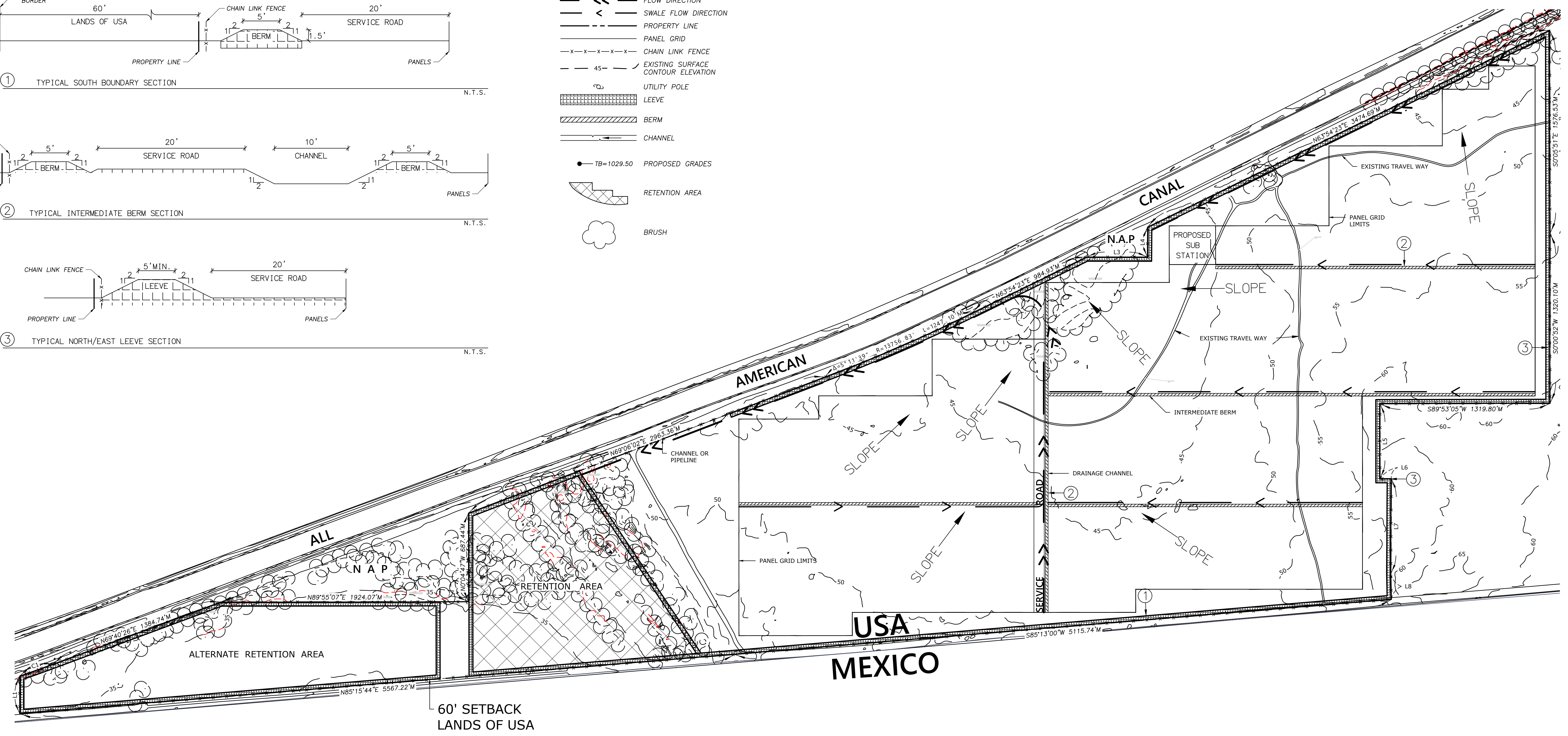
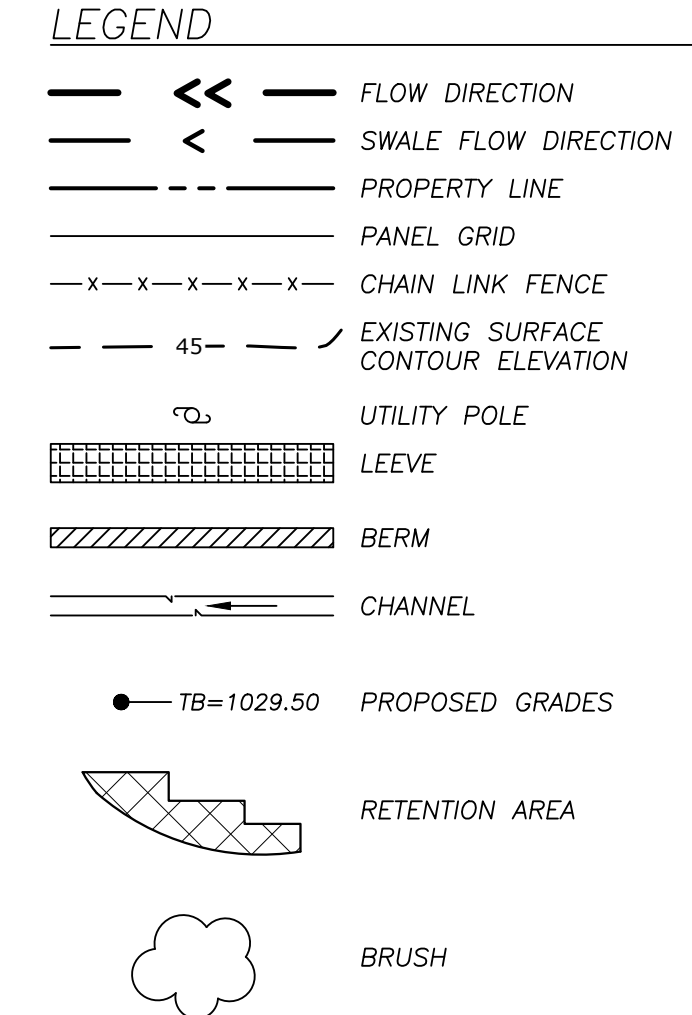
