CLEANER AIR OREGON

LEVEL 1 EMISSIONS RISK SCREENING

Irwin Hodson Property

2808 and 2838 SE 9th Avenue
Portland, Oregon 97202
Multnomah County Parcel R251319

Agency Information

ODEQ LUST File Number 26-97-0130

ODEQ ECSI File No. 6399

Prepared for:

The Irwin Hodson Company

2838 SE 9th Avenue
Portland, Oregon 97202

Issued on:

June 12, 2024

EVREN NORTHWEST, INC.
Project No. 186-19002-07

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This

Cleaner Air Oregon

Level 1 Emissions Risk Screening

for:

Irwin Hodson Property

2808 and 2838 SE 9th Avenue
Portland, Oregon 97202
Multnomah County Parcel R251319

Has been prepared for the sole benefit and use of our Client:

The Irwin Hodson Company

2838 SE 9th Avenue
Portland, Oregon 97202

and its assignees

Issued June 12, 2024 *by:*

Exp 1-1-25

EXP. 2/1/2025

Paul M Trone 6/12/24

Paul. M. Trone, R.G.
Principal Geologist

Lynn D. Green, C.E.G.
Principal Engineering Geologist

Limitations

No warranties are expressed, or implied concerning potential contaminants or environmental media not addressed through sampling and analysis. EVREN Northwest, Inc. is not responsible for conditions or consequences arising from information not available at the time of Plan preparation. This Plan was prepared in accordance with generally accepted professional practice in the area at this time for the exclusive use of our client and their agents or authorized third parties. No other warranty, either expressed or implied, is made.

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List of Acronyms and Abbreviations

CAO	Cleaner Air Oregon
EPA	U.S. Environmental Protection Agency
FSDS	field sampling data sheets
OAR	Oregon Administrative Rule
ODEQ	Oregon Department of Environmental Quality
RALs	Risk Action Levels
RBCs	Risk-Based Concentrations
SSD	sub-slab depressurization
TACs	Toxic Air Contaminants
TCE	trichloroethene
TEU	Toxic Emission Unit
VOCs	volatile organic constituents

1.0 Introduction

The Irwin Hodson Company recently installed a sub-slab depressurization (SSD) system as part of a remedial action to control sub-slab concentrations of trichloroethene (TCE) beneath the northeast portion of the building, under a voluntary agreement with the Oregon Department of Environmental Quality (ODEQ). As part of the process, ODEQ requires, as part of a streamlined approach, consideration of the potential risks posed by implementation of the remedy on human health and the environment for any remediation and/or mitigation system that discharge hazardous substances into the atmosphere.

ODEQ's Cleaner Air Oregon (CAO) Program developed a screening approach using conservative assumptions for evaluating potential risks from facility discharges. As part of an initial screening-level evaluation, risks for emissions from a remedial system were evaluated using ODEQ's Appendix E of their DRAFT guidance.[1] simple "look-up" table. The resulting screening-level emissions evaluation is presented in this report.

1.1 Facility Description

The subject property is in a commercial/industrial section of southeast Portland, Oregon, on the north side of SE Powell Boulevard (see Figure 1). The site consists of one tax lot encompassing a total of 0.85 acres, with an industrial warehouse building covering the entire building footprint. The site is bordered by a mix of commercial and industrial land uses east to SE 11th Avenue, south to SE Powell Boulevard, west to the banks of the Willamette River, and north to NE Broadway Street. Figure 1 is a Vicinity Map showing the facility location in relation to the surrounding area. Figure 2 is a Site Plan showing proximate land use zoning. Figure 3 identifies vent locations and distances to receptors used in the Level 1 Modeling.

1.2 Local Topography

The site is located within the Portland Basin, a lowland area surrounding the confluence of the Columbia and Willamette Rivers and bounded by the Tualatin Mountains and Portland Hills to the west and the Cascade Range and Columbia Gorge to the east. The subject site is at an approximate elevation of 50 feet above mean sea level (see Figure 1). Locally, the area slopes gently to the southwest toward the Willamette River, located approximately 1,300 feet to the west of the subject site.

1.3 Sub-Slab Depressurization System

The SSD system was designed to exert a measurable negative pressure differential which allows residual sub-slab TCE vapors to migrate from sub-slab regions of higher pressure to lower pressure around the SSD collection lines exerted by the in-line fans. From there, the captured sub-slab vapors are manifolded through a header to risers leading discharge vents located above the second-story roof of the Irwin Hodson building.

[1] ODEQ. March 2024 (DRAFT) Guidance for Assessing and Remediating Vapor Intrusion into Buildings.

2.0 Toxic Emission Unit (TEU)

A single TEU comprised of two closely spaced stacks has been identified as associated with Irwin Hodson's SSD system as described in this section. Detailed information on the toxic air contaminants (TACs) [2] emitted from this TEU can be found on the ODEQ-approved Emissions Inventory. Stack locations can be found in Figure 3.

2.1 TEU-SSD System

The SSD system evacuates TCE-impacted sub-slab vapor from beneath the building. Emissions from the SSD system:

- Discharge through two closely spaced vent stacks on the roof (10 meters in height).

