LEVEL I ENVIRONMENTAL SITE ASSESSMENT

UNIVERSITY VOLKSWAGEN

Seattle, Washington

Prepared For

Freeway Motors

W-7105

August, 1990

RITTENHOUSE-ZEMAN & ASSOCIATES

Geotechnical & Environmental Consultants

RZA

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22 August 1990 W-7105

Freeway Motors
4724 University Avenue
Seattle, Washington 98105

Attention: Mr. Rob Will

Subject: Level I Environmental Site Assessment
4705 11 Avenue N.E.
Seattle, Washington

Dear Mr. Will:

In accordance with your 9 August 1990 verbal request, we are pleased to present this report containing our Level I Environmental Site Assessment of the above referenced property. This evaluation has been based on our understanding of local soils, hydrogeology and geology; interviews with various governmental agency personnel; our past work in the general vicinity; and a visit to the site.

This report has been prepared, in accordance with generally accepted environmental assessment practices, for the exclusive use of Freeway Motors and their agents for specific application to this property. No other warranty, express or implied, is made. In the event that there are any changes on the existing site or nearby properties, the conclusions and recommendations contained in this report should be reviewed by our office.

We appreciate this opportunity to be of service to you and would be pleased to discuss the contents of this report or other aspects of the study with you at your convenience.

Respectfully submitted,

RITTENHOUSE-ZEMAN & ASSOCIATES, INC.

Cheri E. Borland
Environmental Assessor

The rectangular-shaped parcel has a frontage along 11th Avenue N.E. of approximately 152 feet and a frontage along 47th Avenue N.E. of approximately 100 feet. It is bounded on the west by an alley and on the north by an approximately $2^1/_2$ foot high concrete wall. The subject property covers approximately 15,280 square feet. The site dimensions are shown in Figure 2, the Site Plan. The topography slopes downward gradually to the south with a maximum topographic relief of approximately 3 feet.

The majority of the parcel is covered with asphalt and currently functions as a used car lot. A one-story structure also occupies the subject parcel and serves as a car showroom. A UST is located in the southwestern portion of the lot. According to a representative from University Volkswagon, the tank contains approximately 4000 gallons of gasoline. No known problems are reported regarding this tank. Access to the site is via two driveways, one entering N.E. 47th Street and one entering 11th Avenue N.E. Two storm drains, located just west of the 11th Avenue N.E. driveway and at the southern portion of the alley, facilitate drainage of the parcel. At the time of our site visit conducted on 13 August 1990, we noted that the asphalt paving was stained with oil in several locations on the subject property, apparently the result of leakage from parked vehicles on the subject lot.

The majority of the city block from N.E. 47th Street to N.E. 50th Street and from Roosevelt Way N.E. to 11th Avenue N.E. is occupied by the University Volkswagon-Audi-Subaru car dealership, which includes new car lots, used car lots, a body shop, and service shop/garage. Immediately adjacent to the subject parcel to the west is the University Volkswagon-Audi-Subaru car lot and service shop/garage. Directly adjacent to the north is the University Volkswagon-Audi-Subaru body shop office. A residential area occupies the east side of 11th Avenue N.E.

We noted a very minor amount of an unknown compound on the asphalt pavement approximately 200 feet north of the subject property. It had been covered with the absorbent compound "Floor Dry". Used metal car parts (fenders, hoods, etc.) were stored behind the dumpster located approximately 135 feet north of the subject site.

