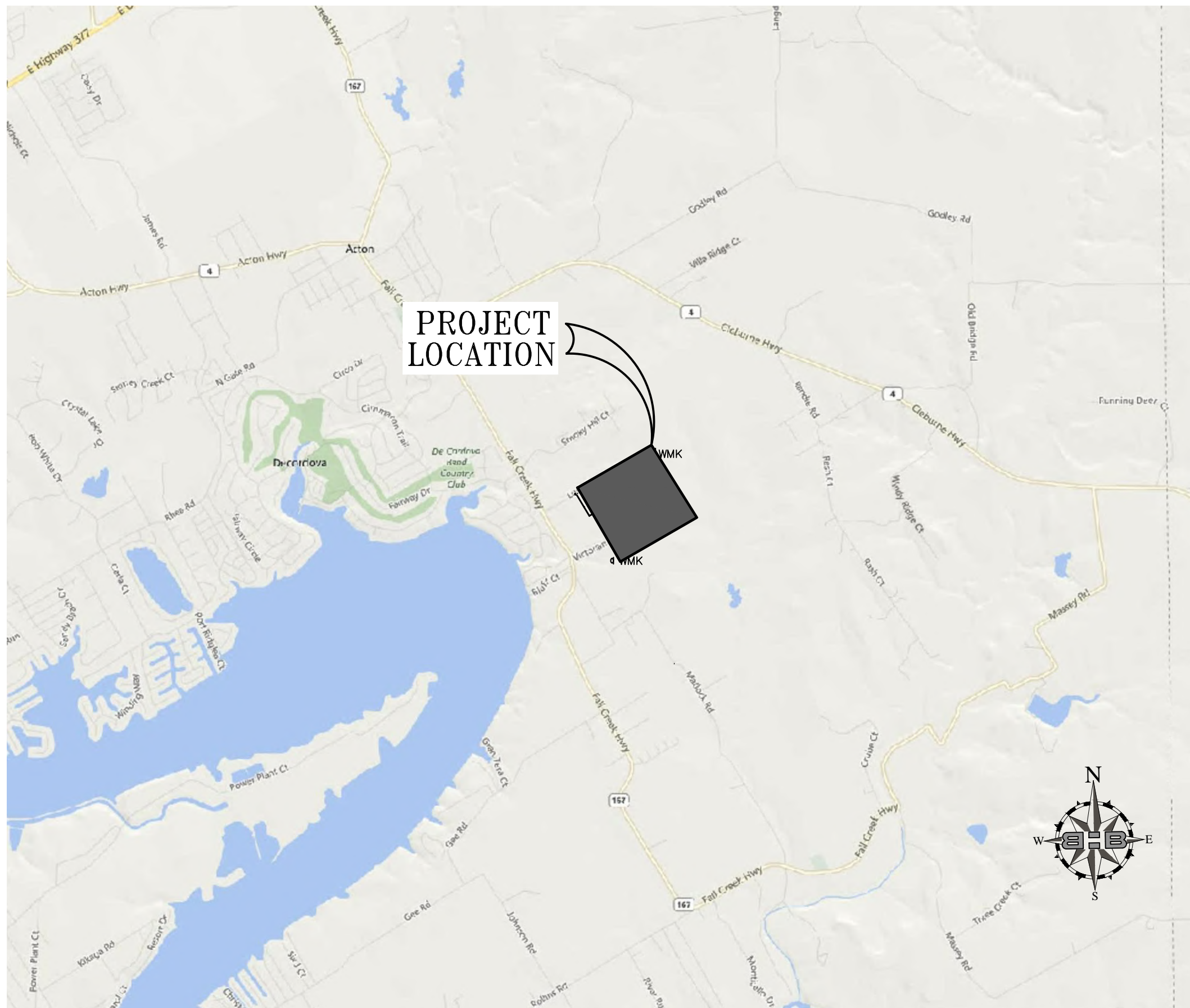


CONSTRUCTION PLANS FOR ROLLING CREEK RANCH – PHASE 1 A RESIDENTIAL SUBDIVISION HOOD COUNTY, TEXAS



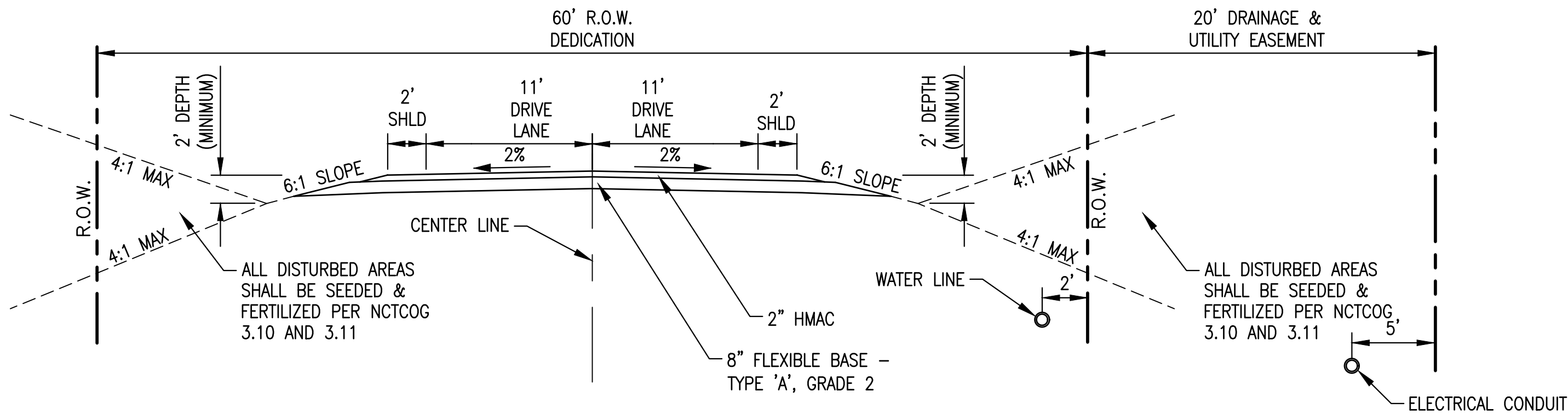
LOCATION MAP
JULY 2016

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15	EROSION CONTROL DETAILS



7-27-16

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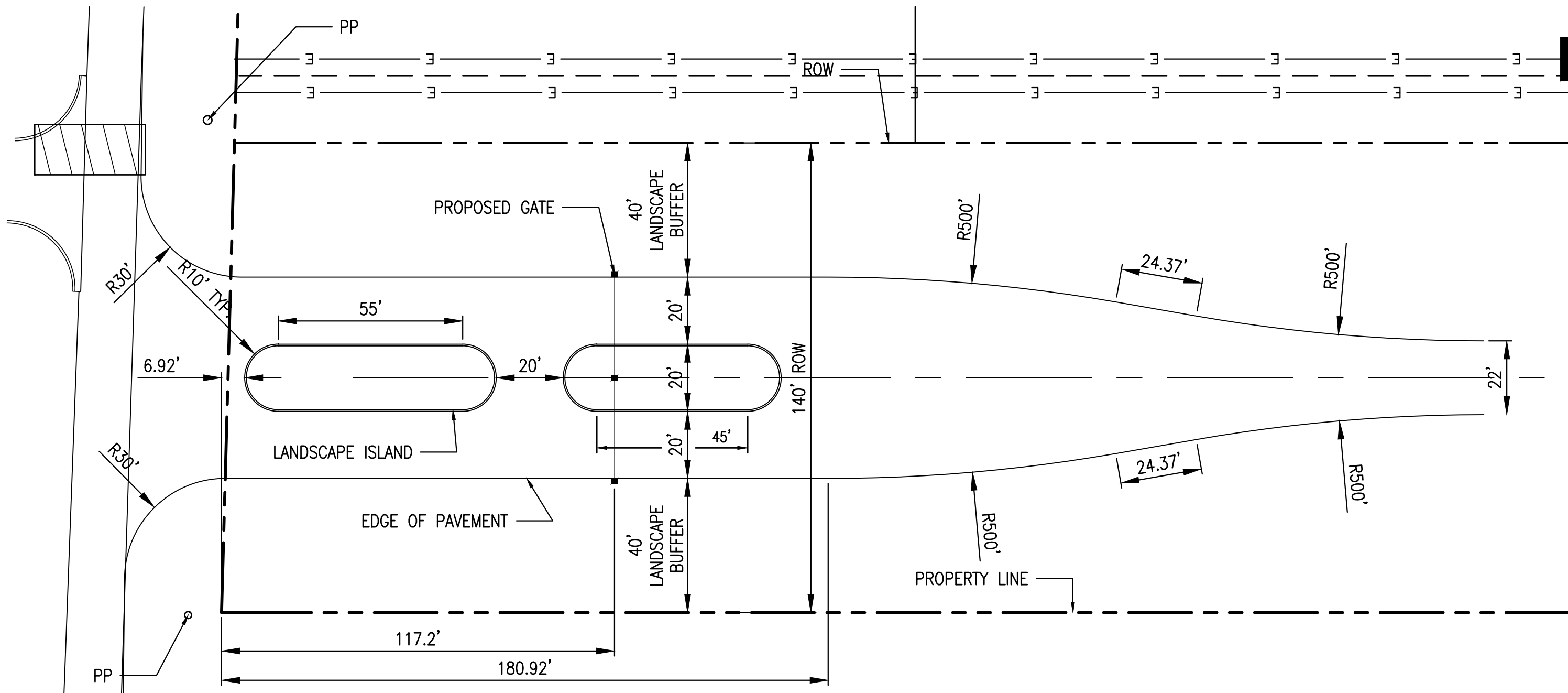


PROPOSED TYPICAL SECTION - 60' R.O.W.

NTS

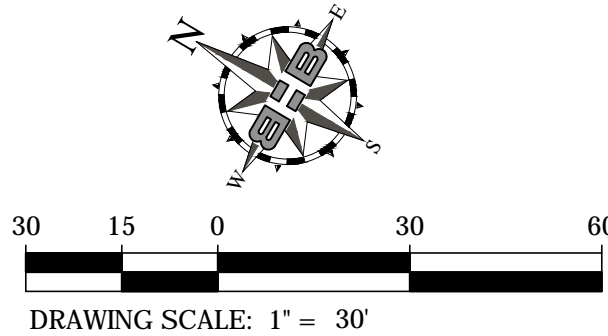
GENERAL NOTES

1. ALL LINES, GRADES, CONSTRUCTION STAKING AND LAYOUT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. PRIOR TO BEGINING CONSTRUCTION, CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND REPORT ANY DISCREPENCIES TO THE OWNER'S AGENT.
3. ALL DIMENSIONS ARE TO EDGE OF SHOULDER, OR FACE OF CONCRETE BUILDING FOOTING UNLESS OTHERWISE NOTED.
4. EXISTING UTILITY DATA IS PROVIDED FOR INFORMATION ONLY. ALTHOUGH SHOWN AS ACCURATELY AS POSSIBLE, THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH MUNICIPAL AND FRANCHISE UTILITY COMPANIES AND LOCATING ALL UTILITIES IN THE FIELD.



