

REQUEST FOR TENDERS No. 21-023

GNPCC Site Wide Guard Rails and Access

ISSUED: March 4, 2021

CLOSING DATE AND TIME:

Tenders are requested to be received at the Closing Location prior to: 3:00 PM (15:00 hrs) Local Time on March 25, 2021

Regional District of Nanaimo (REGIONAL DISTRICT) Contact for Questions:

James Haddou, Project Engineer 250-758-1157 jhaddou@rdn.bc.ca

Questions are requested to be received by 4:30 p.m. local time on March 20, 2021.

Proponent's Information Meeting:

Non-mandatory site meeting is scheduled for **2:00 p.m., March 11, 2021** at the Greater Nanaimo Pollution Control Centre, 4600 Hammond Bay Road, Nanaimo, BC V9T 5A8. Attendees are required to wear standard PPE: Hard hat, high visibility vest or equivalent, safety glasses, and steel toed boots.



Project Introduction

The purpose of this Tender is to solicit submissions from qualified firms to supply and install facemounted guard rail, non-penetrating roof-mounted guard rail, caged access ladders, and access stairs at various locations within the Greater Nanaimo Pollution Control Centre (GNPCC) wastewater treatment facility. **The work must be completed by May 31, 2021** based on Notice of Award issuance on or before March 31, 2021.

Instructions to Bidders

Article 1. Closing Date/Time/Location

Bidders are requested to submit their Tender prior to the closing time of 3:00 PM (15:00 hrs), Pacific Time, March 25, 2021.

Submission Method:

By Email Only: With "21-023 GNPCC Guard Rails and Access" as the subject line at this electronic address:

jhaddou@rdn.bc.ca

The RDN will not be responsible for any technological delays. Vendors are advised to allow themselves enough time to submit their Tender according to these instructions.

Tenders received in any other manner will not be accepted. Tenders will not be opened in public. Unverified tender results will be posted the RDN and BC Bid websites as soon as practical.

ARTICLE 2. Scope of Work

The work includes:

Note that all dimensions provided below are approximate and require field verification by the contractor.

- 1. Boiler Building
 - Description: Supply and install perimeter face-mounted guard rail around the roof and canopies. Eastern canopy has piping conflicts which have been taken into consideration in the length. Supply and install one caged ladder from the boiler building roof to the eastern canopy.
 - Main roof total guard rail length: 57.02m (Separate priced item, optional adder at RDN discretion)



- Southern canopy total guard rail length: 19.15m
- Eastern canopy total guard rail length: 3.6m
- Caged ladder from main roof to eastern canopy: 1.98m tall, 0.45m wide
- Note: Caged ladder width has been assumed to be 0.45m wide. Different widths will impact roof railing length.
- Note: A camera is located at the northwest corner of the building that prevents a corner post. Post will need to be offset to avoid conflict.
- See Appendix A for reference information.
- 2. Operations Building
 - Description: Supply and install face-mounted guard rail along the east and west roof edges. Supply and install painted lines along the roof north and south edges, a minimum of 6ft offset from the edge. Supply and install caged ladder from the east side of the roof to the second floor walkway below.
 - Roof guard rail total length: 20.22m
 - Painted line total length: 34.16m
 - Caged ladder height: 4.39m
 - Note: Caged ladder width has been assumed to be 0.45m wide. Different widths will impact roof railing length.
 - See Appendix B for reference information.
- 3. Entry Canopy
 - Description: Canopy between operations building and boiler building. Demolish existing ladder, and supply and install a new step-over type ladder from operations building second floor walkway to canopy. Supply and install face-mounted guard rail along west side of canopy.
 - Guard rail length: 13.82m
 - Step-over dimensions:
 - i. Height from operations second floor walkway to top of step-over platform: 1.04m
 - ii. Width of step-over platform (inside dimension): 0.64m
 - iii. Height from step-over platform to entry canopy: 1.70m
 - iv. To have handrail-equivalent protection at top of platform
 - See Appendix C for reference information.
- 4. Dewatering Building
 - Description: Supply and install non-penetrating rooftop-mounted guard rail at southern roof edge to provide protection to workers performing maintenance on AHU unit. Supply and install a caged ladder at west side of building, south of the existing electrical room door.
 - Total guard rail Length: 6.7m



- Caged ladder height: 4.09m
- See Appendix D for reference information.
- 5. Digester 3 Electrical Building (Separate priced item, optional adder at RDN discretion)
 - Description: Supply and install non-penetrating rooftop-mounted guard rail around perimeter. Supply and install a new caged ladder on west wall.
 - Total guard rail length: 43.32m
 - Caged ladder height: 4.95m
 - Note: Caged ladder width has been assumed to be 0.45m wide. Different widths will impact roof railing length.
 - See Appendix E for reference information.
- 6. Headworks
 - Description: Supply and install cage to add to existing ladder. Ladder leads through hatch to roof cage is to end below the hatch. Supply and install face-mounted guard rail along the north end of the roof behind a blower to protect workers performing maintenance.
 - Ladder height (ground to top of cage): 4.01m
 - Existing ladder dimensions:
 - i. 16" overall width
 - ii. Rails made from 2"x3/8" flatbar, galvanized steel
 - Guard rail length: 2.44m
 - See Appendix F for reference information.
- 7. Gravity Thickeners
 - Description: Supply and install face mounted guard rail around perimeter of gravity thickener tanks. Demolish existing handrail, and supply and install four cantilever access stairs. Modify existing aluminum plate to create two access hatches. Scope per attached "Gravity Thickeners 1 & 2 Roof and Access Modifications" drawings S-701 and S-001.
 - See Appendix G for scope details and reference information.

See Appendix H for metals specification, and standard details of:

- Face-mount guard rails
- Standard ladder
- Caged ladder

Please note that ladder support is the responsibility of the contractor. Not all ladder locations have walls available for support.

Non-penetrating roof-mounted guard rail shall be suitable for long term outdoor use.



All guard rails and caged ladders shall comply with applicable safety regulations, standards, and guidelines for permanent installations including WorksafeBC, CSA, Building Codes, and ANSI.

