

From: [Oliphant, Marc \(FTA\)](#)
To: [John Hoppie](#)
Cc: [Kay Shelton](#); [Deanna Leggett](#); [Lyssy, Gail \(FTA\)](#); terence.plaskon@dot.gov; [Bartels, David \(FTA\)](#); [Koski, Donald \(FTA\)](#); [Shoaib, Suleman \(FTA\)](#)
Subject: RE: [External] Phase F memo to file comments
Date: Monday, January 9, 2023 8:40:36 AM

EXTERNAL Email Warning

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Dear Mr. Hoppie,

The Federal Transit Administration (FTA) has reviewed the supplemental environmental documentation (Memo to File Phase F) DART submitted for the Silver Line (Cotton Belt) Regional Rail Project on December 19, 2022. In memo to File Phase F, DART proposes two project changes: (1) the Shiloh Road Layover facility - a single large facility to provide maintenance and overnight storage for multiple vehicles and; (2) the US Brass Avoidance Alignment to avoid potential environmental hazards.

FTA determines that, in accordance with 23 CFR 771.129, the modifications proposed to the Silver Line in Memo to File Phase F would not result in any substantial impact to the quality of the human environment, and the previously approved FEIS/ROD of November 9, 2018 remains valid.

If you have any further questions, please contact FTA Region VI.

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INTEROFFICE MEMORANDUM

DATE: December 19, 2022

TO: Project File
Marc Oliphant, FTA Region 6

FROM: Kay Shelton, Vice President, Capital Planning
John Hoppie, Silver Line, Planning Project Manager

SUBJECT: DART Cotton Belt Corridor Design-Build Changes: Memo to File
Phase F Plano Infrastructure Modifications

Introduction

In accordance with 23 CFR 771.129, this memorandum documents changes to the Cotton Belt Corridor Regional Rail Project (Silver Line) that have occurred since the signing of the Final Environmental Impact Statement/Record of Decision (**FEIS/ROD**) on November 9, 2018. The **FEIS/ROD** was approved by both the Federal Transit Administration (FTA) as lead agency and the Federal Aviation Administration (FAA) as cooperating agency. These changes occur throughout the Project in the cities of Grapevine (DFW Airport), Coppell, Dallas, Carrollton, Richardson, and Plano. The DART Silver Line is scheduled to begin operation on the Cotton Belt Corridor in FY 2024.

These changes are the result of city/agency coordination, design modifications, project enhancements, and/or opportunities to reduce costs. These changes are not deemed significant and additional environmental documentation is not necessary.

The need to prepare a memorandum to file to document project changes was identified in recent Mitigation Monitoring Program (MMP) updates as Mitigation Measure **GEN-2**. The changes identified to date are depicted in **Attachment 1, Exhibit 1**. (Phase F project changes are the subject of this memorandum):

- Phase A (Approved 11/12/20)
 - A1. EMF/Yard Lead relocation
- Phase B (Approved 2/16//22)
 - B1. Elimination of DFW pocket track
 - B2. Deferral of DFW North Through Platform
 - B3. Elimination of Oncor Tower Relocation at Cypress Waters Station
 - B4. Addition of new at-grade crossing – Huntington Road
- Phase C (Approved 4/26//22)
 - C1. Elimination of Adaptive Reuse of White Rock Creek Bridge
- Phase D Freight Infrastructure Improvements (Approved 4/26//22)
 - D1. Freight Storage Track
 - D2. Freight Island Siding

- Phase E
 - E1. Hillcrest Road Design Advancement (Submitted 8/4/22, approval pending)
- **Phase F Plano Modifications**
 - F1. Shiloh Road Layover facility**
 - F2. US Brass Avoidance Alignment**
- Future Phases
 - Coit Road Design Advancement
 - Custer Parkway Grade Separation
 - Jupiter Road Grade Separation
 - Sound wall adjustments to accommodate line of sight
 - Real Estate Acquisitions

A memorandum to file documenting Phase A project changes was submitted on October 30, 2020; and approved by FTA on November 12, 2020. A Phase B memorandum to file was submitted on December 16, 2021; and approved by FTA on February 16, 2022. Phase C and Phase D memoranda to file were submitted on April 6, 2022; and approved by FTA on April 26, 2022.

With the development of the Phase E Memorandum to File, FTA requested a more public process to address community concerns. Beginning with Phase E Hillcrest Road Design Advancement memorandum, the public is being provided an opportunity to comment on draft memoranda before FTA final determination. As such, FTA will review each draft memorandum to authorize posting the draft online for public review and comment. All substantive comments will be addressed in the final memorandum which will be submitted to FTA for a final determination. The Final memorandum with the response to comments and the final FTA determination will then be posted online.

The Draft Phase E Memorandum was posted on August 5, 2022, and the Final Memorandum was submitted to FTA on October 6, 2022. FTA approved the Hillcrest Road Design Advancement on October 21, 2022.

The Project's effects on the existing social, environmental, economic, and transportation environment were assessed and documented in the **FEIS/ROD** in coordination with the public and interested agencies. DART will implement, as necessary, all mitigation to which the **FEIS/ROD** commits and will coordinate with the public and agencies during the Design-Build phase as stipulated in the **FEIS/ROD**. The mitigation measures and other project features that avoid or reduce adverse impacts are incorporated into the Project and are summarized in the **ROD**. The **FEIS** provides a description of these mitigation measures and design features. DART is designing and building the Project in accordance with the mitigation measures contained in the **FEIS** and documented in the **ROD**. DART has established a Mitigation Monitoring Program (MMP) to provide a means for DART and FTA to track the progress in accomplishing the mitigation commitments. The MMP is implemented and monitored by DART and FTA through quarterly updates of the MMP. The original summary table, located in the **FEIS/ROD**, formed the basis of the MMP. Mitigation measures referenced in this letter to file are identified by the mitigation measure identification number in the first column of the table.

Financial Considerations

The Silver Line is being financed through a federal loan program called Railroad Rehabilitation and Improvement Financing (RRIF), along with a combination of other federal, regional and local sources including FTA Congestion Mitigation and Air Quality (CMAQ) funds.

Phase F Project Changes

Two project changes in the City of Plano are being finalized and are documented in this Phase F Memorandum to File. They are:

- F1.** Shiloh Road Layover facility
- F2.** US Brass Avoidance Alignment

These Phase F changes to the project are highlighted in yellow in **Attachment 1, Exhibit 1** and described in more detail in the following sections. The remaining project changes will be documented and submitted to FTA for review and approval in subsequent memorandum phases.

F1. Shiloh Road Layover Facility

As described in **Section 2.3.3** of the **FEIS/ROD**, an Equipment Maintenance Facility (EMF) to store and maintain vehicles is required as part the Project. DART had originally planned to expand the existing Trinity Railway Express (TRE) Irving Yard. Additionally, to avoid returning trains to the yard during the midday, two layover track locations along the Cotton Belt were planned. One was to be in the relocated Mercer Yard site and the second was to be situated on the tail track east of the Shiloh Road Station.

During final design DART relocated the EMF to a Joint Rail Operations Facility (JROF) shared with Denton County Transportation Authority (DCTA) in Lewisville, Texas. The environmental clearance for this change was addressed in the Phase A Memo to File submitted on October 30, 2020; and approved by FTA on November 12, 2020. Subsequently, a concept for a more extensive layover facility was developed. Instead of two small facilities that could only accommodate one vehicle each during the midday layover, a single larger facility that could provide overnight storage for multiple vehicles was conceived.

In addition to train storage, the layover facility would include a cleaning platform and an inspection pit to be used for daily cleaning, inspection and refueling of the Silver Line fleet of vehicles. This activity would occur both day and night. Although, some unscheduled light maintenance could be conducted at the layover facility, heavy maintenance and the washing of vehicle would occur at the JROF.

DART has identified a location immediately west of the Shiloh Road Station within the DART owned railroad right-of-way that widens to accommodate an unused railroad siding and unused railroad spur (See **Attachment 2, Exhibit 1**). This location would be developed into the layover facility that could accommodate the maintenance platform with vehicle storage for the entire Silver Line Fleet of eight vehicles. To support the layover facility DART would also lease an adjacent commercial site at 3201 Technology Drive, Plano, Texas. The leased space would provide office space, material storage, a crew room, lockers, and parking for Silver Line staff.

As currently conceived, there would always be at least two Silver Line vehicles in scheduled maintenance activities at the JROF. These vehicles would be rotated into service to operate out of the Shiloh Road Layover Facility. Analysis indicates that this layover facility would enhance operations and result in significant cost savings by eliminating deadhead travel to the JROF located seven miles north of the Silver Line.

Setting:

The **FEIS/ROD** did not anticipate a layover facility of this scale; however, the footprint of the facility is directly adjacent to the Silver Line tracks within existing DART owned railroad right-of-way. The proposed facility, including the leased industrial site, is within the study area and the area of potential effect for the project.

The Shiloh Road Layover Facility improvements would occur within existing active railroad right-of-way with historical railroad uses. The railroad right-of-way widens to accommodate a currently unused railroad siding and railroad spur. The siding and spur have traditionally been used for overnight storage of freight railroad vehicles. The surrounding land uses are generally very industrial and include manufacturing, warehousing, self-storage, nursery and automotive. There are no adjacent residential land uses. It should be noted; however, there are several nearby community facilities that were identified in **Section 3.3** and **Figure 3-9** of the **FEIS/ROD**. The location of these community facilities in relation to the layover facility is shown in **Attachment 2, Exhibit 2**. These community facilities include a nursing and rehabilitation center, two schools, a school administration facility, two places of worship and one charitable organization/place of worship.

