Engineering Design and Environmental Services for

Whitewood Road Widening Project

From Hunter Road to 500' South of Clinton Keith Road

Submitted by:

Michael Baker
INTERNATIONAL
40810 County Center Drive
Suite 200
Temecula, CA 92591

Submitted to:

City of
Murrieta
1 Town Square
Murrieta, CA 92562

COVER LETTER

Michael Baker INTERNATIONAL | *We Make A Difference*

July 24, 2025

City of Murrieta Department of Engineering
1 Town Square
Murrieta, CA 92562
Attn: Garrett Strang, Civil Engineering Assistant/Project Manager

Re: Proposal for Design of Whitewood Road Widening, Rev. 2

Michael Baker International (Michael Baker) is pleased to submit the enclosed proposal to the City of Murrieta (City) for the preparation of improvement plans for the widening of Whitewood Road, from Hunter Avenue to 500' South of Clinton Keith Road. Michael Baker understands the significance of this project to the City and the Community, and is dedicated to delivering results on time and within budget. Our team recognizes that this effort is essential in supporting the City's transportation infrastructure goals, enhancing safety, and ensuring long-term resilience.

The Michael Baker Team offers the Following

Relevant Project Experience

Our team has extensive experience with roadway widening development and similar safety improvements, allowing us to anticipate and address the unique challenges of this project. Michael Baker has been involved in several roadway widening and improvement projects throughout the Temecula Valley, as well as roadway improvements relevant to land development expansion, for nearly 40 years.

Established Relationships

We bring well-established relationships with the key agencies and stakeholders involved in this project, facilitating efficient communication and collaboration throughout the project's life cycle.

Local Environmental Expertise

The environmental project team will be managed by Michael Baker Environmental Project Manager and City of Murrieta resident Alicia Gonzalez. Alicia and her team of environmental professionals have ample experience preparing 15183 Environmental Checklists, including Environmental Checklists for the City of Menifee's Garbani and Evans TTM 38766 Project. We are also currently providing environmental services for the City's Menifee Road Project, which is located only 0.5-mile east of the project, and recently completed a Categorical Exemption for the City's Glen Arbor Dog Park Project. Based on our work history in the City and experience preparing Environmental Checklists throughout the state, Michael Baker has gained an unmatched understanding of key issues associated with the proposed project, and the context-sensitive solutions that will be required to successfully deliver the Environmental Checklist for the project. Alicia and her team of environmental professionals will leverage this experience to efficiently review this project and future implementing projects against the SEIR.

Responsiveness & Innovation

Michael Baker is committed to a proactive and innovative approach, adeptly addressing potential project complexities with flexibility and creative solutions. Our team recognizes the importance of engaging with stakeholders such as the Murrieta Valley Unified School District, ensuring that communication is frequent and effective. This collaborative effort ensures that key design decisions are made promptly and adhered to, minimizing impact on the students and the broader community.

Michael Baker is dedicated to providing the City with exceptional consulting. Our Firm's readiness, capabilities, and efficiency make us the ideal partner for this endeavor. We are confident that, given our expertise and commitment, Michael Baker is the best-suited team to deliver a successful project for the City. Please contact Lonnie Druliner for any additional information or questions.

Sincerely,

MICHAEL BAKER INTERNATIONAL

Christopher Alberts, PLS
Project Director / Vice President

Lonnie Druliner, PE
Project Manager / Senior Associate

Michael Baker Firm Description

Michael Baker, founded in 1940, is a full-service consulting firm providing planning, structural and traffic engineering, surveying, construction management, and related professional services. The firm maintains a professional staff of 585 employees located in 11 offices throughout California and 4,500 employees across the U.S.

Project Manager

Ms. Lonnie Druliner, PE
40810 County Center Drive
Suite 200
Temecula, CA 92591
(951) 506-2072
Lonnie.Druliner@mbakerintl.com

Subconsultants

Geocon West – *Geotechnical*
BCR Consulting – *Cultural*
C-Below – *Potholing*

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PROJECT UNDERSTANDING AND APPROACH

Project Understanding

The Whitewood Road Widening Project involves the construction of street improvements on Whitewood Road from Hunter Road to the Vintage Farm development at the southeast corner of Clinton Keith Road and Whitewood Road. The goal is to widen the road to match City Standard 103, making it a full-width major highway with curb, gutter/sidewalk, streetlights, storm drain improvements, and water quality devices. However, it may be modified major highway to match the proposed roadway widths with raised or striped medians based on the City's preferred aesthetic for its connection to the Vintage Farm Development. The improvements will aim to avoid relocating or disturbing the existing drainage features near the existing road, and the proposed drainage facilities will tie-into the existing storm drain along Whitewood Rd. Stormwater is planned to be treated by a Green Streets design within the right-of-way between the back of curb and sidewalk.

The project also requires consideration of an existing water resource adjacent to Whitewood Road and compliance with environmental regulations, including the MSHCP criteria. The Murrieta General Plan 2035 Supplemental EIR (General Plan SEIR) was certified by the City of Murrieta on July 7, 2020 (State Clearinghouse No. 2010111084). The SEIR is a focused update to the 2011 General Plan EIR, which is considered a Program EIR pursuant to CEQA Guidelines Section 15168. Specifically, the SEIR evaluates an update to the City's 2011 General Plan, an update to the City's 2011 Climate Action Plan (CAP Update), and Zone Code Amendment.

Based on Michael Baker's review of the City's Request for Proposals for Engineering Design and Environmental Services, as well as review of the General Plan Circulation Element and SEIR, the proposed Whitewood Road Widening Project (project) is considered an implementing project of the Murrieta General Plan 2035 Circulation Element. The approximately 0.8-mile project consists of street improvements on Whitewood Road between Hunter Road and 500' South of Clinton Keith Road, widening the existing road to a full width Major classification roadway (76' curb to curb and 100' ROW) to include curb and gutter/sidewalk, streetlights, necessary storm drain improvements, water quality devices, etc. This widening is consistent with Whitewood Road's roadway classification identified on Murrieta General Plan Circulation Element Exhibit 5-6, General Plan 2035 Circulation Map.

CEQA mandates that projects which are consistent with the existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies; refer to CEQA Guidelines Section 15183, Projects Consistent With a Community Plan or Zoning.

As the project is consistent with the roadway classification considered in Murrieta General Plan Circulation Element Exhibit 5-6, Michael Baker has determined that the project preliminarily qualifies for a CEQA streamlining opportunity called a "15183 Exemption." The 15183 Exemption is documented using an Environmental Checklist intended to evaluate whether the project is within the scope of the SEIR pursuant to CEQA Guidelines Section 15168. This type of CEQA exemption does not require a CEQA public review period or tribal consultation under AB 52. A minor amendment will also be submitted to adjust the covered road alignment to correspond with it's current location.

Project Approach

The project management strategy involves the project manager overseeing all elements of the project, conducting regular staff meetings to monitor progress, adhering to deadlines within our purview, and providing frequent updates to the City to promptly address any issues.

On a monthly basis, Michael Baker will issue invoices and progress reports to the City, detailing major items worked on during the billing period and the percentage complete for each task. This report will include all necessary backup and will establish internal accounting methods and procedures acceptable to the City for documenting and monitoring contract costs. If further detail is needed, the project manager will be available to discuss and negotiate each task.

The QA/QC Manager will review the submittal package to minimize comments from the City. As part of our commitment to Quality Service, Michael Baker has an established QA/QC program that is implemented and appropriately scaled for each specific project and task order. It is structured to mitigate issues with little to no escalation by building in quality at every step of the process, promoting prevention rather than detection. Senior staff will conduct a formal independent project review at milestone stages, analyzing all project documents, schedule and cost control, errors and/or omissions, and compliance with City requirements. Michael Baker understands that project quality is our responsibility.

Our approach ensures a comprehensive and detailed Plans, Specifications, and Estimate (PS&E) package that will facilitate the successful construction of the Whitewood Road Widening Project. We are committed to delivering a high-quality project that meets the City of Murrieta's expectations and enhances the City's infrastructure.

SCOPE OF WORK

Task 1: Project Management, Coordination, and Meetings

Task 1.1 Project Management, Coordination, and Meetings

Michael Baker shall work with the City of Murrieta to schedule a project kickoff meeting (pre-design meeting) as well as planned status meetings with the City. Additional meetings with City Departments, City of Murrieta's sub-consultants as well as other key stakeholders will be scheduled and attended as necessary. Michael Baker shall provide meeting agendas with input from the City for each meeting and will prepare and distribute meeting minutes if requested. A total of twelve (12) meetings is assumed in this task. It is also assumed coordination with the residents and providing notifications letters for survey and conflicts are to be included in this task.

It is understood that the City explicitly understands that project management, meetings, and coordination will be billed on a time and materials basis. Should the budgetary hours be exceeded, Michael Baker will notify the City and request a contract amendment for additional hours.

Task 2: Records Research and Field Investigation

Task 2.1 Records Research and Field Investigation

Michael Baker will complete the necessary research to gather and review available information such as tract maps, right of way maps, and record/as-built drawings. Our team will conduct a field visit to photo document all locations.

Assumptions: The City shall provide existing improvement as-builts, drainage, and other reports pertaining to the project and immediate surrounding area for use.

Task 3: Utility Research and Coordination

Task 3.1 Utility Research and Coordination

Early coordination with the utility owners at each of the locations within the project limits is critical to expedited project delivery. Michael Baker will prepare Utility Request letters (on City letterhead), requesting utility owners to send their facility maps and as-built plans. We will coordinate with each utility owner until all responses are received. Michael Baker will maintain a current utility contact matrix including copies of notices sent, copies of responses received, plans received and any relevant correspondence.

Once all plans have been received, Michael Baker will plot the utilities on the plans and probable conflicts will be noted and discussed with the City.

Assumptions: SCE Coordination for new street lighting pedestals/service meters is not included in the scope of work.

Task 3.2 Potholing (Optional)

Michael Baker has partnered with C Below, Inc (C Below) for potholing.

C Below will perform up to eight (8) potholes as indicated in the client provided potholing exhibit. A standard pothole is 12 in x 12 in, performed to the top of pipe or encasement with sand backfill and a permanent surface patch. The potholing includes Dig Alert coordination & delineation, encroachment permit, vacuum excavation to top of utility (encasement or stop depth), hot patching, slurry backfill, engineered traffic control plans, standard traffic control up to 55 mph, and removal of debris.

Assumptions and Exclusions: Permitting will be approved within two City reviews. Any additional reviews required will result in extra charges based on the additional time needed. Potholes outside of our standard will be billed based on actual depth or conditions. Potholing in streets will be required to have reduced working hours between 9:00am to 2:30pm due to school traffic. No fee will be encumbered for the encroachment permit. If C Below is not hired to mark the locations of the potholes, they will be performed off of the utility provider's marks under the client's direction. Utility providers typically do not mark out sewer or storm drain lines. Dry holes are considered billable. Locating is a separated line item that will be represented on the estimate. Permanent cold patch, sand backfill, flagging for traffic control, sidewalk concrete panel

replacement, removal of Dig Alert marks, and survey of pothole locations pre or post pothole is not included.

Deliverables: A detailed potholing report at the conclusion of the investigation.

Task 4: Topographical Survey and Record Mapping

Task 4.1 Topographic Survey

Michael Baker's in-house survey team will establish survey controls on all sites. Otherwise specified, the basis of survey will be CCS Zone 6, NAD 83, Epoch 2010.00 for horizontal, and NAVD 88 for vertical. County of Riverside benchmarks will be used as reference for establishing vertical controls.

Consultant shall prepare a comprehensive topographic survey to identify and plot existing conditions of the subject area. Topography may include obtaining locations, elevations, and descriptions of:

- Major surface features that define the shape of the terrain, such as tops and toes of slopes, grade breaks, and natural ground.
- Spot elevations on hardscape features, concrete pads, and other hard surfaces.
- Roads, parking areas, major trails
- Facilities – Outlines of buildings, sheds, barns, existing structures.
- Walls, fences and other barriers.
- Power poles, lights, and major signs.
- Above ground utilities including valves, pull-boxes, meters, and vaults within project area.

Task 4.2 Record Data Map Preparation

In order to include and plot the record position of the project boundary in approximate orientation with a specific coordinate system, compiled topographic base data or other overlay features, the Consultant shall perform the following tasks:

- Michael Baker shall perform research of the available public records via on-line services to obtain maps and other items that affect the boundary location of the property;
- Michael Baker shall prepare a preliminary record data map to be used by the field survey crew to search for a sampling of boundary monuments;
- Michael Baker shall perform a field survey of said monuments in order to establish orientation of the record survey data in relation to the coordinate system used in the topographic mapping;
- Michael Baker shall plot the record boundary lines on the aerial base map, with the understanding of the Client that said record boundary is NOT the result of a comprehensive boundary survey and analysis, and that it's orientation may disagree substantially from the position determined by a full boundary survey and analysis;
- The budget for this scope of work is based upon an assumption that adequate and accessible boundary monumentation exists in the immediate project vicinity to control this record data survey.

Any cost associated with the preparation and processing of a Record of Survey Map, if one becomes necessary as a legal requirement, shall be covered by the Client. Michael Baker shall use information obtained for free from the Riverside County Surveyors website. If some areas are not defined on the County website, preliminary title reports will be required to understand the current property lines. This task does not include any title reports or title work necessary to plot the record boundary.

Assumptions: Boundary survey is excluded. Pre-construction and Post-construction Corner Records are excluded. Whitewood location is not shown on any recorded maps. We will need title report(s) and the grant deed (s) to show the current location.

