April 14, 2022 11927

James E. Whalen
President
J. Whalen Associates, Inc.
1660 Hotel Circle North, Suite 725
San Diego, California 92108

RE: Rugged Solar Project; Fire Protection Plan Addendum Report – No Significant Impacts

Dear Mr. Whalen:

Please be advised that a fire protection plan review has been conducted on the recently revised Rugged Solar project. It has been determined that the proposed project changes result in a reduced footprint and additional minor changes as noted herein without triggering additional fire protection requirements. We refer reviewers of this FPP addendum to the project's new site plans for reference.

Project Background

The currently proposed 765-acre Rugged Solar Project (the "Proposed Project") area consists of 11 parcels located within the boundary of Rough Acres Ranch in southeastern San Diego County. The applicant, Rugged Solar, LLC, is seeking an extension of and modification to the Major Use Permit (MUP) (PDS2017-MUP-12-007) for the Soitec Rugged Solar Project, which was approved by the County Board of Supervisors (the "Approved Project") in 2015, The Rugged Solar Project is one of four individual solar energy projects analyzed in the Soitec Solar Development Program Environmental Impact Report (EIR), which was certified by the County Board of Supervisors February 2015. Dudek prepared the following Fire Protection Plan for the Program EIR, which is incorporated herein by reference:

 Program EIR Appendix 3.1.4-6, Final Fire Protection Plan with Appendices for the Rugged Solar Farm Project, dated January 2015

The purpose of this technical addendum report is to evaluate whether and to what extent the currently Proposed Project differs from the Approved Project in terms of the need for additional fire protection features or if the project presents an unmitigated impact. Both the Approved Project and the Proposed Project contemplate development on the eastern side of McCain Valley, north of Interstate 8, and the Community of Boulevard.



2. Current Proposed Project Description

The Proposed Project includes the finance, construction, and operation of a renewable energy solar project within a development footprint of 393.3 acres of the approximately 765-acre proposed Project site. The Proposed Project would produce up to 74 megawatts alternating current (MWac) generating capacity and would consist of approximately 229,032 photovoltaic (PV) modules. Each module would be 390W, or equivalent wattage of modules available at the time of final permitting. The project components would also include inverter stations, which convert the Direct Current (DC) power from the PV modules to Alternating Current (AC) power, which is compatible with the San Diego Gas & Electric (SDG&E) system. The Proposed Project includes the following primary components, as shown in Attachment 1: Rugged Solar Plot Plan:

- A Photovoltaic Array with PV modules mounted on trackers oriented towards the sun that rotate East-West to track the sun. Trackers would be arranged around inverter stations.
- A collection system linking the trackers to the on-site, collector substation would consist of 1,000-volt (V) DC underground conductors leading to 34.5 kilovolt (kV) underground and overhead AC conductors. The collection system would be located within the same development footprint as the Photovoltaic Array. The overhead structures for the collection system would be steel poles approximately 50 to 75 feet high.
- A collector substation within a fenced area of approximately 6,000 square feet that would be located within the central portion of the project site. The on-site substation would include a 450-square-foot control house.
- A 4,500-square-foot Operations and Maintenance (0&M) facility, which includes a 900-square-foot storage
 and conference room. The 0&M building would be used for employee operations, and maintenance of
 equipment. Upon completion, the solar facility would be monitored on site at the 0&M annex and off site
 through a supervisory control and data acquisition system.

3. Proposed Project Wildfire Analysis and Findings

Primary differences between the currently Proposed Project and the Approved Project analyzed in the certified PEIR are as follows:

- The currently Proposed Project would utilize PV electrical generation system technology; the Approved Project would utilize dual-axis concentrating photovoltaic (CPV) technology.
- The development footprint would be reduced from 450 to 393.3 acres.
- The solar energy produced would be reduced from up to 80 MWac (Approved Project) to up to 74 MWac (Proposed Project).
- The tracker/panel height above ground would be reduced from 30 feet for the Approved Project to up to 12 feet for the Proposed Project.

This technology change from dual-axis concentrating trackers to single-axis trackers would require less land disturbance as compared to the previously Approved Project. The single-axis tracker design would require 56.7 acres less disturbance (13% reduction) compared to the dual axis tracker layout. In addition, single-axis trackers installation requires substantially less equipment to install, such as very limited use of machinery for concrete foundations. Each Soitec tracker had such a foundation. Single-axis trackers are also more reliable, and thus less maintenance would be required. Finally, single axis trackers using photovoltaic modules require less washing than the previously proposed dual-axis trackers; once per year instead of every 6 weeks. None of these changes triggers the need for additional fire protection features or results in an unmitigated impact to fire and life safety when compared to the original project.

Code Compliance

The Proposed Project, including buildings and vegetation management, would be consistent with the 2017 County Consolidated Fire Code and 2016 California Fire Code Section 49 and with the California Code of Regulations, Title 14, Fire Safe Regulations. Further, the Proposed Project would be consistent with the County Building and Electrical Codes and will employ all related California Public Utilities Commission regulations including the General Order 95: Rules for Overhead Electric Line Construction.

Fire Access Roads

Access to the Proposed Project site would be from McCain Valley Road. Most of the Proposed Project site would be located to the west of McCain Valley Road, with access provided off of Tule Mountain Road. One subarea would be located to the east of McCain Valley Road, and would be accessible via an access road leading from McCain Valley Road crossing beneath the Sunrise Powerlink. The central subarea would also include an access road leading south crossing Tule Creek to provide access to the southern subarea.

