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1.0 INTRODUCTION

The following is an analysis of the visual impacts of the proposed project elements associated with the Cotton Belt Corridor Regional Rail Project (Cotton Belt Project). It identifies changes in the existing visual resources previously addressed in the Visual and Aesthetic Resources Existing Conditions Technical Memorandum, dated October 31, 2011, and the effect of such changes on the experience of primary viewers. Visual impacts are summarized in Table 2-1 and are described in Section 3.0 of the memorandum. Potential mitigation options focusing on potentially significant and significant impacts are described in Section 4.0.

The proposed project extends from the Dallas/Fort Worth International Airport (DFW Airport) eastward to the Plano/Richardson area of Texas along an approximate 26-mile section of freight rail track located within the Cotton Belt Corridor. The corridor passes through or abuts the communities of Grapevine, Coppell, Dallas, Carrollton, Addison, Richardson and Plano. Proposed project elements include station areas with rail passenger platforms, bus and taxi transfer areas, passenger shelters, parking, associated site amenities, hard-surface pedestrian paths and landscaping, as well as the trains. In addition, modifications may be made to the existing track within the Cotton Belt Corridor: for example, track sections may be added and elevated, and walls added. The proposed regional rail project would operate in conjunction with continued freight rail service, except through the North Dallas area. On January 22, 2010, through DART’s efforts, the Surface Transportation Board approved the abandonment of freight, with an effective date of January 27, 2010, along the Cotton Belt Corridor from Knoll Trail in Dallas to Renner Junction in Richardson. This was done in anticipation of implementing passenger service in the corridor.
2.0 IMPACT ASSESSMENT METHODOLOGY

The assessment methodology is based upon the Federal Highway Administration’s (FHWA) Visual Impact Assessment for Highway Projects (Publication Number: FHWA-HI-88-054) and DART’s Environmental Impact Assessment and Mitigation Guidelines for Transit Projects, dated May 2012. For Cotton Belt Project the limits of the visual environment extend approximately one-quarter mile on either side of the existing freight rail track, throughout the length of the Cotton Belt Corridor. Information was collected using online aerial imagery and ground-level photographs taken during repeated visits to the corridor. A review of the notable characteristics and elements of both the natural and built landscape, an inventory of viewer groups and an evaluation of the corridor’s existing visual quality as it relates to the perceptual receptivity of those viewer groups, were included in the Visual and Aesthetic Resources Existing Conditions Technical Memorandum. This memorandum identifies and evaluates the degree to which the proposed rail redevelopment will visually impact the perceived quality of the existing environment.

The corridor, along with the proposed station areas, has been divided into the following 15 sections, shown on Figure 2-1:

- **Section 1-1**: DFW Airport to Coppell Road, which includes the DFW North Station.
- **Section 1-2A**: Coppell Road to Moore Road.
- **Section 1-2B (Cypress Waters Alternative)**: Coppell Road to Moore Road, which includes the North Lake Station.
- **Section 1-3**: Moore Road to the Coppell/Carrollton City Limits.
- **Section 2-1**: Coppell/Carrollton City Limits to Hutton Drive.
- **Section 2-2**: Hutton Drive to Erie Street, which includes the Downtown Carrollton Station.
- **Section 2-3**: Erie Street to Dallas North Tollway, which includes the Addison Transit Center Station.
- **Section 3-1**: Dallas North Tollway to White Rock Creek, which includes the Knoll Trail Station.
- **Section 3-2A (At-grade Profile Option)**: White Rock Creek to Coit Road, which includes the Preston Road Station and the Renner Village Station (two location options)
- **Section 3-2B (Trench Profile Option)**: White Rock Creek to Coit Road, which includes the Preston Road Station and the Renner Village Station (two location options).
- **Section 3-2C (Tunnel Profile Option)**: White Rock Creek to Coit Road, which includes the Preston Road Station and the Renner Village Station (two location options).
- **Section 3-3**: Coit Road to Alma Road, which includes the University of Texas at Dallas (UTD)/Synergy Station.
• **Section 3-4A (Red Line Interface North Alternative):** Alma Road to N Avenue, which includes the 12th Street Station (at-grade).

• **Section 3-4B (Red Line Interface South Alternative):** Alma Road to N Avenue, which includes the Bush Turnpike Station and the 12th Street Station (elevated).

• **Section 3-5:** N Avenue to Shiloh Road, which includes the Shiloh Road Station.