Contractor's responsibilities:

- a) Contractor is responsible to meet standard details and specification provided in Appendix H.
- b) Contractor is responsible to provide complete design of all components, certified by a Professional Engineer registered in British Columbia.
- c) Contractor is to provide certified shop drawings for RDN review.
- d) Verify all dimensions prior to procurement and installation. Dimensions, lengths, and elevations provided are approximate. Verify any potential obstructions or conflicts prior to procurement and installation.
- e) Any and all required permits, notifications, and work plans will be the responsibility of the successful contractor unless noted otherwise.
- f) Contractor will need to make their own provisions for power, water and washrooms if required.
- g) Completion of all work by May 31, 2021.

ARTICLE 3. Site Visit

Non-mandatory site meeting is scheduled for **2:00 p.m., March 11, 2021** at the Greater Nanaimo Pollution Control Centre, 4600 Hammond Bay Road, Nanaimo, BC V9T 5A8. It is the responsibility of the potential contractors to be familiar with the site to determine the existing conditions, layouts and limitations and ask any questions. In submitting a tender, the contractor confirms that he/she has viewed the site and the tender includes any equipment, materials and labour necessary for this project. The contractor will rely entirely upon his/her own judgment in submitting a tender and include a sum sufficient to cover all items required for the contract.

ARTICLE 4. Examine Documents and Site

The Tenderer must carefully examine the Contract Documents and the site of the proposed works, judging for and satisfying himself as to the probable conditions to be encountered. Should a Tenderer find discrepancies in, or omissions from the drawings or other documents, or should he be in doubt as to their meaning, he should, prior to submitting his tender, notify the REGIONAL DISTRICT in writing. The Tenderer may not claim, after the submission of a tender, that there was any misunderstanding with respect to the conditions imposed by the documents. No verbal agreement or conversation made or had at any time with any officer, agency or employee of the Owner shall affect or modify any of the terms or obligations herein stated, or, deemed to be any representation of warranty.

Article 5. Addenda

If the REGIONAL DISTRICT determines that an amendment is required to this TENDER, the REGIONAL DISTRICT will post an addendum on the RDN (<u>https://www.rdn.bc.ca/current-bid-opportunities</u>) and BC Bid websites. Each addendum will be incorporated into and become part of the TENDER. No amendment of any kind to the TENDER is effective unless it is contained in a written addendum issued by the REGIONAL DISTRICT. It is the sole responsibility of the Proponent to check and ensure all addendums are included prior to submitting their final Tender submission.

ARTICLE 6. Tender Price



All pricing is to be in Canadian Dollars. Prices shall be filled in where indicated on the Tender Form. In the event of a price extension discrepancy when calculating the total contract value, the REGIONAL DISTRICT reserves the right to correct the totals.

ARTICLE 7. Federal and Provincial Sales Taxes

Prices shall include provincial sales tax payable on all applicable materials and equipment incorporated in the work. GST is not to be included in the price. GST shall be shown separately on the Tender Form based on the total contract value.

ARTICLE 8. Tender Signing

The tender must be executed by an authorized signatory in a position to legally bind their Company to the information contained in the Tender Form.

ARTICLE 9. Revisions to Tenders

Any revision to the tender by the Tenderer must be in writing properly executed and received prior to the posted closing date and time as per the submission instructions outlined in Article 1.

Multiple Revisions

Where a Tenderer submits multiple revisions to the original tender price, each revision should be numbered sequentially by the Tenderer. Unless the Tenderer clearly stipulates to the contrary on the face of the revision, each successive revision will nullify and replace any previous revision to the identified item or tender price.

Unclear or Ambiguous Revisions

If in the opinion of the REGIONAL DISTRICT, any revision is unclear, ambiguous as to meaning or intent, or does not comply with the requirements of this article, that revision will be disregarded and the original tender price, or the tender price determined by consideration of any other revisions will prevail. The REGIONAL DISTRICT, its employees and agents will not assume any responsibility for timely receipt of any revisions.

ARTICLE 10. Tender Withdrawal

A Tenderer may, without prejudice to himself, withdraw his tender on written request received prior to the posted closing date and time as per the submission instructions outlined in Article 1.

ARTICLE 11. Tender Rejection

.1 The REGIONAL DISTRICT reserves the right to reject any or all tenders, or, accept other than the lowest tender and to accept the tender which it deems most advantageous.

.2 The REGIONAL DISTRICT may reject a tender if:

- a) After investigation and consideration, the REGIONAL DISTRICT concludes that the Tenderer is not qualified to do the work and/or cannot do the work and perform the Contract in a manner satisfactory to the REGIONAL DISTRICT.
- b) A tender contains qualifying conditions or otherwise fails to conform to these Instructions to Tenderers.



- c) A tender is incomplete, is considered incomplete in the Instructions to Tenderers, is obscure or irregular, which has erasures or corrections in the Tender Form, in which prices are omitted or are unbalanced, or which has an insufficient or irregular surety.
- d) The REGIONAL DISTRICT may, in its absolute discretion, reject a Tender submitted by Tenderer if the Tenderer, or any officer or director of the Tenderer is or has been engaged either directly or indirectly through another corporation in a legal action against the REGIONAL DISTRICT, its elected or appointed officers and employees in relation to:
 - any other contract for works or services; or
 - any matter arising from the REGIONAL DISTRICT's exercise of its powers, duties, or functions under the Local Government Act or another enactment within five years of the date of this Call for Tenders.

In determining whether to reject a tender under this clause, the REGIONAL DISTRICT will consider whether the litigation is likely to affect the Tenderer's ability to work with the REGIONAL DISTRICT, its consultants and representatives and whether the REGIONAL DISTRICT's experience with the Tenderer indicates that the REGIONAL DISTRICT is likely to incur increased staff and legal costs in the administration of this contract if it is awarded to the Tenderer.

- .3 The REGIONAL DISTRICT may reject all tenders if for any reason the REGIONAL DISTRICT considers to be in its best interest to do so, including without limitation for any of the following reasons;
 - a) the lowest tender that the REGIONAL DISTRICT considers otherwise acceptable is higher than the funds budgeted or otherwise available for the project;
 - b) the REGIONAL DISTRICT decides not to proceed with the project or to defer the project;
 - c) the REGIONAL DISTRICT is delayed in obtaining, or is unable to obtain, all approvals or consents it considers necessary, whether required by law or otherwise.
- .4 The REGIONAL DISTRICT reserves the right to consider and to reject any tender or all tenders without notice to a Tenderer or Tenderers and without permitting a Tenderer to provide additional information.
- .5 In no event will the REGIONAL DISTRICT be responsible for a Tenderer's costs of preparing or submitting a tender.