The on-site fire access roads, including the perimeter access road and the connecting roads between the arrays, will be constructed to a minimum width of 24 feet and improved and maintained to support the imposed loads of fire apparatus (not less than 75,000 lbs.) and would be provided with an approved surface (D.G., Class II base, or gravel). Minimum vertical clearance of 13 feet 6 inches from the driving surface shall be maintained for the Proposed Project interior site's fire access roads. The Proposed Project's circulatory roadways will include numerous opportunities for fire engine turn-around.

Water Supply

Water that is dedicated for fire suppression will be stored in two, aboveground tanks, complying with the SDCFA requirements and with National Fire Protection Association (NFPA) 22, Private Fire Protection Water Tanks. The water capacity of each tank shall be 20,000 gallons. The first water tank would be located at the Operations & Maintenance (O&M) facility and the other would be located at the collector substation.

Defensible Space

Under the Proposed Project, fuel modification zones (FMZ) will primarily remain the same as the Approved Project. The Project will be provided defensible space by setting back all PV modules a minimum 30-feet from the solar facility's perimeter fence and modifying the natural fuels by removing or maintaining them to a height of 6 inches, or, in the case of perimeter areas, drivable surfaces and vegetation free areas. The perimeter FMZ buffer will include at least 30 feet of modified fuels and in some areas will include the 24-foot wide perimeter fire access road, and cleared, contiguous modified fuel areas from the perimeter fence to the outermost panel racks. This area seamlessly meets the modified fuel areas that occur throughout the site where fuels are maintained at a 6 inch height. The collector substation and 0&M pad areas would be free of vegetation around all electrical equipment.



Emergency Services

The Proposed Project site is located within the San Diego County's responsibility area, and the County has indicated that it can and would provide fire and emergency medical response¹. Emergency response for the Project would be provided, initially, by the County and/or CAL FIRE from the County's co-located Fire Station 47. Fire Station 47 is located at 40080 Ribbonwood Road in the unincorporated community of Boulevard and is staffed with CAL FIRE and County volunteer firefighters. The Boulevard Station is between 2 and 6 miles from the most remote areas of the project, depending on which of the Proposed Project subareas are involved. Travel time to these subareas is approximately 2.6 and 10.3 minutes, well within the County General Plan's allowable 20+ minutes for the Project Area's zoning.

Using San Diego County fire agencies' estimate of 82 annual calls per 1,000 population, the project's estimated maximum ongoing 20 on-site personnel (there will be some variation throughout the year with a higher number of persons during the construction phases), would generate up to 1.6 calls per year (less than 0.16 call per month), most of which would be expected to be medical-related. These estimates are likely overly conservative due to the fact that County statistics represent calls from dense urban areas where medical-related calls are much higher than would be anticipated from the Project. Like the Approved Project, current firefighting capabilities and resources would meet the anticipated demands by the Proposed Project.

4. Proposed Project Fire Safety Features

Based on the results of the Proposed Project analysis and findings, the fire safety features as required in for the Approved Project would also be implemented to minimize the potential exposure of the Proposed Project to wildfire hazards. In addition, the inclusion of fair-share funding to the San Diego County Fire Protection District (SDCFPD) in the Proposed Project's Fire and Emergency Protection Services Agreement (PDF-PS-1 was required for the Approved Project) would be required pursuant to the Safety Element of the County of San Diego General Plan.

PDF-PS-1

As a condition to providing service and pursuant to the Safety Element of the General Plan, the applicant(s) shall enter into a fire and emergency protection services agreement with the SDCFPD prior to approval of a Major Use Permit Modification to make a fair share contribution to fund the provision of appropriate fire and emergency medical services, which includes but is not limited to:

- An initial Paramedic and firefighting staffing and/or startup equipment kit, total cost of \$360,000 \$250,000; and
- Annual funding for one Paramedic and firefighting staffing and/or equipment, total annual cost of \$73,000 \$24,667, with an annual 52% escalator.

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County of San Diego Department of Planning and Land Use, Project Facility Availability Form- Fire, Signed by County on 10/23/2014.

5. Conclusion

The Soitec Rugged Solar Development Program EIR determined that impacts related to wildfire would be less than significant and would not require mitigation measures for the Approved Project. Based upon the changes proposed under the currently Proposed Project, no new wildfire impacts would occur and no new mitigation would be required. A fire and emergency protection services agreement with the SDCFA prior to approval of a MUP would still be applicable.

Please contact me at Dudek (619.992.9161), if you have any questions regarding this report and its findings.

