



301 N. Calle Cesar Chavez, Suite 300 / Santa Barbara CA 91103  
Phone (805) 692-6921 / Fax (805) 692-6931

August 27, 2020

Mr. Christian Doolittle  
Project Manager  
County of Santa Barbara – Public Works Department  
105 E Anapamu St # 301  
Santa Barbara, CA 93101

**Regarding: Santa Claus Lane Streetscape Improvements Project: Retaining Walls,  
Survey and Geotechnical Report**

Dear Chris,

MNS Engineers, Inc. (MNS) is pleased to submit this proposal to provide engineering design services for retaining walls along Santa Claus Lane between Padaro Lane and Santa Claus Lane southbound on-ramp.

**PROJECT UNDERSTANDING & SCOPE**

The County of Santa Barbara (County) is in the process of completing the Santa Claus Lane Streetscape Improvements Project and the Santa Claus Lane Roundabout Project (Santa Claus Lane improvements). These projects will improve operations, add parking, facilitate beach access and beautify Santa Claus Lane between Padaro Lane and Santa Claus Lane southbound on-ramp. MNS will provide support for the following elements resulting from the Santa Claus Lane improvements:

***Task 1. Survey Services***

The County is basing the design of the Santa Claus Lane improvements on a field survey performed approximately ten years ago. MNS Engineers will provide field survey updates as well as other survey services required. A full scope of the survey services is attached.

***Task 2. Retaining Wall Design***

The County is proposing six retaining walls for the project. Four walls will be constructed along the right-of-way (R/W) line between the County and the State, while two will be constructed along the R/W line between the County and Union Pacific Railroad (UPRR). The preliminary

lengths and heights of the walls taken from the latest construction details provided by the County are as follows.

Retaining walls along the State R/W:

1. 672' long wall with a maximum retained height of 6'.
2. 502' long wall with a maximum retained height of 5'.
3. 1,536' long wall with a maximum retained height of 7'.
4. 70' long wall with a maximum retained height of 4'.

Retaining walls along the UPRR R/W:

5. 809' long wall with a maximum retained height of 3'.
6. 367' long with a maximum max retained height of 4'.

All retaining wall shall be Caltrans Type 5 walls. The Type 5 is an L-shaped reinforced concrete wall. The face of the wall will be placed at the R/W line, and the footing on the property of the entity who will own the structure.

The County will provide MNS with final wall layouts and profiles. MNS will develop structural design, construction details, specifications and construction cost estimate for the walls listed above to be included in the Santa Claus Lane improvements construction documents. The lengths, types and height may change to accommodate issues or to take advantage of opportunities not yet identified. Our proposal is based upon the use of Standard Plan walls.

### ***Task 3. Geotechnical Services***

The design of the retaining walls will require a geotechnical investigation and report of the project site. MNS will sub-contract with YEH and Associates (YEH) to provide these services. A full scope of the geotechnical services by YEH is attached.

### **FEE AND SCHEDULE**

We estimate the fee for the scope of work defined above to be

Task 1: \$50,474

Task 2: \$55,460

Task 3: \$47,560

**Total: \$153,494**

Please see attached Team Resource Estimate for a more detailed breakdown of the estimated fees.

Upon receiving notice to proceed (NTP), MNS will develop a schedule in coordination with the County's needs and the schedules of parallel projects. The schedule will be presented to the team at a kick-off meeting no later than three weeks from NTP.

Thank you for the opportunity to submit this proposal. Please feel free to contact me at **805.456.3502** or **fzinkewich@mnsengineers.com** with any questions regarding this proposal. Thank you for your consideration.

Sincerely,

**MNS Engineers, Inc.**



Francisco Zinkewich, PE  
Senior Project Engineer



Shawn Kowalewski, PE  
Vice President, Principal Engineer

Encl:

- Total Fee Cost Proposal
- MNS Engineers Survey Topo Update Scope and Fee proposal
- MNS Engineers Survey Letter Annexation, RW Mods, UPRR Xing Scope and Fee proposal
- YEH and Associates Scope and Fee proposal





**SANTA BARBARA**  
201 N. Calle Cesar Chavez, Suite 300  
Santa Barbara, CA 93103  
805.692.6921 Phone

June 11, 2020

Mr. Chris Doolittle, PE  
County of Santa Barbara  
Public Works Department  
123 E. Anapamu St.  
Santa Barbara, CA 93101

## **RE: Proposal for Topography Update to Support Santa Claus Lane Street Improvements**

Dear Chris,

Thank you for requesting a proposal for our professional surveying services. The following is our proposed scope of work and estimated fees.

