



# Building the Great River Landing

## 30% Design Briefing

January 15, 2015

The City of Onalaska's Waterfront Committee has undertaken the goal of revitalizing the Onalaska waterfront and Building the Great River Landing to provide safe and accessible access to the waterfront with clear connectivity to the downtown and Main Street.

From August through October, the City hosted a Community Meeting and a three day Charrette or intensive collaborative design and planning session (Sept 29 - Oct 1), culminating in this schematic design for Onalaska's waterfront.

During the several months that followed, the City's consultant team, along with the Waterfront Committee, advanced the design through preliminary engineering and cost estimation.

For more information:  
[www.greatriverlanding.com](http://www.greatriverlanding.com)



# PROCESS



On August 20, 2014, the City of Onalaska's Waterfront Committee hosted a Community Meeting as a first in the series of public involvement opportunities regarding the Onalaska waterfront and the Great River Landing.

From that meeting until October, the City and design team held stakeholder interviews and a three day Charrette or intensive collaborative design and planning session (Sept 29 - Oct 1), culminating in this schematic design for Onalaska's waterfront.



# PROJECT GOALS & GUIDING PRINCIPLES

## PROJECT GOALS

- A. A highly accessible river**
- B. An active riverfront connected to a vibrant downtown**
- C. A design in harmony with nature & ecology**
- D. Support and enhance education and awareness of history, culture and environment**
- E. Balance creative vision and market reality**
- F. Community supported policies, plans and projects**

## GUIDING PRINCIPLES

- 1. Create a Destination**
- 2. Provide a Range of Uses and Activities**
- 3. Enhance & Promote Riverfront Environment & Ecology**
- 4. Economically Viable and Sustainable Return on Investment**
- 5. Increase and Enhance Connections**
- 6. Address and Enhance Public Safety and Security**
- 7. Respect and Promote Heritage & Culture**
- 8. Embrace Resiliency**
- 9. Ongoing Community Engagement**



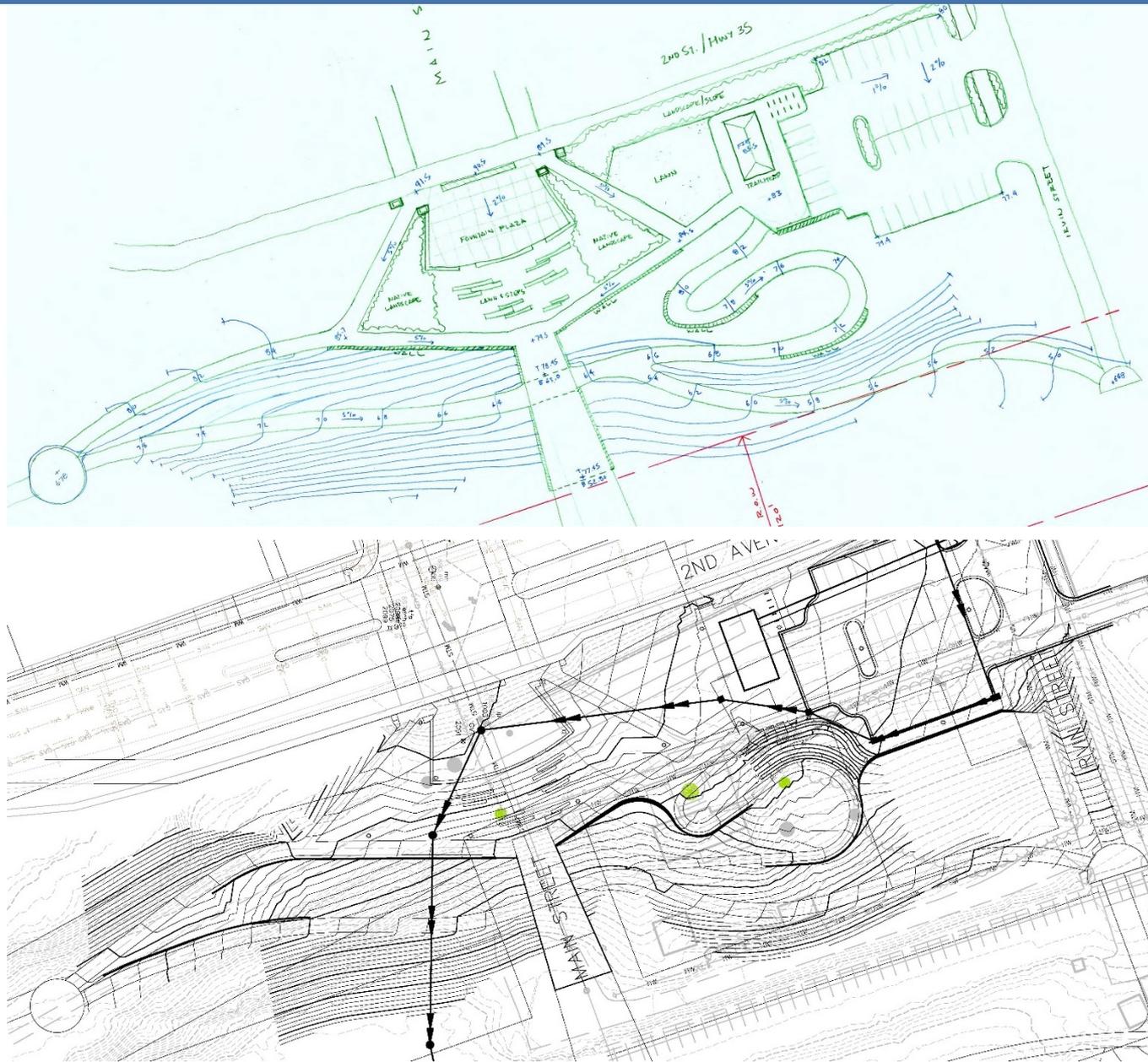
# 30% DESIGN PLANS – SCOPE REVIEW



SEH has advanced the following areas, as noted below, to assist the City in refining the cost, design and engineering of these projects.

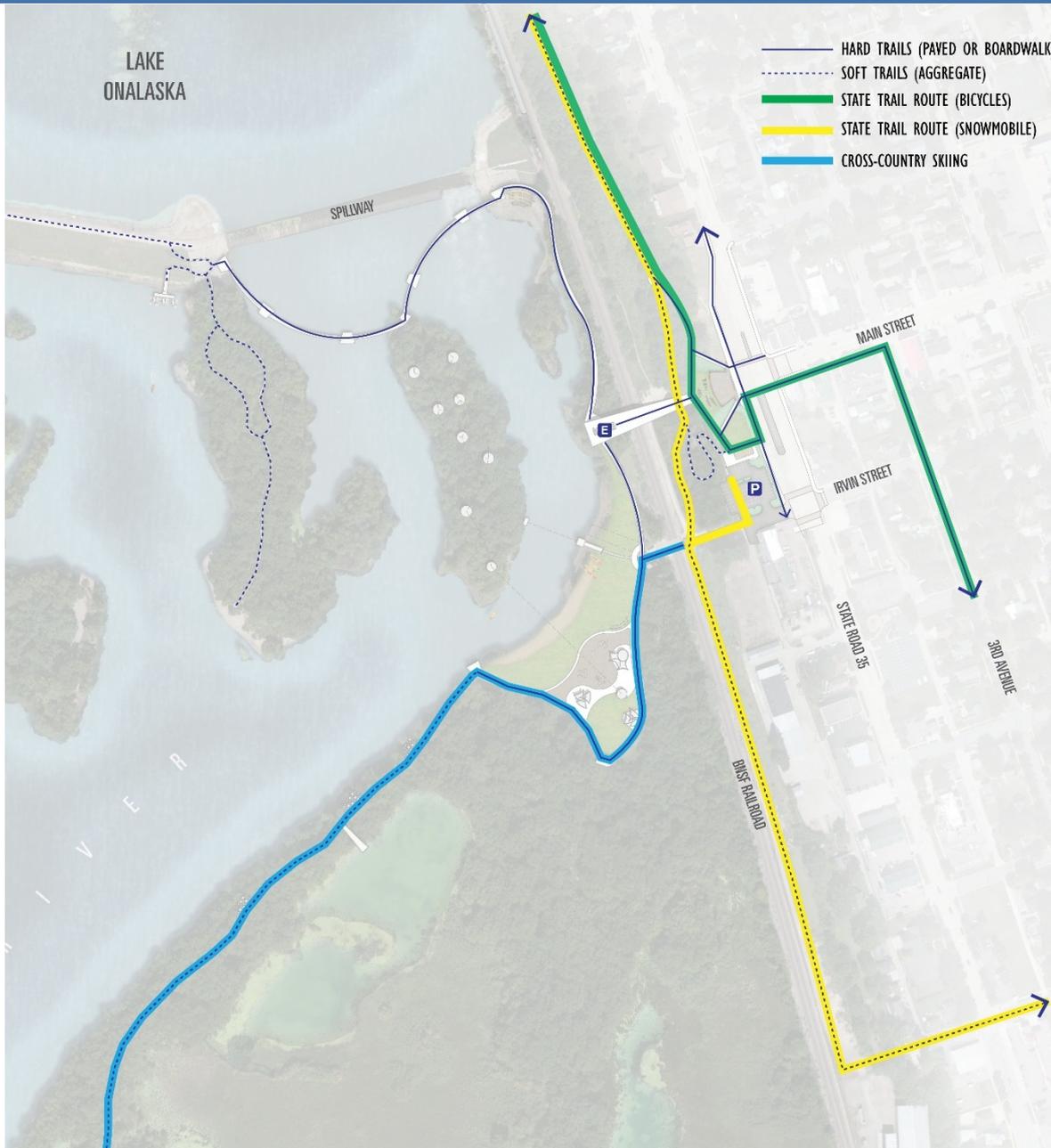
- 1. Paddle Basin, Nature Playground & Trails**  
15% review of bridge landing
- 2. Boardwalk & Spillway Link**  
10% review of bridge landing
- 3. South Nature Trail Enhancements**  
Verify costs
- 4. Spillway Bridges**  
Verify costs
- 5. Adventure Play & Island Recreation**  
Verify costs
- 6. Trailhead & Market**
  1. 35% grading & layout plan
  2. 10% architectural design for trailhead building
- 7. Main Street Bridge**
  1. 5% structural review of pier/stair/elevator
  2. Bridge width options
- 8. Main Street Plaza, Spray Fountain & Lawn**  
25% grading & layout plan

