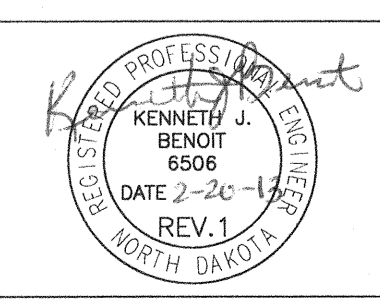


**NOTES**

1. DUCT RUNS NOT TO EXCEED 6,000 FT. HANDHOLE SHALL BE LOCATED IN THE MIDDLE OF ANY RUN EXCEEDING APPROXIMATELY 6,000 FT. AND/OR ANY TURN OVER 30". A MINIMUM OF 100 FEET OF FIBER OPTIC CABLE MUST BE LEFT IN EACH HANDHOLE.
2. ALL FIBER IS 24 COUNT SINGLE MODE BREAKOUT CABLE. COMSCOPE PART NUMBER D-024-LN-8W-F12NS.
3. TRACER WIRE (#12, THHN, GRAY SOLID) SHOULD BE PULLED IN EACH RUN. SEE FIBER ENCLOSURE AND FIBER PATCH PANEL DRAWINGS FOR DETAILS: E-FD-01, E-FS-01, E-FS-02, & E-FS-03.
4. FIBER CABLES FROM FS-808E TO WTG 207 & FS-808E TO MET 207 WILL BE INSTALLED TOGETHER IN THE POWER CONDUCTOR TRENCH PER E-CA-01.
  - 4.1. FIBER FOR MET WILL CONTINUE PAST WTG 207 TO MET 207 IN A SINGLE, FIBER ONLY TRENCH.
  - 4.2. DISTANCES SHOWN ARE FROM FS-808E TO WTG 207 & FROM FS-808E TO MET 207.
5. HANDHOLE LOCATIONS ARE SHOWN ON E-GA10-E-GA16.
6. COORDINATE SYSTEM FOR HANDHOLE POINTS ARE NORTH DAKOTA SOUTH NAD83.

**LEGEND**

- WIND TURBINE GENERATOR  
SIEMENS SWT-3.0-101  
3.0MW
- METEOROLOGICAL TOWER
- FIBER OPTIC CABLE  
24 STRAND, SINGLE MODE LOOSE TUBE IN 2" HDPE INNERDUCT
- SWITCH CABINET WITH FIBER SPLICE ENCLOSURE
- HANDHOLE \*SEE NOTE 6

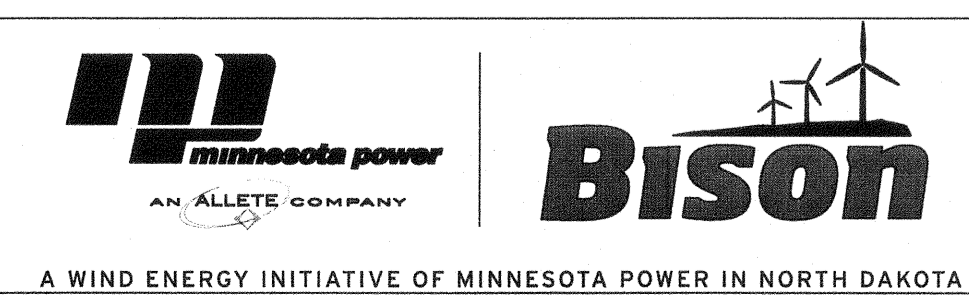


CLIENT	7/15/11/7/20/11/7/21/11/8/4/11
BID	
CONSTRUCTION	
PERMITTING	
RELEASED TO/FOR	D E F O 1 2 3
	DATE RELEASED

**BARR**  
 Project Office:  
 BARR ENGINEERING CO.  
 4700 WEST 77TH STREET  
 MINNEAPOLIS, MN.  
 55435-4803  
 Ph: 1-800-632-2277  
 Fax: (952) 832-2601  
 www.barr.com

Corporate Headquarters:  
 Minneapolis, Minnesota  
 Ph: 1-800-632-2277  
 Fax: (952) 832-2601  
 www.barr.com

Scale	N.T.S.
Date	5/27/11
Drawn	RJG
Checked	CEG
Designed	RJG
Approved	JLM



BISON 2 WIND PROJECT		BARR PROJECT No.
MORTON & OLIVER COUNTIES, NORTH DAKOTA		34/33-1007
34.5KV COLLECTOR SYSTEM		CLIENT PROJECT No.
FIBER OPTIC CABLE LAYOUT		
DWG. No.	REV. No.	
E-FL-10	1	

Images in Drawing