



Hazardous Materials Technical Report

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Submitted To: 
CDOT Region 6
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1.0 INTRODUCTION	1
1.1 REPORT OVERVIEW	1
2.0 GEOLOGY AND HYDROGEOLOGY OF THE CORRIDOR	2
3.0 CRITERIA USED TO EVALUATE EXISTING ENVIRONMENTAL CONDITIONS	3
4.0 EXISTING ENVIRONMENTAL CONDITIONS	6
4.1 Landfills	6
4.2 LUST Sites	7
4.3 UST Sites	9
4.4 RCRA Sites	10
4.5 UP/BNSF Rail Corridor	11
5.0 CONCLUSIONS AND RECOMMENDATIONS	12
6.0 REFERENCES	14

Table 3-1	4
Table 3-2	5
Table 4-1	7
Table 4-2	8
Table 4-3	9
Table 4-4	10

Appendix

- Figure 1 - Potential Hazardous Materials and EL Limits of Construction
- Figure 2 - Potential Hazardous Materials and GPL Limits of Construction
- Figure 3 - County Line Landfill, Environmental Monitoring System
- Table of Hazardous Material Sites Identified Along the C-470 Corridor

1.0 INTRODUCTION

State Highway C-470 (C-470) was designed and constructed as part of a planned beltway that together with the E-470 and Northwest Parkway currently encircles much of the greater Denver metropolitan area. C-470 spans the southwestern portion of the city's perimeter extending from Interstate Highway 25 (I-25) to Interstate Highway 70 (I-70). The highway passes through Douglas, Arapahoe, and Jefferson Counties. Goodbee & Associates, (Goodbee) under contract to Wilson and Company and the Colorado Department of Transportation (CDOT), is evaluating existing and potential environmental conditions along the highway corridor. The information obtained will be used to evaluate potential impacts of several proposed alternatives to the existing layout of C-470.

The purpose of this Technical Report is to provide the Colorado Department of Transportation (CDOT) with information ascertained to date regarding the status of hazardous material sites along the C-470 corridor. Goodbee performed an environmental database review, file searches at various agencies for specific sites and field verification of site locations. The Affected Environment and Environmental Consequences sections of the Environmental Impact Statement (EIS) will be developed using the information presented in this report.

An environmental database search was conducted in August 2003. The results and findings of that search along with other information collected on specific sites are presented herein. Goodbee prepared this memorandum based on information provided by Environmental Data Resources, Inc (EDR), a database search company, information obtained from US Environmental Protection Agency (EPA), Colorado Department of Public Health and Environment (CDPHE), Tri-County Health Department and the Colorado State Oil Inspector's Office (OPS). The criteria set for the search per CDOT are presented in Table 1.

1.1 REPORT OVERVIEW

Section 2.0 describes a general overview of the geology and hydrogeology of the area. Section 3.0 presents the criteria used to evaluate hazardous material sites. Section 4.0 presents the hazardous material sites identified as having a potential for concern along the corridor. Sites identified in the database search where the potential for impact was considered negligible are not discussed in this report. Conclusions and recommendations regarding the environmental concerns identified along the corridor are presented in Section 5.0. Finally, Section 6.0 presents the references used to compile this report. All of the sites identified in the database search are presented in the Appendix.

Goodbee reviewed the available information within the scope of work; however limitations and inaccuracies in the data reviewed could result in changes to the level of potential concern determined for the sites identified in this report.

2.0 GEOLOGY AND HYDROGEOLOGY OF THE CORRIDOR

The study area lies within the Colorado Piedmont, along the western flank of the Denver Basin. The geologic setting along the C-470 corridor includes bedrock and variable thicknesses of surficial deposits that overlie the bedrock. The bedrock is moderately hard while the surficial deposits are unconsolidated. Sedimentary rock layers dip steeply from the flank of the Front Range eastward into the Denver Basin, then rise much more gradually up the eastern flank of the basin in eastern Colorado.

The bedrock within the corridor is all of sedimentary origin. Four major bedrock units are present in the corridor area and consist of 1) the Undifferentiated Denver and Arapahoe Formations which are primarily interbedded sandstone, 2) the Laramie Formation, which consists of shale, siltstone, and sandstone, 3) the Fox Hills Sandstone, and 4) the Pierre Shale.

Overlying the bedrock formations are deposits of surficial material composed of alluvium, colluvium, and loess. These deposits vary considerably in depth and are composed predominantly of cobbles, gravel, sand, silt, and clay deposits.

The Denver ground-water basin extends from the Front Range east to near Limon, and from Greeley south to near Colorado Springs. This basin includes four main bedrock aquifers. Three Denver Basin aquifers are located in the C-470 corridor and include the Denver aquifer, the Arapahoe aquifer, and the Laramie-Fox Hills aquifer. The aquifers are generally confined, except in areas where water-table conditions exist in the upper parts of the aquifers.

Shallow unconfined aquifers contained in the alluvium are most likely to be impacted by hazardous material sites identified along the C-470 corridor. Groundwater flow in these aquifers is largely controlled by surface topography and is generally towards streams and rivers. Groundwater flows from higher to lower water table elevation. Areas of shallow, unconfined groundwater are present along the corridor.

3.0 CRITERIA USED TO EVALUATE EXISTING ENVIRONMENTAL CONDITIONS

The potential for environmental impact on highway design, right of way acquisition and worker health and safety was assessed for each site identified in the database search. The following criteria were used to determine the likely potential for concern:

- **Distance of each site from C-470**

In general, distances less than 500 feet were considered of high concern, between 500 to 1000 feet of moderate concern, and from 1,000 to 2,000 feet of low concern. Distances greater than 2,000 feet were considered of negligible concern, unless available information indicated otherwise.

- **Type, magnitude and date of release to the environment (where reported)**

Each site was reviewed on a case-by-case basis to determine the likely potential impacts of environmental concern. For example, a spill of less than 10 gallons, of a common chemical composition (i.e. gasoline), and occurring 10 years ago was considered to have a negligible impact on the corridor.

- **Depth and direction of groundwater flow**

Groundwater flow direction is expected to be toward the north and the South Platte River. Bedrock topography, recharge and discharge areas, soil and bedrock conditions and proximity to pumping wells can affect the direction of flow. Contaminated sites located hydraulically down gradient of C-470 were considered to have less impact than those located up gradient. Many of the LUST site files reviewed had reported groundwater elevations and the hydraulic gradient established from field studies performed at those sites. These data were used when available.

Table 3.1 presents a description of the database resources and minimum search distance for sites along the C-470 corridor.

Table 3-1			
Database Description and Approximate Minimum Search Distance			
Database	ASTM Approximate Minimum Search Distance (Miles)	CDOT Approximate Minimum Search Distance (2000 Guidelines) (Miles)	Radius Searched (Miles)
Federal National Priorities List (NPL) EPA's database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program.	1.0	1.0	1.0
Federal Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	0.5	1.0	1.0
Federal Resource Conservation and Recovery Act (RCRA) Treatment, Storage, or Disposal (TSD) Facilities	1.0	1.0	1.0
Federal Resource Conservation and Recovery Information System (RCRIS) Facilities that are regulated based on current hazardous waste generation management activities.	Site and Adjoining Properties	0.25	0.5
Federal RCRA Corrective Action (CORRACTS) facilities Sites identified as needing Corrective Action after a release of a hazardous waste or constituent into the environment from a RCRA facility.	1.0	Not included	1.0
Federal/State Emergency Response Notification System (ERNS) List Database of public complaints and reports of unverified releases or incidents.	Property Only	0.25	0.5
State Voluntary Cleanup Programs (VCUP) Sites	1.0	1.0	1.0
State Historical Landfill Sites Inactive landfill sites (including sites known to generate methane) and illegal dump sites	0.5	1.0	1.0
State Above Ground Storage Tank (AST)/Underground Storage Tank (UST) List of sites that registered the presence of ASTs/USTs with the Colorado Department of Labor and Employment.	Property and Adjoining Properties	0.25	0.25
State Leaking Underground Storage Tanks (LUST) List of closed or un-remediated	0.5	1.0	1.0

reported LUSTs.			
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Table 3.2 presents the criteria used to establish ranking of the sites identified in the database search. Adjustments were made on a case-by-case basis where file information indicated the potential for concern should be higher or lower. Using the criteria outlined below in Table 3.2, either a negligible, low, moderate or high potential was assigned to each site based on review of data gathered to date and field verification.

All of the sites identified in the database search are presented in the Appendix of this report. Sites of moderate concern are shown on Figures 1 and 2 (See Appendix) as orange colored triangles. Those with a high level of concern are designated with yellow triangles. Slightly different criteria were used for determining potential for concern on underground storage tank sites where no leaks have been reported. This is described in Section 4.3.

Table 3-2 Criteria Used to Evaluate Environmental Conditions			
Criteria	High Potential for Concern	Moderate Potential of Concern	Low Potential of Concern
Distance	≤500 feet	>500 to 1,000 feet	>1,000 feet
Type of Release	Large Release > 100 gals	Moderate Release <100 gals and >10 gals	Small Release <10 gals
Groundwater Flow Direction	Hydraulically Up-gradient of C-470	Hydraulically Cross Gradient or Down-gradient of C-470	Hydraulically Down-gradient of C-470

4.0 EXISTING ENVIRONMENTAL CONDITIONS

4.1 LANDFILLS

Two landfills were identified in the database search. Each site is discussed below. A considerable amount of data regarding environmental concerns at County Line Landfill is available. It was ranked as having a High potential for environmental concern due to the presence of methane in the landfill and proximity to the C-470 Highway corridor. Based on data provided by Tri-County health department, Western Paving landfill was ranked with a Negligible potential for concern.

County Line Landfill (Site ID 85)

This site is located near the NE corner of Colorado Boulevard and C-470. This solid waste municipal landfill operated from the 1960's until its closure in 1987. The landfill is owned by Arapahoe County and maintained by Waste Management Inc. Since closure, the South Suburban Recreation District has leased a part of the landfill and constructed a sports complex with artificial grass playing fields and a BMX-track. As a part of the post-closure plan, the Colorado Department of Public Health and Environment (CDPHE) requires groundwater and methane monitoring. Currently, Waste Management monitors groundwater quality via a natural attenuation remedial action program. Quarterly methane monitoring is also required and excess methane is flared in a structure located near the SW corner of the landfill.

