

DEL NORTE LOCAL TRANSPORTATION COMMISSION
MEETING AGENDA: TUESDAY, NOVEMBER 1, 2022, AT 3 PM
DEL NORTE COUNTY BOARD OF SUPERVISORS CHAMBERS
FLYNN ADMINISTRATIVE CENTER, 981 H STREET, CRESCENT CITY, CA

This is an in-person meeting. If you cannot attend in person, there is online access:
<https://media.co.del-norte.ca.us/>

1. Call Meeting to Order
2. Pledge of Allegiance
3. Public comment period
Anyone wishing to make public comments regarding matters either on or off the agenda and within the Commission's jurisdiction may do so at this time; however, the Commission is not permitted to act on non-agenda items.

4. Adjourn to the Policy Advisory Committee

CONSENT AGENDA for POLICY and ADMINISTRATIVE

Items are considered routine in nature and voted on in one motion: Consider public comments or requests to pull matters from the consent agenda for separate action.

- a) Minutes of September 6, 2022
Staff recommendation: By consensus, accept the minutes of September 6, 2022.
- b) Regional Mapping contract
TAC and staff recommendation: By polled vote, award the regional mapping contract to the top scoring firm GHD Digital and authorize the executive director to sign the contract and amendments necessary to complete the work authorized in the Overall Work Program.
- c) Overall Work Program Amendment 1
TAC and staff recommendation: By polled vote, adopt Resolution 2022 14 approving Amendment 1 of the 2022-23 Overall Work Program.

POLICY and ADMINISTRATIVE

- d) Award Planning, Programming and Monitoring (PPM) carryover funding to Redwood Coast Transit Authority
TAC and Staff recommendation: Adopt resolution 2022 15 awarding the carryover PPM total of \$20,000 to Redwood Coast Transit Authority for Zero Emission Bus infrastructure planning and preliminary engineering.

- e) Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSAA).
TAC and staff recommendation: Consider the City and County proposals and direct staff to draft a resolution to award CRRSAA funding.

- f) Zero Emission Vehicle Project Initiation Plan contract.
TAC and staff recommendation: By polled vote, award the ZEV Project Initiation Plan contract to the top-scoring firm and authorize the executive director to sign the contract and amendments necessary to complete the work authorized in the Overall Work Program.

- g) Discussion items
 - Project Status Update
 - Last Chance Grade
 - US 199 at Elk Valley Crossroad
 - Legal Counsel Services

5. Policy Advisory Committee comments and reports

6. Action on the recommendations of the Policy Advisory Committee

Adjourn as the Policy Advisory Committee, reconvene as the Del Norte Local Transportation Commission, and by polled vote, approve and adopt the actions taken by the Policy Advisory Committee in the items listed above.

7. Adjourn until the regular meeting on Tuesday, December 6, 2022, at 3 p.m.

Anyone requiring reasonable accommodations to participate in the meeting should contact Executive Director Tamera Leighton at (707) 465-3878 at least five (5) days prior to the meeting.

CONSENT AGENDA ITEM A-C

DATE: NOVEMBER 1, 2022
TO: DEL NORTE LOCAL TRANSPORTATION COMMISSION
FROM: TAMERA LEIGHTON, EXECUTIVE DIRECTOR
SUBJECT: CONSENT AGENDA ITEMS

- a) Minutes of September 6, 2022
Staff recommendation: By consensus, accept the minutes of September 6, 2022.
- b) Regional Mapping contract
TAC and staff recommendation: By polled vote, award the regional mapping contract to the top scoring firm GHD Digital and authorize the executive director to sign the contract and amendments necessary to complete the work authorized in the Overall Work Program.

The work is funded in the Overall Work Program, and the Technical Advisory Committee holds the responsibility to review and score all proposals and make a recommendation to DNLTC. The contract is our standard contract language provided by counsel, and the process is usual and customary.

- c) Overall Work Program Amendment 1
TAC and staff recommendation: By polled vote, adopt Resolution 2022 14 approving Amendment 1 of the 2022-23 Overall Work Program.

Amendment 1 programs carryover funding into the Overall Work Program. This process is usual and customary, and no additional work elements are added to the Overall Work Program.

DEL NORTE TRANSPORTATION COMMISSION
REGULAR MEETING MINUTES: TUESDAY, SEPTEMBER 6, 2022, AT 3 PM

Present: Commissioner Ray Altman, City, Vice-Chair
Commissioner Chris Howard, County
Commissioner Blake Inscore, City
Commissioner Darrin Short, County, Chair

Absent: Commissioner Jason Greenough, City
Commissioner Gerry Hemmingsen, County

Also Present: Tatiana Ahlstrand, Caltrans, Policy Advisory Member
Susan Brown, Rural Approaches
Valancy Fitzgerald, Caltrans
Talitha Hodgson, Caltrans
Tamara Leighton, Local Transportation Commission

1. CALL MEETING TO ORDER

Chair Short called the meeting to order at 3:13 p.m.

2. PLEDGE OF ALLEGIANCE

Chair Short led the Pledge of Allegiance.

3. PUBLIC COMMENT PERIOD

Anyone wishing to make public comments regarding matters either on or off the agenda and within the Commission's jurisdiction may do so at this time; however, the Commission is not permitted to act on non-agenda items.

The following person(s) addressed the Commission: None.

4. ADJOURN TO THE POLICY ADVISORY COMMITTEE

CONSENT AGENDA for POLICY and ADMINISTRATIVE

a) Minutes of July 5, 2022

Staff recommendation: By consensus, accept the minutes of July 5, 2022.

b) Transit request for approval of the State of Good Repair funding list.

Redwood Coast Transit Authority and Staff recommendation: By polled vote, approve Resolution 2022 13 approving the Del Norte County Fiscal Year 2022-23 SB-1 State of Good Repair funding list.

c) Auditing services engagement letter

Staff recommendation: By polled vote, authorize the executive director to sign the engagement letter and all necessary documents for auditing services.

Public Comment: None

On a motion by Commissioner Inscore, seconded by Commissioner Altman, and unanimously carried on a polled vote, the Del Norte Local Transportation Commission approved items 5 a-c.

POLICY and ADMINISTRATIVE

d) Consider proposed improvements on US 199 at Elk Valley Crossroad.

TAC and Staff Recommendation: By polled vote, approve the Project Initiation Proposal and authorize the Executive Director to execute all documents necessary to complete the Project Initiation Document.

Tamera Leighton commented that this project has been a long time coming and discussed the Project Initiation Proposal (PIP) before the Commission. The Project Initiation Document (PID) will be developed next. Tamera also reported that the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSAA) funds will not be needed and are available for other projects. This will be discussed at a future Technical Advisory Committee (TAC) meeting. Commissioner Howard asked about the assurance of the project funding. Valency Fitzgerald, Caltrans, responded that the scope of work is fully funded and supported by Caltrans. If there are cost overruns, the project will be down scoped in the pedestrian and bike path work. Valency also stated that the PID would be completed by the end of the calendar year. Talitha Hodgson, Caltrans, stated construction would begin in 2026, and Caltrans will give ongoing project updates to the Commission. Commissioner Inscore asked about cost escalations since the project is three years out. Talitha stated that the cost escalations are programmed in.

On a motion by Commissioner Howard, seconded by Commissioner Inscore, and unanimously carried on a polled vote, the Del Norte Local Transportation Commission approved the Project Initiation Proposal and authorized the Executive Director to execute all documents necessary to complete the Project Initiation Document.

e) Addendum to the Staff Services Contract

Staff recommendation: By polled vote, authorize the Chair to approve the contract addendum.

Tamera Leighton explained there was an omission in the last contract, and this addendum corrects the omission.

On a motion by Commissioner Howard, seconded by Commissioner Inscore, and unanimously carried on a polled vote, the Del Norte Local Transportation Commission authorized the Chair to approve the contract addendum.

f) Discussion items

- Last Chance Grade – Tamera Leighton relayed an email from Jamie Mattioli, Caltrans, stating that two-way traffic will begin again in 2023. Major work on the downslope wall is completed, and work on the upslope wall is underway.
- Temporary closures in Redwood National and State Parks – Tamera Leighton reported closures on Enderts Beach Road and Newton B Drury Parkway and referred the Commissioners to additional information in the packet.

5. POLICY ADVISORY COMMITTEE COMMENTS AND REPORTS

None

6. ACTION ON THE RECOMMENDATIONS OF THE POLICY ADVISORY COMMITTEE

Adjourn as the Policy Advisory Committee, reconvene as the Del Norte Local Transportation Commission, and by polled vote, approve and adopt the actions taken by the Policy Advisory Committee in the items listed above.

Public Comment: None

On a motion by Commissioner Howard, seconded by Commissioner Inscore, and unanimously carried on a polled vote, the Del Norte Local Transportation Commission approved items 4 a-e.

7. ADJOURN UNTIL THE REGULAR MEETING SCHEDULED ON TUESDAY, OCTOBER 4, 2022 AT 3:00 P.M.

With no further business before the Commission, Chair Short adjourned the regular meeting at 3:30 p.m. until the next regularly scheduled meeting on Tuesday, October 4, 2022, at 3:00 p.m.

Respectfully submitted

Tamera Leighton, Executive Director

**Director's Use:
Review of Proposals for
Regional Mapping Services**

Consultant	BFK	GHD
<i>City Reviewer</i> Reviewer 1	2	1
<i>County Reviewer</i> Reviewer 2	2	1
<i>Caltrans Reviewer</i> Reviewer 3	2	1
Average Rank	2.00	1.00

Highest score is
score closest to
#1.

Directions:

Committee members review and score each proposal. Director averages the ranking for all reviewers with a #1 as top score. The TAC recommendation will be the firm with the closest score to 1 - the top ranking. If there is a tie, this will be reported to DNLTC. All scoring sheets must be signed, provided to the Director and retained per the DNLTC Document Retention Policy.

1225 Marshall Street, Suite 8
Crescent City, California 95531
www.dnltc.org



Tamera Leighton, Executive Director
tameraleighton@gmail.com
Desk: (707) 465-3878
Cell: (707) 218-6424

REQUEST FOR PROPOSALS

for

Regional Mapping Development and Maintenance
for the Del Norte Local Transportation Commission

Prepared for: Del Norte Local Transportation Commission

Prepared by: Tamera Leighton, Executive Director
900 Northcrest Drive, #16
Crescent City, California 95531

August 1, 2022

REQUEST FOR PROPOSALS (RFP) TO PROVIDE REGIONAL MAPPING SERVICES

A. BACKGROUND

The Region

The region served by the Del Norte Local Transportation Commission, the Regional Transportation Planning Agency (RTPA) for Del Norte County exists totally within the boundaries of Del Norte County. Del Norte County is California's northernmost coastal county, with a land area of approximately 1,070 square miles. The County is bounded by Curry County, Oregon, to the north, mountainous Siskiyou County to the east, Humboldt County to the south, and by the Pacific Ocean to the west. Crescent City, the county seat, is located roughly halfway between Portland, Oregon (330 miles north) and San Francisco, California, (350 miles south). Regionally, Crescent City is located approximately 85 miles north of Eureka, Humboldt County, about 26 miles south of Brookings, Oregon and 83 miles west of Grants Pass, Oregon and Interstate 5.

Four federally recognized Tribes are located in the Del Norte region: Elk Valley Rancheria, Tolowa Dee-ni' Nation, Resighini Rancheria and the Yurok Tribe. They are partners and leaders in advancing regional transportation.

The principal north-south route through Del Norte County is US Highway 101, which provides access to coastal towns and cities to the north and south. Crescent City is located on US Highway 101. Del Norte County has two main routes providing access to inland communities: State Route, or SR 197/US Highway 199 to Hiouchi and Gasquet, and Route 169 to Klamath Glen. SR 197/US Highway 199 connects US Highway 101 to Interstate 5 in Oregon.

The county's diverse geography includes inland mountain ranges of coniferous forests, low coastal mountain ranges with temperate forests and the Redwood State and National Parks, and rugged coastlines with gray sand beaches on the Pacific coast. The climate of Del Norte County is consistently mild along the coast, becoming more variable inland. In Crescent City and along the coastal fringe, there is minimal temperature fluctuation. Coastal daytime temperatures average 45-55 degrees during the winter months. Temperatures increase to 55-65 degrees during mid-summer and early fall months, with higher temperatures when coastal fog disperses. Inland, temperature differences are more marked. Del Norte County/Crescent City area's annual rainfall generally ranges between 70 - 80 inches, with the heaviest rainfall occurring from November through March.

Population

The California Department of Finance estimated the Del Norte County population at 28,544 in 2010. This includes a population of 21,356 within the unincorporated area of the County and 7,188 within the City of Crescent City. The projected population for 2035 is 31,328. An Economic and Demographic Profile is posted on the DNLTC website under the heading Important Planning Documents: <http://www.dnltc.org/planning>.

Organization and Management

The Del Norte Local Transportation Commission (DNLTC) is the Regional Transportation Planning Agency (RTPA) for the Del Norte County region. The DNLTC consists of six members—two members of the Del Norte County Board of Supervisors and one public member appointed by the Board of Supervisors and three council members from the City of Crescent City. With the addition of a representative of the Caltrans District 1 Director, the DNLTC Board becomes the Policy Advisory Committee.

A Technical Advisory Committee (TAC) advises the DNLTC on various transportation matters. The TAC is comprised of two representatives from the Planning and Public Works staff of the City and the County, and one representative from the Harbor District, Yurok Tribe, California Highway Patrol, Redwood Coast Transit Authority, and Caltrans.

B. SCOPE OF SERVICES

Following two years of basic GIS data development, the Del Norte Local Transportation Commission (DNLTC) is soliciting proposals from qualified consulting firms to provide the DNLTC and its member agencies with regional mapping services upon request through June 30, 2027. Regional mapping services may include all services necessary to reach a desired regional mapping goal as determined by the Technical Advisory Committee (TAC) to the DNLTC. A regional mapping goal may include:

- Field data collection.
- Office data collection (e.g., Del Norte County Clerk-Recorder's Office, DNLTC member agency's data).
- Manipulation of existing data into desired formats (e.g., LIDAR point data into contours, AutoCAD files into ArcGIS compatible files).
- Obtaining and displaying publicly available data from other sources.
- Development of GIS viewers.
- Maintaining existing datasets (e.g., adding new data, correcting errors, removing outdated data).
- Creating new datasets.
- Performing research and obtaining boundary information (e.g., title reports, deeds, easements, filed maps).
- Mapping boundaries (e.g., property lines, rights-of-way, project extents).

- Assisting with mapping needs for grant applications.
- Maintaining the DNLTC's ArcGIS account.
- Providing technical support to DNLTC member agencies regarding ArcGIS and AutoCAD operations to reach desired outcomes.

The following skill sets are desired:

1. Routing and network analysis: prior experience and proficiency in mapping utility and transportation networks for public agencies including: water mains, culverts, sewage lines, roads, transit routes, etc.
2. GIS data management and distribution using Portal for ArcGIS or similar enterprise GIS architecture: extend the reach of the GIS content by seamlessly sharing maps, apps, layers, and more with other organizations.
3. Experience managing topology using GIS software: geodatabase topologies help ensure data integrity and help better manage geographic data.

The contractor will work under the direction of the DNLTC Executive Director, who will have final approval authority over all issues involved in the review process. In addition to the minimum qualifications, the contractor must provide their own office space, office equipment, transportation, communications, insurance, and other provisions necessary to be an independent contractor.

PROPOSAL SUBMITTAL REQUIREMENTS

Company Overview

1. Firm name and business address, including phone number, email address, and website.
2. Type of ownership and parent company if applicable.
3. The name of the proposed project manager for this project.

Key Personnel and Job Planning

4. Resumes of key personnel to be assigned to the project. Include length of service with the firm, professional education and years of experience.
5. If any part of the project cannot or is not planned to be performed in-house, describe the portion that would be subcontracted along with a profile of said subcontractor.
6. If you have multiple company offices, please identify the location where the majority of the work will be performed.

Relevant Experience and Capabilities

7. Please provide a list of three (3) relevant projects, including year completed, project duration, cost, and client contact information. Provide an example of a completed project in a GIS viewer.

Statement of Interest and Methodology

8. A narrative describing the firm’s interest, unique abilities, and value-added benefits your firm is able to bring to this project. (Please limit to three pages.)

Cost Proposal

9. The cost proposal shall be broken down into labor, subcontractor fees (if any) and expenses. Because this is a service needed upon request, hourly rates are expected. The fee shall include all tax, mark-ups, overhead, and profit. The current year and anticipated annual budgets are \$20,000. Because of the funding source limitations, each year’s budget will be decided in the Overall Work Program process.

Schedule of Work

10. The services are upon request through June 2027. The detailed work schedule will be mutually agreed upon as tasks are developed and requested by DNLTC.

C. PROPOSAL EVALUATION

A review committee of three representatives (City, County, Caltrans) will evaluate those proposals that meet the stated requirements and will make a recommendation to the Del Norte Local Transportation Commission. Evaluation will be based on the responsiveness and comprehensiveness of the RFP response, qualifications of individuals or firm, experience/performance, and proposal contents/methodology. Cost of work will be considered in the evaluation of the proposal in terms of overall value. Proposals will be evaluated based on the following point values:

Responsiveness and Comprehensiveness:	10 points
Qualifications of Individual or Firm:	20 points
Experience/Performance:	25 points
Proposal Contents/Methodology:	30 points
<u>Value</u>	<u>15 points</u>
Total Available:	100 points

D. INSTRUCTION FOR SUBMITTING A PROPOSAL

All proposals must include the following:

1. Proposals must not exceed 30 pages;
2. An electronic copy of the proposal in unlocked PDF format.

Please direct all questions and deliver proposals to:

Tamera Leighton, Executive Director
 Del Norte Local Transportation Commission
 900 Northcrest Drive, #16

Crescent City, California 95531

Desk: (707) 465-3878.

E-mail: Tamera@DNLTC.org

The schedule of activities related to this contract is as follows:

August 1, 2022	RFP Issued
<u>August 22, 2022</u>	<u>Proposals are due to DNLTC by 5 p.m.</u>
August 30, 2022	Review committee scoring and recommendation to DNLTC
September 6, 2022	Anticipated Contract Award
September 12, 2022	Project Start Date
June 30, 2027	Project Completion

E. TERMS AND CONDITIONS

The Del Norte Local Transportation Commission (DNLTC) is not obligated to accept any of the proposals submitted or to enter into an agreement with any of the proposers. At its discretion, the DNLTC may elect to award all or any portion of the project scope of work as defined in the RFP. DNLTC reserves the right to reject any or all responses, waive any technical requirement, and select the firm that, in the DNLTC's judgment, best meets the requirements of this project and the needs of the DNLTC.

F. PROTEST PROCEDURES

The contract protest process and procedures to be utilized by DNLTC in considering and determining all bid protests or objections regarding solicitations, proposed award of a contract, or award of a contract whether before or after award is located at <http://www.dnltc.org/about-us/rfps/>

G. STANDARD CONSULTING AGREEMENT

The selected firm shall be retained under the RTPAs standard professional services agreement. A sample of this agreement is available at <http://www.dnltc.org/about-us/rfps/>

The contract shall provide payment for services performed up to a not-to-exceed amount on a July 1 to June 30 fiscal year basis. The final Scope of Services and Schedule (Exhibit A to the Standard Consulting Agreement) will be negotiated by the Consultant and the Del Norte Local Transportation Commission.

Please direct all communications and deliver proposals to:

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
900 Northcrest Drive, #16
Crescent City, California 95531

Desk: (707) 465-3878.

E-mail: Tamera@DNLTC.org

DEL NORTE LOCAL TRANSPORTATION COMMISSION
PROFESSIONAL SERVICES AGREEMENT WITH
GHD INC.

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is entered into and effective as of November 1, 2022 ("Effective Date"), by and between the Del Norte Local Transportation Commission ("DNLTC") and GHD Inc. ("Consultant") (collectively, the "Parties").

WHEREAS, the Parties enter into this Agreement for the purpose of Consultant providing professional Regional Mapping Services to DNLTC under the terms and conditions set forth in this Agreement.

THEREFORE, in consideration of the mutual covenants contained in this Agreement, the Parties agree as follows:

1. Services. Consultant will provide the professional services as described in and in accordance with the Scope of Services and Fees set forth in Exhibit A, attached hereto and incorporated herein ("Services").

2. Compensation.

A. For the full performance of the Services described in Proposal for Regional Mapping dated August 22, 2022 (Exhibit A), DNLTC will compensate Consultant on a time-and-materials basis at the compensation rates specified in Consultant's Services Rate Schedule included in Exhibit A.

B. Consultant must submit detailed monthly invoices reflecting all services performed during the preceding month, including a revised or re-stated schedule for performance and any additional documentation requested by DNLTC.

C. Consultant will be compensated for services in addition to those described in Exhibit A, only if Consultant and DNLTC execute a written amendment to this Agreement describing the additional services to be performed and the compensation to be paid for those services. In no case will the total compensation under this Agreement exceed the "not-to-exceed" amount specified in Paragraph A, above, without prior written authorization from DNLTC.

D. DNLTC's obligation to pay compensation to Consultant is contingent upon Consultant's performance of the Services pursuant to the terms and conditions of this Agreement and any amendments. Before payment is disbursed, Consultant must be in compliance with Paragraph 19 of this Agreement.

3. Term. The term of this Agreement commences on the Effective Date, and

terminates on June 30, 2027 unless sooner terminated in accordance with Section 4. Upon termination, any and all of DNLTC's documents or materials provided to Consultant and any and all of the documents or materials prepared for DNLTC or relating to or derived from the performance of the Services, must be delivered to DNLTC as soon as possible, but not later than fourteen (14) days after termination of the Agreement.

4. Termination. DNLTC may terminate this Agreement without cause upon ten (10) days' written notice. DNLTC may immediately terminate or suspend this Agreement for cause. Cause for immediate termination or suspension includes, but is not be limited to, any breach of this Agreement by Consultant or Consultant's bankruptcy or insolvency. Upon receipt of notice of termination or suspension for cause, Consultant must immediately stop all work in progress under this Agreement. In the event of early termination of this Agreement by DNLTC, Consultant is entitled to payment for all Services performed to the date of termination to the extent the Services were performed to the satisfaction of DNLTC in accordance with the terms and conditions of this Agreement. If DNLTC terminates this Agreement for cause, Consultant is liable to DNLTC for any excess cost DNLTC incurs for completion of the Services.

5. Consultant's Representation; Independent Contractor. Consultant represents that Consultant possesses distinct skills for performing the Services. DNLTC has relied upon that representation as a material inducement to enter into this Agreement. Consultant must, therefore, provide properly skilled and technical personnel to perform all Services. It is expressly understood that Consultant, its agents, and employees act in an independent capacity and as an independent contractor and not as officers, employees or agents of DNLTC. This Agreement may not be construed as an agreement for employment.

6. Facilities and Equipment. Consultant must, at its sole cost and expense, furnish all facilities and equipment that may be required for furnishing Services under this Agreement. DNLTC will furnish to Consultant no facilities or equipment, unless DNLTC otherwise agrees in writing to provide them.

7. Licenses, Permits, Etc. Consultant must, at Consultant's sole cost and expense, keep in effect and require its subcontractors, if any, to keep in effect at all times during the term of this Agreement any licenses, permits or other approvals that are legally required for performing the Services.

8. Time. Consultant will devote enough time to the performance of the Services as may be reasonably necessary for satisfactory performance of Consultant's obligations under this Agreement.

9. Inspection. Consultant must provide DNLTC every reasonable opportunity to ascertain that the Services are being performed in accordance with the requirements and intentions of this Agreement. All work done and materials furnished, if any, are subject to inspection and approval by DNLTC. The inspection of the work does not relieve Consultant of any of its obligations under this Agreement.

10. Progress Reports. Upon DNLTC's request, Consultant must provide, in a

form acceptable to DNLTC, written progress reports of all oral and written observations, opinions, recommendations, analyses, progress and conclusions related to Consultant's performance of the Services.

11. Confidentiality. In the course of providing services for DNLTC, Consultant may have access to trade secrets and confidential information, disclosure of which is protected or limited by law. Consultant will not directly or indirectly disclose or use any confidential information, except as required for the performance of the Services.

12. Conflict of Interest. Consultant represents that it presently has no interest, and covenants that it will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the Services. Consultant further covenants that, in the performance of this Agreement, it will not employ any subcontractor or person having a conflict of interest. Consultant represents that no one who has or will have any financial interest under the Agreement is an officer or employee of DNLTC. If a conflict of interest arises during this Agreement or any extension, Consultant will immediately advise DNLTC and DNLTC may, at its sole discretion, immediately terminate this Agreement.

13. Consultant No Agent. Except as DNLTC may specify in writing, Consultant has no authority, express or implied, to act on behalf of DNLTC in any capacity whatsoever as an agent. Consultant has no authority, express or implied, under this Agreement to obligate DNLTC in any way.

14. Standard of Performance. Consultant must perform all the Services in a manner consistent with the standards of Consultant's profession. If there is no professional standard applicable to the Services, Consultant must perform in a manner consistent with the standards applicable to Consultant or the type of work. All instruments of service, as defined by the American Institute of Architects, that Consultant delivers to DNLTC under this Agreement, must be prepared to comply with and conform to the standards of Consultant's type of work. All instruments of service become the sole and exclusive property of DNLTC upon delivery.

15. Assignment/Transfer. Consultant will make no assignment or transfer in whole or in part of this Agreement without the prior written consent of DNLTC.

16. Subcontractors. Consultant must directly perform all Services, and may not subcontract any portion of performance of the Services without the prior written consent of DNLTC. Any approved subcontractors are required to comply, to the full extent applicable, with the terms and conditions of this Agreement. Upon execution of this Agreement, Consultant must furnish a separate schedule of names and addresses of subcontractors, if any, and must notify DNLTC in advance if changes in subcontractors occur.

17. Internal Revenue Service Form W-9. Consultant will provide an Internal Revenue Service Form W-9, Request for Taxpayer Identification Number and Certification, as required by DNLTC to comply with regulations of the United States Department of the Treasury. DNLTC's Finance Department will provide Consultant with

the required form. Consultant must complete and file the form with DNLTC before any payment for Services may be made.

18. Business License. Consultant must file and require all its subcontractors to file, a Business License Application as required by the appropriate local government agency. Consultant must file and require all its subcontractors to complete and file the form with the appropriate local government agency and must pay or cause to be paid the business license fee before any payment for Services under this Agreement is rendered.

19. Compliance with All Laws. Consultant and any subcontractors must comply fully with all applicable local, state and federal rules, laws, regulations and ordinances pertaining to performance of the Services, including the Americans with Disabilities Act and any copyright, patent or trademark law. To the extent that any other government agency or entity provides compensation for any Services, Consultant must comply with all rules and regulations applicable to that fiscal assistance. Consultant's failure to comply with any law(s) or regulations(s) applicable to the performance of the Services hereunder may be declared, at the discretion of DNLTC, a breach of contract.

These laws include, but are not limited to, the California Prevailing Wage Law; California Labor Code section 1720 et seq. Because the services described in Exhibit A include "work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work," the services constitute public works within the definition of section 1720(a)(l) of the California Labor Code.

Therefore, the services described in Exhibit A must be performed in accordance with all applicable requirements of the California Prevailing Wage Law including, but not limited to, all applicable requirements contained in Exhibit C, which is attached to and made a part of this Agreement. To the extent that any other government agency or entity provides compensation for any services, consultant must comply with all rules and regulations applicable to the fiscal assistance.

20. Discrimination. During the performance of this Agreement, Consultant must not discriminate against any employee or applicant for employment because of race, religion, creed, color, national origin, ancestry, gender, sexual orientation, age or physical or mental disability in violation of any applicable law.

21. Notice. Except as otherwise specified in this Agreement, all notices to be sent pursuant to this Agreement must be made in writing and sent to the Parties at their respective addresses specified below or to any other address a Party may designate by written notice delivered to the other Party in accordance with this Section. All notices must be sent by:

- A. Personal delivery, in which case notice is effective upon delivery; or
- B. Certified or registered mail, return receipt requested, in which case notice will be deemed delivered on receipt if delivery is confirmed by a return receipt; or

C. Nationally recognized overnight courier, or USPS Express or Priority Mail, with tracking, with charges prepaid or charged to the sender's account, in which case notice is effective on delivery if delivery is confirmed by the delivery service.

DNLTC:

Tamera Leighton, Director
900 Northcrest Drive #16
Crescent City, CA 95531
tamera@dnltc.org

Consultant:

GHD Inc.
Amber Shows
P.O. Box 1010
Eureka, CA 95502

22. Ownership of Documents. All original papers, documents or computer material on disk or microfilm, and copies thereof, produced as a result of this Agreement (collectively "Project Documents"), are the property of DNLTC and may not be used by Consultant without the written consent of DNLTC. Consultant will provide documents in electronic form in a format required by DNLTC. Copies of these documents or papers must not be disclosed to others without the written consent of the Director or their designated representative. DNLTC agrees to indemnify and hold Consultant harmless for claims resulting from DNLTC's alteration of the Project Documents for another DNLTC project.

23. Internet-Ready Deliverables. If applicable to this Agreement, each contract deliverable must be delivered as a data file suitable for publication on the Internet. The following specifications define the formats that satisfy this requirement:

- A. Brochures, reports, plan documents, catalogues, flyers with graphics included, and forms are to be formatted as .PDF files, if possible.
- B. Freestanding, individual graphics such as logos, small maps and photos are to be formatted as .TIF files.
- C. Large maps are to be formatted as .JPG files with the largest side no larger than four inches, unless mutually agreed otherwise by the Parties.
- D. Text documents are to be in MS Word.
- E. Freestanding charts, graphs and listings are to be in MS Excel.

24. Indemnification. To the fullest extent allowed by law, Consultant will indemnify, defend with counsel acceptable to DNLTC, and hold harmless DNLTC and its officers, officials, employees, agents and volunteers from and against any and all liability, loss, damage, claims, suits, actions, arbitrations proceedings, administrative proceedings, regulatory proceedings, civil penalties and fines, expenses and costs (including, without limitation, attorney's fees and costs and fees of litigation) (collectively, "Liability") of every nature, , arising out of or in connection with Consultant's performance of the Services or its failure to comply with any of its obligations contained in this Agreement, except such Liability caused by the sole negligence or willful misconduct of DNLTC.

The Consultant's obligation to defend and indemnify will not be excused because of the Consultant's inability to evaluate Liability. The Consultant must respond within thirty (30) days to the tender of any claim for defense and indemnity by DNLTC, unless this time has been extended by DNLTC. If the Consultant fails to accept or reject a tender of defense and indemnity within thirty (30) days, in addition to any other remedy authorized by law, so much of the money due the Consultant under and by virtue of this Agreement as is necessary for DNLTC may be retained by DNLTC until disposition has been made of the claim or suit for damages, or until the Consultant accepts or rejects the tender of defense, whichever occurs first. Furthermore, Consultant and Subcontractors' obligations to indemnify and defend DNLTC are binding on their successors and assigns and will survive the termination or completion of this Agreement for the fullest extent and duration allowed by law.

With respect to third party claims against the Consultant, the Consultant waives any and all rights of any type to express or implied indemnity against the Indemnitees.

Notwithstanding the foregoing, to the extent this Agreement is a "construction contract" as defined by California Civil Code section 2783, as may be amended from time to time, such duties of Consultant to indemnify will not apply when to do so would be prohibited by California Civil Code Section 2782.

Notwithstanding the foregoing, to the extent that this Agreement includes design professional services under Civil Code Section 2782.8, as may be amended from time to time, such duties of Consultant to indemnify will only be to the full extent permitted by Civil Code Section 2782.8.

The defense and indemnification obligations of this Agreement are undertaken in addition to, and will not in any way be limited by, the insurance obligations contained in this Agreement. If any term or portion of this section is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, said section will be interpreted to allow the broadest indemnity permitted by law.

25. Insurance. Consultant must procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, Consultant's agents, representatives and employees.

A. Minimum Scope of Insurance. Coverage must be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
2. Insurance Services Office form number CA 0001 (Ed. 12/90) covering Automobile Liability, code 1(any auto), or code 8, 9 if no owned auto.

3. Workers' Compensation Insurance as required by the State of California and Employers' Liability Insurance. If no employees are utilized, the Consultant will provide a signed declaration as described in California Health and Safety Code Section 19825.
4. Professional liability insurance appropriate to the Consultant's profession.

B. Minimum Limits of Insurance. Consultant will maintain limits no less than:

1. General Liability: \$2,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit must apply separately to this project/location or the general aggregate limit must be twice the required occurrence limit.
2. Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.
3. Workers ' Compensation: statutory limit; Employer's Liability: \$1,000,000 per accident for bodily injury or disease.
4. Professional liability: \$1,000,000 per occurrence or claim.

C. Umbrella or Excess Insurance. The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance must contain or be endorsed to contain a provision that this coverage also apply on a primary and non-contributory basis for the benefit of DNLTC before DNLTC's insurance or self-insurance is called upon to protect it as a named insured.

D. Deductibles and Self-Insured Retention. At the option of DNLTC, the Consultant must provide a Letter of Financial Comfort guaranteeing payment of losses and related investigations, claim administration and defense expenses. DNLTC reserves the right to obtain a redacted copy of any insurance policy and endorsements. Failure to exercise this right does not constitute a waiver of right to so exercise later.

E. Other Insurance Provisions.

1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions:

- a. DNLTC, its officers, officials, employees and volunteers (the "Additional Insureds") are to be covered as insureds as respects: liability arising out of work or operations as performed

by or on behalf of the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant.

b. For any claims related to this project, the Consultant's insurance coverage is primary insurance as respects DNLTC, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by DNLTC, its officers, officials, employees or volunteers is in excess of the Consultant's insurance and does not contribute with it. The Additional Insured coverage under the Consultant's policy must be at least as broad as ISO Form CG 20 01 04 13.

c. Each insurance policy required by this clause must be endorsed to state that coverage will not be canceled by either Party, unless thirty (30) days prior written notice by certified mail, return receipt requested, has been given to DNLTC.

2. The Workers' Compensation endorsement must contain a Waiver of Subrogation against DNLTC. The Consultant will provide to DNLTC an endorsement from the Workers' Compensation insurer, if any, agreeing to waive all rights of subrogation against DNLTC for injuries to employees of the Insured resulting from work for DNLTC.

F. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise agreed to by DNLTC.

G. Verification of Coverage. Consultant must furnish DNLTC with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on forms provided by DNLTC or on other than DNLTC's forms provided those endorsements conform to DNLTC's requirements. All certificates and endorsements are to be received and approved by DNLTC before work commences.

H. Subcontractors. Consultant must include all subcontractors as insureds under its policies or furnish separate certificates and endorsements for each subcontractor prior to commencement of subcontractor's work. Consultant agrees that all contracts with subcontractors will include the same requirements stated in this Agreement with respect to indemnity and insurance. Subcontractors hired by Consultant must agree to be bound contractually to Consultant and DNLTC in the same manner and to the same extent as Consultant is bound to DNLTC under this Agreement. Subcontractors must further agree to include these same provisions with any Sub-subcontractor. A copy of these indemnity and insurance provisions must be furnished by Consultant to any subcontractor. The Consultant must require all subcontractors to provide a valid certificate of insurance and the required endorsements prior to commencement of any work by that subcontractor and Consultant will provide proof of compliance to DNLTC. If DNLTC is not furnished separate endorsements for each subcontractor prior to the commencement of subcontractor's work, then Consultant must include all

subcontractors as insureds under its policies.

26. Amendment. This Agreement may be amended only by a written instrument executed by both Parties.

27. Litigation. If litigation ensues between DNLTC and a third-party, which pertains to the subject matter of Consultant's services hereunder, Consultant, upon request from DNLTC, agrees to testify therein at a reasonable and customary fee.

28. Construction. This Agreement is the product of negotiation and compromise on the part of both Parties and that the Parties agree that, notwithstanding Civil Code Section 1654, any uncertainty in the Agreement may not be construed against the drafter of the Agreement.

29. Governing Law; Venue. This Agreement must be enforced and interpreted under the laws of the State of California. Any action arising from or brought in connection with this Agreement must be venued in the Superior Court for the County of Del Norte, State of California.

30. Non-Waiver. DNLTC's failure to enforce any provision of this Agreement or the waiver thereof in a particular instance is not a general waiver of any part of that provision. The provision will remain in full force and effect.

31. Severability. If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement continue in full force and effect.

32. No Third-Party Beneficiaries. The Parties do not intend to create, and nothing in this Agreement creates, any benefit or right in any third party.

33. Mediation. The Parties agree to make a good faith attempt to resolve any dispute arising out of this Agreement through mediation prior to commencing litigation. The Parties must mutually agree upon the mediator and divide the costs of mediation equally.

34. Consultant's Books and Records.

A. Consultant must maintain any and all ledgers, books of accounts, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services, or expenditures and disbursements charged to DNLTC for a minimum period of three (3) years or for any longer period required by law, from the date of final payment to Consultant under this Agreement.

B. Consultant must maintain all documents and records which demonstrate performance under this Agreement for a minimum period of three (3) years or for any longer period required by law, from the date of termination or completion of this Agreement.

C. Any records or documents required to be maintained under this

Agreement must be made available for inspection or audit, at any time during regular business hours, upon written request by the Director or their designated representative. Copies of these documents will be provided to DNLTC when it is practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records must be available at Consultant's address indicated for receipt of notices in this Agreement. Notwithstanding the foregoing, DNLTC's right to inspect and audit shall not extend to proprietary information such as the composition of the amount of Consultant's fixed rates and fees, standard charges, and percentage multipliers.

D. If DNLTC has reason to believe that records or documents may be lost or discarded due to dissolution, disbandment or termination of Consultant's business, DNLTC may, by written request by the Director, require that custody of the records be given to DNLTC and that the records and documents be maintained by DNLTC. Access to these records and documents will be granted to any party authorized by Consultant, Consultant's representatives, or Consultant's successor in interest.

35. Headings. The headings used in this Agreement are for convenience only and are not intended to affect the interpretation or construction of any provisions herein.

36. Survival. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between DNLTC and Consultant will survive the termination or completion of this Agreement.

37. Entire Agreement. This Agreement, including the exhibits attached hereto and incorporated herein, constitutes the entire agreement between the Parties with respect to the Services, and supersedes all prior agreements or understandings, oral or written, between the Parties in this regard.

[Signature page to follow]

IN WITNESS WHEREOF, the Parties have executed this document the day, month and year first above written.

DEL NORTE LOCAL TRANSPORTATION COMMISSION:

By: _____
Tamera Leighton, Executive Director
Authorized by DNLTC on November 1, 2022

GHD Inc.:
By:

Amber Shows Project Director
GHD Inc.



Digital

Proposal for

Regional Mapping Development and Maintenance

Del Norte Local Transportation Commission

August 22, 2022

→ The Power of Commitment



August 22, 2022



Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
900 Northcrest Drive, #16
Crescent City, CA 95531

RE: Proposal for Regional Mapping Development and Maintenance

Dear Ms. Leighton and Review Committee,

GHD is excited to present our response to the Regional Mapping Development and Maintenance Request for Proposals issued by the Del Norte Local Transportation Commission (DNLTC) on July 29th, 2022. We understand the DNLTC is seeking a consultant to continue the active management of its valuable Geographic Information Systems (GIS) resources housed within ArcGIS Online, develop GIS datasets and applications to support DNLTC and its member agencies, and to provide transportation-related GIS support to those member agencies using geospatial software on an as-needed basis. We believe GHD is uniquely qualified to deliver services that will accomplish the DNLTC's regional mapping goals for years to come.

The GHD GIS team brings decades of combined experience managing geospatial data in a variety of formats, deriving value from this data across varying disciplines, and converting non-geospatial information to actionable GIS data. Key members of our project team, including the project manager, are certified by the Environmental Science Research Institute (Esri) as proficient in ArcGIS Online administration, ArcGIS Desktop Software, and GIS web application development. Other specialties on the team include LiDAR capture and processing, interoperability between drafting software and GIS software, and data exchange between enterprise systems. With an expansive list of dedicated, technical experts in the transportation, engineering, and land surveying industries to provide support to our GIS team, GHD can deliver on regional mapping goals with quality and precision.

Our previously established relationship with the DNLTC allows GHD to provide enhanced efficiencies while maintaining GIS datasets that were developed together with DNLTC members; our deep technical knowledge of the methods and data sources used to produce the varying datasets in the previous DNLTC Regional Mapping Project will ensure a quick transition to this long-term support role. By building on months of communication, development and understanding, future needs that have been previously communicated to GHD by DNLTC and its member agencies can be quickly executed.

As new challenges and opportunities arise over the next five years, GHD will continue to grow, advancing our knowledge and investment in desktop, web, and 3D GIS capabilities to create lasting benefits. We will continue to share these new advancements and skills with the DNLTC while providing excellent customer service and effective project management. We are confident that GHD has the right team to guide and assist the DNLTC for the next five years as they develop their enterprise GIS systems and data.

Thank you for taking the time to review our submittal. If you have any questions regarding our proposal or require additional information, please do not hesitate to contact us. We look forward to building on our successful relationship with the DNLTC.

Regards,
GHD

A handwritten signature in black ink that reads "Zach Porteous".

Zach Porteous
Project Manager

+1 707.267.2281
zach.porteous@ghd.com

A handwritten signature in black ink that reads "Amber Shows".

Amber Shows, GISP
Project Director

+1 707.267.2202
amber.shows@ghd.com

→ The Power of Commitment

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Company Overview

→ About GHD

GHD provides a wide range of technical and professional services to private and public sector clients around the globe. Our international knowledge base—leveraged with our regional expertise—positions us to add world-class value locally while maintaining sound relationships with the community and stakeholders. **Put simply, we work where our clients work.**

Firm Information

Established in 1928, GHD is a full-service international engineering firm wholly owned by our people. We are 10,000+ diverse and skilled individuals connected across five continents—Asia, Australia, Europe, North and South America, and the Pacific region. We are one of the world's leading professional services companies operating in the global markets of Transportation, Water, Energy & Resources, Environment, and Property & Buildings. Our people can offer decades of knowledge, as well as a deep understanding of the challenges facing businesses and communities today. We deliver projects with high standards of safety, quality, and ethics across the entire asset value chain. Driven by a client service-led culture, we connect the knowledge, skill, and experience of our people with innovative practices, technical capabilities, and robust systems to create lasting community benefits.

Firm and Contact Information:

Firm Name:

GHD

Address:718 Third Street
Eureka, CA 95501**Phone:**

+1 707.443.8326

Email:

zach.porteous@ghd.com

Website:

www.ghd.com

Type of Ownership and Parent Company:

C-Corp, GHD Inc.

Proposed Project Manager:

Zach Porteous

GHD North America

130+
Locations

4,000+
People in North America

450+
California Staff



→ About GHD Digital

GHD Digital is a dedicated team of data and technology specialists committed to supporting the digital transformation and acceleration journeys of our clients. We develop custom-fit strategies to actualize your vision for data and information accessibility. Our core service offerings are built around digital transformation in data management and workflows, advanced analytics (to help you make real-time, evidence-based decisions), and connecting your virtual and physical environments through innovation and technology.

GHD Digital understands technology is transforming all aspects of the world and success depends on continuously adapting. As such, our team maintains a singular vision: **to help our clients remain digitally competitive while adding sustainable value to their communities.**

Our Data Analytics team, which includes our GIS practice, is singularly focused on the data continuum – strategy, collection, management, insight, action. Below we describe how these components are realized through GIS.

Geographic Information Systems (GIS) Professional Services

Integration and provision of high-quality data is fundamental in today's challenging digital world. Analysis of spatial information is essential for strategic and real-time decision-making within the context of regional and organizational planning and management. As such, GHD Digital embraces the limitless technology of **geographic information systems (GIS)** to find hidden patterns in data and transform them into usable, valuable insights.

Our experts are trained in wide range of Esri foundational and specialty applications. GHD is a Silver Business Partner and an ArcGIS Urban Specialty firm. At the 2022 Esri User Conference, we were awarded a **Special Achievement in GIS** (shown in the picture to the right) being received by Julia Clark and Jesse Lopez of the Eureka office and others on our team.



UC Esri User Conference 2022
Special Achievement in GIS



ArcGIS Urban
Specialty



esri Partner Network
Silver

With over a decade of GIS project experience, we have served dozens of community service districts, cities, counties, state agencies, federal agencies, and private firms. As an ESRI Silver Business Partner, GHD integrates GIS capabilities and best practices into every major planning and design project. Spatial datasets are often the starting point of what an organization can tell us about themselves and the landing place for where we display new updates and understandings. From the data discovery phase to communicating insights from location data, our data continuum framework guides you on every step of your spatial enablement journey.

Data Continuum

Strategies and Data Governance

Through cloud-based technology, we work with data across networks, in the field and create accessibility through web-based applications and interactive and informative online maps.



Figure 1 - the GIS Environment

Our team assists and administers GIS support services seamlessly through **ESRI's ArcGIS Online and Enterprise Portal**, which supports our clients in a range of ways, from acting as their de facto GIS department through ArcGIS Online Administration to editing a single enterprise layer through mobile or desktop edits and an Enterprise Collaboration.

As an organization we have internally developed and applied thorough **governance and training** around our Enterprise GIS Portal – we are end-users and the standard keepers. We bring these best practices and lessons learned to our clients through the development of a **GIS Roadmap**. The Roadmap evaluates where an organization is in their GIS journey, where they want to be, and the steps and best practices to get there. Considering **GIS strategy** versus ad hoc solutions provides opportunities for automation, effective workflows, and longevity of solutions.

Capturing and Managing Data

Well organized digital data opens the door to improved access, better understanding, and ultimately predictive analytics – and it all starts with capturing and managing data. GHD specializes in field-based mobile GIS at mapping and **survey grade accuracies**, which has proven to be an indispensable tool for a variety of applications, including inventorying existing infrastructure, field verification of remote sensing analysis, as well as documenting real-world design constraints and handling complex form-based data

collection efforts. Our high accuracy data is collected and displayed realtime in the desktop environment, and can be taken offline for data capture in remote locations. These technologies complement our **UAV-mounted and mobile scanning LiDAR and imagery capture**.



Jesse Lopez conducting high accuracy GPS data collection on Humboldt Bay.

GHD embraces **database management practices** to properly relate, nest and link datasets across spatial and non-spatial data sources. Hierarchical data management facilitates asset management, reliable analysis, and ease of data retrieval.

