

Introduced by _____ Council Bill No. R 95-08

A RESOLUTION

authorizing Amendment No. 1 to the agreement with URS Corporation for engineering services for the design and reconstruction of Clark Lane from Route PP to St. Charles Road.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The City Manager is hereby authorized to execute Amendment No. 1 to the agreement with URS Corporation for engineering services for the design and reconstruction of Clark Lane from Route PP to St. Charles Road. The form and content of the agreement shall be substantially as set forth in "Exhibit A" attached hereto and made a part hereof as fully as if set forth herein verbatim.

ADOPTED this _____ day of _____, 2008.

ATTEST:

City Clerk

Mayor and Presiding Officer

APPROVED AS TO FORM:

City Counselor

**AMENDMENT NO. 1 to
AGREEMENT for
PROFESSIONAL ENGINEERING SERVICES
Between
THE CITY OF COLUMBIA, MISSOURI
And
URS Corporation
1001 Highlands Plaza Drive West
Suite 300
St. Louis, MO 63110**

THIS CONTRACT AMENDMENT made as of ___ day of _____, 2008, by and between the City of Columbia, Missouri, hereinafter called the CITY, and URS Corporation of St. Louis, MO, hereinafter called the ENGINEER.

WITNESSETH, that whereas it is the mutual desire of the parties hereto to amend the AGREEMENT for PROFESSIONAL ENGINEERING SERVICES for the Clark Lane Project entered into on the 25th day of June, 2007 hereinafter called Existing Agreement.

This Amendment includes the design of a roundabout at the intersection of St. Charles Road and Lake of the Woods Road. The improvements will include a single-lane roundabout that will be designed for an interim condition which is approximated to be a ten or fifteen year design life. The design life will be based on the vehicular capacity of a single-lane roundabout. The amendment also includes additional design scope related to the design of Ballenger Place, Ria Drive and adjacent improvements that were not originally included in the Agreement.

Therefore, it is hereby agreed that the Existing Agreement be amended as follows:

SECTION 2 - BASIC SERVICES OF ENGINEER, replace the following:

- 2.1.1 Perform professional engineering services as set forth in Attachment A - "Scope of Basic Services", dated **June 7, 2007** and Attachment A - "Additional Scope of Services", dated **March 18, 2008**.

SECTION 4 - RESPONSIBILITIES OF CITY, replace the following:

- 4.2 Assist ENGINEER by placing at ENGINEER's disposal available information pertinent to the assignment including previous reports and other data relative thereto, including the items outlined in Attachment A - "Scope of Basic Services", dated **June 7, 2007** and Attachment A - "Additional Scope of Services", dated **March 18, 2008**.

SECTION 5 - PERIOD OF SERVICE, replace the following:

- 5.3 Services shall be started within **7 calendar days** of Notice to Proceed and completed by **December 31, 2008**. CITY shall have the right to establish performance times for individual phases or elements of the PROJECT by delivering a written schedule setting out the performance times to the ENGINEER.

SECTION 6 - PAYMENTS TO ENGINEER, replace the following:

- 6.1.2 Total payment for the Scope of Services described herein **shall not exceed \$418,967 (Original \$355,647 + Amendment \$63,320)**.

This amendment will be deemed a part of, and be subject to, all terms and conditions of the Existing Agreement. Except as modified above, the Existing Agreement will remain in full force and effect.

CITY OF COLUMBIA, MISSOURI

BY: _____
H. William Watkins, City Manager

ATTESTED BY:

Sheela Amin, City Clerk

APPROVED AS TO FORM:

Fred Boeckmann, City Counselor

CERTIFICATION: I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. 440-6088-528.40-23.C00236 and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

Lori B. Fleming, Director of Finance

URS Corporation

BY: _____
Mel Millenbruck, Vice President

BY: _____

Lake of the Woods Roundabout

Intersection of Lake of the Woods Road and St. Charles Road

Additional Scope of Services

1. GENERAL

The project involves the engineering design for the reconstruction of an intersection at St. Charles Road and Lake of the Woods Road. The improvements will replace the existing T-Intersection with a roundabout designed as an interim design year to be agreed upon by URS and the City, with a single-lane section with curb and gutter, enclosed storm sewers and sidewalks on both sides. Modifications to the vertical alignment are anticipated. URS will be responsible for the design of all roadway and drainage improvements. Roadway design will be limited to only that which is necessary to tie into existing roadway.