Contaminated groundwater is present at the landfill. A plume was identified along the northern part of the landfill. Groundwater flows to the north and the plume migrated off-site in that direction. As a result, a groundwater barrier was installed near the northern end of the landfill and contaminated ground water was pumped and treated by the Englewood Wastewater Treatment Plant. A remedial action program using natural attenuation is now in progress.

Figure 3 (Appendix) shows the landfill property boundaries, the methane collection system located throughout the landfill, methane monitoring wells, and groundwater quality monitoring wells. The proximity of the methane monitoring wells along the southern and western boundaries of the landfill is noteworthy. The southern methane collection wells are visible from C-470. A methane flare is situated in the southwest corner of the landfill.

According to Waste Management, methane in the northern monitoring wells was sometimes problematic and exceedances were observed. Additional methane recovery piping was installed in the northern part of the landfill to accommodate excess methane. All methane-monitoring wells have been in compliance with State requirements since the additional piping was installed.

Western Paving Landfill (Site ID 96)

This landfill was identified from the State Historic Landfill list. The State Historic Landfill list was developed by CDPHE in the 1980s and is often inaccurate. CDPHE had no file information regarding this site. A review of Tri-County Health Department records indicated that wastes from this site, located at 8347 Blakeland Ave, were disposed in the 1960's at a landfill located in Adams County. Therefore, this site was ranked as having a negligible potential for impact on the C-470 corridor improvements.

4.2 LUST SITES

A total of 27 leaking underground storage tanks (LUSTs) were identified in the database search along either side of the C-470 corridor. Each site identified in the search was reviewed by examining files maintained by the State Oil Inspector's Office (OPS). Both closed and open sites files were examined.

All of the LUST sites identified within the corridor, the approximate distance from the highway centerline, the potential for concern and the rationale used to determine the potential of concern are presented in the Appendix. No Further Action (NFA) letters issued to LUST owners of "closed" sites were documented. The issuance of this letter, however, does not release an owner from liability associated with contamination identified at a site. Instead, the letter is issued based on information submitted by the LUST owner that indicates contamination has been adequately addressed.

Two LUST sites were identified as having a high potential for concern (Site IDs 75 and 90). Two sites shown below in Table 4.1 are located close to intersections that may be selected for improvements and potential ROW acquisition.

Site Name and ID	Site Address	Site Description
Conoco Station #05366 (ID 75)	7130 E. County Line Rd. Highlands Ranch, CO 80125	Approximately 1,000 gallons of fuel due to a line failure in December 2002. Approximately 850 gallons of product was removed from the UST basin. In addition 684 cubic yards of contaminated soil was removed. OPS has not yet issued a NFA letter and no review of the site characterization report has been performed. The

		location of this site, approximately 650 feet from the entrance ramp, indicates there is a potential for impact. This site will need additional review prior to any ROW acquisition. Field verification indicates this site has been developed as a "Tile for Less" store.
Diamond Shamrock (ID 90)	34 W. Centennial Blvd. Littleton, CO 80126	Located approximately 450 feet south of the C-470 off ramp at Broadway. A leak was reported in July 2000, based on analytical results from water collected for de-watering purposes. A total of 3,640 gallons of contaminated groundwater was removed from the site. The property owners have requested closure; however OPS has not yet issued a NFA letter.

Four LUST sites were identified with a moderate level of concern and are presented below in Table 4.2. LUST site locations identified with a high or moderate level of concern were field verified.

Table 4-2 LUST Sites Identified with Moderate Potential for Concern		
Site Name and ID	Site Address	Site Description
AMOCO #3701 (ID 59)	201 E. County Line Rd. Littleton, CO 80122	LUST site. NFA issued by OPS. However due to the distance from the site, potential for concern is moderate.
Diamond Shamrock #4118 (ID 67) (Now Total Petroleum)	2020 E. County Line Rd. Highlands Ranch, CO 80126	LUST site. OPS indicates 38 cubic yards contaminated soil removed. NFA issued by OPS. However due to the distance from the site, potential for concern is moderate.
AAMCO (ID 74) (Now BP)	6030 E. County Line Rd. Highlands Ranch, CO 80126	LUST Automatic transmission fluid was released to soil at 4 - 9 feet depth. Total extractable petroleum hydrocarbons (TEPH) concentrations in soil were reported at 2,800 mg/kg. A NFAR letter was issued by OPS 5/20/02.
Columbine Psychiatric Hospital (ID 91)	8565 S. Poplar Way Littleton, CO 80126	LUST. An NFA letter was issued 7/13/00 by OPS indicating contamination levels were detected but below state cleanup requirements. This site ranked Moderate based on distance from the roadway.

4.3 UST SITES

A total of 62 underground storage tank (UST) sites were identified in the database search. Each UST site was reviewed. The number and size of underground tanks was noted for each site. Distance from the roadway was approximated. Based on the criterion of distance from the roadway, a low or moderate impact on highway design, right of way acquisition, and/or worker health and safety was determined. Regular monitoring of USTs is required by the OPS. However, in spite of required monitoring, leaks do occur and are often not discovered until tank or line replacement occurs. Because of the uncertainty regarding leaks, a potential for undetected contamination is present. Therefore, UST sites located more than 500 feet of the roadway were assigned a low potential for concern, and those within 500 feet of the centerline were assigned a moderate potential for concern.

No UST sites were considered to have a high potential for concern. Goodbee performed field verification of moderate-ranked sites. All of the UST sites are presented in the Appendix. A total of 17 UST sites were identified as having a moderate potential for concern based on distance from C-470. They are presented in Table 4.3 below.

Table 4-3 UST Sites Identified with Moderate Potential for Concern	
Site Name and ID	Address
McLellan Pump Ata (ID 38)	8100 S. Santa Fe Dr. Littleton, CO 80125
Diamond Shamrock #4118 (Now Total Petroleum) (ID 67)	2020 E. County Line Rd. Highlands Ranch, CO 80126
AAMCO Transmission (ID 74)	6030 E. County Line Rd. Highlands Ranch, CO 80126
Amoco #2228 (ID 79)	7505 Parkway Dr. Littleton, CO 80124
Tesoro #62026 (ID 87)	6675 Business Center Dr. Highlands Ranch, CO 80126
Columbine Psychiatric Hospital (ID 91)	8565 S. Poplar Way Littleton, CO 80126
Shamrock #1161(ID 93a)	8071 S. Blakeland Littleton, CO 80125
BP Amoco SS#13581 (ID 93b)	8076 Blake Ave Littleton, CO 80125
Ready Mixed Concrete (ID 95)	8227 Blakeland St. Littleton, CO 80125
Mobile Premix Bakeland Plant (ID 96)	8316 Blakeland Dr.

	Littleton, CO 80125
Western Paving Co. (ID 96)	8347 Blakeland Rd. Littleton, CO 80125
ABZ Lumber CO (ID 96)	8368 W. Blakeland Rd. Littleton, CO 80125
South Network Control Center (101) (Same as Site 116)	8628 S. Daniels Park Littleton, CO 80126
Santa Fe Big Lift (ID 112)	Atchison Topeka & Santa Fe Railroad at HWY 85 Littleton, CO 80125
Jefferson County Fleet (ID 114) South Shop	9509 W. Ute Ave Littleton, CO 80123
Denver T O C DVR (ID 116) (Same as Site 101)	8628 N. Daniels Park Rd. Littleton, CO 80126

4.4 RCRA SITES

Forty-six (46) RCRA Small Quantity Generator (SQG) sites were identified within the corridor. Two sites were identified with levels of concern that require additional review.

Table 4-4 RCRA Sites Identified with Moderate Potential for Concern	
Site Name and ID	Address
Ace Cleaners (ID 62)	135 W. County Line Rd. Littleton, CO 80126
Pep Boys (ID 98)	7469 E. Park meadows Drive Littleton, CO 80126

Ace Cleaners (ID 62) has been placed on the RCRA Corrective Action (CORRACTS) list of handlers identified with Corrective Action Activity. This site, (ID 62) is shown on Figures 1 and 2 and is located west of the Broadway C-470 interchange on County Line Road. Tetrachloroethylene (PCE) was released and contaminated groundwater is present in the area. According to data obtained from CDPHE, PCE concentrations drop off sharply after leaving the site. However, groundwater flow at this site is to the SW due to the surface topography and in the direction of C-470. According to CDPHE, low concentrations of PCE are likely to present in groundwater near the roadway. CDPHE is awaiting better site and plume characterization. There is a moderate potential for concern due to the existing environmental conditions present at this site. CDPHE is now administering the remediation of this site.

PCE contamination is present at the Pep Boys Site (ID 98). According to CDPHE, concentrations are not detectable at C-470. Direction of groundwater flow is to the southwest and towards C-470. CDPHE does not believe that concentrations in groundwater would impact construction activities. CDPHE is awaiting data that will better characterize the site and plume. The site was ranked with a moderate potential for concern based on the information provided by CDPHE.

Four other RCRA-SQG sites were identified as having violations. With the exception of **sites ID 62 and ID 98** these sites are designated with a low potential for concern, due to the nature of the violations reported.

4.5 UP/BNSF RAIL CORRIDOR

No spill or other incidents were reported along the Union Pacific and Burlington Northern and Santa Fe rail corridor that intersects C-470 near Santa Fe Blvd. However, rail corridors often have heavy metal and semi-volatile organic contamination in soils adjacent to the track. The semi-volatile compounds typically include polyaromatic hydrocarbons (PAHs) derived from combustion of coal previously used to power the trains. This corridor is therefore considered to have a high potential for concern.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Because C-470 is a relatively new transportation corridor, a limited number of existing environmental concerns were identified. A total of four sites were identified with a high potential for concern and include:

- County Line Landfill (Site ID 85)
- Conoco Station (ID 75)
- Diamond Shamrock (ID 90)
- UP/UP/BNSF Rail Corridor

A total of 18 sites were identified with a moderate potential for concern. They include:

- AMOCO #3701 (ID 59)
- Diamond Shamrock #4118 (ID 67) (Now Total Petroleum)
- AAMCO (ID 74) (Now BP)
- Columbine Psychiatric Hospital (ID 91)
- McLellan Pump Ata (ID 38)
- Amoco #2228 (ID 79)
- Tesoro #62026 (ID 87)
- Shamrock #1161 (ID 93a)
- BP Amoco SS#13581 (ID 93b)
- Ready Mixed Concrete (ID 95)
- Mobile Premix Bakeland Plant (ID 96a)
- Western Paving Co. (ID 96b)
- ABZ Lumber CO (ID 96c)
- South Network Control Center/Denver TOC DVR (101/116 Same Sites)
- Pep Boys (ID 98)
- Santa Fe Big Lift (ID 112)
- Jefferson County Fleet (ID 114) South Shop
- Ace Cleaners (ID 62)

None of the hazardous material sites identified in the database search or field reconnaissance survey are believed to have the potential to affect the design alternatives on any of the proposed interchange improvements. However, Phase II Environmental Site Assessments including drilling and sampling of soil or groundwater may be necessary at the four high ranked sites, and possibly several of the moderate ranked sites depending on distance from construction activities. Phase II work would be completed after property acquisition and/or design and construction elements are clearly defined. If contaminated soil or groundwater is encountered in the right of way, long-term costs associated with removal and remediation could be significant.

