DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
1010 10TH Street, Suite 3400, Modesto, CA 95354
Planning Phone: (209) 525-6330 Fax: (209) 525-5911
Building Phone: (209) 525-6557 Fax: (209) 525-7759

Referral
Early Consultation

Date: **June 26, 2024**

To: **Distribution List (See Attachment A)**

From: **Kristen Anaya, Associate Planner**
Planning and Community Development

Subject: **USE PERMIT APPLICATION NO. PLN2024-0005 – BA DIGESTER**

Respond By: **July 11, 2024**

****PLEASE REVIEW REFERRAL PROCESS POLICY****

The Stanislaus County Department of Planning and Community Development is soliciting comments from responsible agencies under the Early Consultation process to determine: a) whether or not the project is subject to CEQA and b) if specific conditions should be placed upon project approval.

Therefore, please contact this office by the response date if you have any comments pertaining to the proposal. Comments made identifying potential impacts should be as specific as possible and should be based on supporting data (e.g., traffic counts, expected pollutant levels, etc.). Your comments should emphasize potential impacts in areas which your agency has expertise and/or jurisdictional responsibilities.

These comments will assist our Department in preparing a staff report to present to the Planning Commission. Those reports will contain our recommendations for approval or denial. They will also contain recommended conditions to be required should the project be approved. Therefore, please list any conditions that you wish to have included for presentation to the Commission as well as any other comments you may have. Please return all comments and/or conditions as soon as possible or no later than the response date referenced above.

Thank you for your cooperation. Please call (209) 525-6330 if you have any questions.

Applicant: **Jack DeLiddo, BA Digester, LLC**

Project Location: **3943 Bentley Road, between Milnes and Claribel Roads, in the Oakdale area**

APN: **014-017-001**

Williamson Act Contract: **71-147**

General Plan: **Agriculture**

Current Zoning: **General Agriculture (A-2-40)**

Project Description: **Request to establish a biogas facility on a 294± acre parcel located in the General Agriculture (A-2-40) zoning district. The proposed facility will serve as a digester hub to process manure wastewater from six dairies located in Stanislaus County within 2.5± miles of the project site. The project parcel is currently developed with two single-family dwellings, 70± acres of orchard, 170± acres of row crops, and a portion of the Cross A Dairy facility consisting of heifer pens, two freestall barns, and feed storage. Cross A Dairy currently operates on the project parcel and the parcel immediately to the north, further identified as Assessor Parcel Numbers (APNs) 014-017-001 and 014-008-004, respectively. The project proposes to demolish heifer pens and one freestall barn in order to develop a 6-acre area, containing a 1.3± acre covered anaerobic digester, appurtenant digester equipment including a hydrolyzer (which carries out hydrolysis), various processing, thickening, flush, and collection pits, jet mixing systems, a biofeeder, three combined**

heat and power engines, screen separators, and a regenerative thermal oxidizer. The project will also install a 1,680 square-foot utility building for storage and a 360 square-foot office trailer for operations and management. The 6-acre project area will be paved, and include five parking stalls adjacent to the office. The facility will take manure waste from existing dairies and capture the biogas that is produced in the break down process within a covered anaerobic digester. After the digester captures biogas by-products, it will be transferred to an off-site injection point, where it will be transferred to a processed and upgraded to renewable natural gas (RNG). Upon initial development, wastewater will be trucked in from off-site dairies via a "virtual pipeline"; however, the applicant anticipates that an underground pipeline system will gradually be installed within the County road right-of-way to pipe wastewater from each of the six donor dairies to the proposed digester. Wastewater coming out of the digester will be transferred back to each respective dairy pursuant to the quantities listed under each dairies current wastewater management plan (WMP); no net increase of wastewater will be applied to any of the dairies. Manure solids will be filtered out and used for normal dairy operations including bedding and crop fertilizer at each dairy.

The digester will operate 24 hours a day/seven days a week. Up to two employees will be on-site Monday through Friday, 8:00 a.m. to 5:00 p.m. and be on-call in case of emergencies. Up to 40 truck trips per-day are anticipated to transport biogas, RNG and dairy wastewater. Once pipeline infrastructure is in place, the facility anticipates up to 10 truck trips per-day. Two employee trips will occur per weekday. The project site is currently served by several private wells, including domestic wells serving the residences, a monitoring well, and condensate well. Septic systems serving the residences. The project site has existing access to County-maintained Bentley Road via a 40-foot-wide, approximately 2,000± foot long all-weather driveway located on APN 014-017-001, immediately north of the project parcel, currently used for dairy facility traffic. The project site is currently enrolled in Williamson Act Contract No. 71-147 and will remain enrolled if approved.

Full document with attachments available for viewing at:
http://www.stancounty.com/planning/pl/act-projects.shtm

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USE PERMIT APPLICATION NO. PLN2024-0005 – BA DIGESTER
Attachment A

Distribution List

X	CA DEPT OF CONSERVATION Land Resources		STAN CO ALUC
X	CA DEPT OF FISH & WILDLIFE		STAN CO ANIMAL SERVICES
	CA DEPT OF FORESTRY (CAL FIRE)	X	STAN CO BUILDING PERMITS DIVISION
	CA DEPT OF TRANSPORTATION DIST 10	X	STAN CO CEO
X	CA OPR STATE CLEARINGHOUSE		STAN CO CSA
X	CA RWQCB CENTRAL VALLEY REGION	X	STAN CO DER
	CA STATE LANDS COMMISSION		STAN CO ERC
	CEMETERY DISTRICT	X	STAN CO FARM BUREAU
X	CENTRAL VALLEY FLOOD PROTECTION	X	STAN CO HAZARDOUS MATERIALS
	CITY OF:		STAN CO PARKS & RECREATION
	COMMUNITY SERVICES DIST:	X	STAN CO PUBLIC WORKS
X	COOPERATIVE EXTENSION		STAN CO PUBLIC WORKS - SURVEY
	COUNTY OF:		STAN CO RISK MANAGEMENT
X	DER GROUNDWATER RESOURCES DIVISION	X	STAN CO SHERIFF
X	FIRE PROTECTION DIST: OAKDALE RURAL	X	STAN CO SUPERVISOR DIST 1: B. CONDIT
X	GSA: STAN. & TUOLUMNE RIVERS GROUNDWATER BASIN ASSOC.	X	STAN COUNTY COUNSEL
X	HOSPITAL DIST: OAK VALLEY		StanCOG
X	IRRIGATION DIST: OAKDALE	X	STANISLAUS FIRE PREVENTION BUREAU
X	MOSQUITO DIST: EASTSIDE	X	STANISLAUS LAFCO
X	STANISLAUS COUNTY EMERGENCY MEDICAL SERVICES	X	STATE OF CA SWRCB DIVISION OF DRINKING WATER DIST. 10
	MUNICIPAL ADVISORY COUNCIL:		SURROUNDING LAND OWNERS
X	PACIFIC GAS & ELECTRIC		INTERESTED PARTIES
	POSTMASTER:	X	TELEPHONE COMPANY: AT&T
	RAILROAD:		TRIBAL CONTACTS (CA Government Code §65352.3)
X	SAN JOAQUIN VALLEY APCD		US ARMY CORPS OF ENGINEERS
X	SCHOOL DIST 1: RIVERBANK UNIFIED	X	US FISH & WILDLIFE
	SCHOOL DIST 2:		US MILITARY (SB 1462) (7 agencies)
	WORKFORCE DEVELOPMENT	X	USDA NRCS
X	STAN CO AG COMMISSIONER		
	TUOLUMNE RIVER TRUST		

STANISLAUS COUNTY
CEQA REFERRAL RESPONSE FORM

TO: **Stanislaus County Planning & Community Development**
1010 10th Street, Suite 3400
Modesto, CA 95354

FROM: _____

SUBJECT: **USE PERMIT APPLICATION NO. PLN2024-0005 – BA DIGESTER**

Based on this agency's particular field(s) of expertise, it is our position the above described project:

_____ Will not have a significant effect on the environment.
_____ May have a significant effect on the environment.
_____ No Comments.

Listed below are specific impacts which support our determination (e.g., traffic general, carrying capacity, soil types, air quality, etc.) – (attach additional sheet if necessary)

1.
2.
3.
4.

Listed below are possible mitigation measures for the above-listed impacts: *PLEASE BE SURE TO INCLUDE WHEN THE MITIGATION OR CONDITION NEEDS TO BE IMPLEMENTED (PRIOR TO RECORDING A MAP, PRIOR TO ISSUANCE OF A BUILDING PERMIT, ETC.):*

1.
2.
3.
4.

In addition, our agency has the following comments (attach additional sheets if necessary).

_____

_____

Response prepared by:

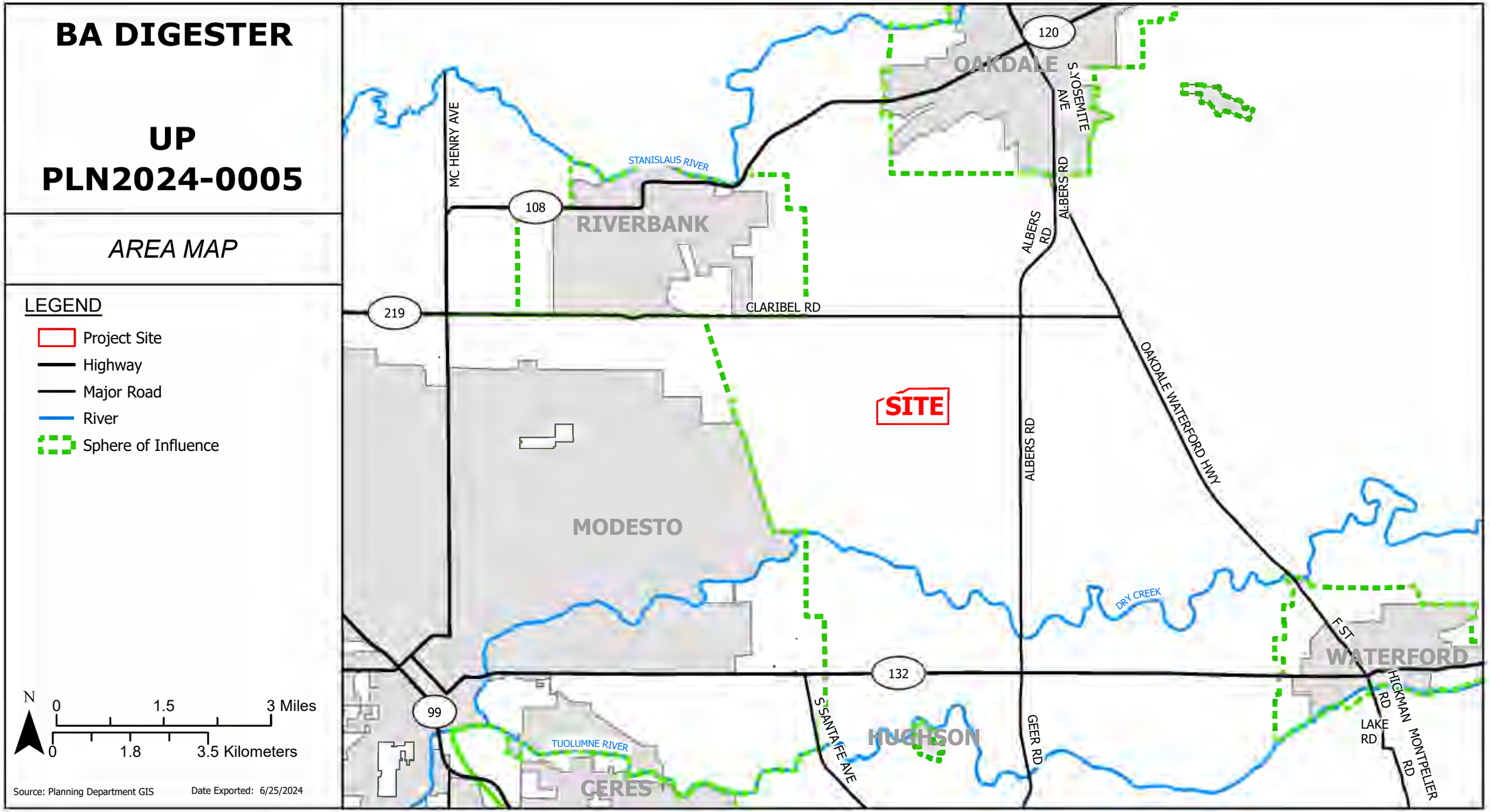
_____

Name Title Date

BA DIGESTER

UP PLN2024-0005

AREA MAP



BA Digester

UP PLN2024-0005

GENERAL PLAN

LEGEND

- Project Site
- Parcel
- Agriculture
- Canal
- Street

N

0 1,250 2,500 Feet

0 362.5 725 Meters

Source: Planning Department GIS

Date Exported: 6/25/2024

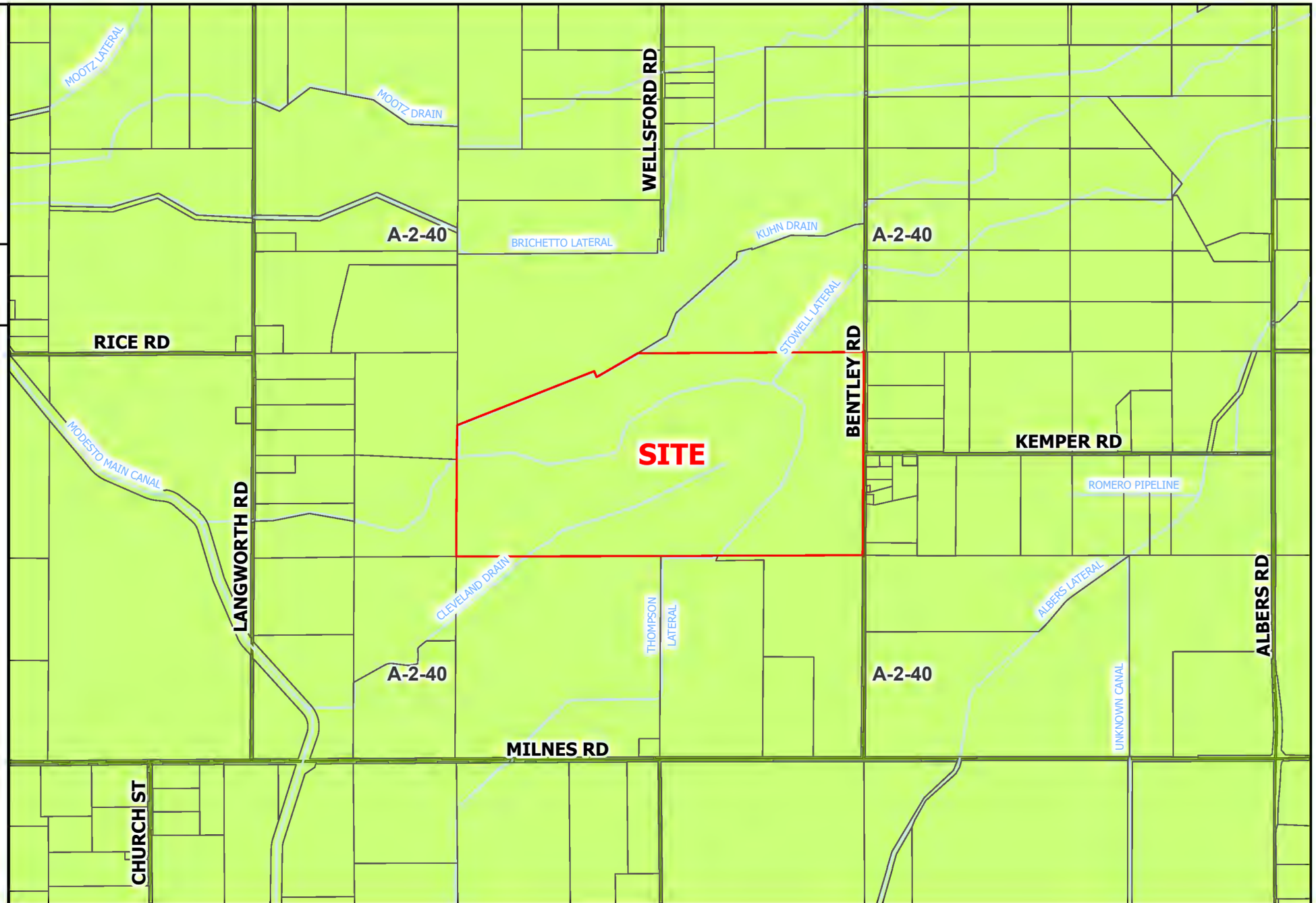
BA Digester

UP PLN2024-0005

ZONING

LEGEND

- Project Site
- Parcel
- General Agriculture 40 Acre
- Canal
- Street



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0 1,250 2,500 Feet

0 362.5 725 Meters

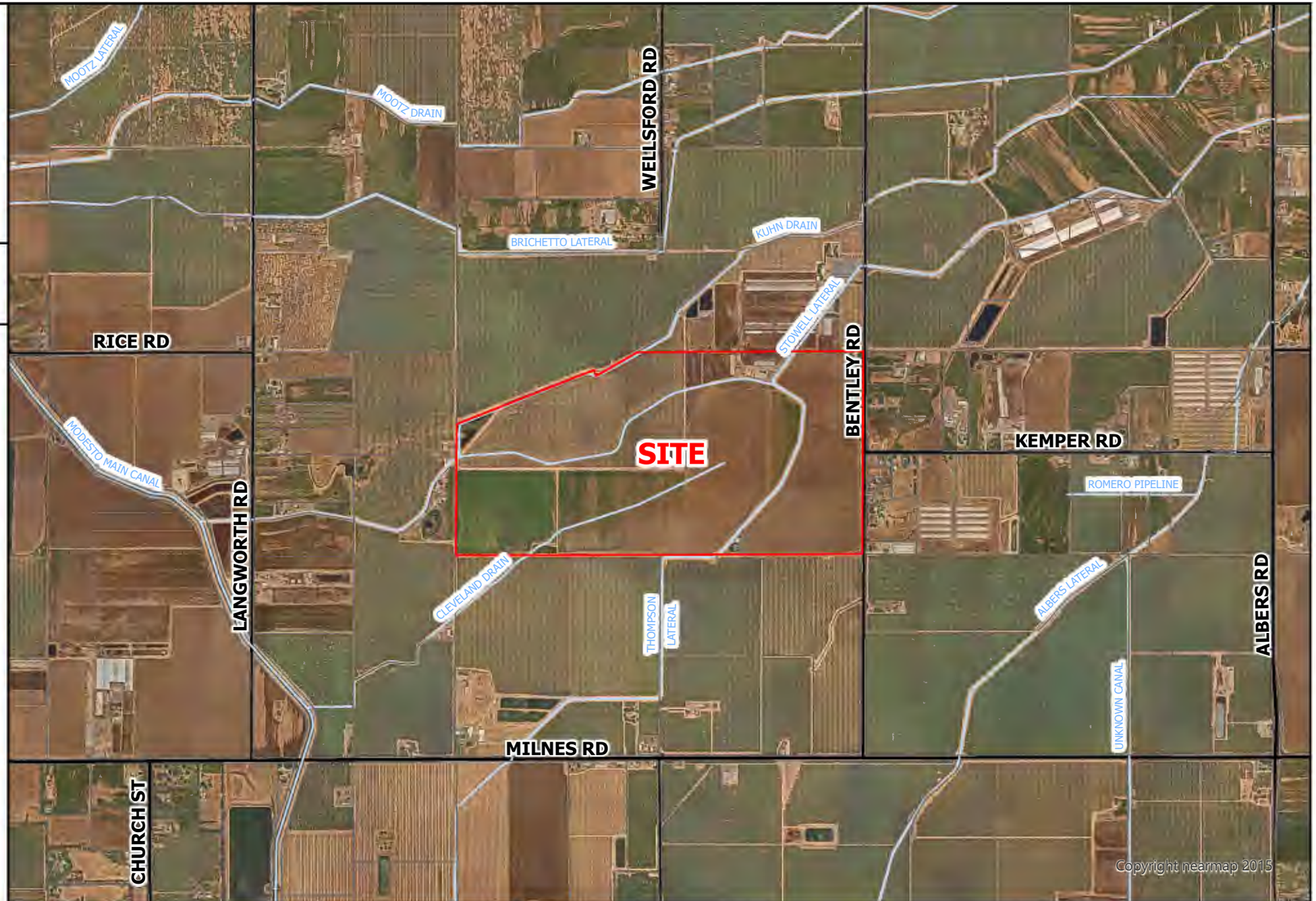
Source: Planning Department GIS

Date Exported: 6/25/2024

BA Digester

UP PLN2024-0005

2023 AERIAL AREA MAP



LEGEND

- Project Site
- Parcel
- Canal
- Street

N

0 1,250 2,500 Feet

0 362.5 725 Meters

Source: Planning Department GIS

Date Exported: 6/25/2024

BA Digester

UP PLN2024-0005

2023 AERIAL SITE MAP

LEGEND

- Project Site
- Parcel
- Canal
- Street

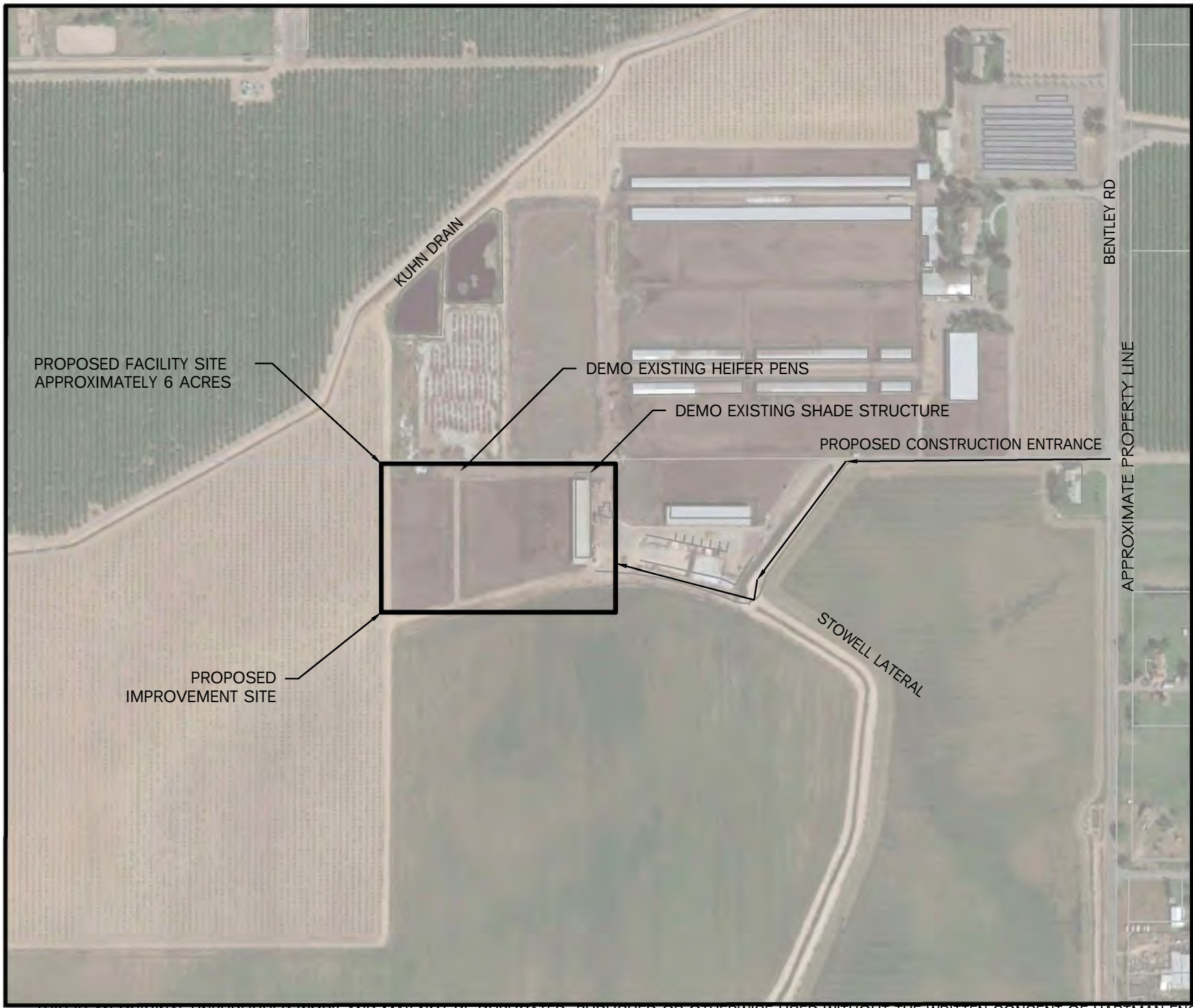
N

0 500 1,000 Feet

0 125 250 Meters

Source: Planning Department GIS

Date Exported: 6/25/2024



1
H
HARTMAN
ENGINEERING
308 W OAK
VISALIA, CA 93291
(559) 463-0444

REGISTERED PROFESSIONAL ENGINEER
CRAIG M. HARTMAN
NO. 73837
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA
3-25-24

PROJECT
ALGERS CLUSTER
CROSS A DAIRY
4125 BENTLEY RD
OAKDALE, CA 95361

CLIENT
SROM, LLC
1588 N BATAVIA ST
STE 1C
ORANGE, CA 92867

ALGERS DAIRY CLUSTER
DEMO PLAN

VERSION: 1.4
REVISION LOG:
CHK BY:
DRW BY:

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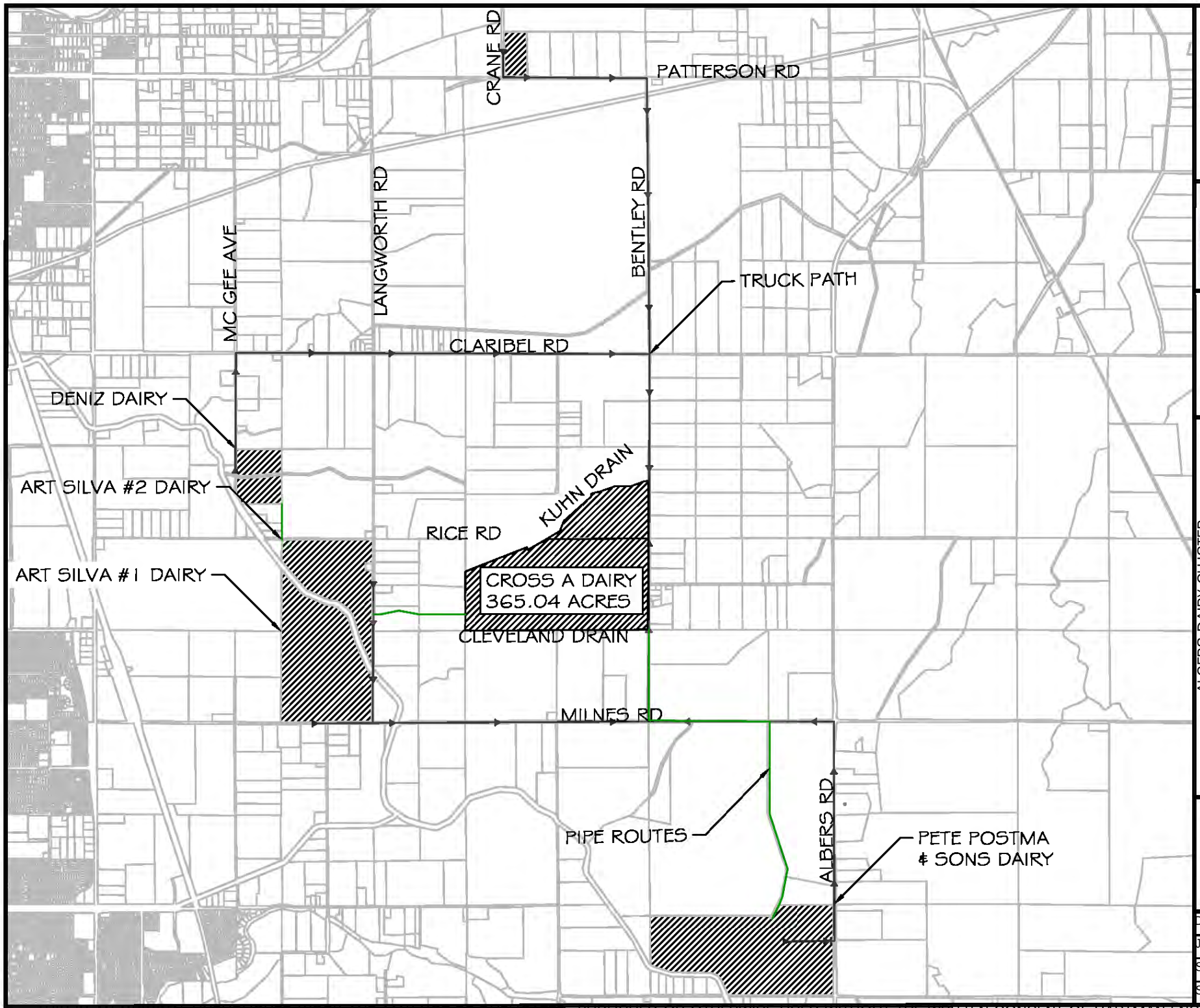
DATE: 03.25.24
JOB# 23039
SCALE: AS SHOWN
SHEET NO. 8 OF 8



