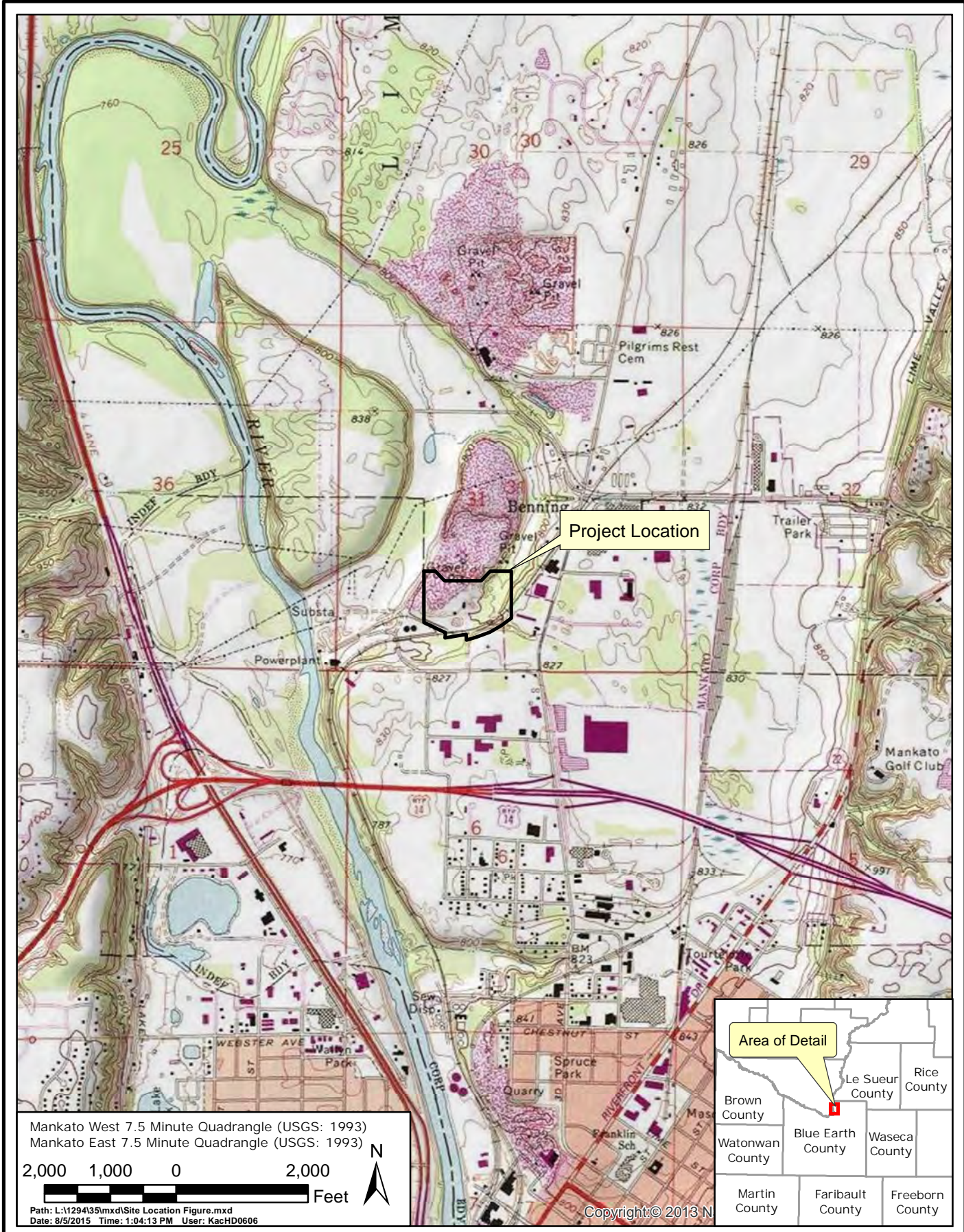


## Figures

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MANKATO ENERGY CENTER  
 Site Location Map



