

KENT HILLS 3: KENT HILLS WIND FARM EXPANSION PHASE 3

Appendix A Transportation Study

Appendix A **TRANSPORTATION STUDY**

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Date: February 12, 2017

Route Survey – performed for Vestas by employees of T-lane Atlantic only.

Date physically performed – January 31st & February 1st

Project Summary

Vestas - 5 Wind Turbine Generators - V126 3.3/ 3.45 MW - 117m 6pc Tower - 62m Blades

Purpose of the preliminary survey – to recheck routes that have been used during Phase 1 & 2 of the previous Kent Hills projects.

Permits should be ordered from the Province of New Brunswick in order to pre-determine any potential structural issues as it relate to bridge capacities.

Consultation with the Province should be undertaken 6-8 months before commencement of project to determine any issues with construction or paving that may impact routing.

Port of Saint John, NB – In Saint John all loads over 100' Long x 14' Wide x 14'-9" High will require police escorts. Currently the Saint John Harbour bridge (Port of St john West) requires polices escorts with loads in excess of 75,000 kgs. There are two possible locations within the Port of Saint John that would need to be considered. Saint John West and Saint John East - available laydown space will need to be checked by Vestas. Generally, loads would depart St John at 6:00 am staggered at approximately 20 minute intervals.

Trucking from the main roads going into site must conform to standard Vestas site preparation specifications.

Origin: Saint John, NB Destination: Prosser brook Road, NB									
DESCRIPTION- 5 WTG'S - V126 -3.3 / 3.45 MW - 117 m 6 pc towers -62m Blades									
COMPONENT DESCRIPTION	METRIC				IMPERIAL				
	LENGTH	D1	D2	WEIGHT (kgs)	LENGTH	D1	D2	WEIGHT (LBS)	
NACELLE WITHOUT INSTALLED DRIVE TRAIN & ROOF KIT & W/O COOLER TOP	12861	4000	3417	68,079	42.19	13.12	11.21	150,087	
DRIVETRAIN ON TRANSPORT FRAME	7323	3415	2865	62,000	24.03	11.20	9.40	136,685	
HUB	5465	3819	3773	31,552	17.93	12.53	12.38	69,560	
COOLER TOP UNASSEMBLED - 2 LOADS	5000	2300	2500	2,700	16.40	7.55	8.20	5,952	
TOWER BOTTOM SECTION	10320	4440	4047	71,000	33.86	14.57	13.28	156,527	
TOWER MID SECTION 1	13720	4047	3695	68,000	45.01	13.28	12.12	149,913	
TOWER MID SECTION 2	15680	3695	3684	62,000	51.44	12.12	12.09	136,685	
TOWER MID SECTION 3	21840	3684	3674	60,500	71.65	12.09	12.05	133,378	
TOWER MID SECTION 4	26040	3674	3666	52,000	85.43	12.05	12.03	114,639	
TOP SECTION	27000	3666	3258	42,000	88.58	12.03	10.69	92,593	
BLADE to be shipped on there sides	62000	3915	3025	14,700	203.41	12.84	9.92	32,408	