ENTRANCE EXHIBIT

SCALE: 1" = 30'-0"



CONSTRUCTION STANDARDS Hood County, Texas

1. General

The Hood County Road Operations Department shall be notified forty-eight (48) hours prior to the commencement of any major constructions items such as sub-grade stabilization, installation of flexible base, prime coat application or placement of surface course. It shall be the owner/developers responsibility to provide adequate inspection of the construction to insure compliance with county standards. All construction and testing reports shall be furnished to the Road Superintendent certifying that the construction requirements of these standards have been met. The test results must be approved prior to initiating the next phase of construction.

The Road Superintendent or his representative shall issue a STOP WORK ORDER whenever the owner/developer or his contractor fails to adhere to the approved plat, construction plans or these specifications. The owner/developer may not continue development until the deficiencies listed in the STOP WORK ORDER are corrected. If the owner/developer or his contractor fails to correct the deficiencies, the subdivision will not be accepted by the Commissioners' Court.

The following shall be the minimum specifications for the design and construction of local residential roadways built in Hood County. All work, methods and materials not covered by these standards shall conform to the most current issue of the "Standard Specifications for Public Works Construction" published by the North Central Texas Council of Governments (NCTCOG).

2. Preparing Right-of-Way

All preparing of the right-of-way and/or clearing and grubbing shall be completed before starting the sub-grade preparation.

All utilities which require roadway crossings shall be installed before starting the Sub-grade preparation.

3. Sub-grade Preparation

Prior to the start of construction on sub-grade, a soil analysis shall be made by a certified soil laboratory to determine if a soil stabilizer (lime, cement, liquid chemical, etc.) is required.

If analysis reveals that soil properties are not acceptable, tests must be made to determine the appropriate stabilizers and optimum quantities for desired results to meet road design.

Sub-grade is defined as "that portion of the roadbed upon which the flexible base or pavement is to be placed". Generally the sub-grade for local roadways is thirty (30) feet wide.

The sub-grade shall be scarified and shaped in conformity with the typical sections and the lines and grades indicated, or as established by the Engineer, by the removal of existing materials or addition of approved material. All unsuitable material shall be removed and replaced with approved material.

The sub-grade shall be compacted by approved mechanical equipment to a density of not less than ninety-five percent (95%) Standard Procter density. Prior to the placement of any base material, tests from a certified soils laboratory shall be supplied by the owner/developer to the Road Operations Department stating that the sub-grade has been compacted to ninety-five (95%) density to a depth of six inches (6") for all sub-grade and for the full depth of all fills. If the sub-grade fails to meet the density specified, it shall be reworked as necessary to obtain the density required.

Fills must be placed and compacted on horizontal lifts of not over twelve inches (12") depth to the specified density. Fill sections whose depth exceed eight feet (8'), at any point on the cross section, shall require a slope stability analysis and/or approval of the Road Operations Department.

4. Flexible Base Course

The base material must meet the requirements of TxDOT Item 247, Flexible Base, Type "A" Grade 2.

The flexible base material shall be compacted to not less than ninety-five percent (95%) Standard Procter density for its full depth and optimum moisture of -2 to +4. If the surface course consists of a 2CP pavement the required depth of base is eight (8) inches. If the surface course is 2 inches of HMAc the required depth of base is eight (8) inches.

Base course shall be maintained by blading, and the surface, upon completion, shall be smooth and in conformity with the typical section indicated, and to the established lines and grades.

All irregularities, depressions or weak spots which develop shall be corrected immediately by scarifying the areas affected, adding suitable material as required, re-shaping and re-compacting by sprinkling and rolling.

Should the base course, due to any reason or cause, lose the required stability, density and finish before the surface is complete, it shall be re-compacted and refinished at the sole expense of the contractor.

5. Surface Course

Hot Mix Asphaltic Concrete (HMAC) Surface

Prior to placing HMAc, the base shall be proof rolled and any soft spots repaired and the area proof rolled again.

The asphaltic material for Prime Coat shall meet the requirements for Item 310, Prime Coat, TxDOT Specifications. Prime Coat shall be applied at a rate not to exceed 0.35 gallon per square yard of surface.

The surface course shall be two inches (2") of HMAc meeting the specifications of Item 340, Type D, in the current TxDOT Specifications. HMAc pavement shall not be placed when the general weather conditions, in the opinion of the County Road Superintendent, are not suitable. Test reports showing material compliance, from a certified testing laboratory, shall be submitted to Road Operations. Minimum tests made and submitted shall be one for each day's production, or one per 1,000 tons placed, whichever is, with a minimum of one per project. Such tests shall be made by and at the expense of the owner/developer.

All asphaltic mixtures shall be placed with a spreading and finishing machine. The mix shall be compressed thoroughly and uniformly compacted immediately after placing to the required density. All compaction rolling shall be complete before the material cools below 175 degrees F. The completed surface shall meet the approval of the Developer's Engineer and the County Road Superintendent for riding surface, finish, and appearance.

6. Street Sign Installation

Street signs shall be installed by the owner/developer in accordance with the current Manual on Uniform Traffic Control Devices for Streets and Highways.

The owner/developer of a subdivision shall install the street name signs on new streets. The proper installation of these signs is a part of the required construction standards of Hood County, and will be inspected for approval prior to the release of the performance bond.

The owner/developer of a subdivision shall not be required to install any traffic control sign or device. The installation of such control signs or devices shall be the responsibility of Hood County or other affected governmental agencies only.

GENERAL NOTES AND TYPICAL STREET SECTION

NO.	DESCRIPTION	DATE



PROJECT NUMBER:	2016.121.000
DATE:	7-27-19
DESIGN BY:	CW
CHECKED BY:	TS

SHEET

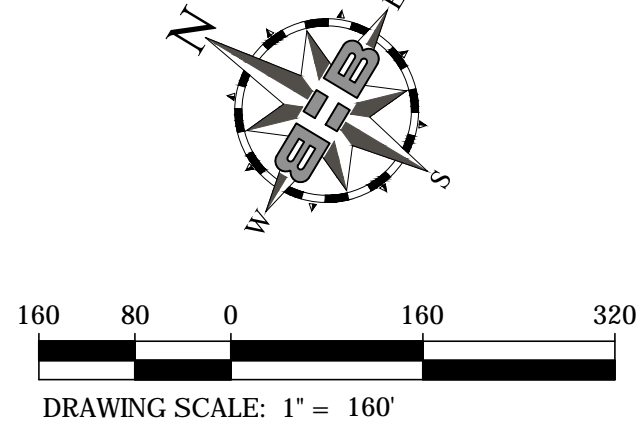
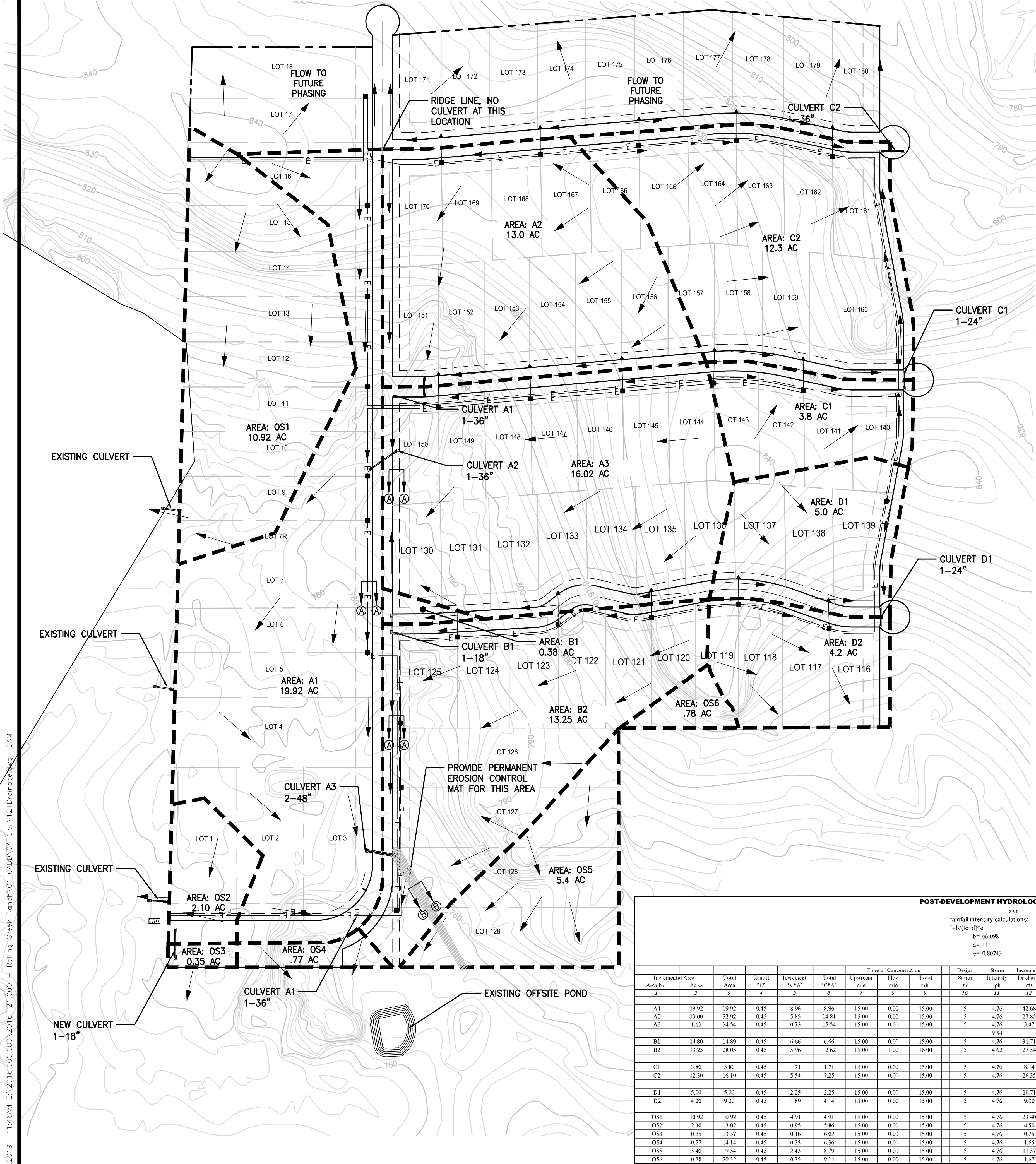
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ROLLING CREEK RANCH PHASE 1 RESIDENTIAL DEVELOPMENT