Primary viewers are described, along with a listing of the proposed project elements, in **Table 2-1.** Visual impact is defined as the degree to which a proposed project element, after development, affects the visual quality of the natural and built environment, as determined by the primary viewers. Alternately, as it is described by the FHWA, “The degree of change in visual resources and viewer response to those resources.” Visual impacts within each corridor section are summarized in the matrix. They are characterized as:

- **NA** – Not Applicable
- **Low** – No significant visual impact
- **Medium** – Moderately or potentially significant visual impact
- **High** – Significant visual impact

![Figure 2-1](image_url)

**Corridor Section Limits**
## Table 2-1
Visual Impact Analysis Matrix

<table>
<thead>
<tr>
<th>Section</th>
<th>Section Name</th>
<th>Visual Resources</th>
<th>Primary Viewers*</th>
<th>Station Area (At-grade)</th>
<th>Station Area (Elevated)</th>
<th>Track (At-grade)</th>
<th>Track (Elevated)</th>
<th>Track on new Alignment</th>
<th>Regional Rail Vehicle</th>
<th>Trench Wall</th>
<th>Parking (At-grade)</th>
<th>Parking (Structure)</th>
<th>Road Modifications</th>
<th>Overall Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1</td>
<td>DFW Airport to Coppell Rd.</td>
<td>Grazing Land/Open Spaces SH 121; IH 635 Industrial Chesapeake compressor station</td>
<td>A, E, H</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
</tr>
<tr>
<td>1-2A</td>
<td>Coppell Rd. to Moore Rd.</td>
<td>North Lake Power Lines</td>
<td>A, D, F</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
<td>High</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Medium</td>
</tr>
<tr>
<td>1-2B</td>
<td>Coppell Rd. to Moore Rd. (Cypress Waters)</td>
<td>North Lake Power Lines Radio towers</td>
<td>A, B, F, G</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>1-3</td>
<td>Moore Rd. to Coppell/Carrollton City Limits</td>
<td>Electrical Substation Power Lines Riverchase Golf Course McInnish Park Elm Fork</td>
<td>A, B, C, D, E, G</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
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<td>NA</td>
<td>Low</td>
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<tr>
<td>2-1</td>
<td>Coppell/Carrollton City Limits to Hutton Dr.</td>
<td>PGBT I-35E; frontage roads; future Belt Line Rd. DART Green Line</td>
<td>A, B, C, D, E, G</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
</tr>
<tr>
<td>2-2</td>
<td>Hutton Dr. to Erie St.</td>
<td>IH 35E; frontage roads; future Belt line Rd. DART Green Line Carrollton Heights District</td>
<td>A, C, E, F, G, H (DART Green Line)</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>High</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>Low to Medium</td>
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<tr>
<td>Section</td>
<td>Section Name</td>
<td>Visual Resources</td>
<td>Primary Viewers*</td>
<td>Station Area (At-grade)</td>
<td>Station Area (Elevated)</td>
<td>Track (At-grade)</td>
<td>Track (Elevated)</td>
<td>Track on new Alignment</td>
<td>Regional Rail Vehicle</td>
<td>Trench Wall</td>
<td>Parking (At-grade)</td>
<td>Parking (Structure)</td>
<td>Road Modifications</td>
<td>Overall Rating</td>
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</tr>
<tr>
<td>2-3</td>
<td>Erie St. to Dallas North Tollway</td>
<td>Carrollton Heights District Honors Golf Club Addison Airport Addison Transit Center Addison Circle Addi...</td>
<td>A, B, C, D, E, F, G</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>High</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>Medium</td>
</tr>
<tr>
<td>3-1</td>
<td>Dallas North Tollway to White Rock Creek</td>
<td>Electrical Substation Power Lines White Rock Creek Prestonwood Country Club</td>
<td>A, C, E, G</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
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<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
</tr>
<tr>
<td>3-2A</td>
<td>White Rock Creek to Coit Rd. (At-grade)</td>
<td>White Rock Creek Prestonwood Country Club Keller Springs Park Preston Road Fairhill School McKamy Branch Woodlands Power Lines</td>
<td>A, B, C, D, E, F, G, H (Institutional)</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>Low to Medium</td>
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<tr>
<td>Section</td>
<td>Section Name</td>
<td>Visual Resources</td>
<td>Primary Viewers*</td>
<td>Station Area (At-grade)</td>
<td>Station Area (Elevated)</td>
<td>Track (At-grade)</td>
<td>Track (Elevated)</td>
<td>Track on new Alignment</td>
<td>Regional Rail Vehicle</td>
<td>Trench Wall</td>
<td>Parking (At-grade)</td>
<td>Parking (Structure)</td>
<td>Road Modifications</td>
<td>Overall Rating</td>
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<td>--------------</td>
</tr>
<tr>
<td>3-3</td>
<td>Coit Rd. to Alma Rd.</td>
<td>Agricultural Lands/ Open Spaces Highland Springs Bombardier Aerospace West Renner Road Crossing Synergy Park Blvd. Crossing</td>
<td>A, C, E, F, G, H (Institutional)</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
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<td>Low</td>
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<td>Section</td>
<td>Section Name</td>
<td>Visual Resources</td>
<td>Primary Viewers*</td>
<td>Station Area (At-grade)</td>
<td>Station Area (Elevated)</td>
<td>Track (At-grade)</td>
<td>Track (Elevated)</td>
<td>Track on new Alignment</td>
<td>Regional Rail Vehicle</td>
<td>Trench Wall</td>
<td>Parking (At-grade)</td>
<td>Parking (Structure)</td>
<td>Road Modifications</td>
<td>Overall Rating</td>
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</tr>
<tr>
<td>3-5</td>
<td>N. Ave. to Shiloh Rd.</td>
<td>Electrical Substation Power Lines</td>
<td>A, C, E, F, H (Institutional)</td>
<td>Low</td>
<td>NA</td>
<td>Low</td>
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<td>NA</td>
<td>NA</td>
<td>Low</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Low</td>
</tr>
</tbody>
</table>

