Application for I	Federal Assista	nce SF	-424				
* 1. Type of Submissi	ion: ected Application				If Revision, select appropriate letter(s): Other (Specify):		
* 3. Date Received: Completed by Grants.gov	/ upon submission.	4. Appli	cant Identifier:	_			
5a. Federal Entity Ide	ntifier:				5b. Federal Award Identifier:		
State Use Only:					1		
6. Date Received by	State:		7. State Application	lde	dentifier:		
8. APPLICANT INFO	ORMATION:						
* a. Legal Name: <sub>C:</sub>	ity of St. Cha	rles,	Missouri	_			
* b. Employer/Taxpay 436003120	/er Identification Nur	nber (EIN	J/TIN):	I	* c. Organizational DUNS: 8310464820000		
d. Address:				_	•		
* Street1: Street2: * City:	* Street1: 200 North Second Street Street2:						
County/Parish:	St. Charles C	ounty					
* State: Province:				_	MO: Missouri		
* Country:					USA: UNITED STATES		
* Zip / Postal Code:	63301-2851						
e. Organizational U	nit:						
Department Name:				Τ	Division Name:		
Engineering Dep	partment						
f. Name and contac	t information of p	erson to	be contacted on m	atte	tters involving this application:		
Prefix:     Mr.       Middle Name:		]  ]	* First Nam	э: 	Brad		
Title: Director c	of Engineering			_			
Organizational Affiliat	lion:						
* Telephone Number	* Telephone Number: 636-949-3237 Fax Number: 636-940-4601						
* Email: brad.tem	nme@stcharlesc:	itymo.	Jov				

Application for Federal Assistance SF-424
* 9. Type of Applicant 1: Select Applicant Type:
C: City or Township Government
Type of Applicant 2: Select Applicant Type:
Type of Applicant 3: Select Applicant Type:
* Other (specify):
* 10. Name of Federal Agency:
Department of Transportation
11. Catalog of Federal Domestic Assistance Number:
20.933
CFDA Title:
National Infrastructure Investments
* 12. Funding Opportunity Number:
* Title:
FY 2020 National Infrastructure Investments
13. Competition Identification Number:
BUILD2-FY20
Title:
FY20 BUILD GRANT
14. Areas Affected by Project (Cities, Counties, States, etc.):
Add Attachment         Delete Attachment         View Attachment
t 45. Description Title of Applicantle Designts
* 15. Descriptive Title of Applicant's Project: Bangert Island Riverfront Transformation Project at Riverpointe
Attach supporting documents as specified in agency instructions.
Add Attachments         Delete Attachments         View Attachments

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Application	for Federal Assistance SF-424					
16. Congressi	ional Districts Of:					
* a. Applicant	MO-003		* b. Program/	Project MO-003		
Attach an addit	ional list of Program/Project Congressional Dis	tricts if needed.				
		Add Attachment	Delete Attac	hment View Attachment		
17. Proposed	Project:					
* a. Start Date:	10/01/2020		* b. Er	nd Date: 03/01/2022		
18. Estimated	Funding (\$):					
* a. Federal	25,000,000.0	00				
* b. Applicant	11,118,165.0	00				
* c. State	6,000,000.0	00				
* d. Local	14,611,487.0	00				
* e. Other	10,028,670.0	00				
* f. Program In	.come 0.0	00				
* g. TOTAL	66,758,322.0	00				
b. Program b. Program c. Program Yes If "Yes", provi	plication was made available to the State u m is subject to E.O. 12372 but has not been m is not covered by E.O. 12372. plicant Delinquent On Any Federal Debt? No de explanation and attach ng this application, I certify (1) to the state ue, complete and accurate to the best of any resulting terms if I accept an award. I a	(If "Yes," provide exp Add Attachment ements contained in t f my knowledge. I als	for review.	ment.) hment View Attachment tions** and (2) that the statements quired assurances** and agree to		
subject me to	<b>criminal, civil, or administrative penalties</b> E pertifications and assurances, or an internet s	. (U.S. Code, Title 218	, Section 1001)			
Authorized Re	epresentative:					
Prefix:	Mr. *	First Name: Daniel				
Middle Name:	J.					
* Last Name:	Borgmeyer					
Suffix:						
* Title:	ayor					
* Telephone Nu	umber: 636-949-3269		Fax Number: 636	-949-3275		
* Email: dan.	* Email: dan.borgmeyer@stcharlescitymo.gov					
* Signature of A	Authorized Representative: Completed by Gran	ts.gov upon submission.	* Date Signed:	Completed by Grants.gov upon submission.	]	

## ATTACHMENTS FORM

**Instructions:** On this form, you will attach the various files that make up your grant application. Please consult with the appropriate Agency Guidelines for more information about each needed file. Please remember that any files you attach must be in the document format and named as specified in the Guidelines.

Important: Please attach your files in the proper sequence. See the appropriate Agency Guidelines for details.

1) Please attach Attachment 1	2020buildinfoform.xlsx	Add Attachment	Delete Attachment	View Attachment
2) Please attach Attachment 2	2020 Narrative (2020-05-18).p	Add Attachment	Delete Attachment	View Attachment
3) Please attach Attachment 3	BCA.xlsm	Add Attachment	Delete Attachment	View Attachment
4) Please attach Attachment 4	A_BCA Summary.pdf	Add Attachment	Delete Attachment	View Attachment
5) Please attach Attachment 5	B_Financial and Property Acqu	Add Attachment	Delete Attachment	View Attachment
6) Please attach Attachment 6	C_TIP.pdf	Add Attachment	Delete Attachment	View Attachment
7) Please attach Attachment 7	D1_Support.pdf	Add Attachment	Delete Attachment	View Attachment
9) Please attach Attachment 9	E_Schedule.pdf	Add Attachment	Delete Attachment	View Attachment
10) Please attach Attachment 10	F_Estimate.pdf	Add Attachment	Delete Attachment	View Attachment
11) Please attach Attachment 11	G_Funding Commitments.pdf	Add Attachment	Delete Attachment	View Attachment
12) Please attach Attachment 12	H_Plan Sheets.pdf	Add Attachment	Delete Attachment	View Attachment
13) Please attach Attachment 13	I_Press & Public Outreach.pdf	Add Attachment	Delete Attachment	View Attachment
14) Please attach Attachment 14	J_Draft Environmental.pdf	Add Attachment	Delete Attachment	View Attachment
15) Please attach Attachment 15	K_Certified Appraisals & Katy	Add Attachment	Delete Attachment	View Attachment

The following attachment is not included in the view since it is not a read-only PDF file.

Upon submission, this file will be transmitted to the Grantor without any data loss.

2020buildinfoform.xlsx



amo

OB CREATING PROJECT

# BANGERT

APPLICANT: City of Saint Charles, Missouri

PROJECT TYPE: Road and Bridge | Bike & Pedestrian Environmental Restoration

CONTACT: Brad Temme, P.E. Director, Department of Engineering 200 North Second Street Second Floor, Room 202 Saint Charles, MO 63301-2851 (636) 949-3237 brad.temme@stcharlescitymo.gov www.bangertisland.com

> Total / Requested Amount \$66,758,322 / \$25,000,000

BANGERT ISLAND RIVERFRONT TRANSFORMATION PROJECT AT RIVERPOINTE

USDOT BUILD DISCRETIONARY GRANT PROGRAM MAY 2020

CITY OF SAINT CHARLES, MISSOURI

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Appendix A: Benefit-Cost Analysis Summary (Excel Document Provided) Appendix A1: Benefit-Cost Analysis Spreadsheet Appendix B: Financial and Property Acquisition Commitment Letter Appendix C: TIP Commitment Letter Appendix D1: Letters of Support Appendix D2: Tenant Letter of Intent Appendix E: Project Schedule Appendix F: Cost Estimate Appendix G: Funding Commitments Appendix H: Plan Sheets and Technical Plates Appendix I: Press & Public Outreach Appendix J: Draft Environmental Appendix K: Certified Appraisals & Katy Trail Relocation Appendix L: Utility Coordination



# I. Project Description

Upon the banks of the Missouri River in St. Charles Missouri, William Clark and Meriwether Lewis set forth to discover the western frontier on May 21, 1804. The history and future of St. Charles is tied to the Missouri Riverfront. Historic Main Street in St. Charles served as the State Capitol from 1821 to 1826 and as a center for economic prosperity and growth for the developing nation. As the western development of this great nation occurred, development along the City of St. Charles riverfront remained isolated to approximately one quarter of the City's total riverfront due to impacts from a changing river and poor access to the rapidly developing new modes of transportation. Today St. Charles is prepared to unlock the potential of expanded riverfront development, and by doing so will create a center for economic activity for the St. Louis metropolitan region. The Bangert Island Riverfront Transformation project, known locally as the "Riverpointe Development", will create approximately 4,000 jobs and stimulate approximately \$1.5 billion in growth.

The City of St. Charles has been working diligently to free a quarter of the City's riverfront from the constraints that have left this area blighted and underutilized for almost 200 years. In 2008 the City began efforts to reinvigorate 1.6 miles of riverfront located south of Interstate 70, which carries approximately 1 million vehicles a week, to the Family Arena. The City has partnered with the United States Army Corps of Engineers to do extensive river modeling and hydraulic design to ensure that the project will improve both the economic activity of the region and the environmental resources along the Missouri River. During the past 10 years the City of St. Charles has invested a significant amount of resources and time into the project and the City has acquired property to work with the United States Army Corps of Engineers and is currently poised to move forward with the riverfront development.

In 2019, the City of Saint Charles applied for the USDOT BUILD Grant for the Riverpointe Project. The City's application received a rating of "Highly Recommended" and "Moderate Risk." Following a debriefs with senior USDOT officials, the City moved forward to improve the application and reduce the level of risk associated with the implementation of the project and provide a more shovel ready project.

Since the 2019 application the City has addressed specific BUILD Grant debrief guidance including:

- 1. Acquiring all property in the Phase 1 area (\$3.5M non-federal investment)
- Continuing roadway construction, including completion of 2.8 lane-miles of arterial roadway and 0.7 miles of sidewalk (\$1.6M non-federal investment)
- 3. On-site tree clearing, site grading, building demolition and utility relocations (\$1.2M non-federal funding)
- 4. Refined design of basin including sediment transport and hydraulic modeling (\$1M non-federal investment)
- 5. Completed phases of design including survey for all phases, geotechnical borings, mass grading, utilities, roadways. Continuing remaining design. (\$1.6M nonfederal investment)
- 6. Coordination with Missouri State Parks for Katy Trail relocation (land lease exchange agreement)
- 7. Continued permitting efforts including USACE Jurisdictional Water Determination, USFWS Endangered Species Coordination, NEPA materials preparation
- 8. Completed magnetometer survey, test pits, and historical research for Section 106 Coordination with MDNR State Historic Preservation Office preliminary clearances received
- 9. Continuing private utility relocations including scheduling major Ameren transmission main relocation and Cell tower relocation
- 10. Coordination with FHWA Regional Office

However, with all of this forward movement, challenges still exist in making this plan a reality. Investment in key transportation infrastructure to feed the area remains partially unfunded. Without investment this area will likely remain dormant for many years and will remain choked by environmental degradation caused by channelization of the Missouri River.

The City of St. Charles, State of Missouri and St. Charles County are poised to invest a significant amount of nonfederal revenue for transportation infrastructure.

# Together, the local project sponsors have invested \$8.9M in the project to date.

The project will connect and enhance the surrounding investments in the City. Located north of the project area is Historic Main Street and Ameristar Casino and Hotel Complex, just west of the project lies the Streets of St. Charles Development, and on the southern end the project is bounded by the Family Arena. In particular, portions of Historic Main Street suffer from car-centric development where residents will commonly drive from short distances only to struggle to find a place to park within a 2-block radius of their final destination. In addition the Katy Trail State Park, the longest rails to trails conversion in the country, runs directly through the project area adding to the profound impact that the transformation of this area will have on regional, statewide and national travelers. The St. Charles Convention Center will also enhance the usage of the proposed multi-use development area.

The \$25M infrastructure investment requested from USDOT BUILD funds will match a massive \$40M local Private, City, State, and County investment to create accessibility to the area by constructing over 8 lane miles of new roads, new signals, new street lighting, bicycle and pedestrian infrastructure, transit improvements, green infrastructure, reconstruction of the existing inadequate roadway infrastructure located along Arena Parkway which runs the perimeter of the project, and creating stormwater control and flood protection from the Missouri River.

In 2018, the master plan was completed for the development of Riverpointe at the Bangert Island Riverfront, and has been phased to prioritize quick implementation of \$65M in public infrastructure to support 120 acres of job creating development. While planned as a mixed-use development is focused on attracting high quality office, entertainment, dining, and family focused tenants that will increase tourism in the region and support existing businesses on Historic Main Street and Streets of St. Charles. The City has started on Phase 1 of the improvements, and filling the development with tenants.



Utility work and grading is underway at Phase 1 of the project

While the City has been working on this project for over a decade, the project has gained momentum and started construction in the past 2 years. The City has proved it can deliver the project by continuing to advance construction, design, environmental clearances utility improvements, property acquisition, and permitting.

This investment will create approximately 6.7 million square feet of prime development ground located within the urban core of the fastest growing County within the State of Missouri (+10.3% population since 2010). The Missouri State Office of Administration projects even greater long term growth in St. Charles County which is estimated to realize 75.8% growth between 2000 and 2030. However, much of the County's growth has been west of the City of St. Charles which has contributed to longer commutes. Requested BUILD funds are intended to provide the infrastructure necessary to provide equitable access to middle class jobs, spur economic activity and access to the diverse business community. The improvements will strengthen the urban core of St. Charles County and provide a foundation for the future growth and success of the region.

#### CITY OF SAINT CHARLES, MISSOURI | MAY 2020

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# **Project Highlights**

Provides critical vehicular and multimodal transportation infrastructure to spur new and sustainable development

Creates an estimated <u>\$1.5 billion</u> impact to the local economy and will create <u>4,000</u> new jobs according to IMPLAN modeling

Restores sensitive aquatic habitat in an area damaged by Missouri River channelization

Enhances access to existing major regional riverfront attractions

Growth in the urban core creates travel time savings, operational cost savings, reduced accidents, and reduced vehicular emissions

Significant growth in property value, and sales to surrounding businesses

Elimination of repetitive flood damages caused by degradation of the side channel chute and elevation of the surrounding property

Replaces obsolete poor quality existing roadway infrastructure with new sustainable infrastructure

Leverages multijurisdictional transportation investments to generate economic stimulus, new jobs, and increased mobility for all citizens

BUILD funding will complete missing components needed to create 4 miles of new roadways, 5.8 miles of reconstructed roadways, 14 miles of new sidewalks, 1.6 miles of new or improved trails, 1.6 miles of new transit facilities, and 100 acres of high value development.

This project serves a population within walking (1/4 mile) and biking (3 miles) distance of approximately 100,000 people, 10,000 students, and more than 40,000 employees and is located adjacent to Interstate 70 which carries approximately 1 million vehicles per week. The project will contain the following key components:

#### New Roadway Infrastructure and ADA sidewalks

• Lombard Street Extension from South Main Street to new roundabout.

- New Phase 1 loop road from Old South River Road to Lombard roundabout to Old South River Road
- Old South River Road Reconstruction from South Main Street to South River Road, including new bridge.
- Phase 2 loop roadway from Old Friedens/ South River Road intersection to Arena Parkway
- Phase 2 entrance roadway from Arena Parkway to Family Arena
- New Phase 2 interior roadway from the Phase 2 loop road to the Phase 2 interior entrance roadway.

#### **Reconstructed Roadways and ADA sidewalks**

• Old South River Road from South Fifth Street to south of Friedens Road

#### **Off street Trail Facilities**

• Reconstruction of 1.6 miles of flood prone Katy Trail through Phase 1, 2, & 3 built at an elevation above the 500 year floodplain

#### **New Transit Facilities**

- New transit service from the SCAT hub located at Clark Street and Riverside Drive to development area
- Adjacent Transit Parking project will construct new transit parking under Interstate 70 bridge using Federal Congestion Mitigation and Air Quality "FAST Act" funds
- Design includes planning for future implementation of innovative autonomous trolley that would run 1.7 miles from American Car Foundry (ACF) to development

#### Flood Mitigation & Water Quality Improvements

- 120 acres of ground directly removed from flood damages by elevation.
- New water quality basins will create aquatic habitat to mitigate damage caused by river channelization.
- Water quality basins will more than offset any impacts of increased development and roadway construction



Riverfront Development will stimulate economic activity (Phase1)

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#### CITY OF SAINT CHARLES, MISSOURI | MAY 2020

Project Costs	
New Roadway Construction:	\$ 41,446,834.86
Roadway Reconstruction:	\$3,711,487
On-Street Bicycle / Pedestrian Facilities:	\$2,620,000
Off Street Trail Facilities	\$7,810,000
New Transit Facilities	\$500,000
<u>Flood Mitigation &amp; Water Quality</u> <u>Improvements</u>	<u>\$10,670,000</u>
Total Project Costs	\$ 66,758,322.11
Sources of Funding	
Non-Federal BUILD Match	\$39,758,322
Federal BUILD Request	\$25,000,000
Non-Federal U.S. Army Corps of Engineers Grant Match	\$1,000,000
Federal U.S. Army Corps of Engineers Grant	\$1,000,000
Federal Funding	39%
Non-Federal Funding	61%

\* Costs include property acquisition, design, and utility work

This project will transform the Riverfront in St. Charles into an economic center of growth and prosperity by providing access to land parcels that have been constrained by environmental degradation.

This project provides increased access to major attractions and employers including the \$385M Streets of Saint Charles mixed-use development, the Family Arena, Historic Main Street St. Charles, Ameristar Casino Hotel and Spa.

In short, this project provides primary access to thousands of regional jobs, services, and amenities and is strategically positioned amid the most dense and mixed-income neighborhoods in the entire county.

This project brings calculated benefits of over \$111M, for an overall Benefit to Cost Ratio (BCR) of 2.05 at a 7% discount rate.

When zoning, utilities, and the increase in adjacent property values are taken into account, the benefits are benefits are over \$159M, for an overall BCR of 2.92 at a 7% discount rate. While these items may not be directly related to transportation, they are included in the City's project, and should be considered when discussing the benefits of the Project.

Please visit www.BangertIsland.com for video testimonials from project supporters, fly through videos, before and after point of view renderings, and for more information.

## **II. Project Location**

The Bangert Island Riverfront Transformation Project at Riverpointe is situated along the Missouri River near the confluence of the Mississippi and Missouri Rivers. St. Charles and St. Louis Counties are the two largest counties in the St. Louis area, and are separated by the Missouri River. St. Charles was the kick-off point for the 1804-1806 Lewis and Clark expedition, and played a key role in the settlement of the western United States. Founded in 1765, the cultural heritage of Saint Charles lives on through its historical museums, festivals, and the nationally known Historic Main Street St. Charles which attracts over a million visitors a year.



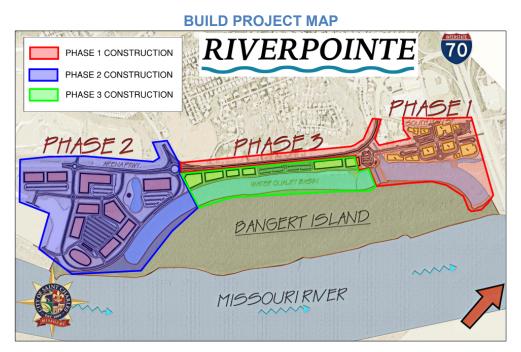
St. Charles skyline at sunset http://www.greatriversgreenway.org/photodetails.aspx?tabid=237&photoid=170

Four freeways and major river crossings connect auto oriented travel between St. Louis and St. Charles Counties. Immediately north of the project, I-70 is the largest of the four river crossings and carries 153,994 vehicles a day. The City of St. Charles, St. Charles County, and MoDOT recently reconstructed the adjacent 5<sup>th</sup> Street interchange and upgraded the infrastructure to 21<sup>st</sup> Century standards. Additionally, the I-70 Fairgrounds to Cave Springs Interchange project has been programmed by EWGCOG and MoDOT and is fully funded. Improvements to both the 5<sup>th</sup> Street Interchange and upcoming I-70 project will providing the motoring public a safe and efficient access to the project location.

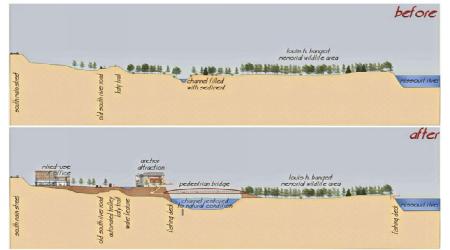
The Katy Trail, a popular 237 mile cross state trail that runs along the St. Charles side of the Missouri River, is at the center of the project area. Unfortunately the Katy Trail is subject to Missouri River flooding in the project area and

Page 5

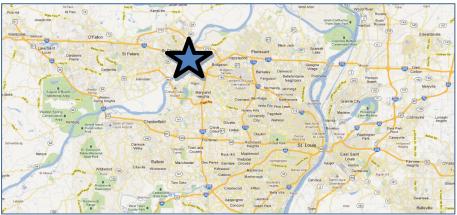
#### CITY OF SAINT CHARLES, MISSOURI | MAY 2020



**PROJECT CROSS SECTION** 



#### **PROJECT LOCATION MAP**



is disconnected from the surrounding existing development by significant grade difference.

The project area is an economic hub for both Saint Charles and St. Louis Counties and the greater Saint Louis region. As such, it offers the region's highest potential return on investment for transportation infrastructure. St. Charles is home to more than 60,000 residents and provides more than 24,000 jobs. While situated in a more rural St. Charles County, the City of St. Charles is located within the St. Louis, MO-IL Urbanized Area Census Area.

St. Charles has worked for over 10 years with the Corps of Engineers to develop a solution that unlocks the enormous potential of the Bangert Island Riverfront area. Extensive Missouri River modeling studies have been conducted by the Corps and the have determined that excavation of the historic slough area will not impact navigation on the Missouri River. The City negotiated the purchase of Bangert Island in order to become the cooperative landowner to allow the Corps project to move into final design. However, while the project has been considered for several Corps funding programs, it has been delayed by the changing habitat restoration science. Currently the Corps continues to assist the City through their Planning Assistance to States (PAS) program to advance preparation of the NEPA materials and project design.



Governor Mike Parson, County Executive Steve Ehlmann, and City of Saint Charles officials after a productive meeting on the Bangert Island Riverfront

# III. Grant Funds, Sources, and Uses of all Project Funding

The FY 2020 BUILD grant funds will be matched with local non-federal funding from various funding mechanisms as described in the "Non-Federal Revenue for Transportation Infrastructure" of this report. As described previously, the City of Saint Charles will draw from Proposition P

existing Stormwater Funds, City Street Gaming Funds, Private Investments, and Water & Sewer Funds. The project will also draw on St. Charles County's <sup>1</sup>/<sub>2</sub> cent Sales Tax for Roads and Bridges. The State of Missouri has also awarded the project a total of \$6M funding. The requested BUILD Grant funding of \$25M will be matched by \$40.8M non-federal dollars that will generate a \$1.5 billion economic impact on the region and create 4,000 new jobs.

> The Project has formed partnerships across the Federal, City, and State levels as well as the private sector to bring this project to fruition. Partnerships on the project include private developers and future tenants, U.S. Army Corps of Engineers, the State of Missouri, St. Charles County, community groups, the regional planning agency, business groups, and a vast amount of political support from our elected officials.

# **Public Partnerships**

Governor Mike Parson and his staff have met with the City and shared his enthusiastic support. In 2019 the Governor announced that it would provide \$5M in State Cost Share funding for the project, in addition to inviting the City to apply for funding from various State agencies on a competitive basis.

Additionally, in the 2019 State Legislative session, HB 19.130 earmarked \$1,000,000 in State of Missouri funding for the project. In the 2018 State Legislative session the Missouri House and Missouri State Senate passed a senate concurrent resolution of support (SCR 37) for the Project with 97% of those voting supporting the project. This overwhelming support from our State Legislature, paired with Governor Mike Parson's support and Lieutenant Governor Kehoe's support has been instrumental in our pursuit of this pivotal project.

U.S. Senators Roy Blunt and Josh Hawley have been instrumental in their support with state and federal agencies throughout the decade long project. U.S. Congressman Blaine Luetkemeyer has assisted in the partnership with the U.S. Army Corps of Engineers to ensure the project provides economic, environmental, and flooding benefits without affecting the navigational capacity and qualities of the main channel. Additionally, the City has coordinated with Congressman Graves and Congresswoman Ann Wagner throughout the project.

## **Private Partnerships**

The City of St. Charles has moved forward with marketing the Riverpointe Development site to national investment grade tenants.

# **Financial Partners**

#### **City of Saint Charles**

The City of Saint Charles is the ninth largest city in the state of Missouri, and the second largest in Saint Charles County, with a population of 70,329 and had a \$142M appropriation budget in 2019. The City of St. Charles is committed to funding this project.

#### State of Missouri

In late 2019, Governor Mike Parson announced \$5M in Governor's Cost Share funds to support the development of Riverpointe. In 2020, the State of Missouri ear-marked \$1M in the State's annual budget to assist in funding the project. The City is also pursuing other funding programs.

#### **Corps of Engineers**

The Corps of Engineers continues to partner with the City of St. Charles on a \$2M Planning Assistance to States (PAS) grant. This work furthers refines the details of the responsible riverfront development plan and advances the preparation of NEPA materials.

#### St. Charles County Road Board

The St. Charles County Road Board is committed to funding this project with the assistance of BUILD funds. The St. Charles County Road Board was formed by a vote of the residents of St. Charles County in 1985 and has been reauthorized an additional 3 times by voters. This half cent sales tax promotes the expansion and construction of transportation infrastructure in St. Charles County.

# **Letters of Support**

In addition to the financial partners, there are many other partners assisting the region in realizing its dream to become a more sustainable community, promote healthy and active living, and provide non-motorized transportation alternatives, including Governor Mike Parson, Senator Roy Blunt, Senator Josh Hawley, and Congressman Blaine Luetkemeyer. The City has received unequivocal support from many community leaders, local businesses, local institutions, local non-profit agencies, and regional agencies (see Appendix for support letters).

**Regional Planning Agency:** East-West Gateway Council of Governments is supportive of the Project because it creates accessibility to this underdeveloped area through transportation improvements.

**Business Groups**: Large and small business alike support the Project including the Missouri Chamber of Commerce, the Missouri State Director of Economic Development Rob Dixon, Ameristar Casino, Cullinan Properties, Bike Stop Cafe, TR Hughes Development, Home Builders Association of St. Louis & Eastern Missouri, OPO Startups, Millstone Properties, Cushman Wakefield, and Drury Hotels as it will provide a catalyst for continued economic growth in the region.

Political Support: The project has enjoyed the enthusiastic support with Senator Roy Blunt and Senator Josh Hawley to advance the project. United States Congressman Blaine Luetkemeyer has been instrumental in garnering USACE support. Governor Mike Parson has provided support and extended multiple funding opportunities to the City. The project is supported by United States Representative Ann Wagner, County Executive Steve Ehlmann, Missouri State Senator Bill Eigel, Missouri State Senator Robert Onder, Missouri State Representative Chrissy Sommer, Missouri State Representative Tom Hannegan, Former State Senate Pro Tem Tom Dempsey and Saint Charles Mayor Daniel J. Borgmeyer.



Stakeholders are engaged on plan to improve stormwater conditions

Funding Source	FY 2018*	FY 2019*	FY 2020*	FY 2021	FY 2022	Total
2020 BUILD Grant (Ph. 1)				\$4,231,835.00		\$4,231,835
2020 BUILD Grant (Ph. 2)				\$16,760,347.61		\$16,760,348
2020 BUILD Grant (Ph. 3)				\$4,007,817.39		\$4,007,817
Federal - U.S. Army Corps of						
Engineers PAS Grant Ph. 1	\$100,000.00					\$100,000
Federal - U.S. Army Corps of Engineers PAS Grant Ph. 2	\$700,000.00					\$700,000
Federal - U.S. Army Corps of Engineers PAS Grant Ph. 3	\$200,000.00					\$200,000
Non-Federal: Private Investment Ph.1						<b>\$</b> 0
Non-Federal: Private Investment Ph.2				\$8,936,487.25		\$8,936,487
Non-Federal: Private Investment Ph.3				\$92,182.61		\$92,183
Non-Federal: Missouri Department of Natural Resources Ph. 1			\$156,014.40			\$156,014
Non-Federal: Missouri Department of Natural Resources Ph. 2			\$106,205.60			\$106,206
Non-Federal: Missouri Department of Natural Resources Ph. 3			\$737,780.00			\$737,780
Non-Federal: Missouri Governor's Cost Share Ph. 1			\$488,202.50	\$2,000,000.00	<b>\$2,511,797.5</b> 0	\$5,000,000
Non-Federal: Missouri Governor's Cost Share Ph. 2						<b>\$</b> 0
Non-Federal: Missouri Governor's Cost Share Ph. 3						<b>\$</b> 0
Non-Federal: City Road Ph. 1	\$2,568,165.00	\$1,050,000.00				\$3,618,165
Non-Federal: City Road Ph. 2						\$0
Non-Federal: City Road Ph. 3						\$0
Non-Federal: City Storm Ph.	\$100,000.00	\$121,655.00	\$478,252.50			\$699,908
Non-Federal: City Storm Ph.	\$700,000.00			\$1,846,959.54		\$2,546,960
Non-Federal: City Storm Ph. 3	\$200,000.00		\$292,234.00	\$260,898.96		\$753,133
Non-Federal: County Road Board Ph. 1	\$157,155.75	\$1,454,331.50		\$4,650,000.00		\$6,261,487
Non-Federal: County Road Board Ph. 2					\$6,000,000.00	\$6,000,000
Non-Federal: County Road Board Ph. 3				\$2,350,000.00		<b>\$2,350,000</b>
Non-Federal: City Water Ph. 1						<b>\$</b> 0
Non-Federal: City Water Ph. 2				\$250,000.00		\$250,000
Non-Federal: City Water Ph. 3			\$300,000.00			\$300,000
Non-Federal: City Sanitary Sewer Ph. 1			\$500,000.00			\$500,000
Non-Federal: City Sanitary Sewer Ph. 2				\$950,000.00	\$750,000.00	\$1,700,000
Non-Federal: City Sanitary Sewer Ph. 3					\$750,000.00	\$750,000
Total	\$4,725,321	\$2,625,986.50	\$3,058,689.00	\$46,336,528.36	\$9,261,797.50	\$66,758,322

Bangert Island Riverfront Transformation Project at Riverpointe Funding Sources by Phase, Amount, and Year

\* previously expended funds

The Project ties together significant efforts from a wide range of governments, businesses, and individuals to create a coherent and comprehensive transportation system that serves the community, leverages ongoing private and public investment, and encourages growth.

The Project is focused on creating the necessary infrastructure to create a place where economic recovery and access to all citizens can transform the riverfront from an unutilized flood fringe to a center for economic prosperity and new business. The project will overcome the physical barriers that limit access and use of the area.

# Why Now?

As the Country recovers from the economic impacts of the COVID-19 pandemic, the City of St. Charles has made difficult decisions in order to conserve funds and resources to best serve the community and region. However, the City has not relented on its stalwart pursuit of projects that will create jobs for the economy and result in long term growth. The City, County, and State have followed President Donald Trump's leadership in these difficult times, and are optimistic in moving towards a hasty recovery.

As USDOT' Secretary Elaine Chao mentioned in a recent interview with Bloomberg News, "the numbers are so devastating as far as unemployment filings, I have never seen these kinds of numbers when I was Secretary of Labor but that is is why the President talked about last Thursday getting the Economy back. Because even with all the trillions of dollars in assistance, the best thing to do is to get the economy back."

President Trump visited St. Charles in December 2017 to talk about tax reform and economic prosperity. During his visit, the President highlighted many of our local partners' efforts to create jobs and opportunity within St. Charles. St. Charles

is focused on creating an environment for growth and prosperity. Investing BUILD funds in the Project will build on the existing successes in St. Charles and create opportunity for future growth that will be an example for responsible riverfront development for the rest of the nation.



President Trump holds rally at St. Charles Convention Center (politifact)

Even though St. Charles has been able to continue growth in the community through the Streets of St. Charles and other developments, development potential is waning due to the lack of availability of sites without constraints for development. Although the potential for Riverpointe is unmatched, the project site would be very difficult for a private developer to accomplish without the support and assistance of the City of St. Charles, the U.S. Army Corps of Engineers, the St. Charles County Road Board, State of Missouri, and BUILD.

Strong anchors for success exist surrounding the Project area. Successful established businesses and attractions neighboring the project area will drive the rapid development and success of Riverpointe. Complementary businesses and development will increase the potential of the existing businesses and will create a win-win for the entire area.



Ameristar Casino Resort and Spa St. Charles

# Addressing the Problem: Infrastructure Availability

A major impediment to the development of the Riverpointe Project and the surrounding area is the lack of existing infrastructure. Infrastructure investment in this area has been neglected due to the flooding impacts from the Missouri River.

A majority of the project area is cut off from the surrounding roadway network, with few connections to the urban arterial running along the perimeter of the project area (5<sup>th</sup> Street/South River Road/ Arena Parkway). Of the few connections, the two-lane low volume Old South River Road connects Arena Parkway to local driveways over a deteriorated bridge. These existing access points are inadequate for future growth and development of the area. They lack elevation that protects travelers and property owners from flooding. New elevated roadway connections are needed to bring access to this 325 acre area up to modern standards. New sidewalks and trails are needed to connect the Katy Trail to the existing bicycle and pedestrian network.

Additionally, inadequate and poorly placed parking create impediments to the future growth of Historic Main Street. Although the City has recently invested in pedestrian improvements to help connect the Bangert Island Riverfront to Historic Main Street and the Ameristar Casino, the area lacks connectivity that would otherwise be made for pedestrian friendly walkable attractions. The St. Charles Area Transit System (SCAT) does not currently provide an efficient direct connection between Historic Main Street to Riverpointe.

The Project will build approximately 4 miles of new roadways, and improve and elevate almost 6 miles of existing roadways. The improved roadway system will include street lights, traffic signals, curb and gutter, aesthetic enhancements, and other improvements. These new and reconstructed roadways will be constructed with bicycle and pedestrian improvements, and will additionally complement and supplement trail improvements linking to the Katy Trail. In addition to the vehicular improvements, a trolley connection will be created to link this activity node to Historic Main Street and adjacent Streets of St. Charles. A separately funded \$1.3M Federal Congestion Mitigation and Air Quality "FAST Act" project will install transit parking under Interstate 70, create another pedestrian connection to the Katy Trail, and provide infrastructure to further connect the improvement to the St. Charles Area Transit system. This system provides access throughout

the City of St. Charles and also links to METRO that provides additional transit access throughout the St. Louis metropolitan area.

Roadway construction will follow state and national standards, sidewalks and trails will be constructed to meet federal ADA guidelines for accessibility. The City of St. Charles staff has been LPA certified by the Missouri Department of Transportation to manage federally funded projects.



Riverpointe Phase 1 site improvements

The Riverpointe Phase 1 project area lies immediately adjacent to the successful Streets of St. Charles development. The site will be raised to the same elevation of the Streets of St. Charles which is above 500-year flood levels and has direct access to the existing arterial road network. Over the past 10 years the Streets of St. Charles site has transformed from a blighted motel into an anchor for regional growth; the City plans for a similar transformation for the adjacent Riverpointe development. The City has worked closely with Cullinan Properties, developer of the nearly complete 27 acre Streets of St. Charles, to ensure the adjacent developments are complementary without cannibalizing existing growth.

Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD

The City is currently in discussions with multiple tenants for the development of the southern Phase 2 area that would perfectly complement the existing Family Arena. But similar to other portions of the development require investment in roadway infrastructure in and around the Family Arena.

The roadway infrastructure will additionally improve traffic movement when this significant traffic generator is drawing traffic and releasing traffic onto the surrounding roadway network. Completion of the BUILD funded project will allow quick and easy access to Interstate 70 located north of the Family Arena and to Route 364 to the south. Additionally, turn lanes are needed along Arena Parkway

Phase 3 of the project area brings an exciting mixed use and entertainment venue to the region.

The Riverpointe Phase 2 area will invigorate the area surrounding the Family Arena. Currently the Family Arena sits isolated from surrounding development. In 2016 the Arena generated approximately \$7 million in revenue but almost \$9M in expenses for the County, who owns the Family Arena. In recent years, several unsolicited offers to purchase the arena have been received, but have undervalued the benefits the Arena could provide to the region. Without investment to spur redevelopment of the next-door Riverpointe Phase 2 industrial properties, the Family Arena will continue to fail to attract the private investment necessary to transform this struggling community resource into a thriving center of activity.



Family Arena (www.stltoday.com)

# Addressing the Problem: Environmental Sustainability

The Project is located in an environmentally impacted area. The improvements proposed by the project will repair and improve the environmental resources in the project area while creating great opportunity for economic growth.

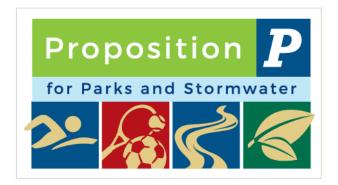
On page 4 of the 2001 Bangert Island HSR Model Missouri River Miles 34.3 to 28.1 Final Report written by the U.S.

description reads:

"Bangert Island at River Mile (RM) 31.1 to RM 29.0 on the Missouri River was once an island separated from the bluff at St. Charles by a side channel. However, closure structures were constructed in the 1930s and 1940s that likely led to deposition within the side channel. The deposition choked the original side channel entrance to the point of closure by 1980 and effectively reattached Bangert Island to the bluff. At the time of this study, only portions of the side channel conveyed water to drain Bangert Island and nearby St. Charles neighborhoods along the adjacent bluff.

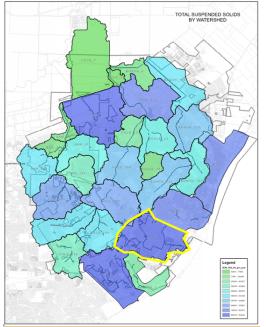
The closure of the side channel led to the loss of environmental features in this reach of the Missouri River. The side channel provided flow diversity not available in the main river channel. The flow diversity allowed for off river habitat for various aquatic species. The island itself acted as a predator-free habitat for avian species. Before side channel closure, the Bangert Island area had considerably more sandbar areas that are attractive to various species; these have since been buried under plant life and woody debris."

On August 2, 2016 City of St. Charles voters overwhelmingly approved Proposition P. Proposition P is a half-cent sales tax over 15 years that funds Parks (1/3)and Stormwater (2/3) improvements within the City of St. Stormwater improvements proposed under Charles. Proposition P address both water volume and water quality issues within the City.



In anticipation of vote, the City completed a Comprehensive Stormwater Masterplan in April 2015. The Stormwater Masterplan identified volumetric stormwater improvements along Crystal Springs Creek which feeds into the Missouri River via the Bangert Island

Army Corps of Engineers - St. Louis District the problem chute as well as stormwater quality improvements based on environmental impact. The following exhibit shows the total amount of suspended solids within the City by watershed. The Crystal Springs watershed was identified by the 2015 Comprehensive Stormwater Masterplan that feeds into the Riverpointe area has the highest concentration of suspended solids in the City. The Riverpointe Project will create natural filtration that will remove these pollutants from the water entering the new water quality basins and ultimately the Missouri River. The completion of the project will create approximately 60 acres of high quality riparian area. These basins will also help reduce the downstream head elevation and provide volumetric relief to residents who live upstream of the project area on Crystal Springs creek who experienced unprecedented flooding in 2011 and 2013 when localized strong storm events occurred in the area.



Stormwater Quality Map of Total Suspended Solids

The water quality basin improvements also provide the material needed to make stormwater improvements to the embankment ground and proposed roadway network. This material will be transported on site to the Phase 1 area, screened, placed, and compacted to roadway construction standards to provide flood mitigation (see the project cross section on Page 6 for a pictorial description). At the completion of the project this area will provide an amenity and a functional water quality improvement for the entire area that will offset impacts from the project and throughout the watershed.



Rendering of the type of smart growth and sustainable development implemented with the riverfront development project

# Addressing the Problem: Flood Mitigation

The Project will directly raise over 100 acres of ground to remove it from flood risk. This removal will additionally benefit another 182 acres adjacent to this project area that will be removed from flood risk by providing protection from river flooding through elevation improvements to the ground between the river and the benefitted properties. The impact of this transformation coupled with transportation infrastructure investment will create an opportunity for growth that is unparalleled in the region or the State.



Existing buildings along S. River Road routinely flood, most recently in 2017 and 2019.

Significant storm events in 2011, 2013, 2017, and 2019 caused flooding damage that impacted residents in and adjacent to the Riverpointe project area. Public support for stormwater improvements proposed by the City's Proposition P was overwhelming (64% approval). Recent surveys showed that 97% of residents "believe the City is delivering on the promises made from the Prop P program." The passage of Proposition P provides the City with the opportunity to put these funds to work in concert with infrastructure investment from the BUILD program coupled with State and local funding to produce a landmark project with multifaceted benefits.

A reduction in the tailwater elevation along Crystal Springs Creek will also help reduce the catastrophic flooding that the City experienced in 2011 and 2013 upstream of the project area. As the side channel chute filled in from the 1930s and 1940s until closure in the 1980s the tailwater of Crystal Springs creek was negatively impacted creating less vertical drop to covey water over a much longer and flatter distance to the Missouri River. The excavation and creation of the basin will aid in the restoration of prechannelization conditions that were seen on Crystal Springs creek prior to the 1930s and 1940s.



Crystal Springs Creek Flooding upstream of Riverpointe Project Area

A necessary consideration when intensifying land use is the control of stormwater runoff from the site. The Project will make the necessary volumetric stormwater detention improvements needed to offset the proposed hard surface infrastructure development. These improvements will complement the improvements noted above for water quality purposes, and provide an environmentally responsible design for riverfront improvement.

# **IV. Selection Criteria**

# **Primary Selection Criteria**

Because of the planning and forethought invested into this project since the initial concepts were proposed over a decade ago, this project has transformed into a multifaceted project that naturally fits the criteria for the 2020 BUILD Grant. This initiative combines a multimodal infrastructure project to serve permanent job creation for this riverfront development. It includes transit, pedestrian infrastructure, road and bridge construction, and intersection safety improvements supported by a combination of private and local non-federal investment.

While similar projects may be hampered by environmental opposition, this project has roots in a creative idea advanced by the U.S. Army Corps of Engineers to address critical aquatic habitat and stormwater quality issues in the area.

"What? A river development good for environment" proclaims the 2010 Post-Dispatch column about Bangert Island development. This headline captures the complexity and diversity that makes the project align perfectly with the 2020 Build Grant selection criteria. This project will be a model of the innovative approach the US Department of Transportation has requested to change the way infrastructure is built, financed, and maintained.

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The project will provide numerous long term benefits to the region. This project benefits the region in each merit selection criteria category. This project provides a once in a generation opportunity to couple innovative infrastructure construction with critical environmental restoration work. The project will be a catalyst to promote increased physical activity and healthier lifestyles, decrease long-term needs on suburban infrastructure costs, and create a desirable, high density mixed use environment for decades to come.

Although this project delivers benefits in each of the primary selection criteria, several are not monetized. Certain benefits are difficult to quantify without making extensive assumptions – consistent with USDOT guidance, this analysis remains conservative and does not try to monetize these benefits but instead describes qualitative benefits.

# **Economic Competitiveness**

Smart Growth Travel Time Savings, Reduced Auto Use, Property Values

#### Benefit: \$331,766,000

First and foremost, this project will be a tremendous economic force in the region. According to IMPLAN Economic Impact Analysis, when complete, it is estimated the 120 acre development will create 4,000 new jobs for the region and have a 1.5 billion dollar economic impact. Although this conservative very reliable estimate is helpful for planning purposes, it is likely grossly underestimating

the final employment of the development since the first 16 acres are expected to support around 2,600 jobs. Importantly, the project will also increase the regions attractiveness to businesses by creating more dense pedestrian friendly development that encourages living, working, and playing locally. This type of multi-use development will change the tide on the regions ability to attract national and international employers.

Recently, the St. Louis metro area has failed to attract the top national and international employers to the region. The primary reason for the regions inability to compete against other cities across the nation is due to lack of development friendly locations with excellent road, pedestrian, transit infrastructure in place; this development would change the tide, and singlehandedly create a development that will draw the best and the brightest international talent. Recent discussions with national investment grade developer has made clear the huge demand for upscale sustainable office, residential, and entertainment space. This project will position the St. Louis metro area to become the Silicon Valley of the Midwest.

The proposed development is bounded by successful job creating developments. The Family Arena, Streets of St. Charles, Ameristar Casino all draw people to the region, but are left disconnected, geographically and economically, from each other. The Family Arena, owned and operated by project partner St. Charles County, is located on the southern end of the development. The Family Arena is a 10,000 person event center hosts concerts, conventions, sporting events. The development detached from any supporting development, including dining, lodging, employment, and secondary entertainment; Family Arena guests are forced to travel by car from locations around region.



Photo of the St. Charles County owned Family Arena

Even though the Arena is located adjacent to the Katy Trail, the Nation's longest rail-to-trails conversion, the Family Arena is not currently easily accessible to bicyclists or foot traffic. Despite all these shortcomings, St. Charles County has recently been approached by private entities interested in purchasing the Arena. This offer signals the understanding of the economic potential of the development site. The project will make the Arena more attractive to national events, and will give it the infrastructure necessary to host large sporting and concert events.

Near the northern end of the project, Cullinan Properties began development at Streets of St. Charles in 2008 and quickly established itself as a primary entertainment destination in the Midwest. With excellent surrounding amenities and careful planning, the Cullinan Properties' development managed to thrive during the Great Recession that destroyed economic growth in so many locations across the nation.



Photo of Streets of St. Charles Development Summer Concert Series As a community partner, Cullinan Properties is committed to ensuring continued growth that has already brought so much economic benefit to the region.

This mixed-use development to the west of Riverpointe provides more than 1 million square feet of dining, shopping, entertainment, residential, and office space. This selective 27-acre mixed use development has been successful in drawing highly sought employers from across the nation. A side effect of the nearly-full development is that otherwise attractive tenants have been turned away due to lack of space.

In addition to the City's successful ability to acquire high quality tenants of the Riverpointe Development, Cullinan Properties has approached the City and discussed the

expansion of Streets of St. Charles to the Riverpointe Project footprint. Cullinan has assisted the City in marketing space in Riverpointe at meetings and nationwide conventions, including the International Council of Shopping Centers annual Retail Convention (ReCON). Their promotional materials have marketed Riverpointe as opening in 2022.

Reconstruction of South River Road/Arena Parkway has been completed, construction of utility and site grading for Phase 1A, and NEPA materials preparation is underway. In 2021, the project will begin adding more jobs to the region, increasing to a total of 4,000. This project will attract businesses and workers to a presently vacant or underutilized property, thus providing additional stimulus for economic development within the region.

In addition to the previously discussed economic benefits, this project will also greatly reduce the number of regional vehicle miles traveled (VMT), thereby reducing the annual investment citizens are required to make in non-renewable resources (gas and oil). At present, nearly all of region is only accessible by automobile in spite of its relative density in the historic core. By reducing local car trips by leveraging dense multi-use developments, increasing active transportation trips, and expanding the opportunity for non-automobile commuting through new transit service connections this project will contribute to the reduction on reliance on foreign energy. The planning for a future addition of the autonomous electric trolley will make this development a true Transit-Oriented Development (TOD).

By providing a more efficient live-work-play environment, existing and new motorists will travel 25 million fewer per year, and are expected to save \$8.3M annually in vehicle operating costs. Additionally, existing and new drivers will save significant time driving. Calculated using USDOT guidance, it is expected that that motorists will spend 1 million fewer hours behind the wheel annually amounting to \$125M in time savings benefit Additional benefits derived from the reduction of vehicle miles traveled are further discussed in the subsequent sections. This type of multi-use development also reduces the need for the future federal-aid facilities and creates greater value for local public and private development. Additionally, "net new" value will be created by relocating development opportunities to this development that would otherwise occur in more generic (i.e., "placeless") auto-dependent greenfield sites.

#### Decreasing transportation costs and providing multimodal options will create more dollars spent in the local economy.

The compact, mixed-use development combined with the multi-modal transportation options will allow residents to live closer to employment centers and reduce private vehicle trips to get places. This will create a direct reduction in transportation costs per household per year. Multi-modal neighborhoods allow households to own none or one car (instead of two or three), freeing up expendable income for things like food and entertainment. By creating compact development and housing options near employment centers, or providing cheaper transportation options, more money can also be spent on local businesses.

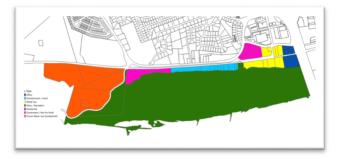
This project will create a highly functional multimodal development that will attract jobs, students, and investment from an international pool, ensuring that these key institutions will continue to be economically competitive through the delivery of very high quality services.

In addition to the direct jobs and economic benefits provided by Riverpointe, the Project will also encourage growth on surrounding parcels of land. Adjacent to the Phase 1, 2, and 3 developments is another 182 acres not currently developed to its highest and best use. This project will provide immediate benefits in terms of increasing land values to property owners, and encourage additional private investment.

Without the infusion of outside investment the BUILD Discretionary Grant would provide, onequarter of the City's riverfront will continue to develop in a way that is not consistent with the highest and best use. The 325 acre area will continue to flood and remain underutilized for years to come.

Certified appraisals are provided for the pre-developed conditions of the development. Because the Katy Trail provides some natural flood protection to land to the west, property west of the Katy Trail is estimated to have a market value of \$1.20 per square foot or \$52,272 per acre. On the other hand, certified appraisals showed that because the land east of the Katy Trail is heavily wooded, low lying, and more prone to flooding, it is expected to bring \$0.30 per square foot or \$13,068 per acre. Certified appraisals of the pad ready development sites showed the property can expect to garner \$13 per square foot or \$566,000 per acre.

It is important to note that although costs for annexation, subdivision, zoning, flood map revisions, and other tasks may not be reimbursable USDOT BUILD Grant tasks, these items are included in the City's project. The City intends on rezoning to a Planned Development, Mixed-Use land use (PD-MU), and is in the process of creating associated documents, regulating plans, and other legal documents. Additionally the City is annexing properties into the City upon purchase, and plans to record a lot consolidation plat for the first phase of development. Certified appraisals are provided for each scenario as attachments of the Benefit Cost Analysis. Analysis shows a benefit derived from the direct improvement of parcels will be \$6.7M when only considering the roadway installation without rezoning. Although not included in the base scenario, this project will ultimately deliver pad ready sites, with utilities and zoned for Planned Development, Mixed Use. When considering this scenario, the project will generate over \$63M in property benefits.



Preliminary Regulating Plan dictating property use within the PD-MU zoning

Over the years, residents of the City of Saint Charles have seen multiple proposals for redevelopment of adjacent properties, including portions of the "old quarry" site across the street from the development. The private developments proposed over the years were unattractive to nearby residents, and would have damaged property values in the area for years to come.



Residents oppose unpopular waste transfer center proposal near Family Arena

"The City has talked about developing that whole area into some kind of riverfront project for the past five or ten years. Putting a trash transfer station in that proximity would negate the ability to do any of those things."

# -Scott Stork, St. Charles County resident interview with KSDK News Channel 5

This project will reduce flooding on hundreds of acres of offsite property, which will spur development attractive to nearby property, and will increase surrounding residents' property values. It is expected surrounding property that is not currently developed to its highest and best use will see an increase in value approximately \$10.2M for the 182 acres adjacent to improvements. Separately, along the shores of the silted-in channel, blighted-homes and commercial buildings are frequently damaged by flooding along the Missouri River.

The City has purchased the entirety of Phase 1 and demolished all blighted and flood prone structures. The City is working with remaining property owners according to the Uniform Property Relocation Act to acquire the remaining property. To date, the City has invested nearly \$4.5M in property acquisitions. This investment not only will result in aforementioned economic growth and job creation, but result in the decrease in annual flood damage and the relocation to less flood prone areas. This relocation would not only provide a benefit to the current property owners, but also reduce the draw on an already financially strained National Flood Insurance Program.

In addition to increasing benefits to current residents, this project will bring international investment and interest. Lindenwood University, about 1 mile north of the project is a fast growing university that offers 120 undergraduate and graduate programs to approximately 10,000 students including students from 49 states and 70 countries. Their ability to continue to attract the best and brightest students from international locations is predicated on providing top notch programs in a community that is safe, appealing, and accessible to a population that does not have access to automobiles. Previous and ongoing investments in the City's road, transit, trails, and sidewalk systems ensure efficient multi-modal access for students throughout the City. This development will further enhance and leverage the use of existing infrastructure built with non-federal investments.

In the center of St. Charles, SSM Saint Joseph Medical Center recruits its physicians from all over the globe. Like Lindenwood, their ability to fill strategic positions in their

faculty is a function not only of the attractiveness of the hospital as an institution but also the attractiveness of the community in which they will live. Like many other hospitals across the country, SSM Saint Joseph Medical Center seeks out the very best physicians from a very competitive international pool. Community quality of life, such as walkability and bikeability, is a critical factor in attracting this talent.



Rendering of Riverpointe boardwalk

Current population projections in Saint Charles County predict growth spreading toward outlying, greenfield development. The resulting reduction of nearly 25 million vehicle miles annually will increase the efficiency of the existing roadway systems thereby reducing congestion that would be attributed to additional vehicular trips without the presence of non-motorized transportation alternatives. Secondarily, this project will increase the desirability of housing in the region with a more attractive and effective non-motorized transportation system for owners and employees of businesses and institutions in this area. In turn, we are confident that people will consider relocating to this area in lieu of driving in from outside this area, in particular from greenfield areas.

#### By orienting mixed-use development around an enhanced transportation network and public realm, a "place premium" will be realized that otherwise will be lost if development occurs in a more generic environment.

The most highly-valued real estate developments are those that create a vibrant mix of uses around a well-defined public realm. Whether it is retail, office, or residential development, greater economic returns (in the form of higher occupancy, rents, and land values) result from placemaking than they otherwise would in commoditized developments. The revitalization of this project area will be oriented around more dense development and improved multimodal transportation network.

Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD

# **Environmental Protection**

Environmental Sustainability: Ecosystem Benefits, Emissions Benefits Benefit: \$2,880,000

Another of the pillars of the Project is the environmental restoration the project will provide. Historically, Bangert Island played an important role in the natural diversity that often accompanies the river. Navigational changes made years ago by the U.S. Army Corps of Engineers caused extensive damage to the aquatic habitat.

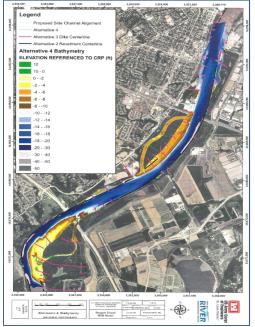
The shallow water habitat and forested wetland once provided by the island provided diverse habitat for fish, avian, mammalian, and macroinvertebrate populations that thrive in the complex natural ecosystems.

In the early 1900's, the U.S. Army Corps of Engineers (USACE) began further work to channelize and stabilize the river for navigation purposes in the St. Charles area. In 1912, USACE was commissioned to create a navigational channel along the Missouri River between Kansas City and St. Charles. In order to accomplish this goal, the U.S. Army Corps of Engineers extensively used wing dykes and levees to straighten and channelize the river. Over the next 50 years, the channel would be further modified. In 1925, USACE began widening and dredging the channel to a width of 200 feet in order to ease the navigational difficulties and further reduce the dangers of transporting goods down the river. Later in the 1940's the Missouri River Bank Stabilization and Navigation Project aimed to further increase the river's navigational channel to a width of 300 feet. Today, it is estimated that nearly 1/3 of the Missouri River flows through artificially straightened channels.

While making for an efficient mode of transportation for agricultural goods down the river, the channelization of the river has destroyed aquatic ecosystem and natural wetlands in the area. Areas along the Missouri River that once consisted of shallow water riverine habitat were damaged by wing dikes, revetment, and levees. Near Bangert Island, closure structures were constructed in the 1930's and 1940's near the inlet of the side channel chute between river mile 31.1 and river mile 29.0. These constructed navigational changes altered the properties of sediment deposition.

"The deposition choked the original side channel entrance to the point of closure by 1980 and effectively reattached Bangert Island to the bluff. The closure of the side channel led to the loss of environmental features in this reach of the Missouri river." -Excerpt from U.S. Army Corps of Engineers Bangert Island HSR Model Report

As explained in the 2011 U.S. Army Corps of Engineers Bangert Island HSR Model Report, "the side channel provided flow diversity not available in the main river channel. This flow diversity allowed for off river habitat for various aquatic species. The island itself acted as a predator-free habitat for avian species. Before side channel closure, the Bangert Island area had considerably more sandbar areas that area attractive to various species; these have since been buried under plant life and woody debris."



Early concept from 2011 U.S. Army Corps of Engineers Bangert Island technical analysis of concepts for environmental restoration.

The Environmental Protection Agency (EPA) advises on the importance of wetlands downstream of urban areas. These wetlands act as natural detention areas and natural water quality basins. For example, by EPA estimates, bottomland hardwood riparian wetlands along the Mississippi River once stored at least 60 days of floodwater; presently they only store approximately 12 days of flood water. The damage the river control structures caused to the side channel chute has contributed to the increased flooding of homes and commercial buildings.

The elimination of the riparian wetlands has also caused larger discharge of pollutants and sediments to the Missouri River. By slowing water before it discharges into the Missouri River, sediment and other pollutants are

removed from aquatic habitat, making the Missouri River more attractive to wildlife and recreation. The City of Saint Charles completed a Comprehensive Stormwater Master Plan in 2015. This study identified the impacts in the project area of polluted surface water. The surface waters directly impact the source of the City's drinking water in addition to a reduction of fish and wildlife habitat.

Crystal Springs at one time flowed into the side channel chute of the Missouri River near the Phase I portion of the Project. This watershed is afflicted with extensive nonpoint source pollution. The Crystal Springs watershed includes several large commercial developments, in the upper reaches of the watershed, extensive residential development, and Interstate 70. The more than 1,000,000 vehicles per week that travel on the interstate adjacent to the project site contribute significantly to the sediment, or suspended solids, that make its way to the river. The sediment that reaches the river has impacts ranging from reducing fish rearing habitat, create taste and odor problems in drinking water, and impairs recreational opportunities.



Photo of a recent short-duration high-intensity storm that contributes to flooding and pollution in the Crystal Springs watershed

The figure shown previously in this document shows the measurement of Total Suspended Solids in each of the City's watersheds, and highlights the fact that Crystal springs is one of the most polluted aquatic resources within the City. A darker color denotes a more polluted watershed. Since the side channel cute that once detained and treated the runoff was damaged by river navigation projects, the Creek dumps untreated water straight into the Missouri River.

This project would help restore this shallow water riparian habitat. The one-time side channel chute is now primarily a wooded wetland; this Phase 1 would transform 20 acres

back to riparian area, Phase 2 will transform 20 acres of wooded wetland to riparian area, and Phase 3 will transform an additional 20 acres to riparian area. Based on Federal Emergency Management Agency land value estimates, this will provide a total benefit of \$1.8M to the area.



Wetlands and shallow water habitat provide important benefits to ecosystem

In addition to direct environmental restoration improvements, the Project will offer more environmentally sustainable and energy efficient modes of transportation. More, safe and efficient transportation options will encourage users to walk, bike, or take public transit instead of single occupancy vehicles, proving cleaner energy options.

By concentrating and connecting the employment centers, neighborhoods, attractions, transportation centers in a development hub there will be a reduction in greenhouse gas emissions through the reduction of vehicles miles traveled (VMT). It is estimated that the development will directly reduce VMT within the development by 25 million miles annually, which ultimately results in a \$48,173 annual benefit by reducing SOx, NOx, and particulates. Additionally, the construction of a multi-use development hub within proximity to destinations as well as increasing

usership of regional trail systems will help decrease the overall VMT.

In addition to this reduction in VMT from other modes of transportation, there will be a reduction due to the change in land-use along the corridor. Traffic studies and analysis of multi-use developments commonly discuss the concept of shared trips. A recent study completed by Urban Land Institute conservatively estimated that by developing land in a walkable, compact form a 20% decrease in VMT can be achieved. The planned transportation improvements are the critical first step to start the transportation transformation needed to encourage and promote a walkable environment.



Rendering showing concentration of residential neighborhoods with employment, shopping, and attractions at the proposed Project

The City of Saint Charles is conscious of the decisions they make relating to the environment. In 2010, the City implemented a Green Point Rating System (GPRS) in order to incentivize sustainable development and redevelopment. Special benefits in the form of reduced set-backs increased building heights, site efficiencies, expedited reviews, parking reductions, and building permit fee reductions are provided to development projects that incorporate sustainable technology. The Project will provide the perfect venue for investors to take advantage of the new infrastructure that will be a catalyst for sustainable redevelopment. The GPRS incentive code can be found at the link below.

https://ecode360.com/27718508

# **Quality of Life**

Bangert Island Riverfront Transformation at Riverpointe will increase the quality of life for citizens around the region. Improvements to transportation infrastructure, environmental improvements, and smart growth development will make St. Charles County and the City of Saint Charles a more attractive place to live, work, and play.



Photo of mountain biker on one of the natural surface trails on Bangert Island

The transportation infrastructure improvements along Arena Parkway, South Main Street, and Old South River Road will help improve travel time and safety. A roundabout and signal are proposed within the Phase 1 development to help reduce crashes and reduce congestion. It is estimated that the intersection improvements associated with this project will reduce travel time for the vehicles that travel the corridor daily, resulting in a total vehicle travel time savings. Additionally, transit upgrades will provide additional quality of life benefits by reducing the need for privately owned vehicular traffic. The adjacent Transit Parking project will construct new transit parking and pedestrian facilities under Interstate 70 Bridge using Federal Congestion Mitigation and Air Quality "FAST Act" funds.



Local businesses are primed to take advantage of recreation based economy.

Separately, the environmental restoration of the side channel chute to a water quality basin will have huge

impacts to the quality of life of the region. The water quality basin will serve as a regional attraction. The Bike Stop Café, one of the project supporters and key stakeholder, immediately realized the business and quality of life potential of the project. by giving people choices, creating a livable environment for residents to enjoy, connecting low-income and elderly populations to modal choice, connecting large job centers with residential neighborhoods, and connecting existing rapidly growing successful developments. On the whole,

"A lake near Bangert Island would be huge. I mean, it would be the only lake near St. Charles where I would want to get in the water. Does your head go where mine does? I immediately think triathlon. And I assume there could be an opportunity for us to rent kayaks? Who do we need to talk to in order to make sure we can get in the development?"

-Jodi Devonshire, Owner of Bike Stop Cafe in Saint Charles and Chesterfield, Missouri

Bangert Island, which is currently operated and maintained as a County Park has a network of natural surface trails. The development would keep the island park in its natural state and restore damaged habitat. Due to the intense usage of the park, the County has recently constructed a trailhead parking lot. Additionally, the City has already begun coordination with Tony Caruso, the Gateway Off-Road Cyclists Bangert Island Trail Steward, on the development. In the past Caruso and the Gateway Off-Road Cyclists organization have put numerous volunteer hours to build the trails on the island. This project will preserve the natural surface trails on the island along with extending them to make better connections to the Katy Trail and paved surface development trails and sidewalks.

"The Bangert Island area is the only place in the region where you have a network of crushed gravel, natural surface, and paved surface trails all within a 1mile radius."

-Tony Caruso, Gateway Off-Road Cyclists' Bangert Island Trail Steward



Trail sign showing the list of connections to Centennial Greenway Trail, Katy Trail, Bangert Island Natural Trails, and Creve Coeur Lake Park Trails

Creating Complete Streets that contain a multi-modal system will provide low cost major transportation benefits

by giving people choices, creating a livable environment for residents to enjoy, connecting low-income and elderly populations to modal choice, connecting large job centers with residential neighborhoods, and connecting existing rapidly growing successful developments. On the whole, the development leverages transportation infrastructure to enhance and improve the future. The regional vision involves the creation of multi-modal corridors that includes accessible sidewalks for pedestrians, biking facilities, and a trolley transit route. This project will better serve the nearly 5,000 people that will call this development work or home along with another 100,000 within 3 miles of the development area.



The City plans to expand the current historic trolley (above) and is investigating the inclusion a state-of-the-art 1.7 mile autonomous electric trolley route (below), which would be the longest operational Autonomous Electric Trolley route in the United States

The addition of new St. Charles Area Transit (SCAT) service line to the development will improve access to shopping and dining at Historic Main Street, Streets of Saint Charles, and the Ameristar Casino. While not part of this application, the City is also investigating the use of an innovative autonomous trolley that would run 1.7 miles from ACF to the development, eventually connecting to the St. Charles Convention Center. Expansion of the SCAT service line and Historic rubber tire trolley will help alleviate the parking congestion along Historic Main Street and reduce the number of short duration automotive trips in lieu of pedestrian focused trips.

It is estimated that by providing the pedestrian infrastructure this multi-use development will provide generate more bicycle trips. Additionally, the transportation improvements will provide better opportunities to the disabled, elderly, and low-income households where amenities are located within walking and Providing more and efficient biking distance. transportation options to these historically underserved populations makes a community more attractive and enriches the lives of all of its residents. SCAT ridership information shows that 88% of riders fall in the reduced. disadvantaged rider fare and 22% are over the age of 62. Creating a riverfront trolley transit system will not only enhance the tourism draw of the development, but also offer residents a lower cost transportation option to regional jobs, medical services, shopping, and educational opportunities located within the development and City of The less money users spend on Saint Charles. transportation costs, the more money they can spend elsewhere. Non-motorized transportation is the key for this possibility.



Rendering of improved Katy Trail, the nation's longest Rail-to-Trails conversion, and riverfront boardwalk area through the Riverpointe Development.

Complete streets, accessible sidewalks, connected trail systems, and access to public transportation all improve property values and encourage reinvestment in communities. Numerous national studies from the National Association of Homebuilders and the Urban Land Institute indicate a strong preference for urban and/or walkable amenities. The Streets of Saint Charles, SSM Saint Joseph Hospital, Lindenwood University, Ameristar Casino, and other private organizations have invested \$800M into the community in the last 5 years alone to improve the quality of life for residents, employees, and visitors. Infrastructure investment has not kept up with private investment.



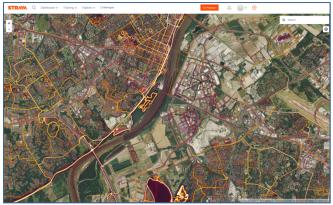
Potential for redevelopment in St. Charles due to BUILD investment

#### The Project will help increase community revitalization.

Growth is going to happen in region. In fact, over the next five years, St. Charles County is expected to capture threefifths of all population growth in the Saint Louis region. Given current trends, the Historic Center/Old Saint Charles is not anticipated to capture any of this growth without improvements to infrastructure, policy, and regulatory changes. Investments made in the core of the community are much more economically suitable and sustainable.

#### The Project will coordinate and leverage federal policies and investment through the numerous partners and public private partnership.

While infrastructure work has been completed in support of this local investment there is still a significant amount of work that needs to be done to complete these efforts. Recent major investments, including the funding of \$65M in upgrades to Interstate 70 just west of this project, will be linked together by this project. This project is intended to give structure to these investments within the region.



© Strava 2017 Heatmap showing bicycle, pedestrian, and kayaking activity

Based on the local investments already expended or committed and the IMPLAN Economic Impact Analysis of future investments through this project, we anticipate that the

BUILD funds will help to leverage local investment on a **60:1** The additional investment of 1000 apartments or condos, 1 million square feet of office space, 300,000 square feet of

## **State of Good Repair**

The project will improve the condition of existing roadway, bridge, and sidewalk facilities and install new transportation infrastructure. Specifically, when the City applied for the BUILD Grant in 2018, Arena Parkway/S. River Road was currently failing, and the County had begun design.

The County has now completed construction on the \$1.6M in non-federal investment to reconstruct the pavement to arterial standards.

Additionally, the road was designed with wide lanes to allow it to be restriped in the future as a 5-lane section and to allow wider shared outside lanes for bicyclists. By reconstructing portions of South River Road, the City saves in future maintenance costs. Similarly, the bridge and pavement on Old South River Road is in poor condition, and will need to be replaced within the foreseeable future. It is estimated this bridge and pavement reconstruction would cost the City upwards of \$2M.

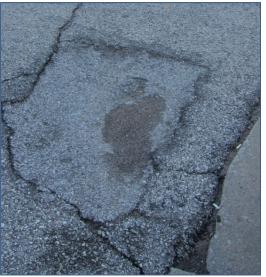
Separately, the Lombard Street and South Main Street Intersection is projected to meet signal warrants in the next 5 years based on increased growth in Streets of St. Charles at an estimated cost of upwards of \$200,000. This project would install a signal at the intersection to alleviate traffic concerns and crash causing safety issues.

On top of the County's completed construction of S. River Road & Arena Parkway Improvements, the Project will install a roundabout at several locations to assist in traffic operations and safety issues. At one time, Arena Parkway/Friedens Road made a T-intersection with Arena Parkway to the southwest of the existing intersection. Because of this, the current reconfigured Green-T intersection has some geometric conditions that contribute to crashes. Additionally, the lane narrows as it passes near the islands separating the lanes, and is difficult for pedestrians or bicyclists to navigate. This project would replace this intersection with a roundabout and extend Friedens Road into the intersection. In total, this project will reconstruct 8 lane miles of deteriorating pavement and bridges, and reduce the future maintenance costs. In addition, the project will construct or extend 4 lane miles of new roads and over 15 miles of new sidewalks and trails.

# The project team has the revenue to sustain long-term operations and maintenance of the Project.

The City of St. Charles has an annual appropriation budget of \$3M for transportation maintenance and operations.

The additional investment of 1000 apartments or condos, 1 million square feet of office space, 300,000 square feet of retail development will add to the City's tax base which will help with maintaining and improving the long-term community vision.



Poor roadway conditions in the project area will be reconstructed

#### **Other Project Benefits:**

- Encourages the utilization of existing non-motorized transportation infrastructure including the Katy Trail
- Encourages the utilization of transit infrastructure by installing state-of-the-art Autonomous Electric Trolley Route
- Brings currently non-compliant ADA facilities into compliance with ADA guidelines.
- More people commuting by foot or bike reduces automobile drivers and the associated wear and tear on existing roadways.



Encourage better utilization of the Katy Trail and improve ADA facilities

# Safety

#### Safety: Avoided Crash Benefit – Smart Growth Benefit: \$84,691,000

The Project includes measures to enhance transportation safety. The project will increase the safety at several accidents that have had multiple accidents in the past few years. Between 2012 and 2016, 42 cars were involved in crashes at the Friedens & Arena Parkway Intersection. Similarly, since the Lombard and South Main Street Intersection was constructed, 10 vehicles were involved in crashes. This project will signalize the intersection at Lombard and install a roundabout at two locations along Arena Parkway.

The project will restripe Arena Parkway to a 5-lane section with a center turn lane, and will install right-turn-lanes into the development through the Phase 3 project area as warranted by traffic volumes.

Although no crashes were reported at the quarry entrance to the west of Friedens, anecdotal evidence suggests there are many close calls with large haul trucks entering and leaving the site, and likely unreported minor accidents. The roundabout will be sized at this location to allow trucks access to the property. This project is also designed with access control principals in mind, and will further reduce crashes that may have been caused by the influx of traffic caused by the development.



Unsafe conditions will be improved in the project area

Additionally, since the development will ultimately reduce the total number of vehicle miles traveled (VMT) by residents, employees, and nearby residents of the development by almost 25 million miles annually, accidents will be reduced by better utilizing non-motorized facilities and higher transit ridership. It is estimated that ultimately the community will save more than \$3.5M annually in avoided crash benefits. Additionally, the installation of roundabouts is estimated to further result in a reduction of crashes and annual cost savings.

# Making non-motorized facilities and transit the centerpiece of this development will improve safety in the region.

The most vulnerable users of the transportation system are pedestrians and bicyclists. The County last year requested funding from local Road Board funds in order to address complaints from local cyclists about dangerous on-road facilities. The funds allowed for wider on-street shared bike-lanes in their design of Arena Parkway. This project also helped increase safety for these users with the following amenities and improvements:

- ADA accessible sidewalks.
- ADA accessible textured crosswalks, pedestrian countdown timers at signalized intersections and raised trail crossings.
- Bicycle facilities to provide ample room for a wide range of cyclists.
- Traffic separated bicycle and pedestrian facilities from motorized vehicles.

Proposed non-motorized improvements will decrease the number of crashes along the facilities and provide a more livable, walkable, sense of place for users.

# **Secondary Selection Criteria**

# Non-Federal Revenue for Transportation Infrastructure

The project uses creative funding mechanisms from a variety of non-federal sources. As financial partners on the project, the City, State of Missouri, and County all have unique funding sources approved by voters that can be drawn from in order to advance this project. The County Road Board, a vital funding road and highway funding mechanism in the area, utilizes a <sup>1</sup>/<sub>2</sub> Cent Transportation Sales Tax. These County Funds are limited to funding roadway improvements and associated infrastructure. The City has submitted the Project for funding.

In the City's Capital Improvement Plan, the City has devised a strategy to fund the project by utilizing funds from a variety of sources. One generator of revenue for City infrastructure is the Ameristar Casino. "Gaming Funds" are designated to road and bridge related improvements. Additionally, the City

will draw on Proposition P funds approved by voters in the City of Saint Charles in 2016. Proposition P was a Parks and Stormwater Improvement tax that utilizes a <sup>1</sup>/<sub>2</sub> sales tax. These funds can be utilized for parks, stormwater, and water quality improvements.

The State has committed significant funding to this Project. In late 2019, the Governor Mike Parson announced \$5M in cost-share funding for the project as part of the Governor's \$50M Cost-Share program focused on funding projects with the highest economic impact. Additionally, with the support of Missouri's State Legislature \$1M was appropriated in FY2020 for the project.

The City will utilize approximately 15% private investment on the project.

# Innovation

**Design Build Option:** The City of Saint Charles has a specific code allowing and promoting design-build projects if there are time constraints. The City is highly supportive of making the Project a design-build project to meet mandated deadlines, but even without use of design-build, the project schedule demonstrates funding obligation by September of 2022.

National Model: The City of Saint Charles aligns with the Presidential Administration's desire to gain greater impact for every federal dollar spent by reducing unnecessary red-tape and changing the way projects are built, financed, delivered, and maintained. The City is devoted to goal of improving project delivery, and has devised several strategies to help streamline design and construction efforts. Through planning and community involvement, the City has a vision with support from numerous private and public partners. The City proposes to track this investment over the next 20 years to measure the benefits and use as a case-study in the years to come.

Alternative Financing: As discussed in the previous nonfederal revenue section, this project uses funds from a variety of sources. The County utilizes a ½ Cent Transportation Sales Tax for a portion of the improvements. The City plans to utilize funds from various sources including Gaming Funds designated to Street improvements generated by the Ameristar Casino, ½ Proposition P sales tax for stormwater

and water quality improvements, and approximately 15% private investment. Since the private funding will be received at the completion of construction, the City is utilizing taxable special obligation bonds to carry these costs until closing on the property. Additionally, the City and County have discussed the use of a "hybrid Tax-Increment-Financing" incentive for possible use that would draw on the City's portion of the sales tax generated by development. Additionally, the City has determined a Community Improvement District (CID) could be a useful tool for future parking garages or other infrastructure to assist in the development of the parcel. The figure below shows a description of sources of funding for the project.

Aggressive Partnership: The City of Saint Charles has actively sought out potential regulatory bodies that had potential to delay the project, and found ways to make them project partners. The City has worked for the past decade to learn with the U.S. Army Corps of Engineers who will be responsible for the brunt of environmental permitting, and recently were successful in involving them as project partners in a program that will give a roadmap to avoid permitting slow-downs, maintenance, and hydraulic design. Similarly, the City has engaged state agencies involved in permitting and regulation.

**Developer Driven Infrastructure:** The City will use strategies used by developers across the Nation that currently allow them to deliver projects more quickly and inexpensively. The City has constantly been in discussions with the tenants, developers, and real estate marketing team at Scout Realty to shape the direction and development type. Time and time again, City Staff hears that private developers are able to deliver infrastructure faster and more inexpensively than public entities. City staff anticipates that portions of infrastructure improvements may be delivered directly by the developer with City staff administering the program.

**Environmental Sustainability:** The project uses an innovative approach of recycling spoils from an environmental restoration project to spur economic growth.

# **Partnership**

The City has received unequivocal support from many community leaders, local businesses, local institutions, local non-profit agencies, and regional agencies (see Appendix for the numerous support letters from agencies, private organizations, and state and local politicians).

This project has had multiple state resolutions passed in its support. Both the Missouri State House and State Senate passed resolutions expressing support for the project and calling on Federal officials to assist in the project funding and

delivery. The Governor and every US Senator and Congressman within the projects jurisdiction has supported and assisted with the development of this project over the past decade. Senators Roy Blunt, Senator Josh Hawley, Congressman Blaine Luetkemeyer, and many others have written letters of support or recorded videos interviews expressing their support. This project was also discussed with officials when the President made his trip to St. Charles to announce his signature Tax Reform legislation.

Despite the support this project has received from elected officials, Federal assistance through BUILD funding is critical to the Project. Competition for other Federal funding through the Surface Transportation Program (STP) is fierce and must be spread between eight counties and hundreds of municipalities in the Saint Louis region making completion of a project of this magnitude nearly impossible.

**U.S. Army Corps of Engineers** has played a critical role in advancing the project and has helped steer the project to the current design, ensuring the current path is one that will be easily permitted. The U.S. Army Corps of Engineers is currently a monetary partner with the City on a planning assistance study for the project area



U.S. Army Corps of Engineers and City of Saint Charles Staff at the coordination kickoff meeting for the Planning Assistance Study (PAS) standing on the banks

**Cullinan Properties** successfully developed Streets of St. Charles, and is committed to a successful development of Riverpointe. City officials and Cullinan have discussed different teaming arrangements to allow for the expansion of Streets of St. Charles into the new development footprint.

**St. Charles County** has committed to assisting in the nonfederal funding of the BUILD Project and has assisted in outreach. St. Charles County also currently controls the operations and maintenance of the Bangert Island Park Area through a 99 year lease from the City.

**Business Groups:** Large and small business alike support the Project including the Missouri Chamber of Commerce, the Missouri State Director of Economic Development Rob Dixon, Ameristar Casino, Cullinan Properties, Bike Stop Cafe, TR Hughes Development, Home Builders Association of St. Louis & Eastern Missouri, OPO Startups, Millstone Properties, Cushman Wakefield, and Drury Hotels as it will provide a catalyst for continued economic growth in the region.

V. Environmental and Risk Review

# **Project Schedule**

Preliminary project activities are underway for the Project. Property acquisition is complete, and construction is underway for the South River Road/Arena Parkway Reconstruction. Environmental NEPA materials preparation and preliminary design are underway with the assistance of the U.S. Army Corps of Engineers. Extensive design efforts have been put forward over the10-year project development.

The FY 2020 Appropriations Act requires that FY 2020 BUILD Transportation Discretionary Grants funds are only available for obligation through September 30, 2022. The Bangert Island Transformation Project at Riverpointe is ready to satisfy applicable administrative requirements, including transportation planning and environmental review requirements. The project plan has been in development with the U.S. Army Corps of Engineers for over 10 years, the project concepts have been analyzed and addressed. All FY 2020 BUILD funds will be expended by September 30, 2026.

Project partners are ready to proceed immediately when awarded BUILD Funds and are committed to obligating funds by June 2021 with completion of all improvements by June 2023. If required, the City's Design-Build code could expedite the design and construction process if awarded 2019 BUILD funds. A detailed schedule is provided in Appendix E.

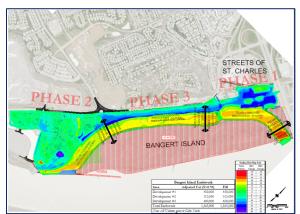
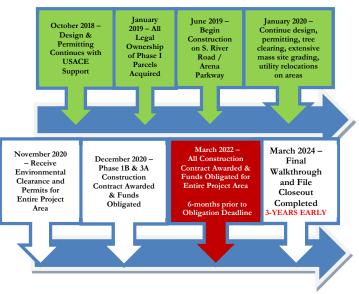


Exhibit showing a portion of the technical feasibility analysis leading to the current phased project approach to allow for faster project delivery

The City is ahead of the original schedule proposed on the original 2018 BUILD Application (highlighted in green), and will obligate funds 6-months in advance of the obligation deadline.



# **Technical Feasibility**

The Project has been in the works for more than a decade. Over the years, the City and U.S. Army Corps of Engineers has cleared major hurdles in order to refine the project to one that is technically feasible from a design, permitting, right-ofway, and construction standpoint.

In the 2011 Bangert Island Hydraulic Sediment Transport Response Model study, the USACE initially recommended the reestablishment of a side channel chute. After further coordination, it was determined that a water quality basin that did not impact the navigational channel but still provided hydraulic and water quality benefits to the Crystal Springs Watershed would be preferred.

In 2018, the City met earlier with the St. Louis District U.S. Army Corps of Engineers to for a Pre-Application Permitting meeting. The St. Louis District advised the Kansas City district would have jurisdiction over the Missouri River. In partnering with the USACE for Planning Assistance Services, the Kansas City District has indicated they would not require a Section 408 permit. Documentation and Delineation work done previously when the project was part of the Missouri River Recovery Project is further being used to advance permitting efforts.

• The Kansas City District of the U.S. Army Corps of Engineers has provided initial review materials for permitting and National Environmental Policy Act (NEPA).

- Initial wetland and endangered species information provided by Kansas City District Corps of Engineers
- City received preliminary approval from State Historic Preservation Office based on historic research, extensive magnetometer surveys, and test pits
- City works with consultant to provide detailed delineation, endangered species survey, USFWS coordination, formal USACE permitting, and NEPA material preparation.
- City owns the entirety of the Phase 1 area

As the City of Saint Charles and the U.S. Army Corps of Engineers refined the design and conducted a feasibility study, it was determined a phased project approach would be beneficial to project delivery, and contribute to achieving the City's and USDOT's goal of changing the way we build finance and maintain infrastructure. By separating phases of the project, the City will be able to start on construction activities on Phase 1 and 3 as property acquisition is finishing on the Phase 2 parcels. The City currently owns the entirety of Phase 1, and is completing the final acquisitions for the Phase 3 area.

Extensive design and construction relocation efforts are underway with Ameren, AT&T, and Charter including the 12kV and 34kV overhead electric line relocation design. Additionally, the City has advanced coordination with Missouri State Parks, and has completed the drafting of a Concept Agreement for swapping leases on property.

Additionally, the City identified avenues to advance construction, and has begun utilizing strategies commonly used by private development, including the packaging of plans. For example, one strategy to accelerate the construction schedule is to issue a mass grading package that can complete much of the grading while final road design is being completed. This was the plan conveyed to USDOT in last year's 2019 BUILD Grant application, and as promised have already bid 3 separate packages for building demolition, tree clearing, and site grading & utility relocations for the Phase 1A site.

Although it is possible the improvements will fall within a categorical exclusion, CE, (40 CFR 1508.4) because the improvements fall primarily within a historic river channel that was damaged by U.S. Army Corps of Engineers infrastructure, debrief meetings following the 2019 application indicated that USDOT officials thought an EA with FONSI was possible. This is further justified in

Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD

subsequent conversations with U.S. Army Corps of Engineers staff and the City's consultant team. Since much of the permitting materials preparation is complete and the remainder is well underway, this will be achievable in the given timeframe.

Following feedback from the 2019 application, the City assembled a team of Crawford Murphy, & Tilly, HDR, Cole & Associates, S.C.I., and Reitz & Jens to assist in providing the environmental services associated with an Environmental Assessment NEPA materials, and has included discussion of the preliminary process in a document provided by the U.S. Army Corps of Engineers. The Corps PAS project and the City's Environmental consultant continue to work hand in hand to advance the NEPA work required for this project including the documentation of displacements, wetlands and waterbodies, floodplain impacts, and special/hazardous waste. The Finding of No Significant Impact will be posted on the project website when this work is complete.

# Assessment of Project Risks and Mitigation Strategies

The FY 2020 BUILD Grant funds will assist the region by building transportation infrastructure needed to realize dense multi-use development. As part of the City of Saint Charles planning and feasibility study, the City generated an extensive list of issues and risks, along with proposed mitigation strategies. In the last two years, the City has been able to mitigate many of the risks initially identified.

Although many other risks were identified, none posed more risk to the project than environmental clearances and NEPA permitting. A combination of work on park property, tree clearing, large excavation areas, and impacts to Waters of the U.S. all were identified early as items that needed to be addressed.

The City hired an environmental consultant team to begin the environmental permitting process. Because the excavations would occur in a historic side channel chute, coordination with Missouri State Historic Preservation Office revealed there was the potential for historic sunken Steam Boats within the project area. In order to mitigate this risk, the City conducted a magnetometer survey, dug test pits, made investigative borings, and conducted extensive historic research. Through this work, it was determined that it was highly unlikely there were any present at the project site and gave preliminary clearance. The City is confident that Section 106 and Section 4(f) compliance can be achieved.

Coordination with State Parks and County Parks for the relocation of the Katy Trail has revealed no 6(f) funds were utilized for improvements. Additionally, the City has worked with State Parks to draft an agreement for a lease swap, a

similar arrangement to previous development of the Family Arena.

As previously discussed, the City has a long history of partnership with the U.S. Army Corps of Engineers. The Corps has indicated that neither Section 10 nor Section 408 permit will be required for this work. The City's hired consultant is currently working to complete the wetland delineation started by the Corps in February 2016 which showed 5-7 acres of hardwood wetland area which will be restored back to riparian habitat.

Coordination with U.S. Fish & Wildlife service for threatened and endangered species is well underway. The City has conducted a tree survey. Acoustic surveys and bat conservation plan preparation are underway. The U.S. Army Corps of Engineers recently concluded there was no bald eagle presence within the project area.

# **Legislative Approvals**

The St. Charles City Council passed a resolution of support for the project, and specifically for the advancement and application of the 2020 U.S. DOT BUILD Grant application. Although this project does not require any legislative approvals, it has been supported by multiple local and state legislative actions. The State of Missouri has passed HB19.130 which allocated appropriated \$1M for the project. The Missouri State Senate and State House passed a continuing resolution to support the project and push federal officials to identify possible funding sources. Additionally, the entire St. Charles Delegation signed a joint letter of support for the project, and every U.S. Member of Congress within the jurisdiction of the project has given significant support. Senator Roy Blunt helped facilitate discussions with the US Department of Transportation for technical guidance in relation to this 2019 BUILD Grant and Congressman Blaine Luetkemeyer has facilitated extensive coordination with the Kansas City and St. Louis Districts of the U.S. Army Corps of Engineers. This project has extensive planning and support to allow it to move forward immediately pending funding approval.

# **VI. Benefit-Cost Analysis**

The project team conducted a Benefit-Cost Analysis to ensure a greater impact for every Federal US DOT dollar spent. The following table shows a summary of the value of societal benefits over a 30 year period post construction.

Following a detailed debrief with USDOT Economists from the 2019 BUILD application, the project team ensured the calculations provided the conservative

## BANGERT ISLAND RIVERFRONT TRANSFORMATION PROJECT AT RIVERPOINTE USDOT BUILD DISCRETIONARY GRANT APPLICATION

calculations sought. For example, in 2019 the project team attempted to capture significantly more property benefits. While it was conveyed that property benefits could be included, they should only include benefits directly attributable to transportation infrastructure. The team acquired a certified third-party appraisal to quantify only In general terms, the analysis was these benefits. conducted conservatively with items such as zoning benefits, indirect acreage benefits, or benefits due to utilities intentionally omitted from the base analysis although planned with the project. A sensitivity analysis was also performed which shows various possible scenarios. One key sensitivity to note is the addition of rezoning to property values, the actual expected outcome of this proposed investment, generating further benefits over the base case that was conservatively utilized for this analysis. With the rezoning of the newly improved land, the project is expected to generate a net present value of \$104.8 million and a benefit-cost ratio of 2.92.

## A further description of the detailed Benefit-Cost Analysis can be found in the Attachments

7% Discount Rate	Phase 1, 2, 3
Capital Costs	\$54,539
Residual Value	\$0
Operating Costs/State Good Repair	-\$679
Trolley Operating Costs	\$0
Total Costs	\$53,861
Ecosystem Benefits	\$1,256
Property Values	\$4,798
Smart Growth - VHT	\$32,034
Smart Growth - Operating Costs	\$51,110
Smart Growth-Safety	\$21,652
Smart Growth - Emissions	\$279
Total Benefits	\$111,129
Consider Consta	¢54.520
Capital Costs	\$54,539
Benefits (includes Operating Costs & Residual Value)	\$111,807
BCR	2.05
Net Present Value (NPV)	\$57,268

Parameters	Change in Parameter Value	New B/C Ratio
No Additional Changes		2.05
Benefits Period	Benefits Period of 20 Years	1.70
Development	Reduce Direct Project Development to 50%	1.94
	Reduce Indirect Project Development to 50%	2.02
	Reduce Census Tract Group 1 to 50%	1.40
	Reduce Census Tract Group 2 to 50%	1.87
Property Values	Remove Property Values	1.96
	Add in Indirect Acreage	2.18
	Remove Utilities Relocation Costs	2.19
	Add in Rezoning	2.92
Total Project Cost	20% Reduction in Project Costs	2.56
	20% Increase in Project Costs	1.71
SMART Growth	Add Trolley (Benefits and Costs)	2.13
	Increase SMART Ratio by 25%	2.53
	Decrease SMART Ratio by 25%	1.57

Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD

## VII. Federal Wage Rate Certificate

#### Federal Wage Rate Certification

#### Certification of Compliance with Federal Wage Rate Requirements

Bangert Island Riverfront Transformation Project at Riverpointe

FY 2020 BUILD Grant Application

The City of St. Charles, as applicant for the above referenced FY 2020 BUILD Grant application, certifies that it will comply with the requirements of Subchapter IV of the Chapter 31 of Title 40, United States Code (Federal Wage Rate Requirement – Section 1606) as required by the Further Consolidated Appropriations Act, 2020.

Signature Daniel J Borgme

Attest Laura Whitehead City Clerk

City of St. Charles, Missouri

Signature Valerie Berge

Assistant Director of Finance City of St. Charles, Missouri

Date 5-15-. Date

Date 5/14/2020

The following attachment is not included in the view since it is not a read-only PDF file.

Upon submission, this file will be transmitted to the Grantor without any data loss.

BCA.xlsm

Benefit-Cost Analysis Supplementary Documentation

BUILD Grant Program

# Bangert Island Riverfront Transformation Project

City of Saint Charles, Missouri May 18, 2020



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# Benefit-Cost Analysis Supplementary Documentation

# **1. Executive Summary**

Upon the banks of the Missouri River in St. Charles Missouri, William Clark and Meriwether Lewis set forth to discover the western frontier on May 21, 1804. The history and future of St. Charles is tied to the Missouri Riverfront. Historic Main Street in St. Charles served as the State Capitol from 1821 to 1826 and as a center for economic prosperity and growth for the developing nation. As the western development of this great nation occurred, development along the City of St. Charles riverfront remained isolated to approximately one quarter of the City's total riverfront due to impacts from a changing river and poor access to the rapidly developing new modes of transportation. Today St. Charles is prepared to unlock the potential of expanded riverfront development, and by doing so will create a center for economic activity for the St. Louis metropolitan region.

Requested BUILD funds are intended to provide the infrastructure necessary to provide equitable access to middle class jobs, spur economic activity and access to the diverse business community. The improvements will strengthen the urban core of St. Charles County and provide a foundation for the future growth and success of the region.

BUILD funding for the Bangert Island Riverfront Transformation project (Riverpointe) will enable St. Charles to:

- Transform 60 acres into high quality riparian area by building new water quality basins. These basins will also help reduce the downstream head elevation and provide volumetric relief to residents who live upstream of the project area on Crystal Springs Creek who experienced unprecedented flooding in 2011 and 2013 when localized strong storm events occurred in the area.
- Create stormwater control and protection from the Missouri River by directly raising over 100 acres of ground to remove it from flood risk, with an additional 182 acres adjacent to this project area indirectly impacted. Significant storm events in 2011, 2013, 2017, and 2019 caused flooding damage that impacted residents in and adjacent to the Bangert Island project area.
- Directly support the development of 6.7 million square feet of prime development ground located within the urban core of the fastest growing County within the State of Missouri (+10.3% since 2010). The project is expected to contribute to 4,000 new jobs with a \$1.5 billion economic impact. The project is expected to directly increase housing in the area by 840 households, with an additional 420 households expected to be built in the surrounding area.
- Create accessibility to the area by constructing approximately 8 lane miles of new roads, new signals, new street lighting, bicycle and pedestrian infrastructure, transit improvements, green infrastructure, reconstructing the existing inadequate roadway infrastructure located along Arena Parkway which runs the perimeter of the project.

• Build 14 miles of new sidewalks, 1.6 miles of new or improved trails, and 1.6 miles of new transit facilities. This will reduce driving and shift some of the demand to these other transportation modes.

A table summarizing the changes expected from the project (and the associated benefits) is provided below. Total undiscounted benefits are \$419 million.

Current Status, Problems to Be Addressed	Type of Impacts	Populations Affected by Impacts	Undiscounted Benefits (\$2018)	Section #
	Ecosystem Improvement: Creating High Quality Riparian Area	General Public, Property Owners	\$1.8 Million	7.1
Stormwater control is a big issue with hundreds of acres in the floodplain and suspended solids impacting the environment. The area is not able to be developed without improvements.	Property Value Increases from Improvements: Raising Land, Clearing Vegetation and Installing Streets & Sidewalks	Existing Property Owners in Development	\$6.7 Million	
	Property Value Increases from Improvements: Relocating Utilities and Rezoning	Existing Property Owners in Development	Conservatively Excluded from	7.2
	Property Value Increases from Raising Land and Reducing Flooding to Residents	Existing Residents Adjacent to Development	BCA Results	
Residents travel	Vehicle Operating Cost Savings- Modal Diversion From Driving	Existing and New Users	\$200 Million	8.1
relatively long distances in their cars due to the lack of nearby jobs, restaurants and recreation. Lack of quality bicycle and pedestrian facilities discourages multimodal travel.	Emissions Reduction - Modal Diversion From Driving	General Public	\$1.1 Million	8.2
	Crash Reduction Safety Benefit Savings- Modal Diversion From Driving	Existing and New Users	\$84.7 Million	
Smart Growth as a solution.	Crash Reduction Safety Benefit Savings- Traffic Circles, new sidewalks and bicycle trails	Existing and New Users	Conservatively Excluded from BCA Results	8.3



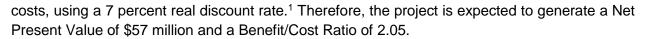
Current Status, Problems to Be Addressed	Type of Impacts	Populations Affected by Impacts	Undiscounted Benefits (\$2018)	Section #
	Travel Time Savings- Modal Diversion From Driving	Existing and New Users	\$125 Million	8.4
	Reduced Mortality Benefit – Cyclists and Pedestrians	New Cyclists and Pedestrians		
	Trip Quality Benefits – Cyclists and Pedestrians	Existing and New Cyclists and Pedestrians	Conservatively Excluded from BCA Results	8.5
	Connectivity with Upgraded multimodal transit facilities	Existing and New Users		
	Jobs and Economic Impacts	Existing and New Residents	Conservatively Excluded from BCA Results	8.6

The period of analysis used in the estimation of benefits and costs corresponds to 35 years, including 5 years of construction and 30 years of operation. The total (undiscounted) project costs are \$63 million dollars according to the distribution shown in Table ES-2.

#### Table ES-2: Summary of Project Costs, Dollars of 2018

Cost Category	Undiscounted Project Cost
Capital Costs	\$65.6 Million
Residual Value	\$0.0 Million
Maintenance Costs	-\$1.1 Million
TOTAL COST	\$64.5 Million

A summary of the relevant data and calculations used to derive the benefits and costs of the project are shown in the Benefit-Cost Analysis (BCA) model (in dollars of 2018) also included with this application. Based on the analysis presented in the rest of this document, the project is expected to generate \$111 million in discounted net benefits and \$53.8 million in discounted



In addition to the monetized benefits, the project would generate benefits that are difficult to quantify. A brief description of those benefits is provided below.

#### <u>Safety</u>

The addition of traffic circles, modern signals, turning movement changes, widened and continuous sidewalks, and improved bike facilities will improve safety in the corridors.

#### Economic Competitiveness

Riverpointe will greatly increase the economic competiveness by providing greater connectivity along the corridor and into surrounding areas. Improvements to safety, aesthetics (*e.g.*, bike trails and ecosystem changes), and accessibility will open up new opportunities for development and job creation. This project is expected to support \$1.5 billion of economic impact and 4,000 new jobs.

#### Environmental Sustainability

Riverpointe will provide environmental protection along the corridor by mitigating stormwater runoff, providing parks and green spaces that will minimize the urban heat island, and promoting transit and non-motorized transportation options.

#### Quality of Life

Riverpointe will improve quality of life in the area by increasing transportation options, improving safety along the corridor, enhancing the existing streetscape, and providing opportunities for new development.

#### Innovation

Riverpoint will help Saint Charles not only to create a mixed use development from an underutilized area that will protect the surrounding area from flooding, but also reduce the long term demand for roadways with Smart Growth for both existing and future users.

#### Partnership

The City of Saint Charles has formed partnerships across the City and State to bring this project to fruition. Partnerships on the project include private developers and future tenants, US Army Corps of Engineers, the State of Missouri, St. Charles County, community groups, the regional planning agency, business groups, and a vast amount of political support from our elected officials. Funding includes not only grants and state cost shares, but also local tax initiatives (e.g. Proposition P) as well as private partnerships with national investment grade tenants.

Large and small business alike support the Bangert Island Riverfront Transformation Project including the Missouri Chamber of Commerce, the Missouri State Director of Economic Development Rob Dixon, Ameristar Casino, Cullinan Properties, Bike Stop Cafe, TR Hughes

<sup>&</sup>lt;sup>1</sup> Maintenance Costs/ State of Good Repair are considered as a benefit and subtracted from net discounted benefits. As the value is negative, this is actually a positive benefit.



Development, Home Builders Association of St. Louis & Eastern Missouri, OPO Startups, Millstone Properties, Cushman Wakefield, and Drury Hotels as it will provide a catalyst for continued economic growth in the region.

## 2. Introduction

This document provides detailed technical information on the economic analyses conducted in support of the grant application for the Bangert Island Riverfront Transformation project (Riverpointe).

Section 3, Methodological Framework, introduces the conceptual framework used in the BCA. Section 4, Project Overview, provides an overview of Riverpointe, including a brief description of existing conditions and proposed alternatives; a summary of cost estimates and schedule; and a description of the types of effects that the project is expected to generate. Section 5, General Assumptions, discusses the general assumptions used in the estimation of project costs and benefits, while estimates of travel demand and traffic growth can be found in Section 6, Demand Projections. Specific data elements and assumptions pertaining to the long-term outcome selection criteria are presented in Section 7, Benefits Measurement, Data and Assumptions, along with associated benefit estimates. Estimates of the project's Net Present Value (NPV), its Benefit/Cost ratio (BCR) and other project evaluation metrics are introduced in Section 8, Summary of Findings and BCA Outcomes. Next, Section 9, BCA Sensitivity Analysis, provides the outcomes of the sensitivity analysis. Additional data tables are provided within the BCA model including annual estimates of benefits and costs to assist the U.S. Department of Transportation (USDOT) in its review of the application.<sup>2</sup>

# 3. Methodological Framework

The BCA conducted for this project includes monetized benefits and costs measured using USDOT guidance, as well as the quantitative and qualitative merits of the project. A BCA provides estimates of the benefits that are expected to accrue from a project over a specified period and compares them to the anticipated costs of the project. Costs include the resources required to develop the project. The costs of maintaining the new or improved asset over time are considered dis-benefits in this analysis. Total estimated benefits are based on the projected impacts of the project on both users and non-users of the facility, valued in monetary terms.<sup>3</sup>

While BCA is just one of many tools that can be used in making decisions about infrastructure investments, USDOT believes that it provides a useful benchmark from which to evaluate and compare potential transportation investments.<sup>4</sup>

The specific methodology developed for this application was developed using the BCA guidance developed by USDOT and is consistent with the BUILD program guidelines. In particular, the methodology involves:

• Establishing existing and future conditions under the Build and No-Build scenarios;

<sup>&</sup>lt;sup>2</sup> The Excel-based BCA model is provided separately as part of the application.

<sup>&</sup>lt;sup>3</sup> USDOT, Benefit-Cost Analysis Guidance for Discretionary Grant Programs, January 2020.

<sup>&</sup>lt;sup>4</sup> Ibid.



- Assessing benefits with respect to each of the merit criteria identified in the Notice of Funding Opportunity (NOFO);
- Measuring benefits in dollar terms, whenever possible, and expressing benefits and costs in a common unit of measurement;
- Using USDOT guidance for the valuation of travel time savings, vehicle operating costs, safety benefits, and reductions in air emissions, while relying on industry best practice for the valuation of other effects;
- Discounting future benefits and costs with the real discount rate recommended by USDOT (7 percent); and
- Conducting sensitivity analyses to assess the impacts of changes in key estimating assumptions.

# 4. Project Overview

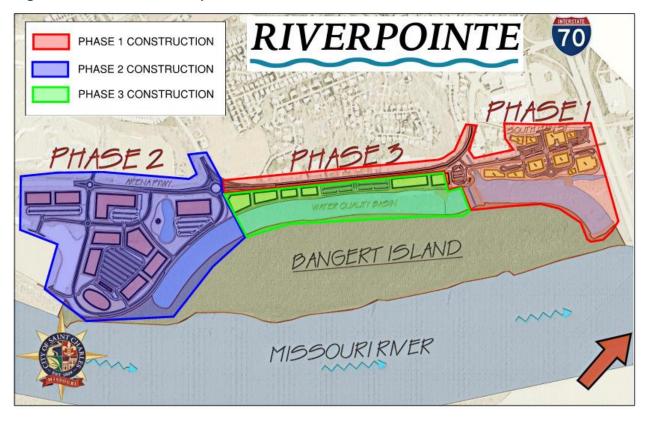
The City of Saint Charles' history and economic vibrancy is forever linked to its river roots. Yet today, approximately a quarter of the City's Riverfront along Bangert Island sits blighted and underutilized. Flooding frequently damages properties that are adjacent to the island. Missouri River control structures, built in the 1930s and 1940s, caused the channel separating the properties from the island to fill with sediment. The Bangert Island Riverfront Transformation Project will recycle the channel spoils to raise the acreage adjacent to the island above the 500-year flood elevation, creating both an aquatic resource and economically viable development sites.

Streets of St. Charles encompass 27-acres of mixed-use development area incorporating retail, entertainment, and residences. It features a town center design with a neighborhood atmosphere. Located in the City of St. Charles in the St. Louis metropolitan area, it has become a destination for dining, shopping, entertainment, and a place to live and work. Streets of St. Charles is bordered by I-70, South 5th Street, South River Road and South Main Street, and has become a magnet that the City hopes to leverage. The Streets of St. Charles project also borders the proposed Project. It will supplement this unique development by bringing additional economic benefits to the community.

This development will occur along Arena Parkway between US 70 (to the North) and Family Area, property owned by the County of Saint Charles. The project will include protecting from stormwater and improving transportation through Smart growth impacts in three phases (Figure 1). While the accompanying excel file includes values for each of the phases, the expectation in this analysis is all phases will be completed at the same time.

If the project were not to move forward, development is not expected. This is supported by various letters received from future tenants, which stated directly that "in the simplest of terms, this investment by USDOT in the transportation infrastructure of the development will [...] result in countless jobs." The City has already garnered commitments for 825,000 square feet of mixed use development and 2,600 jobs in the first 16 acres of development.

