

AGREEMENT FOR CONSULTANT SERVICES
BY AND BETWEEN
COUNTY OF HUMBOLDT AND GHD INC.
FOR
ENGINEERING AND ENVIRONMENTAL SERVICES FOR
HUMBOLDT BAY TRAIL – BAY TRAIL SOUTH (EUREKA TO BRACUT)

Project No. 715036

This contract entered into this 26th day of July, 2016, by and between the County of Humboldt, a political subdivision of the State of California, hereinafter referred to as “COUNTY,” and GHD Inc., a California corporation, hereinafter referred to as “CONSULTANT,” is made upon the following considerations:

RECITALS

WHEREAS, COUNTY, by and through its Department of Public Works, desires to retain the services of CONSULTANT to assist COUNTY in performing Engineering and Environmental services which are further described in Attachment A – Scope of Work; and

WHEREAS, such work involves the performance of professional and technical services of a temporary and occasional character, and COUNTY has no employees available to perform such services and is unable to hire employees for the performance thereof for this temporary period; and

WHEREAS, pursuant to Government Code Section 31000, COUNTY may retain independent contractors to perform special services for COUNTY or any department thereof; and

WHEREAS, CONSULTANT represents that it is qualified to perform the duties and services set forth in this contract; and

NOW THEREFORE, the parties hereto mutually agree as follows:

ARTICLE I – INTRODUCTION

- A. The Project Manager for CONSULTANT will be Josh Wolf. The Contract Administrator for COUNTY will be Hank Seemann, Deputy Director of Public Works or designee thereof.
- B. The work to be performed under this contract is described in Article II – Statement of Work and the approved CONSULTANT’s Cost Proposal dated March 15, 2016. The approved CONSULTANT’s Cost Proposal is attached hereto as Attachment B – Cost Proposal & Schedule of Work and incorporated herein by reference. If there is any conflict between the approved Cost Proposal and this contract, this contract shall take precedence.
- C. CONSULTANT and the agents and employees of CONSULTANT, in the performance of this contract, shall act in an independent capacity and not as officers or employees or agents of COUNTY.
- D. Without the written consent of COUNTY, this contract is not assignable by CONSULTANT either in whole or in part.

- E. No alteration or variation of the terms of this contract shall be valid, unless made in writing and signed by the parties hereto; and no oral understanding or agreement not incorporated herein, shall be binding on any of the parties hereto.
- F. The consideration to be paid to CONSULTANT as provided herein, shall be compensation for all of CONSULTANT's expenses incurred in the performance hereof, including travel and per diem, unless otherwise expressly so provided.

ARTICLE II – STATEMENT OF WORK

The work to be performed under this contract is described in Attachment A – Scope of Work and Attachment B – Cost Proposal & Schedule of Work.

ARTICLE III – CONSULTANT'S REPORTS OR MEETINGS

- A. CONSULTANT shall submit progress reports to COUNTY at least once a month. Such reports should be sufficiently detailed for COUNTY's Contract Administrator to determine, if CONSULTANT is performing to expectations, or is on schedule; to provide communication of interim findings, and to sufficiently address any difficulties or special problems encountered, so remedies can be developed.
- B. CONSULTANT's Project Manager shall meet with COUNTY's Contract Administrator, as needed, to discuss progress on the contract.

ARTICLE IV – PERFORMANCE PERIOD

- A. This contract shall go into effect on July 19, 2016, contingent upon approval by COUNTY, and CONSULTANT shall commence work after receiving notification to proceed from COUNTY's Contract Administrator. This contract shall end on December 31, 2018, unless extended by a written amendment hereto.
- B. CONSULTANT is advised that any recommendation for contract award is not binding on COUNTY until the contract is fully executed and approved by COUNTY.

ARTICLE V – ALLOWABLE COSTS AND PAYMENTS

- A. CONSULTANT will be reimbursed for hours worked at the hourly rates specified in Attachment B – Cost Proposal & Work Schedule. The specified hourly rates shall include direct salary costs, employee benefits, overhead, and fees. These rates are not adjustable for the performance period set forth in this contract.
- B. In addition, CONSULTANT will be reimbursed for incurred (actual) direct costs other than salary costs that are identified in the cost proposal.
- C. Reimbursement for transportation and subsistence costs shall not exceed the rates as specified in the approved Cost Proposal.
- D. When milestone cost estimates are included in the approved Cost Proposal, CONSULTANT shall obtain prior written approval for a revised milestone cost estimate from COUNTY's Contract Administrator before exceeding such estimate.

- E. Progress payments will be made monthly in arrears based on services provided and actual costs incurred.
- F. CONSULTANT shall not commence performance of work or services until this contract has been approved by COUNTY, and notification to proceed has been issued by COUNTY's Contract Administrator. No payment will be made for any work performed prior to approval of this contract.
- G. This contract is of no force or effect until returned to COUNTY and signed by an authorized representative of COUNTY. No expenditures are authorized on the project and work shall not commence until the contract has been executed by COUNTY.
- H. CONSULTANT will be reimbursed, as promptly as fiscal procedures will permit upon receipt by COUNTY's Contract Administrator of itemized invoices in triplicate. Invoices itemizing all costs are required for all work performed under this contract. Invoices shall be submitted no later than forty five (45) calendar days after the performance of work for which CONSULTANT is billing, or upon completion of the work. Invoices shall detail the work performed on each milestone. Invoices shall follow the format stipulated for the approved Cost Proposal and shall reference the contract number and project title. Credits due to COUNTY that include any equipment purchased under the provisions of Article XI – Equipment Purchase of this contract, must be reimbursed by CONSULTANT prior to the expiration or termination of this contract. Invoices shall be mailed to COUNTY's Contract Administrator at the following address:
- COUNTY: Humboldt County Department of Public Works
Attn: Hank Seemann, Contract Administrator
1106 Second Street, Eureka, CA 95501
- I. The period of performance for the work required hereunder shall be in accordance with the dates specified in Attachment B – Cost Proposal & Work Schedule. No work will be undertaken which extends beyond the expiration date of this contract.
- J. The total amount payable by COUNTY for all work performed hereunder shall not exceed One Million and Seven Hundred and Fifty Thousand Dollars (\$1,750,000.00), unless authorized by a written amendment hereto. The specific rates and costs shall be as set forth in Attachment B – Cost Proposal & Work Schedule.
- K. If CONSULTANT fails to satisfactorily complete a deliverable according to the schedule set forth in Attachment B – Cost Proposal & Work Schedule, no payment will be made until the deliverable has been satisfactorily completed.
- L. Change orders may not be used to amend this contract and may not exceed the scope of work under this contract.
- M. All subcontracts in excess of Twenty Five Thousand Dollars (\$25,000.00) entered into as a result of this contract shall contain all of the provisions of this Article.

ARTICLE VI – TERMINATION

- A. COUNTY reserves the right to terminate this contract upon thirty (30) calendar days written notice to CONSULTANT with the reasons for termination stated in the notice.
- B. COUNTY may terminate this contract with CONSULTANT should CONSULTANT fail to perform the covenants herein contained at the time and in the manner herein provided. In the event of such

termination, COUNTY may proceed with the work in any manner deemed proper by COUNTY. If COUNTY terminates this contract, COUNTY shall pay CONSULTANT the sum due to CONSULTANT under this contract prior to termination, unless the cost of completion to COUNTY exceeds the funds remaining in the contract. In which case the overage shall be deducted from any sum due CONSULTANT under this contract and the balance, if any, shall be paid to CONSULTANT upon demand.

- C. The maximum amount for which the Government shall be liable if this contract is terminated is N/A dollars.

ARTICLE VII – COST PRINCIPLES AND ADMINISTRATIVE REQUIREMENTS

- A. CONSULTANT agrees that the contract cost principles and procedures set forth in Title 48 of the Code of Federal Regulations (CFR), Federal Acquisition Regulations System, Chapter 1, Part 31, Sections 31.000 et seq., shall be used to determine the cost allowability of individual items.
- B. CONSULTANT also agrees to comply with federal procedures in accordance with 49 CFR, Part 18, Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.
- C. Any costs for which payment has been made to CONSULTANT that are determined by subsequent audit to be unallowable under 49 CFR, Part 18 and 48 CFR, Part 31 shall be subject to repayment by CONSULTANT to COUNTY.
- D. All subcontracts in excess of Twenty Five Thousand Dollars (\$25,000.00) entered into as a result of this contract shall contain all of the provisions of this Article.

ARTICLE VIII – RETENTION OF RECORDS/AUDIT

For the purpose of determining compliance with California Public Contract Code Sections 10115, et seq. and Title 21 of the California Code of Regulations, Chapter 21, Sections 2500, et seq., when applicable and other matters connected with the performance of the contract pursuant to Government Code Section 8546.7; CONSULTANT, subconsultants, and COUNTY shall maintain and make available for inspection all books, documents, papers, accounting records, and other evidence pertaining to the performance of the contract, including but not limited to, the costs of administering the contract. All parties shall make such materials available at their respective offices at all reasonable times during the contract period and for three years from the date of final payment under the contract. The state of California, California State Auditor, COUNTY, Federal Highway Administration (FHWA), or any duly authorized representative of the Federal Government shall have access to any books, records, and documents of CONSULTANT and its certified public accountants (CPA) work papers that are pertinent to the contract and indirect cost rates (ICR) for audit, examinations, excerpts, and transactions, and copies thereof shall be furnished if requested. Subcontracts in excess of Twenty Five thousand Dollars (\$25,000.00) entered into as a result of this contract shall contain this provision.

ARTICLE IX – AUDIT REVIEW PROCEDURES

- A. Any dispute concerning a question of fact arising under an interim or post audit of this contract that is not disposed of by agreement, shall be reviewed by the Humboldt County Auditor-Controller.
- B. Not later than thirty (30) calendar days after issuance of the final audit report, CONSULTANT may request a review by the Humboldt County Auditor-Controller of unresolved audit issues. CONSULTANT's request for review shall be submitted in writing.

- C. Neither the pendency of a dispute nor its consideration by COUNTY will excuse CONSULTANT from full and timely performance, in accordance with the terms of this contract.
- D. CONSULTANT and subconsultant contracts, including cost proposals and ICR, are subject to audits or reviews such as, but not limited to, a contract audit, an incurred cost audit, an ICR Audit, or a CPA ICR audit work paper review. If selected for audit or review, the contract, cost proposal and ICR and related work papers, if applicable, will be reviewed to verify compliance with 48 CFR, Part 31 and other related laws and regulations. In the instance of a CPA ICR audit work paper review it is CONSULTANT's responsibility to ensure federal, state, or local government officials are allowed full access to the CPA's work papers including making copies as necessary. The contract, approved Cost Proposal, and ICR shall be adjusted by CONSULTANT and approved by COUNTY's Contract Administrator to conform to the audit or review recommendations. CONSULTANT agrees that individual terms of costs identified in the audit report shall be incorporated into the contract by this reference if directed by COUNTY at its sole discretion. Refusal by CONSULTANT to incorporate audit or review recommendations, or to ensure that the federal, state or local governments have access to CPA work papers, will be considered a breach of contract terms and cause for termination of the contract and disallowance of prior reimbursed costs.

ARTICLE X – SUBCONTRACTING

- A. Nothing contained in this contract or otherwise, shall create any contractual relationship between COUNTY and any subconsultant(s), and no subcontract shall relieve CONSULTANT of its responsibilities and obligations hereunder. CONSULTANT agrees to be as fully responsible to COUNTY for the acts and omissions of its subconsultant(s) and of persons either directly or indirectly employed by any of them as it is for the acts and omissions of persons directly employed by CONSULTANT. CONSULTANT's obligation to pay its subconsultant(s) is an independent obligation from COUNTY's obligation to make payments to CONSULTANT.
- B. CONSULTANT shall perform the work contemplated herein with resources available within its own organization and no portion of the work pertinent to this contract shall be subcontracted without written authorization by COUNTY's Contract Administrator, except that, which is expressly identified in the approved Cost Proposal.
- C. CONSULTANT shall pay its subconsultants within ten (10) calendar days from receipt of each payment made to CONSULTANT by COUNTY.
- D. Any subcontract in excess of Twenty Five Thousand Dollars (\$25,000.00) entered into as a result of this contract shall contain all the provisions stipulated in this contract to be applicable to subconsultants.
- E. Any substitution of subconsultant(s) must be approved in writing by COUNTY's Contract Administrator prior to the start of work by the subconsultant(s).

ARTICLE XI – EQUIPMENT PURCHASE

- A. Prior authorization in writing, by COUNTY's Contract Administrator shall be required before CONSULTANT enters into any unbudgeted purchase order, or subcontract exceeding Five Thousand Dollars (\$5,000.00) for supplies, equipment, or consultant services. CONSULTANT shall provide an evaluation of the necessity or desirability of incurring such costs.
- B. For purchase of any item, service or consulting work not covered in CONSULTANT's Cost Proposal and exceeding Five Thousand Dollars (\$5,000.00) requiring prior authorization by

COUNTY's Contract Administrator; three competitive quotations must be submitted with the request, or the absence of bidding must be adequately justified.

- C. Any equipment purchased as a result of this contract is subject to the following: "CONSULTANT shall maintain an inventory of all nonexpendable property. Nonexpendable property is defined as having a useful life of at least two (2) years and an acquisition cost of Five Thousand Dollars (\$5,000.00) or more. If the purchased equipment needs replacement and is sold or traded in, COUNTY shall receive a proper refund or credit at the conclusion of the contract, or if the contract is terminated, CONSULTANT may either keep the equipment and credit COUNTY in an amount equal to its fair market value, or sell such equipment at the best price obtainable at a public or private sale, in accordance with established COUNTY procedures; and credit COUNTY in an amount equal to the sales price. If CONSULTANT elects to keep the equipment, fair market value shall be determined at CONSULTANT's expense, on the basis of a competent independent appraisal of such equipment. Appraisals shall be obtained from an appraiser mutually agreeable to by COUNTY and CONSULTANT, if it is determined to sell the equipment, the terms and conditions of such sale must be approved in advance by COUNTY." 49 CFR, Part 18 requires a credit to federal funds when participating equipment with a fair market value greater than Five Thousand Dollars (\$5,000.00) is credited to the project.
- D. All subcontracts in excess of Twenty Five Thousand Dollars (\$25,000.00) entered into as a result of this contract shall contain all of the provisions of this Article.

ARTICLE XII – STATE PREVAILING WAGE RATES

- A. CONSULTANT shall comply with the State of California's General Prevailing Wage Rate requirements in accordance with California Labor Code Section 1770, and all federal, state, and local laws and ordinances applicable to the work required hereunder.
- B. Any subcontract entered into as a result of this contract, if for more than Twenty Five Thousand Dollars (\$25,000.00), for public works construction or more than Fifteen Thousand Dollars (\$15,000.00) for the alteration, demolition, repair, or maintenance of public works, shall contain all of the provisions of this Article.
- C. When prevailing wages apply to the services described herein and Attachment A – Scope of Work, transportation and subsistence costs shall be reimbursed at the minimum rates set by the Department of Industrial Relations (DIR) as outlined in the applicable Prevailing Wage Determination. (See <http://www.dir.ca.gov>.)

ARTICLE XIII – CONFLICT OF INTEREST

- A. CONSULTANT shall disclose any financial, business, or other relationship with COUNTY that may have an impact upon the outcome of this contract, or any ensuing COUNTY construction project. CONSULTANT shall also list current clients who may have a financial interest in the outcome of this contract, or any ensuing COUNTY construction project, which will follow.
- B. CONSULTANT hereby certifies that it does not now have, nor shall it acquire any financial or business interest that would conflict with the performance of services under this contract.
- C. Any subcontract in excess of Twenty Five Thousand Dollars (\$25,000.00) entered into as a result of this contract, shall contain all of the provisions of this Article.

ARTICLE XIV – REBATES, KICKBACKS OR OTHER UNLAWFUL CONSIDERATION

CONSULTANT warrants that this contract was not obtained or secured through rebates, kickbacks or other unlawful consideration, either promised or paid to any COUNTY employee. For breach or violation of this warranty, COUNTY shall have the right in its discretion; to terminate the contract without liability; to pay only for the value of the work actually performed; or to deduct from the contract price; or otherwise recover the full amount of such rebate, kickback or other unlawful consideration.

ARTICLE XV – PROHIBITION OF EXPENDING COUNTY, STATE OR FEDERAL FUNDS FOR LOBBYING

- A. CONSULTANT hereby certifies to the best of his or her knowledge and belief that:
1. No local, state or federal appropriated funds have been paid, or will be paid by, or on behalf of, CONSULTANT to any person for influencing or attempting to influence an officer or employee of any state or federal agency; a Member of the California State Legislature or United States Congress; an officer or employee of the Legislature or Congress; or any employee of a Member of the Legislature or Congress, in connection with the awarding of any state or federal contract, the making of any state or federal grant, the making of any state or federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any state or federal contract, grant, loan, or cooperative agreement.
 2. If any funds other than federal appropriated funds have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any federal agency; a Member of Congress; an officer or employee of Congress; or an employee of a Member of Congress, in connection with a federal contract, grant, loan, or cooperative agreement; CONSULTANT shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- B. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, United States Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than Ten Thousand Dollars (\$10,000.00) and not more than One Hundred Thousand Dollars (\$100,000.00) for each such failure.
- C. CONSULTANT also agrees by signing this document that he or she shall require that the language of this certification be included in all lower-tier subcontracts, which exceed One Hundred Thousand Dollars (\$100,000.00) and that all such subrecipients shall certify and disclose accordingly.