Additional roadway design is included for Ballenger Place, Ria Drive and adjacent improvements not included in the original Agreement. Design conditions for this work will adhere to the original agreement for the Clark Lane Scope.

2. EXISTING CONDITIONS SURVEY

The City will provide current topographical and right of way data in AutoCAD format to URS.

The City will provide additional property and topographical information necessary to complete design.

3. TRAFFIC ANALYSIS

Conceptual Design

The City will provide the following data:

- Existing and projected (Year 2030) traffic counts for the study area from the CATSO model as TransCADD output data
- Proposed and/or existing truck volume percentages on Clark Lane, Route PP, and St. Charles Road
- A "construction" year for the project
- An average annual growth rate for the study area.

URS will utilize the traffic projections provided from the CATSO to determine turning

movement volumes for St. Charles Road at Lake of the Woods Road.

URS will complete and incorporate this third roundabout at Lake of the Woods Road into the VISSIM model already set up for Clark Lane and two proposed roundabouts.

Following FHWA and HCS guidelines, URS will use the projected volumes to evaluate the feasibility of the proposed design of Clark Lane and the three roundabouts at Route PP, St. Charles Road and Lake of the Woods Road.

Preliminary Design

URS will use SYNCHRO and aaSIDRA software to evaluate the operations of proposed geometrics for the project area, and make recommendations for traffic control. SYNCHRO will be used for Clark Lane and aaSIDRA will be utilized for roundabout analysis at the terminal intersections. Traffic signals are not anticipated and not included.

4. PERMITS AND OTHER AGENCIES

The City will coordinate with Boone County and the other departments of the City of Columbia. Section 4(f), farmland protection, wetland mitigation, and environmental, or archaeological studies, are not anticipated for this project and therefore not included.

The following permits and clearances are NOT included in the scope:

- FEMA/No Rise Certificate
- Categorical Exclusion
- Section 106
- Obtain Nationwide or Regional General Permit under 404 permit process and Section 401
- Completion of MoDOT Structural Inventory and Assessment (SI&A) form

5. CONCEPTUAL DESIGN PLAN

URS will develop a conceptual layout for a new roundabout at the intersection of St. Charles Road and Lake of the Woods Road. It is anticipated that the initial vertical alignment will need to be adjusted to accommodate the grade of Lake of the Woods Drive.

The typical pavement section has not been identified as concrete pavement nor asphalt pavement. URS will assess pavement designs and a CBR value will be

estimated based on index tests, to assess the pavement cross section, using traffic data generated by URS.

URS will provide the City with a stripmap with proposed improvements shown. The stripmap will depict a plan view, a profile, typical section, grading limits and striping.

6. PUBLIC MEETING EXHIBITS

URS will provide two(2) copies of color stripmaps for the City's use when meeting with residents and interested parties. URS will send at least one member of its staff to attend and participate in one "open-house" style meeting. The City will organize, advertise and make facility arrangements for the meeting.