Turning Insights into Action

Analysis, Meaning and Communication – this is the heart of GHD’s GIS practice. Our data and spatial scientists derive insights and patterns from network analyses, viewshed analyses, spatial overlays, multi-criteria analysis, heat maps, 3D and surface analyses, automation, predictive analytics, and much more. ***This is an exciting and innovation area within our GIS practice.***

We apply the appropriate analysis for the dataset and understand the utility of its outcomes. GHD’s deep integration across our core disciplines sets us apart from other GIS firms – ***we do more than organize data, we understand its application and its value.***

To visualize the problem, the solution and the context in a way that is intuitive and enlightening, GHD leverages both traditional static maps – for community presentations and report figures – and online interactive web maps and web

applications for broader communication. We use Social Pinpoint for community engagement, Esri’s **StoryMaps**, Dashboard, and Experience Builder for in-depth data presentation, Esri’s Hub for public engagement around GIS products and data, and **ArcGIS Urban** for 3D land use, zoning and development planning and on-the-fly analysis.



GHD Digital presenting at Esri User Conference 2022

Our Individual Esri Certifications

Zach Porteous

- Desktop Associate 19-001 (out of 639 worldwide)
- AGOL Administration 19-001 (out of 284 worldwide)
- ArcGIS API for JavaScript 19-001 (out of 105 worldwide)

Julia Clark

- Desktop Profession 19-001 (out of 307 worldwide)
- AGOL Administration 19-001 (out of 284 worldwide)

Robert Becker

- Desktop Associate 19-001 (out of 639 worldwide)

Fraser Hand

- Enterprise System Design Associate, Enterprise Administration Associate, Enterprise Geodata Management Professional, Web Application Developer Associate

→ Support Services

GHD specializes in 48 distinct technical service lines and we pride ourselves on our cross-disciplinary and well rounded approach to solutions, offering services that are both inclusive to our technical staff and contemporary to our clients.

Transportation Planning & Traffic Engineering Services

We understand that transport needs are inherently linked to land use; the two cannot be understood in isolation. Our integrated team of transport and land use planners offer advice and solutions related to the entire system, rather than one item in isolation. Our solutions encourage active travel. Public transport is becoming increasingly important in society. We are equipped to provide a way forward – from the specifics of bus route timetables through to zero-emission fleet and infrastructure planning.

GHD Digital supports GIS management and analysis for our Transportation Planning and Traffic Engineering team, including regional transportation planning projects in Del Norte, Humboldt, Trinity and Shasta counties. This relationship provides custom-fit digital solutions for local and regional transportation planning efforts. GHD's transportation planning services are described below:

- ATP applications
- Traffic Engineering (Safety Analysis)
- Public Outreach and Interagency Coordination
- Complete Streets/Streetscape Design
- Zero Emissions Vehicle Infrastructure Planning
- Public transport infrastructure and service advice
- Strategic route planning and feasibility studies
- Active transportation, bicycle and pedestrian advice
- Roundabout Planning/Design
- Class 1/Multi-Use Trails
- Landscape Architecture/Wayfinding
- Integrated land use, transport advice and transport studies
- Parking strategies, analysis and advice
- Pedestrian simulation and traffic and transport modelling

Land Surveying and Boundary Mapping

GHD provides professional land surveying services and utility locating for various industries, including real estate, telecommunications, construction, and environmental. This includes desktop analysis and digitization, topographic surveys, topographic map preparation, utility search reports, and right-of-way and title reports. Our technicians

utilize the most advanced equipment, including drone and mobile scanning LiDAR to capture high accuracy 2D and 3D surfaces and extract individual features and assets.

LiDAR Derived Surfaces and AutoCAD Interoperability

Our in-house capabilities in drone and scanning LiDAR technology, coupled with our expertise in environmental and civil engineering, lend themselves the integration of geospatial data and drafting software. Through our Digital business and our Engineering Design Organization, we work daily between ESRI software and AutoCAD Civil3D to bring in the most current project and contextual data and dynamically update design footprints in our spatial analysis.

→ Commitment to You

GHD is dedicated to understanding and helping our clients achieve their goals. We are committed to sustainable development, safety, and innovation. We care for the well-being of our people, assist communities in need, and conduct business in an ethical and environmentally responsible manner. We can also offer our clients the confidence and peace of mind that comes from the fact that GHD is ranked 28th in the "Top 150 Global Design Firms" by *Engineering News-Record* in 2021.

**We rank #28 in
the ENR Top 150
Global Design
Firms in 2021**

#10 in international firms US

#06 in water

#06 in sewer/waste

#05 in hazardous waste

90+ years in operation

10K people

50+ service lines

Key Personnel and Job Planning

→ GHD Team Structure and Members

Based on our understanding of your project needs, we propose a team structure that spans the anticipated needed services without the need for outside subconsultants. The organizational chart below details our proposed team, including disciplinary-based roles tailored to your project. Many of our team members have worked together on other projects and additional staff may be called on if needed/desired.

Eureka, California is GHD’s regional hub for GIS expertise. Our proposed Project Director, plus two key staff and three support staff all report to GHD’s Eureka office. Our proposed Project Manager has close family in Gasquet, Del Norte County, and has traveled previously from his home office in Washington State to conduct field work on the initial mapping project with the DNLTC. Additionally, support staff are located in Redding, Sacramento, Santa Rosa, California and Phoenix, Arizona where GHD has offices. It is anticipated that most work can be accomplished virtually given that ArcGIS Online is web-accessible and that GHD has demonstrated success using video calls during the initial mapping project. On-site work such as field data collection or presentations will likely be handled by Eureka office project staff, and the Project Manager as requested or required.

→ Continuity of Personnel

We are committed to keeping the project team proposed below. Over the coming five years, should an unexpected change result in a team member being unavailable to serve DNLTC on this project, we are backed with the resources of a global network. No changes will be made to the project team without consent by DNLTC.

→ Organizational Chart

GHD is fully staffed and capable of providing the right services to our clients in a timely fashion. For this contract, we have identified the project team who will serve DNLTC in the following staffing plan. Resumes for Key Personnel are on the pages following.



Zach Porteous

Project Manager/GIS Services Lead

Classification:
Professional 1



Location

Seattle, WA

Experience

3 years

Qualifications/Accreditations

- BS, Environmental Science and Management (Minor: Computer Science), Humboldt State University, Arcata, CA, 2020
- ArcGIS Desktop Associate 19-001 Certification
- ArcGIS Online Specialty Certification
- ArcGIS API for JavaScript Specialty Certification

Key technical skills

- Python Programming
- Data Management
- GIS Analysis
- Cartography

Memberships

- United States Geological Survey Hydrographic Data Steward
- North Coast Geographic Information System (GIS) User Group

Relevant experience summary

Zach Porteous is an ESRI certified, GIS professional with experience in network analysis, database modelling, and web programming. He has extensive experience with spatial software packages like the ArcGIS suite of software and QGIS, data collection methods with Global Navigation Satellite System (GNSS) receivers and automated analysis using the python programming language. Zach is passionate about applying his knowledge of GIS systems to his clients use cases, and is actively seeking out new, innovative solutions developed in the field of GIS every year.

Project experience

DWR SGMA Analysis

Location Intelligence Analyst
California, USA | \$1.5 M | 12/2021 - 8/2022

GHD was contracted to provide technical assistance to support DWR in developing standardized monitoring methods as well as a publicly accessible interactive spatial mapping tool to track the effectiveness of the SGM implementation projects. GHD collected and analysed data to identify planned and funded implementation projects, developed a database and interactive mapping tool to interface with the database, and developed standardized monitoring methods to determine the effectiveness of different types of SGM Projects. Zach was responsible for making the spatial interactive tool in ArcGIS Online.

Sebastopol Water and Wastewater Mapping

Location Intelligence Analyst
City of Sebastopol | Sebastopol, CA | \$35,000 | 8/2021 - 2/2021

The City of Sebastopol engaged GHD to digitize CAD drawings into GIS layers that could be used in their new asset management

software, Cartegraph. Created a detailed GIS dataset of water and wastewater systems from CAD documents and PDF copies of as-built drawings; developed large format maps and map books for the City's use in the field and the office; used a RTK GPS unit to capture locations of features stored in the GIS; and integrated Environmental Systems Research Institute (ESRI) online infrastructure with the Cartegraph Asset Management System.

Ukiah Water Tank Siting Study

Location Intelligence Analyst
City of Ukiah | Ukiah, CA | \$8,000 | 8/2020 - 11/2020

The City of Ukiah needed a way to perform a site selection for a new water tank on a bluff near the city. Maps developed by GHD were used in that decision making process. Provided geospatial analysis and map products for the siting of the new water tank in the city of Ukiah.

San Joaquin County Vehicle Miles Traveled (VMT) Thresholds

Location Intelligence Analyst
San Joaquin County | San Joaquin, CA | \$160,000 | 11/2020 - 3/2021

Developed a customized web application in the ArcGIS Online Environment that can be used by developers to screen themselves out of a lengthy and expensive California Environmental Quality Act (CEQA) required VMT analysis for the County of San Joaquin. Automated Network Analysis with python scripting to assess the effect of adding new bicycle facilities on VMT within San Joaquin County.

Del Norte Regional Transportation Planning

Location Intelligence Analyst
Del Norte Local Transportation Commission | Del Norte, CA | \$170,000 | 3/2021 - 6/2022

Authored Del Norte County's first ever regional GIS transportation dataset to be used for inventory tracking and future development. Coordinated with multiple local agencies to customize each dataset for specific use cases. Launched the DNLTC ArcGIS Online organizational site using a Project Delivery Subscription.

Highway 111 Form Based Code Planning and Services

Location Intelligence Analyst
City of La Quinta | La Quinta, CA | \$900,000 | 3/2021

Assisted the GHD Transportation group in developing a Level of Traffic Stress (LTS) model to evaluate a transportation corridor.

Little River Trail Project

Location Intelligence Analyst
Redwood Community Action Agency | Trinidad, CA | \$760,000 | 8/2020 - Ongoing

Supported environmental scientists with geospatial analysis and mapping services in the evaluation of a new trail in the City of Trinidad.

Bay to Zoo Trail Project

Location Intelligence Analyst
City of Eureka | Eureka, CA | \$40,000 | 8/2020 - 2/2021

Supported field staff with web maps and data collection utilities; worked with biologists and botanists to form a final wetland delineation for the trail to be built in Eureka.

Fremont Dumbarton Trail Study

Location Intelligence Analyst
Alta Planning and Design | Fremont, CA | \$588,000 | 1/2021 - 3/2021

Worked with environmental contamination and remediation specialists to assign rankings and map hazard sites that were in proximity to a new trail in Fremont.

Tolowa Dee-ni' Hazard Mitigation Project

Location Intelligence Analyst
Tolowa Dee-ni' Nation | Smith River Rancheria | \$75,000 | 7/2020 - 1/2021

Brought together data from a myriad of sources to provide spatial analysis and mapping support to planners in the development of a hazard mitigation plan that conforms to Federal Emergency Management Agency (FEMA) standards. Created a map book for public and client engagement in the process of identifying hazards to the tribal community.

Trinidad Community Coastal Resilience Planning

Location Intelligence Analyst
Trinidad, CA | USA | 4/2022 - Ongoing

Assisted climate change specialists with data gathering and research in the City of Trinidad to assess current conditions and future scenarios.

City of Trinidad Engineering On-Call

Location Intelligence Analyst
Trinidad, CA | USA | 12/2020 - 1/2021

Lead by the Engineering team manager, recovered, documented, and assembled years of GIS data from past design and engineering work done for the city into a cohesive dataset that could be used in figures.

Reference

Dante Del Prete | Public Works Superintendent
City of Sebastopol Public Works Department
T: 707.823.5331
E: ddelprete@cityofsebastopol.org

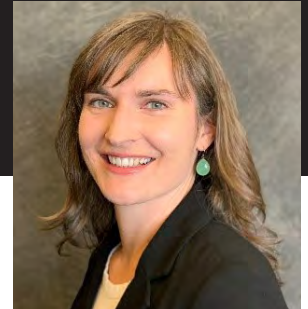
Career history

2020 – present	GHD, Location Intelligence Analyst
2019 – 2020	Cultural Resources Facility, Research Associate

Amber Shows, GISP

Project Director

Classification:
Technical Director 1



Location

Eureka, CA

Experience

14 years

Qualifications/Accreditations

- MS, Natural Resource Science, Humboldt State University, Arcata, CA, 2014
- Graduate Certificate, Geospatial Sciences, Humboldt State University, Arcata, CA, 2013
- BS/BA, Biology, Environmental Studies and French, Northern Arizona University, Flagstaff, AZ, 2004
- GISCI Certified Geographic Information Systems Professional (GISP)

Key technical skills

- Portal, ArcGIS Online, ArcGIS Urban, ArcGIS Pro
- GPS, Mobile Mapping, Asset Inventory
- Watershed and Environmental Management

Memberships

- North Coast Geographic Information System (GIS) User Group

Relevant experience summary

Amber Shows is a spatial sciences professional and project manager with 14 years of experience in Geographic Information System (GIS), Global Positioning Systems (GPS), public infrastructure, asset inventory, watershed and environmental management, and urban planning. She has experience managing spatial and non-spatial data, building and maintaining geodatabases, web GIS, mobile mapping, remote sensing and analysis, preparation of grant proposals, regulatory agency coordination, and field work ranging from aquatic to public utility. Amber possesses a diverse educational and professional background, making her a valuable asset to any project where spatial sciences and data management are required.

Project experience

GIS Professional Services

Task Order Manager

City of Arroyo Grande | Arroyo Grande, San Luis Obispo County, CA

Under a professional services on-call contract, GHD met with City staff to develop a task order scope that would modernize the City's GIS system and workflows and complete a backlog of data updates across their planning and public works departments. Through this task order, GHD provides the City of Arroyo Grande with complete GIS support and has guided its transition to Esri's ArcGIS Online environment through roadmapping and staff training.

City of San Jose Curb Ramp Asset Management Program

Project Manager

City of San Jose | San Jose, Santa Clara County, CA

The City of San Jose selected GHD to evaluate asset management solutions for the management of their 30,000 curb ramps and to support the implementation of their Americans with Disabilities Act (ADA) Transition Plan. GHD consolidated the City's GIS data, prepared it for import into an asset management

software program, and guided the City through change management of office and field workflows.

Del Norte Regional Transportation Mapping

Project Manager

Del Norte Local Transportation Commission | Crescent City, Del Norte County, CA

This project standardized County, City, and Tribal roadways, transit, and active transportation layers in GIS within Del Norte County. GHD coordinated the gathering and developing of data and schema structure and guided spatial and attribute editing to achieve an accurate and dependable GIS system for members of DNLTC. Through an ArcGIS Online organization site administered by GHD, the region has access to authoritative datasets, web applications, and field data collection capabilities.

City of Carson Stormwater Inspection WebGIS

Project Manager

City of Carson | Carson, Los Angeles County, CA

The City of Carson required a solution to quickly mobilize their commercial stormwater inspection program and to easily provide progress updates to the Water Resources Control Board.

Leveraging ArcGIS Online, GHD digitized the City's paper forms into digital forms using Survey123, trained City staff in the collection of stormwater information, supported the City in field operations, ultimately inspected over 1,100 businesses in less than 6 months, and bringing the City into compliance under the Municipal Stormwater Program. The visualization of project progress in an ArcGIS Dashboard was invaluable to the City's Public Works Director and to the Water Board in accessing real-time data throughout the process.

City of Arcata General Plan Update and Specific Area Plan: 3D Urban Planning Model

GIS Analyst

City of Arcata | Arcata, CA; Humboldt County, CA

Working with Planwest, GHD modelled City zoning and planning rules and several development scenarios in a 3D environment for the City of Arcata's General Plan Update and Specific Area Plan Element. Leveraged ArcGIS Urban to easily build, analyze and share development scenarios and their effects on housing and jobs created as well as anticipated demands on resources and greenhouse gas emissions.

Fishing Grounds GIS Data Development & WebMap

Project Manager

University of California Santa Cruz | San Luis Obispo, CA; San Luis Obispo County, CA

In partnership with the Morro Bay Commercial Fishermen's Organization, the University of California, Santa Cruz, and the California Ocean Protection Council, GHD gathered, standardized, and digitized the results of stakeholder input on commercial fishing grounds for the Central Coast of California. By providing this GIS data to a public data clearing house and presenting it as a public facing interactive WebMap, Morro Bay Commercial Fishermen's Organization is able to tell their story and provide valuable insight to a wider audience in an easily accessible format.

Fishing Grounds WebMap

Project Manager

Humboldt Fishermen's Marketing Association | Eureka, Humboldt County, CA

In partnership with the Humboldt Fishermen's Marketing Association, the University of California, Santa Cruz, and the California Ocean Protection Council, GHD gathered, standardized and digitized the results of stakeholder input on commercial fishing grounds for the North Coast of California. By providing this GIS data to a public data clearing house and presenting it as a public facing interactive WebMap, Humboldt Fishermen's Marketing Association is able to tell their story and provide valuable insight to a wider audience in an easily accessible format.

City of Elk Grove Systematic Safety Analysis Report (SSAR)

GIS Analyst

City of Elk Grove | Elk Grove, CA

The City of Elk Grove worked with GHD to develop a SSAR to provide analytics-based traffic improvements that address the underlying risk factors that are able to be addressed through

engineering and design. Contributed to this process by building a spatial analysis tool within the ESRI environment that ranks intersections and roadways based on several risk factors. As risk factors are addressed, the tool reflects the decreased risk at those locations and allows City staff to turn their focus on the remaining high priority locations.

City of Sonoma Retroreflectivity Assessment

GIS Analyst

City of Sonoma | Sonoma, CA

As part of their SSAR, the City of Sonoma in California hired GHD to complete an identified mitigation measure to ensure road signage met retroreflectivity standards. Received the City's signage GIS data, made it available to field staff via the ArcGIS Online Collector app, then analyzed, merged, and delivered the data back to the City in its original format. Coordinated and supported this month-long field project and provided the client an end product that helped them visualize and plan for maintenance work, keeping drivers safe in their community.

City of Sebastopol Water and Wastewater Mapping

GIS Analyst

City of Sebastopol | Sebastopol, CA

Coordinated the initial development of a water and sewer GIS for the City of Sebastopol. This project entailed the conversion of CAD modelling results and as-built drawings into data-rich GIS layers for utility maintenance staff and master planning and Clean in Place (CIP) development. Coordinated the process and the implementation of data development, field data collection with real-time survey grade GPS, and integration into the City's asset management software via regional partners and ESRI's Enterprise ArcGIS environment.

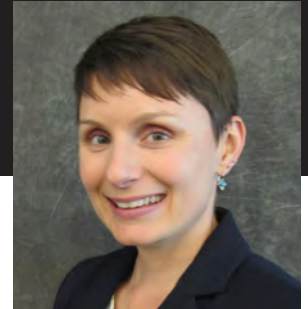
Career history

2016 - present	GHD, Location Intelligence Team Lead
2015 - 2016	County of Sonoma, Ag + Open Space District, Conservation GIS Analyst
2012 - 2015	GHD, GIS Team Lead
2008 - 2012	Humboldt County Resource Conservation District, Project Coordinator
2007 - 2008	Pacific States Marine Fisheries Commission, Fisheries Technician
2006 - 2007	California Department of Fish & Wildlife, AmeriCorps Volunteer Watershed Stewards Program
2005 - 2006	US Forest Service, AmeriCorps Volunteer Watershed Stewards Program

Kendra Ramsey, AICP

Transportation and Grant Support Lead

Classification:
Technical Director 2



Location

Sacramento, CA

Experience

15 years

Qualifications/Accreditations

- MS, Community Development, University of California, Davis, CA, 2009
- BA, Sociology, University of California, Santa Cruz, CA, 2005
- American Institute of Certified Planners (AICP) Certified Planner #32395
- Safe Routes to School National Course Instructor

Key technical skills

- Bicycle and Pedestrian Planning
- Complete Streets Planning
- Meeting Facilitation
- Non-Traditional, Culturally-Appropriate Engagement
- Policy and Program Development and Evaluation

Memberships

- Association of Pedestrian and Bicycle Professionals Vice President
- American Planning Association, Sacramento Valley Section Professional Development Officer

Relevant experience summary

Kendra Ramsey has 15 years of experience in active transportation and sustainable land use planning, policy, program design, and implementation. She has cross-sector expertise in community engagement, public health, and equitable development. Kendra's experience includes state and local government as well as the non-profit sector. She has managed the development of numerous Active Transportation Plans (ATP) for municipal and county clients, developed and implemented Safe Routes to School (SRTS) plans and programs, consulted on effective active transportation accommodation within large roadway projects, and written successful regional and state grant applications for local agencies.

Project experience

City of Elk Grove Laguna Creek Inter-Regional Trail Master Plan

Project Manager

City of Elk Grove | Elk Grove, CA

Managing development of a comprehensive plan for the completion of the Laguna Creek Trail, serving the Cities of Elk Grove and Sacramento, and Sacramento County. This project builds on work in the Bicycle, Pedestrian, & Trail Master Plan to further conceptual design of the gaps in the current trail network, the top priority of the City's Trails Commission. Significant community engagement will focus on bringing together members of diverse communities throughout the trail corridor.

Old Redwood Highway Corridor Enhancement Plan

Assistant Project Manager

Town of Windsor | Windsor, CA

Managed the data collection, analysis, recommendation development and outreach for development of a comprehensive vision for the future of the Old Redwood Highway. The plan creates an implementable strategy to make Old Redwood

Highway into a Complete Street through the Town, improving crossings and bicycle connectivity, and creating a sense of place along the corridor.

Gustine Active Transportation Plan

Project Manager

City of Gustine | Gustine, CA

Managed the development of an Active Transportation Plan for the city of Gustine in California's Central Valley. Developed and implemented a hybrid community engagement program, including virtual Project Advisory Committee meetings to provide strategic direction, virtual workshops, and an interactive website, and in-person pop-up engagement at community events.

READY Nevada County

Project Manager

Nevada County Transportation Commission | Nevada City, CA

Managing the development of READY Nevada County Extreme Climate Event Mobility and Adaptation Plan. The plan will build upon the ongoing coordination and emergency planning efforts

of the Nevada County Office of Emergency Services, as well as efforts of Grass Valley, Nevada City, and Truckee, to identify climate-related challenges to the transportation network in Nevada County and strategies to address them. Kendra is managing the overall project including an environmental subconsultant team and is directing the community engagement and stakeholder consultation for the project.

City of Elk Grove Bicycle, Pedestrian, and Trails Master Plan

Project Manager

City of Elk Grove | Elk Grove, CA

Managed a three-firm project team in the development of an update to the Elk Grove Bicycle, Pedestrian, and Trails Master Plan that will prepare the City to seek grant funding and quickly implement high-priority recommendations. The plan includes context-appropriate network recommendations for the urban, suburban, and rural areas of the City and recommends strategies to leverage new development to construct a well-connected active transportation network. Extensive engagement conducted during the COVID-19 stay-at-home orders via a variety of virtual engagement media.

RAISE Grant Writing

Project Manager

Tolowa Dee'-ni Nation | Smith River, CA

Managed the development of a US Department of Transportation RAISE Planning Grant application in the 2021 application cycle for the Tolowa Dee'-ni Nation, a sovereign Tribal government in Northern California. The project includes planning through 35% design and environmental clearance for a multi-modal corridor reconfiguration on Highway 101. This grant management tasks included developing a scope for the proposed project, coordinating subject matter experts to develop work plan and fee content, and providing QA/QC for application narrative and exhibit development.

Active Transportation Program Cycle 5 Grant Writing

Project Manager

Various Clients | Various Locations

Managed the development of six Active Transportation Program grant applications during the Cycle 5 Call for Projects, running March to September 2020. Each project included developing a competitive grant approach, overseeing development of grant narrative, conceptual plans and project budgets, outreach for letters of support, and quality assurance of grant packages. Maintained frequent communication with each client, coordinated planning / grantwriting and engineering staff deliverables, and conducted QA/QC review on all grant products. In a highly competitive cycle, one project funded in the statewide round and one project funded in the MPO round.

Sustainable Transportation Planning Grant Application

Project Manager, Lead Author

Calaveras Council of Governments | Valley Springs, CA

Managed the development of the scope of work, fee, and project schedule for an extreme climate event preparedness plan. The application was funded in the Fiscal Year 21-22 Cycle.

Eastside Transportation Corridor Improvement Study

Project Manager

Fresno Council of Governments | Fresno, CA

Managed the development of a comprehensive improvement study for the major north-south and east-west corridors in Eastern Fresno County. The study determined future transportation needs based on land use, transportation, economic, and climate adaptation analysis. Recommendations include proven safety countermeasures to address collision hot spots as well as bicycle and pedestrian-focused connectivity and safety improvements. Conceptual illustrations were developed for high priority projects.

City of Santa Maria Active Transportation Plan

Project Manager

City of Santa Maria | Santa Maria, CA

Managed the development of the Active Transportation Plan to improve bicycling and walking in Santa Maria, a disadvantaged community. Developed and implemented effective virtual engagement strategy during COVID-19 pandemic. Managed development of a Cycle 5 Active Transportation Program grant application for priority projects.

Cottonwood / Front Street Concepts and Outreach

Active Transportation Advisor

Shasta County | Cottonwood, CA

Assisting Shasta County with development of conceptual alternatives and engagement materials and strategy for the Front Street historic corridor in Cottonwood. The project builds from prior outreach conducted in the community and will culminate in selection of a preferred alternative to provide improved active transportation facilities on Front Street after consultation with the Cottonwood Committee.

Career history

2019 - present	GHD, Planning Lead
2016 - 2019	Alta Planning + Design, Planning Associate
2015 - 2016	North Carolina Department of Transportation Division of Bicycle and Pedestrian Transportation, Consultant
2013 - 2014	California Department of Public Health Safe Routes to School Technical Assistance Resource Center, Team Lead
2009 - 2013	Sacramento Housing Alliance, Policy Director
2008 - 2010	City of West Sacramento, Redevelopment Intern

Julia Clark

GIS Services – ArcGIS Online Administration

Classification:
Senior Professional 2



Location

Eureka, CA

Experience

7 years

Qualifications/Accreditations

- BS, Environmental Science (Geospatial Science), Humboldt State University, Arcata, CA, 2015
- Esri ArcGIS Online Administration Specialty Certification, 2022
- Esri ArcGIS Desktop Professional Certification, 2022

Key technical skills

- Geographic Information System (GIS)
- Digital Data Collection
- Web GIS Management

Memberships

- North Coast Geographic Information System (GIS) User Group
- Urban and Regional Information Systems Association

Relevant experience summary

Julia is a Location Intelligence Analyst with seven years of experience using GIS in multidisciplinary county, state, non-profit, and educational projects. She has administered multiple web GIS environments for clients using ArcGIS Online, supported digital data transformations for improved efficiency of field data collection efforts, conducted multi-criteria analysis for site selections, and has generated cartographic presentations for a wide range of disciplines.

Project experience

Arroyo Grande GIS Services

GIS Analyst

City of Arroyo Grande | Arroyo Grande, CA

Developed a strategic roadmap for the City's near-term use of GIS. Assess the City's current state of GIS, interview and survey department staff to determine the City's future vision for GIS, identify gaps between current and future stated, and assemble a roadmap to close the gap.

RCSD Web GIS Services

GIS Analyst

Redway Community Services District | Redway, CA

Administered the back end of an ArcGIS Online environment for the District to view, query, and edit their spatial data layers for water and sewer. Developed web map interfaces and provided the district with training and guidance on how to best utilize the web maps.

Rio Dell Web GIS Services

GIS Analyst

Redway Community Services District | Redway, CA

Administered the back end of an ArcGIS Online environment for the City to view, query, and edit their spatial data layers for wastewater. Developed a web map interface and provided the city with training and guidance on how to best utilize the web map.

NCPA Survey On-Call

GIS Analyst

Northern California Power Agency | Northern California, CA

Administered the back end of an ArcGIS Online environment for the Agency to view and query the surveyed boundaries. Developed a web map interface and provided the city with guidance on how to utilize the web map.

City of Fortuna Web GIS

GIS Analyst

City of Fortuna | Fortuna, CA

Assisted the City with configuring and setting up their Environmental Systems Research Institute ArcGIS Online account. Prepared utility data and uploaded current versions of sewer, water, and wastewater data to an internal web map for use by the City's Public Works staff. Adjusted privacy settings and cartographic settings per the client and developed a maintenance plan for data updates.

Humboldt County Association of Governments Transportation Mapping

GIS Analyst

Humboldt County Association of Governments | Eureka, CA

Utilized cartographic design principles and data version management to assist in updating the Regional Transportation Plan and Regional Bike Plan maps.

Redway Community Services Collection System Evaluation Study

GIS Analyst

Redway Community Services | Redway, CA

Provided assessment of existing wastewater spatial data and worked with the project team to develop a data collection plan to build a new wastewater GIS database. Prepared Survey123 form to collect field data from accessible locations and supported field staff in a full sewer manhole assessment.

Lower Paxton Township Authority Mini-Basin Program

GIS Analyst

Lower Paxton Township Authority | Colonia Park, PA

Responsibilities included migrating field inspections from paper forms to digital. Developed a manhole inspection form in Survey123, which included ability to markup diagrams and function to export from the database directly to a report. Developed a stormwater outfall field screening form, as well as a feature report export function to improve field to office data collection.

City of Rio Dell Sanitary Sewer Evaluation Study

Lead GIS Analyst

City of Rio Dell | Rio Dell, CA

Provided assessment of existing wastewater spatial data and worked with the project team to develop a data collection plan to build a new wastewater GIS database. Prepared Survey123 form to collect field data from accessible locations and supported field staff in a full sewer manhole assessment. Compiled field data to provide an updated wastewater network system and assisted client in identifying areas of high and low data confidence.

City of Rio Dell Water Infrastructure Improvements

GIS Analyst

City of Rio Dell | Rio Dell, CA

Assisted the City of Rio Dell in improving upon their existing water utility infrastructure database by developing a comprehensive schema format, cross-checking, and supplementing datasets with information from historic engineering reports, digitizing previously undocumented features, and validating system connections. Developed a database that can easily be exported into modeling software and can be maintained as an asset management system.

City of Eureka Stormwater Resource Plan

Lead GIS Analyst

City of Eureka | Eureka, CA

Assisted in the development of a Eureka Area Stormwater Resources Plan, including data acquisition and evaluation, multi-criteria analysis to identify optimal locations for projects, and field work involving stormwater data collection.

North Middleton Township Stormwater Services

GIS Analyst

North Middleton Township | North Middleton Township, PA

Supported a digitization of the stormwater billing services appeals form. Developed public-facing form for township customers to appeal their billing rate. Enabled automated email notifications of new appeals and provided interface for reviewers to grant or deny the appeals. Also developed automated output reporting template for township filing purposes of each appeal and its status.

Susquehanna Township GIS Services

GIS Analyst

Susquehanna Township | Susquehanna Township, PA

Supported Susquehanna Township by developing digital field data collection tools, including outfall inspection form and Best Management Practices (BMP) inventory and inspection forms. Enhances field to office digitization by increasing field efficiency and eliminating data entry from paper forms. Included ability to pass information from existing features to auto populate a form. Additionally developed a click-button data reporting feature to comply with reporting requirements.

Oneida County Flow Monitoring Program

GIS Analyst

Oneida County | Oneida County, NY

Flow monitoring program included inspections of relevant manholes. Developed Survey123 form for digital data collection during manhole inspections to increase efficiency in the field, reduce data entry time, and prepare for automated report generation from the office.

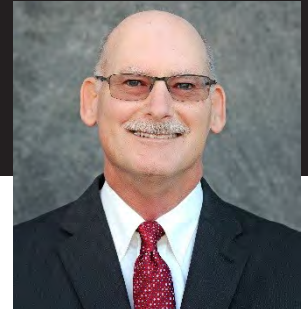
Career history

2015 – present	GHD, Location Intelligence Analyst
6/2015 – 9/2015	Caltrans, GIS Student
3/2015 – 5/2015	North Coast Regional Land Trust, GIS Trainer
2/2015 – 5/2015	County of Humboldt, GIS Technician Intern
9/2014 – 5/2015	Humboldt State University, GIS Instructional Student Assistant

Brian Howard, PLS

AutoCAD and Land Surveying Lead

Classification:
Technical Director 1



Location

Redding, CA

Experience

36 years

Qualifications/Accreditations

- BS, Survey and Photogrammetry, California State University, Fresno, CA, 1986
- AS, Engineering, College of the Siskiyous, Weed, CA, 1982
- Professional Land Surveyor, CA #7250

Key technical skills

- Topographic, boundary, and construction survey

Memberships

- California Land Surveyors Association

Relevant experience summary

Brian Howard manages the firm's Northern California surveying projects and supervises surveyors, scheduling field and office personnel. Throughout his over 36-year career, he has performed surveying and right of way engineering on a full range of surveying projects, serving as project manager and party chief. Brian has extensive experience with topographic, boundary, and construction surveying, as well as expertise with geodetic and photogrammetric control, hydrographic surveying, optical tooling, and monitoring surveys. He has surveyed in all types of environments from the highly industrial settings of chemical plants, steel mills, and oil refineries to remote areas staking slide repairs and establishing boundary lines, including work in the majority of California's counties. Brian also has additional surveying experience in Nevada, Oregon, and Hawaii.

Project experience

City of Galt On-Call Services

Surveyor

City of Galt | Galt, CA

Prepared the exhibits and wrote legal descriptions for the City of Galt corporate limits and annexations.

Modoc County On-Call Surveying

County Surveyor

Modoc County | Modoc County, CA

Provided the map checking and working with the State Board of Registration on disciplinary actions.

Trinity County On-Call Surveying and Interim County Surveyor

Survey Manager, Party Chief

Trinity County | Trinity County, CA

Provided the map checking of records of survey, parcel maps,

and final maps, responded to planning department request for comments on planning applications, and field surveying for court ordered encroachment resolution, construction staking of road improvements, and FEMA applications. Project involving various land surveying duties from January 2012 to January 2017.

Trinity County On-Call Surveying

Survey Manager, Party Chief

Trinity County | Trinity County, CA

Provided topographic mapping right of way engineering, LiDAR mapping, construction staking of road improvements, and various land surveying duties from January 2017 to January 2022.

Modoc County - County Surveyor

County Surveyor

Modoc County, | Modoc County, CA

Performing the map check records of survey, parcel maps, final maps, and respond to planning department requests

for assistance for projects involving work with the planning department, as well as the general public. Performing these services from 2016 to present.

Town of Manila Shared Use Path Highway 255 Trail

Survey Manager

Humboldt County | Humboldt County, CA

Performed a topographic and boundary survey of a 0.7-mile strip of land along SR 255 in Manila. The survey included the establishment of control and determination of the right of way location.

Six Rivers National Forest

Surveyor

Humboldt County | Humboldt County, CA

Provided the construction staking and as-built data for six slide repair sites constructed for FHWA. Staking included establishment of control, centerline staking, slope staking, drainage layout, and as-built surveys.

City of Rio Dell SRTS

Survey Manager

City of Rio Dell | Rio Dell, CA

Provided topographic surveying and right of way engineering of several city streets. Mapping was to support the design of more than one SRTS project. Provided topographic surveying and right of way engineering for multiple schools that will add ADA improvements, bike lane striping, and sidewalk improvements.

County Road 55 (Pencil Road) Topographic and Right of Way Survey

Field Crew Member, Office Surveyor

Modoc County | Modoc County, CA

Prepared a topographic survey map of Pencil Road from SR 299 to Modoc National Forest boundary (four miles) using GPS to establish geodetic control and Real-Time Kinematic (RTK) field surveying. The map included all natural and man-made features within the right of way and a Digital Terrain Model (DTM).

City of Chico Map Checking Services

City Surveyor

City of Chico | Chico, CA

Review final and parcel maps for technical correctness. Review certificates of correction, certificates of compliance, lot line adjustment submittals, and sign documents as City Surveyor. An ongoing project that started in 2015.

City of Buena Park Map Checking Services

City Surveyor

City of Buena Park | Buena Park, CA

Review final and parcel maps for technical correctness. Review certificates of correction, certificates of compliance, lot line adjustment submittals, and sign documents as City Surveyor. An ongoing project that started in 2017.

City of Shasta Lake Map Checking Services

City Surveyor

City of Shasta Lake | Shasta Lake, CA

Review final and parcel maps for technical correctness. Review certificates of correction, certificates of compliance, lot line adjustment submittals, and sign documents as City Surveyor. An ongoing project that started in 2018.

PG&E Manufactured Gas Plant Remediation

Survey Manager

AIS Inc. | Eureka, CA

Responsible for the construction staking and as-builts for remediation of former Pacific Gas & Electric (PG&E) manufactured gas plant. Prepared documents to support a lot line adjustment following the completion of remediation.

Forest Highway ERFO in Six Rivers National Forest

Survey Manager, Party Chief

T.L. Peterson Construction | Humboldt County, CA

Performed the construction staking and as-built data for six slide repair sites constructed for ERFO for the FHWA. Staking included establishment of control, centerline staking, slope staking, drainage layout, and as-built surveys.

Other Related Areas of Interest

Certifications / Trainings

- Advanced BLM Cadastal Workshop
- FEMA Elevation Certificate, 2016
- FEMA Obtaining and Developing Base Flood Elevations in Zone A Areas
- FEMA Flood Plan Determination in Approximate Zone A, 2016
- Hypack Hydrographic Training Seminar
- Water Boundaries for California Land Surveyors

Career history

2011 – present	GHD, Lead Surveyor
1986 – 2006	Ronald Greenwell & Associates, Project Manager

→ Support Staff Bios

Robert Becker
QA/QC

Years of Experience: 4
Location: Irvine, CA
Classification: Senior Professional 2



Relevant experience summary

Robert Becker is a Geographic Information Systems (GIS) professional with over four years of experience in a wide range of GIS applications. Robert has assisted in the preparation and completion of mapping projects for public agencies, private sector companies, and non-profit organizations. His set of skills includes spatial and geostatistical analyses; remote sensing and analysis; Three-Dimensional (3D) modeling with shade and shadow analysis; batch geocoding; digitizing; data collection; data editing; and high-quality cartographic design. He has created and edited map documents and graphic exhibits to meet client and project needs using a variety of software including ArcGIS, Adobe Photoshop, and Adobe Illustrator. An innovative thinker generating business solutions across a variety of sectors. He has managed multi-million-dollar contracts for government agencies such as the National Geospatial-Intelligence Agency.

Rebecca Crow, PE
Transportation Planning and Grant Support

Years of Experience: 25
Location: Eureka, CA
Classification: Technical Director 1



Relevant experience summary

Rebecca Crow has 25 years of experience in a broad range of environmental management and planning services: water and wastewater planning, water recycling, watershed and water quality modelling, groundwater management, regulatory compliance, funding assistance, and grant and contract management. She has assisted numerous communities in the evaluation of cost impacts from projects, as well as the evaluation of economic and qualitative benefits resulting from project implementation. Rebecca has experience using both state and federal economic models in support of funding program development and has secured over \$100 million dollars in grant funds for communities across the US. She has experience working with regulatory agencies on permit compliance for water, wastewater, recycled water, groundwater, and stormwater systems and understands the economic impacts project decisions can make on long- and short-term permit requirements.

Daniel Jones
GIS Services

Years of Experience: 11
Location: Eureka, CA
Classification: Professional 2



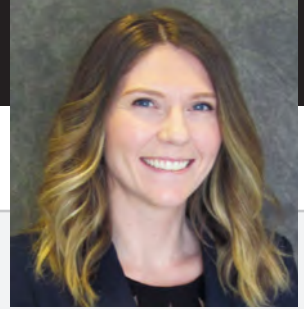
Relevant experience summary

Daniel Jones has a background in natural resources with an emphasis on spatial analysis, with a thorough knowledge of GIS, data management, electronic and manual field data gathering methods. He enjoys problem solving to provide practical answers and solutions for real-world application, as well as easily implemented tools for those with boots on the ground.

Paige Thornton

GIS Services

Years of Experience: 3
Location: Sacramento, CA
Classification: Professional 1



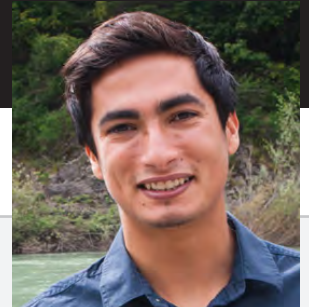
Relevant experience summary

Paige Thornton, an early career geospatial professional with a focus in transportation planning, joined GHD in 2019. Paige possesses strong communication skills, with a background in local government, as well as client-facing and customer service roles. She is an analyst who provides support on a variety of planning and land use projects, including active transportation plans, multimodal corridor / connectivity studies, and Vehicle Miles Traveled (VMT) mitigation studies. With extensive analytical and technical project experience utilizing GIS, data analysis and Creative Suite software, Paige excels in managing and analysing spatial and non-spatial data and supporting public outreach efforts.

Jesse Lopez

GIS Services - Grant Applications/Web Apps

Years of Experience: 3
Location: Eureka, CA
Classification: Professional 2



Relevant experience summary

Jesse Lopez has two years of experience using GIS supporting natural resource related projects. His responsibilities include spatial data analysis, layout and design interpretation, data acquisition, field data collection, and data management. He has experience with deploying web application and story maps and managing collaborative groups for sharing spatial data. He enjoys empowering people with spatial data by providing web-based tools and data that don't require desktop software or technical skills. Jesse worked for Bear River Rancheria as GIS specialist, and as an independent contractor creating site maps and assisting with Water Resource Protection Plans before joining GHD.

Harrison Hummel

LiDAR Specialist

Years of Experience: 11
Location: Eureka, CA
Classification: Design Technician 2



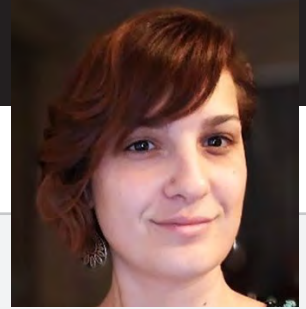
Relevant experience summary

Harrison Hummel has extensive experience following industry standards and best practices for collecting, managing, analysis and collection of Geographic Information System (GIS) and terrestrial and aerial based LiDAR datasets. He creates meaningful and accurate maps and reports that enable clients to visually interpret complex spatial questions for a wide variety of different projects. As a Part 107 UAV Pilot, he carries a primary focus on producing survey grade deliverables and botanical mapping products that can aid in mitigation planning and monitoring. Harrison has the skills and expertise in LiDAR data collection and data processing to extract high resolution datasets for use in planning, permitting, engineering, and surveying disciplines. Harrison strives to provide simple solutions for complex problems by utilizing advanced geospatial technologies.

Catherine Gerdts

GIS Services – AutoCAD to GIS

Years of Experience: 6
Location: Phoenix, AZ
Classification: Professional 1



Relevant experience summary

Catherine Gerdts is a location intelligence analyst with extensive CAD, transport planning, and GIS experience. She has project-based experience in model design, database production, data normalization, cartographic design, online mapping, programming, and environmental and transit planning. Catherine is proficient in ArcGIS, QGIS, GeoDa, GoogleEarth, SPSS, Adobe Suite programs, Microsoft programs, and Google suite applications. She is also experienced with AutoCAD, C3D, and MicroStation working with engineers in Traffic, Transit, Roadway, and Architecture. As a planner, Catherine has worked on several projects preparing memos, white papers, environmental resource sections for Environmental Assessments (EA's) and Environmental Impact Statements (EIS's), feasibility studies, and transportation master plans. Catherine also has experience coordinating with subconsultants and clients via email and in-person.

Jackie Bohannon

AutoCAD and Land Surveying

Years of Experience: 17
Location: Redding, CA
Classification: Drafting/Design 3



Relevant experience summary

Jackie Bohannon is a lead survey technician and drafter. She has over 17 years of experience in legal descriptions, topographic mapping, monumentation, records of survey, right of way exhibits, public utility and temporary construction easements, and calculation of the points for construction staking for civil engineering, surveying, and engineering design on roadway, interchanges, roundabouts, residential, and commercial / office facilities projects for public agencies and private projects throughout Northern California. At the start of each project, she performs the project deed research, confirms property boundaries, prepares the necessary calculations, performs all field preparation duties, and confirms all aspects of the work to be provided.

Owen Goode

AutoCAD Technician

Years of Experience: 22
Location: Eureka, CA
Classification: Design Technician 2



Relevant experience summary

Owen Goode has over 22 years of experience as a civil designer and technician for public access, residential, and commercial projects. Owen's expertise includes construction management support, conceptual grading and drainage design, grading and drainage plan preparation, and construction stakeout calculations, as well as tentative map preparation, wetland/stream disturbance mitigation, cost estimation and earthwork quantity calculations, and survey support.

→ Proposed Team Experience Matrix

Our various skillsets—described in each listing—demonstrate the necessary technical capabilities and experience to meet and exceed specific goals outlined in the DNLTC’s RFP.

	Key Team Member, Role	Years of Experience	Field Data Collection	Office data collection (Recorder, agency)	LiDAR Point Data to Contours	AutoCAD files into ArcGIS compatible files	Retrieving publicly available data	Development of GIS viewers	Maintaining existing datasets	Creating new datasets	Research titles, deeds, easements	Mapping boundaries (property lines, project boundaries)	Mapping needs for grant applications	Maintaining the DNLTCs ArcGIS account	Member agencies AutoCAD needs	Member agencies ArcGIS needs	Routing and Network Analysis	GIS data management in ArcGIS Portal	Managing Topology
Key Personnel	Zach Porteous, Project Manager	3	◆			◆	◆	◆	◆	◆		◆		◆		◆	◆	◆	◆
	Amber Shows, Project Director	14	◆		◆	◆	◆	◆	◆	◆		◆	◆	◆		◆	◆	◆	◆
	Kendra Ramsey, Transportation Planning and Grant Support	14										◆							
	Julia Clark, GIS Services – ArcGIS Online Administration	7	◆					◆						◆		◆		◆	◆
	Brian Howard, AutoCAD and Land Surveying	36	◆	◆	◆	◆					◆	◆			◆				
Support Staff	Rebecca Crow, Transportation Planning and Grant Support	25										◆							
	Daniel Jones, GIS Services	11	◆	◆		◆	◆	◆	◆	◆	◆	◆	◆			◆		◆	◆
	Paige Thornton, GIS Services	3	◆			◆	◆	◆	◆	◆		◆	◆			◆	◆	◆	◆
	Jesse Lopez, GIS Services – Grant Applications/ Web Apps	3	◆			◆	◆	◆	◆	◆		◆				◆		◆	◆
	Robert Becker, QA/QC	3	◆			◆	◆	◆	◆	◆						◆	◆	◆	◆
	Harrison Hummel, GIS Services – LiDAR Specialist	10			◆	◆	◆		◆	◆		◆			◆	◆		◆	◆
	Catherine Gerdts, GIS Services – AutoCAD to GIS	6				◆			◆	◆					◆				
	Jackie Bohannon, AutoCAD and Land Surveying	17		◆		◆					◆	◆			◆				
	Owen Goode, AutoCAD and Land Surveying	22		◆		◆						◆			◆				

Relevant Experience and Capabilities

This section contains selected GHD projects that illustrate our proven history of implementing GIS technology. Each listing highlights our capacity to address complex issues while collaborating with different agencies to help actualize their digital visions. Our various skillsets—described in each listing—demonstrate the necessary technical capabilities and experience to meet and exceed specific goals outlined in the DNLTC’s RFP.

