

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

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FEB 2020



2

of

26


TECH CONTRACTORS

11886 STAPLETON DRIVE

FALCON, CO 80831

TELEPHONE: 719.495.7444

FAX: 719.495.2457



MERIDIAN RANCH

THE ESTATES AT

ROLLING HILLS RANCH FILING 1

STREET AND UTILITY PLANS

INDEX SHEET

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No.

Revisions

Date

Init.

Appr.

Date

Date

Init.

Appr.

Date

EPC 6/22/2020

PCD PROJECT NO. SF-19-019

GENERAL NOTES

- ## SANITARY SEWER NOTES

- a. MSMD HAS APPROVED ALL TESTS AND COMPACTION TESTING REPORTS, AS-BUILT DRAWINGS AND REVIEWS ARE SUBMITTED TO AND APPROVED BY MSMD.
- b. ALL SANITARY SEWER LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, ANY REQUIRED SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
- c. ALL NECESSARY EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED TO MSMD, AND RECORDED.
- d. DOWNSTREAM PLUG CAN BE REMOVED ONCE FIRST LIFT OF ASPHALT IS DOWN AND THE ABOVE REQUIREMENTS ARE MET.

26. SANITARY SEWER MAIN LENGTHS ARE MH CENTER TO MH CENTER. ALL SANITARY SEWER PIPES SHALL BE SDR 35 PVC OR EQUAL AND HAVE A MINIMUM COVER DEPTH OF 5'-6" INSTALLED WITH A COATED 12 GAUGE U.F. TRACER WIRE. USE PRE-MANUFACTURED INLINE PVC PUSH-ON WYES FOR SANITARY SEWER LATERAL CONNECTIONS TO THE MAIN LINE. TRACER WIRE SHALL BE APPROX. 300 PSI SADDLE TYPE. SADDLE TYPE TRACER WIRE SHALL BE INSTALLED ON ALL LOTS SHALL RECEIVE A 4" SANITARY SEWER SERVICE LATERAL. THE END OF EACH SANITARY SEWER SERVICE LATERAL SHALL BE "LOCATED" WITH A WOOD 2" X 4" EXTENDED 4" ABOVE FINISH GRADE FROM THE END OF THE SERVICE LOCATION AND PAINTED GREEN ABOVE FINISH GRADE. EXTEND THE COATED 12 GAUGE U.F. TRACER WIRE TO EACH END OF THE SERVICE LOCATION UNTIL TO THE SURFACE PAIRED ALONG THE 2" X 4" MARKER. TRACER WIRE CONNECTIONS SHALL BE WATER TIGHT STYLE OF APPROVED ELECTRICAL CONNECTIONS SUCH AS A DBY (DIRECT BURY YELLOW) OR EQUAL.

27. ALL WATER MAIN PIPES SHALL BE AWWA C900 PVC, PRESSURE CLASS 200 OR MSMD APPROVED EQUAL, INSTALLED PER MANUFACTURERS' SPECIFICATIONS. ALL WATER MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER MAIN PIPES SHALL HAVE A MINIMUM COVER DEPTH OF 5'-6" INSTALLED WITH A COATED 12 GAUGE U.F. TRACER WIRE.

- a. THE CONTRACTOR SHALL NOTIFY MSMD A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING TO ALLOW MSMD STAFF TO BE PRESENT AT ALL TIMES DURING TESTING. ALL TESTING SHALL BE PER MSMD SPECIFICATIONS OR CSUS, WHICHEVER IS GREATER.
 - b. ALL SECTIONS OF WATER LINES MUST FIRST PASS A CHLORINE TEST WITH A MINIMUM OF 50 PARTS PER MILLION OF RESIDUAL AFTER 24 HOURS. THE WHOLE SECTION OF LINE BEING TESTED MUST BE RE-CHLORINATED AND RE-TESTED IF IT DOES NOT PASS. ONCE THE SECTION OF LINE BEING TESTED PASSES THE CHLORINE TEST THE LINE MUST BE FLUSHED AND BAC-T TESTED PER CSUS. ONCE THE BAC-T TEST PASSES, THE SECTION OF LINE MAY BE PRESSURE TESTED. WATER FLUSHED FROM THE WATER SYSTEM MUST BE PROPERLY DE-CHLORINATED DURING THE FLUSHING PROCESS.
 - c. ALL SECTIONS OF WATER LINES MUST PASS A TWO HOUR 200 PSI HYDROSTATIC PRESSURE TEST. THE PRESSURE SHALL NOT DECREASE BY MORE THAN 5 PSI DURING THE DURATION OF THE TEST. NO WATER SHALL BE ADDED DURING THE PRESSURE TEST. IF THE PRESSURE TEST FAILS, THE SECTIONS OF LINE THAT FAILED MUST AGAIN PASS THE CHLORINE TEST, BE FLUSHED, AND PASS THE BAC-T TEST PRIOR TO CONDUCTING A NEW PRESSURE TEST.
 - d. ONCE WATER SERVICES ARE INSTALLED A SECOND WATER PRESSURE TEST MUST BE DONE TO A WORKING PSI OF 150 PSI FOLLOWING THE ABOVE TESTING STANDARDS.
 - e. SECTIONS OF WATER LINES SHALL BE LEFT PRESSURIZED ONCE THE WATER LINES HAVE PASSED ALL TESTING DURING THE REMAINING CONSTRUCTION ACTIVITIES.
39. COMMENCEMENT OF USE OF WATER LINES AND/OR SYSTEMS. NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL:

- a. MSMD HAS APPROVED ALL TESTS AND COMPACTION TESTING REPORTS, AND AS-BUILT DRAWINGS ARE SUBMITTED TO AND APPROVED BY MSMD.
 - b. ALL WATER LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.
 - c. ALL EASEMENTS (PLATTED OR DEEDED) ARE DEDICATED, EXECUTED TO MSMD, AND RECORDED.
40. ANY WATER SHUT DOWNS THAT NEED TO OCCUR ON THE CRITICAL LINES AS DEFINED BY THE MSMD SOP (STANDARD OPERATION PROCEDURE) MANUAL SHALL BE COORDINATED WITH MSMD STAFF FOR NIGHT TIME SHUT DOWNS.
41. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONNECTIONS TO EXISTING WATER MAINS WITHOUT A SHUTDOWN OF THE WATER SYSTEM. IN THE EVENT THAT A SHUTDOWN OF A WATER SYSTEM IS NECESSARY, THE CONTRACTOR SHALL ACQUIRE A PERMIT FROM MSMD.
42. ALL NON-POTABLE WATER MAINS SHALL BE AWWA NON-POTABLE STANDARD (PURPLE PIPE) C900 PVC, PRESSURE CLASS 200 OR MSMD APPROVED EQUAL, INSTALLED PER MANUFACTURERS' SPECIFICATIONS. ALL WATER MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER MAIN PIPES SHALL HAVE A MINIMUM COVER DEPTH OF 5'-6" INSTALLED WITH A COATED 12 GAUGE U.F. TRACER WIRE.
43. ALL NON- POTABLE WATER VALVES SHALL OPEN COUNTER CLOCKWISE WITH A VALVE EXTENSION, EXTENDING TO WITHIN 1' OF THE SURFACE AND PAINTED PURPLE WITH AN OPEN DIRECTION ARROW.
44. IRRIGATION SERVICES SHALL HAVE A STOP AND WASTE CURB STOP VALVE INSTALLED ALONG WITH A TRACER WIRE EXTENDING BACK TO THE MAIN LINE.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).

3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
- a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - b. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - d. CDOT M & S STANDARDS

4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER THE—FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.

5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.

6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT (PCD) – INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.

- 7.17 IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.

8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.

9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.

10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.

11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.

12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.

13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]

14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS BY EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS.

15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

1. THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE CODES, LICENSES, STANDARDS, PERMITS, BONDS, ETC. WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK.

2. LOCATIONS AND ELEVATIONS OF EXISTING IMPROVEMENTS TO BE MET (OR AVOIDED) BY WORK TO BE DONE SHALL BE CONFIRMED BY THE CONTRACTOR THROUGH FIELD EXPLORATIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL REPORT TO THE ENGINEER ANY DISCREPANCIES BETWEEN HIS MEASUREMENTS AND THESE PLANS.

3. ANY CONSTRUCTION DEBRIS OR MUD DROPPED INTO MANHOLES, INLETS, PIPES OR TRACKED ONTO EXISTING ROADWAYS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR. THE CONTRACTOR SHALL REPAIR ANY EXCAVATIONS OR PAVEMENT FAILURES CAUSED BY HIS CONSTRUCTION. THE CONTRACTOR SHALL PROPERLY BARRICADE THE CONSTRUCTION SITE UNTIL CONSTRUCTION IS COMPLETE.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NOT OBTAINED BY THE OWNER OR OWNER'S REPRESENTATIVES AND PAY ALL FEES AS REQUIRED BY THE CONSTRUCTION COVERED IN THESE PLANS.

5. ALL WORK AND MATERIALS WILL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

6. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES. CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS AS SHOWN ON THESE PLANS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY OF HIS OWN PERSONNEL, ALL VISITORS TO THE SITE, AND THE GENERAL PUBLIC INCLUDING, BUT NOT LIMITED TO, TRENCH EXCAVATION AND SHORINGS, TRAFFIC CONTROL, AND SECURITY NOT LIMITED TO NORMAL WORKING HOURS.

8. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL SITE IMPROVEMENTS (INCLUDING BUT NOT LIMITED TO: UTILITIES, STRUCTURES, PAVING, LANDSCAPING, ETC.) SUCH THAT NO DAMAGE IS DONE TO SITE IMPROVEMENTS (I.E.: SAWCUTTING NEW PAVEMENT). SITE IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED, TO EQUAL OR BETTER CONDITION, TO THE SATISFACTION OF THE OWNER AT NO ADDITIONAL COST TO THE OWNER.

9. IF, DURING THE CONSTRUCTION PROCESS, CONDITIONS ARE ENCOUNTERED WHICH COULD INDICATE THAT A PRIOR UNIDENTIFIED SITUATION IS PRESENT, THE CONTRACTOR SHALL CONTACT THE ENGINEER IMMEDIATELY.

10. THE CONTRACTOR SHALL REMOVE ALL DEBRIS RESULTING FROM WORK UNDER THIS CONTRACT TO AN APPROVED DUMP SITE.

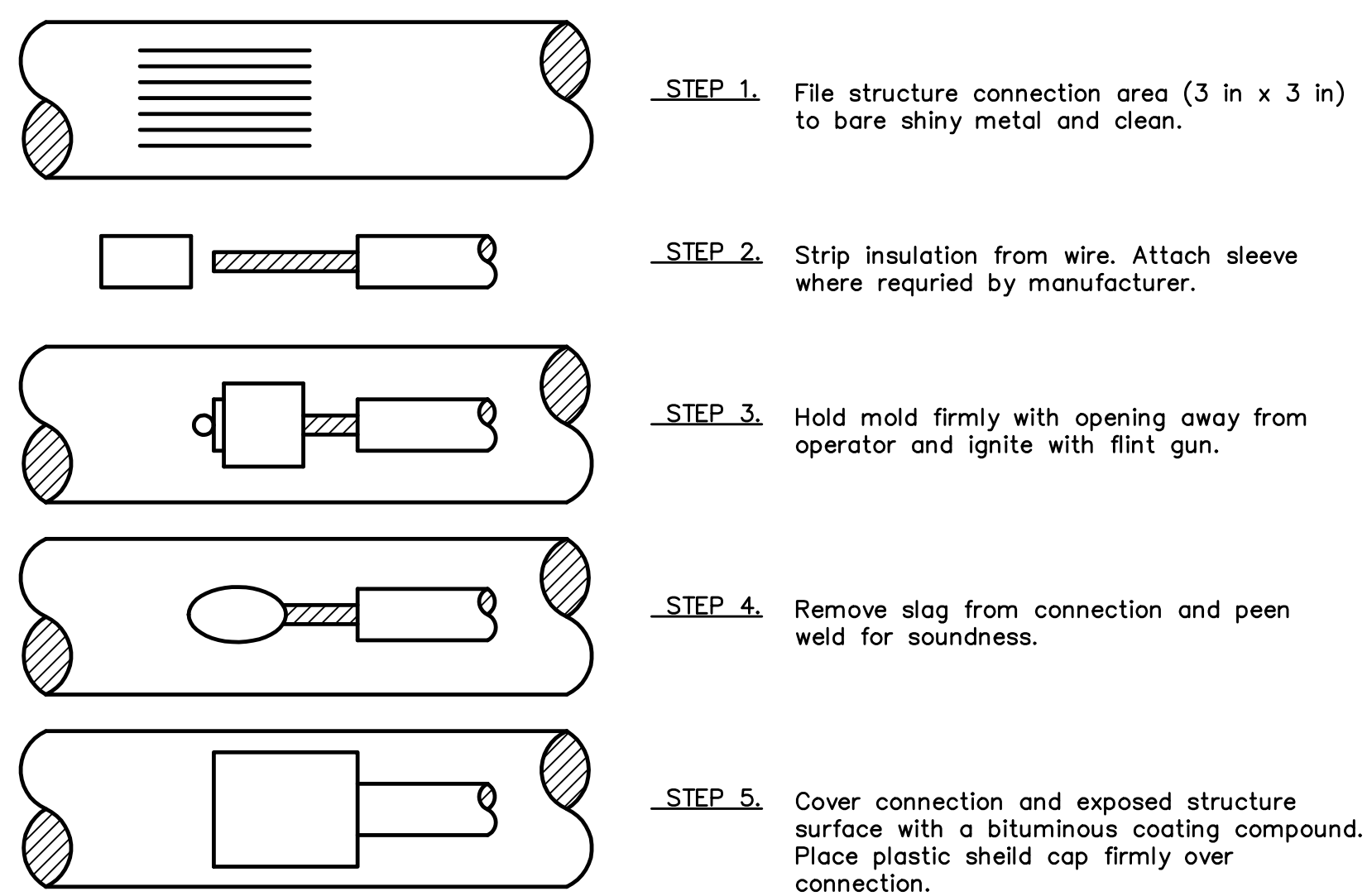
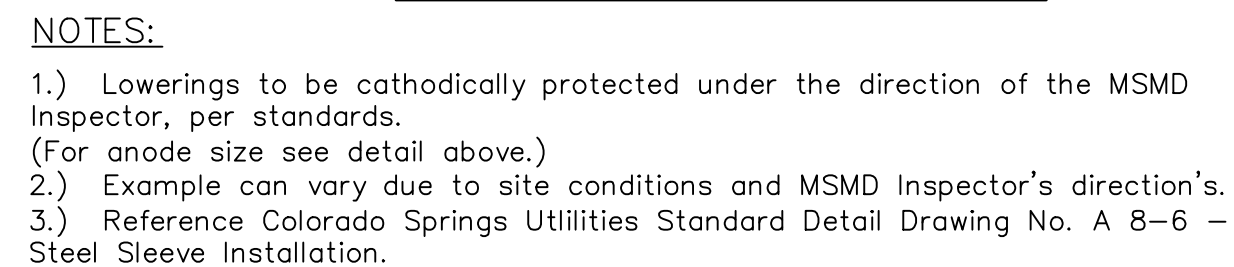
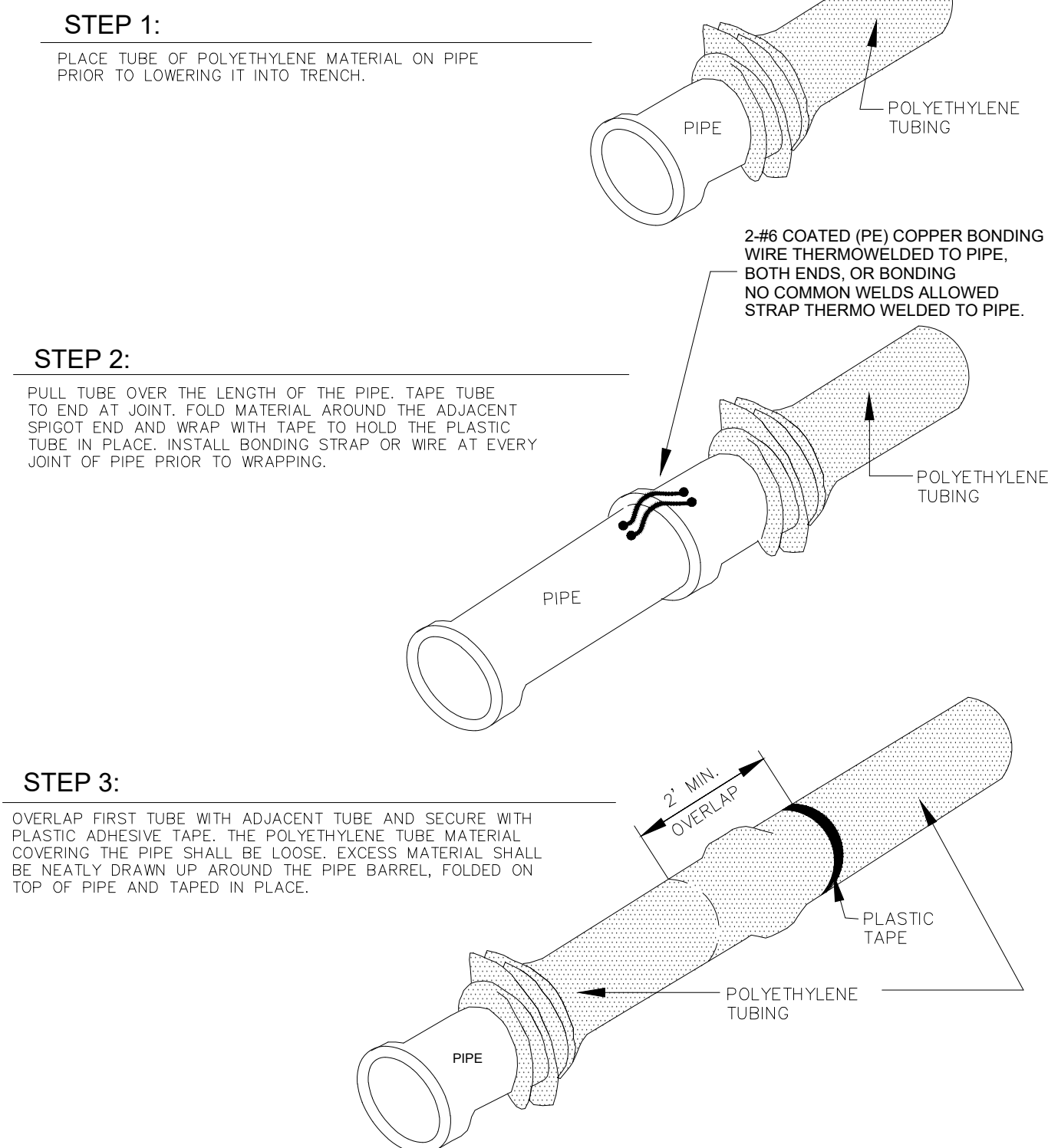
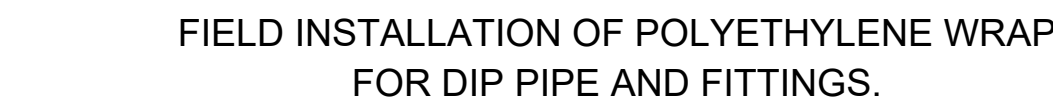
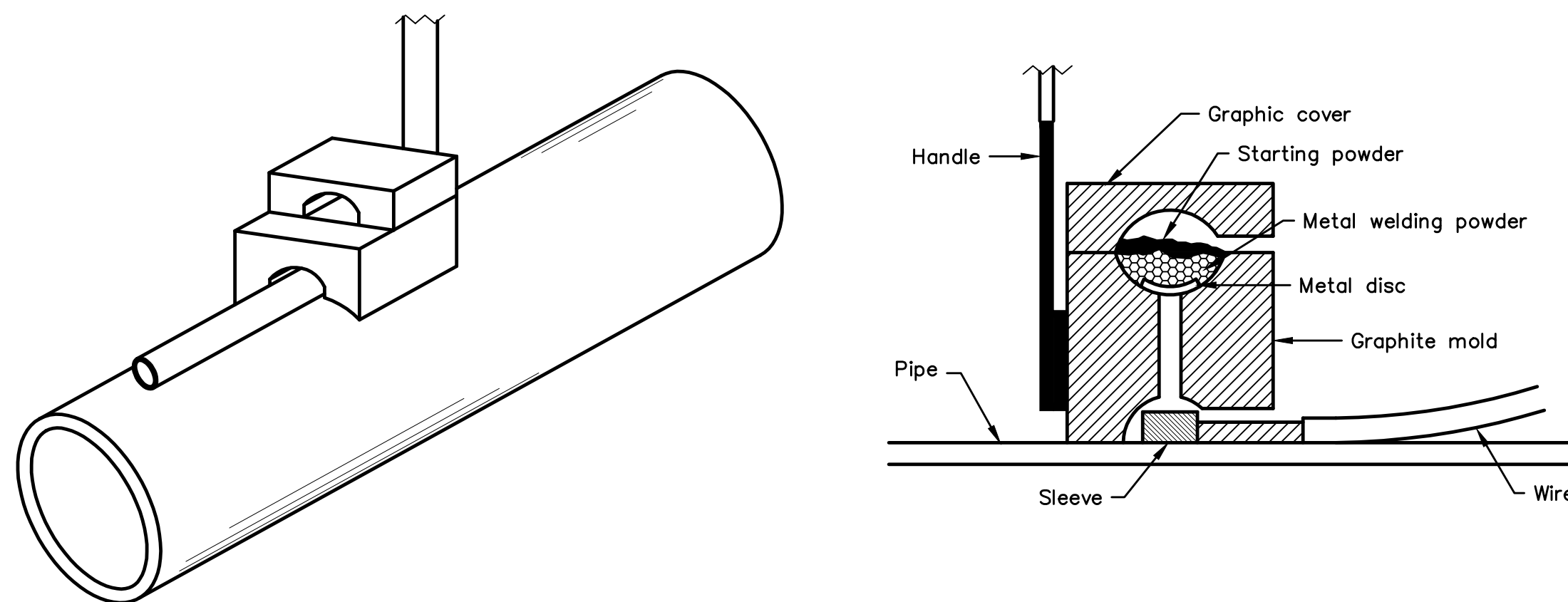
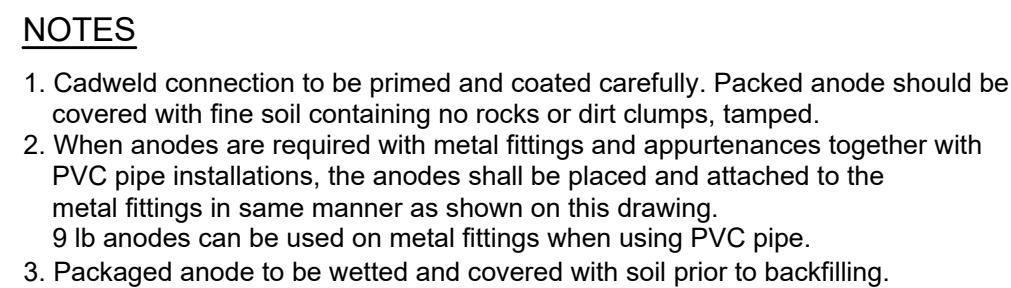
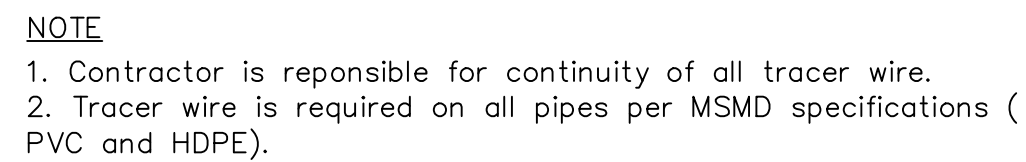
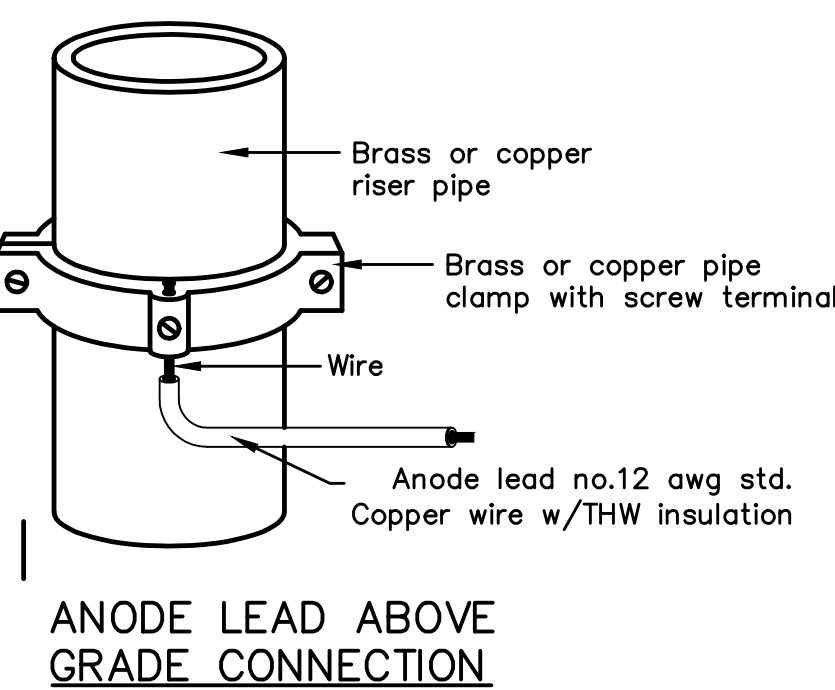
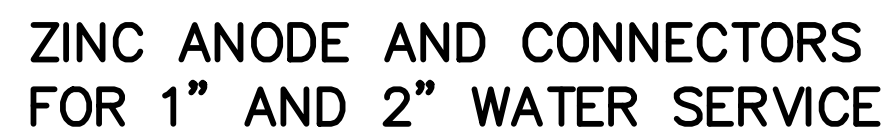
11. USE ONLY DIMENSIONS PROVIDED ON THESE PLANS. DO NOT SCALE DRAWINGS. INFORM ENGINEER OF ANY DISCREPANCIES AND/OR MISSING INFORMATION.

