July 28, 2024

Mr. Shad Bernhoft
Walls Property Management
5210 Russell Avenue NW #100
Seattle, Washington 98107
shad@wallspropertymanagement.com

RE: TECHNICAL MEMORANDUM – Vapor Assessment & Likely NFA Request
Chinook Development
1446 NW 53rd Street
Seattle, Washington 98107
AEG Atlas Project No. 21-101
VCP ID No. NW3324

Dear Mr. Bernhoft:

AEG Atlas, LLC (AEG), has prepared this Technical Memorandum for the purpose of presenting a summary of the vapor mitigation and follow-up sampling activities at the *Chinook Development* located at the above-referenced address in Seattle, Washington (Site) (Figure 1, *Vicinity Map*). The Site's current layout can be seen in Figure 2, *Site Map*.

BACKGROUND

In 2021, prior to construction of the current Site building, both Earth Solutions NW, LLC and AEG had conducted characterization of soil, groundwater, and soil gas throughout the Site in response to a Phase I Environmental Site Assessment (ESA) report from 2018 completed by Aerotech Environmental Consulting. The Phase I identified nearby cleanup sites that had the potential to impact the Site. The characterization detected tetrachloroethylene (PCE) in one saturated soil sample, and concentrations of diesel, heavy oil, and PCE and its breakdown products in selected groundwater samples beneath the Site.

The three upgradient sites that are the probable source of impacts identified beneath the Site Include the following:

- Unocal Gas Station (FSID: 99628192), located 320 feet northwest of the property at 5409 15th Ave NW, Seattle, WA 98107; included gasoline and diesel contamination, including free product within the on-site monitoring wells.

- The Tux Shop (FSID: 6819), located 350 feet to the northwest at 5409 15th Ave NW, Seattle, WA 98107; included confirmed impacts of PCE and breakdown products associated with a former drycleaning service located on site.
- Hollywood Video (FSID: 14234), located at 5314 15th Ave NW, Seattle, WA 98107, adjacent to the north of the Site; a gasoline station formerly operated here, and previous investigations identified both PCE and petroleum hydrocarbons (TPH) above cleanup levels in soil and groundwater.

In 2022, during the redevelopment of the site, additional wells were installed by AEG to the south and groundwater was monitored through 2023 to monitor further migration, with no significant contamination observed.

All characterization and groundwater monitoring activities are summarized in the following AEG reports previously submitted to the Washington State Department of Ecology (Ecology):

- *Remedial Investigation and Focused Feasibility Study Report*, dated September 27, 2021.
- *Monitoring Well Installation and July 2022 Groundwater Monitoring Report*, dated, July 29, 2022.
- *April 2023 Groundwater Monitoring Report*, dated July 15, 2023.

VAPOR MITIGATION

In AEG's *Remedial Investigation and Focused Feasibility Study Report* noted above, the cleanup plan for the Site was to utilize the planned zero-lot-line building construction to resolve any potentially complete exposure pathways. The building would act as a cap to prevent direct contact exposure to any soil or groundwater impacts beneath the Property. Engineered controls would be incorporated into the structure of the building, including a vapor barrier and a sub-slab depressurization (SSD) system. The vapor barrier would be built into the foundation of the building as a first line of defense in preventing any potential soil vapor impacts from migrating into the structure, impacting the indoor air, and exposing building occupants via inhalation. The SSD system would be installed as a second line of defense in preventing any potential soil vapor impacts from migrating into the structure. It's a passive system used to redirect any impacted vapors that may collect beneath the building slab to the outside air. A small fan creates the pressure differential needed to prevent any vapor intrusion. Once the building was constructed and engineered controls installed, institutional controls in the form of an environmental covenant would be recorded on the property deed.

As proposed, a Stego® Wrap 15-mil vapor barrier was included in the construction of the building foundation. A spec sheet for the vapor barrier is included in Appendix B. Also, two SSD ventilation fan systems were installed by DH Environmental Inc. (DHE) during construction of the

building. One was installed in Room 108 (a studio apartment) and the other in the Bike Room common area. Each SSD system uses 3" schedule 40 PVC pipe on the inside and schedule 80 pipe on the outside, exiting on the roof above the seventh story, and stretching approximately 7 to 8 feet above the roof. As part of the installation, each SSD system was extended below the vapor barrier, and sealed to the barrier to redirect vapors from below. A schematic of a typical SSD system construction is illustrated in Figure 3, *SSD Detail*. The locations of the SSD systems are illustrated on Figure 4, *Floor Plans – Main Level*. Photographs of the SSD systems are presented in Appendix A.

VAPOR ASSESSMENT

Following activation of the building's electricity and startup of the SSD systems, on April 29, 2024, on behalf of AEG, DHE performed a vapor assessment that included the following:

- Collected two sub-slab vapor samples (53rd-108-SG and 53rd-BR-SG) from the SSD system sampling ports in Room 108 and the Bike Room, respectively, using 1-liter (L) Summa canisters with a 10-minute regulator.
- Collected two indoor air samples (53rd-108-IA and 53rd-BR-IA) from Room 108 and the Bike Room, respectively, using 6-L Summa canisters with a 24-hour regulator.
- Collected one background ambient air sample (53rd-OUT-IA), which was placed outside and upgradient of any suspected contamination.
- Submitted all samples to a State-accredited analytical laboratory, following industry-standard chain-of-custody procedures, for the following laboratory analyses:
    - Air-phase hydrocarbons (APH), benzene, toluene, ethylbenzene, xylenes, naphthalene, and PCE and daughter products via Method TO-15.

The analytical results of the sub-slab vapor samples indicated the presence of benzene in Room 108 above the MTCA Method B screening level for sub-slab vapor. This is consistent with the soil gas results from the initial characterization work, and show that the SSD system is redirecting benzene from below the building slab to the outdoor air. All other constituents were either non-detect, or below their respective screening levels. Analytical results are presented in Table 1, *Soil Gas, Sub-Slab Vapor, and Indoor Air Analytical Results.*

Analytical results of the indoor air samples, adjusted for background, indicated the presence of benzene in Room 108 just above the MTCA Method B cleanup level for indoor air. All other constituents were either non-detect, or below their respective cleanup levels. Sample locations are illustrated in Figure 2, *Site Map*, and Figure 4, *Floor Plans – Main Level*. Analytical results are presented in Table 1, *Soil Gas, Sub-Slab Vapor, and Indoor Air Analytical Results.*

DATA EVALUATION AND RECOMMENDATIONS

Significant soil disturbance occurred at the Site during building construction, and a vapor barrier and two SSD systems were installed as part of the building foundation. These efforts have proved to be successful in mitigating any potential impacts in soil gas from migrating into indoor air of the finished building. It's not clear whether the benzene detected in indoor air in Room 108 is from vapor intrusion or other sources, such as epoxies, glues, and/or mastics that might have been used as part of building construction.

AEG recommends a follow-up vapor assessment to further evaluate the mitigation measures in place to ensure potential exposure via inhalation is no longer a complete pathway.

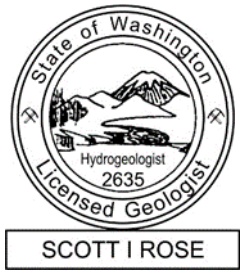
Further, pending receipt of additional empirical data, AEG recommends Ecology review of the work performed to date in consideration of a Property-Specific Likely No Further Action (NFA) opinion. An environmental covenant summarizing the engineering controls in place at the Site is attached in Appendix C for Ecology review.

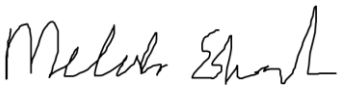
If you have comments or questions, please contact our office at your convenience.