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STATE OF CALIFORNIA
3-25-24

PROJECT
ALGERS CLUSTER
CROSS A DAIRY
4125 BENTLEY RD
OAKDALE, CA 95361

CLIENT
SROM, LLC
1588 N BATAVIA ST
STE 1C
ORANGE, CA 92867

ALGERS DAIRY CLUSTER
VICINITY MAP

VERSION: 1.4
REVISION LOG:
CHK BY:
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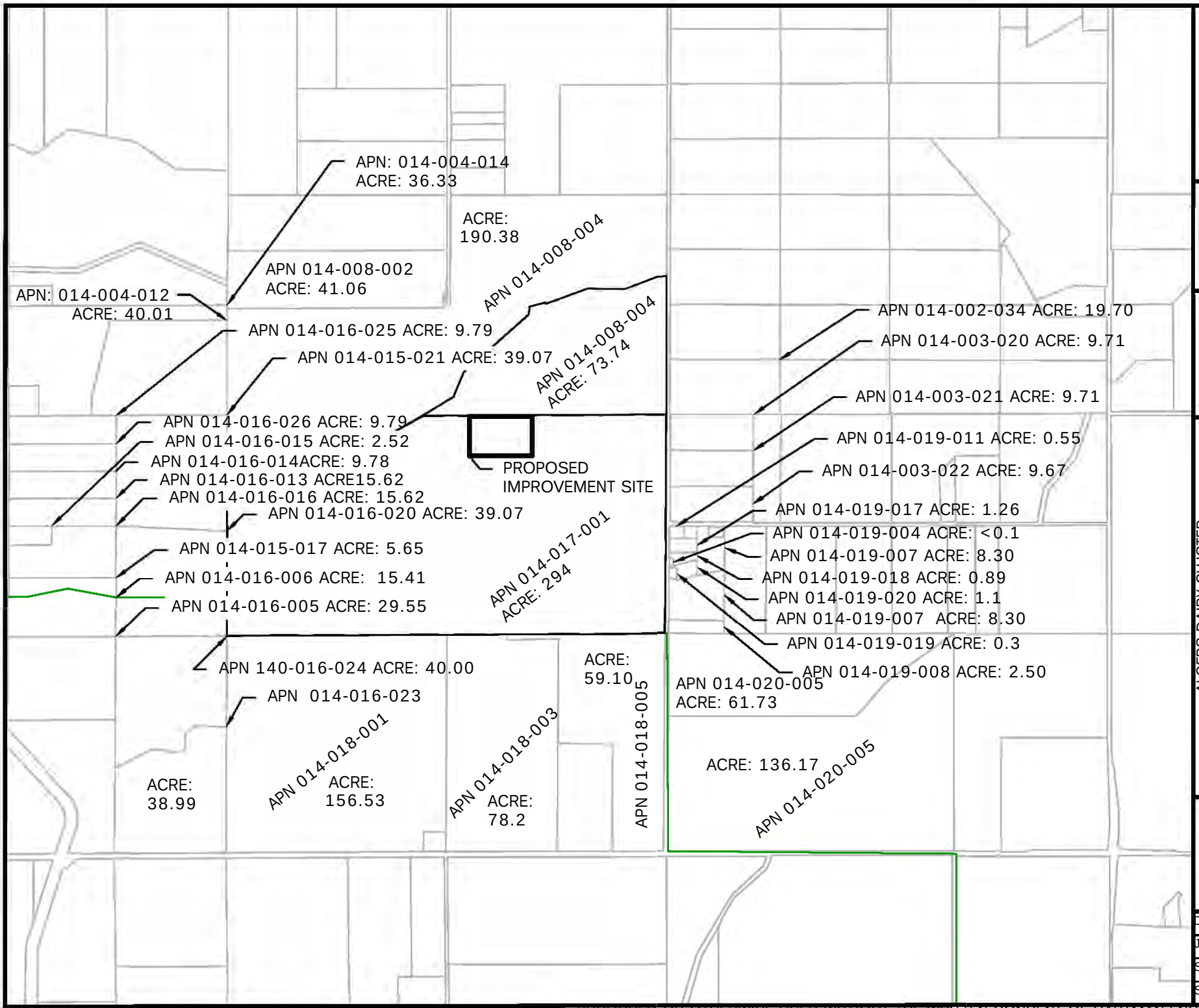
DATE: 03.25.24
JOB# 23039
SCALE: AS SHOWN
SHEET NO. 1 OF 8



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H

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CIVIL
STATE OF CALIFORNIA
3-25-24

PROJECT
ALGERS CLUSTER
CROSS A DAIRY
4125 BENTLEY RD
OAKDALE, CA 95361

CLIENT
SROM, LLC
1588 N BATAVIA ST
STE 1C
ORANGE, CA 92867

ALGERS DAIRY CLUSTER
SURROUNDING PARCELS

VERSION: 1.4
REVISION LOG:
CHK BY:
DRW BY:

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DATE: 03.25.24
JOB# 23039
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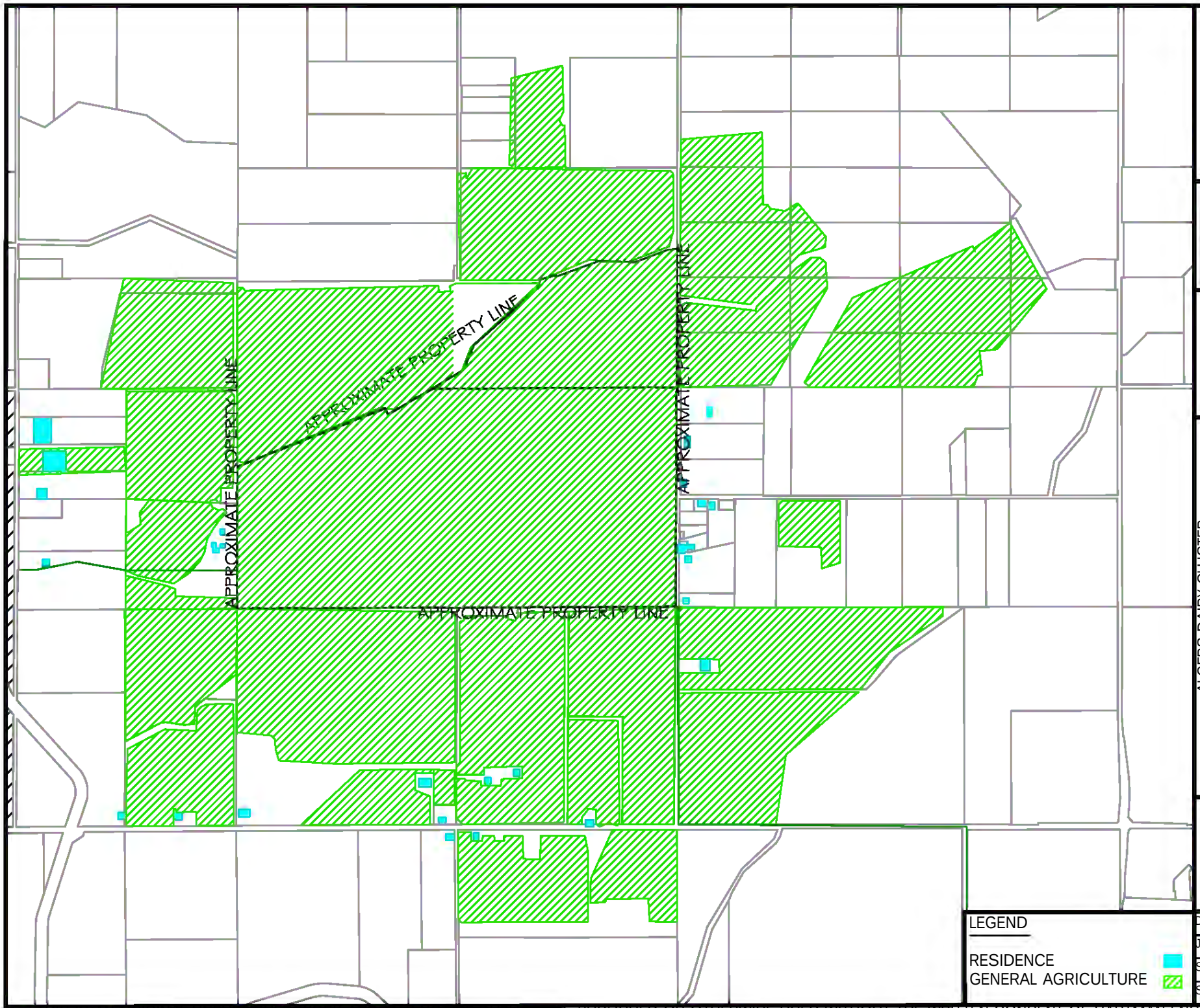
SHEET NO. 2 OF 8



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CROSS A DAIRY
4125 BENTLEY RD
OAKDALE, CA 95361

CLIENT
SROM, LLC
1588 N BATAVIA ST
STE 1C
ORANGE, CA 92867

ALGERS DAIRY CLUSTER
LAND USE

VERSION: 1.4
REVISION LOG:
CHK BY:
DRW BY:

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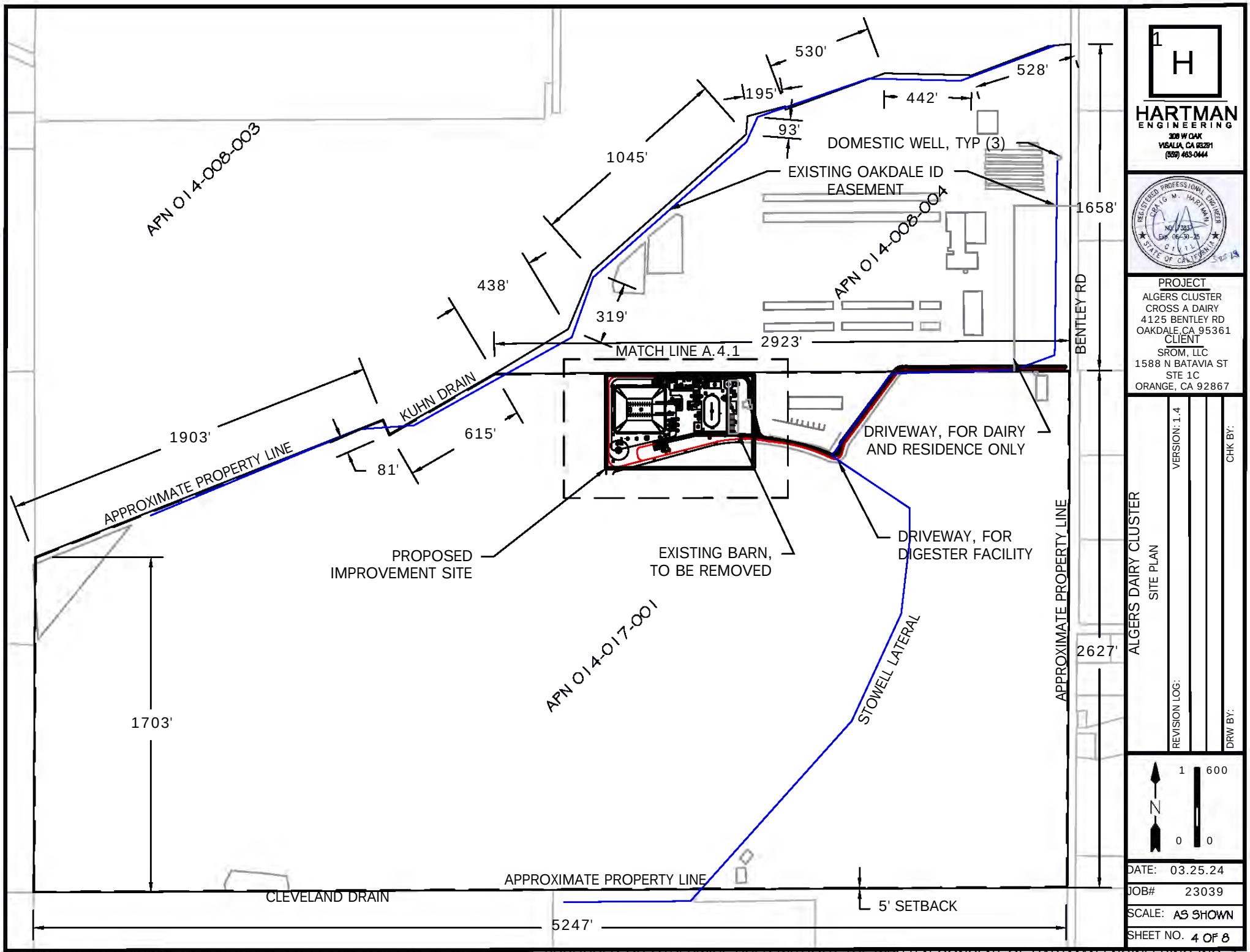
LEGEND
RESIDENCE
GENERAL AGRICULTURE

DATE: 03.25.24
JOB# 23039
SCALE: AS SHOWN
SHEET NO. 3 OF 8



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CIVIL
STATE OF CALIFORNIA

PROJECT
ALGERS CLUSTER
CROSS A DAIRY
4125 BENTLEY RD
OAKDALE, CA 95361

CLIENT
SROM, LLC
1588 N BATAVIA ST
STE 1C
ORANGE, CA 92867

ALGERS DAIRY CLUSTER
SITE PLAN

VERSION: 1.4
REVISION LOG:
CHK BY:
DRW BY:

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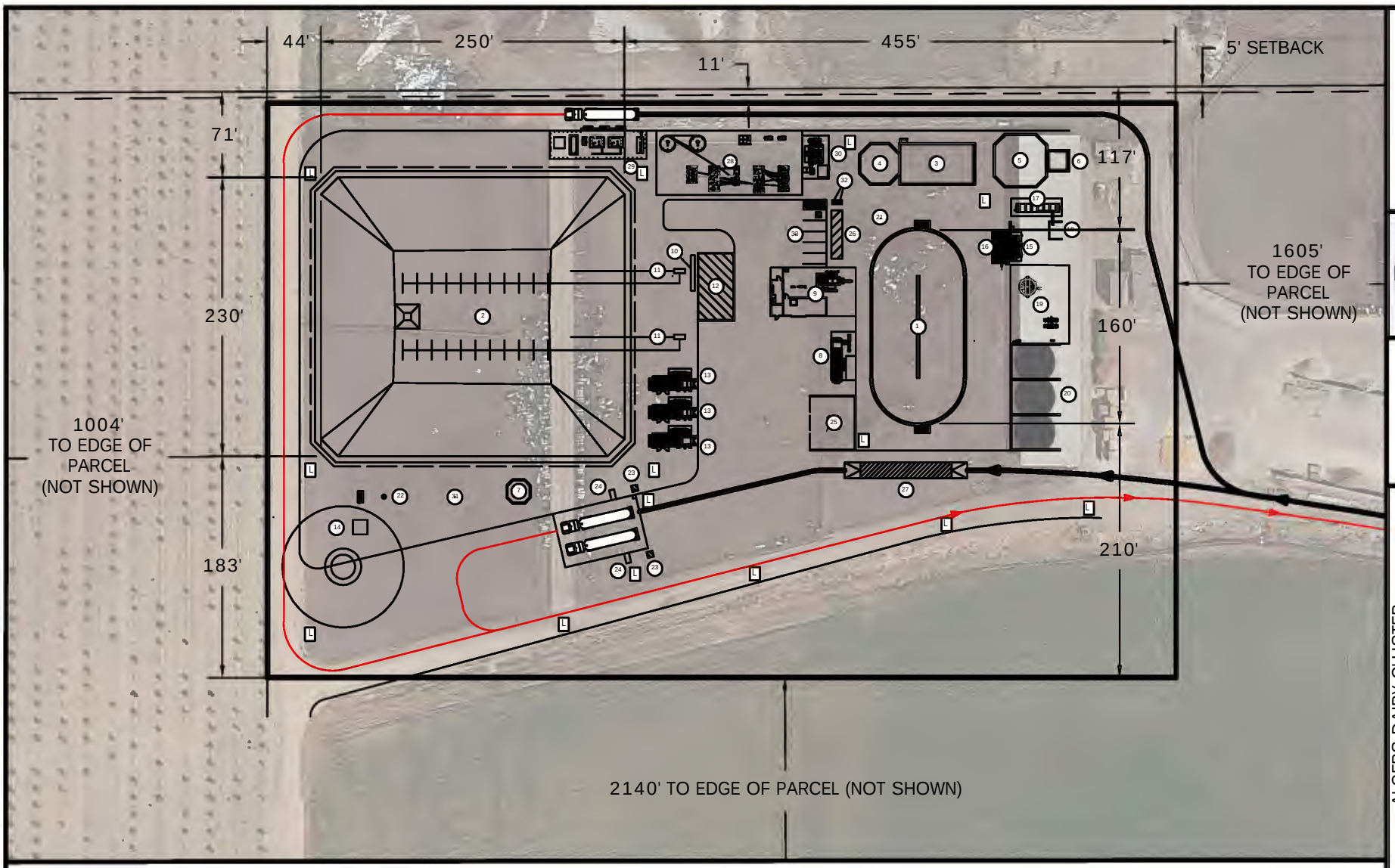
DATE: 03.25.24
JOB# 23039
SCALE: AS SHOWN
SHEET NO. 4 OF 8



