

BLACK HILLS ENERGY SQUIRREL CREEK - 8" GAS MAIN

CITY OF FOUNTAIN AND EL PASO COUNTY, COLORADO

LIMITS OF CONSTRUCTION:
TOTAL LAND DISTURBANCE: 10.81 ACRES

TOTAL CONSTRUCTION AREA: 17.79 ACRES

TENTATIVE DURATION OF DISTURBANCE:

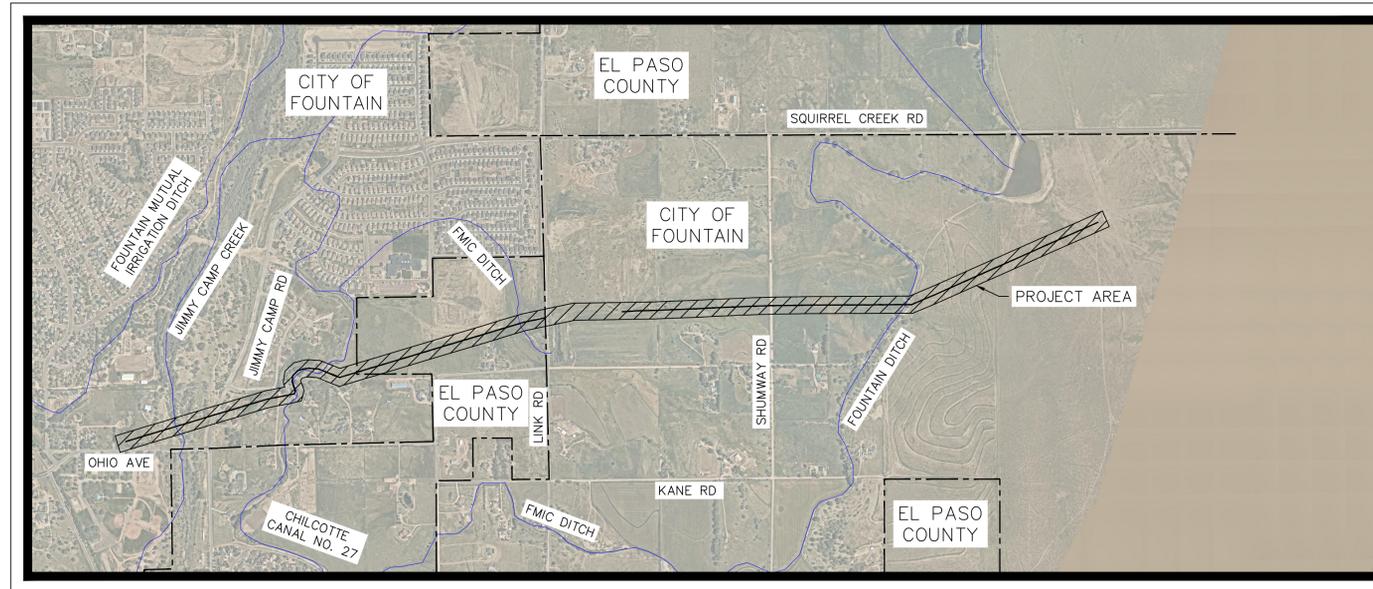
ANTICIPATED START DATE: JANUARY 2024
ANTICIPATED END DATE (FINAL STABILIZATION): MARCH 2024

RECEIVING WATER:

THIS SITE IS TRIBUTARY TO THE FOUNTAIN DITCH, CHILCOTTE CANAL NO. 27, AND JIMMY CAMP CREEK

NOTES:

- FOR ADDITIONAL INFORMATION NOT INCLUDED IN THESE PLANS, PLEASE REFER TO THE PLAN AND PROFILE CONSTRUCTION DRAWINGS SUBMITTED BY BLACK HILLS ENERGY. THESE PLANS INCLUDE MORE DETAILED INFORMATION ON UTILITY CROSSINGS, BURY DEPTHS, AND ALIGNMENTS/PROFILES.
- AERIAL IMAGERY OBTAINED FROM "NEARMAP" ONLINE RESOURCE, ACCESSED 8/29/2023 AND 12/14/2023. EXACT DATE OF CAPTURE FOR AERIAL IMAGES VARIES.
- TERRAIN DATA FOR THE PROJECT WERE OBTAINED VIA BENTLY INFRAWORKS (ACCESSED 8/29/2023) SOURCED FROM USGS DIGITAL ELEVATION MODELS (DEM), BASED ON THE NATIONAL ELEVATION DATASET (NED).
- PLAN APPROVAL FROM EL PASO COUNTY AND CITY OF FOUNTAIN SHALL BE OBTAINED. EACH JURISDICTION IS RESPONSIBLE FOR THE REVIEW AND APPROVAL OF THE SECTION OF THE PROJECT THAT FALLS WITHIN THE COUNTY OR CITY BOUNDARY, RESPECTIVELY.



VICINITY MAP
(1" = 2000')



AGENCY CONTACTS

CITY OF FOUNTAIN:
ENGINEERING
CONTACT: BEN SHEETS
PHONE: 719.393.4935
EMAIL: BSHEETS@FOUNTAINCOLORADO.ORG

EL PASO COUNTY:
EL PASO COUNTY - PCD DEPARTMENT
2880 INTERNATIONAL CIRCLE, SUITE 110
COLORADO SPRINGS, CO 80910
PHONE: (719) 520-6300
EMAIL: JOSHUA.PALMER, P.E.

CONTACTS

OWNER:
BLACK HILLS ENERGY
CONTACT: CHRIS DOWNEY
PHONE: 719.393.6677
EMAIL: CHRIS.DOWNEY@BLACKHILLSCORP.COM

APPLICANT:
BLACK HILLS ENERGY
CONTACT: AUSTIN BELCHER
PHONE: 719.393.6639
EMAIL: AUSTIN.BELCHER@BLACKHILLSCORP.COM

ENGINEER:
KIMLEY-HORN & ASSOCIATES, INC.
CONTACT: STEPHEN MEYERS
PHONE: 719.581.7962
EMAIL: STEPHEN.MEYERS@KIMLEY-HORN.COM

Owner/Developer's Statement:

I, the owner/developer have read and will comply with the requirements of the grading and erosion control plan.

[Name, Title] Date
[Business Name]
[Address]

OWNER'S SIGNATURE BLOCK

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

Revise signature block to county standard

NAME _____ DATE _____

ENGINEER'S SIGNATURE BLOCK

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 THE 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 THE DETAILED PLANS AND SPECIFICATIONS

Revise text to match GEC Checklist Item "ff" since this is a standalone GEC Planset

JOSEPH MENKE, PE - KIMLEY-HORN AND ASSOCIATES, INC. DATE _____

EL PASO COUNTY REVIEW 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 DIRECTIONS DISCRETION.

ENGR CONTACT, P.E. COUNTY ENGINEER DATE _____

SHEET SET INDEX	
Sheet Number	Sheet Title
C4.0	GEC COVER SHEET
C4.1	STANDARD GEC NOTES
C4.2	EL PASO COUNTY - GEC NOTES
C4.3	INDEX SHEET
C4.4	INITIAL PHASE - 1
C4.5	INITIAL PHASE - 2
C4.6	INITIAL PHASE - 3
C4.7	FINAL PHASE - 1
C4.8	FINAL PHASE - 2
C4.9	FINAL PHASE - 3
C4.10	GEC STANDARD DETAILS

GEC COST ESTIMATE

Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
Grading & Erosion Control CCMs for BHE Squirrel Creek Gas Line					
1	Earthwork		MIN	\$5,300.00	\$5,300
2	Permanent Seeding	11.2	AC	\$1,875.00	\$21,000
3	Silt Fence	6000	LF	\$3.00	\$18,000
4	Straw Waddle / Rock Socks / Sediment Control Log	815	LF	\$3.00	\$2,445
5	Vehicle Tracking Control	3	EA	\$2,132.00	\$6,396
	Subtotal:				\$53,141
	Contingency (% +/-)			15%	\$7,971
	Project Total:				\$61,112

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE, OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY.

PRINTED NAME: Joseph Menke DATE: 12/15/2023

PHONE NUMBER: 719.453.0180

SEAL:



CONTRACTOR'S STATEMENT

I WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN/CSWMP INCLUDING CONSTRUCTION CONTROL MEASURE INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

NAME OF CONTRACTOR: _____

AUTHORIZED SIGNATURE : _____ DATE : _____

TITLE: _____

PHONE NUMBER: _____

ADDRESS: _____

EMAIL ADDRESS: _____

OWNER'S STATEMENT

THE OWNER SHALL COMPLY WITH THE REQUIREMENTS OF THIS GRADING AND EROSION CONTROL PLAN INCLUDING CONSTRUCTION CONTROL MEASURE INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS ACCORDING TO THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

OWNER SIGNATURE: _____ DATE: _____

NAME OF OWNER: _____ PHONE: _____

TITLE: _____ EMAIL: _____

CITY OF FOUNTAIN GRADING AND EROSION CONTROL REVIEW

THIS GRADING AND EROSION CONTROL PLAN IS FILED IN ACCORDANCE WITH CITY CODE. THIS PLAN IS REVIEWED IN ACCORDANCE WITH THE STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.