ARTICLE XVI – STATEMENT OF COMPLIANCE

- A. CONSULTANT's signature affixed herein, and dated, shall constitute a certification under penalty of perjury under the laws of the State of California that CONSULTANT has, unless exempt, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2 of the California Code of Regulations Section 8103.
- B. During the performance of this contract, CONSULTANT and its subconsultants shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex, race, color, ancestry, religious creed, national origin, physical disability (including HIV and AIDS), mental disability, medical condition (e.g., cancer), age (over forty (40) years of

age), marital status, and denial of family care leave. CONSULTANT and subconsultants shall insure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. CONSULTANT and subconsultants shall comply with the provisions of the Fair Employment and Housing Act (Government Code Sections 12990(a-f) et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Sections 7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990(a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this contract by reference and made a part hereof as if set forth in full. CONSULTANT and its subconsultants shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

- C. CONSULTANT shall comply with regulations relative to Title VI of the Civil Rights Act of 1964 (nondiscrimination in federally-assisted programs of the Department of Transportation – Title 49 CFR, Part 21 – Effectuation of Title VI of the Civil Rights Act of 1964). Title VI of the Civil Rights Act of 1964 provides that the recipients of federal assistance will implement and maintain a policy of nondiscrimination in which no person in the State of California shall, on the basis of race, color, national origin, religion, sex, age, or disability, be excluded from participation in, denied the benefits of or subject to discrimination under any program or activity by the recipients of federal assistance or their assignees and successors in interest.
- D. CONSULTANT, with regard to the work performed during this contract shall act in accordance with Title VI of the Civil Rights Act of 1964. Specifically, CONSULTANT shall not discriminate on the basis of race, color, national origin, religion, sex, age, or disability in the selection and retention of subconsultants, including procurement of materials and leases of equipment. CONSULTANT shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the U.S. DOT Regulations, including employment practices for employment related programs.

ARTICLE XVII – DEBARMENT AND SUSPENSION CERTIFICATION

- A. CONSULTANT's signature affixed herein, shall constitute a certification under penalty of perjury under the laws of the State of California, that CONSULTANT has complied with Title 2 CFR, Part 180, "OMB Guidelines to Agencies on Government-wide Debarment and Suspension (nonprocurement)," which certifies that he/she or any person associated therewith in the capacity of owner, partner, director, officer, or manager, is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any federal agency; has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal agency within the past three (3) years; does not have a proposed debarment pending; and has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years. Any exceptions to this certification must be disclosed to COUNTY.
- B. Exceptions will not necessarily result in denial of recommendation for award, but will be considered in determining CONSULTANT's responsibility. Disclosures must indicate to whom exceptions apply, initiating agency, and dates of action.
- C. Exceptions to the Federal Government Excluded Parties List System maintained by the General Services Administration are to be determined by the FHWA.

ARTICLE XVIII – FUNDING REQUIREMENTS

- A. It is mutually understood between the parties that this contract may have been written before ascertaining the availability of funds or appropriation of funds, for the mutual benefit of both parties, in order to avoid program and fiscal delays that would occur if the contract were executed after that determination was made.
- B. This contract is valid and enforceable only, if sufficient funds are made available to COUNTY for the purpose of this contract. In addition, this contract is subject to any additional restrictions, limitations, conditions, or any statute enacted by the Congress, State Legislature, or COUNTY governing board that may affect the provisions, terms, or funding of this contract in any manner.
- C. It is mutually agreed that if sufficient funds are not appropriated, this contract may be amended to reflect any reduction in funds.
- D. COUNTY has the option to void the contract due to insufficient funding upon thirty (30) days advance written notice pursuant to the termination provisions set forth herein, or by mutual agreement to amend the contract to reflect any reduction of funds.

ARTICLE XIX – CHANGE IN TERMS

- A. This contract may be amended or modified only by mutual written agreement of the parties.
- B. CONSULTANT shall only commence work covered by an amendment after the amendment is executed and notification to proceed has been provided by COUNTY's Contract Administrator.
- C. There shall be no change in CONSULTANT's Project Manager or members of the project team, as listed in the approved Cost Proposal, which is a part of this contract without prior written approval by COUNTY's Contract Administrator.

ARTICLE XX – DISADVANTAGED BUSINESS ENTERPRISES (DBE) PARTICIPATION

- A. This contract is subject to 49 CFR, Part 26 entitled "Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs." Consultants who obtain DBE participation on this contract will assist Caltrans in meeting its federally mandated statewide overall DBE goal.
- B. The goal for DBE participation for this contract is Zero percent (0%). Participation by a DBE consultant or subconsultants shall be in accordance with information contained in Attachment C – Consultant Contract DBE Information (Exhibit 10-O2), which is attached hereto and incorporated as part of the contract. If a DBE subconsultant is unable to perform, CONSULTANT must make a good faith effort to replace him/her with another DBE subconsultant, if the goal is not otherwise met.
- C. DBEs and other small businesses, as defined in 49 CFR, Part 26 are encouraged to participate in the performance of contracts financed in whole or in part with federal funds. CONSULTANT or subconsultant shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. CONSULTANT shall carry out the applicable requirements of 49 CFR, Part 26 in the award and administration of U.S. DOT assisted agreements. Failure by CONSULTANT to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as COUNTY deems appropriate.

- D. Any subcontract entered into as a result of this contract shall contain all of the provisions of this Article.
- E. A DBE firm may be terminated only with prior written approval from COUNTY for the reasons specified in 49 CFR Section 26.53(f). Prior to requesting COUNTY consent for the termination, CONSULTANT must meet the procedural requirements specified in 49 CFR Section 26.53(f).
- F. A DBE performs a Commercially Useful Function (CUF) when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a CUF, the DBE must also be responsible with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a CUF, the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing, and other relevant factors must be evaluated.
- G. A DBE does not perform a CUF if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation. In determining whether a DBE is such an extra participant, similar transactions, particularly those in which DBEs do not participate, must be examined.
- H. If a DBE does not perform or exercise responsibility for at least thirty percent (30%) of the total cost of its contract with its own work force, or the DBE subcontracts a greater portion of the work of the contract than would be expected on the basis of normal industry practice for the type of work involved, it will be presumed that it is not performing a CUF.
- I. CONSULTANT shall maintain records of materials purchased or supplied from all subcontracts entered into with certified DBEs. The records shall show the name and business address of each DBE or vendor and the total dollar amount actually paid each DBE or vendor, regardless of tier. The records shall show the date of payment and the total dollar figure paid to all firms. DBE prime consultants shall also show the date of work performed by their own forces along with the corresponding dollar value of the work.
- J. Upon completion of this contract, a summary of these records shall be prepared and submitted on the form entitled, "Final Report-Utilization of Disadvantaged Business Enterprise, First-Tier Subconsultants," CEM-2402F [Exhibit 17-F, of the Local Assistance Procedures Manual (LAPM)], certified correct by CONSULTANT or CONSULTANT's authorized representative and shall be furnished to COUNTY's Contract Administrator with the final invoice. Failure to provide the summary of DBE payments with the final invoice will result in twenty five percent (25%) of the dollar value of the invoice being withheld from payment until such summary is submitted. Any amounts withheld as a result of a failure to provide a summary of DBE payments will be returned to CONSULTANT when a satisfactory "Final Report-Utilization of Disadvantaged Business Enterprises, First-Tier Subconsultants" form is submitted to COUNTY's Contract Administrator.
- K. If a DBE subconsultant is decertified during the life of the contract, the decertified subconsultant shall notify CONSULTANT in writing with the date of decertification. If a subconsultant becomes a certified DBE during the life of the Contract, the subconsultant shall notify CONSULTANT in writing with the date of certification. Any changes should be reported to COUNTY's Contract Administrator within thirty (30) calendar days thereof.

ARTICLE XXI – CONTINGENT FEE

CONSULTANT warrants by execution of this contract that no person or selling agency has been employed, or retained, to solicit or secure this contract upon an agreement or understanding, for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees, or bona fide established commercial or selling agencies maintained by CONSULTANT for the purpose of securing business. For breach or violation of this warranty, COUNTY has the right to terminate this contract without liability, pay only for the value of the work actually performed, or in its discretion to deduct from the contract price or consideration, or otherwise recover the full amount of such commission, percentage, brokerage, or contingent fee.

ARTICLE XXII – DISPUTES

- A. Any dispute, other than audit, concerning a question of fact arising under this contract that is not disposed of by agreement shall be decided by a committee consisting of COUNTY's Contract Administrator and other COUNTY officials, who may consider written or verbal information submitted by CONSULTANT.
- B. Not later than thirty (30) calendar days after completion of all work under this contract, CONSULTANT may request review by COUNTY. The request for review shall be submitted in writing.
- C. Neither the pendency of a dispute, nor its consideration by the COUNTY will excuse CONSULTANT from full and timely performance in accordance with the terms of this contract.

ARTICLE XXIII – INSPECTION OF WORK

CONSULTANT and any subconsultant shall permit COUNTY, the State of California, and FHWA, if federal participating funds are used in this contract; to review and inspect the project activities and files at all reasonable times during the performance period of this contract including review and inspection on a daily basis.

ARTICLE XXIV – SAFETY

- A. CONSULTANT shall comply with OSHA regulations applicable to CONSULTANT regarding necessary safety equipment or procedures. CONSULTANT shall comply with safety instructions issued by the Humboldt County Risk Manager and other COUNTY representatives. CONSULTANT's personnel shall wear hard hats and safety vests at all times while working on the construction project site.
- B. Pursuant to the authority contained in Section 591 of the California Vehicle Code, COUNTY has determined that such areas are within the limits of the project and are open to public traffic. CONSULTANT shall comply with all of the requirements set forth in Divisions 11, 12, 13, 14, and 15 of the California Vehicle Code. CONSULTANT shall take all reasonably necessary precautions for safe operation of its vehicles and the protection of the traveling public from injury and damage from such vehicles.
- C. Any subcontract entered into as a result of this contract shall contain all of the provisions of this Article.

ARTICLE XXV – INSURANCE AND INDEMNIFICATION

- A. Prior to the execution of this contract, CONSULTANT shall furnish to COUNTY satisfactory proof that CONSULTANT has taken out for the entire period required by this contract, as further described below, the following insurance, in a form satisfactory to COUNTY, and with an insurance carrier satisfactory to COUNTY, authorized to do business in the State of California with a current A.M. Bests rating of no less than A; VII or its equivalent, which will protect those described below from claims which arise out of, or in connection with, the acts or omissions of CONSULTANT for which CONSULTANT may be legally liable, whether performed by CONSULTANT, or by those employed directly or indirectly by it, or by anyone for whose acts CONSULTANT may be liable:
1. Commercial General Liability Insurance, written on an “occurrence” basis, which shall provide coverage for bodily injury, death and property damage resulting from operations, products liability, blasting, explosion, collapse of buildings or structures, damage to underground structures and utilities, liability for slander, false arrest and invasion of privacy arising out of construction management operations, blanket contractual liability, broad form endorsement, a construction management endorsement, products and completed operations, personal and advertising liability, with per location limits of not less than Two Million Dollars (\$2,000,000) per occurrence for any one incident, subject to a deductible of not more than Twenty Five Thousand Dollars (\$25,000.00) payable by CONSULTANT. If a general aggregate limit is used, such limit shall apply separately hereto or shall be twice the required occurrence limit.
 2. Business Automobile Liability Insurance with limits not less than One Million Dollars (\$1,000,000.00) for each occurrence including coverage for owned, non owned and hired vehicles, subject to a deductible of not more than Ten Thousand Dollars (\$10,000.00) payable by CONSULTANT.
 3. Workers’ Compensation Insurance, as required by the California Labor Code, with statutory limits and Employers’ Liability Insurance with a limit of no less than One Million Dollars (\$1,000,000) per accident for bodily injury or disease. Said policy shall contain, or be endorsed to contain, a waiver of subrogation against COUNTY, its agents, officers, officials, employees and volunteers. In the event CONSULTANT is self-insured, a Certificate of Permission to Self-Insure, signed by the California Department of Industrial Relations – Administration of Self-Insurance, shall be filed with the Clerk of the Humboldt County Board of Supervisors.
 4. Professional Liability Insurance – Error and Omission Coverage, including coverage in an amount no less than Two Million Dollars (\$2,000,000) for each occurrence (Four Million Dollars (\$4,000,000) general aggregate), subject to a self-insured retention not to exceed Five-Hundred Thousand Dollars (\$500,000.00) payable by CONSULTANT. Said insurance shall be maintained for the statutory period during which CONSULTANT may be exposed to liability. CONSULTANT shall require that such coverage be incorporated into its professional services agreements with any other entities.
- B. CONSULTANT’s insurance policies shall, unless otherwise specified herein, be endorsed with the following provisions:
1. CONSULTANT’s Commercial General Liability policy and Automobile Liability policy shall name COUNTY, and its affiliates, directors, officers, officials, partners, representatives, employees, consultants, subconsultants, agents and landlord, as additional insureds, but only with respect to liability arising out of the activities of the named insured, and there shall be a

waiver of subrogation as to each named and additional insured. CONSULTANT's Commercial General Liability policy shall also contain a provision stating that such coverage:

- a. Includes contractual liability.
 - b. Is the primary insurance with regard to COUNTY.
 - c. Does not contain exclusions as to loss or damage to property caused by explosion or resulting from collapse of building or structure to property underground, commonly referred to as "XCU Hazards."
 - d. Does not contain a pro-rated excess only and/or escape clause.
 - e. Contains a cross liability, severability of interest or separation of insured's clause.
2. The above-referenced policies shall not be canceled, non-renewed or materially reduced in coverage without thirty (30) days prior written notice being provided to COUNTY in accordance with the notice provisions set forth herein. It is further understood that CONSULTANT shall not terminate such coverage until COUNTY receives adequate proof that equal or better insurance has been secured.
 3. The inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverage afforded shall apply as though separate policies had been issued to each insured, but the inclusion of more than one insured shall not operate to increase the limits of the insurer's liability.
 4. For claims related to this Agreement, CONSULTANT's insurance is the primary coverage to COUNTY, and any insurance or self-insured programs maintained thereby are excess to CONSULTANT's insurance and will not be used to contribute therewith.
 5. Any failure to comply with the provisions of this Agreement, including breach of warranties, shall not affect coverage provided to COUNTY.
 6. CONSULTANT shall furnish COUNTY with certificates and original endorsements effecting the required coverage prior to execution of this Agreement. The endorsements shall be on forms approved by the Humboldt County Risk Manager or County Counsel. Any deductible or self-insured retention over One Hundred Thousand Dollars (\$100,000) shall be disclosed to, and approved by, COUNTY. If CONSULTANT does not keep all required policies in full force and effect, COUNTY may, in addition to other remedies under this Agreement, take out the necessary insurance, and CONSULTANT agrees to pay the cost thereof. COUNTY is also hereby authorized to deduct the cost of said insurance from the monies owed to CONSULTANT under this Agreement.
 7. COUNTY is to be notified immediately if twenty-five percent (25%) or more of any required insurance aggregate limit is encumbered, and CONSULTANT shall be required to purchase additional coverage to meet above-referenced aggregate limits.
 8. Nothing contained herein shall be construed as limiting in any way the extent to which CONSULTANT or any of its permitted subcontractors or subconsultants may be held responsible for payment of damages resulting from their operations.

- C. Any and all insurance notices required to be given pursuant to the terms of this Agreement shall be sent to the addresses set forth below in accordance with the notice provisions described herein.

COUNTY: County of Humboldt
Attn: Risk Management
825 Fifth Street, Room 131, Eureka, CA 95501

Humboldt County Department of Public Works
Attn: Hank Seemann, Contract Administrator
1106 Second Street, Eureka, CA 95501

CONSULTANT: GHD Inc.
Attn: Josh Wolf, Project Manager
718 Third Street, Eureka, CA 95501

- D. In connection with the performance of the design professional services required hereunder, CONSULTANT shall, to the fullest extent permitted by law, and in accordance with California Civil Code Section 2782.8, indemnify, defend and hold harmless COUNTY, its officers, agents and employees, from any claim, liability, loss, injury or damage (referred to collectively as “Litigation”) that arises out of, pertains to, relates to, or is connected with, performance of this contract due to the negligence, recklessness, or willful misconduct of CONSULTANT and/or its agents, employees or subconsultants. CONSULTANT shall reimburse COUNTY for all costs, attorneys’ fees, expenses and liabilities incurred with respect to any Litigation in which CONSULTANT is obligated to indemnify and defend COUNTY under this contract.
- E. In connection with the performance of the non-design professional services required hereunder, if any, CONSULTANT shall hold harmless, defend and indemnify COUNTY and its officers, officials, employees and volunteers from and against any and all liability, loss, damage, expense and costs of any kind or nature, including, without limitation, costs and fees of Litigation, arising out of, or in connection with, CONSULTANT’s performance of, or failure to comply with, any of its obligations contained in the contract, except such loss or damage which was caused by the sole negligence or willful misconduct of COUNTY. CONSULTANT shall reimburse COUNTY for all costs, attorneys’ fees, expenses and liabilities incurred with respect to any Litigation in which CONSULTANT is obligated to indemnify and defend COUNTY under this contract.