Respectfully Submitted,

Michael Huff

Principal/Senior Fire Protection Planner

Att.: Attachment 1 - Rugged Solar Plot Plans for Proposed project

Attachment 1

Rugged Solar Plot Plans for Proposed Project

RUGGED SOLAR

COUNTY OF SAN DIEGO, CA MAJOR USE PERMIT MODIFICATION

PDS 2017-MUP-12-007W1 PDS 2017-MUP-12-007TE

GENERAL NOTES

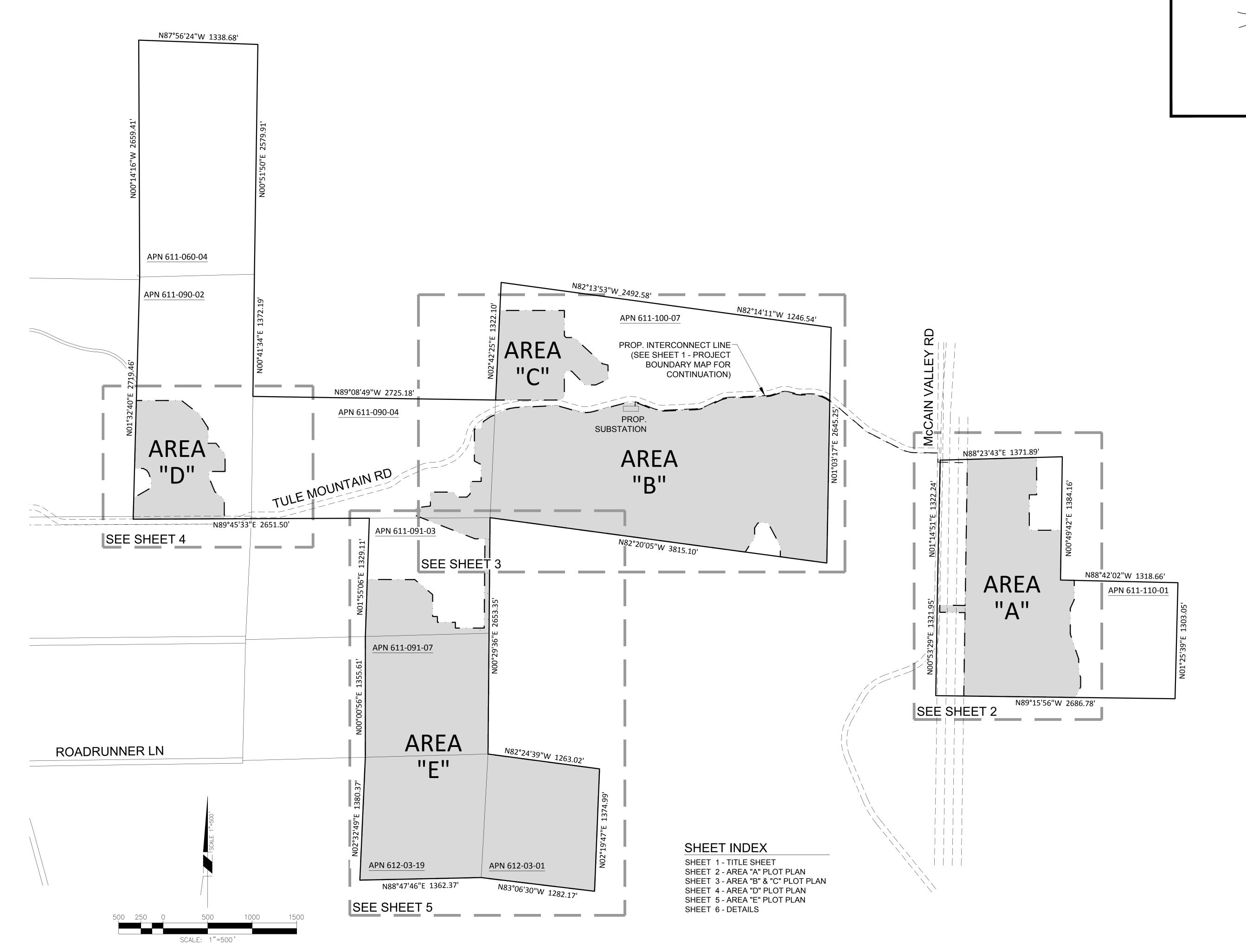
- 1. APPROVAL OF THIS MODIFICATION TO EXISTING MAJOR USE PERMIT MUP 3300-12-007, AUTHORIZES THE FOLLOWING: THE CONSTRUCTION, OPERATION AND MAINTENANCE OF A SOLAR PHOTOVOLTAIC FACILITY ALLOWED UNDER SECTION 6950 OF THE ZONING ORDINANCE, COUNTY OF SAN DIEGO.
- 2. THIS PLAN IS PROVIDED TO ALLOW FOR FULL AND ADEQUATE DISCRETIONARY REVIEW OF A PROPOSED DEVELOPMENT PROJECT. THE PROPERTY OWNER ACKNOWLEDGES THAT ACCEPTANCE OR APPROVAL OF THIS PLAN DOES NOT CONSTITUTE AN APPROVAL TO PERFORM ANY GRADING SHOWN HEREON AND AGREES TO OBTAIN VALID GRADING PERMISSION BEFORE COMMENCING SUCH ACTIVITY.
- 3. ASSOCIATED REQUESTS: NONE
- 4. GENERAL PLAN REGIONAL CATEGORY: RURAL LANDS
- 5. LAND USE DESIGNATION: RURAL LANDS (RL-80)

6. EXISTING ZONING:

APN 611-100-07 S92/A72 APN 611-110-01 GENERAL AGRICULTURE (A72)

ALL REMAINING APN'S GENERAL RURAL (S92)

