

MEMORANDUM

Date: July 18, 2022

To: Darren Anderson, Carson City Public Works

From: NCE

Subject: East William Street Environmental Feasibility Study Project:
Environmental Site Assessment Technical Memo-Final

Carson City (City) has retained NCE to conduct background research and database searches of readily available information in support of the East William Street Environmental Feasibility Study (project) to inform environmental and planning tasks that will need to be addressed during a future National Environmental Protection Act (NEPA) action.

This memorandum details the results of the assessed environmental conditions within and adjacent to the project limits related to known sites that have had documented environmental issues related to the use and/or release of hazardous substances into the environment. Results of a Site reconnaissance are also presented, including a summary of identified parcels where there could be a potential for environmental impacts based on the historical and/or current site use. This memo does not include the details or information that would be considered the full scope of work required to comply with American Society for Testing and Materials (ASTM) or All Appropriate Inquiry (AAI) standards for completing a Phase I Environmental Site Assessment (ESA).

PROJECT DESCRIPTION

The project is located in Carson City, Nevada, south of Reno and Washoe Lake (**Figure 1**, figures are provided in **Appendix A**). The established project limits (i.e., the Site) include roughly 1.46 miles of East William Street (between North Carson Street and Russel Way) totaling approximately 23.1 acres (**Figure 2**). The project will be located within the existing Carson City right of way (ROW) of East William Street. However, where necessary, the project will extend into adjacent parcels to accommodate improvements such as parking lot and driveway tie-ins, sidewalks, intersection corners, and utility service reconnections (see **Figure 2**). It is understood the bulk of activities will be performed within temporary construction easements obtained by the City. It is also understood the City is contemplating acquiring right-of-way (ROW) for two parcels (APNs 00216108 & 00216109) at the southwest corner of East William Street and Stewart Street to accommodate a right-hand turn lane (see **Figure 2a**).

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The project will reconstruct and rehabilitate East William Street from Carson Street to the I-580 Interchange. The project will include partial reconstruction of the roadway; installation of new curbs, gutters, sidewalks, and multi-use pathways; Americans with Disabilities Act upgrades; Access Management revisions; utility replacements; and landscaping.

Readily available information to evaluate historic and current uses within and adjacent to the project area were reviewed to assess the potential for impacts to soil and groundwater within the project area. This review focused primarily on those concerns that may impact future construction, ROW ownership, and land use as described below.

ENVIRONMENTAL SITE ASSESSMENT

Scope

The purpose of this assessment was to identify, to the extent feasible, environmental concerns resulting from the improper use, manufacture, storage, and/or disposal of hazardous or toxic substances within or adjacent to the project area. In this assessment, an environmental concern is defined as possible adverse impacts from hazardous substances to soil and/or groundwater as a result of present or past uses on or adjacent to the Site.

The scope of this environmental assessment included a review of the following:

- available environmental databases maintained by federal, state, and local agencies,
- readily available historic documents, including topographic maps, aerial photographs,
- available certified Sanborn fire insurance maps, building permits, city directories, and property tax maps, as summarized in the Radius Map Report generated by Environmental Data Resources, Inc., and
- a Pre-Survey Questionnaire completed by Darren Anderson of Carson City and submitted to NCE on March 21, 2022.

A site reconnaissance was performed on March 18, 2022, by NCE personnel, who walked the extent of the Site, along eastbound and westbound portions of East William Street, to visually observe Site conditions for evidence of environmental impacts and current land use.

Site Description, Geology, and Hydrogeology

The Site is located within the limits of Carson City, Nevada, and encompasses an approximate 23.1-acre area of the East William Street alignment, extending east for

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approximately 1.46 miles from the intersection of North Carson Street to just west of I-580 (see **Figures 1 and 2**). The region's climate is characterized as semi-arid with dry, hot summers, and cold winters. The average annual precipitation for the area is 9.67 inches. The elevation of the Site ranges from approximately 4,700 feet near North Carson Street to approximately 4,650 feet near I-580.

A tributary of Mexican Ditch is approximately 150 feet east of the Site and flows to the southeast. Ash Canyon Creek terminates approximately 0.6 miles west of the Site and flows to the east. The National Wetlands Inventory depicts a 9.18-acre freshwater emergent wetland habitat approximately 0.15 miles south of the eastern portion of the Site, east of Carson High School. Depth to groundwater at USGS well #391016119433901, located approximately 0.75 miles southeast of the Site near Terrace Park, ranges seasonally between approximately 18 and 24 feet below ground surface.

The Site is located in the Carson Valley, bounded on the west by the Carson Range of the Sierra Nevada, and on the east by the Pine Nut Mountains. The Site is underlain by fluvial deposits ranging in age from middle Pleistocene to recent.

