INTEROFFICE MEMORANDUM

TO: Karen Good, PW Policy and Planning
FROM: Gene Hook, Environmental Quality Division
DATE: May 17, 2017
SUBJECT: North Washington Street Improvement Project

At your request, Denver’s Department of Environmental Health, Environmental Quality Division (EQ) conducted a limited environmental evaluation of a proposed street improvement project for North Washington Street (the Project), in the Globeville neighborhood. The Project area includes the current right of way (ROW) for North Washington Street, as well as the parcels or portions of parcels immediately adjacent to the current ROW. Planning documents indicate the ROW could potentially be expanded in some areas to accommodate a new streetscape design. The Project area extends from the South Platte River on the south, to the boundary of the City and County of Denver (CCoD) on the north, at about 52nd Avenue. The Project corridor is approximately 1.1 miles in length, and is shown in Figure 1. DEH understands future utilities installed within the Washington Street ROW will be approximately 5–10 feet below ground surface (bgs).

EXECUTIVE SUMMARY AND RECOMMENDATIONS

Based on information reviewed, it is EQ’s opinion that construction of street improvements, with utilities installed at a maximum depth of approximately 5–10 feet bgs, would not likely encounter soil contaminated with petroleum or hazardous waste with some exceptions. Based on historical uses, the following locations are at an elevated risk of encountering contamination in subsurface soil or groundwater:

- Area of 51st Avenue & Washington Street
- 5050 Washington Street
- 4995 Washington Street
- 4801–4815 Washington Street
- 4651 Washington Street
- 4492 Washington Street

EQ recommends a limited site investigation (LSI) of the Project area adjacent to these addresses to identify the presence of possible contamination via soil and groundwater sampling, confirm the depth to groundwater and provide data to inform materials
management during construction. Also, because of the large number of other sites identified of potential (“low”) environmental concern, EQ suggests additional samples be intermittently collected along the Project corridor, to further assess potential contamination and inform materials management needs. Performing the LSI in conjunction with geotechnical investigations would minimize costs and potential project delays.

Should groundwater be encountered during the Project, and construction dewatering be required, the water may require treatment prior to discharge. EQ can assist with questions regarding permitting requirements and management of contaminated groundwater.

In addition, because of past demolition practices in Denver, parcels along the ROW may contain buried building debris with asbestos containing materials (ACM). EQ recommends earth moving activities during the Project be conducted following Denver’s existing CDPHE-approved plan for managing regulated asbestos contaminated soil (RACS), to ensure contaminated materials are appropriately managed and disposed per state regulations.

PROJECT SCOPE

This evaluation was performed to obtain information that would indicate or identify environmental conditions in connection with the Project area. The scope of the evaluation consisted of the following tasks:

- Review of North Metro Natural Gas Pipeline Project Routing Report, Prepared for Xcel Energy, prepared by TetraTech, dated December 2016 (TetraTech 2016);
• Review of Voluntary Clean-up Plan (VCUP), 3521, 3705, and 3755 Ringsby Court, Denver, Colorado, dated July 21, 2016, prepared by SJRE Environmental Consulting Services, Inc (SJR 2016).

• Review of City and County of Denver (CCoD) Historical Landfill database (Pinyon, 1997);

• Review of City and County of Denver (CCoD) historical gas station and drycleaner databases (Pinyon, 2007);

• Review of county, state and federal lists of known potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations, including any registered underground storage tanks (EDR report run March 8, 2017);


• Site visit on April 26, 2017; and

• Preparation of this memorandum to present a summary of the findings.

FINDINGS AND SUMMARY

Database Review
On March 8, 2017, EQ performed a regulatory database search for the Project area. EQ reviewed the database report for potential sources of petroleum hydrocarbons or hazardous substances that were reasonably close to and up gradient of the Project area. Regional groundwater is expected to flow to the east/northeast, towards the South Platte River, over much of the Project area. Recent Phase II Environmental Site Assessments (ESAs) performed on the north part of the Project area measured groundwater at a depth of 7–12 feet bgs, and groundwater was determined to be moving to the north at that site (CGRS 2016, GSC 2016). Similarly, a 2016 Phase II ESA on the southern part of the Project area measured groundwater at 12–13 feet bgs, flowing to the north/northeast (Terracon 2016b). In general, sites to the west/southwest would be considered hydrologically upgradient to the Project area; however, groundwater flow direction may vary along the length of the Project corridor.