Route: West Side Port

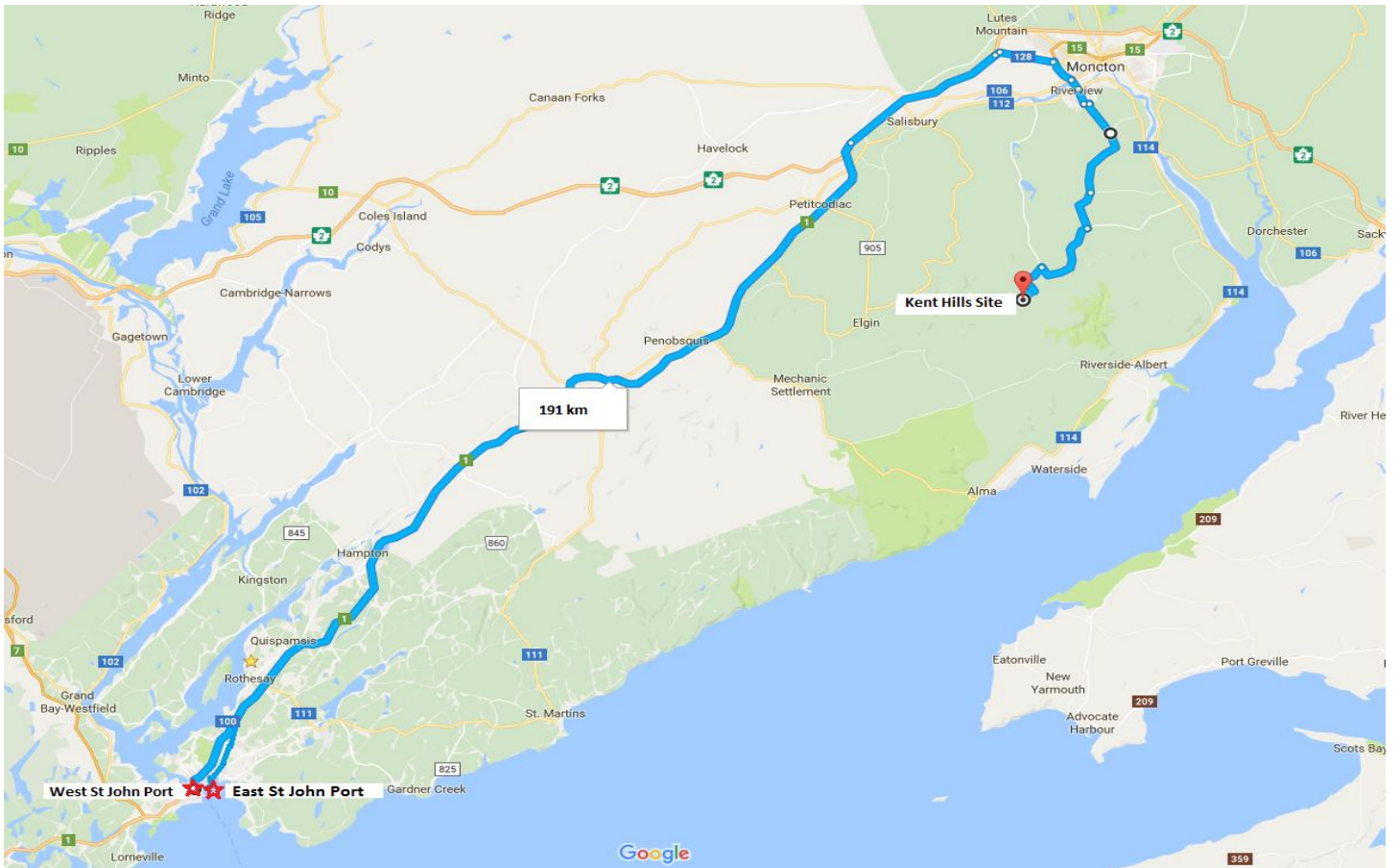
1. From Port exit take Port access road to Highway 1 – E .2 km
 2. Head east on Highway 1 – E toward Moncton 121.0 km
 3. Merge onto Trans Canada Hwy / NB 2-E 20.1 km
 4. Take exit 446 toward Moncton Centre / Riverview 0.7 km
 5. Merge onto Berry Mills Rd / NB-128 E 6.0 km
 6. Turn Left to merge onto NB-15 toward NB-114 / Moncton Centre/ Riverview 3.4 km
 7. At the roundabout, take the 2nd exit onto causeway/ Findlay Blvd / NB-114 S heading to Riverview 1.4 km
 8. Keep left to continue on Findlay Blvd 1.8 km
 9. Findlay Blvd turns left and becomes Gunningsville Blvd 0.6 km
 10. Turn right onto pine Glen Rd 13.5 km
 11. Continue onto Osborne Corner Rd 5.3 km
 12. Turn right onto NB-910N 10.1 km
 13. Turn left onto Prosser Brook Rd 3.2 km
 14. Turn left onto Kent Hills Wind Farm site at 265 Prosser Brook Rd (approximately) 3.4 km
- Total Distance (approximately) 193.9 km

Route: East Side Port – (as soon as the route mergers with Highway 1 -E the route are the same)