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 Figure 1

**Legend**

- × - × - Current Fence Line
- Property Boundary



MANKATO ENERGY CENTER

Site Detail Map

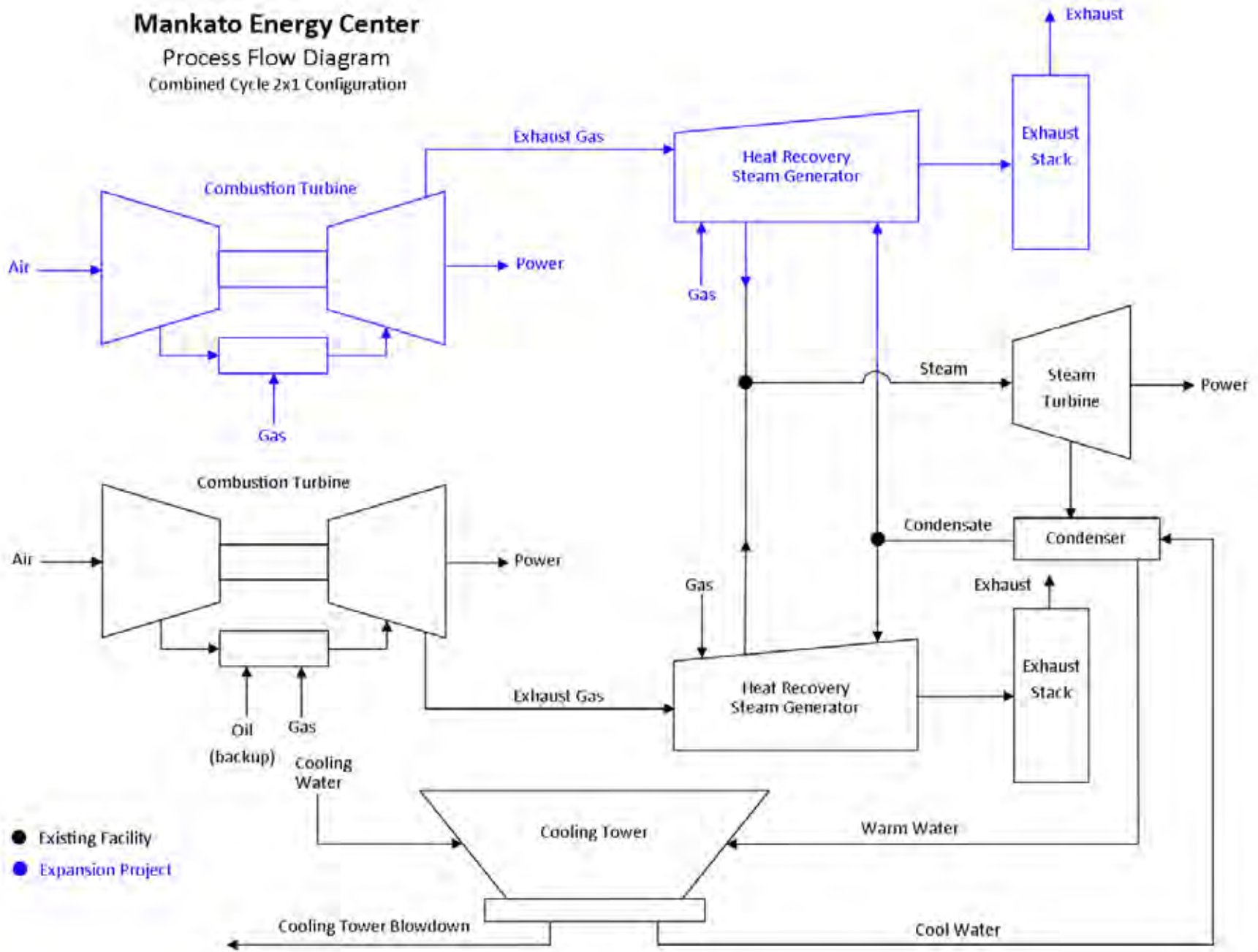


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Figure 2

# Mankato Energy Center

Process Flow Diagram  
Combined Cycle 2x1 Configuration



MANKATO ENERGY CENTER

Process Flow Diagram

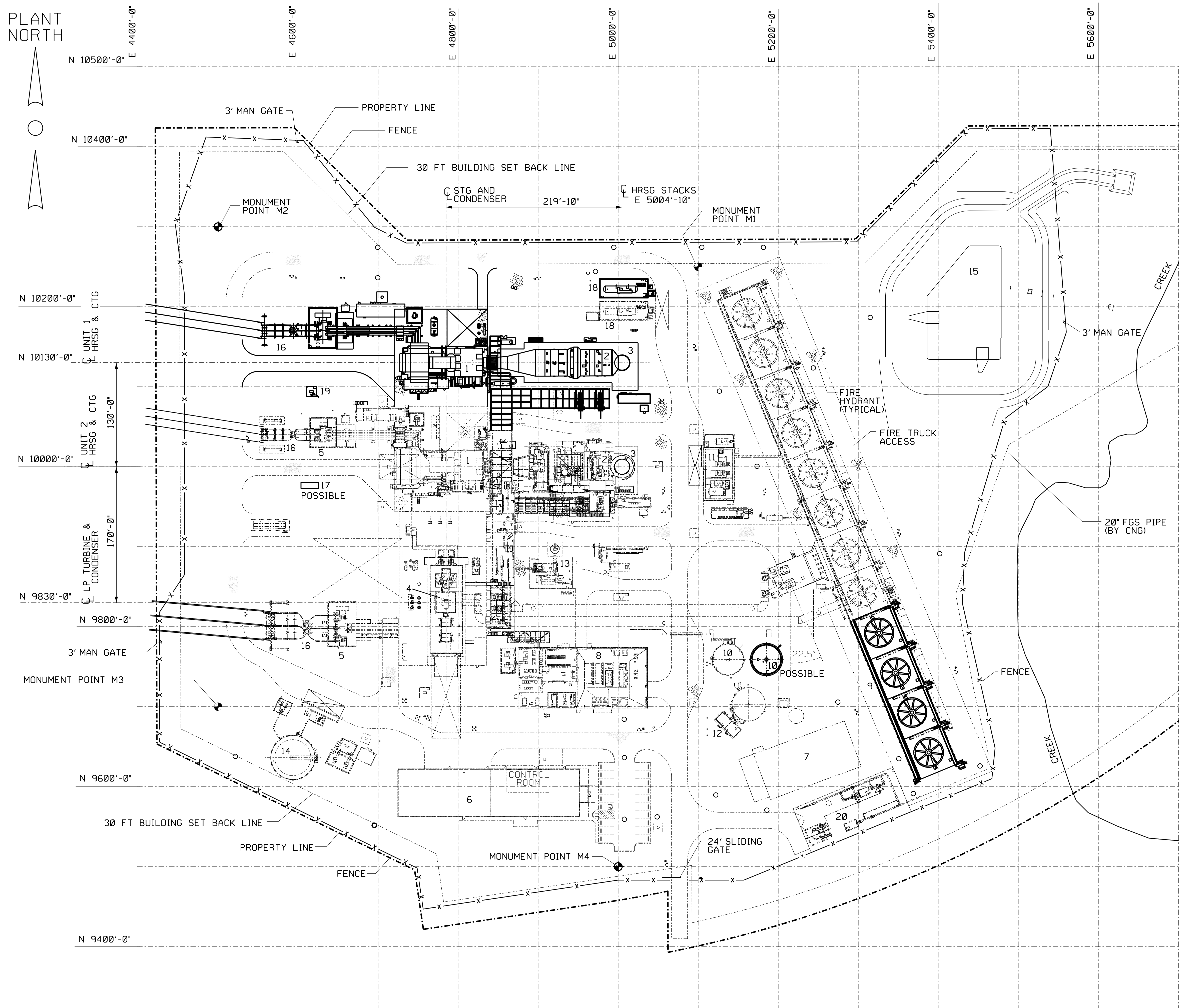
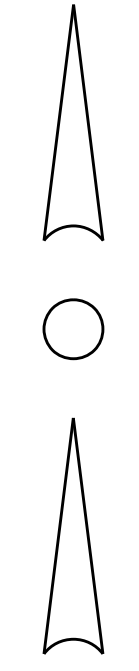


Responsive partner. Exceptional outcomes.

