ALUMINUM RAILING & GALVANIZED STEEL HANDRAIL REPLACEMENTS HAMPTON BEACH STATE PARK HAMPTON, NH

SPECIFICATIONS

PROJECT # OPS-2416



172 Pembroke Road Concord, NH 03301 Tel. (603) 271-2606 Fax (603) 271-2629

SPECIFICATIONS

ALUMINUM RAILING & GALVANIZED STEEL HANDRAILS HAMPTON BEACH STATE PARK HAMPTON, NH

PROJECT # OPS-2416

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172 Pembroke Road Concord, N.H. 03301 TEL. 603-271-2606 FAX 603-271-2629

NOTICE TO BIDDERS

Project: #OPS-2416 ALUMINUM RAILING & GALVANIZED STEEL HANDRAILS

HAMPTON BEACH STATE PARK

HAMPTON, NH

Bid proposals for the above project will be accepted until 2:00 P.M., prevailing time, on Thursday July 25,2024. Proposals should be mailed to: Attn: Edward Mussey Public Works Project Manager II Department of Natural and Cultural Resources 172 Pembroke Road, Concord, NH 03301.

Specifications will be available to interested contractors at the Capital Projects & Maintenance Office on June 18, 2024. They may also be viewed at the following locations:

- 1.) Construction Summary of New Hampshire Inc. 734 Chestnut Street, Manchester, NH 03104 Tel. (603) 627-8856.
- 2.) Alpha Graphics 933 Islington Street, Portsmouth, NH 03801 Tel. (603) 436-3030
- 3.) McGraw-Hill Construction Plan Room 880, Second Street, Manchester, NH 03104 Tel. (603) 645-6554
- 4.) Signature Digital Imaging, 472 Amherst St. Unit 23 Nashua, NH 03063 Tel. (603) 624-4025
- 5.) Works in Progress, 20 Farrell Street, Suite 103, South Burlington, VT 05403 Tel. 1-800-669-7048
- 6.) New Hampshire Department of Administrative Services Bureau of Purchase and Property Website http://admis.state.nh.us/purchasing/vendorresources.asp
- 7.) New Hampshire State Parks Website https://www.nhstateparks.org/about-nh-parks/projects-and-improvements

A non mandatory pre-bid conference will be held at the Hampton Beach State Park, Stairwell #1 North of Dumas Ave in Hampton, NH at 10:00 a.m. on Tuesday July 16, 2024.

At the time of the bid opening, a bid bond accompanying the bid proposal will be required in the amount of 5% of the total amount of the lump sum price. Bid proposals should be made out only on the form attached to the specifications. These forms are also available from the Capital Projects & Maintenance office. Bid Proposals are to be submitted in a sealed envelope marked: Bid Proposal: Railing & Handrails Hampton Beach State Park Project No. OPS-2416

Edward Mussey
Public Works Project Manager II

172 Pembroke Road Concord, N.H. 03301 TEL. 603-271-2606 FAX 603-271-2629

BID PROPOSAL FORM

PROJECT:	#OPS-2416	HAMP	INUM RAILING & GALVANIZED STEEL HANDRAILS TON BEACH STATE PARK TON, NH
NON-MANDATORY PI	RE BID MEETIN	IG:	July 16, 2024 at 10:00 am sharp.
DATE BIDS DUE:			July 25, 2024 at 2:00 p.m.
START DATE:			September 25, 2024
COMPLETION DATE:			No later than May 16, 2025
should be mailed to Attr	n: Edward Musse roke Road, Coi	ey Public '	pted until 2:00 p.m., prevailing time, on July 25, 2024. Bids Works Project Manager II Department of Natural and Cultura I 03301 Please note on the outside of the envelope "Bid
DATE:			
PROPOSAL OF:			
		(comp	any's name)
GRAND TOTAL / LUM	P SUM BASE F	SID.	

PROPOSAL

Proposal of
(name)
(address)
To furnish and deliver all materials except as noted and to perform all work in accordance with the Contract of the State of New Hampshire, Department of Natural and Cultural Resources for the construction of
Project #OPS-2416 Aluminum Railing and Galvanized Steel Handrails at Hampton Beach State Park, Hampton, NH.
Commissioner Department of Natural and Cultural Resources 172 Pembroke Road Concord, N.H. 03301
Commissioner:
In accordance with the advertisement of the Department of Natural and Cultural Resources inviting proposals for the project herein before named and in conformity with the Plans and Specifications on file in the office of the Department of Natural and Cultural Resources,

To execute the form of contract and begin work within 15 (fifteen) days after the notice to proceed has been received or otherwise delivered to the contractor and to prosecute said work until its completion.

Bid Proposal Page 2

It is further proposed:

To furnish a contract bond in the amount of one hundred percent (100%) of the contract award, if the contract award is seventy-five thousand dollars (\$75,000) or more, as security for the completion of the contract in accordance with the plans and specifications and contract documents. The form of bond shall be that provided for by the Department, and the surety shall be acceptable to the Commissioner. No contract bond shall be required on contract awards of less than seventy-five thousand dollars (\$75,000).

To guarantee all of the work performed under this contract to be done in accordance with the plans and specifications and contract documents.

The undersigned acknowledges receipt of the following addenda, if any, issued during the bidding time, and states that these have been incorporated in the proposal:

	Addendum #1 dated
	Addendum #2 dated
	Addendum #3 dated
Dated	

SCHEDULE OF VALUES PROJECT # OPS-2416

INDICATE DOLLAR AMOUNT OF CONTRACT SUM ALLOCATED TO EACH CATEGORY OF WORK AS DESIGNATED BELOW:

Category	Quantity	Unit Price	Sub Total (Quantity X Unit Price
General Conditions	1		
Selective Demolition			
Item A Outer Galvanized Steel Handrails	4		
Item B Inner Galvanized Steel Handrails	1		
Item C 24 Foot Thermoplastic Railing Segment	3		
Item D Thermoplastic Stairwell Outer Rail	4		
Item E (remove grout at each 24' railing section)	2		
Guardrails & Handrails			
Item A Outer Galvanized Steel Handrails	4		
Item B Inner Galvanized Steel Handrails	4		
Item C Typical 24 Foot Aluminum Railing Segment	3		
Item D Aluminum Stairwell Outer Rail	4		
Item E Replacing grout at each 24' railing segment	2		
Allowance #1	1	\$20,000	\$20,000
		Total Lump Sum >	

ALLOWANCE #1: Unanticipated Modification and/or Additions to Contract Items:

Include in the Contract, a stipulated sum/price of \$20,000 for use upon the Project Managers instruction. This Allowance will make money available for modifications and/or additions to contract items due to owner-initiated changes, or for unknown, latent or differing existing conditions, or for the removal of hazardous materials that are encountered by construction.

- a. Contractor's costs for products, delivery, installation, labor, insurance, payroll, taxes, equipment rental, overhead and profit will be included in Change Orders authorizing expenditure of funds from this Allowance. The cost of the bond for the amount of Allowance shall be included as part of the lump sum base bid.
- b. Funds will be drawn from an Allowance only by Change Order. Contractor can proceed with Change Order Work against Allowance with direction from the Project Manager. The Contractor shall not proceed with any work that will exceed the amount of Allowance remaining.
- c. Credits can only be added to an Allowance by Alteration Order. The Contractor may not use a credit until an Alteration Order is fully executed.
- d. Not withstanding the Contractors objection, the Project Manager may at any time reduce the funds remaining in the Allowance by Alteration Order.
- e. At Final Payment of the Contract, funds remaining in the Allowance will be credited to the State.

Total Lump Sum of Contract (Including Allowances).....

NOTE: The Schedule of values must be completely filled out in order for the bid proposal to be considered as responsive.

SIGNATURE PAGE

Company Nam	e	
Address		
Phone		
Fax		-
E-mail Address	S	
Signature of Au	uthorized Bidder	-
Print		.
Title		
Address of Bidd	der (if different than company)	
Names and Ad	dresses of Members of the Firm/Corporation	
Name	address	
Name	address	
Name	address	

Notice: This agreement and all of its attachments shall become public upon submission to Governor and Executive Council for approval. Any information that is private, confidential or proprietary must be clearly identified to the agency and agreed to in writing prior to signing the contract.

AGREEMENT

The State of New Hampshire and the Contractor hereby mutually agree as follows:

GENERAL PROVISIONS

1	IDE	TOTAL		CLOSI
Ι.	TIDE	N I I I	L.A	FION.

	IDEI(IIIIICIIII)					
1.1 \$	1.1 State Agency Name		1.2 State Agency Address			
Dep	artment of Natural ar	nd Cultural Resources	172 Pembroke Rd. Concord, NH 03301			
1.3	Contractor Name		1.4 Contractor Address			
1.5	Contractor Phone	1.6 Account Unit and Class	1.7 Completion Date	1.8 Price Limitation		
	Number	1.0 Account Out and Class	1.7 Completion Date	1.6 File Limitation		
	Ivullioci					
1.9	Contracting Officer for Sta	te Agency	1.10 State Agency Tompho & N			
		. =				
	•	orks Project manager I	603-271 2973			
1.11	Contractor Signature		12 time of The of Contra	actor Signatory		
		.				
	Date:					
1.13 State Agency Signature 1.14 Jame and Title of State Agency Signatory			A compar Ciomotomy			
1.13	State Agency Signature		1.14 taille and Title of State F	Agency Signatory		
Date:						
		Zaio.				
1.15	Approval by the N.H. Dep	partment of A . istration, Vivis	ion of Personnel (if applicable)			
			, ,			
	By: Director, On:					
1.16	1.16 Approval by the Attorney General Grant, Substance and Execution) (if applicable)					
	By: On:					
1 17	1.17 Approval by the Governor and Executive Council (if applicable)					
1.1/	1.17 Approval by the Governor and Executive Council (1) applicable)					
	G&C Item number:		G&C Meeting Date:			

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2. SERVICES TO BE PERFORMED. The State of New Hampshire, acting through the agency identified in block 1.1 ("State"), engages contractor identified in block 1.3 ("Contractor") to perform, and the Contractor shall perform, the work or sale of goods, or both, identified and more particularly described in the attached EXHIBIT B which is incorporated herein by reference ("Services").

3. EFFECTIVE DATE/COMPLETION OF SERVICES.

- 3.1 Notwithstanding any provision of this Agreement to the contrary, and subject to the approval of the Governor and Executive Council of the State of New Hampshire, if applicable, this Agreement, and all obligations of the parties hereunder, shall become effective on the date the Governor and Executive Council approve this Agreement, unless no such approval is required, in which case the Agreement shall become effective on the date the Agreement is signed by the State Agency as shown in block 1.13 ("Effective Date").
- 3.2 If the Contractor commences the Services prior to the Effective Date, all Services performed by the Contractor prior to the Effective Date shall be performed at the sole risk of the Contractor, and in the event that this Agreement does not become effective, the State shall have no liability to the Contractor, including without limitation, any obligation to pay the Contractor for any costs incurred or Services performed.
- 3.3 Contractor must complete all Services by the Completion Date specified in block 1.7.

4. CONDITIONAL NATURE OF AGREEMENT.

Notwithstanding any provision of this Agreement to the cont all obligations of the State hereunder, including, without limitati the continuance of payments hereunder, are conting availability and continued appropriation of funds. In no the State be liable for any payments hereunder in excess available appropriated funds. In the event reduction termination of appropriated funds by any state of or executive action that reduces, eliminates or of vise modifies the appropriation or availability of folding for this the Scope for Services provided in XHIBIT is a way greement and ole or in part, the State shall have the right to with payme until such funds become available, if ever, and shall have the right to reduce or terminate the Services under this Agreement immediately upon giving the Contractor notice of such reduction or termination. The State shall not be required to transfer funds from any other account or source to the Account identified in block 1.6 in the event funds in that Account are reduced or unavailable.