ARTICLE 12. Award

Awards shall be made on tenders that will give the greatest value based on quality, service, and price. The Owner will, following receipt of an acceptable tender, issue in writing a Notice of Award to the successful Tenderer.

ARTICLE 13. Form of Agreement

The Agreement and General Conditions of the contract are enclosed at the end of this document. Proponents should carefully review this form of Contract. Proponents may (but are not required to) request that RDN consider revisions to the form of Contract, including the scope of Services. Proponents should submit such requests to the RDN well before the Closing Date and Time. If the RDN agrees to a request received prior to the Time, then RDN will issue an Addendum to modify the Contract. Failure to do so means acceptance of the agreement as presented.



ARTICLE 14. No Claim for Compensation

Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderer shall have any claim for any compensation of any kind whatsoever, as a result of participating in the tender, and by submitting a bid each Tenderer shall be deemed to have agreed that it has no claim.

ARTICLE 15. Solicitation of Board Members

"If a member of the Board, or a person who was a member of the Board in the previous six months has a direct or indirect interest in the contract, then the Tenderer shall report this to the REGIONAL DISTRICT in accordance with Section 107 of the *Community Charter* upon being notified of the award of the contract.

The Tenderer warrants and represents that it has not received any information or a record from any Board member or former Board member contrary to Section 108 of the *Community Charter.*" The successful Tenderer will be required to direct all communications related to their contract through the staff members responsible for the project.

ARTICLE 16. WorkSafe BC Prime Contractor

The successful Tenderer is designated as the Prime Contractor and shall fulfill the Prime Contractor responsibilities as defined in:

- a) WorkSafeBC *Occupational Health and Safety Regulation,* Notice of project, Section 20.2, and Coordination of multiple employer workplaces, Section 20.3;
- b) *Workers Compensation Act* (BC), Coordination at multiple-employer workplaces, Section 118, Subsections (1) & (2); and
- c) General Requirements, Section 3.10 WorkSafe BC.

The Prime Contractor will be required to coordinate the safety of all workers on the work site, including their employees, their subcontractors, REGIONAL DISTRICT work crews and their contractors, and private utilities, (such as BC Hydro, Telus, Shaw and FortisBC).

Prior to commencing work, the successful Tenderer will be required to provide the REGIONAL DISTRICT with its latest WorkSafeBC Clearance Letter demonstrating it is a member in good standing and its remittance is up to date. Otherwise, no work can commence until the Tenderer is either reinstated in good standing or if the REGIONAL DISTRICT decides to cancel the agreement because this would result in an unacceptable time delay.

ARTICLE 17. Freedom of Information and Protection of Privacy Act

All documents submitted to the REGIONAL DISTRICT will be held in confidence by the REGIONAL DISTRICT, subject to the provisions of the Province of British Columbia's *Freedom of Information and Protection of Privacy Act.*

ARTICLE 18. HOURS OF WORK

Tenderer is advised that no work will be permitted outside the hours defined below:



Before 7:00 a.m. or after 6:00 p.m., Monday to Friday. Work on weekends and holidays with permission from RDN only.

ARTICLE 19. CONFLICT OF INTEREST

The Bidder declares that it has no financial interest, directly or indirectly in the business of any third party that would be or be seen to be a conflict of interest in carrying out the services. It warrants that neither it nor any of its officers or directors, or any employee with authority to bind the Bidder, has any financial or personal relationship or affiliation with any elected official or employee of the REGIONAL DISTRICT or their immediate families which might in any way be seen to create a conflict.

ARTICLE 20. COLLUSION

The Bidder shall not engage in collusion of any sort and shall ensure that no person or other legal entity, other than the Bidder has an interest in the Bidder's submission and prepare the submission without any knowledge of, comparison of figures with, or arrangement with any other person or firm preparing a Submission for the same work.



TENDER FORM GNPCC Site Wide Guard Rails and Access Page 1 of 2

Date:	
Company Name:	
Address:	
T 1 1	
lelephone:	_ Email:
To: James Haddou, Project Engineer	

jhaddou@rdn.bc.ca

Having examined the Project site, and having carefully examined all of the tender documents including any addenda issued as supplements thereto, and having examined the site and complied with Instructions to Bidders, we hereby offer to perform the Work set forth in the aforesaid documents for the Stipulated Contract Price. Prices include the Contractor's labour, material, equipment, material costs, overhead and profit, all taxes, and duties, and shall represent the cost to the Owner of such charges excluding GST which shall be shown separately.

Item 1 – Boiler Building	\$	
Item 2 – Operations Building	\$	
Item 3 – Entry Canopy	\$	
Item 4 – Dewatering Building	\$	
Item 6 – Headworks	\$	
Item 7 – Gravity Thickeners	\$	
Separate Priced Items (optional adder at RDN discretion)		
Boiler Building Main Roof Guard Rail Length 5	57.02m <u>\$</u>	
Item 5 – Digester 3 Electrical Building	\$	
Lump Sum Total \$		
GST (5%) \$		
Total Stipulated Contract Price \$		

Lump Sum Breakdown



TENDER FORM GNPCC Site Wide Guard Rails and Access Page 2 of 2

ACCEPTANCE

- .1 The tender is open to acceptance for a period of sixty (60) calendar days from the date of bid closing.
- .2 Submission of this Bid implies acceptance of the existing conditions at the site.
- .3 We understand that the lowest or any Bid will not necessarily be accepted. The Owner may also elect not to proceed with the Project.
- .4 The Owner reserves the right to waive minor defects or irregularities in the bid.
- .5 We agree to be designated as the Prime Contractor for this project per WorkSafe BC OH&S Regulations and have the necessary qualifications and are willing to accept the responsibilities as Prime Contractor for the project.

Company:

Signature:

(Authorized Officer)

Printed:

(Authorized Officer)



Appendix A Boiler Building Scope Documents













Appendix B Operations Building Scope Documents













Appendix C Entry Canopy Scope Documents



LENGTH OF HANDRAIL SECTION : 45-4"



Demolish existing ladder. New stepover ladder with hand rails on top platform.

Demolish existing ladder. New stepover ladder with hand rails on top platform.