HOOD COUNTY, TEXAS

B=B
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Fort Worth, Texas 76116
mail@bbhinc.com 817.358.1277
BBHinc.com
TBP# Firm #44 TBP#S Firm #10011300


9.30.2019 11:46AM E:\2016\000.000\2016.121.000 - Rolling Creek Ranch\01 CAD\04 Civil\121Drainage.dwg DAM



LEGEND	
MAJOR DRAINAGE DIVIDE	---
MINOR DRAINAGE DIVIDE	- - -
FLOW ARROW	→
CMP CULVERT	[A]—[B]

Proposed Residential Culvert Table-Phase 1			
Culvert Material:	CMP	Manning's "n":	0.024
Avg. Cover	2.0'-3.0'	Entrance Type	S.E.T
Culvert Name	25yr Flow (cfs)	100yr Flow (cfs)	Proposed Culvert Size (inches)
A1	37.13	46.17	36
A2	41.76	51.92	36
A3	94.63	117.65	2x48
B1	42.27	52.56	36
C1	10.85	13.49	24
C2	45.99	57.17	36
D1	14.28	17.76	24

POST-DEVELOPMENT HYDROLOGY - ROLLING CREEK RANCH PHASE 1 CULVERT CROSSINGS																									
5yr												10yr				25yr				100yr					
rainfall intensity calculations:												rainfall intensity calculations:				rainfall intensity calculations:				rainfall intensity calculations:					
I=b/(tc+d) ^{0.58}												I=b/(tc+d) ^{0.58}				I=b/(tc+d) ^{0.58}				I=b/(tc+d) ^{0.58}					
b= 66.098												b= 76.415				b= 77.103				b= 110.783					
d= 11												d= 12				d= 12				d= 14					
e= 0.80743												e= 0.80275				e= 0.79952				e= 0.78454					
Incremental Area		Total Area	Rainoff %	Increment	Time of Concentration				Design Storm Intensity	Increment Discharge	Total Discharge	Design Storm Intensity	Increment Discharge	Total Discharge	Design Storm Intensity	Increment Discharge	Total Discharge	Design Storm Intensity	Increment Discharge	Total Discharge	Comments				
Area No	Acres	%	%	%	Upstream min	Flow min	Total min	Storm Intensity in/hr	Increment cfs	Total cfs	Storm Intensity in/hr	Increment cfs	Total cfs	Storm Intensity in/hr	Increment cfs	Total cfs	Storm Intensity in/hr	Increment cfs	Total cfs						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23			
A1	19.92	19.92	0.45	8.96	8.96	15.00	0.00	15.00	5	4.76	42.68	42.68	10	5.42	48.60	48.60	25	6.35	56.90	56.90	100	7.89	70.74	70.74	SHEET FLOW TO CULVERT A3
A2	15.00	32.92	0.45	5.85	14.81	15.00	0.00	15.00	5	4.76	27.85	70.53	10	5.42	31.72	80.32	25	6.35	37.13	94.03	100	7.89	46.17	116.91	SHEET FLOW TO CULVERT A2
A3	1.62	34.54	0.45	0.73	15.54	15.00	0.00	15.00	5	4.76	3.47	74.00	10	5.42	3.95	84.27	25	6.35	4.63	98.66	100	7.89	5.75	122.66	SHEET FLOW TO CULVERT A1
B1	14.80	14.80	0.45	6.66	6.66	15.00	0.00	15.00	5	4.76	31.71	31.71	10	5.42	36.11	36.11	25	6.35	42.27	42.27	100	7.89	52.56	52.56	SHEET FLOW TO CULVERT B1
B2	13.25	28.05	0.45	5.96	12.62	15.00	1.00	16.00	5	4.62	27.54	58.29	10	5.27	31.40	66.47	25	6.17	36.80	77.91	100	7.68	45.82	97.00	SHEET FLOW TO CULVERT B2
C1	3.80	3.80	0.45	1.71	1.71	15.00	0.00	15.00	5	4.76	8.14	8.14	10	5.42	9.27	9.27	25	6.35	10.85	10.85	100	7.89	13.49	13.49	SHEET FLOW TO CULVERT C1
C2	12.30	16.10	0.45	5.54	7.25	15.00	0.00	15.00	5	4.76	26.35	34.49	10	5.42	30.01	39.28	25	6.35	35.13	45.99	100	7.89	43.68	57.17	SHEET FLOW TO CULVERT C2
D1	5.00	5.00	0.45	2.25	2.25	15.00	0.00	15.00	5	4.76	10.71	10.71	10	5.42	12.20	12.20	25	6.35	14.28	14.28	100	7.89	17.76	17.76	SHEET FLOW TO CULVERT D1
D2	4.20	9.20	0.45	1.89	4.14	15.00	0.00	15.00	5	4.76	9.00	19.71	10	5.42	10.25	22.45	25	6.35	12.00	26.28	100	7.89	14.92	32.67	SHEET FLOW TO OFFSITE
OS1	10.92	10.92	0.45	4.91	4.91	15.00	0.00	15.00	5	4.76	23.40	23.40	10	5.42	26.64	26.64	25	6.35	31.19	31.19	100	7.89	38.78	38.78	SHEET FLOW TO EXISTING CULVERT LINK BRANCH
OS2	2.10	13.02	0.45	0.95	5.86	15.00	0.00	15.00	5	4.76	4.50	27.89	10	5.42	5.12	31.77	25	6.35	6.00	37.19	100	7.89	7.46	46.24	SHEET FLOW TO OFFSITE
OS3	0.35	13.37	0.45	0.16	6.02	15.00	0.00	15.00	5	4.76	0.75	28.64	10	5.42	0.85	32.62	25	6.35	1.00	38.19	100	7.89	1.24	47.48	SHEET FLOW TO EXISTING CULVERT LINK BRANCH
OS4	0.77	14.14	0.45	0.35	6.36	15.00	0.00	15.00	5	4.76	1.65	30.29	10	5.42	1.88	34.50	25	6.35	2.20	40.39	100	7.89	2.73	50.21	SHEET FLOW TO OFFSITE
OS5	5.40	19.54	0.45	2.43	8.79	15.00	0.00	15.00	5	4.76	11.57	41.86	10	5.42	13.18	47.67	25	6.35	15.42	55.81	100	7.89	19.18	69.39	SHEET FLOW TO OFFSITE
OS6	0.78	20.32	0.45	0.35	9.14	15.00	0.00	15.00	5	4.76	1.67	43.53	10	5.42	1.90	49.58	25	6.35	2.23	58.04	100	7.89	2.77	72.16	SHEET FLOW TO OFFSITE




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mail@bhbnc.com 817.338.1277
BHB INC. FIRM # 10011900