ARTICLE XXVI – OWNERSHIP OF DATA

- A. Upon completion of all work under this contract, ownership and title to all reports, documents, plans, specifications, and estimates produced as part of this contract will automatically be vested in COUNTY; and no further agreement will be necessary to transfer ownership to COUNTY. CONSULTANT shall furnish COUNTY all necessary copies of data needed to complete the review and approval process.
- B. It is understood and agreed that all calculations, drawings and specifications, whether in hard copy or machine-readable form, are intended for one-time use in the construction of the project for which this contract has been entered into.
- C. CONSULTANT is not liable for claims, liabilities, or losses arising out of, or connected with the modification, or misuse by COUNTY of the machine-readable information and data provided by CONSULTANT under this contract; further, CONSULTANT is not liable for claims, liabilities, or losses arising out of, or connected with any use by COUNTY of the project documentation on other

projects for additions to this project, or for the completion of this project by others, except only such use as many be authorized in writing by CONSULTANT.

- D. The parties hereby agree to comply with all applicable federal provisions pertaining to patent rights regarding rights to inventions (48 CFR, Part 27, Subpart 27.3 – Patent Rights Under Government Contracts for Federal-Aid Contracts).
- E. COUNTY may permit copyrighting reports or other products created hereunder. If copyrights are permitted, FHWA shall have the royalty-free nonexclusive and irrevocable right to reproduce, publish, or otherwise use; and to authorize others to use, the work for government purposes.
- F. Any subcontract in excess of Twenty Five Thousand Dollars (\$25,000.00) entered into as a result of this contract shall contain all of the provisions of this Article.

ARTICLE XXVII – CLAIMS FILED BY COUNTY’S CONSTRUCTION CONTRACTOR

- A. If claims are filed by COUNTY’s construction contractor relating to work performed by CONSULTANT, and additional information or assistance from CONSULTANT is required in order to evaluate or defend against such claims; CONSULTANT agrees to make its personnel available for consultation with COUNTY’s Contract Administrator and for testimony, if necessary, at depositions and at trial or arbitration proceedings.
- B. CONSULTANT shall, upon reasonable notice from COUNTY, allow interviews of all personnel that COUNTY considers essential to assist in defending against construction contractor claims.
- C. Services of CONSULTANT in connection with COUNTY’s construction contractor claims will be performed pursuant to a written contract amendment.
- D. Any subcontract in excess of Twenty Five Thousand Dollars (\$25,000.00) entered into as a result of this contract shall contain all of the provisions of this Article.

ARTICLE XXVIII – CONFIDENTIALITY OF DATA

- A. In performance of this contract, CONSULTANT may receive information that is confidential under local, state or federal law. CONSULTANT hereby agrees to protect all confidential information in conformance with any and all applicable local, state and federal laws.
- B. All financial, statistical, personal, technical, or other data and information relative to COUNTY’s operations, which are designated confidential by COUNTY and made available to CONSULTANT in order to carry out this contract, shall be protected by CONSULTANT from unauthorized use and disclosure.
- C. Permission to disclose information on one occasion, or public hearing held by COUNTY relating to the contract, shall not authorize CONSULTANT to further disclose such information, or disseminate the same on any other occasion.
- D. All informational material related to this Agreement shall receive approval from COUNTY prior to being released to the media (television, radio, newspapers and internet). CONSULTANT shall inform COUNTY of all requests for interviews by media related to this Agreement before such interviews take place; and COUNTY is entitled to have a representative present at such interviews. All notices required by this provision shall be given to COUNTY’s Contract Administrator.

- E. Any subcontract entered into as a result of this contract shall contain all of the provisions of this Article.

ARTICLE XXIX – NATIONAL LABOR RELATIONS BOARD CERTIFICATION

In accordance with California Public Contract Code Section 10296, CONSULTANT hereby states under penalty of perjury that no more than one final unappealable finding of contempt of court by a federal court has been issued against CONSULTANT within two (2) years prior to the execution of this contract, because of CONSULTANT's failure to comply with an order of a federal court that orders CONSULTANT to comply with an order of the National Labor Relations Board.

ARTICLE XXX – EVALUATION OF CONSULTANT

CONSULTANT's performance will be evaluated by COUNTY. A copy of the evaluation will be sent to CONSULTANT for comments. The evaluation together with the comments shall be retained by COUNTY as part of the contract record.

ARTICLE XXXI – RETENTION OF FUNDS

- A. Any subcontract entered into as a result of this Contract shall contain all of the provisions of this Article.
- B. No retainage will be withheld by COUNTY from progress payments due to CONSULTANT. Retainage by CONSULTANT or subconsultants is prohibited, and no retainage will be held by CONSULTANT from progress due to subconsultants. Any violation of this provision shall subject CONSULTANT or subconsultants to the penalties, sanctions, and other remedies specified in Section 7108.5 of the California Business and Professions Code. This requirement shall not be construed to limit or impair any contractual, administrative, or judicial remedies, otherwise available to CONSULTANT or subconsultants in the event of a dispute involving late payment or nonpayment by CONSULTANT or deficient subconsultant performance, or noncompliance by a subconsultant. This provision applies to both DBE and non-DBE consultants and subconsultants.

ARTICLE XXXII – NOTIFICATION

All notices hereunder and communications regarding interpretation of the terms of this contract and changes thereto, shall be effected by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid, and addressed as follows:

COUNTY: Humboldt County Department of Public Works
Attn: Hank Seemann, Contract Administrator
1106 Second Street, Eureka, California, 95501

CONSULTANT: GHD Inc.
Attn: Josh Wolf, Project Manager
718 Third Street, Eureka, CA 95501

ARTICLE XXXIII – GOVERNING LAW, PRACTICE STANDARDS AND BINDING EFFECT

- A. This contract shall be construed in accordance with the laws of the State of California. Any dispute arising hereunder, or relating hereto, shall be litigated in the State of California and venue shall lie in the County of Humboldt unless transferred by court order pursuant to California Code of Civil Procedure Sections 394 or 395.

- B. This contract is subject to any additional local, state and federal restrictions, limitations or conditions that may affect the provisions, terms or funding of this contract. This contract shall be read and enforced as though all legally required provisions are included herein, and if for any reason any such provision is not included, or is not correctly stated, the parties agree to amend the pertinent section to make such insertion or correction.
- C. CONSULTANT agrees to comply with all local, state and federal laws and regulations, including, but not limited to, the Americans with Disabilities Act. CONSULTANT further agrees to comply with all applicable local, state and federal accrediting, licensure and certification requirements.
- D. CONSULTANT warrants that it has the degree of learning and skill ordinarily possessed by reputable professionals practicing in similar localities in the same profession and under similar circumstances. CONSULTANT's duty is to exercise such care, skill and diligence as professionals engaged in the same profession ordinarily exercise under like circumstances. It is hereby understood that COUNTY's acceptance of the services performed by CONSULTANT hereunder shall not operate as a waiver or release of any breach of this contract.
- E. The terms of this contract shall be binding upon and shall inure to the benefit of the heirs, executors, administrators, successors and assigns of the parties.

ARTICLE XXXIV – NO WAIVER OF DEFAULT

- A. The waiver by either party of any breach or violation of any requirement of this contract shall not be deemed to be a waiver of any such breach in the future, or of the breach of any other requirement of this contract.
- B. In no event shall any payment by COUNTY constitute a waiver of any breach of this contract or any default which may then exist on the part of CONSULTANT. Neither shall such payment impair or prejudice any remedy available to COUNTY with respect to the breach or default. COUNTY shall have the right to demand that CONSULTANT repay any funds disbursed to CONSULTANT under this contract, which in the judgment of COUNTY were not expended in accordance with the terms of this contract. CONSULTANT shall promptly refund any such funds upon demand.

ARTICLE XXXV – ATTORNEY FEES ON BREACH

If either party shall commence any legal action or proceeding, including an action for declaratory relief, against the other by reason of the alleged failure of the other to perform or keep any provision of this contract from being performed, the prevailing party in said action or proceeding shall be entitled to recover court costs and reasonable attorneys' fees, including the reasonable value of services rendered by the Humboldt County Counsel's Office, to be fixed by the court, and such recovery shall include court costs and attorney's fees on appeal, if applicable. As used herein, "prevailing party" means the party who dismisses an action or proceeding in exchange for payment of substantially all sums allegedly due, performance of provisions allegedly breached or other considerations substantially equal to the relief sought by said party, as well as the party in whose favor final judgment is rendered.

ARTICLE XXXVI – NUCLEAR FREE HUMBOLDT COUNTY ORDINANCE COMPLIANCE

CONSULTANT certifies by its signature below that it is not a Nuclear Weapons Contractor, in that CONSULTANT is not knowingly or intentionally engaged in the research, development, production or testing of nuclear warheads, nuclear weapons systems or nuclear weapons components as defined by the Nuclear Free Humboldt County Ordinance. CONSULTANT agrees to notify COUNTY immediately if it

becomes a Nuclear Weapons Contractor, as defined above. COUNTY may immediately terminate this contract if it determines that the foregoing certification is false or if CONSULTANT becomes a Nuclear Weapons Contractor.

ARTICLE XXXII – CONTRACT

The two parties to this contract, who are the before named CONSULTANT and the before named COUNTY, hereby agree that this contract constitutes the entire agreement which is made and concluded in duplicate between the two parties. Both of these parties for and in consideration of the payments to be made, conditions mentioned, and work to be performed; each agree to diligently perform in accordance with the terms and conditions of this contract as evidenced by the signatures below.

ARTICLE XXXVIII – SIGNATURES

TWO SIGNATURES ARE REQUIRED FOR CORPORATIONS:

(1) CHAIRPERSON OF THE BOARD, PRESIDENT, OR VICE PRESIDENT; AND

(2) SECRETARY, ASSISTANT SECRETARY, CHIEF FINANCIAL OFFICER OR ASSISTANT TREASURER.

GHD INC.:

By: 

Date: 26 JUL 2016

Name: IVER SKAVDAL

Title: VICE PRESIDENT

By: 

Date: 22 JUL 2016

Name: J. DUNCAN FINNEY

Title: SECRETARY

COUNTY OF HUMBOLDT:

By: 

Date: 7/19/16

Mark Lovelace
Chair, Board of Supervisors

INSURANCE AND INDEMNIFICATION REQUIREMENTS APPROVED:

By: 

Date: 7/16/16

Risk Analyst

- Attachment A – Scope of Work
- Attachment B – Cost Proposal & Work Schedule
- Attachment C – Consultant Contract DBE Information (Exhibit 10-O2)

ATTACHMENT A
SCOPE OF WORK



ATTACHMENT A

Scope of Work for Engineering and Environmental Services

Humboldt Bay Trail – Bay Trail South (Eureka to Bracut) County of Humboldt

March 15, 2016

PROJECT UNDERSTANDING

The Humboldt Bay Trail South project is a proposed Class I bike path along the North Coast Railroad Authority (NCRA) and Caltrans Highway 101 corridor between Bracut and Eureka. Many segments of the Humboldt Bay Trail project are already complete or planned for construction in the near term, so the Humboldt Bay Trail South project will likely be the keystone project of the Humboldt Bay Trail. When complete, the project will result in a continuous 13 mile long non-motorized trail from Sunset Avenue in Arcata, to the southern terminus of the Hikshari Trail in Eureka.

The Humboldt Bay Trail project has been identified as a high-priority regional project by the Humboldt County Association of Governments (HCAOG) for many years. Once completed, the trail will become a component of the California Coastal Trail providing transportation, recreation and coastal access opportunities for the public.

The Humboldt Bay Trail was also formally linked to the Caltrans Eureka-Arcata Highway 101 Corridor Improvement Project by the California Coastal Commission in 2013. As a Coastal Commission condition of approval, the Corridor project cannot begin construction until funding and right-of-way for the Humboldt Bay Trail project is secured.

The majority of the Humboldt Bay Trail South project is proposed to be located between the Highway 101 and NCRA railroad corridor. Alignment options generally include "rail-with-trail" and "highway-with-trail," although the project is expected to incorporate both alignments in order to accommodate the various physical, environmental, and regulatory constraints. The trail could also be aligned to the west of the NCRA corridor (on private property) at the Bracut Industrial Park and the California Redwood Company (CRC) site. At the Eureka Slough crossing, the trail is expected to either cooperatively occupy the NCRA bridge and portions of the adjacent rail prism, or cantilever off the existing structure.

The following summarizes the current understanding of primary characteristics of the proposed project improvements:

Class 1 Bike Path

The standard trail width for this project will be 10 feet of asphalt with two 2-foot gravel shoulders, with localized reductions in trail width as needed due to constraints. In areas in which the project intersects tidally influenced waters, the standard trail will consist of a bridge or boardwalk as described below. A positive barrier will separate the trail from the US 101.

Bridges

In addition to the bridge improvements proposed to the NCRA bridge over the Eureka Slough, the project includes one new bridge at Brainard Slough, which is expected to be less than 90 feet in length. The bridge will be 10 feet wide (clear width) and will include railings designed to comply with Class I and Americans with Disabilities Act (ADA) standards. The bridge is expected to consist of a pre-manufactured

GHD Inc.

718 Third Street Eureka CA 95501 USA
T 1 707 443 8326 F 1 707 444 8330 E eureka@ghd.com W www.ghd.com



bridge structure comprised of steel, aluminum, fiberglass or concrete. The bridge will be supported on spread concrete footings with concrete piles to provide additional bearing support.

Boardwalks

If the trail is aligned along the CRC levee, then up to two boardwalks will be required to reduce impacts to tidally influenced waters, compared to fill options. Boardwalks will be supported with spread footings and/or piles. The boardwalk structure will be designed to allow tidal waters to pass under the trail without blocking tidal flows. The boardwalk will be approximately 10 feet wide between railings and is anticipated to be comprised of pre-manufactured wood, aluminum, fiberglass, steel, or concrete spans supported by either piles or concrete foundations.

Retaining Walls

Approximately 1.3 miles of the proposed trail alignment is located in an area of mature Eucalyptus trees. In order to maintain minimum NCRA setbacks while reducing encroachment into the existing drainage ditch (so as to not adversely impact ditch conveyance and/or storage capacity), a retaining system is likely required.

Project Phasing

The project scope includes the following two distinct phases of work:

Phase 1: Project Approval and Environmental Document (PA&ED) – A planning, preliminary engineering and environmental phase that addresses route determination and alternatives analysis, topographic survey, geotechnical investigations, engineering and environmental studies, CEQA and NEPA documentation, permitting, community outreach, identification of a preferred alternative and 35% preliminary design.

Phase 2: Plans, Specifications and Estimates (PS&E) – The development of the PS&E for the preferred alternative including agency coordination, final engineering design, constructability reviews, securing final permits, and preliminary right-of-way evaluations.

SCOPE OF SERVICES

Based on our understanding of the project as described above, GHD has developed the following scope of services for the project, which will include:

PA&ED Phase

- Task 1 – PA&ED Phase Project Management, Meetings and Coordination
- Task 2 – Route Determination
- Task 3 – Survey and Geotechnical
- Task 4 – Environmental Studies
- Task 5 – CEQA and NEPA Documentation
- Task 6 – Environmental Permit Applications
- Task 7 – Engineering Studies
- Task 8 – Preliminary Design
- Task 9 – Caltrans and NCRA Permits
- Task 10 – Public Meetings and Outreach Material



PS&E Phase (Optional)

- Task 11 – PS&E Phase Project Management, Meetings and Coordination
- Task 12 – Final Design
- Task 13 – Final Permit Coordination

PA&ED PHASE

Task 1 – PA&ED Phase Project Management, Meetings and Coordination

Task 1.1 Project Management

The PA&ED phase will require regular communication and close coordination with team members, the County, Caltrans and other project stakeholders. This task also includes reviewing the project status on a regular basis, providing progress updates to the County, managing project budgets and schedules, assisting the County in coordinating with the various agencies involved, and coordinating and performing quality control and quality assurance reviews.

Task 1.2 Kickoff Meeting

As part of this task, GHD will coordinate and attend an initial project kickoff meeting with the County and Caltrans (if desired) in Eureka. It's anticipated that the following items will be discussed: review of the Caltrans NEPA process; initial identification of issues; scope of technical studies; approach to CEQA/NEPA compliance; schedule for submittals; coordination with Caltrans Eureka-Arcata project; and general approach to project design. If desired by the County, GHD will extend the kick-off meeting to include an initial site visit, at which the study area, alignment options, and design alternatives can be discussed.

Task 1.3 Monthly Coordination Meetings

As part of the ongoing project coordination, management process and regular interface with the County, GHD anticipates participating with the County in up to twenty-four (24) monthly meetings in Eureka (or conference calls) to provide updates on project status, review projects concepts and issues, and receive input and direction from the County (a total of 248 hours of staff time has been budgeted).

Deliverables:

- *Meeting agenda in advance of the meeting as (1) electronic PDF in advance and paper copies at the meeting.*
- *Meeting notes will be provided to document key decisions as one (1) electronic PDF only.*

PA&ED TASK 2 – Route Determination

Task 2.1 – Stakeholder Meetings and Coordination

We anticipate needing to attend numerous meetings with stakeholders related to route determination and have budgeted to attend multiple meetings and participate in numerous conference calls including the following (a total of 178 hours of staff time has been budgeted):

- California Redwood Company
- California Coastal Commission
- North Coast Railroad Authority
- Caltrans
- CPUC
- City of Eureka



- East-West Rail Advocates
- Timber Heritage Association
- Bracut Industrial Park (Owner)

Deliverables:

- *Meeting agenda in advance of the meetings will be prepared as appropriate for the particular meeting as (1) electronic PDF in advance and paper copies at the meeting.*
- *Meeting notes will be provided to document key decisions as one (1) electronic PDF only.*

Task 2.2 – Levee, Railroad Bed, and Shoreline Characterization

GHD will conduct a preliminary field level characterization of the levees, railroad bed, and shoreline along the trail corridor to provide background information and guidance for evaluating route alternatives. The intent is to provide general overall information rather than a detailed analysis. For example, the characterization will be based on notable qualitative characteristics visually observed during a site walk, rather than a quantitative investigation or study of the surface and subsurface conditions.

