

SCHEDULE 04 – Site Safety Orientation



Welcome to Pennecon Heavy Civil Ltd. Amherst Island Wind Project



While You Are Here In Orientation

- Washroom location
- In case of an emergency
 - Muster area
- Breaks
- Please turn off cell phones

Human Resources Employee Orientation



Work Rules

The following behaviours are considered unacceptable and subject to disciplinary action:

- Destruction of Company/Contractor property.
- Removal of Company or Contractor property without permission.
- Refusal to accept work assignments. (except if unsafe).
- Falsifying records involving personnel, absence, sickness or termination.
- Insubordination.
- Reporting to work under the influence of narcotics, intoxicants or illegal medications or use of them on Company property.
- Verbally threatening bodily harm to any individual.
- Physically assaulting any individual.
- Harassment.
- Possession of firearms or other weapons or ammunition on Company property.

Drug and Alcohol Policy Highlights

- Pennecon is committed to providing a safe, drug and alcohol-free workplace. The health and safety of our employees, as well as our clients expectations, are of utmost concern.
- Employees are prohibited from reporting to work under the influence of any non-prescribed drugs or alcohol. The use, possession, sale, manufacture or dispensation of illegal drugs is also prohibited.
- Employees who report to work under the influence or partake in illegal drug activity may be subject to disciplinary action, including termination of employment. In some cases, employees may need to be evaluated by an expert service provider to determine whether a substance abuse problem exists.
- If it is determined that the employee has a substance dependency, the employee will be required to successfully complete a rehabilitation treatment program before returning to work.

Progressive Discipline

- Pennecon has adopted a policy of Progressive Discipline to ensure that employees have the opportunity to correct any performance or behavioural problems that may arise.
- The following methods of discipline will be applied when necessary:
 - Verbal discussion/warning
 - Written reprimand
 - Suspension
 - Termination of employment
- Investigations are conducted on case by case basis.
- The level of discipline depends on the severity of the infraction and mitigating factors.

Respectful Workplace

- Pennecon is committed to building and preserving a positive working environment for all employees, one that is free from all forms of discrimination and/or harassment.
- The Company believes that all employees should be treated with dignity and respect.
- If it is determined that harassment or discrimination has occurred, appropriate action, up to and including termination of employment, will be taken against the respondent in accordance with Company policy.

Workplace Violence Prevention

- Pennecon Limited is committed to providing a workplace in which the respect and safety of the employees is paramount.
- Any work related threats or acts of violence against employees or their families, is unacceptable, and will not be tolerated.
- “Violence” includes any attempted or actual exercise by any person, including another worker, of any physical force so as to cause injury to a worker and includes any express threat of violence.

Smoking

- The Company maintains a commitment to the health and safety of its employees.
- Smoking shall be prohibited on company premises, except in designated smoking areas as determined by management at each work site.
- Employees are responsible to ensure they know the designated smoking areas in their work site.

Safety Overview



Amherst Island Wind Project

- 75 MW wind project located on Amherst Island, located in Loyalist Township, in eastern Ontario.
- 26 Siemens wind turbines.
- Temp docks
- Temp Roads
- Switching Station
- Batch Plant
- Central Staging Area

Site Specific Plans

- Amherst Island Wind Project Operation Plan
- Traffic and Construction Management Plan
- Communication Plan
- Public Safety Plan
- Site Specific Safety Plan
- Site Specific Environmental Protection Plan
- Species at Risk Training
- Renewable Energy Agreement

Occupational Health & Safety Policy

- The Pennecon Heavy Civil Ltd. Management Team is committed to undertake its business in such a way as to minimize the risks of injury or ill health to people, and damage to property or the environment.
- We believe sound Health and Safety performance is fundamental to our successful business performance.
- It is our requirement and expectation that Management, Supervisors, Employees and Subcontractors will play their part in the implementation of our Health and Safety Management Strategy.

Our Goals

The goals of the Pennecon Heavy Civil Ltd Health and Safety Management Strategy include:

- No personal injuries.
- No work related illness.
- No material damage or financial losses.
- Zero environmental impact.



Our Commitment

- We will ensure the Health & Safety Policy is known and understood by all associated with PHCL.
- We will demonstrate that nothing has higher priority than Occupational Health and Safety and employee well-being.
- We will think, plan, observe and evaluate as we proceed.
- We will recognize those individuals who proactively contribute to Health and Safety improvement.
- Continual improvement is the objective.
- We comply with all relevant Ontario Health and Safety Act and Regulations, Statutes, Codes of Practice, Industry Standards and PHCL Corporate Policies as a minimum.
- Safe workplaces, practices and systems are established.
- Risks arising from our activities are properly identified, assessed and eliminated or reduced to an acceptable level.

Our Commitment

- Full cooperation and participation is provided to The Occupational Health and Safety Committee, and/or Workplace Health and Safety Representative/designate.
- The corporate Health and Safety initiative is supported by the involvement of all employees, consultants, contractors and suppliers associated with Pennecon Heavy Civil Ltd in a culture of continuous improvement of Health and Safety performance.
- The immediate and root causes of incidents (actual and potential) are identified, addressed and communicated to prevent reoccurrence.

Guiding Principles

Pennecon Heavy Civil Ltd Management Team's guiding principles for managing work are as follows:

- All incidents are preventable.
- Ownership by senior management and on-site supervision is mandatory through direct involvement and review of OHS programs and efforts.
- Pennecon Heavy Civil Ltd Management Team has an obligation to eliminate or control known hazards and to ensure workers are competent and are supervised by competent line management.
- Safety performance requires establishing procedures and programs, conducting training, contractor and employee involvement, routine self-evaluation, and continuous improvement.

Employee Responsibilities

- Integrate Health & Safety diligence into all activities.
- Exercise all reasonable steps to protect Health & Safety of self and others.
- Immediately report all incidents, illnesses and near misses to supervision.
- Identify, assess and report hazards, as well as, take appropriate remedial steps prior to work commencing and/or continuing.
- Refuse work when faced with a situation presenting imminent danger.
- Maintain and use personal protective equipment.
- Communicate frequently with supervisor on Health & Safety issues.
- Working safely is a condition of employment.

Employee Responsibilities

Employees are expected to actively participate in:

- Job planning activities
- Safety meetings
- Inspections
- Incident and near miss investigations
- Company initiated training sessions
- Early and safe return to work programs

Employee Rules & Conditions

- Employees must conduct pre-use inspections of tools.
- Employees shall be governed by standard practices, standing instructions, directives, codes, etc. which are supplementary but do not contravene this safety management system.
- All work shall be carried out in accordance with appropriate safe work practices and supervisory direction.
- Every employee shall keep his or her work area neat, clean and orderly.
- All personnel who must operate a motor vehicle as part of their normal job must maintain a valid driver's license.
- Employees shall be subject to disciplinary action up to and including dismissal as a result of willful disregard for these rules.