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Figure 3

PLANT NORTH



**LEGEND**

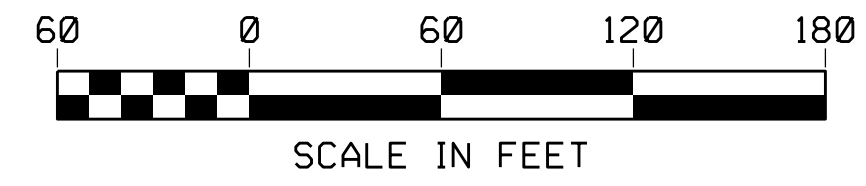
1. COMBUSTION TURBINE
2. HRSG
3. HRSG STACK
4. STEAM TURBINE
5. GENERATOR STEP-UP TRANSFORMER
6. ADMIN/MAINTENANCE/WAREHOUSE/CONTROL ROOM BLDG
7. EXISTING WAREHOUSE BLDG
8. WATER TREATMENT EQUIPMENT AREA
9. COOLING TOWER
10. DEMIN WATER STORAGE TANK (POSSIBLE SECOND TANK)
11. COOLING TOWER CHEMICAL FEED ENCLOSURE
12. FIRE PUMP SKID ENCLOSURE
13. AUXILIARY BOILER
14. FUEL OIL STORAGE TANK
15. SEDIMENT POND / STORMWATER BASIN
16. SWITCHYARD EQUIPMENT
17. BACKUP DIESEL GENERATOR (POSSIBLE)
18. ANHYDROUS AMMONIA TANK
19. OIL / WATER SUMP & PUMPS
20. FUEL GAS YARD AREA