Deliverables: Topographic CAD File, Record Base Map

Task 5: Environmental & Cultural

Task 5.1 Project Initiation and Project Description

Task 5.1.1 Project Initiation/Kick-Off Meeting

At 30% design, the work program will be initiated with a kick-off meeting with City and Michael Baker engineering team to discuss the project features in greater detail. This initial meeting is vital to the success of the CEQA Review process and will be a key milestone to confirm the parameters of the analysis, project construction program, buildout conditions, scheduling, and overall communications. Michael Baker will host the project Kick-Off Meeting over a video conferencing platform (i.e., Microsoft Teams). Prior to the kick-off, Michael Baker will distribute an agenda and detailed memorandum, which will identify information needs. Upon completion of the kick-off meeting, Michael Baker will prepare Meeting Minutes that detail action items for Michael Baker and City staff.

Deliverables: Meeting Agenda and Meeting Minutes in PDF Format

Task 5.1.2 Research and Investigation and Project Description

Michael Baker will obtain and review available referenced data for the project, including planning and policy documentation from the City, as well as other local, State, and Federal agencies that may be affected by the project. This information will become part of the environmental checklist's foundation and will be reviewed and incorporated into the analysis, as appropriate. Upon completion of Michael Baker's research and investigation, a draft project description will be prepared for review and comment by City Staff. After receiving comments and making the appropriate changes, we will submit a revised version of the project description, which will be the basis for the project's environmental checklist.

Deliverables: Draft and Final Project Description in Microsoft Word and PDF Format.

Task 5.2 Technical Studies

Technical studies related to air quality, biological resources, cultural resources, energy, greenhouse gas emissions, and noise are proposed in order to examine whether there are project-specific significant effects which are peculiar to the project or its site and to comply with the SEIR Mitigation Monitoring and Reporting Program and anticipated regulatory permitting considerations. Although we understand the project would increase capacity of Whitewood Road, Michael Baker does not propose a traffic impact analysis/vehicle miles travelled analysis since this project was already evaluated in the SEIR and the SEIR does not include mitigation measures requiring preparation of these studies.

Task 5.2.1 Air Quality, Energy, and Greenhouse Gas Analysis

The project is located within the South Coast Air Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Based on data provided by the project applicant, air quality and greenhouse gas emissions generated during construction activities will be quantified using the California Emissions Estimator Model version 2022.1 (CalEEMod). Energy consumption during construction activities will also be quantified. A general description of the major phases of construction and their timing will be required. The short-term construction analysis will be conducted in compliance with the SCAQMD CEQA Air Quality Handbook. The proposed roadway widening would not generate additional vehicle trips or operational source emissions or energy consumption. As such, operational analysis would be qualitative. Project consistency with the City's CAP, SCAQMD's 2022 Air Quality Management Plan, the California Air Resources Board (CARB) 2022 Climate Change Scoping Plan, and Southern California Association of Governments 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS) will also be evaluated.

Deliverables: Draft and Final Air Quality, Energy, and GHG sections of the Environmental Checklist, with modeling included as an appendix.

Task 5.2.2 Cultural Resources Analysis

In accordance with SEIR Mitigation Measure CR-1, Michael Baker has retained trusted subconsultant BCR Consulting for the project's cultural resources analysis.

Research. BCR Consulting will complete a records search for cultural resources (archaeological and historical) for the project at the South Coastal Information Center (SCIC) at San Diego State University. The results will be summarized to characterize the status and extent of previous cultural resource studies completed in the project area (including a one-mile radius), and to help predict the types of resources expected within the project site boundaries.

Field Survey. BCR Consulting field staff will perform a pedestrian cultural resources survey of 100 percent of the accessible project site at systematic 15-meter transect intervals. This fieldwork will be completed under the supervision of a cultural resource professional that meets the United States Secretary of the Interior's Professional Qualifications Standards for Architectural History, and for Archaeology. The goal of this task will be to identify any cultural resources within the project site boundaries (including prehistoric and historic archaeological and historic architectural resources), and to produce or update the necessary site records. For the purposes of this proposal, negative findings are anticipated. If cultural resources (including prehistoric or historic-period archaeological sites, or historic-period buildings) are identified, a budget and schedule adjustment may be necessary.

Report. A cultural resources report will be produced consistent with CEQA requirements, in a format acceptable to the City. The report will include a project description, cultural setting, methods, results, and recommendations sections. Relevant maps and photographs will also be included. Department of Park and Recreation (DPR) 523 forms will be completed and attached to the report to record any cultural resources identified.

Paleontological Overview. BCR Consulting will initiate a paleontological overview for the project with the Western Science Center Museum for the project. Professional paleontologists will review relevant paleontological sensitivity maps and reports completed in the vicinity of the project to assess sensitivity for buried paleontological resources (i.e. fossils). The resulting report will be appended to the cultural resources report.

Native American Heritage Commission Sacred Lands File Search. During this task BCR Consulting will contact the Native American Heritage Commission to request a Sacred Lands File (SLF) Search for the project. The results of the SLF will be appended to the report. This Scope of Work excludes Assembly Bill (AB) 52 Native American Consultation, which is not required for 15183 Environmental Checklists.

Deliverables: One draft and one final Cultural Resources Assessment submitted to the client for review electronically in Microsoft Word and PDF formats

Task 5.2.3 Noise Analysis

The applicable noise and land use compatibility criteria for the project area will be reviewed and noise standards regulating noise impacts will be discussed for land uses on and adjacent to the project site. A site visit will be conducted, and short-term noise level measurements will be taken along the project area. The noise monitoring survey will be conducted at up to three separate locations to establish baseline noise levels in the project area. Noise recording lengths are anticipated to require approximately 10 minutes at each location. This scope excludes long-term (24-hour) noise measurements. Noise impacts from construction sources will be analyzed based on the anticipated equipment to be used, length of a specific construction task, equipment power type (gasoline or diesel engine), horsepower, load factor, and percentage of time in use. The construction noise impacts will be evaluated in terms of maximum levels (Lmax) and hourly equivalent continuous noise levels (Leq) and the frequency of occurrence at adjacent sensitive locations. An analysis of vibration impacts will be based on the Federal Transit Administration's vibration analysis guidance. Analysis requirements will be based on the sensitivity of the area, anticipated construction activities, and Noise Ordinance specifications. The proposed roadway widening would not generate additional stationary sources, and therefore operational stationary noise analysis would be qualitative. However, the proposed roadway widening would reallocate traffic along nearby roadway segments. As such, traffic noise levels will be calculated under without and with the project conditions and compared to the land use noise compatibility standards for nearby sensitive receptor locations.

Deliverables: Draft and Final Noise section of the Environmental Checklist, with modeling included as an appendix.

Task 5.2.4 Habitat Assessment and WRCMSHCP Consistency Analysis

Michael Baker will conduct a literature and database review of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) Electronic Inventory of Rare and Endangered Vascular Plants of California listings, and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) online system and Critical Habitat mapper to preliminarily identify any special-status biological resources known to occur in the USGS 7.5-minute quadrangle that corresponds with the project site location, as well as the surrounding quadrangles (i.e., 9-quad search). In addition, Michael Baker will also review the Western Riverside County

Multiple Species Habitat Conservation Plan (MSHCP), U.S. Department of Agriculture Natural Resource Conservation Service Web Soil Survey, and historic and current aerial photographs to assess existing site conditions and habitat suitability for special-status biological resources.

Following the literature review, a single visit habitat assessment will be conducted by qualified biologists to document baseline biological conditions within the project site and 500-foot study area buffer (the biological study area). The habitat assessment will evaluate the site's potential to support special-status plant and wildlife species, including habitats covered under the MSHCP (e.g., vernal pools, riparian/riverine habitat). Vegetation communities occurring within the biological study area will be classified in accordance with the vegetation descriptions provided in the MSHCP and cross-referenced with A Manual of California Vegetation (Sawyer et al. 2009). During the field survey, a general inventory of plant and wildlife species detected by sight, calls, tracks, scat, or other signs will be compiled. Detailed field notes will be compiled including site conditions, visible disturbance factors, species, habitats, and more general biological resource issues observed or detected. Representative photographs will be taken to document the site conditions at the time of the survey. If any special-status biological resources are found within the biological study area, their location(s) will be recorded, and the resource will be discussed in the technical report.

Michael Baker will analyze the project site within the context of CEQA, MSHCP, and any current City or County guidance. As stated in the RFP, the project site overlaps with three MSHCP Criteria Cells (5669, 5772, and 5775). The project site also lies within MSHCP-defined survey areas for burrowing owl, Narrow Endemic Plant Species (NEPS), and Criteria Area Plant Species (CAPS). It is assumed there is suitable habitat for NEPS/CAPS and therefore focused plants surveys will be required. During the habitat assessment site visit, qualified biologists will assess the site's suitability to support burrowing owl (according to Step I: Habitat Assessment of the MSHCP Burrowing Owl Survey Instructions; RCA 2006) and the recently protected Crotch's bumble bee. Focused survey tasks for these resources are included below. The project site must also be evaluated as it relates to the policy in MSHCP Section 6.1.2 (Riparian/Riverine and Vernal Pool Resources). Based on the observations made during the habitat assessment, if there are additional resources that could potentially occur and it is determined that additional studies are needed, an additional scope and fee for those services will be provided.

A technical report will be prepared that summarizes the information and results obtained during the literature review and field survey; documents the plant, wildlife, and vegetation communities present in the biological study area; and determines the potential for special-status biological resources to occur in the biological study area. In addition, the report will provide an analysis of anticipated project-related impacts and include a consistency analysis to document compliance with the MSHCP and identify potential impacts to MSHCP-covered species and habitats (e.g., vernal pools, riparian/riverine habitat). The final report will be sufficient to make the appropriate consistency determination to demonstrate compliance with the MSHCP. Site photographs taken during the field survey and geographic information systems (GIS) figures will be included in the report to further enhance written text and visually identify specific biological information as it relates to the project site.

Assumptions and Exclusions: This task assumes one field survey will be conducted by two biologists and that the client will provide full access to the project site and surrounding vicinity (to the extent practicable). The client will also provide keys to locked gates and advance notice to existing property tenants of Michael Baker's right of entry. This task includes one impact analysis of the proposed project's development footprint (at least 30% engineering design). We assume that all proposed project activities, including staging will occur on the subject property. Offsite staging or clearing of another property would also require a biological evaluation, and any additional effort outside of the project site is not included in this scope. This task also assumes one round of review/revisions to the draft report before accepted as final.

Deliverables: One draft and one final Habitat Assessment and MSHCP Consistency Analysis Report submitted to the client for review electronically in Microsoft Word and PDF formats.

Task 5.2.5 Focused Special-Status Plant Surveys and Report

Michael Baker botanists will conduct focused botanical surveys to document the presence and location(s) of special-status plants on the project site and surrounding 100-foot buffer (survey area). Due to the project site's location within the MSHCP-defined survey areas for Narrow Endemic Plant Species and Criteria Area Plant Species, surveys will focus on the following species presented in Table 1, Summary of Special-Status Plant Surveys.

Table 1. Summary of Special-Status Plant Surveys

MSHCP Survey Area	Focal Species	Species Blooming Period
Narrow Endemic Plant Surveys Survey Area	Munz's onion	March – May
	San Diego ambrosia	April – October
	many-stemmed dudleya	April – July
	spreading Navarretia	April – June
	California Orcutt grass	April – August
	Wright's trichocoronis	May – September
Criteria Area Plant Species Survey Area	Parish's brittlescale	June – October
	Davidson's saltscale	April – October
	thread-leaved brodiaea	March – June
	round-leaved filaree	April – September
	smooth tarplant	March – May
	Coulter's goldfields	February – June
	little mousetail	March – June
	mud nama	January – July

Focused botanical surveys will also include special-status plant species not covered by the MSHCP but that have the potential to occur based on the results of the literature review conducted under Task 5.2.4.

The surveys will be conducted consistent with guidelines provided by CNPS, USFWS, and CDFW. The surveys will be floristic in nature, meaning that species encountered will be identified to the taxonomic level necessary to determine rarity and listing status.

Prior to conducting the survey, Michael Baker botanists will also conduct a review of known reference sites to determine whether the target species are identifiable at the time of the survey and to obtain a visual image of the target species, associated habitat, and associated natural community. Each survey area will then be assessed systematically on foot by walking transects that will vary between approximately 10 and 50 feet apart depending on plant density and visibility to allow for 100 percent coverage necessary to inventory plant species.

Once the final survey is complete, Michael Baker will prepare a letter report using information gathered from the results of the focused plant survey. The letter report will include documentation and mapping of special-status plant species observed (if any). If special-status plants are discovered, Michael Baker will complete and submit to the CNDDB California Native Species Field Survey Form(s), accompanied by a copy of the relevant portion of a 7.5-minute topographic map showing the occurrence mapped. Although an impact analysis in compliance with CEQA and the MSHCP will not be conducted, the report will provide recommendations for avoidance and minimization to reduce potential impacts to special-status plant species, if detected. The results of the report would be summarized in the Biological Resources Assessment described in Task 5.2.4.

Assumptions and Exclusions: This task assumes a team of two biologists will conduct two field surveys and includes additional hours to visit reference sites to ensure species will be visible if present. This task assumes that the client will provide full access to the project site and surrounding vicinity (to the extent practicable). The client will also provide keys to locked gates and advance notice to existing property tenants of Michael Baker's right of entry. This task also assumes one round of review/revisions to the draft report before accepted as final.

