

ENGINEERING EVALUATION AUTHORITY TO CONSTRUCT

Facility Name: New Cingular Wireless PCS, LLC dba AT&T Mobility
Equipment Type: [34H] – Emergency Diesel Engine
Application #: APCD2023-APP-007780
ID#: APCD2023-SITE-04308
Equipment/Facility Address: 9740 Cuyamaca St.
Santee, CA 92071
Facility Contact: Sean McFarlane (Facility Contact)
(925) 277-6725
G43913@att.com
Jeramiah W. German (Application Preparer)
(925) 277-6725
G43913@att.com

11/1/2023

X Austin Stein

Austin C Stein
Jr. Air Pollution Control Engineer
Signed by: E100885

Permit Engineer:

10/18/2023

X Nicholas Horres

Nicholas Horres
Senior Air Pollution Control Engineer
Signed by: NHorres

Senior Engineer Signature:

1.0 Background

1.1 Type of Application: New installation of a standby diesel emergency engine driving a generator.

1.2 Permit History: This is the initial application for this equipment.

1.3 Facility Description: This is an unmanned cellular tower located in Santee. This facility/site does not have any active permits or other open applications with APCD.

1.4 Other Background Info: There are no hearing board actions, permit denials, legal settlements, NOV, or nuisance complaints. The site is not a Title V facility.

2.0 Process Description

2.1 Equipment Description.

Emergency Diesel Engine Generator

Manufacturer: Kukje Machinery Co., LTD

S/N: TBD

Model: D3400T-GEN1

Model Year: 2022

Engine Family: NKMCL3.41D43

EPA Certified Tier: 3

Horsepower (maximum rating): 85 BHP

Driving a 50-kW emergency-use standby generator.

2.5-inch diameter vertical exhaust with flapper rain cap, 7.7 feet above ground.

Annual testing and maintenance limit: 30 hours

2.2 Process Description.

This is a diesel-powered generator to be used in situations of emergency and for limited operations for maintenance and testing purposes for the unmanned cellular tower's operation.

2.3 Emissions Controls.

This is a Tier 3 certified diesel engine. It is not equipped with any add on controls.

2.4 Attachments.

Engine/generator specification sheet, EPA certification, and exhaust emission data sheets.

3.0 Emissions

3.1 Emissions estimate summary. Estimated emissions from the process are shown below.

Table 1: Estimated PTE for criteria pollutants

Compound	Emission Factor	Hourly Emissions	Daily Emissions	Annual Emissions	
	g/bhp-hr	lbs/hr	lbs/day	tons/year	lbs/yr
NO _x	2.62	0.49	11.78	0.01	14.72
CO	2.61	0.49	11.74	0.01	14.68
NMHC	0.13	0.03	0.60	0.0004	0.75
PM	0.11	0.02	0.50	0.000	0.629
SO _x	NA	0.00091	0.02193	0.00001	0.02741

3.2 Estimated Emissions Assumptions

- Table 1 evaluates the emission unit at 24 hour per day and a total of 30 hours per year, assuming full load operations
- Estimated emissions are calculated for maintenance and testing operations. Emergency use is not counted towards operation limits.
- 15 ppmw sulfur fuel
- Emission factors were EPA certified emission factors; District standard toxics emission factors for diesel engines (Method E10)
- Expected actual emissions same as PTE.
- Other standard assumptions as stated in calculation sheets.

3.3 Emissions Calculations.

Calculations were performed using the attached spreadsheets using standard calculation methods.

3.4 Attachments.

Emission Calculations.

4.0 Applicable Rules

4.1 District Prohibitory Rules

Emergency diesel engines at non-major sources are subject to the following District prohibitory rules: 50, 51, 53, 62 and 69.4.1. The proposed engine is expected to comply with all applicable requirements as shown in the table on the following page with standard permit conditions for this equipment type.

**ENGINEERING EVALUATION
AUTHORITY TO CONSTRUCT**

Table 2: Prohibitory Rule Discussion

Applicable Section	Requirement	Engine Complies?	Explanation	Condition
Rule 50	Visible Emissions not to exceed 20% opacity or Ringelmann 1 for more than 3 minutes in a 60 minute period	Yes	Compliance with this requirement is achieved through the use of an EPA certified engine, and permit conditions will specify this requirement.	C28413
Rule 51	Cannot cause or contribute to a public nuisance	Yes	Due to the intermittent operation of an emergency engine that meets all emission requirements, it is anticipated that this will not cause a public nuisance. Permit conditions will prohibit this engine from causing a public nuisance.	C28414
Rule 53	Emissions of sulfur compounds calculated as SO ₂ on a dry basis shall not exceed 0.05 % by volume on a dry basis.	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412
Rule 62	Sulfur content of liquid fuel shall not exceed 0.5 % sulfur by weight.	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412
Rule 69.4.1				
69.4.1(d)(1)(ii)(E)	Emission standards for NO _x and CO emissions. For a new or replacement certified diesel engine, NO _x emissions shall not exceed: 3.5 g/bhp-hr if 50≤bhp<100; 3.0 g/bhp-hr if 100≤bhp<175; 3.0 g/bhp-hr if 175≤bhp<750; 4.8 g/bhp-hr if bhp≥750. For a new or replacement certified diesel engine, CO emissions shall not exceed: 3.7 g/bhp-hr if 50≤bhp<100; 3.7 g/bhp-hr if	Yes	Use of an EPA certified tier 3 engine (tier 2 for engines with a rated power in excess of 750 bhp) ensures that NO _x emissions comply with this requirement. This engine is a tier 3 EPA certified model and meets these emission standards.	NA

ENGINEERING EVALUATION
AUTHORITY TO CONSTRUCT

	100≤bhp<175; 2.6 g/bhp-hr if 175≤bhp<750; 2.6 g/bhp-hr if bhp≥750.			
69.4.1(d)(2)	Engines operated on diesel fuel shall use only California Diesel Fuel.	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412
69.4.1(e)(3)	All engines must be equipped with a non-resettable totalizing fuel or hour meter which shall be replaced in accordance with subsection (g)(7) of this rule.	Yes	Permit conditions will require installation of a non-resettable hour meter and specify the requirements for replacement.	C28419
69.4.1(f)(2)	The owner or operator must conduct periodic maintenance on the engine, according to engine/control equipment manufacturer's instructions or other written procedure, at least once each calendar year.	Yes	Annual maintenance of engine according to written procedure will be required by permit conditions.	C43433
69.4.1(g)(1)	Specifies engine information that must be maintained on-site.	Yes	Manufacturer and model number, brake horsepower rating, combustion method and fuel type are contained in the permit application. Documentation of CARB diesel fuel certification and manual of recommended maintenance will be specified in permit conditions.	C45251
69.4.1(g)(2)	Requires keeping an operating log containing dates and times and purpose of each period of engine operation, cumulative operation of engine for each calendar year and maintenance records including dates maintenance is performed. Engines within 500 feet of schools must record the time of day when	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C45252

ENGINEERING EVALUATION
AUTHORITY TO CONSTRUCT

	the engine is operated for testing and maintenance. Specific records for internal, external, and partial external power outages is required.			
69.4.1(g)(6)	Requires records of the dates and times when fuel is being combusted and cumulative operating time if claiming a commissioning exemption.	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions. The applicant has not claimed a commissioning period is needed.	NA
69.4.1(g)(7)	Requires notification to APCD within 10 calendar days of replacing an hour meter.	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C28419
69.4.1(g)(9)	Requires specified records to be maintained on-site for at least three years and made available to the District upon request.	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C43432
69.4.1(i)(1)	Requires periodic source testing to confirm compliance with applicable emission standards.	NA	This subsection does not apply to certified emergency engines.	NA

ENGINEERING EVALUATION AUTHORITY TO CONSTRUCT

4.2 New Source Review (NSR) Rule 20.1-20.4

This application is subject to District NSR rules. At the time of filing, this facility is not considered a major stationary source, for each pollutant, as shown in the following table, and is therefore subject to District Rule 20.2. Calculation of emissions and determination of applicable requirements is performed in accordance with District Rule(s) 20.1 through 20.3.

Table 3: Classification of Major/PSD Source and Modification New Source Review (NSR) Requirements

	NO_x	VOC	PM-10	PM-2.5	SO_x	CO	Lead
<i>Major Source Threshold (ton/year)</i>	<i>50</i>	<i>50</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
Major Source? (yes/no)	No	No	No	No	No	No	No
<i>Major Modification Threshold (ton/year)</i>	<i>25</i>	<i>25</i>	<i>15</i>	<i>10</i>	<i>40</i>	<i>100</i>	<i>0.6</i>
Major Modification at a Major Source?	No	No	No	No	No	No	No
Contemporaneous Calculations Performed?	No	No	No	No	No	No	No
Federal Major Stationary Source Threshold (ton/year) (Severe non-attainment status)	25	25	100	100	100	100	100
Federal Major Stationary Source?	No	No	No	No	No	No	No
<i>Federal Major Modification Threshold (ton/year)</i> <i>(Severe non-attainment status)</i>	<i>25</i>	<i>25</i>	<i>15</i>	<i>10</i>	<i>40</i>	<i>100</i>	<i>0.6</i>
Federal Major Modification?	No	No	No	No	No	No	No
Contemporaneous Net Calculations Performed	No	No	No	No	No	No	No
<i>PSD Threshold (ton/year)</i>	<i>250</i>	<i>250</i>	<i>250</i>	<i>--</i>	<i>250</i>	<i>250</i>	<i>--</i>
<i>PSD Modification Threshold (ton/year)</i>	<i>40</i>	<i>40</i>	<i>15</i>	<i>--</i>	<i>40</i>	<i>100</i>	<i>0.6</i>
PSD New or Modification?	No	No	No	No	No	No	No

District Rule 20.2 contains requirements for Best Available Control Technology (BACT), Air Quality Impact Assessment (AQIA), Prevention of Significant Deterioration (PSD) and public notification. No requirements of this rule apply as shown in the table on the following page.

Table 4: New Source Review Discussion				
Rule/Requirement	Requirement	Applicability	Discussion	Condition
Applicability	Rule 20.2 applies to non-major sources	Yes	This is a non-major source, so Rule 20.2 applies.	NA
Type of application	New	Yes	NA	NA
Exemptions	No exemptions apply to this equipment	NA	NA	NA
20.2(d)(1) – BACT				
BACT - NO_x	Installation of BACT is required if emissions of NO _x exceed 10 lbs/day	Triggered, see discussion below	The potential to emit for this pollutant is 11.78 lbs/day, which does exceed this trigger level, so BACT analysis is required.	NA
BACT - VOC	Installation of BACT is required if emissions of VOC exceed 10 lbs/day	Not Triggered, no permit limit	The potential to emit for this pollutant is 0.17 lbs/day, which does not exceed this trigger level, so BACT is not required.	NA
BACT - PM-10	Installation of BACT is required if emissions of PM-10 exceed 10 lbs/day	Not Triggered, no permit limit	The potential to emit for this pollutant is 0.17 lbs/day, which does not exceed this trigger level, so BACT is not required.	NA
BACT - SO_x	Installation of BACT is required if emissions of SO _x exceed 10 lbs/day	Not Triggered, no permit limit	The potential to emit for this pollutant is 0.044 lbs/day, which does not exceed this trigger level, so BACT is not required.	NA
20.2(d)(2) – AQIA				
AQIA - NO_x	Required for project emission increases in excess of 25 lbs/hr, 250 lbs/day or 40 ton/yr of NO _x calculated as NO ₂	Not Triggered	The increase in emissions of this air contaminant from this project does not exceed any of these levels, so no AQIA is required.	NA
AQIA - PM-10	Required for project emission increases in excess of 100 lbs/day or 15 ton/yr of PM-10	Not Triggered	The increase in emissions of this air contaminant from this project does not exceed any of these levels, so no AQIA is required.	NA
AQIA - SO_x	Required for project emission increases in excess	Not Triggered	The increase in emissions of this air contaminant from this project does not	NA

	of 25 lbs/hr, 250 lbs/day or 40 ton/yr of SO _x calculated as SO ₂		exceed any of these levels, so no AQIA is required.	
AQIA - CO	Required for project emission increases in excess of 100 lbs/hr, 550 lbs/day or 1000 ton/yr of CO	Not Triggered	The increase in emissions of this air contaminant from this project does not exceed any of these levels, so no AQIA is required.	NA
20.2(d)(3) - PSD	Applicable to source that may have a significant impact on a class I area	NA	Emissions from this engine do not trigger PSD requirements.	NA
20.2(d)(4) - Public Notice	Requires 30 day public notice if an AQIA was required or if increase in VOC emissions from the project exceed 250 lbs/day or 40 ton/year	NA	AQIA was not required and VOC emission increase from this project does not exceed these levels.	NA

20.2(d)(1) – BACT

20.2(d)(1) – BACT

The post-project NO_x PTE is 11.78 lbs/day based on 24 hours of non-emergency operation, which is greater than the 10 lbs/day threshold for BACT. Alternatives that were considered include natural gas and propane engines, Tier 4F engines including SCR and DPF, and installing an add-on DOC to control VOC. Gas-fueled engines are not feasible as backup power for operations that must occur if natural gas lines are damaged in the event of an emergency like an earthquake. An engine of this size would also likely require SCR for NO_x emissions control and DOC for VOC emissions control, methods which are not cost effective as described below. The cost-effectiveness evaluation did not take into account the likely short periods of operation of this engine for maintenance. In many maintenance situations, the engine is operated at low loads and for approximately 30 minutes, some of which the SCR catalyst has not reached appropriate temperature for effectively controlling emissions.