7. PRELIMINARY DESIGN PLANS

The preliminary design plan submittal shall show the general nature of the proposed improvements for the project and shall include:

- A. Proposed horizontal and vertical alignment. Horizontal alignment shall be drawn to a scale of proposed 1"=20', and vertical alignment shall be drawn to a scale of 1"=5' on plan/profile sheets (Scales are for standard full size drawings using a maximum print area of 22" x 34")
- B. Proposed typical sections
- C. Location and size of proposed storm sewers and culverts.
- D. Approximate earthwork computations
- E. Preliminary Cross Sections: Cross sections should be provided every 50 feet and half sections at every driveway and side street.
- H. Approximate right-of-way and easement requirements
- I. Preliminary engineer's opinion of probable construction cost
- J. Proposed detour plan and/or stage construction scheme

8. RIGHT-OF-WAY PLANS

Right of Way linework will be created for all properties by URS. This will include all new right of way, permanent and temporary easements. The City will be responsible for preparing all necessary property and taking descriptions and exhibits. URS will provide Right of Way plan sets showing the bearings and distances provided by the City. The sets will include cover sheet, typical sections, plan / profile sheets and cross sections. URS will not be the professional land surveyor responsible for sealing this set.

9. UTILITY COORDINATION

URS will set scheduled intervals for utility contact. The first contact will be an information gathering request for mapping and contact information. URS will also submit plans upon the completion of Preliminary Plans and Right of Way Plans. URS will submit Construction Plans at approximately 85% complete. This Utility Coordination submittal will include the plan and profile sheets, cross-sections, elevations, construction staging plan and storm sewer profiles in sufficient detail that the utility companies can utilize them to initiate their designs. These plans will be transmitted to the utility companies under cover of a City letter.

URS will use these drawings to host a meeting approximately 30 days later to discuss any concerns of the utilities and to allow the utilities to coordinate among themselves. URS will incorporate requests by the utility companies for assistance from the construction contractor in the bid documents.

10. FINAL PLANS

URS shall prepare a complete set of reproducible plans, specifications, and bid documents based on the approved preliminary plans and right-of-way plans for the project. The final plans shall include:

- A. Title sheet, with legend, index and location map showing limits and length of project, Federal project number (if applicable), provision in lower right hand corner for date and signature of appropriate local officials, and engineer's seal. Design designation should include current & design ADT, design speed and hourly volume, and route classification
- B. Summary of Quantities
- C. "B" sheets listing quantities per plan/profile sheet
- D. Typical sections

- E. Alignment Control Sheet which shall include reference ties, benchmarks, and table of alignment coordinates
 - F. Plan/profiles shall be drawn on sheets with a printable area of 22" x 34" with horizontal scale 1" = 20' and vertical scale 1" = 5'. Plan sheets shall be set up to allow to scale ½ size plans to be placed on 11" x 17" paper.
 - G. Cross sections with horizontal and vertical scale 1" = 5'.
 - H. Storm sewer/culvert profiles.
 - J. Intersection geometric details with warping diagrams
 - K. Detour and/or stage construction plan
 - L. Traffic control signing & striping necessary for construction
 - M. Pavement marking and permanent signing plans
 - N. Standard drawing detail sheets
 - O. Sediment and erosion control plans
 - P. Bioengineering details associated with ditch linings and plant materials
 - Q. Parcel numbers as shown on the ROW Plans
 - R. Specifications necessary to accurately described the method and materials for construction
11. FIELD CHECK
- URS will perform a field check of the final construction drawings prior to submission. URS will coordinate the time for the final field check with the City so a representative from the City can participate.
12. SUBMITTALS
- A. Three (3) full size and ½ size sets each of preliminary plans, right-of-way plans and final plans and special provisions
 - B. Estimate of Probable Construction Cost

- C. One full size complete set to each utility, which has services in or near the project.
- D. Electronic copy of project files on compact disk including but not limited to: plan/profile sheets, 3D and 2D survey topography, horizontal and vertical alignments, and existing and proposed property lines and easements. Files shall be delivered in Microstation format.

13. CONSTRUCTION SERVICES

URS will provide information to the City to answer bidders' questions and provide sketches or drawings to clarify or change those items that were not clearly presented in the original documents. This work will be considered incidental to the overall design. URS will provide information to the City to answer bidders' questions. URS will also provide interpretations of the design drawings during the construction process if the intent of the drawings is not clear. If the City chooses to change the drawings based solely on preference or a contractor's request, an appropriate contract change order will be processed prior to the work.

