

UTILITY CONTACTS:

WATER – MERIDIAN SERVICE METROPOLITAN DISTRICT POC: RUSSELL MILLS (719)–495–6567	GAS – BLACK HILLS ENERGY (719)–393–6625
SANITARY SEWER – MERIDIAN SERVICE METROPOLITAN DISTRICT POC: RUSSELL MILLS (719)–495–6567	ELECTRIC – MOUNTAIN VIEW ELECTRIC ASSOC. (719)–495–2283
DRAINAGE – EL PASO COUNTY PCD/INSPECTIONS (719)–520–6300	GEOTECHNICAL ENGINEER – ENTECH ENGINEERING, INC. (719)–531–5599
DRAINAGE – MERIDIAN SERVICE METROPOLITAN DISTRICT POC: TOM KERBY (719)–495–7444	FALCON FIRE PROTECTION DISTRICT (719) 495–4050

GAS - BLACK HILLS ENERGY
(719)-393-6625

ELECTRIC - MOUNTAIN VIEW ELECTRIC ASSOC.
(719)-495-2283

GEOTECHNICAL ENGINEER – ENTECH ENGINEERING, INC.
(719)-531-5599

FALCON FIRE PROTECTION DISTRICT
(719) 495-4050

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 LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS 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.

LEGAL DESCRIPTION:

KNOW ALL MEN BY THESE PRESENTS:

BEGINNING AT THE NORTHEAST CORNER OF TRACT A OF THE ESTATES AT ROLLING HILLS RANCH FILING NO. 2, RECORDED WITH RECEIPTION NO. 222714944 IN THE RECORDS OF EL PASO COUNTY, POINT BEING ON THE NORTH LINE OF THE NORTHWEST 1/2 OF SAID SECTION 20;

THE ABOVE PARCEL OF LAND CONTAINS 88.173 ACRES, MORE OR LESS.

IMPROVEMENT PLANS
PREPARED FOR GTL, INC. DBA GTL DEVELOPMENT, INC.

SHEET NO	SHEET INDEX	SHEET NO	SHEET INDEX
1	COVER SHEET	15	SIDEWALK PLAN
2	INDEX SHEET	16	OVERALL SANITARY SEWER
3	NOTES SHEET	17-18	OVERALL SANITARY SEWER SERVICES
4-5	DETAIL SHEETS	19	OVERALL UNDERDRAIN
6-7	GALEROS DRIVE	20	UNDERDRAIN DETAILS
8	ESPLANDE DRIVE	21	OVERALL WATER
9	BRIGHT ANGEL DRIVE	22-23	OVERALL WATER SERVICES
10	TOROWEAP WAY	24	OVERALL STORM DRAIN
11	CARDENAS DRIVE	25	GRADING INDEX SHEET
12	CHALK CLIFFS DRIVE	26-30	GRADING LAYOUT SHEETS
13	CHALK CLIFFS DRIVE & SHELTER CREEK DRIVE	31	GRADING LAYOUT CUT-FILL
14	LAVA FALLS DRIVE	32-33	GRADING DETAIL SHEETS

11/4/2024
DATE

11/4/2024
DATE

11/4/2029
DATE

11/04/2024

2) MRMS1 - 3 1/4" ALUMINUM CAP ON NO.6 REBAR LOCATED ON THE WEST SIDE OF RAINBOW BRIDGE DRIVE 1,150 FEET NORTH-OF LONDONDERRY DRIVE, LOCATED NEAR THE BACK OF SIDE WALK AT THE NW CORNER OF RAINBOW BRIDGE DRIVE AND THE NORTHERLY ENTRANCE TO MERIDIAN RANCH ELEMENTARY SCHOOL (10480 RAINBOW BRIDGE DRIVE).
ELEVATION - 7099.73'

A circular professional engineer seal for the State of Colorado. The outer ring contains the text "COLORADO REGISTERED" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by a rope-like border. Inside the ring, the name "THOMAS A. KERBY" is written in an arc, and the number "31429" is in the center. The seal is stamped over the signature of Thomas A. Kerby.

12/4/2024



OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)



L LING HILLS RANCH NORTH FILING 2
 AT MERIDIAN RANCH
 STREET AND UTILITY PLANS
 COVER SHEET

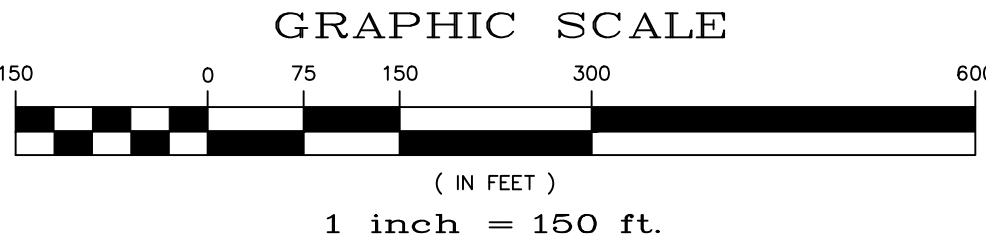
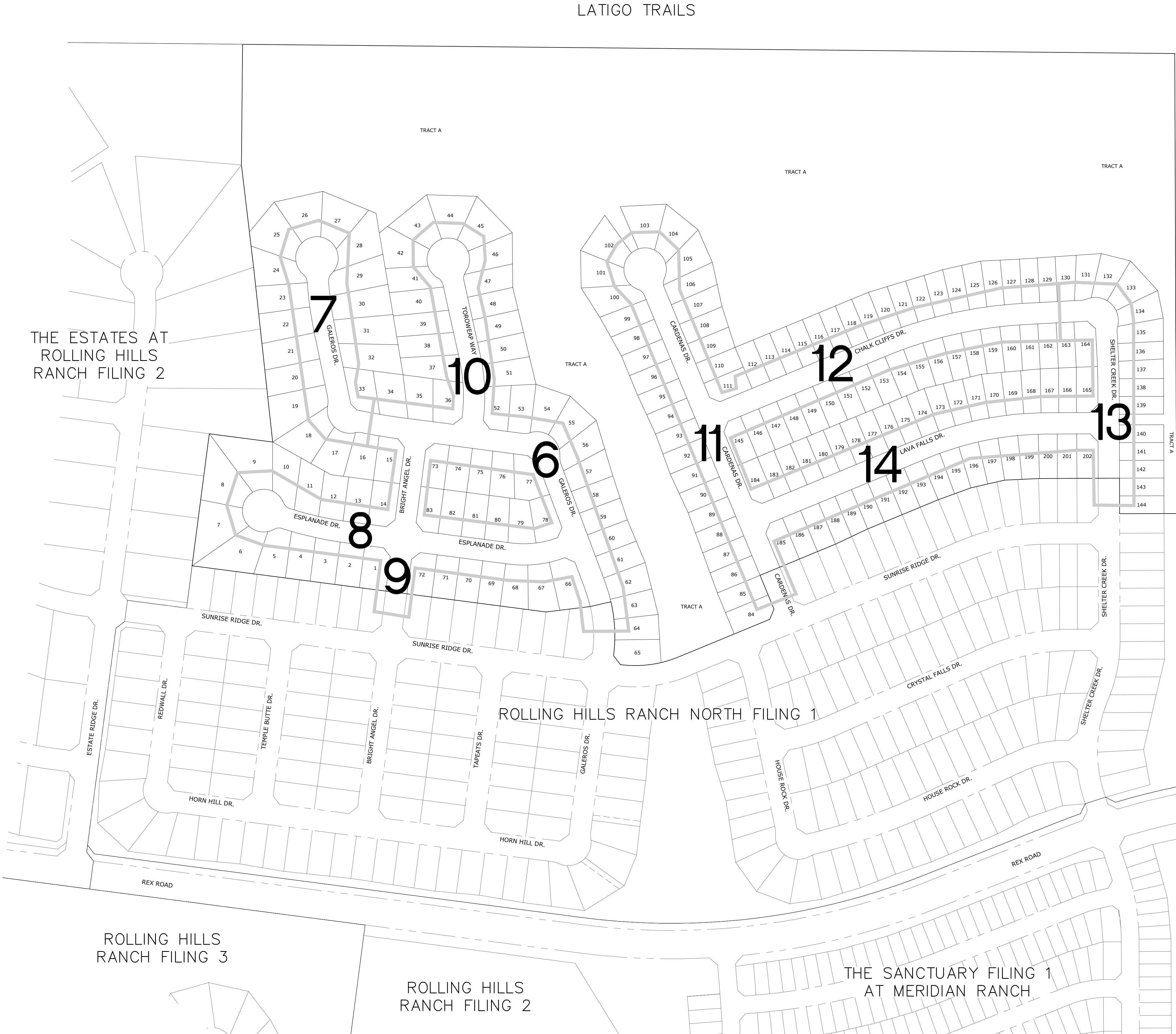
Drawn by
LOG

Checked by
TAK

Date
NOVEMBER 2024

Scale	
AS SHOWN	
1 of 33	


S:\OneDrive\CivilProj\Rolling Hills Ranch North Filing 2\DWG\PLAN SHEETS\Improvement Plans\01-RHRN2.dwg, 10/30/2024 11:22:22 AM





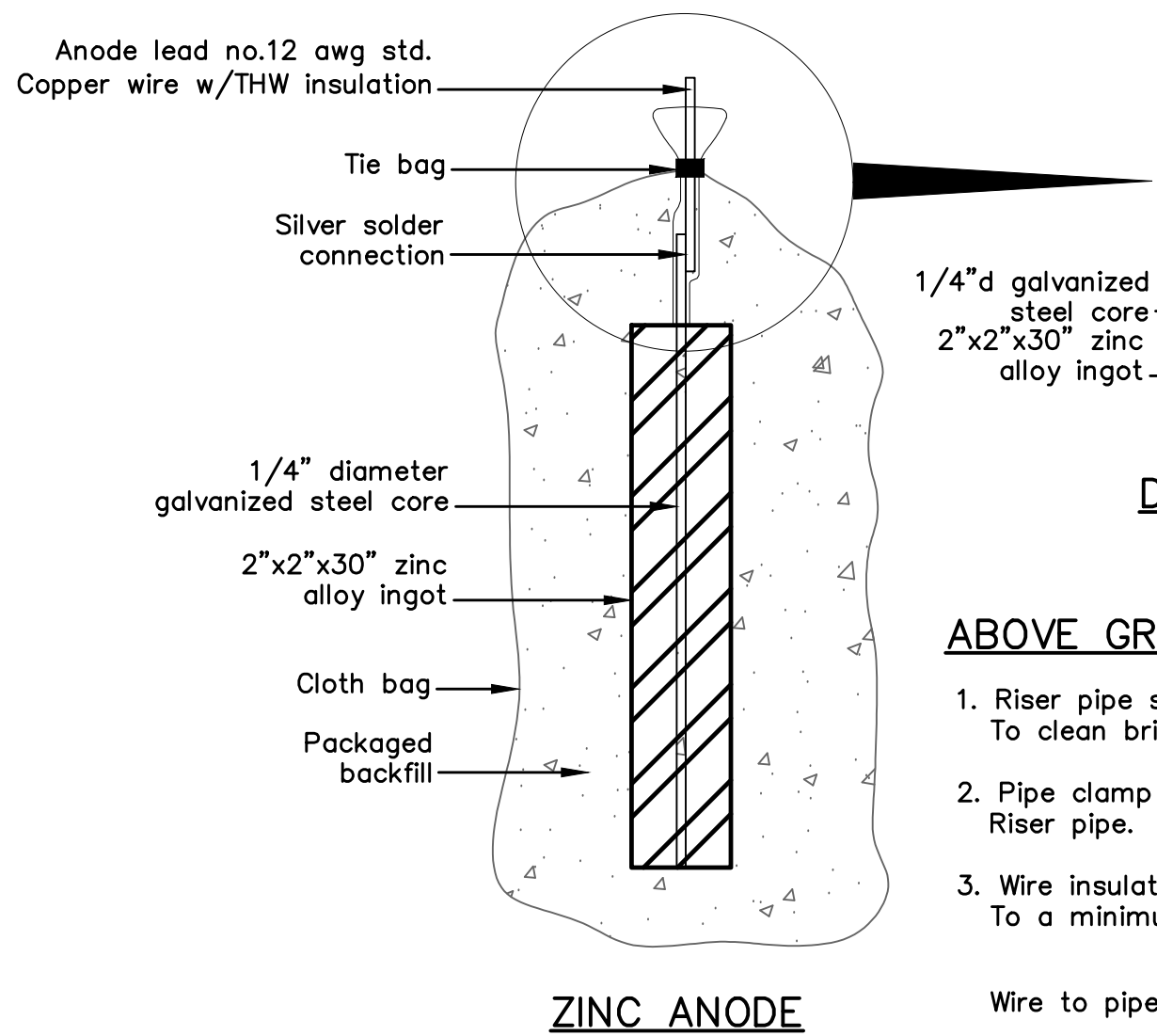
TWO WORKING DAYS
**BEFORE YOU DIG
CALL 811**
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

Scale AS SHOWN	Drawn by LOG	Checked by TAK	Date NOVEMBER 2024	ROLLING HILLS RANCH NORTH FILING 2 AT MERIDIAN RANCH STREET AND UTILITY PLANS INDEX SHEET				TECH CONTRACTORS 11910 TOURMALINE DR. #130 FALCON, CO 80831 TELEPHONE 719.495.7444				1 2 3 4 No.				Revisions				Date Init. Appr. Date			



MERIDIAN RANCH





ZINC ANODE AND CONNECTORS
FOR 1" AND 2" WATER SERVICE

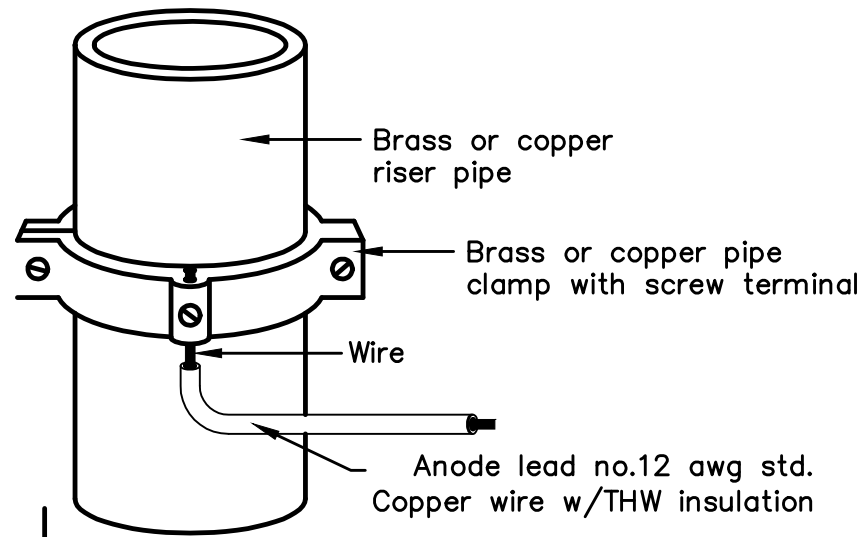
ABOVE GRADE CONNECTION NOTES:

1. Riser pipe shall be wire brushed To clean bright metal.
2. Pipe clamp shall be located on Riser pipe.
3. Wire insulation shall be stripped To a minimum length to connect Wire to pipe clamp.

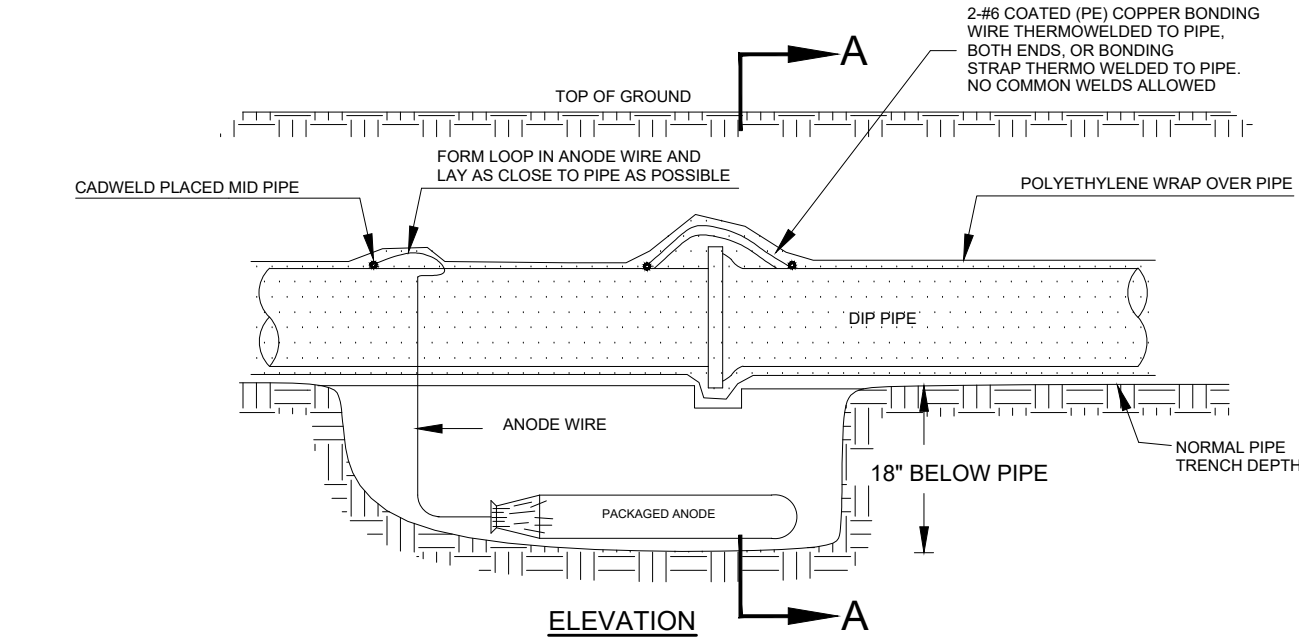
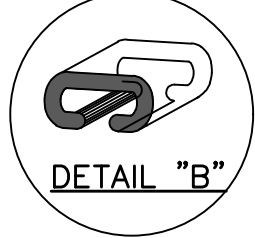
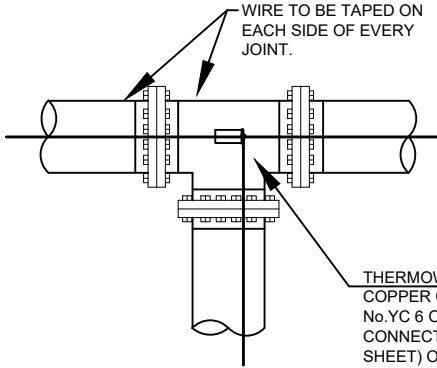
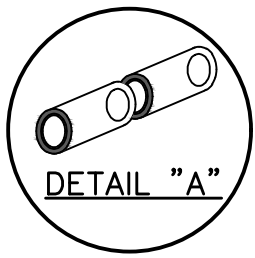
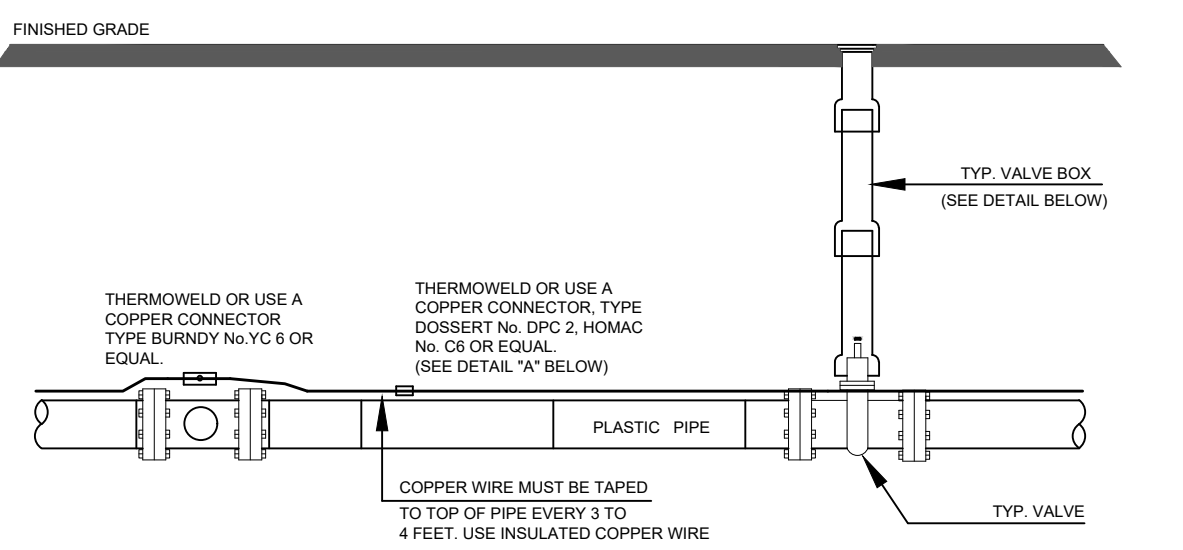
PACKAGED BACKFILL COMPOSTION:

75% gypsum
20% bentonite
5% sodium sulfate

Ingot weight: 30 lbs.
Pkgd. Weight: 70 lbs. Approx.



ANODE LEAD ABOVE
GRADE CONNECTION

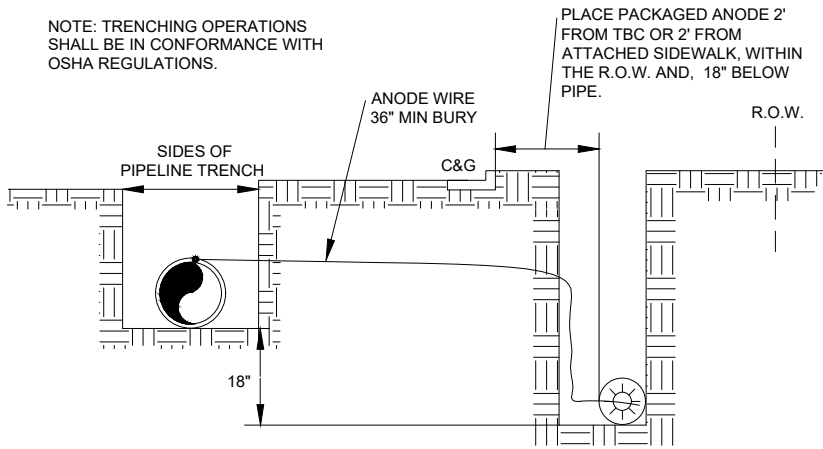


Anode Design

For use with DIP in conjunction with poly-wrap sleeves and piping in 1000 ohm-cm soil estimating a 5% holiday area.

Pipe Size Inches	Actual OD Inches	Anode Spacing Feet	Anode (see note 2) 17 lb
4	4.8	76.3	17 lb
6	6.9	53.1	17 lb
8	9.05	40.5	17 lb
12	13.20	27.7	17 lb
16	16	21.0	32 lb
20	20	16.9	32 lb
24	24	14.2	48 lb
30	30	11.4	48 lb
36	36	95.7	48 lb
42	42	82.4	48 lb
48	48	72.1	48 lb
54	54	64.2	48 lb

The distance from the point of the beginning to the first anode shall not exceed one half the recommended spacing.



SECTION A-A

NOTES

1. Cadweld connection to be primed and coated carefully. Packed anode should be covered with fine soil containing no rocks or dirt clumps, tamped.
2. When anodes are required with metal fittings and appurtenances together with PVC pipe installations, the anodes shall be placed and attached to the metal fittings in same manner as shown on this drawing.
3. Packaged anode to be wetted and covered with soil prior to backfilling.

NOTE

1. Contractor is responsible for continuity of all tracer wire.
2. Tracer wire is required on all pipes per MSMD specifications (PVC and HDPE).

FIELD INSTALLATION OF POLYETHYLENE WRAP
FOR DIP PIPE AND FITTINGS.

STEP 1:

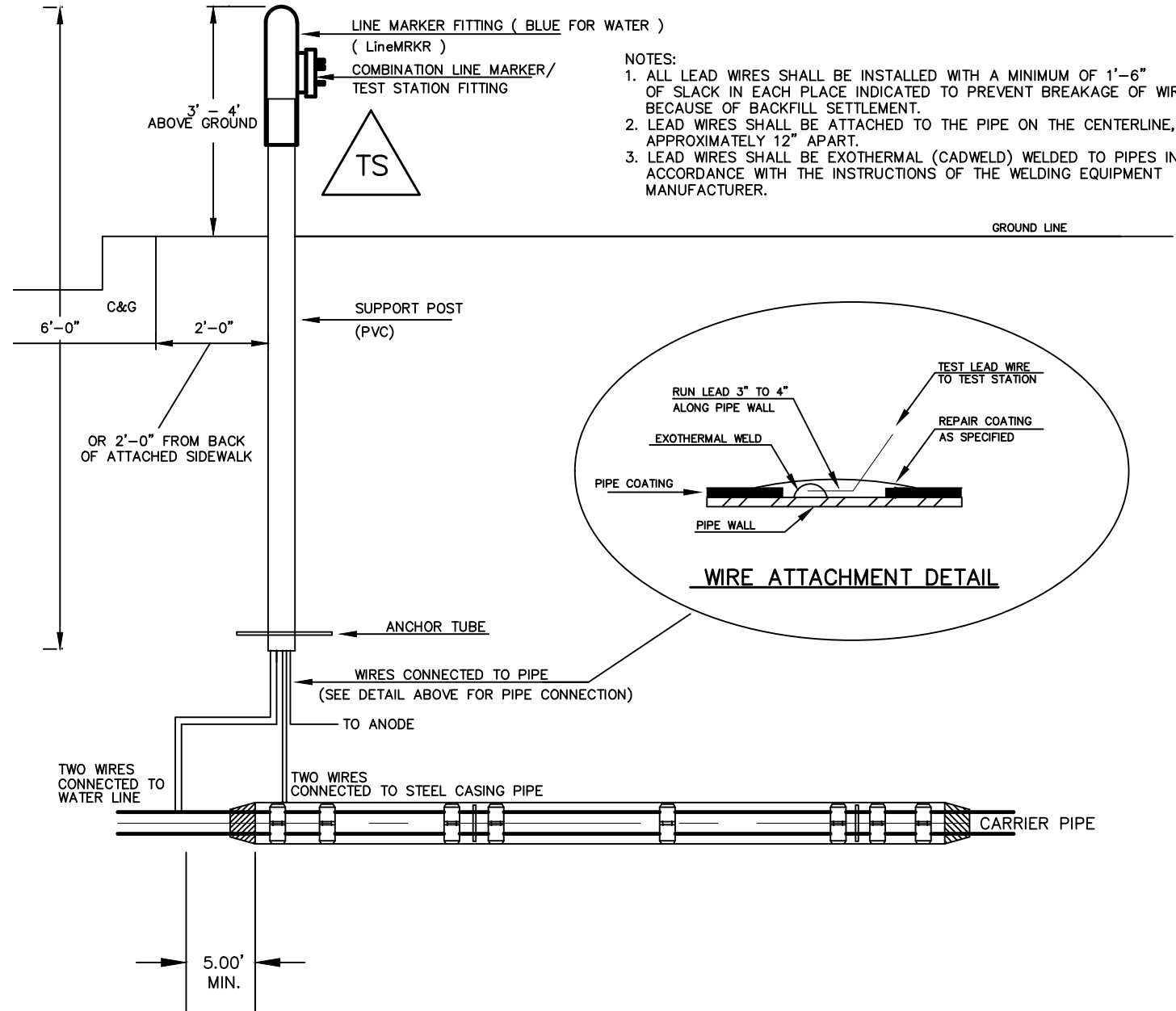
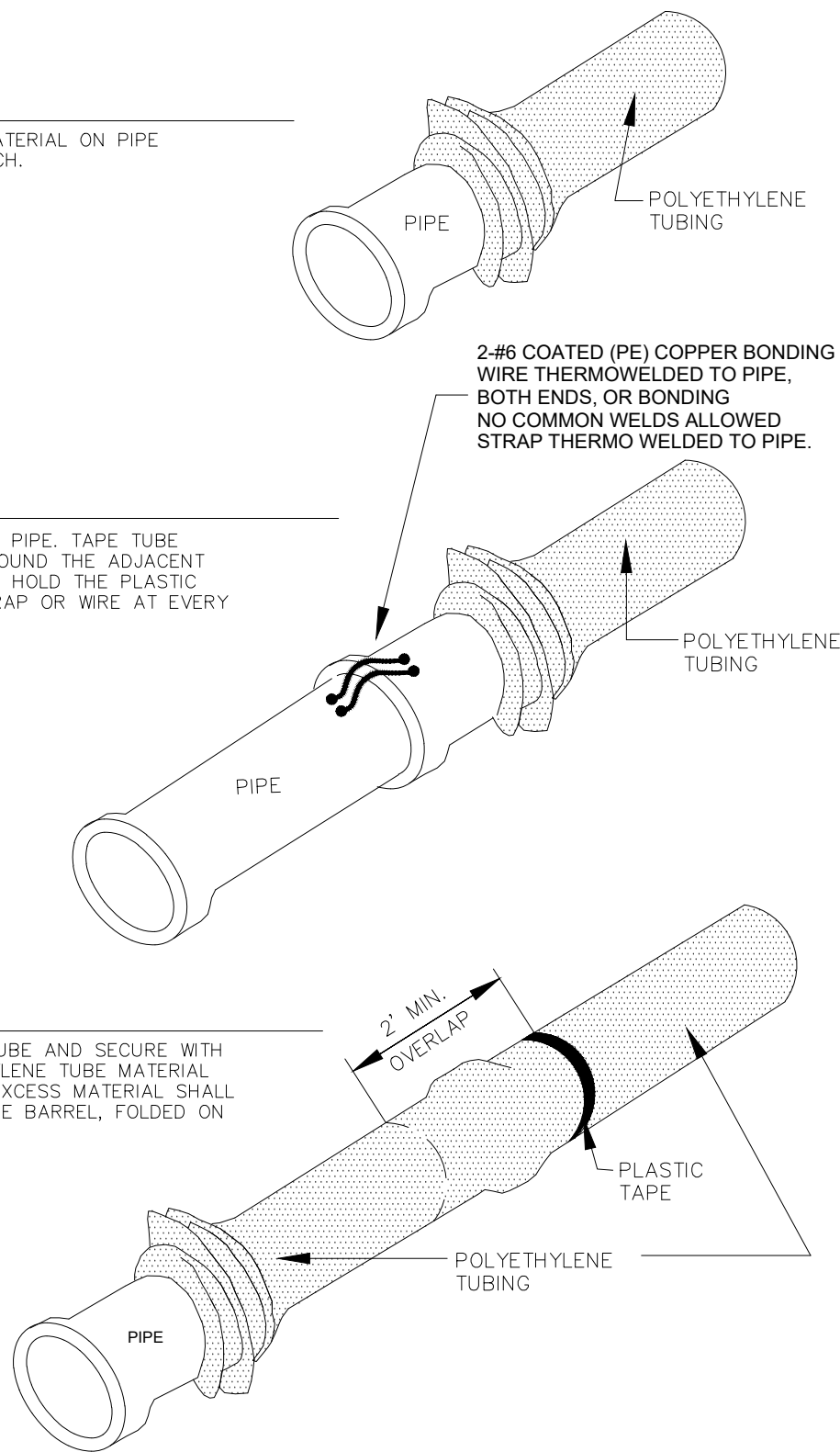
PLACE TUBE OF POLYETHYLENE MATERIAL ON PIPE PRIOR TO LOWERING IT INTO TRENCH.