Environmental Evaluation:

DART's investigation to assess potential environmental impacts, both positive and negative, associated with the Shiloh Road Layover Facility included the following:

- Development of a conceptual design
- Consultation with the City of Plano
- A review of appropriate sections of the **FEIS/ROD**
- Shiloh Road Layover Facility Noise/Vibration Impact Assessment (See Attachment 2A)
- Field reconnaissance

The conceptual design for the Shiloh Road Layover Facility is shown in **Attachment 2, Exhibit 3** and **Exhibit 4**. The facility could provide storage for eight Silver Line vehicles and would include a maintenance platform with an inspection pit. A canopy would cover the maintenance platform for weather protection. The facility will include two, above ground, 12,000-gallon, fuel tanks enclosed with a concrete masonry unit (CMU) wall. Refueling trucks and other maintenance vehicles would access the facility through the leased site.

The **FEIS/ROD** did not identify any site-specific environmental impacts at or near the location of the proposed improvements. There is no residential adjacency, and the facility is directly adjacent to the Silver Line and within DART owned right-of-way with existing railroad uses. The property is somewhat isolated and will not be crossed by any roadway or pedestrian pathway. The new facility will not affect the location of the future Cotton Belt Trail. As such no traffic, circulation access, residential impact or parkland impacts are anticipated. The **FEIS/ROD** did not identify cultural resources, water/floodplain resources, parks, hazardous materials risk sites in the vicinity of the infrastructure improvements. All corridor-wide mitigation measures detailed in the **FEIS/ROD** that apply to the Silver Line, would apply to implementing the layover facility. These include measures associated with Biological Resources, Hazardous/Regulated Materials, Air Quality, Safety/Security, Water Quality and Construction.

Potential environmental impacts of the Shiloh Road Layover Facility may include Community Resource Impacts and Safety Impacts.

Community Resources: Six of the one hundred and ten community facilities identified along the Silver Line discussed in **Section 3.3** of the **FEIS/ROD** are situated within 700 feet of the layover facility. (See **Attachment 2, Exhibit 2**). Each of these community facilities, are located north of the railroad corridor. As such, they will be segregated from the layover facility by the new double track Silver Line alignment, right-of-way fencing, and the planned Cotton Belt Regional Trail. The **FEIS/ROD** did not identify any direct or indirect impacts to any of these community facilities. Due to proximity, the two community facilities with the greatest potential for impact about the Silver Line but would not be directly adjacent to the layover facility site. They are the Salvation Army (104) and the Collinwood Care Center (102).

These community facilities are situated in a very industrial setting and the layover facility is in an existing active railroad corridor. As such, the activities associated with the layover facility are not anticipated to result in a Land Use impact. Potential impacts to community facilities closet to the layover facility include glare from lighting, noise/vibration, and safety.

Glare: Lighting will be required for the cleaning platform and train storage areas of the layover facility. As described in **Section 4.7.2** of the **FEIS/ROD** and included as Mitigation Measure **COR-8**, all lighting sources will be indirect, diffused, or covered by shielded type fixtures, and installed to reduce glare at adjacent properties. This Silver Line mitigation measure will also apply to the Shiloh Road Layover Facility.

Noise: The project noise analysis discussed in **Section 4.14** of the **FEIS/ROD** did not identify any noise impacts to the Salvation Army or the Collinwood Care rehabilitation center. The nearest at-grade crossing, Shiloh Road, is an existing quiet zone and will include electronic signal bells.

As part of DART's investigation to assess potential environmental impacts of the new facility, DART conducted additional noise and vibration impact assessment at sensitive receivers located near the proposed Shiloh Road Layover Facility (See **Attachment 2A**). The methodology used for this assessment is consistent with the U.S. Federal Transit Administration (FTA) "Transit Noise and Vibration Impact Assessment Manual" (FTA Report No. 0123, September 2018). The objective of the assessment was to determine whether facility operations would cause additional project noise or vibration impacts.

The Collinwood Care rehabilitation center, which has nighttime sensitivity, is approximately 160 feet from the new cleaning platform and 400 feet from any switching activity. During maintenance, the diesel engine of the vehicles will power down and the trains will be plugged in to an electric power supply. As such the trains will not be idling. The Salvation Army community facility is an institutional land use. The building is located over 1500 feet from the cleaning platform where most of the activity at the layover facility will occur. Some vehicle storage and switching will occur within 400 feet of the building.

The recent noise analysis concluded that the combined noise exposure levels from layover facility operations and Silver Line operations are predicted to be below the applicable FTA noise impact criteria thresholds. Therefore, no noise mitigation measures are required.

Vibration: The project noise analysis discussed in **Section 4.15** of the **FEIS/ROD** did not identify any vibration impacts to the Salvation Army or the Collinwood Care rehabilitation center. The maximum one-third octave band ground-borne vibration level from Silver Line operations at this location was predicted to be 54 VdB, well below the FTA impact threshold of 72 VdB and the DART vibration goal of 65 VdB. Because operations at the layover facility will occur further from sensitive buildings and at lower speeds, ground-borne vibration from facility operations will be even lower (See **Attachment 2A**). Therefore, no vibration mitigation measures are required

Safety: DART will be responsible for policing the rail corridor including the layover facility. As indicated above, all nearby community facilities will be segregated from the layover facility by the new double track Silver Line alignment, right of way fencing, and the planned Cotton Belt Regional Trail. Additionally, the layover facility will be fenced for security.

The fuel storage will be designed to meet all City of Plano, Texas Commission on Environmental Quality (TCEQ), and Environmental Protection Agency (EPA) requirements for above ground fuel storage. The facility will be designed and operated in accordance with all EPA Spill Prevention, Control, and Countermeasure (SPCC) regulations.

Additionally, the fuel storage is being coordinated with the Federal Railroad Administration (FRA). The Layover Facility and fuel storage has been discussed in ongoing DART/FRA Quarterly Meetings and DART/FRA Positive Train Control (PTC) Quarterly Meetings. FRA is responsible for reviewing and approving the operations and safety plans that DART's operating contractor is developing. The Fuel tanks will be part of the Shiloh Road Layover Facility Preliminary Hazard Analysis and the Threat and Vulnerability Analysis.

Environmental Evaluation and Mitigation Summary

As indicated above, potential environmental impacts of the Shiloh layover Facility will be avoided by the design of the facility.

- Analysis indicates that this layover facility would enhance operations and result in significant cost savings.
- The layover facility will be located within a very industrial setting with traditional railroad use.
- Addressing safety, the facility will be fenced and segregated from nearby community facilities.
- Above ground fuel storage will meet all City of Plano, TCEQ, and EPA requirements.
- Additional analysis did not identify any noise or vibration impacts for the proposed Shiloh Road Layover Facility.
- Consistent with **FEIS/ROD** Mitigation Measure **COR-8**, all lighting sources at the layover facility will be indirect, diffused, or covered by shielded type fixtures, and installed to reduce glare at adjacent properties.
- All corridor-wide mitigation measures detailed in the **FEIS/ROD** that apply to the Silver Line, would apply to implementing the layover facility.

Agency Coordination and Public Participation

The design and location of the Shiloh Road Layover Facility has been coordinated with the City of Plano. On September 28, 2022, the Draft Phase F Memorandum to File was posted on the Silver Line Website for public comment. Subscribers to Silver Line Updates were notified of the availability of the memorandum and how to submit comments. The DART accepted comments through November 15, 2022. In adherence with its enabling legislation, DART held a Service Plan Amendment Public Hearing for the Shiloh Road Layover Facility location on November 15, 2022. No comment on the Shiloh Road Layover Facility were received during the public hearing or on the project website.

Conclusion

The implementation of the Shiloh Road Layover Facility will not result in additional unmitigated environmental impacts. The facility improvements are not deemed significant and additional environmental documentation is not necessary.

F2. US Brass Single Track Avoidance Alignment

As described in **Section 2.3.1** of the **FEIS/ROD** and shown in **Attachment 3, Exhibit 1**, the CityLine/Bush Alignment is one of four sections of the project that deviates from the Cotton Belt railroad corridor. At Alma Road, the alignment leaves the existing railroad alignment, veering south away from the President George Bush Turnpike (PGBT) for the CityLine/Bush Alignment. It then crosses the floodplain of Spring Creek and US 75 on an aerial structure, then turns north and descends to the CityLine/Bush Station to provide a side-by-side platform transfer with existing DART light rail service. From this station, the alignment travels north and parallel to the DART light rail corridor. The double-track alignment passes under PGBT then across Plano Parkway on a grade-separated structure and 10th Street at grade. Near 12th Street, the alignment will turn right at grade under the LRT structure and into the 12th Street Station.

The CityLine/Bush Alignment encroaches on several properties north of PGBT west of the rail right-of-way. As described in **Section 4.16** of the **FEIS/ROD**, one of these parcels (U.S. Brass) at 10th Street in Plano has been identified as a High Risk for Hazardous and Regulated Materials. In advancing the design of the Silver Line, it was determined that additional right-of-way would be required for the double-track alignment between CityLine/Bush and 12th Street Station. This included further encroachment into the high-risk US Brass property which would require the purchase and demolition of the existing industrial building. As such, the entire property would be subject to acquisition. In order to avoid acquisition of this high-risk site and the need to remediate the property for hazardous/regulated material, DART developed an avoidance alignment.

