

## **AGENDA**

### **PUBLIC WORKS COMMITTEE**

6:00 p.m., Tuesday, April 12, 2016

COMMITTEE ROOM

Room 239, City Hall

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*COMMITTEE MEMBERS: Council Member Dan Besse, Chair  
Council Member Derwin L. Montgomery, Vice Chair  
Council Member Robert C. Clark  
Council Member James Taylor, Jr.*

### GENERAL AGENDA

G-1. REPORT ON THE CONSTRUCTION MANAGER AT RISK PROJECT DELIVERY METHOD.

CONSENT AGENDA

- C-1. RESOLUTION RETURNING DONATED PROPERTY THAT IS NO LONGER NECESSARY TO RALPH C. KIMEL - (SOUTHWEST WARD).
- C-2. RESOLUTION AUTHORIZING THE GRANTING OF EASEMENTS TO MICHAEL G. COE - (NORTHWEST WARD).
- C-3. DOWNTOWN WINSTON-SALEM PARKING ANALYSIS.
- C-4. AIRPORT COMMISSION OF FORSYTH COUNTY REQUEST TO REDUCE STORMWATER IMPERVIOUS SURFACE BILLING. *[Item continued from the October, November, December and February meetings of the Public Works Committee.]*
- C-5. APPROVAL OF PUBLIC WORKS COMMITTEE SUMMARY OF MINUTES - *March 22, 2016.*

# Memorandum



Office of the  
City Manager

Gregory M. Turner, P.E.  
Assistant City Manager

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gregt@cityofws.org

**TO:** Lee D. Garrity, City Manager  
**FROM:** Gregory M. Turner, Assistant City Manager  
**DATE:** March 30, 2016  
**SUBJECT:** Report on the Construction Manager at Risk Project Delivery Method

## **Background**

There are various methods for going through the process of hiring consultants to design and oversee construction projects and for hiring the contractors to build these projects. These methods are known as project delivery methods and are regulated by State statutes.

These statutes authorize three primary methods: design, bid, build; design-build; and Construction Manager at Risk (CMR). In addition, statutes authorize several variations on these primary methods but these are not important for purposes of this report.

Design, bid, build is the process the City has used for all construction projects. Under this process the City hires a designer based on qualifications. This firm prepares plans and specifications which are then used to request construction bid prices from potential contractors. The primary benefit the City has seen from this process is that it provides a clear indication of low price.

Recently the North Carolina Department of Transportation (NCDOT) and other State agencies have begun to use the design-build process. Under design build the NCDOT, for instance, hires a design and construction team based on a review of proposals from various design/construction teams. The primary benefit to this process is that it allows for a quicker project delivery.

Very recently the City has been approached by consultants and contractors proposing that the City use CMR for some of its large scale projects. For the City the primary benefit of CMR is the additional control it can provide over subcontractor selection and the potential it has to reduce bidding problems such as: high bids, no bids, one bid, last minute bid tab errors, etc.

The details of each of the three primary project delivery methods are summarized on Attachment A.

## **Current Problems**

As we have researched project delivery methods and talked with contractors, subcontractors, and other cities we have concluded that the traditional competitive contracting process has issues that affect the City, the prime contractors and the subcontractors. Since bidding is a very competitive and winner-take-all process prime contractors work very hard to provide the lowest bid. To accomplish this they pressure

subcontractors to give them the lowest possible price. Subcontractors do not want their prices negotiated down by prime contractors who would compare prices of multiple subcontractors. The subcontractors therefore wait until the last day or even the last hour before bid opening to give the prime contractor their prices. The prime contractor then has little time to incorporate these prices into his/her bid and decide if their bid should be submitted. In many recent cases, prime contractors have been unable to bid because they did not get the bids from subcontractors they needed. The City is negatively impacted by a reduction in willing/able bidders, and this causes the problems of no bidders, one bidder, bidding errors, and high bids that have become pervasive in recent months.

### **Future Issues**

Private sector construction activity continues to increase. In addition the recent passage of the \$2.0 billion in State bonds will create more work for the types of contractors and subcontractors that work on government buildings. Both these facts mean that project delivery of capital projects similar to those of the City's last bond package will experience more competition in the future, and this will likely result in more difficulty in getting contractors to work on future projects unless we consider other project delivery methods.

### **CMR**

The City has not previously found CMR to be an appropriate project delivery method due to its higher cost and due to the difficulty with determining if the City was getting the best price for the work. In addition the CMR process is most effective for projects above \$5,000,000 or \$10,000,000 and the City had not had many of these until the recent bond package. Even this package only had three projects (the Public Safety Center renovation, the Union Station renovation and the Benton Convention Center renovation) in excess of \$10,000,000.

Recent conversation with the staff from the City of Durham, who have done a significant number of CMR projects and who are very pleased with the process, indicates there may be reasons the City should consider the process for projects in the future.

With CMR the City hires a design professional and separately hires a construction contractor. These are then placed into a City created design/construction team. The objective of the team is to deliver a constructed project to the City, under the terms the City sets, for a guaranteed maximum price. Agencies that have used this process have indicated it provides them more flexibility in the setting of MWBE goals, and in obtaining local subcontractors. This is possible because the team is free to pick and choose subcontractors that will meet the City's objectives without regard to lowest price because the design/construction team is not competitively bidding against other teams. Under CMR the contractor is selected based upon qualifications in a process similar to that used for hiring professional consultants.