STEP 2:

PULL TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO END AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH TAPE TO HOLD THE PLASTIC TUBE IN PLACE. INSTALL BONDING STRAP OR WIRE AT EVERY JOINT OF PIPE PRIOR TO WRAPPING.

STEP 3:

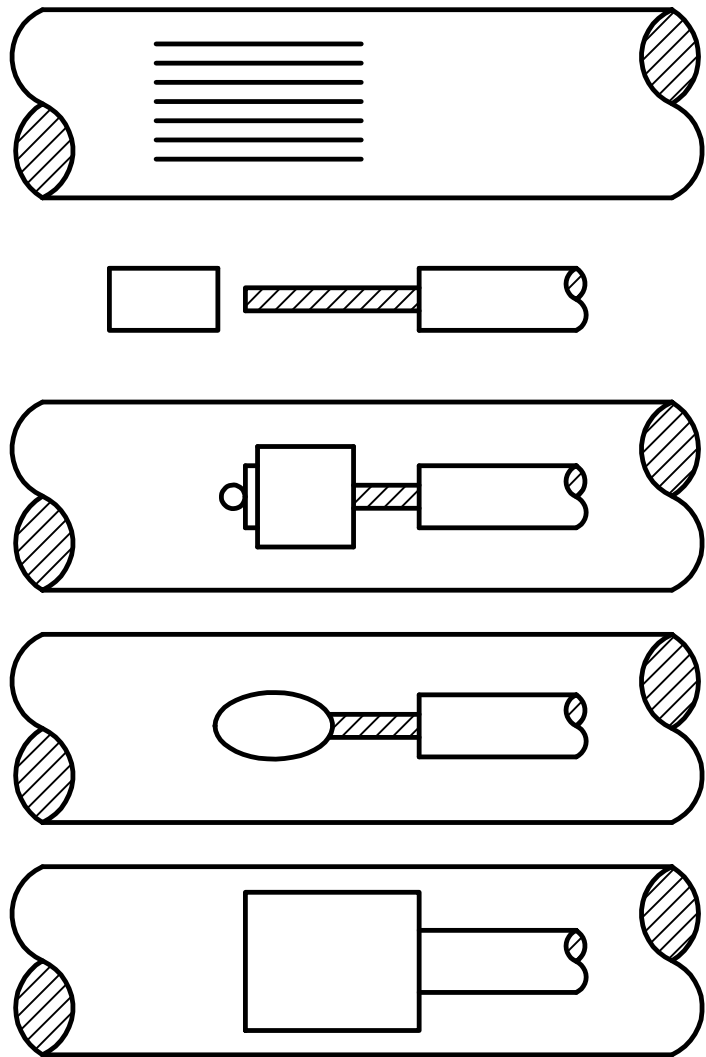
OVERLAP FIRST TUBE WITH ADJACENT TUBE AND SECURE WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE SHALL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED ON TOP OF PIPE AND TAPED IN PLACE.



TYPICAL DETAIL FOR TEST STATION
WITH STEEL SLEEVE INSTALLATION

NOTES:

- 1.) Lowerings to be cathodically protected under the direction of the MSMD Inspector, per standards.
(For anode size see detail above.)
- 2.) Example can vary due to site conditions and MSMD Inspector's direction's.
- 3.) Reference Colorado Springs Utilities Standard Detail Drawing No. A 8-6 – Steel Sleeve Installation.



NOTES:

1. All wire welds shall be minimum 3 inches apart.
2. Standard weld cartridges shall be used for steel surfaces.

EXOTHERMIC WELD PROCESS

Date	Appr.	Date	Revisions

TECH CONTRACTORS
11910 TOURMALINE DR. #130
FALCON, CO 80831
TELEPHONE 719.495.7444

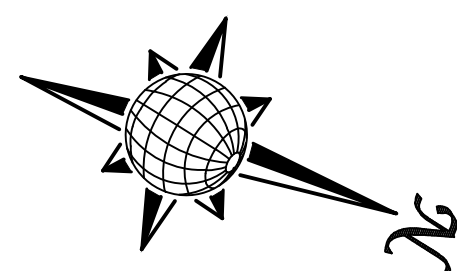


ROLLING HILLS RANCH NORTH FLING 2
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
DETAIL SHEET

Drawn by	Log	Checked by	TAK	Date

Scale	AS SHOWN	5	of	33
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**TWO WORKING DAYS
BEFORE YOU DIG
CALL 811**

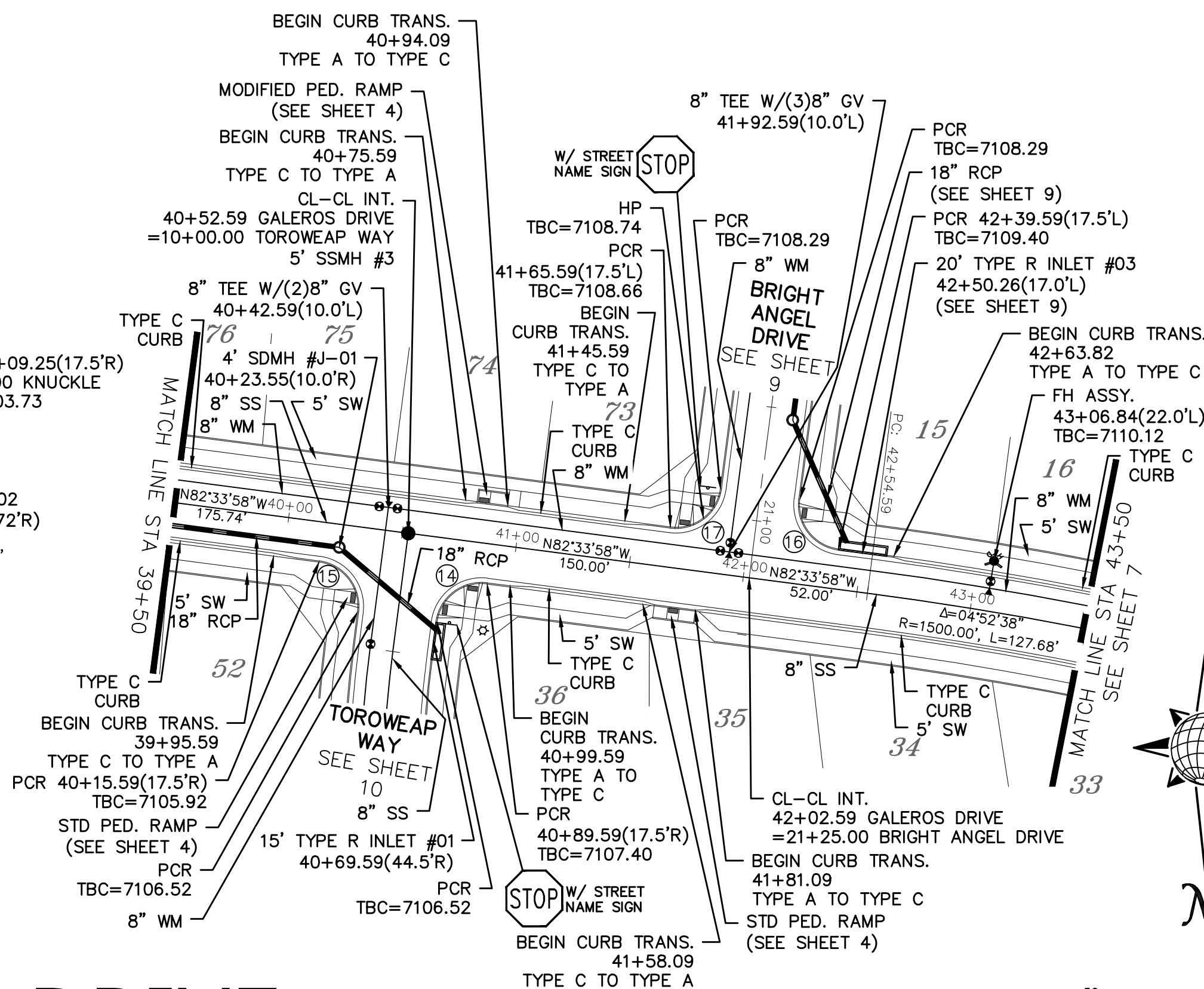
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

NOTE:

- 1) CONTRACTOR TO CONFIRM INV ELEVATION OF EXISTING 8" PVC SS PRIOR TO NEW MANHOLE AND PIPE INSTALLATION
- 2) CONTRACTOR TO CONFIRM INV ELEVATION OF EXISTING 24" RCP PRIOR TO NEW MANHOLE AND PIPE INSTALLATION

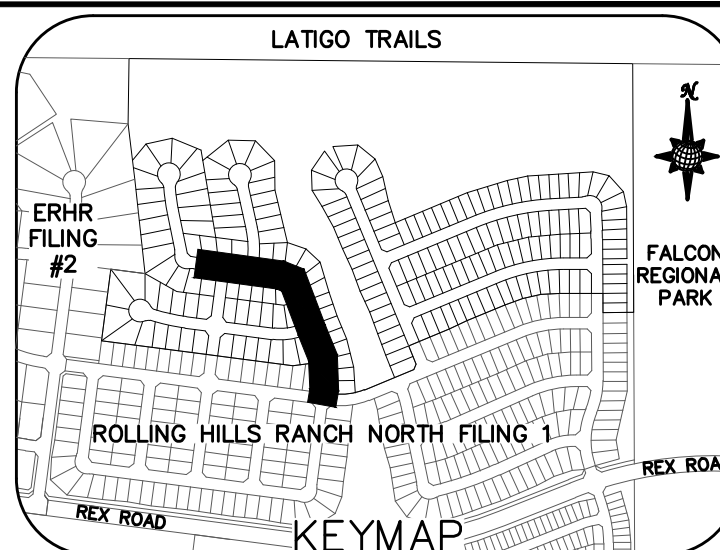
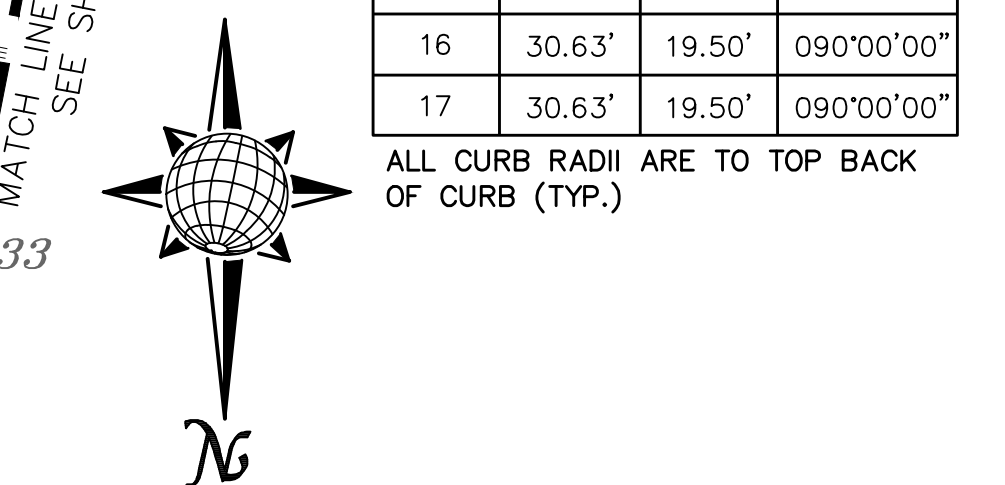
GALEROS DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH TO STA 42+40 URBAN LOCAL LOW VOLUME, DESIGN SPEED 20 MPH AFTER STA 42+40
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



Curve Table			
CURVE	LENGTH	RADIUS	Delta
8	30.63'	19.50'	090°00'00"
9	30.63'	19.50'	090°00'00"
10	37.48'	35.45'	060°34'48"
11	28.33'	67.50'	024°03'00"
12	100.96'	52.50'	110°11'06"
13	28.33'	67.50'	024°03'00"
14	30.63'	19.50'	090°00'00"
15	30.63'	19.50'	090°00'00"
16	30.63'	19.50'	090°00'00"
17	30.63'	19.50'	090°00'00"

ALL CURB RADII ARE TO TOP BACK
OF CURB (TYP.)



1	-	-
2		
3		
4		
No.	Revisions	Date
	Instr.	Date

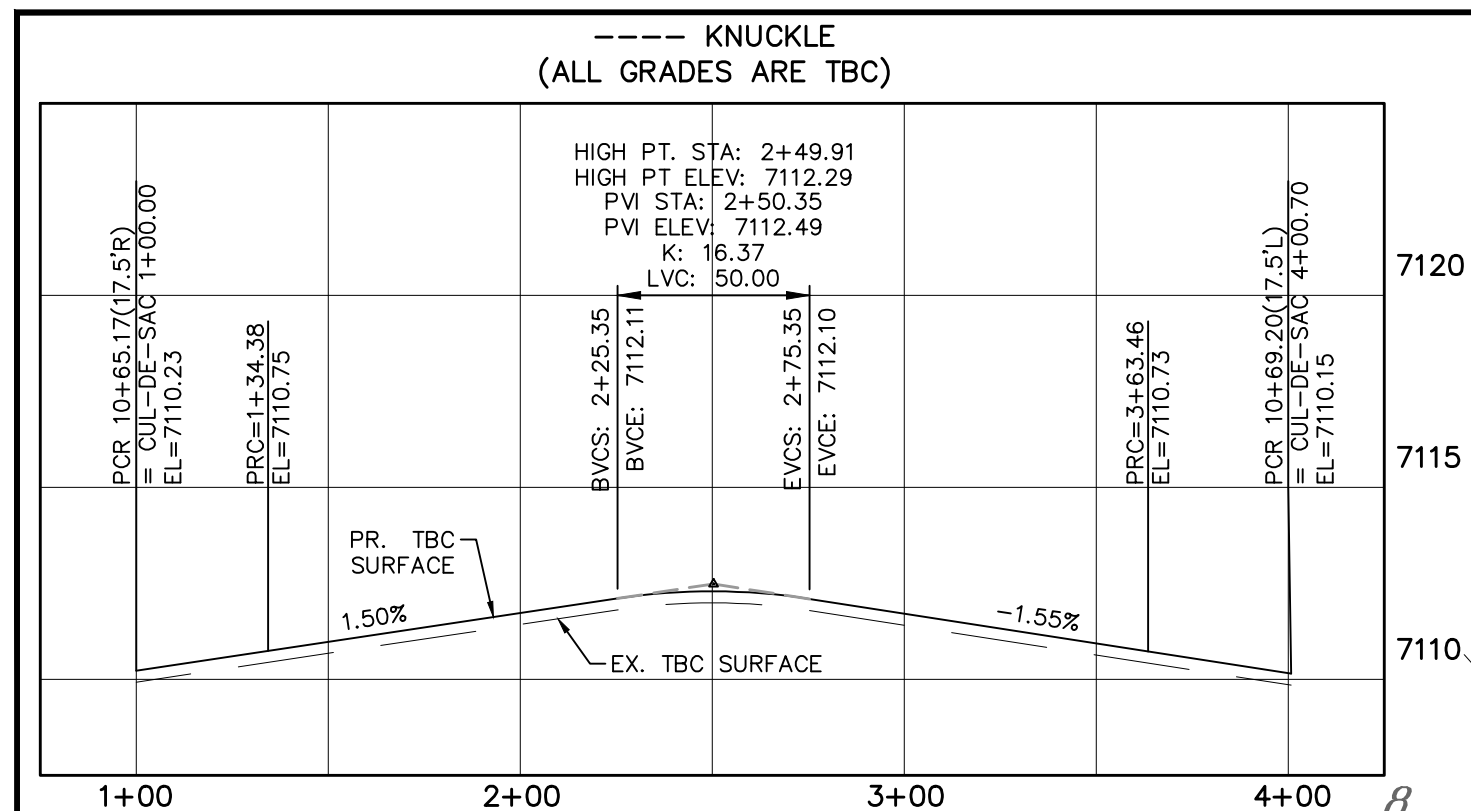
TECH CONTRACTORS
1910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444



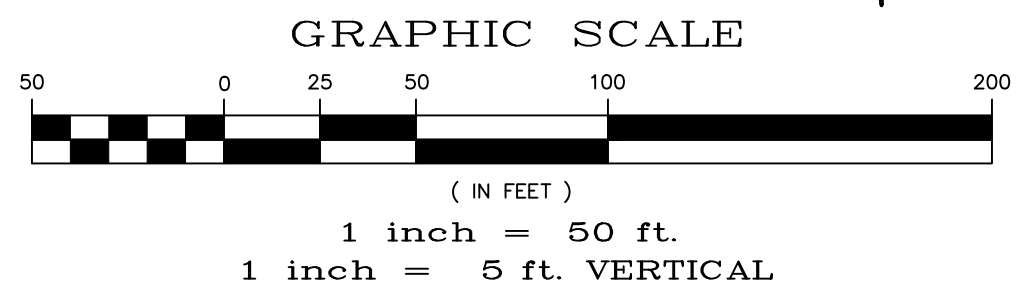
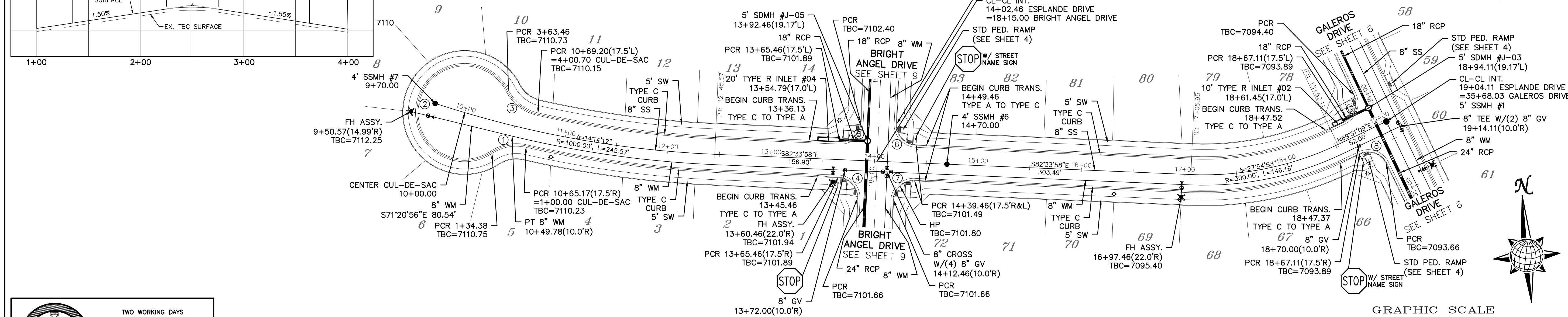
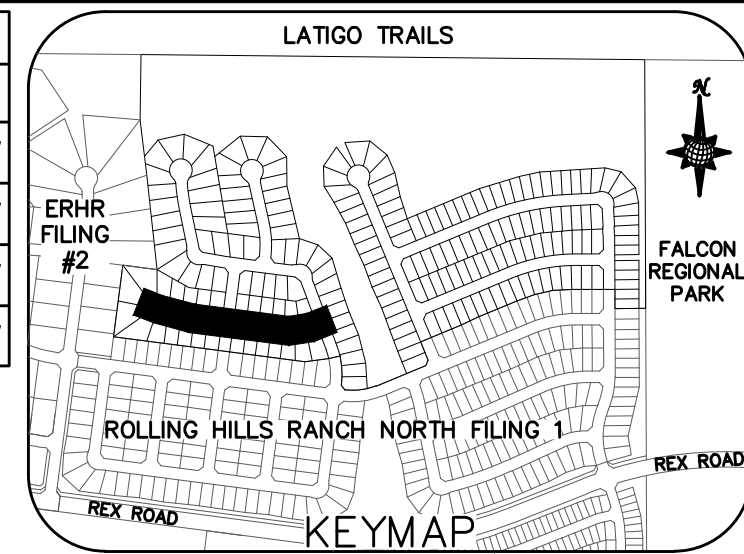
ELLING HILLS RANCH NORTH FILING 2
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
GALEROS DRIVE

Scale AS SHOWN	Drawn by LCG
	Checked by TAK
	Date NOVEMBER 2024



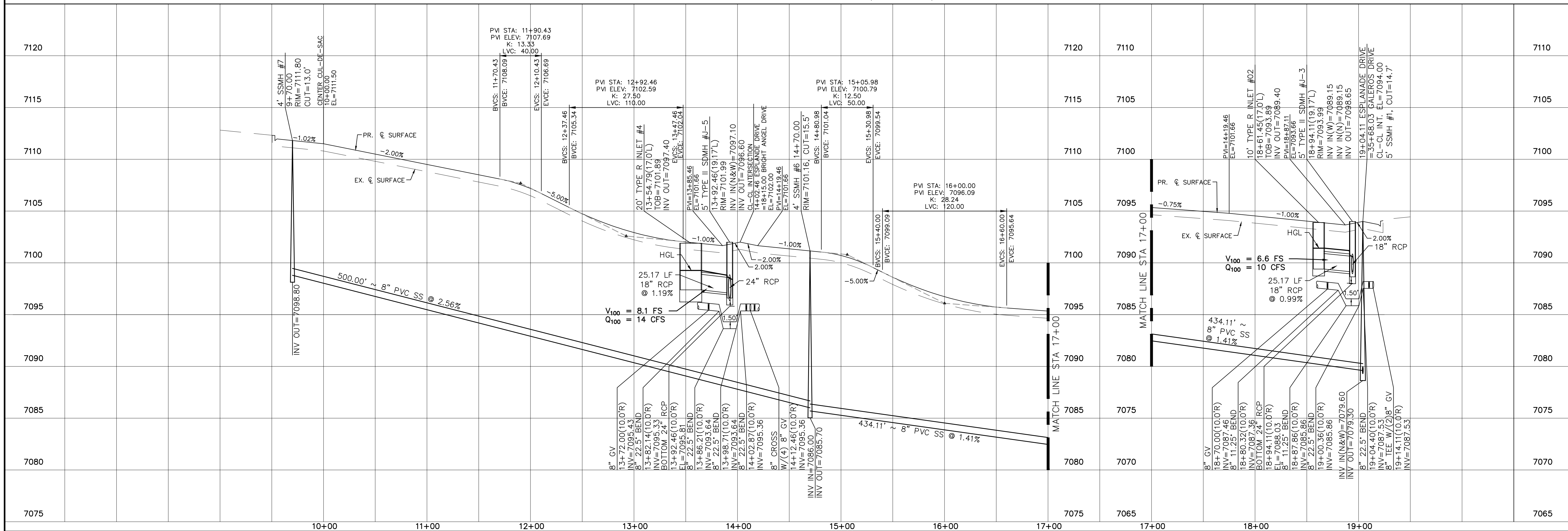
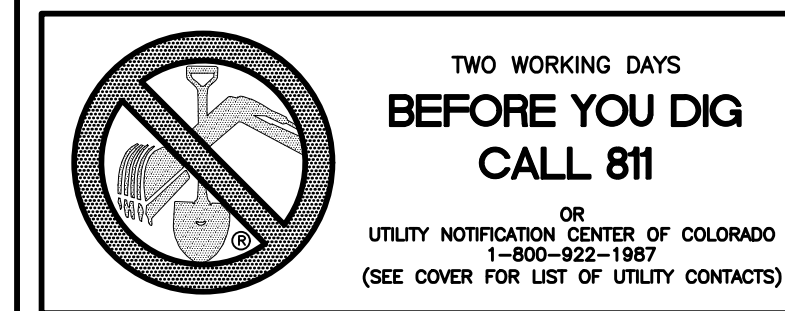


Curve Table				Curve Table			
CURVE	LENGTH	RADIUS	Delta	CURVE	LENGTH	RADIUS	Delta
1	34.38'	42.50'	046°21'00"	6	30.63'	19.50'	090°00'00"
2	229.08'	47.50'	276°19'18"	7	30.63'	19.50'	090°00'00"
3	37.24'	42.50'	050°12'10"	8	30.63'	19.50'	090°00'00"
4	30.63'	19.50'	090°00'00"	9	30.63'	19.50'	090°00'00"
5	30.63'	19.50'	090°00'00"	ALL CURB RADI ARE TO TOP BACK OF CURR. (TYE)			



ESPLANDE DRIVE

URBAN LOCAL LOW VOLUME, DESIGN SPEED 20 MPH TO STA 13+65, URBAN LOCAL, DESIGN SPEED 25 MPH AFTER STA 13+65
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



Part 1			
No.	Revisions	Date	Init. Appr. Date
1			
2			
3			
4			

TECH CONTRACTORS
1910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

LING HILLS RANCH NORTH FILING 2
 AT MERIDIAN RANCH
 STREET AND UTILITY PLANS
 ESPLANDE DRIVE

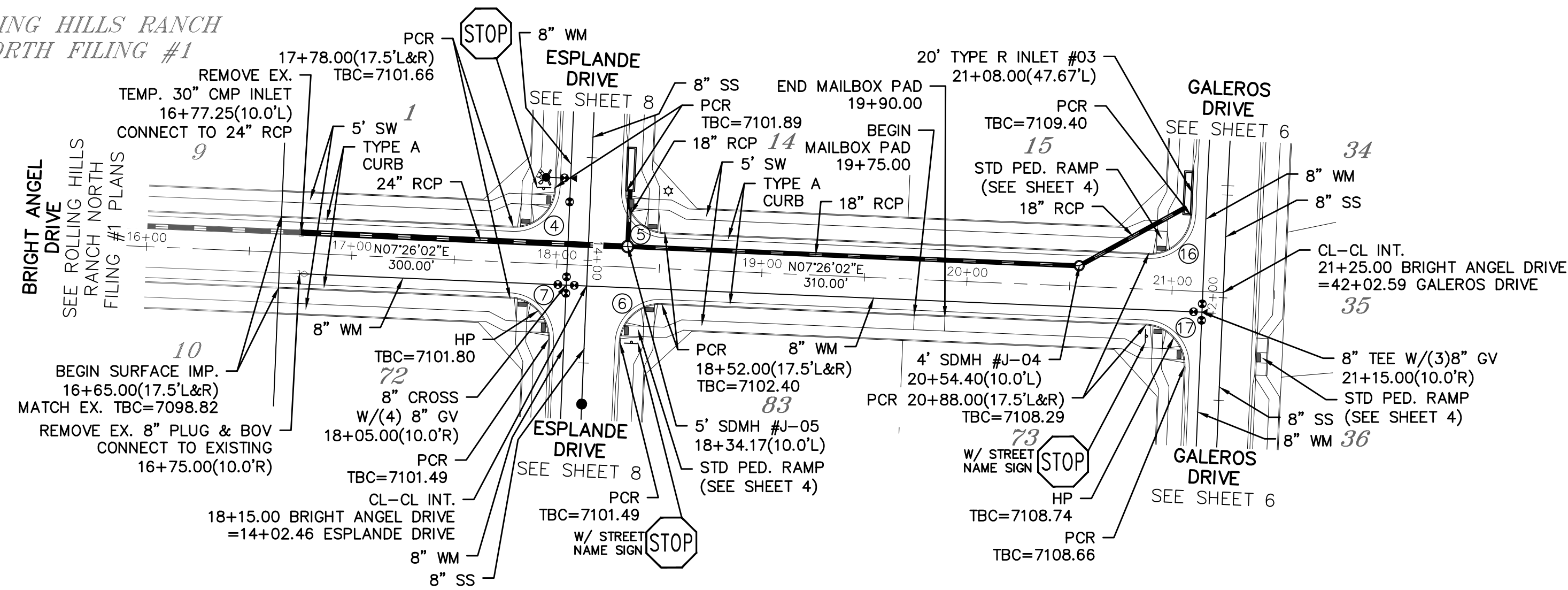
Drawn by
LOG

Checked by
TAK

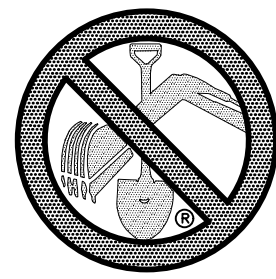
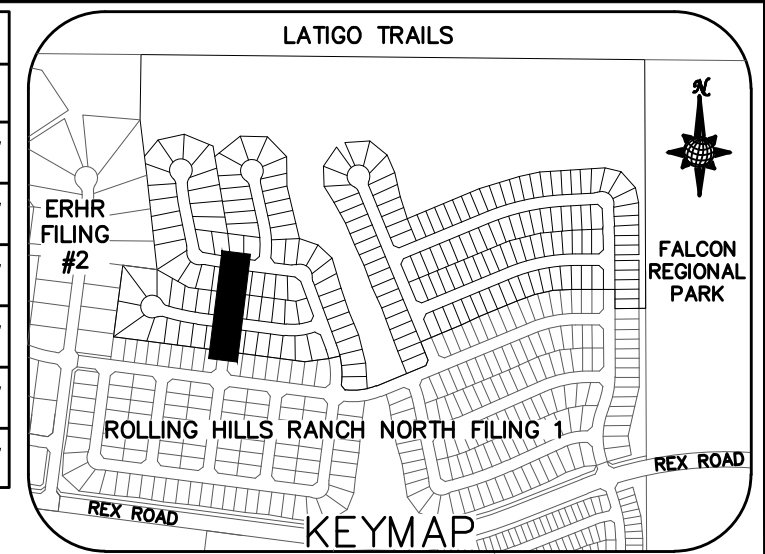
Date
NOVEMBER 2024