# THE LANDING – GRADING PLAN



SEH addressed the upland site grading early in the 30% process, to validate the design generated in the charrette. To provide Universal Accessibility (5% maximum slopes) and minimize earthwork and impacts to the bluff, SEH developed the grading plans shown to the left.

# THE LANDING – CIRCULATION PLAN



SEH reviewed and refined the circulation patterns of multiple trail types and users early in the process to eliminate any redundancies from the charrette plan. The graphic to the left indicates proposed circulation patterns within and through the site for pedestrians, bicycles, snowmobiles and cross-country skiing.

# GREAT RIVER LANDING – SCHEMATIC DESIGN



The plan graphic to the left represents the consensus schematic design plan that was developed during the final day of the charrette (October 1, 2014). The list below corresponds to the consensus program that was developed for the project and keyed into the plan graphic.

## Project Program Elements

1. Transient Boat Docking
2. Ice Fishing Bay
3. Spillway Island Bridging
4. Nature Walk & Rustic Camping
5. Aerial Canopy Course
6. Spillway Fishing Pier
7. Pedestrian Bridge with Grand Stairway & Elevator
8. Amphitheater Seating
9. Main Street Plaza
10. Restroom Facility
11. Trailhead & Parking
12. Enhanced Pedestrian & Emergency Railroad Crossing
13. Emergency Boat Launch,
14. ADA Kayak Launch & Log Rolling Boom
15. Stone Seating Blocks
16. Adventure Play Area
17. Support Structure
18. Fabric Picnic Shelters
19. Stone River Access
20. Wetland Viewing Access
21. Nature Walk

### LEGEND

- |   |                                       |    |   |    |                        |
|---|---------------------------------------|----|---|----|------------------------|
| 1 | TRANSIENT BOAT DOCKING                | 8  | AMPHITHEATER SEATING                          | 15 | STONE SEATING BLOCKS   |
| 2 | ICE FISHING BAY                       | 9  | PLAZA WITH INTERACTIVE WATER FEATURE          | 16 | ADVENTURE PLAY AREA    |
| 3 | SPILLWAY ISLAND BRIDGING              | 10 | RESTROOM FACILITY                             | 17 | SUPPORT STRUCTURE      |
| 4 | NATURE WALK & RUSTIC CAMPING          | 11 | TRAILHEAD & PARKING                           | 18 | FABRIC PICNIC SHELTERS |
| 5 | AERIAL CANOPY COURSE                  | 12 | ENHANCED PEDESTRIAN & EMERGENCY R.R. CROSSING | 19 | STONE RIVER ACCESS     |
| 6 | SPILLWAY FISHING PIER                 | 13 | EMERGENCY BOAT LAUNCH                         | 20 | WETLAND VIEWING ACCESS |
| 7 | PEDESTRIAN BRIDGE WITH GRAND STAIRWAY | 14 | KAYAK LAUNCH & LOG ROLLING BOOM               | 21 | NATURE WALK            |



# GREAT RIVER LANDING – UPDATED DESIGN



The plan graphic to the left represents the updates to the schematic design plan that was developed during the final day of the charrette. The consensus program listed below still remains intact, while some of the geometry and materials have slightly changed based upon grading, circulation, City input and actual site conditions.

## Project Program Elements

1. Transient Boat Docking
2. Ice Fishing Bay
3. Spillway Island Bridging
4. Nature Walk & Rustic Camping
5. Aerial Canopy Course
6. Spillway Fishing Pier
7. Pedestrian Bridge with Grand Stairway & Elevator
8. Amphitheater Seating
9. Main Street Plaza
10. Restroom Facility
11. Trailhead & Parking
12. Enhanced Pedestrian & Emergency Railroad Crossing
13. Emergency Boat Launch,
14. ADA Kayak Launch & Log Rolling Boom
15. Stone Seating Blocks
16. Adventure Play Area
17. Support Structure
18. Fabric Picnic Shelters
19. Stone River Access
20. Wetland Viewing Access
21. Nature Walk

### LEGEND

- |   |                                       |    |   |    |                        |
|---|---------------------------------------|----|---|----|------------------------|
| 1 | TRANSIENT BOAT DOCKING                | 8  | AMPHITHEATER SEATING                          | 15 | STONE SEATING BLOCKS   |
| 2 | ICE FISHING BAY                       | 9  | PLAZA WITH INTERACTIVE WATER FEATURE          | 16 | ADVENTURE PLAY AREA    |
| 3 | SPILLWAY ISLAND BRIDGING              | 10 | RESTROOM FACILITY                             | 17 | SUPPORT STRUCTURE      |
| 4 | NATURE WALK & RUSTIC CAMPING          | 11 | TRAILHEAD & PARKING                           | 18 | FABRIC PICNIC SHELTERS |
| 5 | AERIAL CANOPY COURSE                  | 12 | ENHANCED PEDESTRIAN & EMERGENCY R.R. CROSSING | 19 | STONE RIVER ACCESS     |
| 6 | SPILLWAY FISHING PIER                 | 13 | EMERGENCY BOAT LAUNCH                         | 20 | WETLAND VIEWING ACCESS |
| 7 | PEDESTRIAN BRIDGE WITH GRAND STAIRWAY | 14 | KAYAK LAUNCH & LOG ROLLING BOOM               | 21 | NATURE WALK            |