*Primary Viewers:*
- A = Motorist
- B = Single-Family Resident
- C = Multi-Family Resident
- D = Recreational Users
- E = Commercial/Office Tenant
- F = Industrial Tenants
- G = Pedestrians
- H = Others
3.0 IMPACT ASSESSMENT

The visual impacts associated with each section are described below. NOTE: the Visual and Aesthetic Resources Existing Conditions Technical Memorandum contains definitions for visual quality, visual sensitivity as well as sensitive receptors/assets assessments.

This impact assessment does not address the visual impacts of noise walls that could be necessary in specific areas along the corridor to mitigate significant adverse noise impacts. Generally, in areas where noise walls are constructed, there could be both positive and negative visual impacts for the primary viewers. Positive visual impacts of a noise wall could include providing a barrier to prevent rail passengers from viewing private spaces (inside homes, into backyards) and providing a visual buffer to diminish views of the tracks and rail vehicles by the primary viewers. An adverse visual impact of a noise wall could be the obstruction of existing views for the primary viewers.

3.1 Section 1-1: DFW Airport to Coppell Road

The area is characterized as flat, agricultural grazing land with scattered low vegetation near DFW Airport to industrial developments near Coppell Road and the Chesapeake Compressor Station between State Highway (SH) 121 and Interstate Highway (IH) 635. There is little visual diversity, and there are no visual resources that are particularly important to viewers: the dominant visual elements are SH 114, SH 121, and IH 635. Visual quality and visual sensitivity are low. Although viewed primarily from the highways, with elevated vantage points and lengthy, middle-ground exposure, the proposed at-grade station and track should have low visual impact, and should support expectations for future development in the area.

3.2 Section 1-2A: Coppell Road to Moore Road

The built environment along the track is mostly light industrial, with single-family residences east and west of South Denton Tap Road primarily to the north. The existing track crosses South Denton Tap Road at grade. There is a highly visible, high-voltage power line paralleling the track to the south. East and west of South Denton Tap Road to Moore Road, mature trees help to buffer the tracks from the residences to the north and the industrial buildings to the south. Visual quality and visual sensitivity are low. The proposed (by others) future Cotton Belt Trail will be located along the north of the track, which would afford recreational users close-up views, but views of the at grade portion of the Cotton Belt Project from elsewhere would be intermittent. The Cotton Belt Project facilities would include an elevated guideway over South Denton Tap Road (while the existing freight track will remain at grade through this intersection), which could be visible to some residents of the Chateaus of Coppell neighborhood. This neighborhood abuts the existing Cotton Belt Corridor and Denton Tap Road, so the southeastern edge of the neighborhood would be adjacent to the aerial rail structure over Denton Tap Road. Due to the proximity of homes to the elevated rail crossing, the Base Alternative of the proposed project would result in an overall medium visual impact.

3.3 Section 1-2B (Cypress Waters Alternative): Coppell Road to Moore Road

The proposed Cypress Waters Alternative rail alignment veers southward at Coppell Road to cross over South Denton Tap Road before returning to grade west of the proposed North Lake Station. It returns to the Cotton Belt Corridor at Moore Road (while the freight track will remain at grade and operational between Coppell Road and Moore Road). The North Lake Station is located along the northwest shore of
North Lake at the Belt Line Trade Center. The landscape is dominated by the lake, power poles, three 500-foot radio towers, an electrical substation near the south terminus of Moore Road, and a somewhat scarred landscape after the October 2012 implosion of a Luminant Energy power plant (refer to Figures 3-1 and 3-2). As such, the visual quality and visual sensitivity are low, although there are plans for a multi-use, residential and retail development along the lakeshore, which will significantly alter visual quality and visual sensitivity. With construction of the station, vehicular and pedestrian traffic along East Belt Line Road will increase, and viewer exposure and awareness will increase. Also, the visual impact of the elevated track over South Denton Tap Road would be high. The station and track are intended to be an integral part of the proposed redevelopment, and the power poles and electrical substation are likely to remain as dominant elements in the landscape, therefore, the overall visual impact would be low.