The characterization will be based on a walk along the potential levee, railroad bed, and shoreline routes of the trail. Notable characteristics will be documented on a plan set and will be captured through photo documentation. The characteristics noted will be based on observable features that are relevant to the evaluation of trail alternatives. For example, significant undercutting of the rail bed would be noted since it is relevant to a potential trail alignment, but the condition of the ties would not be noted since it is not relevant to the trail.

Characteristics that are noted will be based on engineering judgement and visual observations made in the field. However, much of the area is covered in thick vegetation and as a result; the observations will be limited to what is visually apparent. Also, submerged and subsurface characteristics will not be noted.

The characterization is intended to serve as a planning tool to provide additional information to be considered when comparing alternatives. The primary factors being investigated are items such as obvious erosion or structural issues, site opportunities and constraints, drainage characteristics, potential to modify or adapt to sea level rise, potential suitability for use as (or in conjunction with) a trail and other relevant factors identified by GHD that influence the cost, constructability and future maintenance needs.

This characterization phase includes office based analysis in addition to the field walk. Office based information such as existing data from bathymetry, LiDAR topography, aerial imagery, and other available information provided to GHD will be used to characterize the potential routes on a broader scale.

The results of the characterization of the potential routes along the levees, railroad bed, and shoreline will be summarized in a technical memorandum providing a summary of notable items identified along the routes. These characteristics can then be considered in the subsequent alternative analysis including development of potential costs of addressing issues identified. In addition, the technical memorandum will note any specific areas identified which may require additional survey, geotechnical exploration, engineering studies or consideration for sea level rise vulnerability and adaptation.

*The railroad facility conditions and estimated costs will be based on the information provided in the Railroad Corridor Condition Assessment, dated October 2012, by AndersonPenna Partners, Inc. for the Humboldt Bay Rail Corridor Committee of the North Coast Railroad Authority, and updated as a result of observations made during the walk-through and price indexes.

Deliverables:

- *Facility Condition Assessment Technical Memorandum (one (1) electronic PDF and two (2) hard copies)*



Task 2.3 - Bracut Alignment Analysis

GHD will develop a trail alignment analysis for the Bracut property which will include the development of trail alignments and analysis of operations, environmental impacts, right-of-way, and estimated order-of-magnitude cost for each alignment.

Bracut Right-of-Way/Boundary Survey

GHD will research and map the right-of-way and property boundaries and provide an analysis of the clarity/certainty of the right-of-way/property lines. The Bracut property abuts the right-of-ways of US 101 (Caltrans), NCRA, and the Coastal Conservancy. Research will be conducted with Caltrans and the County of Humboldt. An electronic AutoCAD drawing of the right-of-way will be produced to be used as the base map for the study. This is intended to be a preliminary survey and is not intended to establish existing right-of-way to a standard adequate to begin the acquisition of further right-of-way. However, to the extent feasible, right-of-way issues will attempt to be identified so they can be incorporated into project planning. A boundary survey and/or Record of Survey are not included as part of this task.

Bracut Environmental Reconnaissance Survey

GHD will conduct a database search of the USFWS Arcata South and Eureka Quads and the CDFW's Natural Diversity Data Base for sensitive animals, plant and natural communities. A qualified environmental scientist will conduct a reconnaissance-level site investigation of existing conditions within vegetated areas inside the proposed alignments. The types of information that will be collected during the field visit may include factors that are likely to trigger environmental permits, likelihood of wetland presence and non-wetland Environmentally Sensitive Habitat Areas (ESHAs), and other possible environmental constraints.

Following the database research and field investigation, GHD will amend the existing environmental mapping to be used for route selection and environmental permit planning purposes, GHD reconnaissance mapping will focus on potential sensitive habitat communities.

Bracut Trail Alignments

Alignments will be prepared in AutoCAD depicting potentially feasible design options. The alignments will be shown in plan views on the aerial mapping, showing right-of-way and property boundaries, crossing locations, fencing/barriers, structures, and potentially sensitive habitat. Typical cross sections will also be provided.

GHD will produce a matrix that provides a preliminary analysis for the trail alignments expected to be based on the following:

- Typical cross section type
- Relative order-of-magnitude environmental/habitat impacts
- Identification of environmental permitting requirements and relative order-of-magnitude cost
- Relative order-of-magnitude construction cost
- Relative order-of-magnitude permitting cost
- Identification of right -of -way required
- Other relevant parameters identified during the development of the project

This is intended as a screening level analysis to aid in selecting a preferred alternative.

GHD will consult with the County during the development of the alternative analysis matrix for Bracut, and once complete, will meet with the County to review the draft matrix and map of alignments before finalizing and providing a recommendation as to best apparent alignment alternatives that meet the project goals.



Deliverables:

- *GIS-based map possible trail alignments (one (1) electronic PDF and two (2) hard copies)*
- *A table-matrix analyzing the each trail alignment (one (1) electronic PDF and two (2) hard copies)*

Task 2.4 – Structure Alternative Analyses

Retaining Wall Alternatives Analysis

The mature stand of Eucalyptus trees, in addition to an existing drainage ditch, constrains the available space to locate the trail. In order to maintain typical minimum NCRA setbacks while minimizing encroachment into the existing drainage ditch (so as to not adversely impact ditch conveyance and/or storage capacity), a retaining system is likely required.

The retaining walls along the new trail could be mechanically stabilized earth (MSE) wall (such as Hilfiker from Eureka), gabion basket, welded wire steepened slope, sheet pile, or cantilevered soldier piles with concrete or timber lagging panels. The GHD team, led by Morrison Structures, will develop a retaining wall alternatives analysis. The objective of this study is to determine feasible type of retaining structure construction and alternatives, shoring requirements, cost range, construction issues, and controls appropriate for the specific locations and the conditions. Life expectancy and life cycle cost will be used in the comparison between the various types of walls to determine the most economical wall type for use.

Eureka Slough Bridge Alternatives Analysis

The Eureka Slough is a significant water body that bisects the project and imposes one of the biggest challenges to the project. For the purposes of this scope, it is assumed that the trail crossing of the slough will be accomplished by utilizing the existing NCRA bridge in one of the following ways:

- Cooperatively utilize the deck of the NCRA bridge
- Cantilever off south side of NCRA bridge

The use of the existing railroad bridge will require permission and agreements with NCRA and it's expected that NCRA will require that the trail not prohibit the use of rail for speeder and excursion trains.

The GHD team will work with the County and coordinate with NCRA, NWP and the CPUC to determine whether they will consider an agreement for cooperative use of the bridge deck and potentially the approaches, or for the trail to be cantilevered off the bridge. If they will consider an agreement, then the GHD team, led by Morrison Structures, will develop a bridge structure improvement alternatives analysis. The objective of this study is to determine feasible types of structure construction and alternatives, falsework requirements, cost range, construction issues, and controls appropriate for the specific locations and the conditions. The agreed cost of use and modifications will be compared with the other options on a life cycle cost basis. The available plans and past inspection reports will be reviewed for the bridge. The structures will be discussed with NCRA and a preliminary determination will be made regarding the feasibility to accommodate the trail.

If the deck of the bridge is utilized, modifications will be needed in order to meet typical pedestrian/bicycle bridge standards such as railings, a surface flush with the rails, and a resilient flange groove filler. This strategy would allow for cooperative use of the bridge by both pedestrian/bicycle traffic and by trains, speeders, and other rail vehicles. Other improvements may be needed for rail use, which is beyond the scope of this work.

If the trail is cantilevered off the bridge, it is assumed that additional vertical support (piles) will not be required. If they are determined to be necessary to support the trail, than additional geotechnical investigations and engineering design may be required beyond this scope.



This task includes two (2) meetings with NCRA representatives and one (1) site visit by Morrison Structures to review the existing bridge.

Deliverables:

- *Draft and Final Retaining Wall Alternatives Analysis (one (1) electronic PDF and two (2) hard copies)*
- *Draft and Final Bridge Improvement Alternatives Analysis (one (1) electronic PDF and two (2) hard copies)*

Task 2.5 – Refinement of Previously Developed Trail Alignments – Caltrans, NCRA and CRC

GHD will re-evaluate, refine or expand upon the design concepts previously prepared for the trail alignment where located between the highway and rail prism. Items to be further analyzed may include:

- Positive barrier options between highway and trail
- Alignments through CRC property and screening options/treatments
- Potential removal of eucalyptus trees north of CRC
- Potential modification to drainage ditch to better accommodate the trail (potentially adding additional outfalls to bay)

Deliverables may include:

- *Updated trail alignments (plan view and cross sections)*
- *Positive Barrier treatments (options and cost)*
- *CRC Screening Options (options and cost)*

GHD will provide one (1) electronic PDF and up to five (5) hard copies for each of the above documents.

Task 2.6 - Selection of Preferred Alignment

All alignment alternatives will be screened according to evaluation criteria to be vetted with the County; criteria may include security, connections, functionality/efficiency, environmental impacts, relative cost, roadway crossings, and right-of-way requirements. Evaluation and screening of the preferred alignment will be accomplished by constructing an evaluation matrix that scores the alignment by the agreed-upon criteria. The intent of the use of a matrix is to aid in the decision process, rather than to create a detailed and cumbersome analysis process. Simple qualitative criteria will be used as appropriate to consider simpler issues, and quantitative criteria will be added to augment the process where needed. Care will be taken not to introduce too many criteria which can take significant analysis effort and can improperly skew the results.

A key step to success of this project will be the screening of alternatives with the County, stakeholders and agencies to quickly identify alternatives which merit further review and those that have "fatal flaws." Without this step, time and resources may be wasted and the public and stakeholders may be unnecessarily confused. The screening effort focuses on fatal flaws, which may be in the form of environmental, cost, aesthetic, function, or maintenance impacts. From this process, a preferred alternative (possibly with sub-options) will emerge which will allow the GHD team, staff, and the stakeholders public to focus on a single potential trail alignment based on pre-established goals and objectives. GHD will prepare text, sample sections, concept plans, maps, and diagrams as necessary to convey the preferred alignment.



Deliverables:

- *Alignment options maps*
- *Evaluation Criteria and Matrix*
- *Preferred Alternative*

GHD will provide one (1) electronic PDF and up to five (5) hard copies for each of the above documents.

Task 3 – Survey and Geotechnical

Task 3.1 - Topography Survey

The previously conducted planning and preliminary design for the project relied on the 2012 Caltrans produced topographic mapping along US 101. The PA&ED and PS&E phases of the project will require a more accurate topographic survey and mapping of additional features within the project area in order to complete the design of the trail, including drainage facilities and structures (including bridges, retaining walls and boardwalks). We will utilize existing topographic survey for the alternatives development and alignment selection tasks. After a preferred alignment is selected, we will conduct a focused topographic survey on the preferred alignment.

The GHD team will supplement the 2012 Caltrans survey and establish a topographic basemap for the preferred trail alignment. The supplemental mapping will be made by field surveys to locate surface topography and grade breaks, indications of underground utilities, drainage structures and inverts, trees, drip-lines of riparian shrubs, locations of building corners, signs, and details where the trail will tie into streets or vehicular areas. The survey data will be processed and rendered into a CAD basemap.

A topographic strip map will be developed to show the features within the trail design area. The deliverable will be a map of topography at a horizontal scale of 1" = 20', one foot contours, and spot elevations where deemed necessary. The horizontal datum will be based on the North American Datum 83 (NAD 83). The vertical datum will be based on the North American Vertical Datum of 1988 (NAVD 88).

Deliverables:

- *Topographic Map in AutoCAD Civil3D dwg file format with point files and the surface model*

Task 3.2 - Right-of-Way Survey

The GHD team will establish project survey control and prepare right-of-way mapping for the project's preferred alignment. The public right-of-way boundary and easements will be shown on the base map and will be based on available deeds and record maps. Horizontal and vertical control points will be set for project mapping in accordance with the County's horizontal and vertical control requirements including locating monuments on streets and within the trail study area if practical. These survey control points will be exhibited on a "Survey Control Data Sheet" and will be semi-permanent in nature so as to serve as project control during the construction of the project, or subsequent survey activities. The horizontal datum will be based on the North American Datum 83 (NAD 83). The vertical datum will be based on the North American Vertical Datum of 1988 (NAVD 88). Monuments to establish the right-of-way and property lines will be searched for and field surveyed if located. A boundary survey and/or Record of Survey are not included as part of this task.

Deliverables:

- *Right-of-Way Map in AutoCAD Civil3D dwg file format*



Task 3.3 - Geotechnical Investigation

The Humboldt Bay Trail South segment contains several geotechnical, including:

- Geologic hazards, including strong seismic ground motions, soil liquefaction, settlement and tsunamis.
- Sea level rise affecting the trail profile and embankment/wall heights.
- Soft subgrade soils in areas of new embankment fill that may require removal and replacement with granular fill or use of geogrids.
- Shallow, brackish groundwater that creates a corrosive soil environment to steel and concrete within the zone of oxidation.
- Deteriorating embankment, including erosion and culvert failures, on the bay side of the existing railroad grade section. Trail support will require restoration of the fill prism and erosion protection by such means as sheet piles, geotextile reinforcement and/or rock slope protection.
- Deteriorating shoreline and slope reventment.
- Eureka Slough Crossing: Options here include (1) occupying the existing NCRA railroad bridge; (2) cantilevering the existing NCRA bridge. Existing Caltrans data shows deep pile foundations at the Hwy 101 bridges that penetrate very soft clay and peat (“bay mud”) to depths of 75+ feet across the slough.

Coordination, Permits, and Mark for USA

The GHD team, led by Crawford Associates (CAInc), will coordinate with the design team and the County to discuss the project needs and schedule, review preliminary project data, and review published geologic mapping and nearby geotechnical data (including the Hwy 101 bridges at Eureka Slough). CAInc will review the site for drill rig access, mark exploratory boring locations and notify Underground Service Alert (USA). CAInc will obtain encroachment and boring permits required by Humboldt County. CAInc assume that the County will provide all necessary right-of-entry (private property, Caltrans, NCRA) to the exploration sites and waive any encroachment permit fees. GHD will assist the County in obtaining the necessary waiver from the Coastal Commission for the drilling.

Subsurface Exploration

CAInc will perform the following subsurface explorations for the project.

Location	Anticipated Soil Conditions	Number of Explorations	Depth Below Existing Grade
Eureka Slough	Soft bay mud	Use existing Caltrans data	100'
Eureka Slough to CA Redwood Co.	Rail embankment over soft bay mud	8	20-40'
CRC. to S. Eucalyptus Area (Bridge and Possible Board Walk Areas)	Fill over bay mud	8 to 12	5-60'
N. Eucalyptus Area (N. of mill)	Fill over bay mud	8	30-40'
Eucalyptus Area to Bracut	Fill over bay mud	8	15-20'



CAInc's Engineer/Geologist will direct the sampling and log the borings. At a minimum, CAINc will sample at 5-foot intervals. CAINc will deliver the samples to an independent laboratory for testing. The drilling contractor will advance the borings with a track-mounted drill rig using 6 to 8-inch-diameter hollow and solid stem augers. Standard Penetration Testing (SPT) and California Modified sampling will be performed within the borings to obtain samples and blow count information. The borings will be grout-backfilled according to the County permit requirements. CAINc anticipates using hand operated exploration equipment within the boardwalk areas.

Laboratory Testing

CAInc will perform the following laboratory tests on relatively undisturbed samples obtained from the exploratory borings:

- Moisture Content and Unit Weight for soil classification and bearing capacity
- Unconfined Compression and/or Direct Shear for axial and lateral bearing capacity
- Sieve Analysis and Plasticity Index for soil classification and liquefaction assessment
- Resistivity, pH, Sulfate Content and Chloride Content for soil corrosivity analysis
- R-Value testing for pavement design

Evaluation and Engineering Analysis

CAInc will perform engineering analysis (using computer software where applicable) to evaluate bearing capacity; lateral capacity; site seismicity; liquefaction potential, shoreline/slope revetment, and soil corrosivity. Lateral earth pressures for retaining wall design will also be provided.

Geotechnical/Foundation Report

CAInc will prepare a Geotechnical/Foundation Report for the project, including design recommendations for the trail, embankment support/reconstruction, retaining structures, subgrade conditions, pavement sections, soil corrosivity, and bridge elements. Recommendations for bridge elements at Brainard's Slough Crossing will be based on proposed exploration and data in Blackburn Consulting report, "Geotechnical Report, Arcata Rail with Trail Connectivity Project, Arcata, California," dated July 6, 2010. The report will include: Scope of Work; Site Description; Project Description; Field Exploration; Laboratory Testing; Site Geology and Subsurface Conditions; Seismic Data and Evaluation; Liquefaction Evaluation; Foundation Recommendations (i.e., type, elevation and allowable loading of bridge foundation elements); Construction Considerations; Location Map; Log of Test Borings; Laboratory Test Results.

CAInc will submit a draft report prior to the final report, and incorporate any comments into the Final Geotechnical/Foundation Report.