**MECHANICS OF CMR**

To do CMR the City Council must first pass a resolution indicating that this construction delivery process has been evaluated against other project delivery methods such as single prime and has been found to be the best option for a specific project. Statutes do not allow City Council to do a blanket resolution to cover all projects. This is the first action required of City Council.

Once the City selects the two companies and forms the design/construction team the City pays the team a set fee for development of the construction documents and the calculation of the guaranteed maximum price. City Council approval of this initial fee would be the second action required of the City Council.

Once the team has completed the design and calculated the cost of construction they will provide to the City a guaranteed maximum price. This will become the contractually guaranteed maximum price that the City would have to pay for the completed project. If the project cost more than this price the team has to cover the additional cost. If the project cost less than the City retains the savings. Approval of a contract with the team for the work at this guaranteed maximum price is the third and final action required of City Council. Proponents of this process note its lack of change orders unless the City chooses to change the scope of the work.

**RECOMMENDATION**

To have a tool that can address both the problems with the current contracting methods and that can possibly address or mitigate the future issues anticipated with project delivery, it is my opinion that CMR should be evaluated for major vertical construction projects over \$10M in the next round of Capital Projects.







**RESOLUTION RETURNING DONATED PROPERTY  
THAT IS NO LONGER NECESSARY TO RALPH C. KIMEL**

**WHEREAS**, In 1997 Ralph C. Kimel and wife Elaine B. Kimel donated approximately 1.3 acres of property to the City of Winston Salem for the future alignment of Annapolis Drive Extension; and

**WHEREAS**, the construction of this future section of roadway is no longer necessary.

**WHEREAS**, approval of the request to convey this property back to the property owner Ralph C. Kimel is recommended by the Assistant City Manager.

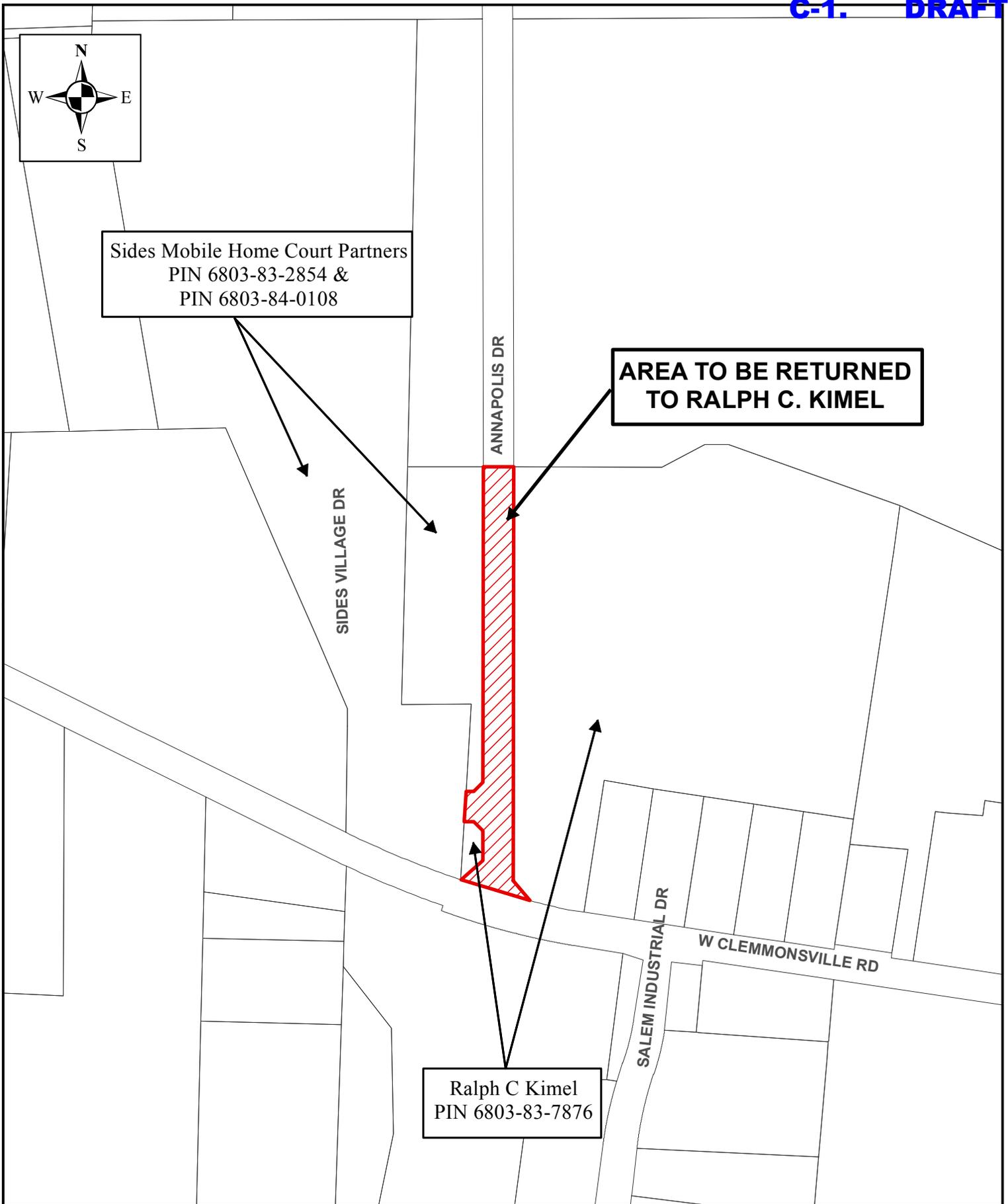
**NOW, THEREFORE, BE IT RESOLVED** by the City Council of the City of Winston-Salem, upon the recommendation of the Finance Committee and Public Works Committee that the property that was conveyed to the City of Winston Salem by deed recorded in the Forsyth County Register of Deeds Office in Deed Book 1955 Page(s) 3636-3238; and being more particularly described as:

Beginning at an existing iron pipe lying at the northeast corner of the parcel described herein and the southwest corner of Sara Lee Corporation (Deed Book 1882, Page 1414), said pipe also lying at the terminus of the existing right-of-way of Annapolis Drive; running thence South 0<sup>0</sup> 02' 22" West 821.02 feet to a new iron pipe; running thence South 42<sup>0</sup> 29' 06" East 51.15 feet to a new iron pipe lying in the northern right-of-way line of Clemmons Road (S.R. 1120); thence on a curve to the right, said curve having a radius 1272.26 feet and a chord bearing and distance North 74<sup>0</sup> 08' 18" West 143.1 feet to a new iron pipe; running thence North 48<sup>0</sup> 41' 23" East 57.73 feet to a point; thence North 0<sup>0</sup> 02' 22" East 58.89 feet to a point; running thence North 44<sup>0</sup> 57' 38" West 25.46 feet to a point; running thence North 89<sup>0</sup> 57' 38" West 18.53 feet to a point; running thence North 3<sup>0</sup> 18' 25" East 60.10 feet to a point; running thence South 89<sup>0</sup> 57' 38" East 15.04 feet to a point; thence North 45<sup>0</sup> 02' 22" East 25.46 feet; running thence North 0<sup>0</sup> 02' 22" East 628.41 feet to an existing iron pipe; running thence South 89<sup>0</sup> 57' 38" East 60.0 Feet to an existing iron pipe lying at the terminus of the western line of the existing right-of-way of Annapolis Drive and the southeast corner of Sara Lee, the point and place of beginning, comprising a 60-foot public right-of-way, according to a survey by D. S. Atlantic, dated June 25, 1997.

is hereby returned.

The City Manager or his designee and City Secretary are hereby authorized to execute a General Warranty Deed conveying to Ralph C. Kimel all rights, title and interest the City has in the above described property.

