Project History, Development and Current Status:

Todd Clarkowski, P.E.
MnDOT, St. Croix Crossing Project Coordinator

Dwayne Stenlund, MSc, CPESC 2052
MnDOT, Office of Environmental Stewardship

Peter Leete,
MnDNR, Transportation Hydrologist
St. Croix Crossing Project Location

New St Croix River Crossing
Minnesota / Wisconsin Border
near Stillwater, Minnesota
1837 – on – lumbering of white pine timber forest in northern MN and WI
1848 – Stillwater platted, nicknamed Birthplace of MN
1880’s – lumber production peaked
1910’s – Minnesota’s white pine sawlog era was ending.
1876 - Timber toll bridge was built by the City of Stillwater, with pontoon style opening.
1897 – portion of bridge collapsed, need a replacement
1904 - timber bridge caught on fire, 3 dead trying to extinguish
1912 - City of Stillwater dropped tolls
1925 – MN Dept of Highways takes over ownership of bridge
1931 - Lift Bridge was constructed by MN Department of Highways
1970’s - discussions of a new replacement crossing due to congestion
Today’s Needs

- Traffic Congestion
- Mobility
- Safety
- Delays From Lift Bridge Operation/Flooding
- Physical Restrictions
- Needs Of Pedestrians
- Lift Bridge Condition
Context/Environment-
Protected Resources – Historic Properties
Stillwater Municipal Barge Facility Property
Now called “Bridgeview Park”

Kolliner Park

Protected Resources – Park Properties

Photo courtesy of Washington County Historical Society
Threatened Or Endangered Species and Wetlands

- Dotted Blazing Star
- Bald Eagle
- Northern Long-eared Bat
- "Good" Mussels
Protected Area – Waterway

- **St. Croix National Scenic Riverway:**
  - Scenic
  - Recreational
  - Geologic
  - Water Quality
Invasive Species

- Invasive Species
Federal Legislation interpretation and State Laws

Conflicting federal laws protecting cultural resources and the Wild and Scenic Riverway

- Oak Park Heights
- Stillwater
- Bayport
PHASE 1: “1995 Project”:

1985 – Notice of Intent for EIS – issued by FHWA
10/11/85

1995: Record of Decision by FHWA – issued
July 10, 1995

1997: Federal Court ruling upholding NPS
determination of adverse effect on Wild and Scenic
River. No Corp of Engineers or Coast Guard
permits could be issued. Phase 1 ended.

Lessons learned:
- Permitting Agencies comments
- Wild & Scenic Rivers Act
- Water Quality
- Lift Bridge future
3 Phases of Project Development

Phase 2: “Braun “C” Project”:
Facilitated a 21 member coalition of interests

1998: St. Croix River Crossing - A Graceful Solution for a Magnificent River by Richard Braun
- new 4 lane river bridge, on new alignment south of Lift Bridge
- must address long term solutions for lift bridge

2001: Supplemental Draft Environmental Impact Statement and Draft Section 4(f) Evaluations for the TH 36/STH 64 St. Croix River Crossing (not published)

Phase 2 suspended due to 1) inability of federal agencies to reach consensus on future of lift bridge; 2) insufficient federal funding for the lift bridge alternatives and mitigation; 3) lack of municipal consent of project.

Lessons learned:
- Context consideration
- Municipal Consent
- Lift Bridge future
3 Phases of Project Development

Phase 3: “Stakeholder Group” Project:

2002: U.S. Institute of Conflict Resolution hired a facilitation, mediation team – RESOLVE

2002: Facilitated Stakeholder Resolution Process monthly meetings began with 28 member group – purpose and need, location, design, bridge type, mitigation

2002: TH 36 Partnership Study Final Report


2004: Notice of Intent for Supplemental EIS -- issued by FHWA 3/18/04

2004: Amended Final Scoping Decision Document - St. Croix River Crossing Project

2004: SDEIS Public Hearings and open houses on-going

2004: Supplemental Draft Environmental Impact Statement - St. Croix River Crossing Project
3 Phases of Project Development