DATE: _____

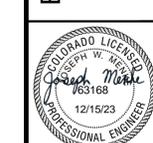
NOTES:

NO.	REVISION	BY	DATE	APPR

Kimley»Horn
2023 KIMLEY-HORN AND ASSOCIATES, INC.
2 North Nevada Avenue, Suite 900
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: GMP
DRAWN BY: GMP
CHECKED BY: JWM
DATE: 12/15/2023

BLACK HILLS ENERGY - SQUIRREL CREEK
GRADING AND EROSION CONTROL PLANS
GEC COVER SHEET

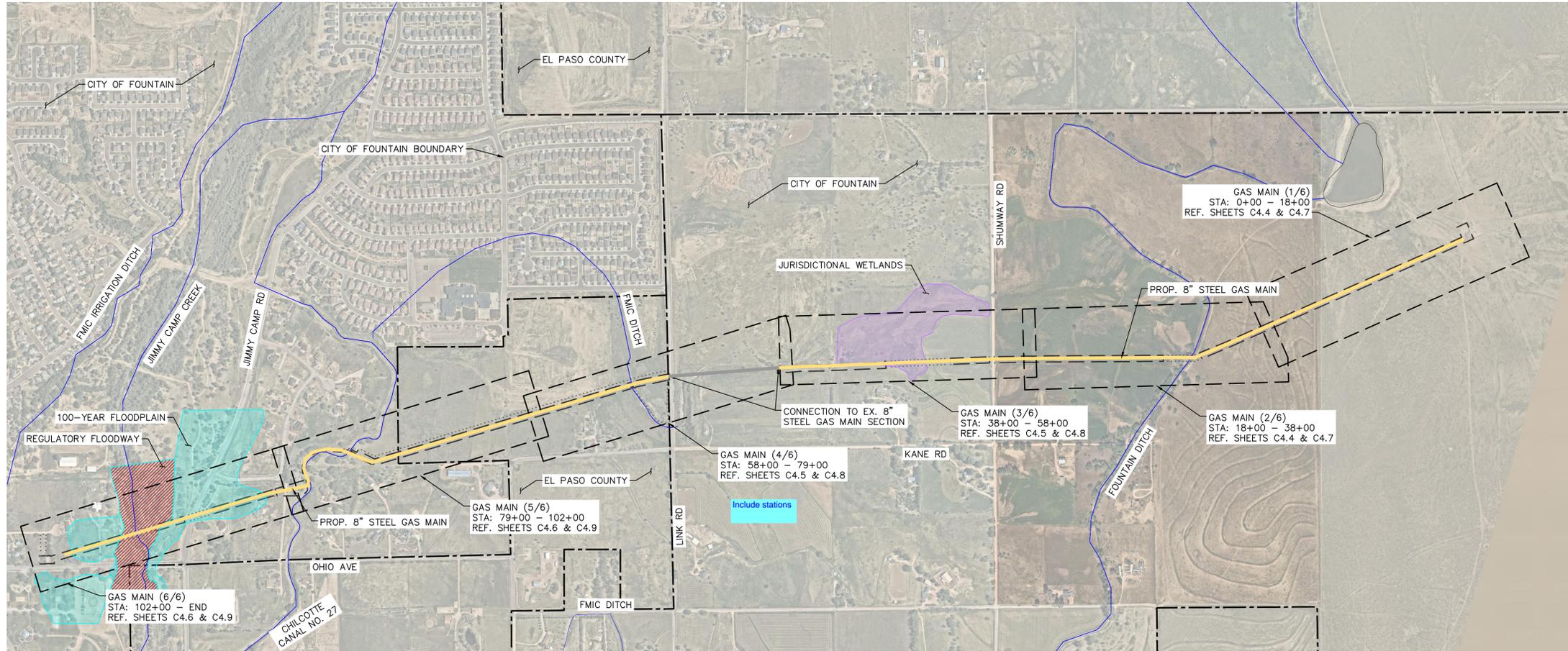
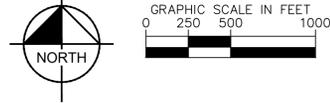


PROJECT NO.
096826014

SHEET
C4.0

BLACK HILLS ENERGY SQUIRREL CREEK - 8" GAS MAIN

CITY OF FOUNTAIN AND EL PASO COUNTY, COLORADO



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 Colorado Springs, Colorado 80903 (719) 453-0180

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 DRAWN BY: GMP
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BLACK HILLS ENERGY - SQUIRREL CREEK
 GRADING AND EROSION CONTROL PLANS
 INDEX SHEET



PROJECT NO.
096826014

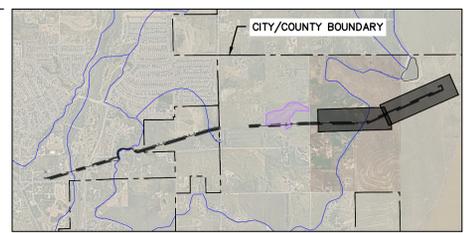
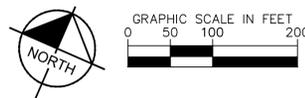
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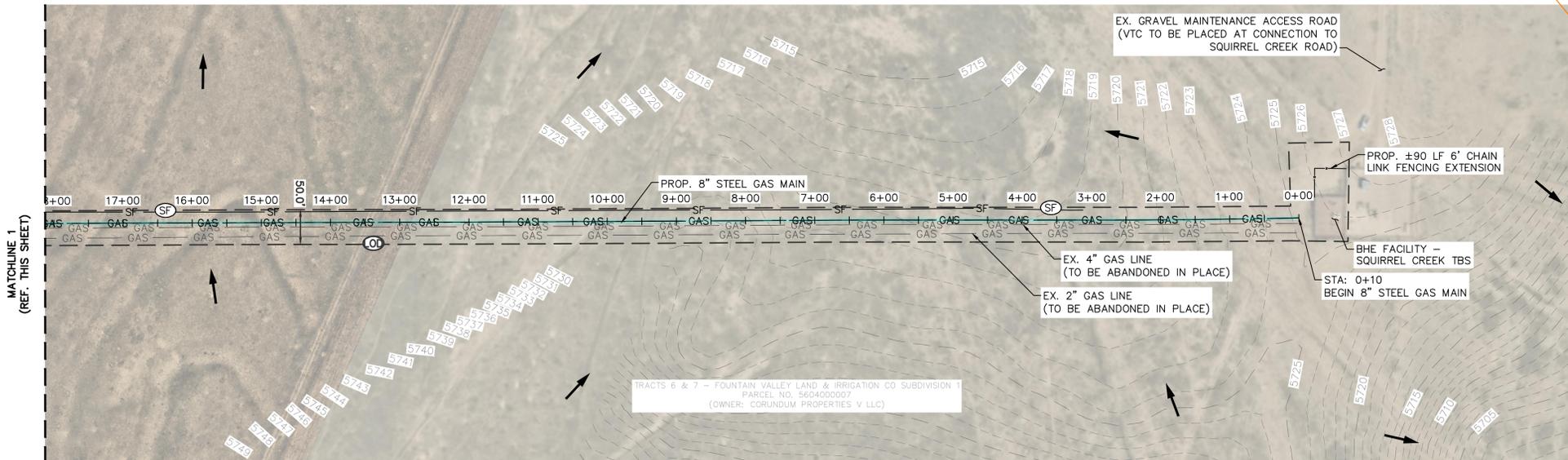