Boiler building southern canopy

E

a.95

Hand rail exterior mounted to concrete



Appendix D Dewatering Building Scope Documents









Appendix E Digester 3 Electrical Building Scope Documents
















Appendix F Headworks Scope Documents









Appendix G Gravity Thickener Scope Documents





NOI









FACE MOUNT ALUMINUM GUARDRAIL DETAILS 2 STD

NTS



INTERMEDIATE SUPPORT DETAIL

NTS



RICT OF NANIMO PREPARED BY: LUTION CONTROL CENTRE LUTION CONTROL CENTRE ATMENT UPGRADE ATMENT UPGRADE CKENERS 1 & 2 Simodifications	BURNABY, B.C., V5A 4R4	DEIAILS - SHEEI 1 604-444-6400 KeV REV
VERIFY SCALE IF PLAN SHEET IS	NT REVIEW	DESCRIPTION
	GG SZ 2015/11/23	DRN CHK DATE (Y/M/D)





Time: 15:04 Pots: 2007/67 Pots: 2007/67 Pots: 2007/67 Pots: 2007/67 Pots: 2015/22-2017 Xrets: QHX522-2017

			VERIEY SCALES			PROJECT No.	982819-215				
3	2009/JAN	G.D.R. S.L. RECORD DRAWING	VENITY SCALES	THE INFORMATION CONTAINED ON THIS DRAWING,		SCALE	AS SHOWN		REGIONAL DISTRICT OF	GREATER NANAIWO	
2	2007/06/0	1 G.D.R. Y.K. ISSUED FOR CONSTRUCTION	BAR IS 20mm ON	ASSOCIATED ENGINEERING (B.C.) LTD.		DRAWN	F ATKINSON			PCC	
1	2006/12/1	1 G.D.R. F.A. ADDENDUM No. 1	ORIGINAL DRAWING	ORIGINATED FROM SOURCES OTHER THAN THE DESIGN PROFESSIONAL AND		DECIONED			- NANAIMO		
0	2006/11/30	0 G.D.R F.A. ISSUED FOR TENDER		ASSOCIATED ENGINEERING (B.C.) LTD.,	Associated	DESIGNED	G. DE RIDDER		_	GRAVITY THICKENERS	
NO.	DATE	ENG. BY SUBJECT	0 20mm	DOES NOT WARRANT OR REPRESENT THAT SUCH INFORMATION IS ACCURATE OR REPRESENTS THE	Engineering	CHECKED	M. BROOK		STRUCTURAL	DRAWING NUMBER REV	NO SHEFT
			IF NOT 20mm ON	ORIGINAL DESIGN AS CONTAINED IN THE	Engineering	APPROVED	L. PICKARD		STAIRS DETAILS	Browning Hombert Ret.	
		REVISIONS	SCALES ACCORDINGLY	CONTRACT DOCUMENTS.		DATE		INITIAL	1	GN-17-3707 3	3

GN-S-THK-011



DATE

Time: Date: Plot

REVISIONS

DNAL DISTRICT OF	GREATER NANAIMO PCC GRAVITY THICKENERS						
RAL	DRAWING NUMBER	REV. NO.	SHEET				
WALKWAY & STAIRS DETAILS	GN-17-3708	3					

ACCESS

INITIAL







Time: Date: Plot

ISTING BIOFILTER BUILDING. PROXIMATE LEVEL	1			
GREATER NANAIMO PCC GRAVITY THICKENERS				
DRAWING NUMBER	REV. NO.	SHEET		
	GREATER NANAIM PCC GRAVITY THICKEN DRAWING NUMBER CN 17 2207	GREATER NANAIMO PCC GRAVITY THICKENERS DRAWING NUMBER REV. NO.		

T/O SLAB EL. 28.672 Ż .

400MIN. GRANULAR FILL, TYPE 2, ON GEOTEXTILE CLOTH, SUFFICIENTLY COMPACTED TO PROVIDE FIRM WORKABLE SURFACE (TYP), ON NATURAL SOFT GROUND (PEAT)

T/O WALL EL. 29.672

INITIAL

EXISTG. GRADE EL. 24.800

NEW GRADE EL. 27.000

NOTES:

- * PRELIMINARY DIMENSIONS, PENDING TENDER DETAILS
- REFER TO P.MECH DWG'S FOR PIPING & ENCASEMENT LAYOUT BELOW STRUCTURE.
- 2. PHASE-2: . PHASE-2: 100 THICK CAST w/ "STRUCTURAL CONCRETE" FINISHED SMOOTH TO SUIT TOLERANCE REQUIREMENTS FROM SCRAPER EQUIPMENT. WATER PRESSURE JETTING IS ACCEPTABLE TO CLEAN PHASE-1 REBAR.

LEGEND:

- (A) CEMENTITUOUS WATERPROOFING, ONE COAT. SEE SPECIFICATIONS.
- B ELASTOMERIC WATERPROOFING ON SLOPING 1:100 SCREED.





Appendix H Standard Details

riot ine bate vieuce: Martin 2010 im Bilanne: P. 2012 Filanne: P. 2012 states and anter Sono and Ann an orbital states on an an

tted By: panesari t File Date Created: Mar/14/2017 5:06 PM ont-Sheet Nome' S one

1. GENERAL

1.1 Summary

- .1 This section covers metal fabrication required for this Work and includes, but is not necessarily limited to:
 - .1 Steel framing for wall openings and closures.
 - .2 Handrails, guardrails and posts.
 - .3 Covers, grating, platforms, stairs and landings, all supports and anchors.
 - .4 Base and cap plates.
 - .5 Miscellaneous angle framing.
 - .6 Pipe bollards.
 - .7 Stairs, ladder and safety cage.
 - .8 Accessories, including all embedded plates.

1.2 Related Sections

- .1 Section 03300 Cast-in-Place Concrete
- .2 Section 05120 Structural Steel
- .3 Section 05501 Anchor Bolts
- .4 Section 09911 Painting
- .5 Section 11900 Field Applied Protective and Maintenance Coatings

1.3 Standards

- .1 Project Co will comply with the standards set out in this Section.
 - .1 ASTM A193 Specification for Alloy-Steel and Stainless Steel Bolting Material for High-Temperature Service.
 - .2 ASTM A240 Chromium and Chromium-Nickel Stainless Steel Plate, Sheet and Strip for Pressure Vessels and for General Applications.
 - .3 ASTM A276 Stainless Steel Bars and Shapes.
 - .4 ASTM A325 High Strength Bolts for Structural Steel Joints Including Suitable Nuts and Plain Hardened Washers.
 - .5 ASTM F593 Stainless Steel Bolts, Screws and Studs.