DART proposes to construct a single-track alignment within this half mile segment adjacent to the light rail line to reduce the footprint of the alignment and avoid encroachment into the US Brass property. DART, in cooperation with its consultants, conducted operations analysis and determined that the Silver Line can operate as planned without any degradation in service with this short single-track section. The single-track section basically eliminates the westernmost track in the section. Extending north from the CityLine Station the double track alignment transitions to a single track and transition back to a double track alignment at the 12th Street Station. The **FEIS/ROD** did not anticipate this single-track segment; however, the modified alignment is within the footprint of the **FEIS/ROD** corridor, study area, and the area of potential effect for the project.

Environmental Evaluation:

DART's investigation to assess potential environmental impacts, both positive and negative, associated with the US Brass Single Track Avoidance Alignment included the following:

- A review of the appropriate sections of the **FEIS/ROD**
- Consultation with the City of Plano
- Coordination with current and former US Brass property owners
- Phase II Environmental Site Assessment (ESA) of DART right-of-way
- Phase I Environmental Site Assessment (ESA) of US Brass property
- Field reconnaissance
- Supplemental Operations Analysis

A review of the **FEIS/ROD** and the mitigation commitments indicate that the only site-specific environmental impacts and that may be affected by the avoidance alignment are associated with Vibration Mitigation, Property Acquisition, and Hazardous/Regulated Materials. Commitments not affected by the change include mitigations associated with traffic, access/circulation, and noise. Similarly, all corridor-wide mitigation measures detailed in the **FEIS/ROD** would still apply. These include measures associated with Biological Resources, Air Quality, Safety/Security, Water Quality and Construction. The Cotton Belt Trail which was environmentally cleared subsequent to the **FEIS/ROD** is not affected by the single-track segment.

Vibration: As described in **Section 4.15** of the **FEIS/ROD**, the FTA impact threshold for determining vibration impact is 72 vibration decibels (VdB) for residential land use. The DART Board of Directors opted for a more conservative approach and set the threshold at 65 VdB. All locations where vibration predictions that exceed this threshold are being mitigated by installation of tire derived aggregate (TDA) beneath the alignment. One location denoted as ID "J" in **Table 4-18** of the **FEIS/ROD** qualified for mitigation using the DART Board threshold of 65 VdB due to the proximity of the westernmost track to sensitive receptors (See **Attachment 3, Exhibit 1**). Elimination of the westernmost track resulted in a reduction of vibration to nearby receptors. An analysis of this single-track design indicates that pre-mitigation vibration levels would be below 65 VdB at nearby sensitive receiver locations and therefore the mitigation would no longer be required at this location.

Property Acquisition: The avoidance alignment reduces the footprint of short section of the alignment resulting in fewer property impacts. As described in **Section 4.4.1** and shown in **Table 4-3** of the **FEIS/ROD**, the CityLine/Bush Alignment requires nine acres of new right-of-way requiring the purchase of 14 partial parcels, 1 whole parcel and 1 multi-lease building. This multi-lease building and six of the partial acquisitions, including U.S. Brass (Parcel 16396) are located north of the PGBT (See **Attachment 3, Exhibit 2**). In this section, the Silver Line shares a right-of-way with the existing DART Red Line. Because of the limited right-of-way, slivers of new right-of-way were required from the properties to the west to accommodate the double track configuration. As detailed in **FEIS/ROD Appendix B.20 Acquisitions and Displacements Technical Memorandum**, these six parcels total 47.28 acres but only a partial acquisition of 3.26 acres was required for the project. The double track alignment also displaced one multi-lease building on Parcel 1503331.

The reconfigured single-track section will result in an overall reduction in property impacts. As shown in **Attachment 3, Exhibit 3**, the six partial acquisitions are reduced to three partial acquisitions plus two utility easements. The three parcels total 20.63 acres, but only a partial acquisition of 1.71 acres is required for the project. The utility easements total 0.15 acres on two parcels. The displacement of the multi-lease building on Parcel 1503331 is eliminated as the partial acquisition is converted to a utility easement. All acquisition of US Brass Property (Parcel 16396) is eliminated.

Hazardous and Regulated Materials: As described in **Section 4.14.1** of the **FEIS/ROD**, and stated above, the U.S. Brass property (Parcel 16396) at 10th Street in Plano has been identified as a High Risk for Hazardous and Regulated Materials. The US Brass Single Track Avoidance Alignment eliminates any acquisition of the US Brass property and the need for any potential remediation of the property by DART.

This US Brass property along with this section of the Silver Line alignment is within a proposed Municipal Setting Designation (MSD). As identified in Mitigation Measure **CB3-16** of the **FEIS/ROD**, within the MSD the construction contractor will enact precautions to restrict human exposure to the contaminated groundwater. Any subsurface soils being excavated from the MSD zone will be segregated for laboratory analysis and may require special handling and disposal. DART with the US Brass property owner and the City of Plano are working on a municipal ordinance that will define the MSD zone and restrictions at the properties. The US Brass Single Track Avoidance Alignment does not alter the MSD commitments identified in the **FEIS/ROD**.

Environmental Evaluation and Mitigation Summary

As indicated above, the US Brass Single Track Avoidance Alignment reduces adverse environmental impacts without causing additional environmental impacts.

- DART has determined that the Silver Line can operate as planned without any degradation in service with this short single-track section.
- The single-track segment reduces vibration below 65 VdB at one nearby sensitive receiver location, eliminating the need for 200 feet of TDA mitigation.
- The reconfigured single-track section results in an overall reduction in property impacts:
 - Eliminates acquisition at a High Risk site for Hazardous and Regulated Materials
 - Eliminates displacement of a multi-lease building and relocation of tenants
 - Reduces property acquisition from 3.26 acres to 1.71 acres
- Does not alter **FEIS/ROD** Mitigation Measure **CB3-16** for MSD.
- All corridor-wide mitigation measures detailed in the **FEIS/ROD** that apply to the Silver Line, would apply to the US Brass Single Track Avoidance Alignment.

Agency Coordination and Public Participation

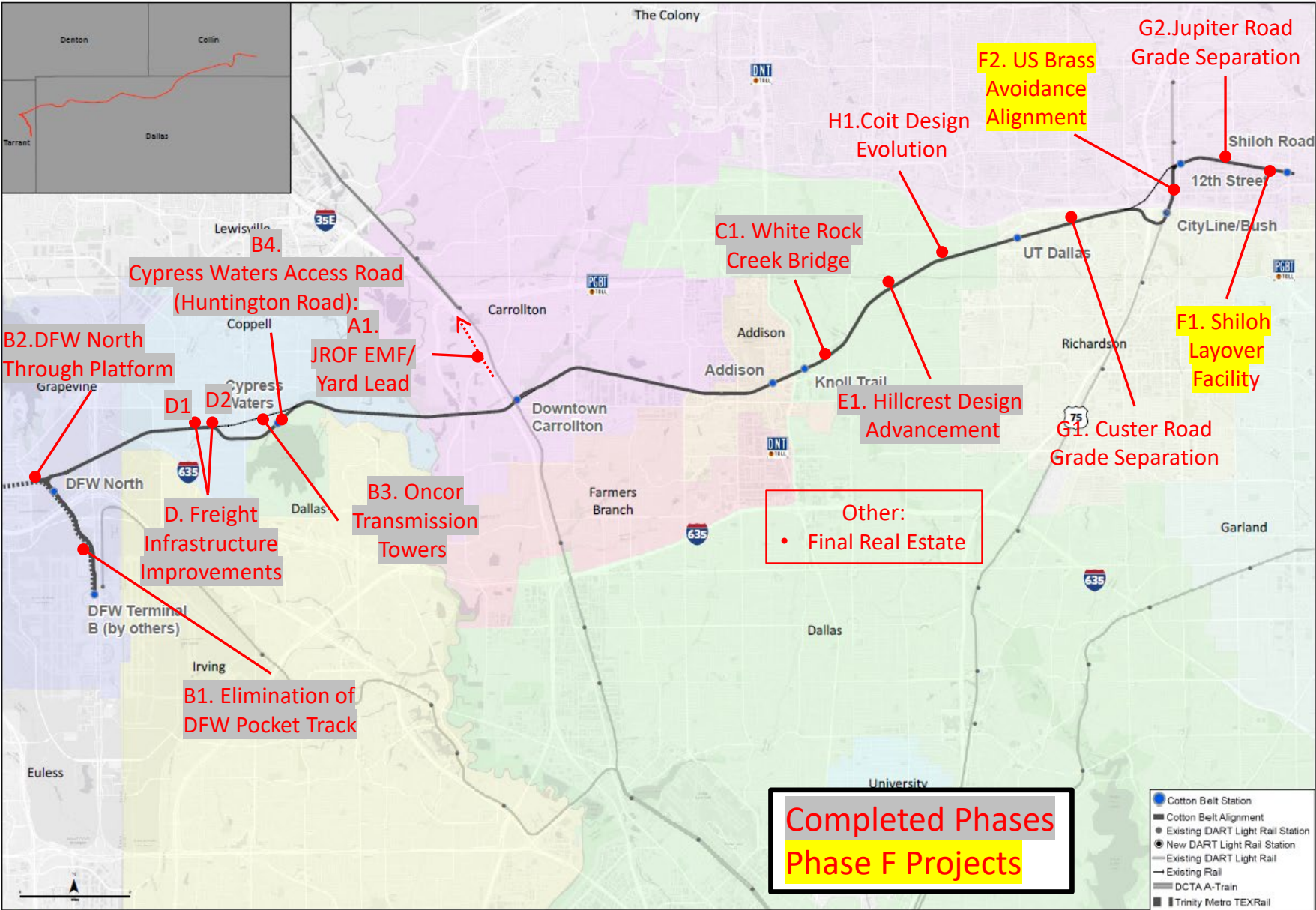
The design and location of the US Brass Avoidance Alignment has been coordinated with the City of Plano. On September 28, 2022, the Draft Phase F Memorandum to File was posted on the Silver Line Website for public comment. Subscribers to Silver Line Updates were notified of the availability of the memorandum and how to submit comments. DART accepted comments through November 15, 2022. Two comments were submitted through the Silver Line Website. These are addressed in Attachment 4 of this memorandum.

