



## BORDER WINDS ENERGY PROJECT

### WEEKLY PROJECT REPORT

Weekly report no:	50
Report for week period ending COB Friday:	07/10/15
Calendar week no:	28

### Executive Summary

#### Week's Highlights

- Completed the final foundation backfill at T10 on Friday, 7/10/2015;
- To date, cable crews have installed 223,180 feet of MV collection system cable;
- Successfully completed the final electrical inspection for the O&M building by the state of North Dakota on Tuesday, 7/7/2015;
- Xcel IT personnel completed the server and equipment installation inside the SCADA room at the O&M building. VTI is scheduled to remobilize to site for integration with Xcel's system;
- Main power transformer (MPT) was successfully delivered, offloaded, and set on the foundation pad at the substation on Saturday, 7/11/2015;
- Received deliveries for nine (9) WTGs during this period. Vestas has scheduled deliveries of two (2) WTGs on Saturday, 7/11/2015 in effort to mitigate the deficiency in delivery totals;
- Base/mid crane successfully completed the HWY 30 crossing with support of the civil crew;
- Crews began mechanical completion work on T23 and T47 and have scheduled a pre-walk of T23 for 7/13/2015 and the subsequent final walk on 7/14/2015. T23 will be the model tower for all future Mk10 WTGs;
- T47 will be the model tower for all Mk7h WTGs.

#### Week's Key Issues

- Base/Mid crews continue to be affected by WTG component truck deliveries arriving late, which in turn has delayed the installation of the mid-section component. WTG components continue to arrive out of the requested sequence which increases the duration of the offloading process;
- WTG components are arriving with shipping damage on the flanges. Areas of damage are being repaired prior to installation;
- Wind delayed the installation of blades at T43 for most of 7/10/2015. Crews successfully installed them during a window of no wind;

- Civil crews identified damage of the pedestal at T62. Damage is believed to have occurred during backfill operations last year. Nelson will repair in accordance with the specifications and procedures provided by the Engineer of Record (EOR);
- Nelson’s grout trailer frame broke on 7/10/2015 and required repair at a welding shop. As a result, grout works were delayed until 7/11/2015. The crew planned to make up for this delay by working part of Sunday, 7/12/2015 in support of turbine installation works;
- Vestas has confirmed that the climb assists will be onsite on 7/13/2015. Due to the delay, crews will have to go back to mechanically complete WTGs;
- EOR is working on determining the type of stair pads to use at the bottom of the WTG stairs. Nelson has had difficulties sourcing the preferred pre-cast pad.

**Safety**

Type	Lost Time	Recordable Injury (Medical Aid)	Minor Injury (First Aid)	Equipment Property Damage	Near Miss	Safety Walks
Current Period	0	0	0	1	4	20
Project To Date	1	2	13	32	80	588

\*Full description of week’s Safety Log plus the formulas for TRIR and Safety index calculation in Exhibit 2.

**TRIR: Previous Week = 2.33 / Current week = 2.19**

**RES Safety Index: Previous Week = 0.75 / Current week = 0.73**

**Weeks Highlights:**

- Project signs were installed at county road 52<sup>nd</sup> and HWY 30 to direct personnel to site;
- Site Safety began preparing for climb rescue training to take place next week. HSQE Manager, Dominic Mincone, will be onsite to provide climb training for new employees and a representative from RopeWorks will provide rescue training;
- The necessary agencies were notified of the HWY 30 crossing which temporarily closed the road. The crane successfully crossed during the window given by the agencies;
- HSQE audit conducted by HSQE Manager Steve Sloat was published and distributed. Action items identified during the audit are being addressed;
- Site Safety Managers meeting occurred on 7/8/2015 for communication and presentation of ideas for improving the safety program implementation on site.

**Weeks Issues:**

- One property damage incident involving a RES work truck outside the project border during a work related trip. Minor truck damage with no injuries;



- Crews were reminded to take extra time to refocus on work tasks after returning from the holiday break. Statistics show that incidents occur at greater frequency before and after holidays;
- Barricading drop zones under the nacelle hatches was discussed with all crews. Personnel were reminded not to cross or walk into coned areas;
- All personnel were reminded that the stop signs placed in the access roads also mark the point for all vehicles to park behind. All unnecessary vehicles are directed to remain out of the work area.

**Project Work Hours:**

- Weekly Man-Hours: 15,288
- Total Project Man-Hours: 272,791
- Hours Since Last Recordable Injury: 15,288

**Environmental**

Type	Major Incident	Minor Incident	Near Miss	Observation
Current Period	0	0	1	5
Project to Date	0	68	7	58

\*Full description of week’s Environmental Report and Rolling Incident Score formula in Exhibit 2.

**Rolling Incident Score: Previous week: 0.76/ Current Week: 0.69**

**Week’s Highlights:**

- A pair of fledgling birds was identified at T34 and inside the base at T51. The birds were determined not to be an endangered species and were relocated outside of the work zone;
- Started combining wood, plastic and cardboard material for recycling on site to keep up with the large quantity of material to be disposed after delivery. The vendor will separate the materials.

**Week’s Issues:**

- Working with recycling vendor to switch bins more frequently;
- Working on addressing the silt run off and unestablished material around the culverts to prevent erosion.

**Quality**

Type	RES Issued NCRs			RES Issued CPARs			Client Issued NCRs			Client Issued CPARs		
	Issued	Open	Closed	Issued	Open	Closed	Issued	Open	Closed	Issued	Open	Closed
Current Period	0	0	0	0	0	0	0	0	0	0	0	0
PTD	3	0	3	0	0	0	8	2	6	0	0	0

\*Full description of week’s Quality Report can be found in Exhibit 4



**Week's Highlights:**

- Building & Earth: Checking densities for collector trench backfills, roads, testing Class 5 material gradations every 2500cy, witnessed proof rolls for crane pad's, taking compaction test for crane pad base & lifts and sampling & breaking grout cubes;
- RRC: Demobilized from site;
- Monitored T-10 excavation backfill, all lifts passed density tests;
- Working on job books and Vestas MCC books;
- Monitored grouting at T-1, T-26, T-28, T-29, T-39, and T-58 & T-59;
- Inspecting collector trenching backfills.