SITE PLAN LEGEND

1. HYDROLYZER LWR (163'X79'X12') OCCUPIED SPACE: NO
2. ANAEROBIC DIGESTER (230'X250'X'9') OCCUPIED SPACE: NO
3. PROCESSING PIT (34.5'X62.5') AT GRADE/ OCCUPIED SPACE: NO
4. HYDROLYIZER EQUALIZATION PIT (L34.5'X33') AT GRADE/ OCCUPIED SPACE: NO
5. FLUSH PIT (44.5'X44.5') AT GRADE/ OCCUPIED SPACE: NO
6. MANURE COLLECTION PIT (18'X18') AT GRADE/ OCCUPIED SPACE: NO
7. DIGESTER EQUALIZATION PIT (20'X20') AT GRADE/ OCCUPIED SPACE: NO
8. BIOFEEDER (42.5'X20') OCCUPIED SPACE: NO
9. HYDROLYZER LWR (70'X40'X12') OCCUPIED SPACE: NO
10. DIGESTER HEAT EXCHANGER (29'X3') OCCUPIED SPACE: NO
11. DIGESTER JET MIXING SYSTEM (12.5X228') 2 TYP. OCCUPIED SPACE: NO
12. UTILITY BUILDING (56'X30'X20') OCCUPIED SPACE: NO
13. COMBINED HEAT AND POWER ENGINES (18.5'X35'X15') OCCUPIED SPACE: NO
14. SAFETY FLARE (12'X12'X20') & BLOWER (L9.5'X4') OCCUPIED SPACE: NO
15. SCREEN SEPARATORS (24'X10'X30') OCCUPIED SPACE: NO
16. THICKENING PIT (14'X27') AT GRADE/ OCCUPIED SPACE: NO
17. SEDITANK GRIT REMOVAL (14'X41') OCCUPIED SPACE: NO
18. GRIT COLLECTION AREA WITH PUSH WALL (15'X11'X4') OCCUPIED SPACE: NO
19. BEDDING PASTEURIZING SHED (65'X48.5'X20') OCCUPIED SPACE: NO
20. STACKING AREA (88'X41') AT GRADE/ OCCUPIED SPACE: NO
21. MONITORING WELL (R:2.2') AT GRADE/ OCCUPIED SPACE: NO
22. CONDENSATE WELL (R: 2.2') AT GRADE/ OCCUPIED SPACE: NO
23. LIQUID RECEIVING STATION (5'X5') 2 TYP. OCCUPIED SPACE: NO
24. DIGESTER FILLING STATION (8'X4') 2 TYP. OCCUPIED SPACE: NO
25. RECEIVING PAD WITH PUSH WALL (45.5'X38'X4') OCCUPIED SPACE: NO
26. OFFICE TRAILER (40'X9'X20') OCCUPIED SPACE: YES
27. TRUCK SCALE (13'X101') OCCUPIED SPACE: NO
28. BIOGAS UPGRADER (53'X120'X30') OCCUPIED SPACE: NO
29. COMPRESSION STATION (53'X20') OCCUPIED SPACE: NO
30. REGENERATIVE THERMAL OXIDIZER (22'X35.5') OCCUPIED SPACE: NO
31. WATER STORAGE TANK (7.5'R) OCCUPIED SPACE: NO
32. PORTABLE WASHROOM/ OCCUPIED SPACE: NO
33. PARKING SPACES (53X20') AT GRADE/ OCCUPIED SPACE: NO
34. ASPHALT CONCRETE OR PORTLAND CEMENT
35. ACCESSIBLE SPACE: 9' WIDE SPOT WITH 8' WIDE LOADING TOTALING 17' X 20'
36. STANDARD SPOTS 15' X 20' TOTALING 60' X 20'
37. DIRECTION OF TRAFFIC (AT GRADE)
38. LIGHTS (TYP. 14)

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NO. 73831
Exp. 06-30-25
CIVIL
STATE OF CALIFORNIA
3.25.24

PROJECT
ALGERS CLUSTER
CROSS A DAIRY
4125 BENTLEY RD
OAKDALE CA 95361

CLIENT
SROM, LLC
1588 N BATAVIA ST
STE 1C
ORANGE, CA 92867

ALGERS DAIRY CLUSTER
SITE PLAN - IMPROVEMENT AREA
VERSION: 1.4
REVISION LOG:
CHK BY:
DRW BY:

N
1 120
0 0

DATE: 03.25.24
JOB# 23039
SCALE: AS SHOWN
SHEET NO. 5 OF 8

	STRUCTURE	DIMENSIONS	SQ FT	HEIGHT	OCCUPANCY
1	HYDROLIZER LWR	163' X 79'	12,877	12	OUTDOOR; NO OCCUPANCY
2	ANAEROBIC DIGESTER	230' X 250'	57,500	9	OUTDOOR; NO OCCUPANCY
3	PROCESSING PIT	34.5' X 62.5'	2,156	AT GRADE	OUTDOOR; NO OCCUPANCY
4	HYDROLYZER EQUALIZATION PIT	34.5' X 33'	1,139	AT GRADE	OUTDOOR; NO OCCUPANCY
5	FLUSH PIT	44.5' X 44.45'	1,980	AT GRADE	OUTDOOR; NO OCCUPANCY
6	MANURE COLLECTION PIT	18' X 18'	324	AT GRADE	OUTDOOR; NO OCCUPANCY
7	DIGESTER EQUALIZATION PIT	20' X 20'	400	AT GRADE	OUTDOOR; NO OCCUPANCY
8	BIOFEEDER	42.5' X 20'	850	20	OUTDOOR; NO OCCUPANCY
9	HYDROLYZER LWR	70' X 40'	2,800	12	OUTDOOR; NO OCCUPANCY
10	DIGESTER HEAT EXCHANGER	29' X 3'	87	AT GRADE	OUTDOOR; NO OCCUPANCY
11	DIGESTER JET MIXING SYSTEM	12.5' X 228'	2,850	AT GRADE	OUTDOOR; NO OCCUPANCY
12	UTILITY BUIDLING	56' X 30'	1,680	20	ENCLOSED; USE ONLY
13	COMBINED HEAT AND POWER ENGINES	18.5' X 35'	648	15	OUTDOOR; NO OCCUPANCY
14	SAFETY FLARE	24' X 12'	288	20	OUTDOOR; NO OCCUPANCY
14	BLOWER	9.5' X 4'	38	4	OUTDOOR; NO OCCUPANCY
15	SCREEN SEPARATORS	24' X 10'	240	30	OUTDOOR; NO OCCUPANCY
16	THICKENING PIT	14' X 27'	378	AT GRADE	OUTDOOR; NO OCCUPANCY
17	SEDITANK GRIT REMOVAL	14' X 41'	574	30	OUTDOOR; NO OCCUPANCY
18	GRIT COLLECTION AREA WITH PUSH WALL	15' X 11'	165	4	OUTDOOR; NO OCCUPANCY
19	BEDDING PASTEURIZING SHED	65' X 48.5'	3,153	20	OUTDOOR; NO OCCUPANCY
20	STACKING AREA	88' X 41'	3,608	AT GRADE	OUTDOOR; NO OCCUPANCY
21; 22	WELL	R 2.20	15	AT GRADE	OUTDOOR; NO OCCUPANCY
23	LIQUID RECEIVING STATION	5' X 5'	25	AT GRADE	OUTDOOR; NO OCCUPANCY
24	DIGESTER FILLING STATION	8' X 4'	32	15	OUTDOOR; NO OCCUPANCY
25	RECEIVING PAD WITH PUSH WALL	45.5' X 38'	1,729	4	OUTDOOR; NO OCCUPANCY
26	OFFICE TRAILER	40' X 9'	360	20	ENCLOSED; 4 PLUS VISITORS
27	TRUCK SCALE	13' X 101'	1,313	AT GRADE	OUTDOOR; NO OCCUPANCY
28	BIOGAS UPGRADER	53' X 120'	6,360	30	OUTDOOR; NO OCCUPANCY
29	COMPRESSION STATION	53' X 20'	1,060	30	OUTDOOR; NO OCCUPANCY
30	REGENERATIVE THERMAL OXIDIZER	22' X 35.5'	781	30	OUTDOOR; NO OCCUPANCY

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NO. 73837
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CIVIL
STATE OF CALIFORNIA
3-25-24

PROJECT
ALGERS CLUSTER
CROSS A DAIRY
4125 BENTLEY RD
OAKDALE, CA 95361

CLIENT
SROM, LLC
1588 N BATAVIA ST
STE 1C
ORANGE, CA 92867

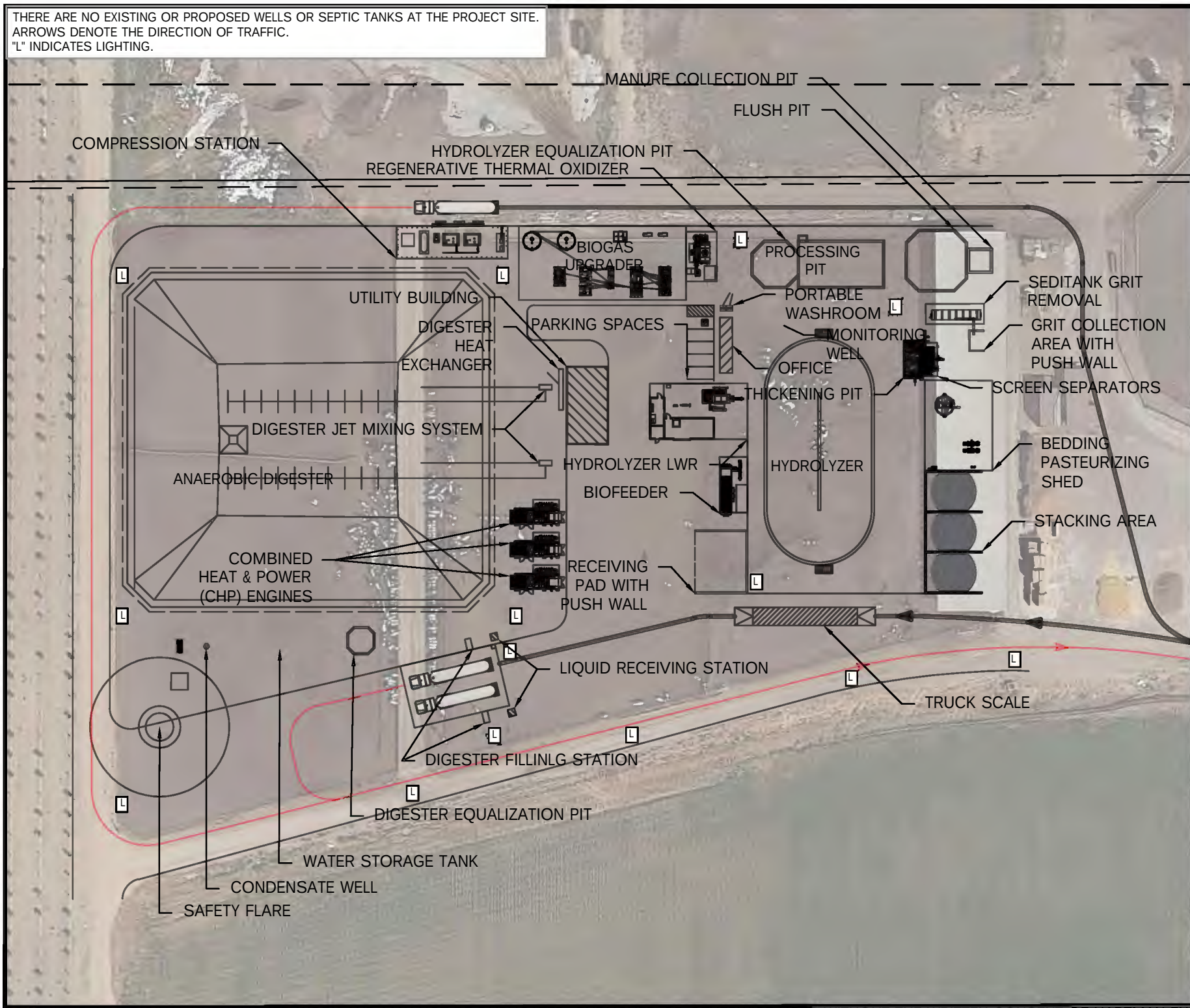
ALGERS DAIRY CLUSTER
STRUCTURE SPECIFICATIONS

VERSION: 1.4
REVISION LOG:
CHK BY:
DRW BY:

N
1 90
0 0

DATE: 03.25.24
JOB# 23039
SCALE: AS SHOWN
SHEET NO. 6 OF 8

THERE ARE NO EXISTING OR PROPOSED WELLS OR SEPTIC TANKS AT THE PROJECT SITE.
ARROWS DENOTE THE DIRECTION OF TRAFFIC.
"L" INDICATES LIGHTING.



1 H

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CIVIL
STATE OF CALIFORNIA
3.25.24

PROJECT
ALGERS CLUSTER
CROSS A DAIRY
4125 BENTLEY RD
OAKDALE, CA 95361

CLIENT
SROM, LLC
1588 N BATAVIA ST
STE 1C
ORANGE, CA 92867

ALGERS DAIRY CLUSTER
SITE PLAN - IMPROVEMENT AREA
VERSION: 1.4
REVISION LOG:
CHK BY:
DRW BY:

N
1 90
0 0

DATE: 03.25.24
JOB# 23039
SCALE: AS SHOWN
SHEET NO. 7 OF 8

June 23, 2023

HARTMAN ENGINEERING

Stanislaus County Redevelopment Department
10th Street Place
1010 10th Street #3400
Modesto, CA 95354

RE: Anaerobic Digester for Algers Cluster, located in Oakdale, California

To Whom It May Concern,

The following application is for an anaerobic digester system and associated equipment by the developer Sierra Renewables Organics Management, LLC (SROM). SROM has permitted several other digester sites in San Joaquin County that are very similar to this project.

The facility will be on approximately 6 acres of existing cropland. There are no structures that will need to be demolished for this construction. The area is in FEMA Flood Zone Designation X. Zone X is an area of 0.2% Annual Chance Flood Hazard.

The dairy uses a flush system to clean manure from their barns. The flush effluent goes to a sand recovery system. The flushed manure will then be pumped to the sloped screens in order to generate bedding for use on the dairy. Supernatant from the sloped screens will be pumped to a process pit at the AD site. A portion of the supernatant will be used for dilution purposes. The remainder will be processed through an additional process step where solids will be concentrated prior to being pumped to the hydrolyzer.

In order to meet the target biogas production, solid manure will be trucked in from donor farms. The solid content is anticipated to be 35% upon delivery. Solid manure will be received at the live bottom receiving hoppers (50 cu.yds. each). From the live bottom hoppers, the manure will be conveyed to the injection screw mounted on the hydrolyzer.

The digester will have 2 stages: the first in a concrete, oval-shaped hydrolyzer; the second in an in-ground, Tier 1 double-lined, covered lagoon. There is a 10-foot “hazardous zone” around the digester within which open ignition sources cannot be permanently situated. As a result, system components using exhaust stacks are at least 15 feet from the exterior of the anaerobic digester. These structures are shown on the attached site map. Following digestion, digestate is pumped to a storage lagoon on the farm to be land-applied agronomically.