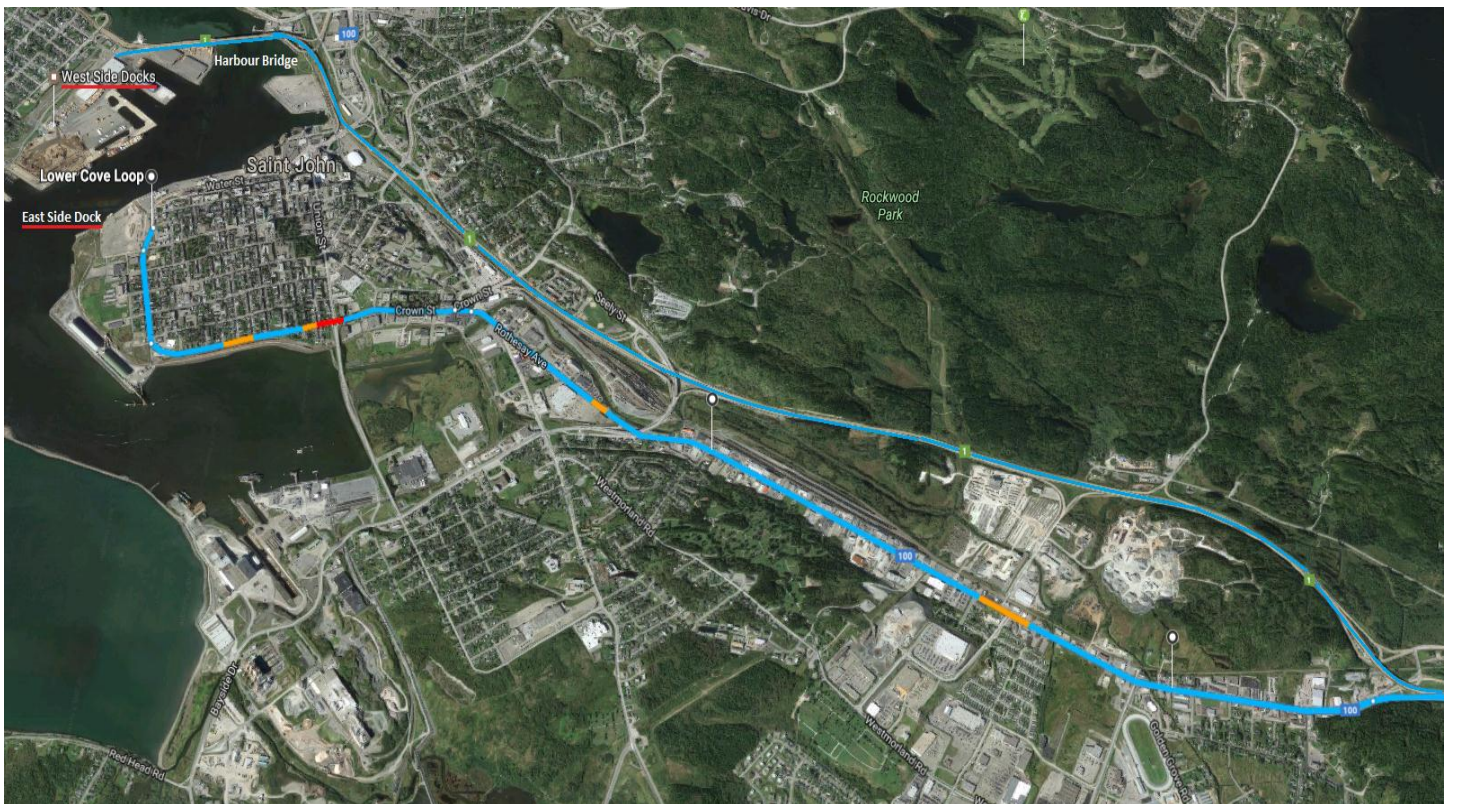
1. From Port gate go left on Charlotte St 20 m
 2. Turn right head east on Broad St 0.6 km
 3. Slight left onto Crown St 1.7 km
 4. Use right lane to take the NB-100 E 5.2 km
 5. Use the right lane to merge onto Highway NB-1 E 450 m
 6. Continue on Highway 1 as from the West Side port route
- Total Distance (approximately) 192.9 km

Please see the following route maps and pictures.