12. CONTRACTOR TO OBTAIN DEWATERING PERMIT, IF REQUIRED, FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) PRIOR TO COMMENCING WORK. DISCHARGES SHALL BE MONITORED ACCORDING TO THE CONDITIONS OF THE CDPHE PERMIT.

13. CONTRACTOR TO OBTAIN AND READ THE GEOTECHNICAL ENGINEERING STUDY) PREPARED FOR THIS PROJECT. IN CASE OF ANY CONFLICT WITH THESE PLANS AND SITEWORK SPECIFICATIONS REGARDING PAVING AND EARTHWORK, CONTACT ENGINEER IMMEDIATELY. ALL PAVING AND EARTH WORK SHALL CONFORM TO THE RECOMMENDATIONS OF THIS REPORT.

14. STREET NAME SIGNS TO BE MOUNTED ON TOP OF STOP SIGNS AT LOCATIONS SHOWN ON PLANS.

15. REX ROAD IS CLASSIFIED AS AN URBAN RESIDENTIAL COLLECTOR AND HAS A DESIGN SPEED OF 40 MPH WITH A POSTED SPEED OF 35 MPH. ALL OTHER ROADS IN THIS FILING ARE CLASSIFIED AS RESIDENTIAL URBAN LOCAL AND HAVE A DESIGN AND POSTED SPEED OF 25 MPH.



NOTES:

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

EXOTHERMIC WELD PROCESS

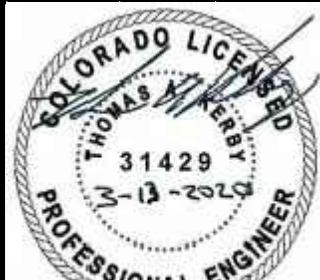
<p>TECH CONTRACTORS</p> <p>11886 STAPLETON DRIVE</p> <p>FALCON, CO 80831</p> <p>TELEPHONE: 719.495-7444</p> <p>FAX: 719.495-2457</p>	1				
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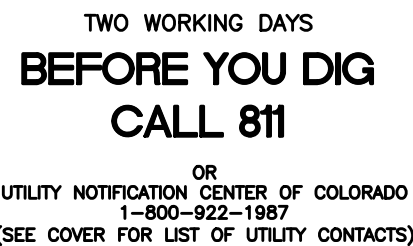
THE ESTATES AT
ROLLING HILLS RANCH FILING 1
STREET AND UTILITY PLANS
DETAIL SHEET

Date FEB 2020

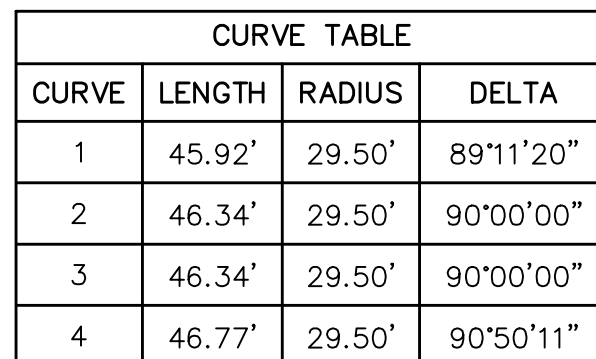
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EPC 6/22/2020



NOTE:
ALL EXISTING VALVES, MANHOLES,
HYDRANTS, ECT. TO BE ADJUSTED TO
FINISHED GRADE AS NECESSARY.



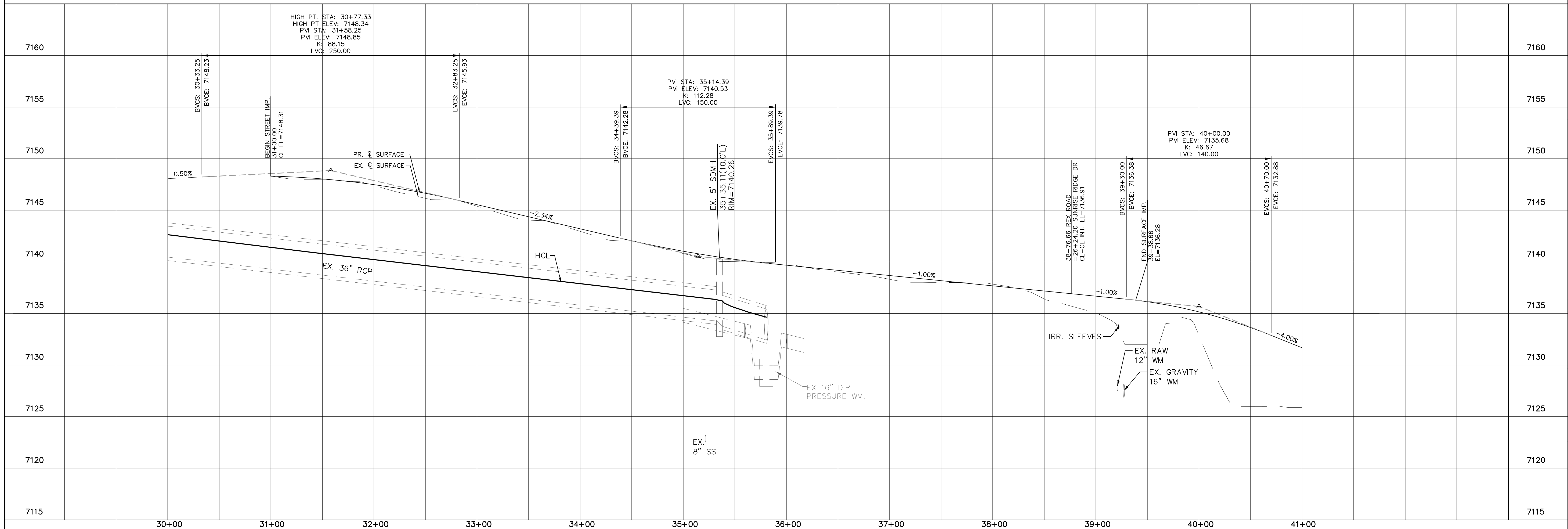
ALL CURB RADII ARE TO TOP BACK OF CURB (TYP.)



1 inch = 50 ft.
1 inch = 5 ft. VERTICAL

REX ROAD

URBAN RESIDENTIAL COLLECTOR
60' WIDE RIGHT OF WAY, 36' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)

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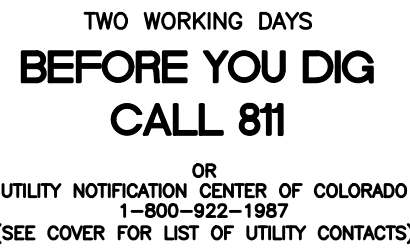
MERIDIAN RANCH

THE ESTATES AT
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STREET AND UTILITY PLANS
REX ROAD

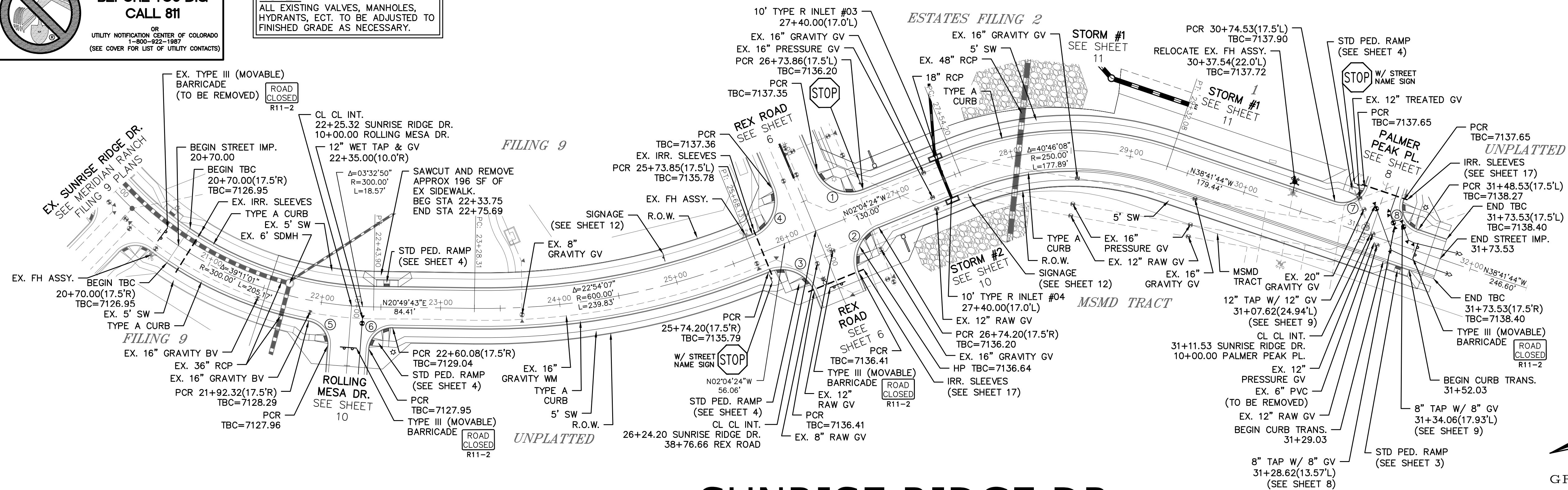
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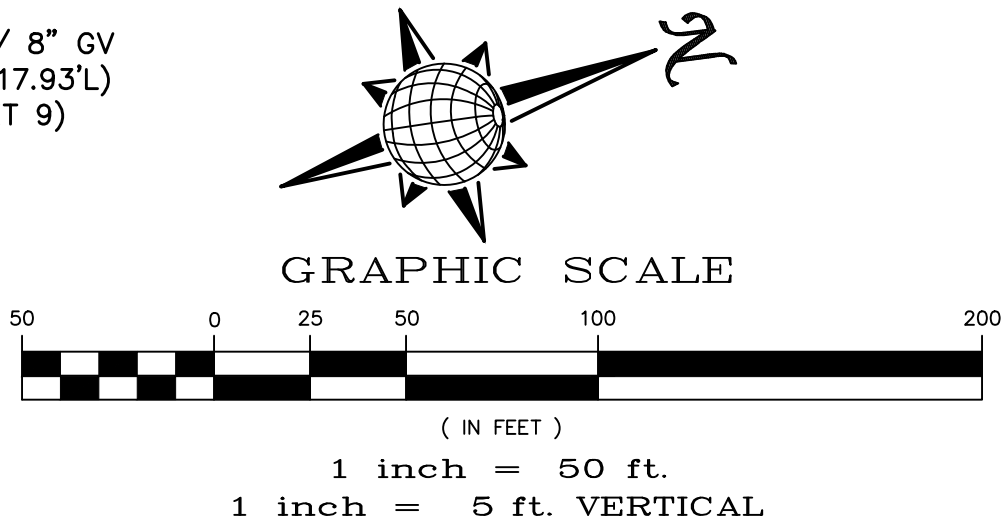


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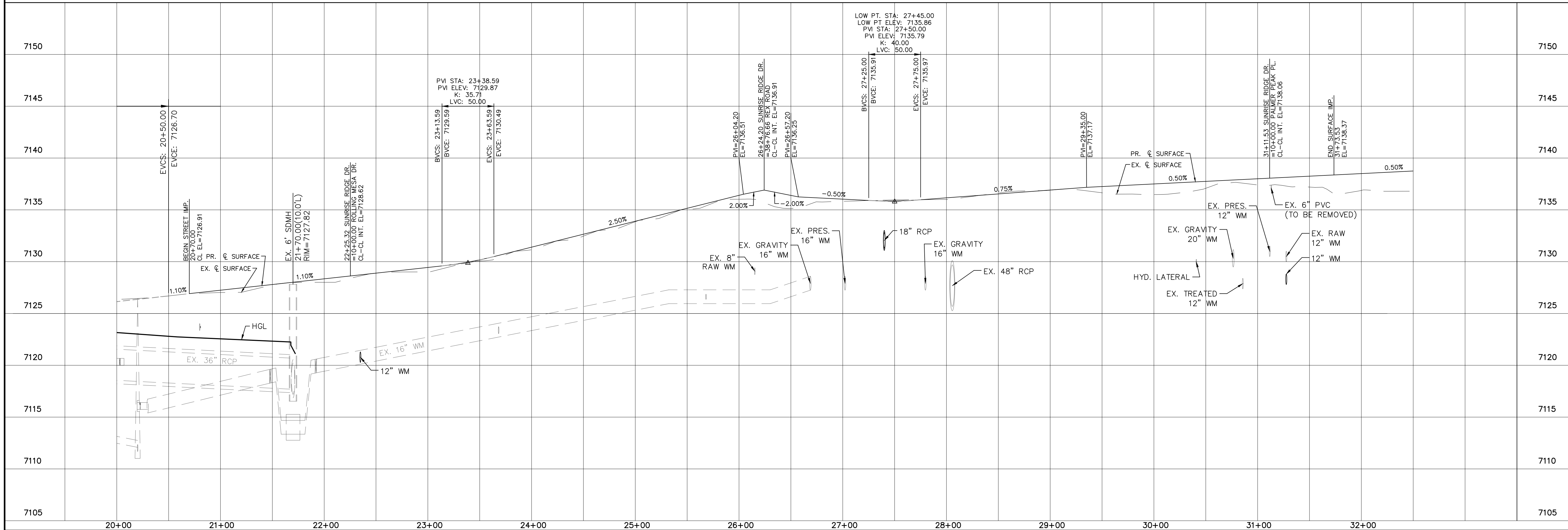
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
1	45.92'	29.50'	89°11'20"
2	46.34'	29.50'	90°00'00"
3	46.34'	29.50'	90°00'00"
4	46.77'	29.50'	90°50'11"
5	28.49'	19.50'	83°41'48"
6	29.42'	19.50'	86°27'10"
7	30.63'	19.50'	90°00'00"
8	30.63'	19.50'	90°00'00"


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

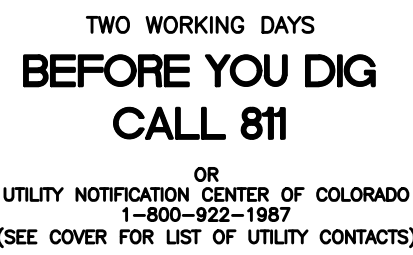


SUNRISE RIDGE DR.

