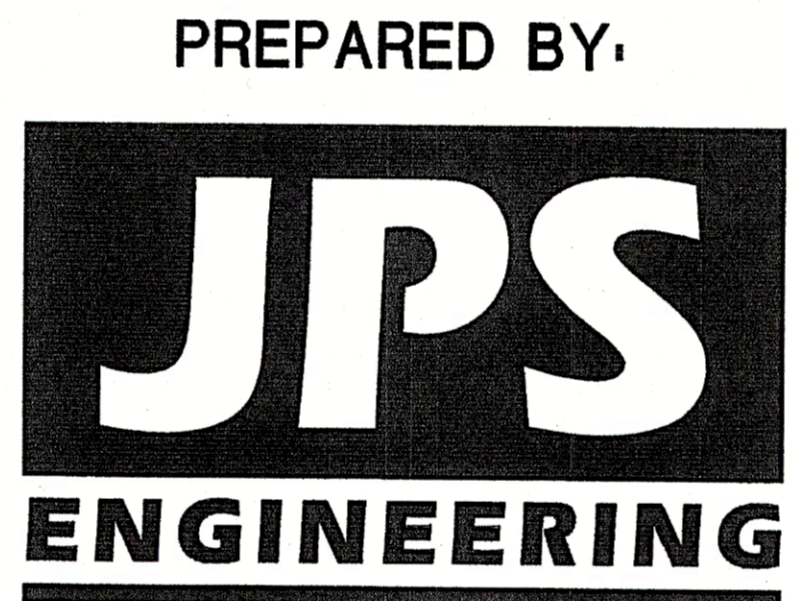


ENGINEERING RECORD DRAWINGS
 THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL, THE EXACT LOCATION, TYPE OF COMPONENT, NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS. REFER TO ORIGINAL DRAWINGS FOR SIGNATURES AND SEALS.

John P. Schwab Date: 4/18/24
 JOHN P. SCHWAB, PE# 29891
 FOR AND ON BEHALF OF JPS ENGINEERING, INC.

Struthers Ranch Polaris Grading & Erosion Control Plans El Paso County, Colorado

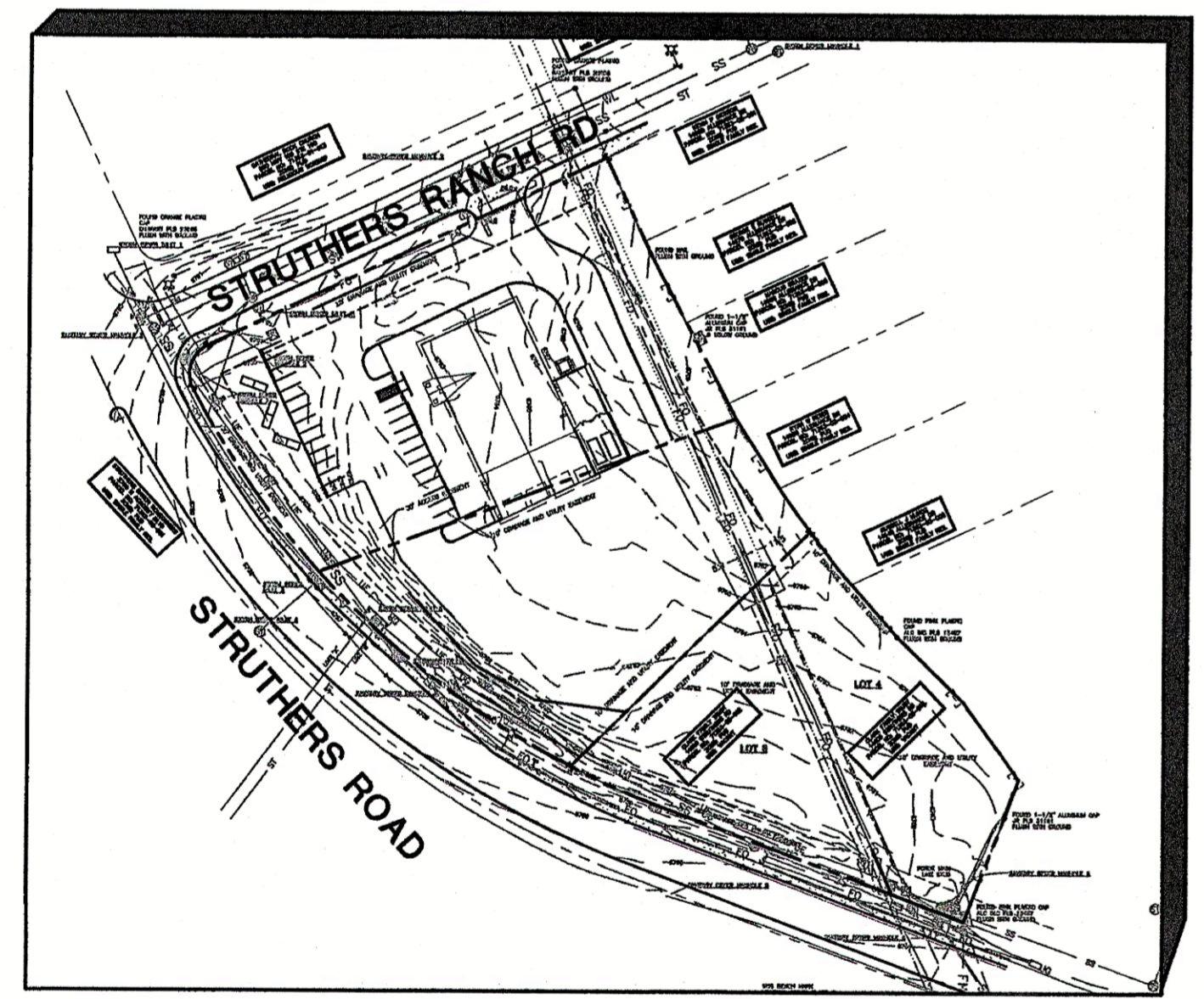
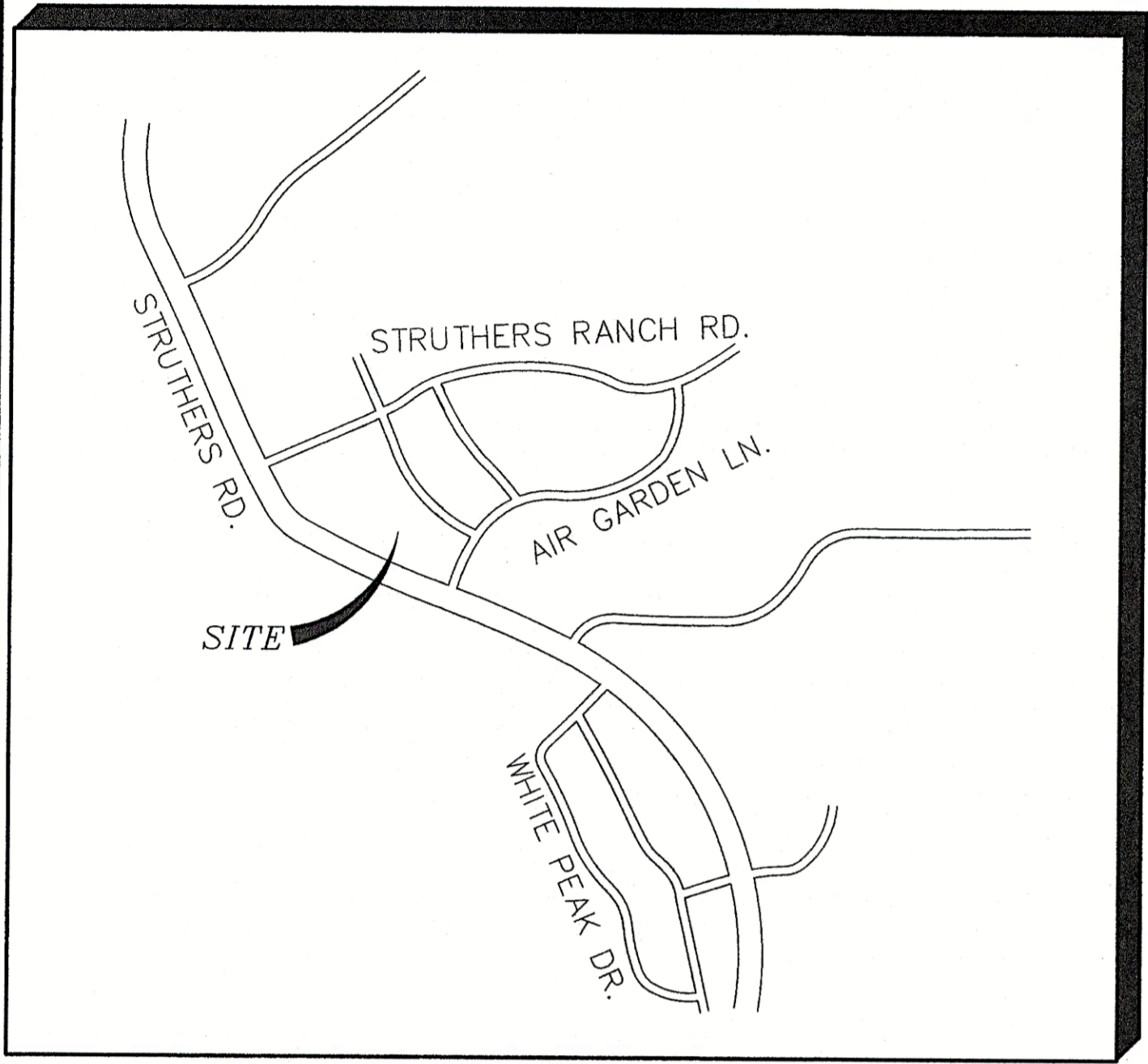
PREPARED FOR:
HAMMERS CONSTRUCTION
 1411 Woolsey Heights
 Colorado Springs, CO 80915



PREPARED BY:
 19 East Willamette Avenue
 Colorado Springs, Colorado 80903
 April, 2023

AGENCIES/CONTACTS

DEVELOPER:	HAMMERS CONSTRUCTION 1411 WOOLSEY HEIGHTS COLORADO SPRINGS, CO 80915 MR. RANDY MAXWELL (719) 570-1599	WATER/WASTEWATER:	DONALA WATER & SANITATION DISTRICT 15850 HOLBEIN DR. COLORADO SPRINGS, CO 80921 (719)488-3603
CIVIL ENGINEER:	JPS ENGINEERING, INC. 19 E. WILLAMETTE AVENUE COLORADO SPRINGS, CO 80903 MR. JOHN P. SCHWAB, P.E. (719)477-9429	GAS DEPARTMENT:	BLACK HILLS ENERGY MR. SEBASTIAN SCHWENDER (719)399-3176
LOCAL ROADS & DRAINAGE:	EL PASO COUNTY PCD 2880 INTERNATIONAL CIRCLE COLORADO SPRINGS, CO 80910 (719)520-6300	ELECTRIC DEPARTMENT:	MOUNTAIN VIEW ELECTRIC ASSOCIATION 11140 E. WOODMEN ROAD COLORADO SPRINGS, CO 80908 MR. DAVE WALDNER (719)495-2283
		TELEPHONE COMPANY:	CENTURY LINK COMMUNICATIONS (LOCATORS) (800)922-1987 A.T. & T. (LOCATORS) (719)635-3674



BENCHMARK
 SOUTHWEST OF SOUTHERLY CORNER
 ELEV. 6707.46'(NAVD-1988)

ENGINEERING RECORD DRAWINGS

GEC PLAN SHEET INDEX

C1.0	GEC PLAN TITLE SHEET
G2	GENERAL NOTES & LEGEND
C1.1	SITE GRADING & EROSION CONTROL PLAN
C3.1	DETENTION POND PLAN & DETAILS
C4.1	CIVIL & EROSION CONTROL DETAILS
C4.2	EROSION CONTROL NOTES & DETAILS
C5.1	STRUTHERS ROAD LINE OF SIGHT EXHIBIT

EPC STORMWATER REVIEW COMMENTS
 IN ORANGE BOXES WITH BLACK TEXT

Reviewed by:
Glenn Reese, P.E.
 Stormwater Engineer II
 GlennReese@ElPasoCo.com
 719-675-2654

ENGINEER:

DESIGN ENGINEER'S STATEMENT:

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

John P. Schwab 4/17/23
 JOHN P. SCHWAB, P.E. #29891 DATE

OWNER/DEVELOPER'S STATEMENT:

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

Glenn Reese 4-12-23
 OWNER SIGNATURE DATE

NAME: HAMMERS CONSTRUCTION
 ADDRESS: 1411 WOOLSEY HEIGHTS
 COLORADO SPRINGS, CO 80915
 PHONE: (719) 570-1599 EMAIL: rmaxwell@hammersconstruction.com

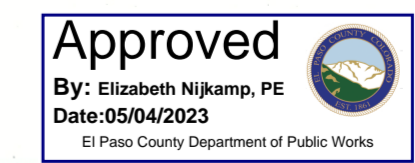
EL PASO COUNTY:

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

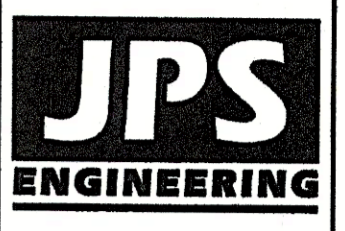
FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

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

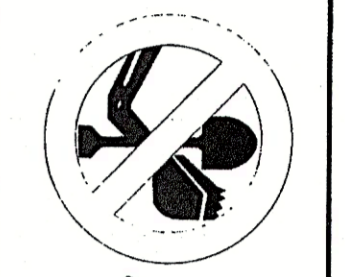
JOSHUA PALMER, P.E.,
 COUNTY ENGINEER / ECM ADMINISTRATOR



STRUTHERS RANCH POLARIS
 LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4



19 E. Willamette Ave.
 Colorado Springs, CO 80903
 PH: 719-477-9429
 FAX: 719-471-0766
 www.jpseng.com



CALL UTILITY NOTIFICATION CENTER OF COLORADO
 1-800-922-1987
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE THE MARKING OF UNDERGROUND MEMBER UTILITIES.

