



CITY OF DULUTH

Planning Division

411 W 1st St, Rm 208 * Duluth, Minnesota 55802-1197

Phone: 218/730.5580 Fax: 218/723-3559

STAFF REPORT

File Number	PL 14-033	Contact	John Kelley, (218) 730-5326	
Application Type	Special Use Permit	Planning Commission Date	May 13, 2014	
Deadline for Action	Application Date	April 1, 2014	60 Days	June 1 2014
	Date Extension Letter Mailed	April 24, 2014	120 Days	August 1, 2014
Location of Subject	Wisconsin Central Ltd. right-of-way and portion of some adjacent property.			
Applicant	Wisconsin Central Ltd.	Contact	Justin Trush, jtrush@cn.ca	
Agent	Global Associates, Inc.	Contact	Brian Huebner, (262) 287-9900	
Legal Description	Wisconsin Central Ltd. right-of-way and portion of some adjacent property.			
Site Visit Date	April 24, 2014	Sign Notice Date	April 30, 2014	
Neighbor Letter Date	April 24, 2014	Number of Letters Sent	6	

Proposal

Applicant is requesting a special use permit (SUP) for proposed filling and occupation in the 100-year floodplain associated with construction of a new double track railway.

	Current Zoning	Existing Land Use	Future Land Use Map Designation
Subject	RR-1 (Rural Residential 1)	Railroad	Preservation
North	RR-1	Railroad	Preservation
South	RR-1	Vacant land/108th Avenue	Preservation
East	RR-1	Vacant land	Preservation
West	RR-1	Vacant land	Preservation

Summary of Code Requirements (reference section with a brief description):

Section 50-18.1.C.2(b) Special Uses. The following uses involving accessory structures or fill or storage of materials or equipment may be permitted only after the issuance of a special use permit pursuant to Article 5.....Placement of fill or construction of fences

Section 50-18.1.C.2(c) Standards for special use permits (paraphrased). Proposed use will not cause any increase in flood, shall not obstruct the flow of flood waters, and shall be protected from erosion. Use will not include storage or processing of flammable/ injurious materials and shall be readily removable from the area after a flood warning.

Section 50-37.10. Special Use Permits. The Planning Commission shall approve the application or approve it with modifications if the commission determines that the application meets the following criteria: 1. The application is consistent with the Comprehensive Land Use Plan; 2. The application complies with all applicable provisions of this Chapter, including without limitation any use-specific standards applicable to the proposed use, development or redevelopment, and is consistent with any approved district plan for the area; 3. Without limiting the previous criteria, the commission may deny any application that would result in a random pattern of development with little contiguity to existing or programmed development or would cause anticipated negative fiscal or environmental impacts on the community.

6-1

Comprehensive Plan Findings (Governing Principle and/or Policies) and Current History (if applicable):

Governing Principle #3 - Support traditional economic base. Identified industries includes port operations, transportation services, manufacturing, bulk commodity handling, and related support services. Locational considerations include docks, shipping channels, railroad rights-of-way, Interstate highway and airport.

Future Land Use Category- Lands with substantial restrictions. High natural resource or scenic value, or severe development limitations. Primarily public lands but limited private use is anticipated subject to use and design controls. Examples include: most city parklands and primary viewsheds; shorelands of lake, rivers, streams; wetlands and floodplains; high-value habitat; low-intensity private or public uses.

Discussion (use numbered or bullet points; summarize and attach department, agency and citizen comments):

Staff finds that:

- 1.) Use as a railroad right-of-way by Wisconsin Central Ltd. is consistent with the Comprehensive Land Use Plan's future land use category of preservation as the limited private use of the area is subject to local, state and Federal design controls, and is consistent with Governing Principle #3.
- 2.) Approximately 1,164 cubic yards of fill will be placed within the flood fringe. The fill is necessary to create an embankment for the construction of new railroad tracks and for the abutment of a proposed 30-foot high bridge to span 108th Avenue West within the floodplain area. The displacement of floodplain will be mitigated by a compensating cut from an area upstream and upland north and west of the site resulting in the removal of approximately 1,241 cubic yards of soil from below the 100-year flood elevation. The cut and fill will not result in any increase in the flood stage but will result in a net increase in floodplain storage of approximately 77 cubic yards. The SUP is part of an Environmental Assessment Worksheet for the Wisconsin Central project.
- 3.) The amount of fill being deposited is necessary to create the embankment supporting the proposed railroad tracks and bridge abutment, and is being designed and constructed not to obstruct the flow of flood waters. Erosion controls including bank stabilization with vegetative ground cover will be implemented in accordance with a Stormwater Pollution Prevention Plan prepared for the project.
- 4.) The use will not include storage or processing of flammable/injurious materials. All materials or equipment stored shall be readily removable from the area after a flood warning.
- 5.) No negative fiscal are anticipated. Environmental impacts associated with the proposed project will be mitigated through the items noted above.
- 6.) No public, agency, or City comments were received.
- 7.) UDC 50-37.1.N states than an approved Special Use Permit will expire if the project or activity authorized by the permit is not begun within 1 year.

Staff Recommendation (include Planning Commission findings, i.e., recommend to approve):

Based on the above findings, Staff recommends Planning Commission approve the Special Use Permit subject to the following conditions:

- 1.) The approval is contingent upon applicant receiving the proper permits from the appropriate agencies including but not limited to the US Army Corp of Engineers, Minnesota Department of Natural Resources, and the Minnesota Pollution Control Agency for various elements of the overall project.
- 2.) The project be limited to, constructed, and maintained according to design plan drawings submitted in the application .
- 3.) Any alterations to the approved plans that do not alter major elements of the plan may be approved by the Land Use Supervisor without further Planning Commission approval; however, no such administrative approval shall constitute a variance from the provisions of Chapter 50.

