

# TROUT RUN TRAIL PUBLIC ART PROJECT 2009: The Public Art Process "River Horizon Archway", by Bounnak Thammavong



PART 1: Entering a Public Art Project

The importance of the concept and drawing skills.





#### "River Horizon Archway":

Stainless Steel Polished Finish, Stainless Steel Frosted Finish, Oxidized Cor-Ten Steel

Dimensions (see final proposal images): 16' Height x 27' Width x 4' Depth; 9500 lbs. total estimated weight

The arch will be made of Stainless Steel and Cor-ten Steel. All stainless steel surfaces will be finished with a decorative 60-

80 grit sanded/brushed finish. The final color of all Stainless surfaces will be semi-gloss silver-grey. Cor-ten Steel surfaces

will be rough ground with 24 grit grinding discs to produce a rough texture simulating rock. The final color of all Cor-ten surfaces will be a matte reddish-brown. Both stainless and Cor-ten surfaces are stable and require little maintenance. "River Horizon Archway" serves as an entrance marker for the trail. The concept stems from my experience as a trout fisherman; watching the sun set over the rocky stream as fish swim through the currents. This arch references my experience

through the use of artificial rock, forms inspired by river currents, and a fish. Viewers will be able to share this experience as

they pass under it.



Trout Run Trail Public Art Project: Bounnak Thammavong Proposal #1:

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PART 2: Finalizing the accepted proposal

Construction plans, Final Proposal, Final Contract, Subcontractors, Fabrication Scheduling.

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# Trout Run Trail-Decorah

Bounnak Thammavong is an lowa City artist who is an avid trout fisherman. As a result, his sculptures often are inspired by the natural world.

Bounnak has submitted five proposals. Click on the thumbnail for a larger picture



"River Horizon Archway" is 10 ft. high, 15 ft. wide and 3 ft. deep, made of stainless & Cor-Ten steel



"Rock Fin" is 4 ft. high, 10 ft. long and 3 ft. deep, made of stainless & Cor-Ten steel



"Rock Fin School" is three fish each 2 ft. high, 5 ft. wide and 1.5 ft. deep, made of stainless steel & Cor-Ten steel





"Across the Currents" is 24 ft. high, 4 ft. wide and 1.5 feet deep, made of powder coated steel

"Wooly Bear Bench" is 3 ft. high, 6 ft. long and 1.5 ft. deep, made of painted steel

This website is sponsored by <u>Trails of Winneshiek</u>, a non-profit organization of Winneshiek County citizens who have initiated the trail project and have invested thousands of volunteer hours developing and promoting it. Contact Trails of Winneshiek through the Decorah Area Chamber of Commerce at <u>director@decorah-iowa.com</u>. Donations to the Trout Run Trail are handled through the Winneshiek County Community Foundation, a 501(c)3 organization that can be reached at P. O.Box 1176, Waterloo, IA 50704 2007 website design by <u>www.decorahnews.com</u>



Construction plans & Final Proposal:

Transferring the concept sketch to CAD Drawing using Rhino 3D



Advantages to 3D CAD:

Accurate structural rendering In 3D, Planning of parts construction, accurate dimensions, accurate budget estimation, post design processing

Disadvantages to 3D CAD:

Inaccurate aesthetic rendering, complexity of drawing compared to ease of real construction

TOP OF DRAWING

#### River Horizon Arch: Side View



#### TOP OF DRAWING

#### River Horizon Arch: Top View











Photoshop used for final rendering:

Drawing, painting, and photography skills essential to understand how to mimic space for best proposal; not reality.





A combination of CAD and Photoshop used for final dimensional rendering: Really gives both genera public and engineers an idea of what the artist concept.



#### April 16, 2009

Sculpture Proposal 2008: Trons Run Trail Public Art Project John Hjelle 211 Hilltop Dr. Decorali, IA 52101

Trout Run Trail Contract Documents

#### River Horizon Archway Finalized Design Proposal Trout Run Trail Public Art Project: Bounnak Thammavong

John Hjelle,

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Materials: \$27,80:	5.44	AID 4.1	1. 0.	00.01.1	100 0 111	510.00
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4.00/10s	1 Sheets	V4 plate	5 X3	SS Steel	205105	\$820
	18 Sheets	TOg	5'X10'	SS Steel	562016s	\$20,232
Cor-Ten Steer:	I Sneet	3/8 plate	4 X8	CT Steel	490.24105	\$980.48
2.00/105	5 Sheets	10g	5 X10	CT Steel	1083105	52810
	4 Sheels	log	5'x10'	(1) Steel	50005	\$1000
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Walding/Finishing Materials (wold wire wold gas abrasives )						\$1300
Wine (brindware electrica) calculation						\$600
		Law -				
Fabrication Labor	: <b>58,200</b> 420	Hours \$20.	HR			\$8400
Insurance: S200						\$200
Site/Foundation: DONATED						\$0.0
Transportation: \$1000						\$1000
Transportation: 5	1000					21000
Artist Fee: \$2,000						\$2000
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Finalized proposals generally include:

Final rendering, Artist Statements/Concept, Artist Resume, Estimated Budget Fabrication Plans



PART 3: Fabrication, Building the Art Work

Implementing Construction plans, Working with Subcontractors, Fabrication

Implementing Construction plans & Working with Subcontractors



Parts must be laid out in exploded view and oriented for standard size sheets for processing and transport. This is done in Rhino 3D but must be exported as .DXF format; a generally accepted format for industry.



Industrial suppliers often use Autodesk Autocad (originator of .dxf format). The subcontractor will take the line drawing of the perimeter of each part and use that to create a cut program for various CNC Cutting equipment.



University of Iowa has light industrial versions of subcontractor services via Torchmate Plasma cutting, Shopbot CNC routing, Dimension 3D abs printing, Milltronics CNC Mill, Micro Kenetics CNC LATHE. All those machines can handle .dxf format.

Below is the torchmate cad program preparing parts for cutting, torchmate creates g-code for machine programming as well as helping to order which parts get cut in what order. G-code is a standard numeric language that tells machines how to move the cutting or processing tool to produce the part.



Torchmate driver is an example of how .dxf models are converted to g-code to drive a plasma cutting system.





Parts come back from subcontractors; ready for fabrication by the artist.



Parts are tacked together using MIG Welding; metal inert gas welding aka officially known as gas metal arc welding (GMAW).







Mig welding can be used to produce very precise welds or (as in the case above) be used for a rougher visual aesthetic to mimic rock.



TIG welding or tungsten inert gas welding is used for precision work or when the cleanest possible weld is required. It is also known as GTAW (gas tungsten arc welding)





Form of fish tacked together



Completed fish ready to assemble



Completed fish test fit into larger section of arch



Test assembly of arch; struts welded on as temperary supports





Assembly brackets are welded to proper parts so section can be disassembled for transport and reassembled on site.



Final part ready for test assembly.



Final part ready for test assembly.



Test assembly completed successfully.



Truck one of two loaded for transport.



Truck two of two loaded for transport.

## PART 4: INSTALLATION





Completed installation.

![](_page_34_Picture_0.jpeg)

Completed installation.

![](_page_35_Picture_0.jpeg)

Completed installation.