3.0 Vent Discharge

On May 3, 2024, ENW collected a sample of air discharges from each of the two SSD system vents. ENW previously collected air discharge vent samples following system activation on December 13, 2023, December 27, 2023, and February 1, 2024; however, testing was limited to TCE and discharge evaluation was performed as outlined in ENW's work plan[3], which was prepared and submitted prior to ODEQ issuing its draft guidance.[1] While concentrations of TCE in discharged air were below the discharge benchmark based on modeling using the U.S. Environmental Protection Agency's (EPA) AERSCREEN model, ODEQ subsequently requested that all monitored volatile organic constituents (VOCs) be analyzed in discharged air and screened using ODEQ new DRAFT guidance. Vent discharge air sampling data is summarized in Table 1.

3.1 Method of Collection

Vent air samples were collected using pre-certified 3-liter SUMMA canisters per vent sample (Figure 3 for vent locations). All field measurements were recorded on Field Sampling Data Sheets (FSDS) included in Appendix A. Samples were collected by attaching the SUMMA canister flow regulator to a sample port on the vent stack with Teflon-lined tubing, and sampling for approximately 30-minutes.

3.2 Method of Analysis

Vent air samples were analyzed according to the analytical methods presented in Table 3-1. Vent air SUMMA samples were analyzed by EAS of San Luis Obispo, California.

[2] TACs as identified by Oregon Administrative Rule (OAR) 340-245-8020 Table 2.

[3] ENW. November 5, 2023. Active Sub-Slab Depressurization Work Plan.

Table 3-1. Analytical Methods

Analytical Method	Constituents	SSD Vent Discharge
TO-15	Benzene, Carbon Tetrachloride, Chloroform, 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), Ethylbenzene, Naphthalene, tetrachloroethene (PCE), 1,1,2-Trichlorethane, and TCE	All

3.3 May 2024 Analytical Results

The most recent (May 2024) SSD vent air discharge analytical results are presented in Table 1.

3.4 Quality Assurance / Quality Control

Validation suggests that indoor and outdoor data are valid for the intended usage.

4.0 Emission Rate Calculations

As required by the screening model, emission rates for each vent stack for each detected VOC tested were calculated. Attached Table 2 summarizes the calculated emission rates for each vent stack for each detected VOC. For purposes of emission screening, the maximum discharge rate of the two vents for each of the VOCs was carried forward in the emission screening model.

5.0 Level I Emission Screening Modeling Summary

Level 1 Emission Screening Modeling was conducted following the ODEQ/CAO-approved Level I emission screening spreadsheet.[1] For the TEU, the pollutant risks were summed. The following input paraments based on the location of the SSD vent relative to the ground surface and nearest receptors were entered into the model.

Table 5-1. Model Inputs

Remedial System Emissions Unit	Lookup Parameters[1] [meters]		Dispersion Factor[2] [conc. / emission rate]
Unit-1	Stack height	10	
	Distance to:		
	Residential	135	0.00052
	Nonresidential child	420	0.000098
	Nonresidential worker	30	0.0014
	Acute (24-hour)	110	2.2

Notes:

[1] - Lookup parameters include stack height and distance to nearest exposure location type.

[2] - Dispersion factors from OAR 340-245-8010 Table 3.

Units for residential, nonresidential child, and nonresidential worker are [µg/m^3 per lb/yr].

Units for acute are [µg/m^3 per lb/day].

5.1 Summary TEU Risk

The excess chronic cancer risk used in this evaluation is the maximum of the residential chronic cancer risk, the child chronic cancer risk or the worker chronic cancer risk. The chronic hazard risk used in this evaluation is the maximum of the residential chronic non-cancer risk, the child chronic non-cancer risk or the worker chronic non-cancer risk. The Level I model was provided by ODEQ electronically. Based on this approved modeling, below is a summary of risk for the SSD vent TEU. Table 3 shows the modeled output.

Based on the model's predicated risk output, the following risk summary is presented for the TEU:

- Maximum excess cancer risk: 2E-3 (based on residential exposure)
- Maximum chronic hazard (noncancer) risk: 1.72E-4 (based on residential exposure)
- Maximum acute risk: 1.9E-3

Notes:

- Cancer risk is described in terms of the number of excess cancer cases in 1 million lifetimes that may be caused by long-term exposure to a specific chemical concentration.
- Noncancer risk is presented as a Hazard Index and is assessed for both chronic and short-term health effects (acute). A Hazard Index below 1 means the facility is below the level that is expected to harm health.

5.2 Summary of Risk Assessment and Risk Action Levels

Risk Action Levels (RALs) determine the specific actions required of facilities that pose different levels of health risk. Facilities with higher health risks would be required to take more actions to reduce risk. The following table summarizes the RALs based on new sources.

Table 5-2. Risk Action Levels for New Sources

Risk Action Level	Cancer	Noncancer
Source Permit Level	0.5	0.5
Community Engagement	5	1
Toxics Best Available Control Technology (TBACT)	10	1
Immediate Curtailment	25	1

Neither total cancer risk nor total noncancer risk exceed the levels that trigger required source permit level or any other RAL.