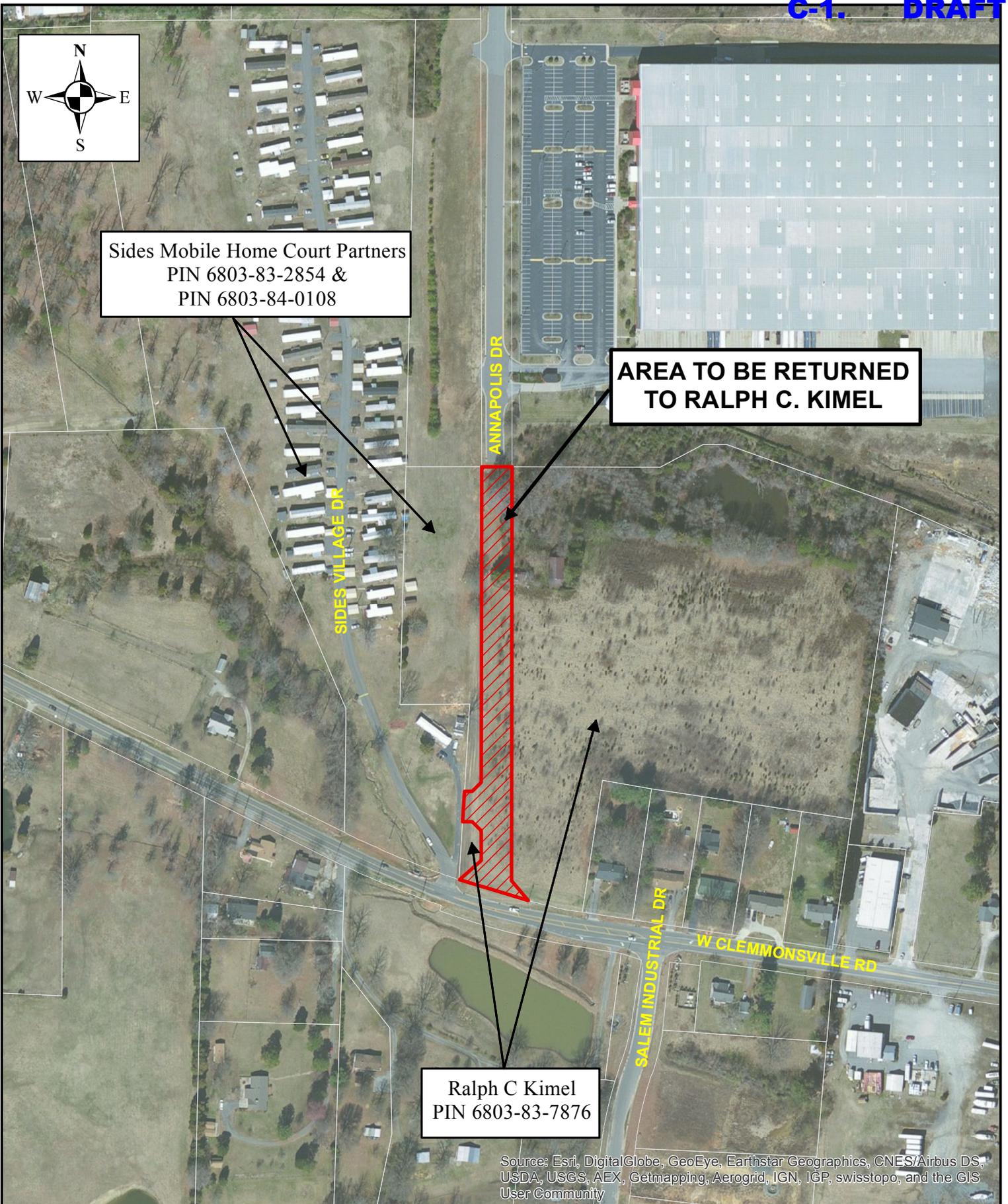




March 30, 2016

**RESOLUTION RETURNING DONATED PROPERTY THAT IS NO LONGER NECESSARY TO RALPH C. KIMEL**





March 30, 2016

**RESOLUTION RETURNING DONATED PROPERTY THAT IS NO LONGER NECESSARY TO RALPH C. KIMEL**







**RESOLUTION AUTHORIZING THE GRANTING OF  
EASEMENTS TO MICHAEL G. COE**

**WHEREAS**, Michael G. Coe owns property located at 104 W Fourth Street, also known as the Pepper Building; and

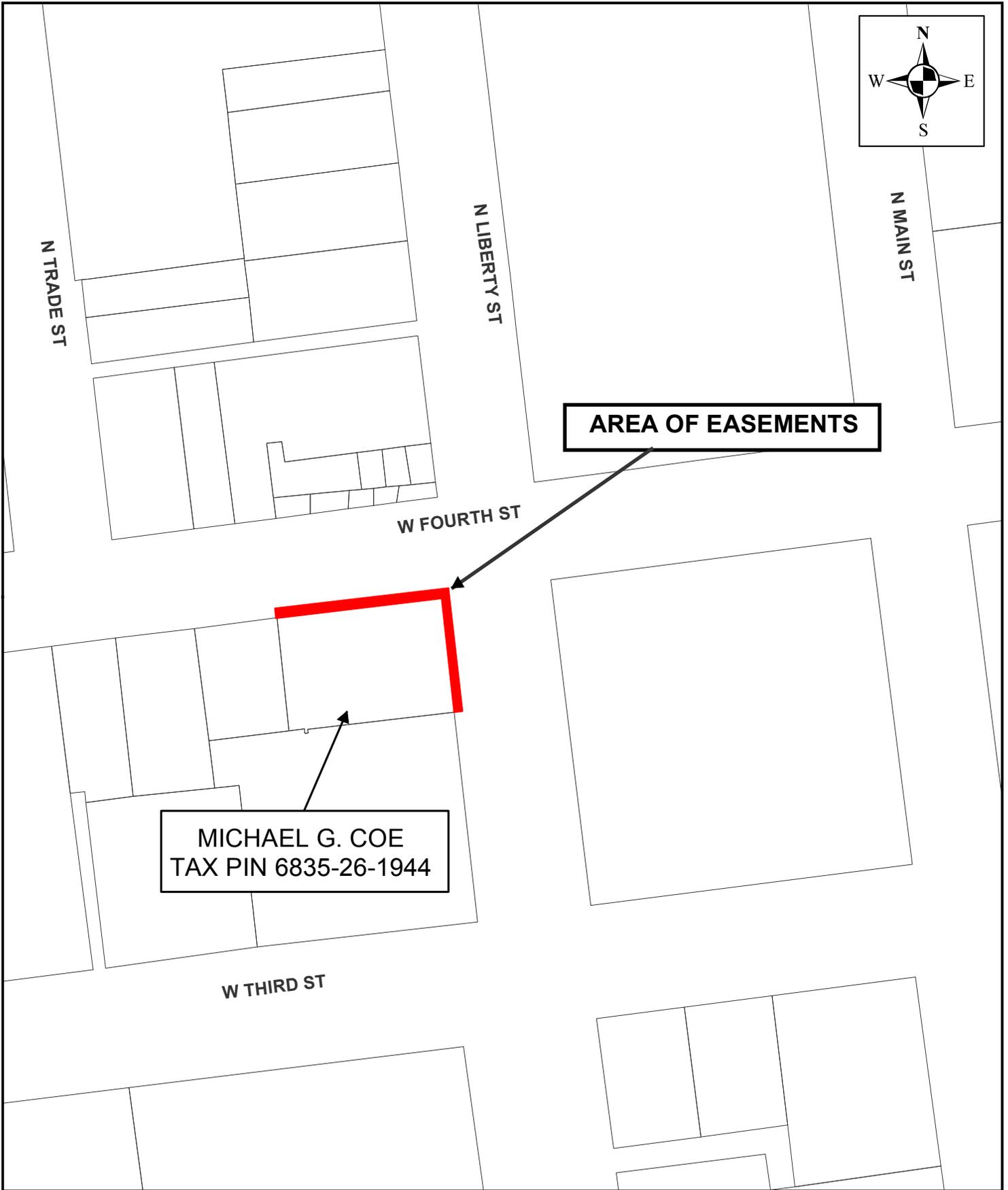
**WHEREAS**, a recent survey has revealed above ground and underground encroachments into the public right-of-ways along W Fourth Street and Liberty Street; and