5. CONTRACT PRICE/PRICE LIMITATION/ PAYMENT.

- 5.1 The contract price, method of payment, and terms of payment are identified and more particularly described in EXHIBIT C which is incorporated herein by reference.
- 5.2 Notwithstanding any provision in this Agreement to the contrary, and notwithstanding unexpected circumstances, in no event shall the total of all payments authorized, or actually made hereunder, exceed the Price Limitation set forth in block 1.8. The payment by the State of the contract price shall be the only and the complete reimbursement to the Contractor for all expenses, of whatever nature incurred by the Contractor in the performance

hereof, and shall be the only and the complete compensation to the Contractor for the Services.

- 5.3 The State reserves the right to offset from any amounts otherwise payable to the Contractor under this Agreement those liquidated amounts required or permitted by N.H. RSA 80:7 through RSA 80:7-c or any other provision of law.
- 5.4 The State's liability under this Agreement shall be limited to monetary damages not to exceed the total fees paid. The Contractor agrees that it has an adequate remedy at law for any breach of this Agreement by the State and hereby waives any right to specific performance or other equitable remedies against the State.

6. COMPLIANCE BY CONTRACTOR WITH LAWS AND REGULATIONS/EQUAL EMPLOYMENT OPPORTUNITY.

- 6.1 In connection with the performance of the Services, the Contractor shall comply with all applicable statutes, laws, regulations, and orders of federal, state, county or municipal authorities which impose any obligation or duty upon the , but not limited to, civil rights and equal Contractor, includi employment operatunity ws and the Governor's order on Respect be Y orkplace, Executive order 2020-01. In and Civility in ment is anded in any part by monies of the addition, if this Ag United States, the nt ctor shall comply with all federal orders, rules, regulations and statutes, and with any rules, executiv ad guidanes as the State or the United States issue to gulations. The Contractor shall also comply applicable intellectual property laws.
- 2 uring the term of this Agreement, the Contractor shall not disciminate against employees or applicants for employment ecals of age, sex, sexual orientation, race, color, marital status, possical or mental disability, religious creed, national origin, gender identity, or gender expression, and will take affirmative action to prevent such discrimination, unless exempt by state or federal law. The Contractor shall ensure any subcontractors comply with these nondiscrimination requirements.
- 6.3 No payments or transfers of value by Contractor or its representatives in connection with this Agreement have or shall be made which have the purpose or effect of public or commercial bribery, or acceptance of or acquiescence in extortion, kickbacks, or other unlawful or improper means of obtaining business.
- 6.4. The Contractor agrees to permit the State or United States access to any of the Contractor's books, records and accounts for the purpose of ascertaining compliance with this Agreement and all rules, regulations and orders pertaining to the covenants, terms and conditions of this Agreement.

7. PERSONNEL.

- 7.1 The Contractor shall at its own expense provide all personnel necessary to perform the Services. The Contractor warrants that all personnel engaged in the Services shall be qualified to perform the Services, and shall be properly licensed and otherwise authorized to do so under all applicable laws.
- 7.2 The Contracting Officer specified in block 1.9, or any successor, shall be the State's point of contact pertaining to this Agreement.

8. EVENT OF DEFAULT/REMEDIES.

- 8.1 Any one or more of the following acts or omissions of the Contractor shall constitute an event of default hereunder ("Event of Default"):
- 8.1.1 failure to perform the Services satisfactorily or on schedule;
- 8.1.2 failure to submit any report required hereunder; and/or
- 8.1.3 failure to perform any other covenant, term or condition of this Agreement.
- 8.2 Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:
- 8.2.1 give the Contractor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) calendar days from the date of the notice; and if the Event of Default is not timely cured, terminate this Agreement, effective two (2) calendar days after giving the Contractor notice of termination;
- 8.2.2 give the Contractor a written notice specifying the Event of Default and suspending all payments to be made under this Agreement and ordering that the portion of the contract price which would otherwise accrue to the Contractor during the period from the date of such notice until such time as the State determines that the Contractor has cured the Event of Default shall never be paid to the Contractor:
- 8.2.3 give the Contractor a written notice specifying the Event of Default and set off against any other obligations the State may owe to the Contractor any damages the State suffers by reason of any Event of Default; and/or
- 8.2.4 give the Contractor a written notice specifying the Event of Default, treat the Agreement as breached, terminate the Agreement and pursue any of its remedies at law or in equity, or both.

9. TERMINATION.

9.1 Notwithstanding paragraph 8, the State may, discretion, terminate the Agreement for any reason, in wh or in part, by thirty (30) calendar days written notice e Conti that the State is exercising its option to terminal the 9.2 In the event of an early termination of this A ment for any reason other than the completion of the Services the Contractor shall, at the State's discretion, del er to ntrating Officer, not later than fifteen (15) calendays a ter the date of termination, a report ("Termination Report") escribing in detail all Services performed, and the contractorice earned, to and including the date of termination. In addition, at the State's discretion, the Contractor shall, within fifteen (15) calendar days of notice of early termination, develop and submit to the State a transition plan for Services under the Agreement.

10. PROPERTY OWNERSHIP/DISCLOSURE.

10.1 As used in this Agreement, the word "Property" shall mean all data, information and things developed or obtained during the performance of, or acquired or developed by reason of, this Agreement, including, but not limited to, all studies, reports, files, formulae, surveys, maps, charts, sound recordings, video recordings, pictorial reproductions, drawings, analyses, graphic representations, computer programs, computer printouts, notes, letters, memoranda, papers, and documents, all whether finished or unfinished.

- 10.2 All data and any Property which has been received from the State, or purchased with funds provided for that purpose under this Agreement, shall be the property of the State, and shall be returned to the State upon demand or upon termination of this Agreement for any reason.
- 10.3 Disclosure of data, information and other records shall be governed by N.H. RSA chapter 91-A and/or other applicable law. Disclosure requires prior written approval of the State.
- 11. CONTRACTOR'S RELATION TO THE STATE. In the performance of this Agreement the Contractor is in all respects an independent contractor, and is neither an agent nor an employee of the State. Neither the Contractor nor any of its officers, employees, agents or members shall have authority to bind the State or receive any benefits, workers' compensation or other emoluments provided by the State to its employees.

12. ASSIGNMENT/DELEGATION/SUBCONTRACTS.

- 12.1 Contractor shall provide the State written notice at least fifteen (15) calendar days before any proposed assignment, delegation, or other transfer any interest in this Agreement. No such assignment, delegation or other transfer shall be effective without the written consent with State.
- 12.2 For purposes of arr graph 12, a Change of Control shall constitute assignment. Change of Control" means (a) merger, considering or a transaction or series of related transactions in which a third part stogether with its affiliates, becomes the direct or induced owner of fifty percent (50%) or more of the voting transaction, or (b) the sale of all or substantially all of the assets of the Contractor.
- None of the Services shall be subcontracted by the Contractor without prior written notice and consent of the State.
- 12.4 The State is entitled to copies of all subcontracts and assignment agreements and shall not be bound by any provisions contained in a subcontract or an assignment agreement to which it is not a party.
- 13. INDEMNIFICATION. The Contractor shall indemnify, defend, and hold harmless the State, its officers, and employees from and against all actions, claims, damages, demands, judgments, fines, liabilities, losses, and other expenses, including, without limitation, reasonable attorneys' fees, arising out of or relating to this Agreement directly or indirectly arising from death, personal injury, property damage, intellectual property infringement, or other claims asserted against the State, its officers, or employees caused by the acts or omissions of negligence, reckless or willful misconduct, or fraud by the Contractor, its employees, agents, or subcontractors. The State shall not be liable for any costs incurred by the Contractor arising under this paragraph 13. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the State's sovereign immunity, which immunity is hereby reserved to the State. This covenant in paragraph 13 shall survive the termination of this Agreement.

14. INSURANCE.

- 14.1 The Contractor shall, at its sole expense, obtain and continuously maintain in force, and shall require any subcontractor or assignee to obtain and maintain in force, the following insurance:
- 14.1.1 commercial general liability insurance against all claims of bodily injury, death or property damage, in amounts of not less than \$1,000,000 per occurrence and \$2,000,000 aggregate or excess; and
- 14.1.2 special cause of loss coverage form covering all Property subject to subparagraph 10.2 herein, in an amount not less than 80% of the whole replacement value of the Property.
- 14.2 The policies described in subparagraph 14.1 herein shall be on policy forms and endorsements approved for use in the State of New Hampshire by the N.H. Department of Insurance, and issued by insurers licensed in the State of New Hampshire.
- 14.3 The Contractor shall furnish to the Contracting Officer identified in block 1.9, or any successor, a certificate(s) of insurance for all insurance required under this Agreement. At the request of the Contracting Officer, or any successor, the Contractor shall provide certificate(s) of insurance for all renewal(s) of insurance required under this Agreement. The certificate(s) of insurance and any renewals thereof shall be attached and are incorporated herein by reference.

15. WORKERS' COMPENSATION.

- 15.1 By signing this agreement, the Contractor agrees, certifies and warrants that the Contractor is in compliance with or exempt from the requirements of N.H. RSA chapter 281-A ("Worldss' Compensation").
- 15.2 To the extent the Contractor is subject to the requirements N.H. RSA chapter 281-A, Contractor shall maintain any subcontractor or assignee to secure and maintain, Workers' Compensation in connection with activities w person proposes to undertake pursuant to the ement. Contractor shall furnish the Contracting Officer 1.9, or any successor, proof of Worker ' Con sation in the manner described in N.H. RSA charger 281-A and any applicable renewal(s) thereof, which shall be attach incorporated herein by reference. The State shall responsible for payment of any Workers' Compensation premiums or for any other claim or benefit for Contractor, or any subcontractor or employee of Contractor, which might arise under applicable State of New Hampshire Workers' Compensation laws in connection with the performance of the Services under this Agreement.
- **16. WAIVER OF BREACH.** A State's failure to enforce its rights with respect to any single or continuing breach of this Agreement shall not act as a waiver of the right of the State to later enforce any such rights or to enforce any other or any subsequent breach.
- 17. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given in blocks 1.2 and 1.4, herein.

18. AMENDMENT. This Agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto and only after approval of such amendment, waiver or discharge by the Governor and Executive Council of the State of New Hampshire unless no such approval is required under the circumstances pursuant to State law, rule or policy.

19. CHOICE OF LAW AND FORUM.

- 19.1 This Agreement shall be governed, interpreted and construed in accordance with the laws of the State of New Hampshire except where the Federal supremacy clause requires otherwise. The wording used in this Agreement is the wording chosen by the parties to express their mutual intent, and no rule of construction shall be applied against or in favor of any party.
- 19.2 Any actions arising out of this Agreement, including the breach or alleged breach thereof, may not be submitted to binding arbitration, but must, instead, be brought and maintained in the Merrimack County Superior Court of New Hampshire which shall have exclusive jurisdiction thereof.
- **20. CONFLICT AG TEAMS.** In the event of a conflict between the terms of this 137 arm (as modified in EXHIBIT A) and any other portion of this greener ancluding any attachments thereto, the terms of the P-37, are diffied in EXHIBIT A) shall control.
- 21 CURL PARTUS. This Agreement is being entered into for the sole benefit of the parties hereto, and nothing herein, express or implied, is intended to or will confer any legal or equitable right, to at, or remedy of any nature upon any other person.
- 22. h. ADINGS. The headings throughout the Agreement are for recrease purposes only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this che Agreement.
 - **23. SPECIAL PROVISIONS.** Additional or modifying provisions set forth in the attached EXHIBIT A are incorporated herein by reference.
 - **24. FURTHER ASSURANCES.** The Contractor, along with its agents and affiliates, shall, at its own cost and expense, execute any additional documents and take such further actions as may be reasonably required to carry out the provisions of this Agreement and give effect to the transactions contemplated hereby.
 - **25. SEVERABILITY.** In the event any of the provisions of this Agreement are held by a court of competent jurisdiction to be contrary to any state or federal law, the remaining provisions of this Agreement will remain in full force and effect.
 - **26. ENTIRE AGREEMENT.** This Agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings with respect to the subject matter hereof.

