

Appendix

DNA Scoping Study

5-1064.00

Structure Inventory and Appraisal Sheet (English Units)

Bridge Key: 6817

Agency ID: 056B00139N

SR: 45.9 SD/FO: SD

IDENTIFICATION

State 1: 21 Kentucky Struc Num 8: 056B00139N
 Facility Carried 7: EASTERN PARKWAY Location 9: .2MI E-POPLAR LVL-KY 864
 Rte.(On/Under)5A: Route On Structure Rte. Signing Prefix 5B: 2 U.S. Numbered Hwy
 Level of Service 5C: 2 Alternate Rte. Number 5D: 00060
 Directional Suffix 5E: 0 N/A (NBI) % Responsibility : Unknown
 SHD District 2: District 5 County Code 3: Jefferson (056)
 Place Code 4: FIPS 0000 Mile Post 11: 5.718 mi
 Feature Intersected 6: SO.FK.BEARGRASS CREEK
 Latitude 16: 38d 13' 32" Longitude 17: 085d 43' 37"
 Border Bridge Code 98: Unknown (P)
 Border Bridge Number 99:

INSPECTION

Frequency 91: 24 months Inspection Date 90: 11/14/2011 Next Inspection: 11/14/2013
 FC Frequency 92A: NA FC Inspection Date 93A: NA Next FC Inspection: NA
 UW Frequency 92B: NA UW Inspection Date 93B: NA Next UW Inspection: NA
 SI Frequency 92C: NA SI Date 93C: NA Next SI: NA
 Element Frequency: 24 months Element Inspection Date: 11/14/2011 Next Elem. Insp. Due: 11/14/2013

CLASSIFICATION

Defense Highway 100: 0 Not a STRAHNET hwy Parallel Structure 101: No || bridge exists
 Direction of Traffic 102: 2 2-way traffic Temporary Structure 103: Not Applicable (P)
 Highway System 104: 0 Not on NHS NBIS Length 112: Long Enough
 Toll Facility 20: 3 On free road Functional Class 26: 16 Urban Minor Arterial
 Defense Hwy 110: 0 Not a STRAHNET hwy Historical Significance 37: 5 Not eligible for NRHP
 Owner 22: 01 State Highway Agency
 Custodian 21: 01 State Highway Agency

STRUCTURE TYPE AND MATERIALS

Number of Approach Spans 46: 0 Number of Spans Main Unit 45: 1
 Main Span Material/Design 43A/B:
 1 Concrete 11 Arch-Deck
 Deck Type 107: 1 Concrete-Cast-in-Place
 Wearing Surface 108A: 6 Bituminous
 Membrane 108B: 0 None
 Deck Protection 108C: None

CONDITION

Deck 58: 5 Fair Super 59: 4 Poor Sub 60: 6 Satisfactory
 Culvert 62: N N/A (NBI) Channel/Channel Protection 61: 8 Protected

AGE AND SERVICE

Year Built 27: 1954 Year Reconstructed 106: 0
 Type of Service on 42A: 1 Highway
 Type of Service under 42B: 5 Waterway
 Lanes on 28A: 4 Lanes Under 28B: 0 Detour Length 19: 2.1 mi
 ADT 29: 20,000 Truck ADT 109: 8 % Year of ADT 30: 2012

LOAD RATING AND POSTING

Inventory Rating Method 65: 1 LF Load Factor Operating Rating Method 63: 1 LF Load Factor
 Inventory Rating 66: HS20.0 Operating Rating 64: HS33.3
 Design Load 31: 5 MS 18 (HS 20) Posting 70: 5 At/Above Legal Loads
 Posting status 41: A Open, no restriction

APPRAISAL

Bridge Rail 36A: 0 Substandard Approach Rail 36C: 1 Meets Standards
 Transition 36B: 0 Substandard Approach Rail Ends 36D: 0 Substandard
 Str. Evaluation 67: 4 Deck Geometry 68: 2 Intolerable - Replace
 Underclearance, Vertical and Horizontal 69: N Not applicable (NBI)
 Waterway Adequacy 71: 8 Equal Desirable Approach Alignment 72: 8 Equal Desirable Crit
 Scour Critical 113: 7 Countermeasures

GEOMETRIC DATA

Length Max Span 48: 72.0 ft Structure Length 49: 72.0 ft
 Curb/Sdwk Width L 50A: 3.8 ft Curb/Sidewalk Width R 50B: 3.8 ft
 Width Curb to Curb 51: 46.0 ft Width Out to Out 52: 56.0 ft
 Approach Roadway Width 32: 46.0 ft Median 33: 0 No median (w/ shoulders)
 Deck Area: 4,032. sq. ft
 Skew 34: 32.00 ° Structure Flared 35: 0 No flare
 Vertical Clearance 10: 99.99 ft Horiz. Clearance 47: 46.00 ft
 Minimum Vertical Clearance Over Bridge 53: 328.1 ft
 Minimum Vertical Underclearance Reference 54A: N Feature not hwy or RR
 Minimum Vertical Underclearance 54B: 0.0 ft
 Minimum Lateral Underclearance Reference R 55A: N Feature not hwy or RR
 Minimum Lateral Underclearance R 55: 0.0 ft
 Minimum Lateral Underclearance L 56: 0.0 ft

PROPOSED IMPROVEMENTS

Bridge Cost 94: \$ 494,000 Type of Work 75: 34 Widen w/ Deck Rehr
 Roadway Cost 95: \$ 0 Length of Improvement 76: 7.5 ft
 Total Cost 96: \$ 493,000 Future ADT 114: 22,600
 Year of Cost Estimate 97: 2004 Year of Future ADT 115: 2032

NAVIGATION DATA

Navigation Control 38: 0 Permit Not Required
 Vertical Clearance 39: 0.0 ft Horizontal Clearance 40: 0.0 ft
 Pier Protection 111: Not Applicable (P) Lift Bridge Vertical Clearance 116:

ELEMENT CONDITION STATE DATA

Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
1	13/1	Unp Conc Deck/AC Ovl	(SF)	243	0 %	0	100 %	243	0 %	0	0 %	0	0 %	0
1	107/1	Paint Stl Opn Girder	(LF)	296	0 %	0	0 %	0	0 %	0	100 %	296	0 %	0
1	144/1	R/Conc Arch	(LF)	34	0 %	0	50 %	17	50 %	17	0 %	0	0 %	0
1	215/1	R/Conc Abutment	(LF)	15	100 %	15	0 %	0	0 %	0	0 %	0	0 %	0
1	331/1	Conc Bridge Railing	(LF)	148	0 %	0	93 %	138	7 %	10	0 %	0	0 %	0
1	359/1	Soffit Smart Flag	(EA)	1	0 %	0	0 %	0	100 %	1	0 %	0	0 %	0

Structure Inventory and Appraisal Sheet (English Units)

Str Unit	Elm/Env	Description	Units	Total Qty	% in 1	Qty. St. 1	% in 2	Qty. St. 2	% in 3	Qty. St. 3	% in 4	Qty. St. 4	% in 5	Qty. St. 5
1	363/1	Section Loss SmFlag	(EA)	1	0 %	0	100 %	1	0 %	0	0 %	0	0 %	0
1	503/1	Curbs	(LF)	148	0 %	0	32 %	48	68 %	100	0 %	0	0 %	0
1	505/1	RC Sidewalk	(LF)	148	0 %	0	83 %	123	17 %	25	0 %	0	0 %	0

Str Unit	Elm/Env	Description	Element Notes
1	13/1	Concrete Deck - Unprotected w/ AC	Widened portion is steel girders with concrete deck and asphalt overlay. Deck is broken up in one area on the south side and deflecting under traffic.
1	107/1	Painted Steel Open Girder/Beam	Structural steel is rusted with serious to severe section loss.
1	144/1	Reinforced Conc Arch	Arch has full depth deterioration. The top of the arch on the south side is spalled with resteel exposed.
1	215/1	Reinforced Conc Abutment	Abutment element added for widened portion w/vertical wall.
1	331/1	Reinforced Conc Bridge Railing	Railings have cracking, spalling, and generally deteriorating - can break out chunks with your fingers.
1	359/1	Soffit of Concrete Deck or Slab	Widened portion soffit is in poor condition.
1	363/1	Section Loss	Structural steel is rusted with serious to severe section loss.
1	503/1	Reinforced Concrete Curbs and T	Curbs are broken up and deteriorated throughout.
1	505/1	Reinforced Concrete Sidewalk	Sidewalks are of asphalt and are uneven at best with much of the southeast side raveling and broken up.

BRIDGE NOTES

-Structure is inventoried as a concrete closed spandrel arch bridge widened with steel beam sections on each side. The deck element and abutment rating was added to represent the widened portion of the bridge and may or may not result in a "fatal error" message for this rating.
 -Channel has concrete bottom and walls.
 -There is a 20" LG&E high pressure gas line on this structure.

PAST INSPECTION

Inspection Date: 11/14/2011 Type: 2 Standard (24 months)
 Inspector: DDUDGEON Pontis User Key: DDUDGEON - Dar

Scope:

NBI: Other: Element:
 Underwater: Fracture Critical:

INSPECTION NOTES

Structure Inventory and Appraisal Sheet (English Units)

PAST INSPECTION

Inspection Date: 02/18/2010

Type: 2 Standard (24 months)

Inspector: EHOUSE

Pontis User Key: EHOUSE - Eddie I

Scope:

NBI: Other: Element:
Underwater: Fracture Critical:

INSPECTION NOTES

PAST INSPECTION

Inspection Date: 06/26/2008

Type: 2 Standard (24 months)

Inspector: TKING

Pontis User Key: TKING - Terry King

Scope:

NBI: Other: Element:
Underwater: Fracture Critical:

INSPECTION NOTES

Structure Inventory and Appraisal Sheet (English Units)

PAST INSPECTION

Inspection Date: 03/01/2006 Type: 2 Standard (24 months)
 Inspector: RBECKORT Pontis User Key: RBECKORT - Ron

Scope:
 NBI: Other: Element:
 Underwater: Fracture Critical:

INSPECTION NOTES

INSPECTOR WORK CANDIDATES

Work Candidate ID	Action	Object	Agency Status	Agency Priority	Assigned to a Project	Rec. Date
A-KYTC-131E3055-0000002B	Replace	Bridge		Medium	No	2/18/2010
A-KYTC-131E3055-00000029	Repl Paint	Paint Stl Opn Girder		Medium	No	2/18/2010
A-KYTC-167094EC-00000000	Other	Bridge	Approved	High	No	11/14/2011
A-KYTC-16565280-00000000	Other	Bridge	Approved	High	No	11/14/2011
A-KYTC-16998289-00000019	Min Repair	Unp Conc Deck/AC Ovl	Approved	High	No	11/14/2011

056B00139N



Looking east toward KY 1703.

Looking west toward KY 864.



056B00139N



USF



USC

056B00139N



DSF



DSC

056B00139N



Footing of the arch at the southeast corner (US right) is deteriorated.

Footing of the arch at the southwest corner (US left) is deteriorated.



056B00139N



Footing of the arch at the northeast corner (DS right) is deteriorated.

Footing of the arch at the northwest corner (DS left) is deteriorated.



056B00139N



Top of the arch looking downstream.
Note spall with exposed rebar near
the south end.

Two steel beams were used at each
end of the arch to widen the structure.
Steel beams are rusted with section
loss of top and bottom flanges.



