
Cross beam replacement


Stringer replacement


Floor beam replacement


13891
F-2 BEAM 1

Temporary support

Patches to the floor beams

Additional floor beam repair as a result of the blasting

Rocker Replacement Ohio tower

New rocker in place

Connection to the tower

Connection to the lower chord

Misc. hole repairs


20"x 2"
4"x1½"


6" x 1 1/2"
Hole


Lower chord
repairs

Lower chord repairs, approach span

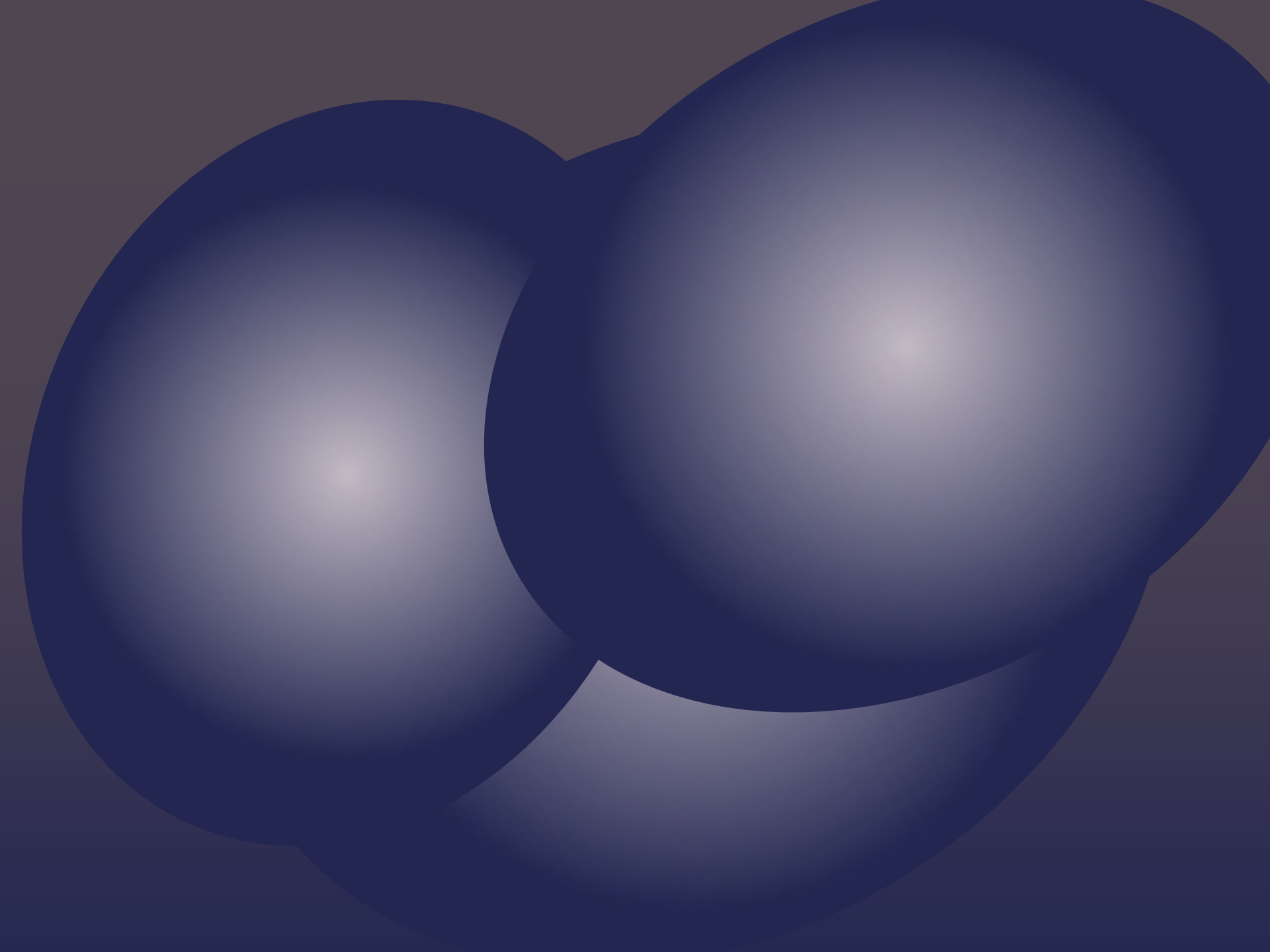

PP9
DS
ARENA
NEXT LEFT

Painting

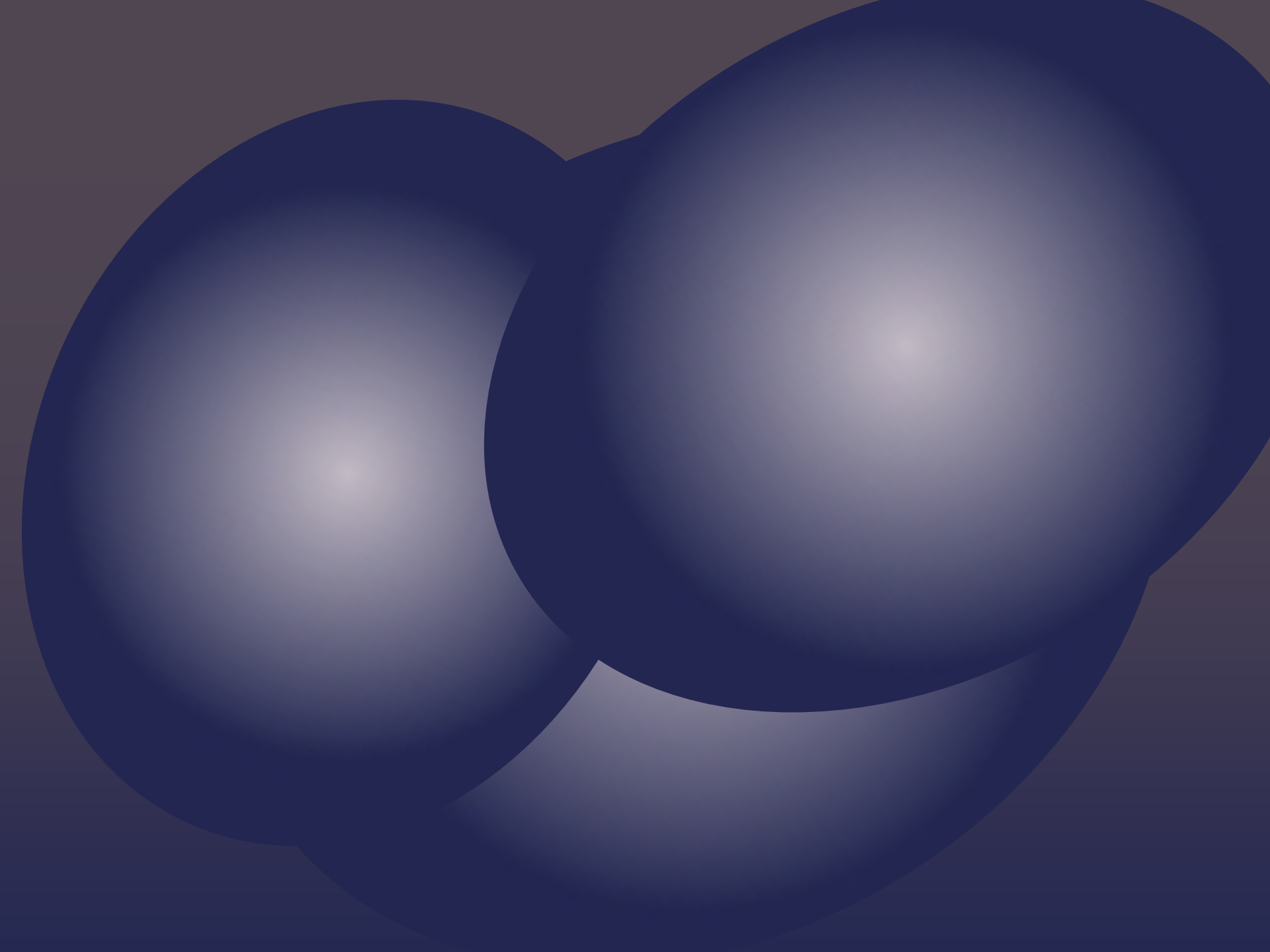
One of the first bridges where the color was chosen by online voting

Over 10,000 votes

The winner was:



And



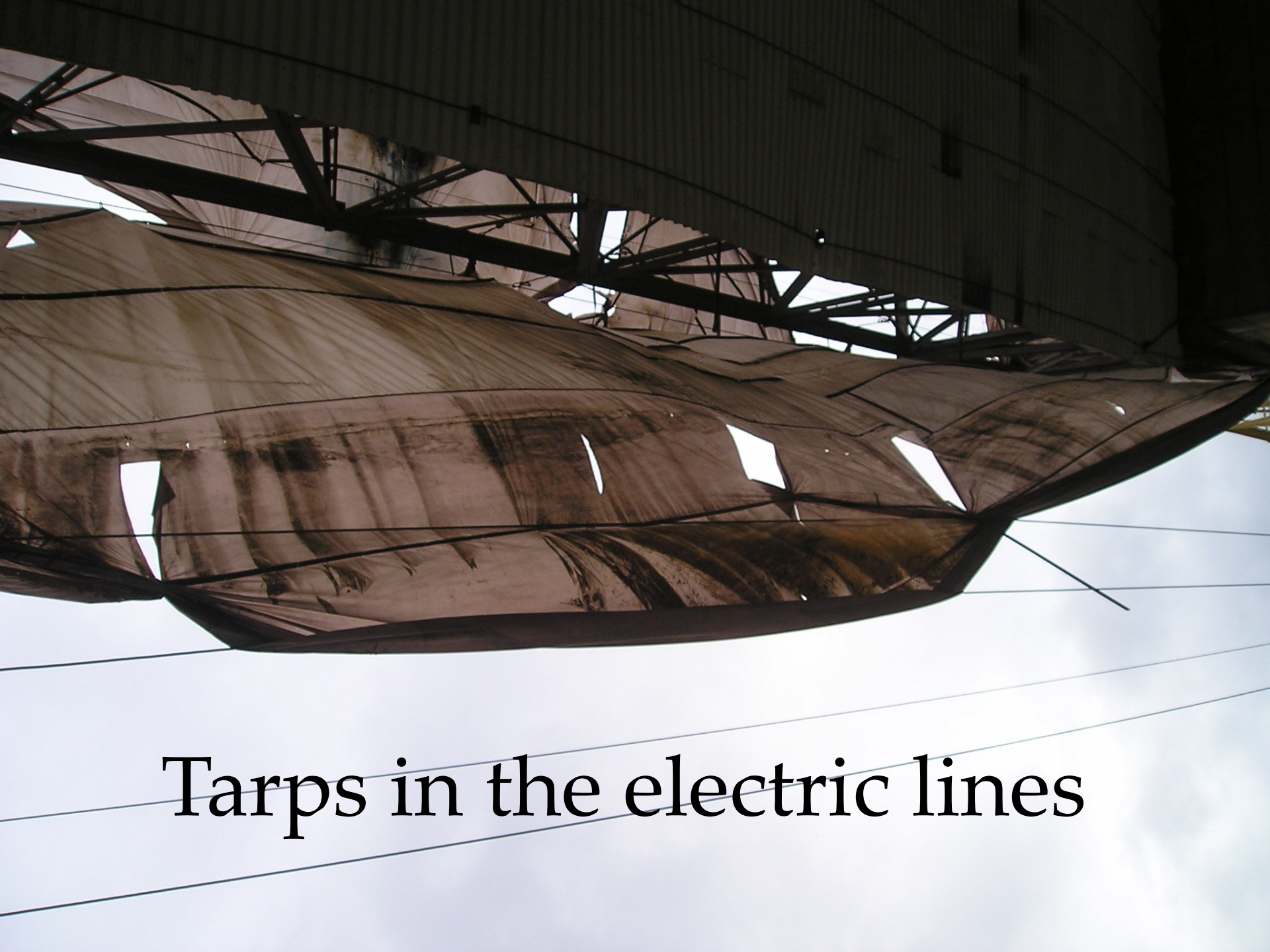

Wv approach containment
Panthera Painting

Working around the clock/ 24/7

Tower containment


ABSOLUTE EQUIPMENT
IR
Ingersoll-Rand


Wind damage, <40mph



Tarps in the electric lines


Blasting damage, area plated

Paint concerns

Still elastic on hot days


Rust staining

Painting contractor hired KTA to review paint

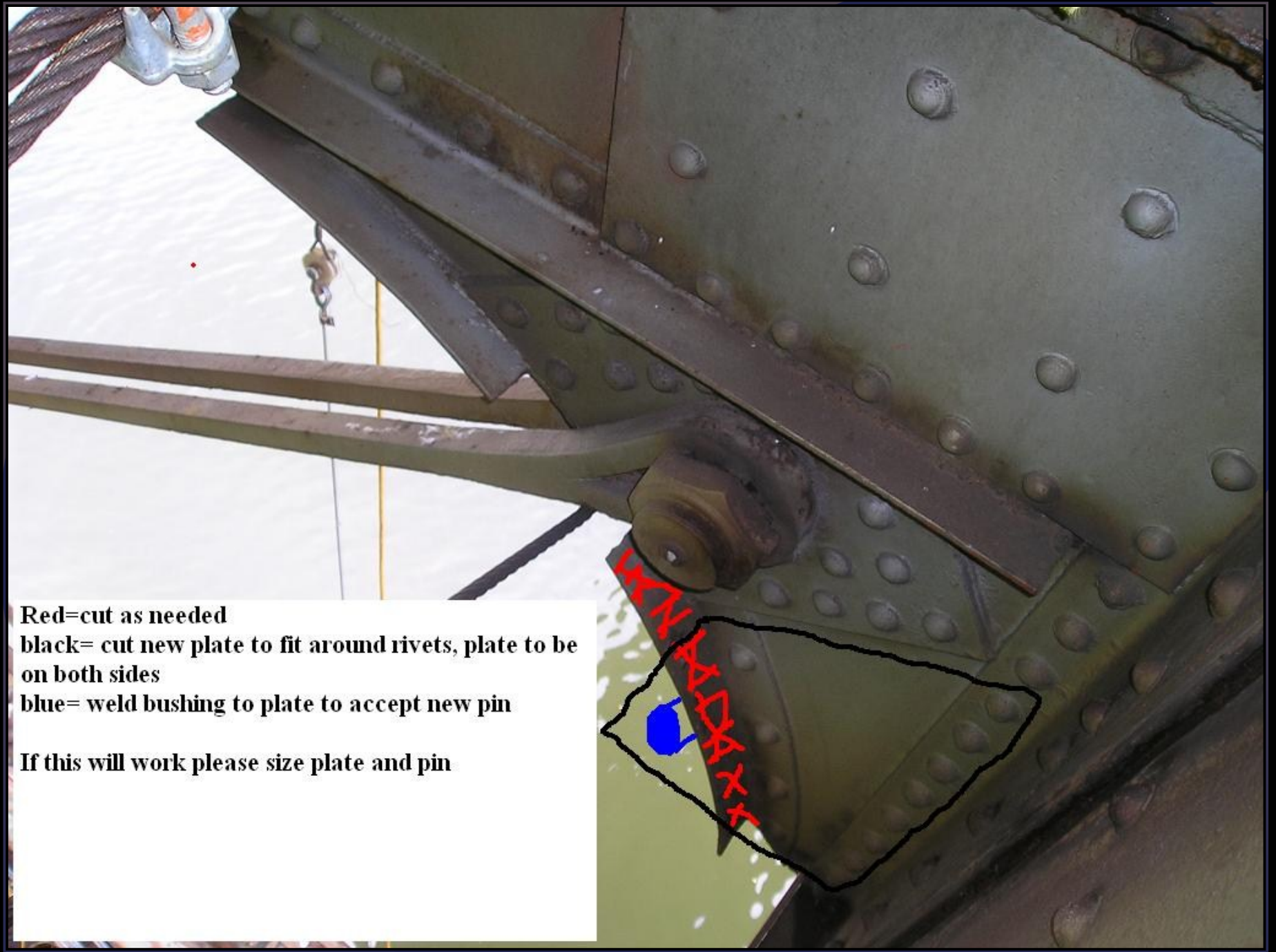
KTA advised the rust was on the surface not coming from the steel
The penetrate sealer would push water out of pack rusk joints which then would stain the surface. Contractor wiped stains with paint thinner and they would come off. However, we do have the staining across the bridge. The paint manufacture reviewed the issue and came to the same conclusion, and said it would not affect the warranty.


Rust staining
From pack rust joints

rolling scaffolding

Issues and concerns answered quickly

Photos emailed to district, Charleston, and Burgess & Niple


Red=cut as needed
black= cut new plate to fit around rivets, plate to be on both sides
blue= weld bushing to plate to accept new pin
If this will work please size plate and pin


As per sheet 59 T21 repair shows wrapping cable around the pin. The typical as shown on sheet 59 only applies between S16 and S17. This point is at S18, which does not allow the cable to be wrapped around the pin. Also, some of the eye bars are so close at the pin a 5/8" cable will not fit between the bars. The contractor did try to wedge apart but had no luck. Comments??

Change orders

Grating was believed to be galvanized, the contractor was advised, prior to bidding, not to blast or paint.