G-2

Attachments (aerial photo with zoning; future land use map; site plan; copies of correspondence)



April 9, 2014

One Stop Shop
City Hall, Room 210
411 West First Street
Duluth, Minnesota 55802

**RE: SPECIAL USE PERMIT APPLICATION
PROJECT SUMMARY LETTER
STEELTON HILL DOUBLE TRACK
CITY OF DULUTH, MINNESOTA
GOLDER PROJECT NO. 1303084**

Members of the City of Duluth Planning Commission:

In response to communication with Mr. Steve Robertson of the City of Duluth on April 4, 2014 and on behalf of Wisconsin Central Ltd. (WCL) (project owner/applicant), Golder Associates Inc. (Golder) respectfully submits this letter regarding the proposed project. This letter shall serve as a summary of the proposed project to accompany the Special Use Permit (SUP) application that was submitted to your office on April 3, 2014. A Joint Permit Application for the project has been submitted to and is currently being reviewed by the US Army Corps of Engineers (USACE), Minnesota Department of Natural Resources (MnDNR) and the City of Duluth as the Local Government Unit (LGU) under the Minnesota Wetland Conservation Act. The following summary is excerpted and condensed from the JPA.

Project Summary

The project consists of the construction of a second mainline railroad track adjacent to the existing mainline track and realignment of a portion of the mainline railroad track. The purpose of the project is to improve both the horizontal and vertical track alignment to add train capacity and increase train speed on Steelton Hill. The project limits commence at North Steelton Yard east of Commonwealth Avenue and terminate at a point southeast of Interstate Highway I-35 (refer to the Site Locator Map and Project Location Map included with the SUP application).

The track profile on Steelton Hill climbs steadily from North Steelton Yard to Nopeming Junction with existing grades ranging from 1.50 percent to 1.90 percent. Typically a railroad mainline track has a vertical grade of less than 1.00 percent. Taking into account the horizontal grades on the track profile, the compensated grade for the Steelton Hill is greater than 2.00 percent. This relatively steep grade leads to an increase in fuel consumption and decrease in train speed and efficiency for trains traveling to and from the Steelton Yard. In addition, at the north end of Steelton Yard, the turnout into Steelton Yard is a right hand turnout. This requires that all trains operating along the mainline track must operate through the diverging side of the turnout, not the straight side of the turnout. As a result, train speeds are restricted at North Steelton Yard as they have to operate through the diverging side of the turnout.

The construction of a second mainline track and the realignment of the existing mainline track on Steelton Hill will improve the efficiency of the WCL rail network to transport products for industrial and commercial use, which is needed to safely and cost-effectively provide materials to various end users. The proposed new track will have a compensated grade less than 2 percent, which is much more efficient for train use. It is well documented that transporting large quantities of materials by rail is one of the most efficient means of transportation, resulting in significantly lower environmental impacts than over-the-road transportation for similar quantities of materials. Moving freight by rail is three times more fuel efficient than moving freight on the highway. Trains can move a ton of freight nearly 450 miles on a single gallon of fuel. Efficient use of fuel means fewer greenhouse gas emissions.



Golder Associates Inc.
15851 South US 27, Suite 50
Lansing, MI 48906 USA
Tel: (517) 482-2262 Fax: (517) 482-2460 www.golder.com



Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

G-3

The project will take place along approximately 4.7 miles of the existing railroad corridor in an area covering approximately 75 acres (i.e., the Site). Earth moving and grading operations will be limited to approximately 45 acres of the overall Site limits. The project will cross several streams and wetlands including areas within a mapped 100-year floodplain near and west of 108th Avenue (refer to the City of Duluth NR-O Map, FEMA Floodplain Map and Design Plans included with the SUP application).

The new tracks will be constructed on an embankment of compacted fill. The majority of the fill will consist of clean material obtained from a commercial source, while some of the fill may be obtained from portions of the existing embankment in the areas where the existing tracks are being realigned. A total of approximately 1,164 cubic yards of fill will be placed within the floodplain fringe. Floodplain displacement will be mitigated by compensating cut in existing that will result in the removal of approximately 1,241 cubic yards of soil from below the 100-year flood elevation, for a net increase in floodplain storage of approximately 77 cubic yards (refer to the Floodplain Compensation Summary included with the SUP application).

Hydraulic calculations have been prepared for each watercourse crossing, including the areas of proposed floodplain fill near 108th Avenue. There will be a new railroad bridge constructed over 108th Avenue. The existing culvert underneath 108th Avenue will remain unchanged and will continue to accommodate surface water flow through U.S. Steel Creek. The base elevation of the new bridge deck will be approximately 30 feet higher than the 100-year flood elevation and the new bridge will not result in the increased flood stage of U.S. Steel Creek. Results of the hydraulic calculations have indicated that the proposed flood plain fill will not increase the water levels or potential for flooding upstream or downstream of the proposed fill areas (refer to the Replacement Structure Recommendation Summary Report for Structure 468.33 at 108th Avenue). It is noted that a portion of the Site near the Munger Trail Bridge is mapped as being located within the 100-year flood plain; however, the project has been designed to avoid floodplain fill in this area. This is noted on the Design Plans included with the SUP application. A copy of the Replacement Structure Recommendation Summary Report for Structure 469.25 at Munger Trail Bridge has been included with the SUP to demonstrate that the project will not result in increased water levels/flooding in that area.

- ✓ Work will be performed in accordance with typical construction practices for similar projects. Equipment and material staging areas and haul roads will be located within existing uplands on the Site and may move as the project progresses. Appropriate soil erosion and sedimentation controls will be implemented in accordance with a Stormwater Pollution Prevention Plan (SWPPP) prepared for the project. When construction and restoration activities are complete and exposed soils stabilized by vegetation, silt fencing and other temporary erosion controls will be removed. Throughout the project, no soil, equipment or construction materials or debris will be staged or placed in regulated areas without appropriate approval.