#### Figure 1: Phases of Development



BUILD funding for the Bangert Island Riverfront Transformation project will enable St. Charles to:

- Transform 60 acres into high quality riparian area by building new water quality basins. These basins will also help reduce the downstream head elevation and provide volumetric relief to residents who live upstream of the project area on Crystal Springs Creek who experienced unprecedented flooding in 2011 and 2013 when localized strong storm events occurred in the area.
- Create stormwater control and protection from the Missouri River by directly raising over 100 acres of ground to remove it from flood risk, with an additional 182 acres adjacent to this project area indirectly impacted. Significant storm events in 2011, 2013, 2017, and 2019 caused flooding damage that impacted residents in and adjacent to the Bangert Island project area.
- Directly support the development of 6.7 million square feet of prime development ground located within the urban core of the fastest growing County within the State of Missouri (+10.3% since 2010). The project is expected to contribute to 4,000 new jobs with a \$1.5 billion economic impact. The project is expected to directly increase housing in the area by 840 households, with an additional 420 households expected to be built in the surrounding area.
- Create accessibility to the area by constructing approximately 8 lane miles of new roads, new signals, new street lighting, bicycle and pedestrian infrastructure, transit

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improvements, green infrastructure, reconstructing the existing inadequate roadway infrastructure located along Arena Parkway which runs the perimeter of the project.

• Build 14 miles of new sidewalks, 1.6 miles of new or improved trails, and 1.6 miles of new transit facilities. This will reduce driving and shift some of the demand to these other transportation modes.

#### 4.1 Base Case and Alternatives

This BCA measures costs and benefits of the proposed Project against a baseline (also called the "base case" or a "no build" case). The baseline represents an assessment of the way the world would look should this Project not receive the requested BUILD Discretionary Grant funding. The redevelopment area in the baseline, for the most part, will resemble the present state. However, the BCA analysis factors in projected changes (e.g., baseline economic growth, increased traffic volumes, completion of already planned and funded projects) that would occur absent the proposed Project.

Furthermore, the baseline assumes the continuation of reasonable and sound management practices. For example, the baseline scenario assumes continued maintenance on the street network and other public infrastructure systems by the local government. The baseline is also realistic in terms of transportation assumptions. For instance, most drivers, pedestrians, and bicyclists will continue to follow their current routes absent the proposed Project. The proposed Project has independent utility. It has transportation value in the absence of the other components. All of the costs and impacts of the Project form the basis of the estimates of benefits and costs, as it would be incorrect to claim benefits for the entire project but only count the costs associated with the infrastructure improvement project to be funded by the BUILD Discretionary Grant. It is also part of a larger urban renewal and smart growth project. For example, it is adjacent to and will provide synergy with the highly successful Streets of St. Charles project, as well as The Family Arena to the south and west and downtown St. Charles, the Lewis and Clark Boat House and Nature Center, and casino, to the north and east. The City of St. Charles may eventually build this project absent BUILD funding. However, the probability of that occurring and the possible length of delay is unknown. Such a delay would only postpone both benefits and costs. This would result in a similar benefit-cost ratio with fewer net benefits. The lost benefits added emissions, lost-time, and accident costs - will not be recovered. Moreover, this Project will aid in demonstrating the compelling benefits of this innovative smart growth development. Therefore, this BCA does not include a "now versus later" comparison.

#### 4.2 Types of Impacts

The BCA measured impacts on users in the immediate and surrounding areas, which include existing and new residents as well as property owners. The benefits are two of two primary types: Stormwater Control and Smart Growth.

The project will generate Stormwater Control benefits by raising land out of the flood plain, reducing flooding and creating high quality riparian area:

**Ecosystem Benefits** are economic benefits stemming from infrastructure modifications that improve water quality, create riparian lands, and increase recreation and tourism. These



benefits to society are detailed in a FEMA report, cited below in subsections of this report, and discussed in the Ecosystem Benefits section. They include:

- Aesthetic Value
   Air Quality
   Biological Control
   Biodiversity
   Climate Regulation
   Erosion Control
   Flood Hazard Reduction
   Hurricane Storm Hazard Risk Reduction
   Water Supply
- 10. Fiber/Raw Materials

- 11. Food Provisioning
- 12. Habitat
- 13. Pollination
- 14. Recreation/ Tourism
- 15. Storm Water Retention
- 16. Nutrient Cycling
- 17. Water Filtration
- 18. Soil Erosion
- 19. Carbon Storage
- 20. Soil Formation

**Property Value Benefits** resulting from creating new land value through increasing accessibility to the land while removing it from the floodplain.

The majority of the project's benefits are due to increasing Smart Growth Impacts through development. These are economic benefits resulting from locating workplaces, shopping, dining, and recreation together and closer to underserved populations. The project will provide both new users (households to be built both in the development [direct development] as well as the surrounding areas [indirect development]) and existing users with the opportunity to travel much shorter distances to these opportunities. New pedestrian, bicycle and mass transit facilities will allow users to reduce their dependence on their personal vehicles. Upgraded safety features will reduce the number of accidents. The Development and Smart Growth Impacts Benefits include:

- 1. Operating Cost Savings
- 2. Environment / Reduced Emissions
- 3. Safety / Prevented Accidents
- 4. Travel Time Savings
- 5. Health Improvements and Connectivity
- 6. Job and Economic Impacts

#### 4.3 Project Cost and Schedule

The City of St. Charles engineering staff developed capital costs for the Project. Details are provided separately. The total capital cost of the full project is estimated to be \$64.1 million in 2018 dollars and is expected to spent between the years 2018 and 2022 (see excel file for breakdown by phase and year). While there are maintenance costs for the project, the costs are less than the No Build condition, as the roadways are in need of major repair. Costs considered include routine resurfacing and maintenance. After subtracting the Build condition maintenance costs, the maintenance benefits \$1.1 million in \$2018 undiscounted (see excel file for breakdown by phase and year). The project team has prepared a schedule of planning, construction and implementation. The project already began in 2018 and requires five years to complete construction.

#### 4.4 Effects on Selection Criteria

The main benefit categories associated with the project are mapped into the seven merit criteria set forth by USDOT in the table below

BUILD Merit Criteria	Benefit or Impact Categories	Description	Monetized	Quantified	Qualitative
	Accident Reduction Benefits from Smart Growth	The number of accidents will be reduced by modal transit shifts.	Yes	Yes	Yes
Safety	Improved safety with traffic circles and separation of pedestrians and cyclists	Three intersections will be replaced with traffic circles leading to reduction in accidents. New sidewalks and bike trails will reduce the need for pedestrians and cyclists to walk and ride in or in very close proximity to mixed traffic. The improved walking and cycling environment will generate a level of security in traveling in the study area.	No	No	Yes
Economic Competitiveness	Travel Time Savings for Vehicles from Smart Growth	Travel time savings will be realized from driving less.	Yes	Yes	Yes
	Reduced Auto Use	As some residents shift from driving to using the new and improved active transportation facilities, we will see a reduction in the number of automobile drivers, in turn leading to a reduction in costs to operate and maintain the vehicle.	Yes	Yes	Yes
	Property Values	Removing land from the flood plain and adding transit infrastructure increases property values.	Yes	Yes	Yes
	Economic Development	Rezoning the area and adding utilities will encourage commercial and residential development.	No	Yes	Yes

Table 1: Benefit Categories and Expected Effects on BUILD Merit Criteria



BUILD Merit Criteria	Benefit or Impact Categories	Description	Monetized	Quantified	Qualitative
Environmental Sustainability	Emissions Reduction – Smart Growth	Reductions in greenhouse gas and air pollutant emissions due to changes in auto use will result as some people opt to walk or bike rather than drive.	Yes	Yes	Yes
	Ecosystem Improvement	Creating high quality riparian land will provide benefits to the environment and general public	Yes	Yes	Yes
State of Good Repair	Pavement maintenance savings	Some people currently walk or cycle to access their jobs, schools, and other destinations. It is expected that the pedestrian and cyclist facility improvements will induce some automobile drivers to utilize the new and improved facilities, reducing pavement wear and tear on existing roadways.	No	No	No
Quality of Life	New Cyclist and Pedestrian Health Benefit	People not currently biking or walking will be induced to do so as a result of the project. Increased physical activity provides a health benefit.	No	No	Yes
	New and Existing Cyclist and Pedestrian Mobility Benefit	Cyclists and pedestrians will benefit from the improved bike trails and sidewalks which will also increase connectivity.	No	No	Yes
Innovation	Benefits of project as they relate to these criteria are describe in the application.		No	No	Yes
Partnership	are describe in the	application.			

# 5. General Assumptions

The BCA measures benefits against costs throughout a period of analysis beginning at the start of construction and including 30 years of operations.

The monetized benefits and costs are estimated in 2018 dollars with future dollars discounted in compliance with BUILD requirements using a 7 percent real rate. A sensitivity testing at 3 percent is also provided in Section 10.

The methodology makes several important assumptions and seeks to avoid overestimation of benefits and underestimation of costs. Specifically:

- Input prices are expressed in 2018 dollars;
- The period of analysis begins in 2018 and ends in 2052. It includes project development and construction years (2018-2022) and 30 years of operations, beginning in 2023;
- A constant 7 percent real discount rate is assumed throughout the period of analysis. A 3 percent real discount rate is used for sensitivity analysis;
- Opening year demand is assumed to be fully realized after construction is complete; and
- The results shown in this document correspond to the effects of the full Build alternative, which includes all three phases with improvements described previously.

# 6. Schedule of Benefit Impacts and Population

This section of the technical documentation discusses who is impacted by the project under the two primary benefits: stormwater control (e.g. acreage owned property owners and the general public) and transportation infrastructure improvement benefits/Smart Growth (e.g. population projections in the development and surrounding areas).

The stormwater control benefits will occur as soon as the project is complete as the stormwater controls measures will all be in place. However, transportation infrastructure benefits are not only dependent on the transportation infrastructure, but also people who will come and their destinations.

There is already a sizable population ready to be served by this project, with approximately 100,000 people, 10,000 students, and more than 40,000 employees within walking (1/4 mile) and biking (3 miles) distance. It is also located adjacent to Interstate 70 which carries approximately 1 million vehicles per week.

To be conservative, this analysis only considered households that were within a census tract where the majority of the census tract was within 2 miles of the project and focused on the area directly around the US70 (Figure 2). These households were divided into Census Tract (CT) Group 1 and CT Group 2, CT Group 1 consists of census tracts with part of Riverpoint (Table 2).

US Census Tract	Households	Туре
Census Tract 3110.01	1,683	CT Group 1
Census Tract 3110.03	1,522	CT Group 1
Census Tract 3110.04	2,343	CT Group 1
Census Tract 3105.01	1,615	CT Group 2
Census Tract 3105.02	1,196	CT Group 2
Census Tract 3104	963	CT Group 2
Census Tract 3103.02	1,524	CT Group 2

Table 2: Census Tract Groups

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#### 3103.02 3107 3106.01 3104 5 309.03 3109.03 3109.03 3109.03 3105.01 3105.02 3110.04 3110.03 3110.01 3111.46 364 364

#### Figure 2: Census Tracts

In addition, this project will be creating additional housing, through direct and indirect project development. Conservatively, Riverpointe will include 850 new households of direct project development, with an additional 420 households developed in the surrounding area.

Regardless of the close by population, transportation infrastructure must link to destinations for its use. The Smart Growth benefits will only occur once development is finished. Table 3 provides the development schedule, with 10 percent of the development expected to occur in the first year. Thus, transportation and development related benefits are phased in over time. To be conservative, the analysis does not consider commercial trucks.

Year	Phase 1	Phase 2	Phase 3
2023	10%	10%	10%
2024	44%	0%	0%
2025	0%	0%	0%
2026	7%	0%	0%
2027	0%	44%	0%
2028	25%	7%	0%
2029	0%	0%	0%
2030	14%	25%	0%
2031	0%	0%	0%
2032	0%	14%	10%
2033	0%	0%	0%
2034	0%	0%	46%
2035	0%	0%	0%
2036	0%	0%	34%
Households - Direct Project Development	300	540	0
Households - Indirect Project Development	150	270	0
Households - CT Group 1	2,051	1,446	2,051
Households - CT Group 2	1,854	1,589	1,854

Table 3: Development Schedule and Households by Phase

# 7. Stormwater Control Improvement Benefits

This section describes the measurement approach used for each benefit associated with stormwater control improvements and provides an overview of the associated methodology, assumptions, and estimates.

#### 7.1 Ecosystem Improvement

Ecosystem benefits are those that arise due to infrastructure modifications that improve water quality, create riparian lands, and increase recreation and tourism. Stormwater control and an improved ecosystem enhance environmental sustainability in the area. One of USDOT's goals is to advance more sustainable methods of transportation to reduce adverse impacts and guarantee that future generations will be able to experience the same or better standards of living and mobility.<sup>5</sup> According to USDOT, sustainable transportation focuses on environmental impacts to decrease emissions of greenhouse gases and other pollutants, advance the national interest in increasing energy efficiency, reduce our dependence on fossil fuels, and build livable communities. These goals seek to enhance Quality of Life as described in the BUILD NOFO. In addition, the Federal Emergency Management Agency (FEMA) allows consideration of Environmental Benefits in its infrastructure improvement projects.<sup>6</sup> As the Riverpointe Project seeks to reduce flooding issues in St. Charles, these benefits have been included in this analysis. The project will create additional riparian land that will allow for and result in increased tourism and recreation while also enhancing biodiversity and creating value for the public.

#### 7.1.1 METHODOLOGY

The Riverpointe Project includes the conversion of existing lands among various use types. The conversion of this land from wetlands to usable riparian lands provides benefits to the local ecosystem and to residents and visitors. The methodology to estimate benefits associated with the ecosystem improvement relies upon the environmental values of different land use classes and an understanding of the vision of the project. The analysis utilizes these land values and anticipated acreage conversions to estimate the value of the land converted from one use type to another.

While FEMA provides environmental values for five types of land, only two different types are relevant for this project. They are:

• **Wetlands** - a wetland is an area of land whose soil is either permanently or seasonally saturated with moisture. This is the existing condition for much of the land under evaluation in this project.

<sup>&</sup>lt;sup>5</sup> https://www.fhwa.dot.gov/policy/2010cpr/chap11.cfm#body

<sup>&</sup>lt;sup>6</sup> US Department of Homeland Security, "Consideration of Environmental Benefits in the Evaluation of Acquisition Projects under the Hazard Mitigation Assistance (HMA) Programs," FEMA Mitigation Policy – FP-108-024091, June 18, 2013.



Riparian Areas – land located along a water feature such as a stream, creek, or river that
is allowed to revert to a natural state or be converted into park-like settings. These areas
provide a buffer to improve water quality entering the stream and reducing erosion
potential.

The Riverpointe Project will convert 60 acres of existing wetland to riparian areas. To avoid double counting of land values, only the portion of the converted acreage that is not going to be developed for other uses is considered in this calculation.

7.1.2 ASSUMPTIONS

The assumptions used in the estimation of economic competitiveness benefits are summarized in the table below.

Environmental Benefit Monetary Benefit per Acre per Year (\$, 2018					
	Agricultural	Riparian	Wetland	Green	Forests
	Lands	Årea		Space	
Aesthetic Value	\$58	\$654	\$1,937	\$1,827	\$0
Air Quality	\$0	\$242	\$0	\$230	\$254
Biological Control	\$16	\$184	\$0	\$0	\$0
Biodiversity	\$0	\$0	\$127	\$0	\$0
Climate Regulation	\$0	\$230	\$241	\$15	\$445
Erosion Control	\$0	\$12,883	\$0	\$73	\$70
Flood Hazard Reduction	\$0	\$4,509	\$0	\$0	\$0
Hurricane Storm Hazard Risk Reduction*	\$0	\$0	\$0	\$0	\$0
Water Supply	\$0	\$0	\$246	\$0	\$0
Fiber/Raw Materials	\$0	\$0	\$631	\$0	\$0
Food Provisioning	\$0	\$686	\$1,507	\$0	\$0
Habitat	\$0	\$940	\$185	\$0	\$0
Pollination	\$1,014	\$0	\$0	\$326	\$0
Recreation/ Tourism	\$0	\$17,081	\$544	\$6,038	\$0
Storm Water Retention	\$0	\$0	\$6,004	\$330	\$0
Nutrient Cycling	\$0	\$0	\$594	\$0	\$0
Water Filtration	\$0	\$4,785	\$823	\$0	\$0
Soil Erosion	\$143	\$0	\$0	\$0	\$0
Carbon Storage	\$58	\$0	\$0	\$0	\$0
Soil Formation	\$123	\$0	\$0	\$0	\$0
Total	\$1,412	\$42,195	\$12,839	\$8,839	\$769

Table 4: Monetary Benefit per Acre per Year, 2018 Dollars

\*Not Included



#### 7.1.3 BENEFIT ESTIMATES

The Ecosystem Improvement benefits amount to \$1.3 million, when discounted according to a 7 percent discount rate.

Table 5: Estimates of Ecosystem Improvement Benefits, 2018 Dollars

Variable Name	In Constant	Discounted	Discounted
	Dollars	at 7 Percent	at 3 Percent
Ecosystem Benefits	\$1,761,000	\$1,256,000	\$1,519,000

#### 7.2 Property Value Increases

Property value benefits are those that arise due to infrastructure modifications that directly improve the land value due to making them more attractive or accessible. It is important to avoid double counting benefits associated with both the ecosystem improvement and impacts on transportation. This section focuses on the Project's impact from raising the land above the flood plain and not any additional value due to future development.

#### 7.2.1 METHODOLOGY

The research team projected changes in real estate value based on expert opinion and comparable projects. The proposed project will redevelop existing underdeveloped land in the floodplain raising it out of the floodplain so it is suitable for development. The project will provide developable land in an area with employment opportunities, dining, recreation, and shopping. It features biking and hiking trails including the Katy Trail and Bangert Island's trail system. It will be very close to, and have excellent access to, downtown Saint Charles.

The methodology the analysis employed was to develop an inventory of parcels along with their acreage, to assign a value per acreage after development of the properties, and to assign to each property an assumed timeframe for development.

To be conservative, the analysis only considers the impact of lifting the acreage out of the floodplain and does not include impacts from rezoning or relocating utilities along the road, although the capital costs for this work are included. In addition, the impacts on surrounding areas that are indirectly impacted are not included. **The sensitivity analysis does consider these factors as this is the anticipated future outcome.** 

#### 7.2.2 ASSUMPTIONS

The assumptions used in the estimation of property value benefits are summarized in the table below.



Table 6:	Assumptions	Used in the	Estimation	of Property	Value Benefits
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Variable Name	Unit	Value	Source/Notes
Removed from Floodplain	Acres	120	Development Plan
Indirectly Impacted	Acres	182	Development Plan
Pre Land Improvement, East of Katy Trail	\$/Sf	\$0.29	Pg 48 of 12/4/19 appraisal of 2000 S. River Road assuming existing conditions
Pre Land Improvement, West of Katy Trail	\$/Sf	\$1.18	Pg 47 of 12/4/19 appraisal of 2000 S. River Road assuming existing conditions
Post Land Improvement w/o Utilities	\$/Sf	\$1.97	pg 3 of 5/12/20 appraisal of 2000 S. River Road assuming filled to street grade, raised out of 500-year flood plain, streets & sidewalks in place, and all vegetation cleared.
Post Land Improvement w/ Utilities	\$/Sf	\$1.97	No additional appraisal provided
Post Land Improvement w/ Utilities & Rezoning	\$/Sf	\$12.77	Page 1 of 7/6/18 appraisal of South Main St at Lombard St. assuming filled to street grade, raised out of 500-year flood plain, streets & sidewalks in place, and all vegetation cleared. Utility, zoning, and other development improvements are also included.

7.2.3 BENEFIT ESTIMATES

Property value benefits amount to \$4.8 million, when discounted according to a 7 percent discount rate.

Table 7: Estimates of Property Value Benefits, 2018 Dollars

	In Constant	Discounted	Discounted
	Dollars	at 7 Percent	at 3 Percent
Property Values	\$6,730,000	\$4,798,000	\$5,805,000

# 8. Smart Growth Benefit Impacts

Smart Growth, as described by the US Environmental Protection Agency (EPA), includes a range of development and conservation strategies designed to protect health and the natural environment.<sup>7</sup> The policies are designed to make communities stronger, more attractive, and more socially diverse. For this project, smart growth covers the economic benefits resulting from locating workplaces, shopping, dining, and recreation together and closer to underserved populations. This section describes the smart growth economic benefits envisioned from the project. They include:

- Operating Cost Savings
- Environment/Reduced Emissions
- Safety/Prevented Accidents
- Travel Time Savings
- Health Improvements & Connectivity
- Job and Economic Impacts

<sup>&</sup>lt;sup>7</sup> About Smart Growth. US Environmental Protection Agency. https://www.epa.gov/smartgrowth/aboutsmartgrowth#smartgrowth. Accessed 5/14/2020



The general assumptions used in the estimation of smart growth impacts are described below:

The analysis derived a general estimate of Vehicle Miles Traveled (VMT) and Vehicle Hours Traveled (VHT) reduction based on a Strategic Highway Research Program report entitled the "Effect of Smart Growth Policies on Travel Demand"<sup>8</sup> with 50% modal shift of Pedestrian Hours Traveled (PHT) and calculated 6% modal shift of Pedestrian Miles Traveled (PMT) to pedestrians, cyclists and mass transit. This conservative approach lead to generally 30% VMT reduction, 30% VHT reduction, 1.8% PMT increase and 15% PHT increase. New households from indirect development and located in CT Group 1 are expected to have half of these changes. CT Group 2 has 25% of these changes, except for the modal shift to PHT (50% of the direct development).

Table 8 includes the VMT, PMT, VHT and PHT for both No Build and Build. The average No Build household is assumed to have 42.2 VMT and 1.1 VHT per day (see spreadsheet for sources) and 1 PMT and 0.1 PHT per day.

Variables	Direct	Indirect	CT Group 1	CT Group 2
No Build VMT (Vehicle)	42.2	42.2	42.2	42.2
No Build PMT (Other Modes)	0.4	0.4	0.4	0.4
Build VMT (Vehicle)	29.8	36.0	36.0	39.1
Build PMT (Other Modes)	1.7	1.0	1.0	1.0
No Build PHT (Vehicle)	1.8	1.8	1.8	1.8
No Build PHT (Other Modes)	0.1	0.1	0.1	0.1
Build PHT (Vehicle)	1.2	1.5	1.5	1.6
Build PHT (Other Modes)	0.3	0.2	0.2	0.2

Table 8: Values per Household

#### 8.1 Vehicle Operating Cost Savings

The proposed project will contribute to enhancing economic competitiveness through multi-modal cost savings across the study area. The planned development is expected to lead to a reduction in automobile usage, which will in turn result in reduced operating costs.

#### 8.1.1 METHODOLOGY

Vehicle operating cost savings are quantified as the reduction in vehicle miles traveled projected as a result of project improvements compared to the increase in miles traveled on other modes (e.g. bicycles). This measure of miles averted is monetized according to parameters recommended in USDOT BCA Guidance.

#### 8.1.2 ASSUMPTIONS

The assumptions used in the estimation of economic competitiveness benefits are summarized in the table below.

<sup>&</sup>lt;sup>8</sup> Maren Outwater, Colin Smith, Jerry Walters, Brian Welch, Robert Cervero, Kara Kockelman, J. Richard Kuzmyak,, *Effect of Smart Growth Policies on Travel Demand*, Strategic Highway Research Program, Transportation Research Board, Washington, D.C., 2014

Table 9: Assumptions Used in the Estimation of Vehicle Operating Cost Savings Benefits

Variable Name	Unit	Value	Source
Vehicle Operating Cost – Light Duty Vehicles	\$/VMT	\$0.41	USDOT, BCA Guidance for Discretionary Grant Programs, January 2020.
Operating Costs – non-vehicular	\$/PMT	\$0.10	http://bikearlingtonforum.com/showthread. php?123-Cost-per-Mile-of-Biking

#### 8.1.3 BENEFIT ESTIMATES

Vehicle operating cost savings benefits amount to \$51 million, when discounted according to a 7 percent discount rate.

 Table 10: Estimates of Vehicle Operating Cost Savings Benefits, 2018 Dollars

	In Constant	Discounted	Discounted
	Dollars	at 7 Percent	at 3 Percent
Vehicle Operating Cost Savings	\$199,968,000	\$51,110,000	\$106,648,000

#### 8.2 Environmental Sustainability

Reducing the number of vehicles on the road will contribute to environmental sustainability by reducing vehicle emissions. Emissions reductions benefits are expected to be realized as a portion of current drivers switch to active transportation modes, including biking, as a result of the project improvements.

#### 8.2.1 METHODOLOGY

Emissions rates for motor vehicles, in grams per mile, were estimated using the EPA MOVES model. These per-mile emissions rates for five distinct pollutants—CO<sub>2</sub>, VOC, NO<sub>x</sub>, SO<sub>2</sub>, and PM—were multiplied by change in Vehicle Miles Traveled (VMT) to calculate total change in emissions volumes. Reduced emissions were then monetized according to USDOT BCA Guidance.

#### 8.2.2 ASSUMPTIONS

The assumptions and parameters used in the estimation of environmental sustainability benefits are summarized in the table below.

Variable Name	Unit	Value	Source
Value of Reduced Emissions: CO2		\$1.00 - \$2.00	USDOT, BCA Guidance for
Value of Reduced Emissions: VOCs	\$ per metric ton	\$2,313	Discretionary Grant Programs,
Value of Reduced Emissions: NOx		\$9,473	January 2020.

Table 11: Assumptions Use in the Estimation of Environmental Sustainability Benefits

City of St. Charles, Missouri | Bangert Island Riverfront Transformation Project Benefit-Cost Analysis Supplementary Documentation



Variable Name	Unit	Value	Source
Value of Reduced Emissions: PM2.5		\$426,611	
Value of Reduced Emissions: SO <sub>2</sub>		\$55,185	
Emissions Factor: CO <sub>2</sub>		316.4	
Emissions Factor: VOCs		0.289	
Emissions Factor: NOx	grams per mile	0.610	EPA MOVES Database
Emissions Factor: PM		0.064	
Emissions Factor: SO <sub>2</sub>		0.033	
Annual Days	days per year	365	

#### 8.2.3 BENEFIT ESTIMATES

The project improvements are estimated to decrease air contaminant emissions over the study period, as drivers divert to biking and vehicle trips are made more efficient with the improvements on the roadway. This benefit is estimated to be approximately \$0.3 million when discounted by seven percent.

Table 12: Estimates of Environmental Sustainability Benefits, 2018 Dollars

	In Constant	Discounted	Discounted
	Dollars	at 7 Percent	at 3 Percent
Emissions Reduction Benefit	\$1,119,000	\$279,000	\$591,000

#### 8.3 Safety

Investment in the corridor as a result of the Riverpointe project will enhance safety through the implementation of new roundabouts along the corridor. The modal shift and anticipated reduction in vehicle miles traveled is also expected to have an impact on the overall number of crashes in the corridor. Relocating the Katy Trail to avoid a roadway crossing, enhancing sidewalks and wider on-street bike lanes along the corridor will improve safety for all users.

#### 8.3.1 METHODOLOGY

Accident reduction benefits generated by the improved corridor are estimated for this project based on the reduction in vehicle miles traveled and USDOT-recommended values for monetizing safety benefits. To estimate safety benefits, avoided crashes are multiplied by estimates of the economic cost of crashes per USDOT's Guidance.

Five years of crash data for the safety analysis was obtained for Missouri and St. Charles County. Data were extracted from the Missouri State Highway Patrol Statistical Analysis Center and the Missouri Statewide Traffic Accident Record System (STARS) from January 2016 through December 2019.



The No-Build crash predictions were based on the historic crash data and vehicular traffic in the area. The Build scenario includes a reduction in overall vehicle miles traveled and a modal shift to bike and pedestrian uses. This reduction in vehicle miles traveled leads to a reduction in overall crashes on a per VMT basis. While it is anticipated that the new road infrastructure will further reduce crash rates, specific crash modification factors were not applied and the resulting improvement in safety is likely a conservative estimate.

8.3.2 ASSUMPTIONS

The assumptions used in the estimation of safety benefits are summarized in the table below and is consistent with USDOT BCA Guidance.

Variable Name	Unit	Value	Source
Fatalities – auto		0.009	
Injuries- auto		0.672	Missouri Statewide Traffic Accident Records System
Property damage only – auto		1.914	
Fatalities- non-vehicular	Per million VMT	0.027	https://bicycleuniverse.com/bicycle- safety-almanac/; https://crashstats.nhtsa.dot.gov/Api/Publi c/ViewPublication/810968
Injuries- non-vehicular		0.250	2001 pedestrian crash every 4 Million walking miles. https://bicycleuniverse.com/bicycle- safety-almanac/
Property damage only – non- vehicular		1.914	HDR Assumption
Value of Averted Fatality (K)		\$9,600,000	
Value of Averted Incapacitating Injury (A)	\$ per	\$459,100	
Value of Averted Non- Incapacitating Injury (B)	fatality or injury	\$125,000	USDOT, BCA Guidance for Discretionary Grant Programs,
Value of Averted Possible Injury (C)		\$63,900	January 2020.
Value of Averted No Injury (O)		\$3,200	
Value of Averted Property Damage	\$ per vehicle	\$4,300	

 Table 13: Assumptions Used in the Estimation of Safety Benefits

#### 8.3.1 BENEFIT ESTIMATES

Safety benefits are generated by the improved infrastructure in the Riverpointe Project area. Crash reduction benefits generated by improved intersections, signaling, and other improvements are significant, estimated at \$21.7 million over the 30-year period, when discounted at seven percent.

Table 14: Estimates of Safety Benefits, 2018 Dollars

	In Constant	Discounted	Discounted
	Dollars	at 7 Percent	at 3 Percent
Crash Reduction Benefit	\$84,691,000	\$21,652,000	\$45,173,000

#### 8.4 Time Savings

The proposed project will contribute to enhancing economic competitiveness through multi-modal time savings across the study area.

8.4.1 METHODOLOGY

Travel time savings are quantified as the reduction in aggregate vehicle delay projected as a result of project improvements. This measure of delay hours averted is monetized according to parameters recommended in USDOT BCA Guidance.

#### 8.4.2 ASSUMPTIONS

The assumptions used in the estimation of economic competitiveness benefits are summarized in the table below.

Table 15: Assumptions Used in the Estimation of Time Savings Benefits

Variable Name	Unit	Value	Source
Average Vehicle Occupancy – All Travel	passengers per vehicle	1.67	USDOT, BCA
Value of Time – Automobiles ("All Purposes")	ſ / haur	\$16.60	Guidance for Discretionary
Value of Time – Trucks ("Truck Drivers")	\$ / hour	\$29.50	<i>Grant Program</i> s, January 2020.

8.4.3 BENEFIT ESTIMATES

Motor vehicle travel time savings benefits amount to \$32 million, when discounted according to a 7 percent discount rate.

Table 16: Estimates of Time Savings Benefits, 2018 Dollars

	In Constant	Discounted	Discounted
	Dollars	at 7 Percent	at 3 Percent
Travel Time Savings	\$125,069,000	\$32,034,000	\$66,761,000

#### 8.5 Quality of Life

In terms of monetized quality of life benefits, the proposed project is expected to generate health benefits for new cyclists and pedestrians. Another quality of life benefit is improved mobility for existing cyclists, whose journey quality is improved by project enhancements.

USDOT Guidance on the valuation of active transportation quality of life benefits is not as established as for other benefit categories. Accordingly, quality of life benefits arising from increased active transportation utilization have conservatively been excluded from the benefit-cost analysis.

#### 8.6 Innovation and Partnership

Qualitative information related to these BUILD merit criteria are provided in the application narrative.

# 9. Summary of Findings and BCA Outcomes

The tables below summarize the BCA findings. Annual costs and benefits are computed over the lifecycle of the project and, as stated earlier, construction is expected to be completed in 2025. Benefits accrue during the full operation of the project, which begins after construction.

Project Evaluation Metric	7% Discount Rate	3% Discount Rate	
Total Discounted Net Benefits	\$111 million	\$226 million	
Total Discounted Costs	\$53.9 million	\$59.7 million	
Net Present Value	\$57.2 million	\$166.9 million	
Benefit / Cost Ratio	2.05	3.76	
Internal Rate of Return (%)	13.1%		
Payback Period (from 2018)17 years		15 years	

Table 17: Overall Results of the Benefit Cost Analysis, 2018 Dollars\*

Considering all monetized benefits and costs, the estimated internal rate of return of the project is 13.0 percent. With a 7 percent real discount rate, the investment would result in \$111 million in total net benefits<sup>9</sup> and a Benefit/Cost ratio of approximately 2.05.

With a 3 percent real discount rate, the Net Present Value of the project would increase to \$226 million, for a Benefit/Cost ratio of 3.76.

<sup>&</sup>lt;sup>9</sup> Total Net Benefits include negative O&M cost dis-benefits per USDOT Guidance.

# 10. BCA Sensitivity Analysis

The BCA outcomes presented in the previous sections rely on a large number of assumptions and long-term projections, both of which are subject to considerable uncertainty. The primary purpose of the sensitivity analysis is to help identify the variables and model parameters whose variations have the greatest impact on the BCA outcomes: the "critical variables."

The sensitivity analysis can also be used to:

- Evaluate the impact of changes in individual critical variables how much the final results would vary with reasonable departures from the "preferred" or most likely value for the variable; and
- Assess the robustness of the BCA and evaluate, in particular, whether the conclusions reached under the "preferred" set of input values are significantly altered by reasonable departures from those values.

One key sensitivity to note is the addition of rezoning to property values. This scenario represents the actual expected outcome of this proposed investment, generating further benefits over the base case that was conservatively utilized for this analysis. With the rezoning of the newly improved land, the project is expected to generate a net present value of \$104.8 million and a benefit-cost ratio of 2.92.

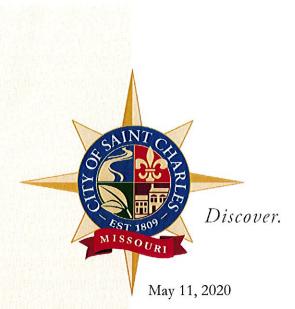
The outcomes of the quantitative analysis for the project using a 7 percent discount rate are summarized in the table below. The table provides the percentage changes in project NPV associated with variations in variables or parameters or calculations (listed in row), as indicated in the column headers.

The BCA model that is provided as part of this application and technical appendix also allows additional sensitivity analyses.

Parameters	Change in Parameter Value	New NPV	% Change in NPV	New B/C Ratio
No Additional Changes		\$57,268,000		2.05
Benefits Period	Benefits Period of 20 Years	\$37,989,000	-34%	1.70
	Reduce Direct Project Development to 50%	\$51,224,000	-11%	1.94
Development	Reduce Indirect Project Development to 50%	\$55,757,000	-3%	2.02
Development	Reduce Census Tract Group 1 to 50%	\$22,056,000	-61%	1.40
	Reduce Census Tract Group 2 to 50%	\$47,496,000	-17%	1.87
Property Values	Remove Property Values	\$52,470,000	-8%	1.96
	Add in Indirect Acreage	\$64,596,000	13%	2.18
	Remove Utilities Relocation Costs	\$60,737,000	6%	2.19
	Add in Rezoning	\$104,849,000	83%	2.92
Total Project Cost	20% Reduction in Project Costs	\$68,176,000	19%	2.56
	20% Increase in Project Costs	\$46,360,000	-19%	1.71
	Add Trolley (Benefits and Costs)	\$70,279,000	23%	2.13
SMART Growth	Increase SMART Ratio by 25%	\$83,536,000	46%	2.53
	Decrease SMART Ratio by 25%	\$30,999,000	-46%	1.57

Table 18:	Quantitative	Assessment of	Sensitivity,	Summary
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# APPENDIX B - FINANCIAL AND PROPERTY ACQUISITION COMMITMENT LETTER



Secretary Elaine L. Chao U.S. Department of Transportation 1200 New Jersey Avenue S.E. Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the BUILD Funding request for the Bangert Island Riverfront Transformation project at Riverpointe. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. Riverpointe epitomizes the type of job creating project that is essential in this time of rebuilding.

I fully support the efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States. With the City of Saint Charles now owning the entirety of the Phase 1 development area and partnering with the U.S. Army Corps of Engineers for preliminary design and environmental work, the area is ready for development. The City and its' partners have moved forward with grading work onsite, tree clearing, utility relocations, and reconstruction of Arena Parkway.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs.



### Dan Borgmeyer Office of the Mayor

City of Saint Charles 200 North Second Street Saint Charles, MO 63301 O- 636.949.3269 C- 636-485-0708 www.stcharlescitymo.gov dan.borgmeyer@stcharlescitymo.gov PREVIEW Date: May 18, 2020 The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

With this application, we are committed with our partners to provide the local matching requirement, maintain the facilities, and acquire property required to deliver this project within the timeframe required by the FY2020 BUILD Discretionary Grant Program. In fact, the City and its' local partners have commenced roadway, utility, and grading construction activities, continued permitting work, have completed acquisition of all property within Phase 1, and finalizing negotiations for acquisitions on Phases 2 and 3.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Daniel J. Borgmeyer, Mayor City of Saint Charles, Missouri

# APPENDIX C - TRANSPORTATION IMPROVEMENT PLAN (TIP) COMMITMENT



Creating Solutions Across Jurisdictional Boundaries

Chair Steve Ehlmann County Executive St. Charles County Vice Chair Kurt Prenzler

Chairman Madison County Board

2nd Vice Chair

Lyda Krewson Mayor, City of St. Louis

Executive Committee Tim Brinker

Presiding Commissioner Franklin County

Robert Elmore Chairman, Board of Commissioners Monroe County

Dennis Gannon County Executive, Jefferson County Mark A. Kern Chairman, St. Clair County Board Dr. Sam Page County Executive, St. Louis County Members

Robert Fastern III Mayor, City of East St. Louis Reaaie Jones St. Louis County **Richard Kellett** St. Louis County James Knowles III Municipal League of Metro St. Louis Mark Kupsky President, Southwestern Illinois Council of Mayors Cheryl Maguire Vice President, Southwestern Illinois Council of Mayors Robert Marguart Alderman, City of Union Franklin County Roy Mosley St. Clair County Lewis Reed President, Board of Aldermen City of St. Louis Herbert Simmons President, Southwestern Illinois Metropolitan & Regional Planning Commission **Michael Walters** Madison County John White St. Charles County **Regional Citizens** Barbara Geisman C. William Grogan John A. Laker Ron Williams **Non-voting Members** Holly Bieneman Illinois Department of Transportation Vacant Illinois Department of Commerce and Economic Opportunity Patrick McKenna Missouri Department of Transportation Taulby Roach Bi-State Development Aaron Willard Missouri Office of Administration

Executive Director James M. Wild April 29, 2020

Ms. Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave, SE Washington, D.C. 20590

RE: Letter of support for the Bangert Island Riverfront Transformation Project, 2020 BUILD Grant application

Dear Secretary Chao:

I strongly support the City of St. Charles's 2020 BUILD Grant application for the Bangert Island Riverfront Development Project (also known as Riverpointe). The project will create accessibility around the island by constructing approximately eight lane miles of new roads, new signals, new street lighting, bicycle and pedestrian infrastructure, transit improvements, green infrastructure, reconstructing the existing inadequate roadway infrastructure located along Arena Parkway which runs the perimeter of the project, and create storm water control and protection from the Missouri River.

Although this project is not identified in the region's current Transportation Improvement Program (TIP), the East-West Gateway Council of Governments, the Metropolitan Planning Organization for the St. Louis region, will amend the TIP if the application is selected to receive funding through the 2020 BUILD Grant program.

The Council recognizes the importance of local priorities and the need to implement them. Given the present level of federal and state transportation funds available to the St. Louis region, it is unlikely that implementation of such an important project will proceed without an infusion of funds dedicated specifically to the project.

Sincerely,

Da M. WW

James M. Wild Executive Director

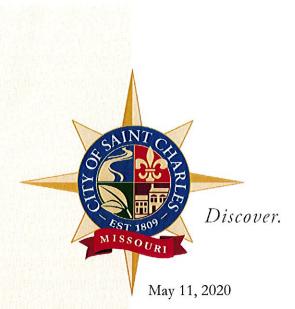
Gateway Tower One Memorial Drive, Suite 1600 St. Louis, MO 63102-2451

**314-421-4220 618-274-2750** Fax 314-231-6120

webmaster@ewgateway.org www.ewgateway.org

## APPENDIX D1 – SUPPORT LETTERS

- MAYOR DANIEL J. BORGMEYER, MAYOR OF THE CITY OF ST. CHARLES
- EXECUTIVE DIRECTOR JAMES M. WILD, EAST WEST GATEWAY COUNCIL OF GOVERNMENTS
- GOVERNOR MICHAEL L. PARSON, STATE OF MISSOURI
- UNITED STATES SENATOR ROY BLUNT
- UNITED STATES SENATOR JOSH HAWLEY
- UNITED STATES CONGRESSMAN BLAINE LUETKEMEYER
- UNITED STATES CONGRESSWOMAN ANN WAGNER
- STEVE EHLMANN, ST. CHARLES COUNTY EXECUTIVE
- VINCENT F. RATCHFORD, ST. CHARLES CITY COUNCIL WARD 3
- RYAN S. CARLIE, THE OPUS DEVELOPMENT GROUP
- TODD SCHNEIDER, SKYVIEW PARTNERS
- MICHAEL DENCKHOFF, SAVOY PROPERTIES
- CHRISTOPHER M. WEST, CULLINAN PROPERTIES
- WARD SHAW, AMERISTAR CASINO RESORT SPA
- CHUCK DRURY, DRURY HOTELS
- MIKE KEHOE, LIEUTENANT GOVERNOR
- ROBERT B. DIXON, MISSOURI DEPARTMENT OF ECONOMIC DEVELOPMENT
- DANIEL P. MEHAN, MISSOURI CHAMBER OF COMMERCE AND INDUSTRY
- MISSOURI STATE SENATOR BILL EIGEL
- MISSOURI STATE SENATOR BOB ONDER
- MISSOURI STATE REPRESENTATIVE CHRISSY SOMMER
- MISSOURI STATE REPRESENTATIVE TOM HANNEGAN
- FORMER STATE SENATE PRO TEM TOM DEMPSEY
- CELESTE RUETER, HOME BUILDERS ASSOCIATION OF ST. LOUIS & EASTERN MISSOURI
- JERRY E. SCHEIDEGGER, CORPORATE GROUP, INC.
- KEITH SCHNEIDER, CUSHMAN & WAKEFIELD
- SCOTT J. DRACHNIK, ECONOMIC DEVELOPMENT CENTER OF ST. CHARLES COUNTY
- DR. JOHN R. PORTER, LINDENWOOD UNIVERSITY
- BILL LUETKENHAUS, LUETKENHAUS PROPERTIES
- T.R. HUGHES, T.R. HUGHES HOMES
- ROBERT D. MILLSTONE, THE MILLSTONE COMPANY
- RANDY SCHILLING, OPO STARTUPS
- LISLE WESCOTT, SSM HEALTH
- JASON SEFRIT, THE CITY OF ST. CHARLES R-VI SCHOOL DISTRICT
- SCOTT TATE, GREATER ST. CHARLES COUNTY CHAMBER OF COMMERCE
- CITY OF ST. CHARLES RESOLUTION R20-018 IN SUPPORT OF 2020 USDOT BUILD GRANT
- SENATE CONCURRENT RESOLUTION NUMBER 37 ENDORSING THE BANGERT ISLAND RIVERFRONT TRANSFORMATIONAL PROJECT



Secretary Elaine L. Chao U.S. Department of Transportation 1200 New Jersey Avenue S.E. Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the BUILD Funding request for the Bangert Island Riverfront Transformation project at Riverpointe. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. Riverpointe epitomizes the type of job creating project that is essential in this time of rebuilding.

I fully support the efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States. With the City of Saint Charles now owning the entirety of the Phase 1 development area and partnering with the U.S. Army Corps of Engineers for preliminary design and environmental work, the area is ready for development. The City and its' partners have moved forward with grading work onsite, tree clearing, utility relocations, and reconstruction of Arena Parkway.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs.



## Dan Borgmeyer Office of the Mayor

City of Saint Charles 200 North Second Street Saint Charles, MO 63301 O- 636.949.3269 C- 636-485-0708 www.stcharlescitymo.gov dan.borgmeyer@stcharlescitymo.gov PREVIEW Date: May 18, 2020 The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

With this application, we are committed with our partners to provide the local matching requirement, maintain the facilities, and acquire property required to deliver this project within the timeframe required by the FY2020 BUILD Discretionary Grant Program. In fact, the City and its' local partners have commenced roadway, utility, and grading construction activities, continued permitting work, have completed acquisition of all property within Phase 1, and finalizing negotiations for acquisitions on Phases 2 and 3.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Daniel J. Borgmeyer, Mayor City of Saint Charles, Missouri



Creating Solutions Across Jurisdictional Boundaries

Chair Steve Ehlmann County Executive St. Charles County Vice Chair Kurt Prenzler

Chairman Madison County Board

2nd Vice Chair

Lyda Krewson Mayor, City of St. Louis

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Robert Fastern III Mayor, City of East St. Louis Reaaie Jones St. Louis County **Richard Kellett** St. Louis County James Knowles III Municipal League of Metro St. Louis Mark Kupsky President, Southwestern Illinois Council of Mayors Cheryl Maguire Vice President, Southwestern Illinois Council of Mayors Robert Marguart Alderman, City of Union Franklin County Roy Mosley St. Clair County Lewis Reed President, Board of Aldermen City of St. Louis Herbert Simmons President, Southwestern Illinois Metropolitan & Regional Planning Commission **Michael Walters** Madison County John White St. Charles County **Regional Citizens** Barbara Geisman C. William Grogan John A. Laker Ron Williams **Non-voting Members** Holly Bieneman Illinois Department of Transportation Vacant Illinois Department of Commerce and Economic Opportunity Patrick McKenna Missouri Department of Transportation Taulby Roach Bi-State Development Aaron Willard Missouri Office of Administration

Executive Director James M. Wild April 29, 2020

Ms. Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave, SE Washington, D.C. 20590

RE: Letter of support for the Bangert Island Riverfront Transformation Project, 2020 BUILD Grant application

Dear Secretary Chao:

I strongly support the City of St. Charles's 2020 BUILD Grant application for the Bangert Island Riverfront Development Project (also known as Riverpointe). The project will create accessibility around the island by constructing approximately eight lane miles of new roads, new signals, new street lighting, bicycle and pedestrian infrastructure, transit improvements, green infrastructure, reconstructing the existing inadequate roadway infrastructure located along Arena Parkway which runs the perimeter of the project, and create storm water control and protection from the Missouri River.

Although this project is not identified in the region's current Transportation Improvement Program (TIP), the East-West Gateway Council of Governments, the Metropolitan Planning Organization for the St. Louis region, will amend the TIP if the application is selected to receive funding through the 2020 BUILD Grant program.

The Council recognizes the importance of local priorities and the need to implement them. Given the present level of federal and state transportation funds available to the St. Louis region, it is unlikely that implementation of such an important project will proceed without an infusion of funds dedicated specifically to the project.

Sincerely,

Da M. W.D

James M. Wild Executive Director

Gateway Tower One Memorial Drive, Suite 1600 St. Louis, MO 63102-2451

**314-421-4220 618-274-2750** Fax 314-231-6120

webmaster@ewgateway.org www.ewgateway.org STATE CAPITOL 201 W. CAPITOL AVENUE, ROOM 216 JEFFERSON CITY, MISSOURI 65101



(573) 751-3222 WWW.GOVERNOR.MO.GOV

Michael L. Parson

GOVERNOR State of Missouri May 14, 2020

Secretary Elaine Chao Transportation Secretary U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington DC 20590

Dear Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter in support of the Bangert Island Riverfront Transformation project and request for BUILD Funding. This development will bring in additional visitors and a high-income workforce that will contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's economic, ecological, and recreational growth.

Investment in this project, known locally as the "Riverpointe," will transform the City's riverfront into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat, and establish a water quality basin along the Missouri River. With the award of the BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. Riverpointe achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors. The project has the support of many local businesses and community leaders, the entire St. Charles County legislative delegation, the Missouri House and Senate, and our Congressional delegation. Federal funding and cooperation will bring this project to fruition in the near future, and I ask that its candidacy be considered.

Sincerely, Michael L. Parson

Michael L. Parso Governor



CHAIRMAN, REPUBLICAN POLICY COMMITTEE

260 RUSSELL SENATE OFFICE BUILDING WASHINGTON, DC 20510–2508 202–224–5721



WASHINGTON, DC 20510

COMMITTEES: APPROPRIATIONS

COMMERCE, SCIENCE AND TRANSPORTATION

> RULES AND ADMINISTRATION, CHAIRMAN

SELECT COMMITTEE ON INTELLIGENCE

May 14, 2020

The Honorable Elaine Chao Secretary of Transportation U. S. Department of Transportation 1200 New Jersey Avenue SE Washington, DC 20590-0001

Dear Secretary Chao:

The City of St. Charles, Missouri, has continued to invest time and resources to perfect their vision of the Bangert Island Riverfront Development project, known locally as "Riverpointe." It has come to my attention that they have applied for the United States Department of Transportation's BUILD grant program to complete this project.

The City of St. Charles has the opportunity to enhance a growing business district along the Missouri River through their Bangert Island Riverfront Transportation Project. This grant would assist in bringing multimodal transportation infrastructure to St. Charles. Their development plan will restore a damaged aquatic habitat, establish a water quality basin along the Missouri River, and have a positive economic impact on the region. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

This project is widely supported by the local government leaders, businesses, and regional organizations. It is my hope that you will give full and fair consideration to this request from the City of St. Charles.

Sincere regards,

Roy Blunt United States Senator

BLAINE LUETKEMEYER MEMBER OF CONGRESS 3RD DISTRICT, MISSOURI

http://luetkemeyer.house.gov/ www.facebook.com/BlaineLuetkemeyer www.twitter.com/RepBlaine www.instagram.com/RepBlaine

May 13, 2020

U.S. Department of Transportation ATTN: Secretary Elaine L. Chao 1200 New Jersey avenue, S.E. Washington DC 20590

Dear Secretary Chao:

RE: City of Saint Charles Missouri - request for BUILD funding

Please accept this letter as my support for the City of Saint Charles' request for BUILD funding. The Bangert Island Riverfront Development project, locally known as "Riverpointe", will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding. This project is essential in advancing a long-term vision for the revitalization of the City's riverfront.

Congress of the United States

House of Representatives

Mashinaton. DC 20515

The City has already started construction and design of portions of the project. Receiving USDOT BUILD grant funding will allow the city to complete this project creating up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will be an important contribution to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The transportation investment in this development will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is equipped to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years and is now poised to create thousands of jobs and billions of dollars in economic growth. All the while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species. "Riverpointe" has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senators and U.S. Congressman along with local business and community leaders.

For the reasons listed above, I ask you seriously consider the City of Saint Charles' request for BUILD funding. Any questions regarding my support can be directed to my Wentzville, Mo office.

Respectfully,

Blaine Luetkemeyer Member of Congress

2230 RAYBURN HOUSE OFFICE BUILDING WASHINGTON, DC 20515 PHONE: (202) 225-2956 Fax: (202) 225-5712 113 East Pearce Boulevard Wentzville, MO 63385 Phone: (636) 327–7055 516 Jefferson Street Washington, MO 63090 Phone: (636) 239–2276 2117 MISSOURI BOULEVARD JEFFERSON CITY, MO 65109 PHONE: (573) 635–7232 FAX: (573) 635–8347

Housing, Community Development and Insurance

PREVIEW Date: May 18, 2020

-



KYLE PLOTKIN CHIEF OF STAFF

212 RUSSELL SENATE OFFICE BUILDING TELEPHONE: (202) 224-6154 FAX: (202) 228-0526 WWW.HAWLEY.SENATE.GOV



WASHINGTON, DC 20510-2509

COMMITTEES JUDICIARY ARMED SERVICES HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS SMALL BUSINESS AND ENTREPRENEURSHIP AGING

July 31, 2019

The Honorable Elaine Chao Secretary United States Department of Transportation 1200 New Jersey Avenue, SE Washington, D.C. 20250

Dear Secretary Chao:

I am writing in regard to the Bangert Island Riverfront Transformation Project BUILD grant application being submitted by the City of St. Charles.

The Bangert Island Riverfront Transformation Project will develop the infrastructure needed to invest in the St. Charles riverfront by creating multimodal transportation infrastructure, restoring aquatic habitat and establishing a water quality basin along the Missouri River. This infrastructure will allow new business and residential development along the river, bringing jobs and economic growth to the region.

I respectfully request you give this grant proposal full and fair consideration. Additionally, I ask that you keep my office informed of the progress of the proposal and notify me when recipients are chosen. If you have any questions, please contact Samuel Saffa in my St. Louis district office at (314) 412-3734 or samuel\_saffa@hawley.senate.gov.

Josh Hawley United States Senator

ANN WAGNER

2ND DISTRICT, MISSOURI

2350 RAYBURN HOUSE OFFICE BUILDING WASHINGTON, DC 20515 (202) 225-1621

> 301 SOVEREIGN COURT SUITE 201 BALLWIN, MO 63011 (636) 779-5449

wagner.house.gov

**Congress of the United States** House of Representatives Mashington, DC 20515-2502 VICE RANKING MEMBER COMMITTEE ON FINANCIAL SERVICES

RANKING MEMBER SUBCOMMITTEE ON DIVERSITY AND INCLUSION

SUBCOMMITTEE ON INVESTOR PROTECTION, ENTREPRENEURSHIP, AND CAPITAL MARKETS

> VICE RANKING MEMBER COMMITTEE ON FOREIGN AFFAIRS

SUBCOMMITTEE ON EUROPE, EURASIA, ENERGY, AND THE ENVIRONMENT

SUBCOMMITTEE ON ASIA, THE PACIFIC, AND NONPROLIFERATION

May 7, 2020

Secretary Elaine L. Chao United States Secretary of Transportation 1200 New Jersey Ave, SE Washington, D.C. 20590

Dear Secretary Chao,

I am writing in support of the City of St. Charles, Missouri's grant application through the U.S. Department of Transportation's BUILD discretionary grant program.

This grant would assist the City of St. Charles with their Bangert Island Riverfront Transformation Project (Riverpointe) to transform the riverfront of the city. The City of St. Charles informs me that the project is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. It is also my understanding that the development would bring additional visitors and a high-income workforce to the region.

I ask that you give the City of St. Charles' request your full and fair consideration.

Ann Wagner Member of Congress



Steve Ehlmann County Executive

Joann Leykam Director of Administration

Jennifer George Assistant Director of Administration

John Greifzu Assistant Director of Administration

May 7, 2020

The Honorable Elaine L. Chao Office of the Secretary U.S. Department of Transportation 1200 New Jersey Ave, SE Washington DC 20590

## Re: BUILD Grant – Riverpoint Riverfront Development Project City of St. Charles, Missouri

Dear Secretary Chao:

On behalf of the City of St. Charles, please accept this letter as a show of support for their Riverpoint Riverfront Development Project BUILD Application. This support is based on the understanding and assumption that no work will be done within the floodway, nor will any work result in raising the base flood elevation.

The County believes that transportation investment in this project will transform the riverfront of St. Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the City of St. Charles now owning the entirety of the Phase 1 development area and partnering with the U.S. Army Corps of Engineers for preliminary design and environmental work, the area is ready for development.

The Riverpoint Project extends beyond the boundaries of St. Charles. This project will provide our region with \$1.5 billion in new economic activity while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I support the City of St. Charles in this application and seek your favorable consideration of this project for BUILD funding.

Sincere

Steve Ehlmann St. Charles County Executive

SEE/vh

100 N. Third St. - Suite 318 | St. Charles, MO 63301 | P 636.949.7520 | 1.800.822.4012 | F 636.949.7521 | executive@sccmo.org | www.sccmo.org

May 2, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. This development sits within Ward 3 of the City of Saint Charles, which I represent on City Council. I am positive that this will development will be of great benefit to my constituents and all residents of our city and region. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long term vision for the revitalization of the City's riverfront. The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senators and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years, and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Vincant F. Rateliford

Vincent F. Ratchford City Council, Ward 3, City of St. Charles, Missouri



May 5, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

Please accept this letter as a sign of support of The Opus Group for the City's application for the Riverpointe Project. The vision for the Riverpointe Development near Bangert Island perfectly fits our business needs, and is an exemplary example of the smart growth ideals that we look for when selecting a site. However, without investment in the roads and infrastructure, these jobs will not come to fruition. In the simplest of terms, this investment by USDOT in the transportation infrastructure of the development will puts us in a position to offer market rents to potential office users that could create up to 2,100 jobs over 300,000 SF of high quality office space in the City of St. Charles at the Riverpointe Development.

This type of development typifies the type of development that modern day office users require for their employees to live, work, and play locally while limiting vehicles miles traveled, emissions, and other costly societal impacts. The development will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

The Opus Group fully supports the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years, and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation is required for us to continue to work towards bringing this project to fruition in the near future.

Sincerely,

Opus Development Company, L.L.C.

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Director

# SkyView Partners, LLC 1610 Des Peres Road, suite 130 | St. Louis, MO 63131

May 4, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

## RE: Riverpointe Development | St. Charles, MO

Dear Transportation Secretary Chao:

Please accept this letter as an expression of our sincere in interest and support for the City's application for the Riverpointe Project. Investment by USDOT in roads and critical infrastructure at this high profile location will create significant jobs and opportunities for the region.

We have an interest in developing a regional entertainment center on 12 acres within the Riverpointe Development, which will result in over 500 jobs for the City of St. Charles. This transformative project will establish the St. Charles riverfront along the Missouri River as the premiere destination in the region for families and visitors alike.

We look forward to continuing to work with the City of St. Charles and respectively ask for you to consider BUILD funding so this important project can come to fruition.

Sincerely,

Todd Schneider SkyView Partners | Managing Partner 314.308.2783 cel



www.SAVOYPROPERTIES.com

May 14, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

Please accept this letter as a sign of support of Railcar Loft Redevelopment for the City's application for the Riverpointe Project. The vision for the Riverpointe Development near Bangert Island perfectly fits our business needs and is an exemplary example of the smart growth ideals that we look for when selecting a site. However, without investment in the roads and infrastructure, these jobs will not come to fruition. In the simplest of terms, this investment by USDOT in the transportation infrastructure of the development will result in 525,000 SF of Office, Retail and Apartments/Condos and countless new jobs coming to the City of St. Charles and the Riverpointe Development.

This type of development typifies the type of development that allows employees to live, work, and play locally while limiting vehicles miles traveled, emissions, and other costly societal impacts. The development will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat, and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Michael Denckhoff, CEO Savoy Properties

1034 S Brentwood Blvd, Suite 1200 • St. Louis, MO 63117 Office: 314.909.8400 • Fax: 314.909.8406



April 23, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long term vision for the revitalization of the City's riverfront. The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years, and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

mla

Christopher M. West Partner | Chief Executive Officer

July 11, 2018

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

SINO **\*** RESORT **\*** SPA

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation. The Missouri House and Senate, the Governor, U.S. Senators and U.S. Congressman support this effort. The project is also supported by local businesses and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment by reducing the pollutant load entering the Missouri River. The project will also create habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Ward Shaw VP & General Manager

AMERISTAR CASINO ST. CHARLES ONE AMERISTAR BOULEVARD ST. CHARLES, MISSOURI 63301 636.940.4300 AMERISTAR.COM

STATE CAPITOL 201 W. CAPITOL AVENUE, ROOM 224 JEFFERSON CITY, MISSOURI 65101



PHONE: (573) 751-4727 FAX: (573) 751-9442 WWW.LTGOV.MO.GOV

## Міке Кеное

LIEUTENANT GOVERNOR STATE OF MISSOURI

July 13, 2018

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

ibre Choe

Mike Kehoe

Michael L. Parson Governor



**Department of Economic Development** 

Robert B. Dixon Director

July 9, 2018

Secretary Elaine L. Chao U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington DC 20590

Dear Transportation Secretary Chao:

Please accept this letter of support for the Bangert Island Riverfront Development project and for the application recently submitted under the BUILD Transportation Discretionary Grant Program by the City of St. Charles. The transportation investment in this project will provide another step toward enhancing the riverfront of Saint Charles, Missouri and continuing its development into an economic center.

The combination of recreational opportunities combined with destination retail opportunities will increase public use and favorably impact quality of life for residents.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. It is estimated the project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. St. Charles civic and business leaders have shown strong support of the project and efforts toward its completion.

We ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Robert B Dixon

Director

 301 W. High Street, Suite 680
 P.O. Box 1157
 Jefferson City, MO 65102-1157

 www.ded.mo.gov
 • (573) 751-4962
 • Fax (573) 526-7700



July 10, 2018

Secretary Elaine L. Chao Office of the Secretary U.S. Department of Transportation 1200 New Jersey Ave, SE Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation, the Missouri . House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment by reducing pollutant loading entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Daniel P. Mehan President/CEO

BILL EIGEL 23<sup>RD</sup> DISTRICT

STATE CAPITOL, ROOM 227 JEFFERSON CITY, MISSOURI 65101 573-751-1141 WILLIAM.EIGEL@SENATE.MO.GOV WWW.SENATE.MO.GOV/EIGEL



COMMITTEES:

GENERAL LAWS, CHAIR WAYS AND MEANS, VICE-CHAIR APPROPRIATIONS FISCAL OVERSIGHT HEALTH AND PENSIONS TRANSPORTATION, INFRASTRUCTURE AND PUBLIC SAFETY

#### MISSOURI SENATE JEFFERSON CITY

May 7, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long term vision for the revitalization of the City's riverfront. The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally. In addition it will improve the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

This project has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senators and U.S. Congressman along with local business and community leaders.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

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## MISSOURI SENATE

MISSOURI STATE CAPITOL BUILDING 201 W. CAPITOL AVE., ROOM 226 JEFFERSON CITY, MISSOURI 65101 SENATOR ROBERT F. (BOB) ONDER, JR. District 2 Assistant Majority Floor Leader Phone: (573) 751-1282 Fax: (573) 526-4766 Emal: Bob.Onder@senate.mo.gov

June 29, 2018

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

I am writing in regard to the City of St. Charles' proposed Bangert Island Riverfront Development project and BUILD Funding request. This project will dramatically transform St. Charles. Through the project, there will be a multimodal transportation infrastructure, restoration of native aquatic habitat, and establishment of a water quality basin along the Missouri River. In addition to the care and development of Missouri's natural resources, this project also generates significant economic growth through 4,000 new jobs and a surge of economic activity in the region, expected to reach \$1.5 billion.

This project has my full support, as well as the support of our entire legislative delegation, the Missouri House and Senate, the Governor, members of our Congressional delegation, local business and community leaders.

I ask that you authorize the use of BUILD funding for this project, as it will bring momentous economic growth and environmental improvements to the City of St. Charles, and enhance the state of Missouri.

Thank you for your time and consideration.

Bot Onda

Bob Onder

### CAPITOL OFFICE

State Capitol • Room 401A 201 West Capitol Avenue Jefferson City, MO 65101-6806 Tele: (573) 751-1452 **E-Mail**: Chrissy.Sommer@house.mo.gov



#### **COMMITTEES**

Chair: Subcommittee on Scope of Practice Vice-Chair: Rules – Administrative Oversight

Member: Standing Committee on Government Efficiency Standing Committee on Professional Registration and Licensing Special Committee on Homeland Security

MISSOURI HOUSE OF REPRESENTATIVES

**Chrissy Sommer** 

State Representative District 106

July 2, 2018

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of The Missouri House and Senate and this year the Senate passed Senate Concurrent Resolution No. 37 in support of the Bangert Island Riverfront Transformation Project. I have attached a copy for your information.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment by reducing the pollutant load entering the Missouri River. The project will also create habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Ommer)

State Representative Chrissy Sommer District 106

#### SENATE CONCURRENT RESOLUTION NO. 37

Whereas, the Bangert Island Riverfront Transformational Project will transform the St. Charles Riverfront into a center for economic prosperity; and

Whereas, the Bangert Island Riverfront Transformational Project will provide for a unique Missouri River Island recreational attraction; and

Whereas, the Bangert Island Riverfront Transformational Project will provide Missouri River aquatic habitat restoration; and

Whereas, the Bangert Island Riverfront Transformational Project, according to economic modeling, projects 4,000 new jobs; and

Whereas, the Bangert Island Riverfront Transformational Project, according to economic modeling, will result in a \$1.5 billion economic impact; and

Whereas, the Bangert Island project initiative shall:

- (1) Create 4,000 jobs for Missourians;
- (2) Have a \$1.5 billion economic impact;
- (3) Provide for a riverfront recreational attraction;
- (4) Provide for Missouri River aquatic habitat restoration; and

Whereas, a Modeling study produced by the Corps for restoration of Bangert Island concluded that navigation is not disturbed by the proposed side channel/chute project; and

Whereas, the City of St. Charles desires to work with the United States Army Corps of Engineers to advance a Section 1135 Project, which would improve aquatic habitat and restore Bangert Island; and

Whereas, the City of St. Charles will cost share toward construction of the Bangert Island project:

Now Therefore Be It Resolved that the members of the Missouri Senate, Ninety-ninth General Assembly, Second Regular Session, the House of Representatives concurring therein, hereby endorse the Bangert Island Riverfront Transformational Project; and

Be It Further Resolved that the Secretary of the Missouri Senate be instructed to prepare properly inscribed copies of this resolution for the Governor, United States Senator Roy Blunt, United States Senator Claire McCaskill, Congressman Blaine Luetkemeyer, and Congresswoman Ann Wagner.

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CAPITOL OFFICE: State Capitol 201 West Capitol Avenue Room 201-G Jefferson City, MO 65101-6806 Tele: (573) 751-3717 Email:Tom.hannegan@house.mo.gov



COMMITTEES Member: Subcommittee on Mandatory Minimums, Chairman Local Government, Vice-Chairman Crime Prevention and Public Safety Special Committee on Tourism Subcommittee on Mass Transit Security

## MISSOURI HOUSE OF REPRESENTATIVES

Tom Hannegan State Representative District 65

July 3, 2018

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation. The Missouri House and Senate, the Governor, U.S. Senators and U.S. Congressman support this effort. The project is also supported by local businesses and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment by reducing the pollutant load entering the Missouri River. The project will also create habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

-IComos P. Hannegan

Representative Tom Hannegan District 65

July 11, 2018

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

I continue to fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation. The Missouri House and Senate, the Governor, U.S. Senators and U.S. Congressman support this effort. The project is also supported by local businesses and community leaders. I was pleased to work with interested parties on the project during my tenure in public office, because of my belief in the potential benefits to the community.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment by reducing the pollutant load entering the Missouri River. The project will also create habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Im Dans

Tom Dempsey Missouri Senate President 2013-15 3103 Buckskin Path St. Charles, MO 63301



#### Home Builders Association Of St. Louis & Eastern Missouri

Est. 1934

10104 Old Olive Street Road St. Louis, Missouri 63141-5908

P: 314-994-7700 F: 314-432-7185

WWW.STLHBA.COM

April 30, 2020

Secretary Elaine L. Chao U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington, DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of St. Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD funding. The transportation investment in this project, known locally as Riverpointe, will transform the riverfront of St. Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat, and establish a water quality basin along the Missouri River. With the previous local investment into the project, the city is poised to transform 1.6 miles of underutilized, blighted, flood-prone property into a sustainable mixed-use development.

The Home Builders Association of St. Louis and Eastern Missouri (HBA), a local trade association representing 625 member companies in the St. Louis region that employ approximately 45,000 workers, supports the City of St. Charles in their efforts to complete this project. Riverpointe will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States. We believe this project will provide an opportunity to create a vibrant waterfront area which combines economic development with environmental restoration and protection.

The city has already started construction and the design of portions of this project. With the award of a USDOT BUILD grant, the city is prepared to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the city's growth economically, ecologically, and recreationally.

Transformation of the Bangert Island Riverfront has the support of the entire St. Charles County delegation in the Missouri House of Representatives and Senate, Missouri Governor Mike Parson, members of the Missouri Congressional delegation, and local business and community leaders.

This project extends beyond the boundaries of St. Charles. This project has the potential to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and city need it most. The project achieves those results while improving the environment by reducing pollutants entering the Missouri River and creating a habitat for endangered species.

The HBA asks that you consider this project for BUILD funding as federal funding and cooperation will help bring this project to fruition soon.

Sincerely,

Celeste Rueter, Executive Vice President

cc: Mayor Dan Borgmeyer, City of St. Charles Members of HBA Western Division Board of Trustees

The HBA empowers members to succeed by working toward common sense building regulations, providing networking and educational opportunities, and using its power in numbers to keep the housing market strong.



April 23, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long term vision for the revitalization of the City's riverfront. The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years, and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Jerry E. Scheidegger President/Owner

Commercial / Residential Real Estate • Leasing • Sales • Management • Development

2500 South Old Hwy 94, Suite 200 • Saint Charles, Missouri 63303 • 636,846,076 • Fax 636,846,6745 • MuMber Offoestate off



1551 Wall Street Suite 200 St. Charles, MO 63303 Tel +1 636 949 9797 Fax +1 636 949 8955 cushmanwakefield.com

April 24, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long term vision for the revitalization of the City's riverfront. The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years, and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Keith Schneider, CCIM, SIOR Managing Director

No warranty or representation, expressed or implied, is made as to the accuracy of the information contained herein, and same is submitted subject to errors, omissions, change of price, rental or other conditions, withdrawal without notice, and to any special listing conditions, imposed by our principals.

DRURYHOTELS.COM

July 12, 2018

Secretary Elaine L. Chao U.S. Department of Transportation Washington, DC 20590

314.429.2255

1.800 DRURYINN

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment by reducing pollutant loading entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

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Chuck Drury President and CEO



Economic Development Center (EDC) of St. Charles County 5988 Mid Rivers Mall Drive St. Charles, MO 63304 Ph: 636.441.6880 \* www.edcscc.com

May 5, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590 Dear Transportation Secretary Chao:

On behalf of the Economic Development Center (EDC) of St. Charles County, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding in the City of Saint Charles, Missouri. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long-term vision for the revitalization of the City's riverfront. The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high-income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

I support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region and local community need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I ask you to please consider the Bangert Island Riverfront Project for BUILD funding. Federal funding and cooperation will bring this transformative project to fruition in the near future. Thank you.

Sincerely Milis

Scott J. Drachnik, President & CEO Economic Development Center (EDC) of St. Charles County



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April 27, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long term vision for the revitalization of the City's riverfront. The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years, and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

> Real Experience. Real Success. Lindenwood University / 209 South Kingshighway, St. Charles, MO. / 636.949.2000



# Lindenwood University recognizes the importance of "building" relationships as a partner with our community. I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

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Sincerely, John R. Porter, Ed.D.

Real Experience. Real Success. Lindenwood University / 209 South Kingshighway, St. Charles, MO. / 636.949.2000





April 24, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long-term vision for the revitalization of the City's riverfront. The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high-income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

I fully support the City of Saint Charles in their efforts to complete this project. The project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The City has pushed forward for years, and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Bill Luetkenhaus Owner/Broker Luetkenhaus Properties, Inc.



April 27, 2020

239 Fox Hill Road • St. Charles, MO 63301 Office 636-940-9300 • Fax 636-940-8977 www.trhughes.com

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as T.R. Hughes Homes show of support for the Bangert Island Riverfront Development project and BUILD Funding. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long term vision for the revitalization of the City's riverfront. The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

T.R. Hughes Homes fully supports the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years, and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

We ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

R Hughes

T.R. Hughes CEO



P.O. Box 16070 St. Louis, MO 63105-0770 314.721.8815

July 11, 2018

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment by reducing pollutant loading entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Robert D. Millstone

June 29, 2018

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation. The Missouri House and Senate, the Governor, U.S. Senators and U.S. Congressman support this effort. The project is also supported by local businesses and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment by reducing the pollutant load entering the Missouri River. The project will also create habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Randy

Randy Schilling Founder & CEO BoardPaq/OPO Startups



St. Joseph Hospital St. Charles

300 First Capitol Drive St. Charles, MO 63301

phone: 636-947-5000

ssmhealth.com

April 27, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long term vision for the revitalization of the City's riverfront. With the award of the USDOT BUILD grant, St. Charles is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high-income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles.

SSM Health fully supports the City of Saint Charles in their efforts to complete this project. Since the opening of St. Joseph Hospital in 1891, we have been a member, supporter and friend of the St. Charles community. As the premier healthcare provider and an employer, we have a stake into the continued growth and vitality of St. Charles. "Riverpointe" will continue to enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

This project extends beyond the boundaries of Saint Charles. The City is poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

We ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition.

Sincerely,

enutcoup

Lisle Wescott St. Charles Market President

Taylor SAUS

Tanner Smith Government Affairs Manager



# The City of St. Charles R-VI School District

REACH.....TEACH.....EMPOWER

April 21, 2020

#### ADMINISTRATION

Dr. Jason Sefrit Superintendent

Dr. Danielle Tormala Associate Superintendent Curriculum & Instruction

Dr. Charles Brazeale Assistant Superintendent Business & Technology

Dr. Rodney Lewis Assistant Superintendent Human Resources

Mrs. Julie McClard Director of Special Education & Student Services

#### **BOARD OF EDUCATION**

Mr. Joshua Kean C.B.M., President

Dr. Donna Towers C.B.M., Vice-President

Mrs. Leslie Knight C.B.M., Secretary

Dr. Marita Malone C.B.M., Treasurer

Ms. Lori Gibson C.B.M., Member

Mr. Mike Thorne C.B.M., Member

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the City of Saint Charles, please accept this letter as a show of support for the Bangert Island Riverfront Development project and BUILD Funding. The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River.

I fully support the City of Saint Charles in their efforts to complete this project. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. This project will provide our region with \$1.5 billion in new economic activity while attracting 4,000 new jobs. The project achieves these results while improving the environment by reducing pollutant loading entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely, Jason T. Sefrit, Ed. D. Superintendent

400 North Sixth Street, St. Charles, MO 63301 Phone (636) 443-4000 Fax (636) 443-4001 www.stcharlessd.org



April 29, 2020

Secretary Elaine L. Chao U.S. Department of Transportation Washington DC 20590

Dear Transportation Secretary Chao:

On behalf of the Greater St. Charles County Chamber of Commerce, please accept this letter as a show of the Chamber's support for the Bangert Island Riverfront Development project and BUILD Funding. The project known locally as the "Riverpointe" will revitalize previously developed areas that have remained blighted, underutilized, and prone to flooding, and help advance a long-term vision for the revitalization of the City's riverfront.

Many communities showcase their rivers with developments that attract residents & visitors. Outside of the St. Louis Arch, this is something we have not done in the St. Louis / St. Charles region. Much of the development along riverfronts in our region are old, industrial, and ugly. We are located at the confluence of two of the world's most important natural resources - the Missouri and Mississippi Rivers – let's allow residents and visitors to enjoy what we have.

The City has already started construction and design of portions of the project. With the award of the USDOT BUILD grant, the City is poised to complete a project that is expected to create up to 4,000 new jobs and have a \$1.5 billion impact on the local economy. This development will bring additional visitors and a high-income workforce to contribute to the ongoing success of nearby Historic Main Street and Streets of St. Charles. The Bangert Island area is vitally important to the City's growth economically, ecologically, and recreationally.

The transportation investment in this project will transform the riverfront of Saint Charles into a center for economic prosperity, create multimodal transportation infrastructure, restore aquatic habitat and establish a water quality basin along the Missouri River. With the previous local investment into the project, the City is poised to transform 1.6 miles of blighted flood prone property into a sustainable mixed-use development.

For many years, the Chamber has supported the idea of developing the St. Charles Riverfront. The Bangert Island Riverfront Transformation Project will enhance the quality of life for residents and visitors by granting them a destination like no other in this region of the United States.

The Bangert Island Riverfront Transformation has the support of our entire St. Charles County legislative delegation, the Missouri House and Senate, the Governor, and our U.S. Senator and U.S. Congressman along with local business and community leaders.

The Bangert Island Riverfront Transformation Project extends beyond the boundaries of Saint Charles. The City has pushed forward for years and is now poised to create thousands of jobs and billions of dollars in economic growth in a time when our country, region, and City need it most. The project achieves these results while improving the environment by reducing pollutants entering the Missouri River and creating habitat for endangered species.

I ask that you consider this project for BUILD funding. Federal funding and cooperation will bring this project to fruition in the near future.

Sincerely,

Scott Tate President & CEO

Resolution No. R70-010

Sponsors: Vince Ratchford, Bart Haberstroh, Donalee Gastreich, Bridget Ohmes

A RESOLUTION OF SUPPORT FOR SUBMISSION OF A FUNDING APPLICATION FOR THE US DEPARTMENT OF TRANSPORTATION'S BUILD DISCRETIONARY GRANT PROGRAM AND TO APPLY FOR COUNTY, STATE AND FEDERAL GRANTS FOR THE BANGERT ISLAND RIVERFRONT TRANSFORMATION PROJECT.

- Whereas, the United States Department of Transportation (USDOT) released a Notice of Funding Opportunity for the 2020 Federal BUILD Discretionary Grant, formerly known as TIGER; and
- Whereas, in 2020, US Congress appropriated \$1 Billion in project funding to be distributed by the USDOT as part of the BUILD Program; each project application can request up to \$25 million in federal funds; and
- Whereas, in 2019 the City applied for the BUILD Grant and received a "Highly Recommended" ranking, was considered a finalist for selection, but ultimately was not selected in 2019; and
- Whereas, USDOT officials and members of the Missouri Legislative delegation encouraged the City to reapply and offered guidance that subsequent property acquisition and development tenant discussions would greatly improve the applications Benefit Cost Analysis; and
- Whereas, City staff is actively identifying competitive programs to reduce the City match on the project; and
- Whereas, the application deadline is May 18, 2020.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF ST. CHARLES, MISSOURI AS FOLLOWS:

- SECTION 1. The City of St. Charles, Missouri hereby supports the United States Department of Transportation 2020 BUILD Discretionary Grant Program and authorizes submission of an application for funding under the Program and other County, State and Federal Grants for the Bangert Island Riverfront Transformation Project.
- SECTION 2. The Mayor is granted continuing authority to execute all documents necessary to carry out the intent of this Resolution and to furnish such information as may be required in connection with the grant application.
- SECTION 3 This Resolution shall be in full force and effect from and after its passage by the City Council.

Resolution No. <u>R20</u>-010

April 7, 2020 Date Approved

**4-8 - 20** Date Approved by Mayor

Mary W Presiding Officer

Daniel J. Borgmeyer, Mayor

Attest:

City Clerk

Approved as to Form:

1-2020 Meghan K. Pauly, Asst. City Attorney Date

T:\RESOLUTIONS\US Department of Transportation BUILD Discretionary Grant Program 2020.docx

# APPENDIX E - PROJECT SCHEDULE

# **APPENDIX E - PROJECT SCHEDULE**

# Bangert Island Riverfront Transformation Project At Riverpointe

5/18/2020

WBS	Task Name	Planned Finish Date
0.1	Project Management Plan (PMP)	12/15/2018
0.2	ALL PROPERTY ACQUIRED FOR PHASE 1 BY CITY OF SAINT CHARLES	1/1/2019
0.4	USACE Kicks off PAS Grant work with the City of Saint Charles	2/20/2019
0.3	Complete Reconstruction of S. River Road / Arena Parkway	1/1/2020
0.5	Continue PAS Project with USACE for permitting material, design & masterplan	1/1/202:
0.6	Continue utility relocations, mass gradin of Phase 1A, tree clearing, and building demolitions	5/1/2020
1.1	Receive Project Award Notification from USDOT	10/1/2020
1.2	Continue Construction Design	12/1/2019
2.1	Open Bids fo Phase 1B & 3A Streets & Katy Trail, and Full Tree Clearing	6/1/202
2.2	Open Bids Mass Grading & Detention Basin	7/1/202
2.3	Open Bids for all Remaining Phase 2 Streets & Katy Trail Relocations	6/1/202
2.4	Open Bids for Phase 2 Streets & Katy Trail	3/1/2022
3.1	Continue Utility Design & Relocations, including overhead Ameren 12kv & 34kV	1/1/2020
3.2	Utility Relocation Complete	5/1/202
4.1	Funding Obligation & Start Construction - Phase 1B & 3A Streets & Katy Trail, and Full Tree Clearing	6/1/202
4.1	Funding Obligation & Start Construction - Mass Grading & Detention Basin	8/1/202
4.2	Funding Obligation & Start Construction - Phase 2 Streets & Katy Trail Relocations (OBLIGATION BY 3/2022)	3/1/2022
4.3	Final Completion	12/1/2023
4.4	Final Submittals	1/1/2024
4.5	Asset Management Updates and O&M Requirements	2/1/2024
4.6	File Review and Closeout	3/1/2024
6.1	Continue Environmental Material Preparation, Evaluation, & Permitting	1/1/2020
6.2	Receive all environmental and agency approvals	11/30/2020
6.3	Agency Approval of Funding Agreement	11/1/2020
6.4	Agency final inspection, punchlist, and approval (FUNDING SPENT BY 3/2024)	3/1/2024

= TASKS COMPLETE OR IN PROGRESS

## ALL FUNDING OBLIGATED BY 3/2022 ALL FUNDING PAID OUT BY 3/2024

# APPENDIX F - PROJECT ESTIMATE

Estimate of Project Costs

Project Sponsor:	City of St. Charles
Project Title:	PHASE 1A - RIVERPOINTE
Date:	5/6/2020

tem	Quantity	Unit	Unit Price	Amount
Clearing and Grubbing	1	LS	\$50,000.00	\$50,000.0
Removal of Improvements	1	LS	\$50,000.00	\$50,000.0
Class "A" Excavation	0	CY		\$0.0
mbankment in Place	125,000	CY	\$10.60	\$1,325,000.0
Compacting Embankment	175,000	CY	\$2.10	\$367,500.0
Curb & Gutter	632	LF	\$25.00	\$15,800.0
ype 5 Aggregate Base (4" thick)	1,159	SY	\$7.20	\$8,342.0
2" - Asphaltic Concrete Mixture PG 70-22 (SP125 Mix)	913	SY	\$8.00	\$7,303.0
3" - Bituminous Pavement Mixture PG 70-22 (BP-2)	913	SY	\$31.50	\$28,756.0
Fack Coat (SS-1H)	100	GAL	\$2.50	\$250.0
Crystal Spring Bridge (Substructure/Superstructure)	0	SF	\$200.00	\$0.0
Bridge Approach Slab	0	SY	\$260.00	\$0.0
Safety Barrier Curb (Culvert)	0	LF	\$125.00	\$0.0
Bridge Removal	0	SF	\$50.00	\$0.0
Type 2 Rock Blanket	1,481	CY	\$35.00	\$51,852.0
12-Inch Watermain (All Inclusive)	200	LF	\$110.00	\$22,000.0
Vanhole	2	EA	\$2,500.00	\$5,000.00
Standard Curb Inlet	4	EA	\$3,000.00	\$12,000.0
arge Pipe Curb Inlet	2	EA	\$4,000.00	\$8,000.00
18" Reinforced Concrete Pipe	0	LF	\$46.00	\$0.0
24" Reinforced Concrete Pipe	0	LF	\$68.00	\$0.0
30" Reinforced Concrete Pipe	0	LF	\$80.00	\$0.0
36" Reinforced Concrete Pipe	0	LF	\$98.00	\$0.0
18" Reinforced Concrete Pipe	316	LF	\$115.00	\$36,340.0
54" Reinforced Concrete Pipe	0	LF	\$130.00	\$0.0
50" Reinforced Concrete Pipe	0	LF	\$150.00	\$0.0
72" Reinforced Concrete Pipe	24	LF	\$180.00	\$4,320.0
30" Flared End Section w/ Integral Check Valve	0	EA	\$10,000.00	\$0.0
36" Flared End Section w/ Integral Check Valve	0	EA	\$15,000.00	\$0.0
72" Flared End Section w/ Integral Check Valve	1	EA	\$60,000.00	\$60,000.0
24" Reinforced Concrete Pipe (Sanitary)	0	LF	\$68.00	\$0.0
30" Reinforced Concrete Pipe (Sanitary)	0	LF	\$80.00	\$0.0
36" Reinforced Concrete Pipe (Sanitary)	800	LF	\$98.00	\$78,400.0
Manhole (sanitary)	4	EA	\$2,500.00	\$10,000.0
Sanitary Lift Station	0	LS	\$700,000.00	\$0.0
Chain-Link Fence (Retaining Wall (Culvert)	0	LF	\$25.00	\$0.0
Standard Traffic Control Devices	1	LS	\$30,000.00	\$30,000.0
Signage & Striping / Signal	1	LS	\$250,000.00	\$250,000.0
Bond & Mobilization	1	LS	\$350,000.00	\$350,000.0
Construction Staking & Surveying	1	LS	\$25,000.00	\$25,000.0
Aodular Block Retaining Wall	0	SF	\$75.00	\$0.0 \$0.0
Seeding	10	ACRE	\$2,800.00	\$28,000.0
Streetlights (All Inclusive)	6	EA	\$4,000.00	\$24,000.0
	0	LA :	SUBTOTAL	\$2,847,86

Specific Pedestrian Items				
Item	Quantity	Unit	Unit Price	Amount
Concrete Sidewalk (4" Thick)	176	SY	\$46.00	\$8,075.56
Concrete Sidewalk (6" Thick)	351	SY	\$65.00	\$22,822.22
Gravel Trail (6" Thick)		SY	\$15.00	\$0.00
ADA Ramp	4	EA	\$2,000.00	\$8,000.00
			SUBTOTAL	\$38,897.78

Miscellaneous Other Items				
Item	Quantity	Unit	Unit Price	Amount
Erosion Control & SWPPP	1	LS	\$40,000.00	\$40,000.00
			SUBTOTAL	\$40,000.00

\$2,926,760.78	Construction Cost Subtotal
\$439,014.12	Contingency (15%)
\$272,217.72	Construction Testing
\$3,637,992.61	Construction Cost Total
\$400,000.00	Preliminary Engineering
\$2,450,000.00	Right-of-Way
\$100,000.00	Utility Relocations
\$6,587,992.61	Project Total *
\$2,450,000.00 \$100,000.00 \$6,587,992.61	Right-of-Way Utility Relocations Project Total *

Estimate of Project Costs

Project Sponsor:	City of St. Charles
Project Title:	PHASE 1B - RIVERPOINTE
Date:	5/6/2020

Specific Roadway Items Item	Quantity	Unit	Unit Price	Amount
Clearing and Grubbing	1	LS	\$50,000.00	\$50,000.0
Removal of Improvements	1	LS	\$150,000.00	\$150,000.0
Class "A" Excavation	308,740	CY	\$150,000.00	\$130,000.0 \$617,480.0
Embankment in Place	308,740	CY	\$2.00	\$617,480.0
			\$2.00 \$2.00	
Compacting Embankment	308,740	CY		\$617,480.0
Curb & Gutter	10,219	LF	\$25.00	\$255,477.0
Type 5 Aggregate Base (4" thick)	20,308	SY	\$7.20	\$146,215.0
2" - Asphaltic Concrete Mixture PG 70-22 (SP125 Mix)	16,334	SY	\$8.00	\$130,669.0
8" - Bituminous Pavement Mixture PG 70-22 (BP-2)	16,334	SY	\$31.50	\$514,509.0
Tack Coat (SS-1H)	1,100	GAL	\$2.50	\$2,750.0
Crystal Spring Bridge (Substructure/Superstructure)	1,263	SF	\$200.00	\$252,661.0
Bridge Approach Slab	132	SY	\$260.00	\$34,354.0
Safety Barrier Curb (Culvert)	468	LF	\$125.00	\$58,556.0
Bridge Removal	1,263	SF	\$50.00	\$63,165.0
Type 2 Rock Blanket	1,000	СҮ	\$35.00	\$35,000.0
12-Inch Watermain (All Inclusive)	2,500	LF	\$110.00	\$275,000.0
Manhole	5	EA	\$2,500.00	\$12,500.0
Standard Curb Inlet	36	EA	\$3,000.00	\$108,000.0
Large Pipe Curb Inlet	5	EA	\$4,000.00	\$20,000.0
18" Reinforced Concrete Pipe	1,148	LF	\$46.00	\$52,808.0
24" Reinforced Concrete Pipe	1,077	LF	\$68.00	\$73,236.0
30" Reinforced Concrete Pipe	691	LF	\$80.00	\$55,280.0
36" Reinforced Concrete Pipe	258	LF	\$98.00	\$25,284.0
48" Reinforced Concrete Pipe	217	LF	\$115.00	\$24,955.0
54" Reinforced Concrete Pipe	420	LF	\$130.00	\$54,600.0
60" Reinforced Concrete Pipe	164	LF	\$150.00	\$24,600.0
72" Reinforced Concrete Pipe	564	LF	\$180.00	\$101,520.0
30" Flared End Section w/ Integral Check Valve	1	EA	\$10,000.00	\$10,000.0
36" Flared End Section w/ Integral Check Valve	1	EA	\$15,000.00	\$15,000.0
72" Flared End Section w/ Integral Check Valve	1	EA	\$60,000.00	\$60,000.0
24" Reinforced Concrete Pipe (Sanitary)	0	LF	\$68.00	\$0.0
30" Reinforced Concrete Pipe (Sanitary)	0	LF	\$80.00	\$0.0
36" Reinforced Concrete Pipe (Sanitary)	800	LF	\$98.00	\$78,400.0
Manhole (sanitary)	3	EA	\$2,500.00	\$7,500.0
Sanitary Lift Station	1	LS	\$700,000.00	\$700,000.0
Decorative Fencing	1,800	LS	\$700,000.00	\$180,000.0
Standard Traffic Control Devices	1	LS	\$30,000.00	\$180,000.0
Signage & Striping	1	LS	\$100,000.00	
Bond & Mobilization	_	····••.		\$100,000.0
	1	LS	\$500,000.00	\$500,000.0
Construction Staking & Surveying		LS	\$50,000.00	\$50,000.0
Modular Block Retaining Wall	14,000	SF	\$75.00	\$1,050,000.0
Seeding	10	ACRE	\$2,800.00	\$28,000.0
Streetlights (All Inclusive)	50	EA	\$4,000.00	\$200,000.0
			SUBTOTAL	\$7,382,47

Specific Pedestrian Items						
Item	Quantity	Unit	Unit Price	Amount		
Concrete Sidewalk (4" Thick)	3,659	SY	\$46.00	\$168,295.34		
Concrete Sidewalk (6" Thick)	2,509	SY	\$65.00	\$163,054.66		
Gravel Trail (6" Thick)	3,931	SY	\$15.00	\$58,963.67		
ADA Ramp	65	EA	\$2,000.00	\$130,000.00		
			SUBTOTAL	\$520,313.67		

Miscellaneous Other Items				
ltem	Quantity	Unit	Unit Price	Amount
Erosion Control & SWPPP	1	LS	\$50,000.00	\$50,000.00
			SUBTOTAL	\$50,000.00

Construction Cost Subtotal	\$7,952,792.67
Contingency (15%)	\$1,192,918.90
Construction Testing	\$272,217.72
Construction Cost Total	\$9,417,929.29
Preliminary Engineering	\$700,000.00
Right-of-Way	\$1,050,000.00
Cell Tower Relocation	\$300,000.00
Utility Relocations	\$900,000.00
Project Total *	\$12,367,929.29

\*Assume \$6 / CY for fill from channel

	Estimate	of Pro	ject Cost	S
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Project Sponsor:	City of St. Charles
Project Title:	PHASE 2 - RIVERPOINTE
Date:	5/6/2020

Item	Quantity	Unit	Unit Price	Amount
Clearing and Grubbing	1	LS	\$200,000.00	\$200,000.00
Removal of Improvements	1	LS	\$200,000.00	\$200,000.00
Class "A" Excavation	750,000	CY	\$4.00	\$3,000,000.00
Embankment in Place	525,000	CY	\$2.00	\$1,050,000.00
Compacting Embankment	525,000	CY	\$2.00	\$1,050,000.00
Curb & Gutter	43,183	LF	\$25.00	\$1,079,587.00
Stamped Concrete Median	10,849	SY	\$50.00	\$542,435.00
Type 5 Aggregate Base (4" thick)	77,875	SY	\$7.20	\$560,697.00
2" - Asphaltic Concrete Mixture PG 70-22 (SP125 Mix)	49,075	SY	\$8.00	\$392,598.00
8" - Bituminous Pavement Mixture PG 70-22 (BP-2)	49,075	SY	\$31.50	\$1,545,853.00
Tack Coat (SS-1H)	3,500	GAL	\$2.50	\$8,750.00
Type 2 Rock Blanket	17,209	CY	\$35.00	\$602,311.00
12-Inch Watermain (All Inclusive)	4,558	LF	\$110.00	\$501,383.00
Storm Sewer Manhole	12	EA	\$2,500.00	\$30,000.00
Standard Curb Inlet	47	EA	\$3,000.00	\$141,000.00
Large Pipe Curb Inlet	12	EA	\$4,000.00	\$48,000.00
18" Reinforced Concrete Pipe	1,013	LF	\$46.00	\$46,593.00
24" Reinforced Concrete Pipe	2,881	LF	\$68.00	\$195,885.00
30" Reinforced Concrete Pipe	2,143	LF	\$80.00	\$171,441.00
36" Reinforced Concrete Pipe	266	LF	\$98.00	\$26,068.00
48" Reinforced Concrete Pipe	677	LF	\$115.00	\$77,897.00
54" Reinforced Concrete Pipe	0	LF	\$130.00	\$0.00
60" Reinforced Concrete Pipe	23	LF	\$150.00	\$3,445.00
72" Reinforced Concrete Pipe	1,677	LF	\$180.00	\$301,829.00
24" Flared End Section	7	EA	\$2,500.00	\$17,500.00
60" Flared End Section w/ Integral Check Valve	1	EA	\$50,000.00	\$50,000.00
72" Flared End Section w/ Integral Check Valve	3	EA	\$60,000.00	\$180,000.00
8" Sanitary Sewer Pipe	3,478	LF	\$110.00	\$382,573.37
Sanitary Sewer Manhole	24	EA	\$1,000.00	\$24,000.00
Pedestrian Fence Along Retaining Wall	2,500	LF	\$100.00	\$250,000.00
Standard Traffic Control Devices	1	LS	\$200,000.00	\$200,000.00
Signage & Striping	1	LS	\$200,000.00	\$200,000.00
Bond & Mobilization	1	LS	\$500,000.00	\$500,000.00
Construction Staking & Surveying	1	LS	\$100,000.00	\$100,000.00
Modular Block Retaining Wall	94,420	SF	\$40.00	\$3,776,793.00
Seeding	70	ACRE	\$2,800.00	\$196,000.00
Streetlights (All Inclusive)	111	EA	\$4,000.00	\$444,000.00
			SUBTOTAL	\$18,096,638

Item	Quantity	Unit	Unit Price	Amount
Concrete Sidewalk (4" Thick)	14,001	SY	\$46.00	\$644,026.39
Concrete Sidewalk (6" Thick)	4,337	SY	\$65.00	\$281,899.55
Gravel Trail (6" Thick)	6,903	SY	\$15.00	\$103,542.70
ADA Ramp	94	EA	\$2,000.00	\$188,000.00
			SUBTOTAL	\$1,217,468.64

Miscellaneous Other Items				
Item	Quantity	Unit	Unit Price	Amount
Erosion Control & SWPPP	1	LS	\$200,000.00	\$200,000.00
			SUBTOTAL	\$200,000.00

Construction Cost Subtotal	\$19,514,106.64
Contingency (20%)	\$3,902,821.33
Inflation (3% for 2 Years)	\$1,188,409.09
Construction Testing	\$484,662.93
Construction Cost Total	\$25,090,000.00
Preliminary Engineering	\$2,600,000.00
Property Acquisition	\$8,000,000.00
Utility Relocations	\$1,310,000.00
Project Total *	\$37,000,000.00

PREVIEW Date: May 18, 2020

Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD

**Estimate of Project Costs** 

Project Sponsor:	City of St. Charles
Project Title:	PHASE 3A - RIVERPOINTE
Date:	5/6/2020

Item	Quantity	Unit	Unit Price	Amount
Clearing and Grubbing	1	LS	\$50,000.00	\$50,000.00
Removal of Improvements	1	LS	\$100,000.00	\$100,000.00
Class "A" Excavation	240,000	CY	\$2.00	\$480,000.00
Embankment in Place	240,000	CY	\$2.00	\$480,000.00
Compacting Embankment	240,000	CY	\$2.00	\$480,000.00
Curb & Gutter	2,300	LF	\$25.00	\$57,500.00
Type 5 Aggregate Base (4" thick)	3,734	SY	\$7.20	\$26,884.00
Type 2 Rock Blanket	1,000	CY	\$35.00	\$35,000.00
Standard Curb Inlet	11	EA	\$3,000.00	\$33,000.00
24" Reinforced Concrete Pipe	2,300	LF	\$68.00	\$156,400.00
72" Reinforced Concrete Pipe	200	LF	\$180.00	\$36,000.00
30" Flared End Section w/ Integral Check Valve	5	EA	\$10,000.00	\$50,000.00
72" Flared End Section w/ Integral Check Valve	1	EA	\$60,000.00	\$60,000.00
36" Reinforced Concrete Pipe (Sanitary)	3,200	LF	\$98.00	\$313,600.00
Manhole (sanitary)	6	EA	\$2,500.00	\$15,000.00
Decorative Fencing	2,300	LF	\$100.00	\$230,000.00
Standard Traffic Control Devices	1	LS	\$40,000.00	\$40,000.00
Signage & Striping	1	LS	\$40,000.00	\$40,000.00
Bond & Mobilization	1	LS	\$400,000.00	\$270,000.0
Construction Staking & Surveying	1	LS	\$50,000.00	\$50,000.0
Modular Block Retaining Wall	28,750	SF	\$75.00	\$2,156,250.00
Seeding	32	ACRE	\$2,800.00	\$89,600.00
Streetlights (All Inclusive)	24	EA	\$4,000.00	\$96,000.0
	·		SUBTOTAL	\$5,345,234

Specific Pedestrian Items				
ltem	Quantity	Unit	Unit Price	Amount
Concrete Sidewalk (4" Thick)	5,111	SY	\$46.00	\$235,111.11
Concrete Sidewalk (6" Thick)	0	SY	\$65.00	\$0.00
Gravel Trail (6" Thick)	5,111	SY	\$15.00	\$76,666.67
ADA Ramp	6	EA	\$2,000.00	\$12,000.00
			SUBTOTAL	\$323,777.78

Miscellaneous Other Items				
Item	Quantity	Unit	Unit Price	Amount
Erosion Control & SWPPP	1	LS	\$50,000.00	\$50,000.00
			SUBTOTAL	\$50,000.00

Construction Cost Subtotal \$5,719,0	011.78
Contingency (10%) \$571,9	901.18
Construction Cost Total \$6,290,9	912.96
Preliminary Engineering \$700,0	00.00
Right-of-Way \$2,100,0	00.00
Utility Relocations \$100,0	00.00
Project Total * \$9,190,9	912.96

\*Assume \$6 / CY for fill from channel

PREVIEW Date: May 18, 2020

South River Road Lane - Bid #18-137	
BID RESULTS - OPENED Jan. 18, 2019 2:00 P.M	.  .
COMPANY NAME	Bid
1. Spencer Contracting	\$1,443,276.50
2. Gershenson Construction	\$1,475,786.28
3. R.V. Wagner	\$1,526,965.27
4. West Contracting	\$1,669,432.75
5. Byrne & Jones	\$1,723,009.43
6. J.M. Marschuetz	\$1,814,588.70

# Responses for 18-121

Title	South River Road/Arena Parkway Signal and lighting Modification and Fiber Relocation		
Date of Opening	Tuesday, October 30, 2018		
<u>Vendor</u>	<u>Amount</u>	<u>Notes</u>	
Gerstner Electric Inc	\$157,155.75		
Reinhold Electric Inc	\$159,017.25		
Meyer Electric Co	\$164,283.00		
T.G.B. Inc	\$238,637.50		

This is a list of the responses received, and is provided for informational purposes only. This is not a Notice of Award.