**SCHEDULE STATUS**

Project duration	68
No. of weeks into contract	52
Contract time passed (%)	76%

Key Activities (Construction)	Weighted %	Percent Complete		
		Contract Schedule	Construction Schedule	Actual
Design Engineering	2.5%	100.0%	100.0%	100%
Roads & Crane Pads	20.0%	100.0%	80.0%	74%
Foundations	20.0%	100.0%	100.0%	100%
Collection System	21.5%	85.0%	77.0%	69.9%
Substation	15.0%	95.0%	93.0%	70.5%
O&M Building	6.0%	100.0%	97.0%	97%
WTG Delivery, Erection, & MCC	15.0%	35%	35%	20.3%
Overall Actual Percent Complete				71.7%

**PROGRESS REPORT**

**PERMIT STATUS**

Permit Type / Description	County / State	Responsible Group	Date Needed By	Status
FAA NOTAM	Federal	RES	Construction	OPEN
FAA Part 2	Federal	RES	Final Height	OPEN



**CONSTRUCTION STATUS**

Certificates	Total	Submitted	Signed
Foundation Completion Certificate	75	71	71
Mechanical Completion Certificate	75	0	0
Electrical Works Completion Certificate	1	0	0
Project Mechanical Completion Certificate	1	0	0
Project Substantial Completion Certificate	1	0	0
Project Final Completion	1	0	0

**ROADS & CRANE PADS**

Item	Weighted %	Budget	Total Completed	Total Remaining	Percent Complete
Roads	70%	Roads		80.0%	
Rough Grade	30%	137,622	152,837	(15,215)	111.1%
Sub Grade	30%	137,622	141,772	(4,150)	103.0%
1st Lift	20%	137,622	153,875	(16,253)	111.8%
Shoulders	10%	152,837	0	152,837	0.0%
Ditches	10%	152,837	0	152,837	0.0%
Crane Pads	30%	Crane Pads		59.1%	
WTG Site Ready for Delivery	30%	75	40	35	53.3%
Cut & Subgrade Compacted	40%	75	47	28	62.7%
Material Placed & Compacted	30%	75	45	30	60.0%

**Road and Crane Pad Progress      74%**

**Comments:**

- Repaired sections of primitive county roads where project traffic has created ruts;
- Continue to maintain road to support turbine delivery and MPT delivery;
- Completed seven (7) crane pads with road base.



**FOUNDATIONS**

Item	Weighted %	Budget	Total Completed	Total Remaining	Percent Complete
Excavations	10%	75	75	0	100.0%
Mud Mats	5%	75	75	0	100.0%
Bases	40%	75	75	0	100.0%
Pedestals	20%	75	75	0	100.0%
Earthing Kit	5%	75	75	0	100.0%
Backfill	20%	75	75	0	100.0%

**Foundation Progress      100%**

**Comments:**

- Completed the last backfill at T10 on Friday, 7/10/2015.

**COLLECTION SYSTEM**

Item	Weighted %	Quantity	Total Received	Total Remaining	Percent Complete
<b>Deliveries</b>	<b>30.0%</b>	<b>Deliveries</b>			<b>100%</b>
MV Cable	50.0%	901,972	314,910	0	100%
Fiber	40.0%	335,107	336,590	0	100%
Junction Boxes	5.0%	28	28	0	100%
Grounding Transformers	5.0%	6	6	0	100%
<b>Installations</b>	<b>50.0%</b>	<b>Installations</b>			<b>67.0%</b>
Trench	40.0%	278,230	183,449	94,781	65.9%
MV & Fiber/Ground Cable	50.0%	297,945	223,180	74,765	74.9%
Junction Boxes	10.0%	28	9	19	32.1%
<b>Terminations</b>	<b>20.0%</b>	<b>Terminations</b>			<b>29.6%</b>
MV Cable at WTG switch gear	45.0%	75	5	70	6.7%
Junction Boxes	35.0%	28	9	19	32.1%
Underground MV Splices	20.0%	27	24	0	88.9%

**Collection System Progress:      69.9%**

**Comments:**

- Completed 5830' – Clearing of the ROW, 6730' - Trenching, 11,156' - Cable Installation, 6730' – Backfill on Circuit 4;
- Terminated WTG switchgear at T46, T47, T45 and T23.

**O&M BUILDING**

Activity Description	Weighted	Total	Remains	Completed
Design	4.0%	100%	0%	100%
Earthworks	8.0%	100%	0%	100%
Delivery	5.0%	100%	0%	100%
Building Erect and enclose	8.0%	100%	0%	100%
Grading and Drainage	6.0%	100%	10%	90%
Foundation Floor slab	9.0%	100%	0%	100%
Electrical prep, rough-in and trim out	5.0%	100%	0%	100%
Plumbing prep, rough-in and trim out	8.0%	100%	0%	100%
Internal Walls & Ceiling	9.0%	100%	0%	100%
Finishes prep, rough-in and trim out	12.0%	100%	0%	100%
HVAC	8.0%	100%	0%	100%
Septic System	4.0%	100%	0%	100%
Water Service	4.0%	100%	5%	95%
Cleaning and Shop Finish	4.0%	100%	0%	100%
Security System & Fence	4.0%	100%	18%	87%
Landscaping	1.0%	100%	100%	0%
Asphalt	1.0%	100%	100%	0%
<b>Total</b>				<b>97%</b>

**Comments:**

- Successfully completed the final electrical inspection of the O&M building by the state on Tuesday, 7/7/2015. The certificate is forthcoming;
- AB Systems replaced the garage doors with the correctly colored doors on Wednesday, 7/10/2015;
- Xcel IT personnel completed the server and equipment installation inside the SCADA room. VTI final site visit is required to integrate with Xcel's server and equipment;
- Water quality test results are still pending;
- Remaining grading work outside the fence will commence in mid-July and landscaping work will follow;
- Asphalt work will be performed in mid-August.

