

# CONSTRUCTION PLANS for NABULSI-ABUSHABAN SUBDIVISION FILING NO. 1 WITHIN THE SE ONE-QUARTER OF THE SE ONE-QUARTER OF SECTION 19, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M., EL PASO COUNTY, COLORADO

## STANDARD EL PASO COUNTY GRADING & EROSION CONTROL PLAN NOTES

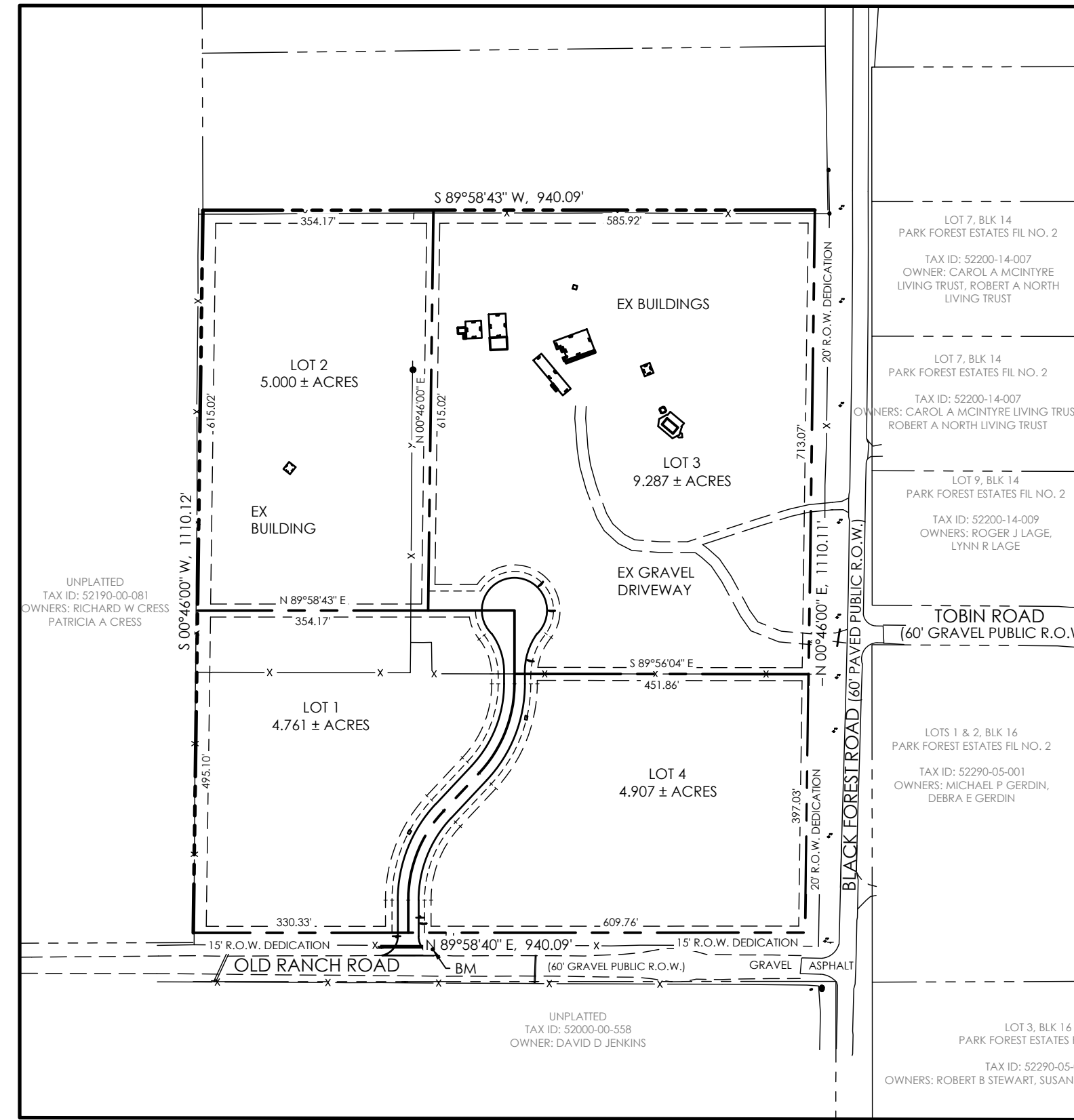
- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING 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.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- 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.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- 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.
- 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.
- 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 ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- 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.
- 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.
- 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).
- 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.
- 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 WASHWATS 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.
- 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.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- 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.
- 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.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- 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.
- 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.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- 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 ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, REGULATIVE, 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.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- 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.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING INC., DATE SEPTEMBER 9, 2023 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) OR MORE ACRES, 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  
WQCD - PERMITS  
4300 CHERRY CREEK DRIVE SOUTH  
DENVER, CO 80246-1530  
ATTN: PERMITS UNIT

## GENERAL NOTES

- ALL NEW CONSTRUCTION IS TO CONFORM TO THE SPECIFICATIONS OF EL PASO COUNTY.
- UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN DRAWN FROM AVAILABLE RECORDS AND/OR SURFACE EVIDENCE. THE LOCATION OF ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED. BELOW GROUND LOCATIONS HAVE NOT BEEN PERFORMED. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL SUBSURFACE UTILITY OWNERS PRIOR TO BEGINNING WORK TO DETERMINE LOCATION OF UTILITY FACILITIES. ALL UTILITIES SHALL BE LOCATED PRIOR TO ANY EARTH WORK OR DIGGING (1-800-922-1987). THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- EXISTING CONDITIONS SHALL BE VERIFIED BY THE GENERAL CONTRACTOR. DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
- SOIL PREPARATION, SEEDING, AND MULCHING FOR AN ESTIMATED 3.3 ACRES WILL BE REQUIRED ON ALL DISTURBED AREAS NOT SURFACED. THE FOLLOWING TYPES AND RATES SHALL BE USED:

GRASS	VARIETY	AMOUNT IN PLS/lb. PER ACRE
SIDEATS GRAMA	EL RENO	3.0 lbs.
WESTERN WHEATGRASS	BARTON	2.5 lbs.
SLENDER WHEAT GRASS	NATIVE	2.0 lbs.
LITTLE BLUESTEM	PASTURA	2.0 lbs.
SAND DROPPED	NATIVE	0.5 lbs.
SWITCH GRASS	NEBRASKA 28	3.0 lbs.
WEEPING LOVE GRASS	MORPHA	1.0 lbs.
	TOTAL	14.0 lbs.