**LEGEND:**

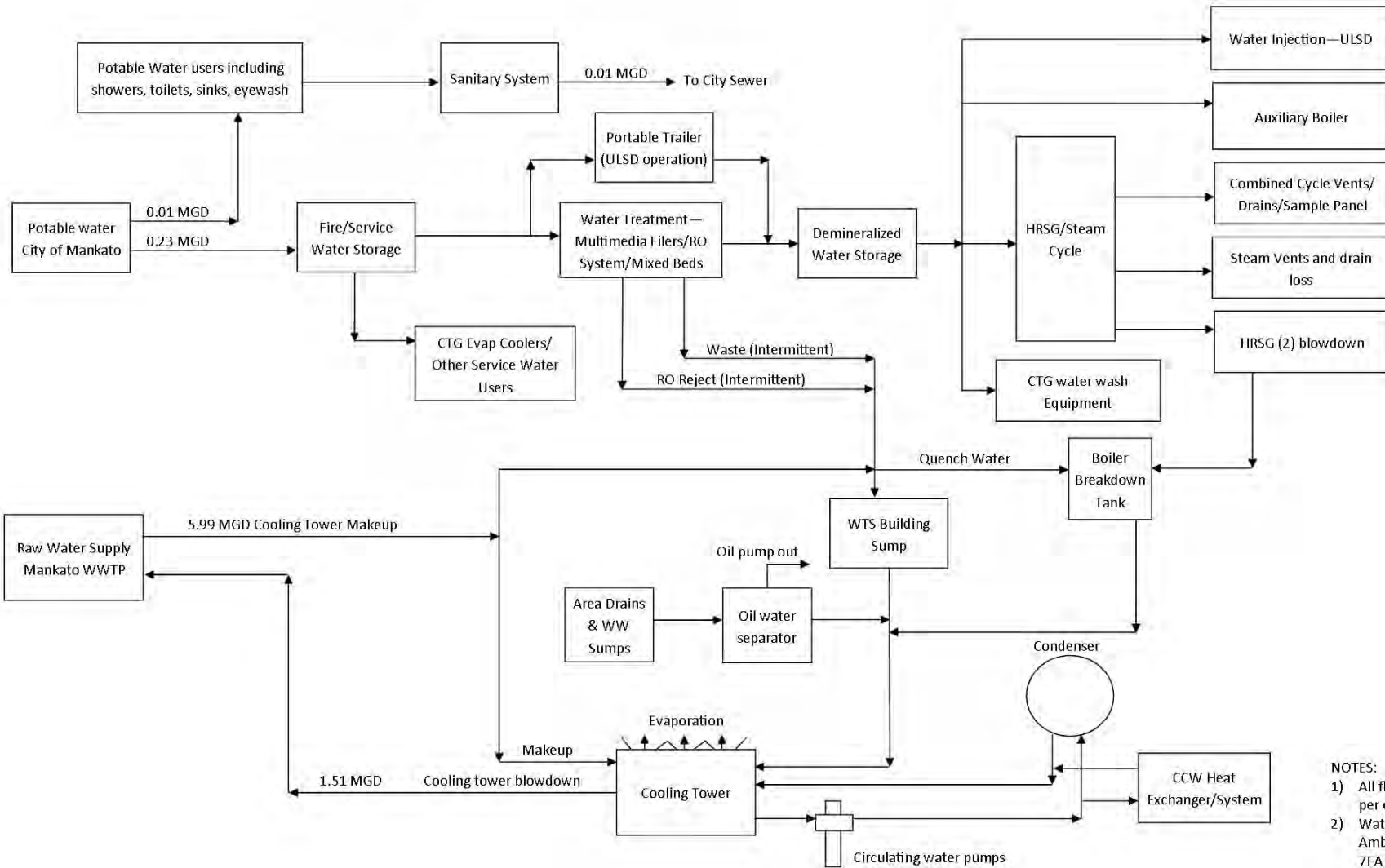
- GRAVEL
- ASPHALT
- CONCRETE
- ELECTRICAL MANHOLE
- STORM WATER CATCH BASIN

MONUMENT POINTS:	PLANT COORDINATES:	BLUE EARTH COUNTY COORDINATES:
M1	N.10250'-0", E.5100'-0"	FOR TRANSLATION BETWEEN PLANT COORDINATES & BLUE EARTH COUNTY COORDINATES SEE DRAWING MK-GEN-DE-C1-0001
M2	N.10300'-0", E.4500'-0"	
M3	N.9700'-0", E.4500'-0"	
M4	N.9500'-0", E.5000'-0"	

General Arrangement Site Plan Figure 4






<table border="1"> <tr> <td>B</td> <td>05/12</td> <td>ISSUED FOR PERMITTING</td> <td>SRK</td> <td>PP</td> <td>SRK</td> <td>PP</td> <td>JS</td> </tr> <tr> <td>A</td> <td>05/04/15</td> <td>ISSUED FOR PERMITTING</td> <td>SRK</td> <td>PP</td> <td>SRK</td> <td>PP</td> <td>JS</td> </tr> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>DRAWN</th> <th>CHECKED</th> <th>DESIGNED</th> <th>APPROVED</th> <th>DATE</th> </tr> </table>		B	05/12	ISSUED FOR PERMITTING	SRK	PP	SRK	PP	JS	A	05/04/15	ISSUED FOR PERMITTING	SRK	PP	SRK	PP	JS	REV	DATE	DESCRIPTION	DRAWN	CHECKED	DESIGNED	APPROVED	DATE
B	05/12	ISSUED FOR PERMITTING	SRK	PP	SRK	PP	JS																		
A	05/04/15	ISSUED FOR PERMITTING	SRK	PP	SRK	PP	JS																		
REV	DATE	DESCRIPTION	DRAWN	CHECKED	DESIGNED	APPROVED	DATE																		
PRELIMINARY STATUS: _____ DATE: _____ INFORMATION ONLY - NOT TO BE USED FOR CONSTRUCTION.																									
LDE: P PHIAMBOLIS 05/04/15 DATE: _____ APPROVED STATUS: _____ DATE: _____ REPRESENTS REVIEWED AND APPROVED DESIGN. ANY PORTION MARKED "HOLD" RETAINS PRELIMINARY STATUS.																									
ORIGINATING PERSONNEL: SRK LEAD DESIGNER: SR KLINE ENGINEER/TECH SPECIALIST P PHIAMBOLIS PROJECT ENGINEERING MANAGER J SENTHILVEL	PROFESSIONAL ENGINEER'S SEAL: _____ PE: _____ STATE: _____ LICENSE NO.: _____ DATE: _____																								
<b>WorleyParsons</b> resources & energy																									
<b>CALPINE</b> NYSE CPN																									
<b>Mankato Energy Center</b> Mankato, Minnesota																									
GENERAL ARRANGEMENT SITE PLAN																									
SCALE: 1" = 60' DWG. NO.: MK-GEN-DE-G01-0002 SHEET NO.: 01 REVISION: B																									