ROLLING CREEK RANCH PHASE 1
RESIDENTIAL DEVELOPMENT
HOOD COUNTY, TEXAS

DRAINAGE AREA MAP

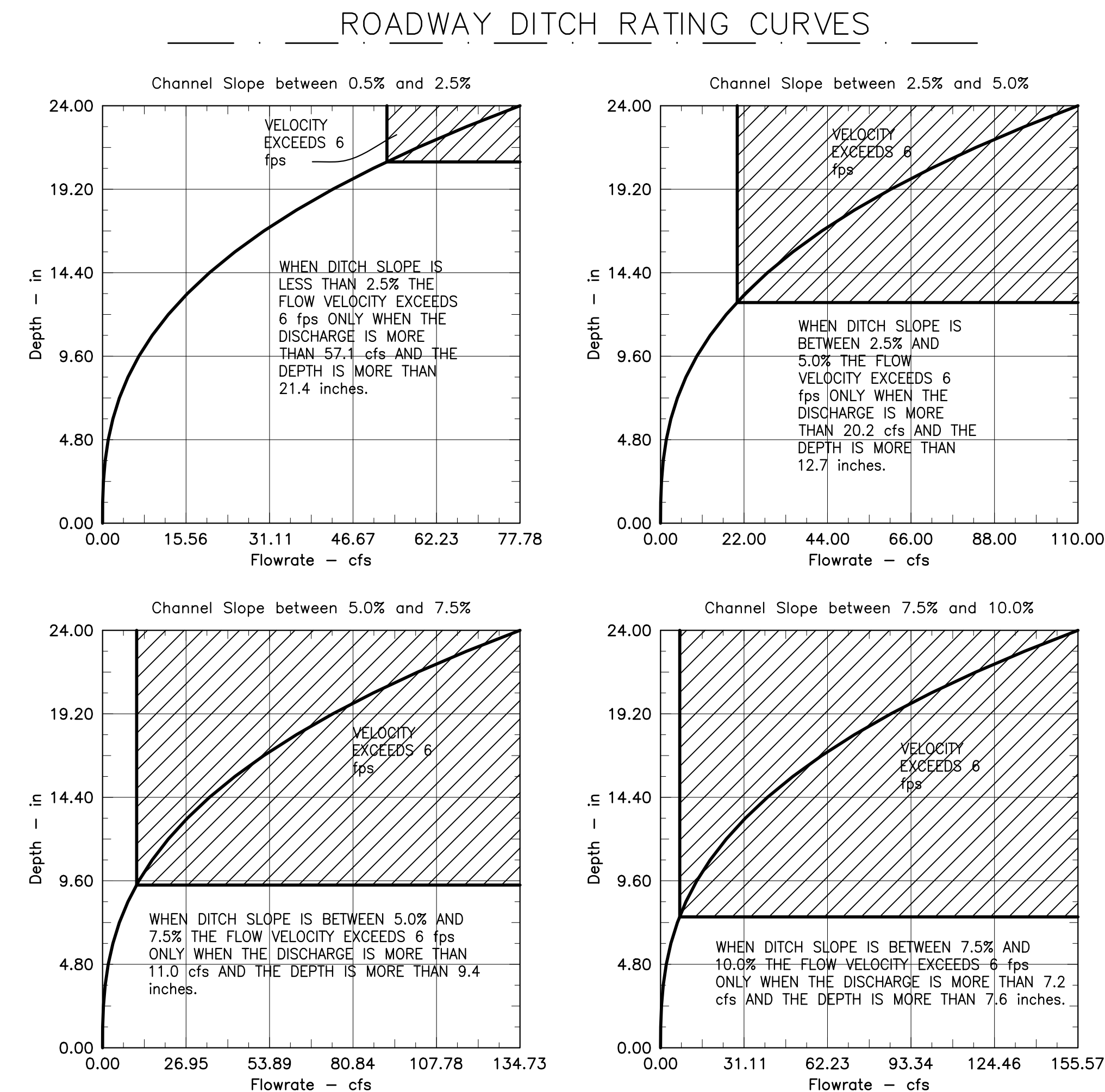
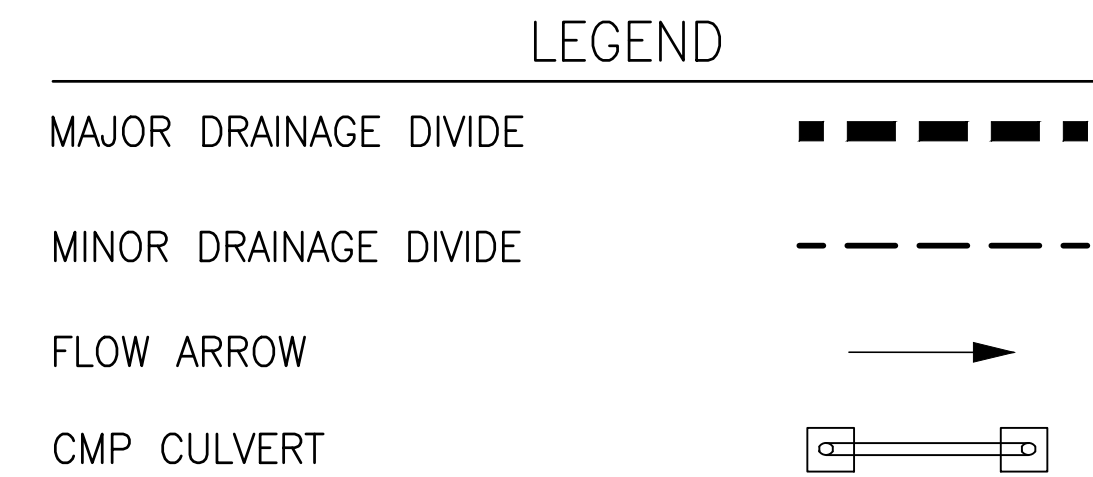
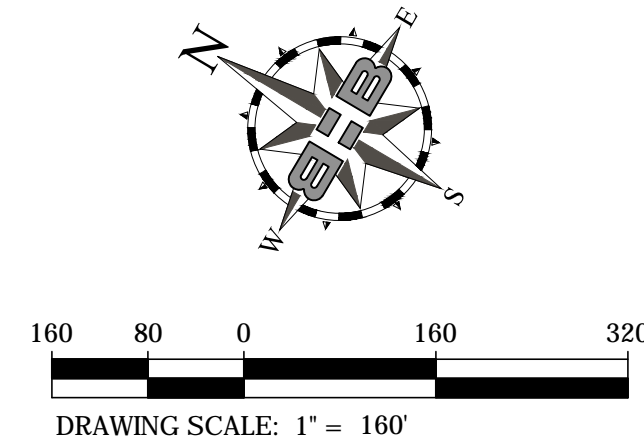
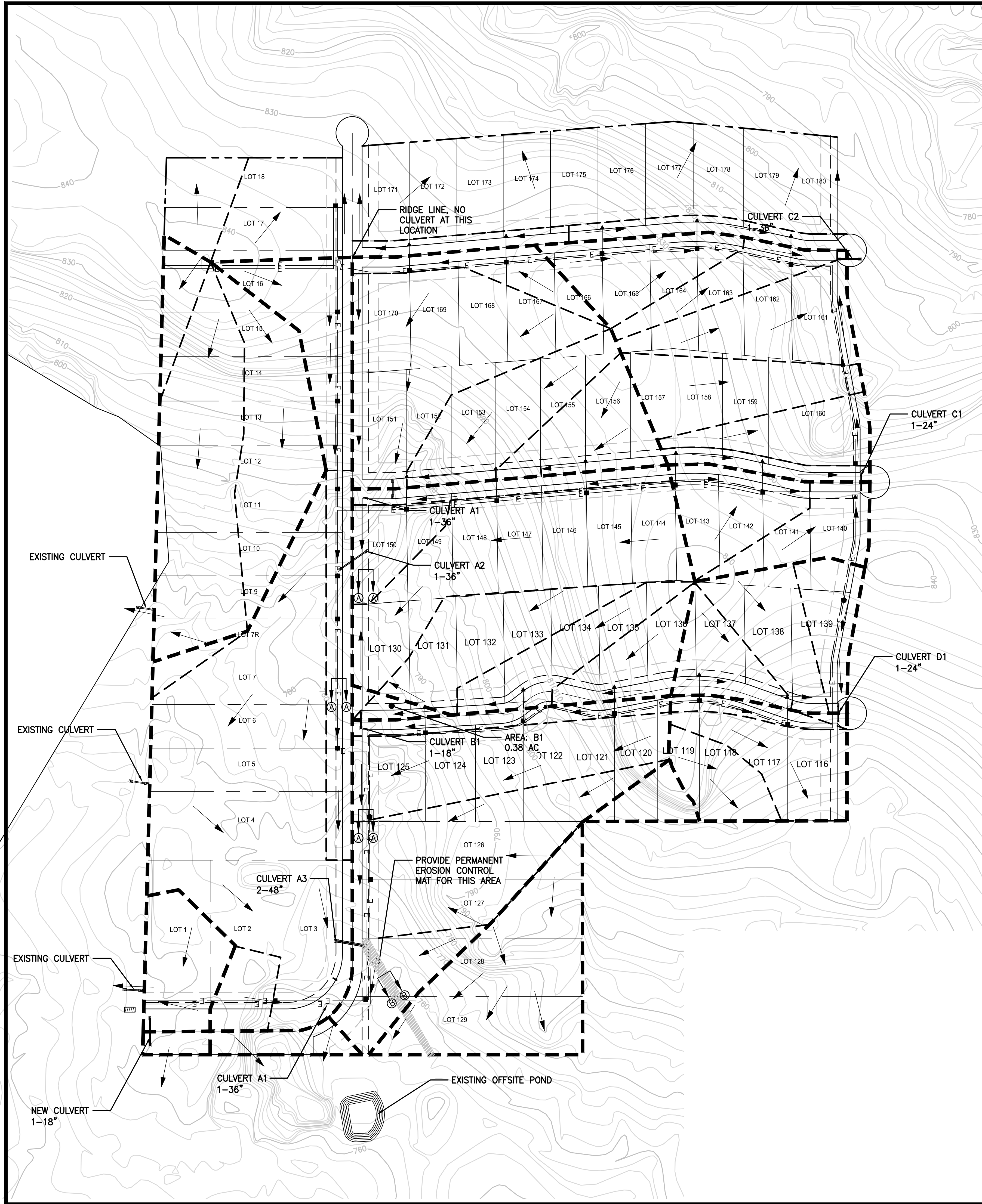
NO.	DESCRIPTION	DATE



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PROJECT NUMBER: 2016.121.000
DATE: 7-27-16
DESIGN BY: CW
CHECKED BY: TS
DRAWN BY: CW
SHEET 5

9.30.2019 11:46AM E:\2016\000\000\2016\121.000 - Rolling Creek Ranch\01 CAD\04 Civil\21Drainage.dwg CALCS



PROPOSED RESIDENTIAL CULVERT DRIVEWAY TABLE			
CULVERT MATERIAL	CMP	MANNINGS "N"	0.024
COVER	1.0'-3.0'	ENTRANCE TYPE	S.E.T.
PROPOSED CULVERT SIZE			
LOTS			
1-2	18"		
3	24"		
5-11	24"		
12-16	18"		
17-18	18"		
120-125	18"		
126-127	2X36"		
128-129	2X48"		
130-131	24"		
132-133	18"		
134-136	18"		
137-138	18"		
139	18"		
140	18"		
141-143	18"		
144-150	18"		
151-153	24"		
154-157	18"		
158-160	18"		
161-162	18"		
163-166	18"		
167-170	18"		
171-174	18"		
175-180	18"		

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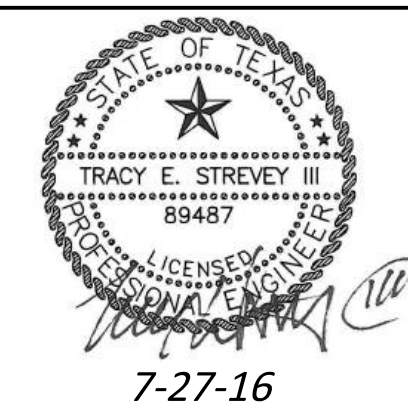
BAIRD, HAMPTON & BROWN, INC.
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mail@bhbainc.com 817.381.1271
TBPES Firm #44

ROLLING CREEK RANCH PHASE 1
RESIDENTIAL DEVELOPMENT

HOOD COUNTY, TEXAS

DRIVEWAY AND ROADSIDE
DITCH CALCULATIONS

NO. DESCRIPTION DATE



PROJECT NUMBER: 2016.121.000
DATE: 6/14/2016 DRAWN BY: CW
DESIGN BY: CW CHECKED BY: TS

9/30/2019 11:30AM E:\2016.000.000\2016.121.000 - Rolling Creek Ranch\01 CAD\04 Civil\121WaterPlanLayout.dwg NOTES

STANDARD CONSTRUCTION SPECIFICATIONS

GATE VALVES

- ALL GATE VALVES SHALL BE "WEDGE TYPE" WITH AWWA APPROVED CAST IRON FITTINGS SECURED WITH STAR GRIPS OR MEGA LUGS ON FITTINGS. ALL GATE VALVES SHALL BE CLOCKWISE CLOSE.
- ALL FITTINGS SHALL BE COMPRESSION TYPE, NO FLARED FITTINGS SHALL BE USED.
- USE SQUARE HEAD VALVES IN LIEU OF WHEEL VALVES. (INCLUDING 2 INCH VALVES) USE CURB AND ANGLE STOPS FOR THE 2-INCH AND SMALLER PIPE. ALL FITTINGS TO BE BRASS.
- GATE VALVE BOXES SHALL BE FITTED WITH LID LINERS TO PREVENT DIRT AND INFILTRATION. OPERATING NUT WILL BE CENTERED AND ACCESSIBLE BY VALVE WRENCH.
- ALL VALVES MORE THAN 3 FEET DEEP TO OPERATING NUT SHALL BE FURNISHED WITH AN EXTENSION.
- ALL VALVES SHALL HAVE A "V" STAMPED ON THE ADJACENT CURB WITH THE POINT OF THE "V" POINTED IN THE DIRECTION OF THE VALVE.
- ALL VALVES SHALL HAVE AN 18" X 18" X 6" CONCRETE PAD, REINFORCED WITH #3 REBAR, SURROUNDING THE TOP OF THE VALVE BOX.
- ALL VALVE LIDS SHALL BE PAINTED WITH THE FOLLOWING COLOR FOR IDENTIFICATION

IN-LINE	BLUE
FIRE HYDRANTS	BLACK
END OF LINE	WHITE

WATER MAINS

- WATER MAINS SHALL BE DR-18 (C-900). ANY EXCEPTIONS MUST BE PREVIOUSLY AUTHORIZED IN WRITING BY AMUD.
- WATER MAIN PIPING SHALL BE LAID WITH THE WRITING ON THE PIPE FACING UP.
- WATER MAINS SHALL HAVE A MINIMUM COVER OF 42 INCHES, EVEN WHEN LOCATED ON THE BACKSLOPE OR NEAR THE PROPERTY LINE.
- WATER MAINS SHALL BE MARKED UNDER THE GROUND SURFACE (ONE TO TWO FEET ABOVE THE PIPE) BY PLACING A 2" WIDE METALIZED PLASTIC TAPE WITH THE WORD "WATER" PRINTED ON THE TAPE.
- WATER MAINS TO BE INSTALLED WITH A (STRANDED #12 AWG THWN OR THHN GAS AND OIL RESISTANT) TRACER WIRE AFFIXED TO THE TOP OF THE PIPE AND THE WIRE EXTENDED UP AND THROUGH GATE VALVE BOXES. MAKE SURE WIRES ARE ACCESSIBLE AT GATE VALVE BOXES.
- ALL TAPPING SLEEVES WILL BE FULL CIRCLE STAINLESS STEEL.