St. Charles County Government

Page 1 of 1

BID Bid Tabs Aj	Project – Phase 1 – Mass Grading 4492 pril 24, 2020 ) PM
CONTRACTOR	BID TOTAL
Fischer Grading LLC	\$976,405.00
Kuesel Excavating Company, Inc.	\$1,355,300.00
JTL Landscaping LLC	\$1,395,012.50
KCI Construction Company	\$1,550,000.00
Castle Construction LLC	\$1,557,707.00
Plattin Creek Excavating LLC	\$1,585,000.00
XL Contracting, Inc.	\$1,836,438.67
Kolb Grading LLC	\$1,895,000.00

	4473 uary 23, 2020
CONTRACTOR	BID TOTAL
Fischer Grading, LLC	\$81,930.00
XL Contracting, Inc.	\$88,820.00
Above and Below Contracting, Inc.	\$148,488.00
Shawnee Mission Tree Service, Inc.	\$150,700.00

# **2019** Demolition Contract

BID 4423

	Inc. Company Concrete. LLC		JTL Lands	Landscaping, LLC												
ITEM DESCRIPTION	UNIT	TOTAL QTY	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST	UNIT COST	TOTAL COST
1559 South Main Street - Demolition and Removal of Improvements	LS	1	\$30,600.00	\$30,600.00	\$25,777.00	\$25,777.00	\$45,540.00	\$45,540.00	\$32,960.00	\$32,960.00	\$27,500.00	\$27,500.00	\$36,027.39	\$36,027.39	\$15,500.00	\$15,500.00
1606 South River Road - Demolition and Removal of Improvements	LS	1	\$21,000.00	\$21,000.00	\$15,340.00	\$15,340.00	\$17,000.00	\$17,000.00	\$22,800.00	\$22,800.00	\$11,500.00	\$11,500.00	\$24,578.38	\$24,578.38	\$15,000.00	\$15,000.00
440 Meledy Lane - Demolition and Removal of Improvements	13	1	\$10,400.00	\$10,400.00	\$3,000.00	\$3,000.00	\$3,200.00	\$3,200.00	\$17,040.00	\$17,040.00	\$0,050.00	\$0,030.00	\$19,373.90	\$13,373.30	\$ <del>9</del> ,200.00	¢9,200.00
1606 South River Road - Plugging and Closure of Well	EA	1	\$4,000.00	\$4,000.00	\$2,950.00	\$2,950.00	\$7,000.00	\$7,000.00	\$3,200.00	\$3,200.00	\$2,650.00	\$2,650.00	\$3,000.00	\$3,000.00	\$2,500.00	\$2,500.00
1606 South River Road - Septic Tank Plugging and Disposal	EA	1	\$2,600.00	\$2,600.00	\$750.00	\$750.00	\$2,500.00	\$2,500.00	\$2,200.00	\$2,200.00	\$950.00	\$950.00	\$7,020.27	\$7,020.27	\$2,500.00	\$2,500.00
	_ <b>ļ</b>	TOTAL	\$74,	600.00	\$54	,617.00	\$81,	240.00	\$78,	800.00	\$49,4	150.00	\$90,0	00.00		700.00

\$35,500.00

MISSOURI
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# City of Saint Charles Public Works Department - Engineering Division 200 North Second Street, Room 202

Saint Charles, Missouri 63301-2891 Phone: (636) 949-3237 Fax: (636)940-4601

# South Main Street Fill Site **CITY BID #4294**

Contractor Name: Pace Construction Vendor #: 808 Invoice #: 3 Final Date of Invoice: 8/29/18			ORDINANCE # CONTRACT # ITRACT DATE:	18-058	3	
Date Approved: 9/5/18		CONTRACT AME	NDMENT No 1:	\$8,816.18		
ORIGINAL CONTRACT = \$109,349.00						
CONTRACT AMENDMENTS = \$8,816.18						
TOTAL CONTRACT AMOUNT = \$118,165.18						
CONTRACT AMOUNT COMPLETED THIS PERIOD = \$0.00			P.O. #	2018-00000510		
TOTAL CONTRACT AMOUNT COMPLETED PREVIOUS = \$118,165.18						
TOTAL CONTRACT AMOUNT COMPLETED TO DATE = \$118,165.18						
	Project Number	Account Number	Budget Amount	Previous Price	Pay This Period	Budget Remaining
RETAINED THIS PERIOD = $($5,908.26)$	16STR36	410-500-501-873-001	\$39,184.50	\$39,184.50	\$0.00	\$0.00
TOTAL RETAINED PREVIOUS PERIOD = \$5,908.26	16STR36	410-500-501-873-101	\$77,260.18	\$73,072.42	\$4,187.76	\$0.00
TOTAL RETAINED TO DATE = $($0.00)$	16STR36	420-500-501-873-101	\$1,720.50	\$0.00	\$1,720.50	\$0.00
CONTRACTOR PAY THIS PERIOD = \$5,908.26						
TOTAL CONTRACTOR PAY PREVIOUS = \$112,256.92						
TOTAL CONTRACTOR PAY TO DATE = \$118,165.18						

PERCENT CONTRACT COMPLETE TO DATE = 100.00%

ITEM	DECODIDION		ESTIMATED		PREVIOUS	PREVIOUS		PRICE			BID	PERCENT
NO.	DESCRIPTION	UNIT	QUANTITY	PRICE	QUANTITY	PRICE	THIS PERIOD	THIS PERIOD	TO DATE	TO DATE	PRICE	COMPLETE
1	MOBILIZATION	LS	1	\$ 11,560.00	\$ 1.00	\$11,560.00	0.00	\$0.00	1.00	\$11,560.00	\$11,560.00	100.00%
2	REMOVAL OF 24" RCP	LS	1	\$ 500.00	\$ 1.00	\$500.00	0.00	\$0.00	1.00	\$500.00	\$500.00	100.00%
3	CLEARING AND GRUBBING	LS	1	\$ 15,500.00	\$ 1.00	\$15,500.00	0.00	\$0.00	1.00	\$15,500.00	\$15,500.00	100.00%
4	EARTHWORK GRADING ON-SITE	LS	1	\$ 55,000.00	\$ 1.00	\$55,000.00	0.00	\$0.00	1.00	\$55,000.00	\$55,000.00	100.00%
5	WASHDOWN AREA	EA	1	\$ 11,500.00	\$ 1.00	\$11,500.00	0.00	\$0.00	1.00	\$11,500.00	\$11,500.00	100.00%
6	WASHDOWN AREA SIGN	EA	1	\$ 750.00	\$ 1.00	\$750.00	0.00	\$0.00	1.00	\$750.00	\$750.00	100.00%
7	PUBLIC NOTIFICATION SIGN	EA	0	\$ 750.00	\$-	\$0.00	0.00	\$0.00	0.00	\$0.00	\$0.00	100.00%
8	WATER TANK - 1,000 GALLONS	EA	1	\$ 2,200.00	\$ 1.00	\$2,200.00	0.00	\$0.00	1.00	\$2,200.00	\$2,200.00	100.00%
9	CHECK DAM	EA	5	\$ 175.00	\$ 5.00	\$875.00	0.00	\$0.00	5.00	\$875.00	\$875.00	100.00%
10	6" DUMP STOME	SY	76	\$ 37.00	\$ 76.00	\$2,812.00	0.00	\$0.00	76.00	\$2,812.00	\$2,812.00	100.00%
11	SILT FENCE	LF	840	\$ 3.15	\$ 840.00	\$2,646.00	0.00	\$0.00	840.00	\$2,646.00	\$2,646.00	100.00%

NCE #	18-058
ACT #	18-058
DATE:	3/9/2018

Phas	e 1A Parcels Acquired					Mike Green		Commissioners	Purchase	<u>Total</u>
Parcel #	-	Address			Lot	Appraisal		Award	Price	ROW
					Size	Value				Cost
					& ROW					
							$\square$			
5	Vogt	1414 S MAIN ST	Partial		8,693	\$ 25,294	2	\$ 75,000		
6	Montgomery	1416 S MAIN ST	Total take		14,718	1	1	\$ 147,500		
7	Jordan	S MAIN ST	Total take		44,194				\$ 88,388	
8	Therrien	1420 S MAIN ST	Total take		14,399			\$ 215,000		
9 & 10	Creacy Trust	1426 S MAIN ST	Total take		11,378	\$ 44,486			\$ 75,000	
11 & 12	Salzwedel	1430 S MAIN ST	Total take		52,547	\$ 100,094		\$ 315,000		
13	Weston Group	1436 S MAIN ST	Total take		27,544	\$ 124,603		\$ 215,000		
14	Ward	1440 S MAIN ST	Total take		26,201	\$ 68,340	3	\$ 185,000		
15	Feltz	1559 S MAIN ST	Total take		14,991	\$ 73,532		\$ 490,337	Both Parcels	
16	Feltz		Partial		1,609	\$ 9,448		<u>\$</u> -		
		TOTAL			216,274	\$ 789,298		\$ 1,642,837	\$ 163,388	\$ 1,806,225
						Parcel 6 Mont	gor	nery Homestead	Value	\$ 36,875
						1559 S. Main I	Pro	perty Purchase (ir	cluding closing)	\$ 465,000
						Total ROW co	st i	ncluding Homeste	ead Value	\$ 2,308,100
1	Does not include Homestead Value multipler of 125%					Legal Services	(1 a	w offices of Steve	Martin)	\$ 45,003
2	Consent Judgement			1		Relocation Co	-			\$ 97,180
3	\$490,337 results of jury trial for parcels 15&16							W Acquisition		\$ 2,450,283
										÷ 2, <del>4</del> 30,283
Phas	e 1B Parcels Acquired									
Owner	Address	Improvements	Acreage	Sale Price						
Bell	1600 S River Rd	na	6.00		_					
Whys	1602 S River Rd	na	1.25	1						
Wilson	1606 S River Rd	3b 2 ba	0.90							
	1606 S River Rd	na	3.01							
	and appraisal costs			\$ 19,850						
TOTAL			11.16	\$ 1,036,047	/					
Phas	e 3A Parcels Acquired									
Owner	Address	Improvements	Acreage	Sale Price						
Overbey	1744 S River RD	2Bd 1 ba	0.45		)					
Johnston	1722 S River Rd	na	0.78	\$ 60,000	)					
	1718 S River Rd	na	1.02							
	1710 S River Rd	3b 2 ba	0.24	1						
	1880 S River Rd	na	0.27	1						
St. Charles	1	na	3.30							
TOTAL			6.06	\$ 940,000	)					

# APPENDIX G - FUNDING COMMITMENTS

## CITY OF ST. CHARLES CAPITAL IMPROVEMENT PROGRAM FISCAL YEARS 2021 TO 2026

Blue Highlighted area contains formulas to populate the data - make changes to project detail tab to update summary below

Department Totals:

Public Works and Engineering Dept - Street Projects

	Description	2024	2022	2022	2024	2025	2026	Outside	Tatal	Eutone
	Description	2021	2022	2023	2024	2025	2026	Funding	Total	Future
ST-1	[ PW ] Street Surface Repairs - Asphalt	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000		18,000,000	on-going
ST-2	[ PW ] Street Surface Repairs - Concrete	2,000,000	2,250,000	2,250,000	2,500,000	2,500,000	2,500,000		14,000,000	on-going
ST-3	[ PW ] Street Surface Repairs- Annual Crackseal	300,000	350,000	400,000	400,000	400,000	400,000		2,250,000	on-going
ST-4	[ PW ] Sidewalk Maintenance	300,000	300,000	200,000	200,000	200,000	200,000		1,400,000	on-going
ST-5	[ENG] Sidewalk Extension Projects									100,000
ST-6	[ENG] Comprehensive Curb & Gutter Program									125,000
ST-7	[ENG] New Orthorectified Aerial Photography		200,000						200,000	
ST-8	[ENG] Old Governor Place Sidewalk Extension				150,000				150,000	
ST-9	[ENG] Frontier Park Pedestrian Bridge			85,000					85,000	
ST-10	[ENG] Bangert Island Phase 1	2,850,000	1,500,000					16,500,000	20,850,000	36,000,000
ST-11	[ENG] Second Street Reconstruction & Traffic Calming			175,000	50,000	425,000		1,950,000	2,600,000	
ST-12	[ENG] Interchange Enhancements & Welcome Signs		90,000						90,000	
ST-13	[ PW ] Parking Lot Maintenance		35,000	170,000	155,000	360,000	20,000		740,000	
ST-14	[ENG] Muegge Road Interchange at MO 94 / MO 364							6,108,540	6,108,540	
ST-15	[ PW ] Annual Bridge Culvert Maintenance Program		200,000	200,000	200,000	200,000	200,000		1,000,000	on-going
ST-16	[ENG] Cunningham Sidewalk Connection to West Clay									350,000
ST-17	[PW] Pavement Rehab - Arterial and Collector Routes	140,000	470,000	125,000	300,000	900,000	300,000		2,235,000	1,315,000
ST-18	[ENG] Systemic Safety Improvements	60,000							60,000	
ST-19	[ENG] South Fifth Street Reconstruction	100,000	450,000						550,000	
ST-20	[ENG] Hawks Nest Drive Rehabilitation		100,000	100,000	550,000			2,250,000	3,000,000	
ST-21	[ENG] Centennial Greenway/Schaefer Park Trail Linkages	10,000	173,000						183,000	
ST-22	[ENG] MTFC Loan Payback	250,000	250,000	250,000	250,000	250,000			1,250,000	1,000,000
ST-23	[ENG] Sibley Street Sidewalks									750,000
ST-24	[ENG] Smart Parking Management System	100,000						900,000	1,000,000	
ST-25	[ PW ] Public Works Facility - Complete Construction	355,000							355,000	
ST-26	0									
ST-27	0									
ST-28	0									
ST-29	0									
ST-30	0									
ST-31	0									
ST-32	0									
	TOTALS	9,465,000	9,368,000	6,955,000	7,755,000	8,235,000	6,620,000	27,708,540	76,106,540	39,640,000

ST-Sum

#### CITY OF ST. CHARLES CAPITAL IMPROVEMENT PROGRAM FISCAL YEARS 2021 TO 2026

Blue Highlighted area contains formulas to populate the data	- make changes to project detail tab to update summary below
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R-1 R-2	Description						0000		<b>T</b> ( )	
		2021	2022	2023	2024	2025	2026	Funding	Total	Future
J_1	[ PW ] Debt Service - 2010 COPs	1,654,263	1,683,638	1,715,438	1,475,738	1,475,738			8,004,815	10,466,72
	[PW] Well Treatment, Pump Repair, High Service Transfer Pump Control Valve & Misc. Equip	94,000	85,000	30,000	42,000	60,000	44,000		355,000	on-goi
R-3	[ PW ] Distribution System Improvements	10,000	10,000	10,000	12,000	12,000	15,000		69,000	on-goi
R-4	[ PW ] Vehicles - Pickup Trucks	140,000	57,000	100,000	62,500	42,500			402,000	
R-5	[ENG] McDonough St 18SS-Strengthen Water System				400,000	1,000,000			1,400,000	
R-6	[ PW ] Heavy Duty Work Trucks	175,000					200,000		375,000	225,0
R-7	[ PW ] Maintenance Utility Truck	225,000							225,000	
₹-8	[ENG] Boschertown Rd Phase II Waterline Ext-1FF	1,000,000							1,000,000	
-9	[ENG] Bangert Island Phase 1 Waterline	250,000							250,000	
-10	[ENG] Clark St 17SS-Strengthen Water System	300,000			100,000	380,000			780,000	
-11	[ENG] South Fifth Street Watermain Connection	200,000	, ,						1,200,000	
-12	[ PW ] EZ Valve Stock Purchases	10,000	10,000	10,000	12,000	12,000	12,000		66,000	on-go
-13	[ PW ] Backhoe Replacement			200,000					200,000	
-14	[ENG] Fox Hill Road Fire Flow Improvement-3FF				90,000	500,000			590,000	
-15	[ENG] Boone's Lick Road Watermain-26FF			210,000	1,930,000				2,140,000	
-16	[ENG] S First Capitol Dr Watermain Connection				80,000	800,000			880,000	
-17	[ PW ] Water Storage Tanks - Maintenance	236,000				350,000			586,000	300,
-18	PW   Public Work Facility - Complete Construction	240,000							240,000	
-19	[ENG] Nathan Avenue Watermain-24FF			80,000	800,000				880,000	
-20	[ PW ] Hypochlorite Dosing Pump Replacement	13,000		,	13,000				26,000	
·21	[ PW ] Annual Instrumentation Calibration	12,000	12,000	12,000	12,000	14,000	14,000		76,000	on-ge
22	[ PW ] Replacement of Surge Suppressors	,	30.000	,	,	,	,		30,000	
23	[PW] Lindenwood Pump Control Valve Replacement	60,000	,						60,000	
-24	[ PW ] Arc Flash Assessment				10,000				10,000	
25	[ PW ] Electricians Truck	125,000			,				125,000	
26	[ PW ] Sand Filter Rehabilitation & Media Replacement	30,000			32,000				62,000	on-g
27	[PW] Filter Gallery Overhaul	,			200,000				200,000	3
-28	[ENG] West Clay Watermain	-	80,000	800,000	200,000				880,000	
-29	[PW] Lindenwood New Tank Interior Rennovation	298,000	00,000	000,000					298,000	
30	[PW] Lindenwood Old Tank Interior Rennovation	200,000	313,000						313,000	
.31	[PW] Pressure Wash Muegge Tank and Two (2) Water Treatment Plant Tanks		50,000						50.000	
.32	[ENG] Restore Water Treatment Plant Capacity Two (2) New Wells	278,000	2,282,000						2,560,000	
.3∠ .33	[ENG] Redundant Raw Water Supply Line	210,000	2,282,000	3,012,000					3,379,000	
.33			307,000	3,012,000					3,379,000	1,713,000
	[ENG] Missouri American Water Company Interconnect Water Line					95.000	721.000		806.000	1,713,000
.35	[ENG] New Pump at Joint Venture Pump Station					85,000	721,000		806,000	0.050
-36	[ENG] Two (2) New Water Wells for Treatment Plant Expansion				1 500 000	6 240 000	6 200 000		14 110 000	2,350,
-37	[ENG] Elm Point Water Treatment Plant Expansion		400.000		1,500,000	6,310,000	6,309,000		14,119,000	
-38	[ENG] WTP Basins Concrete Repairs		100,000						100,000	
-39	[ PW ] WTP Secondary Basin Equipment Replacement									500
-40	[ENG] WTP Transfer Pump Replacement									250
-41	[ PW ] SSLIP / WSLIP Truck						17,500		17,500	
-42	[ PW ] Administration Vehicles									13
43	[ PW ] Lime Solids Monofill	100,000							100,000	
-44	[ENG] New Water Main from Sping Drive to Mossberg Court						110,000		110,000	
-45	[ENG] Cheshire Drive Water Main Replacement						500,000		500,000	
-46	[ENG] New Water Main from Dahlia Ct. to Diekamp Ln.						100,000		100,000	
-47	[ENG] New Water Main from San Juan Drive to S River Rd	40,000							40,000	
	[ENG] New 8 Inch Water Main Connections	400,000							400,000	
-48	(]									

#### CITY OF ST. CHARLES CAPITAL IMPROVEMENT PROGRAM FISCAL YEARS 2021 TO 2026

Blue Highlighted area contains formulas to populate the data - make changes to project detail tab to update summary below

Department Totals: Sanitary Sewer Total Outside Description 2021 2022 2023 2024 2025 2026 Funding Total Future SS-1 PW 1 Debt Service - 2010 COPs 6.730.813 6.887.045 7.021.116 5.524.209 5.524.902 31.688.085 76.902.297 300.000 SS-2 PW 1 Assorted Manhole Projects 100.000 300.000 300.000 300.000 300.000 1.600.000 on-going SS-3 [ENG] Misc. Sanitary Sewer Rehab/Replace 100,000 500,000 500,000 500,000 500,000 500.000 2,600,000 on-going 25,000 SS-4 25,000 75,000 125,000 75,000 75,000 400,000 PW ] Flow Monitoring/Smoke Testing on-going SS-5 PW ] Jet Vac Truck (WPC Equipment) 350.000 360.000 710.000 525.000 525.000 SS-6 PW 1 Sewer Televising Trucks SS-7 PW ] Medium Duty Work Trucks 40,000 87,500 32,500 40,000 200,000 250,000 SS-8 PW ] New Town Vac System Canisters & Controllers 150,000 500,000 200,000 200,000 1,050,000 160.000 **SS-9** PW ] Public Work Facility - Complete Construction 160.000 SS-10 2.000.000 [ENG] Missouri Treatment Clarifier Replacement SS-11 PW ] W&C - MS Plant Mixers for GBT sludge holding basin 50.000 50,000 SS-12 50,000 125,000 175,000 PW | Heavy Construction Equipment SS-13 50.000 50.000 [ PW ] Solids Handling Alternatives Plan SS-14 35.000 270,000 305.000 [ENG] MO Basin Area 15 Private Source Disconnect SS-15 PW ] W&C - Pretreatment Local Limit Study 75,000 75,000 SS-16 PW ] W&C-Lift Stations-SCADA 95,000 100,000 75.000 270,000 SS-17 17.000 17,000 PW 1 W&C-New Town Vacuum Pump Rebuild PW ] W&C - MS WWTF Tertiary Building Demolition SS-18 230.000 SS-19 PW ] W&C - MO WWTF Lagoon Bank Stabilization 30,000 200,000 230,000 50,000 SS-20 PW ] Plug Valve Rebuild and Automation at New Town Vacuum Station 50,000 100,000 SS-21 [PW]W&C - MO Headworks Screening 850.000 850,000 SS-22 PW ] W&C - MS Headworks Screening 850.000 850.000 SS-23 PW ] W&C - Force Main Air Release 300,000 300,000 SS-24 PW ] W&C - Phosphorus Optimization Plan 125,000 125,000 SS-25 30.000 [PW]W&C - MO and MS Plants H2S Monitoring System Replacement 30,000 SS-26 [ENG] Bangert Island Sewer Extension 950,000 1,500,000 2,450,000 SS-27 [ENG] South Fifth Street Trunk Main from Fairgrounds Rd, to S, River Rd, 200.000 1.300.000 1.500.000 SS-28 [ENG] Fourth Street Trunkmain from Morgan St. to Tecumseh St. 1,400,000 SS-29 [ENG] Boone's Lick Trunkmain from Riverside Dr. to N. Fairgrounds Rd. 1,200,000 SS-30 270.000 30.000 1.700.000 ENG Riverside Dr. Trunkmain from I-70 to Jefferson St. 2.000.000 SS-31 ENGI Riverside Dr. Trunkmain from Jefferson St. to Adams St. 180.000 20.000 1.000.000 1,200,000 SS-32 1,400,000 [ENG] Trunkmain along 9th St, Morgan, 2nd St, Olive St, Tecumseh St & N. Main St SS-33 75,000 75,000 PW ] W&C - Jet Truck offloading station SS-34 60.000 60.000 PW ] W&C - Lift Station Spare Pumps SS-35 [ PW ] W&C - MS Plant structure over UV system 100.000 100,000

continued on next page

SS-Sum 1



# Expense Budget Worksheet Report Budget Year 2019

T				
count Account Description	2019 Department Reguest			
ind 517 - Stormwater	nequest			
Department 500 - Public Wor	ks			
Division 581 - Stormwater				
Capital Outlay				
Captialized Expenditures				
3-110 Other Improvements Sto	prmwater Projects 250,000.00			
Budget Transactions				
Level	Transaction	Number of Units	Cost Per Unit	Total Amount
Department Reques	st SW-3 [PW] Field Engineered/Inter Divisional Program	1.0000	120,000.00	120,000.00
Department Reques	st SW-4 [PW] SW Improvements/NPDES Phase II	1.0000	30,000.00	30,000.00
Department Reques	st SW-6 [PW] Maintenance/Repair of Stormwater Infrastructure	1.0000	100,000.00	100,000.00
		Departme	ent Request Totals	\$250,000.00
Ca	ptialized Expenditures Totals \$250,000.00			
	Capital Outlay Totals \$250,000.00			
Debt Service				
7-041 Principal Payments COPS	5 1,215,000.00			
'8-041 Interest & Fiscal Charge	s COPS 1,216,957.00			
	Debt Service Totals \$2,431,957.00			
Division	<b>581 - Stormwater</b> Totals \$2,681,957.00			
Department	<b>500 - Public Works</b> Totals <b>\$2,681,957.00</b>			
Department 502 - Engineerin	g			
Division 502 - Engineering				
Capital Outlay				
Captialized Expenditures				
'3-110 Other Improvements Sto	prmwater Projects 20,904,300.00			
Budget Transactions				
Level	Transaction	Number of Units	Cost Per Unit	Total Amount
Department Reques	st SW-10 [ENG] Seventh to Boone's Lick Storm Sewers	1.0000	3,200,000.00	3,200,000.00
Department Reques	st SW-11 [ENG] N Benton to N Main Storm Sewers	1.0000	2,650,000.00	2,650,000.00
	st SW-12 [ENG] Transit (5th to Main) Storm Sewers	1.0000	2,350,000.00	2,350,000.00
Department Reques	st SW-13 [ENG] Perry to Riverside Storm Sewers	1.0000	2,250,000.00	2,250,000.00
Department Reques Department Reques		1.0000	691,800.00	691,800.00
	st SW-14 [ENG] MO Flood Gates #2 & #3		1 277 500 00	1,277,500.00
Department Reques		1.0000	1,277,500.00	1,277,500.00
Department Reques	st SW-15 [ENG] Bridal Spur Culvert Replacement	1.0000 1.0000	1,277,500.00 889,200.00	889,200.00
Department Reques Department Reques Department Reques	st     SW-15 [ENG] Bridal Spur Culvert Replacement       st     SW-16 [ENG] Boschert Creek Stabilization - Lindenwood Ave to Pin			
Department Reques Department Reques Department Reques Department Reques	st       SW-15 [ENG] Bridal Spur Culvert Replacement         st       SW-16 [ENG] Boschert Creek Stabilization - Lindenwood Ave to Pin         st       SW-17 [ENG] Crystal Springs Creek Stabilization - Rio Vista Dr.	1.0000	889,200.00	889,200.00

# FIRST REGULAR SESSION [PERFECTED] HOUSE COMMITTEE SUBSTITUTE FOR

# **HOUSE BILL NO. 19**

# **100TH GENERAL ASSEMBLY**

0019H.02P

DANA RADEMAN MILLER, Chief Clerk

# AN ACT

To appropriate money for the several departments and offices of state government and the several divisions and programs thereof for planning and capital improvements including but not limited to major additions and renovations, new structures, and land improvements or acquisitions, to be expended only as provided in Article IV, Section 28 of the Constitution of Missouri for the fiscal period beginning July 1, 2019, and ending June 30, 2020.

Be it enacted by the General Assembly of the state of Missouri, as follows:

There is appropriated out of the State Treasury, to be expended only as provided in 2 Article IV, Section 28 of the Constitution of Missouri, for the purpose of funding each

- 3 department, division, agency, and program described herein for the item or items stated, and for
- 4 no other purpose whatsoever, chargeable to the fund designated for the period beginning July 1,
- 5 2019, and ending June 30, 2020, as follows:

Section 19.005. To the Office of Administration

- 2 For the Department of Elementary and Secondary Education
- 3 For planning, design, repairs, replacements, improvements, and
- 4 renovations to the Missouri School for the Blind

# Section 19.010. for the office of Administration

- 2 For the Department of Agriculture
- 3 For construction of a new campground at the State Fairgrounds
- 4 From General Revenue Fund (0101). ..... \$1,561,141

# Section 19.020. To the Department of Natural Resources

2 For the Division of State Parks

For state park and historic site capital improvement expenditures,
 including design, construction, renovation, maintenance, repairs,
 replacements, improvements, adjacent land purchases, installation
 and replacement of interpretive exhibits, water and wastewater
 improvements, maintenance and repair to existing roadways,

НС	CS HB 19 4
4	From General Revenue Fund (0101) \$500,000
	Section 19.125. To the Office of Administration
2	For a mobile flood wall in a city of the fourth classification with more
3	than four hundred but fewer than four hundred fifty inhabitants and
4 5	located in any county of the third classification without a township form of government and with more than eighteen thousand but
6	fewer than twenty thousand inhabitants and with a city of the
7	fourth classification with more than five thousand but fewer than
8	six thousand inhabitants as the county seat
9	From General Revenue Fund (0101)
2 3 4 5 6	<ul> <li>Section 19.130. To the Department of Natural Resources</li> <li>For side channel and bank improvements near an island located in a county with a charter form of government and with more than three hundred thousand but fewer than four hundred fifty thousand inhabitants</li> <li>From General Revenue Fund (0101).</li> </ul>
	Section 19.135. To the Department of Natural Resources
2	For the Division of State Parks
3	For improvements at Roaring River State Park
4	From General Revenue Fund (0101)
	Bill Totals General Revenue Fund
	Federal Funds
	Other Funds
	Total
	Tota1\$1/9,439,832 ✓



**Missouri Department of Transportation** Patrick K. McKenna, Director 105 West Capitol Avenue P.O. Box 270 Jefferson City, Missouri 65102

1.888.ASK MODOT (275.6636)

December 18, 2019

Mr. Brad Temme City of St. Charles Director of Engineering 200 N. 2nd Street St. Charles, Missouri 63301

Dear Mr. Temme:

The Missouri Department of Transportation (MoDOT) received the City of St. Charles' application for the Governor's Transportation Cost Share Program for Riverpointe.

I'm happy to inform you that your application was selected to receive \$5,000,000 of Governor's Transportation Cost Share funds by the Cost Share Committee at their December 16, 2019 meeting. Final approval will be requested from the Missouri Highways and Transportation Commission (MHTC) at their January 9, 2020 meeting.

A MoDOT District representative will contact you after the January MHTC meeting to provide additional details on the necessary steps needed to deliver your transportation project.

Please contact Sunny Wilde at 573-526-3690 or <u>sunshine.wilde@modot.mo.gov</u> with any questions.

Sincerely,

Sinna Patrick K. McKen

Director

Copies: Sunny Wilde-fs Tim Arbeiter-DED Andrew Tuerck-stl



Our mission is to provide a world-class transportation system that is safe, innovative, reliable and dedicated to a prosperous Missouri.

www.modot.org

Old. 18-207

# AGREEMENT BETWEEN THE DEPARTMENT OF ARMY AND THE CITY OF SAINT CHARLES, MISSOURI FOR DEVELOPMENT OF A COMPREHENSIVE PLAN FOR BANGERT ISLAND FLOOD RISK & RIVERFRONT TRANSFORMATION PROJECT

THIS AGREEMENT, is entered into this <u>4th</u> day of <u>October</u> 2018, by and between the Department of the Army (hereinafter the "Government"), represented by the U.S. Army Engineer, Kansas City District (hereinafter the "District Engineer") and the City of Saint Charles, Missouri (hereinafter the "Non-Federal Sponsor"), represented by the Director of Water Services.

#### WITNESSETH, THAT

**.** ''

WHEREAS, Section 22 of the Water Resources Development Act of 1974, as amended (42 U.S.C. 1962d-16) authorizes the Secretary of the Army, acting through the Chief of Engineers, to provide assistance in the preparation of a comprehensive water resources plan (hereinafter the "Plan") to a State or non-Federal interest working with a State, and to establish and collect fees for the purpose of recovering 50 percent of the costs of such assistance except that Secretary may accept and expend non-Federal funds provided that are in excess of such fee; and

WHEREAS, the Government and the Non-Federal Sponsor have the full authority and capability to perform in accordance with the terms of this Agreement.

### NOW THEREFORE, the parties agree as follows:

1. The Government shall develop the Plan, in coordination with the Non-Federal Sponsor, in accordance with the attached Scope of Work, and any modifications thereto, that specifies the scope, cost, and schedule for activities and tasks, including the Non-Federal Sponsor's in-kind services.

2. The Non-Federal Sponsor shall provide 50 percent of the costs for developing the Plan in accordance with the provisions of this paragraph. As of the effective date of this Agreement, the costs of developing the Plan are projected to be \$2,000,000.00, with the Government's share of such costs projected to be \$1,000,000.00 and the Non-Federal Sponsor's share of such costs projected to be \$1,000,000.00, which includes estimated credit in the amount of \$0 for in-kind services.

a. After considering the estimated amount of credit for in-kind services that will be afforded in accordance with paragraph 4, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor for the initial fiscal year of development of the Plan, with a fiscal year beginning on October 1<sup>st</sup> and ending on September 30th of the following year. No later than 15 calendar days after such notification, the Non-Federal Sponsor shall provide the full amount of such funds to the Government by delivering a check payable to "FAO, USAED, Kansas City District G5 to the District Engineer or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government.

b. No later than August 1<sup>st</sup> prior to each subsequent fiscal year during development of the Plan, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor during that fiscal year. No later than September 1<sup>st</sup> prior to that fiscal year, the Non-Federal Sponsor shall provide the full amount of such required funds to the Government using one of the payment mechanisms specified in paragraph 2.a. above.

c. If the Government determines at any time that additional funds are needed from the Non-Federal Sponsor to cover the Non-Federal Sponsor's costs of developing the Plan, the Government shall provide the Non-Federal Sponsor with written notice of the amount of additional funds required. Within 60 calendar days of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of such additional funds.

d. Upon completion of the Plan and resolution of any relevant claims and appeals, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with the written results of such final accounting. Should the final accounting determine that additional funds are required from the Non-Federal Sponsor, the Non-Federal Sponsor, within 60 calendar days of written notice from the Government, shall provide the Government with the full amount of such additional funds. Should the final accounting determine that the Non-Federal Sponsor has provided funds in excess of its required amount, the Government shall refund the excess amount, subject to the availability of funds. Such final accounting does not limit the Non-Federal Sponsor's responsibility to pay its share of costs, including contract claims or any other liability that may become known after the final accounting.

3. In addition to the required 50 percent of costs, the Non-Federal Sponsor may determine that it is in its best interests to provide additional funds for development of the Plan. Additional funds provided under this paragraph and obligated by the Government are not included in calculating the Non-Federal Sponsor's required 50 percent of costs and are not eligible for credit or repayment.

4. The in-kind services includes those activities (including services, materials, supplies, or other in-kind services) that are required for development of the Plan and would otherwise have been undertaken by the Government and that are specified in the Scope of Work and performed or provided by the Non-Federal Sponsor after the effective date of this Agreement and in accordance with the Scope of Work. The Government shall credit towards the Non-Federal Sponsor's share of costs, the costs, documented to the satisfaction of the Government, that the Non-Federal Sponsor incurs in providing or performing in-kind services, including associated supervision and administration. Such

costs shall be subject to audit in accordance with paragraph 9 to determine reasonableness, allocability, and allowability, and crediting shall be in accordance with the following procedures, requirements, and limitations:

a. As in-kind services are completed and no later than 60 calendar days after such completion, the Non-Federal Sponsor shall provide the Government appropriate documentation, including invoices and certification of specific payments to contractors, suppliers, and the Non-Federal Sponsor's employees. Failure to provide such documentation in a timely manner may result in denial of credit. The amount of credit afforded for in-kind services shall not exceed the Non-Federal Sponsor's share of costs.

b. No credit shall be afforded for interest charges, or any adjustment to reflect changes in price levels between the time the in-kind services are completed and credit is afforded; for the value of in-kind services obtained at no cost to the Non-Federal Sponsor; or for costs that exceed the Government's estimate of the cost for such item if it had been performed by the Government.

5. The Non-Federal Sponsor shall not use Federal Program funds to meet any of its obligations under this Agreement unless the Federal agency providing the funds verifies in writing that the funds are authorized to be used for the Plan. Federal program funds are those funds provided by a Federal agency, plus any non-Federal contribution required as a matching share therefor.

6. In carrying out its obligations under this Agreement, the Non-Federal Sponsor shall comply with all the requirements of applicable Federal laws and implementing regulations, including, but not limited to: Title VI of the Civil Rights Act of 1964 (P.L. 88-352), as amended (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto; the Age Discrimination Act of 1975 (42 U.S.C. 6102); and the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Army Regulation 600-7 issued pursuant thereto.

7. Upon 30 calendar days written notice to the other party, either party may elect, without penalty, to suspend or terminate further development of the Plan. Any suspension or termination shall not relieve the parties of liability for any obligation previously incurred.

8. As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to the parties. Each party shall pay an equal share of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

9. The parties shall develop procedures for the maintenance by the Non-Federal Sponsor of books, records, documents, or other evidence pertaining to costs and expenses

for a minimum of three years after the final accounting. The Non-Federal Sponsor shall assure that such materials are reasonably available for examination, audit, or reproduction by the Government.

a. The Government may conduct, or arrange for the conduct of, audits of the Plan. Government audits shall be conducted in accordance with applicable Government cost principles and regulations. The Government's costs of audits for the Plan shall not be included in the shared costs of the Plan, but shall be included in calculating the overall Federal cost of the Plan.

b. To the extent permitted under applicable Federal laws and regulations, the Government shall allow the Non-Federal Sponsor to inspect books, records, documents, or other evidence pertaining to costs and expenses maintained by the Government, or at the request of the Non-Federal Sponsor, provide to the Non-Federal Sponsor or independent auditors any such information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The costs of non-Federal audits shall be paid solely by the Non-Federal Sponsor without reimbursement or credit by the Government.

10. In the exercise of their respective rights and obligations under this Agreement, the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other. Neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights a party may have to seek relief or redress against that contractor.

11. Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally or mailed by certified mail, with return receipt, as shown below. A party may change the recipient or address for such communications by giving written notice to the other party in the manner provided in this paragraph.

If to the Non-Federal Sponsor:

Attn: Brad Temme, Director of Engineering City of Saint Charles, Missouri 200 North Second Street Saint Charles, Missouri 63301

If to the Government:

Planning Assistance to States Program Manager CENWK-PM-PF Kansas City District Corps of Engineers 601 E. 12<sup>th</sup> Street Kansas City, MO 64106 12. To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

13. Nothing in this Agreement is intended, nor may be construed, to create any rights, confer any benefits, or relieve any liability, of any kind whatsoever in any third person not a party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer.

DEPARTMENT OF THE ARMY	THE CITY OF SAINT CHARLES, MISSOURI
BY: Douglas B. Guttormsen Colonel, Corps of Engineers District Commander	BY: <u>Seelega</u> , <u>Jose</u> Sally A. Faith Mayor City of Saint Charles
DATE: OCT 0 & MIR	DATE: 9-25-18
Approved as to Form:	mblilen Hidan
CERPTY	Michael Valenti City Attorney
Et	

I hereby certify that there is a balance, otherwise unencumbered, to the credit of the appropriation to which the foregoing expenditure is to be charged, and a cash balance otherwise unencumbered, in the treasury, to the credit of the fund from which payment is to be made, each sufficient to meet the obligation hereby incurred.

Gina Jarvis Director of Finance

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# SCOPE OF STUDY

## FOR

# BANGERT ISLAND FLOOD RISK & RIVERFRONT TRANSFORMATION PROJECT APPENDIX A

## **INTRODUCTION**

The Bangert Island Riverfront Transformation project will transform the City of Saint Charles riverfront property between the Family Arena and Interstate 70. In the 1930's 1940's, river control structures were built on the Missouri River to provide a more navigable channel. As a result, the channel separating Bangert Island from the shoreline gradually silted in, and in the 1980's finally ceased to function as an island except in periods of high water. Previously, the City and the US Army Corps of Engineers has worked with multiple alternatives to sturdy the hydrology and sediment transport of an open channel. As a result of the current condition of the channel, the shallow water aquatic habitat has been reduced and flooding is common on properties along the shoreline. At the current time, through coordination between City and US Army Corps of Engineers personnel, a connection to the river is not desired. The current alternative discussed excavates out a portion of the channel, and recycles the spoils on the shoreline in the City of Saint Charles. This is to conduct the planning processes to support future implementation of a project.

## SCOPE OF STUDY:

The focus of this Planning Assistance to Sates study is to study the engineering and planning aspects of the concept that will be required to advance the project towards future implementation. Included in the study is surveys, geotechnical investigations, hydraulic and flood risk analyses, environmental (habitat) restoration analyses and NEPA planning and requirements, operations and maintenance requirements, study of stormwater quality infrastructure impacts, public outreach, utility coordination, and conceptual plans for implementation of channel and closed system improvements.

# TASKS & GOALS TO BE CONDUCTED:

- 1. Topographic and Boundary Survey of the Bangert Island Riverfront Transformation Project to Support Concept Plans:
  - a. Establish horizontal and vertical control for the project
  - b. Research location of existing utilities that are within the project
  - c. Collect topographic features for the project area
  - d. Collect cross sections of overbank and channel areas
  - e. Prepare electronic base maps of the project area
  - f. Collect all survey information necessary for environmental studies and delineation
- 2. Geotechnical Investigation to Support Concept Plans:
  - a. Analyze soil characteristics of the historical channel area or adjacent shorelines

- b. Acquire and analyze subsurface information with soil borings and laboratory analysis spaced at regular intervals
- c. Geotechnical investigations, calculations, and design of bank stabilization

## 3. Hydraulic Analysis

- a. Hydraulic analysis and ponding calculations, for flood risk planning and concept level engineering analysis and planning.
- b. Study, sizing, and other hydraulic analysis for stormwater quality improvements and enclosed and channelized onsite drainage

## 4. Environmental Restoration & NEPA Studies

- a. Obtain information relating to habitat restoration opportunities and NEPA processes and requirements in planning for the future project, including but not limited to:
  - i. Habitat restoration analyses & alternatives
  - ii. Archeological Importance
  - iii. Historical Significance
  - iv. Displacements
  - v. Social / Economic / Environmental justice impacts
  - vi. Threatened and Endangered Species Determination
  - vii. Farmland Impacts
  - viii. Wetlands Studies / Impacts
  - ix. Water Quality Impacts
  - x. Floodplain Impacts
  - xi. Air Quality Impacts
  - xii. Noise Impacts
  - xiii. Cultural Resources
  - xiv. Section 4(f)/6(f) Land determination
  - xv. Hazardous Waste
  - xvi Geological Resources

### 5. Operations and Maintenance

a. Assistance identifying and documenting Operations & Maintenance requirements to support planning for the water quality basin improvements

## 6. Conceptual Plans for Implementation

a. Conceptual plan preparation combining efforts of scope items 1-6

### 7. Public Outreach and Coordination

- a. Public Outreach and coordination for water quality basin improvements
- b. Coordination with utility companies impacted by plan

## 8. Deliverables and Documentation

a. Delivery of a topographic, utility, and boundary survey of the Bangert Island Riverfront Transformation Project Area

- b. Delivery of a geotechnical report detailing soil conditions, recommendations, bank stabilization recommendations and calculations, hydromorphological recommendations, and other relevant items relating to the removal and disposal of channel deposition.
- c. Delivery of a Hydraulic Report, including report of onsite enclosed drainage, channel improvements, and other hydraulic related calculations.
- d. Delivery of Environmental restoration and NEPA requirements reports, calculations, and recommendations, including alternatives & habitat delineation and other items mentioned in Task 4.
- e. Delivery of a recommended Operations and Maintenance requirements and consideration report for basin improvements
- f. Attendance of public meetings and coordination with impacted utility companies
- g. Production and delivery of side basin restoration / remediation conceptual plans Planning Report with recommendation for overall plan w/ components
- h. Transmittal should include electronic files(pdf and CAD)

## 9. Plan Formulation & Evaluation for Concept Plans

Comparison and evaluation of concept plans, screening and recommendation of plans, and documentation of this effort along with recommendation including all meetings, briefings and associated documentation.

## 10. Project Management, Administration, and Quality Assurance

Project oversight and coordination, administration, budget management and reporting, as well as engineering, biological, planning, writing, document format and other related quality assurance.

<u>COORDINATION, REPORTING, AND SCHEDULE</u>: A kick off meeting will be scheduled with the City of Saint Charles, Missouri and the US Army Corps of Engineers following signing of this agreement. The purpose of the meeting will be to establish key contracts and lines of communication, review scope of services, identify critical path of schedule, and achieve consensus of the goals of the study.

The City of Saint Charles would like to be involved in regular calls or project updates with the project team (consisting of the US Army Corps of Engineers staff and hired Private Consultants).

**BUDGET ESTIMATES:** As required by Federal law, a non-Federal Sponsor must bear an equal share of the study cost. The total cost of the study will not be increased without the mutual approval of the Sponsor and the Corps. The budget estimates for these tasks within the study are estimates subject to further adjustment after development of detailed labor and architect-engineer contract cost requirements pursuant to the agreement. The study cost estimate is shown in Appendix B.

APPENDIX B	
COST ESTIMATE	
FOR	
DEVELOPMENT OF A COMPREHENSIVE PLAN FOR BANGERT ISLAND	
FLOOD RISK & RIVERFRONT TRANSFORMATION PROJECT	
TASKS	
TASKS	COST
1 TOPOGRAPHIC AND BOUNDARY SURVEY	\$50,00
	\$00,00
2 GEOTECHNICAL INVESTIGATION TO SUPPORT CONCEPT PLANS	\$250,00
3 HYDRAULIC ANALYSIS FOR FLOOD RISK MGT & CONCEPT PLANS	\$350,00
4 ENVIRONMENTAL RESTORATION & NEPA STUDIES	¢250.00
LIVINOIMENTAL RESTONATION & NEFA STODIES	\$350,00
5 OPERATIONS AND MAINTENANCE PLANNING	\$50,00
	\$30,00
6 CONCEPTUAL PLANS	
O CONCEPTUAL PLANS	\$300,00
7 PUBLIC OUTREACH AND COORDINATION	\$50,00
8 REPORT DELIVERABLES AND DOCUMENTATION	\$300,00
9 PLAN FORMULATION & EVALUATION FOR CONCEPT PLANS	\$150,00
10 PROJECT MANAGEMENT, ADMINISTRATION & QUALITY ASSURANCE	\$150,00
TOTAL ESTIMATED PROJECT COSTS	\$2,000,00
	+=,000,00
TOTAL ESTIMATED FEDERAL COSTS (50%)	\$1,000,000
TOTAL ESTIMATED NON-FEDERAL COSTS (50%)	\$1,000,00

4 , ,

U.d. 19-254 City Copy

## FUNDING AGREEMENT MISSOURI DEPARTMENT OF NATURAL RESOURCES AND THE CITY OF ST. CHARLES, MISSOURI

THIS FUNDING AGREEMENT ("Agreement") is made and entered into by Missouri Department of Natural Resources (hereinafter, "DNR") and the City of St. Charles, Missouri, a constitutional charter city and political subdivision of the State of Missouri, located at 200 N. Second Street, St. Charles, Missouri 63301 (hereinafter, "City") (hereinafter collectively referred to as the "Parties").

## WITNESSETH:

WHEREAS, DNR is party to an appropriation pursuant to Section 19.130 of the 2019 House Committee Substitute for House Bill 19 ("HCS HB 19") for side channel and bank improvements near an island located in a county with a charter form of government and with more than three hundred thousand but fewer than four hundred fifty thousand inhabitants; and

WHEREAS, pursuant to this appropriation, City is conducting a project for side channel and bank improvements near an island known as Bangert Island, located in St. Charles County, which is a county with a charter form of government and with more than three hundred thousand but fewer than four hundred fifty thousand inhabitants; and

WHEREAS, DNR will make the funds from Section 19.130 available to City so that City can conduct the project for side channel and bank improvements; and

NOW, THEREFORE, for good and valuable consideration the Parties agree as follows:

## 1. <u>Duties.</u>

- a. *Duties of City.* City shall perform the following duties:
  - i. Design and construct side channel and bank improvements on ground owned by City adjacent to Bangert Island.
  - ii. Work closely with DNR to provide project updates and progress reports.
  - iii. Submit invoices to DNR for work performed in accordance with Section 19.130 of HCS HB 19 for an amount not to exceed One Million Dollars and No Cents (\$1,000,000.00).
- b. *Duties of DNR*. DNR shall perform the following duties:
  - i. Provide invoice review and approval for work completed in accordance with HCS HB 19 Section 19.130.
  - ii. Cooperate with City and City's consultant in the completion of the project objectives as defined in HCS HB 19 Section 19.130.
- 2. <u>Agreement Term.</u> The term of this Agreement begins upon execution by both Parties and

# **EXHIBIT 1**

shall remain in effect until DNR has made final payment to City for work on or before June 30, 2020 (the "Term"), unless:

- a. the Term has been extended through mutual written agreement of the Parties, or
- b. this Agreement is terminated.
- 3. <u>Project Areas & Deliverables.</u>
  - a. *Project Areas.* The Project Area is depicted in Exhibit A. The area is commonly referred to as the Riverpointe Project.
  - b. *Deliverables.* City is solely responsible for approving all project deliverables and directing the services provided by City's consultant. City shall provide DNR a copy of the summary of improvements completed by the project and invoicing for associated improvements.
- 4. Funding, Payment, & Invoices.
  - a. *Funding.* DNR shall provide City with reimbursement of one hundred percent (100%) of actual costs up to One Million Dollars and No Cents (\$1,000,000.00) for the project.
  - b. *Payment.* City shall provide DNR with invoices for actual costs incurred on the project. DNR shall make payment to City no later than thirty (30) calendar days after DNR receives City's invoice. DNR must make all payments due under the terms of this Agreement provided that City completes the work to the requirements of Section 19.130 of HCS HB 19.
- 5. <u>Ownership and Use of Work Products.</u>
  - a. *Definition.* As the term is used in this Agreement, "Work Product(s)" mean(s) each final deliverable that is created by City's consultant(s) or any member of City's consultants' team, when the deliverable is created as part of the Project Services. This definition applies to deliverables in whatever form or format each may be created. The term "created," in addition to its common definition, means the production of Work Products by any method or mechanism.
  - b. *Public Interest.* The Work Products for the Project are supported by public funds and are, therefore, dedicated to the public and will be placed into the public domain. Neither party may take any action that may restrict or inhibit the public's right to use the Work Products, except that the Parties may restrict any commercial use of the Work Products.
  - c. Ownership and Use of Work Products. Each party may use design Work Products without restriction or limitation, except that neither party may use the Work Products for commercial purposes. Acceptable uses include, but are not limited to: support for other similar types of work, publication of other reports or materials, support for academic or other research efforts, and displaying, reproducing, distributing, and permitting other entities (e.g., the Missouri or U.S. Departments of Transportation) to use the Work Products.

- 6. <u>Modification</u>. DNR or City may, from time to time, request modification of this Agreement, including the amount of funding that DNR will provide to City. Modifications that are mutually agreed upon by the Parties must be effected through written amendments to this Agreement.
- 7. <u>Remedies & Termination.</u>
  - a. *Remedies.* Where a party violates, breaches, or otherwise fails to comply with the terms of this Agreement, the other party, in its sole discretion, may terminate this Agreement, subject to Paragraph 7(b), and, in addition, may institute the appropriate administrative, contractual, legal, or equitable remedies available to that party.
  - b. *Termination*.
    - i. *DNR's Right of Termination*. DNR may terminate this Agreement for any one or combination of the following reasons:
      - 1. in the event that DNR does not receive funding from anticipated State source(s) for any reason,
      - 2. in the event that funding is withdrawn by the funding agency(ies) for any reason, or

- 3 at any time if City defaults in or breaches any provision or covenant of this Agreement and fails to cure after proper notice is given pursuant to Paragraph 8(b).
- ii. *City's Right of Termination.* City may terminate this Agreement at any time for any one or combination of the following reasons:
  - 1 at any time, with or without cause, upon notice to DNR pursuant to Paragraph 8(b),
  - 2. in the event that City's funding authorization is revoked by the funding authority for any reason or the funding agreement between City and DNR is rescinded for any reason, or
  - 3. if DNR defaults in any provision or covenant of this Agreement and fails to cure after proper notice is given pursuant to Paragraph 8(b).
- iii. *Right to Cure.* If a party is alleged to be in default of any provision or covenant of this Agreement by failing to perform the terms of this Agreement, the non-defaulting party must notify the defaulting party in writing of the default. After receipt of the written notice, the defaulting party shall have at least thirty (30) calendar days to cure its default. If the defaulting party fails to cure its default within the thirty (30) day timeframe, or other longer timeframe that may be specified in the written notice, then this Agreement shall immediately terminate.
- iv. *Termination Notice*. Except as specified in Paragraph 8(b), termination will be effected by the terminating party providing the non-terminating party a written notice, in accordance with Paragraph 8. The termination will be

effective on the third business day following the non-terminating party's receipt of the written termination notice. If City receives a termination notice, it shall immediately notify its consultant to stop work and not incur further costs.

v. *Payments upon Termination.* In the event of a termination, DNR shall pay City for DNR's share of all amounts due for the contract costs incurred by City for the Project Services performed by its consultant that was completed up through the effective date of the termination. Upon termination of this Agreement, City shall not be entitled to payment for any costs incurred by City after the termination effective date.

## 8. <u>Contact Information & Notices.</u>

- a. Contact Information.
  - i. *DNR's Points of Contact.* DNR's points of contact are as follows:

The point of contact for questions regarding budgeting, invoicing, reporting, this Agreement, and to seek authorization for changes is:

Jennifer Hoggatt, Water Resources Center Director Missouri Department of Natural Resources 1101 Riverside Drive, PO Box 176 Jefferson City, MO 65102 Email: jennifer.hoggatt@dnr.mo.gov; Telephone: 573-751-1403

ii. City's Points of Contact. City's point of contact is as follows:

The point of contact for questions regarding invoicing and the scope of services is:

Brad Temme, Director of Engineering City of St. Charles, Missouri 200 N. Second St. St. Charles, MO 63301 Email: <u>brad.temme@stcharlescitymo.gov</u> Telephone: 636-940-4617

- b. Notices.
  - i. Notices required by this Agreement will be deemed given only if given in writing, and delivered to the party's address noted in Paragraph 8(b)(iii) by:
    - 1. hand-delivery,
    - 2. Federal Express ("FedEx"), United Parcel Service ("UPS"), or similar service, or
    - 3. U.S. Postal Service registered or certified mail, postage prepaid and return receipt requested.

Department of Natural Resources and the City of St. Charles, MO Page 4 of 7

- ii. All notices will be effective upon first receipt, unless otherwise specified in this Agreement. "Receipt" means when the notice arrives at one of the address noted in Paragraph 8(b)(iii), as indicated by the first of either one of: the signature of a person employed by or designated by DNR or City, or the delivery date noted on the mail or delivery service tracking receipt, slip, or other tracking document including internet-based or electronic documents (e.g., e-mail or information downloaded from a website).
- iii. The mailing and physical addresses of DNR and City are as follows:
  - 1. <u>DNR:</u>

Jennifer Hoggatt Water Resources Center Director Missouri Department of Natural Resources 1101 Riverside Drive, PO Box 176 Jefferson City, MO 65102

2. <u>CITY:</u>

Brad Temme Director of Engineering City of St. Charles, Missouri 200 N. Second Street St. Charles, MO 63301

- c. Changes to Points of Contact or Addresses. The Parties shall inform each other of any changes in points of contact and contact information, including the organization's name, address, telephone number, and e-mail. This notice may be given by one or both of an e-mail to the point of contact identified in Paragraph 8(a) or one of the methods noted in Paragraph 8(b).
- 9. <u>General Terms.</u>
  - a. *Assignability.* City shall not assign, transfer, or delegate any interest in this Agreement without the prior written consent of DNR.
  - b. *Governing Law*. This Agreement will be interpreted by and be governed by the laws of the State of Missouri.
  - c. *Jurisdiction and Venue*. Any action at law, suit in equity, or other judicial proceeding to enforce or construe this Agreement, or regarding its alleged breach, will be instituted only in the Circuit Court of St. Charles County, Missouri.
  - d. *Waiver*. No waiver by either party of any default will be deemed as a waiver of any prior or subsequent default of the same or other provisions of this Agreement, or of the Parties' right to insist on strict compliance with this Agreement after a waiver is given.
  - e. *Agreement Binding on Successors.* Unless otherwise prohibited by this Agreement, this Agreement will be binding upon and will inure to the benefit of the Parties of

Department of Natural Resources and the City of St. Charles, MO Page 5 of 7 this Agreement, their heirs, administrators, and successors.

- f. *Integration.* This Agreement constitutes the entire understanding of the Parties, and revokes and supersedes all prior agreements between the Parties and is intended as a final expression of their agreement. It may not be modified or amended except in writing and when accomplished in accordance with Paragraph 6.
- g. *No Third Party Beneficiaries.* This Agreement and all of its provisions are solely for the benefit of DNR and City, and are not intended to and shall not create or grant any rights, contractual or otherwise, to any third party or entity.
- h. *Survival of Terms.* All provisions of this Agreement which by their nature should survive termination or expiration of this Agreement will survive, including but not limited to: provisions regarding funding, payments, and ownership of documents.
- i. *Severability.* In the event that any of the terms or provisions of this Agreement are declared void or unenforceable for any reason, the remaining terms and provisions of this Agreement will remain in full force and effect and will not be affected by the declaration.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the Parties have caused this instrument to be executed by their respective authorized officials and on the dates specified below:

## **Missouri Department of Natural Resources**

12-3-19

Carol S. Comer Director, Missouri Department of Natural Resources

Date

City of St. Charles, Missouri

Daniel J. Borgmeyer Mayor, City of St. Charles, Missouri

11-20-19

Date

City Clerk

## CERTIFICATE OF DIRECTOR OF FINANCE

I certify that the expenditure contemplated by this document is within the purpose of the appropriation and the work program contemplated thereby, and that there is sufficient unencumbered balance in the appropriation account and in the proper fund to pay the obligation.

Director of Finance Date

# APPENDIX H - PLAN SHEETS & TECHNICAL PLATES



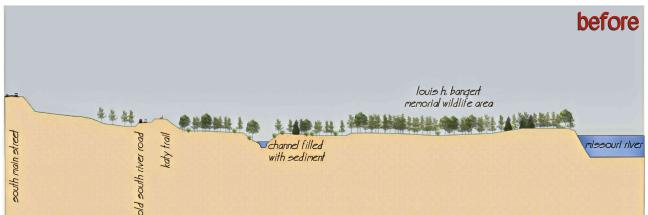


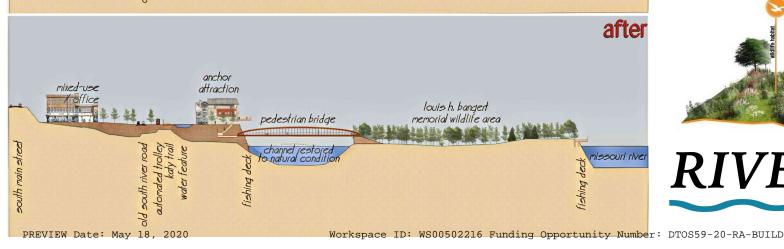




# Recreation | Access | Habitat | Water Quality | Economic Development







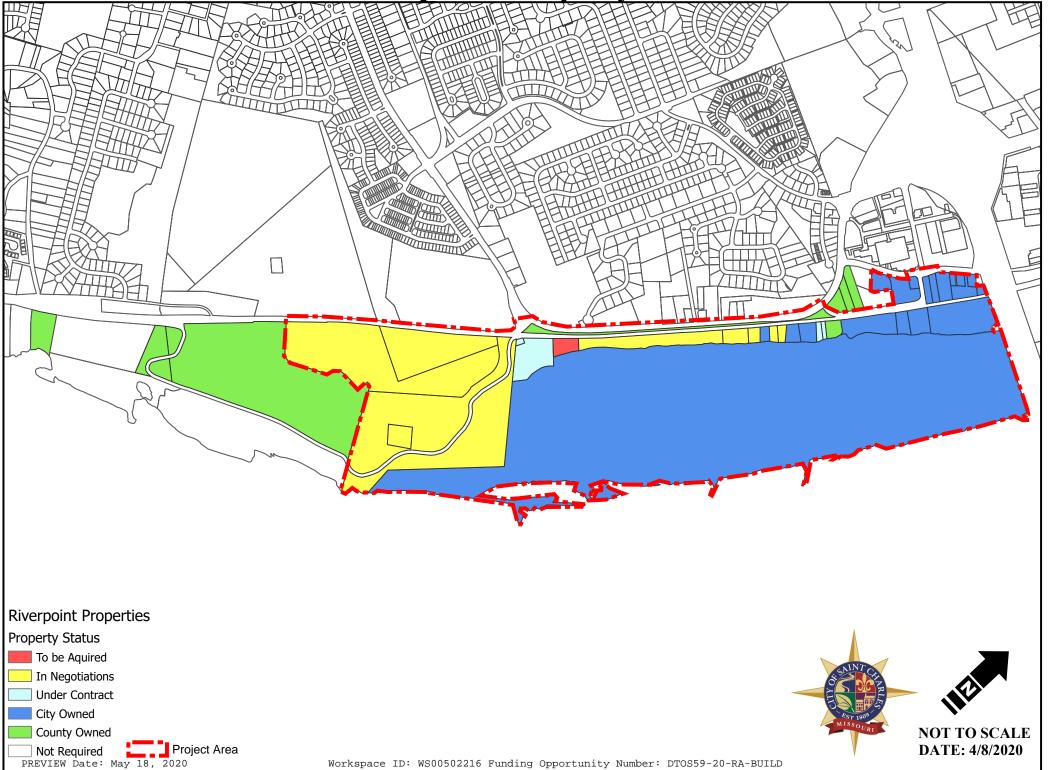






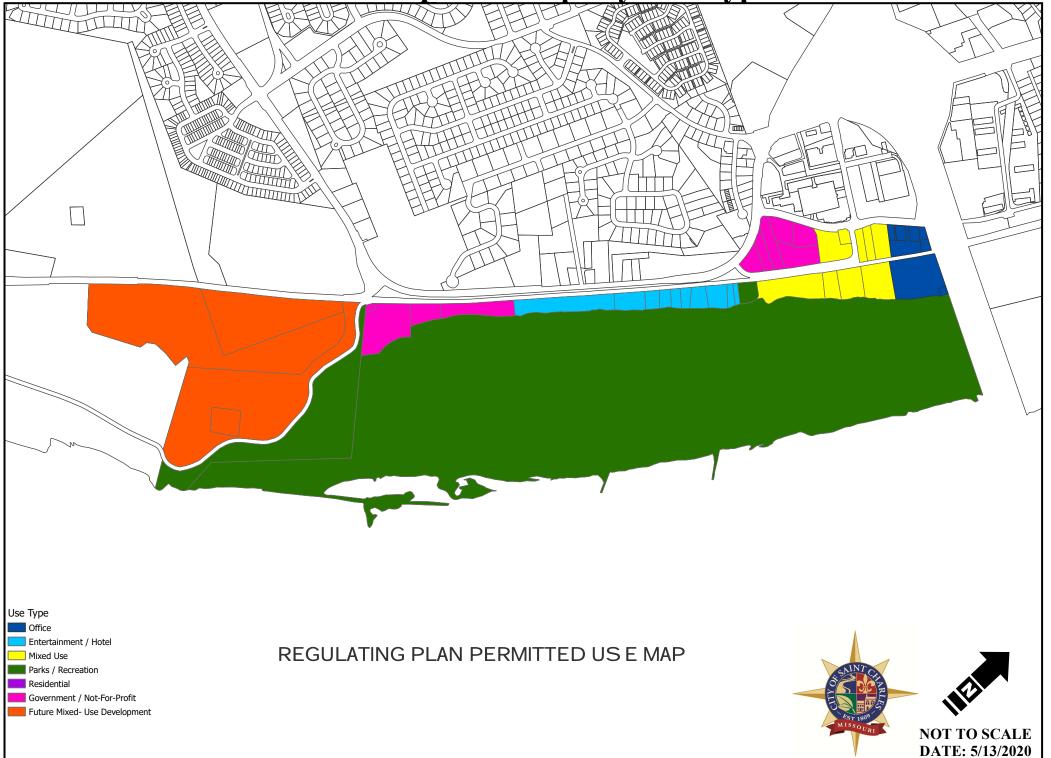
**RIVERPOINTE** 

# **Riverpointe Property Status**

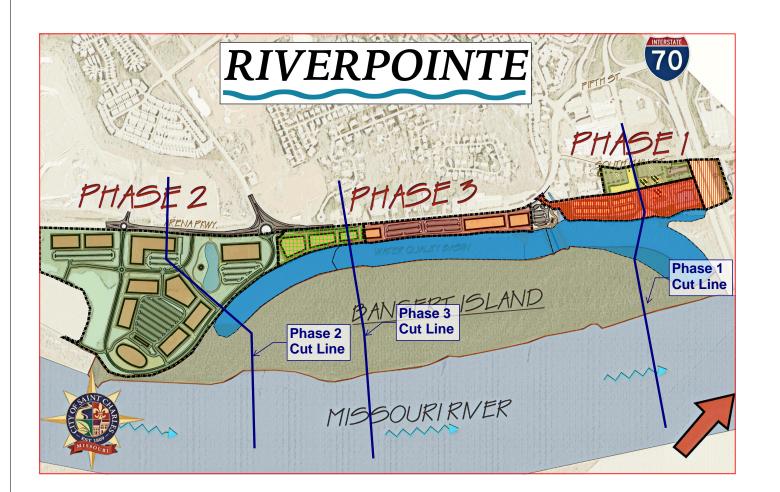


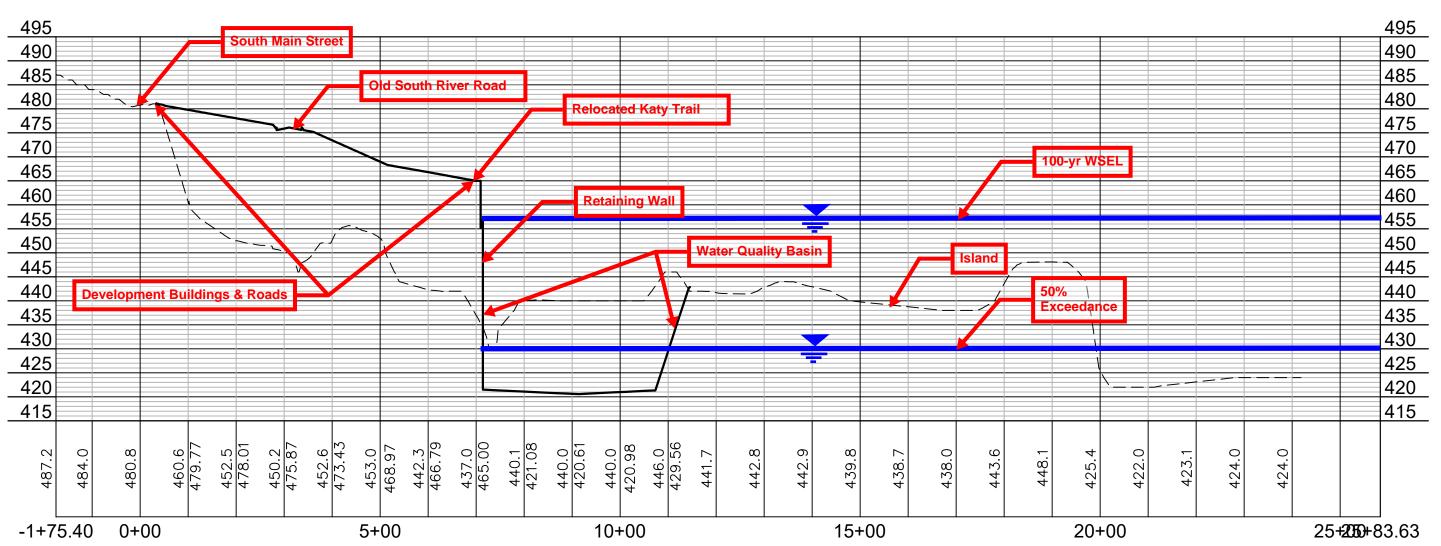
Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD

# **Riverpointe Property Use Type**

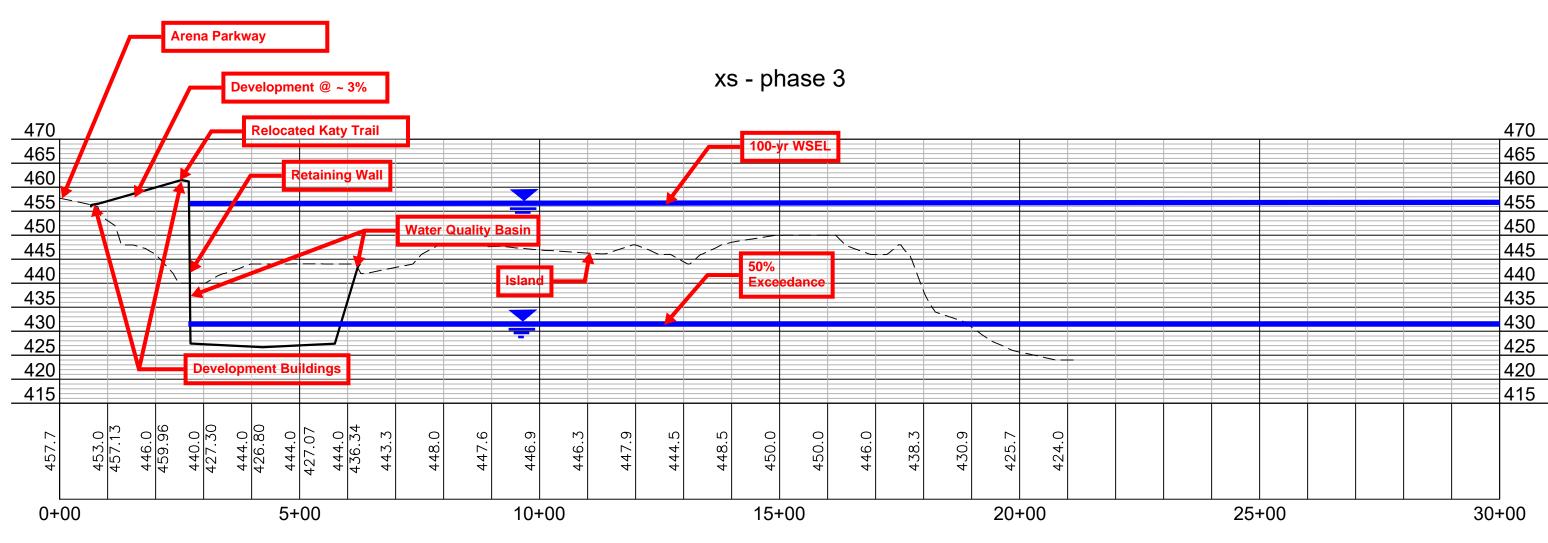


Note: All development elevations to be protected to above 500-year flood levels except where tying to existing infrastructure (i.e. Arena Parkway)











xs - phase 2



# <u>AFTER</u>





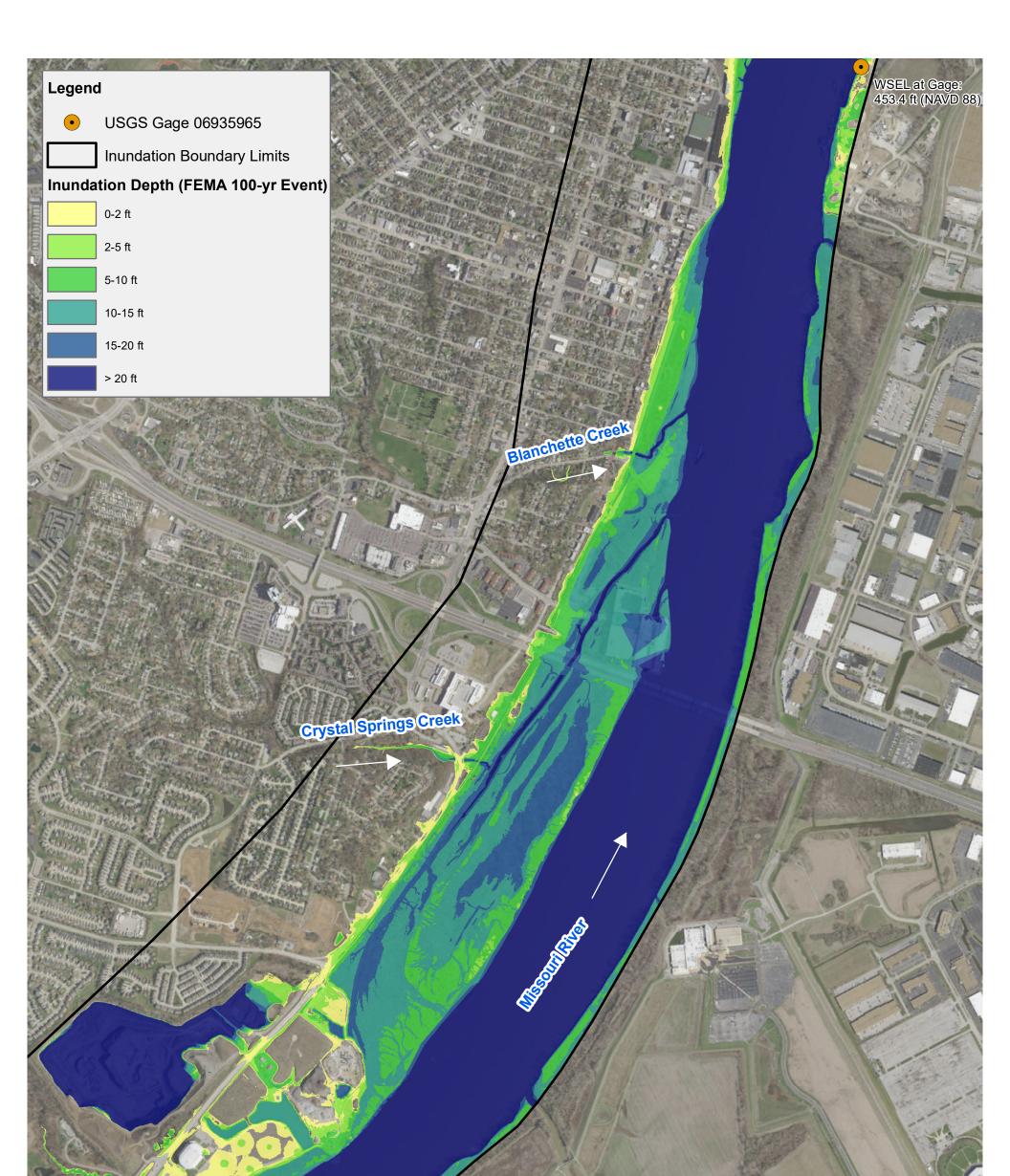
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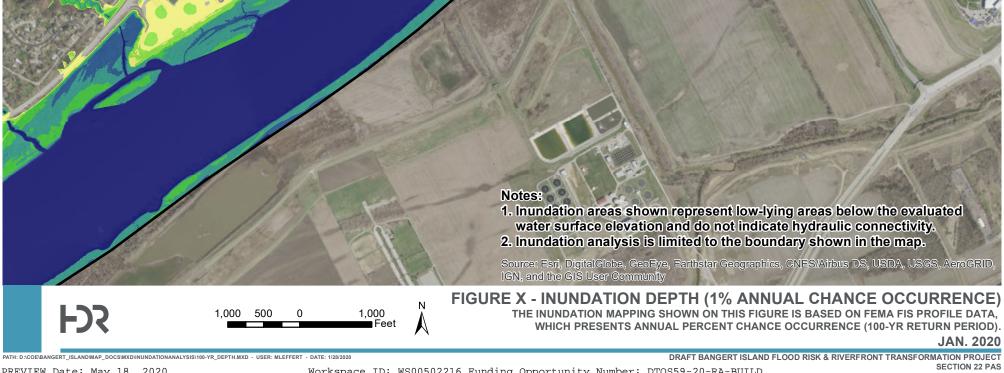


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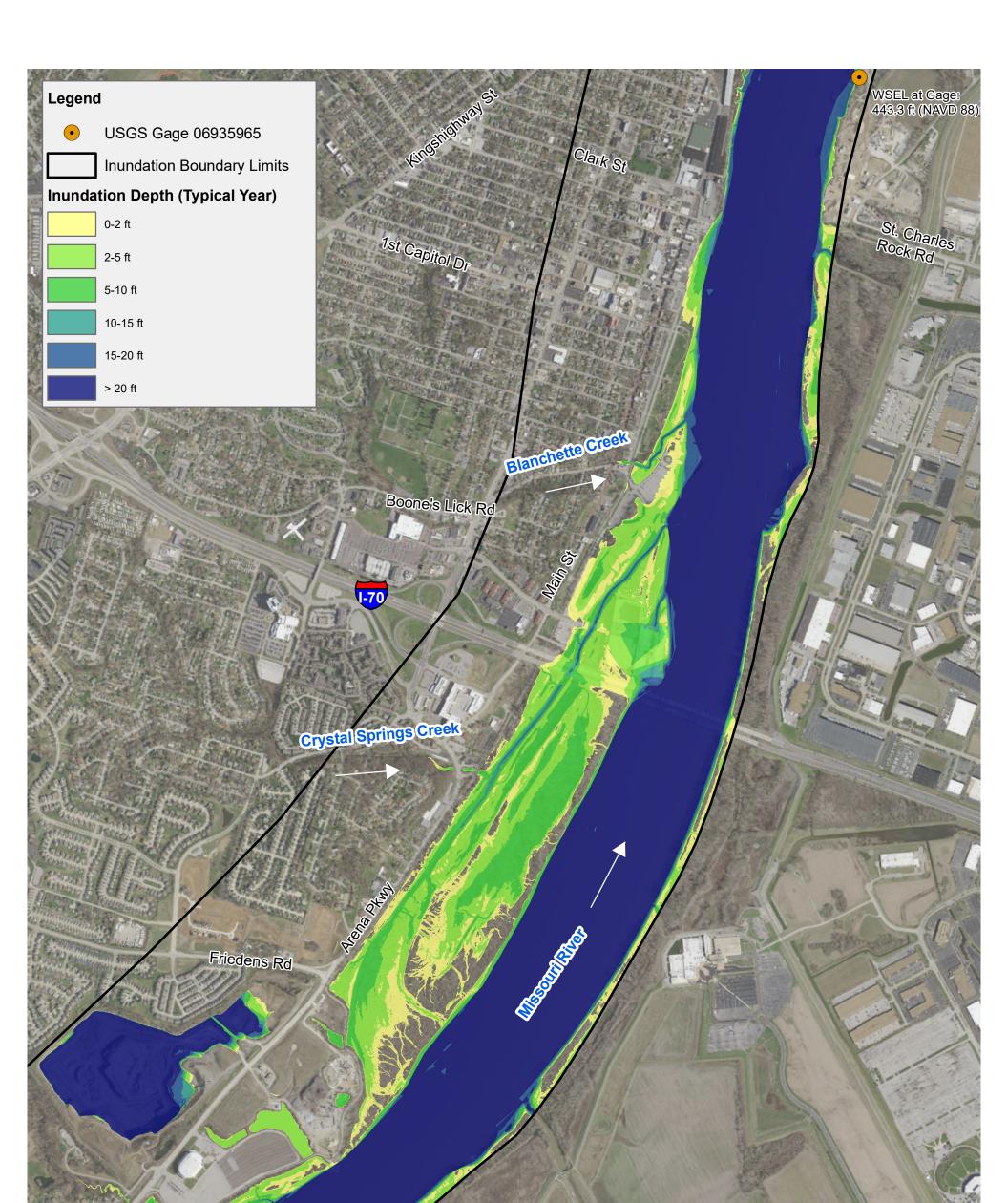


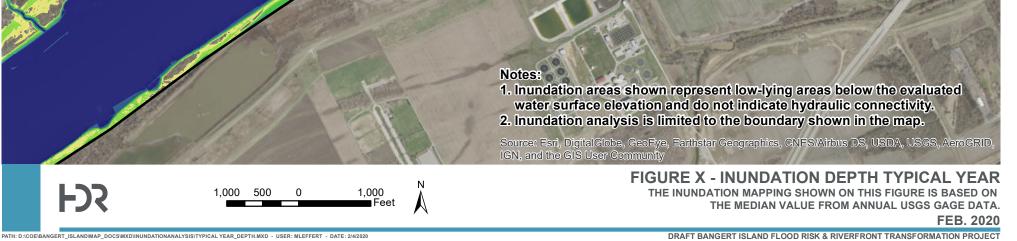
AFTER





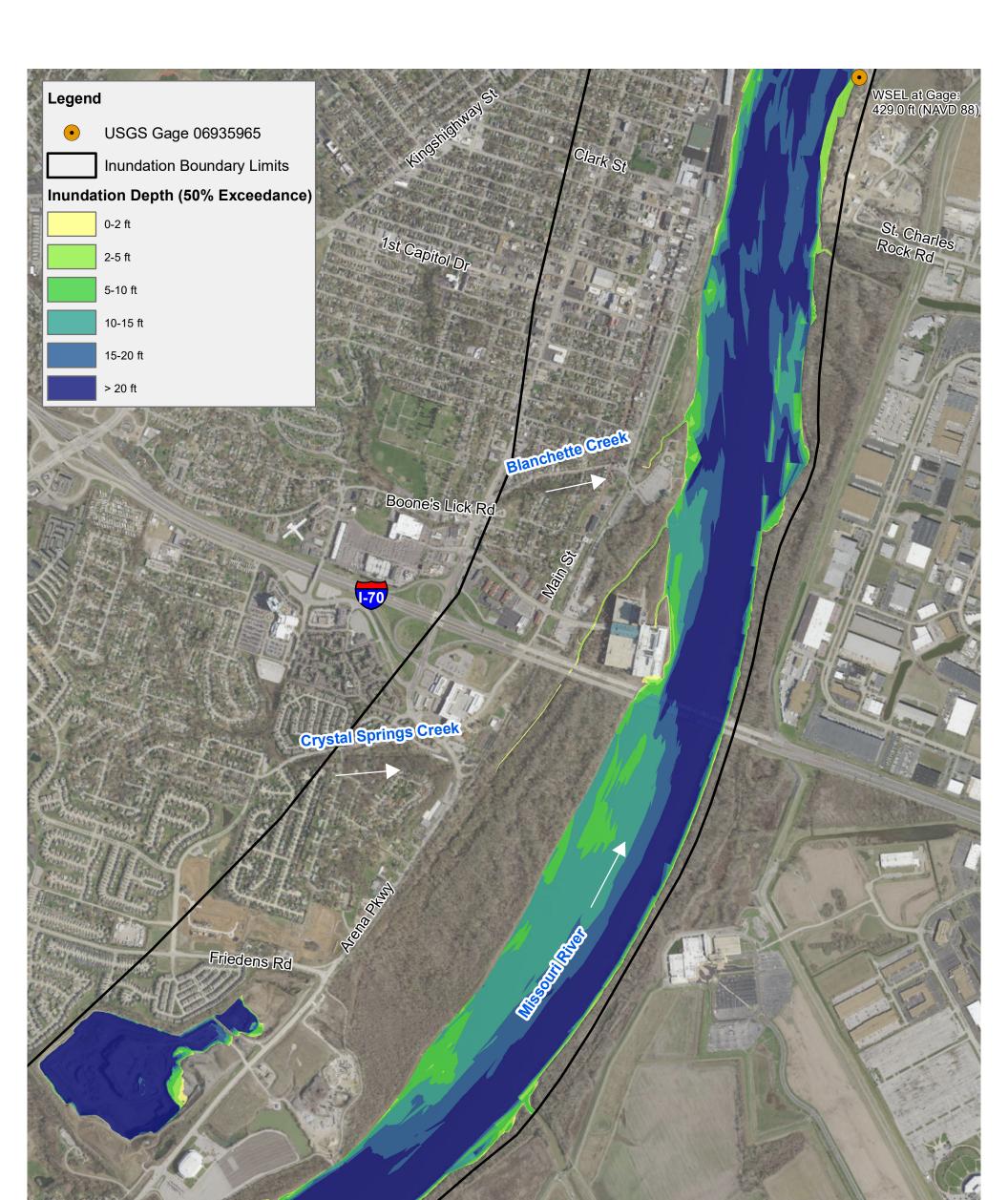
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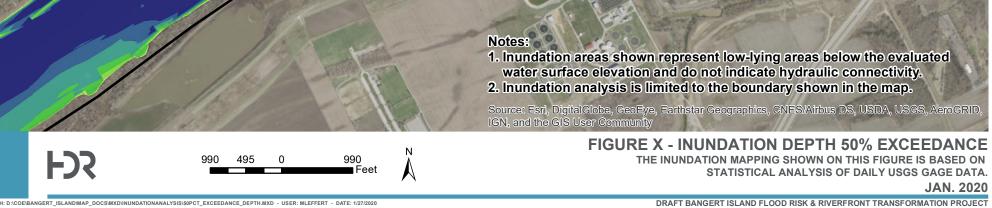




Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD

SECTION 22 PAS

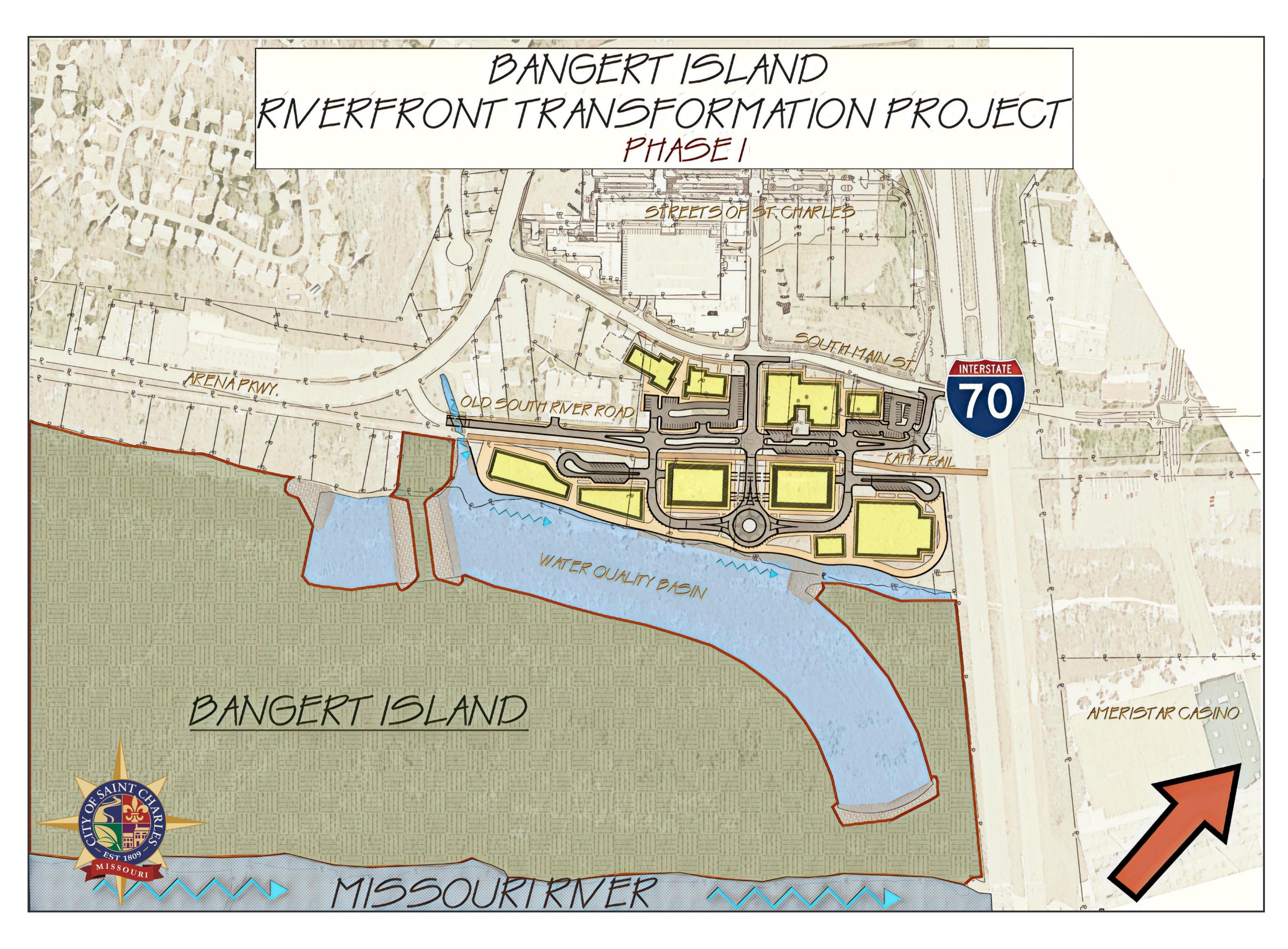


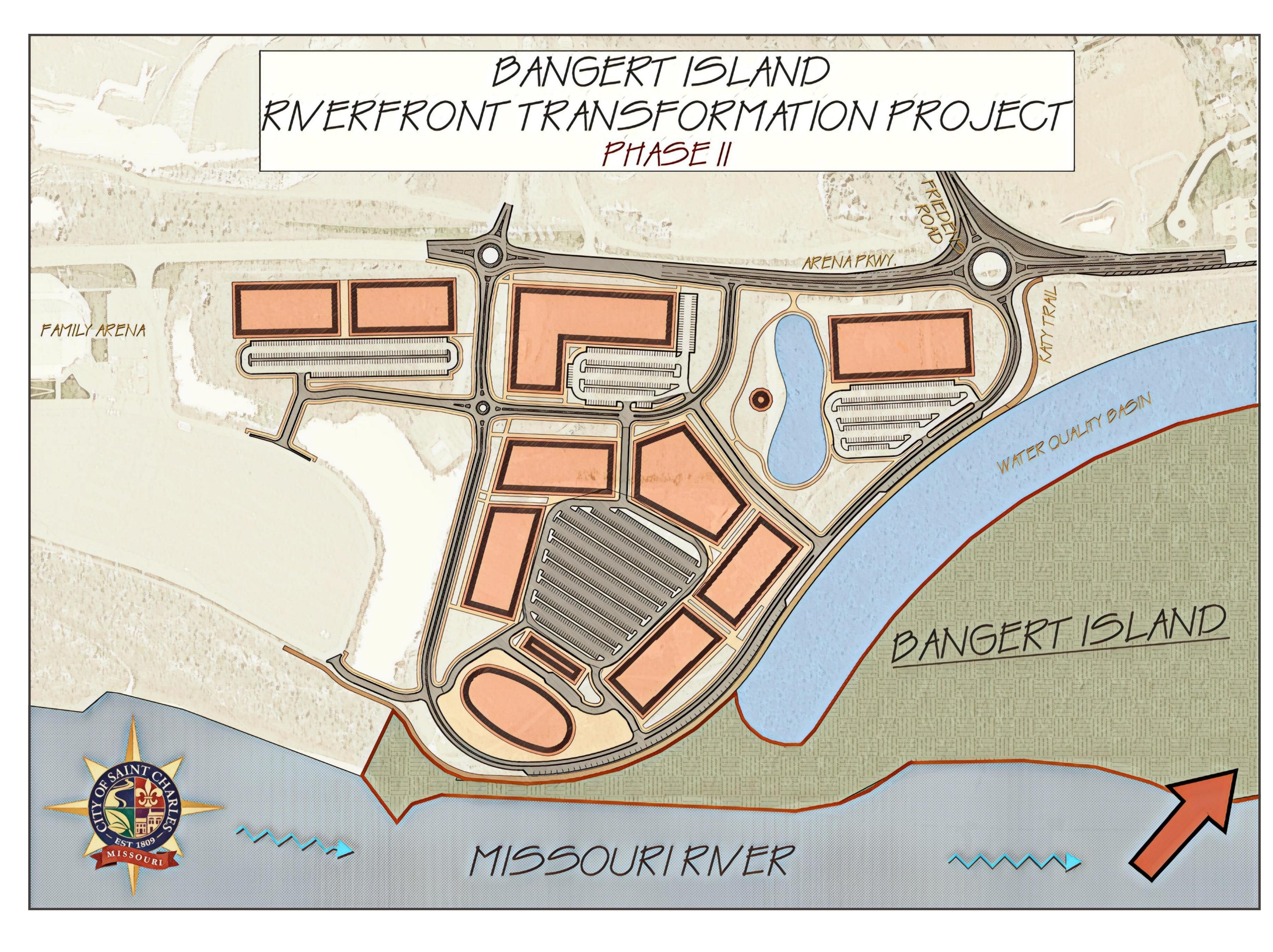


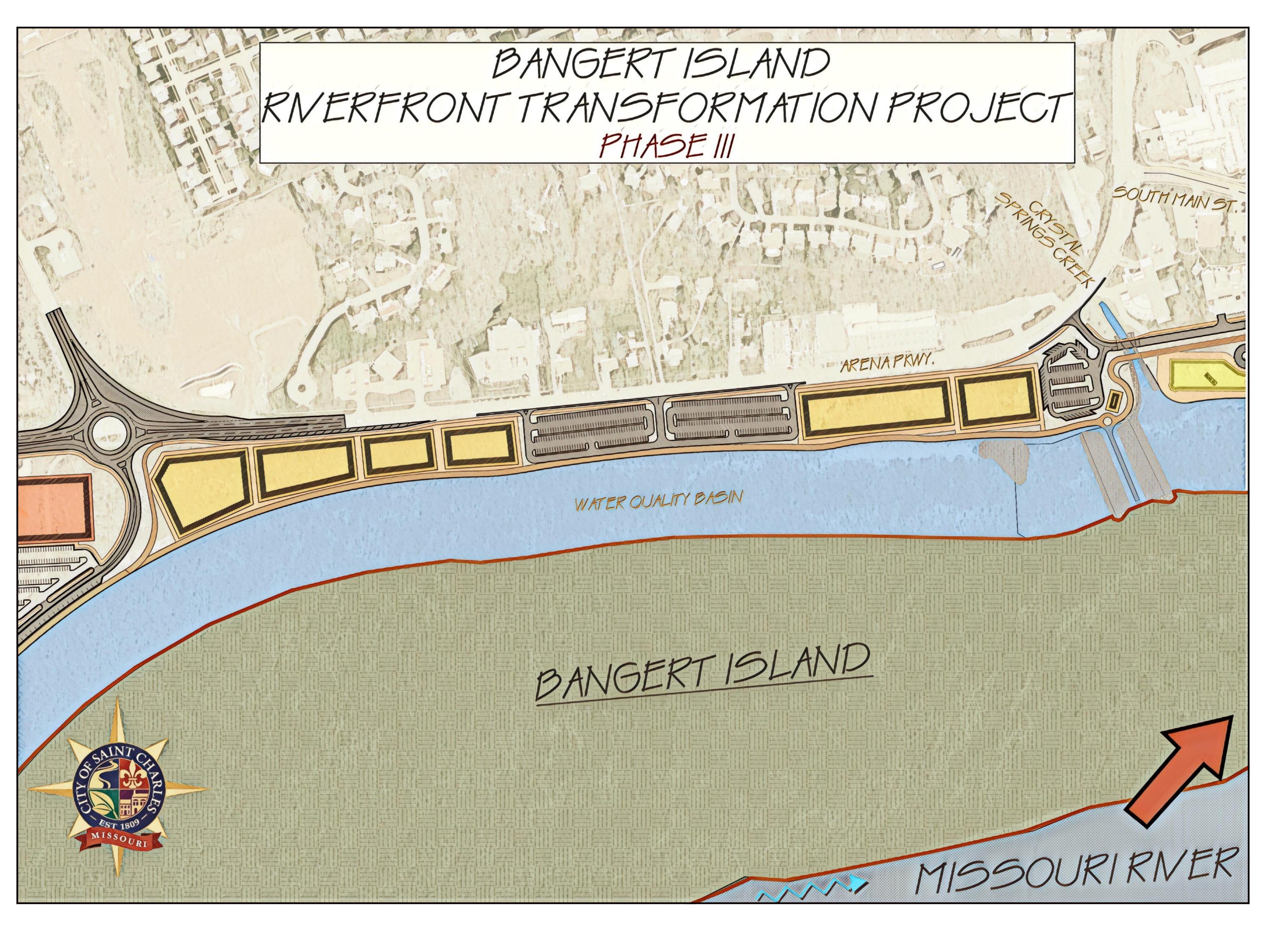
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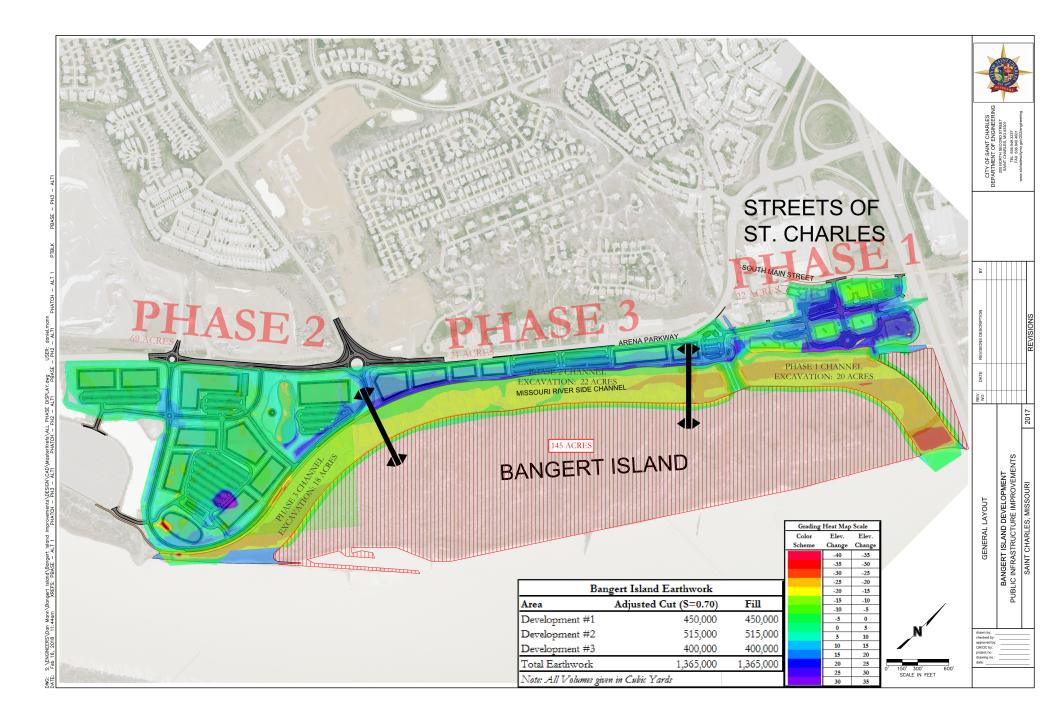
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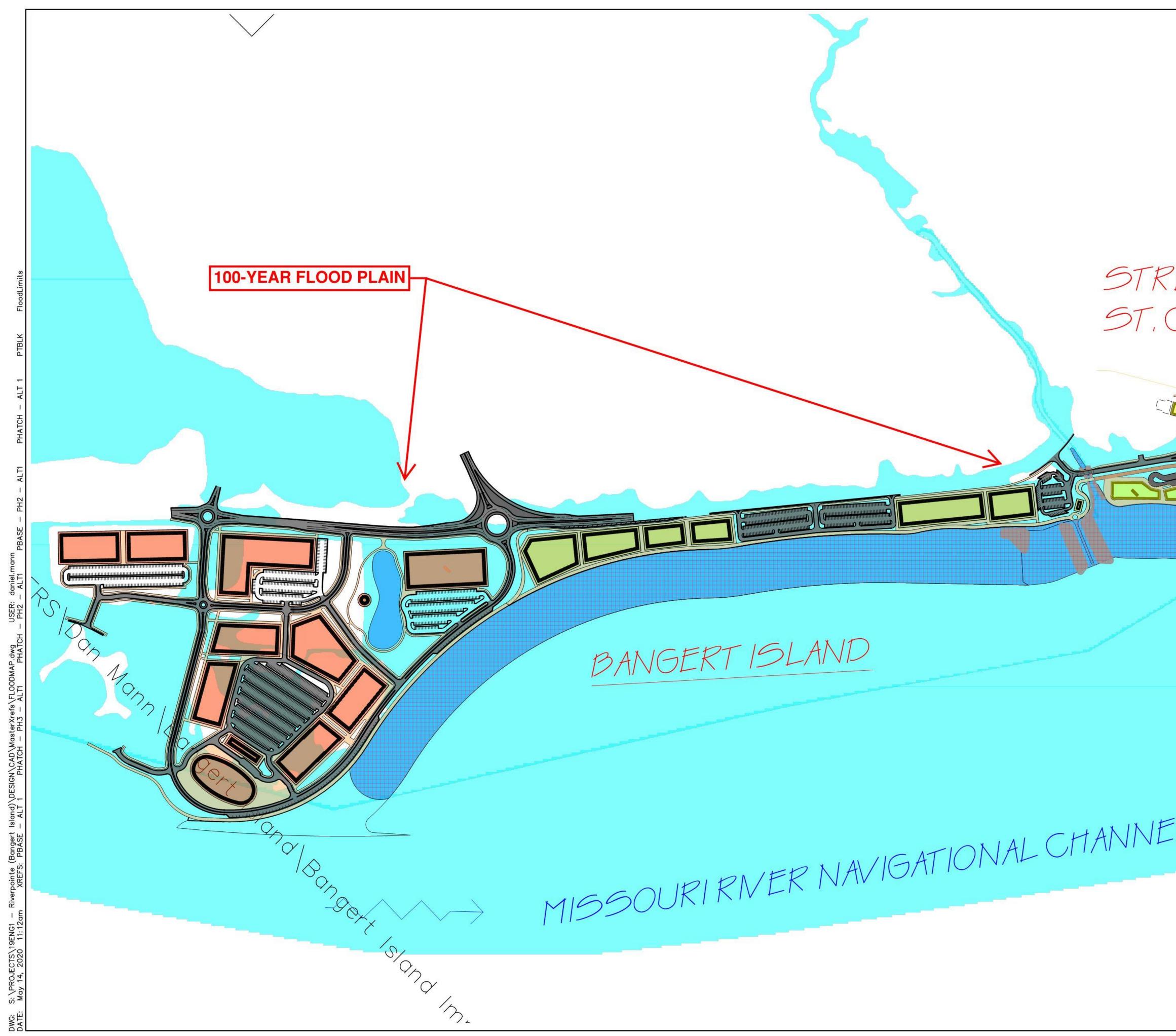
SECTION 22 PAS





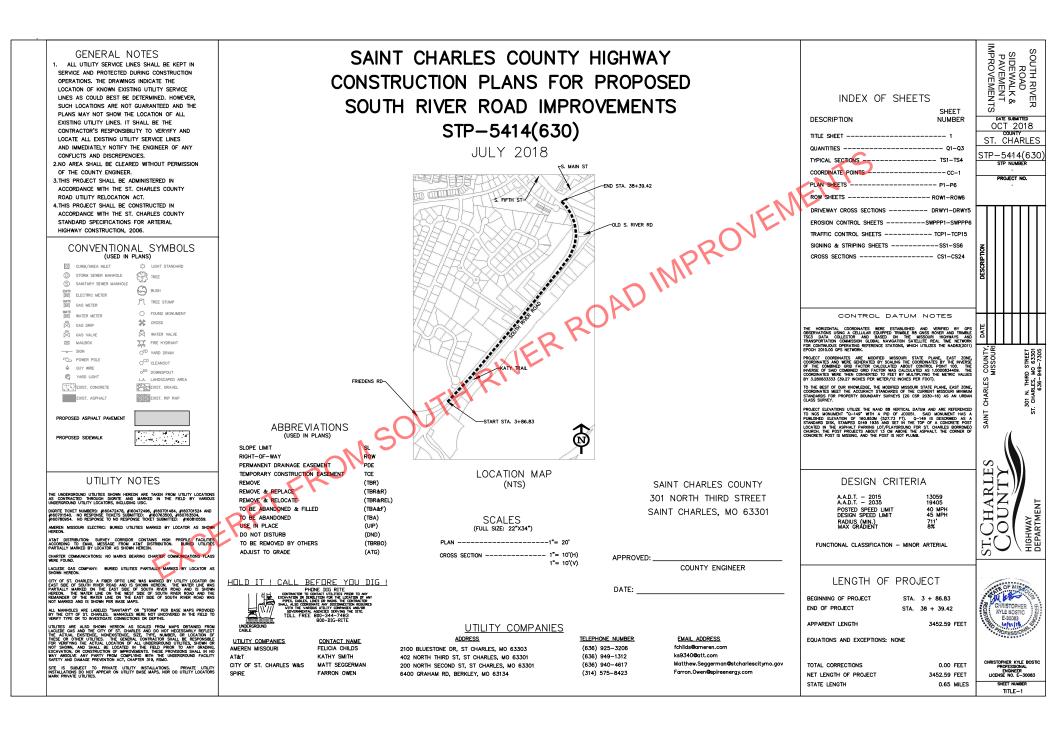




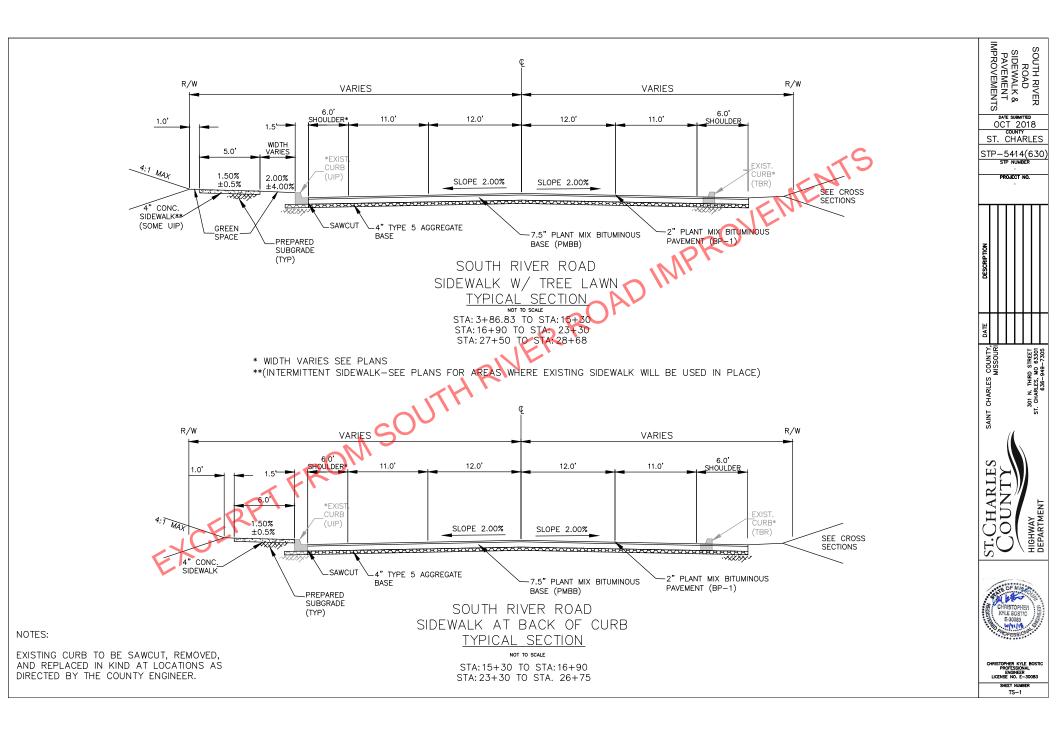


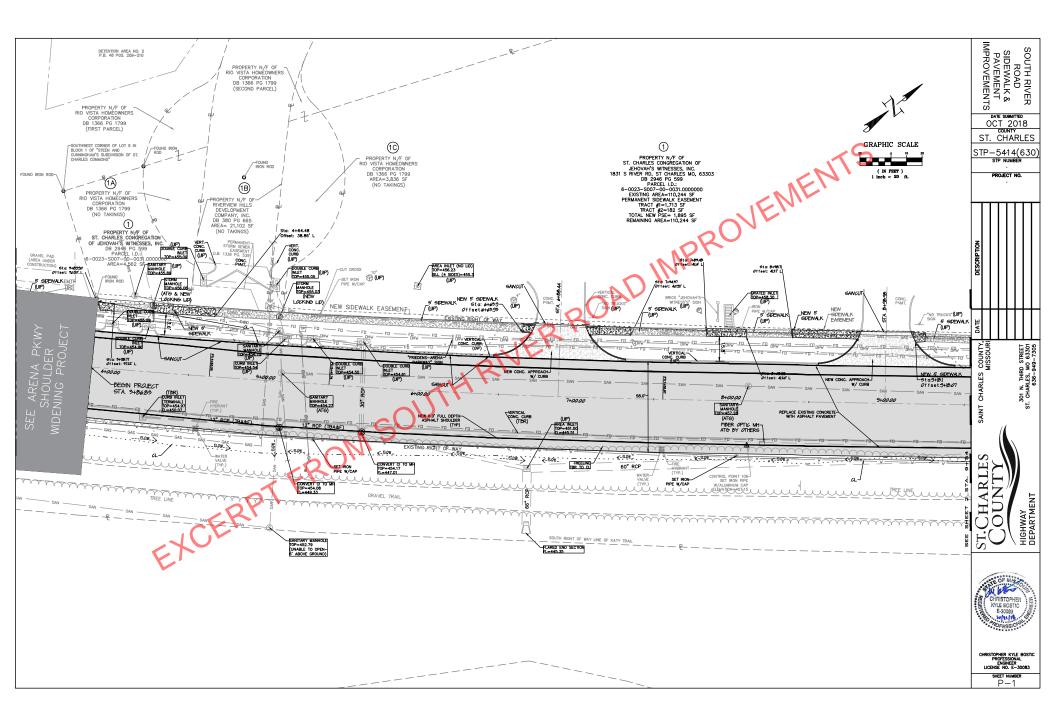
REETS OF	CITY OF SAINT CHARLES DEPARTMENT OF ENGINEERING 200 NORTH SECOND STREET SAINT CHARLES, MO 63301 TEL 636.949.3237 FAX 636.940.4601 www.stcharlescitymo.gov/202/engineering		
CHARLES			
	REVISIONS DESCRIPTION BY		REVISIONS
	REV. DATE NO.		2019
JEL	GENERAL LAYOUT	BANGERT ISLAND DEVELOPMENT PUBLIC INFRASTRUCTURE IMPROVEMENTS	SAINT CHARLES, MISSOURI
N 0' 150' 300' 600' SCALE IN FEET	drawn by: checked by: approved by QA/QC by: project no.: drawing no.: date:		