Phase 3: “Stakeholder Group” Project:

2006: Supplemental Final Environmental Impact Statement - St. Croix River Crossing Project
- 28 member Stakeholder meetings ended, but smaller subsets still continue

New river crossing design and location

Mitigation Package
Phase 3: “Stakeholder Group” Project:

2006: Record of Decision by FHWA – issued 11/13/06
2006: Water quality related agency mtgs and wetland TEP mtgs
2006: Right of way acquisitions
2006: Mitigation items implemented
2006: Cities of Stillwater and Bayport offered municipal consent
2006: Oak Park Heights v. MnDOT – municipal consent
2007: Sierra Club v. FHWA and NPS – NEPA, 4(f), 7(a)
2007: State of MN Judge ruling on OPH v. MnDOT – use “old” municipal consent law
3 Phases of Project Development

Phase 3: “Stakeholder Group” Project:

2009: Lift Bridge Management Plan and Endowment Account established
2009: Right of Way Acquisitions and Mitigation items on-going
2010: Oak Park Height’s Mayor contests MnDNR permit for load testing
2010 spring: Federal Court ruling on Sierra Club complaint - FHWA-o.k., vacated NPS’s draft section 7(a)
2010 fall: NPS Wild and Scenic Rivers Act-Section 7(a) Evaluation and Determination Report – adverse effect
3 Phases of Project Development

Phase 3: “Stakeholder Group” Project:

2010 fall: Coalition established of local individuals, businesses and elected officials in support of the project

2011: Congressional House and Senate Subcommittee hearings began on authorizing project under Wild and Scenic Rivers Act. House and Senate approved bills.

2012: President Obama signed Public Law 112-100 on March 14 authorizing the St. Croix River Crossing Project under the Wild and Scenic Rivers Act, with mitigation.

2012 fall: Re-evaluation of the 2006 SFEIS

2012/13: Permitting requests/approvals and began construction
Within The Context, How Did We Choose A Location For The New Bridge?

Stakeholder And Public Involvement

- Riverway
- Historic Properties
- Threatened & Endangered Species
- Watershed

- Social
- Economic
- Community
- Environmental
St. Croix Crossing Project – Balancing Needs & building partnerships

Transportation — Social, Economic, Environmental

Stakeholder and Public Involvement to Determine Project Location, Design and Mitigation

Historical Resources

Natural Resources
Preferred Alternative Package — New River Crossing Location, Design and Mitigation Package
The New St. Croix Crossing

St. Croix Crossing project
Aerial view looking west toward Sunnyside Marina
The New St. Croix Crossing
Roadway View
The New St. Croix Crossing

http://youtu.be/wH058zyvHfU
Environmental Commitments

2006 SFEIS and 2012 Re-evaluation:
- Preferred Alternative Package
  - location
  - design
  - future of lift bridge
  - mitigation package
- Memorandum of Agreement – 106 properties
- Final Section 4(f) evaluations
- NPS Section 7(a) evaluations
- Memorandum of Understanding with Xcel Energy
- Memorandum of Understandings:
  - Riverway items
  - Growth Management
  - Water Quality Management Advisory Committee

Water Quality/Quantity issues:
- Wild and Scenic River character defining feature
- volume and rate controls
- phosphorus reduction
- turbidity and PH
Water Quality as a key component

Water Quality MOU from SFEIS in 2006

Water Quality Advisory Committee (WQMAC); 2009 invitation letter

WQMAC mtgs: 2010-2012
- Provided input into identifying materials, review, timelines, authority
  - federal, state agencies
  - watershed districts and WMO
  - cities and township
  - interested Stakeholders
----- resulted in Permits Matrix
Permit Matrix

Permits/Approvals Matrix

6 federal agencies
8 state agencies
3 local agencies
3 cities
1 Township
1 Watershed District
1 Watershed Management Organization
1 Electricity Generating Plant
1 Railroad
Permitting - coordination

Permit requested:
- based on what project (roadway, bridge, mitigation item) is being let and permitting agency input
- some permits overlap areas, some are only for certain areas