Deliverables: One draft and one final Focused Special-Status Plant Survey Report submitted to the client for review electronically in Microsoft Word and PDF formats

Task 5.2.6 Aquatic Resources Delineation Report

As stated in the RFP and confirmed by Michael Baker using a USGS topographic map, there is an existing aquatic feature adjacent to Whitewood Road. Therefore, it is recommended that an aquatic resources delineation be conducted for the

proposed project site to determine if this and any other features fall under the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW. Michael Baker will perform an aquatic resources jurisdictional delineation to document "waters of the United States" and "waters of the State," including potential jurisdictional wetlands, located on the project site and a 100-foot buffer. Prior to the survey, Michael Baker will review relevant information to support the field delineation. In addition to the sources reviewed as part of Task 5.2.4, the following information and data will be compiled: flood zone maps, USFWS's National Wetlands Inventory Mapper, hydrology/climate information, watershed data, and hydrologic data sources to identify potential indicators of flow duration and select sites for data collection. The field delineation will result in a determination of the following jurisdictional resources:

- U.S. Army Corps of Engineers (USACE) – "waters of the United States" as determined by an ordinary high-water mark, as well as the existence of wetlands as determined by the presence wetland hydrology, hydrophytic vegetation, and hydric soils, pursuant to the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 2008). The Arid West Stream Duration Assessment Method (SDAM) will be used to document flow regime.
- Regional Water Quality Control Board's (RWQCB) – "waters of the State" as determined by the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Water Resources Control Board 2019) and Section 13263 of the California Porter-Cologne Water Quality Control Act, as applicable.
- CDFW – "waters of the State" as determined by the presence of a lake or streambed pursuant to Section 1600 et seq. of the California Fish and Game Code.

Once the field delineation is complete, Michael Baker will prepare a technical letter report summarizing the information and results obtained during the literature review and field survey. The report will include a description of the aquatic resources investigated and site photographs to illustrate the site conditions. A technical memorandum will be prepared for the results of the SDAM that identifies the stream flow duration of the given study areas. The memorandum shall include backup data from the literatures review as well as site reconnaissance.

Pursuant to resource agency requirements, the report will include figures or exhibits to enhance the written text and identify the location of jurisdictional aquatic resources. This task includes GIS staff time to analyze and create the figures or exhibits, which will be prepared on an aerial photograph base at a scale of 1:2,400 (1 inch = 200 feet). The figures will illustrate the extent (acreage and linear feet) of each drainage and/or wetland feature regulated by the USACE, RWQCB, and/or the CDFW. The report will provide a summary of anticipated project-related impacts and provide suggestions for the inclusion of project design features to avoid or minimize impacts to jurisdictional areas. In addition, the report will identify regulatory approvals that may be required prior to implementation of the proposed project.

Assumptions and Exclusions: This task assumes one field survey will be conducted and that the client will provide full access to the project site and right-of-way, as well as keys to locked gates, however, Michael Baker does not anticipate requiring access to residential properties surrounding vicinity (to the extent practicable). The client will also provide advance notice to existing property tenants of Michael Baker's right of entry. This task includes one impact analysis of the proposed project's development footprint (at least 30% engineering design). This task also assumes one round of review/revisions to the draft report before accepted as final. This task excludes the preparation and processing of regulatory permit applications with the U.S. Army Corps of Engineers, Regional Water Quality Control Board and California Department of Fish and Wildlife.

Deliverables: One draft and one final Aquatic Resources Delineation Report will be submitted electronically in Microsoft Word and PDF formats

Task 5.2.7 MSCHP Joint Project Review

The application package for a Joint Project Review (JPR) will be prepared for submittal to the RCA and Wildlife Agencies. The application will be prepared using the data from the Habitat Assessment and MSHCP Consistency Analysis (Task 5.2.4) and aquatic resources delineation (Task 5.2.6), and, if necessary, recommended focused surveys (Tasks 5.2.8 and 5.2.9) and preparation of the DBESP (Task 5.2.10).

Assumptions and Exclusions: Michael Baker will submit the JPR package to the City for review and approval. As the permittee, the City will be responsible for submitting the JPR package to the RCA. Submittal of the JPR package will trigger

the start of a 14-calendar day review by the RCA. Once the RCA concurs with the JPR, they will forward the package to the Wildlife Agencies which will trigger the start of their 10-day review period. This task also assumes one round of review/revisions to the draft JPR package before submittal to the RCA/Wildlife Agencies.

Deliverables: One draft and one final JPR application will be submitted to the City

OPTIONAL TASKS FOR TASK 5.2: The following tasks have been included in the event the habitat assessment in Task 5.2.4 determines there is a potential for burrowing owl or Crotch's bumble bee, or it is determined that impacts to MSHCP resources (MSHCP survey area species or riparian/riverine resources) and/or aquatic resources would occur. Once Michael Baker conducts the comprehensive literature review and site visit as part of Task 5.2.4, we will provide a recommendation on whether these optional surveys and reports are needed. If additional focused studies may also be required, these will be identified and proposed for consideration. Additionally, if the aquatic resources delineation as part of Task 5.2.6, determines that regulatory permits are necessary, regulatory permitting and coordination (Tasks 5.2.8 through 5.2.11) will be required.

Task 5.2.8 Focused Burrowing Owl Survey and Report

If suitable habitat for the burrowing owl is determined present on the project site during the habitat assessment discussed in Task 5.2.4, then Michael Baker's qualified biologists will conduct Step II: Locating Burrows and Burrowing Owls of the MSHCP Burrowing Owl Survey Instructions (RCA 2006). The two-part method is as follows:

- Step II – Part A (Focused Burrow Survey): A systematic survey for potentially suitable burrows, burrow complexes, or man-made features (e.g., debris piles) that could be used by burrowing owl as nest structures will be conducted on foot. All potentially suitable burrow features will be mapped, including GPS coordinates. Burrows encountered will be examined for shape, scat, pellets, white-wash, feathers, tracks, and prey remains. The location of suitable habitat, potential burrows, sign, and burrowing owls observed will be recorded and mapped with a hand-held GPS unit. Methods to detect presence of burrowing owls include direct observation, aural detection, and signs of presence. Where feasible, the focused burrow survey will be combined with a site visit in Step II – Part B (below). This has been incorporated into the project's cost.
- Step II – Part B (Focused Burrowing Owl Surveys): Four visits will be conducted on four separate days during the breeding season (March 1 through August 31). Surveys will be conducted from one hour before sunrise to two hours after sunrise or two hours before sunset to one hour after sunset.

All surveys will be conducted during weather conditions conducive to observing burrowing owls outside of their burrows (i.e., not during rain, high winds [> 20 mph], dense fog, or temperatures exceeding 90°F). Walking transects will be spaced approximately 33 feet apart or less to ensure 100% visual coverage of all areas. The survey area will include the project site and a 500-foot buffer, as legally accessible to Michael Baker. Binoculars will be used in areas that are inaccessible on foot, with more complete, thorough coverage within the proposed project site.

Areas providing potential habitat for burrowing owls will be surveyed for suitable burrows, consisting of natural and man-made substrates in areas with low, open vegetation within the project site. All burrow features encountered will be examined for shape, scat, pellets, white-wash, feathers, tracks, and prey remains. The location of all suitable burrowing owl habitat, potential owl burrows, burrowing owl sign, and any owls observed will be recorded and mapped with a hand-held GPS unit. Methods to detect presence of burrowing owls include direct observation, aural detection, and signs of presence.

Following the completion of the final survey, a letter report will be prepared that includes a summary of the methods, conditions, and results of the surveys. Site photographs taken during the field survey and figures will be included in the report to further enhance written text and visually identify specific biological information as it relates to the project site. This task includes time for GIS analysis to support the preparation of up to three figures.

Assumptions and Exclusions: This task assumes that potentially suitable habitat for burrowing owls occurs on-site, requiring completion of four field surveys in accordance with protocols provided in the MSHCP Burrowing Owl Survey Instructions. This task assumes that the client will provide full access to the project site, as well as keys to locked gates and advance notice to existing property tenants of our right of entry. This task also assumes one round of review/revisions of the draft burrowing owl survey report by the client before accepted as final.

Deliverables: One draft and one final Focused Burrowing Owl Survey Report submitted to the client electronically in Microsoft Word and PDF formats

Task 5.2.9 Focused Crotch's Bumble Bee Survey and Report

Crotch's bumble bee is currently a candidate for listing as endangered under the California Endangered Species Act (CESA). Under California law, any species that are considered candidates for CESA listing are given full protection under CESA and must be treated from an impacts/significance standpoint as if they are already listed. Should suitable Crotch's bumble bee habitat be observed during the habitat assessment identified in Task 5.2.4, Michael Baker would conduct focused surveys for Crotch's bumble bee in accordance with the guidelines provided in CDFW's Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (2023).

Accordingly, 3 on-site surveys will be conducted, 2-4 weeks apart between April and August, the Colony Active Period. Surveys would occur between 9:00 am and 1:00 pm, on warm (65-90 degrees F), sunny days with low wind (less than 8 mph). The guidelines incorporate the California Bumble Bee Atlas non-lethal protocol.

While surveys can indicate presence, negative results do not definitively confirm absence. Consequently, the California Department of Fish and Wildlife (CDFW) permits project proponents to assume presence based on habitat indicators, either instead of or in conjunction with surveys, and proceed with submitting an Incidental Take Permit application to CDFW.

Following the completion of the final survey, a letter report will be prepared that includes a summary of the methods, conditions, and results of the surveys. Site photographs taken during the field survey and figures will be included in the report to further enhance written text and visually identify specific biological information as it relates to the project site. This task includes time for GIS analysis to support the preparation of up to three figures.

Assumptions and Exclusions: This task assumes that potentially suitable habitat for Crotch's bumble bee occurs on-site. This task assumes three surveys will be conducted by a team of two biologists to ensure surveys follow established guidelines. This task assumes that the client will provide full access to the project site, as well as keys to locked gates and advance notice to existing property tenants of our right of entry. This task also assumes one round of review/revisions of the draft Crotch's bumble bee survey report by the client before accepted as final.

Deliverables: One draft and one final Focused Crotch's Bumble Bee Survey Report submitted to the client electronically in Microsoft Word and PDF formats

Task 5.2.10 DBESP Report

If MSHCP Covered Resources (e.g., riparian/riverine habitat, narrow endemic plant species, burrowing owls, etc.) occur on the project site and will be potentially impacted by the proposed project, a Determination of Biologically Equivalent or Superior Preservation (DBESP) Report will be prepared and submitted to the Riverside County Regional Conservation Authority (RCA) and Wildlife Agencies (CDFW and USFWS) for review and approval. The DBESP Report will be prepared in accordance with the RCA's most recent DBESP template and will include the following:

- Definition of the project area
- A written project description, demonstrating why an avoidance alternative is not feasible
- A written description of biological information available for the project site including the results of resource mapping
- Quantification of unavoidable impacts to riparian/riverine areas, vernal pools, burrowing owl, or other MSHCP-covered resources associated with the project, including direct and indirect effects
- A written description of project design features and mitigation measures that reduce indirect effects, such as edge treatments, landscaping, elevation difference, minimization, and/or compensation through restoration or enhancement:
  - Compensatory mitigation measures developed during the pre-application meetings with the RCA, USACE, RWQCB, CDFW, and USFWS will be used to offset impacts as appropriate.
- A finding demonstrating that although the proposed project would not avoid impacts, with proposed design and compensation measures, the proposed project would be biologically equivalent or superior to that which would occur under an avoidance alternative without these measures, based on one or more of the following factors:
  - Effects on Conserved Habitats

- Effects on the riparian/riverine species listed in MSHCP Section 6.1.2
- Effects on riparian Linkages and function of the MSHCP Conservation Area

This task includes GIS staff time to analyze and create the figures or exhibits, which will be prepared on an aerial photograph base at a scale of 1:2,400 (1 inch = 200 feet) and time for coordination with the Wildlife Agencies.

Assumptions and Exclusions: Submittal of the report to the RCA will trigger the start of a 10-day (business) review. The City, as the permittee, will submit the DBESP (as part of the JPR package, see Task 5.2.7) to the RCA. Once the RCA concurs with those findings, they will forward the report to the Wildlife Agencies, which will trigger the start of a 60-day review period. Six hours have been included in this scope for RCA and Wildlife Agency coordination that may be necessary. This task also assumes one round of review/revisions to the draft report before submittal to the Wildlife Agencies and a second round of review/revisions to the draft report before submitting the final DBESP to the RCA/Wildlife Agencies for their review and concurrence.

Deliverables: One draft and one final DBESP Report submitted to the client electronically in Microsoft Word and PDF formats prior to submitting to RCA. Up to two revised Determination of Biologically Equivalent or Superior Preservation Report in electronic format based on comments from RCA and Wildlife Agencies

Task 5.2.11 USACE Approved Jurisdictional Determination (Optional)

This task includes the preparation of an Approved Jurisdictional Determination (USACE concurrence) following completion of the Aquatic Resources Delineation Report. The determination is the USACE's formal approval, which locks in jurisdictional and/or non-jurisdictional findings for up to five years. Documentation of "no federal jurisdiction" is required by the California agencies. This formal approval is required for State regulatory agencies to proceed without federal involvement.

Assumptions and Exclusions: This task assumes one round of reviews/revisions to the draft Approved Jurisdictional Determination before accepted as final. This task assumes Michael Baker will submit the Approved Jurisdictional Determination request to the USACE via email and provide as-needed assistance to support the USACE with their determination.

