

Downtown Columbia Leadership Council

Infrastructure Report

presented to

City of Columbia Mayor and Council Members

October 28, 2014



Downtown Columbia Looking North 2014 – Photo Credit: Paul Jackson

Types of Infrastructure

The Citizens of Columbia are served by both “hard infrastructure” – pipes, wires, roads and parking and “soft infrastructure” – police and fire protection, schools and libraries, solid waste and recycling. The City government and other taxing agencies provide most infrastructure services, while some are provided by the private sector.

Hard Infrastructure

- Sanitary Sewer
- Storm Sewer
- Electric Service
- Water Service
- Transportation Systems

Private Sector Hard Infrastructure

- Telecommunications (phone, internet)
- Natural Gas

Soft Infrastructure

- Fire Protection
- Police Protection
- Court System
- Public Health
- Public Schools
- Public Libraries
- Public Universities
- Recycling Services
- Solid Waste

County Soft Infrastructure

- Property Assessment
- Land Records
- Public Administrator
- Prosecuting Attorney
- Corrections Facilities
- Tax Collections
- Elections
- Emergency Management
- Emergency Dispatch
- State Court System

1 Letter from Brent Gardner & Nick Peckham, FAIA

October 28, 2014

City of Columbia Mayor and Council Members
701 E. Broadway
Columbia, Missouri 65201

Dear Mayor & Members of Council:

In response to your request, the Downtown Columbia Leadership Council (DCLC) and the Infrastructure Sub-Committee hereby submit this report on Columbia Infrastructure, with a focus on the DCLC study area.

In doing this important work, it has become clear to us that all cities typically deal with both hard and soft infrastructure. The City of Columbia pays for the infrastructure using various income streams (taxes, fees, grants, interest income). Other entities are involved--the school district, local universities, Daniel Boone Public Library, Boone County and the State of Missouri governments-- to name a few.

We have discovered a serious disconnect between infrastructure needs and infrastructure funding. Possibilities for addressing this problem are presented in [Chapter 6](#) of this report.

This report suggests that the City needs new staff and communication activities in order to fulfill the responsibility of city government to plan, fund and build infrastructure long-range. Columbia will continue to grow and therefore needs significant additional infrastructure assets.

We respectfully submit this report with the intention of helping the City Council address these issues.

DOWNTOWN COLUMBIA LEADERSHIP COUNCIL

Brent Gardner
DCLC Chair

Nick Peckham, FAIA
Infrastructure Committee Chair

Preface

In April 2014, the Mayor and City Council asked the Downtown Columbia Leadership Council to work on Columbia's infrastructure issues in the DCLC study area beginning with a clear analysis of capacity and shortfalls, to develop a broad citizen-engagement process, to identify potential revenue sources and to make recommendations to improve future infrastructure planning processes.

Since then, city staff has proposed a Downtown Sewer Funding Strategy to postpone certain sewer projects and spend waste-water reserve funds. This was adopted by the City Council on June 16, 2014 as [REP 58-14](#).

The City Council also voted, on August 4, 2014 as [B230-14](#), to ask voters to approve an increase in development fees, both residential and commercial, for road infrastructure.

In addition, the City Manager has proposed, in the FY 2015 budget to:

- increase sanitary sewer utility rates,
- increase sanitary sewer utility connection fees,
- increase rates for water service lines,
- and increase electric rates.

Amid the backdrop of the infrastructure discussion has been two citizen petitions to repeal a downtown development agreement followed by a temporary restraining order enjoining the city from action relating to this specific development.

While the Downtown Columbia Leadership Council could have delivered a more extensive analysis of all options available to the City of Columbia by the fall of 2014, it appears that decisions on the immediate issues facing Columbia's infrastructure needs will not wait. Our report, including recommendations to improve public trust in the decision-making process, is included.

We look forward to the opportunity to provide continued input to build a Downtown Columbia that illustrates the best aspirations of its residents, stakeholders, property owners, citizens, and community.

Sincerely,

DOWNTOWN COLUMBIA LEADERSHIP COUNCIL

2 Executive Summary

This October 28, 2014 Infrastructure Report is the result of hundreds of hours of research, meetings, interviews and writing by the Downtown Columbia Leadership Council and citizens of Columbia. The report highlights the need for a long-range infrastructure plan. It points out the many forms of infrastructure both the City and County provide. It discusses the fact that, unlike new real estate developments, downtown does not meet current requirements for infrastructure.

This report discusses the need for the “City Plan” addition to the ESRI GIS software. The report notes current downtown sewer and other infrastructure projects; it lists various sources and methods of funding, and it makes recommendations to City Council.

City Council will have to select from the multiple funding options listed in [Chapter 6](#) of this report. This work should be done in light of the need for long-range infrastructure funding.

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Columbia, Missouri looking northwest, 2007. Photo credit: Clayton Cobb

3 Overview of current infrastructure

Countries worldwide are experiencing severe infrastructure needs, owing to growing populations, economic growth, increasing urbanization and aging legacy assets.

Over the past 35 years Columbia's population has doubled from 55,000 to about 110,000. DCLC anticipates another increase - perhaps another doubling - over the next 35 years. More people require more infrastructure. Exact numbers are beyond the scope of this report. Twice as much population will require more infrastructure of every kind. Some of the multi-million dollars future needs are more sanitary sewer capacity (Black & Veatch Report), more water capacity (Water & Light), more storm sewers (Public Works), and more of the other infrastructures listed in this report. The total new infrastructure costs over the next few decades needs careful planning - especially in light of the unexpected current crisis. We have not found evidence of this large expense being adequately funded.

To bridge the gap, Columbia must construct new assets, improve the utilization, efficiency and longevity of the existing infrastructure stock – in short, make the most of existing assets by means of optimal **operations** and **maintenance** (O&M) and carefully-planned future infrastructure. A carefully executed three dimensional Geographic Information System (GIS) model of the DCLC area will be useful to plan future infrastructure.

While Columbia's existing downtown infrastructure has served the city well for many decades, it is nearing the end of its useful life and is reaching a critical needs point in both in terms of maintenance and expansion. The City has come to the time when it should not permit buildings that meet our zoning and building codes, to be built. Inadequate sewers and electric service need both short-term and long-term solutions.

Maintenance is all too often neglected. Our undersized storm sewers are not able to handle large storm events. As a result of the maintenance backlog and the lack of resilience measures, existing downtown infrastructure assets deteriorate much faster than necessary, shortening their useful life. A feasible solution to this threatening scenario will require a change in infrastructure asset management.

Finally, our report outlines what we believe are City of Columbia best practices for operating and maintaining not only current infrastructure assets, but infrastructure planning through mid-century. Our report highlights best practices for efficiently and effectively delivering new infrastructure assets by identifying and prioritizing projects in an integrated infrastructure plan and preparing bankable public-private partnership (PPP) projects.

City Hard Infrastructure

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- Storm Sewer
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Columbia, Missouri looking north, 2009. Photo credit: Clayton Cobb

Based on extensive research and interviews conducted by the DCLC Infrastructure Task Force, this Infrastructure Report will attempt to provide a background for creation of a “Columbia Sustainable Infrastructure Best Practice Framework.”

Note: HSE = Health Safety Environment; CBA = Cost-Benefit Analysis

Steps to Operate and Maintain Infrastructure Efficiently and Effectively

- Apply demand management
- Optimize availability/ reduce downtime
- Enhance peak capacity and effective throughput
- Enhance the end-to-end user experience
- Use smart technologies to refine user performance
- Adopt a customer-centric operating model
- Redesign and coordinate management and support functions
- Optimize procurement costs and outsourcing
- Implement lean and automated processes
- Cooperate with relevant stakeholders
- Make sustainability/HSE routine
- Create comprehensive sustainability/HSE plans: 2025, 2035, 2045, 2055.
- Enhance disaster resilience
- Control excessive asset consumption and stress
- Invest in preventive and predictive maintenance
- Select contracting mode for best value for money
- Prepare for efficient project delivery
- Prioritize project options with whole life cycle CBA
- Capture ancillary business opportunities
- Apply inclusive user charges
- Have a specific infrastructure maintenance fund, as per city charter
- Conduct training and develop talent
- Apply data, benchmarks and tools
- Introduce asset management planning
- Consider private-sector participation & competition
- Foster cooperation between agencies
- Corporatize and professionalize public agencies

This work can consider a market approach. The community needs to receive a return on the investment (ROI) it makes - not a private rate but something positive. Positive is not always in dollars. In hard infrastructure it probably should be, e.g., the parking structures pay for themselves. We can consider whether water, sewer and electricity could pay for itself.

Best Implementation Practices

The DCLC emphasizes that the downtown is changing rapidly: density is increasing; gross sales and property taxes are increasing. When considering past downtown plans, Sasaki, H3, DCLC and statements by the various downtown groups 10 years ago, downtown is changing faster than anyone predicted. It is this rapid change that is causing the various capacity issues.

1.1 Maximize asset utilization

Given the financial and space constraints on building new infrastructure assets, Columbia could, instead choose to maximize the utilization of their existing assets.

An example using transportation might demonstrate that enhancements in the COMO Connect transit system would reduce parking demands. An example using electricity and water might demonstrate that harnessing leakage detection technology while properly maintaining and repairing existing delivery networks, might extend our investments in new equipment. Columbia can solve its problem of traffic congestion by improving its model of public transport, parking and road maintenance.

Another impediment to optimized infrastructure utilization is an absence of “future growth” models. This can be addressed with a coordination of all departments and the use of a full-featured GIS model which might assist in coordination among city departments.

1.2 Improve quality for users

We suggest Columbia adopt a citizen-centric operating model by applying proven techniques pioneered in consumer industries: citizen research, citizen segmentation and willingness-to-pay analysis. Two examples of this operating model might include:

- Smart Meters
- A more user friendly 3-dimensional GIS data-base and mapping system

1.3 Reduce Operations and Maintenance (O&M) costs

The DCLC Infrastructure sub-committee has found that proactive cost management, often neglected, is becoming increasingly important owing to public budget constraints. Columbia may be able to reduce waste by using a broader application of lean principles to revamp existing infrastructure processes.

A five-step approach for guiding the implementation of lean techniques:

1. Specify value from the standpoint of the end citizen by product family.
2. Identify all the steps in the value stream for each product family, eliminating whenever possible those steps that do not create value.
3. Make the value-creating steps occur in tight sequence so the product will flow smoothly toward the citizen.
4. As flow is introduced, let citizens pull value from the next upstream activity.

5. As value is specified, identify value streams so as to remove wasted steps. Introduce flow and pull, begin the process again and continue it until a state of perfection is reached in which perfect value is created with no waste.

Consequently, Columbia may reduce operating expenditures by systemically using new technologies in areas such as remote asset inspection, autonomous operations, and integrated scheduling and system control. This proposed cost saving must be balanced against the loss of living wage FTE jobs, with benefits that provides a positive impact to the quality of life for all our citizens.

Finally, Columbia might want to examine the overheads and organizational structures of its many legacy organizations, by, for example, delayering, introducing shared services and optimizing the level of de-centralization.

1.4 Mitigate externalities

Because of growing negative environmental and social impact tied to infrastructure, the public is demanding greater responsiveness. To respond to these challenges, Council should craft a comprehensive program of sustainability measures, based on a proposed 'Strategic Infrastructure Plan'.

For example, by increasing the use of methane from waste-to-power generators, the Columbia wastewater treatment plant can change from being net energy consumer to net energy producer. Ideally, sustainable practices should be deeply embedded in everyday operations by 1) making sustainability a management's top responsibility, 2) engaging the broader workforce and 3) measuring and improving sustainability just as any other business process.

Columbia should engage as a multi-stakeholder, actively communicating with communities in outreach campaigns and collaborating with local building owners and users to generate a greater positive impact across the infrastructure system.

1.5 Extend asset life

Once a costly infrastructure asset has been built, each additional year of lifetime provides huge value, as the marginal costs of operations are relatively low. Columbia should invest in preventive and predictive maintenance. Extending asset life should be part of the 'Strategic Infrastructure Plan'.

Steps to Operate and Maintain Infrastructure Efficiently and Effectively

Any maintenance, repair and construction strategy requires close cooperation across different departments. Therefore, the strategy must be customized to the specific asset context and based on a rigid assessment of the vulnerability and efficiency of each piece of equipment.

Columbia's population growth has seen an increase from 84,531 in 2000 to 115,276 in 2013, an increase of approximately 2.4% per year. Assuming future growth at approximately 2.1% per year, Columbia's population would reach a quarter million by 2050. By then, the existing sewer treatment plant and water treatment plant will be woefully inadequate unless Columbia starts to fund and build new sewer and water capabilities very soon.

The economic losses caused by storms and flooding are considerable. To address this, Columbia should identify and assess those risks, develop cross-departmental master plans and incorporate more resilience into existing assets.

1.6 Reinvest with a life cycle view

City Public Works Director has estimated that most of the downtown infrastructure was constructed prior to the 1950's; many assets are approaching the end of their life cycle and need to be rehabilitated or replaced. However, before committing to major capital expenditure, Columbia should first identify all possible project options and investigate possible cost-effective solutions. These would include loss reduction, demand-side measures, system-wide capacity balancing and targeted investments to inflow and infiltration (I&I) problems at existing sites.

The infrastructure projects should then be selected on the basis of a rigorous cost-benefit analysis, taking the whole life cycle into account. In many cases, the life cycle analysis reveals that the long-term costs of O&M are actually much greater than the initial costs of construction. Thus, life cycle cost analysis needs to be performed early on and in the specific asset context, since the majority of life cycle costs can still be influenced through design and engineering decisions.

After committing to a particular project, the most efficient delivery mode – public sector, PPP or private sector – should be chosen on the basis of a value-for-money assessment, taking into account the potential quality of service but also the degree of risk to the government budget.

Enablement Best Practices

In addition to implementing existing infrastructure O&M best practices, Columbia also needs to create the conditions for optimizing infrastructure for the long term.

2.1 Ensure funding

A typical source of funding for infrastructure needs is annual appropriations from the government budget. However, these are vulnerable to political expediency and are often ill-suited to Operations and Maintenance or new infrastructure, which requires a very predictable and sustainable source of funding. More suitable models include dedicated maintenance funds that earmark, and ring-fence, user taxes, user-charge models and revenues from ancillary businesses.

User charge models not only ensure a dedicated funding contribution from each user, but also encourage customers to use the available capacity responsibly and sparingly. Introducing or increasing user charges can require a sophisticated stakeholder communication strategy, and a delicate balancing of economic objectives as well as social considerations.

2.2 Build capabilities

Sustainable infrastructure performance is compromised, not just by the shortage of individual capabilities, but also by the lack of institutional capabilities. Columbia must prioritize infrastructure projects in an integrated cost-benefit framework, alongside greenfield projects, as well as ensure the continuity of the maintenance program beyond election cycles. Columbia should conduct regular assessments of the existing asset base, and create an infrastructure balance sheet that shows 1) how the stock of assets has evolved and 2) forecasts the required maintenance funding. This could be a part of the 'Strategic Infrastructure Plan'.

Columbia should also introduce standardized infrastructure asset management processes and frameworks (such as ISO 55000), and make full use of data, benchmarking and modeling for optimizing infrastructure procedures and expenditures.

2.3 Reform governance

Columbia must address several issues related to downtown infrastructure: improve internal and external communications; address the issue of "silos" in City government; and have a clear

master plan for downtown infrastructure of every kind. The right governance model is a crucial factor in motivating agencies and their staff(s) to optimize infrastructure.

One approach is to explore more public-private partnerships. Columbia should look into private sector processes that could be replicated to streamline for effectiveness and efficiency. The goal is to capture the advantages of a privately run company, including enhanced productivity, streamlined processes, commercial orientation and financial sustainability. Meanwhile, the city remains accountable to the public and serving the public interest. Improvements are needed not just to individual agencies, but also to coordination across sectors, government levels and even city limits.

Finally, additional private participation could enhance infrastructure O&M by tapping the private sector's skills in managing infrastructure assets. In water treatment, some major US cities have recorded savings of over 30% in operating costs.

The pressing need to shore up Columbia (and U.S.) infrastructure is undeniable. A dearth of public and private investment in recent years has exacerbated the imperative to act now. In response, some 25 states, including Missouri, have enacted legislation to enable private-sector participation in infrastructure projects. These public-private partnerships (PPPs), already commonplace in many parts of the world, combine the best of public-sector governance with the most valuable of private-sector efficiencies.