## SUBSTATION

SUBSTATION								
#	Org	Activity Description	TIME Weight	QTY PLANNED	QTY DONE	QTY REMAINING	% Completed	Unit
1	REI	Engineering	5.0%				100.0%	%
2	REI	Submittal & Approval Drawings	2.0%	100	100	0	100.0%	%
3	REI	Issue of Construction Drawings	3.0%	100	100	0	100.0%	%
4	REI	Procurement & Delivery	40.0%				100.0%	
6	REI	69KV DEAD TANK CIRCUIT BREAKER, 3000A	2.0%	4	4	0	100.0%	EA
7	REI	69KV DEAD TANK CIRCUIT BREAKER, 1200A	2.0%	4	4	0	100.0%	EA
8	REI	253KV CIRCUIT BREAKER, 2000A	2.0%	1	1	0	100.0%	EA
9	REI	CONTROL BUILDING	2.0%	1	1	0	100.0%	EA
10	REI	DC Station Service Charger, Batteries, Rack...	2.0%	1	1	0	100.0%	EA
11	REI	34.5kV 3-Phase Reactor-10 MVAR (3 X 3.333mVAR)	2.0%	1	1	0	100.0%	EA
12	REI	CAP BANK, 34.5kV, 11MVAR, with Stand	2.0%	100	100	0	100.0%	EA
13	REI	INRUSH Current Limiting Reactor	2.0%	100	100	0	100.0%	EA
14	REI	CAP BANK, Switcher	2.0%	100	100	0	100.0%	EA
15	REI	POWER TRANSFORMER 230/34.5KV	5.0%	1	1	0	100.0%	EA
16	REI	SUBSTATION STEEL / FITTINGS	2.0%	100	100	0	100.0%	EA
18	REI	Dead End & Static Mast	4.0%	100	100	0	100.0%	%
19	REI	Structural Steel	5.0%	100	100	0	100.0%	%
20	REI	Grounding Transformer	3.0%	100	100	0	100.0%	%
21	REI	MET Tower	3.0%	100	100	0	100.0%	%
22	REI	Construction	55.0%				46.5%	
23	REI	Site Preparation & Grading	3.0%	100	95	5	95.0%	%
23	REI	Site Aggregate & Finishing rock	2.0%	100	0	100	0.0%	%
25	REI	Flat Foundations	4.0%	18	18	0	100.0%	EA
26	REI	Main Power Transformer	4.0%	100	50	50	50.0%	EA
27	REI	Piers	4.0%	78	77	1	98.7%	EA
28	REI	Grounding Grid	5.0%	100	50	50	50.0%	%
30	REI	Conduits Installation	3.0%	100	30	70	30.0%	%
31	REI	Trenwa Installation	3.0%	100	30	70	30.0%	%
32	REI	Structural Steel	5.0%	100	55	45	55.0%	%
33	REI	Dead End & Static Mast	4.0%	100	85	15	85.0%	%
34	REI	Collection Circuits Risers	4.0%	100	10	90	10.0%	%
35	REI	Place Equipment and Bus	5.0%	100	20	80	20.0%	%
36	REI	Install Cables & Control Wiring	4.0%	100	10	90	10.0%	%
37	REI	Grounding Transformer	3.0%	100	0	100	0.0%	%
38	REI	MET Tower	2.0%	100	25	75	25.0%	%
39	REI	Commissioning and Testing	4.0%	100	0	100	0.0%	%
40	REI	Sub. Substantial Completion	7.0%	100	0	100	0.0%	%
41	REI	Hand Over of Job Books	2.0%	100	0	100	0.0%	%
Substation SubcontractorTotals			100.0%	100	0	0	70.5%	%

### Comments:

- Terminating wire in control building;
- Pulling wire in Trenwa throughout sub;
- Assembling cap bank;
- Mounting outdoor lighting;
- Placing Class 5 at west side of substation;
- Main Power transformer was delivered to the substation site on Saturday, 7/11/2015.

## TURBINES

Item	Weighted %	Quantity	Total Received	Total Remaining	Percent Complete
<b>Deliveries</b>	<b>20.0%</b>	<b>Deliveries</b>			<b>42.7%</b>
Base	15.0%	75	32	43	42.7%
Mid	14.0%	75	32	43	42.7%
Upper Mid	14.0%	75	32	43	42.7%
Top	14.0%	75	32	43	42.7%
Nacelle	14.0%	75	32	43	42.7%
Hub	14.0%	75	32	43	42.7%
Blades	15.0%	75	32	43	42.7%
<b>Installations</b>	<b>50.0%</b>	<b>Installations</b>			<b>19.5%</b>
Base	17.0%	75	31	44	41.3%
Mid	16.0%	75	14	61	18.7%
Upper Mid	16.0%	75	16	59	21.3%
Top	17.0%	75	9	66	12.0%
Nacelle	17.0%	75	9	66	12.0%
Blades	17.0%	75	9	66	12.0%
<b>MCC &amp; Commissioning</b>	<b>50.0%</b>	<b>Terminations</b>			<b>0%</b>
Walk downs	33.3%	75	0	75	0.0%
MCC Submitted	33.3%	75	0	75	0.0%
MCC Signed	33.4%	75	0	75	0.0%

**Turbine Progress: 20.3%**

### Week's Highlights

- Received deliveries for nine (9) WTGs;
- Installed eleven (11) bases and four (4) lower-mid sections;
- Topped out three (3) WTGs;
- Started mechanical completion work at T23 and T47. Final walk down at T23 is tentatively scheduled for Tuesday 7/14/2015;
- Replacement RT for base-mid crew #2 arrived on Friday 7/10/2015.

### Week's Issues

- Long crane walks and delayed deliveries have reduced the offload base-mid crew's efficiency;
- Crews had issues with the nacelle door bolts becoming bound and breaking at T43;
- Vestas deliveries still have some delays between trucks but most are coming in before 4:30 pm;
- Deliveries continue to arrive out of the requested sequence;
- Shipping damages require repair prior to installation;
- Fan motor in nacelle slid around on diamond plate during shipping which caused damage and added time to fix during mechanical completion work;
- Buckner mechanic was onsite to repair the roller hydraulic leak discovered on the LR 1300 on 7/11/2015;
- Buckner mechanic will return on 7/14/2015 to repair the LR 1300 base/mid crane #1 loose tracks.

**Exhibit 1 – Site Photographs**



**O&M Building – Garage door corrected**



**Transformer Delivery**



**Substation**



**Crane and offloaded sections at T51**



**View from T23**



**Nacelle installation at T44**



## Exhibit 2 – Safety Log

### Formulas for TRIR and RES Safety Index calculation:

$$\begin{aligned}
 \text{TRIR} &= ((\text{Lost Time} + \text{Medical Aid}) * 200,000) / \text{Total Project Man Hours} \\
 \text{RES Safety Index} &= ((\text{Lost Time} * 64) + (\text{Injury} * 16) + (\text{Minor Injury} * 4) + (\text{Damage} * 1) + (\text{Near Miss} * 0.25)) / \text{Man Hours} * 1000
 \end{aligned}$$