5.3 Uncertainty Analysis

Although the Level 1 risk assessments were conducted using readily available information, there is uncertainty associated with these assessments of risk related to both quantitative and qualitative uncertainties, such as:

- The risk-based concentrations (RBCs) developed by ODEQ for excess cancer risk and chronic noncancer risk assume an exposure duration of 70 years for 24 hours per day. It is unlikely that a person would remain at the same location or in areas potentially impacted by emissions from this

specific facility for 70 consecutive years and be exposed for 24 hours per day. Therefore, the Level 1 Risk Assessments likely overestimated cancer and chronic noncancer risk due to this exposure duration assumption.

- The excess cancer risk and chronic noncancer risk assessments were performed assuming that the TEU operates at its maximum operational capacity. It is physically impossible for the facility to operate the facility TEU at maximum capacity without shutdown time for maintenance and cleaning. Therefore, the Level 1 risk assessments likely overestimated cancer and chronic noncancer risk due to the overestimation of emissions resulting from continuous maximum capacity facility operation.
- To assess acute hazard index (noncancer risk), a 24-hour exposure duration was assumed. This risk assessment assumes 24 hours of exposure; however, it is very unlikely that any individual would be exposed for a consecutive 24-hour period outside of a residential location. If the Toxicity Reference Value is based on data collected for a lower exposure duration other than a 24-hour exposure duration, the estimated risk may differ. Therefore, this Level 1 risk assessment may have overestimated or underestimated acute noncancer risk due to the 24-hour exposure duration assumption.
- A Level 1 risk assessment does not use site-specific meteorological or terrain data but instead relies on a table of dispersion factors that ODEQ developed based on conservative modeling analyses. As a result of the conservative nature of the dispersion factors in lieu of site-specific meteorological and terrain data, this Level 1 risk assessments likely overestimated cancer and noncancer risk.

6.0 Conclusion

Neither total cancer risk nor total noncancer risk exceed the levels that trigger required source permitting. Therefore, no further action is required for vented SSD discharge at this time.

Tables

Table 1 - Summary of Analytical Data, SSD Vent

Location ID		SSD01 (North Vent)								SSD02 (South Vent)									Maximum Detected Concentration (Since GAC Removed)	Site-specific emission limit at rooftop stack
Date Sampled		12/13/2023	12/27/2023	12/13/2023	12/2/2023	12/13/2023	12/27/2023	2/1/2024	5/3/2024	12/13/2023	12/27/2023	12/13/2023	12/27/2023	12/13/2023	12/27/2023	12/27/2023	2/1/2024	5/3/2024		
Sampled By		ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW	ENW		
Location		SSD01 (North Leg SSD) Prior to GAC Filters		SSD01 (North Leg SSD) Between GAC Filters		SSD01 (South Leg SSD) After GAC Filters		SSD01 (South Leg SSD), post GAC filter removal		SSD02 (North Leg) Prior to GAC Filters		SSD02 (North Leg) Between GAC Filters		SSD02 (North Leg), post GAC filter (if present)						
Constituent of Interest	Note	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m^3	µg/m3	
Volatile Organic Constituents																				
Benzene	c, v	---	---	---	---	---	---	---	3.44	---	---	---	---	---	---	---	---	5.76	5.76 J	---
Carbon tetrachloride	c, v	---	---	---	---	---	---	---	<4.98 (ND)	---	---	---	---	---	---	---	---	<4.98 (ND)	<4.98 (ND)	---
Chloroform	c, v	---	---	---	---	---	---	---	1.25 J	---	---	---	---	---	---	---	---	1.01 J	1.25 J	---
EDB (1,2-dibromoethane)	c, v	---	---	---	---	---	---	---	<3.11 (ND)	---	---	---	---	---	---	---	---	<3.11 (ND)	<3.11 (ND)	---
EDC (1,2-dichloroethane)	c, v	---	---	---	---	---	---	---	<3.08 (ND)	---	---	---	---	---	---	---	---	<3.08 (ND)	<3.08 (ND)	---
Ethylbenzene	c, v	---	---	---	---	---	---	---	<3.83 (ND)	---	---	---	---	---	---	---	---	1.54 J	1.54	---
Naphthalene	c, v	---	---	---	---	---	---	---	<1.4 (ND)	---	---	---	---	---	---	---	---	<1.4 (ND)	<1.4 (ND)	---
Tetrachloroethene (PCE)	c, v	---	---	---	---	---	---	---	10.98	---	---	---	---	---	---	---	---	4.27	**10.98**	---
1,1,2-Trichloroethane	c, v	---	---	---	---	---	---	---	<4.68 (ND)	---	---	---	---	---	---	---	---	<4.68 (ND)	<4.68 (ND)	---
Trichloroethene	NA, v	142.50	222.39	<4.18 (ND)	3.59 J	<4.18 (ND)	<4.18 (ND)	143.34	115.87	341.91	242.83	<4.18 (ND)	3.94 J	<4.18 (ND)	<4.18 (ND)	146.76	146.76	129.41	146.76	1750
Total Petroleum Hydrocarbons																				
Generic Gasoline (GRO)	nc, v	---	---	---	---	---	---	---	155.11 J	---	---	---	---	---	---	---	---	68.39 J	155.11 J	---

