



2251 Douglas Boulevard  
Suite 200  
Roseville, CA 95661  
P 916.677.4800

[gannettfleming.com](http://gannettfleming.com)

## PROPOSAL FOR ENGINEERING CONSULTING SERVICES

**To:** Jennifer Blackman  
General Manager, Bolinas Community Public Utility District  
Phone: (415) 868-1224  
[jblackman@bcpud.org](mailto:jblackman@bcpud.org)

**From:** William Millhone, PE  
Principal Engineer, Gannett Fleming  
Phone: (916) 677-4764  
[wmillhone@gfnet.com](mailto:wmillhone@gfnet.com)

**Date:** December 21, 2023

**Re:** **Bolinas Beach Groin and Bluff Protection Wall Repairs**  
**Point Reyes National Seashore**  
**Bolinas, California**

---

As requested by Bolinas Community Public Utility District (BCPUD), we have prepared this proposal to visually inspect the existing groin, stairway, and bluff protection wall at Bolinas Beach near the inlet to Bolinas Lagoon in Bolinas, California; and to develop repair details based on recommendations developed by R.M. Noble & Associates.

### PURPOSE & BACKGROUND

The site is located at the toe of the coastal bluff at Bolinas Beach, and spans from the northernmost end of a bluff protection wall below the lot at 65 Crescente Avenue to a groin extending approximately 240 feet seaward perpendicular to the bluff below the lot at 77 Crescente Avenue. There is a small, reinforced concrete stairway at the intersection of the groin and the bluff protection wall. A visual inspection of these structures was conducted by R.M. Noble & Associates (RMNA) on October 29, 2020, the findings of which were summarized in a report dated December 14, 2020 (Ref. 1). Our description of the site conditions herein, and the proposed scope of work below, are based on our review of that report, as well as subsequent correspondence with BCPUD.

### Groin

The current groin was reportedly constructed in 1988, comprising steel wide-flange piles ("H-piles") with reinforced concrete panels placed between the flanges of the H-piles to form a parapet type wall. The RMNA report notes that the piles are "were reported to have been embedded into the beach bedrock;" however, the nature of embedment (e.g., driven or cast in drilled hole), depth of embedment, and exposed height of

Gannett Fleming, Inc.

Suite 200 • 2251 Douglas Blvd • Roseville, CA 95661  
t: 916.677.4800

[www.gannettfleming.com](http://www.gannettfleming.com)

the groin are not mentioned. Where visible, the groin piles and panels appear to be in relatively good condition, exhibiting some surficial corrosion of the tops of the piles, and spalling of the concrete panels; and the groin appears to be performing as intended at this time. Significant portions of the top of the groin are covered with algae, and the seaward terminus of the groin is covered with a significant thickness of barnacles/crustaceans. According to the RMNA report, the groin can become obscured during high tides, which makes it difficult to discern by swimmers and beachgoers. The RMNA report recommends that signage be added to the groin structure in order to alert the public of potential hazards presented by the groin.

### **Stairway**

The concrete stairway at the landward end of the groin appears to be 6 steps tall, including the top and bottom landings. The exterior of the concrete comprising the treads and sides of the stairway is rust-stained and has experienced some local spalling in several areas. The steel handrail that was originally installed along the seaward side of the stairway was very severely corroded at the time of the RMNA inspection, and we understand from BCPUD that a temporary wooden handrail has since been attached to the stairway. Finally, there is a corroded H-pile adjacent to the stairway at the western end of the bluff protection wall that projects several inches above the top landing of the stairs. This was identified by RMNA to present a tripping hazard. Pursuant to these conditions, the RMNA report recommends that 1.) the stairway concrete be patched and covered with an epoxy coating; 2.) the handrail be removed and completely replaced; and, 3.) the portion of the H-pile that projects above the top landing of the stairway be trimmed and capped.

### **Bluff Protection Wall**

The bluff protection wall is essentially of identical construction to the groin, comprising steel H-piles with precast concrete panels dropped between the flanges of the piles. Based on publicly available satellite images, the wall appears to be roughly 325 feet long. The height of the wall above bedrock is not mentioned in the RMNA report, but appears to be on the order of 6 feet or less. Numerous precast panels exhibit spalling of the concrete, particularly at corners and edges of the panels, and in some cases exposing the internal reinforcement. Additionally, many of the H-piles appear to be in advanced states of corrosion. While the serviceability of the wall is not addressed in the RMNA report, the site photos included in the report do not appear to show indications of imminent wall failure (e.g., bowing, bent, or fractured members). Based on the foregoing conditions, the RMNA report recommends 1.) removing and replacing exposed and corroded rebar in the concrete panels; 2.) patching/restoring the concrete panels with epoxy concrete; and, 3.) removing corroded portions of H-piles and applying a protective epoxy coating.

Based on these conditions and recommendations, and our correspondence with BCPUD, we proposed the Scope of Work described below.

