ALAMEDA GRANT LINE SOLAR 1

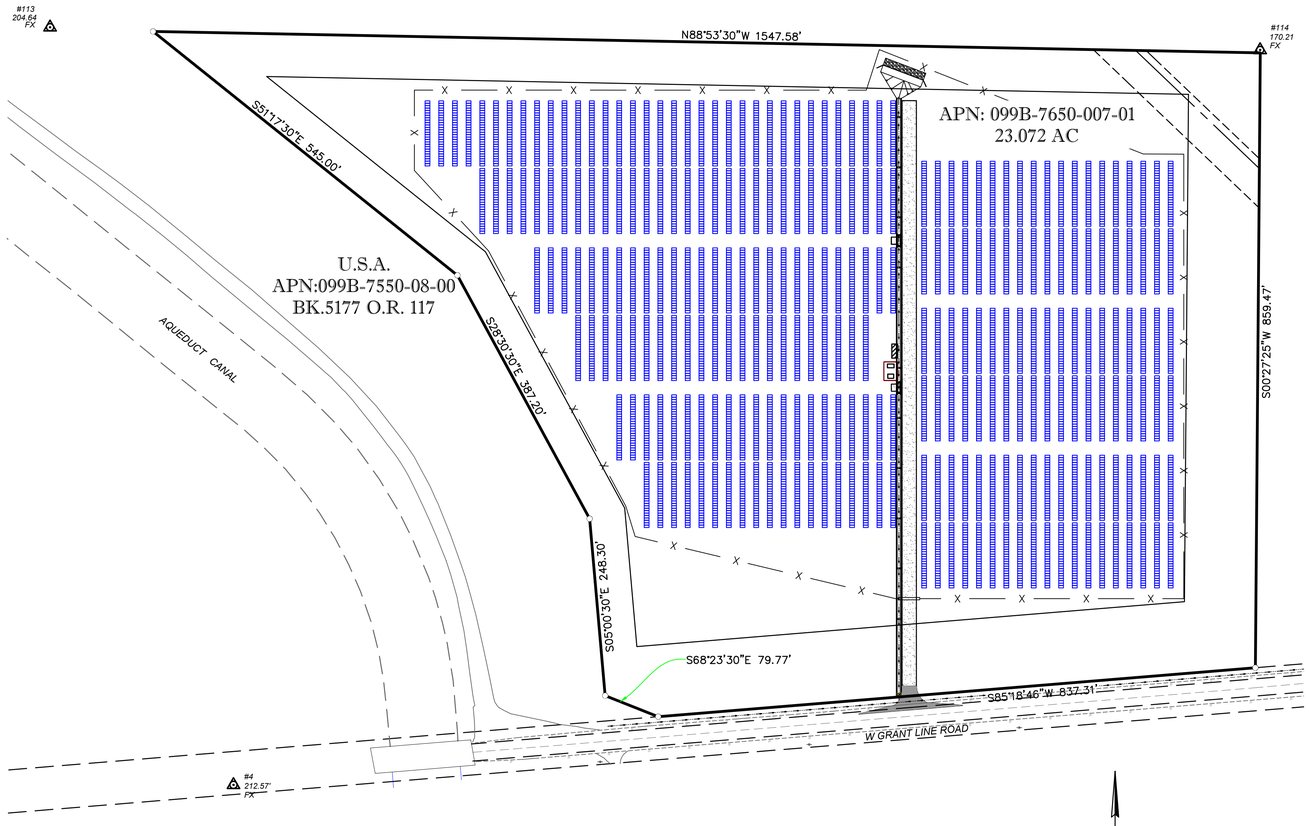
SITE IMPROVEMENT PLANS

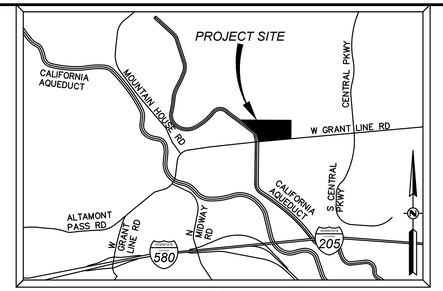
W GRANT LINE RD, UNINCORPORATED ALAMEDA COUNTY 95391

APN: 099B-7650-007-01

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE		
ROW		
EASEMENT		
LOT LINE		
CENTERLINE		
DITCH / FLOWLINE		
EP		
CULVERT WITH FES		
OVERLAND RELEASE PATH		
FENCE		x x x x
MAJOR CONTOUR	25	25
MINOR CONTOUR		
CONTROL POINT	100 100.00 PK	





VICINITY MAP
NOT TO SCALE

SHEET INDEX:

BENCHMARK:

THE BENCHMARK FOR THIS SURVEY IS AN NGS TRIANGULATION STATION DISK PID "HS4994", STAMPED "MEDA 1946" SET IN CONCRETE, LOCATED 36.6 FEET WEST OF TELEPHONE POLE 56, 10 FEET SOUTH OF THE SOUTH EDGE OF PAVEMENT OF GRANT LINE ROAD, AS SHOWN ON SHEET 2 OF THIS MAP.

ELEVATION = 229.00 FEET (NAVD 88 DATUM)

FLOOD PLAIN:

SUBJECT PROPERTY IS LOCATED WITHIN ZONE X WHICH IS WITHIN AN AREA PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD
FLOOD INSURANCE RATE MAP COMMUNITY PANEL NO.: (06001C0225G)
DATED: (AUGUST 3, 2009)

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE 2, GRID NORTH, AS ESTABLISHED BY GPS OBSERVATIONS.

ZONING:

EXISTING: AGRICULTURAL (A)
PROPOSED: NO CHANGE

JURISDICTION:

ALAMEDA COUNTY

PROPERTY OWNER / DEVELOPER:

MANINDER SANDHU
3972 DURHAM FERRY RD
TRACY, CA 95304
manii.sandhu@gmail.com

GEOTECHNICAL REPORT:

REPORT BY:
REPORT NO.:
DATED:

NOTICE TO CONTRACTOR - SWPPP

THIS PROJECT HAS AN APPROVED STATE GENERAL CONSTRUCTION PERMIT AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

WDID # TBD

CONTRACTOR IS RESPONSIBLE TO HIRE A STATE CERTIFIED QSP (QUALIFIED SWPPP PRACTITIONER) TO OVERSEE IMPLEMENTATION OF THE SWPPP PRIOR TO START OF CONSTRUCTION. ALL REQUIRED INSPECTIONS, TRAINING AND REQUIRED TESTING AND REPORTING SHALL BE OVERSEEN BY THE QSP.

THE FINAL APPROVED SWPPP SHALL BE KEPT ON THE CONSTRUCTION SITE DURING CONSTRUCTION AND MAINTAINED BY THE QSP.

CONTRACTOR SHALL SEND THE FINAL SWPPP WITH ALL INSPECTION, TESTING, AMENDMENTS, REPORTS AND OTHER DOCUMENTATION TO THE OWNER ONCE CONSTRUCTION HAS BEEN COMPLETED AND THE NOTICE OF TERMINATION SUBMITTED.

CONTRACTOR SHALL HAVE A PRE-CONSTRUCTION MEETING AND INCLUDE THE QSP AND CIVIL ENGINEER IN THE MEETING, EITHER ON-SITE OR VIA TELEPHONE CONFERENCE.

NOTICE TO CONTRACTOR - ORDER OF WORK:

PRIOR TO THE START OF ANY CIVIL WORK, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES BY POTHOLING AT ALL POINTS OF POTENTIAL CONFLICT WITH PROPOSED UTILITIES OR PROPOSED POINTS OF CONNECTION WITH EXISTING UTILITIES. IF THE ACTUAL LOCATIONS OF THE EXISTING UTILITIES FOUND IN THE FIELD ARE DIFFERENT FROM WHAT IS SHOWN ON THESE PLANS, THE CONTRACTOR SHALL CONTACT RFE ENGINEERING IMMEDIATELY AND PROVIDE THE ACTUAL LOCATION INFORMATION. RFE ENGINEERING WILL VERIFY IF THERE ARE ANY CONFLICTS WITH THE IMPROVEMENTS AND WILL PROVIDE MODIFICATIONS TO THE DESIGN TO MITIGATE THE CONFLICTS IF ANY CONFLICTS EXIST.

TOTAL DISTURBED AREA: 14.40 AC

RAW EARTHWORK SUMMARY

CUT: 861.5 CY
FILL: 0 CY
NET: 861.5 CY EXPORT

NOTE:
EARTHWORK QUANTITIES ARE ESTIMATED TO SUBGRADE AND DO NOT TAKE INTO ACCOUNT SHRINKAGE, EXCESS MATERIALS FROM TRENCHING AND MISC. UNKNOWN STRUCTURAL SECTIONS. CONTRACTOR SHOULD VERIFY EARTHWORK QUANTITIES.