Sincerely,

AEG Atlas, LLC

Scott Rose, L.H.G.
Director of Technical Services





Edvard Melesh R.S.A.
Staff Geologist

Attachments: Figure 1 – *Site Location Map*
Figure 2 – *Site Map*
Figure 3 – *SSD Detail*
Figure 4 – *Floor Plans – Main Level*

Table 1 – *Summary of Soil Gas, Sub-Slab Vapor, and Indoor Air Analytical Results*

Appendix A – *Photo Log*

Appendix B – Supporting Documents*:*
Laboratory Datasheets
Vapor Barrier Specs

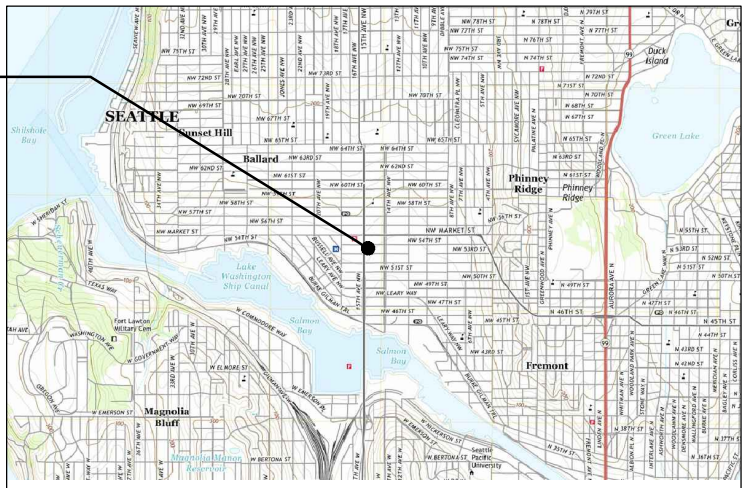
Appendix C – *Draft Environmental Covenant*

FIGURES

2633 PARKMONT LANE SW SUITE A • OLYMPIA, WA • 98502-5751
Phone: 360.352.9835 • Fax: 360.352.8164 • Email: admin@aegwa.com

FILENAME	DRAWN BY		CHECKED BY		APPROVED BY		PROJECT NUMBER
21-101_21Q2.DWG	ICD	6/8/2021	JS	6/8/2021	JS	6/8/2021	21-101

PROJECT LOCATION



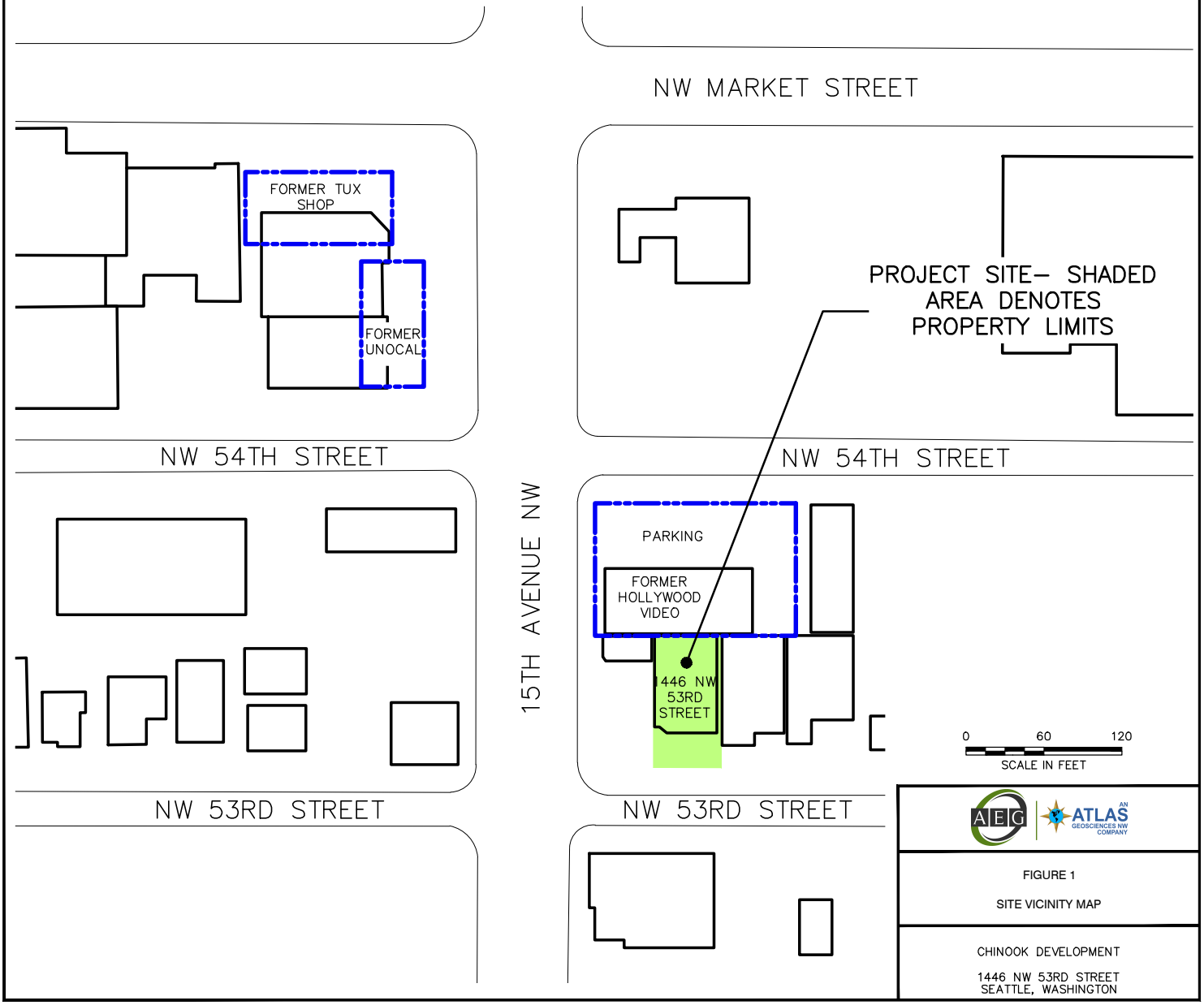
VICINITY MAP

NOTES

1. THE LOCATIONS OF ALL FEATURES SHOWN ARE APPROXIMATE
2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT.

REFERENCE

DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG, LLC.
VICINITY IMAGE SOURCE: U.S. GEOLOGICAL SURVEY–2020, 7.5 MINUTE QUADRANGLE MAP SEATTLE NORTH, WASHINGTON



AEG | AN ATLAS GEOSCIENCES NW COMPANY

FIGURE 1

SITE VICINITY MAP

CHINOOK DEVELOPMENT

1446 NW 53RD STREET
SEATTLE, WASHINGTON

FILENAME	DRAWN BY	CHECKED BY	APPROVED BY	PROJECT NUMBER
21-101_SITE.DWG	ICD 7/17/2024	JS 7/17/2024	JS 7/17/2024	21-101

N
W E
S

LEGEND

- SITE BOUNDARY
- PARCEL BOUNDARY
- MW-4R — MONITORING WELL LOCATION
- B-1 — BORING LOCATION (MAY 2021)
- MW-1 — DECOMMISSIONED MONITORING WELL
- 53rd-BR — AIR SAMPLE LOCATION

NOTES

1. THE LOCATIONS OF ALL FEATURES SHOWN ARE APPROXIMATE
2. THIS DRAWING IS FOR INFORMATION PURPOSES. IT IS INTENDED TO ASSIST IN SHOWING FEATURES DISCUSSED IN AN ATTACHED DOCUMENT.

REFERENCE

DRAWING CREATED FROM AERIAL PHOTOGRAPH AND NOTES PROVIDED BY AEG ATLAS, LLC.