### **SCOPE OF WORK**

Pursuant to BCPUD's request, we propose the following scope of work:

- 1. Site Visit.** A Gannett Fleming engineer will visit the site to perform visual observations to corroborate the conditions documented in the RMNA report to the extent practicable. In addition, Gannett Fleming will take hand measurements of the safely accessible, exposed portions of the structures, including (as applies) lengths, heights, and member sizes/dimensions, as well as typical extents of distress, voids, etc. The site visit will be scheduled during a low tide window to allow for access along the groin to the extent possible. After the visit will send BCPUD a brief email to

document any observed changed or additional conditions relative to the RMNA report, and present our opinions as to the adequacy and appropriateness of the repair types presented therein.

**2. Repair Details.** Assuming the repairs proposed by RMNA are deemed appropriate, Gannett Fleming will prepare drawings for implementing the, including:

- mounting brackets and anchorage for groin signage;
- typical details for repair/patching of stairway concrete;
- stairway handrail details, including mounting/anchorage to stairway;
- typical details for rebar repair/splicing of rebar in bluff protection wall panels;
- typical details for repair/patching of bluff protection wall panel concrete;
- typical details for preparation and protection of H-pile steel; and,
- construction notes for construction materials/products, procedures, and sequences, as applicable.

**Deliverables**

Construction drawings and technical specifications (“Construction Documents”) will be submitted as a review set for BCPUD’s review and comment, and then a final set, incorporating agreed upon revisions. The final Construction Documents will be sealed by a California registered civil engineer, and will be suitable for inclusion in a request for proposal (RFP) for bid by qualified construction contractors.

**Assumptions**

- The scope and fee estimates presented in this proposal assume that the nature and extents of the distress to the subject structures are as described in the RMNA report, and that the repairs recommended therein are appropriate and sufficient. If a changed condition or discrepancy is observed in the field, or if a proposed repair appears unfeasible, these discrepancies will be communicated to BCPUD prior to design of the repairs, and may require additional effort/fees.
- The anticipated repairs are intended to address surficial distress to the subject structures, and to provide a reasonable amount of protection against weathering/corrosion in order to extend the service lives of the structures to the extent economically feasible; the repairs are NOT intended to restore the original structural capacities of the structures. No stability analyses<sup>1</sup> of the subject structures or their existing elements are proposed.
- No sampling, testing, modeling, or destructive/invasive investigations are anticipated.
- The proposed sizes and materials of the proposed sign posts, as well as all other information necessary for designing the attachment of the sign posts to the groin will be communicated to Gannett Fleming by BCPUD. The locations, orientations, heights, sizes, messaging, and all other

---

<sup>1</sup> Gannett Fleming will provide engineering calculations for attachment/anchorage of the replacement handrail at the stairway structure, and sign posts on the groin.

aspects of the groin signage, including, but not limited to, other measures necessary to ensure public safety, will be determined and implemented by BCPUD.

- No site surveying or scanning will be performed. The layout of site features, where depicted, will be approximate based on publicly available satellite photos and local hand measurements.
- Any required permitting and coordination with local, state, and/or federal regulatory agencies will be addressed by BCPUD.
- Technical specifications included in the Construction Documents may comprise notes on the drawings, technical specifications submitted under separate cover, or a combination thereof. Technical specifications will stipulate project requirements related directly to construction of the improvements depicted in the drawings provided by Gannett Fleming. All other elements of the RFP (e.g., general conditions, instructions to bidders, etc.) are assumed to be provided by BCPUD.

### **SCHEDULE**

The schedule of work and deliverables will be determined through coordination with BCPUD.

### **FEE ESTIMATE**

We estimate a fee of up to \$35,503 to perform the above scope of work. A budget backup showing the allocation of fees is provided herewith.

### **CONDITIONS**

Our services will be performed on a 'time and expenses' basis and will be billed in accordance with our attached Schedule of Charges, which is attached. We will not exceed the budget presented above to perform the proposed Scope of Work. Should additional work, site visits, or meetings be required in addition to the Scope of Work above, or should significant changes be required due to reasons beyond the control of Gannett Fleming, the time required for these items will be billed on a 'time and expenses' basis in accordance with our attached Schedule of Charges.

### **CLOSURE**

Gannett Fleming looks forward to working with you on this project. If this proposal is acceptable, please forward a contract referencing this proposal for our review and approval. Thanks very much.

Attachments: Schedule of Charges, Budget Backup Spreadsheet



2251 Douglas Boulevard  
Suite 200  
Roseville, CA 95661  
P 916.677.4800

[gannettfleming.com](http://gannettfleming.com)

## SCHEDULE OF CHARGES

Bolinas Beach Groin and Bluff Protection Wall Repairs  
Bolinas Community Public Utility District  
2023

The Schedule of Charges applies to all services provided by and/or through Gannett Fleming. Charges for our services are divided into three categories: Personnel, Travel/Reimbursables and Outside Services. A new Schedule of Charges is issued at the beginning of each year. The Schedule of Charges may also be revised during the year, as conditions require. Changes will not be made within a calendar year on a project in progress without prior authorization from Client.