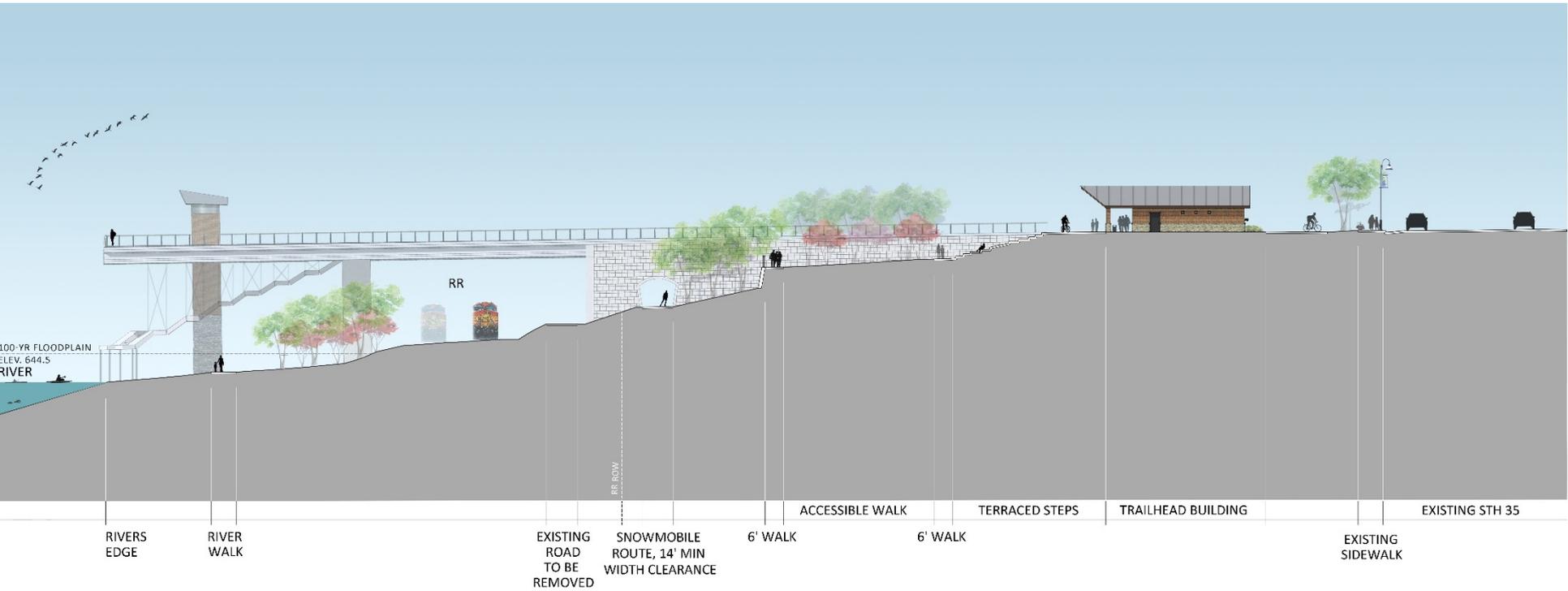


# THE LANDING - MAIN STREET PLAZA & BRIDGE



7. Pedestrian Bridge with Grand Stairway & Elevator
8. Amphitheater Seating
9. Main Street Plaza with Interactive Water Feature
10. Restroom Facilities
11. Trailhead Parking & Market
12. Enhanced Pedestrian & Emergency Railroad Crossing
13. Emergency Boat Launch
14. ADA Kayak Launch & Log Rolling Boom

# THE LANDING - MAIN STREET PLAZA & BRIDGE



# THE LANDING – PROGRAMMING PLAN

The plan to the left shows different programming activities throughout the Great River Landing that could be operated by City staff or outside organizations.

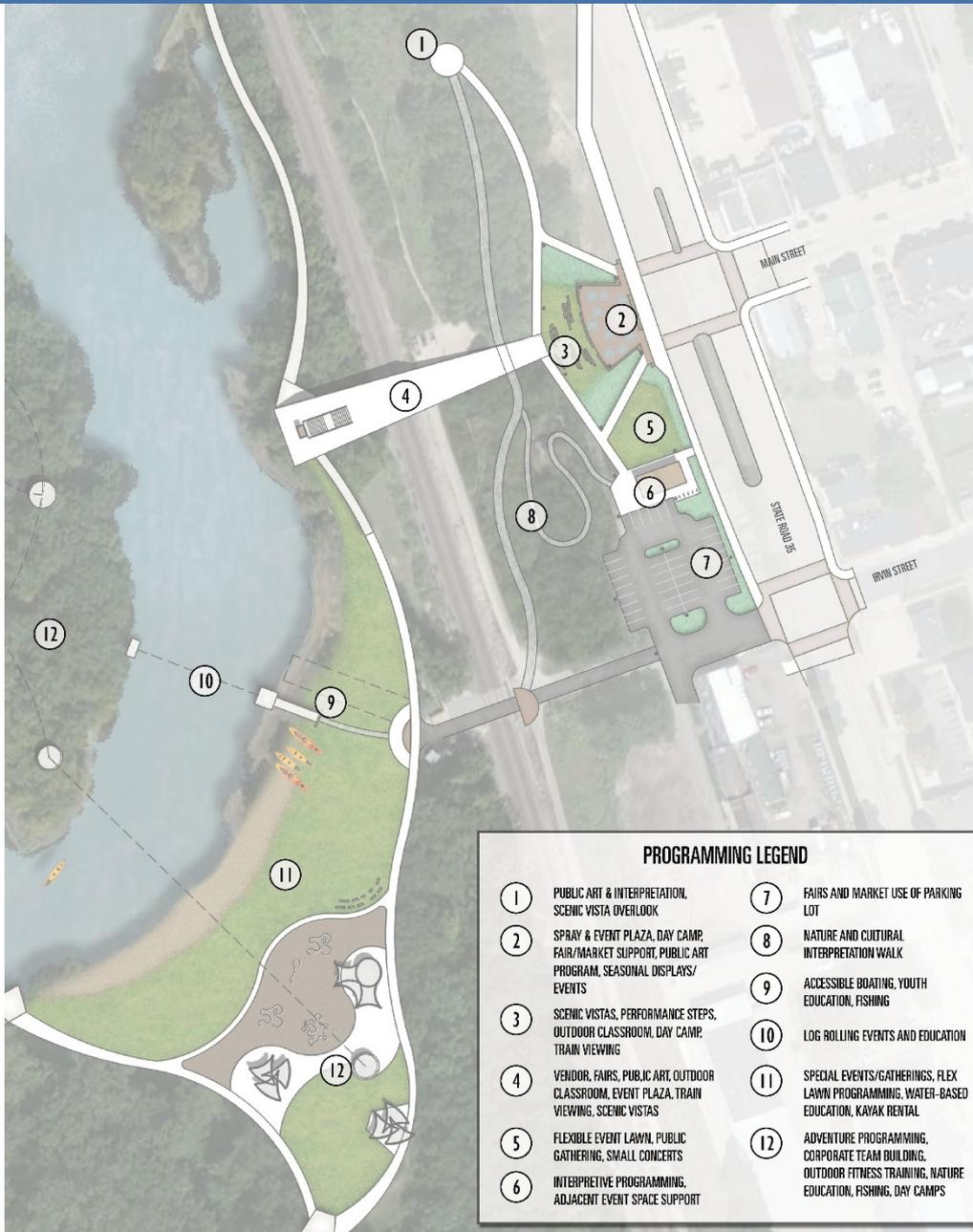
1. TRANSIENT BOATING, WATER-BASED EDUCATION, FISHING
2. DAY/OVERNIGHT CAMPING, NATURE EDUCATION, FISHING
3. YOUTH FISHING, NATURE INTERPRETATION, DAY CAMPS
4. ADVENTURE PROGRAMMING, CORPORATE TEAM BUILDING, OUTDOOR FITNESS TRAINING, NATURE EDUCATION, FISHING, DAY CAMPS
5. ICE FISHING
6. NATURE INTERPRETATION, OUTDOOR CLASSROOM, DAY CAMPS
7. NATURE INTERPRETATION, HANDS-ON ENVIRONMENTAL EDUCATION, USFWS PROGRAMMING, ICE SKATING
8. SPECIAL EVENTS/GATHERINGS, FLEX LAWN PROGRAMMING, WATER-BASED EDUCATION, KAYAK RENTAL

## PROGRAMMING LEGEND

- |   |  |   |   |
|---|--|---|---|
| 1 | TRANSIENT BOATING, WATER-BASED EDUCATION, FISHING  | 5 | ICE FISHING   |
| 2 | DAY/OVERNIGHT CAMPING, NATURE EDUCATION, FISHING   | 6 | NATURE INTERPRETATION, OUTDOOR CLASSROOM, DAY CAMPS                                     |
| 3 | YOUTH FISHING, NATURE INTERPRETATION, DAY CAMPS  | 7 | NATURE INTERPRETATION, HANDS-ON ENVIRONMENTAL EDUCATION, USFWS PROGRAMMING, ICE SKATING |
| 4 | ADVENTURE PROGRAMMING, CORPORATE TEAM BUILDING, OUTDOOR FITNESS TRAINING, NATURE EDUCATION, FISHING, DAY CAMPS | 8 | SPECIAL EVENTS/GATHERINGS, FLEX LAWN PROGRAMMING, WATER-BASED EDUCATION, KAYAK RENTAL   |



# THE LANDING – PROGRAMMING PLAN



The plan to the left shows different programming activities throughout the Great River Landing that could be operated by City staff or outside organizations.