Deliverables:

- *Draft Geotechnical/Foundation Report (one (1) electronic PDF)*
- *Final Geotechnical/Foundation Report (one (1) electronic PDF and two (2) hard copies)*

Task 4 – Environmental Studies

The project study area for the purposes of environmental studies performed under this task is defined as an approximate 60'± wide area generally centered on the preferred trail alignment. The project study area is intended to be a wide enough area for construction and staging and to satisfy California Coastal Commission (CCC) requirements. The larger area of investigation will also provide for documentation of adjacent habitats and evaluation of potential indirect impacts to these areas.



Task 4.1 - Mapping of Environmentally Sensitive Habitat Areas (non-wetland ESHAs)

This task consists of field work, an administrative draft technical memorandum, and a final technical memorandum. GHD will conduct ESHA mapping (non-wetlands ESHA) to document existing conditions and potential special-status habitat within the project alignment. Habitat mapping will use the naming convention identified in "A Manual of California Vegetation" (Sawyer et. al., 2009). ESHA boundaries will be documented using a hand held GPS unit with sub-meter accuracy and will be presented on a color map with aerial base map, at a scale of 1 inch = 100 feet.

Deliverables:

- *Draft ESHA Technical Memorandum (one (1) electronic PDF)*
- *Final Draft ESHA Technical Memorandum (one (1) electronic PDF and two (2) hard copies)*

Task 4.2 - Wetland Delineations

Prepare for Field Study

GHD will review available wetland mapping for the study area. GHD will also gather existing wetland delineations that overlap or intersect the project area, including a wetland delineation completed by GHD for the Eureka Waterfront Trail Phase C Project and wetlands mapping for the Humboldt Bay Trail Eureka to Bracut Initial Engineering Study (GHD 2014). GHD will then produce a preliminary environmental constraints map template. The map template, wetland lists/classifications, and existing wetland data will then be loaded into a hand held GPS unit, which will be used by the ecology team to map areas of 1-parameter wetlands, 3-parameter wetlands.

Wetlands Delineation

Utilizing the hand held GPS unit, the wetlands team will investigate the project study area to map wetland boundaries, with a focus on identifying wetland areas that meet the definition of both the U.S. Army Corp of Engineers (USACE) and the CCC.

The wetlands delineation will follow the USACE criteria (three parameter approach) from the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region (Army Engineer Research and Development Center, USACE, 2010). The wetlands delineation will also follow the CCC one-parameter approach (relying on USACE manuals for reference and procedures) as the site is within the Coastal Zone (primarily within the Coastal Commission's permit jurisdiction, and few areas within the appeal zone for the Coastal Commission). Vegetation and soil data will be collected at transects across the presumed wetland boundary with two plots (upland/wetland) per transect (intermediate plots may be placed without collection of data as appropriate). Soil pits will be dug to approximately 18 inches. Data on soil color, texture and redoximorphic features will be collected. Data on hydrologic conditions will be collected if observed.

Vegetation data collection will consist of listing the five dominant species at each plot. The species will then be classified as to whether or not they are wetlands indicator, using the most current standard reference for plant wetlands indicators: National Wetland Plant List: Western Mountains, Valleys, and Coast 2012 Final Regional Wetland Plant List (Lichvar 2012). The list classifies plants based on the probability that they would be found in wetlands, ranging from Obligate (almost always in wetlands), Facultative/wet (67% to 99% in wetlands), Facultative (34% to 66% in wetlands), Facultative/up (1% to 33% in wetlands) to Non-indicator (less than 1% in wetlands). Plants not listed are included in the uplands category. If 50% or greater of the dominant plant species at each plot are classified as either Obligate (OBL), Facultative/wet (FACW), or Facultative (FAC), the vegetative mix is determined to be hydrophytic (wetland plants).



A determination of the wetland boundary will be made based on soil, hydrology (if present), and vegetative parameters (three parameter approach) as well as the presence of any one parameter (one-parameter approach), which could result in two separate wetland boundary lines, one for each of the two jurisdictional agencies (USACE and CCC). An attempt will be made for efficiency in approval and permitting to have one wetland/upland boundary line that meets the definitions of both agencies. Once wetland and upland characteristics are determined for each transect, flags will be placed to delineate the limits of the wetland boundary/upland boundary. Plot numbers will be written on each flag. Wetland data points will be collected during the field effort using a hand held GPS unit.

Wetland Delineation Report, Jurisdictional Determination Letter, and Coordination

A draft and final wetlands delineation report will be submitted to the County. The report will follow the Corps of Engineers *Wetlands Delineation Manual* (USACE 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys and Coast Region* (Army Engineer Research and Development Center, USACE 2010). Once the wetland delineation and report is complete, GHD will submit a letter on behalf of the Project Proponent to the USACE, who is responsible for the Jurisdictional Determination (JD). At the request of the County, the report and JD also can be sent to the CCC. GHD will be available to attend a single agency site visit in order to facilitate jurisdictional review of the delineation and map results, with a focus on garnering USACE concurrence. Multiple agencies may be invited, per client and/or agency request, but since one field meeting is planned additional agency attendance will depend on their individual schedules/availability. Through this process the USACE will confirm the wetland delineation boundaries and either claim or deny jurisdiction over identified wetland resources. This scope item does not include revision to the wetland delineation map or report if requested by USACE or CCC, since it is uncertain if any revisions would be necessary and is highly dependent on agency interpretation of the wetland delineation results.

Deliverables:

- *Draft Wetland Delineation Report (one (1) electronic PDF)*
- *Final Wetland Delineation Report (one (1) electronic PDF and two (2) hard copies)*

Task 4.3 - Rare Plant Surveys

This task consists of field work (three seasonally-appropriate botanical site visits) for sensitive plant surveys associated with the proposed project. GHD will conduct a database search and review results to evaluate special-status species that may occur in the project vicinity according to the California Department of Fish and Wildlife's Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) California Rare Plant Ranks (CRPR), and species lists provided by the U.S. Fish and Wildlife Service (USFWS). The botanical evaluation will focus on botanical aspects within the study area as well as a Sensitive Plant Survey (one conducted in late May/June, one in July, and one-time in September by qualified GHD scientists) following "Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities (California Department of Fish and Game 2009).

The species inventory will be conducted by walking the site and recording special-status plant species observed. The site visits will be conducted at an appropriate season to locate flowering individuals. The recognized flowering season for most local flowering species is April to August, with some species flowering as late as September, and can vary from season to season. Sensitive plant species locations will be recorded with a hand held GPS unit with sub meter accuracy when possible (if not under trees) or recorded on map if GPS signal is not available (location of individual plants will not be recorded, rather a polygon will encompass the area of presence and an estimate of individuals present at the time of survey will be provided).



Deliverables:

- *Draft Rare Plant Survey (one (1) electronic PDF)*
- *Final Rare Plant Survey (one (1) electronic PDF and two (2) hard copies)*

Task 4.4 - Biological Assessment (for federally listed species)

The GHD team, led by North State Resources (NSR) will coordinate and attend a technical assistance meeting and site visit with County staff, Caltrans District 1, NMFS and USFWS, and potentially staff from the CCC and CDFW. The purposes of the meeting are to discuss the study area, construction methodologies/design options, impact, avoidance and minimization strategies, identify potential agency concerns, project communication protocol, and schedule for submittals. Based on the relevant issues raised and the outcome of this meeting, NSR will conduct a field visit and characterization of habitat near the proposed trail alignment, including approximately 750 feet upstream and downstream of any stream or drainage crossing (e.g., Eureka Slough) and the Humboldt Bay/Arcata Bay shoreline. If there is private property within the study area, NSR will only survey those areas where permission has been granted to the County by the property owner. The characterization will include extent of suitable anadromous salmon and tidewater goby spawning and rearing habitats within the affected stream and slough reaches and marsh areas.

Since federal funding would be required for the project, Caltrans, as designated by FHWA, would serve as the federal lead agency for Section 7 ESA consultation with NMFS and USFWS. It is assumed that a single BA document can be used to support the separate ESA consultations with NMFS and the USFWS. Consultation with NMFS also will be required under Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act with regard to Essential Fish Habitat Assessment (EFHA) for Pacific salmon. NSR will prepare a combined BA/EFHA and coordinate with Caltrans, NMFS, and the USFWS, as necessary, to assist the County with the required state and federal endangered species and EFH consultation processes. This BA/EFHA will fully analyze the effects of the proposed action. The BA/EFHA will be focused to address project impacts to tidewater goby and CH, Northern California steelhead DPS and CH, Northern California Coastal ESU Chinook salmon and CH, and Southern Oregon/Northern California ESU coho salmon and CH. The BA/EFHA may also need to include potential effects to Steller's sea lion, which occurs in Humboldt Bay, and Southern DPS orca due to food-based connections with salmonids. The document will include the following sections: introduction, consultation to date, description of proposed action including the action area, species considered and life history needs, environmental baseline, effects of the proposed action (including hydro-acoustical effects associated with pile-driving activities), cumulative effects, conclusion and determination, recommendations for mitigation, an EFHA discussion, and references. The EFHA will need to address estuarine rearing, in addition to adult and juvenile salmonid migration corridors between the bay and its freshwater tributaries within the project vicinity.

A copy of the Administrative Draft BA/EFHA will be provided to the County for review and comment. NSR will address County comments and submit a Draft BA/EFHA to the County for circulation to pertinent resource agencies (i.e., Caltrans, NMFS, and USFWS). If necessary, NSR will prepare a Final BA/EFHA which addresses comments from Caltrans. NSR will also coordinate with NMFS and USFWS, as necessary, to assist the County and Caltrans with the required federal endangered species act consultation process.

Deliverables:

- *Administrative Draft Biological Assessment (one (1) electronic PDF)*
- *Draft Biological Assessment (one (1) electronic PDF)*
- *Final Biological Assessment (one (1) electronic PDF and two (2) hard copies)*



Task 4.5 - Biological Analysis (state-only listed species)

State-listed species with potential to occur within the study area include longfin smelt, coho salmon and little willow flycatcher. As part of the pre-survey research and field investigations conducted in support of the BA/EFHA and NES report, NSR will assess potential for the project study area to support longfin smelt, coho salmon and little willow flycatcher and evaluate potential impacts to these species as a result of implementing the proposed project. We will informally consult with CDFW to discuss the proposed project and preliminary findings and determine suitable mitigation measures ensure that the project satisfies the requirements of Section 2081 (b) and (c) of CESA. It is anticipated that potential impacts to these state-listed species can be adequately mitigated to a level that would ensure that the proposed action would not result in take or jeopardize the continued existence of a state-listed species. Potential mitigation strategies include pre-construction surveys to verify presence/absence, construction worker environmental awareness training, timing of vegetation-removal activities to occur outside nesting windows, restriction of in-channel work activities to periods outside of the longfin smelt spawning season (typically January - March), erosion and sedimentation control measures, and restoration of the site to improve habitat functions and values. This information will be summarized in the NES report and the CEQA document.

Deliverables:

- *Information on the Biological Analysis will be summarized in the NES report and the CEQA document.*

Task 4.6 - Preliminary Environmental Study (PES)

GHD will draft and submit the Preliminary Environmental Study (PES) Form for the County to review in accordance with the LAPM (Exhibit 6-A) for federally-funded projects. We will respond to County comments on the PES and prepare the Final PES for submittal to Caltrans. The PES form includes the following sections:

- **Initial Project Description:** The project description upon which the PES will be based will be taken from the project study report or initial engineering study.
- **Preliminary Design Information:** Like the initial project description, the preliminary design information will be used as a starting point for the PES and APE map (see below).
- **Preliminary Environmental Study (PES) Form.** Each of the 36 questions included in this section cover the range of resource topics covered by NEPA. For "No" responses, how the mandate of federal law has been met will be explained in the separate "Notes to Support the Conclusions of the PES Form." For "Yes" responses, a technical study or technical memorandum would be prepared. For purposes of this scope, it is assumed that no additional technical studies will be required beyond those identified above scope items.
- **The Draft Area of Potential Effect (APE) map** prepared by GHD will be *submitted* with the PES form to Caltrans for review/concurrence. The APE map is crucial as it will determine the horizontal and vertical limits of project disturbance, including staging areas, and analysis of direct impacts. This APE is required for compliance with Section 106 of the National Historic Preservation Act and must be reviewed and approved by the State Historic Preservation Officer (SHPO). It will also be the basis for the Historic Property Survey Report (HPSR) and Archaeological Survey Report (ASR) that will be required by Caltrans for the project.

Deliverables:

- *Internal Draft PES Form (one (1) electronic PDF)*
- *Draft PES Form (one (1) electronic PDF and two (2) hard copies)*
- *Final PES Form (one (1) electronic PDF and two (2) hard copies)*



Task 4.7 - Natural Features Inventory (NES)

NSR will prepare a NES in accordance with the Caltrans *Guidance for Consultants: Procedures for Completing the Natural Environment Study and Related Biological Reports* (March 1997) and the Caltrans Standard Environmental Reference (Chapter 14) and utilize the Caltrans template (<http://www.dot.ca.gov/ser/forms.htm>). The NES will characterize biological resources in the Biological Study Area (BSA) and vicinity; assess project impacts to biological resources; identify general mitigation measures, if necessary; summarize the results of other biological studies; and discuss the status of any required agency consultations. Preparation of the NES will entail:

- Coordinating with resource agencies, including the CDFW, California Coastal Commission, NMFS, and USFWS;
- Reviewing the California Natural Diversity Database (CNDDDB) and California Native Plant Society (CNPS) database;
- Requesting a formal list of special-status species with potential to occur in the project vicinity;
- Conducting a reconnaissance-level field investigation, including an assessment of habitat for special-status wildlife and identification of environmentally sensitive habitat areas (ESHAs) that fall under the jurisdiction of the California Coastal Commission;
- The results of the plant survey per task 4.3 above will be summarized in the NES report, and include: comprehensive list of all vascular plant species observed within the BSA, figure showing location(s) and acreage(s) for any special-status plant occurrences and any noxious weed species populations (to ensure that the project complies with Federal Executive Order 13112 - Invasive Species);
- Summarizing the wetland delineation, both U.S. Army Corps of Engineers and California Coastal Commission jurisdictional features, as described above;
- Preparing maps showing the locations of significant biological resources, including observations of special-status species and/or suitable habitat and ESHAs; and
- Evaluating impacts to jurisdictional waters and ESHAs affected by the project based project site plans and wetland impact calculations (one-, two-, and three-parameter wetlands) provided by GHD; providing recommendations for avoidance, minimization, and mitigation measures, and preparing the Wetlands Only Practicable Finding – Alternative finding pursuant to Executive Order 11990, Protection of Wetlands.

Following the completion of the literature review, conversations with resource agency staff, and field surveys, NSR will prepare an NES report. The NES report will summarize information contained in the Biological Assessment/Essential Fish Habitat Assessment, as well as the results of the Section 7 consultation processes with the USFWS and NMFS. An internal draft NES will be submitted for review by the County before sending to Caltrans for review and approval. Once County and are addressed, NSR will submit a draft NES for review by Caltrans. The NES will be finalized and submitted to Caltrans for approval. NSR will address comments provided by Caltrans and submit a final NES report for review and approval.

Deliverables:

- *Internal Draft NES Report (one (1) electronic PDF)*
- *Draft NES Report (one (1) electronic PDF and two (2) hard copies)*
- *Final NES Report (one (1) electronic PDF and two (2) hard copies)*



Task 4.8 - Hydroacoustic Analysis

The GHD team, led by NSR, will conduct a hydroacoustical impact analysis using pile driving and geotechnical data provided by GHD and the County. The analysis will be conducted in accordance with the recently adopted "Technical Guidance for Assessment and Mitigation of Hydroacoustic Effects of Pile Driving on Fish" (Caltrans, November 2015). As part of the analysis, NSR will use the NMFS Pile Driving Calculations model to assess the potential impacts of pile-driving activities. Use of this model requires the input of parameter values for similarly driven piles under similar environmental conditions obtained from the primary scientific literature, agency reports, and mitigation monitoring reports. NSR will review Appendix 1 of the Hydroacoustic Guidance Document, which is a Compendium of Hydroacoustic Data, to identify relevant information that best matches the Humboldt Bay Trail – Bay Trail South Project. Once selected data are identified, NSR will contact the Caltrans District 1 biologist and NMFS biologist assigned to the proposed project to confirm that the data are appropriate for use for the project. This information will be used to evaluate potential acoustic effects of pile driving and associated sound levels on all life stages of salmonids and tidewater goby. The results of the analysis will be incorporated into the BA/EFHA.

Deliverables:

- *The results of the analysis will be incorporated into the BA/EFHA.*

Task 4.9 - Visual Impact Assessment

If identified as a required technical study, a visual impact assessment (VIA) will be conducted by NSR that qualitatively analyzes the potential effects of a new trail in close proximity to Humboldt Bay/Arcata Bay and Highway 101, which is eligible for designation as both a state and national Scenic Highway. This study will focus on potential impacts of any above-ground improvements associated with the trail project to the aesthetic environment and be limited to a site reconnaissance to assess the scenic landscape units and view sheds, identify and map visual assessment units, and key observation points; photo-documentation of key public observation points and viewing areas (e.g., views from Highway 101 and State Route 255 and Samoa Island, Humboldt Bay/Arcata Bay, and along the proposed trail alignment); and a consistency review of the Humboldt County General Plan and Local Coastal Plan to determine pertinent planning goals, policies, and objectives to protect visual resources and to identify anticipated viewer groups. A detailed computer simulation of up to eight (8) project trail designs is included in the scope of work. The assessment assumes a Moderate Impact VIA. A draft VIA technical memorandum will be submitted to the County for review and approval. NSR will incorporate any comments from the County and prepare a revised technical memorandum for submittal to Caltrans District 1. If necessary, NSR will respond to comments provided by Caltrans District 1 and prepare and submit a final technical memorandum.