GENERAL CONDITIONS

GENERAL

This contract is to be governed by all the applicable provisions of these specifications.

This project consists of removing Thermoplastic steel reinforced Railing and Galvanized Steel Handrails and replacing with Aluminum Pipe Railing and Galvanized Stel Handrails at Hampton Beach State Park in Hampton, NH as indicated on the attached plans and these specifications.

BIDDING REQUIREMENTS

Bids shall only be accepted on the official Bid Proposal Forms, attached to these specifications. **Any bids** submitted that are not on the official bid proposal forms will not be accepted.

CONDITIONS AT SITE OR BUILDING

Bidders shall visit the site and be responsible for having ascertained pertinent local conditions such as: location, accessibility, general character of the site or building, the character and extent of existing work within or adjacent to the site, and any other work being performed thereon at the time of the submission of this bid.

PERFORMANCE AND PAYMENT BOND

In the event the bid is \$75,000 or more, the contractor shall furnish security by bond or otherwise in an amount equal to 100% of the contract guaranteeing performance and payment. The payment security shall meet the requirements of RSA 447:16.

The performance and payment bond must be returned with the signed contract within 15 days after the contract has been mailed or otherwise delivered to the bidder.

PROPOSAL GUARANTEE

5% of the Lump Sum Base Bid by Bond or Certified Bank Check
Certified Bank checks are to be made payable to: Treasurer State of New Hampshire or Bidder's Name/
Company Name.

RIGHT TO WORK IN N.H.

All bidders must be registered and have a certificate of existence from the New Hampshire Secretary of State, Corporate Division (telephone 603-271-3244) in order to do business with the State of New Hampshire.

Bidders may file online at https://quickstart.sos.nh.gov/online

PROPOSAL SELECTION

In most cases the proposal submitted by the qualified bidder with the lowest base bid price shall be selected. However, the Department of Natural and Cultural Resources reserves the right to reject any or all proposals, or advertise for new proposals as it judges to be in the best interest of the state.

CONTRACTORS QUALIFICATIONS

The successful bidder shall provide evidence upon request that they have been in the Guardrail and Handrail business successfully performing this type, scale, and quality of work for a minimum of five years. A comprehensive list of all projects worked on involving Guardrails and Handrails in the past two years by the contractor shall be submitted with references.

EXECUTION OF CONTRACT

The Contractor's attention is called to the following:

EXECUTION AND APPROVAL OF CONTRACT. The contract shall be signed by the successful Bidder and returned, together with the contract bond, if applicable, within 15 days after the contract has been mailed or otherwise delivered to the Bidder. No contract shall be considered as in effect until it has been fully executed by all the parties thereto and, when the contract amount is more than \$10,000, the award has been concurred by the Governor and Council.

FAILURE TO EXECUTE CONTRACT. Failure to execute the contract within 15 days after the contract has been mailed or otherwise delivered to the successful Bidder shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty which shall become the property of the Department, not as a penalty, but in liquidation of damages sustained. Award may then be made to the next lowest Bidder, or the work may be re-advertised as the Commissioner may decide.

STARTING DATE

The Contractor shall start work after notice to proceed is received. The notice to proceed shall be issued immediately upon contract approval by the Governor and Council, and shall establish the actual construction start date. Failure to start work within 15 calendar days after the start date shall be considered a default of the contract. If the actual start date is later than the advertised start date, the completion date shall be extended by an equivalent number of working days.

WORKSITE ACCOUNTABILITY

Per RSA 21-I:81-b At the onset of work on any state construction project, the general contractor or designated project construction manager, if any, shall provide to the Department Project Manager a current list of all subcontractors and independent contractors that the general contractor has agreed to use on the job site, with a record of the entity to whom that subcontractor is insured for worker's compensation purposes. This list shall be posted on the jobsite and updated as needed to reflect any new subcontractors or independent contractors.

If it is determined that a subcontractor or independent contractor is present on a state construction site without the contractor's name and direct contracting relationship being posted in a visible location at the worksite, the general contractor or designated project manager shall require the subcontractor or independent contractor to provide the information within 36 hours and to post the information in a visible location at the worksite. If the information is not provided within 36 hours of its request, the general contractor shall suspend the contractor until the information is provided and posted.

PROTECTION OF EXISTING PROPERTY

It shall be the responsibility of the contractor to protect existing property from damage. Any damage caused by the contractor in the performance of the work shall be repaired or replaced at his expense to the satisfaction of the Department Project Manager.

CODES

All work performed shall meet the provisions, if applicable, of the 2000 IBC, and any local codes that may apply.

WORKMANSHIP

All work shall be performed in a neat workmanlike manner by skilled workmen who have been actively engaged in performing the type of work specified under this contract for the last two years.

CLEAN-UP

All debris from the project shall be cleaned up daily and removed from the site at least on a daily basis.

DEFAULT AND TERMINATION OF CONTRACT

If the Contractor...

- (a) Fails to begin the work under the contract within the time specified in the contract, or
- (b) Fails to perform the work with sufficient workmen and equipment or with sufficient materials to assure the prompt completion of said work, or
- (c) Performs the work unsuitably or neglects or refuses to remove materials or to perform anew such work as may be rejected as unacceptable and unsuitable, or
- (d) Discontinues the prosecution of work, or
- (e) Fails to resume work which has been discontinued, within reasonable time after notice to do so, or
- (f) Becomes insolvent or is declared bankrupt, or commits any act of bankruptcy or insolvency, or
- (g) Makes an assignment for the benefit of creditors, or
- (h) For any other cause whatsoever, fails to carry on the work in an acceptable manner...

The Commissioner will give notice in writing to the Contractor of such delay, neglect, or default.

If the Contractor or Surety does not proceed in accordance with the Notice, then the Commissioner will, upon written notification from the Project Manager of the fact of such delay, neglect or default, and the Contractor's failure to comply with such notice, have full power and authority without violating the contract, to take the prosecution of the work out of the hands of the Contractor. The Commissioner may enter into an agreement for the completion of said contract according to the terms and conditions thereof, or use such other methods as in his opinion will be required for the completion of said contract in an acceptable manner.

All extra costs and charges incurred by the Department as a result of such delay, neglect or default, together with the cost of completion of the work under the contract will be deducted from any monies due or which may become due said Contractor. If such expenses exceed the sum which would have been payable under the contract, then the Contractor and the Surety shall be liable and shall pay to the Department, the amount of such excess.

FAILURE TO COMPLETE THE WORK ON TIME

If the Contractor fails to complete all of the work or sections of the Project, within the time specified in the Contract, the sum given in the schedule that follows will be deducted from any money due the Contractor. This deduction will be made, not as a penalty, but as fixed, agreed liquidation damages for inconvenience to the State and for reimbursing the Department the cost of the Administration of the Contract, including engineering and inspection. Should the amount of money otherwise due the Contractor be less than the amount of such liquidated damages, the Contractor and his Surety shall be liable to the State for such deficiency.

Permitting the Contractor to continue and finish the work after the time fixed for its completion, shall in no way obligate the State to waive any of its rights under the Contract.

When the final acceptance has been duly made by the Project Manager, any liquidated damage charges shall end.

The fixed, agreed, liquidated damages shall be assessed in accordance with the following schedule.

ORIGINAL CONTRACT AMOUNT AMOUNT OF LIQUIDATED DAMAGES PER WORKING DAY

From more than:	to and including:	
0.	25,000.	\$ 200.00
25,000.	50,000.	\$ 300.00
50,000.	100,000.	\$ 400.00
100,000.	500,000.	\$ 500.00

SUBSTANTIAL COMPLETION & FINAL INSPECTION

When the work is substantially complete, the Contractor shall submit to the Project Manager, a list of items of work to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all work in accordance with the Contract Documents. On the basis of an inspection by the Project Manager which determines that the work is substantially complete, a Certificate of Substantial Completion shall establish the date of substantial completion and state the responsibilities for any damage to the work and insurance, and fix the time limit within which the Contractor shall complete the items listed herein. Warranties required by the Contract documents shall commence on the date of Substantial Completion unless otherwise provided in the Certificate of Substantial Completion.

If the Contractor fails to proceed to complete the items on the "punch list", then in addition to the corrective measures listed in the Certificate of Substantial Completion, the Commissioner may use the monies still due the Contractor to have such items completed and the Contractor shall lose any claim to the monies used.

Upon written notice that the Work is ready for final inspection and acceptance, the Project manager shall promptly make such inspection, and when he finds the Work acceptable under the Contract documents and the Contract fully performed, a Certificate of Final Payment will be issued.

Final inspection will be made by the Project Manager. Incomplete items necessary to complete the project shall be done prior to final payment. The completion date for this project is May 16, 2025.

GUARANTEE OF WORK

- a) Except as otherwise specified, all work shall be guaranteed by the Contractor against defects resulting from the use of inferior materials, equipment or workmanship for two years from the date of substantial completion of the work.
- b) If, within any guarantee period, repairs or changes are required in connection with guaranteed work, which in the opinion of the Project Manager, is rendered necessary as a result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract, the Contractor shall, promptly upon receipt of notice from the Commissioner, and at his own expense:
 - 1) Place in satisfactory condition in every particular, all of such guaranteed work, correct all defects therein, and...
 - 2) Make good all damage to the building or site, or equipment or contents thereof, which in the opinion of the Project Manager, is the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the Contract, and...
 - 3) Make good any work or material, or the equipment and contents of said building or site disturbed in fulfilling any such guarantee.
- c) In any case, wherein fulfilling the requirements of the Contract or of any guarantee, embraced in or required thereby, the Contractor disturbs any work guaranteed under another contract, he shall restore such disturbed work to a condition satisfactory to the Project Manager and guarantee such restored work to the same extent as it was guaranteed under such other contracts.
- d) If the Contractor, after notice, fails to proceed promptly to comply with the terms of the guarantee, the Commissioner may have the defects corrected and the Contractor and his Surety shall be liable for all expense incurred.
- e) All special guarantees applicable to definite parts of the work that may be stipulated in the specifications or other papers forming a part of the Contract shall be subject to the terms of this paragraph during the first year of the life of such special guarantee.

PROSECUTION OF WORK

Upon starting the work within the 15 days set forth by this contract, the Contractor shall prosecute the work a minimum of 8 hours daily per working day until completion, excluding breakdowns or inclement weather. If the Contractor finds it impossible to start the work as stated above, he may make a written request to the Project Manager for an extension of time. Any such request shall be made prior to expiration of the allowable 15 days, and shall contain reasons which the Contractor believes will justify the granting of his request. In his request, the Contractor shall submit his proposed starting date.

CHANGES IN THE WORK

The Project Manager may at any time, by a written order, and without notice to the Sureties, make changes in the Drawings and Specifications and completion date of this contract and within the general scope thereof.