Sites of specific concern identified in the database review are included in Table 1 below, and discussed in more detail in the section following the table. Their approximate locations are presented in Figure 1.
Historical Review

Early uses of land near the Project area were identified on the basis of a review of historical aerial photographs, Sanborn® Fire Insurance Maps and city telephone directories. The ASARCO smelter was present at the north end of the Project area as early as 1886. By 1904, a school and hotel were located near the smelter; the area east of the smelter, north of 52nd Avenue, was a slag dump for the smelter. Residential units existed south of the smelter along the Washington Street Project area, but were widely spaced. By the 1920s and 1930s there was additional residential development, as well as the construction of more commercial businesses and community buildings along the Project area. During the 1950s, there was additional commercial development, including sites identified as manufacturing facilities. By the 1960s, some of the structures were identified as vacant on Sanborn® maps and uses appear to change, including conversion from residential to commercial.

A number of structures visible on historic Sanborn® maps along the Washington Street corridor appear to have been demolished throughout the years. Because of historical demolition practices in Denver, ACM may remain in soil in any location where buildings were demolished in the Washington Street corridor Project area.

Sites of specific concern are included in Table 1 below, and discussed in more detail in the section following the table. Their approximate locations are presented in Figure 1.

Environmental Concerns

The classification of potential environmental concerns in Table 1 varies by the specific circumstances of each site. The methodology to classify environmental concerns is briefly described here.

Leaking Underground Storage Tanks (LUSTs) are locations identified as having been associated with a spill from a petroleum fuel storage system. Releases are reported to the Colorado Department of Labor and Employment, Division of Oil and Public Safety (OPS), who also oversees compliance, remediation, and monitoring activities on the sites. EQ has made judgements as to whether significant impacts may remain on or near the property from previous releases that may be encountered by this Project. Even sites judged as low risk could still contain residual petroleum chemicals in soil or groundwater that would require management, if encountered during Project excavation activities.

Historical gas stations are businesses believed to be associated with the dispensing of fuels, which may or may not have had a petroleum release reported to OPS. If a release was reported for a historical gas station, the site was classified as a LUST in this document.

Sites were classified as automotive or historical automotive if there was no information to specifically suggest the facility was associated with onsite fueling operations; based on Sanborn® maps and telephone directory listings, these businesses typically appeared to perform automotive repair functions. Automotive businesses and salvage businesses
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present similar concerns for releases of petroleum products, solvents, and other hazardous materials to soil or groundwater.

One area of potential historical urban fill (HUF) was identified near the Project area. Environmental concern in areas of HUF can include buried household hazardous wastes, ACM, and methane. These areas of HUF are also likely to be geotechnically unstable.

Identified sites are summarized in Table 1 below, along with dates of operation or date of LUST closure, and EQ's estimate of the associated level of potential environmental concern. The sites are generally listed in geographic order, starting at the northern part of the Project area. Additional information about each site is presented below the table, with the site numbers corresponding to those in the table. The approximate locations of the sites are depicted in Figure 1.