Deliverables: One draft and one final Approved Jurisdictional Determination will be submitted electronically in Microsoft Word and PDF formats

Task 5.2.12 RWQCB Waste Discharge Requirements (Optional)

Impacts to non-federal waters of the State are permitted through Waste Discharge Requirements (WDRs) under the Porter-Cologne Water Quality Control Act. A written request for a WDR will be submitted to the RWQCB. The WDR request generally includes the following items:

- A complete application form
- A detailed project description
- A description of project impacts
- A description of best management practices provided by the applicant to avoid erosion and sedimentation or discharge of materials into stormwater, both during construction and long-term project operation
- A discussion of the approvals being obtained from other federal, state, and local agencies
- The project CEQA document
- An alternatives analysis
- Application fee assessed using the RWQCB schedule (to be assessed by Michael Baker and provided by the applicant/Client).

The RWQCB requires that a request for a pre-application meeting be submitted 30 days prior to submitting the application. Michael Baker will submit the request by email and facilitate the pre-application meeting, which is typically held online via Microsoft Teams. Pursuant to the State Permit Streamlining Act, the RWQCB has 30 days following receipt of the application to deem it complete or request additional information. Following a determination that the application is complete, the RWQCB has an additional 60 days to issue the permit.

Assumptions and Exclusions: This task includes one impact analysis of the proposed project's development footprint (at least 60% engineering design) and one round of review/revisions on the draft application package before accepted as final. A reasonable range of alternatives will be provided for Michael Baker in order to prepare the alternatives analysis. The application package will be finalized based upon one round of comments. Application fee to be paid by Client.

Deliverables: One draft and one final Waste Discharge Requirement application package. Submittal to the RWQCB will be made by Michael Baker through email or ftp site. The signed application form must be sent directly to the RWQCB office by the client or Michael Baker.

Task 5.2.13 CDFW Streambed Alteration Agreement (Optional)

Michael Baker will prepare the Streambed Alteration Agreement application for submittal to CDFW to request authorization to CDFW jurisdictional associated with construction of the project. The SAA request generally includes the following items:

- A complete application form
- A detailed project description
- A description of project impacts
- A discussion of the approvals and certifications being obtained from other federal, state, and local agencies
- The project CEQA document
- The SAA application fee using the 2024 fee schedule (to be assessed by Michael Baker and provided by the Applicant/Client).

CDFW is a state agency; therefore, under the state Permit Streamlining Act, when the term of the requested agreement is five years or less, CDFW has 30 days following receipt of the 1602 application to deem an application complete or request additional information. Following a determination that the application is complete, CDFW has an additional 60 days to issue the draft 1602 SAA for review/signature by the Applicant.

Assumptions and Exclusions: This task includes one impact analysis of the proposed project's development footprint (at least 60% engineering design) and one round of review/revisions to the draft report before accepted as final. Application fee to be paid by Client.

Deliverables: One draft and one final 1602 Streambed Alteration Agreement application package. The application and supporting materials will be uploaded by Michael Baker using the CDFW EPIMS online system.

Task 5.2.14 Regulatory Permit Processing and Resource Agency Coordination

Once the application packages are submitted, the status of submittals will be coordinated with the USACE, RWQCB, and CDFW throughout processing to ensure that any potential issues are communicated and resolved at the earliest possible opportunity. This critical coordination may include telephone, email, or written correspondence, or meetings with the agencies. This task includes agency coordination time, including one site visit with regulatory agency staff that receive a submittal and the applicant, if requested.

Deliverables: Digital copies of agency correspondence, including emails, phone log, and meeting minutes associated with regulatory permitting consultations.

Task 5.3: Environmental Checklist Application

Task 5.3.1 Draft Environmental Checklist

Michael Baker will prepare a Draft Environmental Checklist for review by City staff. Written responses to each question on the Environmental Checklist will be prepared that describe and qualitatively and/or quantitatively evaluate the project's impact related to each topic and whether that impact is considered within the scope of the SEIR. In accordance with Appendix G of the CEQA Guidelines, the following environmental topics will be addressed in the Draft Environmental Checklist:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Land Use/Planning
- Mineral Resources
- Noise
- Population/Housing

- Cultural Resources
- Energy
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities/Service Systems
- Wildfire

Each environmental topic will evaluate the following:

- Was the impact analyzed in the SEIR?
- Would the implementing project result in new significant impacts or substantially more severe impacts than identified in the SEIR?
- Are there new circumstances involving new significant impacts or substantially more severe impacts?
- Is there any significant new information requiring new analysis or verification?
- Do mitigation measures from the SEIR resolve significant impacts?

A brief summary of the SEIR impact analysis and mitigation measures that apply to the environmental topic will be included. If data gaps are identified, the environmental topic discussion will include a list of data that needs to be supplemented for an adequate environmental analysis. This scope of work accounts for the technical studies identified in Section 5.2, which will form the basis of the project's environmental analysis.

Michael Baker will submit the Draft Environmental Checklist to the City for review and comment. In the event that the Draft Environmental Checklist results in a finding that the project will result in a greater impact than identified in the SEIR, Michael Baker will work with the City to develop the appropriate CEQA approach.

Deliverables: Electronic copy of the Draft Environmental Checklist prepared in Microsoft Word and PDF format and Exhibits (jpeg or PDF file format, as requested by the City)

Task 5.3.2 Final Environmental Checklist

After receiving the City's comments on the Draft Environmental Checklist and making the appropriate changes, Michael Baker will prepare a proof-check version of the Environmental Checklist for the City's consideration. We assume that the proof-check version will adequately address any substantive comments which the City had and that the City's comments on the proof-check version will be limited to edits and clarifications of final points. Michael Baker will address such final edits/clarifications and prepare a final version of the Environmental Checklist for the project files.

Deliverables: Electronic copy of the Final Environmental Checklist prepared in Microsoft Word and PDF format and Exhibits (jpeg or PDF file format, as requested by the City)

Task 5.4 Public Hearing and Meetings

Task 5.4.1 Public Hearings

Michael Baker's project manager and team will be available for in-person project hearing support on an as-needed time and materials basis. For the purpose of this scope, the project manager or a team member will be able to attend up to one public hearing for the project to answer questions regarding the environmental checklist.

Task 5.4.2 Coordination Meetings

Ms. Gonzalez will develop a regular meeting schedule with City staff and the engineering team to coordinate on project status and action items throughout the project. It is assumed that these check-in meetings will be conducted via conference call or Microsoft Teams or Zoom, which allows us to share our computer screen with participants to collaboratively review documents. It is expected that these meetings will occur monthly, with more frequent calls necessary during project ramp-up and critical review and comment cycles. Michael Baker assumes coordination meetings would be conducted on a time and materials basis. As a preliminary estimate, an initial estimate of 12 hours of meeting time has been included. This task excludes the Project Kickoff Meeting described above.

Deliverables: Meeting Agenda in PDF Format and Meeting Minutes in PDF Format

Task 5.5: MSHCP Minor Amendment

Task 5.5.1: MSHCP Minor Amendment

A notification letter for an MSHCP Minor Amendment for the remapping of Whitewood Road between Hunter Road and Clinton Keith Road will be prepared for the City. The notification letter will include a description of the Minor Amendment, the reason for the amendment, and an analysis of the environmental effects including any impacts to the conservation of Covered Species. The analysis will describe why the environmental effects: 1) are not significantly different from, and are biologically equivalent to, the terms in the MSHCP as originally adopted, 2) substantially conform to the terms in the MSHCP as originally adopted; and 3) will not significantly reduce the ability to acquire any Additional Reserve Lands. Up to 6 hours have been included for Minor Amendment coordination with USFWS, CDFW, and the RCA prior to submittal

Assumptions and Exclusions: This task includes the preparation and submittal of the MSHCP Minor Amendment Notification letter to the USFWS and CDFW and coordination with the RCA, USFWS, and CDFW to facilitate the Minor Amendment process.

Deliverable: One draft and one final MSHCP Minor Amendment letter and associated shapefiles submitted electronically in Microsoft Word and PDF formats.

Task 6: Hydrology and Hydraulics Report

Task 6.1 Hydrology and Hydraulics Report

Michael Baker shall prepare a Hydrology and Hydraulics Report for the project in accordance with the requirements of the City of Murrieta and the Riverside County Flood Control and Water Conservation District (RCFC&WCD) for submittal to the City. The necessary calculations will be performed per the RCFC&WCD Hydrology Manual to show the flood protection criteria is met for the 10- and 100-year storm events. This report will determine the on-site stormwater runoff and the drainage facilities necessary to accommodate the projected stormwater flows.

Assumptions: Storm drain as-builts within Whitewood Road are available and include hydraulic grade line, flow rate, and velocity data. Offsite calculations are not anticipated. The proposed storm drain can tie-into the existing facilities without hydraulic issues. The existing rock-lined drainage channel adjacent to Whitewood Road does not need to be relocated.

Deliverables: Preliminary Hydrology Report, Final Hydrology and Hydraulics Report

Task 7: Water Quality Green Streets Planning Document

Task 7.1 Water Quality Green Streets Planning Document

The Regional MS4 Permit allows an exemption from classification as a Priority Development Project (PDP) for projects that consist of retrofitting or redevelopment of existing paved alleys, streets, or roads when designed and constructed in accordance with USEPA Green Streets Guidance to the Maximum Extent Possible (MEP). A Water Quality Management Plan (WQMP) will not be prepared, and instead an analogous planning document will be prepared per the Green Streets Exemption Guidance. Applicable green streets projects are not PDPs and are not required to meet alternative compliance options if stormwater management controls are installed in a manner consistent with the MEP standard; hydromodification design is not included in this scope of work. Where feasible, treatment of stormwater from public streets shall be provided using LID principles within the Right of Way between the back of curb and sidewalk. The Final Water Quality Green Streets Planning Document shall be processed through the City of Murrieta.

Assumptions: The project qualifies for the Green Streets PDP Exemption. The project is exempt from hydromodification due to the Green Streets PDP Exemption and existing condition calculations are therefore not required.

Deliverables: Preliminary and Final Water Quality Green Streets Planning Document

Task 8: Stormwater Pollution Prevention Plan

Task 8.1 Stormwater Pollution Prevention Plan

Michael Baker shall prepare and submit a Notice of Intent (NOI) and a Stormwater Pollution Prevention Plan (SWPPP) for the Project to the State Water Resources Control Board (SWRCB). A copy of the SWPPP and the Waste Discharge

Identification Number (WDID No.) shall be supplied to the client. Michael Baker shall comply with the Construction General Permit (CGP), 2022-0057-DWQ effective after September 1st, 2023. Michael Baker shall comply with the CGP by preparing and submitting the project registration documents online to the SWRCB, these documents include a risk analysis and the SWPPP document.

Assumptions: Any further updates or actions necessary for upkeep, inspections, or maintenance of the SWPPP shall be prepared by the general contractor, erosion control contractor, or other party. This includes but is not limited to Annual Reporting, Rain Event Action Plans, Inspection Logs, Changes of Information, and the Notice of Termination.

Deliverables: SWPPP and WDID No.

Task 9: Plans, Specifications, and Estimate

Task 9.1 Preliminary Design 35% Plans and Estimate

Michael Baker will develop 35% plans showing the vertical and horizontal alignment for the proposed improvements. The 35% Plans will include all necessary information such as proposed layouts, dimensions, right of way lines, and utility appurtenances. Michael Baker will also develop an itemized cost estimate to give the City an idea of project cost and ensure the designs are within the available budget.

The anticipated drawings for this project are included in the table below. The designs will be based on current best-practice and will include all necessary information such as proposed layouts, and dimensions. Drawings will be 24" x 36" sheets with standard City title block, signature block, approvals and permits block prepared in AutoCAD, and comply with City CADD standards. Typical sections will be shown on the street improvement plans. All designs will be in accordance with the latest City Standards, Ordinances and Regulations, MUTCD, Caltrans Standard Plans and Specifications, and 2015 Standard Plans and Specifications for Public Works Construction (the "2015 Greenbook") as applicable.

Drawing Name	Scale	No. of Sheets
Title Sheet	Varies	1
Notes and Typical Sections	Varies	1
Construction Details	Varies	1
Street Improvement Plan (Plan and Profile)	1"=40'	4
Signing and Striping Plan	1"=40'	3
Street Lighting Plan	1"=40'	3
Storm Drain Plan	1"=40'	1
Erosion Control Plan	1"=40'	2

Michael Baker will develop an itemized cost estimate to give the City an idea of project cost and ensure the designs are within the available budget. The cost estimate will be prepared in excel format and backup quantities can be provided to the City if requested. The bid item unit costs shall be based on real world current market rates.

Assumptions: Demolition /removal plans, traffic control plans, traffic signal modification plans and utility plans will not be included in our provided drawings. Street Lighting Plan improvements can be tied into an existing service pedestal. Removals and existing utilities will be shown on Street Improvement Plan, Street Lighting Plan, Construction Details, Storm Drain Plan, and Erosion Control Plan sheets. If the City would like any additional plans not listed, MBI can include them for an additional fee.

Deliverables: 35% Plans and Engineers Estimate

Task 9.2 75% Plans and Estimate

Once the preliminary 35% design plans and estimate have been approved by the City, Michael Baker will prepare the 65% design package. The 75% design package will address any comments received from the City on the 35% design package. A comments matrix will be prepared to document any comments received and Michael Baker will address all comments or will provide responses and reasoning as to why comments were not addressed. This comment matrix will remain over the lifetime of the project.

Deliverables: 75% Plans and Engineers Estimate, Comment Response Matrix

Task 9.3 95% Plans, Specifications, and Estimate

Michael Baker will prepare 95% construction drawings and engineer's estimate which will incorporate the City's 75% plan submittal comments. The comments matrix will be updated to document any additional comments received and Michael Baker will address all comments or will provide responses and reasoning as to why comments were not addressed. Michael Baker will also prepare project specifications, which will include the project bid list to match the project cost estimate items and quantities. The project specifications based on either City Boilerplate Specifications or the Standards for Public Works Construction "Greenbook" or a combination of both as determined by the City.

