



## Scope of Services & Deliverables

Updated July 12, 2022

On July 18, 2017, City Council authorized a Request for Proposal (RFP) for the Pennsylvania Avenue Grade Separation project. The Scope of Services included in the RFP include the following three phases:

Phase 1 – Geometric Approval / Project Map

Phase 2 – Preliminary Engineering Services (35% Submittal)

Phase 3 – Final Design Services (65%, 100%, and Final Submittal)

Phase 4 – Construction Bidding / Construction Engineering Support – Optioned out after the contract award.

On June 19, 2018, City Council awarded a consultant contract to IDC Consulting Engineers, Inc. (IDC) to provide engineering design services for the Phase 1 and Phase 2 of the Pennsylvania Avenue Grade Separation project.

By May of 2019, IDC completed much of the Phase 1 and Phase 2 components include 35% submittals and draft UP rail line shoofly design. Below are list of the remaining scope of services to complete bid ready design.

### PHASE 1 – Engineering Concept Approval (Geometric Approval/ Project Maps)

1. **Project Management:** Perform project management to ensure project will be delivered as planned. Activities include working closely with the City and stakeholders to develop baseline project scope, schedule and cost. Identify project risks and manage all risks to ensure project stays on track and within the budget. – 100% completed.
2. **Data Gathering:** Gather existing relevant engineering documents, including I-10 Pennsylvania Interchange as-built plans, geotechnical information, roadway improvement plans, and recent completed project information that are part of public records to facilitate streamline design. – 100% completed
3. **Develop High Level Project Concept:** Working with the environmental team and right of way team, based on the initial data gathering, the IDC Team will provide a high level project concept to present to the City. The concept will likely be similar to the concept presented in this proposal with updated revisions based on the City's feedback. – 100% completed
4. **Field Review and Project Scope Development:** Upon the forming of the PDT, with the updated project concept, we will meet with Caltrans and UPRR in the field to discuss project impacts to the I-10 and UPRR tracks as well as gather information about their future plans for the affected facilities. – 100% completed





5. **UPRR Coordination and Shoofly Design:** Planning level coordination effort is critical to obtain UPRR's buy-in regarding proposed bridge type, preliminary shoofly track design proposal. – 50% completed
6. **Survey and Base Map:** Perform field surveys and develop base map for design use. Work includes horizontal and vertical control, photogrammetry mapping and DTM. – 100% completed
7. **Preliminary Drainage Report:** Lowering Pennsylvania Avenue and widening of the street will change the existing street drainage pattern. Preliminary hydrologic and hydraulic analysis will be prepared for the proposed drainage system. – 100% completed
8. **Preliminary Geotechnical Report and Foundation Report:** Preliminary Geotechnical Report will be prepared to document on-site subsurface geo condition. Roadway pavement section as well as foundation recommendations for bridges and retaining walls will be included in the Foundation Report. – 100%
9. **Advance Planning Study (APS):** An Advance Planning Study for the grade separation structure will be provided along with any special walls that might be needed for the project. The APS will provide bridge concept and cost estimate. – 0%
10. **Engineering documents for project impacts to the I-10/ Pennsylvania Interchange:** We will work closely with the City's I-10/ Pennsylvania Interchange team for the inclusion of project impacts. – 50%
11. **Preliminary Right of Way requirement:** A preliminary right of way requirement map will be prepared to demonstrate right of way impact as well as to establish program level estimate. – 100%

## PHASE 2 – Preliminary Engineering Services (35% Submittal)

1. **Project Management:** Perform project management to ensure project will be delivered as planned. Activities include working closely with the City and stakeholders to develop baseline project scope, schedule and cost. Identify project risks and manage all risks to ensure project stays on track and within the budget. – 100%
2. **Prepare 35% Roadway Plans:** Roadway plans that include horizontal control plans, layouts, typical sections, profiles, drainage plans, grading plans, temporary erosion control plan, utility plans, stage construction, signing and striping plan, retaining walls, street lighting, electrical plans (if needed), landscaping plans, traffic signal plan and bridge plans. – 100%
3. **Design Drainage Report:** Perform final drainage analysis to determine drainage system for the project. Finalize drainage report based on the latest roadway and bridge design. Prepare drainage plan with system layout, sizing, and possible pump station design if needed. – 20%
4. **Foundation Report:** Update preliminary foundation report based on the result of borings. Proposed bridge foundation and retaining foundations will be included in the report. – 30%





5. **Bridge Design and Bridge Type Selection Report:** Bridge design will be performed using AREMA, UPRR and Caltrans design guidelines and standards. Two bridge alternatives will be prepared for consideration. General Plan and Foundation Plan, as well as planning level cost estimate, will be prepared for the Type Selection Report. – 0%
6. **Railroad Shoofly Plans:** A shoofly design will be prepared to set alignments after UPRR’s concurrence of the preliminary shoofly conceptual design. For the purpose of this proposal, we assume the geometrics of UPRR tracks will remain unchanged. We will support the City to ensure a win-win project for the City and UPRR. – 50%

### PHASE 3 – Final Design Services (65%, 100%, and Final Submittal)

1. **Project Management:** Perform project management to ensure project will be delivered as planned. Activities include working closely with the City and stakeholders to develop baseline project scope, schedule and cost. Identify project risks and manage all risks to ensure project stays on track and within the budget.
2. **Project Approvals:** In order to proceed with final design, the following approvals ,maybe required:
  - UPRR approvals: bridge type selection, shoofly and track design and geometrics
  - Caltrans approvals: 35% plan set for project within Caltrans right of way
  - Riverside County Flood Control District: Design Drainage Report

### PS&E Final Design Submittals:

- Title Sheet
- Alignment Control and Notes
- Typical Sections
- Roadway Removals
- Roadway Layouts
- Roadway Profiles
- Construction Details
- Drainage Plans
- Drainage Profiles
- Drainage Details
- Temporary Water Pollution Control
- Contour Grading
- Construction Area Signs
- Stage Construction and Traffic Control
- Stage Construction Profile
- Signing and Striping
- Signaling and Striping Details





- Traffic Signal Plan
- Temporary Traffic Signal
- Temporary Traffic Signal Details
- Electrical Plans
- Temporary Electrical Plans
- Utility Plans
- Landscape Plans and Details
- Irrigation Plans
- Planting Plans
- Retaining Wall Plans
- Retaining Wall Details
- Bridge Plans
- 100% Engineering Estimate
- Specifications
- Structural Independent Check Calculations per Caltrans guidelines



