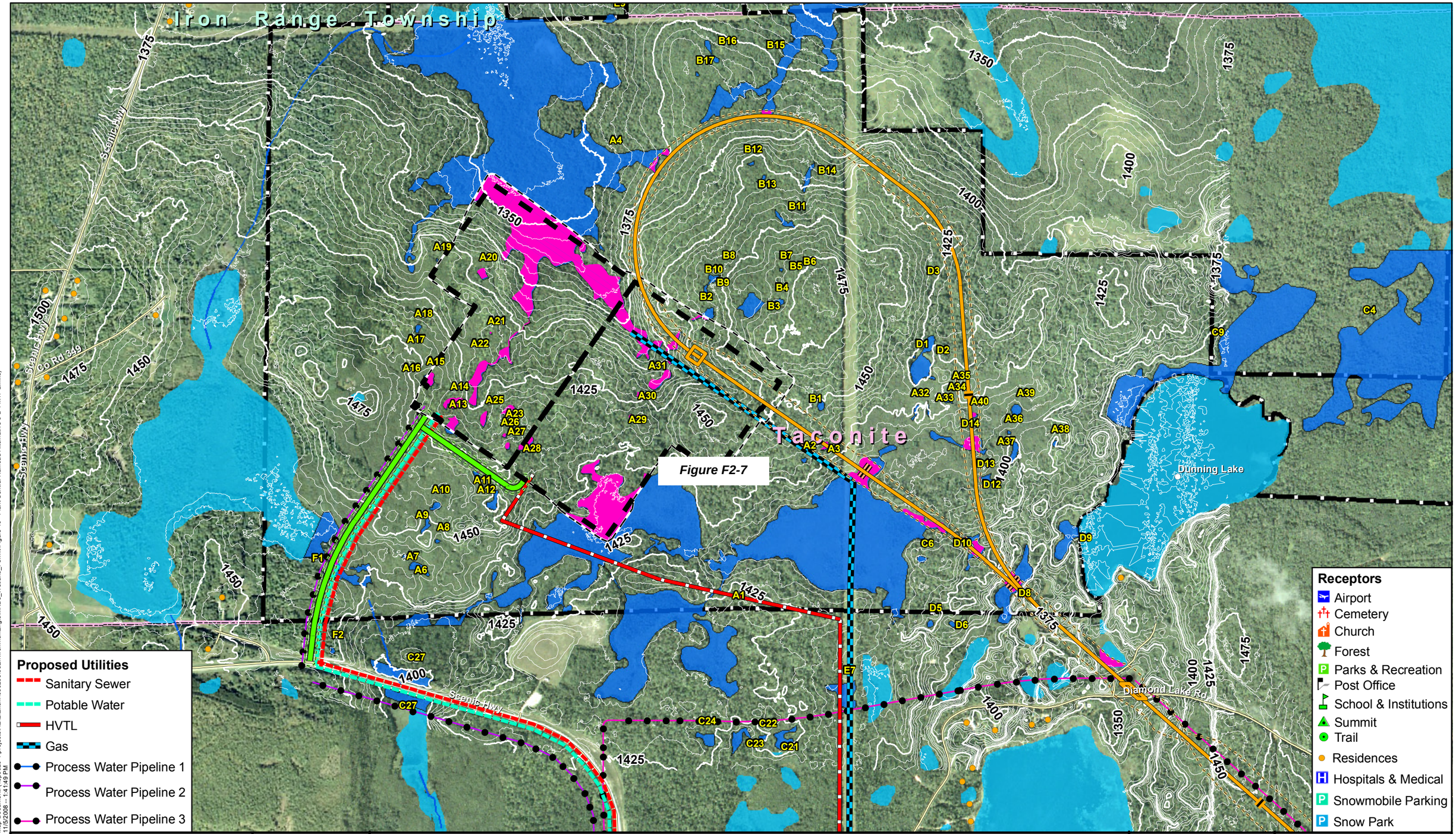

Map Document: (\\sp2020-1\projects\AE\E\Exent\056200003\Environmental\gis\MXDs_Wetland_Permit\Figure 19 - Plant Central Railroad Alternative 3-B 11x17 L.mxd)
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Mesaba Energy Project

Energy, Innovation, and Economic Development for Minnesota

11100 Wayzata Boulevard Suite 305 Minnetonka, MN 55305
Phone 952.847.2360 Fax 952.847.2373

West Range

November 2008

Legend

- Footprint and Buffer Land
- Preferred Central Plant Layout
- Plant Layout Grading Limits
- Rail Alternative 3-B
- Rail Alternative 3-B Construction Limits
- Coal Train Limts
- Proposed Culverts
- Proposed Roads
- Proposed Road Permanent ROW Limits
- Impacted Wetlands
- Surveyed Wetlands
- National Wetlands Inventory (NWI) [Beyond Surveyed Wetlands Areas]
- Streams
- Existing Roads
- Existing Railroads
- Geographic Names
- Municipal Boundaries
- Civil Township