URS will attend one pre-construction meeting. Attendance at other meetings during the bidding process or during construction is not included in the scope. URS will have no responsibilities for any services during construction, including staking, observation or inspection. The City will provide all construction staking, observation and inspection services during construction.

14. CONTINGENCY ITEMS

The City may elect to have URS complete any of the following design and/or administrative tasks during the design process. URS will not begin any of the following tasks unless given a written notice to proceed.

- Public Involvement – Attend one Council Meeting (2 URS engineers)
- Retaining Walls
- Roadway design between Clark Ln./St. Charles and St. Charles/Lake of the Woods Roundabouts

15. DESIGN CRITERIA TO BE USED

URS shall use the following design criteria in this project:

- A. General design criteria shall be that as specified by the City of Columbia

- B. City of Columbia Standards
- C. Boone County Standards
- D. Missouri Department of Transportation Standards and Specifications
- E. When encroaching or crossing flood hazard areas, the Flood Insurance maps and their supporting maps shall be consulted
- F. All traffic control signing and pavement markings shall meet the provisions of the "Manual on Uniform Traffic Control Devices" published by the Federal Highway Administration

Clark Lane - Columbia, MO

Lake of the Wood Roundabout / Ballenger Place

Man-hour Breakdown

Task Description	Classification											Total	Cost	
	PIC	PM	Sr Road	Sr Struct	Sr Geotech	Engr 2	Engr 1	Tech	Clerical	Survey Crew	Landscape			
A: Surveying Coordination/Geotechnical														
Pickup surveying													0	\$ -
Survey Notes Reduction and Plotting													0	\$ -
Create DTM Model from Survey Info.													0	\$ -
Field Check													0	\$ -
Utility Coordination													0	\$ -
Geotechnical													0	\$ -
Subtotal Man-hours	0	0	0	0	0	0	0	0	0	0	0	0	0	\$ -
Subtotal Fee	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
B: Conceptual Design Plan														
Kick-off Meeting													0	\$ -
Establish Horizontal Alignment	1						4	4					9	\$ 1,020.00
Establish Vertical Alignment							2	4					6	\$ 600.00
Cross Sections (Construction and Wall Limits)							2	4					6	\$ 600.00
Strip Map		2					1	2	8				13	\$ 1,290.00
Typical Sections (2 Sheets)	1	1					1	2	2				7	\$ 815.00
Coordinate with Boone County		2					4	6					12	\$ 1,370.00
Traffic Analysis	0	1		0	0		30	0	0	0	0		31	\$ 3,775.00
Interested Parties Meeting		4					8						12	\$ 1,660.00
Subtotal Man-hours	2	10	0	0	0		52	22	10	0	0	0	96	\$ 11,130.00
Subtotal Fee	\$ 360.00	\$ 1,750.00	\$ -	\$ -	\$ -	\$ -	\$ 6,240.00	\$ 1,980.00	\$ 800.00	\$ -	\$ -	\$ -	\$ -	\$ 11,130.00
C: Preliminary Design Plans														
Cover Sheet							1		2					\$ -
Plan and Profile Sheets	1	2	2				24	24	24				77	\$ 7,810.00
Typical Sections (1 Sheet)							2	4	4				10	\$ 920.00
Cross Sections (50' Interval)	1						2	4	4				11	\$ 1,100.00
Establish New Right-of-way and Easements							2	4	12				18	\$ 1,560.00
Earthwork Computations							1	8					9	\$ 840.00
Traffic Control Concept	1		2				2	4	8				17	\$ 1,740.00
Roundabout Justification Memo - Route PP													0	\$ -
Engineer's Estimate													0	\$ -
QA / QC	2	2	4				8						16	\$ 2,310.00
Traffic Analysis													0	\$ -
Subtotal Man-hours	5	4	8	0	0		42	48	54	0	0	0	161	\$ 16,560.00
Subtotal Fee	\$ 900.00	\$ 700.00	\$ 1,280.00	\$ -	\$ -	\$ -	\$ 5,040.00	\$ 4,320.00	\$ 4,320.00	\$ -	\$ -	\$ -	\$ -	\$ 16,560.00
D: Right-of-Way Plans														
Stripmap		1					1	2	2				6	\$ 635.00
Proposed ROW linework	1						2	4	6				13	\$ 1,260.00
Utility Coordination		2					2		4				8	\$ 910.00
ROW Plans (Cover, typ, Plan/prof w metes and bounds, xsecs)		1							4				13	\$ 1,175.00
QA / QC	1		4				3						8	\$ 1,180.00
Subtotal Man-hours	2	4	4	0	0		8	10	20	0	0	0	48	\$ 5,160.00
Subtotal Fee	\$ 360.00	\$ 700.00	\$ 640.00	\$ -	\$ -	\$ -	\$ 960.00	\$ 900.00	\$ 1,600.00	\$ -	\$ -	\$ -	\$ -	\$ 5,160.00
E: Final Plans														
Cover Sheet	1	1					1	1	2				6	\$ 725.00
Typical Sections (1 Sheet)							1	2	2				5	\$ 460.00
Summary of Quantities (1 Sheet)							2	2	2				6	\$ 580.00
"B" Sheets (1 Sheets)	1	2						16	12				31	\$ 2,930.00
Plan and Profile Sheets		1					24	32	40				97	\$ 9,135.00
Drainage comps							2	24	12				38	\$ 3,360.00
Culvert Sheets							2	4	8				14	\$ 1,240.00
Traffic Control Plan (X Sheets at 50 scale)		1	4					6	8				19	\$ 1,995.00