Employee Rights

Right to Participate

- Pennecon Heavy Civil Ltd recognizes and supports employees' right to participate in the process of identifying and resolving workplace occupational health and safety issues.

Right to Know

- Pennecon Heavy Civil Ltd recognizes and supports employees' right to know about issues that may affect their occupational health and safety in the workplace.
- All employees will be made aware of any known hazard they may encounter and of measures in place to reduce the risk associated with that hazard.

Right to Refuse Unsafe Work

- Any worker that believes that the work that they are asked to perform could put themselves and/or co-workers in imminent danger has the right to refuse.
- It is not just your right, but your obligation to refuse unsafe work.
- The Supervisor will take immediate action to develop a method of safe guarding to ensure that safety is the number one priority.
- If the employee still feel that the condition is unsafe then they are to talk with their OH&S Committee, WH&S Representative or Designate.
- If after corrections have been made and the worker(s) still believe the condition is unsafe, then OH&S will be contacted.

**NO WORKER WILL BE DISCIPLINED
FOR USING THEIR RIGHT TO REFUSE**

Toolbox/Safety Meetings

- Safety meetings may include but are not limited to, regular weekly safety meetings, daily pre-shift toolbox talks, project specific meetings and special hazard meetings.
- A Supervisor or designated person will head the meeting.
- Topics, which are relevant to the work being performed, will be discussed.
- All accidents/incidents reported will be reviewed during the safety meetings.
- Concerns brought up by the workers will also be discussed and documented.
- Corrective actions taken from the concerns/issues that were brought forward from the previous meeting will be discussed.

Incident Reporting

- It is Pennecon Heavy Civil Ltd.'s policy that all incidents and near misses are immediately reported to all appropriate company personnel and required Government Agencies.
- All incident investigations are to be completed in a timely manner as per site reporting requirements.
- Pennecon Heavy Civil Ltd will ensure that appropriate corrective actions are taken to reduce/eliminate the likelihood of reoccurrence.
- Employees are required to participate in the investigation proceedings as appropriate and required

Incident Reporting

Incidents that must be investigated include but is not limited to:

- Personal Injury
- Property/Vehicle Damage
- Fires & Explosions
- Chemical & Pollutant Spills
- High Potential Near Misses

Health & Safety Inspections

- Pennecon Heavy Civil Ltd will ensure formal inspections will be carried out on a regular basis by a workplace team consisting of representatives from Management, Supervision, OHS Committee and the HSE Team.
- Informal workplace inspections take place on an ongoing basis to ensure compliance to company and legislative requirements.
- All deficiencies and hazards noted during inspections will be documented.
- All necessary corrective actions will be taken to mitigate any hazards identified as a result of the inspections.
- Responsible persons will date and sign off when issues have been completed.
- The issues noted during the inspections will be reviewed during the weekly safety meetings and daily toolbox talks.

Hazard Recognition, Risk Evaluation & Control

- We expect employees to ensure that all work is performed in a safe manner through:
 - Planning the work to be completed.
 - Monitoring the area and work for hazards.
 - Monitor for any unsafe acts and conditions around the workplace.
 - Tools include JSA, FLRA & POST

Job Safety Assessment

A JSA will be conducted or be reviewed:

- When a job is being undertaken for the first time and the risks are unknown.
- For non-routine jobs or new jobs where experience is limited.
- Any job that is deemed to be high risk.

Field Level Risk Assessment

FLRA's help identify the hazards and determine the corrective actions that need to be taken.

The steps to performing a Field Level Risk Assessment is:

- Select the job to be analyzed
- Break the job down into steps
- Identify the hazards and potential accidents/incidents that may occur
- Develop ways to eliminate hazards and prevent potential accidents

Observation Cards

- Employees wishing to report an unsafe or unhealthy working condition or a recommendation pertaining to safety or improving the health of the work environment may do so by:
 - Completing a POST Card
 - Reporting the issue to his/her Supervisor or Safety Representative
- Recommendations will be reviewed by the Safety Representative and/or Supervisors.
- The person(s) submitting the safety recommendation will be advised as to the action taken to remedy the condition.

Performance Observation Safety Tracking



Performance Observation Safety Tracking

WHAT DID YOU OBSERVE?

- At-Risk Behavior Unsafe Condition
 Positive Observation Near Miss

WHAT TYPE OF ACTIVITY DID YOU OBSERVE?

- | | |
|--|---|
| <input type="checkbox"/> Fall Protection | <input type="checkbox"/> Line of Fire |
| <input type="checkbox"/> Lockout/Tagout | <input type="checkbox"/> Tools |
| <input type="checkbox"/> Confined Space | <input type="checkbox"/> Housekeeping |
| <input type="checkbox"/> Cranes/Rigging | <input type="checkbox"/> Ergonomics |
| <input type="checkbox"/> HCTI | <input type="checkbox"/> Scaffolding |
| <input type="checkbox"/> Overhead Work | <input type="checkbox"/> Access/Egress |
| <input type="checkbox"/> Manual Lifting | <input type="checkbox"/> Environment |
| <input type="checkbox"/> PPE | <input type="checkbox"/> Permits |
| <input type="checkbox"/> Electrical | <input type="checkbox"/> Mobile Equipment |

Other: _____

Did a conversation take place? Yes No

Closed Out? Yes No

Description:

What did you do? (Conversation &/or Action)

Company: _____

Location/Project : _____

Name: _____

Date: _____

Choose your Trade/Craft:

- | | | |
|---|--------------------------------------|--|
| <input type="checkbox"/> Carpenter | <input type="checkbox"/> Scaffolder | <input type="checkbox"/> Labourer |
| <input type="checkbox"/> Electrician | <input type="checkbox"/> Pipefitter | <input type="checkbox"/> Sheet Metal |
| <input type="checkbox"/> Millwright | <input type="checkbox"/> Surveyor | <input type="checkbox"/> Insulator |
| <input type="checkbox"/> Painter | <input type="checkbox"/> Teamster | <input type="checkbox"/> Hydraulic Tech. |
| <input type="checkbox"/> Welder | <input type="checkbox"/> Ironworker | <input type="checkbox"/> Mason |
| <input type="checkbox"/> Operating Engineer | <input type="checkbox"/> MGMT/Office | <input type="checkbox"/> Other |

First Aid

- The appropriate number of site personnel will be trained in first aid.
- If there is a situation requiring immediate medical attention, notify Emergency Services and supervision and if qualified give first aid.
- If not qualified wait with the person until a qualified first aider/ambulance arrives at the location.
- A designated employee will wait a designated location to meet and direct the ambulance(if required) to the required location.

Fire Prevention

Fires can cause serious injury, death, and property loss. Small fires can be put out with portable extinguishers.