F2. Conclusion

The US Brass Single Track Avoidance Alignment reduces property impacts, reduces vibration impacts/mitigation and reduces Hazardous and Regulated Materials remediation obligations. The change will not result in any additional impacts or any degradation in service. No additional environmental study is warranted.

Dallas Area Rapid Transit
Cotton Belt (Silver Line)
Environmental Documentation
Phase E Memorandum to File
Plano Changes

Attachment 1
General Exhibits



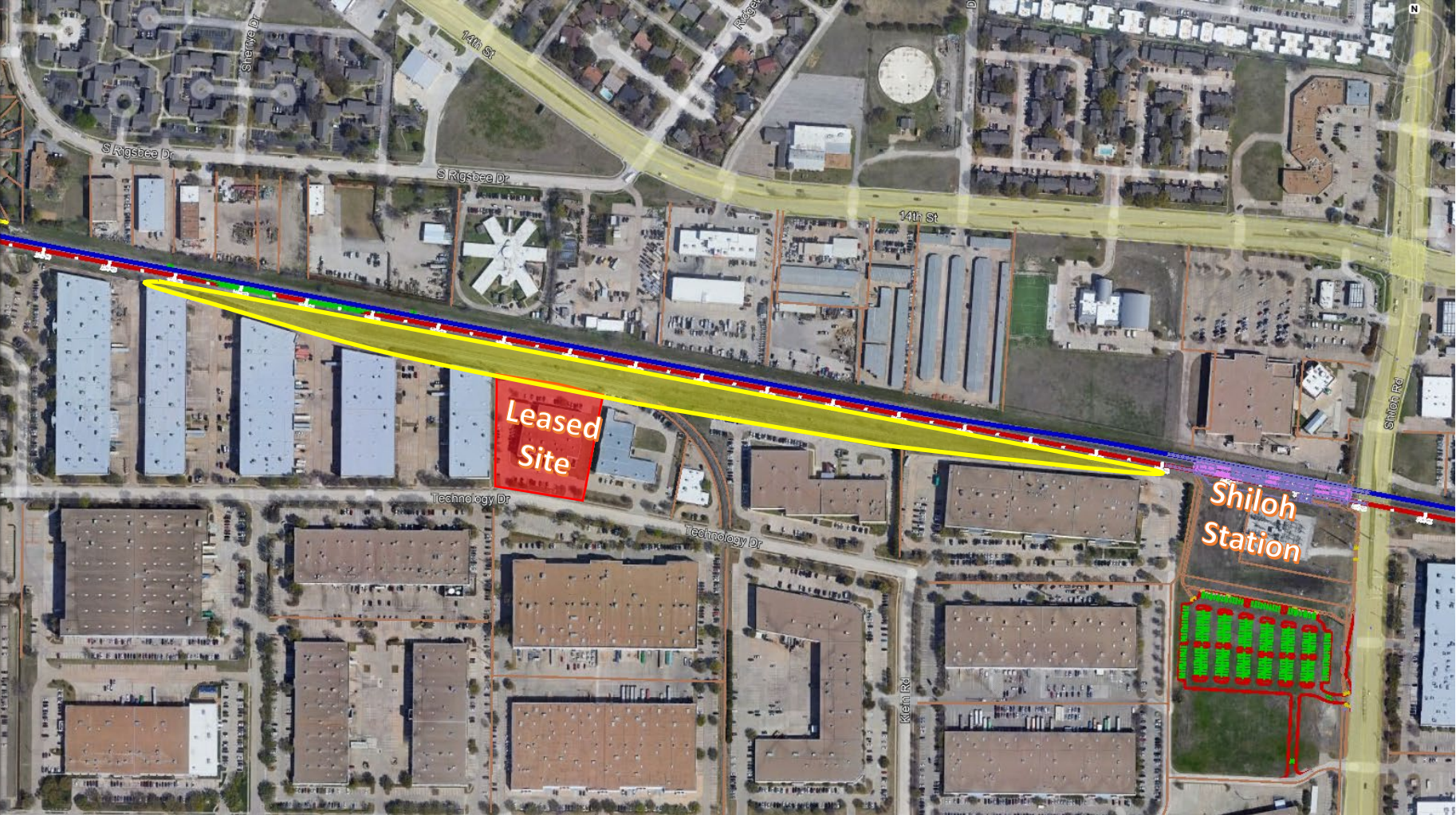
Cotton Belt Corridor (Silver Line) Regional Rail Project: Changes



Dallas Area Rapid Transit
Cotton Belt (Silver Line)
Environmental Documentation
Phase E Memorandum to File
Plano Changes