Source
John Glascock

TO: CITY COUNCIL

FROM: City Manager and Staff

DATE: April 11, 2008

SUBJECT: Amending Engineering Contract with URS Corporation of St. Louis Missouri for Design of Clark Lane from Route PP to St. Charles Road

Fiscal Impact

- Yes
- No

Other Info.

Executive Summary

Staff has prepared for Council consideration a resolution authorizing an amendment to the current engineering services agreement with URS Corporation in order to provide for additional engineering work that is outside of the original scope of work. The amount of the amendment is \$63,320.00, which will bring the total amount of the contract to \$418,967.00.

Discussion

In June 2007, the City retained URS Corporation to provide engineering design for Clark Lane, from Route PP to St. Charles Road. A public hearing for Clark Lane was held on December 17, 2007. Subsequent to the public hearing, staff has met with Boone County public officials to work out details for the access for Lakewood Drive. The outcome of the discussions is that the access for Lakewood Drive would be better served by including a roundabout intersection at the Lake of the Woods Road intersection with St. Charles Road. A single lane roundabout at this location will also address the additional traffic that is expected when the new high school opens.

This amendment includes the additional work necessary due to the revision of the location of the roundabout at Route PP/Ballenger Place as presented at the Public Hearing and the analysis and design of a roundabout at the intersection of St. Charles Road at Lake of the Woods Road. Included in the design work is a cost estimate for the construction and Right of Way for the Lake of the Woods roundabout. Staff is proposing to proceed with the design and include public involvement for the Lake of the Woods roundabout and study funding options which will be brought forward to the city council and county commission in the future. Due to changes as a result of the public hearing, the project is anticipated to bid late winter 2008 or early spring of 2009.

Staff is recommending Council approval of the resolution authorizing the amendment of the professional engineering services agreement with URS Corporation.

SUGGESTED COUNCIL ACTION

Approval of the resolution.