Goodbee recommends the following:

- Evaluate project alternatives based on groundwater and soil contamination and existing environmental conditions identified along the corridor.
- Conduct Phase I Environmental Site Assessments for any property that will be acquired.
- Plan and conduct Phase II Environmental Site Investigations in support of final design to target areas adjacent to or near moderate and high-risk sites.
- Develop a Material Handling Plan, as required by section 250.03 of the CDOT Standard Specification for Road and Bridge Construction (CDOT, 1999) for any Phase II activities.
- Sites identified with a low potential for concern are believed to have a low potential for impact on highway design, ROW acquisition, and worker health and safety. However, contamination in these or other areas cannot be completely ruled out. If additional information should become available, or suspicious materials are observed during construction, appropriate actions should be available in the Material Handling Plan.
- If bridge, building, guardrails or sign alteration is required or building demolition is necessary at any property, an asbestos hazardous materials survey and a lead paint survey should also be conducted.

6.0 REFERENCES

Colorado Department of Labor and Employment, Division of Oil and Public Safety. February 1999. *Petroleum Storage Tank, Owner/Operator Guidance Document*.

Colorado Department of Labor and Employment, Division of Oil and Public Safety. 2003-2004. Files (various) reviewed of Leaking Underground Storage Tank Sites, and Underground Storage Tank Sites.

Colorado Department of Public Health and Environment. March 2,1999. *Regulation No. 41, Basic Standards for Groundwater*.

Colorado Department of Public Health and Environment. 1997. *Colorado Soil Remediation Objective Policy Document*.

Colorado Department of Transportation (CDOT). 1999. *CDOT Standard Specification for Road and Bridge Construction*.

Colorado Department of Transportation (CDOT). February 2000. *Modified Environmental Site Assessment (M-ESA) Guidance*.

Denver Regional MapsCo. 2004. *Denver Regional Street Atlas*.

EDR Environmental Atlas. July 29, 2003. *C-470 Environmental Assessment*.

U.S. Geological Survey. S. G. Robson. 1980. *Geologic map and physical relief properties of the surficial and bedrock unit of the Denver, Arapahoe and Adams Counties*.

U.S. Geological Survey. S. G. Robson. 1996. *Geohydrology of the Shallow Aquifers in the the Denver-Metropolitan Area*. Sheet 305. Altitude of the water table.

Waste Management. June 12, 2000. *Topographic Map, County Line Landfill Gas Recovery System*.

Summary of Sites Identified in C-470 Corridor

LANDFILL SITES

Site ID	Site Name and Location	Site Description	Distance from Centerline	Site Status	Potential for concern	Rationale
85	County Line Solid Waste Disposal Site	This is a historic landfill that closed in 1987. The landfill is owned by Arapahoe County and is maintained by Waste Management Inc. Currently monitoring groundwater via a natural attenuation remedial action program. Groundwater flow is to the north. Quarterly methane monitoring is on-going. The highest surface of the landfill has been developed into a sports complex with artificial grass playing fields and a BMX track.	Southern edge of landfill is located adjacent to ROW on C-470.	Groundwater and methane monitoring is ongoing.	High	A methane collection system is in place along the southern and western edges of the landfill boundary. There is a potential for explosive gases to accumulate. C-470 construction would occur at the up gradient end of the landfill, reducing potential for exposure to contaminated groundwater.
96	Western Paving	CDPHE had no information regarding this site. Tri-County Health Department indicated that wastes from Western Paving were disposed at 5959 Pecos St. in Adams County in the 1960's. Waste was not disposed at the facility located at 8347 Blakeland Rd.	Not Applicable	Not Applicable	Negligible	Wastes disposed off site at a landfill located in Adams County.

Summary of Sites Identified in C-470 Corridor

LUST SITES

Site ID	Site Name Site Address	Site Description and date Reported	Distance from Centerline (Feet)	Site Status	Potential for concern	Rationale
24	Ken Caryl Ranch 7359 Alkire St. Littleton, CO 80127	LUST. 8/4/98	>2,000	Closed	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
35	Amoco #2405 8080 S. Broadway Littleton, CO 80122	LUST. 1/8/01	>2,000	Closed	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
35	Conoco Philipps Co. 8073 S. Broadway Littleton, CO 80122	LUST. 6/10/03	>2,000	Open	Low	Distance from C-470 indicates low potential for contaminant migration.
36	Denver Colorado LDS Temple 2001 E. Phillips Circle	LUST. 9/27/97	> 2,000	Closed	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
40	CE Konstanzer Inc 8171 S. Grant Way Littleton, CO 80122	LUST. 9/12/00	~1,350	Closed	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
41	Firestone Store #2837 8184 S. Holly St. Littleton, CO 80122	LUST. 11/15/96	~1,800 N	Closed	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
54	Silco #82 (Conoco) 8250 S. Holly Littleton, Co 80123	LUST. 9/2/98 Remediation system installed 1/6/99 continuously operating. Recovery well as of 6/20/03 is treating contaminated groundwater at the site that remains in exceedance of clean up goals. Migration of contaminants off site has been reduced.	~1300 N	Open	Low	Hydrocarbon recovery removed source of contaminants. Treatment of groundwater continues and reduces risk of off-site migration. On-going monitoring of groundwater quality by OIS.
54	Grease Monkey#44 8260 S. Holly Littleton, CO 80122	LUST. 6/21/99 Adjacent to Silco #82. Gasoline release from adjacent Silco site (see above) released gasoline to Grease Monkey sump. Soil samples on site did not exceed State Risk Based Levels.	~1200 N	Closed	Low	Contamination resulted from adjacent property release. Product recovered from sump. No off site migration and distance from C-470 indicates low potential for concern. NFAR issued by OIS.

Summary of Sites Identified in C-470 Corridor

56	Diamond Shamrock #4100 8263 S. Quebec Englewood, CO 80112	LUST. 8/18/99 Granted Tier 2 closure (due to benzene in soil at 1.7 mg/kg, above the 0.26 mg/kg RBSL.	~650 N of westbound entrance ramp ~1,000 N of centerline	Closed	Moderate	NFAR issued by OIS. However due to the distance from the site, potential for concern is moderate.
58	Saveway #28 7444 W. Chatfield Littleton, CO 80123	LUST 2/24/94	~1,800	Closed	Low	NFAR issued by OPS 1/26/04. Due to distance from site and downgradient location, potential for concern is low.
59	AMOCO #3701 201 E. County Line Rd. Littleton, CO 80122	LUST. 10/1/90 Removed contaminated soil. No impact to groundwater.	~400 N of off ramp ~500 N of centerline	Closed 1/11/03	Moderate	OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS. However due to the distance from the site, potential for concern is moderate. Site has been redeveloped as a Waffle House.
67	Diamond Shamrock #4118 (now Total Petroleum) 2020 E. County Line Rd. Highlands Ranch, CO 80126	LUST. 38 cubic yards of soil was removed. No vertical migration of contaminants found 5' bgs. No groundwater observed.	~700 N	Closed 3/27/02 and 4/19/02	Moderate	OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS. However due to the distance from the site, potential for concern is moderate.
73	Grease Monkey (also 5918 Inc) 5918 E. County Line Rd. Highlands Ranch, Co 80126	LUST. 2/22/95	~650 N	Closed 2/30/97	Low	OIS indicated little potential for endangerment to human health and the environment at the property. NFAR issued by OIS. No longer located at this address.
74	AAMCO (Now BP) 6030 E. County Line Rd. Highlands Ranch, Co 80126	LUST. 12/04/01 Automatic transmission fluid released to soil from 4 to 9' depth. TEPH in soil 2,800 mg/kg	~500 N	Closed 1/11/02	Moderate	NFAR issued by OIS. However due to the distance from the site, potential for concern is moderate.
75	Conoco #6366 (K&G Stores) 7130 E. County Line Rd. Highlands Ranch, CO 80126	LUST 5/10/95	~700 N of centerline ~~650 N of entrance ramp	Closed.	Moderate	NFAR issued by OIS. However due to the distance from the site, potential for concern is moderate.
75	K &G Stores (Conoco#06366) 7130 E. County Line Rd. Highlands Ranch, CO 80126	LUST. 12/13/02 ~1,000 gal released due to line failure. Removed 850 gals product from UST basin. 684 cubic yards of soil removed	~700 N of centerline ~~650 N of entrance ramp	Open Site Report Submitted 9/8/03	High	Recovery of product and soil removal indicates source may be removed. However, NFAR has not been issued by OIS. No review of the site characterization report has been performed by OIS.
90	Diamond Shamrock #1159 34 W. Centennial Blvd. Littleton, CO 80126	LUST. 8/18/99	~500 S of off ramp ~700 S of centerline	Closed	Moderate	OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS. by OIS. However due to the distance from the site, potential for concern is moderate.