Current Site Use

Most of the Site is currently within the Carson City right-of-way and consists of East William Street. Portions of the Site will encroach onto neighboring parcels adjoining East William Street. Surrounding land use is commercial, beyond which in some areas are residences. Water, sewer, and storm drainage facilities within the Site are administered by Carson City Public Works. Electricity is provided by Nevada Energy, and natural gas is provided by Southwest Gas.

Historical Site Use

Topographic Maps

- On historical topographic maps from 1891 and 1893, a railroad is depicted along the alignment, which was in service from 1869 to the 1950s.
- In 1956, the alignment is depicted as Highway 50, and a golf course is south of the central portion of the Site. Structures are depicted along the central portion of the alignment.
- In 1974, additional commercial structures are depicted along the alignment. The eastern portion of this map is as an aerial photograph.
- In 1982, an athletic field is south of the central portion of the Site. Commercial development is depicted adjacent to the eastern portion of the Site.
- In 2014, I-580 is depicted just east of the Site.

Aerial Photographs

- In 1939, a railroad appears in the Site alignment.
- In 1953, A road appears in place of the railroad. Sparce commercial development appears in the eastern portion of the Site. Residences and commercial structures appear in the western portion of the Site. Additional development appears south of the Site extending eastward from Carson City.
- In 1966, Additional development appears south of the Site extending eastward from Carson City.
- In 1974, a high school appears south of the eastern portion of the Site.
- In 1980, only the eastern portion of the Site is depicted on the map. Commercial development appears north of the eastern portion of the Site, and an athletic field is adjacent to the south of the central portion of the Site.
- In 1984, a park appears south of the central portion of the Site.

Sanborn Fire Insurance Maps

Sanborn fire insurance maps are not available for the Site.

Building Permits

Building permits were not found in the report generated by EDR for parcels on East William Street. Permits for parcels adjacent to the project alignment did not indicate the installation or use of improvements such as underground storage tanks (USTs), aboveground storage tanks (ASTs), or other improvements of concern.

Property Tax Map Report

EDR's Property Tax Map Report has no coverage of the Carson City area.

Radius Report

As part of this assessment, NCE conducted a records search using electronic database services provided by EDR in a Radius Report generated on January 31, 2022. The report is a listing of facilities identified on select federal and state databases within a 1-mile radius of the Site. NCE reviewed each database in the report. The following list details current and former facilities provided in the EDR Report that are within or adjacent to the Site and that have stored, used, or had releases to soil and/or groundwater of hazardous substances.

The facilities listed below are adjacent to the project limits. The potential for adverse environmental conditions to adversely impact conditions within the project limits is low to moderate.

- **Cordas Chevron /Jackson Food Store #169/ – 1102 N. Carson Street**

This fuel station is listed in the NV UST database as having four 10,000-gallon fuel USTs which are currently in use, and a 1,000-gallon waste-oil UST that was removed in 2004. The NV LUST database lists this facility as having a leak of fuel that impacted soil. This regulatory case was closed in 2004. This fuel station is an environmental concern for the Site.

- **Carson Central Gasoline /Arco Facility #82380/- 1017 N. Carson Street**

This facility is listed in the NV LUST database as having one active 20,000-gallon fuel UST and three 12,000-gallon fuel USTs that were removed in 2003. a release to soil of diesel fuel reported in 2003. The regulatory case was closed in 2012.

- **Former Virginia & Truckee Railroad Roundhouse – 201 E. William Street**

According to the US Brownfields database, this property was used as a railroad service facility that operated from 1873 to 1950. A Phase II ESA was conducted in 2011, which found asbestos, arsenic, petroleum, and volatile organic compounds, in soil and/or groundwater at the Site.

This historical railroad facility likely utilized the two parcels that are contemplated for a ROW acquisition. Currently there is relatively new construction on these parcels consisting of a Jack in the Box restaurant.

- **Smith's Fuel Center #356 – 599 E. William Street**

This fuel station is listed in the NV UST database as having one 8,000-gallon, one 10,000-gallon, and one 20,000-gallon UST. No releases are reported for this facility.

- **Chevron/Jackson Food Store #128 – 1400 Rand Avenue**

This facility is listed in the NV LUST database as having one 6,000, one 8,000, and one 10,000-gallon UST. A release of fuel to soil was reported in 1998, and the regulatory case was closed in 2007.

The following facilities are listed in the environmental databases reviewed but are not adjacent to the project limits. These facilities are included within the environmental databases reviewed because they are permitted facilities utilizing hazardous substances although no violations or issues have been reported. The potential for releases from these facilities to adversely impact conditions within the project limits is low.

- **Capital Cleaners - 1994 E. William Street**

This facility is listed in the EDR Hist Cleaner database as a former dry-cleaning business. No regulatory case for a release from this facility is noted.