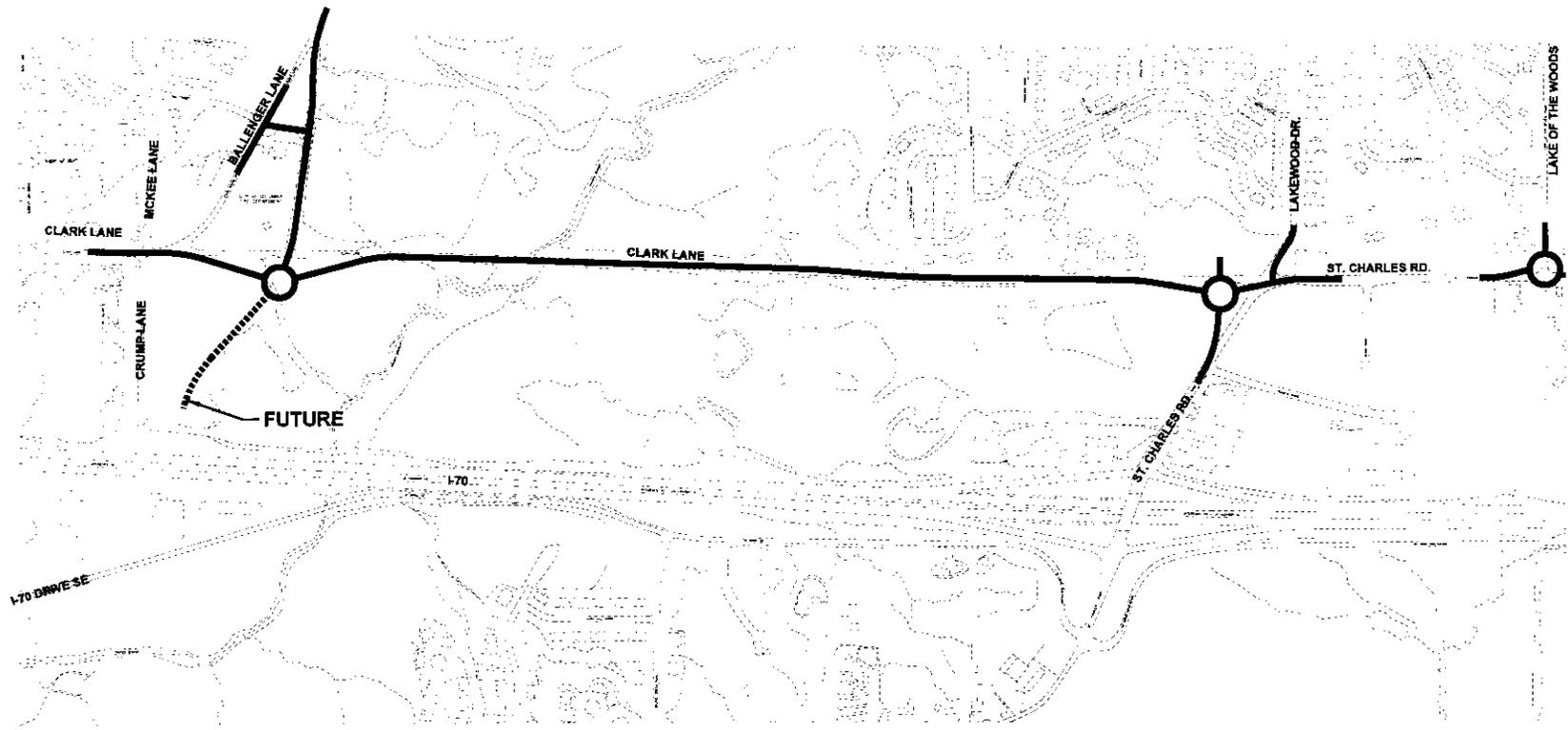


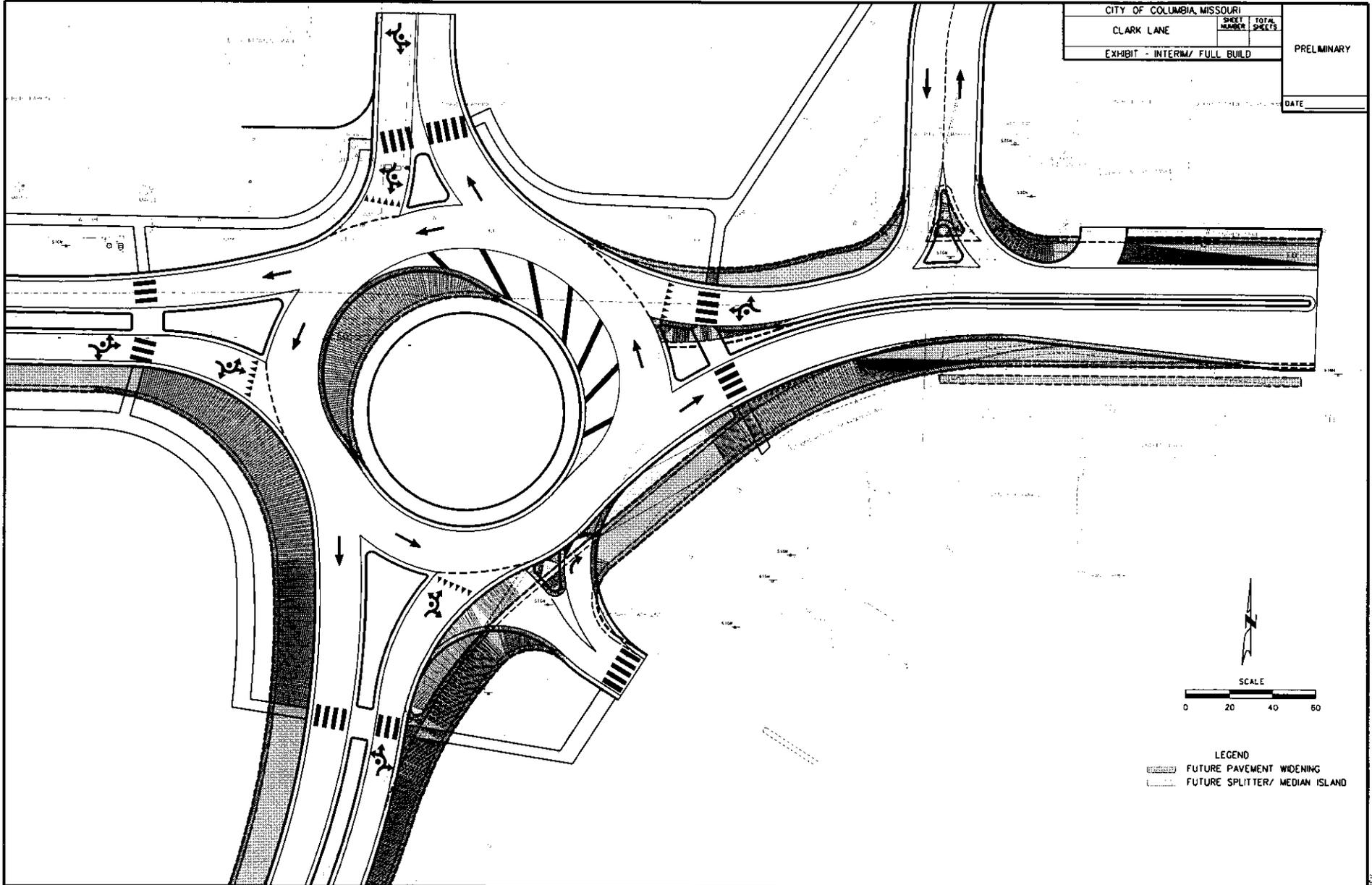
EXHIBIT 1

City of Columbia, Missouri
Department of Public Works

**CLARK LANE
LOCATION MAP**



Scale: NONE Drawn: J.W.P. Date: C2/13/08



CITY OF COLUMBIA, MISSOURI		
CLARK LANE	SHEET NUMBER	TOTAL SHEETS
EXHIBIT - INTERM/ FULL BUILD		
		PRELIMINARY
		DATE