### **Scope of Services:**

#### Control Survey

MNS will recover control used to establish the 2011 aerial survey and boundary work previously provided. We will set strategic control monuments to be used for aerial mapping, supplemental ground surveys, future survey staking and construction tasks.

#### Drone Aerial Survey

The aerial mapping coverage will include the proposed improvements along Santa Claus Lane (SCL) per provided 65% plan set "Project No. 720783". The aerial mapping will be set at a scale of 1" = 20' with 1' contour intervals. A digital color ortho-photo will also be provided to assist in the remaining design phase.

#### Supplemental Ground Survey

Additional surveys and cross sections will be performed along SCL to locate features requested by the design engineer and to supplement the aerial survey mapping. Additional topo request items described below:

- Full topography of Padaro Ln/SCL Intersection
- Locate driveways at Sta 17+00 and Sta 22+50
- Cross sections of SCL roadway at 50' intervals (N'ly limits include fence/retaining wall, S'ly limits include brush line/structures)
- 20'x20' topo area of S'ly pipe outlet at Sta 13+40
- 160'x230' topo area of S'ly improvements between Sta 16+80 – 19+10
- 20' wide topo strip area of existing features and finish floor elevations centered on the ROW line between Sta 23+40 – 26+40 and Sta 28+00 – 38+22
- Full topography of Sand Point Rd/SCL Intersection extending 20' onto freeway onramp and 50' S'ly of Rail ROW



Chris Doolittle, PE

June 11, 2020

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### Base Map Preparation and Deliverables

The aerial survey, digital color ortho-photo and supplemental surveys will be compiled and incorporated into the base map for final design. This AutoCAD file will include survey points, descriptions, DTM surface and previously retraced ROW boundaries. A survey control report will also be prepared for future construction staking tasks.

### Assumptions

It is assumed the County will provide notice to local property owners of survey activities. Existing pipe inlets/outlets and existing catch basin information will be used from 2011 survey.

### Schedule

We can begin the project within one week of receiving the notice to proceed. We expect to have the topographic base map completed within four to six weeks.

### **Cost Estimate:**

The cost to prepare the map is estimated to be \$25,819. A detailed cost estimate is attached for your review.

Please contact me at 805-456-3535 or at [mreinhardt@mnsengineers.com](mailto:mreinhardt@mnsengineers.com) if you have any questions.

Sincerely,  
MNS Engineers Inc.



Mark E. Reinhardt, PLS





**SANTA BARBARA**  
201 N. Calle Cesar Chavez, Suite 300  
Santa Barbara, CA 93103  
805.692.6921 Phone

March 20, 2020

Mr. Chris Doolittle, PE  
County of Santa Barbara  
Public Works Department  
123 E. Anapamu St.  
Santa Barbara, CA 93101

**RE: Proposal for Survey Services to Support Santa Claus Lane Street Improvements**

Dear Chris,

Thank you for requesting a proposal for our professional surveying services. The following is our proposed scope of work and estimated fees.

**Scope of Services:**

Right of Way Acquisition from Caltrans

MNS will coordinate with the project engineer to get the approved area required for transfer from Caltrans to Santa Barbara County (SBC) for improving Santa Claus Lane (SCL). This is anticipated to be comprised of two separate areas; one approximately parallel with SCL and the other to accommodate the new roundabout at the east end of SCL.