- **Capital Cab/ Midas Muffler – 1705 E. William Street**

This facility is listed in the NV UST database as having a 500-gallon waste oil UST that was removed in 1998. No regulatory case for a release from this facility is noted.

- **Coast to Coast Hardware – 2290 E. William Street**

This facility is listed in the NV RGA LUST database, with no additional information. This facility is listed in the Nevada Department of Environmental Protection (NDEP) website as having a release of Kerosene to soil. The regulatory case was closed in July 1992.

- **Kit Carson Cleaners – 2520 E. William Street**

This facility is listed in the EDR Hist Cleaner database as a former dry-cleaning business. No regulatory case for a release from this facility is noted.

- **Mercury Cleaners – 2188 E. William Street**

This facility is listed in the EDR Hist Cleaner database as a former dry-cleaning business. No regulatory case for a release from this facility is noted.

- **Carson Car Wash – 408 E. William Street**

This facility is listed in the NV RGA LUST database, indicating that a release of fuel from a UST occurred at this location. Three 10,000-gallon fuel tanks were installed at this facility in the 1970s, with the last one being removed in 2000. No other information regarding this case is available.

- **Andy Bitti Motors, Inc. – 220 E. William Street**

This facility is listed in the NV UST database as having a 2,000-gallon gasoline UST that was removed in 2000, and a 500-gallon waste-oil tank that was removed in 2009. Two regulatory cases for this facility are listed in the NDEP website for releases of hydrocarbons to soil. The regulatory cases were closed in 1990 and 2016.

- **Williams Street Property – 1208 East William Street**

This property is listed in the US Brownfields database as a propane storage and sales facility from the 1950s until sometime around 2000. No other information is listed regarding this facility.

- **Chin Heui – 1426 E. William Street**

This facility is listed in the EDR Hist Cleaner database as a former dry-cleaning business. No regulatory case for a release from this facility is noted.

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- **Quickie Cleaners – 599 E William Street**

This facility is listed in the EDR Hist Cleaner database as a former dry-cleaning business. No regulatory case for a release from this facility is noted.

Site Reconnaissance

On March 18, 2022, NCE personnel conducted a Site reconnaissance to assess current land use that may represent an environmental concern and that could have an adverse impact to the project and planning process. The weather at the time of the visit was cool, clear, and sunny.

Summary of Observations

The Site is mostly comprised of current Carson City Right-of-Way, including East William Street and associated sidewalks, curbs, and gutters. The project limits boundary map provided by the City indicates that portions of some adjacent privately owned parcels are also within the project limits and may require easements or ROW take to meet project objectives. Most of these areas include paved and landscaped areas. No structures are within the project limits. Several automotive fueling stations are partially within or adjacent to the Site, including Carson Central Gasoline, Chevron (2 locations), and Smith's. Capitol Cab is located at 1705 E. William Street and was found to have an intact well box behind the structure next to a vehicle lift, indicating that an environmental investigation was conducted at this location in the past although no details were available.

Findings and Recommendations

Findings

This section details environmental concerns that were identified at the Site during this assessment. Listed below is a summary of those concerns followed by general initial recommendations based on the findings to date

- Current and former automotive fueling stations are commonly associated with impacts to soil and groundwater from leaking USTs. Carson Central Gasoline (1017 N. Carson St.), Smith's Fuel Center (599 E. William Street), Cordas Chevron/Jackson Food Store #169 (1102 N. Carson Street), and Chevron/Jackson Food Store #128 (1400 Rand Avenue) represent environmental concerns. Concerns would consist of potentially encountering undocumented hydrocarbon impacted soils and/or shallow pipeline/UST facilities within the construction easement during the planned shallow grading or drilling activities associated with foundation for streetlights or other amenities requiring deeper foundations.

- The Former Virginia & Truckee Railroad Roundhouse (201 E. William Street) is the location of documented impacts to soil and groundwater from past use as a railroad maintenance facility. These parcels, on the south side of East William Street between Plaza Street and Stewart Street represent an environmental concern. The potential concern for these parcels is two-fold; 1) the same concern noted above regarding encountering unforeseen conditions in the shallow subsurface during construction, and 2) the planned City ownership of portions of these parcels to accommodate the turn lane at this location. The City taking title to portions of these parcels requires vetting with City legal counsel and risk management. If in the future contaminants and/or a source of contaminants is discovered within the ROW acquisition area, there is a potential that the City could be viewed as a responsible party by the regulatory agencies and could be obligated to mitigate the impacts.
- Aerially deposited lead (ADL) is lead originating from automotive exhaust gases that settle in soils near roadways. ADL is commonly found in shallow soils (as deep as 3 feet) near roadways that existed during the time that gasoline contained lead. Leaded gasoline was banned by the United States Environmental Protection Agency (USEPA) in 1996. East William Street has existed since sometime after 1939 and prior to 1953. ADL is a constituent of potential concern in near surface Site soils along the entire project. This concern is related to both worker safety and the handling and disposal of any surplus soils that may be generated during construction.
- A monitoring well box was observed just south of the Capitol Cab building (1705 E. William Street), indicating impacts to soil and groundwater may be present on this parcel, which is an environmental concern. Concerns would consist of potentially encountering undocumented hydrocarbon impacted soils during the planned shallow grading or drilling activities associated with foundation for streetlights or other amenities requiring deeper foundations.