Scale
AS SHOWN
8 of 33





Curve Table			
CURVE	LENGTH	RADIUS	Delta
4	30.63'	19.50'	090°00'00"
5	30.63'	19.50'	090°00'00"
6	30.63'	19.50'	090°00'00"
7	30.63'	19.50'	090°00'00"
16	30.63'	19.50'	090°00'00"
17	30.63'	19.50'	090°00'00"



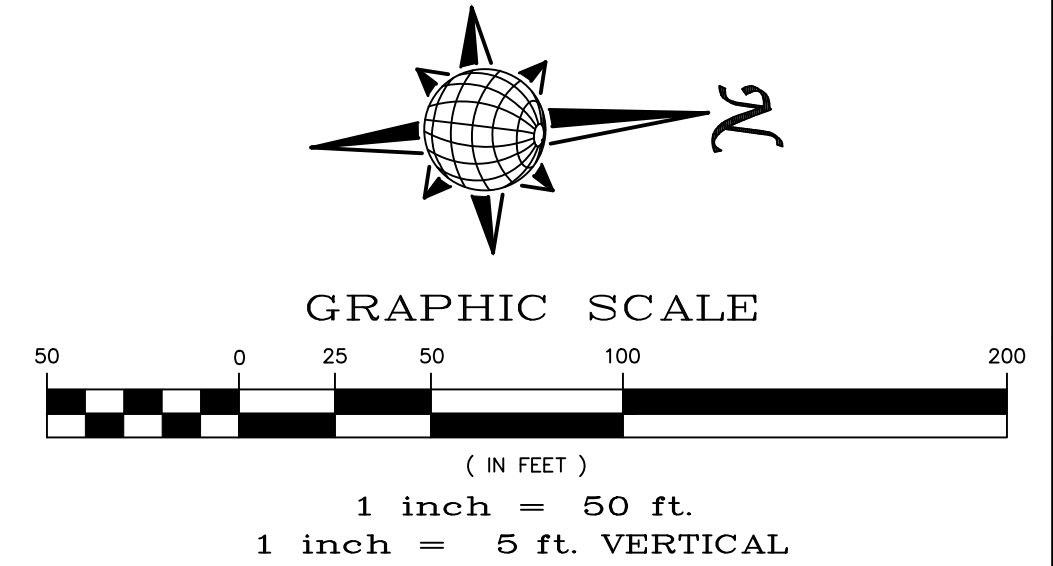
**TWO WORKING DAYS
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OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

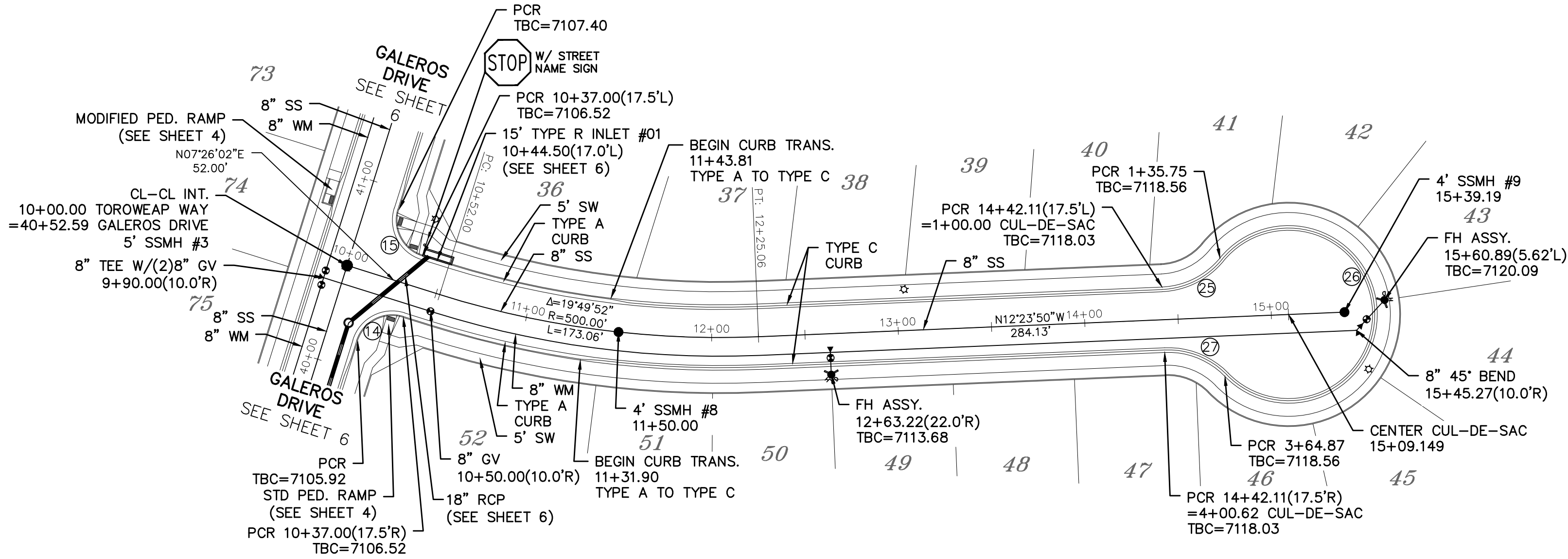
NOTE:
1) CONTRACTOR TO CONFIRM INV ELEVATION
OF EXISTING 24" RCP PRIOR TO NEW
MANHOLE AND PIPE INSTALLATION

BRIGHT ANGEL DRIVE

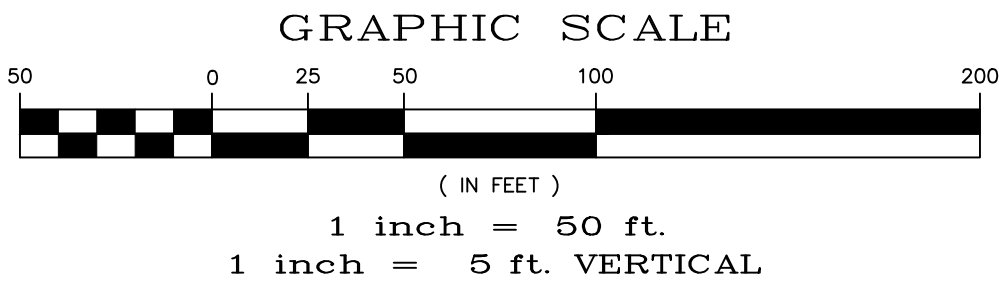
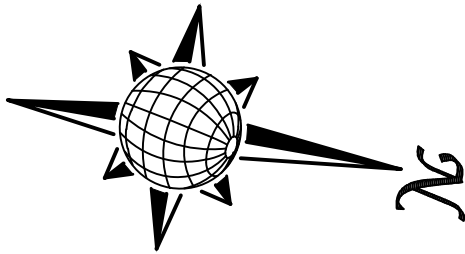
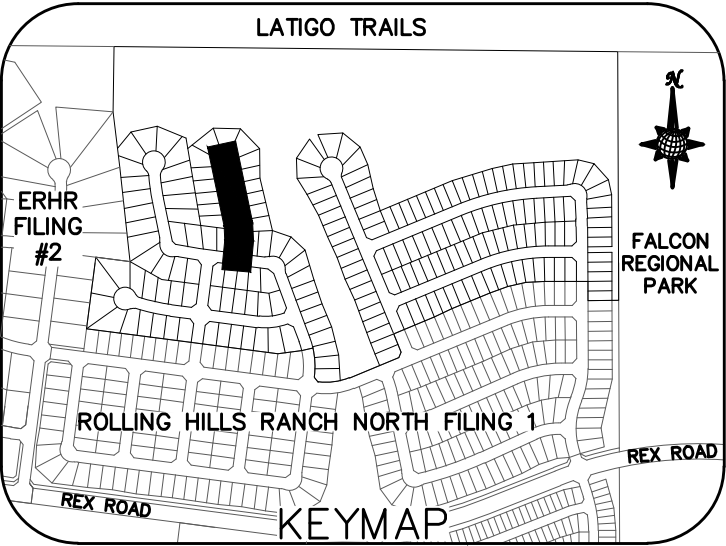
URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

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	Scale AS SHOWN	Drawn by LCG	Checked by TAK	Date NOVEMBER 2024	ROLLING HILLS RANCH NORTH FLING 2 AT MERIDIAN RANCH STREET AND UTILITY PLANS BRIGHT ANGEL DRIVE	 MERIDIAN RANCH	TECH CONTRACTORS 11910 TOURMALINE DR. #130 FALCON, CO 80831 TELEPHONE: 719.695.7444	1						
								2						
								3						
								4						
9 of 33								No.	Revisions	Date	Init.	Appr.	Date	

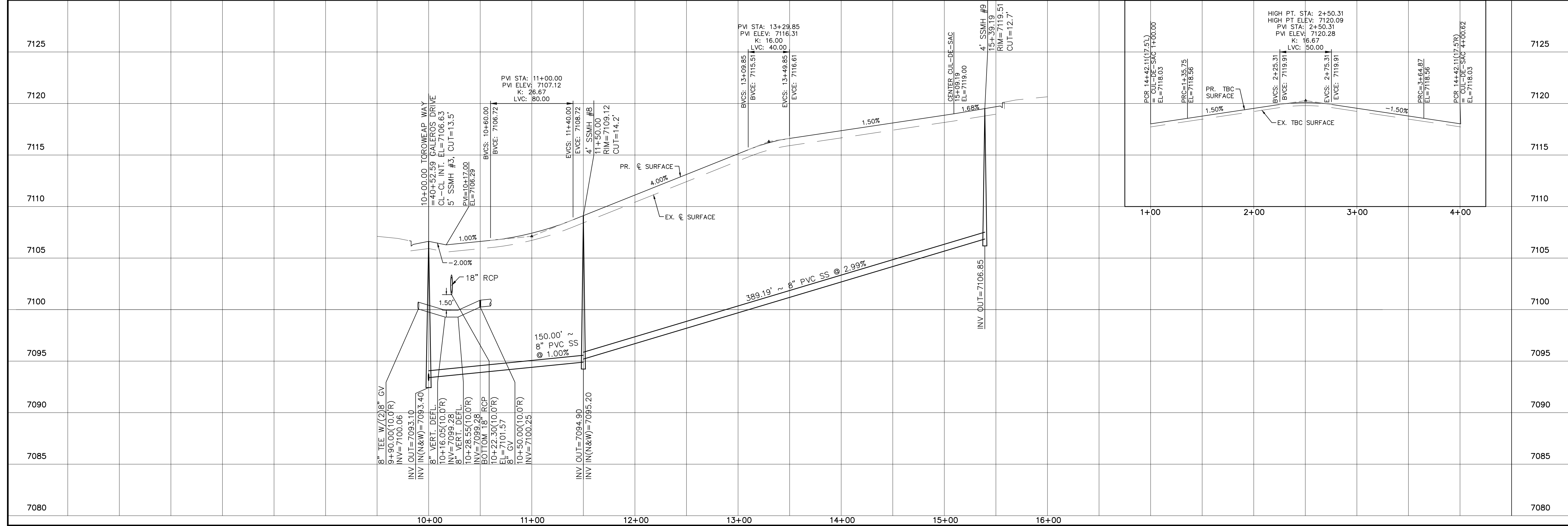


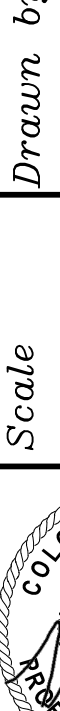

Curve Table			
CURVE	LENGTH	RADIUS	Delta
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5	30.63'	19.50'	090°00'00"



TOROWEAP WAY

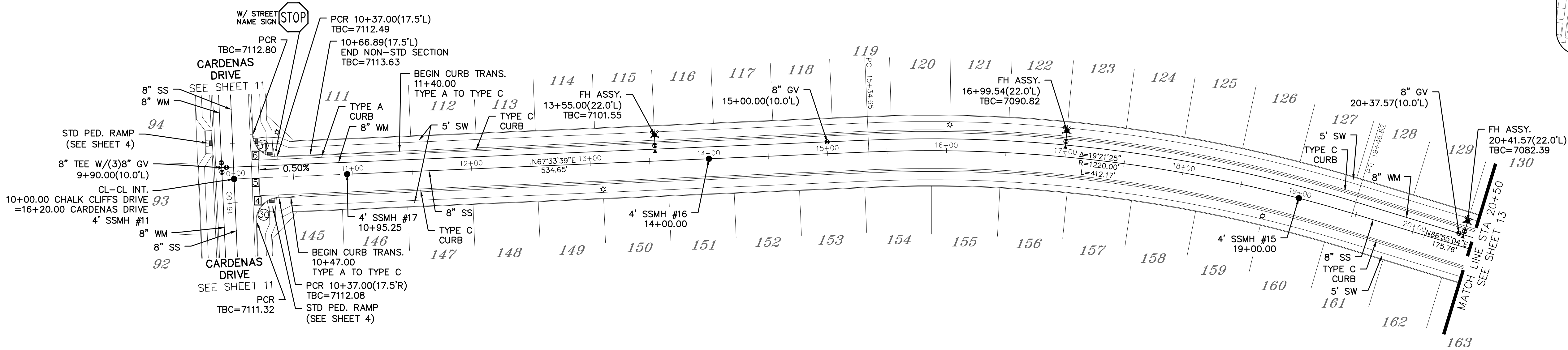
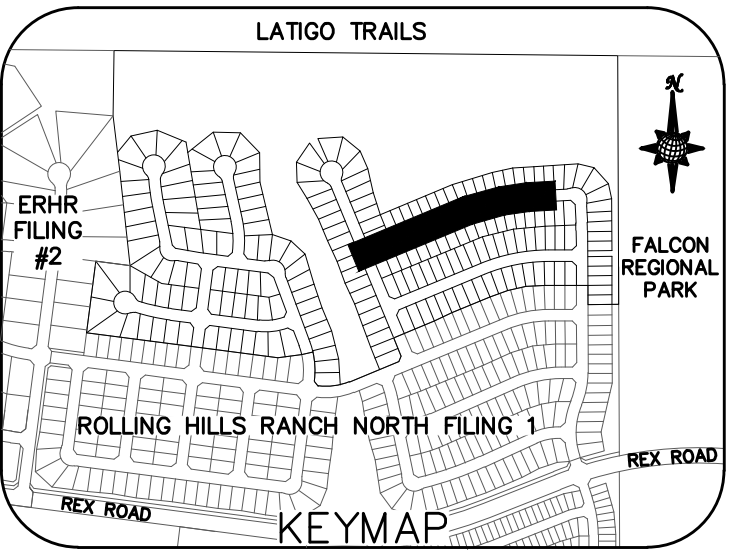
URBAN LOCAL LOW VOLUME, DESIGN SPEED 20 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



<div></div>	Scale AS SHOWN	Drawn by LOG	ROLLING HILLS RANCH NORTH FILING 2 AT MERIDIAN RANCH		
		Checked by TAK	STREET AND UTILITY PLANS		
	10 of 33	Date NOVEMBER 2024	TOROWEAP WAY		
		<div> MERIDIAN RANCH</div>			
	TECH CONTRACTORS 11910 TOURMALINE DR., #130 FALCON, CO 80831 TELEPHONE: 719.495.7444				
No.	Revisions	Date	Invt.	Appr.	Date
1			-		
2					
3					
4					

Curve Table			
CURVE	LENGTH	RADIUS	Delta
30	30.63'	19.50'	090°00'00"
31	30.63'	19.50'	090°00'00"

ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)



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GRAPHIC SCALE



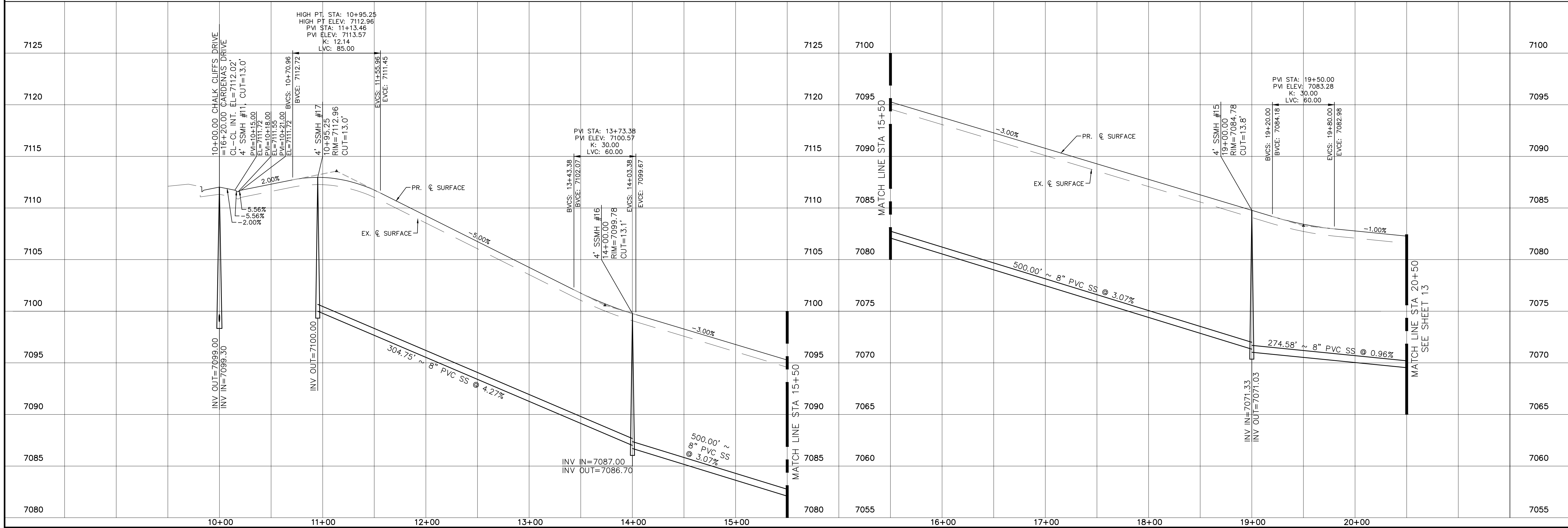
(IN FEET)

$$1 \text{ inch} = 50 \text{ ft.}$$

1 inch = 5 ft. VERTICAL

CHALK CLIFFS DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



	No.	Revisions	Date	Insi.	Appr.	Date
1				-		
2						
3						
4						

TECH CONTRACTORS
11910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 2
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
CHALK CLIFFS DRIVE

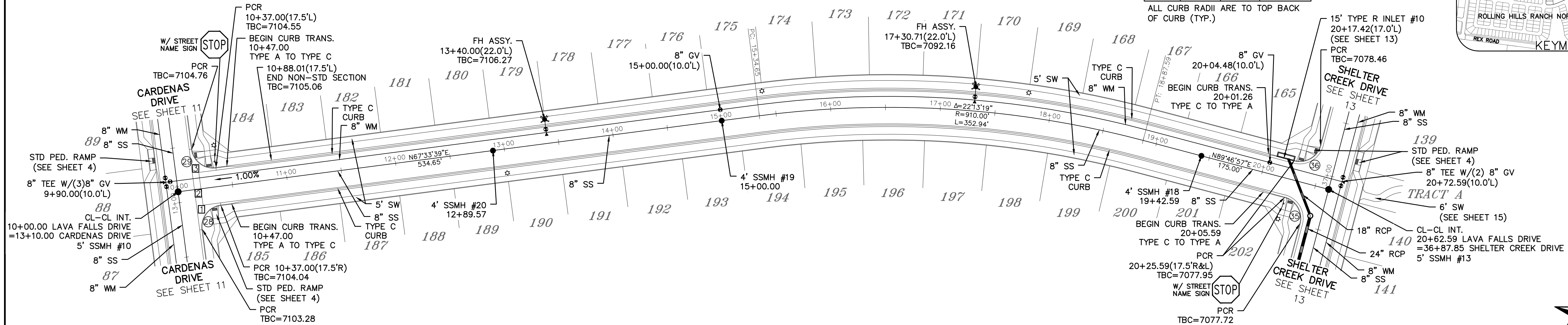
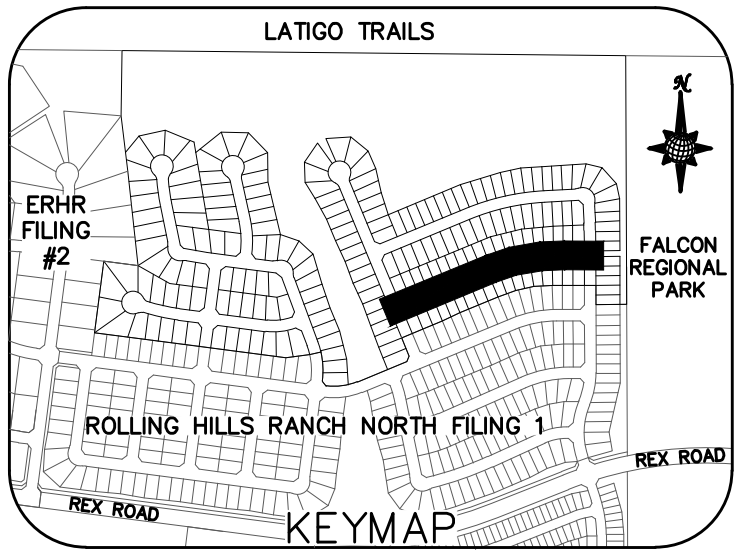
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	Checked by TAK
	Date NOVEMBER 2024
12 of 33	



$$\begin{aligned} \boxed{1} &= 7103.18 \\ \boxed{2} &= 7103.52 \\ \boxed{3} &= 7103.86 \end{aligned}$$

Curve Table			
CURVE	LENGTH	RADIUS	Delta
28	30.63'	19.50'	090°00'00"
29	30.63'	19.50'	090°00'00"
35	30.63'	19.50'	090°00'00"
36	30.63'	19.50'	090°00'00"

ALL CURB RADII ARE TO TOP BACK
OF CURB (TYP.)



**TWO WORKING DAYS
BEFORE YOU DIG
CALL 811**

OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)



GRAPHIC SCALE



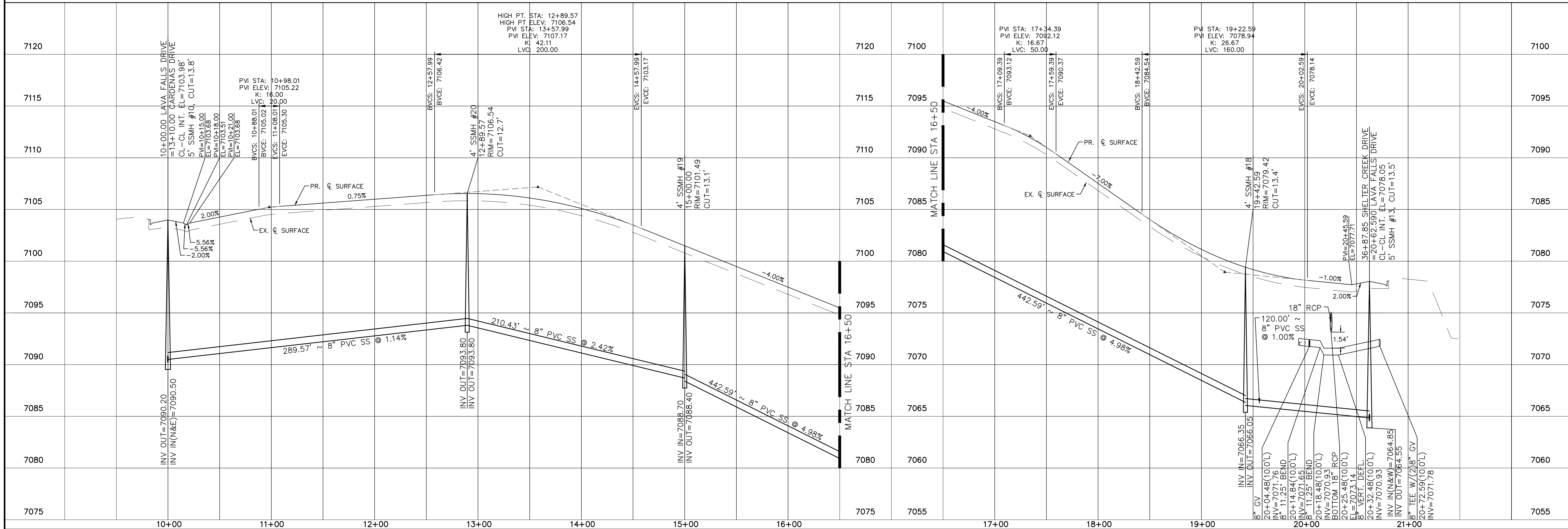
(IN FEET)

$$1 \text{ inch} = 50 \text{ ft.}$$

1 inch = 5 ft. VERTICAL

LAVA FALLS DRIVE

URBAN LOCAL, DESIGN SPEED 25 MPH
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



No.	Revisions	Date	Init.	Appr.	Date
1			-		
2					
3					
4					

TECH CONTRACTORS
1910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

MERIDIAN RANCH

ROLLING HILLS RANCH NORTH FILING 2
AT MERIDIAN RANCH
STREET AND UTILITY PLANS
LAVA FALLS DRIVE

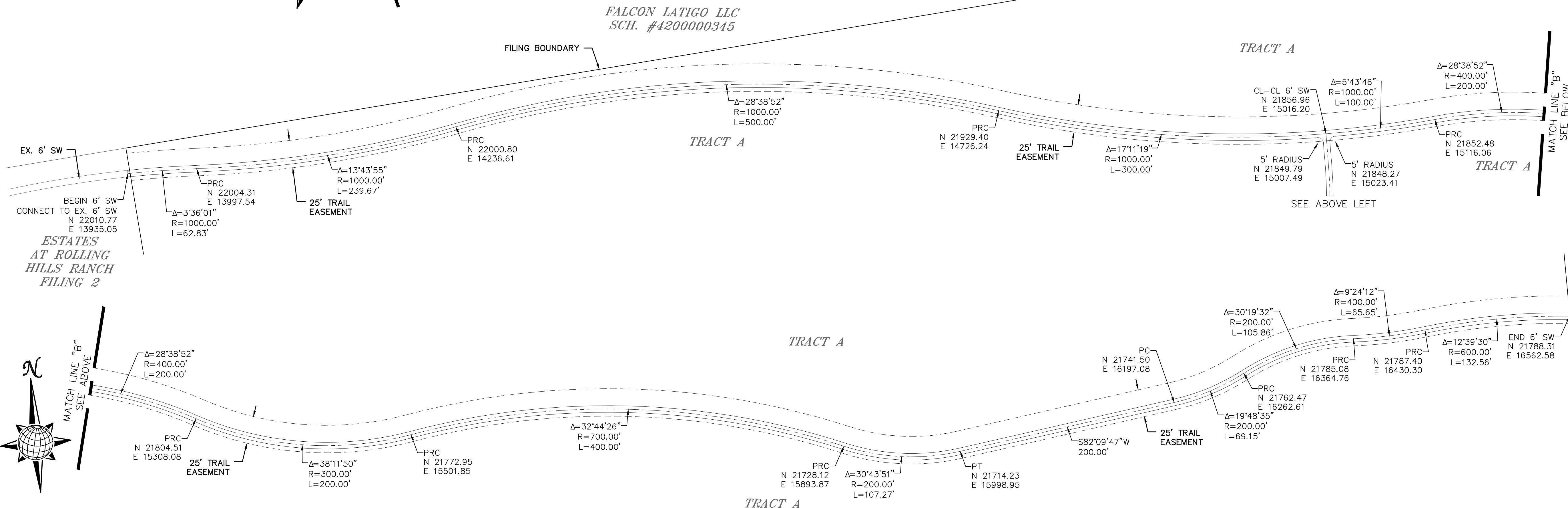
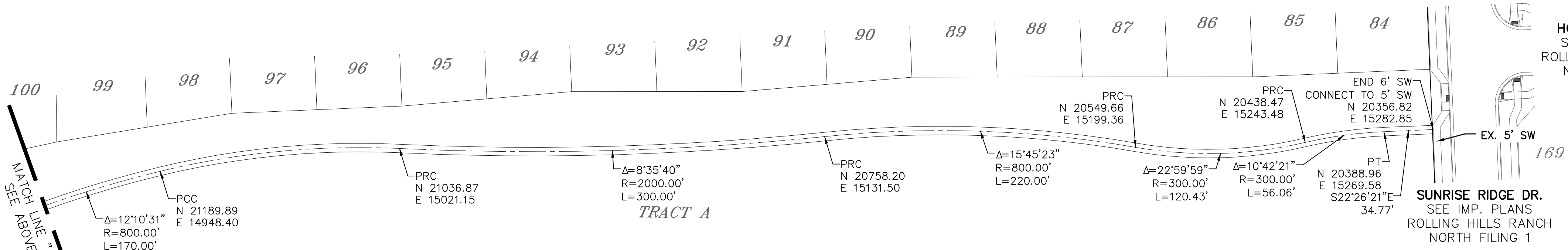
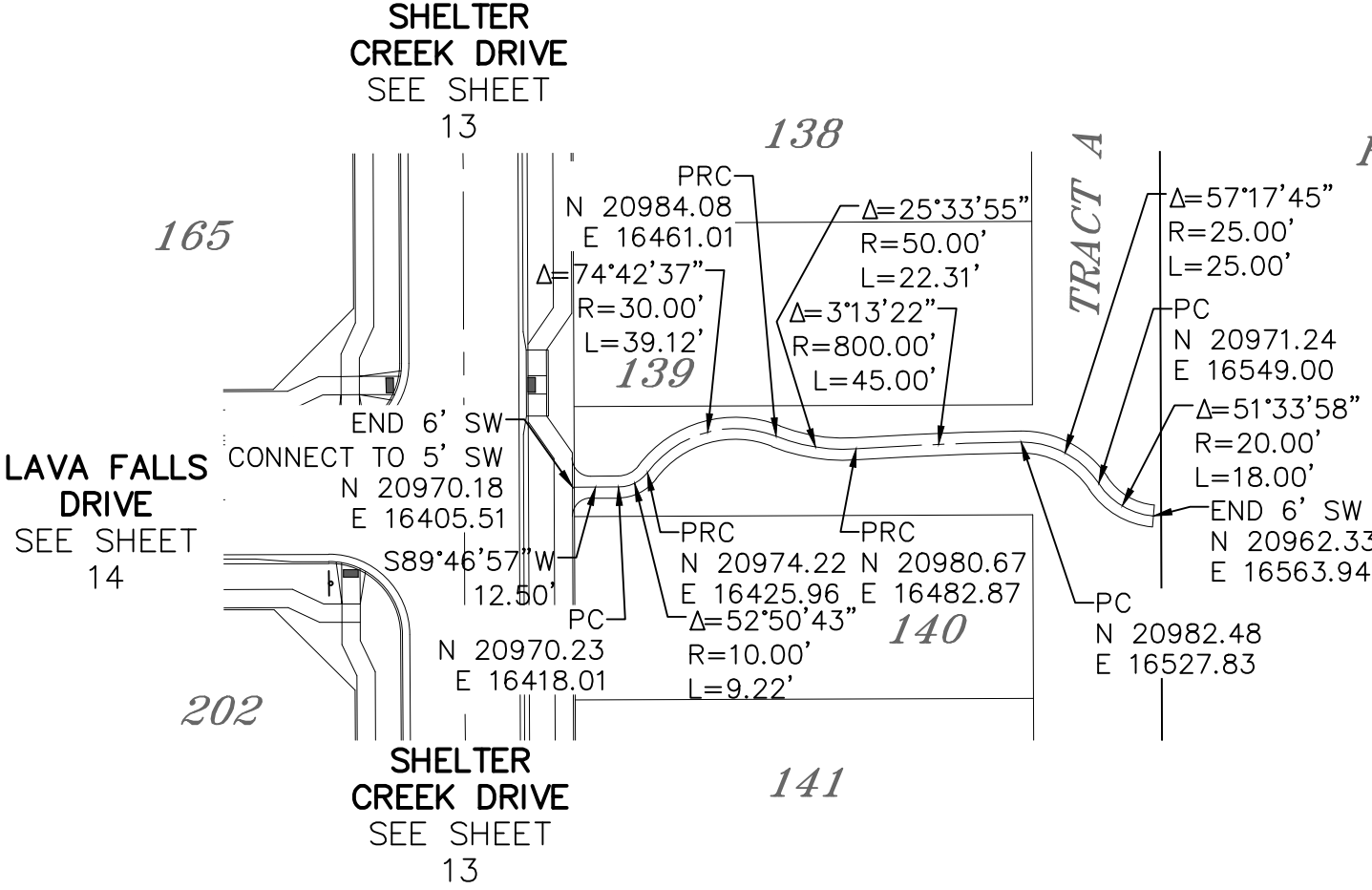
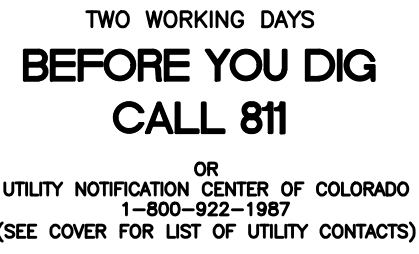
Drawn by
LOG

