECP

LEGEND

BOC	BACK OF CURB
CCP	CENTER OF CONCRETE PAD
ECP	EDGE OF CROSS PAN
EOP	EDGE OF PAVEMENT
EOS	EDGE OF SIDEWALK
EVG	EDGE OF VALLEY GUTTER
FG	FINISHED GRADE
FL	FLOWLINE
TOP	TOP OF PAVEMENT
TOR	TOP OF RAMP
#	END OF PHASE 1 IMPROVEMENTS

PHASE 2 COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2000	1414762.27	3267242.41	6897.15	EOP
2001	1414922.14	3267407.75	6898.29	EOP
2002	1414903.81	3267425.48	6897.50	EOP
2003	1414743.94	3267260.13	6896.35	EOP
2004	1414729.56	3267274.03	6896.35	EOP
2005	1414889.43	3267439.38	6897.50	EOP
2006	1414871.10	3267457.11	6896.69	EOP
2007	1414711.23	3267291.76	6895.55	EOP
2008	1414696.85	3267305.66	6895.55	EOP
2009	1414856.72	3267471.01	6896.69	EOP
2010	1414838.39	3267488.73	6895.90	EOP
2011	1414678.52	3267323.39	6894.75	EOP
2012	1414664.14	3267337.29	6894.75	EOP
2013	1414824.01	3267502.64	6895.90	EOP
2014	1414736.98	3267211.22	6896.10	EOP
2015	1414636.33	3267308.53	6894.70	EOP
2016	1414608.53	3267279.78	6894.50	EOP
2017	1414709.18	3267182.46	6895.90	EOP
2018	1414907.45	3267419.17	6897.39	FL
2019	1414907.41	3267422.00	6897.47	EVG
2020	1414910.28	3267419.22	6897.47	EVG
2021	1414747.53	3267256.65	6896.32	EVG
2022	1414749.25	3267252.68	6896.32	EVG
2023	1414722.08	3267256.23	6895.42	EVG
2024	1414720.49	3267252.20	6895.42	EVG
2025	1414721.28	3267254.21	6895.34	FL
2026	1414874.74	3267450.80	6896.59	FL
2027	1414874.70	3267453.63	6896.67	EVG
2028	1414877.57	3267450.85	6896.67	EVG
2029	1414714.82	3267288.28	6895.32	EVG
2030	1414716.54	3267284.31	6895.32	EVG
2031	1414693.44	3267283.92	6894.88	EVG
2032	1414689.37	3267287.85	6894.88	EVG
2033	1414687.78	3267283.83	6894.88	EVG
2034	1414688.57	3267285.84	6894.79	FL
2035	1414841.99	3267485.26	6895.87	EVG
2036	1414842.03	3267482.43	6895.79	FL
2037	1414844.86	3267482.48	6895.87	EVG
2038	1414682.11	3267319.91	6894.52	EVG
2039	1414683.84	3267315.94	6894.52	EVG
2040	1414660.73	3267315.55	6894.38	EVG
2041	1414656.66	3267319.48	6894.38	EVG
2042	1414655.07	3267315.45	6894.38	EVG
2043	1414616.43	3267314.80	6893.98	EVG
2044	1414620.36	3267318.87	6893.98	EVG
2045	1414616.76	3267320.90	6893.99	EVG
2046	1414944.74	3267431.12	6897.44	EVG
2047	1414941.96	3267428.24	6897.44	EVG
2048	1414818.93	3267529.99	6895.45	EVG
2049	1414820.71	3267526.07	6895.45	EVG
2050	1414839.75	3267527.06	6895.75	EVG
2051	1414841.28	3267531.15	6895.75	EVG
2052	1414892.53	3267476.03	6896.56	EVG
2053	1414895.31	3267478.90	6896.56	EVG
2054	1414807.49	3267560.35	6895.87	FG
2055	1414529.47	3267272.82	6893.87	FG
2056	1414537.72	3267252.58	6893.69	FL
2057	1414553.47	3267255.44	6893.54	EVG
2058	1414554.90	3267254.05	6893.46	FL
2059	1414556.34	3267252.66	6893.54	EVG
2060	1414673.23	3267121.55	6894.35	EVG#
2061	1414713.66	3267163.37	6894.97	EVG#
2062	1414748.84	3267199.75	6896.02	EVG#
2063	1414776.65	3267228.50	6897.15	EVG#
2064	1414936.52	3267393.85	6898.29	EVG#
2065	1414957.38	3267415.42	6897.32	EOP#
2066	1414959.11	3267417.21	6897.88	BOC#
2067	1414821.86	3267546.45	6895.87	EOP
2068	1414823.60	3267548.24	6895.86	EOP
2069	1414543.85	3267258.92	6893.87	FL
2070	1414944.74	3267431.11	6897.94	BOC
2071	1414673.23	3267121.55	6894.35	FL
2072	1414672.89	3267121.19	6894.85	BOC
2073	1414558.98	3267250.11	6893.69	EOP
2074	1414549.94	3267240.76	6893.50	FL
2075	1414549.60	3267240.41	6893.99	BOC
2076	1414537.02	3267252.57	6894.19	BOC
2077	1414543.49	3267259.27	6894.37	BOC
2078	1414545.97	3267244.61	6893.47	FL
2079	1414550.68	3267246.62	6893.26	FG

PHASE 2 COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
2080	1414553.46	3267249.49	6893.26	FG
2081	1414547.81	3267249.40	6893.26	FG
2082	1414550.59	3267252.27	6893.26	FG
2083	1414546.76	3267261.93	6893.87	EOP
2084	1414545.62	3267244.25	6893.97	BOC

LEGEND

BOC	BACK OF CURB
EOP	EDGE OF PAVEMENT
EVG	EDGE OF VALLEY GUTTER
FG	FINISHED GRADE
FL	FLOWLINE
#	END OF PHASE 1 IMPROVEMENTS

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION	DATE	REVISION DESCRIPTION
1	00/00/00	(DESCRIPTION)

HORZONTAL & VERTICAL CONTROL POINTS

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 28

TOTAL SHEETS 48

HORIZONTAL CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1415135.852	3267991.670	6894.469	HCP
101	1416170.355	3266721.922	6918.323	HCP
102	1415597.419	3266230.288	6921.790	HCP
103	1415219.162	3265387.806	6920.060	HCP

ALL HCPS ARE 5/8" REBAR, FLUSH WITH GROUND

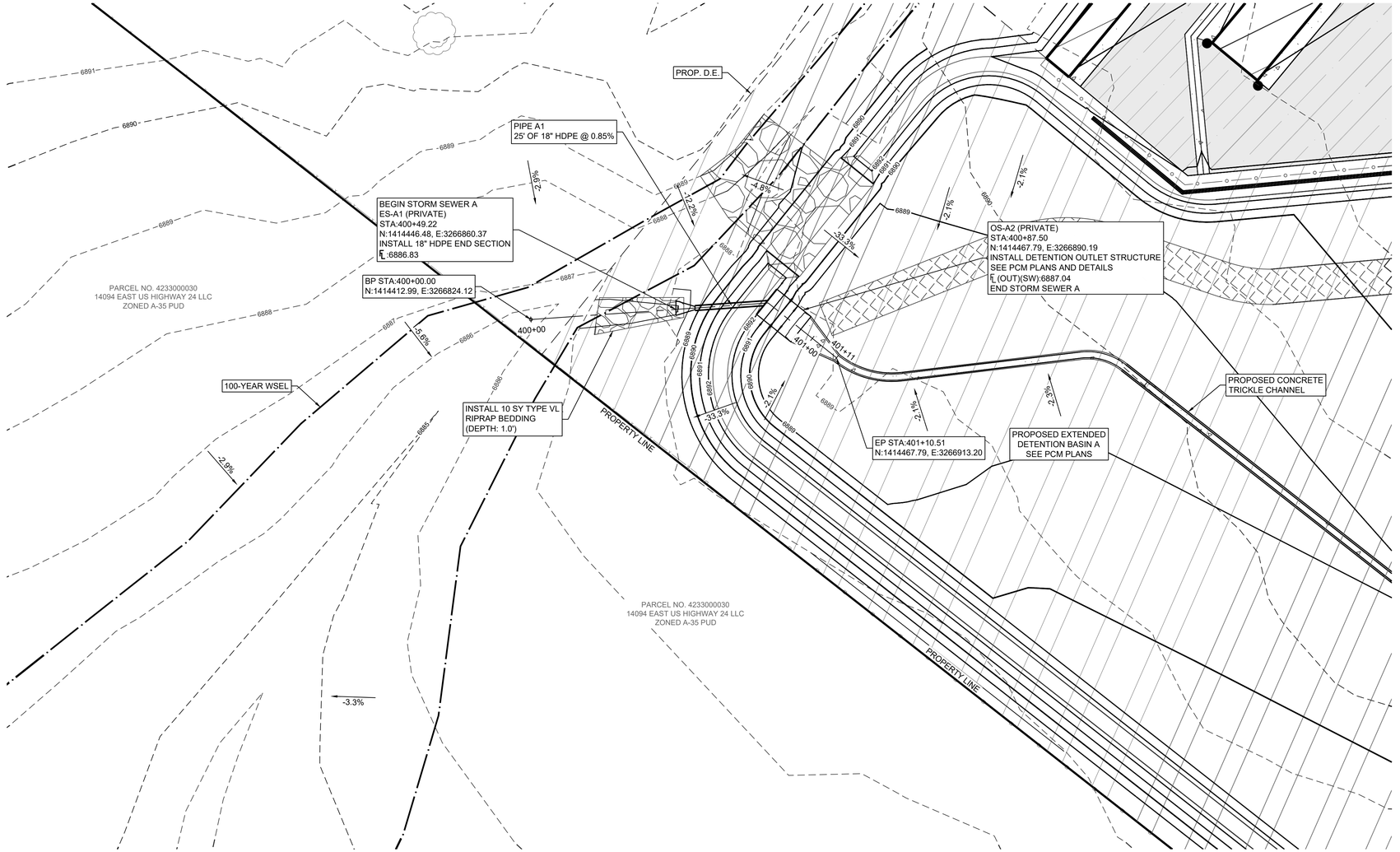
SITE BENCHMARK				
POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
SBM84	SQUARE CUT ON CURB INLET, NORTH OF STAPLETON ROAD	6915.540	1415727.090	3266940.787

NOTES:

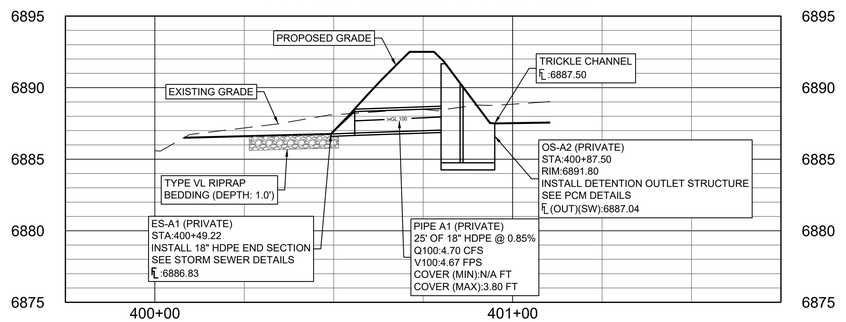
1. ALL PROPOSED STORM SEWER IS PRIVATE AND WILL BE CONSTRUCTED AS PART OF PHASE 1 IMPROVEMENTS.
2. DUE TO THEIR LOCATION, NO PROJECT SURVEY CONTROL POINTS CAN BE SEEN ON THIS SHEET. SEE SURVEY CONTROL PLAN FOR THE LOCATION OF ALL HORIZONTAL CONTROL AND BENCHMARK LOCATIONS.

LEGEND

- 6939 / 6940 — EXISTING CONTOURS (1' AND 5')
- 6934 / 6935 — PROPOSED CONTOURS (1' AND 5')
- 100-YEAR WSEL



STORM SEWER A PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

STORM SEWER A PLAN & PROFILE

NORTH

20' 10' 0' 20'
SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 29

TOTAL SHEETS 48

HORIZONTAL CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1415135.852	3267991.670	6894.469	HCP
101	1416170.355	3266721.922	6918.323	HCP
102	1415597.419	3266230.288	6921.790	HCP
103	1415219.162	3265387.806	6920.060	HCP

ALL HCPS ARE 5/8" REBAR, FLUSH WITH GROUND

SITE BENCHMARK				
POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
SBM84	SQUARE CUT ON CURB INLET, NORTH OF STAPLETON ROAD	6915.540	1415727.090	3266940.787

LEGEND

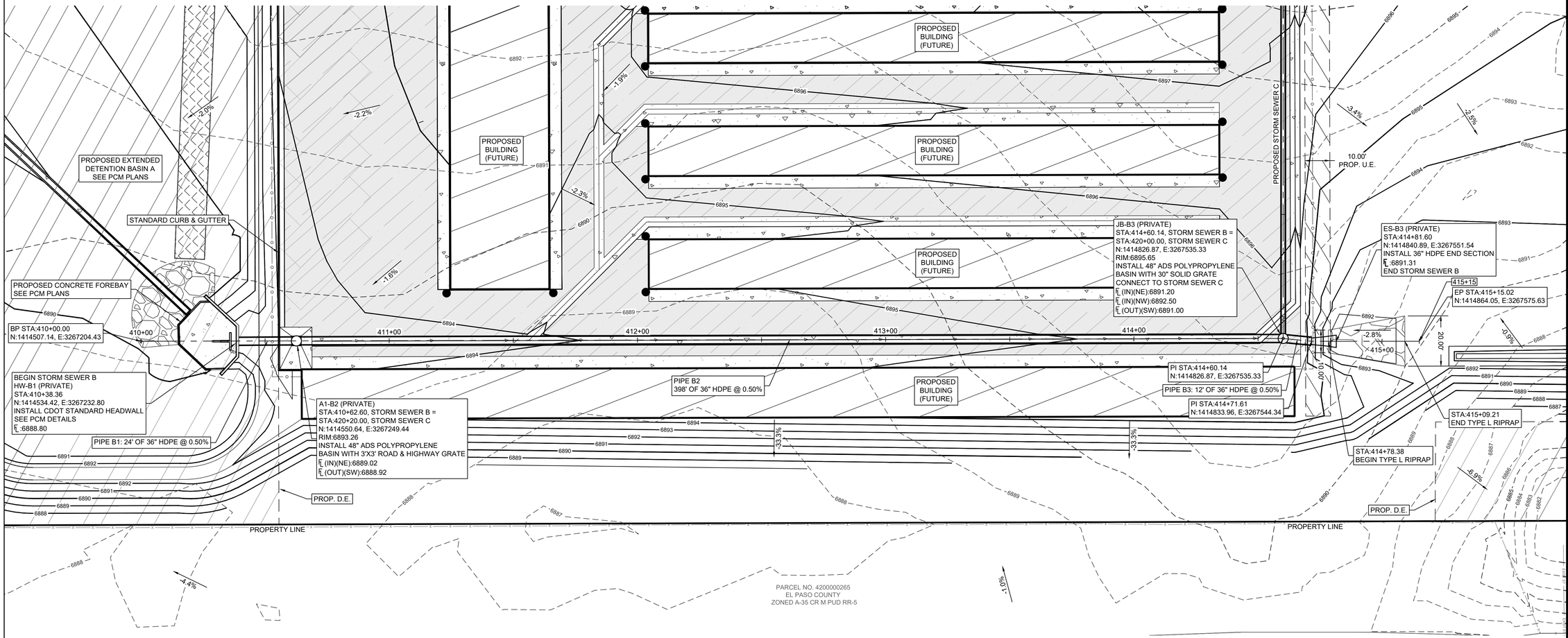
6939 6940 6934 6935

EXISTING CONTOURS (1' AND 5')

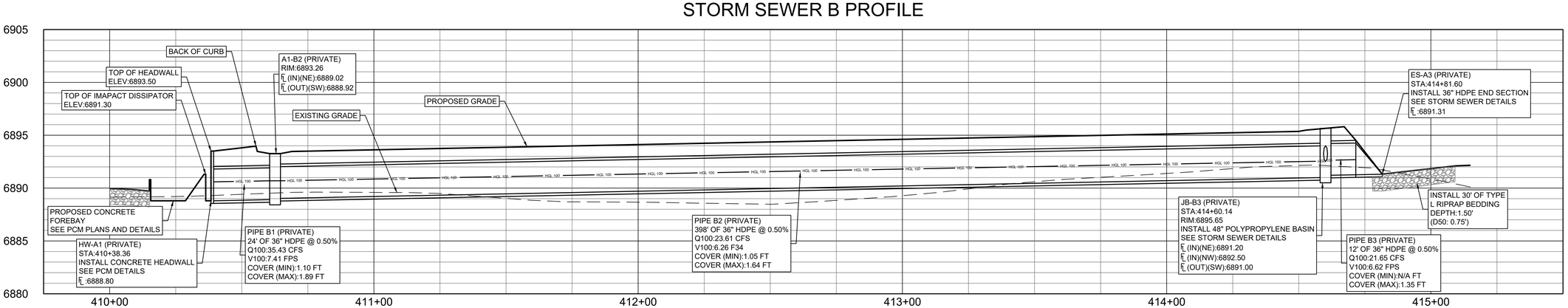
PROPOSED CONTOURS (1' AND 5')

NOTES:

1. ALL PROPOSED STORM SEWER IS PRIVATE AND WILL BE CONSTRUCTED AS PART OF PHASE 1 IMPROVEMENTS.
2. DUE TO THEIR LOCATION, NO PROJECT SURVEY CONTROL POINTS CAN BE SEEN ON THIS SHEET. SEE SURVEY CONTROL PLAN FOR THE LOCATION OF ALL HORIZONTAL CONTROL AND BENCHMARK LOCATIONS.



STORM SEWER B PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DESCRIPTION (DESCRIPTION)

REVISION DATE 00/00/000

STORM SEWER B PLAN & PROFILE

NORTH

SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 30

TOTAL SHEETS 48

HORIZONTAL CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1415135.852	3267991.670	6894.469	HCP
101	1416170.355	3266721.922	6918.323	HCP
102	1415597.419	3266230.288	6921.790	HCP
103	1415219.162	3265387.806	6920.060	HCP

ALL HCPS ARE 5/8" REBAR, FLUSH WITH GROUND

SITE BENCHMARK				
POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
SBM84	SQUARE CUT ON CURB INLET, NORTH OF STAPLETON ROAD	6915.540	1415727.090	3266940.787

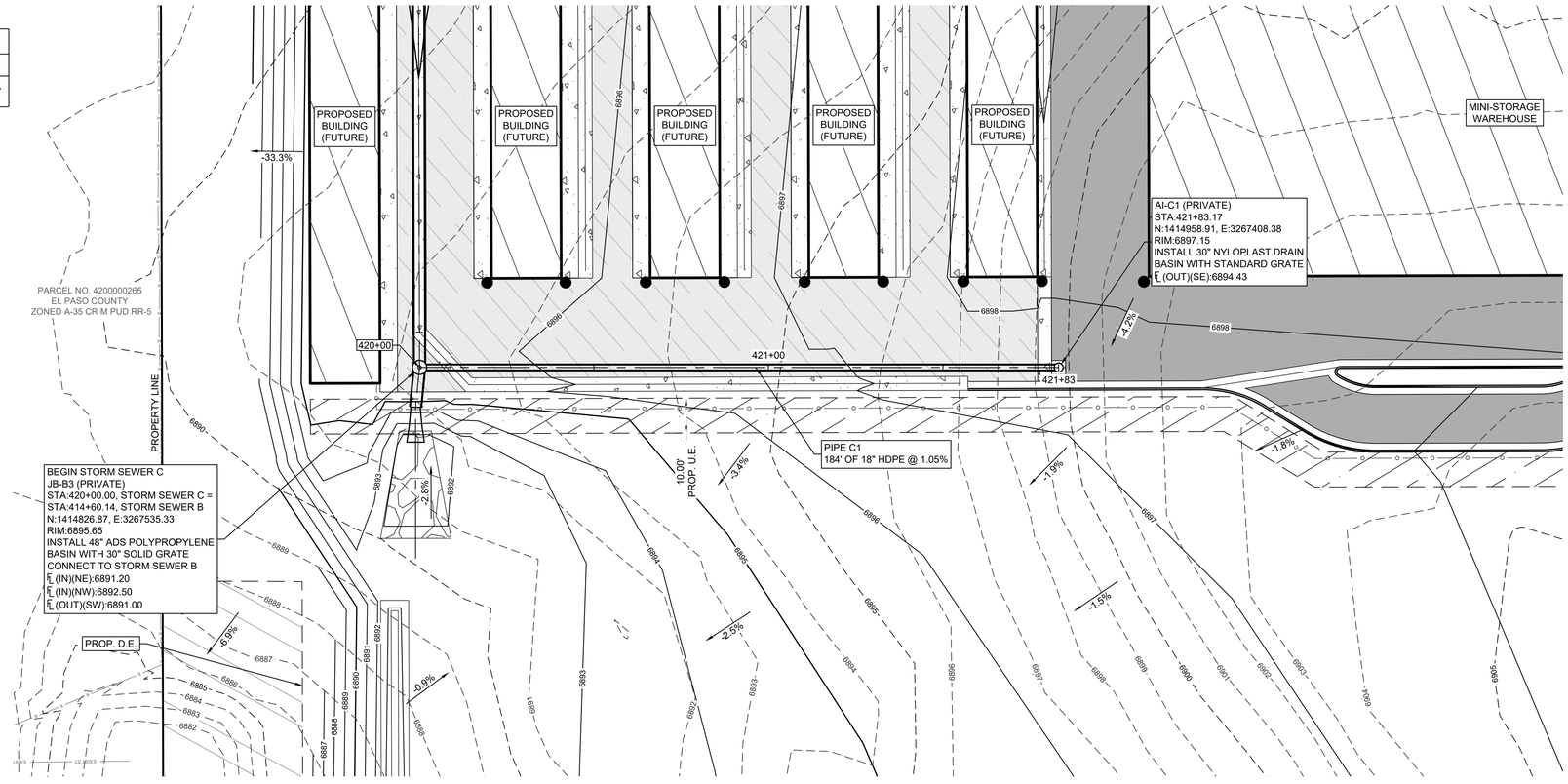
NOTES:

1. ALL PROPOSED STORM SEWER IS PRIVATE AND WILL BE CONSTRUCTED AS PART OF PHASE 1 IMPROVEMENTS.
2. DUE TO THEIR LOCATION, NO PROJECT SURVEY CONTROL POINTS CAN BE SEEN ON THIS SHEET. SEE SURVEY CONTROL PLAN FOR THE LOCATION OF ALL HORIZONTAL CONTROL AND BENCHMARK LOCATIONS.