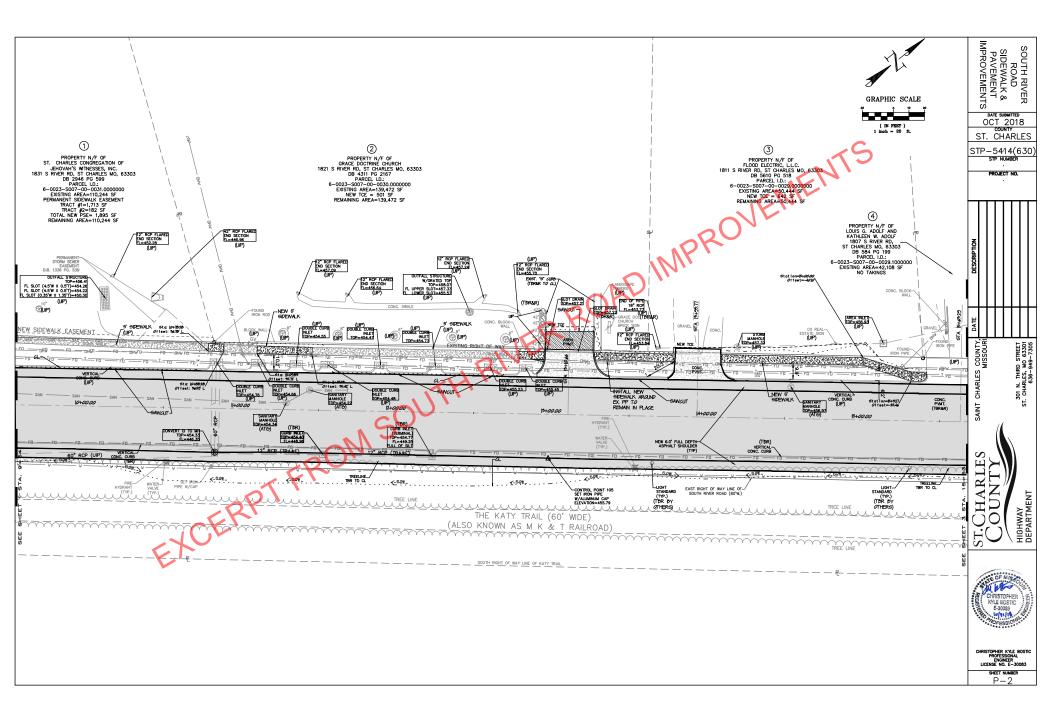
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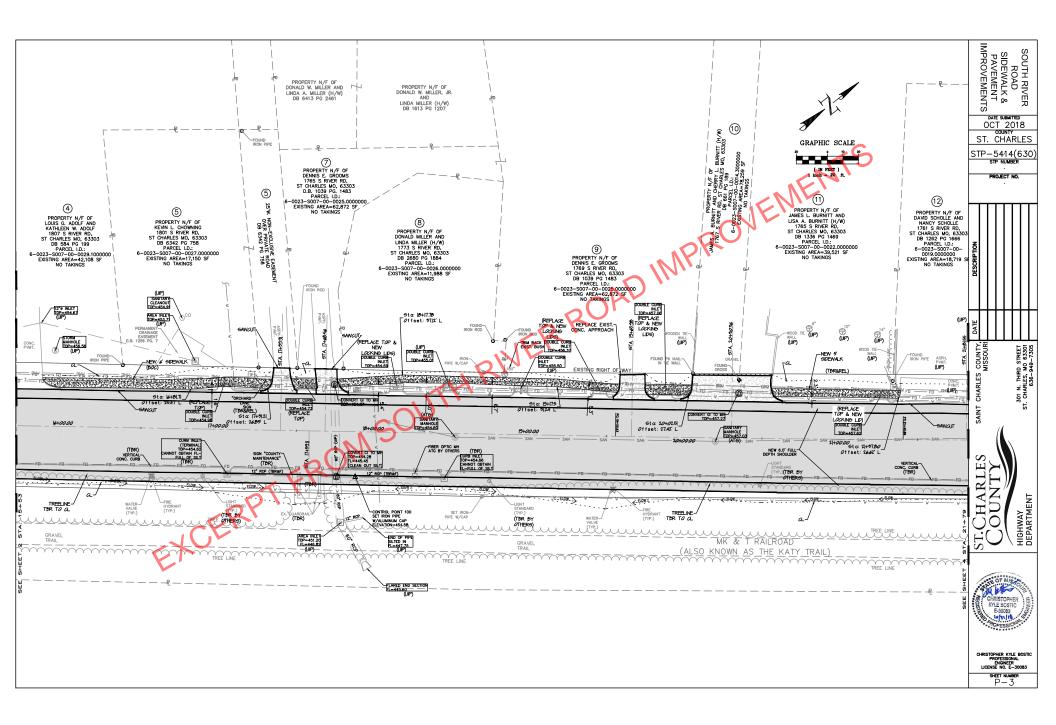


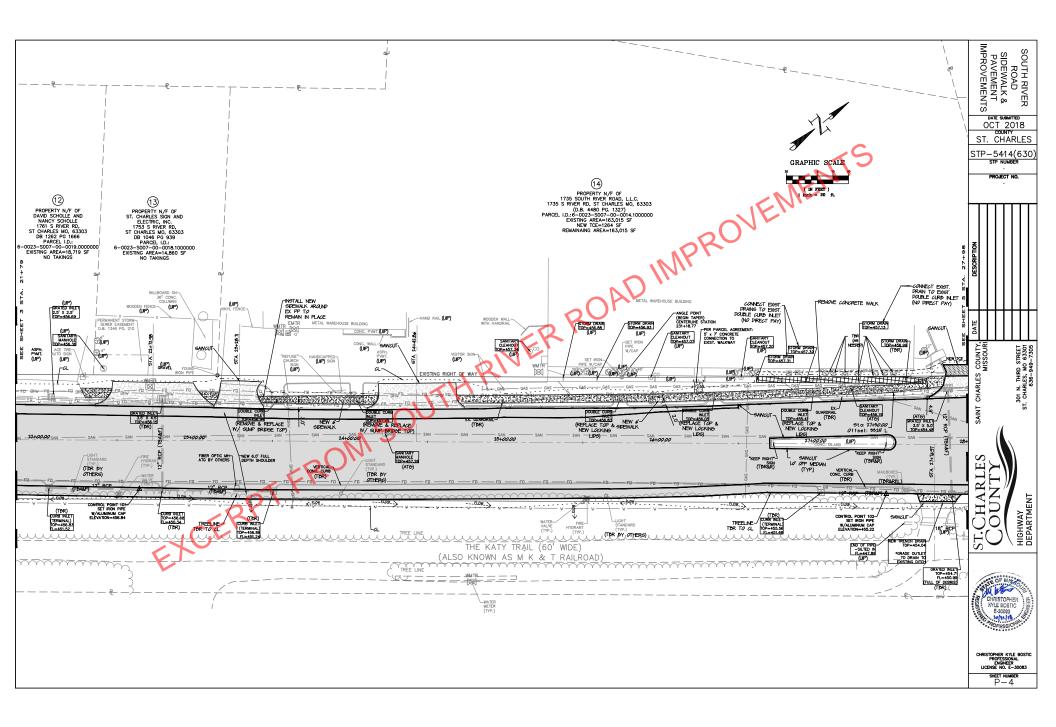
	SUMMARY OF QUANTITIES		QUANTITY	
	ROADWAY ITEMS			
201-20	CLEARING AND GRUBBING	LS	1	
202-20		LS	1	
202-20		CY	21.8	
203-99		CY	1,000.0	
207-10	LINEAR GRADING	STA	34.5	$\mathbf{C}$
304-05	TYPE 5 AGGREGATE FOR BASE (4 IN. THICK)	SY	21677.2	
401-16	BITUMINOUS PAVEMENT MIXTURE PG64-22, (BP-1)	TONS	2260.8	
405-10	BITUMINOUS PAVEMENT MIXTURE PG64-22 (BASE)	TONS	8471.4	
407-10	5 TACK COAT	GAL	1016	
502-11	7 CONCRETE PAVEMENT (7 IN. NON-REINF)	SY	1062.7	
604-20	ADJUST TO GRADE (SEWER MANHOLE)	EA	10	
609-10			196	
609-10	· · · · · · · · · · · · · · · · · · ·		500	
609-20		LF	458	
612-10		EA	334	
613-10		LF	5376	
614-99			53	
616-10		EA	9	
618-10		LS	1	
619-10		LF	2850	
627-40		LS	1	
731-00		EA	2	
731-00		EA	11	
731-00		EA	2	
731-00		EA	1	
731-01		EA	6	
731-99		EA	2	
803-10.		SY	1453	
805-20		ACRE		
806-10		EA	43	
806-70			5722	
	SIGNING, STRIPING, SIGNALS, AND LIGHTING ITEMS		0.22	
612-10		SF	2226	
612-50		LS	1	
620-20			5106	
620-20			6290	
620-20			5872	
620-20			11	
620-20		EA EA	7	
	24 IN SOLID DIAGONAL YELLOW EXTRUDED THERMOPLASTIC		-	
620-20	PAVEMENT MARKING PAINT	LF	24	
620-26		LF	4430	
620-26			9333	
903-50.		SF	59	
300 001	BIKE AND PEDESTRIAN ITEMS			

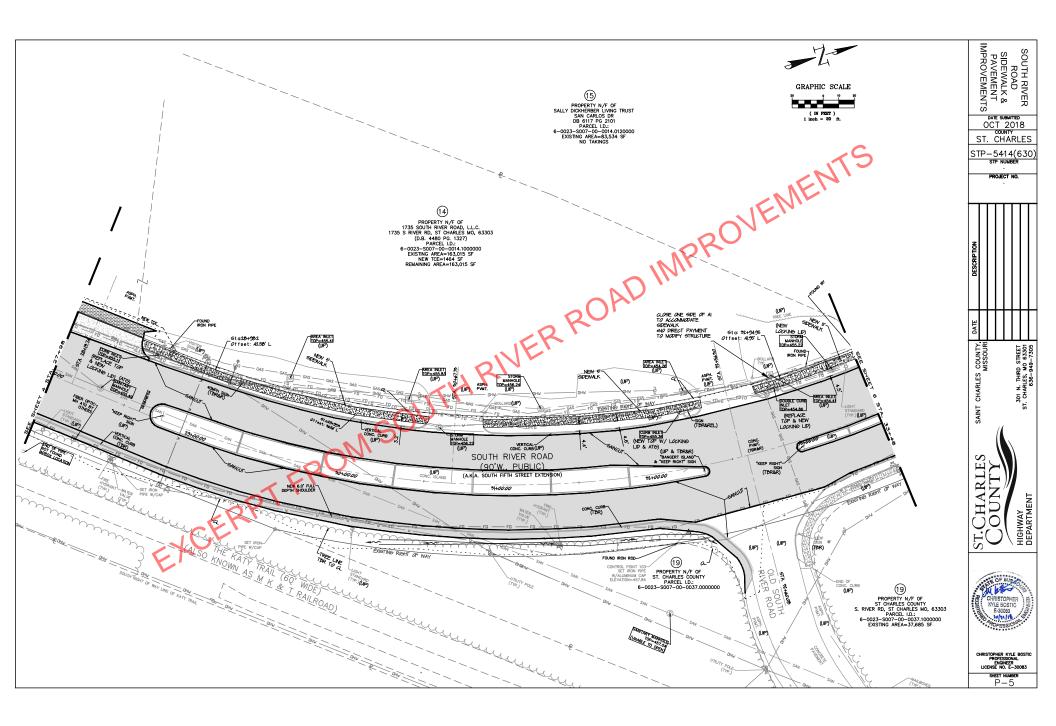


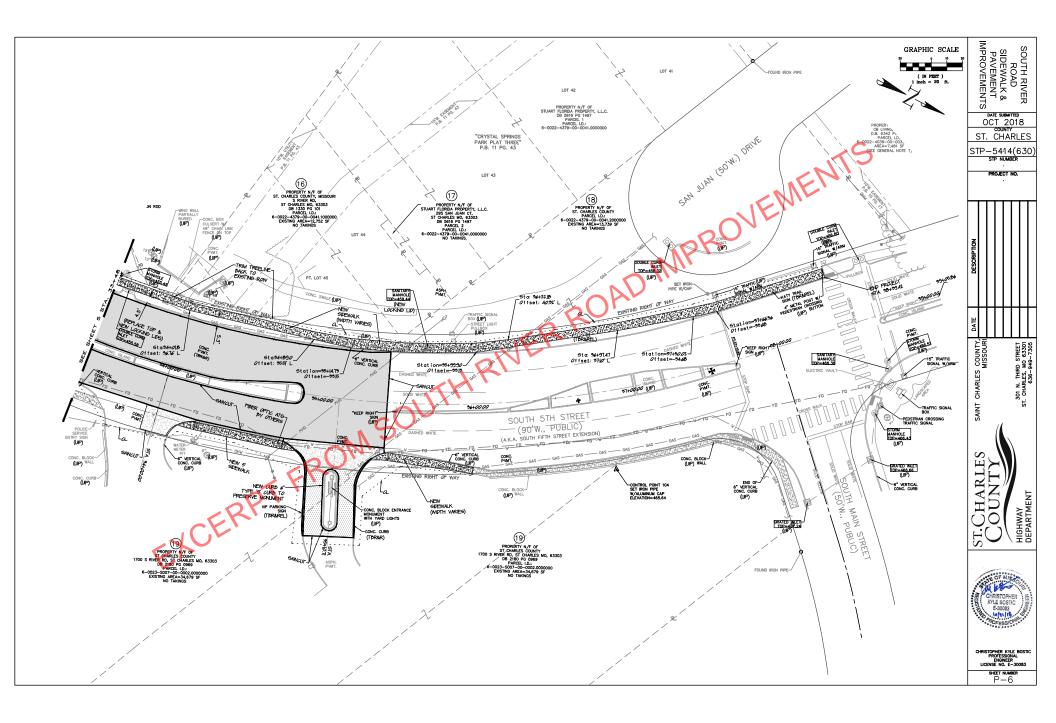








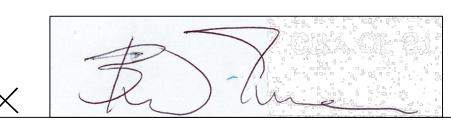






# **19 ENG 1 RIVERPOINTE PUBLIC INFRASTRUCTURE PROJECT PHASE 1A - BANK IMPROVEMENTS** SHEET INDEX **AND MASS GRADING**

CITY OF ST. CHARLES, ST. CHARLES COUNTY, MISSOURI



DIRECTOR OF ENGINEERING

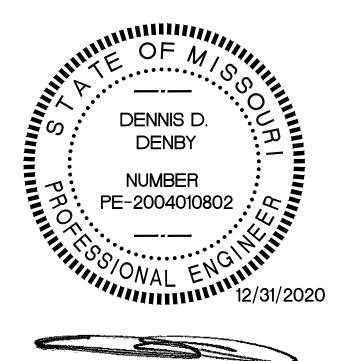
•••=••=•		
PS ∮stcharlescitymo.gov LY	TELEPHONE =	AT&T 402 NORTH THIRD ST. ST. CHARLES, MO 63301 (314) 277-0683 CONTACT: MATT THOMPSON mt4308@att.com
estcharlescitymo.gov	ELECTRIC SERVICE =	AMEREN UE ST. CHARLES DISTRICT 2100 BLUESTONE DR ST. CHARLES, MO 63303 (636)925-3206 CONTACT: FELICIA CHILDS fchilds@ameren.com
nan@stcharlescitymo.gov FIONS	CABLE SERVICE =	SPIRE 6400 GRAHAM ROAD BERKLEY, MO 63134 (816)472-3489 CONTACT: RICHARD FROCK
WSKI		richard.frock@spireenergy.com

UTILITIES SHOWN HAVE BEEN TAKEN FROM AVAILABLE SURVEYS, UTILITY COMPANY MAPS, AND PHYSICAL PROPERTY INSPECTION. THE LOCATIONS AND FACILITIES SHALL BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE ADDITIONAL UTILITIES THAT HAVE NOT BEEN SHOWN ON THESE PLANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION.

> CALL 1-800-DIG-RITE (MISSOURI ONE CALL) TO HAVE LOCATIONS MARKED IN THE FIELD (SUBSCRIBING UTILITIES REQUIRE 48 HOURS NOTICE PRIOR TO CONSTRUCTION).

				REVISION				
SHEET	PAGE		1	2	3	4	5	
C-0.0	1	COVER SHEET						
C-1.0	2	OVERALL PLAN						
C-1.1	3	DEMOLITION PLAN 1						
C-1.2	4	DEMOLITION PLAN 2						
C-1.3	5	SITE CONTROL PLAN						
C-2.1	6	GRADING & DRAINAGE PLAN 1						
C-2.2	7	GRADING & DRAINAGE PLAN 2						
C-3.1	8	UTILITY PLAN 1						
C-3.2	9	UTILITY PLAN 2						
C-3.3	10	SANITARY SEWER 1 PLAN & PROFILE						
C-3.4	11	SANITARY SEWER 2 PROFILE & DETAILS						
C-4.1	12	EROSION CONTROL PLAN (SWPPP) 1						
C-4.2	13	EROSION CONTROL PLAN (SWPPP) 2						
C-4.3	14	EROSION CONTROL (SWPPP) DETAILS						
C-8.1	15	CROSS SECTIONS 1						
C-8.2	16	CROSS SECTIONS 2						
C-8.3	17	CROSS SECTIONS 3						
C-8.4	18	CROSS SECTIONS 4						
C-8.5	19	CROSS SECTIONS 5						





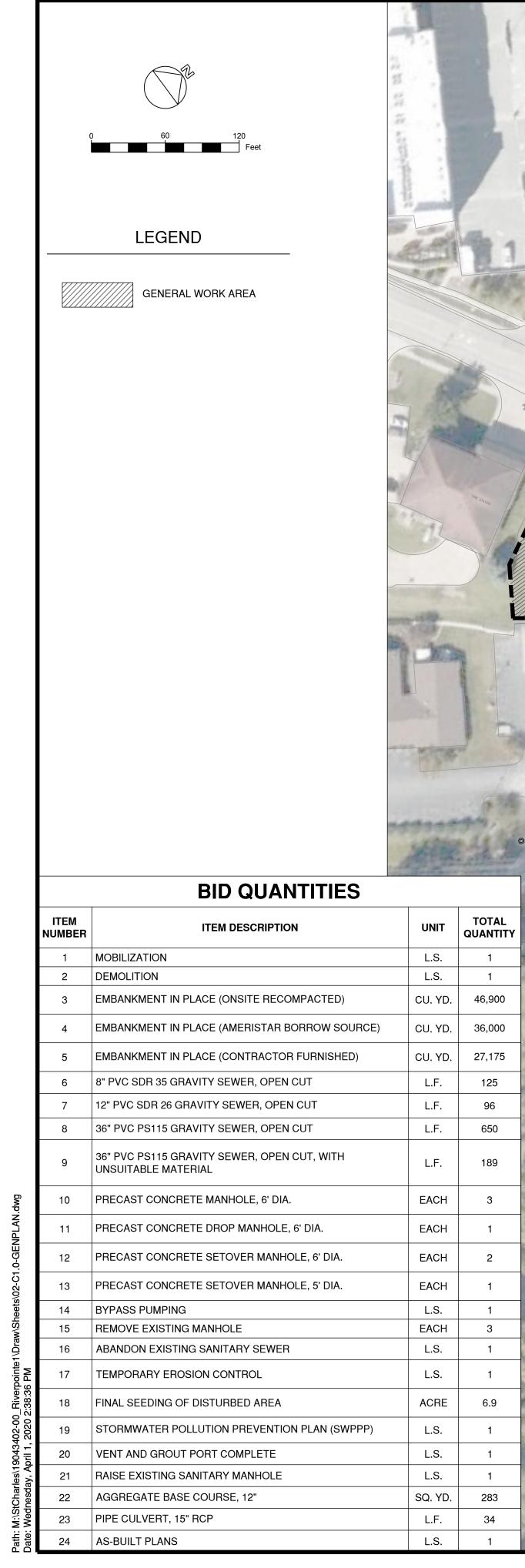
DENNIS D. DENBY - ENGINEER MO PE-2004010802

CRAWFORD, MURPHY & TILLY, INC. **ENGINEERS & CONSULTANTS** 

**ONE MEMORIAL DRIVE SUITE 500** ST. LOUIS, MO 63102 PH (314)436-5500 www.cmtengr.com

**CMT JOB NO.:** 19043402 License No. 184-000631

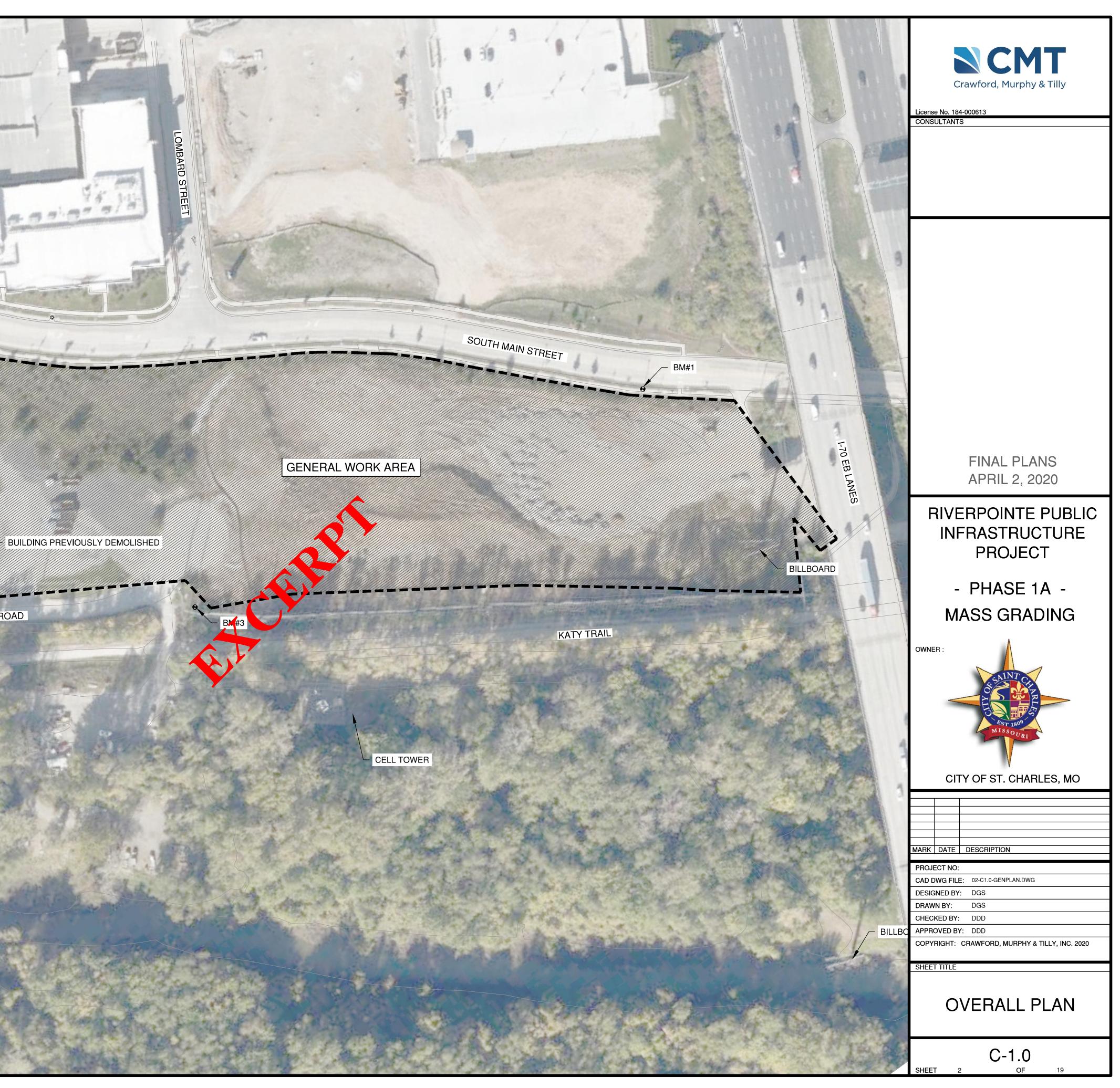
SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO ■ CHICAGO, IL ■ COLUMBUS, OH PEORIA, IL ■ EDWARDSVILLE, IL ■ INDIANAPOLIS, IN ■ SPRINGFIELD, MO

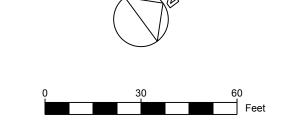


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Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD



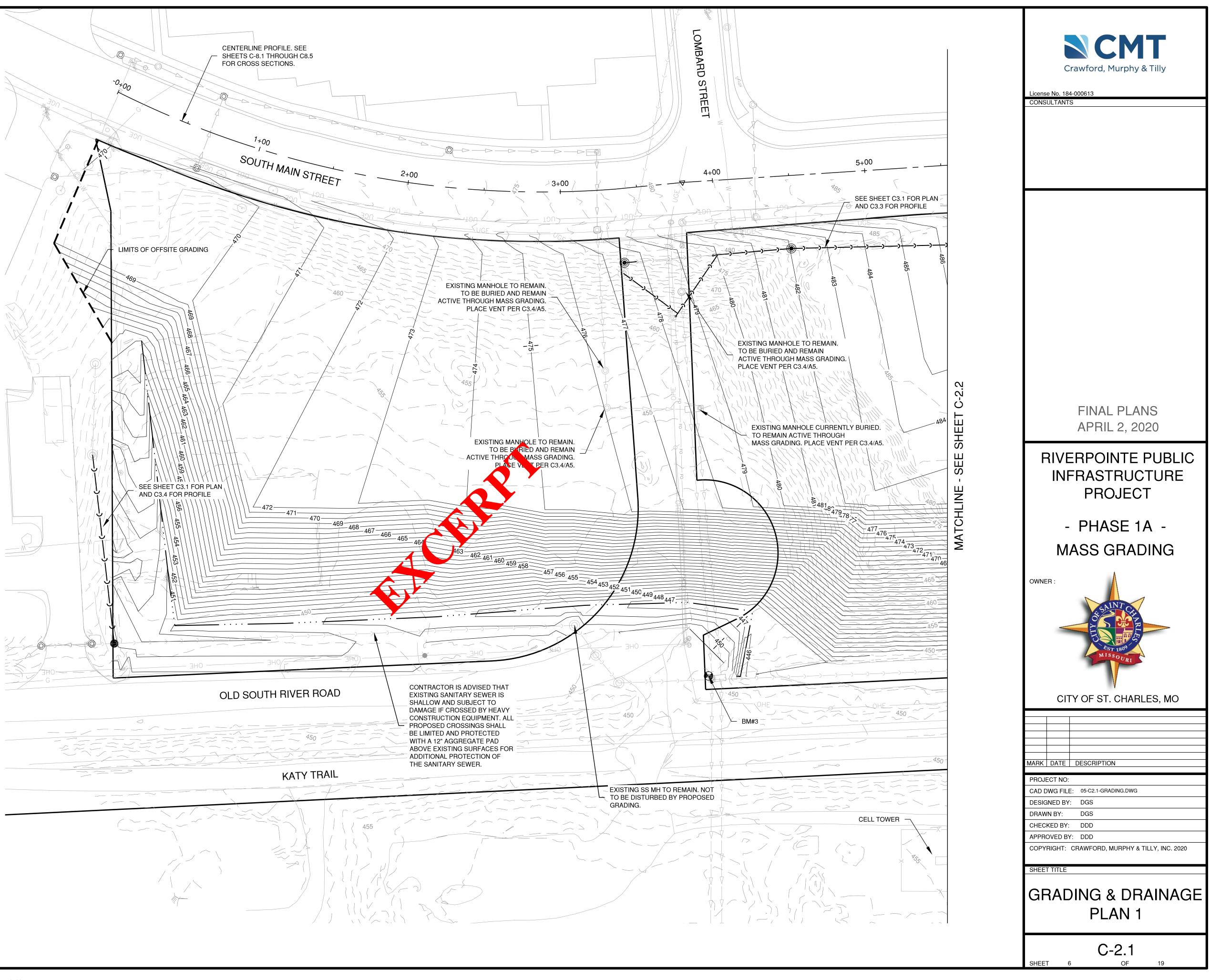


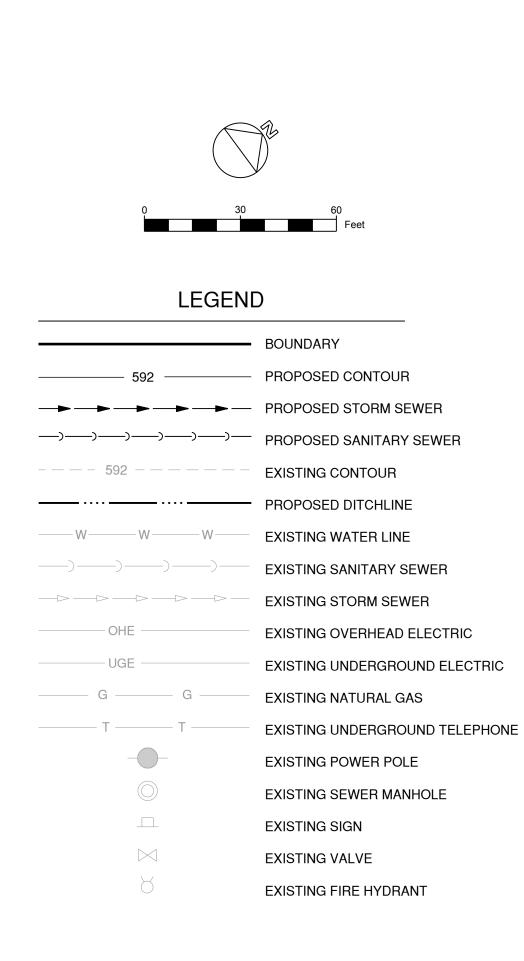
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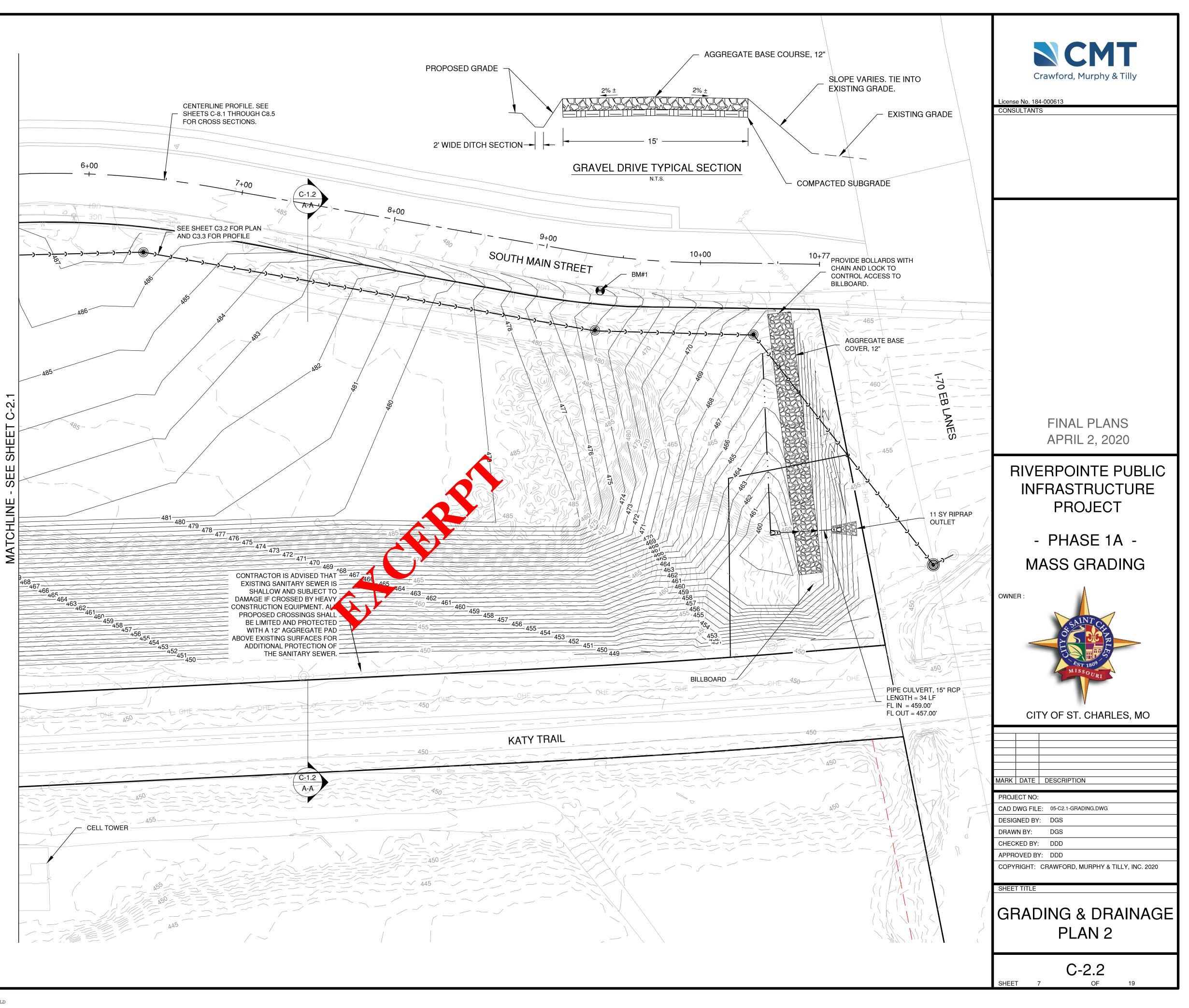
	BOUNDARY
	LIMITS OF GRADING OFFSITE
592	PROPOSED CONTOUR
<b></b>	PROPOSED STORM SEWER
)))))	PROPOSED SANITARY SEWER
592	EXISTING CONTOUR
	PROPOSED DITCHLINE
WWW	EXISTING WATER LINE
))))	EXISTING SANITARY SEWER
	EXISTING STORM SEWER
OHE	EXISTING OVERHEAD ELECTRIC
UGE	EXISTING UNDERGROUND ELECTRIC
G G	EXISTING NATURAL GAS
T T	EXISTING UNDERGROUND TELEPHONE
	EXISTING POWER POLE
$\bigcirc$	EXISTING SEWER MANHOLE
	EXISTING SIGN
$\bowtie$	EXISTING VALVE
Я	EXISTING FIRE HYDRANT

### **GRADING NOTES**

- UTILITIES SHOWN HAVE BEEN TAKEN FROM HDR AND COLE'S SURVEY, UTILITY COMPANY MAPS, AND PHYSICAL PROPERTY INSPECTION. THE LOCATIONS AND FACILITIES SHALL BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE ADDITIONAL UTILITIES THAT HAVE NOT BEEN SHOWN ON THESE PLANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR VERIFYING THE LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- EXISTING UTILITIES SHALL REMAIN UNDISTURBED. IF ANY EXISTING UTILITIES ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- THE APPROXIMATE EXTENTS OF ONSITE UNDOCUMENTED FILL TO BE REMOVED AND RECOMPACTED ON SITE IS SHOWN ON DEMOLITION PLAN. THE REMAINING FILL NEEDED TO BRING THE SITE UP TO PROPOSED GRADES SHOWN ON THE GRADING AND DRAINAGE PLAN WILL BE FROM OFFSITE IMPORT, OTHER THAN THE ADDITIONAL ONSITE FILL MATERIAL MENTIONED IN NOTE #4 BELOW. OPTIONS FOR ACCEPTABLE FILL MATERIAL AND COMPACTION REQUIREMENTS FOR PLACEMENT OF THE ONSITE FILL ARE PROVIDED IN THE JOB SPECIAL PROVISIONS.
- CONTRACTOR IS ADVISED THAT FILL MATERIAL HAS BEEN ADDED TO THE SITE SINCE THE TOPOGRAPHIC SURVEY. THE ADDITIONAL FILL MATERIAL IS NOT COMPACTED AND CONTAINS SOME UNSUITABLE MATERIAL. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE UNSUITABLE MATERIAL AND DISPOSING IT OFFSITE, AND FOR PROPERLY PLACING AND COMPACTING THE REMAINING FILL MATERIAL TO THE PROPOSED GRADES SHOWN ON THESE PLANS. THIS WORK SHALL BE INCIDENTAL TO THE EARTHWORK ITEMS IN THE CONTRACT. SEE THE JOB SPECIAL PROVISIONS.







ath: M:\StCharles\19043402-00\_Riverpointe1\Draw\Sheets\05-C2.1-GRADING.dw; ate: Wednesday\_Anril 1\_2020\_245:14\_PM

PREVIEW Date: May 18, 2020

## **ISSUED FOR CONSTRUCTION** 1-9-2020

### CITY OF ST. CHARLES GENERAL NOTES

ALL IMPROVEMENTS CONSTRUCTED HEREIN SHALL COMPLY WITH THE CODE OF ORDINANCES OF THE CITY OF ST. CHARIES

IF PROPERTY IS GREATER THAN 1 ACRE. A LAND DISTURBANCE PERM NATURAL RESOURCES IS REQUIRED PRIOR TO COMMENCING ANY DEMOLITION, CLEARING OR CONSTRUCTION ON SITI PROVIDE COPY OF APPROVAL FROM THE DEPARTMENT OF NATURAL RESOURCES TO THE PUBLIC WORKS DEPARTMENT.(PERMIT #MO-RA15071)

SILTATION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH THE SWPPP PLAN. ADDITIONAL SILTATION CONTROL MAY BE REQUIRED AS DIRECTED BY THE CITY ENGINEER. (CODE SECTION 510.090.B)

WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 30 DAYS, PERMANENT GRASS MUST BE ESTABLISHED TO CONTROL EROSION. (CODE SECTION 510.090.D.1)

ALL MUD AND DEBRIS FROM CONSTRUCTION SITE TO BE KEPT OFF OF CITY MAINTAINED STREETS. STREETS SHALL BE SWEPT TWICE DAILY. (CODE SECTION 510.090.E).

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER TO PROVIDE TRAFFIC CONTROL PER THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

GRADES CANNOT EXCEED A 3:1 SLOPE. (CODE SECTION 510.090.A) 7.

CONSTRUCTION ACTIVITIES SHALL ABIDE BY THE NOISE RESTRICTIONS AS OUTLINES IN CODE SECTION 230. 8.

### PERTINENT DATA

=

=

BENCHMARK	SITE ACREAGE DISTURBED LAND	=	ST. CHARLES, M 6.48 AC 3.72 AC
NGS MONUMENT Q-149 (PID JC0051). STANDARD DISK, STAMPED Q149 1935 SET IN THE TOP OF A CONCRETE POST LOCATED IN THE ASPHALT PARKING LOT FOR THE ST. CHARLES BORROMEO CHURCH.	EXISTING ZONING	=	C-2 GENERAL BU R-1E SINGLE FAN
NAVD ELEV: 527.73 FT	PROPOSED ZONING	=	C-2 GENERAL BU R-1E SINGLE FAM
SITE BENCHMARK:	SCHOOL DISTRICT WUNNENBERGS	=	ST. CHARLES 46N 5E
BMK 1 CHISLED SQUARE ON LIGHT POLE BASE ELEV: 447.93 1067931.7300 N, 22834.2920 E	WATERSHED FEMA MAP PANEL	=	MISSOURI RIVER 29183C0288G Z

OWNER

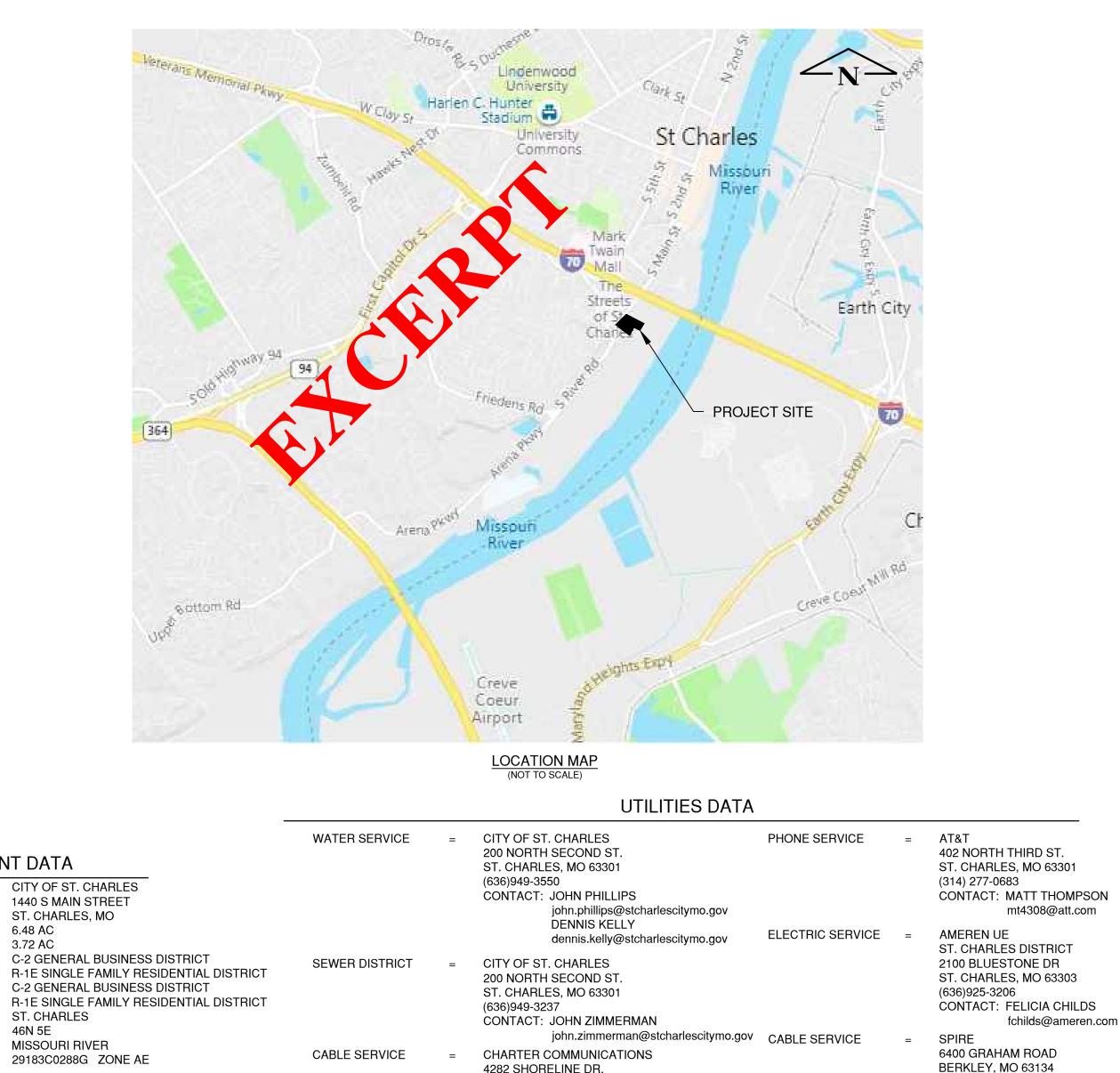
SITE ADDRESS

### PREVIEW Date: May 18, 2020

# **RIVERPOINTE PUBLIC INFRASTRUCTURE PROJECT** CITY OF ST. CHARLES, ST. CHARLES COUNTY, MISSOURI

# **JANUARY 9, 2020**

# **BID NUMBER 4473** PHASE 1- TREE REMOVAL PLANS

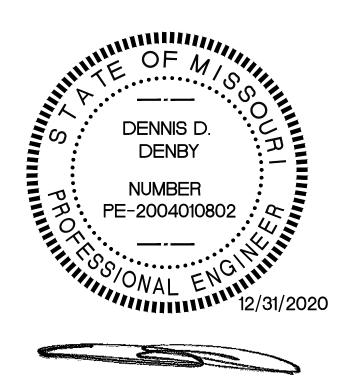


4282 SHORELINE DR. EARTH CITY, MO 63045 (636)387-6643

CONTACT: JOHN DANOWSKI

john.danowski@charter.com

(816)472-3489 CONTACT: RICHARD FROCK



NNIS D. DENBY - ENGINEER MO PE-2004010802

## INDEX

		RI	ΞV	ISI	10	٧S
		1	2	3	4	5
C-1.0	COVER SHEET					
C-3.1	SITE PLAN					
C-4.1	SWPPP					
C-4.2	SWPPP NOTES & DETAILS					

DIRECTOR OF ENGINEERING

UTILITY INFOMATION

JTII ITIES SHOWN HAVE BEEN TAKEN FROM AVAII ABI E COMPANY MAPS, AND PHYSICAL PROPERTY INSPECTION. THE LOCATIONS AND FACILITIES SHALL BE CONSIDERED AI BE ADDITIONAL UTILITIES THAT HAVE NOT BEEN SHOWN ON THESE PLANS. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE LOCATIONS OF ALL UTILITIES PRIOR TO EXCAVATION OR CONSTRUCTION.



CALL 1-800-DIG-RITE (MISSOURI ONE CALL) TO HAVE LOCATIONS MARKED IN THE FIELD (SUBSCRIBING UTILITIES REQUIRE 48 HOURS NOTICE PRIOR TO CONSTRUCTION).



CRAWFORD, MURPHY & TILLY, INC. **ENGINEERS & CONSULTANTS** 

**ONE MEMORIAL DRIVE SUITE 500** ST. LOUIS, MO 63102 PH (314)436-5500 www.cmtengr.com

CMT JOB NO.: 19043402 License No. 184-000631

richard.frock@spireenergy.com

SPRINGFIELD, IL ■ AURORA, IL ■ ST. LOUIS, MO ■ CHICAGO, IL ■ COLUMBUS, OH PEORIA, IL ■ EDWARDSVILLE, IL ■ INDIANAPOLIS, IN ■ SPRINGFIELD, MO

SI	TE OWNER: CITY OF ST. CHARLES TE ADDRESS: 1440 S MAIN STREET, ST. CHARLES, MO 63303	
RU	INOFF COEFFICIENTS: UNDEVELOPED- 0.47 DEVELOPED- 0.47	
тс	TAL LAND ESTIMATED TO BE DISTURBED- APPROXIMATELY 4 ACRES	
	SCRIPTION OF B.M.P.'S TO CONTROL EROSION AND SEDIMENT (INTERIM & PERMANENT STABILIZATION	
<u>98</u> 5.1.	ACTICES) CONTRACTOR SHALL ESTABLISH PERIMETER SILTATION CONTROL PRIOR TO ANY CONSTRUCTION ACTIVITIES. AREAS REQUIRING MINOR CLEARING &/OR GRADING PRIOR TO INSTALLATION OF SILTATION CONTROL SHALL BE COMPLETED IN A TIMELY MANNER AND SILTATION CONTROL ESTABLISHED IMMEDIATELY FOLLOWING.	
5.2.	TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED WHERE THE ACCESS AREAS INTERSECT WITH PUBLIC ACCESS WAYS. DURING MUDDY CONDITIONS, DRIVERS OF VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE ENTERING THE ROADWAY. WHERE SEDIMENT IS TRANSPORTED ONTO PUBLIC ACCESS	
	WAYS, THE ROAD SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROAD BY SHOVELING OR SWEEPING. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT	
5.3.	IS REMOVED IN THIS MANNER. UPON COMMENCEMENT OF INITIAL CLEARING AND GRUBBING OPERATIONS, AS WELL AS FUTURE GRADING OPERATIONS, TOPSOIL MUST BE STRIPPED FROM GRADED AREAS AND STOCKPILED FOR IN FINAL GRADING	
	AND/OR EXCESS REMOVAL. THE STOCKPILES WILL BE KEPT ON SITE BUT MUST STAY CLEAR OF ALL CONSTRUCTION ACTIVITY. THE STOCKPILE MUCH BE STABILIZED WITH TEMPORARY VEGETATION, OR COVERED AT THE END OF EACH WORKDAY, OR PERIMETER CONTROLS MUST BE IN PLACE TO PREVENT SOIL LOSS AND SEDIMENT TRANSPORT FROM THE STOCKPILE ITSELF UNTIL NEEDED.	
5.4.	CONTRACTOR SHALL CLEAR AND GRUB THOSE AREAS OF SITE REQUIRED FOR CONSTRUCTION. AREAS NOT SCHEDULED FOR IMMEDIATE CONSTRUCTION SHALL NOT BE CLEARED OF ESTABLISHED VEGETATION UNTIL REQUIRED. REMAINDER OF SITE SHALL BE GRADED, AS REQUIRED. CONTRACTOR SHALL BE RESPONSIBLE FOR	
5.5.	INSTALLATION AND MAINTENANCE OF SILTATION CONTROL THROUGHOUT THE DURATION OF THE PROJECT. IF SEEDING OF ANOTHER VEGETATIVE EROSION CONTROL METHOD IS USED, IT SHALL BECOME ESTABLISHED WITHIN TWO WEEKS OR THE SITE SHALL BE RE-SEEDED OR A NON-VEGETATIVE OPTION EMPLOYED.	
5.6. 5.7.	TECHNIQUES SHALL BE EMPLOYED TO ENSURE STABILIZATION ON STEEP SLOPES AND IN DRAINAGE WAYS. THE ENTIRE SITE MUST BE STABILIZED, USING HEAVY MULCH LAYER OR ANOTHER METHOD THAT DOES NOT REQUIRE GERMINATION TO CONTROL EROSION, AT THE CLOSE OF THE CONSTRUCTION SEASON. REFER TO	
E ^	DETAIL A2 ON SHEET C-4.2 FOR MULCHING RATES.	
5.8. 5.9.	TECHNIQUES SHALL BE EMPLOYED TO PREVENT THE BLOWING OF DUST OR SEDIMENT FROM THE SITE. TECHNIQUES SHALL BE EMPLOYED TO DIVERT UPLAND RUNOFF PAST DISTURBED SLOPES.	
5.10.	ALL PROPOSED TURF AREAS, ONCE CONSTRUCTED TO FINAL GRADES, SHALL BE SEEDED/SODDED WITHIN THIRTY DAYS AFTER FINAL GRADING OF THE SITE WHERE SHOWN ON THE PLAN. SHOULD WEATHER CAUSE DELAYS IN EARTHWORK OPERATIONS, ADDITIONAL SILTATION CONTROL MEASURES MAY BE REQUIRED. ANY DISTURBED AREAS WHICH WILL REMAIN UNWORKED FOR FIVE DAYS OR MORE SHALL BE STABILIZED WITH	
5.12.	SEEDING AND MULCHING PER SPECIFICATIONS WITHIN FIVE DAYS. IF SEASONAL CONDITIONS PROHIBIT SEEDING, MULCHING, OR MATTING SHALL BE USED. PROTECTION FOR ADJACENT PROPERTIES BY THE USE OF VEGETATED BUFFER STRIP IN COMBINATION WITH	
5.13.	PERIMETER CONTROLS (WHERE APPLICABLE). SEDIMENTATION CONTROLS SHALL ONLY BE REMOVED AFTER THE SITE IS COMPLETELY STABILIZED,	
DE	VEGETATION IS WELL ESTABLISHED, AND ALL PAVEMENT AREAS ARE INSTALLED. SCRIPTION OF B.M.P.'S TO PREVENT POTENTIAL POLLUTANTS	
6.1.	SOLID NON-HAZARDOUS CONSTRUCTION WASTE- DISPOSE OF IN TRASH DUMPSTERS OR APPROVED EQUIVALENT IN A LOCATION APPROVED BY THE OWNER. POTENTIALLY SOLUBLE OR LEACHABLE SOLID WASTE SHALL BE STORED OFF THE GROUND AND IN COVERED LEAK-PROOF CONTAINERS. SOLID WASTE SHALL BE	
6.2.	PROPERLY DISPOSED OF OFF-SITE ON A REGULAR BASIS. HAZARDOUS WASTE- HAZARDOUS WASTE SHALL BE SEGREGATED FROM NON-HAZARDOUS CONSTRUCTION SITE DEBRIS. LIQUID OR SEMI-LIQUID HAZARDOUS WASTE SHALL BE STORED IN APPROPRIATE CONTAINERS (CLOSED DRUMS OR SIMILAR) AND SHALL BE KEPT UNDER COVER. GRANULAR, SOLUBLE, OR LEACHABLE	3
	HAZARDOUS WASTE MATERIALS SHALL BE STORED OFF THE GROUND AND IN COVERED LEAK-PROOF CONTAINERS, THE OWNER SHALL PROPERLY APPROVE ANY HAZARDOUS WASTE STORAGE AREA LOCATIONS.	
6.3.	HAZARDOUS WASTE SHALL BE PROPERLY DISPOSED OF OFF-SITE ON A REGULAR BASIS BY A REPUTABLE, LICENSED HAZARDOUS WASTE HAULER.	
6.4.	IT IS NO THE INTENT OF THIS SWPPP TO SUPERSEDE OF REPLACE NORMAL SITE ASSESSMENT AND REMEDIATION PROCEDURES CONCERNING HAZARDOUS MATERIALS. SIGNIFICANT SPILLS AND/OR CONTAMINATION WARRANT AN IMMEDIATE RESPONSE BY TRAINED PROFESSIONALS. SUSPECTED JOB SITE CONTAMINATION SHOULD IMMEDIATELY BE REPORTED TO REGULATORY AUTHORITIES AND PROTECTIVE	
	MEASURE TAKEN.	
6.5.	ONSITE FUELING FACILITIES ARE REQUIRED TO ADHERE TO ALL APPLICABLE FEDERAL AND STATE REGULATIONS CONCERNING STORAGE AND DISPENSERS.	
6.6.	PROVISIONS SHALL BE MADE SO THAT A SUFFICIENT NUMBER OF TEMPORARY TOILET FACILITIES ARE AVAILABLE TO SERVE THE NUMBER OF WORKERS ON SITE.	
	PROVISIONS SHALL BE MADE FOR LITTER CONTROL. SCRIPTIONS OF B.M.P.'S TO REMAIN AFTER CONSTRUCTION	
7.1. 7.2.	TURF AREAS- TURF AREAS SHALL BE MAINTAINED TO INSURE SITE AREAS REMAIN STABILIZED UPON COMPLETION OF CONSTRUCTION ACTIVITIES. PAVED AREAS AND WALKWAYS- AREAS SUBJECT TO FOOT AND VEHICLE TRAFFIC SHALL BE PAVED AND KEPT	
СС	IN GOOD REPAIR FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES. INTRACTOR TO COORDINATE WITH THE CITY AND DEVELOPER FOR OFF STREET PARKING AREA (WHEN	
	PPLICABLE). FER TO B.M.P.'S DESCRIPTIONS IN SWPPP MANUAL AND THE SWPP PLAN TO REFERENCE ALL EROSION AND	
). RE	DIMENT CONTROL MEASURE REQUIRED FOR THIS SITE. FER TO SEEDING RATES/MIXTURES DETAIL A1 SHEET C-4.2.	
B.N SE	ANNED RESPONSE TO LOSS OF CONTAINED SEDIMENT: M.P.'S SHALL BE REPAIRED AND/OR REPLACED IMMEDIATELY, AS REQUIRED, TO STABILIZE SITE AND CONTAIN EDIMENT LADEN RUNOFF. OFFSITE AREAS SHALL BE REVIEWED FOR EXTEND OF IMPACT FROM B.M.P FAILURE.	
SC	RMIT HOLDER SHALL BE REQUIRED TO PROVIDE DOCUMENTATION OF THE B.M.P. MEASURE, INSTALLED AND CHEDULED MAINTENANCE, AND REPAIRS. CRMIT HOLDER	
12.1.	PERMIT HOLDER SHALL NOTIFY ALL CONTRACTORS AND OTHER ENTITIES (INCLUDING UTILITY CREWS, CITY EMPLOYEES, OR THEIR AGENTS) THAT WILL PERFORM WORK AT THE SITE, OF THE EXISTENCE OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND WHAT ACTIONS OR PRECAUTION SHALL BE TAKEN WHILE ON SITE TO MINIMIZE THE POTENTIAL FOR EROSION AND THE POTENTIAL FOR DAMAGING ANY B.M.P.'S.	
12.2.	PERMIT HOLDER SHALL DETERMINE THE NEED FOR AND ESTABLISH TRAINING PROGRAMS TO ENSURE THAT ALL SITE WOKRES HAVE BEEN TRAINED, AT A MINIMUM, IN EROSION CONTROL, MATERIAL HANDLING AND STORAGE, AND HOUSEKEEPING.	
12.3.	PROVIDE COPIES OF THE SWPPP TO ALL PARTIES WHO ARE RESPONSIBLE FOR INSTALLATION, OPERATION, OR MAINTENANCE FOR ANY B.M.P.'S. MAINTAIN A CURRENT COPY OF THE SWPPP ON SITE AT ALL TIMES.	
12.4.	RIOR TO ANY MAJOR LAND DISTURBANCE ACTIVITY, A LAND DISTURBANCE PERMIT FROM THE STATE OF MISSOURI	
3. PR	PARTMENT OF NATURAL RESOURCES, WILL BE REQUIRED.	
3. PR DE 1. AN	PARTMENT OF NATURAL RESOURCES, WILL BE REQUIRED. IY LAND CLEARING, CONSTRUCTION, OR DEVELOPMENT INVOLVING THE MOVEMENT OF EARTH SHALL BE IN CORDANCE WITH THE SWPPP.	

### SWPPP LEGEND

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### BOUNDARY

- LIMITS OF DISTURBANCE (APPROXIMATE)
- SILT FENCE, C-4.2, A6

INLET PROTECTION, C-4.2, A4

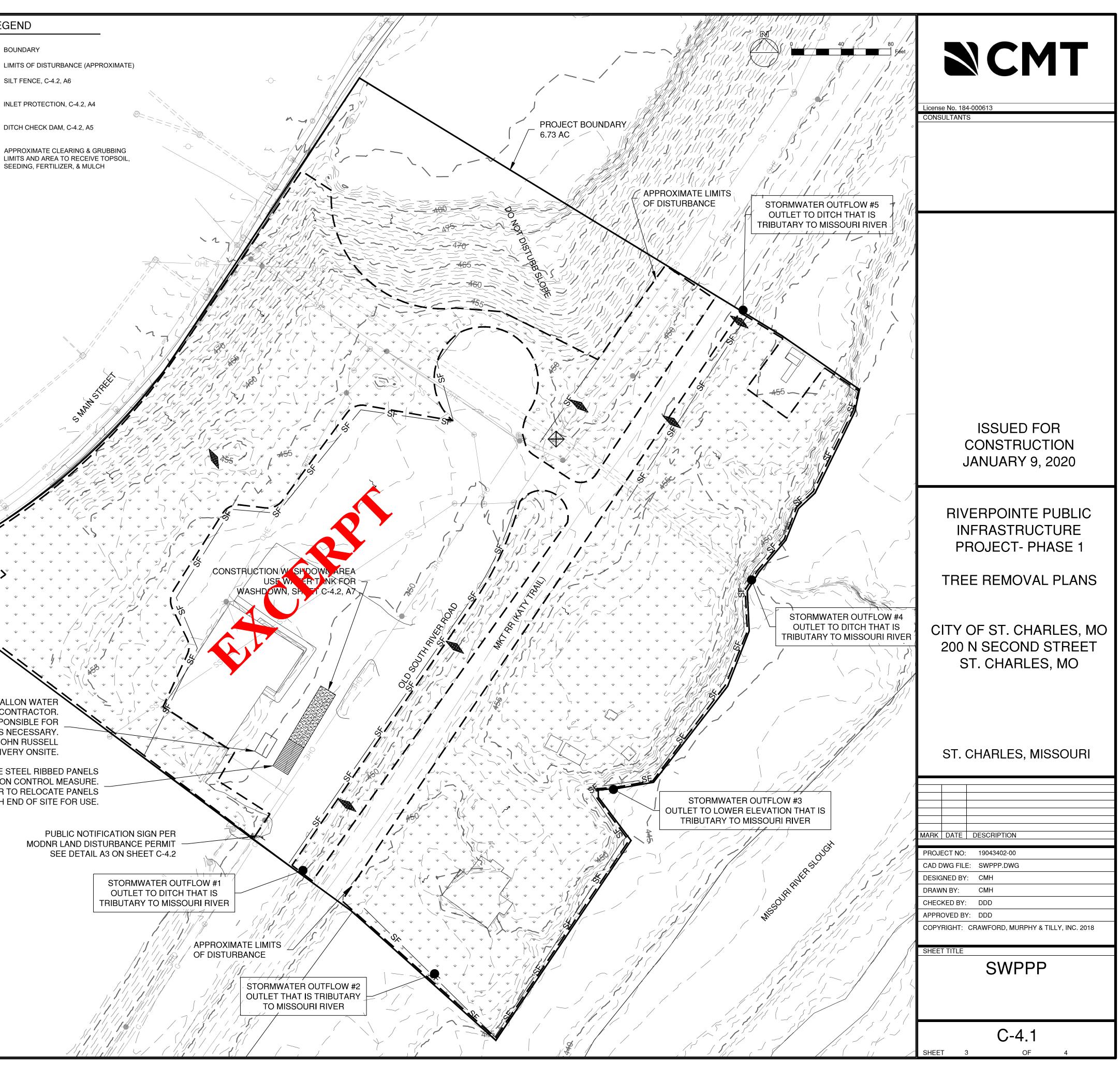
DITCH CHECK DAM, C-4.2, A5

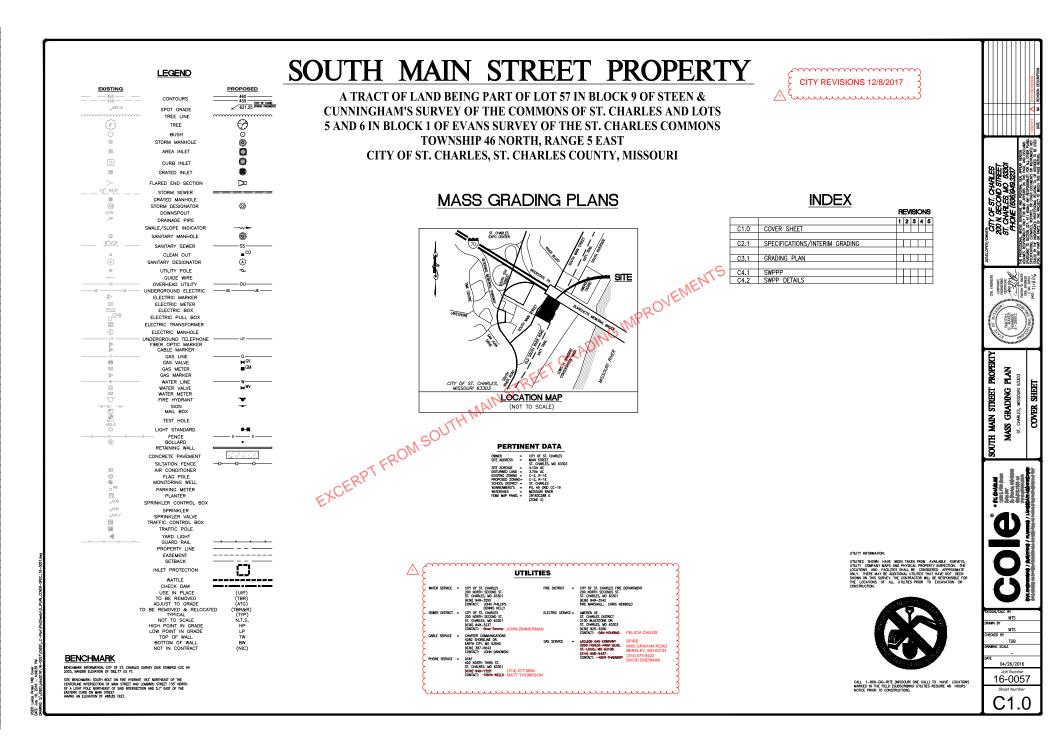
APPROXIMATE CLEARING & GRUBBING LIMITS AND AREA TO RECEIVE TOPSOIL,

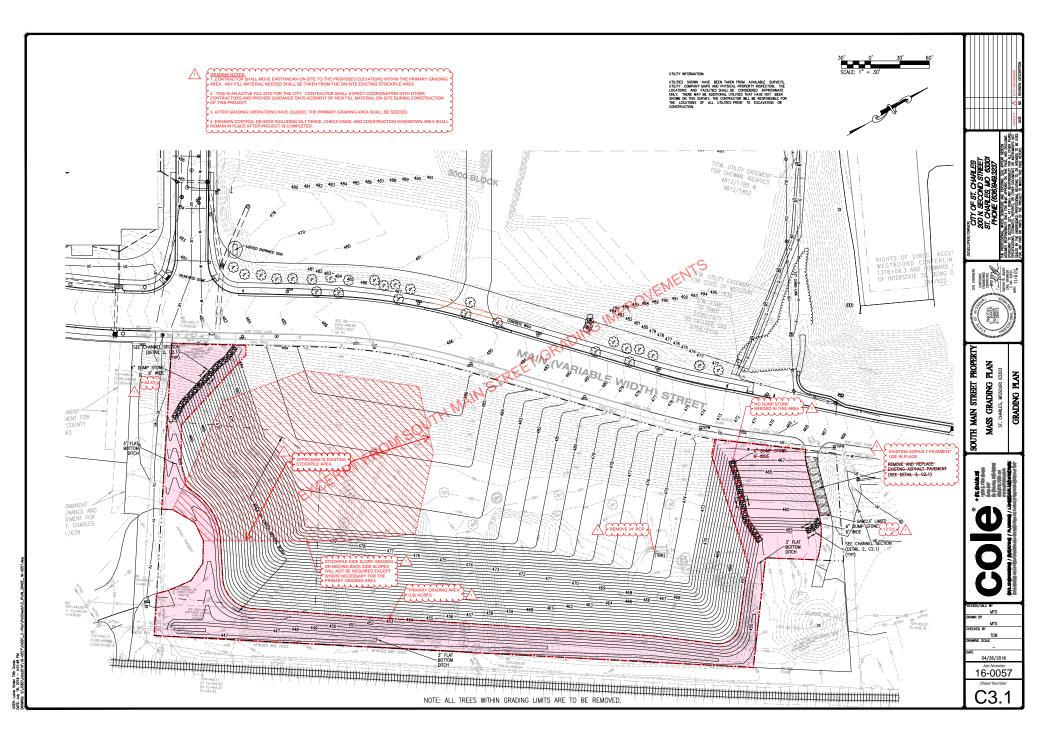
TY TO DELIVER 1,500 GALLON WATER TANK TO BE USED BY CONTRACTOR. CONTRACTOR RESPONSIBLE FOR FILLING OF TANK AS NECESSARY. COORDINATE WITH JOHN RUSSELL T 314.609.5427 FOR DELIVERY ONSITE.

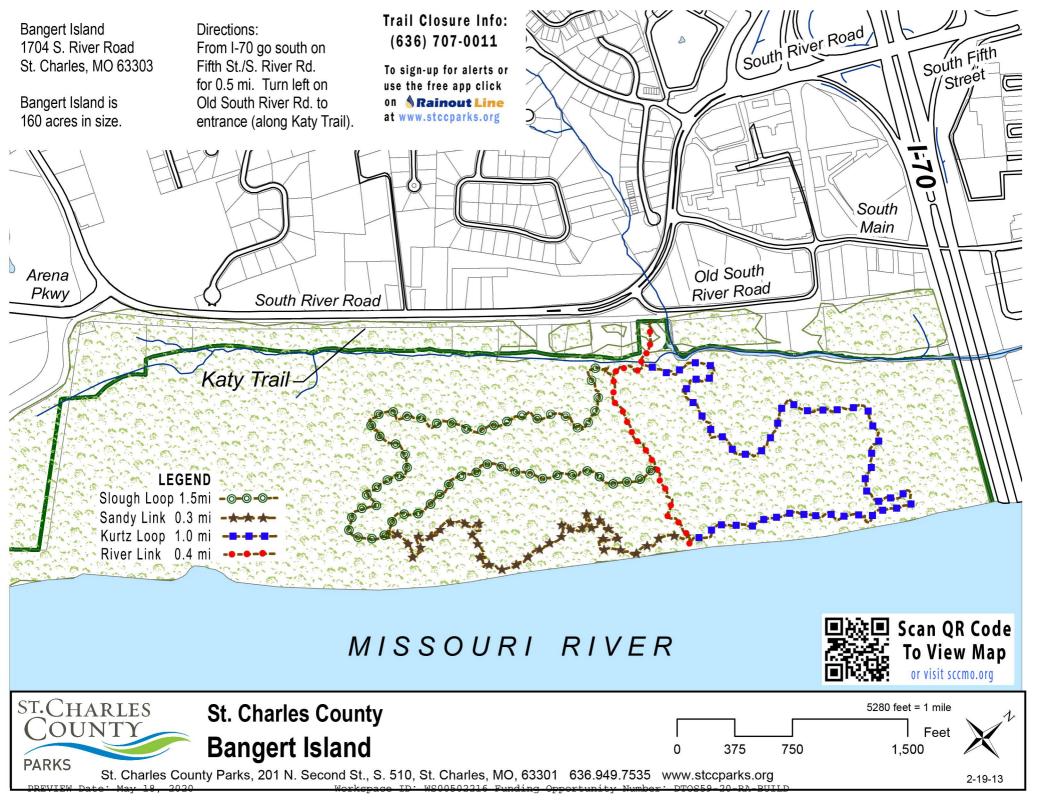
> CITY TO PROVIDE STEEL RIBBED PANELS FOR USE AS EROSION CONTROL MEASURE CONTRACTOR TO RELOCATE PANELS FROM NORTH END OF SITE FOR USE.

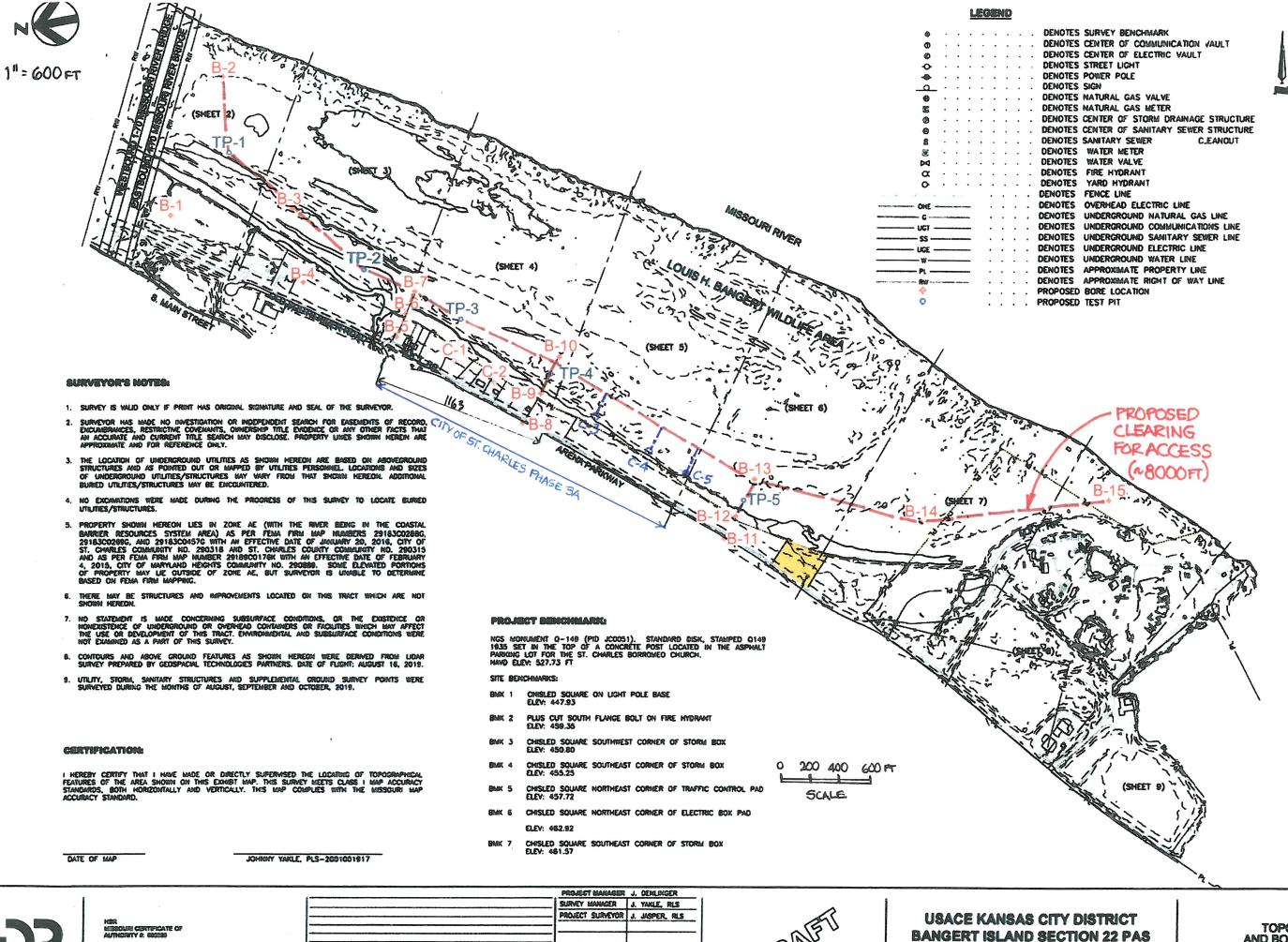
Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD











SAME HOLMER ROAD, GUITE 685 2020

Workspace-10-20WS005020165Fenderagosportunity Number: DTOS59--20-RA-BUILD Flood Risk and Riverfront Transformation



VICINITY MAP NOT TO SCALE

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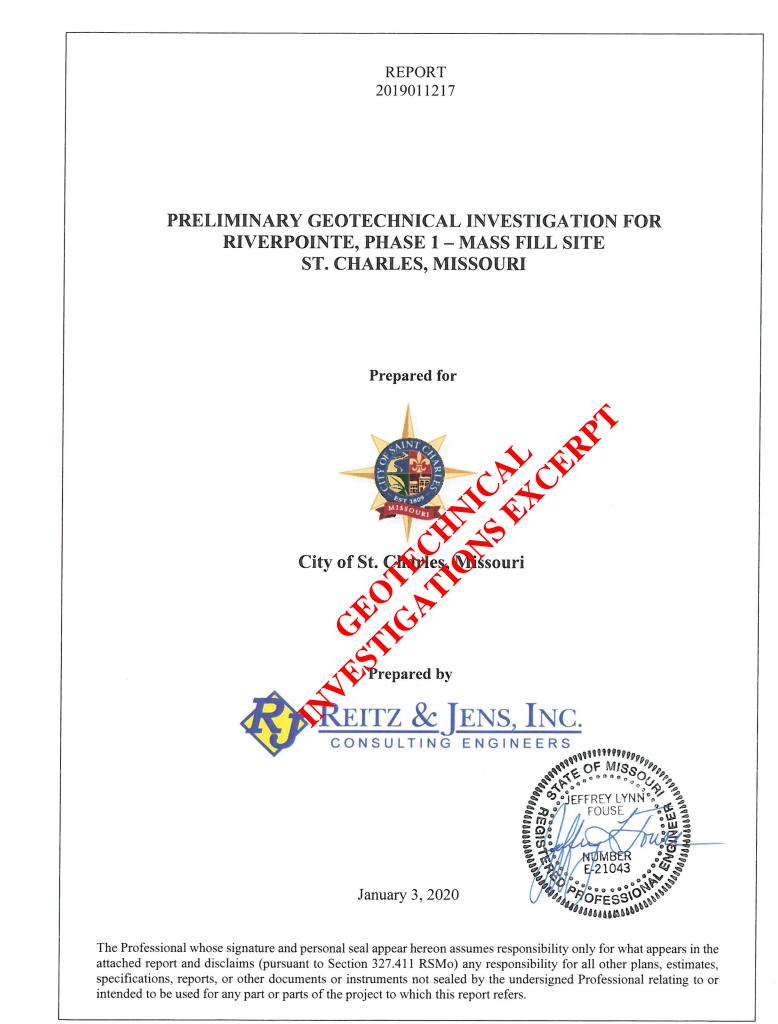
Note: Date of Google Earth<sup>TM</sup> photo is October 16, 2018.

Approximate Scale: 1 inch = 140 feet

### St. Charles Riverpointe, Phase 1 – Mass Fill Site AERIAL VIEW OF SITE AND APPROXIMATE LOCATIONS OF BORINGS

REITZ & JENS, INC.

Figure 1





January 3, 2020

City of St. Charles, Missouri 200 N. Second Street St. Charles, Missouri 63301-2851

Attention: Mr. Daniel Mann, P.E. Assistant City Engineer – Development Department of Engineering

RE: Report of Preliminary Geotechnical Investigation for Riverpointe Development, Phase 1 – Mass Fill Site St. Charles, Missouri

This report presents our findings and recommendations from our preliminary geotechnical investigation of the mass fill site along the southeast side of South Man Street, immediately upstream of the eastbound I-70 bridge over the Missouri River. This area will be part of thase 1 of the Riverpointe Development. The purposes of this preliminary investigation are to characterize the mass fill that has been placed on this portion of the 20-acre site and to make general recommendations for the further development of the full site. The investigation was done under Reitz & Jene' Engineering Services Contract (2019-09-30) with the City of St. Charles, Missouri ("City") which was signed October 9, 2019. Subsequent geotechnical investigations will be required once the store improvement plans have been developed.

### SITE DESCRIPTION



The site for this investigation includes about 5 acres, from the southeast end of Lombard Street to an access drive along the I-70 easyound bridge, and from South Main Street to the Katy Trail. An aerial photo of the site is reproducing Figure 1. This photo is dated October 16, 2018. The site has changed drastically since then. The City has been stockpiling fill and demolition debris on the site since about October 2018, and has had Gershenson Construction Company periodically spread the materials over the site with a dozer. Some early piles of fill are visible in Figure 1. Gershenson has not been compacting the materials other than tracking with the dozer. The top of the fill is now about even with South Main Street (el 480 to 485) from Lombard Street and about 300 feet toward the northeast. While South Main Street drops in elevation toward the I-70 bridge to about el. 468, the existing fill remains relatively level, such that there is a steep slope, about 10 feet or more in height, at the northeast end (just past Boring B-6 in Figure 1). The relatively flat portion of the fill is generally covered with soil, with some exposed concrete and asphalt concrete rubble. As observed periodically by Reitz & Jens, some piles of materials were placed during October and November which contained large precast concrete, large asphalt debris, wood, plastic conduit, tree limbs, and bags of topsoil and straw. The lower northeast end of the site (by the I-70 bridge) was initially covered with large concrete rubble and was impassable. When our borings were done in late November, the site had been generally leveled, with some piles around the north end. Borings B-4, B-7 and B-9 were drilled close to the south and east limits of the level fill area.

Geotechnical Engineering • Water Resources • Construction Engineering & Quality Control • Environmental Restoration & Permitting

1

It appears that the original ground surface along Old South River Road and the Katy Trail is at about el. 450 to 453. Therefore, there is now up to about 35 feet of fill over this portion of the site. The original embankment for South Main Street is visible in the photo in Figure 1. So, a portion of the fill in the vicinity of Borings B-4 and B-5 is part of this original embankment fill.

The remainder of the 20-acre site extends to the south along Old South River Road. Some of the stockpiled file will be placed in this area. Borings B-1, B-2 and B-3 were made in this area along Old South River Road, as shown in Figure 1. The building visible in Figure 1 had been recently demolished when our borings were made. The rubble from the building was left on site.

### **PROJECT DESCRIPTION**

The long-term plan is to move some of the fill material to the properties to the southwest, and that the general grade will be about 3 feet above the 500-year flood level of the Missouri River, or about el. 458. A conceptual plan for Phase 1 is reproduced in Figure 1A. The site which is the subject of this investigation is between South Main Street along the northwest side to Dd South River Road and the Katy Trail along the southeast side. The conceptual plan shows a large, multi-story building along the north side of the extension of Lombard Street. Smaller buildings are planned along the southeast side of South Main Street, with surface parking along the river use of these buildings and at the northeast end of the site along the I-70 bridge.

### FIELD INVESTIGATION

The borings were completed on November 26 and 27, 2019, by Midwest Drilling, Inc. under a subcontract with Reitz & Jens. The corings were made with a CME 550 ATV-mounted drill rig. The rig is equipped with an automatic Standard Federation Test (SPT) hammer. The borings were advanced using 4.25-inch diameter solid-stem continuous-flight augers (CFA) or 2.25-inch I.D. continuous-flight hollow-stem augers (HSA).

The borings were staked prior to drilling by Reitz & Jens. However, because the final grading extended the level area of the fill, the borings were relocated. Boring B-8 was omitted. The borings were located using a hand-held GPS with an accuracy of about  $\pm 15$  feet. The elevation of the ground surface at the borings were surveyed with a level and rod by Reitz & Jens and using temporary benchmarks set by HDR Engineering, Inc. for the USACE Kansas City District's evaluation of the Bangert Island Riverfront Transformation Project.

Reitz & Jens had a geotechnical engineer in the field to direct the investigation, collect samples, and log the borings. The drilling and sampling were done in general accordance with ASTM procedures. All of the borings were completed to the planned depth of 35 feet. Auger or sampler refusal on rubble occurred in Boring B-4 at 21.7 feet; the boring was offset 8 feet and was re-drilled. The borings were logged in the field based upon cuttings, drilling characteristics and recovered samples. The boring logs were subsequently modified as appropriate based on laboratory test results. The boring logs are presented in Figures 2-1 through 2-8. The key to the boring logs and notes are presented in Figure 2-0.

Samples of subsurface soils were obtained at about 5-foot intervals. Samples were taken using either: 1) a hydraulically pushed, 3-inch O.D., thin-wall Shelby tube sampler in general accordance with ASTM

### APPENDIX I - PRESS & PUBLIC OUTREACH

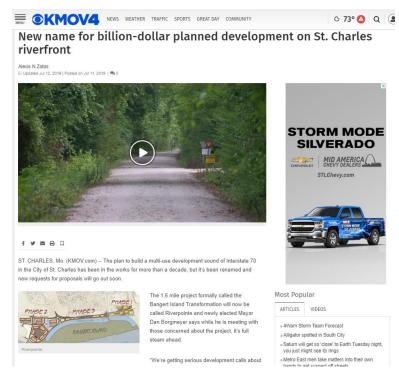
PREVIEW Date: May 18, 2020

### BANGERT ISLAND RIVERFRONT TRANSFORMATION PROJECT IN THE NEWS

May 5, 2020 – Riverpointe (Bangert Island) Highlights the Virtual Road Show 2020



### July 11, 2019 – Local Name Change and Progress Forward



### July 8, 2019 – Progress forward on St. Charles Retail & Entertainment District



☆ Home >> News >> St. Charles looks to transform Bangert Island into retail, entertainment district

## St. Charles looks to transform Bangert Island into retail, entertainment district

By: John Tremmel

() July 8, 2019 () 3,405 Views

Today, Bangert Island stands as a 160-acre park between the Katy Trail and the Missouri River, just south of the Blanchette Bridge and southeast of the Streets of St. Charles. It is owned by the city of St. Charles but managed by St. Charles County.

But the city believes the land could become so much more and has proposed a Bangert Island riverfront transformation project, to be known as "Riverpointe."

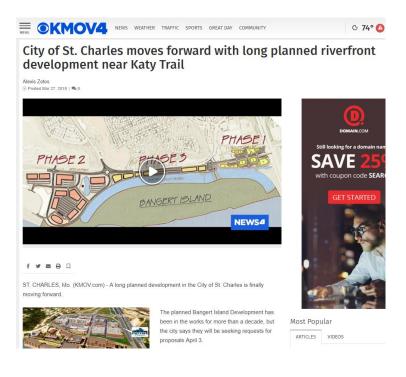
The concept is to develop a riverfront entertainment and retail district that would extend activities and uses similar to those now enjoyed within the Streets of St. Charles.

This summer, first steps toward achieving that goal are getting underway.

### May 1, 2019 – State Budget Appropriations Discussion



### March 27, 2019 – City beginning RFP Process for Private Development



April 15, 2015 – City purchases island for U.S. Army Corps of Engineers Program



May 5, 2010 – Early Discussion of Environmentally Conscious Development at Bangert Island Riverfront



### APPENDIX J - DRAFT ENVIRONMENTAL REPORT

### CMT ENVIRONMENTAL REPORTPG 1

### U.S. ARMY CORPS OF ENGINEERS KANSAS CITY DISTRICT WETLAND AND BAT HABITAT ASSESMENT PG 12

# DRAFT ENVIRONMENTAL REPORTIN COORDINATION WITH U.S. ARMYCORPS OF ENGINEERS PAS PROGRAMPG 38



MEMO Riverpointe Public Infrastructure Project Preliminary Environmental Assessment

### **Project Overview**

The Riverpointe Public Infrastructure Project will include mass grading, tree clearing, public sanitary and storm sewer relocations, and overhead electric adjustments within an area shown on the attached map. This memo documents the preliminary environmental assessment for the project area.

#### Wetlands and Streams

A site visit was conducted on December 23, 2019 to observe the project area for the presence of potential wetlands and streams. The project area, which includes the developed area between S Main Street and the Katy Trail, area along the Katy Trail, and area immediately around an existing cell tower, a gravel lot, and a vacant lot where a house was recently demolished, is an upland area; no wetland features, including hydrology or vegetation were observed. One small culvert inlet was noted, but vegetation surrounding the inlet was upland vegetation that continued up the surrounding upland hillslopes. Photographs documenting the conditions observed at the time of the site visit are attached.

#### Potential Indiana Bat and Northern Long-Eared Bat Habitat

The project area was evaluated for suitable habitat for the Indiana and Northern long-eared bat on December 23, 2019. Suitable habitat for these species was identified as any tree over 3 inches DBH and greater than 13 feet tall with peeling bark or cavities that would provide shelter and allow the bat to move around the tree for thermoregulation. Approximately 2.5 acres of trees will be removed for the work proposed. Three potential bat habitat trees were observed within the project area. The location of the potential bat habitat trees are shown on the attached exhibit; photos of the potential bat habitat trees to be removed are also attached.

#### **Adjacent Areas**

An area east of the Katy Trail and east of the project area was preliminarily reviewed at the time of the site visit. Potential forested wetlands were observed in lowland areas closer to the existing stream channel which flows to the Missouri River. These potential wetlands may begin at the base of the toe of the slope surrounding the upland areas described previously. Within the potential wetland areas, wetland hydrology indicators were observed, including sparsely vegetated concave surfaces, watermarks on trees, and surface soil cracking. It is expected that a historic prolonged flood event in 2019 contributed to the lack of vegetation in some areas. Vegetation that could be indicative of wetlands, including sycamore (*Platanus occidentalis*), sugar maple (*Acer saccharinum*) cottonwood (*Populus deltoides*) trees, was also observed. The described lowland areas will require further study to determine if they fall within a jurisdictional boundary. A wetland determination following methods from the Midwest Regional Supplement to the 1987 US Army Corp of Engineers (USACE) Wetland Delineation Manual will be required to characterize the jurisdictional status of this area.

A potentially jurisdictional stream was also observed in this area, as seen in the attached exhibit and photolog. The stream appeared to be ephemeral, and may be a non-relatively permanent

Crawford, Murphy & Tilly

**Centered in Value** 

water; the US Army Corps of Engineers will need to make the final jurisdictional determination. Representative photos of the adjacent areas are attached.

#### Conclusions

Based on the site visit, it was determined with a high level of certainty that no part of the project area, as depicted in the attached exhibit and photographs, contains any wetlands or any other jurisdictional waters of the United States. The project area contains three potential bat habitat trees. These trees are to be removed prior to April 1 to avoid impacts to Indiana and Northern long-eared bats. The removal of the three observed potential bat habitat trees outside of the active season is expected to have no effect on the Indiana or Northern long-eared bat. This activity also falls under the thresholds in the Missouri Bat Programmatic Agreement between the USACE and the United States Fish and Wildlife Service, which is anticipated to be the only federal nexus for this project.

Any proposed work beyond the project area will require a delineation of any wetlands or streams, and a subsequent jurisdictional determination by the USACE. A full evaluation of the area for suitable summer habitat for the Indiana and Northern long-eared bat will also be necessary and an acoustic monitoring survey may be required if over 10 acres of suitable summer habitat will be removed.

### Page 3 of 73



**Riverpointe Public Infrastructure Project** Aerial Map PREVIEW Date: May 18, 2020



Workspace ID: WS00502216 Funding Opportunity Number: DTOS59-20-RA-BUILD



Page 4 of 73 Riverpointe Public Infrastructure Project – St. Charles, Missouri



1. View northeast.

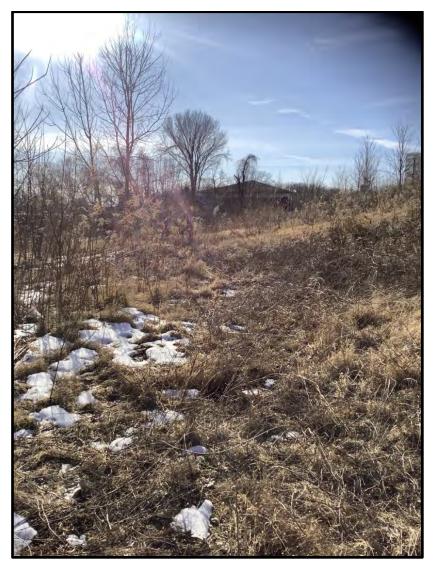


2. View southeast.

### Photographic Log

1





3. View southwest.



4. View east.





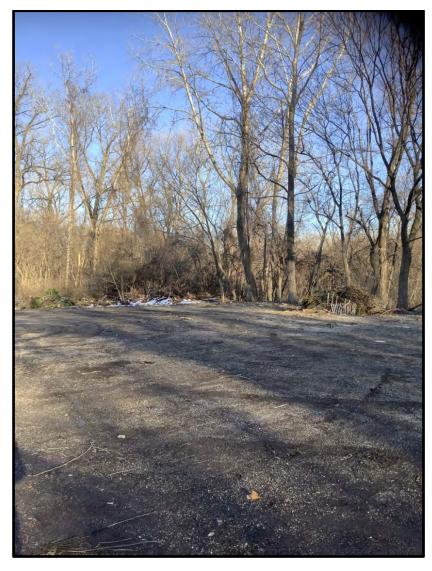
5. View along Katy Trail looking northeast.



6. View looking southeast.







7. View northeast.

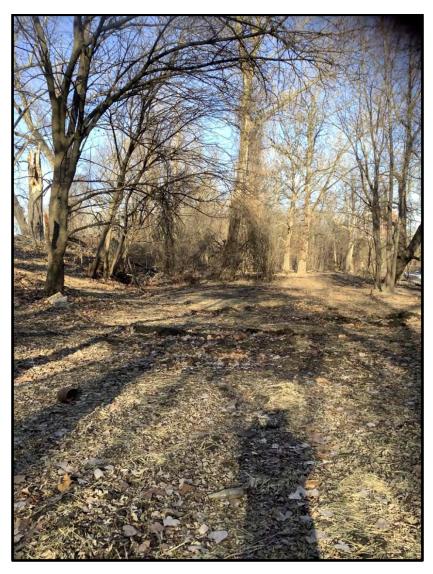








9. View northeast.

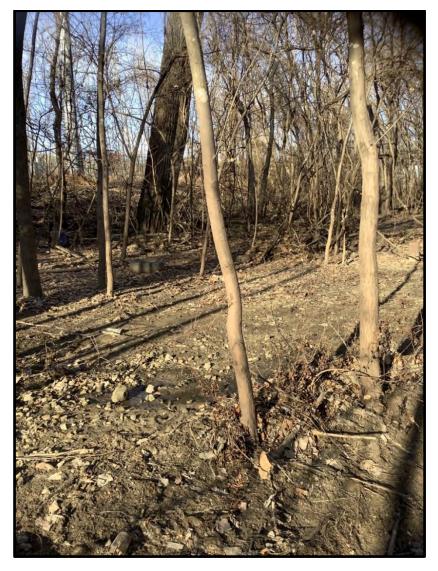


10. View within lowland area surrounding project area looking northeast.

Photographic Log







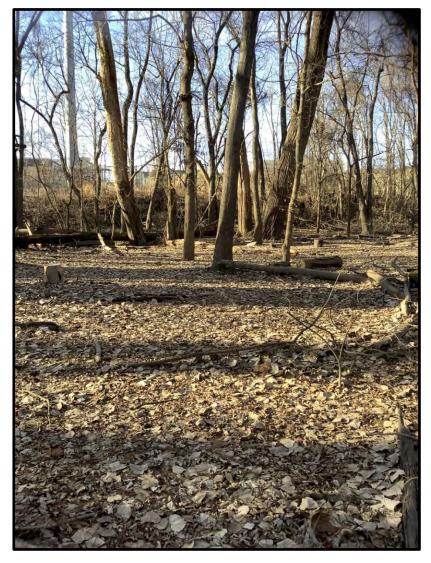
11. View within lowland area surrounding project area looking looking north.



12. View of culvert outlet and potentially jurisdictional stream looking west.





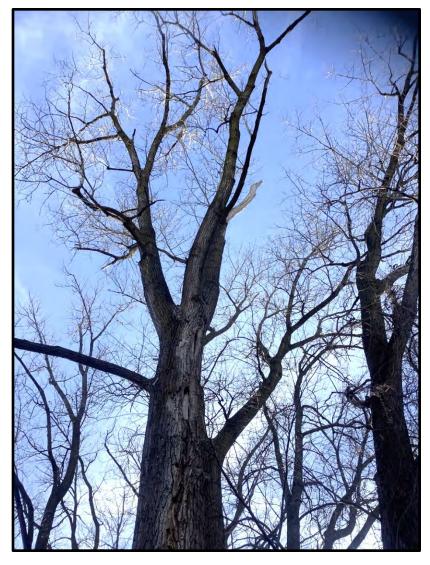


13. View within lowland surrounding project area looking looking northwest.



14. Potential bat habitat tree, with cavities and peeling bark, to be removed.





15. Potential bat habitat tree, with cavities and peeling bark, to be removed.



16. Potential bat habitat tree, with peeling bark, to be removed.

Initial Field Wetland/Habitat Summery for Bangert Island:

On February 25-26, 2016 USACE biologists performed an initial wetlands field review at Bangert Island and located two separate potential wetlands that had all three wetland characteristics (soil, hydrology, & plants). Roughly 3% of the approximately 195 acres could be wetland. (About 5-7 acres along the ditch that flows along the northern boundary & roughly 1.0 acres within the interior.) Additional observations include, multiple marked bike/running trails that spider web the sites interior and they seem to have frequent use. Also, much of the habitat within the interior seems to have excellent Indiana &/or northern long-eared bat habitat. Old growth cottonwood & black willow as well as large silver maples are scatted throughout. Large standing dead trees (snags) are also prevalent with most having loose bark intact. Overall the tree canopy is fairly dense, 60-90% closer. With the size, species, and amount of shaggy bark living and dead standing trees, it is likely that a majority of the property is habitat that would be conducive to Indiana &/or northern long-eared bats. See GPS photos DSCN1049-1090 for wetland photos.

#### Other Observations:

Approximately half or more of the properties interior is large, mature sized trees. Living black willows and snags range between 15-20 inches in diameter. Living cottonwoods and snags range from 15-36 inches in diameter. There are patches of natural succession where large trees have fallen from flooding or wind actions resulting in open areas with many standing snags and a few 3-10 inch diameter trees have starting growing. Other areas with dense canopies and large mature trees have little to no mid or understory vegetation. See GPS photos DSCN1091-1145 for habitat photos.

Fish and wildlife observations include small fish or minnows, evidence of crayfish borrows, beaver and/or muskrat signs within the flowing ditch along the north boundary. Other beaver signs can also be seen along the banks of the Missouri River. Plentiful whitetail deer signs and game trail were seen throughout and well as active small mammal signs; likely raccoon, opossum, squirrel, and groundhogs/woodchuck. Many various song birds were also observed.

Besides the network of labeled running and biking trails for recreation, numerous portable hunting stands were observed as well. Most of these hunting stands seem to fairly new and likely from the previous winters hunting seasons.



### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Bangert Island			City/County	: St. Charl	les	_ Sampling Date: <u>25 Feb 2016</u>		
Applicant/Owner: USACE KCD					State: MO	_ Sampling Point: <u>1-A</u>		
Investigator(s): Chris Name, Rick Morr		Section, Township, Range:						
Landform (hillslope, terrace, etc.): Floc								
Slope (%): 3 Lat: 38°45'9								
Soil Map Unit Name:								
Are climatic / hydrologic conditions on th								
Are Vegetation, Soil, or						present? Yes <u>×</u> No		
Are Vegetation, Soil, or					eeded, explain any answe			
SUMMARY OF FINDINGS - A								
Hydrophytic Vegetation Present?	Yes <b>X</b>	No	is th	e Sampled	Area	· ·		
Hydric Soil Present?	Yes <u>X</u>			in a Wetla		(No		
Wetland Hydrology Present?	Yes	No						
Remarks:								
Historic Channel Scar/Drainage								
VEGETATION – Use scientific r	names of plant				· ····			
		Absolute	Dominant	Indicator	Dominance Test worl	ksheet:		
Tree Stratum (Plot size:	)		Species?		Number of Dominant S			
1. <u>Salix nigra</u>		5	<u> </u>	OBL	That Are OBL, FACW,	or FAC:6 (A)		
			<u> </u>		Total Number of Domin	nant		
3. <u>Platanus occidentalis</u>		2	Y	FACW	Species Across All Stra	ata:7 (B)		
4					Percent of Dominant S	pecies		
5					That Are OBL, FACW,	or FAC: <u>85.71</u> (A/B)		
Sapling/Shrub Stratum (Plot size:	١	9	= Total Cov	/er	Prevalence Index wo	rksheet:		
1. <u>Acer negundo</u>			Y	FAC	Total % Cover of:	Multiply by:		
2. <u>Salix nigra</u>					OBL species 1	<u>0 x 1 = 10 </u>		
3					FACW species2	2 x 2 = 4		
4					FAC species2	2 x 3 = <u>66</u>		
5	<u></u>		·		FACU species			
	,	20	= Total Cov	/er		x = 0		
Herb Stratum (Plot size:	)	5	Y	FAC	Column Totals: <u>3</u>	<u>i9 (</u> A) <u>100</u> (B)		
1. <u>carex</u>				1.40	Prevalence Index	c = B/A =2.56		
2					Hydrophytic Vegetati			
4					X Dominance Test is	3 >50%		
5					X Prevalence Index	is ≤3.0 <sup>1</sup>		
6						aptations <sup>1</sup> (Provide supporting		
7					1	s or on a separate sheet)		
8					- Proplematic Hydro	ophytic Vegetation <sup>1</sup> (Explain)		
9					<sup>1</sup> Indicators of hydrin on	il and wetland hydrology must		
10					be present, unless dist			
Wendy Vinn Stratum (Blat size:	١	5	= Total Cov	/er				
<u>Woody Vine Stratum</u> (Plot size: 1. <u>Vitis aestivalis</u>	-	5	v	FACU	Hydrophytic			
2.					Vegetation			
	<u></u>		= Total Cov	/er	Present? Ye	es X No		
					l			
Remarks: (Include photo numbers here	re or on a separat	e sheet.)						
GPS Photo 1049-1053								

Midwest Region - Interim Version

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SOIL								Sampling Point: <u>1-A</u>	
Profile Des	cription: (Describe	o the dep	oth needed to docu	ment the	indicator	or confirm	n the absenc	e of indicators.)	
Depth				ox Feature					
(inches)	Color (moist)	%	Color (moist)	%	<u>Type<sup>1</sup></u>	Loc <sup>2</sup>	<u> </u>	Remarks	
0-6	10YR3/1	70					SiCI	·	
	10YR3/2	10		<u> </u>					
	10YR2/2	10							
6-18	10YR3/1	70	10YR3/6	25	D	M	SiCI	Organic Material	
			10YR5/6	5			<del></del>	·	
- <sup>1</sup> Туре: С=С	Concentration, D=Depl	etion, RM	=Reduced Matrix, C	S=Covere	d or Coate	d Sand G		cation: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators:						Indicator	s for Problematic Hydric Soils <sup>3</sup> :	
<ul> <li>Histosol (A1)</li> <li>Histic Epipedon (A2)</li> <li>Black Histic (A3)</li> <li>Hydrogen Sulfide (A4)</li> <li>Stratified Layers (A5)</li> <li>2 cm Muck (A10)</li> <li>Depteted Below Dark Surface (A11)</li> </ul>		<ul> <li>Sandy Gleyed Matrix (S4)</li> <li>Sandy Redox (S5)</li> <li>Stripped Matrix (S6)</li> <li>Loamy Mucky Mineral (F1)</li> <li>Loamy Gleyed Matrix (F2)</li> <li>Depleted Matrix (F3)</li> <li>Redox Dark Surface (F6)</li> </ul>				Coast Prairie Redox (A16) Iron-Manganese Masses (F12) Other (Explain in Remarks)			
Sandy I 5 cm M	ark Surface (A12) Mucky Mineral (S1) ucky Peat or Peat (S3	)	Depleted Dark Surface (F7) Redox Depressions (F8)				<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
	Layer (if observed):								
Type: <u> </u>							Hydric Soi	l Present? Yes <u>X</u> No	
Remarks:									
HYDROLC									
•	drology Indicators:		radi abaali all that to	an huì			Casard	on Indicators (minimum of two required)	
mamary indi	cators (minimum of or	ie is redul	ieu. Check all that at	JUIVI			Second	ary Indicators (minimum of two required)	

Primary Indicators (minimum of one is required;	check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	X Water-Stained Leaves (B9)	X Surface Soil Cracks (B6)
High Water Table (A2)	🗶 Aquatic Fauna (B13)	X Drainage Patterns (B10)
X Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)
X Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
X Sediment Deposits (B2)	X Oxidized Rhizospheres on Living R	oots (C3) 🛛 🗶 Saturation Visible on Aerial Imagery (C9)
X Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
X Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soil	s (C6) X Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)
X Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data (D9)	
X Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	
Field Observations:		
Surface Water Present? Yes No	Depth (inches):	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes X No.	Depth (inches):0	Wetland Hydrology Present? Yes <u>X</u> No
Describe Recorded Data (stream gauge, monito	oring well, aerial photos, previous inspection	ons), if available:
Remarks:		

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### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Bangert Island		City/County	: <u>St. Char</u>	les	Sampling Date: 25 Feb 2016
Applicant/Owner: USACE KCD				Sampling Point: <u>1-B</u>	
Investigator(s): Chris Name, Rick Morrow	<b>.</b> _,	Section, To	wnship, Ra	inge:	
Landform (hillslope, terrace, etc.): Floodplain			Local relief	(concave, convex, none):	convex
Slope (%): <u>15</u> Lat: <u>38°45'10.19"N</u>		Long: <u>90°</u>	30'1.65"W		Datum:
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for					
Are Vegetation, Soil, or Hydrology					resent? Yes <u>×</u> No
Are Vegetation, Soil, or Hydrology				eeded, explain any answei	
SUMMARY OF FINDINGS – Attach site ma			•		·
Hydrophytic Vegetation Present?       Yes         Hydric Soll Present?       Yes         Wetland Hydrology Present?       Yes	No X	with	e Samplec in a Wetla		No
Remarks: Edge of a historic channel scar/drainage					F
-	4_				
VEGETATION – Use scientific names of plan	Absolute	Dominant	Indicator	Dominance Test works	shoot:
Tree Stratum (Plot size:)		Species?		Number of Dominant Sp	
1. <u>Acer saccharinum</u>	5	<u>Y</u>	FACW		or FAC:7 (A)
2. Morus alba	5	Y	FAC	Total Number of Domina	ant
3. Platanus occidentalis	25	<u> </u>	FACW	Species Across All Strat	
4. <u>Populus deltoids</u>	5	<u>      N                              </u>	FAC	Percent of Dominant Sp	ecies
5		·			or FAC:100 (A/B)
Sapling/Shrub Stratum (Plot size:)	40	= Total Cov	er	Prevalence Index work	(sheet:
1. Salix nigra	5	Y	OBL		Multiply by:
2. Acer negundo					x1=5
3				FACW species 30	x 2 =60
4				FAC species 50	x 3 = <u>150</u>
5			<u> </u>	FACU species0	x 4 =0
		= Total Cov	rer	UPL species0	x 5 =0
Herb Stratum (Plot size:)	40		-	Column Totals: 85	(A) <u>215</u> (B)
1. polgonum		· <u> </u>		Prevalence Index	= B/A =
2. <u>cares</u>			FAC	Hydrophytic Vegetatio	
3				X Dominance Test is	
4				X Prevalence Index is	
6			<b>_</b> _		stations <sup>1</sup> (Provide supporting
7					or on a separate sheet)
8				Problematic Hydrop	hytic Vegetation <sup>1</sup> (Explain)
9				1	
10				be present, unless distu	and wetland hydrology must rbed or problematic.
	30	= Total Cov	er		·
Woody Vine Stratum (Plot size:)				Hydrophytic	
1				Vegetation	
2		= Total Cov		Present? Yes	<u>×</u> No
	-		51		
Remarks: (Include photo numbers here or on a separat	e sheet.)				
GPS Photo 1049-1053					

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1\_B

SOIL								Sampling Point	<u>1-B</u>
Profile Desc	ription: (Describe	to the depth ne	eded to docur	nent the in	dicator o	or confirm	the absence of	indicators.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	<u>%</u> C	olor (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-10	10YR3/2	90		·	<u>-</u>		SiCI		
10-18	10YR4/2	90		· ·			SiCl		
		·							
	_								
		<u></u>							
									<u>.</u>
		etion RM=Red	iced Matrix, CS		or Coater	 d Sand Gr	ains <sup>2</sup> Locati	on: PL=Pore Lining, M	A=Matrix
Hydric Soil I				, coreida	01 00000			r Problematic Hydric	
Histosol (	(A1)		Sandy G	Bleyed Matr	rix (S4)		Coast Pra	airie Redox (A16)	
Histic Epi	ipedon (A2)		Sandy F	Redox (S5)			Iron-Manç	ganese Masses (F12)	
Black His	· ·			Matrix (S6			Other (Ex	plain in Remarks)	
	n Sulfide (A4)			Mucky Mine					
	Layers (A5)			Gleyed Mat					
2 cm Mu	Below Dark Surface	A11)		d Matrix (F3 )ark Surfac					
·	rk Surface (A12)			d Dark Surf			<sup>3</sup> Indicators of	hydrophytic vegetation	n and
	ucky Mineral (S1)		· ·	Depressions				ydrology must be prese	
	cky Peat or Peat (S3	)		<u> </u>			unless dis	turbed or problematic.	
Restrictive L	ayer (if observed):								
Туре:	· · · · ·								
Depth (inc	hes):						Hydric Soil Pre	esent? Yes	No <u>×</u>
IYDROLOG	GY			<del></del>					
Wetland Hyd	rology Indicators:								
Primary Indica	ators (minimum of or	ne is required; c	heck all that ap	ply)			Secondary	Indicators (minimum of	f two required)
	Water (A1)		Water-Stai		s (B9)			e Soil Cracks (B6)	
	er Table (A2)		Aquatic Fa				— 、	ge Patterns (B10)	
Saturation			True Aqual					ason Water Table (C2)	)
X Water Ma			Hydrogen S		• •	na Danta /		h Burrows (C8)	
Sediment	t Deposits (B2)		Oxidized R Presence d	•			·	ion Visible on Aerial In For Stressed Plants (D	
	t or Crust (B4)		Recent Iron		• •			rphic Position (D2)	
Iron Depo			Thin Muck					eutral Test (D5)	
	n Visible on Aerial Ir	nagery (B7)	Gauge or V	•	,		_	Ċ,	
	Vegetated Concave		Other (Exp	-					
Field Observ	ations:								
Surface Wate	r Present? Ye	es No	Depth (inc	:hes):		_			
Water Table R	Present? Ye	es No	Depth (inc	:hes):		_			
Saturation Press		es No	Depth (inc	hes):		_ Wetla	ind Hydrology Pi	resent? Yes <u>X</u>	. No
(includes capi Describe Rec	illary fringe) orded Data (stream	gauge, monitori	ng well, aerial p	hotos, prev	vious insp	ections), i	f available:	WALLER	
									<u> </u>
Remarks:									

#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Bangert Island			City/County:	St. Charl	es	Sampling Date: 25 Feb 2016
Applicant/Owner: USACE KCD			•		State: MO	Sampling Point: <u>2-A</u>
Investigator(s): Chris Name, Rick Morr	ow		Section, Tov	wnship, Ra	nge:	
Landform (hillslope, terrace, etc.): _Floo	dplain		L	ocal relief	(concave, convex, none): _	concave
Slope (%): <u>3</u> Lat: <u>38°45'1</u>	4.71"N		Long: <u>90°3</u>	30'0.84"W		Datum:
Soil Map Unit Name:						
Are climatic / hydrologic conditions on th	ne site typical for	this time of ye	ar?Yes	<u>×</u> No	(If no, explain in Re	marks.)
Are Vegetation, Soil, or	Hydrology	significantly	disturbed?	Аге	"Normal Circumstances" pr	esent? Yes 🗶 No
Are Vegetation, Soil, or	Hydrology	naturally pro	blematic?	(lf ne	eeded, explain any answers	s in Remarks.)
SUMMARY OF FINDINGS - A				g point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <b>X</b>	No No No		e Sampleo n a Wetla		No
Remarks: Historic Channel Scar/Drainage						
VEGETATION – Use scientific r	names of plar	 nts.				
Tree Stratum (Plot size:	)	Absolute <u>% Cover</u>	Dominant Species?	<u>Status</u>	Dominance Test works Number of Dominant Spe	
1. Acer saccharinum           2						
3					Total Number of Domina Species Across All Strata	
4						
5		<b>_</b>			Percent of Dominant Spe That Are OBL, FACW, or	FAC:100 (A/B)
Conline/Chrub Stratum (Blot size)	,		= Total Cov	er	Prevalence Index works	sheet:
Sapling/Shrub Stratum (Plot size: 1. <u>Acer negundo</u>			Y	FAC		Multiply by:
2						x1=
3					FACW species 5	x 2 =10
4					FAC species30	
5					FACU species 0	
		25	= Total Cov	er	UPL species 0	
Herb Stratum (Plot size:	)	5	v	FAC	Column Totals: <u>35</u>	(A) <u>100</u> (B)
1. <u>carex</u>				140	Prevalence Index =	= B/A =
2					Hydrophytic Vegetation	Indicators:
4					X Dominance Test is >	50%
5					X Prevalence Index is	≤3.0 <sup>1</sup>
6						ations <sup>1</sup> (Provide supporting
7						or on a separate sheet)
8						nytic Vegetation <sup>1</sup> (Explain)
9	<u>.                                    </u>				<sup>1</sup> Indicators of hydric soils	and wetland hydrology must
10					be present, unless distur	
Woody Vine Stratum (Plot size:	)	5	= Total Cov	er		
1					Hydrophytic Vegetation	
2			= Total Cov	 er		<u>    X        No</u>
Remarks: (Include photo numbers he						
GPS photo 1054-1059	o on a separa	210 011001.)				

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Sam	pling	Point:	2

SOIL								Sampling Point: <u>2-A</u>
Profile Desc	ription: (Describ	e to the dep	th needed to docu	ment the i	indicator	or confirm	the absence	of indicators.)
Depth	Matrix	-	Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-6	10YR3/1	80	10YR4/6	15	RM		SiCl	
6-10	10YR4/3	25	10YR5/6	40	RM		SSiCI	SANDY
			10YR4/6	30				
10-18	10YR4/1	90	10YR3/6	15	RM	<u> </u>	SiCl	
<u></u>								<u>_</u>
			· · · · · · · · · · · · · · · · · · ·	·				· · · · · · · · · · · · · · · ·
<sup>1</sup> Type: C=Co		epletion, RM	=Reduced Matrix, CS	 S=Covered	d or Coate	d Sand Gra	ains. <sup>2</sup> Loc	cation: PL=Pore Lining, M=Matrix.
Hydric Soil			,,,,,,, _					for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy (	Gleyed Ma	atrix (S4)		Coast	Prairie Redox (A16)
Histic Ep	oipedon (A2)			Redox (S5			X Iron-M	anganese Masses (F12)
Black Hi				d Matrix (S	•		Other (	(Explain in Remarks)
	n Sulfide (A4)			Mucky Mir	• •			
	l Layers (A5)		·	Gleyed Ma				
	ick (A10)		····· ·	d Matrix (I	,			
	Below Dark Surfa	ace (A11)		Dark Surfa	• •		3	fl ball the second from south
	ark Surface (A12)				rface (F7)			of hydrophytic vegetation and d hydrology must be present,
·	lucky Mineral (S1) icky Peat or Peat (		Redox I	Depressio	ns (Po)			disturbed or problematic.
	_ayer (if observed						uniess	disturbed of problematic.
	Layer (II Observed	4).						
Type:								Decessio Mar M. No.
Depth (ind	ches):						Hydric Soil	Present? Yes X No
Remarks:								
HYDROLO	GY							
Wetland Hyd	drology Indicator	s:						
Primary Indic	ators (minimum of	one is requi	red; check all that an	ply)			<u>Seconda</u>	ry Indicators (minimum of two required)
X Surface	Water (A1)		X Water-Sta	ined Leave	es (B9)		<u>X</u> Surfa	ace Soil Cracks (B6)
High Wa	ter Table (A2)		X Aquatic Fa	iuna (B13)	)		🗶 Drai	nage Patterns (B10)
X_Saturatio	on (A3)		True Aqua	tic Plants	(B14)		Dry-	Season Water Table (C2)
X Water M	arks (B1)		Hydrogen	Sulfide Oc	lor (C1)		🗶 Cray	rfish Burrows (C8)
X Sedimer	t Deposits (B2)		X Oxidized F	Rhizosphei	res on Livi	ng Roots (	C3) <u> 🗶</u> Satu	ration Visible on Aerial Imagery (C9)
X Drift Dep	osits (B3)		Presence	of Reduce	d Iron (C4	)	🗶 Stun	ited or Stressed Plants (D1)
🗶 Algal Ma	it or Crust (B4)		Recent Iro	n Reductio	on in Tilled	I Soils (C6)	) 🗶 Geo	morphic Position (D2)
Iron Dep	osits (B5)		🗶 Thin Muck	Surface (	C7)		FAC	-Neutral Test (D5)
X Inundatio	on Visible on Aeria	I Imagery (B	7) Gauge or <sup>1</sup>	Well Data	(D9)			
X Sparsely	Vegetated Conca	ve Surface (						
Field Obser	vations:							······································
Surface Wate	er Present?	Yes	No Depth (in	ches):		_		
Water Table	Present?	Yes	No Depth (in	ches):		_		
Saturation Pr	resent?		No Depth (in			_ Wetla	nd Hydrology	y Present? Yes X No
(includes cap Describe Red	corded Data (strea	m gauge, mo	onitoring well, aerial	photos, pre	evious ins	pections), in	f available:	
	,							
Remarks:				•				

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#### WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: Bangert Island	Cit	y/County	: St. Charle	es	Sampling Date: 25 Feb 2016
Applicant/Owner: USACE KCD				State: <u>MO</u>	Sampling Point: <u>2-B</u>
Investigator(s): Chris Name, Rick Morrow	Se	ction, To	wnship, Rai	nge:	
Landform (hillslope, terrace, etc.): Floodplain		I	.ocal relief	(concave, convex, none):	convex
Slope (%): <u>10</u> Lat: <u>38°45'14.72"N</u>	Lo	ng: <u>90°</u> :	30'0.50"W		Datum:
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for this time					
Are Vegetation, Soil, or Hydrology signific					resent? Yes 🗶 No
Are Vegetation, Soil, or Hydrology natural				eded, explain any answer	
SUMMARY OF FINDINGS – Attach site map show					
Hydrophytic Vegetation Present? Yes No				_	
Hydric Soil Present? Yes No			e Sampled		м.
Wetland Hydrology Present? Yes X No		with	in a Wetlan	ia? tes <u>*</u>	No
Remarks:					
Edge of drainage path					
VEGETATION – Use scientific names of plants.		-			
			Indicator Status	Dominance Test works	
1. Platanus occidentalis 1				Number of Dominant Sp That Are OBL, FACW, o	ecies r FAC: <u>5</u> (A)
	40		FACW		
3				Total Number of Domina Species Across All Strat	
4				Percent of Dominant Sp	aning
5		<b>.</b>			r FAC: <u>100</u> (A/B)
	50 = -	Total Cov	er	Prevalence Index work	choot:
Sapling/Shrub Stratum (Plot size:) 1. Acer saccharinum5	50	v	FACW		Multiply by:
2			17011	OBL species 0	
3				FACW species100	
4					x 3 = <u>60</u>
5				FACU species 0	x 4 =0
	50 = 1	Total Cov	er	UPL species 0	x 5 =0
Herb Stratum (Plot size:)	_			Column Totals: <u>120</u>	) (A) <u>260</u> (B)
	<u>5</u>	<u>Y</u>	FAC	Provalence Index	= B/A = 2.17
2. polygonum 1				Hydrophytic Vegetation	
3				X Dominance Test is >	
4				X Prevalence Index is	
5				Morphological Adap	tations <sup>1</sup> (Provide supporting
7				data in Remarks	or on a separate sheet)
8				Problematic Hydrop	hytic Vegetation <sup>1</sup> (Explain)
9				1	
10				Indicators of hydric soil be present, unless distur	and wetland hydrology must bed or problematic.
2		Fotal Cov	er		·
Woody Vine Stratum (Plot size:)				Hudrophitic	
1				Hydrophytic Vegetation	
2		Fotal Cov			<u>×</u> No
Remarks: (Include photo numbers here or on a separate sheet.)					
	,				
GPS photos 1054-1059					

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S	O	IL
-	-	_

2-B

OIL				
Profile Description:	Describe to the	depth needed to document the indicator of	r confirm the absence	e of Indicators.)
Depth	Matrix	Redox Features		
(inches) Color	<u>(moist) %</u>	Color (moist) % Type <sup>1</sup>	Loc <sup>2</sup> Texture	Remarks
0-8 10	′R3/2		SiCl	
8-18 10	′R4/2		SiCl	·
			<u> </u>	
				·
		RM=Reduced Matrix, CS=Covered or Coated		cation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators	5:			s for Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1)	-	Sandy Gleyed Matrix (S4)	·	Prairie Redox (A16)
Histic Epipedon (A Block Histic (A2)	2)	Sandy Redox (S5) Stripped Matrix (S6)		langanese Masses (F12) (Explain in Remarks)
Black Histic (A3)	(44)	Supped Mathx (So) Loamy Mucky Mineral (F1)		
Stratified Layers (Applied Layers (Ap		Loamy Gleyed Matrix (F2)		
_ 2 cm Muck (A10)	,	Depleted Matrix (F3)		
_ Depleted Below D	ark Surface (A11)			
_ Thick Dark Surfac	e (A12)	Depleted Dark Surface (F7)	<sup>3</sup> Indicator	s of hydrophytic vegetation and
_ Sandy Mucky Min	eral (S1)	Redox Depressions (F8)		ad hydrology must be present,
_ 5 cm Mucky Peat		· · · · · · · ·	unles	s disturbed or problematic.
estrictive Layer (if c	bserved):			
Turner				
Туре:				
Depth (inches): temarks:			Hydric Soi	I Present? Yes NoX
Depth (inches):			Hydric Soi	I Present? Yes No <u>X</u>
Depth (inches):			Hydric Soi	I Present? Yes No <u>X</u>
Depth (inches): emarks: DROLOGY etland Hydrology In	ndicators:			
Depth (inches): emarks: /DROLOGY etland Hydrology In imary Indicators (min	ndicators: nimum of one is re	equired; check all that apply)	Second	ary Indicators (minimum of two require
Depth (inches): emarks: DROLOGY etland Hydrology In	ndicators: nimum of one is re	X Water-Stained Leaves (B9)	<u>Second</u> Sur	ary Indicators (minimum of two require face Soil Cracks (B6)
Depth (inches): emarks: //DROLOGY /etland Hydrology In imary Indicators (min	ndicators: himum of one is re	X Water-Stained Leaves (B9) Aquatic Fauna (B13)	<u>Second</u> Sur Dra	ary Indicators (minimum of two require face Soil Cracks (B6) iinage Patterns (B10)
Depth (inches): emarks: DROLOGY etland Hydrology In imary Indicators (min Surface Water (A1 High Water Table Saturation (A3)	ndicators: himum of one is re	X Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)	<u>Second</u> Sur Dra Dry	ary Indicators (minimum of two require face Soil Cracks (B6) iinage Patterns (B10) -Season Water Table (C2)
Depth (inches): emarks: <b>'DROLOGY</b> <b>tetland Hydrology Ir</b> <b>imary Indicators (mir</b> _ Surface Water (A1 _ High Water Table _ Saturation (A3) _ Water Marks (B1)	ndicators: nimum of one is re ) (A2)	<ul> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> </ul>	<u>Second</u> Sur Dra Dry Cra	<u>ary Indicators (minimum of two require</u> face Soil Cracks (B6) iinage Patterns (B10) <i>r</i> -Season Water Table (C2) iyfish Burrows (C8)
Depth (inches): emarks: //DROLOGY /etland Hydrology In imary Indicators (mir Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit	ndicators: nimum of one is re ) (A2) s (B2)	<ul> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Livin</li> </ul>	<u>Second</u> Sur Dra Dry Cra g Roots (C3) <u>X</u> Sat	<u>ary Indicators (minimum of two requir</u> face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) iyfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Depth (inches): emarks: //DROLOGY etland Hydrology In imary Indicators (mir 	ndicators: nimum of one is re ) (A2) s (B2)	<ul> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Livin</li> <li>Presence of Reduced Iron (C4)</li> </ul>	<u>Second</u> Sur Dra Dry Cra g Roots (C3) <u>X</u> Sat Stu	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) iyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Depth (inches): emarks: /DROLOGY etland Hydrology Ir imary Indicators (mir Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust	ndicators: himum of one is re ) (A2) s (B2) (B4)	<ul> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Livin</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled</li> </ul>	<u>Second</u> Sur Dra Dry Cra g Roots (C3) <u>X</u> Sat Stu Soils (C6) Geo	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Depth (inches): emarks: DROLOGY etland Hydrology In imary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5)	ndicators: himum of one is re ) (A2) s (B2) (B4)	<ul> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on Livin</li> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled</li> <li>Thin Muck Surface (C7)</li> </ul>	<u>Second</u> Sur Dra Dry Cra g Roots (C3) <u>X</u> Sat Stu Soils (C6) Geo	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) iyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Depth (inches): marks: DROLOGY etland Hydrology In imary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible	ndicators: himum of one is re ) (A2) s (B2) (B4) on Aerial Imagery	X       Water-Stained Leaves (B9)	<u>Second</u> Sur Dra Dry Cra g Roots (C3) <u>X</u> Sat Stu Soils (C6) Geo	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Depth (inches): emarks: DROLOGY etland Hydrology In imary Indicators (min Surface Water (A1 High Water Table Saturation (A3) Water Marks (B1) Sediment Deposit Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5) Inundation Visible Sparsely Vegetate	ndicators: himum of one is re ) (A2) s (B2) (B4) on Aerial Imagery	X       Water-Stained Leaves (B9)	<u>Second</u> Sur Dra Dry Cra g Roots (C3) <u>X</u> Sat Stu Soils (C6) Geo	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Depth (inches): emarks: //DROLOGY /etland Hydrology In imary Indicators (min 	ndicators: nimum of one is re ) (A2) s (B2) (B4) on Aerial Imagery d Concave Surface	Water-Stained Leaves (B9)     Aquatic Fauna (B13)     True Aquatic Plants (B14)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres on Livin     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled     Thin Muck Surface (C7)     Gauge or Well Data (D9)     ce (B8) Other (Explain in Remarks)	g Roots (C3) X Sat Soils (C6) Gev FAd	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Depth (inches): emarks: //DROLOGY /etland Hydrology In rimary Indicators (min Surface Water (A1 High Water Table Saturation (A3) / Water Marks (B1) Sediment Deposits (B3) / Algal Mat or Crust Iron Deposits (B3) / Iron Deposits (B5) / Inundation Visible Sparsely Vegetate ield Observations: urface Water Presen	ndicators: nimum of one is re ) (A2) s (B2) (B4) on Aerial Imagery d Concave Surfact :? Yes	Water-Stained Leaves (B9)     Aquatic Fauna (B13)     True Aquatic Plants (B14)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres on Livin     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled     Thin Muck Surface (C7)     Gauge or Well Data (D9)     ce (B8) Other (Explain in Remarks)	g Roots (C3) X Sat Soils (C6) Gev FAd	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Depth (inches): emarks: //DROLOGY /etland Hydrology In rimary Indicators (min Surface Water (A1 High Water Table Saturation (A3) / Water Marks (B1) Sediment Deposit / Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B3) / Iron Deposits (B5) / Inundation Visible Sparsely Vegetate ield Observations: urface Water Presen /ater Table Present?	Idicators: himum of one is re ) (A2) s (B2) d (B4) on Aerial Imagery d Concave Surfact ? Yes Yes	X Water-Stained Leaves (B9)     Aquatic Fauna (B13)     True Aquatic Plants (B14)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres on Livin     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled     Thin Muck Surface (C7)     Gauge or Well Data (D9)     ce (B8) Other (Explain in Remarks)     No Depth (inches):     No Depth (inches):	g Roots (C3) X Sat Soils (C6) Gev FAt	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
Depth (inches): emarks: //DROLOGY /etland Hydrology In rimary Indicators (min Surface Water (A1 High Water Table Saturation (A3) / Water Marks (B1) Sediment Deposits (B3) / Drift Deposits (B3) / Inthe Deposits (B3) Inthe Deposits (B3) / Inthe Deposit (B3) / Inth	ndicators: nimum of one is re ) (A2) s (B2) on Aerial Imagery d Concave Surfact ?? Yes Yes Yes te)	X Water-Stained Leaves (B9)     Aquatic Fauna (B13)     True Aquatic Plants (B14)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres on Livin     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled     Thin Muck Surface (C7)     y (B7) Gauge or Well Data (D9)     ce (B8) Other (Explain in Remarks)     No Depth (inches):     No Depth (inches):	g Roots (C3) X Sat Soils (C6) Get Wetland Hydrolog	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Depth (inches): temarks: <b>YDROLOGY</b> <b>Yetland Hydrology In</b> <u>trimary Indicators (min</u> 	ndicators: nimum of one is re ) (A2) s (B2) on Aerial Imagery d Concave Surfact ?? Yes Yes Yes te)	X Water-Stained Leaves (B9)     Aquatic Fauna (B13)     True Aquatic Plants (B14)     Hydrogen Sulfide Odor (C1)     Oxidized Rhizospheres on Livin     Presence of Reduced Iron (C4)     Recent Iron Reduction in Tilled     Thin Muck Surface (C7)     Gauge or Well Data (D9)     ce (B8) Other (Explain in Remarks)     No Depth (inches):     No Depth (inches):	g Roots (C3) X Sat Soils (C6) Get Wetland Hydrolog	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) tyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)

**Print Form** 

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Reset Form

ag

Project/Site: Bangert Island		City/County: <u>St. Cha</u>	rles Sampling Date: <u>25 Feb 2016</u>
Applicant/Owner: USACE KCD			State: <u>_MO</u> Sampling Point: <u>3-A</u>
Investigator(s): <u>Chris Name, Rick Morrow</u>			
Landform (hillslope, terrace, etc.): <u>Floodplain</u>		Local relie	f (concave, convex, none): <u>concave</u>
			V Datum:
Soil Map Unit Name:			
Are climatic / hydrologic conditions on the site typical for t			
	•		"Normal Circumstances" present? YesX No
Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS – Attach site map			eeded, explain any answers in Remarks.) locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No		
Hydric Soil Present? Yes X		Is the Sample	
Wetland Hydrology Present? Yes X		within a Wetla	nd? Yes <u>X</u> No
Remarks:		•	
Drainage path			
VEGETATION – Use scientific names of plant			
Tree Stratum (Plot size:)		Dominant Indicator Species? Status	Dominance Test worksheet:
1. Platanus occidentalis		<u>Y</u> FACW	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2. Acer negundo	45		
3. <u>Salix nigra</u>			Total Number of Dominant Species Across All Strata: <u>3</u> (B)
4. Populus deltoids			
5			Percent of Dominant Species That Are OBL, FACW, or FAC:100(A/B)
		= Total Cover	Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)			Total % Cover of: Multiply by:
1			OBL species         5         x 1 =         5
2			FACW species $10 \times 2 = 20$
4			FAC species x3 =35
5			FACU species x 4 =
		= Total Cover	UPL species x 5 =0
Herb Stratum (Plot size:)			Column Totals: <u>60</u> (A) <u>160</u> (B)
1. polygonum			
2			Prevalence Index = B/A =
3			Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50%
4			X Prevalence Index is $\leq 3.0^{1}$
5			Morphological Adaptations <sup>1</sup> (Provide supporting
6			data in Remarks or on a separate sheet)
8			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
9			
10			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		= Total Cover	
Woody Vine Stratum (Plot size:)			
1			Hydrophytic Vegetation
2			Present? Yes X No
		= Total Cover	
Remarks: (Include photo numbers here or on a separate	e sheet.)		
CBS Bhotos 1062 1069			
GPS Photos 1062-1068			
US Army Corps of Engineers			Midwest Region – Interim Version

PREVIEW Date: May 18, 2020

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Matrix         Redox Features           (inches)         Color (moist)         %           0-12         10YR3/1         80         10YR3/6         15	dicator or confirm the absence of indicators.)
(inches) Color (moist) % Color (moist) %	
0-12 10YR3/1 80 10YR3/6 15	Type <sup>1</sup> Loc <sup>2</sup> Texture <u>Remarks</u>
	RM SiCl
1 Turner Co-Concentration D-Depletion DM-Deduced Matrix CS-Covered	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered of Hydric Soil Indicators:	or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1) Sandy Gleyed Matri	_
Histosi (A1) Sandy Gleyed Main Histic Epipedon (A2) Sandy Redox (S5)	Iron-Manganese Masses (F12)
Black Histic (A3) Stripped Matrix (S6)	
Hydrogen Sulfide (A4) Loamy Mucky Mine	
Stratified Layers (A5) Loamy Gleyed Matr	
2 cm Muck (A10) X Depleted Matrix (F3	)
Depleted Below Dark Surface (A11) Redox Dark Surface	
Thick Dark Surface (A12) Depleted Dark Surfa	
Sandy Mucky Mineral (S1) Redox Depressions	(F8) wetland hydrology must be present, unless disturbed or problematic.
5 cm Mucky Peat or Peat (S3) Restrictive Layer (if observed):	
Type:	Undrie Seil Present? You Y No
Depth (inches): Remarks:	Hydric Soil Present? Yes X No
HYDROLOGY Wetland Hydrology Indicators:	· · · · · · · · · · · · · · · · · · ·
Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
High Water Table (A2) Aquatic Fauna (B13)	<u>X</u> Drainage Patterns (B10)
<u>X</u> Saturation (A3) True Aquatic Plants (B	
	r (C1) Craviish Burrows (C8)
X Water Marks (B1) Hydrogen Sulfide Odo	•
X       Water Marks (B1)	s on Living Roots (C3) 🔀 Saturation Visible on Aerial Imagery (C9)
X       Water Marks (B1)	s on Living Roots (C3) X Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1)
X       Water Marks (B1)	s on Living Roots (C3)       X       Saturation Visible on Aerial Imagery (C9)         Iron (C4)       Stunted or Stressed Plants (D1)         in Tilled Soils (C6)       X       Geomorphic Position (D2)
X       Water Marks (B1)	s on Living Roots (C3)       X       Saturation Visible on Aerial Imagery (C9)         Iron (C4)       Stunted or Stressed Plants (D1)         in Tilled Soils (C6)       X       Geomorphic Position (D2)         7)       FAC-Neutral Test (D5)
X       Water Marks (B1)	s on Living Roots (C3)       X       Saturation Visible on Aerial Imagery (C9)         Iron (C4)       Stunted or Stressed Plants (D1)         in Tilled Soils (C6)       X       Geomorphic Position (D2)         7)       FAC-Neutral Test (D5)         9)       9
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizosphere         X       Drift Deposits (B3)       Presence of Reduced	s on Living Roots (C3)       X       Saturation Visible on Aerial Imagery (C9)         Iron (C4)       Stunted or Stressed Plants (D1)         in Tilled Soils (C6)       X       Geomorphic Position (D2)         7)       FAC-Neutral Test (D5)         9)       9
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizosphere         X       Drift Deposits (B3)       Presence of Reduced	s on Living Roots (C3) X Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1) in Tilled Soils (C6) X Geomorphic Position (D2) 7) FAC-Neutral Test (D5) 9) arks)
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizospheres         X       Drift Deposits (B3)       Presence of Reduced         Algal Mat or Crust (B4)       Recent Iron Reduction         Iron Deposits (B5)       Thin Muck Surface (C1         X       Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D1         X       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Rem         Field Observations:       Surface Water Present?       Yes No Depth (inches):	s on Living Roots (C3) X Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1) in Tilled Soils (C6) X Geomorphic Position (D2) 7) FAC-Neutral Test (D5) 09) arks)
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizospheres         X       Drift Deposits (B3)       Presence of Reduced	s on Living Roots (C3) X Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1) in Tilled Soils (C6) X Geomorphic Position (D2) 7) FAC-Neutral Test (D5) 99) arks)
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizospheres         X       Drift Deposits (B3)       Presence of Reduced	s on Living Roots (C3) <u>X</u> Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1) in Tilled Soils (C6) <u>X</u> Geomorphic Position (D2) 7) FAC-Neutral Test (D5) D9) arks)  0 Wetland Hydrology Present? Yes <u>X</u> No
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizospheres         X       Drift Deposits (B3)       Presence of Reduced         Algal Mat or Crust (B4)       Recent Iron Reduction         Iron Deposits (B5)       Thin Muck Surface (C1         X       Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D1         X       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Rem         Field Observations:       Surface Water Present?       Yes       No       Depth (inches):         Water Table Present?       Yes       No       Depth (inches):	s on Living Roots (C3) <u>X</u> Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1) in Tilled Soils (C6) <u>X</u> Geomorphic Position (D2) 7) FAC-Neutral Test (D5) D9) arks)  0 Wetland Hydrology Present? Yes <u>X</u> No
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizospheres         X       Drift Deposits (B3)       Presence of Reduced         Algal Mat or Crust (B4)       Recent Iron Reduction         Iron Deposits (B5)       Thin Muck Surface (C1         X       Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D1         X       Sparsely Vegetated Concave Surface (B8)       Other (Explain in Rem         Field Observations:       Surface Water Present?       Yes       No       Depth (inches):         Water Table Present?       Yes       No       Depth (inches):	s on Living Roots (C3) <u>X</u> Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1) in Tilled Soils (C6) <u>X</u> Geomorphic Position (D2) 7) FAC-Neutral Test (D5) D9) arks)  0 Wetland Hydrology Present? Yes <u>X</u> No
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizospheres         X       Drift Deposits (B3)       Presence of Reduced	s on Living Roots (C3) <u>X</u> Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1) in Tilled Soils (C6) <u>X</u> Geomorphic Position (D2) 7) FAC-Neutral Test (D5) D9) arks)  0 Wetland Hydrology Present? Yes <u>X</u> No
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizospheres         X       Drift Deposits (B3)       Presence of Reduced	s on Living Roots (C3) <u>X</u> Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1) in Tilled Soils (C6) <u>X</u> Geomorphic Position (D2) 7) FAC-Neutral Test (D5) D9) arks)  0 Wetland Hydrology Present? Yes <u>X</u> No
X       Water Marks (B1)       Hydrogen Sulfide Odo         X       Sediment Deposits (B2)       X       Oxidized Rhizospheres         X       Drift Deposits (B3)       Presence of Reduced	s on Living Roots (C3) <u>X</u> Saturation Visible on Aerial Imagery (C9) Iron (C4) Stunted or Stressed Plants (D1) in Tilled Soils (C6) <u>X</u> Geomorphic Position (D2) 7) FAC-Neutral Test (D5) D9) arks)  0 Wetland Hydrology Present? Yes <u>X</u> No

				Reset Form	Print Form
				Page 24	of 73
WETLAND DETER	MINATION	DATA FORM	<ul> <li>Midwest Regior</li> </ul>	1	
Project/Site: Bangert Island	City/	County: <u>St. Charle</u>	es	_ Sampling Date: 25	Feb 2016
Applicant/Owner: USACE KCD			State: <u>MO</u>	_ Sampling Point: <u>3-E</u>	3
Investigator(s): <u>Chris Name, Rick Morrow</u>	Sect	ion, Township, Rai	nge:		
Landform (hillslope, terrace, etc.): Floodplain		Local relief	(concave, convex, none	): convex	
Slope (%); <u>10</u> Lat: <u>38°45'21.82"N</u>	Long	j: <u>90°29'49.97''W</u>		Datum:	
Soil Map Unit Name:			NWI or WWI	classification:	
Are climatic / hydrologic conditions on the site typical for this til	me of year? `	Yes 🗶 No 🔔	(If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hydrology sign	nificantly distu	rbed? Are "	Normal Circumstances"	present? Yes	No X
Are Vegetation, Soil, or Hydrology natu			eded, explain any answ		
SUMMARY OF FINDINGS – Attach site map sh	• •		cations transact	e important foati	urae ata
Sommart of Findings – Attach site map sit	owing sai				
Hydrophytic Vegetation Present? Yes <u>×</u> No _		is the Sampled	Area		
Hydric Soil Present? Yes No _			id? Yes	No 🗶	
Wetland Hydrology Present? Yes X No					
Remarks:					
Edge of a drainage					
VEGETATION – Use scientific names of plants.					
	bsolute Dor	minant Indicator	Dominance Test wor	ksheet:	
		ecies? <u>Status</u>	Number of Dominant §		
1. <u>Populus deltoids</u>		Y <u>FAC</u>	That Are OBL, FACW,	or FAC: 2	(A)
2. <u>Morus alba</u> 3. Acer saccharinum	_	N FAC N FACW	Total Number of Domi		(-)
			Species Across All Str	ata: <u>3</u>	(8)
4			Percent of Dominant S		
	35 = To		That Are OBL, FACW,	or FAC: 66.67	(A/B)
Sapling/Shrub Stratum (Plot size:)	10		Prevalence Index wo		
1			Total % Cover of:		
2				0 x 1 = 0	
3			FACW species		
4			FAC species4		
5			FACU species	5 x 4 = 20	— I

4				FAC species		_ ^	100
5				FACU species	5	_ x 4 = _	20
	0	= Total Co	ver	UPL species	0	_ x5=_	0
Herb Stratum (Plot size:)				Column Totals:	55	_ (A) _	165
1. polygonum	15	<u> </u>	FAC				
2				Prevalence	Index = B	/A =	3
3				Hydrophytic Ve	getation In	dicators:	
4				X Dominance	Test is >50°	%	
5				X Prevalence I	ndex is ≤3.	0 <sup>1</sup>	
6				Morphologic	al Adaptatio emarks or c		
7				Problematic	Hydrophyti	c Vegetati	on¹ (Explai
8							
9			•	<sup>1</sup> Indicators of hyd			
		= Total Co	ver	be present, unles	ss disturbed	l or proble	matic. 
Woody Vine Stratum (Plot size:)							
1. <u>Vitis aestivalis</u>	5	<u>     Y    </u>	FACU	Hydrophytic Vegetation			
2				Present?	Yes	<u>XNo</u>	
	5	= Total Co	ver				

Midwest Region - Interim Version

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SOIL
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Sampling Point: 3-B

SOIL								Sampling Point: 5-0
Profile Desc	cription: (Descrit	e to the depth r	eeded to docur	nent the i	indicator	or confirm	the absence of i	ndicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	_Type'	Loc <sup>2</sup>	Texture	Remarks
0-12	10YR3/2	90		·				
					·			
		<u> </u>		. <u> </u>				
<u> </u>								
1			duced Metrix, CS		d as Casta	d Sand Cr	aina <sup>2</sup> Locatia	n: PL=Pore Lining, M=Matrix.
Hydric Soil	oncentration, D=D	epietion, Rivi-Re	uuceu Matrix, oc			u Saliu Gi		Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy C	Noved Ma	atrix (S4)			ie Redox (A16)
	pipedon (A2)			Redox (S5				anese Masses (F12)
Black Hi				l Matrix (S				lain in Remarks)
_	en Sulfide (A4)			•	neral (F1)			
	d Layers (A5)		-	Gleyed Ma				
	uck (A10)		Deplete	d Matrix (i	F3)			
Depleted	d Below Dark Surfa	ace (A <b>1</b> 1)	Redox [	Dark Surfa	ace (F6)		_	
	ark Surface (A12)				irface (F7)			ydrophytic vegetation and
	/lucky Mineral (S1)		Redox [	Depressio	ns (F8)		-	drology must be present,
	cky Peat or Peat (						uniess disti	urbed or problematic.
	Layer (if observe	a):						
Type:			-					
Depth (ind	ches):		_				Hydric Soil Pres	sent? Yes <u>No X</u>
HYDROLO								
Wetland Hye	drology Indicator	s:						
Primary Indic	<u>cators (minimum o</u>	fone is required;	check all that ap	ply)			<u>Secondary Ir</u>	dicators (minimum of two required)
Surface	Water (A1)		X Water-Stai		• •			Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		-			e Patterns (B10)
Saturation	on (A3)		True Aqua					son Water Table (C2)
X Water M			Hydrogen					Burrows (C8)
	nt Deposits (B2)		Oxidized R					on Visible on Aerial Imagery (C9)
X Drift Dep			Presence of		•	·		or Stressed Plants (D1)
— •	at or Crust (B4)		Recent Iro			Soils (C6		ohic Position (D2)
·	osits (B5)		Thin Muck	-			FAC-Net	utral Test (D5)
	on Visible on Aeria		Gauge or \					
— · ·	Vegetated Conca	ive Sufface (B8)	Other (Exp	nam in Re	anarks)			~ <del>.</del>
Field Obser		Vac	D 11 //	hac's				
Surface Wate		Yes No _						
Water Table		Yes No _						
Saturation Pr		Yes No _	Depth (inc	ches):		_   Wetla	and Hydrology Pre	esent? Yes X No
(includes cap Describe Re	corded Data (strea	m gauge, monito	ring well, aerial r	hotos, pr	evious ins	pections), i	f available:	
		0 0 /	5 . 1					
Remarks:	·							
, willound.								

			I – Midwest Region
			les Sampling Date: 25 Feb 2016
pplicant/Owner: USACE KCD			State: <u>MO</u> Sampling Point: <u>3-C</u>
vestigator(s): <u>Chris Name, Rick Morrow</u>		Section, Township, Ra	ange:
andform (hillslope, terrace, etc.): Floodplain		Local relief	(concave, convex, none): <u>convex</u>
			V Datum:
			NWI or WWI classification:
e climatic / hydrologic conditions on the site typical for t			
			"Normal Circumstances" present? Yes No
e Vegetation, Soil, or Hydrology	_ naturally pro	blematic? (If n	eeded, explain any answers in Remarks.)
JMMARY OF FINDINGS – Attach site map	p showing	sampling point l	ocations, transects, important features, et
Hydrophytic Vegetation Present?       Yes         Hydric Soil Present?       Yes	No X	Is the Sampled	
Vetland Hydrology Present? Yes X	No	within a Wetla	nd? Yes No <u>X</u>
Remarks:			
dge of a drainage			
	· · · · • = =		
EGETATION Use scientific names of plant			
ree Stratum (Plot size:)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
Platanus occidentalis		Y FACW	Number of Dominant Species         That Are OBL, FACW, or FAC:        4         (A)
Populus deltoids	10	Y FAC	Total Number of Dominant
			Species Across All Strata:5 (B)
		<u> </u>	Percent of Dominant Species
			That Are OBL, FACW, or FAC:80 (A/B)
Sapling/Shrub Stratum (Plot size:)	40	= Total Cover	Prevalence Index worksheet:
. Acer negundo	10	Y FAC	
·			OBL species x 1 =
·			FACW species $30 \times 2 = 60$
·			FAC species         45         x 3 =135           FACU species        10         x 4 =40
·		= Total Cover	FACU species10 $x 4 = 40$ UPL species0 $x 5 = 0$
lerb Stratum (Plot size:)			Column Totals: (A) (B)
. polygonum	25	YFAC	
۰ <u>ــــــــــــــــــــــــــــــــــــ</u>			Prevalence Index = B/A =2.76
·			Hydrophytic Vegetation Indicators: X Dominance Test is >50%
• <u></u>			X Prevalence Index is $\leq 3.0^{1}$
			Morphological Adaptations <sup>1</sup> (Provide supporting
·			data in Remarks or on a separate sheet)
·			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
· · · · · · · · · · · · · · · · · · ·			1
0		<u> </u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
v	25	= Total Cover	
Voody Vine Stratum (Plot size:)	10	Y FACU	Hydrophytic
		Y FACU	Hydrophytic Vegetation Present? Yes <u>X</u> No

Midwest Region - Interim Version

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#### SOIL

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Sampling Point: 3-C

Profile Description: (Describe to the dept	In 11 a a - I a - I a		41	
		cator or contirm	the absence of indica	itors.)
Depth <u>Matrix</u> (inches) <u>Color (moist)</u> .	<u> </u>	vpe <sup>1</sup> Loc <sup>2</sup>	Texture	Remarks
0-6 10YR3/2				<u>Nonidin</u> o
				· · · ·
6-1210YR4/2				
			, <u></u>	
		<u> </u>		
<sup>1</sup> Type: C=Concentration, D=Depletion, RM= Hydric Soil Indicators:	Reduced Matrix, CS=Covered or	Coated Sand Gra		.=Pore Lining, M=Matrix. ematic Hydric Soils <sup>3</sup> :
•	Sandy Clayed Matrix	(64)		-
Histosol (A1) Histic Epipedon (A2)	Sandy Gleyed Matrix Sandy Redox (S5)	(54)	Coast Prairie Re	• •
Black Histic (A3)	Stripped Matrix (S6)		Other (Explain in	
Hydrogen Sulfide (A4)	Loamy Mucky Minera	il (F1)		
Stratified Layers (A5)	Loamy Gleyed Matrix	(F2)		
2 cm Muck (A10)	Depleted Matrix (F3)			
Depleted Below Dark Surface (A11)	Redox Dark Surface (		1	
Thick Dark Surface (A12)	Depleted Dark Surfac			phytic vegetation and
Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3)	Redox Depressions (I	-8)	unless disturbed	y must be present,
Restrictive Layer (if observed):				
Type:				
Depth (inches):			Hydric Soil Present?	Yes No X
Remarks:				
IYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is require	ed: check all that apoly)		Secondary Indicate	ors (minimum of two required)
Surface Water (A1)	Water-Stained Leaves (E	 B9)		ore (minimum or the required)
High Water Table (A2)	Aquatic Fauna (B13)	50)		racks (B6)
Saturation (A3)			Surface Soil C	
	True Aquatic Plants (B14	4)	Drainage Patt	erns (B10)
	True Aquatic Plants (B14 Hydrogen Sulfide Odor (		Drainage Patt Dry-Season W	erns (B10) /ater Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (	(C1)	Drainage Patt Dry-Season W Crayfish Burro	erns (B10) /ater Table (C2) ws (C8)
		(C1) on Living Roots (C	Drainage Patt Dry-Season W Crayfish Burro	erns (B10) /ater Table (C2) ws (C8) ible on Aerial Imagery (C9)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor( Oxidized Rhizospheres o	(C1) on Living Roots (C on (C4)	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Hydrogen Sulfide Odor (     Oxidized Rhizospheres o     Presence of Reduced Iro	(C1) on Living Roots (C on (C4) n Tilled Soils (C6)	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) losition (D2)
<ul> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> </ul>	Hydrogen Sulfide Odor (     Oxidized Rhizospheres o     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)	(C1) on Living Roots (C on (C4) n Tilled Soils (C6)	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) losition (D2)
<ul> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> </ul>	<ul> <li>Hydrogen Sulfide Odor (</li> <li>Oxidized Rhizospheres of</li> <li>Presence of Reduced Iro</li> <li>Recent Iron Reduction in</li> <li>Thin Muck Surface (C7)</li> <li>Gauge or Well Data (D9)</li> </ul>	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) )	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) losition (D2)
<ul> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> </ul>	Hydrogen Sulfide Odor (     Oxidized Rhizospheres of     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)     Gauge or Well Data (D9)	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) )	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) losition (D2)
<ul> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Sparsely Vegetated Concave Surface (B4)</li> <li>Field Observations:</li> </ul>	Hydrogen Sulfide Odor (     Oxidized Rhizospheres of     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)     Gauge or Well Data (D9)	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) ) ks)	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) losition (D2)
Water Marks (B1)     Sediment Deposits (B2)     Drift Deposits (B3)     Algal Mat or Crust (B4)     Iron Deposits (B5)     Inundation Visible on Aerial Imagery (B7)     Sparsely Vegetated Concave Surface (B4)     Field Observations:     Surface Water Present? Yes N	<ul> <li>Hydrogen Sulfide Odor (</li> <li>Oxidized Rhizospheres of</li> <li>Presence of Reduced Irc</li> <li>Recent Iron Reduction in</li> <li>Thin Muck Surface (C7)</li> <li>Gauge or Well Data (D9)</li> <li>Other (Explain in Remark</li> </ul>	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) ) ks)	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) losition (D2)
Water Marks (B1)     Sediment Deposits (B2)     Z Drift Deposits (B3)     Algal Mat or Crust (B4)     Iron Deposits (B5)     Inundation Visible on Aerial Imagery (B7)     Sparsely Vegetated Concave Surface (B4)     Field Observations:     Surface Water Present? Yes N Water Table Present? Yes N Saturation Present? Yes N (includes capillary fringe)	Hydrogen Sulfide Odor (     Oxidized Rhizospheres of     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)     Gauge or Well Data (D9)     Other (Explain in Remark)     Depth (inches):	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) ) ks)   Wetlar	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F     FAC-Neutral T	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) losition (D2)
Water Marks (B1)         X       Sediment Deposits (B2)         X       Drift Deposits (B3)        Algal Mat or Crust (B4)        Iron Deposits (B5)         X       Inundation Visible on Aerial Imagery (B7)        Sparsely Vegetated Concave Surface (B4)         Field Observations:         Surface Water Present?       Yes N         Water Table Present?       Yes N         Saturation Present?       Yes N	Hydrogen Sulfide Odor (     Oxidized Rhizospheres of     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)     Gauge or Well Data (D9)     Other (Explain in Remark)     Depth (inches):	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) ) ks)   Wetlar	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F     FAC-Neutral T	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) fosition (D2) fest (D5)
Water Marks (B1)     X Sediment Deposits (B2)     X Drift Deposits (B3)     Algal Mat or Crust (B4)     Iron Deposits (B5)     X Inundation Visible on Aerial Imagery (B7)     Sparsely Vegetated Concave Surface (B4)     Field Observations:     Surface Water Present? Yes N Water Table Present? Yes N Water Table Present? Yes N Saturation Present? Yes N (includes capillary fringe) Describe Recorded Data (stream gauge, mon	Hydrogen Sulfide Odor (     Oxidized Rhizospheres of     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)     Gauge or Well Data (D9)     Other (Explain in Remark)     Depth (inches):	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) ) ks)   Wetlar	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F     FAC-Neutral T	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) fosition (D2) fest (D5)
Water Marks (B1)     X Sediment Deposits (B2)     X Drift Deposits (B3)     Algal Mat or Crust (B4)     Iron Deposits (B5)     X Inundation Visible on Aerial Imagery (B7)     Sparsely Vegetated Concave Surface (B4)     Field Observations:     Surface Water Present? Yes N Water Table Present? Yes N Water Table Present? Yes N Saturation Present? Yes N (includes capillary fringe) Describe Recorded Data (stream gauge, mon	Hydrogen Sulfide Odor (     Oxidized Rhizospheres of     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)     Gauge or Well Data (D9)     Other (Explain in Remark)     Depth (inches):	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) ) ks)   Wetlar	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F     FAC-Neutral T	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) fosition (D2) fest (D5)
Water Marks (B1)     X Sediment Deposits (B2)     X Drift Deposits (B3)     Algal Mat or Crust (B4)     Iron Deposits (B5)     X Inundation Visible on Aerial Imagery (B7)     Sparsely Vegetated Concave Surface (B4)     Field Observations:     Surface Water Present? Yes N Water Table Present? Yes N Water Table Present? Yes N Saturation Present? Yes N (includes capillary fringe) Describe Recorded Data (stream gauge, mon	Hydrogen Sulfide Odor (     Oxidized Rhizospheres of     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)     Gauge or Well Data (D9)     Other (Explain in Remark)     Depth (inches):	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) ) ks)   Wetlar	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F     FAC-Neutral T	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) fosition (D2) fest (D5)
Water Marks (B1)     X Sediment Deposits (B2)     X Drift Deposits (B3)     Algal Mat or Crust (B4)     Iron Deposits (B5)     X Inundation Visible on Aerial Imagery (B7)     Sparsely Vegetated Concave Surface (B4)     Field Observations:     Surface Water Present? Yes N Water Table Present? Yes N Water Table Present? Yes N Saturation Present? Yes N (includes capillary fringe) Describe Recorded Data (stream gauge, mon	Hydrogen Sulfide Odor (     Oxidized Rhizospheres of     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)     Gauge or Well Data (D9)     Other (Explain in Remari-     Depth (inches):	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) ) ks)   Wetlar	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F     FAC-Neutral T	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) fosition (D2) fest (D5)
Water Marks (B1)     Sediment Deposits (B2)     Z Drift Deposits (B3)     Algal Mat or Crust (B4)     Iron Deposits (B5)     Inundation Visible on Aerial Imagery (B7)     Sparsely Vegetated Concave Surface (B4)     Field Observations:     Surface Water Present? Yes N Water Table Present? Yes N Saturation Present? Yes N (includes capillary fringe)	Hydrogen Sulfide Odor (     Oxidized Rhizospheres of     Presence of Reduced Irc     Recent Iron Reduction in     Thin Muck Surface (C7)     Gauge or Well Data (D9)     Other (Explain in Remari-     Depth (inches):	(C1) on Living Roots (C on (C4) n Tilled Soils (C6) ) ks)   Wetlar	Drainage Patt     Dry-Season W     Crayfish Burro     Saturation Vis     Stunted or Str     Geomorphic F     FAC-Neutral T	erns (B10) /ater Table (C2) wws (C8) ible on Aerial Imagery (C9) essed Plants (D1) fosition (D2) fest (D5)

	Reset Form Print F
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WETLAND DETERMINATION DATA FO	ORM – Midwest Region
Project/Site: Bangert Island City/County: St.	Charles Sampling Date: 25 Feb 2016
Applicant/Owner: USACE KCD	State: MO Sampling Point: <u>3-C</u>
Investigator(s): Chris Name, Rick Morrow Section, Townshi	ip, Range:
Landform (hillslope, terrace, etc.): Floodplain Local	relief (concave, convex, none): <u>convex</u>
Slope (%): <u>5</u> Lat: <u>38°45'23.35"N</u> Long: <u>90°29'50</u>	_45"W Datum:
Soil Map Unit Name:	NWI or WWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year? Yes	No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling po	int locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X No Is the San	npled Area
Hydric Soil Present? Yes No X within a W	Vetland? Yes <u>No X</u>
Wetland Hydrology Present? Yes X No	· · · · · · · · · · · · · · · · · · ·
Remarks:	
Edge of a drainage	
VEGETATION – Use scientific names of plants.	
Absolute Dominant Indica	
Tree Stratum         (Plot size:)         % Cover         Species?         State	Number of Dominant Species

Tree Cleature (Distaine)	Absolute		Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	<u>% Cover</u>			Number of Dominant Species	
1. Platanus occidentalis		<u> </u>		That Are OBL, FACW, or FAC:4 (A)	.)
2. Populus deltoids		<u> </u>		Total Number of Dominant	
3				Species Across All Strata:5 (B)	•)
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC:80 (A/	JB)
	40				
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:	
1. Acer negundo	10	<u> </u>	FAC	Total % Cover of:Multiply by:	
2				OBL species0 x 1 =0	
3				FACW species <u>30</u> x 2 = <u>60</u>	
4				FAC species x 3 =135	
5				FACU species10 x 4 =40	
		= Total Co		UPL species 0 x 5 = 0	
Herb Stratum (Plot size:)				Column Totals: 85 (A) 235 (E	в)
1. polygonum	25	<u> </u>	FAC		ŕ
2				Prevalence Index = B/A =2.76	
3				Hydrophytic Vegetation Indicators:	
4				X Dominance Test is >50%	
5				X Prevalence Index is ≤3.0 <sup>1</sup>	
6				Morphological Adaptations <sup>1</sup> (Provide supporting	
				data in Remarks or on a separate sheet)	
7				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
8					
9				<sup>1</sup> Indicators of hydric soil and wetland hydrology must	t
10				be present, unless disturbed or problematic.	
Woody Vine Stratum (Plot size:)		= Total Cov	/er		
1. <u>Vitis aestivalis</u>	10	v	EACU	Hydrophytic	
				Vegetation	
2				Present? Yes <u>X</u> No	
	<u>    10    </u> :	= rotal Cov	/er		
Remarks: (Include photo numbers here or on a separate s	sheet.)			d	
GPS Photos 1062-1068					
L,,				· · · · · · · · · · · · · · · · · · ·	

Midwest Region - Interim Version

Print Form

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Sampling Point: 3-C

SUL								Sampling Point. 00		
Profile Des	cription: (Descri	be to the depth	needed to docur	nent the	indicator (	or confirm	the absence o	f indicators.)		
Depth	Matri	x	Redo	<u>x Feature</u>	<u>s</u>					
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc <sup>2</sup>	Texture	Remarks		
0-6	10YR3/2									
6-12	10YR4/2									
	1011(4/2			·	·					
					·					
	_									
1Tuno: 0-0	anoantration D-F	aniotion RM-E	Reduced Matrix, CS	-Covoro	d or Coato	d Sand Gr		tion: PL=Pore Lining, M=Matrix.		
Hydric Soil		Sepletion, RM-P	Ceduced Matrix, oc	-004616				or Problematic Hydric Soils <sup>3</sup> :		
-			Condu (	Maxia di Ma	10 A			•		
Histosol				Bleyed Ma Redox (S5				airie Redox (A16) Iganese Masses (F12)		
	pipedon (A2)			Matrix (S				xplain in Remarks)		
—	istic (A3) sp Sulfido (A4)			-	neral (F1)			xpiair in itemarks)		
	en Sulfide (A4) d Layers (A5)			Gleved Ma						
	uck (A10)			d Matrix (I	•••					
	d Below Dark Sur	face (A11)		ark Surfa						
·	ark Surface (A12)				Inface (F7)		<sup>3</sup> Indicators o	f hydrophytic vegetation and		
	Aucky Mineral (S1			epressio				ivdrology must be present,		
- ·	ucky Peat or Peat			repressio	15 (1 0)			isturbed or problematic.		
	Layer (if observe	• •								
_										
Type:										
Depth (in	ches):						Hydric Soil P	resent? Yes <u>No X</u>		
Remarks:										
HYDROLO										
Wetland Hy	drology Indicato	rs:								
Primary India	<u>cators (minimum c</u>	of one is require	<u>d; check all that ap</u>	ply)			<u>Secondary</u>	Indicators (minimum of two required)		
Surface	Water (A1)		Water-Stai	ned Leav	es (B9)		Surfac	e Soil Cracks (B6)		
High Wa	ater Table (A2)		Aquatic Fa	una (813)	)		Draina	ge Patterns (B10)		
Saturatio	on (A3)		True Aquat	tic Plants	(B14)		Dry-Se	eason Water Table (C2)		
	larks (B1)		Hydrogen 3				Crayfish Burrows (C8)			
X Sedimer	nt Deposits (B2)		Oxidized R	hizosphe	res on Livi	ng Roots ((	C3) 🗶 Satura	tion Visible on Aerial Imagery (C9)		
X Drift Der			Presence of					d or Stressed Plants (D1)		
	at or Crust (B4)		Recent Iror		-			orphic Position (D2)		
	posits (B5)		Thin Muck			, ,		leutral Test (D5)		
· ·	on Visible on Aeri	al Imagery (B7)	Gauge or V	,	,					
_	y Vegetated Conc				• •					
<u> </u>				aminte	marksy					
Field Obser			D 11 /							
Surface Wat			Depth (inc							
Water Table	Present?	Yes No	Depth (inc	:hes):		-				
Saturation P	resent?	Yes No	Depth (inc	:hes):		_   Wetla	nd Hydrology F	Present? Yes <u>×</u> No		
(includes car			toring wall post-	hotos	autous in-		founilable			
Describe Re-	corded Data (stre	am gauge, moni	toring well, aerial p	notos, pri	evious insp	pections), ii	r avallaole:			
<u> </u>										
Remarks:										
								···		

		Reset Form Print F
	TERMINATION DATA FORM	Page 30 of 73
		-
	, ,	rles Sampling Date: 26 Feb 2016
pplicant/Owner: USACE KCD		State: <u>MO</u> Sampling Point: <u>4-A</u>
		ange:
· · · ·		f (concave, convex, none): <u>concave</u>
		N Datum:
		NWI or WWI classification: PFOE
e climatic / hydrologic conditions on the site typical for	-	
e Vegetation, Soil, or Hydrology		"Normal Circumstances" present? Yes X No
e Vegetation, Soil, or Hydrology	_ naturally problematic? (If n	needed, explain any answers in Remarks.)
UMMARY OF FINDINGS – Attach site ma	p showing sampling point	locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes X	No In the Sample	
Hydric Soil Present? Yes <u>*</u>	Is the sample	
Vetland Hydrology Present? Yes	i within a wetia	and? Yes <u>X</u> No
Remarks:		
loodplain depression		
EGETATION – Use scientific names of plar	ts.	
	Absolute Dominant Indicator	Dominance Test worksheet:
ree Stratum (Plot size:)	<u>% Cover Species? Status</u> 25 Y OBL	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
Salix nigra Acer saccharinum	5 N 54014	
Acer saccharinum		Total Number of Dominant Species Across All Strata:1 (B)
·		Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B)
	30 = Total Cover	
apling/Shrub Stratum (Plot size:)		Prevalence Index worksheet: Total % Cover of: Multiply by:
·		OBL species         25         x 1 =25
		FACW species5 x 2 =10
		FAC species x 3 =0
		FACU species x 4 =
	0 = Total Cover	UPL species x 5 =0
erb Stratum (Plot size: )		Column Totals: <u>30</u> (A) <u>35</u> (B)
		Prevalence Index = B/A = 1.17
		Hydrophytic Vegetation Indicators:
		X Dominance Test is >50%
· · · · · · · · · · · · · · · · · · ·		X Prevalence Index is ≤3.0 <sup>1</sup>
		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
·		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
·		
·		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
0		be present, unless disturbed or problematic.
/oody Vine Stratum (Plot size:)		
		Hydrophytic
·		Vegetation
·		Present? Yes X No

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#### SOIL

#### Sampling Point: 4-A

Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       X       Water-Stained Leaves (B9)       X       Surface Soil Cracks (B6)         High Water Table (A2)					nation (		the absence of	muicators.)
0-12         10YR2/1         90         10YR3/6         10         RM         SICI           12-18         10YR3/2         60         10YR3/8         5         RM         SICI           10YR3/1         30								
12-18       10YR3/2       60       10YR3/6       5       RM       SiCl         10YR3/1       30       30       30       30       30         "Type: C=Concentration, D=Dopletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.       *Location: PL=Pore Linkin, M=Matrix, M=	(inches) Color (me			%		Loc		Remarks
10YR3/1       30         Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains,       ^Location; PL=Pore Lining, M=Matrix, Mydrcs Soll Micros for Problematic Hydric Solls?:         Histosol (A1)       Sandy Glayed Matrix (S4)       Coast Prains Reads (A16)         Histo Egiption (A2)       Sandy Glayed Matrix (S5)       Other (Explain in Remarks)         Hydric Soll Indicators:       Depleted Edit Matrix (F3)       Other (Explain in Remarks)         Stratition Layres (A5)       Loarry Glayed Matrix (F3)       Other (Explain in Remarks)         Stratition Layres (A5)       Loarry Glayed Matrix (F3)       Other (Explain in Remarks)         Stratition Layres (A5)       Loarry Glayed Matrix (F3)       Indicators of hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Stratition Layre (If observed):       Type:       Provide Soll Present? Yes X no         Type:       Papht (inches):       No       Aquatic Fanna (B13)       Yongae Patterns (G10)         Safaro Matrix (S1)       Year Stratined Layra (B13)       Yongae Patterns (G10)       Surface Natrix (B1)       Dry-Season Matrix (B1)         Stratitic Layrer (If observed):       Yype:       Oxidate Rhizespheres on Lying Roots (C3)       X Surface (C2)       No         Stratitic Layrer (If observed):       Presence on Reduction In Tilled Solis (C6)       Geomorphic Po	0-1210YR2	/1 90	10YR3/6	10	RM		SiCl	
"Type:       C=Concentration, D=Dopletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains.       *Location:       <	12-1810YR3	/2 60	10YR3/6		RM		SiCl	10000001 + 5 + 4 + 100000000
Hydric Soll Indicators:       Indicators for Problematic Hydric Solls':         Histos (A1)       Sandy Glayed Matrix (S4)       Coast Praine Redox (A16)         Histos (A3)       Stripped Matrix (S4)       Iron-Manganese Masses (F12)         Black Histic (A3)       Stripped Matrix (S6)       Other (Explain in Remarks)         Hydrogen Sulfide (A4)       Loamy Glayed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Depleted Matrix (F3)         Seardy Mucky Mineral (S1)       Redox Dark Surface (F7) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S or Mucky Peat or Peat (S3)       Unless disturbed or problematic.       Restrictive Layer (if observed):         Type:	10YR3	/1 30						
Hydric Soll Indicators:       Indicators for Problematic Hydric Solls':         Histos (A1)       Sandy Glayed Matrix (S4)       Coast Praine Redox (A16)         Histos (A3)       Stripped Matrix (S4)       Iron-Manganese Masses (F12)         Black Histic (A3)       Stripped Matrix (S6)       Other (Explain in Remarks)         Hydrogen Sulfide (A4)       Loamy Glayed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Depleted Matrix (F3)         Seardy Mucky Mineral (S1)       Redox Dark Surface (F7) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S or Mucky Peat or Peat (S3)       Unless disturbed or problematic.       Restrictive Layer (if observed):         Type:						<u> </u>		
Hydric Soll Indicators:       Indicators for Problematic Hydric Solls':         Histos (A1)       Sandy Glayed Matrix (S4)       Coast Praine Redox (A16)         Histos (A3)       Stripped Matrix (S4)       Iron-Manganese Masses (F12)         Black Histic (A3)       Stripped Matrix (S6)       Other (Explain in Remarks)         Hydrogen Sulfide (A4)       Loamy Glayed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Depleted Matrix (F3)         Seardy Mucky Mineral (S1)       Redox Dark Surface (F7) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S or Mucky Peat or Peat (S3)       Unless disturbed or problematic.       Restrictive Layer (if observed):         Type:								· · · · · · · · · · · · · · · · · · ·
Hydric Soll Indicators:       Indicators for Problematic Hydric Solls':         Histos (A1)       Sandy Glayed Matrix (S4)       Coast Praine Redox (A16)         Histos (A3)       Stripped Matrix (S4)       Iron-Manganese Masses (F12)         Black Histic (A3)       Stripped Matrix (S6)       Other (Explain in Remarks)         Hydrogen Sulfide (A4)       Loamy Glayed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Depleted Matrix (F3)         Seardy Mucky Mineral (S1)       Redox Dark Surface (F7) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S or Mucky Peat or Peat (S3)       Unless disturbed or problematic.       Restrictive Layer (if observed):         Type:	·	·					· · · · · · · · ·	
Hydric Soll Indicators:       Indicators for Problematic Hydric Solls':         Histos (A1)       Sandy Glayed Matrix (S4)       Coast Praine Redox (A16)         Histos (A3)       Stripped Matrix (S4)       Iron-Manganese Masses (F12)         Black Histic (A3)       Stripped Matrix (S6)       Other (Explain in Remarks)         Hydrogen Sulfide (A4)       Loamy Glayed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Depleted Matrix (F3)         Seardy Mucky Mineral (S1)       Redox Dark Surface (F7) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S or Mucky Peat or Peat (S3)       Unless disturbed or problematic.       Restrictive Layer (if observed):         Type:		,			<u> </u>			· · · · · · · · · · · · · · · · · · ·
Hydric Soll Indicators:       Indicators for Problematic Hydric Solls':         Histos (A1)       Sandy Glayed Matrix (S4)       Coast Praine Redox (A16)         Histos (A3)       Stripped Matrix (S4)       Iron-Manganese Masses (F12)         Black Histic (A3)       Stripped Matrix (S6)       Other (Explain in Remarks)         Hydrogen Sulfide (A4)       Loamy Glayed Matrix (F2)       Other (Explain in Remarks)         2 cm Muck (A10)       Depleted Matrix (F3)       Depleted Matrix (F3)         Seardy Mucky Mineral (S1)       Redox Dark Surface (F7) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S or Mucky Peat or Peat (S3)       Unless disturbed or problematic.       Restrictive Layer (if observed):         Type:								
Histosol (A1)		D=Depletion, RM=	Reduced Matrix, CS	=Covered	or Coate	Sand Gra		
	•							•
					• •			
	— •• • •		·	• •				
Statiliad Layers (A5) Loany Gleyed Matrix (F2) 	• • •	N		•				plain in Remarks)
Com Muck (A10)		,						
□ Depleted Below Dark Surface (A11)       X       Redox Dark Surface (F6)       ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         S G om Mucky Peat or Peat (S3)       Redox Dark Surface (F7)       *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed):       Type:								
		Surface (A11)	· · ·	•	,			
	Thick Dark Surface (A	.12)	Depleted	Dark Su	face (F7)		<sup>3</sup> Indicators of	hydrophytic vegetation and
Restrictive Layer (if observed):       Type:         Type:			Redox D	epressior	is (F8)		-	
Type:	-						unless dis	turbed or problematic.
Depth (inches):	_ ``	erved):						
Remarks:         IYDROLOGY         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)								
Wybrology         Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)	Depth (inches):						Hydric Soil Pre	esent? Yes X No
Wetland Hydrology Indicators:         Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       X       Water-Stained Leaves (B9)       X       Surface Soil Cracks (B6)         High Water Table (A2)								
Primary Indicators (minimum of one is required; check all that apply)       Secondary Indicators (minimum of two required)         Surface Water (A1)       X       Water-Stained Leaves (B9)       X       Surface Soil Cracks (B6)         High Water Table (A2)       Aquatic Fauna (B13)       X       Drainage Patterns (B10)         Sutration (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)         X       Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)         X       Sediment Deposits (B2)       Oxidized Rhizospheres on Living Roots (C3)       X       Saturation Visible on Aerial Imagery (C9)         X       Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       FAC-Neutral Test (D5)         X       Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)       Wetland Hydrology Present? Yes X No								
High Water Table (A2)       Aquatic Fauna (B13)       X Drainage Patterns (B10)				•••			Sacandard	n dinatara (minimum of tura required)
Saturation (A3)       True Aquatic Plants (B14)       Dry-Season Water Table (C2)         X       Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Crayfish Burrows (C8)         X       Sediment Deposits (B2)       Oxidized Rhizospheres on Living Roots (C3)       X       Saturation Visible on Aerial Imagery (C9)         X       Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       FAC-Neutral Test (D5)         X       Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes         Water Table Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):       Wetland Hydrology Present?       Yes       No         Saturation Present?       Yes       No       Depth (inches):       Wetland Hydrology Present?       Yes       No       Mo         Depth Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Stavailable:       Stavailable       Stava	Wetland Hydrology Indic Primary Indicators (minimu				- (D0)			
X       Water Marks (B1)	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1)	um of one is require	🗶 Water-Stain	ied Leave	s (B9)	<u> </u>	X Surface	Soil Cracks (B6)
X       Sediment Deposits (B2)       Oxidized Rhizospheres on Living Roots (C3)       X       Saturation Visible on Aerial Imagery (C9)         X       Drift Deposits (B3)       Presence of Reduced Iron (C4)       Stunted or Stressed Plants (D1)         Algal Mat or Crust (B4)       Recent Iron Reduction in Tilled Soils (C6)       Geomorphic Position (D2)         Iron Deposits (B5)       Thin Muck Surface (C7)       FAC-Neutral Test (D5)         X       Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes         Saturation Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):         Cincludes capillary fringe)       Depth (inches):       Wetland Hydrology Present?       Yes       No         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2)	um of one is require	X Water-Stain	ied Leave ina (B13)			X Surface	Soil Cracks (B6) e Patterns (B10)
X       Drift Deposits (B3)	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3)	um of one is require	X Water-Stain Aquatic Fau True Aquati	ied Leave ina (B13) c Plants (	B14)		X Surface X Drainag Dry-Sea	Soil Cracks (B6) le Patterns (B10) ason Water Table (C2)
	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1)	<u>um of one is requir</u> :	X Water-Stain Aquatic Fau True Aquati Hydrogen S	ied Leave ina (B13) c Plants ( sulfide Od	B14) or (C1)	n Roots ((	X Surface X Drainag Dry-Sea Crayfisl	Soil Cracks (B6) le Patterns (B10) ason Water Table (C2) n Burrows (C8)
Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5)   X Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)  Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)   Field Observations:	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B	<u>um of one is requir</u> :	X Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rł	ied Leave ina (B13) c Plants ( sulfide Od nizospher	B14) or (C1) es on Livir	• •	X Surface X Drainag Dry-Sea Crayfisi 3 X Saturat	Soil Cracks (B6) le Patterns (B10) ason Water Table (C2) n Burrows (C8) ion Visible on Aerial Imagery (C9)
X       Inundation Visible on Aerial Imagery (B7)       Gauge or Well Data (D9)         Sparsely Vegetated Concave Surface (B8)       Other (Explain in Remarks)         Field Observations:       Surface Water Present?       Yes         Surface Water Present?       Yes       Depth (inches):         Water Table Present?       Yes       No         Saturation Present?       Yes       No         Cincludes capillary fringe)       Depth (inches):       Wetland Hydrology Present?         Ves       No       Depth (inches):       No         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       No	Wetland Hydrology Indic         Primary Indicators (minimu         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         X         Water Marks (B1)         X         Sediment Deposits (B3)	<u>ım of one is requir</u> ) 2)	<ul> <li>Water-Stain</li> <li>Aquatic Fau</li> <li>True Aquati</li> <li>Hydrogen S</li> <li>Oxidized Rł</li> <li>Presence ol</li> </ul>	ied Leave ina (B13) c Plants ( culfide Od nizospher f Reduced	B14) or (C1) es on Livir Firon (C4)		X Surface X Drainag Dry-Sea Crayfisi 3 X Saturati	Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) n Burrows (C8) ion Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Sparsely Vegetated Concave Surface (B8)Other (Explain in Remarks)  Field Observations: Surface Water Present? YesNo Depth (inches): Water Table Present? YesNo Depth (inches): Saturation Present? YesNo Depth (inches): Saturation Present? YesNo Depth (inches): Saturation Present? YesNo Depth (inches): [includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Indic         Primary Indicators (minimu         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         X         Water Marks (B1)         X         Sediment Deposits (B3)         Algal Mat or Crust (B4)	<u>ım of one is requir</u> ) 2)	<ul> <li>Water-Stain</li> <li>Aquatic Fau</li> <li>True Aquati</li> <li>Hydrogen S</li> <li>Oxidized Rł</li> <li>Presence ol</li> <li>Recent Iron</li> </ul>	ied Leave ina (B13) c Plants ( culfide Od nizospher f Reduced Reductio	B14) or (C1) es on Livir I Iron (C4) n in Tilled		X Surface X Drainag Dry-Sea Crayfisi X Saturati Stunted Geomo	Soil Cracks (B6) le Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2)
Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         Saturation Present?       Yes No         Includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5)	<u>um of one is requir</u> ) 2) )	X Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rł Presence of Recent Iron Thin Muck S	ied Leave ina (B13) c Plants ( culfide Od nizospher f Reduced Reductio Surface (C	B14) or (C1) es on Livir I Iron (C4) n in Tilled C7)		X Surface X Drainag Dry-Sea Crayfisi X Saturati Stunted Geomo	Soil Cracks (B6) le Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2)
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         Wetland Hydrology Present?       Yes No         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Indic         Primary Indicators (minimu)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         X         Water Marks (B1)         X         Sediment Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         X         Inundation Visible on V	<u>um of one is requir</u> ) 2) Aerial Imagery (B7	Water-Stain     Aquatic Fau     True Aquati     Hydrogen S     Oxidized Rł     Presence ol     Recent Iron     Thin Muck S     Gauge or W	ied Leave ina (B13) c Plants ( culfide Od nizospher f Reduced Reductio Surface (C /ell Data (	B14) or (C1) es on Livir I Iron (C4) n in Tilled C7) D9)		X Surface X Drainag Dry-Sea Crayfisi X Saturati Stunted Geomo	Soil Cracks (B6) le Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2)
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         Wetland Hydrology Present?       Yes No         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Wetland Hydrology Indic         Primary Indicators (minimu)         Surface Water (A1)         High Water Table (A2)         Saturation (A3)         X         Water Marks (B1)         X         Sediment Deposits (B3)         Algal Mat or Crust (B4)         Iron Deposits (B5)         X         Inundation Visible on V	<u>um of one is requir</u> ) 2) Aerial Imagery (B7	Water-Stain     Aquatic Fau     True Aquati     Hydrogen S     Oxidized Rł     Presence ol     Recent Iron     Thin Muck S     Gauge or W	ied Leave ina (B13) c Plants ( culfide Od nizospher f Reduced Reductio Surface (C /ell Data (	B14) or (C1) es on Livir I Iron (C4) n in Tilled C7) D9)		X Surface X Drainag Dry-Sea Crayfisi X Saturati Stunted Geomo	Soil Cracks (B6) le Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2)
(includes capillary fringe)	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Jnundation Visible on A Sparsely Vegetated C	<u>um of one is requir</u> ) 2) Aerial Imagery (B7 oncave Surface (B	Water-Stain     Aquatic Fau     Aquatic Fau     True Aquati     Hydrogen S     Oxidized Rł     Presence ol     Recent Iron     Thin Muck S ) Gauge or W (8) Other (Explain)	ed Leave ina (B13) c Plants ( iulfide Od hizospher f Reduced Reductio Surface (C /ell Data ( ain in Rer	B14) or (C1) es on Livir f Iron (C4) n in Tilled C7) D9) narks)	Soils (C6)	X Surface X Drainag Dry-Sea Crayfisi X Saturati Stunted Geomo	Soil Cracks (B6) le Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2)
Remarks:	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4 Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated C Field Observations: Surface Water Present?	<u>um of one is requir</u> ) 2) Aerial Imagery (B7 oncave Surface (B Yes N	Water-Stain     Aquatic Fau     True Aquati     Hydrogen S     Oxidized Rł     Presence ol     Recent Iron     Thin Muck S     Gauge or W 8) Other (Expla	ed Leave ina (B13) c Plants ( sulfide Od nizospher f Reduced Reductio Surface (C /ell Data ( ain in Rer	B14) or (C1) es on Livir f Iron (C4) n in Tilled C7) D9) narks)	Soils (C6)	X Surface X Drainag Dry-Sea Crayfisi X Saturati Stunted Geomo	Soil Cracks (B6) le Patterns (B10) ason Water Table (C2) n Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2)
	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated C Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	um of one is requir ) 2) Aerial Imagery (B7 oncave Surface (B Yes N Yes N Yes N	Water-Stain     Aquatic Fau     Aquatic Fau     True Aquati     Hydrogen S     Oxidized Rł     Presence ol     Recent Iron     Thin Muck S     Gauge or W 8) Other (Expla  lo Depth (incł lo Depth (incł lo Depth (incł	ed Leave ina (B13) c Plants ( sulfide Od nizospher f Reduced Reductio Surface (C /ell Data ( ain in Rer nes): nes):	B14) or (C1) es on Livir f Iron (C4) n in Tilled C7) D9) narks)	Soils (C6)	X Surface     X Drainag     Dry-Sea     Crayfisi     Crayfisi     Saturati     Stunted     Geomo     FAC-Ne	Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) n Burrows (C8) fon Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) eutral Test (D5)
	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) X Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on A Sparsely Vegetated C Field Observations: Surface Water Present? Water Table Present? Saturation Present? Saturation Present? Mater Capillary fringe) Describe Recorded Data (so	um of one is requir ) 2) Aerial Imagery (B7 oncave Surface (B Yes N Yes N Yes N	Water-Stain     Aquatic Fau     Aquatic Fau     True Aquati     Hydrogen S     Oxidized Rł     Presence ol     Recent Iron     Thin Muck S     Gauge or W 8) Other (Expla  lo Depth (incł lo Depth (incł lo Depth (incł	ed Leave ina (B13) c Plants ( sulfide Od nizospher f Reduced Reductio Surface (C /ell Data ( ain in Rer nes): nes):	B14) or (C1) es on Livir f Iron (C4) n in Tilled C7) D9) narks)	Soils (C6)	X Surface     X Drainag     Dry-Sea     Crayfisi     Crayfisi     Saturati     Stunted     Geomo     FAC-Ne	Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) n Burrows (C8) fon Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) eutral Test (D5)
	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated C Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	um of one is requir ) 2) Aerial Imagery (B7 oncave Surface (B Yes N Yes N Yes N	Water-Stain     Aquatic Fau     Aquatic Fau     True Aquati     Hydrogen S     Oxidized Rł     Presence ol     Recent Iron     Thin Muck S     Gauge or W 8) Other (Expla  lo Depth (incł lo Depth (incł lo Depth (incł	ed Leave ina (B13) c Plants ( sulfide Od nizospher f Reduced Reductio Surface (C /ell Data ( ain in Rer nes): nes):	B14) or (C1) es on Livir f Iron (C4) n in Tilled C7) D9) narks)	Soils (C6)	X Surface     X Drainag     Dry-Sea     Crayfisi     Crayfisi     Saturati     Stunted     Geomo     FAC-Ne	Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) n Burrows (C8) fon Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) eutral Test (D5)
	Wetland Hydrology Indic Primary Indicators (minimu Surface Water (A1) High Water Table (A2) Saturation (A3) X Water Marks (B1) X Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) X Inundation Visible on A Sparsely Vegetated C Field Observations: Surface Water Present? Water Table Present? Saturation Present? Saturation Present? Mater Capillary fringe) Describe Recorded Data (so	um of one is requir ) 2) Aerial Imagery (B7 oncave Surface (B Yes N Yes N Yes N	Water-Stain     Aquatic Fau     Aquatic Fau     True Aquati     Hydrogen S     Oxidized Rł     Presence ol     Recent Iron     Thin Muck S     Gauge or W 8) Other (Expla  lo Depth (incł lo Depth (incł lo Depth (incł	ed Leave ina (B13) c Plants ( sulfide Od nizospher f Reduced Reductio Surface (C /ell Data ( ain in Rer nes): nes):	B14) or (C1) es on Livir f Iron (C4) n in Tilled C7) D9) narks)	Soils (C6)	X Surface     X Drainag     Dry-Sea     Crayfisi     Crayfisi     Saturati     Stunted     Geomo     FAC-Ne	Soil Cracks (B6) e Patterns (B10) ason Water Table (C2) n Burrows (C8) fon Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) eutral Test (D5)

						Reset Form	Print F
						Page 32	2 of 73
WETLAND DET	ERMINAT	ION	DAT	A FORM	I – Midwest Region	1	
oject/Site: _Bangert Island		Citv/C	ountv	r: St. Char	les	Sampling Date: 26	Feb 2016
			-		State: MO		
restigator(s):							
ndform (hillslope, terrace, etc.): Floodplain							
ppe (%): <u>10</u> Lat: <u>38°45'51.25"N</u>							
		-				-	
il Map Unit Name:							
climatic / hydrologic conditions on the site typical for th							
• Vegetation, Soil, or Hydrology						-	_ NO
e Vegetation, Soil, or Hydrology					eeded, explain any answ	,	
JMMARY OF FINDINGS – Attach site map	showing	sam	nplin	g point l	ocations, transect	s, important feat	ures, etc.
lydrophytic Vegetation Present? Yes I	No			•			
lydric Soil Present? Yes I				e Sampled		No. X	
/etland Hydrology Present? Yes X	No 0/		with	in a Wetlaı	na? tes	No <u>X</u>	
emarks:							
dge of a floodplain depression							
GETATION – Use scientific names of plants							
	Absolute	Dom	ninant	Indicator	Dominance Test wor	ksheet:	
ee Stratum (Plot size:)	% Cover				Number of Dominant S		
_Salix nigra	20	``	<u> </u>	OBL	That Are OBL, FACW,		(A)
Acer saccharinum	20		<u> </u>	FACW	Total Number of Domin	nant	
					Species Across All Stra		(B)
					Percent of Dominant S	pecies	
					That Are OBL, FACW,	or FAC:75	(A/B)
apling/Shrub Stratum (Plot size:)	40	= 100	ai Cov	/er	Prevalence Index wo	rksheet:	
Acer saccharinum	15		(	FACW	Total % Cover of:	Multiply b	<u>v:</u>
					OBL species 2	0 x 1 =	<u> </u>
			,		FACW species 3		<u>)                                    </u>
					1 .	) x 3 = <u>0</u>	<u> </u>
					FACU species		
erb Stratum (Plot size: )	15	= Tota	al Cov	er	UPL species		
					Column Totals: 6	<u>0     (</u> A) <u>11</u>	<u>)</u> (B)
					Prevalence Index	x = B/A = <u>1.83</u>	
					Hydrophytic Vegetati	on Indicators:	
					X Dominance Test is	; >50%	
					X Prevalence Index i		
		<b>.</b>			Morphological Ada	ptations <sup>1</sup> (Provide su s or on a separate sh	pporting
		<u> </u>			Problematic Hydro	-	
						phytic vegetation (E	Aprairty
					<sup>1</sup> Indicators of hydric so	il and wetland hydrolo	av must
					be present, unless dist		3,
oody Vine Stratum (Plot size:)	0	≂ Tota	al Cov	er			
_Vitis aestivalis	5	١	,	FACU	Hydrophytic		
					Vegetation		
					Present? Ye	s <u>X</u> No	_
	5	= Tota	al Cov	er			

#### SOIL

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÷

ampling	Point:	<u>4-B</u>
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SOIL					Sampling Point: <u>4-B</u>
Profile Desc	cription: (Descri	be to the depth	needed to document the indicator or	confirm the absence of Indi	cators.)
Depth	Matri	x	Redox Features		
(inches)	Color (moist)	%		_oc <sup>2</sup> Texture	Remarks
0-10	10YR3/2	90			
10-18	10YR4/2				
	10YR3/1				
<u> </u>					
$\frac{1}{1}$ Type: C=C	oncontration D-I		Reduced Matrix, CS=Covered or Coated S	and Grains <sup>2</sup> Location:	PL=Pore Lining, M=Matrix.
Hydric Soil		pepiedon, RM-P	Reduced Mainx, CO-COVERED OF COALED C		blematic Hydric Soils <sup>3</sup> :
Histosol			Sandy Gleyed Matrix (S4)	Coast Prairie	-
-	pipedon (A2)		Sandy Redox (S5)		se Masses (F12)
Black Hi	istic (A3)		Stripped Matrix (S6)	Other (Explain	n in Remarks)
Hydroge	en Sulfide (A4)		Loamy Mucky Mineral (F1)		
	d Layers (A5)		Loamy Gleyed Matrix (F2)		
	uck (A10)		Depleted Matrix (F3)		
-	d Below Dark Sur		Redox Dark Surface (F6)	3	
	ark Surface (A12)		Depleted Dark Surface (F7)	•	rophytic vegetation and
-	/lucky Mineral (S1 Jcky Peat or Peat		Redox Depressions (F8)		logy must be present, ed or problematic.
	Layer (if observe				
Type:		,			
<i>·</i> ·	ches):			Hydric Soil Preser	nt? Yes NoX
Remarks:					
HYDROLO	GY				
	drology Indicato	rs.			
•			d; check all that apply)	Secondary India	ators (minimum of two required)
	Water (A1)	n one is required	X Water-Stained Leaves (B9)		I Cracks (B6)
	iter Table (A2)		Aquatic Fauna (B13)		atterns (B10)
Saturatio			True Aquatic Plants (B14)		Water Table (C2)
X Water M			Hydrogen Sulfide Odor (C1)	Crayfish Bu	
	nt Deposits (B2)		Oxidized Rhizospheres on Living	<u> </u>	/isible on Aerial Imagery (C9)
X Drift Dep			Presence of Reduced Iron (C4)	· / <b>—</b>	Stressed Plants (D1)
— ·	at or Crust (B4)		Recent Iron Reduction in Tilled St		c Position (D2)
	osits (B5)		Thin Muck Surface (C7)	FAC-Neutra	· ,
	on Visible on Aeri	al Imagery (B7)	Gauge or Well Data (D9)		100((20)
	/ Vegetated Conc				
Field Observ	<u> </u>				
Surface Wate		Yes No	Depth (inches):		
Water Table			Depth (inches):		
Saturation Pr			Depth (inches):	Wetland Hydrology Prese	nt? Yes 🗶 No
(includes cap	oillary fringe)				
Describe Red	corded Data (stre	am gauge, moni	toring well, aerial photos, previous inspec	tions), if available:	
Remarks:					
				······································	

vdric Soil Present?     Yes     X     No     within a Wetland?     Yes     X     No       etland Hydrology Present?     Yes     X     No     within a Wetland?     Yes     X     No							Reset Fo	rm	Print F
get/Stit:       Bangent Jeland							Pag	ge 34 o	f 73
siteant/Owner:	w	ETLAND DE		ΓΙΟΝ	DATA FORM	I – Midwest Region			
siteant/Owner:	ect/Site: _Bangert Island			City/C	ounty: St. Char	les	Sampling Da	te: 26 Fe	eb 2016
settator(s):       Christ Name, Rick Morrow       Section, Township, Range:         ofform (Nikilape, terrace, etc):       Floodplain       Local relief (concave, convex, none):       Datum         Map Unit Name:									
dform (hilfidaps, terrace, etc.): _Elosdelain									
po (%): 3       Lat. 38/45/43.06'N       Long: 90/29/17/28'W       Datum:         Map thin Name:									
Map Unit Name:	· · · · · · · · · ·					•			
climatic / hydrologic conditions on the site typical for this time of year? Yes _ X = No (if no, explain in Remarks.) VegetationSoilor Hydrologyinplicing problemalic?				-					
Vegetation									
Vegetation								×	No
MMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.         /drophytic Vegetation Present?       Yes       No         /drophytic Vegetation Present?       Yes       X         /drophytic Vegetation Present?       Yes       X         /drophytic Vegetation Present?       20       Y         /drophytic Vegetation Present?       20	-								
driphytic Vegetation Present?       Yes       X       No       Is the Sampled Area within a Wetland?       Yes       X       No         driphytic Soil Present?       Yes       X       No       within a Wetland?       Yes       X       No         driphytic Vegetation Present?       Yes       X       No       within a Wetland?       Yes       X       No         getation 1980-1090       GETATION – Use scientific names of plants.       Dominante Test worksheet:       Number of Dominant Species       That Xer OBL, FACW, or FAC:       2       (A)         Populus detoids       5       Y       FAC       FAC       2       (A)         Total Number of Dominant Species       That Xer OBL, FACW, or FAC:       100       (A/B)         Provience Index worksheet:       Total Scover of:       Multiphy br.       OBL species       0       X1 =       20         pling/Shrub Stratum       (Plot size:      )	-								
odic Solid Present?       Yes       X       No       within a Wetland?       Yes       X       No         etland Hydrology Present?       Yes       X       No       within a Wetland?       Yes       X       No         etland Hydrology Present?       Yes       X       No       within a Wetland?       Yes       X       No         getLand Hydrology Present?       Yes       X       No       Module       Dominant Indicator         GETATION - Use scientific names of plants.       Solution       Dominant Indicator       Number of Dominant Species       Solution         Sakin rigra       20       Y       GAL       That Aro OBL, FACW, or FAC:       2       (A)         Provalue deltoids       5       Y       FAC       That Aro OBL, FACW, or FAC:       100       (A/B)         pling/Shrub Stratum       (Plot size:       )       25       = Total Cover       FACU Species       0       x1 =20       FACU Species       x3 =15       FACU Species       x4 =0       FACU Species       x4 =0       EVEN species       0	MMARY OF FINDINGS - A	ttach site ma	p showing	g san	pling point	ocations, transects	s, important	featur	es, etc.
odic Sol Present?       Yes       X       No       within a Wetland?       Yes       X       No         etiand Hydrology Present?       Yes       X       No	ydrophytic Vegetation Present?	Yes <u>X</u>	No		le the Sample	1 0100			
Billand Hydrology Present?       Yes No         Desiration       Absolute       Dominant Indicator         GETATION - Use scientific names of plants.       Mo         GETATION - Use scientific names of plants.       Dominant Indicator         Salk nigra       20       Y       OBL         Populus deltoids       5       Y FAC       Total ArcOBL, FACW, or FAC: (5)         Populus deltoids       5       Y FAC       Total Number of Dominant Species         Total ArcW, or FAC: (6)       20       Y OBL       Total ArcW, or FAC: (6)         period Dominant Species       20       Y OBL       Total ArcW, or FAC: (6)       (A/B)         period Dominant Species       20       X1 = (6)       (A/B)       (A/B)         period Dominant Species       20       X1 = (6)       (A/B)       (A/B)         period Dominant Species       0       x1 = (6)       (A/B)       (A/B)         period Dominant Species       0       x2 = (6)       (A/B)       (A/B)         period Dominant Species       0       x2 = (7)       (A/B)       (A/B)         period Dominant Species       0       x1 = (6)       (A/B)       (A/B)	ydric Soil Present?				•		( No		
PS Photo 1980-1990         GETATION - Use scientific names of plants.         es_Statum (Plot size:)       Absolute Species?       Dominant Indicator Species?       Dominant Species That Are OBL, FACW, or FAC:2(A)         Populus deltoids        (B)          (B)          (B)          (A)	etland Hydrology Present?	Yes 🗶	No						
GETATION – Use scientific names of plants.         salk nigra       Absolute       Dominant Indicator         % Gover       Species?       Status         Populus deltoids       5       Y       FAC	emarks:								
Bestratum       (Plot size:)       Absolute       Dominant Indicator % Cover. Status       Dominance Test worksheet:         Salk nigra       20       Y       OBL       That Are OBL, FACW, or FAC: (A)         Populus delioids       5       Y       FAC       Total Number of Dominant Species	PS Photo 1080-1090								
Absolute       Dominant Indicator % Cover.       Dominance Test worksheet: Number of Dominant Species Salax higra         Populus delioids       5       Y       PAC         Total Number of Dominant Species       20       Y       OBL         Diminance Test worksheet:       20       Y       OBL         Populus delioids       5       Y       FAC       Total Number of Dominant Species Across All Strata:       2       (A)         Diminance Test worksheet:       2       (A)       (A)       (A)         Diminance Test worksheet:       2       (B)       (A)         Diminance Test worksheet:       100       (A)       (A)         Diminance Test worksheet:       100       (A)       (A)         Diminance Test worksheet:       100       (A)       (A)         Diminance Tes	GETATION – Lise scientific n	ames of plant	te						
ease Stratum       (Piot size:)       % Cover       Species?       Status         Salix nigra       20       Y       OBL       That Are OBL, FACW, or FAC:2(A)         Populus delioids       5       Y       FAC       Total Number of Dominant Species				Dom	inant Indicator	Dominance Test work	(sheet:		
Populus deltoids       5       Y       FAC	ee Stratum (Plot size:	)	% Cover	Spe	cies? <u>Status</u>		pecies		
Image: Stratum (Plot size:)       25       = Total Cover       Free/alence Index worksheet:						That Are OBL, FACW,	or FAC:	2	_ (A)
Percent of Dominant Species						Total Number of Domi			
						Species Across All Stra	ata:	2	_ (B)
25       = Total Cover       Prevalence Index worksheet:									
ppling/Shrub Stratum       (Plot size:)				-		That Are OBL, FACW,	or FAC:	100	_ (A/B)
OBL species       20       x1 =       20         FACW species       0       x2 =       0         FACW species       0       x2 =       0         FACU species       0       x4 =       0         UPL species       0       x5 =       0         UPL specie	apling/Shrub Stratum (Plot size:	)						-	
				• <del></del>					
FAC species       5       x 3 =       15         grb Stratum       0       = Total Cover       FAC species       0       x 4 =       0         upL species       0       x 5 =       0       Column Totals:       25       (A)       35       (B)         Prevalence Index       =       1.4       Hydrophytic Vegetation Indicators:       X       Dominance Test is >50%       X       Prevalence Index is 3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)									_
Image: Stratum (Plot size:)       Image: Str		· · · · · · · · · · · · · · · · · · ·		. <u></u>	<u> </u>				
0       = Total Cover       UPL species       0       x 5 =       0         column Totals:       25       (A)       35       (B)         Prevalence Index = B/A =       1.4         Hydrophytic Vegetation Indicators:       X       Dominance Test is >50%         X       Prevalence Index is >50%       X       Prevalence Index is >50%         X       Prevalence Index is >3.0°       Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         column Totals:       0       = Total Cover       Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         column Totals:       0       = Total Cover       Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         cody Vine Stratum       (Plot size:       0       = Total Cover									_
cho Stratum (Plot size:)									—
Prevalence Index = B/A =         Hydrophytic Vegetation Indicators:         X       Dominance Test is >50%         X       Prevalence Index is ≤3.01         Morphological Adaptations1 (Provide supporting data in Remarks or on a separate sheet)         Problematic Hydrophytic Vegetation1 (Explain)         1         1         0         0         0         0         Total Cover         Hydrophytic         Vegetation         Vegetation         Problematic Provide supporting data in Remarks or on a separate sheet)         Problematic Hydrophytic Vegetation1 (Explain)         1	rb Stratum (Plot size:	)	·			· ·			
Hydrophytic Vegetation Indicators:         X       Dominance Test is >50%         X       Prevalence Index is ≤3.0 <sup>1</sup> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)         Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)         'Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         Dody Vine Stratum (Plot size:)		· · · ·					<b></b>		
								1.4	<u> </u>
data in Remarks or on a separate sheet)         Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.         0       = Total Cover         Present?       Yes X         No          emarks: (Include photo numbers here or on a separate sheet.)						Morphological Ada	ptations <sup>1</sup> (Provi	de suppo	orting
Problematic Hydrophytic Vegetation (Explain)						data in Remark	s or on a separ	ate sheet	)
						Problematic Hydro	phytic Vegetati	on' (Expl	ain) -
						Indicators of hudrin an	l and watland h	vdrology	muet
boody Vine Stratum (Plot size:)        Hydrophytic									muət
	oody Vine Stratum (Plot size)	)	0	= Tota	al Cover	]			
						Hydrophytic			
= Total Cover						Vegetation			
						Flesent? Ye	∍ <u>∧</u> NO		
	emarks: (Include photo numbers her		e sheet )			]			
	manor (morado prioto númbero nem	o on a coparati							

SO		Ł
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Sampling Point: 5-A

Profile Desc	ription: (Descri	be to the depth	needed to docun	nent the i	ndicator	or confir	m the absence of I	indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks
0-6	10YR2/1	90					SiCl	
6-18	10YR4/2	70	10YR3/6	10	D	М	SiCl	
				<u> </u>			· · · · · · · · · · · · · · · · · · ·	······································
							· ·	
								· · · · · · · · · · · · · · · · · · ·
	· · ·=·						······································	
							·	
<sup>1</sup> Type: C=Ce	oncentration, D=D	epletion, RM=F	Reduced Matrix, CS	=Covered	l or Coate	d Sand G		on: PL=Pore Lining, <u>M=Matrix.</u>
Hydric Soil	Indicators:						Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol	• •		-	Bleyed Ma				irie Redox (A16)
	pipedon (A2)			edox (S5	,			anese Masses (F12)
Black Hi	stic (A3) n Sulfide (A4)			Matrix (S /lucky Mir	,		Other (Exp	olain in Remarks)
_ , ,	Layers (A5)		·	Bleyed Ma	• •			
2 cm Mu			X Depleted	-				
	Below Dark Surf	ace (A11)		ark Surfa				
	ark Surface (A12)				rface (F7)		<sup>3</sup> Indicators of h	nydrophytic vegetation and
·	lucky Mineral (S1		Redox D	epression	ns (F8)			drology must be present,
	cky Peat or Peat						unless dist	urbed or problematic.
	ayer (if observe.	a):						
Туре:								
Remarks:	ches):						Hydric Soil Pre	sent? Yes <u>X</u> No
HYDROLO								
•	Irology Indicator							
	-	t one is require	d; check all that ap		(8.0)			ndicators (minimum of two required)
_	Water (A1)		X Water-Stair		• •			Soil Cracks (B6)
	ter Table (A2)		Aquatic Fat	• •				e Patterns (B10)
X Saturation	. ,		True Aquat Hydrogen S		· ,			son Water Table (C2) Burrows (C8)
	t Deposits (B2)		Oxidized R			na Roots	— ·	on Visible on Aerial Imagery (C9)
X Drift Dep			Presence o	•		-		or Stressed Plants (D1)
	t or Crust (B4)		Recent Iror					phic Position (D2)
	osits (B5)		Thin Muck					utral Test (D5)
X Inundatio	on Visible on Aeria	al Imagery (B7)	Gauge or V	Vell Data	(D9)			
X Sparsely	Vegetated Conca	ave Surface (B8	) Other (Exp	ain in Rei	marks)			
Field Observ	/ations:							7- <b>1</b> 4
Surface Wate	er Present?	Yes No	Depth (inc	hes):		_		
Water Table	Present?	Yes No	Depth (inc	hes):		_		
Saturation Pr		Yes X No	) Depth (inc	hes):	0	_   Wetl	and Hydrology Pro	esent? Yes 🗶 No
(includes cap Describe Red		m daude moni	toring well, aerial p	hotos pre	vious insr	ections).	if available:	
Deserver		an gaago, mon	toning won, donor p	notoo, pre			in available.	
Remarks:	·							

					Reset Form	Print Fo
					Page 36	of 73
WETLAND DET	ERMINAT	ION DA		I – Midwest Region		
roject/Site: Bangert Island		City/Cour	ity: St Chai	rles	Sampling Date: 26	Feb 2016
				State: _MO		
					· · · <u> </u>	
vestigator(s): <u>Chris Name, Rick Morrow</u>						
andform (hillslope, terrace, etc.): Floodplain						
ope (%): <u>3</u> Lat: <u>38°45'43.34"N</u>						
il Map Unit Name:						
e climatic / hydrologic conditions on the site typical for t				(If no, explain in F	Remarks.)	
e Vegetation, Soil, or Hydrology	_ significantly	disturbed	? Are	"Normal Circumstances"	present? Yes <u>×</u>	_ No
e Vegetation, Soil, or Hydrology	_ naturally pro	oblematic?	' (lf n	eeded, explain any answe	ers in Remarks.)	
UMMARY OF FINDINGS – Attach site maj	p showing	sampli	ng point l	locations, transects	s, important feat	ures, etc.
Hydrophytic Vegetation Present? Yes		ls	the Sample	d Area		
Hydric Soil Present?     Yes       Vetland Hydrology Present?     Yes		wit	thin a Wetla	nd? Yes	No <u>×</u>	
Remarks:	<u> </u>					
dge of a floodplain depression						
EGETATION – Use scientific names of plant	s.					
	Absolute	Domina	nt Indicator	Dominance Test work	sheet:	
ree Stratum (Plot size:)	<u>% Cover</u>	<u>Species</u>	? Status	Number of Dominant S	pecies	
Populus deltoids		<u> </u>		That Are OBL, FACW,	or FAC: 3	(A)
Acer saccharinum			FACW	Total Number of Domir		
. <u>Salix nigra</u>		<u> </u>		Species Across All Stra	ata:4	(B)
·		·		Percent of Dominant S	pecies	
·				That Are OBL, FACW,	or FAC:75	(A/B)
apling/Shrub Stratum (Plot size:)	25	= Total C	over	Prevalence Index wor	ksheet:	
· (, , , , , , , , , , , , , , , ,				Total % Cover of:	Multiply by	<u>r:</u>
·				OBL species 5	x 1 =5	
				FACW species1	0 x 2 = <u>20</u>	
				FAC species1	) x 3 = <u>30</u>	
				FACU species 5		
		= Total Co	over	UPL species 0		
erb Stratum (Plot size:)				Column Totals: 3	0 (A) <u>75</u>	(B)
				Prevalence Index	= B/A =	
				Hydrophytic Vegetati		
				X Dominance Test is		
				X Prevalence Index i	s ≤3.0 <sup>1</sup>	
				Morphological Ada	ptations <sup>1</sup> (Provide sup	porting
					s or on a separate she	
				Problematic Hydro	phytic Vegetation' (Ex	plain)
·				1		
Э				<sup>1</sup> Indicators of hydric soi be present, unless distr		gy must
	0	= Total Co	over			
/oody Vine Stratum (Plot size:)	_			11		
<u>Vitis aestivalis</u>			<u>FACU</u>	Hydrophytic Vegetation		
					s X No	_
•	5	- T C				

#### SOIL

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Sampling Point: 5-B

Profile Desc								
			th needed to docun			or confirm	i the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	%	Redox Color (moist)	<u>k Features</u> %	; Type'	_ Loc <sup>2</sup>	Texture	Remarks
<u>(incries)</u> 0-6	10YR3/2	/0			<u> </u>			Remarks
		<u> </u>					<u> </u>	
6-12	10YR4/2			·			·	
12-18	10YR3/2							
					<u> </u>			
Hydric Soil I		epletion, RM≃	Reduced Matrix, CS	=Covered	or Coate	d Sand Gr		on: PL=Pore Lining, M=Matrix. Problematic Hydric Soils <sup>3</sup> :
Histosol			Sandy C	lound Mai				•
	pipedon (A2)		-	leyed Mai edox (S5)	• •			irie Redox (A16) janese Masses (F12)
Black Hi	,			Matrix (S				plain in Remarks)
	n Sulfide (A4)			lucky Min	•			
	Layers (A5)			leyed Ma				
2 cm Mu			Depleted	l Matrix (F	3)			
	Below Dark Surfa	ace (A11)		ark Surfac	• •		2	
	ark Surface (A12)			Dark Sur				hydrophytic vegetation and
	lucky Mineral (S1)		Redox D	epression	s (F8)			drology must be present,
	icky Peat or Peat ( _ayer (if observed	, ,					uniess als	turbed or problematic.
Type:	Layer (in observed	<i></i>						
Depth (inc	shoc):						Ludvie Ceil Due	
Remarks:	лез)						Hydric Soil Pre	sent? Yes No
IYDROLO	GY							
Watland Uva	· · · · · · · · · · · · · · · · · · ·							
wetianu nyu	rology Indicator	s:						
			ed; check all that app				Secondary I	ndicators (minimum of two required)
Primary Indic	ators (minimum of Water (A1)		Water-Stain	ed Leave	s (B9)			ndicators (minimum of two required) Soil Cracks (B6)
Primary Indic Surface V High Wat	ators (minimum of Water (A1) ter Table (A2)		Water-Stain Aquatic Fau	ied Leave ina (B13)			<u>×</u> Surface Drainag	Soil Cracks (B6) e Patterns (B10)
Primary Indic Surface N High Wat Saturatio	ators (minimum of Water (A1) ter Table (A2) on (A3)		Water-Stain Aquatic Fau True Aquati	ied Leave ina (B13) c Plants (l	B <b>1</b> 4)		<u>×</u> Surface <u> </u>	Soil Cracks (B6) e Patterns (B10) son Water Table (C2)
Primary Indic Surface V High Wat Saturatio X Water Ma	ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)		Water-Stain Aquatic Fau True Aquati Hydrogen S	ied Leave Ina (B13) c Plants ( culfide Ode	B <b>1</b> 4) or (C1)		<u>×</u> Surface <u></u> Drainag <u></u> Dry-Sea <u></u> Crayfish	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8)
Primary Indic Surface M High Wat Saturatio X Water Ma Sedimen	ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rł	ied Leave ina (B13) c Plants ( ulfide Ode nizosphere	B14) or (C1) es on Livir		X Surface Drainag Dry-Sea Crayfish	Soll Cracks (B6) e Patterns (B10) ison Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9)
Primary Indic Surface V High Wat Saturatio X Water Ma X Sedimen X Drift Dep	ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of	ied Leave Ina (B13) c Plants (I ulfide Ode nizosphere f Reduced	B14) or (C1) es on Livir Iron (C4)		X Surface Drainag Dry-Sea Crayfish C3) X Saturati Stunted	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Primary Indic Surface V High Wat Saturatio X Water Ma X Sedimen X Drift Dep Algal Mat	ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) oosits (B3) t or Crust (B4)		Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron	ied Leave ina (B13) c Plants ( iulfide Ode nizosphere f Reduced Reductio	B14) or (C1) es on Livir Iron (C4) n in Tilled		Surface     Drainag     Dry-Sea     Crayfish     Saturati     Stunted     Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Primary Indic Surface V High Wat Saturatio X Water Ma X Sedimen Algal Ma Iron Depu	ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) oosits (B3) t or Crust (B4) osits (B5)	one is require	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rf Recent Iron Thin Muck S	ied Leave Ina (B13) c Plants (l ulfide Ode nizosphere f Reduced Reduction Surface (C	B14) or (C1) es on Livir Iron (C4) n in Tilled 7)		Surface     Drainag     Dry-Sea     Crayfish     Saturati     Stunted     Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
Primary Indic Surface V High Wat Saturatio X Water Ma X Sedimen X Drift Dep Algal Mai Iron Depo X Inundatio	ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeria	<sup>:</sup> <u>one is require</u> I Imagery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rt Presence of Recent Iron Gauge or W	ied Leave Ina (B13) c Plants (l ulfide Ode nizosphere f Reduced Reduction Surface (C fell Data (l	B14) or (C1) es on Livir Iron (C4) n in Tilled 7) O9)		Surface     Drainag     Dry-Sea     Crayfish     Saturati     Stunted     Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
Primary Indic Surface N High Wat Saturatio X Water Ma X Sedimen X Drift Dep Algal Mat Iron Deput X Inundatio Sparsely	ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aeria Vegetated Conca	<sup>:</sup> <u>one is require</u> I Imagery (B7)	Water-Stain Aquatic Fau True Aquati Hydrogen S Oxidized Rh Presence of Recent Iron Gauge or W	ied Leave Ina (B13) c Plants (l ulfide Ode nizosphere f Reduced Reduction Surface (C fell Data (l	B14) or (C1) es on Livir Iron (C4) n in Tilled 7) O9)		Surface     Drainag     Dry-Sea     Crayfish     Saturati     Stunted     Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2)
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### **Daniel Mann**

From:	Thompson, Dustin A <dustinthompson@missouristate.edu></dustinthompson@missouristate.edu>
Sent:	Friday, May 15, 2020 12:07 PM
То:	Daniel Mann; 'Powell, Gina S CIV USARMY CENWK (US)'; Lopinot, Neal H; Meade, Timothy M CIV (USA)
Cc:	Totten, Laura A CIV USARMY CENWK (USA); 'Denlinger, John'; Heather Lacey; Brad Temme
Subject:	Re: Cultural Resources Update - Bangert Island
Attachments:	Bangert Island Mag Survey.pdf
Follow Up Flag: Flag Status:	Follow up Flagged

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#### Dan,

Attached is a map showing the approximate boundaries of the completed and uncompleted magnetometer survey. The northern end of the project area has been completed and no anomalies that can't be explained by recent surface debris were found. Our background research at the Herman T. Pott National Inland Waterways Library, old COE maps and aerials that Gina found, and other sources, revealed that the entire island was created after 1937. Before this time it was in the main channel of the Missouri River. Due to the ever changing path of the river during this time, there is a high likelihood that if there had been any shipwrecks in this area they were eroded away when the river reclaimed this channel. The coring data should help to determine how deep the 1930s river channel was and if there is any chance of older deposits being disturbed by this project.