NO_x Analysis:

A tier 4 engine is the lowest emitting BACT option. Cost-effectiveness has previously been evaluated under applications APCD2021-APP-006831, and APCD2021-APP-006981, comparing incremental costs of a tier 2 vs. 4 engine, the results of which are summarized below. This analysis is also reflective of tier 3 vs. 4 engines because there is not a significant difference in cost, the pre-control emissions are lower for tier 3, and cost scales roughly linearly based on power rating. Note that this analysis is also conservative in that it does not take into account the

likely short periods of operation of this engine for maintenance as noted above which would lower the level of emission reductions achieved.

<i>Project</i>	<i>Engine Size (bhp)</i>	<i>Capital Cost Tier 2</i>	<i>Capital Cost Tier 4</i>	<i>Annual Cost Tier 2</i>	<i>Annual Cost Tier 4</i>	<i>Annual Incremental Cost</i>	<i>Annual Emission Reduction (lb/yr)</i>	<i>Cost Effectiveness</i>
6831	2346	\$329,050	\$603,826	\$127,026	\$200,228	\$73,202	1,112	\$65.82
6981	2937	\$810,000	\$1,200,000	\$131,824	\$195,294	\$63,471	1,322	\$48.03

This analysis shows that a Tier 4F engine, the lowest-emitting category of diesel engines, is not cost-effective. The analysis is based on the assumption that the engine allowed to run up to 50 hours per year for maintenance and testing, the maximum NOx emissions were calculated using the emission standards for a tier 2 and tier 4 engine. Capital costs were provided by the permit applicants which were annualized and added to expected maintenance and operating costs to determine an overall annual cost. While the previous analysis was conducted for larger engines, it is still representative for this application too because the equipment is very similar aside from engine size, and NOx emissions and costs are expected to scale roughly linearly with engine size. Additionally, the cost for an add-on SCR to a tier 3 engine is expected to have a similar cost to the incremental cost of a tier 4 engine, so this analysis also demonstrates that use of an SCR would not be cost effective, in addition to being technologically infeasible because it would not function during most periods of testing and maintenance.

A tier 3 certified engine is the next lowest emitting option and therefore satisfies BACT requirements for NOx.

20.2(d)(2) – AQIA

No AQIA limits were triggered by this engine, therefore no AQIA is required for this project.

4.3 Toxic New Source Review – Rule 1200

District Rule 1200 applies to any application that is part of a project which results in an emission increase of toxic air contaminants. The rule limits the increase in acute and chronic health hazard index (HHI) to no more than one from the project and limits the increase in cancer risk from the project to no more than one in one million if the engine is not equipped with Toxics BACT (T-BACT) or no more than ten in one million if the project meets T-BACT requirements. The following table contains an in-depth review of Rule 1200 requirements. If a refined HRA was required, the HRA report is attached.

Table 5: Rule 1200 Applicable Requirements and Discussion

Question	Answer	Discussion
Does the application result in an increase in toxic emissions?	Yes	The application results in an increase in toxic emissions of Diesel Particulate Matter or specific trace heavy metals and organics (as shown in emission calculations section).
Do any special exemptions apply to this equipment?	No	NA
Are there any other applications that are part of the project?	No	NA
What type of HRA was used?	Refined	The proposed project did not pass De Minimis standards of < 1 in one million cancer risk or < 1 Acute HHI and was subject to a refined HRA.
Is the Project Equipped with T-BACT?	No	The engine is not equipped with a DPF which is typically considered T-BACT for the equipment type.
Cancer Risk increase (per one million)	<1	Project meets standard of one in one million when limited to 30 hours per calendar year for maintenance and testing.
Chronic HHI	.00128	Project meets standard of one.
Acute HHI	.098	Project meets standard of one.
Passes Rule 1200?	Yes	Maintenance and testing (non-emergency operation) must be limited by permit conditions to 30 hours per calendar year

Based on this analysis, the proposed engine complies with all applicable requirements of District Rule 1200.

4.4 AB3205

Requirements in the California Health and Safety Code in sections 42301.6 through 42301.9 (a.k.a. "AB3205 requirements") specify that prior to issuing an authority to construct for sources located within 1000 feet of a K-12 school, a 30-day public notification process must be conducted.

This project is located within 1000 feet of a school (Rio Seco Middle School), so public notice is required for this section. A copy of the public notice is attached to the file and when the notice is issued, this evaluation and relevant attachments will be made available on the District's website for review. If any comments are received, they will be reviewed, considered and responded to prior to taking action on the permit including revising any requirements as necessary in response to comments received.

4.5 State and Federal Regulations.

This engine is subject to both the State Air Toxic Control Measure for Stationary Engines (Stationary ATCM) and federal EPA issued National Emission Standards for Hazardous Air Pollutants (NESHAPs) and New Source Performance Standards (NSPS).

Applicable requirements of the Stationary ATCM include purchasing an engine certified to EPA standards and meeting specified emission standards of the rule, installing an hour meter, conducting maintenance according to a written plan, restrictions on operating the engine for purposes other than emergency use and limited (50 hours/year) use for maintenance and testing, and maintaining records to substantiate compliance with these requirements. This engine is expected to comply with all these requirements as described in the detailed analysis shown in the table following the discussion of NESHAP/NSPS requirements.

The NESHAP (subpart ZZZZ) requires that all new emergency engines comply with the rule by complying with the NSPS (subpart IIII). Applicable requirements of the NSPS include purchasing a certified engine, operating it as directed by the manufacturer, and maintaining records to substantiate compliance. These requirements closely mirror the ATCM requirements, except that the NSPS is somewhat less stringent in regard to allowable PM

emission rate and contains some allowance for other types of operation not allowed by the ATCM. This means the more stringent ATCM requirements apply. A detailed analysis of NESHAP and NSPS requirements is shown in the following table.

**ENGINEERING EVALUATION
AUTHORITY TO CONSTRUCT**

Table 6a: State and Federal Requirement Discussion (Stationary ATCM)

Applicable Section	Requirement	Engine Complies/Expect ed to Comply?	Explanation	Condition
93115.3	There are no exemptions that apply to this engine	NA	This engine is not one of the engines exempted from any applicable requirements	NA
93115.4	Definitions. Permit conditions ensure that the engine only operates in a manner allowed for engines designated as "Emergency Standby"	Yes	Permit conditions require that the engine operate only as an emergency engine	C40239
93115.5	Requires the use of CARB diesel as fuel.	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412
93115.6(a)(1)	Prohibits non-emergency operation of an emergency engine between 7:30 AM and 3:30 PM during school days if within 500 feet of school and during all school sponsored activities if located on school grounds	Yes	Permit conditions specify this requirement.	C28415
93115.6(a)(2)	Allows for engine to be started 30 minutes prior to rotating outage	Yes	Permit conditions specify this requirement.	C28560
93115.6(a)(3)(A)(1)(b)	Requires that all engines used for emergency purposes be certified to at least tier 3 standards (tier 2 for engines with a rated power in excess of 750 bhp) and have Diesel PM emissions less than 0.15 g/bhp-hr	Yes	Use of an EPA certified tier 3 engine (tier 2 for engines with a rated power in excess of 750 bhp) with PM emission below this level satisfies this requirement. This is a Tier 3 engine and thus complies.	NA

ENGINEERING EVALUATION
AUTHORITY TO CONSTRUCT

93115.6(a)(3)(A)(1)(c)	Restricts maintenance and testing operation to no more than 50 hours per calendar year	Yes	Permit conditions specify this requirement.	C28643
93115.6(c)	Does not allow emergency standby engines to operate as part of "demand response programs" unless additional requirements are met	Yes	Permit conditions specify this requirement.	C40907
93115.10(a)-(b)	Requires that specified information is submitted to the District as part of application package	Yes	The submitted application contained all of the required contact/location information, engine data, and emission information	NA
93115.10(d)	Requires installation of a non-resettable hour meter and for engines with DPFs, a backpressure monitor that alerts the operator when the backpressure limit of the engine is approached	Yes	Permit conditions require the installation and use of a non-resettable hour meter. Permit conditions require installation and use of a backpressure monitor between the engine and DPF.	C28419
93115.10(f)	Specifies that the owner or operator must keep records and prepare a monthly summary of hours of operation and purpose (emergency, maintenance and testing, emission testing, start-up testing, other, demand response) of each period of operation	Yes	Permit conditions require that these records be kept and the summary updated monthly	C45252
93115.10(f)	Requires records of CARB diesel fuel certification	Yes	Permit conditions require that documentation of the CARB diesel certification for all fuel used be maintained	C43434
93115.10(f)	States that records must be kept on-site for at least 24 months and off-site for an additional 12 months (total 36 months)	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C43432

93115.13(a)	Allows the use of certification data or other emission test data to demonstrate compliance with emission limits	Yes	The manufacturer's engine rating specific emission data was used to determine compliance and for emission calculations	NA
93115.13(f)	For engines equipped with DPFs, allows the use of an engine certified to a PM-10 emission level of no more than 0.15 g/bhp-hr and a verified DPF in lieu of source testing (or other alternative means as listed)	NA	Not equipped with a DPF	NA

Table 6a: State and Federal Requirement Discussion (Stationary ATCM)

Applicable Section	Requirement	Engine Complies/Expected to Comply?	Explanation	Condition
NESHAP ZZZZ				
40 CFR 63.6590(b)-(c)	Requires that new emergency engines comply with the NESHAP by complying with the applicable NSPS	Yes	See NSPS section below.	NA
NSPS IIII				
40 CFR 60.4205	Requires that engines meet emission limits equivalent to tier 3 levels (tier 2 for engines 750 bhp or higher)	Yes	Use of an EPA certified tier 3 engine (tier 2 for engines with a rated power in excess of 750 bhp) satisfies this requirement. This is a tier 3 engine, therefore this engine complies with the emission limits threshold.	NA
40 CFR 60.4207	Sets maximum fuel sulfur limits for fuel equivalent to CARB diesel requirements	Yes	Permit conditions will require use of CARB diesel fuel (15 ppm Sulfur by weight), which will ensure compliance with this requirement.	C28412

ENGINEERING EVALUATION
AUTHORITY TO CONSTRUCT

40 CFR 60.4209	Requires installation of a non-resettable hour meter	Yes	Permit conditions require the installation and use of a non-resettable hour meter.	C28419
40 CFR 60.4211(a)	Requires that the engine be operated according to manufacturer's emission related instructions and that no changes are made to emission related settings unless allowed by manufacturer	Yes	Permit conditions specify this requirement.	C43433
40 CFR 60.4211(c)	Requires that the engine be certified under EPA regulations	Yes	Use of an EPA certified tier 3 engine (tier 2 for engines with a rated power in excess of 750 bhp). This is a certified tier 3 engine.	NA
40 CFR 60.4211(e)	Restricts operation of emergency engines for non-emergency purposes	Yes	Compliance ensured by permit conditions for ATCM limiting operation for maintenance and testing to no more than 50 hours per calendar year and restricting non-emergency operation for only those uses allowed by the permit (maintenance and testing). ATCM requirements more stringent than NSPS.	C40239, C40907, C28643
40 CFR 60.4214(b)	Requires records of operation to show that engine is operated as an emergency engine	Yes	Compliance is expected and specified in permit conditions.	C45252
40 CFR 60.4214(c)	For engines with DPFs, requires records of corrective actions taken when the high backpressure limit is approached	NA	Engine is not equipped with a DPF.	NA
40 CFR 60.7(f)	Requires that all records be maintained for at least 2 years	Yes	Compliance with this provision is expected and this requirement is specified in permit conditions.	C43432

ENGINEERING EVALUATION AUTHORITY TO CONSTRUCT

4.6 Title V.

This is not a Title V facility therefore this requirement does not apply.