Deliverables: 95% Plans, Specifications, Engineers Estimate, Comment Response Matrix

Task 9.4 100% Plans, Specifications, and Estimate

Any final comments received from the City on the 95% PS&E package will be incorporated in the final submittal package.

The 95% specifications will be finalized based on any City comments or final amendments to the designs. Once the contract documents and engineer's construction cost estimate are complete, Michael Baker will schedule a final project design meeting with the City staff to present the completed contract documents for final review and acceptance.

Deliverables: 100% Plans, Specifications, Engineers Estimate, Comment Response Matrix

Task 10: Geotechnical Services

Michael Baker has partnered with Geocon West, Inc ("Geocon") for Geotechnical Services.

Task 10.1 Geotechnical Investigation and Report

Geocon's scope of services is expected to consist of the following:

• Perform a site reconnaissance to document current topographic and geotechnical conditions.

• Mark the boring locations and notify Underground Surface Alert of Southern California to mark any subsurface utility locations near our proposed excavation locations. Additionally, the civil engineer should provide plans depicting the locations of all utilities in the project area. Prepare and submit a no fee encroachment permit for our work.

• Hire a drilling subcontractor to:

  o Excavate four geotechnical borings east of the existing roadway to obtain samples and document geotechnical conditions for the new roadway, new storm drain, retaining walls, and grading recommendations. Geotechnical borings are expected to be 20 feet deep.
  o Excavate three pavement cores in the existing roadway to document pavement section thicknesses and collect soil samples for laboratory testing for use in providing rehabilitation recommendations. Pavement cores are expected to be 5 feet deep.
  o Excavate up to four percolation tests in two BMP locations (two tests are required per BMP location). Percolation tests are expected to be 5 feet deep.
  o Borings may be terminated at shallower depths if practical refusal is encountered. Borings will be logged in accordance with USCS criteria and samples will be collected for laboratory testing.
  o Borings will be backfilled with native soil upon completion and capped with cold patch asphalt (in pavement areas).
  o Geocon has budgeted for 8 hours on site for drilling.

• Perform laboratory testing which is anticipated to include maximum density/optimum moisture, in situ moisture and density, R-value, corrosion screening, grain size analyses, expansion potential, and direct shear testing. The final laboratory test program will depend on the soil conditions encountered during the investigation with respect to the proposed improvements.

• Prepare a geotechnical report for the project providing the boring logs, existing pavement sections, percolation rates and calculated infiltration rates, a plan depicting the geologic conditions encountered, depth to groundwater (if encountered), laboratory test results, remedial grading and improvement construction recommendations, geotechnical parameters for lighting standards, retaining walls, new storm drain line, new roadway section

Assumptions: Geocon will be provided with access to mark the core/boring locations and perform the fieldwork within the site during regular business hours of 7 am to 5 pm Monday through Friday and no night or weekend work will be required. No environmental permitting will be required to perform the field work. The locations of sensitive habitat areas will be provided prior to our mark out so Geocon can avoid those areas. All existing subsurface utilities will be clearly marked on a plan provided to us prior to Geocon's field work. An engineered traffic control plan will not be needed for the encroachment permit. The traffic control plan will be per 2024 WATCH Manual. A no fee encroachment will be issued for this City project.

Deliverables: Geotechnical Report

Michael Baker Man-Hour Estimate

Michael Baker INTERNATIONAL

City of Murrieta
Whitewood Road Widening Project
Fee Worksheet

Task No.	Task Description	Project Manager $270.00	Assistant Project Manager $180.00	Project Engineer $145.00	Civil Designer $130.00	Drainage Lead $185.00	Drainage Civil Designer $120.00	Planner Lead $275.00	Assistant Planner Lead $185.00	Senior Planner $175.00	Planner $155.00	Associate Planner $130.00	Planning Technician $120.00	Director of Survey $345.00	PLS $255.00	Field Supervisor/ Party Chief $195.00	Survey Senior Analyst $210.00	Survey/ Mapping Analyst $140.00	Survey Chainman $165.00	Mapping Lead $280.00	Mapping Senior Analyst $205.00	Michael Baker Hours	Michael Baker Fee	BCR Consulting, Inc.	Geocon West, Inc.	C Below (Optional)	Total Fee
1	**Project Management, Coordination and Meetings**	**16**	**60**	**8**	**0**	**8**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**108**	**$22,000**				**$22,000**
1.1	Project Management, Coordination and Meetings	16	60	8		8		8							8							108	$22,000				$22,000
2	**Records Research and Field Investigation**	**0**	**8**	**12**	**8**	**8**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**44**	**$6,660**				**$6,660**
2.1	Records Research and Field Investigation		8	12	8	8	8															44	$6,660				$6,660
3	**Utility Research and Coordination**	**0**	**6**	**8**	**40**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**54**	**$7,440**			**$15,300**	**$22,740**
3.1	Utility Research and Coordination		2	8	32																	42	$5,680				$5,680
~~3.2~~	~~Potholing (Optional)~~		~~4~~		~~8~~																	~~12~~	~~$1,760~~			~~$15,300~~	~~$17,060~~
4	**Survey**	**0**	**4**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**28**	**102**	**24**	**58**	**90**	**8**	**10**	**344**	**$65,230**				**$65,230**
4.1	Topographic Survey		2		4									8	24	88	20	16	78			240	$46,230				$46,230
4.2	Record Data Mapping		2		4									4	4	14	4	42	12	8	10	104	$19,000				$19,000
5	**Environmental & Cultural**	**14**	**0**	**0**	**0**	**0**	**0**	**68**	**175**	**178**	**280**	**387**	**146**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,248**	**$197,235**	**$4,600**			**$201,835**
5.1	**Project Initiation and Project Description**	**0**	**0**	**0**	**0**	**0**	**0**	**8**	**14**	**0**	**0**	**18**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**44**	**$7,610**				**$7,610**
5.1.1	Project Initiation/Kick-Off Meeting							4	6			4										14	$2,730				$2,730
5.1.2	Research and Investigation and Project Description							4	8			14	4									30	$4,880				$4,880
5.2	**Technical Studies**	**12**	**0**	**0**	**0**	**0**	**0**	**32**	**107**	**156**	**252**	**299**	**130**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**988**	**$152,665**	**$4,600**			**$157,265**
5.2.1	Air Quality, Energy, and Greenhouse Gas Analysis							2	6	10	30	30	2									80	$12,200				$12,200
5.2.2	Cultural Resources Analysis (Optional)							2														2	$550	$4,600			$5,150
5.2.3	Noise Analysis							2	3	6	24	35										70	$10,425				$10,425
5.2.4	Habitat Assessment and WRCMSHCP Consistency Analysis							3	20	20	25	22	25									115	$17,760				$17,760
5.2.5	Focused Special-Status Plant Surveys and Report							4	18	20	24	16	12									94	$15,170				$15,170
5.2.6	Aquatic Resources Delineation Report							3	16	18	21	12	20									90	$14,150				$14,150
5.2.7	MSCHP Joint Project Review							2	10	12												24	$4,500				$4,500
5.2.8	Focused Burrowing Owl Survey and Report (Optional)							2	6	12	22	40	5									87	$12,970				$12,970
5.2.9	Focused Crotch's Bumble Bee Survey and Report (Optional)							2	6	10	22	40	5									85	$12,620				$12,620
5.2.10	DBESP Report (Optional)	2						2	4	10	20	20	22									80	$11,920				$11,920
~~5.2.11~~	~~USACE Approved Jurisdictional Determination (Optional)~~	~~2~~						~~2~~	~~4~~	~~4~~	~~12~~	~~14~~	~~4~~									~~42~~	~~$6,690~~				~~$6,690~~
~~5.2.12~~	~~RWQCB Waste Discharge Requirements (Optional)~~	~~2~~						~~2~~	~~4~~	~~10~~	~~16~~	~~20~~	~~14~~									~~68~~	~~$10,340~~				~~$10,340~~
~~5.2.13~~	~~CDFW Streambed Alteration Agreement (Optional)~~	~~2~~						~~2~~	~~4~~	~~8~~	~~16~~	~~20~~	~~5~~									~~57~~	~~$8,910~~				~~$8,910~~
~~5.2.14~~	~~Regulatory Permit Processing and Resource Agency Coordination (Optional)~~	~~4~~						~~2~~	~~6~~	~~16~~	~~20~~	~~30~~	~~16~~									~~94~~	~~$14,460~~				~~$14,460~~
5.3	**Environmental Checklist Application**	**0**	**0**	**0**	**0**	**0**	**0**	**12**	**18**	**14**	**26**	**70**	**12**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**152**	**$23,650**				**$23,650**
5.3.1	Draft Environmental Checklist							8	12	10	16	50	8									104	$16,110				$16,110
5.3.2	Final Environmental Checklist							4	6	4	10	20	4									48	$7,540				$7,540
5.4	**Public Hearings and Meetings**	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**$5,330**				**$5,330**
5.4.1	Public Hearings							6	4													10	$2,390				$2,390
5.4.2	Coordination Meetings							8	4													12	$2,940				$2,940
5.5	**MSHCP Minor Amendment**	**2**	**0**	**0**	**0**	**0**	**0**	**2**	**28**	**8**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**42**	**$7,980**				**$7,980**
5.5.1	MSHCP Minor Amendment	2						2	28	8	2											42	$7,980				$7,980
6	**Hydrology and Hydraulics Report**	**0**	**0**	**0**	**0**	**30**	**80**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**110**	**$15,150**				**$15,150**
6.1	Hydrology and Hydraulics Report					30	80															110	$15,150				$15,150
7	**Water Quality Green Streets Planning Document**	**0**	**0**	**0**	**0**	**20**	**45**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**65**	**$9,100**				**$9,100**
7.1	Water Quality Green Streets Planning Document					20	45															65	$9,100				$9,100
8	**Stormwater Pollution Prevention Plan**	**0**	**0**	**0**	**0**	**20**	**50**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**70**	**$9,700**				**$9,700**
8.1	Stormwater Pollution Prevention Plan					20	50															70					$9,700
9	**Final PS&E**	**16**	**52**	**200**	**290**	**10**	**32**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**600**	**$86,070**				**$86,070**
9.1	35% Plans and Estimate	4	16	65	95	4	12															196	$27,915				$27,915
9.2	75% Plans and Estimate	4	20	75	105	4	12															220	$31,385				$31,385
9.3	95% PS&E	4	8	40	60	1	4															117	$16,785				$16,785
9.4	100% PS&E	4	8	20	30	1	4															67	$9,985				$9,985
10	**Geotechnical Services**	**1**	**4**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**9**	**$1,570**		**$20,505**		**$22,075**
10.1	Geotechnical Investigation and Report	1	4	4																		9	$1,570		$20,505		$22,075
	SUBTOTAL HOURS:	**47**	**134**	**232**	**346**	**96**	**215**	**76**	**175**	**178**	**280**	**387**	**146**	**12**	**36**	**102**	**24**	**58**	**90**	**8**	**10**	**2,652**	**$420,155**	**$4,600**	**$20,505**	**$15,300**	**$460,560**
	OTHER DIRECT COSTS - MILEAGE/POSTAGE																						**$5,000**				**$5,000**
	OPTIONAL OTHER DIRECT COSTS - MILEAGE/POSTAGE																						**$3,000**				**$3,000**
	TOTAL FEE	**$12,690**	**$24,120**	**$33,640**	**$44,980**	**$17,760**	**$25,800**	**$20,900**	**$32,375**	**$31,150**	**$43,400**	**$50,310**	**$17,520**	**$4,140**	**$9,180**	**$19,890**	**$5,040**	**$8,120**	**$14,850**	**$2,240**	**$2,050**		**Total with Optional Tasks**				**$468,560**
																							Total without Optional Tasks				**$365,440**