Thanks,

Dustin

---

Dustin Thompson Project Supervisor Center for Archaeological Research Missouri State University 901 South National Ave. Springfield, MO 65897 Office: (417) 836-6531

From: Daniel Mann <Daniel.Mann@stcharlescitymo.gov>

Date: Friday, May 15, 2020 at 11:27 AM

To: "'Powell, Gina S CIV USARMY CENWK (US)'' <Gina.S.Powell@usace.army.mil>, "Lopinot, Neal H" <NealLopinot@MissouriState.edu>, "Meade, Timothy M CIV (USA)" <Timothy.M.Meade@usace.army.mil> Cc: "Thompson, Dustin A" <DustinThompson@MissouriState.edu>, "Totten, Laura A CIV USARMY CENWK (USA)" <Laura.A.Totten@usace.army.mil>, "'Denlinger, John'' <John.Denlinger@hdrinc.com>, Heather Lacey <hlacey@cmtengr.com>, Brad Temme <Brad.Temme@stcharlescitymo.gov> Subject: RE: Cultural Resources Update - Bangert Island

**CAUTION:** External Sender

### **Daniel Mann**

From:	Powell, Gina S CIV USARMY CENWK (US) <gina.s.powell@usace.army.mil></gina.s.powell@usace.army.mil>
Sent:	Friday, May 15, 2020 10:06 AM
To:	Daniel Mann; 'Lopinot, Neal H'; Meade, Timothy M CIV (USA)
Cc:	Thompson, Dustin A; Totten, Laura A CIV USARMY CENWK (USA); 'Denlinger, John';
Subject:	Heather Lacey; Brad Temme RE: Cultural Resources Update - Bangert Island
Follow Up Flag:	Follow up
Flag Status:	Flagged

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#### All,

Below is my exchange with the SHPO in January. I asked if the geological testing monitoring could substitute for finishing the magnetometer survey and they did not have enough information to make that decision. We also did not come to any decision regarding construction monitoring.

Since so much has happened since January to stand in our way of progress on this project, I could re-start discussion on construction monitoring. It would seem prudent to only necessitate monitoring in construction areas that had not been surveyed using the magnetometer or geological coring (unless something had been found). We could collaborate on a map that shows both the construction and the survey boundaries.

Does that sound like a path we would like to pursue with the SHPO? It would take only one person to do the monitoring.

Sincerely,

Dr. Gina S. Powell, Archeologist U.S. Army Corps of Engineers, Kansas City District 601 E. 12th Street Kansas City, MO 64106 Phone: 816-389-2320

-----Original Message-----From: Alvey, Jeffrey [mailto:Jeffrey.Alvey@dnr.mo.gov] Sent: Wednesday, January 22, 2020 3:29 PM To: Powell, Gina S CIV USARMY CENWK (US) <Gina.S.Powell@usace.army.mil>; Amy Rubingh <Amy.Rubingh@dnr.mo.gov> Subject: [Non-DoD Source] RE: Bangert Island, St. Charles survey

Gina,

Just to make sure I'm clear on your proposal, you're asking if we think just monitoring the areas where the geological testing will take place would constitute a sufficient assessment of this area for the possibility of buried shipwrecks? And that you believe doing so would be preferable to finalizing the magnetic survey and monitoring during the entire construction phase of the project? Also, I seem to recall that there would be both coring and excavation of larger test pits? Is that correct?

If my assumption of what you're asking is correct, then I would say that what you propose is fine in general, but, as always, the important question is whether or not the sample represented by the geological cores/pits is sufficiently representative of the area in question. That, of course, has everything to do with how big the area is and how many cores/tests will be excavated. Those are details I don't have. However, if you feel an argument can be made that the proposed geological testing would provide sufficient coverage of the area in terms of the data it would provide on buried wrecks then I think that would be a perfectly fine strategy.

Jeffrey

-----Original Message-----From: Powell, Gina S CIV USARMY CENWK (US) <Gina.S.Powell@usace.army.mil> Sent: Wednesday, January 22, 2020 1:09 PM To: Alvey, Jeffrey <Jeffrey.Alvey@dnr.mo.gov>; Rubingh, Amy <Amy.Rubingh@dnr.mo.gov> Subject: Bangert Island, St. Charles survey

Jeff and Amy,

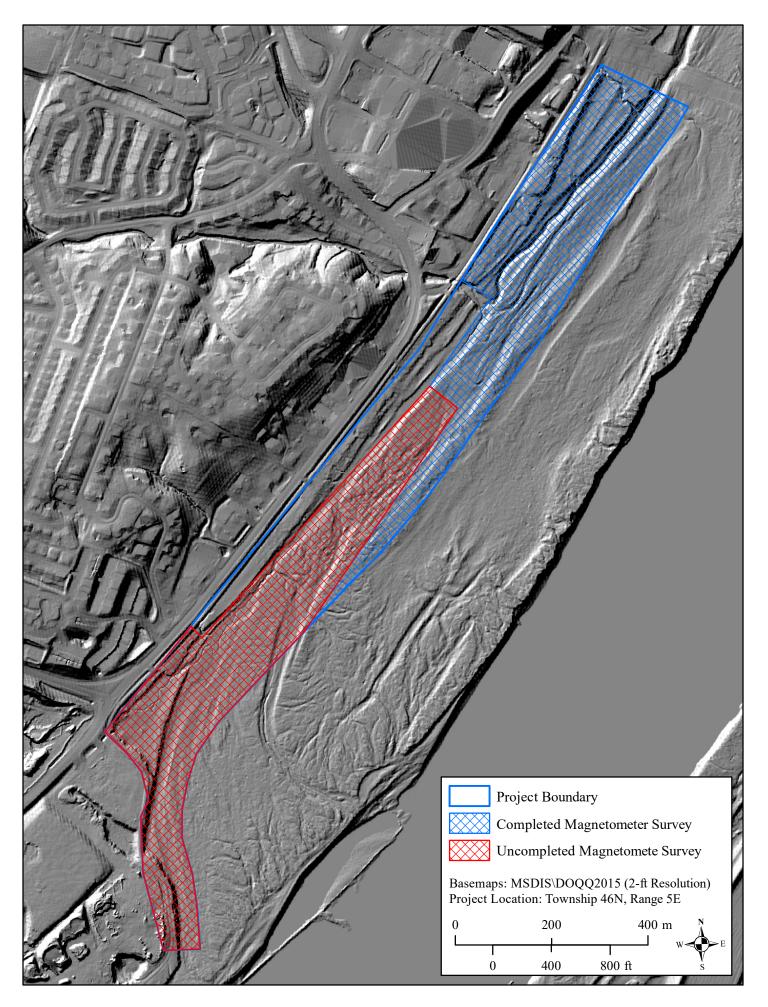
There have been a few communications between SHPO, CAR, the engineers, and the city of St. Charles about geological coring at Bangert Island to look at the deep deposits. I just recently found out about this activity.

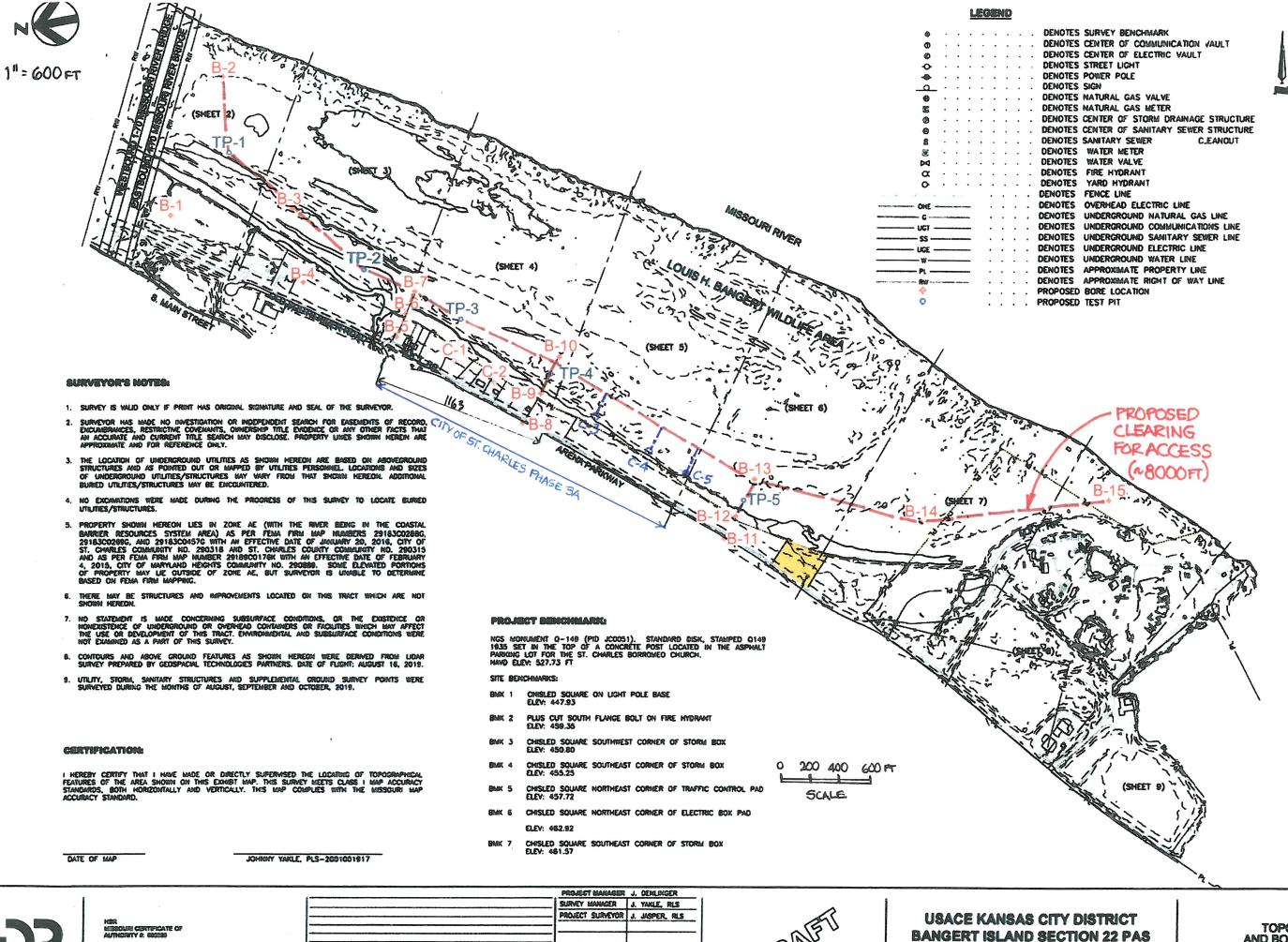
I wondered if we could arrange to have those monitored in lieu of finishing the magnetometer survey AND construction monitoring. I don't think that monitoring during the entire construction is an activity anyone is very excited about since it might take weeks or months to excavate that channel. We have already talked about how historic records show that the channel has probably been scoured out post-steamboat times and having a strong post-review discovery clause in the report.

I'd like to explore this possibility since the weather has not been very cooperative for survey lately.

Sincerely,

Gina S. Powell, Archeologist U.S. Army Corps of Engineers, Kansas City District 601 E. 12th Street Kansas City, MO 64106 Phone: 816-389-2320





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# Draft Environmental / NEPA Requirements Report Bangert Island Flood Risk and Riverfront Transformation Project

June 2019

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## 1 Introduction

The Bangert Island Flood Risk and Riverfront Transformation project will transform the City of Saint Charles (City) riverfront property between the Family Arena and Interstate 70 (I-70) adjacent to Bangert Island. While the island will not be developed as part of the Riverfront Transformation economic development, Bangert Island is vitally important to the City's growth economically, ecologically, and recreationally.

The objective of this Environmental / NEPA Requirements document is to provide a preliminary study of existing conditions (e.g., hydrology, soils, and other relevant resources related to the project area) of Bangert Island and describe the environmental, regulatory, and National Environmental Policy Act (NEPA) requirements for planning of a future water development project. Risks associated with the Riverfront Transformation economic development will also be identified in an effort to avoid potential conflicts between the separate types of development (i.e. water development vs. economic development).

The findings of this report are not meant to meet the requirements of NEPA or other relevant federal, state, and local laws and policy that would be needed for implementation of a project (i.e. water development or economic development) on Bangert Island.

## 1.1 Background

Bangert Island was once an island separated from the bluff at Saint Charles by a side channel. However, river channel structures were built on the Missouri River in the 1930s and 1940s to provide a more navigable channel. As a result, the channel separating Bangert Island from the shoreline gradually silted in. The deposition choked the original side channel entrance at the Missouri River to the point of closure by 1980 and effectively reattached Bangert Island to the bluff. The area currently functioning only as an island during periods of high water.

The side channel previously provided flow diversity not available in the main river channel. This flow diversity and shallow water aquatic habitat allowed for off river habitat for various aquatic species. Prior to closure of the side channel the island had considerably more sandbar areas that were attractive to various species that have since been taken over by vegetation.

Bangert Island is located in the Crystal Springs watershed that includes several large commercial developments in the upper reaches, extensive residential development, and I-70. The watershed is afflicted with extensive non-point source pollution. The sediment that reaches the Missouri River has impacts ranging from reducing fish habitat, creating taste and odor problems in drinking water, and impairing recreational opportunities. The side channel historically provided water quality benefits by slowing water before it discharged into the Missouri River.

Crystal Springs Creek at one time flowed into the side channel of the Missouri River. As the side channel filled in from the 1930s and 1940s, until closure in the 1980s, the tailwater of Crystal Springs Creek was negatively impacted, creating less vertical drop to covey water over a much longer and flatter distance to the Missouri River. Significant storm events in 2011, 2013, and 2017 caused flooding damage that impacted residents and businesses in and adjacent to Bangert Island. The proposed excavation of the side channel and the creation of a basin will aid in the restoration of conditions on Crystal Springs Creek prior to the 1930s and 1940s.

The proposed excavation of the side channel would provide material needed to make stormwater improvements to the embankment ground of the proposed Bangert Island Riverfront Development economic project. This would raise approximately 100 acres of land removing them to an elevation above the 500 year flood elevation, in addition to 182 acres of land adjacent to the study area that would experience a reduction in flood risk through the raised elevations between the Missouri River and these areas.

## **1.2** Location and Description

The project is located adjacent to the Missouri River, in Saint Charles, Missouri, in St. Charles County Missouri, near the confluence of the Mississippi and Missouri Rivers. The project site is in the west half of Section 7 and the east half of Section 8, Township 46 North, Range 5 East at River Mile (RM) 31.1 to RM 29.0 on the left descending bank of the Missouri River.

Located north of the study area is the City's historic Main Street and Ameristar Casino and Hotel Complex, just west lies the Streets of Saint Charles Development, and on the southern end the study area is bounded by the Family Arena.

## 1.3 **Previous Studies and/or Reports**

Technical Report M56 – September 2011. Bangert Island HSR Model Missouri River Miles 34.3 to 28.1: Hydraulic Sediment Response Model. USACE St. Louis District – The Corps of Engineers, St. Louis District, conducted a side channel viability study for Bangert Island on the Missouri River between RM 31.1 and 29.0 at Saint Charles. The main objective of the study was to determine what conditions maximize the chance for a reopened Bangert Island side channel to avoid closure due to deposition. These conditions were also evaluated as to their effect on the navigation channel, I-70 (Blanchette) Bridge, and Ameristar Casino. The study was conducted in 2010-2011 using a Hydraulic Sediment Response (HSR) model and was intended to serve as a tool to guide the assessment of general trends that could be expected to occur in the Missouri River and Bangert Island side channel from a variety of imposed design alternatives.

### 1.4 Assumptions

- This report includes planning level of detail related to the potential environmental, regulatory, and NEPA requirements and are not determined based on detailed design.
- During future phases (e.g., detailed design, NEPA development, construction) the information included in this document would require review and updates to reflect current information.
- The Environmental Requirements document does not provide compliance with NEPA or other relevant federal, state, and local laws and policy that would be needed for implementation of a project (i.e. water development or economic development) on Bangert Island.

## 2 Existing Conditions

The section below describe the current setting or baseline conditions from which preliminary measures and conceptual plans will be developed.

### 2.1 Geology and Soils

The geology of the Bangert Island river floodplain area is comprised of Quaternary siltcapped alluvium which transitions to Quaternary loess in the upland areas. Both areas are underplayed by Paleozoic bedrock.

The majority of the soils on Bangert Island are comprised of alluvium of the Hanie-Treloar-Blake Complex, 0 to 2 percent slopes, frequently flooded. This is characterized by having a surface horizon that is approximately 0 to 7 inches deep made of a silty, fine sand or silty clay loam. From 7 to 60 inches soils are generally a mixture of fine sand or silt loam. These soils are typically hydric soils. There are no designated prime or unique farmlands within the study area; thus, there would be no impact to this resource from a proposed project.

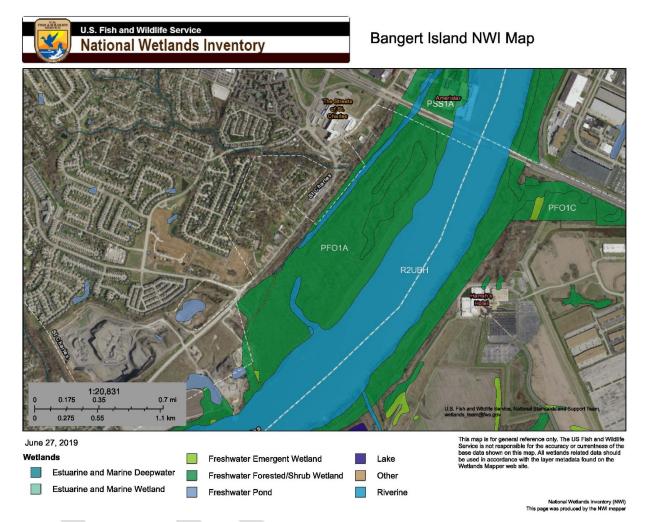
A geotechnical analysis will be conducted in summer 2019 and will provide a more detailed geologic data set.

## 2.2 Wetlands and Other Waters of the U.S.

Bangert Island is listed as all wetland according to the National Wetland Inventory (NWI) mapping published by the USFWS (USFWS 2019). NWI wetlands are primarily freshwater forested/shrub wetland temporarily flooded. The remainder of the island is freshwater forested/shrub wetland seasonally flooded. Descriptions of these wetland types are available online at http://www.fws.gov/wetlands/Data/Mapper.html. The NWI features on Bangert Island are depicted in Figure 1.

Corps of Engineers resource specialist performed a cursory survey on Bangert Island in 2016 to determine if wetlands could occur. Preliminary findings indicated the presence of wetlands that exhibited hydric soils, wetland hydrology indicators, and hydrophytic vegetation. The wetlands observed in 2016 consisted of forested / emergent wetlands comprised primarily of black willow (*Salix nigra*), plains cottonwood (*Populus deltoides*), sycamore (*Platanus occidentalis*), silver maple (*Acer saccharinum*), boxelder (*Acer negundo*), smartweed (*Polygonum* spp.), and various sedge species (*Carex* spp.).

Corps of Engineers District Commanders shall ensure that adverse functional impacts to wetland resources are fully mitigated. Feasibility reports and accompanying environmental documents shall, as applicable, describe specific consideration given to protect, avoid, minimize, reserve, conserve, mitigate adverse impacts, and restore wetland resources associated with the recommended plan. This information shall be in sufficient detail to quantify (acres and appropriate quality indicator) to what extent the recommended plan will contribute to the National goal of no net loss of wetland resources.



## Figure 1. Bangert Island National Wetlands Inventory

## 2.3 Aquatic Resources

## 2.3.1 Surface Water Hydrology and Hydraulics

Bangert Island is located in the Cowmire Creek-Missouri River watershed that includes several large commercial developments in the upper reaches, extensive residential development, and I-70. The watershed covers approximately 23,000 acres of land.

The historic side channel separated Bangert Island from the bluff. It has been silted in during the 1940s through the 1980s when it stopped flowing completely through the length of it except during high water events. Crystal Springs Creek at one time flowed into the side channel of the Missouri River near the upper portion of Bangert Island from the west-northwest.

The Missouri River was once a wide braided channel with many side channels and chutes. When the BSNP was installed in the 1940s and 1950s the channel narrowed and deepened and was confined to a single channel with very few chutes and side channels. Currently the river flows along the southern edge of Bangert Island. The flow of the mainstem Missouri River is influenced by rainfall and seasonal snowmelt throughout the basin. Flow is partially regulated by a series of dams on the mainstem as well as the tributaries. Unregulated tributaries also provide a portion of the flow. Total annual runoff from the Missouri River varies considerably from year to year because of large variations in precipitation.

Channelization has altered the river cross section and increased the depth and flow velocity within the Missouri River channel on average compared to the prechannelization river. The stabilized channel, levees, and riverbed degradation (lowering) have reduced both the connection of the river with the floodplain and the amount of groundwater recharge in the remaining floodplain.

### 2.3.2 Channel Geomorphology

### **Missouri River**

Hydrographic surveys of the Missouri River were taken between 1998 and 2009 and referenced to the Construction Reference Plane (CRP). For the area of interest near the side channel, 0 ft. CRP roughly corresponds to a Mean Sea Level (MSL) elevation of 425.5 ft. The following bathymetric trends were observed in each study reach.

River Miles	Description
-	
34.3 - 32.3	There was a 90° bend in the river. After the initial bend, the flow was
	oriented toward the northeast. Depths along the thalweg reached 33ft.
	below CRP. A corresponding point bar formed along the RDB. The point
	bar reached a height of 3 ft. above CRP. Through the bend, a point bar
	constricted the navigation channel to approximately 400 ft.
32.8 – 31.1	A crossing occurred between RM 32.3 – 31.1 with depths reaching
	approximately 34 ft. below CRP. A divided flow transition began at
	approximately RM 32.3 and continued until the flow re-established itself
	along the RBD bank at RM 31.3. The length and complex geometry of
	this transition posed a potential modelling difficulty. A point bar
	developed at RM 313.2 due to a left bend in the river. The elevation of
	this bar acted as an impediment to channeling additional energy to the
	proposed side channel
31.1 – 28.9	The thalweg was located along the RDB. Depths along the thalweg
	reached -33.3 ft. CRP. A corresponding point bar formed along the LDB.
	The point bar reached a height of 2ft above CRP. The entrance of the
	proposed side channel would be built at RM 31.0 on the LDB. The exit
	of the channel would be built at RM 29.7
28.9 – 28.1	A crossing occurred between RM 28.9 and 28.1, with depths reaching
	approximately 34 ft. below CRP.

### Table 1. Bathymetric Trends of Missouri River

### Side Channel

River control structures were built on the Missouri River in the 1930's – 1940's to provide a more navigable channel. As a result, the channel separating Bangert Island from the shoreline gradually silted in, and in the 1980's finally ceased to function as an island except in periods of high water. As a result of the current condition of the channel, the shallow water habitat has been reduced and flooding is common on properties along the shoreline.

A hydrology and hydraulics analysis is planned for the side channel in late 2019 to early 2020. Additional details will be added once this analysis is complete.

## 2.3.3 Aquatic Species

The Missouri River flows along the eastern side of the island. A wide variety of big river fish reside in the Missouri River. The USFWS (1999) developed a list of 91 fish species that are currently found in the lower Missouri River. Sport fish include channel catfish (Ictalurus punctatus), crappie (Pomoxis spp.), sauger (Sander canadensis), flathead catfish (Pylodictis olivaris), white bass (Morone chrysops), largemouth bass (Micropterus salmoides), bluegill (Lepomis macrochirus), walleye (Sander vitreus), northern pike (Esox lucius), and paddlefish (Polyodon spathula). Other common species in the lower Missouri River include shiners (Notropis spp.), river carpsuckers (Carpiodes carpio), shad (Dorosoma spp.), shorthead redhorse (Moxostoma macrolepidotum), buffalo (Ictiobus spp.), gar (Atractosteus spp. and Lepisosteus spp.), drum (Aplodinotus spp.), carp (Cyprinus spp. Ctenopharyngodon spp., and Hypophthalmichthys spp.), and goldeneye (Hiodon alosoides). Pallid (Scaphirhynchus albus) and shovelnose sturgeon (Scaphirhynchus platorynchus) are also found in the Lower Missouri River (USACE, 2001). Many reptile, amphibians, birds, and mammals utilize aquatic habitats for at least a portion of their lives. The old channel section provides wetland habitat for those species that don't require big rivers.

## 2.4 Water Quality

The Missouri River in St. Charles County is listed on the Section 303(d) list of impaired water bodies for E. coli. Municipal point source discharges, as well as nonpoint sources are believed to be the main sources of the pollutant.

Due to the proximity of the area to urban areas uphill from the Bangert Island study area. Runoff of herbicides, pesticides, and urban runoff would expected to be high. In addition, fertilizer runoff would likely boost nutrient levels within the project area, especially those areas with no outflow.

The sediment that reaches the Missouri River has impacts ranging from reducing fish habitat, creating taste and odor problems in drinking water, and impairing recreational opportunities. The side channel historically provided water quality benefits by slowing water before it discharged into the Missouri River.

#### 2.5 Terrestrial Resources

#### 2.5.1 Riparian Habitat

A typical wooded Missouri River island, the land features cottonwood (*Populus* spp.), sycamore (*Platanus occidentalis*), box elder (*Acer negundo*), silver maple (*Acer saccharinum*), and black willow (*Salix nigra*) trees. There is mix of relatively old trees and snags along with younger trees/shrubs creating a variety of habitats.

#### 2.5.2 Wildlife

Wildlife typical of riparian hardwoods can be found on the site; white-tailed deer (*Odocoileus virginianus*), eastern wild turkey (*Meleagris gallopavo silvestris*), raccoons (*Procyon lotor*), mink (*Neovison vison*), opossums (*Didelphis virginiana*), as well as a variety of reptile, amphibian, as well as resident and migratory bird species.

#### 2.6 Threatened and Endangered (T&E) Species

A request through USFWS's Information, Planning, and Conservation (IPaC) system revealed the following federally-listed threatened or endangered species could be present on or near the site:

**Gray Bat** (*Myotis grisescens*), Endangered - Gray bats roost in caves or mines yearround and use water features and forested riparian corridors for foraging and travel. Activities that adversely affect caves, mines, associated riparian areas, or will involve tree removal around these features particularly within stream corridors, riparian areas, or associated upland woodlots may adversely affect gray bats.

**Indiana Bat** (*Myotis sodalis*), Endangered, & Northern Long-eared Bat (*Myotis septentrionalis*), Threatened - These bat species hibernate in caves or mines only during the winter. In Missouri the hibernation season is considered to be November 1 to March 31. During the active season in Missouri (April 1 to October 31) they roost in forest and woodland habitats.

Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags 5 inches diameter at breast height (dbh) for Indiana bat, and 3 inches dbh for northern long-eared bat, that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Tree species often include, but are not limited to, shellbark or shagbark hickory (*Carya laciniosa* or *Carya ovata*), white oak (*Quercus alba*), cottonwood, and maple (*Acer* spp.). Individual trees may be considered suitable habitat when they exhibit

the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat.

Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. Activities that could impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, may adversely affect Indiana bats or northern long-eared bats.

**Pallid Sturgeon** (*Scaphorhynchus albus*), Endangered – Pallid sturgeon evolved in the diverse environments of the Missouri and Mississippi river systems. Floodplains, backwaters, chutes, sloughs, islands, sandbars, and main channel waters formed the large-river ecosystem that met the habitat and life history requirements of pallid sturgeon and other native large-river fishes. Pallid sturgeon have been documented over a variety of available substrates, but are often associated with sandy and fine bottom materials (Bramblett and White 2001; Elliott et al. 2004; Gerrity 2005; Snook et al. 2002; Swigle 2003; Peters and Parham 2008; Spindler 2008). Across their range, pallid sturgeon have been documented in waters of varying depths and velocities.

Spawning appears to occur between March and July, with lower latitude fish spawning earlier than those in the northern portion of the range. Adult pallid sturgeon can move long distances upstream prior to spawning, and females likely are spawning at or near the apex of these movements (Bramblett and White, 2001; DeLonay et al., 2009). This behavior can be associated with spawning migrations (U.S. Geological Survey (USGS), 2007; DeLonay et al., 2009). Spawning appears to occur over firm substrates, in deeper water, with relatively fast, turbulent flows, and is driven by several environmental stimuli including flow, water temperature, and day length (USGS 2007; DeLonay et al., 2009). Incubation rates are governed by and depend upon water temperature. Alteration in water depth, flow rate or pattern, or substrate, could adversely affect the pallid sturgeon.

**Decurrent False Aster** (*Boltonia decurrens*), Threatened - The decurrent false aster is threatened species. It is a perennial plant found in moist, sandy floodplains and prairie wetlands along the Illinois River. Although not very tolerant to prolonged flooding, this plant relies on periodic flooding to scour away other plants that compete for the same habitat. The species historical range included Illinois and Missouri.

## 2.7 Cultural Resources

This report summarizes previous cultural resources work, the hypothesized potential for the presence of cultural resources, and a short list of management recommendations for the project area. Cultural resources information and archaeological background review of the project area was conducted using information obtained from the NRHP database (online) and Missouri Department of Natural Resources (MDNR) Archaeological Viewer (online). In addition, the Corps of Engineers, Kansas City District has developed Geographic Information System (GIS) resources regarding the routes of the former channels of the Missouri River. The former channel data were derived from river survey projects conducted in the 19th to the early 20th century, including the Government Land Office (GLO) surveys in 1816 to 1819, the Corps 1879 Survey of the Missouri River, the Missouri River Commission 1894 Survey of the Missouri River, and the 1928 Missouri River channel alignment based on aerial photography on file at the Corps of Engineers, Kansas City District. Review of the former channel documentation indicates that the majority of the MRRP project areas have been crossed by the Missouri River in the historic past, often multiple times. In the former channels, the soils are likely composed of recently accreted alluvium, which would have little likelihood to contain prehistoric deposits, but could still contain historic archaeological sites or shipwrecks.

The Lewis and Clark campsite locations are based on the expedition reports and were mapped by the National Park Service. No physical evidence of their campsites has been recovered and the information has only been included as a reference.

GIS resources on historic shipwrecks on the Missouri River were developed by Corps of Engineers, Kansas City District based on information from two researchers, Captain H.M. Chittenden (1897) and E.B. Trail (n.d.). The locations of shipwrecks in the project areas are, in most cases, approximate (see Figure 2). There are discrepancies in the locations of shipwrecks between the Chittenden's report and Trail's maps. Chittenden's report was compiled mostly through interviews with steamship captains and eyewitness accounts while the maps compiled by E.B. Trail were developed primarily through review of local newspaper accounts and other record searches conducted over many years. As an additional note, these wrecks were often salvaged, looted, intentionally destroyed shortly after they occurred, or destroyed by natural process, and so it is possible that little or no physical evidence of the wrecks exists. Maps of the historic channel migrations for each project area are included to inform the selection of survey methods for future undertakings.

The available information has been provided to and early-stage planning. Any undertakings will require additional background review, consultation, and perhaps field survey.

The project area is located on accreted land on the western bank of the Missouri River south of the I-70 bridge between river miles 29.6 and 31.2. The area has been crossed by the 1928 Missouri River alignment and partly by the 1816 and 1894 river alignments. Because there are four steamship wrecks mapped in the project area the river must have hugged this bank in the middle-late nineteenth century when steamboats were common. Background historic research should be performed for additional location and historic context. There is little potential for prehistoric or early historic sites in the project area although there may be historic sites that post-date 1928.

Almost none of the project area has been professionally surveyed but a few have been on adjacent lands. A proposed interceptor survey parallels the Katy Trail, which is adjacent to the western edge of the project area. A small cell tower survey occurred in

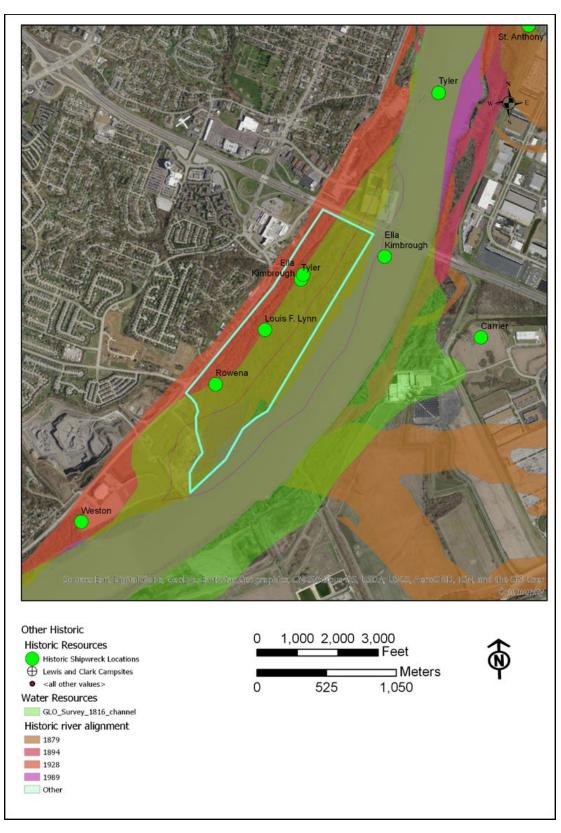


Figure 2. Historic Shipwreck Locations and Missouri River Historic and Current Alignments in the Bangert Island Study Area

the northwest corner and a large survey for a quarry occurred along the southwest edge. One site (not described in the online database), is recorded in that quarry area but has been destroyed. Across the river, an entertainment district survey located several historic farmsteads.

The potential for cultural resources in the Bangert Island study area, other than possibly steamboats, is low because the land has accreted in the past 80 years or so. The possibility for steamboat wrecks in the area should be considered and historic research performed to explore the possibility.

#### 2.8 Land Use

Bangert Island is currently being used by St. Charles County as a park area with approximately four miles of natural surfaced trails utilized for hiking, biking, bird watching, etc. The remainder of the land is maintained as a natural area comprised of habitats that primarily consist of bottomland hardwood forest. The Katy Trail is located adjacent to the northwest boundary of the project. Immediately southwest of Bangert Island is an active quarry site owned by LaFarge Aggregates, and southwest of that is the Family Arena. Along the western edge of the project is a mixture of residential, Industrial, and commercial properties. To the north of Bangert Island is I-70 and the Ameristar Casino.

#### 2.9 Hazardous, Toxic, and Radioactive Waste

There are five hazardous waste generators registered with RCRA near the north and west side of the proposed project. They are the Kmart, Noahs Ark, United Refrigeration Inc., Quick Trip, and Whittaker Construction Hidden Oaks. In addition there are a number of water dischargers with NPDES permits along the western edge of the project. Only one site has had a toxic release, which is located near the south edge of Bangert Island. It is Pace Construction Company St. Charles Plant.

## 2.10 Recreation

Bangert Island is on the Missouri River just south of the Blanchette Bridge. Guests may enter the 160-acre park from the Katy Trail entrance along Old South River Road in St. Charles and then cross a slough that connects Bangert Island to the mainland. While using the park's 4 miles of natural surface trail for hiking or mountain biking, guests may encounter white-tailed deer, turkey, raccoons, opossums, and a variety of songbirds. In addition to bird-watching, hiking, bicycling, and photography, park guests may also fish along the banks of the Missouri River that flows below the park - although state fishing regulations apply and hunting is prohibited.

## 2.11 Socioeconomics and Environmental Justice

Louis H. Bangert Memorial Wildlife Area is owned by Saint Charles County and leased and managed by St. Charles County Parks and Recreation and the Missouri Department of Conservation (MDC).

Executive Order 12898, issued in 1994, directs federal agencies to incorporate environmental justice as part of their mission by identifying and addressing the effects of programs, policies, and activities on minority and low-income populations.

## 2.12 Navigation

A 9-foot deep by 300-foot wide navigation channel is maintained on the Missouri River by USACE through the Bank Stabilization and Navigation Program (BSNP). The system uses a series of revetments, dikes, and other structures to create a self-scouring navigation channel from its mouth near St. Louis, Missouri, up to Sioux City, Iowa. Commercial navigators operate tow boats pushing barges to transport various commodities along the river. Although not all are active, there are approximately 113 privately owned and operated docks used to load and unload barges along the Missouri River. The portion of the Missouri River adjacent to Bangert Island occurs within the navigation channel.

### 2.13 Aesthetics and Visual Resources

The area is currently grown into a forested area with relatively large trees covering much of the island. During low flow periods sandbars adjacent the Missouri River exist and are a popular spot with boaters and fishermen. To the west of the island is an urban area with commercial and industrial buildings.

## 3 Environmental Compliance

Statutory and environmental compliance with the applicable laws and regulations would need to be completed prior to initiating and during construction of a proposed project and the environmental compliance for a proposed plan would be need to be achieved upon coordination of a NEPA document with appropriate agencies, organizations, and individuals for their review and comments.

The summaries of each law and regulation discussed include a preliminary assessment of the potential for applicability to any of the laws and regulations of a proposed project on Bangert Island. During future phases (e.g., detailed design, NEPA development, construction) the information included in this document would require review and updates to reflect current information.

### 3.1 Laws and Regulations

## 3.1.1 Archeological Resources Protection Act, 16 USC 470, et seq. Protects Archaeological Sites On Federal And Indian Lands

Conditions of the Archeological Resources Protection Act (ARPA) are: No Excavation Or Removal From Federal Or Indian Land Without A Permit From The Federal Land Manager; Prohibits trafficking in archaeological resources; Land Manager Must Notify Any Affected Tribe; ARPA Permit Not Subject To NHPA; Violations Of ARPA Can Be A Federal Crime.

Any land disturbance activities on Federal or Indian lands would trigger the ARPA process and require a permit from the land managing agency.

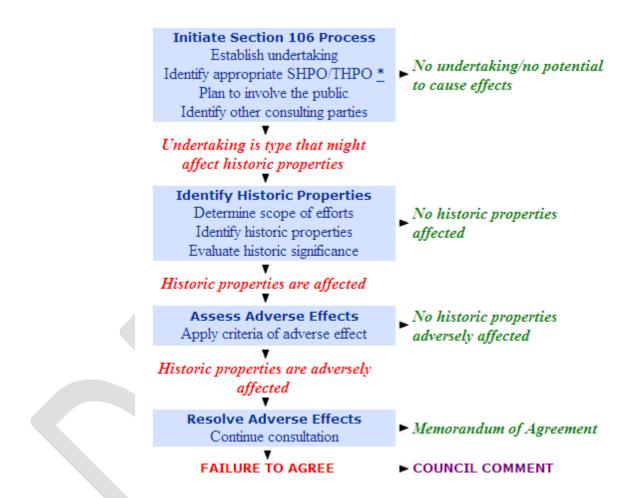
As no Federal or Indian lands exist within the Bangert Island study area it is unlikely ARPA coordination will be required for implementation of a proposed construction project.

# 3.1.2 National Historic Preservation Act of 1966, as amended, 54 USC 300101 et seq.

**Section 106** – Requires agencies to consider the effect of a federal undertaking on historic resources; includes a consultation process.

The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking shall, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, as the case may be, take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register. The head of any such Federal agency shall afford the Advisory Council on Historic Preservation established under Title II of this Act a reasonable opportunity to comment with regard to such undertaking.

Any ground disturbing or other undertaking that includes potential for removal or alteration of any district, site, building, structure, or object that is included in or eligible for inclusion in the Nation Register of Historic Places (NHRP) would trigger the Section 106 process. The Section 106 process flow chart for determining affect can be found below. This should be done in consultation with the State Historic Preservation Officer (SHPO) and/or Tribal Historic Preservation officer (THPO).



**Section 110** – Requires agencies to preserve historic resources under the agency's jurisdiction.

Applies to historic and pre-historic resources owned or controlled by Federal agencies. Agencies must establish a preservation program of identification, evaluation and nomination of properties to NHRP.

Review Process of effects to National Historic Landmarks. Anticipatory Demolition –an agency may not grant a permit if historic resources have been destroyed in order to avoid Section 106. This section of the law only applies if the lead agency is a Federal agency.

# 3.1.3 Protection & Enhancement of the Cultural Environment (Executive Order 11593)

Federal agencies are required to preserve, restore and maintain federally owned sites and objects of historical, architectural or archaeological significance.

Federal agencies are required to locate, inventory, and nominate to the NRHP all properties under their control/jurisdiction that appear to quality for listing. This Executive Order only applies if the lead agency is a Federal agency.

As no Federal Lands are involved with this proposed action, EO 11993 would not be applicable.

# 3.1.4 American Indian Religious Freedom Act of 1978 (AIRFA), 42 USC 1996

On and after August 11, 1978, it shall be the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to *access to sites*, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.

The President shall direct the various Federal departments, agencies, and other instrumentalities responsible for administering relevant laws to evaluate their policies and procedures in consultation with native traditional religious leaders in order to determine appropriate changes necessary to protect and preserve Native American religious cultural rights and practices.

The lead agency would consult with all Native American Tribes that may have an affiliation with the site due to past or present activities to determine if there are religious cultural rights and practices tied to that land.

## 3.1.5 1990 - Native American Graves Protection and Repatriation Act (Public Law 101-601; 25 USC § 3001-13; 104 Stat. 3042)

The Native American Graves Protection and Repatriation Act establishes rights of Native American and other indigenous people with respect to cultural items. Cultural items include human remains, funerary objects, sacred objects and objects of cultural patrimony. A claiming group must be able to establish "cultural affiliation"

The Native American Graves Protection and Repatriation Act places controls on the excavation and removal of cultural items from federal and tribal lands. Institutions that receive federal funding must inventory their collections and repatriate human remains and cultural items. Criminalizes trafficking in cultural items.

If during ground disturbing activities any remains or cultural items are found, then construction would halt and the lead agency notified and the site would be examined by a qualified archaeologist. If there are items identified above consultation with the SHPO and affiliated tribes would take place.

## 3.1.6 Clean Air Act, as amended, 42 U.S. C. 7401-7671g, et seq.

The Clean Air Act (CAA) is the comprehensive federal law that regulates air emissions from stationary and mobile sources. Among other things, this law authorizes the U.S. Environmental Protection Agency (USEPA) to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants.

Federally supported activities will not: Cause or contribute to any new violations, or Interfere with provisions in the SIP for maintenance of any standard, or; Increase the frequency of any existing violations, or; Delay timely attainment of any standards, interim emission reductions, or milestones. Since Saint Charles County is designated as nonattainment for 8-hour ozone with a classification as marginal (NRCS, 2019). Based on discussions with the MDNR, no coordination related air quality would likely be needed, except for construction of best management practices (BMPs), such as spraying water on exposed soil to keep the dust down.

A proposed project would need to be evaluated for the potential to cause impacts to air quality (e.g., fugitive dust and internal combustion engine emissions) and whether the impacts would be to a measurable degree.

## 3.1.7 Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403)

Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) prohibits unauthorized obstruction/alteration of navigable waters of the U.S. It regulates construction of structures, excavation/deposit of materials, and other work affecting course, location, condition, or capacity.

Depending upon the design of a proposed project, Section 10 may be triggered. Any project that affects the above mentioned feature of navigable waters would need to consult with the Corps of Engineers-Regulatory Branch. If a project implemented on or near Bangert Island affects the Missouri River a Section 10 permit would be needed.

# 3.1.8 Clean Water Act (Federal Water Pollution Control Act), 33 U.S.C. 1251, et seq.

#### Section 404

Section 404(a) reads: "The Secretary [of the Army] may issue permits, after notice and opportunity for public hearings for the discharge of dredged or fill material into navigable waters at specified disposal sites."

Due to the nature of the potential project on Bangert Island, that would likely require excavation, and the likely presence of wetlands, a Section 404 permit will be needed to comply with the Clean Water Act (CWA). The applicant would need to consult with the Corps of Engineers, St. Louis District-Regulatory Branch to obtain the permit.

There are several types of permits depending on the size and severity of the impact to waters of the US. Nationwide permits (NWPs) typically cover a wide range of smaller

projects and have specific permit conditions that must be followed in order to use one of these permits. Regional general permits (RGPs) are similar but have a smaller area of applicability than the NWPs. For project impacting waters of the US that don't meet the conditions of a NWP or RGP then an individual permit must be issued. It is a more involved process that requires a public comment period.

#### Section 402

Section 402 of the Clean Water Act requires that all construction sites on an acre or greater of land, as well as municipal, industrial and commercial facilities discharging wastewater or stormwater directly from a point source (a pipe, ditch or channel) into a surface water of the United States (a lake, river, and/or ocean) must obtain permission under the National Pollutant Discharge Elimination System (NPDES) permit. All NPDES permits are written to ensure the Nation's receiving waters will achieve specified Water Quality Standards (WQS).

If a proposed project has ground disturbing activity over an acre then a NPDES permit will be required under section 402 of the CWA.

In the State of Missouri, the issuance of NPDES Permits is delegated to the MDNR. A stormwater pollution prevention plan (SWPPP) that shows that BMPs are being used to reduce water pollution and Stormwater runoff is a requirement of Issuance of a Section 402 NPDES permit.

#### Section 401

Under Section 401 of the Clean Water Act (CWA), a federal agency may not issue a permit or license to conduct any activity that may result in any discharge into waters of the United States unless a state or authorized tribe where the discharge would originate issues a Section 401 water quality certification verifying compliance with existing water quality requirements or waives the certification requirement.

The issuance of a Section 404 or Section 402 permit is required for a project then a Section 401 water quality certification would need to be acquired. Most NWPs have a preapproved water quality certification as long as a set of conditions are followed.

If an individual Section 404 permit is required a separate Section 401 water quality certification process would be required. In Missouri the issuance of Section 401 Water Quality Certification is designated to MDNR. To receive certification, a copy of all comments received during the public comment period must be sent along with the Section 401 application. Certification must be received before construction activities can commence.

## 3.1.9 Floodplain Management (Executive Order 11988)

 Authority is solely by Executive Order- Executive Order 11988, Floodplain Management (President Carter)

- Amended by Executive Order 12148, Federal Emergency Management (President Carter)
- Amended by Executive Order 13690, Establishing a Federal Flood Risk Management Standard (President Obama)

Executive Order (EO) 11988, Floodplain Management, requires Federal agencies to determine whether a proposed action would occur within a floodplain. EO 11988 directs Federal agencies to avoid floodplains unless the agency determines that there is no practicable alternative. In accordance with EO 11988, construction of new facilities within the 100-year floodplain is avoided, where practicable.

Implementation of a proposed project in the Bangert Island study area would occur in a floodplain and the parameters of this EO would apply. In accordance with EO11988, a Finding of No Practicable Alternative (FONPA) would need to be prepared and approved by designated officials for all projects impacting floodplain areas.

## 3.1.10 Protection of Wetlands (Executive Order 11990)

Under this EO each Federal agency must provide leadership and take action to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands. Each agency, to the extent permitted by law, must avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds: there is no practical alternative to such construction; the proposed action includes all practical measures to minimize harm to wetlands that may result from such use. In making this finding the head of the agency may take into account economic, environmental and other pertinent factors (Section 2(a)). Each agency must also provide opportunity for early public review of any plans or proposals for new construction in wetlands (Section 2(b)).

This project is likely to occur in wetlands and a wetland delineation in accordance with the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (USACE 2010) would be needed to determine impacts to wetlands.

If there are unavoidable adverse impacts to wetlands then mitigation may be required on a value to value basis based on a habitat assessment.

# 3.1.11 Watershed Protection and Flood Prevention Act, 16 U.S.C. 1001, et seq.

The Watershed Protection and Flood Prevention Act of 1954 (WPFPA) is a law that protects watersheds from erosion, sedimentation, and flooding. Under WPFPA, federal agencies work with local organizations to develop and implement flood control and watershed runoff plans. Flooding and poor watershed runoff management both damage the environment by carrying sediment and pollutants into streams and rivers. Sedimentation and pollution in water systems harms ecosystems and makes rivers and lakes unsuitable for fishing, swimming, or drinking. Federal and local agencies have also implemented numerous flood control plans to prevent property damage and loss of life that can occur from flooding.

### 3.1.12 Endangered Species Act, 16 U.S.C. 1531, et seq.

When Congress passed the Endangered Species Act of 1973, it recognized that many of our nation's native plants and animals were in danger of becoming extinct. Congress further expressed that our rich natural heritage was of "esthetic, ecological, educational, recreational, and scientific value to our Nation and its people."

The purposes of the 1973 Act are to protect these endangered and threatened species and to conserve "the ecosystems upon which endangered and threatened species depend" and to conserve and recover listed species.

#### Section 7

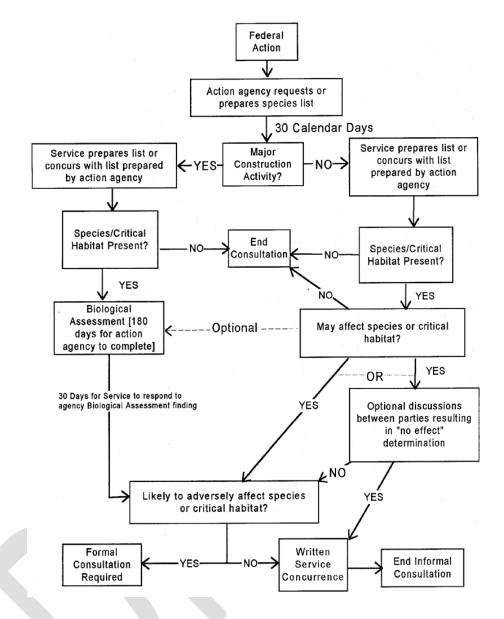
Section 7 of the Act, called "Interagency Cooperation," is the mechanism by which Federal agencies ensure the actions they take, including those they fund or authorize, do not jeopardize the existence of any listed species.

Under Section 7, Federal agencies must consult with the U.S. Fish and Wildlife Service (USFWS) when any action the agency carries out, funds, or authorizes (such as through a permit) may affect a listed endangered or threatened species.

#### Informal Consultation

This process usually begins as informal consultation. A Federal agency, in the early stages of project planning, approaches the USFWS and requests informal consultation. Discussions between the two agencies may include what types of listed species may occur in the proposed action area, and what effect the proposed action may have on those species.

If the Federal agency, after discussions with the USFWS, determines that the proposed action is not likely to affect any listed species in the project area, and if the USFWS concurs, the informal consultation is complete and the proposed project moves ahead. If it appears that the agency's action may affect a listed species, that agency may then prepare a biological assessment to assist in its determination of the project's effect on a species. A flow chart of the informal consultation process can be found below.

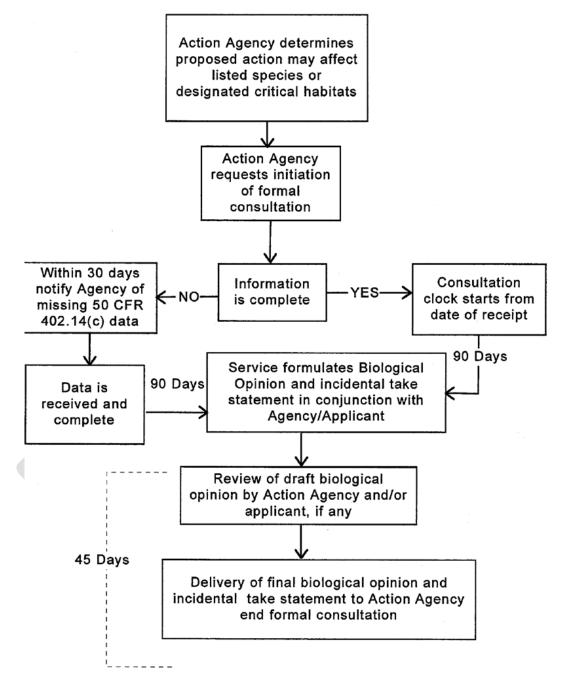


#### Formal Consultation

When a Federal agency determines, through a biological assessment or other review, that its action is likely to adversely affect a listed species, the agency submits to the USFWS a request for formal consultation. During formal consultation, the USFWS and the agency share information about the proposed project and the species likely to be affected. Formal consultation may last up to 90 days, after which the USFWS will prepare a biological opinion on whether the proposed activity will jeopardize the continued existence of a listed species. The USFWS has 45 days after completion of formal consultation to write the opinion.

In making a determination on whether an action will result in jeopardy, the USFWS begins by looking at the current status of the species, or "baseline." Added to the baseline are the various effects – direct, indirect, interrelated, and interdependent – of

the proposed Federal action. The USFWS also examines the cumulative effects of other non-Federal actions that may occur in the action area, including state, tribal, local, or private activities that are reasonably certain to occur in the project area. A flow chart of the formal consultation process can be found below.



The Bangert Island study area has potential habitat for threatened and endangered species (e.g. bat species) and implementation of a proposed project would likely require formal consultation with the USFWS to determine what impacts may occur and any steps needed to reduce adverse impacts on those species.

## 3.1.13 Fish and Wildlife Coordination Act, 16 U.S.C. 661, et seq.

The purpose of the Fish and Wildlife Coordination Act (FWCA) is to assure consideration of wildlife impacts of federal water development projects.

To ensure fish and wildlife resources receive equal consideration to other features of water resource development projects, the FWCA requires Federal agencies involved with such projects to first consult with the USFWS and the respective state fish and wildlife agencies regarding the potential impacts of the project on fish and wildlife resources. The results of the consultation are not binding, but the Federal agency must strongly consider input received during consultation to prevent loss or damage to wildlife resources and provide for any measures taken to mitigate such impacts.

Whenever the waters or channel of a body of water are modified by a Federal agency, or by any other entity where a Federal permit is required, adequate consideration must be made for the conservation, maintenance and management of wildlife resources and habitat. The use of the waters, land or interests for wildlife conservation must be in accordance with plans approved jointly by: the head of the department or agency exercising primary administration; the Secretary; the head of the state agency exercising administration of the wildlife resources.

The Federal agency usually has to develop a Memorandum of Agreement and pay the USFWS for their time to complete planning aid letters and a Coordination Act Report (CAR). The draft and final CARs typically are completed concurrently and are attached to the draft and final NEPA documents, respectively.

## 3.1.14 Bald and Golden Eagle Protection Act 16 U.S.C. 668-668d

The Bald and Golden Eagle Protection Act enacted in 1940, and amended several times since then, prohibits anyone, from "taking" bald and golden eagles, including their parts, nests, or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The U.S. Department of Interior can issue intentional take permits.

Any project that could potentially commit a "taking" as defined above needs to consult with USFWS and Missouri Department of Conservation (MDC) to determine if there are any nest or roost sites within or near a project area. A project is typically required to be outside a perimeter around a nest unless no other alternative exists.

No known eagle nest site are located within the project area therefore a "taking" would not be likely. A survey of the area prior to construction would likely be required to ensure that no new nests are present as the Bangert Island study area harbors potentially suitable habitat for bald and golden eagles. Additionally, at a minimum coordination with the USFWS and MDC regarding a proposed project should be completed to document compliance with the Bald and Golden Eagle Protection Act.

## 3.1.15 Migratory Bird Treaty Act 16 U.S.C. 703-712

The MBTA was initially passed in 1918 and was designed for the protection of game birds, but includes all other migratory birds.

**MBTA** Prohibitions

"... it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer to purchase, purchase, deliver for shipment, ship, export, import, cause to be shipped, exported or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any migratory bird, or any part, nest, or eggs of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or in part, of any such bird or any part, nest, or egg thereof, included in the terms of the conventions between the United States (and Great Britain, Mexico, Japan and the Soviet Union.)"

Each project should be designed to minimize its impact on migratory birds and their habitat. This can be done by various means such as timing clearing activities outside of nesting season, avoiding snags, and surveying the area for bird nests by a qualified biologist prior to clearing activity.

The Bangert Island study area has potential habitat for migratory birds. Appropriate seasonal construction restrictions would need to be integrated into project plans prior to implementation of a project to minimize effect to migratory birds as a result of construction. If seasonal restrictions cannot be implemented, surveys should be conducted, following appropriate survey protocol, to avoid impacts to migratory birds.

## 3.1.16 Farmland Protection Policy Act, 7 U.S.C. 4201, et. seq.

The Farmland Protection Policy Act (FFPA) is intended to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every two years.

The FPPA does not authorize the Federal Government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners.

For the purpose of FPPA, farmland includes prime farmland, unique farmland, and lands of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land

No qualifying land exists within the Bangert Island study area, therefore evaluation of impacts to prime farmland, unique farmland, and lands of statewide or local importance

would be need and no consultation with the U.S. Department of Agriculture Natural Resources Conservation Service would be required.

# 3.1.17 Land and Water Conservation Fund Act, 16 U.S.C. 4601-4, et seq.

The Land and Water Conservation Fund was established by Congress in 1964 to fulfill a bipartisan commitment to safeguard our natural areas, water resources and cultural heritage, and to provide recreation opportunities to all Americans. Using zero taxpayer dollars, the fund invests earnings from offshore oil and gas leasing to help strengthen communities, preserve our history and protect our national endowment of lands and waters.

## 3.1.18 Invasive Species (EO 13112)

Each Federal agency whose actions may affect the status of invasive species shall, to the extent practicable and permitted by law,

- 1. identify such actions;
- 2. subject to the availability of appropriations, and within Administration budgetary limits, use relevant programs and authorities to: (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded; (v) conduct research on invasive species and develop technologies to prevent introduction and provide for environmentally sound control of invasive species; and (vi) promote public education on invasive species and the means to address them; and
- 3. not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless, pursuant to guidelines that it has prescribed, the agency has determined and made public its determination that the benefits of such actions clearly outweigh the potential harm caused by invasive species; and that all feasible and prudent measures to minimize risk of harm will be taken in conjunction with the actions.

Federal agencies shall pursue the duties set forth in this section in consultation with the Invasive Species Council, consistent with the Invasive Species Management Plan and in cooperation with stakeholders, as appropriate.

It is currently unknown if any invasive species occur in the Bangert Island study area. A survey would be required to document the presence of invasive species and appropriate measures to comply with EO 13112 would need to be integrated into project plans prior to construction.

## 3.1.19 National Environmental Policy Act, 42 U.S.C. 4321, et seq.

The NEPA was one of the first laws ever written that establishes the broad national framework for protecting our environment. NEPA's basic policy is to assure that all branches of government give proper consideration to the environment prior to undertaking any major federal action that significantly affects the environment.

NEPA requirements are invoked when airports, buildings, military complexes, highways, parkland purchases, and other federal activities are proposed. Environmental Assessments (EAs) and Environmental Impact Statements (EISs), which are assessments of the likelihood of impacts from alternative courses of action, are required from all Federal agencies and are the most visible NEPA requirements.

Each Federal agency has their own regulations for implementing NEPA. When more than one Federal agency is involved, then the designated lead Federal agency's implementation regulations would be used. The Corps of Engineers NEPA implementation regulations can be found in ER 200-2-2.

## 3.1.20 Environmental Justice (Executive Order 12898)

Executive Order 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations - was issued by President William J. Clinton in 1994. Its purpose is to focus federal attention on the environmental and human health effects of federal actions on minority and low-income populations with the goal of achieving environmental protection for all communities.

The EO directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. The order also directs each agency to develop a strategy for implementing environmental justice. The order is also intended to promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.

Prior to implementation of a project on Bangert Island an evaluation would be required to determine if any actions would disproportionally adversely impact minority or low income communities.

# 3.1.21 Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)

In response to a growing concern over health and environmental risks posed by hazardous waste sites, Congress established the Superfund Program in 1980 to clean up these sites. The Superfund Program is administered by the USEPA.

## 3.2 National Environmental Policy Act

### 3.2.1 Overview

NEPA establishes a national environmental policy, sets goals for the protection, maintenance and enhancement of the environment, and establishes a process for implementing these goals within federal agencies. All federal agencies must incorporate environmental considerations in planning and decision-making. NEPA also established the President's Council on Environmental Quality (CEQ), empowered to develop regulations by which federal agencies would comply with NEPA. These regulations are published at 40 CFR 1500-1508.

The Corps of Engineers has promulgated Engineer Regulation 200-2-2 Procedures for Implementing NEPA to provide Corps of Engineers internal guidance for adhering to the procedural provisions of NEPA. ER 200-2-2 supplements, and is used in conjunction with, the CEQ regulations. Within the CEQ NEPA regulations and ER 200-2-2, a process is set forth wherein the Corps must assess the environmental impact of proposed federal actions and consider reasonable alternatives to Corps proposed actions.

Within the regulations, a process is set forth where the Corps of Engineers must assess the environmental effects of proposed Federal actions. For those actions with the greatest potential to create significant environmental effects, the consideration of the proposed action and alternatives is presented in an Environmental Impact Statement (EIS). Where the potential effects of the proposed action are unknown or believed to not be significant, the agencies prepare an EA.

The CEQ's NEPA Regulations do not contain a detailed discussion regarding the format and content of an EA, but an EA must briefly discuss the:

For Federal actions that need to comply with NEPA there are three pathways depending on the size and impacts of the action. They are Categorical Exclusions, Environmental Assessments, and Environmental Impact Statements.

## 3.2.2 Categorical Exclusion

A Categorical Exclusion (CatEx) is a class of actions that a Federal agency has determined, after review by CEQ, do not individually or cumulatively have a significant effect on the human environment and for which, therefore, neither an environmental assessment nor an environmental impact statement is normally required.

Each Federal agency has a set of Cat Ex's that are approved specific to that agencies actions. They include such things as purchasing equipment, building a building on already disturbed land, and rehabilitation of a project back to its original design, just to name a few.

## 3.2.3 Environmental Assessment

An Environmental Assessment (EA) is a planning and decision-making tool. The objectives of an EA are to: minimize or avoid adverse environmental effects before they occur; and. incorporate environmental factors into decision making. The end result of the EA process is either a Finding of No Significant Impact (FONSI) or if there are significant adverse impacts a Notice of Intent (NOI) to prepare an EIS is developed.

The typical process required for preparation of an EIS are:

**<u>Scoping</u>**: Meeting or public notice to stakeholders and public to determine any issues that need analyzed in the course of the EA.

**<u>EA and Draft FONSI</u>**: Based on both agency expertise and issues raised by the public, the agency prepares a Draft EA and FONSI with a description of the affected environment, a reasonable range of alternatives, and an analysis of the impacts of each alternative.

**Notice of Availability and Comment:** A public notice is posted and affected individuals then have the opportunity to provide comments on the documents.

**Final EA and FONSI:** Based on the comments on the Draft EA and FONSI, the agency prepares a final EA and the FONSI is signed by the Decision Maker.

## 3.2.4 Environmental Impact Statement

An Environmental Impact Statement (EIS) is a document required by the NEPA for certain actions "significantly affecting the quality of the human environment". An EIS is a tool for decision making. It describes the positive and negative environmental effects of a proposed action, and it usually also lists one or more alternative actions that may be chosen instead of the action described in the EIS.

In particular, an EIS acts as an enforcement mechanism to ensure that the federal government adheres to the goals and policies outlined in the NEPA. An EIS should be created in a timely manner as soon as the agency is planning development or is presented with a proposal for development. The statement should use an interdisciplinary approach so that it accurately assesses both the physical and social impacts of the proposed development. In many instances an action may be deemed subject to NEPA's EIS requirement even though the action is not specifically sponsored by a federal agency. These factors may include actions that receive federal funding, federal licensing or authorization, or that are subject to federal control.

Every EIS is required to analyze a No Action Alternative, in addition to the range of alternatives presented for study. The No Action Alternative identifies the expected environmental impacts in the future if existing conditions were left as is with no action taken by the lead agency. Analysis of the No Action Alternative is used to establish a baseline upon which to compare the proposed "Action" alternatives. Contrary to popular belief, the "No Action Alternative" doesn't necessarily mean that nothing will occur if that option is selected in the Record of Decision.

NEPA requires assessment of cumulative impacts in the decision-making process. A cumulative impact is defined as "the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR§1508.7). Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. These actions include on-site and off-site projects conducted by government agencies, businesses, or individuals that are affecting or would affect the same environmental resources as would be affected by the proposed action. The cumulative action identification and analysis methods are based on the policy guidance and methodology originally developed by CEQ (1997) and an analysis of current case law. Cumulative impacts are determined by adding the impacts of the alternatives being considered with other past, present, and reasonably foreseeable future actions.

The typical process required for preparation of an EIS are:

**Scoping:** The first meetings are held to discuss existing laws, the available information, and the research needed. The tasks are divided up and a lead group is selected. Decision makers and all those involved with the project can attend the meetings.

**Notice:** The public is notified that the agency is preparing an EIS. The agency also provides the public with information regarding how they can become involved in the process. The agency announces its project proposal with a notice in the Federal Register, notices in local media, and letters to citizens and groups that it knows are likely to be interested. Citizens and groups are welcome to send in comments helping the agency identify the issues it must address in the EIS (or EA).

**<u>Draft EIS (DEIS)</u>**: Based on both agency expertise and issues raised by the public, the agency prepares a Draft EIS with a full description of the affected environment, a reasonable range of alternatives, and an analysis of the impacts of each alternative.

**<u>Comment</u>**: Affected individuals then have the opportunity to provide feedback through written and public hearing statements.

**Final EIS (FEIS) and Proposed Action**: Based on the comments on the Draft EIS, the agency writes a Final EIS, and announces its Proposed Action. The public is not invited to comment on this, but if they are still unhappy, or feel that the agency has missed a major issue, they may protest the EIS to the Director of the agency. The Director may either ask the agency to revise the EIS, or explain to the protester why their complaints are not actually taken care of.

**<u>Re-evaluation</u>**: Prepared following an approved FEIS or ROD when unforeseen changes to the proposed action or its impacts occurs, or when a substantial period of time has passed between approval of an action and the planned start of said action. Based on the significance of the changes, three outcomes may result from a re-evaluation report: (1) the action may proceed with no substantive changes to the FEIS, (2) significant impacts are expected with the change that can be adequately addressed

in a Supplemental EIS (SEIS), or (3) the circumstances force a complete change in the nature and scope of the proposed action, thereby voiding the pre-existing FEIS (and ROD, if applicable), requiring the lead agency to restart the NEPA process and prepare a new EIS to encompass the changes.

**Supplemental EIS (SEIS):** Typically prepared after either a Final EIS or Record of Decision has been issued and new environmental impacts that were not considered in the original EIS are discovered, requiring the lead agency to re-evaluate its initial decision and consider new alternatives to avoid or mitigate the new impacts. Supplemental EISs are also prepared when the size and scope of a federal action changes, when a significant period of time has lapsed since the FEIS was completed to account for changes in the surrounding environment during that time, or when all of the proposed alternatives in an EIS are deemed to have unacceptable environmental impacts and new alternatives are proposed.

**Record of Decision (ROD):** Once all the protests are resolved the agency issues a Record of Decision which is its final action prior to implementation. If members of the public are still dissatisfied with the outcome, they may sue the agency in Federal court.

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## APPENDIX K - Certified Appraisals & Katy Trail Relocation Coordination

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APPRAISAL OF 39.26+/- ACRES 2000 SOUTH RIVER ROAD CITY OF ST. CHARLES ST. CHARLES COUNTY, MISSOURI

> DATE OF REPORT DECEMBER 4, 2019

DATE OF VALUE NOVEMBER 22, 2019

PREPARED FOR CITY OF ST. CHARLES ST. CHARLES, MISSOURI

#### PREPARED BY



FILE NUMBER – 19-211

## Page 2 of 120



www.reanalysts.net

December 4, 2019

Mr. Brian Faust Right-of-Way Specialist City of St. Charles 200 North 2<sup>nd</sup> Street, Room 202 St. Charles, MO 63301

Dear Mr. Faust:

At your request, we have made a personal inspection and an appraisal of a parcel of land and improvements approximately 39.26+/- acres in size located at 2000 South River Road in the City of St. Charles, St. Charles County, Missouri 63303.

This appraisal report, of which this letter is a part, describes in detail the land, improvements, and method of appraisal, and contains pertinent data considered in reaching our conclusions.

Based upon our examination and analysis of the property and subject to the limiting conditions and certification contained in this report, it is our opinion that the current "As Is" market value of the subject vacant land, as of November 22, 2019, is:

#### ONE MILLION FOUR HUNDRED FIFTY-FIVE THOUSAND DOLLARS (\$1,450,000)

Our market value conclusion is premised on the exposure time estimate contained in the Reconciliation Section of this report. The following appraisal report, of which this letter of transmittal is a part, will indicate how we have arrived at this value conclusion. This letter is invalid as an opinion of value if detached from the report that contains the text and exhibits.

Respectfully submitted,

REAL ESTATE ANALYSTS LIMITED

Michael A. Green Principal

Jun Joy D

Jeremy A. Logan Associate Appraiser

## Page 3 of 120

#### SUMMARY OF SALIENT FACTS AND CONCLUSIONS

Location:

Type of Property:

Vacant Land

Improvements:

3,840 square foot +/- one story warehouse, built in 1967

2000 South River Road, City of St. Charles, St.

Charles County, Missouri 63303

Parcel Number / Account		Parcel			2018 Appraised		2018 Ssessed		
Number	Owner	Size	Assessed	Value		Value		Tax Rate	2018 Tax
3-0012-S007-00-0028.1110 / A943001669 3-0012-S007-00-0028.1000	LaFarge Corporation	37.61	Improved Commercial	\$	507,269	\$	162,326	7.0609%	\$11,461.65
/ 455205A000	LaFarge Corporation	1.65	Vacant Commercial	\$	24,750	\$	7,920	7.4271%	\$ 588.23
Totals		39.26		\$	532,019	\$	170,246		\$12,049.88
Land Area: 1,710,165.60 square feet; 39.26 acres									
Zoning:	"I-2" (Heavy Industrial District)								
Highest and Best Use:	: Industrial Development								
Date of Inspection:	November 22, 2019								
Date of Value:	November 22, 2019								
Date Report Written:	December 4, 2019								
Property Rights Appra	ised:	Fee Simple							
Estimated "As is" Market Value: \$1,450,6									

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#### ADDENDA

Qualifications of Firm and Staff

#### NATURE OF ASSIGNMENT

#### Purpose of Appraisal

Our assignment has been to appraise the 39.26+/- acres of land improved with a 3,840 square foot warehouse, located on South River Road, in the City of St. Charles, St. Charles County, Missouri 63303.

The purpose of this appraisal is to estimate the "As Is" market value of the fee simple interest in the property.

#### Type of Report

This appraisal report presents a detailed discussion of the subject property, the neighborhood, the data analyzed and the valuation analysis.

#### Identity of the Client and Intended User(s)

This appraisal is intended for use only by the client, City of St. Charles. Use of this report by others is not intended by the appraiser, nor is it intended to be used for other purposes.

#### Intended Use

The intended use of this appraisal is to assist our client in the consideration of an acquisition.

#### **Property Interest Appraised**

This appraisal is of the Fee Simple Estate.

According to The Dictionary of Real Estate Appraisal, 6th ed., 2015, **Fee Simple Estate** is: An absolute fee; a fee without limitations to any particular class of heirs or restrictions, but subject to the limitations of eminent domain, escheat, police power, and taxation. An inheritable estate.

#### Type and Definition of Value

We have been asked to determine *market value*, which is defined as:

"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale; the buyer and seller each acting prudently and knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- 1. buyer and seller are typically motivated;
- both parties are well informed or well advised, and acting in what they consider their best interests;
- 3. a reasonable time is allowed for exposure in the open market;
- payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."

(12 C.F.R. Part 34.42(g); 55 Federal Register 34696, August 24, 1990, as amended at 57 Federal Register 12202, April 9, 1992, 59 Federal Register 29499, June 7, 1994)

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#### Effective Date of Appraisal and Date of Report

The effective date of this appraisal is November 22, 2019 in respect to the "As Is" value. The date of the report is December 4, 2019.

#### Scope of Work

The scope of this appraisal is as follows:

- To inspect the subject property. The subject was inspected on November 22, 2019 by Michael A. Green and Jeremy A. Logan. We were able to gain access and walk the site and take photographs. The warehouse was inspected (exterior only) and aerial photographs were also reviewed.
- To review the St. Charles County Assessor's Records in respect to ownership and real estate taxes due.
- To review the city of St. Charles zoning maps and ordinances pertaining to the permitted uses of the site.
- To assess the economic effects of the neighborhood and the community at large upon the subject property.
- To gather and analyze comparable land sale data and when and where possible, to obtain confirmation of market data by one or more parties to the transaction, or a participating broker. If this were not the case, the information was obtained from sources we believe to be reliable. Additional data sources such as the Multiple Listing Service (MLS), Realist, and CoStar were reviewed.
- In the preparation of this appraisal, we gathered comparable land sale data and analyzed this data
  as it relates to the subject. The analysis of the data resulted in the conclusion of value presented in
  this appraisal report. The Cost and Income Approaches were not utilized in this report. The Sales
  Comparison Approach to value was utilized in this assignment.

#### Extraordinary Assumptions and Hypothetical Conditions

None

#### Additional Definitions

#### **Reasonable Exposure Time**

As defined in The Appraisal Foundation, Statement on Appraisal Standards No. 6 (SMT-6), adopted September 16, 1992, Reasonable Exposure Time is the length of time the property interest being appraised would have been on the market prior to a hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market. The concept of exposure time not only encompasses adequate, sufficient and reasonable time, but also adequate, sufficient and reasonable effort.

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#### FIRREA STANDARDS

Minimum appraisal standards for federally related transactions have been established by Title XI of the Financial Institution Reform, Recovery and Enforcement Act of 1989 (FIRREA), amended June 6, 1994. All appraisals shall, as a minimum:

- Conform to generally accepted appraisal standards as evidenced by the Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the Appraisal Standards Board (ASB) of the Appraisal Foundation unless principles of safe and sound banking require compliance with stricter standards;
- Be written and contain sufficient information and analysis to support the institution's decision to engage in the transaction;
- Analyze and report appropriate deductions and discounts for proposed construction or renovation, partially leased buildings, non-market lease terms, and tract developments with unsold units;
- Be based upon the definition of market value required as set forth in this subpart; and
- Be performed by State licensed or certified appraisers in accordance with requirements set forth in this subpart.

#### CERTIFICATION OF VALUE - REPORT DATED DECEMBER 4, 2019

We certify that, to the best of our knowledge and belief:

- 1. The statements of fact contained in this report are true and correct;
- 2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- We have no present or prospective interest in the property that is the subject of this report, and we have no personal interest with respect to the parties involved.
- 4. We have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- 5. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- 6. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- 7. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute, which include the Uniform Standards of Professional Appraisal Practice.
- 8. Michal A. Green and Jeremy A. Logan made a personal inspection of the property that is the subject of this report.
- 9. Michael A. Green and Jeremy A. Logan have not performed appraisal services, as an appraiser, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- 11. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- 12. Michael A. Green and Jeremy A. Logan have acted in an independent capacity and the appraisal assignment is not based on a requested minimum valuation, a specific valuation, or the approval of a loan.
- 13. Michael A. Green and Jeremy A. Logan are competent to complete this report in accordance with the Competency Provision of USPAP.

REAL ESTATE ANALYSTS LIMITED

Michael A. Green Missouri State Certified General Real Estate Appraiser RA 001032

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Jeremy A. Logan State Certified General Trainee 2019007431

#### ASSUMPTIONS AND LIMITING CONDITIONS

The conduct of this appraisal is necessarily guided, and its results influenced by the terms of the assignment and the assumptions, which together form the basis of the study. The following conditions and assumptions, together with lesser assumptions embodied in this report, constitute the framework of our analyses and conclusions.

- Unless otherwise stated, the value of the property is based upon the present conditions of the national and local economies, the present purchasing power of the U.S. dollar, present financing rates as of the date of this appraisal and is subject to any future changes which may occur in any or all of these conditions.
- 2. The forecasts, projections, and operating estimates contained in this report are based upon current market conditions, anticipated short term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changes in future conditions.
- 3. All information and comments concerning the location, neighborhood, market, trends, construction quality and costs, obsolescence, condition, necessary repairs, expenses, income, taxes, zoning, or any other data of or relating to the property appraised herein, represent the estimates and opinions of Real Estate Analysts Limited, formed after an examination and study of the property.
- 4. While it is believed the information, estimates, and analyses given and the opinions and conclusions drawn therefrom are correct, Real Estate Analysts Limited does not guarantee them. We believe the information which was furnished to us by others is reliable, but we assume no responsibility for its accuracy.
- 5. We assume no responsibility for matters legal in character, nor do we render any opinion as to the title, which is assumed to be good and the property marketable. All existing liens and encumbrances except as specified herein have been disregarded and the property appraised as though free and clear and under responsible ownership and competent management.
- 6. The sketches in this report are included to assist the reader in visualizing the property. We have made no engineering tests or surveys of the property and assume no responsibility for the structural soundness of the improvements, stability, and/or load bearing capacity of the soil and subsoil, adequacy of drainage, location of property lines and improvements on the site, hidden or unapparent conditions, or any other matters of a related nature.
- 7. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a non-conformity has been stated, defined, and considered in the appraisal report.
- 8. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
- 9. Unless otherwise stated in this report, the existence of electro-magnetic fields (EMF), poor indoor air quality (IAQ), carbon monoxide and other gases or substances/materials, including without limitation radon, asbestos, polychlorinated byphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. THE APPRAISER, HOWEVER, IS NOT QUALIFIED TO TEST SUCH SUBSTANCES/MATERIALS, OR CONDITIONS. If the presence of such gas or substances, such as radon, asbestos, urea formaldehyde foam insulation, or other hazardous materials or environmental conditions may affect the value of the property, then any loss in value would have to be deducted from our concluded value because the value we have estimated in this appraisal is predicated on the assumption that there is no such condition on or in the property, or in such proximity thereto that it would cause a loss in value. NO RESPONSIBILITY IS ASSUMED FOR ANY SUCH CONDITIONS, NOR FOR ANY EXPERTISE OR ENGINEERING KNOWLEDGE REQUIRED TO DISCOVER THEM.
- 10. The Americans with Disabilities Act (ADA) became effective January 26, 1992. The appraiser has not made a specific compliance survey and analysis of this property to determine whether or not it is in conformity with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect upon the value of the property. Unless otherwise stated, the value conclusion stated in this report is based on the assumption that the property is not in compliance with ADA requirements.
- 11. Possession of this report or a copy thereof does not carry with it the right of publication, nor may it be used for any purpose by anyone but the client without the previous written consent of the appraiser and then only with proper written qualification, and in its entirety.

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

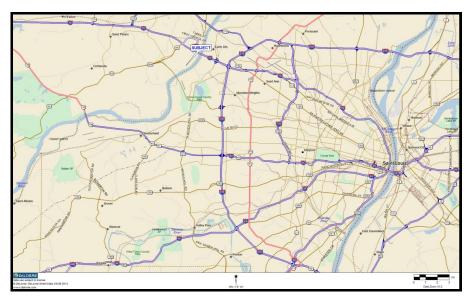
- 12. We are not required to give testimony or to appear in court by reason of this appraisal, with reference to the property in question, unless previous arrangements have been made.
- 13. The distribution, if any, of the value concluded in this report between land and improvements applies only under the stated program of utilization. The separate allocations of value for land and improvements must not be used in conjunction with any other appraisal and are invalid if so used.
- 14. Any value estimates provided in this report apply to the entire property. Any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in the report.
- 15. This report was not prepared for syndication purposes, nor is it to be used for syndication purposes without the consent of the appraisers and then only with proper qualifications.
- 16. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers or the firm with which they are connected, or any reference to the Appraisal Institute or the MAI designation) shall be disseminated to the public through advertising media, public relations media, news media, sales media, or any other public means of communication without the prior written consent and approval of the appraiser.
- 17. This appraisal report has been prepared for the exclusive benefit of the addressee. It may not be used or relied upon by any other party. Any party who uses or relies upon any information in this report, without the preparer's written consent, does so at his own risk.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

#### **GENERAL LOCATION AND AREA DATA**



#### **GENERAL LOCATION AND AREA DATA**

#### Metropolitan Area

The St. Louis metropolitan area is the 21st largest region in the country, with a total population of 2.8 million. The CBSA includes seven counties in Missouri (City of St. Louis, Franklin, Jefferson, Lincoln, St. Charles, St. Louis and Warren) and eight counties in Illinois (Bond, Calhoun, Clinton, Jersey, Macoupin, Madison, Monroe, and St. Clair). The following information obtained from ESRI Business Analyst, compares the demographics of the St. Louis CBSA and the United States.

Sites	2010 Total Population (U.S. Census)	2019 Total Population (Esri)	2024 Total Population (Esri)	2010-2019 Population: Annual Growth Rate (Esri)	2018-2024 Population: Annual Growth Rate (Esri)	2019 Median Household Income (Esri)	2024 Median Household Income (Esri)	2019-2024 Median Household Income: Annual Growth Rate (Esri)	2019 Total Housing Units (Esri)
St. Louis City, MO	319,225	310,144	305,147	-0.31%	-0.32%	\$43,877	\$52,362	3.60%	175,958
St. Louis County, MO	998,954	1,010,659	1,019,759	0.13%	0.18%	\$66,374	\$76,944	3.00%	444,088
St. Charles County, MO	360,485	412,019	443,277	1.46%	1.47%	\$83,322	\$92,421	2.09%	160,574
Jefferson County, MO	218,733	228,116	234,341	0.46%	0.54%	\$63,647	\$71,960	2.49%	92,323
Warren County, MO	32,513	35,551	37,376	0.97%	1.01%	\$52,599	\$58,757	2.24%	16,064
Lincoln County, MO	52,566	58,700	62,227	1.20%	1.17%	\$55,826	\$61,671	2.01%	22,966
Franklin County, MO	101,492	107,176	110,400	0.59%	0.59%	\$56,441	\$65,422	3.00%	46,158
St. Clair County, IL	270,056	266,198	261,295	-0.16%	-0.37%	\$53,292	\$58,334	1.82%	117,969
Madison County, IL	269,282	270,050	268,508	0.03%	-0.11%	\$57,319	\$62,630	1.79%	119,013
Monroe County, IL	32,957	35,223	36,478	0.72%	0.70%	\$78,681	\$86,577	1.93%	14,471
Macoupin County, IL	47,765	47,104	45,952	-0.15%	-0.49%	\$52,369	\$55,916	1.32%	21,584
Jersey County, IL	22,985	22,414	21,687	-0.27%	-0.66%	\$58,538	\$64,654	2.01%	9,848
Clinton County, IL	37,762	38,654	39,042	0.25%	0.20%	\$65,627	\$72,222	1.93%	15,879
Calhoun County, IL	5,089	4,910	4,755	-0.39%	-0.64%	\$54,808	\$58,117	1.18%	2,835
Bond County, IL	17,768	17,381	17,030	-0.24%	-0.41%	\$56,723	\$60,597	1.33%	7,175
St. Louis (CBSA)	2,787,701	2,864,359	2,907,331	0.29%	0.30%	\$62,139	\$71,393	2.82%	1,266,949
United States	308,745,538	332,417,793	345,487,602	0.80%	0.77%	\$60,548	\$69,180	2.70%	140,954,564

As shown above, according to ESRI, Business Analyst, the 2010 U.S. Census Population of the CBSA was 2,787,701, and it is expected to increase to 2,907,331, by 2024. Population for individual counties in the (CBSA) shows a continuing pattern of migration to less urbanized areas. 19-211

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

St. Louis County, the most heavily populated area, has limited opportunities for future growth. The total population as of 2019 is 1,010,659, or a 1.17 percent increase from the 2010 U.S. Census Population of 998,954. The City of St. Louis attained its population peak of over 850,000 in the 1950s, and the number of residents declined from that time up through the early 2000s. The total population as of 2019 is 310,144, or a 2.84 percent decrease from the 2010 U.S. Census Population of 319,225.

In percentage terms, the counties of St. Charles, Lincoln and Warren in Missouri have posted the largest gains. Between 2010 and 2019, the population increase for St. Charles County was 14.30 percent, and Lincoln and Warren Counties indicated increases of 11.67 percent and 9.34 percent respectively. During this same time period, the greatest percentage of growth in Illinois was in Monroe County, with a 6.88 percent increase.

Regarding the local business environment, the St. Louis Regional Chamber provides the following information:

"Driven by a diverse and well-educated work force, Greater St. Louis is a major national business center. With an excellent quality of life and affordable cost of living, Greater St. Louis is a great base for companies and people alike.

The St. Louis area benefits from a highly diversified economy that doesn't lean heavily on any particular sector and provides a high degree of stability. Greater St. Louis has a business climate primed for continued growth, as the area is forging new frontiers in innovative and exciting industries. We are targeting the following industry clusters in which the region has both existing strengths and strong growth prospects:

- Financial and Information Services
- Bioscience
- Multi-modal Logistics & Manufacturing
- Health Science and Services

Greater St. Louis also includes strong small and mid-sized business communities. Recent progress in landing startup companies, coupled with over \$1 billion in venture capital invested in technology firms from 2014-16, is establishing St. Louis as the center of innovation in the Midwest.

For startups, the resources are terrific. The region has numerous business incubators where fledgling firms can find advice, nurturing, and inexpensive office and lab space; additional information regarding entrepreneurial resources are available.

In 2015 Popular Mechanics named St. Louis number one out of the "14 Best Startups Cities in America." In the two years since it was formed, the Regional Entrepreneur Exchange, or T-Rex as it's known, has grown to 200 companies with 80,000 square feet of co-working and incubator space in downtown St. Louis.

The following rankings demonstrate the strength of our business environment:

- St. Louis ranks as the 9th most cost-competitive location to do business among the U.S. metros with populations exceeding two million, according to a study released by KPMG LLP in 2016. KPMG's Competitive Alternatives study measured different cost components, including labor, taxes, real estate and utilities, as well as non-cost-competitive factors.
- St. Louis ranks as the 7th of the "Top 10 Large American Cities of the Future 2013/14 Human Resources" in Foreign Direct Investment (fDi) magazine's ranking, which includes over 400 cities throughout North America and Latin America.
- The percentage of St. Louisans age 25 or older with bachelor's degrees or higher more than 30 percent — exceeds the national average, according to the American Community Survey 2015. This same survey found that among St. Louis area residents 25 or older, 12.8 percent have graduate or professional degrees, exceeding the U.S. average of 11.6 percent."

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

Greater St. Louis is home to 16 *Fortune* 1000 headquarters, of which 10 are *Fortune* 500, summarized as follows:

Company	Rank	Revenues (\$ Billions)
Express Scripts Holdings	25	100.1
	25 61	
Centene	•.	48.6
Emerson Electric	178	16.3
Monsanto	199	14.6
Reinsurance Group of America	234	12.5
Jones Financial (Edward Jones)	376	7.6
Graybar Electric	426	6.6
Olin	448	6.3
Ameren	453	6.2
Peabody Energy	491	5.6
Post Holdings	512	5.2
Stifel Financial	734	3
Caleres	778	2.8
Belden	851	2.4
Arch Coal	870	2.3
Edgewell Personal Care	876	2.3

Greater St. Louis is also home to some of the nation's largest private companies. The following St. Louis companies are listed among Forbes' America's Largest Private Companies.

Company	Rank
Enterprise Holdings	13
World Wide Technology	27
Edward Jones	48
Graybar Electric	57
Apex Oil	103
McCarthy Holdings	112
Schnuck Markets	168
Alberici Corp.	220

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### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

The 25 largest employers in the metropolitan area are summarized in the following table:

#	Company	HQ	Employees
1	BJC HealthCare	St. Louis MSA	28,975
2	Wal-Mart Stores Inc.	Bentonville, AR	22,290
3	Washington University in St. Louis	St. Louis MSA	16,903
4	SSM Health Care	St. Louis MSA	16,140
5	Mercy Health	St. Louis MSA	15,174
6	Boeing Defense, Space & Security	Washington, DC	13,707
7	Scott Air Force Base	St. Louis MSA	12,600
8	U.S. Postal Service	Washington, D.C.	12,000
9	Schnuck Markets Inc.	St. Louis MSA	9,510
10	Mercy Clinic	St. Louis MSA	9,305
11	Archdiocese of St. Louis	St. Louis MSA	8,800
12	McDonald's	Oak Brook, IL	7,550
13	Saint Louis University	St. Louis MSA	7,400
14	City of Saint Louis	St. Louis MSA	7,077
15	Edward Jones	St. Louis MSA	6,200
16	Washington University Physcians	St. Louis MSA	6,261
17	Special School District of St. Louis County	St. Louis MSA	6,126
18	AT&T Communications Inc.	Dallas, TX	6,000
19	Enterprise Rent-A-Car (Enterprise Holdings)	St. Louis MSA	5,600
20	Imo's Pizza	St. Louis MSA	5,540
21	Bayer Crop Science	Durham, NC	5,400
22	Wells Fargo Advisors	St. Louis MSA	5,000
23	Walgreens	Springfield, IL	4,740
24	Target Corp	Minneapolis, MN	4,675
25	University of Missouri – St. Louis	St. Louis MSA	4,633

The following information obtained from the St. Louis Regional Chamber details the various taxes charged within the St. Louis metropolitan area:

Тах	Missouri	Illinois
Corporate	6.25% of Missouri taxable income (Federal taxable income	9.5% of Illinois taxable income (Federal taxable income
Income Tax	with state modifications based on an evenly-weighted three	with state modifications based on a one-factor in state
	factor formula or an optional one-factor formula), with	sales formula) which includes 7% state income tax and
	adjustments including deductibility of 50% of federal	2.5% (1.5% for S-Corps, partnerships and trusts) personal
	income tax.	property replacement tax.
Personal	\$315 plus 6% of federal adjusted gross income over	On July 1, 2017, the individual income tax increased from
Income Tax	\$9,000.	3.75% to 4.95% (Federal taxable income with state
		modifications).
Local Income	St. Louis City residents and workers pay a 1% earnings	
Тах	tax. Businesses pay based on the average allocation of	
	gross receipts, payroll, and property in the City of St.	
	Louis. St. Louis City employers pay a payroll tax of 0.5%.	
Corporate	No tax imposed.	Initial franchise tax of 0.15% of paid-in capital, thereafter
Franchise Tax		annual franchise tax of 0.1% of paid-in capital, minimum of
		\$25, maximum of \$2 million.
Property Tax	Residential property assessed at 19% of true or fair	Real property is assessed at 33 1/3% of market value.
	market; commercial and industrial property assessed at	Personal property is not taxed. Business inventories are
	32%; personal property at 33 1/3%. Business inventories	not taxed. Tax rates are the aggregate of local taxing
	are not taxed. Tax rates are the aggregate of local taxing	districts.
	districts and a .03% state tax.	
Sales & Use	4.225% of purchase price of tangible personal property and	6.25% of purchase price of tangible personal property and
Тах		selected services. 1% tax on qualifying food, drugs, and
		medical appliances. Local sales taxes also apply and vary
	special use tax is imposed on motor vehicles, trailers,	by jurisdiction.
	boats and outboard motors.	

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### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### St. Charles County

St. Charles County (established October 1, 1812) is located in the northwest portion of the St. Louis region and encompasses 561-square-miles. The Missouri and Mississippi Rivers border the county on two sides. Once a semi-rural area, St. Charles County's population has grown by 70 percent since 1993 and is the fastest growing county in Missouri. St. Charles, St. Peters, and O'Fallon are the three largest communities in the area with Wentzville, Lake St. Louis, Dardenne Prairie, Weldon Spring, and Cottleville strongly trailing behind.

Residential development has occurred principally in the *Golden Triangle*, a triangular section of land bordered by I-70, I-64 (formerly US Highway 40/61) and the Missouri River. While most industrial and commercial development has been along I-70, I-370 and Highway 94/364 on the eastern edge of the County, numerous business parks have opened along I-64 and are being marketed to high tech industries.

The Route 364 Extension includes a bridge crossing over the Missouri River and a highway from I-270 in West St. Louis County to I-64 just north of Highway N in St. Charles County, changing a section of Missouri Route 94 to a freeway. The final phase of the extension opened in November of 2014. Additional major thoroughfares and extension of arterial roads throughout the county are also planned over the next ten years.

Major employers in St. Charles County include:

Largest Employers	City	Industry	Employment
General Motors	Wentzville	Manufacturing	4,035
CitiMortgage	O'Fallon	Finance & Insurance	3,800
MasterCard Worldwide	O'Fallon	Finance & Insurance	2,530
Wentzville R-IV School District	Wentzville	Educational Services	2,118
Fort Zumwalt School District	O Fallon	Educational Services	2,100
Francis Howell School District	St. Charles	Educational Services	2,000
Ameristar Casino Resort Spa St. Louis	St. Charles	Arts, Entertainment & Recreation	1,600
St. Charles County	St. Charles	Government & Public Administration	1,261
St. Charles Community College	St. Peters	Educational Services	940

Demographic information provided by ESRI, Business Analyst, as well as maps of St. Charles County are included on the following pages:

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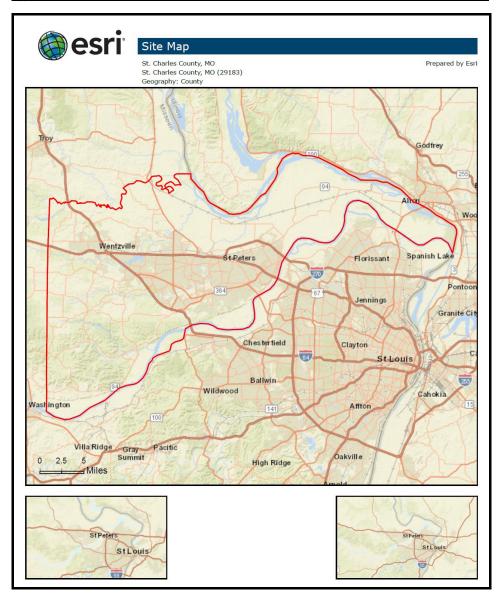
Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

St. Charles County, MO	Prepared by E
Population	
2000 Population	283,88
2010 Population	360,48
2019 Population	412,01
2024 Population	443,27
2000-2010 Annual Rate	2.429
2010-2019 Annual Rate	1.46%
2019-2024 Annual Rate	1.47%
2019 Male Population	49.19
2019 Female Population	50.9%
2019 Median Age	38.1
In the identified area, the current year population is 412,019. In 2010, the Census count in the are was 1.46% annually. The five-year projection for the population in the area is 443,277 representin 2024. Currently, the population is 49.1% male and 50.9% female.	
Median Household Income	
2019 Median Household Income	\$83,32
2024 Median Household Income	\$92,42
2019-2024 Annual Rate	2.09%
Average Household Income	
2019 Average Household Income	\$103,44
2024 Average Household Income	\$115,98
2019-2024 Annual Rate	2.329
Per Capita Income	
2019 Per Capita Income	\$38,70
2024 Per Capita Income	\$43,45
2019-2024 Annual Rate	2.34%
Households by Income	
Current median household income is \$83,322 in the area, compared to \$60,548 for all U.S. house be \$92,421 in five years, compared to \$69,180 for all U.S. households	cholds. Median household income is projected to
	seholds. Average household income is projected
Current average household income is \$103,443 in this area, compared to \$87,398 for all U.S. hous to be \$115,989 in five years, compared to \$99,638 for all U.S. households	

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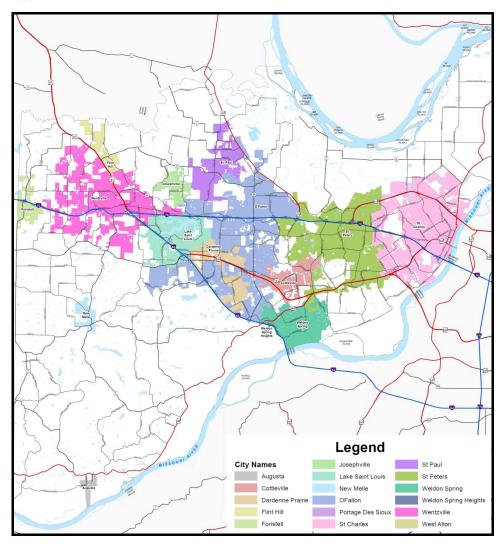
Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri



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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri



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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### City of St. Charles

St. Charles is a city in, and the county seat of St. Charles County, Missouri. It lies just to the northwest of St. Louis, Missouri, on the Missouri River, and played for a time a significant role in the United States' westward expansion. St. Charles can be accessed from Interstate 70 using the Cave Springs, Zumbehl Road, First Capitol Drive, and Fifth Street exits, or Highway 94.

The total population as of 2019 was 77,349, a 1.11 percent annual increase from the 2010 U.S. Census Population of 66,256. The 2019 median household income was \$64,772 and this is projected to increase at an annual rate of 3.03 percent through 2024.

The City of St. Charles school district has seven elementary schools, two middle schools, two high schools, and the Lewis & Clark Tech Building located on Zumbehl Road. There are other schools like, the Francis Howell School District and the Orchard Farm School District that serve St. Charles as well. St. Charles is also home to a variety of private schools including Immanuel Lutheran (Pre-K to 8), Zion Lutheran (Pre-K to 8), St. Charles Borromeo, St. Cletus, Academy of the Sacred Heart, Duchesne High School formerly named St. Peter High school, and Saints Joachim and Ann.

Lindenwood University is located on Kingshighway, it was the first higher education institution west of the Mississippi. The school is perhaps most noted for its strengths in the performing arts and education. St. Charles lies at one end of the Katy Trail, a 225 mile long state park enjoyed by bikers and walkers. Since the late 1970s, there has been very healthy new home construction, commercial growth and explosive population growth in the St. Charles area. In describing the area, someone coined the phrase the Golden Triangle in the Eighties, referring to the tremendous growth in real estate development in the St. Charles County region bordered by Highways 70, 40 and 94.

A new community development called the New Town at St. Charles is the best example in the St. Louis area of the new movement in residential development and community planning, New Urbanism. An 11,000-seat arena called the Family Arena was built in the early 1990s and is used by minor league sports franchises and hosts events like concerts, shows, circuses, graduations and special college sporting contests. Another prominent feature of St. Charles in the new development category is the St. Charles Convention.

The Riverfront area and Main Street is a central gathering place and focal point for the community. The primary features of the riverfront and Historic Main Street are residences and businesses open yearround. Each block features shops, restaurants and offices that visitors and locals frequent. Much is planned for the development and improvement of the area, including Northward extension of the KATY Trail, residential and commercial development, parking garage expansion, casino expansion and development of hotels.