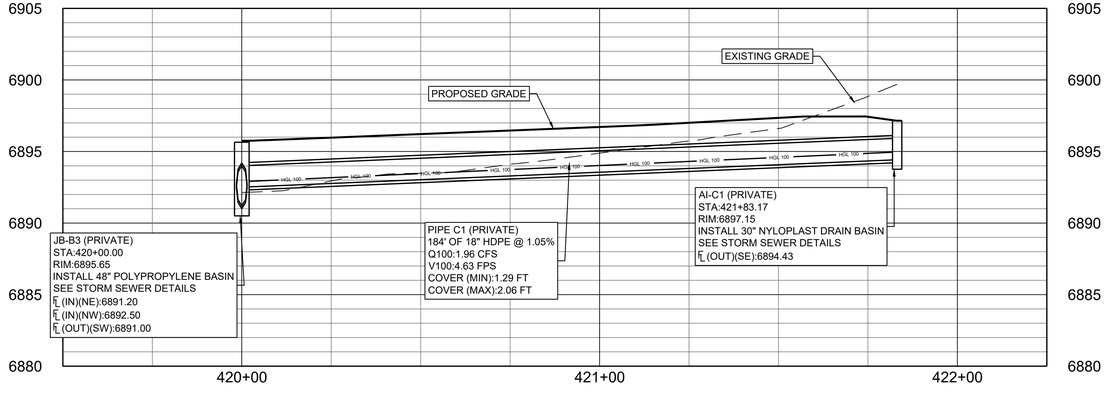
LEGEND

6939 6940 EXISTING CONTOURS (1' AND 5')

6934 6935 PROPOSED CONTOURS (1' AND 5')



STORM SEWER C PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION	DATE	REVISION DESCRIPTION (DESCRIPTION)
1	00/00/00	

STORM SEWER C PLAN & PROFILE

NORTH

SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 31

TOTAL SHEETS 48

HORIZONTAL CONTROL POINTS				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	1415135.852	3267991.670	6894.469	HCP
101	1416170.355	3266721.922	6918.323	HCP
102	1415597.419	3266230.288	6921.790	HCP
103	1415219.162	3265387.806	6920.060	HCP

ALL HCPS ARE 5/8" REBAR, FLUSH WITH GROUND

SITE BENCHMARK				
POINT #	DESCRIPTION	ELEVATION	NORTHING	EASTING
SBM84	SQUARE CUT ON CURB INLET, NORTH OF STAPLETON ROAD	6915.540	1415727.090	3266940.787

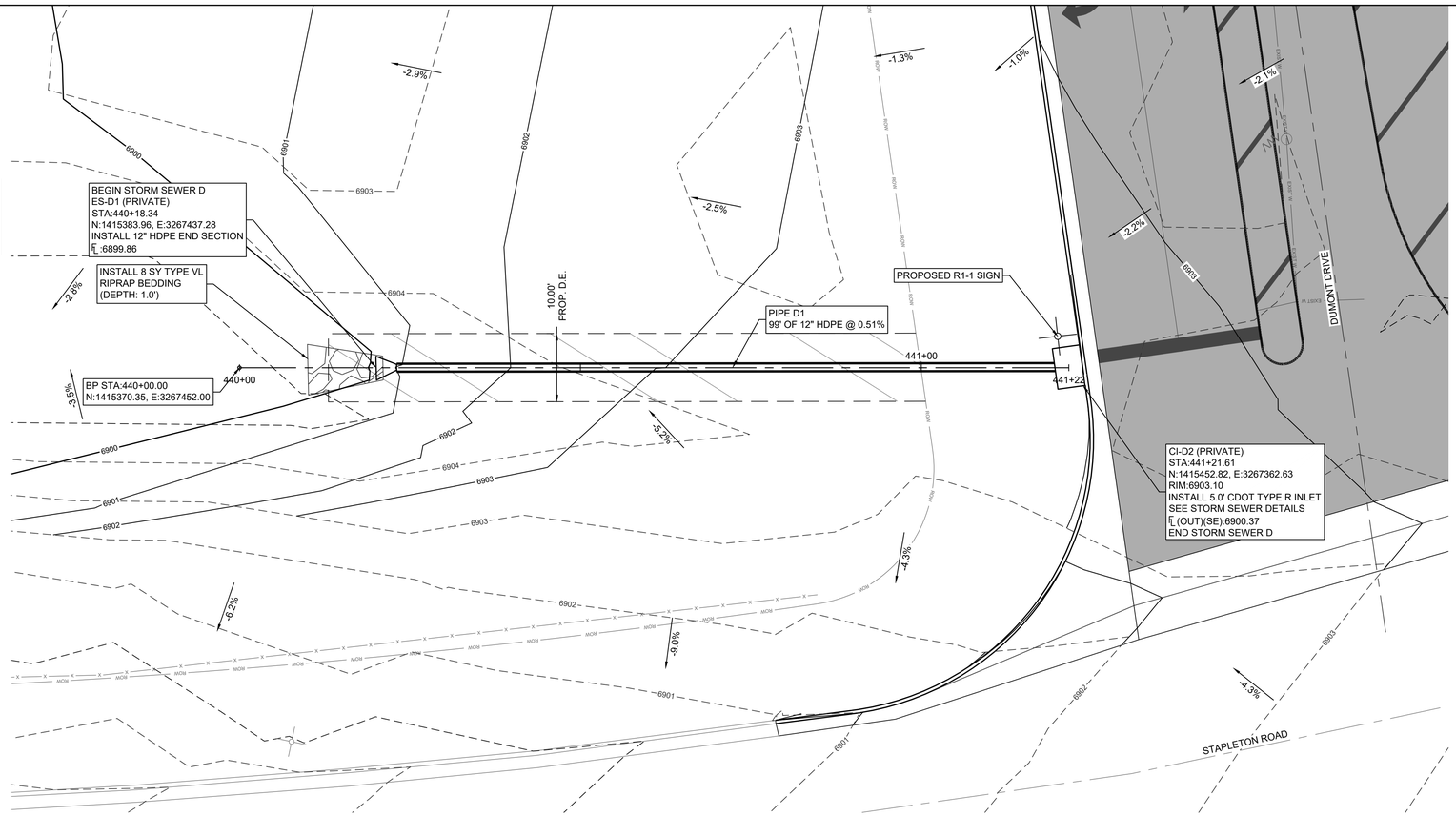
NOTES:

1. ALL PROPOSED STORM SEWER IS PRIVATE AND WILL BE CONSTRUCTED AS PART OF PHASE 1 IMPROVEMENTS.
2. DUE TO THEIR LOCATION, NO PROJECT SURVEY CONTROL POINTS CAN BE SEEN ON THIS SHEET. SEE SURVEY CONTROL PLAN FOR THE LOCATION OF ALL HORIZONTAL CONTROL AND BENCHMARK LOCATIONS.

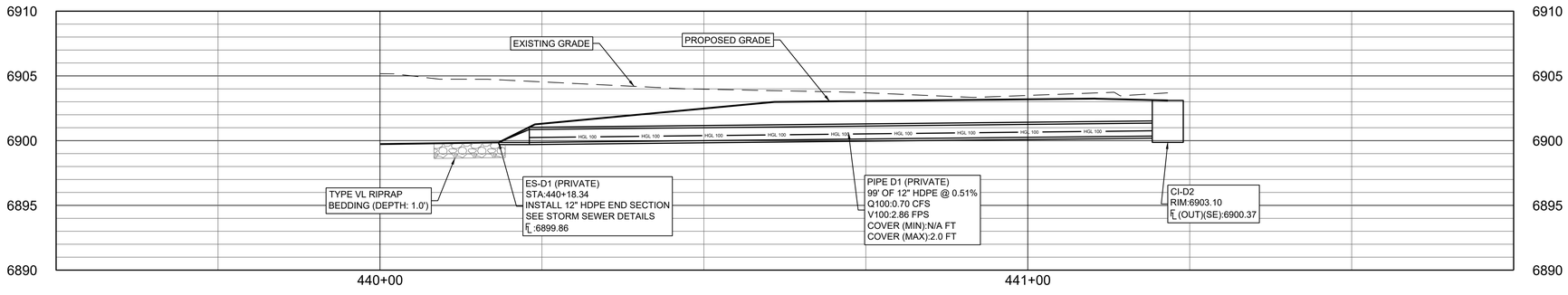
LEGEND

6939 6940 — EXISTING CONTOURS (1' AND 5')

6934 6935 — PROPOSED CONTOURS (1' AND 5')



STORM SEWER D PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/000	(DESCRIPTION)

STORM SEWER D PLAN & PROFILE

NORTH

SCALE: 1" = 10'

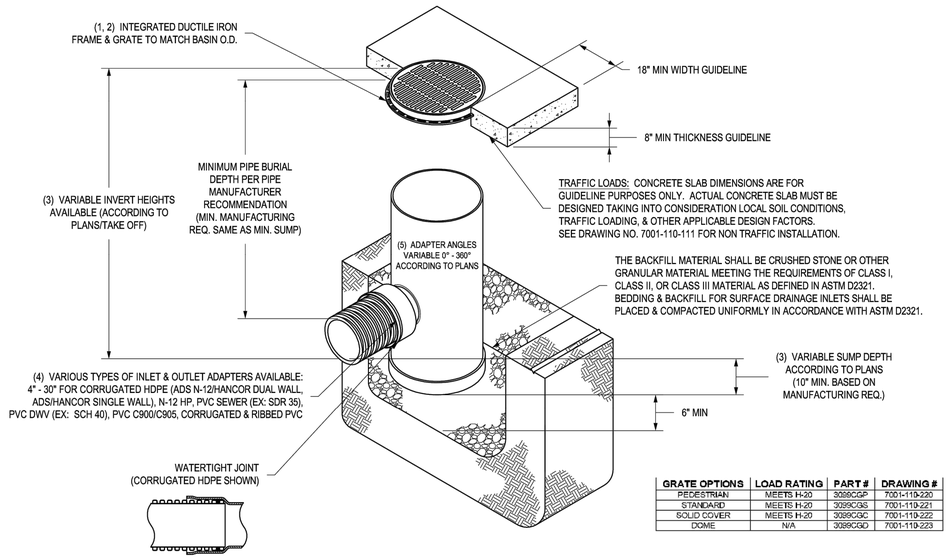
PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 32

TOTAL SHEETS 48

NYLOPLAST 30" DRAIN BASIN: 2830AG _ _X



GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-20	3099CGP	7001-110-220
STANDARD	MEETS H-20	3099CGS	7001-110-221
SOLID COVER	MEETS H-20	3099CGC	7001-110-222
DOME	N/A	3099CGD	7001-110-223

1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP, & PVC SEWER (4" - 24").
5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

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DRAWN BY	EBC	MATERIAL	
DATE	04-03-06		
REVISED BY	NMH	PROJECT NO./NAME	
DATE	03-14-16		
DWG SIZE	A	SCALE 1:40	SHEET 1 OF 1

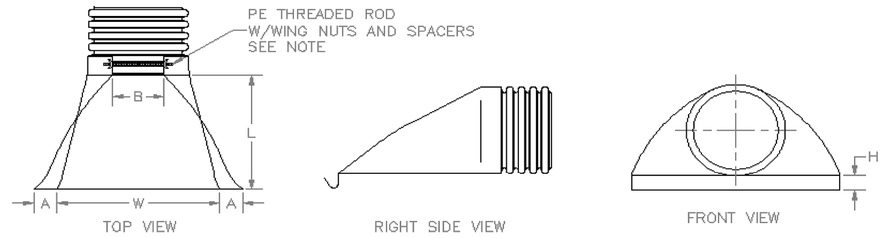
Nyloplast

3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-2490
www.nyloplast-us.com

TITLE
30 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL

DWG NO. 7001-110-193 REV G

FLARED END SECTIONS



PART #	PIPE SIZE	A	B(MAX)	H	L	W
1015NP	10 in (250 mm)	3.8 in (95 mm)	10.0 in (254 mm)	6.5 in (165 mm)	28.0 in (711 mm)	34.5 in (876 mm)
1215NP	12 & 15 (300 & 375mm)	6.5 in (165 mm)	10.0 in (254 mm)	6.5 in (165 mm)	25.0 in (635 mm)	29.0 in (737 mm)
1810NP	18 in (450 mm)	7.5 in (191 mm)	15.0 in (381 mm)	6.5 in (165 mm)	32.0 in (813 mm)	35.0 in (889 mm)
2410NP	24 in (600 mm)	7.5 in (191 mm)	18.0 in (457 mm)	6.5 in (165 mm)	36.0 in (914 mm)	45.0 in (1143 mm)
3015NP	30 in (750 mm)	7.5 in (191 mm)	12.0 in (305 mm)	8.6 in (218 mm)	58.0 in (1473 mm)	63.0 in (1600 mm)
3615NP	36 in (900 mm)	7.5 in (191 mm)	25.0 in (635 mm)	8.6 in (218 mm)	58.0 in (1473 mm)	63.0 in (1600 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL

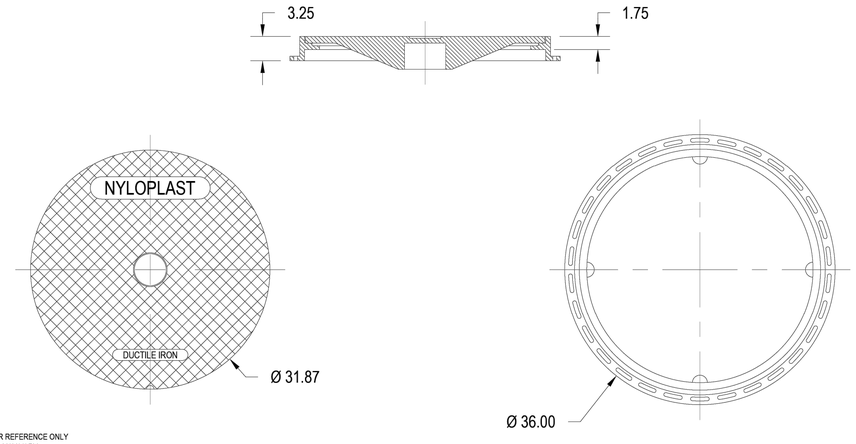
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Advanced Drainage Systems, Inc.

DRAWING #:	6070	
DRAWN BY:	JCB	01.17.07
APPROVED BY:	JCB	06.28.07
REVISIONS:	TJR	6/7/2016

3099CGC

APPROX. WEIGHT WITH FRAME = 262.50 LBS



DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
COVER MEETS H-20 LOAD RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO. 7001-110-026

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

STANDARD DETAIL
NYLOPLAST 30 IN SOLID COVER ASSEMBLY – TYPE B

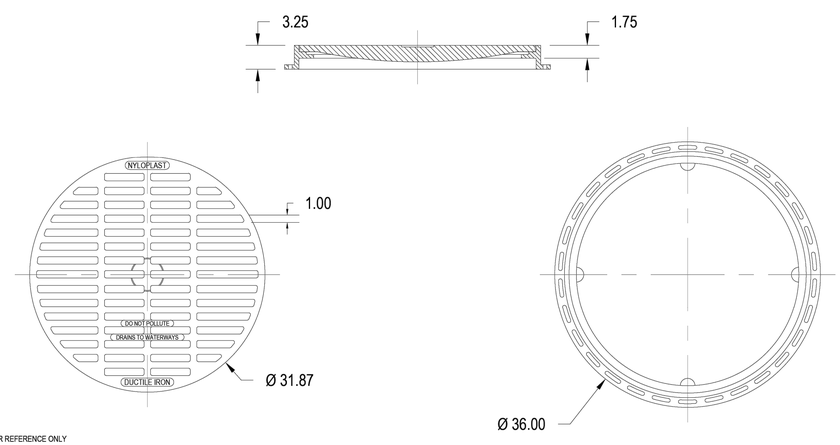
DRAWING NUMBER 7001-110-222

ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026

DRAWN BY:	NMH
DATE:	02/06/23
DATE BY:	
SCALE:	NTS
SHEET:	1 OF 1

3099CGS

APPROX. DRAIN AREA = 324.00 SQ IN
APPROX. WEIGHT WITH FRAME = 237.00 LBS



DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
GRATE MEETS H-20 LOAD RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT
LOCKING DEVICE AVAILABLE UPON REQUEST SEE DRAWING NO. 7001-110-022

ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

STANDARD DETAIL
NYLOPLAST 30 IN STANDARD GRATE ASSEMBLY – TYPE B

DRAWING NUMBER 7001-110-221

ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026

DRAWN BY:	NMH
DATE:	02/06/23
DATE BY:	
SCALE:	NTS
SHEET:	1 OF 1

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Kansas City
(913) 444-9615
Colorado Springs, CO
(719) 465-2145

4-WAY COMMERCIAL
CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION	REVISION DESCRIPTION	DRAWN BY
00/00/00	(DESCRIPTION)	

STORM SEWER DETAILS

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

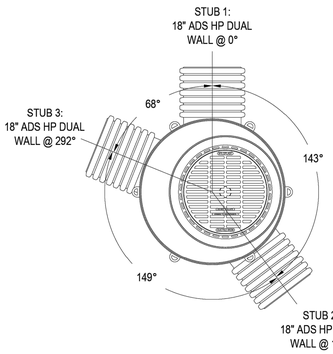
SHEET # 33

TOTAL SHEETS 48

ADAPTER SIZE	48" HP MH
4" - 4"	17º
4" - 6"	19º
4" - 8"	22º
4" - 10"	24º
4" - 12"	28º
4" - 15"	30º
4" - 18"	34º
4" - 24"	42º
4" - 30"	51º
4" - 36"	61º
6" - 6"	22º
6" - 8"	24º
6" - 10"	26º
6" - 12"	29º
6" - 15"	33º
6" - 18"	38º
6" - 24"	44º
6" - 30"	53º
6" - 36"	63º
8" - 8"	26º
8" - 10"	29º
8" - 12"	31º
8" - 15"	35º
8" - 18"	39º
8" - 24"	47º
8" - 30"	55º
8" - 36"	65º

ADAPTER SIZE	48" HP MH
10" - 10"	31º
10" - 12"	34º
10" - 15"	37º
10" - 18"	41º
10" - 24"	49º
10" - 30"	58º
10" - 36"	68º
12" - 12"	43º
12" - 15"	47º
12" - 18"	51º
12" - 24"	66º
12" - 30"	75º
12" - 36"	85º
15" - 15"	51º
15" - 18"	55º
15" - 24"	70º
15" - 30"	78º
15" - 36"	88º
18" - 18"	58º
18" - 24"	74º
18" - 30"	82º
18" - 36"	92º
24" - 24"	81º
24" - 30"	90º
24" - 36"	100º
30" - 30"	99º
30" - 36"	109º
36" - 36"	119º

1. MEASURE THE ANGLE BETWEEN THE PIPE RUNS DIRECTLY FROM THE STORM DRAIN PLANS FOR EACH STRUCTURE LOCATION . THE ANGLE BETWEEN EVERY PIPE RUN MUST BE MEASURED.
2. REFER TO DRAWING NO. 7001-110-012 FOR MINIMUM ANGLE REQUIREMENTS. THE ANGLES LISTED ARE THE MINIMUM ANGLES POSSIBLE BETWEEN ADAPTERS DUE TO PRODUCTION RESTRICTIONS.
3. WHEN RECORDING THE MEASURED ANGLES ON AN ORDER FORM BE SURE TO MEASURE THE ANGLES IN A CLOCKWISE DIRECTION & LABEL THE ANGLE POSITIONS STARTING WITH 0° AT THE TOP OF THE PAGE, THE 12 O'CLOCK POSITION; 90° WOULD THEN FOLLOW AT 3 O'CLOCK, 180°AT 6 O'CLOCK, & SO FORTH (TYPICALLY YOUR OUTLET PIPE WOULD BE LABELED AT 0°).



POLYPROPYLENE BASIN TOP VIEW
WITH REDUCING PLATE, FRAME & GRATE

EXAMPLE:
THE 48" POLYPROPYLENE BASIN ABOVE HAS THREE PIPE STUBS:
18" ADS HP DUAL WALL ADAPTER @ 0°
18" ADS HP DUAL WALL ADAPTER @ 143°
18" ADS HP DUAL WALL ADAPTER @ 292°

ACCORDING TO THE MINIMUM ANGLE CHART A 48" POLYPROPYLENE BASIN REQUIRES A MINIMUM OF 68° BETWEEN AN 18" & 18" STUB. STUB 2 EXCEEDS THE MINIMUM ANGLES BETWEEN STUB 1 AND STUB 3 AND MEETS THE MINIMUM ANGLE REQUIREMENTS. STUB 3 IS 68° FROM STUB 1 AND THEREFORE IS AT THE MINIMUM ALLOWED ANGLE BETWEEN THE TWO ADAPTER SIZES.

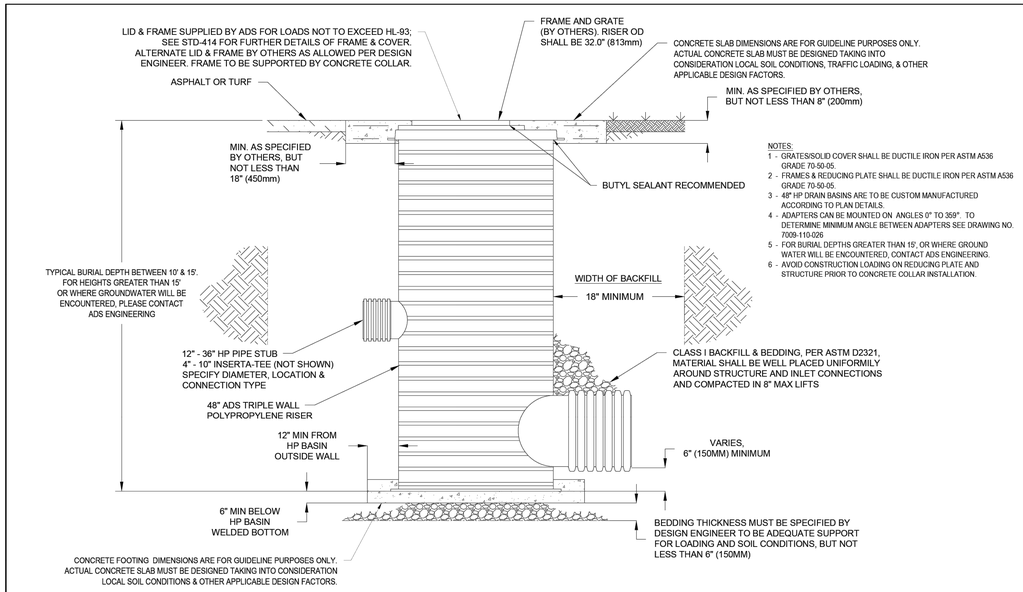
ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

STANDARD DETAIL
48" POLYPROPYLENE BASIN
MINIMUM ANGLE CHART

DRAWING NUMBER 7009-110-028 A

4640 TRUEMAN BLVD
HILLIARD, OH 43026

DRAWN BY: NMH
DATE: 8/10/23
CHK'D BY:
SCALE: NTS
SHEET: 1 OF 1



ADVANCED DRAINAGE SYSTEMS, INC. ("ADS") HAS PREPARED THIS DETAIL BASED ON INFORMATION PROVIDED TO ADS. THIS DRAWING IS INTENDED TO DEPICT THE COMPONENTS AS REQUESTED. ADS HAS NOT PERFORMED ANY ENGINEERING OR DESIGN SERVICES FOR THIS PROJECT, NOR HAS ADS INDEPENDENTLY VERIFIED THE INFORMATION SUPPLIED. THE INSTALLATION DETAILS PROVIDED HEREIN ARE GENERAL RECOMMENDATIONS AND ARE NOT SPECIFIC FOR THIS PROJECT. THE DESIGN ENGINEER SHALL REVIEW THESE DETAILS PRIOR TO CONSTRUCTION. IT IS THE DESIGN ENGINEERS RESPONSIBILITY TO ENSURE THE DETAILS PROVIDED HEREIN MEETS OR EXCEEDS THE APPLICABLE NATIONAL, STATE, OR LOCAL REQUIREMENTS AND TO ENSURE THAT THE DETAILS PROVIDED HEREIN ARE ACCEPTABLE FOR THIS PROJECT.

STANDARD DETAIL
48" POLYPROPYLENE BASIN
10' – 15' DEEP INSTALLATION (48")

DRAWING NUMBER STD-403A

4640 TRUEMAN BLVD
HILLIARD, OH 43026

DRAWN BY: NMH
DATE: 01/24/23
CHK'D BY:
SCALE: NTS
SHEET: 1 OF 1

48" Polypropylene Basin Specification

GENERAL
This specification describes the 48" Polypropylene Basin for use in underground storm water applications as indicated on the contract drawings and referenced within the contract specifications. The ductile iron grates for each of these fittings are to be considered an integral part of the surface drainage inlet and shall be furnished by the same manufacturer.

MATERIALS
The 48" Polypropylene Basin bodies shall be made from an impact modified copolymer polypropylene meeting the material requirements of ASTM F2764. The joint tightness shall conform to ASTM D3212 for joints for drain and sewer plastic pipe using flexible elastomeric seals. The flexible elastomeric seals used for the polyethylene cone and pipe connections to the structure shall conform to ASTM F477.

The reducing plate, covers, grates and frames furnished for all 48" Polypropylene Basin surface drainage inlets shall be ductile iron. Ductile iron castings used shall conform to ASTM A536 grade 70-50-05 for ductile iron and shall be painted black.

INSTALLATION
The maximum burial depth of the 48" (1200 mm) HP Polypropylene Basin is 15' (4.6 m) with the use of Class I compacted material as defined in ASTM D234. Excavate Polypropylene Basin location to the depth required and provide a stone base. Stone base shall be a minimum of 6" (150 mm), however a thicker base may be required. A geotechnical engineer shall be contacted to determine adequate bedding specifications. Set Polypropylene Basin in place and level structure. Connect storm pipe into Polypropylene Basin. Re-check Polypropylene Basin depth, level and position. The backfill material shall be crushed stone meeting the requirements of Class I material as defined in ASTM D2321. Bedding and backfill shall be well placed and compacted uniformly in accordance with ASTM D2321. All 48" HP Polypropylene Basins are custom made to order as specified. The maximum depth is 15' (4.6 m). Contact ADS Technical Services for burial depths greater than 15' (4.6 m) or where groundwater will be encountered. The frame and grate/cover must be fully supported by a reinforced concrete collar as designed by others. The concrete collar must extend no less than 18" (450 mm) from the edge of the frame in all directions. The collar must bear on the surrounding stone and soil backfill and not on the structure. For other installation considerations, such as migration of fines, ground water, and soft foundations, refer to ASTM D2321 guidelines.

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STANDARD DETAIL
48" POLYPROPYLENE BASIN
SPECIFICATION

DRAWING NUMBER 7009-110-025 A

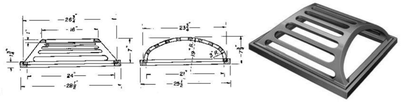
4640 TRUEMAN BLVD
HILLIARD, OH 43026

DRAWN BY: NMH
DATE: 01/30/23
CHK'D BY:
SCALE: NTS
SHEET: 1 OF 1

■ Note: When specifying/ordering grates, refer to "Choosing the Proper Inlet Grate" on pages 125-126.
For a complete listing of FREE OPEN AREAS and WEIR PERIMETERS of all NEENAH grates, refer to pages 327-332.