Checked by
TAK

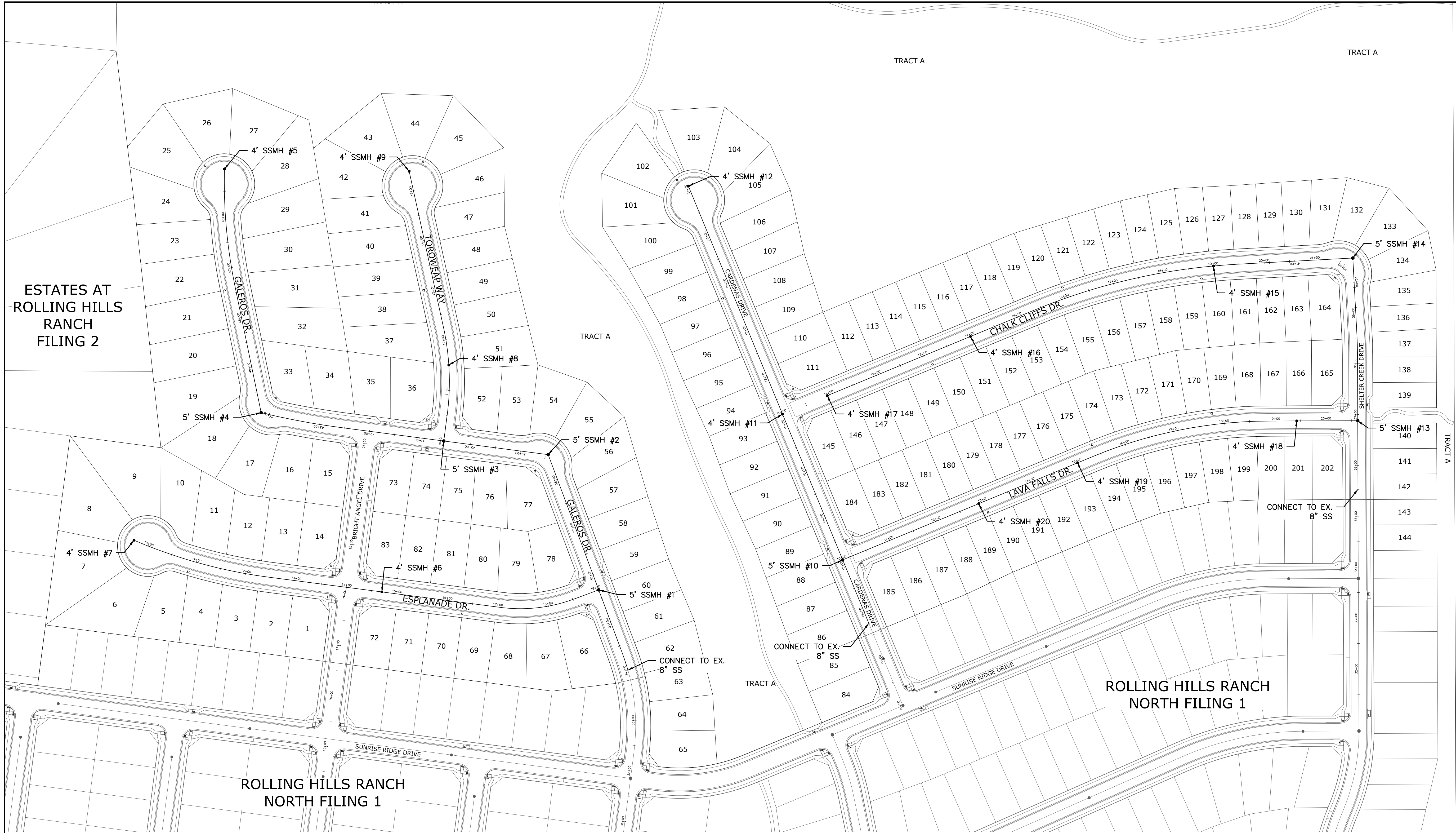
Date
NOVEMBER 2024

Scale
AS SHOWING
14 of 33





	Scale AS SHOWN	Drawn by LCS	ROLLING HILLS RANCH NORTH FILING 2 AT MERIDIAN RANCH STREET AND UTILITY PLANS SIDEWALK PLAN	 MERIDIAN RANCH	TECH CONTRACTORS 11910 TOURMALINE DR, #130 FALCON, CO 80831 TELEPHONE: 719.695.7444	1								
		Checked by TAK				2								
	Date	3												
	15 of 33	NOVEMBER 2024				4								
						No.	Revisions	Date	Invt.	Appr.	Date			



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.

TWO WORKING DAYS
**BEFORE YOU DIG
CALL 811**

OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

NOTE:

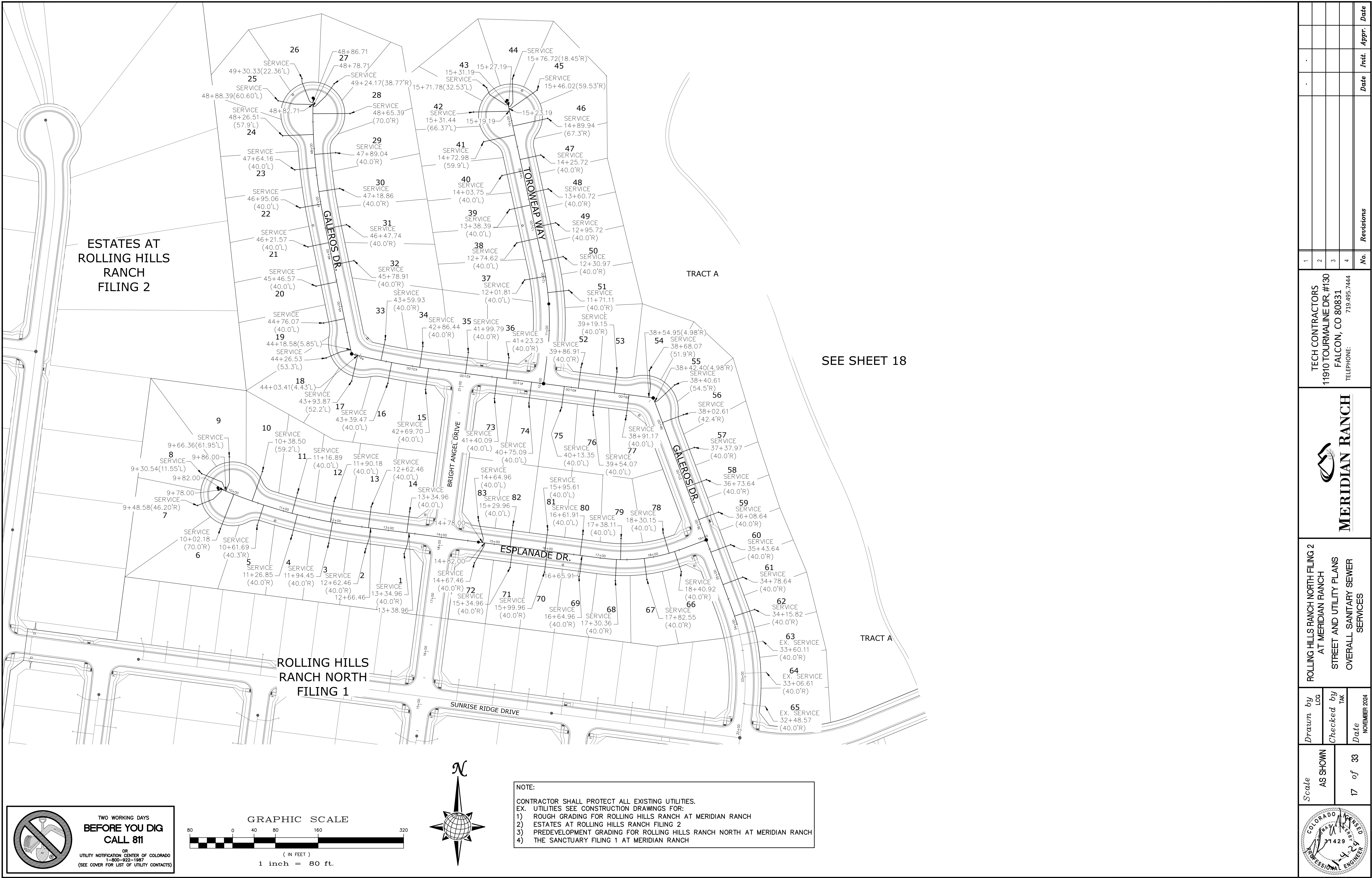
CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:
1) ROUGH GRADING FOR ROLLING HILLS RANCH AT MERIDIAN RANCH
2) ESTATES AT ROLLING HILLS RANCH FILING 2
3) PREDEVELOPMENT GRADING FOR ROLLING HILLS RANCH NORTH AT MERIDIAN RANCH
4) THE SANCTUARY FILING 1 AT MERIDIAN RANCH


NOTE:

8" SS UNLESS OTHERWISE LABELED.

FALCON
REGIONAL
PARK

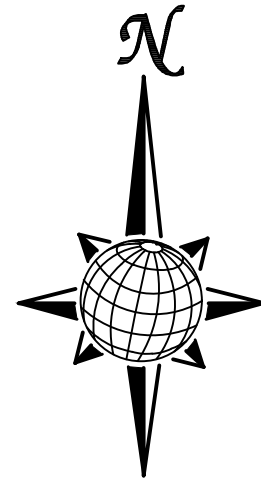
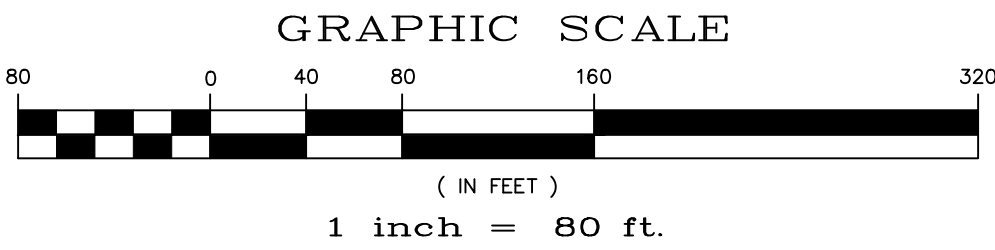
Scale		AS SHOWN		16 of 33			
Drawn by		Checked by		Date		NOVEMBER 2024	
LOG		TAK					
ROLLING HILLS RANCH NORTH FILING 2 AT MERIDIAN RANCH STREET AND UTILITY PLANS OVERALL SANITARY SEWER							
MERIDIAN RANCH							
TECH CONTRACTORS 11910 TOURMALINE DR. #130 FALCON, CO 80831 TELEPHONE 719.495.7444							
1		2		3		4	
No.		Revisions		Date		Init. Appr.	





TWO WORKING DAYS
**BEFORE YOU DIG
CALL 811**


OR
UTILITY NOTIFICATION CENTER OF COLORADO
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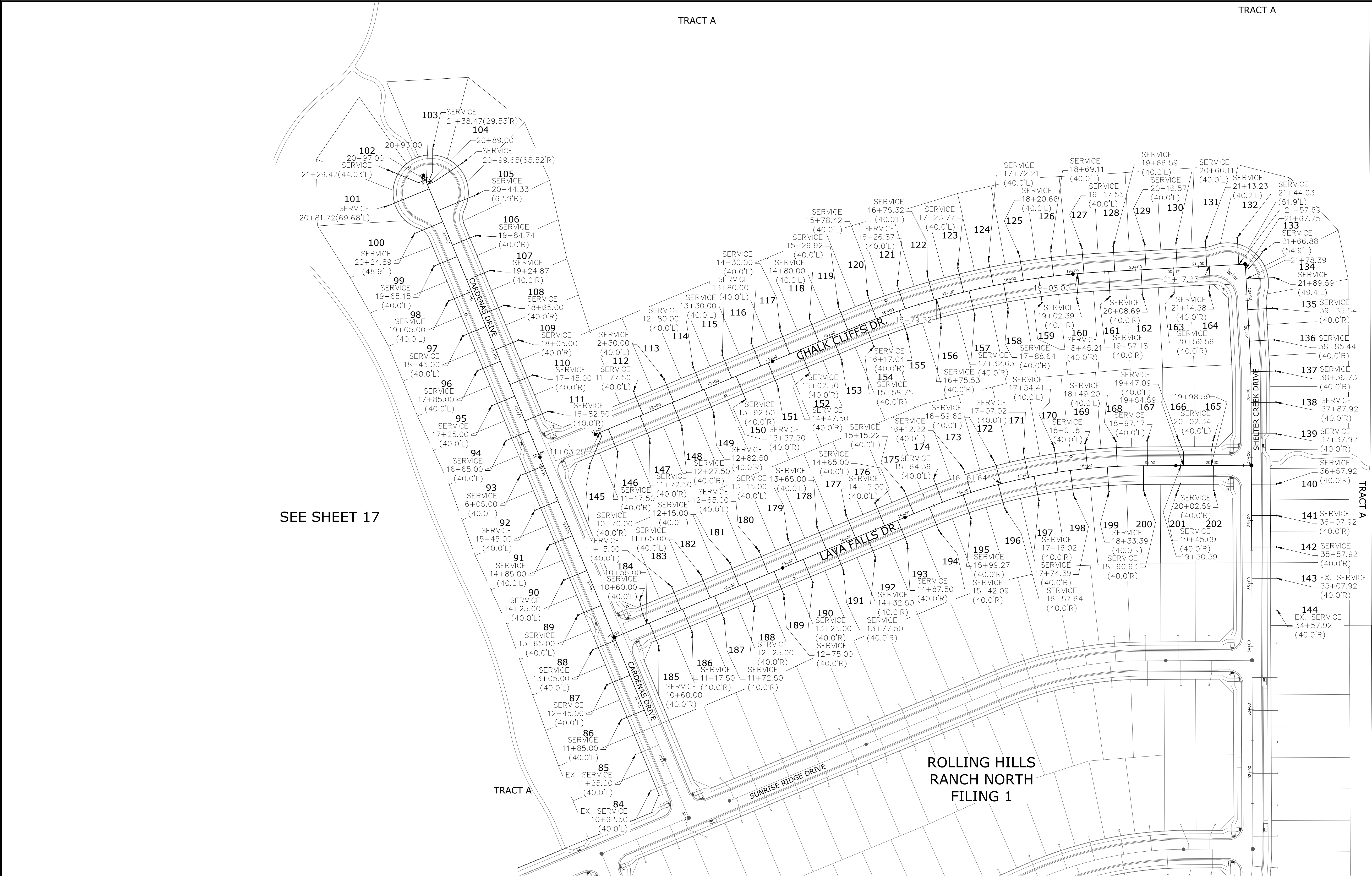


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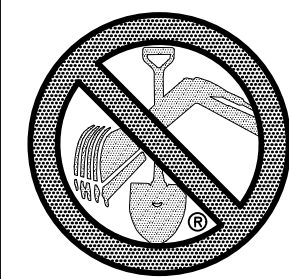
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- 4) THE SANCTUARY FILING 1 AT MERIDIAN RANCH

Scale AS SHOWN	Drawn by LGC	Checked by TAK	Date NOVEMBER 2024	ROLLING HILLS RANCH NORTH FILING 2 AT MERIDIAN RANCH STREET AND UTILITY PLANS OVERALL SANITARY SEWER SERVICES				TECH CONTRACTORS 11910 TOURMALINE DR. #130 FALCON, CO 80831 TELEPHONE 719.495.7444				1 2 3 4 No.				Revisions				Date Init. Appr.			
				SEE SHEET 18																			

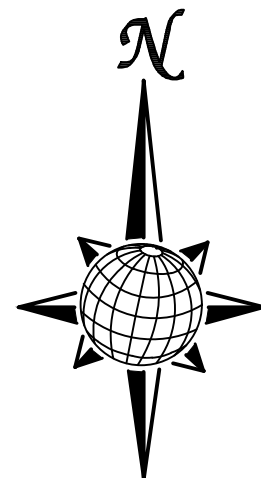


FALCON REGIONAL PARK



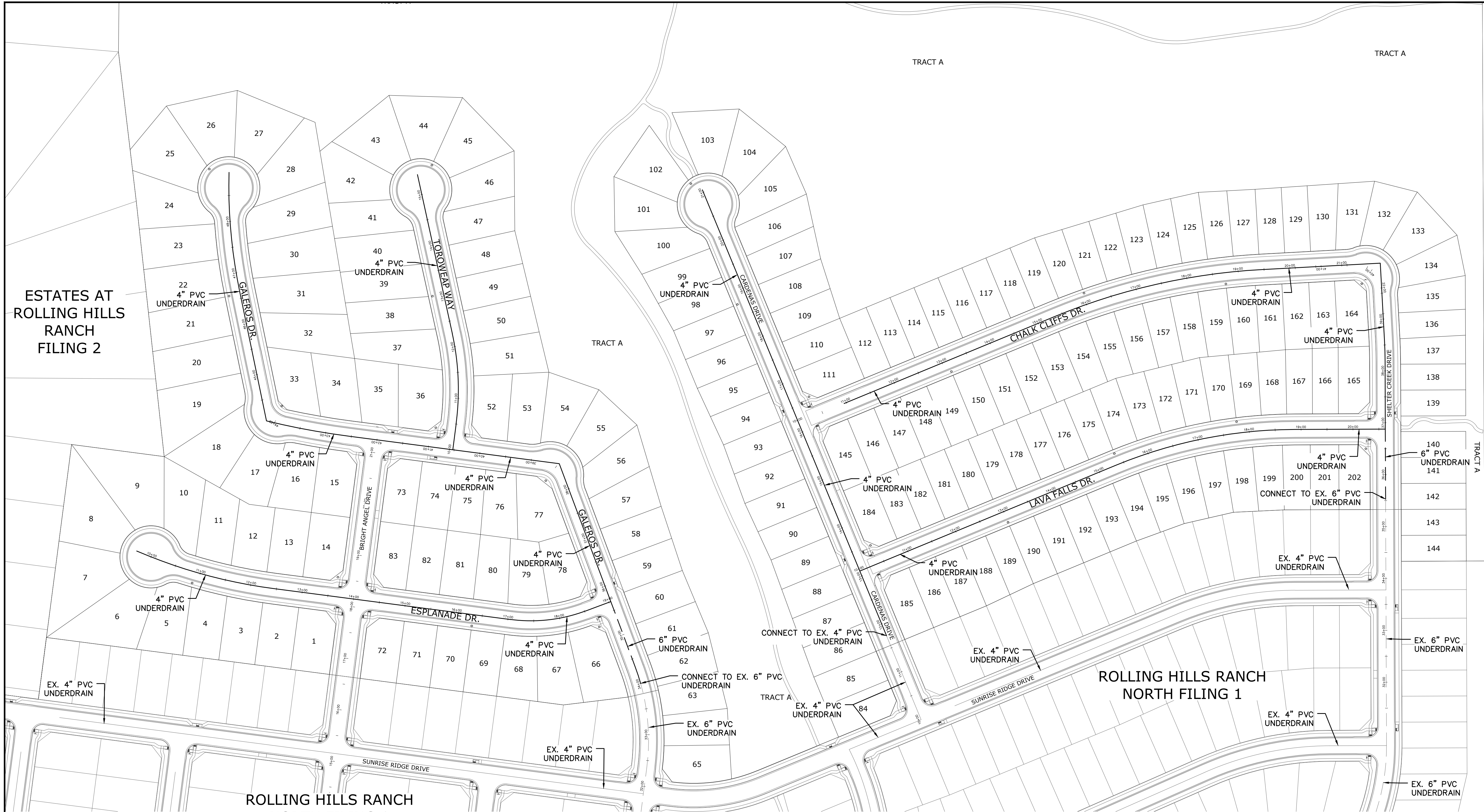
TWO WORKING DAYS
BEFORE YOU DIG
CALL 811
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

GRAPHIC SCALE
(IN FEET)
1 inch = 80 ft.

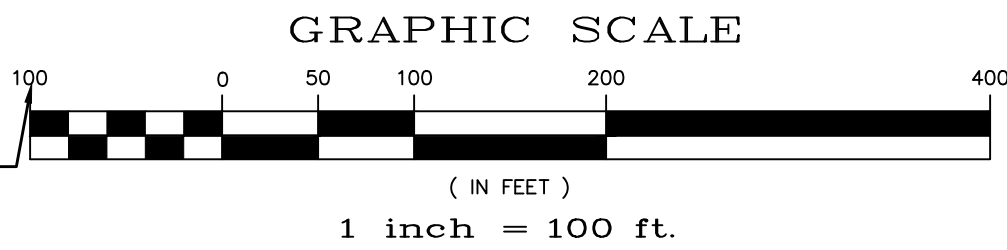
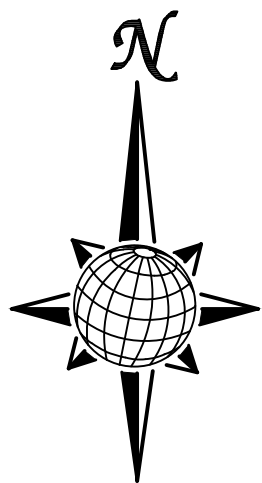


NOTE:
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LEGEND	
	EX. 4" UNDERDRAIN
	EX. 6" UNDERDRAIN
	EX. 8" UNDERDRAIN
	4" UNDERDRAIN
	6" UNDERDRAIN
	8" UNDERDRAIN