- .6 ASTM A449 Specification for Quenched and Tempered Steel Bolts and Studs.
- .7 CISC/CPMA 1-73a Structural Steel One-Coat Paint.
- .8 CISC/CPMA 2-75 Structural Steel Primer.
- .9 CAN/CGSB-1.40 Primer, Structural Steel, Oil Alkyd Type.
- .10 CGSB 1-GP-171M Coating Inorganic Zinc.
- .11 SSPC SP2 Hand Tool Cleaning.
- .12 SSPC SP6 Commercial Blast Cleaning.
- .13 SSPC SP7 Brush-Off Blast Cleaning.

1.4 Quality Assurance

- .1 Qualifications
 - .1 Structural steel fabricator to be certified as a Division 2 company under CSA-W47.1, "Certification of Companies for Fusion Welding of Steel Structures", or CSA Standard W55.3, "Resistance Welding Qualification Code for Fabricators of Structural Members", or both, as applicable. Aluminium fabricator to be certified under CSA-W47.2.
 - .2 Welding of steel is to be as per CSA-W59. Welding of aluminium is to be as per CSA-W59.2.

1.5 Submittals

- .1 Shop drawings
 - .1 Show all shop and erection details including cuts, copes, connections, holes, threaded fasteners, rivets and welds.
 - .2 Show all welds, both shop and field, by the currently recommended symbols of the Canadian Welding Bureau.
 - .3 Prepare shop drawings of all connections and components designed by the fabricator under the qualified professional responsible for this design.
 - .4 Submit shop drawings for all fall arrest anchors, including area/roof location plans and manufacturer details.
 - .5 Indicate any necessary welding using CISC Standard Welding Symbols. Clearly indicate net weld lengths.
- .2 Submit proof of certification to CSA reference standards.
- .3 Indicate the weight of each hatch or cover.

2. **PRODUCTS**

2.1 Materials

- .1 Wide flange sections to meet CAN/CSA-G40.20/G40.21-350W.
- .2 Column base and cap plates, beam and plates, ledger angles and miscellaneous steel to meet CAN/CSA-G40.20/G40.21-300W.
- .3 Tube columns to CAN/CSA-G40.20/G40.21-350W.
- .4 Anchors for ledger angles, steel bars as detailed conforming to ASTM A36.
- .5 Welding materials as per CSA-W59 and CSA-W59.2.
- .6 Aluminium: Alloy 6063-T6, 6351-T6 and 6061-T6.
- .7 Galvanizing: Conform to CAN/CSA-G164.
- .8 Stainless steel: Type 316 meeting ASTM A276 for bars and shapes and ASTM A240 for plates.
- .9 High tensile bolts, nuts and washers as per ASTM A325. Nut dimensions as per ASA B182 for heavy semi-finished hexagon nuts. Nuts for galvanized bolts to be A563 Grade DH or A194 Grade 2H.
- .10 Anchor bolts: Conform to Section 05501.
- .11 For fastenings in stainless steel and aluminum, use stainless steel Type 316 per ASTM A193 or ASTM F593.
- .12 All fasteners submerged in water or sewage: Stainless steel Type 316 per ASTM A193 or ASTM F593.
- .13 Shop studs to be Nelson headed type anchors with fluxed ends.
- .14 Rust pitted steel not permitted.

2.2 Configuration, Components, and Features

- .1 Corrosion protection
 - .1 Coatings: conform to Section 09911 Painting and 11900 Field Applied Protective and Maintenance Coatings.
 - .2 Use stainless steel, aluminium or galvanized steel as required by the Design.
 - .3 All aluminum ladders, handrails and posts to be given an anodic oxide treatment, in accordance with Aluminum Association AA-M12 C22 A41 Specification (clear anodized).

- .2 Aluminium handrailing
 - .1 Type A general purpose
 - .1 Provide aluminum utility railings to WCB requirements for guards and guardrails, mechanically fastened and coupled with posts as per the Standard Details. Limit maximum weight of removable handrail sections to 25 kg.
 - .2 Type B exit stairs and public areas
 - .1 Provide aluminum railings to NBC requirement mechanically fastened and coupled with posts as per the Standard Details with toe boards as required by WCB. Rail spacing to conform to NBC Clause 3.4.6.5. Rails, posts and anchorages to be fabricated to safely support NBC loads in accordance with Clause 4.1.5.15.
 - .3 Materials
 - .1 Posts aluminum tubing alloy 6061-T6.
 - .2 Top rails aluminum pipe; 6063-T5 alloy 40 mm outside diameter (minimum).
 - .3 Centre rails aluminum pipe; 6063-T5 alloy 40 mm outside diameter (minimum).
 - .4 Join rails with splicing sleeves and seal, without gaps or rough edges.
 - .1 Set flanges over junctions of rail components and floor/wall surfaces.
 - .2 Installation to be secure, level, vertical, with all posts evenly spaced.
 - .3 Tighten all fasteners to ensure completed railing is rigid and completely free of play.
 - .4 Paint all aluminum surfaces in contact with concrete or masonry with two coats of alkali-resistant bituminous paint.
 - .5 Use stainless steel fixings for all connections and anchors.
 - .5 Circular pipe handrailing, aluminum, of welded construction to CAN3-S157 as required for the Final Design.
 - .6 Aluminum to be clear anodized prior to fabrication.
 - .7 Smooth all shop welds and treat with coating to match anodized material, as recommended by the manufacturer, for the intended use.
 - .8 Provide movement joints in rails over all structural expansion joints. Joints to allow for 20 mm movement minimum. Maximum spacing between expansion joints to be 6000 mm. Match expansion joints over concrete expansion joints.
 - .9 All field assembly to be limited to mechanical fastenings and field welds.
 - .10 Bend, couple or weld rails at corners, returns or other directional changes.