5.0 Recommendations

This equipment is expected to comply with all rules and regulations, and therefore it is recommended, pending completion of the AB3205 noticing and comment process, that an authority to construct be issued with the following conditions.

6.0 Recommended Conditions

Standard BEC APCD2020-CON-001704 with a 30 hour/year limit for non-emergency/maintenance and testing.

ENGINEERING EVALUATION ATTACHMENTS

All relevant attachments are uploaded to BCMS under the corresponding application number.

Rule 1200 Health Risk Assessment

Facility Name: New Cingular Wireless PCS, LLC dba AT&T Mobility
Facility ID: APCD2023-SITE-04308
Application: APCD2023-APP-007780
Project Engineer: Austin C Stein
Modeler: Bill Reeve
Toxics Risk Analyst: Stephen Amberg
Date Submitted to Toxics: 7/27/2023
Date Completed by Toxics: 8/15/2023
HRA Tools Used: Lakes-AERMOD (Version 22112)/HARP (v22118)

The following estimated risks are valid only for the input data provided by the Project Engineer.

Estimated residential risk does not exceed the worker risk. Therefore, only worker risk is presented in the following results.

Estimated Risk Levels:

Maximum Individual Cancer Risk (Worker)	1.66 in one million
Chronic Noncancer Health Hazard Index (Worker)	= 1.28E-03
8-Hour Noncancer Health Hazard Index (Worker)	= No Health Data
Acute Health Hazard Index (*PMI)	= 0.098

*Point of Maximum Impact

The proposed application is for a stationary diesel emergency engine. The ARB Air Toxics Control Measure (ATCM) limits non-emergency operations to 50 hours per year.

The estimated cancer risk for the application exceeds Rule 1200 limits of 1 in one million (not equipped with T-BACT) at 50 hours, therefore the project is within Rule 1200 thresholds contingent on Routine Maintenance and Testing limited to 30 hours a year

Input Data Provided by Project Engineer:

Type of Source: Emergency Diesel IC Engine
 Controls Description: None.

Worst-Case TAC Emissions Increase:

Toxic Air Contaminant	Hourly Emission Rate (lb/hr)	Annual Emission Rate (lb/yr)
DIESEL PARTICULATE		1.05E+00
ACETALDEHYDE	3.38E-03	1.69E-01
ACROLEIN	1.46E-04	7.32E-03
ARSENIC COMPOUNDS	6.91E-06	3.46E-04
BENZENE	8.05E-04	4.02E-02
BUTADIENE, 1,3-	9.37E-04	4.69E-02
CADMIUM AND COMPOUNDS	6.48E-06	3.24E-04
CHLOROBENZENE	8.64E-07	4.32E-05
CHROMIUM (HEXAVALENT)	4.32E-07	2.16E-05
COPPER AND COMPOUNDS	1.77E-05	8.86E-04
ETHYL BENZENE	4.71E-05	2.35E-03
FORMALDEHYDE	7.46E-03	3.73E-01
HEXANE-N	1.16E-04	5.81E-03
HYDROCHLORIC ACID	8.05E-04	4.02E-02
LEAD & COMPOUNDS	3.59E-05	1.79E-03
MANGANESE AND COMPOUNDS	1.34E-05	6.70E-04
MERCURY AND COMPOUNDS	8.64E-06	4.32E-04
NAPHTHALENE	8.51E-05	4.26E-03
NICKEL AND NICKEL COMPOUNDS	1.68E-05	8.42E-04
POLYCYCLIC AROM. HC (PAH) [Treat as B(a)P for HRA]	1.56E-04	7.82E-03
PROPYLENE	2.02E-03	1.01E-01
SELENIUM AND COMPOUNDS	9.50E-06	4.75E-04
TOLUENE	4.55E-04	2.28E-02
XYLENES	1.83E-04	9.16E-03

Source: Acute TACs – Ventura County, 5/17/01.

Diesel particulate exhaust is a surrogate for all toxic air contaminant annual emissions from diesel-fueled engines when determining the potential cancer risk and noncancer chronic hazard index. Speciated toxic air contaminant hourly emissions are used when determining the potential noncancer acute hazard index.

Process Data:

Operation Parameter	Value
Diesel particulate emission factor (g/hp-hr)	0.1119
Engine horsepower (bhp)	85
Fuel Consumption (gal/hr)	4.32
Annual hours of operation	50

Release Parameters:

Stack Height (ft)	7.7
Stack Diameter (ft)	0.21
Temperature deg F	1044
Exhaust Flow Rate (acfm)	448

Discussion

The HRA was conducted in accordance with EPA and OEHHA guidance and District standard procedures. A point source was modeled with refined air dispersion modeling using EPA's AERMOD model, AERMET (Version 22112) processed Lexington Elementary School 2019/2021 sigma theta updated meteorology data, AERMAP terrain processing, and rural dispersion coefficients. Building downwash effects were calculated using the EPA BPIP-Prime model. The receptor grid was sufficiently dense to identify maximum impacts.

An occupational Ground Level Concentration (GLC) adjustment factor was applied to calculate worker cancer risk assuming source emissions are released 8 hours per day and 5 days a week.

These risk results are based on the risk scenario calculations and health data at the time of the review, and should not be scaled with revised emissions rates without consulting with the Toxics Section.

INDEX	GRP1	GRP2	POLID	POLABBRE'	CONC	RISK_SUM	SCENARIO
1	Engine		9901	DieselExhP	0.00639	1.66E-06	25YrCancerDerived_InhSoilDerm

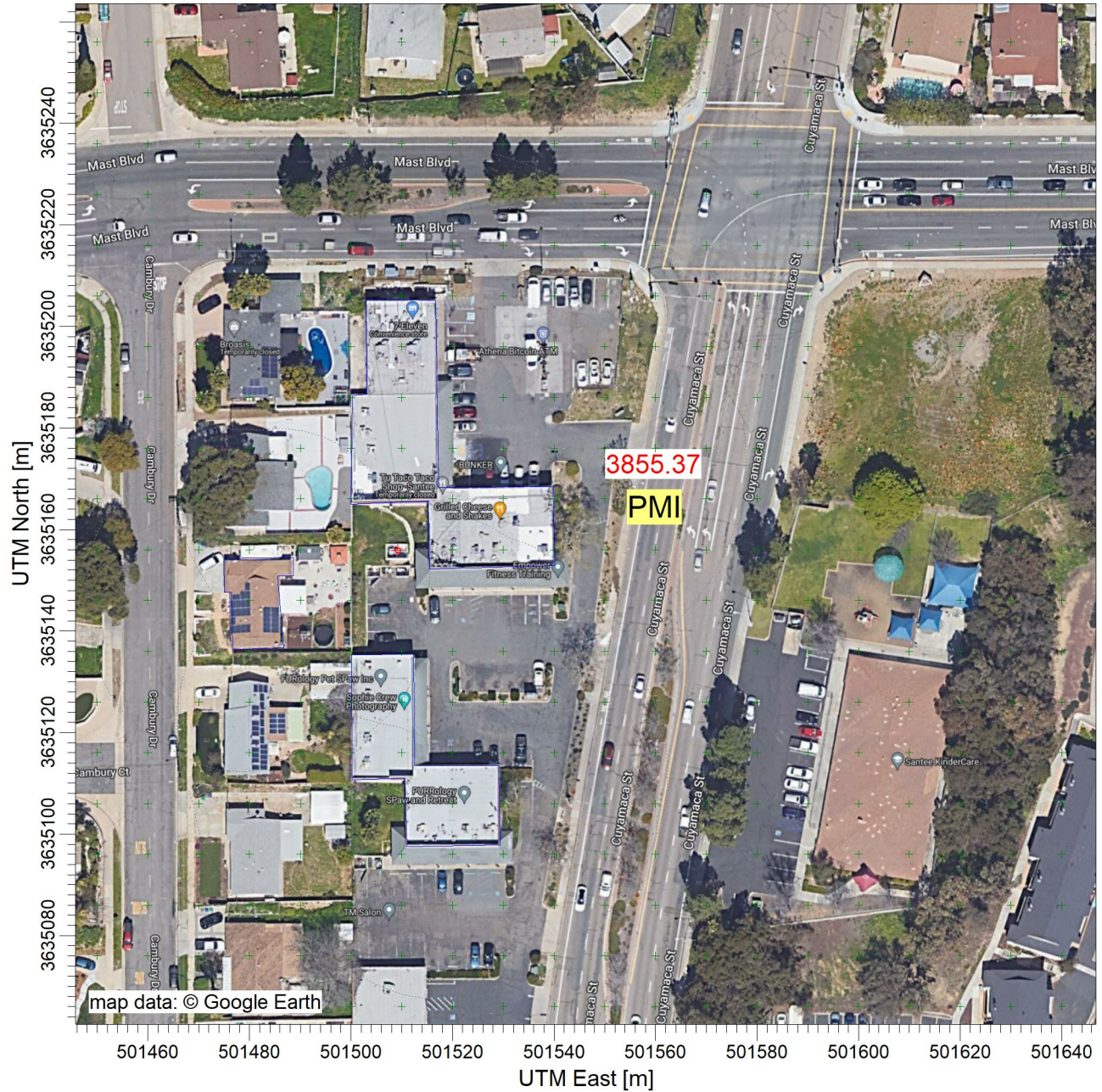
INDEX	GRP1	GRP2	POLID	POLABBRE'	CONC	RESP	SCENARIO
1	Engine		9901	DieselExhP	0.00639	1.28E-03	NonCancerChronicDerived InhSoi

INDEX	GRP1	GRP2	POLID	POLABBRE\CONC	EYE	SCENARIO
1	Engine		9901	DieselExhP	0	0.00E+00 NonCancerAcute
2	Engine		75070	Acetaldehy	1.64	3.49E-03 NonCancerAcute
3	Engine		107028	Acrolein	0.0711	2.84E-02 NonCancerAcute
4	Engine		7440382	Arsenic	0.00336	0.00E+00 NonCancerAcute
5	Engine		71432	Benzene	0.391	0.00E+00 NonCancerAcute
6	Engine		106990	1,3-Butadiene	0.455	0.00E+00 NonCancerAcute
7	Engine		7440439	Cadmium	0.00315	0.00E+00 NonCancerAcute
8	Engine		108907	Chlorobenz	0.00042	0.00E+00 NonCancerAcute
9	Engine		18540299	Cr(VI)	0.00021	0.00E+00 NonCancerAcute
10	Engine		7440508	Copper	0.0086	0.00E+00 NonCancerAcute
11	Engine		100414	Ethyl Benzene	0.0229	0.00E+00 NonCancerAcute
12	Engine		50000	Formaldehyde	3.62	6.58E-02 NonCancerAcute
13	Engine		110543	Hexane	0.0565	0.00E+00 NonCancerAcute
14	Engine		7647010	HCl	0.391	1.86E-04 NonCancerAcute
15	Engine		7439921	Lead	0.0174	0.00E+00 NonCancerAcute
16	Engine		7439965	Manganese	0.00651	0.00E+00 NonCancerAcute
17	Engine		7439976	Mercury	0.0042	0.00E+00 NonCancerAcute
18	Engine		91203	Naphthalene	0.0413	0.00E+00 NonCancerAcute
19	Engine		7440020	Nickel	0.00818	0.00E+00 NonCancerAcute
20	Engine		1151	PAHs-w/o	0.076	0.00E+00 NonCancerAcute
21	Engine		115071	Propylene	0.98	0.00E+00 NonCancerAcute
22	Engine		7782492	Selenium	0.00462	0.00E+00 NonCancerAcute
23	Engine		108883	Toluene	0.221	4.42E-05 NonCancerAcute
24	Engine		1330207	Xylenes	0.089	4.05E-06 NonCancerAcute
					9.80E-02	

PROJECT TITLE:

APP007780

Acute x/q



COMMENTS:

SOURCES:

1

COMPANY NAME:

RECEPTORS:

22800

MODELER:

OUTPUT TYPE:

Concentration

SCALE:

1:1,265

0

0.04 km

MAX:

3855 ug/m^3

DATE:

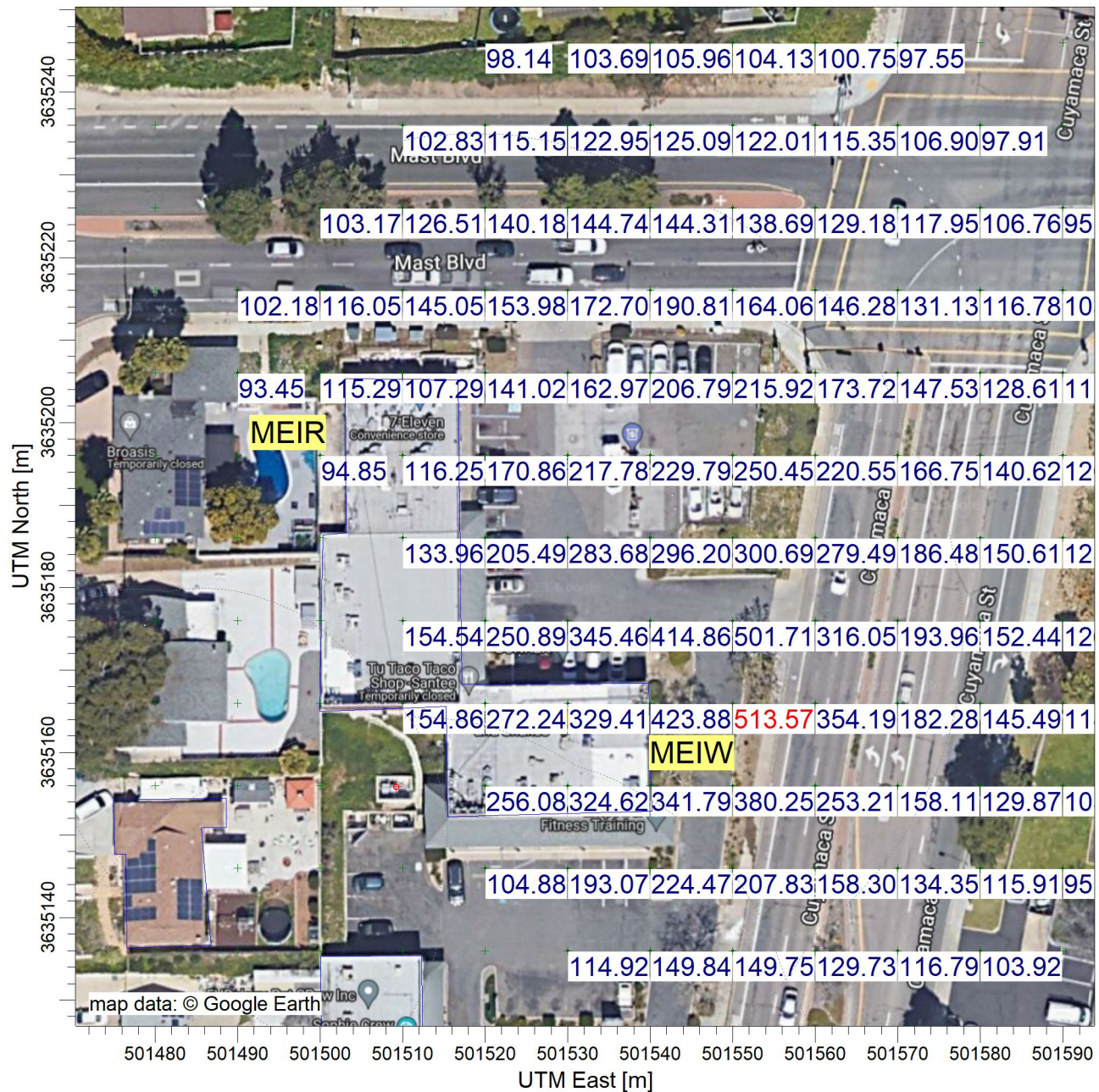
8/14/2023

PROJECT NO.:

PROJECT TITLE:

APP007780

Annual x/q



COMMENTS:

SOURCES:

1

COMPANY NAME:

RECEPTORS:

22800


MODELER:

OUTPUT TYPE:

Concentration

SCALE:

1:777

0  0.02 km

MAX:

514 ug/m^3

DATE:

8/14/2023

PROJECT NO.:

Facility Name: New Cingular Wireless PCS, LLC dba AT&T Mobility
 Application Number: APCD2023-APP-007780
 Site ID Number: APCD2023-SITE-04308
 Equipment Address: 9740 Cuyamaca Street, Santee, CA 92071

Project Engineer: Austin C Stein

Make: KUKJE MACHINERY CO., LTD
 Model: D3400T-GEN1
 S/N: TBD
 Fuel Type: Diesel
 BHP Rating: 85
 Model Year: 2022
 Tier Level: 3
 Engine Family Number: NKMCL3.41D43
 Device Driven: 50kW Generator

NOx, g/BHP-hr:	2.62	3.51	g/kW-hr
CO, g/BHP-hr:	2.61	3.50	g/kW-hr
NMHC, g/BHP-hr:	0.13	0.18	g/kW-hr
PM10, g/BHP-hr:	0.11	0.15	g/kW-hr

Fuel Usage, gal/hr: 4.32
 Operating Schedule, hrs/day: 24
 Operating Schedule, hrs/yr: 50

Exhaust Flow Rate, cfm: 448
 Exhaust Temperature, °F: 1044
 Stack Height above ground, ft: 7.7
 Stack Diameter, ft: 0.2

Nearest School, ft:	230.00	
Residential Receptor, m:	25.00	22 ft
Occupational Receptor, m:	25.00	14 ft
Acute Receptor, m:	25.00	14.00 ft

Check All C

Vertical Exhaust? (yes/no): yes
 Flapper Valve? (flapper/raincap): flapper
 Plot Plan? (yes/no): yes
 Flow Obstructions: no

Model Year	Engine Family	Manufacturer Certificate #	Issue Date
	NKMCL3.41D43	KUKJE MACHINERY CO., LTD	

Emission Factors (EF) selected

**San Diego Air Pollution Control District
Supplemental Application Information
Rule 1200 Toxics Evaluation**

(ALL REQUESTED INFORMATION IS IMPORTANT - PLEASE FILL BLUE CELLS)

Facility Name: New Cingular Wireless PCS, LLC dba AT&T Mobility
Equipment Location: 9740 Cuyamaca Street, Santee, CA 92071

Project Description: Emergency Diesel Engine
Control Equipment: None

Operating Schedule:	Hours per Day:	1	Weeks per Year:	50
	Days per Week:	1	Days per Year:	50

RELEASE POINT DATA

How are the emissions from this project released into the outdoor air? (Check all that apply)

Point Source	Non-Point Source
<input checked="" type="checkbox"/> Exhaust Stack or Duct	<input type="checkbox"/> Passive Ventilation <input type="checkbox"/> Released through windows and/or roll-up doors <input type="checkbox"/> Fugitive Emissions

Point Source

Parameter	Point Source #1	Point Source #2	Point Source #3
Height of release above ground (ft)	7.70		
Stack Diameter (or length x width) (ft)	0.21		
Exhaust Gas Temperature (°F) ¹	1044.000		
Exhaust Gas Flow (ACFM)	448.000		
Direction of Flow ²	vertical		
Flow Obstruction ³	no		
Distance to Nearest Property Line (+/- 10ft)	14.00		

¹ Use "70 °F" or "Ambient" if unknown

² if "other" describe:

³ if "other" describe:

AERIAL MAP AND FACILITY PLOT PLAN must be attached and labeled with **Release Point(s) and Building(s)**
(includes facility and neighboring buildings within 5x the release height of a point source(s)).

Parameter	Building A	Building B	Building C
Point Source(s)	#1		
Point Source Location	14 ft East of Point Source #1		
Building Length (ft) (optional)	80		
Building Width (ft) (optional)	49		
Building Height above ground (ft)	36		

San Diego APCD Use Only

Additional Rule 1200 Submittal Information

Submittal Date:		Site ID:	APCD2023-SITE-04308
Project Engineer:	Austin C Stein	Appl. Number(s):	APCD2023-APP-007780
Fees Collected:		PTO No. (if existing):	

FACILITY NAME: New Cingular Wireless PCS, LLC dba AT&T Mobility																	
Fuel Consumption (gal/hr): 4.32 Diesel Particulate Emission Factor (g/hp-hr): 0.1119 Brake Horsepower (hp): 85 Annual Hours of Operation (hrs): 50	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr style="background-color: yellow;"> <th colspan="2" style="text-align: center;">RISK ANALYST ONLY</th> </tr> <tr> <th colspan="2" style="text-align: center;">DISPERSION MODELING DATA</th> </tr> <tr> <td>Annual Receptor Type:</td> <td>Resident ▼</td> </tr> <tr> <td>ANNUAL DISPERSION FACTOR (µg/m³)/(g/s):</td> <td style="text-align: right;">93.5</td> </tr> <tr> <td>Distance (m):</td> <td></td> </tr> <tr> <td>Hourly Receptor Type:</td> <td>PMI ▼</td> </tr> <tr> <td>HOURLY DISPERSION FACTOR (µg/m³)/(g/s):</td> <td style="text-align: right;">3855.4</td> </tr> <tr> <td>Distance (m):</td> <td></td> </tr> </table>	RISK ANALYST ONLY		DISPERSION MODELING DATA		Annual Receptor Type:	Resident ▼	ANNUAL DISPERSION FACTOR (µg/m³)/(g/s):	93.5	Distance (m):		Hourly Receptor Type:	PMI ▼	HOURLY DISPERSION FACTOR (µg/m³)/(g/s):	3855.4	Distance (m):	
RISK ANALYST ONLY																	
DISPERSION MODELING DATA																	
Annual Receptor Type:	Resident ▼																
ANNUAL DISPERSION FACTOR (µg/m³)/(g/s):	93.5																
Distance (m):																	
Hourly Receptor Type:	PMI ▼																
HOURLY DISPERSION FACTOR (µg/m³)/(g/s):	3855.4																
Distance (m):																	
FACILITY ID: APCD2023-SITE-04308 APPLICATION NO.: APCD2023-APP-007780 ENGINEER: Austin C Stein																	

CHEMICAL NAME	Emission Factor lb/1000 gal	Acute Emission Rate lb/hr	Annual Emission Rate lb/yr	Acute Emissions Rate g/s	Annual Emission Rate g/s	Hourly GLC µg/m³	Annual GLC µg/m³
DIESEL PARTICULATE			1.05E+00		1.51E-05		1.41E-03
ACETALDEHYDE	7.83E-01	3.38E-03	1.69E-01	4.26E-04		1.64E+00	
ACROLEIN	3.39E-02	1.46E-04	7.32E-03	1.85E-05		7.11E-02	
ARSENIC COMPOUNDS	1.60E-03	6.91E-06	3.46E-04	8.71E-07		3.36E-03	
BENZENE	1.86E-01	8.05E-04	4.02E-02	1.01E-04		3.91E-01	
BUTADIENE, 1,3-	2.17E-01	9.37E-04	4.69E-02	1.18E-04		0.4553864	
CADMIUM AND COMPOUNDS	1.50E-03	6.48E-06	3.24E-04	8.16E-07		3.15E-03	
CHLOROBENZENE	2.00E-04	8.64E-07	4.32E-05	1.09E-07		4.20E-04	
CHROMIUM (HEXAVALENT)	1.00E-04	4.32E-07	2.16E-05	5.44E-08		2.10E-04	
COPPER AND COMPOUNDS	4.10E-03	1.77E-05	8.86E-04	2.23E-06		8.60E-03	
ETHYL BENZENE	1.09E-02	4.71E-05	2.35E-03	5.93E-06		2.29E-02	
FORMALDEHYDE	1.73E+00	7.46E-03	3.73E-01	9.40E-04		3.62E+00	
HEXANE-N	2.69E-02	1.16E-04	5.81E-03	1.46E-05		5.65E-02	
HYDROCHLORIC ACID	1.86E-01	8.05E-04	4.02E-02	1.01E-04		3.91E-01	
LEAD & COMPOUNDS	8.30E-03	3.59E-05	1.79E-03	4.52E-06		1.74E-02	
MANGANESE AND COMPOUNDS	3.10E-03	1.34E-05	6.70E-04	1.69E-06		6.51E-03	
MERCURY AND COMPOUNDS (INORGANIC)	2.00E-03	8.64E-06	4.32E-04	1.09E-06		4.20E-03	
NAPHTHALENE	1.97E-02	8.51E-05	4.26E-03	1.07E-05		4.13E-02	
NICKEL AND NICKEL COMPOUNDS	3.90E-03	1.68E-05	8.42E-04	2.12E-06		8.18E-03	
POLYCYCLIC AROM. HC (PAH) [Treat as B(a)P for Rf]	3.62E-02	1.56E-04	7.82E-03	1.97E-05		7.60E-02	
PROPYLENE	4.67E-01	2.02E-03	1.01E-01	2.54E-04		9.80E-01	
SELENIUM AND COMPOUNDS	2.20E-03	9.50E-06	4.75E-04	1.20E-06		4.62E-03	
TOLUENE	1.05E-01	4.55E-04	2.28E-02	5.74E-05		2.21E-01	
XYLENES	4.24E-02	1.83E-04	9.16E-03	2.31E-05		8.90E-02	

HARP2 - HRACalc (dated 22118) 8/14/2023 4:42:53 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Worker

Scenario: All

Calculation Method: Derived

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16

Total Exposure Duration: 25

Exposure Duration Bin Distribution

3rd Trimester Bin: 0

0<2 Years Bin: 0

2<9 Years Bin: 0

2<16 Years Bin: 0

16<30 Years Bin: 0

16 to 70 Years Bin: 25

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: True

Dermal: True

Mother's milk: False

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors

NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

Worker adjustments factors enabled: YES

GLC adjustment factor: 4.2

Exposure frequency: 250

****Fraction at time at home****

3rd Trimester to 16 years: OFF

16 years to 70 years: OFF

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02

Soil mixing depth (m): 0.01

Dermal climate: Warm

TIER 2 SETTINGS

Tier2 not used.