3.4 Section 1-3: Moore Road to the Coppell/Carrollton City Limits

Multi-family residences parallel the track to the north, east of Mockingbird Lane, while single family residences parallel the track to the north, west of Mockingbird Lane. South of the track are large wooded areas to South MacArthur Boulevard. Mixed-use buildings and multi-family residences line the south side of the track, east of South MacArthur Boulevard. East Belt Line Road runs along the south side of the track, and South MacArthur Boulevard crosses the track at grade. Visual quality and visual sensitivity are low. View sheds from the road are lengthy and close; views from the neighboring residential development are generally unimpeded. Furthermore the track is visible as a mid-ground feature from portions of the Riverchase Golf Course. Rail operations associated with Cotton Belt Project should not differ greatly from existing track use, and because there is no proposed station, little change to the perception of the visual landscape, thus low visual impact.

3.5 Section 2-1: Coppell/Carrollton City Limits to Hutton Drive

This short length of track features large-scale industrial developments to the south and smaller industrial buildings to the north, interspersed with relatively large, well-defined open spaces east and west of the PGBT. Belt Line Road runs along the track to the south. High voltage power lines pass over the track east of Hutton Drive, and the track crosses Luna Road at grade immediately east of the turnpike. The track bed, which is slightly higher than its surroundings, may easily be seen from the elevated highways and Belt Line Road, so it may be viewed by large numbers of motorists (as are the
power poles), if only for a short time. Visual quality and visual sensitivity are low. The landscape lacks diversity, and there are no attractive, built or natural features. Rail operations associated with the Cotton Belt Project should not differ greatly from existing track use, and there is no proposed station. Therefore, visual impact would be low.

### 3.6 Section 2-2: Hutton Drive to Erie Street

The built environment is varied and dominant as it changes from large industrial uses to the smaller-scale urban character of downtown Carrollton. The proposed Cotton Belt Rail station would be located east of IH 35E and immediately north of the existing Downtown Carrollton DART Green Line LRT Station with its elevated guideway and platforms (refer to Figure 3-3). The alignment passes under IH 35E and the DART guideway, crossing the IH 35E frontage roads and North Broadway Street. TxDOT is planning to rebuild the highway, frontage roads, and Belt Line Road, however, so the visual landscape of this area would change considerably. The current plans call for elevating Belt Line Road and the frontage roads over the ground-level tracks and raising the rebuilt IH 35E above these roadways and above the existing height of the highway. Downtown Carrollton, with its mostly one and two-story buildings, lies to the south. As the grade rises gradually eastward to Erie Street, the station, track and elevated track over the freight tracks may easily be seen from a number of vantage points and a variety of viewers: the elevated highway, DART guideway and station platform, along the future Cotton Belt Trail and Belt Line Road, and from the residential Carrollton Heights Historic District. Visual quality is moderate due to the juxtaposition of a historic residential district within an urban environment. Visual sensitivity is low due to the fact that introducing another rail station into an already visually diverse landscape, which includes large-scale transit elements, should not significantly change or impact previous visual perceptions and experiences. Therefore, visual impact would be low to medium.

![Figure 3-3](image)

