Kimley-Horn Scope

Scope of Work and Task Deliverables

Task 1: Project Management, Coordination, and Administration

Task 1.1: Kick-off Meeting

Kimley-Horn will schedule and lead a project kick-off meeting within two (2) weeks of Notice to Proceed (NTP) to discuss Project details with all identified key staff in attendance. Included in this discussion will be a review of:

- Project scope
- Project goals
- Specific project constraints
- Project schedule
- PDT's roles and responsibilities

Kimley-Horn will work in conjunction with City of Fullerton (City) staff to develop a list of key stakeholders that will make up the PDT prior to the project kick-off meeting. Kimley-Horn will prepare a meeting notice, agenda, and meeting minutes (noting action items) for the kick-off meeting. Detailed meeting minutes will be provided and distributed for comments within two (2) days of the meeting.

Task 1.1 Deliverables
Meeting agenda and Meeting minutes with action items list

Task 1.2: Project Design Team (PDT) Meetings

Kimley-Horn will coordinate and attend PDT meetings with City staff and stakeholder representatives. We anticipate that up to twelve (8) PDT meetings will be needed up to completion of the Final Plans, Specifications, and Estimate (PS&E) package. Kimley-Horn will prepare notices and agendas for each meeting and distribute to the City project manager and other PDT attendees. Detailed meeting minutes will be provided and distributed for comments within five (5) days of the meeting. An action item list and a status of project deliverables will be updated and made available for each PDT meeting.

Task 1.2 Deliverables
Proposed meeting schedule, Meeting agendas, and Meeting minutes with action items list for each monthly PDT meeting

Task 1.3: Schedule

Kimley-Horn has prepared a preliminary schedule based on information available at this time. Kimley-Horn will prepare a detailed project baseline target schedule upon receipt of a Notice to Proceed from the City, which encompasses milestones, major activities, detailed agency review periods, and deliverables to the City for review and comment. Kimley-Horn will update the project schedule monthly and include it with each PDT meeting package.

Task 1.3 Deliverables
Baseline target schedule and Monthly progress schedules

Task 1.4: Ongoing Communication

Kimley-Horn will provide day-to-day communications and coordination to keep the City up to date on project progress and remain coordinated on the project schedule and budget. This entails communication via email and phone.

Task 1.5: Agency/Stakeholder Coordination

Kimley-Horn will coordinate with California State University, Fullerton (CSUF) and their design team on the Pedestrian Bridge project over Nutwood Avenue and other design features impacting the university. This entails communication via email and phone and up to six (6) CSUF focus meetings to coordinate project design features, gain CSUF input, and coordinate reviews.

Kimley-Horn will coordinate approvals and encroachment permits with Caltrans for the geotechnical investigation, surveys, and construction via email and phone. Up to three (3) Caltrans focus/comment resolution meetings are included.

Task 1.5 Deliverables
Focus meeting notes

Task 1.6: Quality Control

Kimley-Horn will provide a Quality Management System (QMS) which documents the (QC/QA) process. The QMS will be presented during the kick-off meeting and delivered one (1) week after the kickoff meeting after incorporating input. The QMS will

identify QC/QA procedures for independent reviews, backchecks, peer reviews, and Project Manager (PM) reviews for all project deliverables. The QMS will also identify personnel for each technical specialty and the phases at which QC/QA will take place.

QC/QA reviews will be conducted in Bluebeam Studio Revu Software. QC/QA reviews will be filed and documented for Project Closeout.

Task 1.6 Deliverables
Draft and Final QMS, and Documented QC/QA reviews

Task 1.7: Project Closeout

Kimley-Horn will maintain Project files and project deliverables listed in Task 2, 3, 4, and 5 in electronic format. Upon the Project's final closeout, Kimley-Horn will submit a copy of all files to the City.

Task 1.7 Deliverables
Electronic copy project files at final Project closeout

Task 2: Preliminary Engineering

Task 2.1: Records Research

Kimley-Horn, with the City's assistance, will assemble readily-available information and reports pertaining to the Project, including utility information, aerial maps, survey and ROW data, geotechnical reports, traffic analysis, structural analysis reports, environmental studies, and additional pertinent information for the Project to develop the preliminary engineering design.

Kimley-Horn will provide a list of additional reports, plans, studies, documents, and information that are needed for the Project's design. The City will provide copies of all records that are available at the City. Kimley-Horn will research, obtain, and review other existing readily available records or pertinent Project-related data that may be needed for the Project's design to prepare PS&E packages.

Tsk 2.2: Utility Verification and Coordination

Kimley-Horn will conduct coordination with utility owners and companies in the project area. Kimley-Horn will maintain a Utility Agency Tracking List with contact information provided by the City. Kimley-Horn will prepare and send utility notification letters on City letterhead to utility owners within the project limits during the 60% and 100% design stages to coordinate conflicts with proposed improvements. Correspondence, meetings, and dates of sent utility notification letters will be recorded in the Utility Coordination Matrix and provided to the City upon request. Up to three (3) meetings with utility owners are included. Additionally, Kimley-Horn will coordinate new and/or modified service points of connection (POC) and design requirements with Southern California Edison (SCE).

Task 2.2 Deliverables
Utility Agency Tracking List and Two (2) rounds of utility notification letters

Task 2.3: Geotechnical Investigation

Review Background Information and Site Reconnaissance

We will review any available geotechnical investigation reports for the site vicinity and any other geotechnical reports associated with the project, if they are accessible. Additionally, we will review published and unpublished geologic literature in our possession, including publications from reputable sources such as the California Geological Survey (CGS) and the United States Geological Survey (USGS).

Before we perform the field exploration, to comply with legal requirements, we will notify Underground Service Alert (USA) of our proposed subsurface exploration locations at least 72 hours prior to commencing drilling activities. We will mark the proposed boring locations in the field. Scanning of existing utilities is excluded and utility locations will be based on available as-built data.

We will obtain an encroachment permit from the City of Fullerton for the portions of work within their right-of-way and obtain an encroachment permit from Caltrans for the portions of work within their ROW. We assume that the City of Fullerton will provide a no-fee encroachment permit. Additionally, we will obtain a drilling permit from the County of Orange Environmental Health as required for drilling in this area.

Coordinate and Perform Deep Drilling

We will advance a total of twelve (12) borings along the length of the project. Of the twelve borings, four borings will be deeper borings (25 to 50 feet below the existing ground surface (bgs)). Two of the deeper borings will be advanced to a depth of

approximately 25 feet bgs and two will be advanced to a depth of 50 feet bgs. The purpose of these borings will be to evaluate subsurface conditions along the proposed retaining walls so that foundation recommendations, including bearing capacity and settlement, can be developed. The four deeper borings will be advanced using a truck-mounted, hollow-stem-auger drill rig.

Based on the proposed depths of these deeper borings and the possibility of encountering groundwater within the boring, a drilling permit will be needed for these two borings from the County of Orange Environmental Health.

The drilling and sampling activities will be performed in accordance with the relevant American Society of Testing and Materials (ASTM) standards. We anticipate that personal protective equipment consisting of hard hats, steel-toe boots, eye protection, and hearing protection will be sufficient during the field exploration.

We have assumed that we will be able to access the locations of our proposed boring locations; we note that those locations are flexible and can be moved to different areas within the project while still achieving an adequate spread over the project area. During the soil boring operations, a licensed engineer or geologist will be present to observe and record the encountered subsurface conditions. Drive samples will be collected at approximately 5-foot intervals within the soil borings using either a Standard Penetration Test (SPT) sampler or a California Modified sampler. Driven and bulk samples from the soil borings will be carefully collected, properly packaged, and transported to the laboratory for further observation and testing.

Upon completion of the drilling and sampling activities, the borings will be backfilled with a lean concrete or grout material in accordance with the drilling permit requirements. Soil cuttings will be collected in drums and disposed off site. Please note that the disposal of contaminated soil cuttings falls outside the scope of services. In the event that we encounter soil cuttings that appear to be contaminated based on visual observations and odor during our drilling operations, we will immediately cease drilling activities and promptly notify the City.

To complete the four deeper borings, we have budgeted two 10-hour days of drilling due to the logistics of moving between locations and establishing traffic control at each location. Traffic control will be established at each location; we anticipate the need to close the far-right lane in each direction of Nutwood (one location and one lane closure at a time). We assume that the drilling can be performed during normal working hours. If drilling needs to be performed on a weekend or at night when traffic around the CSUF campus is reduced, an amendment will be required.