In making any change, the additional cost or credit for the change shall be determined as follows:

- The order shall stipulate the mutually agreed upon lump sum price which shall be added to or deducted from the contract price. The contractor shall furnish an itemized breakdown of the prices used in computing the value of any change that might be ordered.
- If the price change is an addition to the contract price and the work is performed by the general contractor and not a subcontractor, it shall include the contractor's indirect costs as follows: Workmen's Compensation and Employee Liability, Unemployment and Social Security Taxes.
- In addition to the above indirect costs, the general contractor shall be allowed a markup not to exceed ten percent (10%). Said ten percent (10%) shall be all inclusive for overhead, supervision, and profit. In addition to this, an allowance shall be made for performance and payment bond additional premium.
- If the price change is an addition to the contract price and involves the work of the general contractor and subcontractor, the general contractor would be allowed ten percent (10%) on that part of the work performed by him and five percent (5%) on that part of the work performed by the subcontractor. The same percentages shall apply to subcontractors.
- On any change which involves a net credit to the Owner, no allowance for overhead and profit shall be figured.

INSURANCE REQUIREMENTS

No operations under this contract shall commence unless and until certification of insurance attesting to the below listed requirements have been filed with the Commissioner, approved by the Attorney General, and the Contract approved by the Governor and Council and a Notice to Proceed is issued.

Insurance requirements by paragraphs 1-4 below shall be the responsibility of the Prime Contractor. The Prime Contractor, at his discretion, may make similar requests of any subcontractor.

Following is the summary of minimum insurance requirements:

- 1. Workmen's Compensation Insurance (In accordance with RSA 281-A.)
 - a. Employers' Liability
 - 1.) \$100,000 each accident
 - 2.) \$500,000 Disease-policy limit
 - 3.) \$100,000 Disease-each employee
- 2. <u>Commercial General Liability Insurance</u>: Occurrence Form Policy: Include full Contractual Liability (see Indemnification Clause 9)., Explosion, Collapse, and Underground coverage's:
 - a. Limits of Liability:
 - 1.) \$1,000,000 Each Occurrence Bodily injury & Property Damage.
 - 2.) \$2,000,000 General Aggregate-Include per Project Aggregate Endorsement.
 - 3) \$2,000,000 Products/Completed Operations Aggregate.
 - 4) State shall be named as an additional named insured.
- If blasting and/or demolition is required by the Contract, the Contractor or subcontractor shall obtain
 the respective coverage for those activities, and shall furnish to the Commissioner a certificate of
 Insurance evidencing the required coverage's prior to commencement of any operations involving
 blasting and/or demolition.
- 4. Owner's Protective Liability coverage for the benefit of the State of New Hampshire Department of Natural and Cultural Resources.
 - a. Limits of Liability:
 - 1.) \$2,000,000 Each Occurrence
 - 2.) \$3,000,000 Aggregate
- 5. Commercial Automobile Liability covering all motor vehicles including owned, hired, borrowed, and non-owned vehicles.
 - a. Limits of Liability:
 - 1.) \$1,000,000 Combined Single Limit for Bodily injury & Property Damage
- 6. Commercial Umbrella Liability
 - a. Limits of Liability:
 - 1.) \$1,000,000 Each Occurrence
 - 2.) 1,000,000 Aggregate

7. <u>Builder's Risk Insurance</u> (Fire and Extended Coverage):

The Contractor shall insure the work included in the Contract, including extras and change orders, on an "All Risk" basis, on a one hundred percent (100%) completed value basis of the Contract, as modified. Builder's Risk coverage shall include materials located at the Contractor's premises, on-site, in-transit, and at any temporary site. The policy by its own terms or by endorsement shall specifically permit partial or beneficiary occupancy prior to completion or acceptance of the entire work. The policies shall be in the names of the State of New Hampshire Department of Natural and Cultural Resources and the Contractor. The policies shall provide for the inclusion of the names of all other Contractors, Subcontractors, and others employed on the premises as insureds. The policies shall stipulate that the insurance companies shall have no right of subrogation against any Contractors, Subcontractors or other parties employed on the premises.

8. General Insurance Conditions

a. Each policy shall contain a clause prohibiting cancellation or modifications of the policy earlier than thirty (30) days or ten (10) in cases of non-payment of premium after written notice thereof has been received by the State.

9. Indemnification:

a. The Contractor shall indemnify, defend, and hold harmless the State of New Hampshire, its Agencies, and its agents and employees from and against any and all claims, liabilities, suits or penalties arising out of (or which may be claimed to arise out of) acts of omissions of the Contractor or subcontractors in the performance of work covered by the Contract. This covenant shall survive the termination of the Contract. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved by the State.

NOTE:

In articles 1 - 14 of the General Conditions references to "the Project Manager" shall be understood to mean the Department Project Manager designated by the Capital Projects & Maintenance office of the New Hampshire Department of Natural and Cultural Resources.

(Name & Title) Not the P-37 Signatory

Corporate Resolution

I, _		, hereby certify that I am duly elected Clerk/Secretary/Officer I hereby certify the following is a
of	(Name)	I hereby certify the following is a
01	(Name of Corporation)	Thereby certary the following is a
true of	a vote taken at a mee	ting of the Board of Directors/shareholders, duly called and held on
	, 20, at	which a quorum of the directors/shareholders were present and
voting		
	Voted: That	(may list more than one person) is duly
	authorized to enter in	nto contracts or agreements on behalf of
	(Name of Corporation)	
	with the State of Nev	v Hampshire and any of its agencies and departments and further is
	authorized to execute	e any documents which may in his/her judgement to be desirable or
	necessary to affect th	ne purpose of this vote.
I he	e reby certify that said	vote has not been amended of repealed and remains in full force
and eff	fect as the date of the	contract to which this certificate is attached. This authority shall
remaiı	n valid for thirty (30	days from the date of this Corporate Resolution. I further certify
that it i	is understood the State	e of New Hampshire will rely on this certificate as evidence the
person	(s) listed above currer	ntly occupy the positions(s) indicated and that they have full
authori	ity to bind the corpora	ation. To the extent that there are limits on the authority of any listed
		ration in contracts with the State of New Hampshire, all such
limitat	ions are expressly stat	ed herein.
DATE	ED:	ATTEST:

Corporate Bylaws

Ι,	, hereby certify that I am duly elected Clerk/Secretary/Officer
of (Name)	I hereby certify the following is a true copy of the current
(Name of Corporation)	
Bylaws or Articles of Incorpor	ration of Corporation and that the Bylaws or Articles of
Incorporation authorize the fo	llowing officers or positions to bind the Corporation for contractual
obligations(List officer titles or po	.
(List officer titles or po	sition)
I further certify that the fol	lowing individuals currently hold the office or positions
authorized:	
	(List individuals holding positions authorized)
I hereby certify that it is un	derstood that the State of New Hampshire will rely on this
certificate as evidence the pers	son listed above currently occupies the position indicated and they
have full authority to bind the	corporation. This authority shall remain valid for thirty (30)
days from the date of this certi	ificate.
•	
DATED:	ATTEST:
	(Name & Title)
STATE OF	
COUNTY OF	
On theday of,	before methe undersigned officer personally
appeared	, known to me or satisfactorily proven to be the person whose name is
	ent and acknowledged that he/she executed the same for purposes therein
contained. In witness whereof, I	hereunto set me hand and official seal:
Justice of the Peace / Notary F	Public Public
My Commission Expires:	

Limited Partnership or LLC Certificate of Authority

Ι,	, hereby certify that I am a Partner, Member or Manager
	(Name)
of	a limited liability partnership under RSA 304-B, a limited
(Name of Pa	rtnership or LLC)
liability profess	a limited liability partnership under RSA 304-B, a limited liability professional partnership under RSA 304-D, or a limited liability company under A 304-C. I certify that is authorized to bind the partnership or LLC. (P-37 Signatory)* ther certify that it is understood that the State of New Hampshire will rely on this tificate as evidence that the person listed above currently occupies the position indicated that they have full authority to bind the partnership or LLC and that this authorization all remain valid for thirty (30) days from the date of this Corporate Resolution
RSA 304-C.	
I certify	thatis authorized to bind the partnership or LLC. Iis authorized to bind the partnership or LLC. I
further certify the	hat it is understood that the State of New Hampshire will rely on this
certificate as ev	idence that the person listed above currently occupies the position indicated
and that they ha	we full authority to bind the partnership or LLC and that this authorization
shall remain va	alid for thirty (30) days from the date of this Corporate Resolution
DATE:	
	(Name)
	(Title)

^{*} **Note:** The signatory to this Certificate of Authority and the signatory to the P-37 may not be the same individual.

Partnership Certification of Authority

I,	, hereby certify that I am the General Partner
(Name)	
of	a general partnership under RSA 304-A.
I certify that I am authorized	to bind the partnership.
I further certify that it	a general partnership under RSA 304-A.
will rely on this certificate as	evidence that the person listed above currently occupies the
position indicated and that th	ey have full authority to bind the partnership and the
authority has not expired or b	een revoked. This authority shall remain valid for thirty
(30) days from the date of thi	s Corporate Resolution
DATED:	ATTEST:
	(Name & Title)
114	

Sole Proprietor Certification of Authority

	1,	, hereby certify that I am the Sole Proprietor
	(Name)	•
of		which is a tradename registered with the Secretary of State
(Nan	ne of Business)	
under F	RSA 349. I certify that	I am the sole owner of my business and of the tradename.
	I further certify that it	is understood that the State of New Hampshire
will rel	y on this certificate as	evidence that the person listed above currently
occupie	es the position indicate	and that they have full authority to bind the
busines	s. This authority shall	remain valid for thirty (30) days from the
date of	this Corporate Resolu	tion
DATE	D:	ATTEST: (Name & Title)

Corporate Resolution

I,, hereby certify that I am duly elected Clerk/Secretary of
(Name) I hereby certify the following is a true copy of a vote taken at a
(Name of Corporation)
meeting of the Board of Directors/shareholders, duly called and held on, 20
at which a quorum of the Directors/shareholders were present and voting.
VOTED: That is duly authorized to enter a is duly authorized to enter a which is the general
(Name of Corporation) partner of a limited partnership, (Name of Limited Partnership)
with the, State of New Hampshire and (Name of State Agency)
further is authorized to execute any documents which may in his/her
judgment be desirable or necessary to effect the purpose of this vote.
I hereby certify that said vote has not been amended or repealed and remains in full
force and effect as of the, 20 I further certify that it is understood that the
State of New Hampshire will rely on this certificate as evidence that the person listed above
currently occupies the position indicated and that they have full authority to bind the
corporation and that the corporation as the general partner has full authority to bind the
limited partnership to the specific contract indicated. This authority shall remain valid for
thirty (30) days from the date of this Corporate Resolution.
DATED: ATTEST:(Name & Title)
(Name & Title)



BUSINESS NAME/ADDRESS LOCATION									
Legal Entity Name:									
Doing Business As Name:									
Payment Address:		_							
City/Town:	STATE: ZIP:	COUNTRY:							
Business Address:		_							
City/Town:	STATE: ZIP:	COUNTRY:							
Telephone #:	Cell Phone #:	FAX #:							
Contact Person:	Website:	E-Mail (Main Office):							
Electronic Payment Option: Pleas <u>Treasury</u> for further information o	se contact Treasury at ACHProces in this option. Registration as a ve	sing@treasury.nh.gov or visit their website at Department of ndor must be completed prior to contacting.							
TYPE OF BUSINESS (Note: Registration with the NH Secretary 271-3244	of State <u>MUST</u> be done <u>prior</u> to the award	ing of any contracts) Secretary of State Corporate Division Registration (603)							
Registered with NH Secretary of S	State? YESNO State	Incorporated In:							
DUNS #:									
Select the appropriate designation	s for your Entity:								
Minority Institutions	Minority Owned Large Business	Minority Owned Small Business							
Disabled Veteran Business	Svs Disabled Veteran Owned	Veteran Owned Small Business							
Physically Challenged Bus	SBA Cert Fin Disadvantaged Bus	SBA Cert Hist Underutilized Bus							
Historically Black Colleges	Women Owned Sm Bus	Women Owned Large Businesses							
Small Business	SBA Cert Sm Disadvantaged Bus								
CICNATUDE DI OCI									
SIGNATURE BLOCK									
I certify the above information to be correct and grant authorization to the State of New Hampshire to investigate any and all facts contained therein, including facility visitation.									
Name and Title (print or typ	<u>oe</u>):								
Signature:		Date:							

RETURN ADDRESS

(Phone) 603-271-2201 (Fax) 603-271-2700 prch.web@das.nh.gov http://das.nh.gov/purchasing DIVISION OF PROCUREMENT & SUPPORT SERVICES BUREAU OF PURCHASE AND PROPERTY STATE HOUSE ANNEX, ROOM 102

25 CAPITOL STREET CONCORD NH 03301-6398

VENDOR #		
(Assigned by	Purchase & Proper	rty)

STATE OF NEW HAMPSHIRE ALTERNATE W-9 FORM

PLEASE USE THIS FORM TO PROVIDE THE REQUESTED INFORMATION

Pursuant to IRS Regulations, you must furnish your Taxpayer Identification Number (TIN) to the State whether or not you are required to file tax returns. If this number is not provided, you may be subject to a 24% withholding on each payment made to you. To avoid this 24% withholding & to ensure that accurate tax information is reported to the IRS, A RESPONSE IS REQUIRED.