Opening day changed from October 28, 2011 to November 14, 2011

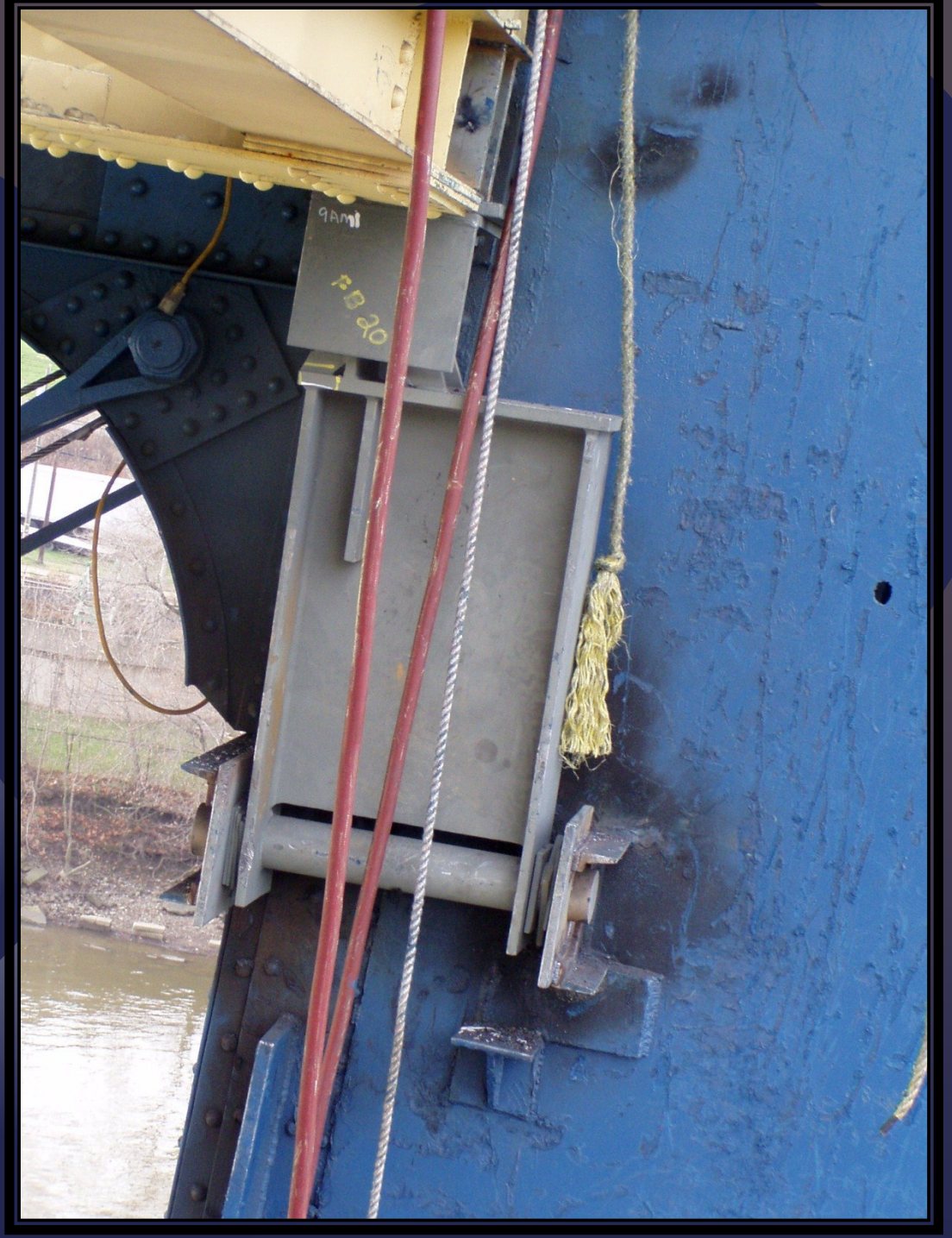
The Rocker post were discovered during the blasting operation that they were coming in contact with the towers. Also, a small crack in the low chord was discovered at the WV tower. The tooth dams were also discovered not to have enough room for expansion. Burgess & Niple inspected the areas of concerns and developed correction plans. 3 additional rockers were replaced and the tooth dams were trimmed as well as the low chords.


Additional rocker post, opening day changed from November 14 to December 7, 2011
IN with The new
Out with the old