Summary of Sites Identified in C-470 Corridor

90	Diamond Shamrock #1159 34 W. Centennial Blvd. Littleton, CO 80126	LUST. Reported 7/18/00 Release reported based on analytical results from water collected in a frac tank used for de- watering purposes. A total of 3,640 gals of contaminated groundwater removed from site.	~450 S of off ramp ~700 S of centerline.	Open, but have requested site closure.	High	OIS has not yet issued a NFAR letter. However due to the distance from the site, potential for concern is high.
91	Columbine Psychiatric Hospital 8565 S. Poplar Way Littleton, CO 80126	LUST. 5/5/00 Reported during UST removal. No contaminants identified in soil. Groundwater sample had TEPH and xylenes below state levels. Closure granted.	~650 S of off ramp ~850 S of centerline.	Closed 7/13/00	Moderate	Contamination below State Cleanup levels. NFAR issued by OIS. However due to the distance from the site, potential for concern is moderate.
96	Blakeland Industrial Park 8257 Blakeland Dr. #4 Littleton Co 80125	LUST. 2/23/90	~1,650	Closed	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
96	Western Paving Co. 8347 Blakeland Rd. Littleton		~1650	Closed 5/1/91	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
103	US West Aberdeen Facility 375 Inverness Dr. South Englewood, CO 80112	LUST 8/12/94	~1500 N of I- 25 ramp EB to E-470	Closed	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
106	Highlands Ranch Plaza Conoco 166 W. Springer Dr. Highlands Ranch, CO 80126	LUST. 4,500 cubic yards of contaminated soil removed. Limited impact to utility corridor and contaminated soil removed. No indication of off site contaminated groundwater migration.	~1,000 S of centerline	Closed. 2/27/95	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
116	Denver T O C DVR 8628 S. Daniels Park Rd. Littleton, CO 80126	LUST. 2/13/89	~1000 S of centerline	Closed	Low	Distance from C-470 indicates low potential for contaminant migration. OIS indicates appropriate actions taken to reduce potential for further impacts. NFAR issued by OIS.
121	Highlands Auto Plaza 8505/8484 S. Valley Hwy Rd. Englewood, CO 80112	LUST. 1/21/94 Sources of contamination removed. 1,000 cubic yards of contaminated soil removed. VOCs detected in groundwater.	~400 N of EB entrance ramp of I-25 to E- 470	Closed	Low	This site is located east of any potential construction areas. NFAR issued by OIS.

Summary of Sites Identified in C-470 Corridor

122	7-Eleven #33042 8750 S. Yosemite Lone Tree, CO 80124	LUST. 3/21/03 26 gallon surface gasoline release due to system failure. No soil or groundwater (BETX) contamination detected.	~1300' SW of centerline C-470	Closed 9/22/03	Low	Small size of release, remediation efforts, and lack of migration off site indicate low potential for concern. No petroleum contamination at site. NFAR issued by OIS.
127	Power Rental Equipment 8600 S. Valley Hwy. Englewood, CO 80110	LUST. 11/13/90 453 cubic yards of contaminated soil removed.	~400' S of E-470.	Closed 7/24/92	Low	Remediation efforts have removed source and reduced impact to subsurface. No indication of migration off site. NFAR issued by OIS. This site is located east of any potential construction areas.

Summary of Sites Identified in C-470 Corridor

UST SITES

Site ID	Site Name Site Address	Site Description and date Reported	Distance from Centerline (Feet)	Site Status	Potential for concern	Rationale
24	Wood Brothers Sewer Lift 7359 S. Alkire Littleton, CO 80127	1-300 gal diesel.	>2,000	Open	Negligible	Distance from C-470.
25	Conoco Phillips CO 12624 W. Indore Pl. Littleton, CO 80127	2-15,000 gal gasoline	~1300 NE of centerline ~1000 NE of on ramp	Open	LOW	Distance from C-470.
28	7-Eleven 12532 W. Ken Caryl Ave Littleton, CO 80127	1-15,000 gal reg. unleaded 1-10,00 gal unleaded premium	~1000 NE of centerline, ~600 NE of off Ramp	Open	LOW	Distance from C-470.
30	7-Eleven #13207 7986 S. Depew St. Littleton, CO 80123	2- 10,000 gal gasoline 1- 8,000 gal gasoline	~ 2, 000 N	Open	Negligible	Distance from C-470.
32	Exxon Ras 6 2583 7921 Platte Canyon d. Littleton, CO 80123	1- 8,000 gal gasoline 1- 3,000 gal gasoline 83684,000 gal gasoline 1- 6,000 gal gasoline 1- 500 gal used oil	~1,700 N	Open	LOW	Distance from C-470. Site is now a Hylander Automotive.
33	Conoco Phillips Co 8020 S. Broadway Littleton, CO 80123	1- 12,000 gal gasoline 1- 10,000 gal gasoline	~2,000 N	Open	Negligible	Distance from C-470
34	Littleton Large Animal Clinic 8025 S. Santa Fe Dr. Littleton, CO 80125	1 – 2,000 gal gasoline	~2,000 N		Negligible	Distance from C-470
35	Great American Tire & Auto Service Center 8080 S. Broadway Littleton, CO 80123	1- 2,000 waste oil 1- 2,000 gal lube oil	~2,000 N	Open	Negligible	Distance from C-470.
35	AMOCO 8080 S. Broadway Littleton, CO 80123	2- 12,000 gal gasoline 1- 2,000 gal waste oil 1- 2,000 gal lube oil	~2,000 N	Open	Negligible	Distance from C-470
35	Conoco Phillips Co 8073 S. Broadway Littleton, CO 80123	3- 10,000 gal gasoline	> 2,000 N	Open	Negligible	Distance from C-470.
36	Denver Colorado LDS Temple 2001 E. Phillips Circle Littleton, CO 80120	1- 1,000 gal diesel	> 2,000	Open	Negligible	.Distance from C-470

Summary of Sites Identified in C-470 Corridor

38	McLellan Pump Ata 8100 S. Santa Fe Dr. Littleton, CO 80125	1- 1,000 gal diesel	~1,500 N	Open	Moderate	Located within impact area.
40	CE Konstanzer Inc 8171 S. Grant Way Littleton, CO 80122	2 – 2,000 gal gasoline	~1,350	Open	LOW	Distance from C-470.
41	Firestone Store #2837 8184 S. Holly St. Littleton, CO 80122	1-1,000 gal waste oil	~1,800 N	Open	LOW	Distance from C-470.
54	Silco #82 8250 S. Holly Littleton, Co 80123	3-10,000 gal gasoline	~1300 N	Open	LOW	Distance from C-470.
54	Grease Monkey#44 8260 S. Holly Littleton, CO 80122	1-2,000 gal waste oil 2-2,000 gal contents not reported	~1200 N	Open	LOW	Distance from C-470.
56	Diamond Shamrock #4100 8263 S. Quebec Englewood, CO 80112	1-12,000 gal gasoline 1-10,000 gal gasoline 1-1,000 gal diesel 1-8,000 gal gasoline	~1,000 N ~ 650 N of off/on ramps.	Open	LOW	Distance from C-470.
57	Conoco Philipps CO 7540 W. Chatfield Littleton, CO 80123	2-15,000 gal gasoline	~2,00 NW	Open	Negligible	Distance from C-470.
58	Conoco #06364 7444 W. Chatfield Ave Littleton, CO 80123	2-10,000 gal gasoline 2-15,000 gal gasoline	~2,000 N	Open	Negligible	Distance from C-470.
59	AMOCO #3701 201 E. County Line Rd. Littleton, CO 80122	3-10,000 gal gasoline	~400 N of off ramp ~500 N of centerline	SOID	Moderate	Distance from C-470. Site is now a Waffle House.
61	First Tee Inc. SW corner of County Line Rd and S. Holy Littleton, CO 80126	1-1,000 gal gasoline	~1,000 N	Open	LOW	Distance from C-470.
63	Bowen Farms 3220 W. County Line Rd Littleton, CO 80126	1-1,000 gal gasoline 1- 500 gal diesel 1- 300 gal gasoline 1-4,000 gal gasoline	~800 N	Open	LOW	Distance from C-4-70
64	Rocky Mountain Harley Davidson 2885 W. Coun ty Line Rd. Littleton, CO 80126	1-2,500 gal waste oil	~1,000 N		LOW	Distance from C-4-70

Summary of Sites Identified in C-470 Corridor

67	Diamond Shamrock #4118 (now Total Petroleum) 2020 E. County Line Rd. Highlands Ranch, CO 80126	1-12,000 gal gasoline 2-10,000 gal gasoline 1- 8,000 gal gasoline	~700 N.	Open	LOW	Distance from C-470.
70	Auto Nation USA 5651 County Line PL. Highlands Ranch, CO 80126	3-10,000 gal gasoline	~800 N	Open	LOW	Distance from C-470.
71	K-Mart #6511 9505 S. County Line Rd Englewood, CO 80112	1-1,000 gal waste oil	>2,000 NE	Open	Negligible	Distance from C-470.
73	Grease Monkey Inc 5914 E. County Line Rd. Englewood, CO 80112	1-2,000 gal waste oil 1-2,000 gal unknown	~600 N		LOW	Distance from C-470.
73	All American Auto Center #2 5918 E. County Line Englewood, CO 80112	2- 500 gal waste oil 1-1,000 gal waste oil 1-2,000 gal other	~600 N		LOW	Distance from C-470.
74	AAMCO Transmission 6030 E. County Line Rd. Highlands Ranch, CO 80126	1-560 gal contents not reported 1-1,000 gal contents not reported	~500 N	Open	Moderate	Distance from C-470.
75	Conoco #6366 (K&G Stores) 7130 E. County Line Rd. Highlands Ranch, CO 80126	3-10,000 gal gasoline	~700 N of Centerline ~~650 N of entrance ramp	Open	LOW	Distance from C-470. Site has been developed as a "Tile for Less" retail store.
79	Amoco #2228 7505 Parkway Dr. Littleton, CO 80124	2-10,000 gal gasoline 1-12,000 gal gasoline 1 560 gal waste oil	~350 S	Open	Moderate	Distance from C-470.
80	BP Amoco #13516 10038 W. Remington Littleton CO 80127	3- 10,000 gal gasoline	~1,500 N ~1,400 N of on ramp to C-470	Open	LOW	Distance from C-470
81	Albertsons Express #839 9986 W, Remington Pl. Littleton, CO 80123	1-15,000 gal gasoline 1-10,000 gal gasoline	~ 1400 N	Open	LOW	Distance from C-470.
83	7-Eleven #33040 8380 S. Colorado Blvd. Highlands Ranch, CO 80126	1-15,000 gal gasoline 1-10,000 gal gasoline	~600 S	Open	LOW	Distance from C-470.
87	Tesoro #62026 6675 Business Center Dr. Highlands Ranch, CO 80126	1-15,000 gal gasoline 1-10,000 gal gasoline	~200 S ~ 50 from off ramp	Unknown	Unknown	Unable to locate this site during field verification.
90	Diamond Shamrock #1159 34 W. Centennial Blvd. Littleton, CO 80126	1-12,000 gal gasoline	~450 S of off ramp and ~700 S of centerline.	Open	Moderate	Distance from C-470.