R-4343
Ditch Grate, Frame

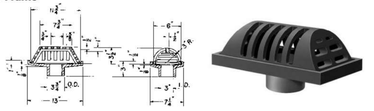
Light Duty



CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-4343	Beehive	2.4	8.4

R-4344
Railroad Bridge Drain Grate, Frame

Light Duty

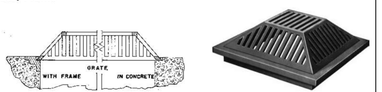


CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-4344	Beehive	0.2	2.9

R-4345 to R-4347 Series
Square Beehive Drainage Grate, Frame

DRAINAGE GRATES 7

Light Duty



CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-4345	Beehive	2.0	8.0
R-4346	Beehive	2.0	8.0
R-4347	Beehive	2.0	8.0

For off-roadway construction.
These castings are suitable for use at low points of large graded areas and will drain a substantial volume of surface water from all sides.

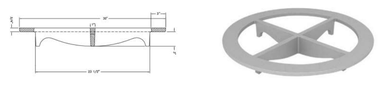
Dimensions in inches

Catalog No.	Grate Overall	Grate Top Size	Frame Overall	Height Grate	Height Frame
R-4345	26 x 26	12 x 12		6 1/4	-
R-4346	26 x 26	12 x 12	30 x 30	6 1/4	4
R-4347	27 5/8 x 27 5/8	12 x 12	-	6 1/4	-

NEW

R-4348
Median Drain

Medium Duty



CATALOG NUMBER	GRATE TYPE	SQ. FT. OPEN	WEIR PERIMETER LINEAL FEET
R-4348	N	2.8	6.3

CLICK HERE to return to the Table of Contents

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CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

STORM SEWER DETAILS

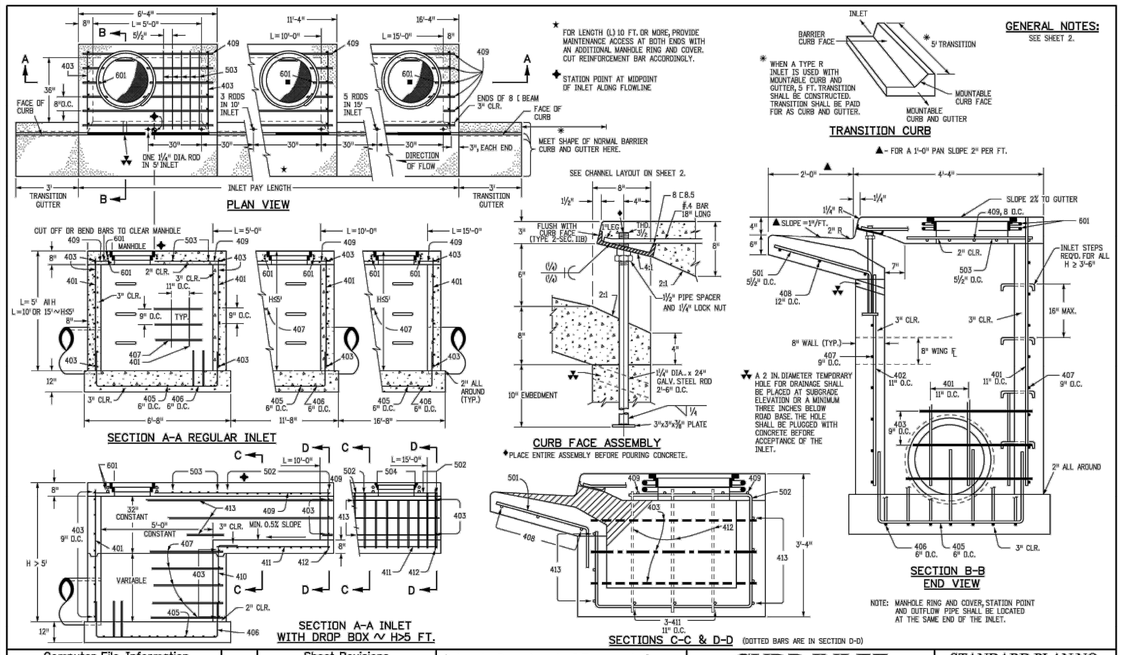
SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 34

TOTAL SHEETS 48



Computer File Information	
Creation Date: 07/31/19	
Designer Initials: JBK	
Last Modification Date: 07/31/19	
Detailer Initials: LTA	
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	

Sheet Revisions		
	Date:	Comments

Colorado Department of Transportation
2829 West Howard Place
CDOT HQ, 3rd Floor
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868
Project Development Branch JBK

CURB INLET TYPE R

Issued by the Project Development Branch: July 31, 2019

STANDARD PLAN NO.
M-604-12
Standard Sheet No. 1 of 2
Project Sheet Number:

MARK	BAR # OR SIZE	O.C. SPACING	TYPE	ALL INLETS L = 5 FT. NO. REQ'D.	ALL INLETS L = 5 FT. LENGTH	INLETS: H ≤ 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 10 FT. LENGTH	INLETS: H ≤ 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 15 FT. LENGTH	INLETS: H > 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 10 FT. LENGTH	INLETS: H > 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 15 FT. LENGTH
401	4	11"	II	15	*	21	*	26	*	11	*	11	*
402	4	11"	II	7	*	13	*	18	*	7	*	7	*
403	4	9"	II	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"
405	4	6"	VI	11	6'-10"	21	6'-10"	31	6'-10"	11	6'-10"	11	6'-10"
406	4	6"	VIII	7	8'-10"	7	13'-10"	7	18'-10"	7	8'-10"	7	8'-10"
407	4	9"	II	*	5'-10"	*	10'-10"	*	15'-10"	*	5'-10"	*	5'-10"
408	4	12"	II	3	8'-10"	3	11'-10"	3	16'-0"	3	11'-10"	3	18'-0"
409	4	8"	II	6	5'-10"	6	10'-10"	6	15'-10"	6	10'-10"	6	15'-10"
410	4	11"	VII							3		3	*
411	4	11"	II							3	5'-2"	3	10'-2"
412	4	11"	II							3	2'-8"	3	2'-8"
413	4	9"	II							7	10'-10"	7	15'-10"
501	5	5½"	IV	11	3'-4"	22	3'-4"	33	3'-4"	22	3'-4"	33	3'-4"
502	5	5½"	III							11	11'-5"	17	11'-5"
503	5	5½"	II	5	3'-6"	16	3'-6"	27	3'-6"	6	3'-6"	6	3'-6"
504	5	5½"	IX									5	8'-4"
601	6	2½"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	4	8'-10"
■ RC8.5				1	5'-10"	1	10'-10"	1	15'-10"	1	10'-10"	1	15'-10"
				2 BARS, 1 RODS	—	4 BARS, 3 RODS	—	8 BARS, 5 RODS	—	4 BARS, 3 RODS	—	8 BARS, 5 RODS	—

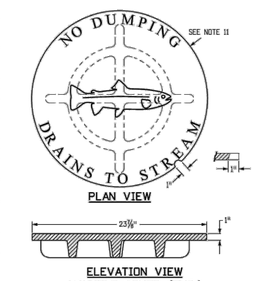
* VARIABLE REFER TO TABLE TWO.
■ INCLUDE #4, 18 IN. BARS (SEE CHANNEL LAYOUT).
REGULAR INLETS
DROP BOX INLETS

TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

"H"	LENGTH 401	LENGTH 402	LENGTH 410	NO. REQ'D. REGULAR 403	NO. REQ'D. REGULAR 407	NO. REQ'D. DROP BOX 403	NO. REQ'D. DROP BOX 407	L = 5 FT. CONC. CU. YDS.	L = 5 FT. STEEL LBS.	L = 10 FT. CONC. CU. YDS.	L = 10 FT. STEEL LBS.	L = 15 FT. CONC. CU. YDS.	L = 15 FT. STEEL LBS.
3'-0"	2'-8"	1'-8"		10	7			3.2	285	5.3	497	7.4	706
3'-6"	3'-2"	2'-2"		10	7			3.4	305	5.7	528	7.9	747
4'-0"	3'-8"	2'-8"		12	9			3.7	326	6.0	559	8.4	786
4'-6"	4'-2"	3'-2"		12	9			3.9	334	6.4	571	8.8	803
5'-0"	4'-8"	3'-8"		14	11			4.1	354	6.7	602	9.3	844
5'-6"	5'-2"	4'-2"	3'-5"	16	13	15	6	4.4	375	6.9	607	7.4	850
6'-0"	5'-8"	4'-8"	3'-11"	16	13	16	6	4.6	382	6.2	616	7.6	860
6'-6"	6'-2"	5'-2"	4'-5"	18	15	18	8	4.8	402	6.4	637	7.8	880
7'-0"	6'-8"	5'-8"	4'-11"	20	17	19	10	5.0	423	6.6	654	8.0	897
7'-6"	7'-2"	6'-2"	5'-5"	20	17	20	10	5.3	430	6.9	664	8.3	907
8'-0"	7'-8"	6'-8"	5'-11"	22	19	22	12	5.5	451	7.1	684	8.5	927
8'-6"	8'-2"	7'-2"	6'-5"	24	21	23	14	5.7	471	7.3	702	8.7	944
9'-0"	8'-8"	7'-8"	6'-11"	24	21	24	14	6.0	479	7.6	711	9.0	954
9'-6"	9'-2"	8'-2"	7'-5"	26	23	26	16	6.2	499	7.8	732	9.2	974
10'-0"	9'-8"	8'-8"	7'-11"	28	25	27	18	6.4	520	8.0	749	9.4	992
10'-6"	10'-2"	9'-2"	8'-5"	28	25	28	18	6.7	527	8.3	759	9.7	1001
11'-0"	10'-8"	9'-8"	8'-11"	30	27	30	20	6.9	547	8.5	779	9.9	1022

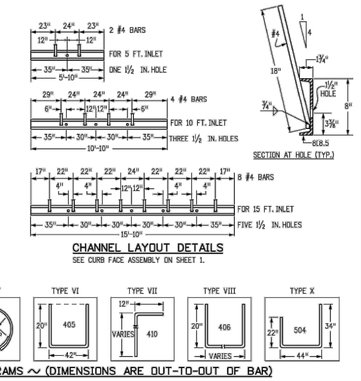
NOTES: FOR L = 5 FT., L = 10 FT., AND L = 15 FT.
REGULAR INLETS: TOTAL QUANTITIES NEEDED ARE OUTSIDE THE HEAVY BLACK LINE.
DROP BOX INLETS: TOTAL QUANTITIES NEEDED ARE INSIDE THE HEAVY BLACK LINE.
STEEL WEIGHTS DO NOT INCLUDE STRUCTURAL STEEL CHANNEL.

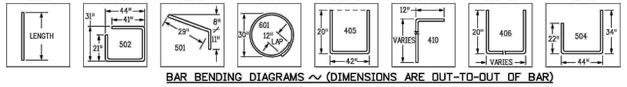
TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"



GENERAL NOTES

1. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES AND SHALL BE 8 INCHES THICK.
3. INLET STEPS SHALL BE IN CONFORMANCE WITH AASHTO M 199.
4. CURB FACE ASSEMBLY SHALL BE GALVANIZED AFTER WELDING.
5. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾" OF A INCH. CURB AND GUTTER CORNERS SHALL BE FINISHED TO MATCH THE EXISTING CURB AND GUTTER BEYOND THE TRANSITION GUTTER.
6. REINFORCING BARS SHALL BE DEFORMED AND SHALL HAVE A 2 INCH MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE GRADE 60 AND EPOXY COATED.
7. DIMENSIONS AND WEIGHTS OF TYPICAL MANHOLE RING AND COVER ARE NOMINAL.
8. MATERIAL FOR MANHOLE RINGS AND COVERS SHALL BE GRAY OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.06.
9. SINCE PIPE ENTRIES INTO THE INLET ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK. QUANTITIES INCLUDE VOLUMES OCCUPIED BY PIPES.
10. STRUCTURAL STEEL SHALL BE GALVANIZED AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
11. ALL MANHOLE COVERS SHALL BE CAST WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE AND A FISH SYMBOL. THE SURFACE OF THE MANHOLE COVER SHALL HAVE A NON-SLIP PATTERN.





Computer File Information	
Creation Date: 07/31/19	
Designer Initials: JBK	
Last Modification Date: 07/31/19	
Detailer Initials: LTA	
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	

Sheet Revisions		
	Date:	Comments

Colorado Department of Transportation
2829 West Howard Place
CDOT HQ, 3rd Floor
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868
Project Development Branch JBK

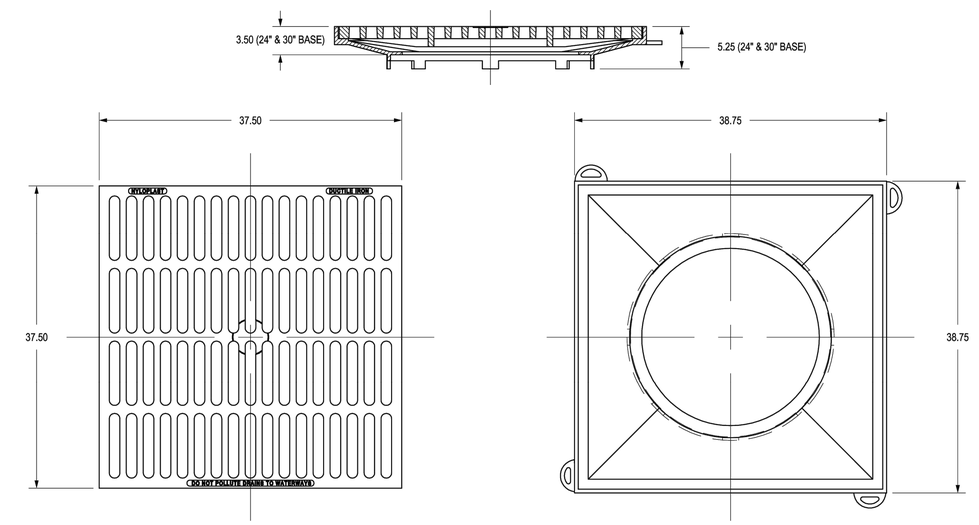
CURB INLET TYPE R

Issued by the Project Development Branch: July 31, 2019

STANDARD PLAN NO.
M-604-12
Standard Sheet No. 2 of 2
Project Sheet Number:

3 FT X 3 FT ROAD & HIGHWAY FRAME AND GRATE

APPROX. DRAIN AREA = 688.66 SQ IN



DIMENSIONS ARE FOR REFERENCE ONLY
ACTUAL DIMENSIONS MAY VARY
DIMENSIONS ARE IN INCHES
GRATE MEETS H-20 LOAD RATING
QUALITY: MATERIALS SHALL CONFORM TO ASTM A536 GRADE 70-50-05
PAINT: CASTINGS ARE FURNISHED WITH A BLACK PAINT

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DRAWN BY	NMH	MATERIAL	DUCTILE IRON
DATE	12-15-17		
APPD BY	NMH	PROJECT NO./NAME	
DATE	12-15-17		
DWG SIZE	A	SCALE 1:12	SHEET 1 OF 1

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FAX (770) 932-2490
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TITLE
3 FT X 3 FT ROAD & HIGHWAY
2 PIECE GRATE ASSEMBLY

DWG NO. 7001-110-525 REV A

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CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION DATE	REVISION (DESCRIPTION)
00/00/00	. . . . .

STORM SEWER DETAILS

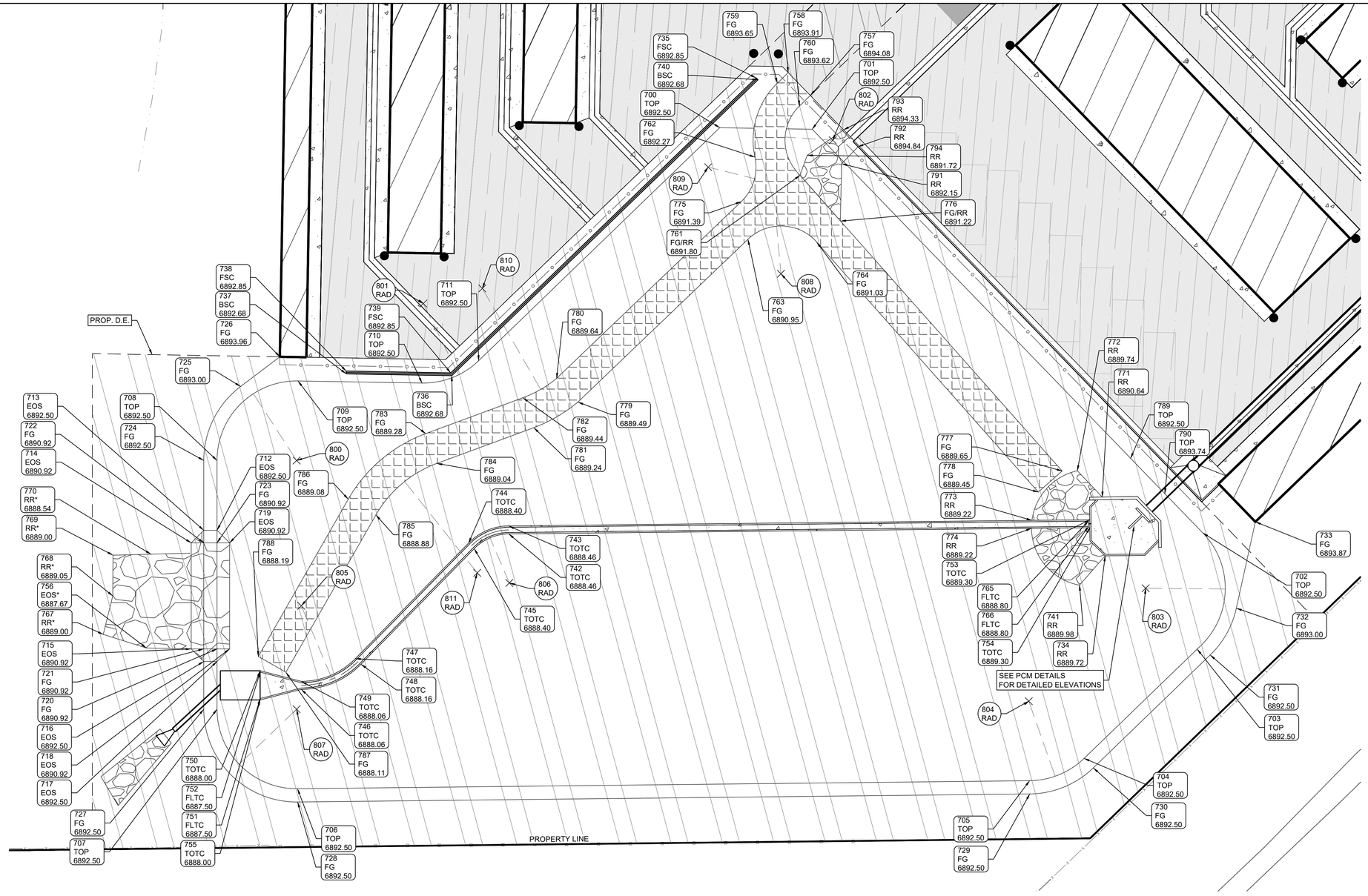
SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 35

TOTAL SHEETS 48



LEGEND

BSC	BACK OF SLOTTED CURB
EOS	EDGE OF SPILLWAY
FG	FINISHED GRADE
FLTC	FLOWLINE TRICKLE CHANNEL
FSC	FRONT OF SLOTTED CURB
RAD	RADIUS
RR	EDGE OF RIPRAP
TOP	TOP OF POND
TOTC	TOP OF TRICKLE CHANNEL
*	MATCH EXISTING
	RADIUS POINT
	COORDINATE POINT

POND COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
700	1414678.14	3267070.94	6892.50	TOP
701	1414677.55	3267105.78	6892.50	TOP
702	1414525.26	3267253.03	6892.50	TOP
703	1414481.45	3267250.88	6892.50	TOP
704	1414440.25	3267208.26	6892.50	TOP
705	1414431.82	3267187.74	6892.50	TOP
706	1414428.79	3266911.77	6892.50	TOP
707	1414458.79	3266881.44	6892.50	TOP
708	1414552.61	3266881.44	6892.50	TOP
709	1414582.61	3266911.94	6892.50	TOP
710	1414581.82	3266958.69	6892.50	TOP
711	1414590.25	3266980.05	6892.50	TOP
712	1414526.27	3266881.44	6892.50	EOS
713	1414526.27	3266876.44	6892.50	EOS
714	1414521.53	3266871.70	6890.92	EOS
715	1414481.53	3266871.70	6890.92	EOS
716	1414476.79	3266876.44	6892.50	EOS
717	1414476.79	3266881.44	6892.50	EOS
718	1414481.53	3266886.18	6890.92	EOS
719	1414521.53	3266886.18	6890.92	EOS

POND COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
720	1414481.53	3266881.44	6890.92	FG
721	1414481.53	3266876.44	6890.92	FG
722	1414521.53	3266876.44	6890.92	FG
723	1414521.53	3266881.44	6890.92	FG
724	1414552.61	3266876.44	6892.50	FG
725	1414580.52	3266890.32	6893.00	FG
726	1414591.72	3266905.12	6893.96	FG
727	1414458.79	3266876.44	6892.50	FG
728	1414423.79	3266911.82	6892.50	FG
729	1414426.82	3267187.79	6892.50	FG
730	1414436.65	3267211.74	6892.50	FG
731	1414479.25	3267255.79	6892.50	FG
732	1414496.88	3267265.64	6893.00	FG
733	1414529.47	3267272.82	6893.87	FG
734	1414516.65	3267216.21	6889.72	RR
735	1414696.93	3267084.63	6892.85	FSC
736	1414584.63	3266969.92	6892.68	BSC
737	1414585.30	3266930.11	6892.68	BSC
738	1414586.30	3266930.12	6892.85	FSC
739	1414585.64	3266969.52	6892.85	FSC

POND COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
740	1414696.21	3267085.32	6892.68	BSC
741	1414505.59	3267206.53	6889.98	RR
742	1414524.91	3266991.41	6888.46	TOTC
743	1414527.91	3266991.38	6888.46	TOTC
744	1414521.46	3266976.25	6888.40	TOTC
745	1414519.36	3266978.39	6888.40	TOTC
746	1414466.29	3266913.20	6888.06	TOTC
747	1414477.85	3266933.56	6888.16	TOTC
748	1414475.76	3266935.70	6888.16	TOTC
749	1414469.29	3266913.20	6888.06	TOTC
750	1414473.29	3266897.69	6888.00	TOTC
751	1414462.79	3266897.69	6887.50	FLTC
752	1414472.79	3266897.69	6887.50	FLTC
753	1414530.24	3267210.41	6889.30	TOTC
754	1414527.24	3267210.44	6889.30	TOTC
755	1414462.29	3266897.69	6888.00	TOTC
756	1414481.89	3266854.78	6887.67	EOS*
757	1414690.27	3267105.08	6894.08	FG
758	1414698.90	3267096.73	6893.91	FG
759	1414694.94	3267092.64	6893.65	FG

POND COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
760	1414686.32	3267100.98	6893.62	FG
761	1414660.17	3267101.19	6891.80	FG/RR
762	1414667.04	3267084.17	6892.27	FG
763	1414636.04	3267081.55	6890.95	FG
764	1414634.98	3267107.47	6891.03	FG
765	1414529.74	3267209.92	6888.80	FLTC
766	1414527.74	3267209.94	6888.80	FLTC
767	1414487.01	3266838.54	6889.00	RR*
768	1414501.52	3266842.13	6889.05	RR*
769	1414516.89	3266842.21	6889.00	RR*
770	1414517.26	3266856.54	6888.54	RR*
771	1414538.82	3267215.09	6890.64	RR
772	1414548.73	3267205.73	6889.74	RR
773	1414530.01	3267188.62	6889.22	RR
774	1414527.01	3267188.45	6889.22	RR
775	1414650.24	3267079.03	6891.39	FG
776	1414642.91	3267116.48	6891.22	FG/RR
777	1414548.64	3267199.98	6889.65	FG
778	1414540.68	3267191.00	6889.45	FG
779	1414574.63	3267017.45	6889.49	FG

POND COORDINATES

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
780	1414583.59	3267009.45	6889.64	FG
781	1414564.99	3267000.84	6889.24	FG
782	1414576.25	3266996.68	6889.44	FG
783	1414562.75	3266960.11	6889.28	FG
784	1414551.49	3266964.27	6889.04	FG
785	1414532.05	3266941.31	6888.88	FG
786	1414538.00	3266930.89	6889.08	FG
787	1414472.73	3266907.40	6888.11	FG
788	1414478.69	3266896.98	6888.19	FG
789	1414553.41	3267225.82	6892.50	TOP
790	1414540.09	3267238.70	6893.74	TOP
791	1414664.56	3267116.88	6892.15	RR
792	1414670.97	3267123.05	6894.84	RR
793	1414677.33	3267117.59	6894.33	RR
794	1414667.72	3267103.87	6891.72	RR

RADIUS POINTS

POINT #	NORTHING	EASTING	RADIUS	DESCRIPTION
800	1414552.61	3266911.44	30.00'	RAD
801	1414611.82	3266959.19	30.00'	RAD
802	1414673.40	3267113.52	18.00'	RAD
803	1414504.41	3267231.46	30.00'	RAD
804	1414461.81	3267187.41	30.00'	RAD
805	1414497.79	3266913.20	20.00'	RAD
806	1414506.41	3266991.61	20.00'	RAD
807	1414458.79	3266911.43	30.00'	RAD
808	1414623.04	3267094.00	18.00'	RAD
809	1414663.24	3267066.57	18.00'	RAD
810	1414617.53	3266981.44	44.00'/56.00'	RAD
811	1414510.21	3266979.51	44.00'/56.00'	RAD