Due to the size and complexity of the project, the project has been planned for completion in 2 phases. Phase 1 will begin from North Steelton Yard (the east limits of the Site) and extend to a point approximately 300 to 400 feet east of where the Munger Trail crosses over the WCL railroad. Phase 2 will include the remainder of the project north to Interstate I-35. It is expected that Phase 1 construction activities will begin at the earliest opportunity in 2014 upon approval of required permits from the appropriate regulatory agencies and will be completed during the 2014 construction season. Phase 2 is anticipated to begin at first opportunity in 2015 and is expected to be completed during the 2015 construction season. It is expected that the project will be complete and the Site fully stabilized by end of 2016.

G-4

WCR/Golder appreciates your cooperation and looks forward to your approval of the proposed floodplain fill and compensating cut associated with the project. If you have questions or should you require additional information, please contact us at (262) 287-9900.

Respectfully,
GOLDER ASSOCIATES INC.



Brian Huebner
Senior Project Ecologist



John Puls
Senior Project Engineer

cc: Justin Trush; WCL
Mike Kunz; Benesch

G-5



City Planning

14-033

Special Use Permit

Fill & Occupation of Floodplain

Proposed fill area

Legend

DuluthStream_cl

TROUT_FLAG

Trout Stream (GPS)

Other Stream (GPS)

Floodplain (UDC)

Floodplain Type

General Flood Plain

Flood Way

Flood Fringe

Shoreland (UDC)

Shoreland Overlay Zone

Cold Water

Natural Environment

General Development

The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing/data is neither a legally recorded map nor a survey and is not intended to be used as one. The drawing/data is a compilation of records, information and data located in various City, County and State offices and other sources affecting the area shown and is to be used for reference purposes only. The City of Duluth shall not be liable for errors contained within this data provided or for any damages in connection with the use of this information contained within.

0 Feet

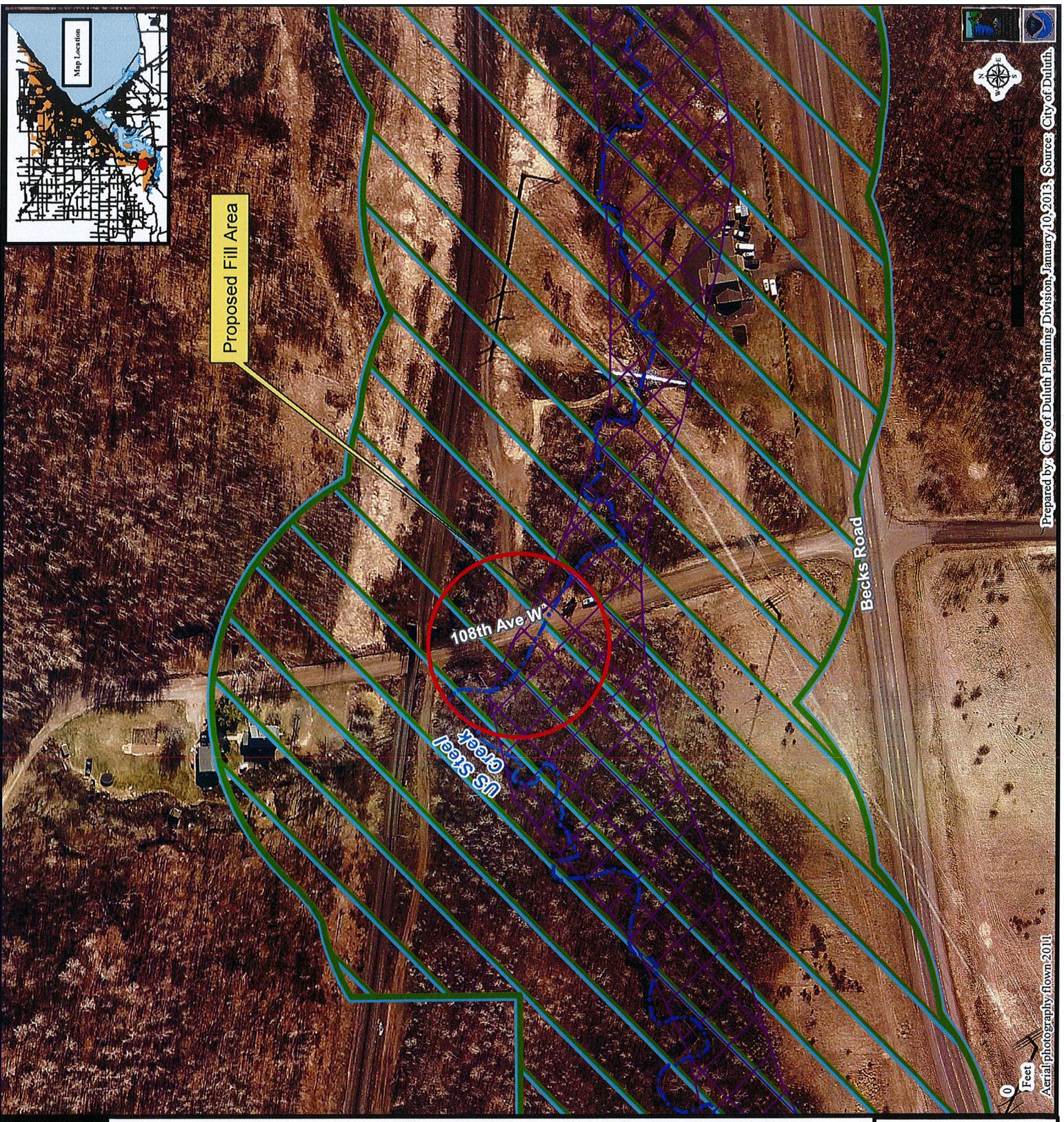
Aerial photography from 2011



Prepared by: City of Duluth Planning Division, January 10, 2013, Source: City of Duluth.