The City of Seattle Fire Department Division No. 17 is located at 1050 N.E. 50th Street, directly north and upslope of the subject site. Three dry cleaners are located near the

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- A leaking UST is reported at the Chevron Station located at 4700 Brooklyn Avenue N.E. A review of the location file at Washington State Department of Ecology (Ecology) revealed that the soils and groundwater have been impacted by hydrocarbons, and groundwater monitoring wells installed on the service station property contained one foot of free product on local groundwater. Data on the off-site impacts of this contamination has not been collected as of this date.
- Some potential exists for contamination of the site from off-site past and present commercial activities occurring north or east of the subject property. In our opinion, these activities may have impacted the subject property if a persistent groundwater table with the ability to transport contaminants from these sources exists beneath the subject property. However, Ecology has not received any reports indicating that contamination has reached the subject property.
- Drinking water supplies for the subject area are obtained from the City of Seattle's Cedar River watershed in the Cascade foothills. These drinking water supplies would not be impacted by contaminants, if present, on the subject site.

This summary is presented for introductory purposes only and should be used in conjunction with the full text of this report. The project description, site conditions and results of our assessment are presented in the text of this report.

2.0 PROJECT DESCRIPTION

The purpose of this study was to evaluate the subject site for reports or indications of soil or groundwater contamination due to previous or on-going site activities and to review the adverse effect upon the soils and groundwater at this site. The scope of work for this report consisted predominantly of gathering existing available information. The objective of the record search and the site visit was to identify reports or indications of activities that may have occurred on or near the site which carry the potential for adversely impacting the site. Based on these findings, this report presents our opinion concerning environmental conditions at the site which may have resulted from both on-site and off-site activities. Our assessment of the parcel included:

- Visiting the site and vicinity to make relevant observations;
- Reviewing aerial photographs of the site and vicinity to evaluate visible indications of past land use activities;
- Reviewing available reports published by Federal, State, and local governmental agencies involved in environmental concerns;
- Reviewing records and historical data from the Polk's City Directory for Seattle;
- Interviewing knowledgeable governmental employees and private individuals;
- Reviewing available Washington State Department of Ecology (Ecology) records of water wells located in the general vicinity of the property;
- Evaluating a summary of the contamination incident data resulting from this study;
- Developing an opinion of the potential that contamination may be present at the site due to either on-site or off-site activities.

During our visit, we visually assessed the area for the presence of underground and above ground storage tanks, chemical storage drums, obvious indications of groundwater and soils contamination, transformers that might contain polychlorinated biphenyls (PCB's), and any other apparent hazardous or toxic substances or waste materials. A review of the surrounding area included attempting to locate nearby facilities such as service stations, automobile service centers, dry cleaning establishments, heavy industries, and garden shop/nurseries.

It should be understood that any parcel is vulnerable to environmental impairment from such activities as unreported or illicit dumping or spillage of deleterious materials that may not be readily apparent. The opinions and conclusions in this report are based on the data reported to us, our review of readily available information and our visual evaluation of current site conditions.

3.0 SITE AND VICINITY DESCRIPTION

The subject property is located at 4705 11th Avenue N.E. in Seattle, Washington (Section 8, T25N, R4E, W.M). The site location is shown on Figure 1, the Site Vicinity Map.

subject site: Bakker's Fine Dry Cleaners at 1050 N.E. 50th Street, The Lost Sock Laundry and Cleaners at 5020 Roosevelt Way N.E. and Carson's Cleaners at 4701 Brooklyn Avenue N.E. A car dealership is located across N.E. 47th Street directly south of the subject parcel.

4.0 RESULTS OF EVALUATION

4.1 Geology, Hydrogeology, and Soils

The geology of the subject site is characterized by glacially derived sediments. These sediments were deposited during the Vashon Stade of the Fraser Glaciation which ended about 13,500 years ago. The advance of the Vashon glacier deepened and widened north-south trending valleys. Thick bodies of sand, gravel, and till were deposited over the area. With the retreat of the glacier, ice-contact stratified drift was deposited over much of the area, followed by a period of alluvial valley filling, localized peat deposition, minor erosion, and soil development. Surficial geological maps show glacial till mantling the drift plain in the general area of the site.