Permitting Conditions:
- each permit may have a list of conditions
- some conditions may overlap
- timeframes
- MN or WI authority

Permits and Requirements implemented by specifications, special provisions or by SWPPP or ECIP

Amendments or modifications to permits pursued as needed
MnDNR – original and 3 amendments
Corp of Engineers – Original Permit and 9 modifications
Permitting Conditions

Administered by Environmental Compliance Manager, as owner rep
- contractors:  - Environmental Compliance Officer
  - Erosion and Sediment Control Supervisor

Site management plans for New Bridge Superstructure Contract alone:

During peak, 67 site plans were required
- issues such as:
  - aquatic and terrestrial decontamination
  - barge surface management
  - causeway installation and removal
  - concrete and mortar management
  - containment plan for barge unloader facility
  - dust management
  - erosion control implementation
  - turbidity and PH monitoring systems
  - flood contingency
  - cultural resources discovery plan
Permit Condition Monitoring, Communication and Results

Permitting agencies are invited to weekly, on-site, project reviews.
- also have random inspections
- citizens monitoring

Education/Communication:
Environmental awareness and compliance training held for all contractor and owner employees.
- weekly sessions
- understand environmental resources
- teach appropriate actions to avoid impacts
- realize commitment of zero tolerance of environmental violations

RESULTS: Construction permitted since 2012. No legal actions taken against any current permitting agencies.
1. Native mussels (mitigation and limits for construction)

2. Aquatic Invasives (above state minimums due to native populations in the area)

3. Dewatering discharge (low NTU to meet construction discharge commitment)

4. Alternative mitigation measures
   • Removal of Xcel Barge Unloader facility (mitigation for aesthetic impact)
   • Loop trail construction (mitigation includes enhanced recreation opportunity)
   • Public Boat access study (no details at this point, but a cooperative effort with DNR for enhanced recreational opportunity)
Native Mussel populations
(over a dozen varieties of state or federally listed species)
Mussel surveys can only be done when water is warm, within 3 years of a project, and conditions are safe for divers (timing is everything)
Native Mussel surveys had to be coordinated for each phase
#1 rule for native mussel protection

What you were taught in kindergarten really is all you need to know.

Stay within the lines.
Area within red lines have been reviewed for the presence of native mussels.

Yellow areas cleared for in-water work associated with construction and impacts to native mussels.

Bridge corridor 400' wide, centered on bridge alignment.

Special Permit #18769

NOT TO SCALE

St Croix Crossing Potential Area of Impact for In-water work. (waterward of the CHW: 679.5' 1929 NGVD)

Nov 20, 2013
#2 rule for native mussel protection
It’s a lonely job, but someone had to do it

USFWS set protocols for movement of barges between Mississippi and St. Croix Rivers.
Typical rules apply for moving equipment onto or off of a site via roads (arrive clean - leave clean)
#3
Water is not free

Discharge limits set by MnDOT exceeded statewide standards
Looping system for 25NTU limit
Mitigation included alternative compensation for riverway impacts
Removal of Xcel barge unloading facility and mooring cell
It’s not just a unique area for the animals…
Completion of loop trail system

Study underway to add a DNR public access to the river
Using past bridge construction experiences ...

To apply and deliver:
Total pollution prevention best practices master plan
  Above-water SWPPP
  On-water SWPPP
  Water to land transition SWPPP
  On-land SWPPP

Environmental Commitments
Knowing The Whole World Will be Watching
Good Housekeeping
Learning what is possible
Knowing what is required,