**Figure 3-3**

**Green Line LRT Aerial Station Platform**

_Downtown Carrollton DART LRT station, looking northwest_

### 3.7 Section 2-3: Erie Street to Dallas North Tollway

East of Erie Street to North Josey Lane, the track is bounded mostly by single-family residences, buffered intermittently with vegetation. From North Josey Lane to Addison Road, for a distance of approximately 3.5 miles, there is an almost uninterrupted line of industrial developments south of the track. North of the track are large open spaces, foremost are the Honors Golf Club and Polk Middle School athletic fields, and single-family residences to Marsh Lane, then multi-family residences, smaller industrial developments and the Addison Airport from Surveyor Boulevard eastward to Addison Road. Here, the
landscape changes abruptly to a densely populated, multi-story, mixed-use, urban village, extending to the Dallas North Tollway. Along this entire length of the rail corridor, land uses are well-defined spatially through unified building massing and visually definite boundaries. There are large, distinct, and diverse built and natural features, including a golf course, the Arapaho Bridge over Midway Road, the Arapaho Pedestrian Trail with its earthen domes, the Addison Airport, Addison Circle Park, Addison Transit Center and Addison Circle residential complex (refer to Figures 3-4, 3-5, and 3-6). Vantage points are relatively few and viewer exposure is limited, with the exception of a stretch along Arapaho Road between the Arapaho Bridge and Addison Road and the area surrounding the existing transit center (and proposed Addison Station). Here, the recommended grade separation of the rail over Midway Road, relatively heavy pedestrian and vehicular traffic, nearby park/open space and dense, multi-storied buildings offer vantage points from which to observe rail operations. Addison has significant development plans for the parcels immediately north and south of the Cotton Belt Corridor surrounding the proposed station location which could change the visual character and views in this area. The Arapaho Bridge would be of particular concern in this section, as it is a signature icon of the Town of Addison with an award-winning design. The proposed Cotton Belt Project would include constructing an elevated guideway over Midway Road, alongside the existing Arapaho Bridge. The addition of the elevated guideway would obstruct the view of the signature bridge. Four major collectors cross the track at grade: North Josey Lane, Kelly Boulevard, Marsh Lane, and Addison Road (a secondary entrance to the Honors Golf Club passes under the track from Country Club Drive), and the Dallas North Tollway passes over it. Visual quality is moderate to high with the number of visually distinct landscape features. Visual sensitivity is also moderate to high due to the importance of the Arapaho Bridge; however, along the rest of the section, the sensitivity is lower due to relatively few, constrained vantage points, the introduction of similar rail operations along the existing track and at the Addison Transit Center and a myriad of viewer distractions. Due to the moderate to high visual quality and the moderate to high visual sensitivity, the visual impact in this section would be high.

Figure 3-4
Arapaho Bridge over Midway Road in Addison

From Cotton Belt tracks, facing southeast

Figure 3-5

Figure 3-6
3.8 Section 3-1: Dallas North Tollway to White Rock Creek

The landscape along this three-quarter mile long section transitions from multi-story office and commercial buildings near the Dallas North Tollway to large, single-story, retail developments and multi-family residential complexes west of White Rock Creek. There is one at-grade crossing at Knoll Trail Drive, adjacent to the proposed Knoll Trail Station (refer to Figure 3-7). An electrical substation and high-voltage power lines, as well as unadorned commercial building facades, are located near the proposed station. Eastward, the Cotton Belt Corridor is fringed with vegetation. Visual quality is low and visual sensitivity is low. Although views are limited into the station, exposure to the multi-family residences is high; however, rail operations in an existing rail corridor would diminish viewer awareness, so the overall visual impact is low.
3.9 Section 3-2A (At-Grade Profile Option): White Rock Creek to Coit Road

Three design options are proposed for Section 3-2: At-grade Profile Option (Section 3-2A), Trench Profile Option (Section 3-2B), and Tunnel Profile Option (Section 3-2C). East of White Rock Creek are a golf course, heavily wooded open space and single-family houses to Preston Road. The proposed Preston Road Station is located between the Fairhill School and Keller Springs Road, immediately east of Preston Road (refer to Figures 3-8 and 3-9). Eastward to McCallum Boulevard, the corridor features single-family housing interspersed with wooded open spaces and drainage ways, notably the McKamy Branch East Fork, which meanders to either side of the track between Preston Road and Hillcrest Road. From McCallum Boulevard to Coit Road, the built environment changes to moderate-to-large, multi-family residential developments and smaller, single-story commercial buildings. High-voltage power poles run between Preston Road and Brentfield Road where they turn east and west. The Preston Ridge Trail crosses the track at grade at Meandering Way. Major at-grade street crossings occur at Davenport Road, Campbell Road, Hillcrest Road and McCallum Boulevard. Coit Road would be grade separated and elevated over the tracks. Both the proposed Preston Road Station and the Renner Village Station (Dickerson Street and Coit Road options) are to be located at grade. The Renner Village Station option at Coit Road will be highly visible from Coit Road and the surrounding multi-family developments (refer to Figure 3-10). Adventure Landing Amusement Park may be displaced as part of any Coit Road option station redevelopment.

Within this section, each land-use is defined, and the whole of the built and natural environment is attractive and well-composed. Both visual quality and visual sensitivity are moderate. Although the corridor is fringed with vegetation and the at-grade track bed is slightly depressed through flat terrain, there are noteworthy views from Prestonwood Country Club, Keller Springs Park, Fairhill School, the Preston Ridge Trail and the single-family and multi-family residences, where frequency and duration of exposure would be great. Freight has been abandoned in this section and the existing freight tracks would be removed. The addition of two stations would have a modest effect on the existing visual resource; however, rail operations associated with the Cotton Belt Project would not significantly change the existing physical environment, so the overall visual impact would be low to medium.
3.10 Section 3-2B (Trench Alternative): White Rock Creek to Coit Road