We have provided the maps and documents for similar projects that modify Caltrans RW. For this scope of work we assume that there will be the need for;

- RW Appraisal Map showing intended changes to the right of way and reservations of easements. County will provide desired location of new RW and of drainage easement areas to be reserved.
- Legal Descriptions (no exhibits to go with legal descriptions per Caltrans typical)
- Closure Calculations
- Coordination with County Team and with Caltrans
- Final RW map in Caltrans format showing RW changes following filed or recorded modifications

We will prepare the appraisal map using the record of survey as prepared by MNS for the RW boundaries of SCL and incorporate the adjacent Caltrans RW map data. The appraisal map will be used as an exhibit for review by all interested parties, and that once approved will serve as the guidelines for preparing the legal descriptions and right of way map for the project. The appraisal map will incorporate imagery and identify drainage features with proposed easements to be reserved by Caltrans. MNS will also prepare the legal description(s) for the proposed drainage easement(s).

Union Pacific Easement

MNS will coordinate with the design engineer to determine the precise area needed for pedestrian easement over UPRR. We will prepare an exhibit map for appraisal, and a legal description and exhibit for



Chris Doolittle, PE

March 30, 2020

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recordation of the required area. We assume that UPRR will provide their standard grant/easement deed template. We will modify the legal description and exhibit to conform to their template. We will meet with the County Surveyor following their review of the proposed legal description and exhibit and make modifications as per their comments.

#### Carpinteria Sanitary District (CSD) Sphere of Influence

MNS will prepare a map that will modify the sphere of influence of the CSD. This will be prepared in the format as specified by LAFCO.

#### CSD Annexation

MNS will prepare a legal description and exhibit map according to LAFCO specifications. They will be submitted to LAFCO and reviewed by the County Surveyor. MNS will coordinate with the County Surveyor to satisfy their review comments and prepare the final map and legal description for the annexation to CSD.

#### Assumptions

No title reports will be required for the tasks as described. We will not be responsible for any review or filing fees or any other agency or UPRR fees for these tasks. No field work or site visits will be required for our work.

#### Schedule

We can begin the project within one week of receiving the notice to proceed. We expect to have the completed draft documents for all described exhibits and descriptions (excepting Final RW Map) within three to five weeks.

#### **Cost Estimate:**

The cost to prepare the map is estimated to be \$24,655. A detailed cost estimate is attached for your review.

Please contact me at 805-456-3535 or at [mreinhardt@mnsengineers.com](mailto:mreinhardt@mnsengineers.com) if you have any questions.

Sincerely,  
MNS Engineers Inc.



Mark E. Reinhardt, PLS







July 13, 2020

Proposal No. 220-197

MNS Engineers, Inc.  
201 N. Calle Cesar Chavez, Suite 300  
Santa Barbara, CA 93103

Attn: Mr. Shawn Kowalewski

**Subject: Proposal for Geotechnical Services, County of Santa Barbara Public Works, Santa Claus Lane Streetscape Improvements Project, Santa Barbara County, California**

Dear Mr. Kowalewski:

Yeh and Associates, Inc. is pleased to submit this proposal to provide geotechnical services for the design the Santa Claus Lane Streetscape Improvements in Santa Barbara County, California. This proposal was prepared in response to your request on May 6, 2020 and additional information provided by you on May 21, 2020.

**Project Understanding.** Our understanding of the project is based on a review of preliminary plans<sup>1</sup>. The project will consist of the final design of streetscape improvements along Santa Claus Lane between Pedaro Lane and Sand Point Road consisting of retaining walls on both sides of Santa Claus Lane to create a dedicated route for public beach access, a roundabout at the intersection of Santa Claus Lane and Sand Point Road, and other landscape, hardscape, and utility improvements. We understand that MNS is under contract with the County of Santa Barbara Department of Public Works (County) to design the retaining walls and the roundabout. Yeh has been requested by MNS to provide geotechnical services to support their design.

Santa Claus Lane parallels US 101 and is bordered on the northeast side by an ascending highway embankment and on the southwest side by the Union Pacific Railroad right of way. The “Caltrans wall” proposed along the northeast side of Santa Claus Lane extends approximately 2,722 linear feet and will have a maximum wall height up to 6 feet. The “railroad wall” proposed along the southwest side of the road extends approximately 1,250 linear feet and will have a maximum wall height up to 6 feet.

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<sup>1</sup> Preliminary Plans, County of Santa Barbara Department of Public Works, Santa Claus Lane Streetscape Improvements Project, Construction Details CD-1, Sheets 22 to 37 of 55, County Project No. 720783, plot date August 22, 2018.