1. PUBLIC ART & INTERPRETATION, SCENIC VISTA OVERLOOK
2. SPRAY & EVENT PLAZA, DAY CAMP, FAIR/MARKET SUPPORT, PUBLIC ART PROGRAM, SEASONAL DISPLAYS/EVENTS
3. SCENIC VISTAS, PERFORMANCE STEPS, OUTDOOR CLASSROOM, DAY CAMP, TRAIN VIEWING
4. VENDOR, FAIRS, PUBLIC ART, OUTDOOR CLASSROOM, EVENT PLAZA, TRAIN VIEWING, SCENIC VISTAS
5. FLEXIBLE EVENT LAWN, PUBLIC GATHERING, SMALL CONCERTS
6. INTERPRETIVE PROGRAMMING, ADJACENT EVENT SPACE SUPPORT
7. FAIRS AND MARKET USE OF PARKING LOT
8. NATURE AND CULTURAL INTERPRETATION WALK
9. ACCESSIBLE BOATING, YOUTH EDUCATION, FISHING
10. LOG ROLLING EVENTS AND EDUCATION
11. SPECIAL EVENTS/GATHERINGS, FLEX LAWN PROGRAMMING, WATER-BASED EDUCATION, KAYAK RENTAL
12. ADVENTURE PROGRAMMING, CORPORATE TEAM BUILDING, OUTDOOR FITNESS TRAINING, NATURE EDUCATION, FISHING, DAY CAMPS

## PROGRAMMING LEGEND

- |  |  |
|--|--|
| ① PUBLIC ART & INTERPRETATION, SCENIC VISTA OVERLOOK   | ⑦ FAIRS AND MARKET USE OF PARKING LOT  |
| ② SPRAY & EVENT PLAZA, DAY CAMP, FAIR/MARKET SUPPORT, PUBLIC ART PROGRAM, SEASONAL DISPLAYS/EVENTS | ⑧ NATURE AND CULTURAL INTERPRETATION WALK  |
| ③ SCENIC VISTAS, PERFORMANCE STEPS, OUTDOOR CLASSROOM, DAY CAMP, TRAIN VIEWING                     | ⑨ ACCESSIBLE BOATING, YOUTH EDUCATION, FISHING   |
| ④ VENDOR, FAIRS, PUBLIC ART, OUTDOOR CLASSROOM, EVENT PLAZA, TRAIN VIEWING, SCENIC VISTAS          | ⑩ LOG ROLLING EVENTS AND EDUCATION   |
| ⑤ FLEXIBLE EVENT LAWN, PUBLIC GATHERING, SMALL CONCERTS  | ⑪ SPECIAL EVENTS/GATHERINGS, FLEX LAWN PROGRAMMING, WATER-BASED EDUCATION, KAYAK RENTAL                          |
| ⑥ INTERPRETIVE PROGRAMMING, ADJACENT EVENT SPACE SUPPORT   | ⑫ ADVENTURE PROGRAMMING, CORPORATE TEAM BUILDING, OUTDOOR FITNESS TRAINING, NATURE EDUCATION, FISHING, DAY CAMPS |



# THE LANDING – WATER FEATURE



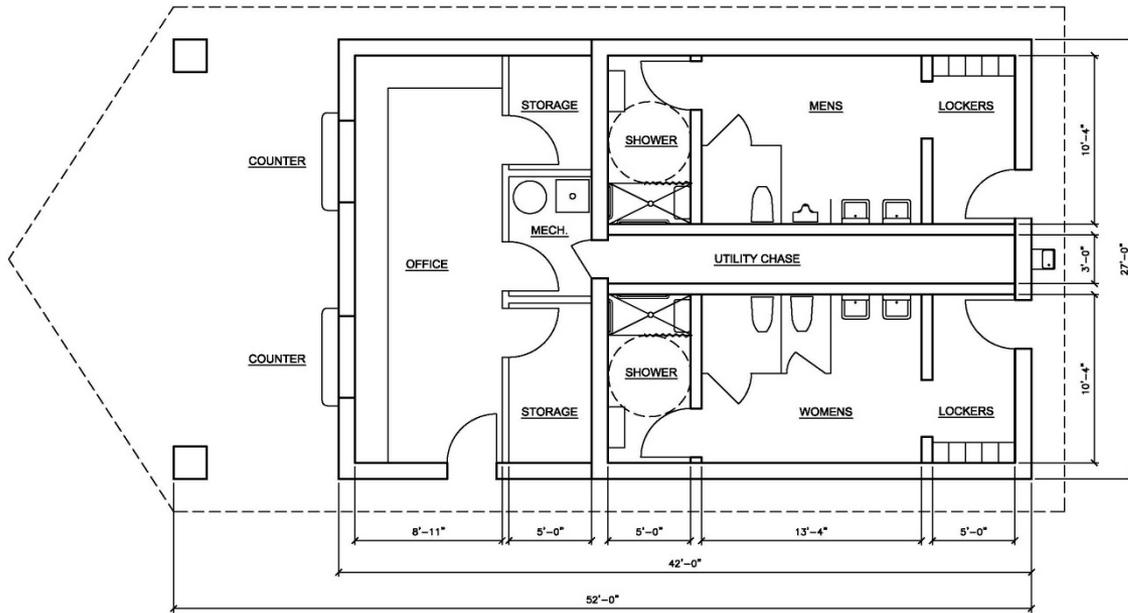
## Flow-Through (Potable Water Systems)



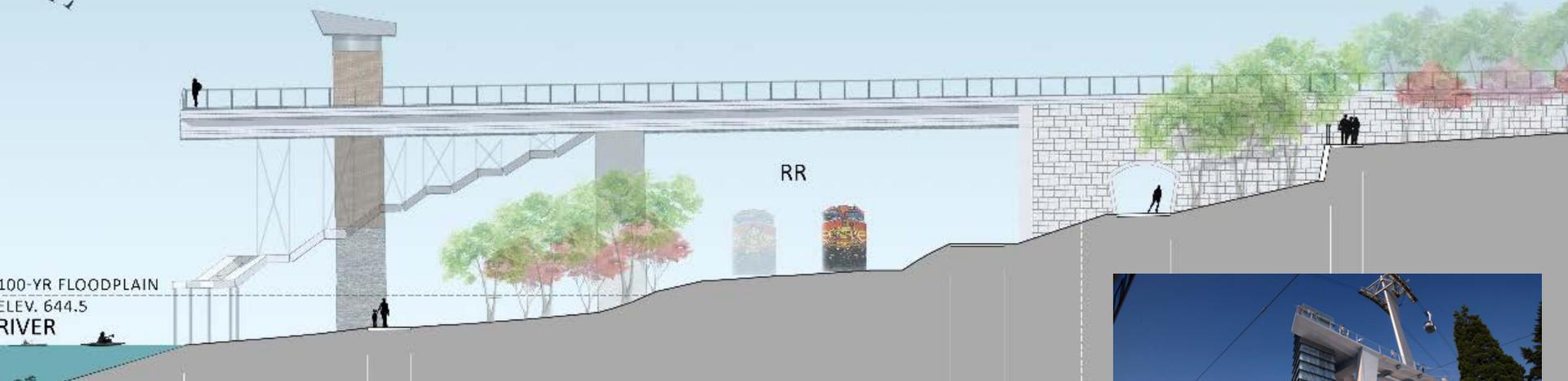
# THE LANDING – AMPHITHEATER SEATING



# THE LANDING – TRAILHEAD BUILDING



# THE LANDING – BRIDGE



Four different bridge options were reviewed by SEH during this phase of the project.

## Option A

- Bridge per charrette design
- 160' railroad span
- 12" bridge deck & 6' girders
- All concrete, low maintenance
- Increase in earthwork/fill due to higher bridge for railroad clearance

## Option B

- Similar to Option A
- Shorter span 125', with extra pier (as shown above)
- Additional pier would be within railroad R.O.W., but outside clear zone
- Precast concrete or steel girders
- Steel girders would result in higher maintenance than concrete
- 6% less than Option A