The second design option is known as the Trench Profile Option, for a general description of Section 3-2B, refer to Section 3-2A. The Trench Profile Option would be located approximately one-quarter mile east of the Preston Road Station to the proposed Renner Station at Dickerson Street. The walled trench would gradually slope downward to a depth of approximately 10 to 15 feet. Both the proposed Preston Road Station and the Renner Village Station (Dickerson Street and Coit Road options) are to be located at-grade. Although the track and trains would be less visible, the overall resultant change in visual impact would be greater due to the change in existing conditions and the resultant visibility and spatial impact of the new construction, which would include elevated roadway crossings at Davenport Road (at both rail crossings), Campbell Road, Hillcrest Road, McCallum Boulevard and Meandering Way. Furthermore, Temporary visual impacts would occur during the construction of the Trench Profile Option due to large areas of excavated dirty and large earth moving equipment associated with construction. In areas where walls and large mounds of earth are constructed to create the Trench, impacts would be permanent to existing views for the primary viewers in these areas. Visual impact related to this design option would be high.

3.11 Section 3-2C (Tunnel Alternative): White Rock Creek to Coit Road

The third and final design option is known as the Tunnel Profile Option, for a general description of Section 3-2C, refer to Section 3-2A. The tunnel is proposed to cover a portion of the Cotton Belt Corridor within this section. Its portals would be located approximately one-half mile west of the Preston Road Station to west of the proposed at-grade Renner Station at Dickerson Street. The Tunnel Profile Option would be approximately 1.5 miles long, from west of Davenport Road to Meandering Way and the Preston Ridge Trail. The proposed Preston Road Station would be located west of the Tunnel Profile Option at the existing railroad grade. Since the track bed and trains would be less visible, the overall change in visual impact would be low. However, temporary visual impact related to tunnel construction would be high.

3.12 Section 3-3: Coit Road to Alma Road

Currently, the corridor east of Coit Road to Alma Road and the PGBT features several large, multi-storied office and commercial developments north of the track and equally large agricultural tracts and sparsely vegetated open spaces to the south (refer to Figure 3-11). East of West Renner Road, the track runs
between multi-family residences and several large industrial developments. This area is flat with no significant natural landmarks and highly visible in the mid-ground and background distances from the surrounding developments, including PGBT and the University of Texas at Dallas campus. The slightly elevated track is also visible; especially as it passes over Synergy Park Boulevard and West Renner Road (refer to Figure 3-12). The track is crossed at grade by two major collector roadways: Waterview Parkway and Alma Road. Coit Road would be elevated over the proposed Cotton Belt Regional Rail Project, which would create a new view. The PGBT is less than one-half mile north of where the Coit Road overpass would begin, however, so the predominant view in the area would remain the PGBT, as it is higher than the Coit Road overpass would be. Also, there is additional rail activity in the area: for example, the Kansas City Southern Railway track runs roughly north and south and passes over the Cotton Belt Rail track about one-quarter mile west of Synergy Park Boulevard. Visual quality and visual sensitivity are low to moderate. The proposed UTD/Synergy Park Station would be a featured element in support of the school’s extensive UNT Dallas Campus Master Plan. As such, related viewer activities and awareness of the Cotton Belt Rail facilities will be significant. Conversely, as part of a larger redevelopment initiative, and experienced within the confines of the overall existing environment, the visual impact will be low.

3.13 Section 3-4A (Red Line Interface North Alternative): Alma Road to N Avenue

East of Alma Road, the track turns northward through higher density, mixed-use developments, including office parks, multi-family residences and light industry. The proposed rail alignment follows the existing Cotton Belt Corridor and would pass under the elevated PGBT and over US 75 and Plano Parkway. The rail alignment would pass under the elevated DART Red Line LRT guideway. The proposed, at-grade 12th Street Station would interface with the proposed future DART Red Line Station (refer to Figure 3-13). Visual quality and visual sensitivity are low. Although the station and incidental modifications to the K Avenue, Municipal Avenue and N Avenue intersections would, by degree, alter the existing landscape, the dominant areal features would still be the elevated roadways, Red Line LRT guideway and the power poles (refer to Figures 3-14 and 3-15). Viewer exposure and awareness from the roadways would be limited. Composed primarily of motorists, the viewers would also experience the Cotton Belt Project facilities as part of the much larger transportation network. Therefore, the visual impact is low.
3.14 Section 3-4B (Red Line Interface South Alternative): Alma Road to N Avenue