Based upon our knowledge of the vicinity of the subject site, a potential for seasonal perched groundwater condition exists. A perched water table occurs where a shallow relatively impermeable stratum prevents downward percolation of water and causes groundwater to accumulate in a limited area above the stratum. This type of situation is typical of sites underlain by glacial till, such as this parcel. Shallow aquifers of this type are readily subject to contamination. A deep regional groundwater source, if present, would be much less susceptible to near-surface contamination, due to its depth and the overlying relatively impermeable strata of till. Groundwater beneath the study site generally appears to be moving in a southerly direction towards Portage Bay.

Although water resource data for the Greater Puget Sound area show widespread development of groundwater resources for municipal and domestic use, our review of published geological and groundwater literature, as well as Ecology water well records, indicate that currently there are no reported major developed groundwater resources in the immediate vicinity of the project site. Drinking water supplies for the subject area are obtained from the City of Seattle's Cedar River and Tolt River watersheds in the Cascade foothills. These drinking water supplies would not be impacted by contaminants, if present, on the subject site.

Five private water wells are located within a one-mile radius of the subject property, none of which are used for domestic purposes. These wells range in depth from 75 to 303 feet. Additionally, none of these wells are in locations which appear to be hydrologically down gradient of the subject site. In our opinion, it is unlikely that contaminants, if present on the site, could migrate to these wells.

4.2 Site History

The land use history of the site was reviewed utilizing governmental zoning information, the Polk's Directory for the City of Seattle and various anecdotal informational sources. We also reviewed historical aerial photographs of the site and vicinity for the years 1946, 1960, 1969, 1974, 1980, 1985, and 1989 in the offices of Walker & Associates.

Early aerial photographs indicate that development in the subject area was similar to the development present today: buildings and car lots occupied the majority of the area between N.E. 45th and N.E. 50th Streets, while residential areas lay to the east and west. Two homes occupied the subject site in both the 1946 and 1960 photos with the existing structure on the subject site appearing in the 1969 photograph.

Polk's City Directories for Seattle, which were reviewed for the years 1938, 1955, 1963, 1970, 1977, 1985, and 1989 - 90, document the inferences drawn from our aerial review. Polk's City Directory lists various commercial enterprises including auto repair centers, a paint shop, an iron works shop, and used car lots, as occupying Roosevelt between N.E. 45th and N.E. 50th Street from at least 1938 to present. Eleventh Avenue N.E. was residential until commercial development began on the west side of 11th Avenue N.E. from N.E. 45th to N.E. 50th Streets in the late 1960's. The subject site is listed as residential until the late 1960's.

Anecdotal information revealed that the existing structure was originally used as the service write-up center before it was remodeled in the early 1980's to serve as a car showroom.

4.3 Evaluation of On-Site Conditions

For this report, we performed a site visit on 13 August 1990. During the course of our visit, we encountered no obvious visual indications of gross environmental contamination existing in or around the structure on the site. However, we did note that much of the asphalt covering the majority of the subject site was stained with oil, most likely due to leakage from the cars parked on the lot.

The UST on the property contains approximately 4000 gallons of unleaded gasoline and is reportedly 17 years old. Neither Ecology nor University Volkswagon representatives were aware of any leakage problems associated with this tank. If this tank were to leak, it could pose an environmental concern to the subject site and the sites located hydrologically downgradient (south) to the subject property.

4.4 Evaluation of Off-Site Conditions

Based on our review of topographic maps of the vicinity and the assumed groundwater migration pattern, we believe the subject property is most vulnerable to contamination from off-site activities occurring to the north of the subject property. Several commercial properties currently exist in this area along Roosevelt Way and N.E. 50th Street including a car dealership and service center, a dry cleaners and auto repair shops.

The underground storage tank (UST) site list published by the Solid and Hazardous Waste Section of Ecology was obtained and reviewed for data concerning underground petroleum product tanks in the site vicinity. The current UST list indicates that there are at least 30 sites with UST's that are located within a one-mile radius of the subject property. These locations include car dealerships, service stations, and auto repair facilities, among other establishments.