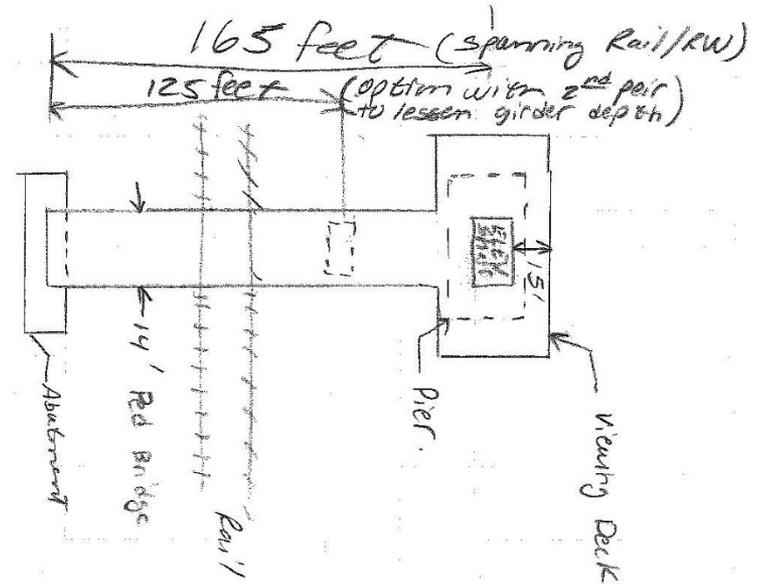


# THE LANDING – BRIDGE



## Option C

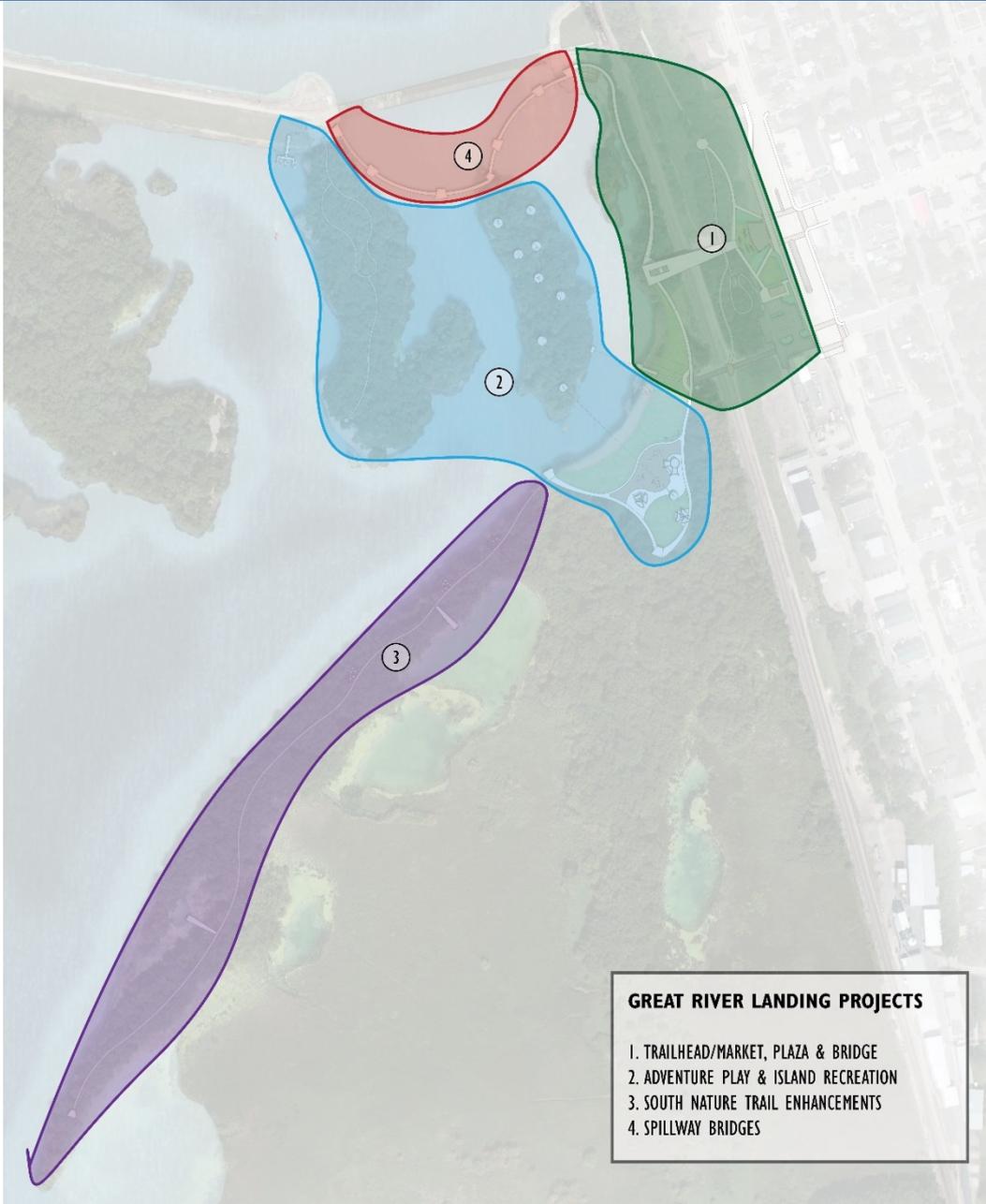
- Overhead steel truss design
- 160' span across entire railroad R.O.W.
- Higher maintenance cost
- Require bridge coating every 20-30 years
- Developed for cost comparison only
- 20% less than Option A



## Option D

- Similar to Option A, with much smaller deck
- 14' wide structure
- Similar to sketch above
- 29% less than Option A

# ACTION PLAN – PHASING ALTERNATIVES CONSTRUCTION COSTS



- GREAT RIVER LANDING PROJECTS**
- 1. TRAILHEAD/MARKET, PLAZA & BRIDGE
  - 2. ADVENTURE PLAY & ISLAND RECREATION
  - 3. SOUTH NATURE TRAIL ENHANCEMENTS
  - 4. SPILLWAY BRIDGES

The plan graphic to the left shows potential phasing and bundling projects that could assist implementing the Great River Landing in a phased approach as funding is available. These bundles are arbitrarily numbered and do not reflect City priorities.

Below are brief descriptions of these bundles along with the Engineer’s Preliminary Opinion of Construction Cost for each. Design, engineering and permitting fees are not included in the estimates below.

## Great River Landing Projects

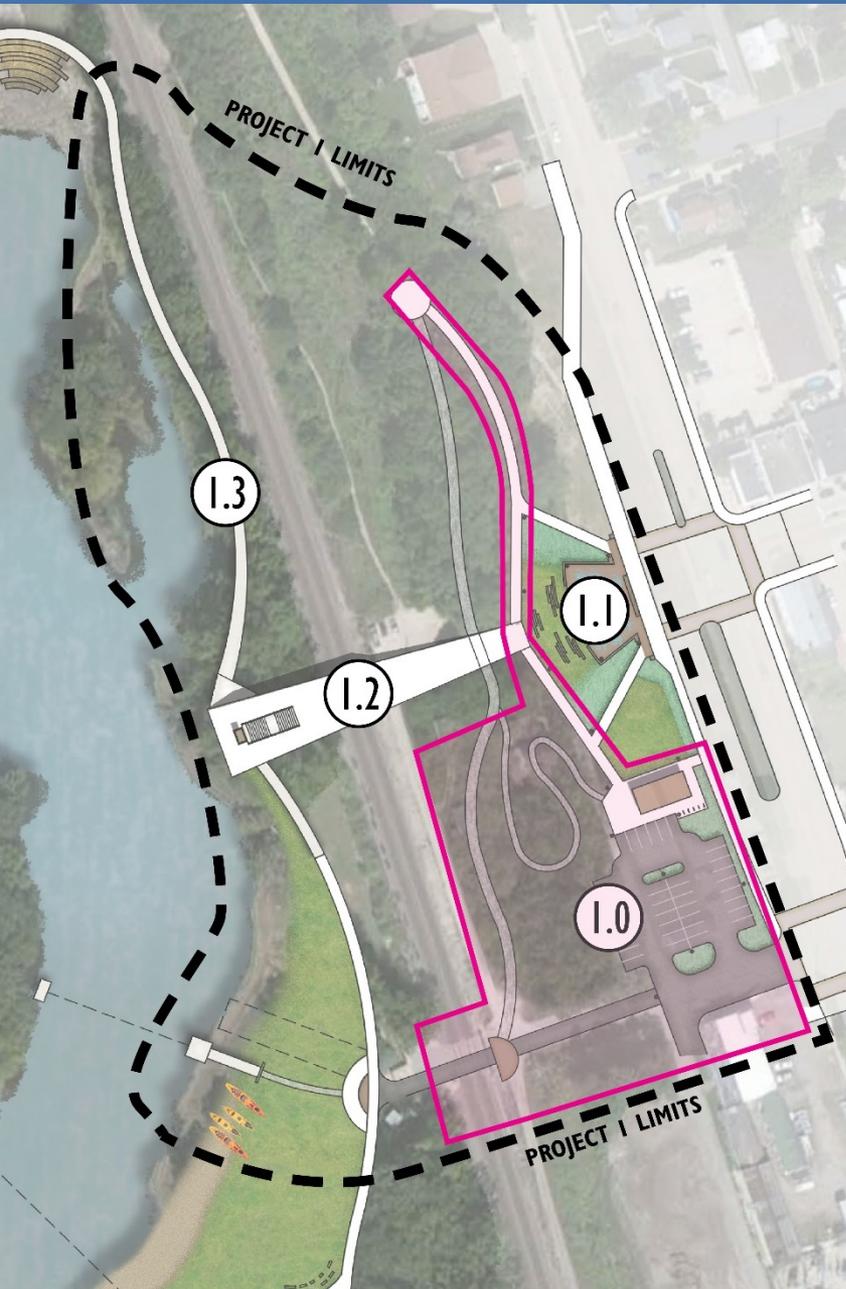
- 1. Trailhead/Market, Plaza & Bridge (\$8.2M)
- 2. Adventure Play & Island Recreation (\$3.1M)
- 3. South Nature Trail Enhancements (\$500,000)
- 4. Spillway Bridges (\$3.4M)

**Total Project Construction = \$15.2M**

Detailing phasing has only been developed for Project #1 within this contract and can be found on the following page.



# ACTION PLAN – PROJECT 1



The plan graphic to the left shows the proposed limits of Project #1 associated with building the Great River Landing. Through phasing and implementation options listed below, a budget range has been developed for Project #1. SEH estimates that Project #1 could be completed within 3-5 years.