• Having everyone read, understand and ready to implement the 2012 Re-evaluation of the SFEIS, relative to the work
<table>
<thead>
<tr>
<th>GOVERNMENT AGENCY</th>
<th>ACTION</th>
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<tbody>
<tr>
<td>LOCAL</td>
<td>Sediment and Erosion Control Permit@ Applied for permit – November 7, 2012. Expected by end of January 2013</td>
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<tr>
<td>Browns Creek Watershed District</td>
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<tr>
<td>Middle St. Croix Watershed Management Organization</td>
<td>Coordination of Grading and Drainage Plans – ongoing</td>
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<tr>
<td>STATE</td>
<td></td>
</tr>
<tr>
<td>Minnesota Department of Natural Resources</td>
<td>--Water Appropriation Permit (if necessary)</td>
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<td></td>
<td>--Invasive Species Permit (if necessary)</td>
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<td></td>
<td>--Public Waters Permit * #2012-0217 dated 1/4/13</td>
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<td>Minnesota Pollution Control Agency</td>
<td>--National Pollutant Discharge Elimination System (NPDES) Preliminary SWPPP@ sent in on November 7, 2012. Early SWPPP approval by MPCA on 12/21/12. SWPPP amended by Contractor as necessary.</td>
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<td></td>
<td>--Application for General NPDES Stormwater Permit for Construction Activity (MN R100001). Contractor co-sign</td>
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<tr>
<td></td>
<td>--Notice of Termination of General Stormwater Permit for Construction Activity. Contractor obtain</td>
</tr>
<tr>
<td></td>
<td>--Discharge of Contaminated Ground Water to Surface Water (as necessary). Contractor obtain</td>
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<td></td>
<td>--Noise Standards Exemption. Contractor obtain</td>
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<tr>
<td>Wisconsin Department of Natural Resources</td>
<td>--Section 401 of the Clean Water Act* - for Corp of Engineers application -9/27/12</td>
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<td></td>
<td>--Section 401 of the Clean Water Act* - copy for Coast Guard application -11/9/12</td>
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<tr>
<td>Wisconsin Department of Natural Resources</td>
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</tr>
</tbody>
</table>
Pollution Prevention, Resource Avoidance and Preservation, delivering answers.
All items below will require contractor site specific work area plans as approved by the Project Engineer

**Pollutant Identification**
- River sediments
- Drill shaft lubricant and sealing chemicals
- Sediment dispersant chemicals
- Flocculants
- Concrete, admixtures, release agents, cleaning and finishes
- Cutting slag, wood, etc
- Coffer sealants
- Fuels, oils, antifreeze, fluids, solvents, cleaning agents, sanitizers
- Trash, debris, dusts
- Material/equipment/tool loss
- Compaction
- Temperature

**Resource Protection**
- Good Mussels
- Bad mussels (Zebra)
  - Decontamination protocols
- Wildlife
- River bottom & mooring
- Wetlands
- River water
- Drainage to river
- Navigation
Preservation of Water Quality, culture, wildlife, water life, plant life, air quality
Las Vegas-style Work Areas
Environmental Resource commitment delivery is Everyone's Job

- Juice leak controls
• Value of specified training
• Value of specified procedures (how, when)
• Value of specified strategies (contractor submittals of exacting methods)
• Value of complete and accurate SWPPP (what, where)
• Value of specified team
• Value of quality control reviews
**ENVIRONMENTAL PROGRAM DELIVERY**

The provisions of MnDOT 1701 Laws to be Observed are supplemented with the following:

S-29.1 Contractors shall be given an opportunity to attend Project specific environmental delivery compliance training to better understand environmental compliance requirements that are included as part of this Contract. The pre-bid Environmental Training will be in conjunction with a PRE-LETTING CONFERENCE as outlined in Section S-3 (PRE-LETTING CONFERENCE). The training will consist of an approximately 4 hour commitment and will be provided by MnDOT and Regulatory Agency staff. Training will consist of a Project overview, an overview of Project specific environmental commitments and documents, NPDES rules and regulations, USACE rules and regulations, Public Waters work permits, water appropriations, decontamination protocols, plan content, example past means, methods and amendment processes, and general goals of the construction activity when working within the St Croix river complex. This is to ensure contractor awareness of compliance costs and incorporation of best management practices when working within a federally designated wild and scenic river.