- SEEDING APPLICATION: DRILLED TO A DEPTH OF .25' TO .50' INTO SOIL WHERE POSSIBLE. BROADCAST AND RAKED TO COVER ON STEEPER THAN 3:1 SLOPES WHERE ACCESS IS LIMITED OR UNSAFE FOR EQUIPMENT.
- MULCHING REQUIREMENT AND APPLICATION: 2.0 TONS PER ACRE NATIVE HAY MECHANICALLY CRIMPED INTO SOIL.
- ALL STORM DRAIN SHALL BE REINFORCED CONCRETE PIPE. ALL CULVERTS SHALL BE PLACED COMPLETE WITH FLARED END SECTIONS. ALL STORM DRAIN FITTINGS AND BENDS SHALL BE PRE-CAST. STORM DRAIN PIPE MAY ALSO BE CORRUGATED METAL OR HDPE. PLACED IN ACCORDANCE WITH EL PASO COUNTY SPECIFICATIONS.
- CONTRACTOR WILL BE RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION MEETING HELD PRIOR TO CONSTRUCTION WITH EPC-PCD, ENGINEER, AND CONTRACTOR IN ATTENDANCE.
- CONTRACTOR IS RESPONSIBLE FOR ALL OF HIS OPERATIONS ON THE SITE. CONTRACTOR SHALL OBSERVE ALL SAFETY AND OSHA REGULATIONS DURING CONSTRUCTION OPERATIONS. TRENCH WIDTHS AND SLOPE ANGLES SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND ACCORDING TO SAFETY AND OSHA REGULATIONS.
- ALL NECESSARY PERMITS, SUCH AS SWMP, FUGITIVE DUST, ACCESS, C.O.E. 404, ESQCP PERMIT, ETC. SHALL BE OBTAINED PRIOR TO CONSTRUCTION.



## SHEET INDEX

PLAN SET SHEET NO.	SHEET INDEX	M.V.E. DRAWING NO.
C.1.1 (1 OF 3)	COVER SHEET	61201-CON-CS
C.1.2 (2 OF 3)	PLAN/PROFILE SHEET	61201-CON-PP1
C.1.3 (3 OF 3)	SITE DETAILS SHEET	61201-CON-DS

## SITE MAP

SCALE 1"=200'

## COMPANIES AND AGENCIES

**OWNER/DEVELOPER**  
NABULSI-ABUSHABAN FAMILY TRUST  
14384 WHISPERRIDGE ROAD  
SAN DIEGO, CA 92131-4248  
(858) 245-4927

**STREETS AND RIGHTS-OF-WAY**  
EPC DEPARTMENT OF PUBLIC WORKS  
3275 AKERS DRIVE  
COLORADO SPRINGS, CO 80922  
(719) 520-4460

**TELEPHONE**  
CENTURYLINK  
555 TECH CENTER DRIVE SUITE 110  
COLORADO SPRINGS, CO 80919  
(866)-301-9889

**ENGINEER**  
M.V.E. INC.,  
1903 LELAY STREET, STE 200  
COLORADO SPRINGS, CO 80909  
(719) 635-5736

**ELECTRIC**  
MOUNTAIN VIEW ELECTRIC ASSOCIATION  
11140 EAST WOODMEN ROAD  
FALCON, CO 80831  
(719) 495-2283

**NATURAL GAS**  
BLACK HILLS ENERGY  
18965 BASE CAMP RD, A-7  
MONUMENT, CO 80132  
(719)-488-0739

**EL PASO COUNTY PLANNING**  
EPC PLANNING AND COMMUNITY DEVELOPMENT  
2880 INTERNATIONAL CIRCLE, SUITE 110  
COLORADO SPRINGS, CO 80910  
(719) 520-6300

## ABBREVIATIONS

EL	ELEVATION	ROW	RIGHT-OF-WAY
PC	POINT OF CURVATURE	R	RADIUS
PI	POINT OF INTERSECTION	T	TANGENT
PT	POINT OF TANGENCY	L	LENGTH
PCR	POINT OF CURVE RETURN	LF	LINEAR FEET
PRC	POINT OF REVERSE CURVATURE	CL	CENTERLINE
PVC	POINT OF VERTICAL CURVATURE	X,XX' R	DIMENSION RIGHT OF CL
PVI	POINT OF VERTICAL INTERSECTION	X,XX' L	DIMENSION LEFT OF CL
PVT	POINT OF VERTICAL TANGENCY	PL	PROPERTY LINE
GB	GRADE BREAK	PVRC	POINT OF VERT REVERSE CURVATURE
CSP	CORRUGATED STEEL PIPE	VC	VERTICAL CURVE
RCP	REINFORCED CONCRETE PIPE	AP	ANGLE POINT
CBG	CONCRETE BOX CULVERT	STA	STATION
TBC	TOP BACK CURB	INV	INVERT
TC	TOP OF CURB	RG	RAIN GARDEN
BT	BEGIN TAPER	SFB	SAND FILTER BASIN
ET	END TAPER		
EC	EDGE OF CONCRETE		

## LEGEND

EXISTING	PROPOSED
BOUNDARY LINE	BOUNDARY LINE
ADJACENT BOUNDARY LINE	LOT LINE
ADJACENT LOT LINE	EASEMENT LINE
EASEMENT LINE	CENTER LINE
INDEX CONTOUR	INDEX CONTOUR
INTERMEDIATE CONTOUR	INTERMEDIATE CONTOUR
TEST HOLE LOCATION	SLOPE / GRADE
CURB AND GUTTER	SPOT ELEVATION
SIGN	
FENCE	
LIGHT POLE	
MANHOLE	
UTILITY POLE	
MISC OBJECT	
PILE	
CULVERT	
ROCK	
MAILBOX	
TREE	
RIPRAP	
POLE-ANCHOR	

## OWNERS STATEMENT

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

TAKER NABULSI \_\_\_\_\_ DATE \_\_\_\_\_  
CO-TRUSTEE, NABULSI ABUSHABAN FAMILY TRUST

## DESIGN ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

DAVID R. GORMAN, P.E. \_\_\_\_\_ DATE \_\_\_\_\_  
FOR AND ON BEHALF OF M.V.E. INC.

## EL PASO COUNTY

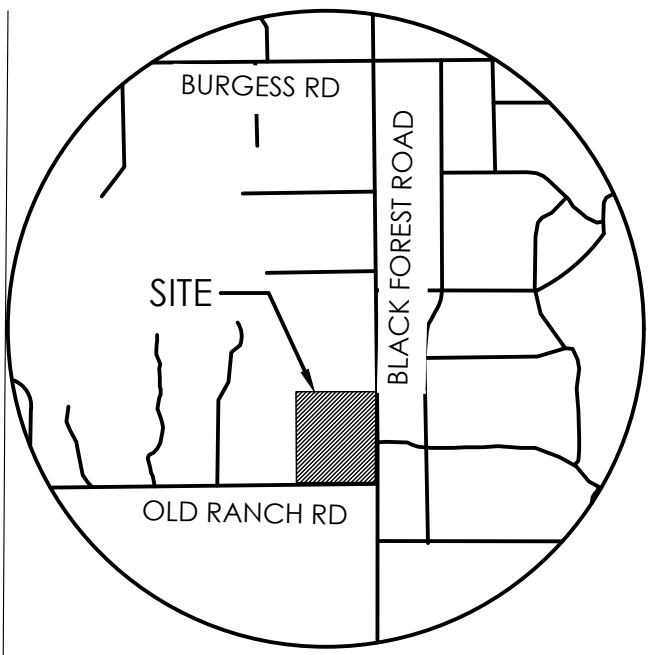
COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY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

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

IN ACCORDANCE WITH ECM SECTION 1.1.2, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JOSHUA PALMER, P.E. \_\_\_\_\_ DATE \_\_\_\_\_  
COUNTY ENGINEER / ECM ADMINISTRATOR

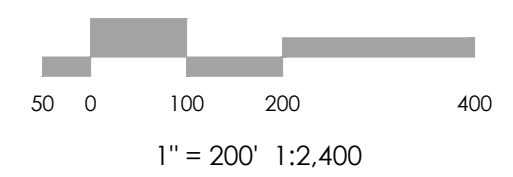
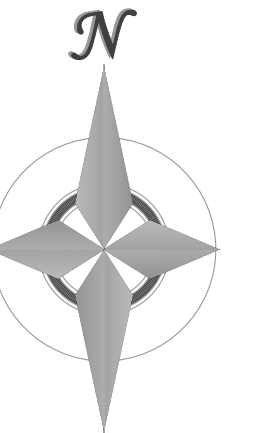
PCD PROJ. NO. MS22-011



## VICINITY MAP

NOT TO SCALE

BENCHMARK  
THE BENCHMARK FOR THESE PLANS IS THE NO. 4 REBAR, LOCATED APPROX. 40' EAST OF THE PROPOSED ROADWAY & 10' NORTH OF EXISTING OLD RANCH ROAD EDGE OF GRAVEL. ELEVATION = 7273.40' (NAVD89).