ABBREVIATIONS:

AB	AGGREGATE BASE	FL	FLOW LINE	POC	POINT OF CONNECTION
AC	ASPHALT CONCRETE	FOC	FACE OF CURB	PRC	POINT OF REVERSE CURVE
ARV	AIR RELEASE VALVE	FP	FINISH PAVEMENT	PT	POINT OF TANGENCY
BC	BEGIN CURVE	FS	FIRE SPRINKLER	PUE	PUBLIC UTILITY EASEMENT
BCR	BEGIN CURVE RETURN	GB	GRADE BREAK	PVI	POINT OF VERTICAL INTERSECTION
BLDG	BUILDING	GR	GRATE ELEVATION	RC	RELATIVE COMPACTION
BOC	BACK OF CURB	GV	GATE VALVE	RCP	REINFORCED CONCRETE PIPE
BOW	BACK-OF-WALK	GVW	GROSS VEHICLE WEIGHT	ROW	RIGHT-OF-WAY
BVC	BEGIN VERTICAL CURVE	HC	HANDICAP	RT	RIGHT TURN OR RIGHT
BW	BOTTOM OF WALL	HCR	HANDICAP RAMP	RPPA	REDUCED PRESSURE PRINCIPLE ASSEMBLY
CAB	CABINET	HDPE	HIGH DENSITY POLYETHYLENE	RW	RETAINING WALL
CONC	CONCRETE	HP	HIGH POINT	SDMH	STORM DRAIN MANHOLE
C&G	CURB & GUTTER	IRR	IRRIGATION	SD	STORM DRAIN
CG&S	CURB, GUTTER & SIDEWALK	INV	INVERT	SE	SOUTHEAST
CH	CHORD	I.E.	INVERT ELEVATION	SS	SANITARY SEWER
℄	CENTERLINE	JP	JOINT POLE	SSCO	SANITARY SEWER CLEAN OUT
CMP	CORRUGATED METAL PIPE	L	LENGTH	SSMH	SANITARY SEWER MANHOLE
CR	CURB RETURN	LF	LINEAL FEET	SWCT	SAWCUT
CTV	CABLE TV	LIP	LIP OF GUTTER	SW	SIDEWALK OR SOUTHWEST
DCDA	DOUBLE CHECK DETECTOR ASSEMBLY	LP	LOW POINT	STA	STATION
		LT	LEFT TURN OR LEFT	TC	TOP OF CURB
DI	DRAIN / DROP INLET	MAX	MAXIMUM	TP	TOP OF PAVEMENT
DIP	DUCTILE IRON PIPE	MH	MAINTENANCE HOLE	TS	TOP OF SIDEWALK
DS	DOWN SPOUT	MIN	MINIMUM	TW	TOP OF WALL
(E)	EXISTING	NE	NORTHEAST	UNO	UNLESS NOTED OTHERWISE
EC	END CURVE	NW	NORTHWEST	W	WATER
ECR	END CURB RETURN	OC	ON CENTER	WV	WATER VALVE
EP	EDGE OF PAVEMENT	OH	OVERHEAD	WM	WATER METER
ETW	EDGE OF TRAVELED WAY	OHT&E	OVERHEAD TELEPHONE & ELECTRIC	WWF	WELDED WIRE FABRIC
EVC	END OF VERTICAL CURVE	OMP	OPEN METAL PIPE	VCP	VITRIFIED CLAY PIPE
FDC	FIRE DEPARTMENT CONNECTION	(P)	PROPOSED	VIF	VERIFY-IN-FIELD
FF	FINISH FLOOR	PCC	PORTLAND CEMENT CONCRETE OR POINT OF COMPOUND CURVE		
FG	FINISHED GROUND	PG	PROFILE GRADE		
FGBW	FINISHED GROUND @ BOT. WALL	PIV	POST INDICATOR VALVE		
FGTW	FINISHED GROUND @ TOP OF WALL	℄	PROPERTY LINE		
FH	FIRE HYDRANT				

811
Know what's **below.**
Call before you dig.
or (800) 227-2600

UTILITY CONTACT INFORMATION

UTILITY	AGENCY	PHONE
GAS	P.G. & E.	(800) 743-5000
ELECTRIC	P.G. & E.	(800) 743-5000
FIRE	ALAMEDA COUNTY FIRE DEPARTMENT	(510) 632-3473
WATER	ALAMEDA COUNTY WATER DISTRICT	(510) 668-4200
SEWER	EAST BAY MUNICIPAL UTILITY DISTRICT	(866) 403-2683
DRAINAGE	ALAMEDA COUNTY PUBLIC WORKS AGENCY	(510) 670-5480
U.S.A.	UNDERGROUND SERVICE ALERT	1-800-227-2600

UTILITY NOTE:

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

APPROVED BY:

COUNTY ENGINEER DATE

APPROVED BY:

WATER AGENCY DATE

ALAMEDA COUNTY FIRE DEPARTMENT

APPROVED AS TO FIRE SERVICE LOCATIONS ONLY. MAIN SIZE DETERMINED BY ALAMEDA COUNTY WATER DISTRICT

BY: DATE

EAST BAY MUNICIPAL UTILITY DISTRICT

PLAN CHECKER DATE

O.K. TO SUBMIT FOR GRID NUMBERING AFTER ALL SEWER CONSTRUCTION IS COMPLETE

SEWER INSPECTOR DATE

BILLING NUMBER:

ALAMEDA COUNTY PUBLIC WORKS AGENCY

PROJECT TITLE: ALAMEDA SOLAR

ASSESSORS PARCEL NUMBER: 099B-7650-007-01

APPROVED:

ORDER NUMBER: DRAINAGE FEE:

CHECKED BY: DRAINAGE APPROVED:

NO.	BY	DATE	REVISION	BY	APPRV'D

DESIGN
DRAWN
QUANT.

0 1 2
ORIGINAL SCALE IS IN INCHES

REGISTERED PROFESSIONAL ENGINEER
No. 64814
Exp. 6-30-23
6/22/21
CIVIL
STATE OF CALIFORNIA

RFE ENGINEERING, INC
Civil Engineers • Planners • Surveyors
2260 Douglas Blvd, Suite 160, Roseville, CA 95661
Ph: 916-772-7800 Fax: 916-772-7804
www.RFEengineering.com

SOLTAGE
66 YORK ST, 5TH FLOOR
JERSEY CITY, NF, 07302

ALAMEDA GRANT LINE SOLAR 1
W GRANT LINE RD
UNINCORPORATED
ALAMEDA COUNTY, 95391

TITLE SHEET

Sheet
C1
1 of 7
06/22/2021

RFE PROJECT 21-067 – ALAMEDA SOLAR; GRANT LINE RD, MOUNTAIN HOUSE, CA

PROJECT GENERAL NOTES:

1. THE EXISTING BOUNDARY AND TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IS FROM A TOPOGRAPHIC SURVEY PLAN PREPARED BY RFE ENGINEERING AND REFERENCED ON SHEET C1. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, ESPECIALLY POINTS OF CONNECTION TO EXISTING FACILITIES FOR ALL IMPROVEMENTS PRIOR TO CONSTRUCTION OF APPLICABLE FACILITIES. CONTRACTOR SHALL NOTIFY RFE ENGINEERING, INC. IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS DISCOVERED.

2. THE CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXEMPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF ENGINEER.

3. EXCAVATIONS SHALL BE ADEQUATELY SHORED, BRACED AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING, BRACING AND SHEETING, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL AFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE. WHERE THE EXCAVATION FOR A CONDUIT TRENCH, AND/OR STRUCTURE IS FIVE FEET OR MORE IN DEPTH, THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING, SHORING AND BRACING OR EQUIVALENT METHOD, FOR THE PROTECTION OF LIFE, OR LIMB, WHICH SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. THE CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.

4. OWNER WILL OBTAIN THE GENERAL BUILDING PERMIT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY ADDITIONAL PERMITS NECESSARY TO PERFORM THE WORK SHOWN ON THESE PLANS FROM THE APPROPRIATE AGENCIES.

5. THE CONTRACTOR SHALL TAKE EFFECTIVE ACTION TO PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE AND SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM HIS FAILURE TO DO SO.

6. THE CONTRACTOR SHALL PROVIDE FOR INGRESS AND EGRESS FOR PRIVATE PROPERTY ADJACENT TO WORK THROUGHOUT THE PERIOD OF CONSTRUCTION. TRAFFIC MOVEMENT SHALL BE MAINTAINED AT ALL TIMES. IF TRAFFIC CONTROL PROCEDURES ARE DEEMED NECESSARY, THE CONTRACTOR SHALL CONFORM TO THE "WATCH HANDBOOK" AND CALTRANS TRAFFIC MANUAL. CITY/COUNTY ENGINEERS APPROVAL IS REQUIRED PRIOR TO ANY DETOURING, DISRUPTION, OR INTERRUPTION OF THE NORMAL TRAFFIC FLOW.

7. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR FURNISHING, INSTALLING, AND MAINTAINING ALL WARNING SIGNS AND DEVICES NECESSARY TO SAFEGUARD THE GENERAL PUBLIC AND THE WORK, AND PROVIDE FOR THE PROPER AND SAFE ROUTING OF ALL VEHICULAR AND PEDESTRIAN TRAFFIC DURING THE PERFORMANCE OF THE WORK. THE REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO THE NORMAL WORKING HOURS.

8. THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR POLICE, FIRE, AMBULANCE, AND THOSE AGENCIES RESPONSIBLE FOR MAINTENANCE OF UTILITIES IN THE VICINITY OF THE JOBSITE.

9. ANY EXTRA CONSTRUCTION STAKING NECESSITATED SOLELY BY THE CONTRACTOR'S NEGLIGENCE WILL BE CHARGED TO THE CONTRACTOR ON A TIME AND MATERIAL BASIS, AND PAID FOR BY THE CONTRACTOR.

10. STATIONING HEREON IS ALONG STREET CENTERLINE UNLESS OTHERWISE SHOWN OR INDICATED.

11. ALL RETURN RADII AND CURB DATA ARE TO BOTTOM FACE OF CURB.

12. ALL QUANTITIES AND PAY ITEMS ARE AND WILL BE BASED ON HORIZONTAL MEASUREMENTS.

13. LENGTHS OF SANITARY SEWERS AND STORM DRAINS ARE HORIZONTAL DISTANCES FROM CENTER TO CENTER OF STRUCTURES, ROUNDED OFF TO THE NEAREST FOOT.

14. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED ON FACILITIES IDENTIFIED BY THE TOPOGRAPHIC SURVEY AND UPON RECORD INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF DESIGN AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 2 WORKING DAYS IN ADVANCE OF CONSTRUCTION TO FIELD LOCATE UTILITIES. **CALL UNDERGROUND SERVICE ALERT (U.S.A.), AT 800-227-2600.** IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXISTENCE AND LOCATION OF THOSE UTILITIES SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED AND MERGED IN THE CONTRACT UNIT PRICE.

15. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE APPLICABLE AGENCY ENGINEER, AT THE CONTRACTOR'S SOLE EXPENSE.

16. ANY RELOCATION OF PUBLIC UTILITIES SHALL BE CONDUCTED IN ACCORDANCE WITH ANY AND ALL REQUIREMENTS OF THE UTILITY COMPANY INCLUDING FEES, BONDS, PERMITS AND WORKING CONDITIONS, ETC. THIS WORK SHALL BE DONE AT NO EXPENSE TO THE UTILITY COMPANY. THE OWNER SHALL PAY THE COST OF ALL SUCH RELOCATION WORK INCLUDING FEES, BONDS, PERMITS, ETC.