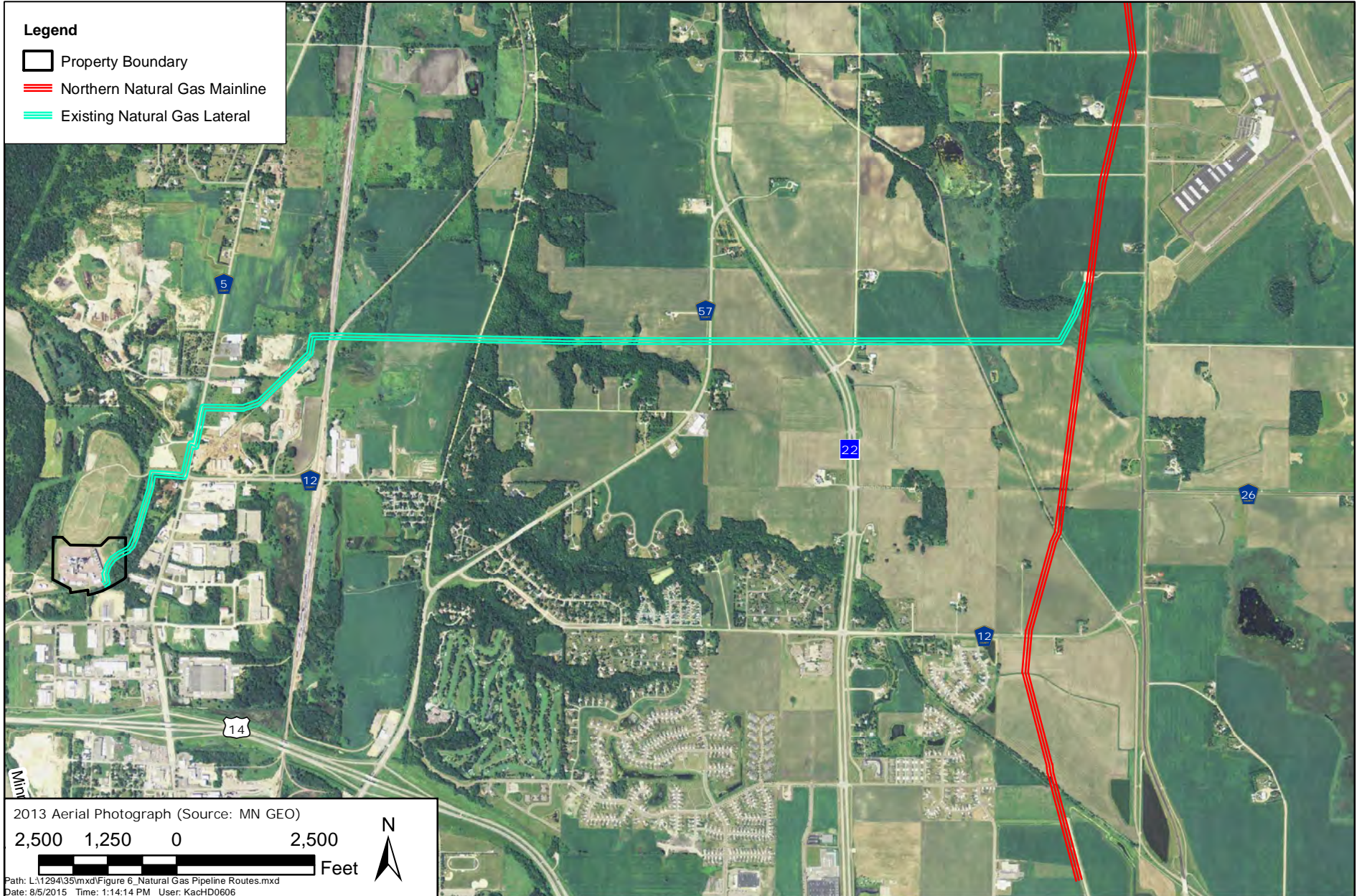


- NOTES:
- 1) All flow rates are in million gallons per day
  - 2) Water balance basis:
 

Ambient Temp:	92F
7FA CTGs Online:	2
CTG Fuel:	GAS
STG Online:	Yes
Duct Burner Status:	ON
Steam Injection Status:	OFF
Evap Cooler:	ON
Cooling Tower Cycle:	4

**Legend**

-  Property Boundary
-  Northern Natural Gas Mainline
-  Existing Natural Gas Lateral









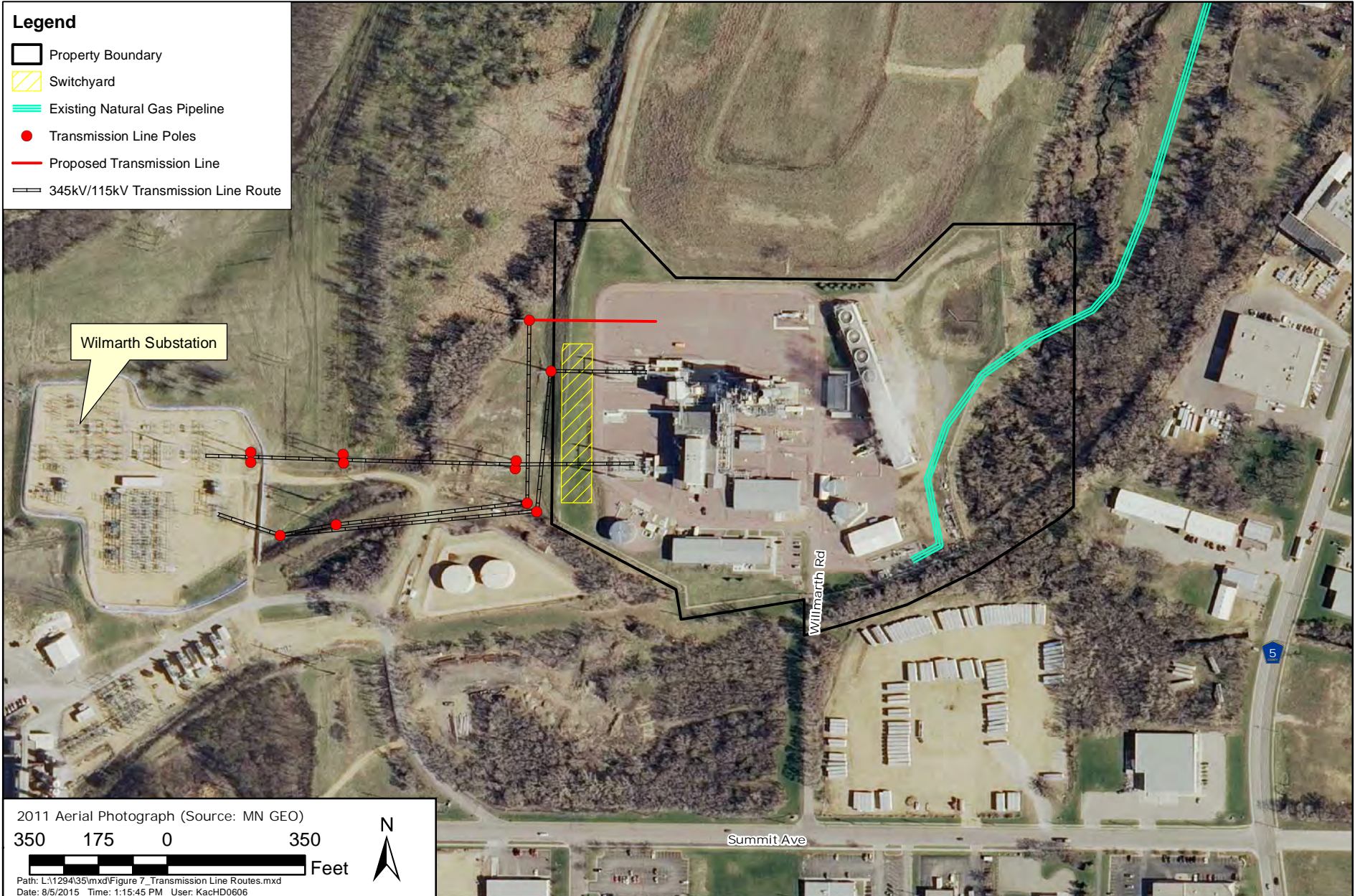
MANKATO ENERGY CENTER  
Natural Gas Pipeline Routes