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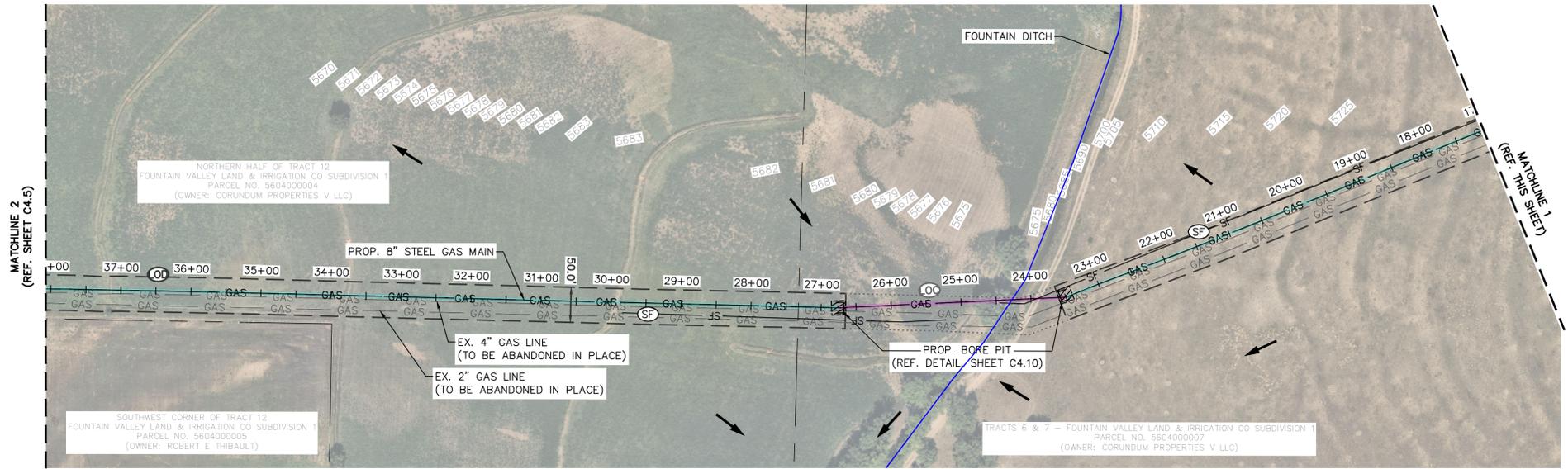
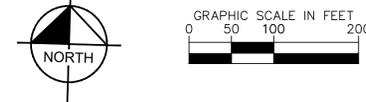


Label all proposed temporary construction BMPs by phase of implementation (initial, interim, final).



LEGEND

	CITY/COUNTY BOUNDARY
	PROPERTY LINES
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING GAS LINE
	PROPOSED GAS LINE
	PIPE TRENCHED SECTION
	PIPE BORED SECTION
	LIMITS OF CONSTRUCTION (TEMPORARY 50' CONSTRUCTION EASEMENT)
	LIMITS OF GROUND DISTURBANCE (LOD = LOC WHERE UNDEFINED)
	SILT FENCE
	SEDIMENT CONTROL LOG
	BORE PIT (REF. DETAIL, SHEET C4.10)
	VEHICLE TRACKING CONTROL
	EXISTING FLOW DIRECTION ARROW
	JURISDICTIONAL WETLAND AREA
	100-YEAR FLOODPLAIN (AREA AE)
	100-YEAR FLOODPLAIN (AREA AE, REGULATORY FLOODWAY)



LIMITS OF CONSTRUCTION

CONSTRUCTION AREA = ±16.23 ACRES
(LAND DISTURBANCE AREA = ±11.43 ACRES)

GAS LINE CONSTRUCTION METHOD & JURISDICTION

TRENCHED SECTION	= ±9,725 LF (7,452 LF CITY OF FOUNTAIN) (2,273 LF EL PASO COUNTY)
BORED SECTION	= ±1,666 LF (1,632 LF CITY OF FOUNTAIN) (34 LF EL PASO COUNTY)
TOTAL	= ±11,391 LF (9,084 LF CITY OF FOUNTAIN) (2,307 LF EL PASO COUNTY)

NOTES

- THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS.
- CONTRACTOR / BLACK HILLS ENERGY TO SET LAYDOWN YARD (STAGING AREA) AS NEEDED DURING CONSTRUCTION. MATERIALS, EQUIPMENT, PERSONNEL, AND PERSONAL VEHICLE PARKING TO BE COORDINATED ACCORDINGLY.
- CONSTRUCTION/DISTURBANCE LIMITS TO REMAIN INSIDE OF THE LIMITS OF THE ESTABLISHED 50' TEMPORARY CONSTRUCTION EASEMENT (25' OFFSET FROM THE PROPOSED GAS MAIN ALIGNMENT). CONSTRUCTION SHALL NOT NEGATIVELY IMPACT ADJACENT PROPERTIES OR PRIVATE PROPERTY NEIGHBORING THE PROJECT SITE.
- ALL WORK IN THE ROW REQUIRES A ROW PERMIT FROM THE GOVERNING JURISDICTION. CONTRACTOR IS RESPONSIBLE FOR APPLYING FOR AND OBTAINING ALL NECESSARY ROW PERMITS.
- CONTRACTOR TO NOTE PROXIMITY OF EXISTING IMPROVEMENTS ADJACENT TO THE SITE AND PROVIDE NECESSARY MEASURES TO PROTECT ALL FACILITIES AND STRUCTURES IN PLACE.
- CONTRACTOR SHALL MAINTAIN STABILIZED STAGING AREA (SSA) AND VEHICLE TRACKING CONTROL (VTC) AT THE CONSTRUCTION ENTRANCE AT ALL TIMES. CONTRACTOR SHALL UPDATE THE EROSION CONTROL PLAN IN THE FIELD TO INDICATE THE LOCATION OF THE SSA AND VTC CCM'S AS EXCAVATION SEQUENCING DICTATES.
- CONTRACTOR MAY SUBSTITUTE SEDIMENT CONTROL LOGS (SCL) FOR SILT FENCE (SF) AS PERIMETER CONTROL, DEPENDING UPON SITE CONDITIONS. SCL AND SF MAY BE INTERCHANGED DEPENDING ON SITE CONDITIONS.
- TRENCHING AND BORING LOCATIONS ARE APPROXIMATED BY BLACK HILLS ENERGY. CONTRACTOR TO MODIFY TRENCHING AND BORING LOCATIONS AS NEEDED IN THE FIELD.
- TEMPORARY COMPACTED BERM TO BE INSTALLED PARALLEL TO TRENCH SECTION PER TYPICAL SECTION AND STORMWATER ENTERPRISE STANDARD DETAIL (REF. SHEET C4.10).
- SEEDING AND MULCHING TO TAKE PLACE OVER THE ENTIRETY OF THE DISTURBED PERVIOUS/LANDSCAPING AREA. ALL DISTURBED AREA IS TO BE RETURNED TO EXISTING GROUND COVER.
- REMOVAL OF CONTROL MEASURES SHALL NOT OCCUR WITHOUT THE APPROVAL OF THE STORMWATER INSPECTOR.
- ALL PAVED SURFACES, INCLUDING ADJACENT STREETS AND SIDEWALKS, SHALL BE KEPT CLEAN AND FREE OF SEDIMENT AND/OR DEBRIS AT ALL TIMES. CONTRACTOR SHALL PERFORM STREET SWEEPING AT ALL TIMES DURING ACTIVE TRACKING AND AT A MINIMUM ON A DAILY BASIS AT THE END OF EACH CONSTRUCTION DAY.
- STABILIZATION OF GROUND SURFACE SHALL BE IMPLEMENTED WITHIN THE DISTURBED PORTIONS OF THE PROJECT SITE NO LATER THAN 14 DAYS FOLLOWING THE CEASE OF CONSTRUCTION ACTIVITIES WITHIN THE DISTURBED AREAS. ALL REQUIREMENTS OUTLINED IN THE ACCOMPANYING SWMP REPORT SHALL BE ADHERED TO.
- CONTRACTOR SHALL UTILIZE ROLLED EROSION CONTROL PRODUCTS ON ALL SLOPES 3H:1V OR GREATER TO ACHIEVE REQUIRED STABILIZATION.
- CONTRACTOR SHALL MAINTAIN ACCEPTABLE EROSION CONTROL PRACTICES WITHIN THE ANTICIPATED LIMITS OF CONSTRUCTION IDENTIFIED HEREIN. CONSTRUCTION CONTROL MEASURES AND FINAL STABILIZATION SHALL BE COMPLETED AS IDENTIFIED HEREIN IN ACCORDANCE WITH OWNER REQUIREMENTS.
- AQUATIC RESOURCES CONTINUE BEYOND PROJECT BOUNDARIES.