Calculating cancer risk

Cancer risk saved to: C:\1200\7780_New Cingular Wireless\RAST\worker_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\1200\7780_New Cingular

Wireless\RAST\worker_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\1200\7780_New Cingular Wireless\RAST\worker_NCAcuteRisk.csv

HRA ran successfully

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
STCK1	0	0.10000E+01	501509.2	3635155.8	130.7	2.35	835.37	65.71	0.06	YES	YES	NO	

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** MODEL SETUP OPTIONS SUMMARY ***

- ** Model Options Selected:
- * Model Uses Regulatory DEFAULT Options
 - * Model Is Setup For Calculation of Average CONCentration Values.
 - * NO GAS DEPOSITION Data Provided.
 - * NO PARTICLE DEPOSITION Data Provided.
 - * Model Uses NO DRY DEPLETION. DDPLETE = F
 - * Model Uses NO WET DEPLETION. WETDPLT = F
 - * Stack-tip Downwash.
 - * Model Accounts for ELEVated Terrain Effects.
 - * Use Calms Processing Routine.
 - * Use Missing Data Processing Routine.
 - * No Exponential Decay.
 - * Model Uses URBAN Dispersion Algorithm for the SBL for 1 Source(s),
for Total of 1 Urban Area(s):

Urban Population = 163465.0 ; Urban Roughness Length = 1.000 m

* Urban Roughness Length of 1.0 Meter Used.

* TEMP_Sub - Meteorological data includes TEMP substitutions

* Model Assumes No FLAGPOLE Receptor Heights.

* The User Specified a Pollutant Type of: OTHER

**Model Calculates 1 Short Term Average(s) of: 1-HR
and Calculates PERIOD Averages

**This Run Includes: 1 Source(s); 1 Source Group(s); and 22801 Receptor(s)

with: 1 POINT(s), including

0 POINTCAP(s) and 0 POINTHOR(s)

and: 0 VOLUME source(s)

and: 0 AREA type source(s)

and: 0 LINE source(s)

and: 0 RLINE/RLINEXT source(s)

and: 0 OPENPIT source(s)

and: 0 BUOYANT LINE source(s) with a total of 0 line(s)

and: 0 SWPOINT source(s)

**Model Set To Continue RUNNING After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 22112

**Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 141.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

```
**Input Runstream File:      aermod.inp
**Output Print File:        aermod.out
```

```

*** AERMOD - VERSION 22112 ***      *** C:\Modeling Projects\9740_New_Cingular\9740_New_Cingular.isc
*** AERMET - VERSION 22112 ***      ***

```

*** 08/10/23
*** 15:51:29
PAGE 2

```
*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
      (1=YES; 0=NO)
```

[illegible]

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

```

*** AERMOD - VERSION 22112 ***      *** C:\Modeling Projects\9740_New_Cingular\9740_New_Cingular.isc
*** AERMET - VERSION 22112 ***      ***

```

*** 08/10/23
*** 15:51:29
PAGE 3

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: LES_2019-2021_v22112.SFC
Profile file: LES_2019-2021_v22112.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 53143
Name: UNKNOWN
Year: 2019

Met Version: 22112

Upper air station no.: 3190
Name: UNKNOWN
Year: 2019

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
19	01	01	1	01	-1.2	0.036	-9.000	-9.000	-999.	17.	3.4	0.03	1.10	1.00	1.07	109.	10.0	279.8	10.0			
19	01	01	1	02	-0.4	0.018	-9.000	-9.000	-999.	6.	1.5	0.03	1.10	1.00	0.54	221.	10.0	278.4	10.0			
19	01	01	1	03	-0.4	0.020	-9.000	-9.000	-999.	7.	1.7	0.03	1.10	1.00	0.58	120.	10.0	277.3	10.0			
19	01	01	1	04	-0.9	0.029	-9.000	-9.000	-999.	12.	2.3	0.03	1.10	1.00	0.85	74.	10.0	276.5	10.0			
19	01	01	1	05	-0.6	0.024	-9.000	-9.000	-999.	9.	2.0	0.03	1.10	1.00	0.72	108.	10.0	276.0	10.0			
19	01	01	1	06	-1.1	0.032	-9.000	-9.000	-999.	14.	2.6	0.03	1.10	1.00	0.94	44.	10.0	275.4	10.0			
19	01	01	1	07	-0.7	0.024	-9.000	-9.000	-999.	9.	2.0	0.03	1.10	1.00	0.72	288.	10.0	275.5	10.0			
19	01	01	1	08	-0.5	0.024	-9.000	-9.000	-999.	9.	2.5	0.03	1.10	0.49	0.72	231.	10.0	276.0	10.0			
19	01	01	1	09	33.8	-9.000	-9.000	-9.000	154.	-999.	-99999.0	0.03	1.10	0.30	0.00	0.	10.0	279.9	10.0			
19	01	01	1	10	85.0	0.120	0.857	0.005	265.	100.	-1.8	0.03	1.10	0.23	1.16	332.	10.0	283.3	10.0			
19	01	01	1	11	119.9	0.189	1.381	0.005	785.	197.	-5.0	0.03	1.10	0.21	2.10	320.	10.0	285.3	10.0			
19	01	01	1	12	136.4	0.238	1.521	0.005	922.	278.	-8.8	0.03	1.10	0.20	2.82	18.	10.0	286.5	10.0			
19	01	01	1	13	133.6	0.307	1.572	0.005	1039.	409.	-19.4	0.03	1.10	0.20	3.93	12.	10.0	286.8	10.0			
19	01	01	1	14	112.1	0.313	1.524	0.005	1127.	419.	-24.3	0.03	1.10	0.21	4.07	26.	10.0	286.8	10.0			
19	01	01	1	15	72.7	0.324	1.339	0.005	1180.	443.	-41.9	0.03	1.10	0.24	4.38	62.	10.0	286.8	10.0			
19	01	01	1	16	18.5	0.316	0.851	0.005	1191.	426.	-152.4	0.03	1.10	0.33	4.51	44.	10.0	285.8	10.0			
19	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.03	1.10	0.61	4.02	71.	10.0	284.5	10.0			
19	01	01	1	18	-21.6	0.194	-9.000	-9.000	-999.	205.	30.1	0.03	1.10	1.00	3.67	76.	10.0	283.2	10.0			
19	01	01	1	19	-8.3	0.088	-9.000	-9.000	-999.	69.	7.2	0.03	1.10	1.00	2.59	53.	10.0	282.6	10.0			
19	01	01	1	20	-4.6	0.065	-9.000	-9.000	-999.	40.	5.3	0.03	1.10	1.00	1.92	93.	10.0	280.8	10.0			
19	01	01	1	21	-2.7	0.050	-9.000	-9.000	-999.	27.	4.1	0.03	1.10	1.00	1.48	85.	10.0	278.6	10.0			
19	01	01	1	22	-1.2	0.033	-9.000	-9.000	-999.	14.	2.7	0.03	1.10	1.00	0.98	82.	10.0	277.5	10.0			
19	01	01	1	23	-4.0	0.061	-9.000	-9.000	-999.	36.	4.9	0.03	1.10	1.00	1.79	85.	10.0	276.5	10.0			
19	01	01	1	24	-5.3	0.070	-9.000	-9.000	-999.	44.	5.7	0.03	1.10	1.00	2.06	100.	10.0	276.4	10.0			

First hour of profile data

YR MO DY HR HEIGHT F WDIR WSPD AMB_TMP sigmaA sigmaW sigmaV
19 01 01 01 10.0 1 109. 1.07 279.9 38.0 -99.00 0.58

F indicates top of profile (=1) or below (=0)

*** AERMOD - VERSION 22112 *** C:\Modeling Projects\9740_New_Cingular\9740_New_Cingular.isc
*** AERMET - VERSION 22112 ***

*** 08/10/23
*** 15:51:29
PAGE 4

*** MODELOPTs: RegDEFAULT CONC ELEV URBAN SigA Data

*** THE SUMMARY OF MAXIMUM PERIOD (26304 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC		RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG) OF TYPE							NETWORK GRID-ID

ALL	1ST HIGHEST VALUE IS	513.56950	AT (	501550.00,	3635166.00,	130.78,	255.52,	0.00)	DC		
	2ND HIGHEST VALUE IS	501.70786	AT (	501550.00,	3635176.00,	131.27,	255.52,	0.00)	DC		
	3RD HIGHEST VALUE IS	423.88032	AT (	501540.00,	3635166.00,	132.23,	255.52,	0.00)	DC		
	4TH HIGHEST VALUE IS	414.85931	AT (	501540.00,	3635176.00,	132.64,	255.52,	0.00)	DC		
	5TH HIGHEST VALUE IS	380.25191	AT (	501550.00,	3635156.00,	129.87,	255.52,	0.00)	DC		
	6TH HIGHEST VALUE IS	354.18824	AT (	501560.00,	3635166.00,	130.11,	255.52,	0.00)	DC		
	7TH HIGHEST VALUE IS	345.45506	AT (	501530.00,	3635176.00,	133.07,	255.52,	0.00)	DC		
	8TH HIGHEST VALUE IS	341.78511	AT (	501540.00,	3635156.00,	130.45,	255.52,	0.00)	DC		
	9TH HIGHEST VALUE IS	329.41037	AT (	501530.00,	3635166.00,	132.98,	255.52,	0.00)	DC		
	10TH HIGHEST VALUE IS	324.62242	AT (	501530.00,	3635156.00,	131.16,	255.52,	0.00)	DC		

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** AERMOD - VERSION 22112 *** C:\Modeling Projects\9740_New_Cingular\9740_New_Cingular.isc
*** AERMET - VERSION 22112 ***

*** 08/10/23
*** 15:51:29
PAGE 5

*** MODELOPTs: RegDEFAULT CONC ELEV URBAN SigA Data

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH	1ST HIGH VALUE IS 3855.37177	ON 20090224: AT (501550.00, 3635176.00, 131.27, 255.52, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** AERMOD - VERSION 22112 *** C:\Modeling Projects\9740_New_Cingular\9740_New_Cingular.isc *** 08/10/23
*** AERMET - VERSION 22112 *** *** 15:51:29
PAGE 6

*** MODELOPTs: RegDFAULT CONC ELEV URBAN SigA Data

*** Message Summary : AERMOD Model Execution ***

----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 2 Warning Message(s)
A Total of 5244 Informational Message(s)