#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
705	7/9/2015	Normal Work Activities	Near Miss	RES Self Perform	T-43 RES Erection foreman came in and said his foreman was bringing in a worker who was not feeling well, they thought he might be suffering from heat illness.	Worker was brought into the RES Safety Trailer, Safety Supervisor (Vernon George) being evaluation on worker.	Safety Supervisor (Vernon George) discovered the worker was a type 1 diabetic, when he was first brought in the worker was awake but was not able to respond to simple questions or recognize anyone around him, he was given water and a glass of apple juice, with in about 5 minutes he came around, his blood sugar was checked it was extremely low, got blood sugar up to normal level with the juice and worker was able to walk communicate clearly, I then let him go home with instructions to eat a good meal. Rest and check his blood sugar every hour to make sure his blood sugar did not drop to a dangerous level and go and see his doctor as soon as he was able.
706	7/7/2015	Safety Walk	Hazard Observation	American Wind Transport	Pilot driver was not wearing side shield on safety glasses.	RES Orientation states that PPE must be worn at all times, Including side shields on Rx glasses	I talked to the pilot drive and about not having the side shield he admitted he forgot when he was changing out his glasses. He said he would be more careful the next time.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
707	7/8/2015	Safety Walk	Near Miss	American Wind Transport	Pilot driver in body in a pinch point, while helping spot one of the delivery trucks.	Safety Supervisor (Vernon George) Stopped Pilot driver gave instructions.	Safety Supervisor (Vernon George) stopped the pilot driver and truck driver, showed both drivers this was not a good place is body between both trailers when truck is in motion, I showed them both the correct body position off to the side and also were the driver could see the spotter.
708	7/10/2015	Normal Work Activities	Near Miss	Brad Laurence Trucking	County Road 105 two Brad Laurence trucks passed a RES roller without waiting for the operator of the roller to give a hand signal it was safe to go around, one truck went part way off the road.	A Safety Stand with all rock, dirt and RES drivers will be conducted 11 July 2015	RES Civil Manager Brad Laurence Foreman, RES Operator, a and both trucks drivers were brought into the office to meet with Safety Supervisor (Vernon George) About what was the cause, for the near miss, Safety Supervisor (Vernon George) and the other foreman for all trucking company's working on the RES Border Wind Project will go over safe driving and RES Policies in the Safety Stand Down.
709	7/9/2015	Safety Walk	Hazard Observation	RES Self Perform	RES Self Perform truck traveling down County road 107 had a load of material above the bed of his truck load not secured/ tied down.	Safety Supervisor (Vernon George) this is not the first report of workers not securing loads when transporting material to new locations without tying loads down, meeting with all RES managers to correct problem.	Meet with all RES Managers and RES employees that all loads no matter how far they have to move material, equipment or cribbing must be secured to avoid loads falling off creating a hazard to other drivers or damaging equipment.
710	7/8/2015	Safety Walk	Hazard Observation	World Wind & Solar	World Wind & Solar truck at T-23 parked with no cones.	RES Safety Supervisor (Vernon George) Asked why cones were not out in front and back of truck, they said they stepped out only for a minute and did not remember about placing cones out,	Strike was not issued, I gave them a warning this time and asked that every time they exit the vehicle cones have to be in place.



#	Date:	Incident Observed During:	Incident Type:	Company Involved:	Incident Details:	Corrective Action Details:	Actions Taken to Prevent Reoccurrence:
711	7/9/2015	Safety Walk	Safe Work Observation	RES Self Perform	T-43 Base mid crew approached Safety Supervisor (Vernon George) with JHA explained work being performed the hazards and had me sign on JHA before I entered the pad location.	None, this was a Safe Observation.	None, this was a Safe Observation.
712	7/9/2015	Safety Walk	Hazard Observation	RES Cable and Earth	Civil working next to road 107 checked JHA needed improvements, not all work performed noted on the JHA.	Training provide on how to fill out a proper JHA.	Got the crew together and we all went over what is my work the dangers and how are we going to mitigate the danger.
713	7/9/2015	Safety Walk	Hazard Observation	RES Civil	In the laydown yard a grader was left running with no operator.	Found driver and had him turn grader off.	The operator told me Safety Supervisor that the graders clean air control was not operating correctly so he left it running to see if it would work, Safety supervisor (Vernon George) told him that we never leave equipment running without an operator and the grader needs be repaired, we do not operate equipment that is not running properly.
714	7/9/2015	Normal Work Activities	Near Miss	RES Erection	A team member with diabetes felt his blood sugar getting low and felt light headed but did not pass out.	Site Safety Supervisor Rhine evaluated the team member and talked to him about his medication and suggested he go get medically evaluated for his condition.	Team member has gone to the VA for evaluation of his insulin amounts and talk to his doctor about the work he is now doing.
715	7/9/2015	Normal Work Activities	Damage	RES Americas	While returning to site a RES team member was in a company vehicle and got into an accident with a civilian vehicle causing slight damage but no injuries.	Driver was made aware that she needed to use more caution when driving.	All team members were made aware that they need to use caution on and off site.



**Exhibit 3 – Environmental Log**

**Formula for the Rolling Incident Score =**

$$((\text{Major Incident} * 16) + (\text{Minor Incident} * 4) + (\text{Near Miss} * 0.25) + (\text{Observation} * 0)) * 1000 / \text{Total Man Hours}$$

#	CLASS	SUB-CAT	CONTR ACTOR	DATE	INCIDENT DETAILS	ACTION TAKEN TO CORRECT SITUATION	ACTION TAKEN TO PREVENT REOCCURANCE
81	Observation	Informational	All	7/6/2015	The filled wooden recycling bin has been removed off site.	None	Replaced with new plastic recycling bin on site.
82	Observation	Wildlife	All	7/7/2015	Spotted a pair of fledgling at the T34 turbine site. Possibly from one of the delivered turbine section.	Pictures were taken to identify the bird and check resemblance to any of the endangered species. The bird was then removed to safe location away from the work zone.	None
83	Observation	Wildlife	All	7/8/2015	Spotted a pair of fledgling at the T51 inside the turbine base section.	Pictures were taken to identify the bird and check resemblance to any of the endangered species. The bird was then removed to safe location away from the work zone.	None
84	Observation	Trash or other Refuse	All	7/9/2015	Large quantity of wood piled up around the wood recycling bin due to lack of space	Asked crew to arrange it in an organized manner by stacking up and dispose when a bin is available.	Working with Vendor to replace bins more frequently.



#	CLASS	SUB-CAT	CONTRACTOR	DATE	INCIDENT DETAILS	ACTION TAKEN TO CORRECT SITUATION	ACTION TAKEN TO PREVENT REOCCURANCE
85	Near Miss	Lack of or Damaged BMP	All	7/9/2015	Loose silt pushing down on the turning radius towards the substation road. Noticed rill erosion on the slope and needs to be stabilized	Notified the civil crew to fix with compaction and using erosion control blanket.	Stabilize any slopes created/disturbed by construction.
86	Observation	Informational	All	6/4/2015	The filled plastic recycling bin has been removed off site.	None	Replace with new plastic recycling bin on site.



