

**HAZARDOUS MATERIALS  
TECHNICAL MEMORANDUM**

**FOR THE**

**Federal Boulevard Improvements between  
West 7<sup>th</sup> Avenue and West Howard Place  
Environmental Assessment**

**Prepared for**

CITY AND COUNTY OF DENVER

COLORADO DEPARTMENT OF TRANSPORTATION

FEDERAL HIGHWAY ADMINISTRATION

**Prepared by**

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## CONTENTS

<b>Introduction .....</b>	<b>1</b>
Federal and State Regulations and Policies .....	3
<b>PEL Study Summary .....</b>	<b>3</b>
<b>2011 MESA Update .....</b>	<b>3</b>
<b>Proposed Action .....</b>	<b>4</b>
<b>No-Action Alternative .....</b>	<b>5</b>
<b>Methodology .....</b>	<b>6</b>
Physical Setting .....	7
Reconnaissance Survey .....	7
Regulatory Files .....	7
Historical Sources and Previous Reports .....	7
Additional Services .....	7
Lead-Based Paint Sampling .....	7
Asbestos Survey .....	9
Impact Criteria .....	9
Low Potential .....	9
High Potential .....	9
<b>Existing Conditions .....</b>	<b>10</b>
Physical Setting .....	10
Topography .....	10
Hydrogeology .....	10
Site Reconnaissance Survey .....	11
Regulatory Files .....	12
Summary of Results .....	12
Additional Services .....	13
Lead-Based Paint Sampling .....	13
Asbestos Sampling .....	13
<b>Impact Assessment .....</b>	<b>16</b>
<b>Mitigation Measures .....</b>	<b>16</b>
<b>Required Permits .....</b>	<b>17</b>
<b>Stakeholder Coordination .....</b>	<b>17</b>
<b>References .....</b>	<b>17</b>

## FIGURES

Figure 1. EA Project Area .....	1
Figure 2. Hazardous Materials Study Area .....	2
Figure 3. Proposed Action .....	4
Figure 4. No-Action Alternative between West 7 <sup>th</sup> Avenue and West 10 <sup>th</sup> Avenue .....	6
Figure 5. No-Action Alternative between West 10 <sup>th</sup> Avenue and West Howard Place.....	6
Figure 6. Facilities Identified in the Northern Portion of the Study Area.....	14
Figure 7. Facilities Identified in the Southern Portion of the Study Area.....	15

## TABLES

Table 1. Lead Sample Designation, Location, Description, and Results .....	13
Table 2. Hazardous Materials Impacts .....	16
Table 3. Materials Mitigation Measures.....	17

## APPENDICES

Appendix A	Photographic Log
Appendix B	Agency Database Report
Appendix C	Reservoirs Analytical Report – Lead Sampling
Appendix D	Certified Asbestos Building Inspector Credentials
Appendix E	Summary of Properties Evaluated for Regulated Materials

## ACRONYMS

AAS	Atomic Absorption Spectroscopy
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
AES	Atomic Emission Spectroscopy
AES-ICP	Atomic Emission Spectroscopy - Inductively Coupled Plasma
AST	Aboveground Storage Tank
ASTM	ASTM International
bgs	Below ground surface
BRL	Below reporting limit
BTEX	Benzene, Toluene, Ethyl benzene, and Xylene
CABI	State of Colorado and USEPA-certified asbestos building inspector
CCD	City and County of Denver
CDH	Colorado Department of Health (i.e., current day CDPHE)
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health and Environment
CFR	Code of Federal Regulations
DPS	Denver Public Schools
EA	Environmental Assessment
ELPAT	Environmental Lead Proficiency Analytical Testing
USEPA	United States Environmental Protection Agency
EPB	Environmental Programs Branch
ESA	Environmental Site Assessment
FHU	Felsburg Holt & Ullevig
GIS	Geographic Information Systems
ISA	Initial Site Assessment
LRT	Light Rail Transit
LUST	Leaking Underground Storage Tank
MESA	Modified Environmental Site Assessment
mg/L	milligrams per liter
MMP	Materials Management Plan
MS4	Municipal Separate Storm Sewer System
msl	Mean sea level
NA	Not applicable
NFA	No Further Action
OPS	Division of Oil and Public Safety
OSHA	Occupational Safety and Health Administration
PAT	Proficiency Analytical Testing
PCB	Polychlorinated biphenyl
PEL	Planning and Environmental Linkages
PSI	Preliminary Site Investigation
RCRA	Resource Conservation and Recovery Act

## Hazardous Materials for the Federal Boulevard Improvements EA

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RI/FS	Remedial Investigation/Feasibility Studies
ROW	Right of Way
RTD	Regional Transit District
TCLP	Toxicity Characteristic Leachate Procedure
US	United States
USGS	United States Geologic Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compound

## INTRODUCTION

This Technical Memorandum has been prepared in support of the *Federal Boulevard Improvements Environmental Assessment (EA)*. The general project area extends from West 7<sup>th</sup> Avenue to West Howard Place along Federal Boulevard (“Project Area”, Figure 1). This Memorandum evaluates the effects of the Federal Boulevard Improvement Project (the Proposed Action) and the No-Action Alternative with respect to hazardous materials. The study area used in this assessment encompasses the actual limits of disturbance, including areas that would be impacted as a result of right-of-way (ROW) acquisitions if the Proposed Action were to be implemented (“Study Area,” Figure 2).

Figure 1. EA Project Area

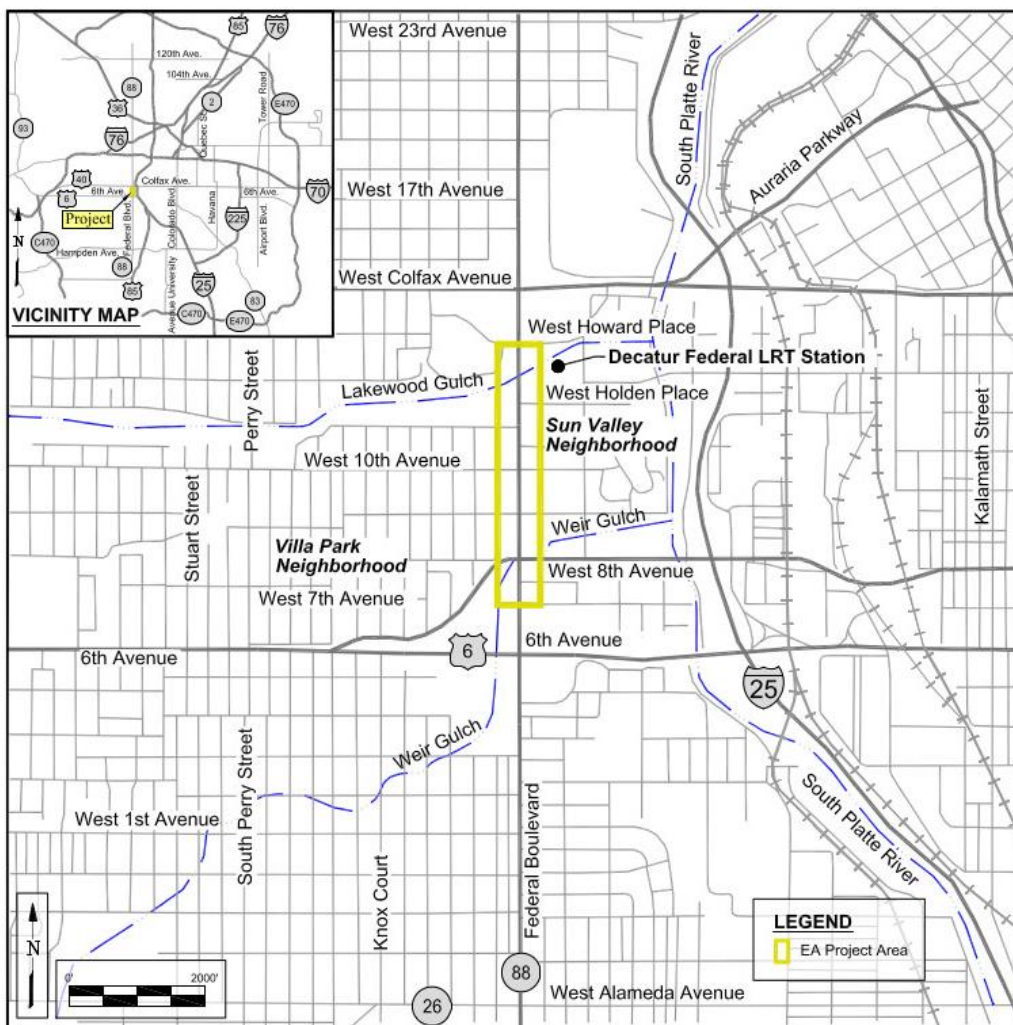
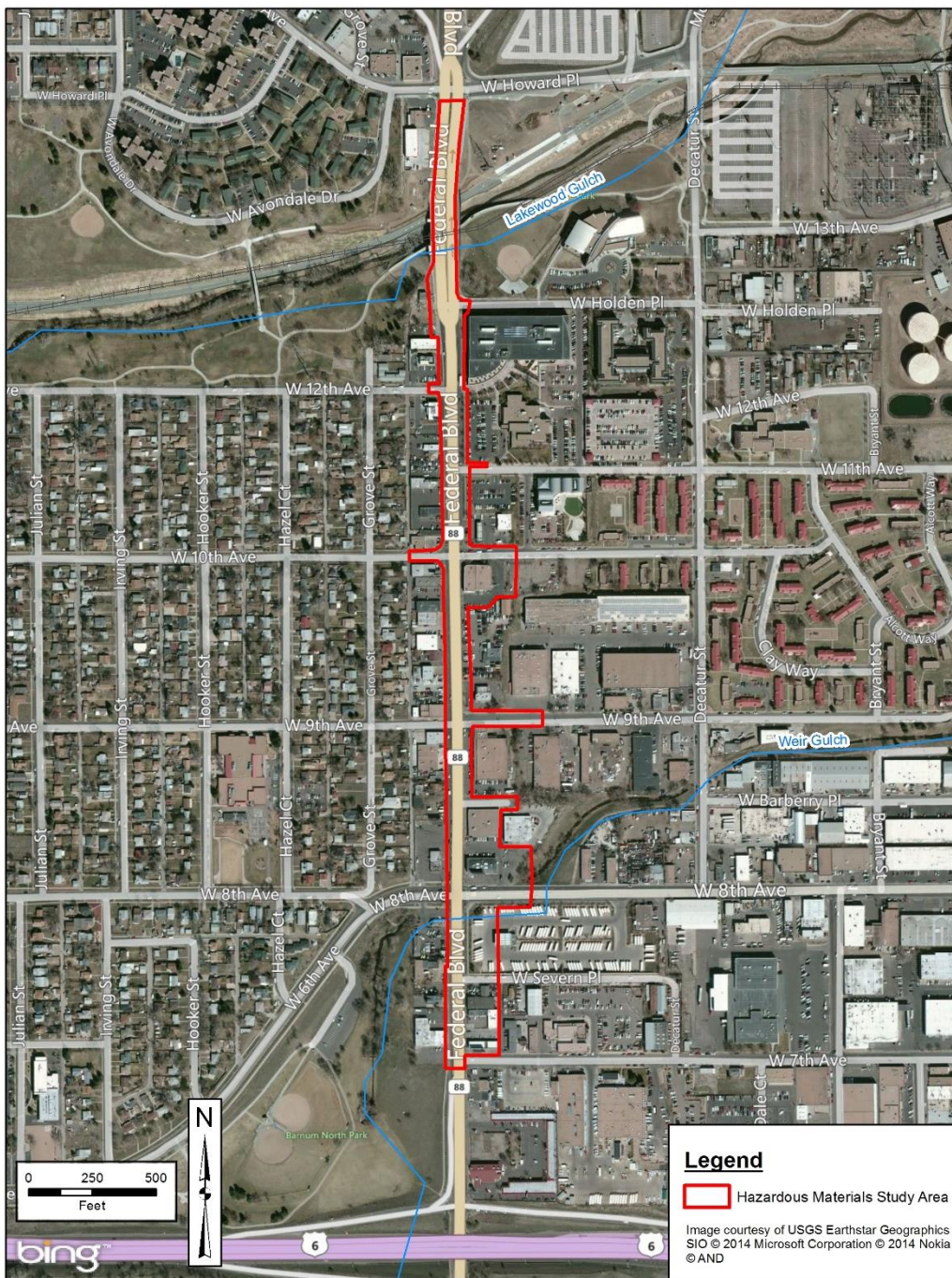


Figure 2. Hazardous Materials Study Area



The objective of this Technical Memorandum is to provide information about facilities that could pose a potential risk of environmental contamination as well identify any areas that are already known to be contaminated. This evaluation has been completed as an update to the *Federal Boulevard (5<sup>th</sup> Avenue to Howard Place) Modified Environmental Site Assessment* (2009 MESA) prepared by Felsburg Holt & Ullevig (FHU) in June 2009

(FHU, 2009a). The 2009 MESA was completed as part of the *Federal Boulevard (5<sup>th</sup> Avenue to Howard Place) Planning and Environmental Linkages (PEL) Study* prepared by FHU in October 2009 (FHU, 2009b).