0 15 30
SCALE IN FEET

AEG | AN ATLAS GEOSCIENCES NW COMPANY

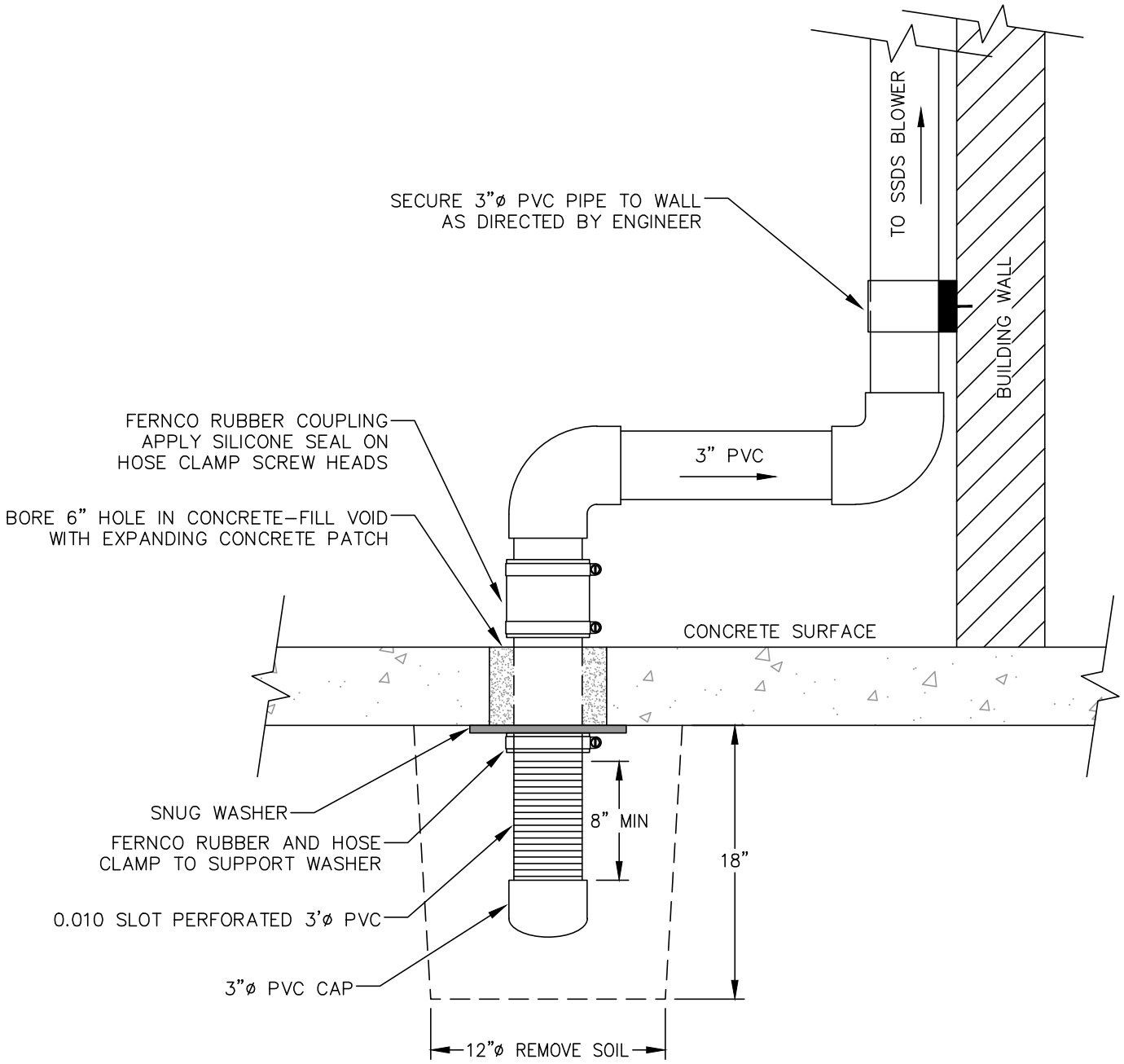
FIGURE 2

SITE MAP

CHINOOK DEVELOPMENT

1446 NW 53RD STREET
SEATTLE, WASHINGTON

FILENAME	DRAWN BY		CHECKED BY		APPROVED BY		PROJECT NUMBER
SSD-SYSTEM-DETAIL.DWG	JGM	4/1/2024	EM	4/1/2024	EM	4/1/2024	- - - -



NOT TO SCALE

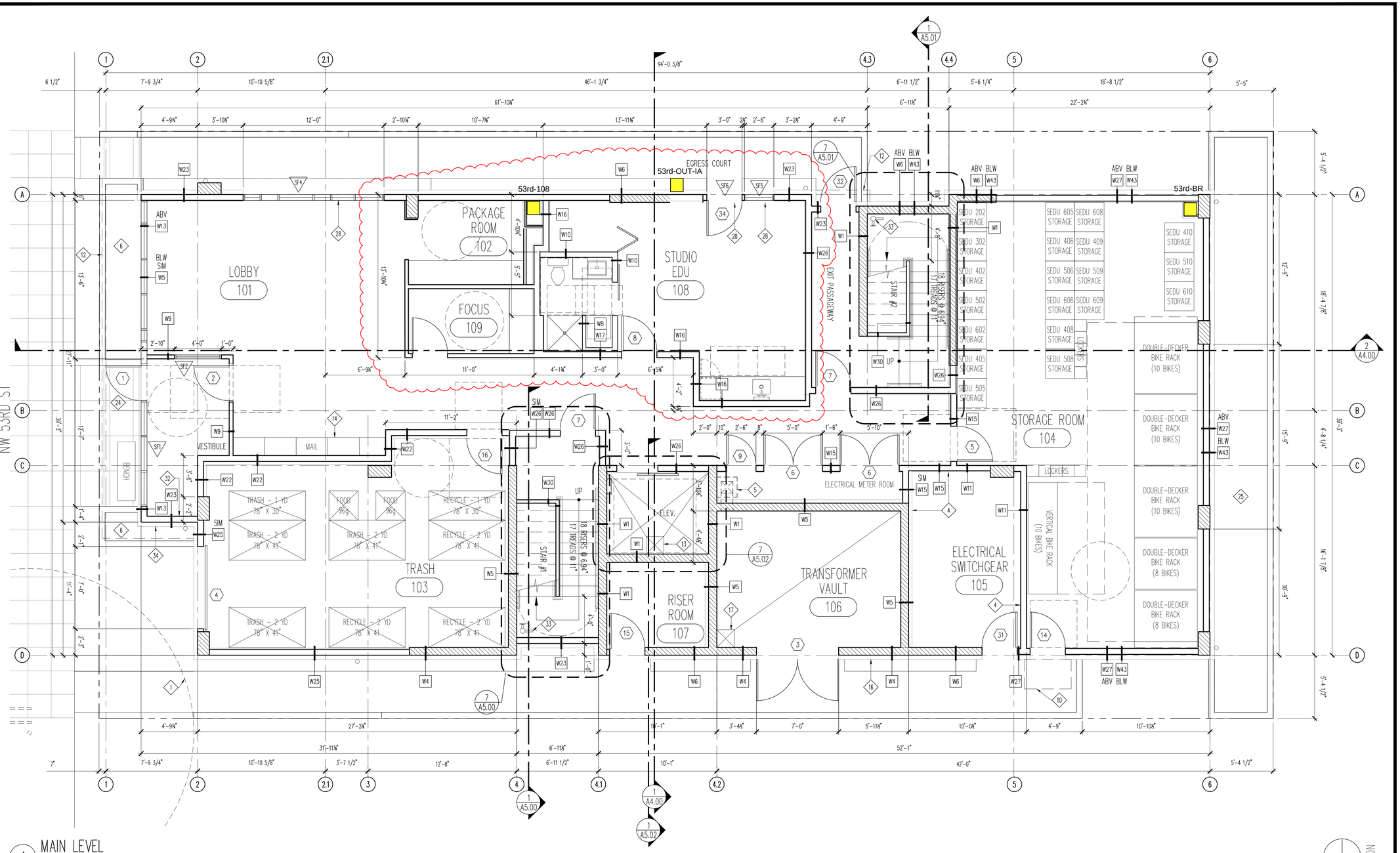
AEG | ATLAS GEOSCIENCES NW COMPANY

FIGURE 3

SSD DETAIL

CHINOOK DEVELOPMENT

1446 NW 53RD STREET
SEATTLE, WASHINGTON



1 MAIN LEVEL

SCALE: 1/4"=1'-0"

NORTH

GENERAL NOTES:

1. DIMENSIONS ARE TO GRIDLINE, FACE OF CONCRETE, FACE OF FRAMING AT AND NOMINAL ROUGH OPENINGS.
2. ALL EXTERIOR WALLS 2x6 PER STRUCTURAL, UNO.
3. EXTERIOR WALLS ALIGN TO GRIDS AND/OR ALIGN FINISH MATERIAL. SEE WALL ASSEMBLIES AND DETAILS FOR MORE INFORMATION.
4. CORRIDOR WALLS, ALIGN FACE G.W.B WITH ADJACENT STAIR CORRIDOR WALLS AND ELEVATOR CORRIDOR WALLS.
5. HEADERS PER STRUCTURAL.
6. WINDOW SIZES ARE NOMINAL ROUGH OPENING, WIDTH AND HEIGHT.
7. SEE ELEVATIONS FOR WINDOW CONFIGURATIONS.
8. INSIDE DOOR JAMB 3" FROM WALL AT HINGE SIDE, UNO.
9. PROVIDE FIREBLOCKING AT ALL PLUMBING OPENINGS.
10. PROVIDE SOLID BLOCKING OVER SUPPORTS.
11. EVERY LANDING SHALL HAVE A MIN DIMENSION OF 36 INCHES IN THE DIRECTION OF TRAVEL.
12. UNDERCUT DOOR 1/2" MIN.
13. SEC 1311.1 & 1311.3 – TO THE MAXIMUM EXTENT POSSIBLE, INSULATION SHALL EXTEND OVER THE FULL COMPONENT AREA TO THE INTENDED R-VALUE, & EXTERIOR WALL CAVITIES ISOLATED DURING FRAMING SHALL BE FULLY INSULATED TO THE LEVELS OF THE SURROUNDING WALLS.
14. WINDOW AND DOOR HEADERS SHALL BE INSULATED WITH A MINIMUM OF R-10 INSULATION.
15. SEE G SHEETS FOR ADDITIONAL INFORMATION REGARDING ADA REQUIREMENTS.
16. SEE G SHEETS FOR ADDITIONAL INFORMATION REGARDING SEDU REQUIREMENTS.
17. SEE REFLECTED CEILING PLANS FOR LIGHTING, VENTING, SMOKE AND CARBON MONOXIDE DETECTOR LOCATIONS.