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



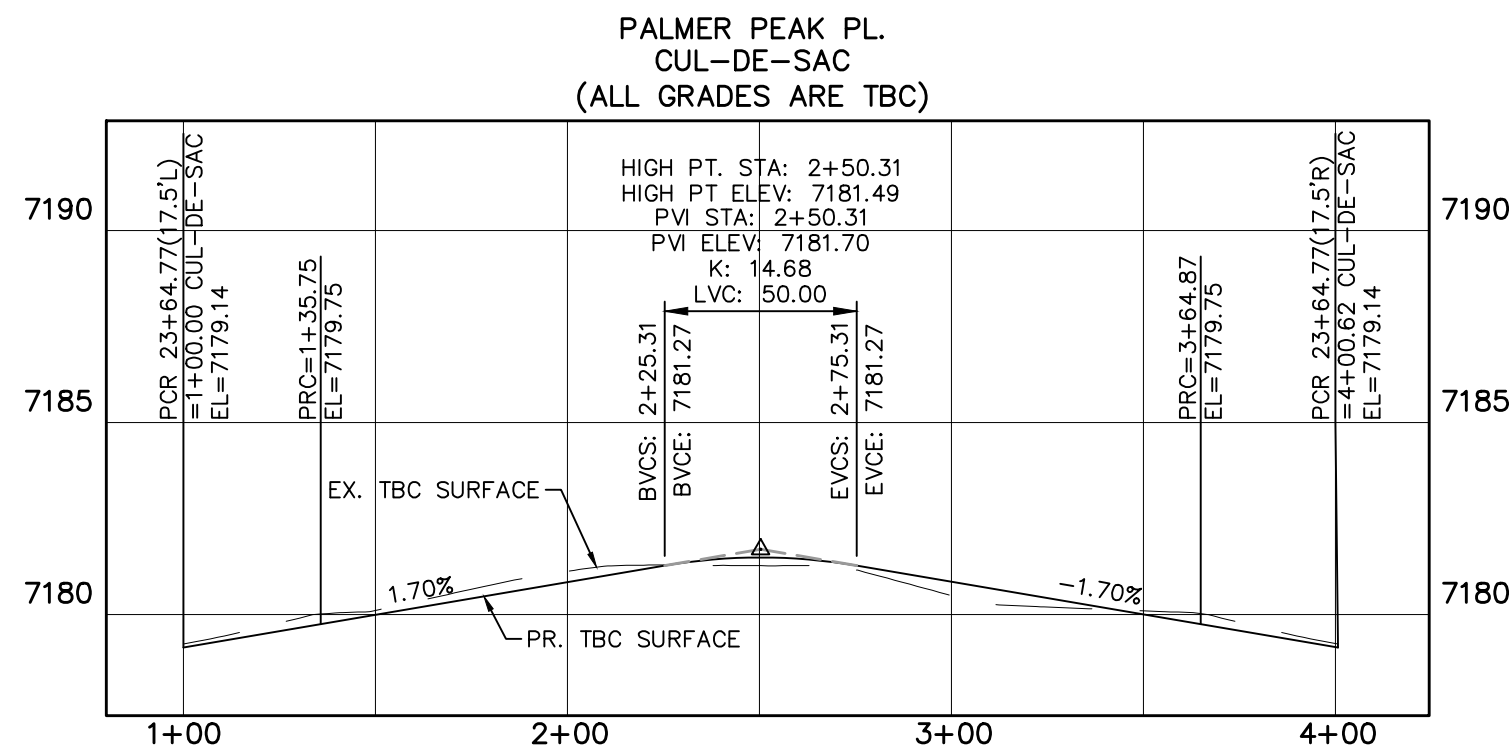
	Scale AS SHOWN	7 of 26	Drawn by	THE ESTATES AT ROLLING HILLS RANCH FILING 1 STREET AND UTILITY PLANS SUNRISE RIDGE DR.	 MERIDIAN RANCH	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495-7444 FAX: 719.495-2457	1	-		
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	Date	FEB 2020	3				-			
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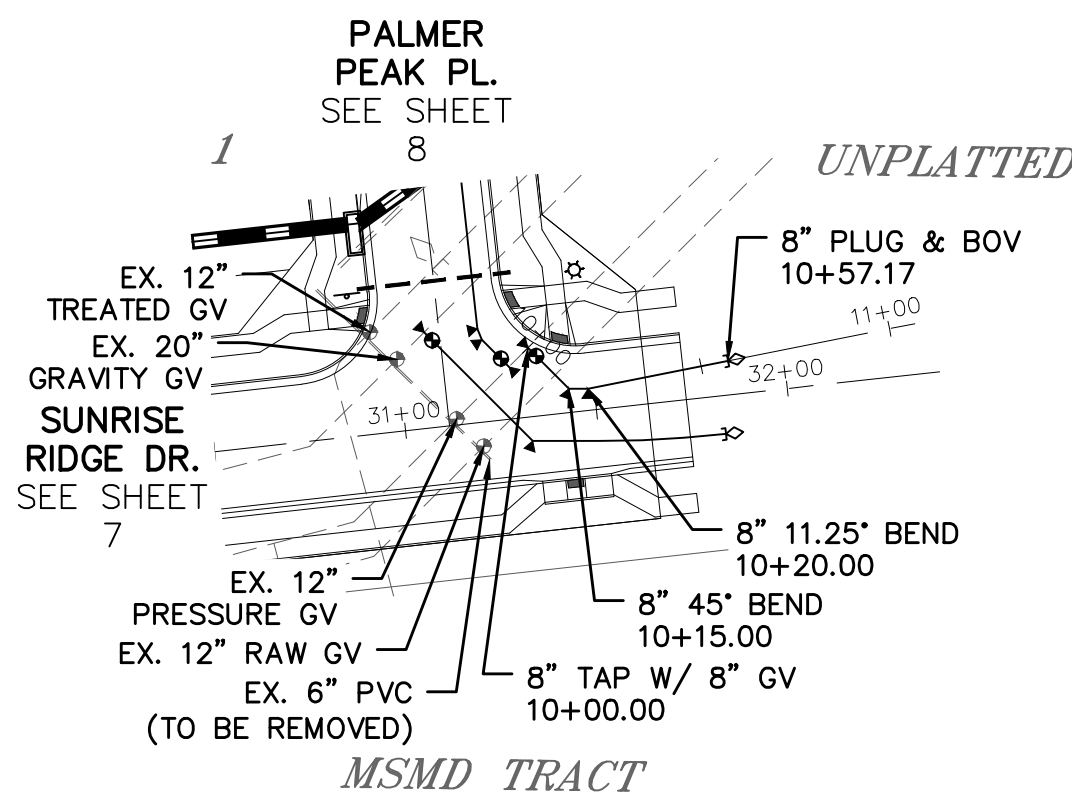
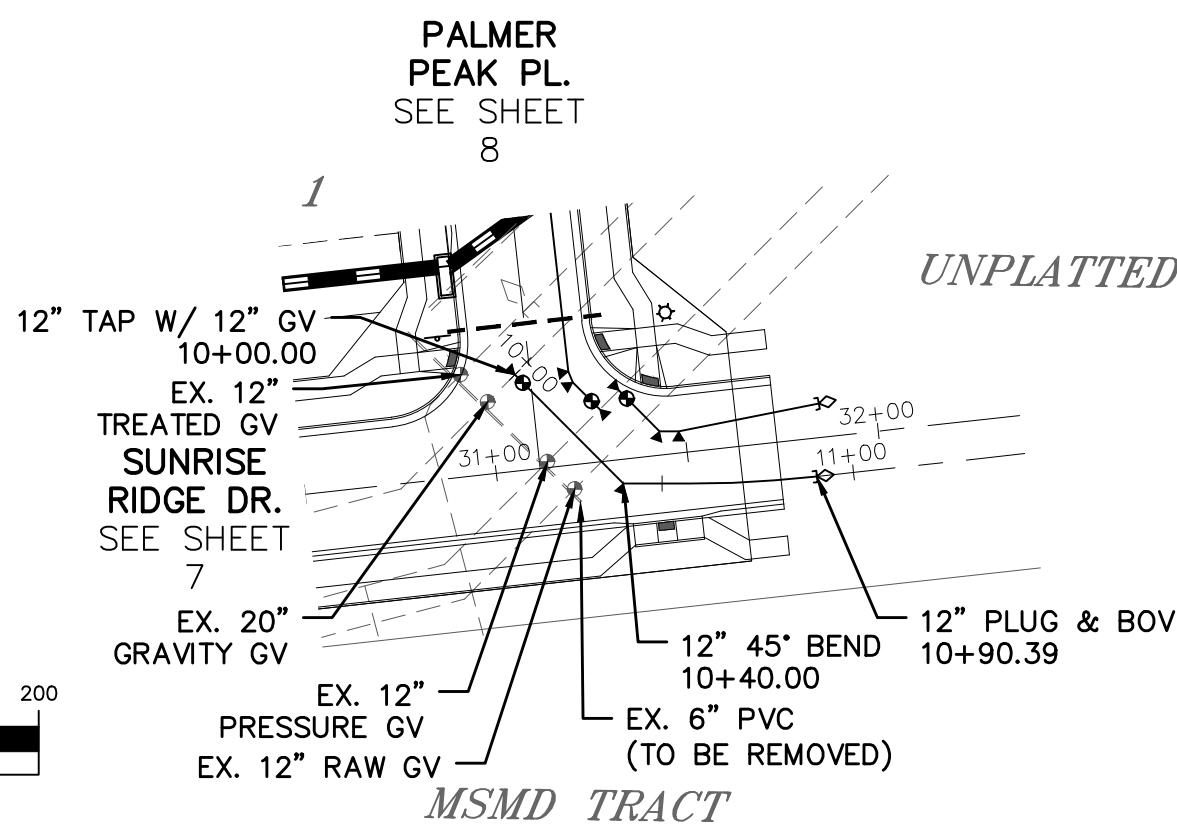
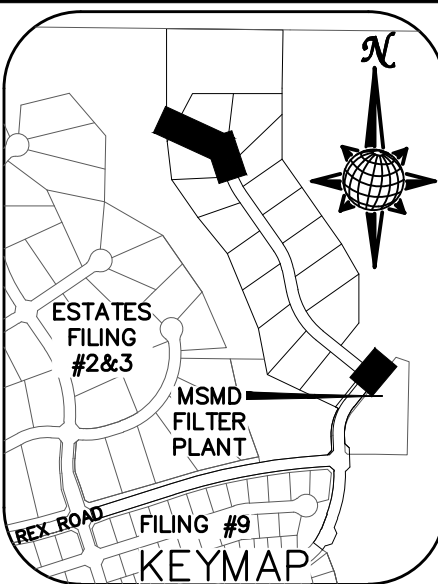


URBAN LOCAL LOW VOLUME
60' WIDE RIGHT OF WAY, 30' WIDE ASPHALT PAVEMENT (EDGE TO EDGE)



CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
9	35.75'	42.50'	48°11'23"
10	229.13'	47.50'	276°22'46"
11	35.75'	42.50'	48°11'23"

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



GRAVITY WM TAP

PRESSURE WM TAP

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Revisions		Date	Imit.	Appr.	Date

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FALCON, CO 80831
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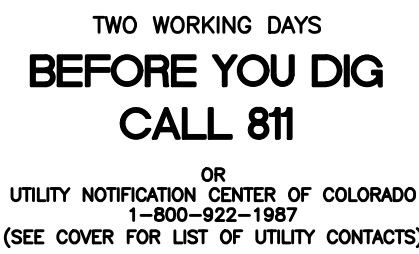
MERIDIAN RANCH

THE ESTATES AT
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STREET AND UTILITY PLANS
PALMER PEAK PL.

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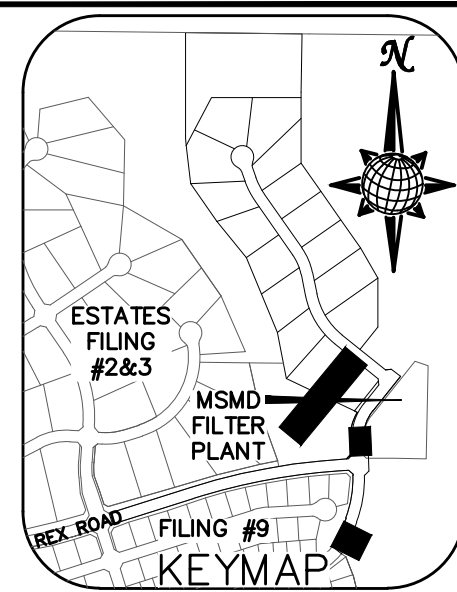
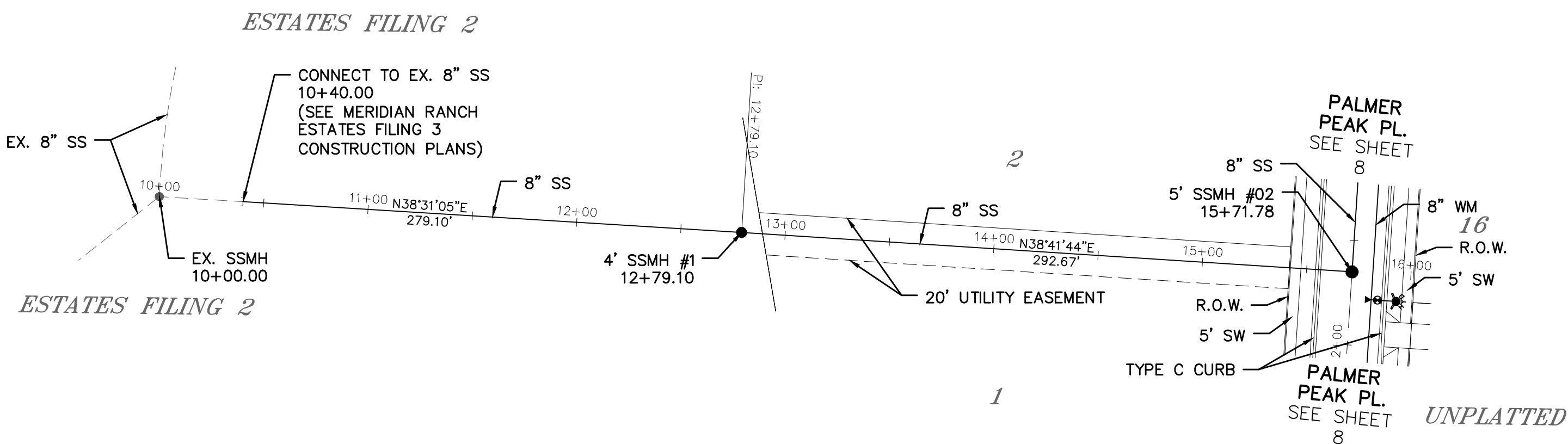
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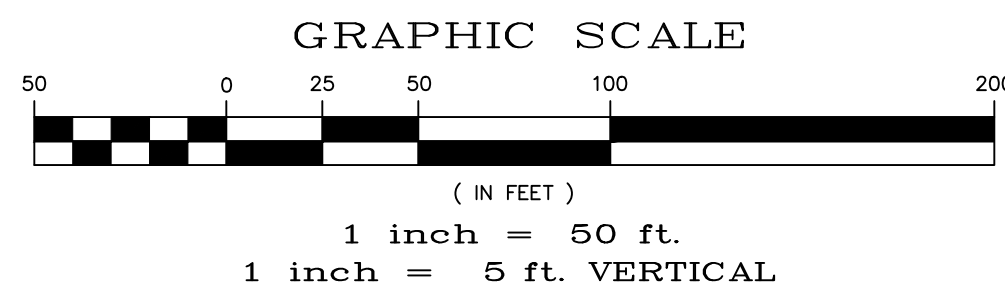
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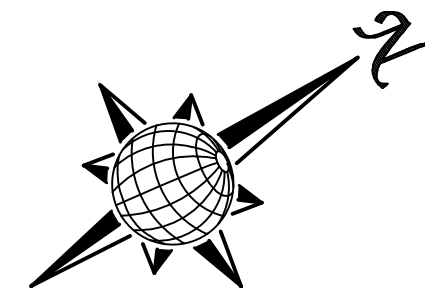


STORM #2

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



SS #1



	Scale AS SHOWN	Drawn by LCG	THE ESTATES AT ROLLING HILLS RANCH FILING 1 STREET AND UTILITY PLANS ROLLING MESA DR.	 MERIDIAN RANCH	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457	1								
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	10 of 26	Date FEB 2020								3				
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										No.	Revisions	Date	Invt.	Appr.

KEYMAP

ESTATES FILING #2&3

MSD FILTER PLANT

REX RD

FILING #9

N

1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT.
4. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
6. ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
7. ALL STREET NAME SIGNS SHALL HAVE "D" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND NON-LOCAL ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS"
8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
9. ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE DESIGN.
10. ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
11. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
12. ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-627-1.
13. THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.



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2				
3				
4				
No.	Revisions	Date	Init.	Date

TECH CONTRACTORS
11886 STAPLETON DRIVE
FALCON, CO 80831
TELEPHONE: 719.495.7444
FAX: 719.495.2457



MERIDIAN RANCH

THE ESTATES AT
HILLING HILLS RANCH FILING 1
STREET AND UTILITY PLANS
SIGNAGE AND STRIPING

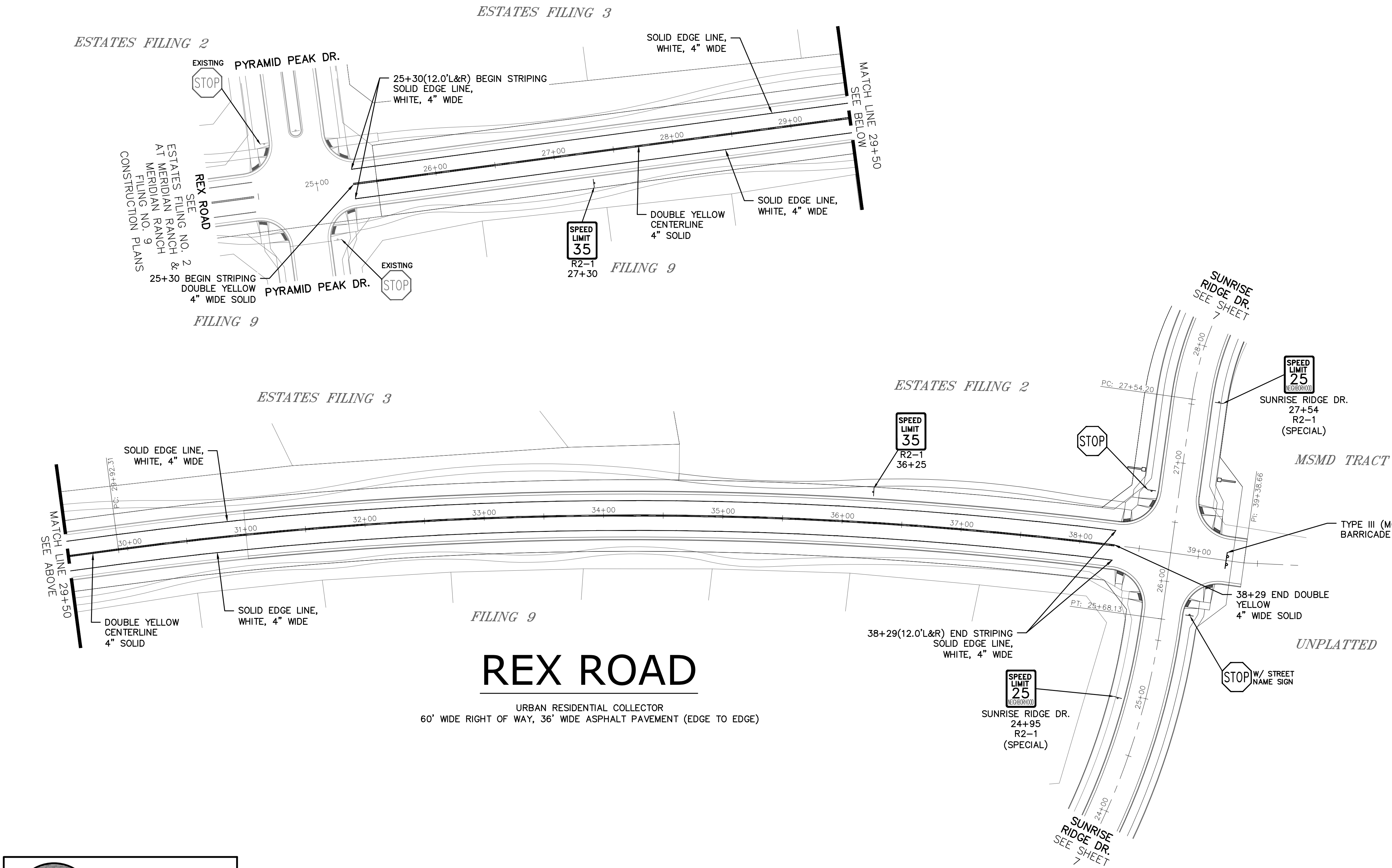
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Date	FEB 2020

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12	of 26



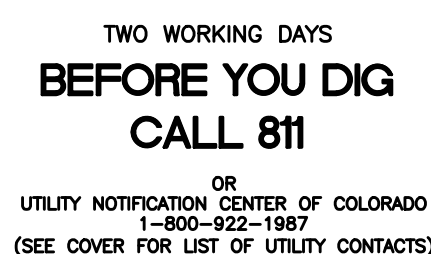
EPC 6/22/2020

PCD PROJECT NO. SF-19-019

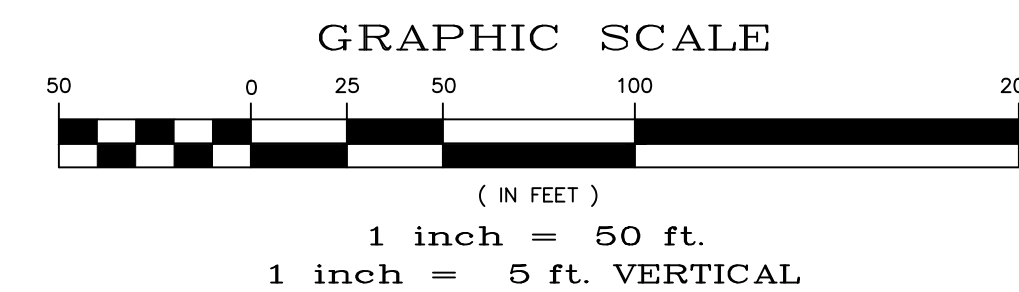


**TWO WORKING DAYS
BEFORE YOU DIG
CALL 811**

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



UNPLATTED



	Scale AS SHOWN	Drawn by Log	Checked by TAK	Date FEB 2020	THE ESTATES AT ROLLING HILLS RANCH FILING 1 STREET AND UTILITY PLANS SIDEWALK PLAN	 MERIDIAN RANCH	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457	1	-		
								2	-		
								3	-		
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								No.	Revisions	Date	Init.