NO.	REVISION	BY	DATE
1	EPC SUBMITTAL		08/10/22
2	EPC COMMENTS		10/21/22
3	EPC COMMENTS		03/28/23
4	EPC COMMENTS		04/07/23

GEC PLAN
 TITLE SHEET

HORIZ. SCALE:	N/A	DRAWN:	PV
VERT. SCALE:	N/A	DESIGNED:	JPS
SURVEYED:	COMPASS	CHECKED:	JPS
CREATED:	05/27/20	LAST MODIFIED:	04/07/23
PROJECT NO:	032203	MODIFIED BY:	PV
SHEET:	C1.0		

PCD FILE NO. PPR2248

ENGINEERING RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL, THE EXACT LOCATION, TYPE OF COMPONENT, NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS. REFER TO ORIGINAL DRAWINGS FOR SIGNATURES AND SEALS.

John P. Schwab Date: 4/18/24

JOHN P. SCHWAB, PE# 29891
FOR AND ON BEHALF OF JPS ENGINEERING, INC.

COUNTY GENERAL 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 LOCATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- 3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
 - A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - C. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - D. CDOT M & S STANDARDS
- 4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- 5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- 6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- 7. IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- 8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- 9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP WITH CLASS B BEDDING UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
- 10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- 11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- 12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
- 13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DPW (DEPT. OF PUBLIC WORKS) AND MUTCD CRITERIA.
- 14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, 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.

GENERAL DRAINAGE NOTES:

- 1. INDIVIDUAL BUILDERS SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND ACCOUNT FOR POTENTIAL CROSS-LOT DRAINAGE IMPACTS WITHIN EACH LOT.
- 2. BUILDERS AND PROPERTY OWNERS SHALL IMPLEMENT & MAINTAIN EROSION CONTROL BEST MANAGEMENT PRACTICES FOR PROTECTION OF DOWNSTREAM PROPERTIES AND FACILITIES INCLUDING PROTECTION OF EXISTING GRASS BUFFER STRIPS ALONG THE DOWNSTREAM PROPERTY BOUNDARIES.
- 3. GRADING AND DRAINAGE WITHIN LOTS IS THE RESPONSIBILITY OF THE INDIVIDUAL BUILDERS AND PROPERTY OWNERS.

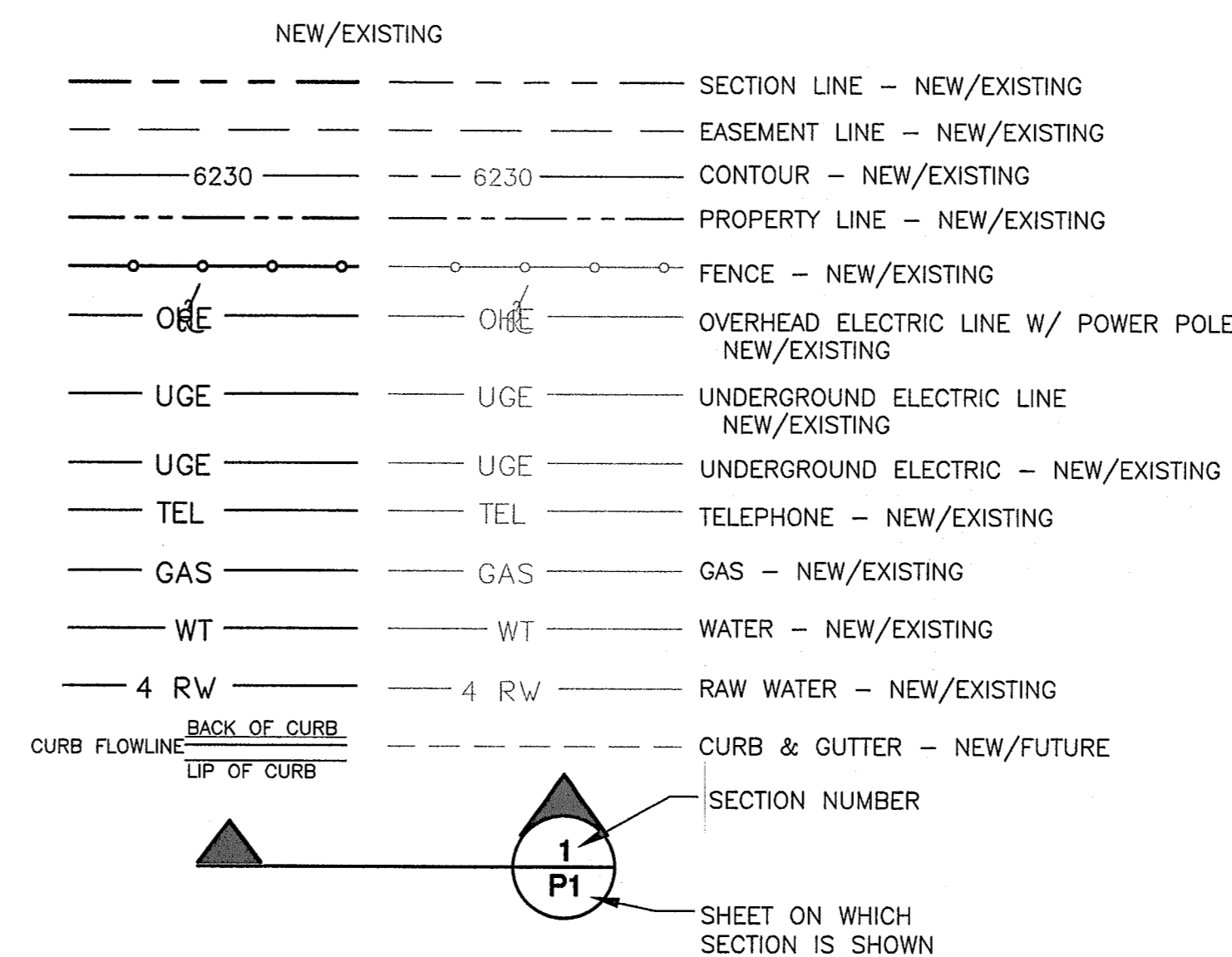
COUNTY SIGNING AND STRIPING NOTES:

- 1. ALL SIGNS AND PAVEMENT MARKINGS 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.
- 4. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING 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 8" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS".
- 8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
- 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 0.100" 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. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
- 12. ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL 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.
- 13. THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
- 14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

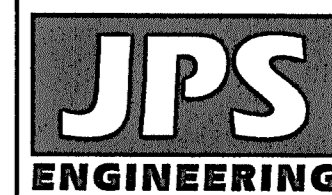
PROJECT GENERAL NOTES:

- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD LOCATION 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 ACTUAL CONSTRUCTION.
- 2. EXISTING CONTOUR DATA PROVIDED BY OWNER CONSISTS OF SITE SURVEY FROM COMPASS LAND SURVEYING. JPS ENGINEERING TAKES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING TOPOGRAPHIC MAPPING.
- 3. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THESE APPROVED PLANS AND ONE (1) COPY OF THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES:
 - A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL
 - B. CDOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION
 - C. DONALA WATER & SANITATION DISTRICT STANDARDS & SPECIFICATIONS
- 4. STORM DRAIN PIPE SHALL BE RCP CLASS III WITH CLASS C BEDDING UNLESS OTHERWISE NOTED. PROVIDE WATER-TIGHT JOINTS ON STORM SEWER PIPE.
- 5. STATIONING IS AT CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE FROM FACE OF CURB UNLESS OTHERWISE NOTED.
- 6. PROPOSED CONTOURS SHOWN ARE TO FINISHED GRADE.
- 7. LENGTHS SHOWN FOR STORM SEWER PIPES ARE TO CENTER OF MANHOLE.
- 8. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, DEBRIS, WASTE AND OTHER UNSUITABLE FILL MATERIAL FOUND WITHIN THE LIMITS OF EXCAVATION.
- 9. MATCH INTO EXISTING GRADES AT 3:1 MAX CUT AND FILL SLOPES.
- 10. REVEGETATION OF ALL DISTURBED AREAS SHALL BE DONE WITH SPECIFIED SEED MIX WITHIN 30 DAYS AFTER FINE GRADING IS COMPLETE.
- 11. EROSION CONTROL SHALL CONSIST OF SILT FENCE AND OTHER BMP'S AS SHOWN ON THE DRAWINGS, AND TOPSOIL WITH GRASS SEED, WHICH WILL BE WATERED UNTIL VEGETATION HAS BEEN REESTABLISHED.
- 12. THE EROSION CONTROL MEASURES OULINED ON THIS PLAN ARE THE RESPONSIBILITY OF THE DEVELOPER TO MONITOR AND REPLACE, REGRADE, AND REBUILD AS NECESSARY UNTIL VEGETATION IS REESTABLISHED.
- 13. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN A MANNER THAT WILL PROTECT ADJACENT PROPERTIES AND PUBLIC FACILITIES FROM THE ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF CONSTRUCTION AND EARTHWORK ACTIVITIES WITHIN THE PROJECT SITE.
- 14. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED BY SITE CONDITIONS.
- 15. THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR
- 16. PEDESTRIAN RAMPS SHALL BE INSTALLED AT ALL INTERSECTIONS AND CONFORM TO COUNTY ENGINEERING STANDARDS AND SPECIFICATIONS.
- 17. ALL FINISHED GRADES SHALL HAVE A MINIMUM 0.5% SLOPE TO PROVIDE POSITIVE DRAINAGE.
- 18. WHERE PROPOSED SLOPES CONFLICT WITH PROPOSED SPOT ELEVATIONS, SPOT ELEVATIONS SHALL GOVERN.
- 19. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO BEGINNING WORK.
- 20. ALL RESIDENTIAL STREET CURB RETURN RADII ARE 20- FEET AT FLOWLINE UNLESS OTHERWISE NOTED. ARTERIAL STREET CURB RETURN RADII ARE 35' UNLESS NOTED OTHERWISE.
- 21. 25-FOOT SIGHT VISIBILITY TRIANGLES SHALL BE PROVIDED AT ALL RESIDENTIAL STREET INTERSECTIONS. 50-FOOT SIGHT TRIANGLES SHALL BE PROVIDED AT ARTERIAL STREET INTERSECTIONS. NO OBSTRUCTIONS TALLER THAN 18" ARE PERMITTED WITHIN THESE TRIANGLES.
- 22. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY AND ALL UTILITIES INVOLVED IN PROJECT PRIOR TO MOBILIZING ON SITE.
- 23. TYPE C STORM INLETS SHALL HAVE CLOSE-MESH GRATES.
- 24. PROVIDE 10' TRANSITION FROM RAMP CURB TO VERTICAL CURB ON EACH SIDE OF STORM INLETS.
- 25. ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE MATERIAL SHALL BE COMPACTED PER EL PASO COUNTY AND CDOT STANDARDS AND SPECIFICATIONS AND PROJECT GEOTECHNICAL REPORT. CONTRACTOR SHALL STABILIZE ALL SUBGRADE AREAS PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.

LEGEND:



STRUTHERS RANCH POLARIS
LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4



19 E. Willamette Ave.
Colorado Springs, CO
80903
PH: 719-477-9429
FAX: 719-471-0766
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CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.

NO.	REVISION	BY	DATE

GENERAL NOTES AND LEGEND

HORZ. SCALE:	N/A	DRAWN:	PV
VERT. SCALE:	N/A	DESIGNED:	JPS
SURVEYED:	COMPASS	CHECKED:	JPS
CREATED:	05/27/20	LAST MODIFIED:	08/09/22
PROJECT NO.:	032203	MODIFIED BY:	PV
SHEET:	G2		



CONSTRUCTION CONTROL MEASURE PHASING:

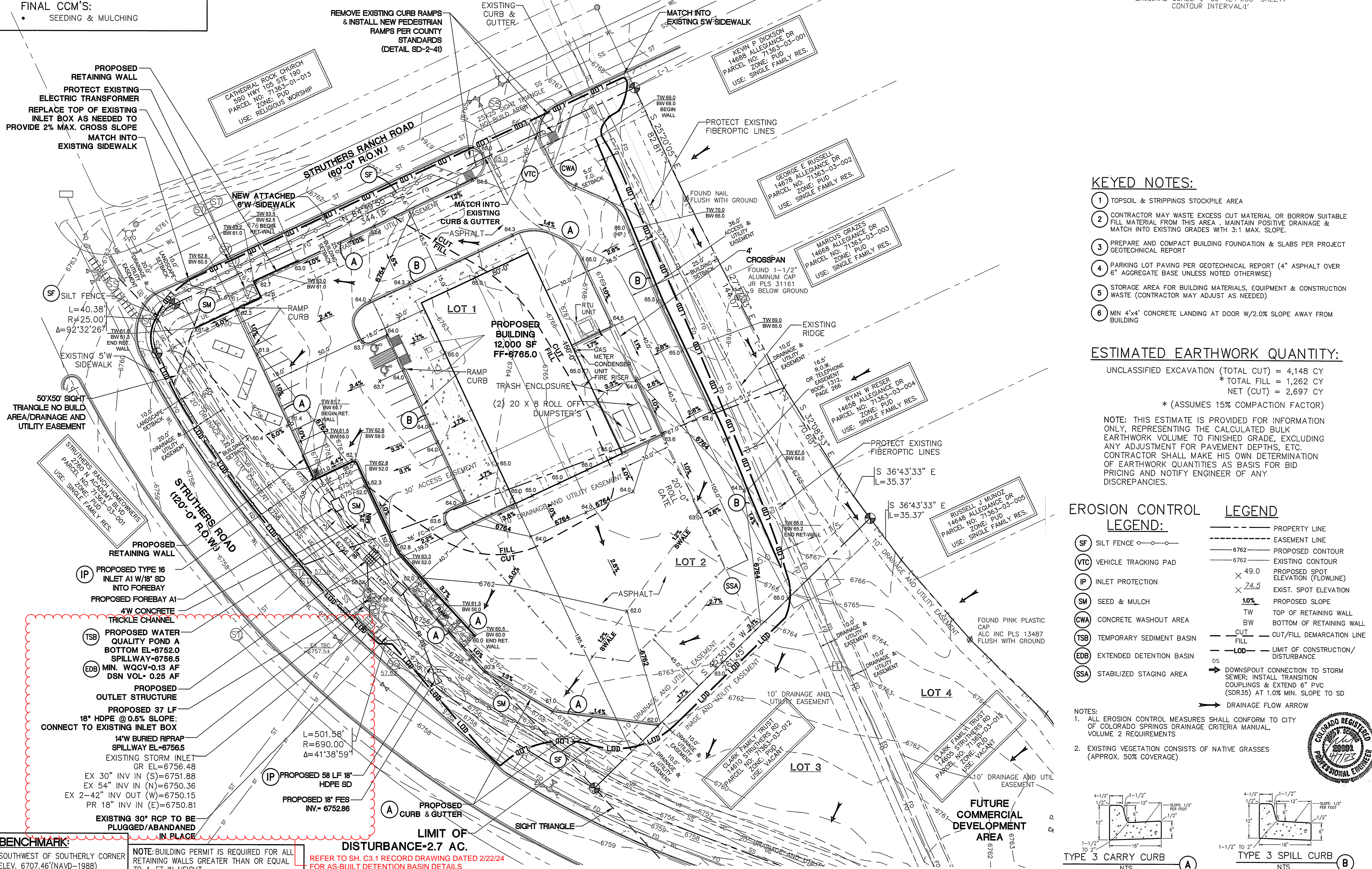
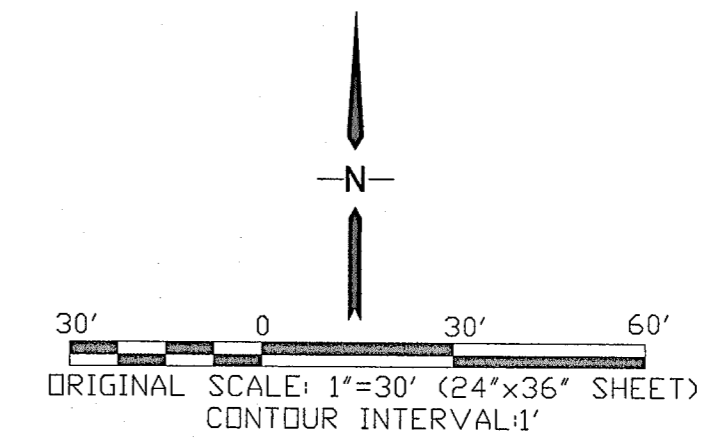
- INITIAL CCM'S:**
- VTC
 - SF ALONG DOWNSTREAM LIMITS
 - SEDIMENT BASIN
- INTERIM CCM'S:**
- INLET PROTECTION
 - TEMPORARY SEED & MULCH
- FINAL CCM'S:**
- SEEDING & MULCHING