Proposed Fill Area



○ Proposed fill area

Legend

□ Zoning (Final)



The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing/data is neither a legally recorded map nor a survey and is not intended to be used as one. The drawing/data is a compilation of records, information and data located in various City, County and State offices and other sources affecting the area shown and is to be used for reference purposes only. The City of Duluth shall not be liable for errors contained within this data provided or for any damages in connection with the use of this information contained within.



City Planning
14-033

Special Use Permit

Fill & Occupation of Floodplain

FLU Map

Proposed fill area

Legend

Future Land Use - Plus

- Preservation
- Recreation
- Rural Residential
- Low-density Neighborhood
- Traditional Neighborhood
- Urban Residential
- Neighborhood Commercial
- Neighborhood Mixed Use
- General Mixed Use
- Central Business Secondary
- Central Business Primary
- Auto Oriented Commercial
- Large-scale Commercial
- Business Park
- Tourism/Entertainment District
- Medical District
- Institutional
- Commercial Waterfront
- Industrial Waterfront
- Light Industrial
- General Industrial
- Transportation and Utilities

The City of Duluth has tried to ensure that the information contained in this map or electronic document is accurate. The City of Duluth makes no warranty or guarantee concerning the accuracy or reliability. This drawing/data is neither a legally recorded map nor a survey and is not intended to be used as one. The drawing/data is a compilation of records, information and data located in various City, County and State offices and other sources affecting the area shown and is to be used for reference purposes only. The City of Duluth shall not be liable for errors contained within this data provided or for any damages in connection with the use of this information contained within.



0 Feet

0 50 100 200 Feet



Aerial photography flown 2011

Prepared by: City of Duluth Planning Division, January 10, 2013. Source: City of Duluth.