To prevent fires:

- Ensure that all combustibles are kept in the appropriate areas
- Keep waste in designated containers
- Never assume a fire is out. The chance of re-ignition is always high – report it

In the event of a fire:

- Shout FIRE and assess the situation.
- If trained and it is safe to do so, try and extinguish the fire; if not, wait for help to arrive.

Fire Prevention

When using a portable fire extinguisher, the following steps are to be taken:

- **P**ull the pin. Some models require you to remove a locking pin.
- **A**im low and direct the hose nozzle or cone at the base of the fire.
- **S**queeze the handle to release the contents of the extinguisher.
- **S**weep the extinguisher from side to side while moving forward.

- GHS: Globally Harmonized System
- Safety Data Sheets (SDS) are available in the workplace
- If a product is taken out of its original container then a workplace label must be put into place with the following information:
 - Product name
 - Safe handling instructions
 - Statement saying that SDS's are available

GHS Pictograms

GHS Pictograms

Carcinogen
Respiratory
Sensitizer
Reproductive
Toxicity
Target Organ
Toxicity
Mutagenicity
Aspiration Hazard



Acute
Toxicity
(severe)



Flammables
Self-Reactive
Pyrophorics
Self-Heating
Emits
Flammable
Gas



Environmental
Toxicity



Irritant
Derma/Skin
Sensitizers
Acute Toxicity
(Harmful)
Transient
Target Organ
Effects (narcotic
or respiratory)



Oxidizers
Organic
Peroxides



Corrosives



Gases
under
Pressure



Explosive
Self-Reactive
Organic
Peroxides



Personal Protective Equipment

All Pennecon Heavy Civil Ltd employees, contractors, vendors, and visitors shall wear the following PPE as a minimum when in a field work environment, including shops and lay down areas:

- CSA approved:
 - hard hat.
 - Safety glasses.
 - Work boots (green triangle).
 - Reflective apparel.
- Gloves (appropriate to the task being performed)
- All clothing must be in good repair as not to create hazards in the workplace.
- Additional PPE if required will be available.

Marine Safety

- The Construction Manager or Operations Manager, or designate, will take steps to reduce or eliminate any potential impacts to the marine environment.
- Safety is paramount during offloading procedures. All unloading personnel are required to wear approved safety equipment (steel-toed boots, high visibility vest) and life jackets (as per the appropriate regulation) must worn by waterside personnel.
- The dock will be equipped with safety equipment such as a ladder, life preserver rings (throw rings), lighting, and an emergency alarm.

Marine Safety

- Equipment will be offloaded at low speed, by properly trained operators, and with the use of safety and directional “spotters”.
- In the event of strong tidal or wave motion, at the discretion of the Barge Operator, Construction Manager or Operations Manager, or designate, offloading operations will be halted if the unloading personnel is subjected to unsafe movement, or pitch, of the barge.
- Should a spill occur, the Construction Manager or Operations Manager, or designate, in consultation with the Site Manager, Barge Operator and authorities of jurisdiction, will direct the proper procedure for clean-up and reporting.

Marine Safety

- Barge offloading activities, require strict procedures to ensure the health and safety of unloading personnel, while reducing or eliminating any potential impacts on the environment.
- The Barge Operator and Construction Manager or Operations Manager, or designate, will review weather conditions before offloading activities commence, to identify if severe weather may be expected using Environment Canada's web site or by calling Environment Canada's Marine Forecasting service. for contact information). This service provides the most up-to-date information, and also provides information beyond the 24-hour period.

Housekeeping

- Work locations, vehicles and both the inside and outside of buildings are to be kept clean and orderly at all times.
- Combustible materials, such as oily rags, shall be kept in approved metal containers with metal lids.
- Floors, platforms, exits and walkways are to be kept clear of dangerous projections and obstructions.
- All spills are to be cleaned to prevent slipping hazards.
- Materials and tools are to be stored in an orderly manner.
- Keep lunchrooms and washrooms clean and clear of garbage.
- Ensure proper lighting is utilized; report broken/burnt out bulbs.
- Recycle and reuse wherever possible.

Lifting Safety

It is important that proper lifting techniques are being utilized:

- Get a good footing.
- Place feet about shoulder width apart.
- Bend at the knees to grasp the weight.
- Keep your back reasonably straight and head up.
- Get a firm hold and lift gradually, without twisting, by straightening your legs.
- When putting the load down, reverse this procedure.
- Get help when needed.

USE LIFTING EQUIPMENT OR GET ASSISTANCE, WHEN AVAILABLE, INSTEAD OF MANUALLY LIFTING

Confined Space Work

- Before entering into a confined space the workers must have the government approved confined space training certification.
- Employees must comply with Confined Spaces Regulation (O. Reg. 632/05)
- Gas monitors must be utilized to determine the oxygen, other gas levels and LEL (lower explosive limit) before entering the space as well as for continuous monitoring.
- An attendant **MUST** always be in place when employees enter a confined space.
- There must be a means of communication between the attendant and the personnel inside the confined space based on the requirements of the space.
- Signage must be posted at the entrance of all confined space.

Fall Protection

- Fall protection is required for any work at heights as per site requirements.
- Employees must comply with Sections 26 to 26.9 of the Regulation for Construction Projects (O. Reg. 213/91).
- For work at heights, workers must have the government approved fall protection training certification as outlined in Occupational Health and Safety Awareness and Training (O. Reg. 297/13).
- Anchor points should be of sufficient height to limit free fall distance.
- Workers are responsible for inspecting their fall arrest gear prior to use.
- All lanyards must have shock absorbers in place.

Lock Out Tag Out – Equipment Repair

Pennecon Heavy Civil Ltd expects:

- **ZERO ENERGY MAINTENANCE** for lock out/tag out
- Must always have both a lock and tag present

Basics to locking out equipment/machinery:

- Isolate equipment to be de-energized.
- Advise other workers of the lock out.
- Identify all energy sources
- Tag and lock the equipment/machinery
- Test to ensure that all energy has been removed.
- Hold onto the lock until the work is completed.

1 WORKER, 1 LOCK, 1 KEY.

NEVER SHARE YOUR LOCK OR KEY WITH ANYONE

Machinery & Equipment

- All machinery and equipment must comply with applicable codes, legislation and industry standards.
- No walking under loads, riding on forks, loader buckets, etc.
- Misuse of equipment will NOT be tolerated.
- Operators using equipment dangerously will be disciplined and removed from the equipment.
- Operators taking medications must first report to their Supervisor.

Hand Tools

- Hand tools must be visually inspected prior to use.
- All electrical tools must have a ground plug or be double insulated; removal of grounding is NOT permitted.
- Trigger lock must be removed by qualified electrician.
- All extension cords must be in good repair.
- All tools/equipment designed with guards must have them in place; tools/equipment without guards are to be removed from service.
- All damaged and defective tools are to be tagged out and to be removed from service.
- Grinders are to be used with the correctly rated discs.
- Power tools are to be unplugged before being adjusted and/or repaired.