Notes:
ND = not detected at or above laboratory method reporting limits.
< = not detected above method reporting limit shown.
µg/m^3 = micrograms per cubic meter of air .
v = volatile

Benzene					PCE				
			N leg - S Stack	S Leg - N Stack				N leg - S Stack	S Leg - N Stack
E	Emission Rate - lb./hr.		3.02E-06	1.80E-06	E	Emission Rate - lb./hr.		2.24E-06	5.76E-06
	lb./day		7.25E-05	4.33E-05		lb./day		5.37E-05	1.38E-04
	lb./yr.		2.65E-02	1.58E-02		lb./yr.		1.96E-02	5.04E-02
c	Max. Concentration (µg/m^3)		5.76	3.44	c	Max. Concentration (µg/m^3)		4.27	10.98
Q	Flow Rate (ft^3/min)		140	140	Q	Flow Rate (ft^3/min)		140	140
c1	conversion	m^3=	35.3147	ft^3	c1	conversion	m^3=	35.3147	ft^3
c2	conversion	hr. =	60	min.	c2	conversion	hr. =	60	min.
c3	conversion	µg =	2.20462E-09	lbs.	c3	conversion	µg =	2.20462E-09	lbs.

Chloroform					TCE				
			N leg - S Stack	S Leg - N Stack				N leg - S Stack	S Leg - N Stack
E	Emission Rate - lb./hr.		5.30E-07	6.55E-07	E	Emission Rate - lb./hr.		7.70E-05	7.52E-05
	lb./day		1.27E-05	1.57E-05		lb./day		1.85E-03	1.80E-03
	lb./yr.		4.64E-03	5.74E-03		lb./yr.		6.74E-01	6.58E-01
c	Max. Concentration (µg/m^3)		1.01	1.25	c	Max. Concentration (µg/m^3)		146.76	143.34
Q	Flow Rate (ft^3/min)		140	140	Q	Flow Rate (ft^3/min)		140	140
c1	conversion	m^3=	35.3147	ft^3	c1	conversion	m^3=	35.3147	ft^3
c2	conversion	hr. =	60	min.	c2	conversion	hr. =	60	min.
c3	conversion	µg =	2.20462E-09	lbs.	c3	conversion	µg =	2.20462E-09	lbs.

Ethylbenzene					GRO				
			N leg - S Stack	S Leg - N Stack				N leg - S Stack	S Leg - N Stack
E	Emission Rate - lb./hr.		8.08E-07	0.00E+00	E	Emission Rate - lb./hr.		3.59E-05	8.13E-05
	lb./day		1.94E-05	0.00E+00		lb./day		8.61E-04	1.95E-03
	lb./yr.		7.07E-03	0.00E+00		lb./yr.		3.14E-01	7.13E-01
c	Max. Concentration (µg/m^3)		1.54	0	c	Max. Concentration (µg/m^3)		68.39	155.11
Q	Flow Rate (ft^3/min)		140	140	Q	Flow Rate (ft^3/min)		140	140
c1	conversion	m^3=	35.3147	ft^3	c1	conversion	m^3=	35.3147	ft^3
c2	conversion	hr. =	60	min.	c2	conversion	hr. =	60	min.
c3	conversion	µg =	2.20462E-09	lbs.	c3	conversion	µg =	2.20462E-09	lbs.

Table 3. Summary of Modeled Exposure Risk

Toxics Emissions Unit	CASRN or DEQ ID[1]	Toxic Air Contaminant	Noncancer Class	Residential Exposure					Non-Resident Child Exposure					Non-Resident Worker Exposure					Acute Exposure		
				Annual Conc. [µg/m^3]	RBC Cancer [µg/m^3]	Excess Cancer Risk[2]	RBC Noncancer [µg/m^3]	Hazard Quotient or Index[3]	Annual Conc. [µg/m^3]	RBC Cancer [µg/m^3]	Excess Cancer Risk[2]	RBC Noncancer [µg/m^3]	Hazard Quotient or Index[3]	Annual Conc. [µg/m^3]	RBC Cancer [µg/m^3]	Excess Cancer Risk[2]	RBC Noncancer [µg/m^3]	Hazard Quotient or Index[3]	24-Hour Conc. [µg/m3]	RBC Acute [µg/m^3]	Hazard Quotient or Index[4]
Unit1	71-43-2	Benzene	HI3	1.38E-05	0.13	1.06E-04	3	4.59E-06	2.6E-06	3.3	7.86E-07	13	2.0E-07	3.70E-05	1.5	2.47E-05	13	2.8E-06	1.59E-04	2.90E+01	5.5E-06
	100-41-4	Ethyl benzene	HI3	3.68E-06	0.4	9.20E-06	260	1.4E-08	6.9E-07	10	6.9E-08	1100	6.3E-10	9.90E-06	4.8	2.06E-06	1100	9.0E-09	4.26E-05	2.20E+04	1.9E-09
		TPH-gasoline		3.71E-04	--	--	--	--	6.98E-05	--	--	--	--	9.98E-04	--	--	--	--	4.29E-03	--	--
	127-18-4	Tetrachloroethene	HI3	2.6E-05	3.8	6.9E-06	41	6.4E-07	4.9E-06	100	4.9E-08	180	2.7E-08	7.06E-05	46	1.5E-06	180	3.9E-07	3.04E-04	41	7.4E-06
	79-01-6	Trichloroethene	HI3	3.5E-04	0.2	1.8E-03	2.1	1.7E-04	6.6E-05	3.5	1.9E-05	9.2	7.2E-06	9.44E-04	2.9	3.3E-04	9.2	1.0E-04	4.06E-03	2.1	1.9E-03
Totals	Total Unrounded Source Risk					2.E-03		1.72E-04			2.E-05		7.41E-06			4.E-04		1.E-04			1.9E-03
	Total Rounded Source Risk					**2.E-03**		**1.72E-04**			**2.E-05**		**7.41E-06**			**4.E-04**		**1.E-04**			**1.9E-03**