### *Federal and State Regulations and Policies*

This Memorandum discusses an evaluation of the relative potential to encounter hazardous materials or compromised environmental conditions within the Study Area, as required by the following regulations or policies:

- Reasonable inquiry consistent with Colorado Department of Transportation (CDOT) Environmental Programs Branch (EPB) hazardous materials guidance table (CDOT, 2011)
- ASTM International (ASTM) Designation E 1527-13, “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process” (ASTM, 2013), as modified in accordance with the CDOT guidance table
- United States Environmental Protection Agency (USEPA) Standards and Practices for All Appropriate Inquiries (40 *Code of Federal Regulations* [CFR] Part 312) (USEPA, 2005)

## PEL STUDY SUMMARY

The 2009 MESA and the PEL Study were prepared in June and October 2009, respectively (FHU, 2009a; FHU, 2009b). A total of 32 sites with potential or recognized environmental conditions were identified for the Proposed Action identified in the PEL Study, which included properties from West 5<sup>th</sup> Avenue to West Howard Place. In general, related environmental concerns included any residual contamination from leaking underground storage tanks (LUSTs), the presence of underground storage tanks (USTs), and the presence of chemicals and petroleum products associated with the historical and ongoing automotive-maintenance and light-industrial facilities. Given the information gathered during the 2009 MESA, FHU recommended Initial Site Assessments (ISAs), Phase I Environmental Site Assessments (ESAs), Preliminary Site Investigations (PSIs), or Remedial Investigation/Feasibility Studies (RI/FIs) for each property, based upon parcel acquisition plans and the presence, extent, or magnitude of known or suspected hazardous materials. In addition, FHU identified that buildings in the study area may contain heavy-metal based paint, asbestos contaminated materials, and other regulated materials.

## 2011 MESA UPDATE

Pinyon Environmental, Inc. (Pinyon), completed an *Update to the MESA of Federal Boulevard (5th Avenue to Howard Place)* on November 4, 2011 (Pinyon, 2011; herein referred to as the 2011 MESA Update). Eight facilities, which were identified in the 2009 MESA were updated with additional regulatory-file information; however, no new facilities or conditions were identified in the 2011 MESA Update.

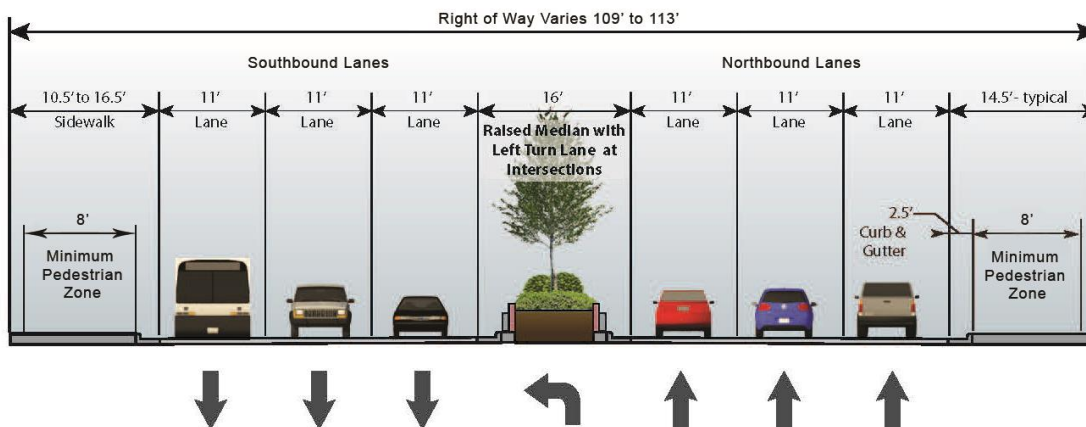


## PROPOSED ACTION

The Proposed Action is to add a third northbound lane between West 7<sup>th</sup> Avenue and West 10<sup>th</sup> Avenue and a raised median throughout the Project Area to improve mobility and safety (Figure 3). North of West 10<sup>th</sup> Avenue, the width of the existing three northbound lanes would be brought up to standard (11 feet). The existing southbound lanes would also be brought up to standard width in areas where they are currently substandard.

Note that this Project Area differs from that of the PEL Study as the portion of Federal Boulevard to the south of West 7<sup>th</sup> Avenue, including the interchange with United States Highway 6 (US 6), is being addressed by the US 6 Bridges Design-Build project. However, the proposed improvements are consistent with the Proposed Action in the PEL Study.

**Figure 3. Proposed Action**



The widening of Federal Boulevard during the Proposed Action will meet American Association of State Highway and Transportation Officials (AASHTO) and CDOT standards. Access will be limited by controlling left-turns at non-signalized points. In the Proposed Action, the existing signalized crosswalks at the intersections of Federal Boulevard with West 8<sup>th</sup> Avenue and West 10<sup>th</sup> Avenue will be upgraded with new traffic and pedestrian signal indications and enhanced concrete crosswalks. Sidewalks on the west and east sides of the street will be brought up to Americans with Disabilities Act (ADA) standards; this will match the existing sections of Federal Boulevard to the north and south.

Access to bus service, which connects to local and regional destinations as well as the greater transit system, including the nearby West Line of RTD’s LRT system, will be improved by upgrading the sidewalk to be consistent and compliant with ADA standards. Additionally, connectivity to the Weir Gulch Trail would be enhanced with better signage for the trail, reducing the curvature of the “T” intersection where the trail and sidewalk connect along West 8<sup>th</sup> Avenue, signage for the Trail, and a wider sidewalk along West 8<sup>th</sup> Avenue, all of which support the City and County of Denver’s (CCD’s) Bicycle Master Plan

## Hazardous Materials for the Federal Boulevard Improvements EA

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(CCD, 2001) and Denver Moves (CCD, 2011). These improvements are anticipated to improve mobility, safety, and enhance multi-modal options within the Project Area.

In summary, the Proposed Action consists of the following elements:

- Federal Boulevard roadway alignment and improvements
  - Widening Federal Boulevard from the ROW boundary on the west side of Federal Boulevard toward the east between West 7<sup>th</sup> Avenue and approximately West 10<sup>th</sup> Avenue with an additional 11-foot northbound lane
  - Restriping and widening the three northbound lanes on Federal Boulevard between approximately West 10<sup>th</sup> Avenue to approximately West Howard Place to be 11 feet wide
  - Restriping and widening the three southbound lanes on Federal Boulevard between approximately West 7<sup>th</sup> Avenue and West 10<sup>th</sup> Avenue to be 11 feet wide
- Bicycle and pedestrian improvements
  - Improving the sidewalks on the east side of Federal Boulevard between West 7<sup>th</sup> Avenue and West 10<sup>th</sup> Avenue to meet ADA standards and better accommodate pedestrians
  - Standardizing inconsistent sidewalk widths on both the east and west sides of Federal Boulevard with an 8-foot pedestrian zone consisting of either a detached 5-foot sidewalk with a 3-foot buffer or an attached 8-foot sidewalk with ADA-compliant curb ramps and driveway cuts
  - Enhancing access to the Decatur-Federal LRT station through improved multi-modal connectivity by improving the sidewalks throughout the Project Area
  - Upgrading existing pedestrian signals and constructing enhanced concrete crosswalks at the signalized intersections of Federal Boulevard with West 8<sup>th</sup> Avenue and West 10<sup>th</sup> Avenue
  - Enhancing bicycle and pedestrian connectivity to the Weir Gulch Trail with better signage, wider sidewalks, and access ramps
  - Enhancing bicycle connectivity to Routes D-10 and D-12 by adding signage in the Project Area that meets CCD and CDOT standards

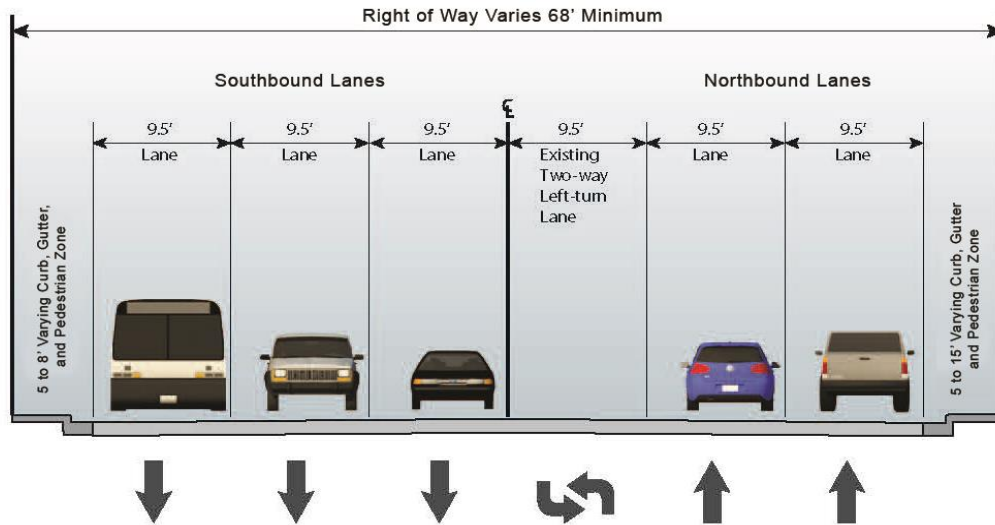
### NO-ACTION ALTERNATIVE

The No-Action Alternative would leave Federal Boulevard as it currently is configured and would not provide any improvements beyond typical maintenance activities. The roadway would remain the same, with 3 southbound and 2 northbound lanes (each 9.5 to 11 feet in width) and a continuous two-way, center, left-turn median between West 7<sup>th</sup> Avenue and West 10<sup>th</sup> Avenue (Figure 4). The segment of Federal Boulevard from West 10<sup>th</sup> Avenue to West Howard Place has three southbound and three northbound

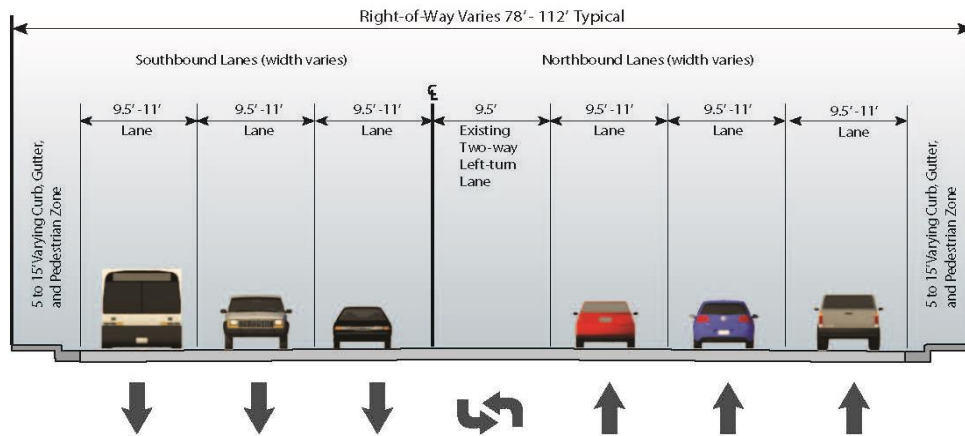
**Hazardous Materials for the Federal Boulevard Improvements EA**

lanes, and a continuous two-way left-turn median over Lakewood Gulch (Figure 5). The existing sidewalks along the both sides of Federal Boulevard in the Project Area are either narrow or not well-defined, and the curb ramps at intersections do not meet current ADA or CDOT standards. As part of State Highway 88, normal maintenance of Federal Boulevard would continue to be performed by CDOT. This includes the current direct discharge of stormwater to the nearby gulches.

