

HRSC

HARDROCK STRUCTURAL CONSULTANTS



Statement of Qualifications

ENGI 8700 – Group 2
c/o Faculty of Engineering
Memorial University of
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About HardRock Structural Consultants

HardRock Structural Consultants was formed from a history of group cooperation since 2007. The company was formed to satisfy a demand for structural consultants for project activities in senior engineering courses.

Our group experience includes works from a variety of civil fields. Included in this list is:

- Finite Element Analysis – design and analysis of steel frames
- Construction Management and Estimating – cost estimating and project scheduling for grade school expansion
- Geotechnical – design of concrete reinforced footing and mechanically stabilized earth (MSE) walls
- Structural Design – design and analysis of reinforced concrete

HardRock's diverse and varied work experiences, paired with well developed communication and problem solving skills allows the company to successfully compete in the structural field.

Mission Statement and Core Values

HardRock Structural Consultants strives in building its client relationship by providing dependable, timely service and exceeding client expectations.

We value providing:

- Support for members by following a team approach
- A quality product produced from committed members
- Inventive solutions from creative problem solvers

Services

HardRock Structural Consultants can provide their clients with a wide variety of services ranging from preliminary design to cost estimates.

Services include:

- Structural Design and Analysis
- Finite Element Analysis
- Project Research and Development
- Cost Estimates
- Materials Engineering

Our wide range of services allows HRSC to meet any project in the structural field.

Organization

HardRock Structural Consultant's members have a wide range of skills and 3 years history of working together on a variety of projects. We believe that by applying the experience and knowledge we have obtained from working together we will be able to exceed our client's expectations and stay true to our core values.

Justin Mayo

- Analysis and Design
- Drafting

Stephanie Randell

- Analysis and Design
- Marketing and Communications

Paul Williams

- Materials Engineering
- Project Management

Darrell Young

- Cost Estimating
- Research and Development



Justin Mayo

Justin is currently fast-tracking his way through the Engineering Masters Program at Memorial University of Newfoundland. His grad studies focus on corrosion control of embedded reinforcement in concrete structures and he has acquired knowledge in design of concrete structures, concrete quality, and materials testing. He is also well skilled in drafting, project management, and structural analysis. Justin gained his experience from both private and public industries. While he has worked extensively in an office setting, analyzing, drafting, and managing a wide assortment of projects, his field experience involves inspections on upgrades of Her Majesty's penitentiary, site investigations, and cost estimates. Justin has also volunteered his time and experience in designing and testing Memorial University's entry to the Great Northern Concrete Toboggan Race (GNCTR) for the last two years.



Stephanie Randell

Stephanie is comfortable in both the office and on site and is well experienced in both. She has developed her career path around her love for structural architecture, focusing on design and analysis of steel structures, as well as, steel and concrete development and remediation inspections. She has working knowledge of an extensive number of design software programs including: S-Frame, S-Steel, Ansys, STAAD.PRO, MBS, and AutoCAD. Her work experience is mostly in analysis and design, structural inspections, and testing; further experience includes project management and cost estimating.

In addition, she is highly involved in both industry and community groups; she is the past Executive Director for the Consulting Engineers of Newfoundland and Labrador (CENL), and is an active member of Canada Green Building Council (CGBC) – Atlantic chapter, Engineers Without Borders (EWB) and St. John Ambulance (SJA) – Division 321.

Paul Williams

Paul is a highly motivated senior student in the civil engineering program. He has a strong background in the areas of project management and materials engineering. Through a variety of work experiences, he has been exposed to testing and analysis of materials in both laboratory and field settings. This experience includes acting as senior materials technician on the Trans Labrador Highway (TLH) widening project with AMEC E&E and materials technician at DOTW – Materials Engineering Department. Other experience includes project scheduling, resource/personnel management, project research, and site/safety inspections. Some examples of these involve feasibility research with C-Core, managing personnel and schedules for completing work on TLH paving, and inspecting completed work to determine job bonuses/penalties. In addition, he has developed extensive skills in numerous software including S-Frame, AutoCAD, ArcGIS, Microsoft applications, and MATLAB.

***Darrell Young***

Darrell is an international engineering student from Belize. He has focused his studies towards structural engineering by working in the fields of construction and structural design and analysis. Through work terms in both Belize and Canada, Darrell has been exposed to various structural projects including the construction of Outer Cove Bridge and the preliminary surveys and subgrade design of the Conception Bay South bypass. He is proficient in the use of structural analysis programs such as STAAD.Pro and S-Frame, as well as drafting applications such as AutoCAD and Rhino 3D modeling. Other experience includes project management, progress reporting, site inspections for residential infrastructure, and drafting. Darrell has had work terms with Technip Canada, Belize Electric Company Ltd., Fortis Properties, Kavanagh and Associates, and the Department of Transportation and Works.



Selected Project Involvement

Northern Mill Building and 25T and 5T Crane Loading (Lead Structural Design and Analysis)

Concrete Toboggan for Great Northern Toboggan Race (Development, Testing, Drafting, Finite Element Analysis)

Industrial Metal Building (Connection Detailer, Design and Analysis)

Industrial Transport Repair and Storage Facility with 2x50T Crane and 20T Crane (Structural Design and Analysis)

Vaca Hydroelectric Dam Construction (Project Manager, Inspector)

Irving Refinery – Asphalt Side with Bridge Crossing (Design, Cost Estimating)

Outer Cove Bridge Replacement (Manager, Inspector)

CBS Bypass – Preliminary Survey and Subgrade (Project Manager, Inspector)

Trans Labrador Highway (THL) – Road Widening (Materials Testing, Project Management)

Pynn's Brook Veterinary Clinic Demolition (Lead Project Management)

Concrete Rehabilitation of the Gananoque Dam (Research and Development)

Road Network Management System Implementation (Design and Analysis, Testing)

Department of Transportation and Works (Materials Technician, Road Roughness Analysis)

Trans Labrador Highway (TLH) – Paving (Asphalt Testing)

Paint Shed Expansion (Lead Design and Analysis, Project Coordinator)

Corner Brook Long-Term Care Center (Assistance Project Manager, LEED research)

Hibernia South – Subsea Lifting (Hydrodynamic Analysis)

Hibernia Oil Riser – Hydrodynamic Loading (Design and Analysis)

C-Core – Subsea Bathymetric Mapping (Design, Development)

Fort Williams Building Renovations (Health and Safety)

Kenmount Terrace Site Inspection (Site Inspections)

C-Core – Iceberg in Subarctic (Analysis, Researcher)

RNC Annex – Fire Alarm System Upgrade (Project Manager)

C-Core Project Suite – Mining Projects (Researcher)

Provincial Government Transportation Warehouse – Storm Water Drainage (Investigator, Project Manager)

Churchill Falls (Labrador) Hydro – Concrete Controls and Spillway Dam (Structural Inspection)

East Saint John Pumphouse – Firewall Design (Design, Drafting)

HMP Upgrades and Repairs (Inspector)

Kenmount Road Tower (Site Inspector, Project Coordinator)

East Saint John Pier (Design and Drafting)



Contact

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