WATER MAIN EMBEDMENT

DEPTH BELOW PIPE	-	3" MIN. IN SOIL, 6" MIN. IN ROCK
HEIGHT ABOVE PIPE	-	12" MIN.
WIDTH	-	O.D. + 18" (MAX.)
MATERIAL	-	CUSHION SAND, PEA GRAVEL, GRADE 5 OR 6 LIMESTONES
DENSITY	-	95% STANDARD PROCTOR DENSITY UNDER PAVEMENT
	-	90% STANDARD PROCTOR DENSITY OUTSIDE PAVEMENT

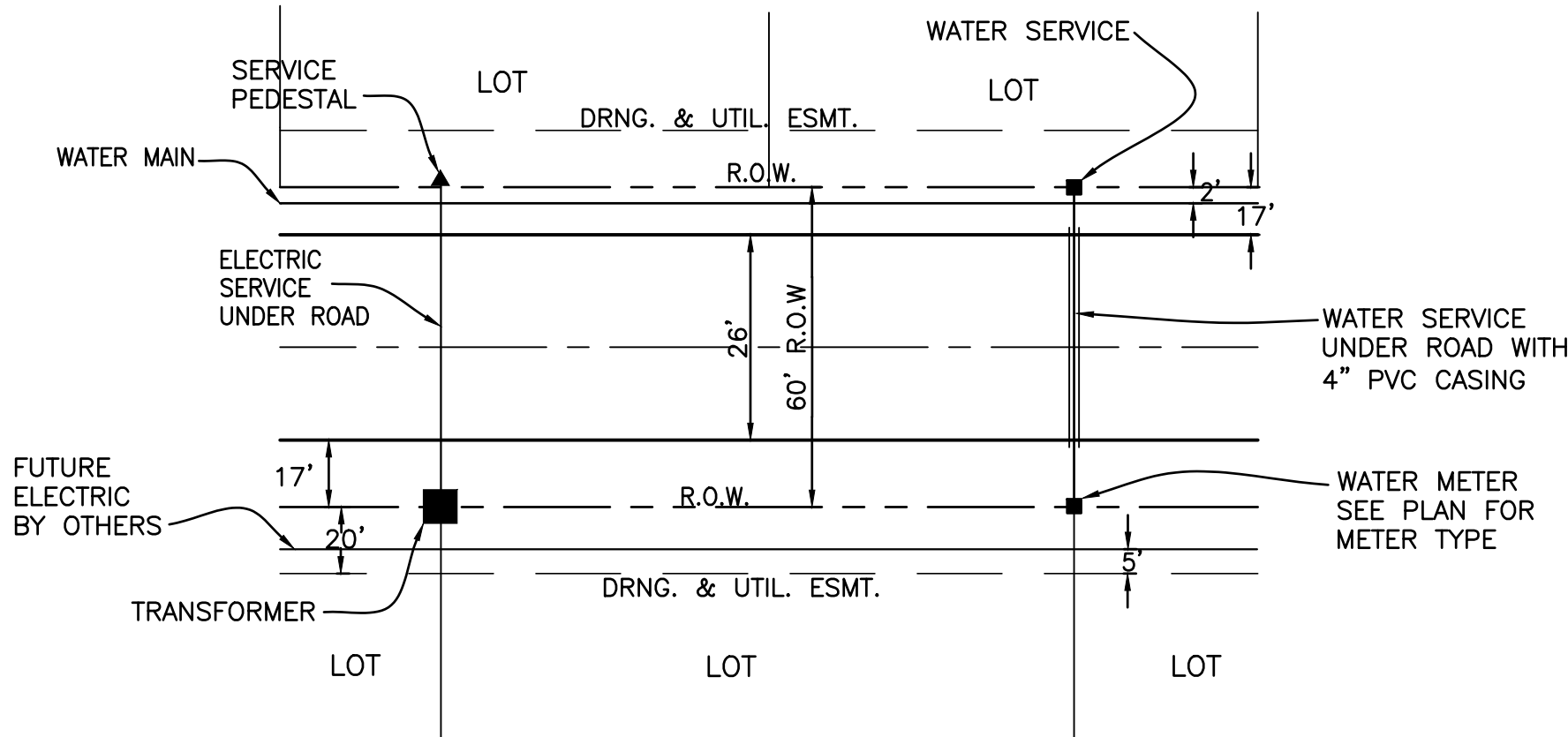
- EXCAVATED DITCHES SHALL REMAIN OPEN FOR INSPECTION. PIPING AND TRACER WIRE SHALL BE INSPECTED AND APPROVED PRIOR TO BEING COVERED. TRACER TAPE SHALL BE PLACED AND VISIBLE FOR INSPECTION PRIOR TO PLACEMENT OF FINAL COVER.
- ALL DITCHES SHALL BE COMPACTED IN A MAXIMUM OF 8 INCH LIFTS TO PROPER DENSITY. (SEE WATER MAIN EMBEDMENT CRITERIA ABOVE).
- ALL INSTALLATIONS OF WATER MAINS WILL REQUIRE 150-PSI HYDROSTATIC TEST OF A 4 HOUR DURATION AND WATER QUALITY TESTING BY AN APPROVED LAB.
- EVERY 1000 FEET OR PORTION THEREOF OF ALL WATER MAINS SHALL HAVE A WATER QUALITY TEST PERFORMED.

FIRE HYDRANTS

- ALL FIRE HYDRANT ASSEMBLIES SHALL HAVE A VALVE AND ANCHOR COUPLING ATTACHMENT.
- FIRE HYDRANTS SHALL HAVE A 36" X 36" X 6" CONCRETE PAD INSTALLED 6 TO 12 INCHES BELOW FINISHED GRADE. REINFORCE WITH #3 BARS ON 6-INCH CENTERS.
- FIRE HYDRANTS SHALL BE LOCATED AT THE PROPERTY LINE AND AWAY FROM ALL DRIVE APPROACHES AND STREET RADIUS AS PRACTICAL.
- FIRE HYDRANTS SHALL HAVE A MINIMUM OF 18 INCHES CLEARANCE FROM THE BOTTOM OF THE CAP NUT TO THE FLANGE OF THE FIRE HYDRANT.
- FIRE HYDRANTS SHALL BE PAINTED RED.
- FIRE HYDRANTS SHALL BE M&H.

SERVICE LINES

- METER BOXES SHALL BE RECTANGULAR PLASTIC, BLACK ON THE OUTSIDE AND #DFW PLASTICS #1500 SB AMR-DOUBLE AND PLASTICS #1200 SB AMR-SINGLE.
- ALL U BRANCHES / BULL HEADS WILL HAVE A BALL VALVE IN FRONT OF THE CONNECTION.
- ALL WATER SERVICE LINES RUNNING UNDER THE STREET (LONG SIDE OF STREET) WILL BE ENCASED IN 3" PVC PIPE. THE CASING WILL EXTEND 3- FEET FROM EACH SIDE OF THE EDGE OF PAVEMENT.
- EACH LOT SHALL HAVE A MINIMUM 1" COPPER SERVICE LINE.
- ALL SINGLE SERVICES SHALL HAVE BRASS OR BRONZE COMPRESSION TYPE CURB STOPS / ANGLE STOPS WITH LOCKS INSTALLED. (FORD #KV43-332W-G OR #KV43-342W-G OR EQUIVALENT)
- ALL SERVICE LINES SHALL BE INSTALLED USING A DOUBLE STRAP BRONZE TAPPING SADDLE.



UTILITY LOCATION DETAIL

NOTE: ALL WATER SERVICES SHOWN ARE DOUBLE SERVICES UNLESS OTHERWISE NOTED.

WATER MAIN CROSSINGS THROUGH CREEKS NEED 12" CONCRETE CAP OVER THE WIDTH OF THE CREEK.

LEGEND

————— — — —————	PROPERTY LINE / R.O.W. LINE
-----	EASEMENT LINE
————— — — —————	RIGHT OF WAY CENTERLINE
————— — — —————	30' BUILDING SETBACK
— E ————— E —	UNDERGROUND ELECTRIC
— W ————— W —	UNDERGROUND WATER
●	FIRE HYDRANT
■	WATER METER
✕	WATER VALVE
■	TRANSFORMER
▲	SERVICE PEDESTAL
◆	PULL BOX

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TBPE Firm #44
TBPE'S FIRM # 10011300