**Figure 4. No-Action Alternative between West 7<sup>th</sup> Avenue and West 10<sup>th</sup> Avenue**



**Figure 5. No-Action Alternative between West 10<sup>th</sup> Avenue and West Howard Place**



**METHODOLOGY**

Pinyon completed the analysis discussed in this Technical Memorandum to serve as an update to the previous 2009 MESA, PEL Study and 2011 MESA Update, to identify potential regulated hazardous materials and/or environmental conditions that could be encountered during the Project (i.e., that would be present in the Study Area if the

Proposed Action were to be implemented). The following discussion presents a summary of the methodology used to complete this Memorandum.

### *Physical Setting*

The physical setting of the Study Area was reviewed to evaluate potential regulated-material environmental-transport mechanisms, including topographic and hydrogeologic conditions.

### *Reconnaissance Survey*

A reconnaissance survey of the Study Area and surrounding vicinity was completed on March 19, 2014, by Ms. Jillian Mauer of Pinyon to identify the potential presence of regulated-materials sources. Ms. Mauer visually surveyed the Study Area by walking the areas with public access and then driving the internal, perimeter, and areas surrounding the Project Area via access roads (i.e., “windshield survey”). Following the reconnaissance survey, any areas that could not be visually assessed during the survey were evaluated more closely on current aerial photographs provided by public sources (e.g., Google Earth). Private properties which would be acquired as part of the Proposed Action were not accessed during the reconnaissance survey. Photographs were taken, and these are included as Appendix A.

### *Regulatory Files*

A review of the compliance history of facilities within or in proximity to the Study Area, as identified by a regulatory database search and other reports (if available) was completed (GeoSearch, 2014). This search included a review of publically available local, State, and Federal records. The resulting database is included as Appendix B.

### *Historical Sources and Previous Reports*

Pinyon staff also completed a review of reasonably ascertainable historical sources (e.g., aerial photographs and CCD Assessor’s records) in order to obtain information regarding past uses of the Study Area. Pinyon also relied upon the historical research completed as part of the previous reports (e.g., City directories, aerial photographs, topographic maps). It should be noted that Sanborn Fire Insurance maps were not available for the Study Area and were not reviewed as part of this evaluation.

### *Additional Services*

As part of the analysis discussed in this Technical Memorandum, Pinyon completed the following additional services beyond the scope of MESA.

### **Lead-Based Paint Sampling**

Samples of paint from existing structures (e.g., signal poles, fire hydrants concrete abutments) that would be removed or demolished if the Proposed Action were to be implemented were collected for laboratory analysis of lead content, as described below.

Facilities located on private properties, which would be acquired as part of the Proposed Action, were not evaluated.

The CDOT requires that painted structures and their components that may be removed and/or demolished be evaluated for lead content. Confirmation of the presence of lead paint on structures is used to evaluate: 1) worker health and safety considerations, and 2) recycling and/or disposal options.

The CDOT does not expect that painted materials shown to have a total lead content of less than 0.01 percent in the applied paint would exceed the limits specified by the Resource Conservation and Recovery Act (RCRA) Hazardous Waste Limits for landfill leaching and disposal. When paint samples are shown to contain lead concentrations exceeding 0.01 percent; however, CDOT requires analysis of the material according to the Toxicity Characteristic Leachate Procedure (TCLP). That sample should include not only the applied paint, but a representative sample of the substrate to which the paint is adhered (e.g., concrete). If, after TCLP analysis, the results are less than 5.0 milligrams per liter (mg/L), the material may be disposed as solid (e.g., non-hazardous) waste at a permitted, Subtitle D landfill. If the results are equal to or exceed 5.0 mg/L, then the lead paint must be abated (i.e., removed) prior to the structure's demolition and component disposal. TCLP analysis is required where the total lead concentration is greater than 0.01 percent, and the substrate to which the paint is adhered is not metal (see below).

CDOT requires that all metal components removed during a project (e.g., light poles, metal railing, and bridge girders) be recycled. As these materials are recycled, and not disposed at a landfill, it is not necessary to evaluate the content of lead by TCLP, regardless of potential concentration. The recycling facility to which these components are sent, however, must be notified that metal components contain lead, if applicable. Regardless of lead content, the future contractor must comply with *Occupational Safety and Health Administration (OSHA) Regulation 1926.62* for worker safety.

Three paint samples were collected in the Study Area for the analysis of lead from structural components that are anticipated to be removed and/or demolished during the Proposed Action. The paint samples were collected using a chisel or a knife. Each sample was logged on a field-sampling chain-of-custody form. One paint-chip sample of each color of paint identified was collected; all samples were submitted to Reservoirs Environmental Laboratory, Inc. (Reservoirs), for lead analysis by total concentration in percent. Reservoirs is accredited by the American Industrial Hygiene Association for metals analysis through the Environmental Lead Proficiency Analytical Testing (ELPAT)-Environmental Lead Laboratory Accreditation Program for environmental samples and the *Proficiency Analytical Testing (PAT)—Industrial Hygiene Laboratory Accreditation Program* for industrial-hygiene samples. Reservoirs operates under AIHA Certificate No. 480 and Laboratory Identification No. 101533. The samples were analyzed using the atomic absorption spectroscopy (AAS)/atomic emission spectroscopy (AES)/atomic emission spectroscopy-inductively coupled plasma (AES-ICP). The laboratory-analysis and chain-of-custody documentation is provided in Appendix C.

### **Asbestos Survey**

An asbestos survey of structures that would be removed or demolished if the Proposed Action were to be implemented was also completed by Ms. Mauer, an USEPA-accredited Asbestos Hazard Emergency Response Act ([AHERA] at 40 CFR Part 763) inspector who is certified by the State of Colorado. The credentials for Ms. Mauer are provided as Appendix D. Structures and components that are located on private properties, which would be acquired as part of the Proposed Action, were not evaluated.

### ***Impact Criteria***

The magnitude of the impacts as a result of the presence of a regulated material is dependent upon different factors including: the distance between a potential source of a regulated material and the respective project; the status of regulated facilities (e.g., active or inactive); the presence of known or suspected releases into soil, surface water, or groundwater; the hydrogeologic relationship between the source of a regulated material to a project's attributes; and the depth and/or duration of project construction. These factors have been considered during this evaluation as part of the overall assessment of whether a regulated material has the potential to impact the Federal Boulevard Improvements Project. Structures and facilities noted during the assessment were categorized as either having a low or a high potential to generate impacts within the Study Area. These potentials are defined below:

### **Low Potential**

Structures and facilities that have a low potential to impact the Study Area include:

- Those with minimal indication of an existing release, past release, or material threat of a release of regulated material(s) (i.e., contaminants) into the ground (i.e., soil), surface water, or groundwater (i.e., to contaminate the environment)
- Those located hydraulically down-gradient of the Study Area
- Those where contamination has already impacted the Study Area; but where there is a low potential for known or suspected contamination to be exposed during construction of the Project

### **High Potential**

Structures and facilities that have a high potential to impact the Study Area include:

- Those with indications of an existing release, past release, or material threat of a release of any regulated materials into the ground (i.e., soil), surface water, or groundwater and where there is the possibility of migration from the contaminant source into the Study Area or adjoining areas.
- Those that have already caused a migration of the contaminants into the Study Area and where construction would likely expose the environmental media

impacted by those contaminants (e.g., soil, soil vapor, surface water, or groundwater).

Pinyon has used these criteria throughout this Memorandum in its evaluation of the potential significance of impacts as a result of the potential regulated materials or contaminants that might be encountered during the Proposed Action.

### EXISTING CONDITIONS

Consistent with conditions documented in the *2009 MESA* and *2011 MESA Update*, the study area is located in an urbanized corridor comprised of commercial properties, including: retail stores, automotive sales and service facilities, community resource facilities (e.g., workforce center, health facilities, credit union), gasoline stations (former and current), and professional offices. Land use in areas to the west of the Study Area (i.e., up gradient to the Study Area, beyond the commercial facilities along Federal Boulevard) are generally comprised of residential properties. Areas to the east (i.e., to the east of the commercial properties along Federal Boulevard are comprised of mixed-use areas with multi-family residential, industrial, and commercial properties).

Given the refinement of the Proposed Action design and parcel acquisition plans since the previous reports; however, the Study Area now consists of Federal Boulevard, portions of sidewalk to the east and to the west of Federal Boulevard, and several private properties to the east, which would be acquired if the Proposed Action were to be implemented (Figure 2). The *2009 MESA* and *2011 MESA Update* included a larger study area, as information regarding parcel acquisition and design was not yet refined. Therefore, several sites identified during the *2009 MESA* are no longer within the study area, or would not be impacted as part of either the No-Action Alternative or Proposed Action.

#### *Physical Setting*

##### **Topography**

The elevation of the Study Area is approximately 5,260 feet above mean sea level (msl) on the southern portion and 5,220 above msl on the northern portion. The Study Area gently slopes to the northeast, toward the northerly flowing South Platte River, which is located 0.45 mile to the east according to the United States Geologic Survey (USGS, 1994).

##### **Hydrogeology**

In general, groundwater flow mimics surface topography. Based upon a review of the topographic maps depicting the Study Area as well as the findings of the reconnaissance survey, the groundwater flow direction is expected to be to the east-northeast out of the Study Area (USGS, 1994). Two hydrologic features are present in the Study Area; these include Weir Gulch in the southern portion and Lakewood Gulch in the northern portion. Weir Gulch is an east-northeasterly flowing natural drainage feature that extends under Federal Boulevard in the vicinity of West 8<sup>th</sup> Avenue and drains into the South Platte River. Lakewood Gulch is an east-northeasterly flowing natural drainage feature that extends

under Federal Boulevard in the vicinity of West Holden Place and West Howard Place; this feature also drains into the South Platte River.

The depth to groundwater is anticipated to vary throughout the Study Area. During a geotechnical investigation by Yeh and Associates, Inc. (Yeh) in 2012, groundwater was encountered at 17 and 30 feet below ground surface (bgs) in borings drilled on West 8<sup>th</sup> Avenue in the vicinity of the proposed retaining wall for Weir Gulch (Yeh, 2012) (Figures 6 and 7). A review of available regulatory files indicates that groundwater was present at a depth of 49 to 58 feet in the vicinity of the “7-Eleven” on the northern portion of the Study Area; during investigations at 2800 West 8<sup>th</sup> Avenue, groundwater was encountered at 25 to 30 feet.

### *Site Reconnaissance Survey*

During Pinyon’s reconnaissance survey, the Study Area and Project vicinity were observed for evidence of the potential presence of regulated materials such as:

- General use of regulated materials and, in particular, uses that could result in the release of hazardous substances or petroleum products to the environment
- Evidence of USTs, including fill ports, vent pipes, and fueling facilities
- Presence of above-ground storage tanks (ASTs) and evidence of secondary containment for spill prevention
- Disposal of solid or hazardous waste, waste-management practices, and general housekeeping of waste storage and disposal areas
- Evidence of on-site dumping or landfilling
- Presence of equipment or other components that could have been historically associated with the use of polychlorinated biphenyls (PCBs) as a dielectric fluid coolant and stabilizer
- Evidence of the handling and storage of hazardous materials, such as the presence of 55-gallon drums or tote containers
- Presence of drains, sumps, septic systems, wastewater discharges, pits, ponds, lagoons, staining, pooled liquids, stressed vegetation, odors, or wells

Pinyon observed a number of properties in the Study Area and Project vicinity that indicated the potential presence of regulated materials, such as hazardous substances or materials containing petroleum products, as discussed in Table 1.