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Figure 6

**Legend**

-  Property Boundary
-  Switchyard
-  Existing Natural Gas Pipeline
-  Transmission Line Poles
-  Proposed Transmission Line
-  345kV/115kV Transmission Line Route



2011 Aerial Photograph (Source: MN GEO)  
350 175 0 350  
Feet  
Path: L:\1294\35\mxd\Figure 7\_Transmission Line Routes.mxd  
Date: 8/5/2015 Time: 1:15:45 PM User: KacHD0606




MANKATO ENERGY CENTER  
Transmission Line Routes

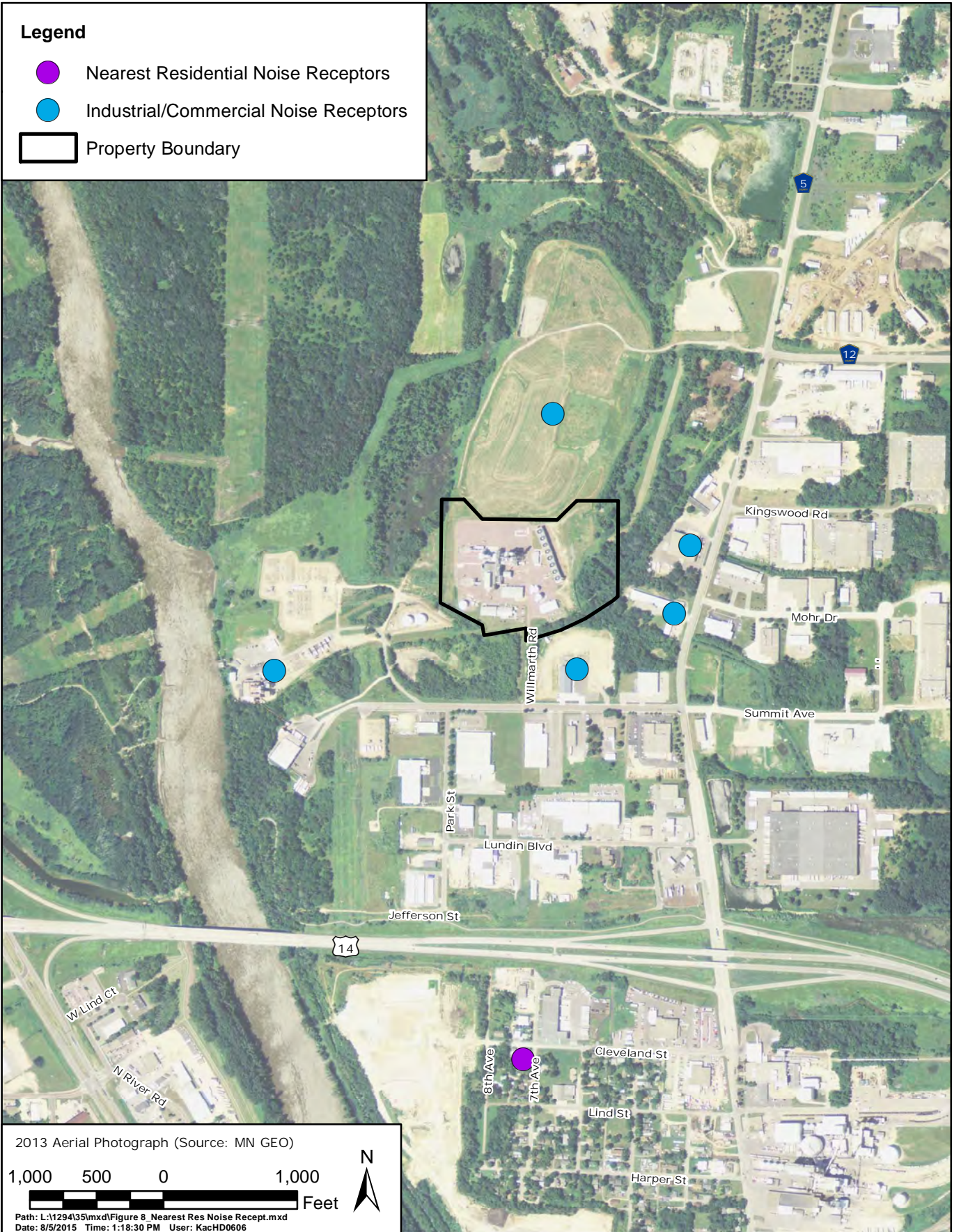


AUG 2015  
Figure 7

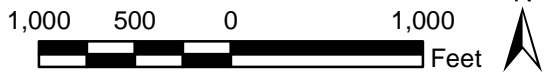


**Legend**

-  Nearest Residential Noise Receptors
-  Industrial/Commercial Noise Receptors
-  Property Boundary



2013 Aerial Photograph (Source: MN GEO)



Path: L:\1294135\mxd\Figure 8\_Nearest Res Noise Recept.mxd  
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MANKATO ENERGY CENTER