**MVE, INC.**  
ENGINEERS / SURVEYORS  
1903 Lelany Street, Suite 200 Colorado Springs, CO 80909 719.635.5736

## REVISIONS

DESIGNED BY \_\_\_\_\_  
DRAWN BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

## ASHUBAN-NABULSI SUBDIVISION

## CONSTRUCTION DRAWINGS

## COVER SHEET

# C1.1

MVE PROJECT 61201  
MVE DRAWING CON-CS

SEPTEMBER 21, 2023

SHEET 1 OF 3

NABULSI ROAD  
CENTERLINE DATA:

BEGIN  
STA 0+00.00  
N: 9,991.03'  
E: 14,745.63'

①  
N 0°1'20" W  
34.94'

PC = 1+00.22  
PT = 2+51.05  
L = 150.82'  
Δ = 43°12'27"  
R = 200'

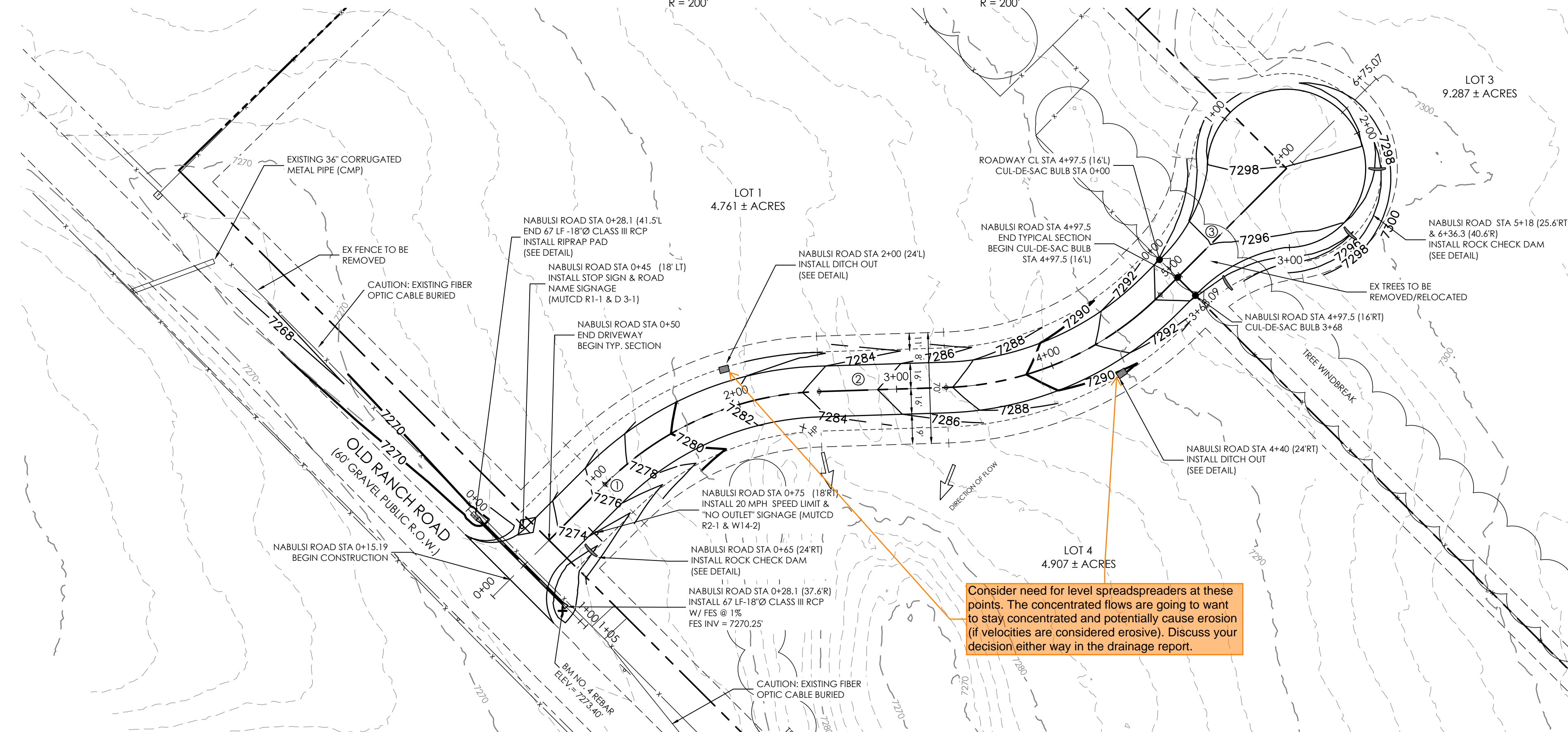
②  
N 43°11'07" E  
80.21'

PC = 3+31.26  
PT = 4+82.08  
L = 150.82'  
Δ = 43°12'27"  
R = 200'

