Margaret Hunt Hill Bridge
Woodall Rogers Freeway
Dallas, TX

(“the Calatrava Bridge”)

Architect:
Santiago Calatrava

Engineer of Record:
Charlie Quade, P.E.,
Huitt-Zollars

MAPQUEST
0
200 m
600 ft
Continental Ave
Parkhouse St
Canada Dr
Continental Viad
N Stemmons Fwy
366
366
429B
N Houston St
Herbert St
Wake St
Gulden St
Gulden Ln
Singleton Blvd
N Beckley Ave
Trinity River
Greenbelt Park
429A
Elm St
35E
N Industrial Blvd
428E
Poe St
W Main St
W Commerce St
Commerce St
S Industrial Blvd
Reunion Blvd
428D
Wales St
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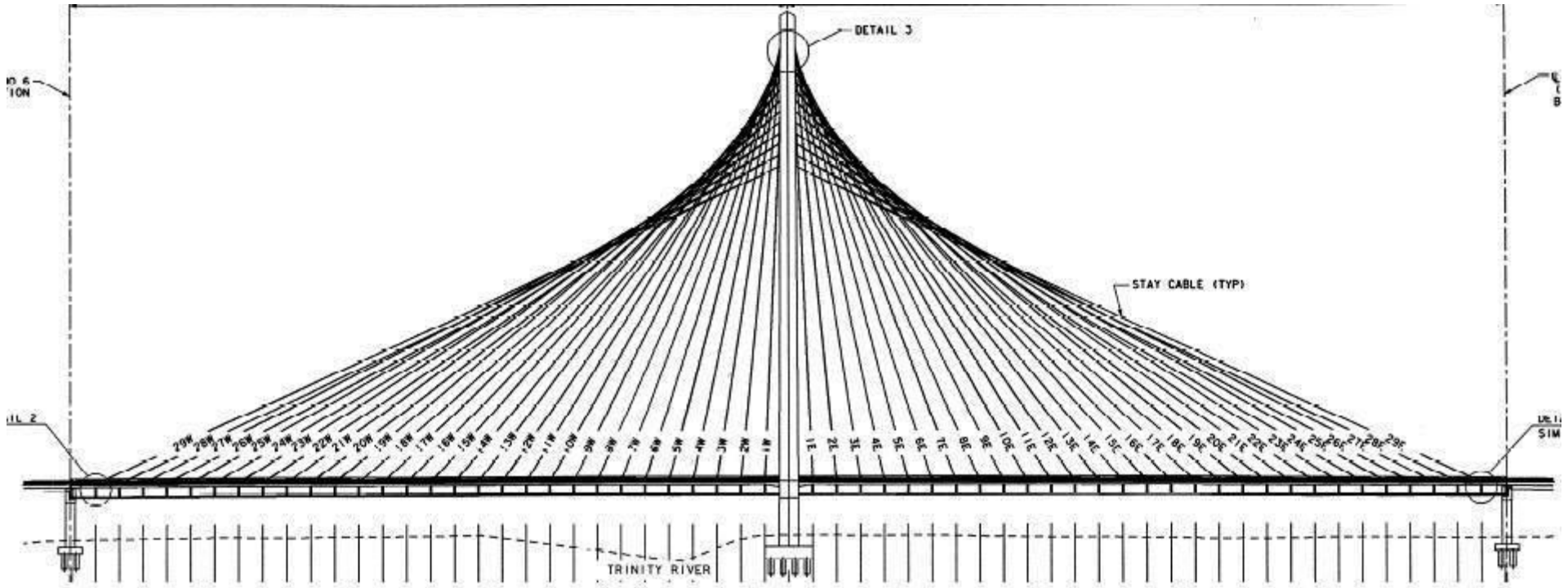
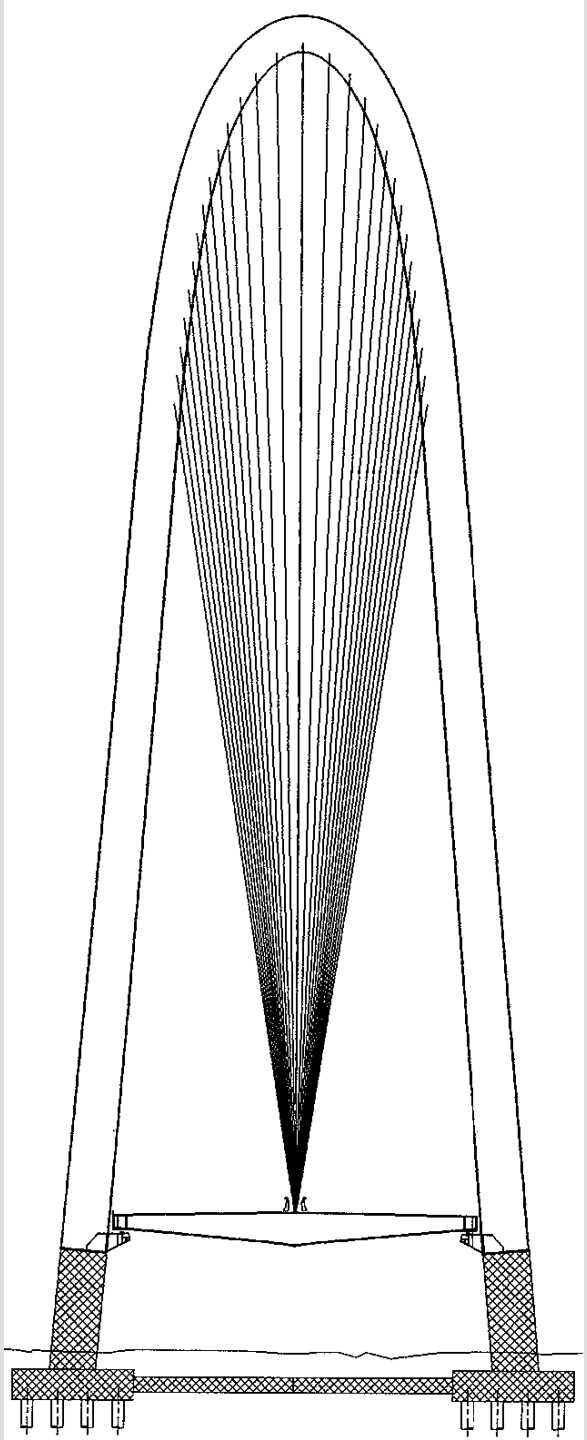
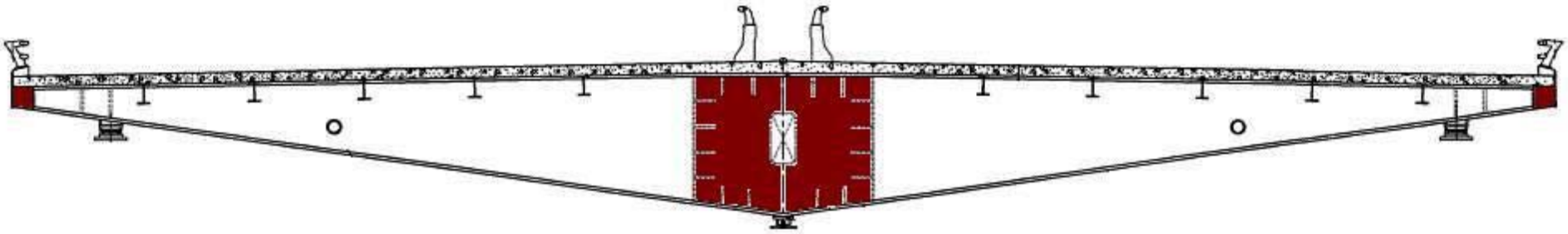
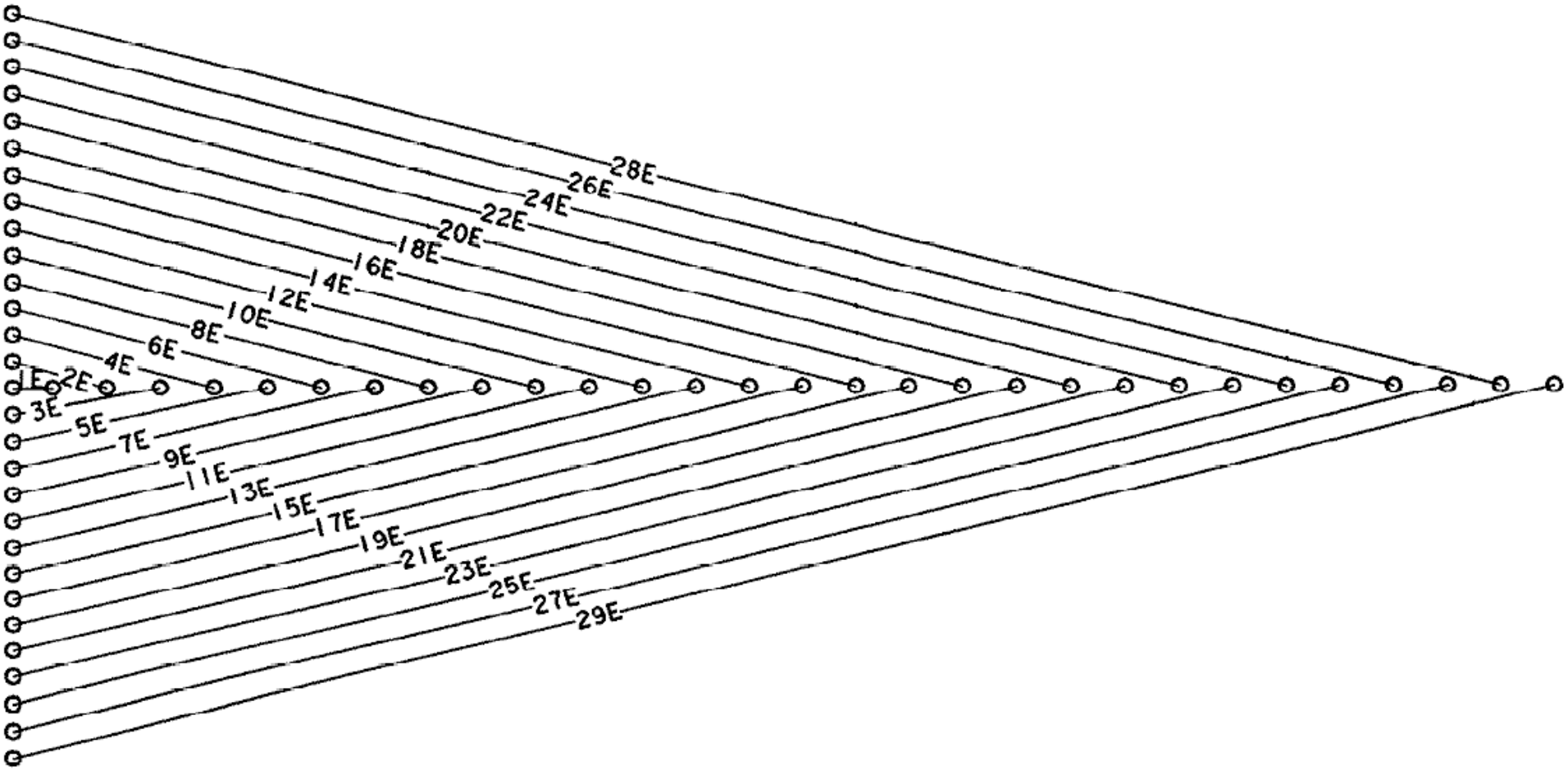
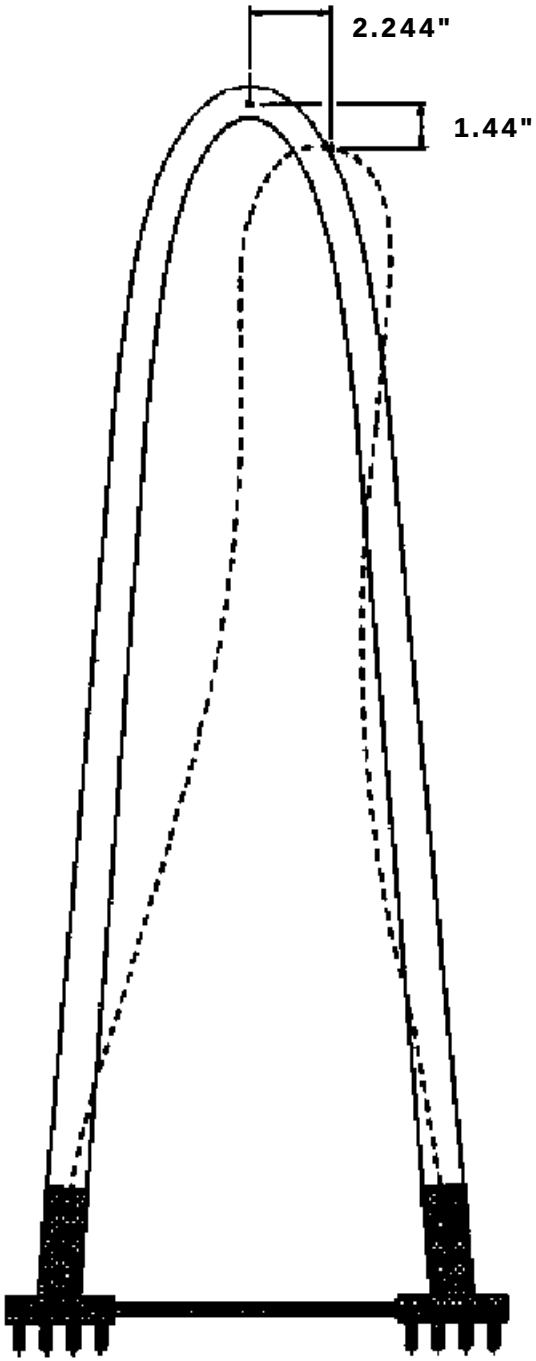
NOVATI