Rocker post coming in contact with the tower


Cracked weld around pin

New rocker in place ,
Ohio tower



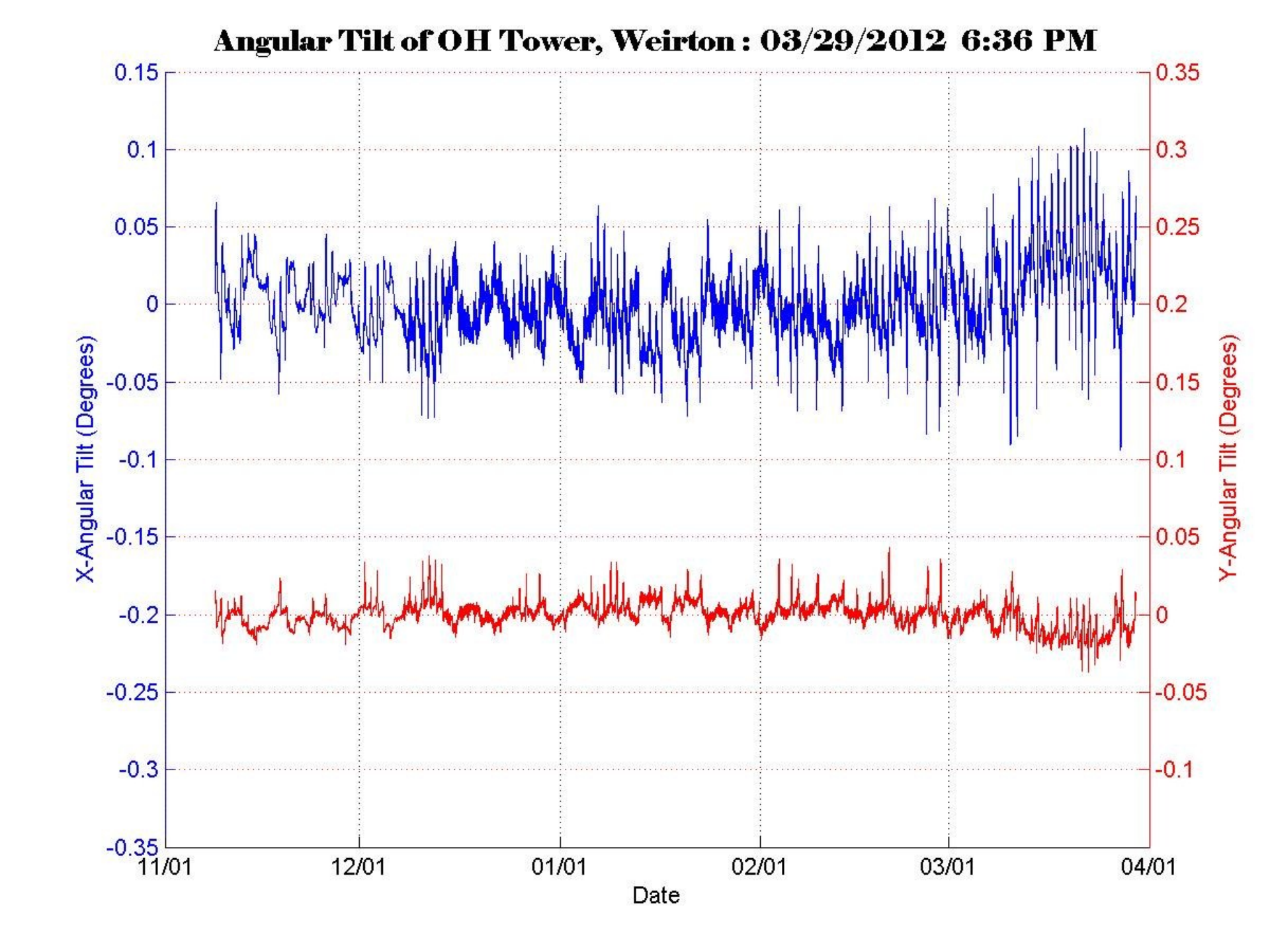
WVU Grant to Monitor the Bridge

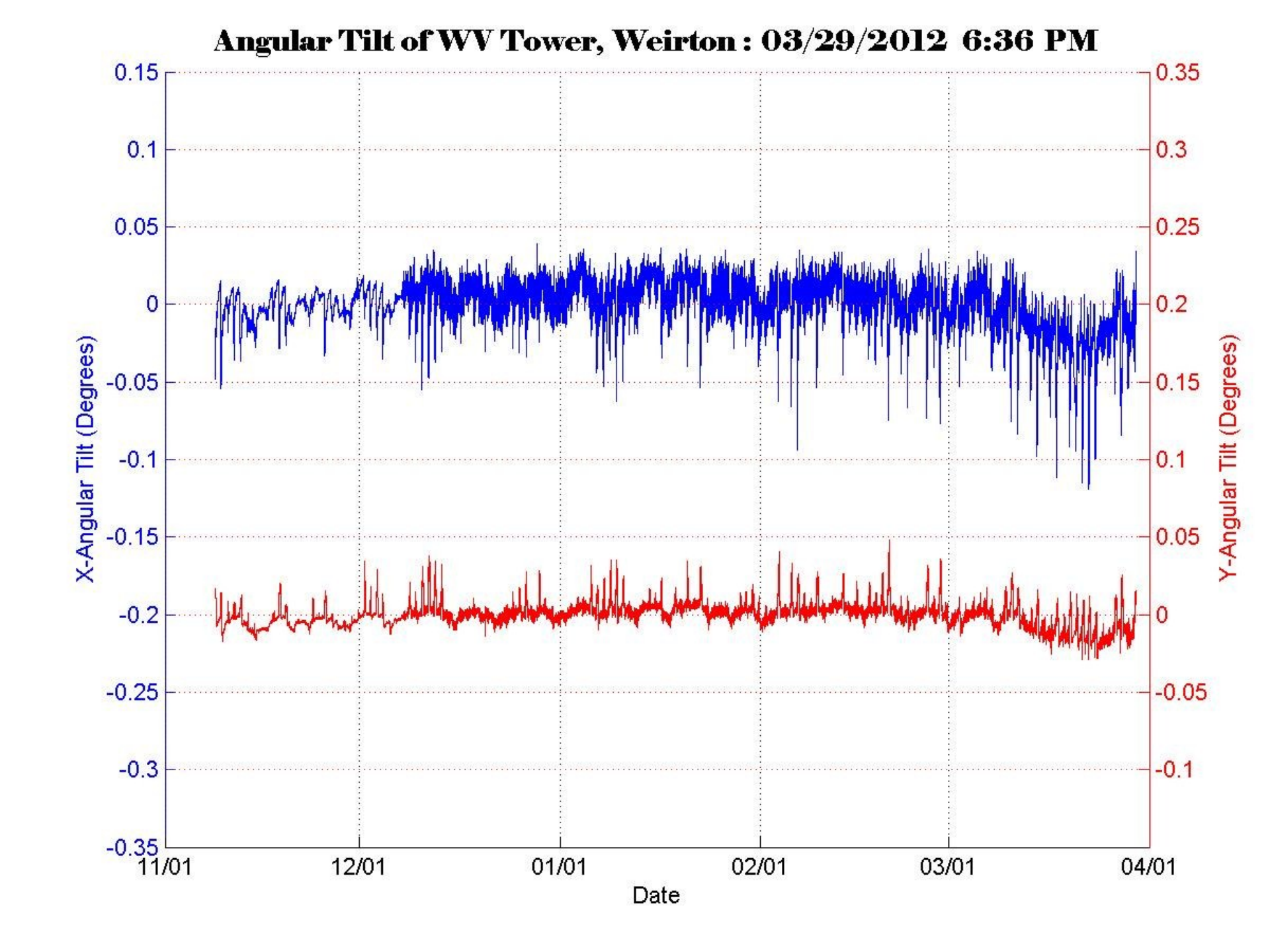
Dr. Shoukry developed a plan to monitor the 2 towers in real time.

The data can be viewed via the internet which shows the angular tilt of the towers.

Also, 16 reflectors were placed on the towers so a 3 dimensional model could be produced by the means a total station.


Tower-Tilt Sensors
Market Street Bridge
WVDOH - District 6
Tilt-Sensor,
OH, Weirton
Tilt-Sensor,
OH, Follansbee
Tilt-Sensor,
WV, Weirton
Tilt-Sensor,
WV, Follansbee


Angular Tilt of OH Tower, Weirton : 03/29/2012 6:36 PM
X-Angular Tilt (Degrees)
Y-Angular Tilt (Degrees)
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-0.25
-0.3
-0.35
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
11/01
12/01
01/01
02/01
03/01
04/01
Date