TWO WORKING DAYS
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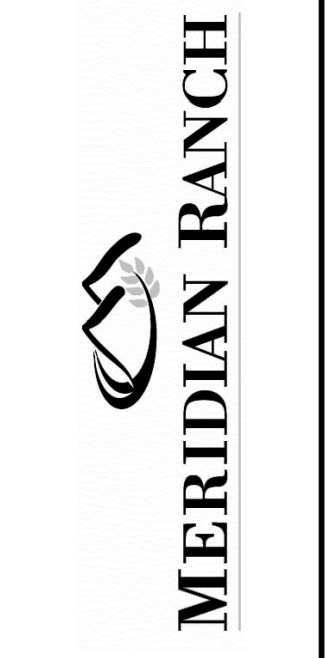
UNPLATTED

NOTE:
CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:
1)MERIDIAN SERVICE METRO DISTRICT WATER PLANT SITE PLAN & FLOOR PLAN
2)MERIDIAN RANCH FILING 9
3)THE ESTATES FILING 2 AT MERIDIAN RANCH
4)THE ESTATES FILING 3 AT MERIDIAN RANCH
5)GUTHRIE RAW WATER EXTENSION THE VISTAS FILING 1 OFFSITE

NOTE:
8" SS UNLESS OTHERWISE LABELED.

No.	Revisions	Date	Init.	Appr.	Date
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3					
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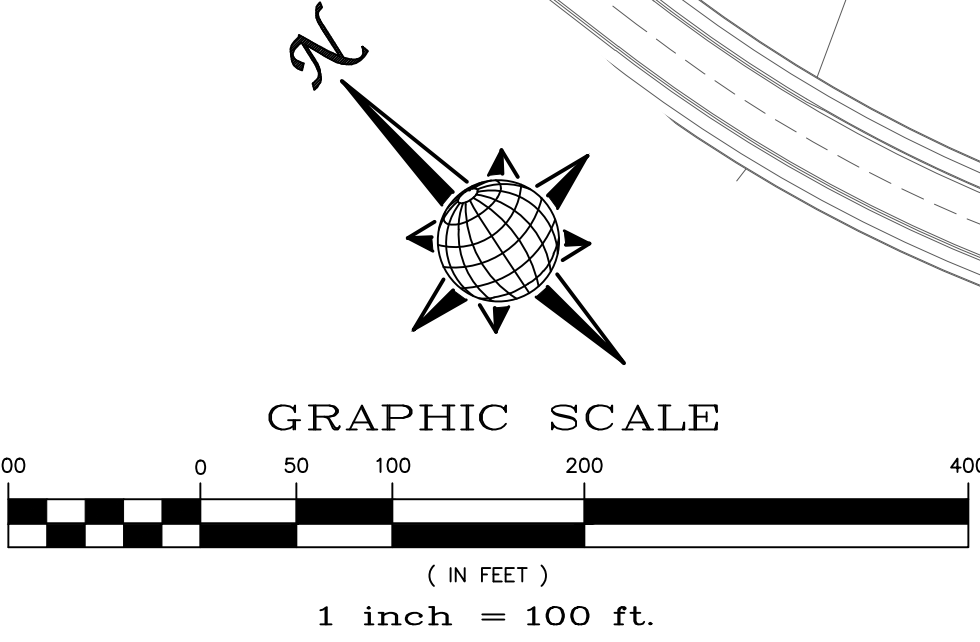
TECH CONTRACTORS
11886 STAPLETON DRIVE
FALCON, CO 80831
TELEPHONE 719.495.7444
FAX 719.495.2457



THE ESTATES AT
ROLLING HILLS RANCH FILING 1
STREET AND UTILITY PLANS
OVERALL SANITARY SEWER

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14 of 26





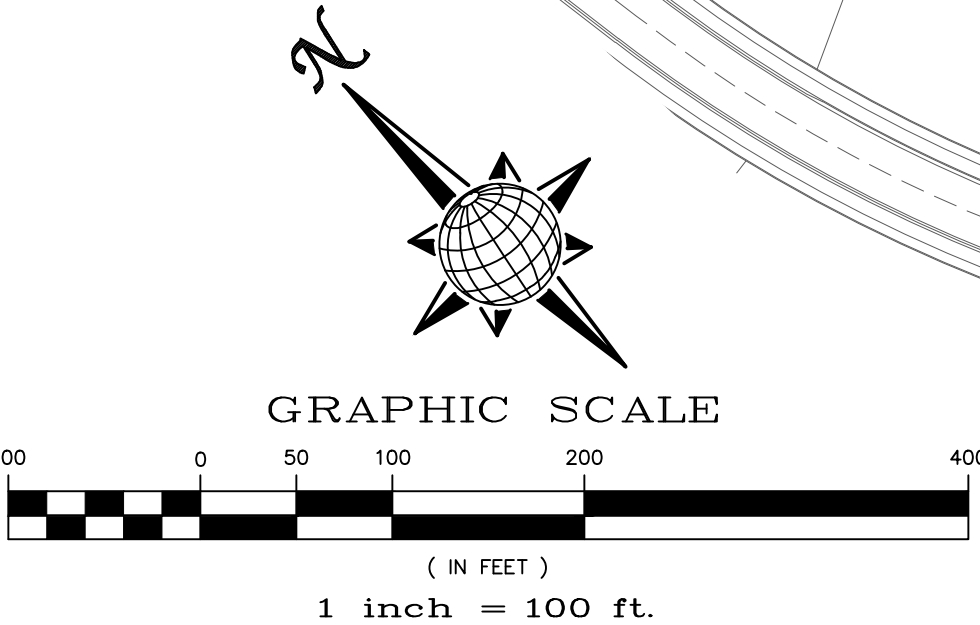
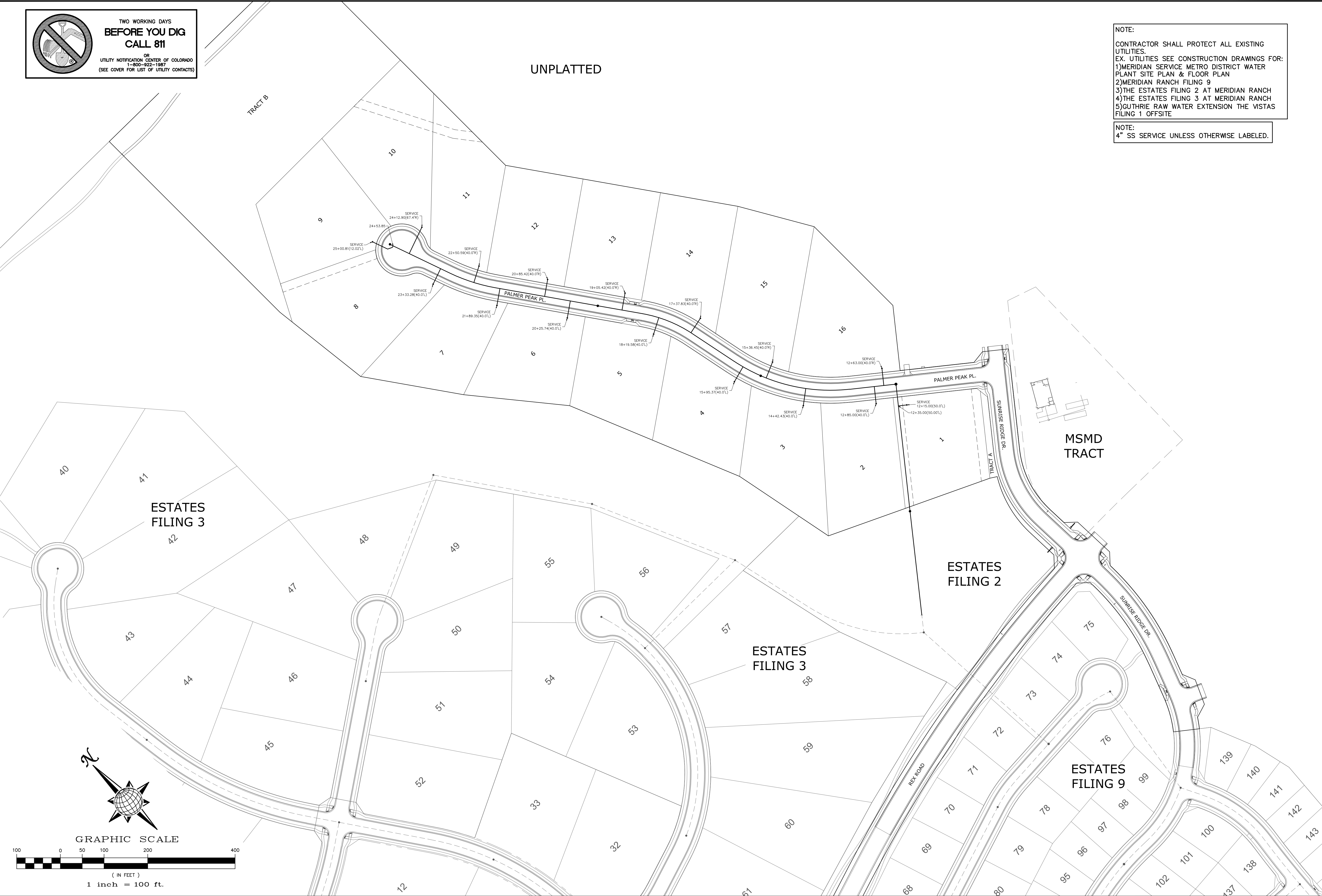
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1-800-922-1987
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NOTE:
4" SS SERVICE UNLESS OTHERWISE LABELED.



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2

3

4

No.

TECH CONTRACTORS
11886 STAPLETON DRIVE
FALCON, CO 80831
TELEPHONE 719.495.7444
FAX 719.495.2457

**MERIDIAN RANCH**

THE ESTATES AT
ROLLING HILLS RANCH FILING 1
STREET AND UTILITY PLANS
OVERALL SANITARY SEWER
SERVICES

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FEB 2020

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AS SHOWN

15 of 26



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TWO WORKING DAYS

BEFORE YOU DIG

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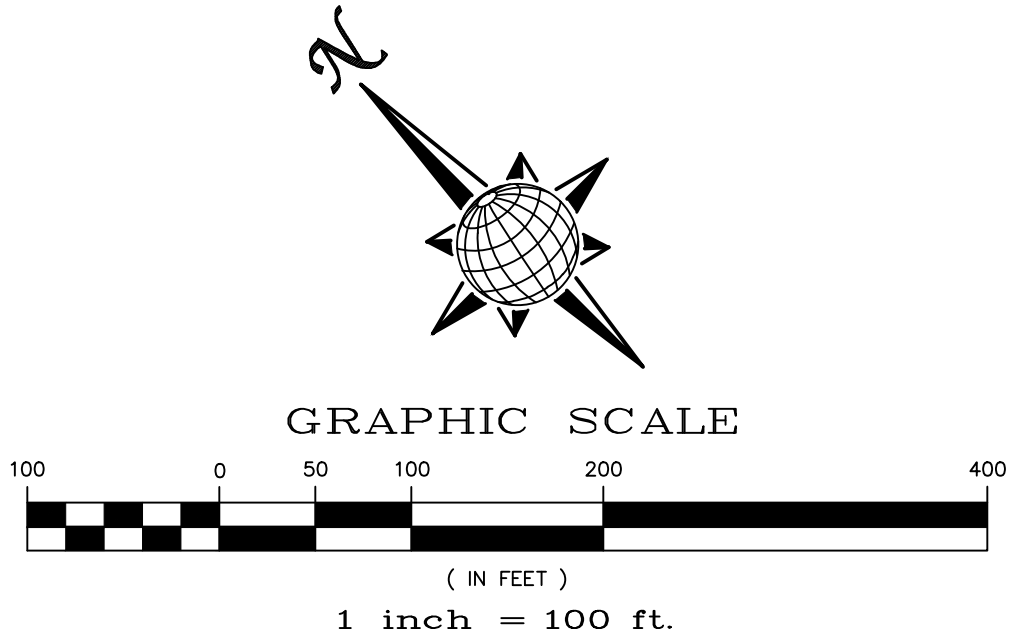
OR

UTILITY NOTIFICATION CENTER OF COLORADO

1-800-922-1987

(SEE COVER FOR LIST OF UTILITY CONTACTS)

UNPLATTED



NOTE:

CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.

EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:

1)MERIDIAN SERVICE METRO DISTRICT WATER PLANT SITE PLAN & FLOOR PLAN

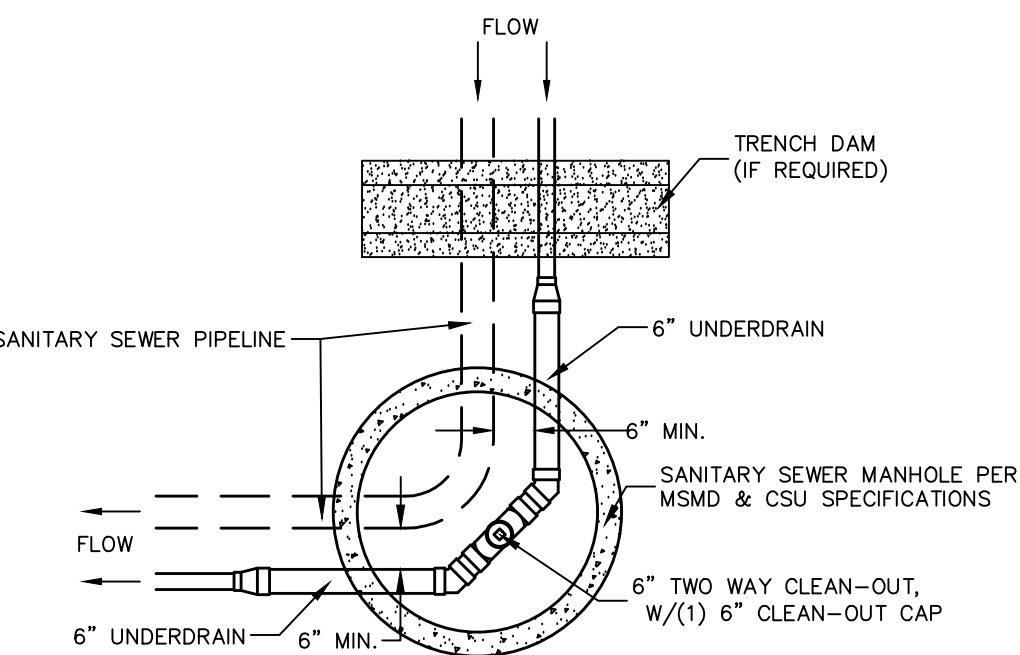
2)MERIDIAN RANCH FILING 9

3)THE ESTATES FILING 2 AT MERIDIAN RANCH

4)THE ESTATES FILING 3 AT MERIDIAN RANCH

5)GUTHRIE RAW WATER EXTENSION THE VISTAS FILING 1 OFFSITE

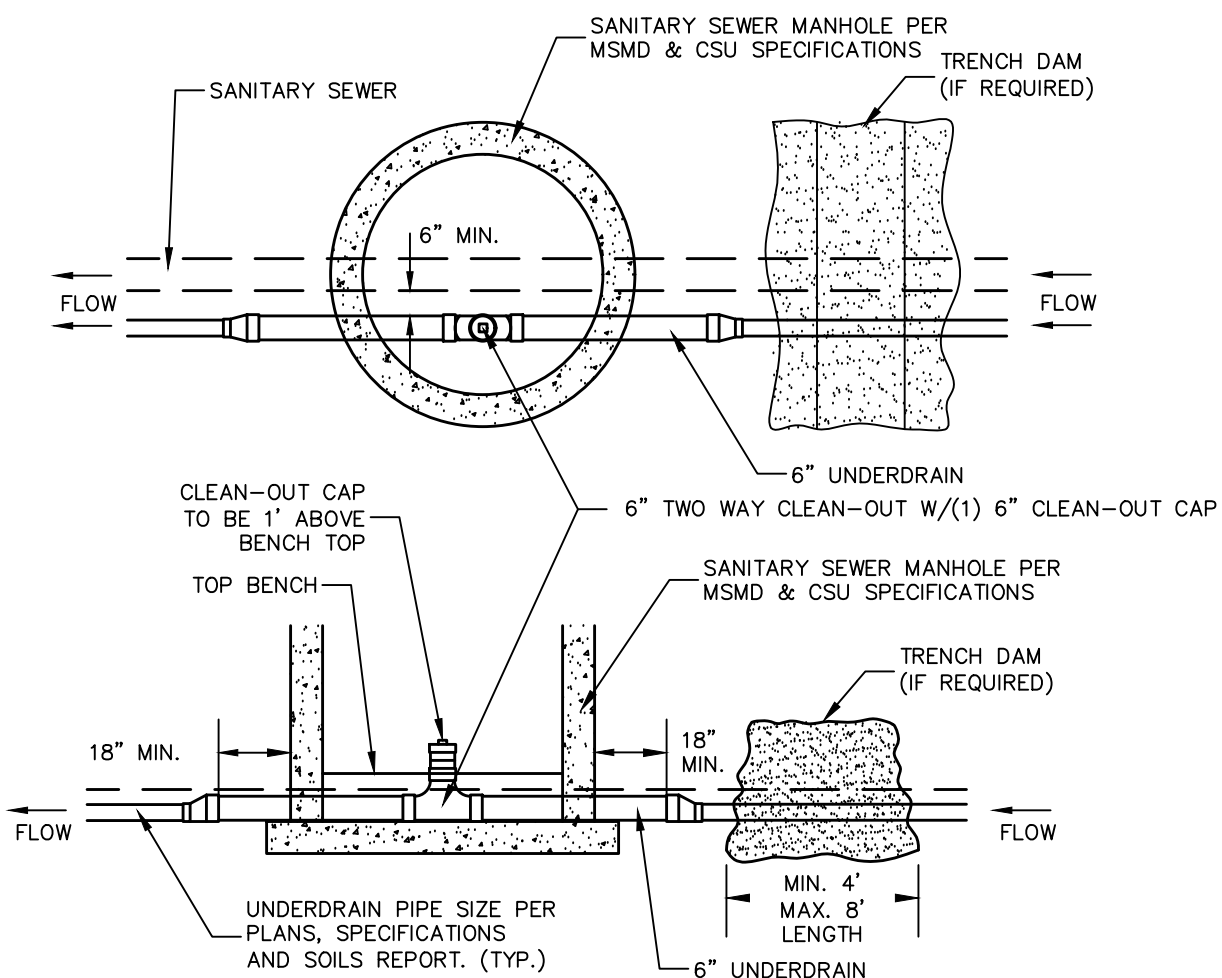
LEGEND	
	EX. 4" UNDERDRAIN
	EX. 6" UNDERDRAIN
	EX. 8" UNDERDRAIN
	4" UNDERDRAIN
	6" UNDERDRAIN



SSMH #2

NOTES:

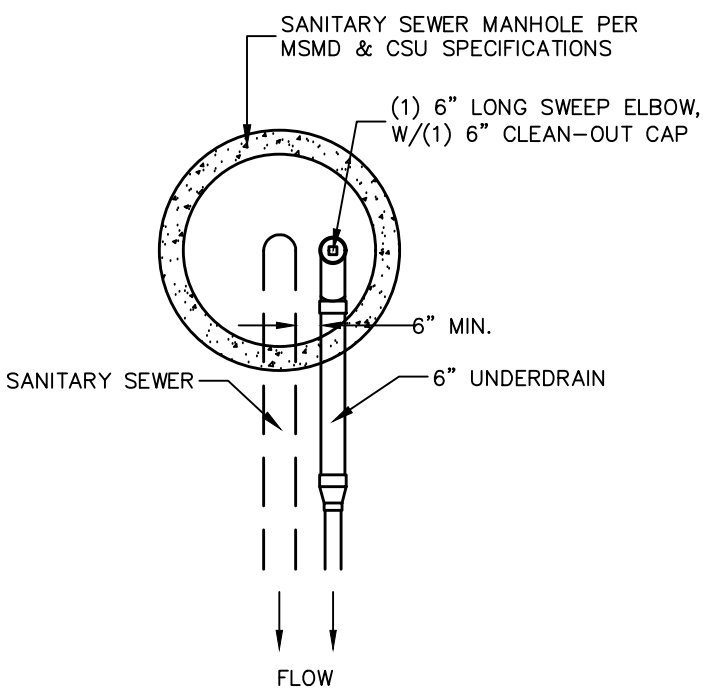
1. THE UNDERDRAIN SYSTEM SHALL BE PASSIVE, WATER TIGHT, NON- PERFORATED PIPE, WITH THE MAIN LINE SIZE DESIGNED BY THE ENGINEER. ALL UNDERDRAIN PIPES AND FITTINGS SHALL BE SDR 35 PVC, OR MSMD APPROVED EQUAL, INSTALLED PER THE SAME INSTALLATION STANDARDS AS OUTLINED BY CSUS FOR SANITARY SEWER SYSTEMS. 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.