MISCELLANEOUS METALS

- .3 Aluminium Grating
 - .1 Install standard serrated aluminium grating with thickness as shown on the contract documents.
 - .2 All grating spans should follow the Aluminum grating span tables in the structural standard drawings or as shown on the drawings.
 - .3 All grating to be removable and have a maximum weight of 25 kg.
 - .4 All edges to be banded.
 - .5 Openings for valves and stems banded with clearance of not less than 25 mm left round.
 - .6 Obtain grating dimensions at the site before fabricating.
- .4 Aluminium Checkerplate
 - .1 Covers and frames: checkerplate, raised diamond pattern, framed Alloy 6351-T6. Construct the frames with aluminium structural angles or channels, mitred at the corners, complete with anchor lugs and flat surround. Fit covers with lifting handles. S.S. Type 316 ELC.
 - .2 Design tread plates for loads and limitation of deflection as specified for aluminium grating.
 - .3 Minimum thickness 10 mm not including raised diamond lugs.
 - .4 Gaskets: 3 mm thick EPDM gasket between frame and cover where specified for gas tight.
- .5 Aluminium access ladders and stairs
 - .1 Aluminium access ladders and rungs welded construction to CAN3-S157, Alloy 6351-T6.
 - .2 Finish to be clear anodized.
 - .3 Stair treads: DB aluminium serrated stair treads.
- .6 All other miscellaneous
 - .1 All other miscellaneous items as required by the Final Design are to be stainless steel.
- .7 Stainless steel checkerplate
 - .1 Frames and covers: stainless steel Type 316.
 - .2 Frames: structural (steel) sections with mitred corners, anchor lugs and flat surround.
 - .3 Covers: raised, frame diamond pattern checkerplate with frame and with lifting handles of stainless steel Type 316.

MISCELLANEOUS METALS

- .4 Gaskets: 3 mm thick EPDM gasket between frame and cover where specified for gas tight.
- .8 Safety chains
 - .1 Removable 5 mm proof chain 13 mm x 29 mm c/c oval shaped stainless steel Type 316 links, snaphooks and eye.
- .9 Lifting eyes
 - .1 Provide lifting eyes as required for installation.
 - .2 Type 316 stainless steel.
- .10 Aluminum stairs
 - .1 Fabricate stairs with aluminum serrated tread grating and closed risers.
 - .2 Secure treads to stringers with stainless steel bolted connections.
 - .3 Form stringers with C250 x 23 galvanized steel channels. Weld fascia plates of minimum 5 mm thick across channel toes. Grind all welds smooth and slightly radiused.
 - .4 Form grating landings same as treads. Reinforce underside of landings with galvanized steel angles.
- .11 Bollards
 - .1 Provide bollards as required by the Design.

2.3 Assembly / Fabrication

- .1 Fabrication
 - .1 Fabricate in strict accordance with the Drawings and Specifications and the standards listed herein.
 - .2 Do not cut or provide holes except as set out in the Design.
 - .3 Provide shop and field connections as required for the Design, as specified herein or, in absence of any indication, conform to CSA-S16.1, "Limit States Design of Steel Structures" and CSA-S157 "Strength Design in Aluminum".
 - .4 Make design connections adequate to carry reactions required for the Final Design. No drilling in beam flanges permitted.
 - .5 All bolted connections to be "friction type" connections.
 - .6 Perform steel welding in accordance with CSA-W59.
 - .7 Perform aluminium welding in accordance with CSA-W59.2.
MISCELLANEOUS METALS

- .8 Shop installed shear studs to be installed in strict conformance with requirements of CSA-W59.
- .9 Tolerances of all miscellaneous metal to be maintained strictly in accordance with CAN/CSA-S16.1.
- .10 Stainless Steel Passivation: Stainless steel to be cleaned, de-scaled, and passivated after fabrication in accordance with ASTM A380. Passivation to remove iron compounds from surface of the stainless steel.
- .11 Provide stamp on the top of hatches and covers listing the weight (in kilograms) of the hatch or cover.

3. EXECUTION

3.1 Erection

- .1 Erect true and plumb. Use temporary bracing where necessary to take care of all loads to which the structure may be subject, including erection equipment and operation of same. Leave such bracing in place as long as required for safety.
- .2 Use bolts for field connections except where welded field connections called for in the Design.
- .3 Tolerance of all miscellaneous metal to be maintained strictly in accordance with CAN/CSA-S16.1.

3.2 Field Quality Control

- .1 Inspection and Testing
 - .1 Materials and workmanship are to be subject to inspection and testing by an inspection and testing firm certified in accordance with CSA-W178.1. Provide access for inspection to all places where work is being done or stockpiled prior to shipment.
 - .2 Inspection and testing firm to inspect all bolts for all high-strength bolted connections.
 - .3 Inspection and testing firm to inspect and verify one coat paint, primer, zinc coat and galvanizing thickness.
 - .4 Submit a final report to the Engineer certifying all welds and connections, including confirmation that required repairs have been completed. This report is to be reviewed and certified by the Engineer of Record and submitted to GVS&DS under the seal and signature of a qualified professional.
 - .5 Notify the Engineer a minimum of 48 hours prior to commencement of shop work for all testing and inspection.

3.3 Finishes

.1 In accordance with Sections 09911 and 11900.

MISCELLANEOUS METALS

- .2 All material to be cleaned by scraping, wire brushing or other effective means to remove loose mill scale, rust, oil, dirt and other foreign matter. After the material has been effectively cleaned, one coat of primer or one-coat paint if no further painting is specified is to be applied in the shop, except as follows:
 - .1 Surface of steel to be encased or in contact with concrete.
- .3 All abrasions of the primer or paint or field joints are to be cleaned and painted using the specified shop primer or paint.

3.4 Certification

.1 The Engineer of Record must provide with the As-Built Documents a signed and sealed letter certifying that all connections and components are capable of supporting the loads and forces required by the Design and that all connections and components are fabricated and installed in accordance with the Drawings and Specifications.

END OF SECTION



Appendix I Form of Contract



REGIONAL DISTRICT OF NANAIMO

CONTRACTOR SERVICES AGREEMENT

THIS AGREEMENT made the _____ day of _____, 20____.

BETWEEN:

REGIONAL DISTRICT OF NANAIMO 6300 Hammond Bay Road Nanaimo, BC V9T 6N2

(hereinafter called the "Regional District")

AND:

(hereinafter called the "Contractor")

NOW THIS AGREEMENT WITNESSETH:

THAT in consideration of the terms, conditions and covenants hereinafter set forth, the Regional District and the Contractor covenant and agree each with the other as follows:

1. Services

The Regional District retains the Contractor to provide the Services described in Schedule "A" (the "Services") and the Contractor agrees to provide the Services in a diligent manner.