The Way Forward

While Columbia already applies some of these infrastructure best practices (as described on [page 9](#) of this report), in some cases we fail to achieve anything near the full optimization potential. Understaffed police and the over-burdened sewer plant might be examples. Columbia should begin by systematically reviewing and benchmarking their long-range infrastructure practices and policies against the complete best practice checklist above.

After identifying the most critical issues in downtown Columbia's particular context, Columbia will need to establish a broad action plan. While inevitably some trade-offs will have to be made when crafting it, Columbia should always try to find win-win solutions; should they be available, thanks to new technologies and process innovations.

Many of the implementation best practices can provide quick fixes, and are essential for short-term efficiency improvements that can unlock funds for larger transformations. However, Columbia should treat infrastructure not only as an operational necessity aimed at reducing costs, but also as a strategic element that optimizes the value of an infrastructure asset for society. By increasing the asset's utilization, availability and service levels, we enhance the quality of life in Columbia.

Columbia thus has the opportunity to boost its infrastructure services, strengthen Columbia's competitiveness and foster socio-economic progress and prosperity.



Columbia, Missouri looking northwest, 2009. Photo credit: Clayton Cobb

4 GIS Requirements for Infrastructure Planning

The City of Columbia has several departments using Geographical Information Systems (GIS). Matt Gerike, PhD, is head of the Columbia GIS Office coordinating these uses. The City currently has not found software that meets its needs for a smart three-dimensional model of the DCLC area.

Mr. Gerike, Bimal Balakrishnan, PhD, Newton D'Spousa, PhD, Brent Gardner, DCLC Chair, and Nick Peckham, FAIA met in June 2014 to discuss possible MU/City joint work on this GIS requirement. A modelling and visualization software capable of handling these tasks first needs to be identified.

Geographical Information System (GIS) software is the logical tool for showing the size in square feet and number of floors of each of the existing buildings in the DCLC area. This software can do many other things useful to the City of Columbia. Creating a build-out model of the DCLC area would allow for long-term planning of the infrastructure.



3D GIS Model of Warrenton, England. Credit: <http://www.gislounge.com/gis-news-arizona-wildfire-map-3d-of-warrington/>

5 DCLC area infrastructure needs and costs by 2050

Much of the current dialog about infrastructure concerns the present situation: not enough sewer and electric capacity in the DCLC area. Without funding to address these issues we find ourselves rearranging the funded portion of the Capital Improvements Plan (CIP).

We need an overall Strategic Infrastructure Plan. One way or another, all funding comes from the public. Columbia needs a long-range strategic plan that looks ahead to a City with a growing population.

The proposed ‘Strategic Infrastructure Plan’ for Columbia should address how we can meet Columbia’s future needs. Infrastructure is necessary to our daily lives. It is the roads and trails, the hospitals, schools, parks and sports fields, the police and fire services, the water and waste management systems and other items discussed in this report. It enables the city’s economic and social systems to work.

Infrastructure is expensive to build, operate and maintain. But it is long-lived and delivers benefits across generations. Today’s Columbians are reaping the benefits of infrastructure investments provided by their parents and grandparents. The plan must outline what Columbians can do now to enable new infrastructure, overhaul and update existing infrastructure, and avoid bottlenecks so that the city is left in good shape for future generations.

This should be a plan to take Columbia through the coming thirty-five years and beyond. It must cover all aspects of the city’s infrastructure – physical built assets, delivery of infrastructure for social services and natural heritage.

The plan should set both broad and specific priorities and mark the government’s resolve to meet them. Ideally it would be a living, unfolding plan that will grow and change over time to meet new challenges and take up new opportunities. Columbia must invest in its infrastructure. (see list on [page 8](#) of this report) That investment must come from the public and private sectors. This is a time sensitive endeavor.

6 Short-Term Infrastructure Needs and Funding

In addition to these short-term immediate needs, the City can look ahead to a \$500 million new sewer plant (Black & Veatch report), an additional \$90 million new water plant (Water and Light Board), and a proportional increase in all hard and soft infrastructure needs. The financial scope of this future work, presently unfunded, is about a billion dollars. The city has identified short-term immediate projects totaling \$58,216,000 including:

Sixth and Elm, Seventh & Locust Storm Drain Replacement:

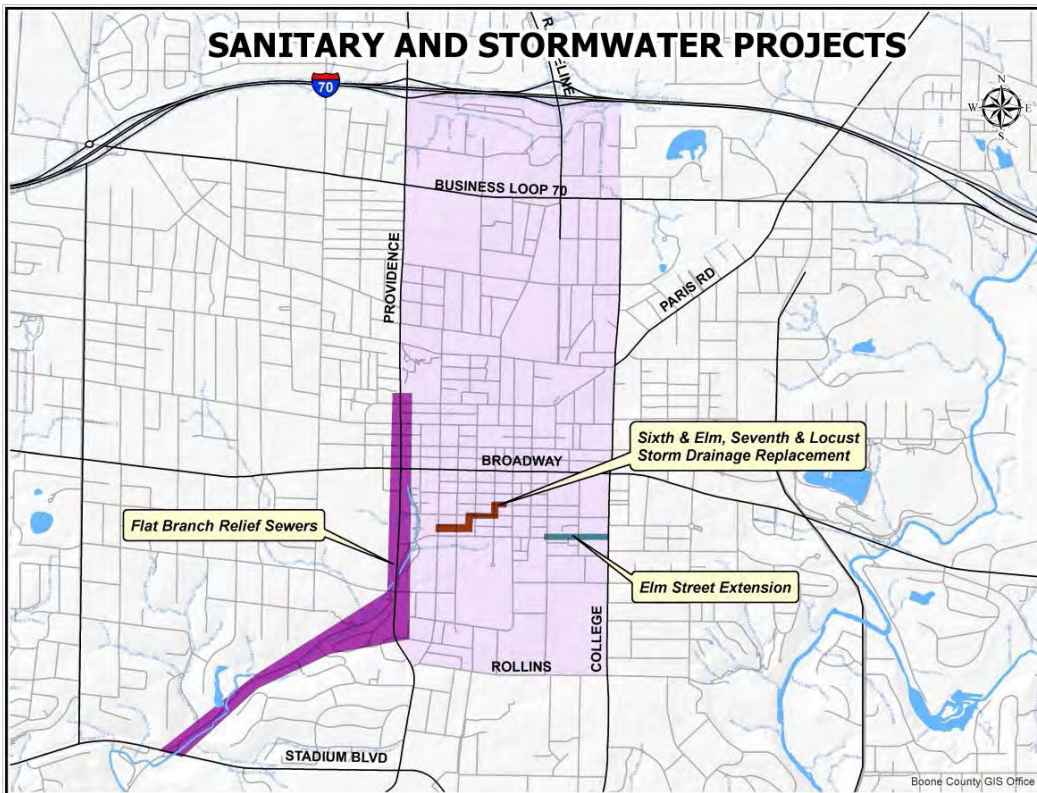
This project involves replacing approximately 1,000 feet of 100-year old storm drainage system in the central portion of downtown. The existing drainage system is in very poor structural condition and does not have sufficient capacity that results in street flooding during heavy rains. This project will provide new and adequately sized drainage facilities that will better protect the area from flooding.

Budget: \$2,000,000

Flat Branch Relief Sewers:

This project involves constructing approximately 40,000 linear feet of relief sewers in the various locations within the Flat Branch watershed. These sewers provide sanitary sewer service for the DCLC area. Currently, we do not have adequate capacity to serve additional developments in the DCLC area. Most storm and sanitary sewers downtown are between 50 and 100 years old.

Budget \$6,750,000



Map of the sanitary and stormwater projects in DCLC area.

Water:

There are currently 10,000 feet of four-inch water main within the DCLC area with an age between 50-120 years. As development within the area proceeds, these water lines will need to be upgraded to eight inch to support domestic demand and fire flow requirements. The estimated cost to upgrade these water mains is \$250/foot.

Budget: \$1,000,000 to \$2,500,000

Electric:

Substation feeder capacity to the area is approaching maximum capacity. Current plans include adding additional capacity with a feeder from Rebel Hill substation. Proposed high-density residential projects will require additional feeder capacity in order serve the electric load. It is estimated at the two feeders could be constructed from the Hinkson Creek substation to provide the additional capacity.

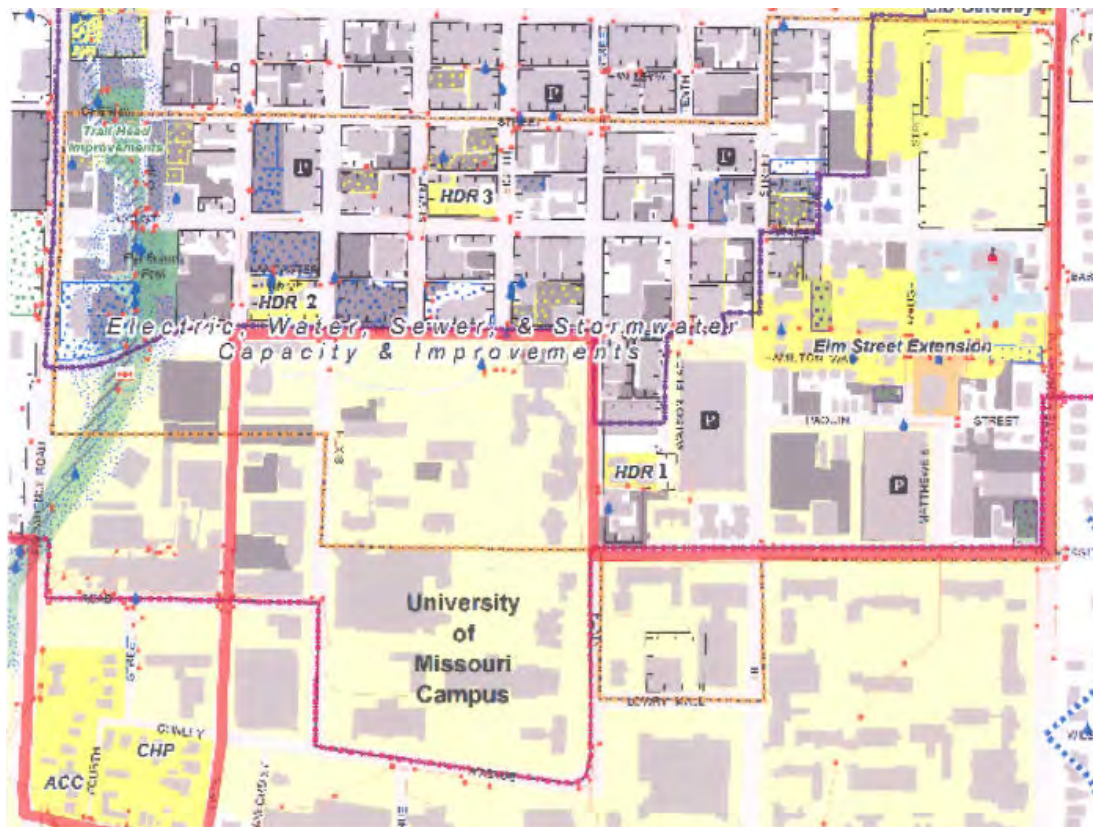
Budget: \$10,000,000

Parking Garage:

Location: TBD

Would support additional residents in the area, the proposed Museum Project (SHSM), and public parking.

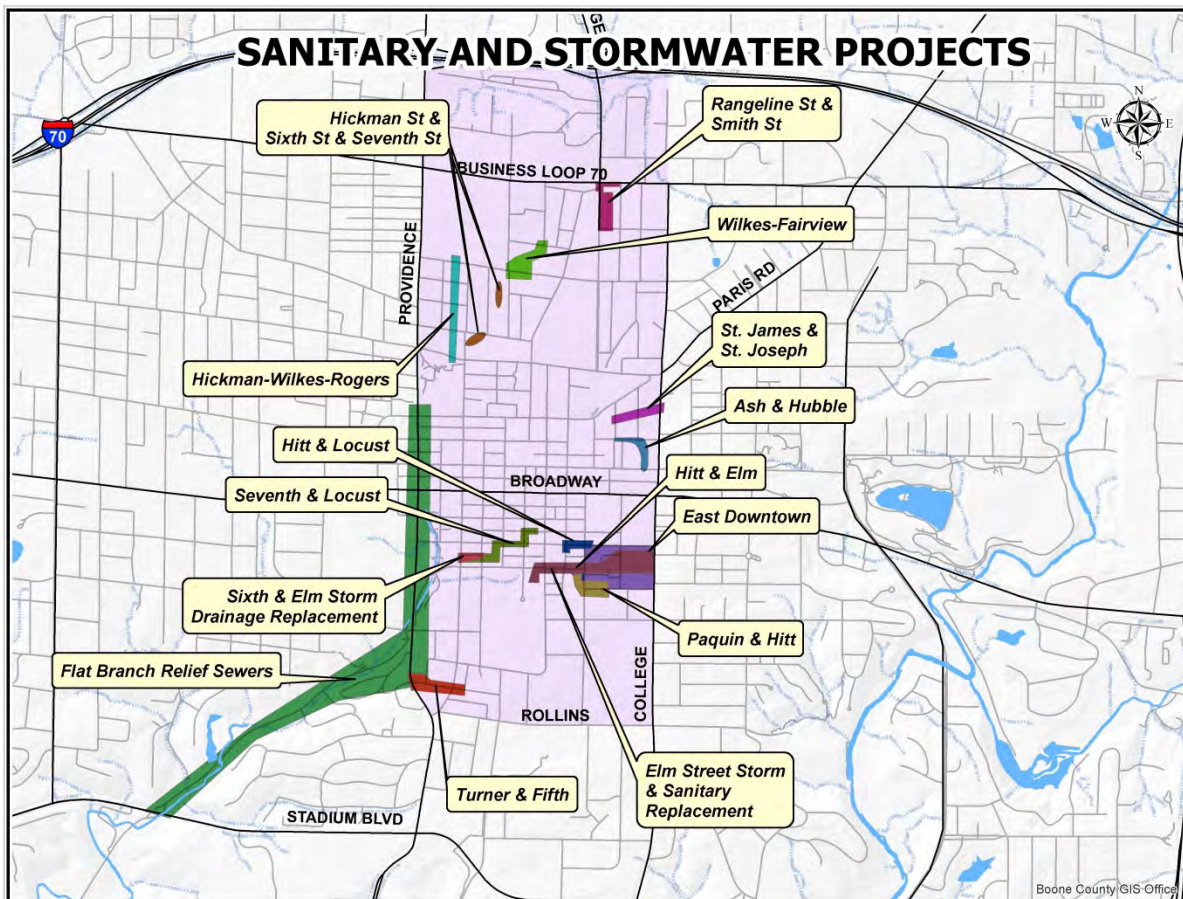
Budget: \$18,000,000



Stormwater:

Ash & Hubble	\$175,000
East Downtown	\$1,500,000
Hickman & 6 th & 7 th	\$950,000
Hickman-Wilkes-Rogers	\$525,000
Wilkes & Fairview	\$336,000
Hitt & Elm	\$100,000
Hitt & Locust	\$500,000
Paquin & Hitt	\$885,000
Rangeline & Smith	\$225,000
St. James-St. Joseph	\$1,300,000
Sewer	
Turner & 5 th	\$500,000

Budget: \$6,996,000



Budget Summary:Immediate:

Water	\$1,000,000
Electric Capacity Imp.	\$10,000,000
Sewer	\$6,750,000
Stormwater	\$2,000,000

Immediate total: \$19,750,000

Short-Term Need:

Stormwater	\$6,996,000
Sewer	\$500,000
Electrical (UG BL)	\$3,950,000
Parking Garage	\$18,000,000
Elm Street Ext. (SAS & H3)	\$5,000,000
Broadway Streetscape (H3)	\$2,000,000
Providence Rd. Streetscape (H3)	\$1,000,000
College Ave Streetscape	\$1,000,000

Short-Term Need Total: \$38,466,000

Immediate and Short-Term Total: \$58,216,000

7 Funding Options to Cover Anticipated Shortfall

Funding

To date, city staff have not identified adequate funding for its' current infrastructure needs. The Downtown Leadership Council discussed several ways to fund the infrastructure shortfall:

- Bond Issue
- Increase Building Permit fees.
- Increase re-zoning fees.
- Create development fees
- Create TIF District
- Transportation Development District (TDD)
- Create a Community Infrastructure Fund (CLIF) <http://ciffip.com/investment/>
- EPA Sources http://water.epa.gov/infrastructure/greeninfrastructure/gi_funding.cfm
 - Section 319 Nonpoint Source Management Program
 - Clean Water State Revolving Fund
- Electrical demand reduction
- Building permit refund for nationally recognized certification of green standards
- Stormwater fees
- Public Private Partnerships (PPP)
- Private Participation in Infrastructure (PPI)

Related ideas

- Renewable energy for increased energy demands
- Consider parking and transport for future demands
- NREL Geothermal Strategies (May 2014) <http://www.nrel.gov/docs/fy14osti/61477.pdf>

Sustainable Savings

Columbia should have a strategic view of the future. Energy is projected to cost more as fossil fuel supplies dwindle. For Columbia, we have an opportunity to determine how renewable, alternate energy– will figure into this scenario. Rather than the single variable “first cost” thinking of those who can pass the utility and other infrastructure cost on to others, consider a “long-term” vision. In other words, we should include “total project cost” into the equation making sustainable infrastructure a wise option.