17. IF ARCHAEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING, TRENCHING OR OTHER EXCAVATION, EARTHWORK WITHIN 100 FEET OF THESE MATERIALS SHALL BE STOPPED UNTIL A PROFESSIONAL ARCHAEOLOGIST WHO IS CERTIFIED BY THE SOCIETY OF CALIFORNIA ARCHAEOLOGY (SCA) AND/OR THE SOCIETY OF PROFESSIONAL ARCHAEOLOGY (SOPA) HAS HAD AN OPPORTUNITY TO EVALUATE THE SIGNIFICANCE OF THE FIND AND SUGGEST APPROPRIATE MITIGATION MEASURES, IF THEY ARE DEEMED NECESSARY.

18. RFE ENGINEERING, INC. DOES NOT SPECIFY NOR RECOMMEND THE USE OR INSTALLATION OF ANY MATERIAL OR EQUIPMENT WHICH IS MADE FROM, OR WHICH CONTAINS ASBESTOS FOR USE IN THE CONSTRUCTION OF THESE IMPROVEMENTS. ANY PARTY INSTALLING OR USING SUCH MATERIAL OR EQUIPMENT SHALL BE SOLELY RESPONSIBLE FOR ALL INJURIES, DAMAGE OR LIABILITIES, OF ANY KIND, CAUSED BY THE USE OF SUCH MATERIALS OR EQUIPMENT. THE PROVISIONS OF THIS NOTE SHALL APPLY UNLESS THEY ARE EXPRESSLY WAIVED IN WRITING BY OWNER AND RFE ENGINEERING, INC.

19. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT RFE ENGINEERING, INC., AT (916) 772-7800 FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.

20. CONTRACTOR SHALL PROVIDE PROTECTIVE FENCING AROUND EXISTING TREES TO REMAIN. SEE OTHER NOTES ON THESE PLANS, PROJECT CONDITIONS OF APPROVAL, AND SPECIFIC JURISDICTIONAL REQUIREMENTS FOR SUCH FENCING.

PROJECT GENERAL NOTES (CONT.)

21. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT REFERENCED ON SHEET C1.

22. THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL REGULATIONS, LAWS AND ORDINANCES, INCLUDING ALLOWABLE CONSTRUCTION HOURS, CONSTRUCTION NOISE NEAR RESIDENCES, DUST CONTROL AND EROSION CONTROL.

23. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW ALL CONTRACT DOCUMENTS INCLUDING ALL PLANS AND SPECIFICATIONS PREPARED BY OTHER DISCIPLINES FOR THIS PROJECT PRIOR TO THE START OF CONSTRUCTION. SUCH REVIEW SHALL BE CONTINUOUS THROUGHOUT THE CONSTRUCTION PROCESS. ANYTIME THAT A CONFLICT BETWEEN SUCH PLANS AND SPECIFICATIONS IS IDENTIFIED, THE CONTRACTOR SHALL CONTACT RFE ENGINEERING, INC. AND OTHER APPLICABLE DISCIPLINES TO REQUEST A VERIFICATION OF THE DESIGN REQUIREMENTS AND A RESOLUTION TO SUCH CONFLICTS PRIOR TO CONSTRUCTION OF SUCH FACILITIES.

24. BEFORE EXECUTION OF ANY WORK, THE CONTRACTOR SHALL EXAMINE ACTUAL JOB CONDITIONS AND REPORT TO RFE ENGINEERING, INC. AND OWNER ANY ERROR, OMISSION, OR DISCREPANCY AFFECTING WORK. UPON COMMENCING CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPORTING ANY AND ALL CONFLICTS, ERRORS, OMISSIONS, ETC. TO RFE ENGINEERING, INC. IMMEDIATELY UPON DISCOVERY. IF SO DIRECTED BY THE ENGINEER OR CITY/COUNTY ENGINEER, THE CONTRACTOR SHALL STOP WORK UNTIL MITIGATION CAN BE MADE. ANY COST INCURRED RESULTING FROM THE CONTRACTOR'S FAILURE TO STOP WORK AS DIRECTED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

25. THE CONTRACTOR SHALL PROVIDE THE CIVIL ENGINEER "AS BUILT" DRAWINGS AT PROJECT COMPLETION. THE CONTRACTOR SHALL PROVIDE ONE COMPLETE ACCURATE SET OF RECORD CHANGES. THE CHANGES SHALL BE PLACED ON A CLEAN SET OF PROJECT DRAWINGS IN RED, AND GIVEN TO THE ENGINEER AT JOB COMPLETION.

26. THE ENGINEERS ESTIMATE OF QUANTITIES IS FOR DESIGN REFERENCE ONLY. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE QUANTITIES FOR BID AND FIELD INSTALLATION. ALL CALCULATED EARTHWORK QUANTITIES FURNISHED FOR THIS PROJECT ARE APPROXIMATE. THE QUANTITIES HEREIN WERE CALCULATED TO FINISHED ROUGH GRADE AND EXISTING GROUND. THE ACTUAL MATERIALS MOVED ARE VARIABLE DEPENDENT UPON THE CONTRACTOR'S METHOD OF OPERATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE FOR ANY EXCESS OR SHORTAGE OF EARTH MATERIAL FOR THIS PROJECT AND NO ADDITIONAL PAYMENT WILL BE MADE.

27. THESE DRAWINGS ARE FOR THIS SPECIFIC PROJECT AND NO OTHER USE IS AUTHORIZED. RFE ENGINEERING, INC. DISCLAIMS ALL RESPONSIBILITY FOR CONSTRUCTION BEYOND WHAT IS SPECIFICALLY DESIGNED OR DETAILED HEREIN.

28. THE CONTRACTOR SHALL TAKE CARE TO PROTECT THE EXISTING SITE AND ADJACENT IMPROVEMENTS FROM DAMAGE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM THE CONSTRUCTION AND SHALL REPAIR OR MAKE REPLACEMENT TO CURRENT CITY/COUNTY STANDARDS. ALL SUCH WORK SHALL BE AT THE CONTRACTOR'S OWN EXPENSE. THE CONTRACTOR SHALL PERFORM THESE REPAIRS AND REMOVE ALL TRASH AND CONSTRUCTION DEBRIS AS DIRECTED BY RFE ENGINEERING, INC. OR THE CITY/COUNTY ENGINEER.

29. THE AGENCY, CITY/COUNTY ENGINEER, OWNER OR RFE ENGINEERING, INC. MAY REQUIRE THE CONTRACTOR TO UNCOVER ANY IMPROVEMENTS THAT HAVE BEEN COMPLETED WITHOUT PROPER INSPECTION AND/OR APPROVAL. IF THE INSTALLATION IS FOUND NOT TO MEET APPLICABLE STANDARDS OR PREVIOUSLY APPROVED ALTERNATIVES SHOWN ON THE PLANS, THE CONTRACTOR MAY BE REQUIRED TO REMOVE AND REPLACE SUCH IMPROVEMENTS AT HIS OWN EXPENSE.

30. THE CONTRACTOR IS RESPONSIBLE FOR PRESERVATION AND PROTECTION OF EXISTING SURVEY AND PROPERTY CORNER MONUMENTS THAT EXIST AT THE TIME OF CONSTRUCTION IN THE AREA WHERE CONSTRUCTION ACTIVITIES OCCUR. MONUMENTS DISTURBED, OR LOST, DUE TO CONSTRUCTION ACTIVITIES WILL REQUIRE THAT THE CONTRACTOR HAVE THEM REPLACED, IN KIND, BY A LICENSED CALIFORNIA LAND SURVEYOR, WHO WILL BE REQUIRED TO FILE WITH THE COUNTY EITHER A CORNER RECORD OR A RECORD OF SURVEY, WHICHEVER WILL MEET THE REQUIREMENTS OF THE LAND SURVEYOR'S ACT, SECTION 8771(B).

GENERAL PAVING NOTES:

CONTRACTOR SHALL CONSTRUCT PROJECT PAVING PER THE FOLLOWING PAVING SPECIFICATIONS AND REQUIREMENTS OUTLINED IN THE PROJECT SPECIFIC GEOTECHNICAL REPORT WHEN MORE RESTRICTIVE. FOR ALL IMPROVEMENTS WITHIN PUBLIC RIGHTS-OF-WAY TO BE MAINTAINED BY THE APPLICABLE AGENCY, UNLESS OTHERWISE NOTED ON THESE PLANS, CONTRACTOR SHALL CONSTRUCT PAVING IMPROVEMENTS PER THE APPLICABLE AGENCY STANDARDS.

SUBGRADE AND BASE PREPARATION

1. A UNIFORM SUBGRADE AT THE CORRECT ELEVATION AND PROPER PREPARATION OF THE SUBGRADE IS ESSENTIAL FOR OPTIMUM LONG-TERM PERFORMANCE OF THE CONCRETE PAVING. SUBGRADE SHALL BE EXCAVATED OR FILLED WITH SUITABLE MATERIAL TO PRODUCE THE REQUIRED SUBGRADE ELEVATIONS. SAND CUSHIONS SHALL NOT BE USED AS A CONSTRUCTION EXPEDIENT IN LIEU OF PROPER SUBGRADE PREPARATION. WHEN SUBGRADE IS SHAPED, LARGE EMBEDDED OBJECTS SHALL BE REMOVED AND THE TOP 12-INCHES OF SOIL SHALL BE THOROUGHLY MOISTURE CONDITIONED TO THE OPTIMUM MOISTURE CONTENT AND UNIFORMLY COMPACTED TO 90% RELATIVE COMPACTION. THE UPPER 6-INCHES OF SOIL SHALL BE THOROUGHLY MOISTURE CONDITIONED TO THE OPTIMUM MOISTURE CONTENT AND UNIFORMLY COMPACTED TO 95% RELATIVE COMPACTION FOR ALL STRUCTURAL SECTIONS SPECIFIED ON THESE PLANS. ALL UNSUITABLE SOIL SHALL BE REMOVED AND REPLACED WITH AN ACCEPTABLE ENGINEERED FILL.