2. Term

The Contractor will provide the Services during the period (hereinafter called the "Term") commencing on <<u>Start Date></u> and ending on <<u>End Date></u>, unless sooner terminated as hereinafter provided.

3. Payment

The Regional District will pay to the Contractor as full payment for the Services; the amount set out in Schedule 'B' at the times and in the manner therein set out.

4. Independent Contractor

The Contractor will always be an independent contractor and not the servant, employee, or agent of the Regional District.

5. Assignment and Sub-contracting

The Contractor will not, without the prior written consent of the Regional District, assign or subcontract this Agreement or any portion thereof.

6. Indemnity

The Contractor will indemnify and save harmless the Regional District from all losses, claims, damages, or expenses arising from or due to the negligence of the Contractor in performing the Services or the Contractor's breach of this Agreement.

7. Insurance

- a) Prior to the commencement of the Services the Contractor shall provide a certificate of general commercial liability insurance in the amount of \$5,000,000 which shall provide coverage for property damage and third-party personal injury and death. The certificate shall name the Regional District as an additional insured. The certificate of insurance shall contain a clause requiring notification of the Regional District 30 days in advance if the insurance policy is cancelled.
- b) Automobile Liability on all owned or leased vehicles in an amount not less than Two Million Dollars (\$2,000,000)
- c) Contractor is responsible for any other insurance required to protect their interests.
- d) The cost of any insurance and deductibles are the responsibility of the Contractor.

8. WCB Coverage & Prime Contractor Designation

The Contractor must be registered with WorkSafe BC and be in good standing with remittance up to date throughout the agreement and is designated as the Prime Contractor and shall fulfill the Prime Contractor responsibilities as defined in:

a) WorkSafeBC Occupational Health and Safety Regulation, Notice of Project, Section 20.2, and Coordination of multiple employer workplaces, Section 20.3;

b) Workers Compensation Act (BC), Coordination at multiple-employer workplaces, Section 118, Subsections (1) & (2); and

c) General Requirements, Section 3.10 WorkSafe BC.

9. Termination

Notwithstanding any other provision of this Agreement:

(a) If the Contractor fails to comply with any provision of this Agreement, then, and in addition to any other remedy or remedies available to the Regional District, the Regional District may, at its option, terminate this Agreement immediately by giving written notice of termination to the Contractor if there is supporting evidence of the Vendor becoming bankrupt or threatens bankruptcy, provides false declarations, documented significant deficiencies of any substantive requirements or obligations of the work, professional misconduct, violations of health and safety laws, or demonstrated abusive behavior towards the general public or RDN staff

(b) Either Party may terminate this Agreement at any time upon giving the other Party thirty (30) days' notice of such termination.

If either such option is exercised by the Regional District, the Regional District will be under no further obligation to the Contractor except to pay the Contractor such amount as the Contractor may be entitled to receive, pursuant to Schedule 'B', for services properly performed and provided to the date notice is given to the Contractor less any amounts necessary to compensate the Regional District for damages or costs incurred by the Regional District arising from the Contractor's default.

10. Prior Dealings

All prior negotiations and agreements between the parties relating to the subject matter of this Agreement are superseded by this Agreement. There are no representations, warranties, understandings, or agreements other than those expressly set forth in the Agreement or subsequently agreed to in writing, which writing shall be executed by a duly authorized officer of the party to be bound thereby.

11. Waiver

The failure of either party at any time to require the other party's performance of any obligation under this Agreement shall not affect the right to require performance of that obligation in the future. Any waiver by either party of any such breach or any such provision hereof shall not be construed as a waiver or modification of this provision itself, or a waiver or modification of any other right under this Agreement.

12. Counterparts

This Agreement may be executed in any number of counterparts, each of which will be deemed to be an original and all of which taken together will be deemed to constitute one and the same instrument. Delivery by electronic transmission in portable document format (PDF) of an executed counterpart of this Agreement is as effective as delivery of an originally executed counterpart of this Agreement.

13. Dispute Resolution

If the parties to this Agreement are unable to agree on the interpretation or application of any provision in the Agreement, or are unable to resolve any other issue relating to this Agreement, the parties agree to the following process in the order it is set out:

- a) the party initiating the process will send written notice to the other party (the "Dispute Notice"); and;
- b) the parties will promptly, diligently and in good faith, including the senior management of both parties, take all reasonable measures to negotiate an acceptable resolution to the disagreement or dispute.
- c) if the dispute is not resolved through collaborative negotiation within 30 Business Days of the dispute arising, the parties must then attempt to resolve the dispute through mediation under the rules of the Mediate BC Society and will be held in Nanaimo, BC.

14. Freedom of Information

The Contractor acknowledges and agrees that any Confidential Information disclosed by it to the RDN under this Agreement may be subject to a request for public disclosure under the Freedom of Information and Protection of Privacy Act, R.S.B.C. 1996, c.165, as amended from time to time.

15. Governing Law

This Agreement is governed by and is to be interpreted and construed in accordance with, the laws applicable in British Columbia.

16. Delay in Performance

Neither the RDN nor the Service Provider shall be deemed to be in default of this Agreement for delays in performance caused by circumstances beyond the reasonable control of the non-performing party. For purposes of this Agreement, such circumstances include, but are not limited to abnormal weather conditions, flood, earthquake, fire, pandemic, epidemic, war, riot and other civil disturbance, strike, lockout, work slowdown and other labour disturbances, sabotage, judicial restraint and inability to procure permits, licenses or authorizations from any local, provincial or federal agency for any of the supplies, materials, accesses or services required to be provided by either the RDN or the Service Provider under this Agreement. If any such circumstances occur, the non-performing party shall, as soon as possible after being prevented from performing, give written notice to the other party describing the circumstances preventing continued performance and the efforts being made to resume performance of this Agreement.

17. Amendment

This Agreement may not be modified or amended except by the written agreement of the parties.

18. Judge of Work and Materials

The REGIONAL DISTRICT shall be the final judge of all work and materials in respect of both quality and quantity and their decisions of all questions in dispute with regard thereto will be final. All materials shall be subject to inspection and test by and shall meet the approval of the REGIONAL DISTRICT.