Here are a few items that might be considered when developing strategies for long term funding of hard infrastructure.

- Architecture 2030 www.architecture2030.org
- Create “Energy Insights Online” similar to the ComEd program www.comed.com/eio
- Small wind turbines
- Photovoltaics
- Solar Thermal
- Biogas
- Biofuel
- Fuel Cells
- Geothermal
- Urban Agriculture
- Carbon tracking
- Flush and Flow fixture rebates
- Smart grid and net metering
- Water and Electric meters on every dwelling unit
- Reduced permit fee for LEED Gold and Platinum buildings

The world economy runs on energy. The future of fossil fuels may be uncertain. That the supply will run out is predicted, but when it will happen -- and the effect it has on society -- remains as conjecture.

8 Public Meetings

Town Hall Meetings Summary

The Downtown Columbia Leadership Council hosted two Town Hall Meetings, one in the evening on Wednesday, May 7, 2014, one at noon on Saturday, May 10, 2014 to encourage participation from as many stakeholders as possible. The City Manager, Deputy City Manager, Director of Public Works and the Director of Water and Light made presentations and responded to comments made by the participants. Participants could either submit questions anonymously or at a microphone. Key takeaways from the meeting included:

Key takeaways:

- The City should repair the sewer backup problems (often many years old) immediately.
- City has partial solutions for short-term problems.
- City should list “Capital Improvements Projects” that are funded in a separate document from “Un-funded CIP”.
- Two major downtown infrastructure constituencies: residential users and commercial developers.
- The downtown sewer infrastructure, even if lined and repaired, is not adequate for the anticipated population growth by mid-century.
- The existing sewer treatment plant is not adequate for the anticipated mid-century use.
- The existing water treatment plant is not adequate for the anticipated mid-century use.
- The City’s policy for future renewable energy needs to be improved.
- The City should implement a reduced fee for net-zero projects.
- There is a need for the DCLC to propose alternative funding options for the infrastructure (hard and soft) we need.
- Citizens are concerned with curbs, gutters and sidewalks.
- Columbia needs more modern management.
- Columbia needs better in-house communication.
- We need to improve the “public realm”.
- Citizens requested a transparent presentation on infrastructure costs.
- Citizens have asked for commitment to past planning documents.
- Citizens believe the city should extract shared cost from developers.

9 Recommendations to City Council

RECOMMENDATIONS TO RESTORE PUBLIC TRUST IN THE PLANNING PROCESS AND IDENTIFY POTENTIAL REVENUE SOURCES

1. The City Council should clarify the condition of downtown infrastructure.

The City Manager told the public, as early as December 2013, that the City's infrastructure was incapable of handling any new downtown or central City building. The public heard that the City's electric and sewer usage had already outstripped its capacity. The City told the public that no new projects could begin until the infrastructure was upgraded.¹

Despite those comments, shortly thereafter the City authorized intensive new residential development in the downtown area. The disconnect between public procurements and subsequent actions created confusion for voters and taxpayers. The City Council should clarify its position to restore public trust.

2. Reinstate the Infrastructure Commission to monitor infrastructure capacity going forward.

In order for the City Council and City Manager to stay informed of the long range needs of the City infrastructure the Downtown Columbia Leadership Council recommends that the City Council re-establish an infrastructure commission charged with monitoring all existing capacity of hard and soft municipal infrastructure including water, electric, sewer, road, public safety, parking, etc. and issue a regular green light, yellow light, or red light infrastructure warning for city planners, Planning & Zoning Commission and City Council members.

3. Establish a Blue Ribbon Task Force.

The Downtown Columbia Leadership Council received conflicting testimony regarding the cause of infrastructure shortfalls and trouble spots. Members of the Downtown Columbia

¹ On December 7, 2013, Columbia City Manager Mike Matthes announced "The city's infrastructure can't handle any new downtown or central city building. The pace of development in the area has outstripped the electric and sewer capacity, which is 100 percent utilized." ["The changing face of downtown Columbia"; by Jacob Barker; Columbia Daily Tribune; December 7, 2013.]

Leadership Council are not experts in engineering, sewer pipes, water lines, or electric generation and transmission. However, there are citizens within the City of Columbia who possess the expertise required.

The DCLC recommends the creation of a Blue Ribbon Task Force to:

- Work with the City to create an 'Infrastructure Strategic Plan' for Columbia 2050 with established benchmarks.
- Create an infrastructure development ordinance that would outline steps required including funding (as per [Chapter 6](#) of this Infrastructure Report).
- Review all forms of infrastructure to identify sustainable practices. This may include replacing streets with permeable pavement (www.citylab.com) or adopting high-efficiency LED lighting for streets, parking garages, and buildings. See also: www.tauranga.govt.nz
- Develop a “smart streets” protocol that works hand-in-hand with the “complete streets” policy to integrate paving, landscape and underground infrastructure.
- Monitor implementation of a 2050 build-out.
- The Blue Ribbon Task Force could include retired members of city staff, employees and citizen appointees with interest and expertise in municipal infrastructure.

4. Retain an independent infrastructure consultant.

The City of Columbia should hire an independent infrastructure consultant to analyze Columbia's existing infrastructure capacity and make recommendations for expansion. An independent consultant will also answer constituents, ratepayers, and taxpayers questions regarding “Are we really out of infrastructure?” Are we “Closed for business...”? Or, is infrastructure indeed “flexible” as some have said?

Working with the DCLC or the Blue Ribbon Task Force, the consultant should provide the City of Columbia a brief written report on the infrastructure requirements for downtown Columbia now, and over 5-year steps going forward. The selected consultant must be familiar with the zoning of the DCLC Study Area (see [DCLC Study Area map](#)). Using these zoning regulations, the consultant will prepare a three-dimensional “build-out” diagram of the study area. The consultant will describe the range of possible occupancies, and expected demands on the electric services, water services, sanitary services and storm water services by 2020 and by 5-year increments going forward. The consultant will also show expected population growth by 2020 and by 5-year increments thereafter.

The selected consultant will be required to review related City of Columbia reports and plans. The selected consultant will be required to submit an illustrated report (10 copies), and make a final presentation to the DCLC/City Council.

5. Develop a Report Card on 2004 infrastructure plans.

As a minimum alternative to DCLC's recommendation [#4](#) to hire an independent infrastructure consultant, the City should consider hiring a consultant to develop an ongoing report card on the recommendations of the 2004 Black & Veatch plan.

In 2004, the City of Columbia hired Black & Veatch to develop a Wastewater System Facilities Planning Report. The 305-page report includes historic flows and loads, population and per capita unit factors, future flows, and future peak loads. Black & Veatch also recommended System Development Charges to pay for necessary wastewater improvements that include:

- Wastewater utility revenue and customer growth,
- Cash financing,
- Debt financing,
- Connection fee sensitivity analysis, and
- Equitability.

It has been 10 years since this report; the City should consider the advisability of asking Black & Veatch to develop a report card to gauge the City's progress towards completion. The report card should also evaluate whether the city's 2004 projections are still valid, is population growth occurring where anticipated, or whether the city needs to adjust its schedule of capital improvements.

6. Maintenance vs. Growth

The DCLC heard clear public testimony during our monthly meetings and our infrastructure town hall meetings: The City should pay for maintenance of water, sewer infrastructure but developers should pay for increased and expanded capacity.

The DCLC recommends the City develop a clear, predictable formula which identifies the percentage of cost attributable to maintenance of aged infrastructure and the percentage of

improvement cost attributable to increased capacity, as driven by demand. The formula should be transparent and applied equally to all proposed developments. The formula may also include a percentage of cost attributable to the City for building depending on the location and probability of future growth.

7. Develop a formula to charge developer fees that accurately consider cost of infrastructure.

As the City of Columbia develops a predictable formula for cost-sharing of new infrastructure (as referenced in [#6 Maintenance vs. Growth](#)), developer fees should accurately consider the cost of infrastructure. A [Historical Budget Analysis of New Development Charges compared to Infrastructure Capacity Expansion Costs](#) is attached to this report.

8. Re-establish a Sufficiency of Services test.

Prior to 1988, the City of Columbia required a sufficiency of services test on all residential in C-2 zoning. Prior to November 1988, residential dwelling units in C-2 zoning required a Conditional Use Permit reviewed by the City's Board of Adjustment with consideration given to the following standards:

- *"conformance with the character of the adjacent area"*
- *"the location, type and height of buildings or structures"*
- *"the type and extent of landscaping and screening on the site"*
- *"off-street parking and loading areas are provided"*
- *"adequate utilities, drainage, and other such facilities"*
- *"adequate access designed to prevent traffic hazards and minimize traffic congestion."*

Code 1964, § 19.200; Ord. No. 9958, § 1, 10-3-83

The return to a strict standard for "adequate utilities, drainage, and other such facilities" along with "off-street parking and loading areas" city-wide and specifically particularly for residential developments downtown would provide a clear objective standard for city planners prior to approval of residential uses in C-2. The recently passed Interim C-2 Ordinance has reinstated some requirements for residential projects along the pre-1988 lines; additional evaluation of "Sufficiency of Services" should be considered during the redevelopment of the city's zoning code.

9. Eliminate Silos between Public Works and Community Development.

The DCLC's Infrastructure sub-committee heard testimony that communication silos between the Planning & Zoning Commission, Department of Public Works, Community Development Department, and the City Council may have contributed to a gap in existing infrastructure.

The City should adopt a policy that includes the calculation of needed utility resources, including the calculation of additional square footage, housing units, toilets, etc, at the time a project is planned, and when a building permit is approved. This information would be shared with the Water and Light and Public Works staff for planning purposes and to communicate that calculation to Public Works to ensure approved construction matches capacity.

10. Implement a fully-integrated GIS based decision making process for the City of Columbia.

The research for the infrastructure report should act as a catalyst for the development of a design and planning tool to calculate demands on the City's various infrastructure components. This parametric model will function as part of the data model. Most of the currently held data is focused on the existing conditions of the City and should focus on operational needs of the future. This recommendation will help implement recommendation [#9](#).

The DCLC recommends that the city identify and purchase the needed GIS software capable of meeting these modeling needs and appropriately staff a GIS department to coordinate an effective planning tool for the City across all departments including Community Development--Planning, Public Safety, Water & Light, and Public Works including street, sewer, stormwater, and transportation.

11. Update the H-3 Charrette.

In 2009, with the help of H-3 Studios, the DCLC completed a major review of downtown planning issues in two emerging areas of downtown. The public engagement process reflected in the H-3 Charrette report offers important guidelines as the city considers infrastructure investments in the downtown area. We encourage Council to revisit the Charrette's major recommendations that were carefully vetted in a broad stakeholder process.

Several organic changes have occurred within Downtown Columbia since H-3's recommendations 5-years ago. H-3 should continue long-term study of downtown zoning, working in tandem with the city's Planning Department.

The DCLC recommends updating the H3 Charrette report to reflect rapid change occurring in the study area. We believe H-3 Studio's familiarity and knowledge of downtown Columbia could be an asset in creating a public discussion of the vision for downtown.

12. Explore CID sales tax revenues to bond ongoing District infrastructure costs.

The DCLC also considered the Mayor's recommendation to use sales tax revenue as a potential revenue source for downtown infrastructure needs.

In the Downtown Community Improvement District's (CID) Petition to Establish, which was adopted by the City Council, a majority of Downtown property owners asked the City to establish a community improvement district to fund "all or part of the cost" of improvements made within the District.

Chapter 67.1461 RSMO gives the CID authority to pay for utilities and sewer improvements. The Petition also gave the District authority to issue bonds to pay for the improvements with the proceeds from the sales and property tax. Per the property owner's petition, the bonds are secured with a lien against downtown property. (see [appendix](#) for further reference)

Before requesting additional tax, fee, or rate increases, the City Council should ask the CID to consider issuing bonds to pay for utility improvements attributable to downtown growth. The bonds would be repaid by future sales tax revenues collected by The District that are generated from growth in downtown Columbia.

13. Establish and appropriately fund a Depreciation Fund.

Columbia's [City Charter Section 102](#) and Columbia's [Code of Ordinances Section 27-44](#) requires the creation of an adequate depreciation fund for the purpose of making utility repairs and replacements. The DCLC heard conflicting testimony as to whether the City

appropriately funds depreciation. The City should re-examine its budgetary policy in relation to capital renewal and replacement needs relative to the depreciation.

The City's Charter clearly requires a depreciation fund funded by a monthly revenue contribution. The DCLC recommends the City adapt its current practice to comply with the Charter by establishing and appropriately funding a Depreciation fund. Or, the city should amend the city charter and ordinance to reflect current practice. This will require a vote of council and a ballot measure and will give the City the opportunity to educate and persuade elected officials and constituents about municipal utility finance.

14. Develop and budget for a long-range infrastructure fund now.

The city will likely require a new water treatment plant, sewer treatment plant and power plant in the next 30 years. The city should create an 'Infrastructure Master Plan' that anticipates the financial cost of replacement facilities and begins setting aside resources to offset the expected burden.

15. A tax increase should be a last resort.

Finally, the city should exhaust all potential sources of revenue before asking voters to approve a tax increase for infrastructure. There should be an ongoing dialogue regarding current and future infrastructure needs and a transparent public examination of all potential revenue sources. The DCLC recommends that voters be asked to approve a tax increase only after all other financing mechanisms have been considered.

10 Downtown Columbia Leadership Council

Members of the Downtown Columbia Leadership Council (DCLC)

- Nick Peckham - Term Ending May 1, 2015 (Chair of DCLC Infrastructure Sub-Committee)
- Brent Gardner - Term Ending May 1, 2017 (DCLC Chair)
- Brian Treece – (Historic Preservation Committee Representative) (DCLC Vice –Chair)
- Randy Gray - Term Ending May 1, 2016
- Andrew Sommer - Term Ending May 1, 2017
- Janet Hammen – (Neighborhood Representative) Term Ending May 1, 2015
- Pat Fowler – (Neighborhood Representative) Term Ending May 1, 2016
- Karen M. Miller (Boone County Commission Representative)
- Heiddi Davis (University of Missouri Representative)
- Sallie Coley (Columbia College Representative)
- Richard Perkins (Stephens College Representative)
- Deb Sheals (Downtown Community Improvement District Representative)*
- Sara Loe (Planning & Zoning Commission Representative)
- Brian Treece (Historic Preservation Commission Representative)
- Phil Steinhaus (Columbia Housing Authority Representative) (Non-Voting member)
- Tim Teddy (Director of Planning and Development) (Non-Voting member)
- Mike Brooks (Director of Economic Development) (Non-Voting member)

*Special thanks to Tony Grove for joining the Infrastructure Sub-Committee upon invitation of the DCLC.

11 Appendices

April 1, 2014

Columbia City Council
City of Columbia
Eighth & Broadway
Columbia, Missouri 65201

Dear Mayor & Members of Council,

Mayor Bob McDavid has asked the Downtown Columbia Leadership Council to lead the way on gathering public input to help inform the Columbia City Council and city administrators on what funding sources they should seek to pay for central-city infrastructure improvements.