2. CLASS 2 AGGREGATE BASE SHALL BE UNIFORM IN DEPTH AND COMPACTED TO 95% RELATIVE COMPACTION.

3. ACCEPTABLE TOLERANCES FOR FINE GRADING OF THE SUBGRADE AND AGGREGATE BASE ARE NO MORE THAN ¼-INCH ABOVE OR ½-INCH BELOW THE DESIGN GRADE.

CONCRETE PAVING

(REFERENCE ACI 330R-01)

4. PORTLAND CEMENT CONCRETE (PCC):
   - MINIMUM COMPRESSIVE STRENGTH:
     - TRAFFIC RATED CONCRETE = 4,000 PSI IN 28 DAYS
     - PEDESTRIAN RATED CONCRETE = 3,500 PSI IN 28 DAYS
   - SLUMP: 3" TO 4"
   - AIR ENTRAINMENT: SEE TABLE BELOW
   - AGGREGATE: MAXIMUM ¾ - INCH CRUSHED (ROUGH-TEXTURED, ANGULAR-SHAPED)
   - ADMIXTURES CONTAINING CHLORIDES AND SULFIDES ARE NOT ACCEPTABLE.

GENERAL PAVING NOTES CONT.:

RECOMMENDED AVERAGE AIR-CONTENT FOR AIR ENTRAINMENT
(REF ACI 330R-01 TABLE 3.1)

NORMAL MAXIMUM SIZE AGGREGATE	TYPICAL AIR CONTENTS OF NON-AIR-ENTRAINED CONCRETE	RECOMMENDED AVERAGE AIR CONTENT FOR AIR-ENTRAINED CONCRETE (%)		
(INCHES)	(%)	MILD EXPOSURE	MODERATE EXPOSURE	SEVERE EXPOSURE
¾	2.0	3.5	5.0	6.0

5. REINFORCING STEEL, IF SPECIFIED ON THE PLANS, SHALL BE CHAIRED AND LOCATED MID-SLAB DEPTH. REINFORCEMENT AND SPACING SHALL BE AS SPECIFIED ON THE PAVING PLAN. DEFORMED REINFORCEMENT SHALL BE GRADE 60 STEEL.

6. HEAVY DUTY TRAFFIC RATED PCC SLABS SHALL BE CONSTRUCTED WITH THICKENED EDGES, AT LEAST 0.2 x SLAB THICKNESS OR 2-INCH MINIMUM, PLUS THE SPECIFIED SLAB THICKNESS AND TAPERED 3-FEET WIDE MEASURED HORIZONTALLY FROM THE PERIMETER OF THE SLAB.

7. FORMS SHALL BE STRAIGHT, FREE FROM WARPING, AND STRONG ENOUGH TO RESIST THE LATERAL PRESSURE OF THE CONCRETE. A FORM RELEASE AGENT SHALL BE APPLIED TO EASE STRIPPING.

8. CONCRETE SHALL BE PLACED CONTINUOUSLY AS CLOSE AS POSSIBLE TO ITS FINAL POSITION AND BE CONSOLIDATED.

9. IMMEDIATELY FOLLOWING STRIKE-OFF, THE SURFACE SHALL BE LEVELED WITH A BULLFLOAT OR A SCRAPING STRAIGHTEDGE. THE SURFACE SHALL NOT BE FINISHED MORE THAN NECESSARY TO REMOVE IRREGULARITIES. ALL EDGES, TOOLED JOINTS, AND ISOLATION JOINTS SHALL BE ROUNDED TO THE SPECIFIED RADIUS WITH APPROPRIATE TOOLS. THE USE OF HAND OR POWER FLOATS AND TROWELS IS NOT NECESSARY AND IS NOT RECOMMENDED.

10. AS SOON AS THE FINISHED CONCRETE HAS SET SUFFICIENTLY TO MAINTAIN A TEXTURE AND NO BLEED WATER REMAINS ON THE SURFACE, THE SURFACE CAN BE DRAGGED WITH A SHORT LENGTH OF DAMP BURLAP OR OTHER MATERIAL SUCH AS SYNTHETIC TURF CARPETING. AS AN ALTERNATIVE, THE SURFACE CAN BE BROOMED TO DEVELOP A SKID-RESISTANCE SURFACE AND UNIFORM APPEARANCE. SEE ARCHITECTURAL PLANS FOR ADDITIONAL SPECIAL CONCRETE FINISH REQUIREMENTS AND JOINT PATTERN REQUIREMENTS. UNLESS OTHERWISE SPECIFIED ON THE ARCHITECT'S PLANS, ALL CONCRETE SHALL HAVE A LIGHT BROOM FINISH.

11. THE CONCRETE SHALL BE PROTECTED FROM DAMAGE DURING THE CURING PROCESS.

12. CURING:
   - COLD TEMPERATURES - CONCRETE SHALL BE PROTECTED FROM FREEZING FOR AT LEAST 5-DAYS AFTER PLACEMENT. FOR FORECAST TEMPERATURES AROUND 25 TO 32 DEGREES FAHRENHEIT THE CONCRETE SHALL BE COVERED WITH POLYETHYLENE SHEETING. FOR COLDER TEMPERATURES, TWO SHEETS OF POLYETHYLENE SEPARATED BY 12-INCHES OF STRAW OR A SIMILAR DEGREE OF INSULATION.
   - WARM TEMPERATURES - WET CURING OR LIQUID MEMBRANE-FORMING CURING COMPOUND SHALL BE INITIATED IMMEDIATELY AFTER FINISHING IN SUNNY, WINDY, AND WARM CONDITIONS.
   - CONTRACTOR SHALL HAVE ENOUGH PLASTIC SHEETING AVAILABLE ON THE PROJECT SITE TO COMPLETELY COVER ANY SURFACES THAT MAY BE DAMAGED IN THE EVENT OF RAIN. THERE SHALL ALSO BE ADEQUATE WEIGHTS AVAILABLE TO KEEP THE PLASTIC SHEETING FROM BLOWING AWAY. FOR CONCRETE ON A SLOPE, DIVERSION SHALL BE PROVIDED FOR POTENTIAL RUN-ON TO PROTECT FROM WATER ABOVE WASHING ACROSS THE SURFACE.

13. CONCRETE JOINTS:

<u>ISOLATION / EXPANSION JOINTS:</u>

CONSTRUCT WHERE PCC MEETS FIXED FOUNDATIONS SUCH AS COLUMNS, BUILDING, MACHINERY FOUNDATIONS, WALLS, MANHOLES, DRAIN INLETS, UTILITY BOXES, DRAINAGE STRUCTURES, EXISTING ISLANDS, LIGHT STANDARDS, EXISTING APPROACH PAVEMENTS, ETC. ALL STRUCTURAL TUBING, PIPING, ETC. THAT EXTENDS UP THROUGH THE PCC SLAB SHALL BE WRAPPED WITH TWO LAYERS OF BUILDING PAPER OR ISOLATION JOINT MATERIAL TO BREAK BOND WITH PCC SLAB.

EXPANSION JOINT MATERIAL = ½ - INCH FELT EXPANSION FIBER BOARD, OR APPROVED EQUIVALENT.
FULL DEPTH OF PCC
WIDTH = ⅜ - INCH
RADIUS = ¼ - INCH

EXPANSION JOINT TO BE GREENSTREAK PAVING CAP SEAL OR APPROVED SEALANT IF SPECIFIED ON THE PLAN.

<u>CONTRACTION CONTROL JOINTS HAND TOOLED OR SAWCUT</u>

JOINT IS A SAW CUT, TROWEL CUT, OR PLASTIC OR HARDBOARD PREFORMED STRIP TO BE A MINIMUM OF ONE QUARTER THE DEPTH OF THE SLAB THICKNESS AND NO LESS THAN 1-INCH. THIS JOINT PROVIDES A WEAK PLANE IN THE SLAB WHERE CRACKING CAN OCCUR. MAXIMUM SPACING FOR ¾ - INCH MAXIMUM AGGREGATE IS 2 x SLAB THICKNESS (DEPTH) IN FEET (I.E. A 4-INCH SLAB WITH 3" MAXIMUM AGGREGATE SHALL HAVE A MAXIMUM SPACING OF 8-FEET). MAXIMUM SPACING FOR AGGREGATE GREATER THAN ¾ - INCH SHALL BE 2.5 x SLAB THICKNESS IN FEET (I.E. A 4-INCH SLAB WITH AGGREGATE GREATER THAN ¾" SHALL HAVE A MAXIMUM SPACING OF 10-FEET). IN NO CASE SHALL SPACING BE GREATER THAN 15 - FEET.

PLACE CONTRACTION CONTROL JOINTS IN CURBS AND IN CURB AND GUTTER AT INTERVALS NO MORE THAN 10-FEET WHEN NOT ABUTTING CONCRETE PAVING OR SIDEWALK. WHERE CURBS ARE ABUTTING CONCRETE PAVEMENT OR SIDEWALK, JOINTS IN CURBS SHALL ALIGN WITH JOINTS IN PAVEMENT OR SIDEWALK. THE DEPTH OF THE JOINT SHALL BE NO LESS THAN 1 ½".

SLAB THICKNESS (INCHES)	JOINT DEPTH (INCHES)	JOINT TROWEL RADIUS (INCHES)	MAXIMUM JOINT SPACING (FEET) (EACH DIRECTION)
4	1	⅜	8
5	1¼	⅜	10
6	1½	⅜	12
6½	1⅝	⅜	13
7	1¾	⅜	14
8	2	⅜	15

TOOLING OR EARLY-ENTRY DRY-CUT SAW JOINTS ARE DESIRED TO PLACE JOINTS BEFORE DEVELOPMENT OF TENSILE STRESSES THAT ARE GREAT ENOUGH TO INITIATE CRACKING, THUS INCREASING THE PROBABILITY OF CRACKS FORMING AT THE JOINT. CONTRACTION JOINT PATTERNS SHOULD DIVIDE PAVEMENTS INTO APPROXIMATELY SQUARES. THE LENGTH OF A PANEL SHOULD NOT BE MORE THAN 25% GREATER THAN ITS WIDTH.