DETAIL 3
STAY CABLE (TYP)
TRINITY RIVER






1E
2E
3E
4E
5E
6E
7E
8E
9E
10E
11E
12E
13E
14E
15E
16E
17E
18E
19E
20E
21E
22E
23E
24E
25E
26E
27E
28E
29E


2.244"
1.44"

Unusual considerations

Unusual considerations

- Dimensional tolerances

Unusual considerations

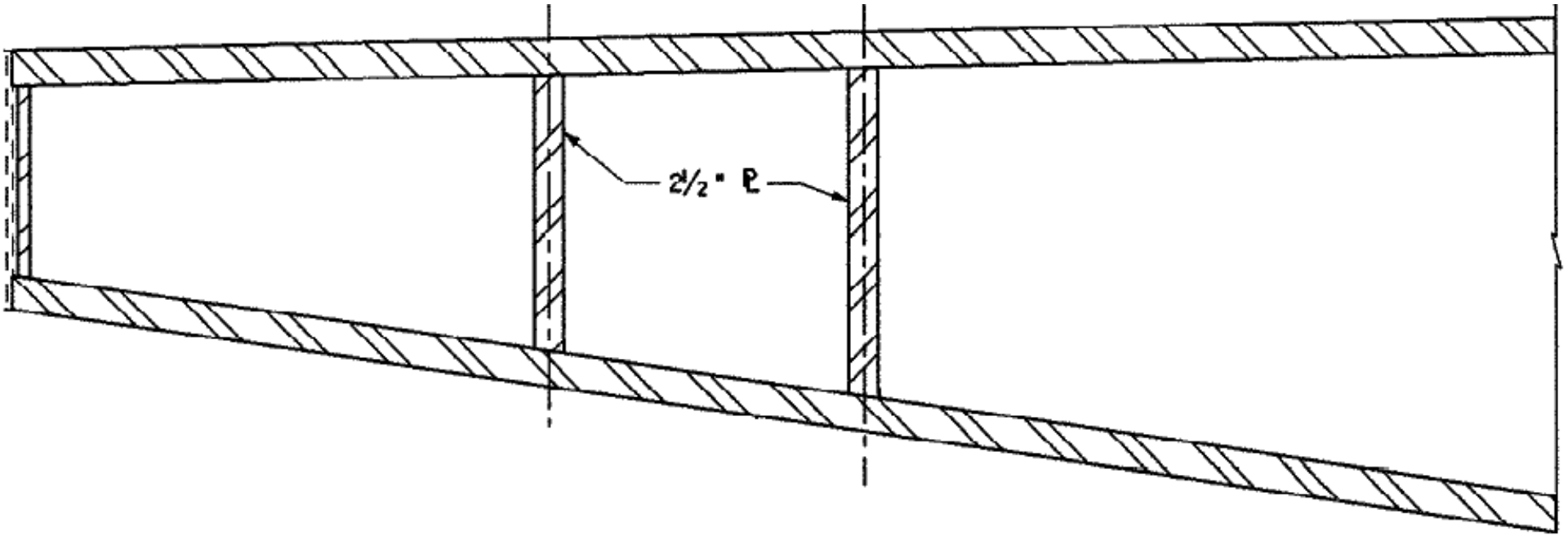
- Dimensional tolerances
  - Camber & sweep