Notes:

[1] - CAS No. is shown unless the contaminant listed includes multiple TACs (such as PAHs), in which case a DEQ ID is shown.

[2] - Excess Cancer Risk = Annual conc. (µg/m^3) / Cancer RBC (µg/m^3) expressed as risk per million

[3] - Chronic Hazard Quotient = Annual conc. (µg/m^3) / Noncancer RBC (µg/m^3) x 1

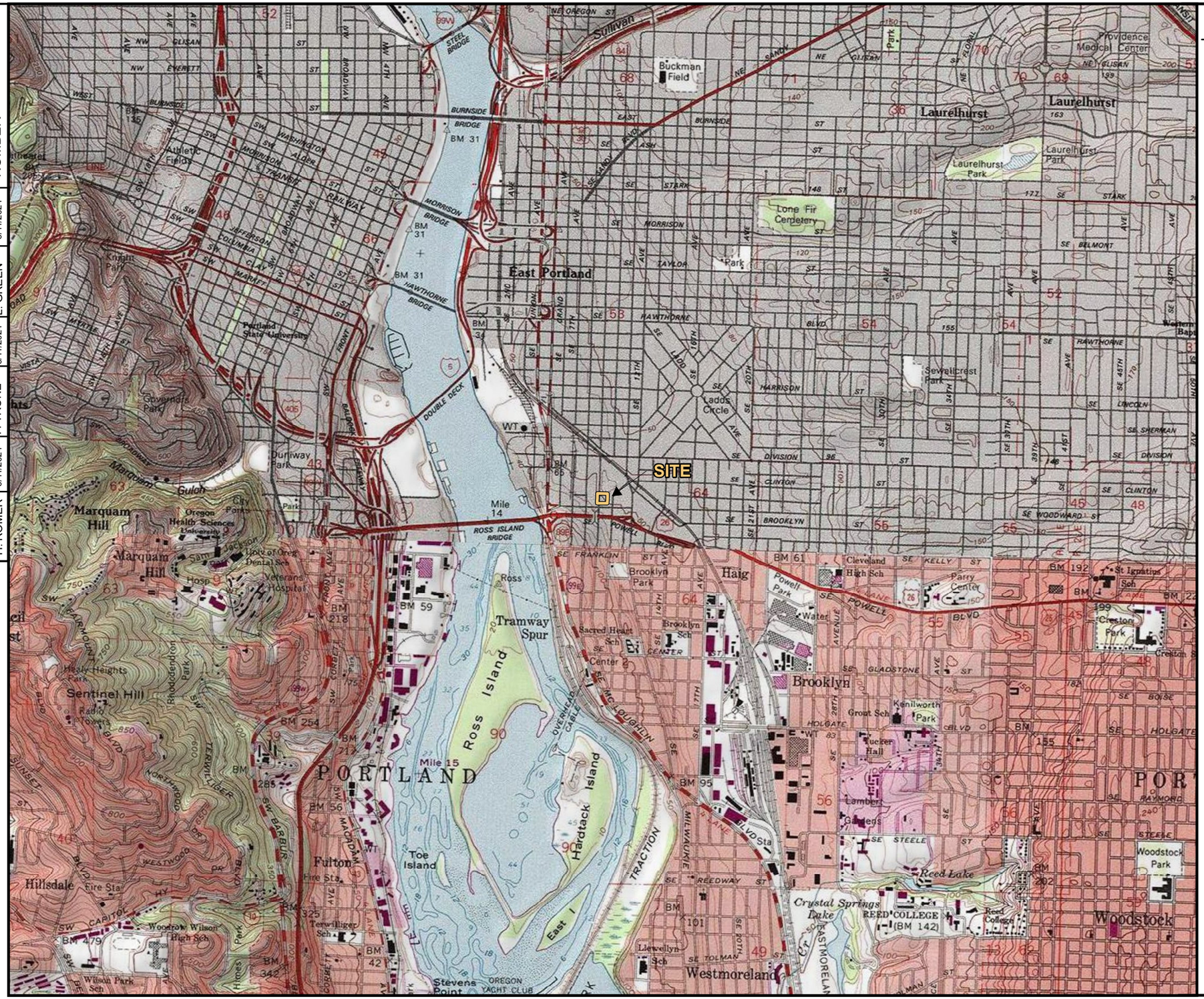
[4] - Acute Hazard Quotient = 24-hr conc. (µg/m^3) / Acute RBC (µg/m^3) x 1