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

PERMANENT CONTROL MEASURE PLAN

NORTH

SCALE: 1" = 20'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

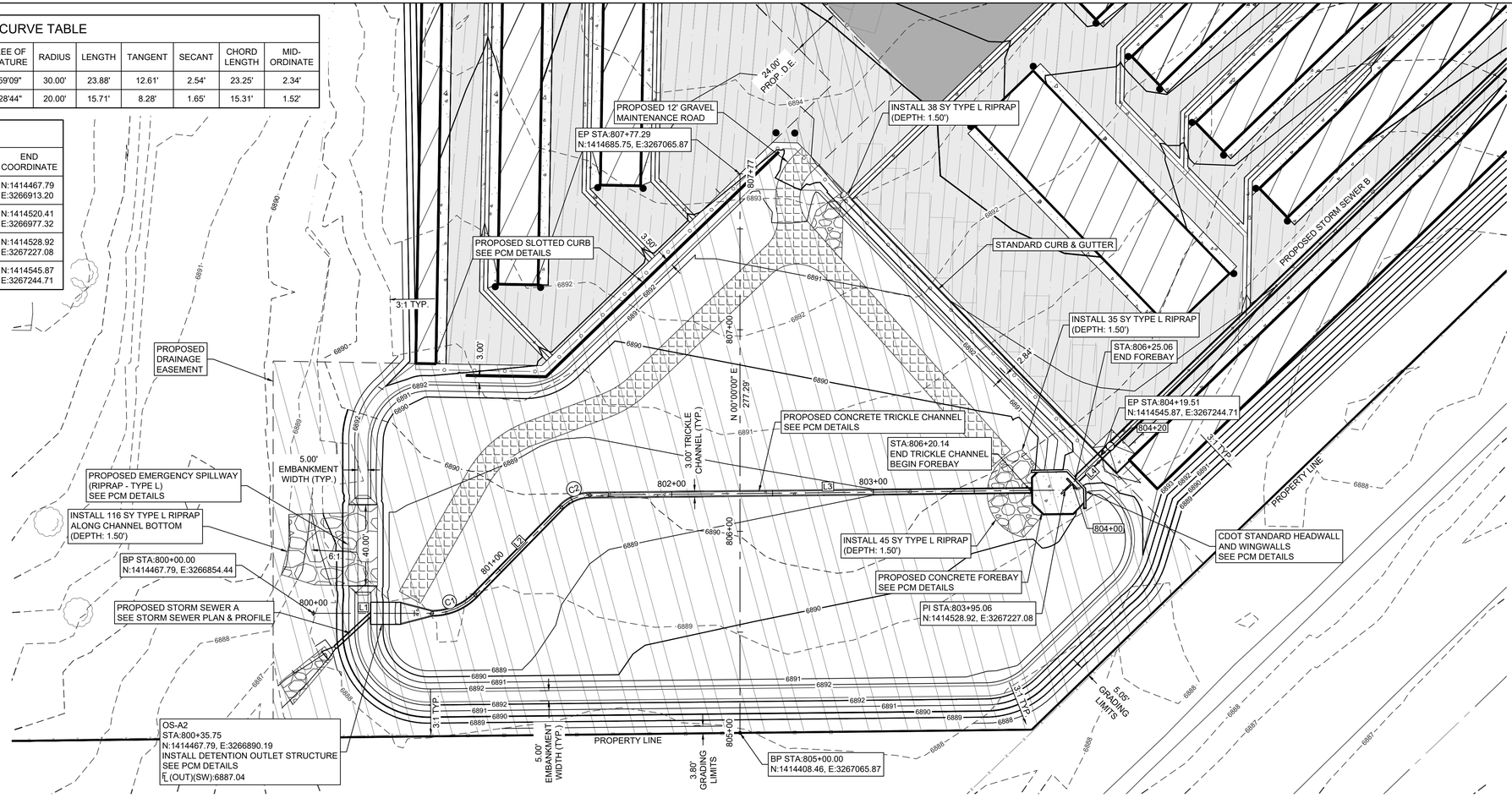
DATE: 06/11/2026

SHEET # 36

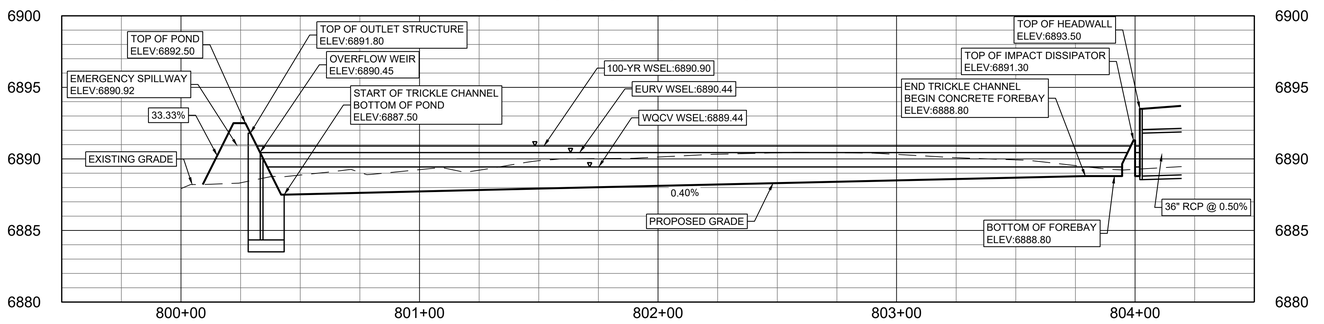
TOTAL SHEETS 48

CURVE TABLE										
CURVE ID	PC	PT	DELTA	DEGREE OF CURVATURE	RADIUS	LENGTH	TANGENT	SECANT	CHORD LENGTH	MID-ORDINATE
C1	800+58.76	800+82.64	45°36'26"	190°59'09"	30.00'	23.88'	12.61'	2.54'	23.25'	2.34'
C2	801+43.66	801+59.37	44°59'53"	286°28'44"	20.00'	15.71'	8.28'	1.65'	15.31'	1.52'

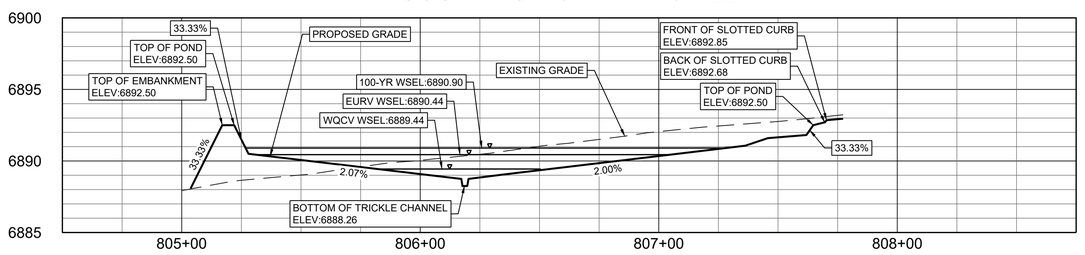
ALIGNMENT LINE TABLE				
LINE ID	LENGTH	BEARING	START COORDINATE	END COORDINATE
L1	58.76'	N90° 00' 00.00"E	N:1414467.79 E:3266854.44	N:1414467.79 E:3266913.20
L2	61.02'	N44° 23' 33.70"E	N:1414476.80 E:3266934.63	N:1414520.41 E:3266977.32
L3	235.70'	N89° 23' 26.53"E	N:1414526.41 E:3266991.40	N:1414528.92 E:3267227.08
L4	24.45'	N46° 07' 29.54"E	N:1414528.92 E:3267227.08	N:1414545.87 E:3267244.71



WEST TO EAST PROFILE



SOUTH TO NORTH PROFILE



VERTICAL SCALE: 1" = 5'

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

PERMANENT CONTROL MEASURE PLAN & PROFILE

NORTH

SCALE: 1" = 30'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

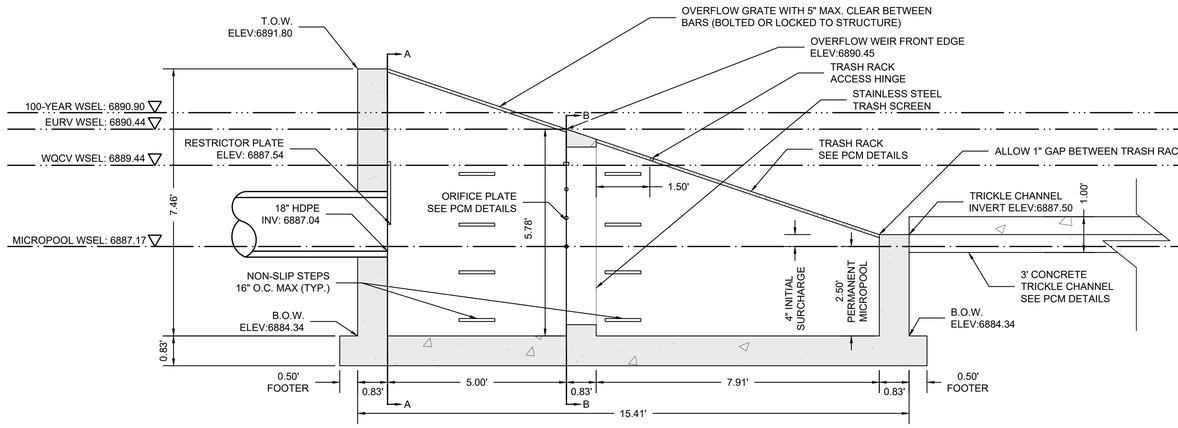
DATE: 06/11/2026

SHEET # 37

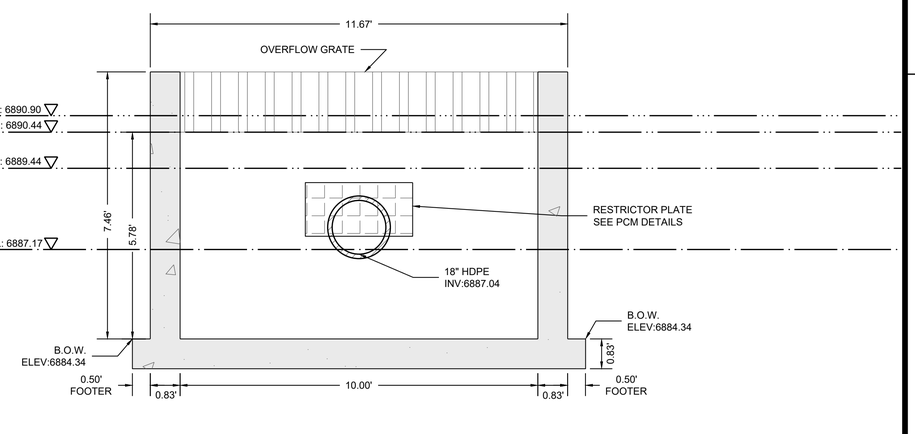
TOTAL SHEETS 48

TRASH RACK NOTES:

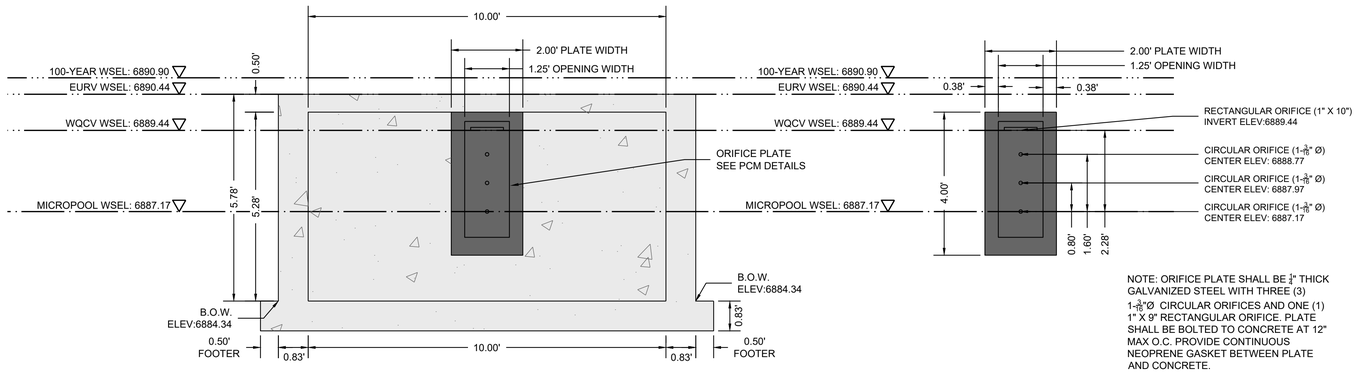
TRASH RACKS SHALL BE 1¼" SCH.40 STEEL PIPE, GALVANIZED, AT 6" O.C. SUPPORT BARS SHALL BE ¾" X 2" STEEL RECTANGULAR BARS, GALVANIZED AT 36" O.C. ALL TRASH RACKS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE.



OUTLET STRUCTURE DETAIL (EDB A)
NOT TO SCALE



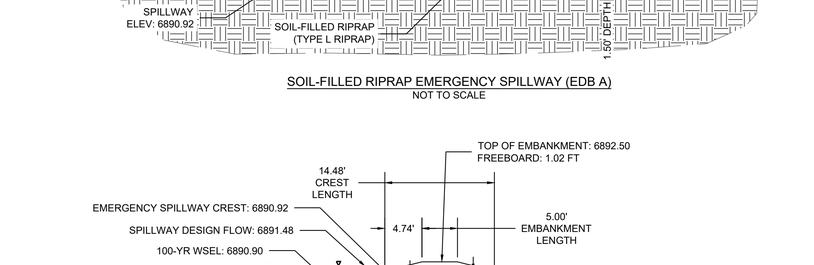
SEC A-A OUTLET STRUCTURE DETAIL (EDB A)
NOT TO SCALE



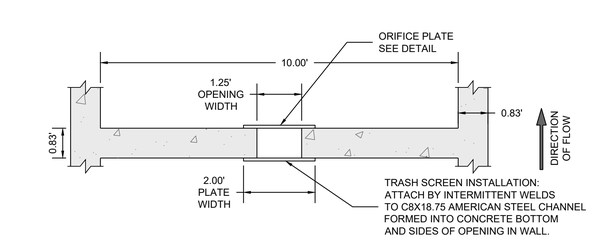
SEC B-B OUTLET STRUCTURE DETAIL (EDB A)
NOT TO SCALE

NOTE: ORIFICE PLATE SHALL BE ¼" THICK GALVANIZED STEEL WITH THREE (3) 1-⅛"Ø CIRCULAR ORIFICES AND ONE (1) 1" X 9" RECTANGULAR ORIFICE. PLATE SHALL BE BOLTED TO CONCRETE AT 12" MAX O.C. PROVIDE CONTINUOUS NEOPRENE GASKET BETWEEN PLATE AND CONCRETE.

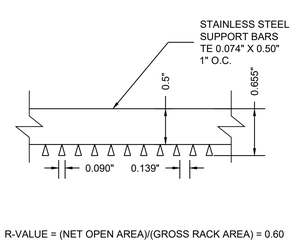
ORIFICE PLATE DETAIL (EDB A)
NOT TO SCALE



SOIL-FILLED RIPRAP EMERGENCY SPILLWAY (EDB A)
NOT TO SCALE



TRASH SCREEN & PLATE DETAIL (EDB A)
NOT TO SCALE

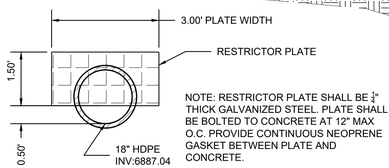


R-VALUE = (NET OPEN AREA)/(GROSS RACK AREA) = 0.60

TRASH SCREEN DETAIL (EDB A)
NOT TO SCALE

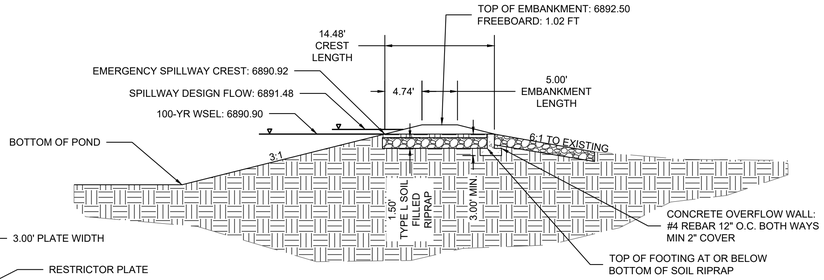
TRASH SCREEN NOTE:

TRASH SCREEN SHALL CONSIST OF A STAINLESS STEEL SCREEN WITH VERTICAL NO 93 VEE-WIRE AND 0.139" OPENINGS BETWEEN WIRES. WELL SCREEN SHALL HAVE HORIZONTAL 0.017" X 0.75" SUPPORT RODS ON 1" CENTER SPACING. (JOHNSON WELL SCREEN OR EQUIVALENT)

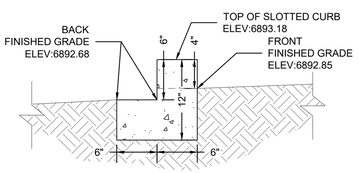


NOTE: RESTRICTOR PLATE SHALL BE ¼" THICK GALVANIZED STEEL. PLATE SHALL BE BOLTED TO CONCRETE AT 12" MAX O.C. PROVIDE CONTINUOUS NEOPRENE GASKET BETWEEN PLATE AND CONCRETE.

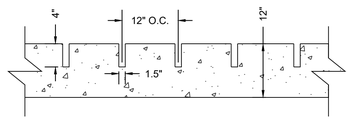
RESTRICTOR PLATE DETAIL (EDB A)
NOT TO SCALE



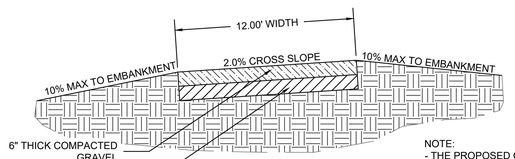
EMERGENCY SPILLWAY PROFILE (EDB A)
NOT TO SCALE



SLOTTED CURB LEVEL SPREADER PROFILE (EDB A)
NOT TO SCALE

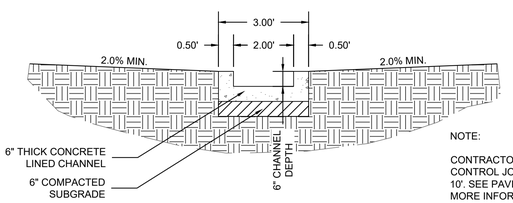


SLOTTED CURB LEVEL SPREADER SECTION
NOT TO SCALE



GRAVEL ACCESS ROAD DETAIL
NOT TO SCALE

NOTE:
- THE PROPOSED GRAVEL ACCESS ROAD SHALL CONSIST OF CDOT CLASS 2 AGGREGATE BASE COURSE, OR APPROVED EQUAL.



NOTE:

CONTRACTOR TO INSTALL CONTROL JOINTS SPACED 10'. SEE PAVING DETAILS FOR MORE INFORMATION.

TYPICAL CONCRETE LINED LOW FLOW CHANNEL (EDB A)
NOT TO SCALE

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CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE	(DESCRIPTION)
00/00/00	

PERMANENT CONTROL MEASURE DETAILS

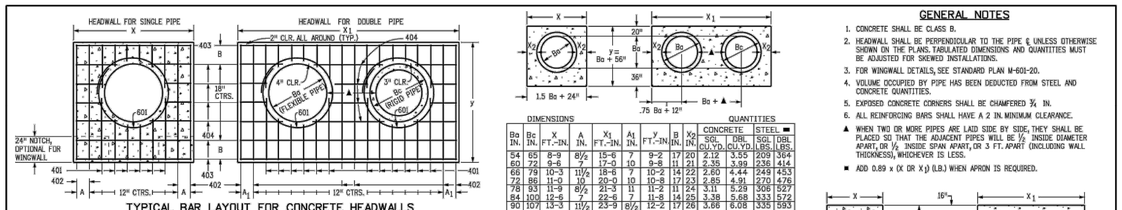
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PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 38

TOTAL SHEETS 48



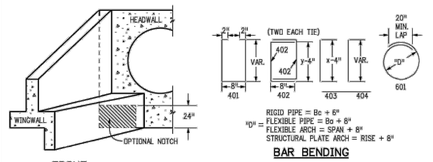
GENERAL NOTES

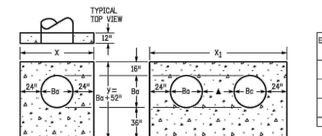
1. CONCRETE SHALL BE CLASS B.
2. HEADWALL SHALL BE PERPENDICULAR TO THE PIPE ℄ UNLESS OTHERWISE SHOWN ON THE PLANS. TABULATED DIMENSIONS AND QUANTITIES MUST BE ADJUSTED FOR SKEWED INSTALLATIONS.
3. FOR WINGWALL DETAILS, SEE STANDARD PLAN M-601-20.
4. VOLUME OCCUPIED BY PIPE HAS BEEN DEDUCTED FROM STEEL AND CONCRETE QUANTITIES.
5. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾ IN.
6. ALL REINFORCING BARS SHALL HAVE A 2 IN. MINIMUM CLEARANCE.

▲ WHEN TWO OR MORE PIPES ARE LAID SIDE BY SIDE, THEY SHALL BE PLACED SO THAT THE ADJACENT PIPES WILL BE ½ INSIDE DIAMETER APART, OR ½ INSIDE SPAN APART, OR 3 FT. APART (INCLUDING WALL THICKNESS), WHICHEVER IS LESS.

■ ADD 0.89 x (X OR X₁) (LB.) WHEN APRON IS REQUIRED.