ENGINEERING RECORD DRAWINGS

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John P. Schwab Date: 4/18/24
 JOHN P. SCHWAB, PE# 29891
 FOR AND ON BEHALF OF JPS ENGINEERING, INC.

ENGINEERING RECORD DRAWINGS



KEYED NOTES:

- 1 TOPSOIL & STRIPPINGS STOCKPILE AREA
- 2 CONTRACTOR MAY WASTE EXCESS CUT MATERIAL OR BORROW SUITABLE FILL MATERIAL FROM THIS AREA. MAINTAIN POSITIVE DRAINAGE & MATCH INTO EXISTING GRADES WITH 3:1 MAX. SLOPE.
- 3 PREPARE AND COMPACT BUILDING FOUNDATION & SLABS PER PROJECT GEOTECHNICAL REPORT
- 4 PARKING LOT PAVING PER GEOTECHNICAL REPORT (4" ASPHALT OVER 6" AGGREGATE BASE UNLESS NOTED OTHERWISE)
- 5 STORAGE AREA FOR BUILDING MATERIALS, EQUIPMENT & CONSTRUCTION WASTE (CONTRACTOR MAY ADJUST AS NEEDED)
- 6 MIN 4'x4' CONCRETE LANDING AT DOOR W/2.0% SLOPE AWAY FROM BUILDING

ESTIMATED EARTHWORK QUANTITY:

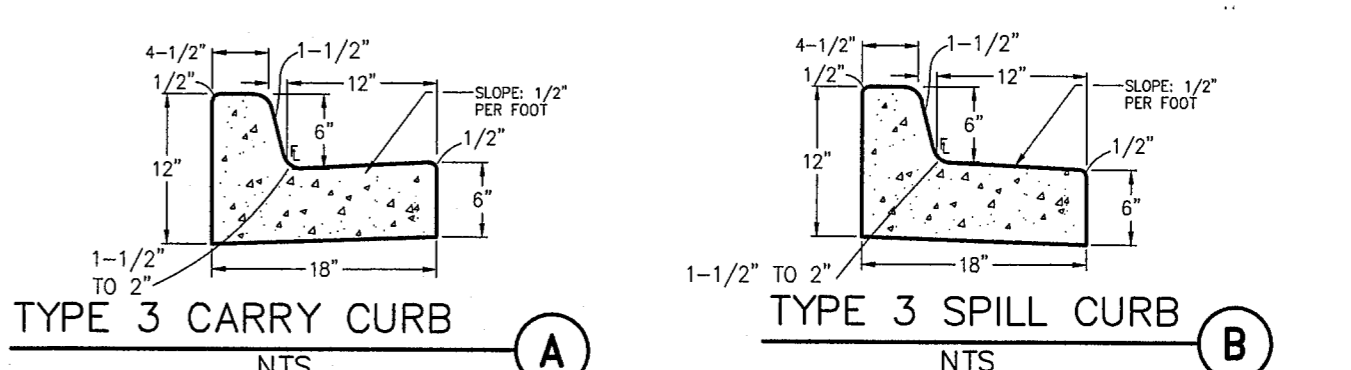
UNCLASSIFIED EXCAVATION (TOTAL CUT) = 4,148 CY
 * TOTAL FILL = 1,262 CY
 NET (CUT) = 2,897 CY
 *(ASSUMES 15% COMPACTION FACTOR)

NOTE: THIS ESTIMATE IS PROVIDED FOR INFORMATION ONLY, REPRESENTING THE CALCULATED BULK EARTHWORK VOLUME TO FINISHED GRADE, EXCLUDING ANY ADJUSTMENT FOR PAVEMENT DEPTHS, ETC. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES AS BASIS FOR BID PRICING AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

EROSION CONTROL LEGEND:

- (SF) SILT FENCE
 - (VTC) VEHICLE TRACKING PAD
 - (IP) INLET PROTECTION
 - (SM) SEED & MULCH
 - (CWA) CONCRETE WASHOUT AREA
 - (TSB) TEMPORARY SEDIMENT BASIN
 - (EDB) EXTENDED DETENTION BASIN
 - (SSA) STABILIZED STAGING AREA
- PROPERTY LINE
 - - - EASEMENT LINE
 - - - 6762 PROPOSED CONTOUR
 - - - 6762 EXISTING CONTOUR
 x 49.0 PROPOSED SPOT ELEVATION (FLOWLINE)
 x 74.5 EXIST. SPOT ELEVATION
 10% PROPOSED SLOPE
 TW TOP OF RETAINING WALL
 BW BOTTOM OF RETAINING WALL
 - - - CUT/FILL DEMARCATION LINE
 - - - L-00 LIMIT OF CONSTRUCTION/DISTURBANCE
 DS DOWNSPOUT CONNECTION TO STORM SEWER; INSTALL TRANSITION COUPLINGS & EXTEND 6" PVC (SDR35) AT 1.0% MIN. SLOPE TO SD
 → DRAINAGE FLOW ARROW

NOTES:
 1. ALL EROSION CONTROL MEASURES SHALL CONFORM TO CITY OF COLORADO SPRINGS DRAINAGE CRITERIA MANUAL, VOLUME 2 REQUIREMENTS
 2. EXISTING VEGETATION CONSISTS OF NATIVE GRASSES (APPROX. 50% COVERAGE)



**STRUTHERS RANCH POLARIS
 LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4**

**SITE GRADING AND
 EROSION CONTROL PLAN**

JPS ENGINEERING
 19 E. Willamette Ave.
 Colorado Springs, CO 80903
 PH: 719-477-9429
 FAX: 719-471-0766
 www.jpsegr.com

CALL UTILITY NOTIFICATION CENTER OF COLORADO
 1-800-922-1987
 CALL BEFORE YOU DIG. IN ADVANCE BEFORE YOU DIG. GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

No.	REVISION	BY	DATE
1	EPC SUBMITTAL		08/10/22
2	EPC COMMENTS		11/24/22
3	EPC COMMENTS		04/07/23

HORZ. SCALE: 1"=30'	DRAWN: PV
VERT. SCALE: N/A	DESIGNED: JPS
SURVEYED: COMPASS	CHECKED: JPS
CREATED: 05/27/20	LAST MODIFIED: 04/07/23
PROJECT NO: 032203	MODIFIED BY: PV
SHEET:	C1.1

BENCHMARK:
 SOUTHWEST OF SOUTHERLY CORNER
 ELEV. 6707.46'(NAVD-1988)

NOTE: BUILDING PERMIT IS REQUIRED FOR ALL RETAINING WALLS GREATER THAN OR EQUAL TO 4-FT IN HEIGHT
 REFER TO SH. C3.1 RECORD DRAWING DATED 2/22/24 FOR AS-BUILT DETENTION BASIN DETAILS

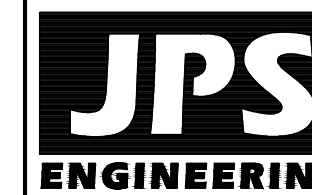
Please show the differences from design to as-built conditions in red text with red clouds/bubbles.

ENGINEERING RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL, THE EXACT LOCATION, TYPE OF COMPONENT, NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS. REFER TO ORIGINAL DRAWINGS FOR SIGNATURES AND SEALS.

John P. Schwab Date: 4/18/24
 JOHN P. SCHWAB, PE# 29891
 FOR AND ON BEHALF OF JPS ENGINEERING, INC.