In addition, Fourth Ward Councilman Ian Thomas has asked the Downtown Leadership Council to host one or more public meetings with a focus on “transparent staff presentations of the technical issues, unfettered opportunity for public comments and questions, and a visible policy discussion by City Council” with a priority towards restoring public trust in city government.

The Downtown Columbia Leadership Council is well-qualified to help lead this discussion. Appointed by the City Council, the Downtown Columbia Leadership Council has broad representation from three at-large community residents, Stephens College, Columbia College, University of Missouri, the Downtown Community Improvement District, Planning & Zoning and neighborhood associations. As such, the DCLC offers a perspective from neighborhoods, residents, academia, and the public. We look forward to providing that input to Council.

Section 2-263 of the City Code of Ordinances gives the Downtown Columbia Leadership Council broad authority to “review and comment on downtown public finance mechanisms, monitor implementation of downtown planning projects, conduct downtown planning activities and provide downtown awareness and outreach.”

The scope of work suggested by Mayor McDavid and Councilman Thomas may be best accomplished under the Downtown Columbia Leadership Council’s authority to “work on other projects requested by the City Council” in Section 2-263(10).

If requested by Council, the Downtown Leadership Council proposes the following scope of process, review, and resources designed to improve public trust in the decision-making process:

Scope:

- Define infrastructure including a clear analysis of existing capacity, maps of existing insufficient infrastructure, and projections of future needs.
- Develop a broad citizen-engagement process including one or more public hearings and listening sessions that include:
 - Facilitation of public comment.
 - Presentations by City Manager and staff.

- Questions and comments by developers and property owners.
- Questions and comments by members of the public.
-

Questions and comments by City Council members.

- Investigate cause(s) of current infrastructure situation.
- Provide an independent analysis of infrastructure shortfall, if any.
- Make recommendations to improve future infrastructure planning processes.
- Identify potential revenue sources to fund infrastructure shortfall.
- Assess the pros and cons of ways to address capacity shortage.
- Make recommendations designed to restore public confidence in planning process.
- Coordinate future downtown (20-year) infrastructure needs with the C-2 rezoning “build-out”.

Resources required:

The Downtown Leadership Council will require access to city staff and data. Assuming the City waives any research and production costs for reports, public records, and data, the Downtown Leadership Council may require additional resources to promote public hearings and for staff time to help prepare the report to Council.

Timeframe:

The DCLC’s work will culminate in a Report to Council that helps the City Council achieve consensus on downtown infrastructure needs and funding options. The Downtown Leadership Council will complete a draft report within 4-5 months. A final report to Council will be delivered in 8-9 months but before the end of 2014.

We look forward to the opportunity to provide continued input to build a Downtown Columbia that illustrates the best aspirations of its residents, stakeholders, property owners, citizens, and community.

Sincerely,

DOWNTOWN COLUMBIA LEADERSHIP COUNCIL

Brent Gardner, Chair

April 29, 2014

To: Columbia City Council

From: Brent Gardner, Chair, Downtown Leadership Council

Thank you for trusting the Downtown Leadership Council to work on our city's infrastructure issues. I thought I would give you a progress report.

The DCLC Infrastructure Subcommittee has met 5 times to discuss the infrastructure issue. We are proceeding first by defining infrastructure. Then we have been gathering data and information so that we can try and understand sewer, water, electric, storm water, etc... There is much to know. We brought John Glascock and Tad Johnson into a meeting. We had Mayor McDavid at another meeting. We have talked with Bill Weitkemper. We have spoken with several developers. We have invited CID to our meeting scheduled for Wednesday April 30. We hope to have Barbara Buffaloe talk to us about sustainability in the near future.

At the April DCLC meeting, we voted to ask Council to allow the DCLC to hire an independent infrastructure analyst. Nick Peckham and I are working on the specific wording of this request, and hope to have it shortly. Infrastructure is a complex issue, and we owe it to ourselves as a city to have it analyzed and defined properly before we can proceed with making recommendations as to how to fund it.

The DCLC also set two infrastructure town hall meetings. They will both be in Council chambers and will be televised. The first will be May 7th at 7pm. The second will be Saturday May 10th at 1 pm. We hope to have as many council members there as possible. We have invited Mike Matthes, as well as other department heads to field questions. We hope this is the start of open dialog between citizens, council and our city staff.

If you have any questions, please feel free to contact me or Nick Peckham.

Sincerely,

Brent Gardner

Chair, Downtown Leadership Council

Additional request from Council

It looks like the minutes from the May 19th Council Meeting were not approved by Council, so they are not posted online and are still only in draft form. However, her (Barbara Hoppe) request was entered into our "Council Tracker" and this is the exact language that was provided to Tony St. Romaine and Brent Gardner regarding her request during Council comments.

"At the 5/19/14 City Council Meeting, Council person Hoppe asked the DCLC (or its Infrastructure Sub-Committee) to also look at the Comprehensive Plan and other downtown plans & look at the mix of retail & residential that we need to assess going forward. She feels we need to look at more than just the next 5-10 years, but also the next 20-30 years, so that we can have a vibrant downtown. She would also like them to look into an affordable housing component in downtown."

Heather Cole, June 19, 2014

NOTE:

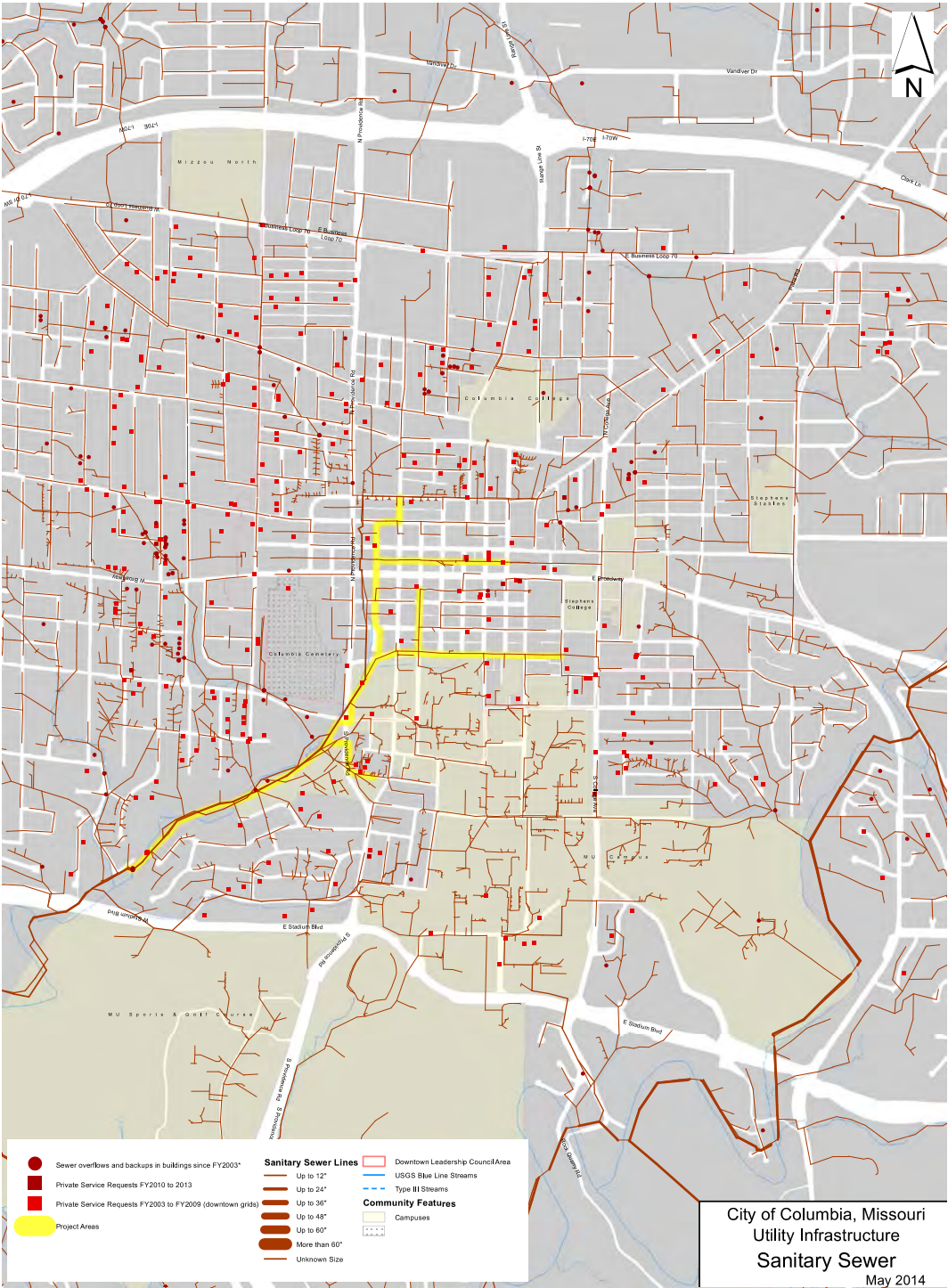
The DCLC Infrastructure Committee has discussed this June 19, 2014 request noted above. The mix of uses is important data that will be included in the GIS 3-D data set if City Council directs staff to complete recommendation #12 above.

In preparing this report we were able to review various engineering, infrastructure and planning reports the City has paid various consultants to complete. Many of these reports (e.g. H3 Downtown Report, Black & Veatch Sanitary Sewer Report) have recommendations that are not followed, not funded, or both. However, City Council should note we have paid over a million dollars for various studies that make recommendations that the City has not adopted or yet planned to implement. Recommendation #1 above will address this issue.

Downtown Study Area
DLG Study Area
 0 1,000
 Feet

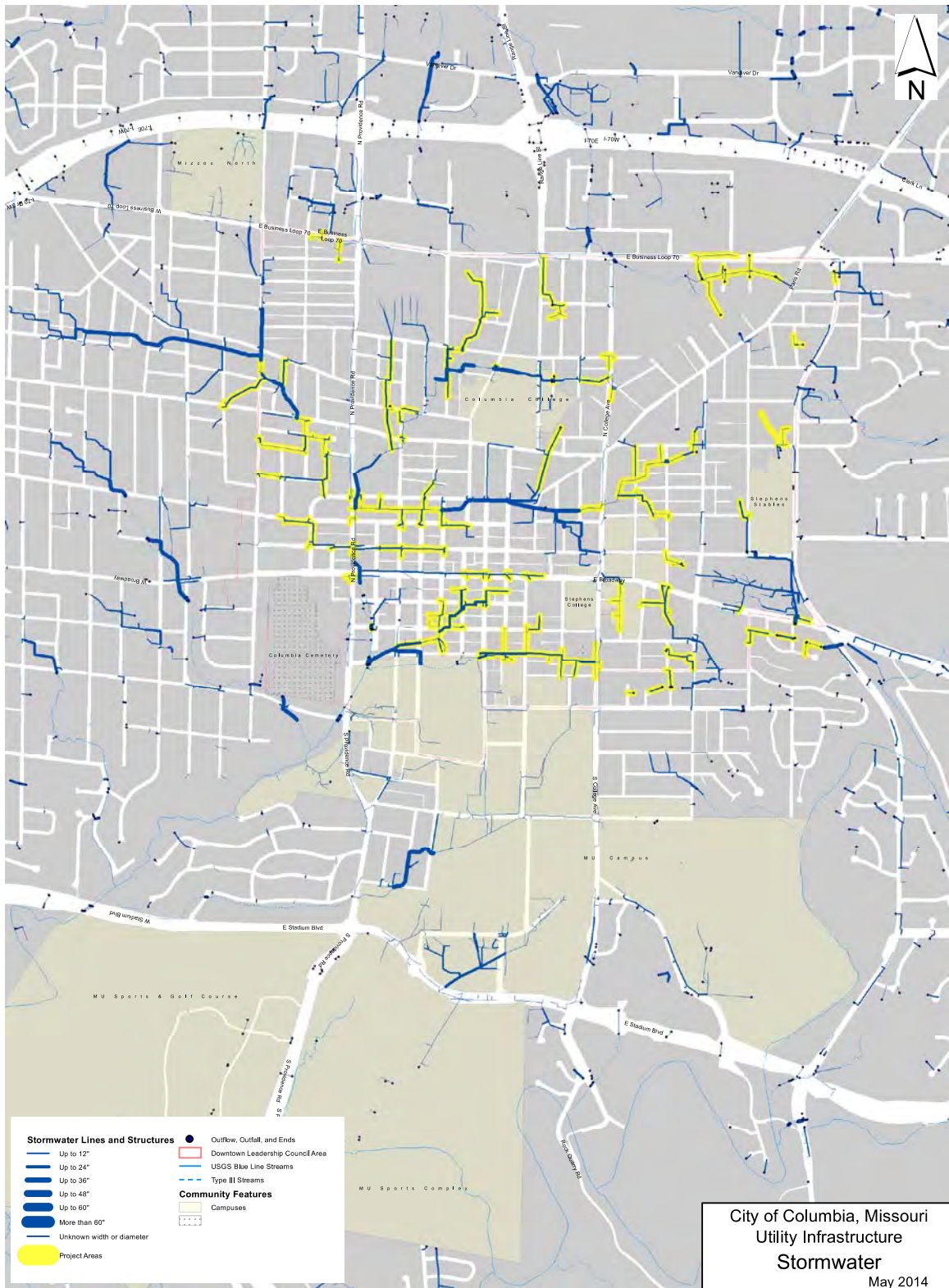
- 38

Sanitary Sewer



Columbia Sanitary Sewer Infrastructure – various sizes. No age or condition given.

Stormwater



Columbia Stormwater Infrastructure – various sizes. No age or condition given.

City Charter

ARTICLE IX. PUBLIC IMPROVEMENTS AND SPECIAL ASSESSMENTS

Section 71. Public Improvements.

The procedure for making, altering, vacating or abandoning a public improvement shall be governed by general ordinance, consistent with applicable state law.

Section 72. Special Assessments.

The procedure for levying, collecting and enforcing the payment of special assessments for public improvements or special tax bills evidencing such assessments shall be governed by general ordinance, consistent with applicable state law.

ARTICLE XII. DEPARTMENT OF WATER AND LIGHT

Section 102. Rates and Finances.

The city council shall from time to time fix, establish, maintain and provide for the collection of such rates, fees or charges for water and electricity and water and electric service furnished by or through the water and electric light works of the city as will produce revenues sufficient to pay the cost of operation and the maintenance of said works in good repair and working order; to pay the principal of and interest on all revenue bonds of the city payable from the revenues of said works; to provide and maintain an adequate depreciation fund for the purpose of making renewals and replacements; to provide a fund for the extension, improvement, enlargement and betterment of said works; to pay the interest on and principal of any general obligation bonds issued by the city to extend or improve said works; and to pay into the general revenue fund of the city annually an amount substantially equivalent to that sum which would be paid in taxes if the water and electric light works were privately owned. Such revenues so produced shall be devoted to the purposes so enumerated. The provisions hereof shall be subject at all times to the performance by the city of all covenants and agreements made by it in connection with the issuance, sale or delivery of any revenue bonds of the city payable out of the revenues derived by the city from the operation of its water and electric light works, whether such revenue bonds be heretofore or hereafter issued.

In the fixing of such rates and charges it shall be the policy of the council, so far as feasible and consistent with the above requirements, to fix and maintain the same at a level not to exceed charges made for the same services by privately owned utilities similarly situated.

Payments from the revenues of said water and electric light works shall be made into the depreciation fund monthly in such amounts as may be required by standard engineering and

accounting practices applicable to the operation of utilities by municipalities. Said depreciation fund shall be expended only for making renewals and replacements of said water and electric light works or making unusual and extraordinary repairs thereto.

Payments into the fund established for the making of extensions, improvements, enlargements and betterments of said works shall be made monthly in such sums as may be determined by the council, subject to the provisions of the next succeeding paragraph relating to surplus, and such fund shall be expended only for the purposes specified. Said depreciation fund and the fund established for the making of extensions, improvements, enlargements and betterments shall be kept invested as provided by law, or, in the discretion of the council, in bonds, certificates or other obligations of the United States of America.