**Exhibit 4 – Quality Log**

- Incidents - None
- CPARs - None
- NCRs - 8

**NCR log**

Description of Material	NCR Opened (Current Period)	NCR Closed (Current Period)	Total NCR Open (As of this Week)	Total NCR Closed (As of this Week)
Totals			2	6
NCR-15-016 Backfills and compactions of the turbine bases in freezing conditions			X	
NCR-2014-38, T3 grounding was not installed per specifications			X	



**Exhibit 5 – RFI Log**

**Outgoing RFIs**

	Generated By	Company	Sent To	Company	Subject	Date Sent	Response Requested By	Type: Civil, Electrical, etc.	Status / Comments	Date Closed
23053-30	Shabeeb Khader	RES	Bradley Morrison	Xcel Energy - Generation	Install crushed aggregate on the substation site	10/31/14	11/6/14	Civil	Xcel Responded. RES to perform density test.	
23053-096	Emad Alaydi	RES	Ritchie Farmer	Vestas	Ice detection documentation	06/22/15	06/29/15	SCADA	Vestas responded on 6/23/15. Requested additional information from RES	
23053-098	Emad Alaydi	RES	Ritchie Farmer	Vestas	VPN Tunnel in tunnel communication	06/25/15	07/02/15	Turbine		
23053-099	Jessica Coffey	RES	Ritchie Farmer	Vestas	Communication cable installation	06/29/15	07/06/15	Turbine		



**Exhibit 6 - Change Order Request Log**

CO No.	Date Identified	Date Submitted	Date Executed	Description	Value of CO	Comments
1	06/11/15			Change in the landscaping design - larger trees for windbreak at O&M	\$ 3,176.00	RES and Xcel agreed to split total cost of \$6,352.00
2	06/11/15			Storm shelter changes at O&M	\$ 11,000.00	RES to request additional information from ABS on who directed the changes
3	06/11/15			Changes in final design vs specification of electrical layout at O&M	\$ 11,151.00	RES is still working through the changes
4	06/11/15			Changes in security system at O&M	\$ 8,936.00	Xcel requested breakdown of changes and the delta
5	06/11/15			Changes in the Control Building - Increasing the station service transformer, additional switch requests, and additional landings at entrance doors	\$ 36,141.00	<p>Station Service transformer sizing – Original station service transformer sizing was done at 50kVA. This was based on historic numbers initially and was later proven by station service calculations. Xcel requested to change this to 100kVA, since that is the Xcel standard (was requested at the 90% design review meeting). RES reviewed the Xcel standards provided and did not see this requirement anywhere in the standards provided. This increase in station service size also required upgrading multiple disconnect and safety switches from 200A to 400A rating in order to meet the requirements of the 100kVA station service transformer to be installed per the Xcel direction/request.</p> <p>Additional switch requests - Xcel requested during the 90% design review meeting that safety disconnect switches be moved from inside the control building to the outside. This requires the installation of waterproof cabinets for the switches. Xcel also requested an additional yard cabinet to connect and supply larger equipment from the AC system.</p> <p>Addition of landings at entrance doors – this was added at the 90% design review meeting per Xcel request and was not evident for the provided Xcel specifications.</p>

CO No.	Date Identified	Date Submitted	Date Executed	Description	Value of CO	Comments
6	06/11/15			Upgrade from SEL351 to SEL421 relay and bus relays at the substation	\$ 163,789.00	Industry standard for wind farm collection circuits are to install SEL351 relays (O/C & G/F) relays to protect the collector systems. Collection systems (although balanced) are considered distribution circuits, since they are four wire systems, with a ground reference transformer connected to each circuit. The collection circuits are insulated to 150kV BIL, which is further evidence that they are considered as distribution feeders (compared to the 200kV BIL insulation levels typically associated with transmission lines/circuits). Xcel identified the requirement to install SEL 351 relays on Distribution feeders. During design review meetings, Xcel classified these as transmission lines and required the installation of step distance protection (SEL421 relays). This resulted in additional cost. The 34.5kV bus differential relays subsequently were also upgraded from distribution bus relays to transmission class bus diff relays with 100% redundancy
7	06/11/15			Addition of three additional shield masts at the substation	\$ 73,838.00	The original substation design utilized a combination of shield masts and shield wires in order to establish a lightning shielding system for the substation equipment. During the 60% design review meeting Xcel indicated they do not allow shield wires to span over top of equipment and requested that the shield wires be removed and that lightning shielding protection be done with shield masts. This requirement is not seen in any of the supplied specifications. This required the addition of 3 additional shield masts and thus additional cost.
8	06/11/15			Addition of anchor/rigging points for the oil containment based on the change to above ground containment system at the substation	\$ 36,907.00	Xcel required an above grade containment system with a removable wall and built in rigging/anchor points in the containment system. This was not evident in any of the provided specifications or the contract agreement. The above grade construction as such does not add cost but the inclusion of the removable wall and the addition of the anchor/rigging points that is integrated into the oil containment system does add cost
9	06/11/15			Addition of separate relay/plc controller to control the capacitor banks at the substation	\$ 23,510.00	Typical capacitor bank controls on wind farms are done by the wind farm controller through the SCADA system. Xcel requested during the 90% design review not to control the equipment through the SCADA system, but rather have a separate relay/plc controller to control the capacitor banks. This required the installation of an additional relay in order to have a dedicated controller for the capacitor banks. This was not evident from any of the supplied specifications, since Xcel does not have a standard specification for 34.5kV capacitor banks.