Utility Owners and Contact Person

For
Jefferson County
5-1064.00

1. LG&E KU (Electric)
820 West Broadway
Louisville, KY 40202
LG&E Emergency Number (502) 589-1444
LG&E and KU Emergency Number 1-800-331-7370
Greg Geiser
work: (502) 627-3708
Greg.Geiser@LGE-KU.com
Facility Map Received 12.28.12
2. LG&E (Gas)
820 West Broadway
Louisville, KY 40202
Gas Emergency Number (502) 589-5511
LG&E and KU Emergency Number 1-800-331-7370
Greg Geiser
work: (502) 627-3708
Greg.Geiser@LGE-KU.com
Facility Map Received 12.28.12
3. Louisville Water Company
550 South Third Street
Louisville, KY 40202
Daniel Tegene, PE
(502) 569-3649
DTegene@LWCky.com
4. AT&T KY
3719 Bardstown Road - 2nd Floor
Louisville, KY 40218
Morgan Herndon
Morgan.Herndon@att.com
(502) 458-7312
Facility Map Received 1.2.13
5. Metropolitan Sewer District
700 West Liberty Street
Louisville, KY 40203-1911
Steve Emly
Emly@MSDLouky.org
(502)540-6509
Brad Selch
SelchB@MSDLouky.org
(502) 540-6614
Send to both contacts
Facility Map Received 1.7.13
6. Insight Communications Company
4701 Commerce Crossings Dr.
Louisville, KY 40229
Deno Barbour
Cell: (502) 664-7395
Office(502) 357-4376
Dwight.Barbour@TWCable.com
Nathen Howerton
Cell: (502) 639-6838
Office: (502) 357-4318
Nathen.Howerton@TWCable.com
Forrest Antique
Cell: (502) 817-6519
Office: (502) 357-4724

2/25/2013

Forrest.Antique@TWCable.com

Facility Map Received 12.20.12

7. Texas Gas Transmission Corporation
10327 Gaslight Way
Louisville, KY 40299
John Weaver
(502) 438-2407
John.Weaver@BWMLP.com
Utilities Clear per email 12.19.12
8. Marathon Pipeline, LLC
539 S Main St, Rm 7642
Findlay, OH 45840
David Wisner
DSWisner@MarathonPetroleum.com
(419) 421-2211
Utilities Clear per email 12.20.12
9. Indiana Gas Company Inc
d.b.a. Vectren Energy Delivery of Indiana, Inc
or
Ohio River Pipeline Corporation
2520 Lincoln Drive
Clarksville, Indiana 47129
Mary Barber
MBarber@Vectren.com
(812) 948-4952
Utilities Clear per email 12.20.12

Line Maintained By

Texas Gas Transmission, LLC
3800 Frederica Street
Owensboro, Kentucky 42302
Cell: (270) 485-1152

Tim Turner

(270) 688-6461

Tim.Turner@bwmlp.com

10. Indiana Utilities Corporation
123 West Chestnut Street
Corydon, Indiana 47112
(812) 738-3235
Kevin Kinney
Ron Timberlake
Jackie Rogers
JackieR@IndianaUtilitiesCorp.com
Utilities Clear per email 12.19.12
11. Sprint - Fiber Optics
11370 Enterprise Park Dr.
Sharonville, OH 45241
Joe Thomas
Joe.Thomas@Ericsson.com
Office (513) 612-4204
Cell (937) 209-9754
Utilities Clear per email 1.2.13
12. Mid-Valley Pipeline Company
4910 Limaburg Road
Burlington, KY 41005
FAX (866) 699-1185
Todd Calfee (Richard)
(859) 371-4469x14
(859) 630-8271
RTCALFEE@SunocoLogistics.com
Utilities Clear per email 12.26.12

2/25/2013

13. Level 3 Communications (Transmission)
848 S. 8th St.
Louisville, KY 40203

Kevin Webster
Kevin.Webster@Level3.com
Office (502) 777-8622
Cell (502) 777-8622
Fax (502) 561-6950

Level 3 Communications (Transmission)
848 S. 8th St.
Louisville, KY 40203

Tim Morphew
Tim.Morphew@Level3.com
Office (502) 561-6935
Cell (502) 221-1785
Fax (502) 561-6950

Level 3 Communications (Distribution)
962 South Third Street
Louisville, KY 40203

Mark Sewell
Mark.Sewell@Level3.com
Office (502) 515-9142
Cell (502) 295-0939
Send to all 3 contacts

14. Jefferson County Public Schools (JCPS)
C B Young
Building 7
3001 Crittenden Dr.
Louisville. KY 40209

Jeff Hardy
Jeff.Hardy@Jefferson.kyschools.us
502-485-7975

15. Kentucky Data Link (KDL now Windstream)
Project Manager
3701 Communications Way
Evansville, IN 47715
(Address envelopes ATTN Melissa Gugino)

Michael Russell
Michael.Russell@windstream.com
John Mcdowell
John.Mcdowell@windstream.com
859-369-3623
Melissa.gugino@windstream.com

Timothy Gibson (Fiber location/relocation)
Timothy.Gibson@Windstream.com
(812) 454-6756
Lezlie Allison
Lezlie.Allison@Windstream.com