### PERSONNEL

Personnel charges are for technical work and project management, including technical typing, editing, graphics and support services involved in the preparation of reports and correspondence, for the time associated with production of such documents, and for the time to perform project management and control functions. Personnel category per-hour charge rates are as follows:

<b><u>Civil/Geotechnical/Geological</u></b>	<b><u>Hourly Rate</u></b>
Chief Engineer/Geologist	\$ 330.00
Principal Engineer/Geologist II	315.00
Principal Engineer/Geologist I	295.00
Senior Consultant	265.00
Senior Project Engineer/Geologist III	270.00
Senior Project Engineer/Geologist II	240.00
Senior Project Engineer/Geologist I	220.00
Project Engineer/Geologist II	205.00
Project Engineer/Geologist I	180.00
Staff Engineer/Geologist	170.00
Senior Designer/Geologist	150.00
Designer/Geologist	140.00
<b><u>Electrical/Mechanical</u></b>	
Chief Electrical/Mechanical Engineer	330.00
Principal Electrical/Mechanical Engineer II	315.00
Principal Electrical/Mechanical Engineer I	295.00
Senior Consultant	270.00
Senior Project Electrical/Mechanical Engineer III	270.00
Senior Project Electrical/Mechanical Engineer II	260.00
Senior Project Electrical/Mechanical Engineer I	230.00
Project Electrical/Mechanical Engineer II	220.00
Project Electrical/Mechanical Engineer I	200.00
Staff Electrical/Mechanical Engineer	180.00
Senior Electrical/Mechanical Designer	155.00
Designer Electrical/Mechanical	140.00



Schedule of Charges

Bolinas Community Public Utility District

<b><u>Security &amp; Safety</u></b>	<b><u>Hourly Rate</u></b>
Senior SME	\$ 344.00
Director	298.00
Deputy Director	287.50
Senior Principal	287.50
Principal	263.50
Senior Project Analyst	251.00
Senior Consultant	242.00
Project Analyst	209.00
Consultant	209.00
Senior Analyst	176.00
Analyst	142.60
Associate Analyst	116.30
<b><u>Support Services</u></b>	
Senior GIS Analyst	175.00
Chief CADD Technician	170.00
CADD/GIS Technician	140.00
Senior Admin	135.00
Technical Writer/Admin	120.00
Intern	75.00

The charge for expert witness services, depositions (2-hour minimum per day) and court (4-hour minimum per day) is \$660 per hour.

**TRAVEL / REIMBURSABLES**

Time spent in travel in the interest of the Client will be charged at the above hourly rates plus mileage at the current IRS rate, except that no more than eight (8) hours of travel time will be charged in any day. When it is necessary for an employee to be away from the office overnight, all actual costs, including meals and out-of-pocket expenses will be charged. Reimbursable items (e.g., airfare, hotel, automobile/equipment rental, supplies etc.) will be charged at cost plus fifteen percent (15%).

<b><u>Specialty Design Software</u></b>	<b><u>Hourly Rate</u></b>	<b><u>Specialty Field Equipment</u></b>	<b><u>Daily Rate</u></b>
Maptek Point Studio	\$85.00	Trimble R1 Antenna + Tablet	\$150.00
		Trimble R2 Antenna + Tablet	300.00
	<b><u>Flat Rate</u></b>	Protective Relay Test Set	250.00
Easypower, SKM, Etap, CDEGS	\$500.00	Rope Access Gear	200.00

**OUTSIDE SERVICES**

Outside services will be charged at cost plus fifteen percent (15%). Common outside items to which this 1.15 multiplier applies include, but are not limited to drilling services, laboratory testing, printing and photographic work, special insurance and outside consultants.

# Project Budget Backup

<b>Bolinas Beach Groin &amp; Wall Repairs</b>				<b>\$36,502.50</b>
Labor				\$36,337.50
Expenses				\$165.00
	Planned Hours	Planned Quantity	Billing Rate	Planned Bill
<b>Task 1.0 – Engineering Design Services</b>				<b>\$32,207.50</b>
William L. Millhone	32		\$295.00	\$9,440.00
Drew G. Kennedy	8		\$315.00	\$2,520.00
Jerry S. Pascoe	4.5		\$295.00	\$1,327.50
Syed M. Ul Haque	50.5		\$240.00	\$12,120.00
Paul A. Barber	40		\$170.00	\$6,800.00
<b>Task 2.0 – Site Visit</b>				<b>\$2,525.00</b>
<i>Task 2.1 - Field Support</i>				
William L. Millhone	8		\$295.00	\$2,360.00
Expenses				
Travel: Vehicle Rental			\$80.00	\$0.00
Travel: Mileage				\$165.00
Travel: Meals			\$60.00	\$0.00
<b>Task 3.0 – Project Management</b>				<b>\$1,770.00</b>
William L. Millhone	6		\$295.00	\$1,770.00
Drew G. Kennedy	0		\$315.00	\$0.00
Karen C. Taylor	0		\$120.00	\$0.00