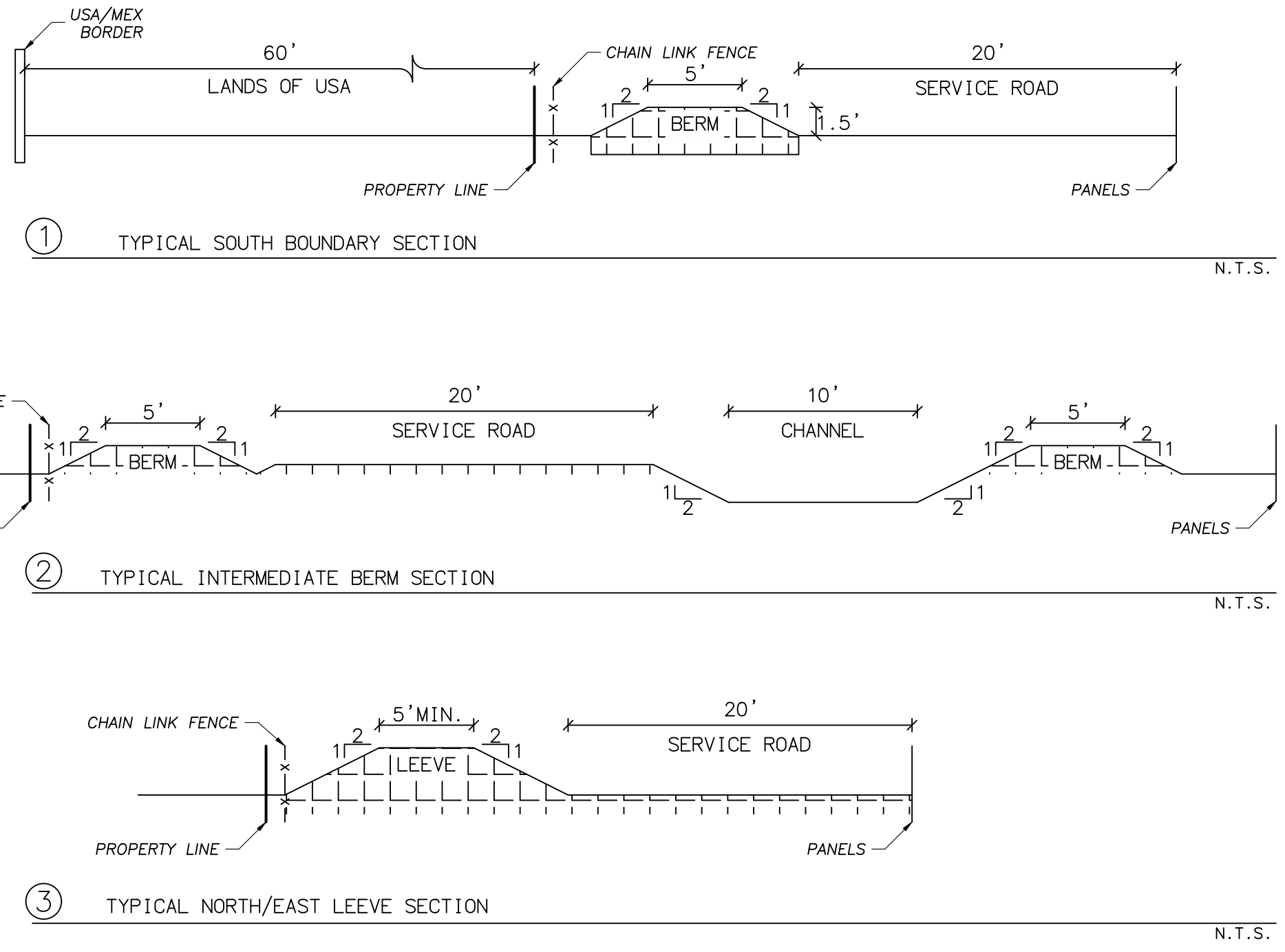
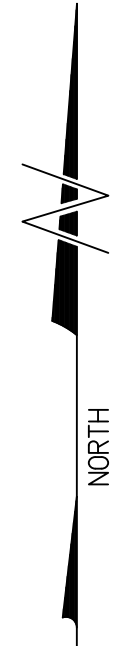