KEY NOTES:

1. HIGH VOLTAGE POWER LINE BEGINS AT "1" POLE AND CONTINUES EASTWARD. 14'-0" RADIUS SETBACK REQUIRED.
2. 2-HR SHAFT
3. 3-HR SHAFT – SEE WALL TYPE W8 FOR ASSEMBLY
4. ADDITIONAL LAYER OF ⅝" PLYWOOD TO BE ADDED TO WALL ASSEMBLY. VERIFY LOCATION W/ELECTRICAL SUBCONTRACTOR.
5. TRANSFORMER EXHAUST VENT, DUCT TO ROOF. VENTILATION WILL BE PROVIDED BY MECHANICAL CIRCULATION (PERMITTED SEPARETLY). SEE A2.08 & WALL ASSEMBLIES FOR MORE INFORMATION.
6. PLANTERS WITH LANDSCAPING. SEE LANDSCAPING FOR ADDITIONAL INFORMATION.
7. DESIGNATED SOLAR AREA. 144.44 SF ON ROOF DECK AND 143.89 SF ON PENTHOUSE ROOF.
8. LADDER TO LOFT
9. GLASS GUARD RAIL
10. METAL CANOPY ABOVE
11. SHORT-TERM BIKE PARKING
12. OUTLINE OF STRUCTURE ABOVE
13. SUMP, SEE STRUCTURAL
14. MAILBOXES WITHIN 15" TO 48" REACH HEIGHT PER A117.1-2009 SECTION 308.
15. MACHINE ROOM/CONTROL ROOM WORKING CLEARANCES PER SBC 3020, TYP.
16. TRANSFORMER VAULT AIR INTAKE PER SCL & SBC 428.8 REQUIREMENTS. PROVIDE 3-HR FIRE RATED DAMPER AT INLET (SERVICED/INSPECTED FROM OUTSIDE VAULT).
17. DRY SUMP WITH 6" MINIMUM DIAMETER OPENING WITH A STEEL GRATE PER SCL REQUIREMENTS.
18. 36" METAL GUARDRAIL
19. METAL SCUPPER
20. BUILT IN BBQ – PROVIDE TWO GAS CONNECTIONS
21. WATER CONNECTION FOR DOG WASH STATION
22. 36" HORIZONTAL METAL BAR GUARDRAIL WITH WOOD CAP
23. PACKAGED TERMINAL AIR CONDITIONER UNIT
24. ELECTRONIC TELEPHONE ENTRY SYSTEM
25. BIO-RETENTION PLANTER, SEE CIVIL FOR ADDITIONAL INFORMATION
26. REQUIRED YARD PER SBC 1206.2 & DR9-2017
27. 8'-0" SETBACK PER 23.47A.014.C.1.
28. 45 MINUTE, OPENING PROTECTIVE ALONG EGRESS COURT.
29. WATER HEATER, AO SMITH BTH-500. 34" DIAMETER
30. DOMESTIC HOT WATER MIXING VALVE, ARMSTRONG DRV40. 48"X10" WITH PIPING
31. HOT WATER CIRCULATION PUMP, BELL & GOSSET PL55B. 30"X14" WITH PIPING
32. FIRE ALARM CONTROL PANEL
33. CLASS I STANDPIPE SYSTEM. HOSE VALVE OUTLETS ON EACH INTERMEDIATE LANDING.
34. EXTERIOR SPRINKLER AND STANDPIPE CONNECTION.

LEGEND:

- 48"x48" ADA CLEARANCE
- 54"x60" ADA CLEARANCE
- ADA ACCESSIBLE UNIT (TYPE A) / ACCESSIBLE PARKING STALL
- 3 HR BEARING WALL PER SBC TABLE 601.

N5
2562 DEXTER AVENUE N SEATTLE, WA 98109 | 206-300-5339

10009 REGISTERED ARCHITECT SETH LENTON DALE STATE OF WASHINGTON

53RD APARTMENTS

1446 NW 53RD ST
SEATTLE, WA 98107

SDCI PERMIT#: 6691152-CN

MARK	REVISION	DATE
	MUP SUBMITTAL	05/06/2019
	MUP RESUBMITTAL	02/08/2021
	PERMIT SUBMITTAL	06/03/2019
	PRELIMINARY PRICING	11/22/2019
	PERMIT RESUBMITTAL	08/17/2020
	MUP RESUBMITTAL	02/01/2020
	MUP RESUBMITTAL	07/15/2021
	PERMIT RESUBMITTAL	08/01/2021
	POST PERMIT SUBMITTAL	01/20/2022

SDCI STAMP:

PROJECT NUMBER:

2018.031

SHEET TITLE:

FLOOR PLANS - MAIN LEVEL

SHEET NUMBER:

FIGURE 4

TABLES

2633 PARKMONT LANE SW, SUITE A • OLYMPIA, WA • 98502-5751
Phone: 360-352-9835 • Fax: 360-352-8164 • E-mail: admin@aegwa.com

Table 1 - Summary of Soil Gas, Sub-Slab Vapor, and Indoor Air Analytical Results
Chinook Development (21-101)
Seattle, WA

Sample Number		SG-1	SG-2	SG-3	SG-4	53rd-108-SG	53rd-BR-SG	Method B Sub-Slab Screening Level	53rd-108-IA	53rd-BR-IA	53rd-OUT-IA	53rd-108-IA (Adjusted)	53rd-BR-IA (Adjusted)	Method B Indoor Air Cleanup Level
Date Collected		8/2/2021	8/2/2021	8/2/2021	8/2/2021	4/29/2024	4/29/2024		4/29/2024	4/29/2024	4/29/2024	4/29/2024	4/29/2024	
Sample Type		SG	SG	SG	SG	SSV	SSV		IA	IA	AA	IA	IA	
Sample Collected Before or After Installation of SSDs		Before	Before	Before	Before	After	After		After	After	After	After	After	
APH - Air Phase Hydrocarbons	EC5-8 Aliphatics	**2,400**	**1,900**	**3,200 ve**	**2,100**	<380	<400	--	<75	<75	<75	<75	<75	--
	EC 9-12 Aliphatics	**960**	**11,000 ve**	**550**	**580**	**190**	**140**	--	**64**	**74**	**40**	**24**	**34**	--
	EC 9-10 Aromatics	<130	**680**	<130	<130	<130	<130	--	<25	<25	<25	<25	<25	--
	Total TPH	**3,360**	**13,580**	**3,750**	**2,680**	**190**	**140**	1,500	**64**	**74**	**40**	**24**	**34**	46.0
TO-15 - Volatile Organic Compounds	Benzene	**13**	**27**	**37**	**20**	**23**	<1.7	11.0*	**0.45**	<0.32	<0.32	**0.45**	<0.32	0.321*
	Toluene	<100	<96	<98	<98	<38	<40	76,000	<7.5	<7.5	<7.5	<7.5	<7.5	2,290
	Ethylbenzene	**6.4**	**10**	**10**	**10**	<2.2	<2.3	15,000	<0.43	<0.43	<0.43	<0.43	<0.43	457
	m,p-Xylene	**22**	**36**	**32**	**38**	**7.6**	**5.9**	1,500	<0.87	<0.87	<0.87	<0.87	<0.87	45.7
	o-Xylene	**9.3**	**16**	**11**	**13**	**3.4**	<2.3	1,500	<0.43	<0.43	<0.43	<0.43	<0.43	45.7
	Naphthalene	**1.4**	**12**	**1.9**	**2.2**	<1.3	<1.4	2.50*	**0.15 j**	**0.17 j**	**0.34**	0.00	0.00	0.0735*
	Vinyl Chloride	<1.4	<1.3	<1.3	<1.3	<1.3	<1.4	9.50*	<0.26	<0.26	<0.26	<0.26	<0.26	0.284*
	trans-1,2-DCE	<2.1	<2	<2.1	<2.1	<2	<2.1	610	<0.4	<0.4	<0.4	<0.4	<0.4	18.3
	cis-1,2-DCE	<2.1	<2	<2.1	<2.1	<2	<2.1	610	<0.4	<0.4	<0.4	<0.4	<0.4	18.3
	TCE	**1.3**	<0.55	**5.8**	<0.56	<0.55	<0.57	11.0*	<0.11	<0.11	<0.11	<0.11	<0.11	0.334*
	PCE	**110**	<35	**83**	<35	<35	<36	320*	<6.8	<6.8	<6.8	<6.8	<6.8	9.62*