Appendix F

Source: NAIP 2006, Horizon's, Itasca County, Mn/DNR, Mn/DOT, USGS, USFWS, Fluor, Excelsior Energy, ESRI, and SEH.
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Figure F2-7

Preferred Central FEIS Plant Layout Railroad Alternative 3-B

Itasca County - South Coordinate System

N W E S

0 1,000 Feet

Iron Range Township

Taconite

Dunning Lake

Scenic Hwy

Co Rd 349

Diam

Proposed Utilities
- Sanitary Sewer
- Potable Water
- HVTL
- Gas
- Process Water Pipeline 1
- Process Water Pipeline 2
- Process Water Pipeline 3

Receptors
- Airport
- Cemetery
- Church
- Forest
- Parks & Recreation
- Post Office
- School & Institutions
- Summit
- Trail
- Residences
- Hospitals & Medical
- Snowmobile Parking
- Snow Park

Legend
- Footprint and Buffer Land
- Central Plant Layout
- Plant Layout Grading Limits
- Rail Alternative 3-A
- Rail Alternative 3-A Construction Limits
- Coal Train Limits
- Proposed Culverts
- Proposed Roads
- Proposed Road Permanent ROW Limits
- Impacted Wetlands
- Surveyed Wetlands
- National Wetlands Inventory (NWI) [Beyond Surveyed Wetlands Areas]
- Streams
- Existing Roads
- Existing Railroads
- Geographic Names
- Municipal Boundaries
- Civil Township

Appendix F

Source: NAIP 2006, Horizon's, Itasca County, Mn/DNR, Mn/DOT, USGS, USFWS, Fluor, Excelsior Energy, ESRI, and SEH.
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Itasca County - South Coordinate System

N W E S

0 1,000 Feet

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Mesaba Energy Project
Energy, Innovation, and Economic Development for Minnesota

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Phone 952.847.2360 Fax 952.847.2373

West Range

December 2008

Figure F2-8

Central FEIS Plant Layout Railroad Alternative 3-A

Map Document: (\\Sp3020-1\projects\AE\E\Exen\050200\03\Environmental\gis\MXDs_Wetland_Permit\Figure 28 - Plant Central Railroad Alternative 3-A 11x17 L.mxd)
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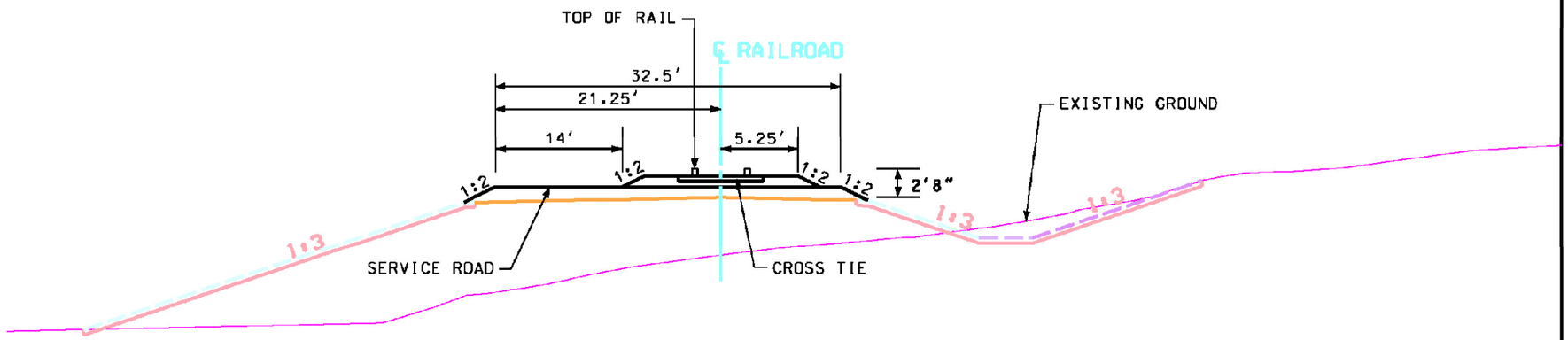
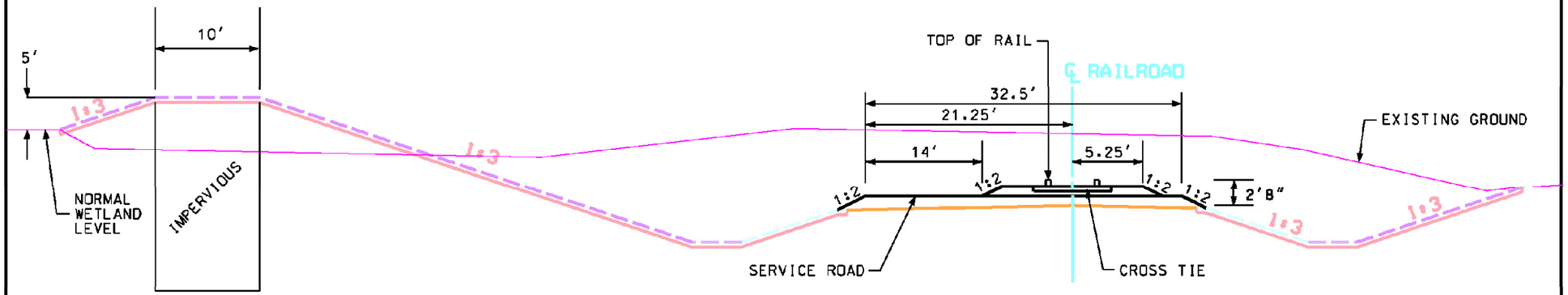
TYPICAL RAILROAD CROSS SECTION