NO.	REVISION	BY	DATE	APPR

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DESIGNED BY: GMP
DRAWN BY: GMP
CHECKED BY: JWM
DATE: 12/15/2023

BLACK HILLS ENERGY - SQUIRREL CREEK GRADING AND EROSION CONTROL PLANS INITIAL PHASE - 1



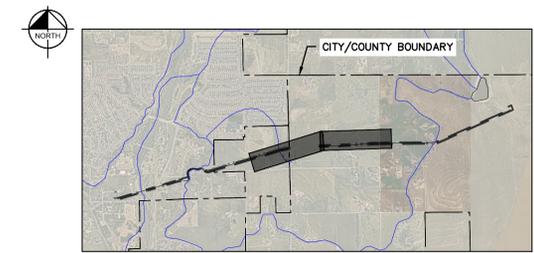
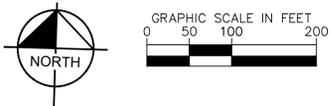
PROJECT NO.
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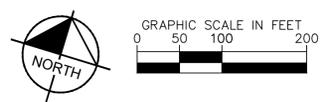
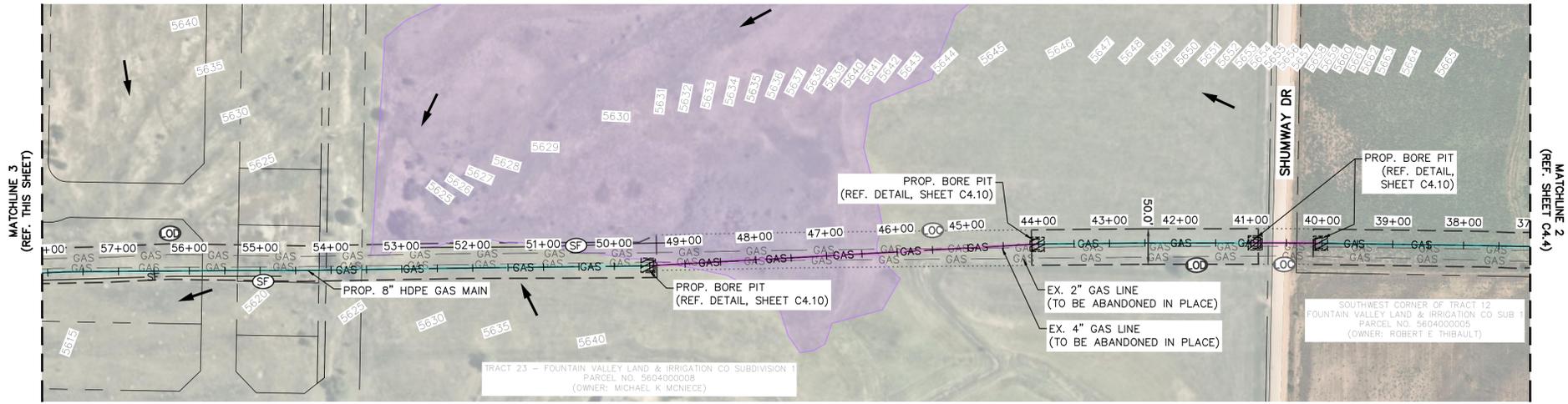
BLACK HILLS ENERGY SQUIRREL CREEK - 8" GAS MAIN

CITY OF FOUNTAIN AND EL PASO COUNTY, COLORADO



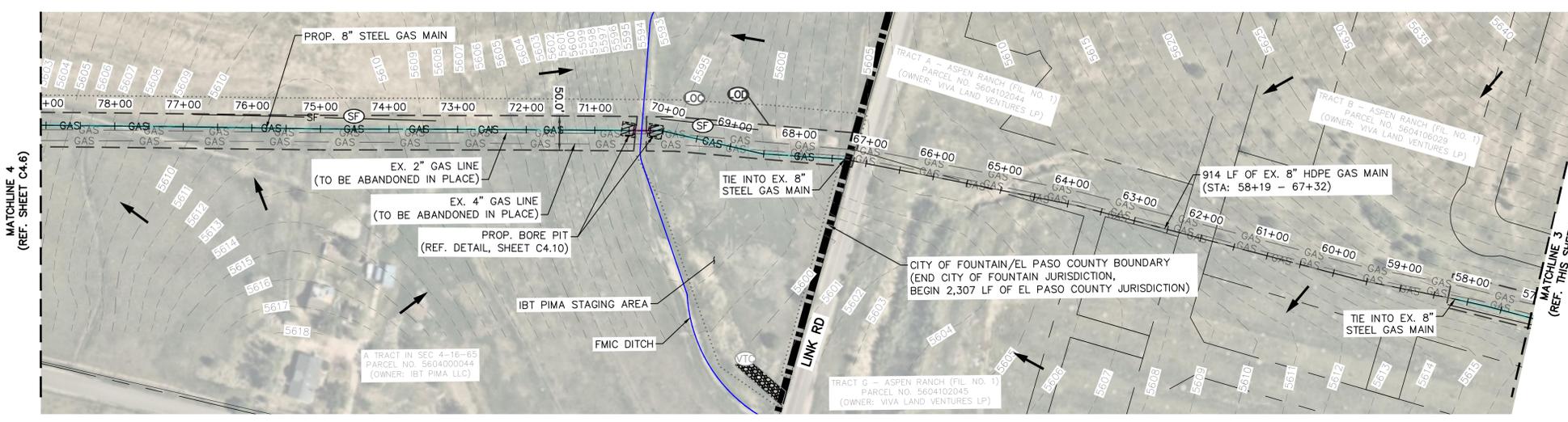
LEGEND

	CITY/COUNTY BOUNDARY
	PROPERTY LINES
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING GAS LINE
	PROPOSED GAS LINE
	PIPE TRENCHED SECTION
	PIPE BORED SECTION
	LIMITS OF CONSTRUCTION (TEMPORARY 50' CONSTRUCTION EASEMENT)
	LIMITS OF GROUND DISTURBANCE (LOD = LOC WHERE UNDEFINED)
	SILT FENCE
	SEDIMENT CONTROL LOG
	BORE PIT (REF. DETAIL, SHEET C4.10)
	VEHICLE TRACKING CONTROL
	EXISTING FLOW DIRECTION ARROW
	JURISDICTIONAL WETLAND AREA
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NOTES

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16. AQUATIC RESOURCES CONTINUE BEYOND PROJECT BOUNDARIES.



LIMITS OF CONSTRUCTION

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(LAND DISTURBANCE AREA)	= ±11.43 ACRES)

GAS LINE CONSTRUCTION METHOD & JURISDICTION

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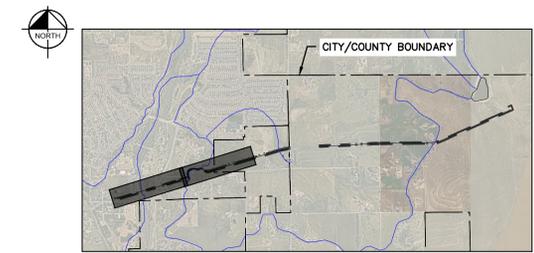
BLACK HILLS ENERGY - SQUIRREL CREEK
 GRADING AND EROSION CONTROL PLANS
 INITIAL PHASE - 2

PROJECT NO.
 096826014
 SHEET
 C4.5

NO. _____ BY _____ DATE _____
 REVISION _____

BLACK HILLS ENERGY SQUIRREL CREEK - 8" GAS MAIN

CITY OF FOUNTAIN AND EL PASO COUNTY, COLORADO

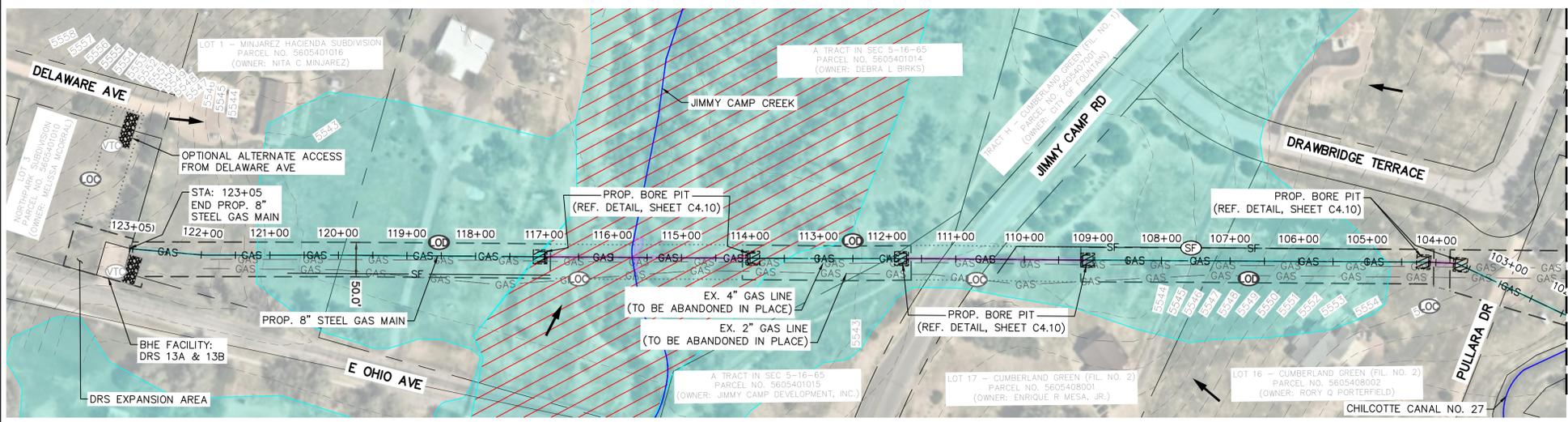
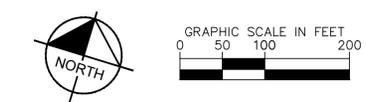
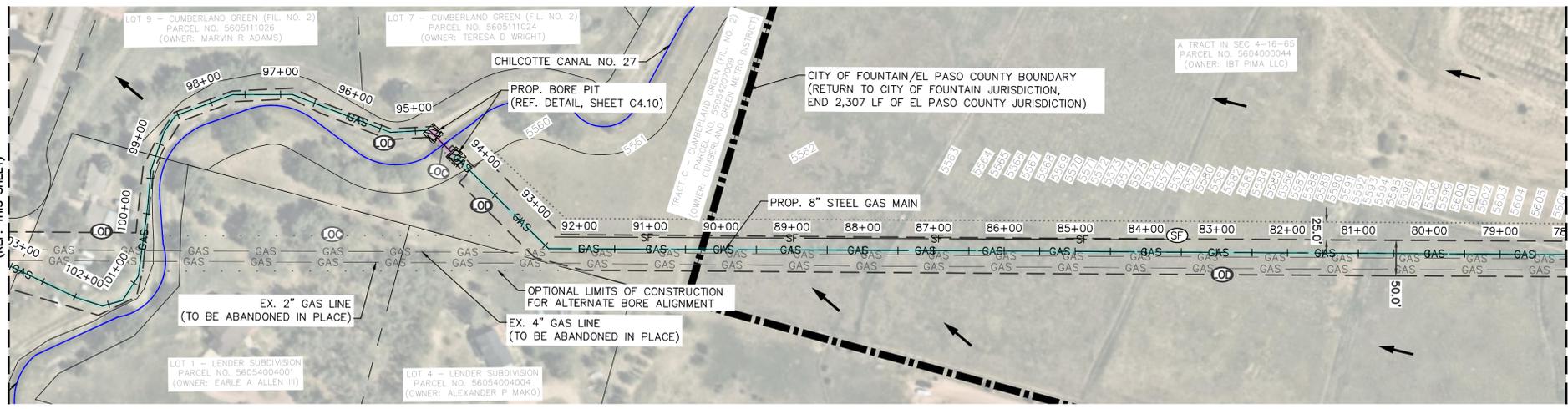
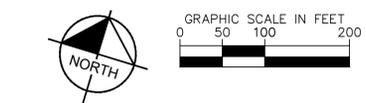