- **High = \$8.2M; Low = \$5.0M**

Highlighted in magenta are the approximate limits of the 1<sup>st</sup> Phase of construction, including the trailhead building and parking, ADA accessible route to the railroad tracks and connection to the Great River State Trail.

**1.0: Trailhead/Market = \$1.2M**

Below are brief descriptions of alternatives to consider during the final design phase of Project #1, numbered on the plan graphic to the left. These items are phasing or value engineering options for the City to consider as funding is available.

### 1.1: Plaza (Phasing Options)

1. Sloped Lawn = \$1.1M
2. Final Plaza = \$1.8M

### 1.2: Bridge (Value Engineering Options)

1. Option D = \$2.2M
2. Per Design = \$3M

### 1.3: Spillway Trail Connection (Phasing Options)

1. At Grade Trail = \$0.5M
2. Boardwalk = \$2.2M



# ACTION PLAN – NEXT STEPS

This document illustrates the holistic vision for the Great River Landing project as developed during the three day charrette and validated during the 30% document phase. In this validation, a series of four project “bundles” were highlighted with a detailed phasing approach to implement Project One which was identified by the public, Waterfront Committee and Common Council as the preferred first phase of construction. The following actions are recommended as the next steps to implement this project.

1. It is recommended that this report be approved by the Waterfront Committee and Common Council to guide the phased implementation of the Great River Landing project.
2. City staff will need to outline a funding strategy for Project 1.0 as a minimal first, catalytic phase of construction to fulfill obligations with the Wisconsin DNR and to gain momentum for subsequent phases.
3. Construction documents should be developed for Project 1.0 so that the project can bid as soon as construction funding is available.
4. The stated desire of the Waterfront Committee has been to construct as much of Project One as possible as soon as possible and at the level of quality illustrated in the Schematic Design and 30% documents. As such, staff should begin seeking additional funding for the remainder of Project One as a first priority, as well as other phases should a near term funding match materialize. A detailed summary of potential funding sources to be considered for this project have been included in the appendix of this document and includes:
  1. Community Development Block Grants (CDBG)
  2. Community Development Investment Grants (CDIG)
  3. Knowles – Nelson Stewardship Program
  4. Recreational Boating Facilities Grants
  5. Sports Fish Restoration (SFR)
  6. Transportation Alternatives Program (TAP)
  7. Urban Nonpoint Source and Storm Water Management Grant Program (UNPS & SW)
  8. Freight Railroad Infrastructure Improvements Program (FRIIP)
  9. Burlington Northern Santa Fe Railway (BNSF)
  10. Tax Increment Financing (TIF)
  11. Private and corporate partnership opportunities
5. Additional phases of the Great River Landing project should proceed into design and construction phases as the City secures additional funding to implement these project.



# Thank You



Onalaska Park and Recreation Department  
 Summer Activity Guide 2015

Vendor	Cost per Unit	Cost to Direct Mail	Editing Cost	Design Template	Total Cost + Mailing
LaCrosse Graphics	\$0.34	\$200 (10,000) + postage	\$65.00/hour	Not included	\$3,613.84
Crescent Printing Compan	\$0.25	\$290	\$65.00/hour	\$0	\$2,910.21
Quality Resource Group	\$0.60	\$460 + postage	\$100/hour	\$920	\$6,300.00
Supreme Graphics	\$0.48		\$60.00/hour	Not included	\$5,010.00

# PROPOSAL

## Omni Center Arena #1 Refrigeration System Replacement Onalaska, WI

January 2015



Contact:

**Mr. Scott Ward, P.E.**

Principal, Vice President

P. 800.822.7670

[sward@stevensengineers.com](mailto:sward@stevensengineers.com)

**Stevens**

ENGINEERS.PLANNERS.SURVEYORS

[www.stevensengineers.com](http://www.stevensengineers.com)



January 6, 2015

City of Onalaska Park and Recreation Department  
Attn: Daniel Wick  
415 Main Street  
Onalaska, WI 54650

Re: Professional Engineering and Consulting Services Qualifications and Proposal  
**Omni Center Arena #1 Refrigeration System Replacement**

Dear Mr. Wick:

Stevens is pleased to present our experience to you and the City of Onalaska for professional engineering services for the Omni Center Arena #1 Refrigeration System Replacement project. We recently completed a study of the ice systems at the Omni Center for the City. I know you will find that our team possesses the depth and specialty experience required to ensure that the City receives the most comprehensive, detailed, and accurate information required to make informed decisions.

Stevens has assembled an outstanding team of consultants experienced in evaluations, programming, concept design and design and construction services for ice rink projects with collective experience of over 160 different ice rink projects. Individually and collectively the team brings to this project successful public, community based planning and design principles and applications. In addition, you will be working directly with the principles of each firm. A few of our current projects include evaluation and design projects for the University of Michigan (Yost Arena), Colgate University NY and Municipality of Anchorage AK (4 ice arenas) and ice system replacements for Cities of Hutchinson-MN, Chaska, Eden Prairie, Edina, South St. Paul, West St. Paul, and Franklin Park-IL.

I will be serving as the project manager and team leader on this project. I will also be the primary contact for the City. Stevens is a leader in the ice rink industry providing some of the most innovative, cost-effective and energy-efficient design solutions in ice arena facilities. We have extensive public, community-based ice rink experience as well as a large number of ice rink renovation projects. We know these types of facilities very well and have thorough understanding of their needs and performance requirements.

We are confident you will find our qualifications, experience and reputation at the top of the industry. We are very enthusiastic about this exciting opportunity and we look forward to personally sharing our experiences and knowledge of ice rinks with you and the City. If you have any questions, please feel free to call me at our office at 800.822.7670 or on my mobile at 651.492.1376.

Sincerely,  
**STEVENS**

Scott A. Ward, P.E.  
Principal/Vice President

Enclosure: Qualification and Proposal.  
Fee Proposal – under separate cover

Mr. Daniel Wicks  
January 6, 2015

## STATEMENT OF PROJECT TEAM

The replacement of the refrigeration system at Omni Center Arena #1 requires a thoughtful selection of consultants. For this very important project, Stevens has assembled a project team of talented and experienced designers, planners, engineers, and architects developed through years of collaboration and long standing partnerships to deliver a highly successful project to the City of Onalaska. Our team is rich in ice rink experience, collectively completing more than 160 individual ice rink projects.

Stevens will serve as the project team leader, lead designer and will orchestrate, schedule and coordinate consultant team activities. We will establish tasks, priorities, facilitate communication and will be the City's primary point of contact for the project. We anticipate the following team members:

Scott Ward, P.E. – Project Manager, Team Leader, Ice System Design

Jason Raverty, P.E. – Project Engineer – Ice System Design & Quality Control.

Adam Thorson – Civil Technician - Drafting

Tom Betti – Architectural Services

The following provides more detailed overview of Stevens and our exceptional consultant team.

### STEVENS – Project Management and Primary Design Firm

Founded in 1973, Stevens is a professional multi-disciplined consulting engineering firm with an established history and solid reputation for delivering personal, quality, and well designed projects and exceptional client service. Today, with over 150 completed and successful ice rink projects (65% of which are renovation related projects), we take pride in being leaders in an industry we are extremely passionate about. We continue to raise industry standards through innovation, quality, attention to detail, responsiveness, and strive to provide solutions that maximize the economical and social success of each facility. This requires a holistic approach to each and every project: evaluating the interactions between the ice system and the facility's building design envelope; HVAC and plumbing systems; lighting and energy systems; and control systems.

We embrace the use of renewable and sustainable materials and techniques in our standard design practices and place them front and center during our continuous efforts to research and find new approaches, technologies, and environmentally friendly materials and refrigerants. A few examples include our current, on-going evaluation, analysis and application of CO<sub>2</sub> refrigerant and our very successful application of using a municipal water source as a geothermal source of energy. We strongly believe that ice systems designed for longevity and minimal operation and maintenance costs will use less energy, require fewer repairs, and will play a key role in the facility's success.



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Hudson, Wisconsin 54016  
P: 800.822.7670  
F: 715.386.5879  
[www.stevensengineers.com](http://www.stevensengineers.com)  
(website currently being updated)

Legal Status: S Corporation.  
Women Business Enterprise (MN, WI, ND)



Contact:  
Scott Ward, P.E.  
Principal/Vice President/Owner  
C: 651.492.1376  
[sward@stevensengineers.com](mailto:sward@stevensengineers.com)



Division I College Facilities



NHL Training Facilities



Community Facilities



Training Centers

## 292DesignGroup

3533 E Lake Street  
Minneapolis, Minnesota 55406  
P: 612.767.3773  
[www.292designgroup.com](http://www.292designgroup.com)

Contact:

Thomas Betti, AIA, NCARB  
Principal/Owner  
[tbetti@292designgroup.com](mailto:tbetti@292designgroup.com)

### 292 DESIGN GROUP – Architectural Consultant

The 292 Design Group is an architectural firm that will provide the Stevens team with the required expertise to evaluate the building and conceptualize on improvements and space programming and architectural services are required on this project.