Attachment 2
F1. Shiloh Road Layover Facility
Exhibits

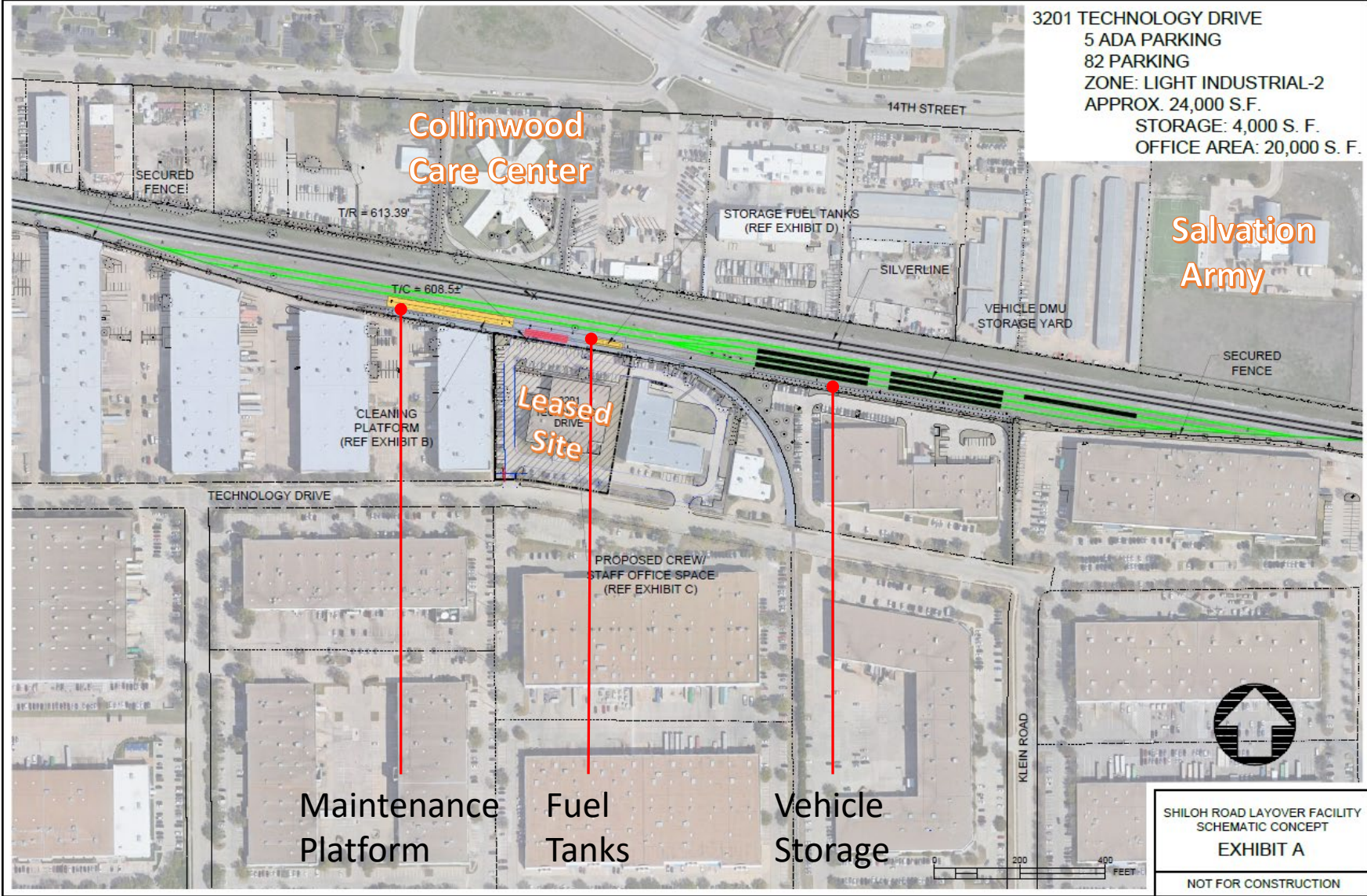
Shiloh Road Layover Facility: Location



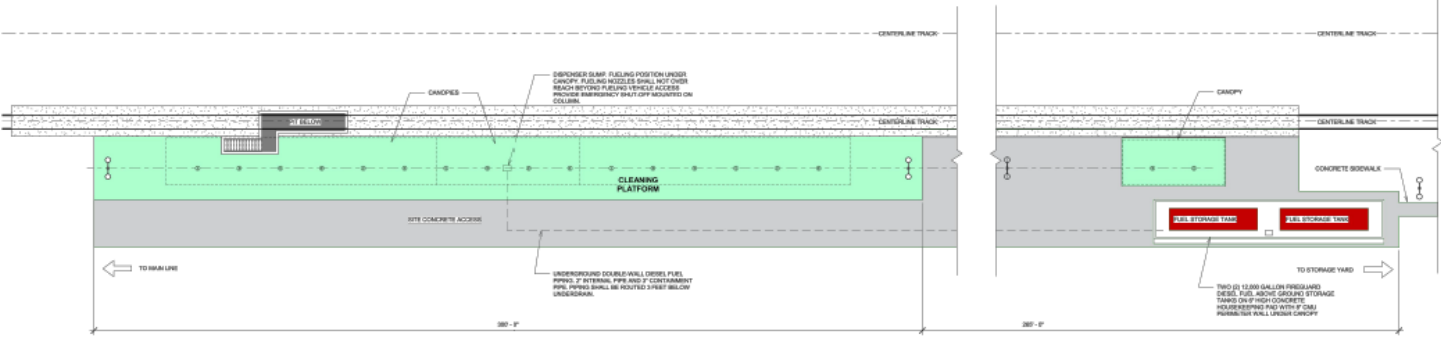
Shiloh Road Layover Facility: Community Facilities



Shiloh Road Layover Facility: Site Plan

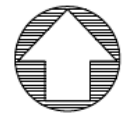


Shiloh Road Layover Facility: Maintenance Platform



LAYOVER FACILITY PLAN
1/16" = 1'-0"

- LEGEND**
- CLEANING PLATFORM (300' LONG)
 - INSPECTION PIT BELOW (30'-0" LONG)
 - FUELING STORAGE (2 - 12K GALLON TANKS)
 - EMBEDDED TRACK
 - SITE CONCRETE



SHILOH ROAD LAYOVER FACILITY
SCHEMATIC CONCEPT
EXHIBIT B
NOT FOR CONSTRUCTION

06/20/2022 - HEMATRONIX PROPERTY 6-1432.dwg



Dallas Area Rapid Transit
Cotton Belt (Silver Line)
Environmental Documentation
Phase E Memorandum to File
Plano Changes
Attachment 2A

F1. Shiloh Road Layover Facility

Noise and Vibration Impact
Assessment



Technical Memorandum

Date: Monday, December 19, 2022

Project: DART GPC VII – Contract C-2053306-01 – Task Order 8.3 – Final Design Support

To: Jamie Patel, HDR Engineering, Inc.
John Hoppie, DART

From: David A. Towers and Scott S. Edwards, Cross-Spectrum Acoustics Inc.

Subject: DART Silver Line Shiloh Road Layover Facility Noise and Vibration Impact Assessment
CSA Reference J2020-1260

INTRODUCTION AND SUMMARY

This technical memorandum summarizes a noise and vibration impact assessment for the Cotton Belt (Silver Line) Regional Rail Project at sensitive receivers located near the proposed Shiloh Road Layover Facility in Plano, TX. The methodology used for this assessment is consistent with the U.S. Federal Transit Administration (FTA) *“Transit Noise and Vibration Impact Assessment Manual”* (FTA Report No. 0123, September 2018). The objective of the assessment was to determine whether facility operations would cause additional project noise or vibration impacts. The analysis was conducted for Dallas Area Rapid Transit (DART) under subcontract to HDR Engineering, Inc. by Cross-Spectrum Acoustics Inc. (CSA).

The analysis concluded that the anticipated layover facility operations are not predicted to cause noise or vibration impacts at any nearby sensitive locations. The combined noise exposure levels predicted from facility operations and Silver Line train operations are below the applicable FTA noise impact criteria thresholds. In addition, ground-borne vibration levels from facility operations would be below the applicable FTA and DART vibration impact criteria thresholds. Thus, no noise or vibration mitigation measures are required for the Shiloh Road Layover Facility.

BACKGROUND

DART has identified a location immediately west of the Shiloh Road Station within the DART owned railroad right-of-way for a layover facility that was not anticipated in the DART Cotton Belt Corridor **FEIS/ROD**. As shown by the site plan in **Figure 1**, the proposed facility would include a maintenance platform, fuel tanks, and vehicle storage tracks. It is anticipated that six (6) vehicles would be located at the facility on a daily basis, with one (1) stored during peak service, three (3) stored during off-peak service and all six stored overnight. The maintenance platform would be used for daily cleaning, inspection and refueling of the Silver Line fleet of vehicles. Vehicles would operate to the cleaning platform or to a storage track and be powered down and plugged into an electric power source to avoid

idling. Thus, the only significant source of noise or vibration at the layover facility would be vehicle movements, with a maximum of 14 movements during the daytime hours (7 am to 10 pm) and 19 movements during the nighttime hours (10 pm to 7 am).

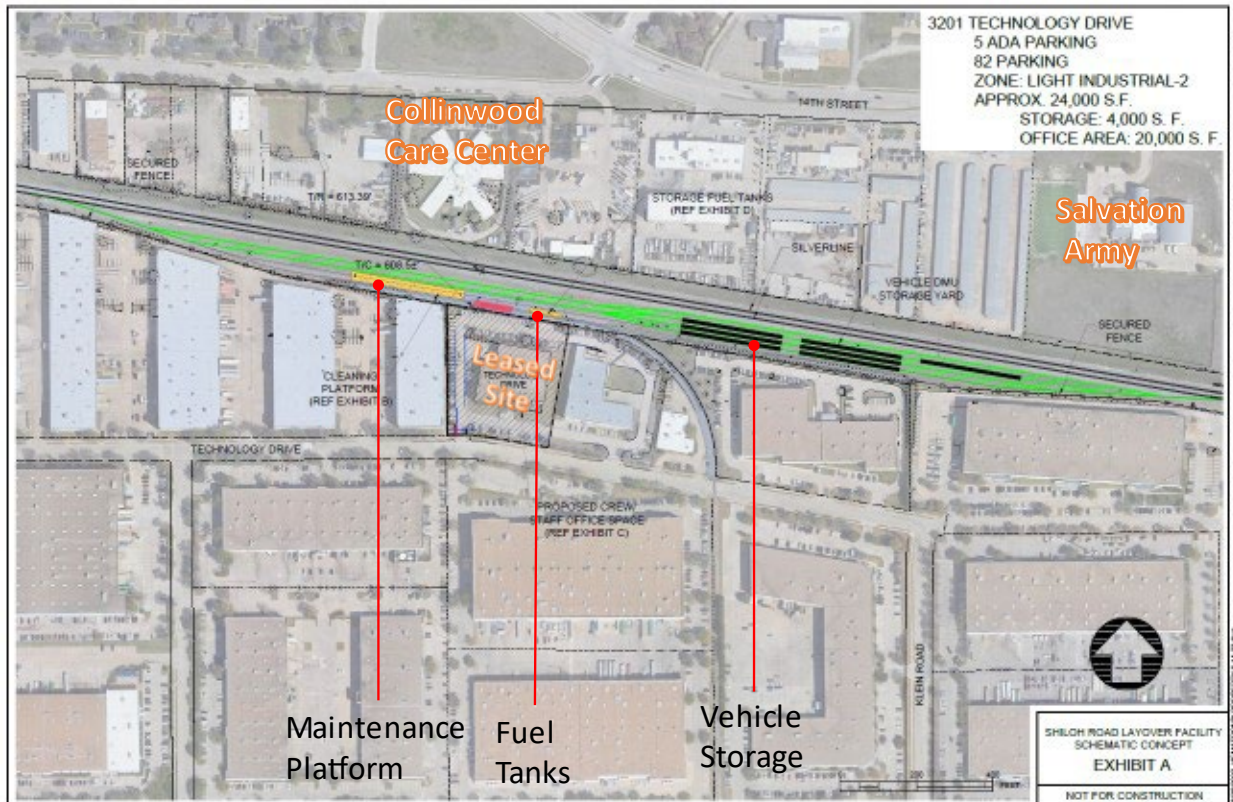


Figure 1. Shiloh Road Layover Facility Site Plan

EXISTING CONDITIONS

Sensitive Land Use

As shown in **Figure 1**, the land use surrounding the layover facility site is primarily industrial, with a limited number of community facilities. The noise and vibration sensitive land uses closest to the site include the Collinwood Care Center and the Salvation Army Building, both located to the north of the Silver Line tracks. The Collinwood Care Center, a nursing and rehabilitation facility with nighttime sensitivity, is a FTA Category 2 (residential) land use. The Salvation Army Building, which houses a charitable organization and place of worship with daytime and evening sensitivity, is a FTA Category 3



(institutional) land use. Existing noise sources affecting these locations include freight train operations, roadway traffic, aircraft, and industrial activities. Existing sources of ground-borne vibration in the area are limited to freight train operations.