- 7. PROJECT AREA: 765 ACRES
- 8. MAJOR USE PERMIT AREA: 765 ACRES
- 9. SOLAR DEVELOPMENT AREA: 393.3 ACRES
- 10. THIS PROJECT MAY BE IMPLEMENTED IN MULTIPLE PHASES WITHOUT REGARD TO IMPLIED SEQUENCING.
- 11. SOLAR RELATED FACILITIES SUCH AS PHOTOVOLTAIC PANELS, ARRAY RACKS, ELECTRICAL CONNECTIONS, INVERTERS, TRANSFORMERS, O&M BUILDINGS, CONTROL ROOMS, EMERGENCY GENERATORS, SUBSTATION, SWITCHGEAR YARD, FENCING, AND INTERNAL ACCESS, SHOWN ON THE PLOT PLAN MAY BE RELOCATED, RECONFIGURED, AND/OR RESIZED WITHIN THE SOLAR FACILITY DEVELOPMENT AREA, (EXCLUSIVE OF OPEN SPACE AREAS) WITH THE ADMINISTRATIVE APPROVAL OF THE DIRECTOR OF PDS WHEN FOUND IN CONFORMANCE WITH THE INTENT AND CONDITIONS OF THE PERMIT'S APPROVAL. THE LOCATION OF TRANSFORMERS, INVERTERS AND GENERATORS MAY BE RELOCATED/RECONFIGURED WITHOUT THE REQUIREMENT OF A MINOR DEVIATION PERMIT. THE LOCATIONS OF TRANSFORMERS, INVERTERS AND GENERATORS MUST COMPLY WITH THE COUNTY'S NOISE ORDINANCE AND MUST BE ELEVATED TO 1 FT. ABOVE THE BASE FLOOD ELEVATION.
- 12. NO DEVELOPMENT WILL OCCUR IN AREAS IDENTIFIED ON THE PLOT PLAN AS "OPEN SPACE".
- 13. ENTRANCE TO EACH SITE ACCESS GATE WILL BE FROM AN IMPROVED DRIVEWAY DESIGNED IN ACCORDANCE WITH RSD G-14E.
- 14. A SYSTEM IDENTIFICATION SIGN SHALL BE LOCATED AT GATED ENTRANCES. SIGN SHALL BE 12"X18". SIGN SHALL LIST NAME OF SITE AND CONTACT INFORMATION AS PROVIDED BY SDGE.
- 15. ALL SITE ACCESS GATES ARE TO BE EQUIPPED WITH FIRE AUTHORITY APPROVED STROBE LIGHT ACTIVATION AND KNOX KEY-OPERATED SWITCH.
- 16. PRIVATE PROPERTY/NO TRESPASSING AND HIGH VOLTAGE SIGNS SHALL BE LOCATED AT GATED ENTRANCES AND AT 100' INTERVALS ALONG FENCING, THE SIGN SHALL BE 10"X14". MISC. INTERIOR DIRECTIONAL AND SAFETY SIGNAGE ARE PERMITTED
- 17. THE 24' PERIMETER FIRE ACCESS ROAD WIDTHS MAYBE REDUCED ADMINISTRATELY WITH THE APPROVAL OF THE COUNTY AND FIRE AUTHORITY HAVING JURISDICTION.
- 18. MAX. GRADIENT OF ALL ACCESS ROADS NOT TO EXCEED 10%.
- 19. TURNAROUND SHALL BE DESIGNED IN ACCORDANCE WITH COUNTY OF SAN DIEGO DESIGN STANDARD DS-06 FOR A COUNTY EMERGENCY FIRE APPARATUS.
- 20. 3-FT. WIDE PED-GATES WILL BE LOCATED ALONG THE LENGTH OF THE PERIMETER FENCING AT AN INTERVAL NOT TO EXCEED 800 FEET. GATES SHALL BE PADLOCKED WITH A CHAIN AND FIRE KEY.
- 21. LIGHTING FOR MAINTENANCE AND SECURITY PURPOSES ONLY. OUTDOOR LIGHTING CIRCUITS SHALL INCORPORATE DUSK-TO-DAWN PHOTOCELL CONTROLLERS, OCCUPANCY SENSORS, AND/OR SWITCHES AS APPROPRIATE. SHIELDED LIGHTING LOCATED AT GATES AND SUBSTATION/O&M BUILDING SHALL CONFORM TO COUNTY OF SAN DIEGO OUTDOOR LIGHTING REQUIREMENTS.
- 22. SEE PRELIMINARY GRADING PLAN FOR PROPOSED GRADING.
- 23. A PORTION OF THE SITE IS SUBJECT TO INUNDATION BY THE 100-YEAR FLOOD. LIMITS OF THE 100-YEAR INUNDATION ARE SHOWN ON THE PLOT PLAN.
- 24. PROPOSED LANDSCAPE SCREENING ARE SHOWN ON THE PLOT PLAN WHERE REQUIRED.
- 25. All BUILDINGS ARE TO BE CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS SUCH AS CONCRETE, METAL OR EQUIVALENT. EXTERIOR BUILDING COLOR SHALL BE OF EARTHTONE COLORS.



PARCEL ZONING SETBACK SCHEDULE

VICINITY MAP

NOT TO SCALE

PROJECT BOUNDARY

T.B. PG. 1300 F3

APN	SETBACK SCHEDULE DESIGNATION
611-100-07	C/D
611-060-04	D
611-090-02	D
611-090-04	D
611-091-03	D
611-091-07 POR.	D
611-110-01	С
612-030-01	D
612-030-19	D

COUNTY OF

SETBACKS

SETBACK	
FRONT YARD SETBACK (FROM C/L)	60'
EXTERIOR SIDE YARD	35'
INTERIOR SIDE YARD	15'
REAR YARD SETBACK	25'