Yeh has been requested to prepare a *Preliminary Geotechnical Design Report (PGDR)* and *Geotechnical Design Report (GDR)* for the project design. The reports will be prepared in accordance with the applicable sections of the AASHTO LRFD Bridge Design Specifications, Caltrans amendments, and the Caltrans Geotechnical Manual and report guidelines.

**Scope of Services.** Yeh will prepare a *PGDR* and *GDR* for the project. This work will consist of the following tasks:

- 1. Initiation and Data Review.** Consult with Client to initiate the project, collect and review background information from the County and from the Caltrans geotechnical database (<https://geodog.dot.ca.gov/>) that may be pertinent to the geotechnical evaluation, request a base map showing the site topography, coordinate site access, and review the scope and schedule for geotechnical services. Yeh will visit the site to review the wall alignment, surface conditions and terrain, and pertinent features relative to the proposed retaining wall design.
- 2. Coordination, Health and Safety, and Permits.** Prepare a health and safety plan for the field work, visit the site to mark the locations of the borings, and contact Underground Services Alert (USA) to contact utility company to review and mark the locations of their facilities prior to beginning the field exploration program. Obtain an encroachment permit for our work from the County (assume that fees will be waived for the County's project). Borings will be drilled outside of the Caltrans and UPRR rights-of-way and we assume that a Caltrans Encroachment Permit or UPRR Right of Entry will not be needed.
- 3. Subsurface Exploration Program – Drilling.** Perform a 1-day field exploration field exploration program consisting of four (4) hollow stem auger borings along Santa Claus Lane to depths of 20 to 30 feet below the ground surface to support retaining wall design. Three (3) borings will be drilled near the proposed "Caltrans" retaining wall alignment and one boring will be drilled near the proposed "railroad wall". Two (2) additional borings will be drilled 5 to 10 feet deep along select shoulder locations for field percolation testing. The holes will be drilled using a truck-mounted rig equipped with 8-inch hollow stem augers. The borings will be sampled at selected intervals using drive samplers, thin-walled tube samples and by taking cuttings from the auger flights. Wherever possible, the work will be completed on the shoulder or parking lane of Santa Claus Lane to minimize impacts of our work. Traffic control will be provided as needed to comply with Santa Barbara County permit requirements. The borings not used for percolation testing will be backfilled with excavated cuttings after drilling. Borings in pavement will be surface patched with rapid set concrete dyed black to match the existing surface.



- 4. Percolation Testing.** Perform percolation testing in the two percolation borings described above. Percolation borings will be prepared during the drilling activities by attempting to ream the sides of the to remove smeared material, setting a temporary slotted or perforated casing in the hole, backfilling the annular space between the casing and borehole with gravel, and pre-soaking the test interval overnight in advance of the testing. Perform testing in general accordance with the latest version of Santa Barbara County guidelines for percolation testing. Remove the temporary casings at the end of testing; however, the gravel used to support the borehole within the testing interval will remain in the hole. The remaining hole will be backfilled with excavated cuttings to match the adjacent grade.
- 5. Laboratory Testing.** Laboratory tests for unit weight and moisture content, soil classification, strength, compaction, corrosivity, and R-value will be performed on selected samples recovered from the borings. The actual types and numbers of tests will be assigned based on the results of the drilling.
- 6. Preliminary Geotechnical Design Report.** Prepare a *Preliminary Geotechnical Design Report (PGDR)* in accordance with Caltrans latest version of Geotechnical Design Reports for the proposed project based on the subsurface conditions encountered in the borings. The report will be submitted for review by the County of Santa Barbara and the design team. The report will serve as a guiding document in type selection and project development. Graphics showing the site location, wall layout and conceptual detail for retaining wall alternatives will be included in the report. The report will discuss the following:

  - Project understanding of the proposed improvements and existing facilities;
  - Existing site setting, topography, drainage and prior land use;
  - Regional and site geology, faulting and seismicity;
  - Subsurface soil and groundwater conditions;
  - Results of field percolation tests and considerations for feasibility and design of stormwater infiltration systems;
  - Potential for the site and design of the project to be impacted by geologic hazards such as seismic shaking, fault rupture, liquefaction and/or seismic settlement;
  - Preliminary recommendations for earthwork and graded cut and fill slopes, and the roadway structural sections based on an assumed subgrade R-value;
  - Seismic data for preliminary design including a design acceleration response spectrum (ARS) developed using Caltrans Seismic Design Criteria;
  - Geotechnical considerations regarding the anticipated subsurface conditions, groundwater, excavation characteristics, soft ground, and existing fills including constructability concerns;