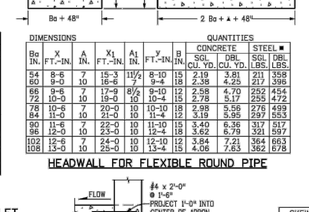
DIMENSIONS										QUANTITIES			
Ba IN.	Bc IN.	X FT.-IN.	A IN.	X₁ FT.-IN.	A₁ IN.	y FT.-IN.	B IN.	X₂ IN.	CONCRETE SGL. CU. YD.	CONCRETE DBL. CU. YD.	STEEL ■ SGL. LBS.	STEEL ■ DBL. LBS.
54	65	8-9	8½	15-6	7	9-2	17	20	2.12	3.55	209	364
60	72	9-6		17-0	10	9-8	11	21	2.35	3.99	236	414
66	79	10-3	11½	18-6	7	10-2	14	22	2.60	4.44	249	453
72	86	11-0	10	20-0	10	10-8	17	23	2.85	4.91	270	476
78	93	11-9	8½	21-3	11	11-2	11	24	3.11	5.29	306	527
84	100	12-6	7	22-6	7	11-8	14	25	3.38	5.68	333	572
90	107	13-3	11½	23-9	8½	12-2	17	26	3.66	6.08	335	593
96	114	14-0	10	25-0	10	12-8	11	27	3.94	6.48	379	649
102	121	14-9	8½	26-3	11½	13-2	14	28	4.24	6.89	400	664
108	128	15-6	7	27-6	7	13-8	17	29	4.54	7.30	424	707





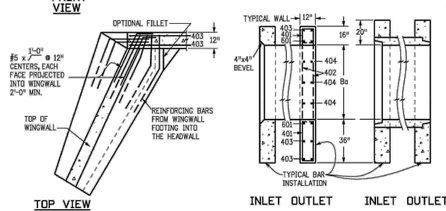
DIMENSIONS									QUANTITIES			
Ba IN.	X FT.-IN.	A IN.	X₁ FT.-IN.	A₁ IN.	y FT.-IN.	B IN.	CONCRETE SGL. CU. YD.	CONCRETE DBL. CU. YD.	STEEL ■ SGL. LBS.	STEEL ■ DBL. LBS.
54	8-6	7	15-3	11½	8-10	15	2.19	3.81	211	356
60	9-0	10	16-8		9-4	18	2.38	4.25	217	396
66	9-6	7	17-9	8½	9-10	12	2.58	4.70	252	454
72	10-0	10	19-0	10	10-4	15	2.78	5.17	255	472
78	10-6	7	20-0	10	10-10	18	2.98	5.56	276	499
84	11-0	10	21-0	10	11-4	12	3.19	5.95	297	553
90	11-6	7	22-0	10	11-10	15	3.40	6.36	317	517
96	12-0	10	23-0	10	12-4	18	3.62	6.79	321	597
102	12-6	7	24-0	10	12-10	12	3.84	7.21	364	663
108	13-0	10	25-0	10	13-4	15	4.06	7.63	362	678

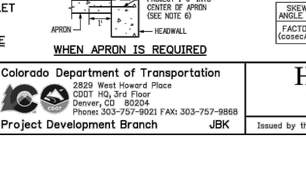
HEADWALL FOR FLEXIBLE ROUND PIPE



DIMENSIONS										QUANTITIES			
EQUIV. Ba IN.	SPAN IN.	RISE IN.	X FT.-IN.	A IN.	X₁ FT.-IN.	A₁ IN.	y FT.-IN.	B IN.	CONCRETE SGL. CU. YD.	CONCRETE DBL. CU. YD.	STEEL ■ SGL. LBS.	STEEL ■ DBL. LBS.
72	81	59	10-9	8½	20-6	7	9-3	13½	2.72	5.10	250	467
78	87	63	11-3	11½	21-6	7	9-7	10½	2.85	5.34	275	531
84	95	67	11-9	8½	22-10	9	9-11	12½	3.08	5.79	290	547
90	103	71	12-7	7½	24-2	11	10-3	13	3.30	6.21	321	591
96	112	75	13-4	12	25-8	8	10-7	16½	3.52	6.65	314	606
102	117	79	13-9	8½	26-6	7	10-11	9½	3.63	6.86	356	672
108	128	83	14-8	8	28-4	12	11-3	11½	3.96	7.51	376	699

HEADWALL FOR FLEXIBLE PIPE ARCH





DIMENSIONS										QUANTITIES			
EQUIV. Ba IN.	SPAN FT.-IN.	RISE FT.-IN.	X FT.-IN.	A IN.	X₁ FT.-IN.	A₁ IN.	y FT.-IN.	B IN.	CONCRETE SGL. CU. YD.	CONCRETE DBL. CU. YD.	STEEL ■ SGL. LBS.	STEEL ■ DBL. LBS.
66	6-1	4-7	10-1	10½	19-2	11	8-11	15½	2.52	4.70	232	424
75	7-0	5-1	11-0	10	21-0	10	9-5	9½	2.80	5.25	282	509
84	7-11	5-7	11-11	9½	22-10	9	9-11	12½	3.08	5.79	291	540
93	8-10	6-1	12-10	9	24-8	8	10-5	15½	3.36	6.33	309	622
102	9-9	6-7	13-9	9½	26-6	7	10-11	19	3.63	6.86	379	673
111	10-10	7-1	14-11	9½	28-10	9	11-5	12½	4.05	7.67	377	711
120	11-10	7-7	15-10	9	30-8	8	11-11	15½	4.36	8.28	395	731
132	12-10	8-4	16-10	9	32-8	8	12-8	11	4.75	9.03	441	839
141	14-1	8-9	18-1	10½	35-2	11	13-1	13½	5.17	9.86	448	931
150	15-4	9-3	19-4	12	37-8	8	13-7	16½	5.69	10.88	490	953
159	15-10	9-10	19-10	9	38-8	8	14-2	11	5.89	11.25	534	1019

HEADWALL FOR STRUCTURAL PLATE ARCH

SKEW ANGLE A°	90	85	80	75	70	65	60	55	50	45	40	35	30
FACTOR (cosecA°)	1.000	1.004	1.015	1.035	1.064	1.103	1.155	1.221	1.305	1.414	1.556	1.743	2.000

SKEW FACTOR TABLE

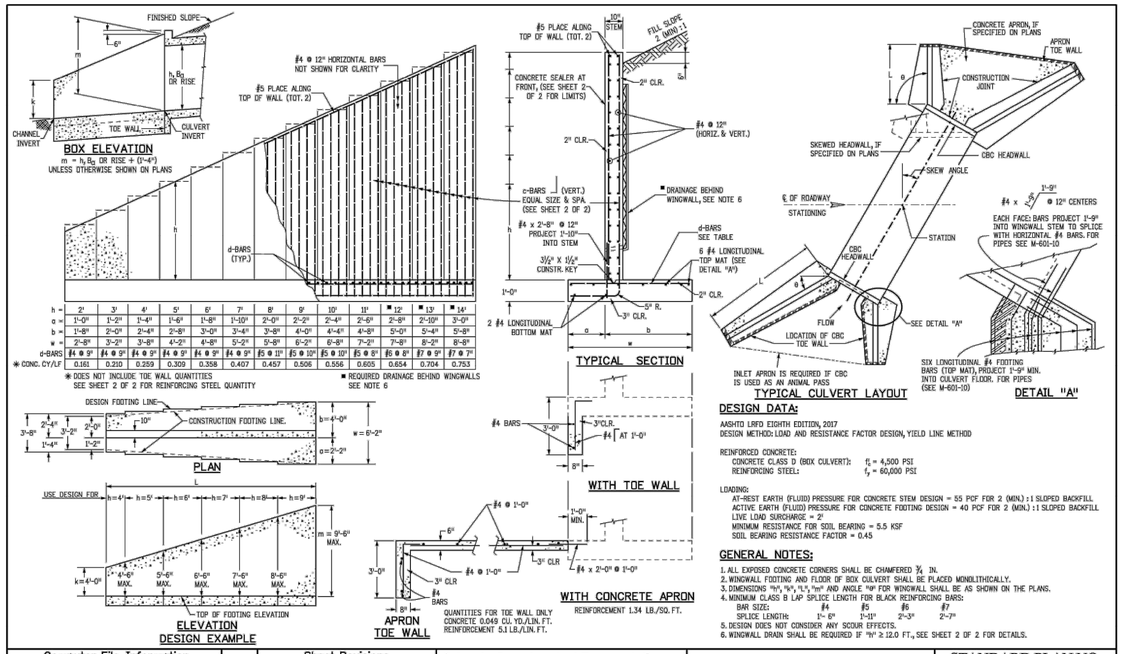
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Last Modification Date: 07/31/19	☐ ☒		
Detailer Initials: LTA	☐ ☒		
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	☐ ☒		

Colorado Department of Transportation
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CDOT HQ, 3rd Floor
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868
Project Development Branch JBK

HEADWALL FOR PIPES

Issued by the Project Development Branch: July 31, 2019

STANDARD PLAN NO. M-601-10
Standard Sheet No. 1 of 1
Project Sheet Number:



h =	2'	3'	4'	5'	6'	7'	8'	9'	10'	11'	■ 12'	■ 13'	■ 14'
a =	1'-0"	1'-2"	1'-4"	1'-6"	1'-8"	1'-10"	2'-0"	2'-2"	2'-4"	2'-6"	2'-8"	2'-10"	3'-0"
b =	1'-8"	2'-0"	2'-4"	2'-8"	3'-0"	3'-4"	3'-8"	4'-0"	4'-4"	4'-8"	5'-0"	5'-4"	5'-8"
w =	2'-8"	3'-2"	3'-8"	4'-2"	4'-8"	5'-2"	5'-8"	6'-2"	6'-8"	7'-2"	7'-8"	8'-2"	8'-8"
d-BARS	#4 @ 9"	#4 @ 9"	#4 @ 9"	#4 @ 9"	#4 @ 9"	#4 @ 9"	#5 @ 11"	#5 @ 10"	#5 @ 10"	#5 @ 8"	#5 @ 8"	#7 @ 9"	#7 @ 7"
✱ CONC. CY/LF	0.161	0.210	0.259	0.309	0.358	0.407	0.457	0.506	0.556	0.605	0.654	0.704	0.753

✱ DOES NOT INCLUDE TOE WALL QUANTITIES SEE SHEET 2 OF 2 FOR REINFORCING STEEL QUANTITY

■ REQUIRED DRAINAGE BEHIND WINGWALLS SEE NOTE 6

DESIGN DATA:

AASHTO LRFD EIGHTH EDITION, 2017
DESIGN METHOD: LOAD AND RESISTANCE FACTOR DESIGN, YIELD LINE METHOD

REINFORCED CONCRETE:
CONCRETE CLASS D (BOX CULVERT): f'_c = 4,500 PSI
REINFORCING STEEL: f_y = 60,000 PSI

LOADING:
AT-REST EARTH (FLUID) PRESSURE FOR CONCRETE STEM DESIGN = 55 PCF FOR 2 (MIN.) : 1 SLOPED BACKFILL
ACTIVE EARTH (FLUID) PRESSURE FOR CONCRETE FOOTING DESIGN = 40 PCF FOR 2 (MIN.) : 1 SLOPED BACKFILL
LIVE LOAD SURCHARGE = 2'
MINIMUM RESISTANCE FOR SOIL BEARING = 5.5 KSF
SOIL BEARING RESISTANCE FACTOR = 0.45

GENERAL NOTES:

1. ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾ IN.
2. WINGWALL FOOTING AND FLOOR OF BOX CULVERT SHALL BE PLACED MONOLITHICALLY.
3. DIMENSIONS "h", "k", "L", "m" AND ANGLE "θ" FOR WINGWALL SHALL BE AS SHOWN ON THE PLANS.
4. MINIMUM CLASS B LAP SPLICE LENGTH FOR BLACK REINFORCING BARS:

BAR SIZE:	#4	#5	#6	#7
SPLICE LENGTH:	1'- 6"	1'-11"	2'-3"	2'-7"

5. DESIGN DOES NOT CONSIDER ANY SCOUR EFFECTS.
6. WINGWALL DRAIN SHALL BE REQUIRED IF "h" ≥ 12.0 FT., SEE SHEET 2 OF 2 FOR DETAILS.

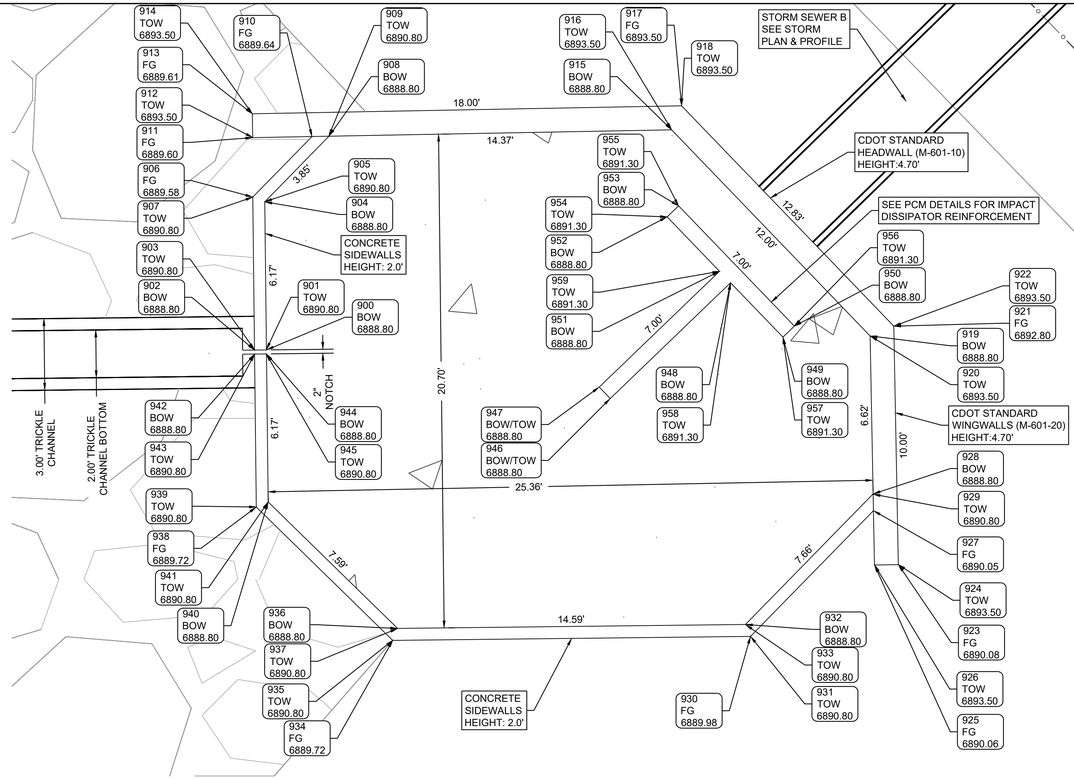
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Denver, CO 80204
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Project Development Branch JBK

WINGWALLS FOR PIPE OR BOX CULVERTS

Issued by the Project Development Branch: July 31, 2019

STANDARD PLAN NO. M-601-20
Standard Sheet No. 1 of 2
Project Sheet Number:



FOREBAY DETAIL
SCALE: 1"=3'

FOREBAY COORDINATES				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
900	1414528.83	3267210.93	6888.80	BOW
901	1414528.84	3267210.92	6890.80	TOW
902	1414528.83	3267210.43	6888.80	BOW
903	1414528.83	3267210.43	6890.80	TOW
904	1414535.04	3267210.86	6888.80	BOW
905	1414535.04	3267210.86	6890.80	TOW
906	1414535.24	3267210.36	6889.58	FG
907	1414535.24	3267210.36	6890.80	TOW
908	1414537.79	3267213.55	6888.80	BOW
909	1414537.79	3267213.54	6890.80	TOW
910	1414537.78	3267212.84	6889.64	FG
911	1414537.73	3267210.36	6889.60	FG
912	1414537.74	3267210.36	6893.50	TOW
913	1414538.73	3267210.34	6889.61	FG
914	1414538.73	3267210.35	6893.50	TOW
915	1414538.05	3267227.92	6888.80	BOW
916	1414538.05	3267227.92	6893.50	TOW
917	1414539.06	3267228.34	6893.50	FG
918	1414539.05	3267228.34	6893.50	TOW
919	1414529.40	3267236.24	6888.80	BOW
920	1414529.40	3267236.24	6893.50	TOW
921	1414529.81	3267237.23	6892.80	FG
922	1414529.81	3267237.22	6893.50	TOW
923	1414519.81	3267237.41	6890.08	FG
924	1414519.82	3267237.41	6893.50	TOW
925	1414519.79	3267236.41	6890.06	FG
926	1414519.80	3267236.42	6893.50	TOW
927	1414522.07	3267236.37	6890.05	FG
928	1414522.78	3267236.36	6888.80	BOW
929	1414522.76	3267236.35	6890.80	TOW
930	1414516.81	3267231.21	6889.98	FG
931	1414516.81	3267231.21	6890.80	TOW
932	1414517.30	3267231.00	6888.80	BOW
933	1414517.30	3267231.00	6890.80	TOW
934	1414516.65	3267216.21	6889.72	FG

FOREBAY COORDINATES				
POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
935	1414516.65	3267216.22	6890.80	TOW
936	1414517.15	3267216.42	6888.80	BOW
937	1414517.14	3267216.41	6890.80	TOW
938	1414522.24	3267210.50	6889.72	FG
939	1414522.24	3267210.50	6890.80	TOW
940	1414522.46	3267211.00	6888.80	BOW
941	1414522.45	3267210.99	6890.80	TOW
942	1414528.66	3267210.43	6888.80	BOW
943	1414528.65	3267210.43	6890.80	TOW
944	1414528.66	3267210.93	6888.80	BOW
945	1414528.66	3267210.92	6890.80	TOW
946	1414526.78	3267225.34	6888.80	BOW/TOW
947	1414527.26	3267224.88	6888.80	BOW/TOW
948	1414531.64	3267230.39	6888.80	BOW
949	1414529.35	3267232.58	6888.80	BOW
950	1414529.82	3267233.06	6888.80	BOW
951	1414532.12	3267229.92	6888.80	BOW
952	1414534.40	3267227.73	6888.80	BOW
953	1414534.86	3267228.21	6888.80	BOW
954	1414534.40	3267227.74	6891.30	TOW
955	1414534.85	3267228.21	6891.30	TOW
956	1414529.82	3267233.05	6891.30	TOW
957	1414529.37	3267232.58	6891.30	TOW
958	1414531.65	3267230.39	6891.30	TOW
959	1414532.12	3267229.94	6891.30	TOW

LEGEND

BOW	BOTTOM OF WALL
TOW	TOP OF WALL
FG	FINISHED GRADE
⊂▭	COORDINATE POINT

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DESCRIPTION / (DESCRIPTION)

REVISION DATE 00/00/00

PERMANENT CONTROL MEASURE DETAILS

NORTH

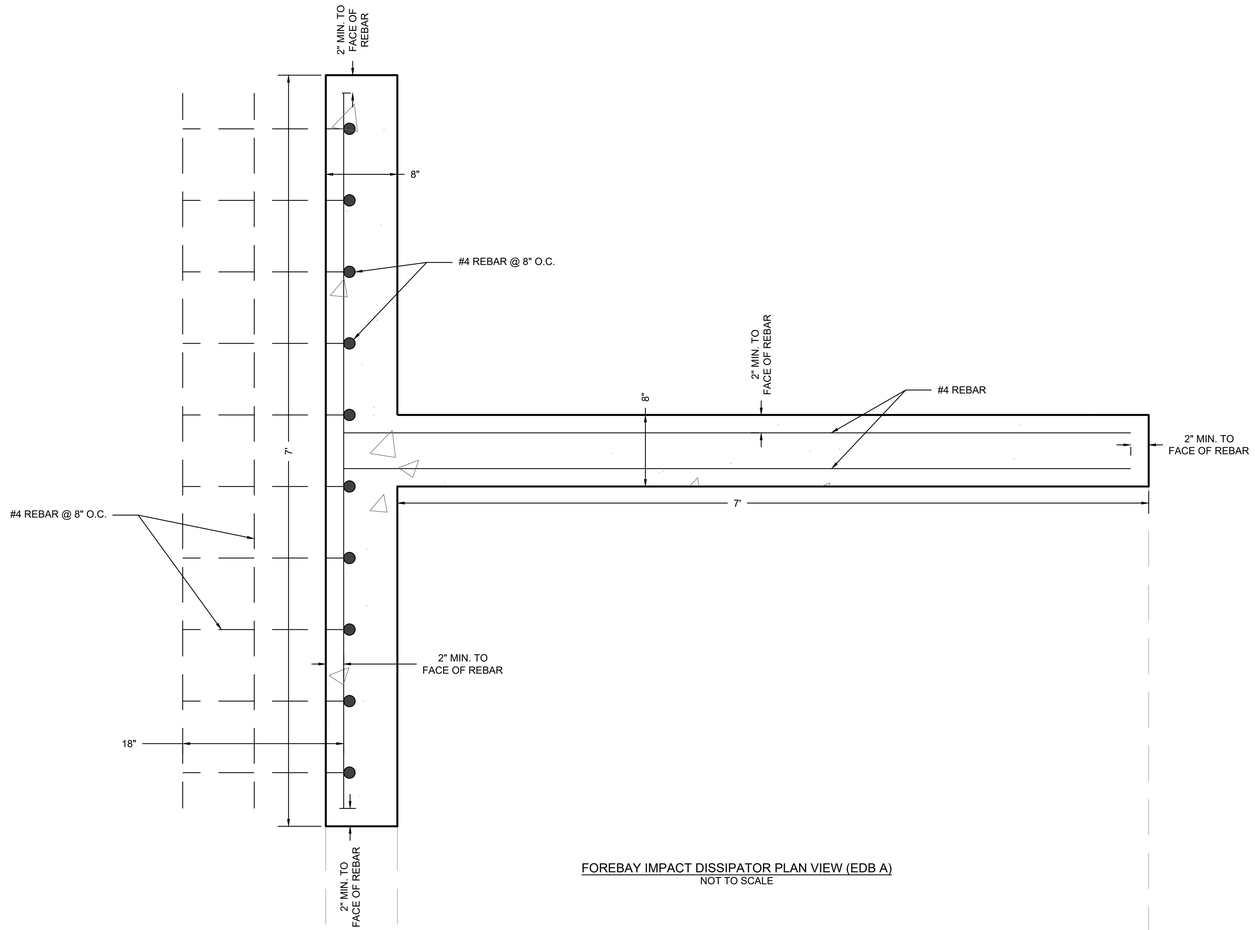
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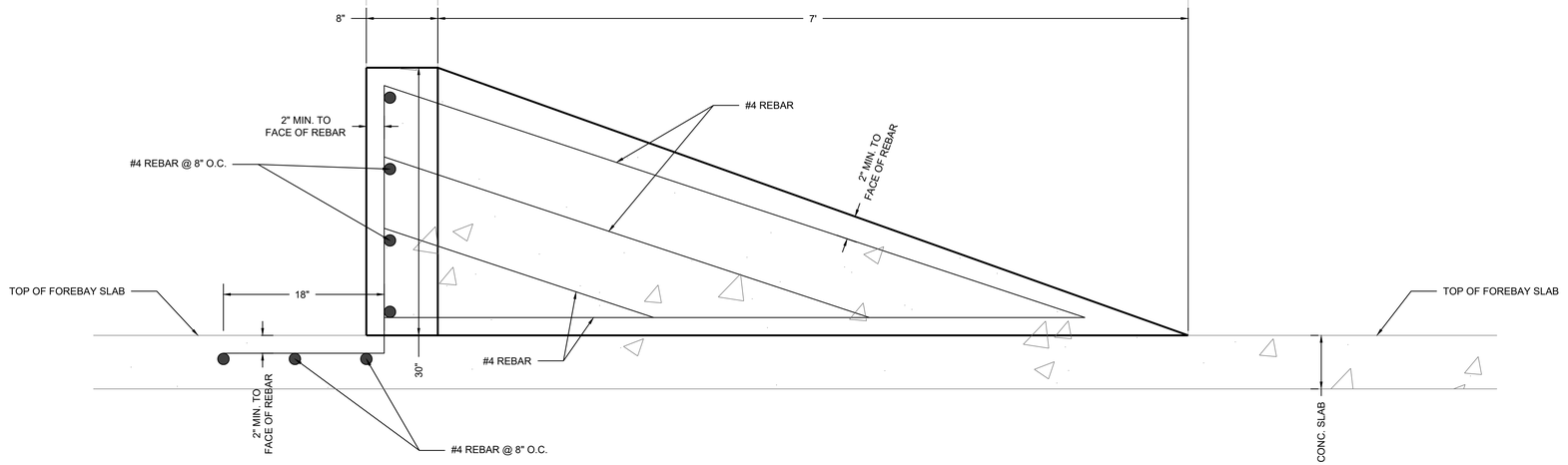
DATE: 06/11/2026

SHEET # 39

TOTAL SHEETS 48



FOREBAY IMPACT DISSIPATOR PLAN VIEW (EDB A)
NOT TO SCALE



FOREBAY IMPACT DISSIPATOR ELEVATION VIEW (EDB A)
NOT TO SCALE

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION
00/00/00		(DESCRIPTION)

PERMANENT CONTROL MEASURE DETAILS

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 40

TOTAL SHEETS 48

DESIGN ENGINEER STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

BRETT LOUK, P.E. # 0055474 — DATE

OWNER/DEVELOPER STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

KEVIN O'NEIL, MANAGING PARTNER
KO1515 LLC — DATE

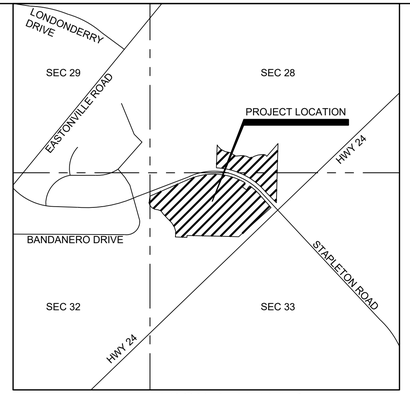
EL PASO COUNTY STATEMENT

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

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

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

JOSHUA PALMER, P.E.
COUNTY ENGINEER — DATE



VICINITY MAP
NOT TO SCALE

SYMBOL/LINE LEGEND

- LIGHT POLE (EXISTING)
- POWER POLE (EXISTING)
- ELECTRIC MANHOLE (EXISTING)
- ELECTRIC PANEL (EXISTING)
- STORM SEWER MANHOLE (EXISTING)
- FIRE SPRINKLER VALVE (EXISTING)
- WATER SPIGOT (EXISTING)
- WATER WELL (EXISTING)
- TREE (EXISTING)
- WIRE FENCE (EXISTING)
- OVERHEAD ELECTRIC (EXISTING)
- UNDERGROUND ELECTRIC (EXISTING)
- UNDERGROUND FIBER OPTIC (EXISTING)
- STORM SEWER (EXISTING)
- WATER MAIN (EXISTING)
- GENERAL DIRECTION OF RUNOFF

LEGEND

- LIMITS OF CONSTRUCTION/DISTURBANCE
- 100-YEAR FEMA FLOODPLAIN BOUNDARY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED ASPHALT MILLINGS
- PROPOSED CONCRETE PAVEMENT
- PROPOSED BUILDING
- EXISTING CONTOURS (1' AND 5')
- PROPOSED CONTOURS (1' AND 5')

