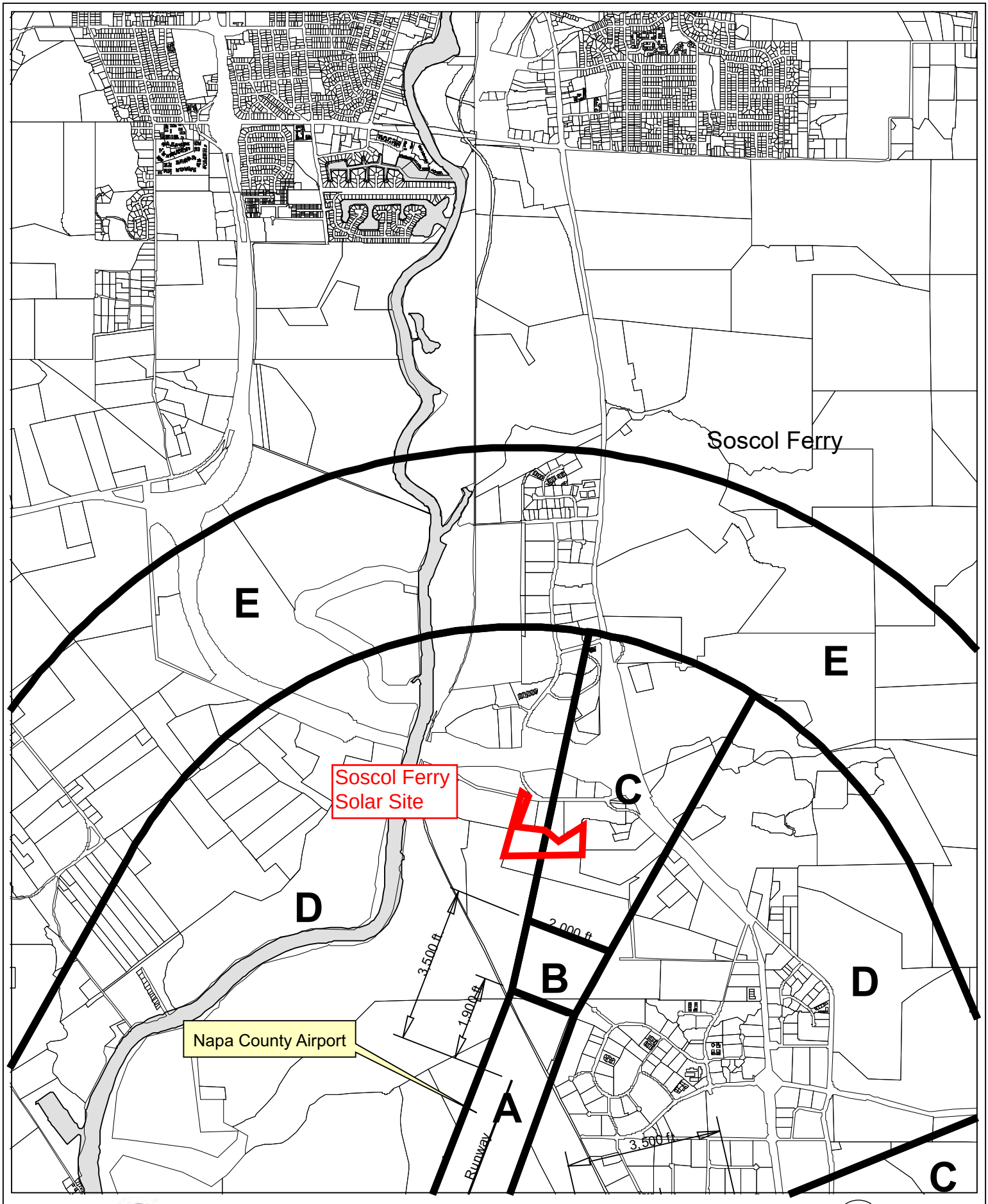
“D”

Graphics

Airport Land Use Commission
December 18, 2019



Compatibility Plan

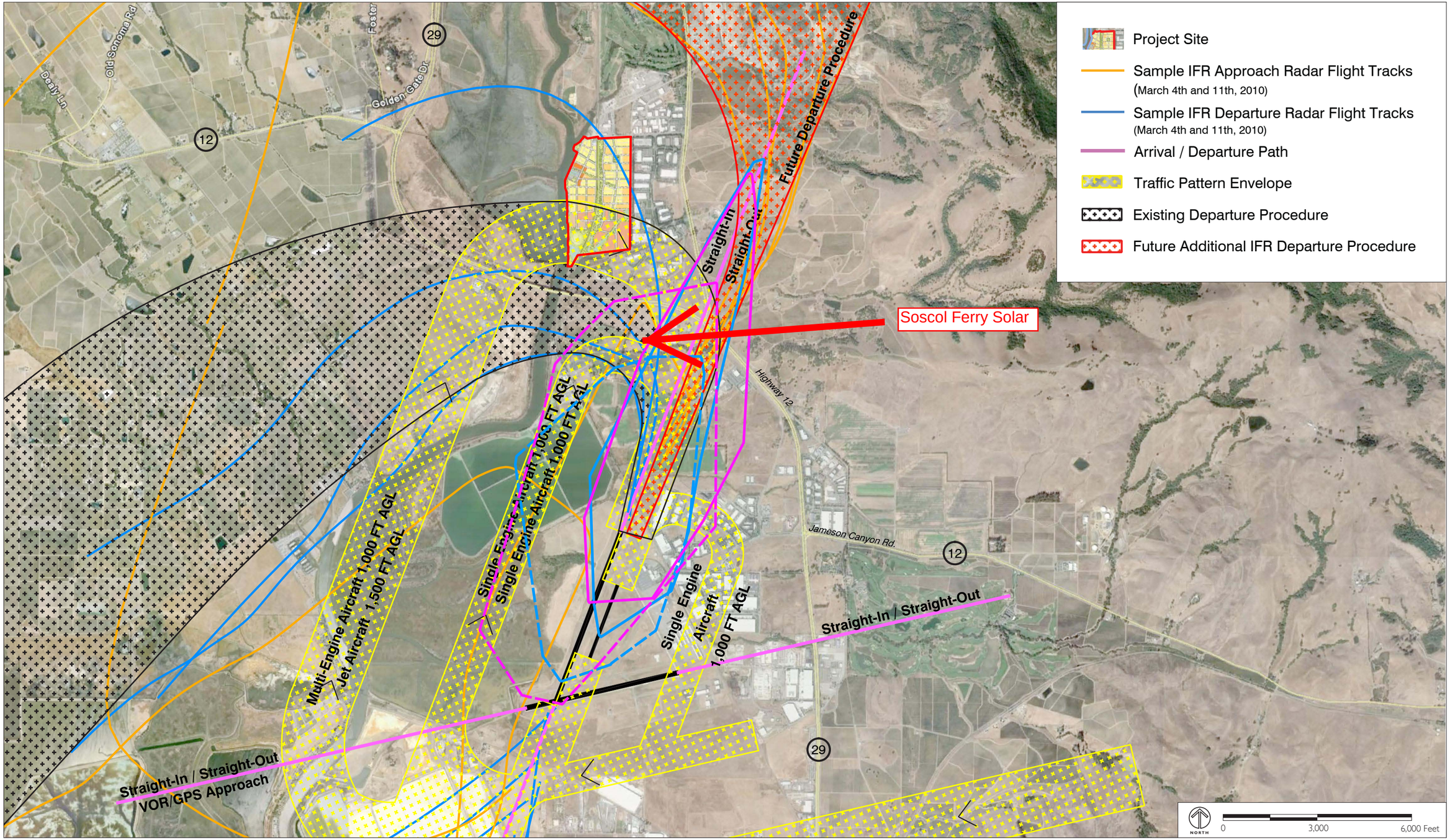
Napa County Airport

Horizontal Datum: NAD 83,
CA State Plane Coordinates,
Zone II, feet

Disclaimer: This map was prepared for informational purposes only. No liability is assumed for the accuracy of the data delineated hereon.