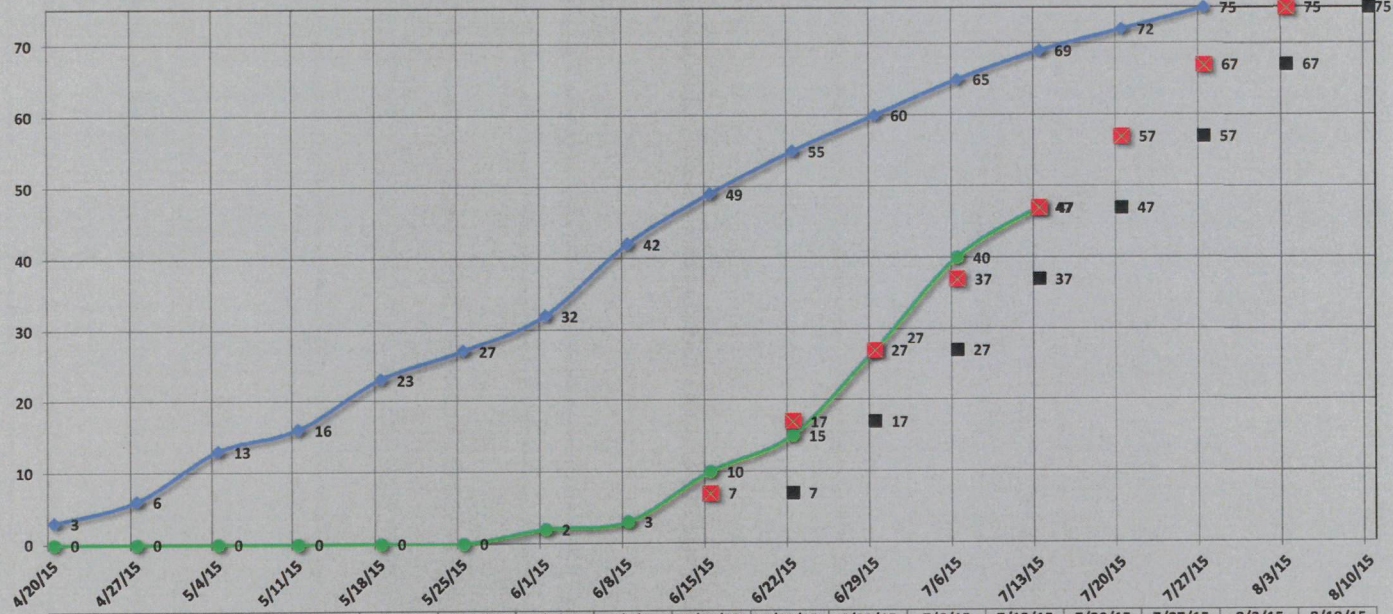


CO No.	Date Identified	Date Submitted	Date Executed	Description	Value of CO	Comments
10	06/11/15			Upgrade to the capacitor bank interlock system	\$ 10,846.00	Typical interlocks for capacitor banks only include a time delay after opening the associated capacitor/circuit switched to release a key that will unlock the ground switch and lock the switcher in the open position. Xcel requires a much more elaborate system, which in turn costs more. This was not identified in any of the supplied standard and was determined as designs progressed.
<b>TOTAL</b>					\$ 379,294.00	

Last Updated: 7/13/2015

### Border Winds - Crane Pad Completion Progress Chart

Number of Crane Pads Complete



	4/20/15	4/27/15	5/4/15	5/11/15	5/18/15	5/25/15	6/1/15	6/8/15	6/15/15	6/22/15	6/29/15	7/6/15	7/13/15	7/20/15	7/27/15	8/3/15	8/10/15
Planned Crane Pads Complete	3	6	13	16	23	27	32	42	49	55	60	65	69	72	75		
Actual Crane Pads Complete	0	0	0	0	0	0	2	3	10	15	27	40	47				
Anticipated WTG Deliveries									7	17	27	37	47	57	67	75	
Guaranteed WTG Deliveries										7	17	27	37	47	57	67	75

Last Updated: 7/13/2015

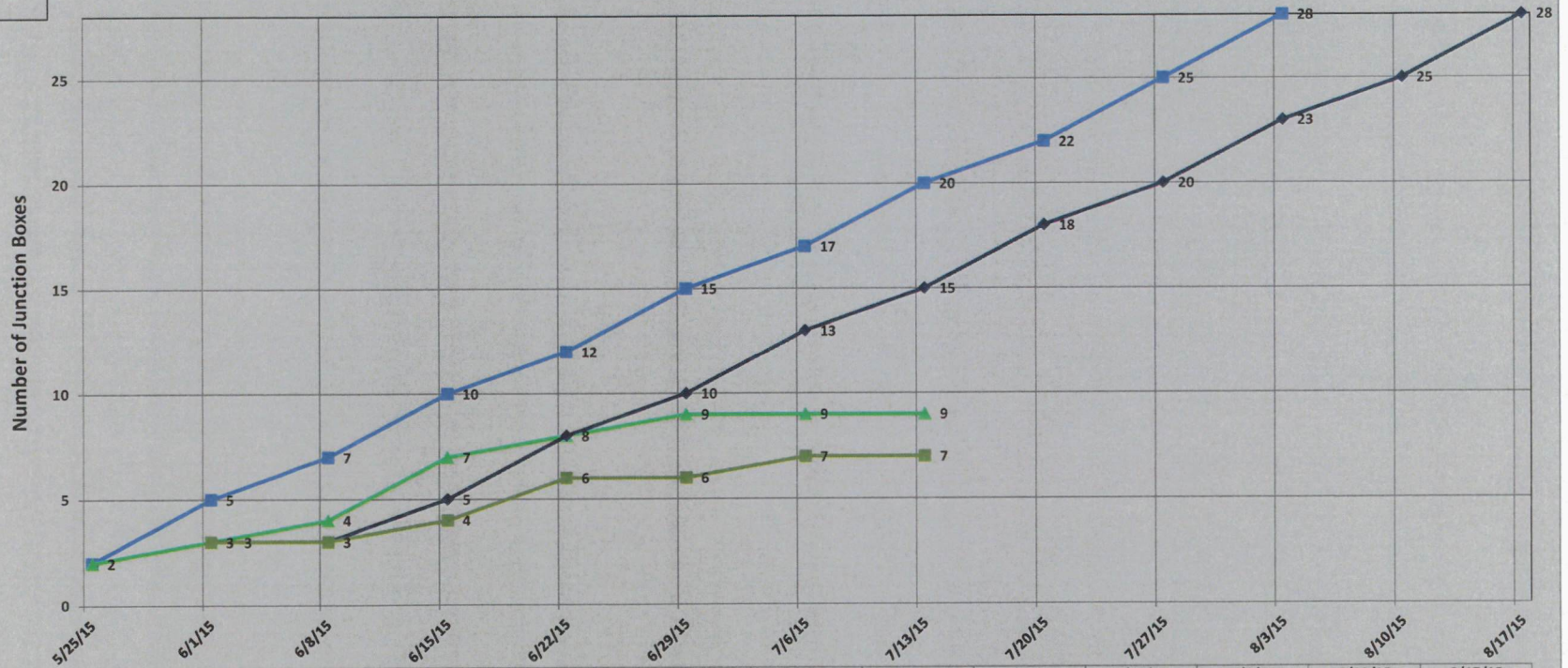
### Border Winds - Cable Installation Progress Chart



	3/30/15	4/6/15	4/13/15	4/20/15	4/27/15	5/4/15	5/11/15	5/18/15	5/25/15	6/1/15	6/8/15	6/15/15	6/22/15	6/29/15	7/6/15	7/13/15
Planned Cable Installation	60000	76000	92000	108000	124000	140000	156000	172000	188000	204000	220000	236000	252000	268000	284000	297945
Actual Cable Installed	31052	31052	37940	55374	63116	71988	83440	94064	112240	122194	127990	152463	174343	198454	211397	230476