Several of these UST's are located in the immediate vicinity of the subject property. A UST and associated pump island is located just west of the alley and immediately adjacent to the subject site. Ecology reports that it holds 1000 to 5000 gallons of gasoline and is approximately 12 years old. Also, approximately 150 feet north of the subject site are two UST's, also on the University Volkswagon property. Ecology reports that these tanks are both 8 years old and contain waste oil and unused motor oil.

Finally, the City of Seattle Fire Department, located at 1050 N.E. 50th Street, has one UST which is 29 years old and contains less than 500 gallons of diesel. Neither Ecology nor University Volkswagon representatives were aware of any leakage associated with these tanks.

In a combination commercial/residential use area, such as the subject environs, leakage from underground petroleum product storage tanks can be a potential source of environmental contamination. Ecology has reported a leaking UST at a service station located at 4700 Brooklyn Avenue, two blocks east of the subject site. A review of the Ecology file on this site revealed that soils and groundwater had been contaminated with petroleum hydrocarbons and that one foot of free petroleum (gasoline) product was observed in a monitoring well which had been installed on the site. Remediation of this site is in progress: the tank and lines have been replaced and significant amounts of soils have been removed. No data on surrounding off-site subsurface conditions relative to this leaking tank site was available for our review.

Ecology reports another leaking UST at the Carnation Dairy located at 2746 N.E. 45 Street. However, this site is apparently located hydrologically downgradient and approximately 5000 feet east of the subject site. In our opinion, the Carnation Dairy site does not pose a potential environmental threat to the site based upon its non-tributary location.

Automobile service stations, dry cleaners, auto repair shops and fuel dealers are common sources of contamination. Dozens of businesses of this type have occupied the immediate area north and upgradient of the property from at least 1938 to present. For example, in 1938, seven gas stations, two fuel dealers, four auto repair shops, six used car dealers and a dry-cleaners were located between N.E. 47th and N.E. 60th Streets. The businesses along Roosevelt in this area have changed over the years but the nature and number of these businesses has remained basically the same to the present.

Currently, three dry cleaners operate in the near vicinity of the subject site: Bakker's Fine Dry Cleaners at 1050 N.E. 50th Street, The Lost Sock Laundry and Cleaners at 5020 Roosevelt Way N.E. and Carson's Cleaners at 4701 Brooklyn Avenue N.E. Bakker's and The Lost Sock send their cleaning off-site. Carson's Cleaners has been operating at this

location since 1946 and does the cleaning on site. However, if any contaminants were to leave this site, they would probably migrate to the south; therefore, it is unlikely that this site could negatively impact the subject property.

As part of our environmental study we interviewed various local officials to find out if any on-site or off-site contamination has occurred from past or present activities. At the intersection of N.E. 55th Street and Roosevelt Way N.E., it was observed during an excavation that the soils were contaminated, probably due to spillage of solvents and fuels in the past. According to a King County Public Health official, the site has been remediated and any remaining residual contamination in the soils were unlikely to be an environmental concern to the subject site. We were unable to document any other environmental problems in this area at past facilities including: the aforementioned service stations, fuel dealerships, auto repair facilities, dry cleaners, and used car lots.

Various local, State, and Federal sources were reviewed to identify reported hazardous waste sites located within a one-mile radius of the subject property. Copies of reports compiled by State and Federal environmental agencies obtained and received include the U.S. Environmental Protection Agency (EPA) Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) report of potential hazardous waste and Superfund sites; the EPA's Resource Conservation and Recovery Act (RCRA) report of regulated generators, handlers, transporters, and disposers of hazardous materials; and the Washington Department of Ecology's Hazardous Waste Investigations and Cleanup Program (HWICP) report of suspected and confirmed hazardous waste sites.