### *Regulatory Files*

A total of 153 facilities were identified in the agency database report provided as Appendix B (GeoSearch, 2014). As part of the regulatory-file review, Pinyon also obtained information regarding nearby facilities through a review of available records from the Colorado Department of Public Health and Environment (CDPHE) and the Colorado Department of Labor and Employment, Division of Oil and Public Safety (OPS). Regulatory files were reviewed for those facilities identified either within the Study Area or Project vicinity; a summary of Pinyon's review of regulatory files for these facilities is presented in Appendix E (as applicable).

### *Summary of Results*

Pinyon reconnoitered the Study Area, including any parcel that would sustain impacts from ground-disturbance activities, property acquisitions (full or partial), or easements if the Proposed Action were to be implemented. Pinyon also evaluated the Project vicinity for the presence of any other facilities where there might be environmental conditions or concerns that could impact (i.e., migrate to) the Study Area. A total of 42 facilities or parcels were assessed as part of this reconnaissance (Figures 6 and 7). A brief description of each facility reviewed as part of this assessment is included in Appendix E, based upon information obtained through an evaluation of historical land-use research (FHU, 2009a), regulatory records, or observations made during the March 2014 site reconnaissance. Potential impacts associated with the Proposed Action and No-Action Alternative are rated for each parcel (Appendix E). The following 13 parcels were identified with a high potential to impact the Study Area:

- 710 Federal Boulevard: Hi-Performance Car Wash
- 724 Federal Boulevard: Vacant Commercial (Formerly Mile High Jeep Rebuilders)
- 2970 West Severn Place: Vacant Service Garage (Formerly Complete Auto Care)
- 750 Federal Boulevard/2880 West 8<sup>th</sup> Avenue: Denver Public Schools (DPS) Hilltop Bus Terminal (Formerly Federal Auto and Wrecking)
- 900/902 Federal Boulevard: USA Discount Liquor (Formerly a gasoline station)
- 1000 Federal Boulevard: 7-Eleven
- 749/753/759 Federal Boulevard: Western Material Handling
- 869 Federal Boulevard: Denver Auto Detail Specialists
- 891 Federal Boulevard: Vacant Commercial

## Hazardous Materials for the Federal Boulevard Improvements EA

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- 903 Federal Boulevard: Vacant Commercial (Formerly Spitfire Engine & Machine and Gasoline Station)
- 995 Federal Boulevard: Mechanica en General
- 1225 Federal Boulevard: Bronco Muffler Auto
- 1251 Federal Boulevard: Vacant Commercial (Formerly a gasoline station)

### *Additional Services*

#### **Lead-Based Paint Sampling**

Figures 6 and 7 present the location where paint samples were collected during Pinyon’s site reconnaissance survey. Table 1 presents the samples’ designations and locations as well as a description of the samples themselves and their respective lead content (percent or by TCLP).

**Table 1. Lead Sample Designation, Location, Description, and Results**

Sample Designation	Location	Description	Substrate	Total Lead Content (percent)	Lead Content (TCLP)
PC-1	Fire hydrant on the southwest corner of West 10 <sup>th</sup> and Federal Boulevard	Yellow	Metal	13.2	NA <sup>1</sup>
PC-2	Signal pole on the southwest corner of West 10 <sup>th</sup> and Federal Boulevard	Green	Metal	BRL	NA <sup>1</sup>
PC-3	Bus shelter on the northwest corner of West 10 <sup>th</sup> and Federal Boulevard	Green	Metal	BRL	NA <sup>1</sup>

*Notes:*

*BRL: Below Reporting Limit*

*NA: Not Applicable*

*1 CDOT requires that all metal project components (e.g., light poles, metal railings, and bridge girders) be recycled. As these materials are recycled, and not disposed at a landfill, it is not necessary to evaluate their respective lead content by TCLP, regardless of concentration.*

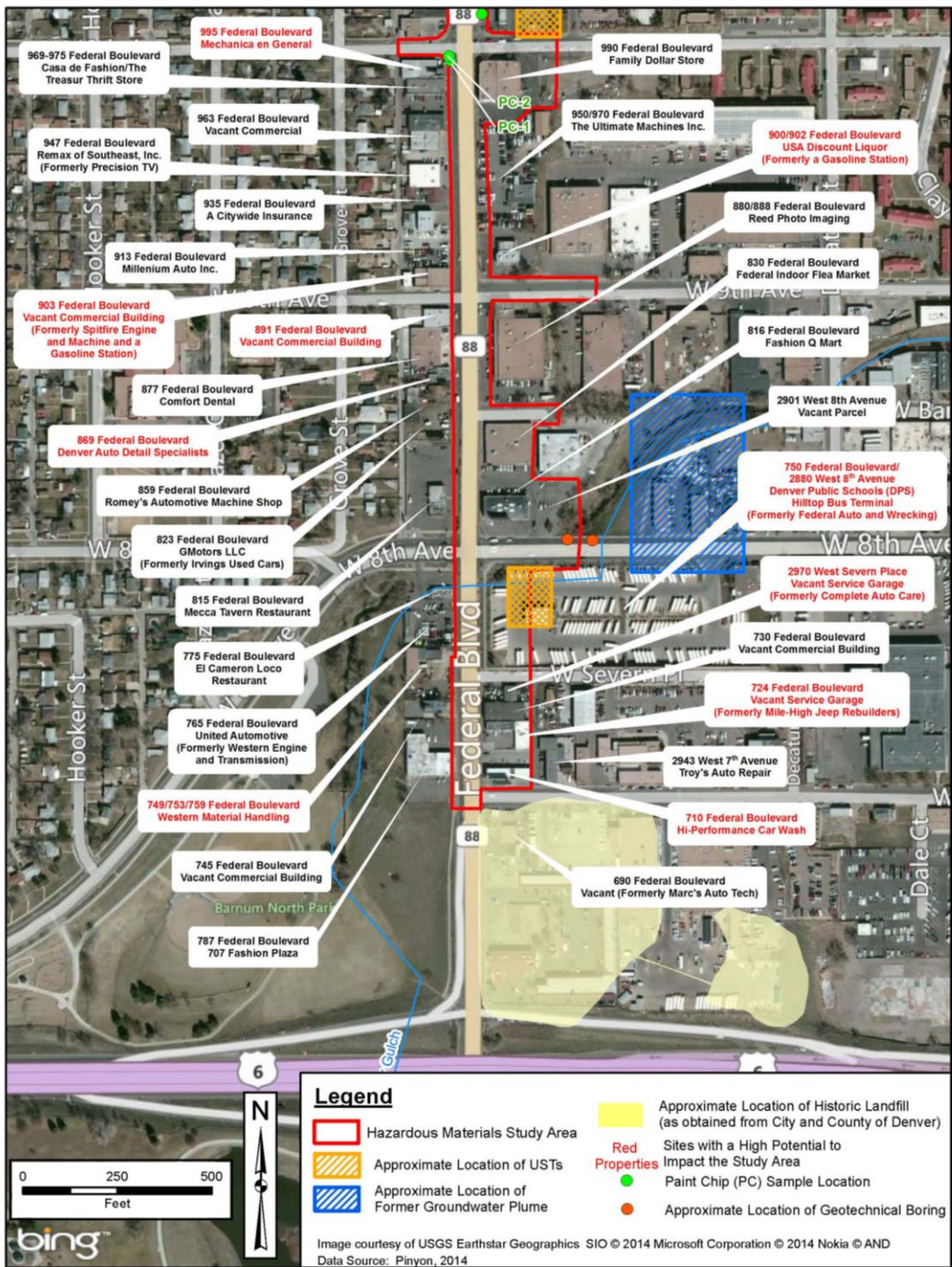
#### **Asbestos Sampling**

No suspected asbestos-containing materials were identified during Pinyon’s site reconnaissance survey. Therefore, no samples were collected as part of this assessment.

Figure 6. Facilities Identified in the Northern Portion of the Study Area



Figure 7. Facilities Identified in the Southern Portion of the Study Area



## IMPACT ASSESSMENT

During implementation of the Proposed Action there would be a potential to encounter regulated materials, such as petroleum-containing or hazardous materials, which is summarized below in Table 2. The No-Action Alternative would not be expected to result in impacts from regulated materials, as land disturbances would not occur.

**Table 2. Hazardous Materials Impacts**

Resource	Proposed Action	No-Action Alternative
<p>The Project Area is located in an urbanized corridor comprised of commercial properties, including: retail stores, automotive sales and service facilities, community resource facilities (e.g., workforce center, health facilities, credit union), automotive fueling and service stations (former and current), and professional offices. Many of these facilities were identified in the Project Area as having potential or recognized environmental conditions.</p>	<p><b><u>Permanent Impacts:</u></b> Environmental conditions (e.g., petroleum-contaminated soil or groundwater and hazardous materials) may be encountered during construction of the Project given the long history of chemical and petroleum storage and material-handling practices in the corridor. A total of 13 parcels were identified with a high potential to impact the Project Area, based upon the presence of known or potential regulated materials and already recognized environmental concerns. In addition, there is a potential for methane gas and waste debris from nearby historical landfills.</p> <p><b><u>Temporary Impacts:</u></b> Temporary impacts would occur from the abatement of regulated building materials and subsequent demolition of structures for the Project.</p>	<p><b><u>Permanent Impacts:</u></b> No permanent impacts from hazardous materials would occur if the No-Action Alternative is implemented.</p> <p><b><u>Temporary Impacts:</u></b> No temporary impacts from hazardous materials would occur if the No-Action Alternative is implemented.</p>

## MITIGATION MEASURES

Mitigation measures to be implemented as part of the Proposed Action are documented in Table 3.

**Table 3. Materials Mitigation Measures**

Resource	Proposed Action
Hazardous Materials	<p>In order to address any environmental and resulting liability concerns, Phase I Environmental Site Assessments (ESAs) or Initial Site Assessment (ISAs) will be conducted of parcels or portions of parcels which are to be acquired for ROW purposes. It should be noted that in accordance with the CDOT Environmental Programs Branch (EPB) Hazardous Materials Guidance Table, CDOT reserves the right to designate whether a Phase I ESA or ISA is prepared.</p> <p>Consideration will be given to conduct additional investigations (i.e., soil and groundwater sampling) for any property identified as having a high potential to impact the Project, in order to evaluate subsurface conditions and to identify any potential hazardous material management issues. In particular, the known groundwater plume that extends from the property located at 750 Federal Boulevard and 2880 West 8<sup>th</sup> Avenue will be evaluated prior to potential construction of the water quality pond at Weir Gulch, as it is anticipated that petroleum-impacted groundwater could be encountered at that location as part of the proposed activities.</p> <p>Pre-demolition asbestos surveys will be conducted on any structure that will be demolished.</p> <p>A Project-specific Materials Management Plan (MMP) will be developed prior to construction activities in order to address materials management and worker health and safety concerns.</p>

## REQUIRED PERMITS

Project development and construction to ensure regulated and hazardous materials are managed in accordance with applicable local, State, and Federal laws and regulations.

## STAKEHOLDER COORDINATION

The CCD has continued to provide opportunities for public involvement between the PEL Study in 2009 and initiation of this EA. A public meeting was held in August 14, 2014 prior to the completion of this EA to solicit further comment on and discussion of the Project. A Spanish-speaking translator was present at the open house, and materials were presented in both English and Spanish; Korean translation was available upon request. Stakeholder coordination will continue to take place throughout the Project’s development and construction.

## REFERENCES

- ASTM, 2013. “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process,” ASTM International (ASTM), November 2013.
- CCD, 2001. “Bicycle Master Plan Update 2001,” City and County of Denver (CCD), adopted March 2002. Website accessed March 2014: <http://www.denvergov.org/bikeprogram/bicyclingindenver/streetsandtrails/planning/tabid/438250/default.aspx>.