Excavations & Trenches

- Remove debris and excavated soil near excavation site [s. 232]
- Arrange to protect workers from falling into excavation [s. 233(4)]
- Plan for removing water in excavation [s. 230]
- Identify and locate overhead power lines [s. 188) and underground services [s. 228]
- Know soil types [s. 226] and what sloping, shoring or pre-fabricated, hydraulic or engineer systems are required [s. 234 to 242]
- Notification requirements [s. 6 (a), (g) and (h)]
- Requirements for when support system must be engineered [s. 235(2) and s. 236]
- Prepare emergency plan [s. 17 and 18]
- Worker(s) shall not perform work in trench unless another worker is working above ground [s. 225]
- Obtain utility locations before digging [s. 228]

Blasting Operations

- Ensure adequate notice is provided to the general public prior to blast
- Ensure all personnel on site are aware of blast time.
- Air Traffic Control is informed prior to blasting (30 minutes and 5 minutes before the blast).
- Access to blast to be guarded at time of blast, no unauthorized personnel
- Audible warning horn will be sounded
- “Danger Blasting” Signage at Security gate before start of shift outlining “Time Of Blast”
- Blaster to conduct visual inspection after the blast.

Power Line Hazards

- Employees must comply with Section 188 of the Regulation for Construction Projects (O. Reg. 213/91).
- Never raise overhead lines to allow machinery or equipment to pass underneath.
- When operating equipment, post a signal person to ensure you maintain a safe working distance from overhead lines.

Environmental Overview



Why do we have an Environmental Program?

- Obey the law.
- Protect workers and the environment.
- Avoid financial losses, eg. fines and project shutdowns.
- Reduce liability through regulatory compliance.



PHCL Environmental Policy

It is the primary and continuing objective of Pennecon Heavy Civil Limited that, in the conduct of its activities, it will endeavor to limit adverse effects on the physical environment through the respectful use of our natural resources.

As part of its commitment, PHCL will adhere to all applicable laws, regulations, and other requirements. PHCL will incorporate environmental considerations into project planning and operating practices and will promote sustainable development through pollution prevention, waste minimization, and recycling, wherever possible. PHCL believes that through heightened environmental awareness and action, these objectives can be accomplished.

PHCL believes that excellence and continuous improvement in environmental practices are in the best interests of all stakeholders.

This Environmental Policy reflects the commitment of PHCL's Senior Management to ensuring that environmental objectives, targets, and policies are communicated and adhered to by all employees, suppliers, and sub-contractors.

Some of the elements of the site EPP

- Erosion and sediment control
- Wildlife
- Wildlife Mitigations
- Petroleum Products and Hazardous Materials
- Spill Prevention
- Spill Response Protocol

Erosion and Sediment Control

- Sensitive areas: marine environment, wetlands,
- Typical measures:
 - Silt fencing and hay bales
 - Check-dams, dykes, gravel berms
 - Sediment control ponds or traps
- Your responsibility?
 - Prevention: appropriate mitigation measures in place BEFORE the work begins.
 - Mitigation measures maintained, inspected, changed, or upgraded regularly.

- General mitigation measures:
 - Several species of conservation concern in proximity to the site. A separate session will be provided to highlight wildlife sensitivities.
 - Notify the Environmental Manager of **any** wildlife sightings
 - Do not feed wild animals.
 - Hunting, trapping or fishing is not permitted on site.
 - Site and working areas will be kept clean of food scraps and garbage.
 - Wildlife-protected disposal containers will be used and will be regularly emptied and transferred to the local landfill.
 - No personal pets, domestic or wild, allowed on the site.
 - DO NOT disturb nests or burrows.
 - DO NOT chase, catch, divert, follow or otherwise harass wildlife by vehicle or on foot within the project site

Petroleum Products and Hazardous Materials

- Fuel, hydraulic fluid, etc.
- The primary concern: uncontrolled or accidental release.
- Mitigations:
 - AST's: steel, double walled, and in a lined secondary containment (125%) basin.
 - Proper storage and disposal: oil buckets, hydraulic fluid containers, grease tubes, greasy/oily rags, contaminated soil, etc. stored in secondary containment.
 - Equipment Fueling: as per site plan. No fueling within 30 m of a watercourse, drainage ditch, area with a high water table, or exposed shallow bedrock.
 - Limited quantities stored on site. SDS sheets available.
 - Regular inspections of storage areas.
 - Fire extinguishers and spill kits strategically located.

Spill Prevention

- **Every spill is a reportable spill (notify your supervisor or HSE Advisor)**
- Considerations?
 - Minimize danger to persons.
 - Minimize pollution of watercourses.
 - Minimize area affected by spill.
 - Minimize the degree of disturbance to the area and watercourses during cleanup.

Spill Response Protocol

As per the Emergency Response and Communication Plan:

- Immediately upon a release or a spill, steps should be taken to implement procedures for containment, control and cleanup of the spill, as follows:
 - If it is safe to do so, stop the spill and remove all ignition sources.
 - Ensure the safety of all individuals in the area and evacuate the area as necessary.
 - Secure the area.
 - Contain the spill either by constructing containment dikes, by using spill absorption materials, or by other appropriate methods.
 - Immediately notify the Construction Manager or Operation Manager, or designate, who in turn will notify other regulatory authorities, as required.
 - If it is a reportable spill, call the Ministry of Environment Spills Action Center, as well as Loyalist Township.

Spill Response Protocol

- If possible, identify the material released.
- If the material can be identified, use the Material Safety Data Sheet (MSDS) for detailed procedures.
- If the release is an airborne vapor spill, gas or a large uncontrollable spill of liquid, also call 9-1-1 to activate the Loyalist Township Emergency Services .
- Arrange for clean-up and proper disposal of all collected waste materials at an authorized regulated facility.
- In instances where remediation is required, call Quantum Murray or Dedicated Environmental Services Inc.
- Take all necessary precautions to ensure that the incident does not reoccur.
- The Operations Manager shall submit a written report to appropriate regulatory authorities as required by applicable legislation

Roles and Responsibilities

- ALL workers are expected to:
 - Become familiar with applicable elements of the EPP, SPRP, and WMP
 - Include environmental hazards in job planning/risk management
 - Identify potential environmental issues.
 - Minimize impacts
 - Inform the environmental team of observed or potential environmental impacts

Quality Overview



**Pennecon Heavy Civil Ltd. is registered to the
ISO 9001:2008 Quality System Standard**

- An effective QMS ensures that we are focused on meeting client requirements and that they are satisfied with the products and services that they receive.

Goals:

- Achieve quality by managing our processes with an emphasis on:
 - preventing problems by identifying risks;
 - improve operational performance that will cut errors;
 - Give the client confidence that products and services will consistently meet requirements.