292 focuses its attention on community centers, ice arenas, aquatic centers and recreational complexes – anything recreational – that serve citizens of all ages. With a full-service architecture, planning and interior design staff, 292 has a base of satisfied clients across the country.

292 has completed 22 ice facilities throughout the Midwest region and beyond. Our community-driven projects gain national exposure – such as the Alltel Ice Den/Phoenix Coyotes Training Facility in Scottsdale, Arizona, which *Forbes* magazine ranked among the top six figure skating facilities in the country.



**Scott Ward, P.E.**  
Principal/Vice President/Project Engineer

Mr. Ward has over 20 years experience in civil and mechanical engineering fields. His education and engineering experience uniquely qualifies him for the specialized design requirements of ice systems. With his experience in fluid hydraulics, pumping and piping systems, heat transfer, refrigeration, thermodynamics, structures and materials, Scott has developed a specialty in designing ice systems.

He has been involved in over 150 ice rink projects since 1997, including professional practice facilities, Division 1 college venues, multi-sheet community arenas, and outdoor ice rinks. As one of the firm's Owners, Scott is integrally involved in each ice rink project.

In addition to Scott's professional expertise, he is also an avid coach, hockey player and supporter of youth hockey. He is able to apply his practical insight to ensure each facility is designed to meet your needs, operate successfully and be a gathering place for the community.

**REPRESENTATIVE PROJECTS:**

Stevens has been involved in all types of ice rink projects with a focus on ice system (refrigeration and ice rink floor systems) design as illustrated in the project sheets included in this proposal and described in the Project List. Below is additional information on a few recent, similar projects.

**Registration**

Registered Professional Engineer in AZ, CO, IL, MA, MI, MN, ND, NE, NM, TX, WI, WY

**Education**

University of Minnesota  
Master of Science in Mechanical Engineering  
Bachelor of Civil Engineering

**Professional Affiliations**

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

Minnesota Ice Arena Managers Association (MIAMA) - Green Committee

Wisconsin Ice Arena Managers Association (WIAMA)

Ice Skating Institute (ISI)  
Serving the American Rinks (STAR)  
USA Hockey

Amery Youth Hockey Association – Association Coaching and Education Director since 2007, coach since 2001.

**Achievements**

2001 National ASHRAE Award for Design of the Super Rink's 4-Sheet, Dual Fuel, Refrigeration System.

**Lectures and Presentations**

"Schwan's Super Rink – Operation Evaluation Study" 2000 University of Minnesota Mechanical Engineering Department Faculty – MSME Thesis

"The Schwan's Super Rink" January 1999 Rink Magazine Co-author with Beth Weber

"Alternative Refrigerants" Research and author 1999 in depth Study on alternative refrigerants. Numerous presentations for MIAMA conferences.

"Direct System Renovation Options" Presentation at Gustavus Adolphus College, March 2008

**MITCHELL ACTIVITES CENTER**

Mitchell, South Dakota  

- New Commercial Grade Ice System Design and Construction Admin. for a pre-engineered metal building structure - 2013

**ICON SPORTS ARENA**

Grand Forks, North Dakota  

- New Commercial Grade Ice System Design (2 sheets)

**SCHEELS ICE PLEX**

Sioux Falls, South Dakota  

- New Ice System Design for Pre-engineered Metal Building Structure. 2013-14. (3 sheets)

**CHASKA COMMUNITY CENTER**

Chaska, Minnesota  

- Evaluation Study
- Ice System Design 2013 (2 sheets)

**NORTHFIELD ARENA**

Northfield, Minnesota  

- Ice System Design for a Pre-engineered Metal Building Structure. 2008.

**WAUNAKEE-DEFOREST ICE ARENA**

Wauunakee, Wisconsin  

- New Ice System Design. 2009.

**WALKER COMMUNITY CENTER**

Walker, Minnesota  

- Used Commercial Grade Ice System Design. 2007

**ICE IN PARADISE**

Goleta, California  

- Ice System Design (2-Sheets)

**SHATTUCK ST. MARY'S SCHOOL**

Faribault, Minnesota  

- Evaluation of geothermal system
- New Commercial Grade Ice System Design and Construction Admin. 2012.

**SPORTS AND HEALTH CENTER**

University of Minnesota-Duluth (UMD)  
Duluth, Minnesota  

- Ice system replacement

**VOLPE CENTER EXPANSION**

Merrimack College  
North Andover, Massachusetts  

- Ice System Review/Construction Ob
- Construction observation – current



Jason Raverty, P.E.  
Project Engineer

Jason has over 17 years of experience in civil engineering for public and private sector clients. He has gained valuable understanding of the project process as his role progressed from resident project representative to design engineer to project manager.

As a project manager and engineer, he is responsible for planning, preliminary and final design, technical document preparation and construction management for municipal street and utility improvements, residential and commercial developments, commercial site design, and urban redevelopment.

General project related tasks include scoping, budgeting and scheduling; feasibility analysis; plan and specification preparation; construction cost estimating; bidding and negotiating contracts; construction observation; contract administration; and federal, state and local agency coordination and permitting.

Registration  
Registered Professional Engineer in WI & MN

Education  
Bachelor of Science – Civil Engineering  
University of Wisconsin-Platteville (1997)

**RECENT REPRESENTATIVE PROJECTS:**

**JOHN V. HOENE ARENA**  
West St. Paul, Minnesota

- Ice system replacement design and construction administration - current

**WAKOTA ARENA**  
South St. Paul, Minnesota

- Ice system replacement design and construction administration - 2014

**BURICH ARENA**  
Hutchinson, Minnesota

- Ice system replacement design and construction administration - 2014

**ALTEL ICE DEN**  
Scottsdale, Arizona

- Design of site and parking lot improvements.

**HOBBS ARENA**  
Eau Claire, Wisconsin

- Design of site and parking lot improvements.



Thomas Betti, AIA, NCARB  
Principal Architect

Mr. Betti directs the 292 Design Group's ice studio and has a sound understanding of the issues that Owners face in the design of recreation projects. He has expertise in all phases of architecture: programming, design, code reviews, construction documents, bidding and negotiation, construction administration and post construction services. Tom has worked with numerous government agencies and educational institutions in the design of their recreational facilities including: ice arenas, community centers, and aquatic centers. His projects have often included "green design" elements, like thermally-efficient roofing and recycled building materials.

Tom knows ice. When it comes to the intrinsic and intricate components of ice arena design, there are none better – particularly when those ice sheets help create community recreation hubs. As director of 292's ice studio, Tom has proven himself as an ice expert on the national level. His ice arena for the Ice Den – a "community-friendly" NHL practice arena for the Phoenix Coyotes, was listed by *Forbes* magazine as one of the country's top six figure skating facilities. Tom has just completed the design and construction follow up on a new third sheet ice addition to the Ice Den, the third sheet will help the Ice Den expand the coolest game in the desert. At the St. Louis Mills mall, Tom's design for the St. Louis Blues practice arena is the focal point for the "iceZONE." Here visitors can skate or watch their favorite NHL players hone their skills. Tom has helped public-funded entities, community groups and private organizations create efficient, attractive and popular ice venues.

**Registration/Certification**

Registered Architect in AR and MN

NCARB Certified

**Education**

University of Minnesota  
Bachelor of Architecture

Ferris State University  
Associate of Applied Science

**Publications**

ICE 101 – White Paper

**Lectures and Presentations**

"Better Up-Front Understanding of Costs Can Lead to Desired Outcome" Athletic Business.