6-8



6-9



G-10



G-11



G-12



G-13



PL 14-033

Print Date: 05/06/2014
Image Date: 05/12/2013
Level: Neighborhood

G-14



PL 14-033 2

Print Date: 05/06/2014
Image Date: 05/12/2013
Level: Neighborhood

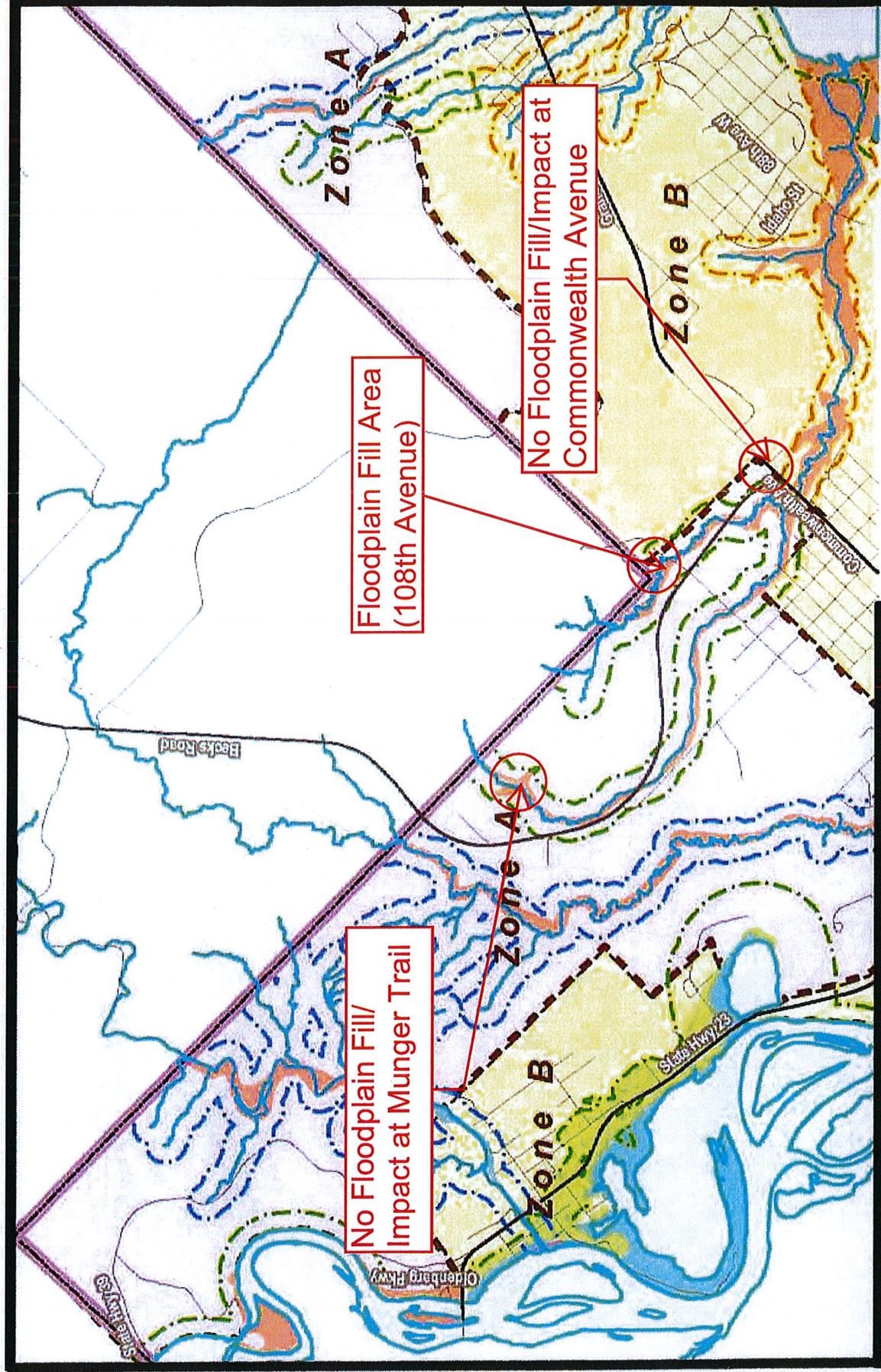
6-15



PL 14-033 3

Print Date: 05/06/2014
Image Date: 05/12/2013
Level: Neighborhood

6-16



Natural Resources Overlay
Map 1 of 12

0 0.25 0.5 1 Miles

Flood Plain Type
 Flood Way
 Flood Fringe
 General Flood Plain

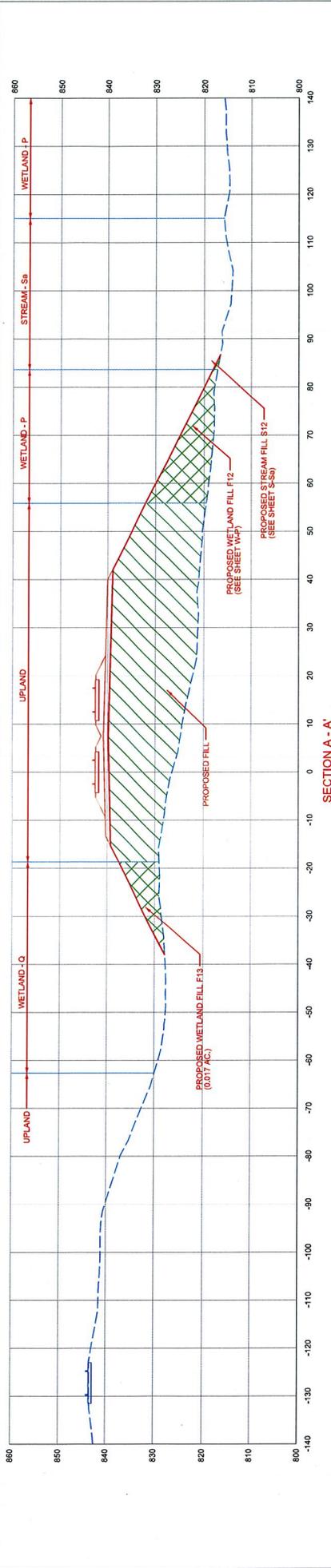
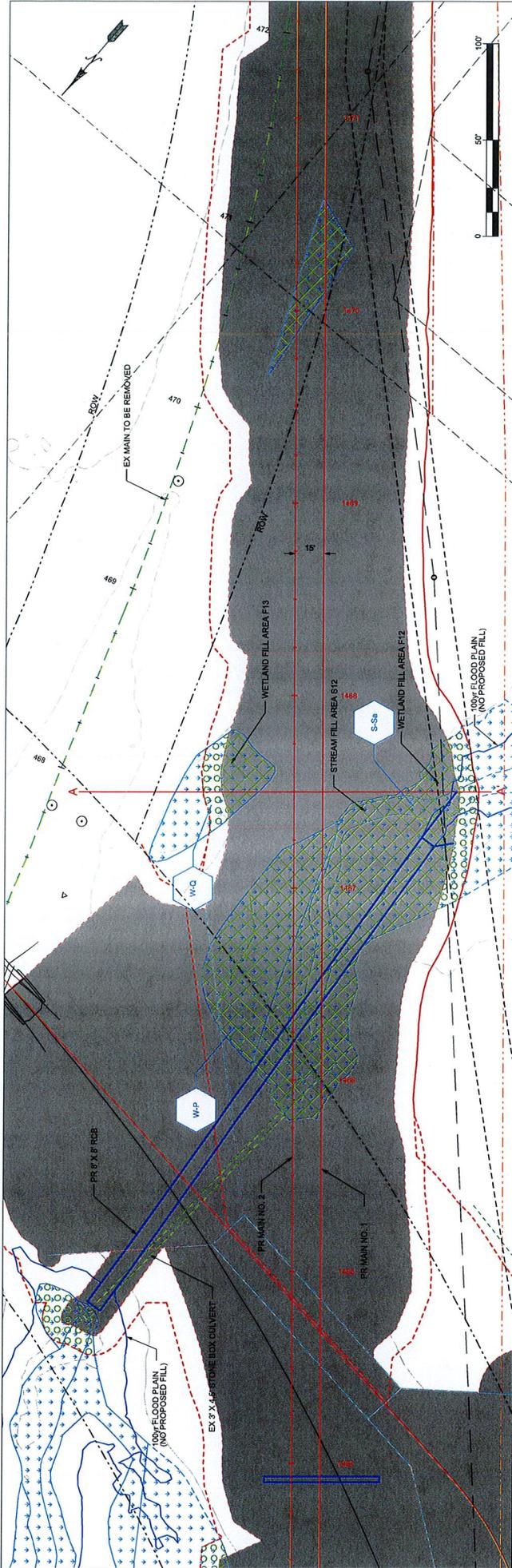
Shoreland Class
 Cold Water
 Natural Environment
 General Development

Storm Water Rate Control Zones
 Zone A
 Zone B

DULUTH
 THE CITY OF
 MINNESOTA

Prepared by: City of Duluth Planning Division, January 14, 2010.

6-17



LEGEND

- PROPOSED FILL (Hatched pattern)
- WETLAND FILL IMPACT (Green cross-hatch pattern)
- STREAM FILL IMPACT (Blue cross-hatch pattern)
- WETLAND ID NO. (W-Q, W-P, W-Ss)
- STREAM ID NO. (S-Ss)

NOTES

NO PROPOSED FLOOD PLAIN FILL

Wetland (As identified in Wetland Delineation Report)	Likely Regulatory Status	Proposed Fill Area (acres)	Temporarily Impact Area to be restored (acre)
Q	Jurisdictional	0.017	0.013

SECTION A - A'