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## Hazardous Materials for the Federal Boulevard Improvements EA

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- CCD, 2011. "Denver Moves: Making Bicycle and Multi-Use Connections in the Mile High City," prepared by CCD, adopted May 2011. Website accessed March 2014: <http://www.denvergov.org/bikeprogram/bicyclingindenver/streetsandtrails/planning/tabid/438250/default.aspx>.
- CDOT, 2011. "Colorado Department of Transportation (CDOT) Hazardous Materials Document Guidance Table," CDOT Environmental Programs Branch (EPB), revised February 8, 2011.
- USEPA, 2005. "Standards and Practices for All Appropriate Inquiries [40 Code of Federal Regulations (CFR) Part 312]," U.S. Environmental Protection Agency (USEPA), November 2005.
- FHU, 2009a. "Federal Boulevard (5<sup>th</sup> Avenue to Howard Place) Modified Environmental Site Assessment (MESA)," Felsburg Holt and Ullevig (FHU), June 2009.
- FHU, 2009b. "Federal Boulevard (5<sup>th</sup> Avenue to Howard Place) Planning Environmental Linkages (PEL) Study," FHU, October 2009.
- GeoSearch, 2014. "Radius Report Federal Boulevard Reconstruction Project, Federal Boulevard, Denver County, Colorado 80204," GeoSearch, March 13, 2014.
- Pinyon, 2011. "Update to the MESA of Federal Boulevard (5<sup>th</sup> Avenue to Howard Place) PEL Study," Pinyon Environmental, Inc. (Pinyon), November 4, 2011.
- USGS, 1994. "Fort Logan, Colorado 7.5-Minute Quadrangle," United States Geological Survey (USGS), 1994.
- Yeh, 2012. "Final Geotechnical Engineering Report, 8<sup>th</sup> Avenue Retaining Wall at Weir Gulch," Yeh and Associates, Inc. (Yeh), September 6, 2012.

# Hazardous Materials for the Federal Boulevard Improvements EA

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Appendix A – Photographic Log

**Properties East of Federal Boulevard**

1. View of 690 Federal Boulevard (formerly Marc's Auto Tech) facing south from the southeastern corner of the West 7<sup>th</sup> Avenue and Federal Boulevard intersection.



2. View of 710 Federal Boulevard (Hi-Performance Car Wash) facing northeast from the southeastern corner of the West 7<sup>th</sup> Avenue and Federal Boulevard intersection.



## Hazardous Materials for the Federal Boulevard Improvements EA

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3. View of 2943 West 7<sup>th</sup> Avenue (Troy's Auto Repair) facing east from the south-eastern corner of the West 7<sup>th</sup> Avenue and Federal Boulevard intersection.



4. View of 724 Federal Boulevard (vacant service garage, formerly Mile Hi Jeep Rebuilders) facing north from the eastern side of Federal Boulevard.



## Hazardous Materials for the Federal Boulevard Improvements EA

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5. View of 730 Federal Boulevard (vacant commercial building) facing north from the eastern side of Federal Boulevard.



6. View of 2970 Severn Place (vacant service garage, formerly Complete Auto Care) facing southeast from the northeast corner of the Severn Place and Federal Boulevard intersection.



## Hazardous Materials for the Federal Boulevard Improvements EA

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7. View of 750 Federal Boulevard/2880 West 8<sup>th</sup> Avenue (Denver Public Schools Hilltop Bus Terminal, formerly Federal Auto and Wrecking) facing south from the southeast corner of the West 8<sup>th</sup> Avenue and Federal Boulevard Intersection.



8. View of 816 Federal Boulevard (Fashion Q Mart) facing north from the southeast corner of the West 8<sup>th</sup> Avenue and Federal Boulevard Intersection.



## Hazardous Materials for the Federal Boulevard Improvements EA

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9. View of 2901 West 8<sup>th</sup> Avenue (vacant parcel) facing northeast from the southeast corner of the West 8<sup>th</sup> Avenue and Federal Boulevard Intersection.



10. View of 830 Federal Boulevard (Federal Indoor Flea Market) facing northeast from eastern side of Federal Boulevard.



## Hazardous Materials for the Federal Boulevard Improvements EA

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11. View of 880/888 Federal Boulevard (Reed Photo Imaging) facing northeast from eastern side of Federal Boulevard.



12. View of 900/902 Federal Boulevard (USA Discount Liquor, formerly a gasoline station) facing north from the southeastern corner of the West 9<sup>th</sup> Avenue and Federal Boulevard intersection.



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## Hazardous Materials for the Federal Boulevard Improvements EA

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13. View of 950/970 Federal Boulevard (Ultimate Machines, Inc.) facing east from eastern side of Federal Boulevard.



14. View of 990 Federal Boulevard (Family Dollar) facing northeast from eastern side of Federal Boulevard.





## Hazardous Materials for the Federal Boulevard Improvements EA

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15. View of 1000 Federal Boulevard (7-Eleven convenience store and gasoline station) facing northeast from the West 10<sup>th</sup> Avenue and Federal Boulevard intersection.



16. View of 1030 Federal Boulevard (vacant parking lot) facing north from the eastern side of Federal Boulevard.



## Hazardous Materials for the Federal Boulevard Improvements EA

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17. View of 1100 Federal Boulevard (Denver Health and Hospital Authority) facing north from the southeast corner of the West 11<sup>th</sup> Avenue and Federal Boulevard intersection.



18. View of 1200 Federal Boulevard (office building) facing north from the eastern side of Federal Boulevard.



Properties West of Federal Boulevard

19. View of 707 Federal Boulevard (707 Fashion Plaza) facing west from Federal Boulevard.



20. View of 745 Federal Boulevard (vacant commercial, left) and 749/753/759 Federal Boulevard (Western Materials Handling, right) facing southwest from the eastern side of Federal Boulevard.



## Hazardous Materials for the Federal Boulevard Improvements EA

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21. View of 765 Federal Boulevard (United Automotive, formerly Western Engine and Transmission ) facing south from the western side of Federal Boulevard.



22. View of 775 Federal Boulevard (El Cameron Loco Restaurant) facing west from the western side of Federal Boulevard.



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## Hazardous Materials for the Federal Boulevard Improvements EA

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23. View of 815 Federal Boulevard (Mecca Tavern Restaurant) facing west from the northeast corner of the West 8<sup>th</sup> Avenue and Federal Boulevard intersection.



24. View of 823 Federal Boulevard (GMotors, LLC, formerly Irving's Used Cars) facing west from the western side of Federal Boulevard.



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## Hazardous Materials for the Federal Boulevard Improvements EA

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25. View of 859 Federal Boulevard (Romey's Automotive Machine Shop) facing west from the western side of Federal Boulevard.



26. View of 869 Federal Boulevard (Denver Auto Detail Specialists) facing west from the eastern side of Federal Boulevard.



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## Hazardous Materials for the Federal Boulevard Improvements EA

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27. View of 877 Federal Boulevard (Comfort Dental, left) and 891 Federal Boulevard (vacant commercial building) facing west/southwest from the eastern side of Federal Boulevard.



28. View of 903 Federal Boulevard (vacant commercial building, formerly Spitfire Engine & Machine and a gasoline station) facing northwest from the eastern side of Federal Boulevard.



## Hazardous Materials for the Federal Boulevard Improvements EA

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29. View of 913 Federal Boulevard (Millennium Auto Inc.) facing south from the western side of Federal Boulevard.



30. View of 935, 947, and 963 Federal Boulevard (left to right; A Citywide Insurance, Remax of Southeast, Inc., and a vacant commercial building) facing south from the western side of Federal Boulevard.





## Hazardous Materials for the Federal Boulevard Improvements EA

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31. View of 969-979 Federal Boulevard (Casa de Fashion/The Treasure Thrift Store) facing south from the western side of Federal Boulevard. Typical green-painted, metal bus structure in foreground; paint sample PC-3 was collected at this location.



32. View of typical yellow-painted, metal fire hydrant. Paint sample PC-1 was collected at this location.



## Hazardous Materials for the Federal Boulevard Improvements EA

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33. View of 995 Federal Boulevard (Mechanica en General). Typical green-painted metal signal pole visible in foreground; paint sample PC-2 was collected at this location.



34. View of 1005 and 1023 Federal Boulevard (Sense of Healing and Fast Cash Pawn) facing south from the western side of Federal Boulevard.



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## Hazardous Materials for the Federal Boulevard Improvements EA

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35. View of 1041 Federal Boulevard (America Auto Service) facing south from the western side of Federal Boulevard.



36. View of 1065 Federal Boulevard (El Zarape Restaurant) facing south from the western side of Federal Boulevard.



37. View of  
1225 Federal  
Boulevard  
(Bronco  
Muffler  
Auto)



38. View of  
1251 Federal  
Boulevard  
(vacant  
service  
station;  
formerly a  
gasoline  
station)



# Hazardous Materials for the Federal Boulevard Improvements EA

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Appendix B – Agency Database Report (*available electronically upon request*)



Appendix C – Reservoirs Analytical Report – Lead Sampling  
*(available electronically upon request)*





Appendix D - Certified Asbestos Building Inspector Credentials  
*(available electronically upon request)*