**WHEREAS**, the petitioner has requested that the City of Winston-Salem grant the right and privilege to encroach upon the City right-of-way of W. Fourth Street with the north face of the Pepper Building and the right-of-way of W. Fourth Street and Liberty Street with underground vaults; and

**WHEREAS**, approval of the request to convey these easements are recommended by the Assistant City Manager.

**NOW, THEREFORE, BE IT RESOLVED** by the Mayor and City Council of the City of Winston-Salem, upon the recommendation of the Public Works Committee, that the City Manager and City Secretary are hereby authorized to execute easement deeds to Michael G. Coe, for the existing encroachments.

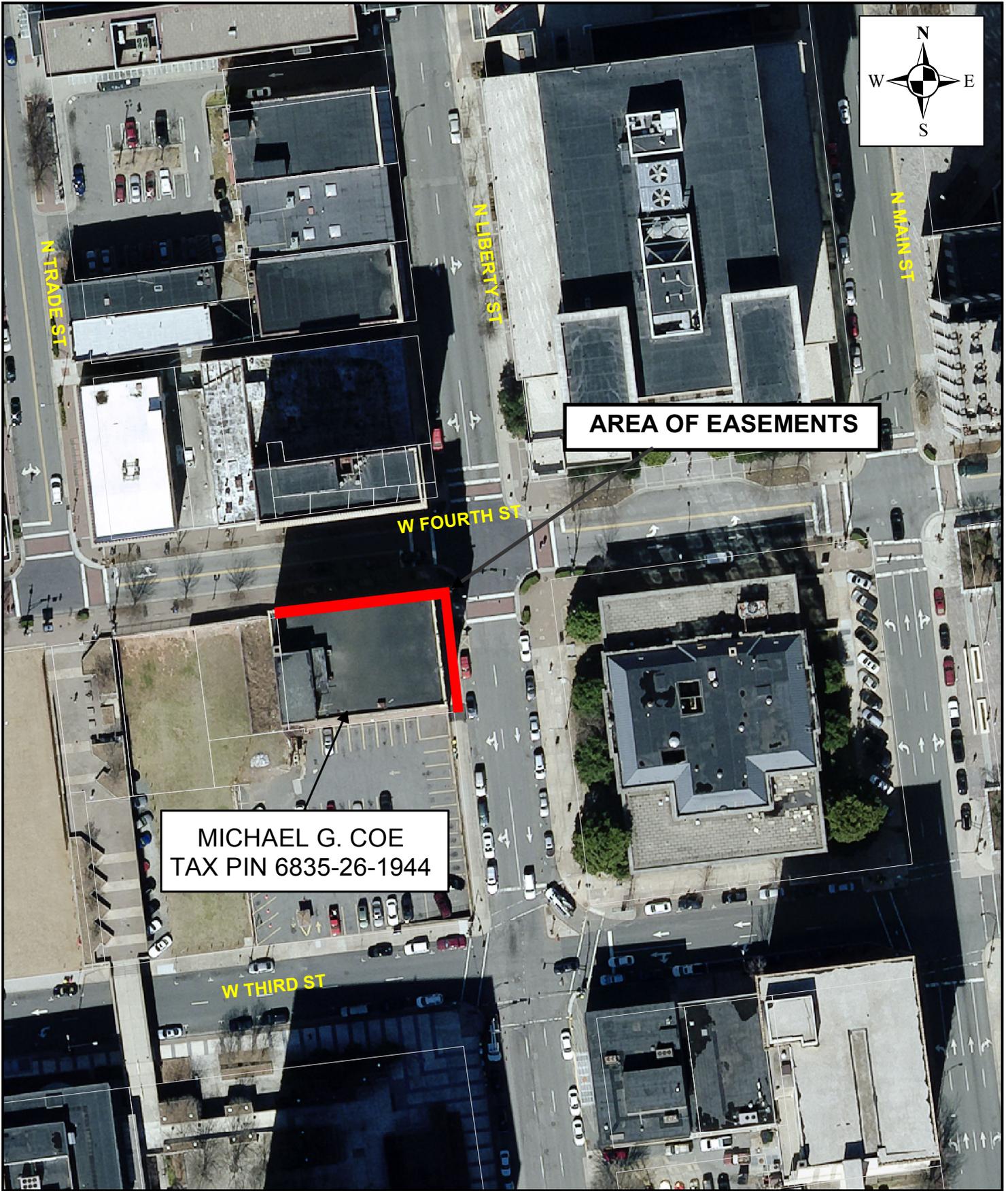




MARCH 30, 2016

EASEMENTS FOR PEPPER BUILDING  
104 W. FOURTH STREET  
Petition of Michael G. Coe