Key demographic information provided by ESRI, Business Analyst, as well as various maps of the City of St. Charles are included on the following pages:

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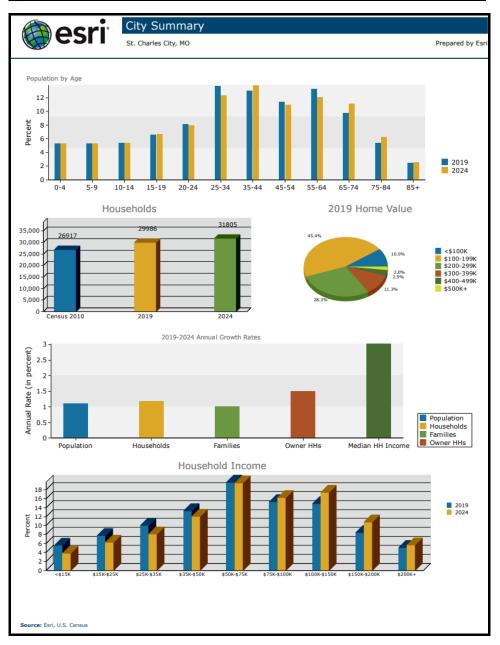
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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

	City Summary St. Charles City, MO	Prepared
Population		
2000 Population		6
2010 Population		6
2019 Population		7
2024 Population		7
2000-2010 Annual Rate		(
2010-2019 Annual Rate		1
2019-2024 Annual Rate	4	1
2019 Male Population		4
2019 Female Population 2019 Median Age	1	5
1.11% annually. The five- Currently, the population i	current year population is 73,349. In 2010, the Census count in the area was 66,256. The rate of cl year projection for the population in the area is 77,479 representing a change of 1.10% annually fro is 49.2% male and 50.8% female.	
Median Age		
The median age in this are Households	ea is 38.9, compared to U.S. median age of 38.5.	
2000 Households		2
2010 Households		2
2019 Total Households		2
2024 Total Households		3
2000-2010 Annual Rate		(
2010-2019 Annual Rate		1
2019-2024 Annual Rate		1
2019 Average Househo	ıld Size	
Median Household Inco 2019 Median Household	I Income	\$6
2024 Median Household 2019-2024 Annual Rate		\$7
Average Household Inc		-
2019 Average Househol		\$8
2024 Average Househol		\$9
2019-2024 Annual Rate		
Per Capita Income		
2019 Per Capita Income	2	\$3
2024 Per Capita Income		\$4
2019-2024 Annual Rate		2
Households by Income		
	rold income is \$64,772 in the area, compared to \$60,548 for all U.S. households. Median household is, compared to \$69,180 for all U.S. households	income is projecte
	nold income is \$85,596 in this area, compared to \$87,398 for all U.S. households. Average househol ars, compared to \$99,638 for all U.S. households	d income is proje
	me is \$35,531 in the area, compared to the U.S. per capita income of \$33,028. The per capita incom compared to \$36,530 for all U.S. households	ne is projected to
Housing	· · · · · · · · · · · · · · · · · · ·	
2000 Total Housing Unit	is	2
2010 Total Housing Unit		2
2019 Total Housing Unit		3
2024 Total Housing Unit	IS	3
U.S., 56.4% of the hous housing units in the are	132,051 housing units in the area are owner occupied; 30.7%, renter occupied; and 6.4% are vacans sing units in the area are owner occupied; 32.4% are renter occupied; and 11.2% are vacant. In 20 a - 60.6% owner occupied, 32.8% renter occupied, and 6.6% vacant. The annual rate of change in home value in the area is \$189,644, compared to a median home value of \$234,154 for the U.S. In ange by 2.95% annually to \$219,309.	10, there were 28 housing units sine

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

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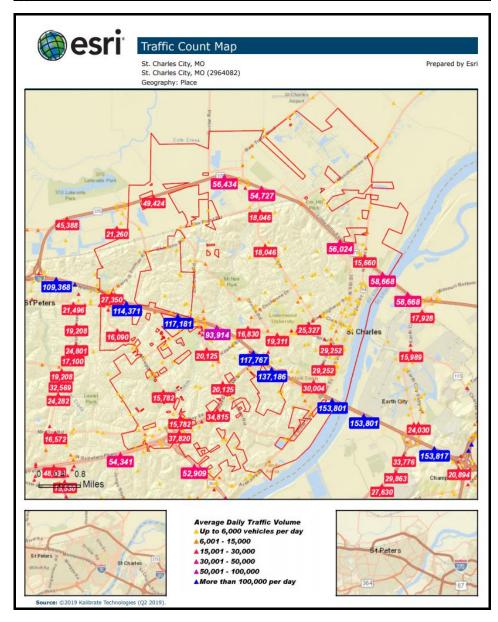
🎯 esri<sup>,</sup> Site Map St. Charles City, MO St. Charles City, MO (2964082) Geography: Place Prepared by Esri D DQ St Peters St Ch arles Earth City 0.4 0.8 0 Champ Miles St Peters St Charles

Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri



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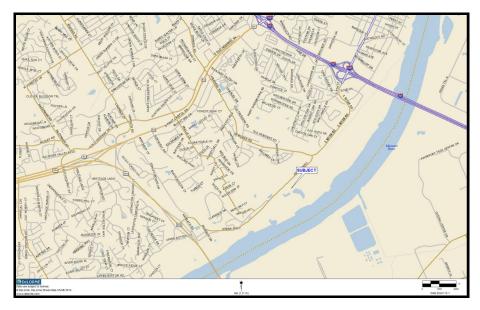
#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

#### **Neighborhood Analysis**

The neighborhood analysis provides a bridge between the analysis of general influences on all property values and the study of a specific property. The goal of the neighborhood analysis is to determine how the operation of social, economic, government and environmental forces influences property values in the specific area in which the subject property is located. According to The Appraisal Institute, The Dictionary of Real Estate Appraisal, 6th Edition, 2015, a neighborhood may be defined as:

A group of complementary land uses; a congruous grouping of inhabitants, buildings, or business enterprises.

Boundaries and Access – The subject property is located in eastern St. Charles County in the City of St. Charles. The neighborhood is bounded by but not limited by Highway 364 (Page Avenue Extension) to the west, The Missouri River to the south, Highway 94 (First Capitol Drive) to the north, and Interstate 70 to the east. South River Road (Arena Parkway) is a four-lane road traversing north and south parallel to the Katy Trail and Missouri River. South River Road provides access to Interstate 70 to the north and Highway 364 (Page Avenue Extension) to the south. Interstate 64 / Highway 61 provides north / south access throughout St. Charles County and east / west access into St. Louis County. Interstate 70 provides good east / west access throughout St. Charles and St. Louis Counties.



Homogeneous Uses – Land uses within the neighborhood are predominantly commercial along major thoroughfares with older residences and newer multi-family complexes interspersed along the secondary roads and to a lesser degree institutional. Adjacent the subject is the St. Charles Family Arena auditorium, which abuts the subject property to the south. Northeast of the subject along South River Road is Grace Doctrine Church, Refuge Church, and Gateway Online Auctions. Further northeast along N. 5<sup>th</sup> Street is the Streets of St. Charles a mixed-use retail and apartment development in the southeast quadrant of the 5<sup>th</sup> Street and Interstate 70 interchange. Notable developments east of the subject along Veterans Memorial Parkway, which runs parallel with Interstate 70, include the St. Charles Convention Center, Embassy Suites Hotel, and SSM Health Medical Group. North of the subject along Highway 94 is Country Club Center, a strip center anchored by Dobbs Tire & Auto, Outback Steakhouse, and Pizza Hut.

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### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

West of the subject is largely residential and includes the Boulders at Katy Trail condominiums situated in the northwest quadrant of Arena Parkway and Highway 364 (Page Avenue Extension) interchange and the Eagle Pines subdivision. Notable developments along South River Road include: the Lafarge Quarry of St. Charles; the Woodland Place and Oakbridge residential subdivisions; and the Rivers Crossings apartments situated in the northwest quadrant of South River Road and Friedens Road. Rivers Crossings Apartments developed by Edward Rose Millennial Development LLC, were completed in 2017. 155 units are currently completed and near full occupancy, per their leasing office. A notable development along Friedens Road, north of the subject, is the completion of a 49 single-family home subdivision, Talbridge, developed by Lombardo Homes of St. Louis LLC.



Pictured above is an aerial map of the subject parcel highlighted in pink and the parcels that immediately surround it.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri



North of the subject (highlighted in pink) across S. River Road is the Metro Fill Development (highlighted in blue). It is a 27.31-acre parcel which is currently being used for depositing clean waste and once it is full, may be graded and developed.



Located directly north (highlighted in blue) on a 35.66-acre parcel which abuts the subject property. This site is owned by Arena Parkway East, LLC and is improved with a warehouse. This parcel provides access to the subject parcel from S. River Road.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri



The St. Charles Quarry (highlighted in blue) is 120-acre, in use, active quarry located west of the subject along S. River Road.



The St. Charles family arena (highlighted in blue) is directly west and abuts the subject property. Built in 1999 the multi-purpose arena seats up to 11,522 guests for sporting events and concerts.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri



East of the subject is a 204.58 parcel of wooded vacant land which abuts the subject property, currently owned by the city of St. Charles.

Neighborhood Trends - Neighborhood support services are considered good in the immediate vicinity. There are a variety of commercial developments along Interstate 70 and Highway 94. The Streets of St. Charles mixed use development is located north east of the subject and is becoming the City's second anchor, after historic Main Street; and continues to be developed. A 600,000 square foot, three story building is under construction to add additional retail and office space. About 20,000 square feet of retail space will be available on the building's ground floor, with two levels of office space totaling about 40,000 square feet above. The new building will be located at the northeast corner of Beale and Lombard streets, across from Firebirds and P.F. Changs. Tru by Hilton, a five-story hotel, located at the south end of the property across from Mission Taco, includes 87 guest rooms and a modern environment with cross-functional public spaces, recently opened on June 22, 2018. Last year, Drury Inns opened its Drury Plaza Hotel, with 198 rooms. The development also includes an AMC Theatre, Bar Louie, First Watch the Daytime Café and P.F. Chang's among other national retailers.

Locally owned and operated boutiques and shops include Olivino, MOD, Leopard Boutique, Brulee Boutique, Sole & Blues, Think Pink Nail Salon and Massage Luxe. The Residences offers luxury apartment living at the 309-unit complex located above street level retail at the Streets of St. Charles. Ameristar Casino continues to provide entertainment to this portion of the community, as does the Historic Downtown area of the City of St. Charles which offers various gift, antique, and restaurant entertainment.

Commercial development has been taking place over the last several years and is expected to continue as the economy continues to improve and the success of City based developments such as the Streets of St. Charles has encouraged other supporting developments such as the Rivers Crossing Apartments.

Summary – The location of the neighborhood is considered good for a variety of uses, as is
evidenced by the current mix of uses. Public services, neighborhood support systems, major
highway accessibility and proximity to commercial centers are all considered good.

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### THE PROPERTY

### History of the Property

According to the records of the St. Charles County Assessor's Office, title to the subject property is currently vested in LaFarge Corporation and has been for a number of years. The subject has not been transferred in the previous three years. As of the date of value, the subject was not listed for sale or lease.

### Legal Description

The legal description of the site was extrapolated from the St. Charles County Assessors records as follows:

Parcel Account #	Acres	Abbreviated Legal Description From St. Charles County Assesor's Records
A943001669	37.61	STEEN & CUNNINGHAM PT BLK 11
455205A000	1.65	STEEN & CUNNINGHAM BLK 11 LOTS 3 & 6-7

### Real Estate Taxes

Real estate taxes for properties located in St. Charles County are based upon the property's assessed valuation on the first day of January for each tax year. Real estate taxes in this County represent ad valorem taxes, meaning a tax applied in proportion to value. The 39.26 +/- acre parcel has been assigned a property tax identification numbers listed in the table below. In the State of Missouri, property taxes are paid the year they are assessed, therefore, the taxes assessed for the 2018 calendar year are due and payable on or before December 31, 2018. The most recent real estate assessment and tax billing amount for the subject property are shown below.

Parcel Number / Account Number	Owner	Parcel Size	Assessed	A	2018 ppraised Value	1	2018 Assessed Value	Tax Rate	20	18 Tax
3-0012-S007-00-0028.1110 / A943001669 3-0012-S007-00-0028.1000	LaFarge Corporation	37.61	Improved Commercial	\$	507,269	\$	162,326	7.0609%	\$11	,461.65
/ 455205A000	LaFarge Corporation	1.65	Vacant Commercial	\$	24,750	\$	7,920	7.4271%	\$	588.23
Totals		39.26		\$	532,019	\$	170,246		\$12	,049.88

The 2018 taxes were paid on December 29, 2018 per the St. Charles County Assessor's office. The 2019 tax rate has not yet been set.

### Description of the Site

### Physical Features

- Size/Dimensions According to the St. Charles County Assessor's records, the parcel comprises 39.26 acres or 1,710,166 square feet but is bisected by the Katy Trail. The portion west of the Katy Trail compromises 22.91 acres, or 997,959.60 square feet and the portion east of the Katy Trail comprises 16.35 acres or 712,206 square feet.
- Configuration The portion of the site west of the Katy Trail is basically rectangular in shape except for a "tail" portion which appears to be designed for a road to be built to provide access to South River Road. The portion east of the Katy Trail is irregularly shaped as can be seen on the following parcel maps. We would note that a small portion of the eastern parcel fronts the Missouri River.

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

- Topography/Drainage The west parcel is considered to have basically cleared, level topography and is clear, but for the "tail", The east parcel is mostly level, but heavily wooded. The drainage of the site appears to be adequate.
- Flood Plain According to Flood Hazard Map number 29183C0269G dated January 20, 2016, the subject is identified as partially being in Flood Zone "AE" and partially in the Floodway. Flood Zone "AE" is an area that has a 1% probability of flooding every year (also known as the "100-year floodplain"), and where predicted flood water elevations above mean sea level have been established. Properties in Zone AE are considered to be at high risk of flooding under the National Flood Insurance Program (NFIP). Flood insurance is *required* for all properties in Zone AE that have federally backed mortgages. Construction in these areas must meet local floodplain zoning ordinance requirements, including evidence that principle structures are above the Base Flood Elevation (BFE) as shown on the adopted FIRM maps. Copies of the panels follow.
- Access Access to the subject property is currently available only from the abutting property to the west, which is accessed from South River Road, a four-lane paved road. A small connector gravel roadway has been built from this curb cut into the subject property, but this has not yet been connected to South River Road. As will be noted from the following exhibits the subject seems to have been platted with independent access in mind as there is an extension of the subject property from the main body of the parcel to South River Road (Although a driveway has not yet been constructed at this part of the site remains heavily wooded. South River Road connects with Interstate 70 to the east and Highway 364 (Page Avenue Extension) to the west. There is currently no access to the eastern portion of the property from South River Road. Currently the eastern portion can only be accessed from the western portion by crossing over the Katy Trail, but as previously noted, the eastern portion is heavily wooded.
- Ground Stability We were not furnished a soils analysis; therefore, no conclusion can be ascertained with regard to the stability of the site. However, based upon visual inspection, no problems were identified.

#### Legal

 Zoning - The use of the property is regulated and controlled by the zoning ordinances of the City of St. Charles. The subject is zoned "I-2", Heavy Industrial District. (shaded gray on the following zoning map). Per the city's zoning ordinance:

*Purpose*. The purpose of the "I-2" Heavy Industrial District is to provide for a wide variety of manufacturing, fabricating, processing, wholesale distributing and warehousing uses appropriately located for access by major thoroughfares or railroads, to restrict or prohibit those industries which have characteristics likely to produce serious adverse effects within or beyond the limits of the district. Certain potentially hazardous industries are permitted only after public hearings and review to assure protection of the public interest and surrounding property and persons. Commercial uses and open storage of materials are permitted, but new residential development is excluded.

Design Standards. (See also Sections <u>400.530</u> et seq. for additional regulations.) The following design standards are required in the "I-2" district:

- 1. Minimum lot area: 1 acre.
- 2. Minimum lot width at the building line: 150 feet.
- 3. Minimum lot depth: 200 feet.
- 4. Maximum height of building: 3 stories or 45 feet.

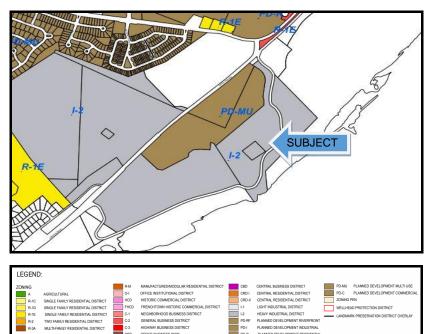
The comprehensive "I-2" Heavy Industrial District regulations are located in the addenda.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### ZONING MAP



- **Conformance** The subject property, as improved with various small buildings which are accessories to the production facility, complies with the legal zoning requirements.
- Easements/Encumbrances/Moratoriums The subject property is assumed to be encumbered by only the typical easements associated with utilities and street rights-of-way.
- Encroachments We were not provided an ALTA/ACSM Land Title Survey. There were no obvious encroachments.

### **Utilities**

- Water/Sewer Water/sewer services are provided by St. Charles County.
- Electric/Gas Electricity is provided by Ameren. Gas is provided by local providers.
- Other Local telephone service is provided by various companies.

The east parcel is unlikely to be connected to any public utilities.

### **Environmental**

As referenced in the Assumptions and Limiting Conditions to this report, we are not considered experts nor competent to assess environmental issues. Upon physical inspection of the subject property, no indication to the "untrained eye" of environmental hazard could be found.

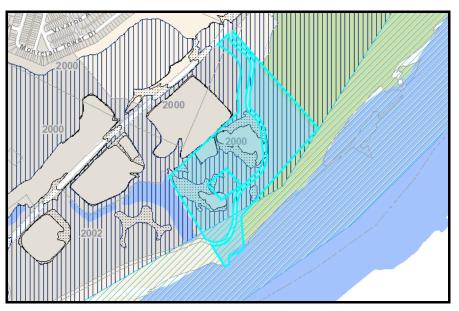
The flood plain maps, the St. Charles County aerial and parcel maps, and photographs are provided on the following pages.

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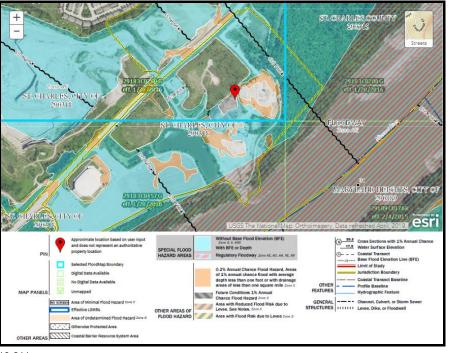
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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

ST. CHARLES COUNTY ASSESSOR'S FLOOD MAP



FEMA FLOOD MAP



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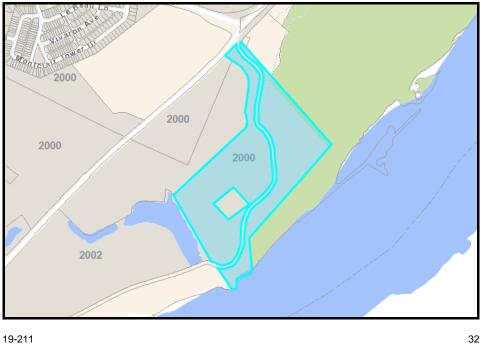
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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

AERIAL MAP OF 37.61 ACRES # A943001669



ST. CHARLES COUNTY ASSESSOR PARCEL MAP 37.61 ACRES # A943001669



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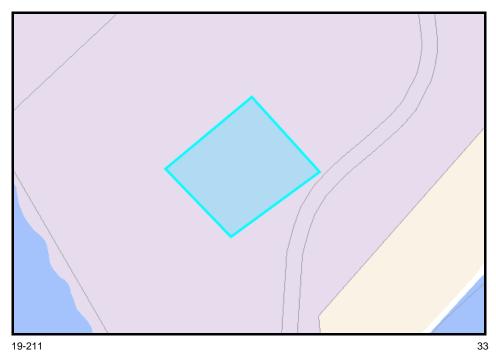
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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

AERIAL MAP OF 1.65 ACRES # 455205A000



ST. CHARLES COUNTY ASSESSOR PARCEL MAP 1.65 ACRES # 455205A000



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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

PHOTOGRAPHS OF SUBJECT PROPERTY



View East From Southwest Corner Of Subject - Subject On Both Sides Of Trail



View East From Southwest Corner Of Subject - Subject On Both Sides Of Trail

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

PHOTOGRAPHS OF SUBJECT PROPERTY



View North From Southwest Corner Of Subject



View South From Northeast Corner Of Subject - East Parcel's River Frontage

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

PHOTOGRAPHS OF SUBJECT PROPERTY



Machinery On Subject Property - West Parcel



Machinery On Subject Property - West Parcel

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### HIGHEST AND BEST USE

The highest and best use of both land as though vacant and property as improved must meet four criteria according to the twelfth edition of the Appraisal Institute's textbook, *The Appraisal of Real Estate*. The highest and best use must be *legally permissible, physically possible, financially feasible, and maximally productive*. These criteria are most often considered sequentially but due to their interaction may also be considered in concert, depending on the particular situation.

It is recognized that in cases where a site has existing improvements, the highest and best use may be determined to be different from the existing use. The existing use will continue, however, unless and until the land value in its highest and best use exceeds the total value of the property in its existing use.

The determination of the highest and best use of the land lies in market analysis and the economic concept of supply and demand. This entails ascertaining that use of the property which will produce the most value to both the owner and the community for the longest foreseeable time, and which will be consistent with the uses of the surrounding properties, the neighborhood, and the community.

An analysis of the factors affecting highest and best use as they pertain to the land as though vacant and the improved site follows.

### Highest and Best Use as Vacant

The highest and best use factors considered are identified as follows:

#### Legally Permissible

The present zoning is "I-2", Heavy Industrial by the City of St. Charles. This district will allow for a wide variety of manufacturing, fabricating, processing, wholesale distributing, and warehousing uses.

To our knowledge, the site is not encumbered by any restrictive easements or encroachments. It is our opinion that the highest and best use of the site, based upon the legally permissible uses, is for a development with any of the permitted uses.

### **Physically Possible**

The size, shape, topography, accessibility, availability of utilities, soil conditions, and the risk of natural disasters, in particular flooding, but also earthquakes affect the uses for which a site can be developed. The subject western portion of the site is generally level, reasonably regularly configured and sits slightly above grade with South River Road. This portion is cleared, has access to South River Road, and in some areas is raised outside of the flood plain. The site is large enough to support a number of developments within the areas that have been raised outside the flood plain. The eastern portion is basically level, heavily wooded, does not have access from South River Road, and is completely located within the flood plain but does front the river. In our opinion the configuration and flood plain challenges of this portion make it unlikely to be developed. The public street system is in place, is in good condition, and adequate for the local traffic needs.

#### **Financially Feasible**

Of the legally permissible and physically possible uses, only some may be financially feasible. The subject is located just south of South River Road which has an interchange to Interstate 70 to the north and Highway 364 to the south and as such has good access to the neighborhood and surrounding areas. Considering the subject's adjacent uses, it is our opinion that the western portion is best suited to an industrial use, such as warehousing and outside storage or light manufacturing. The eastern portion would not be developable due to its irregular shape, lack of access, and flood plain challenges. In our opinion an industrial development will be a financially feasible use of the western portion of the site with the east portion best suited to a recreational use.

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### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### Maximally Productive

This analysis determines which of the financially feasible land uses produces the highest residual land value. This then determines which of the various financially feasible uses are maximally productive.

We have concluded that an industrial use would be the maximally productive use of the western portion of the site, as a recreational use would be the maximally productive use of the eastern portion.

### Highest and Best Use Conclusion

The western portion of the subject site's location, zoning, neighborhood trends, size, and shape, are conducive for industrial development.

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### METHOD OF APPRAISAL

The traditional methods by which market data may be processed into a value indication include the Cost Approach, the Income Approach, and the Sales Comparison Approach.

The Cost Approach is based on the presumption that the informed purchaser would pay no more than the cost of producing a substitute property with the same utility as the subject property. The Cost Approach is particularly applicable when the property being appraised involves relatively new improvements which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there are no comparable properties in the marketplace. This approach is used to value improved property.

**The Income Approach** is a procedure in appraisal analysis which converts the anticipated benefits (dollar income or amenities) to be derived from the ownership of the property into a value estimate. The Income Approach is widely applied in appraising income producing properties. Anticipated future income and/or reversions are discounted to a present value figure through the capitalization process. This approach is largely used to value improved property, or income producing land

As the subject is a parcel of vacant land the Sales Comparison Approach is the most appropriate approach to use.

### Sales Comparison Approach

The Sales Comparison Approach is based upon the presumption that an informed purchaser would pay no more for a property than the cost of acquiring an existing property with the same utility. This approach is applicable when an active market provides sufficient quantities of reliable data which can be verified from authoritative sources. The Sales Comparison Approach is relatively unreliable in an inactive market or in estimating the value of properties for which no real comparable sales data is available. I have assembled data regarding the sale of vacant land and have concluded that there is sufficient relevant and comparable data to use this approach. My field inspection included a search of the public and private records, as well as interviews with brokers knowledgeable of the area. An effort was made to obtain sales of parcels with characteristics similar to the subject property.

For the western portion of the site we have researched sales of vacant industrial sites considered to have reasonably similar locational and physical characteristics to the subject.

In the accompanying land valuation section, sales have been adjusted for market conditions, i.e. time. Other adjustments made in comparing the properties are, by necessity, subjective in nature, but we have attempted to be consistent in their application.

Details of recent sales of undeveloped land, which were considered in our analysis, are summarized on the following pages. Following the individual land sale summarises are a location map, and a Land Sales Adjustment Grid that summarizes the pertinent details of each sale transaction and the adjustments applied to each sale in recognizing differences between that property and the subject.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### Sale No. 1



### Seller Buyer Instrument/Date Recorded County Selling Price Unit Price Type of Transaction Financing Site Dimensions Site Area Zoning Zoning Compliance Highest & Best Use Utilities Access

Stonewolf Inc. (New Frontier Bank) Scannell Properties 300 LLC Warranty Deed dated 12/18/2017 Book 6859 / Page 1788 St. Charles \$2,309,580 + \$235,000 for utility extensions = \$2,544,580 \$1.65 per square foot Arm's Length sale of the fee simple interest All cash to seller 914 feet of frontage to Premier Parkway 35.532 acres, 1,547,774 square feet "St. Peters Lakeside 370 Special District" Yes Industrial development All public utilities available, water and sewer on site From Premier Parkway - two curb cuts permitted

### Specific Location of Sale

This site is located at in the southwest quadrant of Highway 370 and Premier Parkway, in the city of St. Peters, St. Charles County, Missouri 63376. The address is 9000 Premier Parkway.

**Sale Verification:** Sale price of \$2,309,580 was confirmed by Michal A. Green on February 23, 2018 with Keith Schneider of Cushman & Wakefield, the seller's agent. The Certificate of Value also notes the same price. This sale was personally inspected by Michael A. Green.

### Property Description

This parcel is a level, levee protected parcel adjacent to the Premier 370 Business Park. While a bank was the seller, the property was properly exposed to the market; it was listed at \$2,854,051 (\$1.82 per square foot). The site has extensive frontage to Premier Parkway.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

Sale No. 2



### Seller Buyer Instrument/Date Recorded County Selling Price Unit Price Type of Transaction Financing Site Dimensions Site Area Zoning Zoning Compliance Highest & Best Use Utilities Access

Duke Riverside II, LLC SAIA Motor Freight Line, LLC Warranty Deed dated 08/05/2016 Book 6588 / Page 0403 St. Charles \$2,415,029 \$2.09 per square foot Arm's Length sale of the fee simple interest All cash to seller 1,000 feet of frontage to Premier Parkway 26.53 acres, 1,155,647 square feet "St. Peters Lakeside 370 Special District" Yes Industrial development All public utilities available, water and sewer on site From Premier Parkway

### Specific Location of Sale

This site is located at in the northeast quadrant of Highway 370 and Premier Parkway, in the city of St. Peters, St. Charles County, Missouri 63376. Its address is 5001 Premier Parkway.

**Sale Verification:** Sale price of \$2,415,029 was confirmed by Michal A. Green on February 23, 2018 with Geoff Orf of Colliers International (formerly Gateway Commercial), the seller's agent. The Certificate of Value also notes the same price. This sale was personally inspected by Michael A. Green.

### Property Description

This parcel is a level, levee protected site within the Premier 370 Business Park. The purchaser has built a 64,684 square foot cross docked truck terminal. The site has extensive frontage to Premier Parkway.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### Sale No. 3



Seller Buyer Instrument/Date Recorded County Selling Price Unit Price Type of Transaction Financing Site Dimensions Site Area Zoning Zoning Compliance Highest & Best Use Utilities Access

Millstone Co. USRLP Fountain Lakes, LLC Warranty Deed dated 02/01/2016 Book 6485 / Page 1061 St. Charles \$3,792,843 \$3.41 per square foot Arm's Length sale of the fee simple interest All cash to seller Over 1,000 feet of frontage (no access) to Highway 370 25.565 acres, 1,113,603 square feet "I-2" Heavy Industrial District Yes Industrial development All public utilities available, water and sewer on site From Charbonneau Drive

### Specific Location of Sale

This site is located at the northeast quadrant of Highway 370 and Elm Street, in the city of St. Charles, St. Charles County, Missouri 63301.

**Sale Verification:** Sale price of \$3,792,843 was confirmed by Michal A. Green on February 21, 2018 with Ed Lampitt of Cushman & Wakefield, the buyer's agent. The Certificate of Value also notes the same price. This sale was personally inspected by Michael A. Green.

#### **Property Description**

This parcel is a level, levee protected site within the Fountain Lakes development. The buyer has constructed two 325,000 square foot bulk / distribution warehouses.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### Sale No. 4



Seller Buyer Instrument/Date Recorded County Selling Price Unit Price Type of Transaction Financing Site Area Zoning Zoning Compliance Highest & Best Use Utilities Available Access Country Surf Swimming Pool, Inc. Diversion Sports Property, LLC Warranty Deed dated June 18, 2015 Book 21556 / Page 1473 St. Louis County \$300,000 \$1.56 per square foot Sale of the fee simple interest Sellers received all cash 192,535 square feet; 4.42 acres "NU & FPNU" Non-Urban / Flood Plain Non-Urban N/A - Vacant Site Recreational W/S/G/E Direct access from Barrett Station Road

#### Specific Location of Sale

This site is located just south of Dougherty Ferry Road on the west side of Barrett Station Road, with an address of 2851 Barrett Station Road in unincorporated St. Louis County, Missouri 63021– Locator Number 24P640508.

**Sale Verification:** The sale price was confirmed by Michael A. Green by referencing St. Louis County Assessor's Office records (I was not able to contact anyone at the current owner for confirmation). This sale was personally inspected by Michael A. Green.

#### **Property Description**

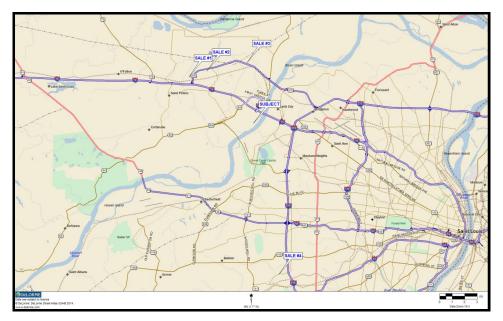
This comparable was previously operated as the Country Surf Swimming Club and was improved with three tennis courts. The buyer removed the tennis courts and constructed three sand volleyball courts with an adjacent raised deck and tiki bar. The entire site is located within the 100-year flood plain.

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Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

### COMPARABLES SALES MAP



The elements of comparison for which adjustments may be required include:

- Property Rights Any dissimilarity in property rights conveyed in the sale of the comparable and those being valued in respect to the subject need to be considered.
- ◆ **Financing Terms** Any significant unusual financing conditions affecting the sale, such as advantageous seller financing, are adjusted in the cash equivalence calculation.
- Conditions of Sale Any known unusual or atypical buyer and/or seller motivations, such as one of the parties acting under duress, or where the sale is known not to be an arm's length transaction, are adjusted for in the analysis.
- Immediate Expenditures Made by Buyer A knowledgeable buyer will consider expenditures that will have to be made upon purchase of a property because these costs will affect the price the buyer agrees to pay. These could include the cost of demolishing the existing improvements.
- **Time/Market Conditions** Market conditions change over time. Therefore, past sales must be examined in the light of the direction of change, if any, between the date of the sale of the comparable and the date of valuation of the subject property.

### **Physical Characteristics**

- General Location The general location of a site in terms of its neighborhood and the economic influences of that neighborhood are critical factors in the value of real property.
- Specific Location The specific location of a site in terms of its proximity to similar uses, a corner or mid-block location; if a corner location whether the corner is signalized, visibility and exposure are factors that influence value.

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

- Access Access is critical. Buyers will pay a premium for a site that offers a quicker access to major traffic ways.
- Size All else being equal, a smaller site will tend to be priced at and sell for a higher unit price than a larger site, and adjustments for significant variations in size are warranted.
- Configuration Generally the more symmetrical a site is the more useful it is to a developer or user; hence the value is usually higher.
- Topography Sites may differ in value due to topographical characteristics. Sites with steeply sloping terrain may make the construction of improvements more difficult and therefore more expensive.
- Zoning Land use and development may be regulated by city or county government and these
  regulations may preclude or restrict (in terms of height, density and size) certain types of
  development. Sites with fewer restrictions allowing more varied or intensive development may
  command a higher price, all other things being equal.
- Utilities The need to provide all or some utilities to a site is a cost to a developer and would tend to
  result in a lower price paid compared to a similar site with all utilities provided.
- Easements & Encumbrances Properties with beneficial or adverse easements and encumbrances will achieve higher or lower units' prices compared to a property with no such easement or encumbrances in place.
- Site Improvements Land already improved with utilities, curb cuts, gutters, paving and other improvements making the site ready for immediate development may command a higher price than a similar site without such improvements. Sites may also be improved with structures that are considered an encumbrance to the proposed development and this would tend to adversely affect price.

The characteristics for which adjustments are required as discussed above are analyzed in relation to each comparable as follows:

**Property Rights** - The sales were all of the fee simple interest, the same interest that is being valued at the subject.

 $\ensuremath{\textit{Financing Terms}}$  – As far as we are aware the comparables were not subject to any unusual financing terms.

Conditions of Sale – As far we are aware the comparables were not subject to any unusual conditions of sale.

**Immediate Expenditures Made by Buyer** - As far as we are aware, none of the comparables were subject to any significant expenditures made by the buyer(s) immediately after the purchase, except as noted in respect to Sale 1

**Time/Market Conditions** – The sales occurred between June 2015 and December 2017, a period of time when industrial land prices have been rising as developers and users re-enter the market, economic conditions are improving and demand for industrial space is increasing. We have made adjustments to represent market trends from the date of sale to the present. In our opinion, property values in the subject neighborhood have exhibited the following pattern:

- 1. Increased from January 2015 to December 31, 2016 by 1 percent annually; then
- 2. Increased from January 2017 to December 31, 2017 by 2 percent annually: then
- 3. Increased from January 2018 to present by 3 percent annually

The adjustments for physical characteristics are as follows:

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

Sales 1 and 2 are both large industrial lots in the same development, Premier 370, which is a development that has struggled to attract buyers, despite its good location, but has recently seen a number of sales. In terms of general location, the subject and comparables are considered similar in that all are in the St. Charles County sub-market. In terms of specific location however, both comparables are considered superior as they are located in a developed industrial park, with access to good quality industrial style streets (heavy concrete). The subject's somewhat secondary location in a mixed-use area is considered inferior to the comparables' and as such a negative adjustment was applied.

Physically the two sales are similar to the subject in that they are both large, 35.53 and 26.53-acre tracts, zoned for industrial uses and with all utilities connected. The larger sale (similar in size to the subject) sold for \$1.64 per square foot whereas the smaller sale sold for \$2.09 per square foot. As these two sales are locationally and generally physically similar, much of the price differential is attributed to size – as such, a 25 percent negative adjustment was made to comparable 2 to reflect its smaller size relative to the subject. We based this adjustment on the fact that comparable 1 sold for 22 percent less than comparable 2, with all other attributes being generally equal. Otherwise, the comparable and subject are similar in that both are level lots, similarly zoned, similar access, similar configuration, and with all utilities available. The subject is partially in the flood plain, but the subject's size allows for functional use of the non-flood plain affected land and ancillary / accessory uses of the flood plain affected land, such as parking and outside storage. Therefor no adjustment was made.

**Sale No. 3** – is another large industrial lot, but with an excellent location and one that is considered superior to that of the subject's as it is located in a well-established industrial park, with good exposure to two major thoroughfares. The subject's specific location is inferior to the comparable and as such a negative adjustment was applied.

This comparable is smaller in size than the subject, 25.57 acres and 39.26 acres respectively. As was the case with comparable number 2, we made a 25 percent negative adjustment to account for the size difference. Otherwise, the comparable and subject are similar in that both are level lots, similarly zoned, similar access, similar configuration, and with all utilities available. The subject is partially in the flood plain, but the subject's size allows for functional use of the non-flood plain affected land and ancillary / accessory uses of the flood plain affected land, such as parking and outside storage. Therefor no adjustment was made.

**Sale No. 4** – is a small industrial lot in St. Louis County, with a superior general and specific locations compared to the subject. It has good exposure to major thoroughfares.

This comparable is smaller in size than the subject, 4.42 acres and 35.66 acres respectively. We made a 20 percent positive adjustment to account for the size difference. Otherwise, the comparable and subject are similar in that both are level lots, similarly zoned, with similar access, similar configuration, and with all utilities available. The subject like the comparable is partially in the flood plain Therefor no adjustment was made.

An adjustment grid has been prepared and is presented below. The differences discussed above are converted into percentage adjustment and applied to the unit sale prices of the comparable properties. In cases where subjective judgment is employed in the section of an adjustment, care has been taken to apply such adjustments in a uniform way.

Typically, adjustments are made in a particular order; i.e., adjustments for property rights, financing, and sale and market conditions are made and applied first. Additional adjustments are made to this subtotal, first for location and then for physical characteristics.

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Appraisal of 39.26+/- Acres - South River Roa	ad St Charles Missouri
Appraisal of $39.20 + 7$ Acres – South River Roa	au, St. Chanes, Missouri

Subject		Sale 1		Sale 2	Sale 3		Sale 4	Average
Address 2000 S. River Road,		Premier Parkway,		01 Premier Parkway,	Charbonneau Drive, St.		Barrett Station,	-
St. Charles	St. Pe	eters	St.	Peters	Charles	Unir	corporated	
Sale Date 11/22/2019		12/28/2017		8/5/2016			6/18/2015	
Sale Price N/A		2,544,580		, ,	· · · · · · ·	\$	300,000	
Land Area/Sq. Ft. 997,959		1,547,774		1,155,647	1,113,611		192,535	1,002,392
Land Area/Acre 22.91		35.53		26.53	25.57		4.42	23.01
Topography Basically Level		Level		Level	Level		Level	
Flood Plain Partial		None		None			Yes	
Zoning "I-2"		Lakeside 370		Lakesdie 370	"I-2"		"NU & FPNU"	
Price/ Sq.Ft.	\$	1.64	\$	2.09	\$ 3.41	\$	1.56	\$ 2.17
Elements of Comparison								
Property Rights		0.00%		0.00%			0.00%	
Adjusted Price	\$	1.64			\$ 3.41	\$	1.56	\$ 2.38
Financing Terms		0.00%		0.00%	0.00%		0.00%	
Adjusted Price	\$	1.64		2.09	\$ 3.41	\$	1.56	\$ 2.38
Conditions of Sale		0.00%		0.00%	0.00%		0.00%	
Adjusted Price	\$	2		2.09	\$ 3.41	\$	1.56	\$ 2.38
Expenditures by Buyer (Immediate)		0.00%		0.00%	0.00%		0.00%	
Adjusted Price	\$	1.64	\$	2.09	\$ 3.41	\$	1.56	\$ 2.38
Time/Market Conditions								
Ann Adj. to 2/1/2016 @ 1%		0.00%		0.00%	0.00%		1.00%	
Ann Adj. to 12/31/2017 @ 2%		0.00%		3.00%	4.00%		4.00%	
Ann Adj. to 11/22/2019 @ 3%		6.00%		6.00%			6.00%	
Total		6.00%		9.00%			11.00%	
	\$	1.74		2.28		\$	1.73	\$ 2.37
General Location		0.00%		0.00%	0.00%		-10.00%	
Specific Location		-20.00%		-20.00%	-30.00%		-20.00%	
Access		-10.00%		-10.00%	-10.00%		-10.00%	
Size		0.00%		-25.00%	-25.00%		20.00%	
Configuration	1	0.00%		0.00%	0.00%		0.00%	
Topography	1	0.00%		0.00%	0.00%		0.00%	
Zoning		0.00%		0.00%			0.00%	
Utilities	1	0.00%		0.00%	0.00%		0.00%	
Easements / Encumbrances	1	0.00%	1	0.00%	0.00%		0.00%	
Flood Plain		0.00%		0.00%			0.00%	
Total - Loc., Phys. & Inc. Characteristics		-30.00%		-55.00%	-65.00%		-20.00%	
Final Adjusted Price	\$	1.22	\$	1.03	\$ 1.31	\$	1.38	\$ 1.23

After adjustments, the comparables indicate a value range of \$1.22 to \$1.38 per square foot, with an average of \$1.23 per square foot.

Placing most weight on sales 1, 2, and 3, which are all in St. Charles County and similar in size to the subject, we have concluded a value for the subject of \$1.20 per square foot.

#### VALUE CONCLUSION- WEST PORTION

997,959 square feet x \$1.20 per square foot

\$1,197,550

Rounded to

<u>\$1,200,000</u>

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

As previously discussed, the parcel is divided by the Katy Trail which runs North / South. The eastern portion which comprises 16.35 acres or 712,206 square feet is heavily wooded, irregularly shaped, and completely within the flood plain and as such would not command an equal price as the western portion, which is considered developable and largely raised out of the flood plain.

We have analyzed land sales which we consider to be similar to the 13.35-acre portion east of the Katy Trail. The sales are in the table that follows:

Summar	y of Land Sales				
					Price /
			Closing	Sale	Sq. Ft.
No.	Address	Acres	Date	Price	Land
1	1111 Hopewell Road	6.00	9/18/2019	\$145,000	\$0.55
2	Cool Springs Industrial Drive	20.54	4/27/2018	\$350,000	\$0.39
3	3640 North Highway 94	30.80	11/22/2016	\$650,000	\$0.48
1	Total / Average	19.11		\$381,667	\$0.48
	Median	20.54		\$350,000	\$0.48
	Minimum	6.00		\$145,000	\$0.39
	Maximum	30.80		\$650,000	\$0.55

Based on the above data, we would conclude a value for the recreational use, east portion of \$0.30 per square foot, reflecting it's lack of street access, but river frontage.

#### VALUE CONCLUSION-EAST PORTION

712,206 square feet x \$0.30 per square foot		\$213,661
	Rounded to	<u>\$215,000</u>
VALUE CONCLUSION-TOTAL		
West Portion: East Portion:		<u>\$1,200,000</u> <u>\$215,000</u>
Total:		\$1,415,000

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#### Appraisal of 39.26+/- Acres - South River Road, St. Charles, Missouri

#### FINAL RECONCILIATION

The Sales Comparison Approach is based upon general indicators of value of four similar sites observed in the marketplace and is given additional credence due to the amount of available data. This approach is somewhat limited due to the inability to make direct comparisons, since no two properties are exactly alike.

Based on our examination and analysis of the property and subject to the limiting conditions and certification contained in this report, it is our opinion that the "As Is" market value under the current market conditions of the fee simple interest of the subject property, as of November 22, 2019, is:

#### ONE MILLION FOUR HUNDRED FIFTY-FIVE THOUSAND DOLLARS (\$1,450,000)

#### Marketing Time/Exposure Time

Marketing time is the time it takes an interest in real property to sell on the market subsequent to the date of the appraisal. Exposure time is the estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal. Exposure time is always presumed to occur prior to the effective date of the appraisal. We have estimated marketing time at twelve months and exposure time at twelve months.

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ADDENDA

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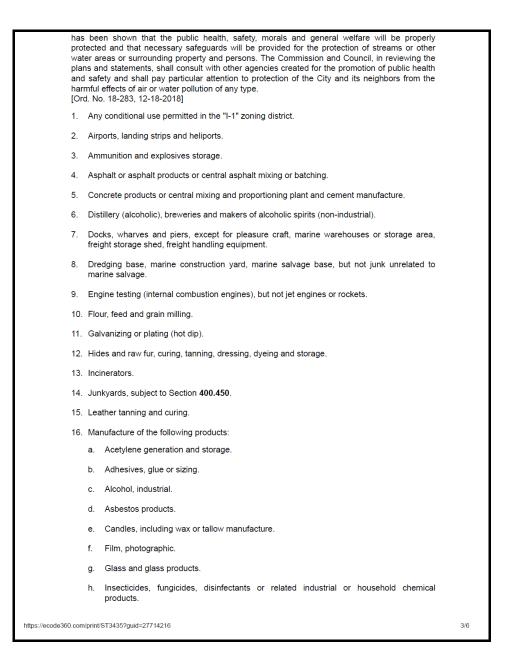
#### ZONING CODE "I-2" HEAVY INDUSTRIAL DISTRICT

	_			
Chapter 400. Zoning Code				
Article II. District Regulations				
Division 1. General District Regulations				
Section 400.250. "I-2" Heavy Industrial District.				
[R.O. 2009 §156.036; CC 1981 §30-38; Ord. No. 77-31, 7-5-1977; Ord. No. 82-29, 4-21-1982; Ord. No. 90-163, 6-21-1990; Ord. No. 90-188, 7-18-1990; Ord. No. 98-209, 5-15-1998; Ord. No. 00-78, 4-5- 2000; Ord. No. 01-156, 7-19-2001; Ord. No. 04-176, 8-4-2004; Ord. No. 09-227, 12-10-2009; Ord. No. 10-244 §1, 11-18-2010; Ord. No. 11-106 §6, 6-9-2011; Ord. No. 13-116 §2, 6-20-2013]				
A. Purpose. The purpose of the "I-2" Heavy Industrial District is to provide for a wide variety of manufacturing, fabricating, processing, wholesale distributing and warehousing uses appropriately located for access by major thoroughfares or railroads, to restrict or prohibit those industries which have characteristics likely to produce serious adverse effects within or beyond the limits of the district. Certain potentially hazardous industries are permitted only after public hearings and review to assure protection of the public interest and surrounding property and persons. Commercial uses and open storage of materials are permitted, but new residential development is excluded.				
B. Permitted Uses. A building or land in the "I-2" district shall be used only for the following purposes. Where any doubt exists as to the nature of a proposed use, product or process, the proposal shall be considered as a potentially hazardous use and referred to the Board of Adjustment for decision after a public hearing. [Ord. No. 18-283, 12-18-2018]				
1. Any permitted use in the "I-1" Light Industrial District.				
2. Blacksmith shops.				
3. Cleaning and dyeing of garments, hats, carpets and rugs.				
4. Coal and wood yards, coke storage and sales.				
5. Exterminating establishment.				
<ol><li>Fertilizer storage in bags or bulk storage of liquid or dry fertilizer in tanks or in a completely enclosed building, but not manufacture or processing.</li></ol>				
7. Flour, grain and feed storage, blending and packaging, but not milling.				
8. Manufacture or assembly of the following products:				
a. Abrasive wheels or stones, abrasive paper, cloth and related products.				
b. Agricultural or farm implements.				
<ul> <li>Article II. District Regulations</li> <li>Division 1. General District Regulations</li> <li>Section 400.250. "I-2" Heavy Industrial District.</li> <li>RC, 2009 §156 036; CC 1981 §30-38; Ord. No. 77-31, 7.5-1977; Ord. No. 82-29, 4-21-1982; Ord. No. 90-168, 6-21-1990; Ord. No. 99-168, 7-18-1990; Ord. No. 98-209, 5-15-1998; Ord. No. 00-78, 4-5-2000; Ord. No. 01-165, 7-19-2001; Ord. No. 04-176, 8-4-2004; Ord. No. 09-227, 12-10-2009; Ord. No. 10-168, 7-18-2010; Ord. No. 04-176, 8-4-2004; Ord. No. 09-227, 12-10-2009; Ord. No. 10-168, 7-19-2001; Ord. No. 04-176, 8-4-2004; Ord. No. 09-227, 12-10-2009; Ord. No. 10-168, 7-19-2001; Ord. No. 10-168 §2, 6-22-013]</li> <li>A. <i>Purpose</i>. The purpose of the "1-2" Heavy Industrial District is to provide for a wide variety of manufacturing, fabricating, processing, wholesale distributing and warehousing uses appropriately located for access by major throughfares or railroads, to restrict or problit these industries which have characteristics likely to produce serious adverse effects within or beyond the limits of the district. Certain potentially hazardous industries are permitted, but new residential development is excluded.</li> <li>Permitted Uses. A building or land in the "1-2" district shall be used only for the following purposes. Where any doubt exists as to the nature of a proposed use, product or process, the proposal shall be excluded.</li> <li>Any permitted use in the "1-1" Light Industrial District.</li> <li>Backsmith shops.</li> <li>Orden used varies, coke storage and sales.</li> <li>Centiming end deing of garments, hats, carpets and rugs.</li> <li>And mond adving, but not manufacture or processing, but not malor adving the proposal shall be caled building, but not manufacture or processing.</li> <li>Retriming end below on the storage of lough or dry fertilizer in tanks or in a completely encluse a substrait in the storage of lough or dry fertilizer in tanks or in a completely encluse building, but not manufacture or processing, but not maling and but and p</li></ul>				

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c. Aircraft and aircraft parts.					
d. Foundry products.					
e. Excelsior, wood fiber.					
f. Ice manufacture.					
g. Insecticides, fungicides, disinfectants and related industrial and household chemical elements (blending only).					
h. Leather goods, not including tanning operations.					
i. Monuments and architectural stone.					
j. Pottery and figurines or similar ceramic products and kilns fired by electricity or gas only.					
<ul> <li>Pulp goods, pressed or molded, including paper mache products, paper products, but not manufacture of paper.</li> </ul>					
<ol> <li>Rubber products and rubber and synthetic fabrics, excluding all rubber and synthetic processing.</li> </ol>					
m. Structural iron and steel fabrication.					
n. Wall board and plaster, building insulation and composition flooring.					
o. Wire rope and cable.					
p. Wood chip and fiberboard.					
<ol> <li>Indoor and outdoor storage and sales of building materials (cement, lime in bags or containers, sand, gravel, stone, lumber, structural or reinforcing steel, pipe and the like), but not manufacture or steel fabricating or junk storage.</li> </ol>					
10. Laundries, linen service.					
11. Plating, electrolytic process.					
12. Poultry packing, and slaughtering (wholesale).					
<ol> <li>Railroad switching yard, primarily for railroad service in the district, team tracks and spur tracks.</li> </ol>					
14. Sawmill, including cooperage stock mill, stationery.					
15. Soap products, but not soap manufacture.					
16. Stone products, sand and gravel, but not crushing or grinding.					
C. Conditional Uses. The following uses or the manufacture, compounding, processing, packaging or treatment of products not specifically listed above or below, but which may have accompanying hazards such as fire, explosion, noise, vibration, dust or the emission of smoke, odor, toxic gases or other pollutants, may be located in the "I-2" Heavy Industrial District, if not in conflict with any State or County law or ordinance, only after the location and nature of such use shall have been approved by the City Council following recommendation by the Planning and Zoning Commission after public hearing as provided in Section 400.980 et seq. The Commission and Council shall review the plans and statements and shall not permit such buildings, structures or uses until there					
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			i. Linoleum and other hard-surface floor coverings, except wood.	
			j. Match manufacture.	
			k. Oils, shortening and fats (edible) manufacture and storage.	
			I. Paint, oil, shellac, turpentine or varnish.	
			m. Starch manufacture.	
		17.	Materials recovery facility.	
		18.	Meat or fish products, including slaughtering of animals or poultry or preparation of fish for packing.	
		19.	Petroleum storage.	
		20.	Plastic material and synthetic resins, processing only.	
		21.	Railroad yards.	
		22.	Stockyard.	
		23.	Wood preserving treatment facility.	
		24.	Quarry with rock crushing operation.	
		25.	The provisions of this Section shall apply to all new uses and to existing uses where a substantial change or expansion to the layout, operation or configuration is proposed.	
	D.	(Re	eserved)	
	E.		sign Standards. (See also Sections <b>400.530</b> et seq. for additional regulations.) The following ign standards are required in the "I-2" district:	
		1.	Minimum lot area: 1 acre.	
		2.	Minimum lot width at the building line: 150 feet.	
		3.	Minimum lot depth: 200 feet.	
		4.	Maximum height of building: 3 stories or 45 feet.	
			"GPRS" bonus:	
			All tiers: 4 stories or 60 feet, except when adjoining a residential zoning district.	
		5.	Minimum setback requirements measured from building line to property line:	
			a. No part of any building, accessory structure or sign shall be located closer than one hundred (100) feet to any residential district boundary.	
			b. The front yard setback is thirty-five (35) feet, except fifty (50) feet across street from residential district.	
			"GPRS" bonus:	
			Tiers 1 and 2: 30 feet.	
			Tier 3: 25 feet, except 50 feet across street from residential district.	
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		<ul> <li>c. The side yard setback is zero (0) feet, except ten (10) feet adjoining any commercial zoning district and fifty (50) feet adjoining any residential district.</li> <li>[Ord. No. 18-258, 11-20-2018]</li> <li>"GPRS" bonus:</li> </ul>
		All tiers: 0 feet, except 10 feet adjoining any commercial zoning district and 50 feet adjoining any residential district. [Ord. No. 18-258, 11-20-2018]
		<ul> <li>d. The rear yard setback is zero (0) feet, except thirty (30) feet adjoining any commercial zoning district and fifty (50) feet adjoining any residential district.</li> <li>[Ord. No. 18-258, 11-20-2018]</li> </ul>
		"GPRS" bonus:
		All tiers: 0 feet, except 25 feet adjoining any commercial zoning district and 50 feet adjoining any residential district. [Ord. No. 18-258, 11-20-2018]
	6.	Maximum lot coverage: None.
	7.	Floor area in square feet: No requirement.
	8.	Public utilities. Requirements are contained in Section 400.610.
	9.	Off-street parking and loading.
		a. No parking shall be permitted in required front yard.
		<li>Additional off-street parking and loading requirements are contained in Sections 400.660 et seq.</li>
	10.	Protective screening.
		<ul> <li>All exterior solid waste containers and container racks or stands shall be screened from public view by an enclosure which complies with the requirements of Section 400.965 (B) (4).</li> </ul>
		b. Where an "I-2" zoning district directly adjoins a residential zoning district or is located across a public street or alley from a residential zoning district, a landscaped greenbelt at least fifty (50) feet in width shall be provided and maintained along the appropriate property line by the users of the "I-2" property. The open area shall be planted with trees and shrubs. A minimum of one (1) tree shall be planted per thirty (30) lineal feet or fraction thereof for any frontage along a residential zoning district. Required trees shall be at least two and one-half (2½) inch caliper. Trees existing within any required greenbelt at the time of installation and which are larger than two and one-half (2½) inch caliper shall be preserved and will count toward the minimum landscaping requirements. Newly planted species shall be hardy for the specified area. All landscaping shall be maintained in a healthy growing condition and be neat and orderly in appearance. The fifty (50) foot greenbelt shall not be used for off-street parking facilities or for loading spaces. Along the inner side (the industrial property side) of the greenbelt, except when the greenbelt adjoins a public street, there shall be provided either:
		consisting of a compact evergreen hedge or foliage screening; or
		(2) An ornamental masonry wall or wood fence at least six (6) feet in height above grade, in which case one (1) shrub shall be planted in the greenbelt per ten (10) lineal feet or fraction thereof. Required shrubs shall be a minimum of eighteen (18)
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		inches in height at time of initial planting. Shrubs may be clustered rather than evenly placed.	
		11. Landscaping. The required front yard shall be planted with trees or shrubs.	
	F.	Industrial Performance Standards. The same requirements as in Section 400.240(E).	
	[1]	Cross Reference—As to penalty, §400.1890.	
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#### QUALIFICATIONS

Real Estate Analysts Limited was founded in 1977 in the City of St. Louis, Missouri, with the goal of offering first rate real estate appraisal and consulting services to its clients. The staff is thoroughly experienced in all phases of real estate analysis, from appraisal to feasibility studies, from site selection to investment counseling. The firm's success is a result not only of its staff and experience, but also of its thoroughness and philosophy of integrity and confidentiality. Real Estate Analysts Limited is dedicated to fulfilling the requirements of each assignment and giving the client the information needed to make sound and profitable decisions.

Real Estate Analysts Limited's professionals are thoroughly trained and experienced in all facets of real estate appraisal, investment analysis, and market research. All senior staff members are certified real estate appraisers in Missouri, with several credentialed in Illinois as well. Our staff includes a Member of the Appraisal Institute. The MAI designation is generally considered the highest measure of competency, and most difficult to attain commercial and residential designations in the industry. Members of our staff have also been qualified as expert witnesses in the courts of various jurisdictions.

Real Estate Analysts Limited's clientele ranges from the smallest individual investor or owner to many of the nation's "Fortune 500" firms. Considerable appraisal work is undertaken for real estate developers and owners of all forms of investment real estate, banks, other financial institutions and lending agencies, numerous city, state, and federal government agencies, attorneys, architects, large and small businesses and corporations, and an assortment of other clients having a need for occasional or frequent valuation of real property.

<u>Michael A. Green</u>, Principal, has been actively engaged in the appraisal profession since 1984, initially in London England and has prepared appraisals of all types of commercial and industrial properties and vacant land for sale/purchase, financing, ad valorem and capital gains tax, and for litigation purposes. Mr. Green is a member of the St. Louis Association of Realtors (SLAR), the Missouri Association of Realtors (MAR), and the National Association of Realtors (NAR). He is a State Certified General Real Estate Appraiser in the State of Missouri, and has a license valid through June 30, 2020, Certificate No. RA001032. He is also licensed in the State of Illinois through September 30, 2021, License No. 553.001354.

<u>Jeremy A. Logan</u> graduated from the University of Missouri-Columbia and was employed by Real Estate Analysts Limited in February of 2018. He is a State Certified General Trainee in the State of Missouri, and has a license valid through March 3, 2023, Certification No. 2019007431. He is currently accruing creditable hours toward obtaining the General Real Estate Appraiser Certification.

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APPRAISAL OF A TYPICAL 5.0 +/- ACRE FULLY DEVELOPED LOT IN A A PROPOSED DEVELOPMENT SITE OF 18.5438 +/- ACRES SOUTH MAIN STREET CITY OF ST. CHARLES ST. CHARLES COUNTY, MISSOURI

> DATE OF REPORT JULY 6, 2018

DATE OF VALUE JULY 2, 2018

PREPARED FOR CITY OF ST. CHARLES ST. CHARLES, MISSOURI

PREPARED BY



FILE NUMBER - 2018-189

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www.reanalysts.net

July 6, 2018

Mr. Brian Faust Right-of-Way Specialist City of St. Charles 200 North 2<sup>nd</sup> Street, Room 202 St. Charles, MO 63301

Dear Mr. Faust:

At your request, we have made a personal inspection and an appraisal of <u>a typical 5.0 +/- acre lot</u> that will be part of a site to be developed by the City, and that post development (filled to street grade, outside of the 500-year flood plain, streets, sidewalks and utilities in place, all parcels not in the City of St. Charles are annexed into the City and the site zoned for an intensive commercial use), will comprise 18.5438 +/- acres located on the east side of South Main Street, at its intersection with Lombard Street in the City of St. Charles, St. Charles County, Missouri 63301.

This appraisal report, of which this letter is a part, describes in detail the land, improvements, and method of appraisal, and contains pertinent data considered in reaching our conclusions.

Based upon our examination and analysis of the property and subject to the limiting conditions and certification contained in this report and the Hypothetical Condition that the site has been made development ready, it is our opinion that the current market value of a <u>typical 5.0 +/- acre lot</u> (217,800 square feet), as of July 2, 2018, is:

#### TWO MILLION EIGHT HUNDRED THIRTY THOUSAND DOLLARS (\$2,830,000)

Our market value conclusion is premised on the exposure time estimate contained in the Reconciliation Section of this report. The following appraisal report, of which this letter of transmittal is a part, will indicate how we have arrived at this value conclusion. This letter is invalid as an opinion of value if detached from the report that contains the text and exhibits.

Respectfully submitted,

REAL ESTATE ANALYSTS LIMITED

Michael A. Green Principal

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#### SUMMARY OF SALIENT FACTS AND CONCLUSIONS

South Main Street at Lombard Street, City of St. Charles, St. Charles County, Missouri 63301
Vacant Land - assumed to be filled to grade and with all utilities in place and zoned for an intensive commercial use, most like "PD-MU" – Planned Development Mixed Use
None
18.5438 acres; 807,768 square feet
5.00 acres; 217,800 square feet
Current - various zoning categories – assumed to be re-zoned to "PD-MU" - Planned Development Mixed-Use
Commercial Development
July 2, 2018
July 2, 2018
July 6, 2018
Fee Simple
<u>\$2,830,000</u>
The market value estimate is based on the Hypothetical Condition that the subject site has been filled to street grade, is out of the 500-year flood plain, has all utilities, streets, and sidewalks in place, is zoned for an intensive commercial use and all parcels not already in the City of St. Charles are annexed into the City of St. Charles

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#### ADDENDA

Qualifications of Firm and Staff

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### NATURE OF ASSIGNMENT

#### Purpose of Appraisal

Our assignment has been to appraise a hypothetical, <u>typical 5.0 +/- acre lot</u> within the 18.5438-acres of land that post development (filled to street grade, outside of the 500-year flood plain, streets, sidewalks and utilities in place) located on the east side of South Main Street, at its intersection with Lombard Street in the City of St. Charles, St. Charles County, Missouri 63301.

The purpose of this appraisal is to estimate the current market value of the fee simple interest in a <u>typical</u> <u>5.0 +/- acre lot</u> based on the Hypothetical Condition that the subject site has been filled to street grade, is out of the 500-year flood plain and has streets, sidewalks and all utilities in place.

#### Type of Report

This appraisal report presents a detailed discussion of the subject property, the neighborhood, the data analyzed and the valuation analysis.

#### Identity of the Client and Intended User(s)

This appraisal is intended for use only by the client, City of St. Charles. Use of this report by others is not intended by the appraiser.

#### Intended Use

The intended use of this appraisal is to assist our client in the consideration of a disposition of the proposed three or four 5.0 + - acre developed lots that comprise subject site, after the development work has been completed.

#### Property Interest Appraised

This appraisal is of the Fee Simple Estate.

According to The Dictionary of Real Estate Appraisal, 6th ed., 2015, **Fee Simple Estate** is: An absolute fee; a fee without limitations to any particular class of heirs or restrictions, but subject to the limitations of eminent domain, escheat, police power, and taxation. An inheritable estate.

#### Type and Definition of Value

We have been asked to determine *market value*, which is defined as:

"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale; the buyer and seller each acting prudently and knowledgeably and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- 1. buyer and seller are typically motivated;
- 2. both parties are well informed or well advised, and acting in what they consider their best interests;
- 3. a reasonable time is allowed for exposure in the open market;
- 4. payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."

(12 C.F.R. Part 34.42(g); 55 Federal Register 34696, August 24, 1990, as amended at 57 Federal Register 12202, April 9, 1992, 59 Federal Register 29499, June 7, 1994)

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### Effective Date of Appraisal and Date of Report

The effective date of this appraisal is July 2, 2018. The date of the report is July 6, 2018.

#### Scope of Work

The scope of this appraisal is as follows:

- To inspect the subject property. The subject was inspected on July 2, 2018 by Michael A. Green the site was walked, and photographs taken.
- To review the St. Charles County Assessor's Records in respect to ownership and real estate taxes due.
- To review the city of St. Charles zoning maps and ordinances pertaining to the permitted uses of the site.
- To assess the economic effects of the neighborhood and the community at large upon the subject property.
- To gather and analyze comparable land sale data and when and where possible, to obtain confirmation of market data by one or more parties to the transaction, or a participating broker. If this were not the case, the information was obtained from sources we believe to be reliable. Additional data sources such as the Multiple Listing Service (MLS), Realist, and CoStar were reviewed.
- In the preparation of this appraisal, we gathered comparable land sale data and analyzed this data
  as it relates to the subject. The analysis of the data resulted in the conclusion of value presented in
  this appraisal report. The Cost and Income Approaches were not utilized in this report. The Sales
  Comparison Approach to value was utilized in this assignment.

#### Extraordinary Assumptions and Hypothetical Conditions

It is a <u>Hypothetical Condition</u> of this report that the site has been made development ready, that is filled to street grade, raised out of the 500-year flood plain and with all streets and sidewalks in place and utilities connected; and that the parcels not already in the City of St. Charles city limits will be annexed into the City, and that the site will be zoned to allow for an intensive commercial use.

#### Additional Definitions

#### Reasonable Exposure Time

As defined in The Appraisal Foundation, Statement on Appraisal Standards No. 6 (SMT-6), adopted September 16, 1992, Reasonable Exposure Time is the length of time the property interest being appraised would have been on the market prior to a hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market. The concept of exposure time not only encompasses adequate, sufficient, and reasonable time, but also adequate, sufficient, and reasonable effort.

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### FIRREA STANDARDS

Minimum appraisal standards for federally related transactions have been established by Title XI of the Financial Institution Reform, Recovery and Enforcement Act of 1989 (FIRREA), amended June 6, 1994. All appraisals shall, as a minimum:

- Conform to generally accepted appraisal standards as evidenced by the Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the Appraisal Standards Board (ASB) of the Appraisal Foundation unless principles of safe and sound banking require compliance with stricter standards;
- Be written and contain sufficient information and analysis to support the institution's decision to engage in the transaction;
- Analyze and report appropriate deductions and discounts for proposed construction or renovation, partially leased buildings, non-market lease terms, and tract developments with unsold units;
- Be based upon the definition of market value required as set forth in this subpart; and
- Be performed by State licensed or certified appraisers in accordance with requirements set forth in this subpart.

#### CERTIFICATION OF VALUE - REPORT DATED JULY 6, 2018

We certify that, to the best of our knowledge and belief:

- 1. The statements of fact contained in this report are true and correct;
- 2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- We have no present or prospective interest in the property that is the subject of this report, and we have no personal interest with respect to the parties involved.
- 4. We have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- 5. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- 6. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- 7. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute, which include the Uniform Standards of Professional Appraisal Practice.
- 8. Michal A. Green made a personal inspection of the property that is the subject of this report.
- 9. Michael A. Green has not performed appraisal services, as an appraiser, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- 11. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- 12. Michael A. Green have acted in an independent capacity and the appraisal assignment is not based on a requested minimum valuation, a specific valuation, or the approval of a loan.
- 13. Michael A. Green is competent to complete this report in accordance with the Competency Provision of USPAP.

REAL ESTATE ANALYSTS LIMITED

Mb

Michael A. Green Principal

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### ASSUMPTIONS AND LIMITING CONDITIONS

The conduct of this appraisal is necessarily guided, and its results influenced by the terms of the assignment and the assumptions, which together form the basis of the study. The following conditions and assumptions, together with lesser assumptions embodied in this report, constitute the framework of our analyses and conclusions.

- 1. Unless otherwise stated, the value of the property is based upon the present conditions of the national and local economies, the present purchasing power of the U.S. dollar, present financing rates as of the date of this appraisal and is subject to any future changes which may occur in any or all of these conditions.
- 2. The forecasts, projections, and operating estimates contained in this report are based upon current market conditions, anticipated short term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changes in future conditions.
- 3. All information and comments concerning the location, neighborhood, market, trends, construction quality and costs, obsolescence, condition, necessary repairs, expenses, income, taxes, zoning, or any other data of or relating to the property appraised herein, represent the estimates and opinions of Real Estate Analysts Limited, formed after an examination and study of the property.
- 4. While it is believed the information, estimates, and analyses given and the opinions and conclusions drawn therefrom are correct, Real Estate Analysts Limited does not guarantee them. We believe the information which was furnished to us by others is reliable, but we assume no responsibility for its accuracy.
- 5. We assume no responsibility for matters legal in character, nor do we render any opinion as to the title, which is assumed to be good and the property marketable. All existing liens and encumbrances except as specified herein have been disregarded and the property appraised as though free and clear and under responsible ownership and competent management.
- 6. The sketches in this report are included to assist the reader in visualizing the property. We have made no engineering tests or surveys of the property and assume no responsibility for the structural soundness of the improvements, stability, and/or load bearing capacity of the soil and subsoil, adequacy of drainage, location of property lines and improvements on the site, hidden or unapparent conditions, or any other matters of a related nature.
- 7. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a non-conformity has been stated, defined, and considered in the appraisal report.
- 8. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
- 9. Unless otherwise stated in this report, the existence of electro-magnetic fields (EMF), poor indoor air quality (IAQ), carbon monoxide and other gases or substances/materials, including without limitation radon, asbestos, polychlorinated byphenyls, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. THE APPRAISER, HOWEVER, IS NOT QUALIFIED TO TEST SUCH SUBSTANCES/MATERIALS, OR CONDITIONS. If the presence of such gas or substances, such as radon, asbestos, urea formaldehyde foam insulation, or other hazardous materials or environmental conditions may affect the value of the property, then any loss in value would have to be deducted from our concluded value because the value we have estimated in this appraisal is predicated on the assumption that there is no such condition on or in the property, or in such proximity thereto that it would cause a loss in value. NO RESPONSIBILITY IS ASSUMED FOR ANY SUCH CONDITIONS, NOR FOR ANY EXPERTISE OR ENGINEERING KNOWLEDGE REQUIRED TO DISCOVER THEM.
- 10. The Americans with Disabilities Act (ADA) became effective January 26, 1992. The appraiser has not made a specific compliance survey and analysis of this property to determine whether or not it is in conformity with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the Act. If so, this fact could have a negative effect upon the value of the property. Unless otherwise stated, the value conclusion stated in this report is based on the assumption that the property is not in compliance with ADA requirements.
- 11. Possession of this report or a copy thereof does not carry with it the right of publication, nor may it be used for any purpose by anyone but the client without the previous written consent of the appraiser and then only with proper written qualification, and in its entirety.

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

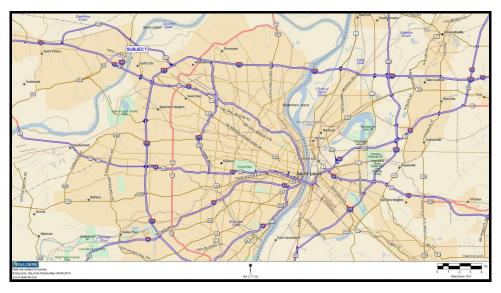
- 12. We are not required to give testimony or to appear in court by reason of this appraisal, with reference to the property in question, unless previous arrangements have been made.
- 13. The distribution, if any, of the value concluded in this report between land and improvements applies only under the stated program of utilization. The separate allocations of value for land and improvements must not be used in conjunction with any other appraisal and are invalid if so used.
- 14. Any value estimates provided in this report apply to the entire property. Any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in the report.
- 15. This report was not prepared for syndication purposes, nor is it to be used for syndication purposes without the consent of the appraisers and then only with proper qualifications.
- 16. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers or the firm with which they are connected, or any reference to the Appraisal Institute or the MAI designation) shall be disseminated to the public through advertising media, public relations media, news media, sales media, or any other public means of communication without the prior written consent and approval of the appraiser.
- 17. This appraisal report has been prepared for the exclusive benefit of the addressee. It may not be used or relied upon by any other party. Any party who uses or relies upon any information in this report, without the preparer's written consent, does so at his own risk.

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### GENERAL LOCATION AND AREA DATA



#### **GENERAL LOCATION AND AREA DATA**

#### Metropolitan Area

The St. Louis metropolitan area is the 20th largest region in the country, with a total population of 2.8 million. The CBSA includes seven counties in Missouri (City of St. Louis, Franklin, Jefferson, Lincoln, St. Charles, St. Louis, and Warren) and eight counties in Illinois (Bond, Calhoun, Clinton, Jersey, Macoupin, Madison, Monroe, and St. Clair). The following information obtained from ESRI Business Analyst, compares the demographics of the St. Louis CBSA and the United States.

	2010 Total Population (U.S.	2017 Total Population	2022 Total Population	2010-2017 Population: Annual Growth	2017-2022 Population: Annual Growth	2017 Median Household Income	2022 Median Household Income	2017-2022 Median Household Income: Annual Growth Rate	2017 Total Housing
Sites	Census)	(Esri)	(Esri)	Rate (Esri)	Rate (Esri)	(Esri)	(Esri)	(Esri)	Units (Esri)
St. Louis City, MO	319,294	316,260	312,349	-0.13%	-0.25%	\$37,980	\$43,088	2.56%	178,154
St. Louis County, MO	998,954	1,013,355	1,023,053	0.2%	0.19%	\$62,547	\$71,554	2.73%	441,826
St. Charles County, MO	360,485	396,448	425,199	1.32%	1.41%	\$75,939	\$83,113	1.82%	154,943
Jefferson County, MO	218,733	226,606	232,810	0.49%	0.54%	\$59,042	\$67,682	2.77%	91,035
Warren County, MO	32,513	34,217	35,503	0.71%	0.74%	\$53,791	\$63,580	3.4%	15,332
Lincoln County, MO	52,566	55,442	57,774	0.74%	0.83%	\$56,631	\$64,695	2.7%	21,947
Franklin County, MO	101,492	104,486	106,984	0.4%	0.47%	\$52,896	\$60,391	2.69%	45,135
St. Clair County, IL	270,056	268,351	264,778	-0.09%	-0.27%	\$52,680	\$55,303	0.98%	118,136
Madison County, IL	269,282	268,295	266,968	-0.05%	-0.1%	\$53,873	\$56,953	1.12%	119,039
Monroe County, IL	32,957	34,585	35,912	0.67%	0.76%	\$72,671	\$82,569	2.59%	14,180
Macoupin County, IL	47,765	46,942	45,731	-0.24%	-0.52%	\$49,979	\$53,122	1.23%	21,584
Jersey County, IL	22,985	22,850	22,461	-0.08%	-0.34%	\$56,412	\$61,456	1.73%	10,130
Clinton County, IL	37,762	38,772	39,570	0.36%	0.41%	\$59,470	\$66,545	2.27%	15,877
Calhoun County, IL	5,089	4,834	4,594	-0.71%	-1.01%	\$50,349	\$54,382	1.55%	2,835
Bond County, IL	17,768	17,130	16,590	-0.5%	-0.64%	\$50,021	\$53,193	1.24%	7,089
St. Louis CBSA	2,787,701	2,848,573	2,890,276	0.3%	0.29%	\$57,690	\$65,282	2.5%	1,257,242
United States	308,745,538	327,514,334	341,323,594	0.82%	0.83%	\$56,124	\$62,316	2.12%	138,912,632

As shown above, according to ESRI, Business Analyst, the 2010 U.S. Census Population of the CBSA was 2,787,701, and it is expected to increase to 2,890,276, by 2020. Population for individual counties in the (CBSA) shows a continuing pattern of migration to less urbanized areas.

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

St. Louis County, the most heavily populated area, has limited opportunities for future growth. The total population as of 2017 is 1,013,355, or a 1.44 percent increase from the 2010 U.S. Census Population of 998,954. The City of St. Louis attained its population peak of over 850,000 in the 1950s, and the number of residents declined from that time up through the early 2000s. The total population as of 2017 is 316,260, or a 0.95 percent decrease from the 2010 U.S. Census Population of 319,294.

In percentage terms, the counties of St. Charles, Warren and Lincoln have posted the largest gains. Between 2010 and 2017, the population increase for St. Charles County was 9.98 percent, and Warren and Lincoln Counties indicated increases of 5.24 percent and 5.47 percent, respectively. During this same time period, the greatest percentage of growth in Illinois was in Monroe County, with a 4.94 percent increase.

Regarding the local business environment, the St. Louis Regional Chamber provides the following information:

"Driven by a diverse and well-educated work force, Greater St. Louis is a major national business center. With an excellent quality of life and affordable cost of living, Greater St. Louis is a great base for companies and people alike.

The St. Louis area benefits from a highly diversified economy that doesn't lean heavily on any particular sector and provides a high degree of stability. Greater St. Louis has a business climate primed for continued growth, as the area is forging new frontiers in innovative and exciting industries. We are targeting the following industry clusters in which the region has both existing strengths and strong growth prospects:

- Financial and Information Services
- Bioscience
- Multi-modal Logistics & Manufacturing
- Health Science and Services

Greater St. Louis also includes strong small and mid-sized business communities. Recent progress in landing startup companies, coupled with over \$1 billion in venture capital invested in technology firms from 2014-16, is establishing St. Louis as the center of innovation in the Midwest.

For startups, the resources are terrific. The region has numerous business incubators where fledgling firms can find advice, nurturing, and inexpensive office and lab space; additional information regarding entrepreneurial resources are available.

In 2015 Popular Mechanics named St. Louis number one out of the "14 Best Startups Cities in America." In the two years since it was formed, the Regional Entrepreneur Exchange, or T-Rex as it's known, has grown to 200 companies with 80,000 square feet of co-working and incubator space in downtown St. Louis.

The following rankings demonstrate the strength of our business environment:

- St. Louis ranks as the 9th most cost-competitive location to do business among the U.S. metros with populations exceeding two million, according to a study released by KPMG LLP in 2016. KPMG's Competitive Alternatives study measured different cost components, including labor, taxes, real estate, and utilities, as well as non-cost-competitive factors.
- St. Louis ranks as the 7th of the "Top 10 Large American Cities of the Future 2013/14 Human Resources" in Foreign Direct Investment (fDi) magazine's ranking, which includes over 400 cities throughout North America and Latin America.
- The percentage of St. Louisans age 25 or older with bachelor's degrees or higher more than 30 percent — exceeds the national average, according to the American Community Survey 2015. This same survey found that among St. Louis area residents 25 or older, 12.8 percent have graduate or professional degrees, exceeding the U.S. average of 11.6 percent."

Greater St. Louis is home to the 17 Fortune 1000 headquarters, of which 9 are Fortune 500, summarized as follows:

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

		_
		Revenues
Company	Rank	(\$ Billions)
Express Scripts Holdings	22	100.3
Centene	66	40.7
Emerson Electric	139	20.3
Monsanto	204	13.5
Reinsurance Group of America	246	11.5
Jones Financial (Edward Jones)	403	6.7
Graybar Electric	420	6.4
Ameren	431	6.1
Olin	467	5.6
Post Holdings	508	5
Peabody Energy	533	4.7
Panera Bread	760	2.8
Stifel Financial	785	2.6
Caleres	790	2.6
Edgewell Personal Care	845	2.4
Belden	846	2.4
Arch Coal	946	2

Greater St. Louis is also home to some of the nation's largest private companies. The following St. Louis companies are listed among Forbes' America's Largest Private Companies.

Company	Rank
Enterprise Holdings	13
World Wide Technology	30
Edward Jones	48
Graybar Electric	55
McCarthy Holdings	124
Apex Oil	129
Schnuck Markets	170
Alberici Corp.	219

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

The 25 largest employers in the metropolitan area are summarized in the following table:

#	Company	HQ	Employees
1	BJC HealthCare	St. Louis MSA	28,351
2	Wal-Mart Stores Inc.	Bentonville, AR	22,290
3	Washington University in St. Louis	St. Louis MSA	15,818
4	SSM Health Care	St. Louis MSA	14,926
5	Mercy Health	St. Louis MSA	14,195
6	Boeing Defense, Space & Security	Washington, DC	14,000
7	Scott Air Force Base	St. Louis MSA	13,000
8	Schnuck Markets Inc.	St. Louis MSA	9,956
9	U.S. Postal Service	Washington, D.C.	9,956
10	AT&T Communications Inc.	Dallas, TX	9,000
11	Archdiocese of St. Louis	St. Louis MSA	8,780
12	McDonald's	Oak Brook, IL	7,550
13	City of Saint Louis	St. Louis MSA	7,404
14	Saint Louis University	St. Louis MSA	7,400
15	Washington University Physcians		7,222
16	Special School District of St. Louis County	St. Louis MSA	6,272
17	Edward Jones	St. Louis MSA	6,100
18	Imo's Pizza	St. Louis MSA	5,515
19	Enterprise Rent-A-Car (Enterprise Holdings)	St. Louis MSA	5,500
20	Express Scripts Inc.	St. Louis MSA	5,323
21	Wells Fargo Advisors	St. Louis MSA	5,107
22	Walgreens	Springfield, IL	4,740
23	Target Corp	Minneapolis, MN	4,675
24	General Motors	Detroit, MI	4,560
25	Ameren Corporation	St. Louis MSA	4,439

#### St. Charles County

St. Charles County (established October 1, 1812) is located in the northwest portion of the St. Louis region and encompasses 561-square-miles. The Missouri and Mississippi Rivers border the county on two sides. Once a semi-rural area, St. Charles County's population has grown by 70 percent since 1993 and is the fastest growing county in Missouri. St. Charles, St. Peters, and O'Fallon are the three largest communities in the area with Wentzville, Lake St. Louis, Dardenne Prairie, Weldon Spring, and Cottleville strongly trailing behind.

Residential development has occurred principally in the *Golden Triangle*, a triangular section of land bordered by I-70, I-64 (formerly US Highway 40/61) and the Missouri River. While most industrial and commercial development has been along I-70, I-370 and Highway 94/364 on the eastern edge of the County, numerous business parks have opened along I-64 and are being marketed to high tech industries.

The Route 364 Extension includes a bridge crossing over the Missouri River and a highway from I-270 in West St. Louis County to I-64 just north of Highway N in St. Charles County, changing a section of Missouri Route 94 to a freeway. The final phase of the extension opened in November of 2014. Additional major thoroughfares and extension of arterial roads throughout the County are also planned over the next ten years.

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

Major employers in St. Charles County include:

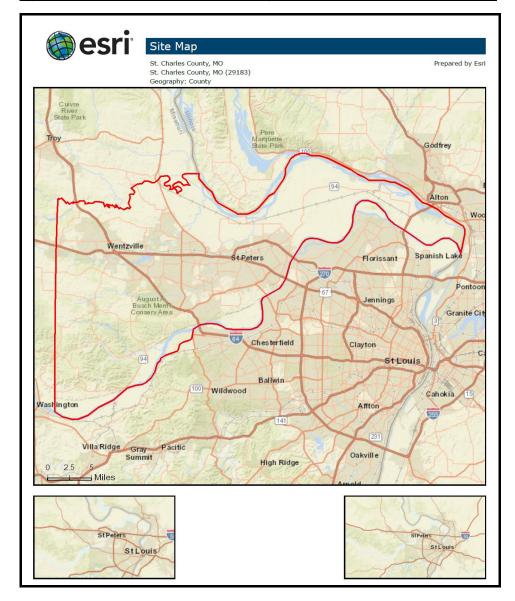
Largest Employers	City	Industry	Employment
General Motors	Wentzville	Manufacturing	4,560
CitiMortgage	O'Fallon	Finance & Insurance	3,800
MasterCard Worldwide	O'Fallon	Finance & Insurance	2,400
Wentzville R-IV School District	Wentzville	Educational Services	2,118
Fort Zumwalt School District	O Fallon	Educational Services	2,100
Francis Howell School District	St. Charles	Educational Services	2,000
Serco Inc.	Wentzville	Professional & Scientific & Technical Services	1,729
Ameristar Casino Resort Spa St. Louis	St. Charles	Arts, Entertainment & Recreation	1,600
True Manufacturing Company Inc.	O'Fallon	Manufacturing	1,475
St. Charles County	St. Charles	Government & Public Administration	1,261
St. Charles Community College	St. Peters	Educational Services	940

Demographic information provided by ESRI, Business Analyst, as well as maps of St. Charles County are included on the following pages:

County Summary St. Charles County, MO	Prepared by E
Population	
2000 Population	283,883
2010 Population	360,485
2017 Population	396,448
2022 Population	425,19
2000-2010 Annual Rate	2.429
2010-2017 Annual Rate	1.329
2017-2022 Annual Rate	1.419
2017 Male Population	49.19
2017 Female Population	50.99
2017 Median Age	38.
was 1.32% annually. The five-year projection for the population in the area is 425, Currently, the population is 49.1% male and 50.9% female. Median Household Income	199 representing a change of 1.41% annually from 2017 to 2022.
2017 Median Household Income	\$75,93
2022 Median Household Income	\$83,11
2017-2022 Annual Rate	1.829
Average Household Income	
2017 Average Household Income	\$93,39
2022 Average Household Income	\$105,78
2017-2022 Annual Rate	2.529
Per Capita Income	
2017 Per Capita Income	\$35,16
2022 Per Capita Income	\$39,83
2017-2022 Annual Rate	2.539
Households by Income	
Current median household income is \$75,939 in the area, compared to \$56,124 fo be \$83,113 in five years, compared to \$62,316 for all U.S. households	or all U.S. households. Median household income is projected to
Current average household income is \$93,397 in this area, compared to \$80,675 f be \$105,783 in five years, compared to \$91,585 for all U.S. households	or all U.S. households. Average household income is projected to
Current per capita income is \$35,160 in the area, compared to the U.S. per capita be \$39,835 in five years, compared to \$34,828 for all U.S. households	income of \$30,820. The per capita income is projected to

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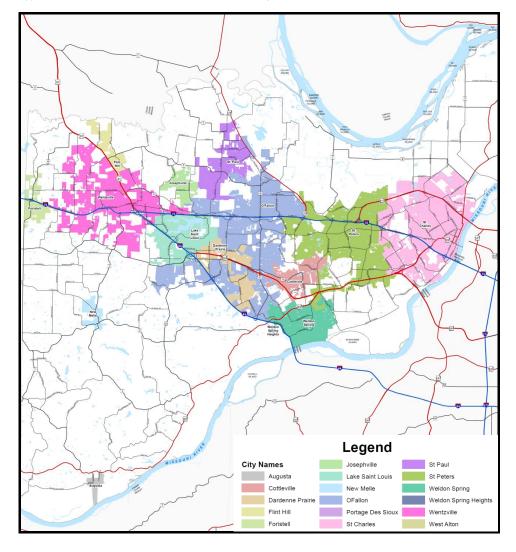
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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

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Appraisal of 18.5438 +/- Acres – South Main Street, City of St. Charles, Missouri

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### City of St. Charles

St. Charles is a city in, and the county seat of St. Charles County, Missouri. It lies just to the northwest of St. Louis, Missouri, on the Missouri River, and played for a time a significant role in the United States' westward expansion. St. Charles can be accessed from Interstate 70 using the Cave Springs, Zumbehl Road, First Capitol Drive, and Fifth Street exits, or Highway 94.

The total population as of 2017 was 69,188, a 0.69 percent annual increase from the 2010 U.S. Census Population of 65,805. The 2017 median household income was \$57,882 and this is projected to increase at an annual rate of 2.54 percent through 2022.

The City of St. Charles school district has seven elementary schools, two middle schools, two high schools, and the Lewis & Clark Tech Building located on Zumbehl Road. There are other schools like, the Francis Howell School District and the Orchard Farm School District that serve St. Charles as well. St. Charles is also home to a variety of private schools including Immanuel Lutheran (Pre-K to 8), Zion Lutheran (Pre-K to 8), St. Charles Borromeo, St. Cletus, Academy of the Sacred Heart, Duchesne High School formerly named St. Peter High school, and Saints Joachim and Ann.

Lindenwood University is located on Kingshighway, it was the first higher education institution west of the Mississippi. The school is perhaps most noted for its strengths in the performing arts and education. St. Charles lies at one end of the Katy Trail, a 225 mile long state park enjoyed by bikers and walkers. Since the late 1970s, there has been very healthy new home construction, commercial growth, and explosive population growth in the St. Charles area. In describing the area, someone coined the phrase the Golden Triangle in the Eighties, referring to the tremendous growth in real estate development in the St. Charles County region bordered by Highways 70, 40 and 94.

A new community development called the New Town at St. Charles is the best example in the St. Louis area of the new movement in residential development and community planning, New Urbanism. An 11,000-seat arena called the Family Arena was built in the early 1990s and is used by minor league sports franchises and hosts events like concerts, shows, circuses, graduations, and special college sporting contests. Another prominent feature of St. Charles in the new development category is the St. Charles Convention.

The Riverfront area and Main Street is a central gathering place and focal point for the community. The primary features of the riverfront and Historic Main Street are residences and businesses open yearround. Each block features shops, restaurants, and offices that visitors and locals frequent. Much is planned for the development and improvement of the area, including Northward extension of the KATY Trail, residential and commercial development, parking garage expansion, casino expansion and development of hotels.

Key demographic information provided by ESRI, Business Analyst, as well as various maps of the City of St. Charles are included on the following pages:

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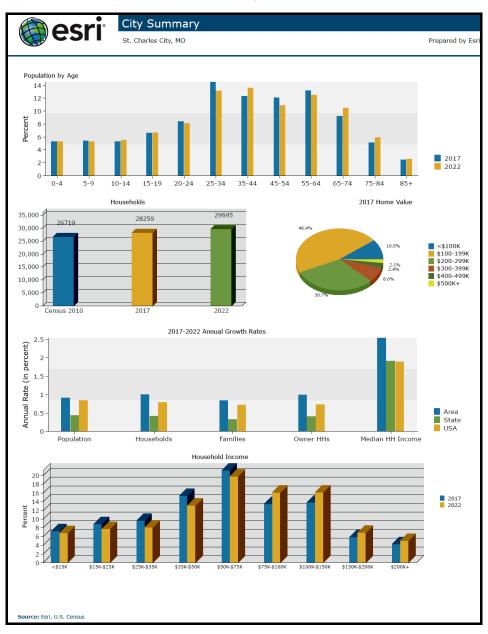
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Appraisal of 18.5438 +/- Acres – South Main Street, City of St. Charles, Missouri

コートコー	St. Charles City, MO	Prepared
		Treparea
Population		
2000 Population		6
2010 Population		6
2017 Population 2022 Population		6
2000-2010 Annual Rate		, 0
2010-2017 Annual Rate		C
2017-2022 Annual Rate		C
2017 Male Population		4
2017 Female Population 2017 Median Age		5
In the identified area, the cu	urrent year population is 69,188. In 2010, the Census count in the area was 6	
Currently, the population is	e-year projection for the population in the area is 72,388 representing a char 49.2% male and 50.8% female.	ige of 0.91% annually from 2017 to 20
Median Age	is 38.3, compared to U.S. median age of 38.2.	
Households	is 56.5, compared to 0.5. median age of 56.2.	
2000 Households		24
2010 Households		2
2017 Total Households		2
2022 Total Households 2000-2010 Annual Rate		2'
2010-2017 Annual Rate		0
2017-2022 Annual Rate		1
2017 Average Household	Size	
projection of households is 2 to 2.29 in the year 2010. Th	area has changed from 26,719 in 2010 to 28,259 in the current year, a chang 29,695, a change of 1.00% annually from the current year total. Average hou e number of families in the current year is 16,774 in the specified area.	
Median Household Incom		
2017 Median Household In 2022 Median Household In		\$5 \$6
2017-2022 Annual Rate	licome	2
Average Household Incor	ne	
2017 Average Household	Income	\$7
2022 Average Household	Income	\$8
2017-2022 Annual Rate		2
Per Capita Income 2017 Per Capita Income		\$3.
2022 Per Capita Income		\$3 \$3
2017-2022 Annual Rate		2
Households by Income		
Current median household i be \$65,610 in five years, co	income is \$57,882 in the area, compared to \$56,124 for all U.S. households. mpared to \$62,316 for all U.S. households	Median household income is projected
	income is $77,704$ in this area, compared to $80,675$ for all U.S. households. mpared to $91,585$ for all U.S. households	Average household income is projecte
	\$33,186 in the area, compared to the U.S. per capita income of \$30,820. Th mpared to \$34,828 for all U.S. households	he per capita income is projected to
Housing	· · · · · · · · · · · · · · · · · · ·	
2000 Total Housing Units		25
2010 Total Housing Units		28
2017 Total Housing Units 2022 Total Housing Units		30 31
55.6% of the housing units i housing units in the area - 6	267 housing units in the area are owner occupied; 35.5%, renter occupied; an in the area are owner occupied; 33.1% are renter occupied; and 11.3% are v 0.6% owner occupied, 32.9% renter occupied, and 6.6% vacant. The annua ie in the area is \$187,392. compared to a median home value of \$207,344 fo	vacant. In 2010, there were 28,594 I rate of change in housing units since :
projected to change by 2.13		,,

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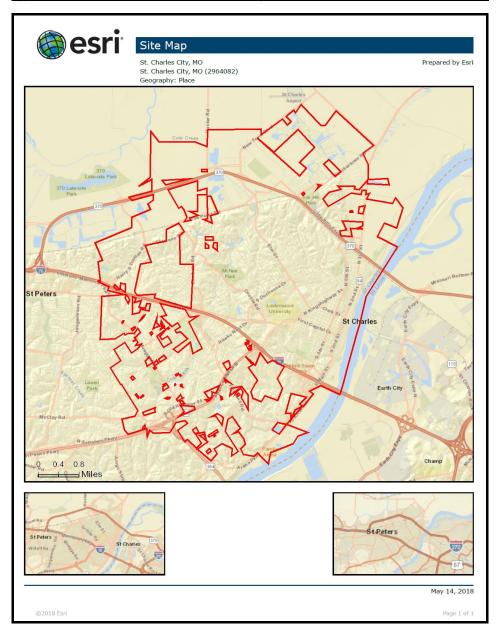


Appraisal of 18.5438 +/- Acres – South Main Street, City of St. Charles, Missouri

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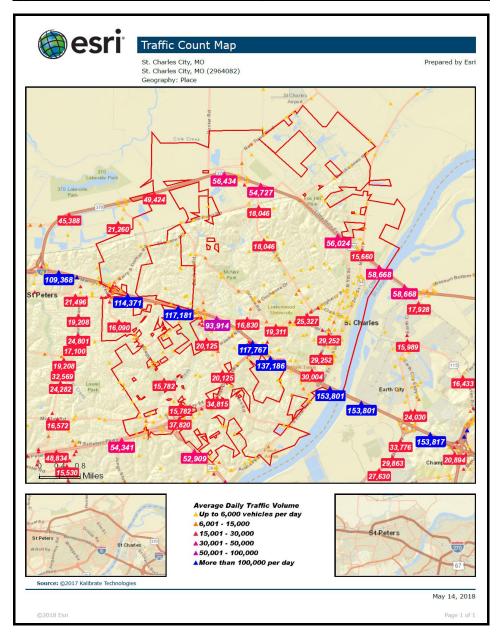
Appraisal of 18.5438 +/- Acres – South Main Street, City of St. Charles, Missouri



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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri



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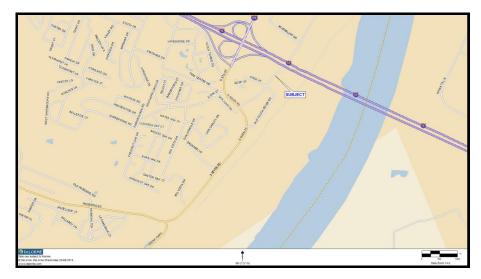
#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### Neighborhood Analysis

The neighborhood analysis provides a bridge between the analysis of general influences on all property values and the study of a specific property. The goal of the neighborhood analysis is to determine how the operation of social, economic, government and environmental forces influences property values in the specific area in which the subject property is located. According to The Appraisal Institute, The Dictionary of Real Estate Appraisal, 6th Edition, 2015, a neighborhood may be defined as:

A group of complementary land uses; a congruous grouping of inhabitants, buildings, or business enterprises.

Boundaries and Access – The subject property is located in eastern St. Charles County in the City of St. Charles. The neighborhood is bounded by but not limited by Interstate 70 to the north. South Fifth Street to the west, The Missouri River to the east and Friedens Road to the south. South Fifth Street, South main Street and South River Road all connect just south of the subject and become Arena Parkway, a major connector from Interstate 70 to the north and Highway 364 (Page Avenue Extension) to the south. Interstate 64 / Highway 61 provides north / south access throughout St. Charles County and east / west access into St. Louis County. Interstate 70 provides good east / west access throughout St. Charles and St. Louis Counties.



Homogeneous Uses – Land use within the neighborhood is dominated by the Street of St. Charles, a multi-use commercial / residential development on almost 30 acres in the southeast quadrant of I-70 and South Fifth Street. The Streets of St. Charles is becoming the City's second anchor, after historic Main Street; and continues to be developed. A 600,000 square foot, three story building is under construction to add additional retail and office space. About 20,000 square feet of retail space will be available on the building's ground floor, with two levels of office space totaling about 40,000 square feet above. The new building will be located at the northeast corner of Beale and Lombard streets, across from Firebirds and P.F. Changs. Tru by Hilton, a five-story hotel, located at the south end of the property across from Mission Taco, includes 87 guest rooms and a modern environment with cross-functional public spaces, recently opened on June 22, 2018. Last year, Drury Inns opened its Drury Plaza Hotel, with 198 rooms. The development also includes an AMC Theatre, Bar Louie, First Watch the Daytime Café, and P.F. Chang's among other national retailers.

Locally-owned and operated boutiques and shops include Olivino, MOD, Leopard Boutique, Brulee Boutique, Sole & Blues, Think Pink Nail Salon and Massage Luxe.

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

The Residences offers luxury apartment living at the 309-unit complex located above street level retail at the Streets of St. Charles.

• **Neighborhood Trends** - Neighborhood support services are considered good in the immediate vicinity. There are a variety of commercial developments along Interstate 70 and Highway 94.

Ameristar Casino continues to provide entertainment to this portion of the community, as does the Historic Downtown area of the City of St. Charles which offers various gift, antique, and restaurant entertainment.

Commercial development has been taking place over the last several years and is expected to continue as the economy continues to improve and the success of City based developments such as the Streets of St. Charles has encouraged other supporting developments such as the Rivers Crossing Apartments.

 Summary – The location of the neighborhood is considered good for a variety of uses, as is evidenced by the current mix of uses. Public services, neighborhood support systems, major highway accessibility and proximity to commercial centers are all considered good.

#### THE PROPERTY

#### History of the Property

According to the records of the St. Charles County Assessor's Office, title to the subject property is currently vested in the City of St. Charles in respect to the parcels highlighted in blue on the attached plat map and in respect to the pink highlighted parcels, other individuals as noted on the lot list below.



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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### **Ownership**

In total the subject comprises 15 adjacent and at present separately plated parcels as follows:

Parcel No.	Address	Size in Acres	Owner
T120800022	1414 S. Main Street		City of St. Charles
105420B000	1416 S. Main Street	0.2700	City of St. Charles
T070800169	S. Main Street	1.0800	City of St. Charles
105210A000	1420 S. Main Street	0.3300	City of St. Charles
105150A000	S. Main Street	0.0500	City of St. Charles
105120A000	1426 S. Main Street	0.2238	City of St. Charles
105090A000	1430 S. Main Street	1.2000	City of St. Charles
105000A001	1436 S. Main Street	0.6300	City of St. Charles
105000A000	1440 S. Main Street	0.6000	City of St. Charles
T120800023	1559 S. Main Street	0.3400	City of St. Charles
104400A000	1559 S. Main Street	1.9900	City of St. Charles
105330A000	S. Main Street	6.4700	Ben Giesman
103230A000	1602 S. River Road	1.2500	Robert Whys
104760A000	1606 S. River Road	0.9000	Alice Redmond et. al.
104580A000	old River Road	3.0100	Bessie Lee Tucker et. al.
Total Land A	rea	18.5438	

#### Legal Description

A legal description of the site was not provided, but it is presumed that a metes and bounds survey would be undertaken to establish the precise site boundaries and to provide a legal description.

#### Real Estate Taxes

The properties owned by the City are currently tax exempt, and as it is presumed that the City will acquire the other four parcels prior to disposition, they toto would be tax exempt. At the time of the purchase by a private entity the County would value the subject parcel for real estate taxation purposes.

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### Description of the Site – Entire 18.5438 Acre Parcel

#### Physical Features

Size/Dimensions – According to the St. Charles County Assessor's records, the parcels comprise 18.5438 acres. Of this total, 11.63 acres are located on the east side of Old South River Road / The Katy Trail and 6.9138 acres (owned by the City) is situated on the west side of Old South River Road / The Katy Trail. It is assumed that the section of Old South River Road between the two "parcels", would remain in place for secondary access to the site.



- Configuration The site is basically rectangular in shape as shown on the previous and following exhibits and plat maps. The property has approximately 1,100 feet of frontage along South Main Street.
- **Topography/Drainage** The parcel will have level topography, at street grade (at grade with South main Street) and drainage of the site will be adequate.
- Flood Plain As noted, the subject is assumed to be elevated out of the 500-year flood plain.
- Access Access to the subject property will primarily be available from South Main Street, but it will
  have secondary access from Old South River Road.

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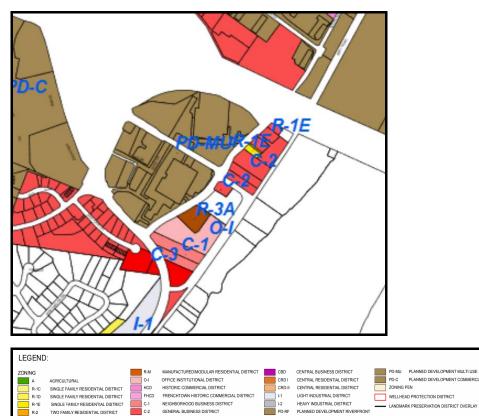
### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

• **Ground Stability** – We assume that the fill will be properly compacted and that the site will be stable and appropriate for construction.

### Legal

◆ Zoning - The use of some of the parcels that comprise the property is regulated and controlled by the zoning ordinances of the City of St. Charles. Those parcels are zoned "C-2" General Business District, except for one parcel (1426 S. Main Street), which is zoned "R-1E" Single Family Residential District. Those parcels located in an area of unincorporated St. Charles County are zoned "C-2" Commercial and "A" – Agricultural – see the following zoning maps.

Upon acquisition of the non-City owned properties the City will re-zone the entire site to "PD-MU" – Planned Development Mutli Usze to provide for the wiedest lattitude of development types.



## ZONING MAP - CITY PROPERTIES

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P.34

MULTI-FAMILY RESIDENTIAL DISTRICT

C-3

OBE

HIGHWAY BUSINESS DISTRICT

OFFICE BUSINESS PARK

PD-I

PD-R

PLANNED DEVELOPMENT INDUSTRIAL

PLANNED DEVELOPMENT RESIDENTIAL

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri



ZONING MAP - COUNTY PROPERTIES

- Conformance The subject property, as vacant, complies with the legal zoning requirements.
- Easements/Encumbrances/Moratoriums The subject property is assumed to be / will be encumbered by only the typical easements associated with utilities and street rights-of-way.
- Encroachments We were not provided an ALTA/ACSM Land Title Survey. There were no obvious encroachments.

## **Utilities**

- Water/Sewer Water/sewer services are provided by St. Charles County.
- Electric/Gas Electricity is provided by Ameren. Gas is provided by local providers.
- Other Local telephone service is provided by various companies.

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### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### **Environmental**

As referenced in the Assumptions and Limiting Conditions to this report, we are not considered experts nor competent to assess environmental issues. Upon physical inspection of the subject property, no indication to the "untrained eye" of environmental hazard could be found.

### **Development**

The City is intending to fully develop the subject site, which means filled to street grade, outside of the 500-year flood plain, streets, sidewalks and utilities in place, all parcels not in the City of St. Charles are annexed into the City and the site zoned for an intensive commercial use.

Post development the City is expecting to make available for development (vertical construction) three or four 5.0+/- acre lots and it is one of these lots that is the subject of this appraisal.

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

PHOTOGRAPHS OF SUBJECT PROPERTY



View North Across Subject From South Main Street



View North Across Subject From The Terminus Of South River Road

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

### HIGHEST AND BEST USE

The highest and best use of both land as though vacant and property as improved must meet four criteria according to the twelfth edition of the Appraisal Institute's text book, *The Appraisal of Real Estate*. The highest and best use must be *legally permissible, physically possible, financially feasible, and maximally productive*. These criteria are most often considered sequentially but due to their interaction may also be considered in concert, depending on the particular situation.