Perform Hand Augers

We will perform six shallow hand-auger borings to a depth of approximately five feet below existing grade for the purpose of evaluating surficial within and adjacent to Nutwood Avenue. Additionally, we will perform an additional two shallow hand-auger borings to a depth of approximately 5 feet for the purpose of percolation testing and developing recommendations for infiltrating stormwater at the site. The total number of hand-augered borings proposed is eight (six for evaluating surficial conditions with respect to pavement design and two for percolation testing).

We have budgeted three working days to complete the hand auger borings at the proposed eight locations to ensure enough time is allocated to this work given the challenges of setting up traffic control. We will utilize a senior staff engineer and a field technician (for excavation support and coring asphalt/concrete as needed) over the course of this work to complete the eight locations within the budgeted time.

Perform Geotechnical Laboratory Testing

Laboratory tests will be performed on selected samples obtained from the borings to aid in the classification and to evaluate the engineering properties of the subsurface soils. The laboratory tests will encompass the following:

- In-Situ Moisture and Density tests
- Atterberg Limits test
- Grain size analysis, #200 Wash
- Expansion index test
- Direct shear
- Corrosivity test (pH, Sulfate, Chloride & resistivity)
- R-Value test
- Maximum Dry Density-Optimum Moisture Content tests

The specific quantities and types of tests will depend on the encountered material types during the subsurface exploration. For budgetary purposes, we have estimated a laboratory testing budget based on our experience with similar projects.

Conduct Engineering Analyses

The results of our field exploration and geotechnical laboratory tests will be evaluated and engineering analyses will be performed to provide geotechnical recommendations for the design and construction of the Project. The following engineering analyses will be performed for the Project:

- Evaluation of general subsurface conditions and description of types, distribution, and engineering characteristics of subsurface materials at the site,
- Evaluation of current and historical groundwater conditions at the site and potential impact on design and construction,
- Evaluation of the feasibility of using on-site soils for support of flatwork and pavements,
- Evaluation of foundation recommendations and lateral earth pressures for the new retaining walls trending below the SR 57 Freeway and tiebacks as needed,
- Evaluation of expansion potential and, if needed, recommendations to mitigate the potential impact of expansive soil conditions on the Project,
- Evaluation of the corrosion potential of near surface on-site soils, and
- Evaluation of feasibility of infiltrating stormwater at the site and recommendations for design infiltration rates.

Prepare Geotechnical Report

Upon completion of the engineering analyses, we will compile the findings, results, and recommendations into comprehensive geotechnical investigation reports. We anticipate that two reports will be required: Caltrans Foundation Report for the retaining walls, and a report for submittal to the City of Fullerton for scope of services outside of the Caltrans right-of-way. The reports will be submitted to the City in electronic format. In general, the reports will include the following:

- Site Location Map.
- Boring location map and logs of borings that include summarized laboratory testing results.
- Evaluation of general subsurface conditions and description of types, distribution, and engineering characteristics of subsurface materials at the site.
- Evaluation of current and historical groundwater conditions at the site and potential impact on design and construction.
- Evaluation of the feasibility of using on-site soils for support of proposed improvements.
- Evaluation of expansion potential and, if needed, recommendations to mitigate the potential impact of expansive soil conditions on the Project.
- Evaluation of the corrosion potential of near surface on-site soils.
- Development of general recommendations for earthwork, including site preparation and excavation, requirements for placement of compacted fill, and site drainage.
- Recommendations for utility trenches.
- Recommendations for retaining wall design and construction.
- Recommendations for temporary shoring.
- Recommendations for flatwork/sidewalks design and construction.
- Recommendations for infiltration of stormwater at the site.

An electronic copy of the final report will be signed by a Registered Geotechnical Engineer (GE).

Task 2.3 Deliverables
Caltrans Foundation Report and Geotechnical Report signed by a registered Geotechnical Engineer (GE)

Task 2.4: Hazardous Materials Report

Kimley-Horn will prepare a memorandum describing standard procedures for mitigating hazardous materials in construction per the Initial Study (IS) and the Phase I Environmental Site Assessment (ESA). Kimley-Horn will review online databases for the State Water Resource Control Board and the Department of Toxic Substance Control to confirm no recent cases have opened along the corridor. Kimley-Horn will also prepare the Caltrans Initial Site Assessment (ISA) Checklist for Caltrans approvals.

Task 2.4 Deliverables
Phase I ESA and ISA Checklist

Task 2.5: Survey Engineering

The Kimley-Horn Team will set control for and provide aerial topographic survey at a scale of 1”=50’ horizontal with a 2-foot contour interval. The limits will be along Nutwood Avenue from 50 feet west of State College Boulevard to 50 feet east of North

Placentia Avenue. Limits will extend 100 feet north of the City ROW line and 50 feet south of the City ROW line. Limits will extend 100 feet north and/or south at cross streets and intersections (State College Boulevard, Commonwealth Avenue, SR-57 southbound and northbound ramps, and North Placentia Avenue). Limits are shown in the attached Survey Exhibit. ABC Mapping approvals from Caltrans is excluded.

The Kimley-Horn team will also prepare a design-level Topographic Survey (conventional field survey) within the project limits. Limits are shown in the attached Survey Exhibit. The topographic survey will extend approximately 30 feet north of the northerly City right of way line on Nutwood Avenue in CSUF property. The survey's boundary component will include a field boundary verification denoting current property lines and easements of record as shown on current county recorded maps, roadway centerlines, Accessor Parcel Numbers, and owners. Title reports to show easements on private property are assumed to be provided by the City. Kimley-Horn will obtain encroachment permits from the City and Caltrans for field survey. The items to be included are as follows:

Survey Control

1. The vertical control will be based on the Caltrans Vertical Control Network
2. The horizontal control will be based on the Caltrans Horizontal Control Network

Topographic Survey Features

3. Survey observations will be taken on a 25-foot natural ground grid and 25-foot finish surface grid to create 1-foot contour intervals. Spot elevations will be at back of walk/sidewalks, top of curbs, flow lines, gutter edges, street crowns, high/low points, top and toe of slopes, grade breaks, finish floors, driveway aprons and handicap ramps.
4. Spot elevations to determine the water flow of adjacent streets and catch basins that terminate or commence offsite and flow within the Project site
5. Location of signing and striping within the Project site
6. Location of trees over 6 feet in height, regardless of caliper, within the Project site

Utilities

7. Location, elevation, size, and type of visible above ground utilities within the Project site
8. Flow line invert elevations and sizes of drain inlets, sanitary sewer, and storm drain manholes within the Project site, unless bolted down
9. Existing utility lines identified by painted striping from USA markings will be surveyed

Task 2.5 Deliverables
Signed and stamped PDF file, and AutoCAD 2021 Civil 3D base file

Task 2.6: Site Evaluation/Investigation

Up to three Kimley-Horn staff will conduct a comprehensive site investigation/field walk with the survey to verify site conditions, drainage, needed concrete and asphalt repairs, non-ADA compliant improvements, utility locations, and note other typical features not included on the provided survey. Field notes and photographs will be taken throughout the Project area to supplement design and for preconstruction reference.

At traffic signal locations, Kimley-Horn will collect and research available records pertaining to each project intersection, including traffic signal, traffic signal interconnect, bus priority communication plans, controller cabinet inventory, and other information. Kimley-Horn will coordinate with Caltrans and the City of Placentia to obtain traffic signal as-builts and permission to access traffic signal equipment for inventory at the SR 57 ramp intersections and the Nutwood Avenue & Placentia Avenue intersection.

Task 2.6 Deliverables
Field notes and Site photographs

Task 2.7: Base Map Preparation

Utilizing available information, collected materials, survey, and field investigation data, Kimley-Horn will prepare base plans/CAD base files for the project corridor. The base plans will be reviewed per the QMS requirements developed as part of Task 1.6. The base plans will show centerline, ROW, relevant existing street improvements, utilities, landscape, and existing traffic controls within the Project area. A high-resolution aerial image will be overlaid in the background of the base plans.

Task 2.7 Deliverables
Electronic file base maps in PDF and AutoCAD format

Task 3: Preliminary Design

Task 3.1: Preliminary Design Site Walk

Kimley-Horn will lead a site walk with City staff, subconsultants, and applicable stakeholders to identify Project opportunities, constraints, and challenges utilizing the City's design concept presented in the RFQ. Kimley-Horn will lead a preparation conference call with the team to review the preliminary design and discuss key Project features in preparation for the site walk. Discussion at the preparation call and preliminary design site walk will be documented in meeting minutes and distributed to the attendees.