LEGEND

- CITY/COUNTY BOUNDARY
- PROPERTY LINES
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING GAS LINE
- PROPOSED GAS LINE
- PIPE TRENCHED SECTION
- PIPE BORED SECTION
- LIMITS OF CONSTRUCTION (TEMPORARY 50' CONSTRUCTION EASEMENT)
- LIMITS OF GROUND DISTURBANCE (LOD = LOC WHERE UNDEFINED)
- SILT FENCE
- SEDIMENT CONTROL LOG
- BORE PIT (REF. DETAIL, SHEET C4.10)
- VEHICLE TRACKING CONTROL
- EXISTING FLOW DIRECTION ARROW
- JURISDICTIONAL WETLAND AREA
- 100-YEAR FLOODPLAIN (AREA AE)
- 100-YEAR FLOODPLAIN (AREA AE, REGULATORY FLOODWAY)

NOTES

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16. AQUATIC RESOURCES CONTINUE BEYOND PROJECT BOUNDARIES.



LIMITS OF CONSTRUCTION
 CONSTRUCTION AREA = ±16.23 ACRES
 (LAND DISTURBANCE AREA = ±11.43 ACRES)

GAS LINE CONSTRUCTION METHOD & JURISDICTION

TRENCHED SECTION	= ±9,725 LF (7,452 LF CITY OF FOUNTAIN) (2,273 LF EL PASO COUNTY)
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TOTAL	= ±11,391 LF (9,084 LF CITY OF FOUNTAIN) (2,307 LF EL PASO COUNTY)



DATE: 12/15/2023
BY: JWM
REVISION: 0180

Kimley»Horn
 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 2 North Nevada Avenue, Suite 900
 Colorado Springs, Colorado 80903 (719) 453-0180

BLACK HILLS ENERGY - SQUIRREL CREEK
 GRADING AND EROSION CONTROL PLANS
 INITIAL PHASE - 3

DESIGNED BY: GMP
 DRAWN BY: GMP
 CHECKED BY: JWM
 DATE: 12/15/2023

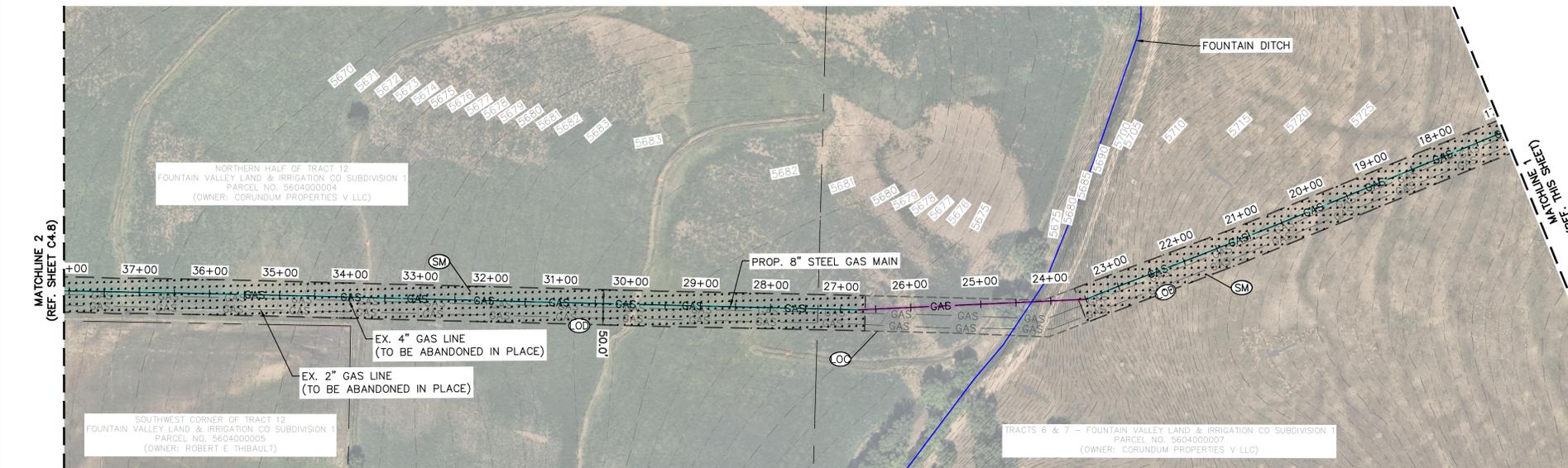
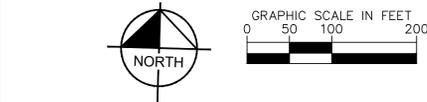
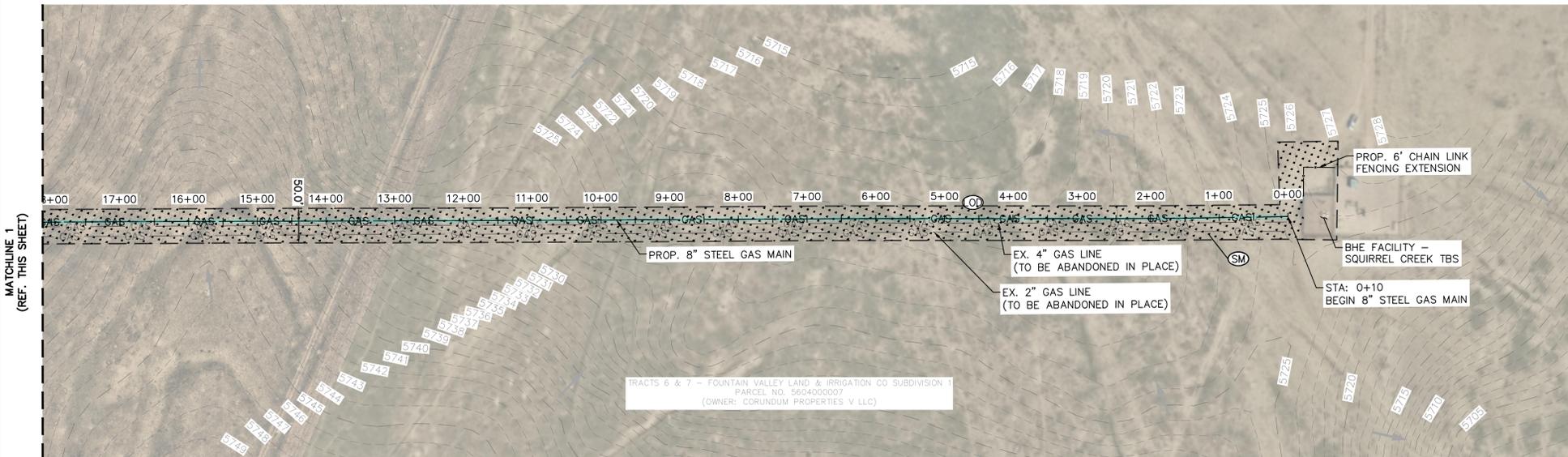
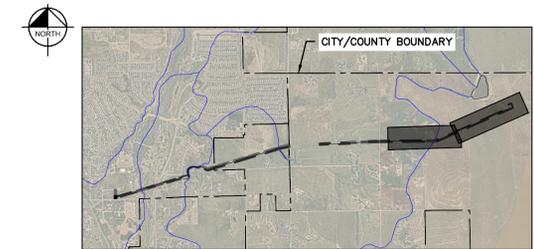
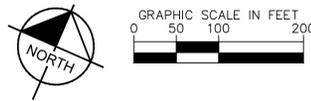
PROJECT NO.
096826014

