



# Technical Memorandum

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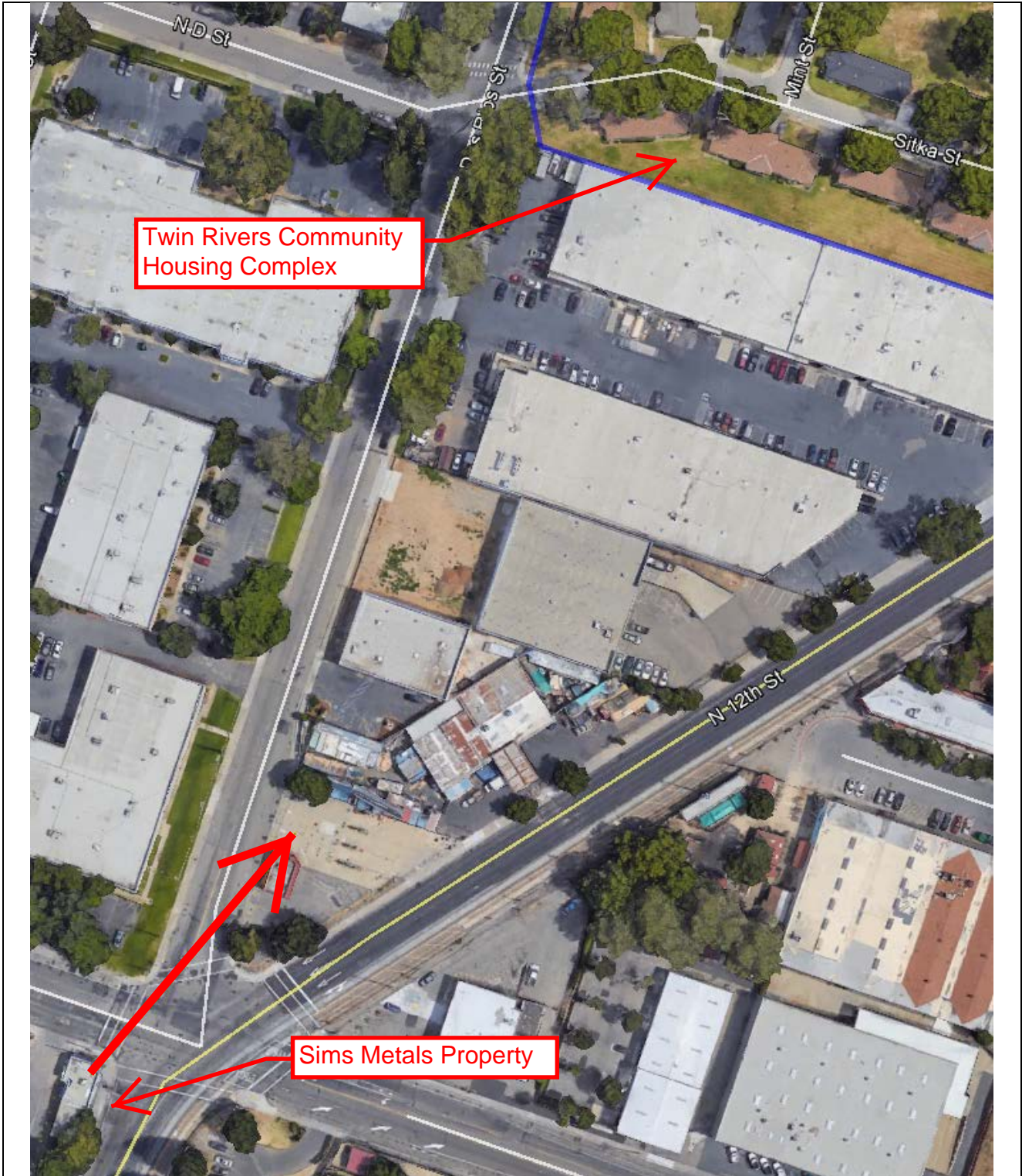
from Michael Burns, Luke Evans

subject Twin Rivers Transit-Oriented Development and Light Rail Station Project Explosive Hazards Analysis

ESA prepared this explosive hazards study technical memorandum in accordance with our proposal dated September 19, 2014, addressing the project distance from potential explosive hazards in order to demonstrate compliance with HUD regulations at 24 CFR Part 51, Subpart C. Hazards as defined by HUD regulations include stationary containers of an explosive or fire prone nature. HUD-assisted projects must meet required HUD Acceptable Separation Distance (ASD) standards or implement appropriate mitigation.

ESA reviewed existing Phase 1 environmental site assessments and requested and received information from the Sacramento County Environmental Management Department (SCEMD) regarding above-ground storage tanks. The available information is summarized on the attached Table 1. Of the eight sites listed within the project vicinity that had hazardous materials listings with the SCEMD, only two sites have active ASTs: Sims Metals and Downtown Ford Sales. Only Sims Metals has ASTs with contents (gasoline) that would be substantially explosive. ESA used the HUD Acceptable Separation Distance (ASD) Electronic Assessment Tool to estimate the ASD. This web-based tool is available at <https://www.hudexchange.info/programs/environmental-review/asd-calculator>. The results follow Table 1 and estimate the ASD at 276.57 feet.