Task 3.1 Deliverables

Preparation call agenda, Hard copy Preliminary Design Exhibits for use on site walk, and Meeting minutes

Task 3.2: Preliminary Design Exhibit and Cost (30%)

Kimley-Horn will prepare a preliminary design exhibit for public viewing utilizing the City preliminary concept and initial input from the preliminary design site walk. The exhibit will include typical sections at key areas, overlayed aerial imagery, and annotations of opportunities and constraints. The exhibit will be prepared as a roll plot showing the entire project area or as multiple 11"x17" exhibits per the City's preference. Additionally, Kimley-Horn will prepare a preliminary Opinion of Probable Construction Cost (OPCC) based on the concept plan. Kimley-Horn will address one set of City comments on the Preliminary Design Exhibit and OPCC and gain concurrence from the City to move into Task 4. Design presentations to City committees and stakeholders are assumed to be conducted by the City and are excluded.

Task 3.2 Deliverables

Preliminary Design Exhibit and OPCC in PDF format, and Comment responses

Task 3.3: Type Selection Report (TSR)

As part of the 30% design, Kimley-Horn will prepare a TSR following Caltrans guidelines to identify the preferred Earth Retaining System (ERS) type(s) to retain the embankment slope in front of both bridge abutments. In addition to the narrative identifying and substantiating the preferred ERS type, the TSR will include a General Plan sheet of the proposed ERS and a General Plan Estimate which is high-level OPCC for the Structural Items of Work necessary for the preferred ERS construction. It is assumed that as-builts for the original SR-57 undercrossing construction and widening will be made available prior to preparation of the TSR.

Prior to Caltrans submittal, Kimley-Horn will address one round of consolidated, non-conflicting comments on the TSR from the City and other stakeholders. After Caltrans submittal, Kimley-Horn will address one round of consolidated, non-conflicting comments on the TSR from Caltrans reviewers. It is assumed that all review comments will be clerical in nature and will not require significant revisions or deviations from the intent of the submitted TSR.

Task 3.3 Deliverables

TSR (up to three iterations), General Plan (up to two sheets per wall), and General Plan Estimate

Task 3.4: Conceptual Aesthetic Treatment Plan

Kimley-Horn will host one (1) aesthetics workshop with the City and relevant stakeholders. Following feedback from the workshop, Kimley-Horn will develop one (1) design theme exhibit which will show hardscape enhancements, landscape enhancements, and schematic retaining wall aesthetics. Theme will identify the colors, materials, textures, layout and general size of hardscape and identity elements. We assume up to one (1) round of consolidated comments on the design theme exhibit.

Task 3.4 Deliverables

One (1) 24"x36" Theme Concept Board in PDF format

Task 3.5: Preliminary (Existing) Traffic Evaluation and Alternative Analysis

Kimley-Horn will collect existing signal timing sheets for all study intersections for our initial use in the alternative evaluation study. This requested data will then be used to develop a Synchro network to evaluate existing timings against the latest California Manual on Uniform Traffic Control Devices (CA MUTCD) standards. Our team will conduct a field review to collect information regarding roadway conditions, study intersection traffic controls and lane geometrics, pedestrian facilities, transit facilities, bicycle facilities, and other information for all signalized intersections within the corridor.

Synchro software will be used to evaluate the corridor for both existing and proposed geometric alternative evaluations. This modeling analysis will be the basis of determination for signal synchronization, proposed intersection lane configurations, turn

pocket lengths, and alternative signal operations such as leading pedestrian intervals, flashing yellow, potential use of Advanced Traffic Signal Performance Measures (ATSPM), and local peer-to-peer controller operation for seamless corridor adjustments.

We propose to collect turning movement counts for the seven (7) locations within the project area to update. Proposed traffic counts to be collected include 6 hours of vehicle turning movement counts (TMC) with bicycle and pedestrians for each intersection to cover the AM, midday, PM, and peak weekend analysis time periods. We will also collect weeklong average daily traffic (ADT) counts at two (2) mid-block locations. We will also note recommended adjustments to traffic volumes we feel appropriate to account for any observed and forecasted over-saturated movements or intersections in the timing analysis. This data will supplement, verify, and update traffic data already contained in the existing City base Synchro networks.

Task 3.5 Deliverables
Preliminary Traffic Evaluation and Alternative Analysis with Synchro model analysis and traffic volumes summary; and Intersection PHF, heavy vehicle percentage, conflicting pedestrian and bike calls with proposed design remediations and alternative operational considerations

Task 4: PS&E

Task 4.1 Plans:

Based on reports and feedback received on the 30% Design phase from the City, Kimley-Horn will prepare 60%, 90%, and Final Plans to the City for review and comment. The plans will include the necessary civil and structural modifications within the project area (see attached Sheet Count Table for complete sheet breakdown)

The plans will be prepared in accordance with the City of Fullerton Standard Drawings, Caltrans Standards Plans, Standard Specifications for Public Works Construction, and the CA MUTCD on 22" x 3", full-size sheets using AutoCad 2024 drafting software. It is assumed that plans for work within Caltrans right-of-way and CSUF right-of-way will follow City drafting standards consistent with the overall Plans unless otherwise noted below. Included in the plan set will be the following:

Title and Notes Sheet (up to 2 sheets)
Kimley-Horn will prepare a title sheet showing the vicinity map, construction notes, sheet index, and other Project information.

Typical Sections Sheets (up to 2 sheets)
Kimley-Horn will prepare section sheets showing existing and proposed lane configuration, bikeway sections, roadway sections, ROW limits, curb and gutter types, sidewalk, and pivot points for improvements. Sections will be shown at key roadway crossings or constraint points.

Layouts, Profiles, and Details (up to 18 sheets)
Kimley-Horn will prepare roadway plan sheets that will include the following: demolition and removals, bikeway, sidewalk, and street improvements, street bearing/distance information, row widths, street widths, location of existing and proposed overhead and underground utilities with applicable construction notes, retaining wall locations and notes, top of curb and gutter flow line where applicable, street centerline elevations in profile view at a scale of H: 1" = 20'/ V: 1" = 8'. We will provide bow-up details for median, curb ramps, and bikeway improvements where necessary. Improvements within CSUF right-of-way will be shown on the City plans and no separate plans will be prepared for CSUF review and approval. CSUF detail plans will be provided where necessary along the north side of Nutwood Avenue from Titan Drive to Folino Drive for improvements within CSUF right-of-way. The scope of improvements in CSUF right-of-way is limited to improvements required to accommodate the proposed bicycle facilities and encompasses the CSUF frontage where bicycle facilities are proposed, the northwest corner of the Nutwood Avenue and Folino Drive intersection, and the vehicular turn around area parking lot directly east of West Campus Drive.

Drainage Plans, Profiles, and Details Sheets (up to 4 sheets)
Kimley-Horn will prepare storm drain plans that will include the following: catch basin modifications laterals, and potential conflicts with existing utilities elevations in profile view with approximate location of utilities in at a scale of H: 1" = 20'/V: 1" = 8', per the utility agencies' readily available record drawings. It is assumed that drainage patterns will be maintained. Drainage plans will encompass design for lateral connections only and mainline storm drain design is not anticipated. Impacts to the Placentia Channel are not anticipated or included.

Water Pollution and Erosion Control Sheets (up to 2 sheets)
Kimley-Horn will prepare a Caltrans format water pollution and erosion control plans in accordance with Caltrans Standard Plans within the Caltrans right-of-way at a scale of 1" = 40'.

Traffic Handling and Temporary Traffic Signal Sheets (up to 6 sheets)

Kimley-Horn will prepare Stage Construction Plans that will show two primary stages of work. Kimley-Horn will prepare traffic handling and temporary traffic signal sheets to indicate temporary traffic delineation for the proposed construction within Caltrans right-of-way. This consists of showing a traffic shift and signal modification for up to two stages of work at a scale of 1" = 40'. It is assumed that traffic handling plans for work outside of Caltrans right-of-way will be provided by the Contractor and are excluded.

Signing and Striping Plans and Details Sheets (up to 5 sheets)

Kimley-Horn will prepare signing and striping plans showing proposed signing and striping along Nutwood Avenue and proposed bike paths. We will coordinate this task with the CSUF Pedestrian Bridge project design team for consistency of the proposed striping and signing design at the Nutwood Avenue and Commonwealth Avenue intersection at a scale of 1" = 40'. Signing and striping plans will comply with City standards, Caltrans standards and the CA MUTCD.

Street Lighting Plans and Details Sheets (up to 3 sheets)

Kimley-Horn will prepare streetlight plans for State College Boulevard to Placentia Avenue along both sides of Nutwood Avenue at a scale of 1' = 40". We will conduct voltage drop calculations to determine the wiring sizes and anticipate the need to connect to existing service locations along the corridor. New service point locations may be necessary. Coordination with SCE to determine new and existing service points to be used will be a part of this task. Streetlight spacing will be per City standards and a photometrics analysis is not included. Decorative street lighting fixtures are excluded from this scope of work.