Table 1. Sites of Environmental Concern for the Project Area

<table>
<thead>
<tr>
<th>Site #</th>
<th>Environmental Concern</th>
<th>Address</th>
<th>Dates</th>
<th>Level of Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Former ASARCO Smelter site</td>
<td>Area of 51st Avenue &amp; Washington Street</td>
<td>1886 to 2006</td>
<td>High</td>
</tr>
<tr>
<td>2</td>
<td>LUST</td>
<td>510 East 51st Avenue</td>
<td>Closed 1994</td>
<td>Low</td>
</tr>
<tr>
<td>3</td>
<td>LUST</td>
<td>5095 Washington Street</td>
<td>Closed 2002</td>
<td>Low</td>
</tr>
<tr>
<td>4</td>
<td>LUST</td>
<td>5050 Washington Street</td>
<td>Open – under OPS oversight</td>
<td>High</td>
</tr>
<tr>
<td>5</td>
<td>Historical Gas Station</td>
<td>4995 Washington Street</td>
<td>Mid-1950s to mid-1960s</td>
<td>Moderate</td>
</tr>
<tr>
<td>6</td>
<td>Salvage/Recycling</td>
<td>4920 Washington Street</td>
<td>2011 to present</td>
<td>Low</td>
</tr>
<tr>
<td>7</td>
<td>Salvage/Automotive</td>
<td>4901 – 4945 Washington Street</td>
<td>Early-1990s to present</td>
<td>Low</td>
</tr>
<tr>
<td>8</td>
<td>LUST</td>
<td>4900 Clarkson Street</td>
<td>Closed 2000</td>
<td>Low</td>
</tr>
<tr>
<td>9</td>
<td>Salvage</td>
<td>4801 – 4815 Washington Street</td>
<td>1991 to present</td>
<td>Low to moderate</td>
</tr>
<tr>
<td>10</td>
<td>Salvage</td>
<td>4801 Clarkson Street</td>
<td>2011 to present</td>
<td>Low</td>
</tr>
<tr>
<td>11</td>
<td>Historical Gas Station</td>
<td>4735 Washington Street</td>
<td>1960s to 1970s</td>
<td>Low</td>
</tr>
<tr>
<td>12</td>
<td>LUST</td>
<td>4708 Washington Street</td>
<td>Closed 2010</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>Address</td>
<td>Date Range</td>
<td>Category</td>
</tr>
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</tr>
<tr>
<td>13</td>
<td>Historical Dry Cleaner</td>
<td>4651 Washington Street</td>
<td>1950s to 1970s</td>
<td>Moderate</td>
</tr>
<tr>
<td>14</td>
<td>LUST</td>
<td>4633 Washington Street</td>
<td>Closed 1993</td>
<td>Low</td>
</tr>
<tr>
<td>15</td>
<td>LUST</td>
<td>4605 Washington Street</td>
<td>Closed 1992</td>
<td>Low</td>
</tr>
<tr>
<td>16</td>
<td>Historical Gas Station</td>
<td>4605 Washington Street</td>
<td>Late-1920s to late-1950s</td>
<td>Low</td>
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<tr>
<td>17</td>
<td>Historical Gas Station</td>
<td>4600 Washington Street</td>
<td>Late-1930s to late-1950s</td>
<td>Low</td>
</tr>
<tr>
<td>18</td>
<td>Historical Gas Station</td>
<td>4586 Washington Street</td>
<td>Late-1920s to mid-1950s</td>
<td>Low</td>
</tr>
<tr>
<td>19</td>
<td>LUST</td>
<td>4501 Washington Street</td>
<td>Closed 2000</td>
<td>Low</td>
</tr>
<tr>
<td>20</td>
<td>Historical Gas Station</td>
<td>535 E 45th Avenue</td>
<td>1938 to 1972</td>
<td>Low</td>
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<tr>
<td>21</td>
<td>Historical Gas Station</td>
<td>4500 Washington Street</td>
<td>1998 to present</td>
<td>Low</td>
</tr>
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<td>22</td>
<td>Historical Gas Station</td>
<td>4495 Washington Street</td>
<td>1972</td>
<td>Low</td>
</tr>
<tr>
<td>23</td>
<td>Historical Gas Station/Automotive</td>
<td>4492 Washington Street</td>
<td>1920s to 1980s</td>
<td>Moderate</td>
</tr>
<tr>
<td>24</td>
<td>Historical Automotive</td>
<td>4469 Washington Street</td>
<td>1920s to 1950s</td>
<td>Low</td>
</tr>
<tr>
<td>25</td>
<td>Historical Automotive</td>
<td>4458 Pearl Street</td>
<td>Mid-2000s</td>
<td>Low</td>
</tr>
<tr>
<td>26</td>
<td>LUST</td>
<td>4430 Pearl Street</td>
<td>Closed 1995</td>
<td>Low</td>
</tr>
<tr>
<td>27</td>
<td>LUST</td>
<td>4410 Washington Street</td>
<td>Closed 2001</td>
<td>Low</td>
</tr>
<tr>
<td>28</td>
<td>LUST</td>
<td>4395 Washington Street</td>
<td>Closed 2016</td>
<td>Low</td>
</tr>
<tr>
<td>29</td>
<td>Historical Urban Fill</td>
<td>Ringsby Court and Washington Street</td>
<td>Late-1940's to 1950</td>
<td>Low</td>
</tr>
</tbody>
</table>
Detail for Sites of Environmental Concern

1. Former ASARCO smelter site – Area of 51st Avenue and Washington Street
   - Elevated levels of the metals arsenic, cadmium, lead, and zinc have historically been measured on the former ASARCO site as well as east of Washington Street, e.g., on and near the Heller Property, north of the CCOD county line. Recent data collected as part of the ASARCO redevelopment project indicated elevated levels of metals in surface soils on the former ASARCO property along Washington Street between 51st and 52nd Avenues, as well as along 51st Avenue west of Washington Street. Areas of the Washington Street ROW on the former ASARCO property (as well as along the north side of 51st Avenue), were excavated as part of the ASARCO site redevelopment, if they exceeded site-specific cleanup levels.
   