S-29.2 Contractor’s personnel that are encouraged to attend the pre-bid training include the Project Manager and Environmental Compliance Officer. Other Contractor personal invited are Contractors’ lead staff preparing the bid, potential Project construction supervisors overseeing the work of the Prime Contractor and all subcontractors, proposed environmental quality control managers or proposed erosion control supervisor (if different from the Contractor Project Manager or Environmental Compliance Officer), proposed specialty contractors supervisors performing specific work of coffer placement and removals, tremie placement, drill shaft material processing and barge management officers. Each contractor is limited to 6 (six) personal to this training session.
Special Thanks to:

- Beth Neuendorf
- Katie Heinz
- Nick Schaff
- David Larson
- Jason Alcott
- Nick Tiedeken
- Sarma Straumanis
- Kristen Zschomler
- Dan Sullivan
- Peter Leete
- Mark Vogel
- Keri Aufdencamp
The Test

45. According to the US Fish and Wildlife Service and referenced in the 2006 SFEIS, how soon after dry dock departure from the Burnsville Barge Terminal must the decontaminated barge be within the St Croix River system?
   a. 24 hours
   b. 36 hours
   c. 48 hours
   d. No rush as the barge has been decontaminated.

46. A truck driver ends up driving off the haul road on its way to the river dock damaging existing vegetation. What should happen?
   a. Immediately call the project supervisor
   b. Notify the project engineer
   c. Develop and submit a restoration plan
   d. All of the above

47. How many existing bald eagle nests will be monitored as part of this project?
   a. 1
   b. 2
   c. 3
   d. 7

48. An eagle starts building a nest within trees overhanging the river at Station 501 + 35. What must occur?
   a. Spiff the nest as quickly as possible that evening
   b. Ignore, as it is more than 100 feet away
   c. Notify the Project Engineer
   d. Notify the Contractor’s Environmental Compliance Officer.

49. The Coast Guard permit has conditions related to:
   a. Historic libraries
   b. Threatened animal species
   c. Boat navigation
   d. Officiating Packers versus Vikings football games

50. Street sweeping may be needed to prevent track of sediments, noxious weeds and aquatic organisms. Which of the following BMPs could be used to prevent weed/aquatic transport, maintain safe traveling conditions for public and private resources?
   a. Wheel washoff system
   b. Well maintained aggregate base
   c. Light watering followed by a pickup type sweeper
   d. All of the above.
Design as a communication tool

• Commitments with actionable means and methods
  – Provide one process, that if followed, will meet commitment

• Commitments with actionable results
  – Build ponds first and collect exposed soil drainages
  – Water quality measures: max 25 ntu above background

• Commitments with pay items
  – Payment for work

• Create reward system
  – Shared risk contingency provision
• NTU: 25 above river background
• pH: 7.0, +/- 1.0
Built water quality treatment pond first
Conferring pride of work
• Communication of a vision for delivering compliance construction
• Environmental means and methods by the owner (MnDOT) to the contractor
• If followed, should mean compliance to commitments
• Reduces risk of bidding and construction
Env. Const. Means & Methods
Soft Wall Coffer Dam
Permanent Access Road Fill (includes the placement) cannot be placed within delineated maximum edge of wetland. Exposed fill must be kept permanently stabilized with geotextile during construction staging and compacted topsoil (if used) or other approved stabilization methods for permanent slope covers.

Permanent Access Road Profile

Geotextile slope cover protection combined with S2SDM perimeter control BMA

Maximum temporary work platform at wetland impact delineated limit.

Work area and staging platform, temporary wetland impact zone

SuperDuty tilt fence perimeter control, positioned as necessary as work area platform is staged and removed.

To Truckle Bridge River Access

Temporary Access and Work Platform Detail

Light wetland surface sheeting to accommodate installation of flashing, load distributing work pads/mats, geotextile fabric separation systems between soil and mats, and between at least one layer of work mats. Contractors must prevent surcharging of wetland and must ensure outside of project work limits.

All work performed to install Permanent and temporary access road and work area platform requires contractor submitted Site Management Plan (SMP) for the engineer's approval prior to any work.

Temporary Fill Systems require certification/demonstration of temporal and aquatic species and faunal organisms decommission. This can be accomplished by using new timber pales, certified clean/decontaminated timber pales, high performance new or precleaned/decontaminated floating interlocking over work mats as per Division 5 Previsions.