- Soil corrosion potential;
- Anticipated wall types including Caltrans standard plan walls and/or cantilever soldier pile walls. Yeh will provide graphics as needed and discuss geotechnical considerations for wall type selection relative to the project and potential constraints; and
- Discussion of the alternatives relative to the subsurface conditions encountered, right-of-way constraints, traffic staging and constructability, and suitable for the site conditions.

The scope of services for the PGDR assumes that this task will not involve evaluating additional alternatives, information, addressing comments from Caltrans or design team that are beyond the scope of a PGDR or providing recommendations for improvements that are not described in this proposal. Review comments should be submitted in writing. Review comments and input from Caltrans', County of Santa Barbara or the design team's review of the Preliminary Geotechnical Design Report will be incorporated into the subsequent Geotechnical Design Report.

After the submittal of the PDGR, Yeh will attend a meeting to discuss our findings and provide consultation within the proposed level of effort to assist the design team in selecting the retaining wall alternative that will be addressed in the design.

**7. Geotechnical Design Report – draft.** Prepare and submit a draft *Geotechnical Design Report (GDR)* in accordance with Caltrans latest version of Geotechnical Design Reports for the proposed project in accordance with Caltrans guidelines for review by the design team. The report will include graphics showing the site location and layout of the retaining walls, boring locations, Caltrans LOTB and laboratory test data. The report will provide discussion, conclusions and recommendations regarding the following:

- Proposed improvements and existing facilities;
- Existing site setting, topography, drainage and prior land use;
- Regional and site geology, faulting and seismicity;
- Field exploration and laboratory testing performed;
- Subsurface soil and groundwater conditions encountered;
- Results of field percolation tests and considerations for feasibility and design of stormwater infiltration systems;
- Potential for the site and design of the project to be impacted by geologic hazards such as seismic shaking, fault rupture, liquefaction and/or seismic settlement;
- Seismic data for design including a design acceleration response spectrum (ARS) developed using Caltrans criteria;

- Soil corrosion potential;
- Proposed roadway structural section based on R-value testing
- Geotechnical recommendations for the proposed retaining walls and foundation type including geotechnical parameters for design, limit state criteria and analysis results; and
- Construction considerations regarding:
  - Excavation characteristics of the soil and rock encountered;
  - Suitability of excavated onsite soil for reuse as compacted fill or structure backfill;
  - Temporary slopes, shoring, and/or dewatering;
  - Presence of cobbles and boulders, or man-made buried objects
  - Stability and requirements for temporary cuts or shoring adjacent to existing roadways, structures, or property;
  - Anticipated pile driving and/or CIDH pile drilling conditions, if necessary, for the foundation type selected; and
  - Suggested material specifications.

**8. Geotechnical Design Report – final.** Prepare and submit a final *Geotechnical Design Report* in accordance with Caltrans latest version of Geotechnical Design Reports and incorporating comments and input from the design team. The scope of services assumes that the final report will not involve addressing new alignments, changes in the project or additional field exploration.

**Schedule.** Work will be coordinated with the design team. The following durations are typical for the geotechnical services requested for this project.

- 2-3 weeks for exploration planning and scheduling including site reconnaissance, review of existing data, locate proposed borings in the field, utility clearance, health and safety, and permitting;
- 4 weeks for submittal of the *Preliminary Geotechnical Design Report* after completion of field exploration;
- 6 weeks for submittal of the draft *Geotechnical Design Report*; and
- 2 weeks for edits and finalizing the *Geotechnical Design Report*.

**Fee.** Our estimated fee for the scope of services described in this proposal is attached. Services will be provided on a lump sum basis. Yeh will not exceed the estimated amount without prior authorization of the client.