GENERAL PAVING NOTES CONT.:

<u>CONSTRUCTION JOINTS</u>

CONSTRUCTION JOINTS ARE STOPPING PLACES IN THE PROCESS OF CONSTRUCTION

BUTT TYPE CONSTRUCTION JOINT WITH DOWEL
SMOOTH STEEL DOWEL BAR COATED TO PREVENT BOND
MINIMUM 1-FOOT LONG - 6-INCHES IN EACH SIDE OF JOINT
EDGE EACH SIDE WITH 1/8-INCH RADIUS.

DOWELS SHALL BE PLACED A MINIMUM OF 12-INCHES AWAY FROM ANY JOINT INTERSECTION.

PREVENT BOND OF CONCRETE AT JOINT OR EXTEND REBAR 1' MINIMUM BEYOND INITIAL SECTION TO TIE IN SECONDARY SECTION.

ALL NEW PCC PAVING SHALL BE TIED INTO EXISTING WITH 1/2-INCH STEEL DOWEL @ 12-INCHES O.C. EPOXY INTO EXISTING. DOWELS SHALL NOT BE WITHIN 12-INCHES OF EDGE OF CONCRETE OR JOINT INTERSECTION. EDGE NEW PCC WITH 1/8-INCH RADIUS AT JOINT.

<u>SCORE JOINTS</u> - HAND TROWELED FOR AESTHETICS ONLY. SEE ARCHITECTURAL PLANS FOR PATTERN IF NOT SPECIFIED ON CIVIL PLANS - FIT ALL OTHER CONTRACTION AND CONSTRUCTION JOINTS INTO THIS PATTERN.

14. ALL ISOLATION / EXPANSION JOINTS SHALL BE CAPPED WITH GREENSTREAK G-SEAL PAVING CAP SEAL PROFILE #610 OR #628 AS APPROPRIATE FOR USE.

15. ALL CONTRACTION CONTROL AND CONSTRUCTION JOINTS SHALL BE SEALED WITH SIKAFLEX SELF-LEVELING SEALANT (COLOR TO MATCH CONCRETE) OR APPROVED EQUIVALENT. JOINT WALLS AND ALL SURFACES TO WHICH THE SEALING MATERIAL IS TO ADHERE SHALL BE SURFACE DRY FOR AT LEAST THREE HOURS PRIOR TO SEALING. THE SURFACE OF THE SEALING COMPOUND SHALL BE A MAXIMUM OF 1/8-INCH BELOW THE LEVEL OF THE PCC SLAB SURFACE.

16. CONTRACTOR SHALL TAKE PRECAUTIONS TO REDUCE RAPID LOSS OF MOISTURE FROM THE CONCRETE AND REDUCE PLASTIC SHRINKAGE CRACKING, PRIOR TO PLACEMENT, DURING PLACEMENT AND UP TO 5-DAYS AFTER PLACEMENT AND FINISHING OF THE CONCRETE.

17. SEE ARCHITECTURAL PLANS FOR ADDITIONAL SPECIAL CONCRETE FINISH REQUIREMENTS AND JOINT PATTERN REQUIREMENTS. UNLESS OTHERWISE SPECIFIED ON THE ARCHITECT'S PLANS, ALL CONCRETE SHALL HAVE A LIGHT BROOM FINISH.

ASPHALT PAVING

(REFERENCE CALTRANS STANDARD SPECIFICATIONS SECTION 39)

18. ALL ASPHALT SHALL MEET CALTRANS TYPE A HMA SPECIFICATIONS.

19. FOR ASPHALT PAVEMENT THICKNESSES PLACED IN ONE SINGLE LIFT, THE GRADATION REQUIREMENTS SHALL BE AS FOLLOWS:

TYPE A HMA PAVEMENT THICKNESS	GRADATION
0.10 FEET	⅜ INCH
GREATER THAN 0.10 TO LESS THAN 0.20 FEET	½ INCH
0.20 TO LESS THAN 0.25 FEET	¾ INCH
0.25 FEET OR GREATER	¾ INCH OR 1 INCH

23. FOR PAVEMENT THICKNESS IN EXCESS OF 0.30 FEET, PAVEMENT SHALL BE PLACED IN MULTIPLE LIFTS NOT LESS THAN 0.15 FEET. WHEN PLACING ASPHALT IN LIFTS, THE TABLE BELOW IS APPLICABLE:

TYPE A HMA LIFT THICKNESS	GRADATION
0.15 TO LESS THAN 0.20 FEET	½ INCH
0.20 FEET TO LESS THAN 0.25 FEET	¾ INCH
0.25 FEET OR GREATER	¾ INCH OR 1 INCH

24. APPLY A TACK COAT BEFORE PLACING A SUBSEQUENT LIFT.

DUST MITIGATION NOTES:

1. ENCLOSE, COVER OR WATER ALL SOIL PILES TWICE DAILY.
2. WATER EXPOSED SOIL WITH ADEQUATE FREQUENCY TO KEEP SOIL MOIST AT ALL TIMES.
3. WATER ALL HAUL ROADS TWICE DAILY.
4. MAINTAIN AT LEAST TWO (2) FEET OF FREEBOARD ON TRUCKS WHEN HAULING LOADS.
5. MAINTAIN CONSTRUCTION EQUIPMENT (STATIONARY AND MOBILE) IN OPTIMUM RUNNING CONDITION.

REVIEWED BY:

FOR ALAMEDA COUNTY PUBLIC WORKS AGENCY

BY	NO.	REVISION	DATE	BY	APPRV'D

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GENERAL NOTES

Sheet C2

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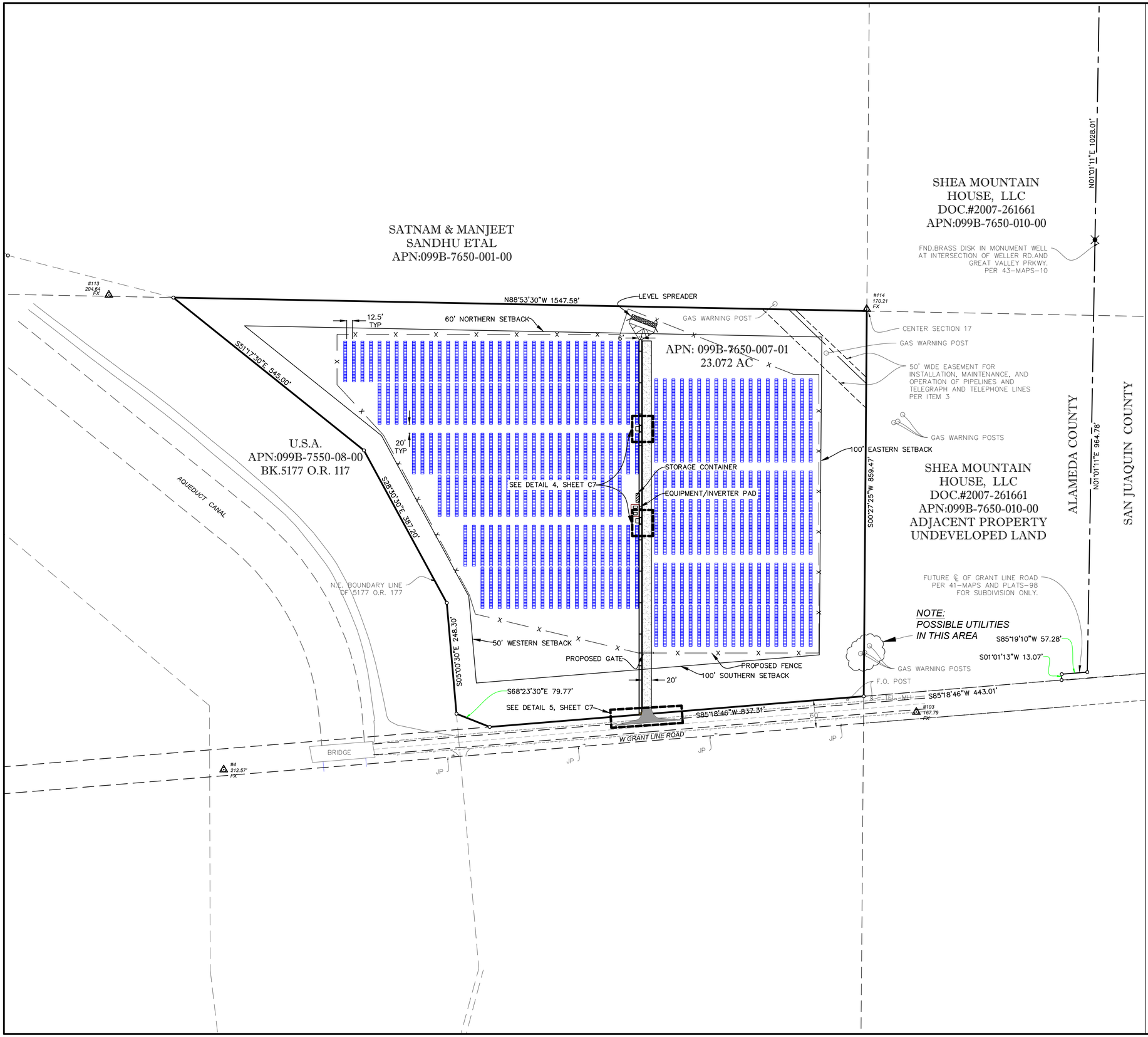
06/22/2021

RFE PROJECT 21-067 – ALAMEDA SOLAR; GRANT LINE RD, MOUNTAIN HOUSE, CA



LEGEND:

- PROPERTY LINE
- ROW
- EASEMENT
- LOT LINE
- CENTERLINE
- FENCE
- CONTROL POINTS (100 / 100.00 PK)
- RIPRAP
- 3/4" GRAVEL (MIN. 6" THICK) OR CLASS 3 AB
- AC PAVING 0.15' AC TYPE B / 0.50' CLASS 3 AB

NOTE:

SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION

100 0 100 200

1 INCH = 100 FEET

811

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HORIZONTAL CONTROL PLAN

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06/22/2021

RFE PROJECT 21-067 – ALAMEDA SOLAR; GRANT LINE RD, MOUNTAIN HOUSE, CA

N88°53'30"W 1547.58'

S00°27'25"W 859.47'

#11
170
FX

SEE DETAILS 6 & 7, SHEET C7

D3

D5

D1

D2

SEE DETAIL SD-504, SHEET C7

S28°30'30"E 357.20'

S05°00'30"E 248.30'

SEE DETAIL 3, THIS SHEET

SEE DETAIL 1, THIS SHEET

D5

D1

D4

S68°23'30"E 79.77'

SEE DETAIL 2, THIS SHEET

S85°18'46"W 837.31'

N

50 0 50 100

1 INCH = 50 FEET

811

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LEGEND:

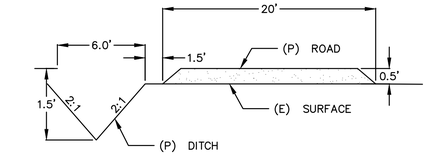
- RIPRAP
- GRAVEL
- ROCK CHECK DAMS
- OVERLAND RELEASE
- DRAINAGE FLOW
- INTERMEDIATE CONTOURS (25)
- INDEX CONTOUR

DRAINAGE KEYNOTES:

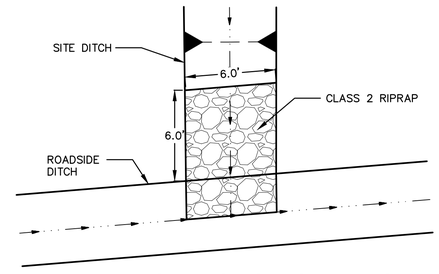
- (D1) CONSTRUCT 6 FT WIDE TRIANGULAR CHANNEL WITH A 2:1 SLOPE PER DETAIL 1, SEE THIS SHEET
- (D2) INSTALL 15 LF 12" RCP WITH FLARED END SECTIONS PER DETAIL SD-504, SEE SHEET C7. MATCH DITCH FLOWLINE.
- (D3) CONSTRUCT 60 FT X 2 FT LEVEL SPREADER WITH RIPRAP AND FABRIC UNDERLAYMENT. USE CALTRANS CLASS 2 RIPRAP WITH CALTRANS TYPE A FILTER FABRIC PER DETAILS 6 & 7, SEE SHEET C7.
- (D4) CONSTRUCT 6 FT X 6 FT SECTION OF CALTRANS CLASS 2 RIPRAP WITH CALTRANS TYPE A FILTER FABRIC AT THE CONNECTION POINT OF THE PROPERTY DITCH AND THE PUBLIC DITCH PER DETAIL 2, SEE THIS SHEET.
- (D5) CONSTRUCT ROCK CHECK DAMS EVERY 70 FT FROM THE ELEVATION HIGH POINT PER DETAIL 3, SEE THIS SHEET.

NOTE:

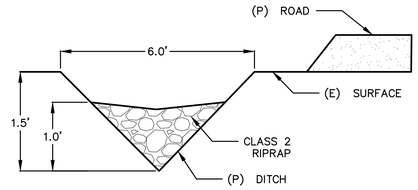
VERIFY ALL UTILITY LOCATIONS, PIPE ELEVATIONS, ETC. PRIOR TO CONSTRUCTION.



DETAIL 1 - ROAD AND DITCH SECTION VIEW
NOT TO SCALE



DETAIL 2 - SITE TO ROADSIDE DITCH CONNECTION
NOT TO SCALE



DETAIL 3 - ROCK CHECK DAM SECTION VIEW
NOT TO SCALE

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GRADING & DRAINAGE PLAN

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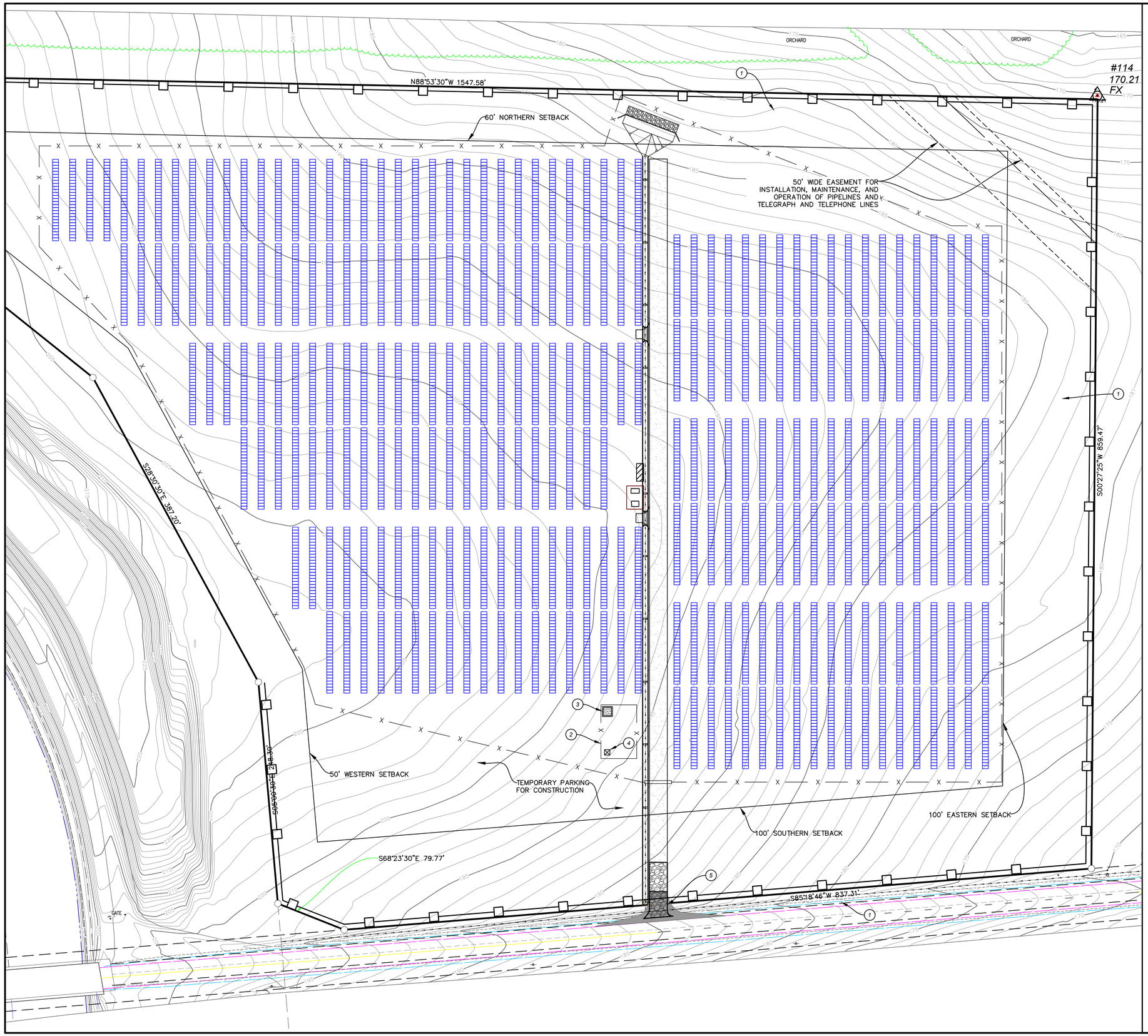
06/22/2021

RFE PROJECT 21-067 – ALAMEDA SOLAR; GRANT LINE RD, MOUNTAIN HOUSE, CA



LEGEND:

TEMPORARY STAGING AREA FENCE — X — X —

FIBER ROLL

CONCRETE WASHOUT

PORTABLE TOILET

TEMPORARY CONSTRUCTION SITE ENTRANCE/EXIT

CONSTRUCTION KEYNOTES:

1. PLACE FIBER ROLL
2. STAGING AREA, MATERIAL STORAGE, TEMPORARY STOCKPILE STORAGE AREA, FUELING AREA.
3. CONSTRUCT CONCRETE WASHOUT
4. PLACE PORTABLE TOILET(S) FOR USE DURING CONSTRUCTION AND ANCHOR TO PREVENT OVERTURNING
5. CONSTRUCT TEMPORARY CONSTRUCTION ENTRANCE / EXIT

NOTE:
1. CONTRACTOR TO DETERMINE SPECIFIC LOCATIONS AND BMPS EMPLOYED FOR EROSION AND SEDIMENT CONTROL, EITHER NOT SHOWN ON PLAN OR IN ADDITION TO PLAN (AS NEEDED). HYDROSEEDING (PER CASQA MANUAL) OF PERMANENTLY EXPOSED SOIL AND EROSION CONTROL BLANKETS TO BE USED IN COMBINATION (AS REQUIRED) DURING CONSTRUCTION TO PREVENT EROSION.