~~(812) 357-6255 work~~
~~(513) 340-3339 cell~~

Send to both contacts

2/25/2013

- 16 AT&T Legacy
4500 Johnston Pkwy.
Cleveland, OH 44128
- Mike Diederich
MD4145@att.com
(216)-587-6267
(216)-212-8556
- Don Garr
DRGarr@Hughes.net
Cell: (502) 741-8374
Send to both contacts
17. TWTelecom
Medinger Tower
462 S. 4th St., Suite 2400
Louisville, KY 40202
- 333 West Vine Street, Suite 330
Lexington, KY 40507
- Jeremy Cornell
Jeremy.Cornell@TWTelecom.com
(502) 992-1168
- Gerald Long
Gerald.Long@TWTelecom.com
(859) 550-2201
18. City of Taylorsville Sewer & Water
70 Taylorsville Rd., P O Box 279
Taylorsville, KY 40071
- Harold Compton
HCompton@TaylorsvilleWater.org
(502) 477-3235
Fax: (502) 477-1310
19. Qwest Communications Company, LLC
700 W Mineral Ave, UTD2734
Littleton, Colorado 80120
- George McElvain
George.McElvain@Qwest.com
(303) 992-9931
Cell:720-260-2514
Fax:303-707-3252
Utilities Clear per email 12.19.12
20. Shelby Energy Cooperative
P.O. Box 311, 620 Old Finchville Road
Shelbyville, KY 40065
(502) 633-4420
- Jason Ginn
Jason@ShelbyEnergy.com
cell: (502) 643-2778
21. Atmos Energy
130 Stonecrest Road Suite105
Shelbyville, KY 40065
(502) 633-2831 ext. 104
- Bernie Anderson
cell: (502) 321-8073
Bernie.Anderson@AtmosEnergy.com
OR
Earl Taylor
Earl.Taylor@AtmosEnergy.com

2/25/2013

Cell: 859-583-0306

Office: 859-236-2300

Send to both contacts

Utilities Clear per email 12.19.12

- 22.** Crown Castle Network Operations
10170 Linn Station Road
Suite 525
Louisville, KY 40223
(builds cell towers and leases space on them)
- Brian Watkins
Brian.Watkins@CrownCastle.com
(502) 318-1323
Brandy Bowling (Brian's supervisor)
Brandy.Bowling@CrownCastle.com
(502) 318-1322
Cindy Shaffer
Cynthia.Shaffer@CrownCastle.com
(502) 318-1313
Chris Gladstone
Chris.Gladstone@CrownCastle.com
(502)689-2162
- 23.** Zayo
701 W. Henry Street
Suite 201
Indianapolis, IN 46225
- Bill Hales
Bill.Hales@zayo.com
(502) 500-3661
- 24.** MCI/Verizon(Owns WUTEL)
MCI/Verizon
730 West Henry Street
Indianapolis, IN 46225
- Chris Fowler
Chris.Fowler@Verizon.com
Office: (317) 685-8050
Cell: (317) 435-6225
- Dave Wiley (Field)
(502) 439-8783
Dave.Wiley@One.Verizon.com
Utilities Clear per email 12.19.12
- 25.** TRIMARC
Public Safety & Transportation Systems
901 West Main Street
Louisville, Kentucky 40202
- Todd Hood
Todd.Hodd@ngc.com
Office: (502)587-6624 ext. 2
Cell: (502)307-7456
Utilities Clear per email 12.20.12

AIRPORT CONTACTS

Bruce Little (502) 375-7363 – FAA Location Manager
Jack Stauble (502) 664-9637 cell – FAA Location Technician

Chuck Hensley (502) 380-8356 EXT 356 – Construction Manager
Louisville Regional Airport Authority

Andy Hepfinger (502) 329-3706 – UPS Construction
Brian Knesco (502) 741-2922 – UPS Construction

Railroad Companies

1. C.S.X. Transportation, Inc.

Contacts:

David Hall, KY Liaison, (502) 815-1865
Milton Holder – crossings – cell (502) 817-2011
John Williams – crossings – cell (502) 376-8745, Office (502) 364-1133
Joe Malandruco (Florida) – signals (904) 245-1160

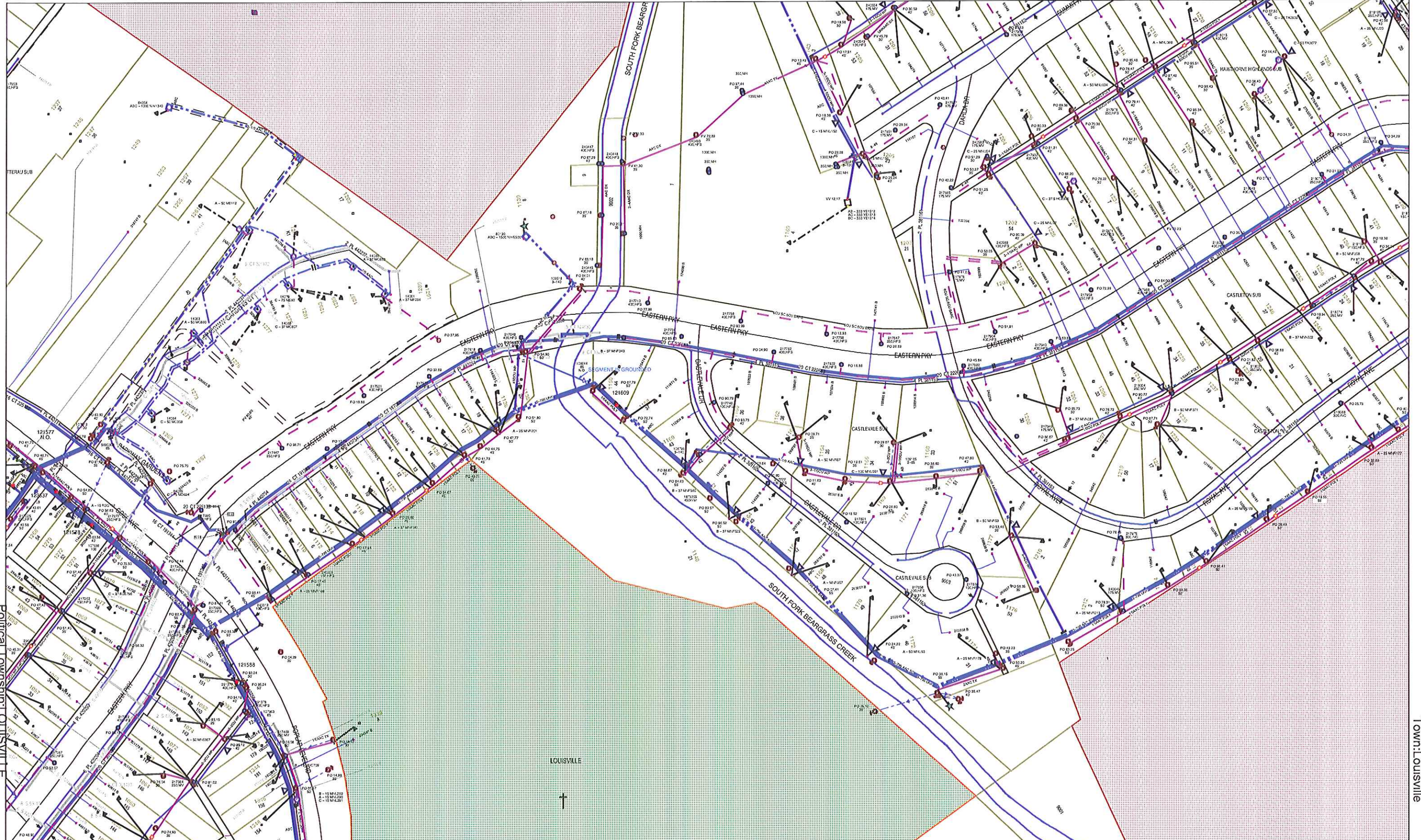
- 2.** Norfolk - Southern Railway Company
Norfolk - Southern Railway Company (Roy Johnson to provide contact data)
Mr. J. N. Carter, Jr. Chief Engineer
Bridges and Structures
Norfolk Southern Corporation
1200 Peachtree Street
Atlanta, Georgia 30309