Numerous interviews for Athletic Business Articles

"Sustainable Design and Energy Efficient Ideas In Ice Arena Design" Presentation at MIAMA Conference

Guest Design Critic, University of Minnesota College of Architecture

Facilities of Merit, National Judge 2007 Athletic Business

**Activities**

Board member and team manager for local youth hockey association program

**REPRESENTATIVE PROJECTS**

**ANAHEIM DUCKS**

Anaheim Ducks Training Facility  
Anaheim, California

- Concept Planning

**ICE DEN AND ICE DEN EXPANSION**

Phoenix Coyotes Training Facility  
Scottsdale, Arizona

- Building Design
- 15-year collaboration on interior tenant and expansion projects

**INCREDIBLE ICE PEER REVIEW**

Florida Panthers Training Facility  
Coral Springs, Florida

- Peer review for New Ice Arena

**HOBBS MUNICIPAL ICE CENTER**

Eau Claire, Wisconsin

- Building Renovation and Exp. Design

**ICEZONE**

St. Louis Blues Training Facility  
St. Louis, Missouri

- Building Design. Fast Track Schedule, Designed and Constructed in 6 months

**JORDAN VALLEY ICE ARENA**

Springfield, Missouri

- Concept Planning, building Design

**LAKEVILLE-HASSE ARENA**

Lakeville, Minnesota

- Site Evaluation and Needs Assessment
- Building Design

**NEW HOPE ICE ARENA**

New Hope, Minnesota

- Facility Assessment & Renov. Design

**PLYMOUTH ICE ARENA**

Plymouth, Minnesota

- Concept Planning
- Building Design

**RIDDER ARENA & BASELINE TENNIS FACILITY**

University of Minnesota  
Minneapolis, Minnesota

- Concept Planning
- Building Design

**ROGERS ACTIVITY CENTER**

Rogers, Minnesota

- Needs Assessment & Building Design

**ST. LOUIS BLUES**

St. Louis, Missouri

- New Training Center Concept Planning

**ST. PETERS REC-PLEX**

St. Peters, Missouri

- Building Design

**SPORTSTOWN USA**

Blaine, Minnesota

- Concept Planning

## STATEMENT OF PREVIOUS EXPERIENCE: The Stevens Team is the **BEST VALUE** for the City of Onalaska.

The consultants on this team are among the most experienced and knowledgeable ice arena design specialists in the nation with well over 160 different ice rink projects completed collectively. In addition we bring:

- Familiarity with the City of Onalaska and the Omni Center through recent ice system evaluation study completed in April, 2014.
- Extensive ice rink renovation experience providing a clear understanding, in very simple terms of “what works and what doesn’t work.” Over 60% of our projects are renovation type projects.
- Design and renovation experience for ice arena’s constructed with all types of building systems.
- Design experience for some of the newest community based ice arenas.
- Experience with codes, regulations, statutes and ordinances applicable to indoor ice arena facilities.
- Responsiveness and personal attention. The primary team members selected for this project are Owners of their respective firms. This project will be a priority for the Stevens Team.

### *Experience and passion fosters innovation.*

Stevens was the first in the ice rink industry to:

- Design an ice system that regenerates a desiccant system using waste. (Northfield Ice Arena, 2007)
- Design a conversion (direct to indirect) of an existing Holmsten Ice Rink’s direct refrigeration system that uses the existing equipment to minimize costs with little or no loss in operating efficiency. This provided the City with the widest range of options for replacing or renovating the existing ice system in the North Arena. (Lund Arena - Gustavus Adolphus College, 2008)
- Design a geothermal-based ice system that uses industrial-grade equipment to maximize efficiency and reduce green house gas emissions. (Burnsville Ice Center, 2009)
- Design a geothermal-based ice system, without a well field, using a city water source to maximize waste heat recovery and provide superior efficiency and reliability without losing performance. (Brooklyn Park Activity Center, 2009)
- Design of the first CO<sub>2</sub> based ice system in the United States. System was started and operational in December 2014. (Eagle River, Alaska 2013-2014)

We continue to strive for improvements and have recently designed some of the most energy efficient, top performing ice systems in the industry.

## STATEMENT AND AVAILABILITY OF STAFF

The project timeline works out very well with Steven's workload. The majority of Steven's design projects are wrapping up at the end of January, 2015 with the next phase of work (construction) starting in April or May, 2015. Scott Ward is the Owner of Stevens and will dedicate resources necessary to complete all phases of this project by October 15, 2015. We do not have any concern over the time available to design and construct this project as presented below.

As is clearly illustrated in the resumes of the team members assigned to this project, we have the experienced staff to successfully complete this project for the City. We have additional staff in our office that has ice rink experience that will be made available if needed to supplement or fill in for individuals on our team.

## STATEMENT OF COMPLETING PROJECTS ON TIME

Since Steven's specializes in ice rink related projects, we clearly understand the importance to all stakeholders of the October 15, 2015, deadline to complete the work on this project and have the new refrigeration system operating and making ice.

A few of the key elements to completing this specialize project on time is to have clear and detailed design documents that clearly define the work and to have a well thought out project schedule. Stevens provides very detailed design documents including general and technical specifications and detailed drawing sheets of the work.

The project schedule will be driven by the date the refrigeration system will be shutdown and the October 15 completion date. From the information we gathered during the study phase, Arena #1 typically shuts down by the end of April each year. Based on this information, below is a preliminary project schedule that ties into the Work Plan discussed in the following sections of this proposal.

City of Onalaska – award design services:	February 10, 2015
Review and Preparation:	February 16 (week of)
Investigation and Programming:	February 23 (week of)
Design Phase:	March 2 – April 10
Bidding Phase:	April 13-May 5
Shutdown System:	May 1
City Council Awards Construction Contract:	May 12
Shopdrawings and review:	May 13 – June 1
Start Construction:	May 18
Demolition:	May 18 – May 22
Building or room modifications	May 25 – August 28
Deadline to order refrigeration package:	June 2
Start installation of refrigeration package:	September 1
Complete Construction:	October 15
Start-up Systems:	October 15
Owner to Make Ice and Paint:	October 16 –October 30

## STATEMENT OF COMPLETING PROJECTS ON BUDGET

The project sheets or photobios of projects presented in the earlier section of this proposal are representation of our design team's ability to complete the design work on time and within the Owner's budget. The Work Plan presented in the following sections illustrates the steps that are taken to review project costs with the City throughout the design process. Our extensive experience with ice rink projects, specifically with refrigeration system replacement projects, provides us with the knowledge and current pricing of similar systems and work.

We also strongly encourage the City to contact references from any of our projects.



**Lead Firm**

Stevens  
2211 O’Neil Road  
Hudson, WI 54016

**Contact**

Scott Ward, P.E.  
Principal, Vice President  
Phone: 800.822.7670  
Mobile: 651.492.1376  
sward@stevensengineers.com

**FEE PROPOSAL**

Stevens can provide the services described in this proposal for the refrigeration system replacement to the City for the following compensation based on an estimated construction cost of \$535,000 as outlined in the April, 2014 report for Option 2.

**Proposed Lump Sum Fee\*:** **\$48,400**

**Breakdown of Staff Hours**

Staff	Design	Bidding	Construction	Total
Principal/Project Manager	35	4	10	49
Principal Architect	27	2	2	31
Project Engineer	110	10	55	175
Technician	85	5	5	95
Administrative	15	5	5	25
<b>Total</b>	<b>272</b>	<b>26</b>	<b>77</b>	<b>375</b>

\*Reimbursable expenses are in addition to the fixed fee stated above and will be billed in accordance the expense schedule below.

The fee is inclusive of ice system, mechanical, and electrical engineering and architectural services.

The stated compensation does not include:

- Design of enhanced heat recovery systems on secondary side
- Design of structural systems.
- Grant or funding research or applications
- System or material testing or sampling
- Involved Code review meetings
- Environmental reviews, reports or permits
- Material testing

We will invoice monthly for services based on a percentage of the fixed fee work completed at time of invoicing.

Finance charges will be applied to all payments not received within 30 days of invoicing. We will provide additional services, pre-approved by you, on an hourly basis in accordance with our current fee schedule.

Stevens will not charge the City for time, expenses, or any other costs incurred by members of the Stevens Team for activities in Task C – Tour of other facilities.

*Stevens’ experience with these types of projects allows us to tailor our fee structure to the needs of the project.*

*As with every project, we would appreciate the opportunity to discuss our fees, and their development, with you.*

**Scott Ward, P.E.**  
Vice President

**Hourly Billable Rates**

<u>Classification</u>	<u>Range of Hourly Billable Rates***</u>
Principal Engineer/Architect/Project Manager	\$125 to \$195
Project Engineer	\$95 to \$145
Graduate Engineer	\$75 to \$95
Technician	\$50 to \$90
Administrative	\$45 to \$55

\*\*\*Rates effective until December 31, 2015.

**Reimbursable Expense Schedule**

Reimbursable expenses are billed at 10% over cost and include, but are not limited to, the following:

- Transportation cost at IRS allowable rate, including parking fees.
- Cost of out-of-town travel, lodging and electronic communication in connection with the project, parking fees.
- Project photography, postage, long-distance and mobile telephone calls, and facsimiles.
- Materials required to assemble reports.
- Outside professional and technical services.
- Other similar direct project-related expenditures.
- Reproductions, plots, and standard form documents.

Item	Size	Black & White	Color
Photocopies/Printing	8 ½ x 11	\$0.15	\$0.85
	8 ½ x 14	\$0.18	\$0.95
	11 x 17	\$0.23	\$1.55
Plots/Scans	22 x 34	\$2.70	\$5.00
	24 x 36	\$2.95	\$5.50
	28 x 42 +	\$4.40	\$6.00
Binding plans sets (per set larger than 11 x17)		\$7.00 each	
Specification and Report Assembly (Binder, Cover)		\$10.00 each	
Laminated Report Covers with Binder		\$20.00 each	