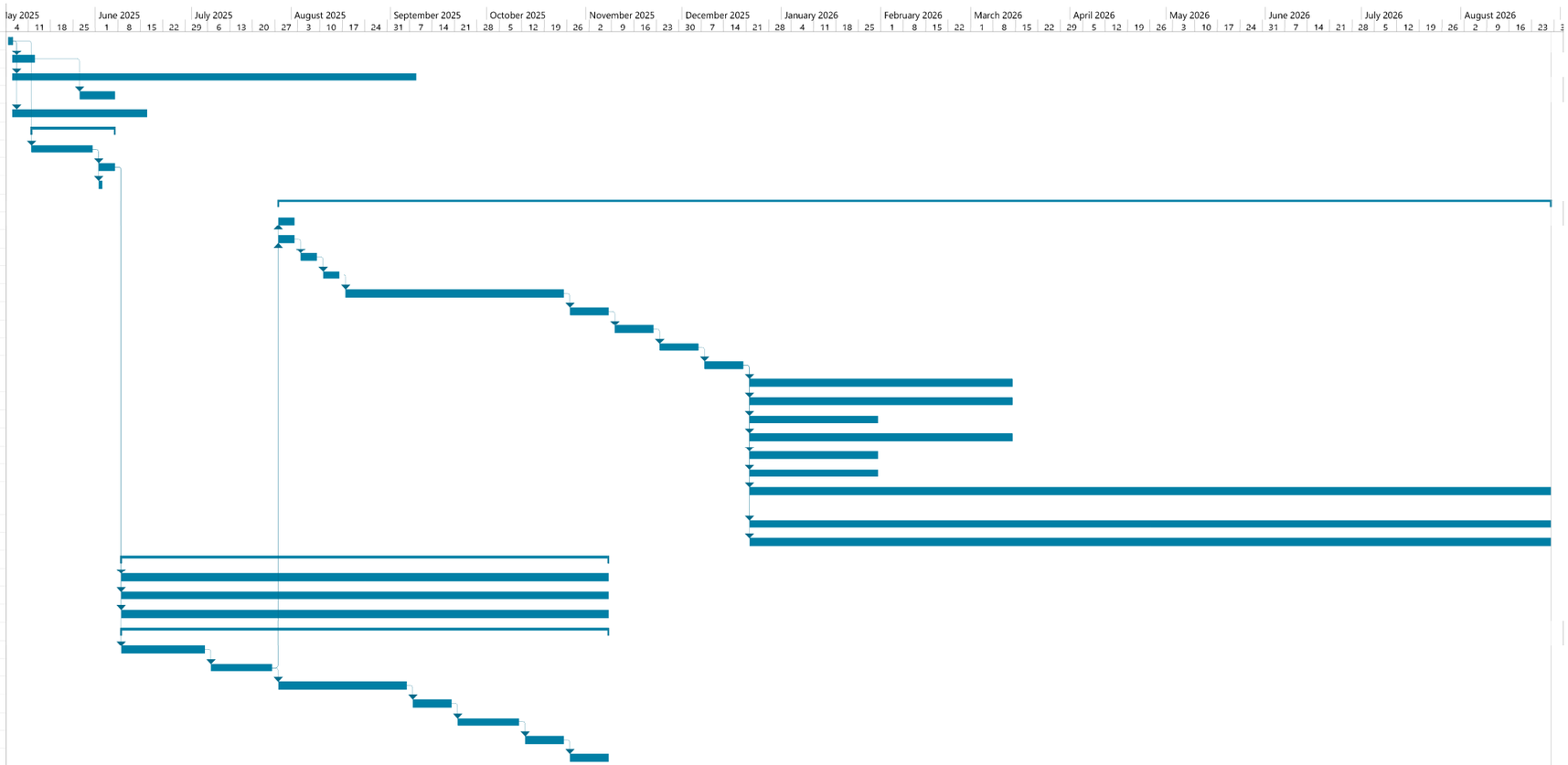
ABSTAINING THE FOLLOWING OPTIONAL TASKS:
3.2
5.2.11
5.2.12
5.2.13
5.2.14

ACCEPTING THE FOLLOWING OPTIONAL TASKS:
5.2.2
5.2.8
5.2.9
5.2.10

TOTAL WITH SELECTED OPTIONAL TASKS: $411,100

Project Schedule

ID	Task Name	Start	Finish	Duration
1	Notice to Proceed	Mon 5/5/25	Mon 5/5/25	1 day
2	Records Research	Tue 5/6/25	Mon 5/12/25	5 days
3	Utility Research and Coordination	Tue 5/6/25	Mon 9/8/25	90 days
4	Potholing (Optional)	Tue 5/27/25	Fri 6/6/25	9 days
5	Geotechnical	Tue 5/6/25	Mon 6/16/25	6 wks
6	Survey	**Mon 5/12/25**	**Fri 6/6/25**	**20 days**
7	Topographic Survey	Mon 5/12/25	Fri 5/30/25	3 wks
8	Record Data Mapping	Mon 6/2/25	Fri 6/6/25	5 days
9	Field Investigation	Mon 6/2/25	Mon 6/2/25	1 day
10	Environmental & Cultural	**Mon 7/28/25**	**Fri 8/28/26**	**285 days**
11	Project Initiation/Kick-Off Meeting	Mon 7/28/25	Fri 8/1/25	1 wk
12	Research and Investigation and Project Description	Mon 7/28/25	Fri 8/1/25	1 wk
13	Project Description	Mon 8/4/25	Fri 8/8/25	1 wk
14	City Review	Mon 8/11/25	Fri 8/15/25	1 wk
15	Technical Studies	Mon 8/18/25	Fri 10/24/25	10 wks
16	Draft Environmental Checklist	Mon 10/27/25	Fri 11/7/25	2 wks
17	City Review	Mon 11/10/25	Fri 11/21/25	2 wks
18	Final Environmental Checklist	Mon 11/24/25	Fri 12/5/25	2 wks
19	City Review	Mon 12/8/25	Fri 12/19/25	2 wks
20	Focused Burrowing Owl Survey and Report (Optional)	Mon 12/22/25	Fri 3/13/26	60 days
21	Focused Crotch's Bumble Bee Survey and Report (Optional)	Mon 12/22/25	Fri 3/13/26	60 days
22	DBESP Report (Optional)	Mon 12/22/25	Fri 1/30/26	30 days
23	USACE Approved Jurisdictional Determination (Optional)	Mon 12/22/25	Fri 3/13/26	60 days
24	RWQCG Waste Discharge Requirements (Optional)	Mon 12/22/25	Fri 1/30/26	30 days
25	CDFW Streambed Alteration Agreement (Optional)	Mon 12/22/25	Fri 1/30/26	30 days
26	Regulatory Permit Processing and Resource Agency Coordination (Optional)	Mon 12/22/25	Fri 8/28/26	180 days
27	Public Hearings	**Mon 12/22/25**	**Fri 8/28/26**	**180 days**
28	Coordination Meetings	**Mon 12/22/25**	**Fri 8/28/26**	**180 days**
29	Stormwater	**Mon 6/9/25**	**Fri 11/7/25**	**110 days**
30	Hydrology and Hydraulics Report	Mon 6/9/25	Fri 11/7/25	110 days
31	Water Quality Green Streets Planning Document	Mon 6/9/25	Fri 11/7/25	110 days
32	Stormwater Pollution Prevention Plan	Mon 6/9/25	Fri 11/7/25	110 days
33	Final PS&E	**Mon 6/9/25**	**Fri 11/7/25**	**110 days**
34	35% Plans and Estimate	Mon 6/9/25	Fri 7/4/25	4 wks
35	City Review	Mon 7/7/25	Fri 7/25/25	3 wks
36	75% Plans and Estimate	Mon 7/28/25	Fri 9/5/25	6 wks
37	City Review	Mon 9/8/25	Fri 9/19/25	2 wks
38	95% PS&E	Mon 9/22/25	Fri 10/10/25	3 wks
39	City Review	Mon 10/13/25	Fri 10/24/25	2 wks
40	100% PS&E	Mon 10/27/25	Fri 11/7/25	2 wks



FIRM QUALIFICATIONS

Michael Baker draws from the talents of our staff that specializes in civil engineering, traffic planning and engineering, bridge design, storm water management/water quality, environmental and land planning, regulatory compliance/permitting, public participation programs and related services to provide a comprehensive approach to project solutions. Experienced staff have a solid understanding of local issues, regulatory and public policy affecting local projects and has developed relationships in the communities we serve.

Street Improvements

Michael Baker has provided professional design services to public agencies for over 30 years. Our capabilities include transportation planning, design, and construction. Design services include conceptual, preliminary, and final design plans with associated, specifications, and estimates for local roads, arterial highways, and transportation corridor systems. Michael Baker incorporates in-house services of several disciplines to provide a comprehensive team to complete a range of tasks that include:

- Roadway rehabilitation and widening;
- Intersection and interchanges;
- Bridge design;
- Signing, striping and stage construction plans;
- Right-of-way mapping;
- Utility relocation coordination;
- Agency permitting;
- Specifications and bid documents;
- Construction survey staking and construction management.
- PS&E;
- Traffic Engineering;
- Utility Design;
- Storm Water Design;
- Water Quality;
- Erosion control (QSD/QSP);
- Environmental (CEQA);
- Regulatory Permitting;
- Monumentation

Coordination, Utilities, and Agencies

Michael Baker staff has experience coordinating the various tasks of highway projects to gain appropriate clearance and permitting from local agencies. We maintain an ongoing dialogue with local, regional, state, and Federal jurisdictional agencies and continually keeps abreast of the changing requirements and procedures for each agency. Michael Baker always incorporates geometric design standards of the appropriate jurisdictional agency into the engineering plans of public works projects.

ADA Compliance: State regulations for the Americans with Disabilities Act (ADA)

Michael Baker consults regulating documents to determine the dimension of curb ramps, location and transition from walks, gutters, and streets, appropriate materials, amount of access from the street, and prevention of obstruction from vehicles.

Civil Engineering

Michael Baker engineers design solutions for land use opportunities and site planning. For decades, Michael Baker has worked to assist clients to improve and rehabilitate existing streets, roadways, and major arterials.

Survey / Mapping

Michael Baker survey personnel have performed complete project services, from initial design topography through final monumentation and construction staking, on many varied public and private developments throughout the western United States. All survey crew's work under the direct supervision of a Licensed Land Surveyor registered in the State of practice. Each survey crew is equipped with the latest survey equipment state of the art instruments, GPS receivers and notebook computers. Field data collectors are interfaced with our office wide area network computer system and Internet uplink to insure accurate and timely information transfers. This means fast turn arounds for tightly scheduled projects. All survey vehicles are equipped with radios and cellular phones for efficient and effective response time. All field personnel have been trained in safety, cost and budget controls.

- ALTA Maps / ACSM Survey Maps
- Aerial Ground Control and Profiles
- Record Research
- Right-of-Way Surveys

- Boundary Surveys and Boundary Analysis
- Construction Staking
- Corner Records
- Digital Submission of Maps
- Final Tract maps
- GPS Surveys
- Legal Descriptions and Mapping
- Lot Line Adjustment
- Monitoring Surveys
- Record of Surveys
- Tentative Parcel Maps
- Topographic and Hydrographic Surveys
- Topographic Mapping / Cross Sections
- Photogrammetry:
  - Aerial Photography
  - Analytical Bridging
  - Topographic Mapping
  - Digital Terrain Models
  - Ortho-Rectified Imagery
  - Light Detection and Ranging (LiDAR)

Traffic Planning

Michael Baker provides complete services for the planning and preliminary engineering design of local roads, streets, arterial highways, and transportation corridors to public agencies and private developers. Michael Baker's specific transportation planning capabilities include:

- Route Alignment Studies
- Traffic Impact Studies
- Preliminary Intersection/Interchange Design
- Circulation Elements
- Preliminary Cost Estimates
- Bicycle/Equestrian/Pedestrian Trail Systems
- Traffic Impact Fee Programs
- Land Use Impact Analysis
- Congestion Management Plans (CMP)
- Construction Traffic Management Plan (TMP)

The Transportation Planning Department of Michael Baker has an outstanding reputation with over 30 years of experience in the fields of transportation master planning and civil engineering. Members of the firm have extensive experience working directly for municipal, county, state, and federal agencies, as well as providing consulting services to private clients.

Based on proven engineering principles, Michael Baker's experienced staff incorporates the geometric standards of alignment, grade, cross section, access control, and intersection/interchange design into the planning and engineering of new roadways and highways. Michael Baker has extensive experience in the redesigning of existing highways and intersections to increase capacity and improve safety.

Michael Baker emphasizes traffic planning and design techniques to satisfy the requirements of a study site's traffic while minimizing the impact on non-site traffic. This is accomplished by utilizing any or all of the following external study site traffic analysis. Such an analysis includes:

- Traffic Generation
- Directional Distribution of Traffic
- Access Design Criteria
- Traffic Signal Considerations
- Adjacent Land Access Needs
- Impact on Existing Streets
- Evaluation of Alternate Designs
- Intersection Capacity Utilization

Michael Baker transportation projects include the planning of major regional transportation facilities. Our staff is also actively involved in various arterial highway widening studies and freeway interchange studies and maintains an on-going dialogue with local, regional, state, and federal agencies.

Michael Baker provides a wide range of transportation engineering design services to numerous public agencies and private developers. Michael Baker's specific transportation engineering capabilities include:

- Roadway Widening Design
- Highway, Freeway, and Tollway Design
- Intersection and Interchange Design
- Bridge and Structures Design
- Signing, Striping, and Stage Construction Plans
- Right of way Mapping
- Agency Permitting
- Utility Relocation Coordination
- Preparation of Specifications and Bid Documents
- Construction Survey Staking, and Construction Management

Many of Michael Baker's experienced staff of registered civil engineers, licensed land surveyors and designers have had the benefit of long careers and have worked with several public agencies during their tenure at Michael Baker. Their

background and experience have proven invaluable in the early identification of the needs of each of our public agency clients and created the ability for Michael Baker to respond with the appropriate level of detail and cost saving design solutions. Michael Baker's staff maintains an on-going dialogue with local, regional, and state jurisdictional agencies and continually keeps abreast of the changing requirements and procedures of the Federal, State and local agencies.

Storm Water / Water Quality

The Michael Baker team has a broad base of experience that can provide a wide variety of services to meet the challenges associated with storm water quality. Current projects give the Michael Baker Team a unique and clear understanding of the requirements that the regulated community faces in complying with Court orders, fulfilling National Pollutant Discharge Elimination System (NPDES) Permit obligations and other related storm water activities. In addition to this experience, several members of the Team are participants in the California Storm Water Quality Association.

Michael Baker's Storm Water Quality capabilities include the identification of constituents of concern, research relative to Best Management Practices (BMP) effectiveness, BMP siting, design, construction, construction management and operation, maintenance and monitoring.

Municipal Stormwater Program Development

Michael Baker develops municipal storm water programs for both Phase I and Phase II communities. Project elements include program organization, legal authority, BMP approaches for new development, existing development and construction activities, illegal discharge / illicit connections, community participation and education, staff training, annual reporting, monitoring program development and implementation, and overall program implementation.

NPDES Compliance

Michael Baker has assisted public and private sector clients with NPDES compliance services. Relevant experience includes construction and industrial site inspection, permit requirement interpretation, response to notices from regulators, Storm Water Pollution Prevention Plan (SWPPP) preparation and review, Water Quality Management Plan (WQMP) preparation and review, training, and annual reporting.