Bikeway Lighting Plan and Photometric Analysis (up to 3 sheets)

Kimley-Horn will prepare a Bikeway Lighting Plan in accordance with current City standards at 40 scale (1"=40'). Improvements will show installations of pedestrian-level lighting for the proposed bikeway. Available power feed point for the circuit is assumed to be located within 200 feet of the project alignment. We will conduct voltage drop calculations to determine if separate circuit runs are needed for the added lights.

Kimley-Horn will prepare photometric analysis and exhibits for the existing lighting and up to three (3) alternative lighting scenarios. The photometric analysis will be calculated using AGi32 lighting software. We will create the AGi32 model with existing luminaires to determine existing conditions including horizonal illuminance and uniformity ratio values to compare with the required/recommended values per ANSI/IES RP-8-21.

It is assumed that lighting spacing requirements will be provided and confirmed by the City.

Traffic Signal and Detail Sheets (up to 6 sheets)

Kimley-Horn will prepare traffic signal plans and detail plans using the field review data and as-builts received from the City, at a scale of 1" = 20" for traffic signal plans. Traffic signal-related details will be provided for controller cabinets, splice enclosures, and vaults. Traffic signal modifications are anticipated at four (4) intersections (Titan Drive, Folino Drive, the SR-57 southbound ramps, and SR-57 northbound ramps). Signal modifications at the State College Boulevard, Commonwealth Avenue, and Placentia Avenue Intersections are excluded. It is assumed that traffic signal improvements at Commonwealth Avenue are to be provided by the CSUF design team.

Planting and Irrigation Plan Sheets (up to 28 sheets)

Kimley-Horn will develop a plant palette and gain approvals from the City and CSUF for the planting design approach. Irrigation design will be coordinated with City and CSUF maintenance to confirm existing conditions and preferred irrigation equipment. Kimley-Horn will develop planting and irrigation plans and details at a scale of 1" = 20', which will encompass landscape and irrigation in the roadway medians, parkways, and CSUF property. The following additional planting and irrigation plans are anticipated within Caltrans right-of-way only: planting quantities, irrigation quantities, plant and irrigation removals and removal quantities. No additional offsite landscape or irrigation plans are anticipated.

Architectural Plans (up to 6 sheets)

Kimley-Horn will prepare architectural detail sheets for the retaining walls at the underpass and wayfinding/signage elements. Typical details will include plan enlargements for layout, cross sections, and graphic elevations along with material specifications for the proposed treatment based on approved thematic designs. Bus shelter design is excluded and assumed to be provided by the City.

Retaining Wall Plans (up to 14 sheets per wall)

Kimley-Horn will prepare a Caltrans format retaining wall plan for retaining walls under the SR 57 Undercrossing at Nutwood Avenue that will encompass the following: index and notes, retaining wall general plan, plan and elevation view , associated typical sections, and details. This task encompasses performing design calculations for review and approval by the City and

Caltrans. An independent check as required by Caltrans will be performed on the 60% plans. The following assumptions pertain to the retaining wall plans:

- It is assumed that the Nutwood Avenue roadway typical section underneath the SR-57 undercrossing structure will not realign the existing northerly or southerly curb and gutter and that retaining walls will be proposed six to eight feet behind the existing back of sidewalk location.
- It is assumed that the City and Caltrans will approve the retaining wall type(s) prior to preparation of the plans and calculations.
- It is assumed that there are no major utility, drainage, or right-of-way conflicts that would be coordinated as part of this design.
- It is assumed that the existing pole mounted camera and concrete foundation on the northeast side of the SR-57 interchange will not be impacted.
- It I s assumed that the proposed retaining walls are setback far enough from the existing bridge abutments and will not impact the retaining wall design. If evaluation of the influence of existing structures is required, we reserve the right to reevaluate the fee.
- It is assumed that the existing irrigations lines at the abutments will not be impacted.
- It is assumed that the aesthetic treatment on the existing slope paving will be removed and replaced with Caltrans standard slope paving. No aesthetic treatment will be replaced/proposed on the slope paving.

Task 4.1 Deliverables

60%, 90%, and Final Plans, Electronic files in AutoCAD 2024 C3D and PDF plans (final plans will be sealed and signed), and Response to previous review comments via a comment resolution matrix for each submittal

Task 4.2: Opinion of Probable Construction Cost

Kimley-Horn will prepare an OPCC (estimate) based on quantities, for comparison to project budget and assistance during Contractor's bidding process. Unit prices will be derived from readily available bid information based on similar projects within the area, Caltrans Contract Cost Data, and information provided by the City. Backup will be generated for lump sum items. Contingencies will be shown, as agreed upon with City staff.

Task 4.2 Deliverables
60%, 90%, and Final OPCC in PDF format

Task 4.3: Specifications

Kimley-Horn will prepare special provisions (technical specifications), as needed, based upon the boiler plate supplied by the City. References to the Standard Specifications for Public Works Construction (SSPWC) and Caltrans Standard Specifications, latest edition will be shown. The 60% submittal will include a list of special provisions only that corresponds with the OPCC.

Task 4.3 Deliverables
60%, 90%, and Final special provisions in PDF format

Task 4.4: Water Quality Management Plan (WQMP)

Kimley-Horn will develop a WQMP for the project improvements within CSUF right-of-way in compliance with and meeting the requirements set forth in, Order No. R8-2009-0030 (as amended by Order No. R8-2010-0062)/NPDES No. CAS618030, of the Santa Ana Regional Water Quality Control Board. The WQMP will incorporate LID Best Management Practices (BMP) to the maximum extent practicable per the United States Environmental Protection Agency (USEPA) Green Streets Handbook. The WQMP will document required BMPs for impacts in CSUF right-of-way and a separate WQMP for improvements in City right-of-way is excluded.

Kimley-Horn will prepare a Water Quality Memorandum to document BMPs within City right-of-way. This memorandum will document additional impervious area calculations and any BMPs implemented in City right-of-way. The memorandum will also document justification for omitting BMPs if applicable. The memorandum will not follow the Orange County Water Quality Management Plan template.

Kimley-Horn will also prepare a Short Form Storm Water Data Report (SWDR) to document BMPs within Caltrans right-of-way. It is assumed that a Long Form SWDR will not be required since the project is not anticipated to propose over 10,000 square feet of impervious area in Caltrans right-of-way.

Task 4.4 Deliverables
Draft WQMP and Final WQMP for CSUF improvements, Water Quality Memorandum for City improvements, Short Form Storm Water Data Report for Caltrans improvements

Task 4.5: Caltrans Approvals

It is assumed that Caltrans approvals will be processed through the Design Engineering Evaluation Report (DEER) process. If Caltrans requires full oversight, an amendment will be required for the associated additional engineering support and documentation.

Kimley-Horn will assist the City in consulting with the Caltrans District 12 Encroachment Permit Engineer during preliminary design to evaluate the appropriate Caltrans approval process and gain exceptions to allow the project to fall within the DEER process. Kimley-Horn will prepare a Caltrans submittal package and assist the City in obtaining Caltrans approvals for the project. This consists of coordinating Caltrans reviews and coordinating comment iterations. We will attend up to four (4) meetings with Caltrans staff. The Caltrans submittal package will include the following additional items not previously mentioned in the scope of services:

- TR 0416 Application Form
- DEER Application Checklist
- DEER Report per the Appendix I of the Caltrans Project Development Procedures Manual
- City approved/completed Environmental Documentation
- Coordinate Owner Authorization Letter with the City
- OPCC for improvements in the Caltrans ROW

Task 4.5 Deliverables
TR 0416 and TR 0100 application forms, Owner Authorization Letter, Caltrans OPCC, Comment Response Matrix for Caltrans approvals, and Meeting minutes

Task 4.6: Right-of-Way (ROW) Requirements

Kimley-Horn will prepare a ROW needs exhibit based on the 60% plans, which will identify permanent and temporary acquisitions, easements, and encroachments based on existing property boundaries and anticipated ROW needs required to construct the Project improvements and utility relocations. Based on the City's preliminary concept, it is assumed that there will only be temporary and/or permanent acquisitions on one parcel (APN 338-082-02).

It is assumed the City will provide Title Reports for the impacted properties and that the City will lead acquisition and negotiations. It is also assumed that ROW needs will not vary after the 60% submittal. Plats maps and legal descriptions are excluded and will be provided by the City.