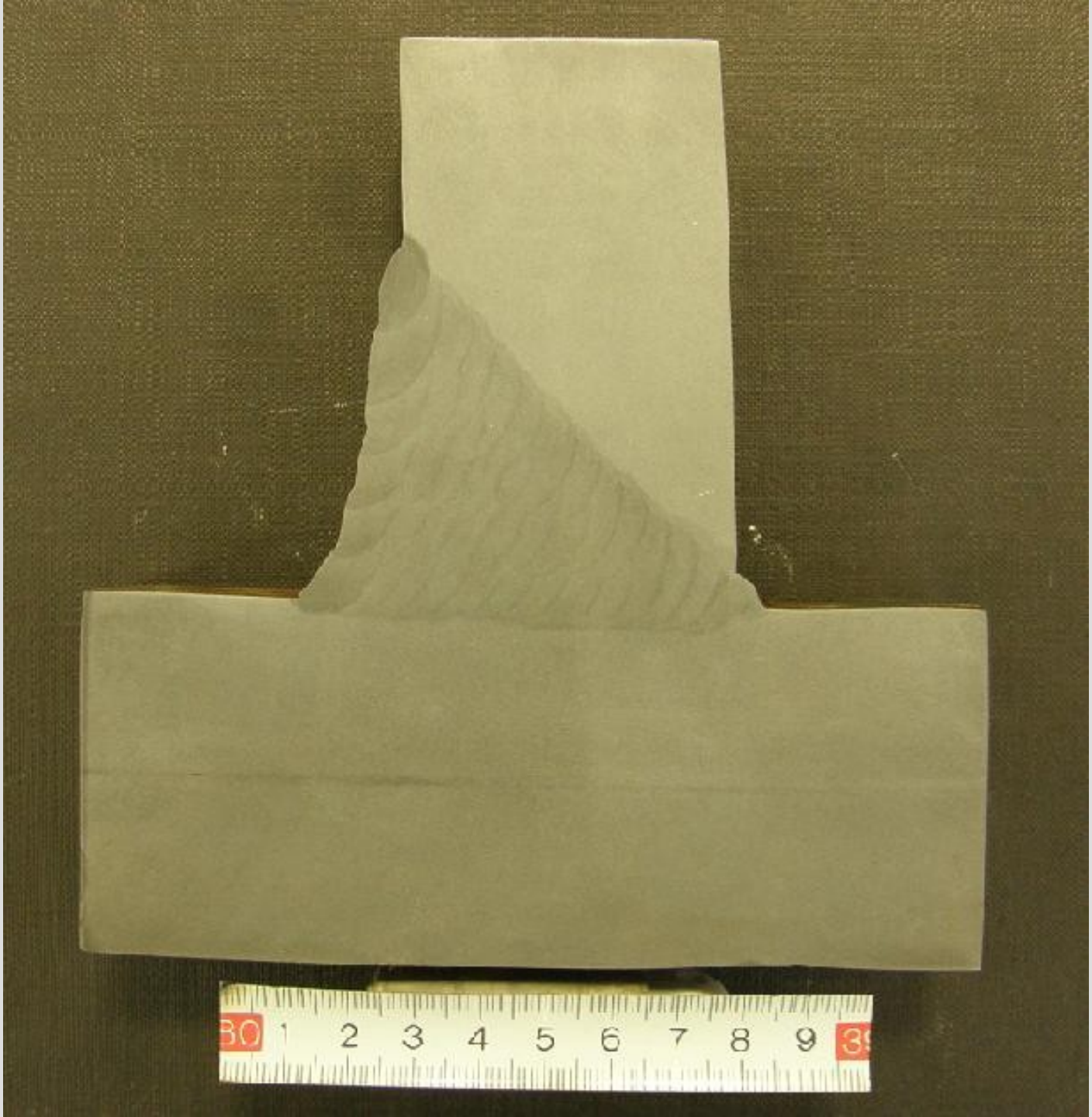
Unusual considerations

- Dimensional tolerances
  - Camber & sweep
  - Pylon X, Y, Z working points

Unusual considerations

- Dimensional tolerances
  - Camber & sweep
  - Pylon X, Y, Z working points
- Weld access


2½" ℄


30
1
2
3
4
5
6
7
8
9