REVISIONS

DATE	BY

APPROVALS

WISCONSIN CENTRAL LTD
 NORTH DIVISION
 STELLERTON, MN

SOUTHERN REGION

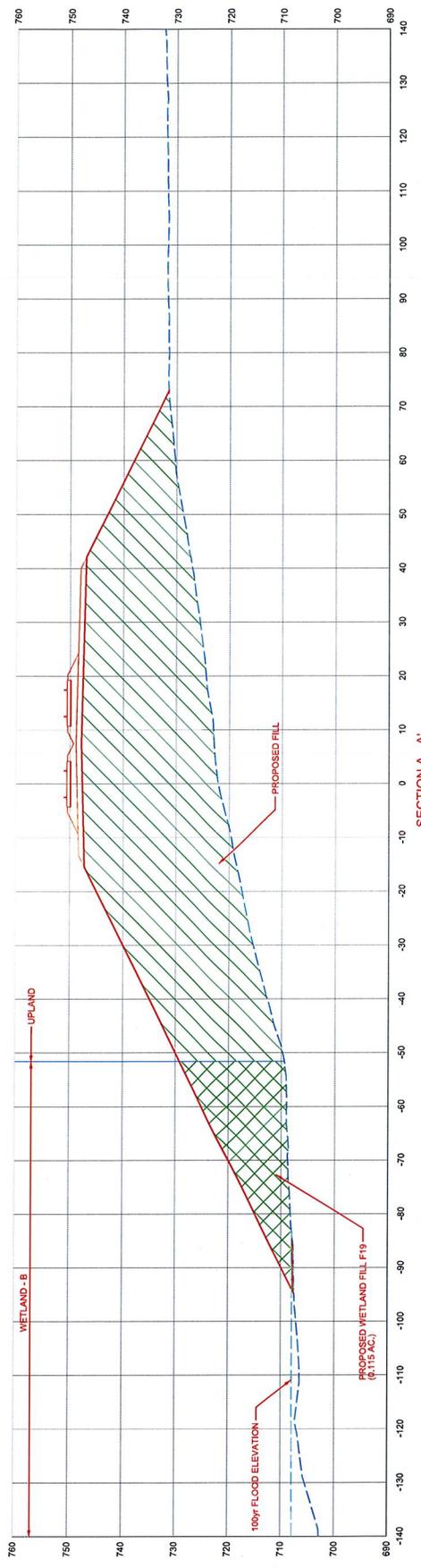
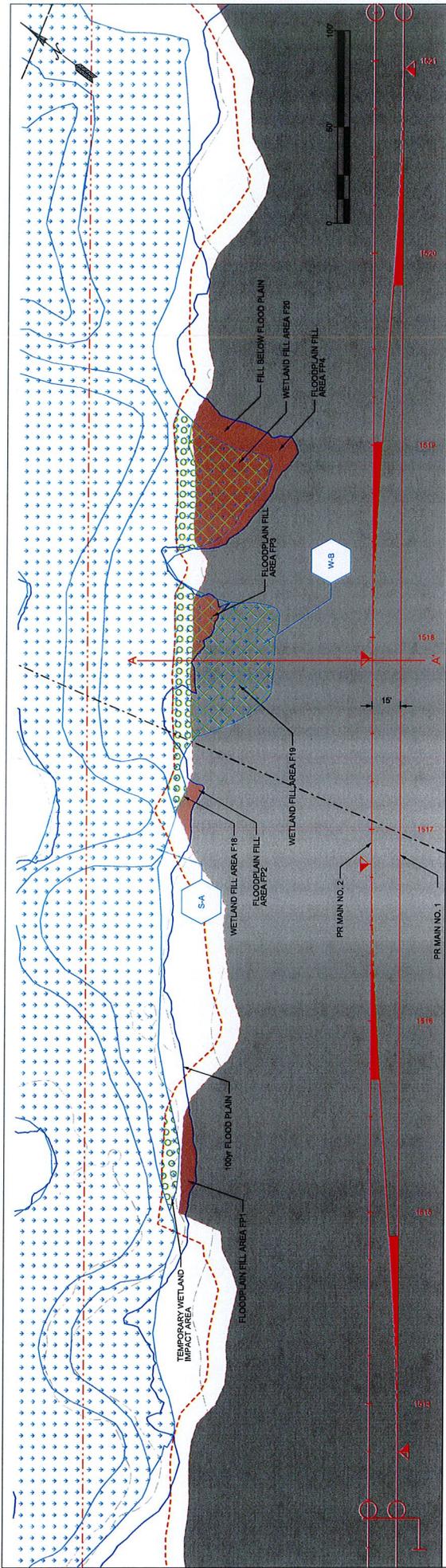
WETLAND & STREAM IMPACT
W-Q

OFFICE OF DESIGN & CONSTRUCTION
 DRAWN BY: BAW SCALE: 1:50,000
 DATE: 03/27/2017 FILE: 96018_wl.dgn
 SHEET OF

benesch
 engineers · scientists · planners
 Alfred Benesch & Company
 4633 Washington Road
 Kenosha, Wisconsin 53144
 262-452-9877 Job No. 20171.00

FILES: 96018_wl.dgn

G-18



REVISIONS	DATE	BY
APPROVALS		
SHEET OF		
DRAWN BY: BW		
SCALE: 1/8" = 1'-0"		
DATE: 05/20/17		
DWG NO.: LP-9024		
FILE: LP-9024_wt.dwg		

WISCONSIN CENTRAL LTD
NORTH DIVISION
STEELETON, WI

WETLAND & STREAM IMPACT
W-B (SHEET 1 of 3)

OFFICE OF DESIGN & CONSTRUCTION
DRAWN BY: BW
SCALE: 1/8" = 1'-0"
DATE: 05/20/17
DWG NO.: LP-9024
FILE: LP-9024_wt.dwg

benesch
engineers · scientists · planners

Alfred Benesch & Company
4633 Washington Road
Kenosha, Wisconsin 53144
262-652-8677 Job No. 20171.00

LEGEND

- PROPOSED FILL BELOW 100Y FLOOD ELEVATION
- WETLAND FILL IMPACT
- STREAM FILL IMPACT
- WETLAND ID NO.
- STREAM ID NO.