Legal Entity Name:				
Doing Business As Name:				
Daymant Addussa.				
City/Town:	STATE:	ZIP:		COUNTRY:
Business Address:				
City/Town:	STATE:	ZIP:		COUNTRY:
Telephone #:	Cell Phone #	:		FAX #:
Contact Person:	Website:		E-Mail (1	Main Office):
TAXPAYER IDENTIFICATION	ON NUMBER (TIN) a	as used on IRS tax	return	
Social Security # (SSN):		_ Fed	I ID # (EIN/F	IN):
PRINCIPAL ACTIVITY				
Service Provide	r Proc	luct/Merchandise	Provider	Other Provider
List the principal type of service,	product or other that is p	rovided:		
Medical/Health C	are Services	Legal Service	<u> </u>	1099 Grant Reportable
DESIGNATION (select ONLY	THOSE which apply to	you/your organiz	ation as provid	led to the IRS)
Individual/Sole-		Corporation	(S)	Government
Single Member LLC (C Corpora		Corporation	(C)	Travel/Intern
LLC (S Corpora	ation)	Partnership		Refund/Reimbursement
LLC (P Partners	ship)	Estate or Tru	ıst	Tax-Exempt
EXEMPTIONS:		Exe	mption from F	ATCA reporting:
Under penalty of perjury, I declare that the			to the best of my kn	nowledge & belief.
NAME & TITLE (print or type):				
TELEPHONE #:	CELL PHON	IE #:	1	FAX #:
SIGNATURE:		DA	TE:	
E-Mail (Main Office):		We	haita	

PLEASE RETURN WHEN COMPLETED TO: Email: PRCH.WEB@DAS.NH.GOV

(Phone) 603-271-2201 (FAX) 603-271-2700 http://das.nh.gov/purchasing DIVISION OF PROCUREMENT & SUPPORT SERVICES BUREAU OF PURCHASE & PROPERTY STATE HOUSE ANNEX – ROOM 102 25 CAPITOL ST CONCORD NH 03301

SUBMITTAL SCHEDULE

PROJECT: OPS-2416 RAILING REPLACEMENT AT HAMPTON BEACH STATE PARK HAMPTON, NH

ITEM	SPEC.			REJECTED		APPROVED	
No.	SECTION	ITEM	SUBMITTAL REQUIRED	RE-SUBMIT	RE-SUBMIT	AS NOTED	APPROVED
1	05035	Hot Dip Galvanizing	Product Literature				
2	05035	Hot Dip Galvanizing	Certifications				
3		Pipe and Tube Railings	Product Data				
4		Pipe and Tube Railings	Railing Brackets				
5	055213	Pipe and Tube Railings	Grout, anchoring cement				
6		Pipe and Tube Railings	Welding Certificates				
7	055213	Pipe and Tube Railings	Mill Certificates				
8		Pipe and Tube Railings	Paint Compatibility Certificates				
9		Pipe and Tube Railings	Shop Drawings				
10	055213	Pipe and Tube Railings	Delegated Design Submittal				
11	05720	Aluminum Pipe Railing Non-Welded	Shop Drawings & Product Data				
12		ı	Installation Instructions				
13	05720	Aluminum Pipe Railing Non-Welded	6" Long Sample Railing & Picket w/coating				

CONTRACTOR'S APPLICATION for PAYMENT		Application No. #	Application P	Period: xx/xx/xxxx	Application Date: xx/xx/xxx		
Project Name:			Date of Com	mencement: xx/xx/xxxx	Owners Project #		
TO:	State of New Hampshire		FROM:	(Contractor Name)			
	Department of Natural and Cultural Resource	es		(Contractor Address)			
1. CONTRACT F	PRICE		CONTRACTO	OR'S CERTIFICATION			
(Bid Sub Total pl	lus any Alternates)						
2. ALLOWANCE	E	<u></u>	The undersig	gned Contractor certifies that to the	best of their knowledge, belief and		
			information:	(1) the Work covered by this Application	ation for Payment hs been completed		
3. PRICE LIMITA	ATION	\$0.00		in accordance with the Contract Documents; (2) that all amounts have been			
	_			or for Work which previous Applicat			
4. TOTAL COM	IPLETED & STORED TO DATE	\$0.00	payments red	ceived from the Owner, and clear of	fall Liens, security interests and		
(Column G on Schedule of Values)			encumberan	nces; and (3) that the current paymer	nt shown herein is now due.		
5. RETAINAGE							
<u>10</u> '	% of Completed Work	\$0.00					
	(Columns D+E+F on Schedule of Values)		BY:	(Contractors Signature)	Date: xx/xx/xxxx		
6. TOTAL EARN	NED LESS RETAINAGE	\$0.00	L				
(Line 4 minus line	e 5)		CHANGE OR	CHANGE ORDER SUMMARY			
			Total Availab	ole Allowance	\$0.0		
7. LESS PRIOR	APPLICATIONS for PAYMENT	\$0.00	Number	Description	Amount		
(Line 6 from prio	r application)						
8. AMOUNT DI	UE THIS APPLICATION	\$0.00					
9. BALANCE TC	O FINISH, PLUS RETAINAGE	\$0.00					
(Line 3 minus line	ne 6, less unspent Allowance)			Allowance B	Balance: \$0.0		
PAYMENT AU	JTHORIZATION	(For Department of	Natural and Cultural Resou	urces use only)			
Vendor Code #			APPROVED B	3Y:			
P.O. Number							
Line #	Accounting Unit	Amount	(Print name)		(Title)		
<u> </u>							
 							
a strategy Condo			Cimatura		Deter		
Activity Code			Signature		Date:		
(as required)							

Application No. #

Application Period: xx/xx/xxxx

Owners Project #:

Application Date: xx/xx/xxxx

Project Name:

Date of Commencement: xx/xx/xxx

Note: Use the Schedule of Values provided with the bid, and any Allowances or Alternates

	Work Completed								
Α	В	С	D	E	F	G		Н	G
Specification	Description (Scheduled	From Previous	This Buried	Materials Presently Stored	Total Completed and Stored to Date	0/ (0/0)	Balance to	Retainage (%
Section No.	Description	Value (\$)	Applications (D+E)	This Period	(not in D or E)	(D+E+F)	% (G/C)	Finish (C-G)	x G)
									<u> </u>
01 41 00	Allowance								
	Change Order #								
	Change Order #								
	Change Order #								
	Change Order #								
	Change Order #								
	Totals								

CONSTRUCTION SPECIFICATIONS

TABLE OF CONTENTS

The standard specifications adapted to this project contain the following sections:

SECTION

01010	General Requirements
01020	Temporary Utilities and Job Conditions
02080	Selective Demolition
05035	Hot Dip Galvanizing
055213	Pipe and Tube Railings
05720	Aluminum Pipe Railing

SECTION 01010 - GENERAL REQUIREMENTS

PART 1 GENERAL

- 1.1 **RELATED DOCUMENTS:** The general provisions of the contract, including General and Supplementary Conditions, and all Division 1 sections of the specifications apply to the work specified in all sections of the Construction Specifications. The photos, sketches and the specifications together comprise the construction documents. Any note in one shall apply to the other. The contractor shall report any discrepancies between the drawings and specifications to the Project Manager for resolution before proceeding with the work involved.
- 1.2 **SUMMARY OF THE WORK:** The intent of the contract is to provide the State with new Aluminum Railing and Galvanized Steel Handrails at Hampton Beach State Park in Hampton, NH. The following work items give a general summary of the extent of the work but are not intended to be a complete itemization of the work.
 - a) Remove and dispose of existing damaged sections of Thermoplastic Railing with internal steel reinforcement.
 - b) Install new Heavy Duty Aluminum Railing.
 - c) Install new Extra Heavy Duty (schedule 160) Galvanized Steel Handrails.
 - d) Inspect existing Guardrail mounting locations and where required by the project Manager, remove the existing grout, rest railing and re-grout.
 - e) Provide 2 Year Installers Warranty at the Completion of the Job.
- 1.3 **PUBLIC ACCESS AND PROTECTION:** The grounds around the Site will be open to the public and staff during the time the work is in progress. The contractor shall be responsible for roping off or barricading sufficient area around the work site to keep visitors and state personnel safe from construction hazards.
- 1.4 COORDINATION WITH THE REGIONAL SEACOAST STATE PARK MANAGER: The contractor shall coordinate in advance with the Seacoast Regional State Park Manager Mrs. Meredith Collins Tel No. 603-573-6657 to arrange mutually acceptable times for closing off areas normally accessible to the staff and public, and to insure that suitable alternate access is made available.

END OF SECTION 01010

SECTION 01020 - TEMPORARY UTILITIES & JOB CONDITIONS

PART 1 GENERAL

- 1.1 **TEMPORARY FACILITIES AND SERVICES:** The Contractor shall be responsible for arranging and providing temporary facilities necessary to facilitate his work. The location of same shall be coordinated with and approved by the Project Manager and the Seacoast Regional State Park Manager. All such services and facilities shall comply with applicable Federal, State and Municipal regulations.
- 1.2 **TEMPORARY ELECTRICITY:** Temporary electrical power is available from the existing service at the Bath House and Sea Shell Complex Locations. Temporary electrical power may also be available at the Boardwalk Lighting Locations. The Contractor shall provide all labor, materials, or electric generators if necessary to provide electrical power and lighting required for construction purposes.
- 1.3 **TEMPORARY WATER SERVICE:** Temporary water service is available from the existing services at the Bath House and Sea Shell Complex Locations

1.4 **FIRE PROTECTION**:

- a) The Contractor shall provide and maintain adequate fire protection in the form of fire extinguishers, or other effective means of extinguishing fire, ready for instant use, distributed around the project sites and in and about temporary inflammable structures during construction of work.
- b) Gasoline and other flammable liquids shall be stored in and dispensed from UL listed safety containers in conformance with National Board of Fire Underwriters' recommendations. Storage shall not be within any DRED owned buildings.
- c) Torch-cutting and welding operations performed by subcontractors shall have approval of the general contractor before such work is started, and a chemical extinguisher shall be available on location where such work is in progress.
- d) No Smoking within 50 feet of any State Owned Building.
- e) Do not light fires in or about premises.
- 1.5 **PROTECTION OF PROPERTY AND THE PUBLIC:** The Contractor shall construct all fences, barricades and protection facilities required for the protection of the public to the satisfaction of the Project Manager. Furnish and install all signs, lights, reflectors, and all such protection facilities as may be required by the Project Manager.