Notes:

All values presented in micrograms per cubic meter ($\mu g/m^3$)
< = Not detected above laboratory reporting limits
(Adjusted) = Adjusted value determined by subtracting the Ambient value from the Indoor value.
-- = Not Listed; no screening/cleanup level has been established for this constituent.
* Cancer screening level (all other constituents listed do not have cancer values)
Red Bold indicates the detected concentration exceeds MTCA Method B indoor air cleanup levels or sub-slab screening levels
Bold indicates the detected concentration is below MTCA Method B indoor air cleanup levels or sub-slab screening levels
ve = The analyte response exceeded the valid instrument calibration range. The value reported is an estimate
j = Analyte concentration reported below the standard reporting limit. The value is an estimate

SG = Soil Gas
SSV = Sub-Slab Vapor
IA = Indoor Air
AA = Ambient Air
SSDs = Sub-Slab Depressurization Systems
TPH = Total Petroleum Hydrocarbons
PCE = Tetrachloroethylene
TCE = Trichloroethylene
DCE = Dichloroethylene

APPENDIX A

Photo Log

2633 PARKMONT LANE SW SUITE A • OLYMPIA, WA • 98502-5751
Phone: 360.352.9835 • Fax: 360.352.8164 • Email: admin@aegwa.com

PROPERTY AND VICINITY PHOTOGRAPHIC RECORD

Project No.: 21-101 **Project Name: Chinook Development, Seattle, Washington**
July 26, 2024

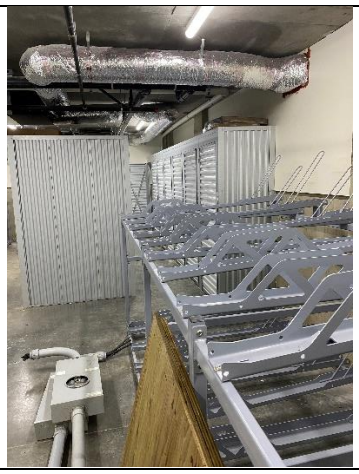


Photo # 1	Location of 53rd-BR, looking W		Photo # 2	SSD at 53rd-BR, looking NW
				
Photo # 3	Soil gas sampling at 53rd-BR SSD, looking NW		Photo # 4	Ambient air sampling at 53rd-BR, looking W
				
Photo # 5	Location of 53rd-BR, looking SW		Photo # 6	SSD at 53rd-BR, looking S

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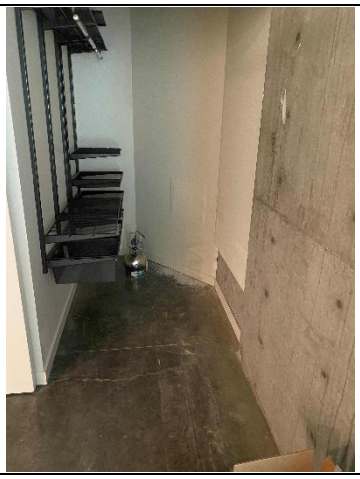
Phone: 360-352-9835 • Fax: 360-352-8164 • Email: admin@aegwa.com

PROPERTY AND VICINITY PHOTOGRAPHIC RECORD

Project No.: 21-101 **Project Name: Chinook Development, Seattle, Washington**
July 26, 2024

				
Photo # 7	Soil gas sampling at 53rd-108 SSD, looking S		Photo # 8	Ambient air sampling at 53rd-108 SSD, looking S

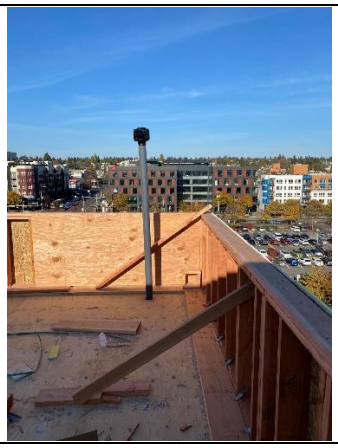



Photo # 9	SSD exhaust, looking S			

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APPENDIX B

Supporting Documents:

Laboratory Datasheets

Vapor Barrier Specs

2633 PARKMONT LANE SW SUITE A • OLYMPIA, WA • 98502-5751
Phone: 360.352.9835 • Fax: 360.352.8164 • Email: admin@aegwa.com

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

May 3, 2024

Scott Rose, Project Manager
AEG
2633 Parkmont Lane SW, Suite A
Olympia, WA 98502

Dear Mr Rose:

Included are the results from the testing of material submitted on April 30, 2024 from the Chinook 153rd Apts, F&BI 404488 project. There are 17 pages included in this report.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: AEG A/P
AEG0503R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on April 30, 2023 by Friedman & Bruya, Inc. from the AEG Chinook 153rd Apts project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	AEG
404488 -01	53rd-108-SG
404488 -02	53rd-BR-SG
404488 -03	53rd-108-IA
404488 -04	53rd-BR-IA
404488 -05	53rd-OUT-IA

Non-petroleum compounds identified in the air phase hydrocarbon (APH) ranges were subtracted per the MA-APH method.

All quality control requirements were acceptable.

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	53rd-108-SG	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-01 1/5.1
Date Analyzed:	04/30/24	Data File:	043019.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<380
APH EC9-12 aliphatics	190
APH EC9-10 aromatics	<130

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	53rd-BR-SG	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-02 1/5.3
Date Analyzed:	04/30/24	Data File:	043017.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<400
APH EC9-12 aliphatics	140
APH EC9-10 aromatics	<130

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	53rd-108-IA	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-03
Date Analyzed:	04/30/24	Data File:	043016.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	64
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	53rd-BR-IA	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-04
Date Analyzed:	04/30/24	Data File:	043015.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	74
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	53rd-OUT-IA	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-05
Date Analyzed:	04/30/24	Data File:	043014.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	95	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	40
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method MA-APH

Client Sample ID:	Method Blank	Client:	AEG
Date Received:	Not Applicable	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/30/24	Lab ID:	04-0980 mb
Date Analyzed:	04/30/24	Data File:	043011.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	92	70	130

Compounds:	Concentration ug/m3
APH EC5-8 aliphatics	<75
APH EC9-12 aliphatics	<25
APH EC9-10 aromatics	<25

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	53rd-108-SG	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-01 1/5.1
Date Analyzed:	04/30/24	Data File:	043019.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<1.3	<0.51
trans-1,2-Dichloroethene	<2	<0.51
cis-1,2-Dichloroethene	<2	<0.51
Benzene	23	7.2
Trichloroethene	<0.55	<0.1
Toluene	<38	<10
Tetrachloroethene	<35	<5.1
Ethylbenzene	<2.2	<0.51
m,p-Xylene	7.6	1.8
o-Xylene	3.4	0.78
Naphthalene	<1.3	<0.26

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	53rd-BR-SG	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-02 1/5.3
Date Analyzed:	04/30/24	Data File:	043017.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	90	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<1.4	<0.53
trans-1,2-Dichloroethene	<2.1	<0.53
cis-1,2-Dichloroethene	<2.1	<0.53
Benzene	<1.7	<0.53
Trichloroethene	<0.57	<0.11
Toluene	<40	<11
Tetrachloroethene	<36	<5.3
Ethylbenzene	<2.3	<0.53
m,p-Xylene	5.9	1.4
o-Xylene	<2.3	<0.53
Naphthalene	<1.4	<0.27