SSMH #1, #3, #4

CLEAN-OUT DETAILS

SCALE : N.T.S.



SSMH #5

ESTATES FILING 3

ESTATES FILING 2

ESTATES FILING 9

MSMD TRACT

UNPLATTED

1

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3

4

No.


TECH CONTRACTORS

11886 STAPLETON DRIVE

FALCON, CO 80831

TELEPHONE 719.495.7444

FAX 719.495.2457



MERIDIAN RANCH

THE ESTATES AT ROLLING HILLS RANCH FILING 1

STREET AND UTILITY PLANS

OVERALL UNDERDRAIN

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Date

FEB 2020

Scale

AS SHOWN

16 of 26





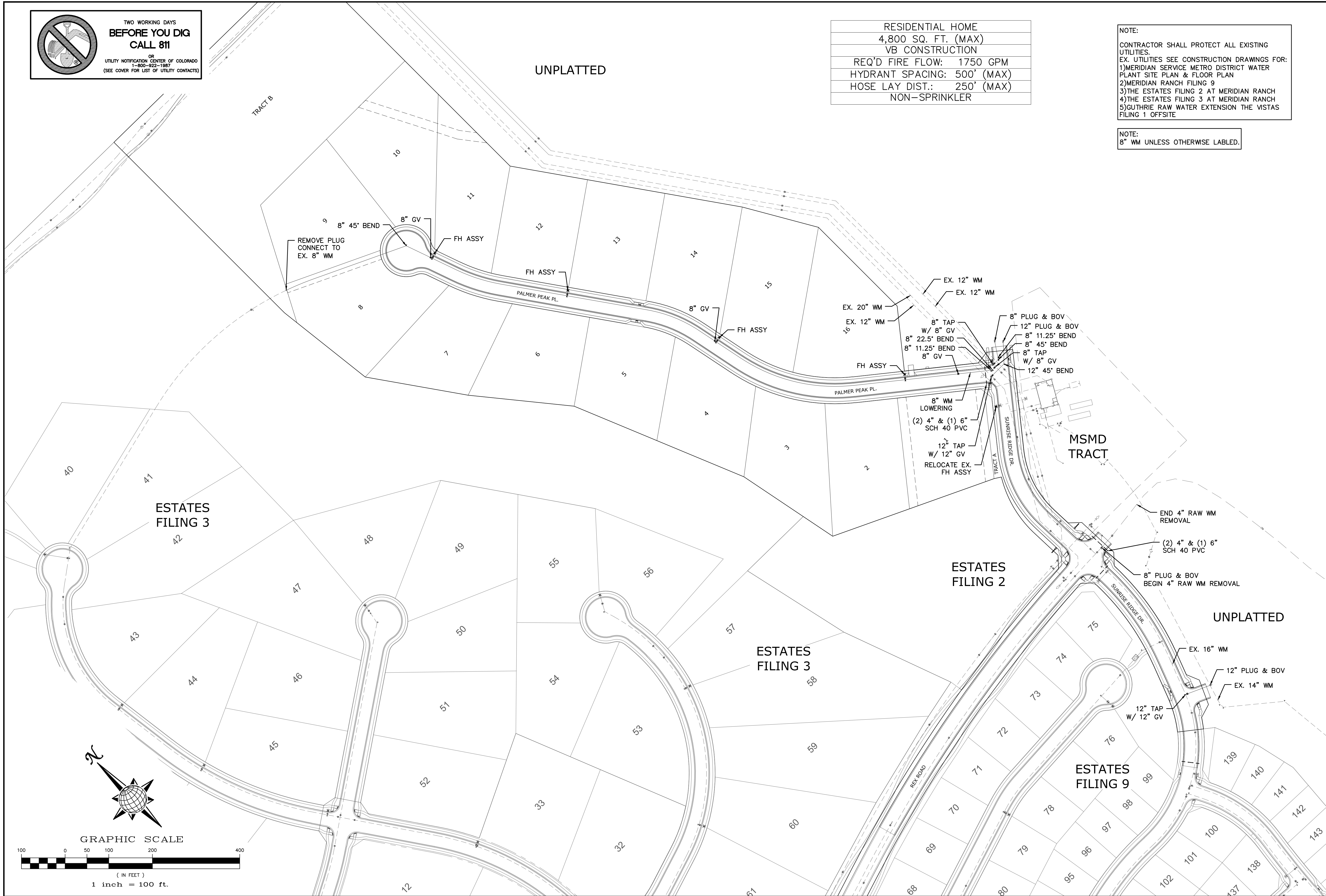
TWO WORKING DAYS
**BEFORE YOU DIG
CALL 811**

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

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

NOTE:
CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES.
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:
1)MERIDIAN SERVICE METRO DISTRICT WATER PLANT SITE PLAN & FLOOR PLAN
2)MERIDIAN RANCH FILING 9
3)THE ESTATES FILING 2 AT MERIDIAN RANCH
4)THE ESTATES FILING 3 AT MERIDIAN RANCH
5)GUTHRIE RAW WATER EXTENSION THE VISTAS FILING 1 OFFSITE

NOTE:
8" WM UNLESS OTHERWISE LABELED.



1	2	3	4	No.

TECH CONTRACTORS
11886 STAPLETON DRIVE
FALCON, CO 80831
TELEPHONE: 719.495.7444
FAX: 719.495.2457



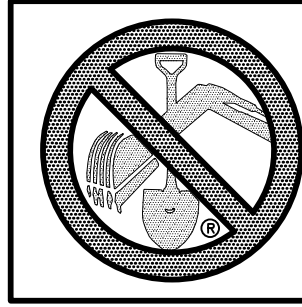
MERIDIAN RANCH

THE ESTATES AT
ROLLING HILLS RANCH FILING 1
STREET AND UTILITY PLANS
OVERALL WATER

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AS SHOWN				17 of 26	



PROFESSIONAL ENGINEER
31429
2-13-2013



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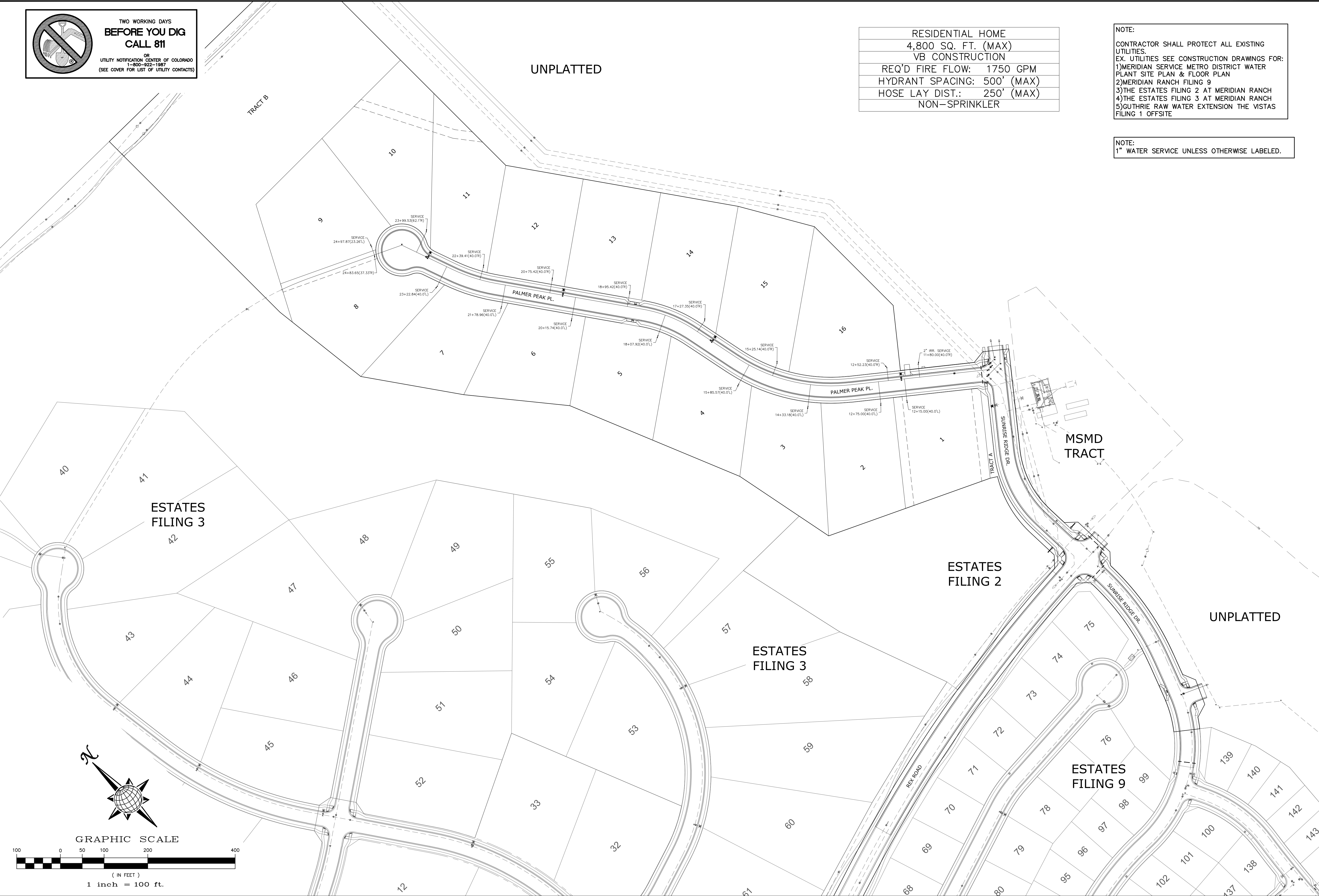
OR
UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
(SEE COVER FOR LIST OF UTILITY CONTACTS)

UNPLATTED

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

NOTE:
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NOTE:
1" WATER SERVICE UNLESS OTHERWISE LABELED.



1	2	3	4	No.
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TECH CONTRACTORS
11886 STAPLETON DRIVE
FALCON, CO 80831
TELEPHONE 719.495.7444
FAX 719.495.2457



MERIDIAN RANCH

THE ESTATES AT
ROLLING HILLS RANCH FILING 1
STREET AND UTILITY PLANS
OVERALL WATER SERVICES

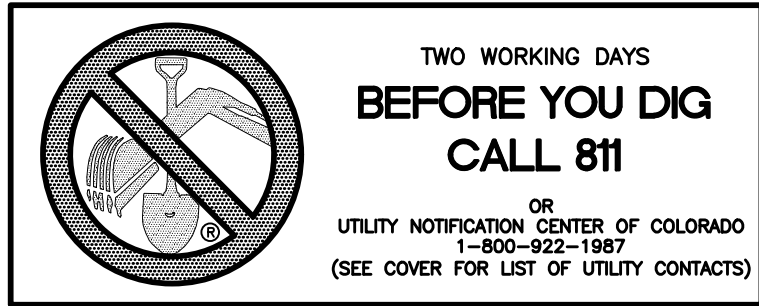
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PROFESSIONAL ENGINEER
31429
2-13-2013

EPC 6/22/2020 PCD PROJECT NO. SF-19-019



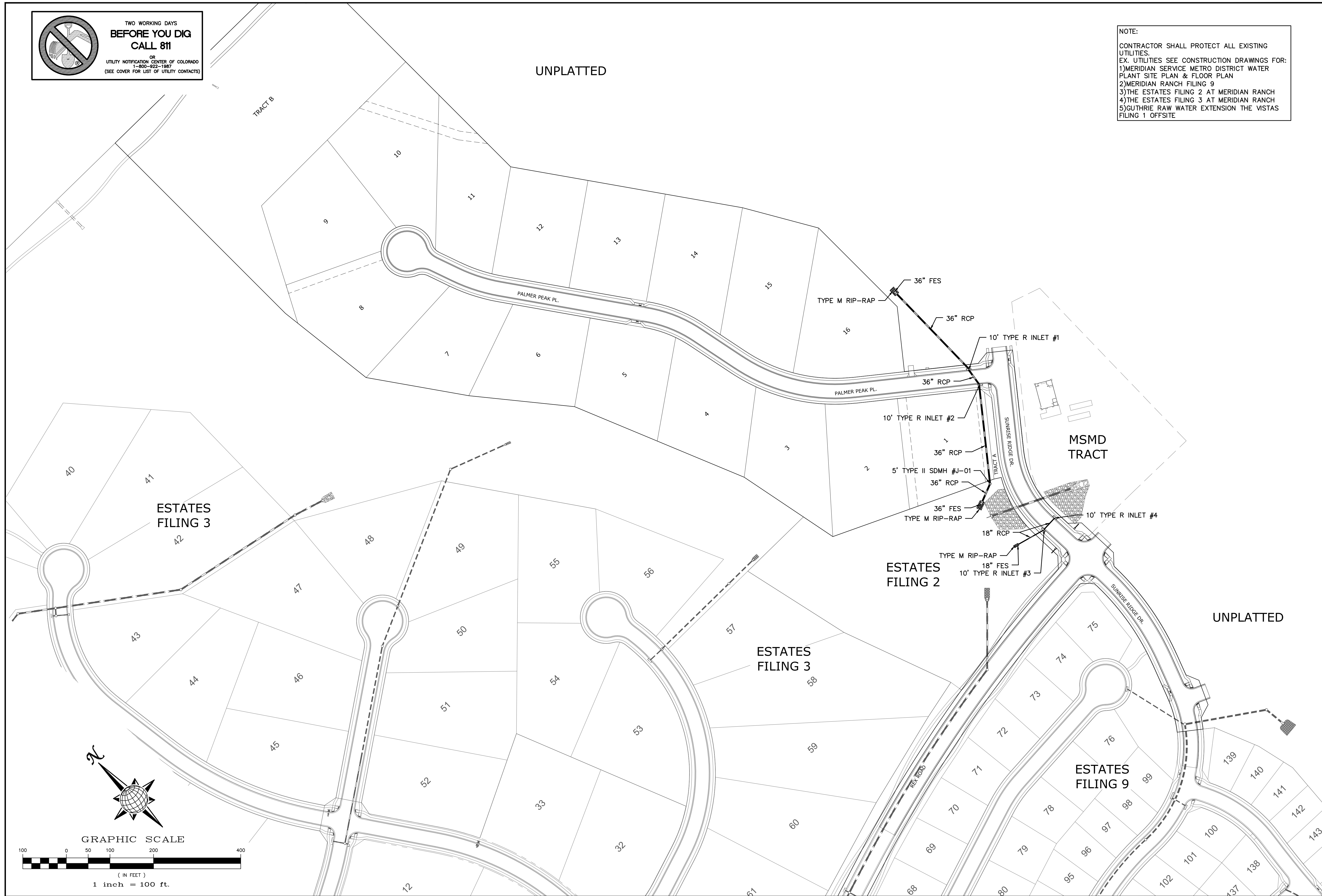
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- 4)THE ESTATES FILING 3 AT MERIDIAN RANCH
- 5)GUTHRIE RAW WATER EXTENSION THE VISTAS FILING 1 OFFSITE



	Scale AS SHOWN	19 of 26	Drawn by	THE ESTATES AT ROLLING HILLS RANCH FILING 1 STREET AND UTILITY PLANS OVERALL STORM DRAIN	 MERIDIAN RANCH	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457	1					
			Log				2					
		Checked by	Date	TAK								
								4				
							No.	Revisions	Date	Instr.	Appr.	Date

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. ALL 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, C.R.S.) 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 REPORT FOR THIS SITE HAS 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

STEPS FOR CONSTRUCTION

THE ANTICIPATED START FOR THIS PROJECT IS FEBRUARY 2020 WITH AN ANTICIPATED COMPLETION DATE OF JULY 2020. BELOW IS A BRIEF OUTLINE OF THE CONSTRUCTION SEQUENCE FOR THIS PROJECT.