- The result of all departments and personnel working together to achieve organizational goals and customer satisfaction for the products and services we provide.
- Quality is everyone's responsibility. All employees are expected to follow PHCL's QMS.
- Everyone on the job is responsible for completing their work in accordance with client requirements.
- Quality has to be built into the product, it cannot be inspected into it after the fact.

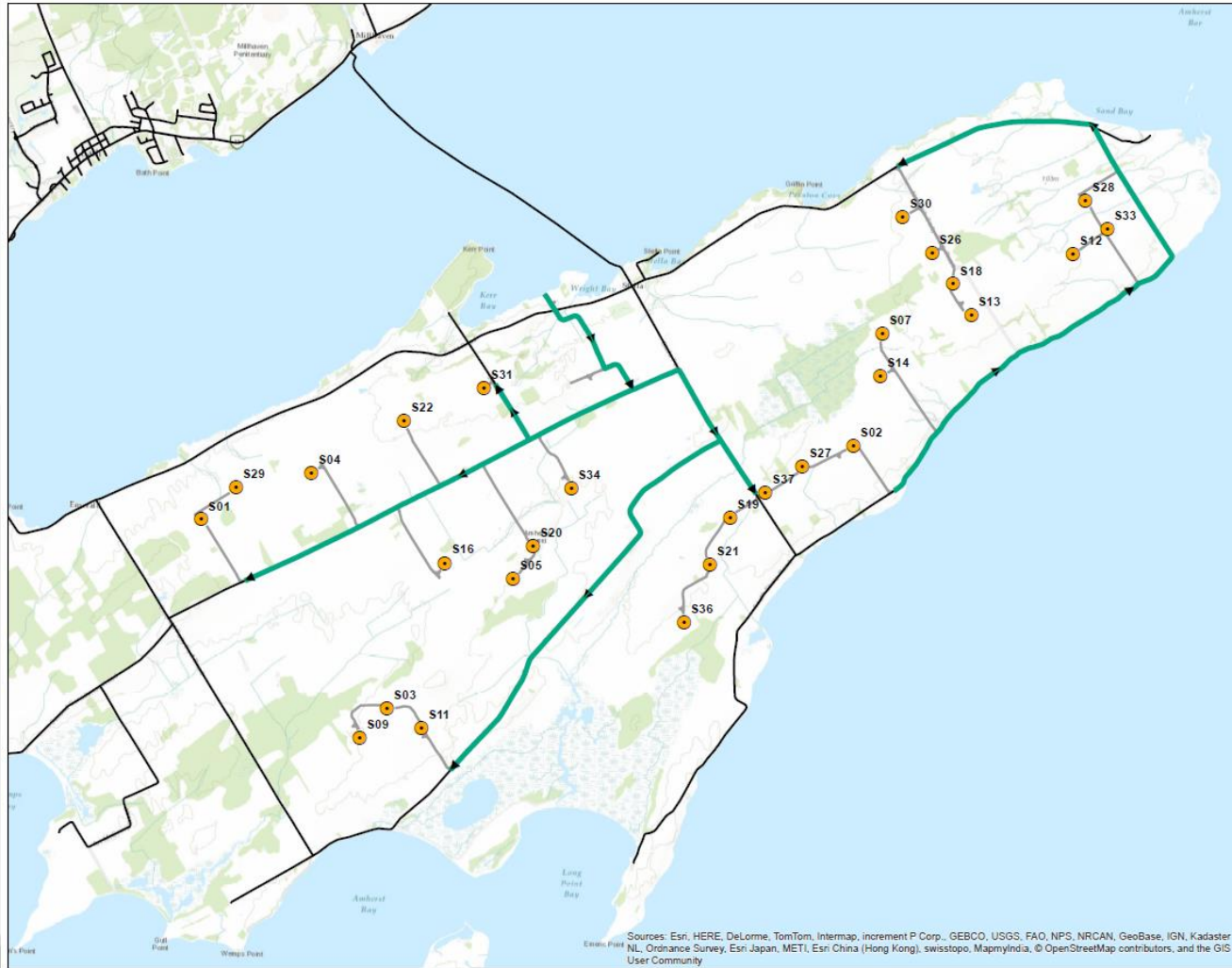
Traffic Management Plan



Objectives & Scope

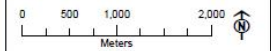
- The Traffic Management Plan (TMP) is intended to provide general guidance for the interaction between construction-related traffic and regular traffic, and between regular traffic and temporary construction-related road conditions.
- A consideration of the existing traffic, pedestrian, and cycling activity on the island as well as the related road/intersection operations;

Traffic Routes



Legend

-  Turbine Location
-  Heavy Load Delivery Route
-  Access Road
-  Public Road




ALGONQUIN
ALGONQUIN POWER CO.

AMHERST ISLAND WIND PROJECT

Delivery Routes for Heavy Loads

DATUM/PROJECTION: NAD83/UTM ZONE 18N		SCALE: 1:40,000
DRAWN BY: B WONG	DATE: JUNE 15, 2015	
DRAWING No. AMHST - 207	REVISION No. 0	

Sources: Esri, HERE, DeLorme, TomTom, Intermap, increment P. Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Traffic Management – Employee Responsibilities

- Follow all posted signage
- Speed limit is 30Km on public roads and 15Knm on access roads
- Yield for public vehicles (however follow posted signage, we can expand on this, but what I am trying to say is that if the public has a stop sign and you don't, than you proceed)
- Slow down when passing any pedestrians (walking or bicycle)
- Follow the designated haul route assigned for that task
- Check with your supervisor before deviating from any planned traffic route

Construction Inside Public ROW

- Access Road Construction
- Road Modifications to Accommodate Turbine Delivery
- Construction of Underground Collector System
- Turbine Component Deliveries

Construction Outside The Public ROW

- Turbine Foundations
- Construction of Temporary Laydown Areas and Office Trailers
- Construction of Transformer Station

Types Of Construction Vehicles

- For the purposes of this Traffic Management Plan, there are three primary classes of construction-related vehicles:
 - Heavy loads: delivery of bulk materials such as aggregate and concrete;
 - Oversize loads: delivery of components larger than typical tractor-trailers such as wind turbine blades as well as large construction vehicles such as backhoes; and
 - General-purpose construction vehicles, typically pickup trucks.

Mainland Access

- Access to the newly constructed project dock will generally follow one of the two following routes:
 - From Highway 401; south along Lennox and Addington County Road 4, and east along Bath Road to the mainland construction dock and staging area.
 - From Highway 401; south along County Road 6; west along Taylor Kidd Boulevard; south along County Road 4, to the mainland construction dock and staging area.
- Traffic management requirements on the mainland are minimal due to the relatively low number of construction vehicles and that road widths are sufficient, however oversize loads will follow normal piloting procedures.