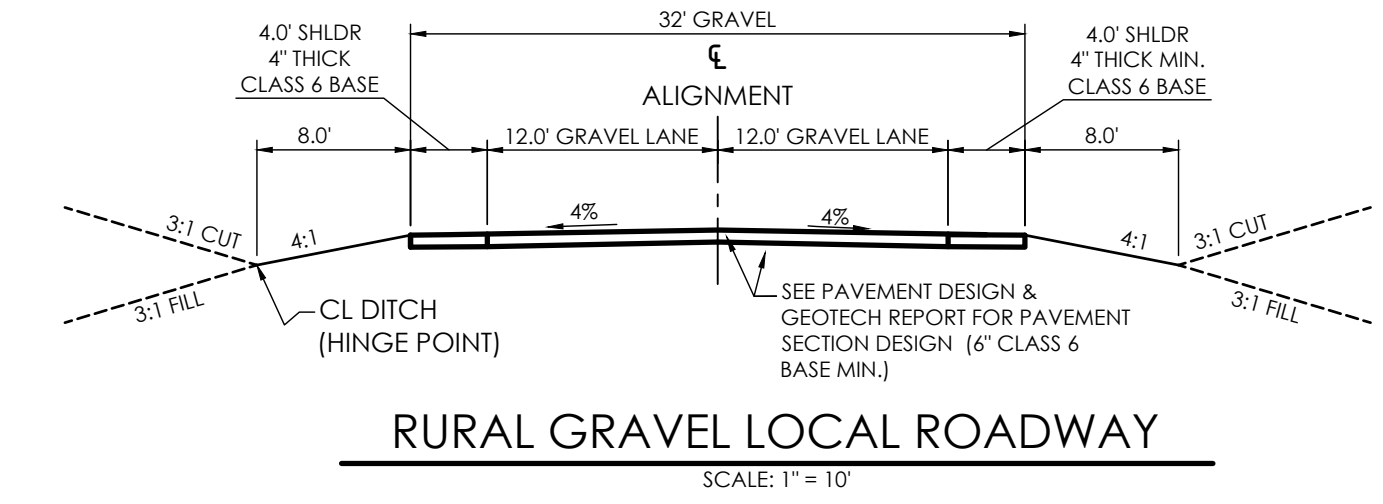
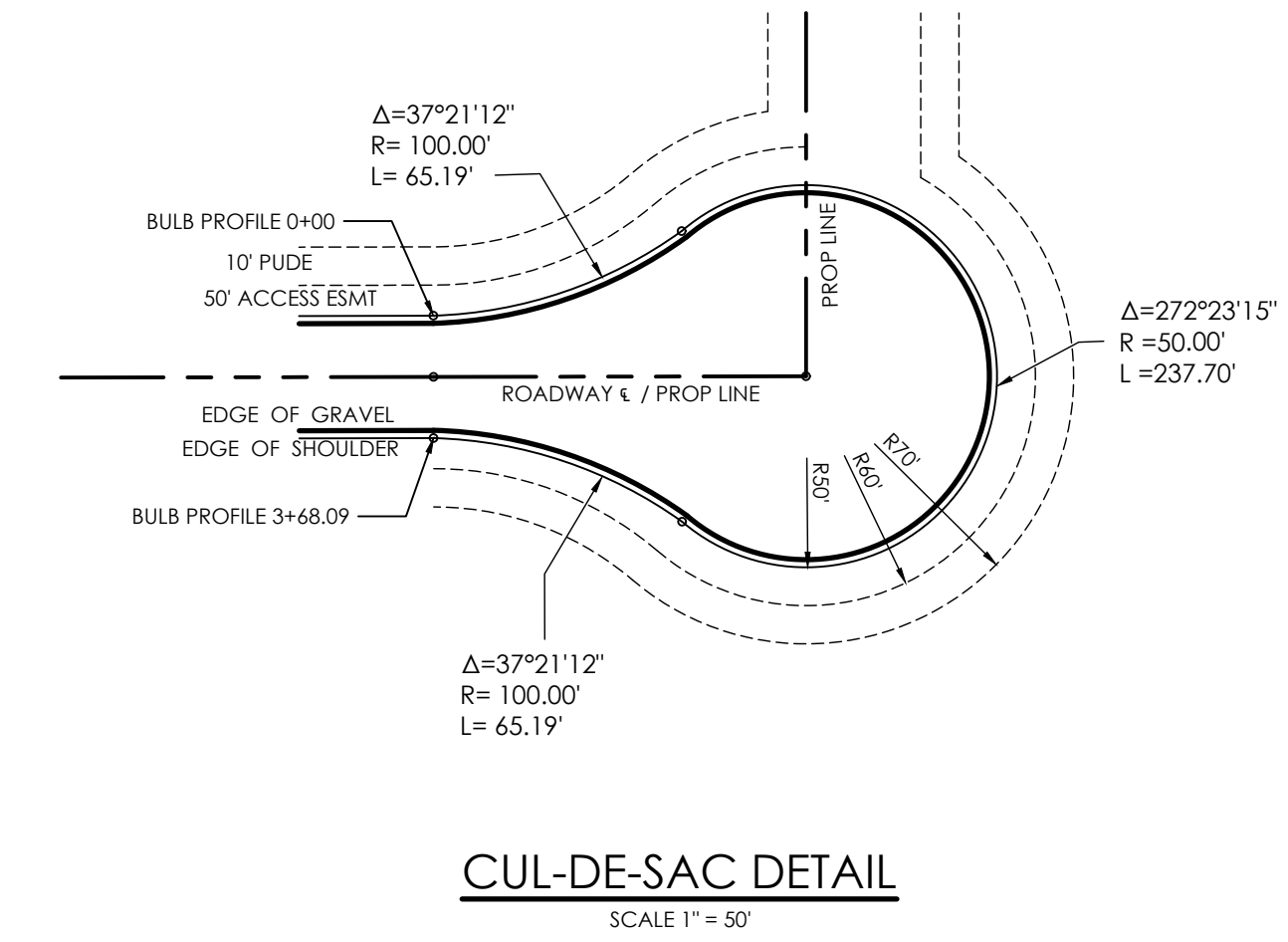
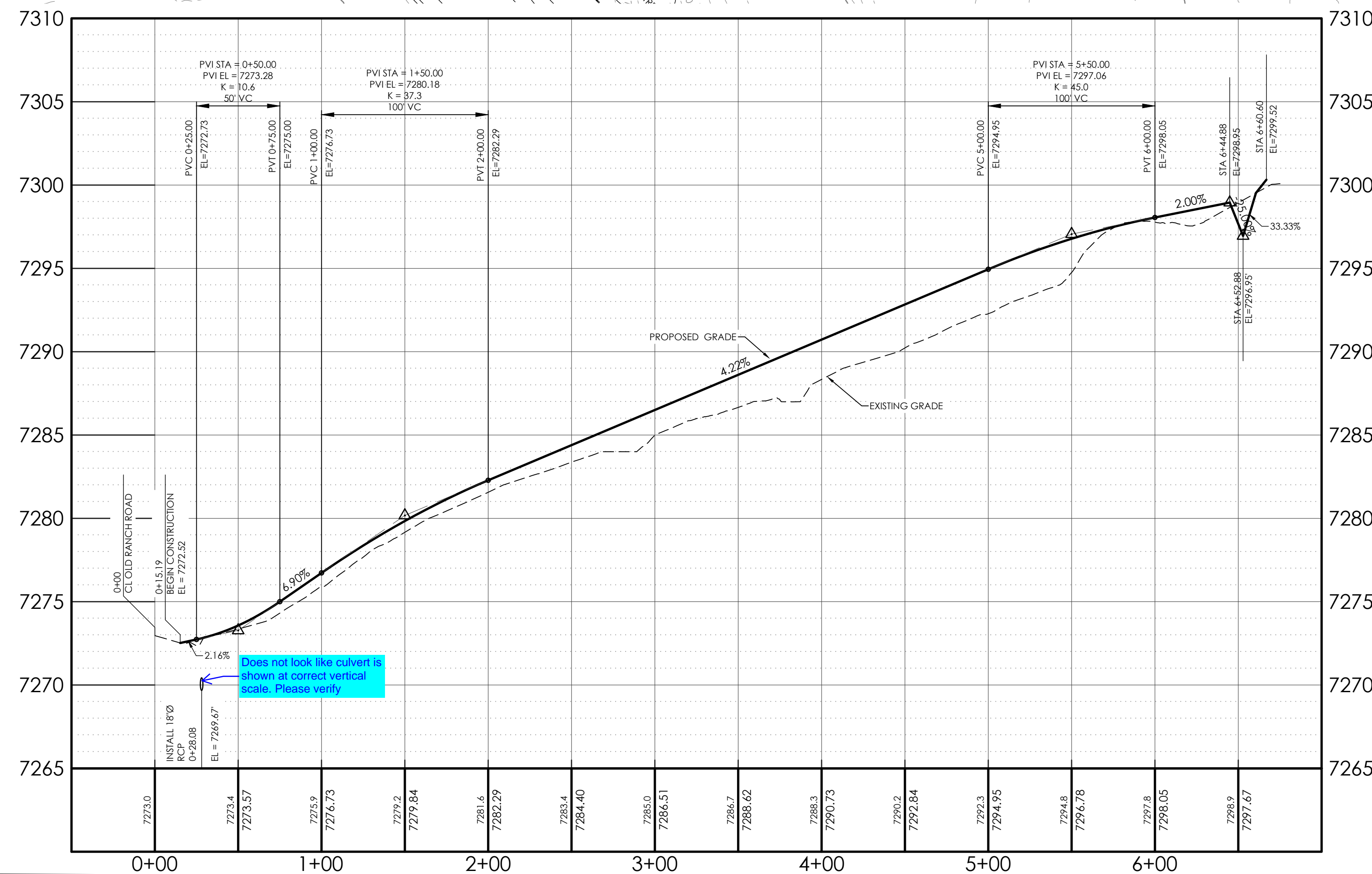
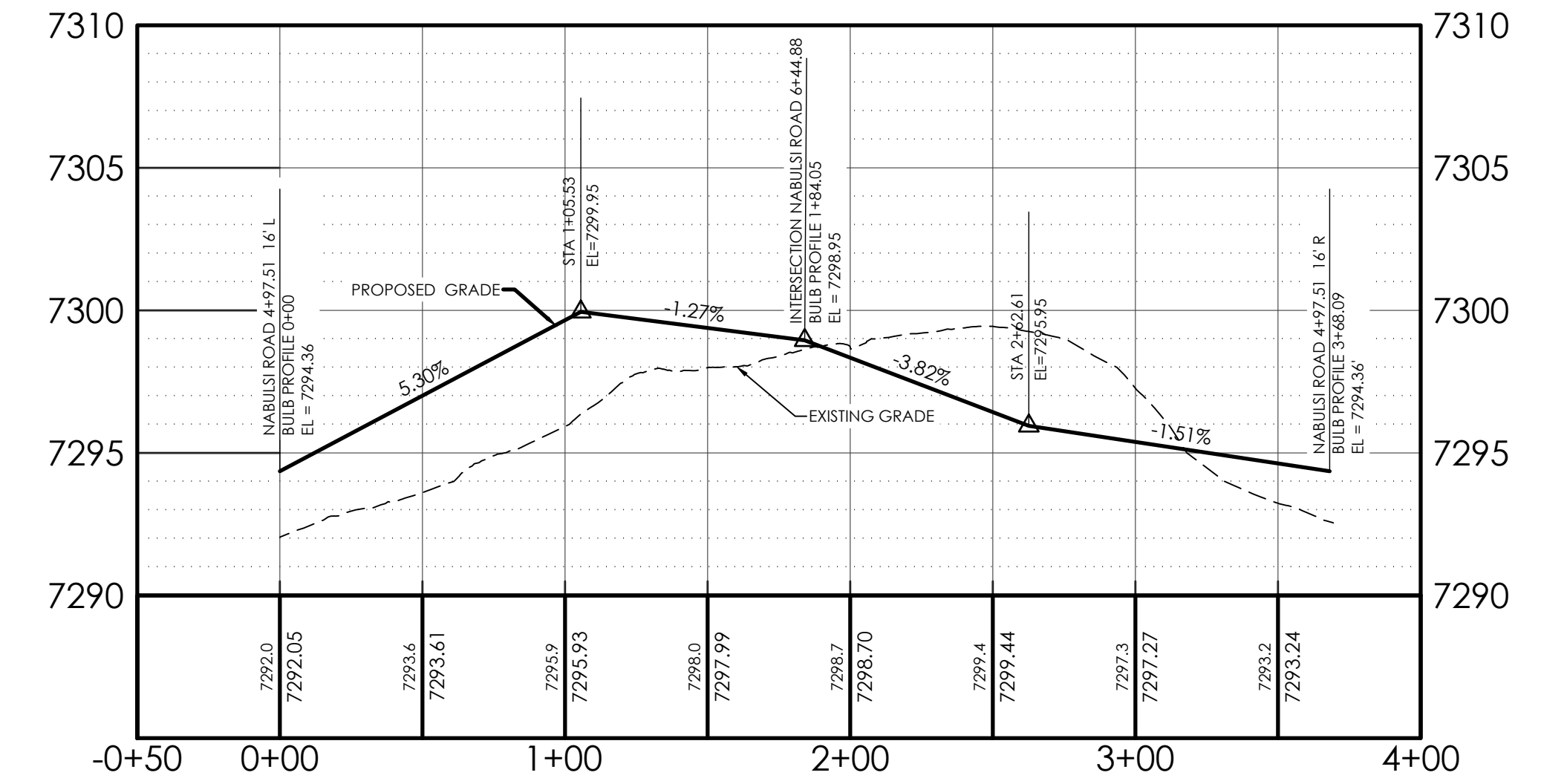
③  
N 00°01'20" W  
112.73'