ENGINEERING RECORD DRAWINGS



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 www.jpseng.com



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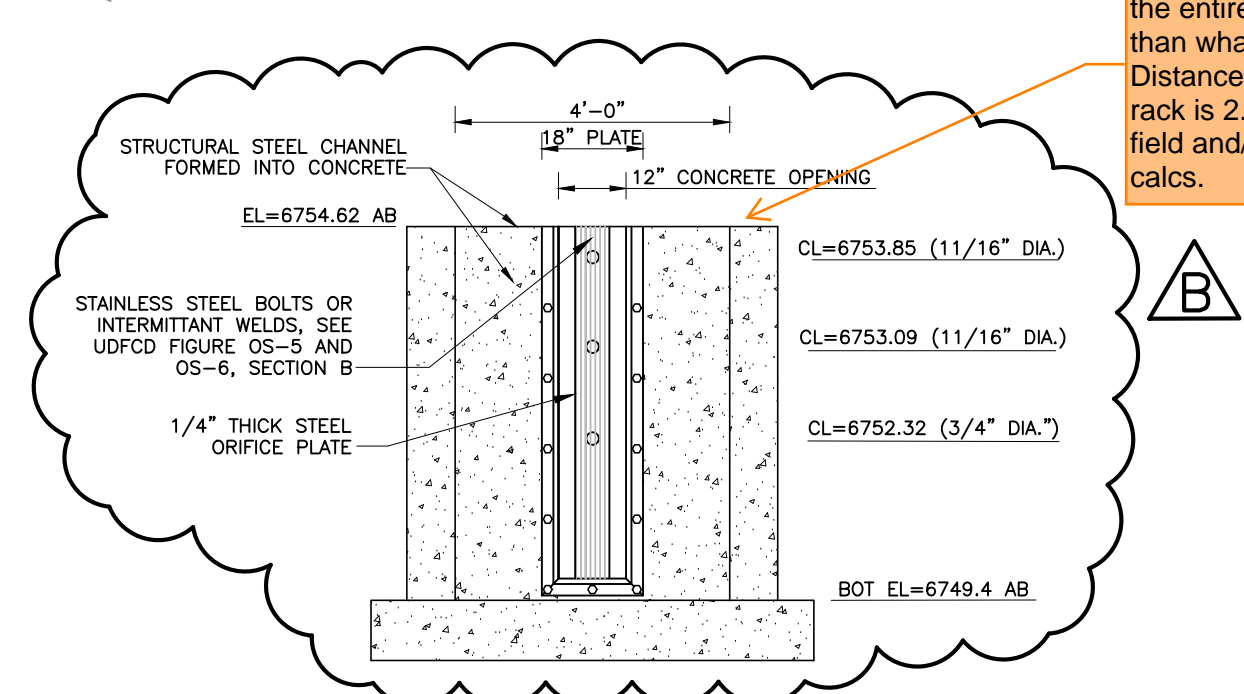
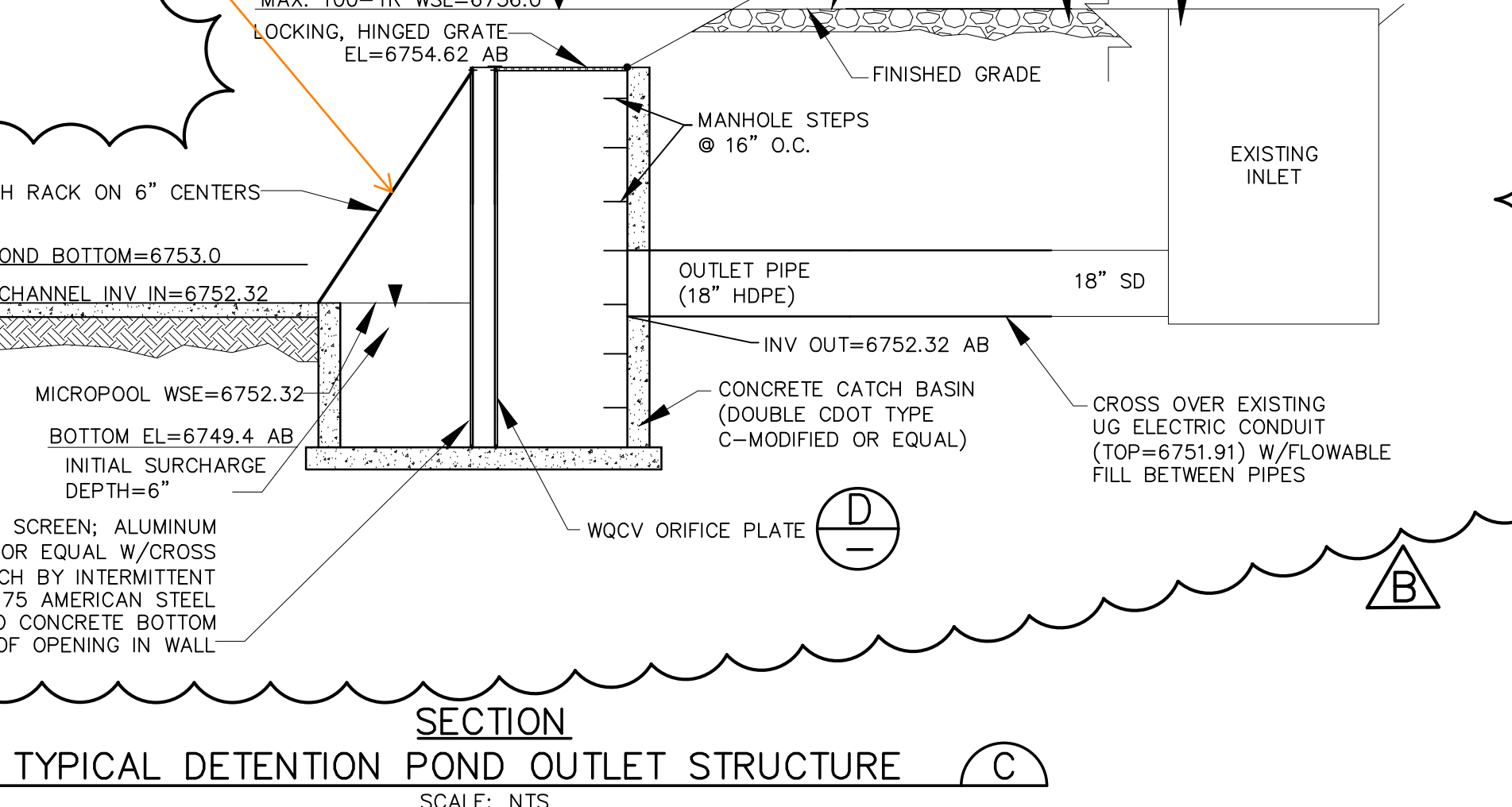
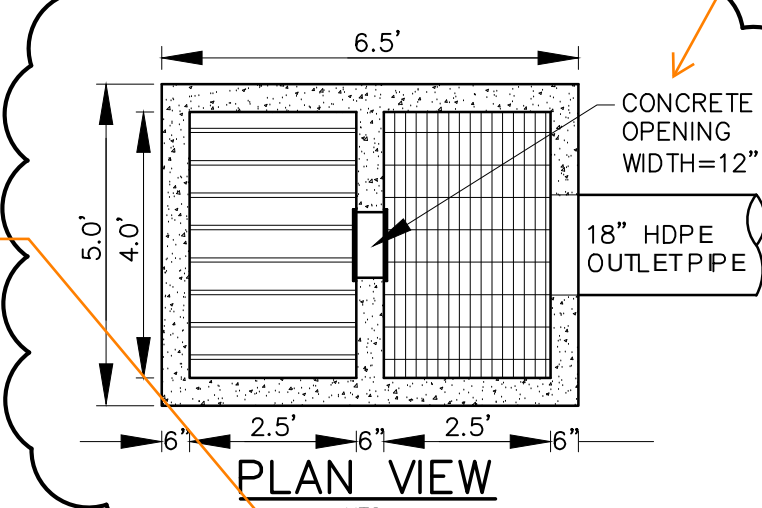
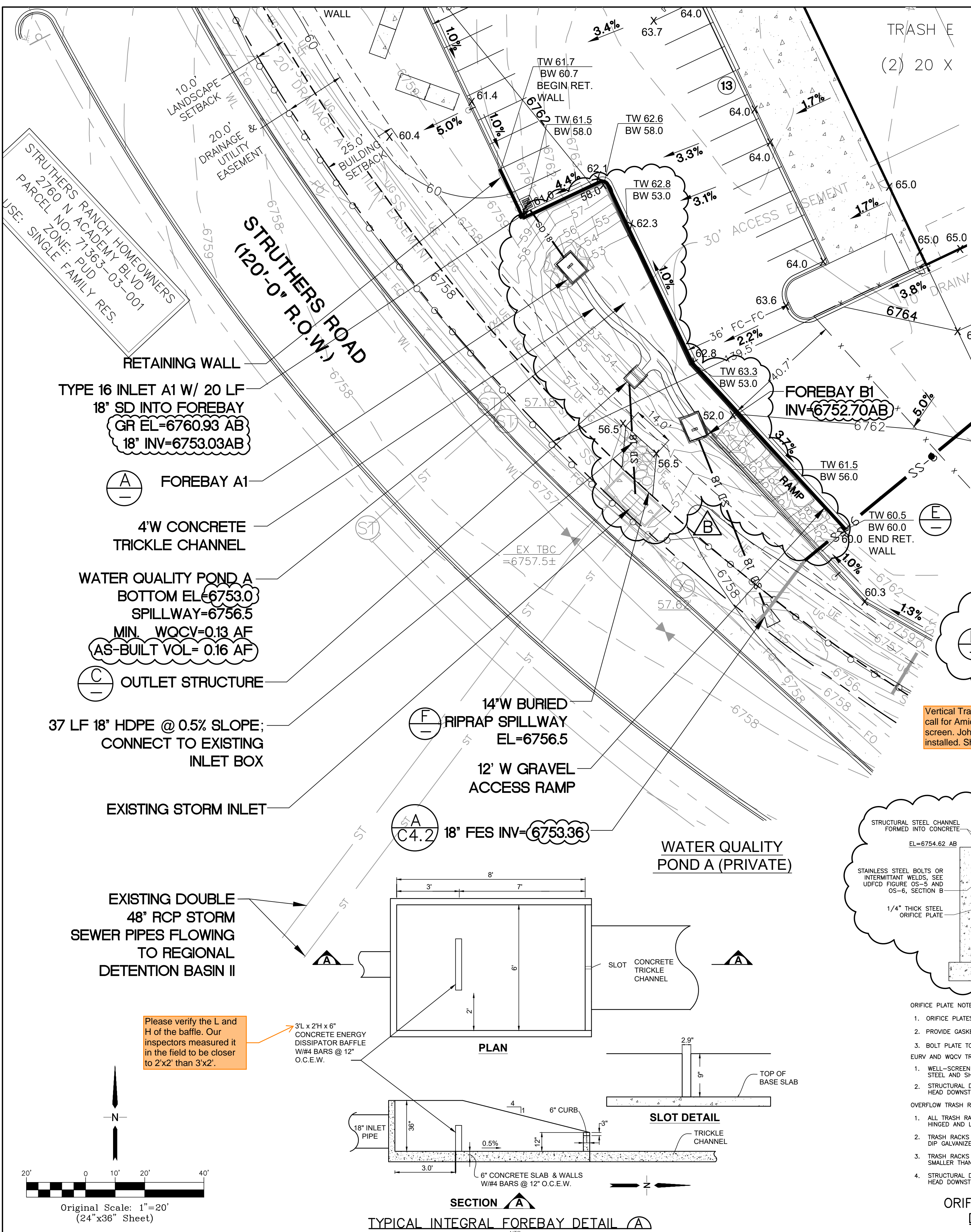
STRUTHERS RANCH POLARIS LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4

WATER QUALITY POND A PLAN & DETAILS

No.	REVISION	DATE	BY
1	ISSUE FOR CONSTRUCTION	04/07/23	
2	AS-BUILT (RAISE POND BOT 1.0')	02/22/24	

HORIZ. SCALE:	VERT. SCALE:	SURVEYED:	CREATED:	PROJECT NO.:	SHEET:	DRAWN:	DESIGNED:	CHECKED:	LAST MODIFIED:	MODIFIED BY:
1"=20'	N/A	COMPASS	05/27/20	032203		PV	JPS	JPS	02/22/24	PV

C3.1



- ORIFICE PLATE NOTES:**
- ORIFICE PLATES SHALL BE GALVANIZED STEEL OR STAINLESS STEEL.
 - PROVIDE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE.
 - BOLT PLATE TO CONCRETE 12" MAX. ON CENTER.
- EURV AND WQCV TRASH RACKS:**
- WELL-SCREEN TRASH RACKS (FOR CIRCULAR ORIFICES) SHALL BE STAINLESS STEEL OR GALVANIZED STEEL AND SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
 - STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.
- OVERFLOW TRASH RACKS:**
- ALL TRASH RACKS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED AND LOCKABLE OR BOLTABLE ACCESS PANELS.
 - TRASH RACKS SHALL BE STAINLESS STEEL, ALUMINUM, OR STEEL. STEEL TRASH RACKS SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
 - TRASH RACKS SHALL BE DESIGNED SUCH THAT THE DIAGONAL DIMENSION OF EACH OPENING IS SMALLER THAN THE DIAMETER OF THE OUTLET PIPE.
 - STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

Please verify this depth. Our inspectors noticed that this was shallower than 0.5' in the field, closer to 1'.

12" Concrete opening width is covered with Johnson Vee Wire with 1/2" gap. Show on as-builts.

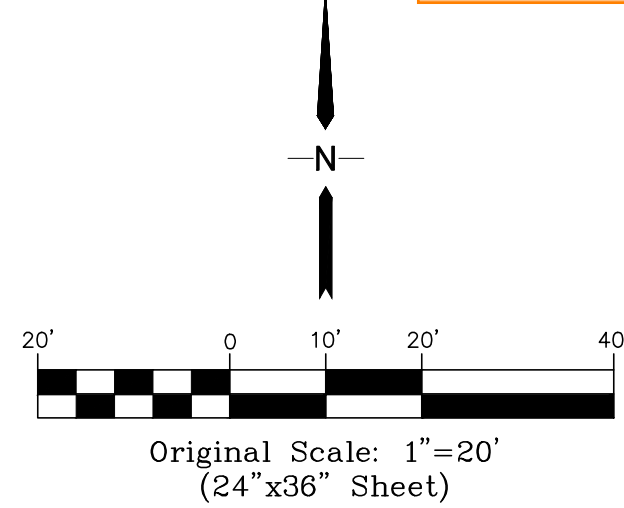
Outfall structure was measured as 3'9" tall in the field, as opposed to 6' on the plans. Install per approved plans or confirm with your project engineer that this change from the plans is acceptable and then reflect the change on the as-builts.

Vertical Trash Screen: Plans call for Amico-Klemp Bar screen. Johnson Vee Wire is installed. Show on as-builts.

Cannot see bottom two holes in the field. Access elevations. As mentioned above, the entire structure appears to be smaller than what is on the approved plans. Distance from outfall pipe invert to trash rack is 2.2'. Plans call for 3.5'. Revise in field and/or update on as-builts and MHD calcs.

Our inspectors saw river rock was installed in the field instead of gravel. Verify that this is acceptable (for driving and isnt erodible) and then update this detail accordingly.

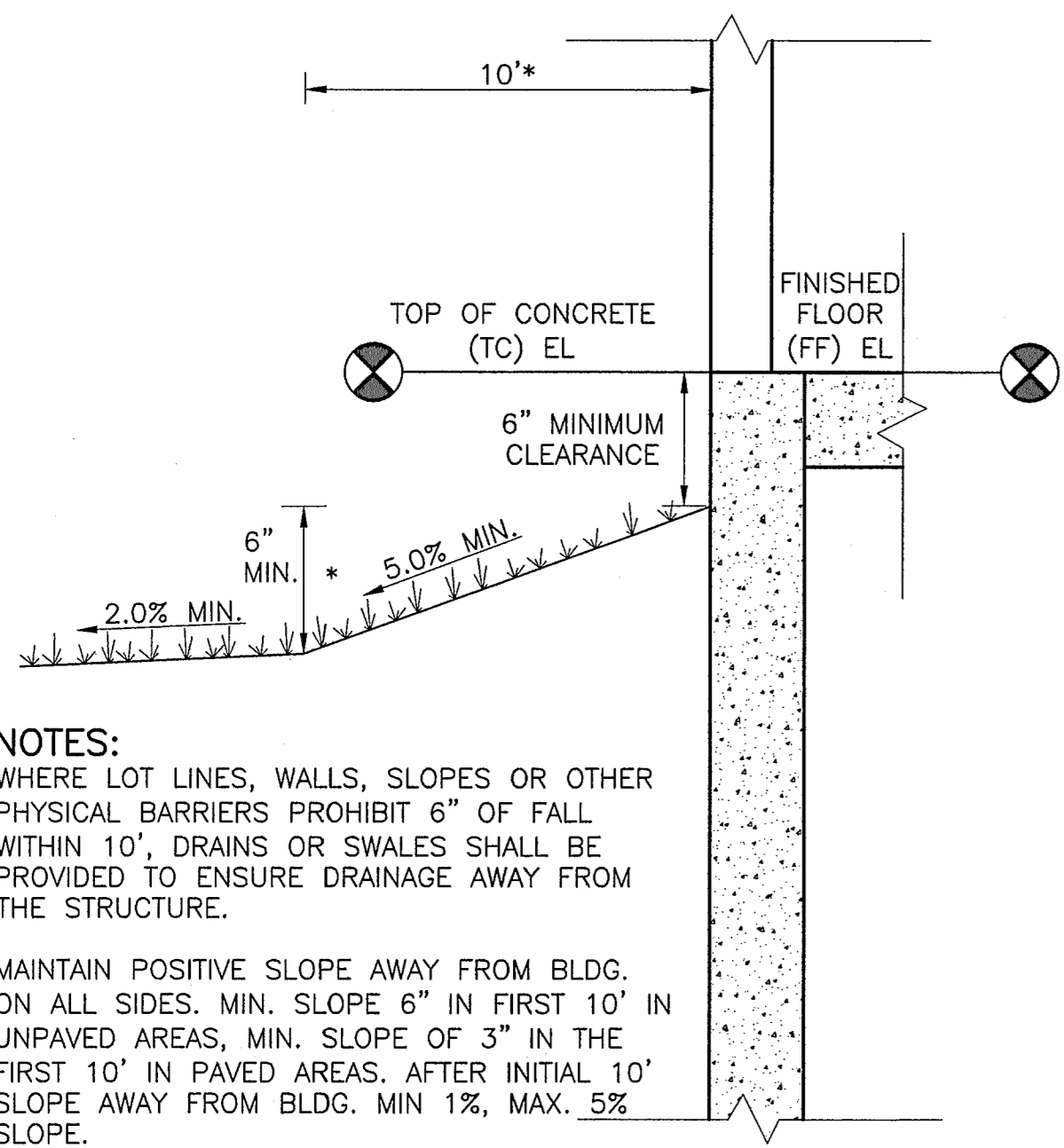
Please verify the L and H of the baffle. Our inspectors measured it in the field to be closer to 2x2' than 3x2'.