If any surplus revenue be produced from the operation of said water and electric light works after meeting all of the requirements set forth above, there shall be paid into the fund established for the making of extensions, improvements, enlargements and betterments of said works not less than twenty (20) percent of such surplus, or an amount which, together with payments made into such fund under the above requirements, shall equal twenty (20) percent of said surplus. Provided, however, that such fund may be used for the redemption of any outstanding bonds issued by the city for the same purposes, and for the meeting of any extraordinary emergencies that may arise in the operation of said water and electric light works; and, provided further, that said payment from surplus shall not be required to be made cumulative on and in addition to the requirement in Section 7 of the Revenue Bond Ordinance of April 19, 1948, for the retention of twenty-five (25) percent of the surplus for extension, improvement and bond redemption purposes, so long as any of the revenue bonds of the city dated May 1, 1948, remain outstanding. The remainder of any surplus shall be paid into the general revenue fund of the city and budgeted like other revenues of the city for any proper municipal purpose, and expended through the regular appropriation process; or such surplus may, in the discretion of the council, be made the basis for reduction of rates in the future.

The City of Columbia's Code of Ordinances Section 27-44 relating to the Water and Electric Depreciation Fund states:

There is hereby created a fund known as the "water and electric depreciation fund." Into such fund there shall be transferred monthly, from the water and light fund, and deposited a sum equal to the depreciation chargeable against the properties from time to time constituting the water and electric light works of the city. The amount of depreciation and the amount to be transferred monthly into the fund hereby created shall be determined according to a formula heretofore or hereafter determined by the consulting engineers employed by the city. The sums so deposited into such fund shall be expended only for unusual and extraordinary repairs and replacements of the water and electric light works and for emergency expenses of such works. [Emphasis Added]

Historical Budget Analysis of New Development Charges compared to *Infrastructure Capacity Expansion Costs*

Ian Thomas - Updated, 26th June, 2014

Introduction:

Let's start with a question:

What Percentage of Infrastructure Capacity Expansion Costs is Currently Recovered from New Development Charges?

I believe this is an extremely important question to answer as accurately as we can.

According my preliminary analyses, I believe the final figure is going to be far lower than 50% - possibly as low as 10-20%, depending on various assumptions/conventions. Having established a reasonably accurate number, we can have a community discussion about how high we want to set this percentage cost recovery in order to continue to encourage the rate of growth we desire, without burdening the community with unsustainable infrastructure construction and maintenance costs. Then we can set 'New Development Charges' at an appropriate level.

This, I believe will help address anti-development sentiment in the community that has arisen because of the appearance (rightly or wrongly) of a City government doing everything possible to help investor-driven development companies achieve their timelines and financial goals while ignoring serious infrastructure problems affecting current residents.

Definitions:

New Development Charges are payments made to the City by new development as part of the building permitting process. These payments are required by ordinance and are intended to help pay for new or expanded utilities, streets and other infrastructure. Examples include \$800 per dwelling unit (du) for sewers, \$634/du for water, and \$0.50/sq.ft. for collector and arterial roads.

Infrastructure Capacity Expansion Costs are the costs incurred by the City to expand or extend utilities, streets, and other infrastructure systems in order to meet the needs of new development. Columbia is currently adding 10,000 new residents every 3-4 years - therefore, a reliable source of significant funds is needed to continually expand the capacity of these systems, while keeping up with ongoing repairs and maintenance. These costs are partly recovered from New Development Charges and partly from utility rates and taxes levied on the entire community.

Repair and Maintenance Costs are the costs incurred by the City to fix problems or prolong the life of existing infrastructure in order to maintain or improve the service level to current residents. These costs are customarily recovered from utility rates and taxes levied on the entire community.

Possible Approaches:

Research Other Communities: In 2007, Ben Londeree conducted a study of New Development Charges in 40 similar communities. Columbia came in the lower half of that list, charging one-half as much as Lawrence, KS, one-fifth as much as Iowa City, IA, and one-twentieth as much as Boulder, CO. City staff are currently repeating the study and will present up-to-date data at the July 7th Council meeting. However, this will not tell us what percentage of Capacity Expansion Costs are being recovered from New Development Charges.

Benchmark Capital Construction Costs for each Different Type of Utility: It seems to me that the cost of building an entire sewer system (laterals, collectors, trunks, and the treatment plant) that has a capacity (say) of 10,000 toilets should be fairly easy to estimate. Similarly, the cost of expanding an existing system to accommodate an additional 10,000 users should be knowable within some reasonable error margins. However, my questions of city staff have not yielded any answers, and neither have my efforts to research these benchmarks, nationally.

Take a Historical Snapshot: This leaves a third option of taking a historical snapshot (ten years, say) and comparing the amount collected in New Development Charges during that period with the amount spent in Infrastructure Capacity Expansion Costs (as distinct from Repair and Maintenance Costs) during the same period. Interpretation of data from this approach makes the assumption that (over a ten-year window) capacity is increased at the same rate it is needed.

Historical Snapshot Approach:

In February, as part of the TIF District discussions, the City Manager presented the City Council with the total capital expenditures in the water, sewer, storm water, and electrical utilities for the ten years from FY2005 through FY2014. Following my request, City staff then classified the costs of those projects as either "Capacity Expansion" or "Repair and Maintenance," and provided the amount collected in New Development Charges during the same period (see Spreadsheet #1, p. 3).

Preliminary Analyses:

Analysis #1: Using the figures given in Spreadsheet #1, the ratios of New Development Charges collected to public funds spent on Infrastructure Capacity Expansion are as follows:

- Water: \$7.0 million : \$12.0 million = 58.3%
- Sewer: \$6.5 million : \$24.4 million = 26.6%
- Storm Water: \$3.4 million : \$5.2 million = 65.4%
- Electric: \$0 : \$19.8 million = 0.0% (no New Development Charge for the electric utility)
- Aggregate: \$16.9 million : \$61.4 million = 27.5%

Notes:

1. City staff initially stated that \$28.4 million of water utility projects and \$21.6 million of electric utility projects could not be accurately classified as either "Capacity Expansion" or "Repair and Maintenance." Since then, they have looked more closely at their data and allocated \$11.7 million (water) and \$6.7 million (electric) to "Capacity Expansion."

Actual Utility Capital Project Expenses

Fiscal Year Completed	Repair/Maintenance/ Increase Services to Existing Customers			Both Repair & Expansion			New/Expansion/Meet Future Requirements			Total Cost	Connection/ Development Fees Collected
	# of Projects	Cost	% of Total Cost	# of Projects	Cost	% of Total Cost	# of Projects	Cost	% of Total Cost		
2005	2	\$1,726,950	21%	2	\$6,387,579	79%				\$8,114,529	\$939,266
2006	1	\$15,084	1%	1	\$1,186,929	99%				\$1,202,013	\$1,240,027
2007	1	\$5,014,846	83%	1	\$979,288	17%	1	\$27,461		\$6,021,595	\$1,070,064
2008	5	\$2,955,101	21%	5	\$11,254,414	79%				\$14,209,515	\$410,132
2009	3	\$3,788,319	90%	1	\$439,970	10%				\$4,228,289	\$314,015
2010	13	\$2,053,794	69%	2	\$812,970	27%	1	\$130,388	4%	\$2,997,152	\$349,756
2011	8	\$1,381,484	55%	1	\$1,109,978	45%				\$2,491,462	\$584,100
2012	10	\$3,536,899	87%	1	\$523,460	13%				\$4,060,359	\$479,098
2013	4	\$675,671	50%	1	\$530,076	39%	1	\$149,447	11%	\$1,355,194	\$1,081,597
2014	15	\$8,595,957	63%	5	\$5,125,995	37%				\$13,721,952	\$500,000
Water Total	62	\$29,744,105		20	\$28,350,659		3	\$307,296		\$58,402,060	\$6,968,055
<i>10 Year Average</i>	<i>6.2</i>	<i>\$2,974,411</i>	<i>51%</i>	<i>2</i>	<i>\$2,835,066</i>	<i>48%</i>	<i>0.3</i>	<i>\$30,730</i>	<i>1%</i>	<i>\$5,840,207</i>	<i>\$696,806</i>
2005	2	\$241,028	100%							\$241,028	
2006	2	\$3,266,323	99%				2	\$24,269	1%	\$3,290,592	
2007							2	\$3,284,574	100%	\$3,284,574	
2008	2	\$239,997	14%	1	\$66,222	4%	2	\$1,383,622	82%	\$1,689,841	
2009	3	\$2,358,831	23%	5	\$6,491,425	62%	2	\$1,557,052	15%	\$10,407,308	
2010	1	\$360,380	21%	1	\$200,336	11%	3	\$1,174,531	68%	\$1,735,247	
2011	4	\$1,276,368	51%				4	\$1,221,959	49%	\$2,498,327	
2012	2	\$697,949	31%				2	\$1,588,616	69%	\$2,286,565	
2013	4	\$9,299,312	82%				2	\$2,079,456	18%	\$11,378,768	
2014	11	\$10,119,113	39%	9	\$14,855,957	58%	5	\$804,735	3%	\$25,779,805	
Electric Total	31	\$27,859,301		16	\$21,613,940		24	\$13,118,814		\$62,592,055	\$0
<i>10 Year Average</i>	<i>3.1</i>	<i>\$2,785,930</i>	<i>45%</i>	<i>1.6</i>	<i>\$2,161,394</i>	<i>34%</i>	<i>2.4</i>	<i>\$1,311,881</i>	<i>21%</i>	<i>\$6,259,205</i>	<i>\$0</i>
2005	4	\$671,355	17%				5	\$3,188,876	83%	\$3,860,231	\$688,855
2006	1	\$30,124	2%				5	\$1,876,549	98%	\$1,906,673	\$740,668
2007	1	\$111,178	3%				6	\$3,258,723	97%	\$3,369,901	\$737,984
2008	3	\$2,140,644	77%				1	\$632,563	23%	\$2,773,207	\$336,556
2009	3	\$935,786	42%				4	\$1,270,556	58%	\$2,206,342	\$341,017
2010	7	\$819,246	23%				4	\$2,728,462	77%	\$3,547,708	\$417,561
2011	6	\$671,317	27%				7	\$1,857,956	73%	\$2,529,273	\$658,613
2012	4	\$333,564	7%				3	\$4,133,354	93%	\$4,466,918	\$584,505
2013	3	\$1,579,177	71%				1	\$643,018	29%	\$2,222,195	\$1,299,248
2014	18	\$6,190,106	56%				4	\$4,774,065	44%	\$10,964,171	\$650,000
Annual	1	\$5,066,450	100%							\$5,066,450	
Sewer Total	51	\$18,548,947					40	\$24,364,122		\$42,913,069	\$6,455,007
<i>10 Year Average</i>	<i>5.1</i>	<i>\$1,854,895</i>	<i>43%</i>				<i>4</i>	<i>\$2,436,412</i>	<i>57%</i>	<i>\$4,291,307</i>	<i>\$645,501</i>
2005	1	\$57,677	18%				9	\$264,074	82%	\$321,751	\$608,039
2006	2	\$303,683	19%				9	\$1,262,660	81%	\$1,566,343	\$629,529
2007	3	\$134,654	15%				10	\$736,839	85%	\$871,493	\$397,419
2008	3	\$30,267	28%				6	\$79,516	72%	\$109,783	\$371,838
2009	3	\$155,519	7%				8	\$1,937,860	93%	\$2,093,379	\$200,379
2010	1	\$13,620	3%				4	\$523,606	97%	\$537,226	\$148,869
2011	1	\$100,000	57%				2	\$75,882	43%	\$175,882	\$189,922
2012											\$256,711
2013	2	\$140,813	75%				3	\$46,582	25%	\$187,395	\$282,586
2014	1	\$68,963	21%				5	\$259,934	79%	\$328,897	\$270,000
Storm Water Total	17	\$1,005,196					56	\$5,186,953		\$6,192,149	\$3,355,292
<i>10 Year Average</i>	<i>0.1</i>	<i>\$100,520</i>	<i>16%</i>				<i>0.5</i>	<i>\$518,695</i>	<i>84%</i>	<i>\$619,215</i>	<i>\$335,529</i>
GRAND TOTAL	161	\$77,157,549		36	\$49,964,599		123	\$42,977,185		\$170,099,333	\$16,778,354
<i>10 Year Average</i>	<i>16.1</i>	<i>\$7,715,755</i>	<i>45%</i>	<i>3.6</i>	<i>\$4,996,460</i>	<i>29%</i>	<i>12.3</i>	<i>\$4,297,719</i>	<i>26%</i>	<i>\$17,009,934</i>	<i>\$1,677,835</i>

These totals do not include the Sewer Waste Water Treatment Plant Expansion (\$67,084,897), purchase of the Columbia Energy Center (\$63,277,485), or the Water Treatment Plant Addition (\$9,804,648).

The City's accounting system does not track capital projects by maintenance, expansion, or repair. This spreadsheet was prepared with staff's review and analysis of the information currently available to allocate the projects into the above categories.

This spreadsheet does not include developer construction costs of water and sewer lines which are needed for new projects to be added to City systems.

Analysis #2: The first analysis did not include three major capital projects listed in a footnote below the spreadsheet - the Sewer Waste Water Treatment Plant Expansion (\$67.1 million), the Columbia Energy Center (\$63.3 million) and the Water Treatment Plant Addition (\$9.8 million). Discussions with city staff and other experts have led to the following initial assumptions:

1. John Glascock has stated that none of the cost of the Sewer Waste Water Treatment Plant Expansion should be considered to be Infrastructure Capacity Expansion Costs because all of the work consisted of rehabilitation and upgrades required by new federal regulations.
2. Construction of the Columbia Energy Center should not be considered an Infrastructure Capacity Expansion project at all. The purpose of the Columbia Energy Center was to provide peak-time energy (eg. late afternoons in the summer) at a much lower rate than it could be purchased on the open market.
3. Tad Johnsen has stated that \$6.0 million of the entire \$9.8 million cost of the Water Treatment Plant Addition cost should be considered to be an Infrastructure Capacity Expansion Cost.

After making these adjustments, the revised ratios of New Development Charges collected to public funds spent on Infrastructure Capacity Expansion are as follows:

- Water: \$7.0 million : \$18.0 million = 38.9%
- Sewer: \$6.5 million : \$24.4 million = 26.6%
- Storm Water: \$3.4 million : \$5.2 million = 65.4%
- Electric: \$0 : \$19.8 million = 0.0%
- **Aggregate: \$16.9 million : \$67.4 million = 25.1%**

Collector and Arterial Roads:

As Columbia adds population, it is necessary to build new roads and expand the capacity of existing roads. To help pay for these Infrastructure Capacity Expansion Costs, the City levies a New Development Charge of \$0.50/sq.ft. of internal building space for collector and arterial roads.

According to Spreadsheet #2 (pp. 6-10), the City completed forty "Road Capacity Expansion" projects during the 2005-2014 timeframe. The total cost of these projects was \$84.5 million and the total amount collected in New Development Charges (\$0.50/sq.ft.) was \$7.6 million - a recovery rate of 9.0%.

When these data for transportation infrastructure are aggregated with the equivalent data for the water, sewer, storm water, and electric utilities, the overall aggregated new development charge collection is \$24.5 million towards a total cost of \$151.9 million - a recovery rate is 16.1% This means about 84% of the cost of Infrastructure Capacity Expansion was paid for by the community in utility rates and taxes.

An important consideration regarding the \$84.5 million of Road Capacity Expansion projects is that a substantial portion of these public funds came from the state and federal governments, rather than local taxes.

Other Considerations

Historical Levels of New Development Charges

The dollar amounts of some of the New Development Charges have varied over the last ten years (for example, the sewer connection fee rose from \$400/du to \$800/du between 2006 and 2009, and the development fee for roads increased from \$0.10/sq.ft to \$0.50/sq.ft during the same time period). In considering changes to the percentage of Infrastructure Capacity Expansion Costs recovered by New Development Charges, it should be noted that historical percentages may not reflect the current percentage.

On-Site Infrastructure Costs Borne by Developers

In large developments involving multiple housing and/or commercial units, on-site infrastructure (such as local roads and sewers) is often built to City specifications by private developers.

However, these construction costs (which can total millions or even tens of millions of dollars for one subdivision) are not relevant to this calculation. The goal of this calculation is to estimate what percentage of the amount ***the City pays for infrastructure capacity expansion*** to accommodate new development is recovered from New Development Charges. On-site infrastructure costs borne by developers do not feature in this calculation, although the City accepts ownership and perpetual maintenance responsibility for this infrastructure.