④  
N 00°01'20" W  
50.00'

BEGIN  
STA 6+75.07  
N: 10,616.63'  
E: 14,908.76'



CUL-DE-SAC BULB PROFILE  
SCALE 1" = 50'



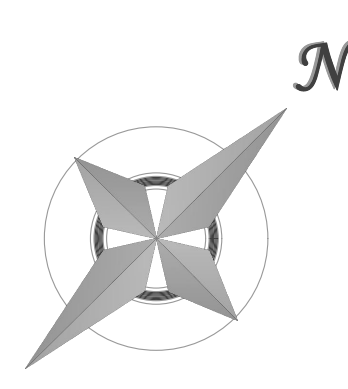
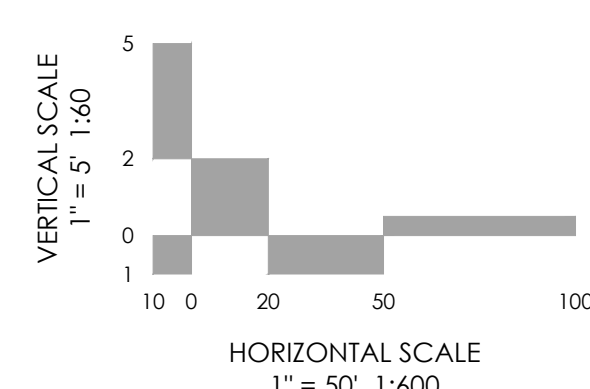
Per Drainage Letter, portion of roadside ditch requires protection. Please provide detail for that portion of ditch and label/indicate section on plan.

BENCHMARK: THE BENCHMARK FOR THESE PLANS IS THE NO. 4 REBAR, LOCATED APPROX. 40' EAST OF THE PROPOSED ROADWAY & 10' NORTH OF EXISTING OLD RANCH ROAD EDGE OF GRAVEL. ELEVATION = 7273.40' (NAVD88).

BASIS OF BEARINGS: THE SOUTH PROPERTY LINE OF LOT 4 WITH BEARING N89°58'40"E AND A DISTANCE OF 609.76'.