- 3.** Paducah and Louisville Railway, Inc.
Gerald Gupton, Office: (270) 444-4386

County: Jefferson

Centre: (2006202, 13882925) usfeet

KY - LOUISVILLE EAST NW 1 D D



Political Township: LOUISVILLE

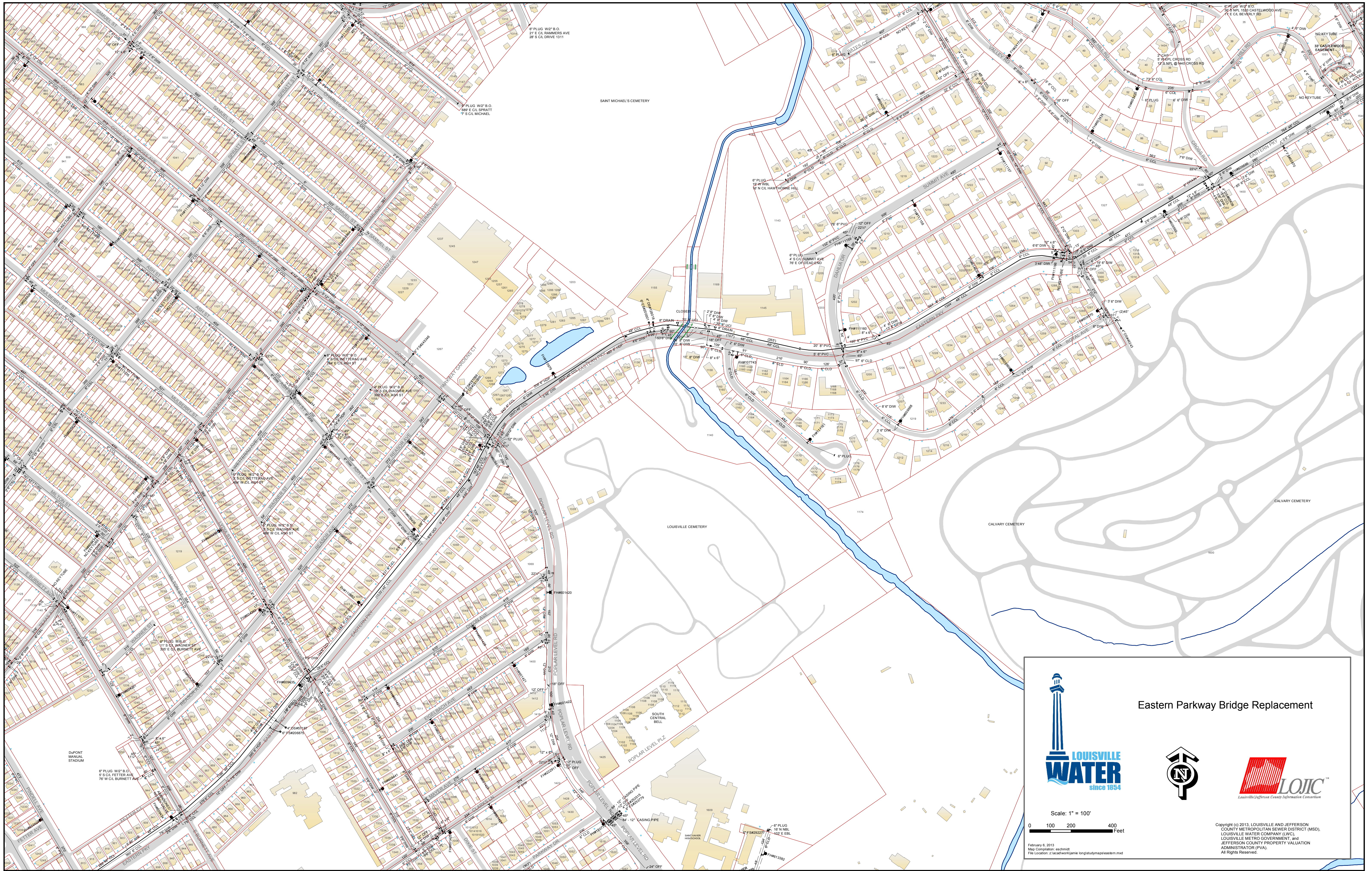
Town: Louisville




Scale 1:2300

Ta, Ben

Plot Date: 12/27/2012





LOUISVILLE WATER
since 1854





LOJIC
Louisville/Jefferson County Information Consortium

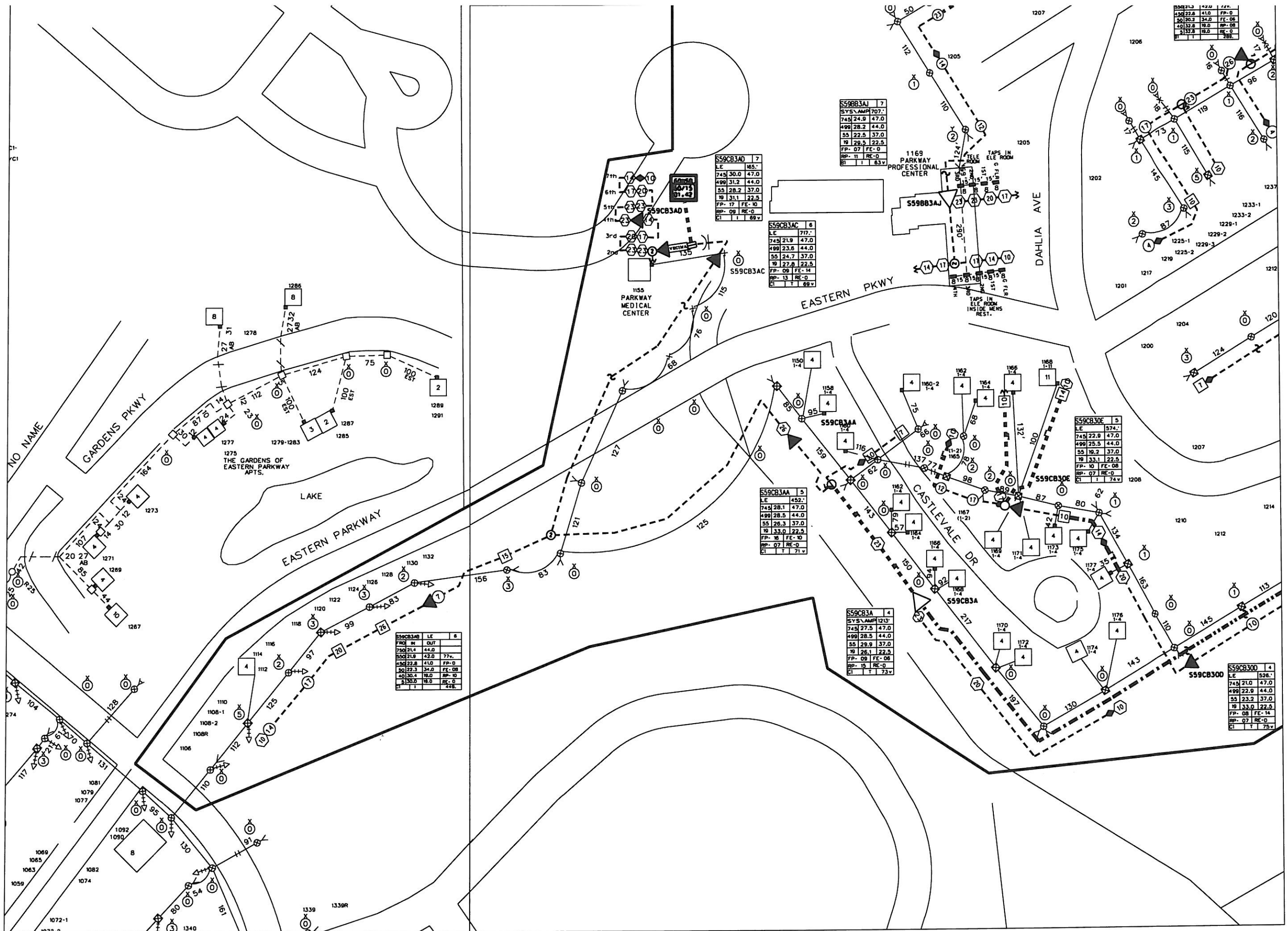
Eastern Parkway Bridge Replacement

Scale: 1" = 100'



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February 6, 2013
Map Compilation: eschmidt
File Location: z:\acadwork\jamie long\studypipe\eastern.mxd



S59CB3AD 7	
LE	185.0
745	30.0 47.0
499	31.2 44.0
55	28.2 37.0
19	31.1 22.5
FP-17	FE-10
RP-09	RE-0
CI	T 69 v

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RP-11	RE-0
CI	T 63 v

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RP-07	RE-0
CI	T 71 v

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499	28.5 44.0
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19	26.1 22.5
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RP-19	RE-0
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LE	448.0
FRD	IN OUT
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500	21.9 42.0 77 v
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CI	T 448