Angular Tilt of WV Tower, Weirton : 03/29/2012 6:36 PM
X-Angular Tilt (Degrees)
Y-Angular Tilt (Degrees)
0.15
0.1
0.05
0
-0.05
-0.1
-0.15
-0.2
-0.25
-0.3
-0.35
0.35
0.3
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0.15
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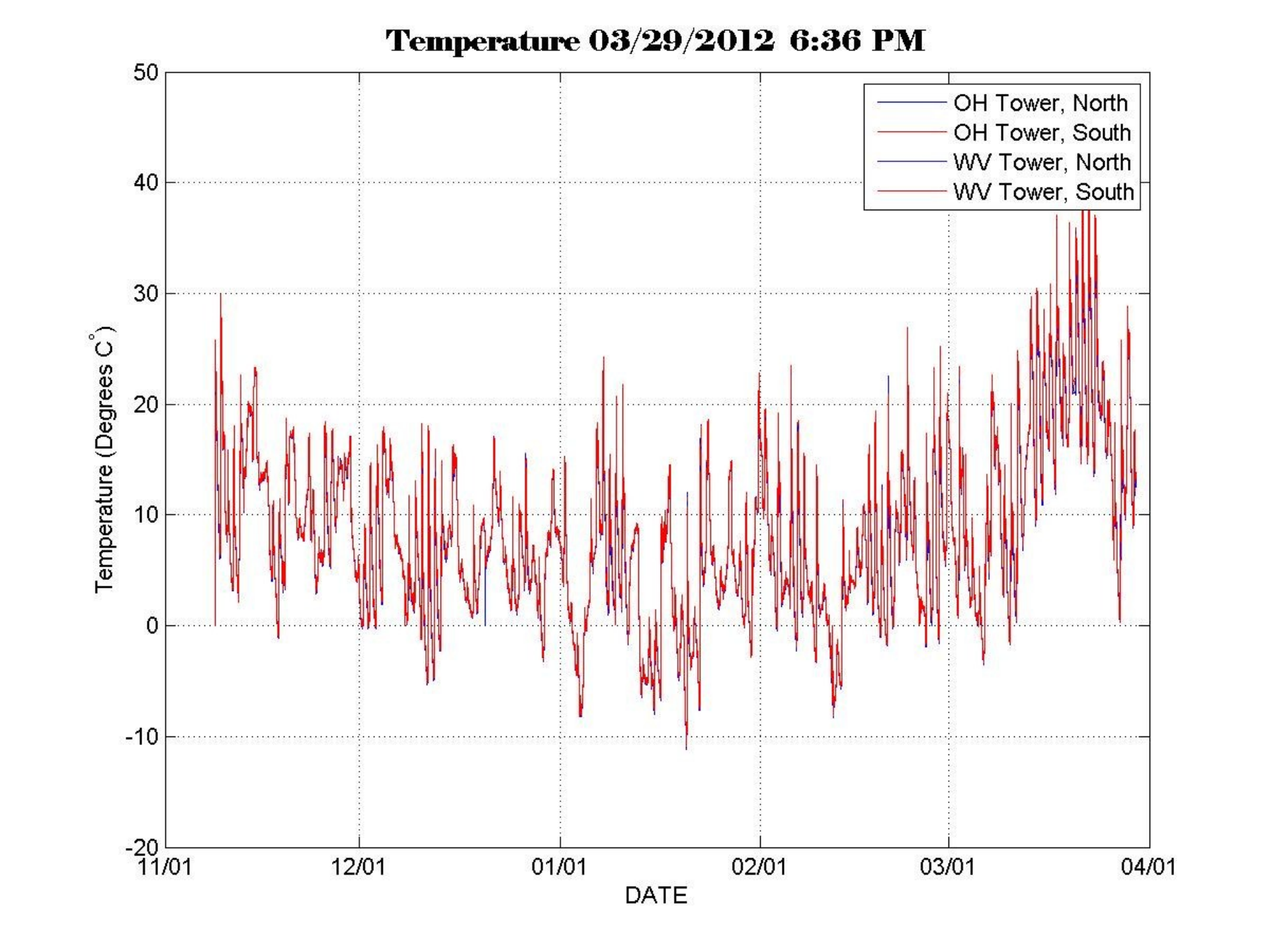