MICHAEL G. COE  
TAX PIN 6835-26-1944

AREA OF EASEMENTS

MARCH 30, 2016

EASEMENTS FOR PEPPER BUILDING  
104 W. FOURTH STREET  
Petition of Michael G. Coe



# Memorandum

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**TO:** Lee D. Garrity, City Manager  
**FROM:** Gregory M. Turner, Assistant City Manager  
**DATE:** April 12, 2016  
**SUBJECT:** Downtown Winston-Salem Parking Analysis



**Office of the  
City Manager**

**Gregory M. Turner, P.E.**  
Assistant City Manager

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On March 9, 2016, the City of Winston-Salem received proposals from various professional engineering firms stating their qualifications to be selected as the engineer for the downtown Winston-Salem parking analysis project. A selection committee will be evaluating four submissions using the criteria designed to address City Council concerns about local participation and M/WBE:

- Work Experience
- Staff Qualifications
- Staff Availability
- Addressing Scope of Services
- Distance from Project
- M/WBE Commitment

Staff will negotiate with the selected firm for the proposed fee for this work and expects to bring an item to Council in May for consideration.



# Memorandum

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Winston-Salem

Office of the  
City Manager

Gregory M. Turner, P.E.  
Assistant City Manager

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**TO:** Lee D. Garrity, City Manager  
**FROM:** Gregory M. Turner, Assistant City Manager  
**DATE:** April 12, 2016  
**SUBJECT:** Airport Commission of Forsyth County request to reduce stormwater impervious surface billing

The Airport Commission of Forsyth County is currently charged stormwater fees at the rate of \$831 per impervious acre for all impermeable area on airport property including runways and taxiways. The Airport Commission is formally requesting that runways and taxiways at Smith Reynolds Airport be excluded from stormwater fee calculations. The rationale for their request is that runways and taxiways are thoroughfares for the public, similar to a public road and should thereby be excluded from measurement and billing.

At the February 9th meeting of the Public Works Committee information was requested on the potential cost of installing stormwater controls at the airport as well as the feasibility of incentivizing the airport to implement its own way of handling stormwater runoff. Committee members discussed the option of stormwater fee reductions as a possible incentive.

### **Stormwater retrofit costs for runways and taxiways:**

The airport was analyzed with the intention of determining how much, if not all, of the runways and taxiways (see attached exhibit) could have the stormwater runoff from them collected and treated in stormwater management devices. The analysis used the State of North Carolina's BMP (Best Management Practices Manual) to determine what BMP's would be suitable for potential use at this location. The costs of each BMP were determined using the following source "An Evaluation of Cost and Benefits of Structural Stormwater Best Management Practices in North Carolina" which was published by NC State University. However, some devices, such as wet detention basins and wetlands could not be considered for use at the airport due to the issues arising from large areas of standing water and the attraction they would provide for water fowl. It was determined that the most suitable devices to be potentially used and implemented at the airport for treatment would be either bio-retention cells, or sand filters, or, a combination of both. Due to the challenging topography of the airport runways and taxiways, It was determined that a minimum of 49 bio-retention cells and/or sand filters would be required to completely retrofit this area.

The total cost estimate of the retrofit using just bio-retention cells amounted to \$2,354,030 (including a 15% contingency). An additional 20 year maintenance cost for these bio-retention cells was estimated to be \$204,201

The total cost estimate of the retrofit just using above ground sand filters amounted to \$8,442,495 (including a 15% contingency). An additional 20 year maintenance cost for these sand filters was estimated to be \$1,025,496