Construction-related Traffic Impacts

Specific Types of Traffic Impacts

- There are three types of traffic impacts expected for this project:
 - Traffic interruptions
 - Lane closures
 - Road closures

Traffic Management Strategies

Construction-related Traffic Routes - Construction vehicles (including gravel trucks and deliveries of turbine components) and equipment will reach the 26 turbine sites (27 are permitted) based on the *Delivery Routes for Heavy Loads Drawing AMST-207, Rev. 1* dated Sept. 15, 2015, and *Delivery Routes for Turbines Drawings AMHST-206, Rev. 2* dated Sept. 15, 2015 (see **Figures 2 and 3**).

Traffic-related Schedule Management - Sequencing of construction activity for roadworks is typically determined by the Constructor in consideration of the traffic, weather, and logistical considerations at the time therefore highly detailed sequencing cannot be prescribed for all scenarios at this time. Closures will be implemented in consideration of construction requirements and of maintaining traffic flow on the island.

Traffic Management Strategies

Signage

- Ontario Traffic Manual Book 7 traffic control measures (barriers, barrels, signage, etc.) will be used for working on the “shoulder” and for temporary lane closures. See **Appendix A** for typical sign details and **Appendix B** for sign placement.

Escort/Warning Vehicles for Oversize Loads

- As per the Highway Traffic Act, certain loads require an escort vehicle to accompany them during their transport. All permits from MTO, the County, and the Township will be submitted in advance of these oversize loads.

Traffic Management Strategies

Flagpersons

- Flagging shall be provided as per *Ontario Traffic Manual Book 7 – Traffic Control Sign (Stop/Slow Paddle - TC-22)*

Parking and Moving Equipment/Vehicles on-site

- Vehicles shall be parked in a manner that does not impede traffic, interfere with visibility of signage, or cause additional potential for collisions.

Traffic Management Strategies

Specialty Vehicles

- Specialty vehicles needing assistance through the work site may include emergency service vehicles, school buses, wide or long load vehicles, and farm vehicles. These vehicles will be accommodated in a safe and timely manner.

Pedestrian and Cyclist Accommodation

- Pedestrian and cyclist accommodation will typically be on-road as this is the current condition, and will be accommodated through work zones as long as it is safe to do so.

Traffic Management Strategies

Public Information Strategy

- In order to minimize impacts on island traffic, and ensure the success of the project, a traffic Communication Plan is included in the Operation Plan
- An activity forecast report shall be provided to Loyalist Township, outlining construction activity a minimum of two weeks prior to any work commencing.
- Residents of the island shall be provided with a map of the island outlining the delivery routes to the sites for construction vehicles and deliveries of gravel, concrete, etc., so that they can plan to avoid those routes if desired.

Traffic Management Strategies

Wildlife Mitigation

- As an integral component of the traffic management plan, potential risk of wildlife collisions and disturbance from construction traffic will be addressed through a variety of mitigation measures.
- The mitigation requirements are further detailed in **Appendix C**, Traffic Management Plan Wildlife Mitigation.

Emergency Response Plan



Definitions

- **On-Site Construction Manager** – Third party general contractor involved in the construction of the Amherst Island Wind Project; referred to in the plan as “Construction Manager”.
- **ERCP** – Emergency Response and Communication Plan.
- **Facility** – Amherst Island Wind Project.
- **Loyalist Township Emergency Services** – Loyalist Township Emergency Services (including the Amherst Island Station).
- **Fire Safety Consultant** - Third party competent and qualified individual knowledgeable in fire safety and prevention.
- **Fire Watch** – Individual(s) assigned to observe metal grinding work activity to ensure no sparks cause a fire.

Emergency Overview

- This Emergency Response and Communication Plan (ERCP) is intended to advise on-site personnel, contractors and project landowners on the procedures they must follow and how to communicate in the event of an emergency situation related to the Amherst Island Wind Project (the “Facility”) during the construction and initial operations phase (pre-commissioning) of the Facility.
- This ERCP has been developed in consultation with Loyalist Township, the County of Lennox and Addington, and will be implemented prior to the start of construction and does not replace provincial regulations. During construction and operation the contractors and operator will adhere to provincial Ministry of Labour regulations.

ERCP Stakeholders

- This plan will be held both in the Construction Manager and Operation Manager Facility trailers.

- In addition:
 - A copy of the plan shall be sent to the Loyalist Township Emergency Services Office;
 - A copy of the plan will be placed in each contractor work truck; and
 - A copy of the plan will be placed in the on-site operations and maintenance building.

Emergency Events and Response Protocols

- Emergency events impacting the Facility may include:
 - Fire / Explosion
 - Road Safety
 - Injury / Trauma
 - High Angle Rescue / Confined Space Rescue
 - Structural Damage Chemical - Environmental Spill
 - Severe Weather
 - Site Evacuation

Emergency Preparedness

- Provide all workers and work vehicles with a copy of emergency numbers and emergency procedures to be carried and/or easily accessed within vehicles at all times.
- Provide all workers with location of muster point for emergency situations.
- Provide signage at each turbine location showing the turbine site ID number.
- Review training requirements for all personnel involved in the project,
- Review the contents of this plan with all personnel involved in the project to familiarize them with their duties and responsibilities.

Emergency Preparedness

- Ensure all workers are aware of the communication devices for emergencies, including emergency horns, cellular phones, two-way systems, etc.
- Ensure all workers know the location of the turbine they are working at.
- Conduct practice drills to train on-site personnel to carry out the correct response to an emergency condition.
- Ensure all adequate safety equipment is available on-site and all personnel are using the appropriate Personal Protective Equipment (PPE).
- Ensure all workers on site have GHS training.

Emergency Preparedness Training

- It is the responsibility of each employee to become familiar with the Facility, learn the evacuation routes, muster and shelter areas, and to attend all safety training events.
- The Construction Manager and Operation Manager will make this ERCP and other health and safety related information available to all site employees.
- Mock Emergency Drills will be completed during the early stages of construction and again during the early stages of operations to review the effectiveness of the ERCP so that any deficiencies in the plan can be identified and corrected.

Emergency Response

- The Construction Manager (construction phase) or Operations Manager (operation phase) is designated as the “Emergency Response Coordinator” during an emergency situation.
- Any visitor present at the site must report to the Construction Manager or Operations Manager.
- In the event of an emergency, contractors, project participating landowners and others who may be present at the site are responsible for immediately notifying the Construction Manager or Operations Manager who will then follow Emergency Response Protocol.