The RCRA report lists 22 locations within a one-mile radius of the subject property that are generators, handlers or transporters of hazardous materials. University Volkswagon-Audi-Subaru is listed as a large quantity generator of hazardous waste. A large quantity generator is defined as a business that generates more than 1000 kilograms per month of hazardous waste. During the course of our site visit, we reviewed University Volkswagon's material safety data sheets. Compounds utilized on the property include acrylics, solvents, and vinyls which are collected and removed from the property by various companies for proper disposal. During our site visit we did note a very minor amount of an unknown compound that had been spilled on the pavement

approximately 200 feet north of the subject site. It had been covered by the absorbent compound "Floor Dry". A minor spill such as this is unlikely to impact the subject site. Ecology officials were not aware of any problems associated with University Volkswagon or other RCRA sites located near the subject property.

No sites within a one-mile radius of the property are listed on Ecology's HWICP report. The EPA's CERCLIS report lists only the City of Seattle Ravenna (Montlake) Landfill on the U.W. campus. EPA has flagged this site for "no further action". The surface over the landfill is currently athletic fields and campus parking. This is not anticipated to impact the subject site due to its relative distance from the subject parcel and its hydrological downgradient position relative to the property.

Because of the proximity of the University of Washington (UW) to the subject site, interviews with campus officials were conducted to determine the types of activities and potential environmental impact their activities may have with respect to the subject site. A telephone interview with Mr. Mike O'Brien, a University of Washington Radiation Safety Officer, revealed the past existence of a nuclear reactor on the UW campus. Mr. O'Brien stated that the reactor was decommissioned and that spent fuels were removed from campus. Mr. Kim Jones, an Environmental Health and Safety Officer at UW indicated that the construction of a chemical and waste material packaging and shipping facility was started in December 1989 near Union Bay Place and N.E. 45th Street on the east side of campus. He also mentioned the existence of a campus vehicle storage, refueling and maintenance yard located at N.E. 45th and 25th Avenue N.E. Streets. Mr. Jones and Mr. O'Brien indicated that they believed that campus activities they reported would be unlikely to have any negative environmental impact on neighborhoods surrounding the UW campus. The nearest of these reported situations is hydrologically downgradient and about three-quarters mile from the subject site.

5.0 CONCLUSIONS

Based on the available information on the past and present land use of the subject property and the immediately surrounding area, in our opinion, some potential exists for contamination of the site. The primary potential off-site contamination sources of concern are: 1) the gasoline UST and pump island located directly west of the site; 2) the waste oil and motor oil storage tanks located approximately 150 feet north of the site;

3) the petroleum hydrocarbon release reported at 4700 Brooklyn Avenue, approximately two blocks east of the site and; 4) the past location of a dry cleaners between N.E. 47th and N.E. 60th Street along Roosevelt Avenue. In our opinion, these past activities may have impacted the subject property if a persistent groundwater table with the ability to transport contaminants from these sources exists beneath the site or if the dry cleaners were located near the subject property.

The primary identified potential on-site contamination source is the existing 4,000 gallon gasoline UST located at the southwest corner of the site.

Our discussions with Mr. Rob Will of University Volkswagon indicate University Volkswagon intends to remove the on-site UST and associated piping, including documentation of site closure in accordance with recommended Ecology cleanup criteria. In addition, Mr. Will is in the process of tightness-testing the UST and piping associated with the pump island located adjacent to the subject site to the west. Once completed, these actions should address possible on-site contamination related to these potential sources.

We appreciate this opportunity to present this Level I Environmental Site Assessment. We are available for any additional studies should you so desire. If you have any questions concerning the findings and conclusions contained in this report, please feel free to all at your earliest convenience.

Respectfully submitted,

RITTENHOUSE-ZEMAN & ASSOCIATES, INC.