# PRELIMINARY GRADING PLAN



**VERTICAL BENCHMARK**  
 NGS STATION: BR 3 16 A      NGS PID: DB0416  
 BENCHMARK ELEVATION= 50.78'  
 NGS BENCHMARK LOCATION:  
 FROM THE INTERSECTION OF STATE HWY 115 AND U.S. 80 IN HOLTVILLE PROCEED SOUTH ABOUT 7 MILES TO THE INTERSECTION OF STATE HIGHWAYS 115 AND 98, KNOWN AS BONDS CORNER, THEN PROCEED EAST ON HIGHWAY 98 3.2 MILES. THE MARK IS LOCATED APPROXIMATELY 400 FEET SOUTH OF THE HIGHWAY AND IS SET ON THE CENTERLINE OF THE EAST WHEEL GUARD OF THE BRIDGE AT THE EAST HIGHLINE CHECK AT THE POINT WHERE THE EAST HIGHLINE CANAL IS DIVERTED FROM THE ALL AMERICAN CANAL. SECTION 1 T17S, R16E.

**INCREMENTAL INCREASE IN STORM WATER VOLUMES**  
 NUMBER OF ESTIMATED PANEL FRAME FOUNDATIONS: 85 BLOCKS X 3200 PANELS = 272,800 FOUNDATIONS.  
 ASSUME 0.25 S.F. PER FOUNDATION: TOTAL FOUNDATION AREA = 0.25(272,800) = 68,000 S.F.  
 AREA OF FOUNDATIONS IN ELECTRICAL SUBSTATION = 10,000 S.F.  
 TOTAL INCREMENTAL RUNOFF = 0.25 FT. (68,000 S.F. + 10,000 S.F.) = 19,500 CU. FT.  
 i = 3" STORM (100 YEAR)  
 A = 520 ACRES (SOLAR FARM AREA)  
 C = 1.0 PER COUNTY STANDARD  
 Q = CIA  
 Q = 1.0(0.25) 520AC  
 Q = 130 AC FT. = 5,662,800 C.F. + 19,500 C.F. = 5,682,300 C.F.  
**RETENTION AREA**  
 WEST SIDE = 800' AVERAGE WIDTH X 7.9' AVERAGE DEPTH X 900' LENGTH = 5,688,000 C.F. > 5,682,300 C.F. ∴ OK

**NOTES**

- THE HORIZONTAL AND VERTICAL CONTROL WAS PERFORMED BY PRECISION ENGINEERING AND SURVEYING IN OCTOBER, 2020.
- THE AERIAL PHOTOGRAPHY WAS PERFORMED BY COOPER AERIAL ON OCTOBER 16, 2020
- SOLAR FARM PANEL AREA IS 324 ACRES.
- NO ADJUSTMENTS HAVE BEEN MADE TO THE PANEL LAYOUT OR LEEVE LOCATION FOR ENVIRONMENTAL ISSUES. THIS WOULD INCLUDE WETLANDS, RIPARIAN HABITAT OR CULTURAL LOCATIONS. MINOR MODIFICATIONS MAY BE REQUIRED.