Task 4.6 Deliverables
ROW needs exhibit

Optional Tasks

Task O-1: Arboricultural Study Memorandum

Upon authorization by the City, the Kimley-Horn team will provide arboricultural services for the inspection, coordination, and documentation of the existing trees within the Project limits. The consultant will inspect, evaluate, and provide options for the preservation of up to 30 trees. Arboricultural services will be performed by an International Society of Arboriculture (ISA)-certified arborist. Our team will prepare a technical memorandum that will include inventory and industry standard guidelines for root pruning and tree preservation. Based on data collection and observations, our team will incorporate the discoveries of the existing trees, impacts to the overgrown, and provide recommendations for tree perseveration. Field methods are evaluated with a ground visual survey and does not include testing or lab analysis. No risk assessment is performed.

Task O-1 Deliverables
Arboricultural study memorandum, Field photos, Notes, and Inventory data

Task O-2: Potholing

Upon authorization by the City, the Kimley-Horn team will provide up to eight (8) vacuum excavation potholes to identify utilities where anticipated conflicts may exist. Potholing information will be used to identify potential conflicts with the proposed improvements. We assume traffic control for potholing will be based on WATCH manual. Preparation of traffic control plans, hot-

mix asphalt patching, half-sack slurry backfill, aggregate base backfill are excluded. We assume the City will issue a no-fee permit for potholing.

Task O-2 Deliverables
Utility Potholing Data/Report

Task O-3: Design Standard Decision Document (DSDD)

Upon authorization by the City, provide documentation of non-standard features within the Caltrans right-of-way if it is determined during preliminary design with the City that they cannot be eliminated. This entails preparation of Caltrans standard DSDD and obtaining Caltrans approvals. We anticipate documenting up to three non-standard design exceptions.

Task O-3 Deliverables
DSDD

Task O-4: Right-of-Way Coordination/Acquisitions

Upon authorization by the City, the Kimley-Horn team will assist the City with right-of-way (ROW) coordination and acquisitions. We assume the following APN's will be impacted by the Project:

	Assessor's Parcel Number (APN)	Owner	Site Address	Land Use
1	338-101-11	OC Nutwood 20210, LLC	2406 Nutwood Avenue, Fullerton	Multi-Residential
2	338-101-10	Nutwood East Apartments, Inc.	2446 Nutwood Avenue, Fullerton	Multi-Residential
3	338-112-01	Corp of President, OF LA	2470 Nutwood Avenue, Fullerton	Commercial
4	338-111-01	Hope International University	2500 Nutwood Avenue, Fullerton	Commercial Stores and Retail Outlet
5	338-081-01	Glenroy Partners; Heller Warner Villa Venture	2600 Nutwood Avenue, Fullerton	Commercial Buildings and parking lot
6	338-082-02	University Plaza LTD	2736 Nutwood Avenue, Fullerton	Miscellaneous commercial
7	338-031-36	H & S Energy, LLC	2950 Nutwood Avenue, Fullerton	Commercial Service Station
8	338-011-16	World Oil Marketing Company	901 N. Placentia Avenue, Fullerton	Commercial Service Station

ROW coordination and acquisitions encompass the following items:

Title Examination

The Kimley-Horn team will obtain preliminary title reports (PTRs) for the affected parcels (up to eight [8]). We will perform a desk review of title report, legal description, and plat map to verify ownership and identify any encumbrances. We will assist in clearing encumbrances prior to escrow closing. This does not includes fees for litigation guarantees.

Deliverables
Up to 8 Preliminary Title Reports (PTRs)

Appraisal Reports or Waivers

The Kimley Horn team will work with a qualified appraiser who will provide estimates and opinions of value for up to eight (8) parcels owned by eight (8) unique property owners, resulting in an expected eight (8) appraisal reports. Appraisals will conform to the Uniform Standards of Professional Appraisal Practice (USPAP), the Appraisal Institute's Code of Ethics, and federal policies and regulations, where applicable. When possible, the Kimley-Horn team will attempt to complete waivers in lieu of appraisal reports. However, the risk of still needing to complete an appraisal report and review will remain if a property owner is resistant to negotiations. This scope assumes appraisals will not be required for interagency agreements, no Phase I or Phase II Site Assessments are required, appraisal fees assume temporary construction easements (TCEs) and/or permanent easements only; no full or partial acquisitions or relocation assistance.

Deliverables
Up to 8 Appraisal Reports or Waiver Valuations

Appraisal Review

A licensed and qualified review appraiser on our team will provide Independent Desk Review of the appraisal reports, in accordance with federal aid requirements defined by the Caltrans Local Agency Procedures Manual (LAPM) and Caltrans Right of Way Manual. The Review Appraiser will verify the appraisal report's conformance with the Uniform Standards of Professional Appraisal Practice (USPAP), the Appraisal Institute's Code of Ethics, and federal policies and regulations, where applicable.

Upon completion of both the appraisal report and review appraisal, the documents will be provided to the Agency for approval of Amount of Just Compensation.

Deliverables

Up to 8 Appraisal Reviews

Acquisition Negotiation

The Kimley-Horn team will negotiate with up to eight (8) property owners for the purchase of property rights (temporary construction easements and/or permanent acquisition easement acquisitions only; no full or partial acquisitions or relocations) in good faith. Upon initiating the negotiation process, our agents will establish a positive rapport, trust and a reliable working relationship with the property owner in order to create an atmosphere in which successful negotiations can be conducted. The property owner will be given a detailed explanation of the property interest being acquired and the proposed design and construction details as it affects the property. We will assign one agent to be the primary point of contact for each property owner. We will advise regarding the acquisition process and the construction (timing, phasing, type, etc.). We will review all project files for quality assurance to make sure all acquisition files meet all local, state, and federal laws and regulations, as well as compliance with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA) requirements. Specifically, the Kimley-Horn team will:

- Prepare offer letter, summary statement, and list of compensable items, in accordance with state or federal regulations and the approval of the City
- Present written purchase offer to owner or their representative
- Follow-up and negotiate with property owner
- Prepare and assemble acquisition contracts, deeds, and related acquisition documents required for the acquisition of all necessary property interests
- Prepare impasse letters if required
- Provide necessary documents and diary logs for litigation support in the event an acquisition is unable to be settled via voluntary means or due to construction schedule constraints
- Transmit closed acquisition documents to the City

This scope assumes eminent domain support will include impasse letters, and copies, owner files and diaries sent to the attorney. Additional eminent domain services may charge. Deposition, court testimony and expert witness fees are additional, to be compensated on a time and materials basis. This scope assumes that the City will provide Right-of-Way document templates. The Kimley-Horn team can provide templates for an additional fee.

Deliverables

- Offer Packages Acquisition Offer Documents
- Acquisition Documents including Appraisal Report containing amount of Just Compensation
- Administration Settlement Memorandums (where applicable)
- Impasse Letters and other required condemnation support documents (where applicable)

Escrow Coordination

Once the Kimley-Horn team has obtained signatures from the property owner and the City on acquisition agreement(s), we will open escrow with the preferred escrow company of the City. We will oversee escrow instructions and will deliver them to the City for approval. We will coordinate payment between the Grantor, City, and the Escrow Company. We will obtain signature on all necessary documentation such as grant deeds and temporary construction easement deeds to convey title.

Deliverables

- Escrow Documents including Escrow Instructions and Escrow Closing Schedule
- Final Title Policy

Right of Way Certification

The Kimley-Horn team will obtain right of way approval or certification documenting that real property interests have been secured and that all right of way activities were conducted in accordance with the applicable policies and procedures. During this process, we will coordinate and attend certification planning activities and meet with the City, project partners and stakeholders to determine project requirements. We will prepare the submittal package that will include the certification form and compilation of the necessary backup documents. This would generally include deeds, resolutions of necessity, and final orders of condemnation, access agreements, cooperative agreements and permits and utility documents, among others. We will evaluate right of way for correctness and consistency following Caltrans review check-off information as part of the project process. We will supply accurate information for certification of right of way at project closeout. We will address one (1) set of review comments from Caltrans. We assume City attorney will provide eminent domain documentation, where applicable.

Task O-4 Deliverables

- Caltrans Certification forms and document packet

Task O-5: Proposed Signal Timing and Optimized Operations

Optimized Timing Analysis

The team will meet with the City to discuss signal timing parameters such as cycle length, minimum timing threshold, and phase sequencing. We will recommend new timing plans with optimal key Measures of Effectiveness (MOE) performance that results in the lowest average delay and number of stops for the corridor. The Kimley-Horn team will develop optimum timing plans using an iterative process using Synchro's optimization capabilities, our own experience, and fine tuning via multiple software programs (SIMTRAFFIC, Tru-Traffic, and WaySync). Upon approval by the City, we will coordinate with Caltrans operations staff in District 12 on approval of the proposed optimized timing plans. The final performance statistics generated by our analysis programs (Average Delay, Average Speed, and Number Stops) will be used as the benchmark condition for the evaluation of alternative model plans during the optimization process.