- * INSTALL INITIAL BMP'S
- * CONSTRUCTION OF DITCHES AND EROSION CONTROL STRUCTURES
- * ROUGH GRADING OF LOTS AND ROADS
- * 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 FOR THIS 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

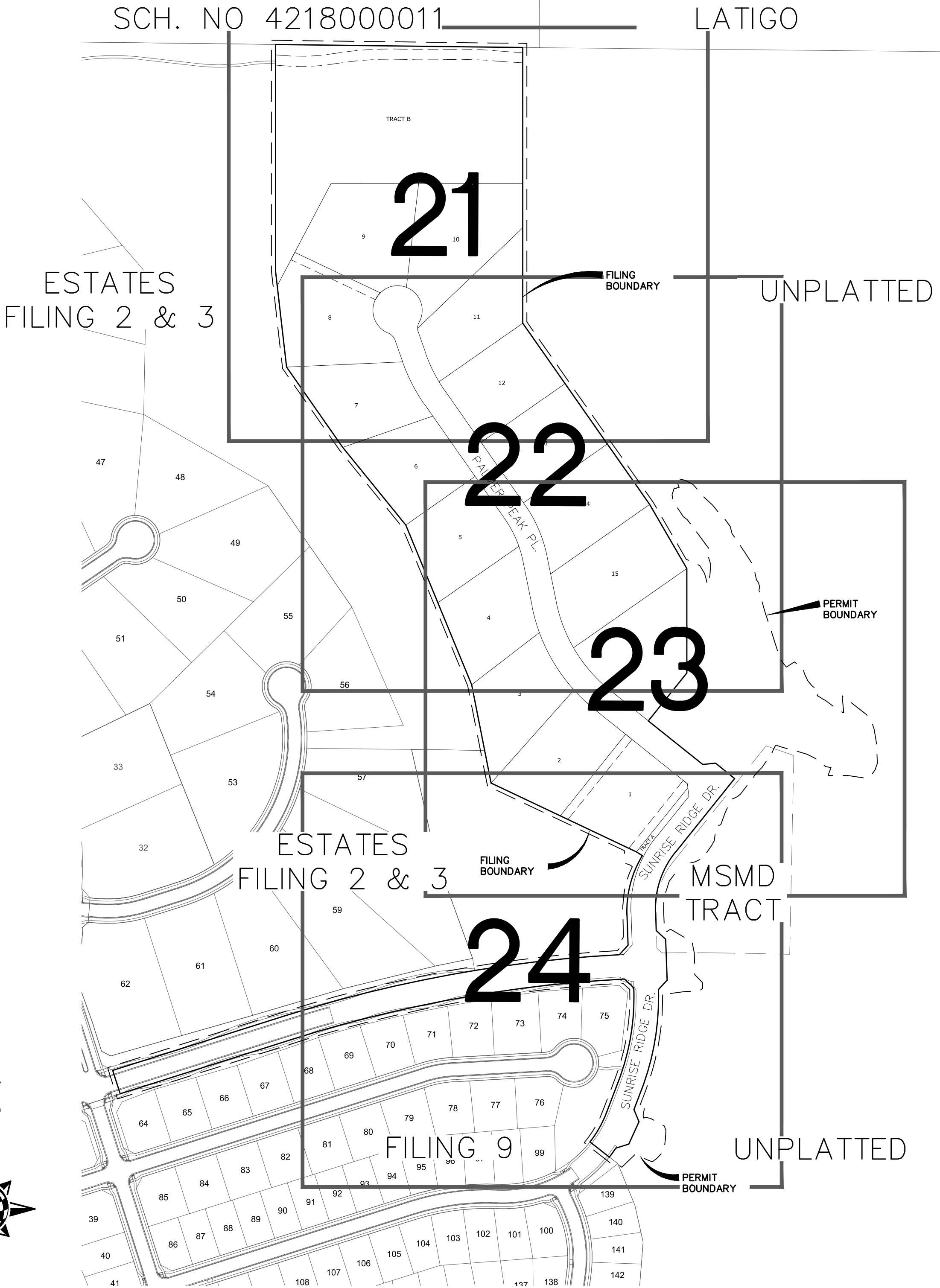
ALL DISTURBED AREAS SHALL BE REQUIRE SEEDING WITHIN TWO (2) WEEKS FOLLOWING THE ESTABLISHMENT OF FINAL GRADE. AREAS TO RECEIVE PAVEMENT DURING THE CONSTRUCTION OF THE ROAD SYSTEM SHALL NOT RECEIVE ANY SEEDING. SEEDING SHOULD BE ACCOMPLISHED USING AN APPROPRIATE GRASS DRILL, BY BROADCASTING OR BY HYDROMULCHING. 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:

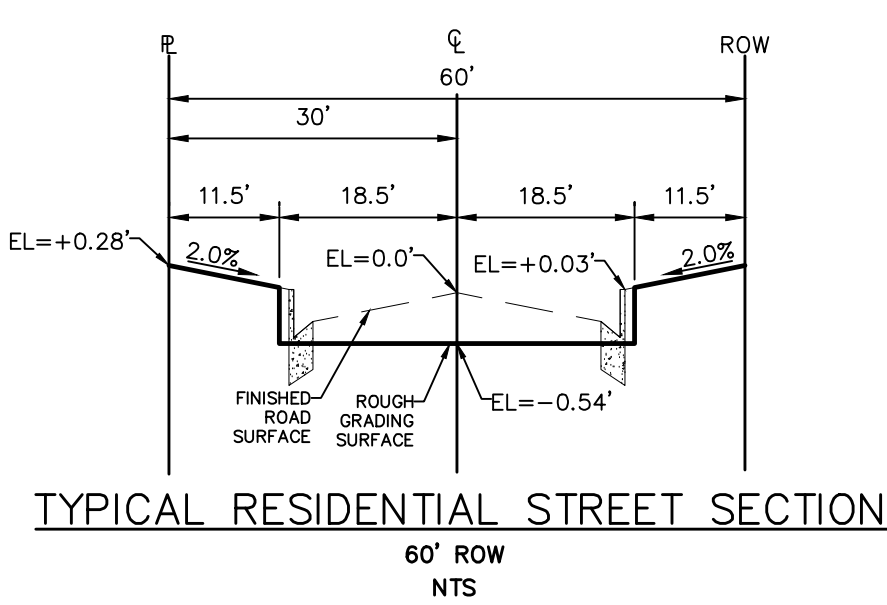
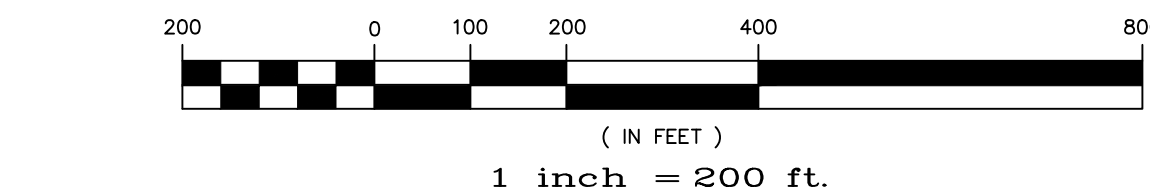
GRASS	VARIETY	AMOUNT IN PLS LBS. PER ACRE
SIDEOTS GRAMA	EL RENO	3.0
WESTERN WHEATGRASS	BARTON	2.5
SLENDER WHEATGRASS	NATIVE	2.0
LITTLE BLUESTERN	PASTURA	2.0
SAND DROPSSEED	NATIVE	0.5
SWITCH GRASS	NEBRASKA	3.0
WEEPING LOVE GRASS	MORPHA	1.0

NOTE:

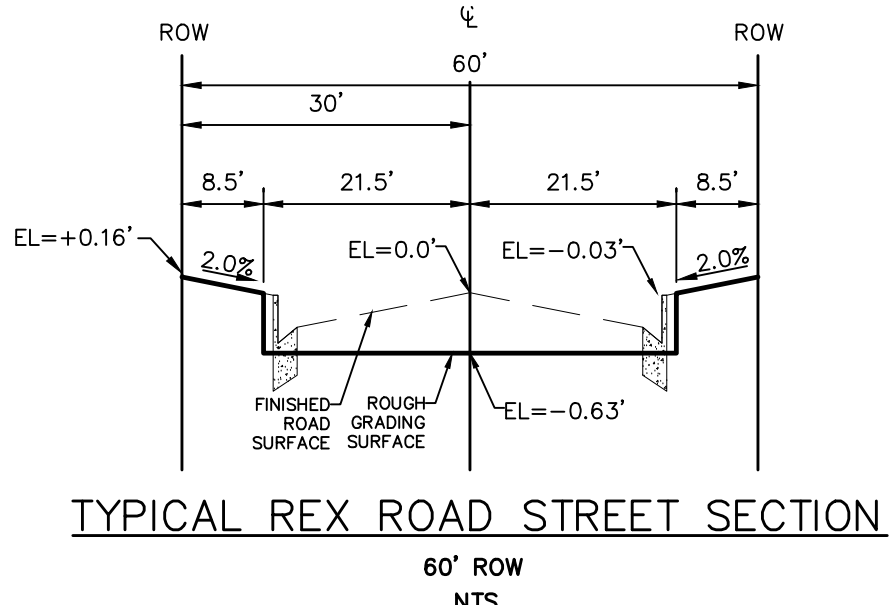
- 1) EXISTING VEGETATION ON THE PROJECT SITE AND THE IN SURROUNDING AREAS CONSISTS OF A MIXTURE OF NATIVE GRASSES AND WEEDS WITH COVERAGE APPROXIMATING 70% DENSITY UNLESS OTHERWISE NOTED. SOME AREAS HAVE NEGLIGIBLE VEGETATIVE GROWTH AT THIS TIME AS THE SITE WAS PREVIOUSLY GRADED AND RE-SEEDED OR USED AS A BUILDERS' STOCKPILE LOCATION. AREAS PREVIOUSLY GRADED HAS BEEN RE-SEEDED WITH THE APPROVED COUNTY SEED MIX.
- 2) MATERIAL STORAGE, TOPSOIL STOCKPILES, STAGING, CONCRETE WASHOUT AND WASTE AREAS SHALL BE IDENTIFIED BY THE CONTRACTOR PRIOR TO START OF CONSTRUCTION AND ADJUSTED AS NECESSARY.



GRAPHIC SCALE



TYPICAL RESIDENTIAL STREET SECTION

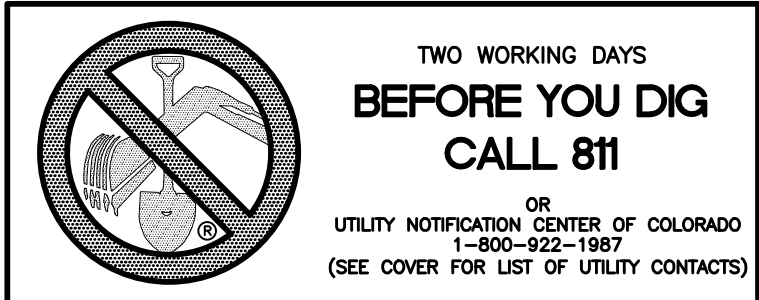




TYPICAL REX ROAD STREET SECTION

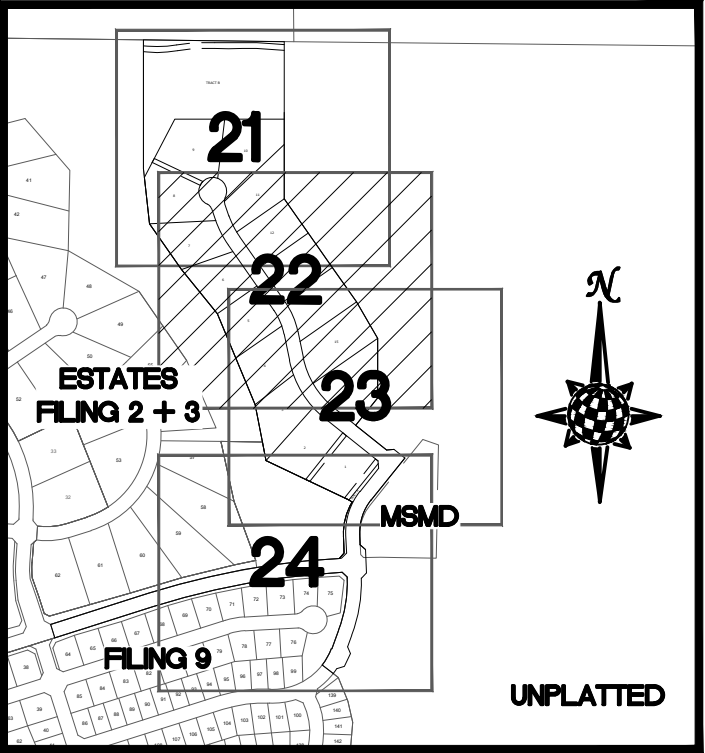
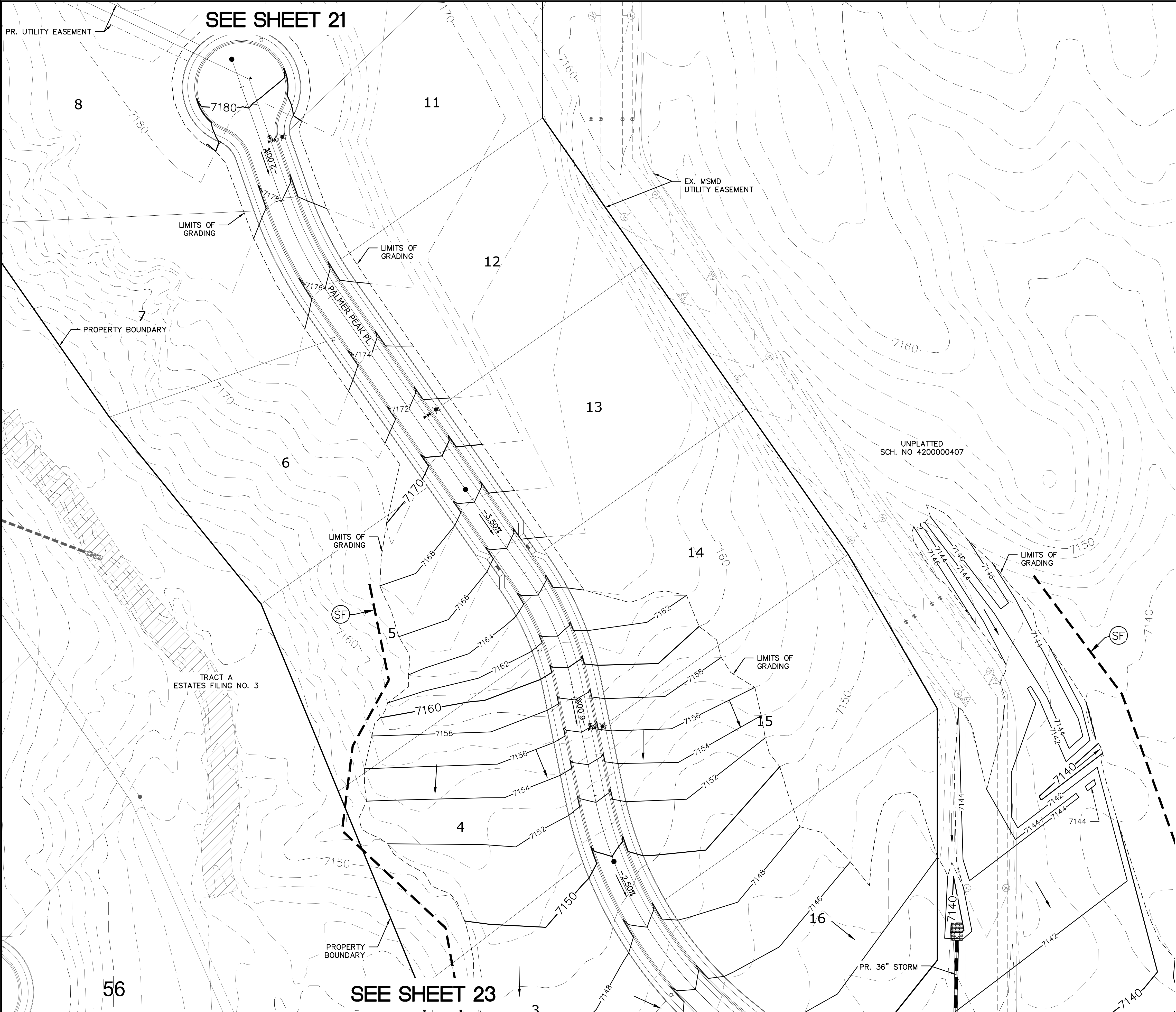
EARTHWORK QUANTITIES

NET YARDS	BALANCE	
TOTAL STRIPPINGS	12.18 AC.	6,550 CY
NET YARDS	CUT	FILL
	10,873 CY	11,400 CY

20% COMPACTION FACTOR



	Scale	Drawn by	THE ESTATES AT ROLLING HILLS RANCH FILING 1 GRADING/EROSION CONTROL PLAN INDEX SHEET	 MERIDIAN RANCH	TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE: 719.495.7444 FAX: 719.495.2457							
	AS SHOWN	LOC										
	20 of 26	Checked by										
		TAK										
		Date										
		FEB 2020				No.	Revisions	Date	Init.	Appr.	Date	



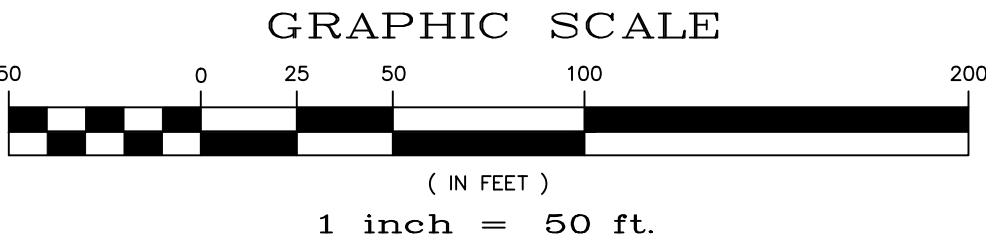
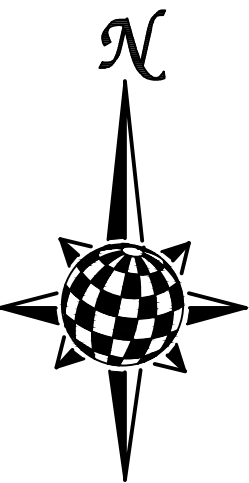
INDEX MAP
N.T.S.

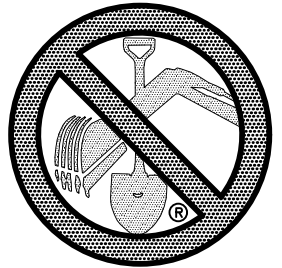
LEGEND

SYMBOL	ACRONYM	DESCRIPTION
		STRAW BALES
		EROSION WATTLES PER DETAIL SHEET 26
		EROSION CONTROL BLANKET PER DETAIL ECB-1 & ECB-2 DCM VOL. 2
		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 26
		EXISTING CONTOUR (10')
		EXISTING CONTOUR (2')
		PROPOSED CONTOUR (10')
		PROPOSED CONTOUR (2')
		GRADE
	75	LOT NUMBER
		LOT GRADE TYPE



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 20.