TYPICAL INTEGRAL FOREBAY DETAIL (A)

ORIFICE PLATE AND TRASH RACK DETAILS AND NOTES (D)

PROPOSED SPILLWAY DETAIL (F)

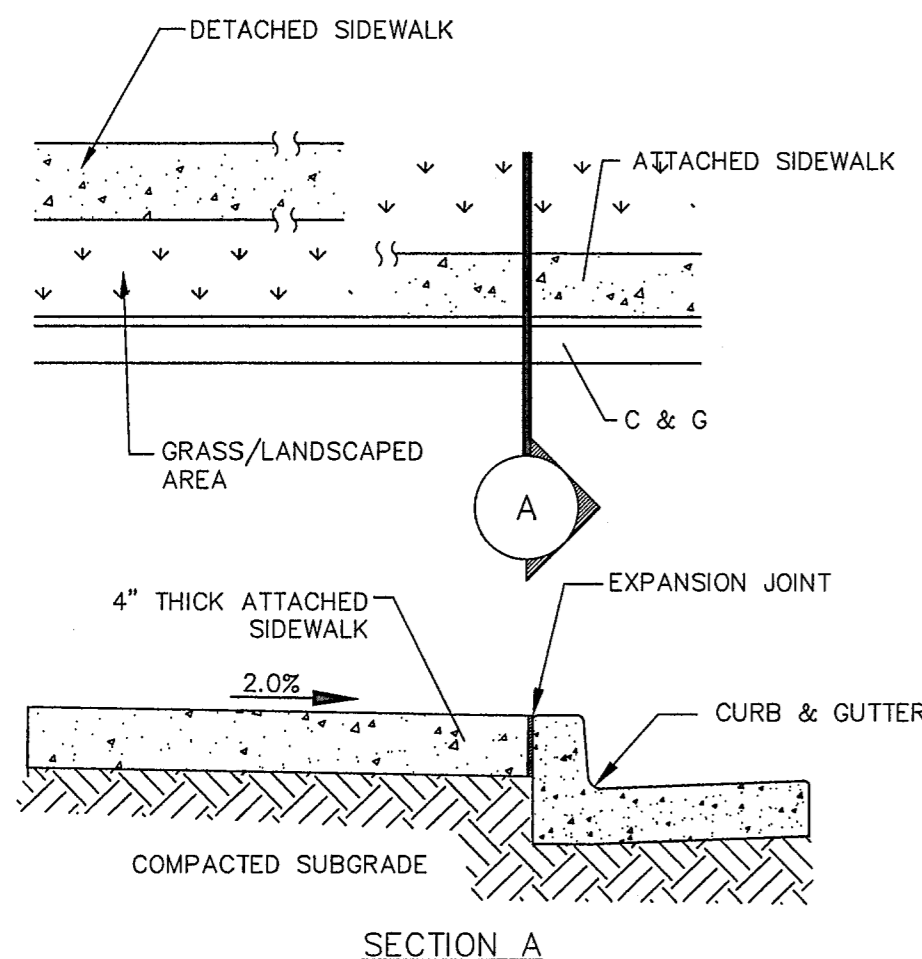


NOTES:
 * WHERE LOT LINES, WALLS, SLOPES OR OTHER PHYSICAL BARRIERS PROHIBIT 6" OF FALL WITHIN 10', DRAINS OR SWALES SHALL BE PROVIDED TO ENSURE DRAINAGE AWAY FROM THE STRUCTURE.

MAINTAIN POSITIVE SLOPE AWAY FROM BLDG. ON ALL SIDES. MIN. SLOPE 6" IN FIRST 10' IN UNPAVED AREAS, MIN. SLOPE OF 3" IN THE FIRST 10' IN PAVED AREAS. AFTER INITIAL 10' SLOPE AWAY FROM BLDG. MIN 1%, MAX. 5% SLOPE.

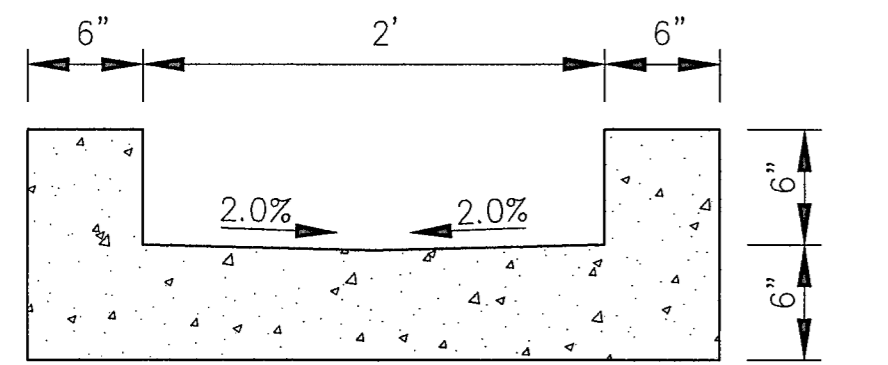
TYPICAL BUILDING DRAINAGE DETAIL (D)

SCALE: NTS



NOTE:
 1. SEE SITE PLAN FOR LOCATION & DIMENSIONS OF SIDEWALK (5' ATTACHED SIDEWALK UNLESS NOTED OTHERWISE).
 2. CONTRACTOR SHALL PROVIDE JOINTS PER CITY OF COLORADO SPRINGS STANDARD SPECIFICATIONS.

CONCRETE SIDEWALK DETAIL (B)
 N.T.S.

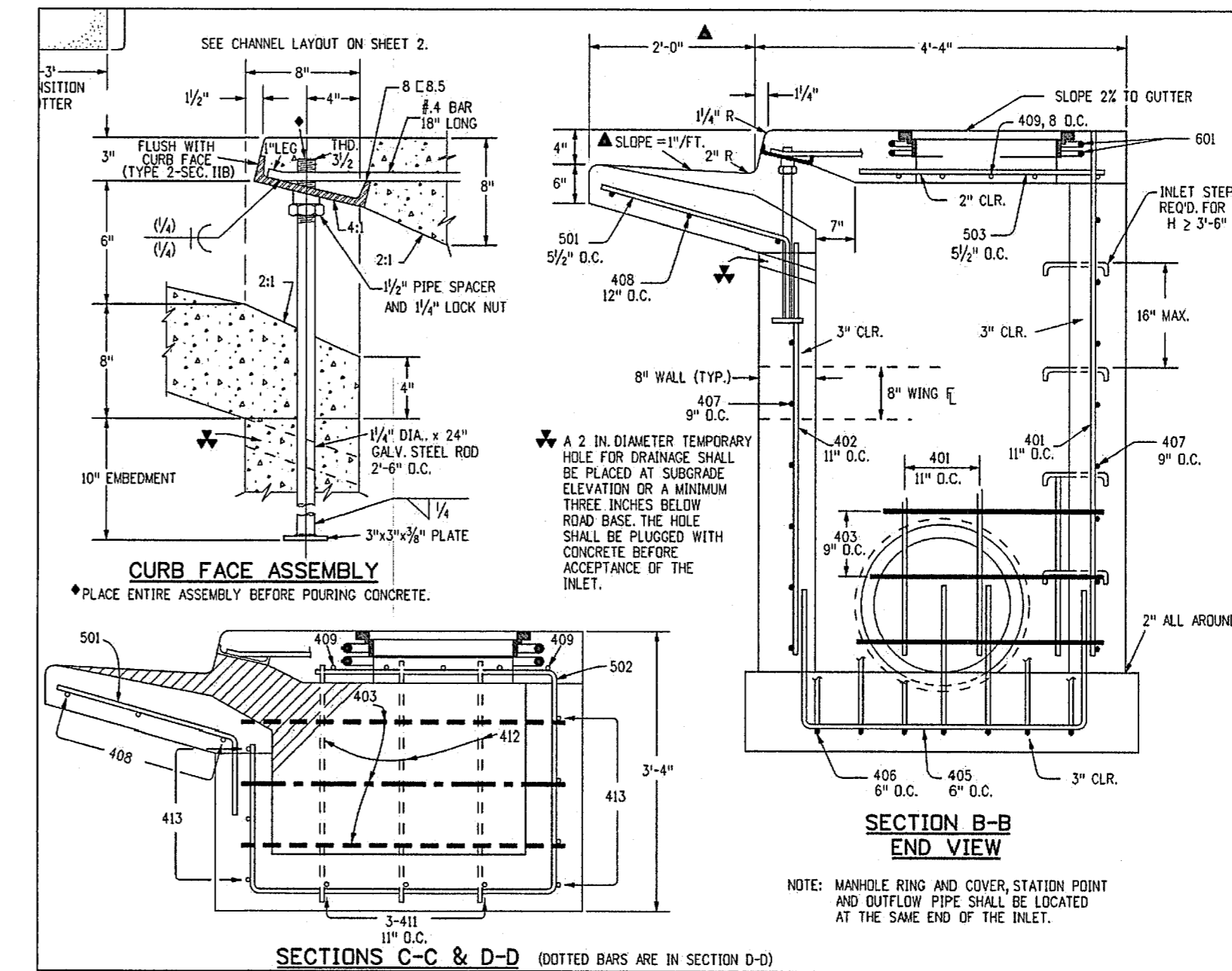
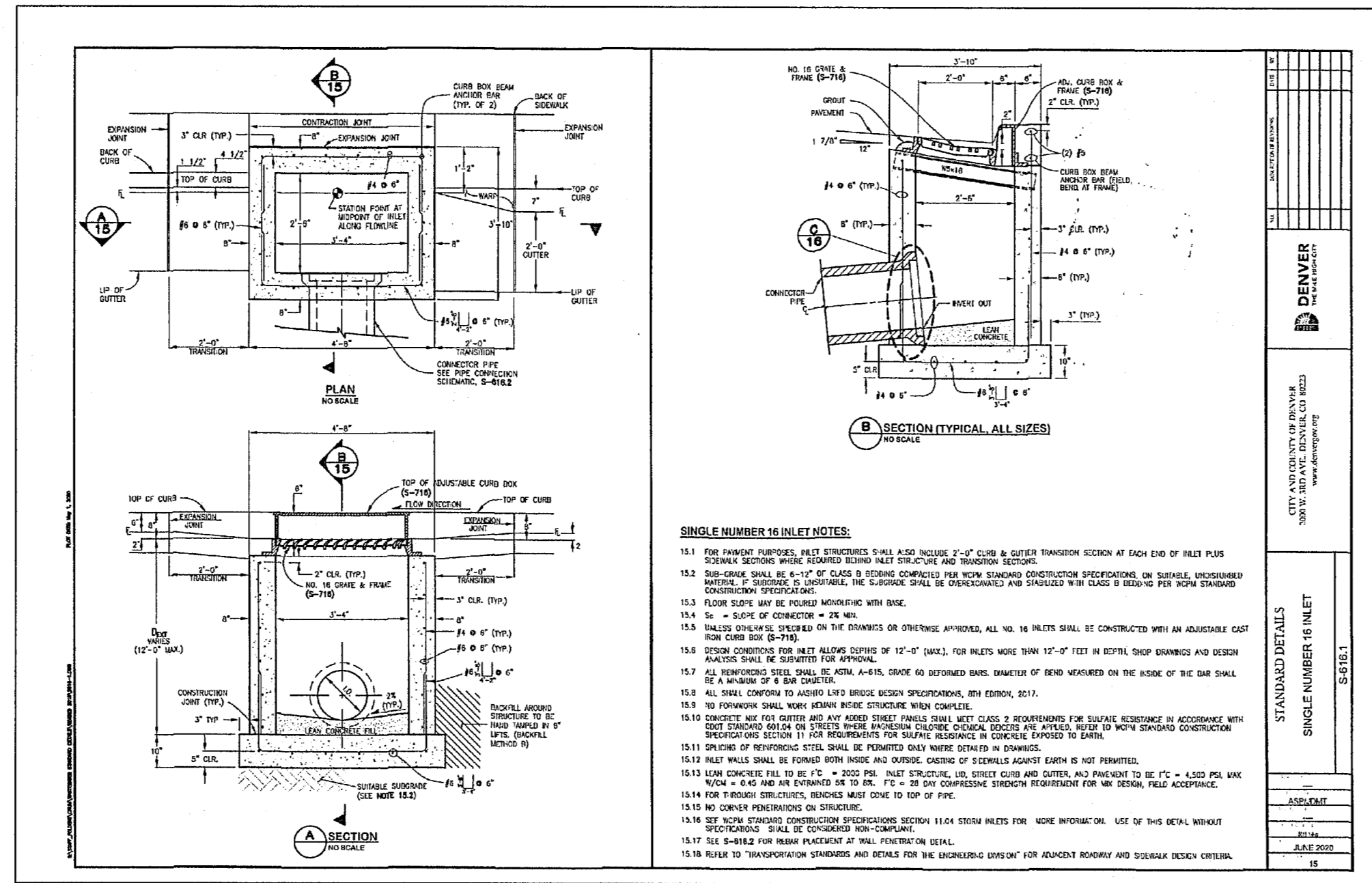


CURB CHASE SECTION (C)