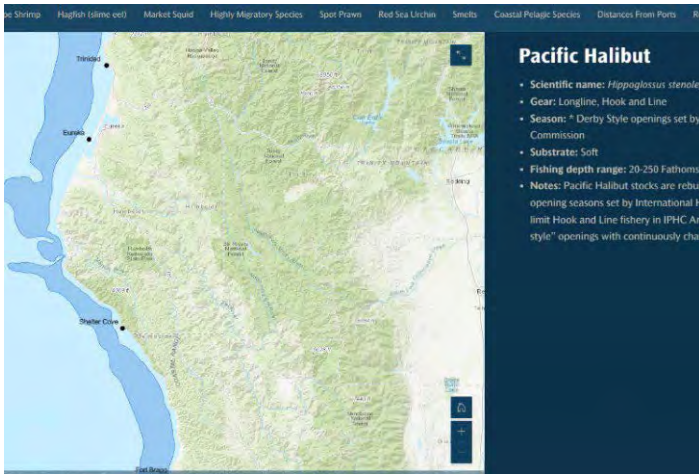
We encourage you to contact our client references and let them speak to our performance.

→ Project Experience Matrix

Project	Field Data Collection	Office data collection (Recorder, agency)	LiDAR Point Data to Contours	AutoCAD files into ArcGIS compatible files	Retrieving publicly available data	Development of GIS viewers	Maintaining existing datasets	Creating new datasets	Research titles, deeds, easements	Mapping boundaries (property lines, project boundaries)	Mapping needs for grant applications	Maintaining the DNLTCs ArcGIS account	Member agencies AutoCAD needs	Member agencies ArcGIS needs	Routing and Network Analysis	GIS data management in ArcGIS Portal	Managing Topology
Regional Transportation Mapping (DNLTC)	◆	◆			◆	◆	◆	◆	◆			◆	◆		◆	◆	◆
*North Coast Fishing Grounds Mapping		◆			◆	◆	◆	◆		◆							
*Sustainable Groundwater Management Act (SGMA) Project Analysis					◆	◆	◆	◆									
*North Coast Power Agency (NCPA) Project Delivery Subscription (PDS)		◆		◆	◆	◆	◆	◆	◆	◆						◆	◆
Arroyo Grande GIS Services		◆			◆	◆	◆	◆	◆	◆			◆	◆			
Metamora Water Main Expansion Survey	◆		◆														

* Projects with references

→ Project Summaries



Click link below to see web application
[**Fisheries Web App**](#)

<https://www.ghd.com/en/projects/gis-mapping-and-data-enrichment-illuminates-northern-californian-fisheries.aspx>

North Coast Fishing Grounds Mapping

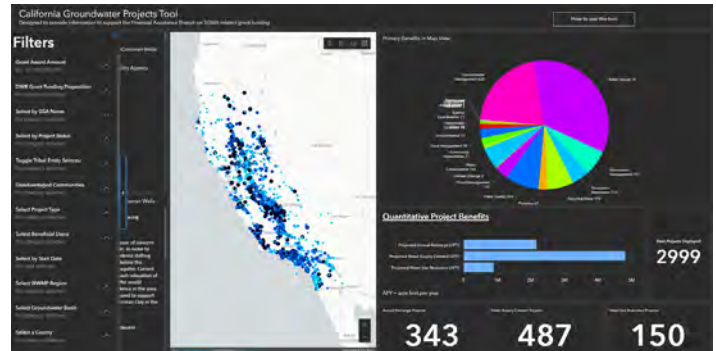
Reference: Humboldt Fishermen's Marketing Association | Ken Bates | Vice President | 707.498.1904 | kenbatesironic@gmail.com

Date: 2021 - 2022

Value: \$25,000

The Humboldt Fisherman's Marketing Association (HFMA), with funding from the California Ocean Protection Council, selected GHD to create a visually compelling GIS mapping solution to illustrate the fishing grounds of commercial fisheries and key information concerning local species. HFMA's hand drawn areas were georeferenced by GHD, attributed, and developed into an Esri StoryMap and a web application to convey information about fisheries on the northern coast of California to the public and all interested parties. The StoryMap was designed to allow users without GIS experience or software to explore and understand the dataset of north coast fisheries, while the web application provided tools to take a deep dive into the fisheries data and in the context of other associated datasets.

Project Team: Amber Shows, Jesse Lopez



Click link below to see web application

[**California Groundwater Projects Tool**](#)

<https://experience.arcgis.com/experience/00197adac22f4b06a3f410068d43a641>

Sustainable Groundwater Management Act (SGMA) Project Analysis

Reference: California Department of Water Resources Kelley List | Engineering Geologist | 916.651.9222 | Kelley.List@water.ca.gov

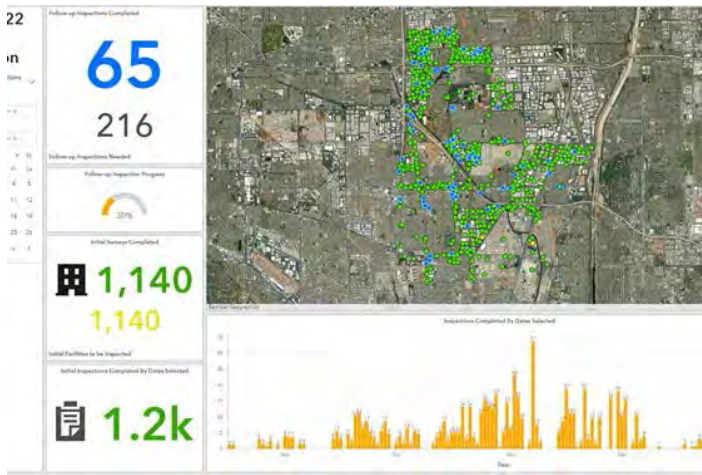
Date: 2021 - Ongoing

Value: \$1.5 million

The Sustainable Groundwater Management Act (SGMA) set forth a framework to help protect groundwater resources in California and required the formation of groundwater sustainability agencies and the development and implementation of groundwater sustainability plans (GSP) to sustain groundwater resources and mitigate groundwater overdraft over a 20-year time horizon. DWR is the State agency responsible for overseeing SGMA compliance as well as providing grant funding for implementation projects. DWR wanted to ensure that the projects funded provided the best outcomes possible to maximize the benefits from state funding.

GHD collected and analyzed data to identify planned and funded implementation projects, developed a database and interactive mapping tool to interface with the database, and developed standardized monitoring methods to determine the effectiveness of different types of SGM Projects. The project uses a Technical Advisory Team (TAC) composed of representative from across DWR and the State Water Resource Control Board.

Project Team: Amber Shows, Zach Porteous, Daniel Jones, Jesse Lopez



City of Carson, MS4 Permit Inspection

Reference: City of Carson City | Eliza Jane Whitman | Director of Public Works | 310.952.1754 | ewhitman@carsonca.com

Date: 2021 – 2022

Value: \$130,000

The City of Carson (City) engaged GHD to assist with the Los Angeles County National Pollution Discharge Elimination System (NPDES) municipal separate storm sewer system (MS4) permit compliance program for facility inspections. GHD was able to reduce the list to 1,140 facilities by working with the City to identify which Standard Industrial Classifications (SIC) codes were required under the MS4 permit.

To streamline the process and standardize the input and results, GHD developed an ArcGIS Online and Survey123 data collection and tracking system to support the facility inspections. The system was designed upfront to inspect all the facilities efficiently and quickly through a standardized inspection form on a tablet as well as to provide real-time tracking and reporting through an automatically updated web-based dashboard including summary statistics. The dashboard featured an interactive map with pop-ups, a percent complete gauge, and a date selector to view the rate of progress, ultimately helping the City to increase internal staffing on the project to meet deadlines.

GHD also prepared and conducted a comprehensive training program for City inspectors; the workshops covered stormwater best practices and the use of Survey123 inspection form in the field and the Dashboard in the office.

Project Team: Amber Shows

GIS Professional Services

Client: City of Arroyo Grande

Date: 2022 – Ongoing

Under a Professional Services On-Call contract the City of Arroyo Grande, California engaged GHD's Location Intelligence team to become the City's GIS administrators,

supporting the Community Development and Public Works departments. GHD is transitioning the City from an Esri Desktop and Google Earth workflow to an ArcGIS Online environment, including the development of GIS governance, staff training, and ongoing updates and maintenance of critical datasets such as parcels, water, sewer and stormwater infrastructure, transportation, and active planning areas.

Project Team: Amber Shows, Julia Clark, Evan Thompson

Regional Transportation Mapping

Client: Del Norte Local Transportation Commission

Date: 2021 – 2022

The Del Norte Local Transportation Commission (DNLTC), guided by representatives from tribal and local governments and stakeholders, required authoritative transportation-related spatial data to facilitate asset management and regional planning. With a variety of information needs across the stakeholders and varying access to geospatial software, a proposal for a common database and data access solution was requested. The GIS data would be used as a starting point for reporting of county and city mileage, and asset inventory and management for all agencies with the responsibility of maintaining roads and other related transportation assets including bridges, bus routes and stops, local trails, bike routes and lanes, sidewalks, curb ramps, driveways, drainage facilities, and the callbox system within the county. Data accessibility has now been optimized for each stakeholder through the initiation of an Esri ArcGIS Online Organization account administered jointly by GHD and DNLTC. This common clearing house of transportation data gives stakeholders immediate access to GIS software to view and analyze their own data, plus access to mobile tools and public facing applications.

Project Team: Amber Shows, Zach Porteous, Jesse Lopez, Evan Thompson, Daniel Jones, Paige Thornton

ArcGIS Online Administration and Data Development for the NCPA

Client: Northern California Power Agency (NCPA)

Date: 2021 – Ongoing

The Northern California Power Agency (NCPA) sought an easily accessible platform to view information from 200 parcels and easements by location along a corridor in Calaveras County, California. Geolocated linework did not exist for this area; the only spatial information existed within legal descriptions and parcel maps provided to GHD. From the legal descriptions GHD land surveyors digitized linework in AutoCAD that could be uploaded to ArcGIS Online

GHD developed a web-based map viewer through ESRI's ArcGIS Online (AGOL) that positions NCPA for further GIS development in the future by building upon ESRI's industry standard file types and GIS platforms. NCPA staff were empowered to view maps, share information, and effectively manage data from the office or field.

Project Team: Julia Clark, Brian Howard

Statement of Interest and Methodology

→ A Regional Partner

GHD has established relationships throughout Del Norte County and surrounding regions. Our Eureka, California office houses a team of diverse professionals who have successfully implemented a wide variety of Northern California projects. These include environmental mitigation related to Crescent City's airport expansion and the ongoing Local Road Safety Plans for the County and Crescent City. Our history of working collaboratively with multiple agencies—leveraged with our custom-fit technology solutions—demonstrate our value on future endeavors. Our goal is to build on our valued relationships by meeting and exceeding demands in the DNLTC Regional Mapping Development and Maintenance project.

Recent successes in the region include:

- Successful Connected Communities Plan Grant Application for Tolowa Dee-ni' Nation (awarded \$1.3 million RAISE grant)

To fully realize the benefits of ongoing developments in the community, the Reservation area needs access to a safe, accessible, and multimodal corridor that will connect residents and visitors to local and regional destinations such as jobs, recreation, residences, shopping, and dining. The primary arterial through the reservation area is Highway 101, a 55-mph highway that currently presents several safety and connectivity challenges for the community. The Connected Communities Plan will address these existing challenges to create a feasible, construction-ready blueprint to transform Highway 101 into a safe and well-connected multimodal corridor that will improve the lives and prosperity of Tribal members, visitors, and the Del Norte community.

- Crescent City Local Road Safety Plan
- Del Norte County Local Road Safety Plan
- Onsite Emergency Power Supply for Sanitary Sewer Lift Stations across Del Norte County
- Border Coast Regional Airport Authority's runway expansion mitigation projects
- Eureka Multimodal Transportation Plan
- Countywide GIS data development and active transportation planning for Trinity County

→ Building on Past Work

GHD's work on the initial Regional Mapping Project positions us to maximize efficiency for DNLTC data maintenance and creation. First, our involvement gives us unique knowledge of products and relevant data sources. Second, we learned of specific needs (communicated to us by member agencies) that could not fit into the scope of the prior project. We are ready to provide that communication for suggested inclusion in upcoming Work Plans. These include:

- A geospatial library of traffic count and crash data;
- County maintained sidewalks, drainage facilities, and other field-collected information could be expanded beyond the Local Responsibility Area adjacent to Crescent City;
- A Del Norte County walking/biking trails layer to encourage further public usage of County facilities; and
- Continuing the digitization of County maintained road easements and Right-of-Ways to catalog additional spatial information. This would be used for easy retrieval during transportation project scoping/initiation and adding above information to the existing GIS viewer made by GHD.

GHD secures \$1.3 million in grant funds for the Tolowa Dee-ni' Nation for transportation planning

Del Norte Local Transportation Commission

Welcome to the DNLTC's organizational portal clearing house of GIS information pertaining to transportation in Del Norte county, CA. Please use this page for items shared to the entire organization, or navigate to a Group using the tabs above that has been shared with you.

Featured Services



→ ArcGIS Online Specialists

The DNLTC Regional Mapping Project saw the inception of the DNLTC ArcGIS Online organizational site through a Project Delivery Subscription (PDS) with GHD and Esri. GHD is prepared to offer a variety of related services to build on that progress while improving DNLTC's offerings to member agencies and the public.

ArcGIS Online Management

GHD provided as-needed guidance to member agencies on data management in ArcGIS Online; however, a formal data governance plan was not produced. As a global company with 5,000+ members using our Enterprise GIS platform, we know the importance of thorough governance regarding item creation and management. We also understand the need for eventual deletion from the environment to reduce subscription costs for data storage within Esri's environment. Drawing on lessons learned, GHD can establish standards such as naming conventions, close-out procedures, and cost management that are applicable to all organization members. This will provide a framework for DNLTC member agencies using the platform. Standards would be communicated in writing in PDF format.

Every year, Esri and other platforms produce new and improved GIS system versions. Updated features provide opportunities for GIS users to gain efficiencies and leverage the value of their GIS data. Our team of ArcGIS Online subject matter experts can help decipher and apply these advances to DNLTC's regional mapping goals.

Services:

- Formalized ArcGIS Online Item management guidance;
- Scoping new requirements that may arise and applying the latest techniques to DNLTC's GIS portfolio; and
- Ensuring efficient use of credits purchased through cost analysis.

Data Creation and Maintenance

If allowed to grow stale, the value of data can rapidly decline. GHD will assist member agencies with regular data updates and curation to data stored in ArcGIS Online to maximize its impact. GHD has access to workflow automation tools—such as Feature Manipulation Engine (FME) and Microsoft Power Automate—and our highly trained staff can evaluate pertinent tasks to determine the least-cost path to a completed product. Our staff can quickly identify solutions to data update pipelines (both old and new). GHD can also assist in the creation of new spatial datasets, combining internal DNLTC information with other open-source datasets, thereby enhancing both products.

Services:

- Updating existing data through timely communication with member agencies;

- Creating automated data pipelines with the wide variety of automation tools that are available to GHD at the enterprise level
- Building new datasets from scratch or from member agency's existing non-spatial data
- Scouring the massive amount of open data for those datasets applicable to the DNLTC

GIS Data Viewers and an Open Data Platform

A part of being an open and transparent governmental body is providing constituents with access to data. ArcGIS Online provides the framework for quick and easy publishing of data in a variety of structures and formats to online maps, which enhances trust and allows the public to benefit from the DNLTC's work. ArcGIS Online comes with a configurable application (ArcGIS Hub) used for displaying, querying, filtering and documenting data designated as open data. This specialized application is often used by governmental bodies in California and elsewhere to provide data to the public.

Services:

- Creating and updating both publicly available and internal DNLTC data viewers to encourage data sharing, transparency, and ease of access
- Building an open data hub platform similar to other government agencies by using the ArcGIS Hub application, which comes with an organizational subscription to ArcGIS Online

→ Surveying Professionals

GHD has dedicated land surveying and drafting professionals who can accurately transcribe location information provided in the form of legal descriptions to a georeferenced AutoCAD document. Using established, documented processes, we will convert AutoCAD documents to Esri format and make available in ArcGIS Online (along with source documents for the spatial information). GHD-produced AutoCAD files will be delivered to the requesting member agency in an agreed-upon structure and format.

Upon request, we will assign a team member from our Eureka office to travel to Del Norte to retrieve documents from the County Recorder's office. They will be scanned and provided in digital format to the requester.

→ Broad ArcGIS Aptitude

The ArcGIS suite of software offers an extensive package of GIS applications giving the modern GIS professional the tools needed to solve a wide breadth of spatial problems; here at GHD it is our primary means for mapping needs. Each member of our GIS team is knowledgeable in ArcGIS

and the application of specialized solutions to any spatial data workflow. We can give guidance on best practices when moving data between ArcGIS and AutoCAD, and support data capture outside the office via mobile devices and advanced survey technology.

→ Overall Project Management Methodology

GHD will work independently with each DNLTC member who has included a mapping goal in the Work Plan for that year. Coupled with our internal management tools, Project Manager, Zach Porteous, will communicate monthly with the DNLTC (more frequently if needed). Status updates will describe work from the previous month, submitted with monthly invoices. The status report will indicate major accomplishments, any budget and scheduling issues, and a look-ahead schedule listing deliverables and activities planned for next period (month-to-month, typically).

→ Work Plan Task Management

GHD will work within the DNLTC's annual Work Plan schedule to provide detail, cost estimates, and task suggestions for each year's GIS-related Work Plan. From our experience on prior projects, we anticipate DNLTC members to begin formulating upcoming needs for the annual Work Plan to which GHD will contribute based on conversations through the year. GHD will use the approved work plan as the annual guide for special tasks outside of routine ArcGIS Online and data maintenance (described in the next section). Please see the Schedule section of this proposal for more detail.

Beginning each new fiscal year and Work Plan, a planning session will be scheduled to clarify scope of work. This will include all DNLTC members with tasks in the Work Plan. GHD will work with individual DNLTC members to identify regular meeting times to review ongoing task progress, assess current needs, and discuss future opportunities to address the specific needs of each task. GHD's Project Manager will be responsible for internal team coordination, coordinating meetings with DNLTC members where necessary, preparing progress reports, updating project schedules, and overall communications. GHD will use a 4-Step Project Management Process (described below).

1. Form the Team and Plan: At the onset of each task, we will initiate a meeting with the applicable DNLTC members to identify common understanding of their goals, objectives, and constraints. GHD's Project Manager will identify the best technical staff to work on the task. GHD will identify critical success factors and

associated success measures. Operating Guidelines will be established, including roles, meetings, file management, communications protocols, task management, reporting, and QA/QC plan.

- 2. Gain Approval:** The Project Manager will work with the initiating member to gain approval of task goals/processes from initiation to delivery.
- 3. Implement Task:** The Project Manager will update the task schedule as needed and prepare progress reports. If a change in the scope of work is required, The Project Manager will work with the DNLTC to meet the needs of the task.
- 4. Task Closeout:** GHD strives for successful close-out, documentation, and transfer of all critical information and deliverables. We know the importance of appropriate planning for this stage in terms of scoping and budget.

→ Data Updates / Maintenance

Finally, some established tasks will not necessarily require scoping sessions to complete (such as updating and maintaining existing datasets and web applications). GHD proposes a certain amount of overall budget be set aside for this purpose, on a per-member basis. Budget amount will correlate to the amount of estimated effort for the dataset. At the onset of the 5-year on-call, GHD will organize meetings with each member with existing datasets to determine the level of effort required to satisfy the member's update and maintenance requirements. Topics will include:

- Frequency of data updates
- Level of effort needed for GHD to update the dataset (including any intermediary steps, QA/QC review)
- Discuss opportunities for automated pipelines/enhanced efficiencies between GHD and DNLTC member

After the initial meetings, established datasets and requirements will be added to a document containing all datasets made for the DNLTC. Any new datasets created with future task orders will go through the same process and be added to the data list. All data update requests (and time needed to complete them) will be logged and tracked by GHD to inform future management decisions.

Cost Proposal

GHD Description	2022 Rate
Senior Technical Director 1	\$ 306
Senior Technical Director 2	\$ 284
Senior Technical Director 3	\$ 255
Technical Director 1	\$ 237
Technical Director 2	\$ 214
Senior Professional 1	\$ 194
Senior Professional 2	\$ 176
Professional 1	\$ 167
Professional 2	\$ 143
Professional 3	\$ 124
Vacationer / Intern	\$ 114
Executive Consultant 1	\$ 383
Executive Consultant 2	\$ 347
Senior Consultant 1	\$ 284
Senior Consultant 2	\$ 252
Consultant 1	\$ 212
Consultant 2	\$ 171
Consultant 3	\$ 135
Lead Design Technician 1	\$ 284
Lead Design Technician 2	\$ 261
Lead Design Technician 3	\$ 238
Senior Design Technician 1	\$ 215
Senior Design Technician 2	\$ 198
Design Technician 1	\$ 176
Design Technician 2	\$ 166
Drafting/Design 1	\$ 152
Drafting/Design 2	\$ 138
Drafting/Design 3	\$ 124
Drafting/Design 4	\$ 115
Intern Drafting/Design	\$ 104
Business Services Manager 1	\$ 252
Business Services Manager 2	\$ 212
Senior Admin Officer 1	\$ 164
Senior Admin Officer 2	\$ 137
Admin Officer 1	\$ 124
Admin Officer 2	\$ 113
Admin Officer 3	\$ 72
Business Services Manager 1	\$ 306
Business Services Manager 2	\$ 284
Senior Admin Officer 1	\$ 237
Senior Admin Officer 2	\$ 209

GHD Description	2022 Rate
Admin Officer 1	\$ 194
Admin Officer 2	\$ 176
Admin Officer 3	\$ 161
Admin Officer 4	\$ 138
Admin Officer 5	\$ 124
Admin Officer 6	\$ 72
Senior Construction Manager	\$ 284
Construction Manager	\$ 239
Lead Site Engineer/Supervisor	\$ 214
Senior Site Engineer	\$ 194
Site Engineer	\$ 176
Lead Inspector	\$ 166
Senior Inspector	\$ 124
Inspector / Specialist 1	\$ 108
Inspector / Specialist 2	\$ 99
Clerk / Specialist 3	\$ 95
Senior Site Manager 1	\$ 115
Senior Site Manager 2	\$ 104
Senior Site Manager 3	\$ 95
Senior Site Manager 4	\$ 86
Operator/Labourer 1	\$ 77
Operator/Labourer 2	\$ 72
Operator/Labourer 3	\$ 54

Notes:

1. Rates are for employees of GHD companies.
2. An administration fee will apply to all invoices to cover in-house disbursements (Associated Project Costs) on a project. This will be charged at a rate of either:
 - 6% of total professional fees
 - Hourly rate of CAD \$7.50 or USD \$6.50
3. All travel will be invoiced at economy class rates. Lodging and meal expenses will be at cost plus agreed markup unless a per diem rate is negotiated.
4. All other project related disbursements, expenses and subcontractor costs will be invoiced with a markup of 15%.
5. Fee schedule is subject to change annually by 3%.
6. Leased and personnel vehicles, field equipment and disposable field supplies will be invoiced at established rates. Personal vehicle mileage rates will be charged in accordance with government regulated standard rates.

Schedule

GHD understands that the budgetary limit for this on-call lies within \$20,000 per year and the work schedule and budget will be decided in the Annual Work Plan for the DNLTC. Each task that is asked of GHD by DNLTC members will have been added to the workplan and prioritized. DNLTC has specific yearly deadlines that must be adhered to and each year managing change to pre-existing tasks and adding new tasks to the next years Work Plan will follow a similar pattern:

- During December and January a Work Plan is developed for the coming fiscal year; GHD will work with the DNLTC to advise on scope detail, and effort in length of time and number of hours
- The Work Plan activities begin on July 1st
- July 10th, invoices are due for the previous fiscal year
- If any adjustments need to be made to the current year's work plan, the best time to do that is before September
- The Work Plan for the current year cannot be amended after February 1st without explicit approval from Caltrans Headquarters

As work progresses throughout each year and ideas for future tasks are suggested or expressed, GHD will insert them into a living document that will be provided to DNLTC during the initial development phase of each year's work plan to help prioritize goals. If needed, during the Work Plan development phase GHD can organize meetings to discuss timelines and effort involved for any new regional mapping goals that should be completed in the next fiscal year. If new goals were expressed to GHD after the year's work plan has been finalized, they will be folded into the work plan before the amendment due date in September.

→ Overall Work Scheduling Process Example for Fiscal Year 2023

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Invoices for FY22 are due												
Amend the Workplan for FY23												
ArcGIS Online Subscription Renegotiation												
Develop Work Plan for FY24												
Final deadline for amendments to FY23												



DEL NORTE LOCAL TRANSPORTATION COMMISSION

STATEMENT OF QUALIFICATIONS

REGIONAL MAPPING DEVELOPMENT & MAINTENANCE

AUGUST 22, 2022



August 22, 2022

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
900 Northcrest Drive, #16
Crescent City, California 95531

**SUBJECT: STATEMENT OF QUALIFICATIONS FOR REGIONAL MAPPING DEVELOPMENT & MAINTENANCE
ON-CALL SURVEYING SERVICES**

Dear Tamera,

BKF Engineers (BKF) welcomes the opportunity to submit our Statement of Qualifications (SOQ) to the Del Norte Local Transportation Commission (DNLTC) for On-Call Surveying Services. BKF Engineers (BKF) has been providing quality service in the Bay Area for over 107 years. BKF employs over 540+ professionals in 16 West Coast offices. Our staff includes 18 licensed Professional Land Surveyors, 18 L.S.I.T.s, 35 survey field crews, 146 licensed engineers, and 42 LEED Accredited Professionals. The BKF team not only has the local resources and production capacity, but also the relevant experience to handle all of the DNLTC's Public Works projects. BKF's resources and experience will help us meet the City's needs and exceed expectations.

We understand that the DNLTC maintains a number of capital and operational programs to meet its mission to provide quality public services, and that the DNLTC project is planned and executed in accordance with applicable laws and regulations, including the Land Surveyors Act, Subdivision Map Act, and various State and Federal codes and regulations. BKF will be able to support the Department of Public Works to provide the surveying and mapping services for these projects which include but not limited to: field data collection, office data collection, manipulation of existing data into desired formats, obtaining and displaying publicly available GIS data from other sources, development of GIS viewers, maintaining existing datasets, creating new datasets, performing research and boundary information, and mapping boundaries, assisting with mapping needs for grant applications, maintaining the DNLTC's ArcGIS account, and providing technical support to DNLTC member agencies regarding ArcGIS and AutoCAD operations to reach desired outcomes. It will be a privilege to partner with the efforts of the DNLTC staff and provide additional specialized surveying services and consultation as needed. BKF has both the management experience and company resources to meet any of the project's timeline, objectives, and funding commitments. We would appreciate the opportunity to provide our services to assist the DNLTC. No survey task order is too small or too large that we cannot tackle. Whether it is a simple corner record, plat & legal description exhibit that the City needs to prepare, or a supplemental topographic survey for a street intersection, or maybe a mile-long topographic survey for sidewalk improvements or pipeline replacements, we can assist the DNLTC on its surveying needs. BKF can perform small survey tasks, medium-sized projects, and large district-wide surveying and mapping requirements.

**BKF will work hand-in-hand with Crescent City to accomplish all
project goals using the latest equipment and technology.**



BKF has earned high regard for our services over the years when dealing with on-call projects with various public agencies because of our open and forward-thinking recommendations of project approach, cost saving techniques, scheduling, budgets, and the understanding that on-call projects often require rapid high quality service with minimal notice. We currently have over 36 active survey on-call contracts with various agencies throughout California. We win these projects because we have delivered high quality survey products on a timely basis, over and over again. Our goal is to become a seamless extension of your staff. BKF also understands that it is not always possible to predict emergencies or schedule changes. BKF prides itself in offering rapid response with quality service by not over committing our resources. We will always provide proactive management and commit an adequate number of qualified staff to each work order in a timely manner. We have assigned, Mr. Ben Santos, one of our licensed land surveyors, and he can easily visit the project sites or meet with the city staff in person. With the BKF hybrid work approach, our staff are able to work remotely from home, and geographically we have surveyors near the North Bay, and we select the survey staff that are within close proximity of the project sites to save on mobilization and travel time.

As an officer of the firm, Davis Thresh is authorized to bind BKF, and our proposal herein is binding for 90 days from the date of this submittal.

We are pleased to present the attached proposal and look forward to hearing from you. Please feel free to contact me if you have any questions regarding our submittal.

Sincerely,

BKF ENGINEERS

A handwritten signature in blue ink, appearing to read "Davis Thresh", is written over a light blue background.

Davis Thresh, PLS

Principal/Vice President

Davis Thresh, PLS
BKF Engineers
1730 N. First Street, Suite 600
San Jose, CA 95112
t. 408.467.9114
dthresh@bkf.com





Founded in
1915

540+
Employees

150+
Survey On-Call
Agreements

35
Field Crews

16
Regional
Offices

106,420
Surveying Hours
Logged in 2020
(N. CA)

Office Locations:

Santa Rosa	San Rafael
Sacramento	Modesto
Redwood City	Richmond
San Jose	Newport Beach
Walnut Creek	Salinas
Pleasanton	San Diego
Oakland	San Luis Obispo
San Francisco	Portland

Firm Headquarters:

255 Shoreline Drive, Suite 200
Redwood City, CA 94065
Phone: 650.482.6300
www.bkf.com

Organization Type
CA Corporation

Project Manager
Ben Santos, PLS
bsantos@bkf.com

BKF Engineers

Delivering Inspired Infrastructure for over 100 years

Since 1915, BKF Engineers earned a reputation for its ability to successfully plan, design, survey, and implement complex projects. Through our network of 16 west coast offices, BKF provides civil engineering, land surveying, and land planning services for government agencies, institutions, developers, design professionals, contractors, school districts, and corporations. The size of our firm gives BKF the benefit of providing the personal service that is typically associated with smaller firms, while having access to an wide variety of resources that a larger firm provides.

Our licensed land surveyors, who manage more than 35 crews, know how to use an array of tools and methods to achieve desired results, whether locating boundaries in rural, rugged terrain or digitally scanning a new skyscraper building structure. To deliver economical and quality surveys and boundaries to our clients, we actively use and perform surveying services with the latest industry technology—including 3D Laser Scanning, Automated Instrumentation and Unmanned Aerial Sensors. BKF has specialists in each area of service from geodetic and photo control to perform right-of-way, topographic, utility, and construction surveys. We believe that our success in project innovation is a combination of “thinking out of the box” and having a well-grounded understanding of project requirements.

SURVEYING SERVICES

- Boundary Surveying
- Topographic Surveying
- GIS Base Mapping
- Preparing Legal Descriptions
- Construction Staking and Monitoring Surveys
- Right-of-Way Surveying
- Utility Locating
- 3D Laser Scanning / High Definition Surveying (HDS)
- BIM, VDC, and Digital Models
- GPS Surveys
- Unmanned Aerial Surveying
- Subdivision, Parcel, and Final Maps
- ALTA/ACSM Land Title Surveys
- As-Built Surveys
- Volumetric Surveys
- Control Surveys



ORGANIZATIONAL CHART

BKF incorporates a staff organization that is structured to provide efficiency and consistency, while being flexible enough to allow us to deliver any size project according to the needed schedule.

Ben Santos, PLS (Primary Contact) will manage the core team of surveyors, and he will be supported by a host of staff members with which he works daily. As task orders are received, Ben will assign a core team for the task order based on the type of project.

This team will stay involved for the project duration, ensuring continuity and minimizing inefficiencies.

LOCAL OFFICE LOCATION

200 Fourth Street, Suite 300
 Santa Rosa, CA 95401
 t. 707.583.8500



PROJECT MANAGEMENT TEAM

QUALITY CONTROL

Walter Stemberga
 QA/QC Manager
 BKF ENGINEERS

Davis Thresh, PLS
 Principal-in-Charge
 BKF ENGINEERS

Ben Santos, PLS
 Project Manager
 BKF ENGINEERS

SURVEYING TEAM

Jason Kirchmann, PLS, PE, QSD/P
 Project Surveyor
 BKF ENGINEERS

Will Paul, PLS
 Laser Scanning Specialist
 BKF ENGINEERS

Steve Marello
 Construction Staking
 BKF ENGINEERS

Steve Shroyer
 Survey Party Chief
 BKF ENGINEERS

Ron McCauley, PLS
 GIS Specialist
 BKF ENGINEERS

ADDITIONAL BKF SURVEY SUPPORT

Andrew Dellinger
 PLS - CA (9658)

Greg Hurd
 PLS - CA (8809)

Chris Martin
 PLS - CA (9179)

Jared Serpico
 PLS - CA (9359)

Paul Kittredge
 PLS - CA (5790)

Chris Mills
 PLS - CA (9064)

John Koroyan
 PLS - CA (8883)

Ralph Thomas
 PLS - CA (4760)

David Jungmann
 PLS - CA (9267)

John Lanfranki
 PLS - CA (9622)

Sean Tully
 PLS - CA (8311)

Geoff Coleman
 PLS - CA (8438)

Jonathan Shattuck
 PLS - CA (8940)

BKF ENGINEERS, SURVEYORS, PLANNERS
 500+ SUPPORT STAFF

- ✓ The team will stay involved for the project duration, ensuring continuity and minimizing inefficiencies
- ✓ Our team of surveyors are dedicated to the delivery of the project
- ✓ Our team is assigned based on relevant project history, years of experience, and current workload schedules
- ✓ Recognizing that schedules and timelines are often adjusted to meet other outside influences, BKF has the ability, due to our size and firm culture, to adjust our work schedules and manpower to meet the demand or specific requests associated with the project

Our record of successfully completed and constructed projects reflects the dedication and versatility of our staff to manage small-scale and large-scale projects. As previously mentioned, services provided for this contract will be managed by Ben Santos, PLS, out of our **Santa Rosa office**. The proposed team below will stay involved for the project duration, ensuring continuity and minimizing inefficiencies. If the schedule demands, we can utilize the assistance of other BKF team members and subconsultants in order to meet the project deadline.

Davis Thresh, PLS (CA · No. 6868), will serve as **Principal-in-Charge** of the project. Davis is a professional California licensed surveyor and has provided field surveying services, overseen topographic and control surveys, construction staking, and right-of-way mapping for various projects throughout California. His 39 years of experience in surveying will prove invaluable to project success.

Walter Stemberga will serve as the **QA/QC Manager**. Walter will provide Quality Control and Quality Assurance for the DNLTC's upcoming projects. He is BKF's survey group leader and is recognized as one of the top experts in the areas of public works surveys. In his 23 year career, he has managed thousands of surveys contracts for clients ranging from major state and regional agencies, to small towns.

Ben Santos, PLS (CA · No. 9251), will serve as the **Project Manager**, and will be the **main point of contact** for the DNLTC. Ben has extensive land surveying knowledge of the local terrain that he shares with clients. In his role as the Project Manager, he will be responsible for managing the project, including: budgeting, scheduling, field crew dispatching, and coordinating office and field surveyors. Ben will provide consulting services and can suggest efficient ways to perform the survey tasks. As a California Licensed Surveyor, he will be in charge of all the land surveying work on the project and will directly supervise the field crews and office staff.

Jason Kirchmann, PLS, PE, QSD/P (CA · No. 8806), will serve as the **Project Surveyor**. Jason will be the Survey Manager providing surveying services for this project. Jason is well versed in the production of right-

of-way surveys, topographic mapping, control surveys, boundary surveys, ALTA surveys, and title research. He will be supported by field crews and in-house staff that have years of expertise in the field of surveying.

Will Paul, PLS (CA · No. 8744), will serve as **Laser Scanning Specialist**. Will has 21 years of experience and will be responsible for completing the field activities in conformance with DNLTC standards. He will process High Definition Scanning and Digital Processing. He will provide high speed data capture for future manipulation and extraction, geo-referencing using on-site project control, and 3-D modeling.

Steve Marello will serve as the **Construction Staking Lead**. He will provide high speed data capture for future manipulation and extraction, geo-referencing using on-site project control, and 3-D modeling.

Steve Shroyer will serve as the **Survey Party Chief**. He will support the team, in the field, by performing boundary reconnaissance and investigation, topographic mapping and construction staking using the latest technology available to land surveyors.

Ron McCauley, PLS (CA · No. 9705) will serve as the **GIS Specialist**. Ron will be in-charge of converting our survey files into GIS format, and developing GIS viewers for our end user and clients. He will perform the GPS surveys to put the deliverables in the California State Plane Coordinate System (CCS83). He will work on the manipulation of existing data into desired formats.



DAVIS THRESH, PLS

PRINCIPAL-IN-CHARGE

Davis is a survey principal, overseeing BKF's survey group. His survey experience spans over 39 years. Throughout his tenure with BKF, he has played a key role in many projects in both the public and private sectors. His responsibility involves project management of all survey projects including scheduling, budget tracking, dispatching, supervision of crews, and coordination of the office and field surveyors. Davis has directly overseen the topographic surveys, construction staking survey and right-of-way acquisition and mapping for many of the firm's roadway and highway projects.

SELECT PROJECT EXPERIENCE

EDUCATION

A.A., Surveying, Diablo Valley College, CA

REGISTRATION

Professional Land Surveyor, CA No. 6868

YEARS OF EXPERIENCE

39 years, 32 with firm

San Jose Survey/Mapping On-Call (2021-2023)

San Jose

South San Francisco On-Call Survey, Mapping, ROW Services (2020-2023)

South San Francisco

Santa Clara Valley Transportation Authority On-Call Survey & Mapping (2029)

San Jose

City of San Jose Surveying & Mapping Services

San Jose

Caltrans D4 On-Call Land Surveying Services

Oakland

Alameda On-Call Survey Services (2021-2024)

Alameda

Fremont On-Call Surveying Services (2020-2023)

Fremont

Oakland Civil Survey On-Call (2018-2024)

Oakland

Brentwood On-Call Survey & Related Services (2022-2023)

Brentwood

Antioch On-Call Surveying Services (2021)

Antioch

Santa Cruz On-Call Land Surveying (2022)

Santa Cruz

Seaside On-Call Surveying (2022-2025)

Seaside

Cupertino On-Call Survey (2021-2023)

Cupertino

San Mateo On-Call Survey (2021-2024)

Redwood City

Palo Alto Utility Survey (2021)

Palo Alto

Santa Clara On-Call Surveying/GIS & Utility Locating (2020-2023)

Santa Clara

City of Palo Alto On-Call (2020)

Palo Alto

Mountain View On-Call Survey (2019-2021)

Mountain View

Redwood City Basins 5G & DT2 On-Call Survey (2019-2021)

Redwood City



BEN SANTOS, PLS

PROJECT MANAGER

Ben has 21 years of professional experience in surveying. He is a licensed Geodetic Engineer with experience in control surveys and ground deformation studies. His responsibilities include preparation of Topographic Surveys, Differential Leveling Surveys, ALTA/NSPS Surveys, Boundary Surveys, Subdivision Maps, Elevation Certificates, Corner Records, Record of Survey Maps, Plats & Legal Descriptions. In coordination with the team, Ben performs a variety of tasks including research, post-processing, survey calculations, and gives expert advice to the success of survey projects. Ben has extensive experience in the last 5 years with water pipeline replacement projects, preparing 100+ miles of base mapping while working with design-built companies and local government agencies.

EDUCATION

B.S. Geodetic Engineering, University of the Philippines Diliman

REGISTRATION

Professional Land Surveyor, CA No. 9251

YEARS OF EXPERIENCE

21 years, 5 with firm

SELECT PROJECT EXPERIENCE

San Jose Survey/Mapping On-Call (2021-2023)

San Jose

South San Francisco On-Call Survey, Mapping, ROW Services (2020-2023)

South San Francisco

City of San Jose Surveying and Mapping Services

San Jose

Santa Clara On-Call Surveying/GIS & Utility Locating (2020-2023)

Santa Clara

Santa Cruz On-Call Land Surveying (2022)

Santa Cruz

Cupertino On-Call Survey (2021-2023)

Cupertino

Palo Alto Utility Survey (2021)

Palo Alto

City of Palo Alto On-Call (2020)

Palo Alto

Mountain View On-Call Survey (2019-2021)

Mountain View

Redwood City Basins 5G & DT2 On-Call Survey (2019-2021)

Redwood City

City of Palo Alto On-Call Surveying

Palo Alto

YouTube Additional Survey

San Bruno

Castro Street ADA Survey

Mountain View

San Mateo On-Call Survey (2021-2024)

Redwood City

ACWD Ground Survey Monitoring Surveys

Fremont

ACWD Ground Survey Monitoring of District Facilities

Alameda

Alameda On-Call Survey Services (2021-2024)

Alameda

Brentwood On-Call Survey & Related Services (2022-2023)

Brentwood



WALTER STEMBERGA

QA/QC MANAGER

Walter is a survey manager, overseeing BKF's Pleasanton survey group. Throughout his tenure with BKF, he has played a key role in many projects, in both the public and private sectors. His responsibility involves project management of all survey projects including scheduling, budget tracking, dispatching, supervision of crews, and coordination of the office and field surveyors. Walter has directly overseen the topographic surveys and construction staking survey for many projects.

EDUCATION

B.S., International Business, San Francisco State University

A.A., Design and Drafting Technology, ITT Technical Institute

YEARS OF EXPERIENCE

23 years, 22 with firm

SELECT PROJECT EXPERIENCE

UCSF Parnassus Topographic & Mapping Services

San Francisco

Moffett Park Base Mapping

Sunnyvale

APUD GSA#7 FY20/21 Civil Base Map - Wildfire Threat Areas

Anaheim

Gilead - Central Park, Mapping

Foster City

88 Bluxome Street - Final Map

San Francisco

The Vale - Condo Mapping (Landsea)

Sunnyvale

Mandela Parkway Hotel - Mapping/Utility/Boundary

Oakland

Ironwood Apartments Common Area Building Mapping/Survey

Livermore

Emeryville Tower Condo Mapping

Emeryville

Belmont Village Albany - Mapping

Albany

Radisson Dublin Hotel Parcel Map

Dublin

Palo Alto Utility Survey 2021

Palo Alto

Oakland Civil & Survey On-Call 2018-24

Oakland

Berkeley On-Call Survey Services

Berkeley

Hearst Avenue

Berkeley

ACWD Ground Survey Monitoring Surveys

Fremont

Oakland Sidewalk and Curb Ramp Design

Oakland

City of Mountain View Surveying Services

Mountain View

Pleasanton On-Call Survey Services

Pleasanton

Livermore Engineering and Surveying Services On-Call

Livermore

SFPUC Surveying & ROW Engineering for WSIP

San Francisco



JASON KIRCHMANN, PE, PLS, QSD/P

PROJECT SURVEYOR

Jason has a wide variety of experience in civil engineering design and land surveying for local municipalities and private sector clients. He has provided design support and project management on civic, healthcare, residential, education, parks, and commercial projects. He assists in converting clients' ideas and desires into final construction documents. In a supervisory role, Jason has been responsible for surveying tasks related to the design and construction of transportation, residential, commercial and public works projects.

He understands the importance of providing seamless coordination with clients, other professional consultants, and reviewing agencies. He brings a keen sense of urgency to projects, consistently demonstrating the ability to stay on schedule and within budget.

EDUCATION

Santa Rosa Junior
College CEST Program

REGISTRATION

Professional Land
Surveyor, CA No. 8806

Professional Civil
Engineer, CA No. 78079

Qualified SWPPP
Developer and
Practitioner, No. 20085

AFFILIATIONS

Deputy County Surveyor
(County of Marin)

Acting Deputy City
Surveyor (City of San
Rafael)

California Land
Surveyors Association
(CLSA)

Member American
Society of Civil
Engineers (ASCE)

YEARS OF EXPERIENCE

19 years, 19 with firm

SELECT PROJECT EXPERIENCE

**3rd Street & Grand Avenue
Intersection - Topographic Mapping**
San Rafael

**355 Formschlag Lane Topographic
Mapping**
Penngrove

**ALTO Tunnel Study and Right-of-Way
Mapping**
Marin

**Caltrans D4 On-Call Land Surveying
Services**
Oakland

Cosumnes Survey On-Call (2022)
Elk Grove

**Vallejo Flood and Wastewater District
On-Call Land Surveying**
Vallejo

**West Sacramento On-Call Survey
(2021-2024)**
West Sacramento

**Butte County ROW/Survey On-Call
(2021-2025)**
Butte

**Marin County Parks On-Call Surveys
(2020)**
San Rafael

Novato On-Call
Novato

**Sacramento County On-Call Land
Surveying Services**
Sacramento

**Sonoma County Agricultural
Preservation & Open Space District,
Licensed Land Surveyor Services
(2019-2022)**
Santa Rosa

**Marin County Open Space On-Call
Land Surveying**
San Rafael

**City of San Rafael On-Call Land
Surveying Services**
San Rafael

Calistoga CIP Surveying Services
Calistoga

**Vacaville On-Call Surveying Services
(2014-2017)**
Vacaville



WILLIAM PAUL, PLS

LASER SCANNING SPECIALIST

Will is a project manager for BKF's survey division. He has been in the survey profession since 2000 and earned his professional land surveyor license in 2010. Will specializes in implementing the latest technologies including 3D laser scanning, BIM, and unmanned aerial systems to tackle complex surveying challenges. He has successfully managed survey teams on many high profile projects throughout California. His responsibilities at BKF include supervision of field and office personnel, budgeting, and quality assurance.