All excess wetland soils shall be stockpiled, stabilized appropriately and removed to similar pre-existing contours during restoration of temporary wetland impact area.
Interim Deck Drainage 1
Quality Control Program

• Doing routine inspections
• Doing critical works inspections
• Doing post rain fall inspections
• Finding the problem areas
• Making recommendations to fix the problems
• Ability to rapidly solve the problem
• Correcting the problem areas
• Documentation of the work
• Define in the plan tabulations, or Show on plan appropriate sheets, or List in special provisions
  – Maximizes the connection between delivering commitments and
  – Expressing contractor creativity
  – Treats changes like design build, with predetermined boundaries
  – Goal is to make the project engineer happy
1. Refueling Management Plan, for on shore, coffers and on barge
2. Spill Response Management Plan for all activities on shore, coffers and on barge
3. Cofferdam installation and removal plan that addresses sediment control measures and hydraulic hammer fluid management
4. Drill shaft sediment and drill fluid management plan that addresses total containment of all chemicals, sediments and slurry waters
5. Concrete Management Plan that describes all operations for all scoped work to prevent discharge or loss of cementitious liquid and solid materials to the river
6. Dewatering Management Plan that describes measures for discharging visibly clean water that is no more than 25 NTU above the background receiving waters and is neutral pH.
7. Barge and all other equipment, products and materials decontamination and cleaning management plan that recognizes and incorporates appropriate USFWS decontamination of aquatic invasives protocols, Wisconsin and Minnesota Departments of Natural Resources requirements.
8. Barge mooring plan anywhere on the river that follows all regulations
9. Developing a daily Environmental Quality Assurance Program with an Erosion Control Supervisor to ensure that chemical management is incorporated into the work.
10. Dust prevention plan
11. Cofferdam pumping plan
12. Water access plan
13. Haul road plan
14. Laydown/Staging area plan
15. Chemical management plan
16. Barge surface work plan

Contractor shall not start work in the affected areas until the schedule, site plans and Quality Assurance Program have been accepted by the Engineer, and may only begin after acceptance along with all materials, equipment and labor to deliver the site management work plan activity are available/installed on site.
Example SMP Submitted

- Torpedoes to be tied down with containment
- Fueling to be done with full containment
- Spoils will be spun off in full containment hopper barge

- 96" auger will be lowered into hopper barge before bring spun off.

Taped joint to prevent soil escape transition between work barge and hopper barge protected by draping poly/liner perimeter of barge protected with curbing (2x4 with tape over)
Poly sheeting below mats for crane diaper below crane mats
Void around 96" casing protected with poly attached to crane mats or platform
HEAVY DUTY SILT

WETLAND XCEL POND
TYPE 4 DEEP MARSH

EAGLE NEST SITE APPROXIMATELY 200' FROM DOCK WALL

STAKED SILT FENCE IN SHALLOW WATER DURING FILL OPERATIONS

TURBIDITY BOOM SET UP PRIOR TO DOCK WALL FILL OPERATIONS AND REMOVED WHEN FILLING IS COMPLETE

WETLAND Q FORESTED TYPE II
FLOODPLAIN FOREST

SHEET PILE WALL

LIMESTONE RIP RAP FILL TOPPED WITH CLASS 5 GRAVEL

Max Todo / Xcel Energy Proposed Sheet Pile Dock Wall — Dock wall top elevation 680.00
## SWPPP AMENDMENT TRACKING LOG