A Total of 26304 Hours Were Processed

A Total of 4177 Calm Hours Identified

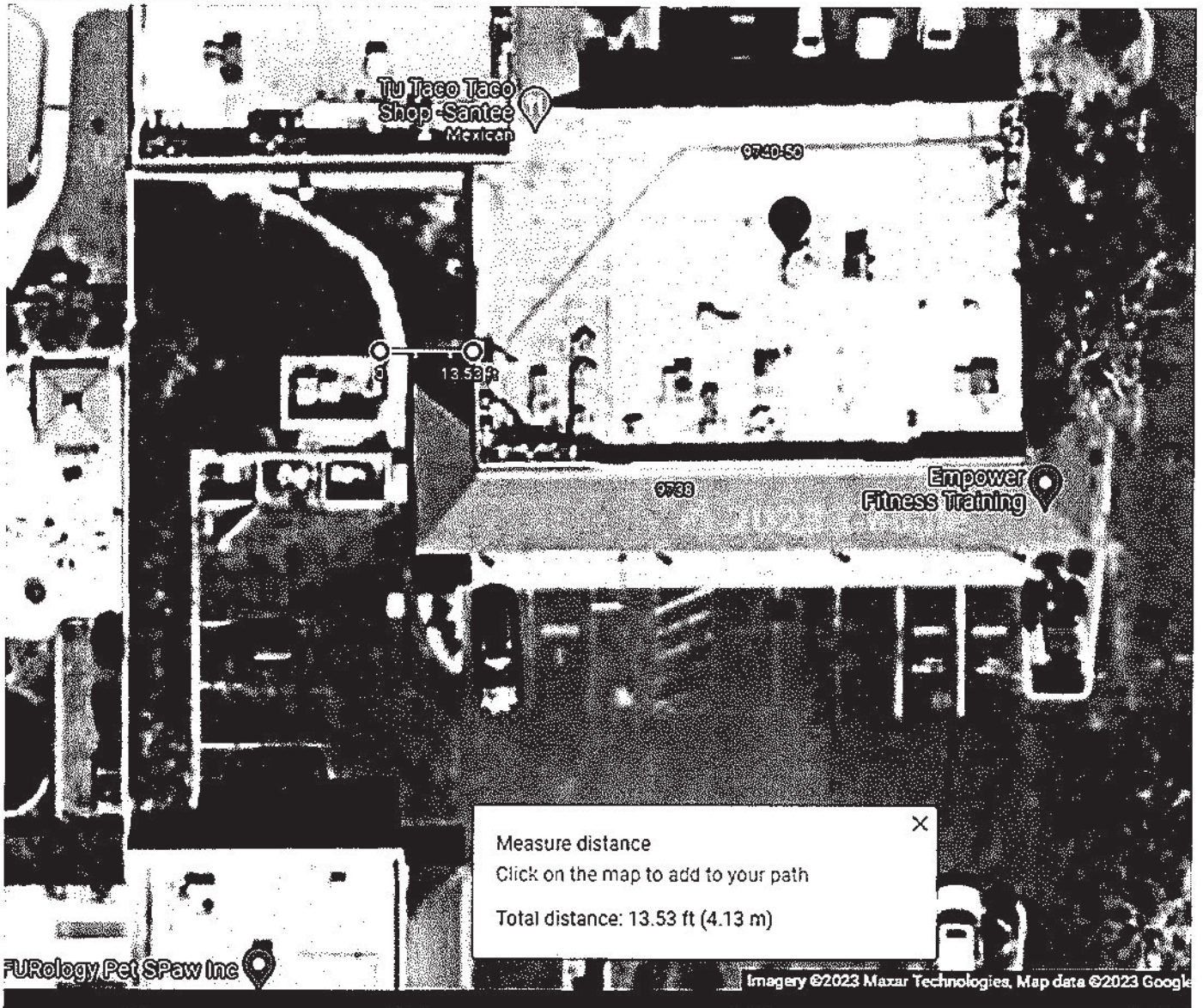
A Total of 1067 Missing Hours Identified (4.06 Percent)

***** FATAL ERROR MESSAGES *****
*** NONE ***

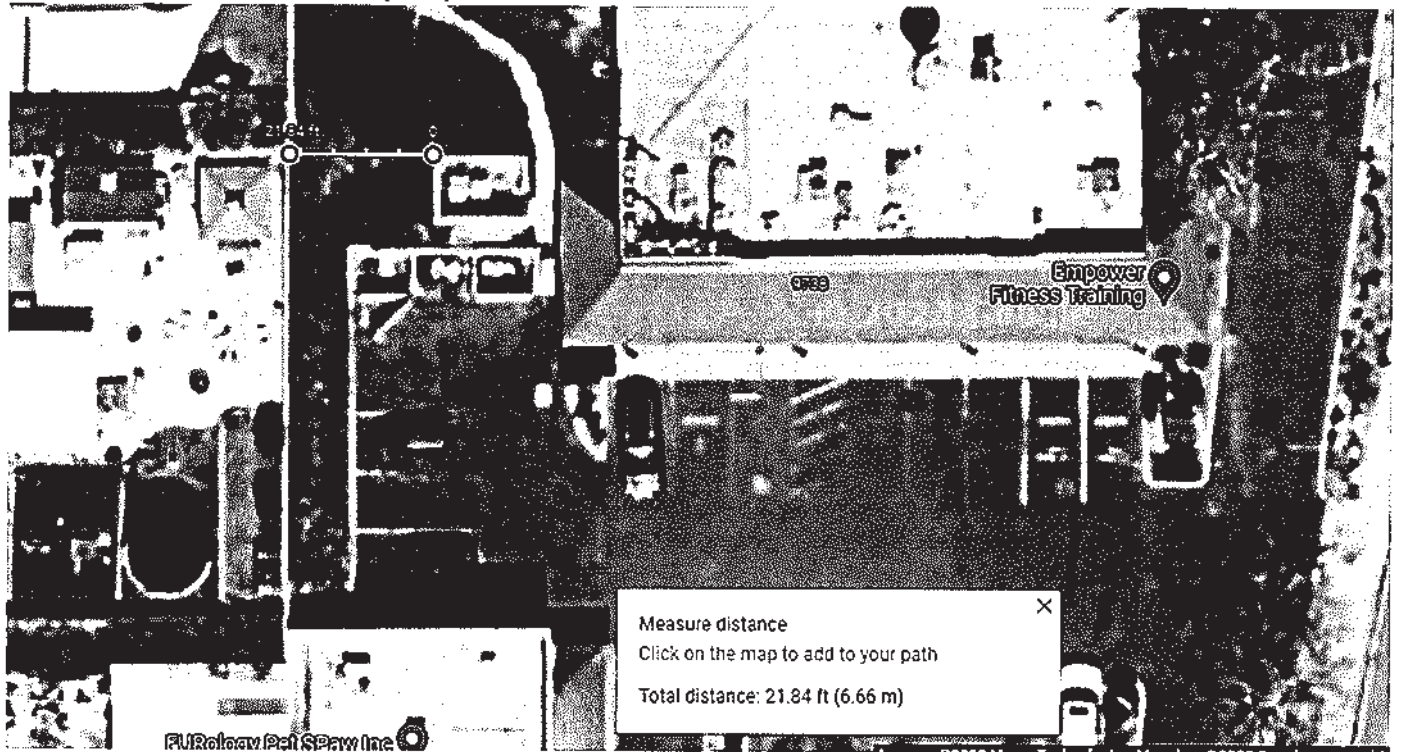
***** WARNING MESSAGES *****

SO W320	38	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
MX W403	101	PFLCNV: Turbulence data is being used w/o ADJ_U* option	SigA Data

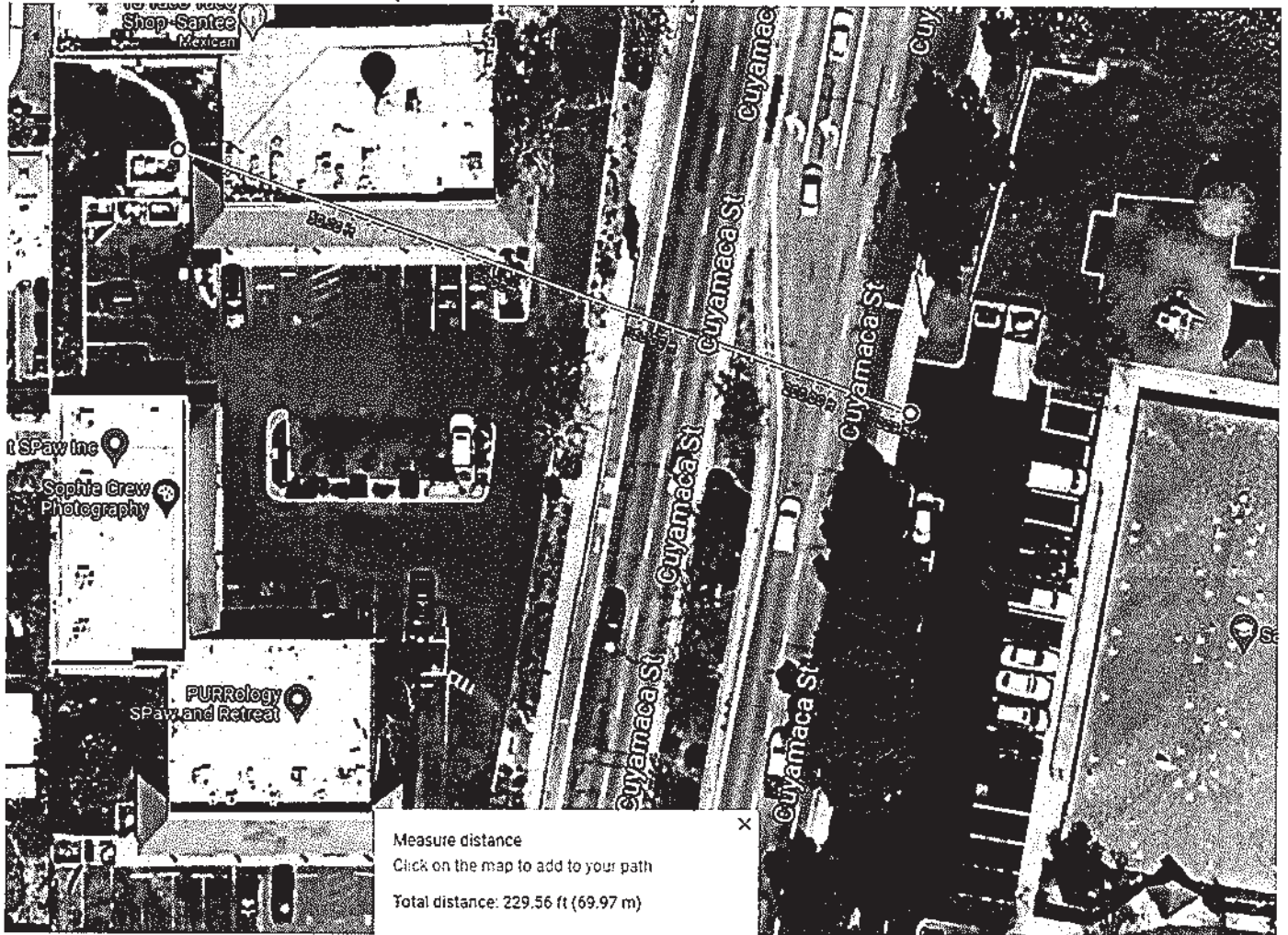
Distance from site to nearest business 14 ft



Distance from site to residences (22 ft)



Distance from site to nearest school (Santee Kinder School 230 ft)



GENSET USE, CEQA & BAAQMD EXEMPTION:

- THE PROPOSED GENERATOR 8000 GENSET:
- * IS RATED AT 48 HP AT MAXIMUM RATED WY OUTPUT.
- * IS INSTALLED WITH AN ABOVE-GROUND DOUBLE-WALL SECONDARY CONTAINER TO PREVENT FUEL LEAKAGE AND TO PREVENT FUEL FROM ENTERING THE GROUND.
- * USES ULTRALOW-SULFUR DIESEL FUEL (15 PPM SULFUR).
- * IS LIMITED TO 100 HOURS PER YEAR OF NON-EMERGENCY USE (TESTING & MAINTENANCE).
- * IS LOCATED WITHIN A LEVEL 3 SOUND BARRIER ENCLOSURE, WHICH BUFFERS SOUND EMISSIONS TO THE SURROUNDING AREA.
- * IS COMPLIANT WITH APPLICABLE AIR QUALITY REGULATIONS.
- * IS EXEMPT FROM AIR QUALITY PERMITS IN MOST JURISDICTIONS UNDER THE PROVISIONS OF CLASS 1, SEC. 15001 OF THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.
- * IS EXEMPT PER BAAQMD REG. 2, RULE 1, SEC. 2-1-14-2.3.1, LESS THAN 50 BHP.

CUMULATIVE VOLUME CALCULATIONS:

THE PHYSICAL DIMENSIONS OF THE PROPOSED GENERATOR w/ ENCLOSURE AND BASE FUEL TANK ARE LESS THAN 250 CU. FT. IN VOLUME.

BASE FUEL TANK = $100 \times 20 \times 25 = 50,000$ CU. FT.

GENERATOR BODY w/ ENCLOSURE = $94.8 \times 161.7 \times 38 = 582,331$ CU. FT.




TOTAL CUMULATIVE VOLUME OF GENSET = $582,331 + 50,000 = 632,331$ CU. FT.