50 0 50 100
1 INCH = 50 FEET

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EROSION & SEDIMENT CONTROL PLAN

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06/22/2021

RFE PROJECT 21-067 – ALAMEDA SOLAR; GRANT LINE RD, MOUNTAIN HOUSE, CA

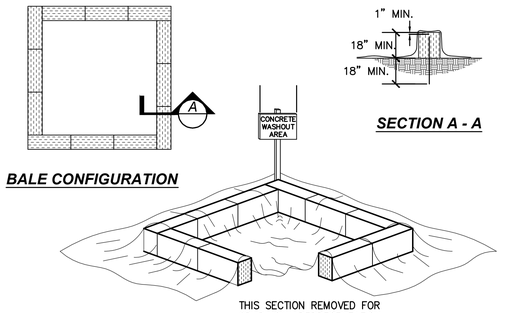
EROSION AND SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR SHALL FOLLOW ALL JURISDICTIONAL GUIDELINES FOR GRADING AND THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN OR STATED ON THESE PLANS.
2. CONTRACTOR MUST ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE ONSET OF ANY STORM. CONTRACTOR SHALL HAVE ALL EROSION AND SEDIMENT CONTROL MEASURES IN PLACE FOR THE WINTER MONTHS PRIOR TO OCTOBER 1.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED UNTIL DISTURBED AREAS ARE STABILIZED. CHANGES TO THIS EROSION AND SEDIMENT CONTROL PLAN SHALL BE MADE TO MEET FIELD CONDITIONS ONLY WITH THE APPROVAL OF OR AT THE DIRECTION OF A REPRESENTATIVE OF THE DEPARTMENT OF UTILITIES.
4. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THE PLAN IN THE FIELD SUBJECT TO THE APPROVAL OF OR AT THE DIRECTION OF A REPRESENTATIVE OF THE DEPARTMENT OF UTILITIES.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED BEFORE AND AFTER ALL STORMS TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
6. CONTRACTOR SHALL MAINTAIN A LOG AT THE SITE OF ALL INSPECTIONS OR MAINTENANCE OF BMPS, AS WELL AS, ANY CORRECTIVE CHANGES TO THE BMPS OR EROSION AND SEDIMENT CONTROL PLAN.
7. IN AREAS WHERE SOIL WILL BE EXPOSED LONGER THAN 14 DAYS, CONTRACTOR SHALL STABILIZE EXPOSED SOILS WITH HYDROSEEDING OR OTHER EQUIVALENT METHOD. CONTRACTOR SHALL ENSURE NO AREAS WILL BE LEFT EXPOSED OVER THE WINTER SEASON.
8. THE CONTRACTOR SHALL INSTALL THE STABILIZED CONSTRUCTION ENTRANCE PRIOR TO COMMENCEMENT OF GRADING. LOCATION OF THE ENTRANCE MAY BE ADJUSTED BY THE CONTRACTOR TO FACILITATE GRADING OPERATIONS. ALL CONSTRUCTION TRAFFIC ENTERING THE PAVED ROAD MUST CROSS THE STABILIZED CONSTRUCTION ENTRANCE. THE STABILIZED CONSTRUCTION ENTRANCE SHALL REMAIN IN PLACE UNTIL THE ROAD BASE ROCK COURSE IS COMPLETED.
9. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE SWEPT AT THE END OF EACH WORKING DAY OR AS NECESSARY.
10. CONTRACTOR SHALL PLACE GRAVEL BAG BARRIERS AROUND ALL NEW DRAINAGE STRUCTURE OPENINGS IMMEDIATELY AFTER THE STRUCTURE OPENING IS CONSTRUCTED. THESE GRAVEL BAG BARRIERS SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL CONSTRUCTION IS COMPLETED.
11. SOIL STOCKPILE SHALL BE SURROUNDED BY STRAW WATTLE. CONTRACTOR SHALL COVER STOCKPILE WHEN NOT IN USE.
12. CONTRACTOR SHALL IMPLEMENT HOUSEKEEPING PRACTICES AS FOLLOWS:
    - A. SOLID WASTE MANAGEMENT: PROVIDE DESIGNATED WASTE COLLECTION AREAS AND CONTAINERS. ARRANGE FOR REGULAR REMOVAL AND DISPOSAL. CLEAR SITE OF TRASH INCLUDING ORGANIC DEBRIS, PACKAGING MATERIALS, SCRAP OR SURPLUS BUILDING MATERIALS AND DOMESTIC WASTE DAILY.
    - B. MATERIAL DELIVERY AND STORAGE: PROVIDE A DESIGNATED MATERIAL STORAGE AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. STORE MATERIAL ON PALLETS AND PROVIDE COVERING FOR SOLUBLE MATERIALS. RELOCATE STORAGE AREA INTO BUILDING SHELL WHEN POSSIBLE. INSPECT AREA WEEKLY.
    - C. CONCRETE WASTE: PROVIDE A DESIGNATED AREA FOR A TEMPORARY PIT TO BE USED FOR CONCRETE TRUCK WASH-OUT. DISPOSE OF HARDENED CONCRETE OFFSITE. AT NO TIME SHALL A CONCRETE TRUCK DUMP ITS WASTE AND CLEAN ITS TRUCK INTO THE CITY STORM DRAINS VIA CURB AND GUTTER. INSPECT DAILY TO CONTROL RUNOFF, AND WEEKLY FOR REMOVAL OF HARDENED CONCRETE.
    - D. PAINT AND PAINTING SUPPLIES: PROVIDE INSTRUCTION TO EMPLOYEES AND SUBCONTRACTORS REGARDING REDUCTION OF POLLUTANTS INCLUDING MATERIAL STORAGE, USE, AND CLEAN UP. INSPECT SITE WEEKLY FOR EVIDENCE OF IMPROPER DISPOSAL.
    - E. VEHICLE FUELING, MAINTENANCE AND CLEANING: PROVIDE A DESIGNATED FUELING AREA WITH SECONDARY CONTAINMENT SUCH AS BERMING. DO NOT ALLOW MOBILE FUELING OF EQUIPMENT. PROVIDE EQUIPMENT WITH DRIP PANS. RESTRICT ON-SITE MAINTENANCE AND CLEANING OF EQUIPMENT TO A MINIMUM. INSPECT AREA WEEKLY.
    - F. HAZARDOUS WASTE MANAGEMENT: PREVENT THE DISCHARGE OF POLLUTANTS FROM HAZARDOUS WASTES TO THE DRAINAGE SYSTEM THROUGH PROPER MATERIAL USE, WASTE DISPOSAL AND TRAINING OF EMPLOYEES. HAZARDOUS WASTE PRODUCTS COMMONLY FOUND ON-SITE INCLUDE BUT ARE NOT LIMITED TO PAINTS & SOLVENTS, PETROLEUM PRODUCTS, FERTILIZERS, HERBICIDES & PESTICIDES, SOIL STABILIZATION STABILIZATION PRODUCTS, ASPHALT PRODUCTS AND CONCRETE CURING PRODUCTS.
13. THE FOLLOWING SOIL WIND EROSION CONTROL (DUST CONTROL) METHODS ARE PROPOSED AS PART OF THESE IMPROVEMENT PLANS:
    - A. WATER THE SOIL OF THE SITE AND THE ADJACENT STREETS BEING USED IN CONNECTION WITH SOIL DISTURBANCE OPERATIONS ON THE SITE IN ACCORDANCE WITH CALTRANS STANDARDS.
    - B. COVER EXPOSED SOIL WITH GRAVEL OR ROCK LANDSCAPING.
    - C. COVER EXPOSED SOIL WITH ORGANIC MULCHES, SPRINKLER IRRIGATED.
    - D. IRRIGATE GRASSES.
    - E. MAINTAIN LANDSCAPE VEGETATION.
14. REFER TO THE PROJECT SWPPP FOR ADDITIONAL EROSION AND SEDIMENT CONTROL REQUIREMENTS AND RECOMMENDATIONS.

EROSION AND SEDIMENT CONTROL MEASURES

PHASE OF CONSTRUCTION	(WET SEASON)				(WET AND DRY SEASON)								
	HYDRO-SEEDING	STRAW MULCHING & TACKIFIER	PRESERVATION OF EXISTING VEGETATION	SOIL BINDERS	FIBER ROLLS	OUTLET PROTECTION	STORM DRAIN INLET PROTECTION	DEWATERING	STABILIZED CONSTRUCTION ENTRANCE	MATERIAL & WASTE DISPOSAL LOCATION	CONCRETE WASHOUT	DUST CONTROL	SEDIMENT TRAP
PRE-GRADING			●		●		●		●	●		●	●
CUT AND FILL QUANTITIES	●	●		●				●				●	●
UNDERGROUND WORK												●	
STORM DRAIN IMPROVEMENTS						●					●	●	
CURB & GUTTER							●					●	
STREET IMPROVEMENTS					●							●	
POST CONSTRUCTION	●	●	●										

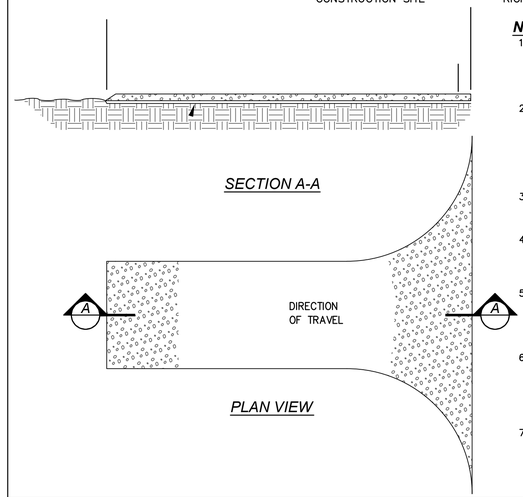
NOTES:
1. ALL EROSION BMPs SHALL BE IN PLACE PRIOR TO STORM EVENTS AND IN ACCORDANCE WITH THE LATEST EDITION OF SECTION II OF THE IMPROVEMENT STANDARDS AND THE CALIFORNIA STORM WATER HANDBOOK.
2. MAINTAIN BMP'S AS NECESSARY.



NOTES:
1.) FACE SIGN TOWARD NEAREST STREET OR ACCESS POINT.

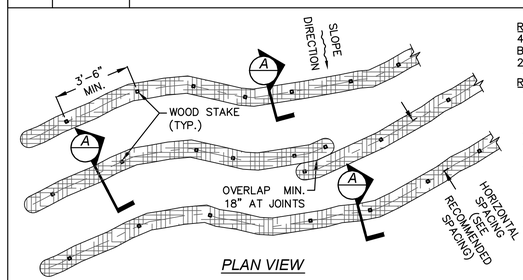
2.) CONCRETE WASHOUT SHALL BE LOCATED BEHIND THE CURB AND 50 FT. MINIMUM FROM DRAINAGE INLETS OR WATERCOURSES

5 | NTS | CONCRETE WASHOUT



NOTE:
1. STABILIZED CONSTRUCTION SITE ACCESS SHALL BE CONSTRUCTED OF CRUSHED AGGREGATE (WASHED) BETWEEN 3–6 INCHES. MATERIAL SHALL BE PLACED TO A MINIMUM THICKNESS OF 12 INCHES.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT–OF–WAYS. THIS MAY REQUIRE TOP DRESSING WITH MATERIAL (AS SPECIFIED IN NOTE 1), REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
3. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT–OF–WAY.
4. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
5. WHERE RUNOFF CONTAINING SEDIMENT LADEN WATER IS LEAVING THE SITE VIA THE CONSTRUCTION ENTRANCE, OTHER MEASURES SHALL BE IMPLEMENTED TO DIVERT RUNOFF THROUGH AN APPROVED FILTERING SYSTEM.
6. LENGTH OF ENTRANCE SHALL BE A MINIMUM OF 50 FEET. WIDTH SHALL BE A MINIMUM OF 15 FEET OR GREATER IF NECESSARY TO COVER ALL VEHICULAR INGRESS AND EGRESS. PROVIDE AMPLE TURNING RADII, MIN. 20–FOOT RADIUS.
7. ACCESSES SHALL BE INSPECTED WEEKLY DURING PERIODS OF HEAVY USAGE, MONTHLY DURING NORMAL USAGE, AND AFTER EACH RAINFALL, WITH MAINTENANCE PROVIDED AS NECESSARY. PERIODIC TOP DRESSING SHALL BE DONE AS NEEDED.