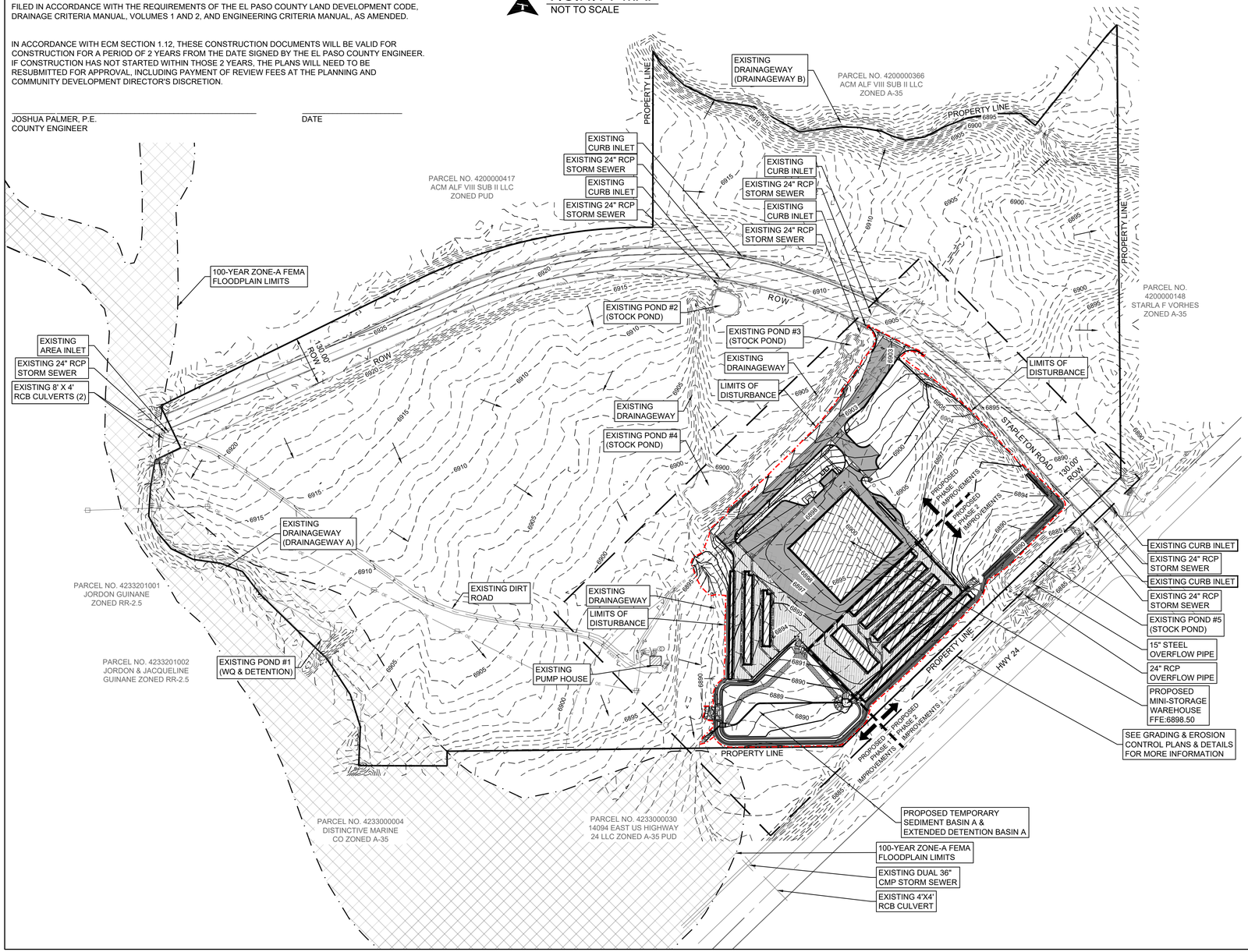
PROJECT INFO:

PROJECT DISTURBANCE AREA: 14.00 AC

CUT: 29,555 CY

FILL: 26,694 CY (VRF = 1.15)

NET: 2,861 CY [CUT]



STANDARD NOTES FOR EL PASO COUNTY GRADING & EROSION CONTROL PLANS:

1. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY (EPC) STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE (LDC), THE ENGINEERING CRITERIA MANUAL (ECM), AND THE DRAINAGE CRITERIA MANUAL VOLUME (DCM) 1 AND 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
2. A PRECONSTRUCTION MEETING BETWEEN THE PERMIT HOLDER(S) AND EL PASO COUNTY SHALL BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES. IT IS THE RESPONSIBILITY OF THE PERMIT HOLDER(S) TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF. NO LAND DISTURBANCE OR CONSTRUCTION ACTIVITIES BEYOND THE INSTALLATION OF THE INITIAL CONSTRUCTION CONTROL MEASURES (CCMS), AS INDICATED ON THE APPROVED GEC PLAN OR CDS WITH GEC PLANS, MAY OCCUR PRIOR TO RECEIVING A NOTICE TO PROCEED (NTP) ISSUED BY THE ECM ADMINISTRATOR. FAILURE TO OBTAIN A NOTICE TO PROCEED PRIOR TO BEGINNING LAND DISTURBING ACTIVITIES MAY RESULT IN AN IMMEDIATE STOP WORK ORDER (SWO).
3. CONSTRUCTION CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. STORMWATER RUNOFF FROM ALL DISTURBED AREAS AND SOIL STORAGE AREAS MUST UTILITE OR FLOW TO ONE OR MORE CCM(S) TO MINIMIZE EROSION OR SEDIMENT IN THE DISCHARGE. THE CCM(S) MUST CONTAIN OR FILTER FLOWS IN ORDER TO PREVENT THE BYPASS OF FLOWS WITHOUT TREATMENT AND MUST BE APPROPRIATE FOR STORMWATER RUNOFF FROM DISTURBED AREAS AND FOR THE EXPECTED FLOW RATE, DURATION AND FLOW CONDITIONS (E.G., SHEET OR CONCENTRATED FLOW).
4. ALL CCMS SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL FINAL STABILIZATION IS ACHIEVED. THE QUALIFIED STORMWATER MANAGER (QSM) SHALL ASSESS THE ADEQUACY OF CCMS AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CCMS ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CCMS.
5. PRIOR TO CONSTRUCTION THE PERMIT HOLDER(S) SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
6. MANAGEMENT OF THE STORMWATER MANAGEMENT PLAN (SWMP) DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QSM. THE SWMP SHALL BE LOCATED ON-SITE OR DIGITALLY ACCESSIBLE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES AND MUST BE IMPLEMENTED AS WRITTEN FROM THE START OF CONSTRUCTION ACTIVITY UNTIL FINAL STABILIZATION IS ACHIEVED. THE QSM SHALL AMEND THE SWMP WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE OF THE SITE WHICH WOULD REQUIRE THE IMPLEMENTATION OF NEW OR REVISED CCMS OR IF THE SWMP PROVES TO BE INEFFECTIVE IN CONTROLLING POLLUTANTS IN STORMWATER RUNOFF ASSOCIATED WITH CONSTRUCTION ACTIVITY OR WHEN CCMS ARE NO LONGER NECESSARY AND ARE REMOVED. THE QSM SHALL MAINTAIN A RECORD OF AMENDMENTS MADE TO THE SWMP THAT INCLUDES THE DATE AND IDENTIFICATION OF THE CHANGES.
7. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A RECEIVING WATER UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED. IN ADDITION TO MAINTAINING 50 HORIZONTAL FEET OF PRE-EXISTING VEGETATION UPGRADIENT OF A RECEIVING WATER (UNLESS INFEASIBLE AND APPROVED), THE PERMIT HOLDER(S) MUST INSTALL CCMS UPGRADIENT OF THE VEGETATIVE BUFFER.
8. TEMPORARY STABILIZATION MEASURES SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
9. EROSION CONTROL BLANKET (ECB) OR OTHER APPROVED CONTROL MEASURE(S) SHALL BE USED ON SLOPES STEEPER THAN 3:1.
10. VEHICLE TRACKING CONTROLS (VTC) MUST BE IMPLEMENTED TO MINIMIZE VEHICLE TRACKING OF SEDIMENT FROM DISTURBED AREAS. VTCS MUST INCLUDE A STRUCTURE CONTROL MEASURE (E.G., TRACKING PAD) AND MAY INCLUDE A NON-STRUCTURAL CONTROL MEASURE (E.G., SWEEPING). MATERIAL TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
11. ANY TEMPORARY OR PERMANENT CONTROL MEASURE DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF-SITE.
12. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER, PERMANENT CONTROL MEASURES (PCMS), OR DITCHES EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
13. ALL PCMS SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PCMS MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
14. SOIL COMPACTION MUST BE MINIMIZED IN AREAS WHERE INFILTRATION PCMS WILL BE INSTALLED OR IN AREAS WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNED FOR INFILTRATION PCMS SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF SOIL COMPACTION DOES OCCUR IN AREAS WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER OR IN AREAS WHERE INFILTRATION PCMS WILL BE INSTALLED, DECOMPACTION OF THE SOIL MUST BE COMPLETED PRIOR TO PLANTING OR INSTALLATION OF THE PCM(S). AN INFILTRATION TEST MUST BE CONDUCTED FOR ALL INFILTRATION PCMS AND THE INFILTRATION TEST RESULTS SUBMITTED TO EL PASO COUNTY PRIOR TO PRELIMINARY ACCEPTANCE (PA).
15. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES AT THE SITE HAVE BEEN COMPLETED AND PERMANENT STABILIZATION METHODS ARE COMPLETE. WHEN USING VEGETATIVE COVER AS A PERMANENT STABILIZATION METHOD, THE VEGETATION SHALL BE EVENLY DISTRIBUTED PERENNIAL VEGETATION AND OF THE VARIETY AND SPECIES FOUND IN THE COUNTY-APPROVED SEED MIXES OR IN THE APPROVED GEC PLAN. VEGETATION COVERAGE SHALL BE, AT A MINIMUM, EQUAL TO 70% OF WHAT WOULD HAVE BEEN PROVIDED BY NATIVE VEGETATION IN A LOCAL, UNDISTURBED AREA OR ADEQUATE REFERENCE SITE. ALL TEMPORARY CCMS SHALL BE REMOVED UPON FINAL STABILIZATION AND PRIOR TO STORMWATER PERMIT TERMINATION.
16. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
17. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO BE DISCHARGED OFFSITE OR TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR CONTROL MEASURES. CONCRETE WASHOUT AREAS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK, OR STREAM.
18. DURING CONTRUCTION DEWATERING OPERATIONS, UNCONTAMINATED GROUNDWATER MAY BE DISCHARGED ON-SITE IN ACCORDANCE WITH THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT'S (CDPHE) LOW RISK DISCHARGE GUIDANCE POLICY FOR DISCHARGES OF UNCONTAMINATED GROUNDWATER TO LAND. IF CONSTRUCTION DEWATERING OPERATIONS ARE UNABLE TO MEET ALL CRITERIA, CONDITIONS, AND CONTROL MEASURE REQUIREMENTS OF THE LOT RISK DISCHARGE GUIDANCE POLICY, A COLORADO DISCHARGE PERMIT SYSTEM (CDPS) GENERAL PERMIT COG080000 WILL BE REQUIRED.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTE FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES, OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
20. THE PERMIT HOLDER(S) SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
21. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
22. MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. APPROPRIATE CMS SHALL BE UTILIZED BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
23. BULK STORAGE (I.E., INDIVIDUAL CONTAINERS OF 55 GALLONS OR GREATER) OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT, OR EQUIVALENT PROTECTION, TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM, OR OTHER FACILITIES.
24. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
25. ON AREAS OF EXPOSED SOIL, MINIMIZE DUST THROUGH THE APPROPRIATE APPLICATION OF WATER OR OTHER DUST SUPPRESSION TECHNIQUES. WATER APPLICATION MUST BE CONDUCTED IN A MANNER TO PREVENT DISCHARGE OFFSITE UNLESS AUTHORIZED BY A CDPS OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT.
26. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
27. FOR SITES WHERE A SOILS REPORT IN REQUIRED, THE APPROVED SOILS REPORT FOR THIS SITE SHALL BE CONSIDERED A PART OF THESE PLANS.
28. PERMIT HOLDER(S) AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL VOLUME 2, AND THE ENGINEERING CRITERIA MANUAL. ALL APPLICABLE LOCAL, STATE, AND FEDERAL PERMITS MUST BE OBTAINED PRIOR TO CONSTRUCTION. IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE OR LESS THAN 1 ACRE AND PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE THAT WOULD DISTURB 1 OR MORE ACRES, THE PERMIT HOLDER(S) SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE (COR400000 PERMIT) TO THE CDPHE WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF A COMPLETION OF A SWMP, OF WHICH THIS GEC PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:
    COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
    WATER QUALITY CONTROL DIVISION
    WQCD - PERMITS
    4300 CHERRY CREEK DRIVE SOUTH
    DENVER, CO 80246-1530
    ATTN: PERMITS UNIT

PCD FILE NO: PPR2347

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Dodge City, KS
(620) 255-1952
Kansas City
(913) 444-9615
Colorado Springs, CO
(719) 465-2145

4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION
00/00/00	1	(DESCRIPTION)

OVERALL GRADING & EROSION CONTROL PLAN

NORTH

SCALE: 1" = 150'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 41

TOTAL SHEETS 48

LEGEND

- LIMITS OF CONSTRUCTION/DISTURBANCE
- 100-YEAR FEMA FLOODPLAIN BOUNDARY
- VTC — VEHICLE TRACKING CONTROL (INITIAL/INTERIM)
- SF — SILT FENCE (INITIAL/INTERIM)
- CF — CONSTRUCTION FENCE (INITIAL/INTERIM)
- TSB — TEMPORARY SEDIMENT BASIN (INITIAL/INTERIM)
- TCB — TEMPORARY COMPACTED BERM (INITIAL/INTERIM)
- CD — CHECK DAM (INITIAL/INTERIM)
- GENERAL DIRECTION OF RUNOFF
- EXISTING CONTOURS (1' AND 5')

EXISTING POND #4 (STOCK POND)

EXISTING POND #3 (STOCK POND)

EXISTING 24" RCP STORM SEWER

EXISTING CURB INLET

EXISTING 24" RCP STORM SEWER

EXISTING CURB INLET

130.00' ROW

ROW

STAPLETON ROAD

LIMITS OF DISTURBANCE

EXISTING 15" HDPE CULVERT (TO BE REMOVED)

EXISTING DIRT ROAD

EXISTING PUMP HOUSE

EXISTING 15" HDPE CULVERT (TO BE REMOVED)

LIMITS OF DISTURBANCE

TSB A RISER PIPE (18" PVC)
ELEV AT BEND:6887.00
OUTFALL ELEV:6886.50
INSTALL 3 COLUMNS OF
5/8" DIA. ORIFICES AT 4" O.C.
BOTTOM ORIFICE ELEV:6887.50

INSTALL APPROX 80' OF 18" PVC

PROPOSED SITE LOCATION

PROPOSED FUTURE COMMERCIAL LOCATION

TEMPORARY SEDIMENT BASIN A (TSB A)
TOTAL TRIBUTARY AREA:12.55 AC
DISTURBED AREA:12.55 AC
UNDISTURBED AREA:0.00 AC
WQCV VOLUME:0.330 AC-FT
BASIN VOLUME:4.00 AC-FT
BOTTOM ELEV:6887.50
CREST ELEV:6890.92
TOP ELEV:6892.50
SPILLWAY CREST LENGTH:40 FT

PROPERTY LINE

100-YEAR ZONE-A FEMA FLOODPLAIN LIMITS

PROPERTY LINE

LIMITS OF DISTURBANCE

130.00' ROW

EXISTING DUAL 36" CMP STORM SEWER

EXISTING 24" RCP OVERFLOW PIPE

EXISTING 15" STEEL OVERFLOW PIPE

HWY 24

EXISTING POND #5 (STOCK POND)

EXISTING CURB INLET

EXISTING 24" RCP STORM SEWER

EXISTING CURB INLET

EXISTING 24" RCP STORM SEWER

EXISTING 4'X4' RCB CULVERT

GENERAL NOTES:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ADJACENT TO THE SITE. THE OMISSION FROM, OR INCLUSION OF, UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NON-EXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES, BUILDINGS, FENCES, AND ROADWAYS FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE ABOVE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
3. CONTRACTOR SHALL OBTAIN COPIES OF THE SOILS REPORT FROM THE GEOTECHNICAL ENGINEER AND THEY SHALL BE KEPT ONSITE DURING ALL EARTHWORK.
4. DUST CONTROL SHALL BE SUPPLIED BY THE GRADING CONTRACTOR THROUGH THE DURATION OF THE PROJECT PER THE COUNTY HEALTH DEPARTMENT SPECIFICATIONS.
5. STOCKPILE LOCATION FOR THIS PROJECT TO BE LOCATED BY CONTRACTOR AND ADDED TO THE SWMP/GEC UPON DETERMINATION.
6. LOCATION OF STORAGE FOR MAINTENANCE EQUIPMENT AND TEMPORARY DISPOSAL AREAS WILL BE ADDED TO THE GEC/SWMP BY CONTRACTOR.
7. ALL NON-STRUCTURAL CONTROL MEASURES SUCH AS STREET SWEEPING, GOOD HOUSEKEEPING, AND ETC. SHALL BE EMPLOYED BY THE CONTRACTOR AS NECESSARY AND OUTLINED IN THE SWMP.
8. MAXIMUM CUT/FILL SLOPES SHALL NOT EXCEED 3:1.
9. ALL FILL MATERIAL SHALL BE APPROVED BY A LICENSED ENGINEER.
10. ALL STRIPPED TOPSOIL SHALL BE STOCKPILED FOR RE-USE IF POSSIBLE.
11. LOCATION OF PORTABLE TOILET, STABILIZED STAGING AREA, AND SITE (CONTACTS AND PERMITS), AND CONCRETE WASHOUT POSTING TO BE ADDED TO THIS PLAN AND SWMP BY CONTRACTOR.
12. NO BATCH PLANTS WILL BE UTILIZED ON SITE.
13. ON-SITE VEGETATION IS NATIVE GRASSES AND WEEDS. THERE IS NO NOTABLE VEGETATION OTHERWISE.
14. CONTRACTOR SHALL PROTECT ALL AREAS OUTSIDE OF THE CONSTRUCTION LIMITS WITH SILT FENCE OR OTHER METHOD TO PROTECT UNDISTURBED AREAS FROM EROSION.
15. THERE ARE NO SPRINGS, STREAMS, WETLANDS AND OTHER SURFACE WATERS, INCLUDING AREAS THAT REQUIRE MAINTENANCE OF PRE-EXISTING VEGETATION WITHIN 50 FEET OF A RECEIVING WATER FOR THIS PROJECT.
16. THE WESTERN BOUNDARY OF THE OVERALL 4-WAY PROPERTY LIES WITHIN A DESIGNATED FEMA FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE MAP PANEL '08041C0552G' EFFECTIVE DEC. 7, 2018. THIS PART OF THE PROPERTY WILL REMAIN UNDEVELOPED. THE REMAINDER OF THE PROPERTY, INCLUDING ALL PROPOSED AREAS OF CONSTRUCTION, ARE LOCATED IN ZONE X, AS SHOWN IN FLOOD INSURANCE MAP PANELS '08041C0552G', '08041C0556G', AND '08041C0558G'. ZONE X AREAS ARE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD.
17. PER CONVERSATIONS WITH EPC AND CDPHE, ASPHALT MILLINGS SHALL BE CONSIDERED A SUITABLE FORM OF FINAL STABILIZATION IF THE FOLLOWING SPECIFICATIONS ARE MET DURING CONSTRUCTION: ALL ASPHALT MILLINGS BROUGHT TO THE SITE, AND IN SITU, SHALL BE COMPACTED BY ROLLING WITH A ROLLER OR BY MECHANICAL TAMPING. THE ROLLER, WHEN FULLY LOADED, SHALL HAVE A LOAD NO LESS THAN 200 POUNDS PER SQUARE INCH OF CROSS-SECTIONAL AREA. ENOUGH MOISTURE SHALL BE PRESENT IN THE ASPHALT MILLINGS TO OBTAIN A DENSITY EQUAL TO OR GREATER THAN 95% OF MAXIMUM DENSITY AS DETERMINED BY THE NUCLEAR GAUGE DENSITY TEST BEFORE PLACING THE NEXT LIFT. EACH LIFT SHALL CONSIST OF 2-INCH LOOSE LIFTS OR LESS PRIOR TO COMPACTION.

PROJECT INFO:

PROJECT DISTURBANCE AREA: 14.00 AC

CUT: 29,555 CY

FILL: 26,694 CY (VRF = 1.15)

NET: 2,861 CY [CUT]

SYMBOL/LINE LEGEND

- LIGHT POLE (EXISTING)
- POWER POLE (EXISTING)
- E — ELECTRIC MANHOLE (EXISTING)
- EP — ELECTRIC PANEL (EXISTING)
- D — STORM SEWER MANHOLE (EXISTING)
- FSV — FIRE SPRINKLER VALVE (EXISTING)
- WS — WATER SPIGOT (EXISTING)
- W — WATER WELL (EXISTING)
- TREE (EXISTING)
- WIRE FENCE (EXISTING)
- OE — OVERHEAD ELECTRIC (EXISTING)
- UE — UNDERGROUND ELECTRIC (EXISTING)
- FO — UNDERGROUND FIBER OPTIC (EXISTING)
- EXIST ST — STORM SEWER (EXISTING)
- EXIST W — WATER MAIN (EXISTING)

PCD FILE NO: PPR2347

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DESCRIPTION	REVISION DATE
(DESCRIPTION)	00/00/00

INITIAL GRADING & EROSION CONTROL PLAN

NORTH

60' 30' 0' 60'
SCALE: 1" = 60'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 42

TOTAL SHEETS 48

LEGEND

- LIMITS OF CONSTRUCTION/DISTURBANCE
- 100-YEAR FEMA FLOODPLAIN BOUNDARY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED ASPHALT MILLINGS
- PROPOSED CONCRETE PAVEMENT
- PROPOSED BUILDING
- PROPOSED RIPRAP (TYPE VL & L)
- VTC — VEHICLE TRACKING CONTROL (INITIAL/INTERIM)
- TS — TEMPORARY SEEDING AND MULCHING (INTERIM)
- SF — SILT FENCE (INITIAL/INTERIM)
- CF — CONSTRUCTION FENCE (INITIAL/INTERIM)
- TSB — TEMPORARY SEDIMENT BASIN (INITIAL/INTERIM)
- IP-1 — INLET PROTECTION - CURB INLET (INITIAL/INTERIM)
- IP-2 — INLET PROTECTION - AREA INLET (INITIAL/INTERIM)
- CIP — INLET PROTECTION - CULVERT (INITIAL/INTERIM)
- CD — CHECK DAM (INITIAL/INTERIM)
- GENERAL DIRECTION OF RUNOFF
- 6939 / 6940 — EXISTING CONTOURS (1' AND 5')
- 6934 / 6935 — PROPOSED CONTOURS (1' AND 5')

EASEMENT LEGEND

- UTILITY EASEMENT (EXISTING)
- UTILITY EASEMENT (PROPOSED)
- DRAINAGE EASEMENT (PROPOSED)
- UTILITY & DRAINAGE EASEMENT (PROPOSED)

EXISTING POND #4 (STOCK POND)

EXISTING POND #3 (STOCK POND)

LIMITS OF DISTURBANCE

PROP. U.E. & D.E.

PROP. U.E.

EXIST. U.E.

EXISTING PUMP HOUSE

PROP. D.E.

PROPOSED STORM SEWER A (18" HDPE)

TEMPORARY SEDIMENT BASIN A (TSB A)
TOTAL TRIBUTARY AREA:12.55 AC
DISTURBED AREA:12.55 AC
UNDISTURBED AREA:0.00 AC
WQCV VOLUME:0.330 AC-FT
BASIN VOLUME:4.00 AC-FT
BOTTOM ELEV:6887.50
CREST ELEV:6890.92
TOP ELEV:6892.50
SPILLWAY CREST LENGTH:40 FT

PROPERTY LINE

100-YEAR ZONE-A FEMA FLOODPLAIN LIMITS

PROPOSED MINI-STORAGE WAREHOUSE FFE:6898.50

24.00' PROP. D.E.

PROPOSED FUTURE COMMERCIAL LOCATION

10.00' PROP. U.E.

PROPOSED STORM SEWER C (18" HDPE)

PROPOSED STORM SEWER B (36" HDPE)

PROPOSED STORM SEWER D (12" HDPE)

10.00' PROP. D.E.