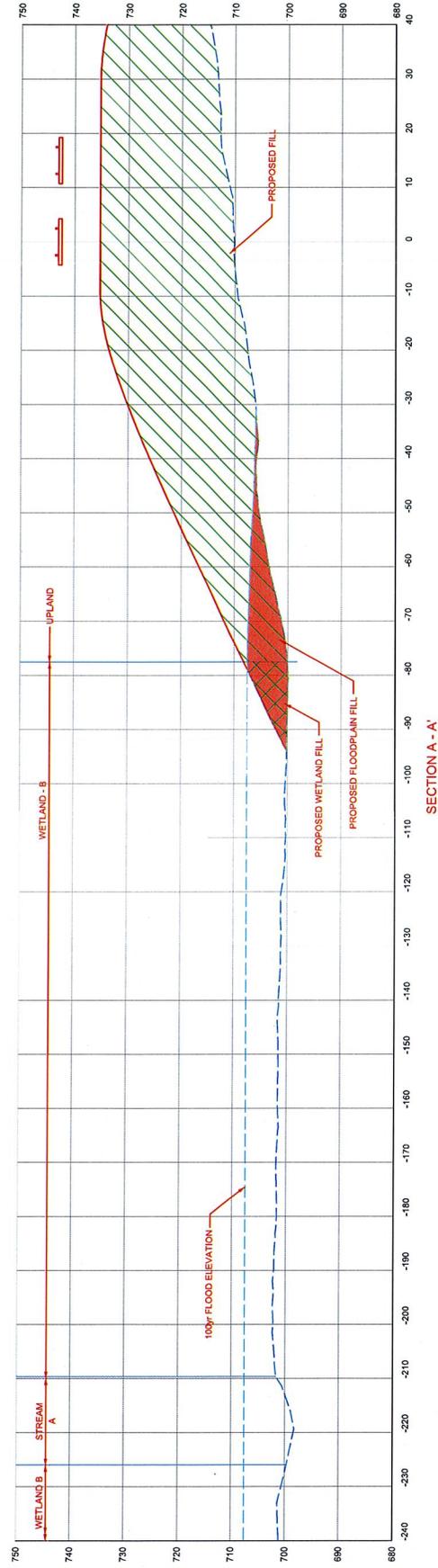
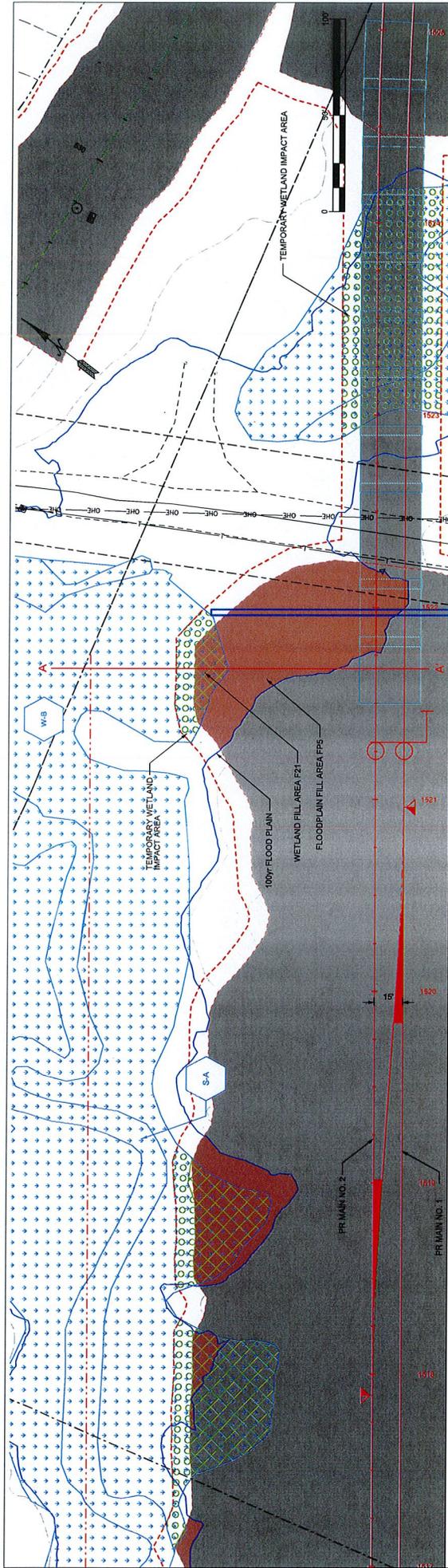
NOTES:

- PROPOSED FILL BELOW 100Y FLOOD ELEVATION SEE CROSS SECTIONS FOR MORE INFO
- PROPOSED CUT BELOW 100Y FLOOD ELEVATION SEE CROSS SECTIONS FOR MORE INFO

Wetland (As identified in Wetland Delineation Report)	Likely Regulatory Status	Jurisdictional	Proposed Fill Area (to be restored) (ac)	Temporary Impact Area (to be restored) (ac)
B			0.112	0.093