Recommendations

- For excavation activities associated with improvements near fueling stations and adjacent to the areas of concern noted adjacent to the Site, it is advisable that the contractor be required to prepare a soil management plan that details how impacted soils can be identified and properly managed and disposed.
- Parcels 00216108 and 00216109 are adjacent to the east of the Former Virginia & Truckee Railroad Roundhouse. NCE understands that the City may acquire portions of these two parcels to install a turn lane from eastbound East William Street to southbound North Stewart Street. It is assumed that

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these two parcels were once part of the Roundhouse prior to being developed into a parking lot and restaurant. Impacts from former railroad operations may be present on these parcels. Prior to acquiring a portion of these parcels, it is advisable to conduct a soil investigation to determine if impacts to soil from past use are present.

- To address worker health and safety, and to plan for potential costs to manage and dispose of any surplus soils generated as part of construction, it is advisable to evaluate whether elevated lead concentrations are present in near surface soils by conducting a shallow soil sampling and analysis investigation within the areas where shallow grading is anticipated.

Appendix A Figures



County: Carson City
 USGS 7.5' Quad Map: Carson City & New Empire
 TRS: T.15N., R.20, Sec. 9, 16-17

Legend
 Project Area



East William Street Environmental Feasibility Study Project

Project Vicinity Map



1:24,000
 0 1,000 2,000 ft.

FIGURE 1

DATE	1/25/2022	APPROVED	jhall
DRAWN	sdavenport	REVISED	3/23/2022
JOB NUMBER	953.11.25		



 	<p>FIGURE 2a</p>	<p>APPROVED mkinney</p>
<p>1 in. = 200 ft.</p> 	<p>REVISÉ 4/7/2022</p>	<p>DATE 1/25/2022</p>
<p>East William Street Environmental Feasibility Study Project Project Detail Map</p>		
<p>SOURCE Carson City Ortho Imagery</p>	<p>DRAWN sdavenport</p>	<p>JOB NUMBER 953.11.25</p>
<p>Legend</p> <ul style="list-style-type: none">  Project Area  Areas of Concern  Potential Partial Parcel Acquisition 	<p>DATE 1/25/2022</p>	<p>APPROVED mkinney</p>



 	<p>FIGURE 2b</p>	<p>1 in. = 200 ft.</p>  <p>0 100 200 ft.</p>	<p>APPROVED mkinney</p>
<p>East William Street Environmental Feasibility Study Project Project Detail Map</p>		<p>DATE 1/25/2022</p>	<p>REVISED 4/7/2022</p>
<p>Legend</p> <ul style="list-style-type: none">  Project Area  Areas of Concern  Potential Partial Parcel Acquisition 		<p>SOURCE Carson City Ortho Imagery</p>	<p>JOB NUMBER 953.11.25</p>
		<p>DRAWN sdavenport</p>	<p>DATE 1/25/2022</p>



 	<p>FIGURE 2C</p>	<p>1 in. = 200 ft.</p>  <p>0 100 200 ft.</p>	<p>APPROVED mkinney</p>
<p>East Williams Street Environmental Feasibility Study Project Project Detail Map</p>		<p>DATE 1/25/2022</p>	<p>REVISED 4/7/2022</p>
<p>Legend</p> <ul style="list-style-type: none">  Project Area  Areas of Concern  Potential Partial Parcel Acquisition 	<p>JOB NUMBER 953.11.25</p> <p>DRAWN sdavenport</p> <p>DATE 1/25/2022</p> <p>REVISED 4/7/2022</p> <p>APPROVED mkinney</p>		





<p>Legend</p> <ul style="list-style-type: none"> Project Area Areas of Concern Potential Partial Parcel Acquisition 	<p>SOURCE Carson City Ortho Imagery</p>	<p style="text-align: center;">East William Street Environmental Feasibility Study Project Project Detail Map</p> <p>DATE: 1/25/2022 DRAWN: sdavenport</p> <p>REVISIONS: 4/7/2022</p>	<p style="text-align: center;">ANCE</p> <p>FIGURE 2d</p> <p>APPROVED mkinney</p>
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