Summary of Sites Identified in C-470 Corridor

91	Columbine Psychiatric Hospital 8565 S. Poplar Way Littleton, CO 80126	1-10,000 gal diesel	~650 S of EB off- ramp ~850 S of centerline.	Open	LOW	Tank was removed during LUST investigation.
92	Goodyear Wholesale Retread 9150 Blakeland Rd. Littleton, CO 80125	Tank Capacity not reported Gasoline	~2,000 S	Unknown	Negligible	Distance from C-470.
93a	Shamrock #1161 8071 S. Blakeland Littleton, CO 80125	2-12,000 gal gasoline 1-6,000 gal diesel	~1,400 S ~1,000 of off- ramp to C-470	Open	Moderate	Located within impact area.
93b	BP Amoco SS#13581 8076 Blake Ave Littleton, CO 80125	3-10,000 gal gasoline 1-6,000 gal diesel	~1,400 S ~1,000 of off- ramp to C-470	Open	Moderate	Located within impact area.
95	Ready Mixed Concrete 8227 Blakeland St. Littleto, CO 80125	1-8,000 gal diesel	~1500 S ~1300 S of off ramp	Open	Moderate	Located within impact area.
96a	Mobile Premix Bakeland Plant 8316 Blakeland Dr. Littleton CO 80125	1-4,000 gal diesel 1-2,000 gal gasoline	~1,650	Open	Moderate	Located within impact area.
96b	Western Paving Co. 8347 Blakeland Rd. Littleton, CO 80125	1-4000 gal gasoline	~1650	Open	LOW	Distance from C-470.
96c	ABZ Lumber CO 8369 W. Blakeland Rd. Littleton, CO 80125	1-2,000 gal gasoline 1-3,000 gal diesel	~1650	Open	LOW	Distance from C-470.
101	South Network Control Center 8628 S. Daniels Park Littleton, CO 80126	1-8,000 gal diesel	~150 S	Open	Moderate	Distance from C-470.
102	Big Dry Lift Station 8600 S. Cannongate Ln. Highlands Ranch, CO 80126	1-2,500 gal diesel	~500 S	Unknown	Unknown	
103	US West Aberdeen Central Office 375 Inverness Dr. South Englewood, CO 80112	1-1,000 gal diesel	~1500 N of I-25 ramp EB to E- 470	Open	Moderate	Distance from C-470.
106	Highlands Ranch Plaza Conoco 166 W. Springer Dr. Highlands Ranch, CO 80126	3-10,000 gal gasoline	~1,000 S of centerline.	Open	LOW	Distance from C-470.

Summary of Sites Identified in C-470 Corridor

108	Waterway Gas and Wash 8646 S. Quebec Littleton, Co 80124	2-15,000 gal gasoline	~1,700 S ~1,400 S of off ramp	Open	LOW	Distance from C-470.
108	Equilon 8663 S. Quebec Highlands ranch, CO 80126	1-20,000 gal gasoline 1-12,000 gal gasoline	~1,700 S ~1,400 S of off ramp	Open	LOW	Distance from C-470.
109	Costco Wholesale #468 8686 Park Meadows Center Dr. Littleton, CO 80124	3-20,000 gal gasoline	~1,000 N	Open	LOW	Distance from C-470.
110	BP Amoco #13649 9010 Park Meadows Dr. Lone tree, CO 80124	3-10,000 gal gasoline	~1,000 S	Open	LOW	Distance from C-470.
114	Jefferson County Fleet South Shop 9509 W. Ute Ave Littleton, CO 80123	1-1,000 gal waste oil 1-4,000 gal diesel 3-1,000 gal diesel 1-1,000 gal gasoline	~450 NE	Open	Moderate	Distance from C-470
112	Santa Fe Big Lift Atchison Topeka & Santa Fe Railroad at HWY 85 Littleton, CO 80125	1-10,000 gal gasoline 1-10,000 gal diesel	>2,000 S	Open	Moderate	Unable to confirm location after multiple attempts to contact BNSF regarding this site. Assumed to be within impact area.
116	Denver T O C DVR 8628 N. Daniels Park Rd. Littleton, CO 80126	1-12,000 gal diesel	~1000 S of Centerline.	Open	LOW	Distance from C-470.
119	US Army Corps of Engineers Tri-Lake Project 9307 Hwy 121 Littleton CO 80123	1-10,000 gal gasoline 1- 8,000 gal gasoline	Located south of the south end of Chatfield Reservoir, approximately 4 miles from C- 470. Tanks removed during the 1980's.	Closed	Negligible	Distance from C-470.
121	Former Highlands Auto Plaza 8505/8484 S. Valley Hwy Rd. Englewood, CO 80112	UST tanks were removed. Remediation occurred as LUST site. (Refer to Table 2)	~400 N of EB entrance ramp of I-25 to E-470	Closed	LOW	No disturbance of soil will occur in this area of the C-470 project. It is located outside the area of construction activities.
121	Grace Chapel 8505 S. Valley Hwy. Englewood, CO 80112	1-500 gal UST tanks were removed. Groundwater contamination known to be present at the site, but only at the northern edge of the property and is of limited extent.	~400 N of EB entrance ramp of I-25 to E-470	Open	LOW	No disturbance of soil will occur in this area of the C-470 project. It is located outside the area of construction activities.

Summary of Sites Identified in C-470 Corridor

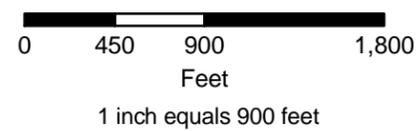
122	7-Eleven #33042 8750 S. Yosemite Lone Tree, CO 80124	1-15,000 gal gasoline 1-10,000 gal gasoline	~1300 SW	Open	LOW	Distance from C-470.
123	Inovant Denver Vic. 9000 S. Ridgeland Blvd. Highlands Ranch, CO 80126	3-12,000 gal diesel	~1,700 S	Closed	LOW	A 26- gallon surface spill occurred 3/17/03. No release to soil or groundwater based on confirmatory sampling. NFA issued 9/22/03 Distance from C-470.
127	Power Rental Equipment 8600 S. Valley Hwy. Englewood, CO 80110	2-8,000 gal gasoline 1-10,000 gal gasoline 1-8,000 gal diesel	~400 S of E-470.	Open	LOW	No disturbance of soil will occur in this area of the C-470 project. It is located outside the area of construction activities.



Potential Hazardous Waste Sites
Field Verified

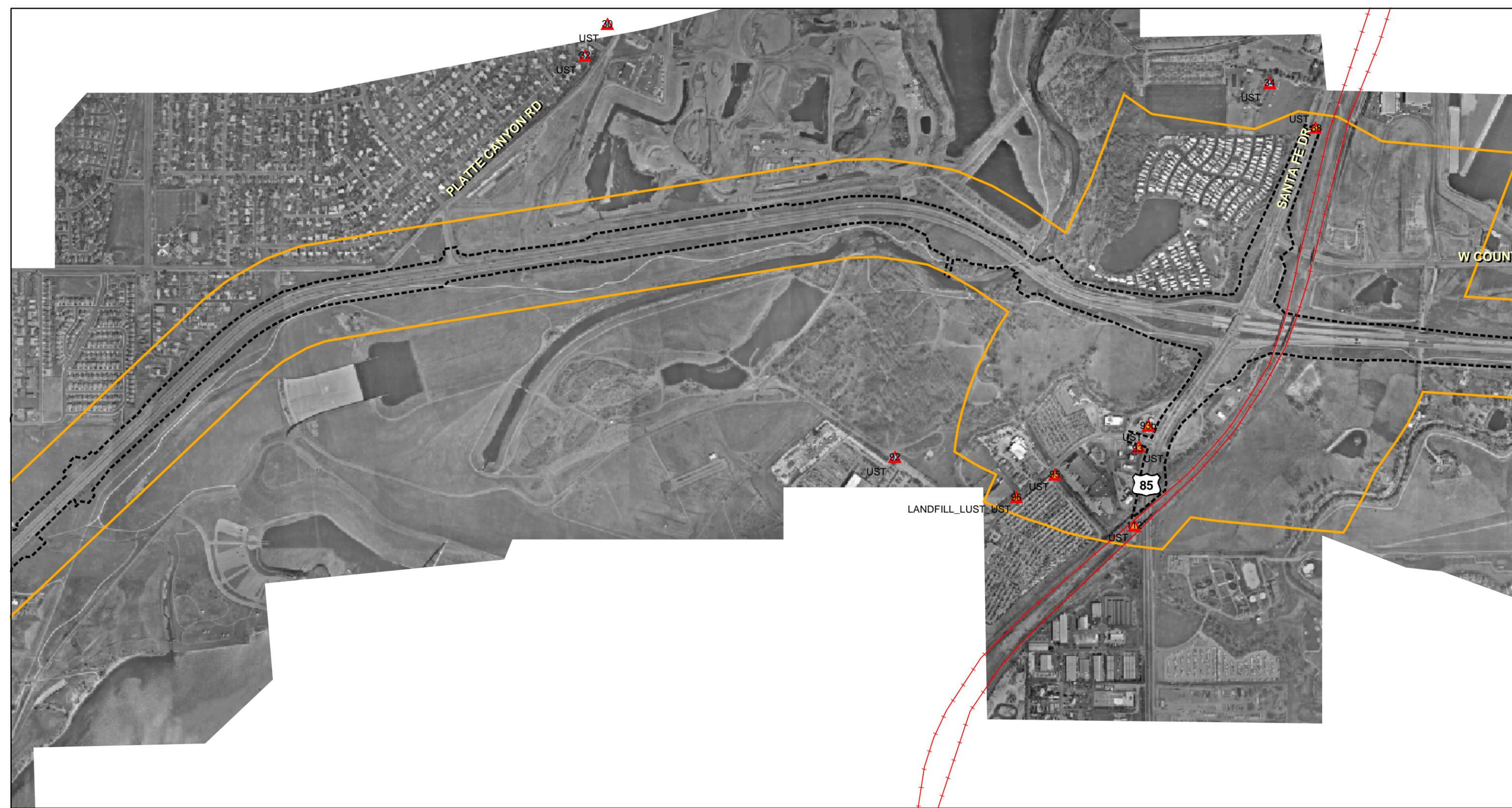
Legend

- ▲ Low Potential
- ▲ Moderate Potential
- ▲ High Potential
- Study Area
- EL footprint