It could be argued that on-site infrastructure costs should be added to New Development Charges to calculate the complete contribution from new development. That same amount should then also be added to the Infrastructure Capacity Expansion Costs, when calculating the percentage recovery. This will compute a higher percentage recovery but the same "funding gap" between Infrastructure Capacity Expansion Costs and New Development Charges collected.

Increasing the New Development Charges by any specified amount will have the same impact on the "funding gap" whichever way the percentage recovery is calculated.

Development Fee for the Last 10 Years

		Development Fees Collected	Appropriations	
FY13		1,926,001.00	1,384,376.00	C00319 Scott Blvd Phase 2
	FY13 Totals	\$ 1,926,001.00	\$ 1,384,376.00	
	\$0.50/sq.ft			
FY12		1,013,264.00	-	None
	FY12 Totals	\$ 1,013,264.00	\$ -	
	\$0.50/sq.ft			
FY11		1,010,245.75	600,000.00	C00320 Rolling Hills Rd.
	FY11 Totals	\$ 1,010,245.75	\$ 600,000.00	
	\$0.50/sq.ft			
FY10		549,523.50	-	None
	FY10 Totals	\$ 549,523.50	\$ -	
	\$0.50/sq.ft			
FY09		368,591.38	597,000.00	C00128 Maguire
			45,000.00	C00241 Mexico Gravel Rd.
			500,000.00	C00149 Scott Blvd.
	FY09 Totals	\$ 368,591.38	\$ 1,142,000.00	
	\$0.25/sq.ft			
FY08		524,493.80	280,000.00	C00236 Clark Lane
			500,000.00	C00239 Providence Rd.
			330,000.00	C00211 Vandiver Dr.
	FY08 Totals	\$ 524,493.80	\$ 1,110,000.00	
	\$0.25/sq.ft			
FY07		485,742.00	374,000.00	C00240 Louisville Drive
	FY07 Totals	\$ 485,742.00	\$ 374,000.00	
	\$0.15/sq.ft			
FY06		676,880.67	700,000.00	C00237 Gans Rd
	FY06 Totals	\$ 676,880.67	\$ 700,000.00	
	\$0.10/sq.ft			
FY05		543,214.00	700,000.00	C00209 Southampton Nifong-St Farm
			1,086,500.00	C00202 Chapel Hill Rd Extension
	FY05 Totals	\$ 543,214.00	\$ 1,786,500.00	
	\$0.10/sq.ft			
FY04		527,045.00	-	None
	FY04 Totals	\$ 527,045.00	\$ -	
	\$0.10/sq.ft			
10 Year Totals		\$ 7,625,001.10	\$ 7,096,876.00	

PROJECT	Description	Type	Expansion or repair/maint	PTD BUDGET	PTD TOTAL	PTD BALANCE	Yr Completed	Main Funding source
C00010	ROADWAY CORRID PRESERVATI	Other	Repairs/Maintenance	175,501.00	146,483.58	29,017.42	2007	Investment Income
C00039	PROV SW/LANDSCAPING N END	Landscaping	Other	49,395.00	49,476.28	-81.28	2005	C40158
C00041	GARTH-BEAR CR TO BLUE RID	Neighborhood	Capacity Expansion	784,600.00	623,021.78	161,578.22	2005	Special Road District Tax
C00050	SMITH DR WINDERMERE W 1600	Neighborhood	Repairs/Maintenance	290,766.00	290,765.72	0.28	2008	C40158
C00053	BRN SCHOOL RD/AUBURN HILLS	Major Arterial	Capacity Expansion	400,000.00	323,956.44	76,043.56	2007	C40500
C00070	ROGER L WILSON DR REALIGN	Major Arterial	Repairs/Maintenance	918,906.00	918,905.15	0.85	2008	Developer Contribution
C00071	FORUM S TO OLD PLANK	Neighborhood	Capacity Expansion	1,017,636.00	1,017,635.77	0.23	2007	1/4 cent tax
C00072	BROADWAY: HWY 63 - OLD 63	Major Arterial	Capacity Expansion	5,473,947.00	5,473,358.39	588.61	2007	MoDOT
C00073	I-70 DR SW @ WEST	Major Collector	Repairs/Maintenance	313,354.00	314,003.63	-649.63	2005	C40160
C00086	3RD AVE RECONSTRUCTION	Local Residential	Repairs/Maintenance	202,686.00	198,284.17	4,401.83	2005	CDBG
C00086	SPRUCE DR.	Local Residential	Repairs/Maintenance	284,700.00	284,698.74	1.26	2005	C40158
C00092	SIXTH ST - WILKES/HICKMAN	Local Residential	Repairs/Maintenance	311,410.00	286,293.66	45,116.34	2008	CDBG
C00094	BLUE RIDGE - 783 TO GARTH	Major Collector	Capacity Expansion	1,364,573.00	1,364,572.72	0.28	2007	STP Grant
C00103	GREEN MEAD. TO SOUTHAMPTON	Major Collector	Capacity Expansion	1,558,033.00	1,526,424.95	31,608.05	2007	STP Grant
C00108	BUS LOOP 70 IMPROVEMENTS	Major Arterial	Capacity Expansion	380,870.00	276,619.09	104,250.91	2009	Special Assessment
C00119	HEATHER LANE	Local Residential	Repairs/Maintenance	165,149.00	165,357.94	-208.94	2008	Transportation Sales Tax
C00121	BALLENGER LN @ AZTEC BLVD	Major Arterial	Repairs/Maintenance	157,200.00	152,519.28	4,680.72	2007	C40159
C00126	EIGHTH ST PLAN AVE OF COL	Local Non-Residential	Repairs/Maintenance	1,547,448.00	1,116,530.75	430,917.25	Ongoing/2014	C00140
C00128	MAGUIRE BLVD N TO STADIUM	Major Collector	Capacity Expansion	7,498,231.00	7,498,230.02	0.98	2013	1/4 cent tax
C00129	GARTH THURMAN TO BEAR CR	Neighborhood	Repairs/Maintenance	1,097,573.00	1,031,608.30	65,964.70	2006	Special Road District Tax
C00145	MILLS DR TRAFFIC CALMING	Local Residential	Other	12,979.00	12,978.77	0.23	2006	C40159
C00147	DONNELLY ST.	Local Residential	Repairs/Maintenance	357,297.00	356,819.43	477.57	2007	CDBG
C00148	ANNUAL SIDEWALK MAINT.	Sidewalk	Repairs/Maintenance	342,500.00	229,526.50	112,973.50	Ongoing/2014	1/4 cent tax
C00149	SCOTT: ROLLINS/BROOKVIEW	Major Arterial	Capacity Expansion	15,177,704.00	15,158,302.16	19,401.84	Ongoing/2014	State of MO Ord 1999C
C00153	PAQUIN ST TRAFFIC CALMING	Local Residential	Other	2,745.00	2,744.64	0.36	2007	C40159
C00155	NIFONG & FORUM TRAF SAFTY	Major Arterial	Other	7,187.00	7,187.00	0.00	2006	C40159
C00157	GNM OAKLAND GRAY SIDEWALK	Sidewalk	Capacity Expansion	24,657.00	24,656.99	0.01	2012	Non-Motorized Grant
C00160	FIRST WARD SIDEWALKS	Sidewalk	Repairs/Maintenance	82,802.00	82,801.77	0.23	2008	CDBG
C00161	HOPE PLACE	Local Residential	Repairs/Maintenance	211,158.00	211,155.53	2.47	2008	CDBG
C00170	RT B RR ROW LANDSCAPING	Landscaping	Other	23,380.00	23,379.97	0.03	2005	C40163
C00171	DOWNTOWN SIDEWALKS IMPROV	Sidewalk	Repairs/Maintenance	504,015.00	113,357.78	390,657.22	Ongoing/2014	1/4 cent tax
C00175	AUDUBON TRAFFIC CALMING	Local Residential	Other	2,037.00	2,036.16	0.82	2005	C40159
C00176	FY03 ANNUAL SIDEWALKS	Sidewalk	Repairs/Maintenance	125,795.00	125,865.49	-70.49	2006	Special Assessment
C00177	5TH & CHERRY SIDEWALK RAMP	Sidewalk	Repairs/Maintenance	85,498.00	85,497.51	0.49	2005	CDBG
C00183	LANDSCAPING RT AC	Landscaping	Other	49,463.00	49,462.27	0.73	2011	Transportation Sales Tax
C00202	CHAPEL HILL RD EXTENSION	Minor Arterial	Capacity Expansion	3,670,787.00	3,671,290.57	-503.57	2011	Special Road District Tax
C00204	ROWE LANE	Local Residential	Repairs/Maintenance	52,566.00	52,565.87	0.13	2005	CDBG
C00205	WEST WORLEY SIDEWALKS	Sidewalk	Capacity Expansion	64,245.00	64,244.50	0.50	2006	C00160
C00208	TRANS INFRASTRUCTURE STUD	Other	Other	75,837.00	75,836.03	0.97	2008	C40138
C00209	SOUTHAMPTON NIFONG-STFARM	Major Collector	Repairs/Maintenance	1,820,544.00	1,773,463.32	47,080.68	2009	STP Grant
C00210	BRN SCH RD 763 TO NW LOOP	Major Arterial	Repairs/Maintenance	2,042,009.00	2,042,008.56	0.44	2010	C40500
C00211	VANDIVER RAMP TO MEX GRAY	Major Arterial	Capacity Expansion	6,735,644.00	6,701,413.38	34,230.61	2011	C00210
C00212	OLD 63/BWAY INTERSECT IMPR	Major Arterial	Repairs/Maintenance	303,723.00	303,722.06	0.94	2009	C40159
C00213	TRAFFIC ISLAND OLD 63-STAD	Expressway	Repairs/Maintenance	762,050.00	14,714.98	747,335.02	Ongoing/2014	C40161
C00214	RT K SCOTT BLVD INTERSECT	Minor Arterial	Capacity Expansion	400,798.00	400,797.03	0.97	2008	Special Road District Tax
C00221	GRANT SCHOOL RADAR SIGNS	Major Arterial	Other	18,881.00	18,880.02	0.98	2005	C40159
C00222	GARTH AVE SCHOOL LIGHTS	Neighborhood	Other	6,065.00	6,065.00	0.00	2005	C40159

C00223	740 E EXTENS. CORR STUDY	Expressway	Capacity Expansion	500,000.00	500,000.00			2005	Transportation Sales Tax
C00224	SUDBURY TRAFFIC CALMING	Local Residential	Other	2,873.00	2,872.77	0.23		2006	C40159
C00234	ANNUAL BRICK ST RENOV	Other	Repairs/Maintenance	271,390.00	118,171.36	153,218.64	Ongoing/2014		C40158
C00236	CLARK LN - PP TO ST CHAS	Minor Arterial	Capacity Expansion	9,998,169.00	9,868,599.02	129,569.98		2014	2006B SO Bonds
C00237	GANS RD @63 INTERCHANGE	Freeway	Capacity Expansion	4,964,545.00	2,941,974.29	2,022,570.71	Ongoing/2013		Transportation Sales Tax
C00238	HARDIN ST	Local Residential	Repairs/Maintenance	260,000.00	245,180.22	14,819.78		2009	CDBG
C00239	PROV RD VAND TO BLUE RIDG	Minor Arterial	Capacity Expansion	4,679,428.00	4,679,297.48	130.52		2011	C40500
C00240	LOUISVILLE DR	Neighborhood	Capacity Expansion	168,769.00	165,758.63	0.17		2009	1/4 cent tax
C00241	MEX GRAVEL RD VAND TO PP	Major Arterial	Capacity Expansion	3,099,074.00	2,863,861.34	205,092.66		2012	Special Road District Tax
C00253	FY05 ANNUAL SIDEWALKS	Sidewalk	Repairs/Maintenance	39,854.00	39,853.20	0.8		2007	Designated Loan Fund
C00254	CREASY BEAR CR/OBERMILLER	Minor Arterial	Capacity Expansion	38,836.00	38,835.30	0.7		2008	C40161
C00268	RAIN FOREST PKWY HANDRAIL	Sidewalk	Other	5,620.00	5,620.00			2008	C40159
C00274	SCOTT - VAWTER TO KK III	Minor Arterial	Capacity Expansion	5,798,305.00	552,051.60	5,246,253.40	Ongoing/2014		County Road Tax
C00275	HUNT AVE	Local Residential	Repairs/Maintenance	543,393.00	523,505.98	19,887.02		2011	CDBG
C00290	BURNHAM/ROLLINS/PROV INT	Major Arterial	Capacity Expansion	2,302,211.00	461,384.73	1,840,826.27	Ongoing/2014		STP Funds
C00291	GNM EIGHT INTERSECTIONS	Non-Motorized	Capacity Expansion	514,999.00	514,998.09	0.91		2013	Non-Motorized Funds
C00292	QUAIL CR CURB DELINIATORS	Local Residential	Other	3,273.00	3,273.00			2008	C40159
C00293	CREASY: PRAIRIE VIEW N	Minor Arterial	Capacity Expansion	258,232.00	258,231.83	0.17		2012	C40158
C00298	WEST BROADWAY CORRIDOR	Major Arterial	Capacity Expansion	73,000.00	73,000.00			2007	C40500
C00302	ST CHARLES RD BRIDGE REPAR	Major Collector	Repairs/Maintenance	21,900.00	21,900.00			2007	C40158 (Annual Streets)
C00303	GNM RT K BRIDGE HINKSON	Non-Motorized	Capacity Expansion	1,416,611.00	1,416,610.12	0.88		2011	Non-Motorized Funds
C00305	HIGHWAY 763	Major Arterial	Capacity Expansion	943,017.00	948,746.77	-5,729.77		2011	2006B SO Bonds
C00309	WORLEY SIDEWALK PH I	Major Collector	Capacity Expansion	277,658.00	189,329.98	88,328.02		2012	CDBG
C00310	BRISTOL LAKE PARKWAY	Local Residential	Repairs/Maintenance	121,499.00	121,499.00			2009	C40158
C00311	GNM GARTH TO GANS BIKEWAY	Non-Motorized	Capacity Expansion	285,406.00	285,405.57	0.43		2011	Non-Motorized Funds
C00312	I-70 INTERCHANGE PHASE I	Major Arterial	Capacity Expansion	706,833.00	706,832.22	0.78		2014	C40161
C00315	LANDSCAPING MAJ ENTRYWAYS	Other	Other	32,882.00	32,881.90	0.1		2012	C40500
C00316	CHATEAU RD EXTENSION	Local Non-Residential	Capacity Expansion	128,067.00	128,066.88	0.14		2010	C40158
C00317	STADIUM TOD PROJECTS	Expressway	Capacity Expansion	4,741,411.00	3,422,202.82	1,319,208.18	Ongoing/2014		MHTC Loan
C00318	GNM MU/ROCK BRIDGE BIKEWA	Non-Motorized	Capacity Expansion	189,558.00	189,557.50	0.5		2012	Non-Motorized Funds
C00319	SCOTT VAWTER TO MKT PH II	Major Arterial	Capacity Expansion	6,404,879.00	6,021,045.47	383,833.53	Ongoing/2014		County Road Tax
C00320	ROLLING HILLS OLD HAW/RIC	Minor Arterial	Capacity Expansion	3,861,405.00	3,861,404.22	0.78		2014	C40500
C00321	BUS LOOP SW JACKSON/JEFF	Major Arterial	Capacity Expansion	187,609.00	187,608.09	0.91		2013	C40162
C00322	GNM SW 763 BS LP/BIG BEAR	Non-Motorized	Capacity Expansion	581,507.00	581,506.42	0.58		2014	Non-Motorized Funds
C00323	GNM SW ASHLAND - MU/HINKS	Non-Motorized	Capacity Expansion	14,604.00	14,603.71	0.29		2009	Non-Motorized Funds
C00324	GNM SW BWAY - FAIRV/STAD	Non-Motorized	Capacity Expansion	256,938.00	256,935.90	0.1		2013	Non-Motorized Funds
C00326	GNM SW FAIRVIEW BWAY/HIGH	Non-Motorized	Capacity Expansion	19,010.00	19,009.98	0.02		2009	Non-Motorized Funds
C00327	GNM SW GARTH - TRUMAN/TEX	Non-Motorized	Capacity Expansion	11,930.00	11,929.44	0.56		2009	Non-Motorized Funds
C00328	GNM SW LEEWAY TO B STN RD	Non-Motorized	Capacity Expansion	49,723.00	49,722.04	0.96		2012	Non-Motorized Funds
C00329	GNM SW MANOR - BWAY/ROLU	Non-Motorized	Capacity Expansion	24,724.00	24,723.15	0.85		2009	Non-Motorized Funds
C00330	GNM SW OAKLND GR - SMILEY	Non-Motorized	Capacity Expansion	5,565.00	5,564.16	0.84		2009	Non-Motorized Funds
C00331	GNM SW OLD 63 GRINDSTNE S	Non-Motorized	Capacity Expansion	1,213,633.00	1,148,744.20	64,888.80	Ongoing/2014		Non-Motorized Funds
C00332	GNM SW PROV BS LP/VANDIV	Non-Motorized	Capacity Expansion	538,544.00	533,130.62	5,413.38	Ongoing/2014		Non-Motorized Funds
C00334	GNM SW SMILEY E DERBY RID	Non-Motorized	Capacity Expansion	34,475.00	34,474.02	0.98		2012	Non-Motorized Funds
C00335	GNM SW STAD - PROV/COLLEG	Non-Motorized	Capacity Expansion	628,576.00	620,291.37	8,284.63		2013	Non-Motorized Funds
C00339	GNM SW WALNUT - WM/OLD 63	Non-Motorized	Capacity Expansion	243,147.00	243,146.46	0.54		2013	Non-Motorized Funds
C00340	GNM SW ASH - STAD/HEATHER	Non-Motorized	Capacity Expansion	47,653.00	47,652.94	0.06		2012	Non-Motorized Funds
C00341	GNM SW WEST - STEWRT/WEST	Non-Motorized	Capacity Expansion	20,118.00	20,117.72	0.28		2009	Non-Motorized Funds