An aerial photograph of the local area is provided as Figure 1. The southeastern boundary of the Twin Rivers Transit-Oriented Development and Light Rail Station Project is outlined in blue in the upper right-hand side of Figure 1. A 276.57-foot-long red line is shown extending from the northeast corner of the Sims property pointing towards the Twin Rivers Transit-Oriented Development and Light Rail Station Project boundary. As shown, the ASD is well short of the approximately 930 feet between the two sites. Therefore, the project site is at an acceptable distance using HUD standards.



Twin Rivers Transit-Oriented Development Project D120894

**Figure 1**

Acceptable Separation Distance

SOURCE:  
<https://www.hudexchange.info/programs/environmental-review/asd-calculator>

**Table 1. Summary of Available AST Information  
Twin Rivers Transit-Oriented Development and Light Rail Station Project**

Site name	Address	County Records AST Status	AST content & volume (gallons)	Reference - Twin Rivers	Reference - Triangle Site	County of Sacramento - Environmental Management Department - May 2, 2016 list	Comments
FD Hart Co; aka Carson Development; Western Truck Parts & Equip, LLC; possibly N. Valley Body & Paint	1441 Richards Blvd	No current ASTs	Former 1,850 gal AST removed 2003	x	x	1441 Richards (7)	Now Ken Imler Diesel Performance
Sims Metals	130 N. 12th St	Active	Hydraulic oil (200); gasoline (1,000 & 500); gear oil (125); motor oil (1,000); power train oil (125); used lubricating oils (500); waste oil (250); coolant (250); diesel fuel (6,300); diesel #2 (200 & 100); LPG (250 & 500)	x	x	130 N 12 (2)_Redacted; 130 N 12 (3)	
Downtown Ford Sales	525 N. 16th St	Active	Automatic transmission fluid (275); motor oil (275); waste oil (1,000)	x	x	525 N (2)_Redacted; 525 N (3)	
Commerce Printing Services	322 North 12th Street	No ASTs				322 N (2)	
Signature Press	430 17th Street	None				430 17th (2)_Redacted; 430 17th (3)	
Brownie's Blueprint Co Inc	1103 North B Street	None				1103 N (2)_Redacted.pdf	
Ferrari Color Inc	601 Bercut Drive	None				601 Bercut_Redacted.pdf	
Tom's Printing, Inc	1819 East Street	Not listed				No records provided	

**Notes:**

All in 95811 zip code

Available records did not include secondary containment information

[Environmental Review Main \(/programs/environmental-review/\)](/programs/environmental-review/)

# Acceptable Separation Distance (ASD) Electronic Assessment Tool

The Environmental Planning Division (EPD) has developed an electronic-based assessment tool that calculates the Acceptable Separation Distance (ASD) from stationary hazards. The ASD is the distance from above ground stationary containerized hazards of an explosive or fire prone nature, to where a HUD assisted project can be located. The ASD is consistent with the Department's standards of blast overpressure (0.5 psi-buildings) and thermal radiation (450 BTU/ft<sup>2</sup> - hr - people and 10,000 BTU/ft<sup>2</sup> - hr - buildings). Calculation of the ASD is the first step to assess site suitability for proposed HUD-assisted projects near stationary hazards. Additional guidance on ASDs is available in the Department's guidebook "Siting of HUD- Assisted Projects Near Hazardous Facilities" and the regulation 24 CFR Part 51, Subpart C, Siting of HUD-Assisted Projects Near Hazardous Operations Handling Conventional Fuels or Chemicals of an Explosive or Flammable Nature.

**Note:** Tool tips, containing field specific information, have been added in this tool and may be accessed by hovering over the ASD result fields with the mouse.

## Acceptable Separation Distance Assessment Tool

Is the container above ground?	Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>
Is the container under pressure?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
Does the container hold a cryogenic liquified gas?	Yes: <input type="checkbox"/> No: <input type="checkbox"/>
Is the container diked?	Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>
What is the volume (gal) of the container?	<input type="text" value="1000"/>
What is the Diked Area Length (ft)?	<input type="text"/>
What is the Diked Area Width (ft)?	<input type="text"/>
<input type="button" value="Calculate Acceptable Separation Distance"/>	
Diked Area (sqft)	<input type="text"/>
ASD for Blast Over Pressure (ASDBOP)	<input type="text"/>
ASD for Thermal Radiation for People (ASDPPU)	<input type="text" value="276.57"/>
ASD for Thermal Radiation for Buildings (ASDBPU)	<input type="text" value="50.28"/>
ASD for Thermal Radiation for People (ASDPNPD)	<input type="text"/>
ASD for Thermal Radiation for Buildings (ASDBNPD)	<input type="text"/>

**For mitigation options, please click on the following link:** Mitigation Options (<https://onecpd.info/resource>)

[/3846/acceptable-separation-distance-asd-hazard-mitigation-options/](#))

## Providing Feedback & Corrections

After using the ASD Assessment Tool following the directions in this User Guide, users are encouraged to provide feedback on how the ASD Assessment Tool may be improved. Users are also encouraged to send comments or corrections for the improvement of the tool.

Please send comments or other input using Ask A Question (<https://www.onecpd.info/ask-a-question/my-question/>). Enter "Environmental Review" in the "My question is related to" field.

## Related Information

- ASD User Guide (<https://onecpd.info/resource/3839/acceptable-separation-distance-asd-assessment-tool-user-guide/>)
- ASD Flow Chart (<https://onecpd.info/resource/3840/acceptable-separation-distance-asd-flowchart/>)