Unusual considerations

- Nondestructive evaluation

Unusual considerations

- Nondestructive evaluation
  - Field T & corner groove welds

Unusual considerations

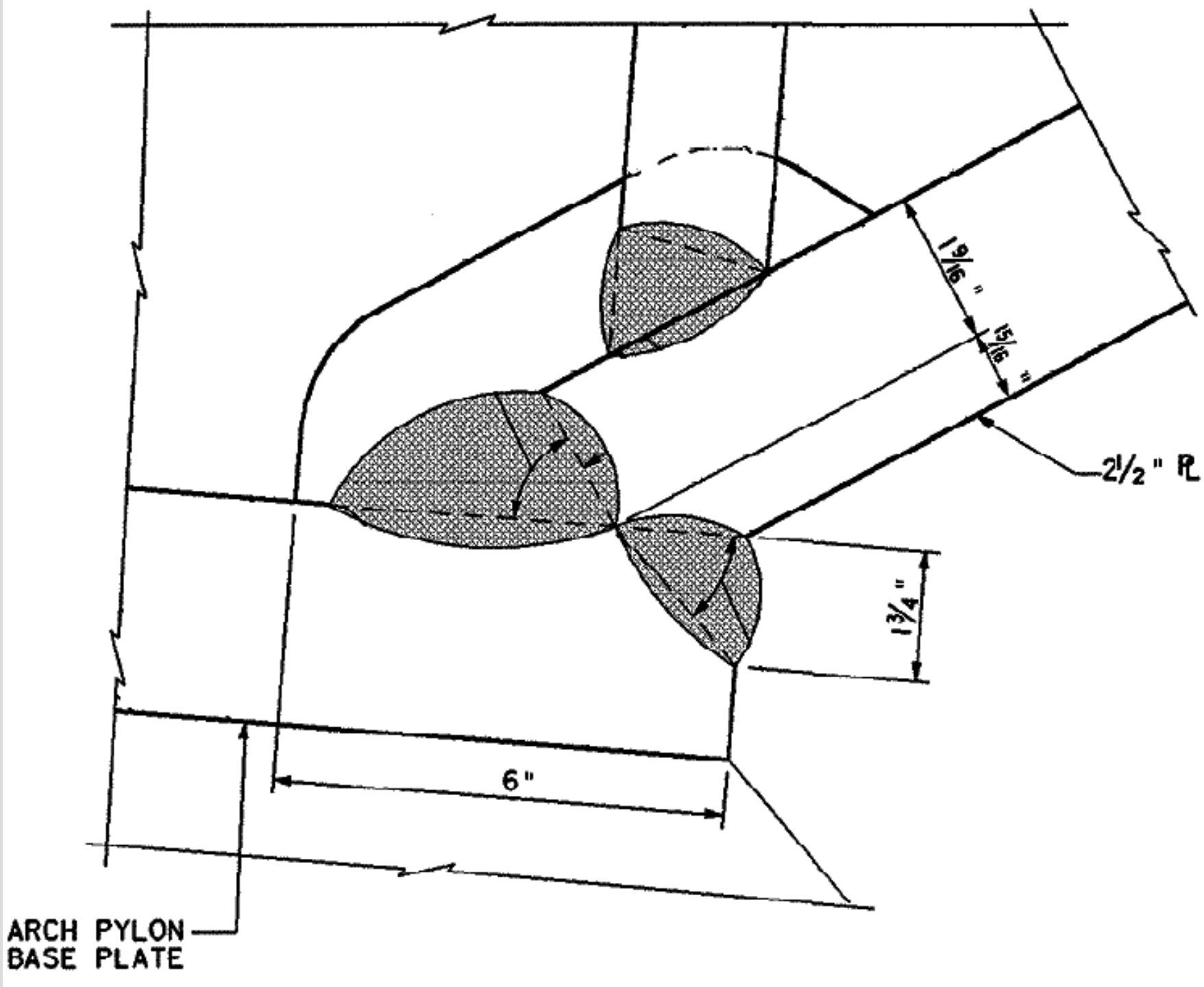
- Nondestructive evaluation
  - Field T & corner groove welds
  - Fracture-critical