Existing Noise Levels

The existing noise exposure levels at the two noise-sensitive receptors closest to the layover facility site were estimated based on available information from the DART Cotton Belt Corridor FEIS as follows:

- Collinwood Care Center. The existing noise exposure level at this location is estimated to be 58 dBA in terms of the Day-Night Sound Level (Ldn)¹ based on the results of a 24-hour noise measurement conducted for the FEIS at Site LT-19. This measurement site was at a residence similarly located about 100 feet north of the Silver Line, approximately 1,600 feet to the west of the Collinwood Care Center, with a comparable noise environment.
- Salvation Army Building. The existing noise exposure level at this location is estimated to be 54 dBA in terms of the Equivalent Sound Level (Leq)² based on the results of a one-hour noise measurement conducted for the FEIS at Site ST-5. This measurement site was at a church similarly located about 350 feet north of the Silver Line, approximately 1,800 feet to the east of the Salvation Army Building, with a comparable noise environment.

NOISE IMPACT ASSESSMENT

Noise impact was assessed at the two noise-sensitive locations closest to the proposed layover facility by (1) predicting the combined noise exposure levels from facility operations and Silver Line operations, (2) comparing the total predicted project noise exposure levels with the estimated existing noise exposure levels, and (3) applying the FTA noise impact criteria.

Noise exposure levels from layover facility operations were predicted in accordance with FTA General Noise Assessment methodology for yards and shops using the FTA Noise Impact Assessment Spreadsheet. At the Collinwood Care Center, the Ldn from facility operations was predicted assuming 14 vehicle movements during the daytime hours (7 am to 10 pm), 19 vehicle movements during the nighttime hours (10 pm to 7 am), and a distance of 500 feet to the center of the site. At the Salvation Army Building, the Leq from facility operations was predicted assuming three (3) vehicle movements during the peak activity hour, and a distance of 1,200 feet to the center of the site.

¹ Ldn is a 24-hour cumulative A-weighted noise level that includes all noises that occur during a day, with a 10-dB penalty for nighttime noise (10 pm to 7 am). This nighttime penalty means that any noise events at night are equivalent to ten similar events during the day.

² Leq is the level of a steady sound, which in a stated time period and at a stated location, has the same sound energy as the time-varying sound.



Noise exposure levels from Silver Line operations were predicted using FTA Detailed Noise Analysis methodology based on the assumptions from the most recent noise impact analysis for the DART Silver Line Project.³

The results of the noise impact assessment are summarized in **Table 1**, and are shown graphically in **Figure 2** for the Collinwood Care Center and in **Figure 3** for the Salvation Army Building. Based on these results, it is concluded that the combined noise exposure levels from layover facility operations and Silver Line operations are predicted to be below the applicable FTA noise impact criteria thresholds. Therefore, noise impact from the project is not anticipated at any sensitive locations near the proposed Shiloh Road Layover Facility, and no noise mitigation measures are required.

Table 1. Summary of Noise Impact Assessment for the DART Silver Line Shiloh Road Layover Facility

Noise-Sensitive Location	Existing Noise Level (dBA)	Predicted Project Noise Exposure Level (dBA)			Project Noise Impact Criteria (dBA)		Total Noise Level (dBA)	Noise Level Increase (dBA)	Impact
		Layover Facility	Silver Line	Total	Moderate	Severe			
Collinwood Care Center ¹	58	54	52	56	57	62	60	2	None
Salvation Army Building ²	54	40	40	43	60	66	54	0	None

Source: Cross-Spectrum Acoustics, 2022

¹ Noise levels at this location are based on Ldn and measured in dBA (rounded to the nearest decibel).

² Noise levels at this location are based on Leq(1h) and measured in dBA (rounded to the nearest decibel).

VIBRATION IMPACT ASSESSMENT

Based on the most recent vibration impact analysis for the DART Silver Line Project,⁴ the maximum one-third octave band ground-borne vibration level from Silver Line operations at the Collinwood Care Center was predicted to be 54 VdB, well below the FTA impact threshold of 72 VdB and the DART vibration goal of 65 VdB. Because operations at the layover facility will occur further from this and other sensitive buildings and at lower speeds, ground-borne vibration from facility operations will be even lower. Thus, it is concluded that vibration impact from the Silver Line Project is not anticipated at any sensitive locations near the proposed Shiloh Road Layover Facility and no vibration mitigation measures are required.

³ Cross-Spectrum Acoustics, *DART Silver Line Updated Noise Analysis*, Technical Memorandum, October 30, 2020

⁴ Cross-Spectrum Acoustics, *DART Silver Line Design-Build Project Vibration Assessment and Mitigation Analysis of Final Design*, Technical Memorandum, January 18, 2021

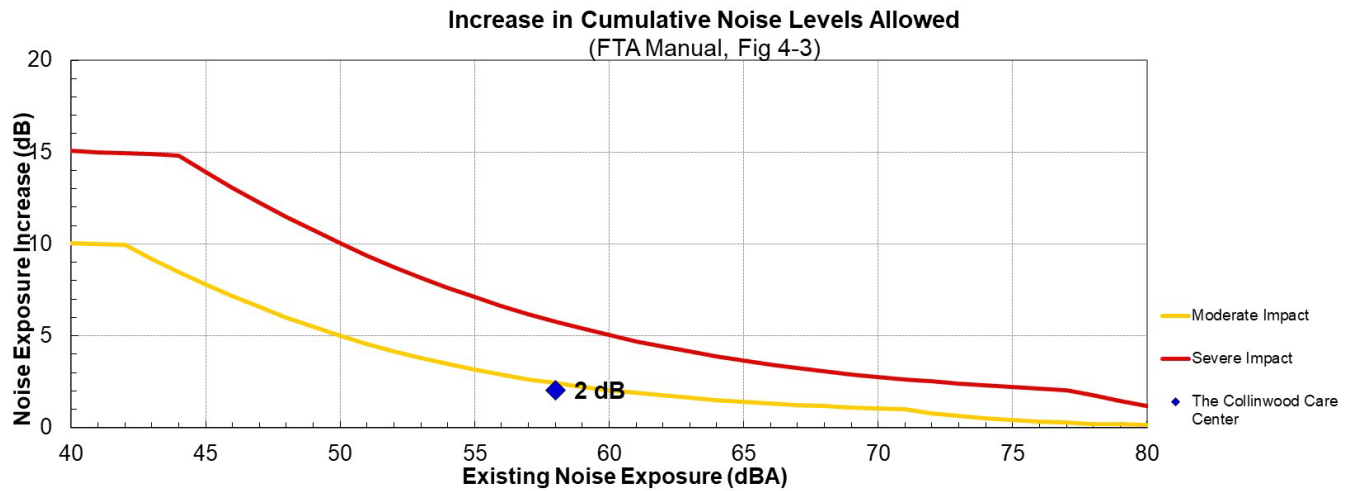
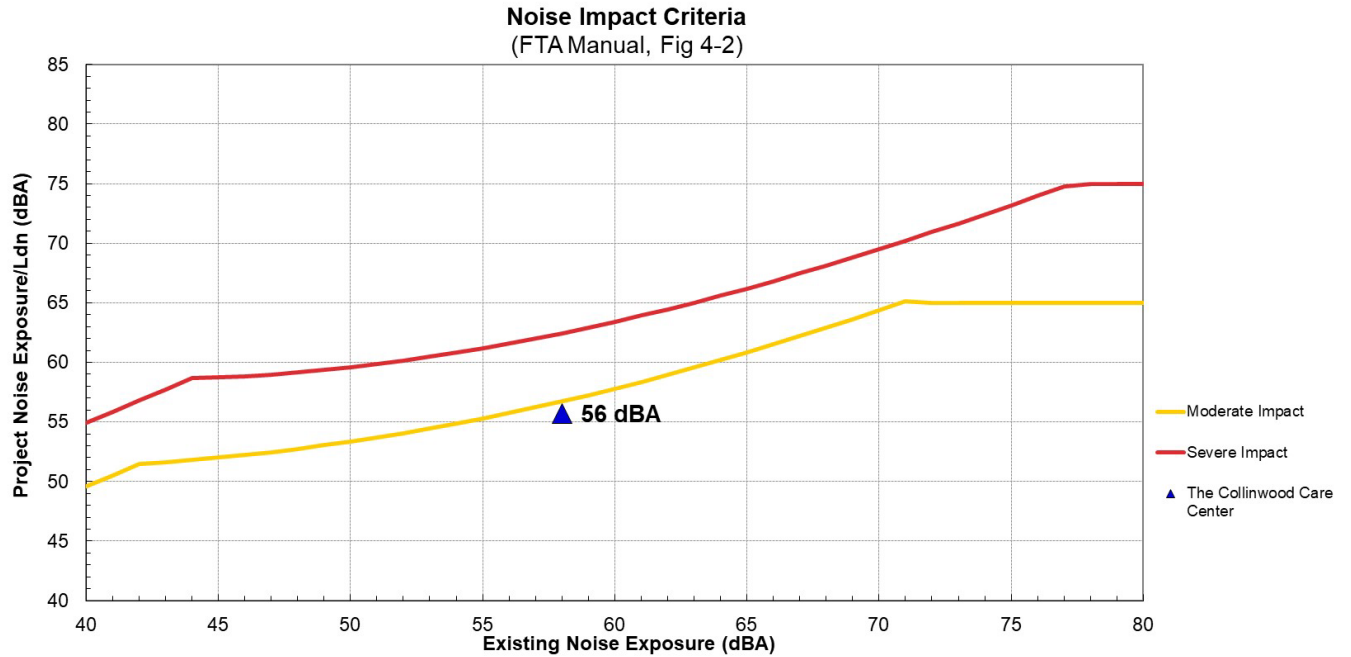


