



## Scope of Work

This section describes our proposed scope of work that will fulfill the requirements outlined in the RFP.

### Task 1: Project Initiation & Data Collection

#### 1.1 Kick-Off and Scoping Meeting

Michael Baker will meet with City staff to verify the scope of work, the project schedule, and key project goals and milestones. The City will provide Michael Baker with existing project information, including right-of-way.

#### 1.2 Site Visit

The project team will perform a field review to identify existing features and issues.

#### 1.3 Aerial Mapping

Michael Baker will extract the most recently available aerial photograph from its team of Geographic Information Systems (GIS) experts and/or use aerial photograph and resources provided by the City to prepare base maps and exhibits for field visits, project reports, and meetings. Aerial topographic surveys are not included in this task.

#### 1.4 Utility Research and Coordination

Early coordination with the utility owners within the project limits will be critical in understanding existing utility impacts and geometric limitations. Michael Baker will prepare Utility Request letters (on City letterhead), requesting utility owners to send their facility maps and as-built plans. Michael Baker will maintain a utility contact matrix including the following:

- Copies of utility notices sent
- Dates utility responses were received
- Copies of correspondence
- Atlases/plans received
- Dates utility notices were sent

#### 1.5 As-Built Research (Roadway and Drainage)

The City will provide Michael Baker with all available as-built data for Mulholland Highway and Old Topanga Canyon Road including roadway, drainage, signal, and utility improvement plans. Michael Baker will review as-built data and verify improvements in field and underground utility locations.

### Task 2: Traffic Study Report

#### 2.1. Traffic Data Collection

Michael Baker will visit the traffic study area to document existing conditions including traffic signal phasing, speed limits, and intersection approach lanes. Observations will be conducted for the AM Peak, the School PM Peak, and the PM Peak. It is anticipated that City-provided traffic count data will be supplemented with the traffic counts listed below. It is assumed that the City will provide 24-hour automatic traffic recorder counts. Michael Baker may utilize a contractor to perform the traffic counts. Please note that traffic counts will need to be collected in fall of 2019, after school is back in session.

- Mulholland Highway and Old Topanga Canyon Road (West) Intersection – 12-hour weekday count while school is in session, during a non-holiday week
- Mulholland Highway and Old Topanga Canyon Road (East) Intersection – 12-hour weekday count while school is in session, during a non-holiday week
- Mulholland Highway and Old Topanga Canyon Road (West) Intersection – 6-hour Saturday count during summer months
- Mulholland Highway and Old Topanga Canyon Road (East) Intersection – 6-hour Saturday count during summer months



*Schools located on Mulholland Hwy affect traffic congestion in the Corridor. Michael Baker will analyze how traffic patterns change during peak times.*



## 2.2. Crash Data Review

Michael Baker will review the most recent three years of comprehensive crash data (potentially years 2016, 2017, and 2018) along Mulholland Highway between the intersections of Old Topanga Canyon Road (West) and Old Topanga Canyon Road (East) and extending approximately 1,000 feet on all approaches to these intersections. The results of the crash data review will be summarized in tables, charts, and a crash cluster map. Detailed crash collision diagrams are not anticipated as part of this effort. Crashes involving bicycles or pedestrians will be highlighted as part of this analysis.

## 2.3. Traffic Volume Development

Michael Baker will utilize count data provided by the City and additional count data obtained by Michael Baker to document the Existing condition traffic volumes within the study area: Traffic volume projections will be developed by applying a growth rate provided by the City to the existing traffic volumes. Additionally, traffic volume projected for any planned or approved developments which have not yet been constructed will be added to the forecast volumes. Traffic volume development will include consideration of the planned community park.

## 2.4. Traffic Signal Warrant Analysis

Michael Baker will conduct a traffic signal warrant analysis for the existing Mulholland Highway and Old Topanga Canyon Road (West) stop-controlled intersection using the California 2014 Manual on Uniform Traffic Control Devices (MUTCD). The warrant analysis will be conducted for the Existing Year. Planning level volume warrant analysis will be conducted for the Design Year if a warrant is not met during the Existing Year.

## 2.5. Traffic Operations Analysis

Michael Baker will perform traffic operations analysis for the AM Peak Hour, the PM School Peak hour, and the PM Peak Hour conditions using Highway Capacity Manual, 6<sup>th</sup> edition methodologies for two study intersections: 1) Mulholland Highway and Old Topanga Canyon Road (West), and 2) Mulholland Highway and Old Topanga Canyon Road (East). Analysis will be conducted for the following scenarios:

- Existing Year
- Existing Year Plus Improvements (potential signalization)
- Design Year No Build
- Design Year Plus Improvements



*Michael Baker will assess traffic operations at peak times and evaluate potential improvements.*

The appropriate Design Year will be determined through coordination with the City. Opening Year analysis is not included in this scope of work. The traffic operations analysis will evaluate potential improvements such as a traffic signal, intersection lane configuration modifications, and/or roundabout during the Design Year. Detailed school pick-up and drop-off assessments on school property and operations analysis of individual driveways are not included in this scope of work.