HI = Hazard Index
RAL = Risk Action Level
RBC = Risk Based Concentration

Legend:

blue = calculated cell

DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
H. ROMER 6/11/2024	P. TRONE 6/11/2024	L. GREEN 6/11/2024	186-19002(V01)



LEGEND:

SUBJECT PROPERTY BOUNDARY

NOTES:

1. BASE MAP DEVELOPED BY THE USGS (PORTLAND, 1:24000, 2013)

0 1,050 2,100 4,200

Feet

(APPROXIMATE 1" = 2100 FEET WHEN PRINTED 11x17)

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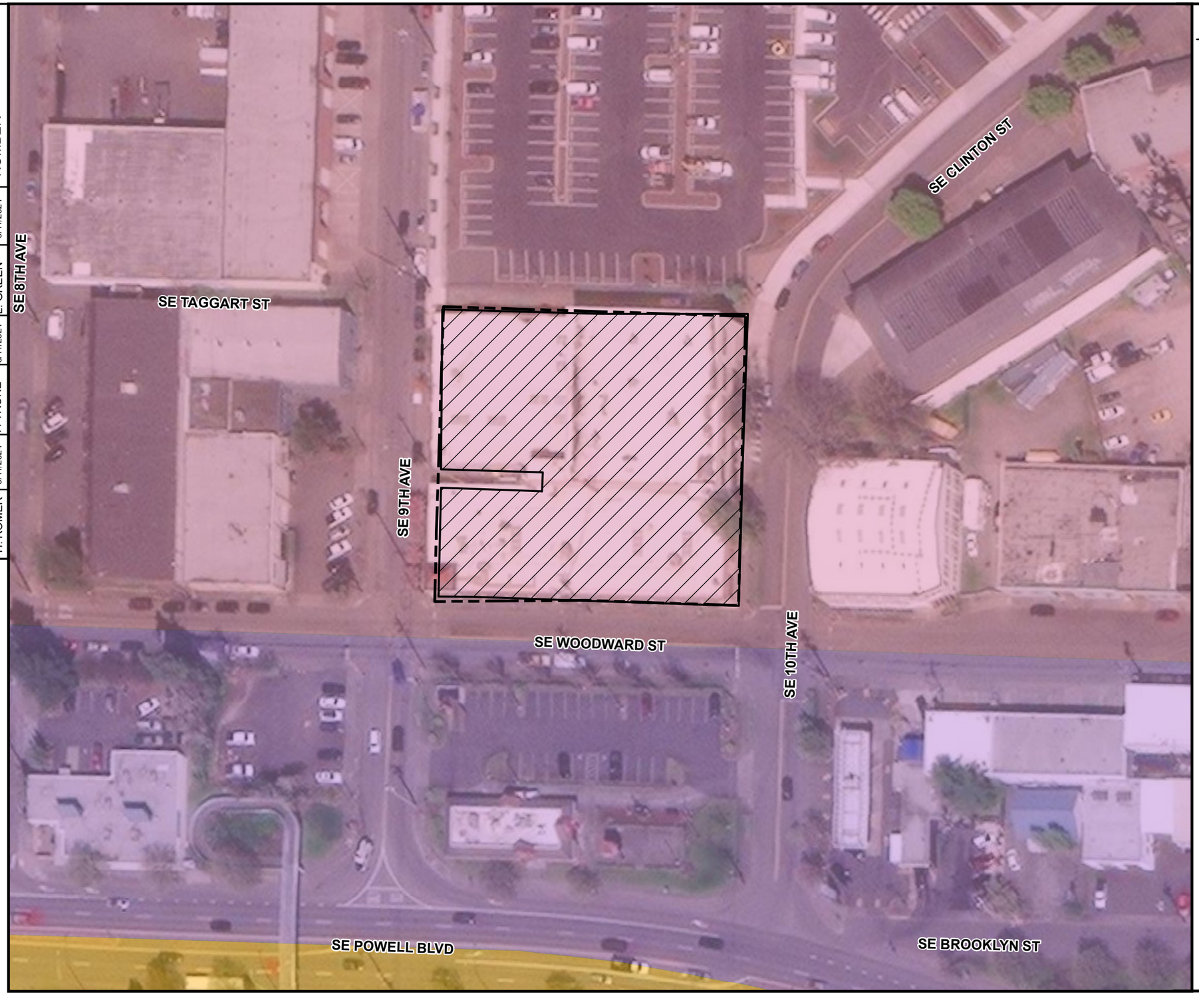
environmental & natural resource consultants

FIGURE 1

SITE VICINITY MAP

IRWIN HODSON PROPERTY
2808 AND 2838 SE 9TH AVENUE
PORTALND, OREGON

DRAWN BY	H. ROMER	6/11/2024
CHECKED BY	P. TRONE	6/11/2024
APPROVED BY	L. GREEN	6/11/2024
DRAWING NUMBER	186-19002(V01)	



LEGEND:

- SUBJECT PROPERTY BOUNDARY
- SUBJECT BUILDING

ZONE

- COMMERCIAL/MIXED USE (CM2)
- EMPLOYMENT AND INDUSTRIAL (EX)
- EMPLOYMENT AND INDUSTRIAL (IG1)

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2023 AND ENW FIELD NOTES.

2. ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.

3. SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION

0 35 70 140 Feet

(APPROXIMATE 1" = 70 FEET WHEN PRINTED 11x17)

N

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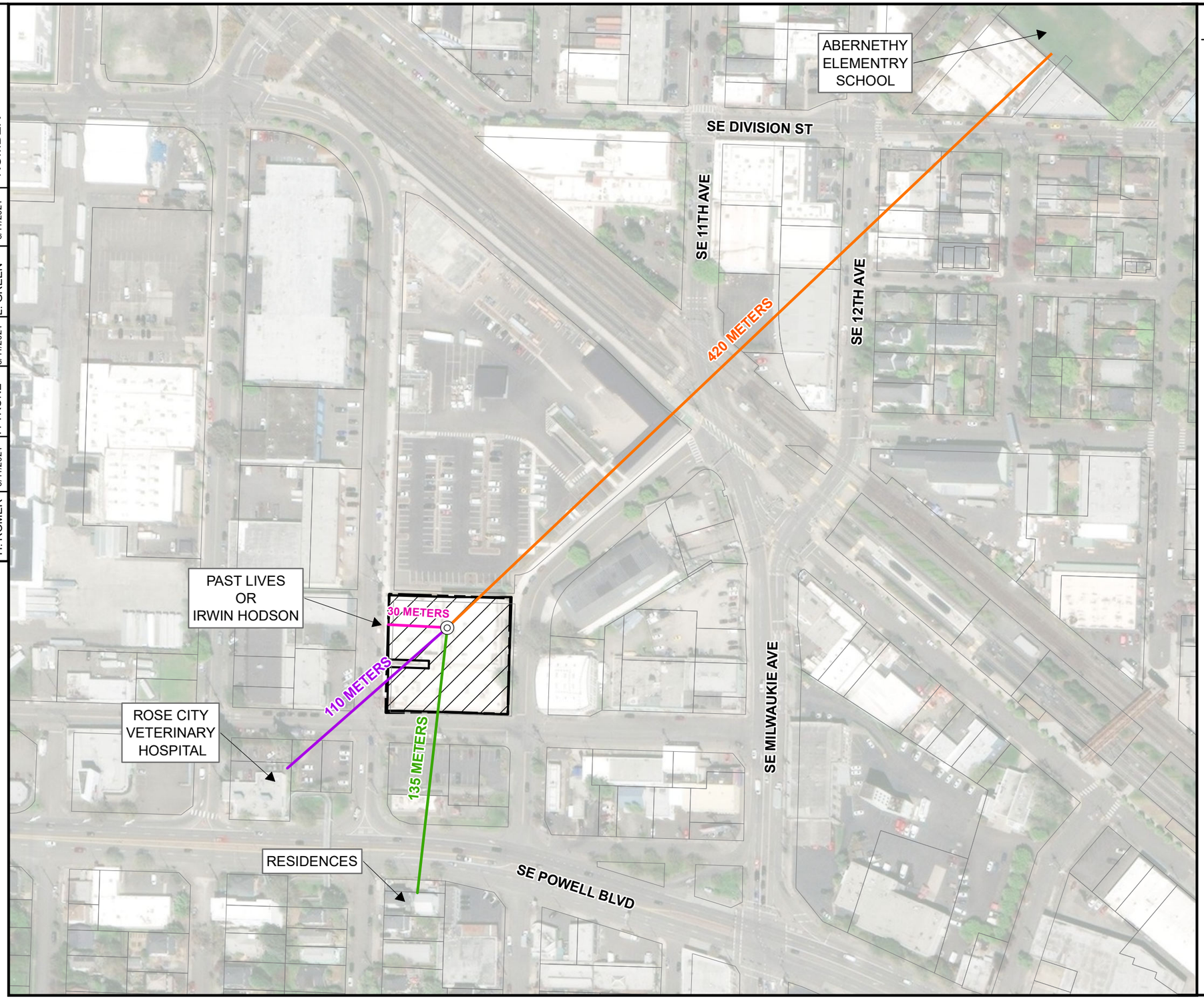
FIGURE 2

SITE PLAN

IRWIN HODSON PROPERTY
2808 AND 2838 SE 9TH AVENUE
PORTALND, OREGON

DRAWING NUMBER	186-19002(V01)
APPROVED BY	L. GREEN 6/11/2024
CHECKED BY	P. TRONE 6/11/2024
DRAWN BY	H. ROMER 6/11/2024



LEGEND:

- SUBJECT PROPERTY BOUNDARY
- TAXLOT
- SUBJECT BUILDING
- VENT LOCATION

RECEPTOR DISTANCE

- ACUTE
- NONRESIDENTIAL CHILD
- NONRESIDENTILA WORKER
- RESIDENTIAL

NOTES:

1. BASE MAP DEVELOPED FROM AN AERIAL PHOTOGRAPH MAP DATED 2023 AND ENW FIELD NOTES.
2. ALL BUILDING, STREET, AND FEATURE LOCATIONS ARE APPROXIMATE.
3. SYMBOLS REPRESENT LOCATION AND DO NOT ALWAYS REPRESENT EXACT SHAPE, SIZE, OR ORIENTATION