East of Alma Road, the track turns southward on new right-of-way to pass over the Spring Creek drainage way and the elevated US 75 before descending and turning northward to the proposed at-grade Bush Turnpike Station. A new, aerial structure through this creek and floodplain area would result in the loss of vegetation and create a new view for users of Spring Creek Trail and other primary viewers. Although a new, elevated transportation facility would be added to this area, the predominant view would remain the PGBT and US 75. The proposed Red Line Interface South Alternative is a component of the City of Richardson’s overall development plan for the area, and the City is in support of this alternative. This station is located adjacent to the existing at-grade DART Red Line LRT station. From here, the track passes under PGBT and over Plano Parkway. It then passes under the DART Red Line LRT guideway, before ascending to the proposed elevated 12th Street Station. The City of Plano is in support of the proposed elevated 12th Street Station. It then descends to cross N Avenue at grade. Meanwhile, the existing freight track would be depressed between 10th Street and N Avenue. K Avenue and Municipal Avenue also would be reconstructed so as to cross the freight track at grade. Visual quality and visual sensitivity are low to moderate. Like the Red Line Interface North Alternative, viewers would experience these changes within the context of the extensive and visually dominant network of freeways and high-voltage power poles. Nevertheless, the Red Line Interface South Alternative, with its elevated, undulating track and elevated 12th Street Station, along with the depressed freight track and roadways, would significantly alter the existing landscape in this section, which would result in a high visual impact.

![Proposed 12th Street Station Location](image)
3.15 Section 3-5: N Avenue to Shiloh Road

Between N Avenue and Shiloh Road, the track passes between mostly industrial developments and a couple of multi-family residential complexes. The proposed Shiloh Station would be located immediately west of Shiloh, and is the terminal station of the Cotton Belt Project. Jupiter Road and Shiloh Road are the two major collector roadways crossing the track at-grade. N Avenue, which is a designated bicycle route, also crosses at-grade. High-voltage power poles run north and south along Shiloh Road (refer to Figure 3-16). Trackside vegetation is sparse and the natural terrain is flat and featureless, but viewer exposure is limited by the many single-story industrial buildings and few vehicular track crossings. Visual quality and visual sensitivity are low. Given the existing environment and limited viewer exposure, except at the station that would generate some pedestrian activity, the visual impact is also low.
4.0 POTENTIAL MITIGATION OPTIONS

As described in FHWA’s Visual Impact Assessment for Highway Projects, mitigation “encompasses the enhancement of positive effects as well as the reduction or elimination of negative effects”. Mitigation measures are intended to “alleviate the effects of resource utilization, upgrade visual resource quality to some standard, and offset adverse visual impacts.” According to DART’s Environmental Impact Assessment and Mitigation Guidelines for Transit Projects, “The appropriate approach to mitigation of visual impacts is heavily dependent on the characteristics of each area through which the transit project will pass. Potential solutions are dependent upon the set of problems given the designer.” Furthermore, mitigation measures are intended to satisfy the following overall objectives as they affect visual quality:

- The design, location, construction, materials and finishes of each Cotton Belt Project element, including station amenities, trackwork, landscaping and landforms, shall complement the character of their surroundings, as well as the visual character of the region.

- Proposed elements shall be designed to take advantage of attractive, existing site features and be compatible with surrounding land uses and developmental patterns.

- Proposed elements shall be designed to foster the enhancement of surrounding land uses and joint, transit-oriented development.

- Proposed elements shall be readily identifiable, easy to understand and use.

- Proposed elements shall comply with state and local jurisdictional requirements, laws and codes, as well as national standards and regulations. They include the Americans with Disabilities Act (ADA) and the latest editions of the Building Officials and Code Administrators International (BOCA) Code, the National Fire Protection Association (NFPA) 130 Standard for Fixed Guideway Transit Systems and the Uniform Building Code (UBC). Where no provisions are applicable, the best engineering and architectural practices shall be followed.

- Proposed elements shall help to establish a cohesive visual identity for all the stations throughout the system.

- Proposed elements shall help to reduce the impact of unattractive surroundings and visual resources, and to provide privacy for adjacent land uses.

- Proposed elements shall enhance attractive views.

- Generally accepted visual resources, such as existing landforms and vegetation, shall be preserved whenever possible.

Potential mitigation options may take the form of screening, enhancing and preserving a visual resource. Conversely, it may require screening, removing and re-locating a proposed element or vantage point. Also, it may require limiting or extending viewer exposure to the visual resource. The following are potential mitigation options specific to the visual resources described previously for each section of the alignment, if a potentially significant or significant visual impact has been identified:
Section 1-1: No significant visual impact identified and no mitigation recommended, except to preserve and augment the existing Cottonwood Branch stream bank.

Section 1-2A: To minimize the impact to adjacent residential viewers, the elevated rail guideway over Denton Tap Road would be reduced in height to the extent practicable. Efforts should be made to retain existing vegetation along the edge of the Cotton Belt Corridor to provide a visual buffer between the neighborhood and the rail alignment. Selection of the Cypress Waters Alternative would eliminate the potential for visual impact to the Chateaus of Coppell neighborhood.