DESIGN DATA:  
SIDEWALKS: WIDTH N/A  
LOCATION: Attached  Detached   
DESIGN SPEED: 20 MPH  
CURB TYPE:  A  B  C  D  E  
ROW WIDTH: N/A FL-FL N/A  
STREET TYPE: RURAL GRAVEL LOCAL

PAVEMENT:  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



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REVISIONS

MVE PROJECT **61201**  
MVE DRAWING **-CON-PP1**

**SEPTEMBER 21, 2023**

DESIGNED BY \_\_\_\_\_  
DRAWN BY JO \_\_\_\_\_  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**NABULSI ROAD**  
FROM STA 00+00.00

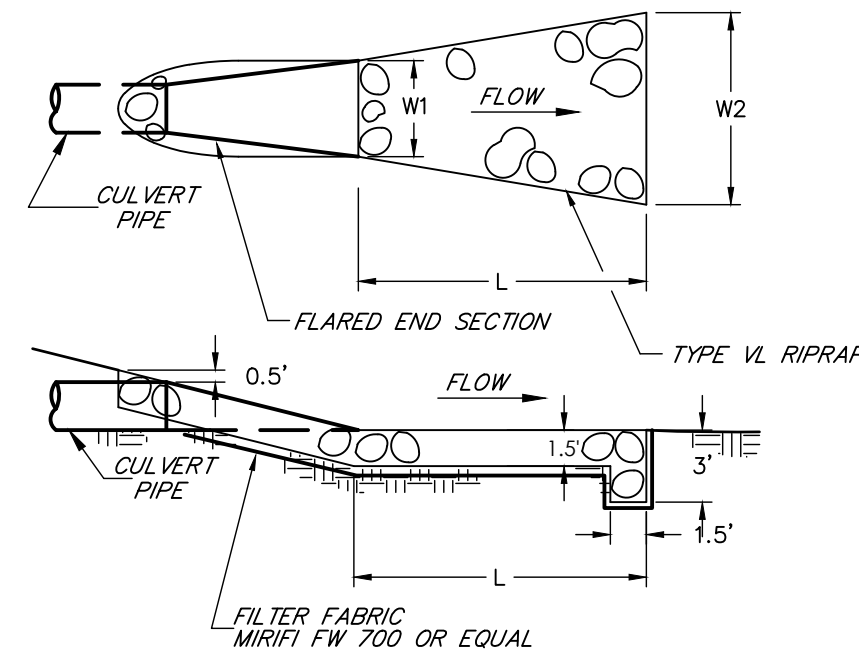
TO STA 6+61

NABULSI-ABUSHABAN SUBDIV.

**C1.2**

SHEET 2 OF 3

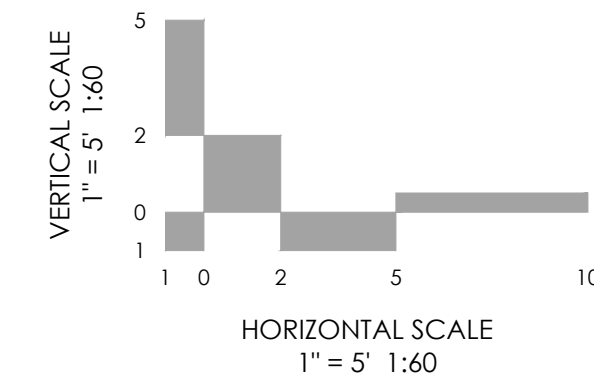
RIP-RAP GRADATION TABLE	
% SMALLER BY WEIGHT	TYPE VL INTER-ROCK DIM.(INCHES)
70 - 100	$d_{100} = 12$
50 - 70	$d_{70} = 9$
35 - 50	$d_{50} = 6$
2 - 10	$d_{10} = 2$



OUTLET  
RIPRAP AT CULVERT ENDS  
NTS

CULVERT NO.	CULVERT PIPE DATA				CULVERT OUTLET APRON DATA			
	ROAD NAME	ROAD STATION	RC PIPE DIA.	RC PIPE LENGTH (FT.)	FLARED END SECTION	W1 (FT.)	W2 (FT.)	L (FT.)
1	NABULSI ROAD	0+28.1	18"	79'	2	3	3	5

VOID-FILLED RIPRAP AND GRADATION			
RIPRAP DESIGNATION	% SMALLER THAN GIVEN SIZE BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	D50 (INCHES)
TYPE VL	70-100	12	6
	50-70	9	
	35-50	6	
	2-10	2	