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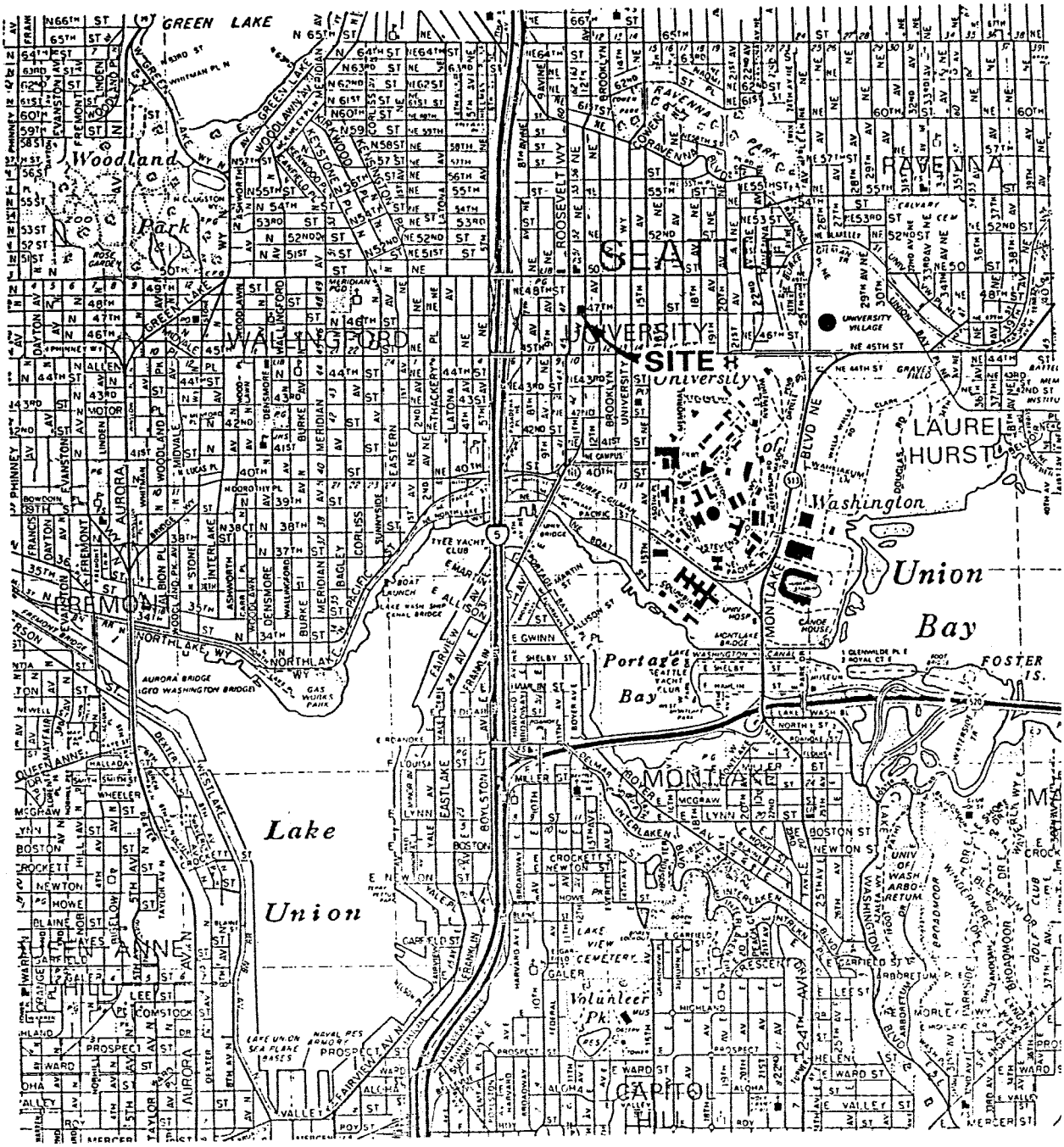

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BY CEB
DATE AUG 1990
SCALE N.T.S.