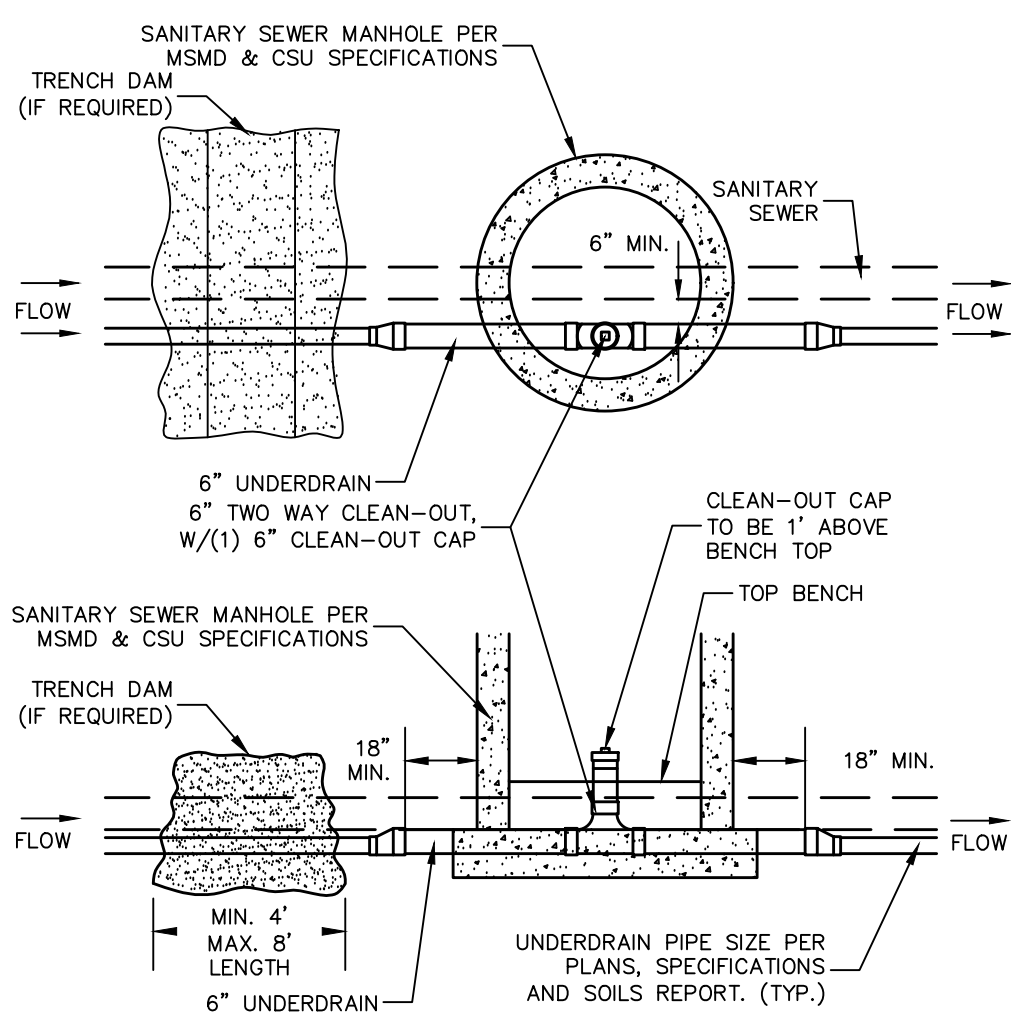
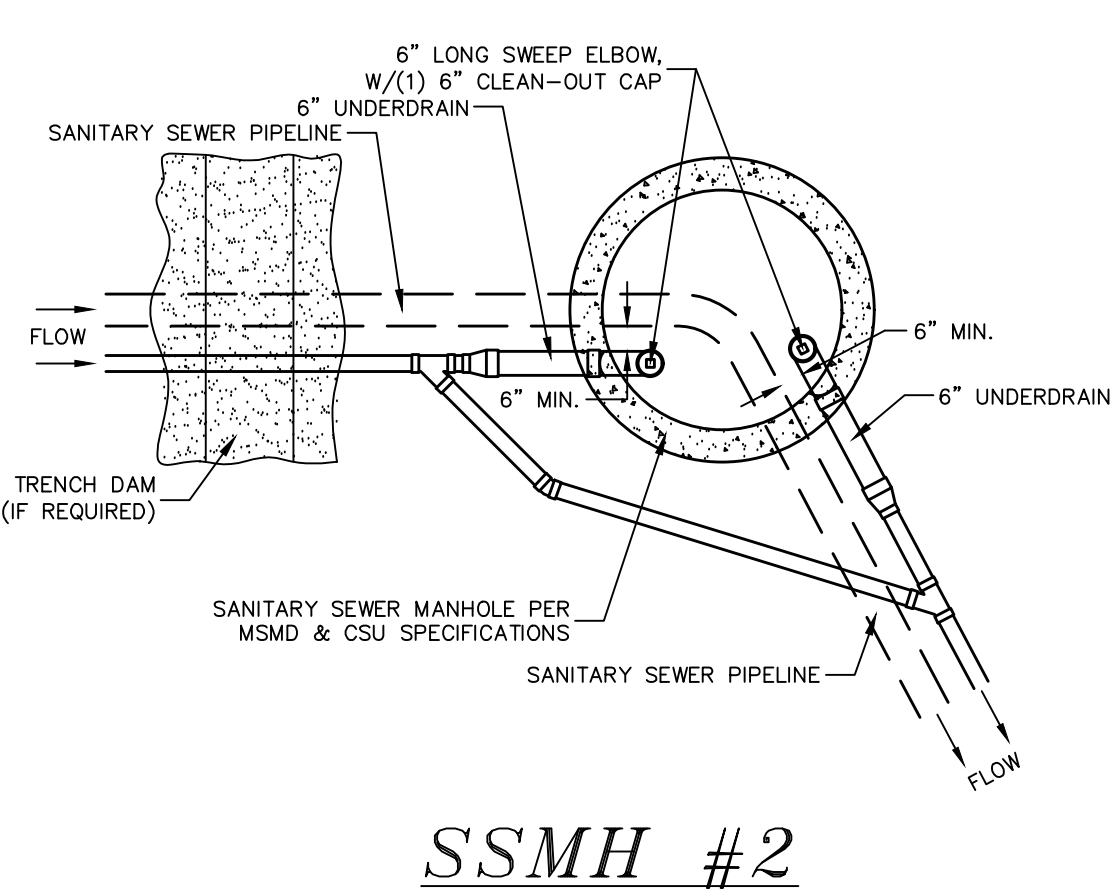
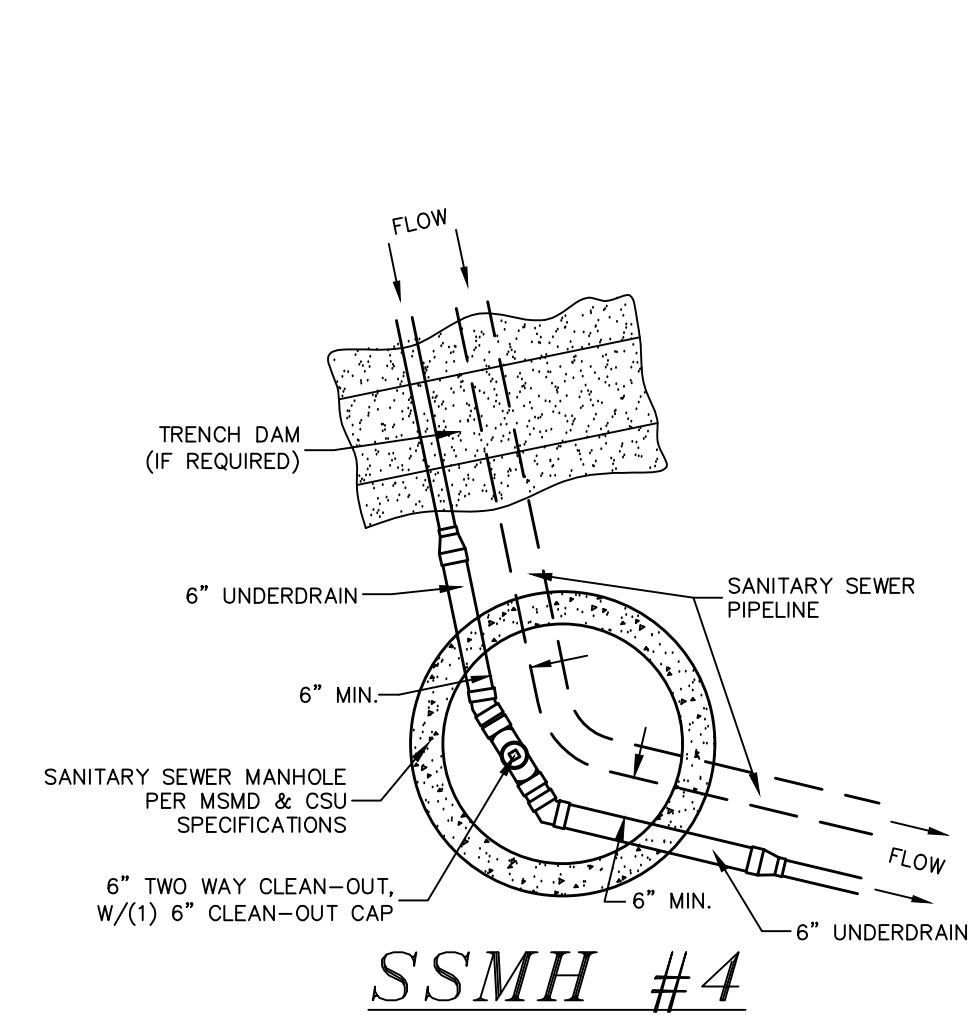
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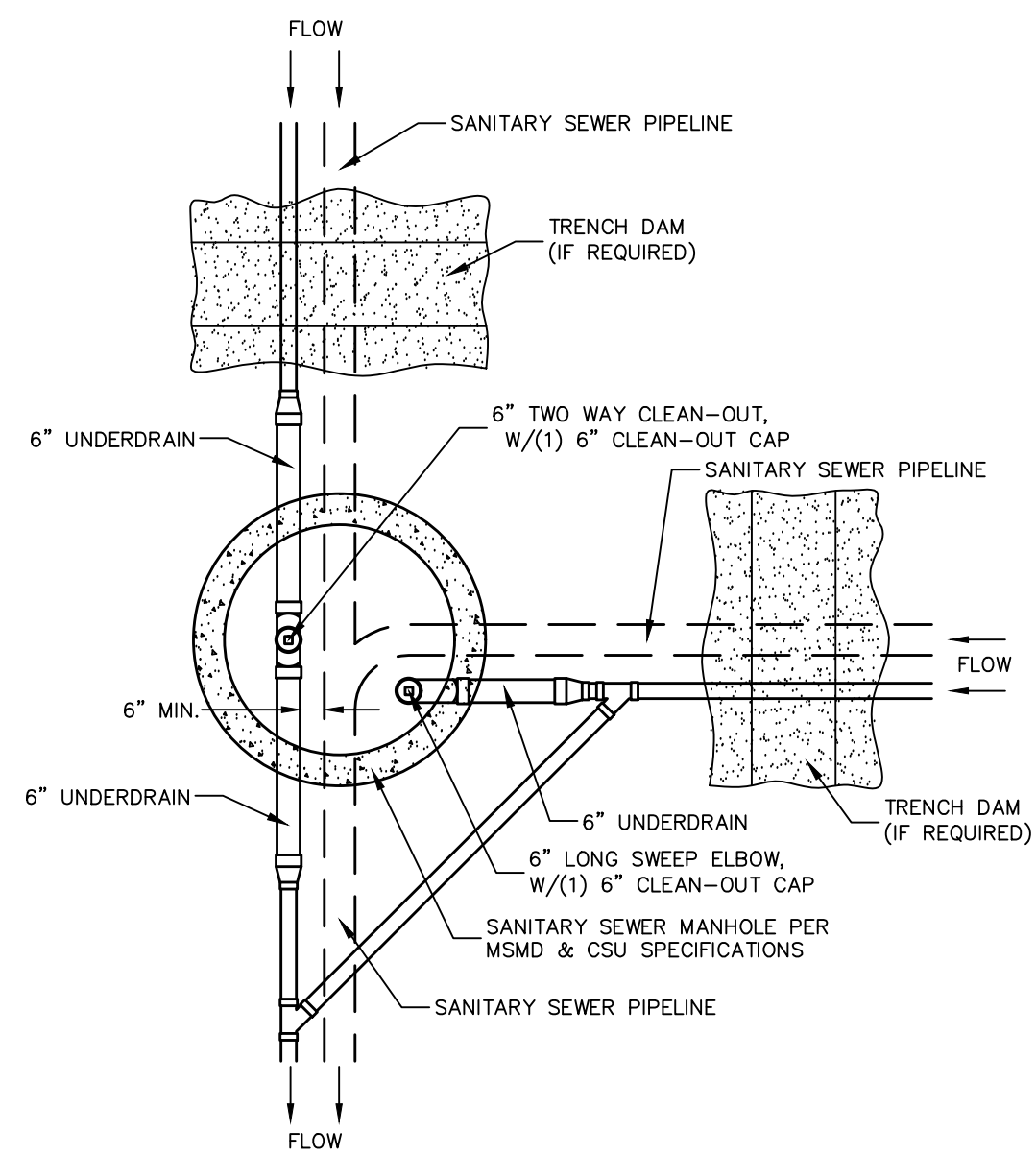
OR
UTILITY NOTIFICATION CENTER
1-800-485-5111
(SEE COVER FOR LIST OF UTILITY CONTACTS)

FALCON
REGIONAL
PARK

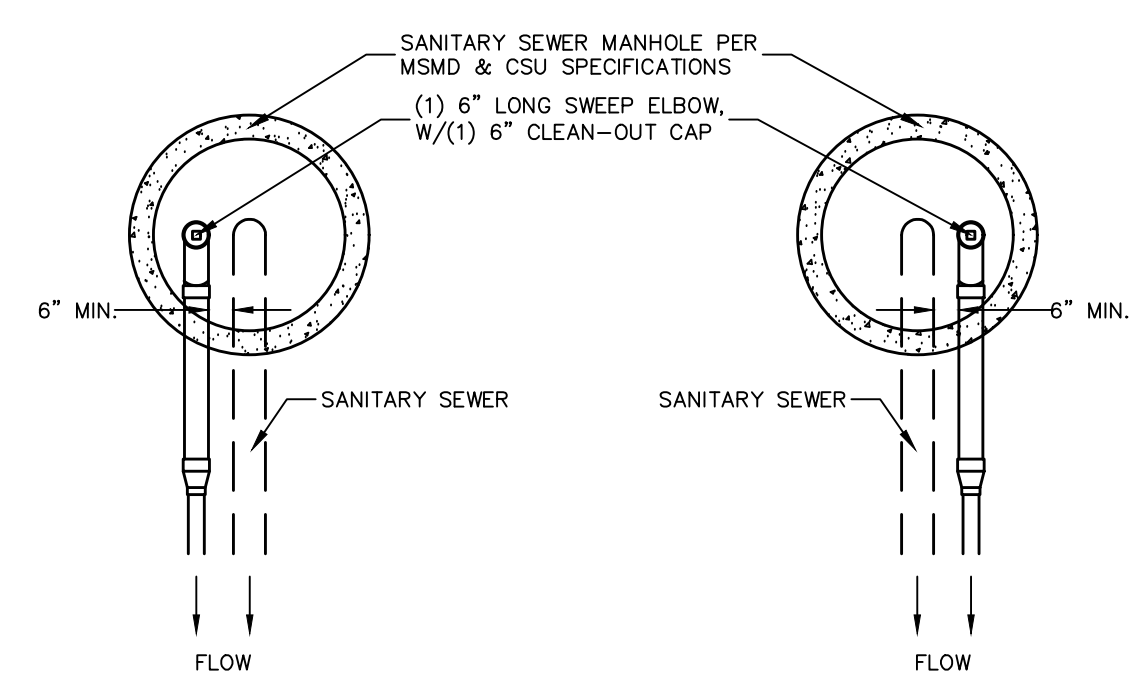
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TECH CONTRACTORS 11910 TOURMALINE DR. #130 FALCON, CO 80831 TELEPHONE 719.495.7444																				
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Drawn by LOG		Checked by TAK		Date NOVEMBER 2024																
Scale AS SHOWN		19 of 33																		



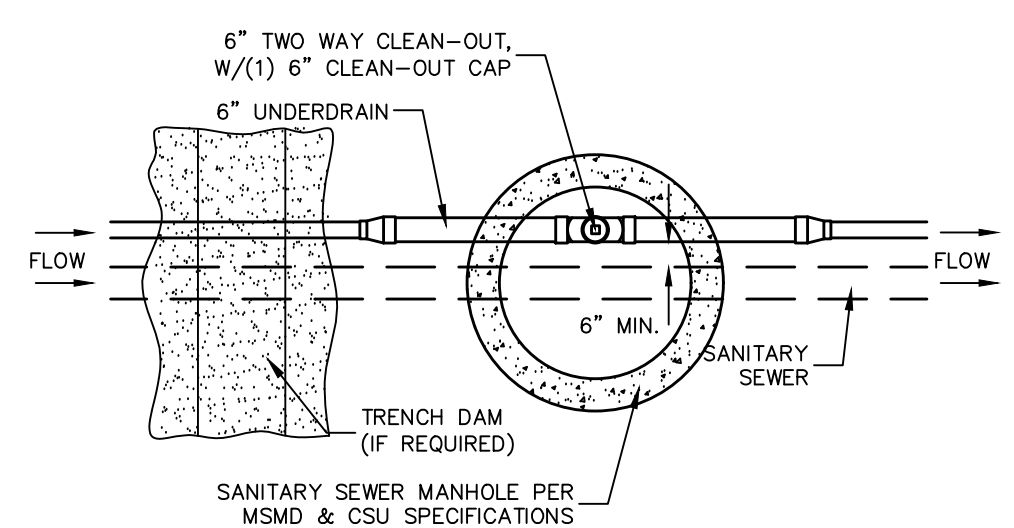
**SSMH #6, #15,
#16, #18 & #19**
CLEAN-OUT DETAILS
SCALE : N.T.S.



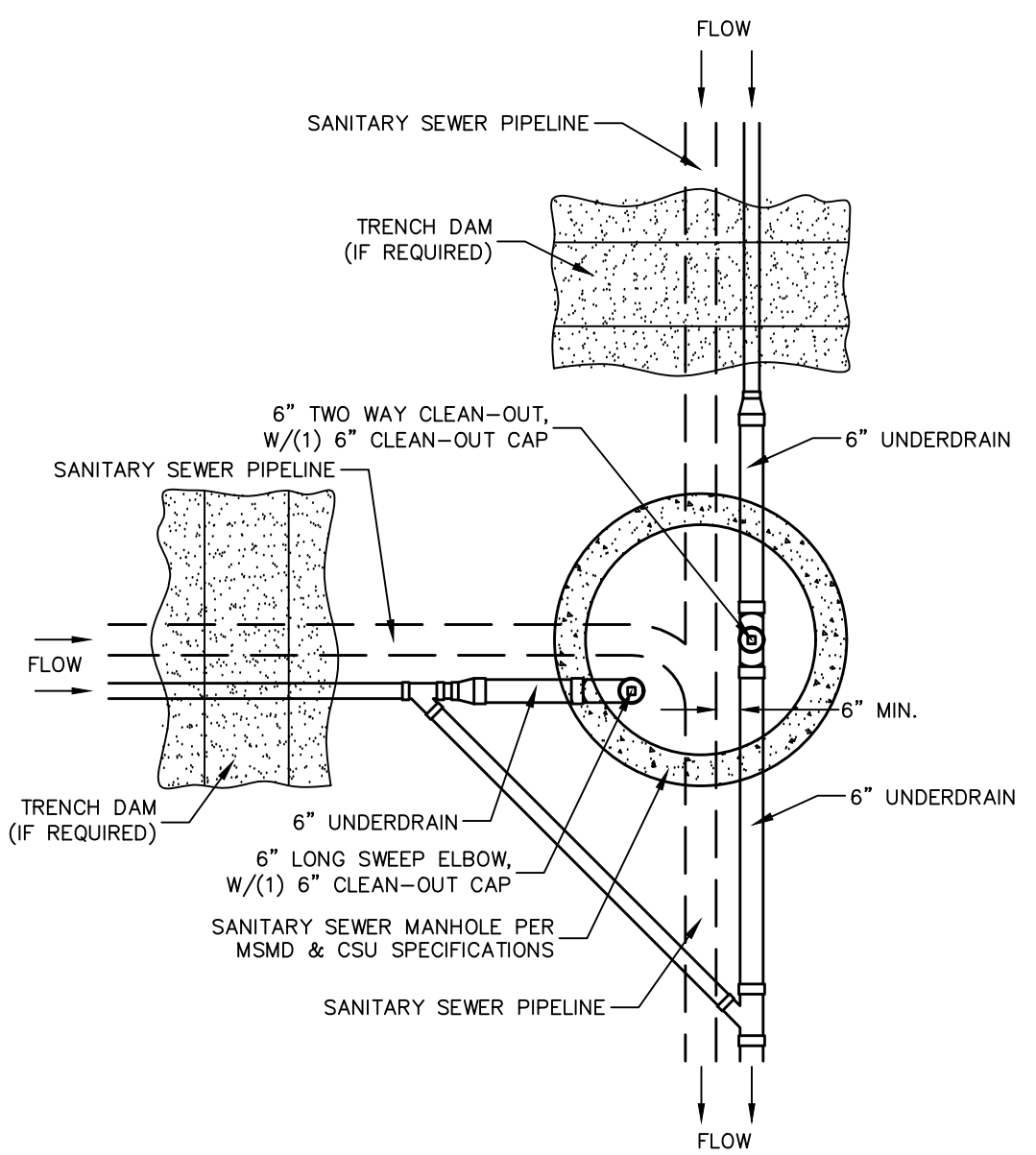
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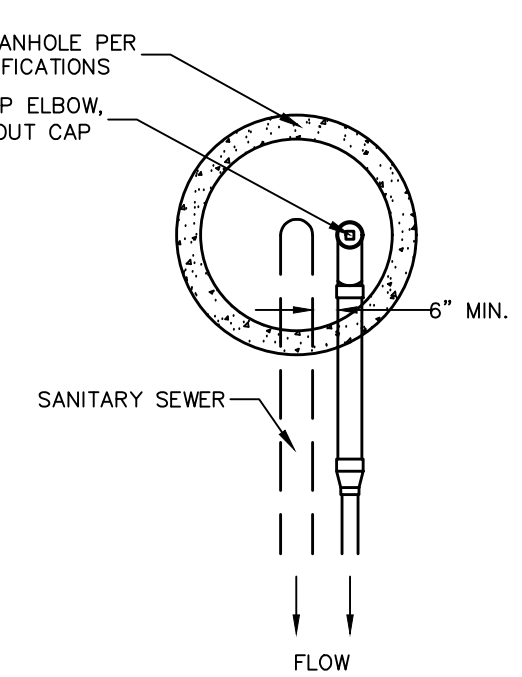
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#12 & #17**



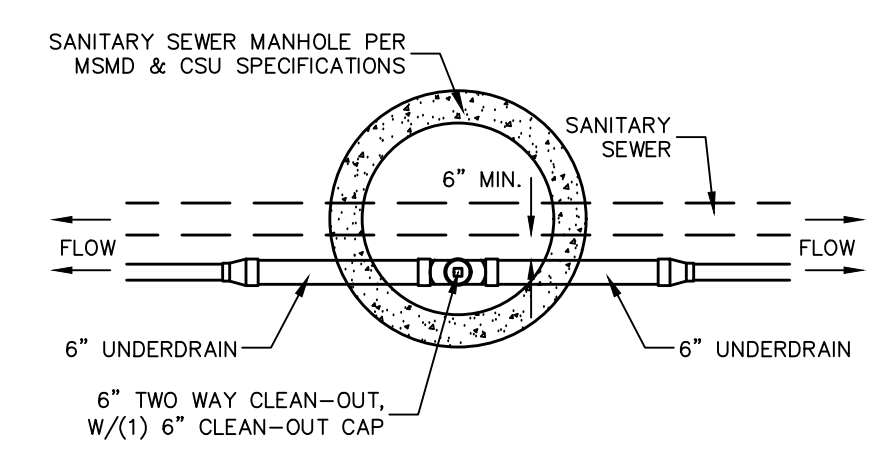
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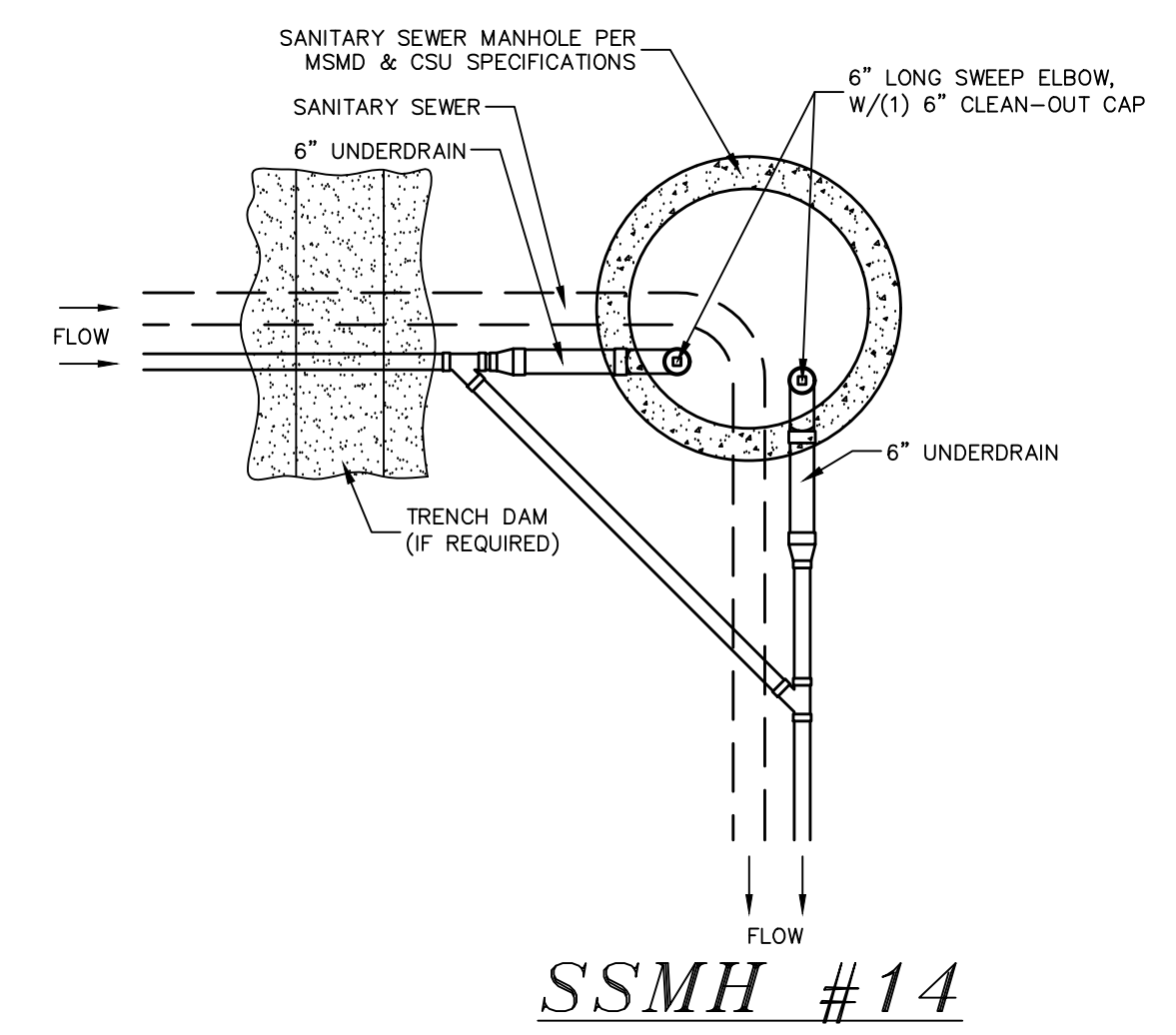
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SSMH #9



SSMH #11 & #20

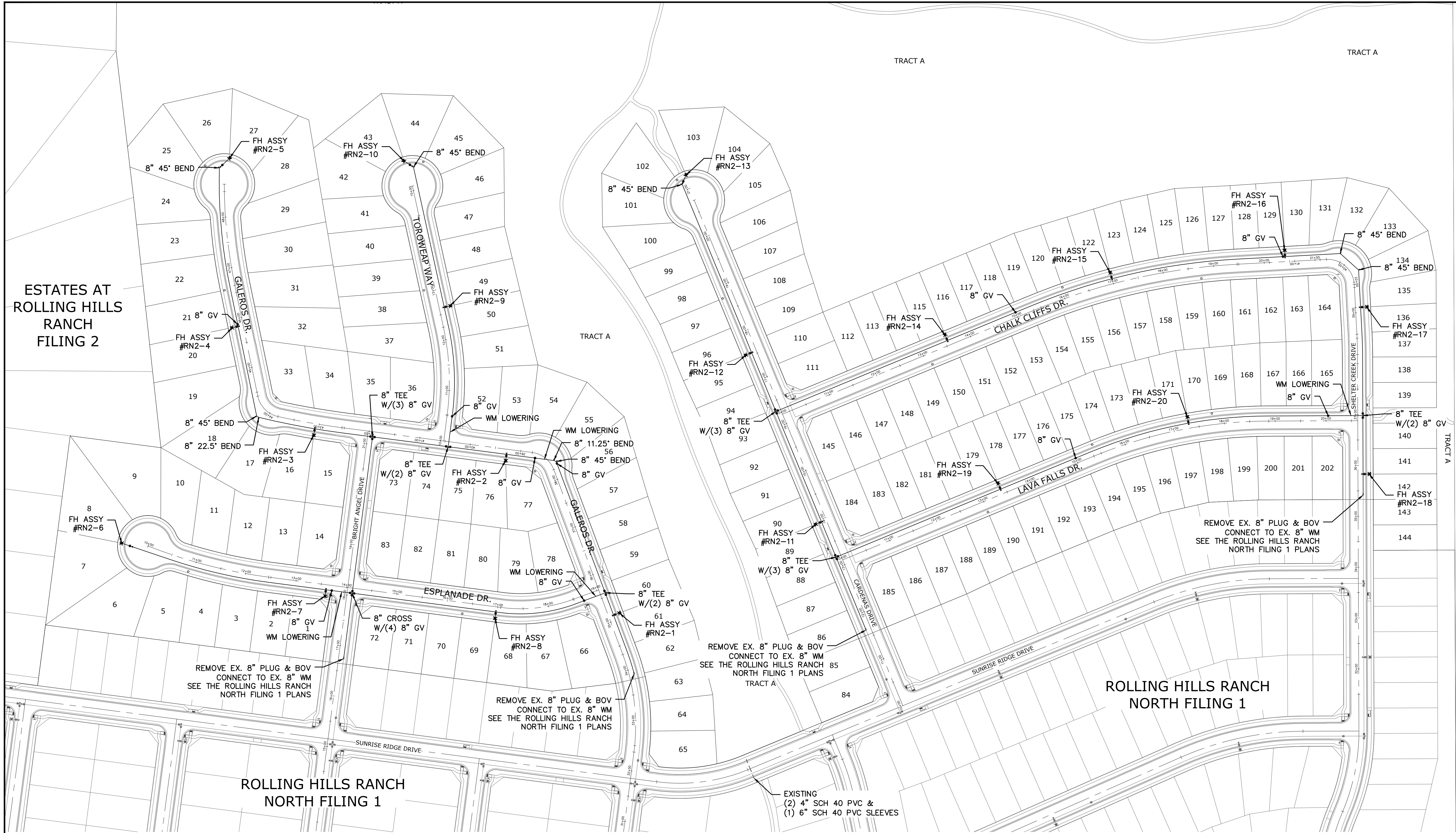


SSMH #14


NOTES:

1. THE UNDERDRAIN SYSTEM SHALL BE PASSIVE, WATER TIGHT, NON- PERFORATED PIPE, WITH THE MAIN LINE SIZE DESIGNED BY THE ENGINEER. ALL UNDERDRAIN PIPES AND FITTINGS SHALL BE SDR 35 PVC, OR MSMD APPROVED EQUAL, INSTALLED PER THE SAME INSTALLATION STANDARDS AS OBTAINED BY CSUS FOR SANITARY SEWER SYSTEMS. THE UNDERDRAIN SYSTEM AT EACH SANITARY SEWER MANHOLE SHALL CONTAIN 6" CLEAN-OUTS IN EACH UNDERDRAIN MAIN DIRECTION PER THE CLEAN-OUT DETAIL. ALL LOTS SHALL RECEIVE A WHITE 3" UNDERDRAIN SERVICE LATERAL ADJACENT TO THE SANITARY SEWER SERVICE LATERAL.
2. TESTING OF THE UNDERDRAIN SYSTEM WILL CONSIST OF VISUAL INSPECTIONS FOR WATER IN THE SYSTEM, ALONG WITH A VIDEO INSPECTION PERFORMED BY MSMD PERSONNEL. ALL UNDERDRAIN MAINS AND DOWNSTREAM INFILTRATION STRUCTURES SHALL BE CLEAN AND DEBRIS FREE UPON COMPLETION OF THE SYSTEM AND PRIOR TO CCTV. ALL UNDERDRAIN MAINS SHALL BE CCTV INSPECTED BY MSMD AND REVIEWED FOR APPROVAL. THE SPECIFICATION FOR ALLOWABLE STANDING WATER AND WATER INFILTRATION IN THE UNDERDRAIN SYSTEM SHALL BE THE SAME AS PER CSUS FOR SANITARY SEWER SYSTEMS. IF EXCESS WATER IS OBSERVED IN THE UNDERDRAIN SYSTEM, THE CONTRACTOR SHALL LOCATE THE SOURCE OF WATER INFILTRATION AND REPAIR AS NECESSARY TO MEET CSUS.
3. IF THE UNDERDRAIN MAIN HAS LOW SPOTS THAT EXCEED CSUS STANDARDS, THE CONTRACTOR SHALL REPAIR THE LINE AS NECESSARY TO MEET CSUS. UNDERDRAIN MAINS THAT DO NOT MEET MSMD STANDARDS SHALL BE REPLACED AND OR REPAIRED AS NECESSARY. THE CONTRACTOR SHALL RE-CCTV INSPECT THE UNDERDRAIN MAIN LINES AFTER THE REPAIRS HAVE BEEN MADE WITH ONE VIDEO SUBMITTED TO MSMD FOR REVIEW AND APPROVAL.
4. UNDER DRAIN MAIN LINES SHALL HAVE CONTINUOUS POSITIVE DRAINAGE TO THE POINT OF DISCHARGE INTO A BELOW GRADE AN APPROVED UNDERDRAIN INFILTRATION STRUCTURE WHEREVER POSSIBLE. UNDERDRAIN INFILTRATION STRUCTURES SHALL BE DESIGNED WITH OVERFLOW LINES FOR FUTURE EXPANSION AS NEEDED. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION OF THE INFILTRATION STRUCTURE, STOP INSTALLATION AND CONTACT THE DISTRICT ENGINEER FOR POSSIBLE ALTERNATE DESIGN.
5. UNDERDRAINS WILL DAYLIGHT AT LOCATIONS SHOWN ON THE DRAWINGS.
6. UNDERDRAIN CLEANOUTS SHALL BE 6 INCH AND SHALL BE LOCATED AT EVERY MANHOLE. UNDERDRAIN CLEANOUTS AND CLEANOUT CONSTRUCTION WILL LEAVE NO INFILTRATION WITHIN SEWER MANHOLES. MANHOLE PENETRATIONS TO BE FILLED WITH NON-SHRINKING GROUT. UNDERDRAIN SIZE WILL NOT BE REDUCED THROUGH THE MANHOLE.
7. TRENCH DAMS WILL BE PROVIDED AT INTERVALS NO GREATER THAN 350 FEET IN SANITARY SEWER SECTIONS WHERE GROUNDWATER EXISTS OR WHERE DIRECTED BY THE ENGINEER. A TRENCH DAM WILL BE CONSTRUCTED WITHIN THE FIRST 100 FEET OF EITHER ENTERING OR EXITING GROUNDWATER. THE CONTRACTOR SHALL NOTIFY THE DISTRICT WHEN GROUNDWATER IS ENCOUNTERED TO REVIEW TRENCH DAM NEEDS, LOCATIONS, AND MATERIALS.
8. TRENCH DAMS MAY BE CONSTRUCTED OF ON SITE MATERIALS IF APPROVED BY THE SOILS ENGINEER.
9. TRENCH DAMS SHALL COMPLETELY INTERRUPT GRAVEL BEDDING AND STABILIZATION THE FULL WIDTH OF THE TRENCH FOR A LENGTH OF NO LESS THAN 4 FEET BUT NO GREATER THAN 8 FEET.
10. TRENCH DAMS SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR AROUND THE SEWER AND UNDERDRAIN PIPELINES.
11. IF ALTERNATE MATERIALS (CONCRETE) OR SOIL AMENDED TRENCH DAMS ARE NECESSARY OR REQUIRED BY THE ENGINEER, THE DAMS SHALL BE EXTENDED A MINIMUM OF 6 FEET ABOVE THE PIPELINE BUT IN NO CASE CLOSER THAN 6' FROM THE SURFACE.