EXISTING CONDITIONS:

THESE DRAWINGS WERE PRODUCED WITH INFORMATION PROVIDED BY THE CLIENT. THE CLIENT HAS REPRESENTED THAT THE INFORMATION IS TRUE AND ACCURATE. THE CLIENT HAS REPRESENTED THAT THE INFORMATION IS TRUE AND ACCURATE. THE CLIENT HAS REPRESENTED THAT THE INFORMATION IS TRUE AND ACCURATE.

NOTE:


EVERYTHING SHOWN IS EXISTING UNLESS MARKED OTHERWISE.

REVISIONS	
NO.	DESCRIPTION
1	10% CD
2	10% CD
3	10% CD
4	10% CD

SITE INFORMATION

FLETCHER HILLS
 FAX: 10083223
 GENERATOR INSTALLATION
 PROJECT
 8740 CUYAMACA STREET
 SANTEE, CA 92071



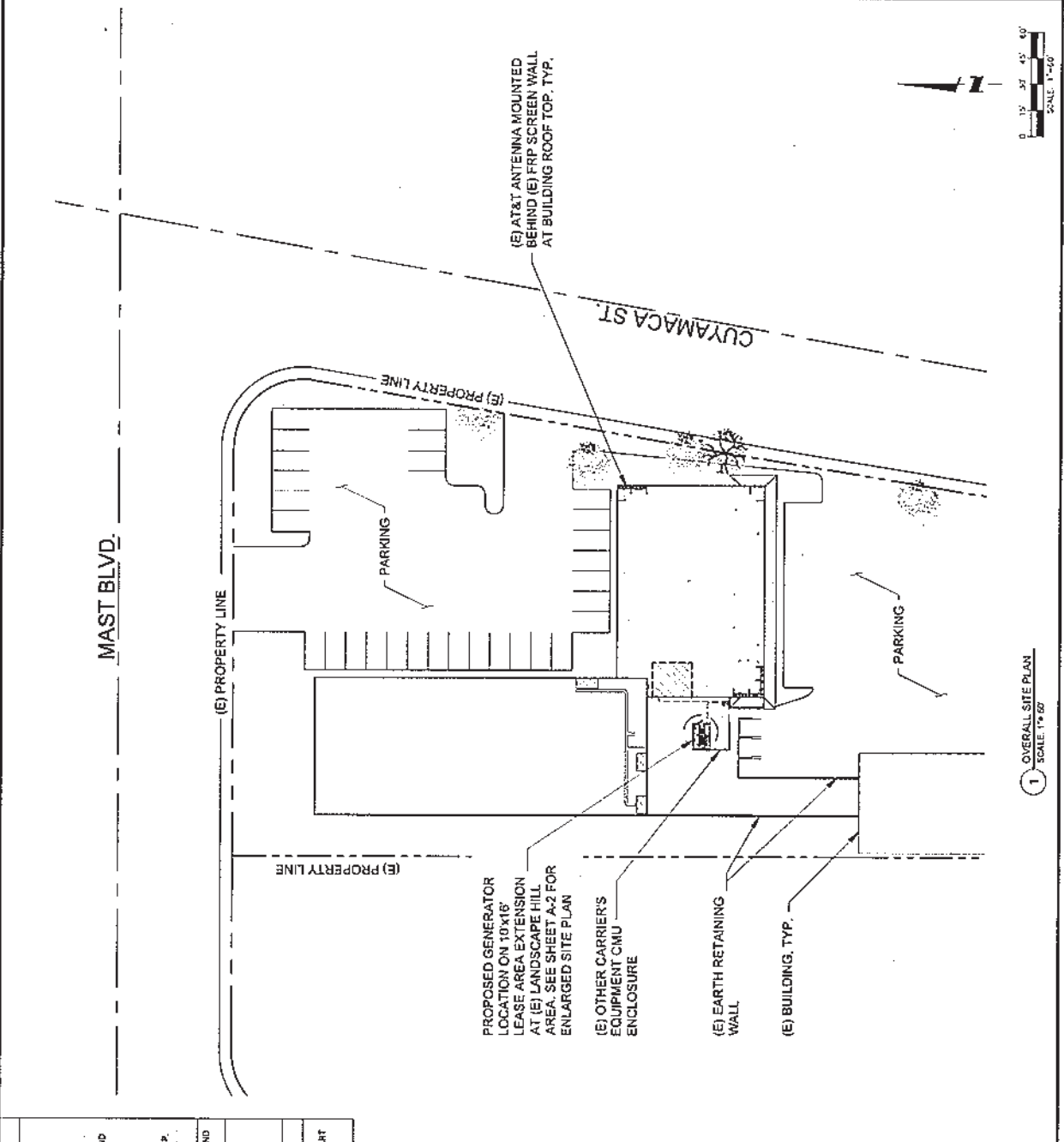
P.E. STAMP

STAMP DATE	06/21/2023
DRAWN BY	MM
CHECKED BY	AM
DATE	06/21/2023
PROJECT	1008323 FLETCHER HILLS
FILE	1008323 FLETCHER HILLS

OVERALL SITE PLAN

SHEET NUMBER

A-1



1 OVERALL SITE PLAN
SCALE 1" = 50'

REVISIONS			
REV.	DESCRIPTION	DATE	BY
A	50% CO ₂	27/06/2012	MAV
B	100% CO ₂	28/06/2012	MAV
1			
2			
3			
4			

SITE INFORMATION
FLETCHER HILLS
FA#: 10086233
GENERATOR INSTALLATION
PROJECT
9740 CUYAMACA STREET
SANTÉE, CA 92071

REF STAMP



APR 2004	APR 2005	APR 2006	APR 2007	APR 2008	APR 2009	APR 2010	APR 2011	APR 2012	APR 2013	APR 2014	APR 2015	APR 2016	APR 2017	APR 2018	APR 2019	APR 2020	APR 2021	APR 2022	APR 2023	APR 2024	APR 2025	APR 2026	APR 2027	APR 2028	APR 2029	APR 2030	APR 2031	APR 2032	APR 2033	APR 2034	APR 2035	APR 2036	APR 2037	APR 2038	APR 2039	APR 2040	APR 2041	APR 2042	APR 2043	APR 2044	APR 2045	APR 2046	APR 2047	APR 2048	APR 2049	APR 2050	APR 2051	APR 2052	APR 2053	APR 2054	APR 2055	APR 2056	APR 2057	APR 2058	APR 2059	APR 2060	APR 2061	APR 2062	APR 2063	APR 2064	APR 2065	APR 2066	APR 2067	APR 2068	APR 2069	APR 2070	APR 2071	APR 2072	APR 2073	APR 2074	APR 2075	APR 2076	APR 2077	APR 2078	APR 2079	APR 2080	APR 2081	APR 2082	APR 2083	APR 2084	APR 2085	APR 2086	APR 2087	APR 2088	APR 2089	APR 2090	APR 2091	APR 2092	APR 2093	APR 2094	APR 2095	APR 2096	APR 2097	APR 2098	APR 2099	APR 2100			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Publication Year	Frequency
1990	1
1991	1
1992	1
1993	1
1994	1
1995	1
1996	1
1997	1
1998	1
1999	1
2000	1
2001	1
2002	1
2003	1
2004	1
2005	1
2006	1
2007	1
2008	1
2009	1
2010	1
2011	1
2012	1
2013	1
2014	1
2015	1
2016	1
2017	1
2018	1
2019	1
2020	1
2021	1
2022	1
2023	1
2024	1
2025	1
2026	1
2027	1
2028	1
2029	1
2030	1
2031	1
2032	1
2033	1
2034	1
2035	1
2036	1
2037	1
2038	1
2039	1
2040	1
2041	1
2042	1
2043	1
2044	1
2045	1
2046	1
2047	1
2048	1
2049	1
2050	1
2051	1
2052	1
2053	1
2054	1
2055	1
2056	1
2057	1
2058	1
2059	1
2060	1
2061	1
2062	1
2063	1
2064	1
2065	1
2066	1
2067	1
2068	1
2069	1
2070	1
2071	1
2072	1
2073	1
2074	1
2075	1
2076	1
2077	1
2078	1
2079	1
2080	1
2081	1
2082	1
2083	1
2084	1
2085	1
2086	1
2087	1
2088	1
2089	1
2090	1
2091	1
2092	1
2093	1
2094	1
2095	1
2096	1
2097	1
2098	1
2099	1
2100	1
2101	1
2102	1
2103	1
2104	1
2105	1
2106	1
2107	1
2108	1
2109	1
2110	1
2111	1
2112	1
2113	1
2114	1
2115	1
2116	1
2117	1
2118	1
2119	1
2120	1
2121	1
2122	1
2123	1
2124	1
2125	1
2126	1
2127	1
2128	1
2129	1
2130	1
2131	1
2132	1
2133	1
2134	1
2135	1
2136	1
2137	1
2138	1
2139	1
2140	1
2141	1
2142	1
2143	1
2144	1
2145	1
2146	1
2147	1
2148	1
2149	1
2150	1
2151	1
2152	1
2153	1
2154	1
2155	1
2156	1
2157	1
2158	1

החלפת המערכת

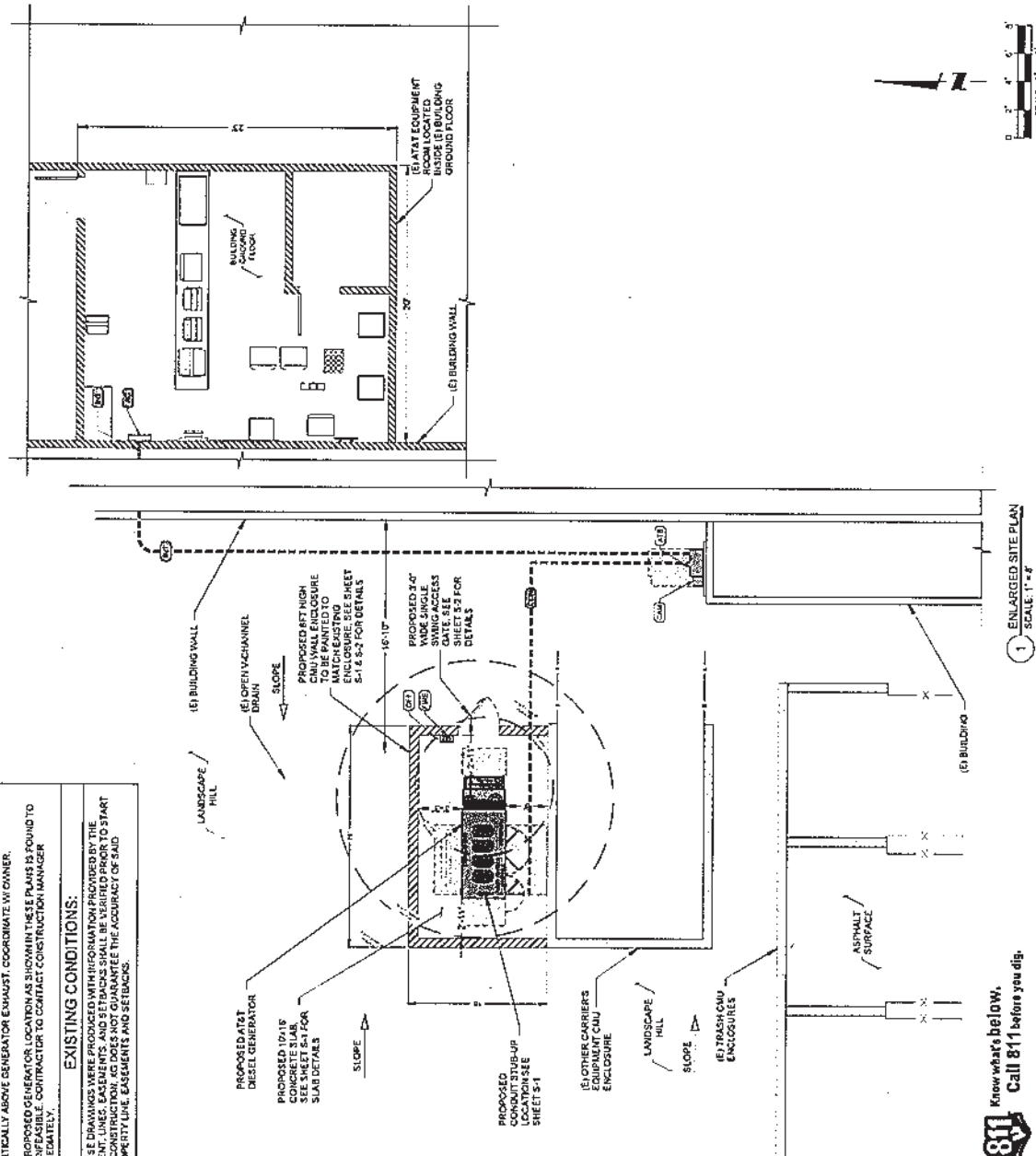
DATE _____

2015.01.14

ENI ARGENT SITE DI AN

QUESTIONS

A-2



811 Know what's below.
Call 811 before you dig.

GENERATOR PLACEMENT NOTE:

CONTRACTOR TO VISIT THE SITE PRIOR TO CONSTRUCTION TO VERIFY PLACEMENT OF PROPOSED GENERATOR & REQUIRED SCOPE OF WORK. PROPOSED GENERATOR LOCATION MAY REQUIRE TREE TRIMMING, VEGETATION TO BE CLEARED 5' HORIZONTALLY FROM GENERATOR PERIMETER AND 5' VERTICALLY ABOVE GENERATOR EXHAUST. COORDINATE WITH OWNER.