## Appendix E - Summary of Properties Evaluated for Regulated Materials

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
<b>Properties Adjacent to the East of Federal Boulevard</b>		
690 Federal Boulevard: Vacant Parcel (Formerly Marc’s Auto Tech)	Adjacent to the Study Area on the southeast corner of the West 7 <sup>th</sup> Avenue and Federal Boulevard intersection. This parcel is up- and cross-gradient to the Study Area.	<p><b>Low.</b> This property was a vacant parcel at the time of the site reconnaissance; however, a sign indicating previous use as “Marc’s Auto Tech” was observed. The parcel reportedly operated as an automotive-repair and vehicle-maintenance facility from 1961 until 2009; however, a review of City directories indicated that the parcel may have also operated as a gasoline station in the 1960s.</p> <p>This property was acquired by CDOT in 2013 and is being developed as part of the Federal Boulevard Alameda Avenue to West 5<sup>th</sup> Avenue project. There is a low potential that any residual contamination from previous uses would migrate to the Study Area due to its location. No further assessment is recommended for this property.</p>
710 Federal Boulevard: Hi-Performance Car Wash	Located entirely within the Study Area.	<p><b>High.</b> This property consisted of an active car-wash facility at the time of the reconnaissance. Sand traps were noted to the south of the building itself, which could contain residual contaminants from the vehicle-washing bays. It is likely that the property has operated as a car wash since construction of the existing structure in 1980. The property also reportedly operated as an automotive-service facility and gasoline station from approximately 1961 to the early 1970s; however, available CDPHE or OPS records do not contain any additional information regarding the potential presence or location of any abandoned USTs or residual contamination from this previous use.</p> <p>This property would be acquired if the Proposed Action were to be implemented, and the on-site structure would likely be demolished. Improvements for the Proposed Action would likely require limited excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. There is a high potential for the proposed activities to encounter potential abandoned USTs or petroleum-impacted soil resulting from the historical and current uses at this parcel. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the property prior to acquisition. In addition, a site investigation could be required for an evaluation of subsurface conditions at the property. Furthermore, pre-</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>demolition surveys should be completed to address the potential presence of regulated materials prior to demolition.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
2943 West 7 <sup>th</sup> Avenue: Troy's Auto Repair	Adjacent to the east of the Study Area. This parcel is located cross- and down-gradient.	<p><b>Low.</b> This property was as an active automotive-service facility at the time of the reconnaissance; vehicle maintenance bays were noted. Past uses and materials handling, storage, and disposal practices are unknown; the on-site structure was constructed in 1964.</p> <p>It is anticipated that neither the No-Action Alternative nor the Proposed Action would require acquisition or easements on this parcel. Moreover, based upon the parcel's hydrogeologic relationship to the Study Area, there is a low potential that any residual contamination from current and previous uses would migrate to the Study Area. No further assessment is recommended for this property.</p>
724 Federal Boulevard: Vacant Service Garage (Formerly Mile High Jeep Rebuilders)	Located entirely within the Study Area.	<p><b>High.</b> This property consisted of a vacant structure at the time of the reconnaissance; however, a sign was noted indicating previous use as "Mile High Jeep Rebuilders." Material handling, storage, and disposal practices are unknown; however, the site reportedly operated as an automotive-service facility since construction of the structure in 1972.</p> <p>This property would be acquired if the Proposed Action were to be implemented, and the on-site structure would likely be demolished. Improvements for the Proposed Action would likely require limited excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Given the proposed activities, there is a high potential for residual contamination to be encountered due to past uses at the parcel. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the property prior to acquisition. In addition, a site investigation could be required for an evaluation of subsurface conditions at the property. Furthermore, pre-demolition surveys should be completed to address the potential presence of regulated materials prior to demolition.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.
730 Federal Boulevard: Vacant Commercial Building	Located entirely within the Study Area.	<p><b>Low.</b> This property consisted of a vacant structure at the time of the reconnaissance. The on-site structure was built in 1955, and it was reportedly operated as a furniture manufacturer from approximately 1956 to the early 1990s. Use of the site from 1990 to present is unknown; however, observations made during the reconnaissance did not indicate any site-specific environmental concerns.</p> <p>It is anticipated that this property would be acquired if the Proposed Action were to be implemented, and the on-site structure would likely be demolished. Improvements for the Proposed Action would likely require limited excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Given the past and current use of the parcel, there is a low potential for contamination to be encountered. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the property prior to acquisition. In addition, a site investigation could be required for an evaluation of subsurface conditions at the property based on the findings of the Phase I ESA or ISA. Furthermore, pre-demolition surveys should be completed to address the potential presence of regulated materials prior to demolition.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
2970 West Severn Place: Vacant Service Garage (Formerly Complete Auto Care)	Located entirely within the Study Area.	<p><b>High.</b> This property consisted of a vacant automotive-service and maintenance structure. At the time of the reconnaissance, it appeared paved areas were being utilized for vehicle storage by the nearby automotive-sales facility, and a sign was noted depicting previous use as “Complete Auto Care.” Material handling, storage, and disposal practices are unknown; however, the structure was constructed in 1962, and the site was reportedly a scrap-metal lot from approximately 1981 to the mid-1980s.</p> <p>This property would be acquired if the Proposed Action were to be implemented, and the on-site structure would likely be demolished. Improvements for the Proposed Action would likely require limited excavation (up</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Given the past uses at the parcel, there is a high potential for soil contamination to be encountered during the proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the property prior to acquisition. In addition, a site investigation could be required for an evaluation of subsurface conditions at the property. Furthermore, pre-demolition surveys should be completed to address the potential presence of regulated materials prior to demolition.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
<p>750 Federal Boulevard/ 2880 West 8<sup>th</sup> Avenue: Denver Public Schools (DPS) Hilltop Bus Terminal (Formerly Federal Auto and Wrecking)</p>	<p>The westernmost and northern portions of the parcel is located in the Study Area. The remainder of the parcel is located cross-gradient to Federal Boulevard and up-gradient of West 8<sup>th</sup> Avenue.</p>	<p><b>High.</b> This property consisted of an active fueling station and bus terminal with 9, 12,000-gallon gasoline USTs that were reportedly installed in 1988. According to a review of previous records, 750 Federal Boulevard was an automotive- sales facility from approximately 1936 until the 1940s, with automotive-wrecking operations that began in the late 1930s. The property is also listed as 2880 West 8<sup>th</sup> Avenue and as an automotive-service station from approximately 1956 to the mid-1960s, before becoming the DPS bus terminal.</p> <p>Two LUST events have been reported for 2880 West 8<sup>th</sup> Avenue, in 1990 and 2001. The 1990 event was reported as a result of a release from two on-site USTs; the 2001 event appears to be of administrative record. In July and August 1990, 2 12,000-gallon USTs were permanently closed and removed from the parcel. Approximately 5,718 cubic yards of petroleum-contaminated soil was excavated and disposed of off-site. Groundwater monitoring at the property indicated the presence of a petroleum-contaminated groundwater plume, which extended from the former excavation area to the north, across West 8<sup>th</sup> Avenue (Figure 7). Remediation was subsequently completed at the property in accordance with a <i>Corrective Action Plan</i>, which was approved in 1999. Monitoring and remediation activities continued through the first quarter of 2012. At that time, the source of the contamination was removed and the petroleum-contaminated groundwater plume appeared to be diminishing; however, some levels of contaminated groundwater remained present. Given this information, OPS issued a No Further Action (NFA) letter for the property in June 2012. A review of CDPHE</p>



## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>records indicates that the current facility on this property is also a registered RCRA hazardous-waste generator since at least 1986 to the present.</p> <p>Two LUST events were also reported for 750 Federal Boulevard in 1992 and 1997, when the property was operated as “Federal Auto and Wrecking Co.” Available information indicates that a gasoline-containing UST was investigated in 1992 as a result of the detection of petroleum contamination during a site assessment for the DPS LUST event. The on-site UST was excavated, and, upon inspection, was reported to be free of any evidence of corrosion, staining, or leaks. The report also noted that the original backfill material for the UST consisted of foundry slag and asphalt debris; therefore, the sample methodology was modified to incorporate characterization of the backfill material.</p> <p>Laboratory analysis and visual inspection indicated that the UST was not the source for contamination discovered during the DPS investigation; the Colorado Department of Health (CDH), Hazardous Materials and Waste Management Division (i.e., current day CDPHE) issued an NFA letter in January 1993. A subsequent soils assessment was conducted over the entire property in April 1994. At this time, several areas of the property exceeded the CDH remedial-action categories and soil clean-up guidelines. The source of the identified contamination was suspected to be from motor oils and fuels; select volatile organic compounds (VOCs), PCBs, and metal contaminants were also detected. In addition, rubble and trash were identified at an approximate depth of 1.5 to 3 feet. The vertical and horizontal extent of contamination was not delineated during this assessment (FHU, 2009a); however, depth to groundwater was measured at 25 to 30 feet bgs during the activities at this property.</p> <p>The western and northern portions of this parcel would be acquired for ROWs and areas would also be needed for temporary easements if the Proposed Action were to be implemented. This portion, and an area that extends along West 8<sup>th</sup> Avenue, is located in the immediate vicinity of the current UST field. Improvements along Federal Boulevard could include excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation as well as foundation drilling for signal pole installation (up to 18 feet bgs) at the intersection of Federal Boulevard and West 8<sup>th</sup> Avenue. In addition, the Proposed Action includes the construction of a water-quality pond at Weir Gulch in the vicinity of the known groundwater plume. There is a</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>high potential for residual petroleum-contaminated soil and groundwater to be encountered, as excavation depths north of West 8<sup>th</sup> Avenue area could extend to 25 feet bgs. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of the property that would be acquired. In addition, a site investigation could be warranted to evaluate subsurface conditions at the property and in the vicinity of the known groundwater plume.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
816 Federal Boulevard: Fashion Q Mart	Located entirely within the Study Area.	<p><b>Low.</b> This property consisted of a commercial retail property at the time of the site reconnaissance. A review of City directories indicates that this parcel operated as a photographic developer from approximately 1970 to the mid-1980s; the on-site structure was reportedly constructed in 1939. Past uses and material handling, storage, and disposal practices are unknown; however, observations made during the reconnaissance did not indicate any site-specific environmental concerns.</p> <p>This property would be acquired and the on-site structure would likely be demolished if the Proposed Action were to be implemented. Improvements along Federal Boulevard could include excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation, as well as foundation drilling (up to 18 feet bgs) for signal-pole installation at the intersection of Federal Boulevard and West 8<sup>th</sup> Avenue. Furthermore, the Proposed Action includes the potential construction of a water-quality pond at Weir Gulch; however, it is not anticipated that construction activities for the water-quality pond would impact this parcel. There is a low potential for residual contamination to be present as a result of current or past uses at this property, and the previously mentioned groundwater plume to the east appears to be hydrogeologically separated from the property. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the property prior to acquisition. In addition, pre-demolition surveys should be completed to address regulated materials prior to demolition.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
2901 West 8 <sup>th</sup> Avenue: Vacant Parcel	Located entirely within the Study Area.	<p><b>Low.</b> This property consisted of a vacant parcel, and observations made during the reconnaissance did not indicate the presence of any site-specific environmental concerns.</p> <p>This vacant property would be acquired if the Proposed Action were to be implemented. Improvements along this parcel could include excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. The Proposed Action also includes the construction of a water-quality pond at Weir Gulch, which could require excavation at this parcel up to 25 feet bgs. However, there is a low potential for residual contamination to be present as a result of current or past uses at this parcel, and the previously mentioned groundwater plume to the east appears to be hydrogeologically separated. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the property prior to its acquisition. In addition, a site investigation could be required for an evaluation of subsurface conditions at the property based on the findings of the Phase I ESA or ISA.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
830 Federal Boulevard: Federal Indoor Flea Market	Located entirely within the Study Area.	<p><b>Low.</b> This property consisted of a commercial retail building at the time of the reconnaissance and was occupied by several commercial vendors. The current on-site structure was constructed in 1968. Past uses of the property are unknown as the property was not documented in the PEL Study; however, observations made during the reconnaissance did not indicate any site-specific environmental concerns.</p> <p>This property would be acquired if the Proposed Action were to be implemented, and the on-site structure would likely be demolished. Improvements for the Proposed Action would likely require limited excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Based upon the uses of the property, there is a low potential for soil contamination to be encountered during the proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the property prior to its acquisition, including an additional evaluation of parcel history. A pre-demolition survey should be completed to address any regulated materials prior to such demolition.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
<p>880/888 Federal Boulevard: Reed Photo Imaging</p>	<p>The westernmost portion of the parcel is located in the Study Area. The remainder of the parcel is located cross-gradient to Federal Boulevard and up-gradient of West 9<sup>th</sup> Avenue.</p>	<p><b>Low.</b> This property consisted of a commercial retail plaza with a photography business and commercial retail tenant at the time of the reconnaissance. The on-site structure was built in 1957. Material handling, storage, and disposal practices at the parcel are unknown; however, observations made during the reconnaissance did not indicate the presence of any site-specific environmental concerns.</p> <p>A portion of this parcel would be acquired if the Proposed Action were to be implemented. Furthermore, temporary easements would be needed along the western and northern property boundaries. Improvements suggested in the Proposed Action in this area include excavation (up to 10 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Based upon the use of the property, there is a low potential for soil contamination to be encountered during the proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of property that would be acquired in order to address any environmental concerns at the parcel.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
<p>900/902 Federal Boulevard: USA Discount Liquor (Formerly a gasoline station)</p>	<p>The westernmost portion of the parcel is located in the Study Area. The remainder of the parcel is located cross-gradient to Federal Boulevard and down-gradient of West 9<sup>th</sup> Avenue.</p>	<p><b>High.</b> This property has been developed with the construction of a commercial structure, which was occupied by a liquor store at the time of the site reconnaissance. The on-site building was constructed in 1989. According to the City-directory search results, this property was operated as a gasoline station until 2000; however, available CDPHE or OPS records do not contain any additional information on the potential presence or location of any abandoned USTs at the parcel.</p> <p>A portion of this parcel would be acquired if the Proposed Action were to be implemented. Furthermore, temporary easements would be needed along the western and southern property boundaries. Improvements for the Proposed Action would likely require excavation (up to 10 feet bgs) for roadway widening, sidewalk construction, and utility relocation. There is a high potential for the proposed activities to encounter potential</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>abandoned USTs or petroleum-impacted soil resulting from the past use of this property. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of property that would be acquired in order to address any environmental concerns at the parcel. In addition, a site investigation could be warranted for an evaluation of the subsurface conditions at the property.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
950/970 Federal Boulevard: Ultimate Machines, Inc.	The westernmost portion of the parcel is located in the Study Area. The remainder of the parcel is located cross-gradient to Federal Boulevard and upgradient of the Study Area near West 10 <sup>th</sup> Avenue.	<p><b>Low.</b> This property consisted of a used-automobile dealership and automotive-service facility at the time of the reconnaissance; two on-site structures were present, one were constructed in 1969 and the other in 1954. The property has reportedly operated as an automotive-service facility since at least 1980. Material handling, storage, and disposal practices at the parcel are unknown; however, vehicle bays were noted in the structures located on the easternmost portion of the property.</p> <p>A portion of this parcel would be acquired if the Proposed Action were to be implemented. Improvements associated with the Proposed Action in this area include excavation (up to 15 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Based upon the location of the on-site structure and automotive-maintenance activities (approximately 75 feet east of the Study Area), there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of the property which would be acquired in order to address any environmental concerns at the parcel.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
990 Federal Boulevard: Family Dollar Store	Located entirely within the Study Area.	<p><b>Low.</b> This property consisted of a commercial building during the reconnaissance, which was occupied by a “Family Dollar” retail store. The on-site structure was constructed in 1963, and the property was reportedly</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>used for wrecking operations from approximately 1940 to the mid-1940s. Other historical uses have reportedly included a hardware-and-lumber store and neighborhood health center.</p> <p>This property would be acquired if the Proposed Action were to be implemented, and the on-site structure would likely be demolished. Improvements for the Proposed Action would likely require excavation (up to 15 feet bgs) for roadway widening, sidewalk construction, and utility relocation, as well as foundation drilling for signal-pole installation (up to 18 feet bgs) at the intersection of Federal Boulevard and West 8th Avenue. Based upon the current and past uses of the property, there is a low potential for soil contamination to be encountered during proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the property prior to its acquisition. Pre-demolition surveys should be completed to address any regulated materials prior to such demolition.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
1000 Federal Boulevard: 7-Eleven Convenience Store and Gasoline Station	The westernmost portion of the parcel is located in the Study Area. The remainder of the parcel is located cross-gradient to Federal Boulevard and down-gradient of the Study Area near West 10 <sup>th</sup> Avenue.	<p><b>High.</b> This operated as an active 7-Eleven gasoline station and convenience store which have been present since at least 1989. The parcel has 3 10,000-gallon gasoline USTs located on its southeastern corner (Figure 6); these were reportedly installed in 1989. A LUST event was reported for the property in 2007 as the result of a “leaking premium grade sump”. Groundwater monitoring from 2008 through May 2010 indicated the presence of a petroleum-contaminated groundwater plume extending to the east-northeast, away from the Study Area (Figure 6). Groundwater samples, collected May 2010, contained methyl tertiary butyl ether (MTBE), which was detected above maximum contaminant levels (MCLs) in the well located down-gradient of the former UST pit (i.e., west of the USTs and east of the gasoline-pump islands); however, no other contaminants were noted above MCLs in any samples obtained from the other monitoring wells. A NFA letter was issued by OPS in July 2010, stating that it appeared the source of contamination was removed and, although MTBE-contaminated groundwater at the property exceeds MCLs, the plume was adequately defined and the resulting computer models indicated that points of exposure would not be impacted in the future. The</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>property also operated as an automotive-service facility and gasoline station in 1961; it is unknown how long this historical facility operated.</p> <p>A portion of this parcel would be acquired and temporary easements would be needed along the western and southern portions of the parcel if the Proposed Action were to be implemented. In addition, a temporary easement would be needed along the western and southern property boundaries. Improvements associated with the Proposed Action include shallow excavation (up to 10 feet bgs) for roadway widening, sidewalk construction, and utility relocation as well as foundation drilling for signal-pole installation (up to 18 feet bgs) at the intersection of Federal Boulevard and West 8th Avenue. The groundwater plume discussed above is located down-gradient of the Study Area; however, the presence of active USTs results in a high potential for proposed activities encountering petroleum-impacted soil if there has been a release from the USTs. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of the property that will be acquired in order to address any environmental concerns at the parcel. In addition, a site investigation could be required to evaluate subsurface conditions at the property.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
1030 Federal Boulevard: Vacant Parking Lot	The westernmost portion of the parcel is located in the Study Area. The remainder of the parcel is located cross-gradient to Federal Boulevard and down-gradient of the Study Area near West 10 <sup>th</sup> Avenue.	<p><b>Low.</b> This property consisted of a vacant, paved parking lot, and no specific environmental concerns were noted during the reconnaissance.</p> <p>A portion of this parcel would be acquired, and a temporary easement would be needed in the westernmost area if the Proposed Action were to be implemented. Improvements associated with the Proposed Action include shallow excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Based upon the current use of the property, there is a low potential for contamination to be encountered during the proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of the property that will be acquired in order to address any environmental concerns at the parcel.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.
1100 Federal Boulevard: Denver Health and Hospital Authority	The westernmost portion of the parcel is located in the Study Area. The remainder of the parcel is located cross-gradient to Federal Boulevard and down-gradient of the Study Area near West 11 <sup>th</sup> Avenue.	<p><b>Low.</b> This property consisted of a parking facility and office building occupied by the Denver Health and Hospital Authority, which has likely been present since construction of the on-site structure in 1984. No specific environmental concerns were noted during the reconnaissance.</p> <p>A portion of this parcel would be acquired if the Proposed Action were to be implemented. In addition, temporary and permanent easements would need to extend along the western and southern property boundaries. Improvements associated with the Proposed Action include shallow excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Based upon the current and historical uses of the property, there is a low potential for contamination to be encountered during the proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of the property that would be acquired to address any environmental concerns at the parcel.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
1200 Federal Boulevard: Office Building	The westernmost portion of the parcel is located in the Study Area. The remainder of the parcel is located cross-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property consisted of an office building occupied by the Denver Workforce Center at Westside; the structure has likely been present since its construction in 1999. No specific environmental concerns were noted during the reconnaissance.</p> <p>A portion of this parcel would be acquired if the Proposed Action were to be implemented. In addition, a temporary easement would be needed along the western property boundary. Improvements associated with the Proposed Action include shallow excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Based upon the current use of the property, there is a low potential for contamination to be encountered during the proposed activities. Should the Proposed Action be</p>



## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of the property that would be acquired in order to address any environmental concerns.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
<b>Properties Adjacent to the West of Federal Boulevard</b>		
707 Federal Boulevard: 707 Fashion Plaza	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property was developed with a commercial retail building that was constructed in 1962. No specific environmental concerns were noted during the reconnaissance.</p> <p>A portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required in the area to match the proposed improvements to the existing surface grade. Based upon the current use of the property, there is a low potential for contamination to be encountered during the proposed activities. Should the Proposed Action be implemented, no further investigation is recommended for this property.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
745 Federal Boulevard: Vacant Commercial	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property consisted of a vacant commercial building that was reportedly constructed in 1934. No specific environmental concerns were noted during the reconnaissance.</p> <p>A portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required in this area to match the proposed improvements to the existing surface grade. Based upon the current use of the property, there is a low potential for contamination to be encountered during the proposed activities. Should the Proposed Action be implemented, no further investigation is recommended for this property.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.
749/753/759 Federal Boulevard: Western Material Handling	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>High.</b> This property was operating as a forklift-sales and equipment-service business at the time of the site reconnaissance; the on-site structure was reportedly constructed in 1925. Material handling, storage, and disposal practices and the previous uses of this parcel are unknown, although the parcel has reportedly also operated as an automotive-repair facility since the mid-1980s. Vehicle-maintenance bays and equipment stored outdoors on the property were noted during the site reconnaissance.</p> <p>This property would be needed for both temporary and permanent easements if the Proposed Action were to be implemented. A temporary easement, on the southeast portion of the parcel, would require minimal grading and paving activities (up to 1 foot bgs) to match the proposed improvements to the existing surface grade. A permanent easement would be needed on the northeast portion of the parcel, which could include a deeper excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Given the current and previous uses at the property, there is a high potential to encounter contaminated soil during the proposed activities. Should the Proposed Action be implemented, an additional site investigation could be warranted in order evaluate subsurface conditions at the parcel.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
765 Federal Boulevard: United Automotive (Formerly Western Engine and Transmission)	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal	<p><b>Low.</b> This property was operating as an automotive-sales facility at the time of the site reconnaissance. An on-site structure was constructed in 1935. Material handling, storage, and disposal practices as well as the previous uses at the parcel are unknown, although the property has reportedly operated as an automotive-sales and vehicle-service facility since 1951. Vehicle-maintenance bays were noted during the site reconnaissance.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
	Boulevard and the Study Area.	<p>A portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required in the parcel's easternmost area to match the proposed improvements to the existing surface grade. Based upon the location of the on-site structure and automotive-maintenance activities (approximately 100 feet west of the Study Area) and limited excavation, there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
775 Federal Boulevard: El Cameron Loco Restaurant	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property consisted of a restaurant structure that was constructed in 1944 at the time of the site reconnaissance. No specific environmental concerns were noted during the reconnaissance.</p> <p>A portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required in these areas to match the proposed improvements to the existing surface grade. In addition, foundation drilling (up to 18 feet bgs) would be required for signal-pole installation at the intersection of Federal Boulevard and West 8<sup>th</sup> Avenue. Based upon the current use of the property, there is a low potential that contamination would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
815 Federal Boulevard: Mecca Tavern Restaurant	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located	<p><b>Low.</b> This property consisted of a restaurant at the time of the reconnaissance. The on-site structure was constructed in 1943. No specific environmental concerns were noted during the reconnaissance.</p> <p>A portion of this property would be needed for a permanent easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required in the easternmost</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
	up-gradient to Federal Boulevard and the Study Area.	<p>portion of the parcel to match the proposed improvements to the existing surface grade. In addition, foundation drilling (up to 18 feet bgs) could be required for signal-pole installation at the intersection of Federal Boulevard and West 8<sup>th</sup> Avenue. Based upon the current use of the property, there is a low potential that contamination would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
823 Federal Boulevard: GMotors L.L.C. (Formerly Irving's Used Cars)	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property operated as an automotive-sales facility at the time of the reconnaissance. The property has reportedly operated as an automotive-sales facility since construction of the on-site structure in 1966.</p> <p>The easternmost portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required in these areas to match the proposed improvements to the existing surface grade. Based upon the current use of the parcel, the location of the on-site structure (located approximately 90 feet to the west of the Study Area), and the limited, proposed excavation, there is a low potential for contamination to be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
859 Federal Boulevard: Romey's Automotive Machine Shop	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal	<p><b>Low.</b> This property consisted of an automotive-repair facility at the time of the reconnaissance, with a former commercial and residential structure and vehicle-maintenance bays located behind the automotive-repair structure. The parcel has reportedly been occupied by Romey's Auto since 1966, with similar use reportedly since construction of the on-site structure in 1954.</p> <p>The easternmost portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required to match</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
	Boulevard and the Study Area.	<p>the proposed improvements to the existing surface grade. Based upon the location of the on-site structure (located approximately 90 feet to the west of the Study Area) and the limited, proposed excavation, there is a low potential for contamination to be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
869 Federal Boulevard: Denver Auto Detail Specialists	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>High.</b> This property consisted of an automotive-service facility at the time of the site reconnaissance. Vehicle-maintenance bays and sloppy housekeeping practices were noted immediately adjacent to Federal Boulevard and within the Study Area. The parcel has reportedly operated as an automotive- and motorcycle-repair facility since the mid-1970s; the current on-site structure was constructed in 1953.</p> <p>The easternmost portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required to match the proposed improvements to the existing surface grade. However, based upon the observations made during the site reconnaissance, there is a high potential that contaminated soil could be encountered during even minimal grading activities. Should the Proposed Action be implemented, an additional site investigation could be warranted in order evaluate subsurface conditions at the property.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
877 Federal Boulevard: Comfort Dental	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located	<p><b>Low.</b> This property consisted of a commercial structure that was occupied by Comfort Dental at the time of the site reconnaissance. The structure was constructed in 1961. Material handling and past uses of the parcel are unknown; however, no specific environmental concerns were identified during the reconnaissance.</p> <p>The easternmost portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required to match</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
	up-gradient to Federal Boulevard and the Study Area.	<p>the proposed improvements to the existing surface grade. Based upon the current use of the property and location of the on-site structure, there is a low potential that contamination would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
891 Federal Boulevard: Vacant Commercial Building	Located adjacent to the western boundary of the Study Area. This parcel is up-gradient to Federal Boulevard and the Study Area.	<p><b>High.</b> This property consisted a vacant commercial building that was constructed in 1960 at the time of the site reconnaissance. The parcel reportedly was operated as an automotive-maintenance facility from 1980 to the early 2000s. Vehicle-service bays were noted on the north side of the building during the site reconnaissance.</p> <p>It is anticipated that neither the Proposed Action nor the No-Action Alternative would require acquisition of this parcel, nor would easements be needed on this property. However, because the on-site structure is located immediately adjacent to the Study Area, improvements associated with the Proposed Action in the vicinity of this parcel could include shallow excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Given the unknown past use of the property and observations made during the site reconnaissance, there is a high potential that contamination would be encountered during the proposed activities. Should the Proposed Action be implemented, an additional site investigation could be warranted in order evaluate subsurface conditions at the parcel.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
903 Federal Boulevard: Vacant Commercial	Located adjacent to the western boundary of the Study Area. This parcel is up-gradient to	<p><b>High.</b> This property consisted of a vacant commercial building that was constructed in 1963 at the time of the reconnaissance. Vehicle-maintenance bays were noted during the site reconnaissance, on the southern side of the building. The parcel reportedly was operated as an automotive-maintenance facility from 1966 to at least 2009. A review of CDPHE records indicates that this facility was a RCRA hazardous-waste generator from 1987</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
<p>Building (Formerly Spitfire Engine &amp; Machine and a gasoline station)</p>	<p>Federal Boulevard and the Study Area.</p>	<p>until 2000, when the tenant left the property. In addition, a gasoline station was reportedly present in 1961; however, available CDPHE or OPS records do not contain any additional information on the potential presence or location of any abandoned USTs at the site.</p> <p>It is anticipated that neither the Proposed Action nor the No-Action Alternative would require acquisition of this parcel, nor would easements be needed on this property. However, improvements associated with the Proposed Action in the vicinity of this parcel may include shallow excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Given the past use of the property, there is a high potential that contamination would be encountered during the proposed activities. Should the Proposed Action be implemented, an additional site investigation could be warranted in order evaluate subsurface conditions at the property.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
<p>913 Federal Boulevard: Millennium Auto Inc.</p>	<p>The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.</p>	<p><b>Low.</b> This property operated as a used-automotive-sales facility at the time of the reconnaissance. The current on-site structure was constructed in 1961. Material handling, storage, and disposal practices as well as the previous uses of the parcel are unknown; however, no specific environmental concerns were noted during the reconnaissance.</p> <p>The easternmost portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities would be required (up to 1 foot bgs) to match the proposed improvements to the existing surface grade. Given the current use of the property, location of the on-site structure (located approximately 45 feet to the west of the Study Area), and depth of the proposed disturbance, there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
935 Federal Boulevard: A Citywide Insurance	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property consisted of a commercial structure that was constructed in 1960 at the time of the site reconnaissance. No specific environmental concerns were noted during the reconnaissance.</p> <p>The easternmost portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required to match the proposed improvements to the existing surface grade. Given the current and historical uses of the property, there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
947 Federal Boulevard: Remax of Southeast, Inc. (Formerly Precision TV)	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property consisted of a commercial structure that was constructed in 1985 at the time of the reconnaissance. No specific environmental concerns were noted during the reconnaissance.</p> <p>The easternmost portion of this property would be needed as a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required to match the proposed improvements to the existing surface grade. Given the current and historical uses of the property, there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
963 Federal Boulevard: Vacant Commercial	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located	<p><b>Low.</b> The property consisted of a vacant commercial structure that was constructed in 1967 at the time of the reconnaissance. No specific environmental concerns were noted during the reconnaissance.</p> <p>The easternmost portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required to match the proposed improvements to the existing surface grade. Given the current use of the property, there is a</p>



## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
	up-gradient to Federal Boulevard and the Study Area.	<p>low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
969-975 Federal Boulevard: Casa de Fashion/The Treasure Thrift Store	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property consisted of two commercial retail structures, both of which were constructed in 1962. No specific environmental concerns were noted during the reconnaissance.</p> <p>The easternmost of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required to match the proposed improvements to the existing surface grade. Given the current use of the property, there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
995 Federal Boulevard: Mechanica en General	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>High.</b> This property consisted of an automotive-repair facility during the reconnaissance; vehicle-maintenance bays were noted on the northern side of the structure that has been constructed on this parcel. From 1940 to present the property has operated as various automotive-repair operations. Previous reports indicate that the property operated as a gasoline station from at least 1926 until the construction of the current on-site structure in 1936; however, available CDPHE or OPS records do not contain any additional information on the potential presence or location of any abandoned USTs at the parcel.</p> <p>The northeastern portion of this property would be acquired for ROW and the eastern and northern portions would be needed for temporary easements if the Proposed Action were to be implemented. Improvements associated with the Proposed Action would include excavation (up to 10 feet bgs) for roadway widening, sidewalk construction, and utility relocation. In addition, foundation drilling (up to 18 feet bgs) could be</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
		<p>required for signal-pole installation at the intersection of Federal Boulevard and West 10<sup>th</sup> Avenue. Therefore, there is a high potential that soil contamination from past and current uses would be encountered during the proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of the property that will be acquired in order to address any environmental concerns at the parcel. An additional site investigation could be warranted to evaluate subsurface conditions at the property.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
1005 Federal Boulevard: Sense of Healing	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property was occupied by a commercial health facility at the time of the site reconnaissance; the current on-site, commercial retail building was constructed in 1985. No specific environmental concerns were identified during the reconnaissance.</p> <p>The southeastern portions of the property would be acquired for the proposed project; temporary easements along the eastern and southern boundaries would also be required. Improvements associated with the Proposed Action in this area include excavation (up to 10 feet bgs) for roadway widening, sidewalk construction, and utility relocation. In addition, foundation drilling (up to 18 feet bgs) may be required for signal pole installation at the intersection of Federal Boulevard and West 10<sup>th</sup> Avenue. Based upon the use of the property, there is a low potential to encounter contamination during the proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of the property that will be acquired in order to address any environmental concerns at the parcel.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
1023 Federal Boulevard: Fast Cash Pawn	The easternmost portion of the parcel is located in the Study	<p><b>Low.</b> This property consisted of a commercial retail structure that was constructed in 1932. No specific environmental concerns were noted during the reconnaissance.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
	<p>Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.</p>	<p>The easternmost portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required to match the proposed improvements to the existing surface grade. Given the current use of the property, there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
<p>1041 Federal Boulevard: America Automotive Service</p>	<p>The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.</p>	<p><b>Low.</b> This property operated as an automotive-maintenance facility at the time of the reconnaissance; a structure with vehicle-maintenance bays was noted on the western portion of the property. It is likely the property has been similarly used since at least 1966. The on-site structure was reportedly constructed in 1937 and has also housed a sheet-metal business. The property is listed as a RCRA hazardous-waste generator under the name “Accurate Transmissions” and then under “America Automotive” from at least 1986 to the present.</p> <p>The easternmost portion of this property would be needed for a temporary easement if the Proposed Action were to be implemented. Minimal grading and paving activities (up to 1 foot bgs) would be required in these areas to match the proposed improvements to the existing surface grade. Given the location of the structure and the shallow depth of excavation, there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, no further assessment is recommended.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
1065 Federal Boulevard: El Zarape Restaurant	The easternmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.	<p><b>Low.</b> This property was occupied by a restaurant at the time of the reconnaissance; the present on-site commercial retail structure has been located on the property since at least 1964. No specific environmental concerns were identified during the reconnaissance.</p> <p>The easternmost portion of this property would be acquired for ROW and portions would also be needed for a temporary easement if the Proposed Action were implemented. Improvements associated with the Proposed Action include limited excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. Based upon the use of the property, there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, it is recommended that a site-specific Phase I ESA or ISA be completed for the portion of the property that will be acquired in order to address any environmental concerns at the property.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>
1225 Federal Boulevard: Bronco Muffler Auto	Located adjacent and west of the Study Area. The parcel is up-gradient to Federal Boulevard and the Study Area.	<p><b>High.</b> This property operated as an automotive-service facility at the time of the reconnaissance. The on-site structure was constructed in 1975. Vehicle-maintenance bays were noted on the northwestern portion of the building during the reconnaissance.</p> <p>It is anticipated that neither the Proposed Action nor the No-Action Alternative would require acquisitions of this parcel, nor would easements be needed on this property. Improvements associated with the Proposed Action in the vicinity of this parcel could include shallow excavation (up to 6 feet bgs) for roadway widening, sidewalk construction, and utility relocation. However, given the distance of the parcel from the Study Area, there is a low potential that contaminated soil would be encountered during the proposed activities. Should the Proposed Action be implemented, an additional site investigation could be warranted to evaluate subsurface conditions at the property.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
<p>1251 Federal Boulevard Vacant Service Garage (Formerly a gasoline station)</p>	<p>The eastern- and northernmost portion of the parcel is located in the Study Area. The remainder of the parcel is located up-gradient to Federal Boulevard and the Study Area.</p>	<p><b>High.</b> This property consisted of a vacant gasoline and automotive-service station at the time of the reconnaissance. The parcel reportedly operated as a gasoline station from the construction of the on-site structure in 1959 until 2009. Vehicle-maintenance bays and former pump island locations were noted during the reconnaissance.</p> <p>A LUST event was reported in 1991 during the removal of 1-3,000-gallon and 1- 4,000-gallon gasoline USTs. Soil contamination was not visually detected during tank removal activities and the excavated soils were used as backfill material. Groundwater was not encountered during tank-removal activities. Samples obtained from the parcel’s soils were analyzed for petroleum hydrocarbons as well as benzene, toluene, ethyl benzene, and xylene (BTEX) compounds. Total petroleum hydrocarbons (TPH) and BTEX were detected in the samples, but did not exceed the laboratory detection limits, and were below the CDH (i.e., current-day CDPHE) recommended clean-up guidelines for petroleum-contaminated soils. A NFA letter was issued by OPS in September 1997. Thus, the potential exists for residual soil contamination to be present at the parcel.</p> <p>The eastern and northern portions of this property would be needed for a permanent easement if the Proposed Action were to be implemented. The easement would be used for the construction, access, and maintenance of a storm-sewer line. The improvements would take place in the far northeastern corner of the parcel, which is down-gradient of the former USTs. It is anticipated that excavation depth for the storm-sewer line would be approximately 10 feet bgs. Therefore, there is a high potential that petroleum-contaminated soil would be encountered during the proposed activities; however, it is not likely that groundwater would be encountered. Should the Proposed Action be implemented, an additional site investigation could be warranted to evaluate subsurface conditions at the property.</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>

## Hazardous Materials for the Federal Boulevard Improvements EA

Parcel (Facility) Address and Current Use (Figures 6 and 7)	Parcel Location and Hydrogeologic Relationship Relative to Study Area	Potential for Impacts to Study Area and Site-Specific Recommendations <sup>1</sup>
<b>Other Environmental Conditions</b>		
Historical Landfills	Located outside of the Study Area to the north and to the south, either cross- or down-gradient from the Study Area.	<p>The agency data base reviewed by Pinyon identified two historical landfills within the Study Area:</p> <ul style="list-style-type: none"> <li>• 4S-68W-05SE, which is located west of Federal Boulevard, between West 7th Avenue and US 6.</li> <li>• 4S-68W-05NE, which is located east of Federal Boulevard, to the south of 14th Avenue and Lakewood Gulch in Rude Park.</li> </ul> <p>Limited records for these landfills exist; those that do indicate that general refuse and debris could be present in these areas. In addition, Pinyon reviewed the CCD Geographic Information System (GIS) landfill layer, as depicted in Figures 6 and 7. Neither the Proposed Action nor the No-Action Alternative would require acquisition of or easements in these areas, based upon the available information. However, should the Proposed Action be implemented, it is recommended that the potential for the proposed activities to encounter landfill debris and methane gas be evaluated, and this evaluation should be documented in the project-specific <i>Materials Management Plan</i> (MMP).</p> <p>If the No-Action Alternative were to be implemented, no improvements would be made, and there would be no impact to this property. Therefore, no hazardous materials would be encountered.</p>

**Note:**

- <sup>1</sup> In accordance with the CDOT EPB Hazardous Materials Guidance Table, CDOT reserves the right to designate whether a Phase I ESA or ISA is prepared (CDOT EPB, 2011). A Phase I ESA or ISA is not necessarily required for easements and small acquisitions, unless a contaminated property is being purchased.