Section 1-2B (Cypress Waters Alternative): No significant visual impact identified and no mitigation recommended at this time. As development occurs, the potential visual impacts of the proposed project may require re-evaluation.

Section 1-3: Screen with vegetation the existing track from views from the Riverchase Golf Course and the residential developments, in keeping with the character and density of the existing wooded areas; likewise, buffer with vegetation East Belt Line Road.

Section 2-1: No significant visual impact identified and no mitigation recommended.

Section 2-2: Design the architectural, landscape architectural and spatial character of the Downtown Carrollton Station to reflect those of the existing transit facilities, the nearby historic neighborhood and the system-wide character of the corridor; screen with vegetation the existing track from views from the historic residential district to the east; buffer with vegetation the Hutton Branch Trail; develop nearby under-utilized and vacant parcels to complement the transit-oriented development; and preserve and augment the existing Hutton Branch Creek stream bank.

Section 2-3: Use vegetation to screen the existing track from the Honors Golf Club, Polk Middle School athletic fields and the residential developments, in keeping with the character and density of the existing wooded areas; likewise, buffer with vegetation Arapaho Road. To minimize the adverse visual impact of the elevated guideway on the Arapaho Bridge, the aerial structure could be designed to complement the Arapaho Bridge and/or the height of the aerial structure could be minimized to the extent practicable. Design the architectural, landscape architectural and spatial character of the Addison Station to reflect those of the existing transit facilities, Addison Circle and the system-wide character of the corridor; and architecturally augment the major roadway crossings in such a way as to support a unified visual character for the entire transit corridor.

Section 3-1: Screen with vegetation the existing track from views from the multi-family residential developments, in keeping with the character and density of the existing wooded areas; screen with vegetation the existing electrical substation from the proposed Knoll Trail Station.

Section 3-2A (At-grade Alternative): Screen with vegetation the existing track from views from the Prestonwood Country Club and the residential developments, in keeping with the character and density of the existing wooded areas, notably Kelly Springs Park and the McKamy Branch East Fork; screen with vegetation the proposed Preston Road Station from the Fairhill School and grounds; architecturally augment the major roadway crossings and Preston Ridge Trail in such a way as to support a unified visual character for the entire transit corridor; and preserve and augment the existing White Rock Creek...
and McKamy Branch East Fork stream banks. DART’s removal of the freight tracks in this freight-abandoned section would also provide visual mitigation in this section of the proposed project.

**Section 3-2B (Trench Profile Option):** Refer to Section 3-2A; enhance the architectural character of the six proposed elevated roadway crossings; and preserve existing vegetation as much as possible along the track during trench construction. Selection of either the At-Grade Profile Option or the Tunnel Profile Option would eliminate the visual impact of the six elevated roadway crossings.

**Section 3-2C (Tunnel Profile Option):** Refer to Section 3-2A; In addition, mitigation for the Tunnel Profile Option would include preservation of existing vegetation as much as possible along the track during tunnel construction and re-vegetation of disturbed areas after construction is complete.

**Section 3-3:** No significant visual impact identified and no mitigation recommended, except to preserve and augment the existing Prairie Creek stream bank.

**Section 3-4A (Red Line Interface North Alternative):** Design the architectural, landscape architectural and spatial character of the 12th Street Station to complement those of the adjacent existing transit facilities and the system-wide character of the corridor; and preserve and augment the existing Spring Creek stream bank.

**Section 3-4B (Red Line Interface South Alternative):** The visual impacts of the new-location aerial guideway through Spring Creek and its associated floodplain could be mitigated by minimizing the height of the elevated structure, minimizing the number of piers placed through the vegetated area, and designing the structure to complement the natural environment. Additional mitigation for users of the Spring Creek Trail could include tall vegetation along the trail to screen the new aerial structure from view. To mitigate visual impacts of the elevated 12th Street Station, design the architectural, landscape architectural, and spatial character of the 12th Street Station to complement those of the adjacent existing transit facilities and the system-wide character of the corridor. As new development occurs in this area, potential visual impacts and mitigation measures could require re-evaluation.

**Section 3-5:** No significant visual impact identified and no mitigation recommended, except to architecturally augment the major roadway crossings in such a way as to support a unified visual character for the entire transit corridor.
Alliance Transportation Group
Arredondo, Zepeda & Brunz
Bowman Engineering
Connetics Transportation Group
Cox|McLain Environmental Consulting
CP&Y
Criado & Associates
Dunbar Transportation Consulting
HMMH
KAI Texas
K Strategies Group
Legacy Resource Group
Mas-Tek Engineering & Associates
Nathan D. Maier Consulting Engineers
Pacheco Koch Consulting Engineers
Parsons
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