Scale		AS SHOWN		20 of 33		Drawn by LOG		Checked by TAK		Date NOVEMBER 2024	
TECH CONTRACTORS		11910 TOURMALINE DR. #130		FALCON, CO 80831		TELEPHONE		719.495.7444		Revisions	
MERIDIAN RANCH		ROLLING HILLS RANCH NORTH FILING 2		AT MERIDIAN RANCH		STREET AND UTILITY PLANS		UNDERDRAIN DETAILS		Date	
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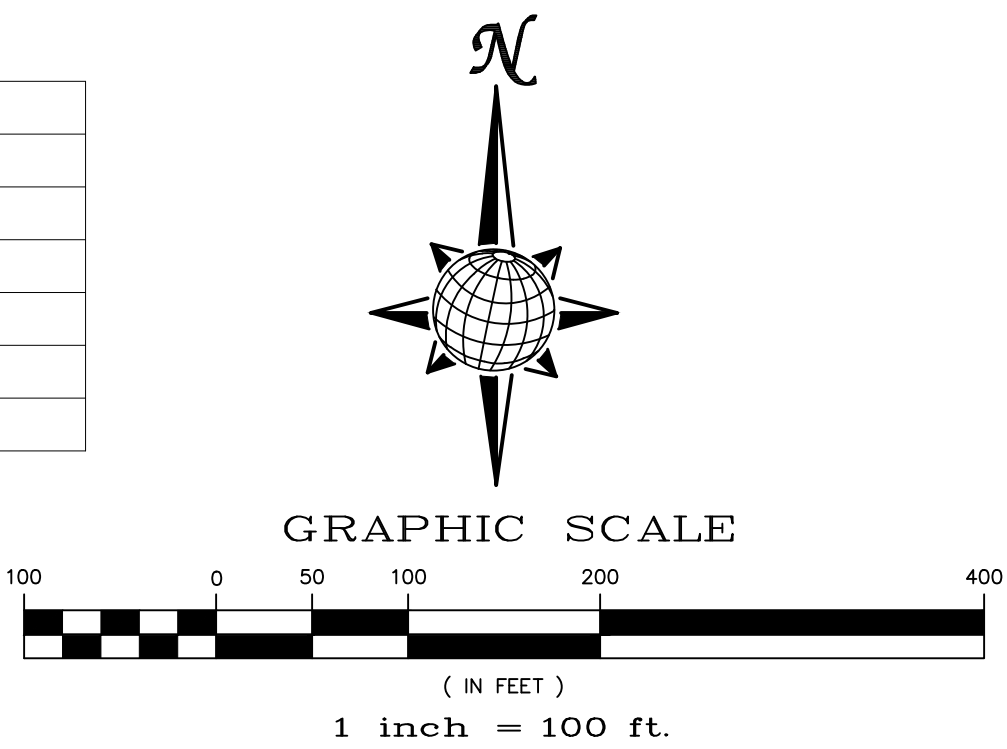


RESIDENTIAL HOME
4,800 SQ. FT. (MAX)
VB CONSTRUCTION
REQ'D FIRE FLOW: 1750 GPM
HYDRANT SPACING: 500' (MAX)
HOSE LAY DIST.: 250' (MAX)
NON-SPRINKLER



TWO WORKING DAYS
**BEFORE YOU DIG
CALL 811**



OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)



NOTE:
CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:
1) ROUGH GRADING FOR ROLLING HILLS RANCH AT MERIDIAN RANCH
2) ESTATES AT ROLLING HILLS RANCH FILING 2
3) PREDEVELOPMENT GRADING FOR ROLLING HILLS RANCH NORTH AT MERIDIAN RANCH
4) THE SANCTUARY FILING 1 AT MERIDIAN RANCH

NOTE:
8" WM UNLESS OTHERWISE LABELED.

FALCON
REGIONAL
PARK

1	2	3	4	No.	Revisions	Date	Init.	Appr.	Date
TECH CONTRACTORS 11910 TOURMALINE DR. #130 FALCON, CO 80831 TELEPHONE 719.495.7444									
 MERIDIAN RANCH									
ROLLING HILLS RANCH NORTH FILING 2 AT MERIDIAN RANCH STREET AND UTILITY PLANS OVERALL WATER									
Drawn by LOG		Checked by TAK		Date NOVEMBER 2024		Scale AS SHOWN 21 of 33			
									



TWO WORKING DAYS
BEFORE YOU DIG
CALL 811

OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

GRAPHIC SCALE

(IN FEET)

1 inch = 50 ft.

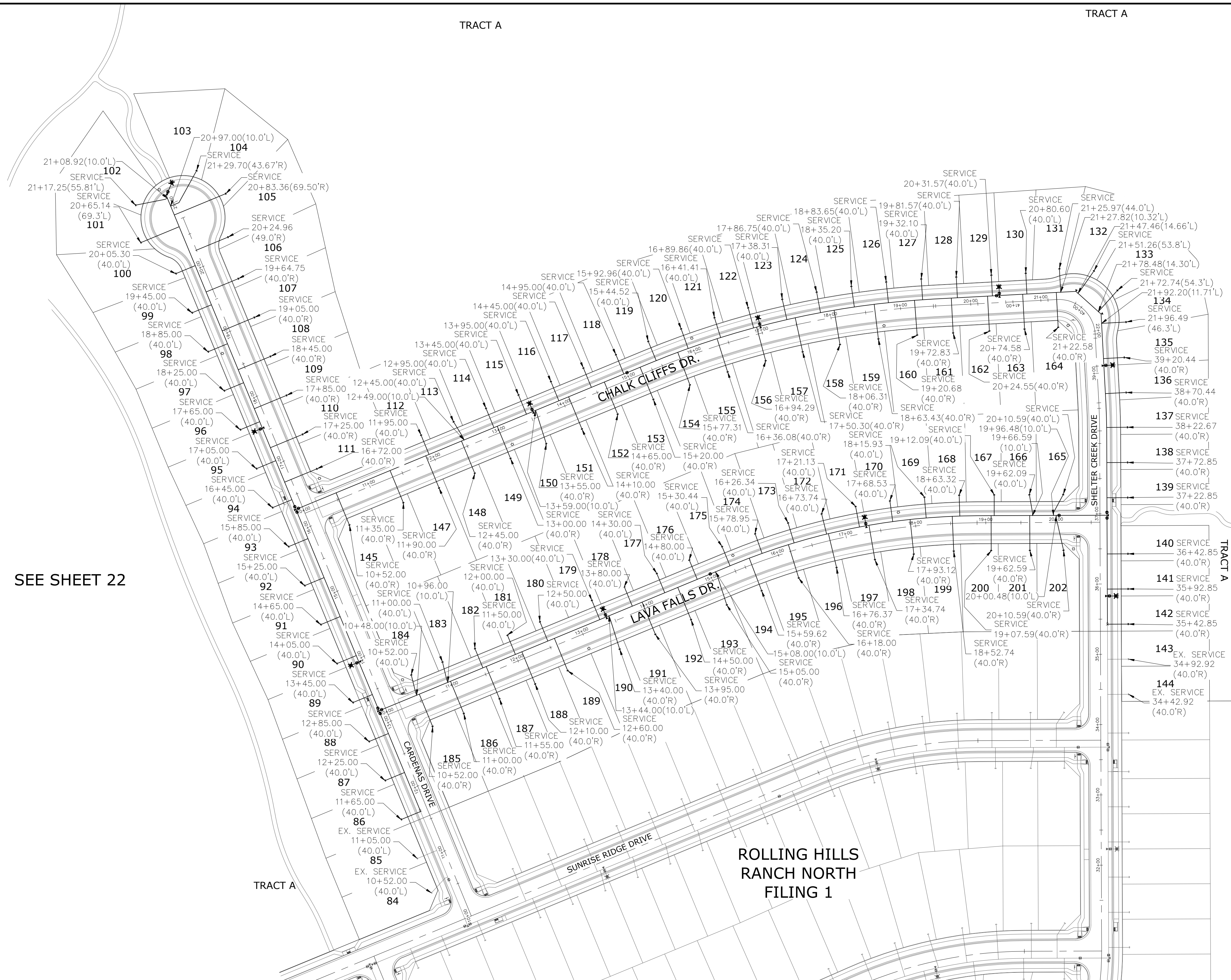
NOTE:
CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:
1) ROUGH GRADING FOR ROLLING HILLS RANCH AT MERIDIAN RANCH
2) ESTATES AT ROLLING HILLS RANCH FILING 2
3) PREDEVELOPMENT GRADING FOR ROLLING HILLS RANCH NORTH AT MERIDIAN RANCH
4) THE SANCTUARY FILING 1 AT MERIDIAN RANCH

NOTE:
3/4" WATER SERVICE UNLESS OTHERWISE LABELED.

RESIDENTIAL HOME
4,800 SQ. FT. (MAX)
VB CONSTRUCTION
REQ'D FIRE FLOW: 1750 GPM
HYDRANT SPACING: 500' (MAX)
HOSE LAY DIST.: 250' (MAX)
NON-SPRINKLER

SEE SHEET 23

1	2	3	4	No.	Revisions	Date	Init.	Appr.	Date
<div>TECH CONTRACTORS 11910 TOURMALINE DR. #130 FALCON, CO 80831 TELEPHONE 719.495.7444</div>									



SEE SHEET 22

FALCON
REGIONAL
PARK

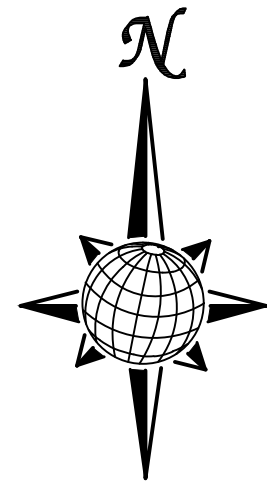
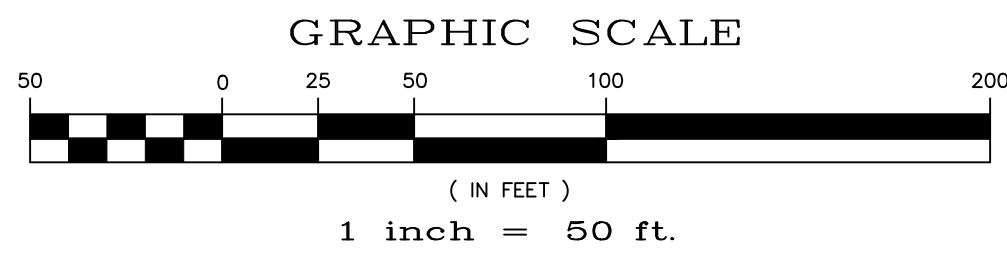
ROLLING HILLS
RANCH NORTH
FILING 1

RESIDENTIAL HOME
4,800 SQ. FT. (MAX)
VB CONSTRUCTION
REQ'D FIRE FLOW: 1750 GPM
HYDRANT SPACING: 500' (MAX)
HOSE LAY DIST.: 250' (MAX)
NON-SPRINKLER



**TWO WORKING DAYS
BEFORE YOU DIG
CALL 811**

OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-822-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)



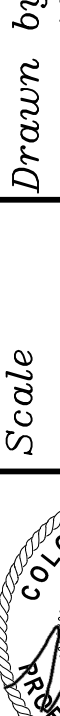

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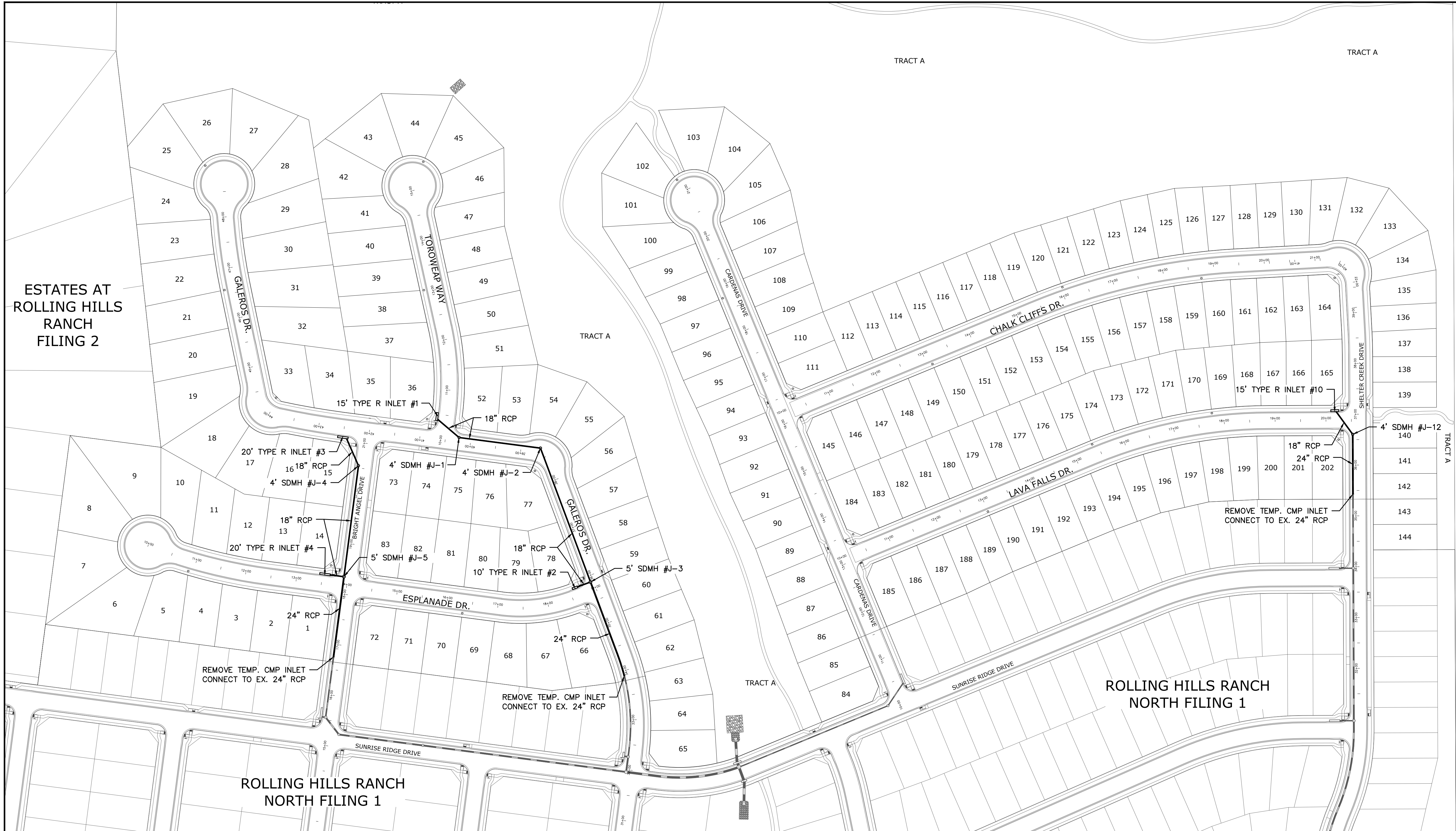
CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
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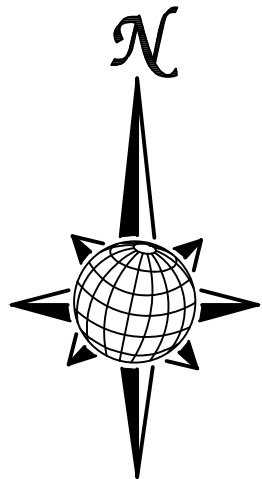
- 1) ROUGH GRADING FOR ROLLING HILLS RANCH AT MERIDIAN RANCH
- 2) ESTATES AT ROLLING HILLS RANCH FILING 2
- 3) PREDEVELOPMENT GRADING FOR ROLLING HILLS RANCH NORTH AT MERIDIAN RANCH
- 4) THE SANCTUARY FILING 1 AT MERIDIAN RANCH

NOTE:

3/4" WATER SERVICE UNLESS OTHERWISE LABELED.

	Scale AS SHOWN	Drawn by LOG	ROLLING HILLS RANCH NORTH FILING 2 AT MERIDIAN RANCH STREET AND UTILITY PLANS OVERALL WATER SERVICES	 MERIDIAN RANCH TECH CONTRACTORS 11910 TOURMALINE DR., #130 FALCON, CO 80831 TELEPHONE: 719.495.7444	1		-	-		
		Checked by TAK			2					
		Date NOVEMBER 2024			3					
	23 of 33				4					
					No.	Revisions	Date	Invt.	Appr.	Date






GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.



TWO WORKING DAYS
**BEFORE YOU DIG
CALL 811**

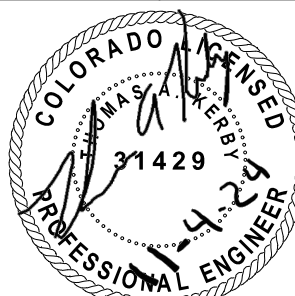
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-822-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

NOTE:

CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:

- 1) ROUGH GRADING FOR ROLLING HILLS RANCH AT MERIDIAN RANCH
- 2) ESTATES AT ROLLING HILLS RANCH FILING 2
- 3) PREDEVELOPMENT GRADING FOR ROLLING HILLS RANCH NORTH AT MERIDIAN RANCH
- 4) THE SANCTUARY FILING 1 AT MERIDIAN RANCH

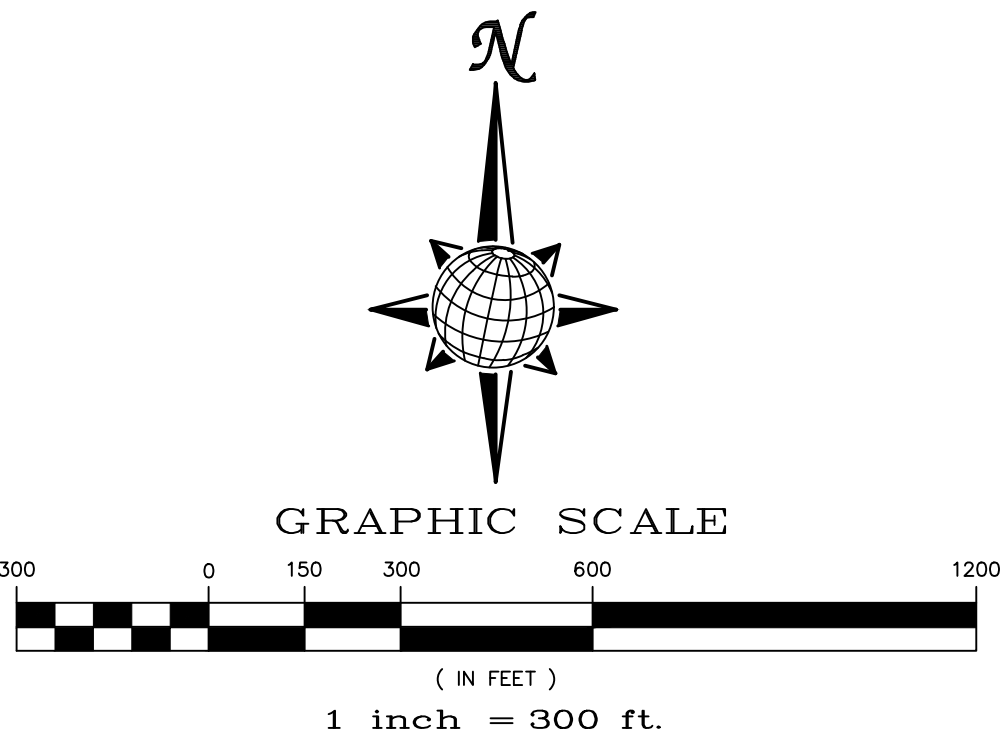
FALCON
REGIONAL
PARK

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<p>TECH CONTRACTORS 11910 TOURMALINE DR. #130 FALCON, CO 80831 TELEPHONE 719.495.7444</p>																			
<p>ROLLING HILLS RANCH NORTH FILING 2 AT MERIDIAN RANCH STREET AND UTILITY PLANS OVERALL STORM DRAIN</p>																			
Scale		AS SHOWN		Drawn by		LOG		Checked by		TAK		Date		NOVEMBER 2024		24		of 33	
																			

EL PASO COUNTY STANDARD NOTES:

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 TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. 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 AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
4. ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
5. CONTROL MEASURES MUST BE INSTALLED PRIOR 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. ANY PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF 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 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 EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL 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 LOOSENEED 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 OR SUBSURFACE 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 ONSITE 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.
22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE 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 ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, 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 REPORTS FOR THIS SITE ARE ROLLING HILLS RANCH NORTH FILING 1 & 2 DATED APRIL 20, 2022 AND ROLLING HILLS RANCH DATED JULY, 15, 2019 BOTH HAVE BEEN PREPARED BY ENTECH ENGINEERING, INC. AND SHALL BE CONSIDERED A PART OF THESE PLANS.
29. AT LEAST TEN 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



Stage	Description	Control Measures	Begin Date	End Date
Stage 1	Overlot Grading	Silt fence & VTC Temporary Sed. Basins Swale Checks as needed Surface Roughening	May 2022	August 2022
Stage 2	Underground utilities Surface Improvements	Perimeter Control Inlet Protection	June 2025	August 2026
Stage 3	Home Construction	Inlet Protection Individual Lot Perimeter Control	August 2026	November 2027
Final Stabilization	Permit Close	Final Stabilization Permanent Seeding Permanent Measures	November 2027	

EARTHWORK QUANTITIES

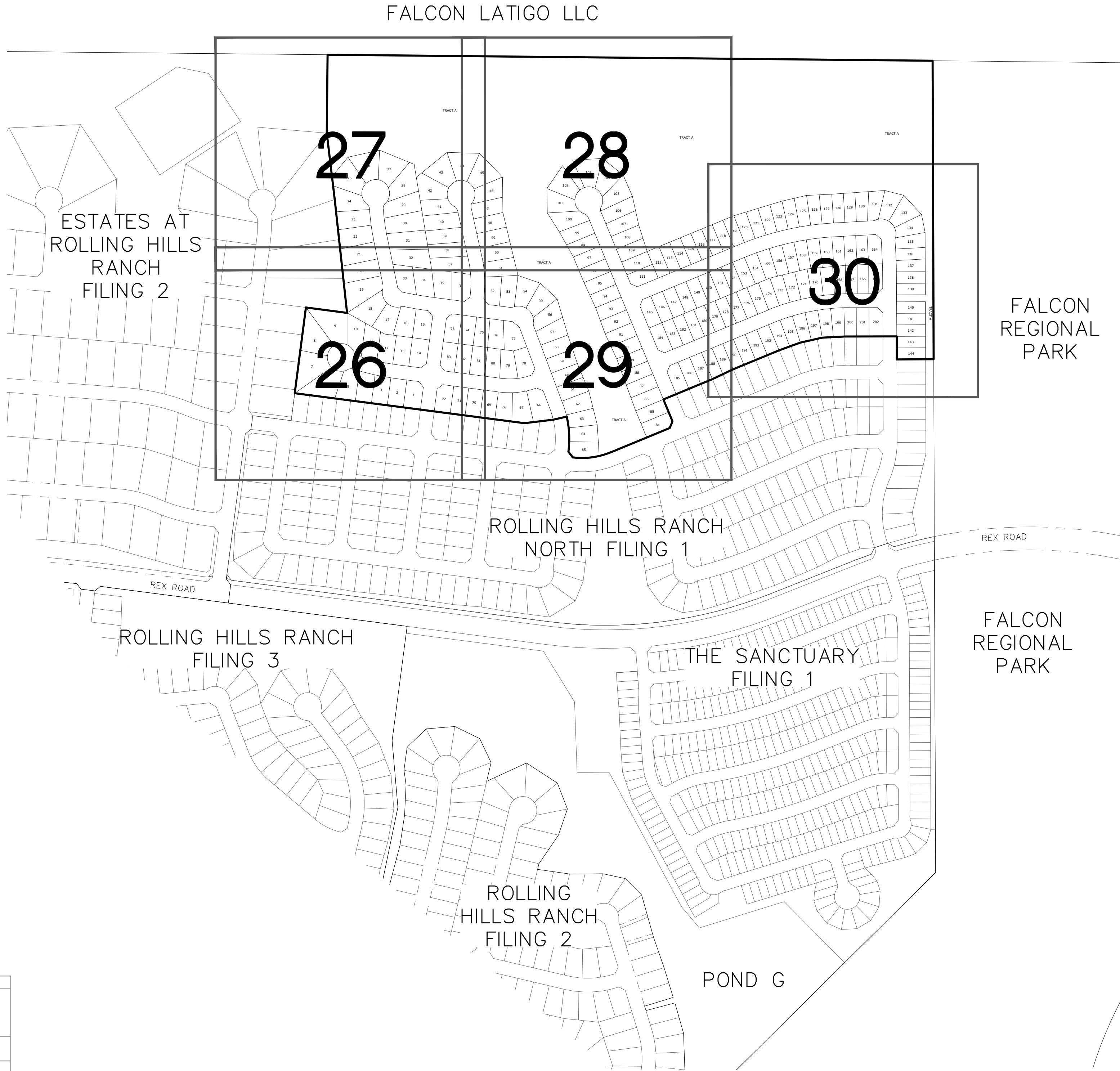
NET YARDS BALANCE

TOTAL STRIPPINGS 0.38 AC. 180 CY

NET YARDS CUT 0 CY FILL 1,686 CY

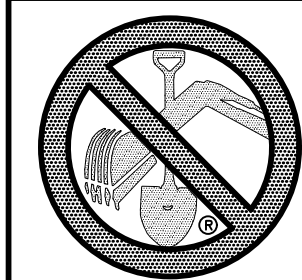
20% COMPACTION FACTOR

NOTE: FILL WILL BE GENERATED FROM UTILITY INSTALLATION.



NOTE:

- 1) EXISTING VEGETATION ON THE PROJECT SITE AND THE IN SURROUNDING AREAS CONSISTS OF A MIXTURE OF NATIVE GRASSES AND WEEDS WITH COVERAGE APPROXIMATING 70% DENSITY UNLESS OTHERWISE NOTED. SOME AREAS HAVE NEGLIGIBLE VEGETATIVE GROWTH AT THIS TIME AS THE SITE WAS PREVIOUSLY GRADED AND RE-SEEDDED OR USED AS A BUILDERS' STOCKPILE LOCATION. AREAS PREVIOUSLY GRADED HAS BEEN RE-SEEDDED WITH THE APPROVED COUNTY SEED MIX.
- 2) MATERIAL STORAGE, TOPSOIL STOCKPILES(EDFCD: MM-2), STAGING(UDFCD: SM-6), CONCRETE WASHOUT AND WASTE AREAS SHALL BE IDENTIFIED BY THE CONTRACTOR PRIOR TO START OF CONSTRUCTION AND ADJUSTED AS NECESSARY.
- 3) THERE IS NO CONCRETE BATCH PLANT ASSOCIATED WITH THIS PROJECT.
- 4) NO SLOPES GREATER THAN 3:1 ARE EXPECTED ON THIS SITE. SLOPES GREATER THAN 3:1 REQUIRE EROSION CONTROL BLANKET.
- 5) MIRIFI FABRIC TO BE PLACED BELOW ALL RIP-RAP.