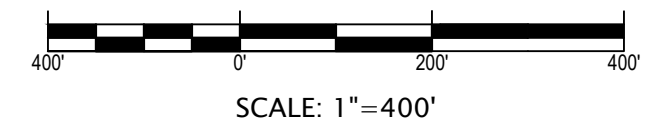
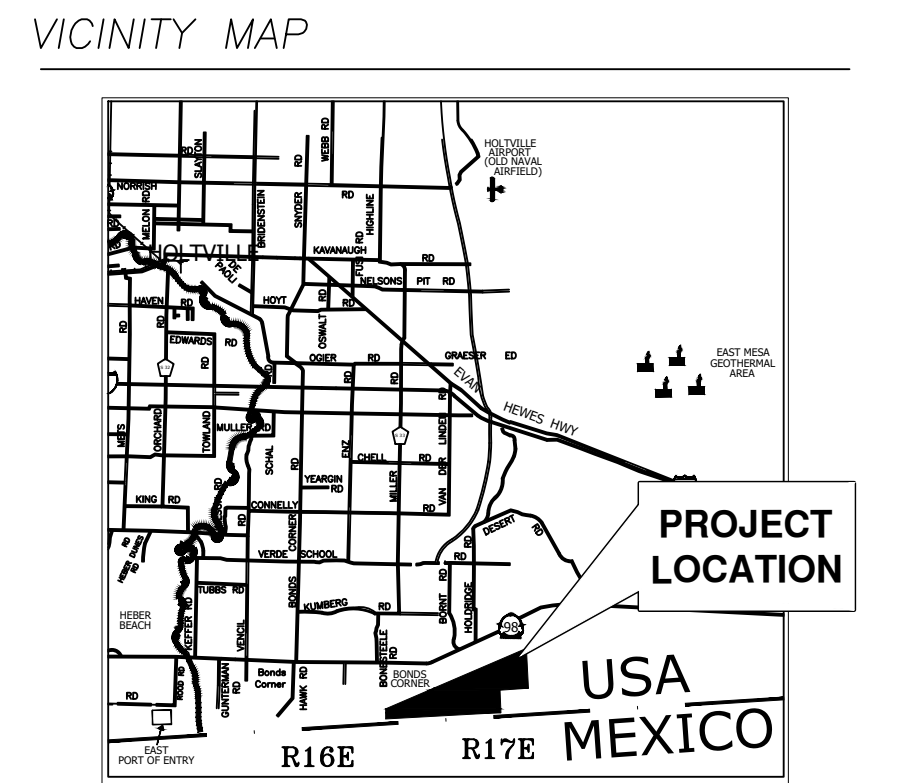
**FEMA NOTE**  
 AS SHOWN ON THIS SURVEY, PART OF THE SUBJECT LAND IS LOCATED IN A 100-YEAR FLOOD PLAIN OR IN AN IDENTIFIED "FLOOD PRONE AREA", AS DEFINED PURSUANT TO THE FLOOD DISASTER PROTECTION ACT OF 1973, AS AMENDED, AS REFLECTED BY FLOOD INSURANCE RATE MAP PANEL #06025C2125C DATED SEPTEMBER 26, 2008. THE SUBJECT PARCEL IS LOCATED IN ZONE "X."

**GRADING / DRAINAGE METHODOLOGY**  
 THE DOYLE RANCH SOLAR FARM PROJECT IS APPROXIMATELY 521 GROSS ACRES SOUTH OF THE ALL AMERICAN CANAL AND NORTH OF THE MEXICO BOUNDARY, OF WHICH 510 ACRES WILL BE DEVELOPED. THE DEVELOPED AREA WILL BE SURROUNDED BY A LEEVE THAT WILL PROTECT THE PANELS. A LEEVE DESIGNED FOR A 100 YEAR EVENT WILL DIVERT THE STORMWATER AROUND THE SITE TO FLOW TO THE RETENTION AREA.  
 THE DEVELOPED PANEL AREA WILL HAVE RETENTION AREAS OUTSIDE THE ALL AMERICAN CANAL RIGHT OF WAY ON THE NORTH SIDE OF THE PROJECT. THE RETENTION AREA SHOULD BE DESIGNED MINIMAL FOR THE INCREMENTAL INCREASE IN STORMWATER CAUSED BY THE PANEL SUPPORTS.  
 ALL THE STORMWATER IS PROPOSED TO REMAIN ON SITE.

LINE TABLE			
#	BEARINGS	LENGTH	REF.
L1	N0°01'40"E	291.80'	M
L2	N0°12'49"W	631.85'	M
L3	S89°58'41"E	473.41'	M
L4	N0°21'06"E	232.74'	M
L5	S0°01'05"E	581.39'	M
L6	N89°56'50"E	88.08'	M
L7	N0°19'18"E	737.95'	M
L8	N0°11'59"W	199.78'	M

CURVE TABLE				
#	DELTA	RADIUS	LENGTH	REF.
C1	01°21'59"	11659.20'	278.06'	M



DOYLE  
 PORTION OF SECTIONS 10, 11 & 12, T17S-R16E S.B.M.

GRADING PLAN FOR APEX ENERGY: SES 4		SHEET No.
LOCATION: PORTIONS OF SECTIONS 10, 11 AND 12 IN T.17S.-R.16E. S.B.M.		1
Precision Engineering & Surveying, Inc. P.O. Box 2216 El Centro, CA 92244 Telephone: (760) 353-2684		OF 1 SHEETS
799 E. Hill Avenue El Centro, CA 92243 Fax: (760) 353-2686		DRAWN BY: C.D.
		DATE: 01/18/2021
		REVISED: 03/16/2021
		JOB No. 20-142

PRINTED: 03/16/2021