   It is unknown if elevated levels of metals exist on other portions of the Washington Street ROW, and to what extent. The areas of concern include both the east and west sides of Washington Street, if not previously excavated. It is unknown how far north or south of 51st Avenue the area of concern may extend, or if smelter-related materials may have been used as fill or road base under the street pavement. The areas of concern may extend past that shown on Figure 1.

2. LUST – 510 East 51st Avenue – Transcon Lines reported a petroleum release in 1990, and received a No Further Action (NFA) letter from OPS in 1994, after completing cleanup. The site is located approximately 250 feet to the west of, and up gradient of Washington Street. The site is considered low risk for the Project, given the length of time since the release, the distance, and the site’s closure status.

3. LUST – 5095 Washington Street – The site has been an automotive service station since at least the 1920s. The operator, Guzman Tire, reported a petroleum release in 2001 and was granted a Tier I NFA closure letter from OPS in 2002. Based on the site’s OPS closure status, it is judged to be low risk for the Project.

4. LUST – 5050 Washington Street – The site has been occupied by automotive related services since at least the 1930’s and been a filling station (or truck stop) since at least the 1950s. The Washington Truck Stop reported a petroleum release in 2006, and received a NFA closure letter in 2007. They also reported an additional petroleum release in 2010, which is still undergoing corrective action under oversight by the OPS. This was followed by additional petroleum releases in 2013 and 2016, which also remain as open cases, under oversight of OPS. Petroleum products have been measured in groundwater at concentrations greater than cleanup levels, in or near the Washington Street ROW. Groundwater is reported to generally flow to the north in this area, and be present at depths varying between 7 and 12 feet bgs (CGRS 2016, GSC 2016). The site is judged to be high risk for encountering petroleum products in subsurface soil and groundwater.

5. Historical Gas Station – 4995 Washington Street – The property was occupied by a filling station from at least 1956 until 1961, per Sanborn® maps. It may have
continued to operate as a service station until at least 1965, as indicated by a telephone directory listing. The same 1965 telephone directory suggests the property use was transitioning into an auto sales lot, as both uses were listed for the same site. The 1995 telephone directory also lists the property as an auto sales lot; this use appears to have continued until the present, per aerial photographs. The site is judged to be moderate risk given there was no clear closing of the filling station or redevelopment of the property, and the possibility that abandoned underground petroleum storage tanks remain onsite.

6. Salvage/Recycling – 4920 Washington Street – The property has been occupied by an auto salvage operation since at least 2011. By 2014, the business appears to have transitioned to include other types of recycling, such as computers and scrap metals; this business continues to the present. It is judged to be of low environmental risk because the salvage and recycling operations appear to have occurred towards the rear of the property, off Washington Street. The area in front of the building, near Washington Street, has served as a parking lot since at least 1956, per aerial photography.

Previous uses at this address include warehouse operations associated with animal hides and sheepskin, from at least the 1960s to the 1980s; the building was specifically described as a “hide warehouse” on a 1967 Sanborn® map, and not as a tannery (a historical tannery operation would be of elevated environmental concern).

7. Salvage/Automotive – 4901 to 4945 Washington Street – These properties (as addressed in Denver’s GIS) have been occupied by what appear to be vehicle salvage operations since at least the early 1990s, continuing to the present. Most of the salvage operations appear to have occurred on the western portion of the parcels, away from Washington Street, per aerial photography. An auto body business (Jimmy Boys Auto Body) was permitted (air emissions permit) for 4919 Washington Street. An auto salvage operation (D&M Auto Parts/Washington Street Salvage), addressed as 4949 Washington Street, was the subject of several complaints regarding mishandling of automotive wastes (antifreeze, motor oil) in 1992 and 1995; the results of the investigation were not reported. This site is judged as low risk for the project, given most of the automotive and salvage operations appear to have occurred on the rear of the properties, away from the Washington Street Project area.