REGISTRATION

Professional Land Surveyor, CA No. 8744

AFFILIATIONS

California Land Surveyors Association (CLSA)

Chapter President, Central Valley Chapter

American Concrete Institute (ACI)

117 Tolerances Committee, Voting Member

YEARS OF EXPERIENCE

21 years, 5 with firm

SELECT PROJECT EXPERIENCE

Caltrans D4 On-Call Land Surveying Services
Oakland

Redwood City Water Surveys
Redwood City

Stanislaus County On-Call Civil/Survey
Modesto

Solar City On-Call Surveying
San Mateo

Yosemite Village Welcome Center
Yosemite

San Jose-Santa Clara Regional Wastewater Facility
San Jose

UOP Tesla
Stockton

Moffett Park Base Mapping
Sunnyvale

Highway 20 Bachelor Creek
Upper Lake

Google US Building Scans
Mountain View

181 Fremont 40th Floor Scan
San Francisco

950 Market Street Scan
San Francisco

Treasure Island Stage 2 & 3 Mapping
Treasure Island

801 Brannan Street, Additional Mapping Services
San Francisco

Treasure Island C2.4 Foundation
San Francisco

Cloverdale USD Surveying Services
Cloverdale

National Park Service Alma Dock
San Francisco

Brisbane Baylands Survey
Brisbane

AMPORTS Antioch Topographic Survey
Antioch

Wheeler Plaza Condominium Mapping
San Carlos

Apple Fiber Optic Network
Cupertino

Moss Beach Redevelopment
Moss Beach

Burlingame Point - Final Map, Boundary, Monuments
Burlingame

**EDUCATION**

B.A., Central Connecticut State University, New Britain

YEARS OF EXPERIENCE

21 years, 17 with firm

STEVE MARELLO

CONSTRUCTION STAKING

Throughout Steve's tenure with BKF, he has played a key role in many projects, in both the public and private sectors. His responsibilities involve project management of all survey projects including scheduling, budget tracking, dispatching, supervision of crews, and coordination of the office and field surveyors.

SELECT PROJECT EXPERIENCE

Cardinal Newman Student Life Center - Increment 2 Staking

Santa Rosa

JCC Santa Rosa Courthouse - Staking

Santa Rosa

NCUSD Staking - Alta Heights, Donaldson, Silverado

Napa

Napa County Office of Education Shop Building Staking

Napa

Calistoga Hills, Phase 1 Construction Staking

Calistoga

San Francisco Public Utility Commission (SFPUC) On-Call Surveys

Alameda, Santa Clara, and San Mateo Counties

Ironwood Apartments Common Area Building Mapping/Survey

Livermore

City of Mountain View Surveying Services

Mountain View

Santa Clara Square Retail Center - Mapping and Public ROW Improvements

Santa Clara

Condo Map and Final Map - Sunnyvale Crescent Hotel

Sunnyvale

Coyote Creek Mapping/Monument Location

San Jose

Ravenswood City School Staking

East Palo Alto

UC Davis Cruess Hall North Staking

Davis

Aggie Square Construction Trailer - Staking

Sacramento

Lincoln Boulevard Improvements Phase 3 - Staking

Lincoln

Macy's Men's Store, 120 Stockton Street Construction Staking

San Francisco

UC Hastings Academic Building Staking

San Francisco

360 5th Street, Staking/Monitoring

San Francisco

Moxy Hotel Staking

Oakland

24th & Harrison Staking

Oakland

Eden Gardens Staking

Hayward

Chestnut Square Family Housing - Staking

Livermore



YEARS OF EXPERIENCE
10 years, 10 with firm

STEVE SHROYER

SURVEY PARTY CHIEF

Steve will serve as Survey Party Chief. He will support the team in the field by performing boundary reconnaissance and investigation, topographic mapping and construction staking using the latest technology available.

SELECT PROJECT EXPERIENCE

Sonoma County TPW 2021 On-Call, Lakeville
Petaluma

Southern Heights and Courtright
San Rafael

City of San Rafael On-Call Land Surveying Services
San Rafael

Additional Survey at Schoen Park
San Rafael

Dixon 2014 Citywide Benchmark Project
Dixon

Palo Alto Utility Surveys
Palo Alto

Marin County Parks Surveying
Marin

Corte Madera Elevation Check
Corte Madera

Jessup Street Topography
San Rafael

LGVSD Bay Trail Topography - TO #7
San Rafael

Calistoga CIP Surveying Services
Calistoga

Del Norte Oaks
San Rafael

Moffett Park Base Mapping
Sunnyvale

Luzzane Circle Culverts
San Anselmo

355 Formschlag Lane Topographic Mapping
Pengrove

Hopkins Avenue
Redwood City

ALTO Tunnel Study and Right-of-Way Mapping
Marin

Redwood City Basins DT2+ Shores
Redwood City

Mill Valley Path and Boundary Survey
Mill Valley

Grand Avenue Bridge Project, Monument Preservation
San Rafael

City of San Rafael Plan Check Services
San Rafael

County of Sonoma Tidelands Survey
Bodega Bay

City/County Lines - Los Ranchitos
San Rafael

Sonoma Mountain Parkway Monument Preservation
Petaluma

McGreggor Street & Select Sewers
Petaluma



RONALD MCCAULEY, PLS, LSIT

GIS SPECIALIST

Ronald has more than seven years of field surveying project experience. He is well-versed in all aspects of both construction and topographic data collection. Ronald will coordinate the Global Positioning System (GPS) for office and field surveys. He will be in-charge of converting our survey files into GIS format, and providing a GIS viewer for our end user and clients.

SELECT PROJECT EXPERIENCE

EDUCATION

Land Surveying
Technology Certificate
from Santa Rosa Junior
College

Registration

Professional Land
Surveyor, CA No. 9705

Land Surveyor-in-
Training, CA No. 8591

YEARS OF EXPERIENCE

2 years, 2 with firm

Mill Valley Path and Boundary Survey
Mill Valley

San Rafael Community Center Garden Survey
San Rafael

Third Street Easterly Right-of-Way Survey
San Rafael

Jessup Street Topography
San Rafael

111 Hill Boulevard Easement
Petaluma

Indian Valley Trail Survey
Novato

San Mateo County Reimagine Flood Park Survey
Menlo Park

Gilead Master Planning Survey
Foster City

Half Moon Bay On-Call Map Review
Half Moon Bay

UCSF Parnassus Topographic & Mapping Services
San Francisco

San Leandro Streets Mapping
San Leandro

123 B Street - Mapping/Survey
Hayward

El Sobrante Area Tentative Map
Richmond

Halkin Walk Topographic Survey
Berkeley

2600 International Blvd - ALTA/NSPS
Oakland

Merritt Community College Topographic
Oakland

Foothill Road Stabilization
Pleasanton

2016 Alameda Public Works On-Call, Santa Maria Sidewalk Improvements
Castro Valley

CMDTRA Land Surveying
Clayton

Black Diamond Mine Surveying Services
Antioch

Rowland Properties - Land Surveying Services
Chula Vista

APUD GSA#7 FY20/21 Civil Base Map - Wildfire Threat Areas
Anaheim

CSULB TOSA - Restricted Parcel Survey
Long Beach



SELECT ON-CALL SURVEY EXPERIENCE

BKF has provided on-call land surveying services to more than 60 public agencies throughout California. We win these projects because we have repeatedly delivered high quality survey products, and we are confident that we can continue to provide the same quality service to you.

- Alameda County GSA On-Call Surveys
- Alameda County Public Works On-Call Surveys
- Butte County ROW & Survey OnCall (2021-2025)*
- California American Water Company Surveys, Northern/Central California
- California Department of Transportation, District 4 On-Call Surveys, San Francisco and San Mateo
- City of Alameda On-Call Surveys (2021-2024)*
- City of Berkeley On-Call Surveys
- City of Cupertino As-Needed Surveying Services (2020-2022)*
- City of Cupertino On-Call Engineering & Survey
- City of Fremont On-Call Surveying Services (2020-2023)*
- City of Merced On-Call Engineering/Survey Services (2018-2022)*
- City of Mountain View On-Call Survey Services City of Novato On-Call Survey Services (2020-2022)*
- City of Oakland Civil & Survey On-Call 2018-24*
- City of Palo Alto On-Call Surveys
- City of Pleasanton On-Call Surveys
- City of Redwood City Basins 5G & DT2 On-Call Survey
- City of Salinas On-Call Engineering & Surveying (2019-2022)*
- City of San Jose On-Call Surveying
- City of San Jose Survey/Mapping On-Call (2021-2023)*
- City of San Rafael On-Call Surveying
- City of San Ramon On-Call Survey/Civil Services (2021-2023)*
- City of Santa Clara On-Call Surveying/GIS & Utility Locating (2020-2023)*
- City of Santa Rosa On-Call Engineering and Surveying Services
- City of Seaside On-Call Surveying (2022-25)*
- City of Sebastopol On-Call Surveys
- City of South San Francisco On-Call Survey, Mapping, ROW Services (2020-2023)*
- City of Vacaville On-Call Surveying
- City of Walnut Creek On-Call Surveys
- City of West Sacramento On-Call Survey (2021-2024)*
- Consumnes Community Services District Survey On-Call (2022)*
- Contra Costa Water District On-Call Surveys
- County of Fresno Public Works On-Call
- Marin County Parks On-Call Surveys (2021)
- San Carlos School District On-Call Surveying Services
- Sand Hill Road Corridor On-Call Surveys, Stanford
- San Francisco Department of Public Works On-Call Surveying
- San Francisco State University On-Call Surveys
- San Mateo County On-Call Engineering & Survey
- San Mateo County Public Works On-Call Surveys
- Santa Clara Valley Transportation Authority Surveying
- Santa Clara Valley Water District On-Call Services
- Santa Rosa On-Call Engineering and Surveying
- SFO Airport BART On-Call Surveys & ROW
- SFPUC Hetch Hetchy WSIP On-Call Surveys, Yosemite to San Francisco
- SMCTA and JPB On-Call Surveys Category C-60658, San Mateo County
- Sonoma County Agricultural Preservation and Open Space District Land Surveyor Services (2019-2022)*
- Sonoma County Architect's Office On-Call Services
- Sonoma County Fairgrounds On-Call Services
- Sonoma County Regional Parks On-Call Surveys
- Stanford University On-Going Surveys
- Town of Hillsborough On-Call Surveys

* Active Contract



CITY OF SAN RAFAEL ON-CALL LAND SURVEYING SERVICES

San Rafael, CA

In 2015, BKF began providing land surveying services to the City of San Rafael on an on-call basis. Thus far, BKF has provided surveying services for 55 projects in the City. Every task order under this contract has been performed within the original budget – zero change orders!

BKF's services have included the following: various topographic mapping efforts including topographic maps for ADA accessible curb ramps, fire station boundary surveys, 3rd Street right of way survey, control surveys for the re-establishment of Caltrans right-of-way along U.S. Highway 101, and various construction staking tasks including construction staking associated with the NTPP Puerto Suelo multi-use pathway and various staking tasks for the Sonoma-Marin Area Rail Transit points of rail connection.

UNIQUE HIGHLIGHTS

- Right-of-way and topographic mapping for various projects
- Caltrans survey for various projects
- Topographic mapping and right-of-way determinations for U.S. Highway 101
- Construction staking layout for various projects including SMART points of rail connection

PROJECT DURATION
2015 - 2023

COST
\$75,000

CLIENT CONTACT
Shawn Graf, Associate Civil Engineer
City of San Rafael,
Department of Public Works
415-458-5347
Shawn.Graf@cityofsanrafael.org



CITY OF SAN JOSE ON-CALL LAND SURVEYING/MAPPING SERVICES

San Jose, CA

BKF was selected as On-Call Surveyors for the City of San Jose. The original contract and budget was for 2 years and in the amount of \$290,000, but the City extended the contract for an additional year due to the successful working relationship between the two entities.

BKF provided sewer manhole surveys throughout the city. The utility surveys for approximately 166 storm drain and sewer manholes included GPS surveys of the rim and measurement of pipe inverts with photo documentation and GIS-ready survey data. In July 2018, BKF surveyors prepared the fee estimate and detailed proposal for the ALTA Survey of Los Lagos Golf Course which included Boundary Survey, Record of Survey, Aerial Survey with LiDAR option, and supplemental field survey. After meetings and project coordination with the City staff, the ALTA Survey did not move forward, however, it demonstrated the capabilities and quick response of the BKF team to support the City of San Jose engineers & planners.

For service order #4, BKF staff is performed the collection of manhole data of both sanitary sewer and storm sewer systems. BKF provided location and elevations (including inverts) of all sanitary sewer & storm manholes including cleanouts, catch basins and flushing inlet (approximately 129 manholes 7 clean outs, 21 catch basins, 1 drain inlet, and 1 flushing inlet) and as shown on location maps provided by the City. The surveyed manholes required DIP sheets, detailed sketches and photographs of existing pipe alignment for City of San Jose Sanitary Cast Iron Replacement Evaluation.

In 2022, BKF performed surveys for monument preservations within Zone 203 in San Jose. BKF tied the monuments and set reference tie points prior to pavement improvement projects. The service order budget for this task is \$283,959.

PROJECT DURATION
2018 - 2023

COST
\$573,959

CLIENT CONTACT
Sam Aguirre
Associate Engineer
City of San Jose
Public Works - Survey
Section
408-406-4844
Sam.Aguirre@sanjoseca.
gov



CITY OF PALO ALTO ON-CALL LAND SURVEYING SERVICES

Palo Alto, CA

In 2017, BKF began providing On-Call Surveying Services to the City of Palo Alto. BKF's three-year term contract was \$450,000. As a consultant, BKF was able to provide technical review of survey and land use/development related documents, and act as city surveyors. BKF has provided street topographic surveys and base maps for the Page Mill Road Safety Improvement Project, together with other miscellaneous streets in Palo Alto. BKF performed surveys at the Baylands Athletic Center, a six acre facility within the Baylands Nature Preserve. BKF also prepared a plat and legal description for a sidewalk easement at University Avenue and assisted city engineers to create another street light easement along Arastradero Road near Gunn High School.

BKF was also awarded the 2020-2021 Utility Survey for the Palo Alto Utility Department. This project included 55,000 linear feet (11+/- miles) of street topographic surveying. The survey tasks included GPS control surveys and using conventional robotic total stations, locating gas meters on every residential house, and mapping all utilities on the streets as per designated areas. The elevations on street cross sections were also provided for reference to the utility ground cover. Invert elevations were provided for storm and sewer pipelines, and also depth of water valve or gas valve relative to the pavement elevations. The survey data submitted was formatted with City of Palo Alto feature codes and is available to be imported into their CAD and GIS software.

PROJECT DURATION
2017 - 2022

COST
\$450,000

CLIENT CONTACT
Holly Boyd
Senior Engineer
Public Works Department,
Engineering Services
Division
City of Palo Alto
650-329-2612
Holly.Boyd@CityofPaloAlto.
org



REDWOOD CITY ON-CALL LAND SURVEYING SERVICES

Redwood City, CA

The City of Redwood City regularly performs pipeline replacement analyses to prioritize replacement of city's storm drain, sanitary sewer, recycled water, and potable water system pipelines and develops comprehensive programs to provide overall replacement strategies to address aging infrastructure needs.

BKF prepared for the city a topographic survey map of the proposed pipeline replacement project areas. The survey showed major topographic features and man-made improvements on the right-of-way area from back of sidewalk to back of sidewalk, which included the location of trees over 6-inch in diameter, curb and gutter, sidewalk, ramps, driveways, traffic signal loops, street lights, signage, mailboxes, pavement trench scars, and utility features. Additional scope elements included dipped sanitary sewer manholes, storm drain manholes, and storm drain catch basins. BKF then drafted and integrated the underground utility line work into a CAD base map for the City to ensure proper clearances between the proposed system and existing utilities/features, and to avoid potential conflicts with existing utilities/features during construction.

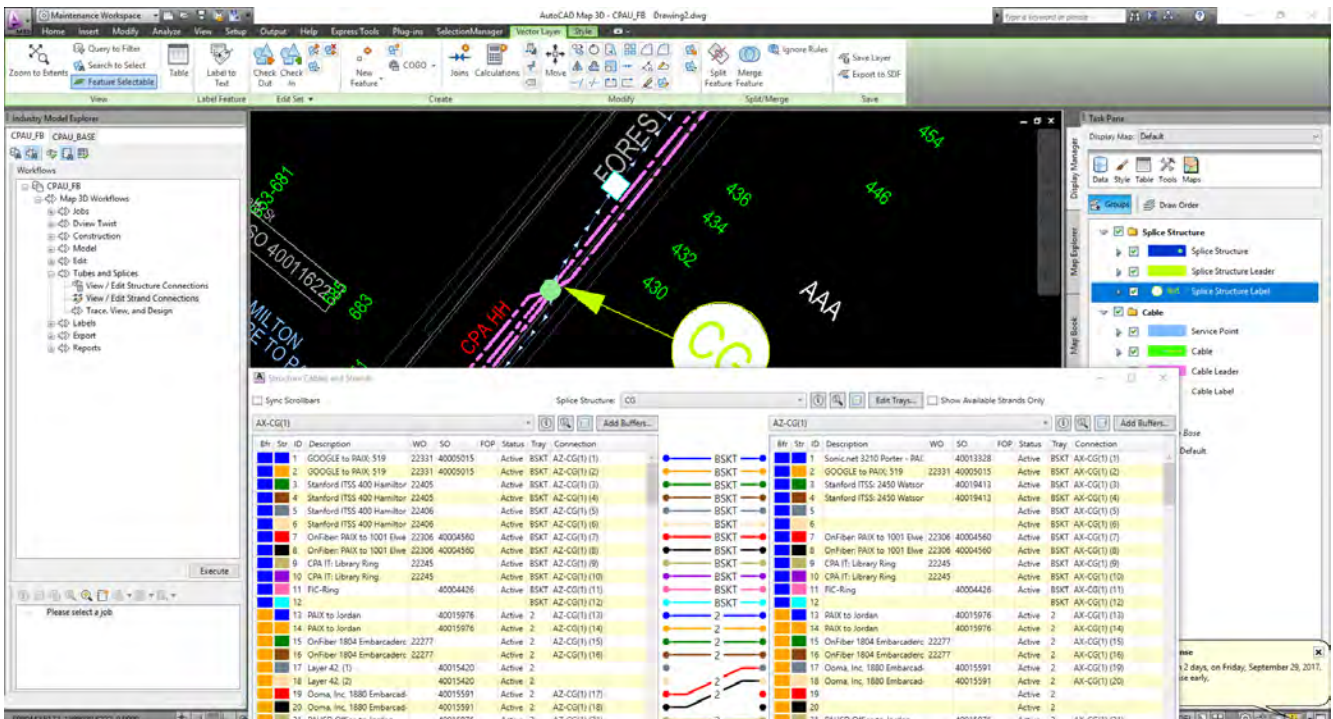
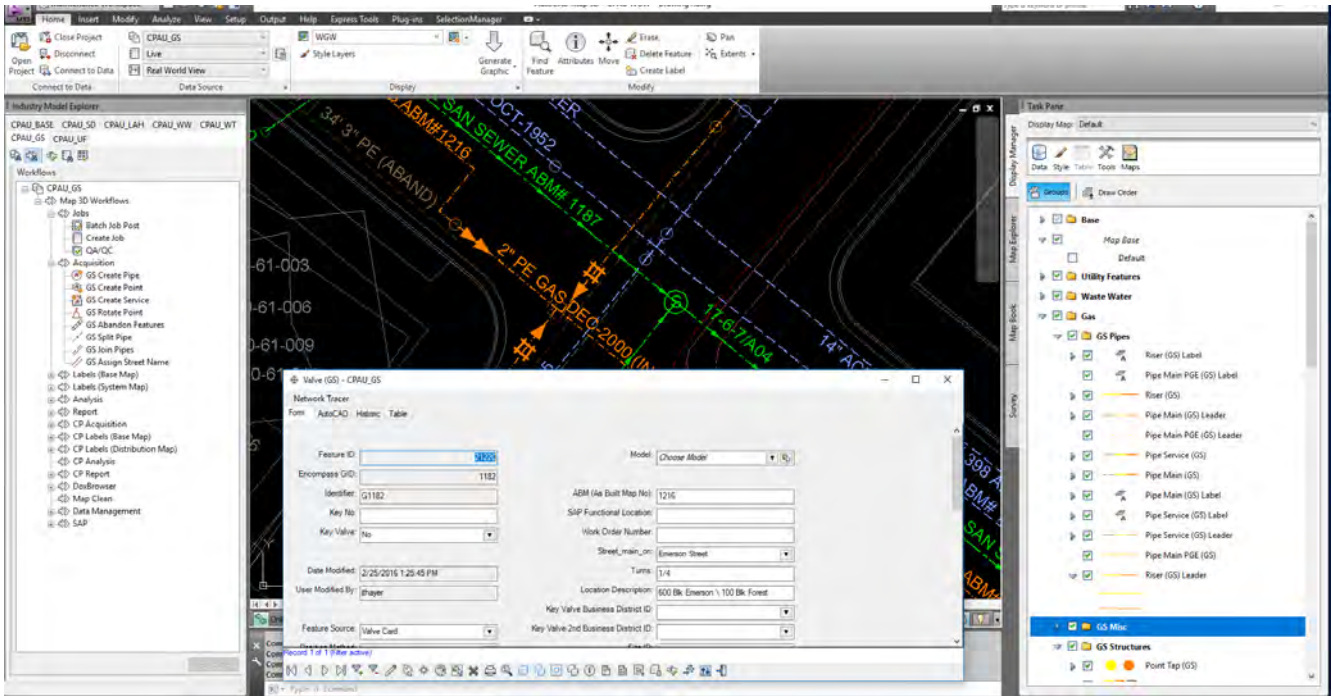
On August 2022, BKF started the topographic survey for the sanitary sewer project along Veterans Blvd. It also included the task of preparing plats and legal descriptions for the sewer line that was recently installed.

PROJECT DURATION
2018 - Ongoing

COST
\$184,763

CLIENT CONTACT
Ahmad Haya, PE, QSD/P
Senior Civil Engineer
Community Development
and Transportation
Department
650-780-7397
ahaya@redwoodcity.org

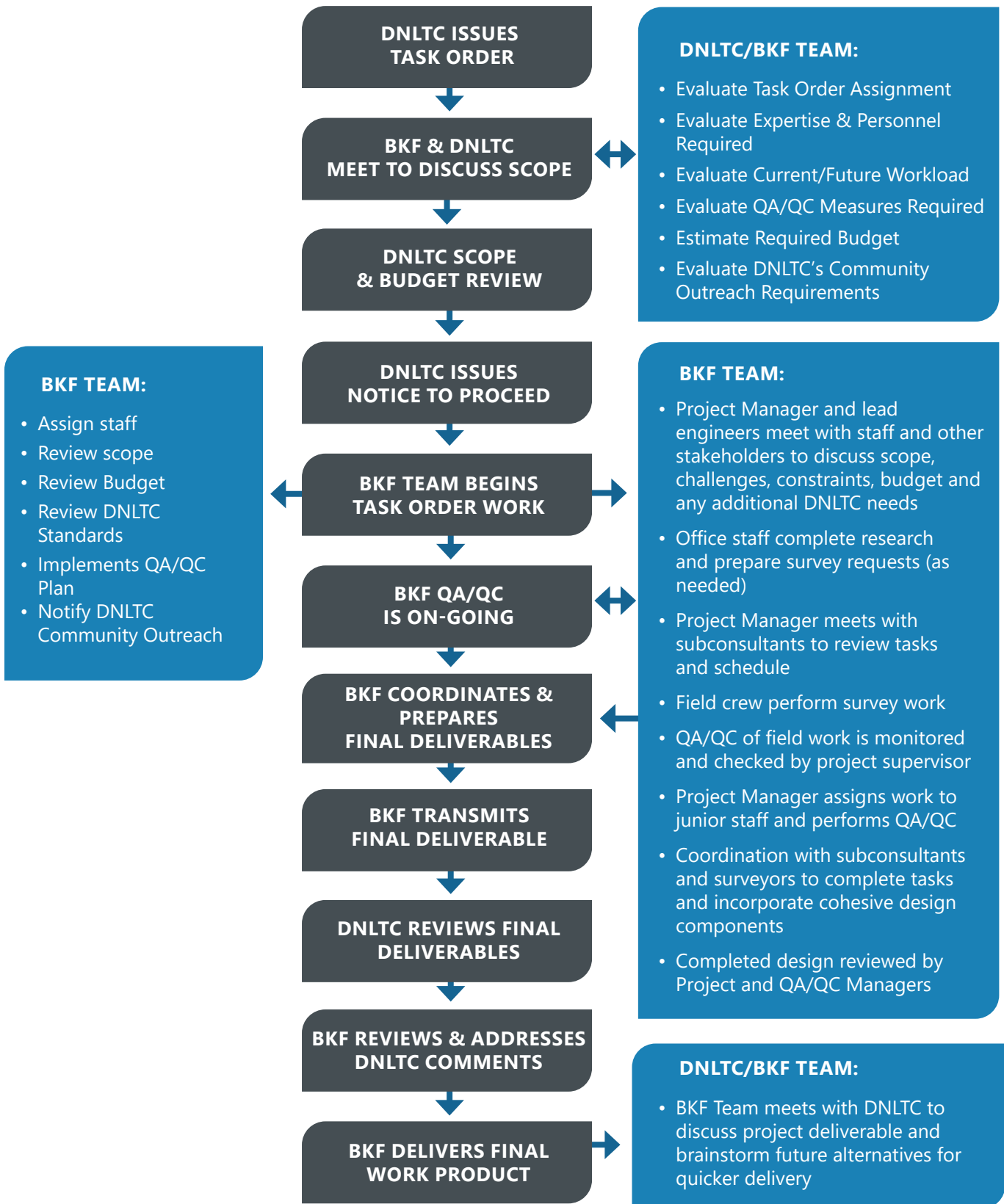
COMPLETED PROJECT IN GIS VIEWER





APPROACH TO ON-CALL TASK ORDERS

The following flowchart shows the steps which will be taken on City survey task orders.



HERE ARE THREE (3) ITEMS IN OUR WORK PLAN THAT WE HAVE EXECUTED IN THE PAST SURVEYING SERVICES THAT HELPED IN THE SUCCESS OF THE PROJECTS:

1. DEVELOPING A SURVEY WORK PLAN

At the start of each phase of the project, BKF prepares a Survey Work Plan based on the project scope of work contained in the contract, the specific project needs, and the requirements of our internal QA/QC checklist. The plan outlines those components we believe are essential to successfully complete the project. Determining these early in the process improves the accuracy of cost and schedule baselines as well as assuring the project meets or exceeds performance goals. BKF will perform project management tasks to make sure that work is completed within the not-to-exceed fees limit while ensuring that all services and deliverables meet the City project requirements. BKF will perform preliminary or investigative field surveys, which include a site visit prior to the start of each major fieldwork. The field reconnaissance will be done by the project manager, Ben Santos, and the city engineer who is in-charge of the project. Kick-off meetings and progress reports will be included in these tasks.

At the start of the project, we will request detailed PDF copies of maps showing the limits of work, and existing GIS and CAD files from the City. This will help the field crews prepare for the areas to be surveyed.

2. COMMUNICATE COMPREHENSIVELY

Ben Santos will be the main point of contact with the project team, ensuring that the project scope is met. Each field crew is provided with a survey package containing the limit of work (oftentimes a Google Earth image with a red boundary line) together with a checklist of tasks to be accomplished on the field. At the start of their day, the survey party chief will check-in with their project manager to report any site access issues or if there are any problems encountered. In the middle of the day, the survey party chief will assess their progress on the fieldwork and notify the project manager if they will need additional time or if they will be able to finish the tasks as scheduled. Before they leave the site, they look at the checklist and highlight portions of their site map of what was accomplished for that day. On their way back to the office, another team member will check the survey field notes. At the end of the day, the survey data files are uploaded to the network folder together with the scanned copy of the field notes stored and categorized by date and the job number. The survey party chief will report to the project manager via their mobile smartphones regarding the field survey, and will discuss the next steps if they need to return to the site. Alternatively, if the survey tasks are completed, they communicate what they learned about the experience and determine ways on how to be more efficient and improve the quality of their work.

3. REVIEW DOCUMENTS FREQUENTLY

The project surveyor in the office will begin to review the survey data files starting with the raw data files. The field notes are inspected per GPS survey and total station setup, and control points are verified. The height of the rod listed on the notes is compared to the rod height, and they will check for possible rod busts errors. Most of the survey data are analyzed through least squares adjustment using MicroSurvey Start*Net software to distribute the errors. The survey data points are inserted into the CAD file and plotted with an overlaid image or existing control files to double-check if they match.

After the .csv file deliverable is submitted to the City, BKF will follow-up with a phone call/Zoom meeting with the City staff to make sure that the areas surveyed cover the entire limits of work. If there are missing items, the field crew will be sent back to pick up those areas. BKF will ensure that the survey is complete, after the City staff evaluates that the survey satisfies the requirements, and the invoice gets processed for payment.



In 2018-2020 BKF’s surveyors logged more field hours than any other firm in Northern California. Our dedicated team of licensed professional, surveying experts, and experienced field crews specialize in a diverse portfolio of services, including geodetic and photo control, right-of-way and ALTA surveys, topographic and utility surveying, boundary resolution and mapping construction surveys, and BIM integration. To deliver economical and quality surveys and boundaries to our clients, we actively use and perform surveying services with the latest industry technology— 3D Laser Scanning, Automated Instrumentation and Unmanned Aerial Sensors—and are leaders in providing training and developing protocols for our industry peers, employing internal controls that balances diligence, technical innovation and precision, and efficiency.

SURVEYING SERVICES

RIGHT-OF-WAY MAPPING

- Review city right-of-way requirements
- Prepare appraisal maps and individual plats
- Prepare property descriptions and plats
- Monument right-of-way
- Prepare Record of Survey

RESEARCH

- Review title reports provided
- Review data provided by the city
- Research maps of record
- Research county road files / available field notes
- Research CALTRANS records
- Calculate record information to identify title conflicts

GPS CONTROL

- Identify horizontal and vertical control datum
- Reconnaissance of existing control
- Pre-planning of static survey
- Field observations
- Post process data
- Prepare GPS Control Report

BOUNDARY SURVEY

- Calculate search ties for existing corners
- Field surveys to tie out found points to control net
- Adjustment of data
- Resolve discrepancies between record data & found evidence
- Prepare hardcopy of title information, found evidence and resolved boundary

CONSTRUCTION STAKING

- Review plans
- Calculate offset points
- Prepare cut sheets
- Collect as-built stake location
- Perform field staking

TOPOGRAPHIC MAPPING

- Determine best method for topographic mapping based on client’s needs
- If aerial mapping, provide photo control utilizing
- RTK or fast static GPS
- Perform on the ground topographic mapping

ALTA

- Research maps and deeds of record
- Calculate record documents
- Locate field evidence of property corners & movements
- Best-fit field to record boundary information
- Plot title exceptions

3D LASER SCANNING

- Topographic, as-built and monitoring surveys
- High speed data capture for future manipulation and extraction
- Geo-reference using onsite project control
- 3-D models
- Utilizes Leica P40

CONVENTIONAL SURVEYS

- Provide accurate, fast and efficient results for topographic surveys and construction staking
- Adaptable to project needs
- Provides highly repeatable results



COST PROPOSAL

Note • These are just sample cost estimates per 2022 BKF hourly rates. Each service task order may differ from these sample fee estimates. There were no specific scopes of work that were discussed in the RFP.

For example • 1 day of fieldwork plus 1 day of office processing for a task order with miscellaneous surveying services = \$3,885. This includes a field and office rate for Survey Party Chief, Chainman, Project Surveyor and Project Manager (to coordinate emails and billing).

For map checking a simple 2-page parcel map, it may be around \$2,500-\$3,000, and will include up to three rounds of map review with comments circulating between client, surveyor and map reviewer. The final mylar print will be signed and stamped by our **Principal-in-Charge, Davis Thresh, PLS No. 6868**.

The compensation will be time and materials (T&M) basis per BKF and DNLTC's fully executed contract.

Map Review	<ul style="list-style-type: none"> Performs technical review of survey & land use / development related documents (Project Manager / Licensed Land Surveyor) 	12	237	2,844
				2,844
City Surveyor	<ul style="list-style-type: none"> Perform functions of City Surveyor (Principal-in-Charge / Licensed Land Surveyor) 	8	237	1,896
				1,896
Topographic Survey	<ul style="list-style-type: none"> Project Surveyor 	16	174	2,784
	<ul style="list-style-type: none"> Survey Party Chief 	16	198	3,168
	<ul style="list-style-type: none"> Survey Chainperson 	16	127	2,032
				7,984
Plat & Legal Descriptions for Easement	<ul style="list-style-type: none"> Project Surveyor 	16	174	2,784
	<ul style="list-style-type: none"> Associate 	2	237	474
				3,258
				15,982



BKF ENGINEERS
PROFESSIONAL SERVICES RATE SCHEDULE
EFFECTIVE MARCH 28, 2022

<u>CLASSIFICATION</u>	<u>HOURLY RATE</u>
PROJECT MANAGEMENT	
Principal/Vice President	\$272.00
Senior Associate/Vice President	\$244.00
Associate	\$237.00
Senior Project Manager Senior Technical Manager	\$237.00
Project Manager Technical Manager	\$231.00
Engineering Manager Surveying Manager Planning Manager	\$213.00
TECHNICAL STAFF	
Senior Project Engineer Senior Project Surveyor Senior Project Planner	\$198.00
Project Engineer Project Surveyor Project Planner	\$174.00
Design Engineer Staff Surveyor Staff Planner	\$151.00
BIM Specialist I, II, III	\$151.00 - \$174.00 - \$198.00
Technician I, II, III, IV	\$144.00 - \$153.00 - \$168.00 - \$181.00
Drafter I, II, III, IV	\$113.00 - \$124.00 - \$134.00 - \$149.00
Engineering Assistant Surveying Assistant Planning Assistant	\$94.00
FIELD SURVEYING	
Survey Party Chief	\$198.00
Instrument Person	\$170.00
Survey Chainperson	\$127.00
Utility Locator I, II, III, IV	\$103.00 - \$146.00 - \$175.00 - \$199.00
Apprentice I, II, III, IV	\$78.00 - \$105.00 - \$116.00 - \$123.00
CONSTRUCTION ADMINISTRATION	
Senior Consultant	\$259.00
Senior Construction Administrator	\$225.00
Resident Engineer	\$167.00
Field Engineer I, II, III	\$151.00 - \$174.00 - \$198.00
PROJECT ADMINISTRATION	
Project Coordinator	\$126.00
Senior Project Assistant	\$109.00
Project Assistant	\$96.00
Clerical Administrative Assistant	\$81.00

Expert witness rates are available upon request.

Subject to the terms of a services agreement:

- Charges for outside services, equipment, materials, and facilities not furnished directly by BKF Engineers will be billed as reimbursable expenses at cost plus 10%. Such charges may include, but shall not be limited to: printing and reproduction services; shipping, delivery, and courier charges; subconsultant fees and expenses; agency fees; insurance; transportation on public carriers; meals and lodging; and consumable materials.
- Allowable mileage will be charged at the prevailing IRS rate per mile.
- Monthly invoices are due within 30 days from invoice date. Interest will be charged at 1.5% per month on past due accounts.
- The rates shown are subject to periodic increases, including January 1st of each year.

BKF acknowledges that services are upon request through June 2027 and the detailed work schedule will be mutually agreed upon as tasks are developed and requested by DNLTC.





RESOLUTION NO. 2022. 14

DEL NORTE LOCAL TRANSPORTATION COMMISSION RESOLUTION APPROVING
AMENDMENT 1 OF THE 2022-23 OVERALL WORK PROGRAM

WHEREAS, the Del Norte Local Transportation Commission in its official capacity as the designated Regional Transportation Planning Agency, hereafter referred to as the RTPA, is responsible for the planning, allocating and programming of funds; and

WHEREAS, the 2022-23 Overall Work Program (OWP) is the primary management tool for the Del Norte Local Transportation Commission, identifies the activities and a schedule of work for regional transportation planning in Del Norte County, and is a requirement of the Memorandum of Understanding between Del Norte Local Transportation Commission and the California Department of Transportation; and

WHEREAS, the Del Norte Local Transportation Commission adopted the 2022-23 OWP at the May 3, 2022 meeting; and

WHEREAS, the work element, expenditure detail and revenue summary are attached to this resolution; and

WHEREAS, Amendment 1 of the 2021-22 OWP makes the following changes:

Work Element:	Purpose of change:	Action taken:
C 3	Adds funding	Adds \$1,000 to accommodate a special project.
G 1	Adds funding	Adds \$5,000 to accommodate work product contract needed for the 2022-23 year.
H 1	Adds funding	Adds \$12,525.74 to accommodate the work product needed for the 2022-23 year.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED that the Del Norte Local Transportation Commission hereby approves Amendment 1 of the 2022-23 Overall Work Program.

PASSED AND ADOPTED by the Del Norte Local Transportation Commission, a Regional Transportation Planning Agency of the State of California on the 5th day of October 2021 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Darrin Short, Chair
Del Norte Local Transportation Commission

ATTEST:

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission

WORK ELEMENT C Public Participation and Information Dissemination

2022-23 Overall Work Program Final

Expenditures		Revenue by Fund Source			
Allocations and Funding Requirements					
	Amount	RPA	STIP/PPM	TDA	RSTP
DNLTC Staff Services	\$ 34,750.00	\$ 34,750.00	-	\$ -	\$ -
Consultant/City of Crescent City	\$ 31,000.00	\$ 31,000.00	\$ -	\$ -	\$ -
Dues			\$ 2,500.00		
Travel Reimbursement (staff/commission)	\$ 10,000.00	\$ -	\$ -	\$ 10,000.00	\$ -
TOTAL	78,250.00	\$ 65,750.00	2,500.00	\$ 10,000.00	\$ -

Note: All accounting and reporting is at the product level and all consultant costs are limited by contract. Note: DNLTC does not fund any lobbying activities.

Objective

To create and strengthen partnerships to facilitate and conduct regional planning activities, and to provide information to partner agencies and the general public on transportation issues and planning activities within the Del Norte region.

Discussion

Del Norte Local Transportation Commission provides an overall coordination role in planning and programming funds for transportation projects and operations. As the regional transportation planning agency (RTPA), it is responsible for actively seeking participation of all relevant agencies and stakeholders in the planning process. This element coordinates regional priorities among diverse stakeholders. Public participation and public meetings are mandatory work for all regional transportation planning agencies in California. DNLTC has initiated and maintained its own web-based feedback and data collection platform for comprehensive community feedback on regional planning efforts.

Previous Accomplishments

- Participated in statewide and regional meetings including Rural Counties Task Force, North State Super Region, California Regional Transportation Planning Agency and California Transportation Commission
- Participated in the Elk Valley Rancheria, Resighini Rancheria, Tolowa Dee-ni Nation and the Yurok Tribe transportation planning partnerships to advance joint regional priorities.
- Provided agendas and minutes to DNLTC and its Technical Advisory Committee monthly or as needed and posted agendas in compliance with the Brown Act.
- Developed and maintained DNLTC’s website as a tool for providing access to transportation planning documents and information.
- Development of a web-based feedback and data collection platform using Commonplace.

Product 1: Informed Local Transportation Commission

Task/Activity	Products	Schedule
1 Sponsor or attend various meetings to advance agency policies and programs such as Caltrans District 1 meetings, California Transportation Commission meetings (as necessary) and Redwood Coast Transit Authority (as necessary). Responsible party: DNLTC.	Agendas, minutes, notes	As needed
2 Monitor and respond to key state and federal legislative and policy changes. Prepare informational updates and action items for presentation to the public and Del Norte Local Transportation Commission and its committees. Note: DNLTC does not fund any lobbying activities. Responsible party: DNLTC	Agendas, minutes, notes	Monthly or as needed
3 Hold Technical Advisory Committee and Del Norte Local Transportation Commission meetings for decision making, priority setting and sharing and receiving public information. Responsible party: DNLTC.	Agendas, minutes, notes	Monthly or as needed

3	Facilitate public meetings and prepare draft minutes and notes. Responsible party: Consultant.	Minutes, notes	Monthly or as needed																								
4	Receive board direction on transportation policies, strategies, programs and actions to enhance the regional transportation planning process. Responsible party: DNLTC.	Minutes	Monthly or as needed																								
5	Post transportation articles and documents to the website that inform the public regarding regional planning meetings and activities.	Up-to-date website	As needed																								
<table border="1"> <thead> <tr> <th>Product C1 Estimate</th> <th>Amount</th> <th>RPA</th> <th>STIP/PPM</th> <th>TDA</th> <th>RSTP</th> </tr> </thead> <tbody> <tr> <td>DNLTC Staff Services</td> <td>\$ 22,000</td> <td>\$ 22,000</td> <td>\$ -</td> <td>\$ -</td> <td>\$ -</td> </tr> <tr> <td>Consultant</td> <td>\$ 6,000</td> <td>\$ 6,000</td> <td>\$ -</td> <td>\$ -</td> <td>\$ -</td> </tr> <tr> <td>Total</td> <td>\$ 28,000</td> <td>\$ 28,000</td> <td>\$ -</td> <td>\$ -</td> <td>\$ -</td> </tr> </tbody> </table>				Product C1 Estimate	Amount	RPA	STIP/PPM	TDA	RSTP	DNLTC Staff Services	\$ 22,000	\$ 22,000	\$ -	\$ -	\$ -	Consultant	\$ 6,000	\$ 6,000	\$ -	\$ -	\$ -	Total	\$ 28,000	\$ 28,000	\$ -	\$ -	\$ -
Product C1 Estimate	Amount	RPA	STIP/PPM	TDA	RSTP																						
DNLTC Staff Services	\$ 22,000	\$ 22,000	\$ -	\$ -	\$ -																						
Consultant	\$ 6,000	\$ 6,000	\$ -	\$ -	\$ -																						
Total	\$ 28,000	\$ 28,000	\$ -	\$ -	\$ -																						

Product 2: Partnerships and Planning Agreements

Task/Activity	Products	Schedule
1 The North State Super Region, an alliance of 16 RTPAs, supports and promotes transportation policies and programs in north state counties. DNLTC contributes information and participates in the evaluation of state and federal policies that impact the NSSR area, such as the implementation of FAST Act and interregional transportation projects that impact the NSSR economy. Responsible party: DNLTC.	Agendas, minutes, notes and letters	Fall and Spring, and as needed
2 In order to provide a direct opportunity for the small counties to remain informed, have a voice, and become involved with changing statewide transportation policies and programs, a task force was formed in 1988 as a joint effort between the California Transportation Commission (CTC) and the rural counties. DNLTC is one of 26 rural county Local Transportation Commissions represented on the Rural Counties Task Force (RCTF). DNLTC representative attends these meetings to discuss and influence changing statewide transportation issues of concern to the rural counties and comments on RCTF projects. Responsible party: DNLTC.	Agendas, minutes, notes and letters	January, March, May, July, September, November
3 Consultant assistance to support the City of Crescent City's Measure S transportation planning is needed to develop an asset management product for the City's roadway system. By planning, the City will more effectively develop a strategy and local support for local roadway maintenance. Responsible party: City of Crescent City.	Reimbursement payment to City of Crescent City	June
4 Participate in the development of transportation programming guidelines, including STIP, ATP, Regional Transportation Plan, LCTOP, PTMISEA, CalOES, Cap and Trade Programs, etc. Responsible party: DNLTC.	Record of meetings.	As needed
5 Attend California Regional Transportation Planning Agency (RTPA), California Transportation Commission meetings and workshops. Responsible party: DNLTC.	Record of meetings.	As needed
6 Provide travel reimbursement to meetings and necessary software to hold and access meetings. Responsible party: DNLTC.	Record of meetings.	As needed

Product C2 Estimate	Amount	RPA	STIP/PPM	TDA	RSTP
DNLTC Staff Services	\$ 7,750	\$ 7,750	\$ -	\$ -	\$ -
City of Crescent City	\$ 17,000	\$ 17,000			
Dues	\$ 2,500		\$ 2,500	\$ -	\$ -
Meeting Access & Travel	\$ 10,000	\$ -	\$ -	\$ 10,000	\$ -
Total	\$ 37,250	\$ 24,750	\$ 2,500	\$ 10,000	\$ -

Product 3: Website & Crowdsourcing Information

Task/Activity	Products	Schedule
1 With Consultant assistance, review website and update throughout the year to provide public information about the progress toward meeting the goals of the 2020 Regional Transportation Plan. Responsible party: <u>DNLTC.</u>	Website that is current and relevant	July - June
2 Post transportation articles and documents to the website that inform the public regarding regional planning meetings and activities. Responsible party: Consultant.	Up-to-date website	As needed
3 Maintain a web based feedback and data collection platform to enable public input by computer or smart phone. Responsible party: Consultant.	Data collection tool and year-end data	July - June

Product 3 Estimate	Amount	RPA	STIP/PPM	TDA	RSTP
DNLTC Staff Services	\$ 5,000	\$ 5,000	\$ -	\$-	\$-
Consultant / Software	\$ 8,000	\$ 8,000	\$ -	\$-	\$-
Total	\$ 13,000	\$ 13,000	\$ -	\$ -	\$-

WORK ELEMENT G Safety & Security Planning

2022-23 Overall Work Program Final

Expenditures		Revenue by Fund Source			
Staff Allocations and Funding Requirements					
	Amount	RPA	STIP/PPM	TDA	
DNLTC Staff Services	\$ 3,000	\$ 3,000	\$ -	\$ -	
Consultant	\$ 25,000	\$ 25,000	\$ -	\$ -	
TOTAL	\$ 28,000.00	\$ 28,000.00	\$ -	\$ -	

Note: All accounting and reporting is at the product level and all consultant costs are limited by contract.

Objective

To meet the needs of the Office of Emergency Services and the goals of the Regional Transportation plan for safety and security.

Discussion

In partnership with the County Office of Emergency Services and Del Norte Local Transportation Commission, the consultant will prepare an Evacuation and Transportation Annex (Annex) for the County of Del Norte Operational Area all-hazard Emergency Operations Plan (EOP). The EOP recently underwent a complete rewrite and the County is looking to update or create all relevant annexes. The new EOP will be available to the consultant at the outset of the project. The goal of the Annex is to address evacuation areas and evacuation routes within Del Norte County based off the hazards identified within the Hazard Mitigation Plan, as well as to identify resources and procedures for transportation of individuals and animals in need during evacuation.

Consultant will write the Annex using a regional, integrated framework that is consistent with the EOP while addressing the hazards and existing resources within the Operational Area. It should address the needs of those within the jurisdiction, including persons with disabilities and those with access and functional needs. Specific functions within the plan shall include appropriate tasks, checklists, references and other resources necessary for personnel to fulfill their duties and deliver effective execution of the plan by persons who may not have emergency management as their primary daily role.

Consultant will plan and facilitate meetings with personnel from appropriate departments, agencies, and organizations to gather the necessary information to successfully research, write, and submit a complete plan. As requested, the consultant will prepare progress reports that summarize the anticipated and completed tasks, respond to any inquiries or comments by the County, and will update the project schedule as required.