TYPICAL RAILROAD CROSS SECTION ADJACENT TO WETLANDS IN CUT SECTIONS



SEH		TYPICAL RAILROAD CROSS SECTIONS EXCELSIOR ENERGY	1" = 10'	FILE NO. DATE

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Map Document: (\\Sp3020-1\projects\AE\IE\exenr\050200\03\environmental\gis\MXDs_Wetland_Permit\Figure 29 - Typical Railroad Cross Sections 11x17 L.mxd)
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Iron Range Township

Taconite

Dunning Lake

Scenic Hwy

CO Rd 349

Diamond Lake Rd

Iron Range, Township of

1375 1350 1400 1425 1450 1475 1500

Proposed Utilities

- Sanitary Sewer, Potable Water, and Process Water
- HVTL
- Gas
- Nashwauk PUC (NPUC) Permitted Pipeline Corridor Centerline
- Process Water Pipeline 3
- Proposed Road for Rail Alt 4-A
- Proposed Road for Rail Alt 4-B
- Proposed Road for Alt 4-A or 4-B

Receptors

- Airport
- Cemetery
- Church
- Forest
- Parks & Recreation
- Post Office
- School & Institutions
- Summit
- Trail
- Residences
- Hospitals & Medical
- Snowmobile Parking
- Snow Park

Map Document: (\\Sp3020-1\projects\AE\EXenn\05020003\Environmental\gis\MXDs_Wetland_Permit\Figure 25 - Plant NorthEast Railroad Alternatives 11x17 L.mxd)
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West Range

December 2008

Legend

- Footprint and Buffer Land
- Northeast Plant Layout
- Plant Layout Grading Limits
- Rail Alternative 4-A
- Rail Alternative 4-B
- Rail Alternative 4-A Construction Limts
- Rail Alternative 4-B Construction Limits
- Coal Train Limits (4-A)
- Coal Train Limits (4-B)
- Existing Roads
- Existing Railroads
- Surveyed Wetlands
- National Wetlands Inventory (NWI) [Beyond Surveyed Wetlands Areas]
- Streams
- Geographic Names
- Municipal Boundaries
- Civil Township

Appendix F

Source: NAIP 2006, Horizon's, Itasca County, MNDNR, Mn/DOT, USGS, USFWS, Fluor, Excelsior Energy, and SEH.
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Figure F2-10

Northeast Plant Layout Railroad Alternatives 4-A & 4-B

Itasca County - South Coordinate System

N W E S

0 1,000 Feet

Iron Range Township

Taconite

Scenic Hwy

CO Rd 349

Iron Range, Township of

Diamond Lake Rd

Dunning Lake

1350 1375 1400 1425 1450 1475 1500

Proposed Utilities
- Sanitary Sewer
- Potable Water
- HVTL
- Gas
- Process Water Pipeline 1
- Process Water Pipeline 2
- Process Water Pipeline 3

Receptors
- Airport
- Cemetery
- Church
- Forest
- Parks & Recreation
- Post Office
- School & Institutions
- Summit
- Trail
- Residences
- Hospitals & Medical
- Snowmobile Parking
- Snow Park

Map Document: (\\Sp3020-1\projects\AE\E\Exenn\05020003\Environmentalgis\MXDs_Wetland_Permit\Figure 26 - Plant West Railroad Alternatives 11x17 L.mxd)
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West Range

December 2008

Legend
- Footprint and Buffer Land
- Plant West
- Rail Alternative 5-B
- Rail Alternative 5-C
- Rail Alternative 5-B Construction Limits
- Rail Alternative 5-C Construction Limits
- Existing Roads
- Existing Railroads
- Surveyed Wetlands
- National Wetlands Inventory (NWI) [Beyond Surveyed Wetlands Areas]
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- Municipal Boundaries
- Civil Township

Appendix F

Source: NAIP 2006, Horizon's, Itasca County, Mn/DNR, Mn/DOT, USGS, USFWS, Fluor, Excelsior Energy, and SEH.
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Figure F2-11

West Plant Layout Railroad Alternatives 5-B & 5-C

Itasca County - South Coordinate System

N W E S

0 1,000 Feet