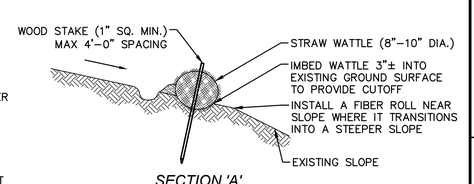
4 | NTS | CONSTRUCTION ENTRANCE



RECOMMENDED MAX SPACING:
4:1 SLOPE OR FLATTER: 20 FT. INTERVAL
BETWEEN 4:1 & 2:1 : 15 FT. INTERVAL
2:1 SLOPE OR MORE: 10 FT. INTERVAL MAX..

RECOMMENDED PLACEMENT (AS APPLICABLE):
1. ALONG TOE, TOP, FACE AND AT GRADE BREAKS OF EXPOSED AND ERODABLE SLOPES.
2. ALONG PERIMETER OF PROJECT.
3. AS CHECK DAMS ON UNLINED, MINIMALLY SLOPED DITCHES.
4. AROUND TEMPORARY STOCKPILES.

NOTES:
1. STRAW WATTLES TO BE PLACED ALONG SITE CONTOURS.
2. HORIZONTAL SPACING VARIES DEPENDING ON SOIL TYPE AND STEEPNESS, SEE PLAN (5' MIN – 25' MAX.)
3. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL.
4. STRAW WATTLE SHALL BE RICE STRAW ONLY. USE OF FIBER ROLLS, WHEAT GRASS, OR RYE STRAW NOT PERMITTED.
5. AT ENDS OF A ROW TURN THE LAST TWO FEET UP SLOPE SLIGHTLY



1 | NTS | FIBER ROLL

NO.	REVISION	DATE	BY	APPRV'D

BY | CHECK | DESIGN | DRAWN | QUANT. | ORIGINAL SCALE IS IN INCHES 0 1 2

REGISTERED PROFESSIONAL ENGINEER — No. 64814 Exp. 6-30-23 — DATE OF FAMILIARITY 6/22/21 — CIVIL — STATE OF CALIFORNIA

RFE ENGINEERING, INC
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ALAMEDA GRANT LINE SOLAR 1
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UNINCORPORATED
ALAMEDA COUNTY, 95391

EROSION & SEDIMENT CONTROL NOTES & DETAILS

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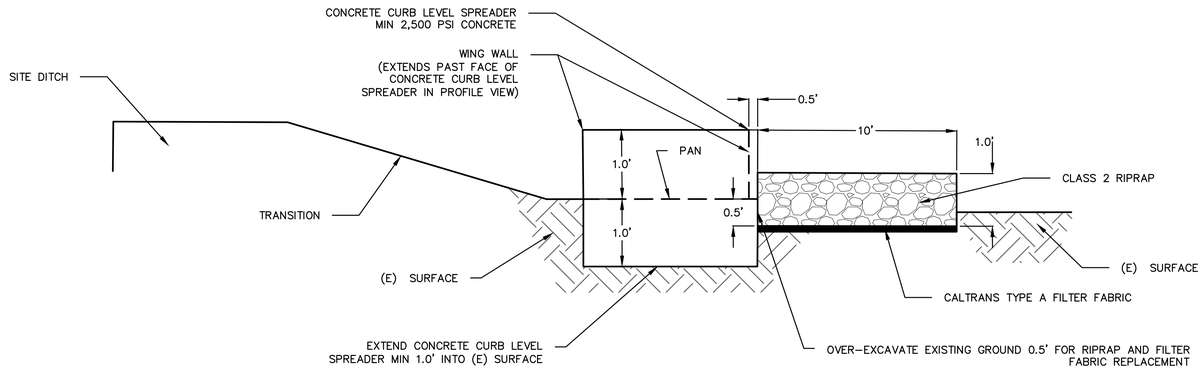
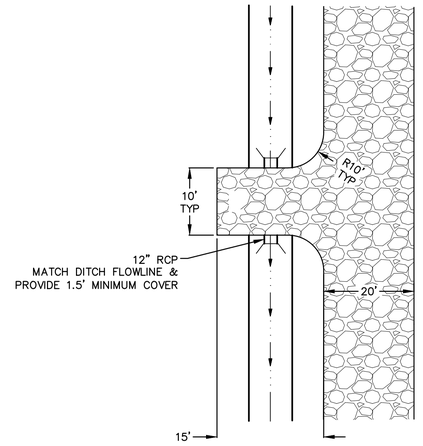


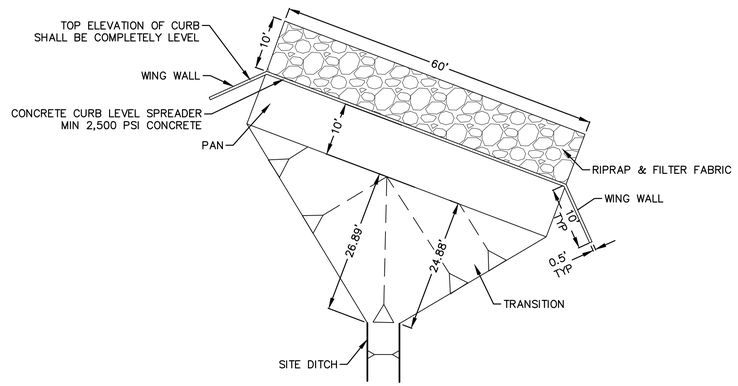
DETAIL 7 - LEVEL SPREADER PROFILE VIEW

NOT TO SCALE



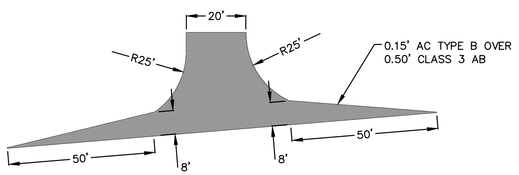
DETAIL 4 - DRIVEWAY TURNOUT

NOT TO SCALE



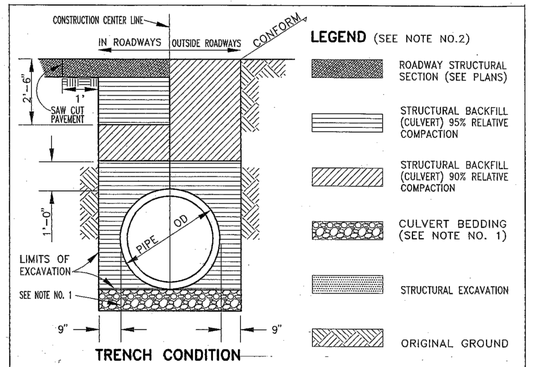
DETAIL 6 - LEVEL SPREADER

NOT TO SCALE



DETAIL 5 - DRIVEWAY APRON

NOT TO SCALE



NOTES:

1. EXCAVATE UNSUITABLE SUBGRADE BELOW THE LIMIT OF EXCAVATION AND REPLACE WITH CULVERT BEDDING MATERIAL, ONLY IF SO DIRECTED BY THE ENGINEER. OVER EXCAVATION DUE TO FAILURE OF THE CONTRACTOR TO MAINTAIN SUBGRADE SHALL BE REPLACED WITH CULVERT BEDDING AT THE CONTRACTOR'S EXPENSE.
2. MATERIALS SHALL CONFORM TO THE ALAMEDA COUNTY PUBLIC WORKS AGENCY SPECIFICATIONS AND THE CALTRANS STANDARD SPECIFICATIONS AS MODIFIED BY COUNTY SPECIAL PROVISIONS. REINFORCED CONCRETE PIPE SHALL BE CLASS III, MINIMUM.
3. FOR PIPES INSTALLED IN AN EMBANKMENT CONDITION, THE CONTRACTOR SHALL ENSURE THAT MINIMUM EMBANKMENT HEIGHT CRITERIA IS SATISFIED PRIOR TO EXCAVATING THE TRENCH. EMBANKMENT HEIGHT PRIOR TO EXCAVATION FOR PIPE INSTALLATION SHALL BE 2/3 O.D. (MIN. OF 30") FOR PIPES UP TO 84" I.D. FOR PIPES GREATER THAN 84" I.D., 60" MINIMUM EMBANKMENT IS REQUIRED. SEE SHEET NO. 2.
4. WHERE PIPE COVER IS LESS THAN 36 INCHES, THE PIPE LOAD CARRYING CAPACITY SHALL BE INCREASED AND OTHER MODIFICATIONS MADE AS APPROVED BY THE ENGINEER.

COUNTY OF ALAMEDA ★ PUBLIC WORKS AGENCY

TYPICAL PIPE SECTION

APPROVAL REC.
APPROVED
APPROVED
COUNTY ENGINEER

REVISIONS

DRAWN	CHECKED	DATE	SCALE	FILE NO.	
EA		MARCH 1994	NONE	SD-504	1 of 2

NO.	REVISION	DATE	BY	APPRVD

BY: DESIGN, DRAWN, QUANT. | CHECK

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REGISTERED PROFESSIONAL ENGINEER — KATE O'FARRELL — No. 64814 Exp. 6-30-23 — CIVIL — STATE OF CALIFORNIA
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