SHEET
C4.6

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BLACK HILLS ENERGY SQUIRREL CREEK - 8" GAS MAIN

CITY OF FOUNTAIN AND EL PASO COUNTY, COLORADO



LEGEND

- CITY/COUNTY BOUNDARY
- PROPERTY LINES
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
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- PROPOSED GAS LINE
- LIMITS OF CONSTRUCTION (TEMPORARY 50' CONSTRUCTION EASEMENT)
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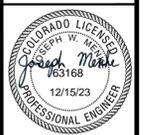


NO.	REVISION	BY	DATE	APPR

Kimley»Horn
2023 KIMLEY-HORN AND ASSOCIATES, INC.
2 North Nevada Avenue, Suite 900
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: GMP
DRAWN BY: GMP
CHECKED BY: JWM
DATE: 12/15/2023

BLACK HILLS ENERGY - SQUIRREL CREEK
GRADING AND EROSION CONTROL PLANS
FINAL PHASE - 1

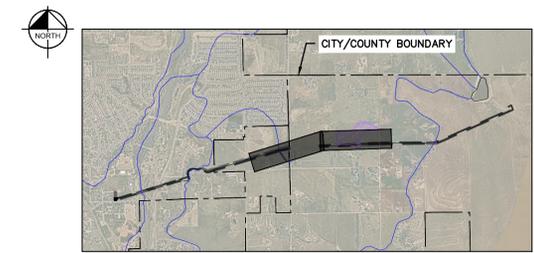
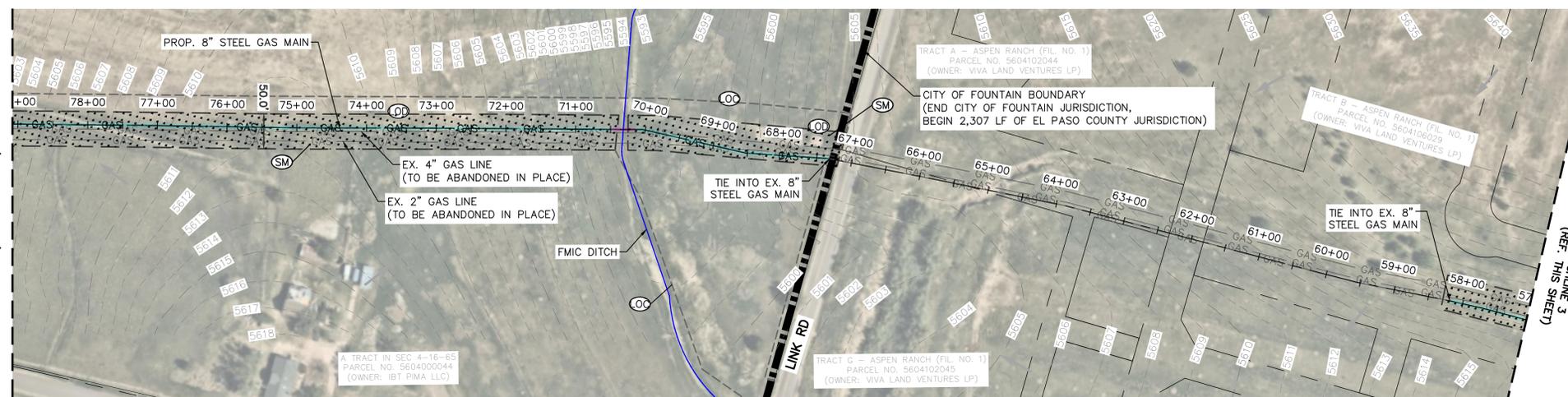
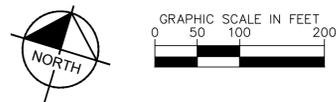
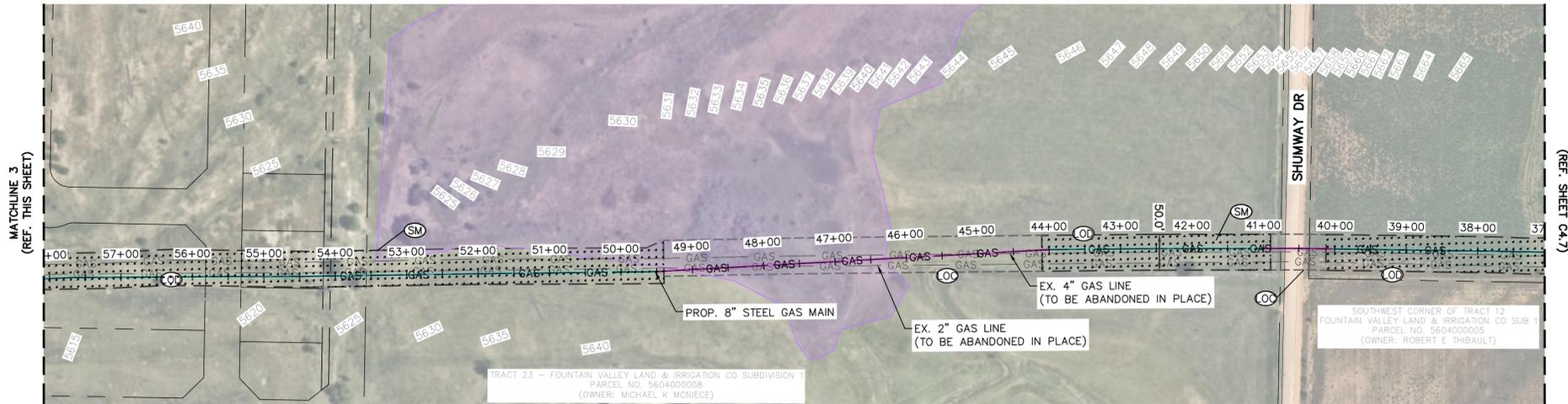
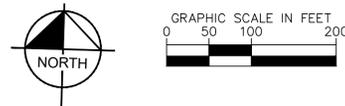


PROJECT NO.
096826014

SHEET
C4.7

BLACK HILLS ENERGY SQUIRREL CREEK - 8" GAS MAIN

CITY OF FOUNTAIN AND EL PASO COUNTY, COLORADO



LEGEND

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- PROPERTY LINES
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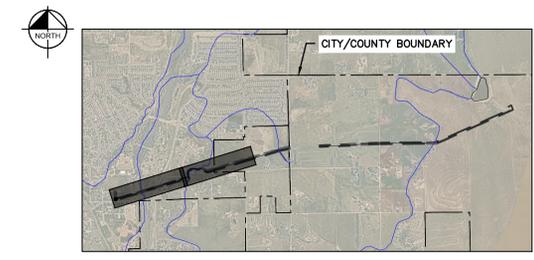
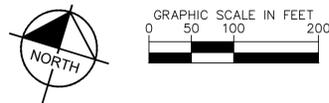


 2023 KIMLEY-HORN AND ASSOCIATES, INC. 2 North Nevada Avenue, Suite 900 Colorado Springs, Colorado 80903 (719) 453-0180	NO. _____ REVISION _____ BY _____ DATE _____ APPR _____
BLACK HILLS ENERGY - SQUIRREL CREEK GRADING AND EROSION CONTROL PLANS FINAL PHASE - 2	
PROJECT NO. 096826014 SHEET C4.8	