ROLLING CREEK RANCH PHASE 1
RESIDENTIAL DEVELOPMENT

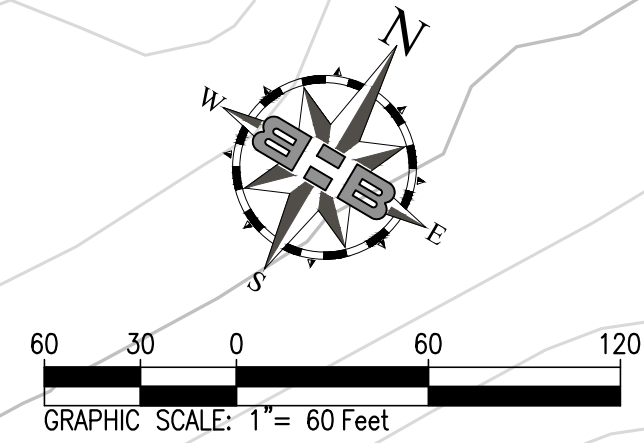
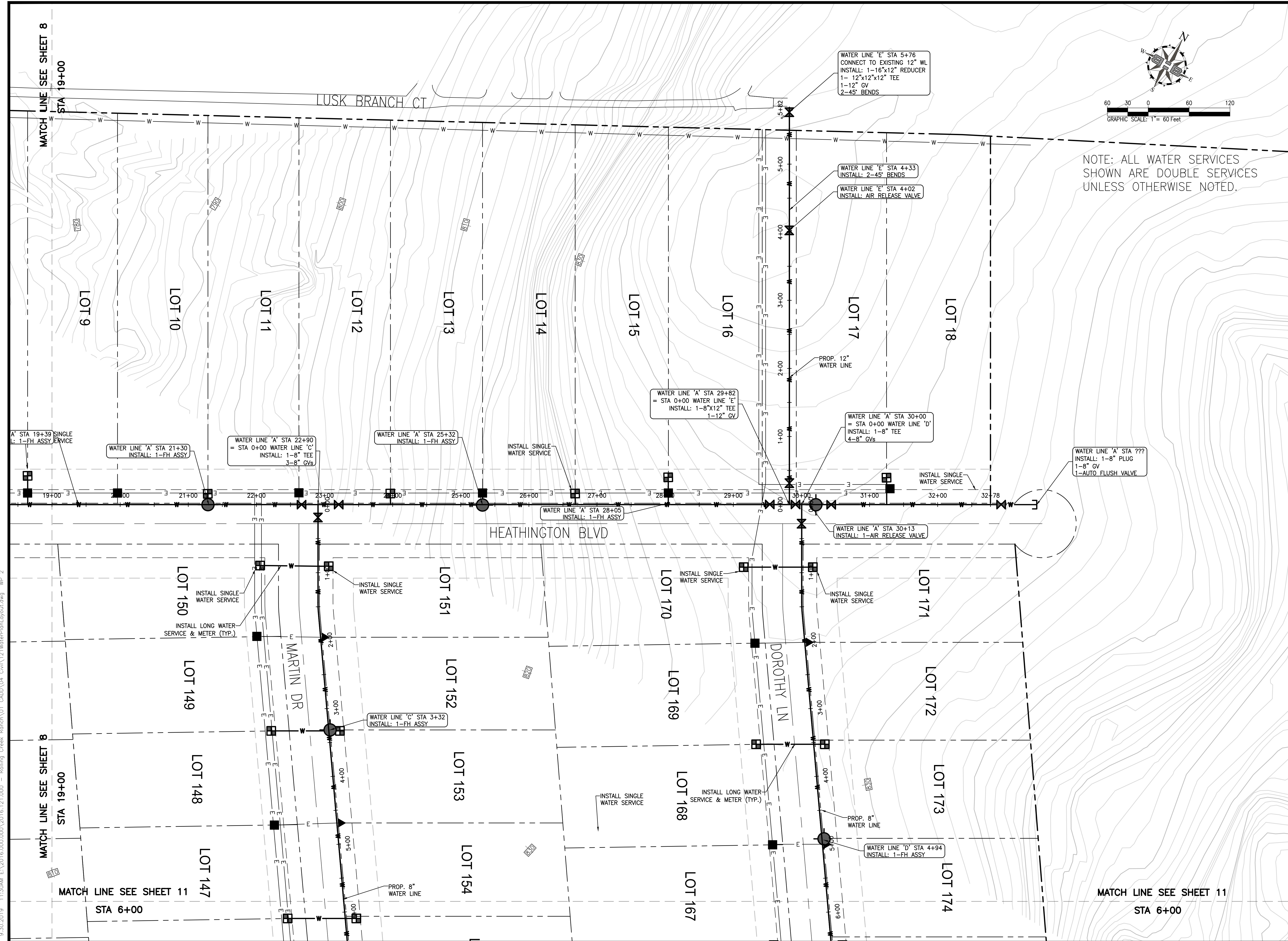
HOOD COUNTY, TEXAS

WATER PLAN NOTES

NO.	DESCRIPTION	DATE

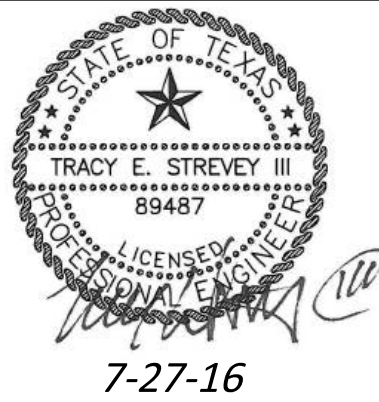


PROJECT NUMBER:	2016.121.000
DATE:	7-27-16
DESIGN BY:	CW
CHECKED BY:	TS



NOTE: ALL WATER SERVICES SHOWN ARE DOUBLE SERVICES UNLESS OTHERWISE NOTED.

WATER PLAN SHEET 2

[illegible]

PROJECT NUMBER: 2016.121.000	
DATE: 7-26-16	DRAWN BY: CW
DESIGN BY: CW	CHECKED BY: TS

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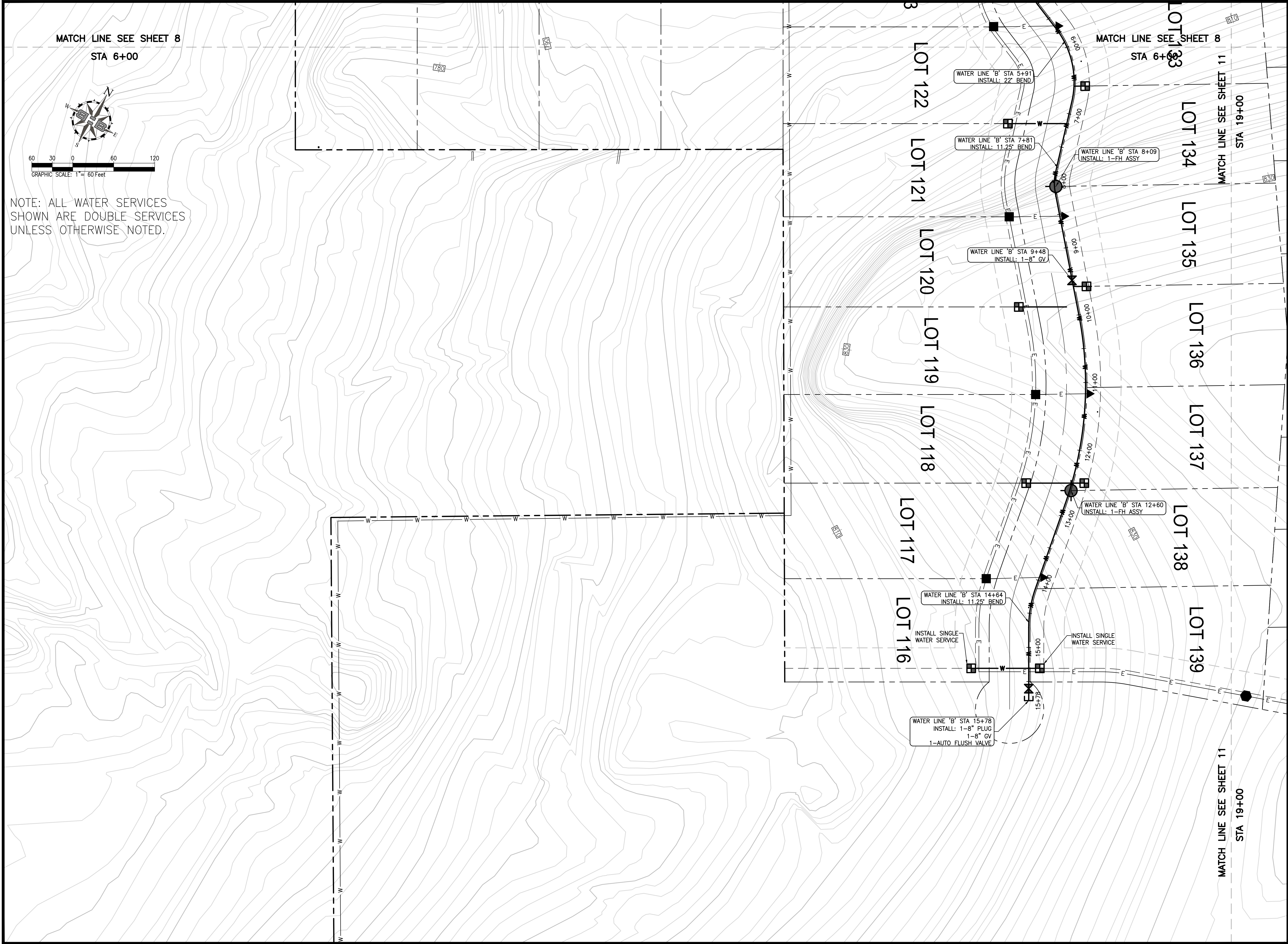
ROLLING CREEK RANCH PHASE 1 RESIDENTIAL DEVELOPMENT

HOOD COUNTY, TEXAS



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TYPE Firm #44 TPLS Firm #10011300

9.30.2019 11:31AM E:\2016\000\000\2016\121\000 - Rolling Creek Ranch\01 CAD\04 Civil\121WaterPlanLayout.dwg WP 3





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TBP# Firm #44 TBP#S Firm #10011900