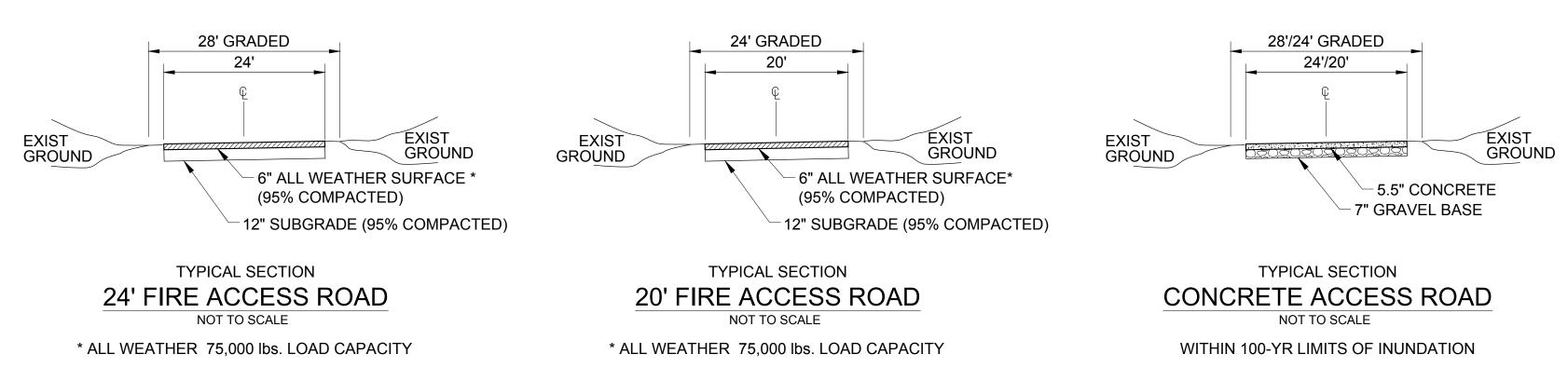
APPLICANT

RUGGED SOLAR, LLC 150 MATHILDA PLACE SUITE #106 SUNNYVALE, CA 94086 CONTACT: JIM WHALEN (619) 683-5544

PLANNER/ENGINEER

MICHAEL BAKER
INTERNATIONAL
STEVE WRAGG
9755 CLAIREMONT MESA BLVD.
SAN DIEGO, CA. 92124
(858) 614-5000





NOTE: STRUCTURAL SECTIONS AS SHOWN ARE FOR PLANNING PURPOSES ONLY. GEOTECHNICAL ENGINEER TO PROVIDE CONSTRUCTION SPECIFICATIONS AT FINAL DESIGN.

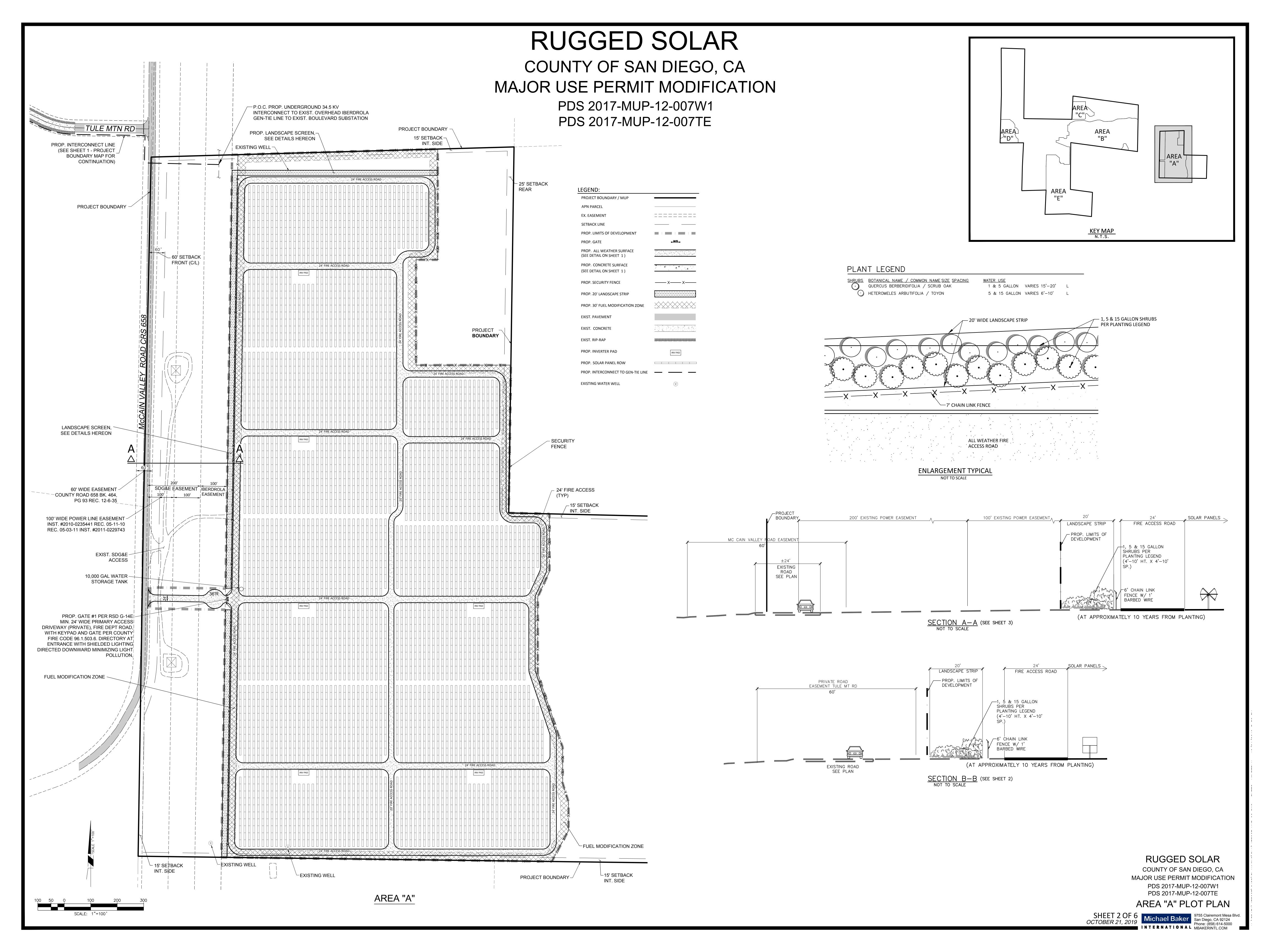
RUGGED SOLAR
COUNTY OF SAN DIEGO, CA
MAJOR USE PERMIT MODIFICATION