PROPOSED 6' BERM
SEE OVERLOT GRADING BERM DETAIL

130.00' ROW

STAPLETON ROAD

ROW

EXISTING 24" RCP STORM SEWER

EXISTING CURB INLET

EXISTING 24" RCP STORM SEWER

EXISTING CURB INLET

EXISTING DUAL 36" CMP STORM SEWER

EXISTING 24" RCP OVERFLOW PIPE

EXISTING 15" STEEL OVERFLOW PIPE

HWY 24

EXISTING POND #5 (STOCK POND)

EXISTING 4'X4' RCB CULVERT

FILL

CUT

GENERAL NOTES:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ADJACENT TO THE SITE. THE OMISSION FROM, OR INCLUSION OF, UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NON-EXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
2. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES, BUILDINGS, FENCES, AND ROADWAYS FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE ABOVE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
3. CONTRACTOR SHALL OBTAIN COPIES OF THE SOILS REPORT FROM THE GEOTECHNICAL ENGINEER AND THEY SHALL BE KEPT ONSITE DURING ALL EARTHWORK.
4. DUST CONTROL SHALL BE SUPPLIED BY THE GRADING CONTRACTOR THROUGH THE DURATION OF THE PROJECT PER THE COUNTY HEALTH DEPARTMENT SPECIFICATIONS.
5. STOCKPILE LOCATION FOR THIS PROJECT TO BE LOCATED BY CONTRACTOR AND ADDED TO THE SWMP/GEC UPON DETERMINATION.
6. LOCATION OF STORAGE FOR MAINTENANCE EQUIPMENT AND TEMPORARY DISPOSAL AREAS WILL BE ADDED TO THE GEC/SWMP BY CONTRACTOR.
7. ALL NON-STRUCTURAL CONTROL MEASURES SUCH AS STREET SWEEPING, GOOD HOUSEKEEPING, AND ETC. SHALL BE EMPLOYED BY THE CONTRACTOR AS NECESSARY AND OUTLINED IN THE SWMP.
8. MAXIMUM CUT/FILL SLOPES SHALL NOT EXCEED 3:1.
9. ALL FILL MATERIAL SHALL BE APPROVED BY A LICENSED ENGINEER.
10. ALL STRIPPED TOPSOIL SHALL BE STOCKPILED FOR RE-USE IF POSSIBLE.
11. LOCATION OF PORTABLE TOILET, STABILIZED STAGING AREA, AND SITE (CONTACTS AND PERMITS), AND CONCRETE WASHOUT POSTING TO BE ADDED TO THIS PLAN AND SWMP BY CONTRACTOR.
12. NO BATCH PLANTS WILL BE UTILIZED ON SITE.
13. ON-SITE VEGETATION IS NATIVE GRASSES AND WEEDS. THERE IS NO NOTABLE VEGETATION OTHERWISE.
14. CONTRACTOR SHALL PROTECT ALL AREAS OUTSIDE OF THE CONSTRUCTION LIMITS WITH SILT FENCE OR OTHER METHOD TO PROTECT UNDISTURBED AREAS FROM EROSION.
15. THERE ARE NO SPRINGS, STREAMS, WETLANDS AND OTHER SURFACE WATERS, INCLUDING AREAS THAT REQUIRE MAINTENANCE OF PRE-EXISTING VEGETATION WITHIN 50 FEET OF A RECEIVING WATER FOR THIS PROJECT.
16. THE WESTERN BOUNDARY OF THE OVERALL 4-WAY PROPERTY LIES WITHIN A DESIGNATED FEMA FLOODPLAIN AS DETERMINED BY THE FLOOD INSURANCE MAP PANEL '08041C0552G' EFFECTIVE DEC. 7, 2018. THIS PART OF THE PROPERTY WILL REMAIN UNDEVELOPED. THE REMAINDER OF THE PROPERTY, INCLUDING ALL PROPOSED AREAS OF CONSTRUCTION, ARE LOCATED IN ZONE X, AS SHOWN IN FLOOD INSURANCE MAP PANELS '08041C0552G', '08041C0556G', AND '08041C0558G'. ZONE X AREAS ARE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD.
17. PER CONVERSATIONS WITH EPC AND CDPHE, ASPHALT MILLINGS SHALL BE CONSIDERED A SUITABLE FORM OF FINAL STABILIZATION IF THE FOLLOWING SPECIFICATIONS ARE MET DURING CONSTRUCTION: ALL ASPHALT MILLINGS BROUGHT TO THE SITE, AND IN SITU, SHALL BE COMPACTED BY ROLLING WITH A ROLLER OR BY MECHANICAL TAMPING. THE ROLLER, WHEN FULLY LOADED, SHALL HAVE A LOAD NO LESS THAN 200 POUNDS PER SQUARE INCH OF CROSS-SECTIONAL AREA. ENOUGH MOISTURE SHALL BE PRESENT IN THE ASPHALT MILLINGS TO OBTAIN A DENSITY EQUAL TO OR GREATER THAN 95% OF MAXIMUM DENSITY AS DETERMINED BY THE NUCLEAR GAUGE DENSITY TEST BEFORE PLACING THE NEXT LIFT. EACH LIFT SHALL CONSIST OF 2-INCH LOOSE LIFTS OR LESS PRIOR TO COMPACTION.

PROJECT INFO:

PROJECT DISTURBANCE AREA: 14.00 AC

CUT: 29,555 CY

FILL: 26,694 CY (VRF = 1.15)

NET: 2,861 CY [CUT]

SYMBOL/LINE LEGEND

- LIGHT POLE (EXISTING)
- POWER POLE (EXISTING)
- E — ELECTRIC MANHOLE (EXISTING)
- EP — ELECTRIC PANEL (EXISTING)
- D — STORM SEWER MANHOLE (EXISTING)
- FSV — FIRE SPRINKLER VALVE (EXISTING)
- WS — WATER SPIGOT (EXISTING)
- W — WATER WELL (EXISTING)
- TREE (EXISTING)
- BOLLARD (PROPOSED)
- X — X — WIRE FENCE (EXISTING)
- OE — OVERHEAD ELECTRIC (EXISTING)
- UE — UNDERGROUND ELECTRIC (EXISTING)
- FO — UNDERGROUND FIBER OPTIC (EXISTING)
- EXIST ST — STORM SEWER (EXISTING)
- EXIST W — WATER MAIN (EXISTING)
- METAL FENCE (PROPOSED)

NORTH

SCALE: 1" = 60'

PCD FILE NO: PPR2347

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Kansas City
(913) 444-9615
Colorado Springs, CO
(719) 465-2145

4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION	DATE	REVISION DESCRIPTION (DESCRIPTION)
	00/00/00	

INTERIM GRADING & EROSION CONTROL PLAN

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 43

TOTAL SHEETS 48

LEGEND

- LIMITS OF CONSTRUCTION/DISTURBANCE
- 100-YEAR FEMA FLOODPLAIN BOUNDARY
- PROPOSED ASPHALT PAVEMENT
- PROPOSED ASPHALT MILLINGS
- PROPOSED CONCRETE PAVEMENT
- PROPOSED BUILDING
- PROPOSED RIPRAP (TYPE VL & L)
- (PS) PERMANENT SEEDING (FINAL)
- (EDB) EXTENDED DETENTION BASIN (FINAL)
- GENERAL DIRECTION OF RUNOFF
- 6939 / 6940 EXISTING CONTOURS (1' AND 5')
- 6934 / 6935 PROPOSED CONTOURS (1' AND 5')

EASEMENT LEGEND

- UTILITY EASEMENT (EXISTING)
- UTILITY EASEMENT (PROPOSED)
- DRAINAGE EASEMENT (PROPOSED)
- UTILITY & DRAINAGE EASEMENT (PROPOSED)

EXISTING POND #4 (STOCK POND)

EXISTING POND #3 (STOCK POND)

90.00' PROP. U.E & D.E.

LIMITS OF DISTURBANCE

130.00' ROW

EXISTING 24" RCP STORM SEWER

EXISTING CURB INLET

EXISTING 24" RCP STORM SEWER

EXISTING CURB INLET

STAPLETON ROAD

PROPOSED STORM SEWER D (12" HDPE)

10.00' PROP. D.E.

PROP. U.E.

65.00' EXIST. U.E.

EXISTING PUMP HOUSE

LIMITS OF DISTURBANCE

PROP. D.E.

24.00' PROP. D.E.

PROPOSED MINI-STORAGE WAREHOUSE FFE:6898.50

PROPOSED FUTURE COMMERCIAL LOCATION

10.00' PROP. U.E.

PROPOSED STORM SEWER A (18" HDPE)

PROPOSED EXTENDED DETENTION BASIN A SEE PCM PLANS

PROPERTY LINE

100-YEAR ZONE-A FEMA FLOODPLAIN LIMITS

PROPOSED STORM SEWER C (18" HDPE)

3:1

PROPOSED 6' BERM SEE OVERLOT GRADING BERM DETAIL

PROPOSED DRAINAGE EASEMENT TO BE DEDICATED VIA SEPERATE INSTRUMENT

130.00' ROW

PROPOSED STORM SEWER B (36" HDPE)

LIMITS OF DISTURBANCE

PROPERTY LINE

40.00' PROP. U.E.

EXISTING DUAL 36" CMP STORM SEWER

EXISTING 24" RCP OVERFLOW PIPE

EXISTING 15" STEEL OVERFLOW PIPE

HWY 24

EXISTING POND #5 (STOCK POND)

EXISTING CURB INLET

EXISTING 24" RCP STORM SEWER

EXISTING CURB INLET

EXISTING 24" RCP STORM SEWER

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PROJECT INFO:

PROJECT DISTURBANCE AREA: 14.00 AC

CUT: 29,555 CY

FILL: 26,694 CY (VRF = 1.15)

NET: 2,861 CY [CUT]

SYMBOL/LINE LEGEND

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- POWER POLE (EXISTING)
- (E) ELECTRIC MANHOLE (EXISTING)
- (EP) ELECTRIC PANEL (EXISTING)
- (D) STORM SEWER MANHOLE (EXISTING)
- FSV FIRE SPRINKLER VALVE (EXISTING)
- WS WATER SPIGOT (EXISTING)
- WV WATER VALVE (EXISTING)
- FIRE HYDRANT (EXISTING)
- (W) WATER WELL (EXISTING)
- TREE (EXISTING)
- BOLLARD (PROPOSED)
- X — X WIRE FENCE (EXISTING)
- OE OVERHEAD ELECTRIC (EXISTING)
- UE UNDERGROUND ELECTRIC (EXISTING)
- FO UNDERGROUND FIBER OPTIC (EXISTING)
- EXIST ST STORM SEWER (EXISTING)
- EXIST W WATER MAIN (EXISTING)
- METAL FENCE (PROPOSED)

PCD FILE NO: PPR2347

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Kansas City
(913) 444-9615
Colorado Springs, CO
(719) 465-2145

4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

REVISION DESCRIPTION (DESCRIPTION)

REVISION DATE 00/00/000

FINAL GRADING & EROSION CONTROL PLAN

NORTH

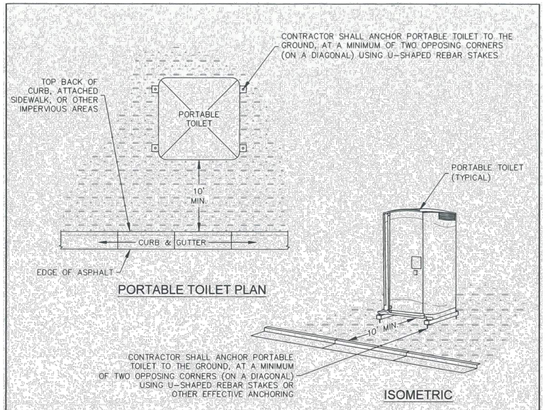
SCALE: 1" = 60'

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 44

TOTAL SHEETS 48



INSTALLATION NOTES

1. PORTABLE TOILETS SHALL BE PLACED A MINIMUM OF 10 FEET BEHIND ALL CURBS, SIDEWALKS, AND OTHER IMPERVIOUS AREAS, 50 FEET FROM STORM INLETS, AND 100 FEET FROM WATERWAYS.
2. PORTABLE TOILETS IN THE RIGHT-OF-WAY ARE REQUIRED TO BE PLACED ON MOBILE TRAILERS AND MUST BE ANCHORED OR WEIGHTED DOWN. PORTABLE TOILETS MAY BE INSTALLED IN ACCORDANCE WITH NOTE #1 IN STAGING AREAS/YARDS.
3. PORTABLE TOILETS SHALL BE SECURELY ANCHORED TO THE GROUND USING U-SHAPED REBAR STAKES, OR OTHER EFFECTIVE ANCHORING.
4. ANCHORING SHALL BE POSITIONED ON AT LEAST TWO OPPOSING (DIAGONAL) CORNERS
5. TOILET CONTAINMENT PANS MAY BE USED IN PLACE OF A TRAILER AT THE GEC INSPECTOR'S DISCRETION. TOILET CONTAINMENT PANS MUST BE ANCHORED IN PLACE AND MUST NOT BE USED WITHIN THE CITY R.O.W.

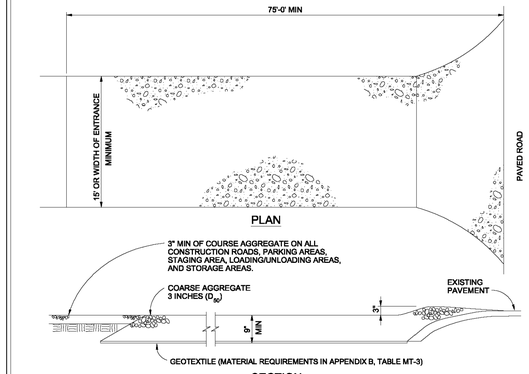
MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. PORTABLE TOILETS SHALL BE SERVICED AT THE NECESSARY INTERVALS TO ELIMINATE THE POSSIBILITY OF OVERFLOW.
3. WHEN THE PORTABLE TOILETS ARE REMOVED, ANY DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE TOILETS MUST BE PERMANENTLY STABILIZED.

PT

PORTABLE TOILET

APPROVED: SWMP MANAGER		
ISSUED: 2/19/19	REVISED: 8/19/2020	DRAWING NO.: 900-PTM



VEHICLE TRACKING

NTS

VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.

2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.

3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.

4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.

5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.

2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.

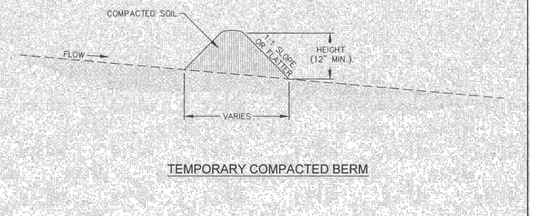
3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.

4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.

5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.

City of Colorado Springs
Stormwater Quality

Figure VT-2
Vehicle Tracking
Application Examples



TEMPORARY COMPACTED BERM

INSTALLATION NOTES

1. COMPACTED BERM MUST BE A MINIMUM HEIGHT OF ONE FOOT. BASE WIDTH IS DETERMINED BY HEIGHT.
2. COMPACTED BERMS MUST BE ADEQUATELY COMPACTED. NOT ALL SOILS ARE SUITABLE FOR COMPACTED BERMS.
3. INSTALL COMPACTED BERMS ALONG CONTOUR; DO NOT INSTALL PERPENDICULAR TO SLOPE.
4. THE MAXIMUM TRIBUTARY DRAINAGE AREA PER 100 LINEAR FEET OF COMPACTED BERMS SHALL BE ¼ ACRE.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE BERM.

TCB

STORMWATER ENTERPRISE

TEMPORARY COMPACTED BERM

APPROVED: SWMP MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO.: 900-TCB

MULCHING NOTES

INSTALLATION REQUIREMENTS

1. ALL DISTURBED AREAS MUST BE MULCHED WITHIN 21 DAYS AFTER FINAL GRADE AND SEEDED AREAS ARE TO BE MULCHED WITHIN 24 HOURS AFTER SEEDING.

2. MATERIAL USED FOR MULCH CAN BE CERTIFIED CLEAN, WEED- AND SEED-FREE LONG STEMMED FIELD OR MARSH HAY, OR STRAW OF OATS, BARLEY, WHEAT, RYE, OR TRITICALE CERTIFIED BY THE COLORADO DEPARTMENT OF AGRICULTURE WEED FREE FORAGE CERTIFICATION PROGRAM.

3. HYDRAULIC MULCHING MATERIAL SHALL CONSIST OF VIRGIN WOOD FIBER MANUFACTURED FROM CLEAN WHOLE WOOD CHIPS. WOOD CHIPS CANNOT CONTAIN ANY GROWTH OR GERMINATION INHIBITORS OR BE PRODUCED FROM RECYCLED MATERIAL. GRAVEL CAN ALSO BE USED.

4. MULCH IS TO BE APPLIED EVENLY AT A RATE OF 2 TONS PER ACRE.

5. MULCH IS TO BE ANCHORED EITHER BY CRIMPING (TUCKING MULCH FIBERS 4 INCHES INTO THE SOIL), USING NETTING (USED ON SMALL AREAS WITH STEEP SLOPES), OR WITH A TACKIFIER.

6. HYDRAULIC MULCHING AND TACKIFIERS ARE NOT TO BE USED IN THE PRESENCE OF FREE SURFACE WATER.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL MULCHED AREAS.

2. MULCH IS TO BE REPLACED IMMEDIATELY IN THOSE AREAS IT HAS BEEN REMOVED, AND IF NECESSARY THE AREA SHOULD BE RESEEDED.

City of Colorado Springs
Stormwater Quality

Figure MU-1
Mulching
Construction Detail and Maintenance Requirements

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4-WAY COMMERCIAL

CONSTRUCTION DOCUMENTS

EL PASO COUNTY, CO

GRADING & EROSION CONTROL DETAILS

REVISION DATE		REVISION DESCRIPTION
00/00/00	△	(DESCRIPTION)

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

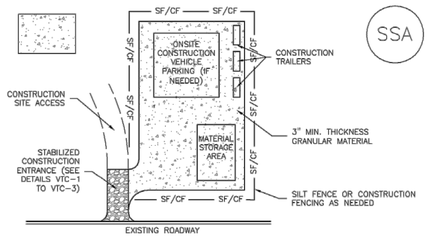
DATE: 06/11/2026

SHEET # 45

TOTAL SHEETS 48

PCD FILE NO: PPR2347

Stabilized Staging Area (SSA) SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

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

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

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

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

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

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

STABILIZED STAGING AREA MAINTENANCE NOTES

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

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

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

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

STABILIZED STAGING AREA MAINTENANCE NOTES

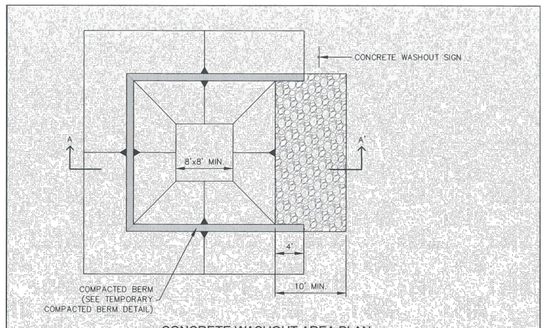
5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

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

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

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

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



CWA

STORMWATER ENTERPRISE

CONCRETE WASHOUT AREA

APPROVED: SWMP MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO.: 900-CWA-1

INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   -LOCATION OF CONCRETE WASHOUT AREA
2. LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
3. AN IMPERMEABLE LINER (16 MIL MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
4. DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
5. THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
6. CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
7. BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
8. CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
9. SIGNS SHALL BE PLACED AT THE CONCRETE WASH AREA.
10. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES

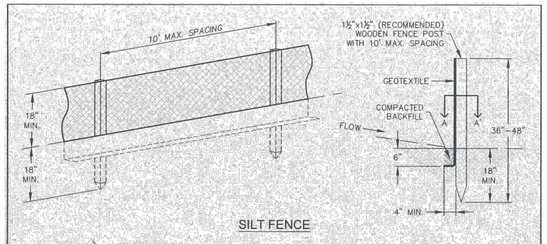
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2. THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF ⅔ THE HEIGHT OF THE CONCRETE WASH AREA.
3. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE, AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
4. THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
5. PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.

CWA

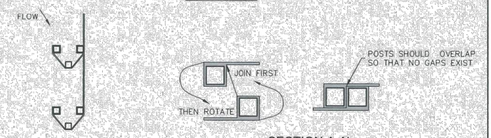
STORMWATER ENTERPRISE

CONCRETE WASHOUT AREA

APPROVED: SWMP MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO.: 900-CWA-2



SILT FENCE



J-HOOK INSTALLATION

SECTION A-A'

INSTALLATION NOTES:

1. SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2'-5" AWAY FROM TOE OF THE SLOPE TO ALLOW FOR PONDING AND DEPOSITION.
2. COMPACT THE TRENCH USING A JUMPING JACK OR WHEEL ROLLING TO THE POINT THAT THE FENCE RESISTS BEING PULLED OUT OF THE GROUND BY HAND.
3. SILT FENCE SHALL BE TAUT WITH NO SAGS AFTER IT HAS BEEN ANCHORED.
4. FABRIC SHALL BE ATTACHED TO POSTS WITH 1" HEAVY DUTY STAPLES OR 1" NAILS. THESE SHOULD BE PLACED VERTICALLY DOWN THE POST, 3" APART.
5. THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
6. INSTALL SILT FENCE ALONG THE CONTOUR OF THE SLOPES OR IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J-HOOK" INSTALLATION).

MAINTENANCE NOTES:

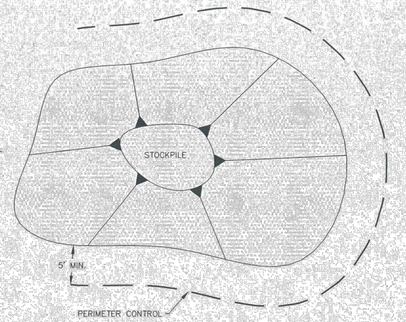
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2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN HEIGHT OF THE SILT FENCE.
3. SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AFTER SILT FENCE IS REMOVED.

SF

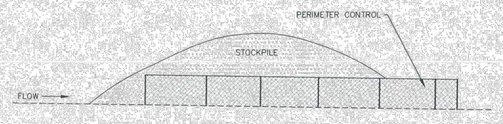
STORMWATER ENTERPRISE | SILT FENCE

APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-SF



STOCKPILE PROTECTION PLAN



STOCKPILE PROTECTION ELEVATION

INSTALLATION NOTES:

1. INSTALL PERIMETER CONTROL AROUND STOCKPILE ON DOWNGRADIENT SIDE. PERIMETER CONTROL MUST BE SUITABLE TO SITE CONDITIONS AND INSTALLED ACCORDING TO THE RELEVANT DETAIL.
2. FOR STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS INCLUDING PERIMETER CONTROL ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

MAINTENANCE NOTES:

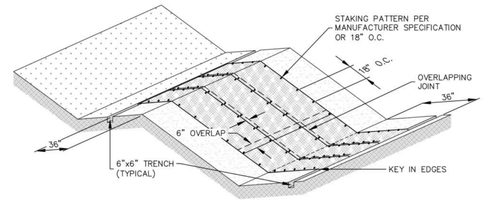
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2. IF PERIMETER CONTROLS MUST BE MOVED TO ACCESS STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORK DAY.
3. ACCUMULATED SEDIMENT MUST BE REMOVED ACCORDING TO PERIMETER CONTROL DETAIL.

SP

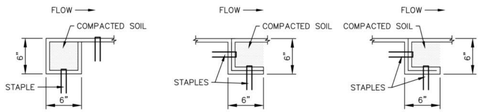
STORMWATER ENTERPRISE | STOCKPILE PROTECTION

APPROVED: SMENT MANAGER

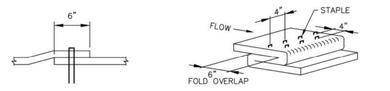
ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-SP



EROSION CONTROL BLANKET



PERIMETER ANCHOR TRENCH | JOINT ANCHOR TRENCH | INTERMEDIATE CHECK SLOT



OVERLAPPING JOINT

STAPLE CHECK
TO BE USED ON SLOPE EVERY 15 FEET

ECB

STORMWATER ENTERPRISE | EROSION CONTROL BLANKET

APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-ECB-1

INSTALLATION NOTES:

1. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS. TRM PRODUCTS MAY BE USED WHERE APPROPRIATE AS DESIGNATED BY THE ENGINEER.
2. IN AREAS WHERE EROSION CONTROL BLANKETS ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO EROSION CONTROL BLANKET INSTALLATION, AND THE EROSION CONTROL BLANKET SHALL BE IN FULL CONTACT WITH THE SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
3. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
4. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL EROSION CONTROL BLANKETS.
5. INTERMEDIATE CHECK SLOT OR STAPLE CHECK SHALL BE INSTALLED EVERY 15' DOWN SLOPES. IN DRAINAGEWAYS, INSTALL CHECK SLOTS EVERY 25' PERPENDICULAR TO FLOW DIRECTION.
6. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER FOR EROSION CONTROL BLANKETS ON SLOPES.
7. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKETS SHALL CONFORM TO TABLE ECB-1.
8. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKETS SHALL BE RESEEDED AND MULCHED.
9. STRAW EROSION CONTROL BLANKETS SHALL NOT BE USED WITHIN STREAMS AND DRAINAGE CHANNELS.
10. COMPACT ALL TRENCHES.

MAINTENANCE NOTES:

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. EROSION CONTROL BLANKETS SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE. TRM MUST BE REMOVED AT THE DISCRETION OF THE GEC INSPECTOR.
3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.

TABLE ECB-1, EROSION CONTROL BLANKET MATERIAL SPECIFICATIONS

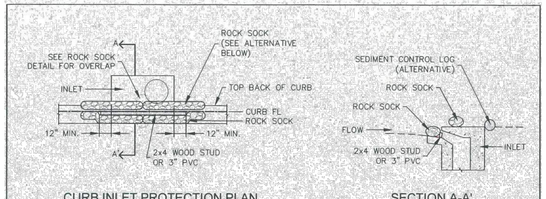
TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING
STRAW	–	100%	–	DOUBLE/ NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	–	DOUBLE/ NATURAL
COCONUT	100%	–	–	DOUBLE/ NATURAL
EXCELSIOR	–	–	100%	DOUBLE/ NATURAL

ECB

STORMWATER ENTERPRISE | EROSION CONTROL BLANKET

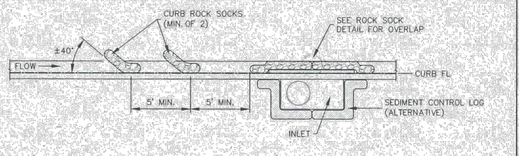
APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-ECB-2



CURB INLET PROTECTION PLAN

SECTION A-A'



CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

INSTALLATION NOTES:

1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. PLACEMENT OF THE ROCK SOCK SHALL BE APPROXIMATELY 40 DEGREES FROM THE CURB.
3. ROCK SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5' APART.
4. AT LEAST TWO CURB ROCK SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADIENT INLETS.
5. ADDITIONAL ROCK SOCKS MAY BE REQUIRED AT GEC INSPECTOR'S DISCRETION.