Last Updated: 7/13/2015

### Border Winds - Junction Box Progress Chart



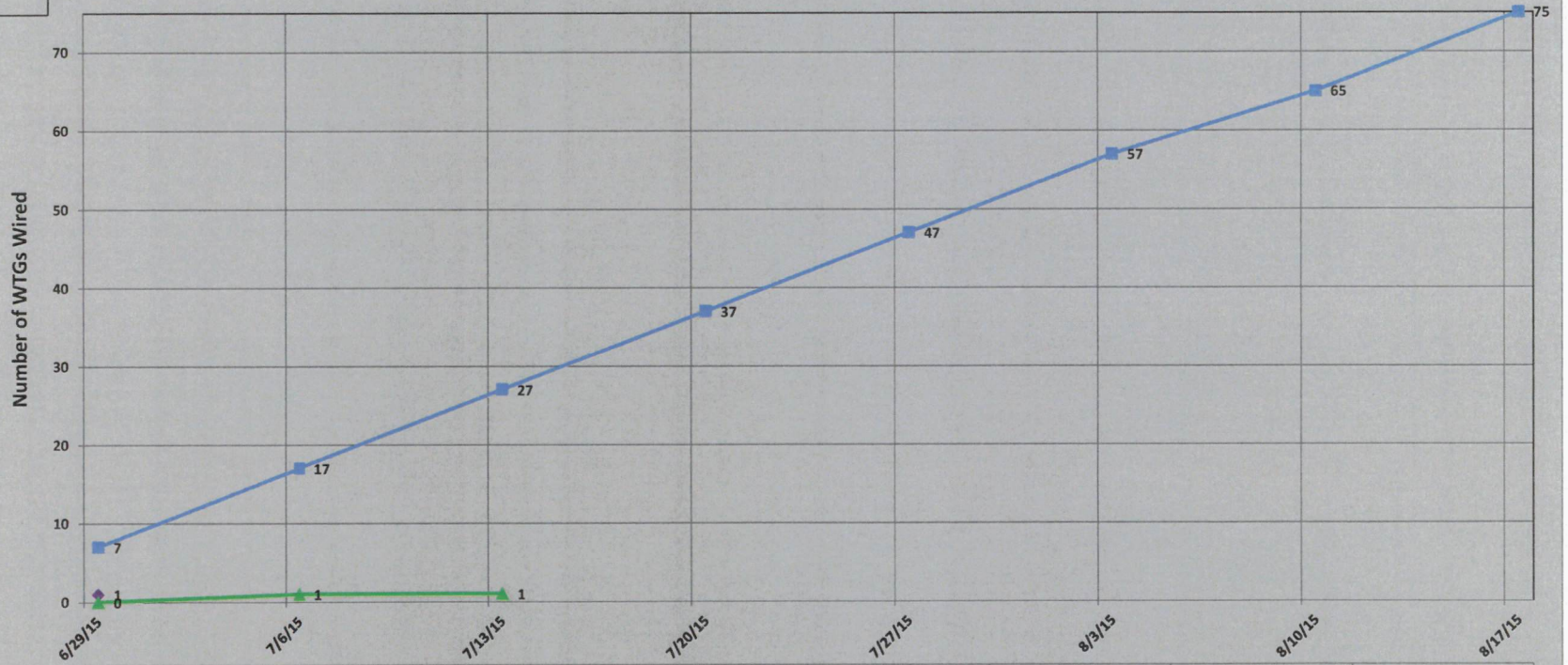
	5/25/15	6/1/15	6/8/15	6/15/15	6/22/15	6/29/15	7/6/15	7/13/15	7/20/15	7/27/15	8/3/15	8/10/15	8/17/15
Planned JB Setting	2	5	7	10	12	15	17	20	22	25	28		
Actual JB Setting	2	3	4	7	8	9	9	9					
Planned JB Terminations			3	5	8	10	13	15	18	20	23	25	28
Actual JBs Terminated		3	3	4	6	6	7	7					





Last Updated: 7/13/2015

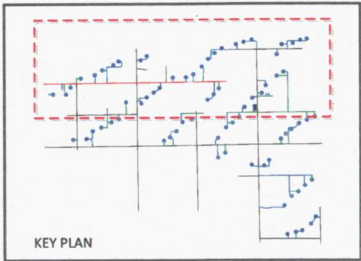
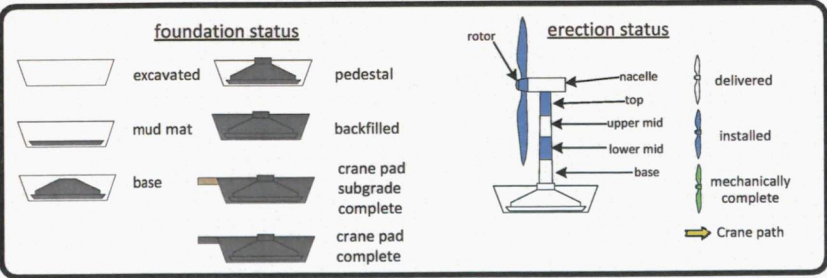
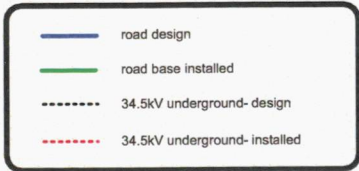
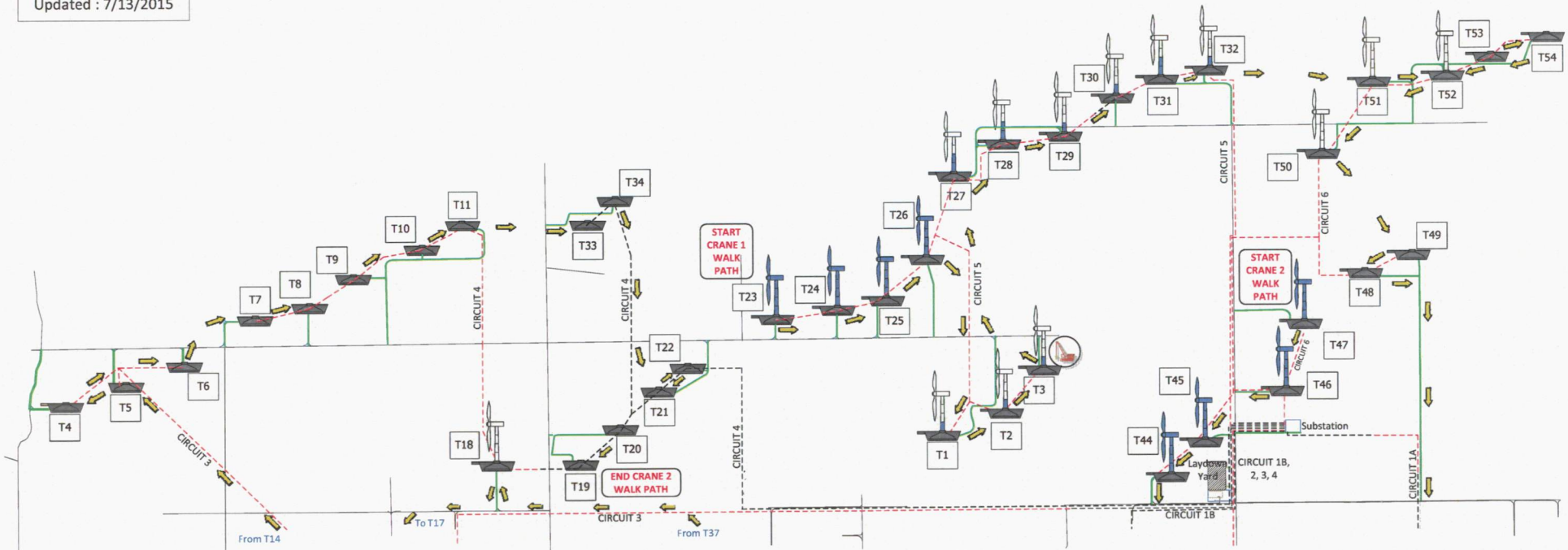
### Border Winds - WTG Wiring Progress Chart