Figure 2. FTA Noise Impact Assessment at the Collinwood Care Center

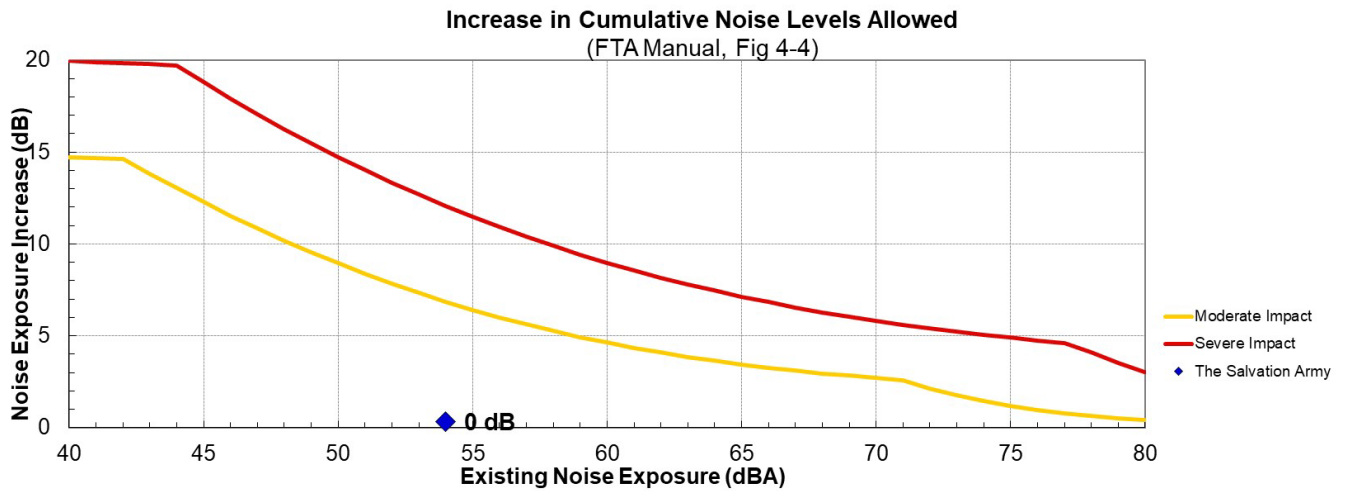
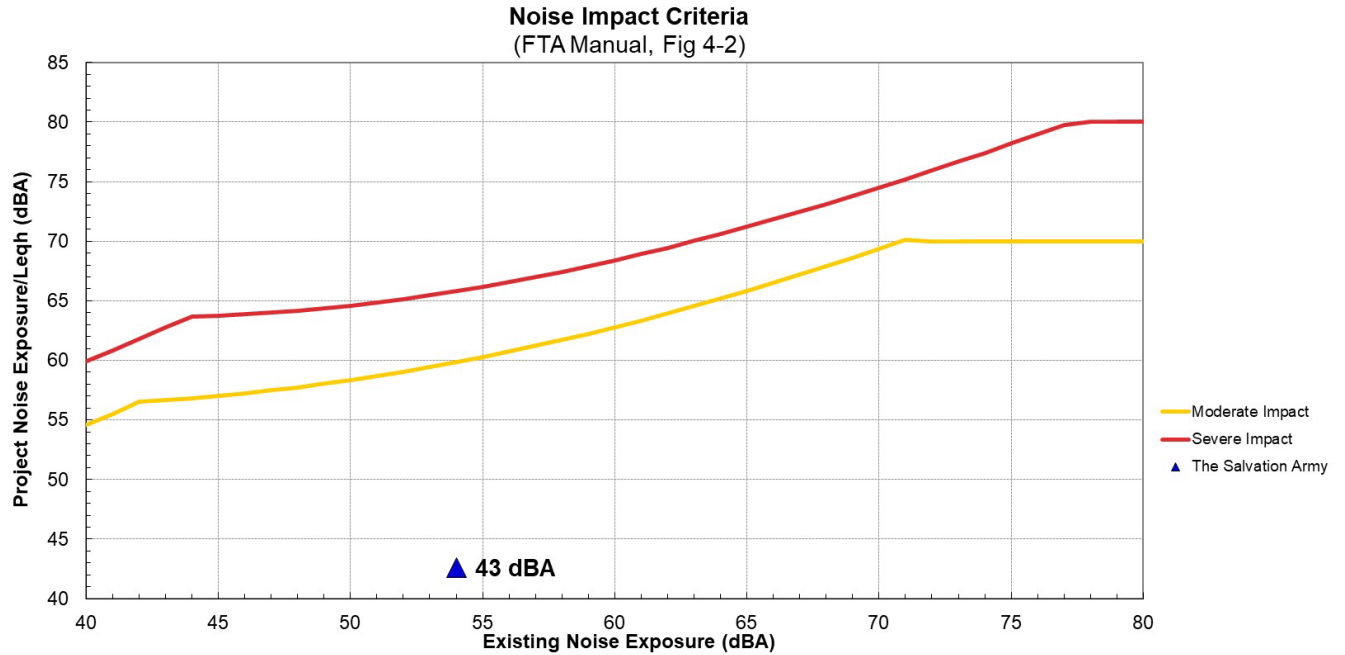
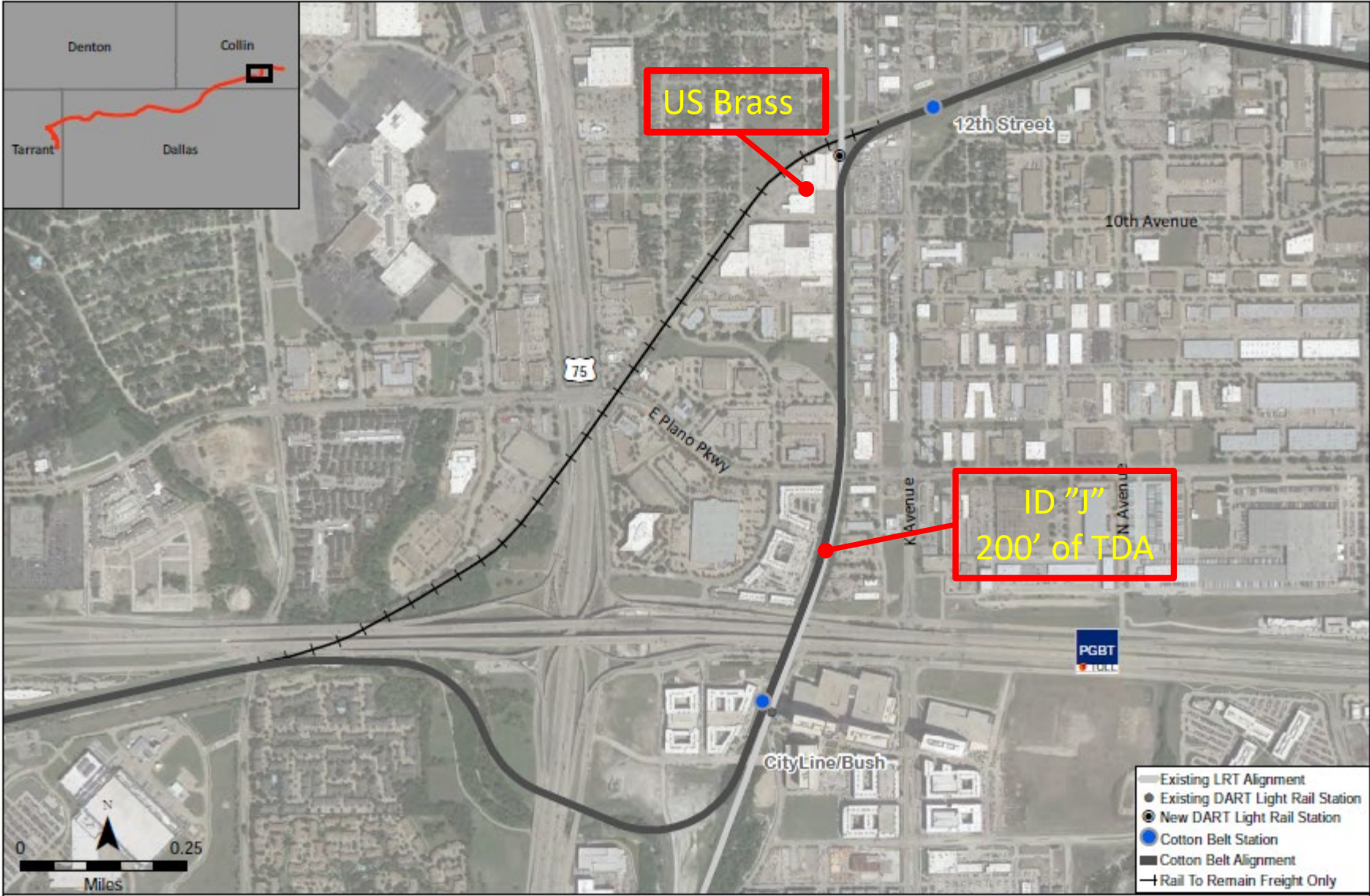


Figure 3. FTA Noise Impact Assessment at the Salvation Army Building

Dallas Area Rapid Transit
Cotton Belt (Silver Line)
Environmental Documentation
Phase E Memorandum to File
Plano Changes