C00342	GNM SW WEST - ASH/WORLEY	Non-Motorized	Capacity Expansion	6,702.00	6,701.58	0.42	2008 Non-Motorized Funds
C00352	GNM BCT CONNECT/IMPROV	Non-Motorized	Capacity Expansion	448,135.00	448,134.27	0.73	2012 Non-Motorized Funds
C00355	GNM COUNTY HOUSE TRL PH I	Non-Motorized	Capacity Expansion	980,700.00	980,699.29	0.71	2012 Non-Motorized Funds
C00358	GNM HINK TRL TO ROCKBRIDG	Non-Motorized	Capacity Expansion	1,231,503.00	1,220,341.51	11,161.49	ongoing/2014 Non-Motorized Funds
C00359	GNM HINK TO MU REC TRAIL	Non-Motorized	Capacity Expansion	845,575.00	811,488.26	34,086.74	ongoing/2014 Non-Motorized Funds
C00362	GNM HOMINY WOODRIDGE/CLARK	Non-Motorized	Capacity Expansion	295,211.00	277,664.77	17,546.23	ongoing/2014 Non-Motorized Funds
C00372	GNM PROVIDENCE BIKEWAY	Non-Motorized	Capacity Expansion	177,472.00	177,471.63	0.37	2013 Non-Motorized Funds
C00373	GNM KATY PLACE CONNECTION	Non-Motorized	Capacity Expansion	370,240.00	348,324.15	21,915.85	2014 Non-Motorized Funds
C00375	GNM STADIUM/MKT	Non-Motorized	Capacity Expansion	126,180.00	126,179.58	0.42	2014 Non-Motorized Funds
C00376	GNM GARTH EXTENSION	Non-Motorized	Capacity Expansion	545,694.00	545,693.07	0.93	2013 Non-Motorized Funds
C00379	GNM PYTHON CRT CONNECTION	Non-Motorized	Capacity Expansion	38,049.00	38,048.65	0.35	2011 Non-Motorized Funds
C00380	GNM BEAR CR TRAIL	Non-Motorized	Capacity Expansion	35,976.00	35,975.72	0.28	2011 Non-Motorized Funds
C00381	GNM BEAR CR TRAIL PLANS	Non-Motorized	Capacity Expansion	31,844.00	31,843.53	0.47	2012 Non-Motorized Funds
C00384	GNM COSMO PARK TRAIL	Non-Motorized	Capacity Expansion	27,418.00	27,417.31	0.69	2012 Non-Motorized Funds
C00385	GNM COUNTY HOUSE TRAILS	Non-Motorized	Capacity Expansion	110,652.00	110,651.30	0.7	2012 Non-Motorized Funds
C00386	GNM CHAPEL HILL BRIDGE REP	Non-Motorized	Capacity Expansion	39,562.00	39,561.95	0.05	2011 Non-Motorized Funds
C00387	GNM CTY HOUSE TRL STADIUM	Non-Motorized	Capacity Expansion	24,876.00	24,875.15	0.85	2012 Non-Motorized Funds
C00392	FAIRVIEW WORLEY RNDABOUT	Minor Arterial	Capacity Expansion	65,000.00	24,514.00	40,486.00	2013 Broadway/Fairview TOD (ORD 19989)
C00395	63 OVERPASS @ COLT	Freeway	Other	425,000.00	425,000.00		2010 C00209
C00396	BROADWAY: GARTH TO WEST	Major Arterial	Repairs/Maintenance	174,422.00	122,921.89	51,500.11	2012 C40500
C00399	GNM PROV SMILEY-BLUE RIDG	Non-Motorized	Capacity Expansion	350,902.00	350,901.45	0.55	2014 Non-Motorized Funds
C00400	GNM PROV/STADIUM INTERSEC	Non-Motorized	Capacity Expansion	336,260.00	336,258.37	0.63	2011 Non-Motorized Funds
C00401	GNM PROV/STEWART INTERSEC	Non-Motorized	Capacity Expansion	356,708.00	356,708.00		2011 Non-Motorized Funds
C00402	GNM FORUM/STADIUM INTERSC	Non-Motorized	Capacity Expansion	446,612.00	446,611.83	0.17	2011 Non-Motorized Funds
C00404	BROADWAY AT WALGREEN'S	Major Arterial	Repairs/Maintenance	7,778.00	7,777.22	0.78	2009 C40158
C00411	FAIRVIEW RD SIDEWALKS	Sidewalk	Capacity Expansion	500,000.00	269,609.45	230,390.55	Ongoing/2013 C40162
C00412	WACO RD SIDEWALK IMPROV	Sidewalk	Capacity Expansion	212,950.00	212,950.00		2012 C40500
C00428	WILLIAM ST	Neighborhood	Capacity Expansion	121,731.00	121,730.68	0.32	2012 C40158
C00429	GNM PROV & BS LP INTERSEC	Non-Motorized	Capacity Expansion	673,280.00	575,032.22	98,247.78	Ongoing/2013 Non-Motorized Funds
C00430	GNM PROV & GR MEADOWS INT	Non-Motorized	Capacity Expansion	436,596.00	436,595.04	0.96	2013 Non-Motorized Funds
C00431	GNM DOWNTOWN HUB PRV/FLAT	Non-Motorized	Capacity Expansion	255,372.00	232,400.67	22,971.33	Ongoing/2013 Non-Motorized Funds
C00433	ROLLING HILLS WW/NEW HAV.	Minor Arterial	Capacity Expansion	1,202,780.00	1,202,759.10	0.6	2013 C40158
C00436	MAGUIRE-WARREN EXTENSION	Local Non-Residential	Capacity Expansion	1,580.00	1,679.05	0.05	2014 C00128
C00440	TEXAS AVE SW GARTH/PROV	Sidewalk	Capacity Expansion	140,000.00	139,884.25	315.75	2014 C40158
C00442	BERRY BUILDING SIDEWALK	Sidewalk	Repairs/Maintenance	10,487.00	10,486.32	0.68	2010 C00171
C00443	EAST SIDE SIDEWALKS PH I	Sidewalk	Repairs/Maintenance	204,988.00	204,988.00		2012 CDBG
C00450	STADIUM RIGHT IN RT OUT	Expressway	Capacity Expansion	227,455.00	227,454.01	0.99	2012 Stadium TOD
C00451	RANGE LINE ROGERS/BUS LP	Major Collector	Other	72,732.00	72,732.00		2012 C40160
C00453	GNM SIDEWALK SEGMENTS	Non-Motorized	Capacity Expansion	261,741.00	261,740.58	0.42	2013 Non-Motorized Funds
C00455	BROADWAY SIDEWALK 8TH-9TH	Sidewalk	Repairs/Maintenance	144,301.00	121,441.71	22,859.29	Ongoing/2012 C00171
C00456	EAST SIDE SIDEWALKS PH II	Sidewalk	Repairs/Maintenance	260,227.00	261,033.97	29,193.03	2013 CDBG
C00465	EAST SIDE SIDEWALK PH III	Sidewalk	Repairs/Maintenance	308,338.00	308,338.67	0.33	2013 CDBG
C00468	GNM BIKEWAY TWN LK VANDER	Non-Motorized	Capacity Expansion	14,309.00	14,308.82	0.18	2014 Non-Motorized Funds
C00478	5TH STREET SIDEWALK	Sidewalk	Repairs/Maintenance	27,697.00	27,696.15	0.85	2011 C00171
C00479	TURN LNS FORUM @ MKT/VICT	Minor Arterial	Capacity Expansion	290,796.00	290,795.73	0.27	2014 C00396 (Broadway:Garth to West); C40158 (Annual Streets)
C00480	WORLEY @ COL MALL SIGNAL	Major Collector	Capacity Expansion	83,826.00	83,825.05	0.95	2013 Stadium TOD
C00485	PROV RD SW BLUE RIDGE TOD	Sidewalk	Capacity Expansion	7,318.00	14,634.66	-7,316.66	Ongoing/2011 C40162
C00492	PRAIRIE LANE CONNECTION	Local Residential	Capacity Expansion	332,000.00	264,303.29	67,696.71	Ongoing/2014 C40158

C00493	SHORT ST TRAF MITIGATION	Local Non-Residential	Repairs/Maintenance	460,000.00	158,092.20	301,907.80	Ongoing/2013	C40500
C00495	GARTH SW LESLIE/PARKADE	Sidewalk	Capacity Expansion	294,880.00	33,175.84	261,704.16	Ongoing/2013	STP Funds
C00499	SALT BRINE IMPROVEMENT	Other	Other	60,000.00	15,164.41	43,835.59	2013	C40500
C00500	SALT STORAGE AUGER	Other	Other	150,000.00	148,840.00	1,160.00	2014	C40500
C00501	NIFONG & BETHEL SIDEWALK	Sidewalk	Capacity Expansion	135,707.00	7,317.85	128,389.15	Ongoing/2013	C40162
C00502	BALLENGER LANE OVERPASS	Major Arterial	Capacity Expansion	185,087.00	185,087.00		2012	C40158
C00507	FAIRVIEW & ASH SIGNAL	Minor Arterial	Other	135,000.00	129,584.14	5,415.86	Ongoing/2014	C40159
C00509	WORLEY ST SIDEWALK PH II	Sidewalk	Capacity Expansion	70,000.00	68,465.16	1,534.84	Ongoing/2013	CDBG
C00521	GNM BIKE BLVD MKT/BS LOOP	Non-Motorized	Capacity Expansion	480,000.00	55.16	459,943.84	Ongoing/2013	Non-Motorized Funds
C00523	DOWNTOWN RAMPS/SW 2013	Sidewalk	Repairs/Maintenance	458,714.00	330,504.51	128,209.49	Ongoing/2014	
C00524	GNM ASHLAND RD SW/INTSCTN	Non-Motorized	Capacity Expansion	51,200.00	63.49	51,136.51	Ongoing/2013	Non-Motorized Funds
C00525	GNM FAIRVIEW RD SIDEWALK	Non-Motorized	Capacity Expansion	152,900.00	7,217.00	145,683.00	Ongoing/2014	Non-Motorized Funds
C00527	GNM FORUM PED BRDG/HINKSN	Non-Motorized	Capacity Expansion	328,699.00	267,554.75	61,144.25	Ongoing/2014	Non-Motorized Funds
C00531	RUSTIC RD BRIDGE REPLCMNT	Local Residential	Repairs/Maintenance	100,000.00	9,695.61	90,304.39	Ongoing/2013	
C00532	DELMAR COBBLE SIDEWALK	Sidewalk	Capacity Expansion	34,084.00	34,083.52	0.48	2014	
C00536	COLLEGE AVE CROSSWALKS	Sidewalk	Other	823,875.00	156,667.77	667,207.23	Ongoing/2013	STP Funds
C00546	GNM BIKE BLVD WABASH/HOM	Non-Motorized	Capacity Expansion	250,000.00	354	249,646.00	Ongoing/2014	Non-Motorized Funds
C00547	TROPS SIDEWALK	Sidewalk	Repairs/Maintenance	19,920.00	19,920.00		Ongoing/2014	
C00548	CARTER LANE SIDEWALK	Sidewalk	Capacity Expansion	50,000.00	15,006.74	34,993.26	Ongoing/2013	
C00550	10TH/ROGERS CROSSWK FLASH	Sidewalk	Other	12,820.00	12,819.55	0.45	2014	
C00552	SGNL IMP @ GRN MEADOWS RD	Major Collector	Other	80,000.00	7,814.70	72,185.30	Ongoing/2014	
C00568	RIDGEMONT BRIDGE REPAIR	Local Residential	Repairs/Maintenance	114,000.00	13,400.00	100,600.00	Ongoing/2014	
C00571	CLARK LN NON-MTRZD ACCESS	Minor Arterial	Capacity Expansion	540,303.00	42,398.74	497,904.26	Ongoing/2014	
C00574	LIFESYTTLES SIDEWALK REPL	Sidewalk	Repairs/Maintenance	20,955.00	20,545.00	410	Ongoing/2014	

Fourth Ward Council Person Ian Thomas has similarly published questions pertaining to infrastructure as it affects the FY 2015 budget as follows:

Questions and Proposals

Regarding the Draft FY-15 Budget

Ian Thomas: August 21, 2014

Utility Rate Increases

Q1: The Budget Overview states that the average customer impact of the electric and sewer rate increases will be \$4.26/month. Please explain how that figure is derived given that the electric and sewer utility customer/base charge is proposed to increase by \$6.15/month and \$3.72/month respectively. Where are the customer savings that bring the average impact down to \$4.26/month?

B243-14: Electric Rates

Q1: Please provide a copy of the 2012 cost of service study referenced in connection with the proposal to increase the customer charge from \$8.45 to \$14.60 (73%).

Q2: What is the meaning of "a portion of the distribution system" as one of the elements of the customer charge, along with billing, meter reading and maintenance, and customer service? At the Council meeting, Tad said this refers to "the portion close to the customer's home" - does this part of the customer charge pay for initial construction of that portion - or maintenance? Also, where is the cost of expanding the capacity of the transmission and distribution system to accommodate new customers recovered - in the customer charge or the per-usage rate? Or somewhere else?

Proposal: Calculate the cost of expanding the capacity of electric utility infrastructure to accommodate new customers and implement a new one-time connection charge to recover that cost.

Q3: Would implementation of a new "electric utility connection charge" be a City Council action or would it require a ballot initiative?

Q4: Could staff please research best practices regarding ways electric utilities charge customers (especially "net zero" customers) who generate some of their own power on-site - for the service of providing utility-supplied power at other times. Are there standards for calculating an equitable monthly "service charge" for this convenience, even if the customer purchases zero net power? I imagine this question has been addressed in Germany.

Q5: Please modify the format of the City of Columbia utility bill to clearly delineate the customer charge and usage charge for electricity, and for the other utility services.

Q6: Please explain the various customer classes. I see "residential, "small general service," "large general service," and "industrial" - does "general service" mean "commercial?"

Q7: Is there currently a customer charge for "large general service" and "industrial" customers or is the \$45.00/month a brand new charge?

B235-14: Sewer Rates

Q1: Please provide a copy of the 2014 cost of service study (to date, I have only seen a power-point).

Proposal: Increase the sewer connection fee from \$800 to \$1,600 on October 1st, 2014, and to \$2,400 on October 1st, 2015, instead of phasing it in over three years.