TWO WORKING DAYS
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No.	Revisions	Date	Init.	Appr.	Date
1					
2					
3					
4					

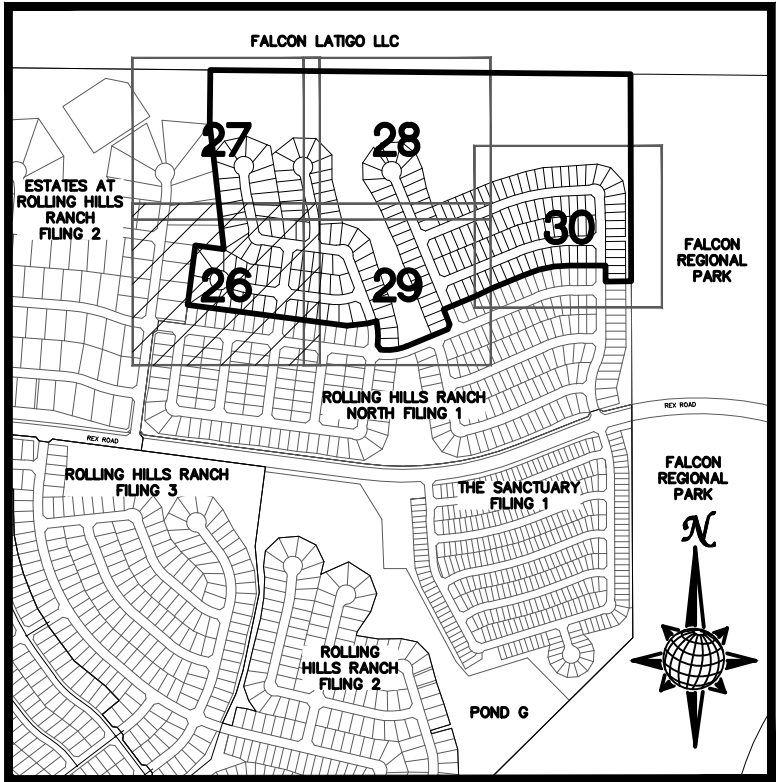
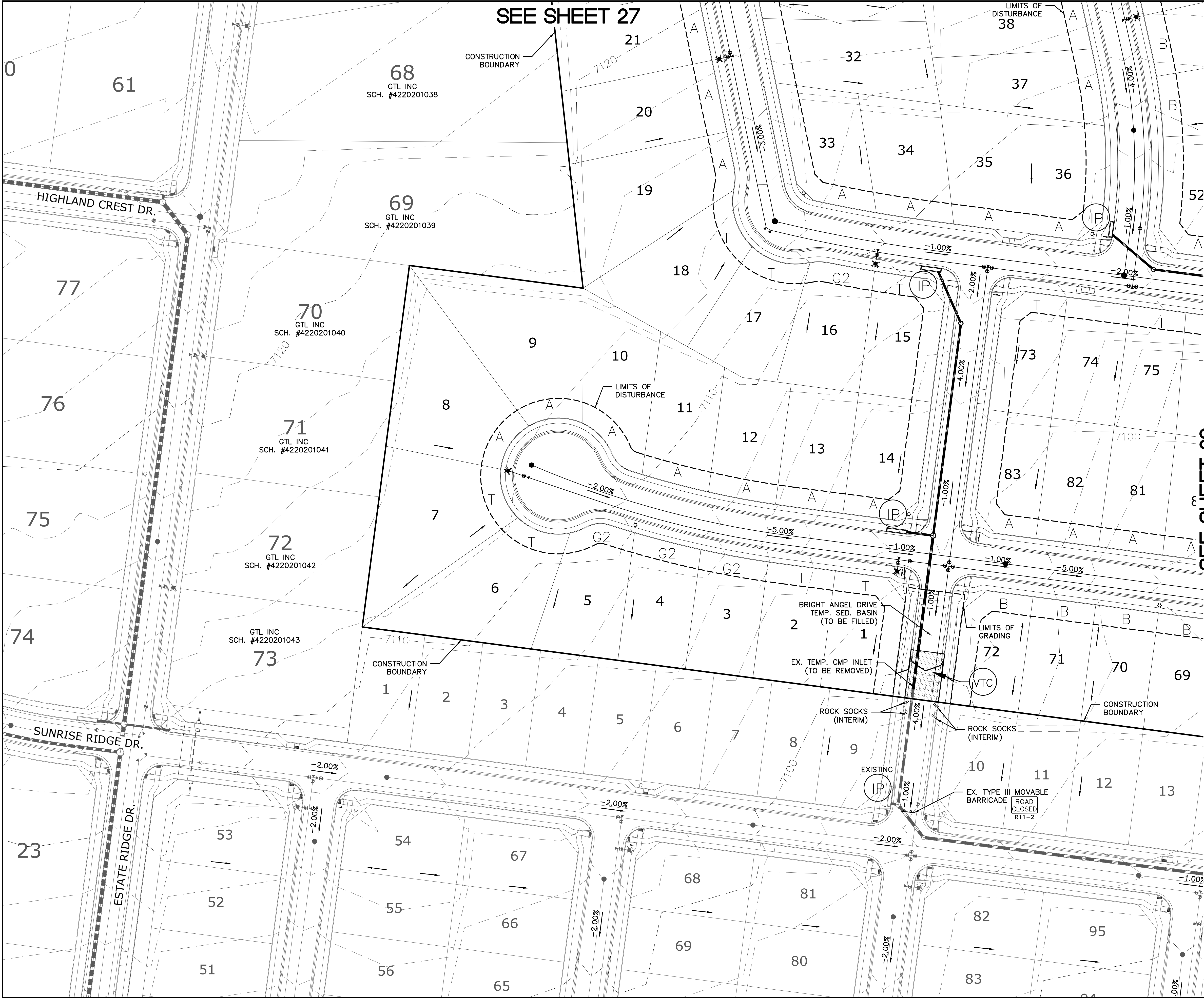
TECH CONTRACTORS
11910 TOURNAINE DR. #180
FALCON, CO 80831
TELEPHONE: 719.495.7444

ROLLING HILLS RANCH NORTH FILING 2
AT MERIDIAN RANCH
GRADING-EROSION CONTROL PLAN

GRADING INDEX SHEET

MERIDIAN RANCH

Drawn by	Log	Checked by	TAK	Date
AS SHOWN		25 of 33		NOVEMBER 2024

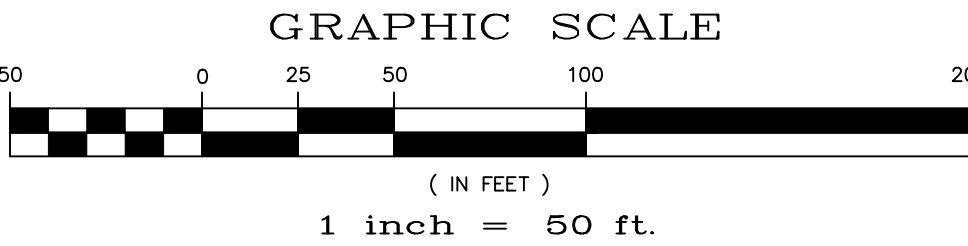
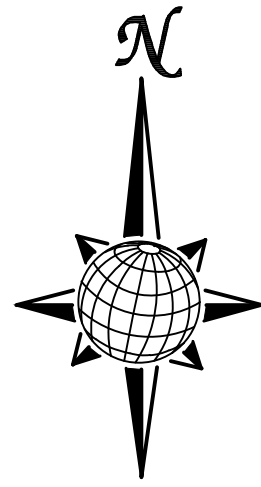


INDEX MAP
N.T.S.
LEGEND

SYMBOL	ACRONYM	DESCRIPTION
—	RS	ROCK SOCK (INTERIM) PER DETAIL SHEET 33
— (SF)		EX. EROSION WATTLES (UNLESS OTHERWISE NOTED) PER DETAIL SHEET 33
OR		EX. EROSION CONTROL BLANKET (UNLESS OTHERWISE NOTED) PER DETAIL ECB-1 & ECB-2 DCM VOL. 2
		RUNOFF REDUCTION AREA
	RCP	REINFORCED CONCRETE PIPE
— (SF)		SILT FENCE PER DETAIL SF-1, SF-2 & SF-3 DCM VOL. 2
(VTC)		VEHICLE TRACKING CONTROL PER DETAIL VT-2 DCM VOL. 2
(IP)		INLET PROTECTION PER DETAIL SHEET 33
		LIMITS OF GRADING/DISTURBANCE
— (10')		EXISTING CONTOUR (10')
— (2')		EXISTING CONTOUR (2')
— (10')		PROPOSED CONTOUR (10')
— (2')		PROPOSED CONTOUR (2')
—		CONSTRUCTION BOUNDARY
—		FLOW DIRECTION
2.00%		GRADE
A		LOT GRADE TYPE
75		LOT NUMBER

NOTE:
ALL CONTOURS SHOWN WITHIN THE PLAN SET ARE TO FINISHED SURFACE. ALL STREET SECTIONS ARE TO BE GRADED TO ROUGH SUB-GRADE AS SHOWN IN THEIR RESPECTIVE TYPICAL STREET SECTION SHOWN ON SHEET 32.

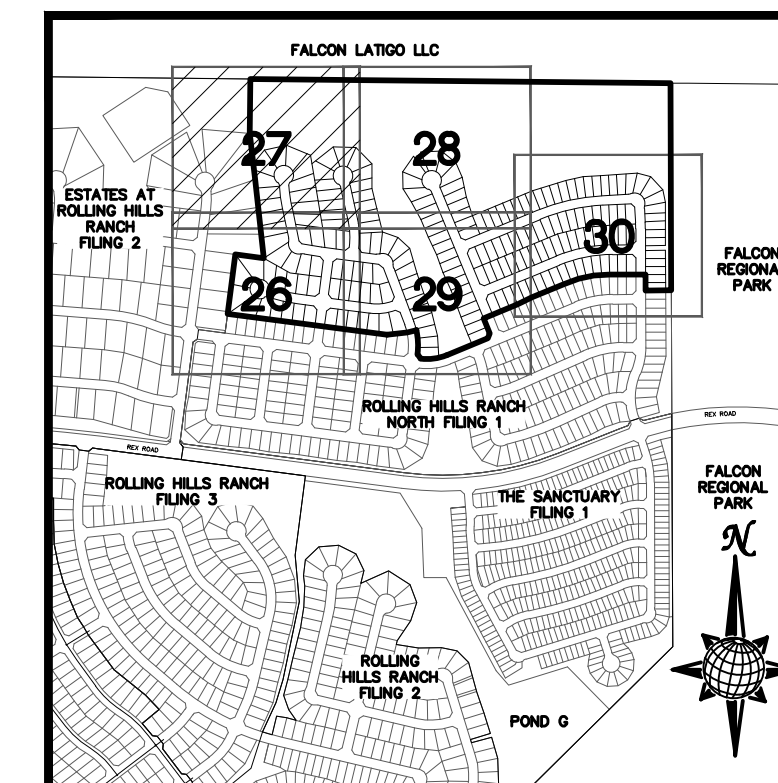
CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES. EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:
1) ESTATES AT ROLLING HILLS RANCH FILING 2
2) PREDEVELOPMENT GRADING FOR ROLLING HILLS RANCH NORTH AT MERIDIAN RANCH
3) THE SANCTUARY FILING 1 AT MERIDIAN RANCH
4) ROLLING HILLS RANCH NORTH FILING 1



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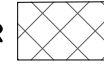






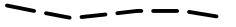




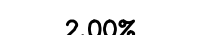

1		2		3		4		No.		Revisions		Date		Appr.	
TECH CONTRACTORS 11910 TOURMALINE DR. #130 FALCON, CO 80831 TELEPHONE 719.495.7444															
ROLLING HILLS RANCH NORTH FILING 2 AT MERIDIAN RANCH GRADING/EROSION CONTROL PLAN												PLAN SHEET			
Drawn by LOG		Checked by TAK		Date NOVEMBER 2024											
Scale AS SHOWN		26 of 33													



INDEX MAP

N.T.S.

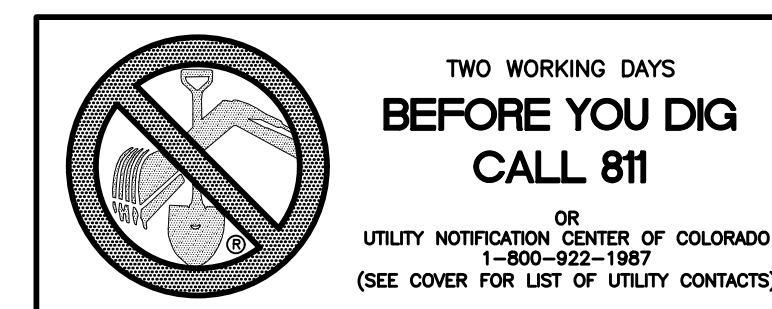
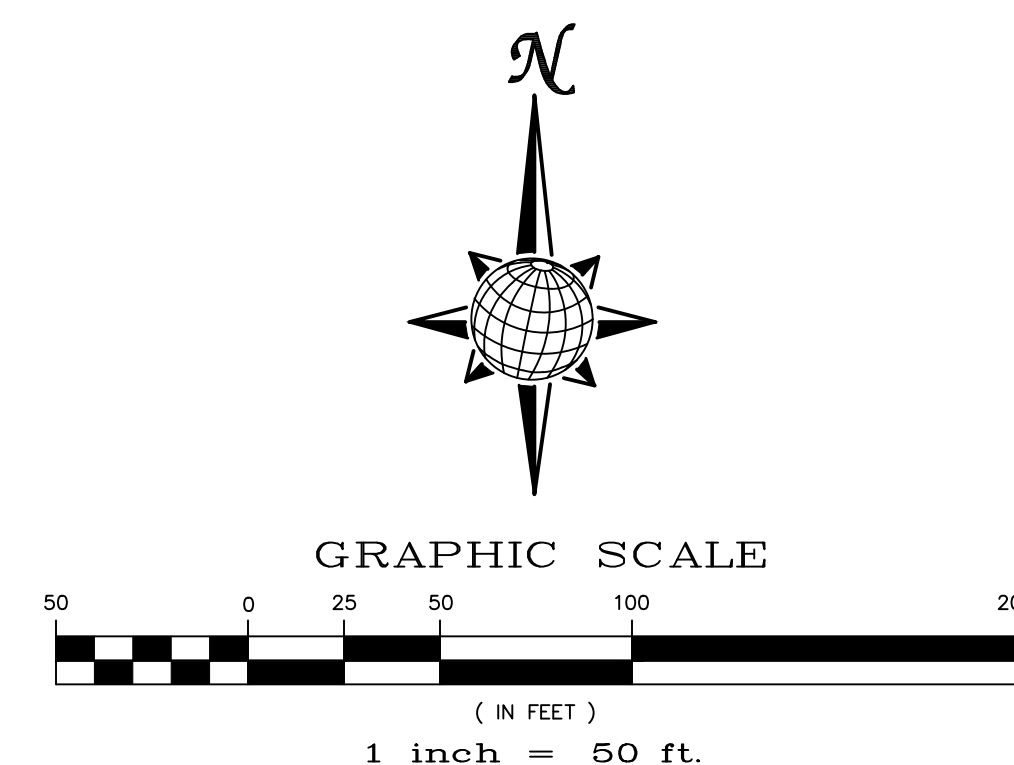
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- 2) PREDEVELOPMENT GRADING FOR ROLLING HILLS RANCH NORTH AT MERIDIAN RANCH
- 3) THE SANCTUARY FILING 1 AT MERIDIAN RANCH
- 4) ROLLING HILLS RANCH NORTH FILING 1



<i>Revisions</i>	Date	Instr.	Appr.	Date		

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3		
4		

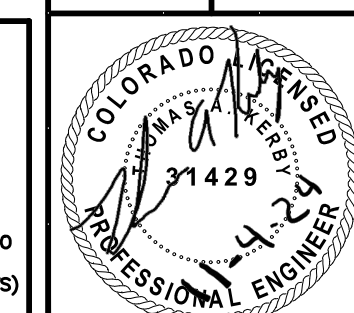

MERIDIAN RANCH

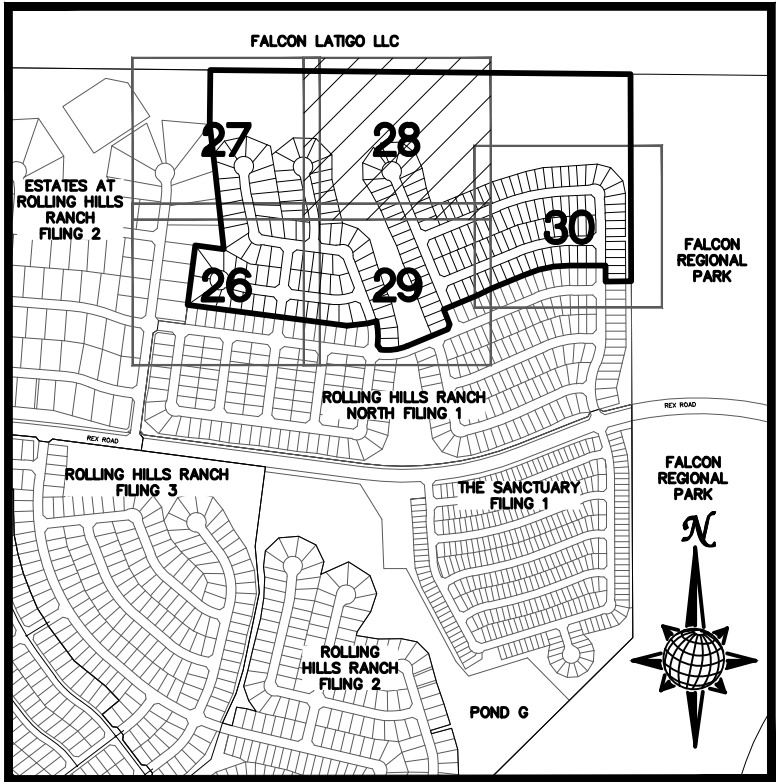
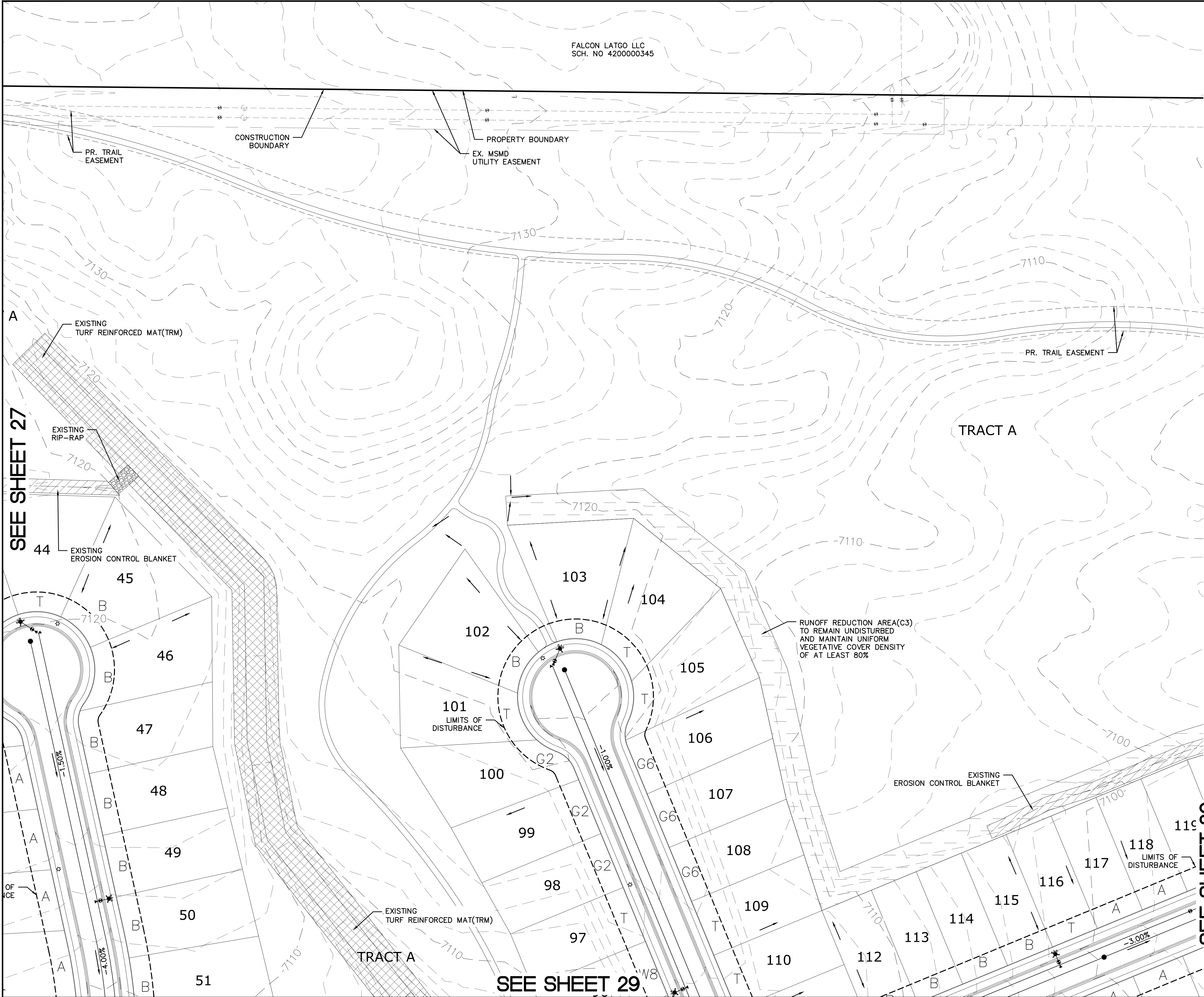
ROLLING HILLS RANCH NORTH FILING 2
AT MERIDIAN RANCH
GRADING+EROSION CONTROL PLAN
PLAN SHEET

Drawn by LCG	Checked by TAK	Date NOVEMBER 2024
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Scale
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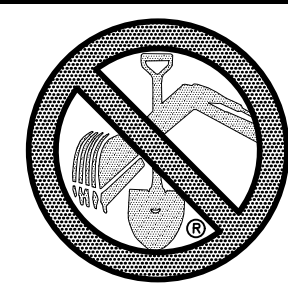
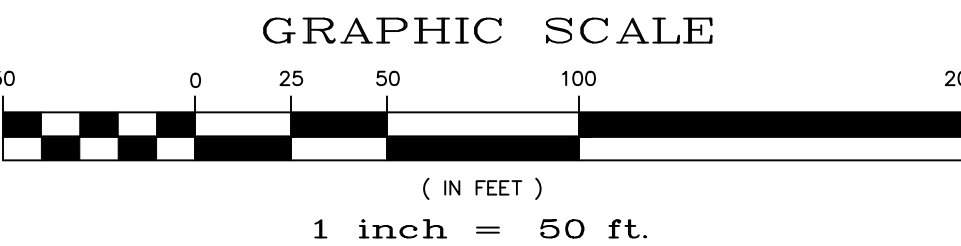
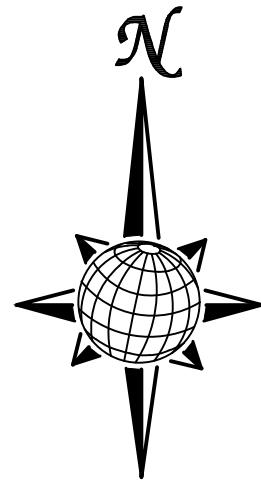
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TECH CONTRACTORS
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FALCON, CO 80831
TELEPHONE 719.495.7444

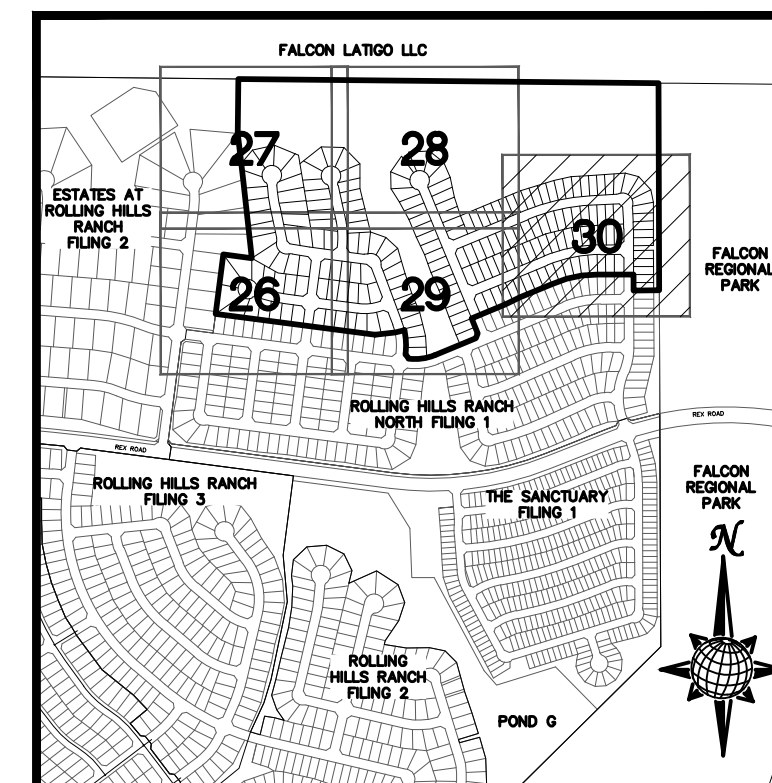
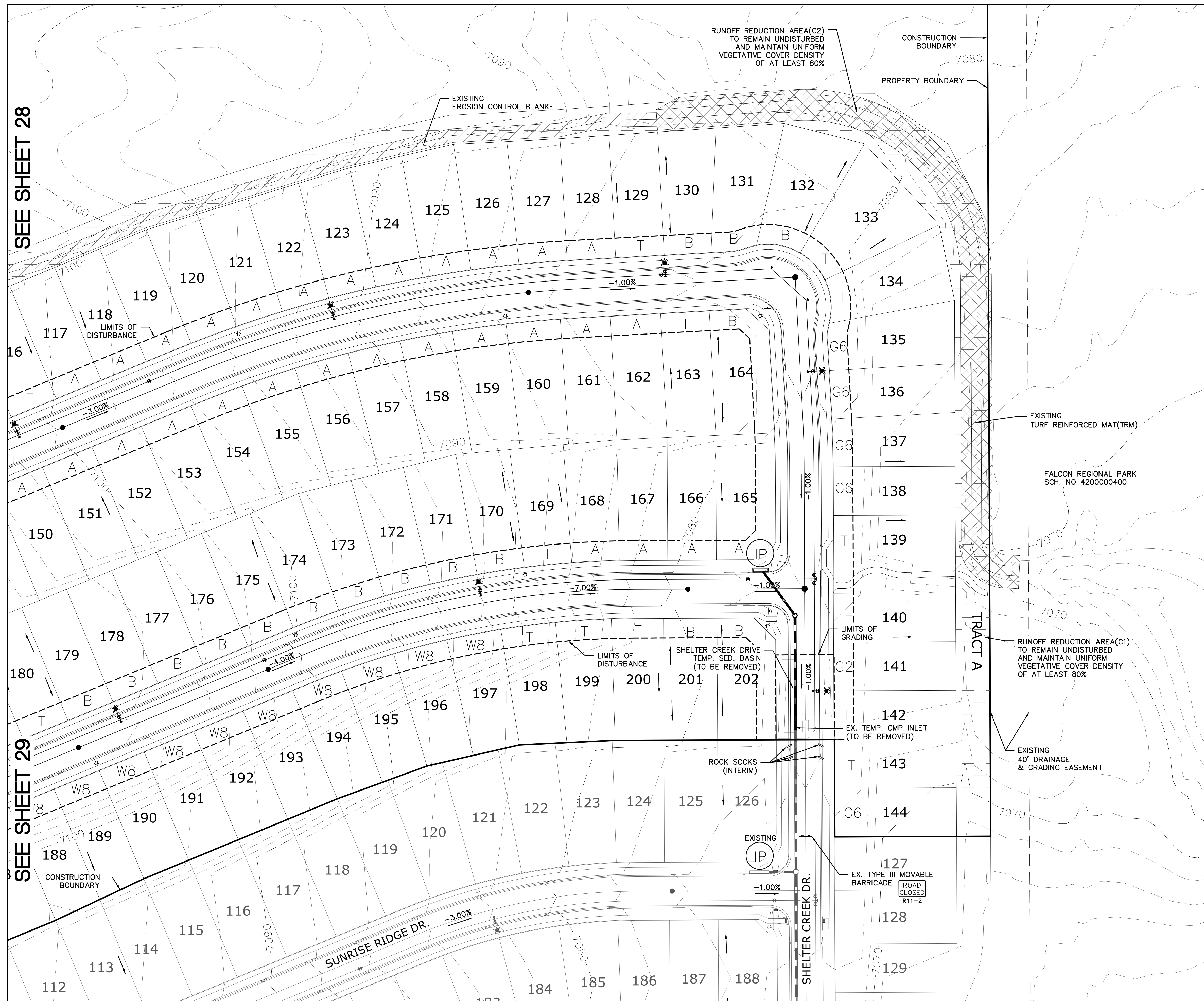


ROLLING HILLS RANCH NORTH FILING 2
AT MERIDIAN RANCH
GRADING/EROSION CONTROL PLAN

Drawn by
LOG
Checked by
TAK
Date
NOVEMBER 2024

Scale
AS SHOWN
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PLAN SHEET








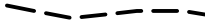










INDEX MAP

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2.00%		GRADE
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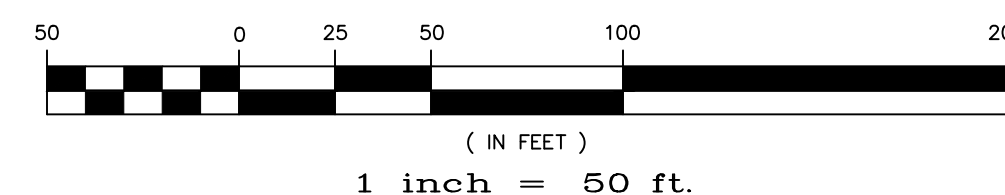
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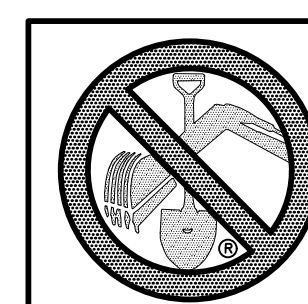
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GRAPHIC SCALE

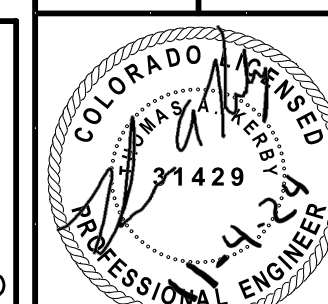


11



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1			*	*	
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3					
4					