ROLLING CREEK RANCH PHASE 1
RESIDENTIAL DEVELOPMENT

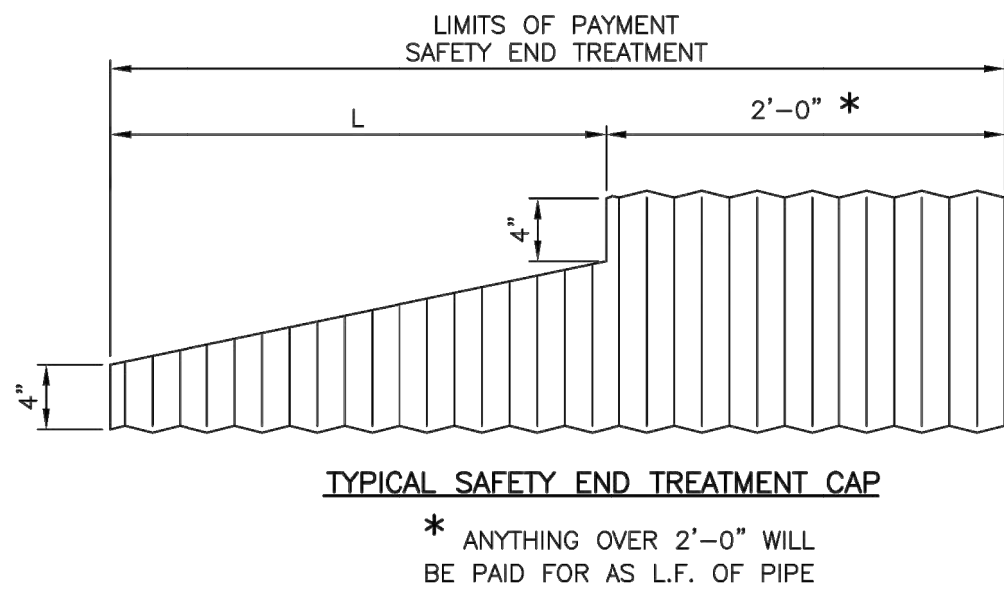
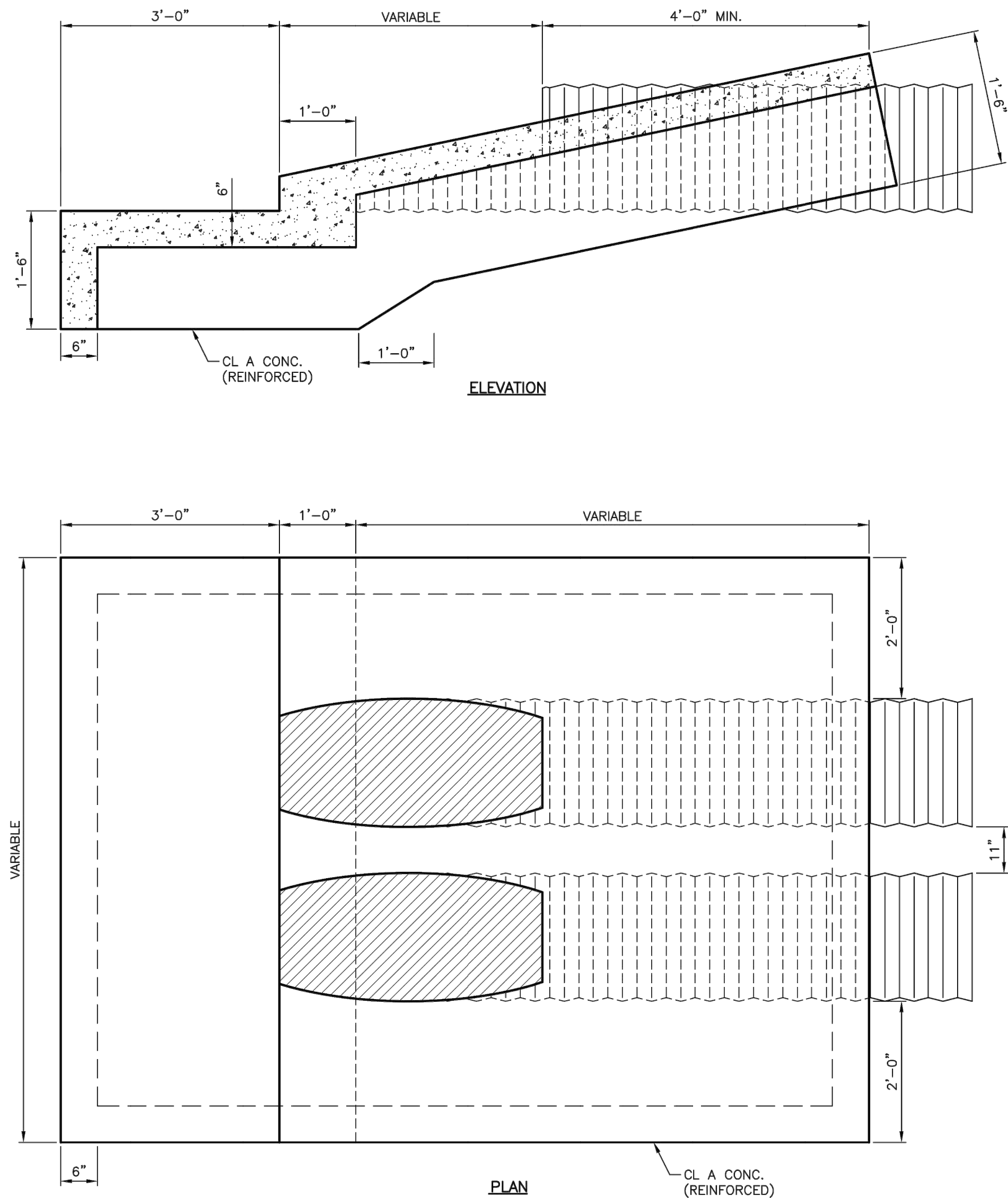
HOOD COUNTY, TEXAS

WATER PLAN SHEET 3			
NO.	DESCRIPTION	DATE	



7-27-16

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TYPICAL SAFETY END TREATMENT CAP
* ANYTHING OVER 2'-0" WILL BE PAID FOR AS L.F. OF PIPE

SAFETY END TREATMENT					
PIPE SIZE	SLOPE	L IN.	PIPE SIZE	SLOPE	L IN.
18"	3:1	30	DES. 2 ARCH	3:1	21
	4:1	40		4:1	28
	6:1	60		6:1	42
24"	3:1	48	DES. 3 ARCH	3:1	36
	4:1	64		4:1	48
	6:1	96		6:1	72
30"	3:1	66	DES. 5 ARCH	3:1	63
	4:1	88		4:1	84
	6:1	168			
36"	3:1	84			
	4:1	112			
	6:1	168			

SAFETY END TREATMENT		
PIPE SIZE	SLOPE	L IN.
18"	2:1	20
24"	2:1	32
36"	2:1	56

NOTE: THE ABOVE DIMENSIONS MAY BE VARIED, AS APPROVED BY THE ENGINEER, TO MEET MANUFACTURERS PREDETERMINED STANDARDS.

STANDARD PLANS
TEXAS DEPARTMENT OF TRANSPORTATION
Traffic Operations Division

SAFETY END TREATMENT (TY II)
CORRUGATED METAL PIPE

SET(1)(FW)

REVISIONS	STATE DISTRICT	FEDERAL REGION	DW--	DC--	DW--	DC--	NEE NO.
			FEDERAL AID PROJECT				SHEET
	COUNTY		CONTROL		SECTION	JOB	HIGHWAY

STORM DRAIN DETAILS

NO.	DESCRIPTION	DATE



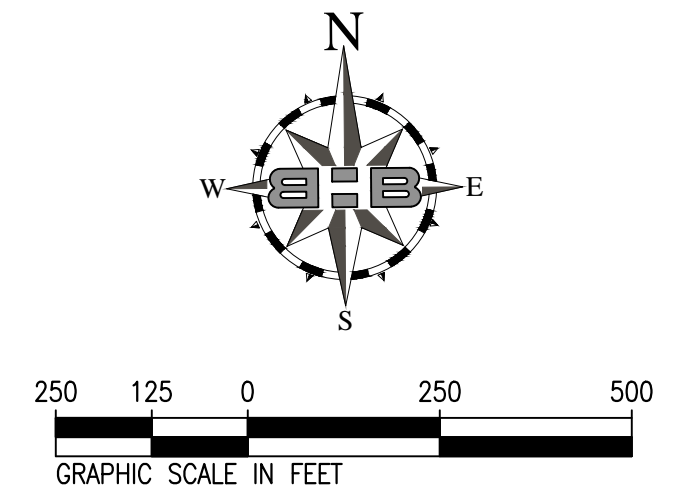
PROJECT NUMBER: 2016.121.000
DATE: 7-27-16 | DRAWN BY: LM
DESIGN BY: LM | CHECKED BY: TS



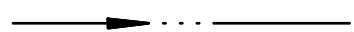

ROLLING CREEK RANCH PHASE 1
RESIDENTIAL DEVELOPMENT

HOOD COUNTY, TEXAS

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bhbaird.com
TBPE Firm #44



EROSION CONTROL LEGEND		
DESCRIPTION	SYMBOL	LOCATION
STABILIZED CONSTRUCTION ENTRANCE		AS REQUIRED
PERIMETER SILT FENCE		AS SHOWN SEE PLAN
DIVERSION SWALE		AS SHOWN SEE PLAN
HAY BALE DIKE		200' O.C. ALL SWALES

EROSION CONTROL CONSTRUCTION RESPONSIBILITIES		
EROSION CONTROL MEASURE	INSTALLATION RESPONSIBILITY	MAINTENANCE RESPONSIBILITY
STABILIZED CONSTRUCTION ENTRANCE	EARTHWORK CONTRACTOR	EARTHWORK & PAVING CONTRACTOR
PERIMETER SILT FENCE	EARTHWORK CONTRACTOR	ALL CONTRACTORS
DIVERSION SWALE	EARTHWORK CONTRACTOR	ALL CONTRACTORS
HAY BALE DIKE	EARTHWORK CONTRACTOR	EARTHWORK CONTRACTOR