Potential Hazardous Materials and EL Limits of Construction

figure 1a



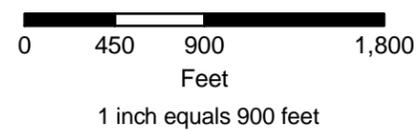
Potential Hazardous Waste Sites
Field Verified

Legend

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- ▲ Moderate Potential
- ▲ High Potential

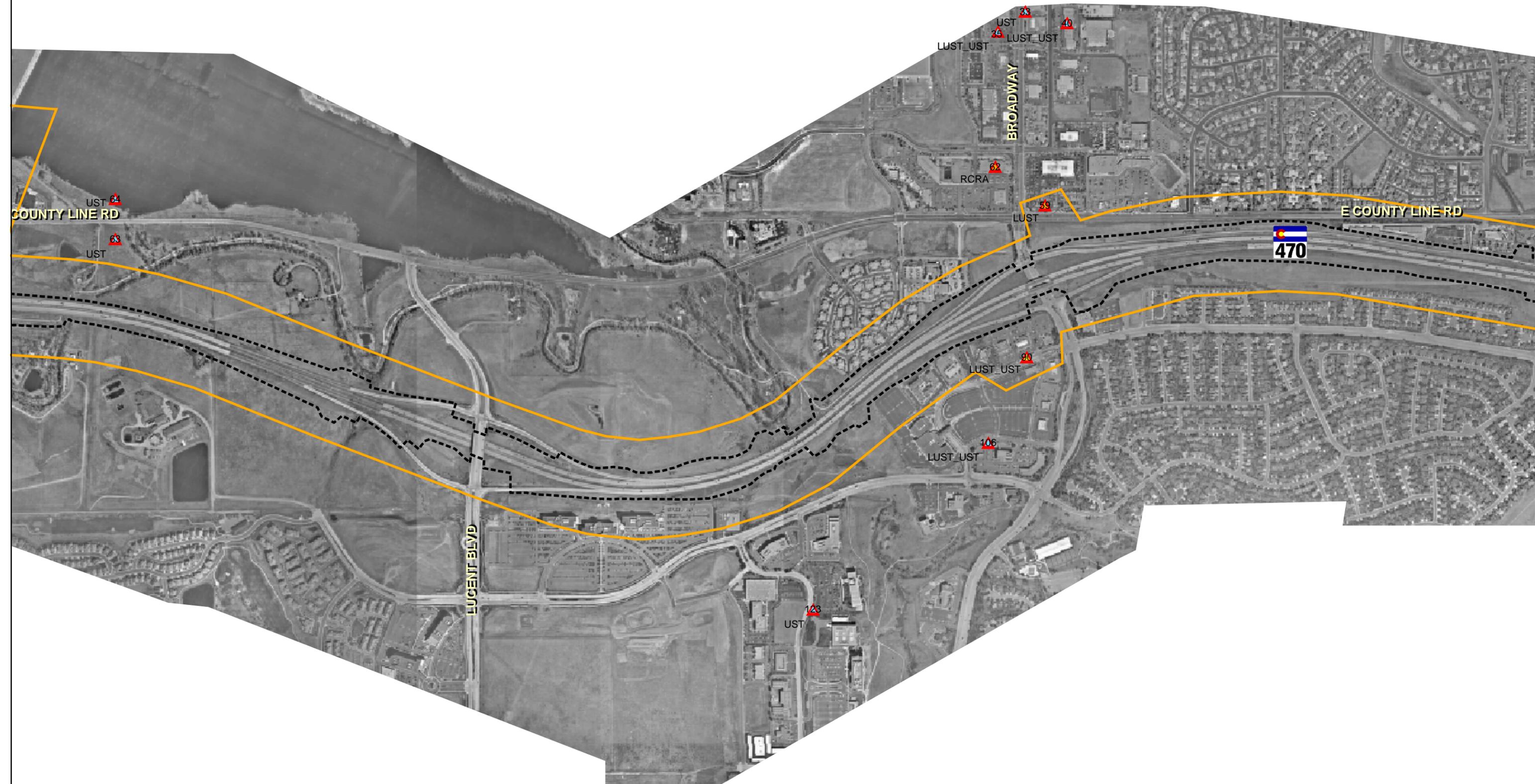
— Study Area

- - - EL footprint



Potential Hazardous Materials and EL Limits of Construction

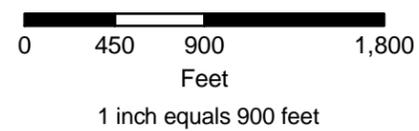
figure 1b



Potential Hazardous Waste Sites
Field Verified

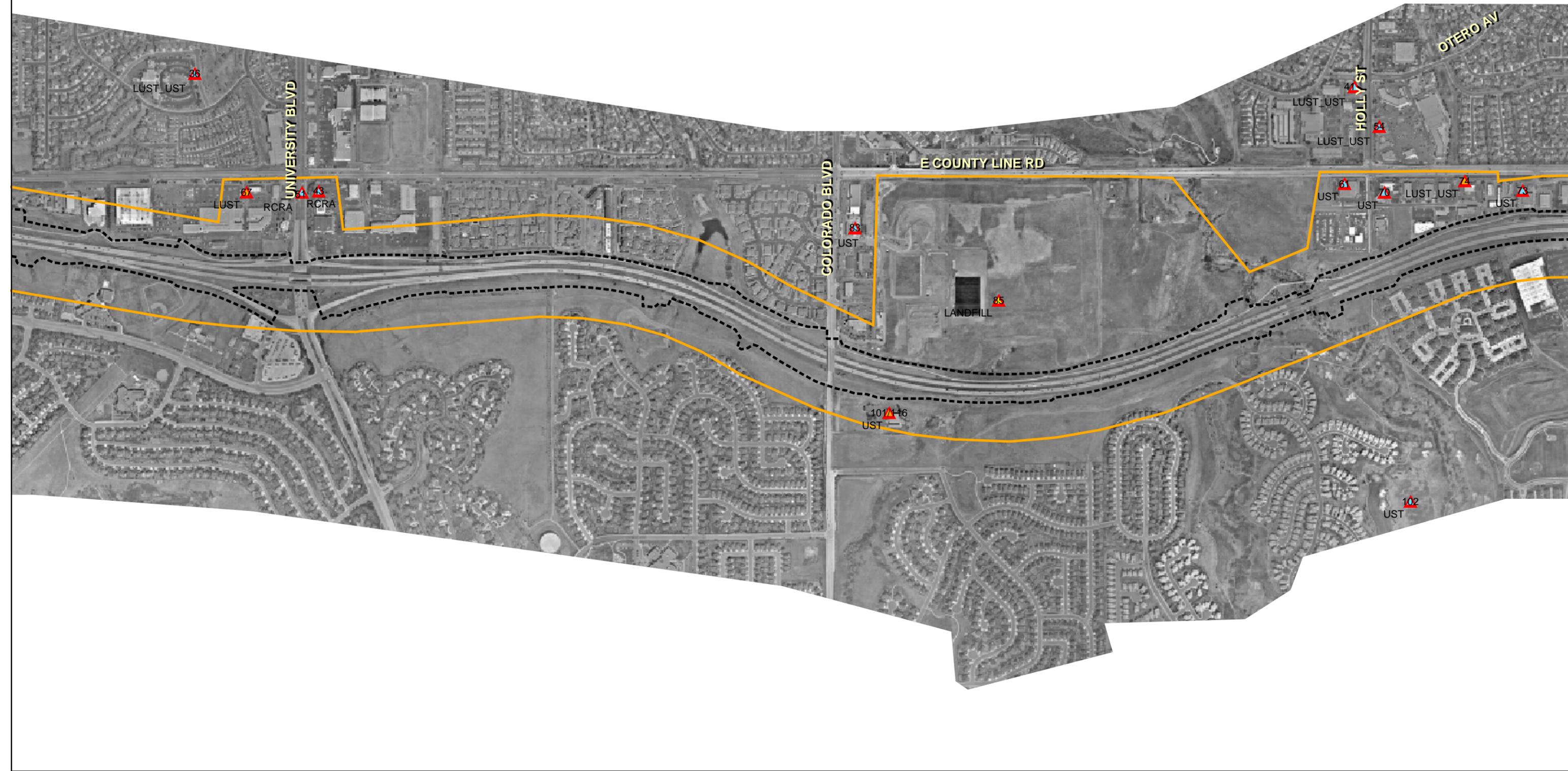
Legend

- ▲ Low Potential
- ▲ Moderate Potential
- ▲ High Potential
- Study Area
- EL footprint