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	53rd-108-IA	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-03
Date Analyzed:	04/30/24	Data File:	043016.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	88	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
Benzene	0.45	0.14
Trichloroethene	<0.11	<0.02
Toluene	<7.5	<2
Tetrachloroethene	<6.8	<1
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	0.15 j	0.028 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	53rd-BR-IA	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-04
Date Analyzed:	04/30/24	Data File:	043015.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
Benzene	<0.32	<0.1
Trichloroethene	<0.11	<0.02
Toluene	<7.5	<2
Tetrachloroethene	<6.8	<1
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	0.17 j	0.033 j

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	53rd-OUT-IA	Client:	AEG
Date Received:	04/30/24	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/29/24	Lab ID:	404488-05
Date Analyzed:	04/30/24	Data File:	043014.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	93	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
Benzene	<0.32	<0.1
Trichloroethene	<0.11	<0.02
Toluene	<7.5	<2
Tetrachloroethene	<6.8	<1
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	0.34	0.065

Analysis For Volatile Compounds By Method TO-15

Client Sample ID:	Method Blank	Client:	AEG
Date Received:	Not Applicable	Project:	Chinook 153rd Apts, F&BI 404488
Date Collected:	04/30/24	Lab ID:	04-0980 mb
Date Analyzed:	04/30/24	Data File:	043011.D
Matrix:	Air	Instrument:	GCMS8
Units:	ug/m3	Operator:	bat

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
4-Bromofluorobenzene	89	70	130

Compounds:	Concentration ug/m3	ppbv
Vinyl chloride	<0.26	<0.1
trans-1,2-Dichloroethene	<0.4	<0.1
cis-1,2-Dichloroethene	<0.4	<0.1
Benzene	<0.32	<0.1
Trichloroethene	<0.11	<0.02
Toluene	<7.5	<2
Tetrachloroethene	<6.8	<1
Ethylbenzene	<0.43	<0.1
m,p-Xylene	<0.87	<0.2
o-Xylene	<0.43	<0.1
Naphthalene	<0.073 j	<0.014 j

Date of Report: 05/03/24
Date Received: 04/30/24
Project: Chinook 153rd Apts, F&BI 404488

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD MA-APH

Laboratory Code: 404488-01 1/5.1 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
APH EC5-8 aliphatics	ug/m3	<380	<380	nm
APH EC9-12 aliphatics	ug/m3	190	200	5
APH EC9-10 aromatics	ug/m3	<130	<130	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
APH EC5-8 aliphatics	ug/m3	67	93	70-130
APH EC9-12 aliphatics	ug/m3	67	115	70-130
APH EC9-10 aromatics	ug/m3	67	107	70-130

Date of Report: 05/03/24
Date Received: 04/30/24
Project: Chinook 153rd Apts, F&BI 404488

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: 404488-01 1/5.1 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 30)
Vinyl chloride	ug/m3	<1.3	<1.3	nm
trans-1,2-Dichloroethene	ug/m3	<2	<2	nm
cis-1,2-Dichloroethene	ug/m3	<2	<2	nm
Benzene	ug/m3	23	23	0
Trichloroethene	ug/m3	<0.55	<0.55	nm
Toluene	ug/m3	<38	<38	nm
Tetrachloroethene	ug/m3	<35	<35	nm
Ethylbenzene	ug/m3	<2.2	<2.2	nm
m,p-Xylene	ug/m3	7.6	7.8	3
o-Xylene	ug/m3	3.4	3.4	0
Naphthalene	ug/m3	<1.3	<1.3	nm

Date of Report: 05/03/24
Date Received: 04/30/24
Project: Chinook 153rd Apts, F&BI 404488

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF AIR SAMPLES FOR VOLATILES BY METHOD TO-15

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Vinyl chloride	ug/m3	35	98	70-130
trans-1,2-Dichloroethene	ug/m3	54	104	70-130
cis-1,2-Dichloroethene	ug/m3	54	100	70-130
Benzene	ug/m3	43	97	70-130
Trichloroethene	ug/m3	73	105	70-130
Toluene	ug/m3	51	100	70-130
Tetrachloroethene	ug/m3	92	103	70-130
Ethylbenzene	ug/m3	59	96	70-130
m,p-Xylene	ug/m3	120	96	70-130
o-Xylene	ug/m3	59	101	70-130
Naphthalene	ug/m3	71	89	70-130

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

404488

SAMPLE CHAIN OF CUSTODY

04/30/24

Page # _____ of _____

Report To Scott Rose
Company AEG-ATLAS
Address 2633 PARKMONT LN SW, suite A
City, State, ZIP Olympia, WA 98522
Phone 360-352-9835 Email SROSE@AEGWA.COM

SAMPLERS (signature)

PROJECT NAME & ADDRESS: CHINOOK / 53rd APARTMENTS, 1446 NW 53rd ST, OLYMPIA, WA

PO #

NOTES: PCE & ONDOTHER PRODUCTS

INVOICE TO

TURNAROUND TIME: (Standard) / RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
Default: Clean following final report delivery
Hold (Fee may apply): _____

SAMPLE INFORMATION										ANALYSIS REQUESTED						
Sample Name	Lab ID	Canister ID	Flow Cont. ID	Reporting Level: IA=Indoor Air SG=Soil Gas (Circle One)	Date Sampled	Initial Vac. ("Hg)	Field Initial Time	Final Vac. ("Hg)	Field Final Time	TO15 Full Scan	TO16 BTEXN	TO15 cVOCs	APH	Helium	AGG / OXYGENATOR PRODUCTS	LOW-LEVEL NAPTHALENE	Notes
53rd-108-SG	01	8232	12	IA / (SG)	4/29/24	29"	1358	5"	1408		X		X		X		
53rd-BR-SG	02	8535	03	IA / (SG)	4/29/24	28.5"	1420	5"	1420		X		X	~~X~~	X		
				IA / SG													
53rd-108-IA	03	40705	20485	(IA) / SG	4/29/24	30+	1327	3"	1327		X		X		X		
53rd-BR-IA	04	18564	20484	(IA) / SG	4/29/24	30+	1325	6"	1325		X		X		X		
53rd-OUT-IA	05	40713	20487	(IA) / SG	4/29/24	30+	1330	2"	1330		X		X		X		
				IA / SG													
				IA / SG													

Friedman & Bruya, Inc.
5500 4th Avenue South
Seattle, WA 98108
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		TONY BANNICK	OHG / AGG	4/30/24	1400
Received by:		Eric Young	F&B	4/30/24	1400
Relinquished by:					
Received by:					

FORMS\COC\COCTO-15.DOC

SAMPLE CONDITION UPON RECEIPT CHECKLIST

PROJECT # 404488 CLIENT AEG INITIALS/ DATE: 4/30/24

If custody seals are present on cooler, are they intact? ☐ NA ☐ YES ☐ NO

Cooler/Sample temperature 17 °C
Thermometer ID: Fluke 96312917

Were samples received on ice/cold packs? ☐ YES ☑ NO

How did samples arrive?
☑ Over the Counter
☐ Picked up by F&BI
☐ FedEx/UPS/GSO

Number of days samples have been sitting prior to receipt at laboratory 1 days

Is there a Chain-of-Custody* (COC)? ☑ YES ☐ NO
*or other representative documents, letters, and/or shipping memos

Are the samples clearly identified? (explain "no" answer below) ☑ YES ☐ NO

Is the following information provided on the COC* ? (explain "no" answer below)

Sample ID's	☑ Yes	☐ No	# of Containers	☑ Yes	☐ No
Date Sampled	☑ Yes	☐ No	Relinquished	☑ Yes	☐ No
Time Sampled	☑ Yes	☐ No	Requested analysis	☑ Yes	☐ No

Were all sample containers received intact (i.e. not broken, leaking etc.)? (explain "no" answer below) ☑ YES ☐ NO