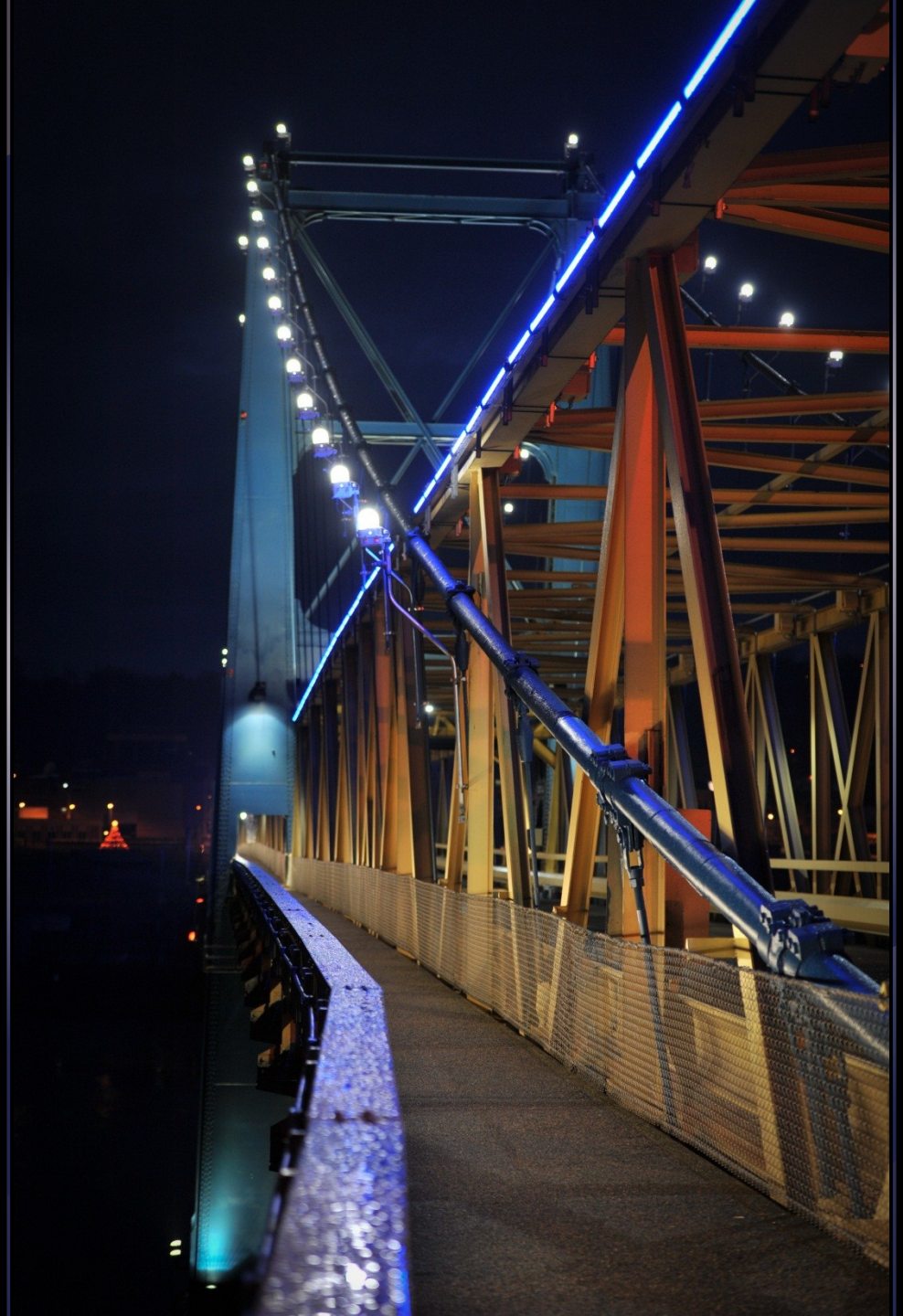
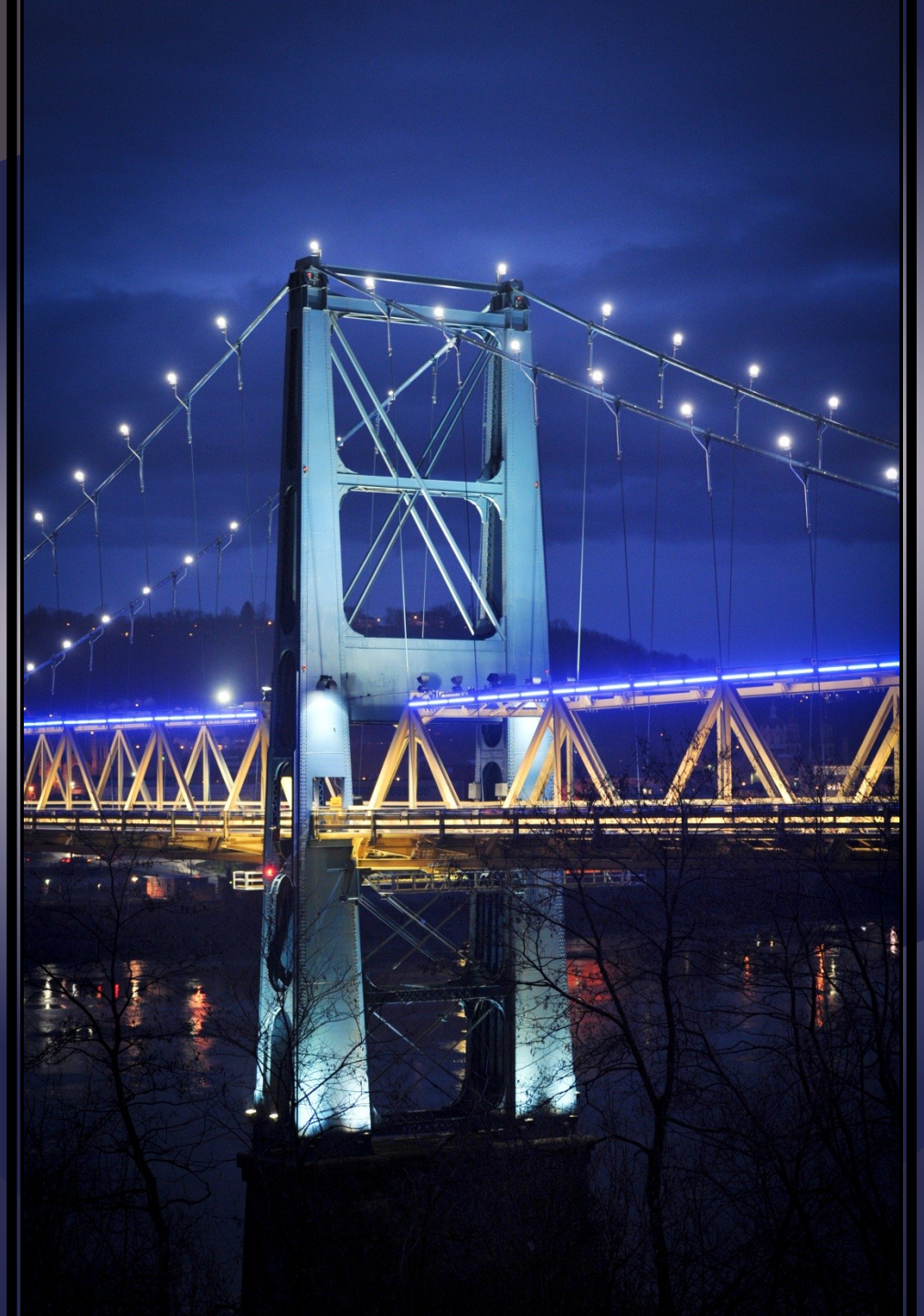
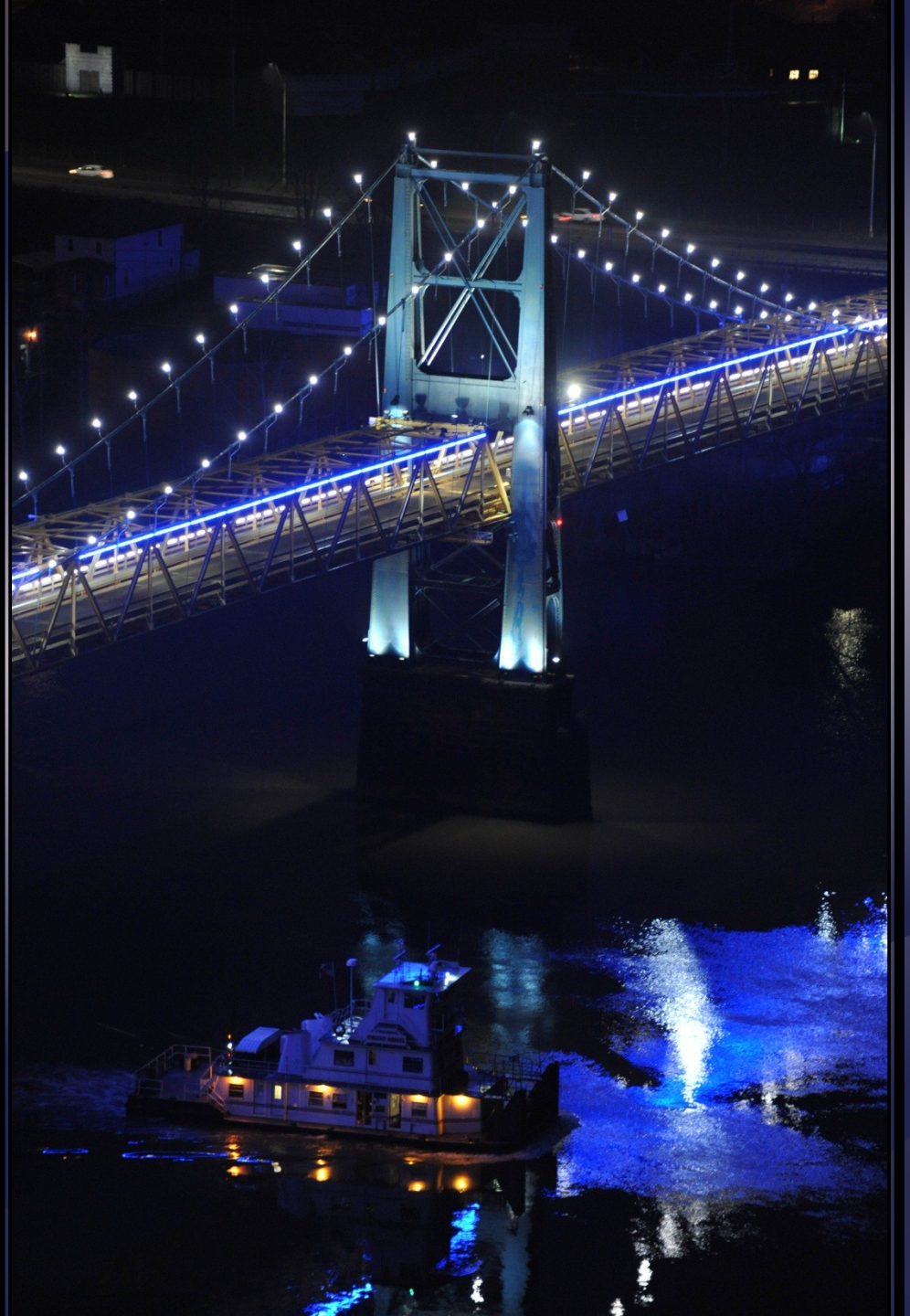
-0.05
-0.1
11/01
12/01
01/01
02/01
03/01
04/01
Date