MAINTENANCE NOTES:

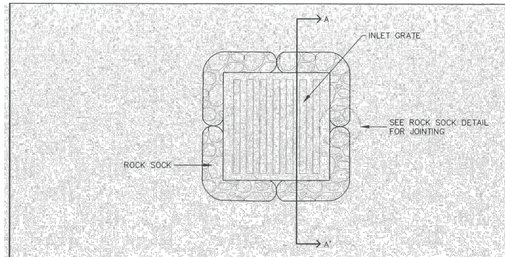
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2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA BEHIND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

IP-1

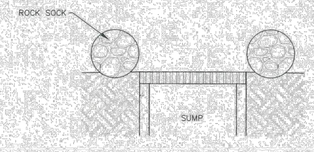
STORMWATER ENTERPRISE | ON-GRADE INLET PROTECTION

APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-IP-1



ROCK SOCK SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES:

1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.
3. CONTROL MEASURES MUST BE WRAPPED AROUND INLET AS TIGHTLY AS POSSIBLE.

MAINTENANCE NOTES:

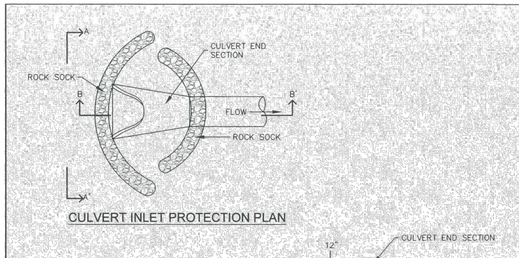
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2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AROUND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

IP-2

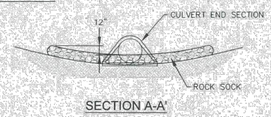
STORMWATER ENTERPRISE | SUMP INLET PROTECTION

APPROVED: SMENT MANAGER

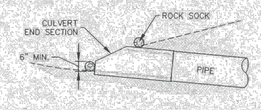
ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-IP-2



CULVERT INLET PROTECTION PLAN



SECTION A-A'



SECTION B-B'

INSTALLATION NOTES:

1. SEE ROCK SOCK DETAIL.

MAINTENANCE NOTES:

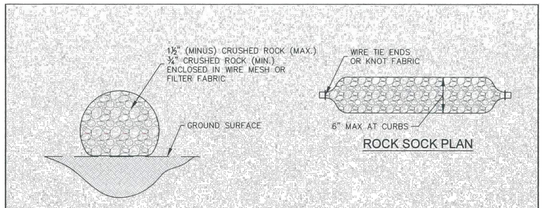
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2. ACCUMULATED SEDIMENT UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS ½ HEIGHT OF THE ROCK SOCK.
3. CULVERT INLET PROTECTION SHALL REMAIN UNTIL THE UPSTREAM AREA IS PERMANENTLY STABILIZED.

CIP

STORMWATER ENTERPRISE | CULVERT INLET PROTECTION

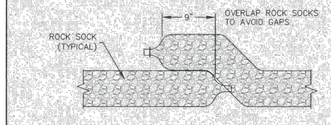
APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-CIP



ROCK SOCK PLAN

ROCK SOCK SECTION



ROCK SOCK OVERLAP

GRADATION TABLE

	MASS PERCENT PASSING SQUARE MESH SIEVES
	No. 4
2"	100
1½"	90-100
¾"	20-55
¾"	0-15
⅜"	0-5

MATCHES SPECIFICATIONS FOR No. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M-43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES

INSTALLATION NOTES:

1. CRUSHED ROCK SHALL BE BETWEEN MAX. 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET AND MIN. ¾" CRUSHED ROCK.
2. WIRE MESH SHALL HAVE OPENINGS SMALLER THAN THE SMALLEST SIZE ROCK.
3. WIRE MESH SHALL BE SECURED USING 'HOG RINGS' OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

MAINTENANCE NOTES:

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED BEYOND REPAIR.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE DEPTH REACHES ½ OF THE HEIGHT OF THE ROCK SOCK.
4. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL DISTURBED AREA IS STABILIZED.
5. PERMANENTLY STABILIZE AREA AFTER ROCK SOCKS HAVE BEEN REMOVED.

RS

STORMWATER ENTERPRISE | ROCK SOCK

APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-RS

PCD FILE NO: PPR2347

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4-WAY COMMERCIAL
CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION DATE		REVISION DESCRIPTION
00/00/00	△	(DESCRIPTION)

GRADING & EROSION CONTROL DETAILS

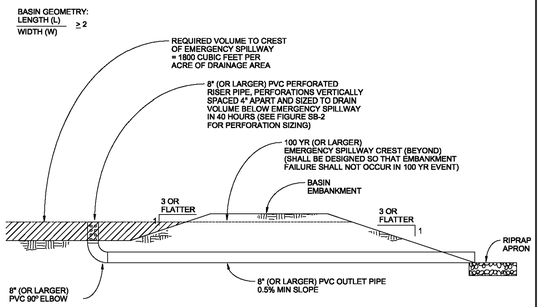
SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 46

TOTAL SHEETS 48



SEDIMENT BASIN
NTS

SEDMENT BASIN NOTES

INSTALLATION REQUIREMENTS

1. SEDIMENT BASINS SHALL BE INSTALLED BEFORE ANY CLEARING AND/OR GRADING IS UNDERTAKEN.
2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT.
3. THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS.
4. THE OUTLET IS TO BE LOCATED AT THE FURTHEST DISTANCE FROM THE INLET OF THE BASIN. BAFFLES MAY BE NEEDED TO INCREASE THE FLOW LENGTH AND SETTLING TIME.
5. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT.
6. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698.
7. WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA, FOR SAFETY REASONS, A SIGN SHALL BE POSTED AND THE AREA SECURED WITH A FENCE.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SEDIMENT BASINS AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. SEDIMENT BASINS SHALL BE CLEANED OUT BEFORE SEDIMENT HAS FILLED HALF THE VOLUME OF THE BASIN.
3. SEDIMENT BASINS SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE SITE AREA IS PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY.

City of Colorado Springs
Stormwater Quality

Figure SB-1
Sediment Basin
Construction Detail and Maintenance Requirements

Required Area per Row (in^2)

Design Volume (acre-ft)	Depth at Outlet (ft)								
	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
2	15.04	7.71	5.10	3.76	2.95	2.41	2.02	1.73
1	7.52	3.86	2.55	1.88	1.48	1.21	1.01	0.87
0.6	4.51	2.31	1.53	1.13	0.89	0.72	0.61	0.52
0.4	3.01	1.54	1.02	0.75	0.59	0.48	0.40	0.35
0.2	1.50	0.77	0.51	0.38	0.30	0.24	0.20	0.17
0.1	0.75	0.39	0.26	0.19	0.15	0.12	0.10	0.09
0.06	0.45	0.23	0.15	0.11	0.09	0.07	0.06	0.05
0.04	0.30	0.15	0.10	0.08	0.06	0.05	0.04	0.03
0.02	0.15	0.08	0.05	0.04	0.03	0.02	0.02	0.02
0.01	0.08	0.04	0.03	0.02	0.01	0.01	0.01	0.01

TABLE SB-1

Circular Perforation Sizing

Hole Diameter (in)	Hole Diameter (in)	Area per Row (in^2)		
		n = 1	n = 2	n = 3
1/4	0.250	0.05	0.10	0.15
5/16	0.313	0.08	0.15	0.23
3/8	0.375	0.11	0.22	0.33
7/16	0.438	0.15	0.30	0.45
1/2	0.500	0.20	0.39	0.59
9/16	0.563	0.25	0.50	0.75
5/8	0.625	0.31	0.61	0.92
11/16	0.688	0.37	0.74	1.11
3/4	0.750	0.44	0.88	1.33
7/8	0.875	0.60	1.20	1.80
1	1.000	0.79	1.57	2.36
1 1/8	1.125	0.99	1.99	2.98
1 1/4	1.250	1.23	2.45	3.68
1 3/8	1.375	1.48	2.97	4.45
1 1/2	1.500	1.77	3.53	5.30
1 5/8	1.625	2.07	4.15	6.22
1 3/4	1.750	2.41	4.81	7.22
1 7/8	1.875	2.76	5.52	8.28
2	2.000	3.14	6.28	9.42
n = Number of columns of perforations				
Minimum steel plate thickness		1/4"	5/16"	3/8"

TABLE SB-2

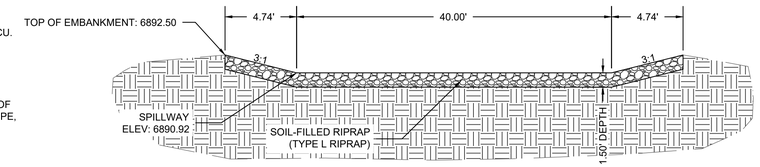
City of Colorado Springs
Stormwater Quality

Figure SB-2
Outlet Sizing
Application Techniques and Maintenance Requirements

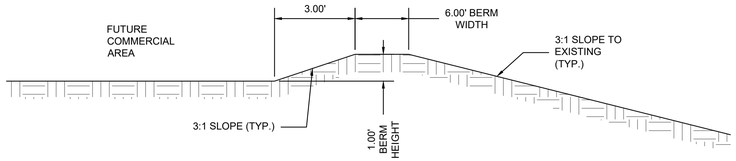
TSB A:

REQ VOL = 1800 * 12.55 = 22,590 CU. FT.
REQ VOL = 0.52 AC-FT

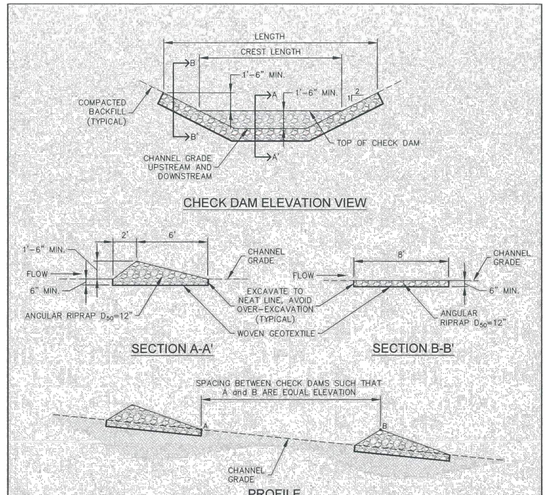
18" PVC OUTLET PIPE
INV ELEV:
- PROVIDE THREE (3) COLUMNS OF PERFORATIONS ALONG RISER PIPE, EACH WITH Ø5/8" CIRCULAR PERFORATIONS SPACED VERTICALLY AT 4" O.C.



TEMPORARY SEDIMENT BASIN A - EMERGENCY SPILLWAY
NOT TO SCALE



OVERLOT GRADING BERM DETAIL
NOT TO SCALE



INSTALLATION NOTES

1. CHECK DAMS SHOULD BE INSTALLED BEFORE UPSTREAM LAND DISTURBING ACTIVITIES.
2. RIPRAP PAD SHOULD BE TRENCHED INTO GROUND BY A MINIMUM OF 6".

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ THE HEIGHT OF THE CHECK DAM CREST.
3. CHECK DAMS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AFTER CHECK DAMS ARE REMOVED IF REMOVAL IS REQUIRED.

CD

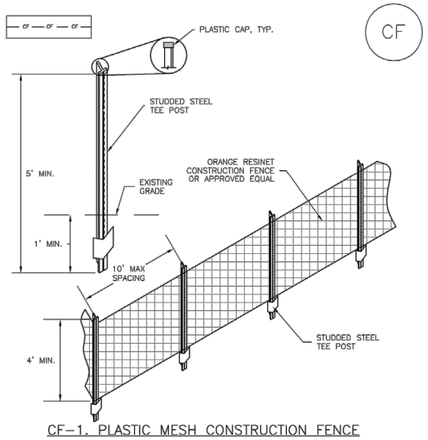
STORMWATER ENTERPRISE

CHECK DAM

APPROVED: CMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.:
10/7/19	8/19/2020	900-CD

SM-3 **Construction Fence (CF)**



CF-1. PLASTIC MESH CONSTRUCTION FENCE

CONSTRUCTION FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF CONSTRUCTION FENCE.
2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.
4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.
5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

Construction Fence (CF) **SM-3**

CONSTRUCTION FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

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

PCD FILE NO: PPR2347

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4-WAY COMMERCIAL
CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION	REVISION DESCRIPTION
00/00/00	(DESCRIPTION)

GRADING & EROSION CONTROL DETAILS

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

DATE: 06/11/2026

SHEET # 47

TOTAL SHEETS 48

Description

Temporary seeding can be used to stabilize disturbed areas that will be inactive for an extended period. Permanent seeding should be used to stabilize areas at final grade that will not be otherwise stabilized. Effective seeding includes preparation of a seedbed, selection of an appropriate seed mixture, proper planting techniques, and protection of the seeded area with mulch, geotextiles, or other appropriate measures.



Photograph TS/PS -1. Equipment used to drill seed. Photo courtesy of Douglas County.

Appropriate Uses

When the soil surface is disturbed and will remain inactive for an extended period (typically 30 days or longer), proactive stabilization measures should be implemented. If the inactive period is short-lived (on the order of two weeks), techniques such as surface roughening may be appropriate. For longer periods of inactivity, temporary seeding and mulching can provide effective erosion control. Permanent seeding should be used on finished areas that have not been otherwise stabilized.

Typically, local governments have their own seed mixes and timelines for seeding. Check jurisdictional requirements for seeding and temporary stabilization.

Design and Installation

Effective seeding requires proper seedbed preparation, selection of an appropriate seed mixture, use of appropriate seeding equipment to ensure proper coverage and density, and protection with mulch or fabric until plants are established.

The USDCM Volume 2 *Revegetation* Chapter contains detailed seed mix, soil preparations, and seeding and mulching recommendations that may be referenced to supplement this Fact Sheet.

Drill seeding is the preferred seeding method. Hydroseeding is not recommended except in areas where steep slopes prevent use of drill seeding equipment, and even in these instances it is preferable to hand seed and mulch. Some jurisdictions do not allow hydroseeding or hydromulching.

Seedbed Preparation

Prior to seeding, ensure that areas to be revegetated have soil conditions capable of supporting vegetation. Overlot grading can result in loss of topsoil, resulting in poor quality subsoils at the ground surface that have low nutrient value, little organic matter content, few soil microorganisms, rooting restrictions, and conditions less conducive to infiltration of precipitation. As a result, it is typically necessary to provide stockpiled topsoil, compost, or other

Temporary and Permanent Seeding	
Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	No

soil amendments and rototill them into the soil to a depth of 6 inches or more.

Topsoil should be salvaged during grading operations for use and spread on areas to be revegetated later. Topsoil should be viewed as an important resource to be utilized for vegetation establishment, due to its water-holding capacity, structure, texture, organic matter content, biological activity, and nutrient content. The rooting depth of most native grasses in the semi-arid Denver metropolitan area is 6 to 18 inches. At a minimum, the upper 6 inches of topsoil should be stripped, stockpiled, and ultimately respread across areas that will be revegetated.

Where topsoil is not available, subsoils should be amended to provide an appropriate plant-growth medium. Organic matter, such as well digested compost, can be added to improve soil characteristics conducive to plant growth. Other treatments can be used to adjust soil pH conditions when needed. Soil testing, which is typically inexpensive, should be completed to determine and optimize the types and amounts of amendments that are required.

If the disturbed ground surface is compacted, rip or rototill the surface prior to placing topsoil. If adding compost to the existing soil surface, rototilling is necessary. Surface roughening will assist in placement of a stable topsoil layer on steeper slopes, and allow infiltration and root penetration to greater depth.

Prior to seeding, the soil surface should be rough and the seedbed should be firm, but neither too loose nor compacted. The upper layer of soil should be in a condition suitable for seeding at the proper depth and conducive to plant growth. Seed-to-soil contact is the key to good germination.

Seed Mix for Temporary Vegetation

To provide temporary vegetative cover on disturbed areas which will not be paved, built upon, or fully landscaped or worked for an extended period (typically 30 days or more), plant an annual grass appropriate for the time of planting and mulch the planted areas. Annual grasses suitable for the Denver metropolitan area are listed in Table TS/PS-1. These are to be considered only as general recommendations when specific design guidance for a particular site is not available. Local governments typically specify seed mixes appropriate for their jurisdiction.

Seed Mix for Permanent Revegetation

To provide vegetative cover on disturbed areas that have reached final grade, a perennial grass mix should be established. Permanent seeding should be performed promptly (typically within 14 days) after reaching final grade. Each site will have different characteristics and a landscape professional or the local jurisdiction should be contacted to determine the most suitable seed mix for a specific site. In lieu of a specific recommendation, one of the perennial grass mixes appropriate for site conditions and growth season listed in Table TS/PS-2 can be used. The pure live seed (PLS) rates of application recommended in these tables are considered to be absolute minimum rates for seed applied using proper drill-seeding equipment.

If desired for wildlife habitat or landscape diversity, shrubs such as rubber rabbitbrush (*Chrysothamnus nauseosus*), fourwing saltbush (*Atriplex canescens*) and skunkbrush sumac (*Rhus trilobata*) could be added to the upland seedmixes at 0.25, 0.5 and 1 pound PLS/acre, respectively. In riparian zones, planting root stock of such species as American plum (*Prunus americana*), woods rose (*Rosa woodsii*), plains cottonwood (*Populus sargentii*), and willow (*Populus spp.*) may be considered. On non-topsoiled upland sites, a legume such as Ladak alfalfa at 1 pound PLS/acre can be included as a source of nitrogen for perennial grasses.

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-3 for appropriate seeding dates.

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

Species[a] (Common name)	Growth Season[b]	Pounds of Pure Live Seed (PLS)/acre[c]	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	½
5. Millet	Warm	3 - 15	½ - ¾
6. Sudangrass	Warm	5–10	½ - ¾
7. Sorghum	Warm	5–10	½ - ¾
8. Winter wheat	Cool	20–35	1 - 2
9. Winter barley	Cool	20–35	1 - 2
10. Winter rye	Cool	20–35	1 - 2
11. Triticale	Cool	25–40	1 - 2

[a] Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

[b] See Table TS/PS-3 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

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

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses

Common[a] Name	Botanical Name	Growth Season[b]	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Alakali Soil Seed Mix					
Alkali sacaton	*Sporobolus airoides*	Cool	Bunch	1,750,000	0.25
Basin wildrye	*Elymus cinereus*	Cool	Bunch	165,000	2.5
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Jose tall wheatgrass	*Agropyron elongatum 'Jose'*	Cool	Bunch	79,000	7.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.75**
Fertile Loamy Soil Seed Mix					
Ephriam crested wheatgrass	*Agropyron cristatum 'Ephriam'*	Cool	Sod	175,000	2.0
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Sodar streambank wheatgrass	*Agropyron riparium 'Sodar'*	Cool	Sod	170,000	2.5
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	7.0
Total					**15.5**
High Water Table Soil Seed Mix					
Meadow foxtail	*Alopecurus pratensis*	Cool	Sod	900,000	0.5
Redtop	*Agrostis alba*	Warm	Open sod	5,000,000	0.25
Reed canarygrass	*Phalaris arundinacea*	Cool	Sod	68,000	0.5
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Pathfinder switchgrass	*Panicum virgatum 'Pathfinder'*	Warm	Sod	389,000	1.0
Alkar tall wheatgrass	*Agropyron elongatum 'Alkar'*	Cool	Bunch	79,000	5.5
Total					**10.75**
Transition Turf Seed Mix[e]					
Ruebens Canadian bluegrass	*Poa compressa 'Ruebens'*	Cool	Sod	2,500,000	0.5
Dural hard fescue	*Festuca ovina 'duriuscula'*	Cool	Bunch	565,000	1.0
Citation perennial ryegrass	*Lolium perenne 'Citation'*	Cool	Sod	247,000	3.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Total					**7.5**

Table TS/PS-2. Minimum Drill Seeding Rates for Perennial Grasses (cont.)

Common Name	Botanical Name	Growth Season[b]	Growth Form	Seeds/ Pound	Pounds of PLS/acre
Sandy Soil Seed Mix					
Blue grama	*Bouteloua gracilis*	Warm	Sod-forming bunchgrass	825,000	0.5
Camper little bluestem	*Schizachyrium scoparium 'Camper'*	Warm	Bunch	240,000	1.0
Prairie sandreed	*Calamovilfa longifolia*	Warm	Open sod	274,000	1.0
Sand dropseed	*Sporobolus cryptandrus*	Cool	Bunch	5,298,000	0.25
Vaughn sideoats grama	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**10.25**
Heavy Clay, Rocky Foothill Seed Mix					
Ephriam crested wheatgrass[d]	*Agropyron cristatum 'Ephriam'*	Cool	Sod	175,000	1.5
Oahe Intermediate wheatgrass	*Agropyron intermedium 'Oahe'*	Cool	Sod	115,000	5.5
Vaughn sideoats grama[e]	*Bouteloua curtipendula 'Vaughn'*	Warm	Sod	191,000	2.0
Lincoln smooth brome	*Bromus inermis leyss 'Lincoln'*	Cool	Sod	130,000	3.0
Arriba western wheatgrass	*Agropyron smithii 'Arriba'*	Cool	Sod	110,000	5.5
Total					**17.5**

[a] All of the above seeding mixes and rates are based on drill seeding followed by crimped straw mulch. These rates should be doubled if seed is broadcast and should be increased by 50 percent if the seeding is done using a Brillion Drill or is applied through hydraulic seeding. Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1. If hydraulic seeding is used, hydraulic mulching should be done as a separate operation.

[b] See Table TS/PS-3 for seeding dates.

[c] If site is to be irrigated, the transition turf seed rates should be doubled.

[d] Crested wheatgrass should not be used on slopes steeper than 6H to 1V.

[e] Can substitute 0.5 lbs PLS of blue grama for the 2.0 lbs PLS of Vaughn sideoats grama.

Table TS/PS-3. Seeding Dates for Annual and Perennial Grasses

	Annual Grasses (Numbers in table reference species in Table TS/PS-1)		Perennial Grasses	
Seeding Dates	**Warm**	**Cool**	**Warm**	**Cool**
January 1–March 15			✓	✓
March 16–April 30	4	1,2,3	✓	✓
May 1–May 15	4		✓	
May 16–June 30	4,5,6,7			
July 1–July 15	5,6,7			
July 16–August 31				
September 1–September 30		8,9,10,11		
October 1–December 31			✓	✓

Mulch

Cover seeded areas with mulch or an appropriate rolled erosion control product to promote establishment of vegetation. Anchor mulch by crimping, netting or use of a non-toxic tackifier. See the Mulching BMP Fact Sheet for additional guidance.

Maintenance and Removal

Monitor and observe seeded areas to identify areas of poor growth or areas that fail to germinate. Reseed and mulch these areas, as needed.

An area that has been permanently seeded should have a good stand of vegetation within one growing season if irrigated and within three growing seasons without irrigation in Colorado. Reseed portions of the site that fail to germinate or remain bare after the first growing season.

Seeded areas may require irrigation, particularly during extended dry periods. Targeted weed control may also be necessary.

Protect seeded areas from construction equipment and vehicle access.

PCD FILE NO: PPR2347

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4-WAY COMMERCIAL
CONSTRUCTION DOCUMENTS
EL PASO COUNTY, CO

REVISION DESCRIPTION (DESCRIPTION)
REVISION DATE 00/00/00

GRADING & EROSION CONTROL DETAILS

SCALE: NTS

PROJECT #: 2412-0471
CHECKED BY: BML
DRAWN BY: EDM

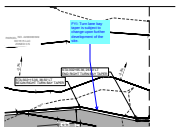
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SHEET # 48

TOTAL SHEETS 48

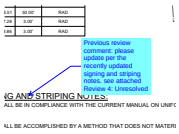
V4_Grading & Erosion Control Plan_COMMENTS.pdf Markup Summary

Daniel Torres (3)



Subject: Callout
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Author: Daniel Torres
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FYI: Turn lane bay taper is subject to change upon further development of the site.



Subject: Callout
Page Label: [12] 12 PAVEMENT MARKING & TRAFFIC CONTROL PLAN
Author: Daniel Torres
Date: 7/20/2026 10:09:21 PM
Status:
Color:
Layer:
Space:

Previous review comment: please update per the recently updated signing and striping notes. see attached
Review 4: Unresolved

Subject: File Attachment
Page Label: [12] 12 PAVEMENT MARKING & TRAFFIC CONTROL PLAN
Author: Daniel Torres
Date: 7/20/2026 10:09:32 PM
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Color:
Layer:
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