ROLLING CREEK RANCH PHASE 1 RESIDENTIAL DEVELOPMENT

EROSION CONTROL PLAN		
NO.	DESCRIPTION	DATE

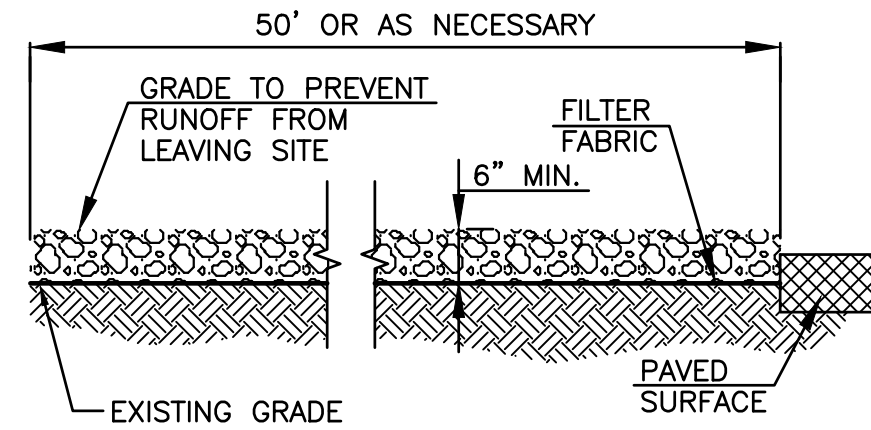


PROJECT NUMBER:		2016.121.000	
DATE:	7-27-16	DRAWN BY:	LL
DESIGN BY:	LL	CHECKED BY:	TS

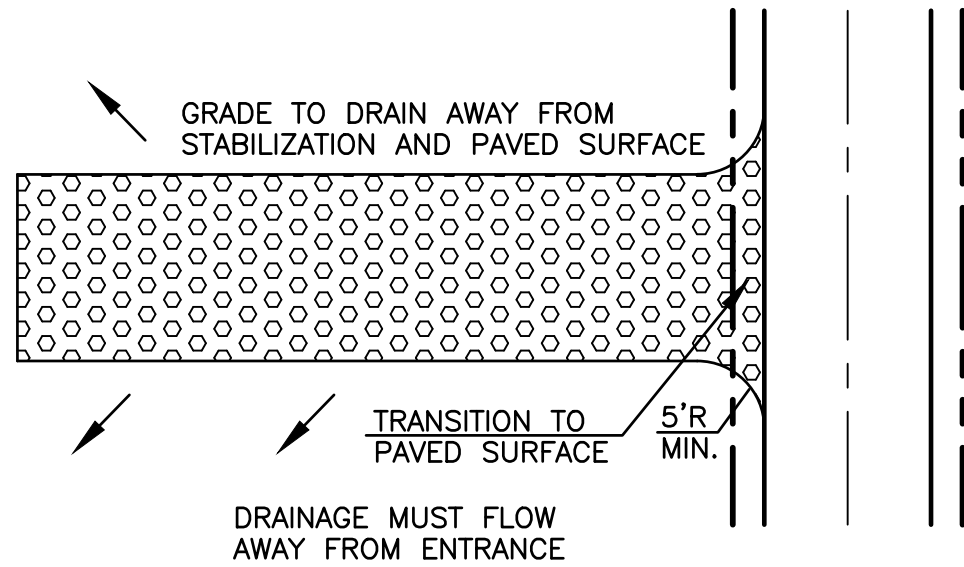
SHEET

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PROFILE VIEW



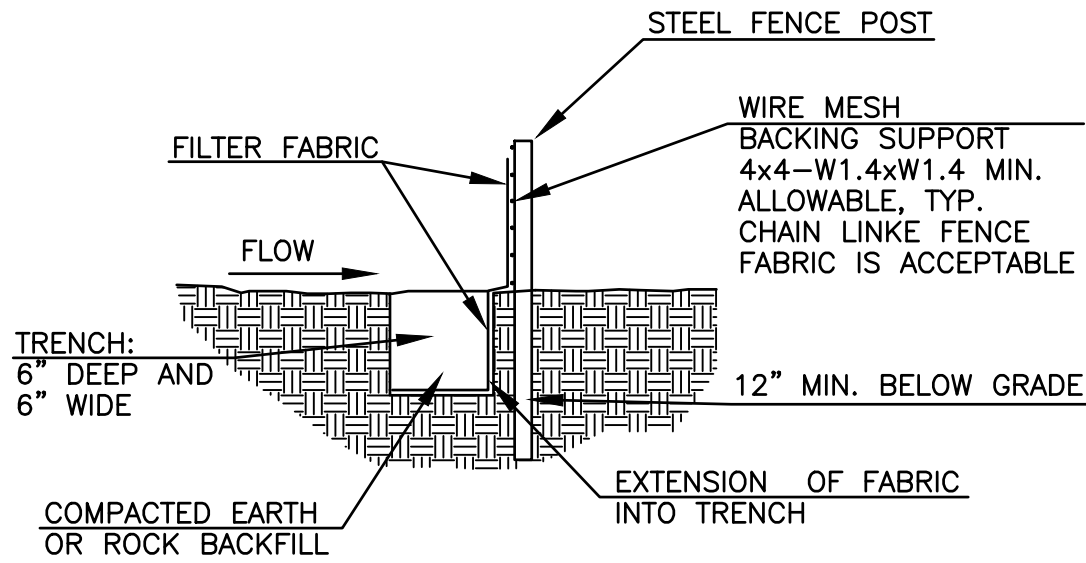
PLAN VIEW

STABILIZED CONSTRUCTION ENTRANCE

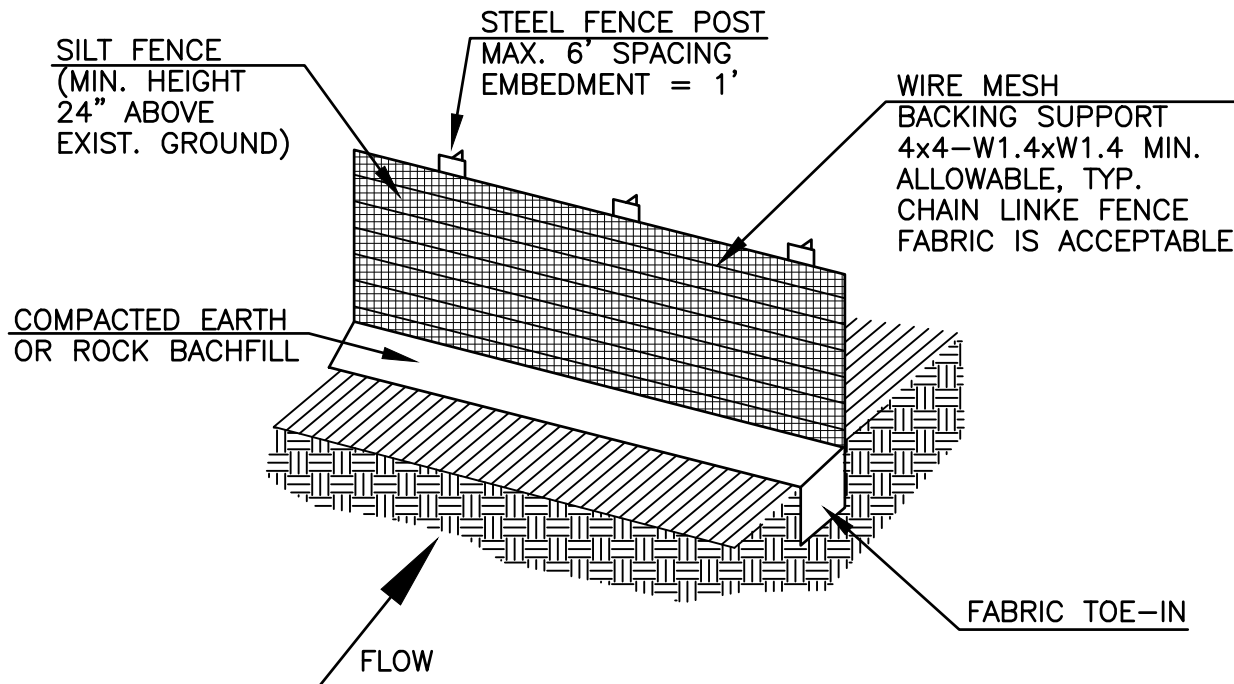
N.T.S.

STABILIZED CONSTRUCTION ENTRANCE GENERAL NOTES:

1. STONE SHALL BE 3 TO 5 INCH DIAMETER CRUSHED ROCK OR ACCEPTABLE CRUSHED PORTLAND CEMENT CONCRETE.
2. THE THICKNESS SHALL NOT BE LESS THAN 6 INCHES.
3. THE WIDTH SHALL BE NO LESS THAN THE WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
4. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
5. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES MUST BE REMOVED IMMEDIATELY.
6. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.



CROSS SECTION



ISOMETRIC PLAN VIEW

SILT FENCE

N.T.S.

SILT FENCE GENERAL NOTES:

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF ONE FOOT.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER, SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW. WHERE FENCE CANNOT BE TRENCHED IN (e.g. PAVEMENT), WEIGHT FABRIC FLAP WITH ROCK ON UPHILL SIDE TO PREVENT FLOW FROM SEEPING UNDER FENCE.
3. THE TRENCH MUST BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE LAID IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IN TURN IS ATTACHED TO THE STEEL FENCE POST. THERE SHALL BE A 3 FOOT OVERLAP, SECURELY FASTENED WHERE ENDS OF FABRIC MEET.
5. INSPECTION SHALL BE MADE EVERY TWO WEEKS AND AFTER EACH 1/2" RAINFALL. REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF HALF THE HEIGHT OF THE FENCE. THE SILT SHALL BE DISPOSED OF AT AN APPROVED SITE AND IN SUCH A MANNER AS NOT TO CONTRIBUTE TO ADDITIONAL SILTATION.

EROSION CONTROL NOTES

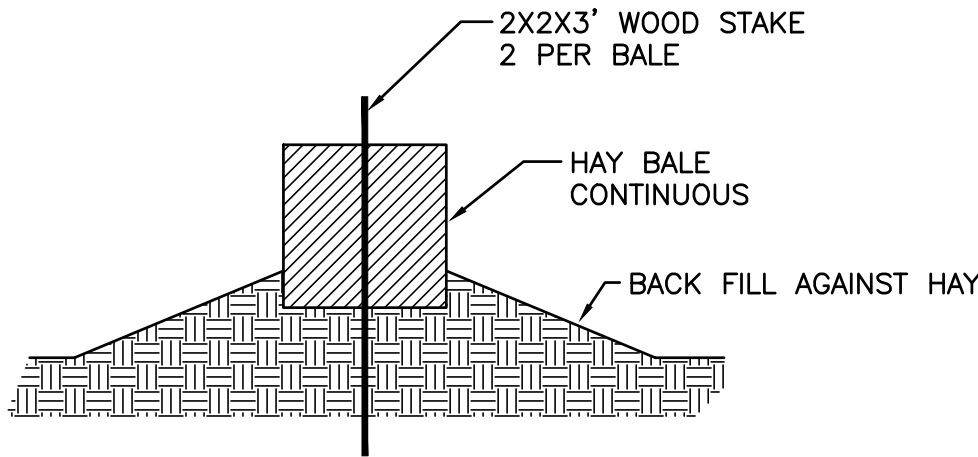
EROSION CONTROL DEVICES AS SHOWN ON THE EROSION CONTROL PLAN FOR THE PROJECT SHALL BE INSTALLED PRIOR TO THE START OF LAND DISTURBING ACTIVITIES ON THE PROJECT.

ALL EROSION CONTROL DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS FOR THE PROJECT. CHANGES ARE TO BE APPROVED BEFORE CONSTRUCTION BY THE DESIGN ENGINEER AND THE CITY OF COLLEYVILLE ENGINEERING DEPT.

IF THE EROSION CONTROL PLAN AS APPROVED CANNOT CONTROL EROSION AND OFF-SITE SEDIMENTATION FROM THE PROJECT, THE EROSION CONTROL PLAN WILL BE REQUIRED TO BE REVISED AND/OR ADDITIONAL EROSION CONTROL DEVICES WILL BE REQUIRED ON SITE.

CONTRACTOR SHALL IMPLEMENT AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD.

SEDIMENT THAT IS ERODED FROM THE SITE AND DEPOSITED INTO ADJACENT PROPERTIES OR PUBLIC RIGHT-OF-WAY SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF IN AN APPROPRIATE MANNER.



HAY BALE DIKE

N.T.S.

HAY BALE DIKE NOTES:

1. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF FOUR INCHES.
2. BALES SHALL BE SECURELY ANCHORED IN PLACE BY 2" X 2" WOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
3. INSPECTION SHALL BE MADE WEEKLY AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED BY THE CONTRACTOR.
4. WHEN SILT REACHES A DEPTH OF 6 INCHES, IT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.
5. AFTER THE DEVELOPMENT OF THE SITE IS COMPLETELY STABILIZED, THE BALES SHALL BE REMOVED AND DISPOSED OF AT AN APPROVED SPOIL DISPOSAL SITE.

EROSION CONTROL DETAILS

NO.	DESCRIPTION	DATE



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DESIGN BY:	LL
CHECKED BY:	TS

SHEET

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ROLLING CREEK RANCH PHASE 1 RESIDENTIAL DEVELOPMENT

HOOD COUNTY, TEXAS

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