

**Appendix A**  
**Turbine Dimensions - Gamesa G90**

**Marble River Wind Farm**

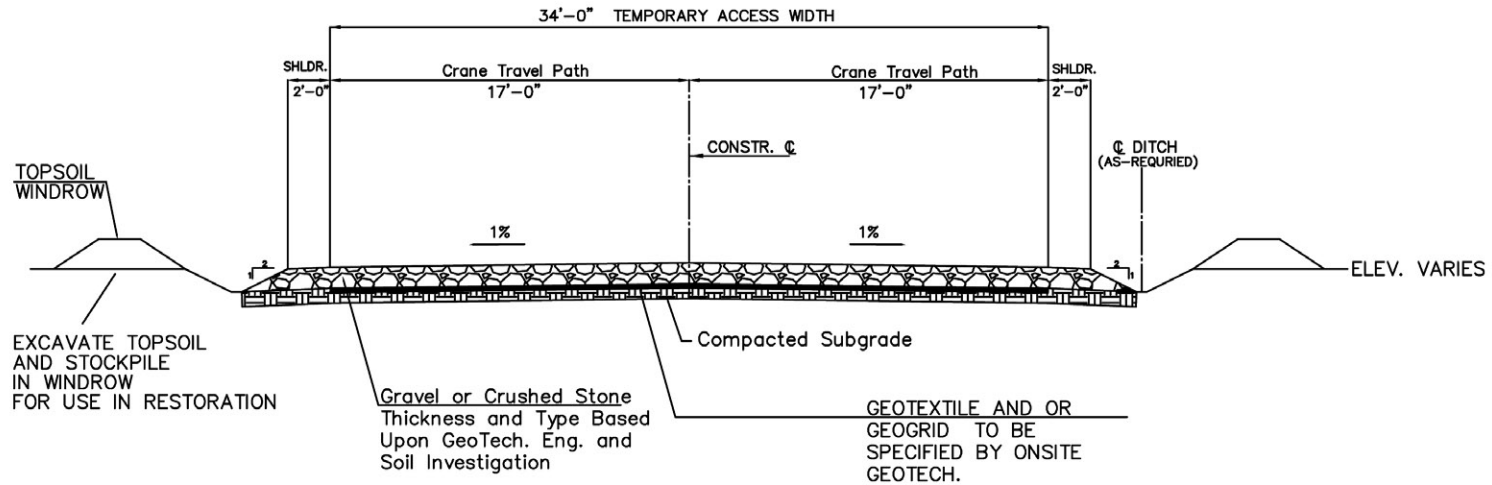
Towns of Clinton and Ellenburg  
 Clinton County, New York

Prepared By:

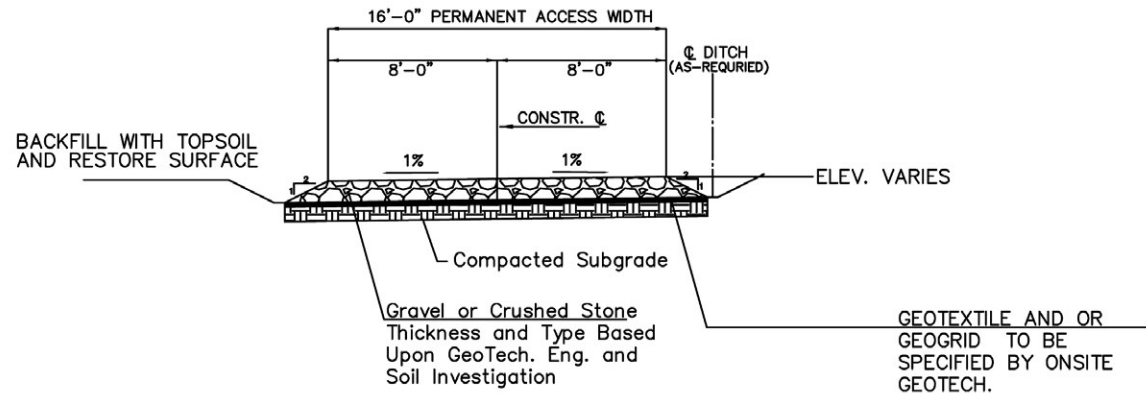


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## TEMPORARY ACCESS ROAD



## PERMANENT ACCESS ROAD



Source: Horizon Wind Energy

## Appendix A Typical Access Road Construction

**Marble River Wind Farm**

Towns of Clinton and Ellenburg  
Clinton County, New York

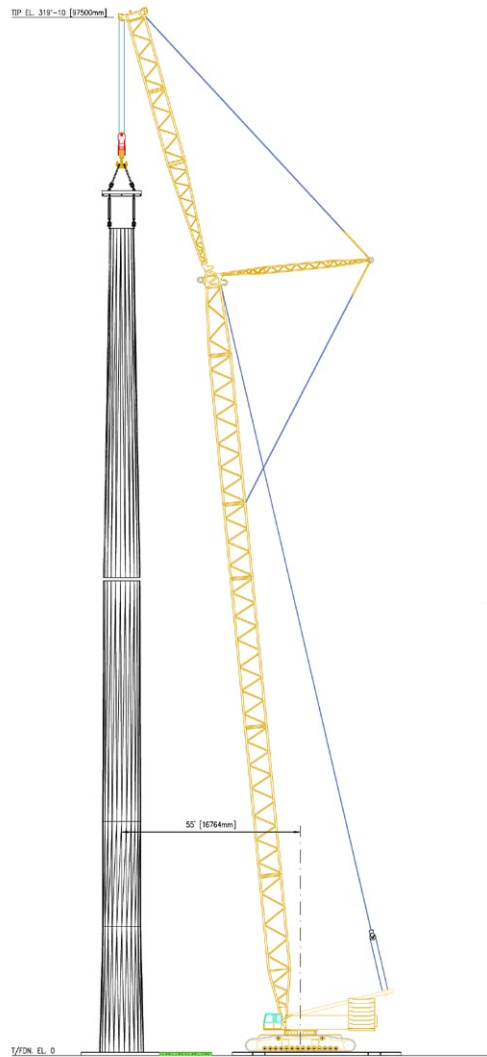
Prepared By:

EDR<sub>inc</sub>

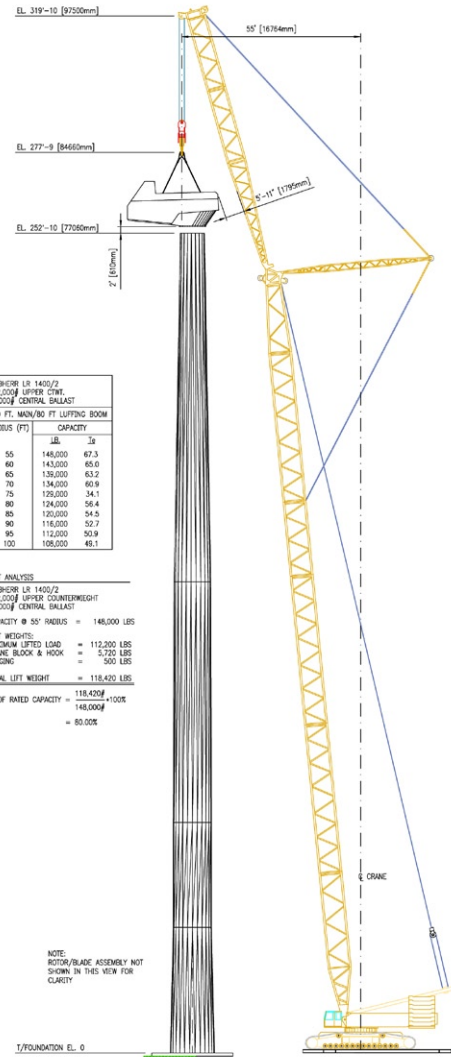
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Marble River  
Wind Farm