We appreciate the opportunity to be of service. Please contact Loree Berry at 805-481-9590 x271 or [lberry@yeh-eng.com](mailto:lberry@yeh-eng.com) if you have questions or require additional information.

Sincerely,  
**YEH AND ASSOCIATES, INC.**



Loree Berry, PE 73221  
Senior Project Manager

Attachments: Fee Estimate Worksheet  
2020 Standard Fee Schedule

<b>FEE ESTIMATE WORKSHEET</b>										
<b>Santa Claus Lane Streetscape Improvements</b>										
<b>Geotechnical Services</b>										
PREPARED BY: L. Berry						DATE: July 13, 2020				
PROJECT No.: 220-197						CLIENT: MNS Engineers, Inc.				
WORK ACTIVITY	Principal Engineer or Geologist	Sr. Project Specialist	Sr. Project Manager	Project Manager	Sr. Project Engineer or Geologist	Project Engineer or Geologist	Staff Engineer or Geologist	Engineer Intern	HOURS	COSTS
<b>Geotechnical Services:</b>										
1 Initiation/Review Existing Data/Site Visit			4				12		16	
2 Site access, utilities, USA coordination			2			8	8		18	
3 Field Exploration Program (Drilling)			1			12			13	
4 Percolation Testing			1			5	5		11	
5 Laboratory Testing								28	28	
6 Draft - Preliminary Geotechnical Design Report	4	4	8			8	30		54	
7 Draft - Geotechnical Design Report	8	4	24				48		84	
8 Final - Geotechnical Design Report	2		8				24		34	
9 Log of Test Borings (LOTB)	4		8			8	16		36	
<b>SUBTOTALS</b>	<b>18</b>	<b>8</b>	<b>56</b>	<b>0</b>	<b>0</b>	<b>41</b>	<b>143</b>	<b>28</b>	<b>294</b>	<b>\$ 34,945</b>
Other direct costs and unit charges										\$ 405
Subcontract Drilling Services										\$ 4,340
Outside laboratory testing										\$ 3,030
Traffic Control										\$ 1,910
Soil Disposal/Backfill of Borings/Perc Materials										\$ 750
<b>SUBTOTAL - ODC's</b>										<b>\$ 10,435</b>
RATE, PER HOUR (2020)	\$ 205	\$ 175	\$ 180	\$ 155	\$ 140	\$ 110	\$ 95	\$ 60		
<b>ESTIMATED TOTAL FEE</b>										<b>\$ 45,380</b>

## STANDARD FEE SCHEDULE

EFFECTIVE JANUARY 2020

### Professional Services:

<u>Classification</u>	<u>Basic Rate</u>
Principal.....	\$205/hr
Senior Project Manager .....	\$180/hr
Senior Project Specialist.....	\$175/hr
Project Manager.....	\$155/hr
Senior Project Engineer or Geologist .....	\$140/hr
Project Engineer or Geologist.....	\$110/hr
Staff Engineer or Geologist.....	\$95/hr
Engineer or Geologist Intern.....	\$60/hr
Resident Construction Engineer .....	\$170/hr
Construction Manager .....	\$145/hr
Construction Observer 3.....	\$120/hr
Construction Observer 2.....	\$105/hr
Construction Observer 1.....	\$95/hr
Technician Leader or Supervisor .....	\$125/hr
Laboratory Supervisor.....	\$100/hr
Technician 3.....	\$85/hr
Technician 2.....	\$70/hr
Technician 1.....	\$55/hr
CAD Designer.....	\$125/hr
CAD Technician.....	\$80/hr
Administrative Assistant .....	\$75/hr

\*\*Overtime rates for Construction Inspection, Technicians and Office Staff is 1.5 x rates shown.

Laboratory tests are quoted on separate schedule or cost plus 10 percent for outside laboratory testing when applicable.

Fees for expert witness preparation, testimony, court appearances, or depositions will be billed at the rate of \$350 per hour.

Rates do not include prevailing wage rates for field services. Prevailing wages will be determined on a project-by-project basis.

### Other Direct Charges:

Subcontracted services, copying and rented equipment .....	Cost Plus 10%
Travel, subsistence, and expenses .....	Cost Plus 10%
Vehicle.....	\$ 80/day
Automobile Mileage.....	\$ 0.55/mile