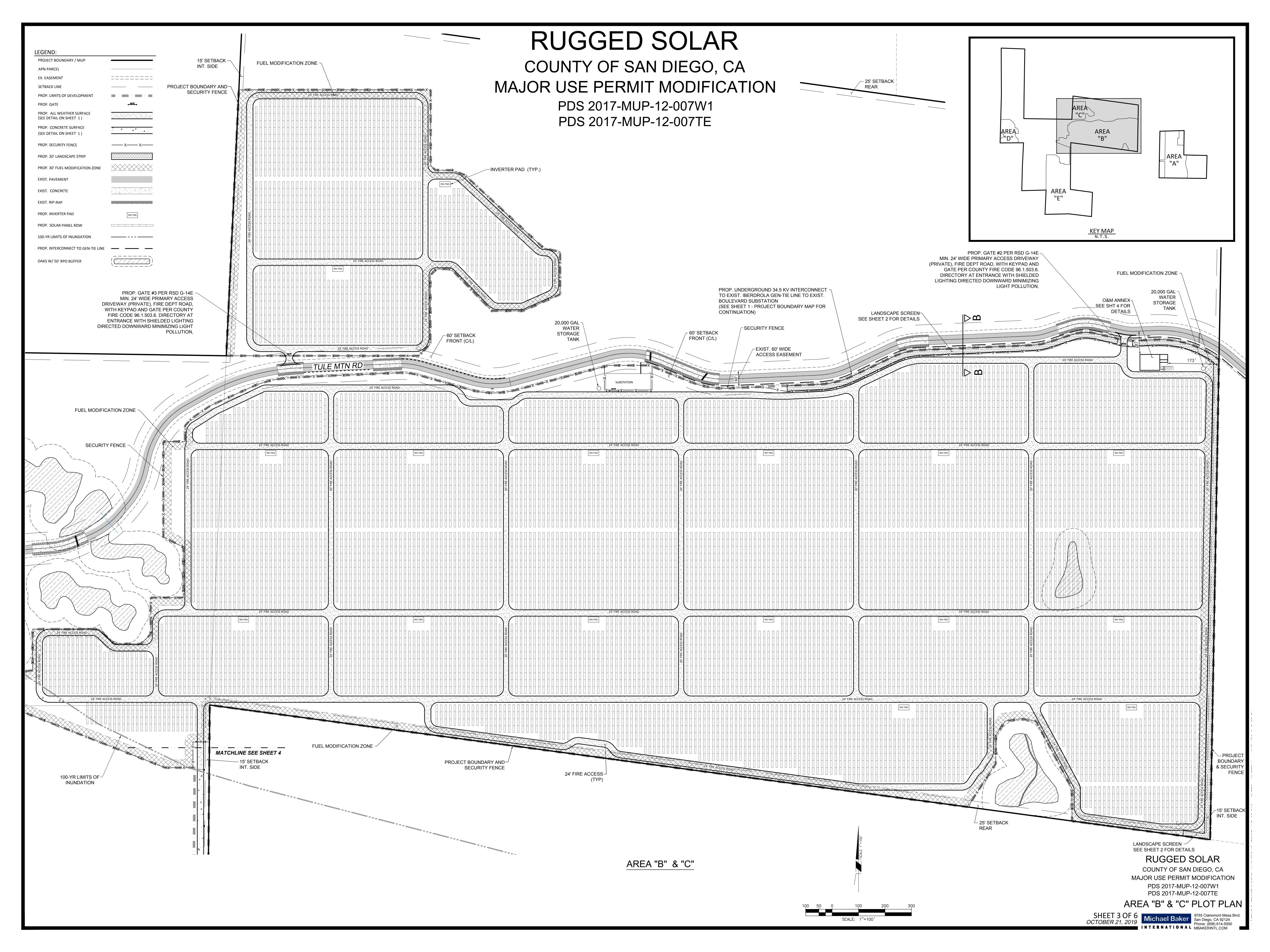
PDS 2017-MUP-12-007W1 PDS 2017-MUP-12-007TE

TITLE SHEET

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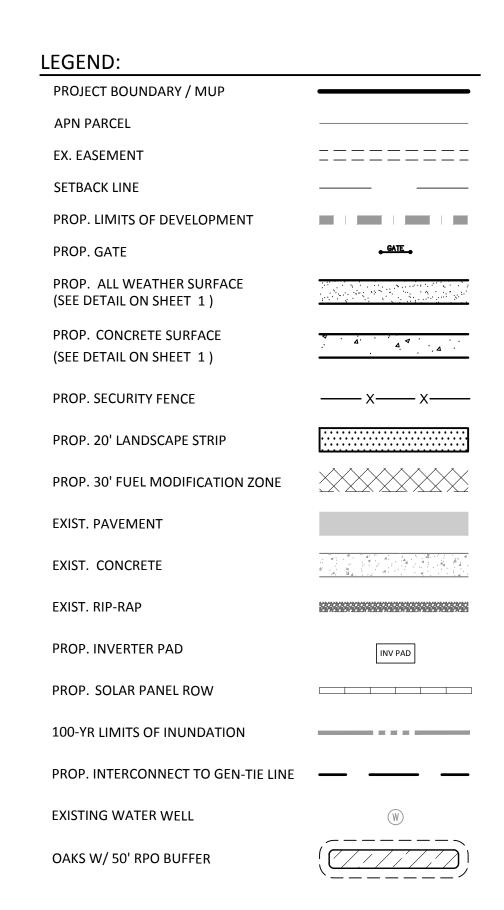