Timing conformance with CA MUTCD guidelines for yellow clearance, pedestrian clearance, and bicycle minimum green time for each intersection will be performed for new signalized intersection lane configurations and dimensions. These calculations and findings will be summarized in a brief tech memorandum with appendices data. The results of the final City-approved review of Phase Timings will be implemented into the new controller timing parameters during optimization.

New Controller Timing Charts, Deployments, and Fine Tuning

Kimley-Horn will convert and prepare draft timing charts for new project controllers. Based on City needs, goals, and central system compatibility, the controllers will be a 2070LX (ATC Standard and Caltrans Specification) ATC controller. The Kimley-Horn team is the most well-versed and equipped firm to produce timing sheets with advanced features (for either program as well as assist with controller deployment. The team proposes to prepare timing sheets for the Caltrans controller in electronic Microsoft Excel format. The timing sheets will contain all coordination parameters specific to Caltrans firmware (coordination pattern splits as green factors and coordination offsets in seconds). The files shall also use parameters such as phase sequence as lag phase flags and in A, B, C, D format and offset reference points as beginning of yellow.

Fine Tuning Support

After the implementation of optimized timing, the Kimley-Horn team will provide support to review the corridor's operation during each peak period and make adjustments as needed. In our experience, it can take up to 1 hour of in-field review per intersection to achieve optimized operations. Our scope of work will include a maximum of three (3) separate "post-timing implementation" field studies for each timing plan to assist in the refining of offsets, phase sequences, and split parameters in close consultation with other teams and the City. Any adjustment of the final timings at all intersections will be revised and resubmitted electronically (excel and PDF) for agency and stakeholder team acceptance. Upon final approval, Kimley-Horn we will provide three (3) hard copies of each intersections timing sheets for use in filing with the City, TMC, and cabinet, with all copies signed and stamped by a licensed California Traffic Engineer.

Task O-5 Deliverables

Optimized Synchro files and Seven (7) controller timing chart conversions – three (3) hard copies and electronic files (excel, PDF, and Databases file)

Task O-6: Caltrans Materials Report

Upon authorization by the City, provide recommendations for pavement structural sections for a range of Traffic Indices provided by the Civil Engineer in Caltrans right-of-way. This entails preparation of Caltrans standard Materials Report and obtaining Caltrans approvals (up to two rounds of revisions).

Task O-4 Deliverables

Caltrans Materials Report

Assumptions and Exclusions

The following assumptions were made when preparing the scope of work based on what we anticipate being required for the Project. If any of these change, we would need to re-evaluate our scope of work. Any work not specifically provided in the scope of work is excluded. Excluded work is not meant to be limited by the following:

- It is our understanding that environmental documentation for CEQA compliance has been completed by the City. Environmental services are excluded from this scope of work.
- It is assumed that the City will provide arboricultural recommendations unless Task O-1 is approved.
- Title reports to map easements on private property are assumed to be provided by the City.
- It is assumed that Caltrans approvals will be processed through the DEER process.
- It is assumed that Caltrans will issue a double permit for approvals. One permit will be issued to approve design and construction. The second permit will be issued to the Contractor with additional conditions of approval for items provided by the Contractor such as a SWPPP if required.
- It is assumed that the City will provide timely right-of-entry for access to private properties.
- A Storm Water Pollution Prevention Plan (SWPPP) is excluded. Based on preliminary analysis of the Conceptual Alignment shown in the RFQ, there is less than one acre of disturbed area proposed, which would not require a SWPPP. If a SWPPP is required, we assume this will be provided by the Contractor.
- A Traffic Management Plan (TMP) and lane closure report is excluded.
- Design for modifications to existing dry utilities such as electrical, gas, communication, cable, etc. is assumed to be provided by others. Plans for modifications to existing utilities such as water and sewer are not anticipated and is not included.
- Utility companies' fees, and City and other Agencies' permit fees, are excluded.
- Necessary permits for tasks stated herein, such as the geotechnical and field survey work, are assumed to be no-fee permits from the City.
- If Task O-2 is not approved by the City, it is assumed the City will provide potholing data adequate for design, if needed.
- If Task O-4 is not approved by the City, it is assumed the City will provide right-of-way coordination and acquisitions.
- We have assumed responding to one round of consolidated non-conflicting comments for each submittal.
- It is assumed that the Phase I ESA will not identify risks of contamination. A Phase II ESA is not included.
- An Intersection Control Evaluation (ICE), Intersection Safety and Operational Assessment Process (ISOAP), and additional traffic elements are not included.
- Coordination with existing businesses and private property owners not mentioned in the scope of services is assumed to be conducted by the City. It is assumed the City will provide Title Reports for the impacted properties. It is also assumed that ROW needs will not vary after the 60% submittal. Plats maps and legal descriptions are excluded and will be provided by the City.
- Environmental Mitigation Monitoring is not included in this scope of services.
- Mass copying for bid sets or other items is not anticipated.
- A hydrology and hydraulics analysis and report are excluded because the project will maintain existing drainage features with minor relocations or adjustments that will not impact hydraulic capacity.
- It is assumed that the City will provide standard asphalt concrete pavement sections for all proposed full-depth pavement. Pavement recommendations are excluded.

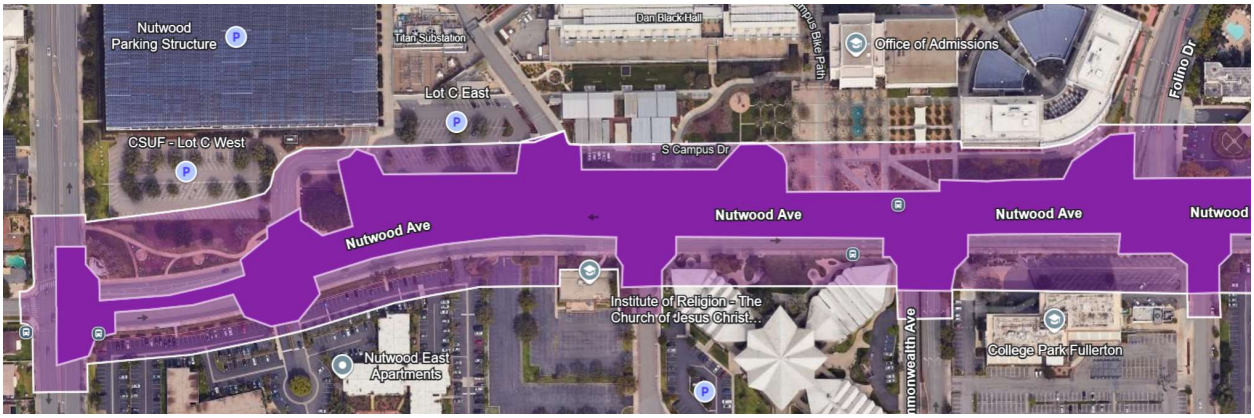
Attachments

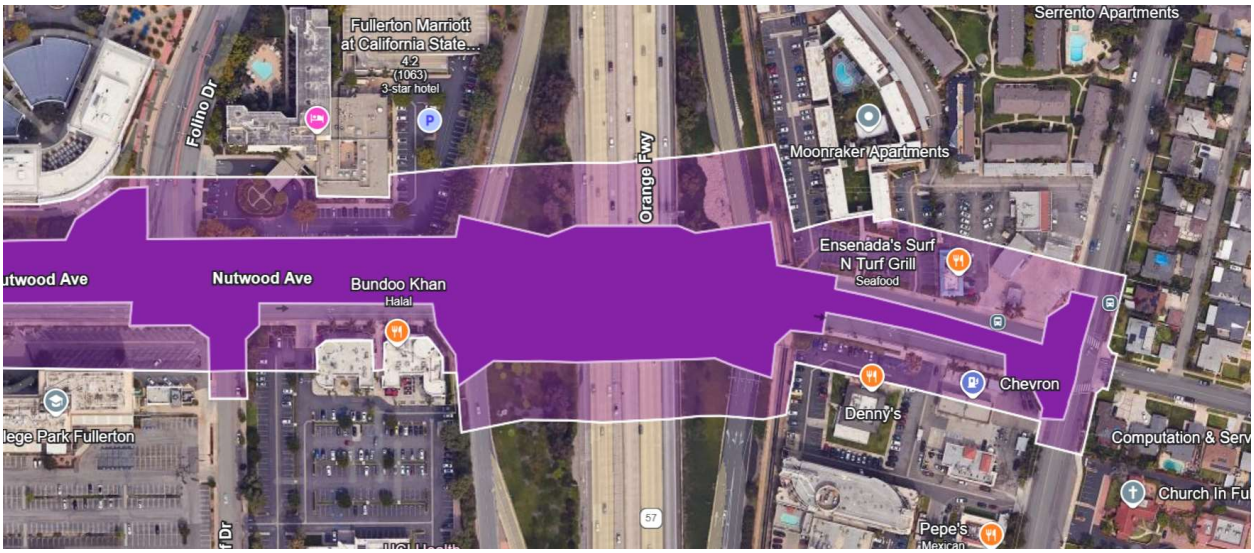
- Sheet Count Table
- Survey Exhibit
- Boring Location Exhibit