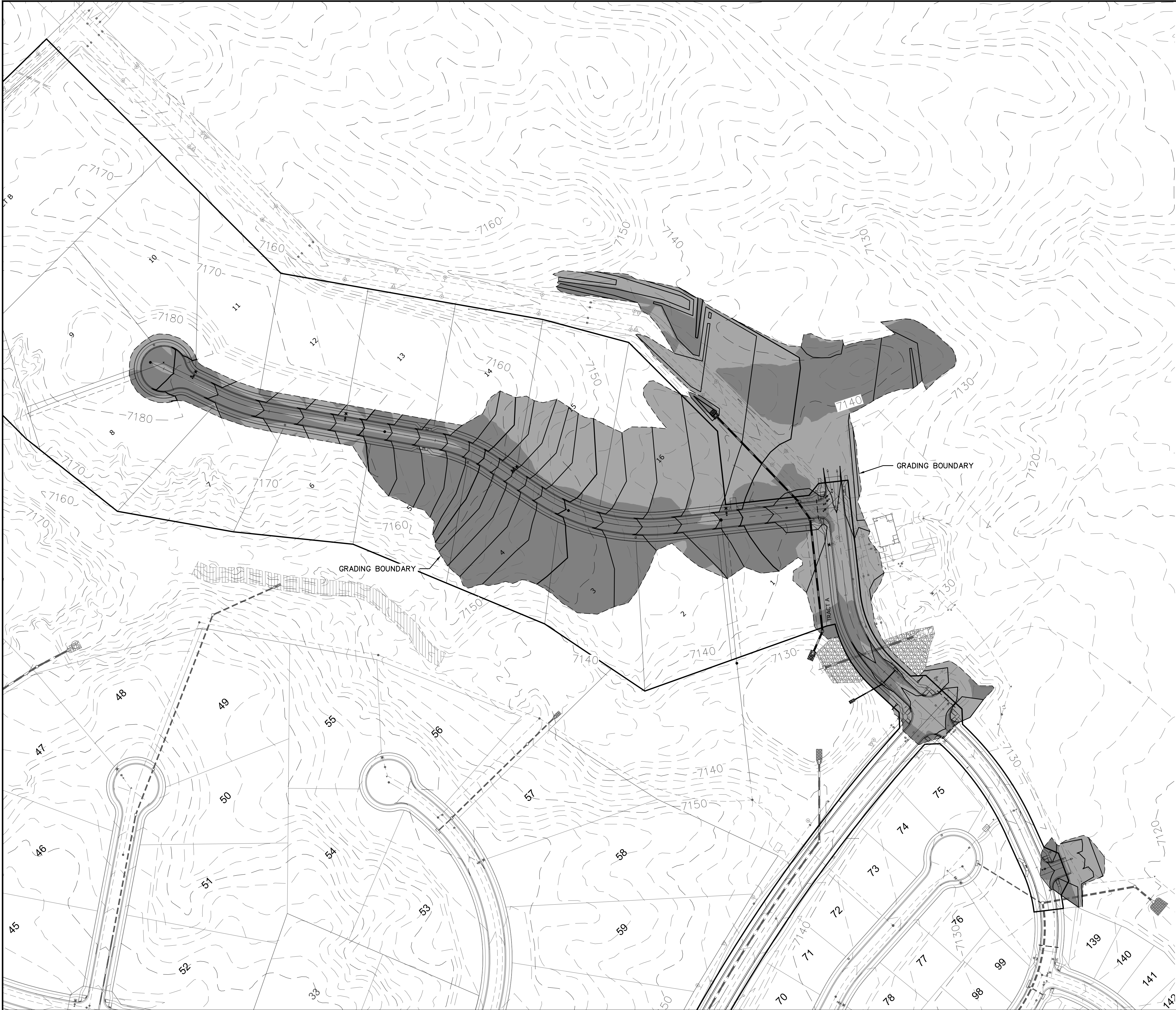
CONTRACTOR SHALL PROTECT ALL EXISTING
UTILITIES.
EX. UTILITIES SEE CONSTRUCTION DRAWINGS FOR:
1)MERIDIAN SERVICE METRO DISTRICT WATER
PLANT SITE PLAN & FLOOR PLAN
2)MERIDIAN RANCH FILING 9
3)THE ESTATES FILING 2 AT MERIDIAN RANCH
4)THE ESTATES FILING 3 AT MERIDIAN RANCH
5)GUTHRIE RAW WATER EXTENSION THE VISTAS
FILING 1 OFFSITE






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)

1				2				3				4				No.			
TECH CONTRACTORS				11886 STAPLETON DRIVE				FALCON, CO 80831				TELEPHONE: 719.495.7444				FAX: 719.495.2457			
 MERIDIAN RANCH																			
THE ESTATES AT ROLLING HILLS RANCH FILING 1 GRADING/EROSION CONTROL PLAN LAYOUT																			
Drawn by LCG				Checked by TAK				Date FEB 2020											
Scale AS SHOWN				22 of 26															
																			





TWO WORKING DAYS

BEFORE YOU DIG

CALL 811

OR

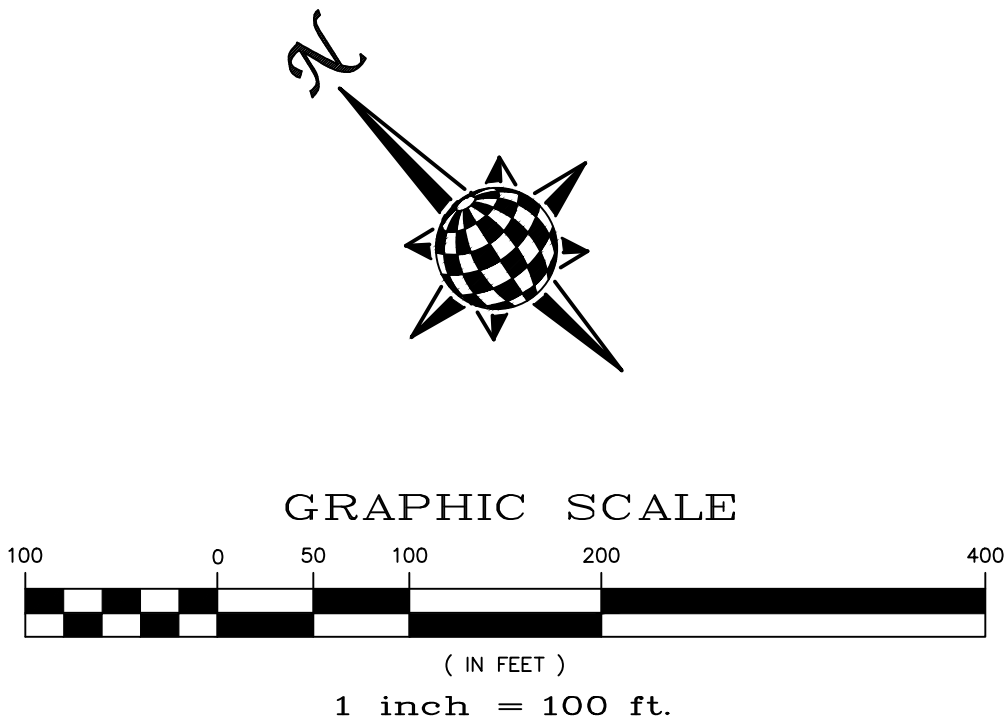
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FILING 1 OFFSITE





LEGEND:

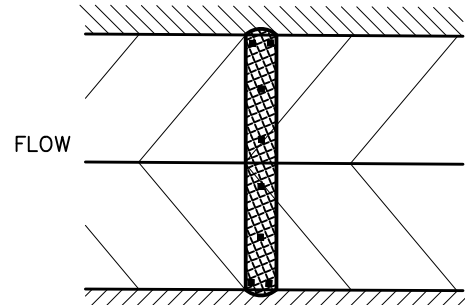
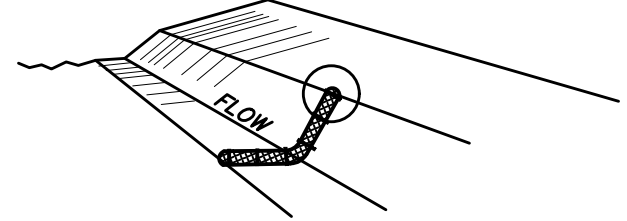
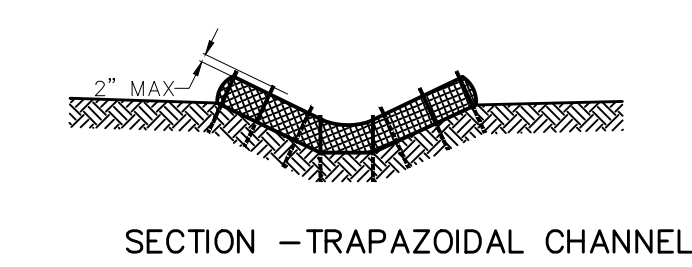
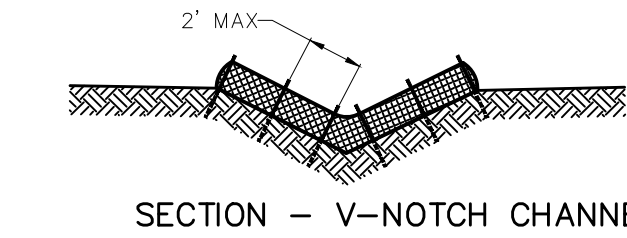
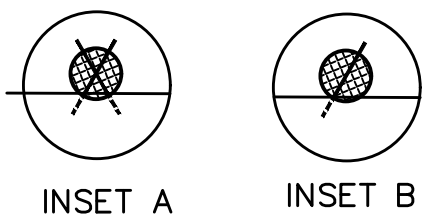
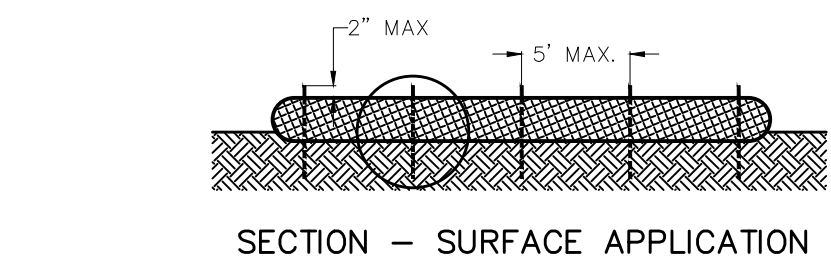
AREAS OF CUT



AREAS OF FILL



1		2		3		4		No.		Revisions		Date		Init.		Appr.		Date	
<div>TECH CONTRACTORS 11886 STAPLETON DRIVE FALCON, CO 80831 TELEPHONE 719.495.7444 FAX 719.495.2457</div>																			
<div>MERIDIAN RANCH</div>																			
<div>THE ESTATES AT ROLLING HILLS RANCH FILING 1 GRADING/EROSION CONTROL PLAN LAYOUT</div>																			
Drawn by LOG		Checked by TAK		Date FEB 2020		Scale AS SHOWN		25 of 26											



NOTES:
USE 2 FT WOODEN STATES WITH A 1.5 IN BY 1.5 IN NOMINAL CROSS SECTION.

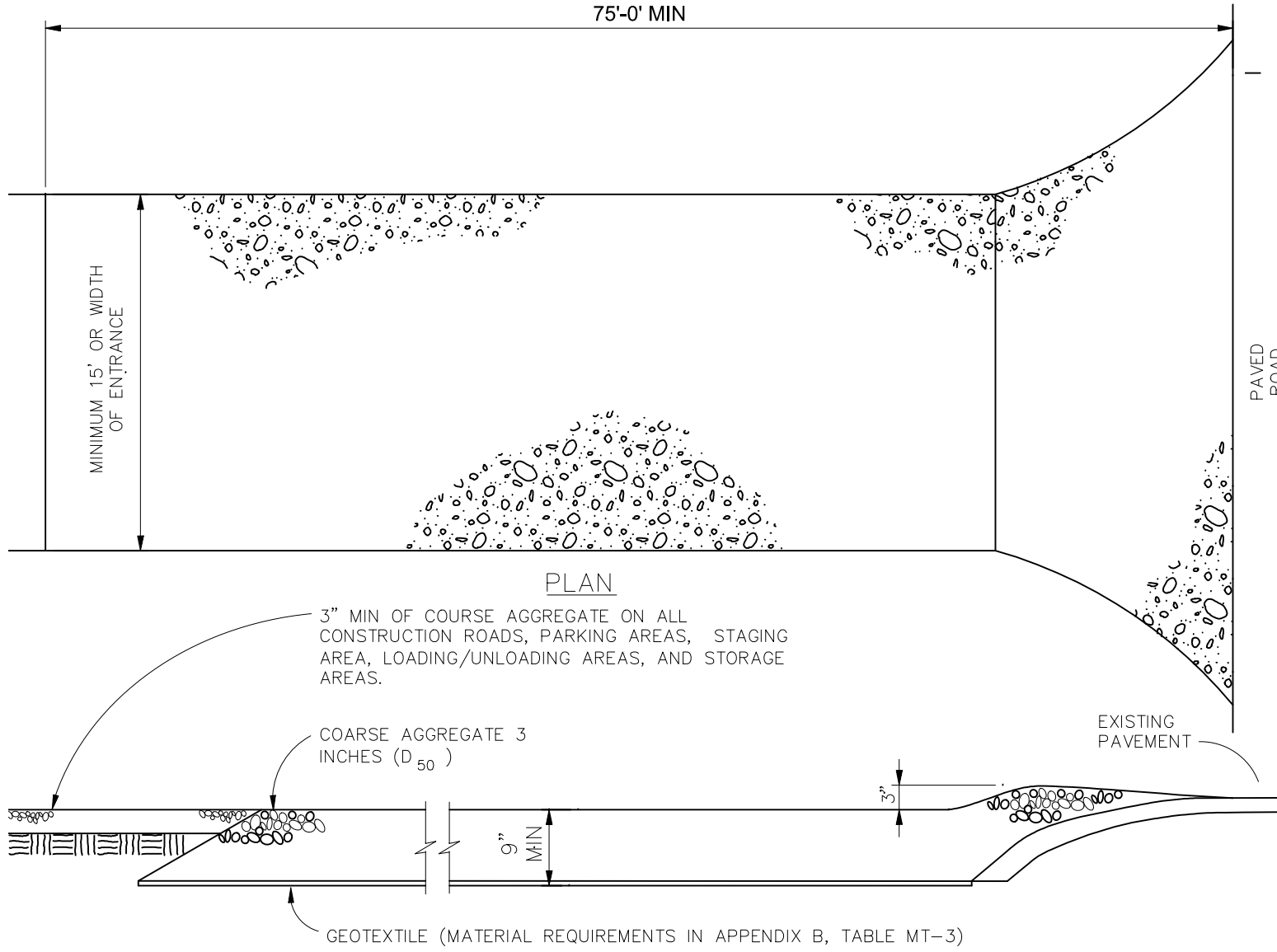
ONLY INSTALL 12\"/>

REMOVE ACCUMULATED SEDIMENT WHEN IT REACHES ONE HALF OF THE EXPOSED LOG HEIGHT. INSPECTIONS SHALL BE PERFORMED FREQUENTLY FOR PROPER FUNCTION.

WHEN MORE THAN ONE EROSION LOG IS NEEDED, ENDS MUST BE TIGHTLY ABUTTED.

WATTLES MAY ALSO BE USED ACROSS LONG SLOPES TO REDUCE EROSION AND SEDIMENT VOLUME.

STRAW WATTLES MAY BE USED IN LIEU OF STRAW BALES AND/OR SILT FENCE WITH APPROVAL THE COUNTY, OWNER, ENGINEER, AND SWMP ADMINISTRATOR.



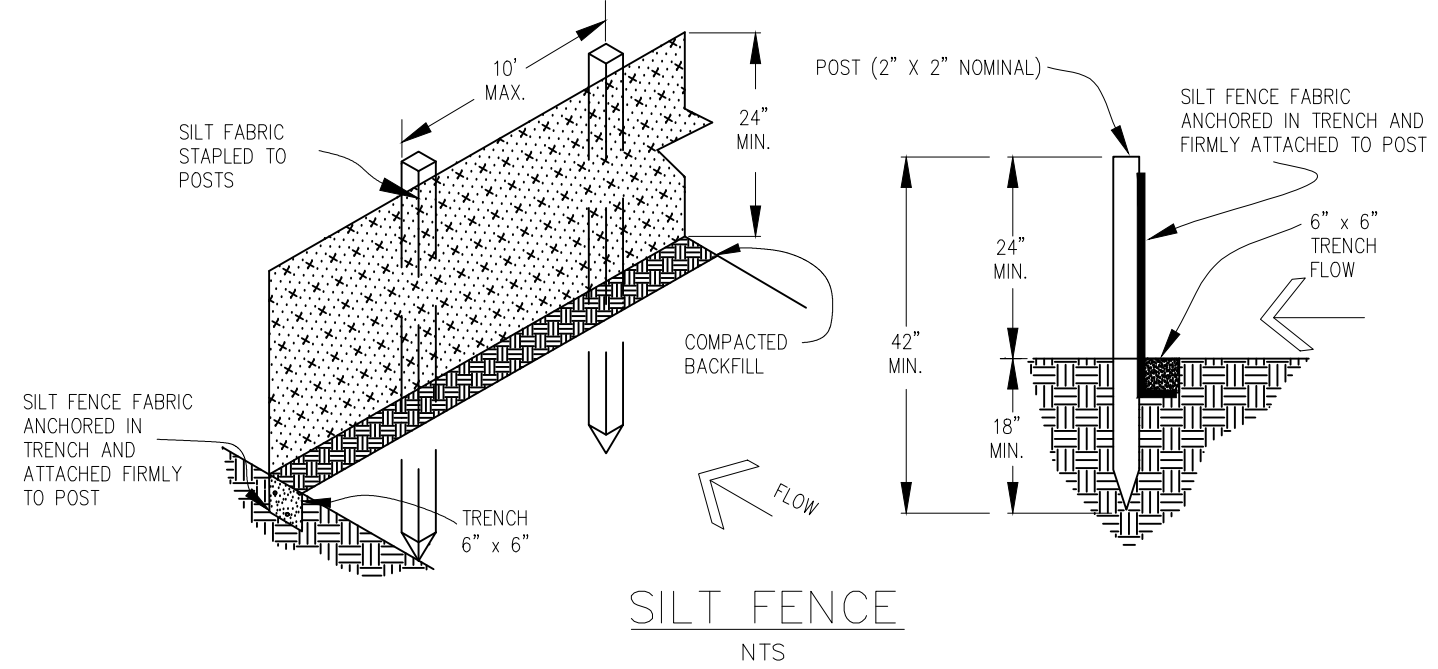
VEHICLE TRACKING NOTES

INSTALLATION REQUIREMENTS

1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO CONSTRUCTION BEGINNING.
2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED PRIOR TO LAYING DOWN GEOTEXTILE AND STONE.
4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
4. STORM SEWER INLET PROTECTION IS TO BE IN PLACE, INSPECTED, AND CLEANED IF NECESSARY.
5. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.



SILT FENCE NOTES

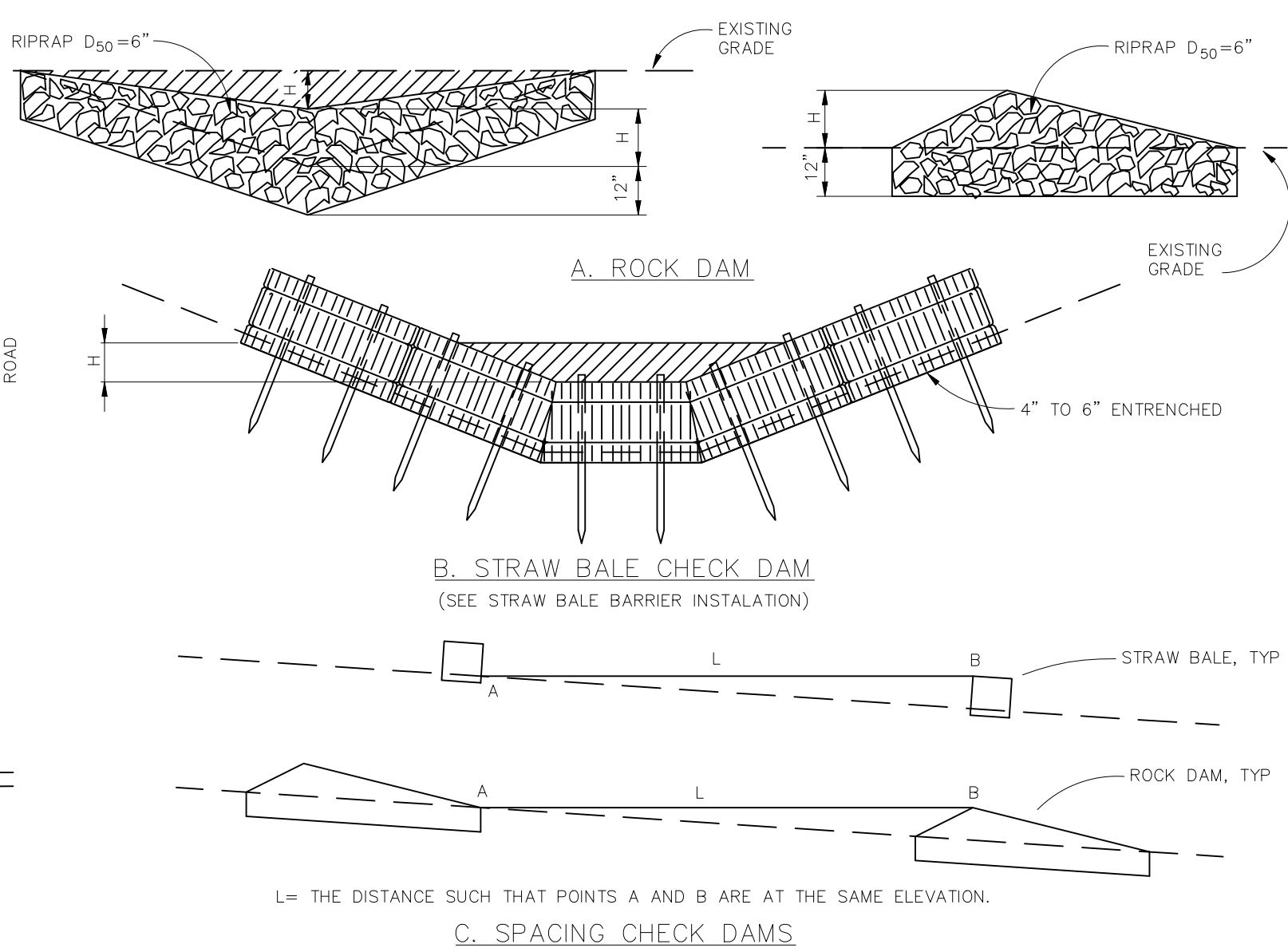
INSTALLATION REQUIREMENTS

1. SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST AND SECURELY SEALED.
3. METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.
4. THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO WOOD POSTS WITH 3/4\"/>
5. WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 3/4\"/>