Were appropriate sample containers used? ☑ YES ☐ NO ☐ Unknown

If custody seals are present on samples, are they intact? ☑ NA ☐ YES ☐ NO

Are samples requiring no headspace, headspace free? ☑ NA ☐ YES ☐ NO

Air Samples: Were any additional canisters/tubes received? ☑ NA ☐ YES ☐ NO

If Yes:
Number of unused TO15 canisters _____ Number of unused TO17 tubes _____

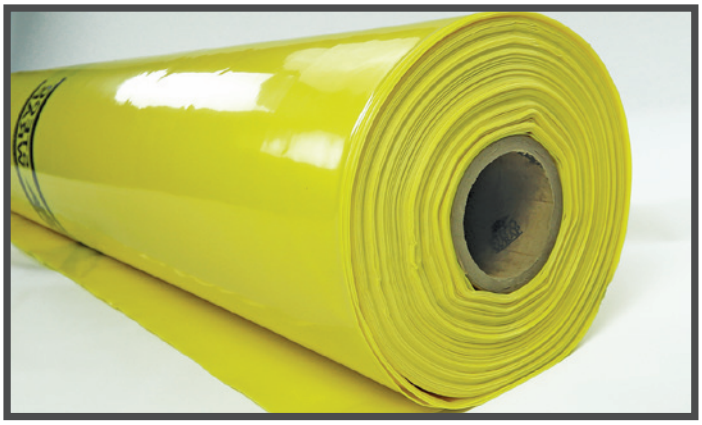
Explain "no" items from above (use the back if needed)

STEGO® WRAP 15-MIL VAPOR BARRIER

A STEGO INDUSTRIES, LLC INNOVATION | VAPOR RETARDERS 07 26 00, 03 30 00 | VERSION: DEC 8, 2022

1. PRODUCT NAME

STEGO WRAP 15-MIL VAPOR BARRIER



2. MANUFACTURER

Stego Industries, LLC
216 Avenida Fabricante, Suite 101
San Clemente, CA 92672
Sales, Technical Assistance
Ph: (877) 464-7834
contact@stegoindustries.com
stegoindustries.com

3. PRODUCT DESCRIPTION

USES: Stego Wrap 15-Mil Vapor Barrier is used as a below-slab vapor barrier.

COMPOSITION: Stego Wrap 15-Mil Vapor Barrier is a multi-layer plastic extrusion manufactured with only high grade prime, virgin, polyolefin resins.

ENVIRONMENTAL FACTORS: Stego Wrap 15-Mil Vapor Barrier can be used in systems for the control of soil gases (radon, methane), soil poisons (oil by-products) and sulfates.

4. TECHNICAL DATA

TABLE 1: PHYSICAL PROPERTIES OF STEGO WRAP 15-MIL VAPOR BARRIER

PROPERTY	TEST	RESULTS
Under Slab Vapor Retarders	ASTM E1745 Class A, B & C– Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs	Exceeds Class A, B & C
Water Vapor Permeance	ASTM F1249 – Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor	0.0086 perms
Permeance After Conditioning (ASTM E1745 Sections 7.1.2 - 7.1.5)	ASTM E154 Section 8, F1249 – Permeance after wetting, drying, and soaking ASTM E154 Section 11, F1249 – Permeance after heat conditioning ASTM E154 Section 12, F1249 – Permeance after low temperature conditioning ASTM E154 Section 13, F1249 – Permeance after soil organism exposure	0.0098 perms 0.0091 perms 0.0097 perms 0.0095 perms
Methane Transmission Rate	ASTM D1434 – Standard Test Method for Determining Gas Permeability Characteristics of Plastic Film and Sheeting	192.8 GTR* (mL(STP)/m^2*day)
Radon Diffusion Coefficient	K124/02/95	8.8 x 10^{-12} m^2/second
Puncture Resistance	ASTM D1709 – Test Method for Impact Resistance of Plastic Film by Free-Falling Dart Method	2,266 grams
Tensile Strength	ASTM D882 – Test Method for Tensile Properties of Thin Plastic Sheeting	70.6 lbf/in
Thickness		15 mil
Roll Dimensions	width x length: area:	14' x 140' 1,960 ft^2
Roll Weight		147 lb

Note: perm unit = grains/(ft^2*hr*in-Hg)
*GTR = Gas Transmission Rate

Continued...
Note – legal notice on page 2.

STEGO® WRAP 15-MIL VAPOR BARRIER

A STEGO INDUSTRIES, LLC INNOVATION | VAPOR RETARDERS 07 26 00, 03 30 00 | VERSION: DEC 8, 2022

5. INSTALLATION

UNDER SLAB: Unroll Stego Wrap 15-Mil Vapor Barrier over an aggregate, sand or tamped earth base. Overlap all seams a minimum of 6 inches and tape using Stego® Tape or Stego® Crete Claw® Tape. All penetrations must be sealed using a combination of Stego Wrap and Stego Accessories.

For additional information, please refer to Stego's complete installation instructions.

6. AVAILABILITY & COST

Stego Wrap 15-Mil Vapor Barrier is available through our network of building supply distributors. For current cost information, contact your local Stego distributor or Stego Industries' Sales Representative.

7. WARRANTY

Stego Industries, LLC believes to the best of its knowledge, that specifications and recommendations herein are accurate and reliable. However, since site conditions are not within its control, Stego Industries does not guarantee results from the use of the information provided herein. Stego Industries, LLC does offer a limited warranty on Stego Wrap. Please see **stegoindustries.com/legal**

8. MAINTENANCE

None required.

9. TECHNICAL SERVICES

Technical advice, custom CAD drawings, and additional information can be obtained by contacting Stego Industries or by visiting the website.

Email: contact@stegoindustries.com
Contact Number: (877) 464-7834
Website: **stegoindustries.com**

10. FILING SYSTEMS: stegoindustries.com

APPENDIX C

Draft Environmental Covenant

2633 PARKMONT LANE SW SUITE A • OLYMPIA, WA • 98502-5751
Phone: 360.352.9835 • Fax: 360.352.8164 • Email: admin@aegwa.com

After Recording Return
Original Signed Covenant to:
Chris Maurer
Toxics Cleanup Program
Department of Ecology
15700 Dayton Ave. N
Shoreline WA 98133

Environmental Covenant

Grantor: Chinook Ballard, LLC
Grantee: State of Washington, Department of Ecology (hereafter "Ecology")
Brief Legal Description: See Exhibit A
Tax Parcel Nos.: 2768300505

RECITALS

a. This document is an environmental (restrictive) covenant (hereafter "Covenant") executed pursuant to the Model Toxics Control Act ("MTCA"), chapter 70.105D RCW, and Uniform Environmental Covenants Act ("UECA"), chapter 64.70 RCW.

b. The Property that is the subject of this Covenant is part of a site commonly known as the Hollywood Video Property (FSID: 14234). The Property is legally described in Exhibit A, and illustrated in Exhibit B, both of which are attached (hereafter "Property"). If there are differences between these two Exhibits, the legal description in Exhibit A shall prevail.

c. The Property is the subject of remedial action conducted under MTCA. This Covenant is required because residual contamination remains on the Property after completion of remedial actions. Specifically, the following principal contaminants remain on the Property:

Medium	Principal Contaminants Present
Soil	Tetrachloroethylene (PCE)
Groundwater	Diesel- & Oil-Range Petroleum Hydrocarbons, and PCE and daughter products.
Sub-Slab Vapor	Petroleum Hydrocarbons and related constituents

d. It is the purpose of this Covenant to restrict certain activities and uses of the Property to protect human health and the environment and the integrity of remedial actions conducted at the site. Records describing the extent of residual contamination and remedial actions conducted are available through Ecology.

e. This Covenant grants Ecology certain rights under UECA and as specified in this Covenant. As a Holder of this Covenant under UECA, Ecology has an interest in real property, however, this is not an ownership interest which equates to liability under MTCA or the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. § 9601 *et seq.* The rights of Ecology as an "agency" under UECA, other than its' right as a holder, are not an interest in real property.

COVENANT

Chinook Ballard, LLC as Grantor and Fee Simple owner of the Property hereby grants to the Washington State Department of Ecology, and its successors and assignees, the following covenants. Furthermore, it is the intent of the Grantor that such covenants shall supersede any prior interests the GRANTOR has in the property and run with the land and be binding on all current and future owners of any portion of, or interest in, the Property.

Section 1. General Restrictions and Requirements.

The following general restrictions and requirements shall apply to the Property:

a. Interference with Remedial Action. The Grantor shall not engage in any activity on the Property that may impact or interfere with the remedial action and any operation, maintenance, inspection or monitoring of that remedial action without prior written approval from Ecology.

b. Protection of Human Health and the Environment. The Grantor shall not engage in any activity on the Property that may threaten continued protection of human health or the environment without prior written approval from Ecology. This includes, but is not limited to, any activity that results in the release of residual contamination that was contained as a part of the remedial action or that exacerbates or creates a new exposure to residual contamination remaining on the Property.

c. Continued Compliance Required. Grantor shall not convey any interest in any portion of the Property without providing for the continued adequate and complete operation, maintenance and monitoring of remedial actions and continued compliance with this Covenant.

d. Leases. Grantor shall restrict any lease for any portion of the Property to uses and activities consistent with this Covenant and notify all lessees of the restrictions on the use of the Property.

e. Preservation of Reference Monuments. Grantor shall make a good faith effort to preserve any reference monuments and boundary markers used to define the areal extent of coverage of this Covenant. Should a monument or marker be damaged or destroyed, Grantor shall have it replaced by a licensed professional surveyor within 30 days of discovery of the damage or destruction.