#### **Possible incentive options for reduced stormwater fees:**

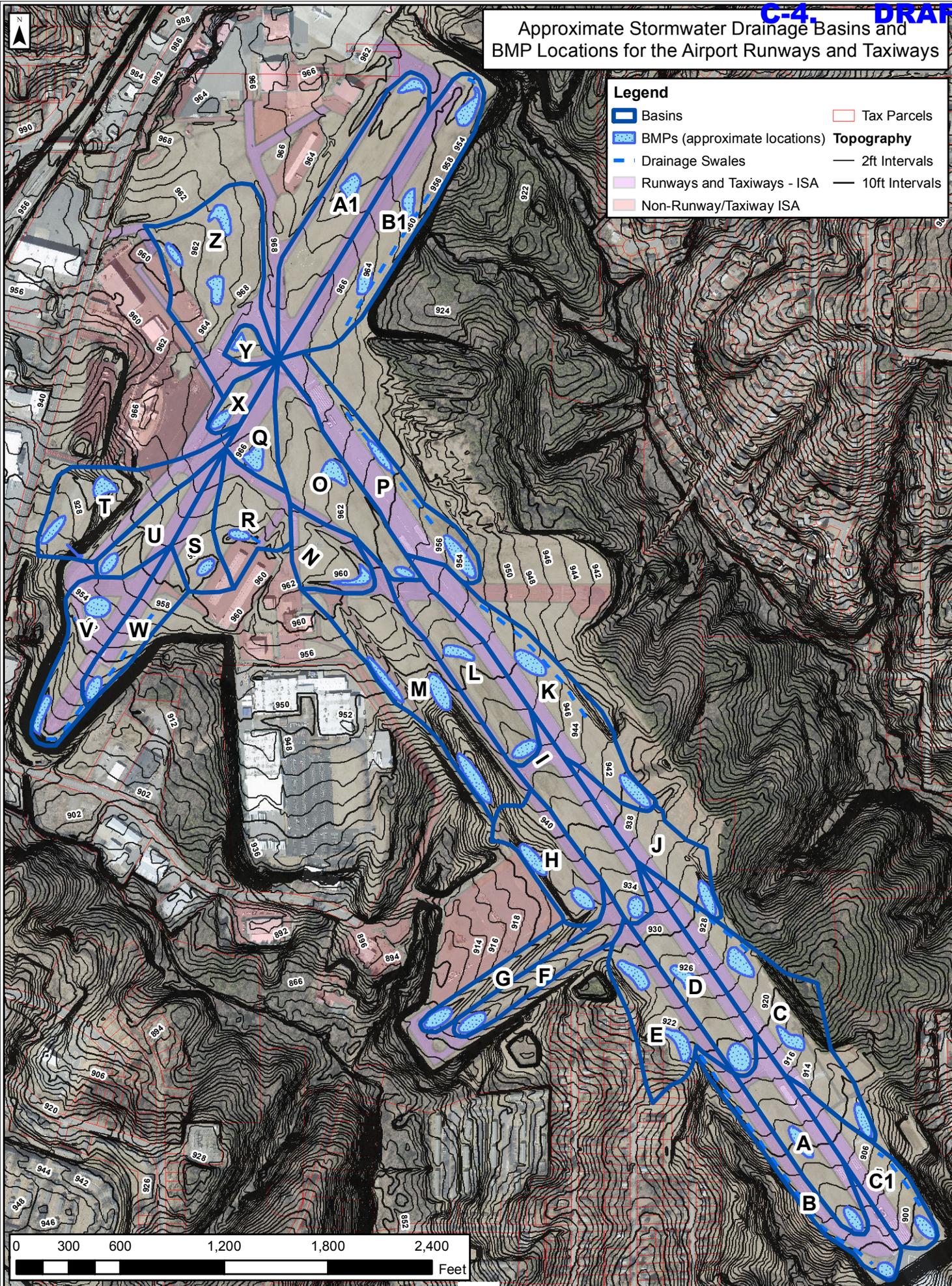
Many communities in North Carolina offer some type of stormwater fee credit as way to incentivize property owners to implement stormwater controls to reduce the amount of runoff and pollutants from impervious areas. Credits between 50%-100% could be given based on implementation and maintenance of the following:

1) **Detention/ Retention Credit**-The property has built and maintains an onsite stormwater detention or retention pond that reduces the impact of stormwater runoff from the property. A credit of up to 25% of the total stormwater fee may be available for a well-designed and maintained onsite detention/retention facility.

2) **Water Quality Credit**-The property has built and maintains an onsite stormwater best management practice (BMP) that reduces the pollution impact of stormwater runoff from the property. A credit of up to 25% of the total stormwater fee may be available for a well-designed and maintained onsite stormwater BMP.

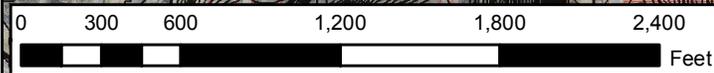
Since the stormwater fee a property owner pays is proportional to the amount of impervious surface area on a given property. A fee credit policy could be developed in a way to allow reduction of fees proportional to the impervious area treated by a well-designed and maintained stormwater BMP.

### Approximate Stormwater Drainage Basins and BMP Locations for the Airport Runways and Taxiways



**Legend**

Basins	Tax Parcels
BMPs (approximate locations)	<b>Topography</b>
Drainage Swales	2ft Intervals
Runways and Taxiways - ISA	10ft Intervals
Non-Runway/Taxiway ISA	





**SUMMARY OF MINUTES****PUBLIC WORKS COMMITTEE**

6:00 p.m., Tuesday, March 22, 2016

**COMMITTEE ROOM**

Room 239, City Hall

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*MEMBERS PRESENT:* Council Member Dan Besse, Chair  
Council Member Robert C. Clark  
Council Member James Taylor, Jr. (out at 6:40 p.m.)

*MEMBERS ABSENT:* Council Member Derwin L. Montgomery, Vice Chair

*OTHERS PRESENT:* Council Member Denise D. Adams  
Council Member Jeff MacIntosh

Chair Besse called the meeting to order and stated without objection, the Committee would first consider the Consent Agenda. Council Member Taylor removed Item C-5. No other items were removed for discussion.

Council Member Clark made a motion to approve the balance of the Consent Agenda. The motion was duly seconded by Council Member Taylor and carried unanimously.