6. ALONG THE TOE OF FILLS, INSTALL THE SILT FENCE ALONG A LEVEL CONTOUR AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND AND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF 5 FEET FROM THE TOE OF THE FILL IS RECOMMENDED.
7. THE HEIGHT OF THE SILT FENCE FROM THE GROUND SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHALL NOT EXCEED 36 INCHES; HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNENTRENCHED OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.
2. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.
3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.
4. GRAVEL BAGS ARE TO BE PLACED AROUND THE CONCRETE BLOCKS AND 2X4 TO CLOSELY ABUTTING ONE ANOTHER SO THERE ARE NO GAPS.
5. GRAVEL BAGS ARE TO CONTAIN WASHED SAND OR GRAVEL APPROXIMATELY 3/4 INCH IN DIAMETER.
6. BAGS ARE TO BE MADE OF 1/4\"/>



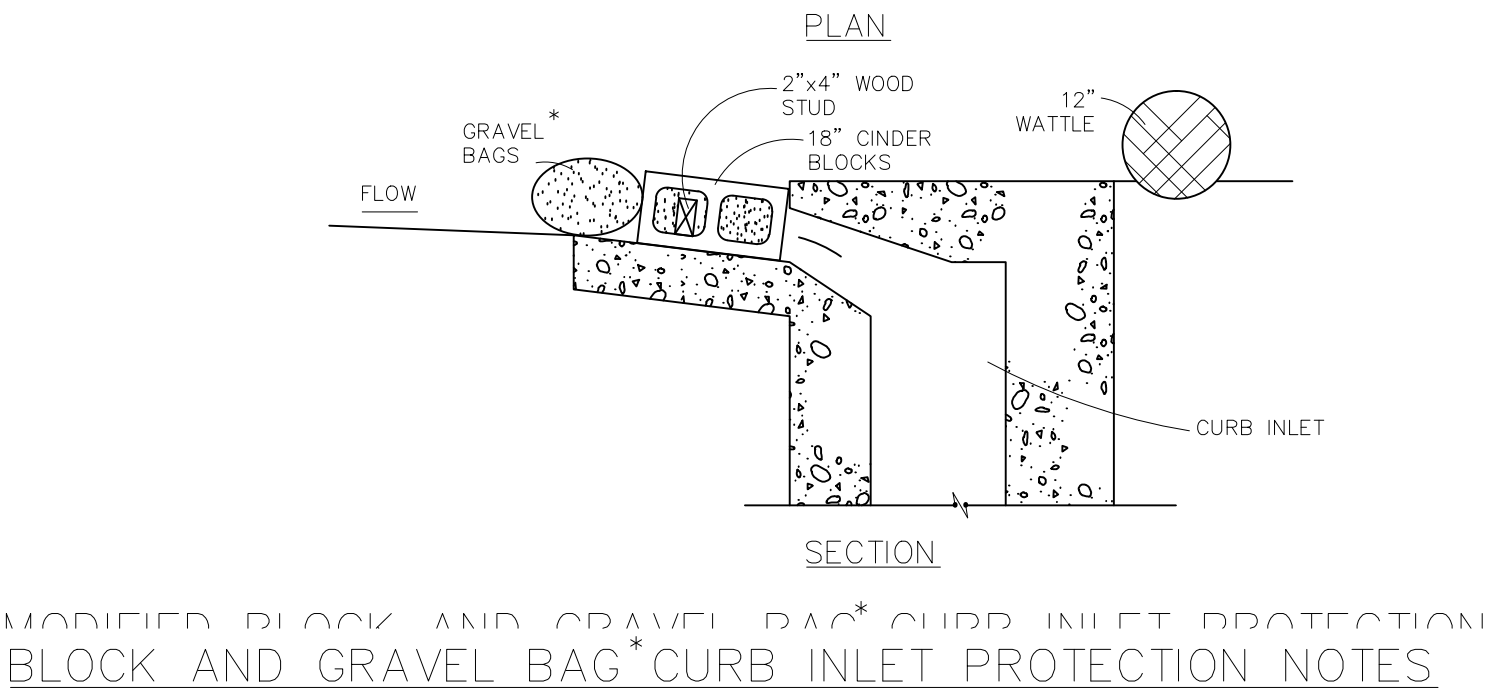
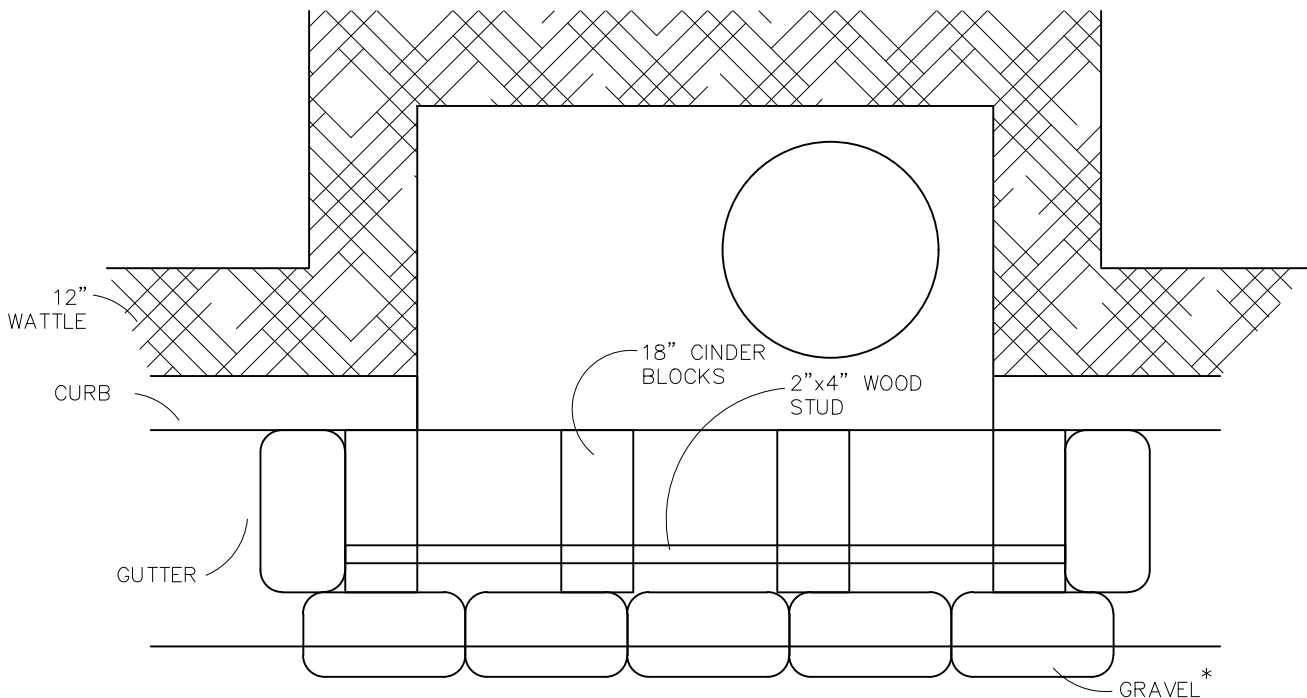
CHECK DAM NOTES

INSTALLATION REQUIREMENTS

1. STRAW BALES USED AS CHECK DAMS ARE TO MEET THE REQUIREMENTS STATED IN FIGURE SBB-2.
2. THE "H" DIMENSION SHALL BE SELECTED TO PROVIDE WEIR FLOW CONVEYANCE FOR 2-YEAR FLOW OR GREATER.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL CHECK DAMS, ESPECIALLY AFTER STORM EVENTS.
2. REPLACE STONE AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT OF THE DAM.
3. ACCUMULATED SEDIMENT AND DEBRIS IS TO BE REMOVED FROM BEHIND THE DAMS AFTER EACH STORM OR WHEN 1/2 OF THE ORIGINAL HEIGHT OF THE DAM IS REACHED.
4. CHECK DAMS ARE TO REMAIN IN PLACE AND OPERATIONAL UNTIL THE DRAINAGE AREA AND CHANNEL ARE PERMANENTLY STABILIZED.
5. WHEN CHECK DAMS ARE REMOVED THE CHANNEL LINING OR VEGETATION IS TO BE RESTORED.



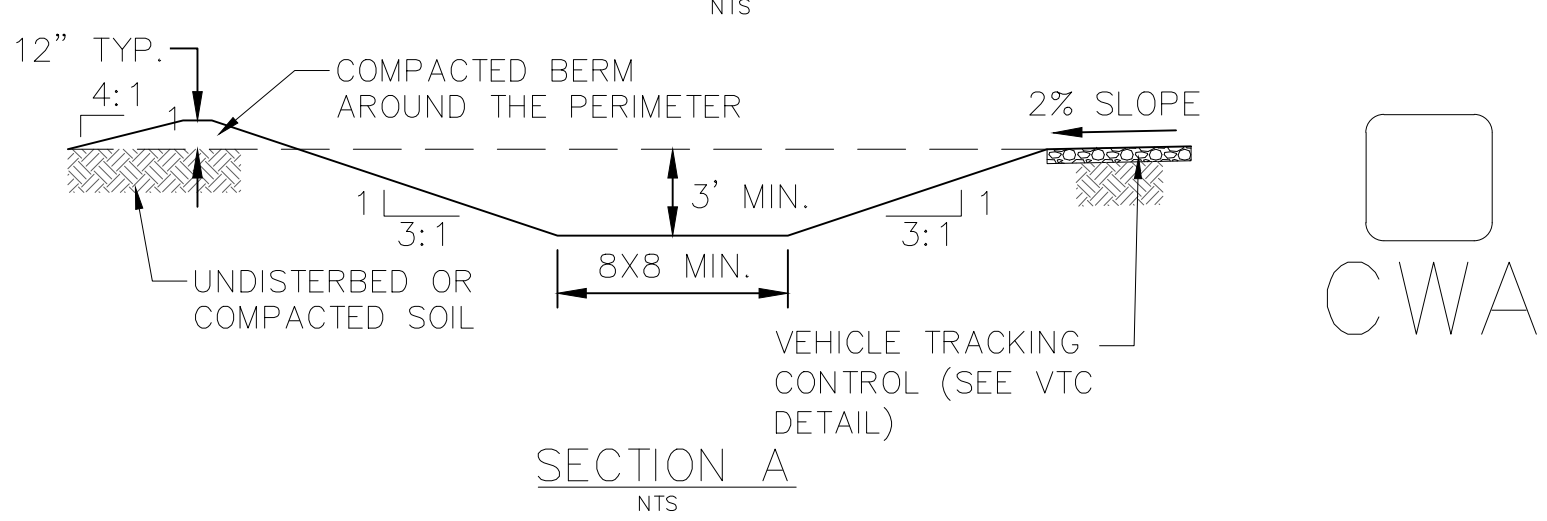
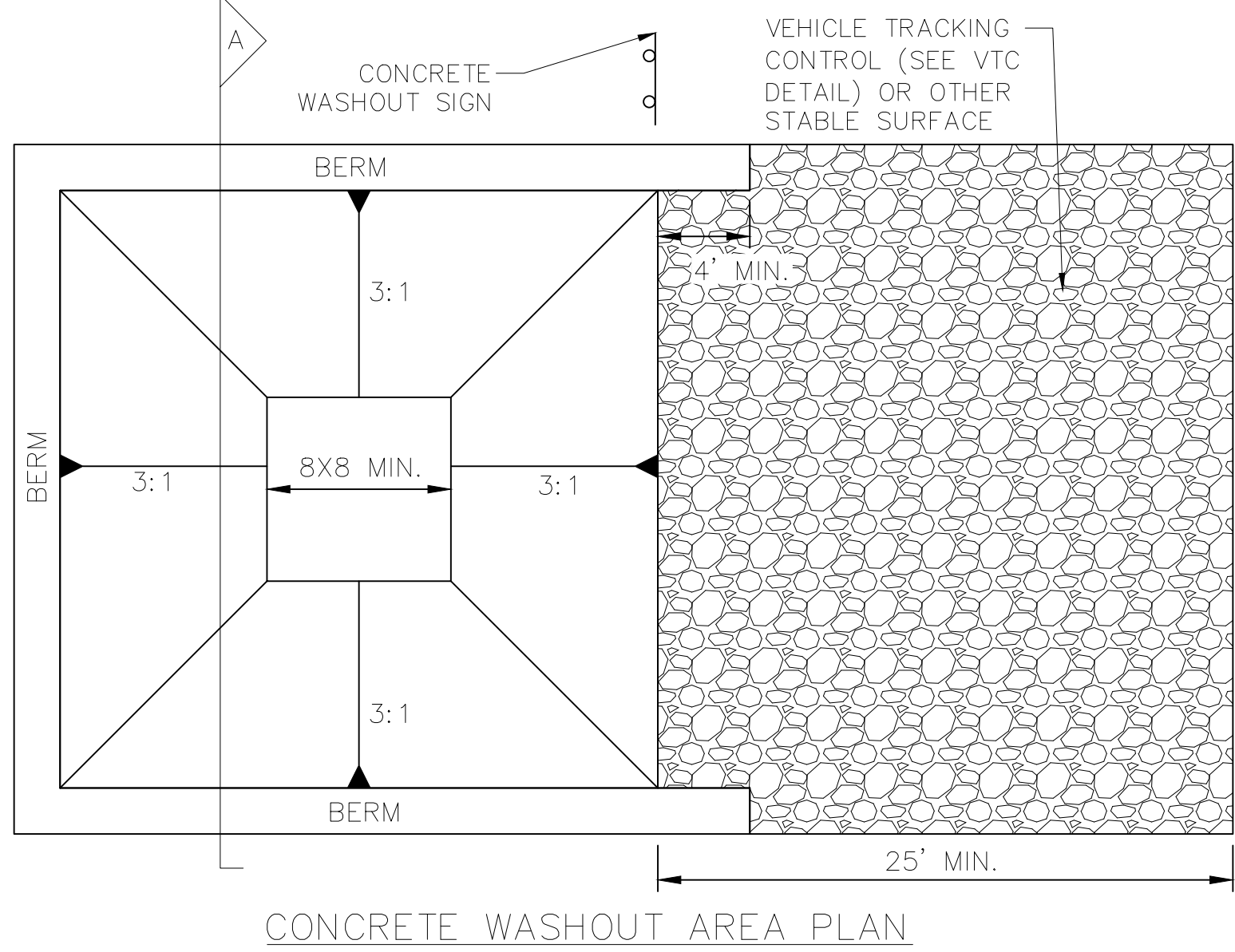
INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. CONCRETE BLOCKS ARE TO BE LAID AT 2' SPACING ON THEIR SIDES WITH THE OPEN ENDS OF THE BLOCK FACING EACH OTHER.
3. IF MORE THAN ONE 2X4 IS REQUIRED, THEY NEED TO OVERLAP BY A MINIMUM OF 2'.
4. GRAVEL BAGS ARE TO BE PLACED AROUND THE CONCRETE BLOCKS AND 2X4 TO CLOSELY ABUTTING ONE ANOTHER SO THERE ARE NO GAPS.
5. GRAVEL BAGS ARE TO CONTAIN WASHED SAND OR GRAVEL APPROXIMATELY 3/4 INCH IN DIAMETER.
6. BAGS ARE TO BE MADE OF 1/4\"/>

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED OR REPLACED.
3. SEDIMENT SHALL BE REMOVED WHEN SEDIMENT HAS ACCUMULATED TO APPROXIMATELY 1/2 THE DESIGN DEPTH OF THE TRAP.
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.

* AN ALTERNATE 3/4\"/>



CWA INSTALLATION NOTES:

1. SEE PLAN VIEW FOR CWA INSTALLATION LOCATION.
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' X 8'. SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE A MINIMUM HEIGHT OF 1'.
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA MAINTENANCE NOTES:

1. INSPECT BMPs EACH WORKDAY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOPSOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

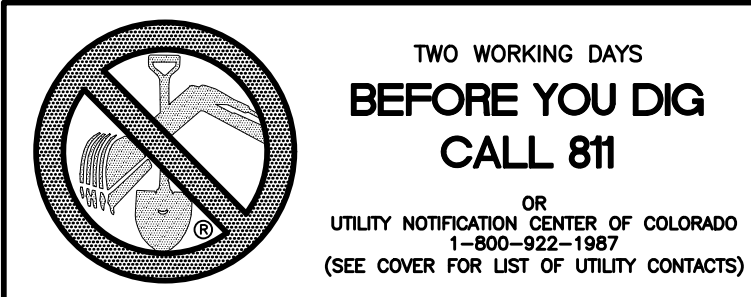
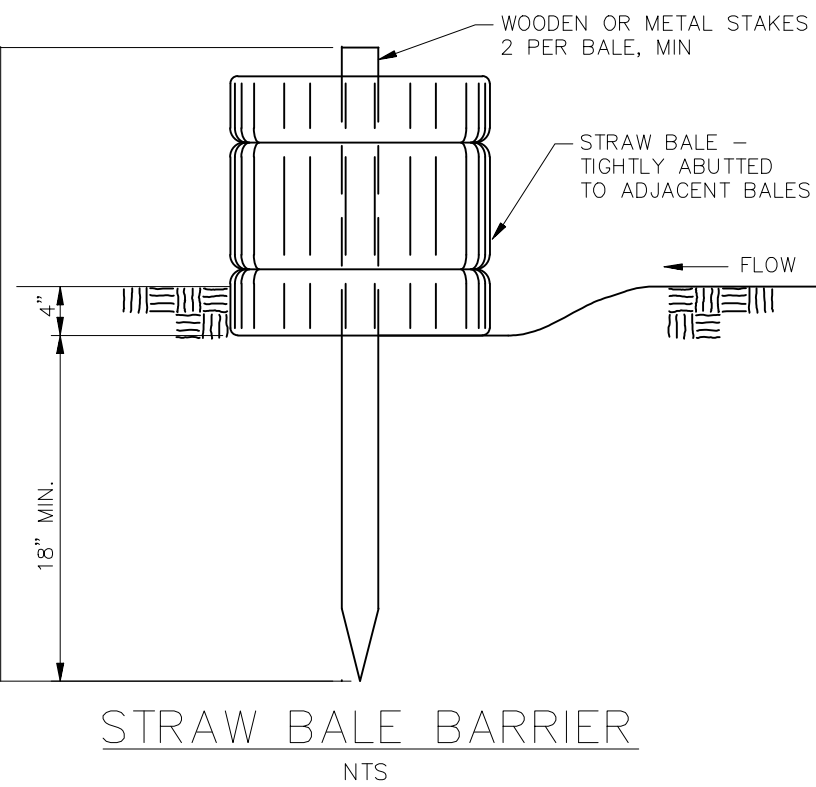
STRAW BALE BARRIER NOTES

INSTALLATION REQUIREMENTS

1. STRAW BALE BARRIERS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
2. BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF CERTIFIED WEED FREE HAY OR STRAW AND WEIGH NOT LESS THAN 35 POUNDS.
3. BALES ARE TO BE PLACED IN A SINGLE ROW WITH THE END OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
4. EACH BALE IS TO BE SECURELY ANCHORED WITH AT LEAST TWO STAKES AND THE FIRST STAKE IS TO BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
5. STAKES ARE TO BE A MINIMUM OF 42 INCHES LONG. METAL STAKES SHALL BE STANDARD "T" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD STAKES SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.
6. BALES ARE TO BE BOUND WITH EITHER WIRE OR STRING AND ORIENTED SUCH THAT THE BINDINGS ARE AROUND THE SIDES AND NOT ALONG THE TOPS AND BOTTOMS OF THE BALE.
7. GAPS BETWEEN BALES ARE TO BE CHINKED (FILLED BY WEDGING) WITH STRAW OR THE SAME MATERIAL OF THE BALE.
8. END BALES ARE TO EXTEND UPSLOPE SO THE TRAPPED RUNOFF CANNOT FLOW AROUND THE ENDS OF THE BARRIER.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT STRAW BALE BARRIERS IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE BARRIERS SHALL PROMPTLY BE REPAIRED, REPLACING BALES IF NECESSARY, AND UNENTRENCHED BALES NEED TO BE REPAIRED WITH COMPACTED BACKFILL MATERIAL.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND STRAW BALE BARRIERS WHEN IT ACCUMULATES TO APPROXIMATELY 1/2 THE HEIGHT OF THE BARRIER.



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2					
3					
4					

TECH CONTRACTORS
11886 STAPLETON DRIVE
FALCON, CO 80831
TELEPHONE 719.495.7444
FAX 719.495.2457



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GRADING/EROSION CONTROL PLAN
DETAIL SHEET

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Date
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