Keep all access roads and walks clear of debris, materials, and construction equipment. Repair streets, drives, curbs, sidewalks, fences, poles and the like where disturbed by construction to the satisfaction of the Project Manager.

1.6 **TEMPORARY STORAGE:** Delivery and storage locations shall be coordinated with and approved by the Project Manager and or the Seacoast Regional State Park Manager.

The contractor shall provide at the site, where directed and maintain in good condition, suitable and substantial weather-tight storage as required for his materials that may be damaged by storage in the open.

1.7 **STAGING AND SCAFFOLDING:** Except as otherwise indicated, the Contractor shall furnish, erect and maintain all staging and scaffolding for use during the work of the project. Staging and scaffolding shall be of approved design, erected and removed by experienced stage builders and shall have all accident prevention devices required by state and local laws.

Above facilities shall be constructed and maintained in accordance with the applicable requirements of local and state authorities and of the Standard Safety Code for Building Construction published by ANSI, and be removed after they have served their purpose.

- 1.8 **TEMPORARY FIELD OFFICE**: Not Applicable
- 1.9 **TOILETS:** The contractor will be allowed to use the restroom facilities at the State Park.
- 1.10 **CONTRACTORS AND SUBCONTRACTORS MEETINGS:** The Project Manager shall have the right to call together at reasonable times designated by him, representatives of the contractor and subcontractors who shall meet at the job site, to report as to the condition of the work under their charges, or on any other matters pertinent to the conduct of the work.

Such representatives shall be empowered to make at these meetings, definite decisions binding upon their respective employers, regarding all matters pertaining to the work under this contract.

The Contractor shall furnish the Project Manager and the Seacoast Regional State Park Manager in writing, the names, addresses and telephone numbers of subcontractors' personnel to be contacted in the event of an out-of-hours emergency at the building sites.

1.11 **MEASUREMENTS:** Before ordering any material or doing any work, the Contractor shall verify all measurements and shall be responsible for the

correctness of same. No extra charge or compensation will be allowed on account of difference between actual dimensions and the measurements indicated on the drawings; any difference which may be found shall be submitted to the Project manager in writing for consideration before proceeding with the work.

Responsibility for work fabricated accurately to field measurements to properly fit the new construction shall be solely that of the contractor, who shall pay all costs involved in correcting any miss-fitting work as fabricated.

- 1.12 **CUTTING AND PATCHING:** The Contractor shall do all cutting, fitting and patching of his work that may be required to make its several parts come together properly. Expense caused by defective or ill-timed work shall be borne by the contractor. Where field cutting is authorized or directed, provide adequate reinforcement of the weakened area in such form as is approved by the Project Manager.
- 1.13 **OCCUPATIONAL HEALTH AND SAFETY:** These contract documents, and the construction hereby contemplated shall be governed at all times by applicable provisions of all federal laws, including but not limited to the following:
 - a) Williams-Steiger occupational Safety and Health Act of 1970, Public Law 91-596
 - b) Part 1910 Occupational Safety and Health Standards, Chapter XVII of Title 29, Code of Federal Regulations
 - c) Part 1926 Safety and Health Regulations for Construction , Chapter XIII of Title 29, Code of Federal Regulations
- 1.14 **PARKING:** Space will be allocated at the site, in the parking lots to accommodate vehicles, deliveries and limited storage. (additional storage areas may be made available through arrangements with the Seacoast Regional State Park Manager on an as-needed basis).
- 1.15 CLEANING: As property under the stewardship of the Division of Parks and Recreation, the grounds surrounding the project site will be open to the public and staff during all or part of the course of the work. Consequently, the sites must be kept clean, safe and presentable to the public. Construction debris shall be picked up at the end of each day's work and removed from the sites on at least a weekly basis. At the conclusion of the project, all scaffolding, barricades, equipment, and debris shall be promptly removed from the sites.

END OF SECTION 01020

SECTION 02080 - SELECTIVE DEMOLITION

PART 1 GENERAL

- 1.1 **DESCRIPTION OF WORK:** This work shall consist of the selective demolition, removal and satisfactory disposal of Thermoplastic Guardrail Components. Scope of the demolition work includes:
 - Remove damaged sections of Thermoplastic Guardrails, and Galvanized Steel Handrails in the locations as specified in the Railing and Handrail Schedule on the Plans.
 - b) Remove the Grout at each Post Location used for Anchoring and Securing the Thermoplastic Handrails in Place to a depth of at least 4 inches.
 - c) Thoroughly inspect the mounting locations of all existing Railing and where specified in the Railing and Handrail Schedule or otherwise required by the Project Manager remove the existing grout, reset the railing and re-grout the mounting locations.

1.2 **PROTECTION**

- a) Provide temporary barricades and other forms of protection as required to protect the state's personnel and the general public from injury due to demolition work.
- b) Protect from damage existing finish work that is to remain.

(PART 2 : not applicable)

PART 3 EXECUTION

- 3.1 **INSPECTION:** Inspect existing conditions in areas in which work will be performed. Prior to starting work, notify Project Manager of any conditions which could be misconstrued as damage resulting from selective demolition work.
- 3.2 **SALVAGE ITEMS:** Historic artifacts and articles of historic significance remain the property of the State. Notify the Project Manager if such items are encountered and obtain approval regarding method of removal and salvage for the State.

3.3 **DISPOSAL OF DEMOLISHED MATERIALS**

a) Dispose of debris, rubbish, and other materials resulting from demolition operations from the site in compliance with all state and municipal laws.

b) If hazardous materials are encountered during demolition operations, notify the project manager immediately and comply with applicable regulations, laws and ordinances concerning removal, handling and protection against exposure or environmental pollution.

3.4 **CLEAN-UP AND REPAIR**

- a) Upon completion of demolition work, remove tools and equipment. Remove protections and leave areas clean.
- b) Repair demolition performed in excess of that required. Return structures and surfaces to remain to conditions existing prior to commencement of selective demolition work. Repair adjacent construction or surfaces soiled or damaged by selective demolition work.

END OF SECTION 02080

SECTION 05035 - HOT DIP GALVANIZING

Part 1 GENERAL

1.1 SECTION INCLUDES

- A. This Section specifies factory-applied metal coatings including the following:
 - 1. The basis of design is **Duragalv®** Hot-dip galvanizing for iron and steel fabrications.

1.2 RELATED SECTION

- A. Examine Contract Documents for requirements that affect Work of this Section. Other Specification Sections that directly relate to Work of this Section include, but are not limited to:
 - 1. Section 055200 Metal Railings.

1.3 SUBMITTALS

- A. **Product Literature for Factory-Applied Metal Coatings**: Submit galvanizer's product data sheets for coatings specified in this Section including physical performance test data.
- B. Certificate of Compliance for Items Coated by Galvanizer: Submit notarized Certificate of Compliance, signed by the galvanizer, indicating compliance with requirements of specifications.
- C. **Substitutions**: Substitutions must be submitted with performance criteria that meet or exceed the requirements of this specification.
- D. Certification from the American Galvanizers Association that Galvanizer has a certified Master Galvanizer on staff.
- E. Certificate of Compliance for Shop Application: The galvanizer/applicator shall be SSPC-QP3 certified.

1.4 QUALITY ASSURANCE

- A. **Galvanizer's Qualifications**: Galvanizer must have a minimum of ten years of experience in hot-dip galvanizing using the dry kettle process and the application of the coatings required in this specification. The coating application must be performed in the same facility as the galvanizing.
- B. Coordination between Fabricator and Galvanizer: The galvanizer shall review fabricator's shop drawings for suitability of materials for galvanizing and coatings and will notify the fabricator of any required modifications.

PART 2 PRODUCTS

2.1 SECTION INCLUDES

- A. **Hot-Dip Galvanizing**: For steel exposed to the elements, weather or corrosive environments and other steel indicated to be galvanized, provide coating for iron and steel fabrications applied by the hot-dip process. Galvanizing bath shall contain special high-grade zinc.
 - Basis of design: Duragalv®
 Duncan Galvanizing
 69 Norman St.
 Everett, MA 02149
 www.duncangalvanizing.com
 Tel No. 617-389-8440
 - 2. Comply with ASTM A 123 for fabricated products and ASTM A 153 for hardware.
 - 3. If required, plug vent holes after galvanizing and grind smooth.
 - 4. Galvanized surface shall be prepared per SSPC SP2 or SP3 to provide a smooth surface removing all runs, drips, or sags.
 - 5. Galvanizing shall exhibit a rugosity (smoothness) of 16-25 microns or less when measured by a profilometer. This pertains to those elements that are less than 24 pounds per running foot.
 - 6. Galvanized surfaces, that are to receive coatings, must be blasted per SSPC SP 16. The use of iron, steel shot, and aluminum oxide grit as a blast medium, and power wire brushes are not permitted.

B. Warranty:

1. Provide galvanizer's warranty that materials will be free from 10 percent or more visible rust for 20 years.

PART 3 EXECUTION

3.1 APPLICATION OF FACTORY APPLIED METAL COATINGS

- A. **Galvanizing Application**: Galvanize materials in accordance with specified standards and this specification. The dry kettle process shall be used to eliminate any flux inclusions on the surface of the galvanized material. The use of the wet kettle process is prohibited.
- B. **Prior to Galvanizing**: The steel shall be immersed in a flux solution (zinc ammonium chloride). The flux tank must be 12 to 14 Baumé density and contain less than 0.4 percent iron.
 - 1. To provide the galvanized surface required, the following procedures shall be implemented:
 - a. A monitoring recorder shall be utilized and inspected regularly to observe any variances in the galvanizing bath temperature.
 - The pickling tanks shall contain hydrochloric acid with an iron content less than 12 percent and zinc content less than 3 percent. Titrations shall be taken weekly at a minimum.

c. All chemicals and zinc shall be tested at least once a week to determine compliance with ASTM standards. All testing shall be done using atomic absorption spectrometry or x-ray fluorescence (XRF) equipment at a lab in the galvanizing facility.

3.2 INSTALLATION

- A. **Installation**: Comply with fabricator's and galvanizer's requirements for installation of materials and fabrications, including use of nylon slings or padded cables for handling factory-coated materials.
- B. **Touch-Up and Repair**: For damaged and field-welded metal coated surfaces, clean welds, bolted connections, and abraded areas the following procedures must be used.
 - For galvanized surfaces, apply organic zinc repair paint complying with requirements of ASTM A 780, modified to 95 percent zinc in dry film. Galvanizing repair paint shall have 95 percent zinc by weight. Basis of design is ZIRP by Duncan Galvanizing. Thickness of applied galvanizing repair paint shall be not less than coating thickness required by ASTM A 123 or A 153 as applicable.

END OF SECTION

SECTION 05 52 13 PIPE AND TUBE RAILINGS

PART 1 – GENERAL

1.01 **DESCRIPTION**

- A. Provide all labor, materials, equipment, services, etc. required to furnish and install all Pipe and Tube Railings as indicated on the Drawings, Specified herein, or otherwise required for a complete and proper job.
 - 1. The Work shall include, but shall not necessarily be limited to:
 - a. Steel pipe and tube railings

1.02 ACTION SUBMITTALS

- A. Product Data: For the following:
 - 1. Steel pipe for use as railings.
 - 2. Railing brackets.
 - 3. Grout, anchoring cement, and paint products.
- B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.
- C. Delegated-Design Submittal: For railings, including analysis data signed and sealed by the licensed structural engineer responsible for their preparation.

1.03 INFORMATIONAL SUBMITTALS

- A. Welding certificates.
- B. Mill Certificates: Signed by manufacturers of stainless-steel products certifying that products furnished comply with requirements.
- C. Paint Compatibility Certificates: From manufacturers of topcoats applied over shop primers certifying that shop primers are compatible with topcoats.