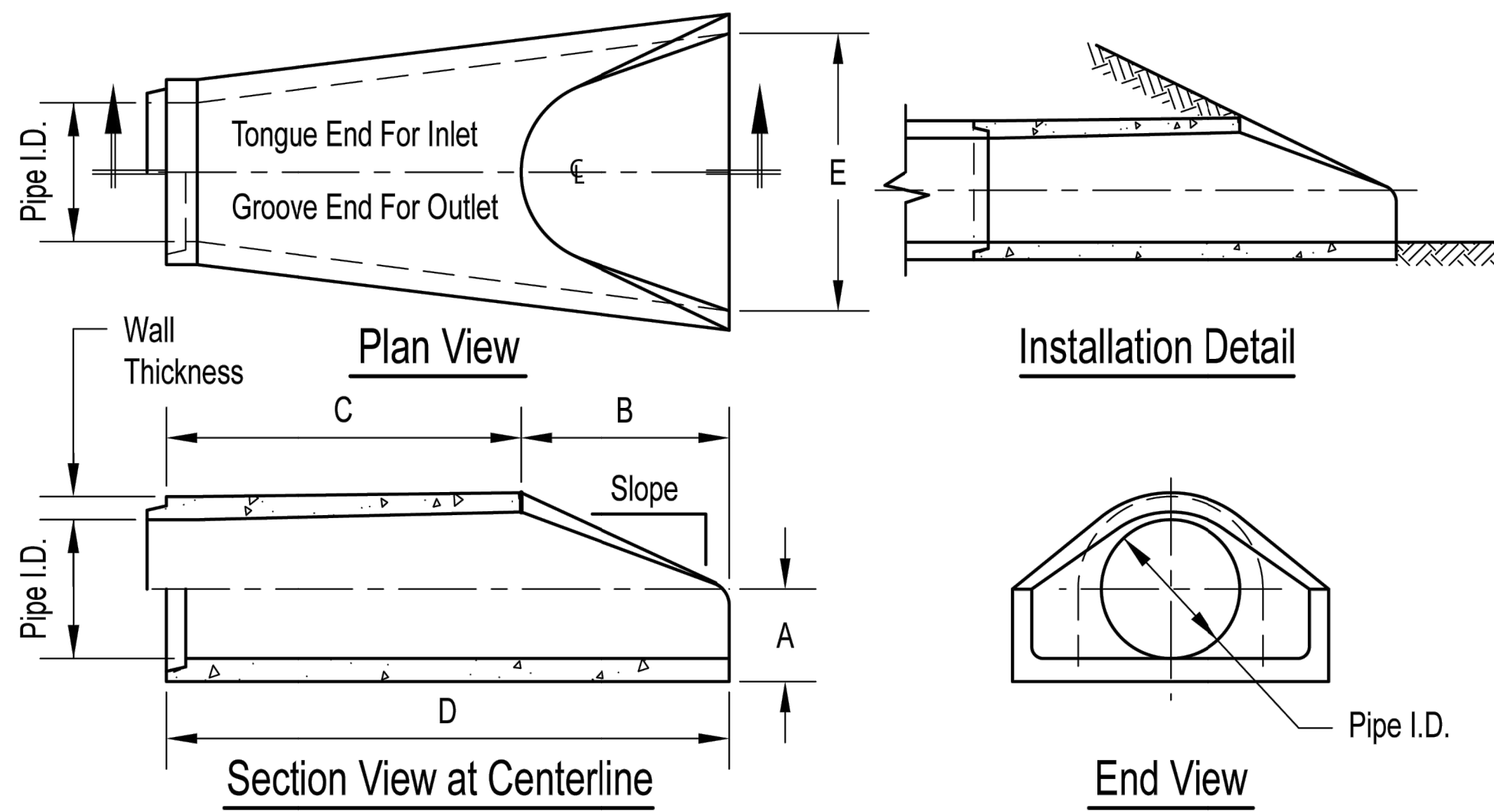


MIX REQUIREMENTS FOR TYPE VL VOID-FILLED RIPRAP (D50 = 6 - INCH)		
APPROPRIATE PROPORTIONS (BY VOLUME)	MATERIAL TYPE	MATERIAL DESCRIPTION
6 PARTS	RIPRAP	D50 = 6 INCH (TYPE VL)
1 PART	VOID-FILL MATERIAL	VTC (VEHICLE TRACKING CONTROL) ROCK (CRUSHED ROCK WITH 100% PASSING 4-INCH SIEVE, 50-70% PASSING 3-INCH SIEVE, 0-10% PASSING 2-INCH SIEVE)
1 PART	VOID-FILL MATERIAL	4-INCH MINUS PIT RUN SURGE (ROUND RIVER ROCK AND SAND, WELL GRADED, 90-100% PASSING 4-INCH SIEVE, 70-80% PASSING 3/4-INCH SIEVE, 40-60% PASSING 1/2-INCH SIEVE, 10-30% PASSING #16 SIEVE)
1 PART	VOID-FILL MATERIAL	TYPE II BEDDING (CRUSHED ROCK WITH 100% PASSING 3-INCH SIEVE, 20-90% PASSING 1/2-INCH SIEVE, 0-20% PASSING #4 SIEVE, 0-3% PASSING #200 SIEVE)
1/2 TO 1 PART	VOID-FILL MATERIAL	NATIVE TOPSOIL



Concrete Pipe Division

Flared End Section  
12" - 72" Diameter Pipe



Pipe Inner Diameter (inches)	Wall Thickness (inches)	A (inches)	B (inches)	C (inches)	D (inches)	E (inches)	Slope
12	2	4	24	48 7/8	72 7/8	30	3:1
15	2 1/4	6	27	46	73	30	3:1
18	2 1/2	9	27	46	73	36	3:1
24	3	9 1/2	43 1/2	30	73 1/2	48	3:1
30	3 1/2	12	54	19 3/4	73 3/4	60	3:1
36	4	15	63	34 3/4	97 3/4	72	3:1
42	4 1/2	21	63	35	98	78	3:1
48	5	24	72	26	98	84	3:1
54	5 1/2	27	65	35	100	90	2.4:1
60	6	30	60	39	99	96	2:1
66	6 1/2	32	78	21	99	102	2:1
72	7	34	78	21	99	108	2:1

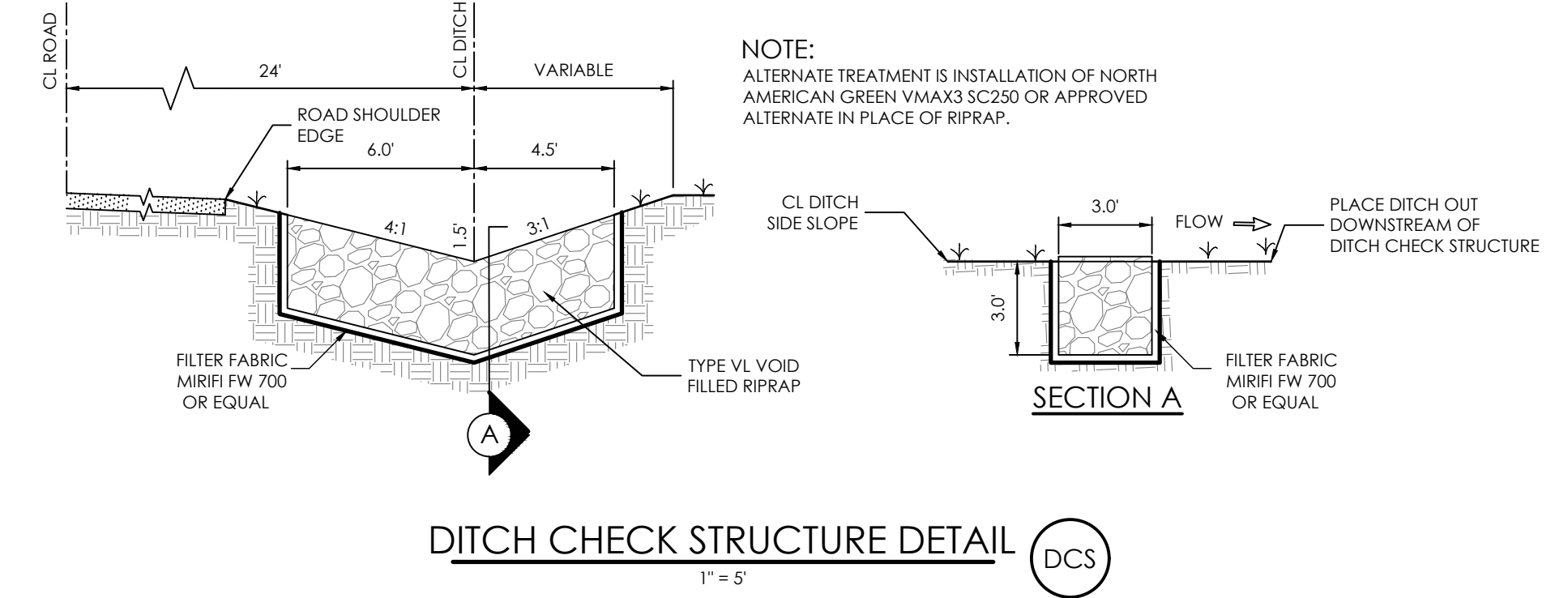
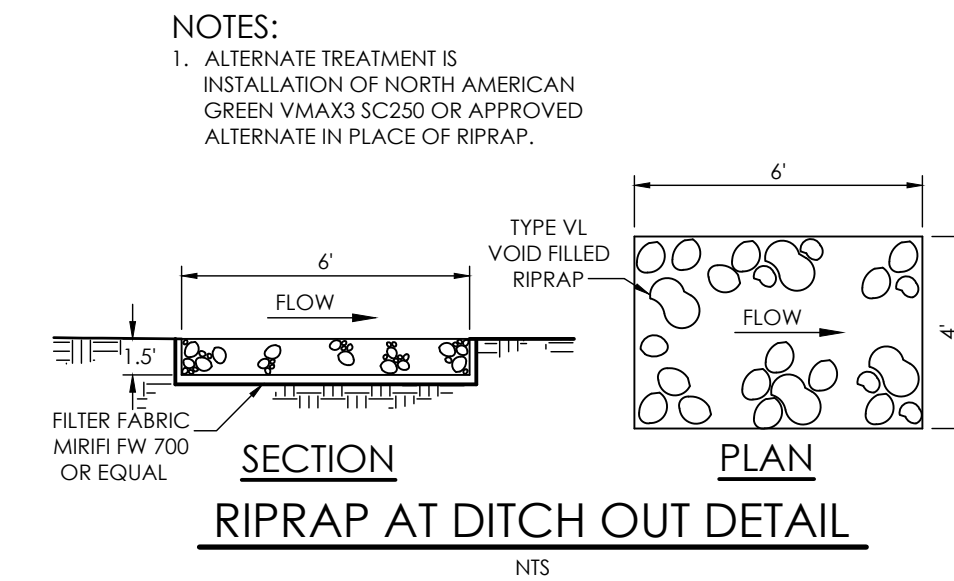
Dimensions may vary depending upon equipment availability.