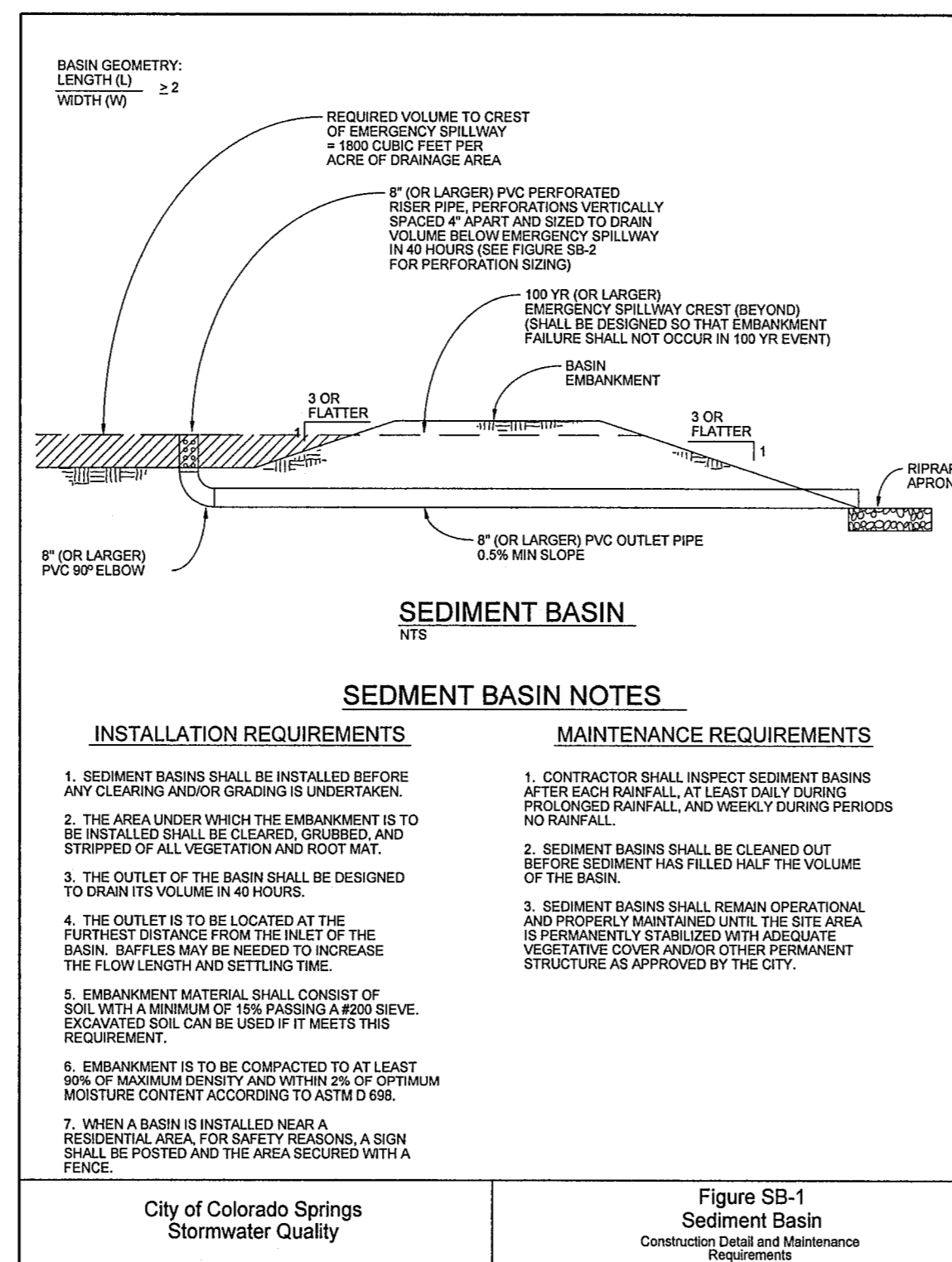
SCALE: 1" = 1' H&V

ENGINEERING RECORD DRAWINGS
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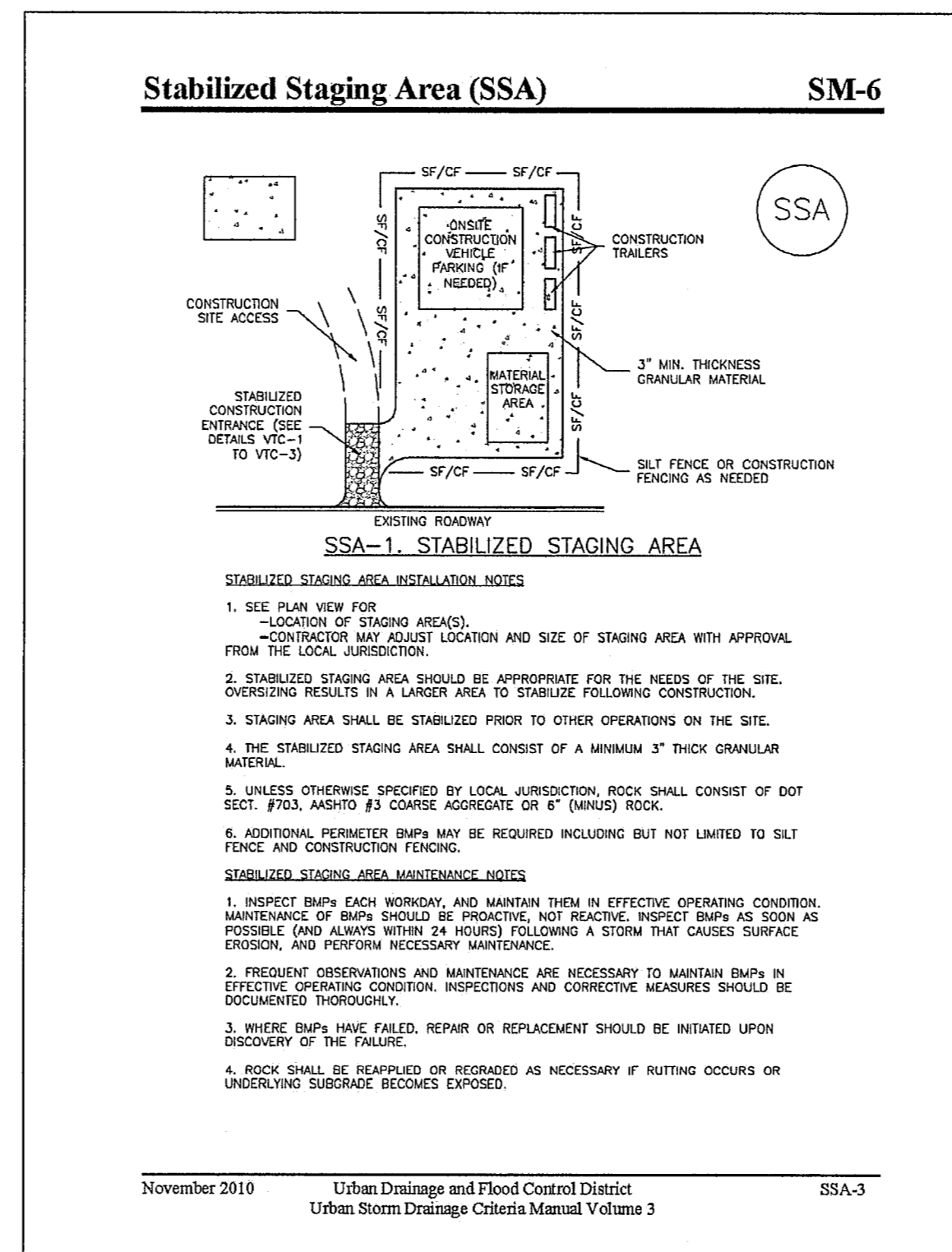
CDOT INLET TYPE R DETAIL



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, GROOMED, 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 FLOWLENGTH AND SETTLING TIME.
 5. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #20 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 STREET 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 OF 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 Details and Maintenance Requirements

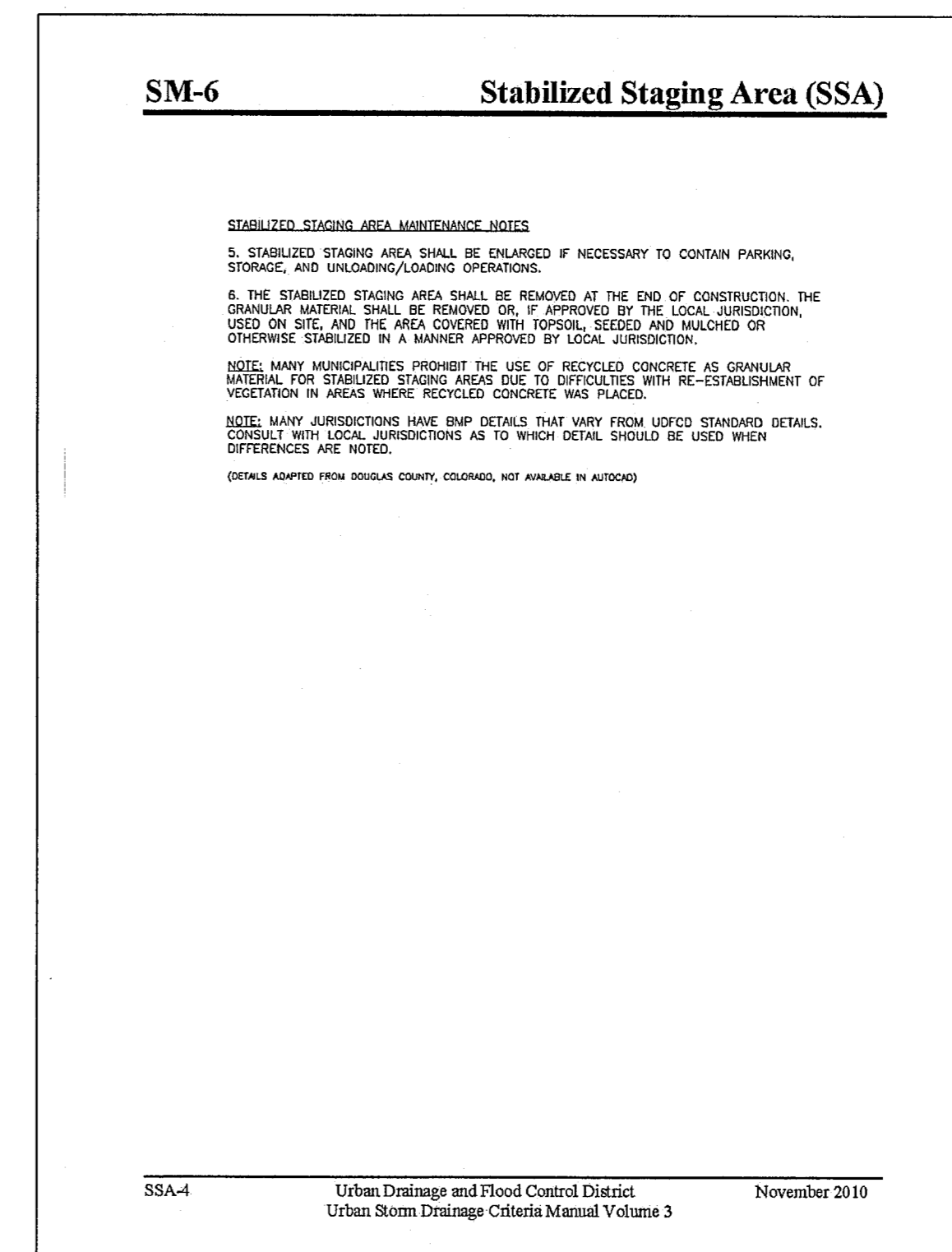


Stabilized Staging Area (SSA) SM-6

SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES
 1. SEE PLAN VIEW FOR LOCATION OF STAGING AREAS.
 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 8" (MINUS) ROCK.
 6. ADDITIONAL PERIMETER BUMPS MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT BARRIERS, STAGING AREA MAINTENANCE NOTES.
 7. INSPECT BUMPS EACH MORNING, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BUMPS SHOULD BE PREVENTIVE, NOT REACTIVE. INSPECT BUMPS AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 8. FREQUENT OPERATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BUMPS IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 9. WHERE BUMPS HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON RECOVERY OF THE FAILURE.
 10. ROCK SHALL BE REAPPLIED OR REPLACED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

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

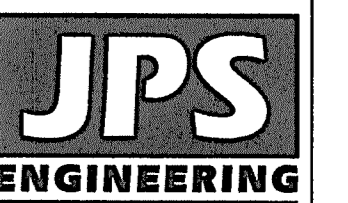


Stabilized Staging Area (SSA) SM-6

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, SEEDS, AND MULCH 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 USFC STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
 (DETAILS ADAPTED FROM BOULDER COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

STRUTHERS RANCH POLARIS
LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4



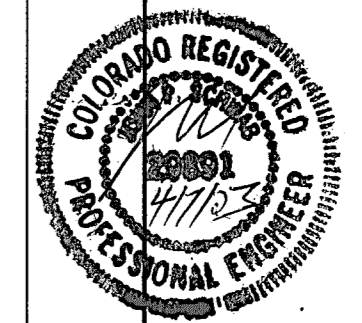
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NO.	REVISION	DATE