Section 2. Specific Prohibitions and Requirements.

In addition to the general restrictions in Section 1 of this Covenant, the following additional specific restrictions and requirements shall apply to the Property.

a. Containment of Soil/Waste Materials.

The remedial action for the Property is based on containing contaminated soil and groundwater under a cap consisting of the newly constructed building with a vapor barrier and located as illustrated in Exhibit B. The primary purpose of this cap is to eliminated any potential exposure pathways at the site. As such, the following restrictions shall apply within the area illustrated in Exhibit B:

The Grantor shall not alter or remove the existing structures on the Property in any manner that would expose contaminated soil, result in a release to the environment of contaminants, or create a new exposure pathway, without prior written approval of Ecology. Should the Grantor propose to remove all or a portion of the existing structures illustrated in Exhibit B so that access to the underlying contamination is feasible, Ecology may require treatment or removal of the underlying contaminated soil.

b. Groundwater Use.

The groundwater beneath the Property remains contaminated and shall not be extracted for any purpose other than temporary construction dewatering, investigation, monitoring, or remediation. Drilling of a well for any water supply purpose is strictly prohibited. Groundwater extracted from the Property for any purpose shall be considered potentially contaminated and any discharge of this water shall be done in accordance with state and federal law.

Section 3. Access.

a. The Grantor shall maintain clear access to all remedial action components necessary to construct, operate, inspect, monitor and maintain the remedial action.

b. The Grantor freely and voluntarily grants Ecology and its authorized representatives, upon reasonable notice, the right to enter the Property at reasonable times to evaluate the effectiveness of this Covenant and associated remedial actions, and enforce compliance with this Covenant and those actions, including the right to take samples, inspect any remedial actions conducted on the Property, and to inspect related records.

c. No right of access or use by a third party to any portion of the Property is conveyed by this instrument.

Section 4. Notice Requirements.

a. Conveyance of Any Interest. The Grantor, when conveying any interest in any part of the property, including but not limited to title, easement, leases, and security or other interests, must:

i. Provide written notice to Ecology of the intended conveyance at least thirty (30) days in advance of the conveyance.

ii. Include in the conveying document a notice in substantially the following form, as well as a complete copy of this Covenant:

NOTICE: THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL COVENANT GRANTED TO THE WASHINGTON STATE DEPARTMENT OF ECOLOGY ON _____ AND RECORDED WITH THE KING COUNTY AUDITOR UNDER RECORDING NUMBER _____. USES AND ACTIVITIES ON THIS PROPERTY MUST COMPLY WITH THAT COVENANT, A COMPLETE COPY OF WHICH IS ATTACHED TO THIS DOCUMENT.

iii. Unless otherwise agreed to in writing by Ecology, provide Ecology with a complete copy of the executed document within thirty (30) days of the date of execution of such document.

b. Reporting Violations. Should the Grantor become aware of any violation of this Covenant, Grantor shall promptly report such violation in writing to Ecology.

c. Emergencies. For any emergency or significant change in site conditions due to Acts of Nature (for example, flood or fire) resulting in a violation of this Covenant, the Grantor is authorized to respond to such an event in accordance with state and federal law. The Grantor must notify Ecology in writing of the event and response actions planned or taken as soon as practical but no later than within 24 hours of the discovery of the event.

d. Notification procedure. Any required written notice, approval, reporting or other communication shall be personally delivered or sent by first class mail to the following persons.

Any change in this contact information shall be submitted in writing to all parties to this Covenant. Upon mutual agreement of the parties to this Covenant, an alternative to personal delivery or first-class mail, such as e-mail or other electronic means, may be used for these communications.

Mr. Shad Bernhoft Walls Property Group 5210 Russell Avenue NW #100 Seattle, Washington 98107 shad@wallspropertymanagement.com (206) 784-9780	Environmental Covenants Coordinator Washington State Department of Ecology Toxics Cleanup Program P.O. Box 47600 Olympia, WA 98504 – 7600 (360) 407-6000 ToxicsCleanupProgramHQ@ecy.wa.gov

Section 5. Modification or Termination.

a. Grantor must provide written notice and obtain approval from Ecology at least sixty (60) days in advance of any proposed activity or use of the Property in a manner that is inconsistent with this Covenant. For any proposal that is inconsistent with this Covenant and permanently modifies an activity or use restriction at the site:

i. Ecology must issue a public notice and provide an opportunity for the public to comment on the proposal; and

ii. If Ecology approves of the proposal, the Covenant must be amended to reflect the change before the activity or use can proceed.

b. If the conditions at the site requiring a Covenant have changed or no longer exist, then the Grantor may submit a request to Ecology that this Covenant be amended or terminated. Any amendment or termination of this Covenant must follow the procedures in MTCA and UECA and any rules promulgated under these chapters.

Section 6. Enforcement and Construction.

a. This Covenant is being freely and voluntarily granted by the Grantor.

b. Within ten (10) days of execution of this Covenant, Grantor shall provide Ecology with an original signed Covenant and proof of recording and a copy of the Covenant and proof of recording to others required by RCW 64.70.070.

c. Ecology shall be entitled to enforce the terms of this Covenant by resort to specific performance or legal process. All remedies available in this Covenant shall be in addition to any and all remedies at law or in equity, including MTCA and UECA. Enforcement of the terms of this Covenant shall be at the discretion of Ecology, and any forbearance, delay or omission to exercise its rights under this Covenant in the event of a breach of any term of this Covenant is not a waiver by Ecology of that term or of any subsequent breach of that term, or any other term in this Covenant, or of any rights of Ecology under this Covenant.

d. The Grantor shall be responsible for all costs associated with implementation of this Covenant. Furthermore, the Grantor, upon request by Ecology, shall be obligated to pay for Ecology's costs to process a request for any modification or termination of this Covenant and any approval required by this Covenant.

e. This Covenant shall be liberally construed to meet the intent of MTCA and UECA.

f. The provisions of this Covenant shall be severable. If any provision in this Covenant or its application to any person or circumstance is held invalid, the remainder of this Covenant or its

application to any person or circumstance is not affected and shall continue in full force and effect as though such void provision had not been contained herein.

g. A heading used at the beginning of any section or paragraph or exhibit of this Covenant may be used to aid in the interpretation of that section or paragraph or exhibit but does not override the specific requirements in that section or paragraph.

The undersigned Grantor warrants he/she holds the title to the Property and has authority to execute this Covenant.

EXECUTED this _____ day of _____, 20___.

Chinook Ballard, LLC
c/o Walls Property Group
Shad Bernhoft

_____
Director of Construction & Facility Management

INDIVIDUAL ACKNOWLEDGMENT

STATE OF _____
COUNTY OF _____

On this _____ day of _____, 20__, I certify that _____ personally appeared before me, acknowledged that **he/she** is the individual described herein and who executed the within and foregoing instrument and signed the same at **his/her** free and voluntary act and deed for the uses and purposes therein mentioned.

_____
Notary Public in and for the State of Washington
Residing at _____
My appointment expires _____

The Department of Ecology**,** hereby accepts the status as GRANTEE and HOLDER of the above Environmental Covenant.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

_____

By: Tom Buroker
Section Manager
Toxics Cleanup Program
Southwest Regional Office

Dated: _____

STATE ACKNOWLEDGMENT

STATE OF _____

COUNTY OF _____

On this _____ day of _____, 20__, I certify that _____ personally appeared before me, acknowledged that **he/she** is the _____ of the state agency that executed the within and foregoing instrument, and signed said instrument by free and voluntary act and deed, for the uses and purposes therein mentioned, and on oath stated that **he/she** was authorized to execute said instrument for said state agency.

_____
Notary Public in and for the State of Washington

Residing at _____

My appointment expires _____

Exhibit A

LEGAL DESCRIPTION

GILMAN PARK ADD
PLAT BLOCK: 135
PLAT LOT: 21

Exhibit B

PROPERTY MAP

Exhibit C

MAP ILLUSTRATING LOCATION OF RESTRICTIONS