0 80 160 320 Feet

(APPROXIMATE 1" = 160 FEET WHEN PRINTED 11x17)

N

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FIGURE 3

RECEPTOR MAP

IRWIN HODSON PROPERTY
2808 AND 2838 SE 9TH AVENUE
PORTALND, OREGON

Appendix A Field Sampling Data Sheets

FIELD SAMPLING DATA SHEET

EVREN NORTHWEST

PO Box 14488
Portland, Oregon, 97293
503-452-5561 Fax: 503-452-7669

PROJECT NAME/NUMBER: 186-19002-07 **SAMPLE LOCATION:** SSD01

SITE ADDRESS: Irwin Hodson Building - 2808-2838 SE 9th Ave, Portland **DUP ID:**

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?				

Temp., C	Humidity (%)

SOIL GAS SETUP DATA

Container Type	Date	Volume (L)	Sample Depth (ft.)	Sample ID	Summa ID	Flow Controler	Flow Meter ID	Purge Vessel ID
Tedlar/Summa	05/09/29	0.5L, 1L, (3L), 5L, 6L	Source	SSD01-240502	314	(YES) NO	2665	

SOIL GAS SAMPLING DATA

Action	Start Time	Finish Time	Init Pressue (mmHg)	Final Pressue (mmHg)
Leak-Test	11:01	11:06	>30	>30
Purge	—	—	—	—
Sample	11:47	12:32	>30	5

SOIL GAS SCREENING

Date	Time	Depth (ft)	PID (ppm)	O_2 (%)	CO (ppm)	CO_2 (%)
05-09-29	12:38	5.5'	0.2			
	12:39		0.0			
	12:40		0.0			
	12:41		0.0			
	12:42		0.0			

Pressure = 1.339 " H2O

Analysis Allowed per Bottle Type	CONTAINER TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
		BTEX/TPH (TO-3) PESTICIDE/PCSs (TO-4) ALDEHYDES/KEYTONES (TO-5) PESTICIDES/PCBs (TO-10) ALDEHYDES/KEYTONES (TO-11)
		NON-METHANE ORGANIC CMPDS (TO-12) PAHs/SVOCs (TO-13) VOCs (TO-15)
		TPH as Diesel (TO-17)
	TO-15	SPECIFIC CHEMICAL ANALYSIS [Benzene, Carbon Tetrachloride, Chloroform, EDB, EDC, Ethylbenzene, Naphthalene, 1,2,3-Trichlorethane, TCE, PCE, GRO, IPA

NOTES:

SAMPLER:

(PRINTED NAME) (SIGNATURE)

FIELD SAMPLING DATA SHEET

EVREN NORTHWEST

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Portland, Oregon, 97293
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PROJECT NAME/NUMBER: 186-19002-07 **SAMPLE LOCATION:** SSD02

SITE ADDRESS: Irwin Hodson Building - 2808-2838 SE 9th Ave, Portland **DUP ID:**

WIND FROM:	N	NE	E	SE	S	SW	W	NW	LIGHT	MEDIUM	HEAVY
WEATHER:	SUNNY		CLOUDY		RAIN		?				

Temp., C	Humidity (%)

SOIL GAS SETUP DATA

Container Type	Date	Volume (L)	Sample Depth (ft.)	Sample ID	Summa ID	Flow Controler		Flow Meter ID	Purge Vessel ID
Tedlar/Summa	05/03/24	0.5L, 1L, (3L), 5L, 6L	Source	SSD02-240502 341		(YES)	NO	2645	

SOIL GAS SAMPLING DATA

Action	Start Time	Finish Time	Init Pressue (mmHg)	Final Pressue (mmHg)
Leak-Test	11:00	11:05	730	730
Purge	—		—	
Sample	1137	1230	730	5

SOIL GAS SCREENING

Date	Time	Depth (ft)	PID (ppm)	O_2 (%)	CO (ppm)	CO_2 (%)
05-03-24	12:32	4.5'	0.8			
	12:33		0.1			
	12:34		0.1			
	12:35		0.1			
	12:36		0.1			

Pressure = 1.257 " H_2O

Analysis Allowed per Bottle Type	CONTAINER TYPE	TYPICAL ANALYSIS ALLOWED PER BOTTLE TYPE (Circle applicable or write non-standard analysis below)
		BTEX/TPH (TO-3) PESTICIDE/PCSs (TO-4) ALDEHYDES/KEYTONES (TO-5) PESTICIDES/PCBs (TO-10) ALDEHYDES/KEYTONES (TO-11)
		NON-METHANE ORGANIC CMPDS (TO-12) PAHs/SVOCs (TO-13) VOCs (TO-15)
		TPH as Diesel (TO-17)
	TO-15	SPECIFIC CHEMICAL ANALYSIS [Benzene, Carbon Tetrachloride, Chloroform, EDB, EDC, Ethylbenzene, Naphthalene, 1,2,3-Trichlorethane, TCE, PCE, GRO, IPA

NOTES:

SAMPLER: Dan Sayko (PRINTED NAME) (SIGNATURE)