## 2.6. Traffic Study Report

A Traffic Study Report will be prepared to document the methodologies, assumptions, findings, and conclusions. The traffic study will include the appropriate maps, exhibits, and tables required for comprehensive documentation. A preliminary draft will be submitted to the City for review and comment.

## Task 3: Geometric Development and Alternatives

### 3.1. Prepare Geometric Concept Improvements & Cost Estimates

Michael Baker will plot the existing conditions in plan view and identify safety and operational deficiencies along the Mulholland Highway Corridor. After reviewing the existing conditions with the City, Michael Baker will prepare conceptual drawings for improvements on Mulholland Highway. Michael Baker will prepare one concept alternative which will be overlaid on existing aerial photo and will show recommended improvements. All improvements will be contained within City right-of-way.



Additionally, Michael Baker will prepare:

- Existing and proposed roadway typical sections including lanes and shoulder widths
- Proposed intersection layouts and improvements
- Extent and widths of sidewalks
- Existing right-of-way limits based on City and County provided data
- Existing utilities above and below ground
- Proposed slope stability improvement areas
- Drainage improvements and impacts
- Preliminary slope cutbacks and potential grading limits
- Identify key preservation areas

Key technical issues will include identifying sight distance issues, safety enhancements, and utility constraints. All roadway and intersection features will be designed in accordance with the latest City General Plan concept, Standard Plans, American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide, AASHTO Greenbook, and the Standard Plans for Public Works Construction (SPPWC). Michael Baker will use the preliminary alternative concepts to develop the preliminary project cost estimate, identify environmental impacts, and provide an initial understanding for City staff and public outreach meetings. Michael Baker will prepare project exhibits on 11x17 color format prints to illustrate the proposed improvements and impacts.

### 3.2. Utility Impact Analysis

Michael Baker will utilize collected agency utility maps and as-built data to prepare an existing utility base map. Michael Baker will utilize the existing utility base map and the proposed geometric alternatives to identify impacts to existing utilities and to prepare preliminary relocation costs and geometry refinements. It is assumed that no powerpole relocation will be proposed along the corridor, per the City. Therefore, coordination with the electrical utility and dry utility companies for relocation costs will not be required.

### 3.3. Safety/Metal Beam Guardrail Assessment and Design

Michael Baker will utilize as-built data, field data, and crash data analysis results to identify problem areas and roadside hazards, assess existing guardrail locations, and propose mitigation options.

### 3.4. Retaining Wall Assessment/Design

Michael Baker will work closely with City staff and the community to establish retaining wall criteria that meet the aesthetic look and feel of the City and the Mulholland Corridor. Michael Baker will reference the previously completed Mulholland Corridor Master Plan and develop feasible retaining wall designs and aesthetic options that seamlessly blend improvements into the natural Mulholland environment.

Michael Baker will establish limits of potential walls, preliminary costs, and recommend the appropriate wall types. Michael Baker will include in the Feasibility Study a summary of retaining wall recommendations.



*Michael Baker will assess various locations for possible retaining walls to reduce debris that flows into the street during rainstorms.*





### 3.5. Geotechnical Assessment

Michael Baker will utilize GeoSoils for geotechnical assessment needs. This assessment will include a discussion of regional geologic condition as well as slope stability and landslides in the Corridor; retaining wall design, type and other geotechnical considerations for wall construction; record search of USGS maps and data; and providing roadway cross-sections based on traffic index and regional geologic data. GeoSoils will perform the following tasks:

- Review and evaluate geotechnical reports prepared for the Corridor. Specific recommendations as to the acceptability of such reports will be provided.
- Recommend modifications/changes to the City's guidelines to be in conformance with the latest State regulations, laws, and acceptable geotechnical engineering practices as needed.
- Review grading and retaining wall plans related to the project to ensure compliance with acceptable geotechnical recommendations.
- Review as-built geotechnical/geological reports for adequacy/completeness.
- Provide field observation for reviewing testing procedures, if requested by the City.
- Review geotechnical section of various EIR and Specific Plans for adequacy as requested by the City.
- Attend meetings as necessary to provide input and feedback regarding project reports, field work, and ongoing or anticipated construction.

### 3.6. Drainage Assessment

Michael Baker will utilize aerial, as-built, and field review data to identify existing drainage infrastructure including culvert locations and size of undercrossings. Preliminary culvert sizing will be prepared using the Federal Highway Administration (FHWA) HY-8 software, deficient culverts will be identified based upon preliminary assumptions. Preliminary estimates of probable construction costs will be developed for culvert relocations and improvements. Potential drainage improvements will be shown on the project color exhibits and included in the final Feasibility Study Report. This task excludes the preparation of design plans, profiles, or details regarding culverts or channels. No coordination with LACDPW is included in this scope of work. At this feasibility study stage, a Los Angeles County Low Impact Development (LID) plan (for water quality) is excluded from the scope of work.