Deliverables:

- *Draft VIA Technical Memorandum (one (1) electronic PDF)*
- *Final VIA Technical Memorandum (one (1) electronic PDF and two (2) hard copies)*

Task 4.10 - Section 4(f) evaluation (if needed)

NSR will consult with Caltrans District 1 Local Assistance to determine the applicability of a de minimis technical finding. NSR will draft a letter that summarizes the proposed project, describes the Section 4(f) resources within the study area, explains why the project will not adversely affect these resources, and requests written concurrence from the public land manager on the de minimis finding. The draft letter will be sent to Caltrans for review and approval, with the letter being sent to the public land manager(s) by Caltrans. NSR will also prepare a public notice for posting at the project site and County office that includes: description of the project, purpose and need, and beneficiaries; project location; name of public



agency approving the project; name of public agency implementing the project; governing statute and reason for public notice; and comment submittal period (e.g., 30-day comment period). The results of the Section 4(f) outreach will be summarized in a brief memo for submittal to the County, along with a summary of conversations and copies of written correspondence with the affected public land manager(s), will be included in the technical memo, along with any feedback received in response to the public notice. After the County comments are addressed, NSR will submit a draft technical memo for review and approval by Caltrans.

Deliverables:

- *Draft Section 4(f) Letter to public land manager and Caltrans (one (1) electronic PDF and one (1) hard copy)*
- *Draft Section 4(f) Letter to County (one (1) electronic PDF and one (1) hard copy)*

Task 4.11 - Environmental Site Assessment Corridor Study

Prepare for Field Study

GHD will query the Humboldt County Environmental Health Division and the North Coast Regional Water Quality Control Board for knowledge of previous activities that may have resulted in pollution of parcels or rights-of-way in the study area, examine available historical maps and aerial photographs of the parcels and adjacent areas, and obtain an Environmental Data Resources, Inc. (EDR) report, which provides access to over 1,200 federal, state, local, tribal, and proprietary environmental databases. The EDR report complies with the standard environmental record sources search, with a minimum search distance of 1/8th mile around the identified study area. GHD will then produce a preliminary hazardous materials constraints map template. The map template, data from the County, and EDR data will then be loaded into a hand held GPS unit, which will be used by the field team to conduct reconnaissance throughout the study area.

Site Reconnaissance

Utilizing the hand held GPS unit, GHD will walk the study area and record observations regarding potential sites of concern that may not be listed in the EDR Report. Reconnaissance will also be performed to verify the locations of EDR listed sites.

Draft and Final Reports

A draft Environmental Site Assessment Corridor Study (Corridor Study) report will be submitted for County review. Proposed trail alignments within the project boundaries identified with soil and/or groundwater contamination which may impact the proposed construction areas will be detailed in report tables. Impacts to construction will be described and general locations with documented soil and/or groundwater contamination that may impact the project alignment will be discussed. Based on the data available, each of the potentially contaminated sites that could impact the project will be assigned a Hazard Rank. The Corridor Study will generally follow the most recent American Society of Testing Materials (ASTM) E1527 05 standards, however, full compliance with ASTM standards would be cost prohibitive since meeting the United States Environmental Protection Agency's (USEPA) "all appropriate inquiry" rule would require interviewing each adjacent property owner, past and present, along with tenants and business managers. These interviews are typically necessary as part of due diligence for property transactions. Since the focus of a corridor study is for suitability for project implementation, and not due diligence associated with liability of property acquisition, adherence to the "all appropriate inquiry" rule is not incorporated into a Corridor Study unless specifically required by the project Owner, and therefore is not part of the proposed scope of services.



Deliverables:

- *Draft Environmental Site Assessment Corridor Study (one (1) electronic PDF)*
- *Final Environmental Site Assessment Corridor Study (one (1) electronic PDF and two (2) hard copies)*

Task 4.12 - Sea Level Rise Vulnerability and Adaptation

The GHD team, led by Environmental Science Associates (ESA), will perform technical analyses related to sea level rise vulnerability and adaptation, including evaluation of project alternatives, to support the preparation of a Coastal Development Permit application for the trail project in Humboldt Bay.

Sea Level Rise Vulnerability and Adaptation Report

ESA will prepare a stand-alone Sea Level Rise (SLR) Vulnerability and Adaptation report for the proposed project. The SLR Vulnerability and Adaptation report will be included in the Coastal Development Permit (CDP) application to be prepared by GHD, and will be consistent with the suggested topics included in the Sea Level Rise Policy Guidance (SLR Guidance) adopted by the California Coastal Commission (CCC) in August 2015. Specifically, ESA will compile information from existing studies and conduct analysis to address the suggested topics described in Chapter 6, Addressing Sea Level Rise in Coastal Development Permits, of the SLR Guidance. The compilation and development of the technical items will be used in the various tasks described in this Scope of Work. The intent of this task is to summarize existing sea level rise information for concise presentation rather than to reevaluate the approach to sea level rise or develop additional analyses or results.

Confirmation of Technical Topics to be Addressed

The first step will be to confirm which technical SLR-related topics the CCC Staff will require the applicant to address. To confirm, ESA will conduct two (2) meetings to be summarized and documented in a brief memorandum:

- Meet with County: ESA will conduct a telephone and/or web-based meeting to develop a strategy for coordinating with the CCC staff on the project. ESA assumes that the project team will be provided with the City of Arcata's CDP application submitted for the Humboldt Bay Trail North project, which may be used for negotiating the required level of effort to address sea level rise and coastal flooding and erosion impacts for the proposed project.
- Meet with CCC Staff: ESA will participate in a meeting between the project team and the CCC staff to confirm the anticipated level of effort and the technical topics that ESA will need to address.

The outcome of these meetings will be documented in a brief memorandum.

Sea Level Rise Technical Analysis

ESA will utilize existing studies to develop most of the information to be used in the SLR Vulnerability and Adaptation report. ESA will conduct additional technical studies that have not been conducted or not available for use. The following list of items will be included in the report:

- Proposed/Expected Project Life: ESA will work with the project team to develop an appropriate project life to be used in the subsequent analyses.
- Sea Level Rise Projections used in Impact Analyses: ESA will confirm the SLR projections and curves that will be used for the analyses. At this time, ESA proposes to review the SLR projections developed as part of the City of Eureka General Plan Update and in the Humboldt Bay Sea Level Rise Adaptation Planning Project (HBSLRAPP). The SLR projections used by the various studies are based on the NRC (2012) report, with modifications consistent with the CCC



SLR Guidance, and will be summarized, presented to the project team, and the appropriate range in SLR projections will be selected and agreed upon with the project team.

- **Impact Analyses:** ESA will conduct technical analyses to address the following primary components of the impact analyses:
 - Structural and Geologic Stability
 - Erosion over Expected Project Life
 - Flooding and Inundation Risks
 - Tipping Points for SLR Impacts, Specific to Proposed Project Site

These topics will require the completion of technical analyses, including a coastal processes study and erosion analysis, which will be based on a variety of existing information and new analysis and modeling. The coastal processes study will include the following:

- Identification of the tidal datums for the project
 - Summary of observed extreme still water levels and regulatory extremes (e.g. FEMA 100-year flood plain), as well as modeled elevations from the HBSLRAPP.
 - Wave runup and total water level analysis: As required by the CCC in all CDP applications, ESA will estimate the wave runup and total water level (still water level plus wave runup) at several locations along the project site, and assess the likelihood of overtopping. The wave runup analysis will be conducted for design conditions for existing and future conditions with sea level rise. ESA will use available existing information on wave heights, such as from the recent FEMA Coastal Flood Study, if available. Otherwise, as an optional task, ESA will calculate the wave heights incident to the shore along the project reach. ESA will use existing and future flood (still water level) elevations established in various existing studies.
 - Armoring criteria: ESA will describe the susceptibility of the shore to erosion for existing and future conditions, and will develop criteria for armoring portions of the shore over time.
 - Flood and Inundation Risk: ESA will utilize existing and future flood elevations developed by existing studies, and the results of the total water level analysis, to establish the flood and inundation risk at the project site. The HBSLRAPP and other studies assume that the entire Highway 101 road prism and adjacent high ground fails and allows flood waters to inundate large areas inland of Highway 101. ESA will either use their mapping, or will base the flood and inundation risk on the project erosion and total water levels.
 - Sea level rise tipping points that result in significant impacts to the project will be assessed and described. Adaptation approaches (e.g. such as raising the trail in the future) will be described.
- **Impacts to Coastal Resources:** Preliminary assessment of potential impacts to coastal resources will be described for existing and future conditions with sea level rise. These include:
 - Public Access and Recreation
 - Water quality
 - Coastal habitats
 - Agricultural resources
 - Natural landforms
 - Scenic resources
 - Identification of areas suitable for development that avoid impacts to coastal resources
 - **Analysis of Proposed Project and Alternatives:** ESA will conduct an assessment of the alternatives as they relate to SLR impacts. ESA will assess the performance of each alternative in terms of relative impact of SLR, the impact to coastal resources, and the degree to which the hazards are managed. Proposed current and future adaptation strategies will be identified. Hazard minimization efforts will be identified that completely avoid resource impacts.



Coordination with Coastal Commission Staff

This task includes coordination with CCC staff on sea level rise and vulnerability and adaptation. A total of 76 hours of staff time has been assumed for which could include the following:

- Project meetings (internal, project team, stakeholders, etc.),
- Coordination with other consultants, stakeholders, related projects, etc.
- Coordination with California Coastal Commission staff

Assumptions:

- *The FEMA Coastal Flood Study is available to infer wave conditions for the project site.*

Deliverables:

- *Memorandum documenting the anticipated technical topics that will need to be addressed by the SLR Vulnerability and Adaptation report (one (1) electronic PDF)*
- *Draft Sea Level Rise Vulnerability and Adaptation Report (one (1) electronic PDF)*
- *Final Sea Level Rise Vulnerability and Adaptation Report (one (1) electronic PDF and two (2) hard copies)*

Task 5 – CEQA and NEPA Documentation

Task 5.1 - CEQA Initial Study/Mitigated Negative Declaration

Prepare Project Description

Based on information provided by the County, and the site visits discussed above, the GHD team will, in consultation with the stakeholders, prepare a detailed project description identifying, at minimum:

- Project objectives/purpose and need
- Preferred project Alignment (and alternative routes as necessary)
- Construction equipment potentially required
- Construction schedule
- Limits of construction and access and staging areas
- Area of Potential Affect
- Preliminary Design Standards
- Preliminary Design approaches to avoid or minimize new crossings of waterways and new crossings of the railroad, Highway 101, and other roads and intersections
- Opportunities for the project to include "nature study"

GHD will submit a draft project description to the County for review, comment, and subsequent approval. GHD has included time in this task for Engineering Staff to participate in limited "pre-engineering" to help refine the project description. It will be a goal of the project description to demonstrate that the project will minimize environmental and ROW impacts. Another goal of the project description will be to definitively demonstrate that the project includes "nature study," which will be important for future coordination with the Coastal Commission. A detailed GIS map set will also be produced for the project description. This map set will span the project area and will show alignments, trail widths, likely fill prisms, locations and limited details about bridges and structures, and other notes regarding design assumptions.

CEQA Draft Initial Study and Proposed Mitigated Negative Declaration

GHD will prepare an Administrative Draft Initial Study/Proposed MND (IS/MND) for review by the County. The document will address CEQA requirements to the degree necessary for an adequate evaluation of



environmental impacts. This analysis will also conform to Chapter 6 of the CALTRANS Local Assistance Procedures Manual. The MND will be prepared, noticed, and circulated in accordance with CEQA guidelines and requirements. It will consist of the requisite summary section and be accompanied by a [CEQA] Initial Study that would include an appropriate environmental checklist, graphics, and applicable, feasible mitigation measures. The analyses, findings, and recommendations from the previous tasks will be incorporated into this document, as appropriate. GHD will utilize the technical reports prepared during the PA&ED phase for the preparation of the IS/MND, in addition to CalEEMod for project emissions quantification. The Administrative Draft IS/MND will include but not be limited to:

- A description of the proposed project and its location;
- A description of the environmental setting;
- An examination of whether the project would be consistent with existing land use, zoning, applicable plans, and other applicable land use controls;
- An identification of the potential environmental effects of the project through answering of the questions in the current CEQA Environmental Checklist Form (CEQA Guidelines Appendix G);
- An identification of mitigation measures, if applicable, that could be needed to mitigate any identified potentially significant environmental effects;
- A list of the names of persons who participated in the preparation of the IS/MND, and of the sources of information used in the document;
- Appendices used in the preparation of the IS/MND.

It should be noted, that through the course of research and analysis, if any potential environmental impacts are found to be significant and unavoidable, even with the application of all feasible mitigation measures, GHD will recommend the preparation of an environmental impact report (EIR) pursuant to CEQA. Should this prove to be the case, we will provide a revised scope discussing EIR services.

GHD will prepare the IS/MND based on County comments received on the Administrative Draft IS/MND. It is expected that one master set of responses will be returned to GHD for incorporation into the final version of the document for distribution.

GHD staff will attend one County public meeting (regularly scheduled Board of Supervisors or Planning Commission meeting) on the IS/MND to accept comments on the environmental issues of the project. GHD will prepare a PowerPoint presentation describing the project and summarizing the environmental issues associated with implementation of the project.

GHD will circulate the IS/MND on behalf of the County according to the County-approved project mailing list (distribution of up to 30 copies plus 10 additional copies to the County). GHD also will prepare the Notice of Completion for the State Clearinghouse and the Notice of Intent to adopt a Mitigated Negative Declaration to be published in a local newspaper of general circulation. It is anticipated that the County will publish the Notice of Intent in a newspaper of general circulation, and pay for any fees associated with the publication.

GHD will review all comment letters received on the IS/MND during the circulation period, and will make edits to the IS/MND directly, based on the County's independent judgment and direction (the IS/MND will not be amended). GHD assumes up to 30 unique individual comments (i.e., five comment letters with six unique comments each). Any additional comments would be addressed on a time and materials basis.

GHD will attend one County Board of Supervisors or Planning Commission meeting to adopt the IS/MND and approve the project. GHD will prepare the Notice of Determination and deliver it to the Humboldt County Clerk-Recorder within five days of adoption. It is anticipated that the County will pay the Clerk-Recorder and CDFW fees. GHD will develop a Mitigation Monitoring and Reporting Plan for the project and compile the references in an electronic format and deliver to the County. It is anticipated that the County will prepare the CEQA Findings, and internal staff report and resolution.



Deliverables:

- *Administrative Draft IS/MND (one (1) electronic PDF)*
- *Draft IS/MND (one (1) electronic PDF and up to 40 bound hard copies)*
- *References in electronic format*

Task 5.2 - NEPA Categorical Exclusion

It is assumed that this project will qualify for a Categorical Exemption (CE), under NEPA pursuant to 23 CFR 771.117 and that Caltrans will prepare the Categorical Exemption/Categorical Exclusion Determination Form (from Caltrans' Local Assistance Program Manual) with input from GHD. GHD will review the draft CE developed by Caltrans and provide comments.

GHD would need to negotiate alternate scope if the County/Caltrans determines that a NEPA EA will be required.

Deliverables:

- *Comments draft CE (one (1) electronic PDF)*

Task 6 – Environmental Permit Applications

GHD will organize and attend a pre-application meeting with the permitting agencies to verify the type of permit needed and to discuss any concerns the agencies may have with regard to the proposed project. The GHD team will prepare and submit the permit applications. Based on our understanding of the project, GHD anticipates the regulatory permits and approvals will be as follows:

- California Coastal Commission - Coastal Development Permit (CDP)
- U.S. Army Corp of Engineers – Individual Permit and 404(b)(1) Analysis
- United States Fish and Wildlife Service & National Marine Fisheries Service - Biological Opinions or Letter of Concurrence
- North Coast Regional Water Quality Control Board - 401 Certification and/or Waste Discharge Requirements
- California Department of Fish and Wildlife - Streambed Alteration Agreement
- Humboldt Bay Harbor, Recreation and Conservation District - Harbor District Permit

The City of Eureka and the Humboldt Bay Harbor, Recreation and Conservation District (HBHRCD) are both tideland trustees as delegated by the State Lands Commission. This delegation allows both entities to issue leases, as necessary, over spatially-explicate areas in Humboldt Bay. At this time it is not known if a lease is needed from either or both entities. Once the project footprint is defined, and we are in the project permitting phase, GHD will conduct research and meet with representatives of the City of Eureka and HBHRCD to determine the spatial extent of their tideland leases and if a lease is actually needed. Once this effort is concluded GHD will provide the County with additional scope of work to complete these lease agreements if needed.

The City of Eureka and Humboldt County have permitting authority within the project area based on land use and zoning regulations. At this time it is not known if a Conditional Use Permit (CUP) is needed from either or both entities. Once the project footprint is defined, and we are in the project permitting phase, GHD will conduct research and meet with representatives of the City of Eureka and Humboldt to determine the spatial extent of their jurisdiction and if a CUP is actually needed, or if the proposed project is a principal use. Once this effort is concluded, GHD will provide the County with additional scope of work to complete these CUP(s) if needed.