1.04 QUALITY ASSURANCE

A. Manufacturers Qualifications: All primary products specified in this section will be supplied by a single manufacturer with a minimum of ten years' experience.

- B. Installer Qualifications: All products in this section are to be installed by a single installer with a minimum of five years demonstrated experience in installing products of the same type and scope as specified.
- C. Welding Qualifications: Qualify procedures and personnel according to the following:
 - 1. AWS D1.1/D1.1M, "Structural Welding Code Steel."

1.05 <u>DELIVERY, STORAGE AND HANDLING</u>

A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

1.06 PROJECT CONDITIONS

A. Field Measurements: Where handrails and railings are indicated to fit other construction, check actual dimensions of other construction by accurate field measurements before fabrication; show recorded measurements on final shop drawings.

1.07 WARRANTY

A. Provide manufacturer's standard limited warranty against manufacturing defects, outlining its terms, conditions, and exclusions from coverage.

PART 2 - PRODUCTS

2.01 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Railings, including attachment to existing construction, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:
 - 1. Handrails and Top Rails of Guards:
 - a. Uniform load of 100 lbf/ft. applied in any direction.
 - b. Concentrated load of 500 lb/ft applied in any direction.
 - c. Uniform and concentrated loads need not be assumed to act concurrently.

- B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
 - 1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.

2.02 METALS, GENERAL

- A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.
- B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.
 - 1. Provide type of bracket with predrilled hole for exposed bolt anchorage and that provides 4-1/4-inch clearance from inside face of handrail to finished wall surface.

2.03 STEEL AND IRON

- A. Tubing: ASTM A 500 (cold formed) or ASTM A 513.
- B. Pipe: ASTM A 53/A 53M, Type F or Type S, Grade A, Extra Heavy Weight (Schedule 160), unless another grade and weight are required by structural loads.
 - 1. Provide galvanized or color galvanized finish for exterior installations and where indicated.
- C. Plates, Shapes, and bars: ASTM A 36/A 36M.

2.04 FASTENERS

- A. General: Provide the following:
 - Hot-Dip Galvanized Railings: Type 304 stainless-steel or hot-dip zinccoated steel fasteners complying with ASTM A 153/A 153M or ASTM F 2329 for zinc coating.
 - 2. Provide exposed fasteners with finish matching appearance, including color and texture, of railings.

- B. Fasteners for Anchoring Railings to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction indicated and capable of withstanding design loads.
- C. Post-Installed Anchors: Torque-controlled expansion anchors or chemical anchors capable of sustaining, without failure, a load equal to 6 times the load imposed when installed in unit masonry and 4 times the load imposed when installed in concrete, as determined by testing according to ASTM E 448/E 448M, conducted by a qualified independent testing agency.

2.05 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- B. Etching Cleaner for Galvanized Metal: Comply with MPI#25.
- C. Galvanizing Repair Paint: High-zinc-dust-content paint complying with SSPC-Paint 20 and compatible with paints specified to be used over it.
- D. Shop Primer for Galvanized Steel: Primer formulated for exterior use over zinccoated metal and compatible with finish paint system indicated.
- E. Non-shrink, Nonmetallic Grout: Factory-packaged, non-staining, non-corrosize, nongaseous grout complying with ASTM C 1107/C 1107M. Provide grout specifically recommended by manufacturer for interior and exterior applications.
- F. Anchoring Cement: Factory-packaged, non-shrink, non-staining, hydraulic-controlled expansion cement formulation for mixing with water at project site to create pourable anchoring, patching, and grouting compound.
 - Water-Resistant Product: At exterior locations provide formulation that is resistant to erosion from water exposure without needing protection by a sealer or waterproof coating and that is recommended by manufacturer for exterior use.

2.06 FABRICATION

A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage, but not less than that required to support structural loads.

- B. Shop assemble railings to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation. Use connections that maintain structural value of joined pieces.
- C. Cut, drill, and punch metals cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.
- D. Form work true to line and level with accurate angles and surfaces.
- E. Fabricate connections that are exposed to weather in a manner that excludes water. Provide weep holes where water may accumulate.
- F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.
- G. Connections: Fabricate railings with welded connections unless otherwise indicated.
- H. Welded Connections: Cope components at connections to provide close fit, or use fittings designed for this purpose. Weld all around at connections, including fittings.
 - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
 - Obtain fusion without undercut or overlap.
 - Remove flux immediately.
 - 4. At exposed connections, finish exposed surfaces smooth and blended so no roughness shows after finishing and welded surface matches contours of adjoining surfaces.
- I. Nonwelded Connections: Connect members with concealed mechanical fasteners and fittings. Fabricate members and fittings to produce flush, smooth, rigid, hairline joints.
 - 1. Fabricate splice joints for field connection using an epoxy structural adhesive if this is manufacturer's standard splicing method.
- J. Form Changes in Direction as Follows:

- As detailed.
- 2. By bending or by inserting prefabricated elbow fittings.
- 3. By flush bends or by inserting prefabricated flush-elbow fittings.
- K. For changes in direction made by bending, use jigs to produce uniform curvature for each repetitive configuration required. Maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.
- L. Close exposed ends of railing members with prefabricated end fittings.
- M. Provide wall returns at ends of wall-mounted handrails unless otherwise indicated. Close ends of returns unless clearance between end of rail and wall is 1/4 inch or less.
- N. Brackets, Flanges, Fittings, and Anchors: Provide wall brackets, flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.
 - At brackets and fittings fastened to plaster or gypsum board partitions, provide crush-resistant fillers or other means to transfer loads through wall finishes to structural supports and prevent bracket or fitting rotation and crushing of substrate.
- O. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work. Fabricate anchorage devices capable of withstanding loads imposed by railings. Coordinate anchorage devices with supporting structure.
- P. For railing posts set in concrete, provide stainless-steel sleeves not less than 6 inches long with inside dimensions not less than ½ inch greater than outside dimensions of post, with metal plate forming bottom closure.
- Q. Toe Boards: Where indicated, provide toe boards at railings around openings and at edge of open-sided floors and platforms. Fabricate to dimensions and details indicated.

2.07 STEEL AND IRON FINISHES

A. Galvanized Railings:

- 1. Hot-dip galvanize exterior steel railings, including hardware, after fabrication.
- 2. Comply with ASTM A 123/A 123M for hot-dip galvanized railings.
- 3. Comply with ASTM A 153/A 153M for hot-dip galvanized hardware.
- 4. Fill vent and drain holes that are exposed in the finished Work, unless indicated to remain as weep holes, by plugging with zinc solder and filing off smooth.
- B. For galvanized railings, provide hot-dip galvanized fittings, brackets, fasteners, sleeves, and other ferrous components.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Examine concrete wall surfaces to receive return anchors, to verify that locations are suitable for Installer.

3.02 INSTALLATION, GENERAL

- A. Fit exposed connections together to form tight, hairline joints.
- B. Perform cutting, drilling, and fitting required for installing railings. Set railings accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.
 - 1. Do not weld, cut, or abrade surfaces of railing components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
 - 2. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
 - 3. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.
- C. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.
 - Coat, with a heavy coat of bituminous paint, concealed surfaces of aluminum or steel that are in contact with grout, concrete, masonry, wood, or dissimilar metals.

- D. Adjust railings before anchoring to ensure matching alignment at abutting joints.
- E. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.

3.03 RAILING CONNECTIONS

- A. Nonwelded Connections: Use mechanical or adhesive joints for permanently connecting railing components. Seal recessed holes of exposed locking screws using plastic cement filler colored to match finish of railings.
- B. Welded Connections: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in "Fabrication" Article whether welding is performed in the shop or in the field.
- C. Expansion Joints: Install expansion joints at locations indicated but not farther apart than required to accommodate thermal movement. Provide slip-joint internal sleeve extending 2 inches beyond joint on either side, fasten internal sleeve securely to one side, and locate joint within 6 inches of post.

3.04 ANCHORING POSTS

A. Leave anchorage joint exposed with 1/8 inch buildup, sloped away from post.

3.05 ATTACHING RAILINGS

- A. Attach railings to wall with external anchors or internal anchoring connections. Locate brackets as indicated or, if not indicated, at spacing required to support structural loads.
- B. Secure railing return fittings/flanges to existing construction as follows:
 - For concrete and solid masonry anchorage, use drilled-in expansion shield and hanger or lag bolts

3.06 ADJUSTING AND CLEANING

- A. Clean by washing thoroughly with clean water and soap and rinsing with clean water.
- B. Touchup Painting: Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material as used for shop painting to comply with SSPC-PA 1 requirements for touching up shop-painted surface.
 - 1. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.
- C. Galvanized Surfaces: Clean field welds, bolted connections, and abraded areas, and repair galvanizing to comply with ASTM A 780/A 780M.

3.07 PROTECTION

A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.

END OF METAL RAILINGS

SECTION 05720 - ALUMINUM PIPE RAILING NON-WELDED PART 1 - GENERAL

1.01 WORK INCLUDED

A. Furnish and install Component type aluminum handrails, guardrails, and railing systems, including connectors, fasteners, and system required accessories.

1.02 REFERENCES

- A. Aluminum Association (AA)
 - 1. ASD-1 Aluminum Standards and Data
 - 2. DAF-45 Designation System for Aluminum Finishes
- B. American Architectural Manufacturers Association (AAMA)
 - 1. AAMA 2605-05: Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
 - 2. AAMA 2604-05: Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels.
 - AAMA 2603-02: Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels.
- C. American National Standards Institute (ANSI)
 - 1. A21 .1 Safety Requirements for Floor and Wall Openings, Railings and Toe Boards.
 - 2. A58.1 Minimum Design Loads in Buildings and Other Structures.
 - 3. Al 17.1 Accessible and Usable Buildings and Facilities.
- D. American Society for Testing and Materials (ASTM)
 - 1. B 221 Specification for Aluminum-Alloy Bars, Rods, Wires, Shapes and Tubes.
 - 2. B 429 Specification for Aluminum-Alloy Extruded Structural Pipe and Tube.
 - 3. D 1730 Recommended Practices for Preparation of Aluminum and Aluminum Alloy Surfaces for Painting.

- 4. E 894 Standard Test Methods for Anchorage of Permanent Metal Railing Systems and Rails for Buildings.
- 5. E 935 Standard Test Methods for Performance of Permanent Metal Railing Systems and Rails for Buildings.
- 6. E 985 Specification for Permanent Metal Railing Systems and Rails for Buildings.
- E. Military Specifications (MIL)
 - 1. MIL-A-46104 Aluminum Alloy Extruded Rod, Bar, and Shapes, 7001.
 - 2. MIL-P-1144 Pipe, Corrosion Resistant, Stainless Steel, Seamless.
 - 3. MIL-P-25995 Pipe, Aluminum Alloy, Drawn or Extruded.
 - 4. MIL-R-36516 Rail, Restraint.
- F. National Association of Architectural Metal Manufacturers (NAAMM)
 - 1. Metal Finishes Manual
 - 2. Pipe Railing Manual
 - 3. Stair Manual
- G. National Ornamental and Miscellaneous Metals Association (NOMMA)
 - Metal Rail Manual

1.03 PERFORMANCE REQUIREMENTS

- A. General: In engineering handrail and railing systems to withstand structural loads indicated, determine allowable design working stresses of railing materials based on the following:
 - 1. Aluminum: AA "Specifications for Aluminum Structures."
- B. Structural Performance of Handrails and Railing Systems: Engineer, fabricate, and install handrails and railing systems to withstand the following structural loads without exceeding the allowable design working stress of the materials for handrails, railing systems, anchors, and connections. Apply each load to produce the maximum stress in each of the respective components comprising handrails and railing systems.
 - 1. Toprail of Guardrail System: Capable of withstanding the following loads applied as indicated:
 - a. Uniform load of 100 pounds per lineal foot applied horizontally at right angles to the toprail.