0 700 1,400 2,800'

Napa County Conservation Division - 02/2012



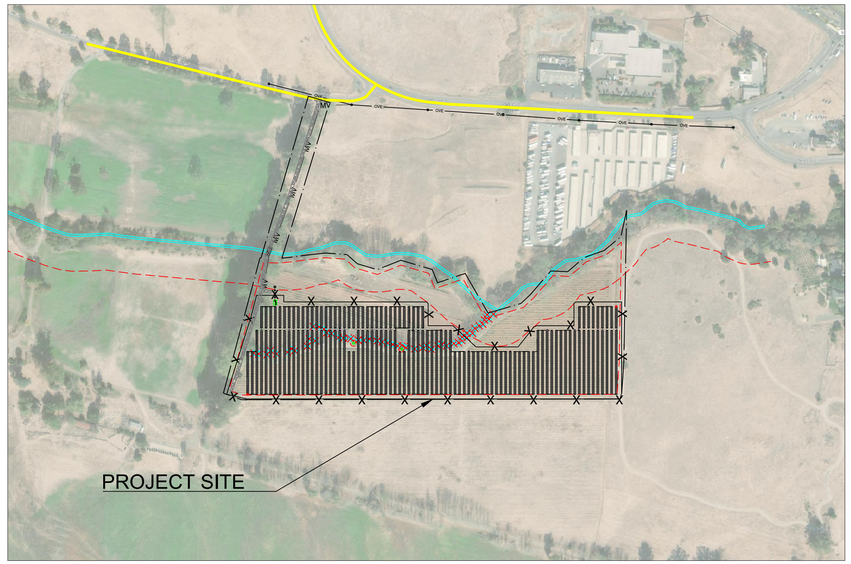
Source: Mead & Hunt

FIGURE LA10-1

AIRCRAFT FLIGHT ROUTES NORTH OF NAPA COUNTY AIRPORT

SOSCOL FERRY SOLAR SINGLE AXIS TRACKER PHOTOVOLTAIC SYSTEM
SOSCOL FERRY ROAD, NAPA, CA 94559

AERIAL MAP VIEW



GENERAL PROJECT SCOPE OF WORK

DEVELOP NEW SOLAR PHOTOVOLTAIC ELECTRICAL GENERATING FACILITIES ON APPROXIMATELY 14 ACRES OF LAND. THE SOLAR POWER PLANT WILL BE A SINGLE AXIS TRACKER SYSTEM. THE ENTIRE SITE WILL HAVE MINIMAL EARTHWORK DISTURBANCE AND GRADING OPERATIONS WILL OCCUR MAINLY FOR INSTALLATION OF ACCESS ROADS AND EQUIPMENT PADS.

DC NAMEPLATE: 2,808.96 kW
AC RATING: 1,980.00 kW

SOLAR MODULE QTY & MODEL:
(7,392) TRINA TSM-DE14H(II), 380W

INVERTER QTY & MODEL:
(16) SUNGROW SG125HV, 125KW

INDEX OF DRAWINGS

OWNER INFORMATION, PROJECT TEAM

OWNER OF RECORD: KIMBAL GRIGGS GILES & THERESE BLODGETT-GILES

PROJECT APPLICANT: RP NAPA SOLAR 2, LLC

PROJECT ENGINEER: CALIFORNIA ENGINEERING CO.

CODES & REGULATIONS

WORK PERFORMED AND MATERIALS FURNISHED SHALL CONFORM TO THE APPLICABLE PUBLICATIONS AND STANDARDS OF THE ORGANIZATIONS LISTED BELOW:

NATIONAL
- 2015 INTERNATIONAL BUILDING CODE (IBC)
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
- NATIONAL ELECTRIC CODE , 2017 EDITION
- UNDERWRITERS LABORATORIES INV. (UL)
- US DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEATH ACT (OSHA)

STATE
- 2016 CALIFORNIA BUILDING CODE
- 2016 CALIFORNIA ELECTRICAL CODE
- 2016 CALIFORNIA ENERGY CODE
- 2016 CALIFORNIA FIRE CODE
- RULE 21 GUIDELINES
- CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ACT (CAL OSHA)

RENEWABLE PROPERTIES

ENGINEER:
CALIFORNIA ENGINEERING CO.
OWNER OF RECORD:
KIMBAL GRIGGS GILES & THERESE BLODGETT-GILES
PROJECT APPLICANT:
RP NAPA SOLAR 2, LLC

SOSCOL FERRY SOLAR

SOSCOL FERRY RD,
NAPA, CA 94559, USA

LAT: 38.237851°
LON: -122.275392°

REV. NO	DESCRIPTION	DATE
0	FOR UTILITY APPLICATION	09/17/19

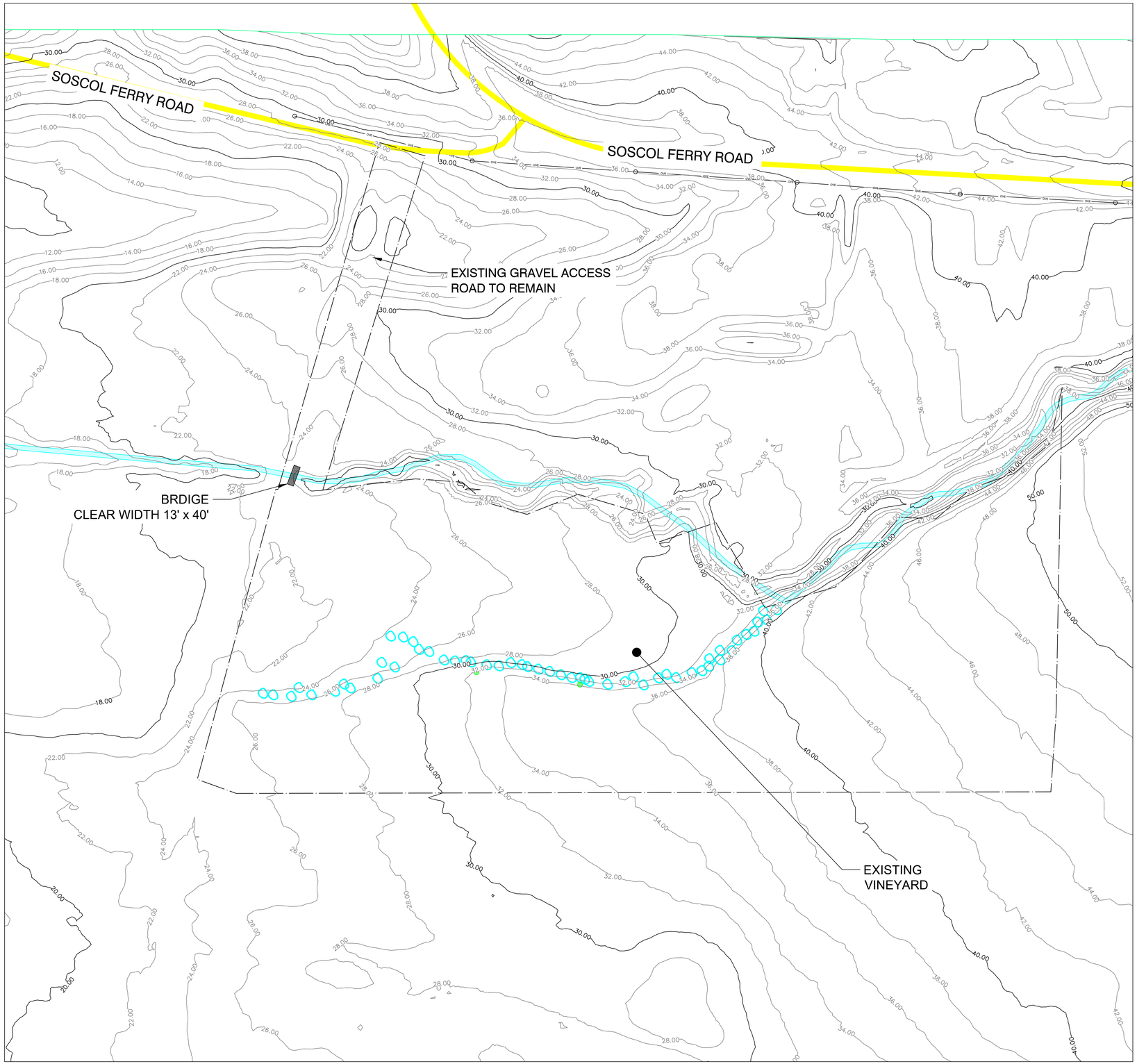
SHEET TITLE:

COVER SHEET

DRAWING NO.:

T-000

DRAWN BY: LR
REVIEWED BY:
DATE: 09/17/19
SCALE: AS SHOWN
PROJECT NO.:



LEGEND

- 12' WIDE SITE ACCESS GRAVEL ROAD
- (E) WETLAND
- PUBLIC ROAD
- PROPERTY LINE
- SETBACK
- (E) OH LINES
- EXISTING OAK TREE
- EXISTING TREES

1 EXISTING SITE CONDITIONS

N

-100' 0' 200' 300' 400'

SCALE:1"=100'

RENEWABLE PROPERTIES

ENGINEER:
CALIFORNIA ENGINEERING CO.
OWNER OF RECORD:
KIMBAL GRIGGS GILES & THERESE BLODGETT-GILES
PROJECT APPLICANT:
RP NAPA SOLAR 2, LLC