Task 6.1 - Prepare Permit Applications and Coordinate with Agencies

GHD will prepare and submit the permit application packages for a California Coastal Commission CDP, an Army Corps Individual Section 404 Permit, a USFWS and NMFS Biological Opinion or Letter of Concurrence, a NCRWQCB Section 401 Water Quality Certification and/or Waste Discharge Permit, a California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement, and a HBHRCD Harbor District Permit, as described below. It is anticipated that the Caltrans cultural resources consultant will obtain SHPO and THPO(s) concurrence. Applications should be submitted, at a minimum, 12 months prior to the expected start of construction so that permit conditions and restrictions can be incorporated into the bid documents.

Task 6.2 - California Coastal Commission

A Coastal Commission CDP will be required because the project involves the placement of fill in one-parameter wetlands and ESHA within the Coastal Zone. GHD will also prepare the required alternatives analysis per the California Coastal Act. GHD will utilize data gathered to date in addition to the delineation of wetlands for inclusion as appropriate in the CDP application. The purpose of this task is to complete the application and submit information to the Coastal Commission in order to obtain a CDP.

Task 6.3 - U.S. Army Corps of Engineers and Section 7 Consultation

An Army Corps Section 404 permit will be required because the project involves the placement of fill in jurisdictional wetlands (i.e., in the case of this project, three-parameter wetlands). In support of the application, the GHD team will prepare a delineation of Wetlands and Waters of the U.S. for verification by the Army Corps, as described above. GHD will prepare the required 404(b)(1) Alternatives Analysis for the USACE and complete the 404 permit application. The project includes impacts to tidal Waters of the U.S. and greater than ½ acre of impacts to non-tidal water. Therefore, Nation Wide Permits 14 and 42 cannot be used, and an Individual Permit will be necessary. Formal consultation with the USFWS and informal consultation with NMFS is anticipated. GHD's teaming partner, NSR, will prepare Biological Assessments in support of the consultation.

Task 6.4 - United States Fish and Wildlife Service and National Marine Fisheries Service

As noted above, NSR will prepare Biological Assessments in support of the formal consultation with USFWS and informal consultation with NMFS. The Biological Assessment will support the USFWS's Biological Opinion.

Task 6.5 - North Coast Regional Water Quality Control Board 401 Water Quality Certification

A RWQCB Section 401 Water Quality Certification will be required because the project involves the placement of fill in wetlands. The Certification supports approval of the USACE permit. GHD will complete the 401 application.

Task 6.6 - California Department of Fish and Wildlife Streambed Alteration Agreement Application

A 1602 CDFW Streambed Alteration Agreement Application will be required because the project involves activities that will modify the bed, bank and channel of streams in the project area. It is anticipated that the Standard Agreement would be the appropriate level of documentation. The application will be



prepared in accordance with Fish and Game Code section 1602. GHD will coordinate with the local CDFW office throughout the permitting process.

Task 6.7 - Humboldt Bay Harbor, Recreation and Conservation District Development Permit

A Humboldt Bay Harbor, Recreation and Conservation District (HBHRCD) Development Permit will be required because the project involves development within Humboldt Bay. GHD will coordinate with HBHRCD to ensure that the Development Permit includes all information necessary for timely approval and GHD will complete the permit application.

Deliverables:

- *Draft Permit Application Packages (Tasks 6.2 to 6.7) (one (1) electronic PDF)*
- *Final Permit Application Packages (Tasks 6.2 to 6.7) (one (1) electronic PDF and two (2) hard copies)*

Task 7 – Engineering Studies

Task 7.1 - Coastal Engineering Design Criteria

The GHD team, led by ESA, will prepare a brief memorandum that summarizes pertinent recommendations on coastal engineering design criteria that will be used in the design process. The information will be based on the various technical studies such as the City of Eureka General Plan Update, Humboldt Bay Sea Level Rise Adaptation Planning Project (HBSLRAPP), and the FEMA Coastal Flood Study. This memorandum will include:

- Project tidal datums
- Design wave height for structural design
- Extreme water level elevations
- Total water levels associated with project design life
- Recommended strategies for mitigating erosion and degradation of the shore and adjacent habitat features
- Basic strategy for future adaptation and management for post-extreme event scenario

Deliverables:

- *Memorandum documenting the coastal engineering design criteria to be considered by the project team for design (one (1) electronic PDF)*

Task 7.2 - Location Hydraulic Study

Caltrans requires a Location Hydraulic Study when a project encroaches into a floodplain. FEMA has designated much of the floodplain in the project area as Zone A. The floodplain is under tidal influence with high groundwater and saturated soils. Much of the floodplain is inundated during much less than a 100-year flood event. Based on our experience with the preparation of the Location Hydraulic Study for the Humboldt Bay Trail North project and other projects in the area, we expect that the implementation of the proposed project will result in insignificant longitudinal encroachment into FEMA floodplain areas. GHD will prepare a project specific Location Hydraulic Study in coordination with the Caltrans District 1 Hydraulics Engineer and in accordance to Caltrans requirements based on the assumption that the level of effort will be similar to what has been required of other local projects we are familiar with.



Deliverables:

- *Draft and Final Location Hydraulic Study (one (1) electronic PDF)*

Task 7.3 - Summary Floodplain Encroachment Report

GHD will work with Caltrans to determine whether a Summary Floodplain Encroachment Report or Floodplain Evaluation Report is required for the project. A Summary Floodplain Encroachment Report is typically required for projects that have insignificant impact on the base flood elevation. Caltrans requires a Floodplain Evaluation Report when there is a significant encroachment and/or impact in a base floodplain requiring the preparation of an EA/FONSI or an EIS. Based on the nature of the project and experience with similar project, it is assumed that the proposed project will have an insignificant impact on the base flood elevation. Therefore, this task assumes that GHD will prepare a Summary Floodplain Encroachment Report in coordination with the Caltrans District 1 Hydraulics Engineer and in accordance to Caltrans requirements for insignificant impacts.

Deliverables:

- *Draft and Final Summary Floodplain Encroachment Report (one (1) electronic PDF)*

Task 7.4 - Drainage Study

The proposed project is anticipated to modify the drainage patterns along the western edge of Highway 101 which is in the Federal Emergency Management Agency (FEMA) designated floodplain. Therefore GHD will prepare a study is to assess the hydrologic and hydraulic characteristics of the proposed project specifically adjoining the Caltrans right-of-way to minimize potential drainage impacts to existing highway facilities. The drainage analysis is expected to include the following which will be summarized in a memorandum:

- Analyze Capacity of Post-Project Ditch Adjoining Highway 101
- Calculate peak stormwater runoff rates based on Caltrans Highway Design Manual requirements
- Determine normal depth of water surface elevation (WSE) given peak runoff rates
- Determine peak velocity of runoff in ditch during peak runoff
- Determine erosion potential and appropriate energy dissipation measures for drainage ditches and outlets based on peak velocities
- Tidal Impact Analysis
- Determine the tidal influence on the capacity of the ditch and inundation on the roadway
- Compare proposed and existing structure elevation to the 100-year high tide WSE and Sea Level Rise (SLR) projections
- Floodplain Impact Analysis
- Determine the impact of the proposed fill into the FEMA designated floodplain of the project area

It's assumed that the drainage study will require a level of effort with be similar to what has been required of other local projects we are familiar with.

Deliverables:

- *Draft and Final Drainage Study (one (1) electronic PDF)*



Task 7.5 - Storm Water Data Report (SWDR)

GHD will prepare a Storm Water Data Report (SWDR) for the project in accordance to Caltrans requirements. It's assumed that the Long Form will be required because of the scale and location of the project and its potential to create stormwater impacts.

Deliverables:

- *Draft and Final SWDR (one (1) electronic PDF)*

Task 7.6 - Stormwater Pollution Prevention Plan (SWPPP)

The project will require a Stormwater Pollution Prevention Plan (SWPPP) since it will disturb more than 1 acre of ground. GHD will develop and prepare a Stormwater Pollution Prevention Plan SWPPP for the project area. GHD will develop the SWPPP based on State Water Resources Control Board's (SWRCB) Construction General Permit assuming a Risk Level 2. Some SWPPP items will not be completed due to incomplete information. The Legally Responsible Person (LRP) or contractor will need to complete portions of the SWPPP once the bid has been accepted and the contractor and other responsible parties have been identified.

When the project is ready to proceed to construction, The County will prepare and electronically submit the Notice of Intent (NOI) through the SWRCP's smart database. The NOI will identify the project, LRP and contractor performing the work. The County and contractor will have to sign the SWPPP, are ultimately responsible and must certify that the SWPPP will be implemented as written.

The SWPPP will be developed to a draft level for review and comment by the County. Applicable comments received will be incorporated into the final SWPPP.

Deliverables:

- *Draft SWPPP (one (1) electronic PDF)*
- *Final SWPPP (one (1) electronic PDF and two (2) hard copies)*

Task 7.7 - Project Report (PR)

A draft project report (DPR) and project report (PR) will be prepared in accordance to Appdenix K of the Caltrans Project Development Procedures Manual. The DRP will be prepared and released with the environmental document to the public. The PR will recommend approval of the project. The Project Report is expected to include the following sections:

1. Introduction
2. Recommendation
3. Background
4. Purpose and Need
5. Alternatives
6. Considerations Requiring Discussion
7. Other Considerations as Appropriate
8. Funding, Programing and Estimate
9. Delivery Schedule
10. Risks
11. FHWA Coordiation
12. Project Reviews
13. Project Personnel
14. Attachments



Deliverables:

- *Draft and Final Project Report (one (1) electronic PDF)*

Task 8 – Preliminary Design

Task 8.1 - Preliminary Design (15%, 35%)

Once the preferred alignment has been selected, GHD will produce a refined conceptual design for the selected alignment. The refined design will identify the preferred alternative alignment and key elements and decisions captured during the development and analysis of alignment options.

GHD will develop preliminary design plans that will establish the scale, relationship and orientation of the proposed improvements within the project area. The conceptual geometrics will be shown in plan view on the base maps, showing centerlines and edges of the path. Centerline data such as curve radius will also be shown. Centerline profiles will not be prepared for the initial concepts; however, critical clearance requirements will be identified. The primary objective of this task is to develop a path alignment that minimizes property and traffic/NCRA impacts while providing a safe and enjoyable experience

The preliminary design plans will be developed on 22" x 34" sheets that allow scaled reduction to 11" x 17" sheets. The project will be designed using English Standard units in AutoCAD at an appropriate scale utilizing AutoCAD standards, including project folder structures, layer names, line styles and font resources, color tables, etc. The preliminary design plans are expected to include:

- Cover Sheet
- Plan Sheet Index
- Typical Trail Cross Sections
- Trail Plan
- Survey Control Plan, and
- other sheets we deem necessary to convey the design intent

GHD will provide an opinion of probable construction costs for the 35% design which will be prepared using standard engineering estimating procedures for each design submittal. The opinion of cost will include the anticipated cost for the items of work included with the project based on bid results from previous projects or published unit costs available from Caltrans.

Deliverables:

- *15% Plans*
- *35% Plans and Opinion of Probable Construction Cost*

GHD will provide one (1) electronic PDF and up to ten (10) hard copies for each of the above documents.

Task 9 – Caltrans and NCRA Permits

Task 9.1 - Caltrans Encroachment Permit

The project will require an encroachment permit from Caltrans for improvements constructed within the State right-of-way. GHD will prepare an encroachment permit application for the County to submit to Caltrans. GHD will also print and distribute preliminary plans to Caltrans to support the application, address questions, and provide supporting information. It is assumed that any supporting information is being prepared under other existing GHD scope items or will be provided by third parties.



Deliverables:

- *Draft and Final Caltrans Encroachment Permit Application (one (1) electronic PDF)*

Task 9.2 - NCRA Trail Corridor Management Plan

GHD will develop a corridor management plan specific to the project site based on NCRA Rail-with-Trail Guidelines. The plan will provide overall information in a single document. The overall Management Plan will provide a narrative highlighting how the proposed trail project addresses the applicable portions of the guidelines.

The plan will consider input from the County, public, and stakeholders and evaluate the project characteristics relative to the guidelines and provide additional recommendations as appropriate.

Specific design recommendations will be customized for the project, and will consider access points, public walkways and paths, the wayfinding system, sight lines, potential entrapment areas, barriers, access control, lighting, and overall maintenance considerations.

Deliverables:

- *Draft and Final Trail Corridor Management Plan (one (1) electronic PDF)*

Task 9.3 - NCRA Encroachment Permit and License Agreement or Easement

GHD will assist the County with obtaining an encroachment permit and license agreement or easement from the NCRA. It is anticipated that this task will involve close communication with NCRA staff and County staff to develop a cooperative strategy that serves the interest of both the County and the NCRA. GHD staff will attend up to three (3) meetings with NCRA staff in Eureka.

Deliverables:

- *Figures and exhibits to support NCRA Encroachment Permit and License Agreement or Easement (one (1) electronic PDF)*

**It's assumed that the County will prepare any required legal descriptions and plats.*

Task 9.4 – CPUC GO 88-B

Modifying existing railroad crossings at roadway intersections could require the approval of the CPUC under General Order 88-B. GHD will assist the County with the preparation of documentation required GO 88 -B's. It's assumed that up to four (4) GO 88 -B's will be required for the project.

Deliverables:

- *Figures and exhibits to support CPUC (one (1) electronic PDF)*

Task 9.5 - PS&E Allocation and Authorization Request

After CEQA and NEPA are completed for the project, GHD will assist the County in preparing the PS&E allocation request for the California Transportation Commission (CTC) and the authorization request to FHWA. Once the PS&E funds have been allocated and authorized, reimbursable design engineering work can begin.



The PS&E allocation submittal will include the following required forms:

- Exhibit 23-N – Funding Allocation Checklist
- Exhibit 23-O – Request for Funding Allocation
- Exhibit 23-D – State/Federal Finance Letter

The PS&E authorization submittal will include the following required forms:

- Exhibit 3-B – Request for Authorization to Proceed with Preliminary Engineering
- Exhibit 3-O – Local Federal-Aid Project Finance Letter
- Exhibit 3-F – Request for Authorization Data Sheets

Deliverables:

- *Allocation and Authorization Exhibits (one (1) electronic PDF)*

Task 10 – Public Meetings and Outreach Material

Task 10.1 – Public Meetings and Outreach Material

The GHD team, in partnership with Alta, will assist the County with up to two (2) public workshops and associated outreach by preparing the graphic exhibits, presentations, provide sign-in, directional signs, and bring necessary equipment. Work will include an advanced planning meeting to identify messaging, dates, location, logistics, and goals. This can occur during a regular team coordination activity. County staff will provide mailing, postage, addresses, room reservations, and refreshments. GHD can prepare flyers suitable for email and mailing. During the meetings, GHD can have a staff on hand to help manage guests and lead discussions at exhibits or tables. GHD can also assist with presentations and introduce elected officials, the project team, and technical specialists. Public comment will be recorded to serve as a record of the event and to inform the team. GHD will also be available to prepare meeting summary memorandums.

Deliverables:

- *Flyer/Mailer, Draft/Final Community Meeting Exhibits, Meeting Summary Memorandum; Community Workshop materials (documents, maps, meeting notices, etc.) in a format suitable for printing, posting on a website or e-mailing.*

PS&E PHASE (Optional)

Task 11 – PS&E Phase Project Management, Meetings and Coordination

Task 11.1 - Project Management

The PS&E phase will require regular communication and close coordination with team members, the County, Caltrans and other project stakeholders. This task also includes reviewing the project status on a regular basis, providing progress updates to the County, managing project budgets and schedules, assisting the County in coordinating with the various agencies involved, and coordinating and performing quality control and quality assurance reviews.

Task 11.2 - Kickoff Meeting

As part of this task, GHD will coordinate and attend a PS&E phase kickoff meeting with the County and Caltrans (if desired) in Eureka. It's anticipated that the following items will be discussed: review of the Caltrans review process; initial identification of issues; approach to agency and landowner communication; schedule for submittals; coordination with Caltrans Eureka-Arcata project; and general



approach to project design. If desired by the County, GHD will extend the kick-off meeting to include a site visit to review proposed project design components.

Task 11.3 - Monthly Coordination Meetings

As part of the ongoing project coordination, management process and regular interface with the County, GHD anticipates participating with the County in up to twelve (12) monthly meetings (or conference calls) to provide updates on project status, review projects concepts and issues, and receive input and direction from the County (a total of 100 hours has been budgeted).

Deliverables:

- *Meeting agenda in advance of the meeting as (1) electronic PDF in advance and paper copies at the meeting.*
- *Meeting notes will be provided to document key decisions as one (1) electronic PDF only.*

Task 12 – Final Design

Task 12.1 – Wayfinding and Amenities

Site Assessment and Destination Selection

The GHD team, led by Alta, will host a conference call with the County to discuss the vision and goals of the wayfinding system and trail amenities. Alta will explore the features, themes, and symbols which are most representative of the area. This information will inform the development of the initial wayfinding and amenity concepts.

Alta will assess and identify the destinations and locations for amenities based on a review of the area Geographic Information System data, augmented by field work, background research and information provided by the County. Alta will begin this task by issuing a data needs memo and a field review to help ground truth the initial findings. Information gathered during this task will inform the selection and prioritization of destinations, while identifying potential navigational challenges.

Placement Guidance

Based on discussions with stakeholders, Alta will identify navigational challenges which occur on the trail network. In response, we will diagram up to two (2) typical scenarios with recommended wayfinding improvements. Diagrams may include recommendations for typical setback and vertical clearance, placement at intersecting trails, as well as signing and marking transitions between on-street bicycle facilities and off-street trail facilities.