CIVIL & EROSION CONTROL DETAILS



HORZ. SCALE: N/A	DRAWN: PV
VERT. SCALE: N/A	DESIGNED: JPS
SURVEYED: COMPASS	CHECKED: JPS
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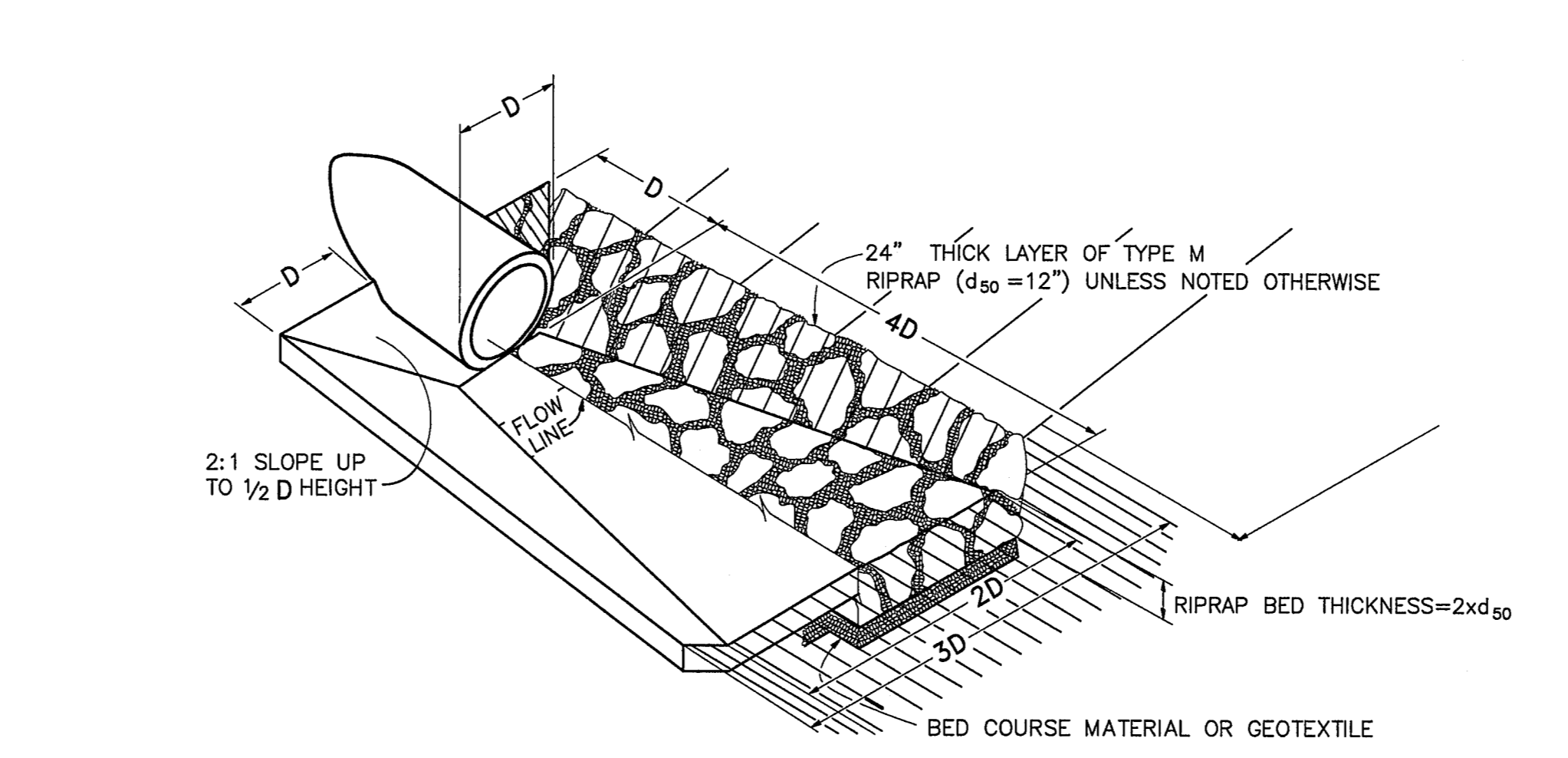
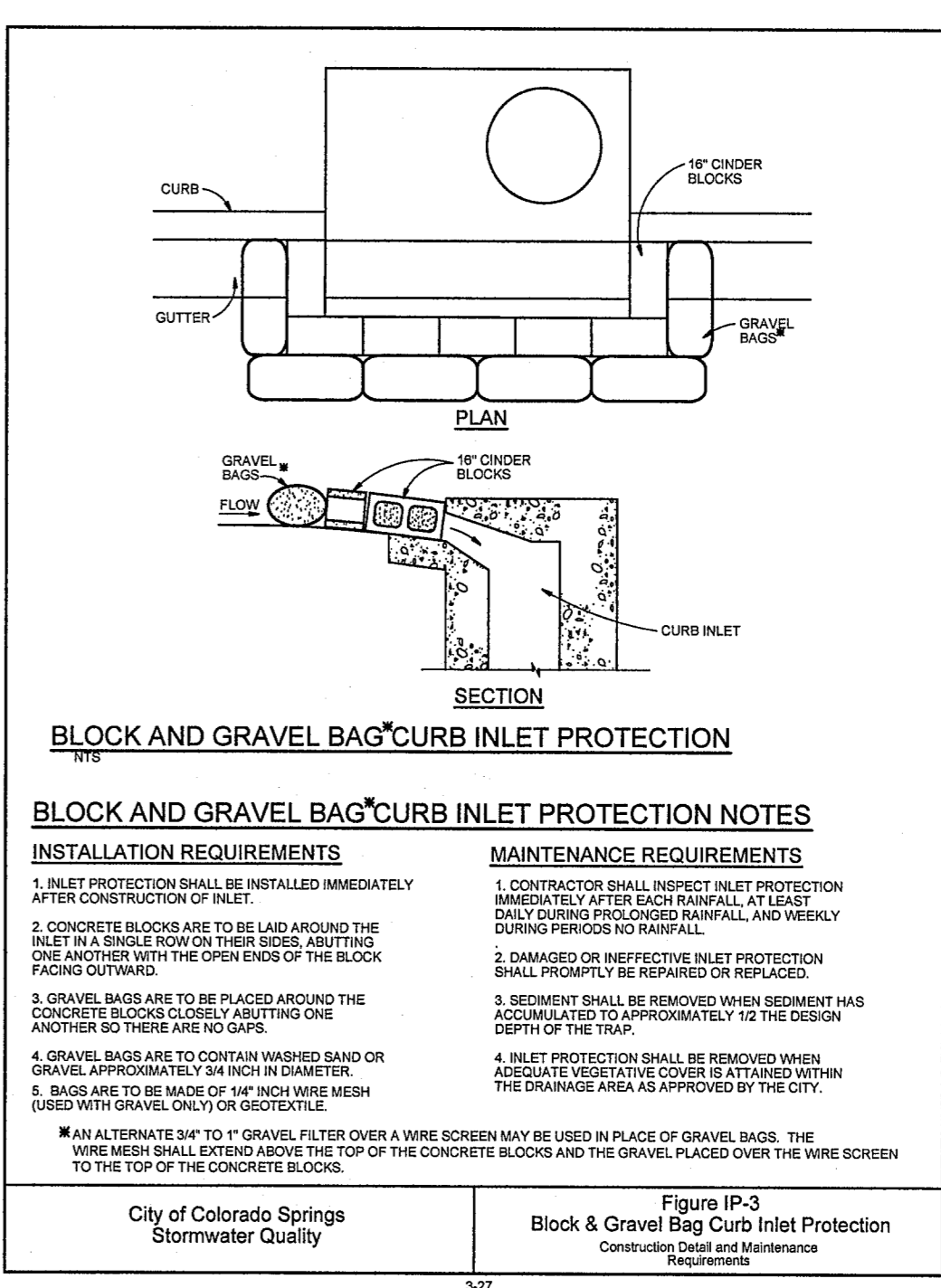
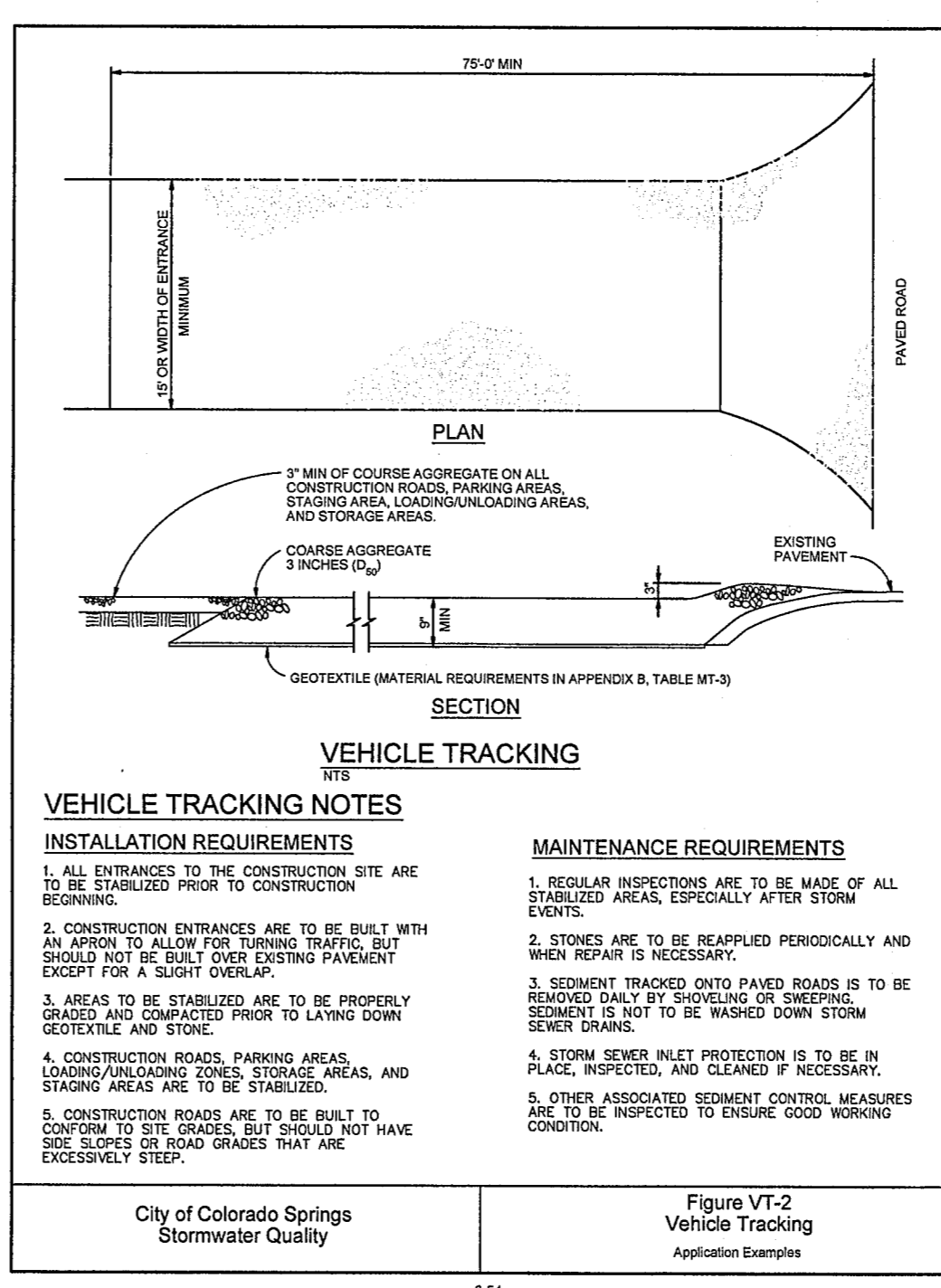
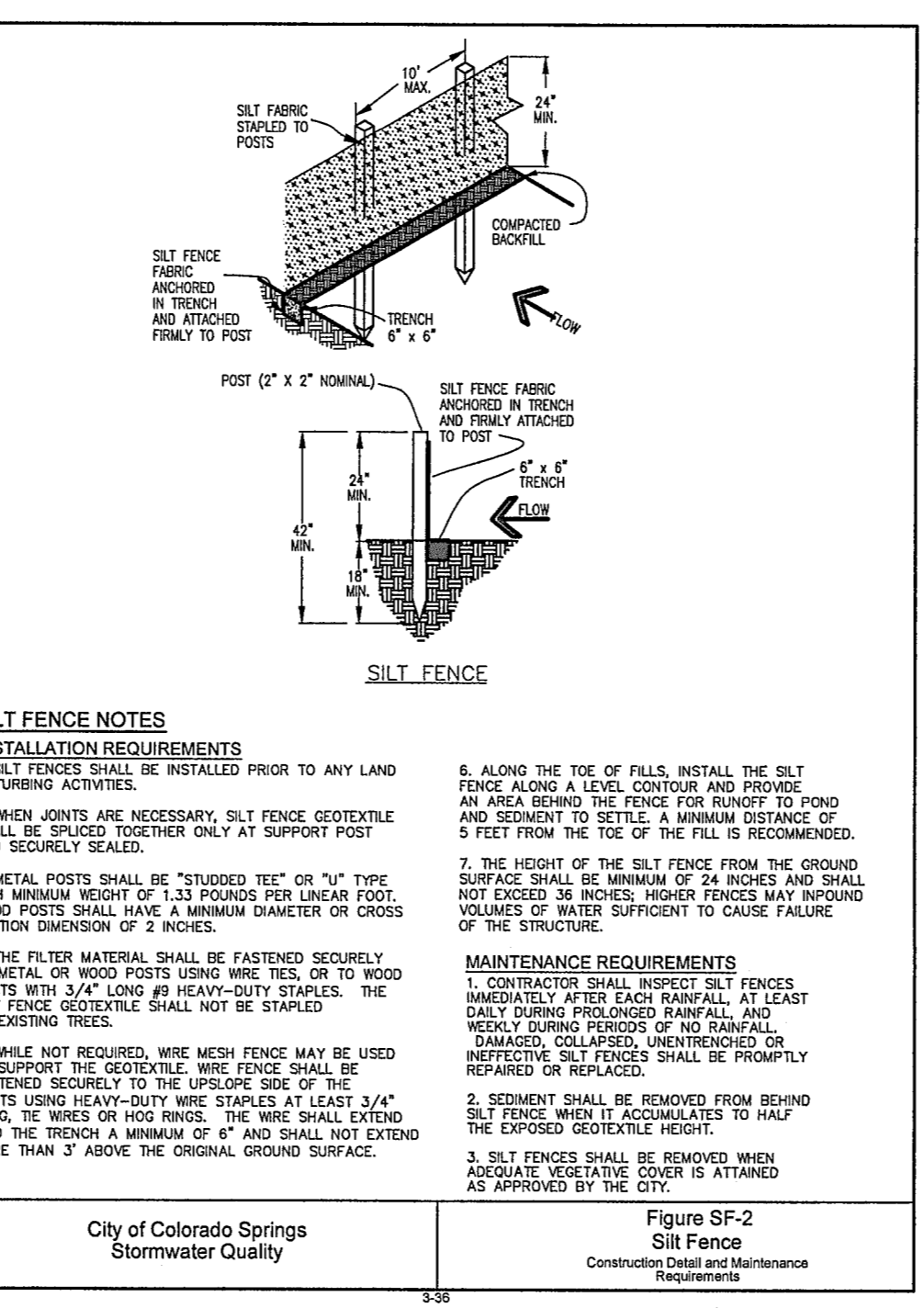
SHEET: **C4.1**