Nutwood Avenue Bicycle Pedestrian Mobility Improvements
Sheet Count Table

Sheet Title	Scale	Sheet Count
Basic Roadway Plans		**22**
General		**2**
Title Sheet and Location Map	*NTS*	*1*
Drawing Index, General Notes, Abbreviations and Legend	*NTS*	*1*
Layouts, Profiles, and Details		**20**
Typical Cross Sections	*NTS*	*2*
Plan and Profile Sheets	*1" = 20'*	*8*
Improvement Details	*1" = 10'*	*10*
Drainage Plans, Profiles and Details		**4**
Drainage Layout and Profiles	*1" = 20'*	*2*
Drainage Details	*NTS*	*2*
Water Pollution Control and Erosion Control Plans		**2**
Water Pollution Control Plans / Details	*1" = 40'*	*1*
Erosion Control Plans / Details	*1" = 40'*	*1*
Traffic Plans		**23**
Traffic Handling and Temporary Traffic Signal Plans		***6***
Stage Construction Plans	*NTS*	*2*
Traffic Handling	*1" = 40'*	*2*
Temporary Traffic Signal Plans	*1" = 40'*	*2*
Pavement Delineation and Sign Plan		**5**
Signing and Striping Plans	*1" = 40'*	*2*
Signing and Striping Details	*NTS*	*3*
Street Lighting Plans (City Limits)		***3***
Street Lighting Plans	*1" = 40'*	*2*
Street Lighting Details	*NTS*	*1*
Bikeway Lighting Plans	**1" = 40'**	***3***
Traffic Signal Plans	**1" = 40'**	***6***
Traffic Signal	*1"=20'*	*4*
Traffic Signal Details	*1"=40'*	*2*
Miscellaneous Plans		**62**
Planting Plans and Details		***14***
Planting Cover Sheet	*NTS*	*1*
Planting Plans	*1" = 20'*	*10*
Planting Schedule and Details	*NTS*	*3*
Irrigation Plans and Details		***14***
Irrigation Cover Sheet	*NTS*	*1*
Irrigation Plans	*1" = 20'*	*10*
Irrigation Schedule and Details	*NTS*	*3*
Architectural Plans	**NTS**	***6***
Retaining Wall Plans		***28***
Retaining Wall General Plans	*1" = 20'*	*4*
Index to Plans/General Notes	*NTS*	*2*
Structure Plan and Elevation 1 and 2	*1" = 10'*	*4*
Foundation Plan	*1" = 20'*	*2*
Retaining Wall Details	*NTS*	*10*
Slope Paving Details	*NTS*	*2*
Log of Test Borings	*1" = 20'*	*4*
	Total Sheet Count	**113**

Survey Exhibit – 1/29/2025



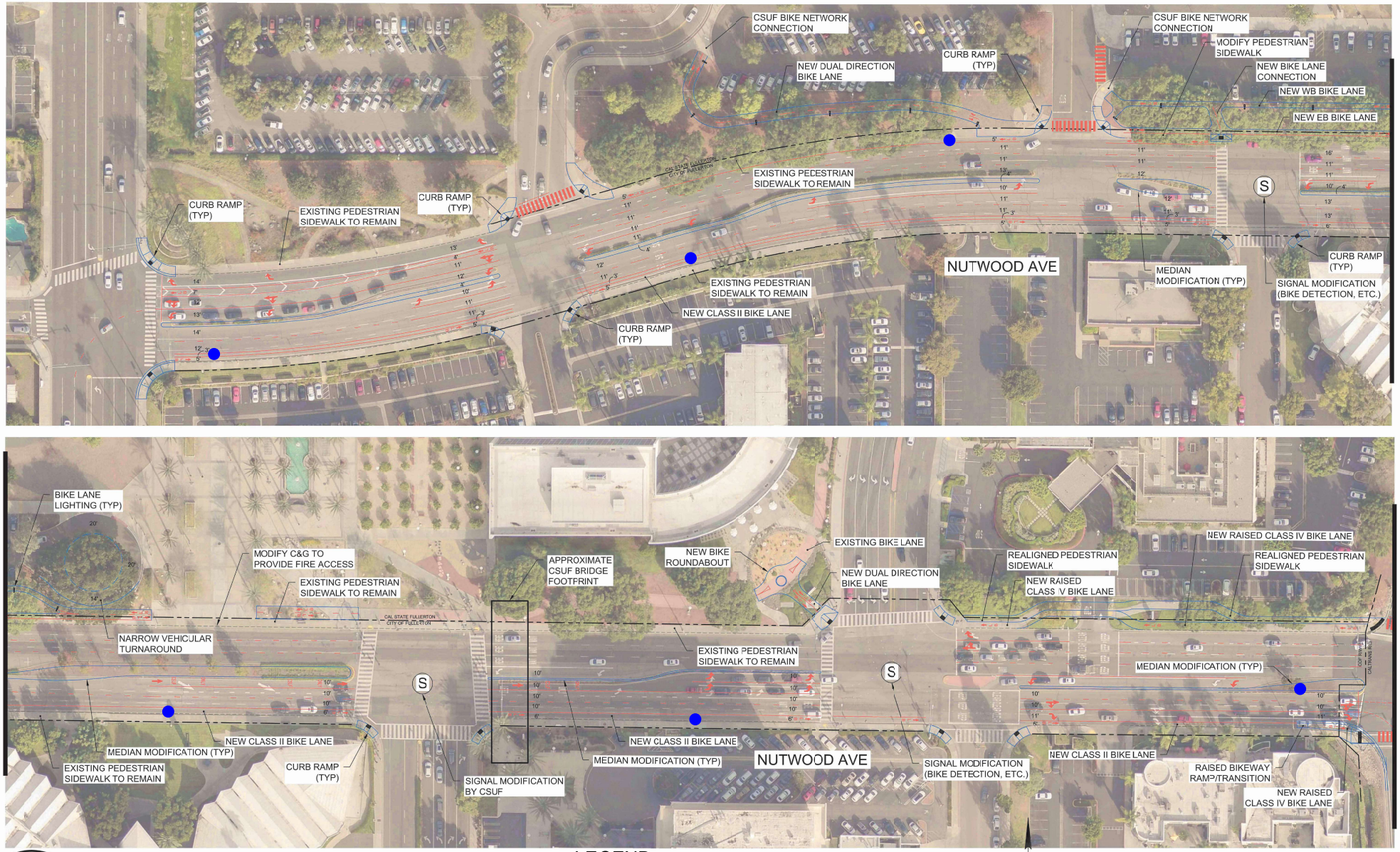


Legend

Topographic Survey Area

Aerial Survey Area

BORING LOCATION MAP



LEGEND

- 5-foot-deep hand-auger borings (surficial improvements and percolation testing)
- 50-foot-deep hollow-stem-auger borings (abutments)
- 25-foot-deep hollow-stem-auger borings (abutments)