TECH CONTRACTORS
1910 TOURMALINE DR, #130
FALCON, CO 80831
TELEPHONE: 719.495.7444

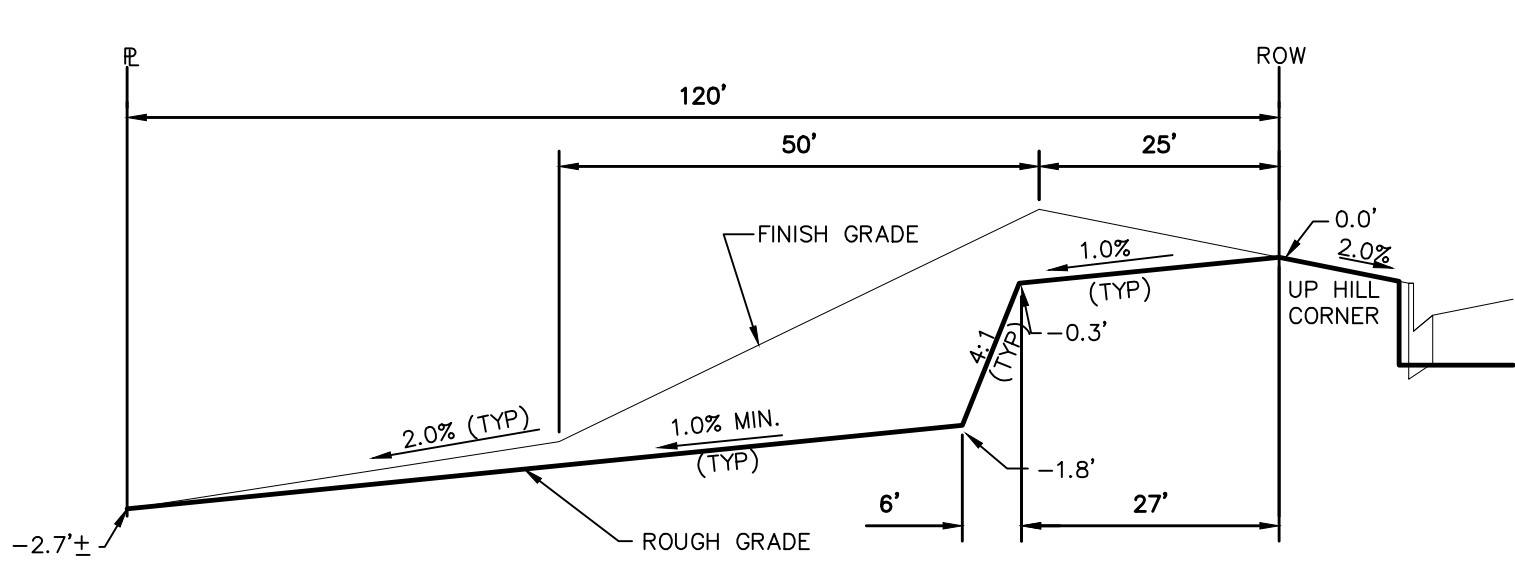

MERIDIAN BANK

ROLLING HILLS RANCH NORTH FILING 2
AT MERIDIAN RANCH
GRADING+EROSION CONTROL PLAN

Drawn by LOG	Checked by TAK
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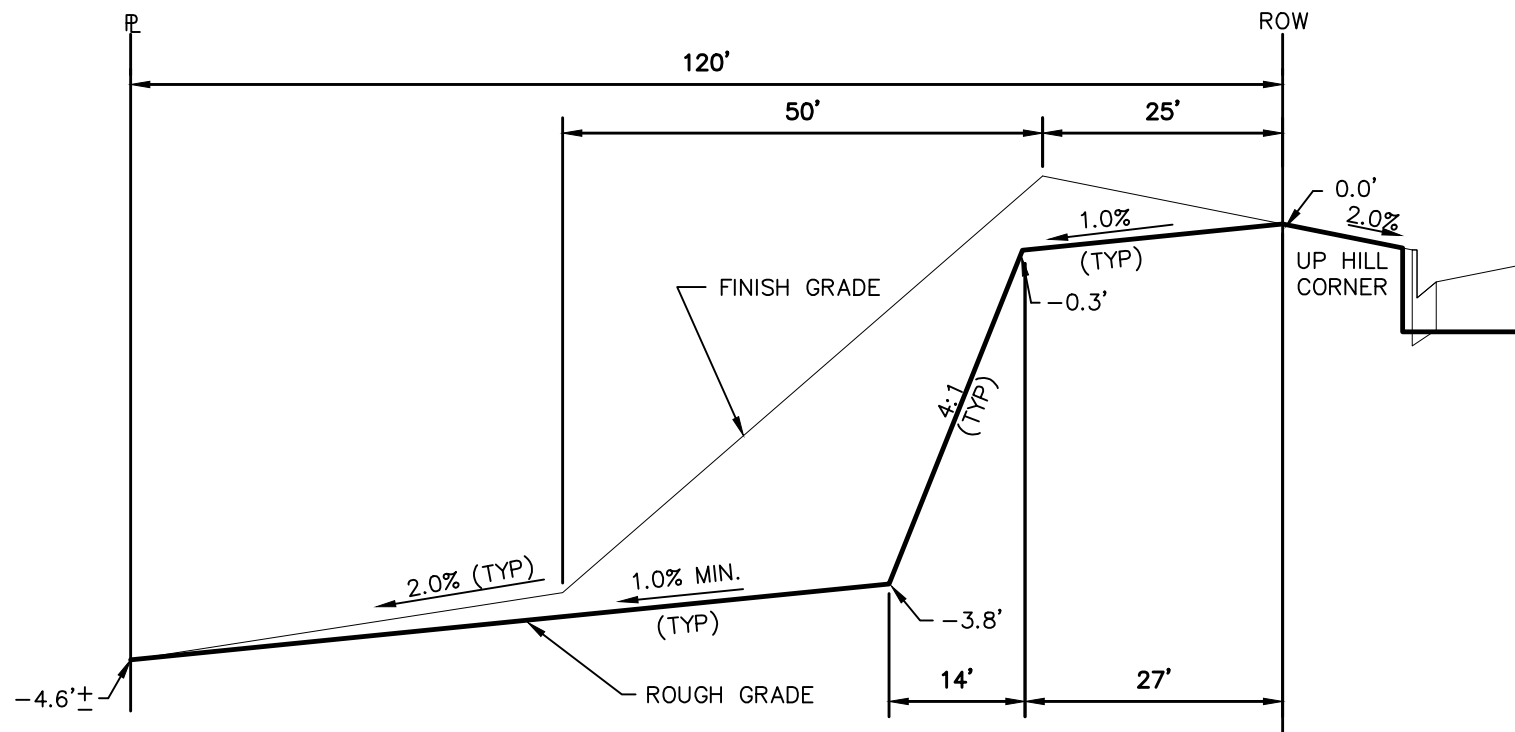
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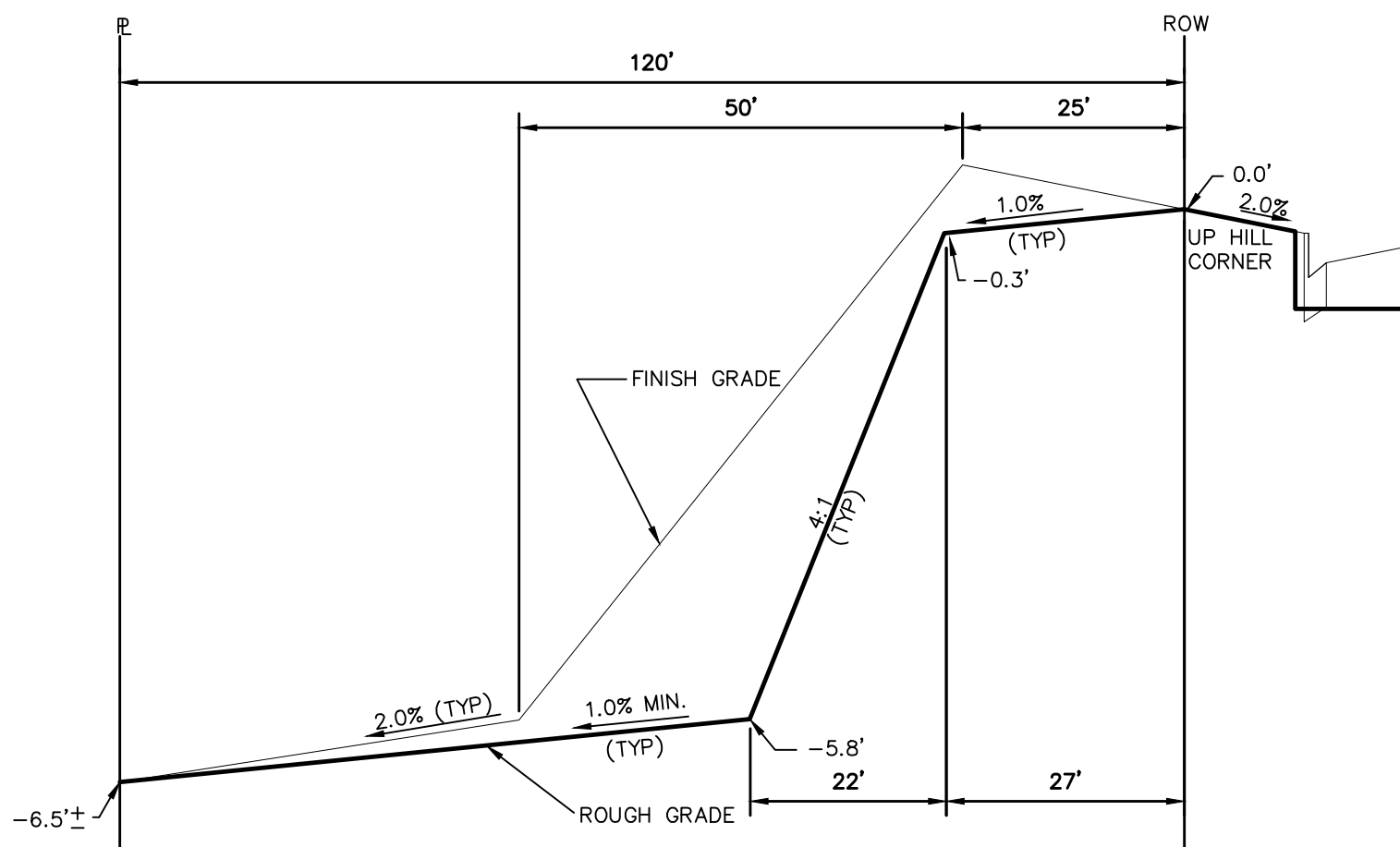
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NTS



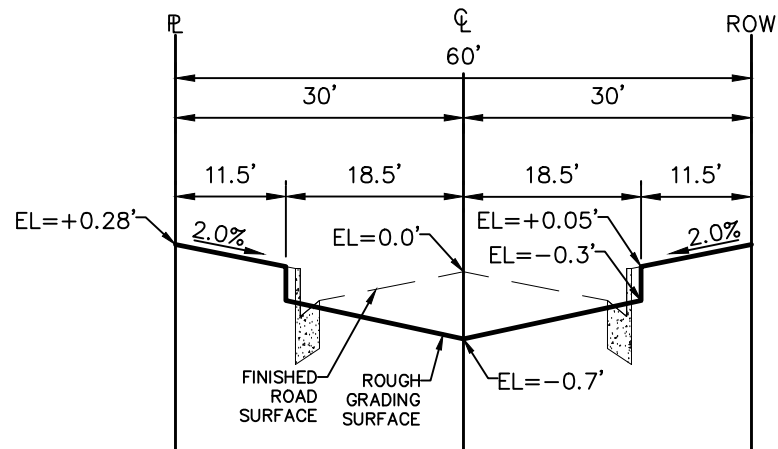
TYPICAL LOT "G4" TEMPLATES

NTS



TYPICAL LOT "G6" TEMPLATES

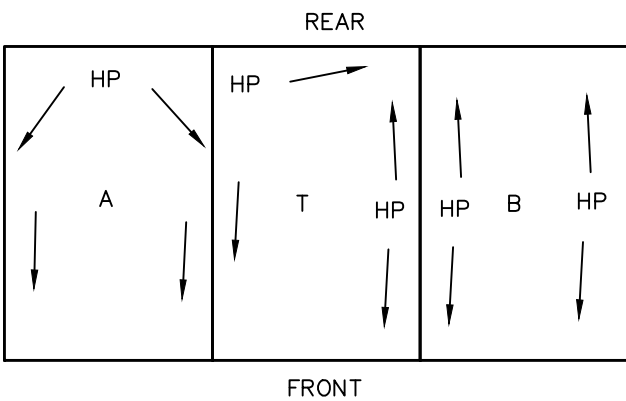
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TYPICAL RESIDENTIAL STREET SECTION

60' ROW

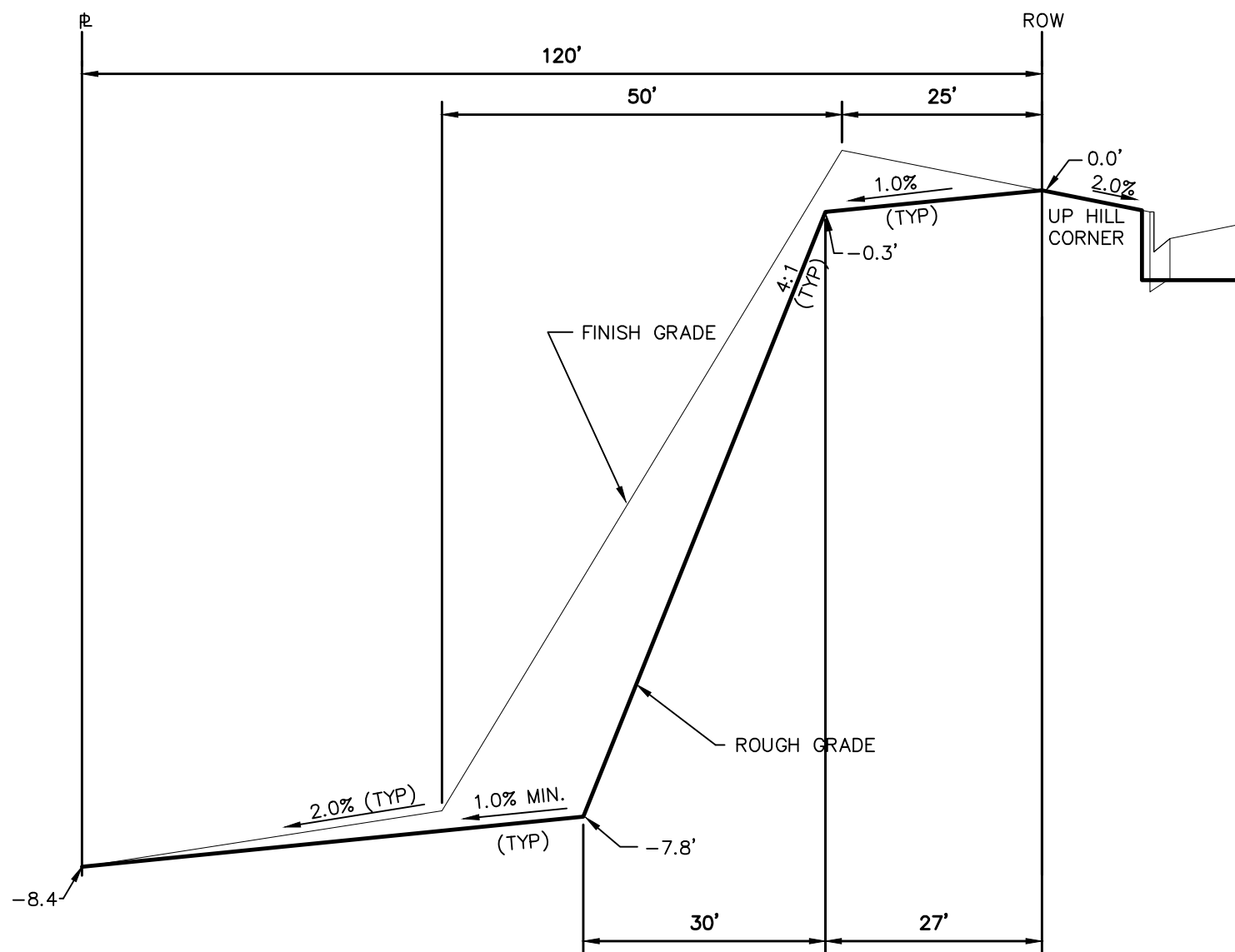
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TYPICAL DRAINAGE PATTERN

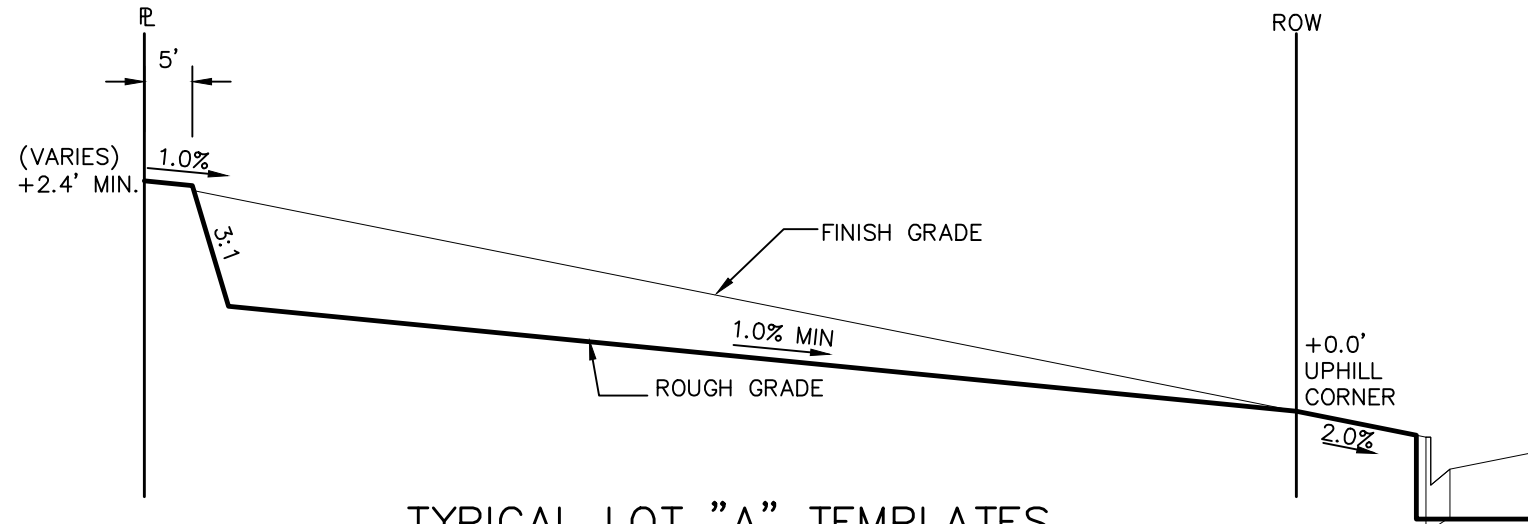
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NOTE: "T" IS A TRANSITION BETWEEN LOT TEMPLATES



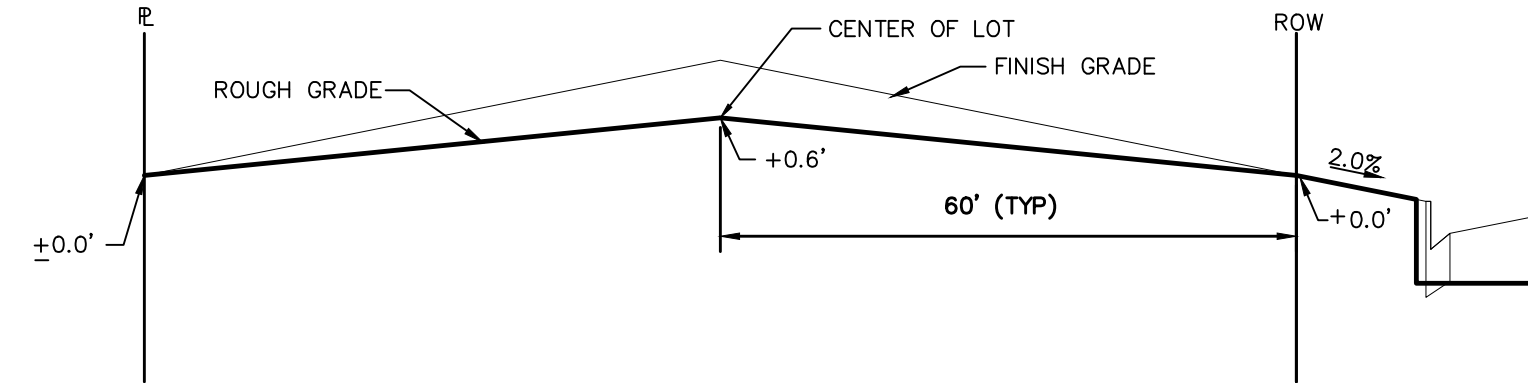
TYPICAL LOT "W8" TEMPLATES

NTS



TYPICAL LOT "A" TEMPLATES

NTS



TYPICAL LOT "B" TEMPLATES

NTS

STEPS FOR CONSTRUCTION

THE ANTICIPATED START FOR THIS PROJECT IS JUNE 2025 WITH AN ANTICIPATED COMPLETION DATE OF NOVEMBER 2026. BELOW IS A BRIEF OUTLINE OF THE CONSTRUCTION SEQUENCE FOR THIS PROJECT.

- * INSTALL INITIAL BMP'S
- * SANITARY SEWER
- * WATER
- * STORM SEWER AND CULVERTS
- * ELECTRIC
- * GAS
- * PHONE & CABLE TV
- * FINISHED ROAD GRADING AND PAVING

EROSION AND SEDIMENT CONTROLS

SILT FENCES AND STRAW BALE CHECK DAMS (OR APPROVED EQUAL) WILL BE INSTALLED PRIOR TO ANY EXCAVATION FOR THE MAJOR ROADS. STRAW BALE CHECK DAMS, FILTREX OR APPROVED EQUAL WILL BE PLACED AT ALL ENTRANCES AND EXITS OF DRAINAGE WAYS. STRAW BALES, FILTREXX OR APPROVED EQUAL WILL BE INSTALLED AROUND THE OUTLET AND OVERFLOW STRUCTURE. THE OUTLET STRUCTURE WILL ALSO BE PROTECTED WITH RIPRAP ON THE DOWNSTREAM SIDE.

NON-STRUCTURE PRACTICES TO CONTROL EROSION AND SEDIMENTATION WILL INCLUDE RESEEDING OF GROUND COVER IN DISTURBED AREAS ACCORDING TO THE EROSION CONTROL PLAN. TEMPORARY SEEDING OF THE DETENTION POND AND MULCHING ALONG STEEP EMBANKMENTS WILL BE PERFORMED AS REQUIRED.

SILT FENCE IS REQUIRED TO BE IN PLACE PRIOR TO ANY MOVEMENT OF DIRT.

MATERIAL HANDLING AND SPILL PREVENTION

THE MOST PROBABLE SOURCE OF NON-STORMWATER POLLUTION IS REFUELING AND DAILY MAINTENANCE OPERATIONS. IF MOBILE FUEL TRUCKS ARE USED TO SERVICE EQUIPMENT, ABSORBENT MATERIALS AND CONTAINERS FOR THE STORAGE OF USED ABSORBENT MATERIAL WILL BE CLOSE BY. IF A FUEL TANK IS LEFT ON SITE, BERMS WILL BE BUILT AROUND THE TANK TO CAPTURE ANY SPILLED FUEL. AGAIN, ABSORBENT MATERIALS AND THEIR CONTAINERS WILL BE ON HAND.

THERE ARE NO DEDICATED ASPHALT OR CONCRETE BATCH PLANTS PLANNED ON SITE.

FINAL STABILIZATION AND LONG TERM STORMWATER MANAGEMENT

ONCE THE MAJOR ROADS ARE PAVED AND THE SURROUNDING DISTURBED AREAS ARE 70% ESTABLISHED WITH VEGETATION AND ACCEPTANCE BY THE MERIDIAN RANCH SERVICE DISTRICT, THE CHECK DAMS AND THE SILT FENCES AROUND THE STREETS CAN BE REMOVED. AFTER COMPLETION OF THE STORM SEWER SYSTEM, THE STRAW BALES AND/OR FILTREX CAN BE REMOVED. AFTER ALL GROUND DISTURBING CONSTRUCTION HAS BEEN COMPLETED AND ALL SLOPES ARE 70% ESTABLISHED WITH VEGETATION AND ACCEPTANCE BY THE MERIDIAN RANCH SERVICE DISTRICT, REMAINING CHECK DAMS AND SILT FENCES CAN BE REMOVED. THE RIPRAP ON ANY OF THE OUTLETS WILL REMAIN AFTER CONSTRUCTION TO REDUCE EROSION OF THE CHANNELS. ALL PERMANENT SWALES WILL BE LINED WITH LANDSCAPING TO SLOW RUNOFF AND FILTER SEDIMENTS.

OTHER CONTROLS

THERE ARE SEVERAL BEST MANAGEMENT PRACTICES THAT CAN BE EMPLOYED TO PREVENT OR MITIGATE THE SOURCE OF POLLUTANTS AND CONTAMINATION OF STORMWATER RUNOFF. SOME OF THESE ARE:

- * ALL REFUSE DUMPSTERS AND RECEPTACLES SHALL BE EQUIPPED WITH FUNCTIONAL LIDS TO PREVENT RAIN AND SNOW FROM ENTERING.
- * STORAGE CONTAINERS, DRUMS AND BAGS SHALL BE STORED AWAY FROM DIRECT TRAFFIC ROUTES TO PREVENT ACCIDENTAL SPILLS.
- * EMPTY DRUMS SHALL BE COVERED TO PREVENT COLLECTION OF PRECIPITATION.
- * CONTAINERS SHALL BE STORED ON PALLETS OR OTHER DUNNAGE TO PREVENT CORROSION OF CONTAINERS, WHICH CAN RESULT WHEN CONTAINERS COME IN CONTACT WITH MOISTURE ON THE GROUND.
- * REGULARLY SCHEDULED REMOVAL OF CONSTRUCTION TRASH AND DEBRIS.
- THE CONTRACTOR IS CERTAINLY NOT LIMITED TO THESE GOOD HOUSEKEEPING MEASURES, AND MAY IMPLEMENT FURTHER CONTROLS AS PRUDENCE AND GOOD JUDGEMENT DEEM NECESSARY.

INSPECTION AND MAINTENANCE

A THOROUGH INSPECTION OF THE STORMWATER MANAGEMENT SYSTEM SHALL BE PERFORMED EVERY 14 DAYS AS WELL AS AFTER ANY RAIN OR SNOWMELT EVENT THAT CAUSES SURFACE EROSION:

- * EROSION OF V-NOTCH SWALES, CHANNELS AND SIDE SLOPES SHALL BE REPAIRED.
- * WHEN THE CHECK DAMS HAVE SILTED UP TO HALF THEIR HEIGHT, THE SILT SHALL BE REMOVED, CHANNEL GRADE REESTABLISHED, AND SIDE SLOPES RE-SEEDED IF NECESSARY. ANY CHECK DAMS THAT HAVE SHIFTED OR DECAYED SHALL BE REPAIRED OR REPLACED.
- * SILT FENCES SHALL BE CLEANED WHENEVER SEDIMENT HAS REACHED A DEPTH OF 6" AT THE FENCE, AND BROKEN WOODEN PARTS OR TORN FABRIC SHALL BE REPAIRED OR REPLACED.
- * ANY ACCUMULATED TRASH OR DEBRIS SHALL BE REMOVED FROM OUTLETS.
- * IF THE DEPTH OF THE SILT IN THE TEMPORARY SEDIMENTATION TRAP EXCEEDS 1/2 OF THE ORIGINAL DEPTH, THE TRAP SHALL BE CLEANED OUT AND RESTORED TO ITS ORIGINAL DEPTH. THE OVERFLOW SPILLWAY SHALL BE CLEANED OR REPAIRED AS NECESSARY.
- AN INSPECTION AND MAINTENANCE LOG FOLLOWS THIS STORMWATER MANAGEMENT PLAN.

REVEGETATION AND SEEDING

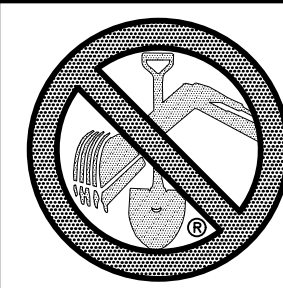
ALL DISTURBED AREAS SHALL BE REQUIRE SEEDING WITHIN TWO (2) WEEKS FOLLOWING THE ESTABLISHMENT OF FINAL GRADE. AREAS TO RECEIVE PAVEMENT DURING THE CONSTRUCTION OF THE ROAD SYSTEM SHALL NOT RECEIVE ANY SEEDING. SEEDING SHOULD BE ACCOMPLISHED USING AN APPROPRIATE GRASS DRILL, BY BROADCASTING OR BY HYDROMULCHING. IF SEEDING BY THE BROADCAST METHOD IS SELECTED THE APPLICATION RATE SHOULD BE DOUBLED. IF HYDROMULCHING IS SELECTED TWO OPERATIONS SHOULD BE CONSIDERED, APPLYING THE SEED FIRST AND THE MULCH IN A SECOND OPERATION. UPON COMPLETION OF THE SEEDING OPERATION THE SITE SHOULD BE COVERED WITH WEED FREE MULCH AT A RATE OF 4,000 LBS. PER ACRE. MULCH SHALL BE INSTALLED PER DCM VOLUME 2, FIGURE MU-1, FOUND ON PAGE 3-30.

BELOW IS THE ACCEPTED GRASS MIX FOR SANDY SOILS:

GRASS	VARIETY	AMOUNT IN PLS LBS. PER ACRE
SIDEOTS GRAMA	EL RENO	3.0
WESTERN WHEATGRASS	BARTON	2.5
SLENDER WHEATGRASS	NATIVE	2.0
LITTLE BLUESTERN	PASTURA	2.0
SAND DROPSEED	NATIVE	0.5
SWITCH GRASS	NEBRASKA	3.0
WEEPING LOVE GRASS	MORPHA	1.0

NOTE:

"FINISH GRADE" IN THE TEMPLATES ARE ONLY APPROXIMATE GRADES. ACTUAL FINISHED GRADES WILL VARY DEPENDING ON INDIVIDUAL HOME PLOT PLANS. PLOT PLANS SHALL CLOSELY FOLLOW THE FINISH GRADE PATTERNS SHOWN IN THE TEMPLATES WITHOUT ADVERSELY AFFECTING THE GRADES AND DRAINAGE PATTERNS OF NEIGHBORING LOTS OR TRACTS. CONTOURS SHOWN ON THESE PLANS ARE ROUGH GRADES AND WILL CHANGE WITH EVERY HOME CONSTRUCTION. FIELD VERIFY ALL GRADES PRIOR DESIGN OF INDIVIDUAL HOME PLOT PLANS.



TWO WORKING DAYS
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TECH CONTRACTORS	11910 TOURMALINE DR. #130	FALCON, CO 80831	719.495.7444	TELEPHONE				
ROLLING HILLS RANCH NORTH FILING 2	AT MERIDIAN RANCH	GRADING-EROSION CONTROL PLAN	GRADING DETAIL SHEET					