Fire Hazard & Prevention

- In order to minimize fire risk, the following measures will be implemented:
 - Personnel (contractor) training
 - No open fires
 - Hot Work
 - Fire-breaks
 - Portable Fire Extinguishers

Emergency Response Protocol

High Angle / Confined Space Rescue

- Remove any hazards. Stop tools and machinery.
- Bring injured person to ground level or a safe area for evaluation.
 - Construction – contractor shall maintain competent and qualified representative(s) responsible for this action on site
 - Operation – service contractor(s) shall use competent and qualified technicians or call in competent Third Party High Angle Rescue contractors, prior to work commencing
- Treat any life threatening injuries.
- Call 9-1-1 and request Loyalist Township Emergency Services.

Emergency Response Protocol – Severe Weather

Severe Thunderstorm & Lightning

Wind Site

- Get out of a wind turbine.
- Stop all heavy construction equipment, especially when moving metal components, get out, and seek shelter. (Tractors and other implements having metal contact with the ground are often struck).
- Stop work actions and relocate to identified muster point.
- When there is no shelter, avoid the highest object in the area. If only isolated trees are nearby, your best protection is to crouch out in the open, while minimizing your contact with the ground (do not lie flat), and keeping twice as far away from isolated trees as the trees are high.
- Avoid hilltops, open spaces, wire fences, metal clothes lines, exposed sheds, and any other above ground electrically conductive objects.
- Inform Construction Manager or Operation Manager, and other applicable management personnel, and take census of personnel.

Emergency Response Protocol

- All personnel remain at muster point until accounted for by Construction Manager or Operation Manager.
- Stay inside and do not venture outside until it is deemed safe to do so (i.e. No lightening with 48 KM of the Facility for at least 30 minutes).
- Do not approach a wind turbine until there has been no lightning within 48 KM of the Facility for at least 30 minutes. Do NOT approach if you hear a hissing or crackling sound coming from the blades. Assess the situation from inside the vehicle.

On-site Office Buildings

- Stay away from open doors and windows, stoves, metal pipes, sinks, and plug-in electrical devices including corded phones.
- Shut down and unplug computers, modems, phones, and other valuable electronic equipment.

Emergency Response Protocol

Person Struck By Lightning

- Persons struck by lightning receive a severe electrical shock and may be burned; however, they carry no electrical charge and can be handled safely.
- Prompt artificial respiration and/or CPR with an AED can often revive a person without vital signs after being struck by lightning.
- Call 9-1-1 and request Loyalist Township Emergency Services.
- Administer first aid.

Emergency Response Protocol

Tornado

- Continue normal activities during the WATCH but be aware of the possibility of tornadoes.
- There is not always an official tornado warning.
- If you see or hear a tornado, or if you are told to evacuate the wind turbine because of a tornado, seek shelter immediately.
- Inform the Construction Manager or Operation Manager, and other applicable management personnel, and take census of personnel.

Evacuation Protocol

- Stop work actions and relocate to identified muster point.
- Construction Manager or Operation Manager takes census of personnel.
- All personnel and any visitors to the site remain at muster point until accounted for by Construction Manager or Operation Manager.
- Construction Manager or Operation Manager investigates any missing personnel and any visitors to the site.
- Call 9-1-1 to request Loyalist Township Emergency Services, if required.

Post Emergency Actions and Reporting

- Accidents involving the general public, fatalities, or that are considered a threat to public or environmental health shall be reported to the appropriate authorities with jurisdiction, as applicable, including but not limited to:
 - Loyalist Township Emergency Services (Police, Fire, Paramedics);
 - Ministry of Labour;
 - Ministry of Environment.

Operations Plan



Introduction

- The purpose of the Operations Plan is to “demonstrate how prudent and reasonable practices will be utilized to minimize the level of disruption, disturbance and inconvenience to the Municipality’s residents, given the scope of the Project.
- The Operations Plan will also demonstrate how the continuing function of its roads and other municipal services and facilities will be maintained to the extent reasonably possible and how the Municipalities residents’ access to emergency services will be maintained at all times.”

Navigable Waters

- The primary Project-related factor that has the potential to affect marine navigation in the North Channel between Amherst Island and the mainland is increased vessel traffic (which includes the transport barges, associated tug boats and personnel vessels):
 - Vessel traffic is governed by the *Collision Regulations of chapter 1416 of the Canada Shipping Act*. All marine equipment, whether anchored, at a dock, or under way, will comply with these regulations. During emergency situations (e.g. a 911 call) all Project marine traffic will yield to the public ferry.
 - Dedicated Project docks will be constructed on the mainland (temporary) and the island (permanent) so there will be no impact to use of the existing MTO ferry docks.

Navigable Waters

- There will be continuous communication between the Project marine vessels and the Frontenac II ferry (or any temporary replacement) in accordance with marine protocol and Collision Regulations.
- It may be necessary to have the outer mooring dolphins of the Project docks lit at night; this determination will be made by Transport Canada.
- All Project marine vehicles and Project docks must adhere to Transport Canada requirements at all times.

Road Maintenance

- The contractor's Construction Superintendent will be in close communication with the Township's Transportation and Solid Waste Manager (or other Township designated representative) allowing them to address any concerns directly.
- The contractor will inspect the condition of the public road at each site entrance being used at the end of the day and any excess mud, stone and debris will be cleared after the final vehicles have left the site road.
- Inspection sheets will be completed by contractor personnel to ensure that each entrance is clear before closing the site.

Road Maintenance

- A dedicated road sweeper and dust control water truck will be maintained on-site and will sweep Front Road at the barge dock access road twice per day and will move around the island.
- There will be a road maintenance crew with a grader deployed on roads being used for construction. The contractor will have a grader on site to maintain existing roads throughout Heavy Load deliveries.
- The grader will plan efforts based on the traffic plan but will also be dispatched to take care of reasonable road problem complaints.

Impact Mitigations

School Functions

- Prior to the start of civil construction, a coordination meeting will be scheduled with the school principal to review traffic management and safety plans.
- Regular meetings will be organized with the school principal or other designated representative(s) to provide advance notice of traffic routing and schedules.
- Construction work will be planned in order to mitigate the impact on special school functions and these mitigation plans will be communicated to the site personnel via the daily morning meetings leading up to the school functions.
- In the event of an unplanned school event such as school closure due to mechanical/electrical problems at the school or snow day, the school will have the direct cell phone numbers of the senior site management team who will immediately review construction planning for the day and respond reasonably, in relation to traffic management and safety.

Impact Mitigation

- During transportation of the Major Turbine Components in front of the school, a traffic safety monitor will be situated near the school entrance to ensure traffic flow is maintained and safety is regulated at all times.
- Amherst Island Public School – 5955 Front Rd, Stella

Student Transportation

- The TriBoard Student Transportation Service has been contacted as part of the development of this Operations Plan.
- The TriBoard has requested that they be notified of any road closures at least one week in advance so that its drivers can make route adjustments.
- The Project team will co-operate with the TriBoard if any reasonable change is requested to this notification plan.