Nearest Residential Noise Receptors

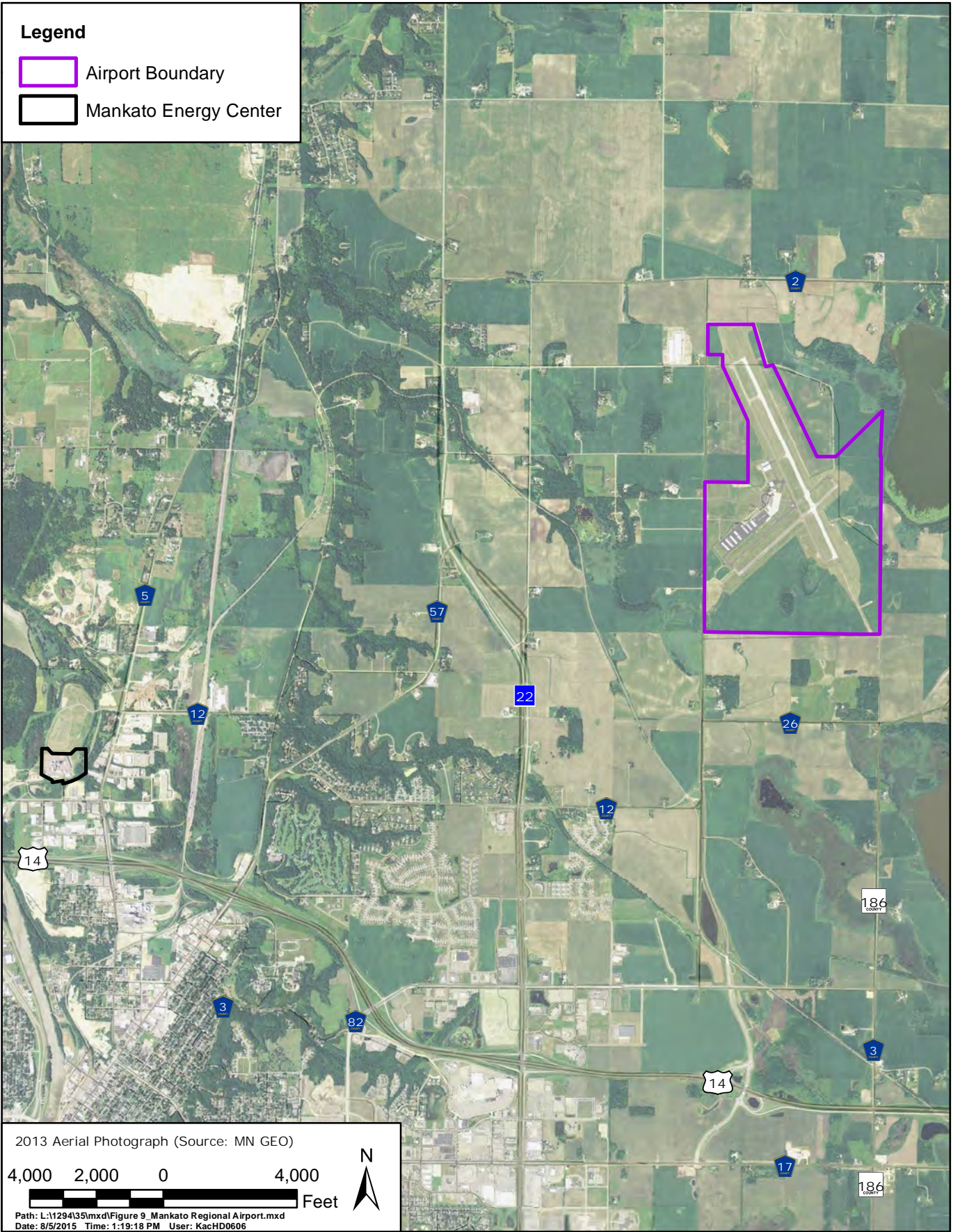


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Figure 8

**Legend**

-  Airport Boundary
-  Mankato Energy Center



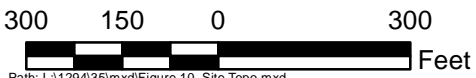
MANKATO ENERGY CENTER  
Mankato Regional Airport



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Figure 9





2011 Aerial Photograph (Source: MN GEO)



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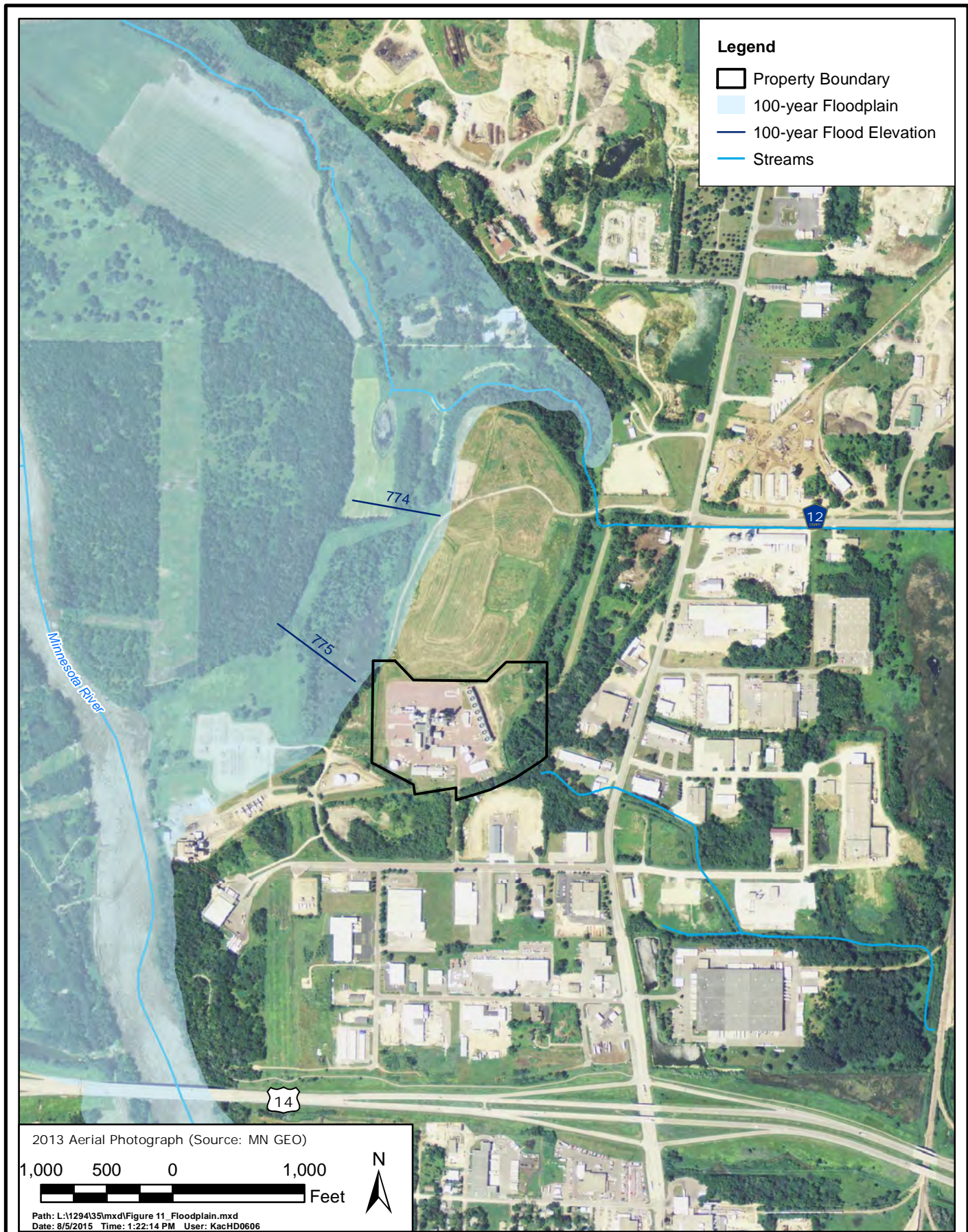
**Legend**