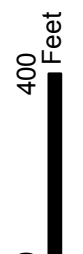
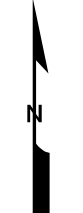
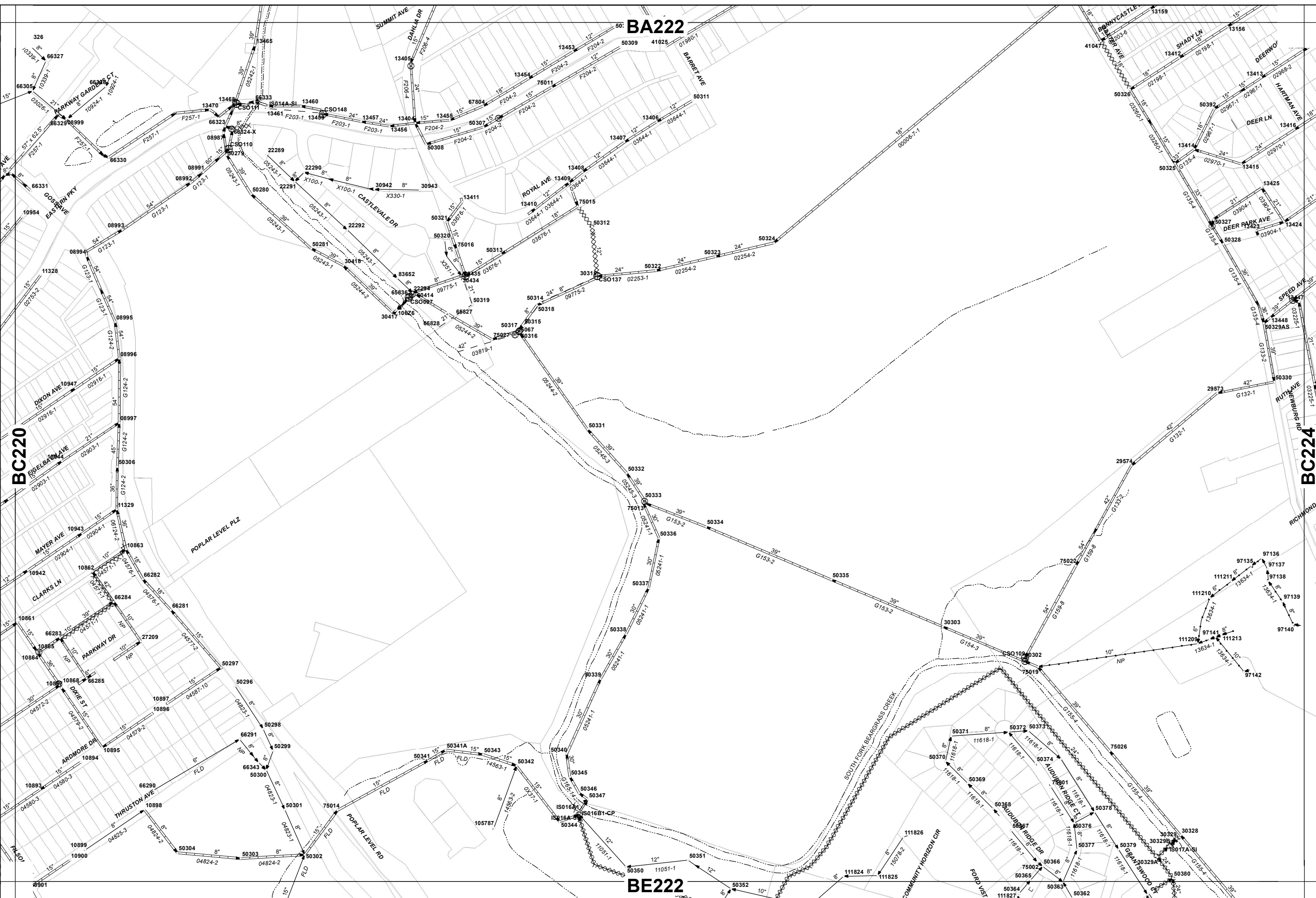
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RP-07	RE-0
CI	T 75 v

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745	22.9 47.0
499	25.5 44.0
55	19.2 37.0
19	33.1 22.5
FP-10	FE-08
RP-07	RE-0
CI	T 74 v

The MSD Sanitary facility data included herein was created from MSD Engineering Record Drawings and represents only the approximate schematic locations of MSD facilities. MSD makes no warranties or representations expressed or implied, as to the accuracy and completeness of this data for any use whatsoever. Exact locations of MSD facilities must be verified in the field.



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Scale: 1" = 400'

BC222 (MAL19H) Printed: Mar-27-2012

Planning Estimation Worksheet

Project Description:

Replace Bridge (056B00139N) over South Fork Beargrass Creek on Eastern Pkwy. (US 60A) -- SYP#: 5-1064.00. DNA Alternative 2.

Per Mile Estimation

Number of lanes (Additional):		(1, 2, or 4) miles
Length of Project:		
<input type="checkbox"/> Rural Area	<input type="checkbox"/> Urban Area	

Phase		Average Cost Per Mile		Total Cost	
Design				\$0	D
Right of Way		\$0		\$0	R
Land		\$0		\$0	
Buildings/Misc.		N/A		\$0	
Utilities		\$0		\$0	U
Construction				\$0	C
Additional Costs	Unit	Unit Cost	Quantity		
4 Lane Interchange/s	Each	\$10,000,000	0	\$0	
Turn Lane/s	Foot	\$750	0	\$0	
Total:				\$0	D+R+U+C

Comments:

"Per Mile" estimation not applicable for this project.

Detailed Estimation

Design					
Type	Unit	Unit Cost	Quantity	Total	Comments
Two Lane	Mile	\$600,000		\$0	
Four Lane	Mile	\$1,200,000		\$0	
Bridge (Consultant)	Each	\$200,000	1	\$200,000	
Small Projects	Each	\$300,000		\$0	
Stream Mitigation	Foot	\$250		\$0	
Design Total:				\$200,000	

Right of Way					
Type	Unit	Unit Cost	Quantity	Total	Comments
Acquisition	Each	\$350,000		\$0	
Relocation	Each	\$25,000		\$0	
Commercial	Acre	\$100,000		\$0	
Buildable Land	Acre	\$60,000		\$0	
Farm/Non-commercial	Acre	\$32,500		\$0	
Hillside Acreage (Non-buildable)	Acre	\$2,000		\$0	
Grave Relocation	Each	\$5,000		\$0	
Right of Way Total:				\$10,000	*note: if right-of-way costs are not expected, use \$10,000 as a minimum

Utilities					
Type	Unit	Unit Cost	Quantity	Total	Comments
Utility Pole	Each	\$7,500		\$0	
Water Lines					
48"	Foot	\$500	200	\$100,000	
Size	Foot			\$0	
Size	Foot			\$0	
Gas Lines					
Size	Foot			\$0	
Size	Foot			\$0	
Size	Foot			\$0	
6" Encasement	Foot	\$140		\$0	
UG Telephone Line	Foot	\$35		\$0	
UG Fiber Optics	Foot	\$180		\$0	
Utility Easement	Each	\$100,000		\$0	
Sewer Line	Foot	\$105	200	\$21,000	
				\$0	
				\$0	
Overhead	Percentage	45.0%	-	\$54,450	
				Utilities Total:	\$180,000