SCHEDULE OF NONDESTRUCTIVE EXAMINATION (NDE)

Piece		Piece	Type	NDE Class(es)
Steel Arch Details				
fascia plate A splice			shop	B
fascia plate B splice			shop	B
fascia plate C splice			shop	B
fascia plate D splice			shop	B
base plate splice			shop	B
ring stiffener splice			shop	B
horizontal gusset plate splice			shop	B
vertical stiffener splice			shop	B
light box	to	fascia plate A		O
fascia plate A	to	fascia plate B		C
fascia plate B	to	fascia plate C		C
fascia plate C	to	fascia plate D		C
fascia plate D	to	fascia plate D		C
vertical stiffeners	to	fascia plates B & D		O
ring stiffener	to	fascia plates A,B,C & D		O
vertical stiffener	to	ring stiffeners		O
fascia plates B, C and D	to	base plate		C,O
ring stiffener	to	ring diaphragm		O
ring diaphragm	to	fascia plates A,B,C & D		T
gusset plate	to	fascia plates A,B,C & D		O
gusset plate	to	base plate		O
gusset plate	to	top gusset plate		O
vertical stiffener	to	gusset top plate		O
segment	to	segment	field	B
bulkhead plate (bolted field splice option)	to	bulkhead plate (bolted field splice option)	field (seal weld)	S

Unusual considerations

- Nondestructive evaluation
  - Field T & corner groove welds
  - Fracture-critical
  - Mockups


1 9/16 "
15/16 "
2 1/2 " R
1 3/4 "
6"
ARCH PYLON
BASE PLATE

Switzerland
Austria
Slovenia
Mont Blanc
Milan
Venice
Turin
Trieste
Po River
Genoa
Bologna
France
San Marino
Croatia
Bosnia Herzegovina
Florence
Monaco
Siena
Ligurian Sea
ITALY
Yugo-slavia
Adriatic Sea
Corsica (France)
Vatican City
Rome
Naples
Bari
Mt. Vesuvius
Brindisi
Sardinia
Tyrrhenian Sea
Ionian Sea
Mediterranean Sea
Palermo
Mt. Etna
Sicily
N
W
E
S
Algeria
Africa
Tunisia
Syracuse
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Switzerland
Austria
Slovenia
Mont Blanc
Milan
Venice
Turin
Trieste
Po River
Genoa
Bologna
France
San Marino
Croatia
Bosnia Herzegovina
Florence
Monaco
Siena
Ligurian Sea
ITALY
Yugo-slavia
Adriatic Sea
Corsica (France)
Vatican City
Rome
Naples
Bari
Mt. Vesuvius
Brindisi
Sardinia
Tyrrhenian Sea
Ionian Sea
Mediterranean Sea
Palermo
Mt. Etna
Sicily
N
W
E
S
Algeria
Africa
Tunisia
Syracuse
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Buy America

TxDOT Item 2.15.G.2:

"If … the lowest bid using domestic steel or iron materials exceeds the low bid using foreign steel or iron materials by 25% or more, the apparent low Bidder will be the bid using foreign steel or iron materials."

10 9:01AM

04/09/2007

04/09/2007

04/10/2007

04/10/2007

30305
DALLAS

OMIS

03/19/2009 14:01

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