## Task 4: Public Outreach, Meetings, and Hearings

### 4.1. Prepare Presentation Materials and Large Format Exhibits

Michael Baker will prepare presentation material including agendas, PowerPoint presentations, exhibits, and memorandums summarizing findings for the purposes of outreach and general meetings. Our team will also prepare large format exhibits (up to seven feet long) for table top discussion of proposed improvements.

### 4.2. Community, Commission, and City Council Meetings

Michael Baker will attend and present a summary of the project at two community outreach meetings, one planning commission meeting, and one City Council meeting. Additional meetings are included in other tasks as described in the scope of work. We assume that the City will be responsible for public noticing and advertisement of these meetings. This can be provided by Michael Baker under a separate scope and fee, but is not included in this scope of work.

**Our team will work with the City and Community to improve safety and mobility on Mulholland Hwy while maintaining the natural environment framed by the Santa Monica Mountains.**

## Task 5: Prepare Feasibility Study

### 5.1. Refine Geometric Improvements

Michael Baker will assess and discuss comments received from public outreach meetings with City Staff. Once agreed upon with City Staff, Michael Baker will refine the project concept improvements to address key comments received by the public, Planning Commission, or City Council.

### 5.2. Environmental Assessment (EA) of Recommended Improvements

Michael Baker's environmental planners will review the proposed project improvement and identify key environmental issues and requirements under the California Environmental Quality Act (CEQA). Michael Baker will include a section in the Feasibility Study



that discusses: 1) baseline conditions for the proposed project site and adjacent areas; 2) environmental constraints focusing on air quality, greenhouse gases, noise, hydrology/water quality, cultural resources, and biological resources, among other topical areas; and 3) a recommendation regarding the appropriate form of CEQA clearance documentation that will be required for the project as part of a separate, future phase. Quantified technical analyses or technical studies (e.g., air quality, greenhouse gases, and/or noise) are specifically excluded from this task. This section of the Feasibility Study can be used by the City and Michael Baker team to identify key environmental constraints early in the planning process. This approach will allow for informed decisions regarding potential design alternatives and accommodate potential design features that may avoid or minimize environmental impacts.

**5.3. Prepare Draft Feasibility Study**

Michael Baker will prepare a draft feasibility study report to document the methodologies, assumptions, findings, and conclusions of the study and technical aspects discussed above. The feasibility study will include general recommendations, typical sections, signal warrants, recommended traffic safety improvements, erosion control and slope stability locations, pedestrian and bicycle facility accommodations, a milestone schedule for the timing of improvements, cost estimate, an executive summary, and appropriate supporting maps, exhibits, and tables required for comprehensive documentation of the project recommendations. A preliminary draft will be submitted to the City for review and comment.

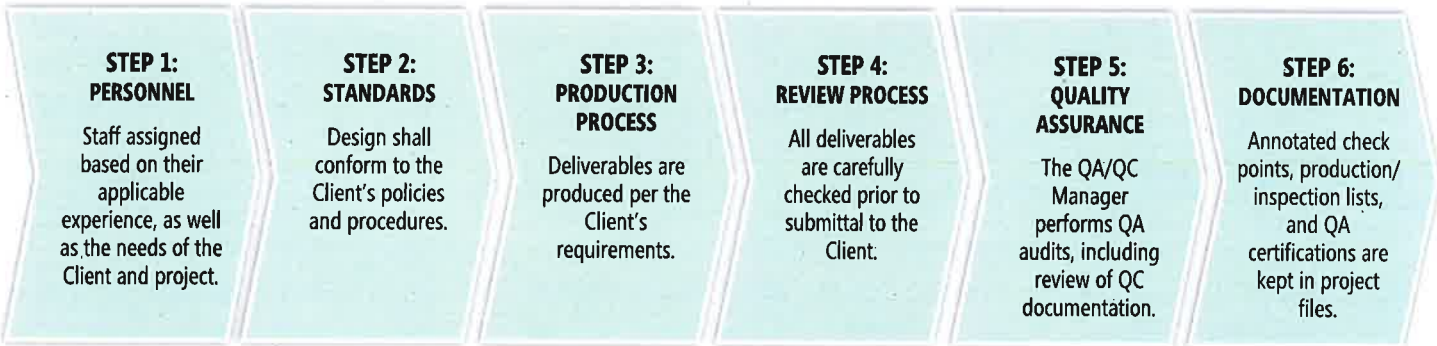
**5.4. Prepare Final Feasibility Study**

Michael Baker will collect City and public review comments and incorporate the comments into the final Feasibility Study Report.

**Task 6: Project Management and Coordination**

**6.1. Project Management and Coordination**

Michael Baker is responsible for project oversight, quality assurance and quality control (QA/QC). Michael Baker will coordinate with City Staff and our sub-consultant to deliver project tasks. **Michael Baker’s QA/QC process consists of the following six steps, each of which is critical to ensuring the project is delivered on time and within budget:**



**6.2. Monthly Schedule Updates/Progress Reports**

Michael Baker will prepare monthly status updates including schedule updates and provide progress reports and status of project tasks.

**6.3. Additional Meetings with City Staff**

Up to two project meetings are assumed with City staff, other than the initial project kick-off meeting and the public outreach meetings.