8. LUST – 4900 Clarkson Street – While addressed as Clarkson Street, the parcel abuts the east side of Washington Street. A business on the site, the Denver Lamb Company, reported a petroleum release to OPS in 2000, for which they received a NFA letter from OPS, also in 2000. The site is judged to be of low risk based on the short duration of the required response, elapsed time since the release, and the OPS closure status.

9. Salvage – 4801 to 4815 Washington Street – The parcels have been the site of what appears to be a vehicle salvage operation, since at least 1991. From aerial photography, vehicles and other stored salvage materials are visible on the front
(east side) of the parcels, near Washington Street. Albeit sometimes superficial in depth, salvage operations can cause impacts to soil and groundwater. The site is judged as low to moderate risk, given the duration and appearance of the operation, as well as its location on or near a potential future ROW for Washington Street.

In addition, vehicles appear to be stored on other parcels in the same general area to the north as far as 49th Avenue, however, the storage does not appear to have occurred on or immediately adjacent to the current Washington Street ROW.

10. Salvage – 4801 Clarkson Street – The western portion of the property abuts Washington Street, and has been the site of a recycling or salvage operation since about 2011. From Google Streetview® images, the recycling operation appears to have been primarily limited to general household-type items. The site is judged low risk based on the limited time-frame and scale of the operation.

11. Historical Gas Station – 4735 Washington Street – The property was occupied by an historical gas station, identified as the Giant Oil Company, from at least 1966 to 1976. The property appears to have undergone redevelopment in 1980, per Denver assessor records, and is currently occupied by a warehouse structure. The site is judged as low risk, based on construction activities that would have occurred during property redevelopment.

12. LUST – 4708 Washington Street – The business, 7-Eleven, reported a petroleum release in 1995, completed cleanup, and received a NFA letter from OPS in 1997. The facility reported another petroleum release in 2008, performed corrective action and monitoring, and received a Tier I closure from OPS in 2010. The site continues to be occupied by a 7-Eleven facility. The site is judged to be of low risk based on the OPS closure status.

13. Historical Dry Cleaner – 4651 Washington Street – Information suggests the site was occupied by a dry cleaning business from at least 1956 to 1976. By 2000, the site appears as vacant land on an aerial photograph, as does the entire block on the west side of Washington Street between I-70 and 47th Avenue. The site is judged as moderate risk, given the potential use of dry cleaning solvents, their persistence in the subsurface, and the up gradient orientation of the property to Washington Street.

14. LUST – 4633 Washington Street – The Globeville Inn, addressed as 4633 Washington Street, reported a petroleum release in 1993, for which they received a NFA letter from OPS, also in 1993. The business was also addressed as 4639 Washington Street, in the 1985 telephone directory. The property appears to have been converted to vacant land by 1995. The site is judged to be of low risk based on OPS records and the closure status.

15. LUST – 4605 Washington Street – This site is located approximately 100 feet north of the historical gas station with the same address (see below); the two sites are geographically distinct. This site was previously addressed as 4629 Washington Street and 4625–4627 Washington Street, until at least the late 1950s. The property contained an auto repair business that operated from the mid-1920s
until at least the early 1950s. In the 1950s, it was occupied by a machine shop, an “incinerator factory” and, subsequently, for storage of metal parts. By 1967, the previous structure was demolished and the property use was converted to a filling station and it was addressed as 4605 Washington Street. The filling station operator, the I-70 & Washington CONOCO, reported a petroleum release in 1990, initiated a site assessment and cleanup, and received a NFA letter from OPS in 1992. The site was converted to vacant land by the mid-1990s. The site is judged to be of low risk based on the OPS closure status.

16. Historical Gas Station - 4605 Washington Street – This site was occupied by a filling station since at least the late 1920s. It is geographically distinct from the LUST site with the same address (see above). It occupied the southern portion of the parcel, and it appears the filling station was removed in the late 1950s, when the property was acquired for the construction of the westbound on-ramp to I-70. The historical gas station site is judged low risk because of the elapsed time, and because of the extensive excavation that would have occurred for the construction of the I-70 on-ramp.

17. Historical Gas Station - 4600 Washington Street – The site was a filling station from at least the late-1930s until the late-1950s. The site was redeveloped in the mid-1970’s per Denver Assessor records, and became part of the DenCol metal processing facility in the mid-1990s, per telephone directories. The site is judged low risk to the Project because of the elapsed time, and because of its redevelopment status.