	6/29/15	7/6/15	7/13/15	7/20/15	7/27/15	8/3/15	8/10/15	8/17/15
WTGs Ready to Wire	1							
Planned WTG Wiring Completion	7	17	27	37	47	57	65	75
Actual WTG Wiring Completed	0	1	1					

Updated : 7/13/2015

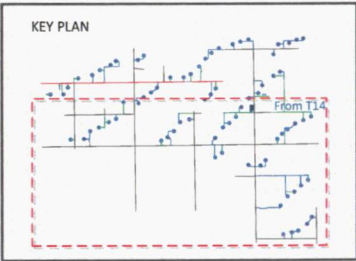
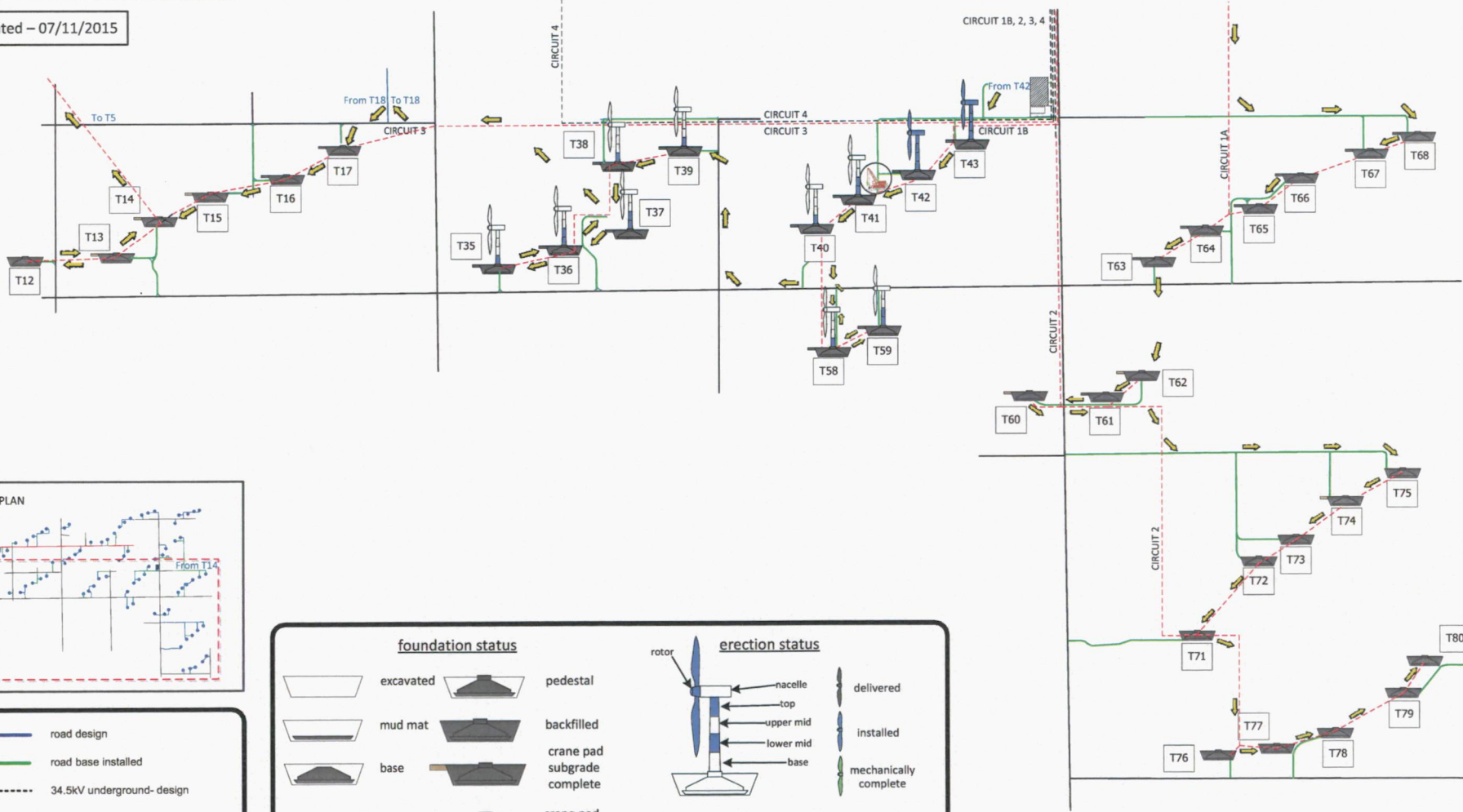
# Border Winds – North Construction Progress Status Map





# Border Winds – South Construction Progress Status Map

Updated – 07/11/2015



- road design
- road base installed
- 34.5kV underground- design
- 34.5kV underground- installed

foundation status		erection status	
	excavated		pedestal
	mud mat		backfilled
	base		crane pad subgrade complete
			crane pad complete

erection status	
	rotor
	nacelle
	top
	upper mid
	lower mid
	base

	delivered
	installed
	mechanically complete

END CRANE 1 WALK PATH