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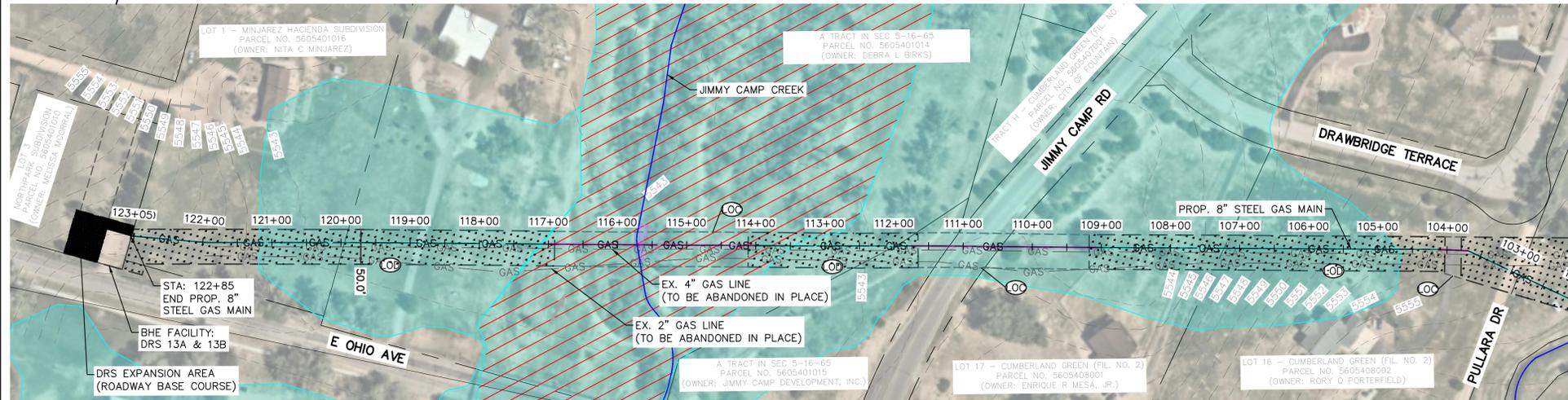
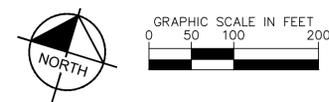
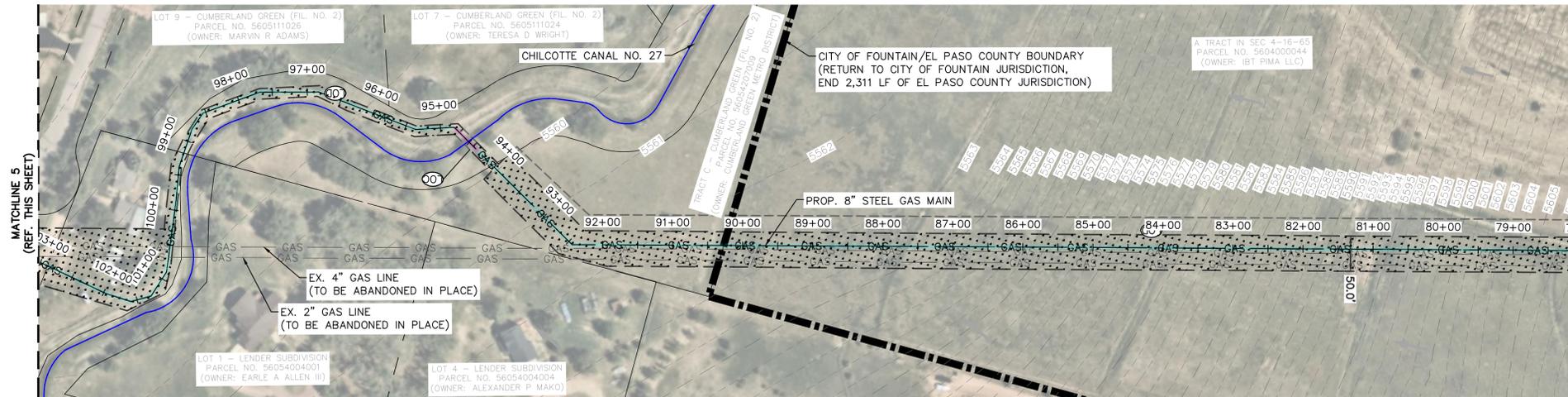
BLACK HILLS ENERGY SQUIRREL CREEK - 8" GAS MAIN

CITY OF FOUNTAIN AND EL PASO COUNTY, COLORADO



LEGEND

	CITY/COUNTY BOUNDARY
	PROPERTY LINES
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	EXISTING GAS LINE
	PROPOSED GAS LINE
	LIMITS OF CONSTRUCTION (TEMPORARY 50' CONSTRUCTION EASEMENT)
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DESIGNED BY: GMP
 DRAWN BY: GMP
 CHECKED BY: JWM
 DATE: 12/15/2023

BLACK HILLS ENERGY - SQUIRREL CREEK
 GRADING AND EROSION CONTROL PLANS
 FINAL PHASE - 3

COLORADO LICENSED
 PROFESSIONAL ENGINEER
 12/15/23
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PROJECT NO.
 096826014

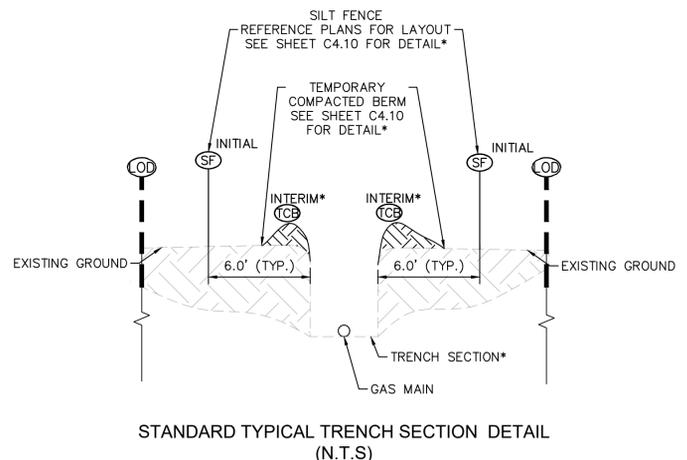
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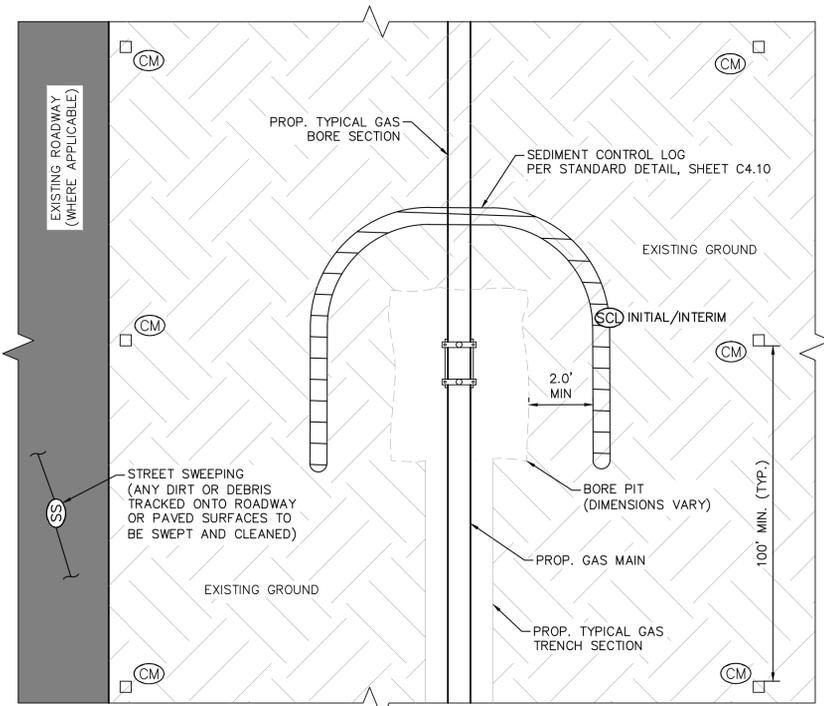
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BLACK HILLS ENERGY SQUIRREL CREEK - 8" GAS MAIN

CITY OF FOUNTAIN AND EL PASO COUNTY, COLORADO



***TRENCH NOTES:**
 1. ALL TRENCH SECTIONS ARE REQUIRED TO MEET RELEVANT OSHA STANDARDS
 2. CONSTRUCTION CONTROL MEASURES TO BE TYPICALLY INSTALLED ON THE DOWNSLOPE SIDE OF THE TRENCH. UPSTREAM STORMWATER WILL TYPICALLY BE CAPTURED IN THE TRENCH SECTION.
 3. TCB TO EXTEND 1' Laterally FROM THE TRENCH FOR EVERY INCH TALL THE BERM STANDS.



STANDARD TYPICAL BORE PIT DETAIL (N.T.S.)