In case any materials, equipment and supplies are defective in material or quality or otherwise not in conformity with the specifications of the contract, the REGIONAL DISTRICT shall have the right either to reject them or to require their correction. Acceptance or rejection of the materials, equipment, supplies, etc. shall be made as promptly as practicable after delivery, but failure to inspect and accept or reject supplies shall not relieve the contractor from responsibility for such supplies as are not in accordance with the specifications.

19. CSA Seal or Provincial Certificate Approval

All electrical material and equipment, and all manufacturing and assembling procedures and workmanship, shall be in accordance with the requirements of the current edition and revisions of the Canadian Electrical Code Part 1 (CSA Standard C22.1 – 2012) as adopted and amended by the Province of British Columbia (hereinafter referred to as the "Electrical Code"), as amended from time to time.

Only approved materials and equipment shall be used and where specified materials and equipment do not have current approval, as required by the Electrical Code, the Contractor shall offer approved substitutes.

Each completed assembly shall carry the approval seal either of the Inspection Department, and where alterations are required by the Department the Contractor shall make these at his own expense. The Contractor shall pay all fees and costs incurred in obtaining the required approvals.

20. Rectification of Damage and Defects

The Contractor shall rectify any loss or damage for which, in the opinion of the REGIONAL DISTRICT, the Contractor is responsible, at no charge to the REGIONAL DISTRICT and to the satisfaction of the REGIONAL DISTRICT. In the alternative, the REGIONAL DISTRICT may repair the loss or damage and the Contractor shall pay to the REGIONAL DISTRICT the costs of repairing the loss or damage forthwith upon demand from the REGIONAL DISTRICT. Where, in the opinion of the REGIONAL DISTRICT, it is not practical or desirable to repair the loss or damage, the REGIONAL DISTRICT may estimate the cost of the loss or damage and deduct such estimated amount from the amount owing to the Contractor hereunder.

21. Warranty and Guarantee

The work shall be warranted to be free of defects and shall be guaranteed by the Contractor for a period of one (1) year from the date of acceptance. On receipt of notice from the REGIONAL DISTRICT the Contractor shall promptly make all repairs arising out of defective work or any equipment or materials supplied by him.

The REGIONAL DISTRICT is hereby authorized to make such repairs if, ten (10) days after the giving of such notice to the Contract, the Contractor has failed to make or undertake with due diligence said repairs; provided, however, that in the case of an emergency, where, in the opinion of the REGIONAL DISTRICT delay would cause serious loss or damage, repairs may be made without notice being sent to the Contractor, and all expense in connection therewith shall be charged to the Contractor.

22. Statutes, Bylaws, Regulations and Permits

Unless otherwise noted, the Contractor shall take out all necessary permits and licenses required to permit the Contractor to perform its obligations under the Contract. The Contractor shall give all notices and comply with all REGIONAL DISTRICT regulations, all laws, by-laws, ordinances, rules and regulations, whether federal, provincial or municipal, relating to the business it carries on and the services provided pursuant to the Contract, including the Workers' Compensation Act and the Employment Standards Act.

23. Site Inspection

The Contractor shall make site inspections of all appropriate areas to determine their general condition and to ensure the fulfillment of the contract requirements.

24. Use of Premises

The Contractor shall abide by, and shall ensure its employees abide by, all appropriate regulations, including but not limited to regulations relating to fire, safety, parking, traffic control and health. The Contractor will ensure that all of its employees are aware of the applicable regulations.

25. Clean Up

The Contractor shall at all times conduct the work in an orderly and reasonably tidy manner and shall at suitable intervals remove any accumulation of rubbish or refuse materials. At no time shall any person employed by the Contractor or by any of his Subcontractors discard any litter or garbage on or adjacent to the site, except into a suitable container. Upon completion and before final acceptance of the work, the Contractor shall remove all rubbish, surplus, or discarded materials and equipment and shall leave the site in a clean and neat condition.

26. Change Orders

If for any reason it may become desirable during the course of the work to change the alignment, dimensions or design, or to add to or to omit portions thereof, the REGIONAL DISTRICT reserves the right to issue change orders to give effect to such changes as may, in the opinion of the REGIONAL DISTRICT be necessary or desirable.

The change may or may not result in a change in the amount of the work. If the changes do, in the opinion of the REGIONAL DISTRICT, change the amount of the work, the contract price shall be adjusted as mutually agreed between the Contractor and the REGIONAL DISTRICT.

27. Collection of Personal Information

Unless the Agreement otherwise specifies or the Regional District otherwise directs in writing, the Contractor may only collect or create Personal Information that is necessary for the performance of the Contractor's obligations, or the exercise of the Contractor's rights, under the Agreement.

Unless the Agreement otherwise specifies or the Regional District otherwise directs in writing, the Contractor must collect personal information directly from the individual the information is about.

Unless the Agreement otherwise specifies or the Regional District otherwise directs in writing, the Contractor must tell an individual from whom the Contractor collects personal information:

- a) the purpose for collecting it;
- b) the legal authority for collecting it; and
- c) the title, business address and business telephone number of the person designated by the Regional District to answer questions about the Contractor's collection of personal information.

SIGNATURES

For the Regional District of Nanaimo:

IN WITNESS WHEREOF the parties hereto have executed this Agreement as follows:

SCHEDULE "A"

SCOPE OF WORK

The Contractor shall provide the Services as outlined below:

SCHEDULE "B"

FEES & EXPENSES

Total compensation to be paid to the Contractor by the Regional District of Nanaimo shall not exceed an upset maximum of \$______. This compensation includes all expenses and GST (where applicable). If the services are completed by the Contractor at less cost, the Regional District shall be billed only for actual hours worked and actual expenses incurred.

The Contractor will be solely responsible for invoicing the REGIONAL DISTRICT ensuring to include the REGIONAL DISTRICT's Purchase Order number on all invoices to assure timely payment. All invoices are subject to prior review and approval by the REGIONAL DISTRICT and approved invoices will be paid on a net 30 days' basis unless otherwise negotiated and agreed to in writing.

If the REGIONAL DISTRICT does not approve of the services or part of them which are the subject of the invoice, the REGIONAL DISTRICT shall advise the Contractor in writing of the reasons for non-approval and the Contractor shall remedy at no additional cost to the REGIONAL DISTRICT before the REGIONAL DISTRICT shall be obliged to pay the invoice or any part of it, as the case may be.

All reference to money in this Contract shall refer to and mean lawful money of Canada.