Complete Route



West Side and East Side Docks



1-Access From West Side Port to Rte 1 East



2- Access From Port East Side



3- Wires From East Side Port



4- To Rte 100 From East Side Port



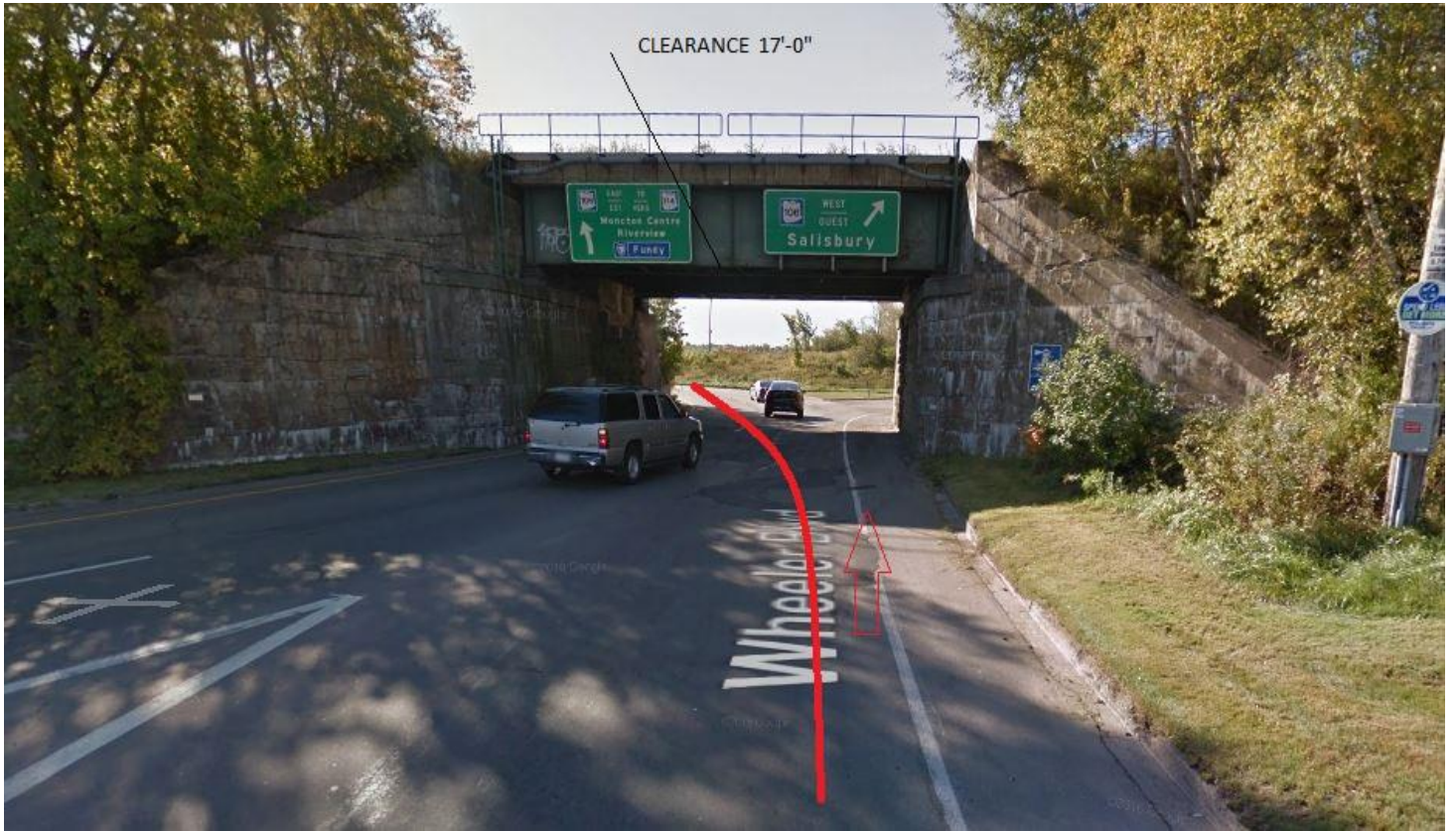
5- Rte 100 to Rte 1 From East Side Port



6- Rte 2 to Berry Mills Exit



9- Rte 15 at traffic circle under Train Bridge



10- Rte 15 Traffic Circle After Train Bridge



11 Findlay to Gunningsville



12- Gunningsville to Pine Glen



13 - Wires on Pine Glen



14- Pine Glen to Rte 910



15- Rte 910 to Prosser Brook Rd



16- trees to Trim Back Various Locations on Prosser Brook Hill



17- Prosser Brook Hill -Pull Truck Required on Hill +16% Grade - Also trees to trim back



18 – Prosser Brook Rd to Hill - Start of Wind Farm – trees to Trim Back



Summary:

- 1- Ok
- 2- Ok
- 3- Small wires to be PreLifted From the East Side Port to Route 100 (if used)
- 4- Remove sign
- 5- Ok
- 6- Ok
- 7- Ok
- 8- Ok
- 9- Ok
- 10- Ok
- 11- Ok
- 12- (2) Small Signs to Remove at Turn from Gunningsville to Pine Glen Rd
- 13- Numerous Small Wires to be Pre Lifted Along Pine Glen Road and Rte 910
- 14- Stop Sign to be Removed and Trees Trimmed at Turn from Pine Glen to Rte 910
- 15- Stop Sign to be Removed and Trees Trimmed at Turn from Rte910 to Prosser Brook Rd
- 16- Trees Trimmed on Prosser Brook Hill –
- 17- Trees Trimmed on S Turn- Pull Truck required
- 18- Trees trimmed on Hill into Windfarm

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