Potential Hazardous Materials and EL Limits of Construction

figure 1c

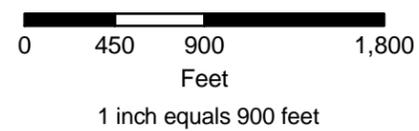


Potential Hazardous Waste Sites
Field Verified

Legend

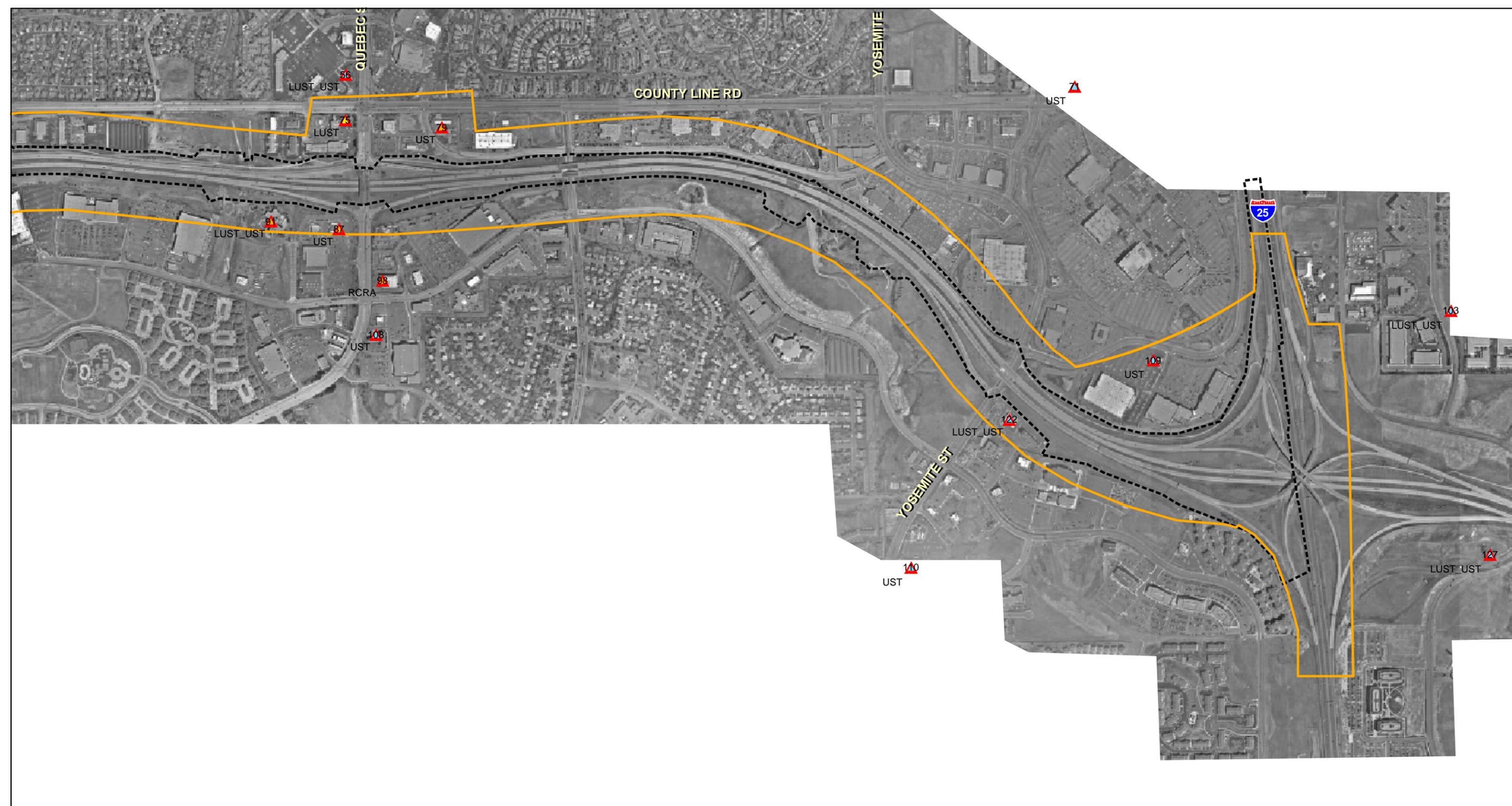
- ▲ Low Potential
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- ▲ High Potential

Study Area (Orange line)
 EL footprint (Dashed black line)



Potential Hazardous Materials and EL Limits of Construction

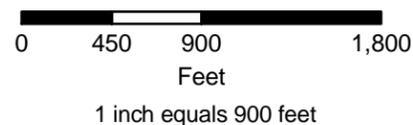
figure 1d



Potential Hazardous Waste Sites
Field Verified

Legend

- ▲ Low Potential
- ▲ Moderate Potential
- ▲ High Potential
- Study Area
- - - EL footprint



Potential Hazardous Materials and EL Limits of Construction

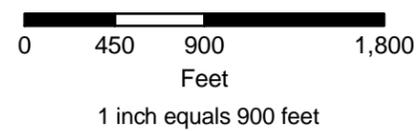
figure 1e



Potential Hazardous Waste Sites
Field Verified

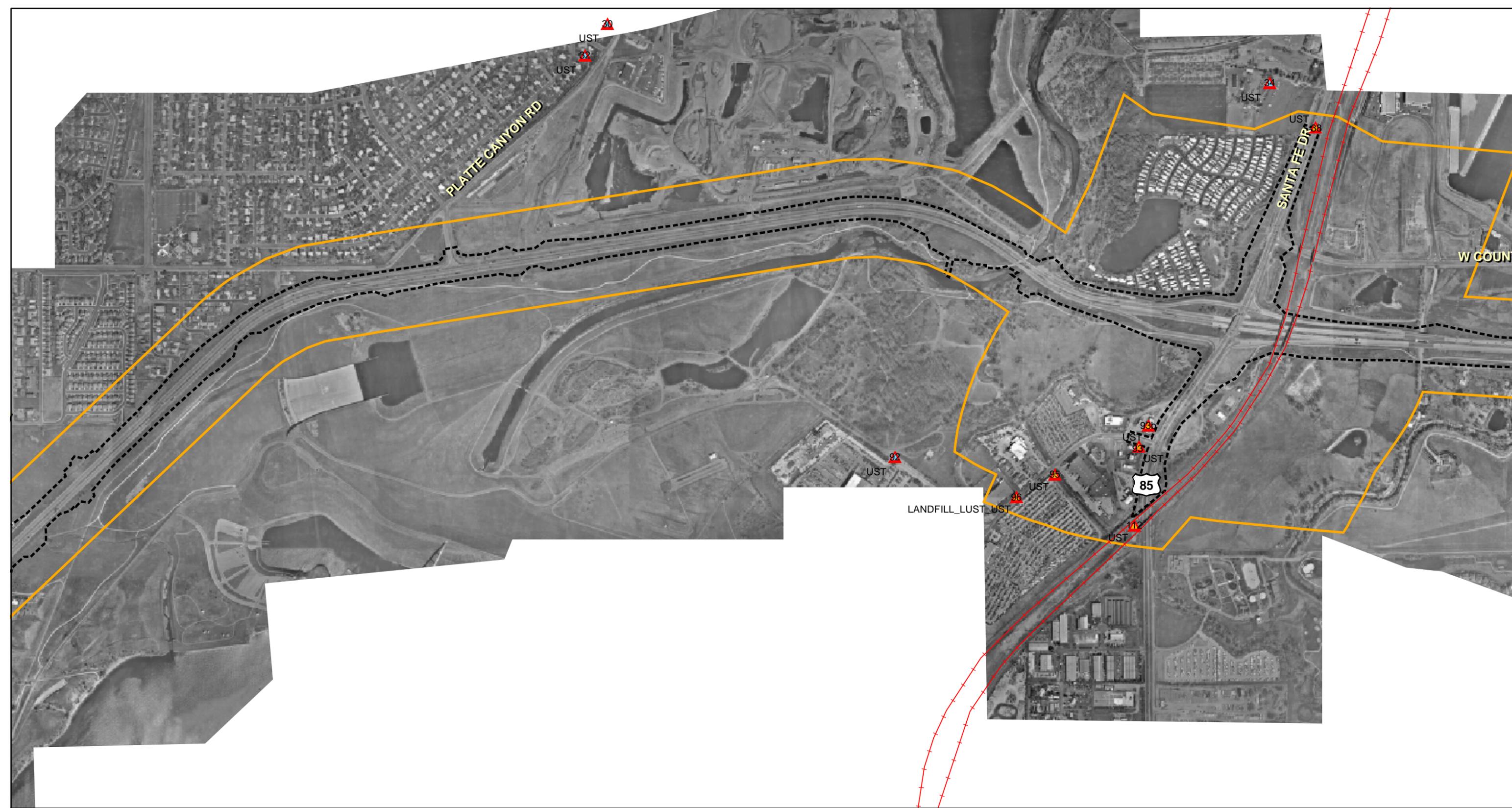
Legend

- ▲ Low Potential
- ▲ Moderate Potential
- ▲ High Potential
- Study Area
- - - GPL footprint



Potential Hazardous Materials and GPL Limits of Construction

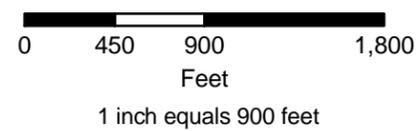
figure 2a



Potential Hazardous Waste Sites
Field Verified

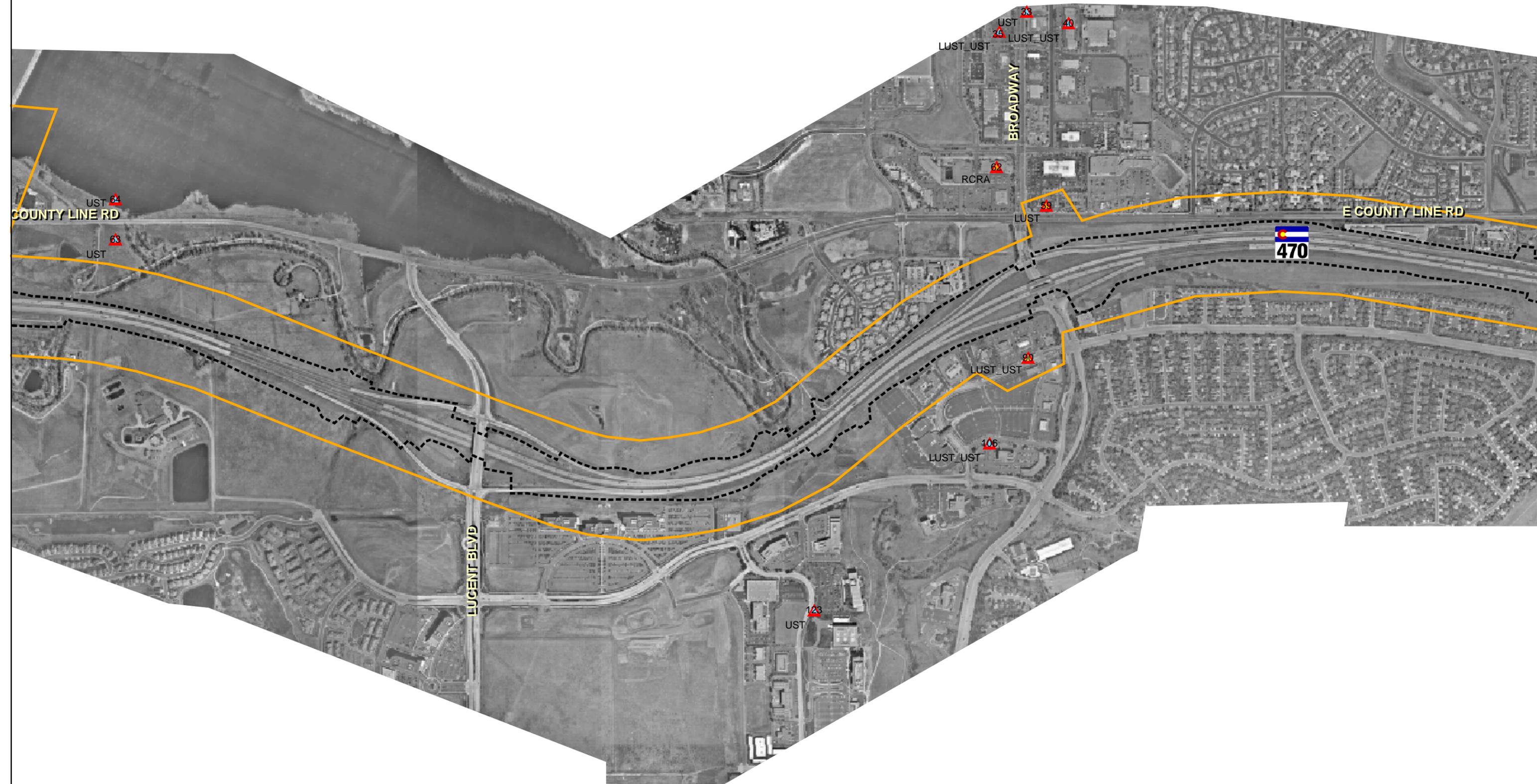
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- ▲ Low Potential
- ▲ Moderate Potential
- ▲ High Potential
- Study Area
- - - GPL footprint