Construction					
Type	Unit	Unit Cost	Quantity	Total	Comments
Bridge & Approach Cost					
< 100' Span*	Square Foot	\$200	3888	\$777,600	
> 100' Span*	Square Foot	\$175		\$0	
State Approaches*	Foot	\$500	30	\$15,000	
County Approaches*	Foot	\$400		\$0	
*Costs do not include Excavation					
General Construction Costs					
Excavation	Cubic Yard	\$10		\$0	
Borrow	Cubic Yard	\$16		\$0	
Asphalt	Ton	\$85		\$0	
DGA	Ton	\$20		\$0	
Guardrail	Foot	\$15		\$0	
Misc.	Percentage	5.0%	-	\$39,630	
< 30" Drain Pipe	Foot	\$50		\$0	
36" - 48" Drain Pipe	Foot	\$75		\$0	
54" - 96" Drain Pipe	Foot	\$300		\$0	
RCBC Culvert	Foot	\$200		\$0	
Quick Curb	Foot	\$65		\$0	
Concrete	Cubic Yard	\$75		\$0	Source: www.concretenetwork.com - National Average in 2008: \$75/cuyd
Traffic Signal	Each	\$140,000		\$0	New signals: \$30,000-\$140,000. Assuming high end for Pedestrian usage: (walkinginfo.org)
Project Engineering	Percentage	15%	-	\$124,835	
Contingencies	Percentage	5%	-	\$41,612	
				Construction Total:	\$1,000,000
				Total Estimate:	\$1,390,000

Planning Estimation Worksheet

Project Description:

Replace Bridge (056B00139N) over South Fork Beargrass Creek on Eastern Pkwy. (US 60A) -- SYP#: 5-1064.00. DNA Alternative 3.

Per Mile Estimation

Number of lanes (Additional):		(1, 2, or 4)
Length of Project:		
<input type="checkbox"/> Rural Area <input type="checkbox"/> Urban Area		miles

Phase	Average Cost Per Mile	Total Cost	
Design		\$0	D
Right of Way	\$0	\$0	R
Land	\$0	\$0	
Buildings/Misc.	N/A	\$0	
Utilities	\$0	\$0	U
Construction		\$0	C
Additional Costs	Unit	Unit Cost	Quantity
4 Lane Interchange/s	Each	\$10,000,000	0
Turn Lane/s	Foot	\$750	0
Total:		\$0	D+R+U+C

Comments:

"Per Mile" estimation not applicable for this project.

Detailed Estimation

Design					
Type	Unit	Unit Cost	Quantity	Total	Comments
Two Lane	Mile	\$600,000		\$0	
Four Lane	Mile	\$1,200,000		\$0	
Bridge (Consultant)	Each	\$200,000	1	\$200,000	
Small Projects	Each	\$300,000		\$0	
Stream Mitigation	Foot	\$250		\$0	
Design Total:				\$200,000	

Right of Way					
Type	Unit	Unit Cost	Quantity	Total	Comments
Acquisition	Each	\$350,000		\$0	
Relocation	Each	\$25,000		\$0	
Commercial	Acre	\$100,000		\$0	
Buildable Land	Acre	\$60,000		\$0	
Farm/Non-commercial	Acre	\$32,500		\$0	
Hillside Acreage (Non-buildable)	Acre	\$2,000		\$0	
Grave Relocation	Each	\$5,000		\$0	
Right of Way Total:				\$10,000	*note: if right-of-way costs are not expected, use \$10,000 as a minimum

Utilities					
Type	Unit	Unit Cost	Quantity	Total	Comments
Utility Pole	Each	\$7,500		\$0	
Water Lines					
48"	Foot	\$500	200	\$100,000	
Size	Foot			\$0	
Size	Foot			\$0	
Gas Lines					
Size	Foot			\$0	
Size	Foot			\$0	
Size	Foot			\$0	
6" Encasement	Foot	\$140		\$0	
UG Telephone Line	Foot	\$35		\$0	
UG Fiber Optics	Foot	\$180		\$0	
Utility Easement	Each	\$100,000		\$0	
Sewer Line	Foot	\$105	200	\$21,000	
				\$0	
				\$0	
Overhead	Percentage	45.0%	-	\$54,450	
				Utilities Total:	\$180,000

Construction					
Type	Unit	Unit Cost	Quantity	Total	Comments
Bridge & Approach Cost					
< 100' Span*	Square Foot	\$200	3888	\$777,600	
> 100' Span*	Square Foot	\$175		\$0	
State Approaches*	Foot	\$500	30	\$15,000	
County Approaches*	Foot	\$400		\$0	
*Costs do not include Excavation					
General Construction Costs					
Excavation	Cubic Yard	\$10		\$0	
Borrow	Cubic Yard	\$16		\$0	
Asphalt	Ton	\$85		\$0	
DGA	Ton	\$20		\$0	
Guardrail	Foot	\$15		\$0	
Misc.	Percentage	15.0%	-	\$118,890	
< 30" Drain Pipe	Foot	\$50		\$0	
36" - 48" Drain Pipe	Foot	\$75		\$0	
54" - 96" Drain Pipe	Foot	\$300		\$0	
RCBC Culvert	Foot	\$200		\$0	
Quick Curb	Foot	\$65		\$0	
Concrete	Cubic Yard	\$75		\$0	Source: www.concretenetwork.com - National Average in 2008: \$75/cuyd
Traffic Signal	Each	\$140,000		\$0	New signals: \$30,000-\$140,000. Assuming high end for Pedestrian usage: (walkinginfo.org)
Project Engineering	Percentage	15%	-	\$136,724	
Contingencies	Percentage	5%	-	\$45,575	
				Construction Total:	\$1,100,000
				Total Estimate:	\$1,490,000