Air Quality Assessments

Michael Baker's air quality services include project-specific analysis of regulatory impacts, short-term construction emissions, long-term operational emissions, including both stationary and mobile source emissions and both regional and local emission levels, and computer modeling of source-specific pollutant emissions and dispersion analysis. Additionally, Michael Baker has carried out mitigation programs for commercial, transportation, and industrial projects; and General Plan Air Quality Elements. Michael Baker staff has also performed a variety of global climate change analyses and are familiar with the requirements of Assembly Bill 32 (Global Warming Solutions Act).

Noise Impact Assessments/Analyses

Michael Baker's acoustical services include instrument-assisted noise and vibration field surveys, commercial and industrial stationary sources noise impact analyses, Federal Highway Administration (FHWA) computer modeling of motor vehicle noise impacts for roadway and freeway projects, and rail noise impact analysis. Michael Baker's acoustical staff also prepare transportation-related sound wall design, evaluation of sound insulation performance, manufacturing and industrial noise impact mitigation, building exterior and interior sound and vibration isolation analysis, room acoustics and interior finish study, and General Plan Noise Elements.

Biology

The Michael Baker Team will prepare the appropriate biological resources related reports to support CEQA analysis. Michael Baker maintains a highly-trained team of professional biologists with the expertise to perform:

- Habitat Assessments
- General Biological Surveys
- Focused Sensitive Species Surveys
- Jurisdictional Wetland Delineations
- Wildlife Corridor Analysis
- Regulatory Permitting
- Section 7 Consultations

Our biologists maintain the necessary recovery permits necessary to conduct focused species surveys for numerous Federal threatened, endangered, and candidate species.

Michael Baker's work effort would include both primary and secondary research to establish the baseline biological conditions on the site, to understand, in detail the environmental impacts to biological resources associated with the proposed project. Michael Baker's team can also identify project alternatives to avoid, minimize, and mitigate potential impacts associated with project. Depending on the physical resources onsite and the number and type of agencies involved, we may recommend early coordination with Responsible and Trustee Agencies, as well as other public agencies with an interest in the proposed project.

Representative projects are presented below, highlighting the Michael Baker Team's extensive, Street rehabilitation and improvement projects in the Temecula and Murrieta Communities. These projects demonstrate our ability to complete projects similar in magnitude and design requirements on schedule, in an efficient cost-effective manner using innovative design techniques. The representative projects presented involved many of the same professional design services that will be part of the Whitewood Widening project.

I-15 / Nutmeg Street

- Michael Baker prepared a Combined PSR/PR, Geometric Approval drawings and final PS&E to construct a four-lane overcrossing of I-15 between the existing Clinton Keith Road interchange which is located 2.8 kilometers to the north and the California Oaks interchange which is located 2.1 kilometers to the south in the City of Murrieta. The Nutmeg Street Overcrossing provides a connection between the existing Nutmeg Street roadway approaches that were constructed in conjunction with the development of the adjacent residential tracts in the late 1980's. The existing Nutmeg Street cross section, both east and west of I-15, provides a curb to curb width of 19.5 m within a right-of-way of 26.8 m. The existing roadway overcrossing approaches and the new overcrossing structure were delineated to provide two travel lanes, a bike lane, and sidewalk in each direction of travel with a striped median.

I-215 / Los Alamos Road

- Michael Baker provided environmental evaluation, structures engineering, survey and right-of-way engineering for improvements to the I-215 / Los Alamos Road interchange.
- The project included widening of the existing bridge from 15.1 meters to 36.6 meters. The 60 meter two-span structure utilized 1.22-meter-deep post tensioned box girder bridges with end diaphragm type abutments for both right and left bridges. The abutments and bent are supported on cast-in-drilled hole (CIDH) piles. The project had several critical structural issues to resolve.
- The type selection process required seismic evaluation of the combined structure and presenting the proposed retrofit at the combined Type Selection / Retrofit Strategy meeting to Caltrans for approval prior to final design. Seismic evaluation and retrofit of the existing structure were required. Following the type selection approval Michael Baker prepared and processed the final bridge PS&E and received Caltrans approval in 16 weeks.

Old Town 5th Street Widening

- Michael Baker prepared Street Improvement, Traffic Control and Signing & Striping plans to include street widening and sidewalk improvements on the easterly side of 5th Street, between Mercedes Street and the tie-in point 120 LF northerly of the Old Town Front Street intersection.

Pauba Road Widening

- Michael Baker prepared Street Improvement, Traffic Control and Signing plans to include half-width and sidewalk improvements on the north side of Pauba Road. Improvements extended roughly from 500 LF easterly of the Pauba Road / La Primavera Street intersection to Ynez Road, roughly 1,900 LF.

- Michael Baker was responsible for providing surveying and engineering services for the widening of the Diaz Road Bridge. This construction project funded by Lennar Homes and directed by the City of Temecula required field and office surveys that included staking for right-of-way, bridge abutments, pile locations, bridge deck, and curb.

Ynez Bridge Widening

- Michael Baker was responsible for aerial mapping, GPS, utility location, and street cross section surveys to facilitate preparation of improvement plans for Margarita Road northerly from Solana Way to Winchester Road.

Margarita Road Extension

- Michael Baker was responsible for the design survey project to facilitate road widening for five miles of Scott Road in Riverside County. The work included aerial mapping control, field topographic surveys and road alignment and right-of-way surveys performed to specific standards required by the Riverside County Survey Department.

Scott Road Widening

- Michael Baker submitted 16 plan sheets of Right-of-Way Maps and seven sheets of survey analysis hardcopy, 180 legal descriptions, and exhibits for approximately three miles of State Route 74. All plan sheets and the utility identification maps were prepared on Intergraph MicroStation.

SR 74 R/W Engineering

- Michael Baker prepared the Delineation of Jurisdictional Waters and processed resource agency permit applications with the U.S. Army Corps of Engineers (Section 404 Nationwide Permit); the California Department of Fish and Wildlife (1602 Streambed Alteration Agreements); and the Regional Water Quality Control Board (Section 401 Water Quality Certification); for the proposed Jackson Avenue Street Improvement Project, located in the City of Murrieta, County of Riverside, CA. Specifically, the project site trends along Jackson Avenue from Interstate 15 to where Jackson Avenue turns into Diaz Road. Currently Warm Springs Creek within the vicinity of the project site is a low water crossing. The project included Jackson Avenue improvements and a Hydro arch bridge over Warm Springs Creek.

Jackson Ave Street Improvements

- Michael Baker, under contract with the City of Temecula, was responsible for the beautification and traffic improvement designs to the existing raised medians and four signalized intersections in a two mile segment of Highway 79 - Winchester Road.
- The design team, led by Michael Baker landscape architects and supported by Michael Baker water quality, civil and traffic engineers, worked closely with City engineers and landscape maintenance managers to develop a landscape and traffic solution that was beautiful, improved the level of service and was maintainable under the City's current maintenance regiment.

Winchester Road Beautification

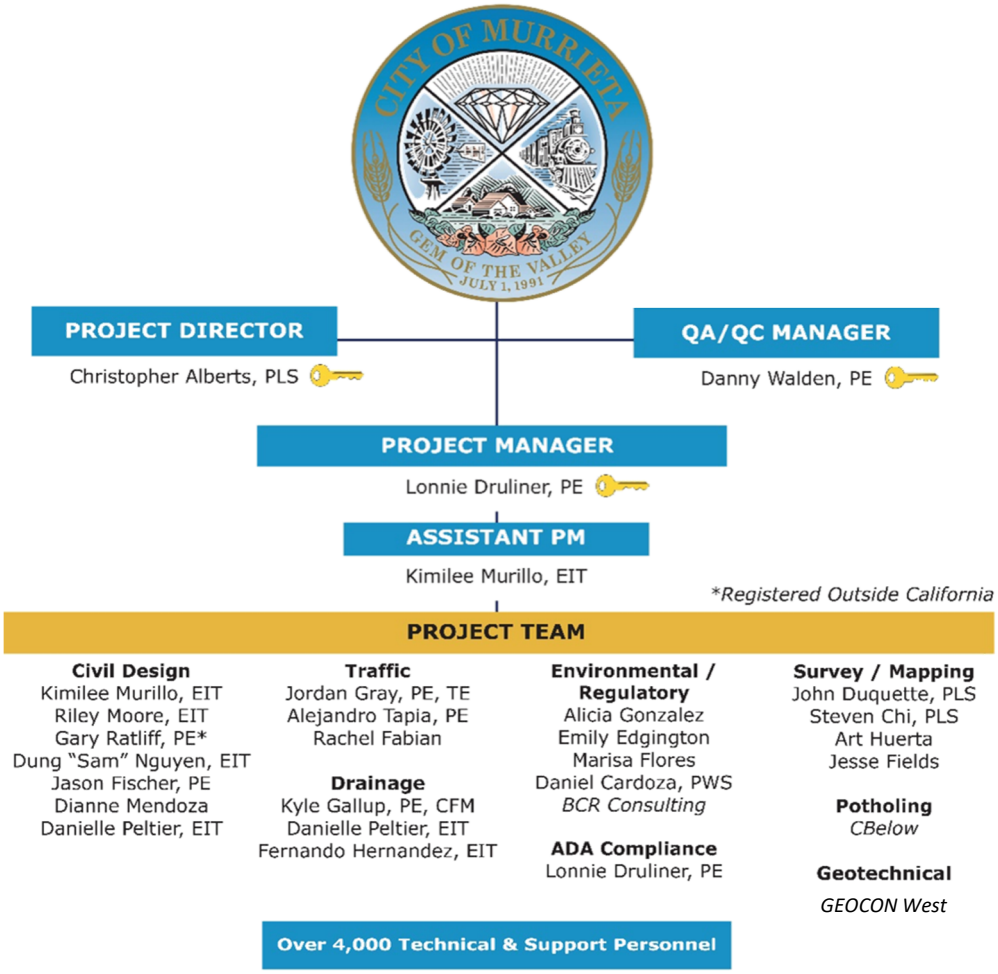
PROJECT TEAM

Our team has meticulously tailored its organizational structure specifically for this project. With a profound understanding of local high school traffic impacts, ADA compliance, habitat and environmental constraints, as well as potential drainage issues, our team is well-prepared to handle these challenges seamlessly.

Our project management team oversees the entire process, ensuring effective coordination and communication among all disciplines. They collaborate closely with our technical services team, who are experienced in the preparation of roadway widening documents and possess a deep understanding of City and County requirements.

Organization Chart

The following chart illustrates the depth of resources our team brings to this project, showcasing our commitment to delivering exceptional results:



Project Team Qualifications Matrix

Below we provide a summary of our key personnel that demonstrate our qualifications. Our team of dedicated professionals brings expertise in roadway widening while mitigating impacts on the Community. With their specialized knowledge and proven track record, our key personnel are well-equipped to handle the complexities of this project. The list of reference projects in the previous section showcases our successful completion of projects of varying scales and complexities, highlighting our commitment to delivering quality results. The City can have confidence in partnering with a team that has the expertise and experience necessary for the successful completion of this important infrastructure improvement project.

Team Member / Role	Yrs of Exp	Education / Licenses/Certifications
Project Management Team		
Lonnie Druliner Project Manager	14	M.Eng., 2012, Civil Engineering, Tufts University B.S., 2010, Structural Engineering, UC San Diego **Licenses/Certifications** Professional Engineer – Civil, CA, 2016, 86346
Kimilee Murillo Assistant Project Manager	7	B.S., 2018, Civil Engineering, CalPoly Pomona **Licenses/Certifications** Engineer In Training, CA, 2018, 167995
Danny Walden QA/QC Manager	20	B.S., 2008, Civil Engineering/Transportation, California State Polytechnic University, Pomona **Licenses/Certifications** Professional Engineer, California, 2014, 82536
Christopher Alberts, PLS Project Director	29	Coursework, San Jacinto College Coursework, General Studies, South Dakota State University **Licenses/Certifications** Professional Land Surveyor, CA, 2008, LS8508
Project Team *(Alphabetically)*		
Daniel Cardoza Regulatory Permitting	19	M.S., 2011, Environmental Studies/Environmental Planning, California State University at Fullerton B.A., 2009, Environmental Science/Policy, California State University at Long Beach **Licenses/Certifications** CRAM for Riverine Wetlands-Certified Practitioner, California, 2012 Wetland Delineator Certification Program, California, 2011 Professional Wetland Scientist, California, 2016, 2756
Steven Chi Survey	38	Professional Land Surveyor, CA, 2010, 8860
John Duquette Survey Lead	32	A.S., 1996, Surveying and Mapping, Santa Ana College **Licenses/Certifications** Professional Land Surveyor, California, 1999, 7566
Emily Edgington Environmental	3	B.S., 2022, Fisheries Biologist & Communications, California State Polytechnic University, Humbolt
Rachel Fabian Traffic	9	B.A., 2016, Environmental Studies, University of Oregon
Jesse Fields Survey	15	Diploma, General Studies **Licenses/Certifications** Certified Party Chief
Jason Fischer Civil Design	19	B.S., 2007, Civil Engineer, North Dakota State University **Licenses/Certifications** Professional Engineer – Civil, CA, 78608