18. Historical Gas Station - 4586 Washington Street – The site is labeled as a filling station on a 1950 Sanborn® map, which also depicts gasoline tanks onsite. The same structure (unlabeled), is shown on Sanborn® maps from at least 1929 until 1951. The property appears to have been acquired for the construction of I-70, by the mid-1950s. The site is judged low risk because of the elapsed time, and because of the extensive excavation that would have occurred for the construction of I-70.

19. LUST - 4501 Washington Street – The operator at this site, Western Fire Services (addressed as 601 E 45th Avenue), reported a petroleum release to OPS in 2000, for which they received a NFA letter, also in 2000. A portion of the site was developed with a filling station in the 1960s, which appears to have also performed automotive repair services. In the late 1970s, operations transitioned to a fire equipment company and a snow removal business by 2010; information indicates the latter business continued to perform vehicle repair onsite. A spill of approximately 100 gallons of gasoline occurred in 2010, and was reported as cleaned up. A Phase II ESA performed in 2016, identified no significant contamination in onsite soils or groundwater. Low levels of several polycyclic aromatic hydrocarbons (PAHs) were measured in soil and one in groundwater, as well as an inorganic (barium), in groundwater. All results were below applicable standards for soil and groundwater (Terracon 2016b). Groundwater was encountered at 12–13 feet bgs, and appears to flow to the north-northeast. Based on the Phase II ESA, the site is judged low risk for environmental concern.
However, this does not imply that groundwater can be discharged without treatment. Should construction dewatering be necessary for the Project; evaluation of groundwater quality, via laboratory analysis, would be required.

20. Historical Gas Station – 535 E 45th Avenue – This site was reported as a historical gas station in a third-party report (Terracon 2016a), and stated to have operated from 1938 until at least 1972. It is located approximately 200 feet from the Washington Street ROW, just west of the 4501 Washington Street site. The site is judged low risk for the Project area, because of its distance and lack of identified concerns in the Phase II ESA performed for the 4501 Washington Street site.

21. Historical Gas Station – 4500 Washington Street – The site has operated as a gas station since at least 1998 (The C Store/Conoco), until the present. Prior to redevelopment as a gas station, the site was occupied by businesses that appear to lack associated environmental concern, such as a barber and a series of restaurants. Based on the lack of reports of petroleum releases for the gas station, the fact the gas station is a recent business (and in the modern regulatory framework), the site is judged to be of low environmental concern for the Project.

22. Historical Gas Station – 4495 Washington Street – A third-party report (Terracon 2016a) states a business addressed as 4495 Washington Street contained a filling station (Interstate Mobil) based on a telephone directory listing for 1972; the source of this information was not available for review. However, reviewed directories for 1970 and 1976 do not list a filling station for 4495 Washington Street or for adjacent addresses. No other information was available to corroborate the 1972 telephone directory listing. The property was redeveloped with a larger structure by 1984. The site is judged low risk for the project based on what appears to be a brief period of operation, and subsequent site redevelopment activities.

23. Historical Gas Station/Automotive – 4492 Washington Street – The site is shown as a filling station on a 1925 Sanborn® map. From 1937 until at least 1961, Sanborn® maps show a gasoline tank located in the Washington Street ROW near the site. From at least 1950 to 1958, the business onsite is labeled as a Tin Shop. By 1961 the use had transitioned to automotive repair, and by 1965 to truck repair. The truck repair operation continued until at least 1970, and then appears to have transitioned to automotive repair in the mid-1970s, until at least 1981. By about 1988, the site appears to have been converted into the parking lot of the present day McDonald’s restaurant (4490 Washington Street, per Denver GIS). The site is judged to be of moderate environmental risk because of its long period of historical uses, and it is unknown if gasoline tanks were appropriately removed from the Washington Street ROW.

24. Historical Automotive – 4469 Washington Street – An auto repair shop was identified on 1950 and 1951 Sanborn® maps. A structure labeled as auto-related is shown on a 1929 Sanborn® map. The site was identified as an historical automotive garage in 1951 (Andy’s Garage) in a third-party report (Terracon
By 1956, the structure is labeled as vacant, and the business appears to have ceased operation at this location. The site is judged low risk because of the elapsed time since operation, and because there is no indication fuel tanks were located onsite.