Notes:

- Produced to meet ASTM specifications.
- Contact a Concrete Pipe Division representative for details not listed on this sheet.

Rinker 024

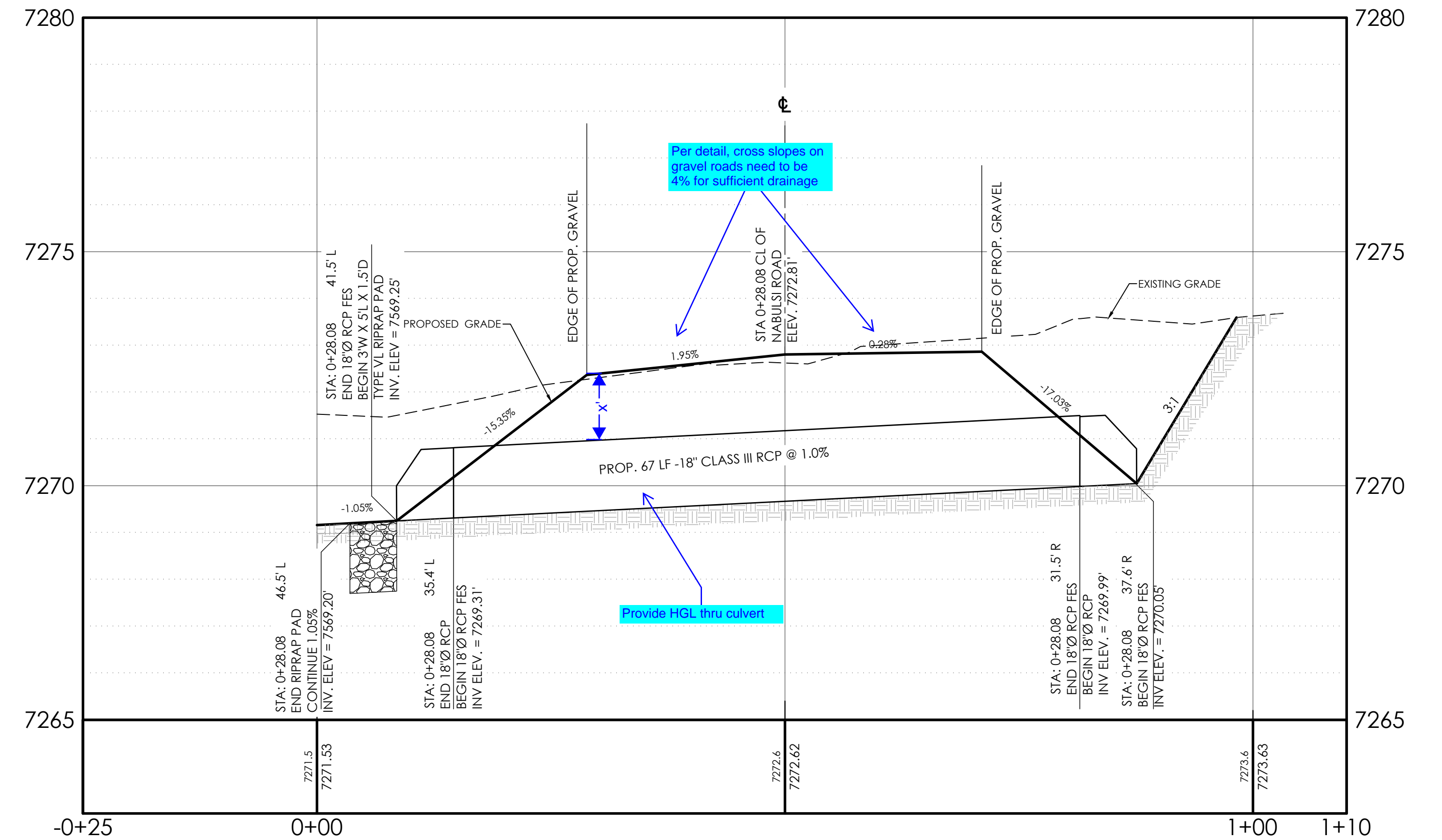
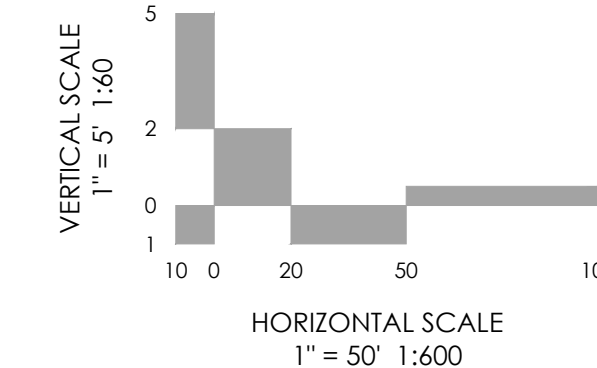
RIP-RAP GRADATION TABLE	
% SMALLER BY WEIGHT	TYPE VL SPECIAL INTER-ROCK DIM.(INCHES)
70 - 100	$d_{100} = 8$
50 - 70	$d_{70} = 6$
35 - 50	$d_{50} = 3$
2 - 10	$d_{10} = 2$



NOTE:  
ALTERNATE TREATMENT IS INSTALLATION OF NORTH AMERICAN GREEN VMX3 SC250 OR APPROVED ALTERNATE IN PLACE OF RIPRAP.

PROPOSED CULVERT  
NABULSI ROAD STA 0+28.08  
HORIZONTAL: 1" = 10'  
VERTICAL: 1" = 2'

Indicate if culvert is public or private



BENCHMARK: THE BENCHMARK FOR THESE PLANS IS THE NO. 4 REBAR, LOCATED APPROX. 40' EAST OF THE PROPOSED ROADWAY & 10' NORTH OF EXISTING OLD RANCH ROAD EDGE OF GRAVEL. ELEVATION = 7273.40' (NAVD88).

BASIS OF BEARINGS: THE SOUTH PROPERTY LINE OF LOT 4 WITH BEARING N89°58'40"E AND A DISTANCE OF 609.76'.

DESIGN DATA:  
SIDEWALKS: WIDTH N/A  
LOCATION: Attached  Detached   
DESIGN SPEED 20 MPH  
CURB TYPE:       
ROW WIDTH: N/A FL-FL N/A  
STREET TYPE: RURAL GRAVEL LOCAL

PAVEMENT:  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



REVISIONS

MVE PROJECT 61201  
MVE DRAWING -CON-DS

JULY 20, 2023

DESIGNED BY \_\_\_\_\_  
DRAWN BY JO  
CHECKED BY \_\_\_\_\_  
AS-BUILT BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

NABULSI ROAD  
FROM STA 00+00.00

TO STA 6+67.5

NABULSI-ABUSHABAN SUBDIV.

C1.2

SHEET 3 OF 3