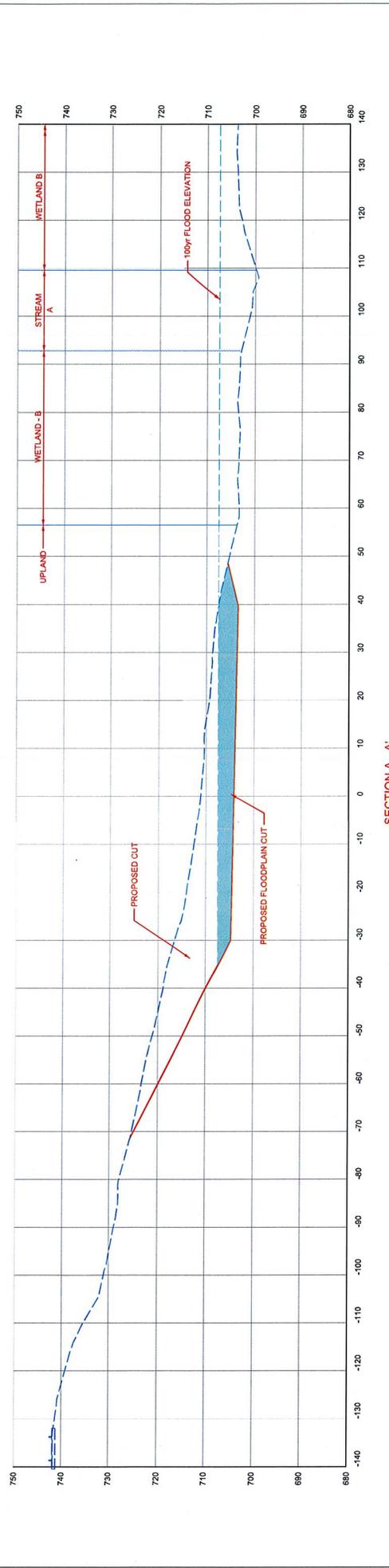
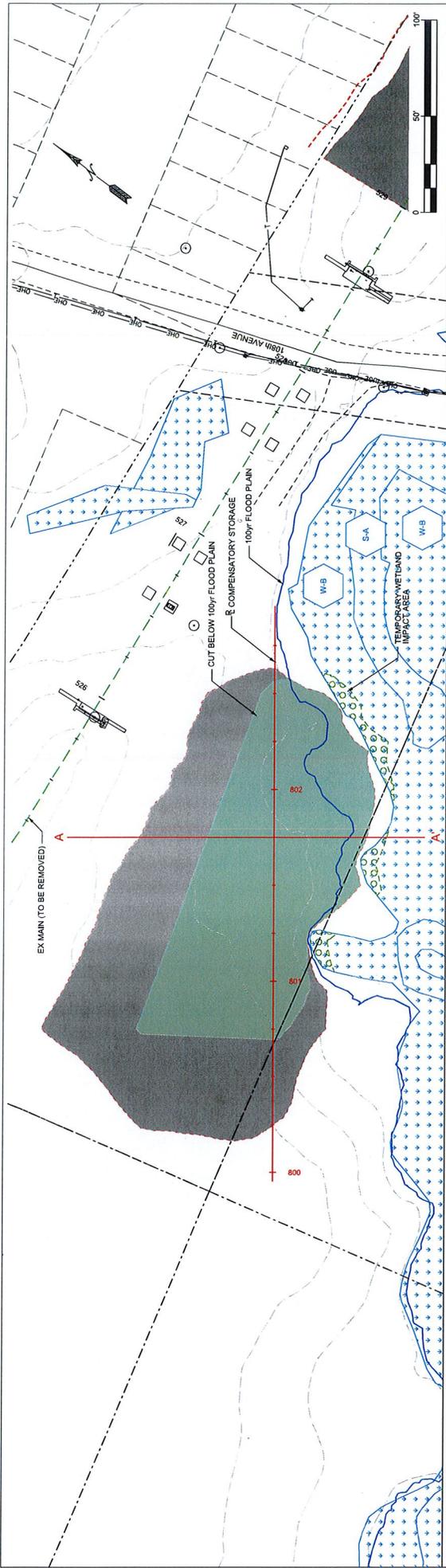
Limits of Flood Plain Impact	Total Cut Below 100Y Floodplain	Total Fill Below 100Y Floodplain
STA 1514+00 - STA 1522+25	0 CY	1183.7 CY
STA 800+75 - STA 802+50	2240.5 CY	0 CY

6-19



<p>Alfred Benesch & Company 4633 Washington Road Kenosha, Wisconsin 53144 262-692-6877 Job No. 20171.00</p>	REVISIONS DATE BY	<p>WISCONSIN CENTRAL LTD NORTH DIVISION SUPERIOR SUB STEELETON, MN</p>
	APPROVALS	
WETLAND & STREAM IMPACT W-B (SHEET 2 of 3)		
OFFICE OF DESIGN & CONSTRUCTION DRAWN BY: BW SCALE: 1/30,000 CHECKED BY: DATE: 3/1/2014 FILE: 96023_wi.dgn x:\201005\20171.00\Eng_Docs\Sheets\96023_wi.dgn		
NOTES: SEE WETLAND & STREAM IMPACT SHEET 1 of 3 FOR IMPACT DETAILS		
LEGEND PROPOSED FILL BELOW 100Y FLOOD ELEVATION SEE CROSS SECTIONS FOR MORE INFO WETLAND FILL/IMPACT STREAM FILL/IMPACT WETLAND ID NO. STREAM ID NO.	PROPOSED FILL BELOW 100Y FLOOD ELEVATION SEE CROSS SECTIONS FOR MORE INFO PROPOSED CUT BELOW 100Y FLOOD ELEVATION SEE CROSS SECTIONS FOR MORE INFO W-10 S-10	SECTION A - A'

6-20



LEGEND

- PROPOSED FILL BELOW 100Y FLOOD ELEVATION SEE CROSS SECTIONS FOR MORE INFO
- WETLAND FILL/IMPACT
- STREAM FILL/IMPACT
- PROPOSED CUT BELOW 100Y FLOOD ELEVATION SEE CROSS SECTIONS FOR MORE INFO
- WETLAND ID NO.
- STREAM ID NO.

NOTES:

SEE WETLAND & STREAM IMPACT SHEET 1 of 3 FOR IMPACT DETAILS

REVISIONS

DATE	BY

APPROVALS

DRAWN BY: JAW
CHECKED BY: JAW
DATE: 11/13/13
FILE NO.: 100100820171.000_Eng_Docs/Sheets/96026_wi.dgn

WISCONSIN CENTRAL LTD
 NORTH DIVISION
 STEELTON, MN

WETLAND & STREAM IMPACT
W-B (SHEET 3 of 3)

benesch
 engineers · scientists · planners
 Alfred Benesch & Company
 4633 Washington Road
 Kenosha, Wisconsin 53144
 262-652-6677 Job No. 20171.00

6-21