25. **Historical Automotive – 4458 Pearl Street** – The 4458 Pearl Street property is approximately 15 feet to 30 feet (varies) from the Washington Street ROW. It abuts the west side of two narrow parcels on Washington Street, addressed as 4431 and 4441 Washington Street. The site (the narrow parcels as well as much of 4458 Pearl St) was occupied by a building located near Washington Street that housed a variety of commercial or retail businesses (e.g., an electrical contractor), from at least 1967 through 2000. The building was demolished by 2002 and the property was used for what appears to be external storage of materials and vehicles for a business occupying another building on the northwestern portion of the Pearl Street parcel. The 4458 Pearl Street property was identified as occupied by a business performing automotive repair during 2005 and 2006 (Terracon 2016a). The property continued to be used for storage of materials and vehicles, and by 2011 was occupied by a business that appears to focus on the repair of recycling industry equipment (e.g., compactors or balers). The site is judged relatively low risk for environmental concern given the short duration of the automotive repair business, and the vehicle and material storage appears to have occurred to the west, somewhat removed from the Washington Street ROW (i.e., not on the narrow parcels addressed as Washington Street).

26. **LUST – 4430 Pearl Street** – The parcel (addressed as 4433 Washington Street in Denver GIS) was the site of a reported petroleum release in 1993. The site, identified as Unoccupied Commercial Building, received a NFA letter from OPS in 1995. A large building on the property was demolished by 2000, and a smaller building by 2002. The parcel is currently owned by the CCOD and contains a storm water pumping station. The site is judged low risk for environmental concerns for the Project because of its closure status with OPS, and because of the redevelopment performed on the site by CCOD.

27. **LUST – 4410 Washington Street** – Dawn Industries reported a petroleum release in 2001, for which they received a NFA letter from OPS, also in 2001. In 2010, RTD drilled two borings onsite which did not reveal contamination in soil, at depth. However, low levels of the solvent, perchloroethylene, were measured in groundwater at a concentration below applicable standards. Depth to groundwater was noted as 16 feet bgs (LTE 2011). The site is judged to be of low risk based on the OPS closure status, and the lack of soil contamination identified during the RTD sampling. However, should construction dewatering be required, the water extracted during construction will likely require treatment prior to discharge.

28. **LUST – 4395 Washington Street** – The Ready Mix Concrete Plant reported petroleum releases in 2000 and 2016. They received an NFA in 2000 for the initial release, and a Tier I closure letter in September of 2016 for the most recent
release event. Based on its closure status, the site is judged to be of low risk for the Project.

29. **HUF area – Washington Street and Ringsby Court** – The area west of Washington Street, generally between the South Platte River the Burlington Northern railroad tracks is identified as a known area of historical urban fill (HUF). The site was a former gravel pit that received landfill material in the late 1940s until about 1950. Elevated levels of methane gas were measured in the subsurface at a development project on Ringsby Court, more than 500 feet southwest of Washington Street (SJR 2016). While the exact boundaries of the HUF area are not defined, it is unlikely the fill area extends as far north as Washington Street. Aerial photographs from 1933 and 1950 appear to show mature trees as well as structures on the west side of Washington Street, between the river and the railroad. So, it is unlikely the area of fill extended to Washington Street.

**Current Conditions**

EQ visited the Property on April 26, 2017. The Project area is occupied by a roadway and is adjacent to a variety of commercial properties, and several properties that appear to remain as residential. Other than the items mentioned above, there was no obvious indication of environmental concern identified during the site visit.

**LIMITATIONS**

The limited scope of this environmental evaluation must be understood. Future regulatory changes, agency interpretations, and/or concepts of due diligence industry standards are beyond the control of EQ.

EQ’s objective is to perform our work with care, exercising the customary skill and competence of Environmental Site Assessment professionals in the relevant disciplines. The opinions presented herein apply to subject property conditions existing at the time of our investigation and those reasonably foreseeable. EQ does not warrant or guarantee the subject property suitable for any particular use or purpose, or certify that the subject property is “clean”.

As with any environmental concern, EQ is available to advise all city agencies and is pleased to be of service. If you have any questions or concerns that you would like to discuss regarding this limited site evaluation, please telephone Gene Hook (720-865-5469).

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Figure 1. North Washington St Potential Environmental Concerns

Legend
- Open LUST site
- Other Concerns
- Historical Dry Cleaner
- Historical Gas Station
- Closed LUST site
- Elevated Metals in Soil
- Project Area
- Historical Fill Area
- County Boundary (Area)

2014 Aerial Photography

DENVER ENVIRONMENTAL HEALTH

Map Date: February 2017
Map created by: Hook
Division of Environmental Quality,
2017-ESA-JOB-0088

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