The Annex shall be aligned with the new EOP and will be compliant with the principles of planning outlined in FEMA's Developing and Maintaining Emergency Operations Plans (CPG 101 v2), the organizational structure outlined by California Office of Emergency Services Standardized Emergency Management System (SEMS) as well as the National Incident Management System (NIMS), and the standards set forth by the Emergency Management

Previous Accomplishments

2011 Pedestrian Evacuation Time Analysis, multiple years of Transportation Emergency Planning and Preparedness collaboration with transportation providers in the region, pedestrian evacuation modeling. Systemic Safety Analysis Support, Highway Safety Improvement Program grant application support. Crescent City and Del Norte County Local Roadway Safety Plans.

Product 1: Evacuation and Transportation Annex Plan

The Transportation Annex to the region's Emergency Operations Plan will address evacuation areas and evacuation routes within Del Norte County based off the hazards identified within the Hazard Mitigation Plan, as well as to identify resources and procedures for transportation of individuals and animals in need during evacuation

Task/Activity	Product	Schedule
1 Develop a Request for Proposals in partnership with the County Office of Emergency Service. Administer a consultant selection process.	Consultant selection process	July - September
2 Establish and convene a Transportation Annex workgroup and hold a kick-off meeting.	Agendas and minutes	August - September
3 Develop the draft Transportation Annex to the Emergency Operations Plan.	Agendas, minutes, monthly progress	October - December
4 Approved Transportation Annex to the Emergency Operations Plan.	Final plan	December - February

G1 Estimate	Amount	RPA	STIP/PPM	TDA
Staff	\$ 3,000	\$ 3,000	\$ -	\$ -
Consultant	\$ 25,000	\$ 25,000	\$ -	\$ -
Total	\$ 28,000	\$ 28,000	\$ -	\$ -

WORK ELEMENT H Zero Emission Support Plan
2022-23 Overall Work Program Final

Expenditures		Revenue by Fund Source			
Staff Allocations and Funding Requirements					
	Amount	RPA	STIP/PPM	TDA	
DNLTC Staff		\$ 8,000.00	\$ -		
Consultant		\$ 57,875.74	\$ -	\$ -	
TOTAL	\$ -	\$ 65,875.74	\$ -	\$ -	

Note: All accounting and reporting is at the product level and all consultant costs are limited by contract. The consultant area of this work is expected to capture carryover.

Objective

This work element will develop a detailed scope of work to begin to address the regional needs to meet the Zero Emission Vehicle mandates created by Governor Newsom in 2020.

Discussion

Governor Newsom signed an executive order that bans the sale of new gasoline and diesel-powered vehicles by 2035. The California Air Resources Board mandated that all new trucks sold in California emit zero emissions by 2045. This is the initiation of what is likely to be several years of planning efforts to meet the new mandate in a balanced and respectful way.

Previous Accomplishments

Participation on the North State Super Region Zero Emissions Planning Workgroup. Transit Development Plans.

Product 1: ZEV Project Initiation

Task/Activity	Products	Schedule
Develop a Request for Proposals in partnership with the Technical Advisory Committee. Administer a consultant selection process. Responsible party: DNLTC.	Consultant selection process materials.	July - June
Project monitoring and administration. Responsible party: DNLTC.	Progress reports and invoice processing.	July - June
Establish a regional Workgroup. Responsible party: DNLTC.	Agendas, minutes, workplan.	July - September
Develop a draft detailed and prioritised workplan to address Zero Emission Vehicle and Zero Emission Bus mandates for review by Regional Workgroup. Responsible party: Consultant.	Agendas, minutes, draft workplan.	September - November
Develop and initiate a draft strategy to address the priorities set by the workplan to meet the California's ZEV and ZEB mandates. Responsible party: Consultant.	Agendas, minutes, strategy.	November - June
Prepare final workplan and strategy for approval by DNLTC. Responsible party: Consultant.	Final workplan and strategy.	November - June

Product 1 Estimate	Amount	RPA	STIP/PPM	TDA
DNLTC Staff Services	\$ 8,000	\$ 8,000	\$ -	\$ -
Consultant	\$ 57,876	\$ 57,875.74	\$ -	\$ -
Total	\$ 65,876	\$ 65,875.74	\$ -	\$ -

Item D Staff Report

DATE: NOVEMBER 1, 2022
TO: DEL NORTE LOCAL TRANSPORTATION COMMISSION
FROM: TAMERA LEIGHTON, EXECUTIVE DIRECTOR
SUBJECT: AWARD PLANNING, PROGRAMMING AND MONITORING (PPM) CARRYOVER
FUNDING TO REDWOOD COAST TRANSIT AUTHORITY

TAC AND STAFF RECOMMENDATION: Adopt resolution 2022 15 awarding the carryover PPM total of \$20,000 to Redwood Coast Transit Authority for Zero Emission Bus infrastructure planning and preliminary engineering.

BACKGROUND: The Technical Advisory Committee discussed regional needs. Redwood Coast Transit Authority has an immediate need and can spend the carryover funding by June 30, 2023.

PROJECT DESCRIPTION: The California Air Resources Board (CARB) has identified public transit as an early adopter of zero-emission bus (ZEB) technologies. CARB adopted the Innovative Clean Transit Regulations in 2018 requiring all California public transit agencies to begin purchasing a percentage of new buses as ZEB buses starting in 2026, and all new bus purchases must be ZEB by 2029. To comply with this mandate, RCTA applied for and received help with a fleet electrification planning document in 2019-2020 by working through the Community Transportation Association of America (CTAA). However, the no-cost planning product did not evaluate the combined energy needs required to charge the fleet at the RCTA Williams Drive Operations and Maintenance Facility. RCTA needs a consultant to finish the planning and preliminary engineering needs, including calculations of charging capacity needs and evaluation of existing Pacific Power electrical service to the Williams Drive RCTA facility. The preliminary engineering will develop the optimal layout of charging facilities needed at the RCTA yard, based on RCTA input and input on upgrades required, if any, from Pacific Power to provide adequate electricity to the site. The \$20k in PPM in funds will be matched by up to \$60k in RCTA funds included in the FY 2022-23 RCTA Budget.

The TAC will consider the current year and future year funding at an upcoming meeting. The CTC STIP Guidelines describe the following eligible PPM activities:

- Regional transportation planning – includes the development and preparation of the regional transportation plan
- Project planning – includes the development of project study reports or major investment studies conducted by regional agencies or by local agencies in cooperation with regional agencies
- Program development – includes the preparation of regional transportation improvement programs (RTIPs) and studies supporting them
- Monitoring the implementation of STIP projects – includes project delivery, timely use of funds, and compliance with state law and CTC guidelines.

Most often used for Project Initiation Documents leading to funding applications.

We have \$20,000 that must be spent by June 30, 2023 and an additional \$28,000 that needs to be spent by June 30, 2024. We can spend a total of \$48,000 now. This is funded at \$28,000 annually in a two-year STIP cycle.

Carryover: \$20,000

Current year: \$28,000

2023-24 year: \$28,000

RESOLUTION NO. 2022 15

DEL NORTE LOCAL TRANSPORTATION COMMISSION RESOLUTION
ALLOCATING \$20,000 OF PLANNING, PROGRAMMING AND MONITORING FUNDS
TO REDWOOD COAST TRANSIT AUTHORITY FOR ZERO EMISSION BUS INFRASTRUCTURE
PLANNING AND PRELIMINARY ENGINEERING

WHEREAS, the Del Norte Local Transportation Commission in its official capacity as the designated Regional Transportation Planning Agency (RTPA), is allocating Planning, Programming and Monitoring (PPM) funds for eligible purposes; and

WHEREAS, Redwood Coast Transit Authority is an eligible recipient of PPM funding; and

WHEREAS, planning and preliminary engineering for a public transit facility is an eligible use of PPM funding; and

WHEREAS, the California Air Resources Board (CARB) has identified public transit as an early adopter of zero-emission bus (ZEB) technologies. CARB adopted the Innovative Clean Transit Regulations in 2018 requiring all California public transit agencies to begin purchasing a percentage of new buses as ZEB buses starting in 2026; and

WHEREAS, RCTA is contributing \$60,000 to the project and needs assistance to finish the planning and preliminary engineering, including calculations of charging capacity needs and evaluation of existing Pacific Power electrical service to the Williams Drive RCTA facility.

NOW, THEREFORE, BE IT RESOLVED THAT the DNLTC hereby allocates to Redwood Coast Transit Authority \$20,000 in Planning, Programming and Monitoring funding for zero emission bus infrastructure planning and preliminary engineering.

PASSED AND ADOPTED by the Del Norte Local Transportation Commission on the 4th day of October 2022, by the following polled vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

Darrin Short, Chair
Del Norte Local Transportation Commission

ATTEST:

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission



North State Super Region

1255 East Street, Suite 202, Redding, CA 96001
(530) 265-3202 nssr16@gmail.com
www.superregion.org
John Clerici, Chair

Jon Clark
Butte County Assn. of Governments

Mike Azevedo
Colusa County Transportation Comm.

Tamera Leighton
Del Norte Local Transportation Comm.

Mardy Thomas
Glenn County Transportation Comm.

Beth Burks
Humboldt Co Assn of Governments

Lisa Davey-Bates
Lake Co City/Area Planning Comm.

John Clerici
Lassen County Transportation Comm.

Nephele Barrett
Mendocino Council of Govts

Debbie Pedersen
Modoc County Transportation Comm.

Mike Woodman
Nevada County Transportation Comm.

Jim Graham
Plumas County Transportation Comm.

Sean Tiedgen
Shasta County SRTA/MPO

Tim Beals
Sierra County Transportation Comm.

Jeff Schwein
Siskiyou County Local Trans. Comm.

Jessica Riske-Gomez
Tehama County Transportation Comm.

Panos Kokkas
Trinity County Transportation Comm.

September 21, 2022

The Honorable Liane Randolph
Chair, California Air Resources Board
1001 I Street
Sacramento, CA 95811

Subject: Innovative Clean Transit Rule Revisions

Dear Chair Randolph,

This letter is presented to you on behalf of the member agencies of the North State Super Region through the North State ZEV Working Group. The North State Super Region (NSSR), formalized through a memorandum of agreement on October 20, 2010, represents a partnership between the sixteen northern California Regional Transportation Planning Agencies and Metropolitan Planning Organizations. The NSSR provides a unified voice when addressing state and federal transportation funding and policy decisions and establishes coordination of transportation planning efforts.

On January 21, 2022, the NSSR approved the formation of the North State Zero Emission Vehicle Working Group as a committee to assist in expanding participation and representation with our state and federal partners related to addressing Zero Emission Vehicle infrastructure needs across the super region.

The North State ZEV Working Group respectfully requests your consideration of the following:

1. To request an exemption from CARB for the implementation of the Innovative Clean Transit rule as it currently exists for small (under 20 vehicles) transit agencies.
2. Set aside sufficient funding for rural agencies (5311 recipients) for ZEV infrastructure construction and vehicle purchases.
3. To request that CARB revise the Innovative Clean Transit rule such that it requires public utilities to prioritize the design, development and construction of transit Zero Emission Vehicle fueling infrastructure, including reduced timelines for design and construction, and reduced costs to small rural transit agencies.
4. Remove debt financing from the regulation as an expected co-funding mechanism on the part of rural agencies.

The current stipulations and structure of the Innovative Clean Transit Rule place an undue financial burden on small rural transit agencies due to the significant expense of purchasing zero-emission vehicles, the associated charging equipment and the required infrastructure improvements. Additionally, the ICT Rule requires a level of planning, engineering and administration which many rural transit agencies may not have access to, thereby limiting their ability to successfully develop and implement zero-emission vehicle technologies.

Below are some examples of why these requests are being made.


1. For Nevada County to transition to a fully ZEV fleet will cost an estimated \$12.8 million for a fleet of 11 vehicles (including the charging infrastructure). The estimated replacement cost for the current diesel fleet for like kind vehicles would be \$1.5 million. This equates to a 682 percent increase in capital costs just for vehicles, not including charging infrastructure (815 percent including infrastructure).
2. In trying to maximize partnerships and funding opportunities, rural agencies have been encouraged to participate in the PG&E EV Implementation program. This program offers to provide construction of line service from the main electrical line to the meter at a property, as well as aiding in the design of the charging station infrastructure, it also offers rebates for vehicles and specific EV chargers. The requirement from PG&E is that the agency commits to a minimum of two EV's per site. What PG&E doesn't tell you is that they will take away any rebates to offset their construction costs, and that they will inflate the number of vehicles they require per site in order to deem a project eligible. This makes this partnership impossible for small fleet agencies with limited electrical grid infrastructure.

While rural transit agencies and RTPA's acknowledge the need to address climate concerns by taking swift and meaningful action, we would be remiss in our duties as public agencies not to ensure that the projects and programs we initiate are reasonable and financially sustainable for our communities. We believe that the ICT, as it currently stands, does not allow us to fulfill that responsibility.

The development of the ICT rule, with a focus on emissions reductions in highly populated and congested urban areas, does not accommodate the vastly different operating characteristics of rural areas. Rural agencies have fewer personnel resources to plan and design ZEV infrastructure, less robust and less reliable electrical grid infrastructure, and significantly fewer financial resources available to them to meet the lofty goal of ZEV implementation.

The above requests would help to mitigate the financial and resource burdens on small rural agencies. We hope you will consider making these program adjustments so that rural agencies may reasonably and responsibly participate in the implementation of Zero-Emission Vehicles.

Sincerely,



John Clerici, Executive Secretary
Lassen County Transportation Commission
Chair, North State Super Region

Item E Staff Report

DATE: NOVEMBER 1, 2022
TO: DEL NORTE LOCAL TRANSPORTATION COMMISSION
FROM: TAMERA LEIGHTON, EXECUTIVE DIRECTOR
SUBJECT: CORONAVIRUS RESPONSE AND RELIEF SUPPLEMENTAL APPROPRIATIONS
ACT OF 2021 (CRRSAA)

TAC AND STAFF RECOMMENDATION: Consider the City and County proposals and direct staff to draft a resolution to award CRRSAA funding.

BACKGROUND: **BACKGROUND:** The CRRSAA and RSTP fact sheets are attached.

Funds available:

STIP: \$315,063

Non-STIP: \$200,000



County of Del Norte
Board of Supervisors
981 "H" Street, Ste. 200
Crescent City, California 95531

Work
(707) 464-7204

Fax
(707) 464-1165

September 27, 2022

Del Norte Local Transportation Commission
900 Northcrest Drive, PMB 16
Crescent City, CA 95531

Attn: Tamera Leighton, Executive Director

Project: Washington Boulevard Culvert Replacement (east of Harrold Street)
Project #: HIP-5901(061)

Re: Request for CRRSAA Funding Allocation

Dear Ms. Leighton:

The County previously requested HIP (Highway Infrastructure Program) and RSTP (Regional Surface Transportation Program) funds for the Washington Boulevard Culvert Replacement Project (east of Harrold Street). Presently, a total of \$530,358 is allocated to the project (\$209,140 HIP and \$321,218 RSTP). The County has issued two requests for proposals, however, both times only one proposal was received. The County is presently in the process of executing a professional services agreement for the preliminary engineering and right-of-way phases of the project. At this time, the professional services agreement for the preliminary engineering and right-of-way phases of the project is anticipated to total approximately \$610,000 which does not include County staff time.

The County would like to request the entire CRRSAA (Coronavirus Response and Relief Supplemental Appropriations Act of 2021) allocation, which is understood to be \$515,063, be allocated to the Washington Boulevard Culvert Replacement Project. Although the County does not have an engineer's estimate for the construction phase of the project, it is reasonable to assume construction phase costs will exceed the combined costs of the preliminary engineering and right-of-way phases of the project.

Expending CRRSAA funding on the project is ideal for the region since federal HIP funds have already federalized the project meaning the project must comply with federal standards including NEPA (National Environmental Policy Act). Additionally, CRRSAA funding will provide the County more time to attempt to secure grant funding to supplement or supplant the RSTP funding presently allocated to the project.

Sincerely,

Gerry Hemmingsen
Chair



September 28, 2022

Ms. Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
Crescent City, CA 95531

RE: Front Street CRRSAA Funding request

Need:

The City is requesting the Del Norte Local Transportation Commission allocate \$515,063 of unallocated CRRSAA funding to the City for use toward the next phase of the reconstruction of Front street.

Background:

Front Street is vitally important to the City of Crescent City (City). It is listed by the Regional Transportation Plan (RTP) as a major collector and by Elk Valley Rancheria’s Indian Reservation Road System (IRR) as a collector. It borders Beachfront Park, connects the Airport to the Harbor, provides access from Highway 101 to the commercial district of the City, and it includes the storm drain collection infrastructure from northern streets and directs the water to the Pacific Ocean. Front Street between G and L Streets is exhibiting foundational failure due in part to a buried seawall, abandoned underground infrastructure, other unsuitable foundational materials, and failing storm drains. The section of Front Street from G Street to I Street exhibits severe surface damage indicative of foundational failure, fatigue failure, and tree root heaving.

Front Street from B Street to G Street, completed in 2021, was funded by a Community Development Block Grant (CDBG). The project reduced flood potential in residential areas by replacing undersized storm drains on C, D, and F streets, which all merge together and flow into the storm drain system on Front Street. CDBG funding is not available for the next phases of Front Street.

Path to Success:

The current project phase includes two blocks of Front Street from G Street to I Street based upon available funding and the timing of construction within this fiscal year. The project will follow the original design intent of the 2012 Front Street Master Plan. The project includes, subgrade improvements, lane reduction from 4 lanes to two with traffic calming features, ADA compliant crossings, sidewalks and curbs which will encourage lower vehicle speeds and inter/multimodal transportation.

Current Front Street funding secured for the completion of Front Street (G Street to I Street) is as follows:

City – ARPA funds	\$ 515 k
City - Measure S funds	\$ 515 k
City - General Fund	\$ 770 k
<u>DNLTC funding (RSTP / Ped Bike)</u>	<u>\$ 400 k</u>
Total	\$ 2.2 Million

Timing for the project will be compressed to complete the reconstruction as quickly as possible, unfortunately due to the long lead times of the materials the construction will not be able to take place until Spring of 2023:

The updated projected project schedule is as follows:

City purchase of Materials	March 2022 – Complete
City to Receive Materials	November 2022
Design completion (G to L)	December 2022
Project Bid Date	January / February 2023
Contract Award	March / April 2023
Notice to Proceed	Spring 2023
Construction	Spring / Summer 2023

Again, the current funding will allow for the completion of the next two blocks of Front Street, leaving 3 blocks (I Street to Hwy 101) still remaining to be reconstructed.

In an attempt to obtain funding for the remaining portions of the project, the City has also applied for Community Project Funding through Congressman Huffman’s Office. The Congressman selected this project as part of this fiscal year’s appropriation to be sent on to the House Appropriations Committee for review. Due to the timeliness of use of funds the project scope included completing the Front Street reconstruction through K Street. In June we received notice that Committee selected the project for partial funding in the amount of \$750K to be included in Fiscal Year 2023 House Appropriations legislation. There are still some legislation approvals that need to be obtained but it is expected to pass out of Committee very soon, and off of the House floor by the end of September or early October. Final approval by the President for these appropriations will occur after the House and Senate give their respective approvals.

Although this funding would be a huge benefit to the community, it is estimated this additional funding will not be enough to complete the next block. However, with the additional allocation of the CRRSAA funding as requested, The City would have the funding necessary to complete the reconstruction of Front Street through that next block (Play Street). This would allow for the creation of additional pedestrian and parking improvements and reduce the barrier that Front Street has become in separating our downtown from what we will soon be a transformed Beachfront Park.

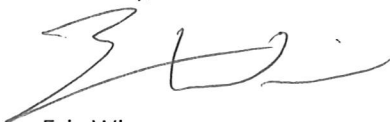
The City has been resourceful and cognizant of the limited DNLTC funding with completing this regional priority project. To date the City has secured over \$6 million of funding for the reconstruction of Front Street from B Street to I Street investing significant City General Fund dollars toward the completion. With the additional congressional appropriation funding, we now have an opportunity to leverage this funding for the completion of the next block.

If funded this additional scope of work could be included in the bid documents this winter and construction would be completed by the Fall of 2023.

Request:

The City is requesting the Del Norte Local Transportation Commission allocate \$515,063 of unallocated CRRSAA funding to the City to use toward the next phase of the reconstruction of Front Street.

Sincerely,



Eric Wier
City Manager
City of Crescent City

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Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSAA)

The Federal Coronavirus Response and Relief Supplemental Appropriations Act of 2021 apportioned \$911.8 million to California (COVID Relief Funds). Under the Act, the COVID Relief Funds may be used for a broad range of surface transportation purposes listed in Section 113(b) of Title 23 of the U.S. Code and are meant to “prevent, prepare for, and respond to coronavirus.” Specifically, the Act allows states to cover revenue losses and allows COVID Relief Funds to be used on new or existing projects, and for preventive and routine maintenance; operations; personnel; salaries; contracts; debt service payments; and availability payments; as well as transfers to public tolling agencies. The COVID Relief funds were apportioned to the State (60%) and Local Agencies (40%). The local funds were further apportioned to the local agencies in the STIP-COVID (Mid-Cycle STIP) and the new CRRSAA Program. The CRRSAA Program will make available approximately \$182 million beginning May 2021. The apportionment distribution for the CRRSAA Program, approved on March 14, 2021 by the CTC, is consistent with the formula distribution of the Surface Transportation Block Grant Program; with a minimum guarantee of \$200,000 for each county per CTC Guidelines. The Division of Local Assistance (DLA) manages California’s local agency share of the CRRSAA funding.

CRRSAA

- [Approved Project List as of August 2022](#)
- [FHWA HIP-CRRSAA Implementation Guidance](#)
- [Process for CRRSAA Projects](#)

Eligible Project Types

- Projects that are eligible under the Surface Transportation Block Grant Program (new and existing)
- Routine maintenance/rehabilitation projects (new and existing)
- Projects funding operations
- Projects funding personnel - including salaries of employees or contractors
- Debt service payments; availability payments and coverage for other revenue losses

For more details and information regarding CRRSAA Program, click the texts below or the links to the right.

- [CRRSAA Program Guidelines](#)
- [Apportionment List](#)

Questions and Contacts

If you have questions, please contact your [District Local Assistance Engineer \(DLAE\)](#).

Continue to check this site periodically for any program updates.

Please feel free to send comments regarding this web site to the [DLA Webmaster](#).

Regional Surface Transportation Program

The Regional Surface Transportation Program (RSTP) was established by California State Statute utilizing Surface Transportation Program Funds that are identified in Section 133 of Title 23 of the United States Code.

Projects eligible for funding from the RSTP include:

- ❖ Construction, reconstruction, rehabilitation, resurfacing, restoration, and operational improvements on
 1. Federal-aid highways (i.e., on any highways, including NHS and Interstate Highways that are not functionally classified as local or rural minor collectors).
 2. Bridges (including bridges on public roads of all functional classifications), including any such construction or reconstruction necessary to accommodate other transportation modes, and including the seismic retrofit and painting of and application of calcium magnesium acetate on bridges and approaches and other elevated structures.
- ❖ Mitigation of damage to wildlife, habitat, and ecosystems caused by a transportation project funded under RSTP.
- ❖ Capital costs for transit projects eligible for assistance under the Federal Transit Act and publicly owned intracity or intercity bus terminals and facilities.
- ❖ Carpool projects, fringe and corridor parking facilities and programs, and bicycle transportation and pedestrian walkways on any public roads in accordance with Section 217 of Title 23, U.S.C.
- ❖ Highway and transit safety improvements and programs, hazard elimination, projects to mitigate hazards caused by wildlife, and railway-highway grade crossings. Safety improvements are eligible on public roads of all functional classifications
- ❖ Highway and transit research and development and technology transfer programs.
- ❖ Capital and operating costs for traffic monitoring, management and control facilities and programs.
- ❖ Surface transportation planning programs
- ❖ Transportation enhancement activities.
- ❖ Transportation control measures listed in Section 108 (f)(1)(A) (other than clauses xii & xvi) of the Clean Air Act.
- ❖ Development and establishment of management systems under Section 303 of Title 23, U.S.C.
- ❖ Wetlands mitigation efforts related to RSTP projects.

In accordance with Section 133 (f) of Title 23 of the United States Code, approximately 76% (\$225 million dollars per year) of the state's RSTP funds must be obligated on projects which are located within the 11 urbanized areas of California with populations greater than 200,000 people. (See attached map for UZAs greater than 200,000 population). The apportionment and distribution for such obligation is calculated based on relative population.

Item F Staff Report

DATE: NOVEMBER 1, 2022
TO: DEL NORTE LOCAL TRANSPORTATION COMMISSION
FROM: TAMERA LEIGHTON, EXECUTIVE DIRECTOR
SUBJECT: ZERO EMISSION VEHICLE PROJECT INITIATION PLAN CONTRACT

TAC AND STAFF RECOMMENDATION: By polled vote, award the ZEV Project Initiation Plan contract to the top-scoring firm and authorize the executive director to sign the contract and amendments necessary to complete the work authorized in the Overall Work Program.

BACKGROUND: The Zero Emission Vehicle plan is an approved project in the Overall Work Program. The work element, request for proposals, two proposals received, and standard contract language are attached. The Technical Advisory Committee is meeting on November 1 at 1 p.m. to review the scoring process and make a recommendation to DNLTC, which will be reported in this meeting.

WORK ELEMENT H Zero Emission Support Plan

2022-23 Overall Work Program Final

Expenditures		Revenue by Fund Source			
Staff Allocations and Funding Requirements					
	Amount	RPA	STIP/PPM	TDA	
DNLTC Staff		\$ 8,000.00	\$ -		
Consultant		\$ 56,875.74	\$ -	\$ -	
TOTAL	\$ -	\$ 64,875.74	\$ -	\$ -	

Note: All accounting and reporting is at the product level and all consultant costs are limited by contract. The consultant area of this work is expected to capture carryover.

Objective

This work element will develop a detailed scope of work to begin to address the regional needs to meet the Zero Emission Vehicle mandates created by Governor Newsom in 2020.

Discussion

Governor Newsom signed an executive order that bans the sale of new gasoline and diesel-powered vehicles by 2035. The California Air Resources Board mandated that all new trucks sold in California emit zero emissions by 2045. This is the initiation of what is likely to be several years of planning efforts to meet the new mandate in a balanced and respectful way.

Previous Accomplishments

Participation on the North State Super Region Zero Emissions Planning Workgroup. Transit Development Plans.

Product 1: ZEV Project Initiation

Task/Activity	Products	Schedule
Develop a Request for Proposals in partnership with the Technical Advisory Committee. Administer a consultant selection process. Responsible party: DNLTC.	Consultant selection process materials.	July - June
Project monitoring and administration. Responsible party: DNLTC.	Progress reports and invoice processing.	July - June
Establish a regional Workgroup. Responsible party: DNLTC.	Agendas, minutes, workplan.	July - September
Develop a draft detailed and prioritized workplan to address Zero Emission Vehicle and Zero Emission Bus mandates for review by Regional Workgroup. Responsible party: Consultant.	Agendas, minutes, draft workplan.	September - November
Develop and initiate a draft strategy to address the priorities set by the workplan to meet the California's ZEV and ZEB mandates. Responsible party: Consultant.	Agendas, minutes, strategy.	November - June
Prepare final workplan and strategy for approval by DNLTC. Responsible party: Consultant.	Final workplan and strategy.	November - June

Product 1 Estimate	Amount	RPA	STIP/PPM	TDA
DNLTC Staff Services	\$ 8,000	\$ 8,000	\$ -	\$ -
Consultant	\$ 56,876	\$ 56,875.74	\$ -	\$ -
Total	\$ 64,876	\$ 64,875.74	\$ -	\$ -

1225 Marshall Street, Suite 8
Crescent City, California 95531
www.dnltc.org



Tamera Leighton, Executive Director
tameraleighton@gmail.com
Desk: (707) 465-3878
Cell: (707) 218-6424

REQUEST FOR PROPOSALS

for

Zero Emission Vehicle Project Initiation Plan

for the Del Norte Local Transportation Commission

Prepared for: Del Norte Local Transportation Commission

Prepared by: Tamera Leighton, Executive Director
900 Northcrest Drive, #16
Crescent City, California 95531

Posted on: October 12, 2022

REQUEST FOR PROPOSALS (RFP) TO PROVIDE A ZERO EMISSION VEHICLE PROJECT INITIATION PLAN

A. BACKGROUND

The Region

The region served by the Del Norte Local Transportation Commission, the Regional Transportation Planning Agency (RTPA) for Del Norte County exists totally within the boundaries of Del Norte County. Del Norte County is California's northernmost coastal county, with a land area of approximately 1,070 square miles. The County is bounded by Curry County, Oregon, to the north, mountainous Siskiyou County to the east, Humboldt County to the south, and by the Pacific Ocean to the west. Crescent City, the county seat, is located roughly halfway between Portland, Oregon (330 miles north) and San Francisco, California (350 miles south). Regionally, Crescent City is located approximately 85 miles north of Eureka, Humboldt County, about 26 miles south of Brookings, Oregon and 83 miles west of Grants Pass, Oregon, and Interstate 5.

Four federally recognized Tribes are in the Del Norte region: Elk Valley Rancheria, Tolowa Dee-ni' Nation, Resighini Rancheria, and the Yurok Tribe. They are partners and leaders in advancing regional transportation.

The principal north-south route through Del Norte County is US Highway 101, which provides access to coastal towns and cities to the north and south. Crescent City is located on US Highway 101. Del Norte County has two main routes providing access to inland communities: State Route, or SR 197/US Highway 199 to Hiouchi and Gasquet, and Route 169 to Klamath Glen. SR 197/US Highway 199 connects US Highway 101 to Interstate 5 in Oregon.

The county's diverse geography includes inland mountain ranges of coniferous forests, low coastal mountain ranges with temperate forests and the Redwood State and National Parks, and rugged coastlines with gray sand beaches on the Pacific coast. The climate of Del Norte County is consistently mild along the coast, becoming more variable inland. In Crescent City and along the coastal fringe, there is minimal temperature fluctuation. Coastal daytime temperatures average 45-55 degrees during the winter months. Temperatures increase to 55-65 degrees during mid-summer and early fall months, with higher temperatures when coastal fog disperses. Inland, temperature differences are more marked. Del Norte County/Crescent City area's annual rainfall generally ranges between 70 - 80 inches, with the heaviest rainfall occurring from November through March.

Population

The California Department of Finance estimated the Del Norte County population at 28,544 in 2010. This includes a population of 21,356 within the unincorporated area of the County and 7,188 within the City of Crescent City. The projected population for 2035 is 31,328. An Economic and Demographic Profile is posted on the DNLTC website under the heading Important Planning Documents: <http://www.dnltc.org/planning>.

Organization and Management

The Del Norte Local Transportation Commission (DNLTC) is the Regional Transportation Planning Agency (RTPA) for the Del Norte County region. The DNLTC consists of six members—two members of the Del Norte County Board of Supervisors and one public member appointed by the Board of Supervisors and three council members from the City of Crescent City. With the addition of a representative of the Caltrans District 1 Director, the DNLTC Board becomes the Policy Advisory Committee.

A Technical Advisory Committee (TAC) advises the DNLTC on various transportation matters. The TAC is comprised of two representatives from the Planning and Public Works staff of the City and the County, and one representative from the Harbor District, Yurok Tribe, California Highway Patrol, Redwood Coast Transit Authority, and Caltrans.

B. SCOPE OF SERVICES

This project initiation plan will develop a detailed scope of work to begin to address the regional needs to meet the Zero Emission Vehicle mandates created by Governor Newsom in 2020. Governor Newsom signed an executive order that bans the sale of new gasoline and diesel-powered vehicles by 2035. The California Air Resources Board mandated that all new trucks sold in California emit zero emissions by 2045. This work is the initiation of what is likely to be several years of planning efforts to meet the new mandates in a balanced and thoughtful way. DNLTC is seeking a consultant who will present a methodology that meets the following general needs:

- Develop a detailed and prioritized work plan to address Zero Emission Vehicle and Zero Emission Bus mandates for review by a regional workgroup.
- Develop and initiate a strategy to address the priorities set by the work plan to meet California's ZEV and ZEB mandates.
- Prepare final work plan and strategy.

The plan will outline a path forward to transition public transit fleets and local jurisdiction fleets to EVs and create a more sustainable transportation system. This work represents Del Norte's first steps to plan to meet the challenges of transitioning a rural, isolated, and northern county to an efficient, vibrant, and robust ZEV-supporting region. A primary goal of this initial plan is to begin this transition in a way that is supported by partner

agencies and provide all agencies with the information needed to apply for detailed planning grants and project design and construction efforts in the future.

The contractor will work under the direction of the DNLTC Executive Director, who will have final approval authority over all issues involved in the review process. The contractor must provide their own office space, office equipment, transportation, communications, insurance, and other provisions necessary to be an independent contractor.

PROPOSAL SUBMITTAL REQUIREMENTS

Company Overview

1. Firm name and business address, including phone number, email address, and website.
2. Type of ownership and parent company if applicable.
3. The name of the proposed project manager for this project.

Key Personnel and Job Planning

4. Resumes of key personnel to be assigned to the project. Include length of service with the firm, professional education and years of experience.
5. If any part of the project cannot or is not planned to be performed in-house, describe the portion that would be subcontracted along with a profile of said subcontractor.
6. If you have multiple company offices, please identify the location where the majority of the work will be performed.

Relevant Experience and Capabilities

- ~~7. Please provide a list of three (3) relevant projects, including the year completed, project duration, cost, and client contact information. Provide an example of a completed project in a GIS viewer.~~

Statement of Interest and Methodology

8. A narrative describing the firm's interest, unique abilities, and value-added benefits your firm will bring to this project. (Please limit to three pages.)

Cost Proposal

9. The cost proposal shall be broken down into labor, subcontractor fees (if any), and expenses. The budget is \$56,875 for the current fiscal year ending June 30, 2023. If the proposed schedule continues after June 30, the proposal should detail the funding needed in the current fiscal year and the following fiscal year. The fee shall include all taxes, mark-ups, overhead, and profit.

Schedule of Work

10. DNLTC aspires to complete this work by June 30, 2023, but working beyond this date is acceptable.

C. PROPOSAL EVALUATION

DNLTCs Technical Advisory Committee representatives will evaluate the proposals that meet the stated requirements and will make a recommendation to the Del Norte Local Transportation Commission. Evaluation will be based on the responsiveness and comprehensiveness of the RFP response, qualifications of individuals or firm, experience/performance, and proposal contents/methodology. Cost of work will be considered in the evaluation of the proposal in terms of overall value. Proposals will be evaluated based on the following point values:

Responsiveness and Comprehensiveness:	10 points
Qualifications of Individual or Firm:	20 points
Experience/Performance:	25 points
Proposal Contents/Methodology:	30 points
<u>Value</u>	<u>15 points</u>
Total Available:	100 points

D. INSTRUCTION FOR SUBMITTING A PROPOSAL

All proposals must include the following:

1. Proposals must not exceed 30 pages;
2. An electronic copy of the proposal in unlocked PDF format.

Please direct all questions and deliver proposals to:

Tamera Leighton, Executive Director
 Del Norte Local Transportation Commission
 900 Northcrest Drive, #16
 Crescent City, California 95531
 Desk: (707) 465-3878.
 E-mail: TameraLeighton@DNLTC.org

The schedule of activities related to this contract is as follows:

October 12, 2022	RFP Issued
October <u>25, 2022</u>	<u>Proposals are due to DNLTC by 5 p.m.</u>
October 31, 2022	Review committee scoring and recommendation to DNLTC
November 1, 2022	Anticipated Contract Award
November 2, 2022	Project Start Date
June 30, 2023	Project Completion

E. TERMS AND CONDITIONS

The Del Norte Local Transportation Commission (DNLTC) is not obligated to accept any of the proposals submitted or to enter into an agreement with any of the proposers. At its discretion, the DNLTC may elect to award all or any portion of the project scope of work as defined in the RFP. DNLTC reserves the right to reject any or all responses, waive any technical requirement, and select the firm that, in the DNLTC's judgment, best meets the requirements of this project and the needs of the DNLTC.

F. PROTEST PROCEDURES

The contract protest process and procedures to be utilized by DNLTC in considering and determining all bid protests or objections regarding solicitations, proposed award of a contract, or award of a contract whether before or after award is located at <http://www.dnltc.org/about-us/rfps/>

G. STANDARD CONSULTING AGREEMENT

The selected firm shall be retained under the RTPAs standard professional services agreement. A sample of this agreement is available at <http://www.dnltc.org/about-us/rfps/>

The contract shall provide payment for services performed up to a not-to-exceed amount on a July 1 to June 30 fiscal year basis. The final Scope of Services and Schedule (Exhibit A to the Standard Consulting Agreement) will be negotiated by the Consultant and the Del Norte Local Transportation Commission.

Please direct all communications and deliver proposals to:

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
900 Northcrest Drive, #16
Crescent City, California 95531

Desk: (707) 465-3878.

E-mail: TameraLeighton@DNLTC.org

Zero Emission Vehicle Project Initiation Plan Proposal

Del Norte Local Transportation Commission

October 25, 2022

→ **The Power of Commitment**



Cover Letter

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
900 Northcrest Drive #16
Crescent City, CA 95531

RE: Proposal for Zero Emission Vehicle Project Initiation Plan

Dear Ms. Leighton,

GHD welcomes the opportunity to assist the Del Norte Local Transportation Commission (DNLTC) with the strategy, technical analysis, and guidance to develop the Zero Emission Vehicles (ZEV) Project Initiation Plan.

GHD recognizes that Del Norte County is a special place, and we are excited to work with you and showcase our expert staff and skills to support the County in its transition towards a sustainable and Zero Emission Countywide Transportation System. It is our goal to enable your vision of building a ZEV ready community, not only to meet California's decarbonization mandates, but also to continue to promote the Del Norte Region as an attractive destination – for tourism and investment – with reliable access to environmentally friendly transportation that supports the beautiful forests, rivers, coasts, and clean air for which the region is known.

As a 100% employee-owned company, part of GHD's mission is the concept of "Future Energy," which is to support the communities where we live and work in the transition towards a future of affordable, reliable, and secure low-carbon energy. Energy systems are in transition worldwide, with a corresponding effect on transportation systems, and the broader-based impact to citizens and businesses. Your project team has a solid track record of delivering across comprehensive energy and transportation projects, in rural communities as well as in cities.

Our work experience is extensive. It stretches from decarbonization vision, strategy, and funding to the technical transit planning, facility design, charging infrastructure, and logistics of public or private fleet transitions. Our work in California includes Butte County, Sonoma, the San Francisco Bay Area, the City of San Luis Obispo, and LA Metro. Our team has worked on decarbonization roadmaps in the nearby states of Arizona, Nevada, and Washington, up to British Columbia, Canada, and towards the east in Michigan and New Jersey. GHD is embedded in Australia's decarbonization efforts and worldwide. GHD has committed as a company to achieving carbon neutrality by 2025 for Scope 1, 2, and 3 emissions.

With a major office in Eureka, GHD has long been a regional partner, providing technical and professional services across the County. Most recently we have been working with Crescent City and the County on their Local Road Safety Plans, with the Tolowa Dee-ni' Nation on successful grant funding applications, and with the DNLTC on your regional mapping support through ArcGIS Online. We are committed to your success.

We are confident that our proposal addresses the requirements laid out in the RFP, and we look forward to your review and feedback. This proposal constitutes a firm offer for a period of 90 days from the date submitted. Should you have any questions, please do not hesitate to contact us.

Regards,



Frank Penry
Project Manager

707-540-9019
Frank.Penry@ghd.com



Amber Shows
Project Director

707-267-2202
Amber.Shows@ghd.com

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1. Company Overview

→ About GHD

GHD provides a wide range of technical and professional services to private and public sector clients around the globe. Our international knowledge base—leveraged with our regional expertise—positions us to add world-class value locally while maintaining sound relationships with the community and stakeholders. *Put simply, we work where our clients work.*

Firm Information

Established in 1928, GHD is a full-service international engineering firm wholly owned by our people. We are 10,000+ diverse and skilled individuals connected across five continents—Asia, Australia, Europe, North and South America, and the Pacific region. We are one of the world's leading professional services companies operating in the global markets of Transportation, Water, Energy & Resources, Environment, and Property & Buildings. Our people can offer decades of knowledge, as well as a deep understanding of the challenges facing businesses and communities today. We deliver projects with high standards of safety, quality, and ethics across the entire asset value chain. Driven by a client service-led culture, we connect the knowledge, skill, and experience of our people with innovative practices, technical capabilities, and robust systems to create lasting community benefits.

Firm and Contact Information:

Firm Name:
GHD

Address:
2235 Mercury Way, Suite 150
Santa Rosa, CA 95407
+1 707.540.9019

Email:
Frank.Penry@ghd.com

Website:
www.ghd.com

Type of Ownership and Parent Company:
C-Corp, GHD Inc.

Proposed Project Manager:
Frank Penry

GHD North America

130+
Locations

4,000+
People in North America

450+
California Staff



1.1 GHD Transportation & Future Energy Services

We've worked within the county of Del Norte since the early 2000s and have been in the surrounding areas as Winzler & Kelly for 60 years. We are known in the community for our Environmental Compliance and Planning, Transportation Planning, Road Safety, Mapping, and Geographic Information Systems (GIS) capabilities including stakeholder engagement and grant funding. We are proud to showcase our broader capabilities through this project, which include Transportation and Future Energy.

Transportation

GHD is engaged across the entire transport spectrum, from active transportation, to airports, marine, roads, highways, rail, and logistics. Our experts provide integrated services through the project lifecycle, from initial policy, planning, economics, and business case advice, through concept, procurement, detailed design, construction, to operations, maintenance, and asset management.

Working with our clients, we understand today's challenge is to not only deliver urban or rural transportation projects that meet the immediate need but to also provide optimal and sustainable community solutions that balance infrastructure investment with demand, land-use strategies, and system efficiencies. We keep a link to the significant macro lenses shaping transportation, from accessibility and multi-modal solutions to aging infrastructure, climate change, emerging technology, population growth and funding gaps.

The California transportation network is faced with many challenges as infrastructure ages, pavements fail, the population increases and ages, overall connectivity becomes more challenging and historical funding sources are no longer adequate. To add to these issues, Californians are also facing a harsh reality that our current infrastructure may fail us in an emergency event or evacuation scenario. Numerous funding opportunities have been put in place to make the changes required to improve our connectivity and will provide resilient and lasting benefits needed in our communities.

Our seasoned planners and engineers know that the key to a successful project is excellent planning, but they also consider how the project will be funded to get critical infrastructure from concept to fruition. For projects like DNLTC's, GHD has worked to ensure projects meet criteria for funding eligibility.

Planning and preparing for a ZEV infrastructure is a key area for funding, which includes both ZEV and ZEB Vehicle Incentives, Infrastructure Incentives, grants, and financing programs. GHD is proud to be a leader in grants understanding to assist our clients – we stand apart for our noteworthy capabilities:

- Maria Lehman, GHD Principal, US Infrastructure Lead, and President of the American Society of Civil Engineers (ASCE) provides GHD's oversight and close tie into the Federal Infrastructure and Investment Jobs Act (IIJA) funding protocols. She was recently appointed by President Biden to the National Infrastructure Advisory Council (NIAC). The Council advises the White House on how to reduce physical and cyber risks and improve the security and resilience of the nation's critical infrastructure sectors.
- GHD is both a preferred and approved vendor to Calstart-Energize which administers over \$80M of annual funding from the California Energy Commission (CEC) for medium and heavy-duty ZEVs including hydrogen fuel cell and associated charging and alternative fueling infrastructure.



Maria Lehman
GHD Principal and US
Infrastructure Lead

Future Energy

Governor Newsom's Zero Emission Vehicle Mandates and the California Air Quality Board Innovative Clean Transit (CARB ICT) Regulation are part of a worldwide shift in energy that will have significantly impacts on economics and communities. We are at an important tipping point, particularly in California with the ability to make changes and harness growth in renewable energy sources including wind, solar, storage, hydrogen fuel cell technology, and distributed resources that can reduce Carbon Dioxide (CO₂) emissions and underpin a sustainable new future energy system.

The capabilities and tools we've developed at the nexus of transportation decarbonization and future energy include GHD's Zero-Emission Vehicle Optimization (ZEVO) to help communities build robust and resilient transportation decarbonization roadmaps and strategies. The elements of our holistic approach (Figure 1) are comprehensive.















 <p>Decarbonization Strategy & Planning</p>	 <p>Infrastructure Assessment</p>	 <p>Multi-Modal Mobility Planning</p>
 <p>Stakeholder & Community Engagement</p>	 <p>Electric, Hydrogen, & Alternative Fuel Vehicles & Infrastructure</p>	 <p>Impact Assessment & Permitting</p>
 <p>Road Systems & Design</p>	 <p>Extreme Weather Events & Emergency Scenarios</p>	 <p>Climate Change & Carbon Accounting</p>
 <p>Water – Energy Nexus</p>	 <p>Energy from Waste & Bioenergy</p>	 <p>Energy Security & Reliability</p>

Figure 1 GHD's Holistic Approach to Decarbonization

1.2 GHD and Transportation Decarbonization



Figure 2 GHD's ZEV Tool

GHD has worked with cities, municipalities, transit agencies, schools, waste management, and emergency services to decarbonize both private and public transit fleets. Through our experience in this field, we have created ZEVTM, an integrated consulting solution that combines the knowledge across various domains that must be considered in developing a strategy, roadmap and workplan to achieve transportation decarbonization, optimize transition pathways and de-risk the process down to the vehicle selection, charging infrastructure and training level.