SOSCOL FERRY SOLAR

SOSCOL FERRY RD,
NAPA, CA 94559, USA

LAT: 38.237851°
LON: -122.275392°

REV. NO	DESCRIPTION	DATE
0	FOR UTILITY APPLICATION	09/17/19

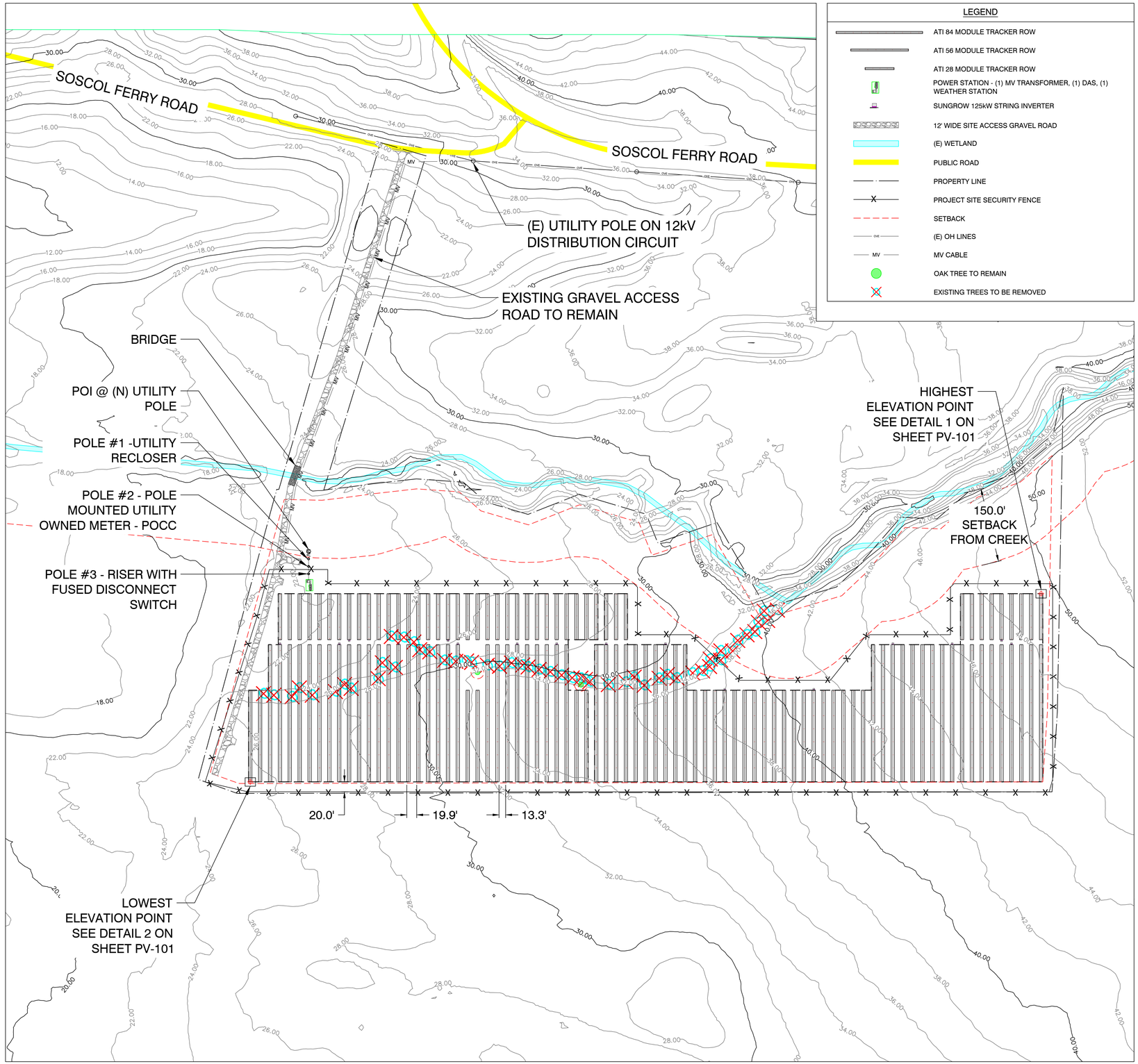
SHEET TITLE:

EXISTING SITE CONDITIONS

DRAWING NO.:

PV-001

DRAWN BY:	LR
REVIEWED BY:	
DATE:	09/17/19
SCALE:	AS SHOWN
PROJECT NO.:	



1 SOLAR PV ARRAY LAYOUT

N

-100' 0' 200' 300' 400'

SCALE:1"=100'

LEGEND

- ATI 84 MODULE TRACKER ROW
- ATI 56 MODULE TRACKER ROW
- ATI 28 MODULE TRACKER ROW
- POWER STATION - (1) MV TRANSFORMER, (1) DAS, (1) WEATHER STATION
- SUNGROW 125kW STRING INVERTER
- 12' WIDE SITE ACCESS GRAVEL ROAD
- (E) WETLAND
- PUBLIC ROAD
- PROPERTY LINE
- PROJECT SITE SECURITY FENCE
- SETBACK
- (E) OH LINES
- MV CABLE
- OAK TREE TO REMAIN
- EXISTING TREES TO BE REMOVED

SYSTEM SPECIFICATIONS

SOSCOL FERRY ROAD

	TOTAL
SYSTEM SIZE DC	2,808.96 kW
SYSTEM SIZE AC	1,980.00 kW*
DC/AC RATIO	1.42
MODULE MANUFACTURER	TRINA SOLAR
MODULE MODEL	TSM-DE14H(II)
MODULE RATING	380 W
TOTAL MODULE QTY	7,392
MODULES PER STRING	28
TOTAL NO. OF STRINGS	264
INVERTER MODEL	SUNGROW SG125HV
INVERTER RATING	125 kW
INVERTER QTY	16
STEP-UP TRANSFORMER	12kV/600V, 2000kVA
RACKING	ATI HSAT
INTER-ROW SPACING	13.3'
PITCH	19.9'
GCR	33%
SITE AREA INSIDE FENCE	13.84 Ac

* PLANT NAMEPLATE LIMITED TO 1980 kW AC AND IS CONFIGURED IN FACTORY BY INVERTER MANUFACTURER.

GENERAL NOTES

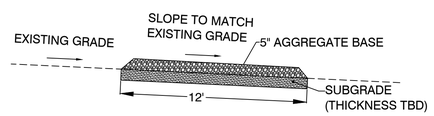
1. INSTALLATION TO COMPLY WITH NEC 2014 ARTICLE 690 AND ALL APPLICABLE LOCAL, STATE AND NATIONAL CODES OR REGULATIONS.
2. EQUIPMENT SHALL BE LABELED PER NEC 690 AND UTILITY REGULATIONS.
3. 12' ACCESS ROADS SHALL BE DESIGNED TO ACCOMMODATE ALL CONSTRUCTION, OPERATIONS, MAINTENANCE, AND UTILITY TRAFFIC THROUGHOUT THE SITE.
4. DIMENSIONS TO PROPERTY LINES AND EXISTING FEATURES ARE APPROXIMATE PENDING SURVEY.
5. LANDSCAPING WILL BE COMPLIANT TO THE BIOLOGICAL CONSTRAINTS ANALYSIS FOR LANDSCAPING AND WATER EFFICIENT LANDSCAPE ORDINANCE.
6. ALL TOPOGRAPHY, ELEVATION INFORMATION, DRAINAGE PATTERNS AND COURSES ARE SUBJECT TO THE OUTCOME OF DRAINAGE CALCULATIONS AND STORM WATER DRAINAGE REPORT (NOT YET PERFORMED).
7. A 15.5' ACCESS CORRIDOR WILL BE PROVIDED WHICH WILL CONSIST OF 12' GRAVEL ROAD WITH 3' CLEARANCE BETWEEN ROAD AND FENCE.
8. THE CROSS SECTION OF THE PROPOSED 12 FT WIDE ROAD WILL MATCH THE EXISTING GRADE, WHICH SLOPES TOWARD THE PERIMETER FENCE. ROAD CROSS SECTIONS WILL BE DESIGNED TO DRAIN TOWARDS THE FENCE. FINAL CIVIL DESIGN WILL SPECIFY THE PROPOSED GRADES.

SYSTEM SPECIFICATIONS

	SOSCOL FERRY SOLAR
SYSTEM SIZE DC	2808.96 kW
SYSTEM SIZE AC	1,980.00 kW
TOTAL ACREAGE	22.84 Ac

PROJECT SETBACKS

	SOSCOL FERRY SOLAR
FRONT	20'
REAR	20'
SIDE	20'
SOSCOL CREEK	150'



TYPICAL INTERNAL ACCESS ROAD CROSS SECTION (NOTE 9)

3 ROAD CROSS SECTION

SCALE:NTS

RENEWABLE PROPERTIES

ENGINEER:
CALIFORNIA ENGINEERING CO.