Impact Mitigations

Bicycle Traffic

- Daily morning site meetings are mandatory and will be used to disseminate new information and to re-enforce existing site rules.
- All construction traffic will be courteous to cyclists and will provide them the right of way as per highway traffic law and the site construction rules.
- All construction traffic will slow down when passing cyclists and will provide them with a wide berth.
- Areas of active construction activity on private land will be off-limits to bicycle traffic and will be clearly indicated as such.
- Bicycle traffic on public roadways will be treated as vehicular traffic and directed accordingly through active construction sites.

Impact Mitigation

Agricultural Traffic

- Types of agricultural traffic expected are transporters with animals, herds or flocks on foot, and farming equipment.
- Construction traffic will slow down, stop and, if necessary, back up for agricultural traffic

Vehicular Traffic to and From the Public Docks

- Mainland: A traffic coordinator will be located on the mainland to ensure construction traffic does not impede commuter traffic to and from the MTO ferry on Highway 33.
- The mainland traffic coordinator will marshal traffic between Project parking areas and the construction barge dock.
- Island: A traffic coordinator at the intersection of Front Road and the entrance to the Project island dock will control the timing of Project traffic travelling towards the public dock area to ensure that construction traffic does not impact ferry traffic at the intersection of Front Road and Stella 40 Foot Road, or access to the pre-boarding area.

Impact Mitigation

Parking

- Site personnel will park on the mainland and be bussed to the crew ferry barge and from the island construction barge terminal to the laydown area.
- Crew trucks and vans will be used on the island for those carrying tools and other equipment.
- Management vehicles will travel on the barge on a daily basis as required.
- Work vehicles which are brought to the island for crew and equipment transport will be parked at the site trailer offices, the construction laydown areas and turbine work areas during the construction period.
- Construction equipment will also be parked at turbine sites and on private access roads during the construction period.

Impact Mitigation

Community Events

- No construction activities are planned for any Sunday.
- No construction activities are permitted after 8:00 pm (with the exception of those activities listed in Section 2.9 (Hours of Operation)).

Enforcement of Speed Limits and Traffic Management Plan Training

- The Site Safety Supervisor will have the authority and responsibility to ensuring that all Project staff comply with public and Project-specific speed limits, and obey traffic rules in accordance with the Operations Plan.

Construction Noise Mitigation

- Sources of noise from typical wind farm construction activities include, but are not limited to:
 - Foundation construction
 - Road construction
 - Trench construction; and
 - Wind turbine generator erection

General Preventative and Mitigation Efforts

- All site construction personnel will receive training during site orientation on the specific Cultural Heritage Features and protected properties located on the island.
- In the cases in which the Heritage Assessment Report has indicated that there are potential effect(s) from vibration related to Project activities that will occur within a 50 metre buffer zone around a Cultural Heritage Resource
- Each of these potentially affected Cultural Heritage Resources will be photographically recorded prior to any work in the area.

Cultural Heritage Features

- The Cultural Heritage Features exposed to Project activities are:

<u>Cultural Heritage Landscapes (CHL)</u>		
CHL 1	Village of Stella	Related structures
CHL 3	St. Paul's Presbyterian Church	Related structures
CHL 4	Ferry Landscape	Related structures, vista
<u>Built Heritage Resources (BHR)</u>		
BHR 1	1830 South Shore Road*	Structure
BHR 2	2090 South Shore Road*	Structure
BHR 3	2450 South Shore Road	Structure
BHR 4	3500 South Shore Road	Structure
BHR 5	4125 South Shore Road	Structure
BHR 6	2750 Front Road	Structure
BHR 7	3190 Front Road	Structure, stone fence
BHR 19	3475 Second Concession Road	Structure

Drainage, Grading and Fencing

- Best management practices will be utilized to control erosion and sediment runoff while maintaining drainage
- Impacts from construction activities to private fencing and other private improvements (e.g. signage) located within the public road allowance will be avoided to the extent reasonably possible.
- Whenever impacts to fencing cannot be avoided, the fence line will be moved temporarily to the boundary of the road allowance to maintain continuity with yard fencing as needed to maintain equivalent security to the property it surrounds.
- Following construction activities, a fence with the same or superior quality will be installed on either the original fence line, or at the property line at the discretion of the Township.

Ferry Operations

- The Project will not use the public ferry for construction purposes with the exception of use of the public ferry for transport of personnel, equipment and materials required for the construction of the Project's island dock.
- The contractor's barge operator shall be required to manage the Project's water-based activities in such a way to ensure that operations of the public ferry are not delayed. Radio communication and coordination between the barge operator and the ferry captains will ensure that there is no impact to the ferry schedule.

Communications Plan

- The Communication Plan will use multiple channels to ensure that the Municipality's residents are able to access updates using means that different residents find most convenient. The multiple channels will include the internet, social media, radio, and weekly mail.
- The Communications Plan will also ensure communication between the Project and the public is two-way.
- The public will be able to access multiple channels for providing the Project team with feedback including: a Complaint Response Protocol, through access to the Community Liaison Committee (the CLC), and the Community Working Group (the CWG), sending an email to the Project.

Municipality and Resident Notice

- A construction activity map will be produced on a weekly basis to provide a simple visual description of which roads will be impacted on a particular week. The map will identify trenching, aggregate deliveries, concrete deliveries and component deliveries with separate colours.
- Daily reminders of expected Traffic Interruptions, Single Lane Restrictions, and Road Closures will be issued via the Project website, Facebook, Twitter (including Tweeting at YGKTraffic).

Complaint Response Protocol

- Written complaints during construction will be accepted by the Project team via email at Windlectric@amherstislandwindproject.com.
- All telephone complaints received by the Project team will be transferred to a Complaint Form and logged.
- The contractor will respond to the complaint within a reasonable time period (but not longer than 2 business days).
- The construction team will make every reasonable effort to resolve all complaints in a timely manner.

Public Safety Plan

Emergency Services

- Construction planning will ensure that Emergency Services (ES) will have access to all residences at all times during construction.
- All Single Land Restrictions will have a minimum 3m width in order to ensure that emergency service vehicles have room to pass; flagstaff at single road closures will give priority to Emergency Services vehicles.
- If any emergency service vehicle is called to a particular location on the island, the ES team will be able to contact the contractor's On-site Safety Representative who will immediately stop all contractor work across the entire site, ensure all trucks and other equipment are moved off the roads along the route immediately

Public Safety Plan

- The contractor's safety supervisor will be available for weekly meetings with ES personnel to discuss any ongoing activities or concerns.
- ES will have access to the emergency radio frequency and radio equipment (if necessary) that will be used by the contractor and will have the authority to cut in at any time in order to direct traffic in an emergency situation.
- The contractor will be responsible for planning activities in a safe manner and for implementing the Public Health and Safety Plan on a day-to-day basis in accordance with the applicable regulations.



Thank you.
Questions?