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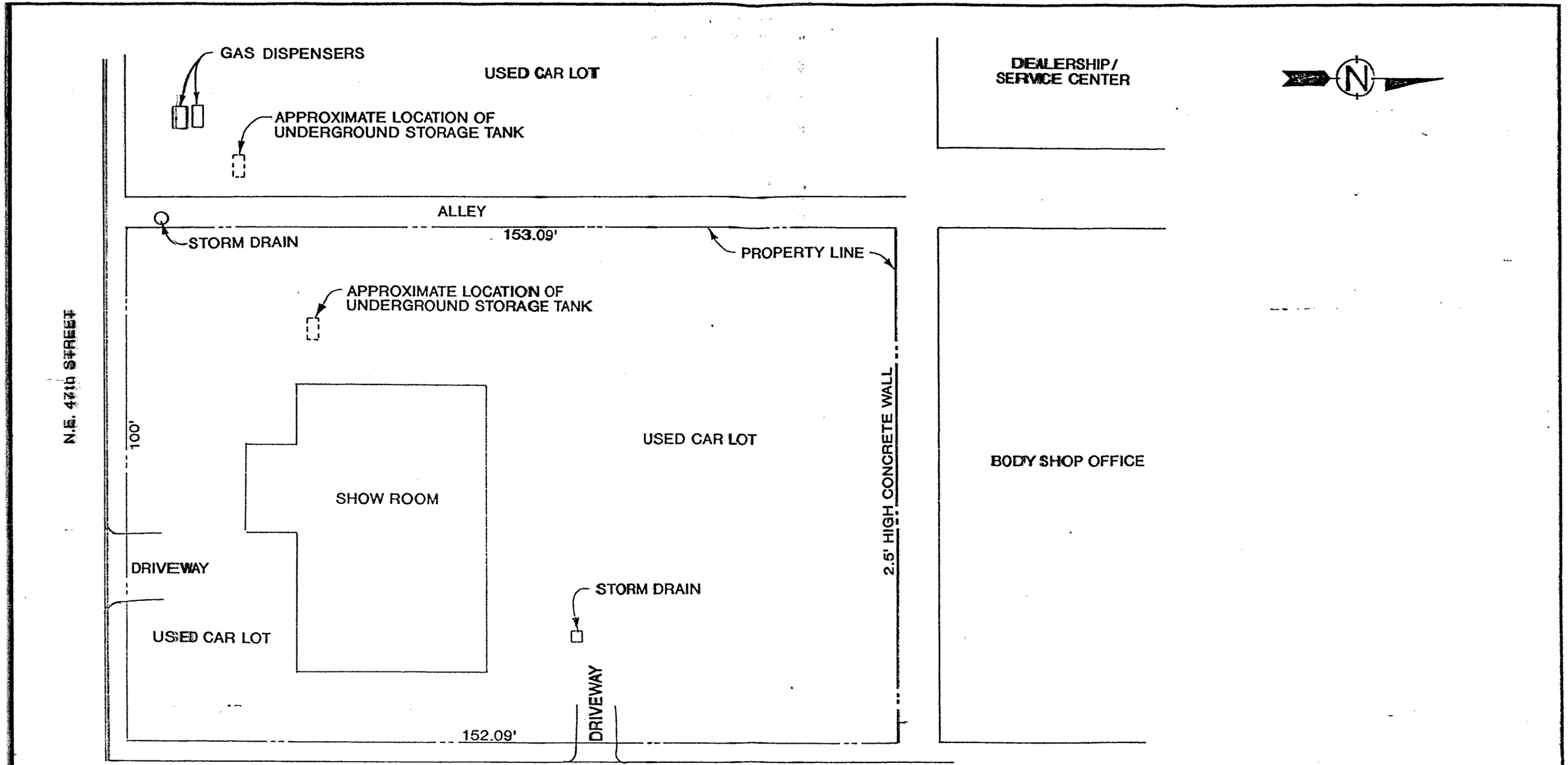

UNIVERSITY VOLKSWAGEN
SEATTLE, WASHINGTON

SITE PLAN

FIGURE 2

W.O. W-7105
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SCALE N.T.S.

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