Potential Hazardous Materials and GPL Limits of Construction

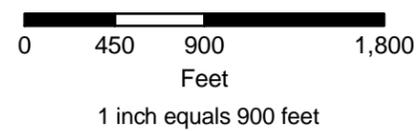
figure 2b



Potential Hazardous Waste Sites
Field Verified

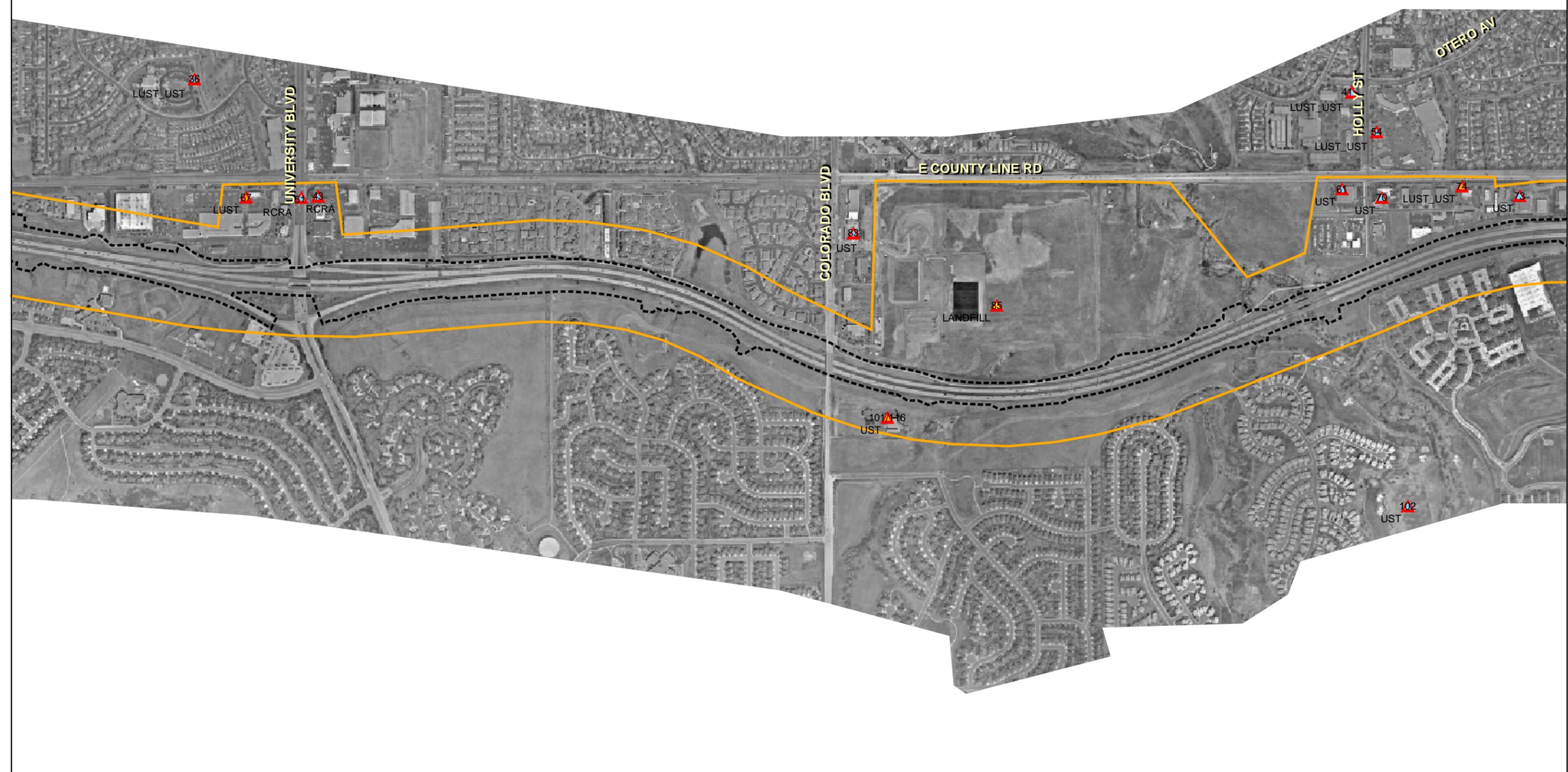
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- ▲ Low Potential
- ▲ Moderate Potential
- ▲ High Potential
- Study Area
- - - GPL footprint



Potential Hazardous Materials and GPL Limits of Construction

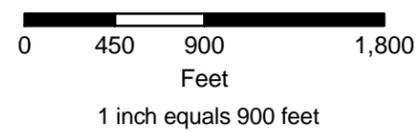
figure 2c



Potential Hazardous Waste Sites
Field Verified

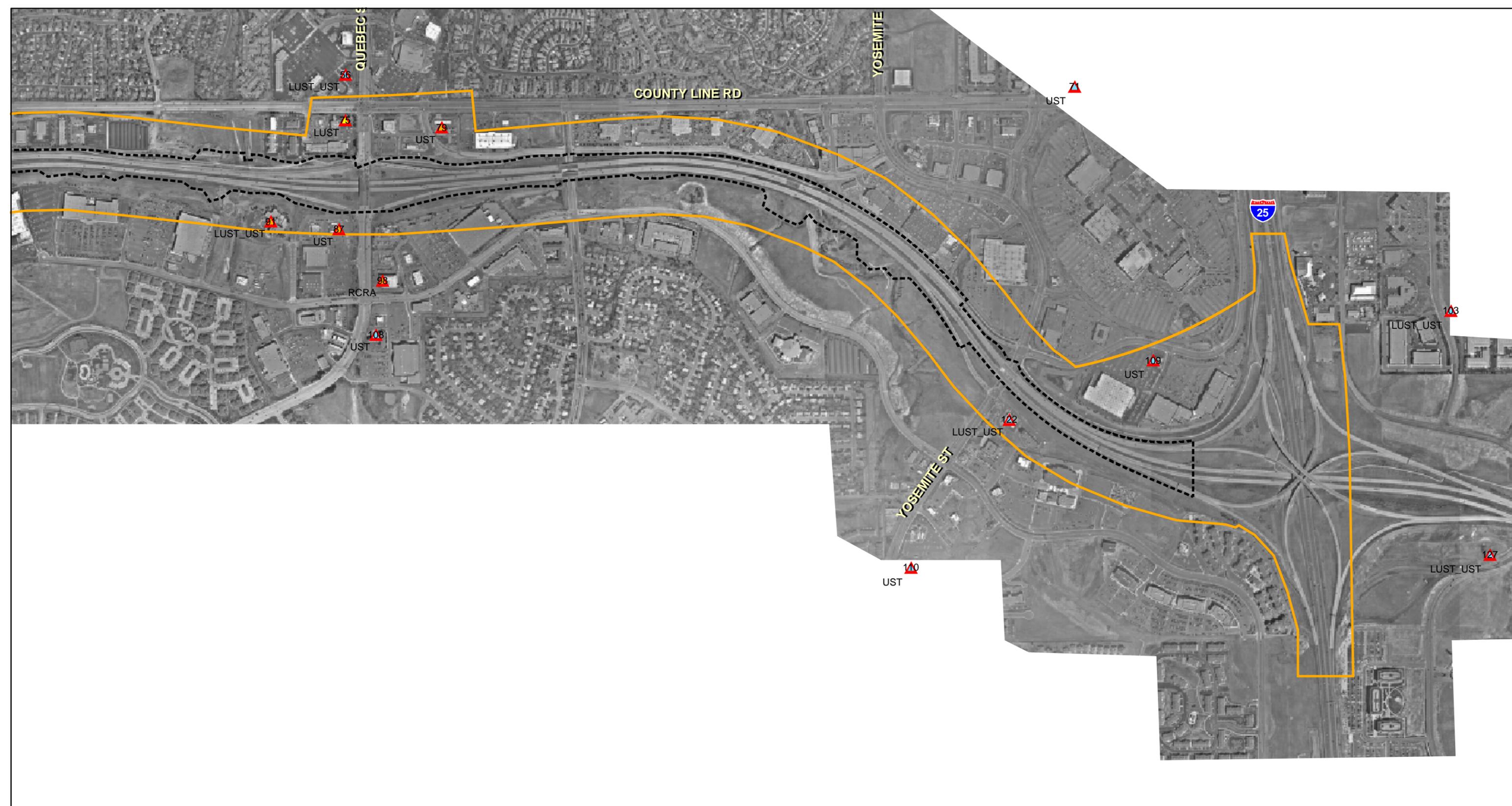
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- ▲ Low Potential
- ▲ Moderate Potential
- ▲ High Potential
- Study Area
- - - GPL footprint



Potential Hazardous Materials and GPL Limits of Construction

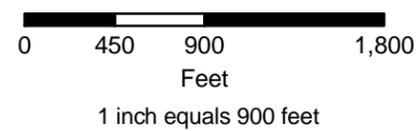
figure 2d



Potential Hazardous Waste Sites
Field Verified

Legend

- ▲ Low Potential
- ▲ Moderate Potential
- ▲ High Potential
- Study Area
- - - GPL footprint



Potential Hazardous Materials and GPL Limits of Construction

figure 2e

Figure 3