Attachment 3
F2. US Brass Avoidance Alignment
Exhibits

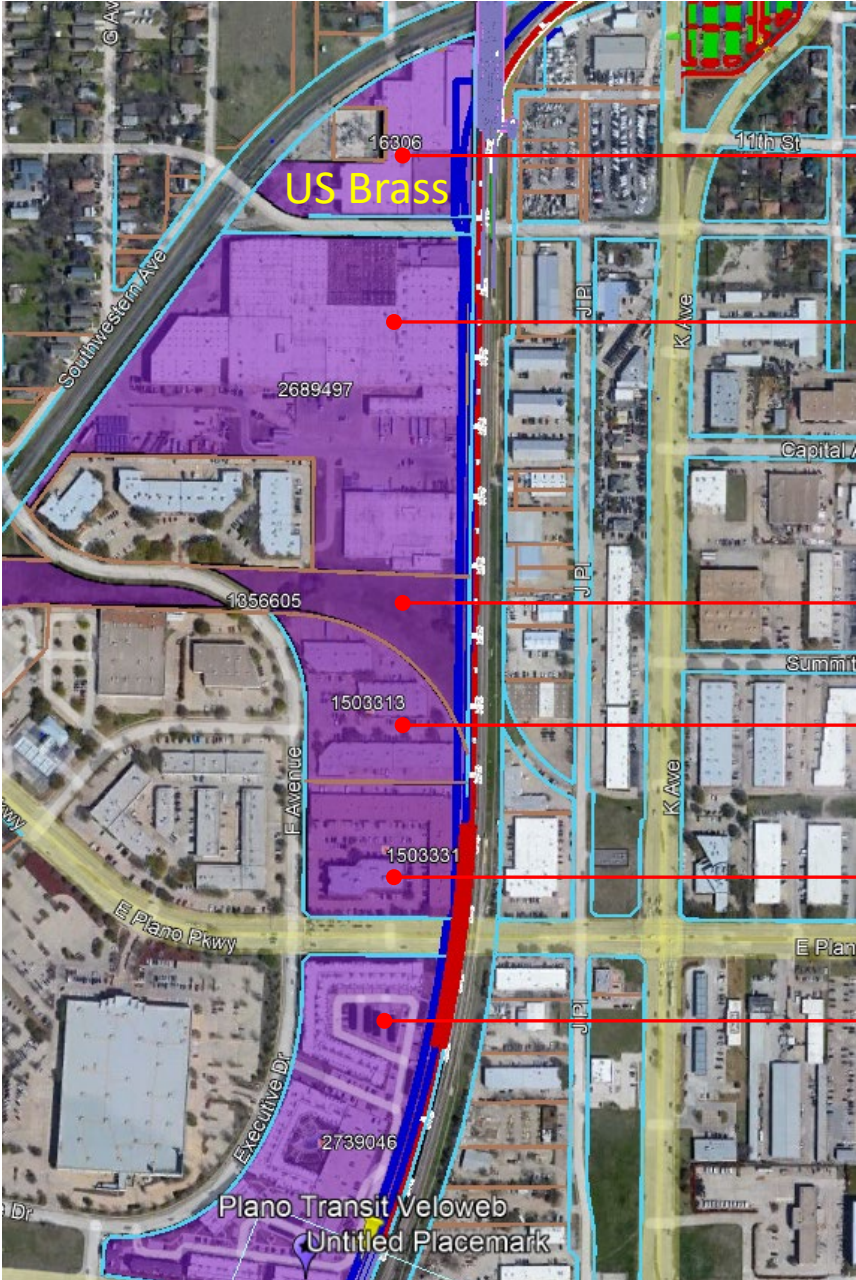


COTTON BELT

Cotton Belt Corridor (Silver Line): CityLine Alignment

Cotton Belt Corridor
Regional Rail Project
Final Environmental Impact Statement

CityLine Alignment North of PGBT FEIS Property Impacts



Parcel 16396 (US Brass)
FEIS: Partial acquisition; 0.18 of 4.65 acres; 0 displacements

Parcel 2689697
FEIS: Partial acquisition; 0.90 of 17.86 acres; 0 displacements

Parcel 1356605
FEIS: Partial acquisition; 0.43 of 4.85 acres; 0 displacements

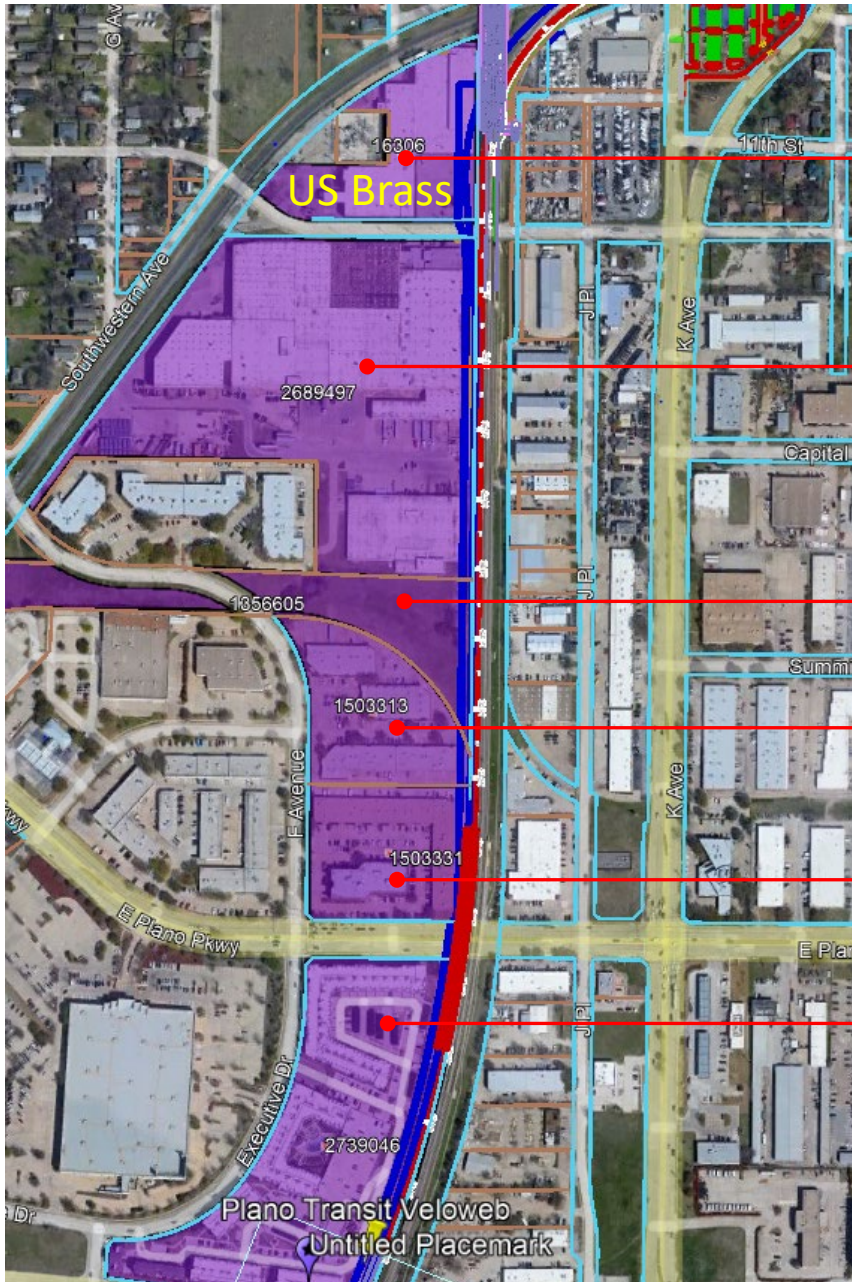
Parcel 103313
FEIS: Partial acquisition; 0.10 of 4.12 acres; 0 displacement

Parcel 1503331
FEIS: Partial acquisition; 0.30 of 4.14 acres; 1 displacement

Parcel 2739046
FEIS: Partial acquisition; 1.35 of 11.66 acres; 0 displacement

FEIS Total: 6 Parcels; 3.26 of 47.28 acres; 1 displacement

CityLine Alignment North of PGBT Final Property Impacts



Parcel 16396 (US Brass)

FEIS: Partial acquisition; 0.18 of 4.65 acres; 0 displacements
Final: 0 acquisition; 0 displacement

Parcel 2689697

FEIS: Partial acquisition; 0.90 of 17.86 acres; 0 displacements
Final: Utility Easement; 0.06 of 17.86 acres; 0 displacements

Parcel 1356605

FEIS: Partial acquisition; 0.43 of 4.85 acres; 0 displacements
Final: Partial acquisition; 0.32 of 4.85 acres; 0 displacements

Parcel 103313

FEIS: Partial acquisition; 0.10 of 4.12 acres; 0 displacement
Final: Partial acquisition; 0.09 of 4.12 acres; 0 displacement

Parcel 1503331

FEIS: Partial acquisition; 0.30 of 4.14 acres; 1 displacement
Final: Utility Easement; 0.09 of 4.14 acres; 0 displacement

Parcel 2739046

FEIS: Partial acquisition; 1.35 of 11.66 acres; 0 displacement
Final: Partial acquisition; 1.30 of 11.66 acres; 0 displacement

FEIS Total: 6 Parcels; 3.26 of 47.28 acres; 1 displacement

Final Total: 3 Parcels; 1.71 of 20.63 acres; 0 displacements
plus 0.15 acres of utility easement