OWNER OF RECORD:
KIMBAL GRIGGS GILES & THERESE BLODGETT-GILES

PROJECT APPLICANT:
RP NAPA SOLAR 2, LLC

SOSCOL FERRY SOLAR

SOSCOL FERRY RD,
NAPA, CA 94559, USA

LAT: 38.237851°
LON: -122.275392°

REV. NO	DESCRIPTION	DATE
0	FOR UTILITY APPLICATION	09/17/19

SHEET TITLE:

SOLAR PV ARRAY LAYOUT

DRAWING NO.:

PV-100

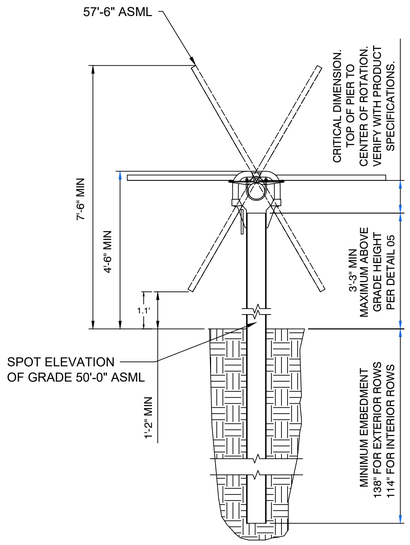
DRAWN BY: LR

REVIEWED BY:

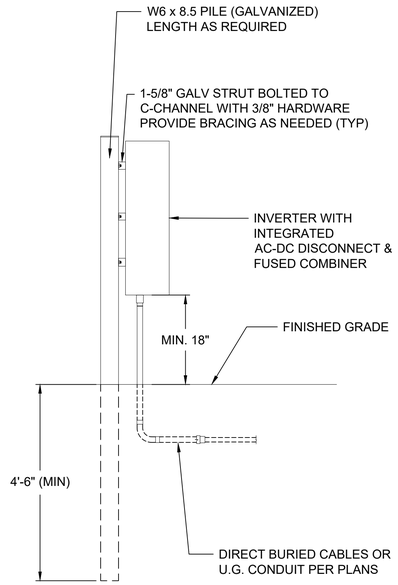
DATE: 09/17/19

SCALE: AS SHOWN

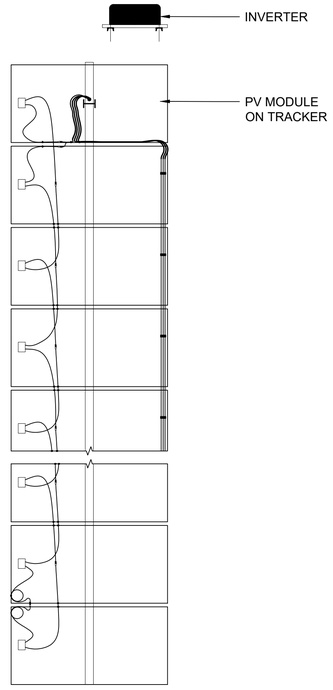
PROJECT NO.:



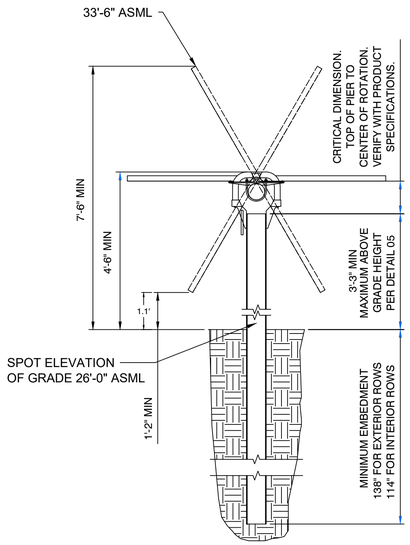
1 RACKING ELEVATION HIGHEST POINT
SCALE:NTS



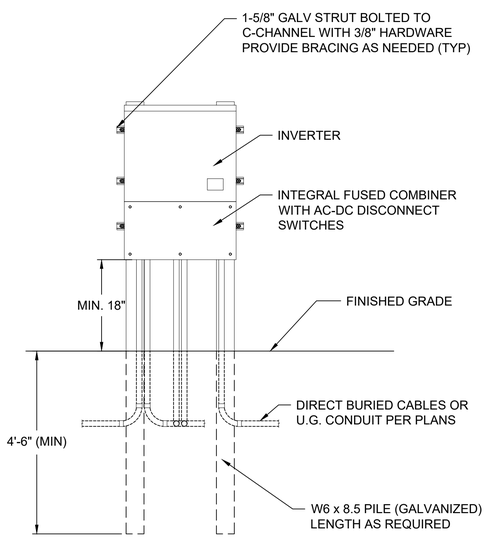
3 INVERTER SIDE ELEVATION
SCALE:NTS



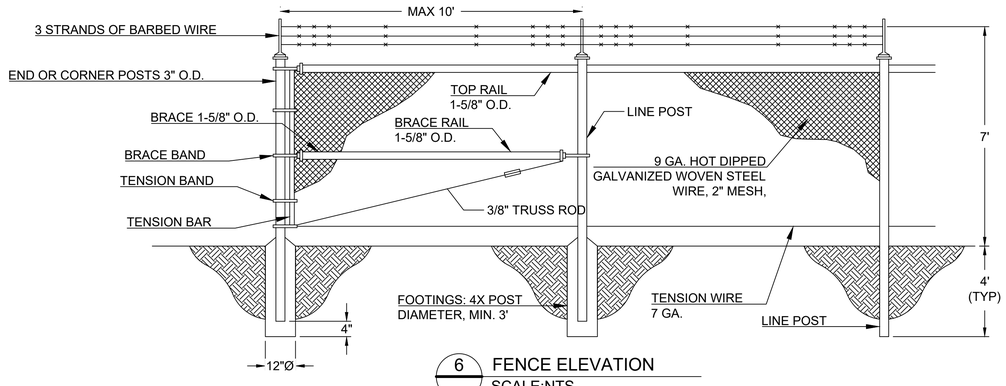
5 INVERTER LAYOUT
SCALE:NTS



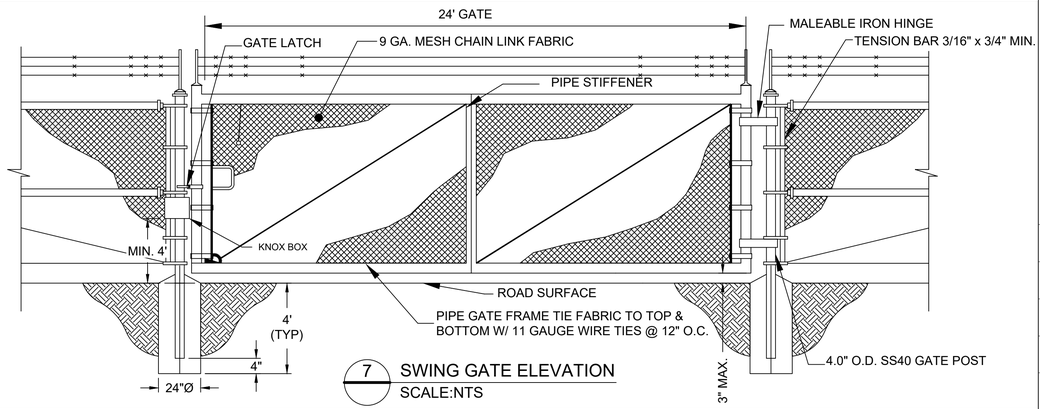
2 RACKING ELEVATION LOWEST POINT
SCALE:NTS



4 INVERTER FRONT ELEVATION
SCALE:NTS



6 FENCE ELEVATION
SCALE:NTS



7 SWING GATE ELEVATION
SCALE:NTS

RENEWABLE PROPERTIES

ENGINEER:
CALIFORNIA ENGINEERING CO.
OWNER OF RECORD:
KIMBAL GRIGGS GILES &
THERESE BLODGETT-GILES
PROJECT APPLICANT:
RP NAPA SOLAR 2, LLC