Design Concepts

Wayfinding systems consist of a family of tools in order to create a legible and seamless navigational experience for path users. The wayfinding system is anticipated to be composed of a family of complementary elements, including directional, confirmation and turn signs, as well as mile markers. Up to two (2) distinct design concepts for the wayfinding system will be prepared for discussion. Designs will be vetted by staff prior to being presented to community members.

Amenities like benches, lighting, interpretive signs and art will need to fit the context as well. Alta will prepare up to two (2) different amenity packages for discussion.

Once stakeholder input is received and staff direction provided, Alta will refine the design of the preferred wayfinding system and amenity package. Refined designs will indicate typical dimensions, materials, graphics, and colors for each element.



Draft and Final Wayfinding and Amenity Plan

A graphically rich and user friendly wayfinding and amenity plan will be assembled describing destination selection, placement guidance, and the preferred wayfinding family designs. Unit costs and a phasing plan will also be described. A draft plan will be issued to the County for review. Once a single set of consolidated comments is received, the final Wayfinding and Amenity Plan will be produced.

Deliverables:

- *Data needs memo*
- *Up to two (2) placement concepts*
- *Up to two (2) wayfinding design concepts*
- *Up to two (2) amenity design concepts*
- *Draft and Final Wayfinding and Amenity Plan*

The above deliverables will be provided as one (1) electronic PDF and up to five (5) hard copies.

Task 12.2 - PS&E

GHD will prepare plans, specifications, estimates (PS&E) and contract bid documents for the project, based upon the 35% design plans developed for the preferred alternative during the PA&ED phase. The primary objective of the final design will be to develop a set of plans and specifications suitable for bidding and construction. The plans need sufficient detail to provide the information for review by the County, Caltrans, the NCRA, and the CPU. The PS&E package will be prepared based on the standards of practice in the industry and in accordance with the scope and Caltrans Local Assistance guidelines. Overall, the approach and level of detail will be similar to the Bay Trail North project.

The Construction plans and estimate will be submitted to the County at 60%, 90%, 95% and 100% completion stages. The technical specifications will be submitted to the County at the 90%, 95% and 100% completion stages. The County will have the opportunity to comment on the 60%, 90% and 95% design submittals, and the 100% will be ready to issue for construction. GHD construction staff will perform a formal constructability review of the 95% submittal.

The project improvements will likely include the following:

- Class 1 trail with 10' wide paved surface and 2' wide gravel shoulders
- Retaining walls where required in through the eucalyptus area (if required)
- Premanufactured bridge over Brainard Slough
- Boardwalks at the north and south end of the CRC property if the trail is aligned along the CRC levee
- Positive barrier between trail and highway where no other non-traversable barrier exists
- Eureka Slough crossing – either cooperatively utilize the existing NCRA bridge deck or cantilever trail off the existing NCRA bridge
- Wayfinding signage
- Interpretative signage
- Viewing platforms/overlooks
- Benching or other amenities
- Lighting

Construction Plans

The Construction Plans will be developed on 22" x 34" sheets that allow scaled reduction to 11" x 17" sheets. The project will be designed using English Standard units in AutoCAD at an appropriate scale utilizing AutoCAD standards, including project folder structures, layer names, line styles and font



resources, color tables, etc. All plans will be stamped and signed by a professional engineer and will be used as part of the construction documents. Construction plans are expected to include:

- Cover Sheet
- Plan Sheet Index
- General Symbols and Abbreviations
- Construction Notes
- Typical Trail Cross Sections
- Trail Plan and Profiles
- Signage and Striping Plans
- Drainage Plans
- Construction Area Signs Plan
- Survey Control Plan
- Structural Sheets
- Brainard Slough Crossing
- Eureka Slough Crossing
- Boardwalk
- Retaining Wall
- Other sheets we deem necessary to convey the design intent

Technical Specifications

GHD will prepare technical specifications consisting of Special Provisions to amend and supplement the State of California Department of Transportation Standard Specifications (2015). Technical Specifications for this project will include information specific to the project and work items, such as order of work, testing and quality control, asphalt concrete, roadside signs, thermoplastic paving markings, etc.

Opinion of Probable Construction Costs

The engineer's opinion of probable construction costs will be prepared using standard engineering estimating procedures for each design submittal. The opinion of cost will include the anticipated cost for the items of work included with the project based on bid results from previous projects or published unit costs available from Caltrans. Actual construction costs will vary and the low bidder may be higher than the Opinion of Probable Construction Cost due to availability of labor, equipment, materials, market conditions, or other factors.

Bidding Package

GHD will assist the County in developing the bidding package including: advertisement for bid, bid schedule, bidding requirements, contract forms, special contract requirements, general conditions, state and federal requirements (DBE forms, EEO Certification, Non-Lobbying Certification, prevailing wage, on the job training, DBE, Buy America, FHWA 1273, etc.), technical specifications, and the 100% plans.

GHD will calculate the DBE goal for construction based on items of construction work that can be broken out and provided to a DBE. The DBE goal determination will be submitted to Caltrans for review. This task does not include any changes to the design plans or specifications.

Deliverables:

- 60% Plans and Estimates
- 90% PS&E Submittal: Plans, Specifications, and Estimates
- 95% PS&E Submittal: Plans, Specifications, and Estimates
- 100% PS&E Submittal: Plans, Specifications, and Estimates
- Final Bidding Package



GHD will provide one (1) electronic PDF and up to ten (10) hard copies for each of the above documents. In addition, 100% plans will be provided as AutoCAD Civil 3D files.

Task 12.3 - Design Exceptions

Caltrans enforces a consistent application of highway design standards as shown in the Highway Design Manual. Occasionally, project conditions warrant an exception to certain accepted standards or procedures. Such conditions might include: extreme difficulties or high cost of obtaining right-of-way; cost of construction; or the mitigation of environmental impacts. Caltrans requires all deviations from accepted standards and procedures be justified and documented through a design exception approval process. If unavoidable design exceptions are identified during the design process, GHD will prepare and submit to Caltrans Design Exception Fact Sheets which will include the following information:

- Project Description
- Existing conditions
- Proposed work and nonstandard features
- Standard for which the exception is required
- Accidents and Traffic Data (as available)
- Reason for requesting exception

The Design Exception fact sheets will be signed and stamped by a California licensed civil engineer. The preparation of up to two (2) design exception fact sheets (mandatory or advisory) have been included in this scope of services.

Deliverables:

- *Draft and Final design exception fact sheets (one (1) electronic PDF)*

Task 12.4 - Preliminary Right-of-Way Evaluation

Using the right-of-way survey developed and information provided by the County and other agencies, GHD will determine the location of the public right-of-way and property lines relative to the proposed project improvements. To the extent practical, the project will be configured to avoid the need for temporary or permanent right-of-way. Where encroachments outside of public right-of-way are unavoidable, the right-of-way will need to be acquired consistent with the guidelines for right-of-way acquisition in the Local Assistance Procedures Manual. In this situation, GHD will work with the County and develop preliminary exhibits that present the anticipated extents of right-of-way needed for the project. The exhibits will show the existing right-of-way and property lines, proposed project improvements, and will identify property owners, addresses and APN's. This task includes a preliminary right-of-way evaluation only and does not include the preparation of right-of-way documents, appraisals, legal descriptions, plat maps, negotiations or acquisitions (which are assumed to take place during the Right-of-Way phase of the project).

Deliverables:

- *Draft Preliminary Right-of-Way Evaluation Exhibits (one (1) electronic PDF)*
- *Final Preliminary Right-of-Way Evaluation Exhibits (one (1) electronic PDF and two (2) hard copies)*



Task 13 – Final Permit Coordination

Task 13.1 Final Permit Coordination

GHD will assist in agency coordination with regard to permit processing. Permits are expected to be needed from the following agencies:

- California Coastal Commission
- U.S. Army Corps of Engineers
- U.S. Fish and Wildlife Service
- National Marine Fisheries Service
- North Coast Regional Water Quality Control Board
- California Department of Fish and Wildlife
- Humboldt Bay Harbor, Recreation and Conservation District
- Caltrans
- NCRA

This task consists of consulting and coordinating with the agencies, responding to their comments and requests for information, and generally moving all permits forward through the permitting process. It is anticipated that up to four (4) rounds of comments would be received and responded to from the California Coastal Commission, and one or two rounds of comments received and responded to from the other agencies. This task also includes up to three meetings with the agencies and up to three project site visits. In all, GHD has budgeted up to 200 hours follow-up for additional information requests made by the agencies.

GENERAL EXCLUSIONS AND ASSUMPTIONS

This scope of services is based on the tasks described above which are anticipated for the project. The County may need additional services during the process of the project due to increased regulatory issues, unusual public interest, and additional issues identified during the project.

This scope is based on the following assumptions:

- This scope does not include anything not specifically described above although additional services can be provided through a contract amendment.
- The scope of services does not include property acquisition assistance. The County will be responsible for contacting, negotiating, and securing any temporary or permanent right-of-way (including easements) if required for proposed improvements. The County will be responsible for valuations, paying of costs and fees, and preparing and recording documents.
- The scope of services does not include any fees associated with applications or permits (i.e. utility, agency, regulatory, encroachment). The County shall be responsible for paying all deposits and fees required for the project.
- The scope of services does not include utility relocation assistance. It is assumed that the relocation of non-County owned utilities is not required.
- The County will obtain access agreements needed for technical studies and permits.
- The trail will either occupy the NCRA bridge or cantilever off the existing bridge structure. The planning, permitting and design of a new bridge over the Eureka Slough is not included in this scope of services.
- Rehabilitation of the existing rail prism will be limited to discrete locations. Extensive rehabilitation is not included in this scope of services.
- Caltrans will be responsible for developing the mitigation package for the project, including (but not limited to) the mitigation and monitoring plan and design documents.
- The County of Humboldt will retaining a qualified consultant under a separate contract to provide



all required historic property and cultural resources surveys.

- A California Division of State Architect (DSA) Access Compliance Review is not required.
- This scope of services does not include any services related to the Right-of-Way (including right-of-way engineering) or Construction (including construction support) phases of the project.
- The County will be responsible for distributing deliverables to reviewers and will deliver one set of rectified comments to GHD following each review.

ATTACHMENT B
COST PROPOSAL & WORK SCHEDULE

Attachment B - Cost Proposal & Work Schedule
 Engineering and Environmental Services
 Humboldt Bay Trail - Bay Trail South (Eureka to Bracut)
 County of Humboldt

Task	Fee	Tentative Schedule	
		Start Date	End Date
Task 1 – PA&ED Phase Project Management, Meetings and Coordination	\$ 76,625.00	Jul 2016	Feb 2018
Task 2 – Route Determination	\$ 212,008.00	Jul 2016	Dec 2016
Task 3 – Survey and Geotechnical	\$ 116,495.00	Jan 2017	Mar 2017
Task 4 – Environmental Studies	\$ 204,168.00	Jan 2017	Nov 2017
Task 5 – CEQA and NEPA Documentation	\$ 70,256.00	Mar 2017	Oct 2017
Task 6 – Environmental Permit Applications	\$ 107,592.00	Jun 2017	Nov 2017
Task 7 – Engineering Studies	\$ 68,948.00	Jan 2017	Nov 2017
Task 8 – Preliminary Design	\$ 253,340.00	Jan 2017	Nov 2017
Task 9 – Caltrans and NCRA Permits	\$ 48,193.00	Dec 2017	Feb 2018
Task 10 – Public Meetings and Outreach Material	\$ 33,495.00	Jul 2016	Sep 2017
PA&ED OTHER DIRECT COSTS (ODC)	\$ 58,880.00		
PA&ED Tasks 1-10	\$ 1,250,000.00		
Task 11 – PS&E Phase Project Management, Meetings and Coordination	\$ 43,803.00	Mar 2018	Feb 2019
Task 12 – Final Design	\$ 403,094.00	Mar 2018	Feb 2019
Task 13 – Final Permit Coordination	\$ 30,789.00	Mar 2018	Nov 2018
PS&E OTHER DIRECT COSTS (ODC)	\$ 22,314.00		
PS&E Task 11-13	\$ 500,000.00		
Total PA&ED and PS&E	\$ 1,750,000.00		


Notes:

1. Time will be billed in accordance to the hourly rates listed in Exhibit's 10-H, which are incorporated into Attachment B through reference.
2. GHD reserves the right to move funds between tasks as needed for the project.

ATTACHMENT C
CONSULTANT CONTRACT DBE INFORMATION
(EXHIBIT 10-02)

Attachment C
EXHIBIT 10-02 CONSULTANT CONTRACT DBE COMMITMENT

1. Local Agency: County of Humboldt 2. Contract DBE Goal: 0%
 3. Project Description: Engineering and Environmental Servies
 4. Project Location: Eureka/Arcata, Humboldt County
 5. Consultant's Name: GHD Inc. 6. Prime Certified DBE: 7. Total Contract Award Amount: \$1,750,000
 8. Total Dollar Amount for ALL Subconsultants: \$685,075.19 9. Total Number of ALL Subconsultants: 6

10. Description of Work, Service, or Materials Supplied	11. DBE Certification Number	12. DBE Contact Information	13. DBE Dollar Amount
Local Agency to Complete this Section			\$ 0
20. Local Agency Contract Number: _____ 21. Federal-Aid Project Number: _____ 22. Contract Execution Date: _____	14. TOTAL CLAIMED DBE PARTICIPATION		0%
Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.			IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.
_____ 23. Local Agency Representative's Signature	_____ 24. Date	 _____ 15. Preparer's Signature	_____ 16. Date 3/15/16
_____ 25. Local Agency Representative's Name	_____ 26. Phone	_____ 17. Preparer's Name Josh Wolf	_____ 18. Phone 707-443-8326
_____ 27. Local Agency Representative's Title	_____ 19. Preparer's Title Project Manager		

DISTRIBUTION: 1. Original – Local Agency
 2. Copy – Caltrans District Local Assistance Engineer (DLAE). Failure to submit to DLAE within 30 days of contract execution may result in de-obligation of federal funds on contract.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

INSTRUCTIONS – CONSULTANT CONTRACT DBE COMMITMENT**CONSULTANT SECTION**

1. **Local Agency** - Enter the name of the local or regional agency that is funding the contract.
2. **Contract DBE Goal** - Enter the contract DBE goal percentage as it appears on the project advertisement.
3. **Project Description** - Enter the project description as it appears on the project advertisement (Bridge Rehab, Seismic Rehab, Overlay, Widening, etc).
4. **Project Location** - Enter the project location as it appears on the project advertisement.
5. **Consultant's Name** - Enter the consultant's firm name.
6. **Prime Certified DBE** - Check box if prime contractor is a certified DBE.
7. **Total Contract Award Amount** - Enter the total contract award dollar amount for the prime consultant.
8. **Total Dollar Amount for ALL Subconsultants** – Enter the total dollar amount for all subcontracted consultants. SUM = (DBEs + all Non-DBEs). Do not include the prime consultant information in this count.
9. **Total number of ALL subconsultants** – Enter the total number of all subcontracted consultants. SUM = (DBEs + all Non-DBEs). Do not include the prime consultant information in this count.
10. **Description of Work, Services, or Materials Supplied** - Enter description of work, services, or materials to be provided. Indicate all work to be performed by DBEs including work performed by the prime consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.
11. **DBE Certification Number** - Enter the DBE's Certification Identification Number. All DBEs must be certified on the date bids are opened.
12. **DBE Contact Information** - Enter the name, address, and phone number of all DBE subcontracted consultants. Also, enter the prime consultant's name and phone number, if the prime is a DBE.
13. **DBE Dollar Amount** - Enter the subcontracted dollar amount of the work to be performed or service to be provided. Include the prime consultant if the prime is a DBE. See LAPM Chapter 9 for how to count full/partial participation.
14. **Total Claimed DBE Participation** - \$: Enter the total dollar amounts entered in the "DBE Dollar Amount" column. %: Enter the total DBE participation claimed ("Total Participation Dollars Claimed" divided by item "Total Contract Award Amount"). If the total % claimed is less than item "Contract DBE Goal," an adequately documented Good Faith Effort (GFE) is required (see Exhibit 15-H DBE Information - Good Faith Efforts of the LAPM).
15. **Preparer's Signature** - The person completing the DBE commitment form on behalf of the consultant's firm must sign their name.
16. **Date** - Enter the date the DBE commitment form is signed by the consultant's preparer.
17. **Preparer's Name** - Enter the name of the person preparing and signing the consultant's DBE commitment form.
18. **Phone** - Enter the area code and phone number of the person signing the consultant's DBE commitment form.
19. **Preparer's Title** - Enter the position/title of the person signing the consultant's DBE commitment form.

LOCAL AGENCY SECTION

20. **Local Agency Contract Number** - Enter the Local Agency contract number or identifier.
21. **Federal-Aid Project Number** - Enter the Federal-Aid Project Number.
22. **Contract Execution Date** - Enter the date the contract was executed.
23. **Local Agency Representative's Signature** - The person completing this section of the form for the Local Agency must sign their name to certify that the information in this and the Consultant Section of this form is complete and accurate.
24. **Date** - Enter the date the DBE commitment form is signed by the Local Agency Representative.
25. **Local Agency Representative's Name** - Enter the name of the Local Agency Representative certifying the consultant's DBE commitment form.
26. **Phone** - Enter the area code and phone number of the person signing the consultant's DBE commitment form.
27. **Local Agency Representative Title** - Enter the position/title of the Local Agency Representative certifying the consultant's DBE commitment form.