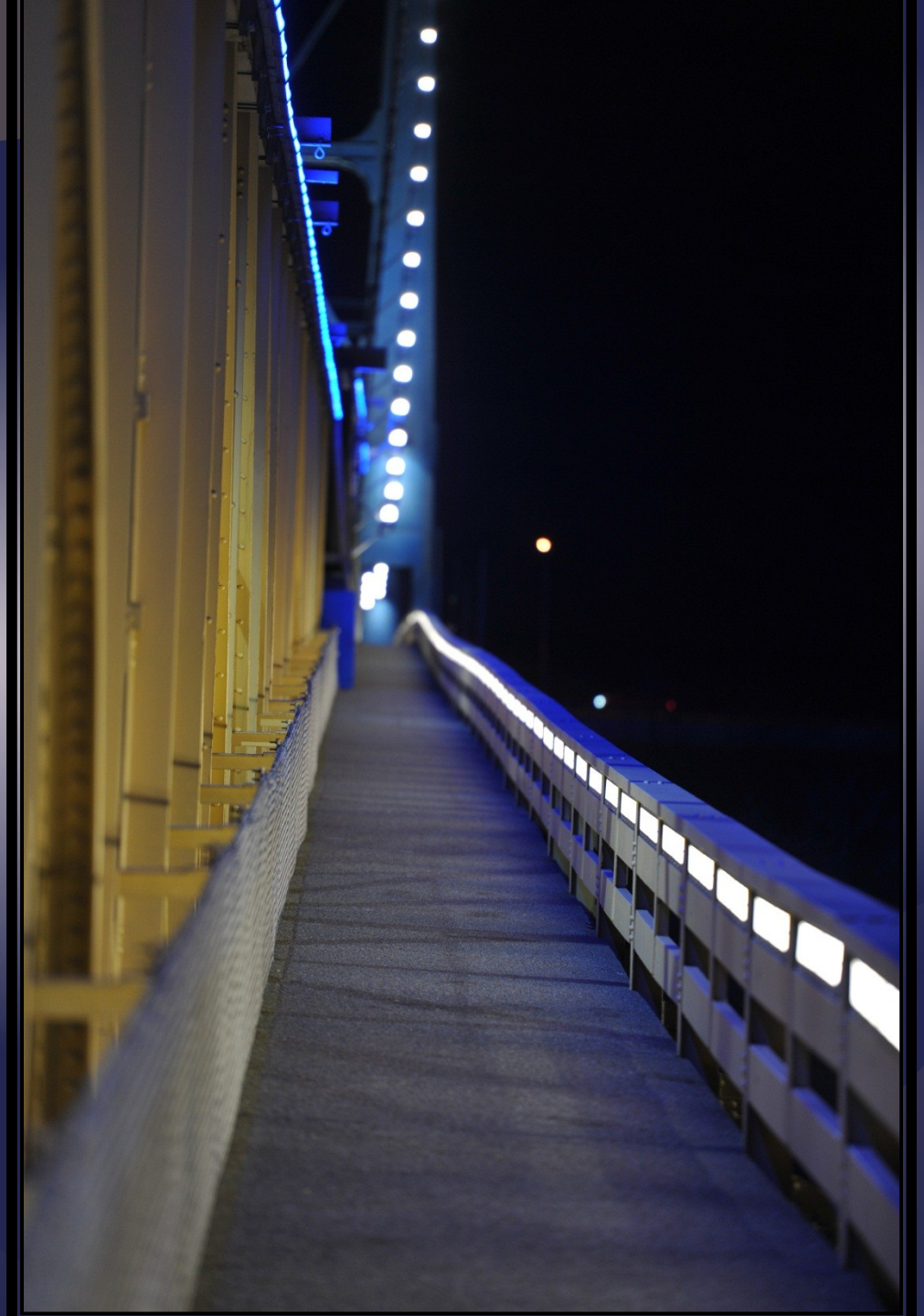

Temperature 03/29/2012 6:36 PM
OH Tower, North
OH Tower, South
WV Tower, North
WV Tower, South
Temperature (Degrees C°)
50
40
30
20
10
0
-10
-20
11/01
12/01
01/01
02/01
03/01
04/01
DATE


Grand finale









Subcontractor: Bayless and Ramey

Questions or comments