**CONSENT AGENDA**

- C-1. CONSIDERATION OF ITEM RELATING TO THE 28TH STREET STORMWATER DRAINAGE IMPROVEMENTS AND WATER AND SEWER REPLACEMENT:
- a. RESOLUTION AUTHORIZING A CHANGE ORDER TO CHARLES D. LOWDER INC. IN THE AMOUNT OF \$270,000 FOR REPLACEMENT OF A 72" CULVERT SYSTEM ON IVY AVENUE (NORTHEAST WARD).
  - b. RESOLUTION AUTHORIZING A CHANGE ORDER TO HDR ENGINEERING IN THE AMOUNT OF \$40,000 FOR CONSTRUCTION OBSERVATION AND ADMINISTRATION SERVICES.
  - c. ORDINANCE AMENDING THE PROJECT BUDGET ORDINANCE FOR THE CITY OF WINSTON-SALEM, NORTH CAROLINA FOR THE FISCAL YEAR 2015-2016.
- C-2. RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT WITH DAVENPORT FOR PROFESSIONAL ENGINEERING SERVICES FOR THE WHITAKER PARK NEW ROADWAY FEASIBILITY IMPROVEMENT PROJECT.

- C-3. RESOLUTION AUTHORIZING THE CITY MANAGER TO ENTER INTO A MUNICIPAL AGREEMENT WITH THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION FOR TRAFFIC MODELING FOR THE BUSINESS 40 PROJECT.
- C-4. CONSIDERATION OF A PETITION TO CLOSE AND ABANDON A PORTION OF N. MAIN STREET AND ALLEYWAYS LOCATED EAST OFF OF TRADE STREET (EAST WARD) – *Petition of E. G. Forrest. Public Hearing: May 2, 2016.*
- C-6. APPROVAL OF PUBLIC WORKS COMMITTEE SUMMARY OF MINUTES - *February 9, 2016.*
- C-5. INFORMATION ON HICKORY CREEK SUBDIVISION ROADS.

Mr. Gregory Turner, Assistant City Manager, gave the staff report on this item.

In response to Chair Besse, Mr. Turner replied the City or the State must accept private roads in order for them to be maintained by the City.

Council Member Clark requested the list of roads listed as private roads be uploaded to the City's website for public viewing.

Council member MacIntosh requested staff investigate if the home-owners' title insurance would cover the payment of their share for bringing the roads up to standards.

#### GENERAL AGENDA

- G-1. ORDINANCE AMENDING CHAPTER 74 OF THE CITY CODE RELATING TO "STREETS AND SIDEWALKS".

Council Member Taylor suggested the ordinance allow for residents to only pay for the materials, allow them to make payments over time and they be allowed to use the sliding scale, regardless of water or sewer. He also requested BST be included.

In response to Council Member Clark, Marilena Jenson-Guthold, Assistant City Attorney, explained the intention of this ordinance was to broaden the sliding scale.

In response to Council Member Clark, Mr. Turner explained the materials cost 30% of the total, and the labor is the remaining 70%.

Council Member Clark requested staff shorten the financing length to three to five years and provide what position the City would be if a lien was placed on the property for nonpayment.

Ms. Lindy Johnson, 6041 Hickory Creek Road, stated in June 1998, a petition was filed with the State for acceptance of the roads, she stated it was denied, but the neighborhood does not know the reason for denial. She stated the City has filed and was approved for State Powell Bill funds for asphalt to pave these roads since 2010.

Mr. Lee Garrity, City Manager, said Council does have the option to change the policy on accepting streets.

Council Member Clark requested staff find out why these roads were declined.

It was the consensus of the Committee to continue this item until the April Public Works Committee meeting.

**G-2. RESOLUTION OF SUPPORT WITH FINANCIAL COMMITMENT AND AUTHORIZATION TO APPLY FOR THE 2016 TRANSPORTATION INVEST GENERATING ECONOMIC RECOVERY GRANT.**

Mr. Turner gave the staff presentation on this item.

**G-3. PRESENTATION ON CITY/COUNTY WATER SYSTEM WATER QUALITY.**

Mr. Ron Hargrove, Director, Utilities Department, gave the presentation on this item.

In response to Chair Besse, Mr. Hargrove stated the lead values in the water in Flynt, Michigan were close to 15,000 particles per billion.

In response to Council Member Clark, Mr. Hargrove replied the samples taken by the City are collected in the homes of the target areas which are most likely to have lead fixtures. He stated they tested 150 different sites.

Council Member Clark requested a copy of the presentation shown at the meeting.

Council Member Adams requested this information be shown on WSTV 13 and the PowerPoint added to the City's website.

**G-4. PRESENTATION ON PROPOSED IMPROVEMENTS TO THE PASSAGEWAY BETWEEN CHERRY STREET AND TRADE STREET BY THE DOWNTOWN WINSTON-SALEM PARTNERSHIP.**

Mr. Ralph Womble, 4115 Shattalon Drive, Downtown proponent, introduced this item.

Ms. Kristen Haaf, Roots First, 641 Summit Street, gave the presentation on this item.

ADJOURNMENT: 7:16 p.m.