-  Property Boundary
-  10 FT Contours

MANKATO ENERGY CENTER  
Current Site Topography



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Figure 10








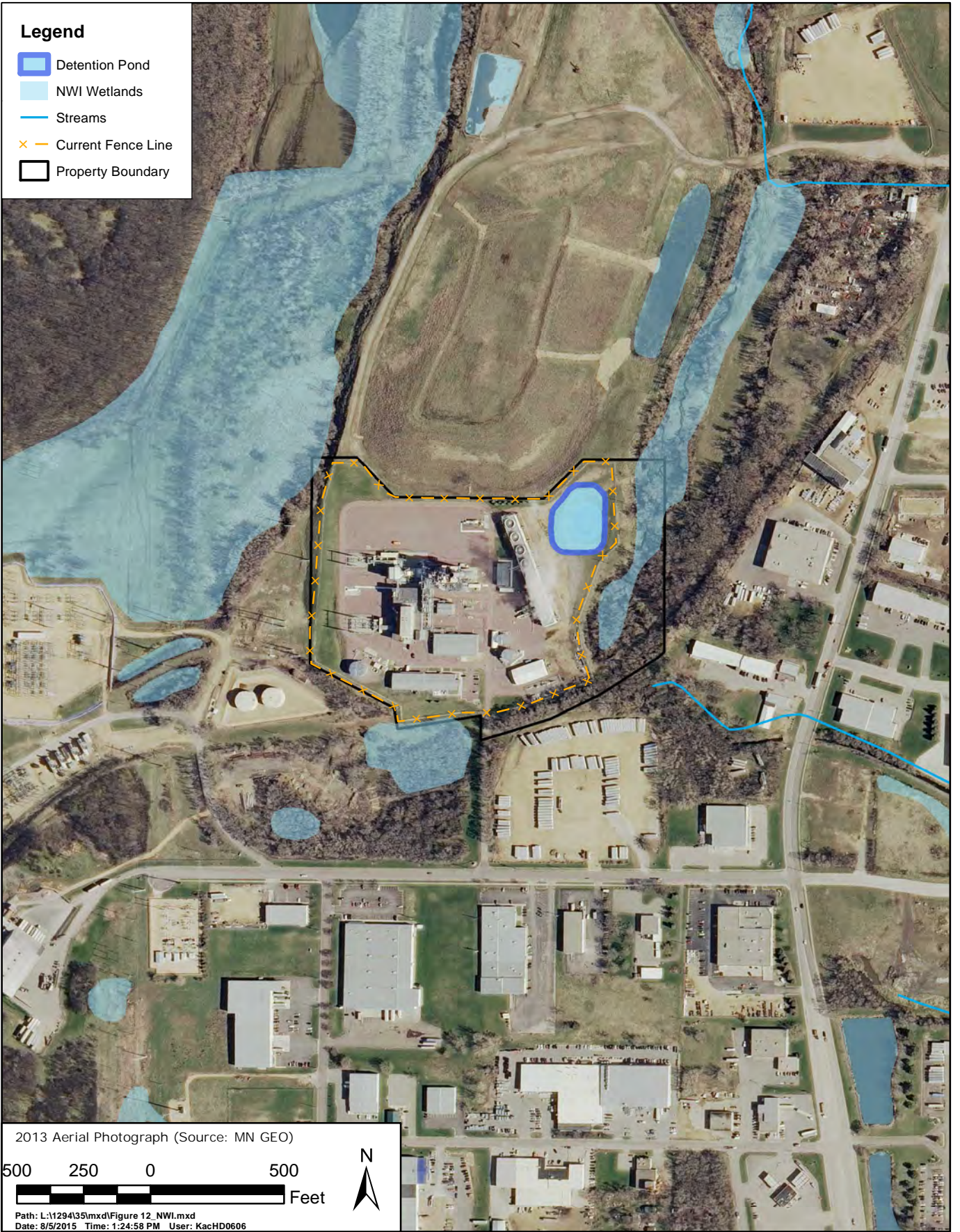
MANKATO ENERGY CENTER  
100 - Year Floodplain Areas



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Figure 11

**Legend**

-  Detention Pond
-  NWI Wetlands
-  Streams
-  Current Fence Line
-  Property Boundary



MANKATO ENERGY CENTER

NWI Wetlands and Waterbodies



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Figure 12