It is recognized that in cases where a site has existing improvements, the highest and best use may be determined to be different from the existing use. The existing use will continue, however, unless and until the land value in its highest and best use exceeds the total value of the property in its existing use.

The determination of the highest and best use of the land lies in market analysis and the economic concept of supply and demand. This entails ascertaining that use of the property which will produce the most value to both the owner and the community for the longest foreseeable time, and which will be consistent with the uses of the surrounding properties, the neighborhood, and the community.

An analysis of the factors affecting highest and best use as they pertain to the land as though vacant and the improved site follows.

## Highest and Best Use as Vacant

The highest and best use factors considered are identified as follows:

### Legally Permissible

The zoning is presumed to be "PD-MU", Planned Development - Mixed Use by the City of St. Charles. This district will allow a number of uses including many commercial and residential and mixed uses.

To our knowledge, the site is not and will not be encumbered by any restrictive easements or encroachments. It is our opinion that the highest and best use of the site, based upon the legally permissible uses, is for a development with a use compatible with the adjacent mixed use commercial development – The Streets of St. Charles.

#### Physically Possible

The size, shape, topography, accessibility, availability of utilities, soil conditions, and the risk of natural disasters, in particular flooding, but also earthquakes affect the uses for which a site can be developed. The subject site will be level, regularly configured and at grade with South Main Street and elevated out of the flood plain. The public street system is in place, is in good condition, and adequate for the local traffic needs and the property has extensive frontage on South main Street, across from the Streets of St. Charles. Overall, the subject is ideally suited to development.

### **Financially Feasible**

Of the legally permissible and physically possible uses, only some may be financially feasible. The subject is located on South main Street across from the very successful Streets of St. Charles development. A use compatible with and complimentary to this development would be ideal and this would most likely comprise a mixed-use commercial / residential development. The subject's somewhat rear location might make retail use more difficult, although a destination retailer would no doubt be attracted to the synergy of the overall Street of St. Charles development. Office space with apartments or condominiums over, hotels, and perhaps an entertainment type users would all be ideal for this site. Overall, in our opinion a mixed use, commercial / residential development will be a financially feasible use of the site.

In terms of office space, the St. Charles County sub-market generally underperforms the larger market and as can be seen from the following exhibit, this is the case currently. However, the subject offers a premier location and new office space, with views of the Bangert Island and the Missouri River would likely be the premier space in this sub-market.

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Appraisal of 18.5438 +/- Acres – South Main Street, City of St. Charles, Missouri

MARKE I         INVEN           CLASS A         5.5           St. Louis City         5.5           Clayton         4.7           Westport         1.0           Dilve/I-270         2.3           Chesterfield         4.4           Manchester/I-270         1.0           1.44/1-270         72           Earth City         1.7           Airport         71           St. Charles County         1.0           CLASS B         53           St. Louis City         4.9           Clayton         3.2           Class A Totals         23,4           Class Dive/1-270         3.4           Chesterfield         2.1           Manchester/1-270         1.1           4.4/+270         2.2           Earth City         1.1           Airport         1.5           St. Charles County         1.4	TTORY (SF)         VACA           557,440         951           883,770         188           1883,770         188           182,264         42,           309,900         190           416,748         302           777,958         84,           28,812         188           15,275         47,           660,190         235           252,401         340           319,915         366           413,485         331           153,278         274           171,810         119           222,334         181           150,092         199	NT SF         VACA           .881         17.           .906         3.3           .846         4.4           .448         7.4           .044         2.3           .976         111.           .947         6.5           .463         22.           .1,398         90.           .7013         26.           .1,369         100.           .505         200.           .646         9.°           .1,156         122.           .932         100.           .689         8.5.	NCY %         VAC/           1%         90           9%         17           0%         36           29%         15           9%         20           8%         70           5%         18           0.0%         85           7%         2           2%         21           6%         1,88           1%         1,25           5%         34           1%         36           7%         29           7%         26           2%         111           2%         111           2%         16	ANT SF VACC 12,422 1.1 7,123 3 18,193 6 6,674 3 18,193 6 1,7518 4 0,949 6 8,044 2 5,526 5 0,066 2 0,066 2 0,066 2 0,066 2 0,069 11 1,164 1.1 9,932 1.1	ANCY % ABSC 6.2% 6.3% 5.7% 7% 5.8% 7% 5.6% 7% 5.6% 7% 5.6% 7% 5.0% 7% 6.0% 7% 6.0% 7% 6.0% 7% 6.0% 7% 6.0% 7% 6.0% 7% 6.0% 7% 7% 7% 7% 7% 7% 7% 7% 7% 7% 7% 7% 7% 7	EFALL NET RPTION (VTD)         A           8,338         -           28,330         -           15,407         -           (13,143)         -           21,936         -           0         -           0         -           0         -           12,1936         -           0         -           12,141         -           1,696         -           1,696         -           1,9,801         -           19,901         -           13,801)         -           (22,318)         -	DIRECT VERAGE RENT 4 528.83 520.85 525.65 527.28 523.66 524.01 520.63 - 521.97 521.97 515.93 515.95 515
St. Louis City         5,5           Clayton         4,7           Westport         1,0           Dilwe/-270         2,3           Chesterfield         4,4           Manchester/I-270         1,0           I-4/1-270         72           Earth City         1,7           Alrport         71           St. Charles County         1,0           Class A Totals         23,4           CLASS B         5           St. Louis City         4,9           Clayton         3,2           Westport         1,8           Dilve/I-270         1,1           Achester/I-1270         1,1           Hanchester/I-270         1,1           Achester/I-270         1,1           Hardy-1270         2,2           Earth City         1,1           Alrport         1,5           St. Charles County         1,4           Alrport         1,5           St. Charles County         1,4           Klass B Totals         23,4	783,770         188           083,264         42,           309,900         190           116,748         302           777,958         84,           28,812         18,           116,748         302           777,958         84,           28,812         18,           15,275         47,           7060,190         235           2447,676         2,255           936,920         1,287           352,2401         340           319,915         366           113,485         331           153,278         274           171,810         119           22,334         181           150,092         199	,906         3.3           846         4.4           ,499         8.3           ,888         6.4           ,448         7.1           ,044         2.3           ,976         11.1           ,947         6.6           ,463         22.2           1,698         20.           7,013         266           ,3369         10.0           ,505         200.           ,646         9.2           ,1566         122.           ,932         100.           ,689         8.5	9%         17           9%         17           9%         17           9%         17           9%         17           9%         15           9%         20           8%         70           5%         18           0%         85           7%         21           6%         1,23           1%         1,23           5%         34           1%         36           7%         29           7%         26           2%         111           2%         16	7,123         3           6,674         3           88,193         6           7,7518         4           0,949         6           80,044         2           5,526         5           0         0           2,686         2           6,9,135         30,253           2,0369         11           6,505         22           0,0364         6           1,164         11           9,932         11	3.7%	28,330     15,407       115,407     1       21,936     0       0     0       0     1       0     1       1,606     1       (13,707)     1       1,696     1       19,801     1       19,253     1       (22,318)     1	\$28.83 \$20.85 \$25.65 \$27.28 \$23.66 \$24.01 \$20.63 - \$21.89 \$21.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
Clayton         4,7           Westport         1,0           Dilve/I-270         2,3           Chesterfield         4,4           Manchester/I-270         1,0           I-44/I-270         72           Earth City         1,7           Alrport         71           St. Charles County         1,0           Class A Totals         23,4           CLASS B         51           St. Louis City         4,9           Clayton         3,2           Westport         1,8           Dilve/I-270         1,1           Achester/I-170         1,1           Achester/I-170         1,1           Hanchester/I-270         1,1           Achester/I-270         1,1           Airport         1,5           St. Charles County         1,4           Airport         1,5           St. Charles County         1,4           Class B Totals         23,4	783,770         188           083,264         42,           309,900         190           116,748         302           777,958         84,           28,812         18,           116,748         302           777,958         84,           28,812         18,           15,275         47,           7060,190         235           2447,676         2,255           936,920         1,287           352,2401         340           319,915         366           113,485         331           153,278         274           171,810         119           22,334         181           150,092         199	,906         3.3           846         4.4           ,499         8.3           ,888         6.4           ,448         7.1           ,044         2.3           ,976         11.1           ,947         6.6           ,463         22.2           1,698         20.           7,013         266           ,3369         10.0           ,505         200.           ,646         9.2           ,1566         122.           ,932         100.           ,689         8.5	9%         17           9%         17           9%         17           9%         17           9%         17           9%         15           9%         20           8%         70           5%         18           0%         85           7%         21           6%         1,23           1%         1,23           5%         34           1%         36           7%         29           7%         26           2%         111           2%         16	7,123         3           6,674         3           88,193         6           7,7518         4           0,949         6           80,044         2           5,526         5           0         0           2,686         2           6,9,135         30,253           2,0369         11           6,505         22           0,0364         6           1,164         11           9,932         11	3.7%	28,330     15,407       115,407     1       21,936     0       0     0       0     1       0     1       1,606     1       (13,707)     1       1,696     1       19,801     1       19,253     1       (22,318)     1	\$28.83 \$20.85 \$25.65 \$27.28 \$23.66 \$24.01 \$20.63 - \$21.89 \$21.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
Westport         1.0.           Dilve/I-270         2.3.           Chesterfield         4.4.           Manchester/I-270         1.0.           I-44/I-270         72           Earth City         1.7           Airport         71           St. Charles County         1.0.           Class A Totals         23.4           CLASS B         51.           St. Louis City         4.9           Clayton         3.2           Westport         1.8           Olive/I-270         3.4           Manchester/I-270         1.1           1-44/I-270         2.2           Earth City         1.1           Airport         1.5           St. Charles County         1.1           Airport         1.5           St. Charles County         1.4           Airport         1.5           St. Charles County         1.4           St. St. B Totals         23.4	383,264         42,2           309,900         1900           416,748         3002           977,958         84,           28,812         18,           141,319         188           15,275         47,           960,190         235           447,676         2,255           447,676         2,255           452,2401         340           319,915         366           153,278         274           471,810         119           222,334         181           150,092         199	846         4.4.           1,499         8.3.           3,888         6.4.           448         7.1.           044         2.3.           9,976         11.           947         6.6.           4,463         22.           1,698         9.0.           7,013         26.           3,359         10.           5,505         20.           6,646         9.°           1,156         12.           9,932         100.           6,689         8.3.	0%         36           2%         15           9%         20           8%         70           5%         18           0%         85           7%         21           5%         11           5%         1,23           5%         34           1%         36           7%         29           7%         26           2%         111           2%         111	6.674         3           98,193         6           77,518         4           0,949         6           8,044         22           5,526         55           0         0           2,686         21           69,135         8           30,253         2           0,0,369         11           6,6505         21           0,0,364         6           1,164         11           9,932         11	3.4%	15,407 (13,143) (13,143) (14,144) (14,144) (14,144) (14,144) (14,144) (14,144) (14,144) (14,1707	\$20.85 \$25.65 \$27.28 \$23.66 \$24.01 \$20.63 - \$21.89 \$12.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
Dilve/I-270         2,3           Chesterfield         4,4           Manchester/I-270         1,0           I-44/I-270         72           Earth City         1,7           Airport         71           St. Charles County         1,0           Class A Totals         23,4           CLASS B         32           Westport         1,8           Dilve/I-270         3,4           Manchester/I-270         1,1           I-44/I-270         2,2           Earth City         1,1           Airport         1,5           St. Louis City         1,1           Addreser/I-270         1,1           Addreser/I-270         1,2           Earth City         1,1           Airport         1,5           St. Charles County         1,4           Alprot         1,4           Alprot         2,3,4	309,900         190           416,748         302           777,958         84,           28,812         18,           714,319         188           15,275         47,           560,190         235           346,769         2,25           336,920         1,288           113,915         366           413,485         331           153,278         274           47,1810         119           22,334         181           550,092         199	,499         8.:           ,888         6.:           ,448         7.:           ,044         2.:           ,976         11.           ,947         6.:           ,463         22:           1,898         9.:           7,013         26:           ,369         10:           ,505         20:           ,646         9.:           ,156         12:           ,932         10:           ,689         8:	22%         155           97%         200           83%         700           55%         118           0.%         221           65%         1,80           1.9%         1,90           1.9%         344           11%         366           7%         29           7%         26           2%         111           2%         16	8,193         6           7,518         4           0,949         6           8,044         2           5,526         5           0         0           2,686         2           69,135         8           30,253         2           0,0369         11           6,6505         20           0,0364         6           1,164         11           9,932         11	3.8%	(13,143)       21,936       0       0       0       12,141       70,453       16,96       (13,707)       19,801       19,253       (38,801)       (22,318)	\$25.65 \$27.28 \$23.66 \$24.01 \$20.63 - \$21.89 \$21.97 \$15.93 \$19.98 \$17.77 \$17.74
ChesterField         4,4           Manchester/I-270         1,0           L-44/I-270         72           Earth City         1,7           Airport         71           St. Charles County         1,0           Class A Totals         23,4           CLASS B         5           St. Louis City         4,9           Clayton         3,2           Westport         1,8           Dilve/L-270         3,4           Anchester/I-270         1,1           -44/I-270         2,2           Earth City         1,1           Anchester/I-270         1,1           Airport         1,5           St. Charles County         1,4           Airport         1,5           St. Charles County         1,4	416,748         302           777,958         84,           28,812         18,           714,319         188           15,275         47,           760,190         235           447,676         2,255           45252,401         340           319,915         366           113,485         331           1553,278         274           471,810         119           222,334         181           550,092         199	.888         6.1           .448         7.1           .044         2.2           .976         11.           .947         6.3           .463         2.2           .1,998         9.1           .7,013         2.6           .369         10.           .505         2.0           .646         9.3           .932         10.           .689         8.3	9%         200           8%         770           5%         118           0%         885           7%         211           6%         1,84           1%         1,23           5%         344           1%         366           7%         29           7%         26           2%         111           2%         16	7,518         4           0,949         6           8,044         2           5,526         5           0         0           2,686         2           69,135         8           30,253         2           0,0,69         1           16,505         2           0,0,364         6           1,164         1           9,932         1	1.7%	21,936 0 0 (2,556) 0 12,141 0 1,2,141 0 1,453 0 (13,707) 1 19,801 0 19,253 0 (38,801) 0 (22,318) 0	\$27.28 \$23.66 \$24.01 \$20.63 - \$21.89 \$21.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
Manchester/I-270         1.0.           I-44/I-270         72           Earth City         1.7           Airport         71           St. Charles County         1.0           Class A Totals         23,4           CLASS B         23,4           St. Louis City         4,9           Clayton         3.2           Westport         1.8           Dilwe/I-270         3,4           Chesterfield         2,1           Manchester/I-270         1,1           -44/I-270         2,2           Earth City         1,1           Airport         1,5           St. Charles County         1,4           Airport         1,5           St. Charles County         1,4           Class B Totals         23,4	977,958         84,           28,812         18,           143,19         188           15,275         47,           960,190         235           447,676         2,255           936,920         1,28           155,274         340           319,915         366           113,485         331           153,278         274           71,810         119           223,34         181           550,092         199	448         7.3           044         2.2           0,976         11.           947         6.5           1,898         9.3           7,013         26.           3,369         10.           5,505         20.           6,646         9.5           9,932         10.           6,689         8.5	8%         77           5%         18           0%         85           7%         21           5%         1,84           1%         1,23           5%         344           1%         36           7%         29           7%         26           2%         11           2%         16	0,949         6           8,044         22           5,526         5           0         0           2,686         22           30,253         2           0,369         11           16,505         22           0,364         8           1,164         11           9,932         11	5.6% 25.5% 20.5% 20.1% 20.1% 20.1% 20.5% 20.1% 20.5% 20.1% 20.5% 20.1% 20.5% 20.1% 20.5% 20.1% 20.5% 20.2\% 20.2\% 2	0 0 (2,556) 0 12,141 1,696 (13,707) 19,801 19,253 (38,801) (22,318)	\$23.66 \$24.01 \$20.63 - \$21.89 \$21.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
-44/I-270         772           Earth City         1,7           Airport         71           St. Charles County         1,0           Class A Totals         23,4           CLASS B         23,4           St. Louis City         4,9           Clayton         3,2           Westport         1,8           Dilwe/L-270         3,4           Chesterfield         2,1           Manchester/L-270         1,2           Earth City         1,1           Airport         1,5           St. Charles County         1,4           City         1,4           Airport         1,5           St. Charles County         1,4           Class B Totals         23,4	28.812         18.           /14.319         188           15.275         47.           060.190         235           447,676         2,255           936,920         1,28           552,401         340           319,915         366           113,485         331           153,278         274           (71,810         119           222,334         181           550,092         199	044         2.3           0,976         11.           947         6.5           3,463         22.           1,898         9.           7,013         26.           3,369         10.           5,505         20.           ,646         9.°           9,32         10.           ,689         8.5	55%         18           0%         85           7%         21           6%         1,84           1%         1,23           55%         344           1%         36           7%         29           7%         26           2%         11           2%         16	8,044 2 5,526 5 5,526 2 2,686 2 2 69,135 8 30,253 2 30,253 2 30,369 1 1 6,505 2 2 0,0,364 8 1,164 1 1, 9,932 1	2.5% 2.5% 2.5% 2.1% 2.5% 2.1% 2.1% 2.1% 2.1% 2.1% 2.1% 2.1% 2.1	0 (2,556) (2,556) (2,141 (2,556) (2,566) (2,556) (2,56	\$24.01 \$20.63 - \$21.89 \$21.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
Earth City         1,7,7           Airport         71           St. Charles County         1,0           Class A Totals         23,4           CLASS B         23,4           St. Louis City         4,9           Clayton         3,2           Westport         1,8           Olive/-270         3,4           Chesterfield         2,1           Manchester/I-270         1,1           Airport         1,5           St. Charles County         1,4           Airport         1,5           St. Charles County         1,4           Class B Totals         23,4	7/14,319         188           15,275         47,7           060,190         235           447,676         2,255           936,920         1,28           255,2401         340           319,915         366           113,485         3311           153,278         274           71,810         119           222,334         181           550,092         199	,976         11.           947         6.           ,463         22.           1,898         9.           7,013         26.           ,369         10.           ,505         20.           ,646         9.           ,156         12.           ,932         10.           ,689         8.	0% 885 7% 211 6% 2,1,84 7% 1,84 7% 3,44 1% 3,66 7% 2,99 7% 2,66 2% 111 2% 1,60	5,526 55 0 0 0 2,686 22 69,135 8 30,253 22 0,369 11 6,505 22 0,364 8 1,164 11 9,932 11	5.0% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0	(2,556) 0 12,141 70,453 1,696 (13,707) 19,801 19,253 (38,801) (22,318)	\$20.63 - \$21.89 \$21.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
Airport         77           St. Charles County         1,0           Class A Totals         23,4           CLASS B         23,4           St. Louis City         4,9           Clayton         3,2           Westport         1,8           Dilwe/-270         3,4           Chesterfield         2,1           Manchester/-270         1,1           -44/I-270         2,2           Earth City         1,1           Airport         1,5           St. Charles County         1,4           Class B Totals         23,4	15,275         47,7           060,190         235           447,676         2,255           736,920         1,28           735,920         1,28           735,920         1,28           153,278         274           171,810         119           722,334         181           155,092         199	947         6.:           1,898         9.:           7,013         26.           1,369         10.           :505         20.           .646         9.:           :156         12.           :932         10.           .689         8.:	7%         2           2%         21           5%         1,8           1%         1,2:           5%         34           1%         36           7%         29           7%         26           2%         11           2%         16	0 0 0 2,686 22 69,135 8 30,253 2 0,369 11 6,505 22 0,364 8 1,164 11 9,932 11	0.0% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.5% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1% 0.1	0 12,141 70,453 1,696 (13,707) 19,801 19,253 (38,801) (22,318)	- \$21.89 \$21.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
St. Charles County         1.0.           Class A Totals         23,4           CLASS B         23,4           CLASS B         23,4           St. Louis City         4,9           Clayton         3.2           Westport         1.8           Dilve/-270         3.4           Chesterfield         2.1           Manchester/-270         1.1           -44/I-270         2.2           Earth City         1.1           Airport         1.5           St. Charles County         1.4           Class B Totals         23,4	660,190         235           447,676         2,255           736,920         1,28           252,401         340           319,915         366           413,485         331           153,278         274           171,810         119           222,334         181           550,092         199	,463         22.           1,898         9.           7,013         26.           3,369         10.           ,505         20.           ,646         9.           ,156         12.           ,932         10.           ,689         8.	2%         21           6%         1,80           1%         1,23           5%         344           1%         366           7%         29           7%         26           2%         111           2%         16	2,686 2) 69,135 26 30,253 2. 0,369 11 6,505 22 0,364 8 1,164 1. 1,164 1.	0.1% 4.9% 4.9% 0.5% 2.1% 0.2%	12,141 70,453 71,696 (13,707) 19,801 19,253 (38,801) (22,318) 71,253 72,253 72,253 73,253 74,257 747 74,257 74,257 74,257 74,257 74,257 74,257 74,257 74,257 74,257 74,257 74,257 747 74,257 747 747 747 747 747 747 747 747 747 7	\$21.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
Class A Totals         23, 7           CLASS B         21, 7           CLASS B         32, 2           St. Louis City         4,9           Clayton         32, 2           Westport         18, 8           Dilve/-270         3,4           Chesterfield         2,1           Manchester/-270         1,1           -44/-270         2,2           Earth City         1,1           Airport         1,5           St. Charles County         1,4           Class B Totals         23,4	447,676 2,253 736,920 1.28 252,401 340 319,915 366 413,485 331 153,278 274 471,810 119 922,334 181 550,092 199	7,013         26.           7,013         26.           3,369         10.           5,505         20.           6,646         9.           1,156         12.           9,932         10.           6,689         8.	6%         1,80           1%         1,23           5%         344           1%         366           7%         299           7%         266           2%         111           2%         16	69,135         8           30,253         2:           0,369         1:           65,055         2:           10,364         8:           1,164         1:           9,932         1:	.0% 4.9% 0.5% 0.1% 3.5% 2.1% 0.2%	70,453           1,696           (13,707)           19,801           19,253           (38,801)           (22,318)	\$21.97 \$15.93 \$19.98 \$17.77 \$17.74 \$21.84
CLASS B           St. Louis City         4.9           Clayton         3.2           Westport         1.8           Dilwe/-270         3.4           Chesterfield         2.1           Manchester/-270         1.1           -44/I-270         2.2           Earth City         1.1           Airport         1.5           St. Charles County         1.4           Class B Totals         23,4	936,920         1,28'           9252,401         340           319,915         366           413,485         331           153,278         274           171,810         119           222,334         181           150,092         199	7,013 26. 3,369 10. 5,505 20. 6,646 9. 1,156 12. 9,932 10. 6,689 8.	1% 1,2: 55% 344 1% 366 7% 299 7% 26 2% 111 2% 16	30,253 22 0,369 11 6,505 22 10,364 88 1,164 11 9,932 11	4.9% 0.5% 0.1% 2.1% 0.2%	1,696 (13,707) (19,801 (19,801 (19,801 (19,801) (19,801) (19,801) (19,801) (19,253 (19,801) (19,801) (19,253 (19,801) (19,801) (19,253 (19,801) (19,801) (19,253 (19,801)	\$15.93 \$19.98 \$17.77 \$17.74 \$21.84
St. Louis City         4,9           Clayton         3,2           Westport         1,8           Dlive/-270         3,4           Chesterfield         2,1           Manchester/-270         1,1           -44/-270         2,2           Earth City         1,1           Airport         1,5           St. Charles County         1,4           Class B Totals         23,4	252,401         340           319,915         366           413,485         331           153,278         274           171,810         119           222,334         181           150,092         199	1,369         10.           1,505         20.           1,646         9.           1,156         12.           1,932         10.           1,689         8.	5%         34           1%         36           7%         29           7%         26           .2%         11           2%         16	10,369 11 16,505 22 10,364 8 11,164 11 19,932 11	0.5% 0.1% 3.5% 2.1% 0.2%	(13,707) 19,801 19,253 (38,801) (22,318)	\$19.98 \$17.77 \$17.74 \$21.84
Clayton         3.2           Westport         1.8           Olive/I-270         3.4           Chesterfield         2.1           Manchester/I-270         1.1           I-44/I-270         2.2           Earth City         1.1           Airport         1.5           St. Charles County         1.4           Class B Totals         23,4	252,401         340           319,915         366           413,485         331           153,278         274           171,810         119           222,334         181           150,092         199	1,369         10.           1,505         20.           1,646         9.           1,156         12.           1,932         10.           1,689         8.	5%         34           1%         36           7%         29           7%         26           .2%         11           2%         16	10,369 11 16,505 22 10,364 8 11,164 11 19,932 11	0.5% 0.1% 3.5% 2.1% 0.2%	(13,707) 19,801 19,253 (38,801) (22,318)	\$19.98 \$17.77 \$17.74 \$21.84
Westport         1.8.           Olive/I-270         3.4           Chesterfield         2.1.           Manchester/I-270         1.1.           1-44/I-270         2.2.           Earth City         1.1.           Airport         1.5.           St. Charles County         1.4.           Class B Totals         23,4.	319,915         366           413,485         331           153,278         274           171,810         119           222,334         181           150,092         199	,505 20. ,646 9. ,156 12. ,932 10. ,689 8.	1%         36           7%         29           .7%         26           .2%         11           2%         16	6,505 20 10,364 8 1,164 11 9,932 11	0.1% 3.5% 2.1% 0.2%	19,801 19,253 (38,801) (22,318)	\$17.77 \$17.74 \$21.84
Olive/I-270         3,4           Chesterfield         2,1           Manchester/I-270         1,1           I-44/I-270         2,2           Earth City         1,1           Airport         1,5           St. Charles County         1,4           Class B Totals         23,1	413,485         331           153,278         274           171,810         119           222,334         181           150,092         199	,646 9.1 ,156 12. ,932 10. ,689 8.1	7%         29           .7%         26           .2%         11'           2%         16'	1,164 8 1,164 1 9,932 1	2.1% 0.2%	19,253 (38,801) (22,318)	\$17.74 \$21.84
Chesterfield         2.1.           Wanchester/I-270         1.1.           H-44/I-270         2.2.           Earth City         1.1.           Airport         1.5.           St. Charles County         1.4.           Class B Totals         23,1.	153,278 274 171,810 119 222,334 181 150,092 199	,156 12. ,932 10. ,689 8.	.7% 26 .2% 11 2% 16	1,164 1. 9,932 1	2.1% 0.2%	(38,801) (22,318)	\$21.84
Manchester/I-270         1,1           -44/I-270         2,2           Earth City         1,1           Airport         1,5           St. Charles County         1,4           Class B Totals         23,1	171,810119222,334181150,092199	,932 10. ,689 8.	2% 11 2% 16	.9,932 1	0.2%	(22,318)	
-44/I-270         2,2           Earth City         1,1           Airport         1,5           St. Charles County         1,4           Class B Totals         23,1	222,334 181 150,092 199	,689 8.3	2% 16				\$20.42
Earth City 1,1 Airport 1,5 St. Charles County 1,4 Class B Totals 23,1	150,092 199			0,587 7	7 2%	(27.045)	
Airport 1,5 St. Charles County 1,4 Class B Totals 23,1		,241 17.	.3% 19			(21,703)	\$21.54
St. Charles County 1,4 Class B Totals 23,1	539,605 333			7,281 1	7.2%	7,386	\$15.43
Class B Totals 23,1		,832 21.	.7% 33	3,832 2	1.7%	(11,641)	\$17.02
	451,565 178	,512 12.	.3% 17	8,512 1	2.3%	(3,873)	\$16.54
CLASS C	111,405 3,61	2,895 15.	.6% 3,47	78,799 1	5.1%	(70,169)	\$18.29
St. Louis City 1,5	573,722 327	,080 20.	.8% 32	7,080 2	0.8%	1,840	\$13.39
Clayton 53	34,331 81,	298 15.	.2% 81	1,298 1	5.2%	(382)	\$17.66
Westport 4	8,100 6,3	373 13.	.2% 6	,373 1	3.2%	645	\$14.70
Olive/1-270 20	07,598 12,	.440 6.0	0% 12	2,440 6	5.0%	0	\$16.11
Chesterfield 6	8,630	0 0.0	0%	0 0	).0%	0	\$15.00
Manchester/I-270 4	14,322 3,9	973 9.0	0% 3,	9,973 9	9.0%	(530)	\$15.39
			4% 16		3.4%	2,306	\$18.15
Earth City		0		0	-	0	\$13.95
					3.1%	1,500	\$18.29
		.364 10.	.3% 38		0.3%	2,576	\$14.10
Class C Totals 3,0	097,049 487	,588 15.	.7% 48	7,588 1	5.7%	7,955	\$15.24
MARKET TOTALS 49,6	656,130 6,35	2,381 12.	.8% 5,83	35,522 1	1.8%	8,239	\$19.96

The St. Charles retail market is performing on a par with the overall market, but as a retail destination the Street of St. Charles is a premier location and even with the subject's rear location, some retailers, most likely destination type users would be attracted to the subject.

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**CUSHMAN &** 

WAKEFIELD

Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

## MARKETBEAT

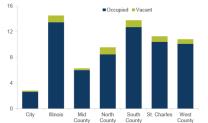
St. Louis Retail Q1 2018

As reported in Cushman & Wakefield's Food Halls of North America 2018 edition, food halls are popping up across the country, and "at the current rate, by 2020 the marketplace will have tripled in size in the span of just five years." In the St. Louis market alone two food halls were announced over the last few years. Food halls offer landlords a lure to attract foot traffic through experience, eCommerce disrupted much of the convenience that malls and stores once had, but food halls capitalize on customers' growing appetite for an experience through food, making the food-hall concept more resistant to eCommerce.

### More eGrocery Players

Fresh Thyme announced in the first quarter of 2018 that it would begin offering delivery service in St. Louis, Customers can select from 30,000 available items and pick the delivery time though Instacart, which is becoming an increasingly popular application for eGroceries. Sam's Club also joined St. Louis' eGrocery market and will begin offering delivery services for groceries and even small appliances to customers. Over the past few years, retailers such as Schnucks, Costco, and CVS Pharmacy teamed up with Instacart to offer customers an eGrocery option.





Outlook

• Expect the food hall concept to migrate from urban submarkets to suburban mix-use developments.

Steady growth in personal income over the next two years will translate into more retail sales.

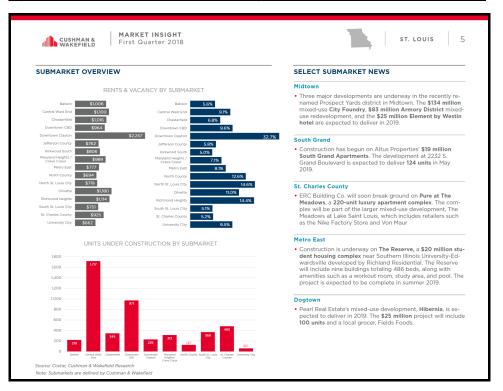
More consumer adoption of technology will result in stronger eCommerce and eGrocery growth through 2018

SUBMARKET	TOTAL BLDGS	INVENTORY (SF)	OVERALL VACANCY RATE	OVERALL CURRENT NET ABSORPTION (SF)	OVERALL YTD NET ABSORPTION (SF)	UNDER CNSTR (SF)	OVERALI AVERAGE ASKINO RENT (NNN
City	66	2,814,000	6.8%	3,000	3,000	-	\$17.5
Illinois	448	14,508,000	7.2%	39,000	39,000	-	\$11.1
Mid County	177	6,280,000	4.3%	-18,000	-18,000	125,000	\$17.3
North County	290	9,558,000	11.5%	-62,000	-62,000	-	\$10.2
South County	408	13,771,000	7.7%	-266,000	-266,000	-	\$12.4
St. Charles	396	11,272,000	7.6%	-42,000	-42,000	-	\$13.8
West County	340	10,805,000	6.6%	-34,000	-34,000	23,000	\$15.7
ST. LOUIS TOTALS	2,125	69,008,000	7.6%	-380,000	-380,000	148,000	\$12.7
	TOTAL BLDGS	INVENTORY	OVERALL	OU DOGUT USE		UNDER	
	TOTAL DEDGG	(SF)	VACANCY RATE	CURRENT NET ABSORPTION (SF)	YTD NET ABSORPTION (SF)	CNSTR (SF)	AVERAGE ASKIN RENT (NNI
Neighborhood & Community Centers	1,107	(SF) 45,355,000	VACANCY RATE 8.6%				
5				ABSORPTION (SF)	ABSORPTION (SF)	CNSTR (SF)	RENT (NNI
Lifestyle Centers	1,107	45,355,000	8.6%	ABSORPTION (SF) -381,000	ABSORPTION (SF) -381,000	CNSTR (SF) 125,000	RENT (NNI \$12.2 \$15.6
Neighborhood & Community Centers Lifestyle Centers Power/Regional Centers Unanchored Strip Centers	1,107 52	45,355,000 2,163,000	8.6% 7.1%	ABSORPTION (SF) -381,000 6,000	ABSORPTION (SF) -381,000 6,000	CNSTR (SF) 125,000	RENT (NNI \$12.2
Lifestyle Centers Power/Regional Centers	1,107 52 266	45,355,000 2,163,000 12,997,000	8.6% 7.1% 4.0%	ABSORPTION (SF) -381,000 6,000 -32,000	ABSORPTION (SF) -381,000 6,000 -32,000	CNSTR (SF) 125,000 - -	RENT (NN \$12.2 \$15.6 \$14.5

The apartment market is very strong at present, with record low vacancy rates, increasing rents and increasing investor demand across all sub-markets. A development featuring some residential elements, again taking advantage of the potential views would be feasible for the subject site.

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## Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### Maximally Productive

This analysis determines which of the financially feasible land uses produces the highest residual land value. This then determines which of the various financially feasible uses are maximally productive.

We have concluded that a mixed commercial / residential use, with an entertainment element would be the maximally productive use of the site.

### Highest and Best Use Conclusion

The subject site's location, zoning, neighborhood trends, size, and shape, are conducive for a mixed commercial / residential use development.

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

### METHOD OF APPRAISAL

The traditional methods by which market data may be processed into a value indication include the Cost Approach, the Income Approach, and the Sales Comparison Approach.

The Cost Approach is based on the presumption that the informed purchaser would pay no more than the cost of producing a substitute property with the same utility as the subject property. The Cost Approach is particularly applicable when the property being appraised involves relatively new improvements which represent the highest and best use of the land, or when relatively unique or specialized improvements are located on the site and for which there are no comparable properties in the marketplace. This approach is used to value improved property.

**The Income Approach** is a procedure in appraisal analysis which converts the anticipated benefits (dollar income or amenities) to be derived from the ownership of the property into a value estimate. The Income Approach is widely applied in appraising income producing properties. Anticipated future income and/or reversions are discounted to a present value figure through the capitalization process. This approach is largely used to value improved property, or income producing land

As the subject is a parcel of vacant land the Sales Comparison Approach is the most appropriate approach to use.

### Sales Comparison Approach

The Sales Comparison Approach is based upon the presumption that an informed purchaser would pay no more for a property than the cost of acquiring an existing property with the same utility. This approach is applicable when an active market provides sufficient quantities of reliable data which can be verified from authoritative sources. The Sales Comparison Approach is relatively unreliable in an inactive market or in estimating the value of properties for which no real comparable sales data is available. I have assembled data regarding the sale of vacant land and have concluded that there is sufficient relevant and comparable data to use this approach. My field inspection included a search of the public and private records, as well as interviews with brokers knowledgeable of the area. An effort was made to obtain sales of parcels with characteristics similar to the subject property.

We have specifically researched sales of vacant commercial, development ready sites considered to have reasonably similar locational and physical characteristics to the subject.

We have also included in our analysis relevant listings of large commercial sites that have similar locational and physical characteristics.

In the accompanying land valuation section, sales have been adjusted for market conditions, i.e. time. Other adjustments made in comparing the properties are, by necessity, subjective in nature, but we have attempted to be consistent in their application.

Details of recent sales of undeveloped land, which were considered in our analysis, are summarized on the following pages. Following the individual land sale summarises are a location map, and a Land Sales Adjustment Grid that summarizes the pertinent details of each sale transaction and the adjustments applied to each sale in recognizing differences between that property and the subject.

We would note two sales that are not directly comparable to the subject due to their small size, but SSM Healthcare purchased 711 Veterans Memorial Drive in 2014, a 3.16-acre parcel with excellent exposure to I-70 and located just west of the subject for \$3,000,000 and then incurred \$139, 850 in demolition costs to remove an old banquet center. The total price of the cleared site was thus \$3,139,850 or \$22.81 per square foot. At the Streets of St. Charles, St. Charles Hotel Associates purchased a 1.1651-acre lot on the south side of the development to construct a Tru Hotel and paid \$900,000 for a fully developed pad site, or \$17.75 per square foot.

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

#### Sale No. 1



Seller Buyer Instrument/Date Recorded County Selling Price Unit Price Type of Transaction Financing Site Area Zoning Zoning Compliance **Highest & Best Use** Utilities In Use **Utilities Available** Access

**McKelvey Partnership** Cross MO 2 LLC Warranty Deed dated July 6, 2015 Book 6383 / Page 1351 St. Charles \$1,841,063 \$6.14 per square foot Sale of the fee simple interest Sellers received all cash 300,024 square feet; 6.8876 acres "C-2" Community Commercial N/A vacant site Commercial - retail development None – Vacant Land All public utilities available Legal and physical access from Mid Rivers Mall Drive and St. Peters Howell Road - a signalized intersection

### Specific Location of Sale

This site is located at 3031 and 3301 Mid Rivers Mall Drive in St. Peters and is situated on the northwest and southwest corners of Mid Rivers Mall Drive and St. Peters Howell Road at a signalized intersection.

**Sale Verification:** The sale price of \$1,841,063 was confirmed by Michael A. Green with Shari Nevels of McKelvey Properties, the seller's broker (636-669-9111) on December 28, 2017. The Certificate of Value filed at the St. Charles County Assessor's Office shows the same sale price. This sale was personally inspected by Michael A. Green. This site was developed with a 42,136-square foot Wal-Mart neighborhood grocery store in 2015 and a Wal-Mart gas station on the adjacent parcel – see discussion below.

### Property Description

This is the sale of a two-parcel property, carved out of a larger 20+ acre site. The buyer purchased a 6.1841-acre parcel on the north side St. Peters Howell Road and a 0.7035-acre parcel on the south side. The two parcels comprise 6.8776 acres or 300,024 square feet. Both elements are generally level, rectangularly shaped commercial lots at a signalized intersection. The site was developed with a 42,136-square foot grocery store, built for, and leased to Wal-Mart on the larger parcel and a Wal-Mart branded gas station on the smaller parcel.

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

### Sale No. 2



Seller Buyer Instrument/Date Recorded County Selling Price **Unit Price Type of Transaction** Financing Site Area Zoning Zoning Compliance Highest & Best Use **Utilities In Use Utilities Available** Access

Koenig St. Peters LP Macy Gray Holdings, LLC Warranty Deed dated May 18, 2017 Book 6745 / Page 1272 St. Charles \$2,865,000 \$8.25 per square foot Sale of the fee simple interest Sellers received all cash 347,330 square feet; 7.9736 acres "SD-OC" General Office / Commercial N/A vacant site Commercial development None - Vacant Land All public utilities available Legal and physical access from Mexico Road and St. Peters Centre Boulevard - a signalized intersection

### Specific Location of Sale

This lot is located at the northeast corner of Mexico Road and St. Peters Centre Boulevard – a signalized intersection, in St. Peters.

**Sale Verification:** The sale price of \$2,865,000 was confirmed by Michael A. Green with Keith Schneider of Cushman & Wakefield, the sellers broker (314-520-2747) on December 28, 2017. The Certificate of Value filed at the St. Charles County Assessor's Office shows the same sale price. This sale was personally inspected by Michael A. Green. The buyers are constructing an apartment complex.

### **Property Description**

This is the sale of a generally level, rectangular commercial site at a signalized intersection.

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

## Sale No. 3



Seller Buyer Instrument/Date Recorded County Selling Price **Unit Price** Type of Transaction Financing Site Area Zoning Zoning Compliance Highest & Best Use Utilities In Use **Utilities Available** Access

Kaplan Lumber Co. / Leonard Kaplan Trust Columbia / Wegman O'Fallon, LLC Warranty Deed dated October 20, 2016 Book 6635 / Page 1854 St. Charles \$1,883,699 + \$400,000 utilities = \$2,283,699 \$8.17 per square foot Sale of the fee simple interest Sellers received all cash 279,481 square feet; 6.416 acres "C-2" General Business N/A vacant site Commercial development None - Vacant Land All public utilities available - see comments Legal and physical access from O'Fallon Road

### Specific Location of Sale

This site is located along O'Fallon Road, just east of the O'Fallon Road / Highway K intersection, the address is 1000 Landing Circle.

**Sale Verification:** The sale price of \$1,886,699 and the estimated \$400,000 site development costs was confirmed by Joe McEntee of Wegman Companies. The buyers are constructing a senior living facility.

### Property Description

This is the sale of a generally level, rectangular commercial site and was purchased for the development of a senior housing community. Per discussions with Joe McEntee of Wegman Companies, the development will comprise 109 to 113 units with completion estimated in late July 2018 (the property has now been completed and comprises a 100,000 square foot senior living facility – The Landing of O'Fallon). The parcel was raw land, although utilities were adjacent to the site. The buyer indicated that an additional \$400,000 was required to develop the site as "pad ready".

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

Sale No. 4



Seller

Buyer Instrument/Date Recorded County Selling Price Unit Price Type of Transaction Financing Site Area Zoning Zoning Compliance Highest & Best Use Utilities In Use Utilities Available Access Lockwood DPR LLC Manchester 270 Development Inc. Manchester 270 Development Inc. Warranty Deed dated September 4, 2015 See comments St. Louis \$2,600,000 \$12.78 per square foot Sale of the fee simple interest Sellers received all cash 203,425 square feet; 4.67 acres "MXD" Mixed Use Development N/A vacant site Mixed use, commercial development None - Vacant Land All public utilities available - see comments Legal and physical access from Manchester Road and Des Peres Road

### Specific Location of Sale

This site is located in the northwest quadrant of Manchester Road and I-270 in Des Peres, St. Louis County and has an address of 12815-19 Daylight Circle.

Sale Verification: The sale price of \$2,600,000 was confirmed by Steve Collins of Manchester 270.

### **Property Description**

The buyer, Manchester 270 was the seller of a former quarry that was acquired by them in 1994 and filled with approximately 6,250,000 cubic yards of clean fill material and later sold to Lockwood DPR LLC for a mixed-use development. During negotiations, Manchester 270 agreed to buy back (they retained this land at closing) a 4.67 +/- acre parcel for a proposed hotel at a price of \$2,600,000, or \$12.78 per square foot. The price "paid" for the hotel site was contingent upon Lockwood DRP would install the street infrastructure and utilities. This is a 4.67 acre, fully developed pad site, subsequently developed with a hotel and which is part of a mixed-use development comprising a 60-unit assisted living facility to be operated by Provision Living LLC and a 254-unit luxury apartment complex. Future plans also include an office/retail development.

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

### Sale No. 5



Seller Buyer Instrument/Date Recorded County Selling Price **Unit Price** Type of Transaction Financing Site Area Zoning Zoning Compliance **Highest & Best Use** Utilities In Use **Utilities Available** Access

Lockwood DPR LLC Manchester 270 Development Inc. Sunset Ridge Owner, LLC Warranty Deed dated September 4, 2015 Deed Book 21669, Page 167 St. Louis \$6,316,250 \$12.67 per square foot Sale of the fee simple interest Sellers received all cash 498,326 square feet; 11.44 acres "MXD" Mixed Use Development N/A vacant site Mixed use, commercial development None - Vacant Land All public utilities available - see comments Legal and physical access from Manchester Road and Des Peres Road

### Specific Location of Sale

This site is located in the northwest quadrant of Manchester Road and I-270 in Des Peres, St. Louis County and has an address of 12831 Daylight Circle.

**Sale Verification:** The sale price of \$6,316,250 was confirmed by Steve Collins of Manchester 270, an entity which sold the land to Lockwood DPR and by reviewing St. Louis County records.

## Property Description

This parcel is being developed with a \$49 million luxury apartment development to be called the Residences at Sunset Ridge. The development will have a mixture of one, two and three-bedroom units, with a total of 254 units. The site is part of a former quarry that is being developed with office, multi-family and senior living uses. This is an 11.44 acre, fully developed pad site which is part of a mixed-use development comprising a 60-unit assisted living facility to be operated by Provision Living LLC, the apartments, and a hotel. Future plans also include an office/retail development.

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

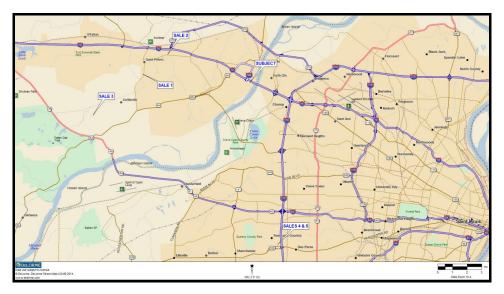
Pace Properties is marketing a fully developed lot, lot 3A, next to Schnucks and comprising 7.55 acres at \$10.00 per square foot. This property is in the southwest quadrant of Mexico and Mid Rivers Mall Roads.

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Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

## COMPARABLES SALES MAP



The elements of comparison for which adjustments may be required include:

- **Property Rights** Any dissimilarity in property rights conveyed in the sale of the comparable and those being valued in respect to the subject need to be considered.
- ◆ **Financing Terms** Any significant unusual financing conditions affecting the sale, such as advantageous seller financing, are adjusted in the cash equivalence calculation.
- Conditions of Sale Any known unusual or atypical buyer and/or seller motivations, such as one of the parties acting under duress, or where the sale is known not to be an arm's length transaction, are adjusted for in the analysis.
- Immediate Expenditures Made by Buyer A knowledgeable buyer will consider expenditures that will have to be made upon purchase of a property because these costs will affect the price the buyer agrees to pay. These could include the cost of demolishing the existing improvements.
- Time/Market Conditions Market conditions change over time. Therefore, past sales must be examined in the light of the direction of change, if any, between the date of the sale of the comparable and the date of valuation of the subject property.

**Physical Characteristics** 

- General Location The general location of a site in terms of its neighborhood and the economic influences of that neighborhood are critical factors in the value of real property.
- Specific Location The specific location of a site in terms of its proximity to similar uses, a corner or mid-block location; if a corner location whether the corner is signalized, visibility and exposure are factors that influence value.
- Access Access is critical. Buyers will pay a premium for a site that offers a quicker access to major traffic ways.

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

- Size All else being equal, a smaller site will tend to be priced at and sell for a higher unit price than a larger site, and adjustments for significant variations in size are warranted.
- Configuration Generally the more symmetrical a site is the more useful it is to a developer or user; hence the value is usually higher.
- Topography Sites may differ in value due to topographical characteristics. Sites with steeply sloping terrain may make the construction of improvements more difficult and therefore more expensive.
- Zoning Land use and development may be regulated by city or county government and these
  regulations may preclude or restrict (in terms of height, density, and size) certain types of
  development. Sites with fewer restrictions allowing more varied or intensive development may
  command a higher price, all other things being equal.
- Utilities The need to provide all or some utilities to a site is a cost to a developer and would tend to result in a lower price paid compared to a similar site with all utilities provided.
- Easements & Encumbrances Properties with beneficial or adverse easements and encumbrances will achieve higher or lower units prices compared to a property with no such easement or encumbrances in place.
- Site Work Needed Sites requiring work to make them development ready, such as clearing trees and grading would be considered inferior to sites that are development ready.
- Site Improvements Land already improved with utilities, curb cuts, gutters, paving, and other improvements making the site ready for immediate development may command a higher price than a similar site without such improvements. Sites may also be improved with structures that are considered an encumbrance to the proposed development and this would tend to adversely affect price.

The characteristics for which adjustments are required as discussed above are analyzed in relation to each comparable as follows:

**Property Rights** - The sales were all of the fee simple interest, the same interest that is being valued at the subject.

 $\ensuremath{\textit{Financing Terms}}$  – As far as we are aware the comparables were not subject to any unusual financing terms.

Conditions of Sale – As far we are aware the comparables were not subject to any unusual conditions of sale.

**Immediate Expenditures Made by Buyer** - As far as we are aware, none of the comparables were subject to any significant expenditures made by the buyer(s) immediately after the purchase, except as noted in respect to Sale 3.

**Time/Market Conditions** – The sales occurred between July 2015 and May 2017, a period of time when commercial land prices have been rising as developers and users re-enter the market, economic conditions are improving and demand for space is increasing. We have made adjustments to represent market trends from the date of sale to the present. In our opinion, property values in the subject neighborhood have exhibited the following pattern:

- 1. Increased from February 2016 to December 31, 2016 by 1 percent annually; then
- 2. Increased from January 2017 to December 31, 2017 by 2 percent annually: then
- 3. Increased from January 2018 to present by 3 percent annually

The adjustments for physical characteristics are as follows:

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#### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

Sale 1 comprises a 6.8876-acre site, comprising two parcels located on either side of a signalized intersection that were developed with a retail store and an associated gas station. In terms of general location, the subject and comparable are considered similar in that both are located in fast growing suburban St. Charles County communities. In terms of specific location, while the subject does not front a major road or is at a signalized intersection, its proximity to and the fact that it will likely be viewed as a part of The Streets of St. Charles is a major locational advantage, as are its potential river views for any upper level offices or residences. While the comparable occupies a very good location at a signalized intersection on Mid Rivers Mall Drive, a major north / south thoroughfare, with a primary cross street, this is somewhat of a "typical" commercial location and it does not have the unique locational features of the subject. In terms of physical characteristics, but for the fact that the north half of the comparable's site was wooded and sloped down, thereby requiring some grading and some tress to be removed, the comparable is similar to the subject in that is a rectangularly shaped site, zoned for a commercial use and with all utilities available. However, the comparable was not a fully developed site compared to the subject which will have sidewalks and streets in place and be part of the multi-parcel development ready property. In making an adjustment for this factor we have noted the data in respect to comparable 4 and 5 which were sold as development ready pad site for \$12.50 +/- per square foot after the seller had originally purchased a larger site for just over \$6.00 per square foot and then undertaken all of the infrastructure development. Some of the 100 percent +/- price differential is due to size and other factors, but in our opinion, it is reasonable to assume that at a minimum 25.0 percent adjustment for site development work should be made. Overall, we have made adjustments to reflect the subject's superior specific location, its larger size, required site clearance / grading and site development work, and we also made a nominal configuration adjustment as the comparable comprises two separate parcels.

Sale 2 comprises a 7.9736-acre site located at a signalized intersection that while zoned for a commercial use is being developed with an apartment complex. In terms of general location, the subject and comparable are considered similar in that both are located in fast growing suburban St. Charles County communities. In terms of specific location, as noted above, the subject has a number of unique characteristics, and while it has a rear position and limited exposure it is essentially a part of the larger Street of St. Charles complex and as such considered superior to the comparable's "typical" position at a signalized intersection on Mexico Road, at a primary cross street. In terms of physical characteristics, but for site development work, the comparable is similar to the subject in that is a rectangularly shaped site, generally level, zoned for a commercial use and with all utilities available, but, as with comparable 1, this site did need to be cleared of a cluster of trees in its center, but it was not as heavily vegetated as comparable 1 as such the adjustment was smaller. Overall, we have made adjustments to reflect the subject's superior specific location, its required site clearance and development work.

Sale 3 comprises a 6.416-acre site located in a good but secondary location, just off of Highway K and opposite a grocery store anchored shopping center, Monticello Plaza. In terms of general location, the subject and comparable are considered similar in that both are located in fast growing suburban St. Charles County communities. In terms of specific location, as noted above, the subject has a number of unique characteristics, and while it has a rear position and limited exposure it is essentially a part of the larger Street of St. Charles complex and as such considered superior to the comparable's location. In terms of physical characteristics, but for site development work, the comparable is similar to the subject in that is a rectangularly shaped site, generally level, clear, zoned for a commercial use and with all utilities available. Overall, we have made adjustments to reflect the subject's superior specific location and its site development work in place.

Sales 4 and 5 are both located in a prime west St. Louis County location, considered similar to the subject's prime and unique location. These sales, but for size is similar to the subject in that both are development ready (for vertical construction) pad sites that are rectangularly shaped, level, clear, zoned for a commercial use and with all utilities available. We have noted that both of these comparables for about the same price per square foot despite a size differential, and as such did not make an adjustment to the larger comparable for size. Overall, we have made an adjustment to reflect the subject's smaller size.

An adjustment grid has been prepared and is presented below. The differences discussed above are converted into percentage adjustment and applied to the unit sale prices of the comparable properties. In cases where subjective judgment is employed in the section of an adjustment, care has been taken to apply such adjustments in a uniform way.

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### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

Typically, adjustments are made in a particular order; i.e., adjustments for property rights, financing, and sale and market conditions are made and applied first. Additional adjustments are made to this subtotal, first for location and then for physical characteristics.

				Subject	Sale 1	Sale 2		Sale 3	Sale 4	Sale 5	Av	/erage
Addre	SS			S. Main Road,	3031 Mid Rivers Mall			1000 Landing Circle,	SWQ Manchester	SWQ Manchester		
				St. Charles	Drive, St. Peters	St. Peters		O'Fallon	Road and I-270, Des	Road and I-270, Des		
									Peres	Peres		
Sale [	Date			7/2/2018	7/6/2015	5/18/201	7	10/20/2016	9/4/2015	9/4/2015		
Sale F	Price			N/A	\$ 1,841,063	\$ 2,865,000	)	\$ 2,283,699	\$ 6,316,250	\$ 2,600,000		
Land A	Area/SF			807,768	300,024	347,33	0	279,481	498,326	203,425		325,717
Land A	Area/Acres			18.5438	6.8876	7.973	6	6.4160	11.4400	4.6700		7.4774
Zoning	9			"PDMU"	"C-2"	"SD-OC	;"	"C-2"	"MXD"	"MXD"		
Price/	SF				\$ 6.14	\$ 8.25	5	\$ 8.17	\$ 12.67	\$ 12.78	\$	9.60
Elem	ents of Con	nparison										
Prope	erty Rights				0.00%			0.00%	0.00%	0.00%		
Adj	usted Price				\$ 6.14	\$ 8.25	5	\$ 8.17	\$ 12.67	\$ 12.78	\$	9.60
Finan	ncing Term	s			0.00%	0.00		0.00%	0.00%	0.00%		
	usted Price				\$ 6.14			\$ 8.17	\$ 12.67	\$ 12.78	\$	9.60
Cond	itions of Sa	le			0.00%			0.00%	0.00%	0.00%		
	usted Price				\$ 6.14			\$ 8.17	\$ 12.67		\$	9.60
	Expenditures by Buyer (Immediate)		0.00%	0.00		0.00%	0.00%	0.00%				
Adj	usted Price				\$ 6.14	\$ 8.25	5	\$ 8.17	\$ 12.67	\$ 12.78	\$	9.60
Time	Market Co											
/	Ann Adj. to	12/31/2015	@	2%	1.00%	0.00%		0.00%	1.00%	1.00%		
/	Ann Adj. to	12/31/2016		3%	3.00%	0.00%		1.00%	3.00%	3.00%		
1	Ann Adj. to	7/2/2018	@	3%	5.00%	3.009		5.00%	5.00%	5.00%		
1	Total				9.00%	3.00		6.00%	9.00%	9.00%		
					\$ 6.69			\$ 8.66	\$ 13.82		\$	10.32
	ral Location				0.00%	0.00%		0.00%	0.00%	0.00%		
Speci	fic Location				25.00%	20.00%		25.00%	0.00%	0.00%		
Acces					0.00%	0.00%		0.00%	0.00%	0.00%		
Visibil	lity				0.00%	0.00%		0.00%	0.00%	0.00%		
Size					0.00%	0.00%		0.00%	0.00%	0.00%		
	guration				5.00%	0.00%		0.00%	0.00%	0.00%		
Topog					0.00%	0.00%	6	0.00%	0.00%	0.00%		
Zoning					0.00%	0.00%		0.00%	0.00%	0.00%		
Utilitie					0.00%	0.00%		0.00%	0.00%	0.00%		
Easer	ments / Enc	umbrances			0.00%	0.00%		0.00%	0.00%	0.00%		
Site V	Vork				10.00%	5.00%		0.00%	0.00%	0.00%		
	mprovement				25.00%	25.00%		25.00%	0.00%	0.00%		
		. & Inc. Chara	cter	stics	65.00%	50.00		50.00%	0.00%	0.00%		
Final	Adjusted P	Price			\$ 11.04	\$ 12.74	1	\$ 12.99	\$ 13.82	\$ 13.93	\$	12.90

After adjustments, the comparables indicate a value range of \$11.04 to \$13.93 per square foot, with an average of \$12.90 per square foot.

Placing equal weight on all sales, we have concluded a value for the subject of \$13.00 per square foot.

## VALUE CONCLUSION

5.00 acres – 217,800 square feet x \$13.00 per square foot	\$2,831,400
--	-------------

Rounded to

<u>\$2,830,000</u>

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### Appraisal of 18.5438 +/- Acres - South Main Street, City of St. Charles, Missouri

## FINAL RECONCILIATION

The Sales Comparison Approach is based upon general indicators of value of four similar sites observed in the market place and is given additional credence due to the amount of available data. This approach is somewhat limited due to the inability to make direct comparisons, since no two properties are exactly alike.

Based on our examination and analysis of the property and subject to the limiting conditions and certification contained in this report, it is our opinion that the market value under the current market conditions of the fee simple interest of the subject property, as of July 2, 2018, subject to the Hypothetical Condition referenced earlier, is:

### TWO MILLION EIGHT HUNDRED THIRTY THOUSAND DOLLARS (\$2,830,000)

### Marketing Time/Exposure Time

Marketing time is the time it takes an interest in real property to sell on the market subsequent to the date of the appraisal. Exposure time is the estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal. Exposure time is always presumed to occur prior to the effective date of the appraisal. We have estimated marketing time at twelve months and exposure time at twelve months.

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**ADDENDA** 

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## QUALIFICATIONS

Real Estate Analysts Limited was founded in 1977 in the City of St. Louis, Missouri, with the goal of offering first rate real estate appraisal and consulting services to its clients. The staff is thoroughly experienced in all phases of real estate analysis, from appraisal to feasibility studies, from site selection to investment counseling. The firm's success is a result not only of its staff and experience, but also of its thoroughness and philosophy of integrity and confidentiality. Real Estate Analysts Limited is dedicated to fulfilling the requirements of each assignment and giving the client the information needed to make sound and profitable decisions.

Real Estate Analysts Limited's professionals are thoroughly trained and experienced in all facets of real estate appraisal, investment analysis, and market research. All senior staff members are certified real estate appraisers in Missouri, with several credentialed in Illinois as well. Our staff includes a Member of the Appraisal Institute. The MAI designation is generally considered the highest measure of competency, and most difficult to attain commercial and residential designations in the industry. Members of our staff have also been qualified as expert witnesses in the courts of various jurisdictions.

Real Estate Analysts Limited's clientele ranges from the smallest individual investor or owner to many of the nation's "Fortune 500" firms. Considerable appraisal work is undertaken for real estate developers and owners of all forms of investment real estate, banks, other financial institutions and lending agencies, numerous city, state, and federal government agencies, attorneys, architects, large and small businesses and corporations, and an assortment of other clients having a need for occasional or frequent valuation of real property.

<u>Michael A. Green</u>, Principal, has been actively engaged in the appraisal profession since 1984, initially in London England and has prepared appraisals of all types of commercial and industrial properties and vacant land for sale/purchase, financing, ad valorem and capital gains tax, and for litigation purposes. Mr. Green is a member of the St. Louis Association of Realtors (SLAR), the Missouri Association of Realtors (MAR), and the National Association of Realtors (NAR). He is a State Certified General Real Estate Appraiser in the State of Missouri, and has a license valid through June 30, 2020, Certificate No. RA001032. He is also licensed in the State of Illinois through September 30, 2019, License No. 553.001354.

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APPRAISAL OF 39.26+/- ACRES 2000 SOUTH RIVER ROAD CITY OF ST. CHARLES ST. CHARLES COUNTY, MISSOURI

> DATE OF REPORT MAY 12, 2020

DATE OF VALUE MAY 12, 2020

PREPARED FOR CITY OF ST. CHARLES ST. CHARLES, MISSOURI

## PREPARED BY



FILE NUMBER - 2019-211 A

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6255 Knox Industrial Drive, St. Louis, MO 63139 PH 314.965.1171 | FX 314.965.2622 appraisers@reanalysts.net www.reanalysts.net

May 12, 2020

Mr. Brian Faust Right-of-Way Specialist City of St. Charles 200 North 2<sup>nd</sup> Street, Room 202 St. Charles, MO 63301

Dear Mr. Faust:

This is a **RESTRICTED** appraisal report, of which this letter is a part, and its use is limited to the client(s). The rational for how we have arrived at the opinions and conclusions set forth in this report may not be understood properly without additional information that has been retained in our work file.

Subject Address:	2000 South River Road, City of St. Charles, St. Charles County, Missouri 63303
Property Type:	Vacant Land
Client:	City of St. Charles
Intended Use:	The intended use of this appraisal is to assist our client in the consideration of an acquisition. No other uses of this appraisal are intended by the appraisers.
Intended User:	City of St. Charles. No other users of this appraisal are intended by the appraisers.
Property Rights:	Fee Simple
Type of Value:	Market Value

**Definition of Market Value:** The commonly used definition of market value found in the federal regulations of the agencies that regulate financial institutions has been used in this assignment.

**Conditions of Appraisal**: The appraisal was performed with no extraordinary assumptions, but the following hypothetical conditions were used; the subject has been:

- Raised out of the 500-year flood plain
- Filled to street grade
- Streets and sidewalks are in place
- Cleared of all vegetation

As defined in The Appraisal Foundation's, *Uniform Standards of Professional Appraisal Practice and Advisory Opinions (USPAP)*, effective January 1, 2014, a Hypothetical Condition is *that which is contrary to what exists but is supposed for the purpose of analysis.* The hypothetical condition assumes conditions contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis.

**Sale & Listing History:** According to the records of the St. Charles County Assessor's Office, title to the subject property is currently vested in Arena Parkway East, LLC. Parcel Identification number 3-0012-S007-00-0028.1110000 which comprises 37.61 acres was recently purchased. This transaction occurred on January 2, 2020 from LaFarge Corporation, the seller, as recorded in Deed Book 7209 on Page 1104. The consideration was \$2,500,000, \$66,471 per acre or \$1.53 per square foot. Parcel Identification number 3-0012-S007-00-0028.1000000 which comprises 1.65 acres was acquired by Arena Parkway East, LLC on March 18, 2004 from Lionmark Construction Company, LLC as recorded in Deed Book 3809 on Page 2403. The subject is not currently listed for sale.

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Mr. Brian Faust Page 2 May 12, 2020

Scope of Work: Subject description was obtained from the site inspection on November 22, 2019 and County records.

As detailed below, considering our highest and best conclusion was that an industrial development is the highest and best use of the site, as vacant, only the Sales Comparison Approach to value was developed: The Cost and Income Capitalization approaches would not be utilized by the market in determining value. Data, for comparable vacant land sales was taken from the local MLS, CoStar, and company records. Sales were confirmed via public records and discussions with parties to the transactions.

**Property Description:** As is, the subject property comprises 39.26 acres or 1,710,166 square feet but is bisected by the Katy Trail. The portion west of the Katy Trail compromises 22.91 acres, or 997,960 square feet and the portion east of the Katy Trail comprises 16.35 acres or 712,206 square feet located along South River Road. Access to the subject property is currently available only from the abutting property to the west, which is accessed from South River Road, a four-lane paved road. A small connected to South River Road. There is currently no access to the eastern portion of the property from South River Road. Currently the eastern portion can only be accessed from the western portion by crossing over the Katy Trail. The subject land is zoned "I-2", Heavy Industrial District which allows for a wide range of industrial uses. According to Flood Hazard Map number 29183C0269G dated January 20, 2016, the subject is identified as partially being in Flood Zone "AE" and partially in the "I00-year floodplain"), and where predicted flood water elevations above mean sea level have been established.

**Easements/Encumbrances/Moratoriums** - The subject is assumed to be encumbered with only the standard easements associated with typical utility use, which do not have any negative effect on value.

Utilities - All public utilities are available, but not connected.

**Topography/Drainage** – As is, the west parcel is considered to have basically cleared, level topography and is clear, but for the "tail", The east parcel is mostly level, but heavily wooded. The drainage of the site appears to be adequate.

As noted, we are valuing the subject based on the hypothetical conditions previously noted.

### **OPINIONS AND CONCLUSIONS**

Highest and Best Use: Development of the site with an industrial use.

**Exposure Time:** The appraisers' opinion of reasonable exposure time for the subject property is 6 to 12 months.

Effective Date of Value: May 12, 2020

**Analysis:** The comparable data summarized below includes three sales. Sale 1, 8 miles northwest of the subject along Premier Parkway in St. Peters which was the purchase of a 35.53-acre site in a well-established area. Sale 2, 8 miles northwest of the subject along Premier Parkway in St. Peters, which was the purchase of a 26.53-acre site. Sale 3 is 6.3 miles north of the subject off of Charbonneau Drive in St. Charles, which was the purchase of a 25.57-acre site.

Sale 1 is physically similar to the subject and no adjustments were required. Sale 2 is again reasonably similar to the subject but is smaller in size at 26.53 acres, therefore a downward adjustment was applied. No other adjustments were required. Sale 3 is reasonably similar to the subject. This comparable's specific location is considered superior. Good visibility from Highway 370 and a corner location with easy access to Highway 370, as such a downward adjustment was applied. This comparable is smaller in size at 25.57 acres, therefore a downward adjustment was applied. No other adjustments were required.

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Mr. Brian Faust Page 3 May 12, 2020

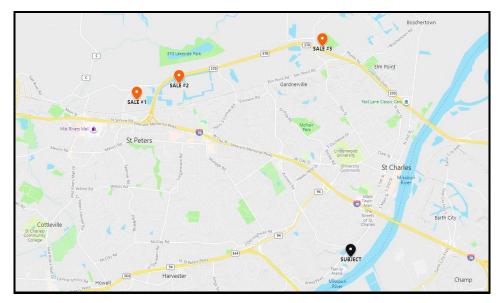
The sales are summarized as follows.

	Subject	Sale 1	Sale 2	Sale 3	Average
Address	2000 S. River Rd., St. Charles	9000 Premier Parkway, St. Peters	5001 Premier Parkway, St. Peters	Charbonneau Drive, St. Charles	
Sale Date	5/12/2020	12/28/2017	8/5/2016	2/1/2016	
Sale Price	N/A	\$ 2,544,580	\$ 2,415,029	\$ 3,792,843	
Land Area/Sq. Ft.	1,710,166	1,547,774	1,155,647	1,113,611	1,272,344
Land Area/Acre	39.26	35.53	26.53	25.57	29.21
Topography	Basically Level	Level	Level	Level	
Flood Plain	Partial	None	None	None	
Zoning	"I-2"	Lakeside 370	Lakesdie 370	"I-2"	
Price/ Sq.Ft.		\$ 1.64	\$ 2.09	\$ 3.41	\$ 2.38
Final Adjusted Price		\$ 1.76	\$ 1.72	\$ 2.46	\$ 1.98

In our opinion the subject would command a price above sales 1 and 2, below sale 3 and near the average.

Overall, we have concluded a value of \$2.00 per square foot.

## COMPARABLE SALES MAP



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Mr. Brian Faust Page 4 May 12, 2020

#### **Result of Approaches to Value:**

Sales Comparison

\$2.00 per square foot x 1,710,166 square feet - \$3,420,331

### Rounded to \$3,400,000

**Reconciliation:** For land development sites, the most appropriate approach to value and the one used by market participant is the Sales Comparison Approach. The Cost and Income Approaches were not used as they are not applicable to this assignment. A sufficient number of comparable sales were available in the subject neighborhood to develop a credible indication of value by the sales comparison approach.

The supporting documentation for the analyses and the development of the approach to value has been retained in the appraisers' work file.

### OPINION OF MARKET VALUE \$3,400,000

### ASSUMPTIONS AND LIMITING CONDITIONS

This assignment was conducted, and the report presented, subject to the following assumptions and limiting conditions. The use and acceptance of this report indicates that the client accepts these assumptions and limiting conditions.

It has been a pleasure working on this assignment for you. If you or your associates have any questions concerning the information contained in this report, we will be happy to answer them.

#### Statement on Coronavirus – COVID 19

The impact on real property values considering the recent and current economic situation is uncertain at present and while the stock market has shown significant declines, it is too early to say if the real estate market will be similarly impacted; and if the stock market and real estate market will re-bound / recover after a period of time has passed when the virus is considered to be contained and or eliminated.

The subject is a vacant land parcel, that considering development plan production, zoning approvals, permitting etc., is unlikely to be developed until the latter part of 2020. As of the date of value the virus has not been contained and or eliminated, but, the current governmental statements suggest that the period of concern will be weeks or a few months. As noted, developers are taking a "wait and see" approach, but again considering the subject's location in an area with little land available for development and likely development timeframe we are of the opinion that its value will remain steady during the coming months.

Respectfully submitted,

REAL ESTATE ANALYSTS LIMITED

Michael A. Green Principal

m Jan

Jeremy A. Logan Associate Appraiser

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### ASSUMPTIONS AND LIMITING CONDITIONS

The conduct of this appraisal is necessarily guided, and its results influenced by the terms of the assignment and the assumptions, which together form the basis of the study. The following conditions and assumptions, together with lesser assumptions embodied in this report, constitute the framework of our analyses and conclusions.

- 1. Unless otherwise stated, the value of the property is based upon the present conditions of the national and local economies, the present purchasing power of the U.S. dollar, present financing rates as of the date of this appraisal and is subject to any future changes which may occur in any or all of these conditions.
- 2. The forecasts, projections, and operating estimates contained in this report are based upon current market conditions, anticipated short-term supply and demand factors, and a continued stable economy. These forecasts are, therefore, subject to changes in future conditions.
- 3. All information and comments concerning the location, neighborhood, market, trends, construction quality and costs, obsolescence, condition, necessary repairs, expenses, income, taxes, zoning, or any other data of or relating to the property appraised herein, represent the estimates and opinions of Real Estate Analysts Limited, formed after an examination and study of the property.
- 4. While it is believed the information, estimates, and analyses given and the opinions and conclusions drawn there from are correct, Real Estate Analysts Limited does not guarantee them. We believe the information that was furnished to us by others is reliable, but we assume no responsibility for its accuracy.
- 5. We assume no responsibility for matters legal in character, nor do we render any opinion as to the title, which is assumed to be good and the property marketable. All existing liens and encumbrances except as specified herein have been disregarded and the property appraised as though free and clear and under responsible ownership and competent management.
- 6. The sketches in this report are included to assist the reader in visualizing the property. We have made no engineering tests or surveys of the property and assume no responsibility for the structural soundness of the improvements, stability, and/or load bearing capacity of the soil and subsoil, adequacy of drainage, location of property lines and improvements on the site, hidden or unapparent conditions, or any other matters of a related nature.
- 7. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a non-conformity has been stated, defined, and considered in the appraisal report.
- 8. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.
- 9. Unless otherwise stated in this report, the existence of electro-magnetic fields (EMF), poor indoor air quality (IAQ), carbon monoxide and other gases or substances/materials, including without limitation radon, asbestos, polychlorinated biphenyl, petroleum leakage, or agricultural chemicals, which may or may not be present on the property, or other environmental conditions, were not called to the attention of nor did the appraiser become aware of such during the appraiser's inspection. The appraiser has no knowledge of the existence of such materials on or in the property unless otherwise stated. THE APPRAISER, HOWEVER, IS NOT QUALIFIED TO TEST SUCH SUBSTANCES/MATERIALS, OR CONDITIONS. If the presence of such gas or substances, such as radon, asbestos, urea formaldehyde foam insulation, or other hazardous materials or environmental conditions may affect the value of the property, then any loss in value would have to be deducted from our concluded value because the value we have estimated in this appraisal is predicated on the assumption that there is no such condition or or in the property, or in such proximity thereto that it would cause a loss in value. NO RESPONSIBILITY IS ASSUMED FOR ANY SUCH CONDITIONS, NOR FOR ANY EXPERTISE OR ENGINEERING KNOWLEDGE REQUIRED TO DISCOVER THEM.

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- 10. The Americans with Disabilities Act (ADA) became effective January 26, 1992. The appraiser has not made a specific compliance survey and analysis of this property to determine whether or not it is in conformity with the various detailed requirements of the ADA. It is possible that a compliance survey of the property, together with a detailed analysis of the requirements of the ADA could reveal that the property is not in compliance with one or more of the requirements of the ACL. If so, this fact could have a negative effect upon the value of the property. Unless otherwise stated, the value conclusion stated in this report is based on the assumption that the property is not in compliance with ADA
- 11. Possession of this report or a copy thereof does not carry with it the right of publication, nor may it be used for any purpose by anyone but the client without the previous written consent of the appraiser and then only with proper written qualification, and in its entirety.
- 12. We are not required to give testimony or to appear in court by reason of this appraisal, with reference to the property in question, unless previous arrangements have been made.
- 13. The distribution, if any, of the value concluded in this report between land and improvements applies only under the stated program of utilization. The separate allocations of value for land and improvements must not be used in conjunction with any other appraisal and are invalid if so used.
- 14. Any value estimates provided in this report apply to the entire property. Any proration or division of the total into fractional interests will invalidate the value estimate, unless such proration or division of interests has been set forth in the report.
- 15. This report was not prepared for syndication purposes, nor is it to be used for syndication purposes without the consent of the appraisers and then only with proper qualifications.
- 16. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers or the firm with which they are connected, or any reference to the Appraisal Institute or the MAI designation) shall be disseminated to the public through advertising media, public relations media, news media, sales media, or any other public means of communication without the prior written consent and approval of the appraiser.
- 17. This appraisal report has been prepared for the exclusive benefit of the addressee/s. It may not be used or relied upon by any other party. Any party who uses or relies upon any information in this report, without the preparer's written consent, does so at his own risk.

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#### FIRREA STANDARDS

Minimum appraisal standards for federally related transactions have been established by Title XI of the Financial Institution Reform, Recovery and Enforcement Act of 1989 (FIRREA), amended June 6, 1994. All appraisals shall, as a minimum:

- Conform to generally accepted appraisal standards as evidenced by the Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the Appraisal Standards Board (ASB) of the Appraisal Foundation unless principles of safe and sound banking require compliance with stricter standards;
- Be written and contain sufficient information and analysis to support the institution's decision to engage in the transaction;
- Analyze and report appropriate deductions and discounts for proposed construction or renovation, partially leased buildings, non-market lease terms, and tract developments with unsold units;
- Be based upon the definition of market value required as set forth in this subpart; and
- Be performed by State licensed or certified appraisers in accordance with requirements set forth in this subpart.

#### **CERTIFICATION OF VALUE - REPORT DATED MAY 12, 2020**

We certify that, to the best of our knowledge and belief:

- 1. The statements of fact contained in this report are true and correct.
- 2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- We have no present or prospective interest in the property that is the subject of this report, and we have no personal interest with respect to the parties involved.
- 4. We have no bias with respect to any property that is the subject of this report or to the parties involved with this assignment.
- 5. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- 6. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- Michael A. Green and Jeremy A. Logan have performed services, as an appraiser, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment. The date of report of the previous appraisal was December 4, 2019 (19-211).
- 8. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute, which include the Uniform Standards of Professional Appraisal Practice.
- 9. Michael A. Green and Jeremy A. Logan made a personal inspection of the property that is the subject of this report.
- 10. No one provided significant real property appraisal assistance to the persons signing this certification.
- 11. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- 12. Michael A. Green and Jeremy A. Logan are competent to complete this report in accordance with the Competency Provision of USPAP.

REAL ESTATE ANALYSTS LIMITED

Michael A. Green Missouri State Certified Real Estate Appraiser RA001032

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Jeremy A. Logan State Certified General Trainee 2019007431

# Page 113 of 120

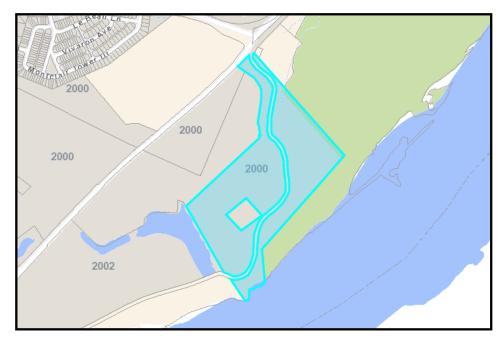
## **ADDENDA**

# Page 114 of 120

## AERIAL MAP OF 37.61 ACRES # A943001669



ST. CHARLES COUNTY ASSESSOR PARCEL MAP 37.61 ACRES # A943001669

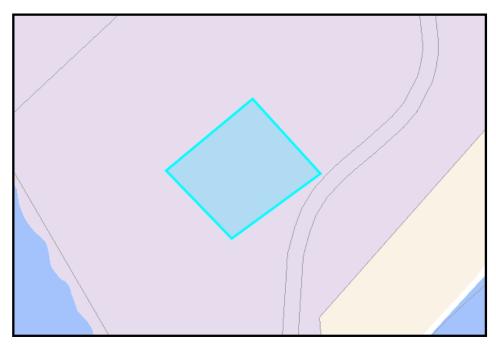


# Page 115 of 120

## AERIAL MAP OF 1.65 ACRES # 455205A000

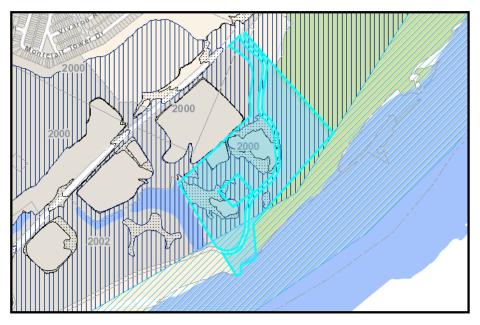


ST. CHARLES COUNTY ASSESSOR PARCEL MAP 1.65 ACRES # 455205A000

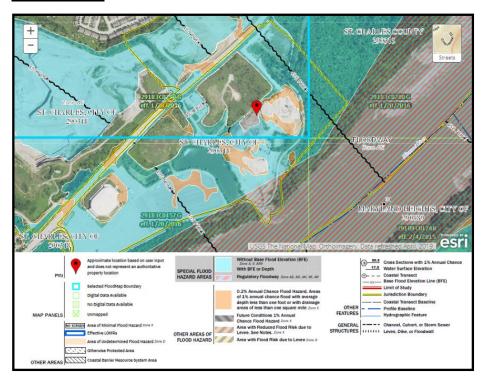


## Page 116 of 120

## ST. CHARLES COUNTY ASSESSOR'S FLOOD MAP

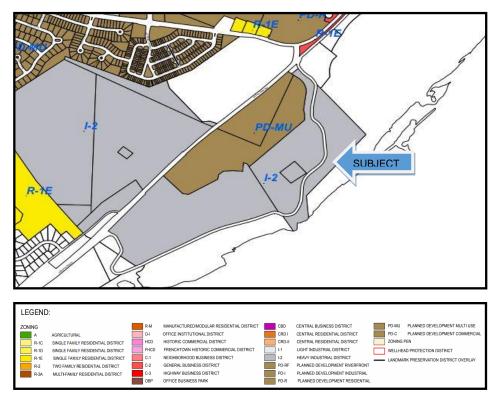


FEMA FLOOD MAP



## Page 117 of 120

## ZONING MAP



## Page 118 of 120

PHOTOGRAPHS OF SUBJECT PROPERTY



View East From Southwest Corner Of Subject - Subject On Both Sides Of Trail



View East From Southwest Corner Of Subject - Subject On Both Sides Of Trail

# Page 119 of 120

PHOTOGRAPHS OF SUBJECT PROPERTY



View North From Southwest Corner Of Subject



View South From Northeast Corner Of Subject - East Parcel's River Frontage

#### 2019-211 A

# Page 120 of 120

PHOTOGRAPHS OF SUBJECT PROPERTY



Machinery On Subject Property - West Parcel



Machinery On Subject Property - West Parcel

2019-211 A

# STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES CONCEPT AGREEMENT RIVERPOINTE – KATY TRAIL RELOCATION

THIS AGREEMENT, entered into this \_\_\_\_\_\_ day off\_\_\_\_\_, 2020 between the Missouri Department of Natural Resources, hereinafter referred to as "Department"; and the City of Saint Charles, hereinafter referred to as "City."

WHEREAS, the Department is the successor in title to a linear right-of-way, hereinafter referred to as "Tail," formerly owned by the Missouri-Kansas-Texas Railroad Company and conveyed by deed to the Department on June 3, 1988, recorded in Book 1222, page 2 of the St. Charles County Recorder's Office;

WHEREAS, the Department was granted the use of said right-of-way for a recreational trail to preserve the former railroad corridor in accordance with a Certificate of Interim Trail Use issued by the Interstate Commerce Commission, dated April 22, 1987, said Interstate Commerce Commission succeeded by the Surface Transportation Board;

WHEREAS, the City is developing a new mixed use development, known as "Riverpointe," hereinafter referred to as "Development", alongside the Department's Trail, and said development will substantially increase the elevation of the vehicular traffic crossing the Department's Trail;

WHEREAS, the Department, in an effort to provide a safe environment for its Trail users, desires to relocate its Trail around the Development.

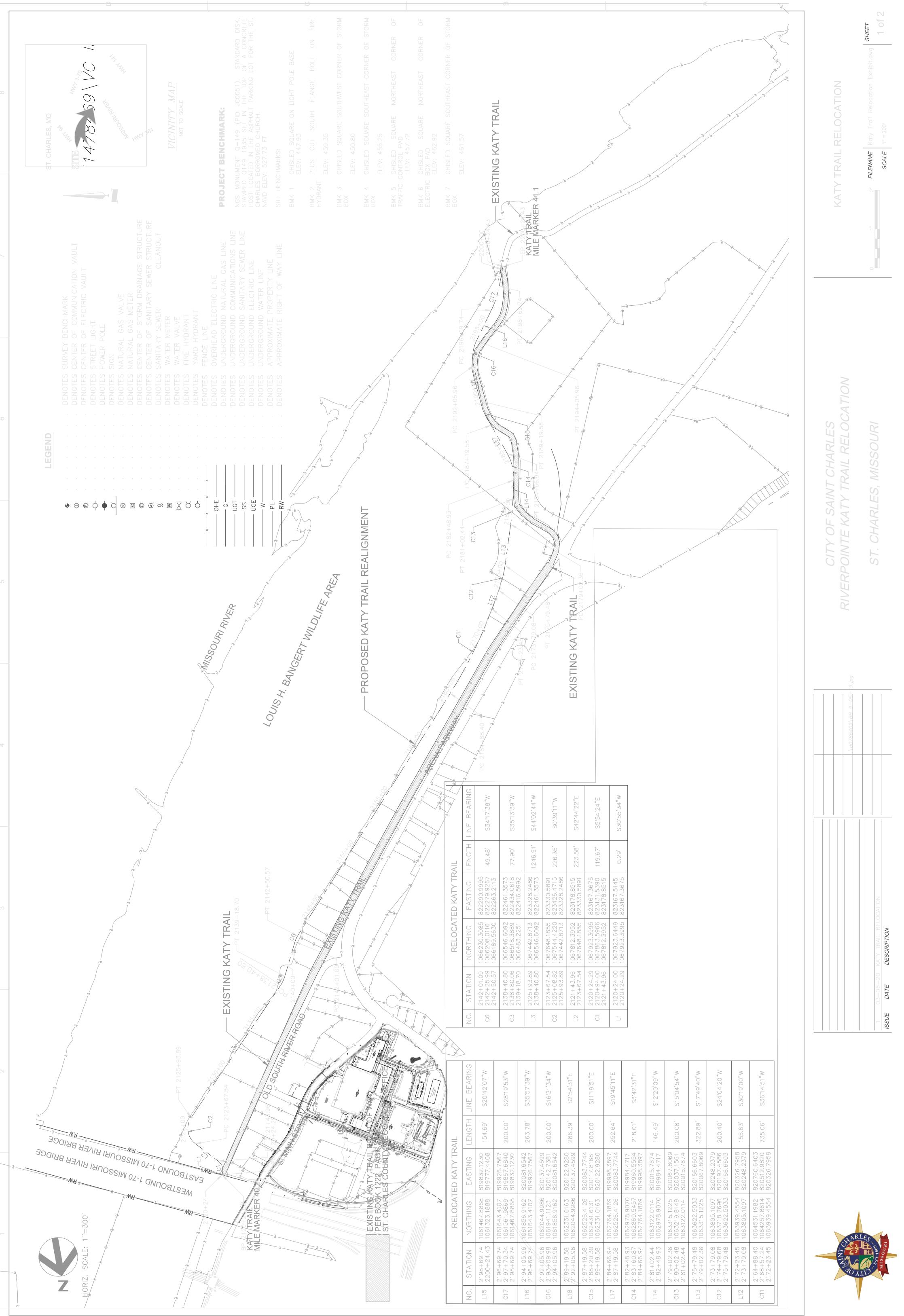
NOW, THEREFORE, it is mutually agreed by the parties hereto as follows:

- 1. The Department agrees to enter a lease agreement with the City for a portion of Trail right-of-way between Railroad Milepost 40.2 and Milepost 41.1, as identified in Exhibit "A", attached hereto and incorporated by reference herein. Said lease will allow the City to use the Department's trail right-of-way for roadway, access and drainage. Said lease will bear an annual fee payable to the Department.
- 2. The City agrees to enter a lease agreement with the Department for a portion of the Development property, such portion of land situated on the eastern perimeter of the Development property and identified in Exhibit "B", attached hereto and incorporated by reference herein. Said lease will allow the Department to use certain Development property for trail purposes at no cost to the Department to separate Trail users from vehicular traffic entering the Development.
- 3. The City agrees to assume responsibility for the construction, reconstruction, and maintenance of all existing and proposed landscaping and drainage structures and systems within both leased areas.

- 4. The Department shall be granted the right to review, approve or disapprove, and license all new public and private crossings and utilities within both leased areas. The Department shall maintain all existing licenses.
- 5. The City shall assist the Department in developing descriptions for crossings that exist at the time of the lease conveyance.
- 6. The City agrees to construct, reconstruct, and maintain, within the Development leased area, a trail surface, sub-base, structures, fencing, and gates for the Department's Trail that are comparable to or better than the Department's Trail standards. Said construction, reconstruction and maintenance shall meet accessibility standards and shall include signage and landscaping.
- 7. The City shall seek approval from the Department on all maintenance; construction; reconstruction activities, temporary or permanent; and completion time frame that may impact or restrict Trail use. The Department reserves the right to disapprove any such activities.
- 8. The leases referenced in Provisions #1 and #2 above will contain language acceptable to both parties and will be in perpetuity; <u>EXCEPT</u> the Department may terminate said lease in the event the Surface Transportation Board, or its successor, reactivates rail line service on the former railroad right-of-way, or in the event the Development ceases operation.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year above first written.

CITY OF SAINT CHARLES, MISSOURI	STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES
By: Daniel J. Borgmeyer, Mayor	By:
ATTEST:	ATTEST:
By: City Clerk	By:



				КA	Q
				03-06-20	DATE
				-	ISSUE



STATION	42+01.09 42+25.99 42+50.57	38+40.80 38+80.06 39+18.70	25+93.89 38+40.80	23+67.54 25+08.82 25+93.89	21+43.96 23+67.54	20+24.29 20+94.00 21+43.96	20+24.00 20+24.29
NO.	C6 21	C3 21	L3 21	C2 21 21	L2 21	C1 21	L1 21

		LINE BEARING	S20°42'07"W	S28°19'53"W	S35°57'39"W	S16°31'34"W	S2°54'31"E	S11°19'51"E	S19°45'11"E	S3*42*31"E	S12°20'09"W	S15°04'54"W	S17°49'40"W	S24°04'20"W	S30°19'00"W	S36°14'51"W
	AIL	LENGTH	154.69'	200.00'	263.78'	200.00'	286.39'	200.00'	252.64'	218.01	146.49'	200.08'	322.89'	200.40'	155.63'	735.06'
ATTY TRAIL	ED KATY TR	EASTING	819832.1230 819777.4408	819926.7567 819867.6840 819832.1230	820081.6542 819926.7567	820137.4599 820142.7381 820081.6542	820122.9280 820137.4599	820083.7744 820117.8168 820122.9280	819998.3897 820083.7744	819984.4717 819960.5554 819998.3897	820015.7674 819984.4717	820067.8069 820037.1561 820015.7674	820166.6603 820067.8069	820248.2379 820197.4586 820166.6603	820326.7958 820248.2379	820760.6403 820512.9820 820326.7958
EXISTING ST. CHART	RELOCAT	NORTHING	1061467.8868 1061323.1888	1061643.4107 1061561.9869 1061467.8868	7061856.9162 1061643.4107	1062044.9986 1061941.1123 1061856.9162	1062331.0163 1062044.9986	1062526.4126 1062431.6131 1062331.0163	1062764.1869 1062526.4126	1062978.9070 1062869.5457 1062764.1869	1063122.0114 1062978.9070	1063315.1225 1063219.8149 1063122.0114	1063622.5033 1063315.1225	1063805.1097 1063718.2696 1063622.5033	1063939.4554 1063805.1097	1064531.1982 1064257.8614 1063939.4554
- J		STATION	2198+69.74 2200+24.43	2196+69.74 2197+70.34 2198+69.74	2194+05.96 2196+69.74	2192+05.96 2193409.98 2194+05.96	2189+19.58 2192+05.96	2187+19.58 2188+20.30 2189+19.58	2184+66.94 2187+19.58	2182+48.93 2183+60.87 2184+66.94	2181+02.44 2182+48.93	2179+02.36 2180+02.48 2181+02.44	2175+79.48 2179+02.36	2173+79.08 2174+79.68 2175+79.48	2172+23.45 2173+79.08	2164+88.40 2168+57.24 2172+23.45
		NO.	L15	C17	L16	C16	L18	C15	L17	C14	L14	C13	L13	C12	L12	C11

# **APPENDIX L - Utility Coodination**



2100 Bluestone Dr. Saint Charles, MO 63303

May 6, 2020

Mr. Ron Leible Crawford, Murphy & Tilly Gateway Tower 1 Memorial Dr. Suite 500 St. Louis, Missouri 63102

RE: Riverpointe 34kv & 12kv Relocation

Dear Mr. Leible:

Per your request, Ameren Missouri has reviewed your proposed plans for relocating 12kv and 34kv overhead lines in conflict with the City of St. Charles new Riverpointe Development. The existing overhead lines will be relocated underground along Main St. between S. River Rd and I-70. The ballpark cost for this relocation is \$1,100,000. This is a rough budget estimate of the Ameren Missouri cost only and does not include the cost of customer installed facilities or relocation of other utilities that may also be using Ameren Missouri poles. The customer will be required to obtain easements, surveying, tree trimming, install the conduit system/concrete encased duct bank, relocate/convert service lines, etc.

Ameren Missouri requires a deposit of \$55,000 to proceed with engineering and design of this project. Detail drawings and a total cost estimate should be available by 90 days after Ameren Missouri receives all required information. Additional deposit money may be requested if significant scope changes result in additional engineering time.

The \$55,000 deposit is not refundable; however, it will be credited against the overall relocation cost of the project if the project proceeds to construction within 3 months of delivering the detailed estimate. If the project does not go forward, the \$55,000 is retained by Ameren Missouri for the investment in engineering and design.

If you wish Ameren Missouri to provide a firm cost estimate for the project as described, return a signed copy of this letter with the deposit in the envelope provided.

Please feel free to call me at (636) 925-3206 if I can be of further assistance.

Sincerely,

licin Childs

Felicia Childs Customer Service Engineer Gateway Division-St. Charles

Date:

Agreed to by:

Title:

Organization:

C20-099

CWO # 205070 Page 1 of 4

😂 at&t

# LETTER OF AGREEMENT FOR CUSTOM WORK

April 10, 2020

CWO / Invoice Number: 205070 Customer Billing Telephone Number: SPECIAL

## BILL TO: CITY OF ST CHARLES 200 N 2<sup>ND</sup> ST. ST. CHARLES, MO 63301

# WORK SITE LOCATION: 1559 OLD S. MAIN ST, ST. CHARLES, MO

**DESCRIPTION OF CUSTOM WORK:** Near the end of Old S River Rd, convert existing aerial fiber to buried. Open new trench for the cable and move an existing handhole. Wreck out pole attachments, including strand and guying. Remove one pedestal. Work includes cutting a cable dead which fed a raised building at 1559 Old S Main St. COST INCLUDES ALL ENGINEERING, SPLICING, TESTING, AND CONTRACTOR/LABOR. IF ACTUAL CONTRACTOR BID EXCEEDS ORIGINAL ESTIMATE, CONTRACT WILL BE UPDATED FOR THE ADDITIONAL COST.

ESTIMATED CONTRACTOR LABOR: \$ 10,125.00 ESTIMATED AT&T LABOR: \$ 2,281.00 ESTIMATED MATERIALS: \$ 344.00

CHARGE FOR CUSTOM WORK:

### ESTIMATED COST: \$ 12,750.00 🗸

(Actual charges may exceed this estimated cost)

Applicant requests that Southwestern Bell Telephone Company d/b/a AT&T Missouri (hereafter "AT&T Missouri") act as its agent in performing the above-described custom work on Applicant's behalf. Applicant agrees to pay the charge(s) for such work. The work is to be done on an "Actual Cost" basis, all charge(s) will be computed in accordance with AT&T Missouri ordinary accounting practices under the Uniform System of Accounts for Class A telephone companies and will include allocated costs for labor, engineering, materials, transportation, motor vehicles, tool and supply expenses and sundry billings from sub-contractors and suppliers for work and materials related to the job. The Applicant affirms that the cost estimate furnished by the Telephone Company has been considered only as an estimate of approximate costs and that the actual costs incurred by the Telephone Company in doing the work at the particular time and location might be higher. Said estimated cost is subject to change due to any number of factors including, but not limited to, changing conditions in the field, weather delays, or changes in the scope of the work.

#### CHANGE ORDERS

Should concealed conditions exist, including conditions that may exist below the surface of the ground, or if conditions exist that could not have been anticipated by AT&T Missouri at the time of this agreement, AT&T Missouri, will be entitled to additional funds and/or additional time to complete the work. AT&T Missouri will request such additional funding and/or additional time through a request for a change order.

Should Applicant or its agents, servants, or employees order or seek changes in the scope of the work, AT&T Missouri is entitled to seek from Applicant, its agents, servants, or employees, additional funds as necessary to perform the work, and additional time, as necessary to complete the work. Said request for additional funds and/or additional time will be through change order.

Applicant shall pay for the work on an "Actual Cost" basis. Upon completion of the work, AT&T will compute the actual cost of the work. Any difference between the amount of advance payment and the actual cost will be either paid by the Applicant to AT&T or refunded to Applicant by AT&T as the case may be.

CWO # : 205070 Page 2 of 4



All change orders will be in writing.

All change orders will be submitted and accepted by Applicant, its agents, servants or employees, before AT&T Missouri proceeds to execute the work or, if work has been initiated on the project, continues with executing the work except in an emergency endangering life or property.

Applicant, its agents, servants or employees, are deemed to have accepted the terms of any change order by signing where indicated on the change order.

Under no circumstances will AT&T Missouri request for a change order be deemed or used as evidence of delay on the project. Nor will any change order issued in this project be used to charge AT&T Missouri with responsibility for any alleged delay on the project.

#### NO DAMAGE FOR DELAY

Under no circumstances will AT&T Missouri be held liable to Applicant, Applicant's agents, employees or contractors, for any alleged delay on the project that forms the basis for this custom work order.

#### TIME TO COMPLETE

Any representation by AT&T Missouri, its agents, servants or employees that the project, or any additional work authorized by change order, will be complete by a certain date or certain time period is strictly an estimate and not binding on AT&T Missouri, its agents, servants, or employees. All estimated completion dates are subject to changing conditions in the field, changes in the scope of the work, relocation of existing utilities not within AT&T Missouri control, Acts of God, weather delays, labor disputes, vendor/contractor disputes, and other conditions or circumstances that AT&T Missouri, its agents, servants, or employees, could not reasonably anticipate at the time of the estimate.

#### PAYMENT

Applicant agrees to make an advance payment of **<u>50.00</u>** prior to commencement of the work. Applicable charges for Custom Work will be billed on a special bill separate from the bill that Applicant receives for telephone service. <u>Charges will be billed upon project completion</u>.

Applicant, its agents, servants, or employees agree to make payment on change orders within thirty (30) days of the date of signature on the change order. Failure to make payment within the designated thirty (30) day time period will operate to cancel the change order and AT&T Missouri, will cease all work activity on the project until payment is made.

When the Parties agree to Interval Billing \*, the balance of the Contract Price or Actual Cost (as applicable) will be made in <u>monthly</u> payments. If the Actual Cost made varies from the Estimated Cost, then a correcting adjustment will be made in the last payment. If the parties cannot agree to Interval Billing, Applicant will make an advanced payment as indicated above.

\* Applicable to orders over \$25,000 and work will take 6 or more months to complete.

#### CANCELLATION

If the Applicant cancels the work prior to completion, Applicant must notify AT&T Missouri, in writing of said cancellation.

If Applicant elects to cancel the work prior to completion, Applicant agrees to pay AT&T Missouri for the costs it has incurred in starting performance under the contract. If Applicant has made an advance payment, AT&T Missouri will deduct its costs and expenses incurred as of the date of Applicant's notice of cancellation from the amount of the advance payment. Any amount remaining will be refunded to Applicant.



#### ESTIMATED PRICE QUOTE

The above estimated price is guaranteed for 60 days from **April 10, 2020**. If the charges are not accepted within 60 days the order will be cancelled and a new order will need to be placed. The second estimate may be higher than the estimated price set out above.

#### STOP WORK ORDER

In the event that Applicant issues a stop work order, or places the project "on hold", at any point during the progress of the work, said stop work order or request to "hold" work must be issued in writing and must be delivered via certified mail, return receipt requested to **Michelle Louvier**, **12851 Manchester Road**, **St. Louis**, **MO 63131**. If Applicant issues a stop work order, or a request to "hold" work, the contract price quoted herein will remain valid until sixty (60) days from the date of the stop work or "hold" work order. At the expiration of the sixty (60) days, the contract price quoted herein will expire and a new contract price will be determined and provided, in writing, to Applicant. The new contract price may be higher than the contract price quoted in this custom work order.

If, after issuing a stop work, or "hold" work order, Applicant elects to cancel the contract, Applicant must inform AT&T Missouri, in writing of the cancellation. AT&T Missouri, will deduct any expenses incurred in performing the work from Applicant's advance payment and refund any remaining funds to Applicant.

Under no circumstances will AT&T Missouri, be responsible to Applicant for any alleged damages or additional expenses incurred by Applicant as a result of a stop work order or an order to "hold" work on the project.

#### **Sity Olerk**

#### CHOICE OF LAW AND ARBITRATION

Should any dispute arise between the parties concerning the subject matter of this agreement, or any term contained therein, the parties agree that the dispute or claim shall be submitted to binding arbitration before the American Arbitration Association. The parties further agree that the prevailing party in any such dispute will be entitled to recover attorney's fees and costs of arbitration.

Missouri law governs the application of this agreement and all terms contained therein.

#### INDEMNIFICATION AND HOLD HARMLESS

Applicant, its agents, servants, and employees hereby agree to indemnify and hold harmless AT&T Missouri, and its employees, agents and contractors, from and against any and all claims, costs, expenses, judgments or actions for damage to property or injury or death to persons, and/or arising from or relating to the work that is the subject of this agreement, to the extent any such claims are caused by the negligent acts or omissions of the Applicant, its agents, servants, or employees.

#### **ENTIRE AGREEMENT**

The parties agree that the terms set forth herein constitute the entire agreement and there are no other agreements regarding the project that is the subject of this agreement between the parties.

CWO #: **205070** Page 4 of 4



#### **MODIFICATION & NOTICE**

Any modification to this agreement must be made in writing and signed by both parties.

Any party to this agreement may provide the other party with notice of any fact or condition by providing such information in writing and serving said writing via certified mail, return receipt requested.

#### **CHARGE FOR CUSTOM WORK:**

ESTIMATED COST: \$ 12,750.00 (Actual charges may exceed this estimated cost)

ACCEPTED FOR CUSTOMER:

Authorized Signature

DIRECTOR OF ADMINISTRATION Title

Company

LAWRENCE S DOBROSKY, JR

**Printed Name** 

Date:

**Phone Number** 

AT&T – MISSOURI CWOTS DEPT 800-983-3233





\*\*\*\* PROPRIETARY - NOT TO BE DISCLOSED OUTSIDE AT&T AND/OR AFFILIATE COMPANY EXCEPT FOR 3RD PARTIES REQUESTING DETAIL OF CHARGES BILLED TO THEM FOR CUSTOM WORK \*\*\*\*

Additional Signature Page between City of St. Charles, Missouri and AT&T Missouri RE: CWO #205070

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### CERTIFICATE OF DIRECTOR OF FINANCE

I certify that the expenditure contemplated by this document is within the purpose of the appropriation and the work program contemplated thereby, and that there is a sufficient unencumbered balance in the appropriation account and in the proper fund to pay the obligation.

<u>Jenfr O'Cesm 4-17-2020</u> Director of Finance - Asst. Date

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# **BILLING INVOICE**

April 10, 2020

### CWOTS Number / Invoice Number: 205070

BILL TO: CITY OF ST CHARLES 200 N 2<sup>ND</sup> ST. ST. CHARLES, MO 63301

WORK SITE LOCATION: 1559 OLD S. MAIN ST, ST. CHARLES, MO

**DESCRIPTION OF CUSTOM WORK:** Near the end of Old S River Rd, convert existing aerial fiber to buried. Open new trench for the cable and move an existing handhole. Wreck out pole attachments, including strand and guying. Remove one pedestal. Work includes cutting a cable dead which fed a raised building at 1559 Old S Main St. COST INCLUDES ALL ENGINEERING, SPLICING, TESTING, AND CONTRACTOR/LABOR. IF ACTUAL CONTRACTOR BID EXCEEDS ORIGINAL ESTIMATE, CONTRACT WILL BE UPDATED FOR THE ADDITIONAL COST.

ESTIMATED CONTRACTOR LABOR: \$ 10,125.00 ESTIMATED AT&T LABOR: \$ 2,281.00 ESTIMATED MATERIALS: \$ 344.00

CHARGE FOR CUSTOM WORK:

ESTIMATED COST: \$ 12,750.00 🗡

(Actual charges may exceed this estimated cost)

SEND PAYMENT TO:

AT&T – Central South CWO Attn: Kristy Aylor 220 Wisconsin Avenue Waukesha, WI 53186

THANK YOU

PREVIEW Date: May 18, 2020

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CWO # : 205070



April 10, 2020

This letter is in regard to your request for Southwestern Bell Telephone Company d/b/a AT&T Missouri (hereafter "AT&T Missouri") to perform custom work for you. Enclosed please find our Letter of Agreement for Custom Work. This agreement describes the custom work you have requested along with the associated charges for us to do the work.

<u>The signed letter of agreement</u> must be received by our office before we can proceed on your behalf. Our mailing address for this document is listed below:

AT&T – Central South CWO Attn: Kristy Aylor 220 Wisconsin Avenue Waukesha, WI 53186

If you decide not to proceed with this work, please call our office so that we may cancel your request. If you have any questions regarding this matter, please contact us. Refer to the record number at the top of your letter to assist us in locating your file

Thank you,

# **Michelle Louvier**

Custom Work Order Dept. AT&T Missouri 800-983-3233





то:	CITY OF ST CHARLES	FROM	KRISTY AYLOR
RE	NICHOLAS GALLA	DATE:	April 10, 2020
PAGES:	7	EMAIL:	nicholas.galla@stcharlescitymo.gov
ATT ENG: PHONE :	MATTHEW THOMPSON	CWO #	205070

COMMENTS:

KRISTY AYLOR 7 A.M. TO 3:30 P.M. 1-800-983-3233 la . . .