EL PASO COUNTY CONSERVATION DISTRICT

SHOTGUN MIX

Common name Recommended variety % of seed mix PLS Rate per acre double if broadcast

Bluestem, Big Native	Kaw, Bison, Champ	20.0 %	1.08
Gramma, Blue Native	Lovington, Hachita, Alma	10.0%	.12
Green Needlegrass Native	Lodorm	10.0%	.48
Wheatgrass, Western Native	Arriba, Barton	20.0%	1.60
Gramma, Sideoats Native	Vaughn, Butte, El Reno, Niner	10.0%	.46
Switchgrass Native	Blackwell, Greenville	10%	.20
Prairie Sandreed Native	Goshen, Pronghorn	10.0%	.32
Yellow Indiangrass Native	Cheyenne, Holt, Llano	10.0%	.51

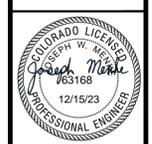
EL PASO COUNTY CONSERVATION DISTRICT
 5610 INDUSTRIAL PL SUITE 100
 COLORADO SPRINGS, CO 80916
 719-686-4510 WWW.EPCD.ORG
 EPCDISTRICT@YAHOO.COM

NO.	REVISION	BY	DATE	APPR

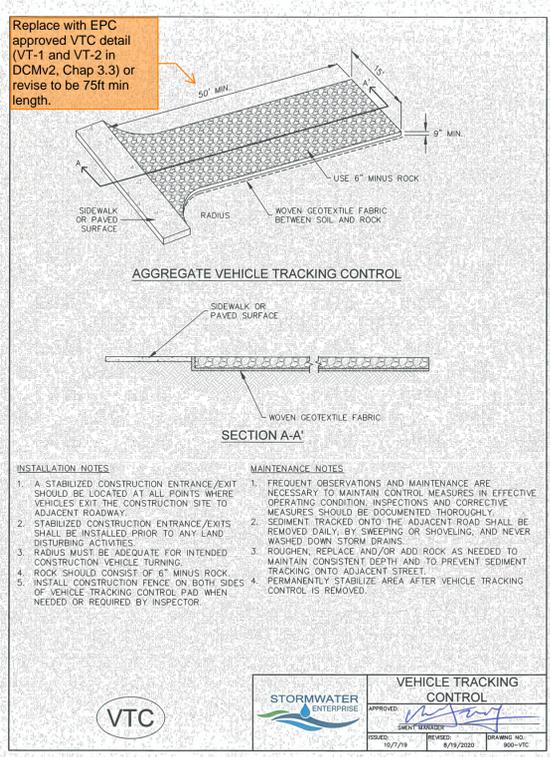
Kimley»Horn
 2023 KIMLEY-HORN AND ASSOCIATES, INC.
 2 North Nevada Avenue, Suite 900
 Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: GMP
 DRAWN BY: GMP
 CHECKED BY: JWM
 DATE: 12/15/2023

BLACK HILLS ENERGY - SQUIRREL CREEK
 GRADING AND EROSION CONTROL PLANS
 GEC STANDARD DETAILS



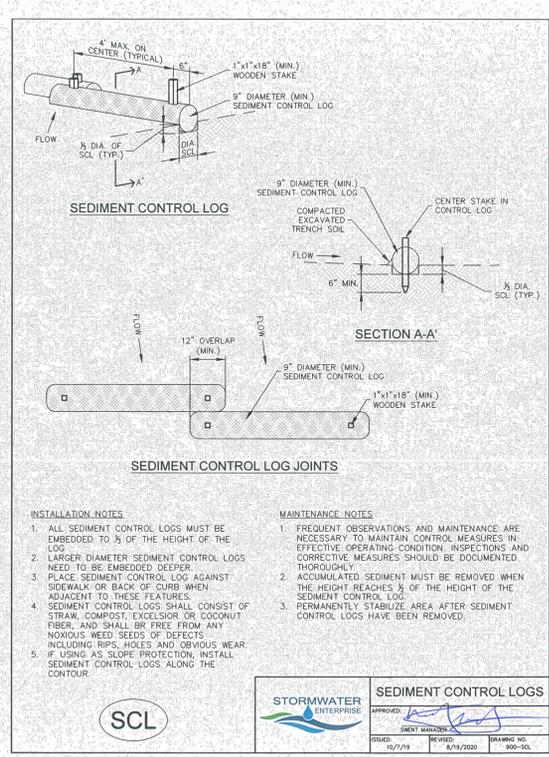
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INSTALLATION NOTES:
 1. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
 2. STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
 3. RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
 4. ROCK SHOULD CONSIST OF 6" MINUS ROCK.
 5. INSTALL CONSTRUCTION FENCE ON BOTH SIDES OF VEHICLE TRACKING CONTROL PAD WHEN NEEDED OR REQUIRED BY INSPECTOR.

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. SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
 3. ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
 4. PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.

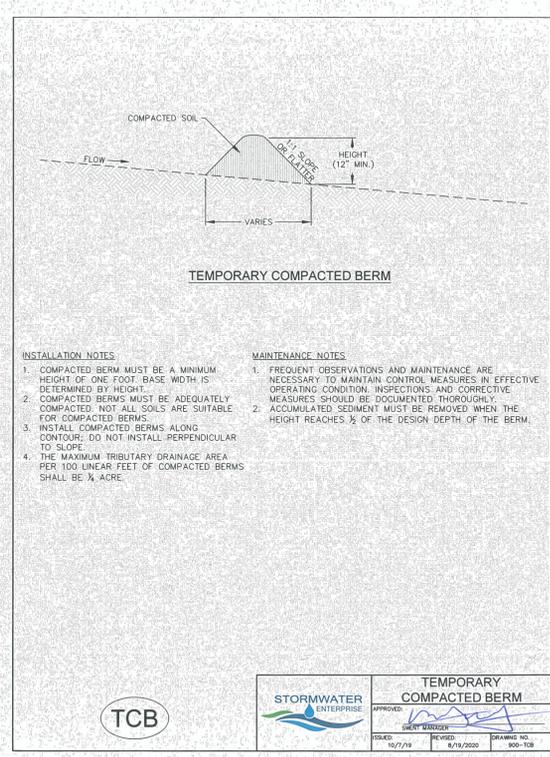
STORMWATER ENTERPRISE
 APPROVED: [Signature]
 SHEET NUMBER: 10/7/19
 DATE: 8/19/2020
 DRAWING NO.: 900-VTC



INSTALLATION NOTES:
 1. ALL SEDIMENT CONTROL LOGS MUST BE EMBEDDED TO 2/3 OF THE HEIGHT OF THE LOG.
 2. LARGER DIAMETER SEDIMENT CONTROL LOGS NEED TO BE EMBEDDED DEEPER.
 3. PLACE SEDIMENT CONTROL LOG AGAINST SIDEWALK OR BACK OF CURB WHEN ADJACENT TO THESE FEATURES.
 4. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELISOR OR COCONUT FIBER, AND SHALL BE FREE FROM ANY NOXIOUS WEED SEEDS OF DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
 5. IF USING AS SLOPE PROTECTION, INSTALL SEDIMENT CONTROL LOGS ALONG THE CONTOUR.

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 2/3 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
 3. PERMANENTLY STABILIZE AREA AFTER SEDIMENT CONTROL LOGS HAVE BEEN REMOVED.

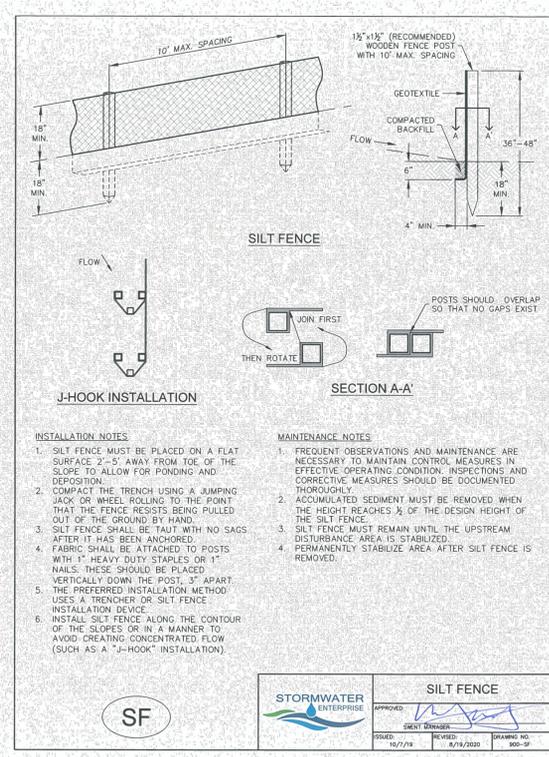
STORMWATER ENTERPRISE
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 DATE: 8/19/2020
 DRAWING NO.: 900-SCL



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 1/4 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 2/3 OF THE DESIGN DEPTH OF THE BERM.

STORMWATER ENTERPRISE
 APPROVED: [Signature]
 SHEET NUMBER: 10/7/19
 DATE: 8/19/2020
 DRAWING NO.: 900-TCB



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 POSTS, 3" APART.
 5. THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
 6. INSTALL SILT FENCE ALONG THE CONTOUR OF THE SLOPE OR IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J-HOOK" INSTALLATION).

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 2/3 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.

STORMWATER ENTERPRISE
 APPROVED: [Signature]
 SHEET NUMBER: 10/7/19
 DATE: 8/19/2020
 DRAWING NO.: 900-SF

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