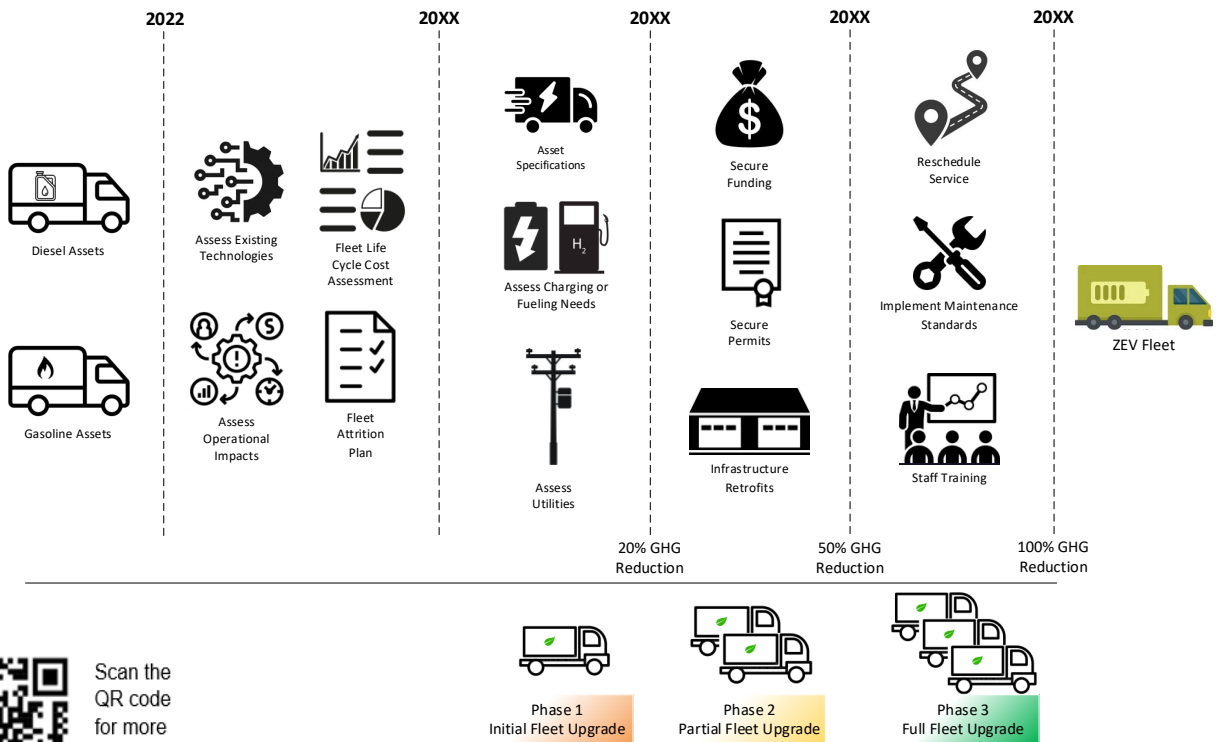
The benefits of a decarbonized fleet and what it can bring to creating a vibrant and healthy community are undisputable. For example, DNLTC stakeholders can forego more than 120 tons of CO₂ per year per asset through ZEVs, and the long-term energy and operations costs of selecting the right ZEVs can lower ongoing expenses including the rising energy costs of fossil fuels.

However, transition of a region and its fleets can be a disruptive process. GHD's approach is to walk our clients through five key areas (Table 1) in detail to ensure a robust and well-thought-out transition strategy that considers the specific community's capabilities, operational constraints, and needs.

Table 1 GHD's approach to Transportation Decarbonization

Key Factor	GHD's Capabilities
Financial	Compared to fossil fuel assets, ZEVs can be expensive to purchase but cheaper in the long term to operate. This presents a financial and operational roadblock to any organization that wants to convert to a clean fleet. Our team using ZEVO will create a baseline understanding of the expected CAPEX and OPEX expenditure associated with a clean fleet. We will present expenses and capital costs on a year-by-year basis to identify the "peaks" and to ensure that the funding structure is matched to the required investments.
Technology	There are many zero-emission technologies available in the market across battery electric, hydrogen fuel cell and other alternative fuels, and they are growing at different rates of maturity. The most developed BEVs still struggle in long-range, high-power demand and in extreme climates. From a financial and operational perspective, the variability and maturity of ZEVs poses risks to selecting new vehicles on a tight timeline. We will run simulations utilizing existing vehicle telematics to simulate ZEV performance within the context of all possible on-road variables such as stop lights, local weather, road congestion, accessory loads, HVAC, road topography and potential detours.
Infrastructure	The selected ZEV technology will also dictate the infrastructure requirements for charging/ fueling, maintenance, and the required retrofits of existing infrastructure. Our approach will assess suitability across fleet depots and transit routes to identify locations for new infrastructure to power/fuel the new vehicles, and the associated permitting and safety protocols.
Operations	ZEVs have different operational needs than traditional vehicles, and fleet operators have spent decades optimizing their fleets to a diesel, gasoline or in some cases CNG operation. We will assess the existing fleet, looking at the current vehicle drive-cycle and duty-cycle to allow operators to appropriately right size their new fleet to complete a normal day's operational requirements.
Energy	The supply chain for both EV and FCEV is still evolving and not 100% predictable. Stability of this supply chain will be challenged as more and more vehicles transition to ZEVs. ZEVO creates a baseline assessment of the available energy sources to outline needs that can then facilitate direct conversations with local energy providers to ensure that the infrastructure is planned, available and resilient enough to meet the demand.

GHD's ZEVO and transportation decarbonization toolsets will assess each of the five key areas outlined above and will be the foundation to create a multi-year workplan. Figure 3 depicts a 3-phase transition workplan which started with a pilot to gain firsthand knowledge while building local engagement and understanding. As part of GHD's ZEVO services we will work with DNLTC to create the appropriate strategy, roadmap and prioritized workplan for your fleet and community.



Scan the QR code for more details on GHD ZEVO™

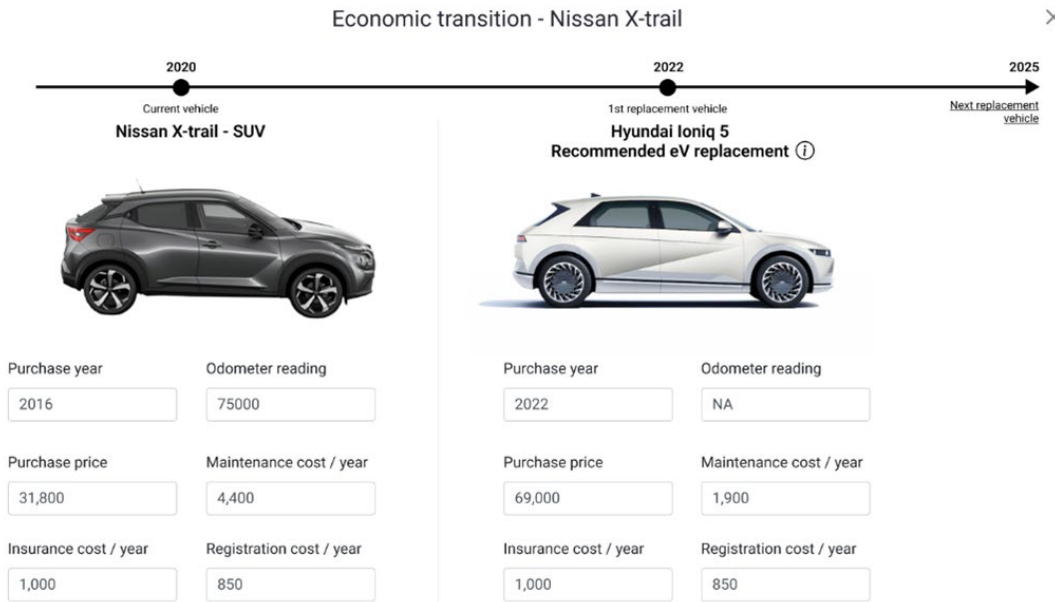
Figure 3 Three-Phase Transition Work Plan

1.3 Our Subcontractor, Everergi



GHD has chosen Everergi as our subconsultant to assist in delivering the ZEV Project Initiation Plan for the Del Norte Region. Founded in 2016, Everergi is one of the world's foremost zero emissions fleet transition management companies. They offer software-as-a-service solutions for zero emission bus and vehicle transitions, along with related advisory services. Everergi has worked with over 200 municipalities on their zero-emission bus and vehicle transitions. Locally, this includes working on fleet transition and electrification for the Department of Parks and Recreation in California, the City of San Mateo (CA), Nassau County (NY) and the City of Detroit (MI). Everergi is also active in transit decarbonization in King County Metro (Seattle, WA), TheRide (Ann Arbor, MI) and SunTran (Tucson, AZ). We have assessed Everergi's team, tools, qualifications, and culture; together we can provide the right benchmarks to DNLTC to establish the ZEV Project Initiation Plan and considerations for the future. Everergi's specific role is outlined in the Personnel and Job Planning section.

Everergi will provide access to its **BetterFleet™** operating platform in this project. BetterFleet complements GHD's ZEVO services by being a public facing solution for fleet operators and owners providing planning, optimization, and management abilities. This platform offers self-serve options for DNLTC staff and stakeholders to do vehicle comparison in terms of financial, environmental, energy and operational outcomes on their own during the project and gain familiarity with different scenarios.



2. Key Personnel & Job Planning

Your project team leverages local and expert California staff while also drawing on specialist technical resources. We have selected core team members across ZEV strategy, policy, transit planning, and electrical design, as well as specialists in ZEV/ZEB technology, equity, policy, and funding analyses to develop DNLTC's ZEV/ ZEB strategy and workplan.

The team of proposed key individuals and specialists are available and committed to working with you to execute the ZEV Project Initiation Plan. We have structured our team with a program approach to ensure that each project aspect has a relevant lead assigned, and to ensure effective project management and responsiveness from us to you. We are confident that the output from this accomplished team will help DNLTC understand the ZEV/ZEB mandates, develop a strategy, and a prioritized and detailed workplan across the key areas impacted by long term and sustainable transportation decarbonization efforts.

2.1 Your Team

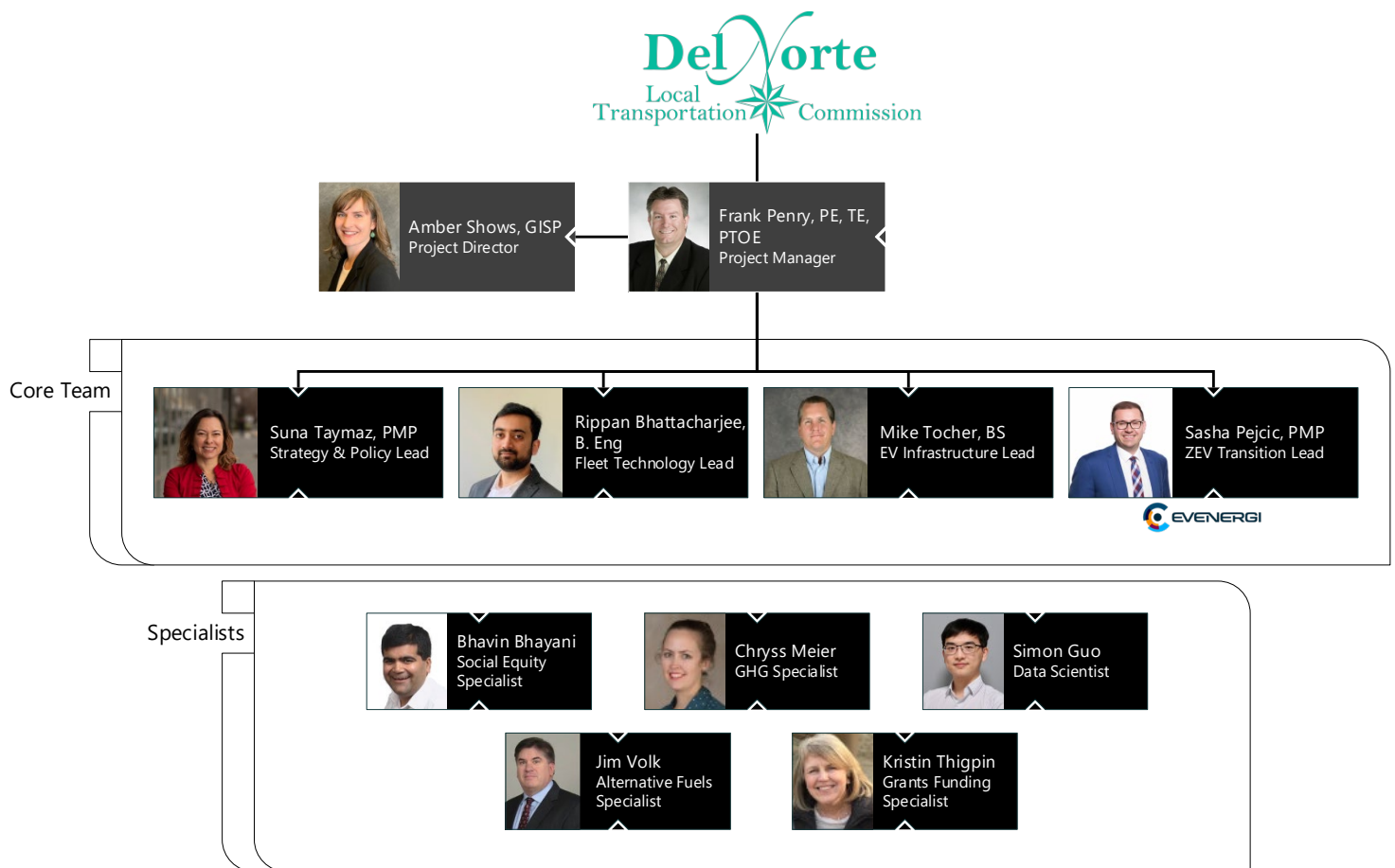


Figure 4 Organizational Chart

2.2 Key Personnel – Core Team

Amber Shows, GISP **Project Director**

Years of Experience / Length of Service with GHD: 14 years / 10 years

Office Location: Eureka, CA

Professional Education: Master of Science, Nature Resources; Bachelor of Science, Biology; Bachelor of Arts, French & Environmental Studies

Summary:

Amber will serve as the Project Director. As such she will be accountable to the DNLTC for the success of the Project. She will be an advocate for the Project within GHD, providing oversight for both the delivery and quality controls. Amber has over 14 years of experience in geospatial data management and analysis on projects throughout California. Her local project management experience includes projects with California municipalities, planning organizations and multistakeholder groups. As an everyday EV driver in nearby Humboldt County, Amber will be the local touchstone for the GHD team in making sure the Project Initiation Plan strategy and roadmap fits the Del Norte Region and its most important needs.

Relevant Project Experience:

- Project Manager Project Manager – Regional Transportation Mapping Project – Del Norte Local Transportation Commission, Crescent City, CA
- Project Manager – GIS Professional Services – City of Arroyo Grande, CA
- Project Manager – North Coast Fisheries Mapping Project – Humboldt Fishermen’s Marketing Association, Humboldt, CA

Frank Penry, PE, TE, PTOE **Project Manager/Transit Infrastructure Improvement Lead**

Years of Experience / Length of Service with GHD: 25 years / 15 years

Office Location: Santa Rosa, CA

Professional Education: Bachelor of Science, Civil Engineering

Summary:

Frank is the Project Manager, responsible for planning, managing project execution, and coordinating all aspects of your project and the team. Frank will work with the primary objective of assuring the team complies with the project plan and deliverables. He is a registered Traffic Engineer and Civil Engineer in California, with certification as a Professional Traffic Operations Engineer (PTOE). Mr. Penry has 26 years of experience in transportation project planning, transit, and traffic engineering design, he will also serve as Del Norte’s Transit Infrastructure Improvement Lead. His experience includes traffic operations; transit infrastructure design; transit circulation, feasibility, and construction; Intelligent Transportation Systems (ITS) and Transit Signal Priority (TSP); environmental studies and documents; facility circulation, roadway improvements, and intersection design. Frank has provided services for transit operations and facility development to Sonoma Marin Area Rail Transit (SMART), Mendocino Transit Authority, Marin Transit, AC Transit, Golden Gate Transit, B-Line - Butte County Association of Governments (BCAG), Santa Rosa CityBus, Bay Area Rapid Transit (BART), Petaluma Transit, and many others including ZEV & ZEV Infrastructure planning and design.

Relevant Project Experience:

- Senior Traffic Engineer/Infrastructure Lead – San Luis Obispo Transit Yard Solar, Battery Electric Bus Charging, and Bus Parking Optimization Study – City of San Luis Obispo, CA
- Senior Traffic Engineer – Mendocino Transit Authority Maintenance Facility Expansion – Ukiah, CA
- Project Manager/Traffic Engineer – Redwood & Grant Transit Center Improvement Project (RGTP) – Marin Transit
- Project Manager/Traffic Engineer – AC Transit A&E On-Call, Line 51 Corridor Delay Reduction & Sustainability Project – Alameda-Contra Costa County Transit District

Mike Tocher

EV Infrastructure Lead

Years of Experience / Length of Service with GHD: 25 years / 16 years

Office Location: San Luis Obispo, CA

Professional Education: Bachelor of Science, Electrical Engineering

Summary:

Mike will act as the Electrical Design Lead, informing and coordinating the electrical infrastructure needs assessment of the Zero-Emission Rollout Plan within existing or proposed facilities. He is a registered Electrical Engineer and has over 25 years of diverse experience managing and designing renewable energy projects (feasibility studies, photovoltaic, methane fueled cogeneration, etc.). Mike provides construction management services for projects, including transit and industrial facility projects, commercial buildings, and institutional facilities. He also has specialized experience managing, designing, and implementing automation and control systems that include network-based SCADA systems for various environments including municipalities, institution and industrial applications and coordinating those projects with local energy service providers, such as Pacific Gas & Electric.

Relevant Project Experience:

- Senior Electrical Engineer/Electrical Lead – San Luis Obispo Transit Yard Solar, Battery Electric Bus Charging, and Bus Parking Optimization Study – City of San Luis Obispo, CA
- Project Engineer – Sustainability Implementation Study – San Diego Unified School District, CA
- Project Manager – Renewable Energy Feasibility Study and Master Plan – New Camaldoli Hermitage, Big Sur, CA

Suna Taymaz, PMP

Strategy and Policy Compliance Lead

Years of Experience / Length of Service with GHD: 20 years / 2 years

Office Location: San Francisco, CA

Professional Education: Master of Business Administration (MBA); Bachelor of Commerce

Summary:

Suna will act as the Strategy & Policy lead and has experience leading strategy, business, and technology solution development in energy, transportation, and infrastructure. She has successfully led efforts to digitize city records to better serve citizens, develop advanced analytics platforms to determine optimal and equitable siting of Electric Vehicle and Fuel Cell electric vehicle charging /hydrogen fueling infrastructure, and strategy and roadmaps for utilities and transportation entities.

Prior to GHD, Suna led strategy and market development for innovative transportation businesses (Connected, Autonomous, Shared and Electric Vehicles) including successfully garnering \$7M+ grant funding for public agencies. Prior to that, Suna led strategy and technology innovation at PG&E to develop renewable energy strategy (electric and gas), Smart Grid technologies to integrate distributed generation, storage and elective vehicles into electric operations, hydrogen strategy, and regulatory filings with local, state, and federal agencies.

Relevant Project Experience:

- ZEVO Strategy: Define user requirements for the Zero Emission Vehicle Optimization (ZEVO) Tool for entities transitioning to ZEV/ZEB, considering policy, funding strategies, grid carbon intensity, and electric and hydrogen infrastructure – Various CA entities
- Project Director – Hydrogen Infrastructure Strategy & Roadmap: Work with the Hydrogen Business Council to set the entity's strategic priorities including economic development, stakeholder, and funding analysis – Toronto, Canada (remote via California)
- Technology Lead, PG&E, various projects: Define strategy and technology for various PG&E efforts including natural gas pipeline decarbonization, customer energy programs tool development, and smart grid "Digital Twin" vision and roadmap – San Francisco, CA
- Pre- GHD: Ran transportation projects for car shares, electric vehicles, hydrogen fuel cell vehicles, autonomous vehicles and supporting in infrastructure in Concord, Oakland, Sacramento CA, and Las Vegas, Nevada

Rippan Bhattacharjee, B.Eng. **Fleet Technology Lead**

Years of Experience / Length of Service with GHD: 7 years / 2 years

Office Location: Vancouver, British Columbia

Professional Education: Bachelor of Science, Mechanical Engineering

Summary:

Rippan will support DNLTC's Project Initiation Plan as the Fleet Technology Lead. He has a keen focus on the low emission fleets that are being adopted by transit agencies across the world. He is passionate about zero emission technologies in the transportation industry and as an engineer, Rippan strives to create clean, reliable, and actionable data which can be used to confidently make decisions around fleet decarbonization. Rippan has led GHD's development of ZEVO an integrated software solution for optimizing fleet transition scenarios. ZEVO has been successfully utilized by fleet operators in the US, Canada, and Australia to build robust and resilient fleet transition roadmaps.

Prior to GHD, Rippan has extensive experience working for a major Transit Agency in British Columbia where he was Project Manager for the \$12M Smart Bus Program. This program was a large-scale change management exercise which utilized various transit technology to identify operational efficiencies, increase ridership, and optimize fleet operations.

Relevant Project Experience:

- ZEV Specialist, Fleet Assessment for RNG Utilization and Electrification, City of Tucson, AZ
- Fleet Technology Lead, Range Modelling a Transit System using GTFS data, Regional District of Nanaimo, BC
- Project Manager, Zero Emission Mobility Planning for Light Duty Vehicles, AMSS – Western Australia
- Decarbonization Specialist, Fleet Decarbonization Strategy for Mining Equipment, Rio Tinto
- ZEV Specialist, Fleet Decarbonization Strategy for Mining Equipment, Rio Tinto

Sasha Pejic, PMP **ZEV Transition Lead**



Years of Experience: 22 years

Office Location: Toronto, Ontario

Professional Education: Bachelor of Arts, Finance Specialization & Applied Studies – Human Resources Management Specialization

Summary:

Sasha leads Everergi's Canadian and US companies and will serve as the ZEV transition lead for DNLTC. He is responsible for customer experience, operations, growth, strategy, and performance management. Additionally, Sasha acts as Everergi's Global Bus Lead, lending technical knowledge and expertise to Zero Emission Bus projects across the world.

As a management consultant, Sasha supports transit agencies, fleet operators and other related industries (utilities, equipment suppliers, etc.) with the transition to zero emission vehicles, both battery electric and hydrogen fuel cell.

Sasha also works with transit agencies to rationalize their services to grow ridership, improve customer satisfaction, and maximize cost efficiencies. Sasha has successfully led a 100+ portfolio of diverse transit projects, including 30+ in the zero-emission bus and vehicle space.

A demonstrated leader in transit, Sasha is an ENO Center for Transportation alumnus. He proudly serves on the Board of Directors for the Ontario Public Transit Association (OPTA), serves on the Zero Emission Bus Task Force for the California Transit Association, and is involved with numerous industry committees of APTA, CUTA and CTA. He is a thought leader in ZEBs and has authored blogs and articles for Metro Magazine on the integration and transition to a ZEB fleet. Additionally, he recently authored a chapter on ZEBs for best-selling book, The Future of Public Transportation. Sasha was named one of Mass Transit's Top 40 Under 40 in 2018.

Relevant Project Experience:

- Interim Base Predictive Energy Modeling – King County Metro – Seattle WA
- Regional Electric Vehicle Charging Infrastructure "Toolkit" – Southeast Michigan (3 counties) – Detroit, MI
- Sacramento County ZEB Rollout Plan and Short-Range Transit Plan – Sacramento, CA
- Golden Gate Bridge Highway & Transportation District Zero Emission Bus Rollout Plan and Analysis Services – San Francisco, CA

2.3 Personnel – Specialists

Name, Title	Summary
Jim Volk Alternative Fuel Specialist	<p>Jim is a global leader in hydrogen technology and project development, including implementing first-of-its-kind retail hydrogen fueling stations in California and New York while with Shell Hydrogen. Jim’s experience in advanced hydrogen technology development including electrolysis, power generation, energy efficiency, hydrogen for transportation, CO2 and energy management and environmental project development. Jim also has experience with hydrogen blending into natural gas pipelines for several mid-west utility companies. Past roles include Vice President for Shell Hydrogen LLC, Chairperson-elect for The California Fuel Cell Partnership, Board Member for National Hydrogen Association, and member of Shell Oil’s Renewables Leadership Team. Jim holds seven US Patents. Jim’s hydrogen fueling experience in California includes working with UC Davis on various transportation studies, the California Energy Commission, and the California Air Resources Board.</p>
Bhavin Bhayani Social Equity Specialist	<p>Bhavin is a skilled ideator who is driven by an intrinsic curiosity about client challenges and providing equity for all sections of society. Bhavin leads the development of Advanced Analytics offerings for several Service Lines at GHD guided by his more than 10 years of diverse experience of operations management and design of public and private infrastructure. His interests include development of analytical/statistical methodologies, whose collective goal is to support teams in all stages of a project. He achieves this with a deep knowledge of what’s possible using the latest data science tools including artificial intelligence and machine learning (AI/ML) technologies.</p> <p>His work on equity and funding was recognized at the American Water Works Association 2022 Transformative Issues Symposium (TIS22), where he presented his latest analytics on the influence of demographics and environmental risks with regards to service levels, public health, delinquency reduction, and public infrastructure. Recently he has also been leveraging the Environmental Justice framework to develop a “Circular Economy” model for a client to upskill the resident population and retain the proceeds from capital projects within the community.</p>
Kristin Thigpen Grants Funding Specialist	<p>Kristin has 22 years of experience in strategic planning, communications, community engagement, and funding program management. She has consulted on engagement and conservation projects for academia, private sector clients, government, and non-governmental organizations. Kristin has developed and administered grant programs and directed communications programs and stakeholder engagement. She has experience working with regulatory agencies on compliance and permitting in conservation, solid waste, recycling, hazardous waste, and wastewater.</p> <p>Kristin was also the funding and engagement manager for an energy efficiency start-up, Energy Elective (EE), focusing on strategic planning for their micro-grid integration business which partnered with local low-income housing, microgrid, battery, and electric vehicle advocates as part of its business model. She researched and monitored various state energy grants, collaborated with Climate Protection Authorities, Transportation Authorities and was responsible for research and outreach to smart-home technology, electric vehicle, and battery storage strategic partners.</p>
Simon Guo – Data Scientist	<p>Simon is a data scientist with over eight years of experience in the engineering and quantitative analytics fields, specializing in developing and executing scalable AI and analytics solutions using data analytics, data mining and machine learning capabilities in transportation, waste management, emission, health, and safety (EHS), and oil & gas pipelines. Simon has been working with clients as part of multiple ZEVO teams. He leads the analytics for activities such as Battery Electric Bus Range Modelling for the Regional District of Nanaimo and light-duty Fleet Decarbonization for Asset Management Support Services for GHD Australian teams. Simon was responsible for building the ZEVO tool’s data processing and analysis pipeline, from initial data collection, cleansing, consolidation, analysis to building the calculation model and automating data processing framework using programming scripts on various decarbonization projects.</p>
Chryss Meier – Greenhouse Gas (GHG) Specialist	<p>Chryss has 15 years of experience as an environmental planner, with a specialty in air quality and greenhouse analysis, responsible for the preparation of documents for compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). She has prepared environmental documentation and technical analysis for a variety of projects, including general and specific plans, schools, multi-use development, planned communities, redevelopment, industrial and warehouse, airport infrastructure, Sphere of Influence and incorporation proposals, transportation and transit improvements, and other infrastructure. She has successfully managed the preparation of Environmental Impact Reports (EIR), Initial Studies and Mitigated Negative Declarations (IS/MND’s), Categorical Exemptions, and State Revolving Fund CEQA-Plus packages. In addition, she has been involved in the management and preparation of combined EIR / environmental assessments, transportation conformity analyses, and air quality and GHG technical reports. She has also provided training courses on implementation of CEQA, modeling and analysis procedures, and organized and led meetings with public agencies, interest groups, and consultants. She has prepared air quality and GHG analyses using computer models, such as the CalEEMod, EMFAC, and CALINE air quality models.</p>

3. Relevant Experience and Capabilities

3.1 Project References

We have provided four references below: three recent references from our ZEV services and one from Everergi.

Reference Project #1 – Fleet Assessment for RNG Utilization and Electrification

Client

City of Tucson, AZ

Project Timeline

March 2021–Ongoing

Value

\$143,000

Address

255 W Alameda St,
Tucson, AZ 85701

Client

Michael Catanzaro
520-837-6325

**This project is a 2022
ACEC-BC Award
nominated project**



Description

The City of Tucson (COT) aims to achieve full carbon neutrality by 2030 through electrification or other forms of zero/low emission technologies. COT commissioned GHD for a feasibility study to explore and develop their fleet electrification roadmap and interim utilization of landfill gas (LNG) to power the city fleet and transit buses.

Methodology

GHD assessed the needs of the existing fleet through scenario-based analysis in ZEVO and developed an implementation plan for transitioning COT's fleets to ZEVs. Additionally, we provided analysis and recommendations on the viability of utilizing RNG from the landfill to power the fleet as a potential low-carbon pathway to carbon neutrality. Each fleet group was defined by weight class and assessed by build year, model, make/OEM, fuel type (CNG, Diesel), odometer reading, fuel consumption, maintenance expense, amortization period, purchase cost, asset expiry date, and service life of the asset from OEM. Fleet assessment and various transition scenarios to electrification were achieved in ZEVO by:

1. Compiling a database of commercially viable zero and low emission vehicle technologies in North America suitable to operate in the hot and dry conditions of Arizona. All possible vehicle types were covered including, transit buses, refuse trucks, utility trucks, cars, and vans.
2. Analyzing the duty cycle and drive cycle of each vehicle type to identify trips and routes that are potentially unviable for ZEVs. This activity was done to determine the magnitude of service restructuring that would be needed to support a full ZEV operation.
3. Developing the future fleet make-up using the market researched ZEV technologies in collaboration with City's Project Team wherein, both battery electric and CNG/RNG options were considered and implemented.

Once the scenarios and future fleets were built, they were incorporated into the broader techno-economic decision-making model in ZEVO, which included:

Financial Modelling including the CAPEX and OPEX of operating the current fleet and the zero-emission fleet. Environmental Modelling wherein the overall GHG emissions were compared for the baseline and zero emission fleets. Energy Modelling, which provided forecasts on usage of diesel, gasoline, CNG, RNG and electricity including the peak demands and costs.

All deliverables associated with this project have been delivered on time and within budget.

Reference Project #2: Transit Fleet Electrification — Predictive Analysis and Modelling

Client

King County Metro, Seattle WA

Project Timeline

Jan 2022 – Sep 2022

Value

\$35,000

Address

201 S Jackson Street
Seattle, WA 98104

Client Contact

Kevin Kibet
206-263-1553

King County Metro (KCM) is the Puget Sound region's largest public transportation agency and 8th largest in the United States. KCM has retained Everergi to conduct predictive energy modeling and in-depot simulation for its to be constructed Interim Base, home to 124 pantograph-only battery electric buses (64 articulated buses, 60 forty-foot buses).



Everergi is using BetterFleet™ to undertake predictive modeling and analysis. To complete this work, Everergi is, among other tasks, modeling the state of charge of buses as they enter depot, based on-route energy requirements modeling; modeling the state of charge as buses leave the depot, with expectations of the energy required to complete the next assigned block; modeling the state of charge impacts based on agreed worst case scenarios, such as route detours, high passenger loading and temperature extremes; and modeling the movement of buses as they enter the depot into pre-agreed “zones” each of which may consist of a number of “lanes” or “spaces.”

All phases and tasks as part of this ongoing engagement are currently on time and within budget.

Reference Project #3 – Line 97 South County Major Corridor Performance Initiative Project – On-Call A&E Services

Client

Alameda-Contra Costa Transit District (AC Transit)

Project Timeline

Oct 2018 –

Value

\$332,680 (CM Services)
\$2,816,300 (Construction)

Address:

1600 Franklin Street
Oakland CA 94612

Client Contact

Will Buller
510-891-5414

Project awarded 2019 Transportation Project of the Year, by North Coast Chapter of ACEC



AC Transit’s Line 97 route, one of the 11 high ridership routes in the service area, extends 8.4 miles from the San Francisco Bay Area Rapid Transit District (BART) station to the Union Landing Transit Center.

This Transit Performance Initiative (TPI) project represents a critical investment in the communities served by AC Transit, intended to enhance corridor traffic, reduce fuel consumption and vehicle emissions, and improve safety and transit operations at 47 signalized intersections, as well as implement transit stop improvements and Transit Signal Priority (TSP). Additionally, the project guided deployment of an adaptive traffic signal system at 34 intersections along Hesperian Boulevard, from San Leandro to Hayward, easing congestion by adjusting signal timing to accommodate changing traffic conditions in real time.

Our team’s primary challenge was during project delivery, specifically coordination and construction management of the project on time and on budget for a “before-and-after” study analysis. Our team navigated a complex matrix of jurisdictions, design and supply teams, prime contractor, and subconsultants during systems integration with a strong technical understanding of project development, design, and construction risks, as well as through well-managed relationships with local jurisdictions and design and construction team members.

All phases and tasks as part of this ongoing engagement are currently on time and within budget.

Project #4 – Range Modelling a Transit System using GTFS data

Client

Regional District of
Nanaimo

Project Timeline

August 2021

Value

\$23,000 (equivalent)

Address

6300 Hammond Bay Road
Nanaimo, BC V9T 6N2

Client Contact

Erica Beauchamp
250-668-2167



Description

BC Transit's Low Carbon Fleet Program is an ambitious project to meet the CleanBC mandate by electrifying all fleet assets by 2040. This includes the Regional District of Nanaimo's (RDN) fleet of buses. RDN needed to understand the operational impacts of BEBs before they are deployed.

RDN engaged GHD to use ZEVO to range-model its entire transit system, including all routes, blocks, and trips to plan for fleet electrification. The analysis gave RDN a service breakdown of how a BEB fleet would function, the type of charging infrastructure it would require, and where that infrastructure would need to be placed on the route network.

Methodology

Information Gathering – GHD began by undertaking several information gathering sessions with RDN Transit to understand its transit system in Nanaimo. The system's Google Transit Feed Specification (GTFS) feed was quickly identified as the study's primary data source that gave the team with specific data points for, routes, timed stops, schedule blocks, and run times.

Data Parsing and Clean-up – GHD's Digital team created a Python-based script program to parse the GTFS feed and develop a framework to quickly process the same data in different operating scenarios. We mapped the total number of blocks, trips, and routes for various operating conditions.

Scheduling – The weekday period was chosen as the basis for BEB viability study. Each bus was assigned a morning block and an evening block to simulate peak commute demand. The operating parameters of each bus was factored into the range model and charging strategy.

Physics Model – Once the transit system was mapped, GHD processed the simulated schedule data through ZEVO's physics model that considered various on-road factors such as topography, local weather, stop light event, traffic congestion, air resistance, and road friction and estimated the necessary energy and power to complete a single run by the BEB.

Data Visualization – The processed dataset containing all the information was fed into ZEVO's PowerBI data visualizer to present the outcome of the study to RDN in an effective and modern manner. The key outcome was a list of viable and unviable service blocks in a future BEB service. A secondary outcome was a prioritized list of layover points for on-route charging infrastructure.

All deliverables associated with this project have been delivered on time and within budget.

3.2 Other Relevant Experience

GHD's experience in California and beyond, related to both transit planning and preparing for alternative fuel transportation methods, is significant as many of our clients are somewhere along the decarbonization journey. Our experiences across the strategic planning, permitting, and technical implementation levels give us insight into how to effectuate the smoothest project initiation and planning, then through to the detailed and prioritized workplan level.

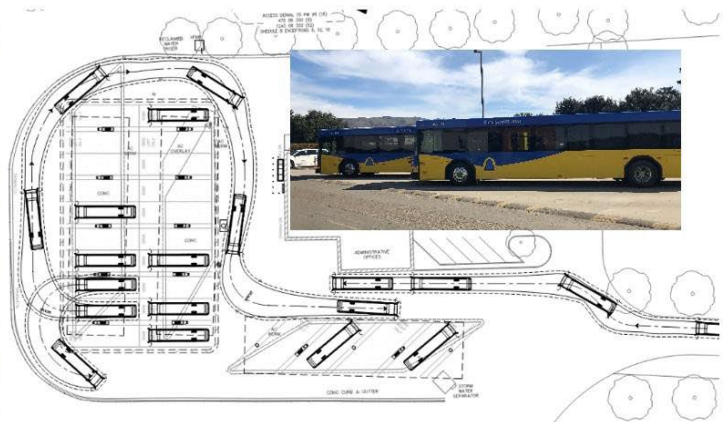
We illustrate our involvement across the spectrum of ZEV planning in the project summaries shown below.

Strategy | In 2018, GHD drove Western Australia's EV charging strategy that drove investment and regional collaboration to deploy public EV chargers. GHD developed an EV Charging Technical Guidance Report as well as an EV Charging Business Models Report for government led deployments.

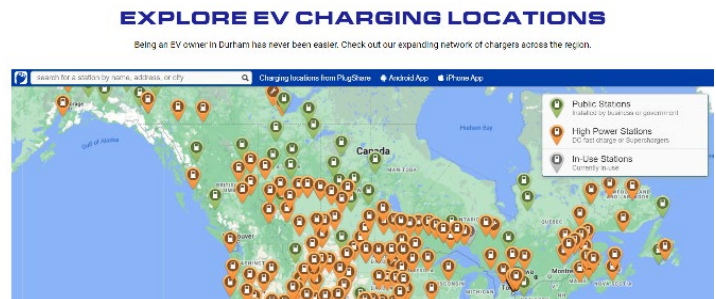
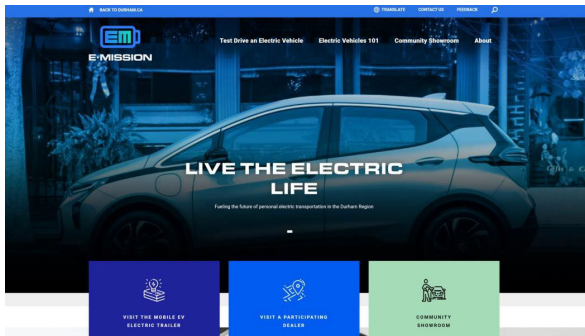
School Bus Fleet Transition Plan | GHD is collaborating with a school district in British Columbia to develop a fleet transition roadmap for its 43 fleet assets. As part of the effort GHD reviewed grant eligibility and was able to enable the school district to apply for and receive approval for \$20,000 in grants and rebates.

Electric Vehicle Charging Stations Evaluation and Implementation | In Sonoma County, GHD worked with an on-call Electrical Contractor to install electric vehicle charging stations that had been pre-purchased by the County. Site-specific drawings were adapted for over one dozen different identified sites. Each site-specific design included determination of a feasible source of electrical power for a new charging station, coordination with the local electric service owner, and layout and routing of electrical circuit facilities.

Technical Implementation | In 2019, GHD assessed San Luis Obispo's (SLO) transit yard for its solar array, zero-emission bus parking and a charging facilities plan, as one step of many towards the city achieving a 100% zero emission fleet by 2040. Our integrated approach was able to provide SLO with detailed recommendations ranging from circulation, parking layout and restriping, through to charging infrastructure placement, participation in PG&E's EV Fleet Program, and outlining EV infrastructure maintenance procedures.



Citizen Adoption | In 2020, GHD designed the website for the City of Durham (at right) in Ontario, Canada, to maximize awareness and adoption of electric vehicles. The website boosted public engagement with the City and integrated into a real-time, interactive map of EV charging locations across North America.



4. Our Statement of Interest and Our Methodology

We have outlined above our Company, our Tools, our Team, and our Projects. We are excited to work with you, and we will now outline the specifics of our approach and the “How.”

We propose a two-phase Scope of Work to complete this project. Phases **1: Scenario Based Planning** and **2: Decarbonization Strategy and Work Plan** are described below and depicted in the subsequent page.

Phase 1: Scenario Based Planning

This phase consists of the strategy, planning and data collection to form the basis of DNLTC’s ZEV Project Initiation Plan. We will build the baseline requirements for a ZEV fleet based on mandates and current vehicle operations. We will develop multiple fleet transition scenarios for the Region. From the scenarios, you will be empowered take a decision on the optimal Work Plan from a financial, environmental, energy, infrastructure, operations, and utility perspective. This will provide the regional workgroup with the knowledge to pick a pathway for further development.

The key tasks within this phase include:

- a. **Data Validation and Establishing a vision:** We will meet with stakeholders including the fleet managers to discuss available data, asset management practices, day-to-day vehicle operations, and infrequent/special vehicle use cases. We will:
 - Gather information and data from DNLTC stakeholders on their fleet and operations
 - Review the various pathways considered or available for decarbonization
 - Review various funding mechanisms
 - Create a list of California policies and mandates that apply to the Del Norte Region and the corresponding emission targets and KPIs associated with each
 - Preliminary market scan of available ZEVs within the local and state jurisdictions
 - Validate the data received, flag any errors/omissions, and create a risk register to account for any assumptions or exclusions
- b. **Fleet Analysis:** An integral part of planning for future fleets, we will perform predictive energy modelling and complete a quantitative analysis of current fleets to inform the future fleet. We will:
 - Perform iterative **simulations** of different zero-emission transition scenarios to identify the optimal outcomes for the Region.
 - Once initial scenario simulations have been completed, we will work closely with you to ensure our modelling effort has captured the appropriate assumptions and is **optimized** for factors including total cost of ownership (TOC), Cost/Benefit analysis, flexibility of the plan for future needs, and compatibility with existing local capabilities and skillsets.
- c. **Sensitivity Analysis:** As the market and technology for ZEVs is rapidly changing, we will conduct sensitivity analysis that enables a risk-based approach to decision-making under uncertainty. Variables that we test in the sensitivity typically include zero-emission vehicle costs, infrastructure costs, electricity and demand prices, and battery life. Once your data has been loaded into our tools, we can easily run different EV transition scenarios and compare to the “business as usual” scenario of continued ICE vehicle operation.

Phase 2: Decarbonization Strategy and Work Plan

In this phase of the project, we will document and validate the strategy and prioritized workplan based on the optimal scenario identified from Phase 1. Phase 2 includes both Infrastructure Strategy and Fleet Strategy and validates the technical ability to achieve the ZEV transition within the context of the Region’s constraints and preferences.

This phase will aim to identify the procurement needs for DNLTC and its stakeholders. The outcomes and findings from the prior predictive modelling will be translated into a work plan with an emphasis on next steps for the transition to zero-emission vehicles.

The key tasks within this phase include:

- a. **Decarbonization roadmap:** We will provide insights for:
 - The most feasible fleet strategy which identifies when existing fleet vehicles should be replaced, and which ZEVs should be purchased
 - Vehicle deployment plan which shows how ZEVs are deployed, and what changes in day-to-day operations may be required for ZEV compatibility
 - Fleet make-up which provides the ideal make-up of the fleet between different ZEV technologies (EVs, Hydrogen, Hybrids, etc.) and classifications (Class 1 – 8)
- b. **Infrastructure Strategy.** We will
 - Provide a summary of the capacity analysis and high-level schematic design of the proposed charging infrastructure
 - Identify the number and type of energy/charging systems required
 - Budget estimation for necessary electrical upgrades and purchase of chargers and other fueling systems
- c. **Sustainment Strategy.** We will:
 - Explore sustainment strategies in terms of maintenance requirements for both mobile and fixed assets.
 - Characterize social equity metrics around deployment of ZEVs to ensure that benefits from this roll-out is realized for all residents of the county and the general area
 - Develop an engagement strategy that garners feedback from the regional work group and applies towards the Work Plan
 - Funding model that looks at the various incentives, grants, loans, and rebates available and ensuring that the overall workplan meets the mandates set by the California government CARB and ICT

Outcomes from the analysis and strategy work will be compiled into the Work plan, which will include:

- Asset specific business case including details such as life-cycle costs and potential savings by transitioning to ZEVs
- Identify complexity of adopting ZEVs in terms of local codes, vehicle modification, dealership network for provisioning spare parts
- Develop a preliminary implementation plan including detailed budget, carbon targets, emissions assessment, and recommendations on change management and risk mitigation

Procurement and Implementation Assessment (Optional Task)

The Del Norte Region is at the early stages of its decarbonization journey. As it progresses, we anticipate natural next steps for the Region to include:

- Fleet Procurement Assessment to confirm the requirements for the fleet assets and flag any issues/constraints around supply of ZEVs. This would also incorporate the fleet growth rate and right-sizing forecasts
- Energy Procurement Assessment to confirm the engineering requirements around on-site energy supply including understanding the local codes/standards for upgrades and the requirements for procurement of charging/fueling systems
- Change Management to identify resourcing gaps in terms of personnel and skills and build a staff training model
- Compile the above into a detailed Procurement and Construction schedule with Class-D estimates for budgeting which would consequently lead to the development of RFIs, RFPs and ITQs as needed.