IF PROPOSED GENERATOR LOCATION AS SHOWN IN THESE PLANS IS FOUND TO BE UNFEASIBLE, CONTRACTOR TO CONTACT CONSTRUCTION MANAGER IMMEDIATELY.

EXISTING CONDITIONS:

THESE DRAWINGS WERE PRODUCED WITH INFORMATION PROVIDED BY THE CLIENT. LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. AG DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINE, EASEMENTS AND SETBACKS.

UTILITY NOTE:

THE UTILITIES AS SHOWN ON THIS SET OF DRAWINGS WERE DEVELOPED FROM RECORD INFORMATION. THE INFORMATION PROVIDED IS SUPPOSED NOT INTENDED TO BE A COMPLETE INVENTORY OF THE UTILITIES IN THIS AREA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL UTILITIES WHETHER SHOWN OR NOT AND PROTECT SAID UTILITIES FROM ANY DAMAGE CAUSED BY CONTRACTORS' ACTIVITIES.

SCOPE OF WORK DETAILS:

[illegible]

CONDITIONS:

INSTALL PULL STRING IN EACH CONDUIT.
 (1) NEW 2" AND (1) NEW 1" ELECTRICAL CONDUIT WITH CONDUCTORS TO BE INSTALLED FROM NEW GENERATOR TO NEW ATS. CONDUIT PROVIDED AND CONDUCTORS INSTALLED BY GENERAL CONTRACTOR. SEE SHEETS E-1, E-2.
 (2) NEW 1" ELECTRICAL CONDUITS WITH CONDUCTORS TO BE INSTALLED FROM NEW GENERATOR TO AC PANEL. CONDUIT PROVIDED & INSTALLED BY GENERAL CONTRACTOR. SEE SHEETS E-1, E-2.
 (3) NEW 1" ALARM CONDUIT & CABLEING PROVIDED & INSTALLED BY GENERAL CONTRACTOR. SEE SHEETS E-1, E-2.

GROUNDING

NEW EXOTHERMIC CONNECTION FROM EXISTING GROUND RING TO NEW
MECHANICAL CONNECTION AT GENERATOR CHASSIS. GENERAL CONTRACTOR TO
VERIFY LOCATION IN FIELD. LOCATE GROUND RODS NO MORE THAN 8'-0" APART.
SEE SHEET E-3.

NAME:

* CONTRACTOR TO PROVIDE NEW H-FRAME FOR ITS INSTALLATION (IF REQUIRED), MATCH EXISTING H-FRAME MATERIAL FOR CONSTRUCTION OF NEW H-FRAME SEE SHEET S-5

CHILLI VASTI

CONTRACTOR TO INSTALL NEW CMU WALLS TO MATCH EXISTING EQUIPMENT ENCLOSURES NEAR BY IF REQUIRED. SEE SHEET 5-2.

POWER ROUTING KEYED NOTES:

EXISTING AT&T DISCONNECT TO BE REMOVED

INTERCEPT EXISTING CONDUIT AND CONDUCTORS AT (E) IE LOAD CENTER AND RE-ROUTE THROUGH PROPOSED AT&T COORDINATE PATH WITH CONSTRUCTION MANAGER

EXISTING AC LOAD CENTER

PROPOSED AT 17 UNDERGRAD

CONTRACTOR TO LOCATE EXISTING UTILITIES PRIOR TO EXCAVATION. SEE SHEETS E-1, E-2

GENERATOR KE

PROPOSED ATAT TOWN DIESEL GENERATOR W/ SOUND ATTENUATED ENCLOSURE, NORMAL/EMERGENCY TANK VENTING AND BASE FUEL TANK.

SEE SHEET 001, 002, 003

	FUEL FILL SHALL BE PROVIDED WITH SPILL CONTAINMENT, WITH A SOLID FILL CONNECTION, AND WITH OVERFILL PREVENTION
	FUEL FILL TANK NORMAL AND EMERGENCY VENTS SHALL TERMINATE AT

LEAS 1740 ABOVE THE ADJACENT GRADE SE

AT'S / EQUIPMENT KEYED NOTES:

IRE)

TO (N) CMU WALL PER CFC 906.9 (5'-0" MAX. ABOVE GRADE)

LOCKABLE EMERGENCY SHUTOFF SWITCH, MOUNT TO (N) CMU WALL PER CFC 906.9 (5'-0" MAX. ABOVE GRADE)

PROPOSED RATE YEAR CAMLOCK MOUNTING SYSTEMS

PROPOSED GENERAC CAM LOCK MOUNTED ON EXTERIOR FACE OF (E)

NOTE

NOTE:



GENERAL
DYNAMICS

XG
COMMUNITIES

REVISIONS		DATE	BY
NO	DESCRIPTION		
1	WALDEN	2/14/2023	MM
2	100% CD	2/14/2023	MM
3			
4			

SITE INFORMATION
FLETCHER HILLS
FA#: 10085223
GENERATOR INSTALLATION
PROJECT
9740 CUYAMACA STREET
SANTEE, CA 92071

P.E. STAMP



6/27/2023

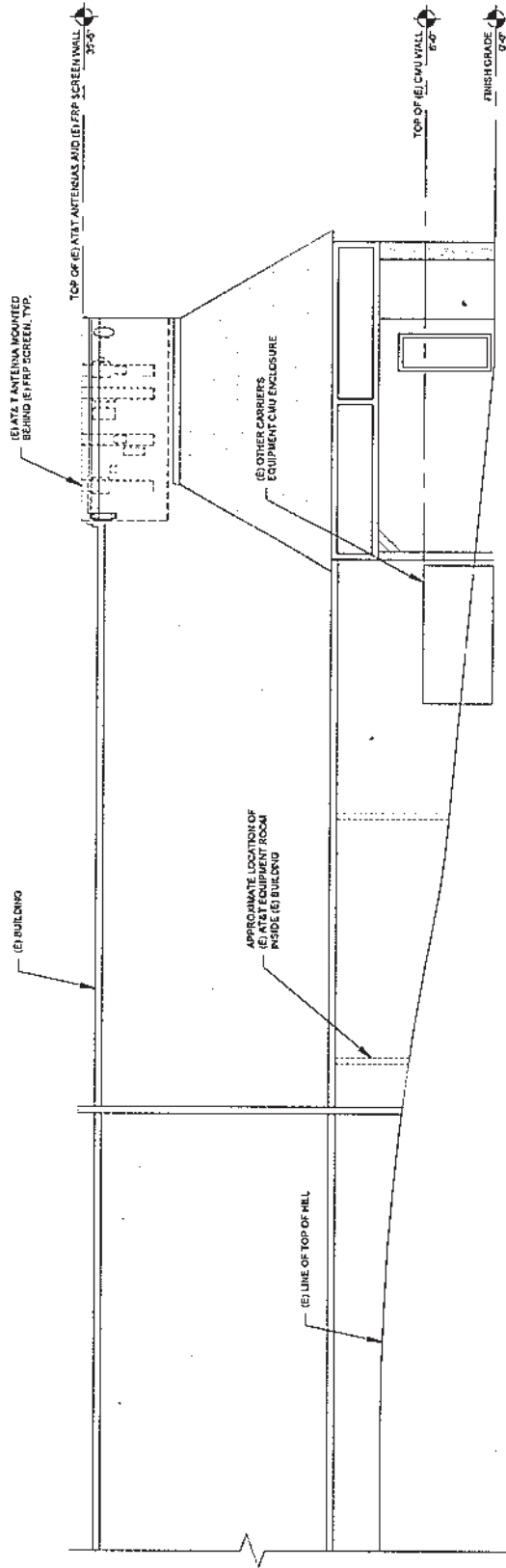
START DATE	6/27/2023
END DATE	
DESIGNED BY	AM
PRINT DATE	6/27/2023
FILE	10085223-FLETCHER HILLS

SHEET TITLE

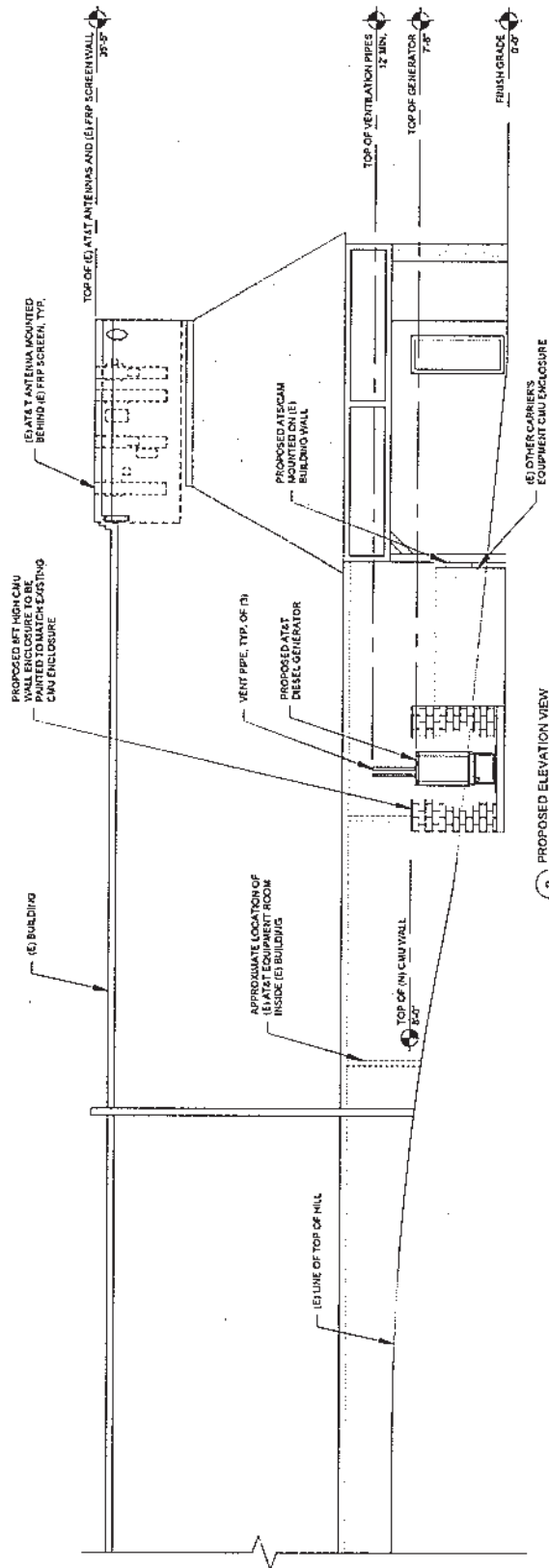
ELEVATION VIEWS

SHEET NUMBER

A-3



1 EXISTING ELEVATION VIEW
SCALE: N.T.S.



2 PROPOSED ELEVATION VIEW
SCALE: N.T.S.

Amberg, Stephen

From: Stein, Austin C
Sent: Thursday, July 27, 2023 9:11 AM
To: Reeve, Bill; Nguyen, Tony
Cc: Swaney, Jim; Canter, Adam; Horres, Nicholas
Subject: 7780_New Cingular Wireless - HRA Request

Hello,

Here is an HRA request.

Please have the modeler post the results in [7780_New Cingular Wireless](#)

Thank you so much,



San Diego County
**Air Pollution
Control District**

% · fl†v† #Q†nv† #lun¼iv~ ½#
?††# v††ME }}· †E i# E i †E }†;†v†nnf#
Qa;†D vnt†E# E·; †# v††ME }}· †E i# E i †E }†v†††j#
'·'·', †E }l †††E"n††l †Qa;†D vnt†E# †#†E"·'·'·#
☎# "—D„E"†—·"·~#
✉# ·fl†v† Q†nv† Ófla«jl††††#