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**ELEVATION - SETTING UPPER TOWER SECTIONS**  
SCALE: NTS



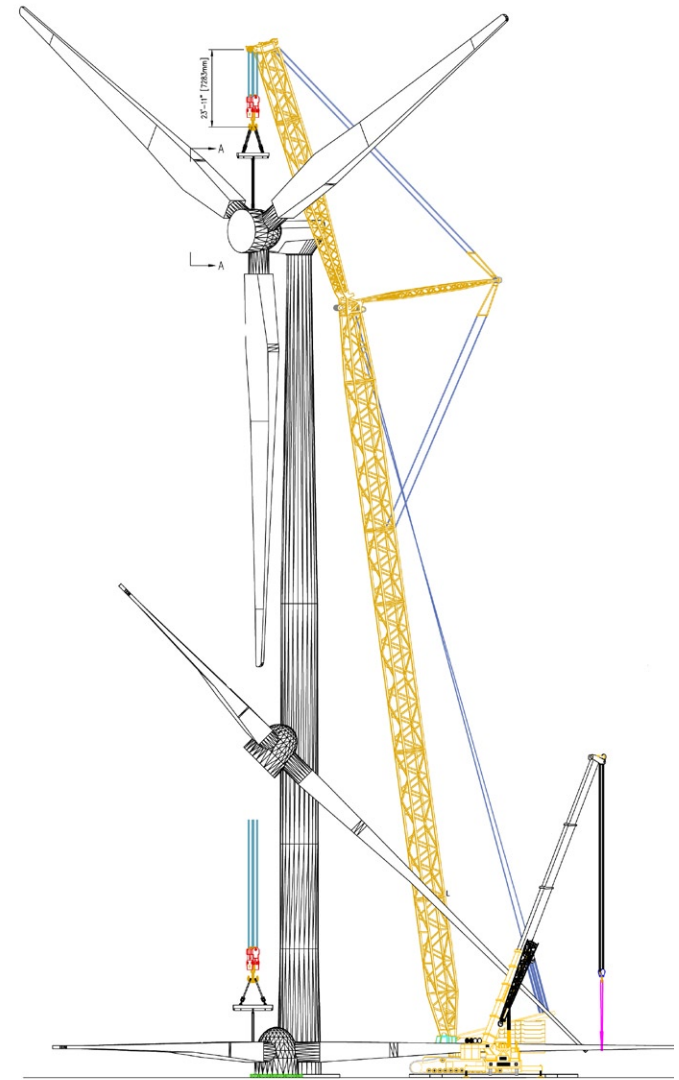
LEIBHERR LR 1400/2  
340,000# UPPER CRAWL  
95,000# CENTRAL BALLAST  
230 FT. MAIN/80 FT. LIFTING BOOM

RADIUS (FT)	LB	LB
55	148,000	67.3
60	143,000	65.0
65	139,000	63.2
70	134,000	60.9
75	129,000	58.1
80	124,000	56.4
85	120,000	54.5
90	116,000	52.7
95	112,000	50.9
100	108,000	49.1

**LIFT ANALYSIS**  
LEIBHERR LR 1400/2  
340,000# UPPER COUNTERWEIGHT  
95,000# CENTRAL BALLAST  
CAPACITY @ 55' RADIUS = 148,000 LBS  
**LIFT WEIGHTS:**  
MAXIMUM LIFTED LOAD = 112,200 LBS  
CRANE BLOCK & HOOK = 5,720 LBS  
RIGGING = 300 LBS  
**TOTAL LIFT WEIGHT = 118,420 LBS**  
% OF RATED CAPACITY =  $\frac{118,420}{148,000} \times 100\%$   
= 80.00%

NOTE:  
ROTOR/BLADE ASSEMBLY NOT  
SHOWN IN THIS VIEW FOR  
CLARITY

**ELEVATION - SETTING OF NACELLE**  
SCALE: NTS



**END VIEW - UPRIGHTING OF ROTOR/BLADE ASSY.**  
SCALE: NTS

Source:  
**FOUR WINDS, LLC**  
WATERTOWN, WISCONSIN

## Appendix A Typical Wind Turbine Assembly

Marble River Wind Farm

Towns of Clinton and Ellenburg  
Clinton County, New York

Prepared By:

EDR<sub>PC</sub>

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**Appendix A**  
**Conceptual Sustation Layout**

**Marble River Wind Farm**

Towns of Clinton and Ellenburg  
Clinton County, New York

Prepared By:

EDR<sub>inc.</sub>

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March 2006