01 Data Validation

02 Fleet Analysis

03 Strategy

04 Work Plan

05 Optional Tasks

Project Management

- Project set-up
 - Introductions
- ↓
- Kickoff meeting**
- Introduce team and identify stakeholders
 - Define roles
 - Validate schedule and scope

Research and market scan

- Review policy & strategies around climate change action
- Market research on viable ZEVs and potential funding programs

Data Check

- Define the vehicle types in the fleet
- Define vehicle routes for all fleet vehicles
- Identify and fill in data gaps through extrapolation
- Risk-register for missing data

Simulation

- Intake fleet data and determine operational viability of each asset
- Establish baseline fleet operating metrics (fuel usage, etc.)
- Calculate current total CO2 emissions and other pollutants

Optimization

- Determine energy demands and vehicle range requirements
- Pinpoint required charging / fuelling locations
- Financial, environmental, energy, and infrastructure analyses by scenario

Sensitivity Analysis

- Stress test various parameters that can affect the fleet transition plan
- Setup and display fleet transition data within ZEVO's dashboards

Workshop #1

- Review outputs and insights per scenario
- Select most suitable pathway for further exploration

Infrastructure Review

- Review current state of existing infrastructure
- Evaluate site constraints and capabilities
- Review site servicing plans

Fleet Strategy

- Optimal fleet make-up and specification both in terms of propulsion technology (EVs and Hybrids) and duty classification

Infrastructure Strategy

- Type and quantity of energy systems
- Fuelling / charging strategy
- Utility upgrade cost estimates

Sustainment Strategy

- ZEV maintenance requirements
- Charging system maintenance requirements
- Engagement and social equity strategy
- Funding model incorporating various incentives and rebates

Prepare Work Plan

- Compile and deliver draft report containing workplan and roadmap
- Address feedback and comments on the draft report

Presentation development

- Detail key findings, insights, and recommendations
- PowerPoint presentation slides

Deliverables

- Final report
- Presentation
- ZEVO Dashboard Access

Fleet Procurement Assessment

- Confirm and prioritize desired ZEVs
- Resolve constraints around ZEV supply
- Determine operating principles
- Forecast fleet growth

Energy Procurement Assessment

- Compare on-site energy supply systems
- Determine existing energy capacity and evaluate necessary upgrades
- Evaluate backup energy requirements
- Existing codes and standards for upgrades
- Perform assessment for any on-route energy supply sites
- Explore partnership with stakeholders for energy supply

Change Management

- Training programs for maintenance staff, drivers, and emergency services
- Identifications of any workforce gaps

Procurement Schedule

- Construction and procurement schedule

5. Cost Proposal

Description	Project Director	Project Manager	Policy Lead	Fleet Lead	EV Infrastructure	Social Equity	Greenhouse Gas	Data Science	Alt. Fuels	Grant Funding	Admin.	support staff	GIS Analysis	Total Hours	Labor Total	EVEnergi	Subs Markup	Total Subs	Disb. Fee	Total Disb.	Estimated Project Total
	Amber Shows	Frank Penry	Suna Taymaz	Rippan Bhattacharjee	Mike Tocher	Bhavin Bhayani	Chryss Meier	Simon Guo	Jim Volk	Kristin Thigpin	Greene/Stoll	Kate O'Neill	Zach Porteous								
	\$224	\$241	\$200	\$183	\$238	\$238	\$183	\$162	\$289	\$183	\$131	\$117	\$158								
Task1 Data Validation	1.5	3.5	4	6	2	2	2	2	1	1	1	4	2	32	\$6,107	\$0	\$0	\$0	\$208	\$208	\$6,315
Subtask 1.1 Data Validation	1.5	3.5	4	6	2	2	2	2	1	1	1	4	2	32	\$6,107	\$0	\$0	\$0	\$208	\$208	\$6,315
Task2 Fleet Analysis	1.5	3.5	2	8	1	1	4	22	2	2	1	4	2	54	\$9,675	\$0	\$0	\$0	\$351	\$351	\$10,026
Subtask 2.1 Fleet Analysis	1.5	3.5	2	8	1	1	4	22	2	2	1	4	2	54	\$9,675	\$0	\$0	\$0	\$351	\$351	\$10,026
Task3 Decarbonization Strategy	1.5	3.5	14	12	8	6	4	6	2	3	1	8	2	71	\$13,722	\$15,000	\$1,500	\$16,500	\$462	\$462	\$30,683
Subtask 3.1 Strategy	1.5	3.5	14	12	8	6	4	6	2	3	1	8	2	71	\$13,722	\$15,000	\$1,500	\$16,500	\$462	\$462	\$30,683
Task4 Work Plan	1.5	3.5	12	6	5	3	2	2	3	2	1	4	2	47	\$9,420	\$0	\$0	\$0	\$306	\$306	\$9,725
Subtask 4.1 Work Plan	1.5	3.5	12	6	5	3	2	2	3	2	1	4	2	47	\$9,420	\$0	\$0	\$0	\$306	\$306	\$9,725
Total Labor Hours	6	14	32	32	16	12	12	32	8	8	4	20	8								
Estimated Project Total	\$1,344	\$3,374	\$6,400	\$5,856	\$3,808	\$2,856	\$2,196	\$5,184	\$2,312	\$1,464	\$524	\$2,340	\$1,264	204	\$38,922	\$15,000	\$1,500	\$16,500	\$1,326	\$1,326	\$56,748

Description	Project Director	Project Manager	Policy Lead	Fleet Lead	EV Infrastructure	Social Equity	Greenhouse Gas	Data Science	Alt. Fuels	Grant Funding	Admin.	support staff	GIS Analysis	Procurement Assessment	Total Hours	Labor Total	Disb. Fee	Total Disb.	Estimated Project Total
	Amber Shows	Frank Penry	Suna Taymaz	Rippan Bhattacharjee	Mike Tocher	Bhavin Bhayani	Chryss Meier	Simon Guo	Jim Volk	Kristin Thigpin	Nichole Stoll	Kate O'Neill	Zach Porteous	Meha Bola					
	\$224	\$241	\$200	\$183	\$238	\$238	\$183	\$162	\$289	\$183	\$131	\$117	\$158	\$268					
Task5 Optional Post-Project Planning & Assessments	6	18	24	24	28	16	8	8	8	16	4	16	12	16	204	\$41,926	\$1,326	\$1,326	\$43,252
Subtask 5.1 Fleet & Energy Procurement Assessments, Change Management & Schedule	6	18	24	24	28	16	8	8	8	16	4	16	12	16	204	\$41,926	\$1,326	\$1,326	\$43,252
Total Labor Hours	6	18	24	24	28	16	8	8	8	16	4	16	12	16					
Estimated Project Total	\$1,344	\$4,338	\$4,800	\$4,392	\$6,664	\$3,808	\$1,464	\$1,296	\$2,312	\$2,928	\$524	\$1,872	\$1,896	\$4,288	204	\$41,926	\$1,326	\$1,326	\$43,252

6. Schedule Proposal

TASK	START	END	2022		2023						
			November	December	January	February	March	April	May	June	July
Phase 0: Project Initiation, Management, & Close Out	11/2/22	4/28/23	[Redacted]							[Redacted]	
Phase 1: Scenario Based Planning	11/2/22	3/31/23	[Redacted]							[Redacted]	
Task 1: Data Validation	11/2/22	1/20/23	[Redacted]		[Redacted]						
Task 2: Fleet Analysis	1/9/23	3/31/23	[Redacted]		[Redacted]						
Phase 2: Decarbonization Strategy & Work Plan	2/20/23	4/28/23	[Redacted]							[Redacted]	
Task 3: Decarbonization Strategy	2/20/23	3/31/23	[Redacted]		[Redacted]						
Task 4: Work Plan	3/17/23	4/28/23	[Redacted]		[Redacted]						
Optional Phase 3: Post-Project Planning & Assessment	7/3/23	TBD	[Redacted]							[Redacted]	
Task 5: Procurement & Implementation Assessment	7/3/23	TBD	[Redacted]								

Conclusion

We are committed to ensuring that DNLTC's pathway to decarbonization is a success! Our guiding principles in working with you include:

- **Ensuring your key priorities and the momentum** appropriate for the Del Norte Region is embedded within the workplan. We will work to ensure DNLTC feels confident in the approach, workplan, and the pace of new technology adoption along the pathway to decarbonization. We believe employing pilot approaches will help in the transition plan.
- **Assessing Resiliency in the face of energy uncertainty:** Recent price volatility in the energy sector, especially in the fossil fuels sector, has reinforced the need for organizations like DNLTC to plan for their energy supply. Key to developing the workplan will be a pragmatic look at the ZEV energy supply chain.
- **Seamless integration of customers:** The fleet transition to ZEVs must have minimal impact on ongoing operations. A holistic implementation plan will be cognizant of the Del Norte Region's residents, visitors, and fleet operators

We are excited at DNLTC's plans to begin a fleet transition for the region. We know this is a significant financial and operational undertaking, which means Change. Our approach in working with you will be to ensure alignment on your key priorities, set achievable goals, and carefully outline the various options and pathways, as you embark on the fleet transition journey.





October 25, 2022

Tamera Leighton, Executive Director
Del Norte Local Transportation Commission
TameraLeighton@DNLTC.org

RE: PROPOSAL FOR ZERO EMISSION VEHICLE PROJECT INITIATION PLAN

Tamera,

Green DOT Transportation Solutions is pleased to submit this proposal for Zero Emission Vehicle Project Initiation Plan for the Del Norte Local Transportation Commission. We have worked for many years in the Del Norte County Region and appreciate the value of forward thinking and priorities to meet California's Zero Emissions mandates in rural communities. We are excited for the region to take this initiative toward meeting the goals of an efficient, vibrant, and robust zero emission region. We believe this project will be the catalyst to accessing implementation funding from the robust programs established for reducing emissions in California and the Nation.

Please find the enclosed proposal outlining our scope, cost and schedule for delivering this project to the Commission and regional partners.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jeff Schwein". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Jeff Schwein, AICP CTP
President-Green DOT Transportation Solutions

jeff@greendottransportation.com

Green DOT Transportation Solutions
627 Broadway, Suite 220
Chico, CA 95928
530-895-1109

627 Broadway, Suite 220, Chico, CA 95928
530-895-1109

Proposal For The

Zero Emission Vehicle Project Initiation Plan for the Del Norte Local Transportation Commision

October 2022



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Green DOT Transportation Solutions
627 Broadway, Suite 220
Chico, CA 95928
530-895-1109 Ph.
www.greendottransportation.com

1. COMPANY OVERVIEW

A. FIRM BIOGRAPHY



Green DOT Transportation Solutions
Jeff Schwein, AICP CTP – Project Manager
627 Broadway, Suite 220
Chico, CA 95928
530-895-1109 Ph.
jeff@greendottransportation.com
www.greendottransportation.com

Company Structure

Green DOT Transportation Solutions was started in 2011 to fill a niche role in transportation planning services. Our goal is to improve transportation facilities and the associated human travel experience through progressive planning approaches, comprehensive project development, and aggressive project delivery strategies. We work with the built, natural, and human environments to develop effective transportation plans and programs that ultimately create safe, efficient, and effective transportation solutions. The Green DOT team has extensive experience programming and monitoring transportation projects and navigating the complex federal and state processes. Green DOT Transportation Solutions is a financially stable California S-Corporation and registered as a small business in California. We are strategically located in Chico providing services to public agencies throughout northern California. Green DOT Transportation Solutions is proposing to assist with the development of the Tuolumne County Transportation Council Regional Transportation Plan. Green DOT has reviewed the full Request for Proposals and confirms our ability to meet all requirements, including expected insurance requirements.

Company Context

Rural communities in California are unique and require specialized understanding. Green DOT is committed to the understanding of transportation and community planning required for rural contexts. We have performed over 70 projects in rural counties over the past 12 years and continue to keep this a priority. We also keep in touch with State and Federal funding programs and legislation that affects our communities and clients. We are actively involved in the Rural Counties Task Force, the Regional Transportation Planning Agency Group and attend meetings of the California Transportation Commission. Green DOT owner and Principal Transportation Planner Jeff Schwein is the proposed project manager for this project.

2. KEY PERSONNEL

For Full resumes, see Attachment A.



Jeff Schwein, AICP CTP, Project Manager / Principal Transportation Planner, Green DOT

Green DOT owner Jeff Schwein is a Certified Transportation Planner (CTP) with the American Institute of Certified Planners (AICP). Jeff has worked in the transportation planning field since 2001 on projects ranging from financial programming to multi-modal planning. His specialty is moving projects from the shelf to the ground with accessible and creative funding and delivery strategies. Jeff works with communities to define projects based on identifiable need as well as project type, in relation to available funding resources. In addition to project level transportation planning, Jeff helps communities prepare transportation plans, bicycle plans, and Safe Routes to School Plans that improve mobility options and create active transportation opportunities. Jeff is committed to progressive transportation planning and stays involved in statewide transportation circles like the Rural Counties Task Force and Regional Transportation Planning Agencies group and regularly attends meetings of the California Transportation Commission. Jeff has been working with the same clients for more than 18 years.



Sofia Lepore, Senior Transportation Planner, Green DOT

Sofia is a Senior Transportation Planner at Green DOT and is passionate about promoting active transportation and multi-modal access to equitably serve all communities. She is involved in most aspects of Green DOT delivery which includes producing GIS and outreach materials, authoring planning documents, and engaging with diverse communities to ensure full representation throughout the planning process. She is a graduate of California State Chico with a double BA in Geography & Planning and Spanish. She fervently believes that promoting active transportation and multi-modal access is a vital aspect of lowering greenhouse gas emissions, and enjoys working directly with communities to envision positive change.



Nathaniel Redmond, Senior Transportation Planner, Green DOT

Nathaniel is a Senior Transportation Planner at Green DOT. Nathaniel graduated from San Francisco State University with a B.A. in Urban Studies and Planning and is a graduate of the Master of Urban Planning program at San Jose State University with a concentration in transportation planning. He has experience working with community stakeholders in the Bay Area envisioning safer and more sustainable mobility options and aims to reduce the dependency on single-occupant vehicles for daily commuters. Nathaniel strives to bring communities safer active transportation facilities and stresses the connection between public health and travel decisions.



Aleisha Wright, Associate Transportation Planner, Green DOT

Aleisha (she/her) is an Associate Transportation Planner at Green DOT Transportation Solutions. She graduated from San José State University with a M.A. in Urban and Regional Planning and a focus in Transportation and Land-Use Planning. Aleisha is committed to bridging the gap between communities' transit needs and the available resources provided to them on the local and regional level. She further strives to serve as a reliable liaison and creative consultant to the public. Aleisha has experience with site-

surveying, community outreach, authoring planning reports through Adobe InDesign, and zoning and land-use mapping through ArcGIS Pro.



Marielle Hsu, Associate Transportation Planner, Green DOT

Mari (they / them) is an Associate Transportation Planner at Green DOT. Mari is a public transit and social justice advocate who works to center marginalized communities and people over data. While at SJSU, they helped guide formal and informal event planning for student organizations, as well as creating spaces for student-to-student communication during the pandemic. With experience ranging from physics to design, all their work has hinged on communicating complex topics to non-experts in dignified and engaging ways. Coming originally from rural Appalachia they have a deep understanding of the unique transit challenges in similar areas and is excited to bring all their experience together in this role.



Kelly Rice, Assistant Transportation Planner, Green DOT

Kelly Rice is an Assistant Transportation Planner at Green DOT with a passion for sustainable transportation projects and the technical skills necessary to create valuable technical transportation analysis for our projects. Her integration of data driven solutions and artistically developed outputs in maps, charts, and graphics leads to comprehensive report development. Kelly is also a natural communicator which provides a nexus between complex transportation challenges and community understanding.



Sylinda Villado, Assistant Transportation Planner, Green DOT

Sylinda is an Assistant Transportation Planner at Green DOT. Sylinda is a senior at California State University, Chico finishing her B.A. in Geography and Planning with a concentration on Human Geography and is expected to graduate in Fall of 2022. She has experience working in community outreach through a non-profit organization as well as land use planning experience in the local government sector specifically in a rural community. Sylinda is passionate in the implementation of sustainable and safe transportation infrastructure in under-represented areas and including the community to partake in such development.

3. RELEVANT EXPERIENCE AND CAPABILITIES

Truckee Transit Center Relocation Feasibility Study

The Town of Truckee expects significant growth in transit ridership and operations, increasing congestion and safety issues at its already over-capacity transit center. Green DOT conducted a Transit Center Relocation Feasibility Study to determine the preferred site for relocation of the transit center to meet existing and future transit needs. The study considered several potential site alternatives and is anticipated to result in the development of a new or expanded transit center. The Town has entered into an MOU with Neighborhood Partners who will fund one million dollars toward the cost of constructing a new transit center using Affordable Housing and Sustainable Communities grant funds. Green DOT partnered with Nelson \ Nygaard, AIM Consulting, and Design Workshop to create a comprehensive study involving site location analysis, transit needs analysis, community outreach, and planning-level site designs. The Study will guide the Town of Truckee in deciding whether to relocate the transit center, and raise the Town of Truckee's capacity to increase access to transit.



Key Personnel: *Jeff Schwein – Principal Transportation Planner, Paul Jewel – Principal Planner, Nelson \ Nygaard ; Steve Noll - Project Manager, Design Workshop*

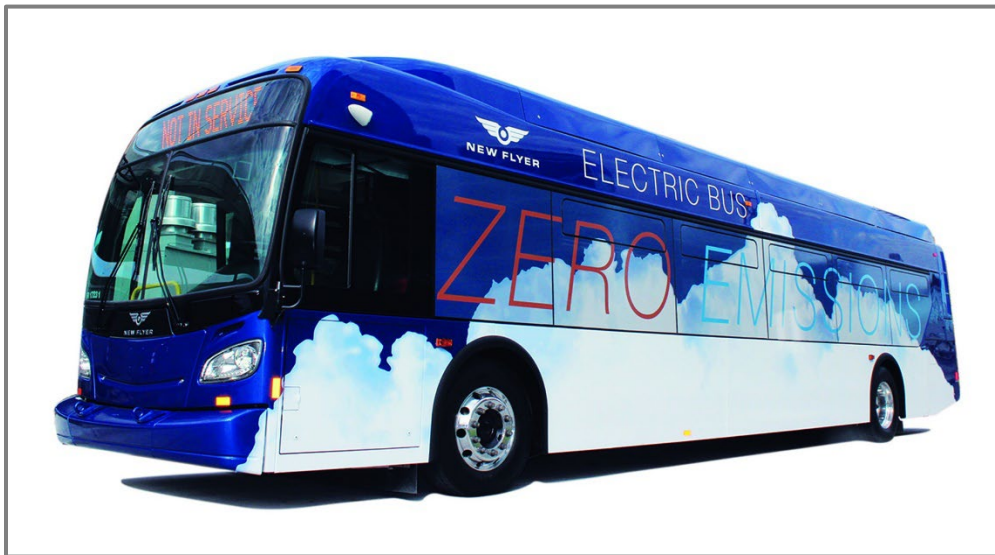
Project Duration: *December 2018 – May 2020*

Project Cost: *\$88,461*

Client Contact: *Kelly Beede*
Town of Truckee
10183 Truckee Airport Road
Truckee, CA 96161
(530) 582-7700

***Sustainable Communities Grant Development, Transit Fleet Electrification Feasibility Study for
the Arroyo Verdugo Transit Operators***

Green DOT was subcontracted by CALSTART to assist in the development of a competitive Caltrans Sustainable Communities grant for the Cities of Pasadena, Glendale and Burbank, collectively referred to as Arroyo Verdugo Region Transit Operators for this grant writing effort. The three transit operators collaboratively sought funding to prepare three separate Transit Fleet Vehicle Electrification Plans. Each study intends to assess existing electric-vehicle infrastructure plans and suggest improvements necessary to electrify a total of 117 buses and Dial-A-Ride vehicles. The resulting Plans will guide Pasadena, Glendale, and Burbank toward implementing a zero-emission public transportation network serving the Arroyo Verdugo Subregion. In spring 2019, the Arroyo Verdugo Transit Operators were awarded a Sustainable Communities Grant award in the requested amount of \$361,200.



Key Personnel: *Jeff Schwein – Principal Transportation Planner, Stephanie Alward – Senior
Transportation Planner*

Requested Funds: *\$361,200*

Awarded Funds: *\$361,200*

Client Contact: *Fred Silver, Vice President
CALSTART
fsilver@calstart.org*

Sustainable Communities Grant Development, City of Clovis Transit Fleet Electrification Feasibility Study

Green DOT was subcontracted by CALSTART to assist in the development of a competitive Caltrans Sustainable Communities grant for the City of Clovis Transit Fleet Electrification Feasibility Study. The Study intends to assess existing electric-vehicle infrastructure plans and suggest improvements necessary to electrify Clovis Transit's Stagemline Transit Service buses and Round-Up Transit Service Dial-A-Ride vehicles. The resulting plan will guide Clovis toward implementing a zero-emission public transportation network. Currently, Clovis Transit has 30 buses, 9 vans, and 1 trolley. The City anticipates a new transit fleet of 60 buses, 9 vans, and 1 trolley. The Transit Fleet Electrification Feasibility Study will align with the Fresno Council of Governments Regional Transportation Plan / Sustainable Communities Strategy as well as statewide emissions reduction requirements including California Air Resources Board Proposed Innovative Clean Transit Regulation, Assembly Bill 32, Senate Bill 32, Senate Bill 375, and Senate Bill 1434. The City of Clovis was awarded a Sustainable Communities Grant award in the requested amount of \$161,500.



Key Personnel: *Jeff Schwein – Principal Transportation Planner, Stephanie Alward – Senior Transportation Planner*

Requested Funds: *\$161,500*

Awarded Funds: *\$161,500*

Client Contact: *Fred Silver, Vice President, CALSTART*
fsilver@calstart.org

Del Norte County 2020 Regional Transportation Plan Update

Green DOT was selected as the primary consultant developing the 2020 Del Norte County Regional Transportation Plan (RTP) update with assistance from De Novo Planning Group, who developed the environmental documentation. The project team worked closely with the Technical Advisory Committee (TAC) and stakeholders to identify transportation project needs in the region over the next 20 years. Projects were vetted and prioritized in coordination with the TAC, stakeholders and the public. A funding and implementation plan was developed and the 2020 Del Norte County RTP was adopted in March 2021.



Key Personnel: ***Jeff Schwein – Principal Transportation Planner, Sofia Lepore – Assistant Planner***

Project Duration: ***December 2019 – Present***

Client Contact: ***Tamera Leighton, Executive Director***
Del Norte Local Transportation Commission
900 Northcrest Drive, PMB 16
Crescent City, CA 95531
tamera@dnltc.org
707.465.3878

4. STATEMENT OF INTEREST AND METHODOLOGY

1.0 State of the Industry Evaluation

In order to identify the needs for transitioning for Zero Emissions Vehicles in Del Norte County, we first must understand the state of the industry and our partners around the State of California. We will document the current statutes and laws at the Federal and State level that effect ZEV and ZEB projects in Del Norte County. We will document industry trends in Zero Emissions passenger vehicles, buses, heavy trucks, charging infrastructure, fueling infrastructure and other pertinent information. Additionally, we will cull the latest information on ZEV use in California and rural areas around the State. We will document industry standards, developments, and outlook, establishing a foundation for decision makers in Del Norte County to lean on.

2.0 Evaluate Zero Emissions Vehicle Needs

Our project team will prepare a detailed analysis of the current and planned needs for public charging infrastructure and public fleets. This evaluation will be the foundation for the ZEV Transition Plan.

2.1. Infrastructure Needs in Del Norte County

2.1.1. Public vehicle charging stations

2.1.2. Public fleet vehicle charging stations

2.2. Local Public Fleet Needs

3.0 Prepare Scope of Work for Transition Plan

In an effort to develop a ZEV and ZEB transition program, a detailed scope of work must be prepared with concise detail for content and implementation. Our project team will prepare a scope of work for the implementation plan. Additionally, the scope will include as much information as possible from the Evaluation performed in Task 1.0. This content will be critical to the quality and scale of the scope of work development for the implementation plan. This will be concept and planning level analysis and include the following categories.

3.1. Concept vehicle charging system

3.2. Concept fleet replacement

3.3. Cost Benefit Analysis

3.4. Funding Strategy

3.5. Implementation Strategy

4.0 Prepare Project Report

The project report will consolidate all the research and information captured to date from this effort, local efforts, regional and State efforts in the ZEV and ZEB readiness field. A final report will be prepared that will position the region to move forward with a full implementation plan.

5. COST PROPOSAL

Our team proposes to perform the tasks identified for a total cost, not to exceed, \$56,840 is defined below.

	Principal	Senior	Associate	Assistance	Total GD
	\$200.00	\$172.00	\$160.00	\$147.00	
1.0 State of the Industry Evaluation					
1.0 Industry Evaluation	15	10	20		
Total	15	10	20	0	45
	\$3,000	\$1,720	\$3,200	\$0	\$7,920
2.0 Evaluate Zero Emissions Vehicle Needs					
2.1 Infrastructure Needs in Del Norte County	10	15	15	20	
2.2 Local Public Fleet Needs	5	10	25	20	
Total	15	25	40	40	120
	\$3,000	\$4,300	\$6,400	\$5,880	\$19,580
3.0 Prepare Scope of Work for Transition Plan					
3.1 Concept Vehicle Charging System	2	10	15		
3.2 Concept Fleet replacement	2	5	15		
3.3 Cost Benefit Analysis	5	5	15		
3.4 Funding Strategy		5	5		
3.5 Implementation Strategy	5	5	25		
Total	14	30	75	0	119
	\$2,800	\$5,160	\$12,000	\$0	\$19,960
4.0 Prepare Project Report					
4.1 Draft and Final Report	10	15	30		
Total	10	15	30	0	55
	\$2,000	\$2,580	\$4,800	\$0	\$9,380
Total Hours	54	80	165	40	339
Total Costs	\$10,800	\$13,760	\$26,400	\$5,880	\$56,840

6. SCHEDULE

Our team proposes to perform the tasks identified according to the following schedule not to go past June 30, 2023.

	2022		2023					
	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1.0 State of the Industry Evaluation								
1.0 Industry Evaluation								
2.0 Evaluate Zero Emissions Vehicle Needs								
2.1 Infrastructure Needs in Del Norte County								
2.2 Local Public Fleet Needs								
3.0 Prepare Scope of Work for Transition Plan								
3.1 Concept Vehicle Charging System								
3.2 Concept Fleet replacement								
3.3 Cost Benefit Analysis								
3.4 Funding Strategy								
3.5 Implementation Strategy								
4.0 Prepare Project Report								
4.1 Draft and Final Report								

7. ATTACHMENT A: RESUMES



Jeff Schwein, AICP CTP

Principal

Green DOT President Jeff Schwein (he/him) is a Certified Transportation Planner (CTP) with the American Institute of Certified Planners (AICP). Jeff has worked in the transportation planning field since 2001 on projects ranging from financial programming to multi-modal planning. His specialty is moving projects from the shelf to the ground with accessible and creative funding and delivery strategies.

Qualifications

MA in Geography and Planning

California State University,
Chico
2001

BA in Geography and Planning

California State University,
Chico
1996

Affiliations

- American Institute of Certified Planners (AICP)
- Certified Transportation Planner (CTP)
- American Planning Association - Member
- Sac Valley APA Section PLAN Mentor - 2014
- CSU Chico Department of Geography and Planning Advisory Board - Member and Chairperson

Recent Project Experience

Transportation Planning

- ❖ Fair Oaks Recreation & Park District Wayfinding Strategy, 2022
- ❖ Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- ❖ Trinity County Regional Transportation Plan, 2022
- ❖ Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- ❖ Siskiyou Countywide Active Transportation Plan, SCLTC, 2021
- ❖ Alpine County Regional Transportation Plan Update, 2020
- ❖ Eureka Broadway Multimodal Transportation Corridor Plan, HCAOG, 2019/20
- ❖ Plumas County Regional Transportation Plan Update, Plumas County Transportation Commission, 2019
- ❖ Tuolumne Active Transportation Plan, Tuolumne County Transportation Council, 2019
- ❖ Mechoopda Long Range Transportation Plan, Mechoopda Indian Tribe, 2019
- ❖ Glenn County Regional Transportation Plan Update, Glenn County Public Works, 2015 and 2018/19
- ❖ Tehama County Active Transportation Plan, Tehama County Transportation Commission, 2018/19
- ❖ Coloma-Lotus Sustainable Transportation Plan, El Dorado County Transportation Commission, 2018/19

Project Development

- ❖ San Andreas Pope Street Class I Facility and Safe Routes Gap Fill Plan, Calaveras Council of Governments, 2019/20
- ❖ South Avenue Access Study, Tehama County Transportation Commission, 2018/19
- ❖ Happy Camp Complete Streets Project, Karuk Tribe, 2018
- ❖ Pebble Beach Drive Improvement Project Initiation Document, City of Crescent City, 2018
- ❖ Paradise Systematic Safety Analysis Report, Town of Paradise, 2018

Funding Strategies

- ❖ Clean Transportation Program Rural Electric Vehicle (REV) Charging Grant Application, 2022
- ❖ Clean California Local Grant Program Applications, 2022
- ❖ Rebuilding American Infrastructure with Sustainability and Equity (RAISE), Tolowa Dee-ni' Nation, 2021
- ❖ Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 5
- ❖ Hazard Mitigation Grant Program Grant Writing, Mechoopda Tribe, 2019
- ❖ Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 2-4
- ❖ Affordable Housing & Sustainable Communities Grant Writing, Various Agencies, Ongoing
- ❖ Low or No Emission Bus Funding Grant Development, Various Agencies, Ongoing

Transit

- ❖ Connected Communities Transportation Plan, Sonoma County Human Services Department, 2019/20
- ❖ Truckee Transit Center Relocation Feasibility Study, Town of Truckee, 2018/19
- ❖ Salmon Runner Electric Bus; Redding-Sacramento Business Plan and TIRCP Grant, SRTA, 2018



Nathaniel Redmond

Senior Transportation Planner

Nathaniel (he/him) is a Senior Transportation Planner at Green DOT. Nathaniel graduated from San Francisco State University with a B.A. in Urban Studies and Planning and is a graduate of the Master of Urban Planning program at San Jose State University with a concentration in transportation planning. He has experience working with community stakeholders in the Bay Area envisioning safer and more sustainable mobility options and aims to reduce the dependency on single-occupant vehicles for daily commuters. Nathaniel strives to bring communities safer active transportation facilities and stresses the connection between public health and travel decisions.

Qualifications

BA in Urban Studies & Planning

San Francisco State University
2015

MA in Urban Planning (MUP)

San Jose State University
2019

Affiliations

- American Planning Association Member - Northern California / Small Town & Rural Planning Divisions
- Young Professionals in Transportation Member
- SPUR Member

Project Experience

Transportation Planning

- ❖ Fair Oaks Recreation & Park District Wayfinding Strategy, 2022
- ❖ Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- ❖ Trinity County Regional Transportation Plan, 2022
- ❖ Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- ❖ Emerging Mobility Services and Technologies Guiding Principles, San Francisco County Transportation Authority, 2019
- ❖ Emerging Mobility Pilot Strategy, San Francisco County Transportation Authority, 2019
- ❖ Emerging Mobility Evaluation Report, San Francisco County Transportation Authority, 2019
- ❖ Downtown San Francisco Congestion Pricing Feasibility, San Francisco County Transportation Authority, 2019
- ❖ District 10 Mobility Study, San Francisco County Transportation Authority, 2019
- ❖ SoMa Freeway Ramp Intersection Safety Study, San Francisco County Transportation Authority, 2019
- ❖ Better Market Street Plan, San Francisco County Transportation Authority, 2019
- ❖ ConnectSF long range transportation plan, San Francisco County Transportation Authority, 2019
- ❖ Diridon to Downtown Community Assessment Report, San Jose State University in collaboration with the City of San Jose, 2019

Program Development

- ❖ El Dorado County Pedestrian and Bicycle Safety Program, County of El Dorado, 2021
- ❖ Treasure Island Transportation Program, San Francisco County Transportation Authority, 2018
- ❖ Scoop Carpool Oyster Point Commuter Incentive Program, Genentech gRide, 2020

Funding Strategies

- ❖ Clean Transportation Program Rural Electric Vehicle (REV) Charging Grant Application, 2022
- ❖ Clean California Local Grant Program Applications, 2022
- ❖ Prop K Sales Tax Expenditure Program, San Francisco County Transportation Authority, 2018

Transit

- ❖ Bayview Hunters Point Mobility Study, San Francisco County Transportation Authority, 2018
- ❖ Glen Park BART Oyster Point Genentech Shuttle Expansion Project, Genentech gRide, 2020
- ❖ BART Perks Test Program, San Francisco County Transportation Authority, 2019



Sofia Lepore

Senior Transportation Planner

Sofia is a Senior Transportation Planner at Green DOT and is passionate about promoting active transportation and multi-modal access to equitably serve all communities. She is involved in most aspects of Green DOT delivery which includes authoring planning documents, leading grant development, producing outreach materials, and engaging with diverse communities to ensure full representation throughout the planning process. She is a graduate of California State Chico with a double BA in Geography & Planning and Spanish. She fervently believes that promoting active transportation and multi-modal access is a vital aspect of lowering greenhouse gas emissions, and enjoys working directly with communities to envision positive change.

Qualifications

B.A. in Planning and Spanish
California State University,
Chico
2020

Affiliations

- American Planning Association Member - Northern California and Oregon
- Sacramento Valley APA Young Planner's Group

Project Experience

Transportation Planning

- ❖ City of Tehama Community Transportation Plan, 2022
- ❖ Fair Oaks Recreation & Park District Wayfinding Strategy, 2022
- ❖ Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- ❖ Trinity County Regional Transportation Plan, 2022
- ❖ Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- ❖ Siskiyou Countywide Active Transportation Plan, SCLTC, 2021
- ❖ Alpine County Regional Transportation Plan Update, Alpine County Local Transportation Commission, 2020
- ❖ Del Norte Regional Transportation Plan Update, Del Norte Local Transportation Commission, 2020
- ❖ Siskiyou County Regional Transportation Plan Update, Siskiyou County Local Transportation Commission, 2020
- ❖ Alpine County Local Transportation Commission Planning Consultant, 2020
- ❖ Karuk Tribe Transportation Planning Consultant, 2020
- ❖ Siskiyou County Transportation Commission Executive Director, Siskiyou County Transportation Commission, 2019-Present
- ❖ North Coast Tribal Transportation Commission Planning Consultant, 2019/20

Funding Strategies

- ❖ Clean Transportation Program Rural Electric Vehicle (REV) Charging Grant Application, 2022
- ❖ Clean California Local Grant Program Applications, 2022
- ❖ Rebuilding American Infrastructure with Sustainability and Equity (RAISE), Tolowa Dee-ni' Nation, 2021
- ❖ Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 5
- ❖ Caltrans Sustainable Transportation Planning Grants, Various Agencies, Ongoing
- ❖ Affordable Housing & Sustainable Communities Grant Writing, Various Agencies, Ongoing
- ❖ Low or No Emission Bus Funding Grant Development, Various Agencies, Ongoing

Project Development

- ❖ Connected Communities Plan. Tolowa Dee-ni Nation, 2022
- ❖ San Andreas Pope Street Class I Facility and Safe Routes Gap Fill Plan, Calaveras Council of Governments, 2019/20

Transit

- ❖ Connected Communities Transportation Plan, Sonoma County Human Services Department, 2020

Other

- ❖ Tehama County Safety, Secondary Access and Evacuation Routes Plan, 2022
- ❖ El Dorado Pedestrian and Bicycle Safety Program, County of El Dorado, 2021
- ❖ Trinity General Plan, Circulation Element, 2021
- ❖ Mechoopda Indian Tribe Hazard Mitigation Plan, 2020
- ❖ Del Norte County Media Project, Del Norte Local Transportation Commission, 2020



Kelly Rice

Associate Transportation Planner

Kelly Rice (she/her) has a passion for sustainable transportation projects and approaches projects with an interdisciplinary background combining a scientific and community-based lens to create transportation infrastructure. Her integration of data driven solutions and artistically developed outputs in ArcGIS maps, charts, and graphics leads to comprehensive report development. Kelly is also a natural communicator which provides a nexus between complex transportation challenges and community understanding.

Qualifications

BA in Environmental Design (Honors)

BS in Conservation and Resource Studies (Honors)

Honors Melis Medalist

University of California,
Berkeley
2022

Affiliations

- American Planning Association Member - Northern California
- Association of Environmental Professionals (AEP) - Member

Project Experience

Transportation Planning

- ❖ Fair Oaks Recreation & Park District Wayfinding Strategy, 2022
- ❖ Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- ❖ Trinity County Regional Transportation Plan, 2022
- ❖ Trinity County Negative Declaration/Initial Study, 2022
- ❖ Tolowa Dee-ni' Connected Communities Plan, 2022
- ❖ Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- ❖ Tehama County Evacuation Plan, 2022

Funding Strategies

- ❖ Caltrans Sustainable Transportation Planning Grants, Various Agencies, Ongoing
- ❖ Low or No Emission Bus Funding Grant Development, Various Agencies, Ongoing
- ❖ Trinity County Regional Transportation Plan Financial and Action Plan, 2022

Transit

- ❖ City of Tehama Community Transportation Plan, City of Tehama, 2022

Other

- ❖ Trinity General Plan, Circulation Element, 2021



Aleisha Wright

Associate Transportation Planner

Aleisha (she/her) is an Associate Transportation Planner at Green DOT Transportation Solutions. She graduated from San José State University with a M.A. in Urban and Regional Planning and a focus in Transportation and Land-Use Planning. Aleisha is committed to bridging the gap between communities' transit needs and the available resources provided to them on the local and regional level. She further strives to serve as a reliable liaison and creative consultant to the public. Aleisha has experience with site-surveying, community outreach, authoring planning reports through Adobe InDesign, and zoning and land-use mapping through ArcGIS Pro.

Qualifications

M.A. in Urban and Regional Planning

San José State University
2022

B.A. in Environmental Studies

Winthrop University
2012

Affiliations

- American Planning Association Member - Northern California

Project Experience

Transportation Planning

- ❖ Trinity County Regional Transportation Plan, 2022
- ❖ Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- ❖ Tolowa Dee-ni' Connected Communities Plan, Tolowa Dee-ni' Nation, 2022
- ❖ Mission Oaks Wayfinding Plan, Mission Oaks, 2022
- ❖ City of Tehama Community Transportation Plan, 2022
- ❖ Placer County Mobility and Infill Acceleration Study, Placer County, 2021

Other

- ❖ Tehama County Safety, Secondary Access & Evacuation Routing Project, 2022



Marielle Hsu

Associate Transportation Planner

Mari (they / them) has been an Associate Planner with Green DOT since graduating from SJSU. A public transit and social justice advocate, they work to center marginalized communities and people over data. Coming originally from rural Appalachia they have a deep understanding of the unique transit challenges in similar areas. With past experience ranging from physics to design, all their work has hinged on communicating complex topics to non-experts in dignified and engaging ways. They specialize in addressing details while reaching towards big-picture goals and are excited to bring all of these skills to communities in Northern California.

Qualifications

MA in Urban and Regional Planning

San José State University
2022

BA in Physics

Bryn Mawr College
2007

Affiliations

- American Planning Association, Northern California - Member
- Cultural Active Transportation (CAT) Line San José - Secretary
- Bike East Bay - Member
- East Bay Transit Riders Union - Member

Project Experience

Transportation Planning

- ❖ Fair Oaks Recreation & Park District Wayfinding Strategy, 2022
- ❖ Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- ❖ Trinity County Regional Transportation Plan, 2022
- ❖ Tolowa Dee-ni' Connected Communities Plan, 2022
- ❖ Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- ❖ Tehama County Evacuation Plan, 2022

Funding Strategies

- ❖ Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 5
- ❖ Caltrans Sustainable Transportation Planning Grants, Various Agencies, Ongoing
- ❖ Low or No Emission Bus Funding Grant Development, Various Agencies, Ongoing

Transit

- ❖ City of Tehama Community Transportation Plan, City of Tehama, 2022

Other

- ❖ Trinity General Plan, Circulation Element, 2021
- ❖ Del Norte County Media Project, Del Norte Local Transportation Commission, 2020
- ❖ Siskiyou County Local Transportation Commission Administrative Duties, 2022



Sylinda Villado

Assistant Transportation Planner

Sylinda (she/they) is an Assistant Transportation Planner at Green DOT. Sylinda is a senior at California State University, Chico finishing her B.A. in Geography and Planning with a concentration on Human Geography and is expected to graduate in Fall 2022. She has experience working in community outreach through a non-profit organization as well as land use planning experience in the local government sector specifically in a rural community. Sylinda is passionate in the implementation of sustainable and safe transportation infrastructure in under-represented areas and including the community to partake in such development.

Qualifications

BA in Geography & Planning

California State University,
Chico

Expected - Fall 2022

Affiliations

- American Planning Association Member - Northern California
- Sacramento Valley APA Young Planner's Group

Project Experience

Transportation Planning

- ❖ Fair Oaks Recreation & Park District Wayfinding Strategy, 2022
- ❖ Chester State Route 36 Complete Streets and Context Sensitive Streetscape Plan, 2022
- ❖ Trinity County Regional Transportation Plan, 2022
- ❖ Tolowa Dee-ni' Connected Communities Plan, 2022
- ❖ Placer County Mobility and Infill Acceleration Study, Placer County, 2021
- ❖ Tehama County Evacuation Plan, 2022

Funding Strategies

- ❖ Rebuilding American Infrastructure with Sustainability and Equity (RAISE), Tolowa Dee-ni' Nation, 2022 (\$1.6 million awarded)
- ❖ Active Transportation Program Project Application Development, Various Agencies, ATP Cycle 5
- ❖ Caltrans Sustainable Transportation Planning Grants, Various Agencies, Ongoing
- ❖ Low or No Emission Bus Funding Grant Development, Various Agencies, Ongoing

Transit

- ❖ City of Tehama Community Transportation Plan, City of Tehama, 2022

Other

- ❖ Trinity General Plan, Circulation Element, 2021
- ❖ Del Norte County Media Project, Del Norte Local Transportation Commission, 2020

DEL NORTE LOCAL TRANSPORTATION COMMISSION
PROFESSIONAL SERVICES AGREEMENT WITH
CONSULTANT NAME

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is entered into and effective as of **DATE** ("Effective Date"), by and between the Del Norte Local Transportation Commission ("DNLTC") and **Consultant Name** ("Consultant") (collectively, the "Parties").

WHEREAS, the Parties enter into this Agreement for the purpose of Consultant providing professional **Project Title** services to DNLTC under the terms and conditions set forth in this Agreement.

THEREFORE, in consideration of the mutual covenants contained in this Agreement, the Parties agree as follows:

1. Services. Consultant will provide the professional services as described in and in accordance with the Scope of Services and Fees set forth in Exhibit A, attached hereto and incorporated herein ("Services"). As needed by DNLTC, Services will be ordered by DNLTC by specifying the task to be performed ("Task Orders"). Task Order #1 is attached as Exhibit B. Additional Task Orders may be agreed to by the Parties and these must be numbered in series and will be set forth in similar format and attached to and become part of this Agreement.

2. Compensation.

A. For the full performance of the Services described in Exhibit A, DNLTC will compensate Consultant on a time-and-materials basis at the compensation rates specified in Consultant's Services Rate Schedule included in Exhibit A; provided, however, that total compensation for the full performance by Consultant of all Services under all Task Orders must not exceed **number thousand number hundred and number dollars (\$##,###)**, the "not-to-exceed" amount.

B. Consultant must submit detailed monthly invoices reflecting all services performed during the preceding month, including a revised or re-stated schedule for performance and any additional documentation requested by DNLTC.

C. Consultant will be compensated for services in addition to those described in Exhibit A, only if Consultant and DNLTC execute a written amendment to this Agreement describing the additional services to be performed and the compensation to be paid for those services. In no case will the total compensation under this Agreement exceed the "not-to-exceed" amount specified in Paragraph A, above, without prior

written authorization from DNLTC.

D. DNLTC's obligation to pay compensation to Consultant is contingent upon Consultant's performance of the Services pursuant to the terms and conditions of this Agreement and any amendments. Before payment is disbursed, Consultant must be in compliance with Paragraph 19 of this Agreement.

3. Term. The term of this Agreement commences on the Effective Date, and terminates on **DATE** unless sooner terminated in accordance with Section 4. Upon termination, any and all of DNLTC's documents or materials provided to Consultant and any and all of the documents or materials prepared for DNLTC or relating to or derived from the performance of the Services, must be delivered to DNLTC as soon as possible, but not later than fourteen (14) days after termination of the Agreement.

4. Termination. DNLTC may terminate this Agreement without cause upon ten (10) days' written notice. DNLTC may immediately terminate or suspend this Agreement for cause. Cause for immediate termination or suspension includes, but is not be limited to, any breach of this Agreement by Consultant or Consultant's bankruptcy or insolvency. Upon receipt of notice of termination or suspension for cause, Consultant must immediately stop all work in progress under this Agreement. In the event of early termination of this Agreement by DNLTC, Consultant is entitled to payment for all Services performed to the date of termination to the extent the Services were performed to the satisfaction of DNLTC in accordance with the terms and conditions of this Agreement. If DNLTC terminates this Agreement for cause, Consultant is liable to DNLTC for any excess cost DNLTC incurs for completion of the Services.

5. Consultant's Representation; Independent Contractor. Consultant represents that Consultant possesses distinct skills for performing the Services. DNLTC has relied upon that representation as a material inducement to enter into this Agreement. Consultant must, therefore, provide properly skilled and technical personnel to perform all Services. It is expressly understood that Consultant, its agents, and employees act in an independent capacity and as an independent contractor and not as officers, employees or agents of DNLTC. This Agreement may not be construed as an agreement for employment.

6. Facilities and Equipment. Consultant must, at its sole cost and expense, furnish all facilities and equipment that may be required for furnishing Services under this Agreement. DNLTC will furnish to Consultant no facilities or equipment, unless DNLTC otherwise agrees in writing to provide them.

7. Licenses, Permits, Etc. Consultant must, at Consultant's sole cost and expense, keep in effect and require its subcontractors, if any, to keep in effect at all times during the term of this Agreement any licenses, permits or other approvals that are legally required for performing the Services.

8. Time. Consultant will devote enough time to the performance of the Services as

may be reasonably necessary for satisfactory performance of Consultant's obligations under this Agreement.

9. Inspection. Consultant must provide DNLTC every reasonable opportunity to ascertain that the Services are being performed in accordance with the requirements and intentions of this Agreement. All work done and materials furnished, if any, are subject to inspection and approval by DNLTC. The inspection of the work does not relieve Consultant of any of its obligations under this Agreement.

10. Progress Reports. Upon DNLTC's request, Consultant must provide, in a form acceptable to DNLTC, written progress reports of all oral and written observations, opinions, recommendations, analyses, progress and conclusions related to Consultant's performance of the Services.

11. Confidentiality. In the course of providing services for DNLTC, Consultant may have access to trade secrets and confidential information, disclosure of which is protected or limited by law. Consultant will not directly or indirectly disclose or use any confidential information, except as required for the performance of the Services.

12. Conflict of Interest. Consultant represents that it presently has no interest, and covenants that it will not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the Services. Consultant further covenants that, in the performance of this Agreement, it will not employ any subcontractor or person having a conflict of interest. Consultant represents that no one who has or will have any financial interest under the Agreement is an officer or employee of DNLTC. If a conflict of interest arises during this Agreement or any extension, Consultant will immediately advise DNLTC and DNLTC may, at its sole discretion, immediately terminate this Agreement.

13. Consultant No Agent. Except as DNLTC may specify in writing, Consultant has no authority, express or implied, to act on behalf of DNLTC in any capacity whatsoever as an agent. Consultant has no authority, express or implied, under this Agreement to obligate DNLTC in any way.

14. Standard of Performance. Consultant must perform all the Services in a manner consistent with the standards of Consultant's profession. If there is no professional standard applicable to the Services, Consultant must perform in a manner consistent with the standards applicable to Consultant or the type of work. All instruments of service, as defined by the American Institute of Architects, that Consultant delivers to DNLTC under this Agreement, must be prepared to comply with and conform to the standards of Consultant's type of work. All instruments of service become the sole and exclusive property of DNLTC upon delivery.

15. Assignment/Transfer. Consultant will make no assignment or transfer in whole or in part of this Agreement without the prior written consent of DNLTC.

16. Subcontractors. Consultant must directly perform all Services, and may not subcontract any portion of performance of the Services without the prior written consent of DNLTC. Any approved subcontractors are required to comply, to the full extent applicable, with the terms and conditions of this Agreement. Upon execution of this Agreement, Consultant must furnish a separate schedule of names and addresses of subcontractors, if any, and must notify DNLTC in advance if changes in subcontractors occur.

17. Internal Revenue Service Form W-9. Consultant will provide an Internal Revenue Service Form W-9, Request for Taxpayer Identification Number and Certification, as required by DNLTC to comply with regulations of the United States Department of the Treasury. DNLTC's Finance Department will provide Consultant with the required form. Consultant must complete and file the form with DNLTC before any payment for Services may be made.