Team Member / Role	Yrs of Exp	Education / Licenses/Certifications
Marisa Flores Biologist	18	B.S., 2003, Ecology and Evolution, University of California, Davis **Licenses/Certifications** CRAM for Riverine Wetlands – Certified Practitioner, CA, 2012 CRAM for Estuarine Wetlands – Certified Practitioner, CA, 2013
Kyle Gallup Drainage	20	B.S., 2005, Civil Engineer, San Diego State University **Licenses/Certifications** Professional Engineer - Civil, California, 2009, 74610 Certified Floodplain Manager, 2018, US-18-10783
Alicia Gonzalez Environmental	11	B.S., 2014, Biological Science, California State University, San Marcos
Jordan Gray Traffic	10	B.S., 2014, Civil Engineering, San Diego State University **Licenses/Certifications** Professional Engineer - Civil, California, 2018, 89288 Professional Traffic Engineer, California, 2021, TR 2987
Fernando Hernandez Drainage	2	B.S., 2023, Civil Engineering, CalPoly Pomona Licenses/Certifications Engineer In Training, CA, 2023, 179519
Art Huerta Survey	30	Diploma, General Studies, Perris High School
Dianne Mendoza Utilities	7	B.S., 2018, Civil Engineering, CalPoly Pomona **Licenses/Certifications** Engineer-In-Training, CA, 163351
Riley Moore Civil Design	5	B.S., 2020, Civil Engineering, CalPoly Pomona **Licenses/Certifications** Engineer In Training, CA, 2021, 174122
Gary Ratliff Civil Design	7	B.S., 2019, Civil Engineering, Brigham Young University, Idaho Campus **Licenses/Certifications** Engineer-In-Training, California, 2022, 177926 Professional Engineer - Civil, Nevada, 2023, 031173
Dung "Sam" Nguyen Civil Design	3	B.S., 2022, Civil Engineering, CalPoly Pomona **Licenses/Certifications** Engineer In Training, CA, 2023, 178356
Danielle Peltier Drainage and Civil Design	6	B.S., 2020, Environmental Engineering, University of California, Riverside **Licenses/Certifications** Engineer-In-Training, 2020
Ciprian Stelea Structural Engineering	21	M.S., 2006, Civil Engineering/Structures, University of California, Irvine B.S., 2004, Civil Engineering, Central Connecticut State University **Licenses/Certifications** Professional Engineer - Civil, California, 2008, 73379
Alejandro Tapia Traffic Engineer	7	B.S., 2019, Civil Engineering, CalPoly Pomona **Licenses/Certifications** Professional Engineer – Civil, California, 2023, 94642

Key Project Team Resumes

Lonnie Druliner, PE | *Project Manager*

Ms. Druliner has many years of experience in land development in both private and public sectors throughout southern California. Her project experience range from residential, multi-family, and commercial development to Capital Improvement Projects (CIP). Her experience has developed her skills in grading and improvement plans, storm water calculations, hydrology analyses, utility designs, and SWPPP reporting. She has focused on ADA design and upgrade projects and is familiar with Public Right Of Way Accessibility Guidelines (PROWAG) which were recently adopted, California Building Code (CBC) Chapter 11B, and City Standards.
Ms. Druliner led Capital Improvement Projects (CIP) for the City of Escondido. Includes Active Transportation Projects (ATP) throughout the City to improve sidewalk curb and gutter, adding bicycle lanes, implementing traffic calming measures, and promote safe routes to school. Various phases of the projects were environmental (CEQA and NEPA), engineering and specifications, and construction. Grants ranged from $1.2M to 1.6M. Reporting and submittals were coordinated with Caltrans, SANDAG, and California Transportation Commission (CTC).

Michael Baker INTERNATIONAL

Years with Michael Baker
2

Years of Experience
14

Education
M.Eng., 2012, Civil Engineering, Tufts University

B.S., 2010, Structural Engineering, University of California, San Diego

Licenses/Certifications
Professional Engineer - Civil, California, 2016, 86346

RELEVANT EXPERIENCE

Ynez Road Sidewalk Improvements. City of Temecula. Project Engineer. Responsibilities included updating Extra Work Requests (EWRs), coordinating with the City, and providing a earthwork quantity estimate, cost estimate and coordination support. The project includes providing a sidewalk to an existing street and locate necessary areas for concrete retaining curbs. Additionally, two curb returns needed to be modified to meet ADA and City requirements.

Frisbie SRTS Project. City of Rialto. Overseeing civil and traffic design to design 70 new curb ramps, review 10 existing ramps, reconstruct 58 driveways, design 6,000 linear feet of new and reconstructing sidewalk, and providing signing and striping for upgraded crosswalks and school signage.

Button Parking Lot Project. City of Rancho Mirage. Overseeing civil, landscape architecture, and electrical disciplines to design and grade roughly 2.3 acres of parking lots to be used for the Rancho Mirage Amphitheater and weekly farmers markets. Street improvement and ramps are being updated to comply with ADA requirements. Coordinating with the City to develop material needed for City Council, including 3D renderings.

Rose Hills Court and Washington Arts (Affordable Housing and Sustainable Communities, AHSC, Round 5), City of Los Angeles. Project Manager. The project entails a PS&E package modifying curb ramps to meet ADA requirements, improving portions of curb, gutter, and sidewalk on an existing street, bulb outs for traffic calming measures, and landscaping at multiple locations throughout Los Angeles.

Morrison Park Pump Track & Site Improvements Project. City of Murrieta. Oversee the expansion design of Morrison Park which includes the addition of a parking lot with ADA compliant stalls, accessible routes, restroom, pump track, lighting, detention basin, flow track, bicycle playground, and trail path. Managed multiple engineering disciplines, including electrical, stormwater, civil, geotechnical, and landscape architecture, in collaboration with the pump track team, to deliver the plans, specifications, and estimate package to the City in a timely manner.

Section 24 (Phase 2) and Section 33 Infrastructure Improvements. Agua Caliente Tribe. Project Manager. The project consists of adding a new street, providing curb, gutter, and sidewalk on an existing street, street widening, traffic modification with connection a flashing sign next to a fire station, and street lights along a corridor.

Grape Day Park Improvements Project. City of Escondido. Focused relocating a restroom within Grape Day Park and providing ADA access to the restrooms from the various access points of the park. Coordination efforts were made with utility companies, Escondido Police Department, Escondido Parks and Recreation Department, Escondido's Historic Preservation Committee, California Center for the Arts - Escondido, and design consultants to provide the best service to all parties and especially the residents.

Capital Improvement Projects (CIP). City of Escondido. Includes Active Transportation Projects (ATP) throughout the City to improve sidewalk curb and gutter, adding bicycle lanes, implementing traffic calming measures, and promote safe routes to school. Various phases of the projects were environmental (CEQA and NEPA), meeting with residents, engineering, specifications, and construction.

CHRISTOPHER ALBERTS, PLS | *Project Director*

Mr. Alberts has combined consulting experience in field and office operations. As Riverside and San Bernardino Offices Executive, Mr. Alberts oversees the office environment and employee engagement to develop and grow the region's capabilities. He is responsible for office and discipline operations, maintaining client relationships, quality control of plans and deliverables, staff allocation, scheduling, and verification of client satisfaction. He is active on a number of professional state and local association boards and chairman of a professional practice committee serving three southern California counties.

Michael Baker INTERNATIONAL

Years with Michael Baker
23

Years of Experience
29

Education
Coursework, General Studies, San Jacinto College
Coursework, General Studies, South Dakota State University

Licenses/Certifications
Professional Land Surveyor, California, 2008, 8508

RELEVANT EXPERIENCE

Avenue 42 (Phase 1) Street Improvements, Indio, California. City of Indio. Surveyor. Responsible for field surveys. Michael Baker provided engineering services for the widening of Avenue 42, which consisted of more than one mile. This project widened the two lane roadway with median to a six lane section.

Adams Street Bridge, La Quinta, California. City of La Quinta. Surveyor. Responsible for field surveys. Michael Baker provided environmental clearance and oversight of the bridge and roadway improvements for a 440-foot bridge project over the Coachella Valley Stormwater Channel. The project, which used Federal HBRR funds, replaced the existing low-water crossing with a bridge to provide the city with a more reliable arterial roadway during inclement weather for the general public and emergency personnel. The project provided a four-lane roadway and bridge with raised median north of Highway 111 to Westward Ho Drive.

Jefferson Street and Varner Road Improvement Project, Indio, California. City of Indio. Surveyor. Responsible for field surveys. Michael Baker prepared roadway designs to widen Jefferson Street and realign Varner Road to accommodate anticipated future traffic volume due to the I-10 interchange. The proposed project will improve Varner Road, east and west of Jefferson Street north, and Jefferson Street north to the required roadway sections per the Interchange traffic analysis report. Varner Road will be widened to four through lanes with dual left turn lanes in the eastbound to northbound direction, dual right turn lanes in the eastbound to future southbound direction, and triple left turn lanes in the westbound to future southbound direction. Jefferson Street will be widened to six through lanes within the project limits, dual left turn lanes in the southbound to eastbound direction and a free right turn lane in the future northbound to eastbound direction.

Interstate 10/Jefferson Street Interchange Improvements, Indio, California. County of Riverside Transportation Department. Mapping Specialist. Responsible for mapping. Michael Baker performed environmental and engineering services for the preparation of the project report (PR), modified access report (MAR), and plans, specifications, and estimates for I-10/Jefferson Street interchange improvements. This project will balance several complex geometric constraints to eliminate the discontinuity of the arterial street through movements within the interchange. The interchange is included in the I-10 Corridor Plan, prepared by the Coachella Valley Association of Governments (CVAG), which requires specific architectural and landscape treatments to the improved or new interchanges located within the plan. The modifications include replacement and relocation of the Jefferson Street/I-10 overcrossing, additional loop on-ramps, and realignment of Varner Road and Jefferson Street. Michael Baker was responsible for alternatives analysis and design, environmental investigations, roadway design, traffic studies, drainage studies, and structure advance-planning studies. Working closely with Caltrans and the City of Indio, Michael Baker provided a wide range of environmental consulting services. Michael Baker prepared the following studies in support of a joint initial study-environmental assessment (IS/EA): Visual impact analysis (VIA); noise impact report, per TNAP; initial site assessment; natural environment study; report-biological assessment, HPSR/ASR/AER; air quality report and CO hotspot analysis; Section 7 consultation; and Section 106 compliance. In addition, Michael Baker developed the final plans, specifications, and estimates. Preparation of construction plans included roadway layouts and profiles, bridge plans, retaining walls, grading, drainage, signing and striping, traffic signal, lighting, and staged construction.

DANNY WALDEN, PE | *QA/QC Manager*

Mr. Walden has experience in the design and preparation of preliminary engineering study documents, and final design construction documents. His experience includes transportation roadway design, grading and modeling for freeway, infrastructure and street improvement plans for the California Department of Transportation (Caltrans), and municipal clientele. He has extensive knowledge of Caltrans design standards, and his experience working with Caltrans on design-build projects affords him the understanding of working with multiple agencies simultaneously. Mr. Walden has held roles as task lead, and lead design engineer on three of Southern California's most complex design-build projects. Additionally, he has worked on a variety of projects ranging in size from $1 million to $1.6 billion; most recently working with the San Bernardino County Transportation Authority (SBCTA) on the I-10 Corridor Express Lanes Project Design-Build.

Michael Baker INTERNATIONAL

Years with Michael Baker
8

Years of Experience
20

Education
B.S., 2008, Civil Engineering/Transportation, CalPoly Pomona

Licenses/Certifications
Professional Engineer - Civil, California, 2014, C 82536

RELEVANT EXPERIENCE

S.R. 91 Corridor Improvement Project (CIP) Design-Build, Riverside County, California. Riverside County Transportation Commission. Segment Roadway Lead. This project consisted of 16 miles of outside and median freeway widening on the S.R. 91 and I-15 freeways to extend the existing S.R. 91 express lanes 7.5 miles east, and provide direct connector toll lanes to southbound I-15. Segment Roadway Lead responsible for coordinating, submitting, and acquiring approval for two of seven design packages, totaling 6 miles of improvements. Completed Design Exception Fact Sheets, horizontal, vertical, superelevation design, and grading, while coordinating with multiple disciplines. Worked closely with RCTC and Caltrans in Over-the-Shoulder and Joint Resolution Team meetings to manage design issues, resolve comments, and maintain the accelerated design schedule. Assisted in managing compliance with quality control for each package submittal.

I-405 Sepulveda Pass HOV Widening Design-Build, Los Angeles County, California. Metro; Lead Roadway Design Engineer. This project added an additional mixed-flow lane to I-405, an HOV lane in the northbound direction, and included reconstruction of 7 interchanges along the 10-mile corridor. Responsible for leading the effort to finalize the roadway geometry while incorporating innovative design refinements, such as a mainline shift near the Getty Center to avoid relocation of a large MWD Line, reducing the impact on construction schedule and cost. Also responsible for coordinating, submitting, and acquiring approval for six of seven design packages, while coordinating with stage construction, drainage, and structure disciplines. Worked directly, and daily, with Metro and Caltrans staff on design solutions, comment resolution, and approval of Design Exception Fact Sheets for over 100 nonstandard design elements.

Pavement Resurfacing, La Sierra Avenue, Riverside, California. Riverside County. Senior Engineer. Responsible for development and obtaining approval of the PS&E package under an aggressive schedule to ensure that the project was able to receive the necessary funding. Michael Baker provided design services for the improvement and repair of La Sierra Avenue's pavement. The project included completing field reviews to identify damaged areas in need of repair and upgrades, identifying impacted utilities for necessary relocation and adjustment, and preparing plans, specifications, and estimates. Additionally, Michael Baker reconstructed AC Dike, upgraded metal beam guard railing, roadside signs, pavement markings, and reconstructed curb ramps to meet Americans with Disabilities Act (ADA) requirements.

Ramona Resurfacing - RCTD. Riverside County. Senior Engineer. Responsible for development and obtaining approval of the PS&E package under an aggressive schedule to ensure that the project was able to receive the necessary funding.