Biogas is continuously produced in the AD lagoon and is collected around the perimeter of the lagoon where it is continuously drawn off to the biogas upgrading system. The biogas is pre-treated to ensure hydrogen sulfide (H2S) levels in the biogas are suitable for use in the biogas upgrader where carbon dioxide and methane are separated. The methane stream (now RNG) is then sent to an on-site compression system and subsequently into the natural gas pipeline at a natural gas injection point a few miles from the dairy. The biogas upgrader, compression system, gas pipeline, and injection station are designed and supplied By Others. The PSA biogas upgrader processes biogas to produce pipeline-quality RNG. Off-specification RNG is redirected to the digester headspace and re-processed through the biogas upgrader.

A gas-burning flare as well as a pressure and vacuum relief valve are installed on the AD lagoon to manage excess gas production; these are safety elements intended to protect workers and equipment.

A hydronic boiler and heat exchanger heat incoming manure in the hydrolyzer and maintain the temperature at 104°F. The heated manure slurry is pumped and circulated through the AD lagoon using a recirculating jet mixing system. A second, smaller, heat exchanger is used to maintain a constant temperature within the AD lagoon. The heated digestate is pumped into and recirculated through the jet mixing system to distribute the heat throughout the AD lagoon.

Three CHPs will power the site. Natural Gas for the CHPs/heating system will be delivered via pipeline in the southwest corner of the site. The exact location is to be determined. There will be gas shutoff valves at each of the engines and where the natural gas enters the site.

The utility building will house the hydronic heating system, MCC and PLC/control room. The system described will operate independently but in coordination with the biogas upgrader.

The site will have two full-time-equivalent employees who will have access to office space in the office trailer. There will be 4 parking spaces plus 1 van-accessible handicap space on the site near the office. The enclosed spaces on site rated for occupancy include only the office trailer.

Security lighting will be placed throughout the site. Lights will be downward facing to prevent light pollution and protect the aesthetic of the facility.

Project roads, turnaround areas, and parking areas will be all-weather surfaces. Two-way roads will be at least 40’ wide. One-way roads will be at least 25’ wide.

The digester facility is separate from the existing dairy and ranch operations. There will be approximately 40 daily truck trips of manure and RNG. This project proposes 2 phases, the second of which will be to install a gas pipeline, which will eventually replace the virtual RNG pipeline. Donor dairies and their addresses are given in Table 1 below. The attached site plan shows proposed trucking routes for manure deliveries.

The digester system will operate 24/7. Automated equipment eliminates the need for constant operation, although there will be personnel available in case of an emergency. One employee will be on-site during business hours between 8-5, Monday through Friday.

This application package contains the following attachments:

ATTACHMENT A: CUP Application

ATTACHMENT B: CEQA Checklist

ATTACHMENT C: Site Plan

ATTACHMENT D: Consolidated Emergency Response Plan

Table 1: Donor Dairies

Donor Dairy	Donor Dairy Address
Cross A	4125 Bentley Rd, Oakdale, CA 95361
Pete Postma & Sons	1439 Albers Rd, Modesto, CA 95357
Art Silva #1	5201 Milnes Rd, Modesto, CA 95357
Art Silva #2	3701 Langworth Rd, Modesto, CA 95357
Osmundsun Crane Villa	6624 Crane Rd, Oakdale, CA 95361
Deniz (TD6)	4356 McGee Ave, Modesto, CA 95357

Best Regards,

Craig Hartman
Hartman Engineering, Inc.

ATTACHMENT A: CUP APPLICATION

Stanislaus County

DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
1010 10TH Street, Suite 3400, Modesto, CA 95354
Planning Phone: (209) 525-6330 Fax: (209) 525-5911
Building Phone: (209) 525-6557 Fax: (209) 525-7759
Form Available Online: http://www.stancounty.com/planning/applications.shtm

APPLICATION QUESTIONNAIRE

Please Check all applicable boxes

APPLICATION FOR:

Staff is available to assist you with determining which applications are necessary

- ☐ General Plan Amendment
- ☐ Rezone
- ☒ Use Permit
- ☐ Variance
- ☐ Historic Site Permit
- ☐ Subdivision Map
- ☐ Parcel Map
- ☐ Exception
- ☐ Williamson Act Cancellation
- ☐ Other _____

PLANNING STAFF USE ONLY:

Application No(s): _____ _____ _____
Date: _____
S _____ **T** _____ **R** _____
GP Designation: _____
Zoning: _____
Fee: _____
Receipt No. _____
Received By: _____
Notes: _____

In order for your application to be considered COMPLETE, please answer all applicable questions on the following pages, and provide all applicable information listed on the checklist on pages i – v. Under State law, upon receipt of this application, staff has 30 days to determine if the application is complete. We typically do not take the full 30 days. It may be necessary for you to provide additional information and/or meet with staff to discuss the application. Pre-application meetings are not required, but are highly recommended. An incomplete application will be placed on hold until all the necessary information is provided to the satisfaction of the requesting agency. An application will not be accepted without all the information identified on the checklist.

Please contact staff at (209) 525-6330 to discuss any questions you may have. Staff will attempt to help you in any way we can.

PROJECT INFORMATION

PROJECT DESCRIPTION: (Describe the project in detail, including physical features of the site, proposed improvements, proposed uses or business, operating hours, number of employees, anticipated customers, etc. – Attach additional sheets as necessary)

Please note: A detailed project description is essential to the reviewing process of this request. In order to approve a project, the Planning Commission or the Board of Supervisors must decide whether there is enough information available to be able to make very specific statements about the project. These statements are called "Findings". It is your responsibility as an applicant to provide enough information about the proposed project, so that staff can recommend that the Commission or the Board make the required Findings. Specific project Findings are shown on pages 17 – 19 and can be used as a guide for preparing your project description. (If you are applying for a Variance or Exception, please contact staff to discuss special requirements).

Installation of a manure only lagoon digester at the BA Digester LLC project, Cross A Dairy in Oakdale Ca.

The project will capture the greenhouse gasses and upgrade them to renwable natural gas (RNG). All the Digester

components will be loacted within the project site leased area, appox 6 acres.

PROJECT SITE INFORMATION

Complete and accurate information saves time and is vital to project review and assessment. Please complete each section entirely. If a question is not applicable to your project, please indicated this to show that each question has been carefully considered. Contact the Planning & Community Development Department Staff, 1010 10th Street – 3rd Floor, (209) 525-6330, if you have any questions. Pre-application meetings are highly recommended.

ASSESSOR'S PARCEL NUMBER(S): **Book** 14 **Page** 17 **Parcel** 1

Additional parcel numbers: 014-008-004

Project Site Address or Physical Location: 4125 Bentley Rd

Oakdale, CA 95361

Property Area: Acres: 6 or Square feet: _____

Current and Previous Land Use: (Explain existing and previous land use(s) of site for the last ten years)

agricultural

List any known previous projects approved for this site, such as a Use Permit, Parcel Map, etc.: (Please identify project name, type of project, and date of approval)

_____

_____

Existing General Plan & Zoning: General Ag, 40 Acre

Proposed General Plan & Zoning: _____
(if applicable)

ADJACENT LAND USE: (Describe adjacent land uses within 1,320 feet (1/4 mile) and/or two parcels in each direction of the project site)

East: agricultural

West: agricultural

North: agricultural

South: agricultural

WILLIAMSON ACT CONTRACT:

Yes ☐ **No** ☒

Is the property currently under a Williamson Act Contract?
Contract Number: _____

If yes, has a Notice of Non-Renewal been filed?

Date Filed: _____

Yes ☐ No ☒ Do you propose to cancel any portion of the Contract?

Yes ☐ No ☒ Are there any agriculture, conservation, open space or similar easements affecting the use of the project site. (Such easements do not include Williamson Act Contracts)

If yes, please list and provide a recorded copy: _____

_____

SITE CHARACTERISTICS: (Check one or more) Flat ☒ Rolling ☐ Steep ☐

VEGETATION: What kind of plants are growing on your property? (Check one or more)

Field crops ☒ Orchard ☐ Pasture/Grassland ☐ Scattered trees ☐

Shrubs ☐ Woodland ☐ River/Riparian ☐ Other ☐

Explain Other: _____

Yes ☐ No ☒ Do you plan to remove any trees? (If yes, please show location of trees planned for removal on plot plan and provide information regarding transplanting or replanting.)

GRADING:

Yes ☒ No ☐ Do you plan to do any grading? [redacted]

Yes, the digester lagoon and site

STREAMS, LAKES, & PONDS:

Yes ☐ No ☒ Are there any streams, lakes, ponds or other watercourses on the property? (If yes, please show on plot plan)

Yes ☐ No ☒ Will the project change any drainage patterns? (If yes, please explain – provide additional sheet if needed) _____

_____

Yes ☐ No ☒ Are there any gullies or areas of soil erosion? (If yes, please show on plot plan)

Yes ☐ No ☒ Do you plan to grade, disturb, or in any way change swales, drainages, ditches, gullies, ponds, low lying areas, seeps, springs, streams, creeks, river banks, or other area on the site that carries or holds water for any amount of time during the year? (If yes, please show areas to be graded on plot plan)

Please note: If the answer above is yes, you may be required to obtain authorization from other agencies such as the Corps of Engineers or California Department of Fish and Game.

STRUCTURES:

Yes ☒ **No** ☐ Are there structures on the site? (If yes, please show on plot plan. Show a relationship to property lines and other features of the site.

Yes ☐ **No** ☒ Will structures be moved or demolished? (If yes, indicate on plot plan.)

Yes ☒ **No** ☐ Do you plan to build new structures? (If yes, show location and size on plot plan.)

Yes ☐ **No** ☒ Are there buildings of possible Historical significance? (If yes, please explain and show location and size on plot plan.) _____

PROJECT SITE COVERAGE:

Existing Building Coverage: 0 Sq. Ft.

Proposed Building Coverage: 2,080 Sq. Ft.

Landscaped Area: 0 Sq. Ft.

Paved Surface Area: EST. 25,000 Sq. Ft.

BUILDING CHARACTERISTICS:

Size of new structure(s) or building addition(s) in gross sq. ft.: (Provide additional sheets if necessary)

Utility Building = 1680 sq ft. Office Trailer = 400 sq ft.

Number of floors for each building: 1

Building height in feet (measured from ground to highest point): (Provide additional sheets if necessary)

Utility building and trailer: 20'

Height of other appurtenances, excluding buildings, measured from ground to highest point (i.e., antennas, mechanical equipment, light poles, etc.): (Provide additional sheets if necessary) see site plan

Proposed surface material for parking area: (Provide information addressing dust control measures if non-asphalt/concrete material to be used) all-weather surface

UTILITIES AND IRRIGATION FACILITIES:

Yes ☐ **No** ☒ Are there existing public or private utilities on the site? Includes telephone, power, water, etc. (If yes, show location and size on plot plan)

Who provides, or will provide the following services to the property?

Electrical: N/A

Sewer*: N/A

Telephone: N/A

Gas/Propane: Natural Gas

Water**: From existing dairy

Irrigation: N/A

***Please Note: A "will serve" letter is required if the sewer service will be provided by City, Sanitary District, Community Services District, etc.**

****Please Note: A "will serve" letter is required if the water source is a City, Irrigation District, Water District, etc., and the water purveyor may be required to provide verification through an Urban Water Management Plan that an adequate water supply exists to service your proposed development.**

Will any special or unique sewage wastes be generated by this development other than that normally associated with resident or employee restrooms? Industrial, chemical, manufacturing, animal wastes? (Please describe:)

The facility will process animal wastes and be permitted with the RWQCB under the Anaerobic Digester General Order, R5-2010-0130

Please Note: Should any waste be generated by the proposed project other than that normally associated with a single family residence, it is likely that Waste Discharge Requirements will be required by the Regional Water Quality Control Board. Detailed descriptions of quantities, quality, treatment, and disposal may be required.

Yes ☐ **No** ☒ Are there existing irrigation, telephone, or power company easements on the property? (If yes, show location and size on plot plan.)

Yes ☐ **No** ☒ Do the existing utilities, including irrigation facilities, need to be moved? (If yes, show location and size on plot plan.)

Yes ☒ **No** ☐ Does the project require extension of utilities? (If yes, show location and size on plot plan.)

AFFORDABLE HOUSING/SENIOR:

Yes ☐ **No** ☒ Will the project include affordable or senior housing provisions? (If yes, please explain)

RESIDENTIAL PROJECTS: (Please complete if applicable – Attach additional sheets if necessary)

Total No. Lots: N/A Total Dwelling Units: _____ Total Acreage: _____

Net Density per Acre: _____ Gross Density per Acre: _____

(complete if applicable)	Single Family	Two Family Duplex	Multi-Family Apartments	Multi-Family Condominium/ Townhouse
Number of Units:				
Acreage:				

COMMERCIAL, INDUSTRIAL, MANUFACTURING, RETAIL, USE PERMIT, OR OTHER PROJECTS: (Please complete if applicable – Attach additional sheets if necessary)

Square footage of each existing or proposed building(s): Utility Building = 1250 sq ft. Office Trailer = 400 sq ft.

Type of use(s): Plant operations only

Days and hours of operation: The facilliity will be automated to run 24/7. An employee will be on site M-F 8-5 and on-call in case of emergencies

Seasonal operation (i.e., packing shed, huller, etc.) months and hours of operation: N/A

Occupancy/capacity of building: plant operation only

Number of employees: (Maximum Shift): 2 (Minimum Shift): 1

Estimated number of daily customers/visitors on site at peak time: No visitors

Other occupants: Occasional private visitors, by invitation only

Estimated number of truck deliveries/loadings per day: 40

Estimated hours of truck deliveries/loadings per day: 40

Estimated percentage of traffic to be generated by trucks: 90%

Estimated number of railroad deliveries/loadings per day: 0

Square footage of:

Office area:	400	Warehouse area:	0
Sales area:	0	Storage area:	68,000
Loading area:	70,000	Manufacturing area:	0

Other: (explain type of area)

Yes ☒ **No** ☐ Will the proposed use involve toxic or hazardous materials or waste? (Please explain)

Natural gas to power CHP engines

ROAD AND ACCESS INFORMATION:

What County road(s) will provide the project's main access? (Please show all existing and proposed driveways on the plot plan)

The site will be accessed from Bentley Rd. The project will also involve a virtual pipeline for transporting gas and dairy waste. The project will be phased so that piping from "donor dairies" will be added later to replace the trucks transporting dairy waste.

Yes ☒ No ☐ Are there private or public road or access easements on the property now? (If yes, show location and size on plot plan)

Yes ☒ No ☐ Do you require a private road or easement to access the property? (If yes, show location and size on plot plan)

Yes ☐ No ☒ Do you require security gates and fencing on the access? (If yes, show location and size on plot plan)

Please Note: Parcels that do not front on a County-maintained road or require special access may require approval of an Exception to the Subdivision Ordinance. Please contact staff to determine if an exception is needed and to discuss the necessary Findings.

STORM DRAINAGE:

How will your project handle storm water runoff? (Check one) ☒ Drainage Basin ☐ Direct Discharge ☐ Overland

☐ Other: (please explain) _____

If direct discharge is proposed, what specific waterway are you proposing to discharge to? _____

_____

Please Note: If direct discharge is proposed, you will be required to obtain a NPDES permit from the Regional Water Quality Control Board, and must provide evidence that you have contacted them regarding this proposal with your application.

EROSION CONTROL:

If you plan on grading any portion of the site, please provide a description of erosion control measures you propose to implement.

The project will have an associated SWPPP describing the BMPs in more detail, which will include fiber rolls &

dust control, among others. The project will follow NPDES and RWQCB regulations.

Please note: You may be required to obtain an NPDES Storm Water Permit from the Regional Water Quality Control Board and prepare a Storm Water Pollution Prevention Plan.