<table>
<thead>
<tr>
<th>Amendment No.</th>
<th>Acceptance Date</th>
<th>Brief Description of Amendment</th>
<th>Prepared By</th>
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<tr>
<td>001</td>
<td>12/13/13</td>
<td>Construction Access Stage 1</td>
<td>Jason Block / Tony Luft</td>
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<tr>
<td>002</td>
<td>1/14/14</td>
<td>Construction Access Stage 2</td>
<td>Jason Block / Tony Luft</td>
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<td>003</td>
<td>4/2/14</td>
<td>Spill Prevention and Management Plan (Rev.3)</td>
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<td>004</td>
<td>1/22/14</td>
<td>Causeway to Pier 8</td>
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<td>005</td>
<td>2/11/14</td>
<td>Buffer Encroachment</td>
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<td>2/11/14</td>
<td>Xcel Access Road Realignment</td>
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<td>Barge Mooring Plan (Rev.1) with River Traffic Control (Rev.1)</td>
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<td>015</td>
<td>4/2/14</td>
<td>Flood Contingency Plan (Rev.2)</td>
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Implementation

• Avoidance
• Buffers and protection barriers
• Material controls

• Over water works
• In-water works
• Water to land works
• On-land works
Resource Delivery
Aquatic Invasive Species Prevention
Spill Prevention, control program
Concrete material management program
Defending the perimeters
Exposed soils stabilizations
Experimenting with new practices
Blending the old with the new
Salvaging living species
Constant good housekeeping
Program for dealing with construction life curveballs
• Communication, communication, communication, with clear start to finish means and methods.
• Leave nothing to chance.

• Make commitments as if you had to deliver the design
• Design as if you had to build it
• Build it as if you had to maintain it
• Appreciating what we have.
Mn Approach Project
- D/B contract
- Contract amount $56 M
- ALJV Contractor
- Schedule Spring 2013 to Fall 2014 / Spring 2015
Summary of Minn. Approach work

- 1,196,000 CY - dirt moved
- 73,700 Ton - Bituminous placed
- 14.3 mile - Curb and Gutter
- 11.9 mile - sewer
- 3.9 mile - water main
- Constructed seven sediment ponds
- 4.3 mile - bike trail
- Cost to date $61,194,000
2014/2015 WI Construction
Wisconsin Approach
Co. Hwy “E” Interchange and Grading
Bridge Construction

Cast in Place or Pre-cast segments
2015 River Bridge Construction
2015 MN Approach Bridge Construction
Segment Erection

4/10/15
First Segment placed on Pier

4/11/15
First Cantilevered section placed
Minnesota Approach Bridge Segments

- 338 pre-cast segments make up the Minnesota approach bridge superstructure
- Average weight: 90 tons
- Average length: 8-1/2 feet
On Site Casting Yard

Intersection of Hwy 95/Hwy 36
On-Site Casting Yard

67 Segments Cast to-date
(4/15/15)
On-Site Casting Yard - OPH
Extradosed Bridge

- Length: 5,079 ft.
- Width: 100 ft.
- Between piers: 600 ft.
- More than 600 pre-cast segments
- Road height above water: 110-155 ft.
- Pier height above water: 180-225 ft.
River Bridge Overview
Crossbeam Construction
Crossbeam Construction
Crossbeam and Pier Table Construction
River Bridge Cross Section – Two Precast Box Segments

18 ft.

100 ft.

Segments
Grey Cloud Island Casting Yard

100’ x 600’ Building
Grey Cloud Island Casting Yard

River bridge segments
- 5 casting beds
- 650 segments
- 18 ft. deep
- 10 ft. long
- 50 ft. wide
- Weighs 180 tons
- Barged on Mississippi and St. Croix rivers to project site
Grey Cloud Casting Yard

134 Segments Cast to-date (4/15/15)
Schedule

- Mn Roadway – majority completed by 2015
- WI Roadway – completed by 2016
- New River Bridge – Open to traffic by fall of 2016
- Mitigation items - implemented “before”, “during” or “after” construction
Mitigation Package

Commitments in action – “before, during or after” construction

- Standard Practice items
- Riverway items
- Growth Management and Water Quality items
- Historic Resource items
- Visual Quality item
Mitigation Package

Environmental Commitments from pre-design to construction

-- incorporated lessons learned
-- considered the context of the project area
-- communicated
-- built partnerships with Stakeholders
-- developed a balanced solution
-- implementing “before, during and after”
Project Office
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Project Website – Webcams and Weekly Update
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Questions?
Animations

Lift Bridge

New St. Croix Crossing