18. Business License. Consultant must file and require all its subcontractors to file, a Business License Application as required by the appropriate local government agency. Consultant must file and require all its subcontractors to complete and file the form with the appropriate local government agency and must pay or cause to be paid the business license fee before any payment for Services under this Agreement is rendered.

19. Compliance with All Laws. Consultant and any subcontractors must comply fully with all applicable local, state and federal rules, laws, regulations and ordinances pertaining to performance of the Services, including the Americans with Disabilities Act and any copyright, patent or trademark law. To the extent that any other government agency or entity provides compensation for any Services, Consultant must comply with all rules and regulations applicable to that fiscal assistance. Consultant's failure to comply with any law(s) or regulations(s) applicable to the performance of the Services hereunder may be declared, at the discretion of DNLTC, a breach of contract.

These laws include, but are not limited to, the California Prevailing Wage Law; California Labor Code section 1720 et seq. Because the services described in Exhibit A include "work performed during the design and preconstruction phases of construction including, but not limited to, inspection and land surveying work," the services constitute public works within the definition of section 1720(a)(l) of the California Labor Code.

Therefore, the services described in Exhibit A must be performed in accordance with all applicable requirements of the California Prevailing Wage Law including, but not limited to, all applicable requirements contained in Exhibit C, which is attached to and made a part of this Agreement. To the extent that any other government agency or entity provides compensation for any services, consultant must comply with all rules and regulations applicable to the fiscal assistance.

20. Discrimination. During the performance of this Agreement, Consultant must not discriminate against any employee or applicant for employment because of race, religion, creed,

color, national origin, ancestry, gender, sexual orientation, age or physical or mental disability in violation of any applicable law.

21. Notice. Except as otherwise specified in this Agreement, all notices to be sent pursuant to this Agreement must be made in writing, and sent to the Parties at their respective addresses specified below or to any other address a Party may designate by written notice delivered to the other Party in accordance with this Section. All notices must be sent by:

- A. Personal delivery, in which case notice is effective upon delivery; or
- B. Certified or registered mail, return receipt requested, in which case notice will be deemed delivered on receipt if delivery is confirmed by a return receipt; or
- C. Nationally recognized overnight courier, or USPS Express or Priority Mail, with tracking, with charges prepaid or charged to the sender's account, in which case notice is effective on delivery if delivery is confirmed by the delivery service; or
- D. Facsimile transmission, in which case notice is deemed delivered upon transmittal, provided that (a) a duplicate copy of the notice is promptly delivered by first-class or certified mail or by overnight delivery, or (b) a transmission report is generated reflecting the accurate transmission thereof. Any notice given by facsimile is considered to have been received on the next business day if it is received after 5:00 p.m. recipient's time or on a non-business day.

DNLTC:

Tamera Leighton, Executive Director
900 Northcrest Drive #16
Crescent City, CA 95531
tameraleighon@dnltc.org
(707) 465-3878

Consultant:

Consulting Firm
Contact, Position
Address
City, CA ZIP
Phone

22. Ownership of Documents. All original papers, documents or computer material on disk or microfilm, and copies thereof, produced as a result of this Agreement (collectively "Project Documents"), are the property of DNLTC and may not be used by Consultant without the written consent of DNLTC. Consultant will provide documents in electronic form in a format required by DNLTC. Copies of these documents or papers must not be disclosed to others without the written consent of the Director or their designated representative. DNLTC agrees to indemnify and hold Consultant harmless for claims resulting from DNLTC's alteration of the Project Documents for another DNLTC project.

23. Internet-Ready Deliverables. If applicable to this Agreement, each contract deliverable must be delivered as a data file suitable for publication on the Internet. The following specifications define the formats that satisfy this requirement:

- A. Brochures, reports, plan documents, catalogues, flyers with graphics included, and forms are to be formatted as screen-optimized ".pdf " files, if possible.
- B. Freestanding, individual graphics such as logos, small maps and photos are to be formatted as ".tif " files, with the largest side no larger than four inches.
- C. Large maps are to be formatted as ".jpg" files with the largest side no larger than four inches, unless mutually agreed otherwise by the Parties.
- D. Short text documents with no graphics are to be in MS Word.
- E. Freestanding charts, graphs and listings are to be in MS Excel.

24. Indemnification. To the fullest extent allowed by law, Consultant will indemnify, defend with counsel acceptable to DNLTC, and hold harmless DNLTC and its officers, officials, employees, agents and volunteers from and against any and all liability, loss, damage, claims, suits, actions, arbitrations proceedings, administrative proceedings, regulatory proceedings, civil penalties and fines, expenses and costs (including, without limitation, attorney's fees and costs and fees of litigation) (collectively, "Liability") of every nature, whether actual, alleged or threatened, arising out of or in connection with Consultant's performance of the Services or its failure to comply with any of its obligations contained in this Agreement, except such Liability caused by the sole negligence or willful misconduct of DNLTC.

The Consultant's obligation to defend and indemnify will not be excused because of the Consultant's inability to evaluate Liability or because the Consultant evaluates Liability and determines that the Consultant is not liable to the claimant. The Consultant must respond within thirty (30) days to the tender of any claim for defense and indemnity by DNLTC, unless this time has been extended by DNLTC. If the Consultant fails to accept or reject a tender of defense and indemnity within thirty (30) days, in addition to any other remedy authorized by law, so much of the money due the Consultant under and by virtue of this Agreement as is necessary for DNLTC may be retained by DNLTC until disposition has been made of the claim or suit for damages, or until the Consultant accepts or rejects the tender of defense, whichever occurs first. Furthermore, Consultant and Subcontractors' obligations to indemnify and defend DNLTC are binding on their successors and assigns and will survive the termination or completion of this Agreement for the fullest extent and duration allowed by law.

With respect to third party claims against the Consultant, the Consultant waives any and all rights of any type to express or implied indemnity against the Indemnitees.

Notwithstanding the foregoing, to the extent this Agreement is a "construction contract" as defined by California Civil Code section 2783, as may be amended from time to time, such duties of Consultant to indemnify will not apply when to do so would be prohibited by California

Civil Code Section 2782.

Notwithstanding the foregoing, to the extent that this Agreement includes design professional services under Civil Code Section 2782.8, as may be amended from time to time, such duties of Consultant to indemnify will only be to the full extent permitted by Civil Code Section 2782.8.

The defense and indemnification obligations of this Agreement are undertaken in addition to, and will not in any way be limited by, the insurance obligations contained in this Agreement. If any term or portion of this section is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, said section will be interpreted to allow the broadest indemnity permitted by law.

25. Insurance. Consultant must procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Consultant, Consultant's agents, representatives and employees.

A. Minimum Scope of Insurance. Coverage must be at least as broad as:

1. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).
2. Insurance Services Office form number CA 0001 (Ed. 12/90) covering Automobile Liability, code 1(any auto), or code 8, 9 if no owned auto.
3. Workers' Compensation Insurance as required by the State of California and Employers' Liability Insurance. If no employees are utilized, the Consultant will provide a signed declaration as described in California Health and Safety Code Section 19825.
4. Professional liability insurance appropriate to the Consultant's profession. Architects' and Engineers' coverage is to be endorsed to include contractual liability.

B. Minimum Limits of Insurance. Consultant will maintain limits no less than:

1. General Liability: \$2,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit must apply separately to this project/location or the general aggregate limit must be twice the required occurrence limit.

2. Automobile Liability: \$1,000,000 per accident for bodily injury and property damage.
3. Workers ' Compensation: statutory limit; Employer's Liability: \$1,000,000 per accident for bodily injury or disease.
4. Professional liability: \$1,000,000 per occurrence or claim.

C. Umbrella or Excess Insurance. The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance must contain or be endorsed to contain a provision that this coverage also apply on a primary and non-contributory basis for the benefit of DNLTC before DNLTC's insurance or self-insurance is called upon to protect it as a named insured.

D. Deductibles and Self-Insured Retention. Any deductibles or self-insured retentions must be declared to and approved by DNLTC and do not reduce the limits of liability. Policies containing any self-insured retention provision must provide or be endorsed to provide that the self-insured retention may be satisfied by either the named Insured or DNLTC. At the option of DNLTC, either: the insurer must reduce or eliminate the deductibles or self-insured retentions as respects DNLTC, its officers, officials, employees and volunteers, or the Consultant must provide a financial guarantee satisfactory to DNLTC guaranteeing payment of losses and related investigations, claim administration and defense expenses. DNLTC reserves the right to obtain a full certified copy of any insurance policy and endorsements. Failure to exercise this right does not constitute a waiver of right to so exercise later.

E. Other Insurance Provisions.

1. The Commercial General Liability and Automobile Liability policies are to contain, or be endorsed to contain, the following provisions:

a. DNLTC, its officers, officials, employees and volunteers (the "Additional Insureds") are to be covered as insureds as respects: liability arising out of work or operations as performed by or on behalf of the Consultant; or automobiles owned, leased, hired or borrowed by the Consultant.

b. For any claims related to this project, the Consultant's insurance coverage is primary insurance as respects DNLTC, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by DNLTC, its officers, officials, employees or volunteers is in excess of the Consultant's insurance and does not contribute with it. The

Additional Insured coverage under the Consultant's policy must be at least as broad as ISO Form CG 20 01 04 13.

c. Each insurance policy required by this clause must be endorsed to state that coverage will not be canceled by either Party, unless thirty (30) days prior written notice by certified mail, return receipt requested, has been given to DNLTC.

2. The Workers' Compensation endorsement must contain a Waiver of Subrogation against DNLTC. The Consultant will provide to DNLTC an endorsement from the Workers' Compensation insurer, if any, agreeing to waive all rights of subrogation against DNLTC for injuries to employees of the Insured resulting from work for DNLTC.

F. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise agreed to by DNLTC.

G. Verification of Coverage. Consultant must furnish DNLTC with original certificates and amendatory endorsements effecting coverage required by this clause. The endorsements should be on forms provided by DNLTC or on other than DNLTC's forms provided those endorsements conform to DNLTC's requirements. All certificates and endorsements are to be received and approved by DNLTC before work commences.

H. Subcontractors. Consultant must include all subcontractors as insureds under its policies or furnish separate certificates and endorsements for each subcontractor prior to commencement of subcontractor's work. Consultant agrees that all contracts with subcontractors will include the same requirements stated in this Agreement with respect to indemnity and insurance. Subcontractors hired by Consultant must agree to be bound contractually to Consultant and DNLTC in the same manner and to the same extent as Consultant is bound to DNLTC under this Agreement. Subcontractors must further agree to include these same provisions with any Sub-subcontractor. A copy of these indemnity and insurance provisions must be furnished by Consultant to any subcontractor. The Consultant must require all subcontractors to provide a valid certificate of insurance and the required endorsements prior to commencement of any work by that subcontractor and Consultant will provide proof of compliance to DNLTC. If DNLTC is not furnished separate endorsements for each subcontractor prior to the commencement of subcontractor's work, then Consultant must include all subcontractors as insureds under its policies.

26. Amendment. This Agreement may be amended only by a written instrument executed by both Parties.

27. Litigation. If litigation ensues between DNLTC and a third-party, which pertains

to the subject matter of Consultant's services hereunder, Consultant, upon request from DNLTC, agrees to testify therein at a reasonable and customary fee.

28. Construction. This Agreement is the product of negotiation and compromise on the part of both Parties and that the Parties agree that, notwithstanding Civil Code Section 1654, any uncertainty in the Agreement may not be construed against the drafter of the Agreement.

29. Governing Law; Venue. This Agreement must be enforced and interpreted under the laws of the State of California. Any action arising from or brought in connection with this Agreement must be venued in the Superior Court for the County of Del Norte, State of California.

30. Non-Waiver. DNLTC's failure to enforce any provision of this Agreement or the waiver thereof in a particular instance is not a general waiver of any part of that provision. The provision will remain in full force and effect.

31. Severability. If any term or portion of this Agreement is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of this Agreement continue in full force and effect.

32. No Third-Party Beneficiaries. The Parties do not intend to create, and nothing in this Agreement creates, any benefit or right in any third party.

33. Mediation. The Parties agree to make a good faith attempt to resolve any dispute arising out of this Agreement through mediation prior to commencing litigation. The Parties must mutually agree upon the mediator and divide the costs of mediation equally.

34. Consultant's Books and Records.

A. Consultant must maintain any and all ledgers, books of accounts, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services, or expenditures and disbursements charged to DNLTC for a minimum period of three (3) years or for any longer period required by law, from the date of final payment to Consultant under this Agreement.

B. Consultant must maintain all documents and records which demonstrate performance under this Agreement for a minimum period of three (3) years or for any longer period required by law, from the date of termination or completion of this Agreement.

C. Any records or documents required to be maintained under this Agreement must be made available for inspection or audit, at any time during regular business hours, upon written request by the Director or their designated representative. Copies of these documents will be provided to DNLTC when it is practical to do so. Otherwise, unless an alternative is mutually agreed upon, the records must be available

at Consultant's address indicated for receipt of notices in this Agreement.

D. If DNLTC has reason to believe that records or documents may be lost or discarded due to dissolution, disbandment or termination of Consultant's business, DNLTC may, by written request by the Director, require that custody of the records be given to DNLTC and that the records and documents be maintained by DNLTC. Access to these records and documents will be granted to any party authorized by Consultant, Consultant's representatives, or Consultant's successor in interest.

35. Headings. The headings used in this Agreement are for convenience only and are not intended to affect the interpretation or construction of any provisions herein.

36. Survival. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between DNLTC and Consultant will survive the termination or completion of this Agreement.

37. Entire Agreement. This Agreement, including the exhibits attached hereto and incorporated herein, constitutes the entire agreement between the Parties with respect to the Services, and supersedes all prior agreements or understandings, oral or written, between the Parties in this regard.

[Signature page to follow]

IN WITNESS WHEREOF, the Parties have executed this document the day, month and year first above written.

DEL NORTE LOCAL TRANSPORTATION
COMMISSION:

By: _____
Tamera Leighton, Executive Director

CONSULTANT:

By: _____
Name, Position
Consultant

Past Due		Due in 3 Months			Complete		CT Milestone Report - Del Norte County 9.12.2022														
District	AMS ID	Project Number	Program	PM	County	Route	Post Mile	Nick Name	Legal Description	Work Description	Capital Construction Estimate	Capital Right-of-Way Estimate	Support Cost Estimate	Total Project Cost	Phase	Program Project	Project Approval & Environmental Document (PA&ED)	Right-of-Way Certification (R/W Cert)	Ready To List (RTL)	Begin Construction	End Construction
01	0100000193	01-43640	SHOPP	MELENDREZ, DAVID L	DN	101	35.8/36.5	Dr. Fine Bridge Replacement	IN DEL NORTE COUNTY NEAR CRESCENT CITY FROM 0.3 MILE SOUTH OF SMITH RIVER BRIDGE TO 0.4 MILE NORTH OF SMITH RIVER BRIDGE	REPLACE BRIDGE	\$86,565,000	\$6,499,000	\$36,366,743	\$129,430,743	PostRTL/Const	05/22/2006	03/19/2020	04/15/2021	05/03/2021	08/02/2022	10/03/2026
01	0100020444	01-0B090	SHOPP	MELENDREZ, DAVID L	DN	101	8.2/8.7	Hunter/Panther Creek Bridge Replacement	IN DEL NORTE COUNTY NEAR KLAMATH AT PANTHER CREEK BRIDGE #01-0025 AND AT HUNTER CREEK BRIDGE #01-0003	REPLACE BRIDGE	\$21,171,000	\$2,230,000	\$30,089,024	\$53,490,024	PostRTL/Const	07/01/2014	07/05/2018	04/16/2019	10/14/2019	05/08/2020	12/30/2023
01	0115000094	01-0F240	SHOPP	MELENDREZ, DAVID L	DN	101	5.1/5.6	Ehlers Left Turn Pocket	IN DEL NORTE COUNTY NEAR KLAMATH FROM 0.2 MI SOUTH TO 0.2 MI NORTH OF THE ROUTE 101 & EHLERS WAY INTERSECTION	EXTEND LEFT TURN POCKET	\$1,406,000	\$1,000	\$2,630,070	\$4,037,070	PostRTL/Const	06/19/2018	04/28/2020	09/29/2020	03/22/2021	09/14/2021	01/30/2023
01	0115000099	01-0F280	SHOPP	MATTEOLI, JAIME C	DN	101	12/15.5	LAST CHANCE GRADE Permanent Restoration	IN DEL NORTE COUNTY FROM WILSON CREEK BRIDGE TO 3.8 MILES NORTH OF WILSON CREEK BRIDGE	REPAIR SLIDES; CONSTRUCT BYPASS	\$300,000,000	\$39,233,000	\$179,945,404	\$519,178,404	PAED	06/01/2018	11/17/2025	07/01/2030	09/02/2030	06/16/2031	10/14/2039
01	0116000005	01-0F430	SHOPP	MELENDREZ, DAVID L	DN	199	33.5/33.9	Collier Tunnel Electrical Upgrade	IN DEL NORTE COUNTY ABOUT 20 MILES NORTH OF GASQUET FROM RANDOLPH COLLIER TUNNEL TO 2.5 MILES SOUTH OF THE OREGON STATE LINE	UPGRADE TUNNEL LIGHTING	\$5,903,000	\$0	\$2,536,465	\$8,439,465	PostRTL/Const	08/16/2018	06/03/2019	10/01/2020	11/12/2021	04/08/2022	10/01/2023
01	0116000060	01-0F760	SHOPP	MELENDREZ, DAVID L	DN	199	28.1/28.1	REHAB IDLEWILD MAINT STATION	IN DEL NORTE COUNTY NEAR GASQUET AT THE IDLEWILD MAINTENANCE STATION	REHAB MAINTENANCE STATION	\$8,180,000	\$8,000	\$4,445,502	\$12,633,502	PostRTL/Const	08/16/2018	05/12/2020	08/11/2021	06/27/2022	12/15/2022	10/03/2024
01	0116000137	01-0G210	SHOPP	MATTEOLI, JAIME C	DN	101	21.23/21.23	Permanent Restoration at Cushing Creek	IN DEL NORTE COUNTY NEAR CRESCENT CITY AT 0.2 MILE NORTH OF CUSHING CREEK VIADUCT #01-0076	PERMANENT RESTORATION @ CUSHING CREEK	\$8,939,000	\$23,000	\$11,199,197	\$20,161,197	PostRTL/Const	05/15/2017	10/29/2019	09/08/2020	02/01/2021	08/05/2021	10/03/2024
01	0118000190	01-0J210	SHOPP	MATTEOLI, JAIME C	DN	101	R3.9/23.6	KLAMATH CAPM	IN DEL NORTE COUNTY IN & NEAR KLAMATH FROM 0.1 MILE NORTH OF KLAMATH RIVER OVFL TO 0.9 MILE NORTH OF HAMILTON RD	CAPM	\$30,811,000	\$61,000	\$5,260,898	\$36,132,898	PAED	06/24/2020	12/05/2022	07/01/2024	07/15/2024	04/05/2025	12/01/2026
01	0119000016	01-48801	SHOPP	MELENDREZ, DAVID L	DN	199	6.55/36.3	DN-199 Culverts	IN DEL NORTE COUNTY NEAR HIOUCHI FROM 0.3 MILE NORTH OF MYRTLE CREEK BRIDGE TO 0.1 MILE SOUTH OF OREGON STATE LINE	REHAB CULVERTS	\$1,564,000	\$26,000	\$2,403,856	\$3,993,856	PostRTL/Const		02/01/2019	03/03/2020	05/04/2020	08/20/2020	01/30/2023
01	0119000028	01-48802	SHOPP	MELENDREZ, DAVID L	DN	199	1.1/2.6	INSIDE PARK CULVERTS	IN DEL NORTE COUNTY NEAR CRESCENT CITY FROM 0.3 MILE NORTH OF ELK VALLEY CROSS ROAD TO 0.2 MILE SOUTH OF WALKER ROAD	CULVERT REHAB AND FISH PASSAGE	\$2,693,000	\$24,000	\$3,598,612	\$6,315,612	PostRTL/Const	03/16/2016	01/14/2020	01/19/2021	04/28/2021	08/26/2021	12/02/2024
01	0119000121	01-0J910	SHOPP	MELENDREZ, DAVID L	VARIOUS	101	125.7/131.7 7	DN to HUM-101 CAPM	IN HUMBOLDT AND DEL NORTE COUNTIES FROM 0.4 MI SOUTH OF SOUTH PRAIRIE CREEK UNDERCROSSING TO 2.7 MILES NORTH OF BOYES CREEK VIADUCT AND FROM NORTH PRAIRIE CREEK PARK UNDERCROSSING TO KLAMATH RIVER OVERFLOW	CLASS 1 PAVEMENT	\$47,638,000	\$0	\$6,059,326	\$53,697,326	PID	05/01/2024	03/02/2026	03/01/2027	07/15/2027	12/22/2027	12/01/2028
01	0120000028	01-0B091	SHOPP	MELENDREZ, DAVID L	DN	101	8.2/8.7	Hunter-Panther Mitigation	IN DEL NORTE COUNTY NEAR KLAMATH AT PANTHER CREEK BRIDGE #01-0025 AND AT HUNTER CREEK BRIDGE #01-0003	LONG TERM MITIGATION	\$0	\$0	\$280,045	\$280,045	PSE	07/01/2014	07/05/2018	04/16/2019	07/01/2023	12/15/2023	06/01/2030
01	0120000033	01-0K140	SHOPP	MATTEOLI, JAIME C	DN	101	12.6/13.2	Wilson Creek Restoration & SPGA Wall	IN DEL NORTE COUNTY NEAR KLAMATH FROM WILSON CREEK BRIDGE TO 0.5 MILE NORTH OF WILSON CREEK BRIDGE	REALIGNMENT & SPGA WALL	\$24,894,000	\$762,000	\$8,311,268	\$33,967,268	PAED	10/21/2020	08/19/2024	07/19/2026	08/19/2026	02/02/2027	12/01/2028
01	0120000129	01-0K640	SHOPP	MATTEOLI, JAIME C	DN	199	24.11/24.26 7	Middle Fork Smith River Curve Improvement	IN DEL NORTE COUNTY FROM MIDDLE FORK SMITH RIVER BRIDGE TO 0.2 MILE NORTH OF MIDDLE FORK SMITH RIVER BRIDGE	CONSTRUCT CURVE IMPROVEMENT & UPGRADE ROADSIDE PAVEMENT	\$1,390,000	\$3,000	\$3,062,431	\$4,455,431	PAED	06/23/2021	01/23/2023	07/24/2023	10/02/2023	03/19/2024	12/01/2025
01	0120000135	01-0K690	SHOPP	MATTEOLI, JAIME C	DN	101	M0/46.5	Culvert Rehabilitation & Fish Passage	IN DEL NORTE COUNTY ON ROUTE 101 FROM THE HUM-DN COUNTY LINE TO THE OREGON STATE LINE	DRAINAGE REHAB & FISH PASSAGE	\$14,802,000	\$2,992,000	\$10,510,645	\$28,304,645	PAED	06/29/2022	05/02/2025	05/03/2027	08/03/2027	02/01/2028	12/01/2029

Past Due		Due in 3 Months			Complete																	
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01	0121000034	01-0K950	SHOPP	MATTEOLI, JAIME C	DN	101	15.6/16.2	Damnation Creek Safety	IN DEL NORTE COUNTY ABOUT 10 MILES SOUTH OF CRESCENT CITY FROM 3 MILES NORTH TO 3.6 MILES NORTH OF WILSON CREEK BRIDGE	SUPER EL IMPROVEMENTS AND MGS	\$7,969,000	\$37,000	\$5,002,979	\$13,008,979	PAED	01/26/2022	02/29/2024	02/28/2025	03/17/2025	09/02/2025	12/01/2028	
01	0121000070	01-43641	SHOPP	MELENDREZ, DAVID L	DN	101	36.056/36.056	Smith River Bridge On Site Mitigation	IN DEL NORTE COUNTY NEAR CRESCENT CITY FROM 0.3 MILE SOUTH TO 0.4 MILE NORTH OF SMITH RIVER BRIDGE #01-0020	ON SITE MITIGATION & MONITORING	\$500,000	\$0	\$1,285,481	\$1,785,481	PSE	04/07/2021	03/10/2020		07/01/2025	12/01/2025	10/01/2027	
01	0121000071	01-43642	SHOPP	MELENDREZ, DAVID L	DN	101	25.84/25.84	Smith River BR/HAMBRO Off Site Mitigation	IN DEL NORTE COUNTY NEAR CRESCENT CITY AT ELK VALLEY ROAD	OFFSITE MITIGATION	\$300,000	\$0	\$472,825	\$772,825	PostRTL/Const	04/07/2021		07/15/2025	05/03/2021	12/01/2025	12/01/2027	
01	0122000010	01-0L430	SHOPP	MELENDREZ, DAVID L	DN	101	39.2/39.6	Timbers Blvd Safety	IN DEL NORTE COUNTY NEAR SMITH RIVER FROM 0.5 MILE SOUTH OF ROWDY CREEK BRIDGE TO ROWDY CREEK BRIDGE	LEFT TURN CHANNELIZATION	\$3,095,000	\$110,000	\$3,502,910	\$6,707,910	PAED	08/17/2022	07/19/2024	09/30/2025	10/15/2025	05/05/2026	12/01/2027	
01	0122000058	01-0L890	MMBN	MELENDREZ, DAVID L	DN	101	8.2/8.7	Hunter-Panther Broadband Middle Mile	BROADBAND MIDDLE MILE 0.5 MILES IN DEL NORTE COUNTY NEAR KLAMATH AT PANTHER CREEK BRIDGE AND AT HUNTER CREEK BRIDGE	BROADBAND MIDDLE MILE	\$175,000	\$0	\$61,891	\$236,891	PostRTL/Const	02/01/2022	08/03/2022	08/03/2022	08/03/2022	08/30/2022	12/30/2022	
01	0122000073	01-0L990	SHOPP	MELENDREZ, DAVID L	DN	199	.8/.8	DN 199 Roundabout	IN DEL NORTE COUNTY NEAR CRESCENT CITY AT ELK VALLEY CROSS ROAD	CONSTRUCT ROUNDABOUT	\$3,493,000	\$23,000	\$3,367,119	\$6,883,119	PID	12/08/2022	06/03/2024	09/02/2024	12/03/2024	06/16/2025	12/01/2027	
01	0122000105	01-0M120	SHOPP	MATTEOLI, JAIME C	DN	101	18.4/19.3	Mill Creek Safety	IN DEL NORTE COUNTY FROM 1.84 MILE SOUTH OF MILL CREEK PARK ENTRANCE - ROAD 8086 TO 1.0 MILE SOUTH OF MILL CREEK PARK ENTRANCE	SUPER ELEVATION IMPROVEMENT, SHOULDERS AND HFST	\$0	\$0	\$2,755,461	\$2,755,461	PID	04/07/2023	06/09/2027	06/06/2029	07/18/2029	12/18/2029	09/05/2031	
01	0122000123	01-0M200	MMBN	BUCK, JENNIFER L	DN	199	T0/R15.9	DN-199 Broadband Middle Mile	BROADBAND MIDDLE MILE IN DEL NORTE COUNTY NEAR CRESCENT CITY FROM THE ROUTE 199/101 SEPARATION TO THE OREGON STATE LINE	BROADBAND MIDDLE MILE	\$12,611,000	\$0	\$3,668,055	\$16,279,055	PAED	8/29/2022	06/01/2024	08/01/2024	08/01/2024	12/03/2024	11/01/2026	
01	0122000128	01-0M250	MMBN	BUCK, JENNIFER L	VARIOUS	101	122.8/R137.1	Northern HUM-DN 101 Broadband Middle Mile	BROADBAND MIDDLE MILE IN HUMBOLDT AND DEL NORTE COUNTIES NEAR ORICK FROM 0.1 MILE SOUTH OF PRAIRIE CREEK BRIDGE TO END OF HUMBOLDT COUNTY LINE AND FROM THE DEL NORTE - HUMBOLDT COUNTY LINE TO THE OREGON STATE LINE	BROADBAND MIDDLE MILE	\$20,893,000	\$0	\$6,104,305	\$26,997,305	PAED	8/29/2022	06/01/2024	08/01/2024	08/01/2024	12/03/2024	11/01/2026	
01	0121000075	01-0L140	OVERSIGHT	MELENDREZ, DAVID L	DN	101	3.72/3.78	Resighini Encroachment Permit	In Del Norte County at Klamath River Overflow	Oversite	Resighini Tribe				PAED		04/01/2024	09/01/2024	04/01/2024	09/01/2024	09/01/2024	

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01	0114000052	01-44260	MINOR B	GHIDINELLI, CHRISTOPHER M	DN	101	0/25	Develop Disposal Site	IN DEL NORTE COUNTY FROM THE HUMBOLDT-DEL NORTE COUNTY LINE TO 0.6 MI SOUTH OF SAND MIND RD-RD 112	DEVELOP DISPOSAL SITE	\$15,000	\$0	\$367,812	\$382,812	PAED		12/31/2024	01/15/2025	03/01/2025	06/01/2025	12/30/2026
01	0117000015	01-0G530	MINOR B	GHIDINELLI, CHRISTOPHER M	DN	101	27/27	CRESCENT CITY MTCE. YARD	IN DEL NORTE COUNTY IN CRESCENT CITY AT THE JUNCTION OF ROUTE 101 AND NORTHCREST DRIVE AT THE CRESCENT CITY MAINTENANCE STATION	PROPERTY PURCHASE	\$250,000	\$947,000	\$203,902	\$1,400,902	PSE		11/29/2016	04/01/2024	04/01/2024	04/01/2024	04/01/2024
01	0118000103	01-0H770	MINOR B	GHIDINELLI, CHRISTOPHER M	DN	199	28.06/28.06	IDLEWILD MS PAVING	IN DEL NORTE COUNTY NEAR IDLEWILD AT THE IDLEWILD MAINTENANCE STATION	REPLACE ASPHALT	\$264,000	\$0	\$67,455	\$331,455	PSE		07/01/2018	07/25/2022	11/01/2022	01/01/2023	12/29/2023
01	0119000014	01-0J350	MINOR A	FLOYD, KIMBERLY R	DN	199	33.41/33.41	COLLIER SRRA WATER UPGRADE	IN DEL NORTE COUNTY NEAR THE OREGON STATE LINE AT COLLIER SAFETY ROADSIDE REST AREA	UPGRADE WATER SYSTEM	\$1,080,000	\$0	\$2,042,151	\$3,122,151	PAED	10/01/2025	12/01/2026	12/01/2026	07/01/2028	11/01/2028	12/01/2029
01	0120000070	01-0K380	MINOR A	FLOYD, KIMBERLY R	DN	101	R27.5/R27.9	CRESCENT CITY PED & BIKE PATH	IN DEL NORTE COUNTY IN CRESCENT CITY FROM "A" DRIVE ON HIGHWAY 101 TO SUMMER LANE ON WASHINGTON STREET	CONSTRUCT ADA PATH	\$1,159,000	\$56,000	\$1,386,625	\$2,601,625	PostRTL/Const	04/01/2020	11/22/2021	02/11/2022	03/23/2022	07/11/2022	12/30/2022
01	0121000047	01-0L050	MINOR B	GHIDINELLI, CHRISTOPHER M	DN	199	11/11.5	Hardscrabble Creek HFST	IN DEL NORTE COUNTY FROM HARDSCRABBLE CREEK BRIDGE #01-40 TO 0.5 MILE NORTH OF HARDSCRABBLE CREEK BRIDGE	HFST	\$330,000	\$0	\$57,732	\$387,732	PostRTL/Const		10/14/2021	10/19/2021	12/15/2021	06/23/2022	11/01/2022

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District	AMS ID	Project Number	Program	PM	County	Route	Post Mile	Nick Name	Legal Description	Work Description	Capital Construction Estimate	Capital Right-of-Way Estimate	Support Cost Estimate	Total Project Cost	Phase	Program Project	Project Approval & Environmental Document (PA&ED)	Right-of-Way Certification (R/W Cert)	Ready To List (RTL)	Begin Construction	End Construction
01	0119000116	01-0J860	MAINTENANCE	GHIDINELLI, CHRISTOPHER M	DN	VAR	0/0	NORTH AREA BRIDGE REPAIR	IN DEL NORTE COUNTY AT VARIOUS LOCATIONS	REHAB BRIDGE DECKS	\$1,500,000	\$0	\$2,345,571	\$3,845,571	PostRTL/Const		10/01/2020	10/15/2020	03/26/2021	06/18/2021	11/01/2023
01	0120000101	01-0K470	MAINTENANCE	GHIDINELLI, CHRISTOPHER M	DN	101	39.82/46.49	DEL NORTE MICRO-SURFACING	IN DEL NORTE COUNTY NEAR SMITH RIVER FROM 0.2 MILE NORTH OF ROWDY CREEK BRIDGE TO THE OREGON STATE LINE	MICRO-SURFACING	\$606,000	\$0	\$739,543	\$1,345,543	PostRTL/Const		07/17/2020	10/28/2020	04/08/2021	06/22/2021	10/01/2022
01	0121000044	01-0L040	MAJOR DAMAGE	GOFF, TREVOR	DN	101	12/16.5	LCG Landslide Repair	IN DEL NORTE COUNTY ABOUT 8 MILES SOUTH OF CRESCENT CITY FROM 0.2 MI SOUTH OF LAGOON CR CO PK TO BEG PASSING LN LT	LANDSLIDE REPAIR	\$19,100,000	\$2,000	\$18,814,105	\$37,916,105	PostRTL/Const	02/15/2021	02/15/2021	02/15/2021	02/16/2021	02/17/2021	06/30/2023
01	0121000086	01-0L230	MAJOR DAMAGE	GOFF, TREVOR	DN	101	15.1/15.5	LCG Landslide Repair	IN DEL NORTE COUNTY ABOUT 10 MILES SOUTH OF CRESCENT CITY FROM 1.3 MI TO 1.9 MI NORTH OF RUDISILL RD	LANDSLIDE REPAIR	\$6,500,000	\$0	\$13,165,045	\$19,665,045	PostRTL/Const	05/12/2021	05/12/2021	07/11/2022	05/12/2021	06/21/2021	06/30/2023
01	0122000013	01-0L460	MAINTENANCE	GHIDINELLI, CHRISTOPHER M	VARIOUS	VAR	0/0	HM4 - TMS Enhancement	IN DEL NORTE, HUMBOLDT, LAKE, AND MENDOCINO COUNTIES AT VARIOUS LOCATIONS	TMS ENHANCEMENTS	\$540,000	\$0	\$339,890	\$879,890	PAED		09/15/2022	09/22/2022	10/15/2022	01/01/2023	11/01/2023
01	0122000037	01-0L700	MAJOR DAMAGE	GOFF, TREVOR	VARIOUS	VAR	0/0	Emergency Hazard Tree Removal	IN HUMBOLDT AND DEL NORTE COUNTIES ON VARIOUS ROUTES AT VARIOUS LOCATIONS	HAZARDOUS TREE REMOVAL	\$0	\$0	\$1,743,802	\$1,743,802	PostRTL/Const	11/01/2021	11/01/2021	11/01/2021	11/01/2021	11/19/2021	11/01/2022
01	0122000074	01-0M000	OTHER STATE FUNDS	GHIDINELLI, CHRISTOPHER M	DN	101	R28.068/28.068	CHP Transfer of Jurisdiction	IN DEL NORTE COUNTY NEAR CRESCENT CITY AT FRONTAGE (FR) EAST WASHINGTON BOULEVARD	TRANSFER OF JURISDICTION	\$0	\$0	\$116,116	\$116,116	PSE		06/29/2022	02/15/2023	06/30/2023	10/01/2023	12/29/2023
01	0122000075	01-0M010	MAINTENANCE	GHIDINELLI, CHRISTOPHER M	DN	197	0/7.1	Smith River Micro-Surfacing	IN DEL NORTE COUNTY NEAR HIOUCHI FROM ROUTE 199 TO ROUTE 101	MICRO-SURFACING	\$1,345,000	\$0	\$221,767	\$1,566,767	PSE		08/17/2022	08/17/2022	12/30/2022	05/01/2023	11/01/2023
01	0123000016	01-0M460	MAJOR DAMAGE	GOFF, TREVOR	DN	101	26.95/26.95	CC MS fuel facility install	IN DEL NORTE COUNTY IN CRESCENT CITY AT THE CRESCENT CITY MAINTENANCE STATION	Construct Fuel Facility	\$388,000	\$0	\$118,341	\$506,341	PostRTL/Const	08/08/2022	08/08/2022	08/08/2022	08/08/2022	08/08/2022	11/01/2022

Project Updates

North DEAL

September 2022

Del Norte County

DN-101-PM 8.2/8.7 – Hunter/Panther Creek Bridge – This **\$22 million** project will replace two bridges to meet current seismic/design standards. Project construction will employ the use of a temporary detour bridge as well as signal system to control traffic. Construction is expected to be completed by the end of this year. **\$53.4 million**

DN-101-PM 12.6/13.2 – Wilson Creek Permanent Restoration – This **\$23 million** project proposes to construct a wall to restore the roadway to pre-storm damage conditions and reduce the risk of future damage. Construction is targeted to begin in 2027. **\$33.9 million**

DN-101-PM 15.1/15.3 – Last Chance Grade & Storm Damage – In April 2017, the Federal Highway Administration (FHWA) approved funding of \$27.6 million (construction) to repair storm damage that has occurred at Last Chance Grade since March 2016. The scope of work includes repairs to four retaining walls and new construction or extensions of four retaining walls. Construction crews will also improve vertical undulations. This work is ongoing at several of the damaged locations.

The Last Chance Grade Engineered Feasibility Study was completed June 2015 and a Project Study Report was completed in June 2016. These documents and others are posted on LastChanceGrade.com.

Caltrans completed an Expert Risk Assessment in June 2018 that provided additional information to assist with funding and alignment decisions. Results of the risk assessment were shared at a July 2018 public meeting.

A near-real-time-monitoring system, to remotely measure ground motion, has been installed that will be able to send immediate notifications to identified personnel in the event of a pre-specified ground motion, such as a significant drop of the roadway elevation. The system was installed in December 2015 and measures roadway and slope movement at specific locations. One camera has been installed at the southern end of the landslide area.

The \$50 million environmental phase of the long-lead project was fully funded in March 2019. A project specific contract was awarded to HNTB with a notice to proceed in March 2020.

Construction capital cost estimates for the project alternatives range from \$500 million to \$1.4 billion.

The project team worked collaboratively with the four stakeholder working groups to narrow down the list of alternatives to two: Alternative X, which strengthens the

current alignment in place, and Alternative F, which is a tunnel bypass of the landslide.

Current roadway work consists of replacing, repairing, and building new walls to respond to storm damage from previous years.

DN-101-PM 15.7/16.2 – Damnation Creek Safety – This safety project proposes adding guardrail with wider shoulder, extending a passing lane, and improving super elevation on a curve north of Last Chance Grade. Construction is scheduled to begin in summer 2025 and is estimated to cost **\$9.3 million. \$13 million**

DN-101-PM 21.23 – Permanent Restoration at Cushing Creek – This project proposed to construct a wall to restore the roadway to full width. An **\$8.9M** construction contract was awarded to McCullough Construction in July 2021. **\$20.1 million**

DN-101-PM 27.5/27.9 – Crescent City Ped/Bike Path – This project runs along the west side of Route 101 from the north end of Crescent City, adjacent to the Washington Blvd onramp and up to near Walmart. Tree removal has occurred, and the construction contract was awarded in June to GR Sundberg. **\$2.6 million**

DN-101-PM 36 – Dr. Fine/Smith River Bridge Project – This project proposes to replace the existing Dr. Fine Bridge on Route 101 crossing the Smith River. Total cost, including right of way, is approximately **\$85 million**. Construction is expected to begin in late 2022 and take approximately 4 years to complete. During construction, traffic will be diverted onto a temporary bridge east of the existing bridge structure. Speed reduction will be implemented on approach to the project site with a 25 mph speed limit on the temporary bridge. The project was awarded in August to MCM Construction. **\$129.4 million**

DN-197-PM 4.0 – Ruby 2 STAA Widening – This Minor “A” project is in the design phase. Construction was expected to begin in 2015, but the project is under the terms of a preliminary injunction based on a NEPA challenge. Caltrans, CEQA, and now NEPA documents for the entire corridor have been challenged by groups such as EPIC and Friends of Del Norte. This update applies to all STAA 199/197 projects – as of 8-23-17 plaintiffs have been noticed that ESA consultation is complete per court order. A new lawsuit has been filed. Work has been halted on this project until litigation is resolved. The construction capital estimate is \$1.3 million.

DN-197-PM 4.5 – Ruby 1 STAA Widening – This Minor “A” project is in the design phase. Construction was expected to begin in 2015, but the project is under the terms of a preliminary injunction based on a NEPA challenge. Caltrans’ CEQA, and now NEPA documents for the entire corridor have been challenged by groups such as EPIC and Friends of Del Norte. This update applies to all STAA 199/197 projects – as of 8-23-17 plaintiffs have been noticed that ESA consultation is complete per court order. A new lawsuit has been filed. Work has been halted on this project until litigation is resolved. The construction capital estimate is \$650 thousand.

DN-199-PM 1.10/2.60 - Inside Park Culverts – This project will replace 4 culverts and improve fish passage at Clarks Creek. Three culverts will be replaced using a Jack-n-Bore method. The project was advertised and awarded to Ford Logging DBA Pacific Earthscape. Construction began this spring and is expected to be completed in 2024. With traffic control, expected maximum delay during construction is 10 minutes. However, the project may include intermittent closures of up to 20 minutes. **\$6.3 million**

DN-199-PM 6.55/36.3 – Del Norte 199 Culverts – This project will replace or rehab 11 culverts and improve fish passage at Griffin Creek, PM 31.3. This project was advertised and awarded to GR Sundberg INC. in August 2020. Construction is expected to be completed at the end of this construction season. . With traffic control, expected maximum delay during construction is 10 minutes. However, the project may include intermittent closures of up to 20 minutes at some locations. **\$3.9 million**

DN-199-PM 20.5/25.7 – Patrick Creek Widening – This STIP STAA project includes earthwork, retaining walls, and possibly replacing the Middle Fork Smith River Bridge. This project was awarded to Flatiron West, Inc. on December 10, 2013 and terminated in 2015. This update applies to all STAA 199/197 projects – as of 8-23-17 plaintiffs have been noticed that ESA consultation is complete per court order. A new lawsuit has been filed. Work has been halted on the projects until litigation is resolved. The construction capital estimate is \$19.1 million.

DN-199-PM 22.7/26.5 at Patrick Creek – The Narrows and Washington Curve Widening – The Narrows and the Washington Curve projects have been combined into a single Major SHOPP project. However, due to the preliminary injunction, progress has been halted. Caltrans' CEQA, and now NEPA documents for the entire corridor have been challenged by groups such as EPIC and Friends of Del Norte. This update applies to all STAA 199/197 projects – as of 8-23-17 plaintiffs have been noticed that ESA consultation is complete per court order. A new lawsuit has been filed. Work has been halted on this project until litigation is resolved. The construction capital estimate is \$8.6 million.

DN-199-PM 24.1/24.3 – Middle Fork Smith River Curve Improvement – This **\$1.6M** safety project proposes a curve improvement east of the nearby Middle Fork Smith River Bridge to address collisions. The project is currently in the environmental phase and construction is targeted to begin in 2024. **\$4.4 million**

DN-199-PM 33.5/33.9 – Collier Tunnel Electrical Upgrade – This Safety Lighting project proposes to provide the traveling public with safe and reliable system by replacing the existing failing High-Pressure Sodium (HPS) lights with highly efficient light-emitting diode (LED) lights. The estimated maximum delay for traffic control is 10 minutes or less with 25 minutes during intermittent closures, using a temporary signal system installation. The project is estimated to have 120 Working Days. A speed reduction zone will be set up during construction to improve safety for the traveling public. The construction contract has been awarded to Stewart Engineering for **\$6M**. **\$8.4 million**

Appendix C

COMMON ACRONYMS

ATP – Active Transportation Program	NEPA – National Environmental Policy Act
BTA – Bicycle Transportation Account	OWP – Overall Work Program
CalACT – California Association for Coordinated Transportation	PPM – Planning, Programming & Monitoring Program
CALCOG – California Association of Councils of Governments	PTA – Public Transportation Account
CalSTA – California State Transportation Agency	PUC – Public Utilities Commission / Public Utilities Code
Caltrans – California Department of Transportation	RCT – Redwood Coast Transit
CEQA – California Environmental Quality Act	RCTA – Redwood Coast Transit Authority
CRRSAA -- Coronavirus Response and Relief Supplemental Appropriations Act	RCTF – Rural Counties Task Force
CSAC – California State Association of Counties	PSR – Project Study Report
CTC – California Transportation Commission	RIP – Regional Improvement Program
CTSA – Consolidated Transportation Service Agency	RPA – Rural Planning Assistance
DNLTC – Del Norte Local Transportation Commission	RSTP – Regional Surface Transportation Program
DOT – California Department of Transportation, a.k.a. Caltrans	RTIP – Regional Transportation Improvement Program
DTR – District Transit Representatives	RTP – Regional Transportation Plan
FAA – Federal Aviation Administration	RTPA – Regional Transportation Planning Agency
FAS – Federal Aid System	SB – Senate Bill
FAST Act: Fixing America's Surface Transportation Act	SHA – State Highway Account
FHWA – Federal Highway Administration	SHS – State Highway System
FTA – Federal Transit Administration	SHOPP – State Highway Operation and Protection Program
FTIP – Federal Transportation Improvement Program	SR – State Route
FY – Fiscal Year	SSTAC – Social Services Transportation Advisory Council
IIJA – Infrastructure Investment and Jobs Act	STA – State Transit Assistance
IIP – Interregional Improvement Program	STIP – State Transportation Improvement Program
IRRS – Inter-Regional Roadway System	STP – Surface Transportation Program
ITIP – Interregional Transportation Improvement Program	TAC – Technical Advisory Committee
JPA – Joint Powers Agreement	TDA – Transportation Development Act of 1971
LTF – Local Transportation Fund	TDP – Transit Development Plan
MAP-21 -- Moving Ahead for Progress in the 21st Century	TE – Transportation Enhancement Program (formerly TEA)
MOU – Memorandum of Understanding	TSM – Transportation System Management
MPO – Metropolitan Planning Organization	USDOT – United States Department of Transportation
	VMT – Vehicle Miles Traveled
	WE – Work Element
	YTD – Year to Date
	ZEB – Zero Emission Bus
	ZEV – Zero Emission Vehicle