ADDITIONAL INFORMATION:

Please use this space to provide any other information you feel is appropriate for the County to consider during review of your application. (Attach extra sheets if necessary)

_____

_____

_____

_____

_____

_____

_____

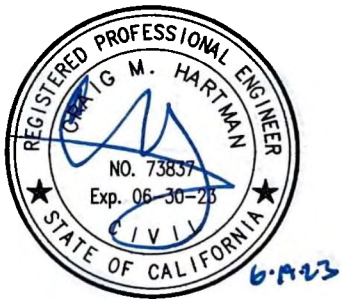
ATTACHMENT B: CEQA CHECKLIST

CEQA CHECKLIST AND OPERATIONAL STATEMENT

PREPARED FOR:

BA DIGESTER

STANISLAUS COUNTY, CA



PREPARED BY:

HARTMAN ENGINEERING

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I. BACKGROUND

Cross A Dairy is located within Stanislaus County and plans to make improvements to its facility to produce clean natural gas. The improvements are to add a screen separator and wastewater recycle system, an anaerobic digester, and a natural gas compression and clean up facility. The proposed facility will be a hub for a cluster of dairies in San Joaquin County. As standalone dairies, an anaerobic digester project may not have panned out, but bringing them together makes the project economically feasible.

The proposed dairies are shown in Figure 1 below. Initially, all materials will be trucked to and from the dairies. The project will be built in phases, with the second phase being a network of pipelines for transporting manure, which will replace the truck routes.

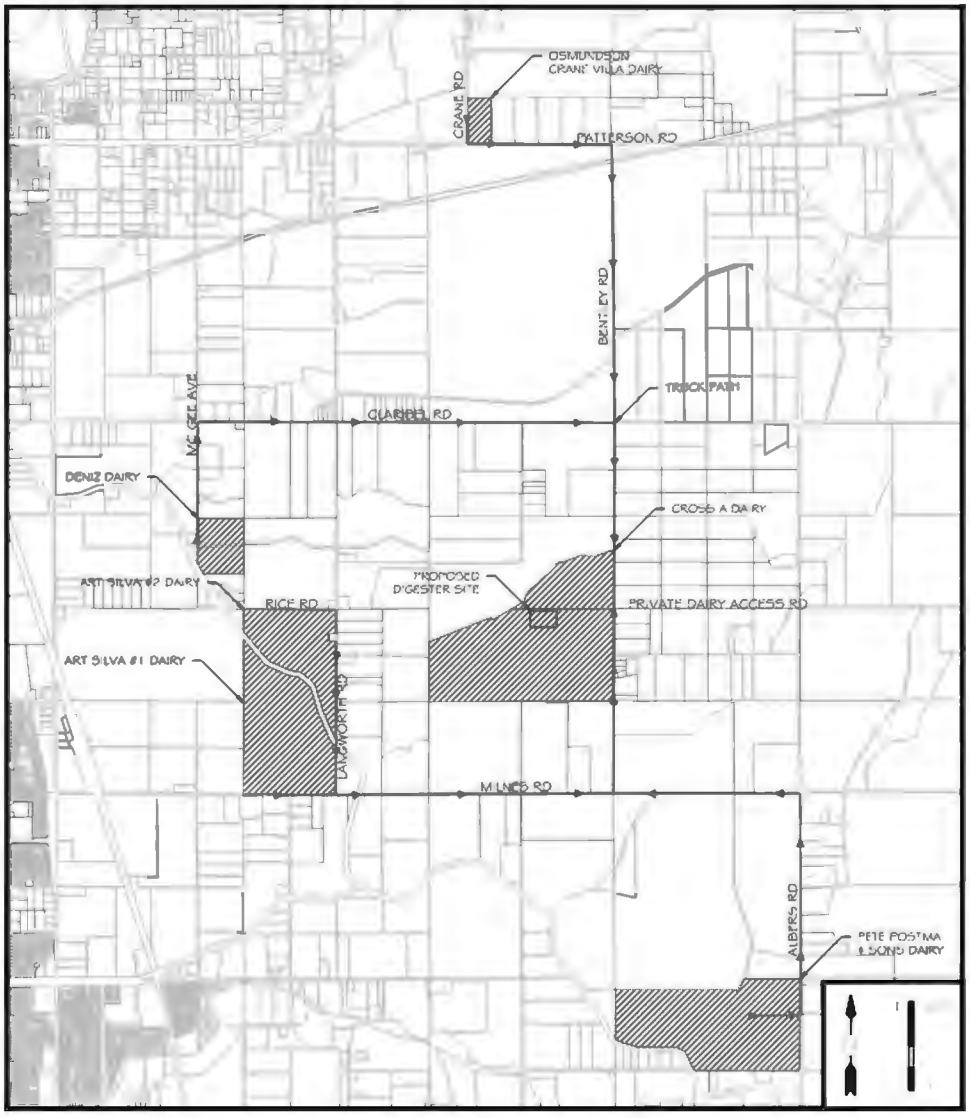


Figure 1. Vicinity Map

A. Type of Operation:

Cross A Dairy is an existing dairy facility located in Oakdale, California. Sierra Renewables Organics Management (SROM) would like to propose the construction, installation, and operation of an anaerobic digester and Natural Gas Clean-up and compression system. This includes the lining and covering of a new pond on-site, to standards required by the Regional Water Quality Control Board (RWQCB) and a biogas collection system with emergency flare that meets the San Joaquin Valley Air Pollution Control District standards.

The facility will be the anchor of a cluster of dairies, receiving waste from five other dairies. Water and manure will be treated at Cross A Dairy, then nutrients will be returned to the dairies for agronomic application to fields. In order for the dairies to participate, there will be minor improvements at each facility, including manure receiving pits and truck filling stations. The application of nutrients will not increase at any dairy, unless the dairy increases their land application area or has the available land to meet the agronomic land application rates required by the Water Board. If this is the case, the dairy's Nutrient Management Plan will be revised.

The main goal of the project is to reduce methane emissions by capturing biogas from the degradation of dairy manure in wastewater. Other benefits include the increased nutrient availability for plants in the digestate. The digester mineralizes the inorganic compounds necessary for plant growth—Nitrogen, Potassium, and Phosphorus—so that plants can more easily absorb these nutrients. The project also proposes manure handling upgrades. Solids separation increases the longevity of the digester and allows for recycling of the separated material for bedding or compost. Removing solids also reduces the volume of required storage capacity, thereby increasing the safety factor on participating dairies' storage ponds for rain events.

B. Operational Time Limits:

The operation of the anaerobic digester and natural gas and clean-up and compression facility is year-round, as are the associated dairies. The facility is estimated to have an operator on site during normal work hours (7am–7pm, M–Sat) and in case of an emergency. Trucks will be on site a few hours per day to transport manure and CNG to and from the site.

C. Number of Customers or Visitors:

There will be no outside customers or members of the public allowed to access the site. There may be occasional visitors on an invitation-only basis.

D. Number of Employees:

There will be two fulltime equivalent employees at the digester facility, not counting truck or transport labor for manure deliveries from the donor farms. The proposed project will not impose a need for additional employees at the host dairy facility. This also includes the time for services on the digester and mechanical equipment shall be provided part-time by the digester operations team.

E. Service and Delivery Vehicles:

There are minimal service vehicles that will deliver spare parts and lubricants on an on-call basis. There will be an estimated three trucks per day to take CNG to an injection site. There will be an estimated 40 trucks per day to import feedstock for the digester from surrounding dairies within the cluster.

F. Access to the Site:

The Facility is surrounded by farmland in rural Stanislaus County, east of Route J14. Specifically, the dairy is 0.25 mi North of the intersection of Bentley Rd and Kemper Rd in Oakdale, CA. The project site is accessible from Bentley Rd.

G. Number of Parking Spaces for Employees, Customers, and Service/Delivery Vehicles:

The employees and service providers will park on the all-weather surface near the natural gas compression and clean up area. There will be four regular parking spaces and one accessible space, for a total of five parking spaces.

H. Grown and Produced Goods to be Sold On-Site:

Compressed and cleaned natural gas will be trucked from the site to a natural gas injection point. Some dry dairy solids will be returned to participating dairies, and the rest will be sold as fertilizer.

I. Equipment Being Used:

1. Mixers and Pumps:

There are jet mixers within the digester used to mix the wastewater in the reactor. The mixers recirculate water in the pond through pipes and expels it with jets back into the circulation. These mixers are located at the bottom of the pond and also work as agitators to keep solids in suspension, to prevent buildup in the pond.

2. CHP Engines:

Three Combined Heat and Power Engines will be installed to power onsite equipment. These engines will be permitted with the Air District.

3. RTO:

The Regenerative Thermal Oxidizer will be permitted with the Air District. This equipment will destroy VOCs in the exhaust of the Biogas Upgrader

4. Biogas Upgrader:

The site will have a Biogas Upgrader. It will have tail gas emissions of 450 CFM. This equipment will be permitted with the Air District.

5. Boilers:

The site will have three natural-gas powered boilers, which aggregate less than 5 MMBTU/hr. This equipment will be permitted with the Air District.

6. Flare:

As a safety measure, the proposed site plan includes an emergency flare. The flare is capable of burning up to 1,000 CFM of biogas. The flare will be permitted with the Air District.

7. Relief Valves

Pressure and Vacuum relief valves will be installed on the digester and hydrolyzer for use in emergencies, although the primary emergency venting will be at the flare. The valves are capable of venting up to 1,000 CFM of biogas.

J. Supplies and Materials Used with Storing Practices:

The biogas will be stored mainly in the headspace of the hydrolyzer. The anaerobic digester lagoon may also be used to store the gas as necessary. Digestate will be returned to the host dairies to maintain a nutrient balance. Truck filling stations are planned for loading the trucks for transport.

K. Does the use cause an unsightly appearance?

The proposed improvements are all located within the existing dairy facility have no impact to aesthetics. The proposed project will reduce the odor from the dairy tremendously by capturing volatile solids that previously vented to atmosphere from current uncovered ponds.

L. List any Solid or Liquid Waste to be Produced:

Cross A Dairy will continue to produce the same waste stream as before, the only proposed difference is the digester will degrade the solids within the lagoon prior to reaching the final storage ponds prior to land application at agronomic rates, which is monitored by the Facility as required by the Regional Water Quality Control Board. Nutrients from "donor dairies" will be returned to those sites for application at agronomic rates. No dairy will receive more than its maximum nutrient load. Any remaining material will be marketed for use offsite.

M. Estimated Volume of Water to be Used (Gallons per Day):

There is no extra water required for the proposed improvements other than for minimal flows for cleaning and maintenance.

N. Size, Appearance, and Placement of any Proposed Advertising:

Not applicable to this operation.

O. Use Changes of Existing Buildings Will existing buildings be used or will new buildings be constructed?

There are no use changes of existing buildings. The only buildings of any nature are enclosures or shelters used for mechanical equipment, but not structures for employees. Construction of new buildings includes a utility building. A trailer will serve as an on-site office and a three-walled enclosure will surround bedding pasteurization equipment.

P. Which buildings or what portion of buildings will be used in the operation:

No existing buildings will be used. The utility building will be used as part of this operation, as will the bedding pasteurization shed and office trailer.

Q. Will any outdoor lighting or an outdoor sound amplification system be used?

There will be some minor security lighting and outdoor lighting near the truck loading area. A lighting plan is shown on the site plan.

R. Landscaping or fencing proposed?

No new landscaping or fencing is planned for the facility.

S. Any other information that will provide a clear understanding of the project or operation

The anaerobic digester lagoon will serve as the reactor to make biogas which will be pumped into the natural gas clean up and conditioning facility. Trucks will import dewatered manure and return the nutrients to the donor farms post-digestion for land application at agronomic rates.

II. Engineer Opinion of Potential Environmental Impacts

I. AESTHETICS

A. Would the project have a substantial adverse effect on a scenic vista; or

B. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway; or

C. Would the project substantially degrade the existing visual character or quality of the site and its surroundings; or

D. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

FINDING: NO IMPACT: All improvements are located within the existing dairy footprint and are typical of the existing infrastructure of the dairy facility including exterior lighting. The nearest off-site residence is 0.5 miles from the proposed location.

II. AGRICULTURAL AND FORESTRY RESOURCES

A. Would the project convert prime or unique farmlands or farmland of state-wide importance to non-agricultural use?

B. Would the project conflict with existing agricultural zoning or Williamson Act Contracts?

C. Would the project conflict with existing zoning for or cause rezoning of forest land, timberland, or timberland zoned Timberland Production; or

D. Would the project result in the loss of forest land or conversion of forest land to non-forest use; or

E. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural uses or conversion of forest land to non-forest use?

FINDING: NO IMPACT: All improvements are located within the existing footprint. The facility is considered agricultural use, as operations contribute to production.

III. AIR QUALITY

A. Would the project conflict with or obstruct implementation of the applicable Air Quality Plan; or

B. Would the project violate any air quality standard or contribute to an existing or projected air quality violation; or

C. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under a Federal or State ambient air quality standard?

FINDING: LESS THAN SIGNIFICANT IMPACT: The following activities are anticipated during construction: grading of the proposed digester and appurtenant concrete structures, construction of the mechanical pads for natural gas system, and lining and covering of the digester pond. The project will follow Air Board regulations for equipment used in the natural gas cleanup facility. Proposed equipment includes three combined heat and power (CHP) engines at the natural gas cleanup facility, a biogas upgrader with expected tail gas emissions of 450 cfm and a regenerative thermal oxidizer (RTO) to manage these emissions, three natural gas-powered boilers which aggregate less than 5 MMBTU/hr, a safety flare of up to 1,000 cfm biogas, and pressure and vacuum relief valves on the hydrolyzer and digester capable of venting 1,000 cfm of biogas

D. Would the project expose sensitive receptors to substantial pollutant concentrations; or
E. Would the project create objectionable odors affecting a substantial number of people?

FINDING: NO IMPACT: The area in the vicinity of the project site does not contain any sensitive receptor locations; the surrounding area is agricultural in nature. The nearest residence is approximately 2,600 feet away and not likely to be impacted by the estimated level of emissions. Following construction, all manure and wastewater on the site will be treated by an anaerobic digester, which will reduce the amount of methane and hydrogen sulfide in the air, thereby reducing objectionable odors from manure.

IV. BIOLOGICAL RESOURCES

A. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any candidate, sensitive, or special-status species?
B. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS); or
C. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means?
D. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; or Evaluation of Environmental Impacts – Page 7
E. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
F. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

FINDING: NO IMPACT: All improvements are located within the existing disturbed footprint of the dairy facility.

V. CULTURAL RESOURCES

A. Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5; or

B. Would the project cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5; or

C. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

D. Would the project disturb any human remains, including those interred outside of formal cemeteries; or

E. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074?

FINDING: NO IMPACT: All improvements are located within the existing disturbed footprint of the dairy facility.

VI. GEOLOGY AND SOILS

A. Would the project expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving:

1. Rupture of a known earthquake?
2. Strong seismic ground shaking?
3. Seismic-related ground failure, including liquefaction?
4. Landslides?

FINDING: SIGNIFICANT IMPACT: The subject parcel is located approximately 25 mi from the San Joaquin Fault, which runs along I-5. The San Joaquin Fault is a late Quaternary Fault, less than 130,000 years old. The fault is in Class A.

B. Would the project result in substantial erosion or loss of topsoil; or

C. Would the project result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse; or

D. Would the project be located on expansive soils, creating substantial risks to life or property?

FINDING: NO IMPACT: The subject parcel is not likely to result in substantial erosion or loss of topsoil because a water management plan is in place which channels runoff water into the wastewater retention ponds. The site is not located in an area of steep slopes or landslide hazards.