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

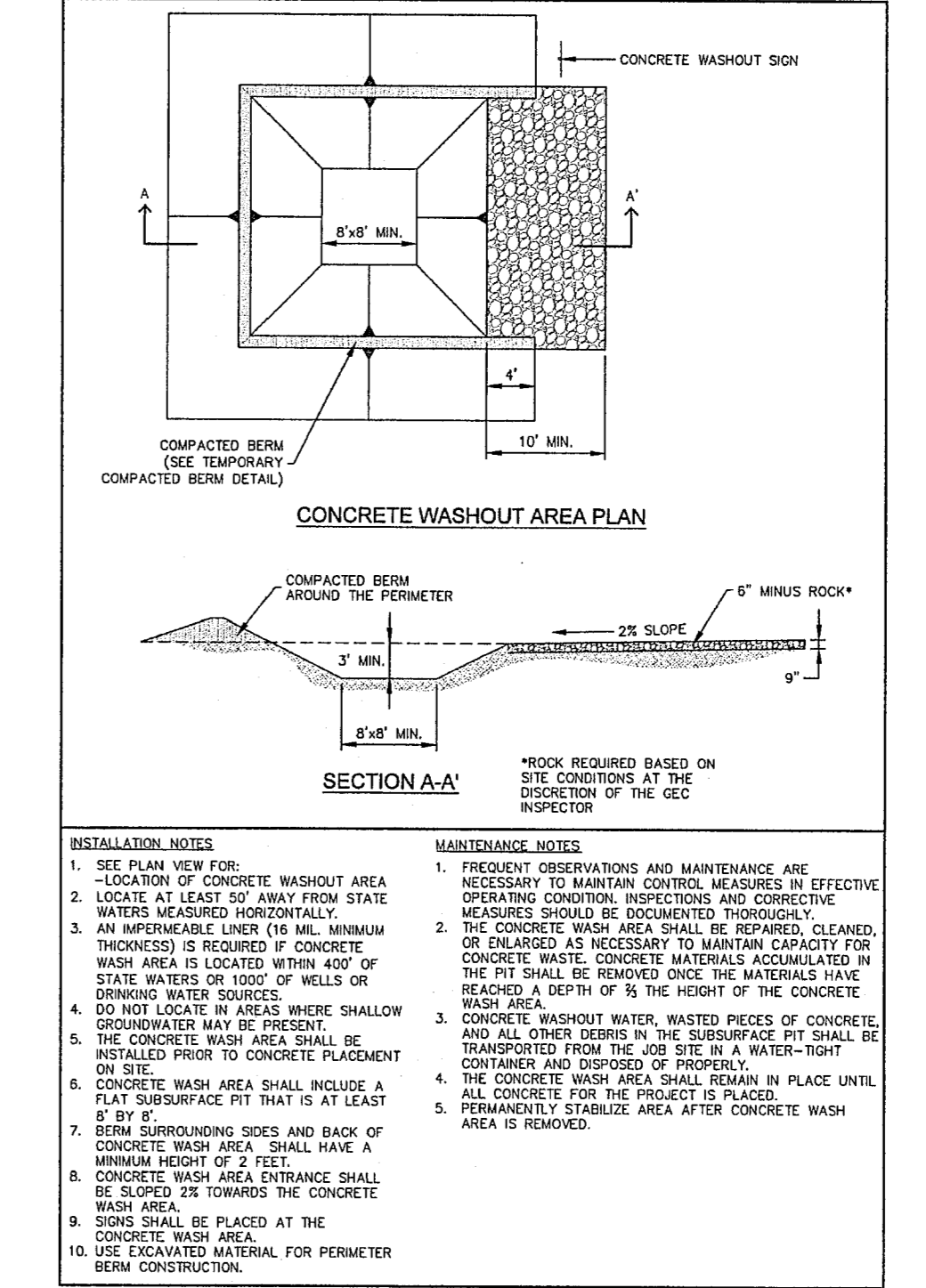
REVISED 7/02/19

- 1. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
2. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL. THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRE-CONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
5. CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY ANY CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE EGM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
13. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
17. WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
20. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE EGM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE AN ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE 'COLORADO WATER QUALITY CONTROL ACT' (TITLE 25, ARTICLE 8, CRS), AND THE 'CLEAN WATER ACT' (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE EGM APPENDIX I ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (I 041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
28. THE SOILS REPORT FOR THIS SITE SHALL BE CONSIDERED A PART OF THESE PLANS.
29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WOOD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

ENGINEERING RECORD DRAWINGS
THESE RECORD DRAWINGS HAVE BEEN PREPARED, IN PART, ON THE BASIS OF INFORMATION COMPILED BY OTHERS. THEY ARE NOT INTENDED TO REPRESENT IN DETAIL, THE EXACT LOCATION, TYPE OF COMPONENT, NOR MANNER OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS WHICH HAVE BEEN INCORPORATED INTO THE RECORD DRAWINGS. REFER TO ORIGINAL DRAWINGS FOR SIGNATURES AND SEALS.
John P. Schwab Date: 4/18/24
JOHN P. SCHWAB, PE# 29891
FOR AND ON BEHALF OF JPS ENGINEERING, INC.



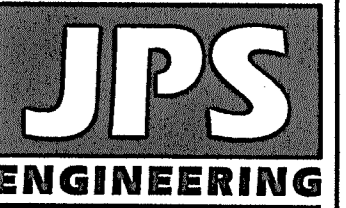
SEEDING MIX:
GRASS VARIETY AMOUNT IN PLS LBS. PER ACRE
CRESTED WHEAT GRASS EPHRAIM OR HYCREST 4.0 LBS.
PERENIAL RYE LINN 2.0 LBS.
WESTERN WHEATGRASS SARTON 3.0 LBS.
SMOOTH BROME GRASS LINCOLN OR MANCHAR 5.0 LBS.
SIDE OATS GRAMA EPHRAIM 2.5 LBS.
TOTAL: 16.5 LBS.
SEEDING & FERTILIZER APPLICATION: DRILL SEED OR HYDRO-SEED PER CDOT SPEC. SECTION 212.
MULCHING APPLICATION: CONFORM TO CDOT SPEC-SECTION 213.



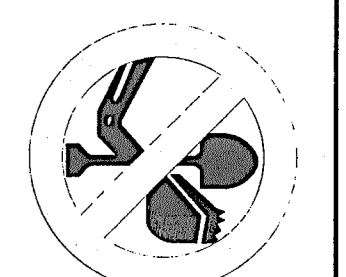
ESTIMATED TIME SCHEDULE:
INSTALL BMP'S APRIL, 2023
GRADING START APRIL, 2023
GRADING COMPLETION MAY, 2024
SEEDING & MULCHING MAY, 2024
STABILIZATION SEPTEMBER, 2025
SEDIMENT CONTROL MAINTENANCE PROGRAM:
PERIODIC SITE INSPECTIONS BI-WEEKLY
RE-VEGETATION OF EXPOSED SOILS WITHIN 21 DAYS OF GRADING
SEDIMENT REMOVAL FROM BMP'S MONTHLY
REMOVAL OF BMP'S AFTER STABILIZATION ACHIEVED

STRUTHERS RANCH POLARIS
LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4
EROSION CONTROL NOTES AND DETAILS

JPS ENGINEERING
19 E. Wilamette Ave. Colorado Springs, CO 80903
PH: 719-477-9429 FAX: 719-471-0766 www.jpsegr.com
CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.
HORZ. SCALE: NTS DRAWN: PV
VERT. SCALE: N/A DESIGNED: JPS
SURVEYED: COMPASS CHECKED: JPS
CREATED: 05/27/20 LAST MODIFIED: 04/08/23
PROJECT NO: 032203 MODIFIED BY: PV
SHEET: C4.2
EPC 5/4/2023



19 E. Willamette Ave.
 Colorado Springs, CO
 80903
 PH: 719-477-9429
 FAX: 719-471-0766
 www.jpsegr.com



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 MEMBER UTILITIES.

No.	REVISION	BY	DATE

STRUTHERS RANCH POLARIS
LOTS 1-2, STRUTHERS RANCH SUBDIVISION FILING NO. 4

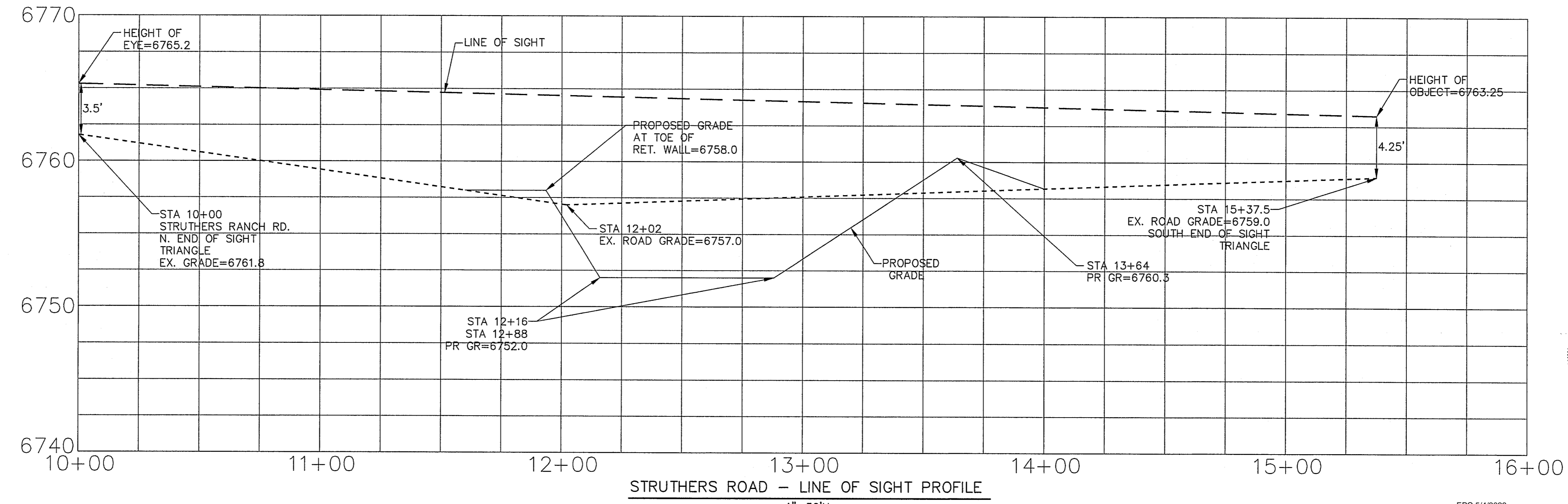
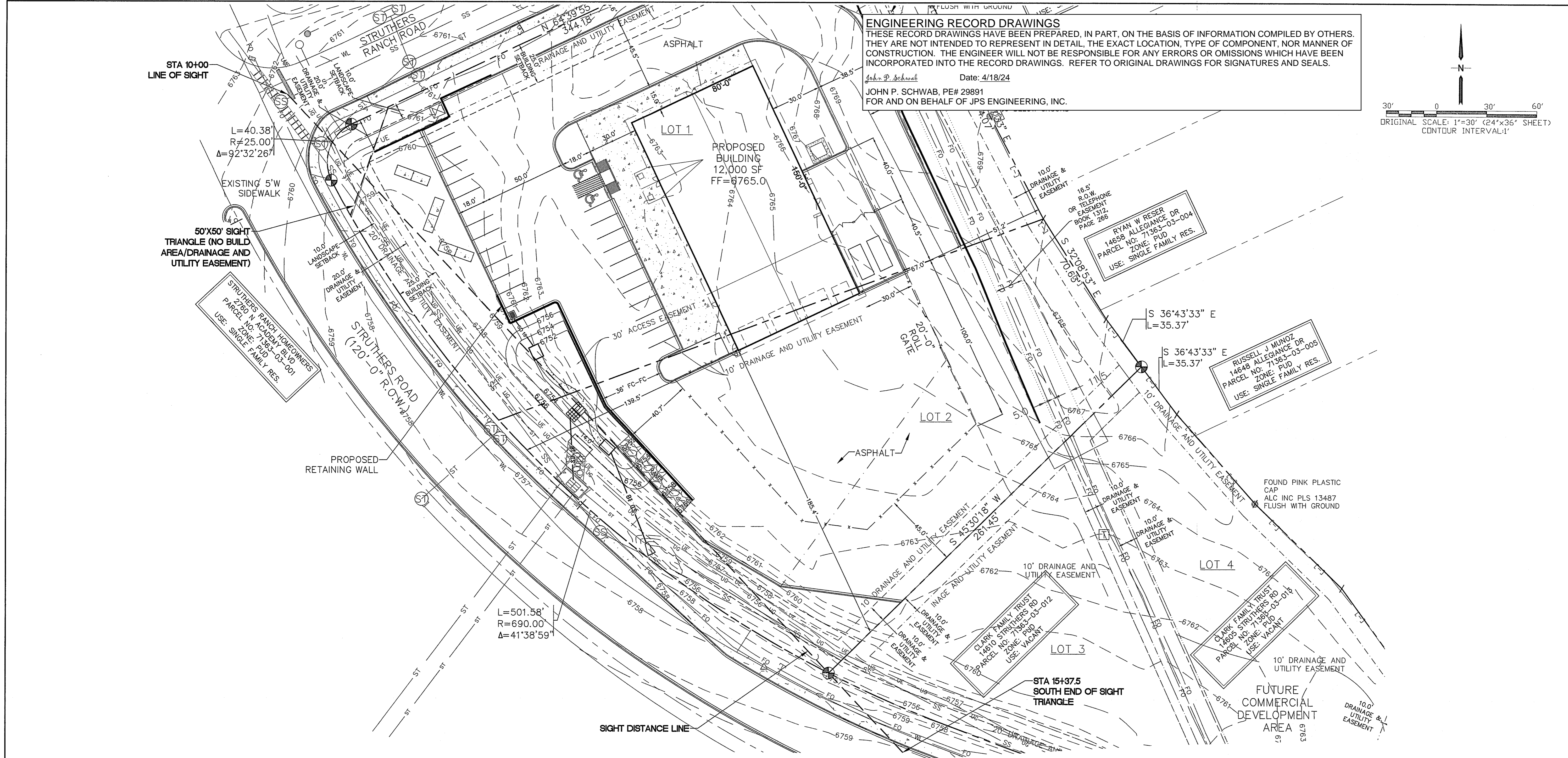
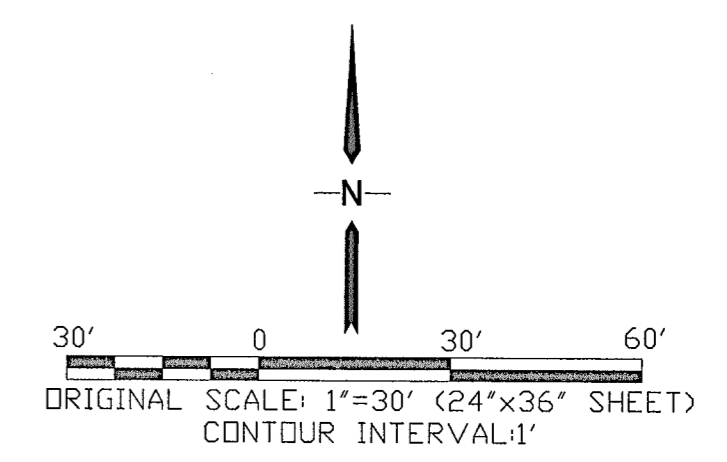
STRUTHERS ROAD
LINE OF SIGHT EXHIBIT



HORZ. SCALE: 1"=30'	DRAWN: PV
VERT. SCALE: 1"=5'V	DESIGNED: JPS
SURVEYED: COMPASS	CHECKED: JPS
CREATED: 05/27/20	LAST MODIFIED: 04/07/23
PROJECT NO: 032203	MODIFIED BY: PV

C5.1

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 Date: 4/18/24
 JOHN P. SCHWAB, PE# 29891
 FOR AND ON BEHALF OF JPS ENGINEERING, INC.



BENCHMARK:
 SOUTHWEST OF SOUTHERLY CORNER
 ELEV. 6707.46'(NAVD-1988)

EPC 5/4/2023