- 2. Infill Area of Guardrail Systems: Capable of withstanding the following loads applied as indicated:
 - a. Concentrated load of 500 pounds per square foot applied horizontally at right angles over the entire tributary area, including openings and spaces between rails.
 - b. Reactions due to the above load need not be combined with those loads on the toprail of guardrail system.
- 3. Handrails: The mounting of handrails shall be such that the completed handrail and supporting structure are capable of withstanding the following loads applied as indicated:
 - a. Concentrated load of 500 pounds applied in any direction at any point on the handrail.
 - b. These loads shall not be assumed to act cumulatively with those loads on the infill area of guardrail system.
- C. Thermal Movements: Allow for thermal movement resulting from the following maximum change (range) in ambient temperature in engineering, fabricating, and installing of joints, overstressing of components and connections, and other detrimental effects. Base engineering calculations on actual surface temperatures of materials due to both solar heat gain and nighttime sky heat loss.
 - 1. Temperature Change (Range): 120 deg. F ambient; 180 deg. F material surfaces.
- D. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1.04 SUBMITTALS (Required of Bidders other than Preapproved Manufacturer's)

- A. Submit shop drawings and product data.
- B. Indicate component details, materials, finishes, connection and joining methods, and the relationship to adjoining work.
- C. Submit manufacturer's installation instructions.
- D. Submit 6" long Samples of Aluminum Pipe Rail and Picket Railing with Coating.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to the job site in good condition and properly protected against damage to finished surfaces.
- B. Storage on site:
 - 1. Store material in a location and in a manner to avoid damage. Stacking shall be done in a way that will prevent bending.
 - 2. Store material in a clean, dry location away from uncured concrete and masonry. Cover with waterproof paper, tarpaulin, or polyethylene sheeting in a manner that will permit circulation of air inside the covering.
- C. Keep handling on site to a minimum. Exercise particular care to avoid damage to finishes of material.

<u>PART 2 - PRODUCTS</u> 2.01 ACCEPTABLE MANUFACTURER

- A. Manufacturers: Subject to compliance with requirements, provide handrails and railing systems by one of the following:
 - 1. Aluminum Railings as manufactured by:
 - a. SENCO Metals, LLC5056 Woodbridge Ave.Edison, NJ 08837Telephone No. (973) 342-1742
 - 2. Aluminum Ornamental Railing Systems:
 - a. ALUMINUM TUBE RAILINGS manufactured by ATR Technologies, Inc.
 805 Towne Center Drive Pomona, CA 91767-5901

Toll Free Phone: (800) 423-4148 Fax: (909) 399-5834

Website: www-ATR-Technologies.com Email: railings@ATR-Technologies.com

- 3. Superior Aluminum Products
 - a. Series 550 manufactured by

Superior Aluminum Products

555 E Main Street P.O. Box 430 Russia, OH 45363

Toll Free Phone: (800) 548-8656

Fax: (937) 526-3904

Website: www.superioraluminum.com

- 4. C.R. Laurence Co., Inc.
 - a. Aluminum Railing Systems with pickets 2503 E. Vernon Ave. Los Angeles, CA. 90058

Toll Free: (800) 421-6144
Toll Free Fax: (800) 587-7501

Phone: (323) 588-1281 Fax: (323) 584-5289

Website: www.crlaurence.com Email: railings@crlaurence.com

- 5. Kaufman Iron Works Inc.
 - a. 202 12th Ave
 Peterson, NJ 07501
 973-523-7323

Toll Free: (800) 442-4283 Fax: (718) 893-7168

Email: sales@kaufmaniron.com

- 6. Hansen Architectural Systems
 - a. 5500 Southeast Alexander Street Hillsboro, OR 97123

Phone: (503) 356-0959 Toll Free: (800) 499-2965

Website: www.Aluminumrailing.com Email: dan@aluminumrailing.com

- B. Requests for substitutions will be considered. Requests must be made in Writing 10 days in advance of the bid opening date. All requests for substitutions shall include Manufacture's Data, Shop Drawings, and Details of Proposed Alternate Railing.
- C. Provide all handrails, guardrails, and railing systems from a single manufacturer.

2.02 METALS

- A. General: Provide metal free from surface blemishes where exposed to view in the finished unit. Exposed-to-view surfaces exhibiting pitting, seam marks, roller marks, stains, discolorations, or other imperfections on finished units are not acceptable.
- B. Aluminum: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of the alloy and temper designated below for each aluminum form required:
 - 1. Extruded Bar and Tube: ASTM B 221, Alloys 6005-T5, 6061-T6 and 6063-T6.
 - 2. Extruded Structural Pipe and Tube: ASTM 429, Alloy 6063-T6
 - 3. Drawn Seamless Tube: ASTM B 210, 6063-T832.
 - 4. Plate and Sheet: ASTM B 209, Alloys 6061-T6 and 6063-T6.
 - 5. Die and Hand Forging: ASTM B 247, 6061-T6.
 - 6. Castings: ASTM B 26, A356-T6.

2.03 RAILING SYSTEM

- A. Material shall conform to 2.02 and be finished in accordance with 2.07.
- B. Railing system shall be permanently anchored.
- C. Top Rails, Handrails and/or Grip rails, Mid Rails and Posts
 - 1. Fabricate from 2" inch Schedule 80 aluminum pipe.
- D. Fittings and Fasteners: Same basic material and alloy as parts being joined, unless otherwise indicated. Do not use metals that will be corrosive or incompatible with materials being fastened; do not utilize cast fittings.
 - 1. Component Fittings: Machined from solid extruded 6063-T6 aluminum alloy and finished to match the pipe.
 - 2. Fasteners: Screws shall be fabricated from type 304 stainless or type 316 stainless steel.

E. Transitions

- 1. Formed with uniform radius bend within allowable tolerance of pipe size.
- 2. If required, formed with mitered, non-welded, hair-line joints.

F. Connection Splices

- 1. Internal mechanical connection splices shall be of extruded aluminum.
- G. Base Flanges, Anchors, and Inserts:
 - 1. Manufacturer's standard machined socket bases from solid aluminum stock; no castings of any type allowed (die or sand).
 - 2. Anchors and inserts as required to support work specified, in accordance with approved shop drawings.

H. Return Mounting

- Handrail returns shall be wall mounted internally fastened machined of aluminum or stainless steel and attached internally to Handrail by means of mechanical attachment.
- 2. Fasteners: Screws shall be fabricated from type 304 stainless or type316 stainless steel.

2.04 FASTENERS

- A. Fasteners for Anchoring Railings to Other Construction: Select fasteners of the type, grade, and class required to produce connections that are suitable for anchoring railing to other types of construction indicated and capable of withstanding design loadings.
 - 1. For aluminum railings, provide fasteners fabricated from type 304stainless or type 316 stainless steel.
- B. Fasteners for Interconnecting Railing Components: Use fasteners of same basic metal as the fastened metal, unless otherwise indicated. Do not use metals that are corrosive or incompatible with materials joined.

2.05 GROUT AND ANCHORING CEMENT

- A. Non-shrink, Non-metallic Grout: Premixed, factory-packaged, non-shrink, non-metallic, non-staining, non-corrosive grout. Provide grout specifically recommended by manufacturer for interior and exterior applications. Minimum 28 day compressive strength of 6,500 psi.
- B. Products: Subject to compliance with requirements, provide one of the following:
 - 1. Erosion-Resistant Anchoring Cement:
 - a. EMACO® GRIP by BASF Building Systems
 - b. QUIKRETE® Commercial Grade FastSet™ by The QUIKRETE Companies

2.06 FABRICATION

- A. Fabricate handrails and railing systems with non-welded, internal and mechanical connections to comply with manufacturer's printed requirements, project design requirements, details, dimensions, finish and member sizes, including post spacing and anchorage, but not less than the structural requirements to support loading.
 - 1. Clearly mark component units for site assembly and installation.
 - 2. Use connections that maintain structural capacity of joined members.
- B. Form all changes in rail direction by uniform radius bend within allowable tolerance of pipe size.
- C. Cut materials square and remove burrs from all exposed edges, with no chamfer.
- D. Make exposed joints butt tight and flush.
- E. Verify dimensions on site prior to shop fabrication.

2.07 FINISHES, GENERAL

- A. Comply with NAAMM "Metal Finishes Manual" for recommendations relative to applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage per manufacturer's recommendations.
- C. Appearance of Finished Work: (add notes as required)

2.08 ALUMINUM FINISH

- A. Finish designations prefixed by AA conform to the system established by the Aluminum Association for designating aluminum finishes.
- B. Pretreatment: Metal preparation and Pre-treatment must be in accordance with AAMA 2605-05 6.0. Use Chrome phosphate conversion coating, which conforms to ASTM D 1730, Type B, method 5 or 7. Railings are in a marine environment. Chrome Phosphate is required for coastal marine Applications.
 - 1. Minimum Coating Weight should be greater than 30mgs/ft2
- B. Finish shall be Alesta AR500 as Manufactured By: Axalta Coating Systems, LLC

Applied Corporate Center 50 Applied Bank Blvd Suite 300 Glen Mills, PA 19342 Telephone No. 1-855-6 AXALTA

- 1. Minimum Coating Thickness for Marine Applications is 2.5 mils. with an average of 2.8 mils.
- C. Color: Rich Black Matte FFB602S2 (AR500)
- D. Finish Warranty: Provide 10 Year Warranty on Finish Per the AAMA-2605-05 Specification

PART 3- EXECUTION 3.01 EXAMINATION

- A. Examine system components, substrate, and conditions where railing systems are to be installed.
- B. Notify Project Manager in writing of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected.

3.02 PREPARATION

- A. Prepare surrounding construction to receive railing system installations to comply with manufacturer's requirements.
- B. Review and coordinate setting drawings, shop drawings, templates, and instructions for assembly and installation of railing system and related items to be embedded in concrete and masonry. Supply items to be cast in concrete.

3.03 DISSIMILAR METALS

- A. When aluminum components come into contact with dissimilar metals, surfaces shall be kept from direct contact by painting the dissimilar metal with a heavy coat of a epoxy/polyurethane.
- B. When aluminum components come into contact with cement or lime mortar, exposed aluminum surfaces shall be separated by means of epoxy/polyurethane or other approved method to prevent electrolytic action.

3.04 INSTALLATION

- A. Install railing system and related components in accordance to shop drawings and to manufacturer's instructions.
- B. Preassemble railing system, including posts, in easy to lift sections whenever possible.
- C. Adjust, level, and securely install railing system components.
 - 1. Avoid springing assembled components of system into place.
- D. Install posts in concrete within core drilled holes.
 - 1. At each vertical post where it is to be core mounted within the nonshrink grout the post shall be pinned with three (3) 1/4" dia x 3.75" stainless steel pins to prevent vertical movement from frost action.
 - 2. After posts and pins are inserted, solidly fill the remaining space between post and side of sleeve, or hole, with nonshrink nonmetallic grout and slightly taper away from posts.
- E. Provide weep holes in all hollow sections of railing to prevent moisture and water entrapment.

3.05 CLEANING

- A. As installation is completed, wash thoroughly using plain water containing a mild soap or detergent. Aluminum with a painted finish shall be cleaned with plain water containing a mild soap or detergent.
- B. Do not use an acid solution, steel wool or other harsh abrasives.
- C. If stains remain after washing, remove paint finish and restore in accordance with NAAMM Metal Finishes Manual.

3.06 PROTECTION

A. Provide adequate protection for all surfaces of completed installations to prevent damage during remainder of construction activities.

3.07 REPAIR OF DEFECTIVE WORK

A. Remove stained or otherwise defective work and replace with material that meets specification requirements.

END OF SECTION