SOSCOL FERRY SOLAR

SOSCOL FERRY RD,
NAPA, CA 94559, USA

LAT: 38.237851°
LON: -122.275392°

REV. NO	DESCRIPTION	DATE
0	FOR UTILITY APPLICATION	09/17/19

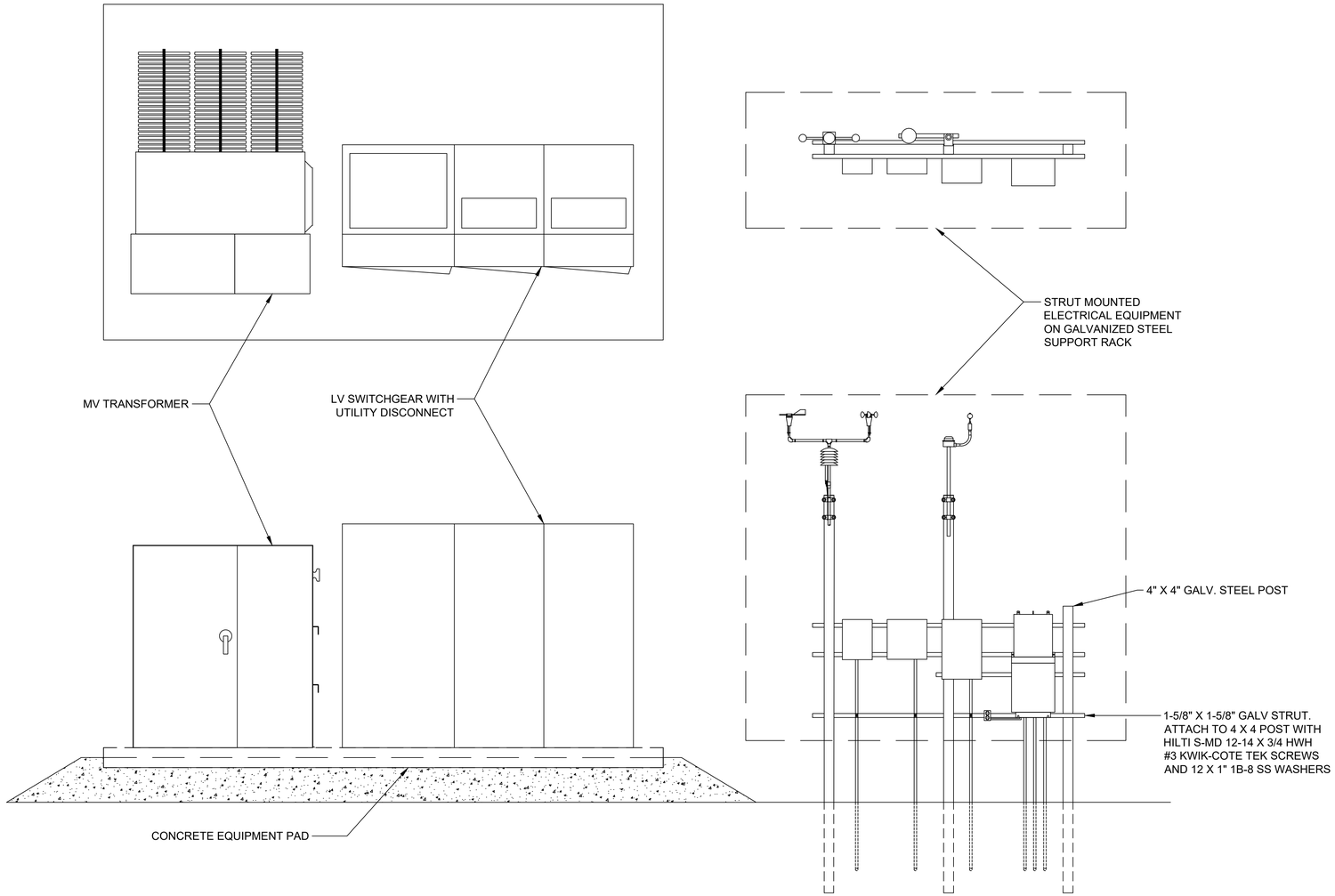
SHEET TITLE:

ELEVATION DETAILS

DRAWING NO.:

PV-101

DRAWN BY:	LR
REVIEWED BY:	
DATE:	09/17/19
SCALE:	AS SHOWN
PROJECT NO.:	



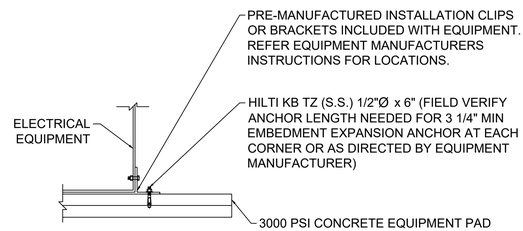
1 POWER STATION AND EQUIPMENT RACK ELEVATION
SCALE:NTS

CONCRETE NOTES

1. DESIGN OF STRUCTURAL CONCRETE SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE AMERICAN CONCRETE INSTITUTE (ACI) - "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE," ACI 318. ALL CONCRETE FRAMEWORK SHALL CONFORM TO ACI 347.
2. CONCRETE MIX PORTIONS, INCLUDING DOCUMENTATION OF MATERIALS, ADMIXTURE PRODUCT INFORMATION, AND COMPRESSIVE STRENGTH OF MIX.
3. MINIMUM CONCRETE STRENGTH CLASSES FOR VARIOUS STRUCTURES SHALL BE AS FOLLOWS:

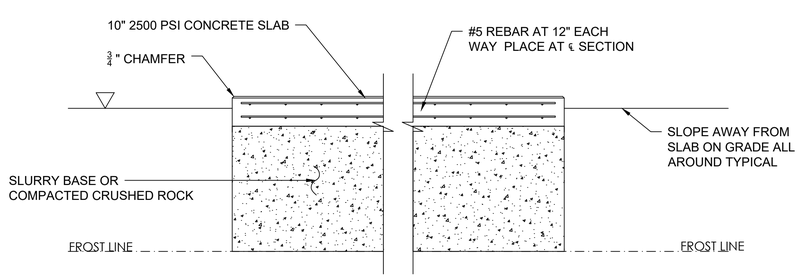
ITEM	MINIMUM ULTIMATE COMPRESSIVE STRENGTH (psi) (AT 28 DAYS)
ELEECTRICAL DUCTBANKS UNDER ROADWAY CROSSINGS	3,000*
MAJOR EQUIPMENT / STRUCTURES WHERE REQUIRED AND ALL OTHER CONSTRUCTION	3,000*
*MINIMUM VALUES UNLESS SPECIFICALLY NOTED OTHERWISE IN DESIGN	

4. REINFORCING BARS SHALL BE DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60. WELDED FABRIC SHALL CONFORM TO ASTM A185. PLAIN WIRE SHALL CONFORM TO ASTM A82. PLACEMENT SHALL BE IN ACCORDANCE WITH CHAPTERS 7 AND 12 OF ACI 318 AND THE MANUAL OF STANDARD PRACTICE OF THE CONCRETE REINFORCING STEEL INSTITUTE.
5. CEMENT SHALL BE PORTLAND CEMENT CONFORMING TO ASTM C150, TYPE I OR TYPE II OR AS SUGGESTED BY THE GEOTECHNICAL REPORT.
6. AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 OR AS SUGGESTED BY THE GEOTECHNICAL REPORT.



2 CONCRETE ANCHOR DETAIL
SCALE:NTS

10" EQUIP. PAD #5 REBAR SPACED 12" EACH WAY FOR BOTH TO AND BOTTOM MAT IN 2500PSI CONCRETE



3 CONCRETE EQUIPMENT PAD DETAIL
SCALE:NTS

RENEWABLE PROPERTIES

ENGINEER:
CALIFORNIA ENGINEERING CO.
OWNER OF RECORD:
KIMBAL GRIGGS GILES & THERESE BLODGETT-GILES
PROJECT APPLICANT:
RP NAPA SOLAR 2, LLC

SOSCOL FERRY SOLAR

SOSCOL FERRY RD,
NAPA, CA 94559, USA

LAT: 38.237851°
LON: -122.275392°

REV. NO	DESCRIPTION	DATE
0	FOR UTILITY APPLICATION	09/17/19

SHEET TITLE:

POWER STATION ELEVATION DETAILS

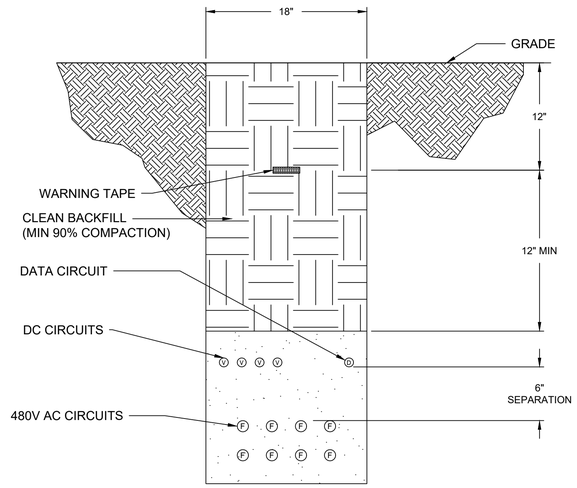
DRAWING NO.:

PV-102

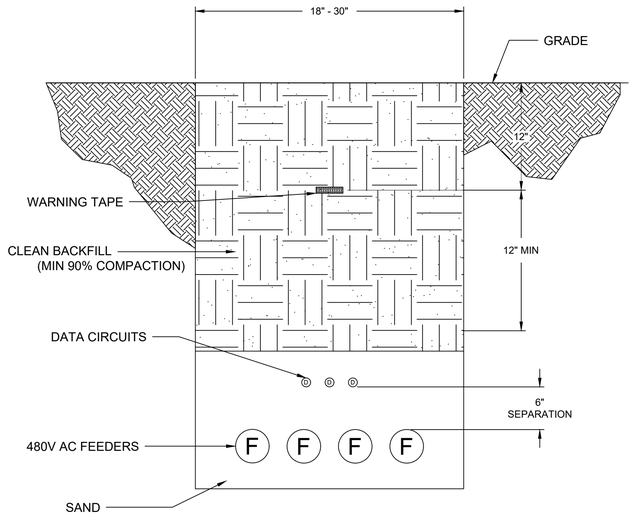
DRAWN BY: LR
REVIEWED BY:
DATE: 09/17/19
SCALE: AS SHOWN
PROJECT NO.:

TRENCH NOTES

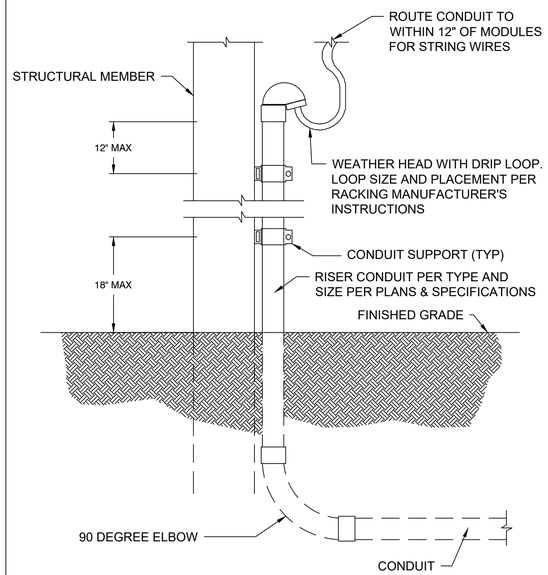
1. PROVIDE 3" CLEARANCE FROM SIDES AND BOTTOM OF TRENCH TO ANY CONDUIT OR CABLE.
2. PLACE 6" MINIMUM SAND COVER OVER CONDUIT AND CABLES. PLACE 3" MINIMUM SAND ON BOTTOM AND SIDES OF CABLES.
3. WITH CONDUIT AND CABLES IN PLACE, COMPACT TO 90% USING NO MECHANICAL EQUIPMENT. COMPACT 12" OF TRENCH TO 95% IN PAVEMENT AREAS.
4. USE NATIVE SOIL BACKFILL, LOWER 10-12" IS SAND
5. MAINTAIN MIN 36" CLEARANCE WHEN PARALLELING STRUCTURAL SUPPORTS. IN NO CASE SHALL CLEARANCE BE LESS THAN 5 TIMES DIAMETER OF DRIVEN PILES.
6. SURFACE ACTIVITIES AND LOADING OVER BURIED CABLES SHALL NOT EXCEED RATED CRUSH CAPACITY OF CABLES OR CONDUITS.
7. MAINTAIN MINIMUM 4" VERTICAL CLEARANCE WHERE DC CIRCUITS CROSS OR PARALLEL DC & AC CIRCUITS FROM OTHER LOW VOLTAGE SYSTEMS.
8. MAINTAIN MINIMUM 12" CLEARANCE BETWEEN ALL UNDERGROUND UTILITIES AND MEDIUM VOLTAGE CIRCUITS. VERIFY EXACT REQUIREMENTS WITH UTILITY BEFORE STARTING UNDERGROUND INSTALLATION.
9. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (DIAL 811) TWO FULL BUSINESS DAYS IN ADVANCE OF ANY CONSTRUCTION ACTIVITIES, INCLUDING PAVEMENT REMOVAL, EXCAVATION AND AC OVERLAY, WHICH COULD AFFECT ANY UNDERGROUND UTILITY.
10. MAINTAIN MINIMUM 6" OF SEPARATION BETWEEN DIFFERENT VOLTAGE CLASSES & MIN 3" SEPARATION BETWEEN CONDUITS, GROUND RODS AND UNDERGROUND OBSTRUCTIONS.



1 AC FEEDER TRENCH WITH DC SOURCE CIRCUIT & DATA
SCALE:NTS

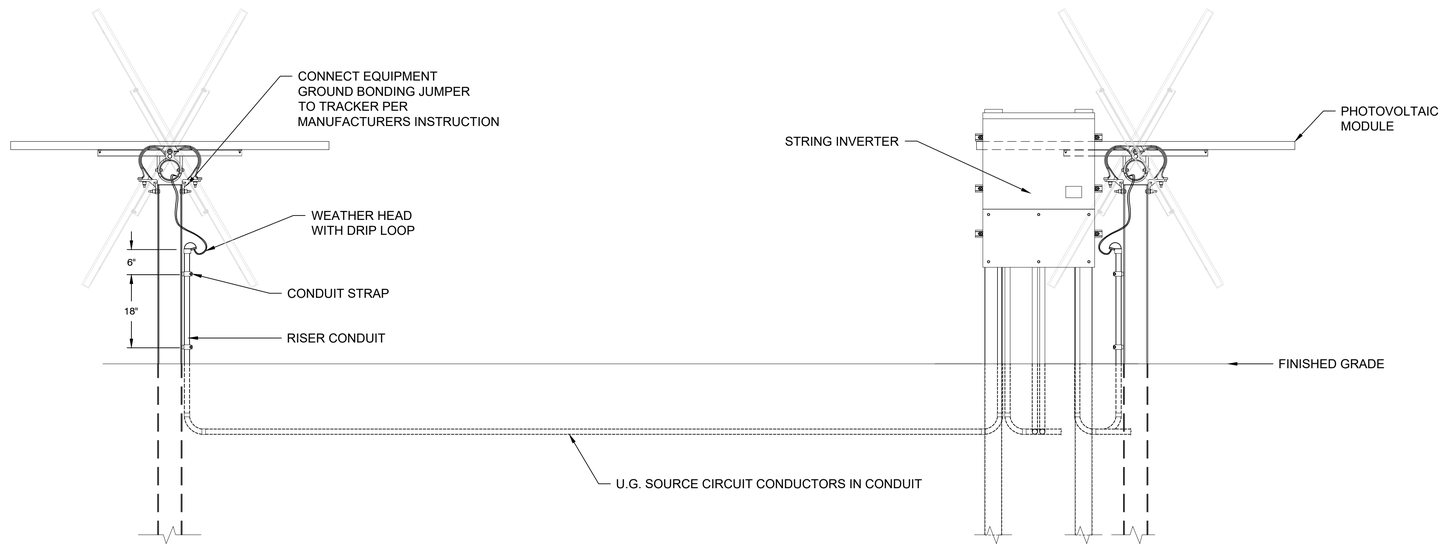


2 AC FEEDER TRENCH
SCALE:NTS



NOTES:
1. DIMENSION BETWEEN RISER CONDUIT AND RACKING STRUCTURAL MEMBER TBD BY CONTRACTOR IN FIELD. USE CODE APPROVED MEANS AND METHODS.
2. USE APPROVED CONDUIT FOR EXPOSED AREA PER NEC 352-10 (f) & NEC 352-12 (c).

4 RISER CONDUIT DETAIL
SCALE:NTS



3 DC SOURCE CIRCUIT (JUMPER) TRENCH DETAIL
SCALE:NTS

RENEWABLE PROPERTIES

ENGINEER:
CALIFORNIA ENGINEERING CO.
OWNER OF RECORD:
KIMBAL GRIGGS GILES & THERESE BLODGETT-GILES
PROJECT APPLICANT:
RP NAPA SOLAR 2, LLC

SOSCOL FERRY SOLAR

SOSCOL FERRY RD,
NAPA, CA 94559, USA

LAT: 38.237851°
LON: -122.275392°

REV. NO	DESCRIPTION	DATE
0	FOR UTILITY APPLICATION	09/17/19

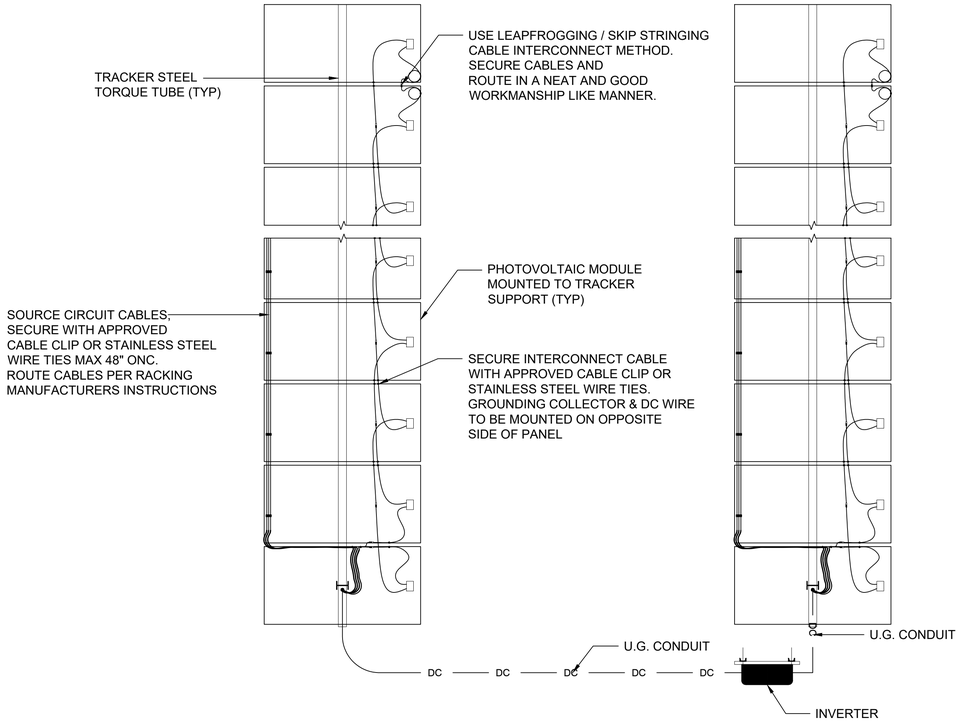
SHEET TITLE:

TRENCH DETAILS

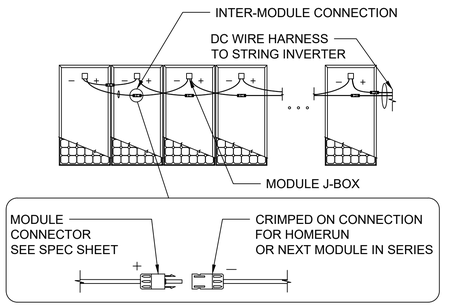
DRAWING NO.:

PV-103

DRAWN BY: LR
REVIEWED BY:
DATE: 09/17/19
SCALE: AS SHOWN
PROJECT NO.:

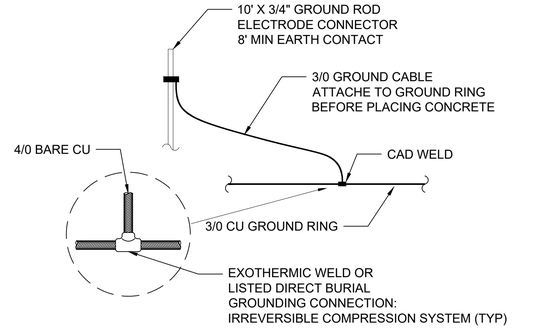


1 INVERTER STRING DETAIL
SCALE:NTS

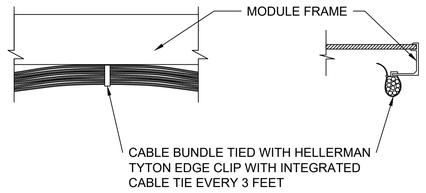


NOTE: SECURE ALL STRING CONDUCTORS AND HARNESSES AT EACH FRAME LOCATION WITH STAINLESS STEEL PV CABLE CLIPS.

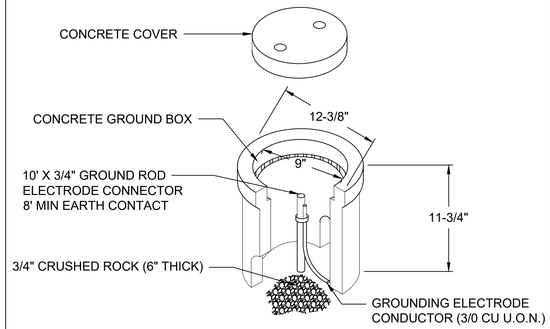
3 MODULE CONNECTIONS
SCALE:NTS



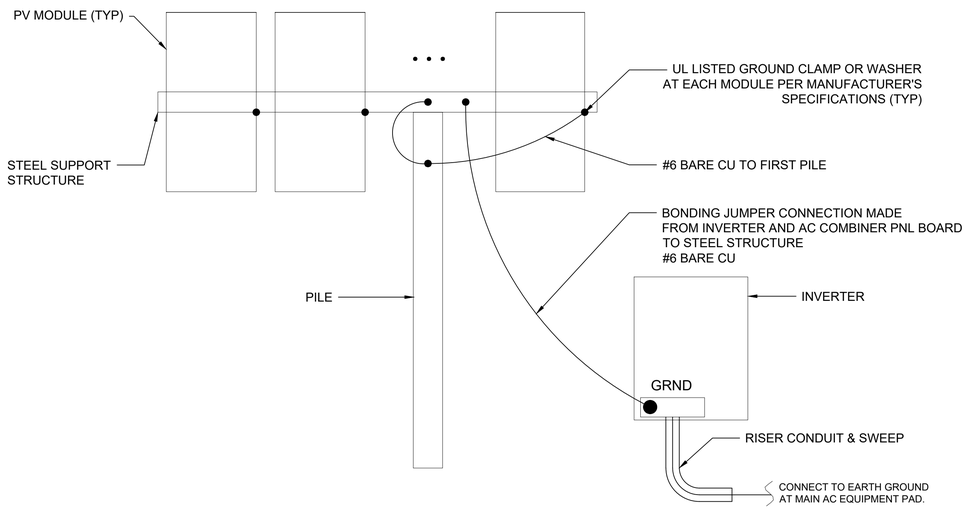
6 GROUNDING ELECTRODE
SCALE:NTS



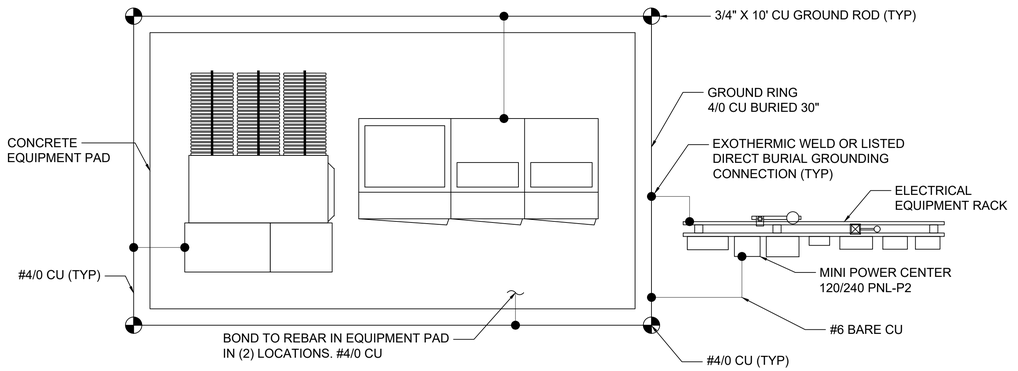
4 DC WIRE MANAGEMENT
SCALE:NTS



7 GROUND ROD BOX DETAIL
SCALE:NTS



2 GENERAL GROUNDING DETAIL
SCALE:NTS



5 EQUIPMENT PAD GROUNDING DETAIL
SCALE:NTS

RENEWABLE PROPERTIES

ENGINEER:
CALIFORNIA ENGINEERING CO.
OWNER OF RECORD:
KIMBAL GRIGGS GILES & THERESE BLODGETT-GILES
PROJECT APPLICANT:
RP NAPA SOLAR 2, LLC

SOSCOL FERRY SOLAR

SOSCOL FERRY RD,
NAPA, CA 94559, USA

LAT: 38.237851°
LON: -122.275392°

REV. NO	DESCRIPTION	DATE
0	FOR UTILITY APPLICATION	09/17/19

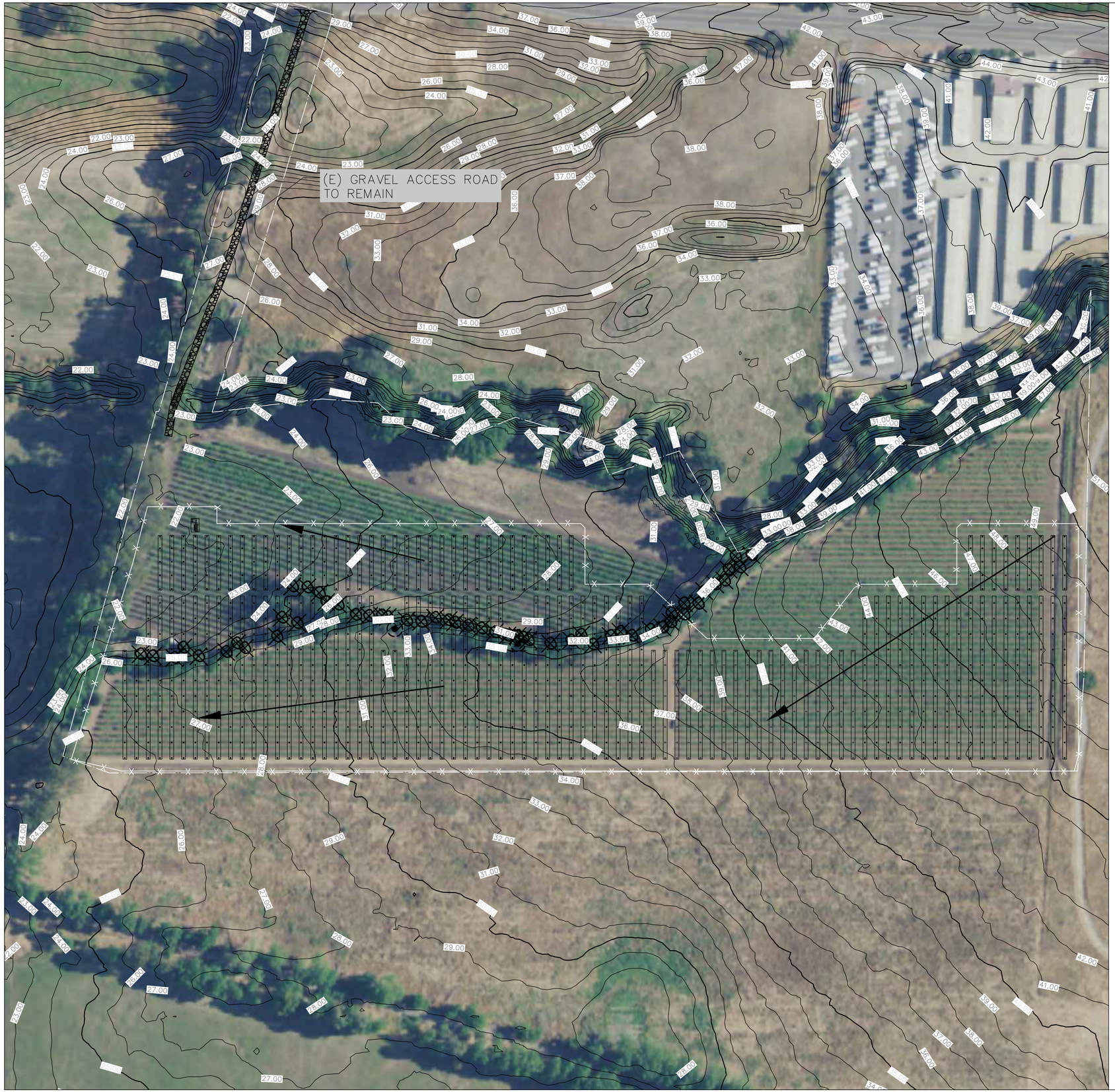
SHEET TITLE:

ELECTRICAL DETAILS

DRAWING NO.:

PV-104

DRAWN BY: LR
REVIEWED BY:
DATE: 09/17/19
SCALE: AS SHOWN
PROJECT NO.:



EXISTING CONDITIONS	
ITEM	VALUE
PROJECT AREA, FENCED (SQFT)	680,622
PROJECT AREA, FENCED (ACRES)	15.62
PROPOSED GRAVEL ROAD OUTSIDE OF FENCED AREA (SQFT)	1,982
TOTAL PROJECT AREA (SQFT)	682,604
TOTAL PRE-PROJECT IMPERVIOUS (SQFT)	0
GENERAL TERRAIN SLOPE	WEST
SLOPE %	~1.5%

GENERAL NOTES

1. ELEVATION DATA SOURCE:
   1.1. TITLE: NATIONAL ELEVATION DATA 3 METER OR BETTER
   1.2. ORIGINATOR: USDS / NRCS NATIONAL GEOSPATIAL CENTER OF EXCELLENCE

RENEWABLE PROPERTIES

SOSCOL FERRY SOLAR

1605 SOSCOL FERRY RD.
NAPA, CA 94559

LAT: 38.237851°
LON: -122.275392°

REV. NO	DESCRIPTION	DATE
0	USE PERMIT APPLICATION	09/13/19

SHEET TITLE:

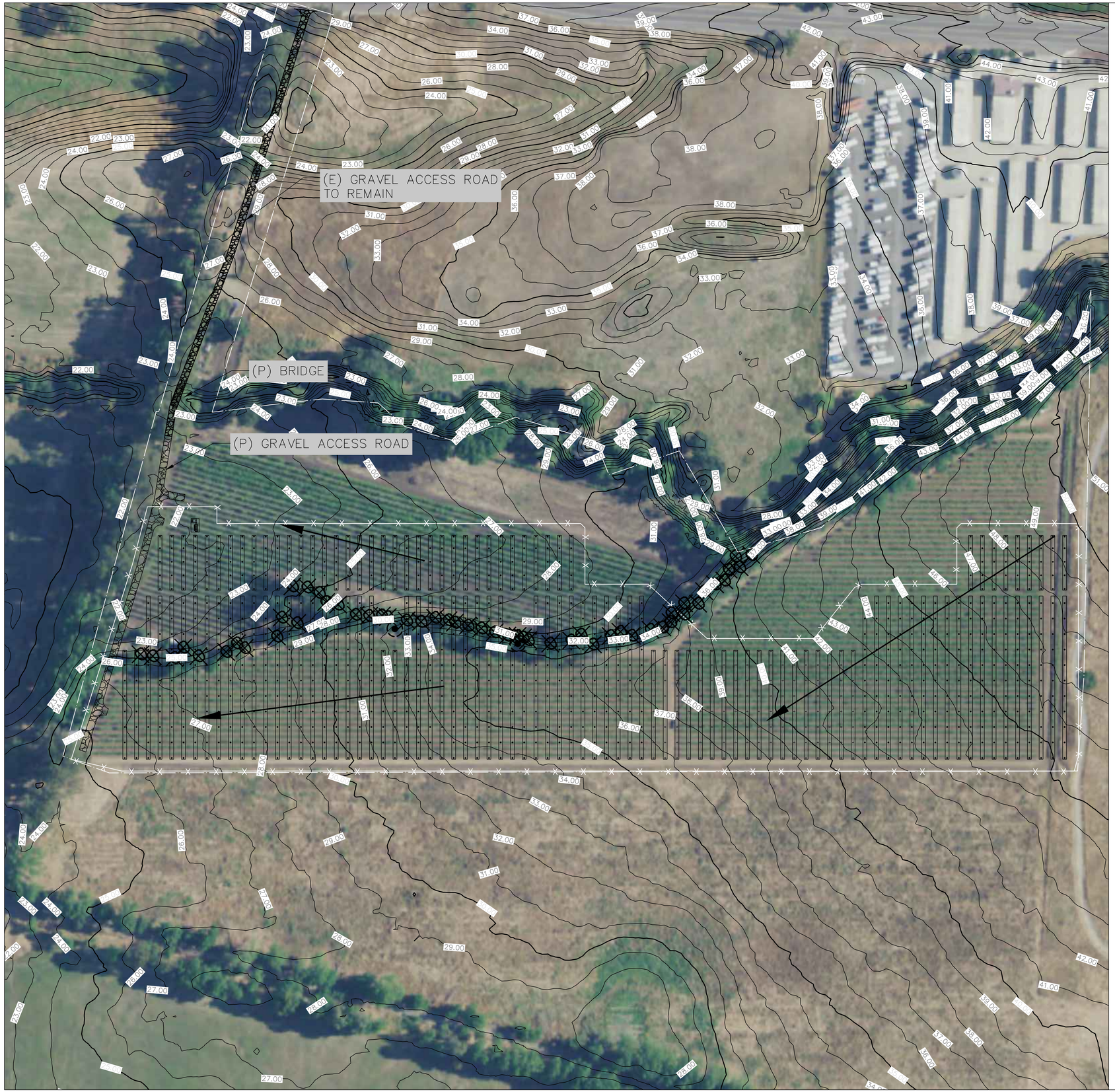
DRAINAGE PLAN

EXISTING

DRAWING NO.:

C-100

DRAWN BY:	CA
REVIEWED BY:	
DATE:	09/13/19
SCALE:	AS SHOWN
PROJECT NO.:	



EXISTING CONDITIONS	
ITEM	VALUE
PROJECT AREA, FENCED (SQFT)	680,622
PROJECT AREA, FENCED (ACRES)	15.62
PROPOSED GRAVEL ROAD OUTSIDE OF FENCED AREA (SQFT)	1,982
TOTAL PROJECT AREA (SQFT)	682,604
TOTAL PRE-PROJECT IMPERVIOUS (SQFT)	0
GENERAL TERRAIN SLOPE	WEST
SLOPE %	~1.5%
TOTAL NEW GRAVEL ROADS (SQFT)	7,620
TOTAL NEW POWER STATIONS (SQFT)	314
TOTAL NEW MODULE ARRAYS (SQFT)	170,595
TOTAL NEW IMPERVIOUS SURFACE (SQFT)	178,529
TOTAL POST-CONSTRUCTION IMPERVIOUS SURFACE (SQFT)	178,529
PERVIOUS SURFACE AREA REDUCTION (SQFT)	26.15%

GENERAL NOTES

1. ELEVATION DATA SOURCE:
   1.1. TITLE: NATIONAL ELEVATION DATA 3 METER OR BETTER
   1.2. ORIGINATOR: USDS / NRCS NATIONAL GEOSPATIAL CENTER OF EXCELLENCE

2. NEW IMPERVIOUS AREAS (DRAINAGE MANAGEMENT AREA, DMA's) TO DRAIN TO SURROUNDING PERVIOUS AREAS OF NON-NATIVE ANNUAL GRASSLAND AND EXISTING MATURE VEGETATION, WITH MAX RATIO OF 2:1, PERVIOUS TO IMPERVIOUS.

3. NO GRADING IN EXCESS OF 50 CY IS ANTICIPATED.

RENEWABLE PROPERTIES

SOSCOL FERRY SOLAR

1605 SOSCOL FERRY RD.
NAPA, CA 94559

LAT: 38.237851°
LON: -122.275392°

REV. NO	DESCRIPTION	DATE
0	USE PERMIT APPLICATION	09/13/19

SHEET TITLE:

DRAINAGE AND GRADING PLAN

PROPOSED

DRAWING NO.:

C-101

DRAWN BY:	CA
REVIEWED BY:	
DATE:	09/13/19
SCALE:	AS SHOWN
PROJECT NO.:	