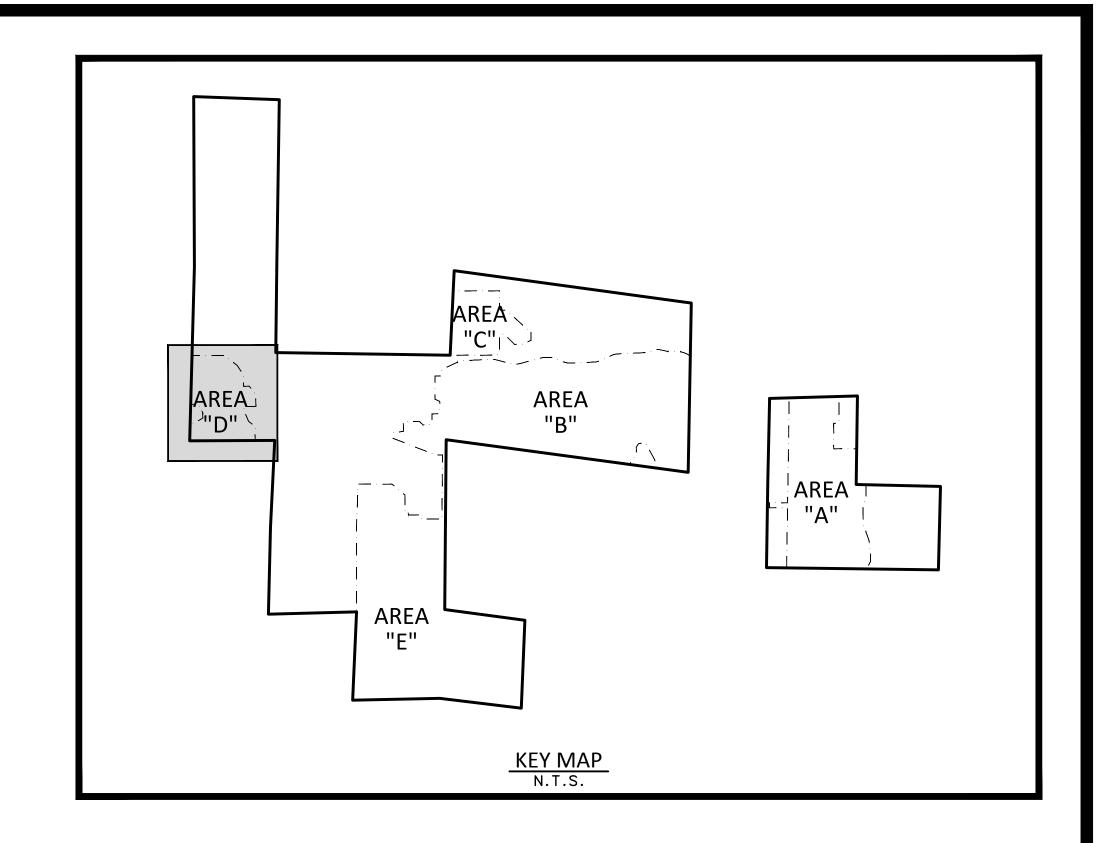


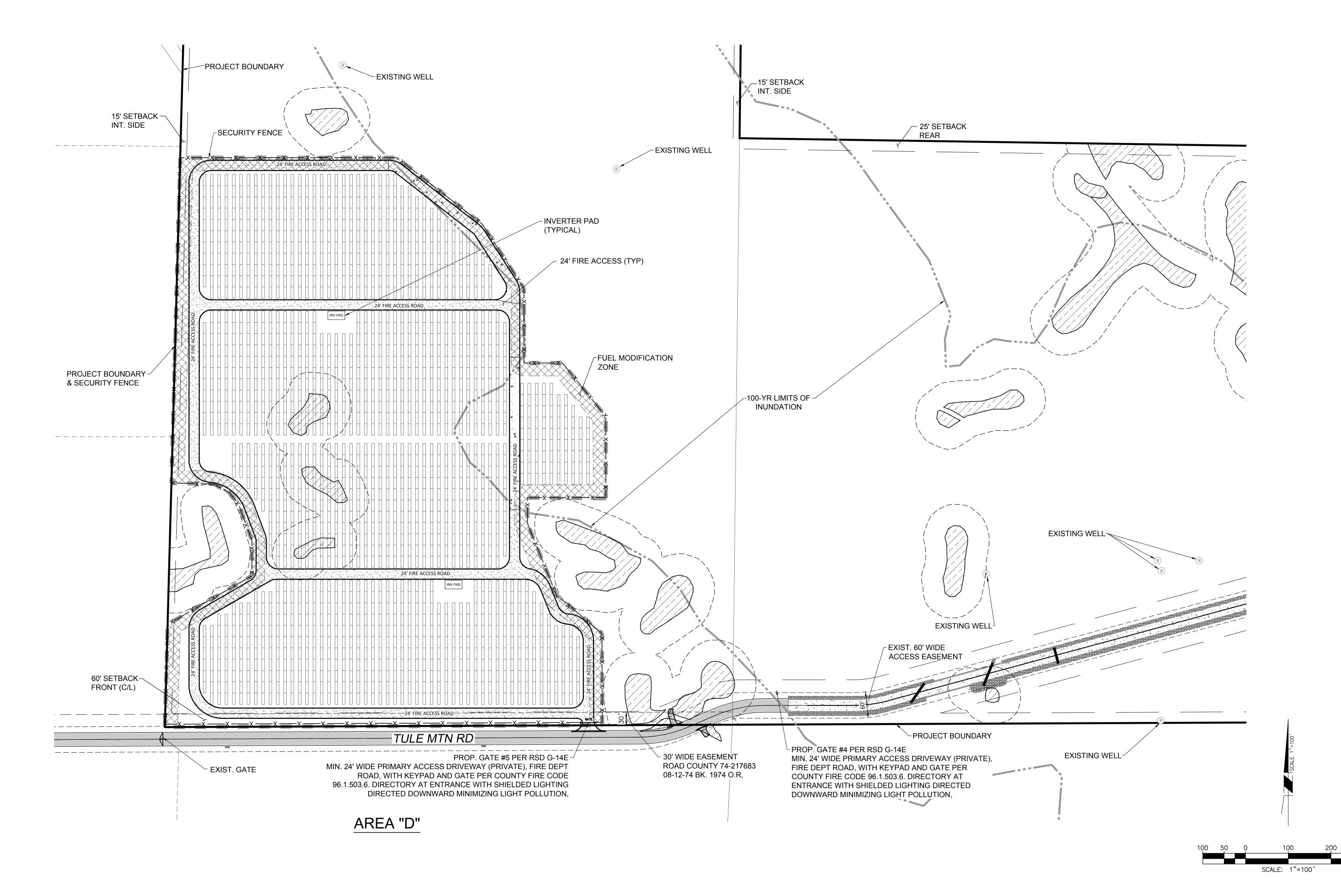
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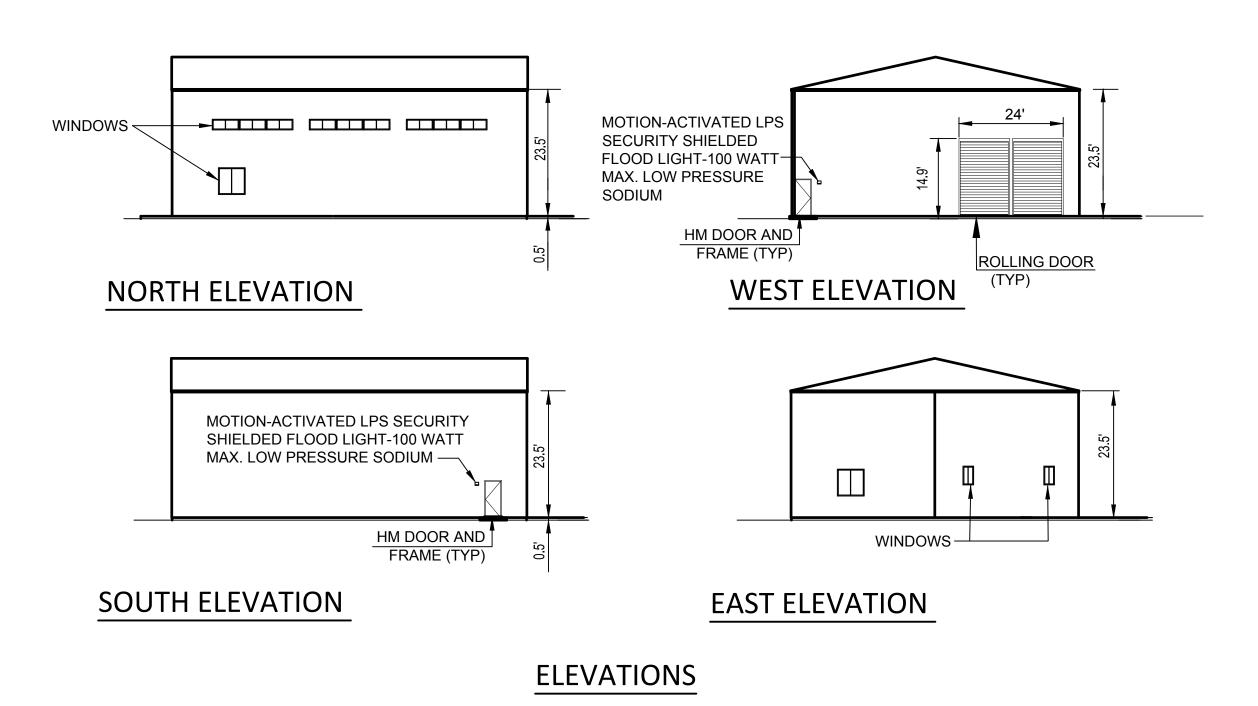
COUNTY OF SAN DIEGO, CA MAJOR USE PERMIT MODIFICATION

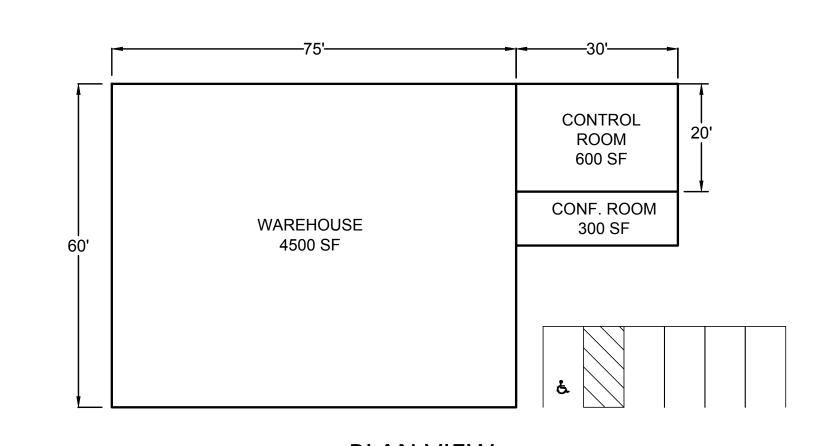
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PLAN VIEW
OPERATION & MAINTENANCE (O&M) ANNEX
N.T.S.

RUGGED SOLAR
COUNTY OF SAN DIEGO, CA
MAJOR USE PERMIT MODIFICATION
PDS 2017-MUP-12-007W1
PDS 2017-MUP-12-007TE

AREA "D" PLOT PLAN

4 OF 6
CTOBER 21, 2019

Michael Baker

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