E**.** Would the project have soils incapable of adequately supporting the use of septic tanks or alternative disposal systems where sewers are not available for wastewater disposal?

FINDING: NO IMPACT: There are no new septic or wastewater facilities proposed with the project.

VII. GREENHOUSE GAS EMISSIONS

A. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

B. Would the project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

FINDING: NO IMPACT: The project will greatly reduce greenhouse gas emissions at the dairy and in vehicle fuels. Potential emissions include three combined heat and power (CHP) engines at the natural gas cleanup facility, a biogas upgrader with expected tail gas emissions of 450 cfm and a regenerative thermal oxidizer (RTO) to manage these emissions, three natural gas-powered boilers which aggregate less than 5 MMBTU/hr, a safety flare of up to 1,000 cfm biogas, and pressure and vacuum relief valves on the hydrolyzer and digester capable of venting 1,000 cfm of biogas.

VIII. HAZARDS AND HAZARDOUS MATERIALS

A. Would the project create a significant public hazard through routine transport, use or disposal of hazardous materials; or

B. Would the project create a significant public hazard involving accidental release of hazardous materials into the environment?

C. Would the project create hazardous emissions or utilize hazardous materials, substances or waste within one-quarter mile of a school?

D. Would the project be located on a hazardous materials site?

E. Would a project located within an airport land use plan or, absent such a plan, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area; or

F. Would a project located within the vicinity of a private airstrip result in a safety hazard for people residing or working in the project area?

G. Would the project impair implementation of or physically interfere with an adopted Emergency Response Plan or Emergency Evacuation Plan; or

H. Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

FINDING: LESS THAN SIGNIFICANT IMPACT WITH MITIGATION: Hazardous materials include waste oil, cal gas, and fuel for the CHP Engines. A Hazardous Material Plan will be implemented before operation of the facility.

IX. HYDROLOGY AND WATER QUALITY

A. Would the project violate any water quality standards or waste discharge requirements or otherwise degrade water quality?

FINDING: NO IMPACT: There are no changes to its current waste discharge requirements. Proposed improvements will increase nutrient availability and remove solids from the waste stream.

B. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge so that there would be a net deficit in aquifer volume or a lowering of the local groundwater table; or

FINDING: NO IMPACT: The proposed project will not increase water usage at the site.

C. Would the project substantially alter existing drainage patterns, including alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site; or

D. Would the project substantially alter existing drainage patterns, including alteration of the course of a stream or river, in a manner which would result in flooding on or off site; or

E. Would the project create or contribute run-off which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted run-off; or

F. Would the project otherwise substantially degrade water quality?

FINDING: NO IMPACT: All grading on site will be done in compliance with the Water Board Waste Containment regulations and the existing County regulations; as part of the permitting process, the applicant will be required to prepare an engineered grading
and drainage plan to show how additional runoff generated by the proposed development will be handled without adversely impacting adjacent properties. There are no streams, rivers, or canals running through the project site. Further, total water usage will not change due to the proposed modifications to the facility.

G. Would the project place housing within a 100-year floodplain?

H. Would the project place structures within a 100-year flood hazard area that would impede or redirect flood flows; or

FINDING: NO IMPACT: Dairy is in Zone X.

J. Would the project cause inundation by seiche, tsunami or mudflow?

FINDING: NO IMPACT

X. **LAND USE AND PLANNING**

A. Will the project physically divide an established community; or

B. Will the project conflict with any Land Use Plan, policy, or regulation of an agency with jurisdiction over the project; or

C. Will the project conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan?

FINDING: NO IMPACT: All improvements are located within the existing disturbed footprint of the dairy facility.

XI. MINERAL RESOURCES

A. Would the project result in the loss of availability of a known mineral resource; or

B. Would the project result in the loss of availability of a locally important mineral resource recovery site designated on a General Plan?

FINDING: NO IMPACT: The subject parcel is not located in an area where known mineral resources are located.

XII. **NOISE**

A. Would the project result in exposure of people to severe noise levels; or

B. Would the project result in exposure of people to or generate excessive ground-borne vibration or ground-borne noise levels; or

C. Would the project cause a substantial permanent increase in ambient noise levels in the project vicinity; or

D. Would the project result in a substantial temporary or periodic increase in ambient noise levels?

E. Would the project expose people to excessive noise levels associated with a location near an airport or a private airstrip; or

F. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

FINDING: NO IMPACT: The operation of an anaerobic digester is not anticipated to increase noise levels in the vicinity of the project beyond the existing facility operations.

XIII. **POPULATION AND HOUSING**

A. Would the project induce substantial population growth either directly or indirectly; or

B. Would the project displace substantial numbers of existing housing; or

C. Would the project displace substantial numbers of people, necessitating the construction of housing elsewhere?

FINDING: NO IMPACT: The location of the digester and natural gas facility are proposed within the existing dairy operation and will not displace any existing housing. The facility is proposing 2 full-time-equivalent employees to run digester operations.

XIV. **PUBLIC SERVICES**

A. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered public facilities in the following areas:

1. Fire protection;
2. Police protection;
3. Schools;
4. Parks; or
5. Other public facilities?

FINDING: NO IMPACT: There will be no impacts to public services. This project will not increase the attendance at local schools or increase the use of public parks or other facilities.

XV. **RECREATION**

A. Would the project increase the use of existing neighborhood and regional parks; or

B. Would the project require the construction of or expansion of recreational facilities?

FINDING: NO IMPACT: This project will not increase the population or increase the use of public parks or other facilities

XVI. **TRANSPORTATION/TRAFFIC**

A. Would the project conflict with any applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, considering all modes of transportation; or

B. Would the project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demands measures; or

C. Would the project result in a change in air traffic patterns; or

D. Would the project substantially increase traffic hazards due to design features; or

E. Would the project result in inadequate emergency access; or

F. Would the project conflict with adopted plans, policies or programs regarding public transit, bicycle or pedestrian facilities or otherwise decrease the performance or safety of such facilities?

FINDING: LESS THAN SIGNIFICANT IMPACT: The project will increase truck traffic by approximately 40 trips daily to facility for waste transportation, gas transportation, and trips by operators.

XVII. **UTILITIES AND SERVICE SYSTEMS**

A. Would the project exceed wastewater treatment requirements, or Evaluation of Environmental Impacts

B. Would the project require construction of or the expansion of new water or wastewater treatment facilities; or

C. Would the project require or result in the construction or expansion of new storm water drainage facilities; or

D. Would the project have sufficient water supplies available from existing entitlements and resources, or are new or expanded entitlements needed; or

E. Would the project result in a determination of inadequate wastewater treatment capacity to serve project demand; or

F. Would the project be served by a landfill with sufficient permitted capacity; or

G. Would the project comply with federal, state and local statutes and regulations related to solid waste?

FINDING: NO IMPACT: The dairy will maintain its current discharge permit and wastewater treatment process, with only slight upgrades to inorganic removal and organic mineralization. The facility will not require additional water for operations.

XVIII. **MANDATORY FINDINGS OF SIGNIFICANCE**

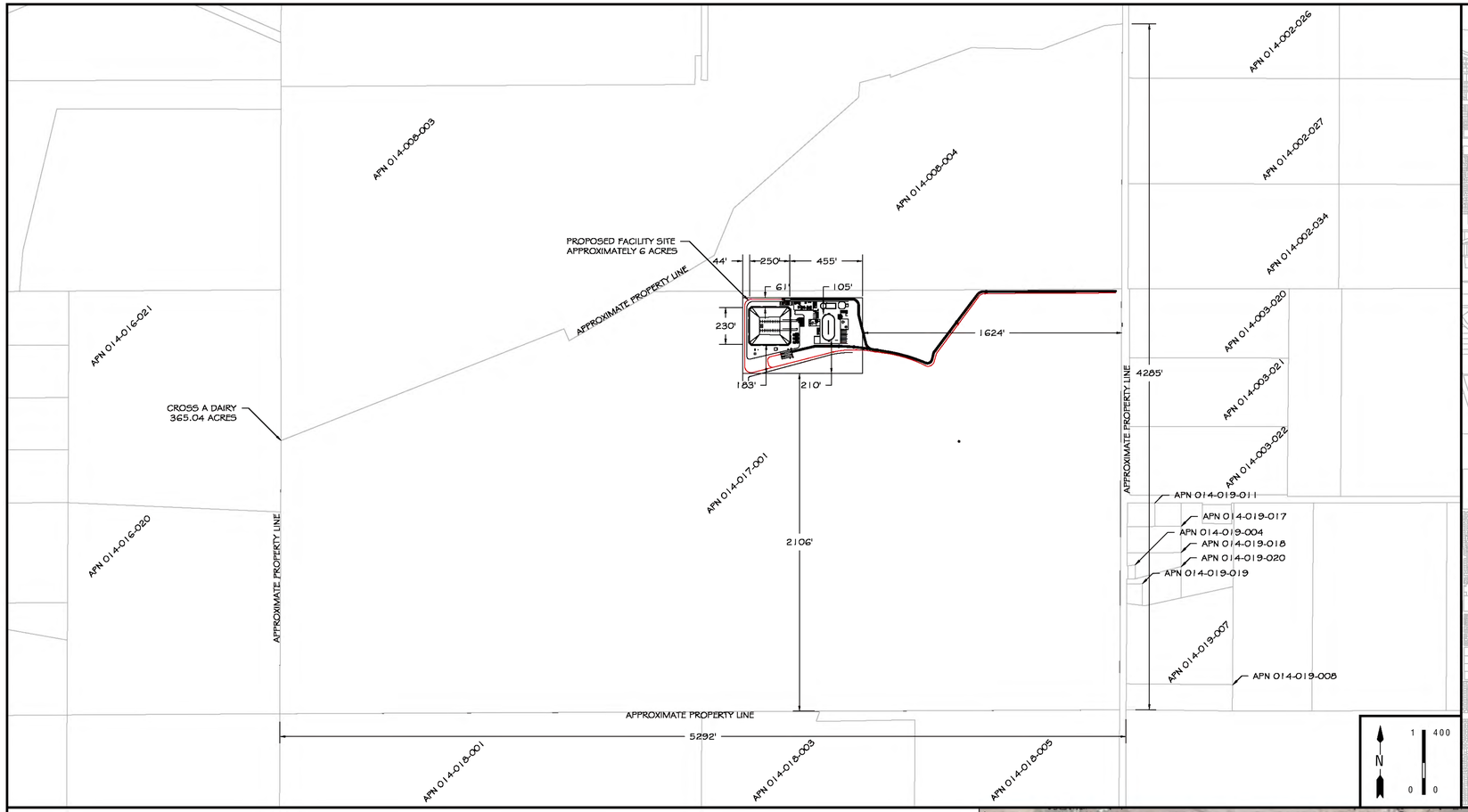
A. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife Evaluation of Environmental Impacts

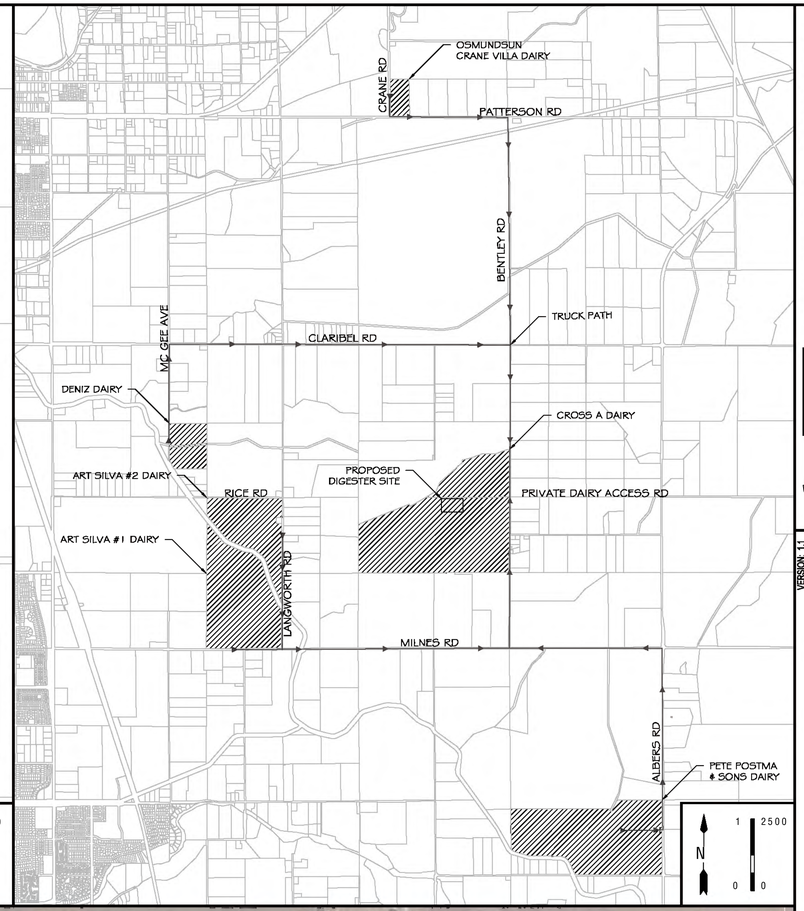
B. Does the project have impacts that are individually limited, but cumulatively considerable; or

C. Does the project have environmental impacts which will cause substantial adverse effects on human beings, either directly or indirectly?

FINDING: NO IMPACT: This project proposes additional treatment of the waste by removing solids from the waste stream and digesting inorganic nutrients.