Q2: Please explain how multiple-unit residential and commercial customers are billed for water and sewer services. Is it true that some multiple-unit customers have a single master water meter while others have an individual meter on each unit, and that customers with a single master meter pay a much lower base charge than customers with multiple individual meters?

Proposal: Increase the water/sewer base charge for multiple-unit customers with a single master meter to achieve equity with customers with multiple individual meters

B242-14: Water Rates

Q1: With regard to the "system equity fee," "tap fee," "meter box and appurtenances fee," and "meter fee," please explain what each is, who pays each one, and how the amounts are calculated.

B241-14: Solid Waste Rates

Q1: Is a cost of service study currently being performed and, if so, when will it be completed?

Proposal: Do not abandon the distribution of vouchers for sturdy black bags to solid waste utility customers. Review this possible policy change at a later date along with the cost of service study.

Low-Income Customers

Q1: What current provisions exist for "low-income customers" of our utility services? There are a number of voluntary donation programs (CASH , HELP, etc.) - how are they implemented? Anything else?

The CID's Petition to Establish, adopted by the City Council, states *"The undersigned property owners...do hereby petition and request that the City create and establish a community improvement district as described herein **to fund all or part of the cost of services and improvements** to be provided and made within the District under the authority of **Sections 67.1401 to 67.1571 RSMO.**"*

The Downtown CID's Petition to Establish also allows the District to issue Bonds:

"The District may issue tax-exempt obligations, the proceeds of which shall fund the District Projects. The CID Obligations will be secured by the special assessments, which constitute liens against the real property within the District, and shall be payable from the revenues generated by the special assessments and the additional sales tax."

According to Chapter 67.1461, a Community Improvement District has the authority to pay for all or part of utilities and sewer systems:

(16) Within its boundaries, to provide assistance to or to construct, reconstruct, install, repair, maintain, and equip any of the following public improvements:

Pedestrian or shopping malls and plazas;

Parks, lawns, trees, and any other landscape;

Convention centers, arenas, aquariums, aviaries, and meeting facilities;

*Sidewalks, streets, alleys, bridges, ramps, tunnels, overpasses and underpasses, traffic signs and signals, **utilities, drainage, water, storm and sewer systems, and other site improvements;***

Parking lots, garages, or other facilities;

Lakes, dams, and waterways;

Streetscape, lighting, benches or other seating furniture, trash receptacles, marquees, awnings, canopies, walls, and barriers;

Telephone and information booths, bus stop and other shelters, rest rooms, and kiosks;

Paintings, murals, display cases, sculptures, and fountains;

Music, news, and child-care facilities; and

Any other useful, necessary, or desired improvement;

Columbia City Council Pre-Council Minutes

Monday, March 3, 2014 6:00 p.m.

City Hall – Conference Room 1A/1B

701 East Broadway

Council members present: Mayor McDavid, Fred Schmidt, Mike Trapp, Karl Skala, Ian Thomas and Barbara Hoppe

Absent: Laura Nauser

Mayor McDavid called the meeting to order at 6:00 p.m.

City Manager Mike Matthes explained that the intent tonight is to put as much on the table as we can at one time. We will not reach a decision, but hope that staff will get a sense of the direction Council would like to head in the future. He explained that he would overview each document that was included with the agenda.

Infrastructure Financing and Downtown Projects:

Mr. Matthes explained that the first document titled “Downtown Project Status”. He noted that the red dots indicate projects that are on hold, the yellow dots indicate projects that may have a solution identified and green means the projects are ready to go. Everything on page one is on hold and everything on page two is under construction and can finish. He reviewed those project locations. All projects on page one have sewer issues and some have electric and water issues as well. Staff is working with owners and investors to try to figure out what they are willing to do to help.

This document can be viewed at the following link:

<https://www.gocolumbiamo.com/CMS/bcmanager/downloadfile.php?id=12607>

The next document is titled “Utility Capital Project Budget History”. This shows the potential pool of projects that could be pushed off to free up funds for addressing these infrastructure issues. It averages \$24 Million in a typical year, but there is also quite a bit of volatility each year. Mr. Matthes explained that this is not a major source of funding. At best, it is a minor approach to take or could get you over the finish line if we got close. Council person Thomas asked if the \$24 Million was funded through a variety of bonds. Mr. Matthes replied yes and added that the bar chart gives you a sense of revenue streams for the various needs and projects. Mr. Thomas asked if these projects were to expand or extend existing infrastructure. Mr. Matthes explained it could be expansion and extension projects, as well as rebuilding or maintenance of existing infrastructure. A large part of this is debt that is paid back through rate increases, so these are projects supported by the utility rates. Council person Hoppe suggested that it would be helpful to have the amounts for the year broken down by project. Mr. Matthes said he can provide a list of projects within each area. Water and Light Director Tad Johnsen added that many of the projects are his sub-station upgrades. Mr. Matthes added that for this purpose, we really just want to see what annual projects could be moved around if this

is an approach Council would like to take. He noted that they did not include two large projects that skewed the data; the purchase of Columbia Energy Center and the Wastewater Plant. Mr. Thomas asked how much of the costs over the past ten years have been to help serve expansion and additional customers versus replacement or maintenance costs. Mr. Matthes replied that staff would need to go back and do that analysis.

The most recent sewer bond was about 80% maintenance and 20% extension. Mr. Thomas asked what the revenues the utility hook-up fees generate over the same ten year period, stacked up against the cost of the infrastructure we have invested in. Mr. Matthes confirmed that they will include that in the analysis. Council person Schmidt asked to see these numbers beyond just 2014 and suggested the chart extend through 2017. Council person Skala felt that road infrastructure should be included as well and he hoped that this conversation going forward will look at not only funding downtown infrastructure, but also look at how to fund infrastructure and maintenance capital projects in the future. He would like to see more detail in these numbers, similar to what Mr. Thomas was requesting, but to also include roads.

This document can be viewed at the following link:

<https://www.gocolumbiamo.com/CMS/bcmanager/downloadfile.php?id=12608>

The next document is titled "Infrastructure Financing Options – Discussion Draft". Mr. Matthes explained that Scenario A includes existing approaches without a TIF. These include various tax ballot initiatives and utility rate increases. He reviewed these approaches beginning with electric capacity needs totaling \$10,000,000 with a proposed Electric Ballot for November 2014. That could fund 2 feeder lines from the Hinkson Creek Substation. Water Capacity needs are \$1,000,000 that could be charged to developers on a project by project basis. Mr. Matthes added that this would be more of an impact fee.

Sewer needs total \$7,250,000 which could be funded through a Sewer Utility rate increase of a 1 year operating rate increase equal to a \$7.62 increase in average monthly bill, or bond ballot 20 years of \$0.55. This does not require a vote of the people unless the money is borrowed. Ms. Hoppe asked for a list of the sewer projects. Mr. Matthes indicated that would be provided.

Stormwater needs total \$8,496,000 and could be funded through a 2011 ERC recommended Utility Rate Increase ballot, or Sales Tax ballot, or Property Tax ballot. Ms. Hoppe inquired about next steps for the Action Plan and Mr. Matthes explained that we would go into much more detail on this at the retreat. Undergrounding utilities for Business Loop costs \$3,950,000 and could be funded through a CID approach to increase in Sales Tax and/or Property Tax for parcels included. The purchase of the Ameren site would be \$2,000,000 and General Fund reserves could be used to purchase the site and future site improvements would be done through a Capital ballot. Ms. Hoppe added that another option would be for the City to issue an RFP that would put the site into the hands of someone interested in improvements related to what the Charrette called for.

Another parking garage is estimated at \$18,000,000 and could be done through a parking utility rate increases (meters, lots, and garages). This may be a \$12 per month increase in lot and garage rates and \$0.15 per hour increase in parking meter rates. All other projects estimate

\$20,550,000 through property taxes. Each cent of tax rate raises approximately \$180,000 in the City of Columbia; a 20-year bond for \$20,550,000 would require an increase of \$.085 in property taxes or ⅛ cent Sales Tax increase for a 20 year bond.

Scenario B consists of adding new tools or making significant changes to existing tools.

This includes increasing building fees, impact fees and developer fees through a trip generation type model; to create more significant funds over the long-term. Council person Thomas felt that increasing developer fees would not provide the funding needed to address the issues today. It's a process in the evaluation stage that needs to be started. With these discussions, support for other options will grow. A community discussion on the fees being set at the right level is necessary. Council person Skala felt that the Infrastructure Task Force Minority Report includes background information on the Trip Generation Model, excise taxes, sales taxes, property taxes, etc. He feels it is inherent in these documents that it is up to the public to decide what the rates are.

Mayor McDavid added that Building and Site Development fees are General Fund items and he feels that pool of money should be used for the sewer fund. We know there is stress on the General Fund with five firefighter positions coming off a grant and an increasing population with a need for more police officers. Mr. Skala feels that Police and Fire positions can be accommodated in some of these models. Council person Trapp asked how much we would need to increase development fees in order to raise the \$17 Million needed for electric and sewer needs. Mr. Matthes explained that we could make a best guess, but that's a hard question to answer. There was \$1.15 Million on the budget last year. Mr. Trapp felt that based on that number, we would need to increase ten times. Mr. Thomas feels that we need to do a better job at properly allocating costs between expansion and extension and maintenance and new development; the rest being charged to the community.

He noted that scenarios C and D were not viewed as viable options, but were included since they were raised as options throughout this process. Scenario C would be to postpone the other CIP projects. Scenario D is to choose one ballot approach for all (say, a sales tax). Mr. Matthes reviewed potential ballot initiatives; November 2014 ballots include Electric Bonds (rate increase for new transmission lines and O&M), Storm Water (Utility increase, sales tax, or property tax), and Use Tax. Mayor McDavid added that in order for the Use Tax to have a point of sale capture of tax; it must also be fixed and voted on at the Federal and State levels. He added another potential complication for a November ballot is that State possible adding a 1% increase for roads. Mr. Matthes continued to note April, August or November 2015 ballots including; Capital Improvement (1/4 cent for ten years), and Parks Capital Improvements (1/8 cent for five years). November 2016 includes; Water Bond (rate increase for capital), Road Bond (GO bond for neighborhood streets), Public Safety (1/4 cent sales tax for five years police and fire stations), and Alcohol tax (third lowest state in the union potential for dedicated funding?). He noted Permanent Sales Taxes; 1 cent General Fund, ½ cent Transportation, and ⅛ cent Parks. He reviewed some prior ballot results and noted other ballot issues coming up for other entities.

This document can be viewed at the following link:

<https://www.gocolumbiamo.com/CMS/bcmanager/downloadfile.php?id=12609>

The next document titled “Comparison of Infrastructure Financing Associated with New Developments in Forty Midwest Cities”. This was written by Ben Londeree and shared by Council person Hoppe. Some felt that the numbers were outdated as the report was written in 2007. Ms. Hoppe added that this was written right before the 2008 economic downturn, so the numbers may not be drastically different. Mr. Matthes noted that staff has started updating some information. At this point, they have collected our information. If Council wants the same forty cities, we can proceed with that information collection. This document can be viewed at the following link:

<http://www.gocolumbiamo.com/Council/Commissions/downloadfile.php?id=12610>

The next document is titled “Thomas Proposal for Downtown Infrastructure Revised”. Mr. Matthes noted this was provided by Mr. Thomas and does focus on the big picture of infrastructure city-wide as opposed to the downtown more urgent needs. Mr. Thomas added that public confidence is low right now and some kind of public outreach is necessary. This document can be viewed at the following link:

<http://www.gocolumbiamo.com/Council/Commissions/downloadfile.php?id=12611>

The next document was an email from Council person Skala. The one posted with the agenda was not the correct email, however, Mr. Skala provided the correct email, which can be viewed at this link:

<http://www.gocolumbiamo.com/Council/Commissions/downloadfile.php?id=12974>

Mr. Skala noted that his email discussed some possibilities including deferral of bond issues to extend the sewer to Midway and Hinkson. He feels that some of the exigencies downtown could be solved by looking into some of the ideas included in this document. He also feels C2 Zoning downtown needs to be looked into further before proceeding. Ms. Hoppe reminded Council that they did request an expedited update on the C2 Zoning consulting process thus far. Community Development Director, Tim Teddy added that Building Height and Parking seemed to be immediate needs to address. Interim amendments to C2 Zoning will address that.

Mr. Matthes overviewed the last two documents. One document was language from the Charter. The other document was provided by Monta Welch with People’s Visioning and was included at their request.

Mayor McDavid confirmed that we are bringing 7-megawatts this fall. Mr. Matthes agreed. Mayor McDavid added that there is some question as to whether American Campus Communities and Opus developments could be done under that 7-megawatt umbrella. He would like to know if that is possible or not. Mr. Matthes explained that the other two feeder lines would be needed to complete the top three projects. Mayor McDavid felt that he was told differently a few weeks ago and understood that Opus was a one-megawatt project. Deputy

City Manager, Tony St. Romaine added that Opus is a one-megawatt project and American Campus Communities is a 2.2-megawatt project. He noted that part of the issue is that we don't know which projects would come online first, so we cannot guarantee service to them. Water and Light is looking into this in more detail to see if there is a way. Mayor McDavid feels that the smaller projects could likely be served under the 7-megawatt umbrella and would like to know with certainty.

Mayor McDavid assumed that; if hypothetically, we could guarantee electricity for American Campus Communities, Opus, Collegiate Housing Partners, 10th & Broadway, McDonald's and the Delta Epsilon House; and we could fund the sewer problem, we could move forward with these projects. This assumption is based on a knowable fact; whether we can get electricity. He commented that there is \$6.75 Million listed in the CIP for sewer infrastructure needed to proceed with these projects. He deducted \$1.6 Million from that since we have that in excess reserves. This brings us down to \$5.1 Million needed. Each of these projects will pay a connection fee of \$800 per unit.

American Campus Communities connect fee would then be about \$150,000. He felt that each of these projects has a knowable connection fee, which would likely total at least \$1 Million, leaving us with \$4.1 Million. Mayor McDavid suggested that we may have the cash flow in place to cover the \$4.1 Million. He asked in regard to page 483 of the Budget (line item for Operation Revenues), if the MU Surcharge of \$1.401 Million is a negotiated number and how it is determined. Public Works Director John Glascock replied that they are billed. Mayor McDavid understood that but added that all sewer rates would be going up 12.4% and he assumes that include MU. Mr. Glascock agreed and explained that number already includes that raised rate.

Mayor McDavid explained that the CID was enabled by State legislation, allowing a district to issue tax exempt obligations. The CID has authority to pay for sewer and utility systems. He feels the people in the CID have a highly vested interest in downtown infrastructure. He believes it is realistic to ask the CID to contribute to infrastructure since it is part of their mandate and part of their obligation in his view.

When Council passed the CID, they presented in February of 2011, Exhibit B-1 which was their five year budget plan for 2011 through 2015. They projected \$312,000 in sales tax revenue for 2014. The report from last fall now estimates \$474,000; a \$162,000 increase in revenue. He stated that he feels we have the cash flow to pay for the remaining \$4.1 Million infrastructure needs right now. The cash flow is based on the following; to amortize \$4.1 Million over twenty years at 3%, it takes a cash flow of \$267,000.

He added that the increment user charges are also known figures. For example; attorney's representing American Campus Communities indicated their user fees will be about \$40,000 per year. He feels that once we get to the \$267,000 we could begin the infrastructure work. Mr. Thomas supports some combination of those ideas and also added that reallocating bond money that was approved on the November ballot is also a good option. Mayor McDavid feels there could be funding and these development opportunities are possible. Mr. Matthes indicated that John Blattel would work on these numbers and would bring something back for Council review.

Mr. Matthes noted that there is still a sizeable electric issue that still needs to be dealt with and we are looking for Council feedback. He asked if we were to add \$10 Million to the November ballot, is that something Council would be comfortable with. Mr. Thomas replied, in regard to looking at an electrical hook-up fee in the future to pay for some of the cost to extend electrical capacity for new development, that it seems logical that at least part of that infrastructure should at least be partly paid for at the permit level. Mr. Skala added that he sees no reason why we can't broaden the trip generation idea which is both size based and use based accommodation toward infrastructure. He feels that could get a handle on maintenance issues. Council agreed that they would be comfortable with adding the \$10 Million to the November ballot. Mr. Matthes added that this will be discussed further at Retreat and a Work Session may be held as well.