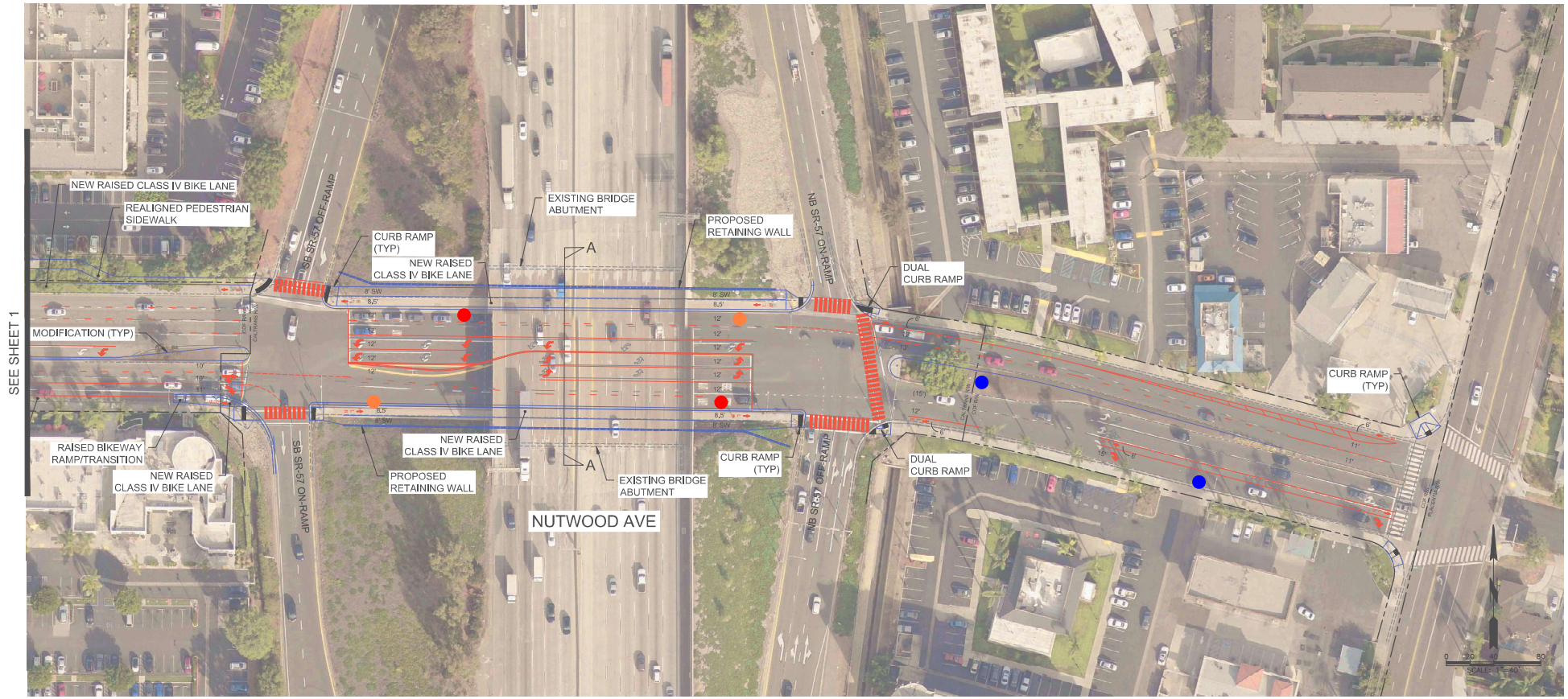
0 20 40 80
SCALE: 1"=40'

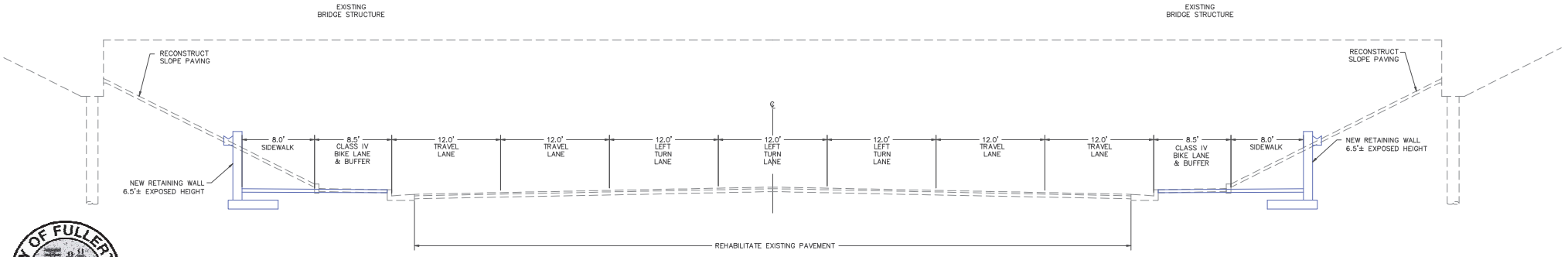
NUTWOOD AVENUE BICYCLE AND MOBILITY IMPROVEMENTS CONCEPTUAL ALIGNMENT

SHEET 1 OF 2

AUGUST 2024

BORING LOCATION MAP





PROPOSED SIDEWALK AND BIKE LANE WIDENING (A)
NO SCALE

NUTWOOD AVENUE BICYCLE AND MOBILITY IMPROVEMENTS CONCEPTUAL ALIGNMENT

SHEET 2 OF 2

AUGUST 2024

LEGEND

- 5-foot-deep hand-auger borings (surficial improvements and percolation testing)
- 50-foot-deep hollow-stem-auger borings (abutments)
- 25-foot-deep hollow-stem-auger borings (abutments)

Kimley-Horn Fee

CITY OF FULLERTON

Nutwood Avenue Bicycle & Pedestrian Mobility Improvements
Active Transportation Program (ATP) Cycle 6
RFQ#2425-02
Kimley-Horn Fee Sheet - 2/18/2025

Task 1	**Project Management, Coordination & Administration**	**$**	**97,677**
1.1	Kick-off Meeting	$	4,838
1.2	Project Design Team (PDT) Meetings (12)	$	19,340
1.3	Schedule	$	8,559
1.4	Ongoing Communication	$	13,727
1.5	Agency/Stakeholder Coordination	$	31,512
1.5.1	Caltrans Coordination (3 meetings)	$	7,892
1.5.2	CSUF Coordination (6 meetings)	$	14,635
1.5.3	Monthly Stakeholder Coordination	$	8,985
1.6	Quality Control	$	16,302
1.7	Project Closeout	$	3,398
Task 2	**Preliminary Engineering**	**$**	**249,795**
2.1	Records Research	$	6,754
2.2	Utility Verification & Coordination	$	18,318
2.3	Geotechnical Investigation	$	96,122
2.4	Hazardous Materials Report	$	17,206
2.4.1	Phase I ESA	$	14,392
2.4.2	ISA Checklist	$	2,814
2.5	Survey Engineering	$	94,168
2.6	Site Evaluation/Investigation	$	8,696
2.7	Base Map Preparation	$	8,532
Task 3	**Preliminary Design**	**$**	**120,739**
3.1	Preliminary Design Site Walk	$	7,236
3.2	Preliminary Design Exhibit and Cost (30%)	$	41,583
3.2.1	Preliminary Design Exhibit	$	29,102
3.2.2	Opinion of Probable Construction Cost	$	12,481
3.3	Type Selection Report (TSR)	$	36,446
3.4	Conceptual Aesthetic Treatment Plan	$	9,384
3.5	Preliminary (Existing) Traffic Evaluation and Alternatives Analysis	$	26,090

CITY OF FULLERTON

Nutwood Avenue Bicycle & Pedestrian Mobility Improvements
Active Transportation Program (ATP) Cycle 6
RFQ#2425-02
Kimley-Horn Fee Sheet - 2/18/2025

Task 4	Plans, Specifications & Estimate (PS&E)	$	781,432
4.1	Plans	$	595,817
4.1.1	Title and Notes Sheet	$	5,247
4.1.2	Typical Sections Sheets	$	11,072
4.1.3	Layouts, Profiles, and Details	$	113,247
4.1.4	Drainage Plans, Profiles, and Details Sheets	$	25,022
4.1.5	Water Pollution and Erosion Control Sheets	$	12,288
4.1.6	Traffic Handling and Temporary Traffic Signal Sheets	$	32,822
4.1.7	Signing and Striping Plans and Details Sheets	$	23,357
4.1.8	Street Lighting Plans and Details Sheets	$	20,857
4.1.9	Bikeway Lighting Plan and Photometric Analysis	$	28,525
4.1.10	Traffic Signal and Detail Sheets	$	45,140
4.1.11	Planting and Irrigation Plan Sheets	$	86,162
4.1.12	Architectural Plans	$	44,460
4.1.13	Retaining Wall Plans and Calculations	$	147,617
4.2	Opinion of Probable Construction Cost	$	62,026
4.3	Specifications	$	50,797
4.4	Water Quality Management Plan (WQMP)	$	26,074
4.5	Caltrans Approvals	$	43,669
4.6	Right-of-Way (ROW) Requirements	$	3,048
	TOTAL DESIGN HOURS		
	Subtotal Design Labor:	**$**	**1,249,643**
	TOTAL DESIGN COST:	**$**	**1,249,643**

	Optional Tasks		
Task O	**Optional Tasks**		
O.1	Arboricultural Study Memorandum	$	21,445
O.2	Potholing	$	20,750
O.3	Design Standard Decision Document (DSDD)	$	24,660
O.4	ROW Coordination/Acquisitions	$	165,011
O.5	Proposed Signal Timing and Optimized Operations	$	56,455
O.6	Caltrans Materials Report	$	4,873