ATTACHMENT C: SITE PLAN



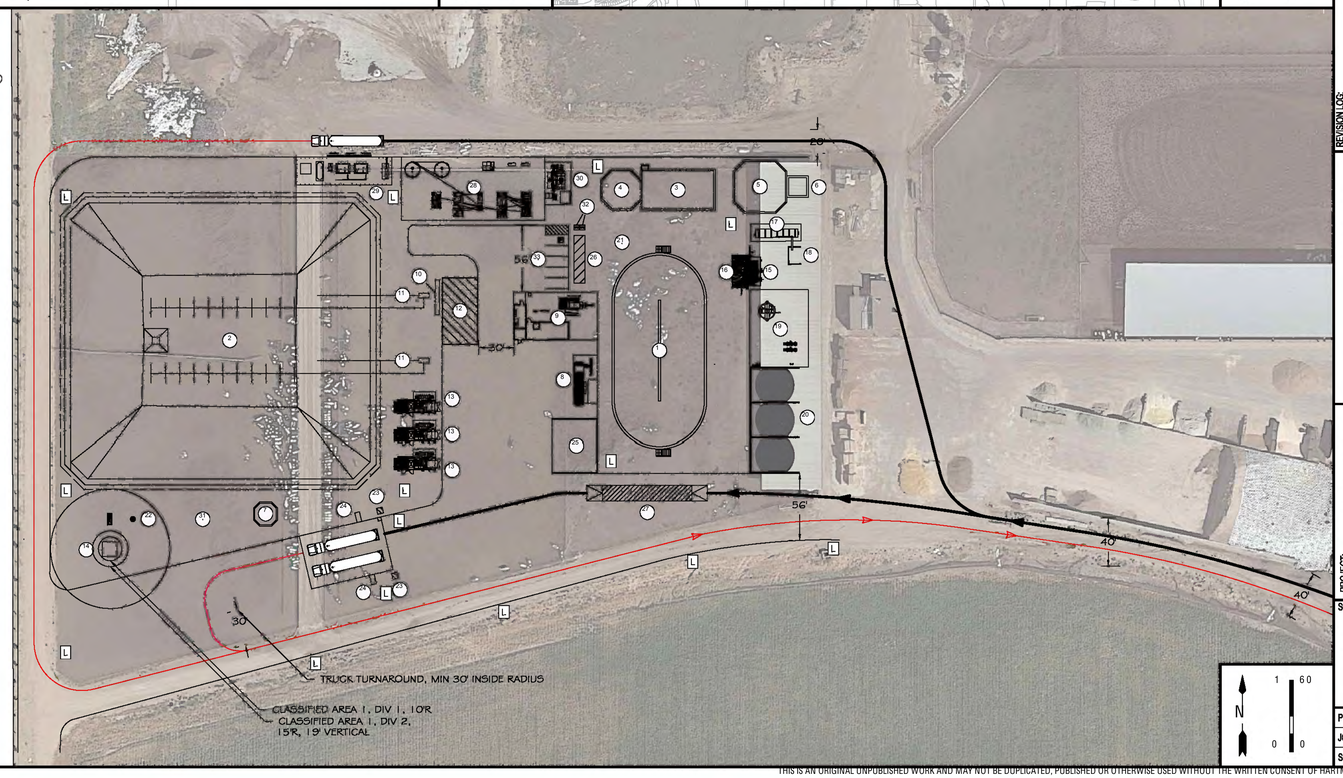


SITE PLAN LEGEND

1. HYDROLYZER LWR (163'X79'X12') OCCUPIED SPACE: NO
2. ANAEROBIC DIGESTER (230'X250'X9') OCCUPIED SPACE: NO
3. PROCESSING PIT (34.5'X62.5') AT GRADE/ OCCUPIED SPACE: NO
4. HYDROLYZER EQUALIZATION PIT (L34.5'X33') AT GRADE/ OCCUPIED SPACE: NO
5. FLUSH PIT (44.5'X44.5') AT GRADE/ OCCUPIED SPACE: NO
6. MANURE COLLECTION PIT (18'X18') AT GRADE/ OCCUPIED SPACE: NO
7. DIGESTER EQUALIZATION PIT (20'X20') AT GRADE/ OCCUPIED SPACE: NO
8. BIOFEEDER (42.5'X20') OCCUPIED SPACE: NO
9. HYDROLYZER LWR (70'X40'X12') OCCUPIED SPACE: NO
10. DIGESTER HEAT EXCHANGER (29'X3') OCCUPIED SPACE: NO
11. DIGESTER JET MIXING SYSTEM (12.5X228') 2 TYP. OCCUPIED SPACE: NO
12. UTILITY BUILDING (56'X30'X20') OCCUPIED SPACE: NO
13. COMBINED HEAT AND POWER ENGINES (18.5'X35'X15') OCCUPIED SPACE: NO
14. SAFETY FLARE (12'X12'X20') & BLOWER (L9.5'X4') OCCUPIED SPACE: NO
15. SCREEN SEPARATORS (24'X10'X30') OCCUPIED SPACE: NO
16. THICKENING PIT (14'X27') AT GRADE/ OCCUPIED SPACE: NO
17. SEDITANK GRIT REMOVAL (14'X41') OCCUPIED SPACE: NO
18. GRIT COLLECTION AREA WITH PUSH WALL (15'X11'X4') OCCUPIED SPACE: NO
19. BEDDING PASTEURIZING SHED (65'X48.5'X20') OCCUPIED SPACE: NO
20. STACKING AREA (88'X41') AT GRADE/ OCCUPIED SPACE: NO
21. MONITORING WELL (R:2.2') AT GRADE/ OCCUPIED SPACE: NO
22. CONDENSATE WELL (R: 2.2') AT GRADE/ OCCUPIED SPACE: NO
23. LIQUID RECEIVING STATION (5'X5') 2 TYP. OCCUPIED SPACE: NO
24. DIGESTER FILLING STATION (8'X4') 2 TYP. OCCUPIED SPACE: NO
25. RECEIVING PAD WITH PUSH WALL (45.5'X38'X4') OCCUPIED SPACE: NO
26. OFFICE TRAILER (40'X9'X20') OCCUPIED SPACE: YES
27. TRUCK SCALE (13'X101') OCCUPIED SPACE: NO
28. BIOGAS UPGRADER (53'X120'X30') OCCUPIED SPACE: NO
29. COMPRESSION STATION (53'X20') OCCUPIED SPACE: NO
30. REGENERATIVE THERMAL OXIDIZER (22'X35.5') OCCUPIED SPACE: NO
31. WATER STORAGE TANK (7.5'R) OCCUPIED SPACE: NO
32. PORTABLE WASHROOM/ OCCUPIED SPACE: NO
33. PARKING SPACES (53X20') AT GRADE/ OCCUPIED SPACE: NO
ASPHALT CONCRETE OR PORTLAND CEMENT
(1) ACCESSIBLE SPACE: 9' WIDE SPOT WITH 8' WIDE LOADING
TOTALING 17' X 20'
(4) STANDARD SPOTS 15' X 20'
TOTALING 60' X 20'

⟵ DIRECTION OF TRAFFIC (AT GRADE)

[L] LIGHTS (TYP. 14)



HARTMAN ENGINEERING
308 W. OAK AVE., VISALIA, CA 93291, (559) 453-1444, CRAIG@HARTMAN ENGINEERING

DRAFT, NOT FOR CONSTRUCTION

VERSION: 1.1

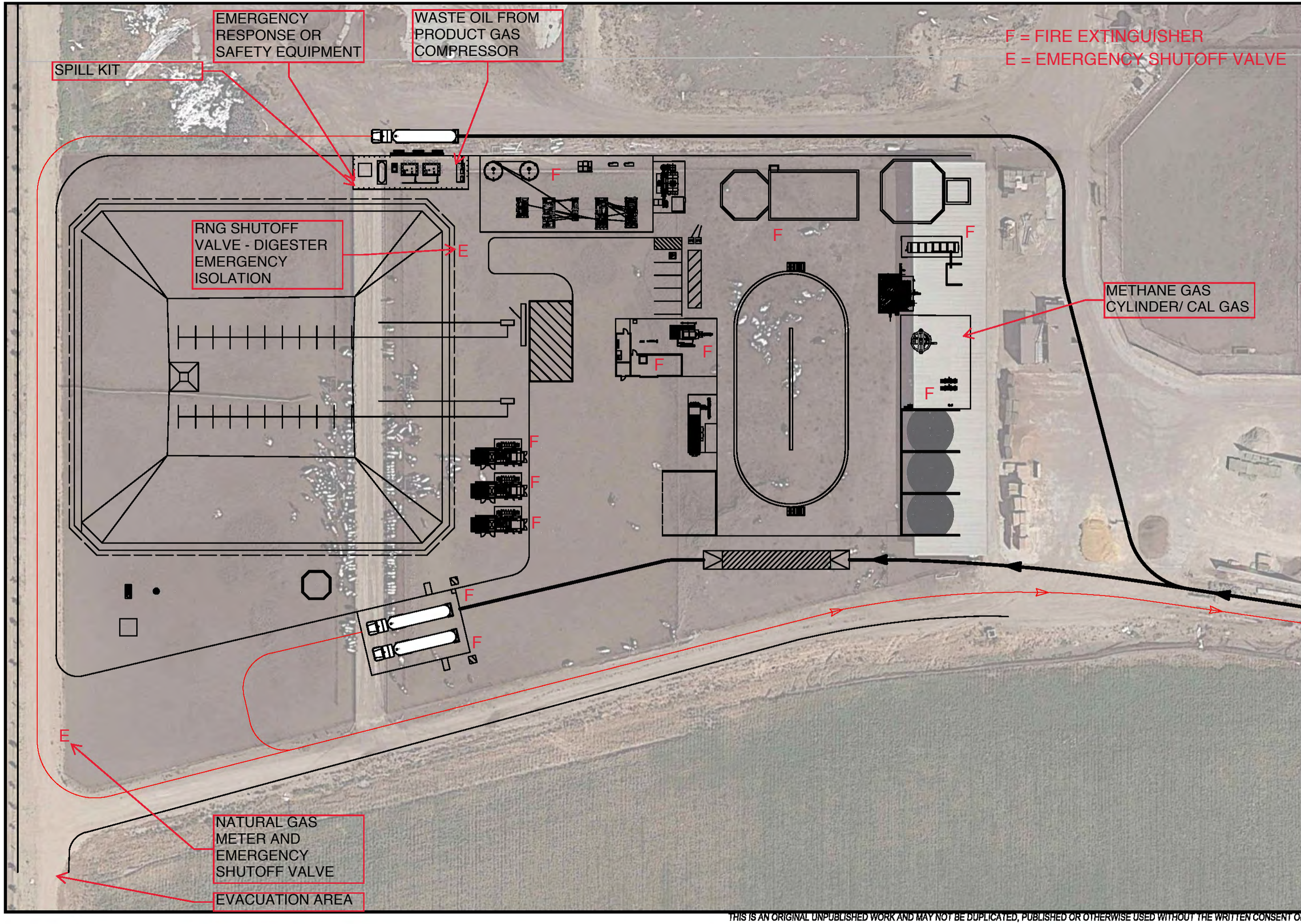
REVISION LOG

DATE	BY	DESCRIPTION

PROJECT: ALGERS CLUSTER
CLIENT: SROM
1588 N BATAVIA ST., STE 1C, ORANGE, CA 92867

SCALE:

PLOT DATE: 06/05/2023
JOB NO.: 23039
SHEET NO.: 1 OF 1



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HARTMAN
ENGINEERING
308 W OAK AVE
VISALIA, CA 93291
(559) 563-0181

PROJECT
ALGERS CLUSTER
CROSS A DAIRY
4125 BENTLEY RD
OAKDALE, CA 95361

CLIENT
SROM. LLC
1588 N BATAVIA ST
STE 1C
ORANGE, CA 92867

HAZMAT PLAN

VERSION: 1.0
REVISION LOG:
DRW BY:
CHK BY:

DATE: 06/12/23
JOB# 23039
SCALE:
SHEET NO.

PROCESS PHILOSOPHY – BA Digester, LLC

The following section outlines the process philosophy for the biogas system to be installed at BA Digester, LLC located in Oakdale, California. The purpose is to provide a high-level rationale and overview of the processes involved in the operation of a complete biogas system.

The biogas system was designed to allow for the efficient flow of materials through the overall process and individual project components while facilitating optimal system stability and energy output.

HAZMAT Training:

It is the policy of the BA Digester, LLC is that the first consideration of work shall be the protection of the health and safety of all employees and the environment. Our Hazard Communication Program is to ensure that all employees receive adequate information and training about the possible hazards that may result from the various materials used in our operations prior to use. An inventory of HAZMAT on site and a collection of corresponding Safety Data Sheets will be maintained. All containers will be labeled to properly communicate the chemical name, hazard warnings, and name and address of the manufacturer. A spill kit will be on site and employees will be trained in how to appropriately use the spill kit as well as check Safety Data Sheets for appropriate response. In the event of a HAZMAT leak or spill on location, employees will be trained for immediate response, including evacuating to primary staging area (if necessary), notifying all appropriate personnel, isolating valves to stop flow, engaging E-Stop's to de-energize units (if necessary), clearing the area, barricading area w/ barriers and signage, verifying area is safe to work in and contacting a HAZMAT team if cleanup is required. Before starting site back up, all equipment and site grounds would be inspected and approved by site supervisor.

Operation Statement:

The BA Digester LLC Project will receive manure from neighboring dairies barns and stalls via trucking companies and will use the manure as feedstock for the proposed lagoon digester on the BA Digester site. The BA Digester will produce methane gas, the site processing equipment will remove moisture and CO2. A combination of blowers, compressors, chillers, coolers, scrubbers, will clean the gas to utility pipeline specifications.

1.1 Pre-Anaerobic Digestion

A number of processes are required to ensure the effective pre-processing and delivery of feedstocks to the anaerobic digester. This section outlines the process philosophy of material flow prior to anaerobic digestion.

1.1.1 Sloped Screen Separators

The dairy uses a flush system to clean manure from their barns. The flush effluent goes to a sand recovery system. The flushed manure will then be pumped to the sloped screens in order to generate bedding for use on the dairy.

Supernatant from the sloped screens will be pumped to a process pit at the AD site. A portion of the supernatant will be used for dilution purposes. The remainder will be processed through an additional process step where solids will be concentrated prior to being pumped to the hydrolyzer.

1.1.2 Solids Receiving

In order to meet the target biogas production, solid manure will be trucked in from donor farms. The solid content is anticipated to be 35% upon delivery. Solid manure will be received at the live bottom receiving hoppers (50 cu.yds. each). From the live bottom hoppers the manure will be conveyed to the injection screw mounted on the hydrolyzer.

1.1.3 Hydrolyzer Tank

The solid manure conveyed to the hydrolyzer will be diluted to 12% TS. The manure slurry is conveyed into the hydrolyzer to pre-treat the manure and make it more bio-available to the microbes in the digestion process. The hydrolyzer is sized for a hydraulic residence time of 7 days. The hydrolyzer also provides a buffer so that the digester can continue to be fed on a regular schedule even if no feedstock is being delivered to the hydrolyzer.
Anaerobic Digester Lagoon

1.1.4 Anaerobic Digester

The anaerobic digester is the heart of the biogas system. Hydrolyzed manure is delivered to the covered anaerobic digester lagoon via a pump and jet mixing system. The anaerobic digester has two primary outputs: digestate and biogas. A gas collection pipe is located around the perimeter of the covered AD lagoon where biogas collects and gets drawn off. There is a 10 foot “hazardous zone” around the digester within which open ignition sources cannot be permanently situated. As a result, system components using exhaust stacks are at least 15 feet from the exterior of the anaerobic digester.

A gas burning flare as well as a pressure and vacuum relief valve are installed on the AD lagoon to manage excess gas production; these are safety elements intended to protect workers and equipment.

1.2 Post-Anaerobic Digestion

1.2.1 Digestate

Digestate is pumped to a storage lagoon on the farm to be used as fertilizer on crops.

1.2.2 Biogas Upgrader (by Others)

Biogas is continuously produced in the AD lagoon and is collected around the perimeter of the lagoon where it is continuously drawn off to the biogas upgrading system. The biogas is pre-treated to ensure hydrogen sulfide (H_2S) levels in the biogas are suitable for use in the biogas upgrader where carbon dioxide and methane are separated. The methane stream (now RNG) is then sent to an on-site compression system and subsequently into the natural gas pipeline at a natural gas injection point a few miles of the dairy. The biogas upgrader, compression system, gas pipeline and injection station are designed and supplied By Others. The PSA biogas upgrader processes biogas to produce pipeline quality RNG. Off specification RNG is redirected to the digester headspace and re-processed through the biogas upgrader.

A flare will be installed to handle excess biogas in the case of upgrader downtime.

1.2.3 Heating System

A hydronic boiler and heat exchanger heat incoming manure in the hydrolyzer and maintain the temperature at 104°F. The heated manure slurry is pumped and circulated through the AD lagoon using a recirculating jet mixing system. A second, smaller, heat exchanger is used to maintain a constant temperature within the AD lagoon. The heated digestate is pumped into and recirculated through the jet mixing system to distribute the heat throughout the AD lagoon.

Natural Gas for the CHPs/heating system will be delivered via virtual pipeline.

1.2.4 Utility Building

The utility building will house the hydronic heating system, MCC and PLC/control room. The system described will operate independently but in coordination with the biogas upgrader.

The electrical loads are not fully known at this time but are anticipated not to exceed an installed power of 1650 kW with an estimated nominal loading of <1320 kW. As the design develops the actual power requirements will be determined.