City of Louisville
COLORADO • SINCE 1878

Planning Commission

Agenda

July 14, 2016
City Hall, Council Chambers
749 Main Street
6:30 PM

For agenda item detail see the Staff Report and other supporting documents included in the complete meeting packet.

Public Comment will be limited to three (3) minutes per speaker.

I. Call to Order

II. Roll Call

III. Approval of Agenda

IV. Approval of Minutes

- June 23, 2016

V. Public Comment on Items Not on the Agenda

VI. Regular Business – Public Hearing Items

- **Balfour Senior Living Plat/PUD Amendment:** A request for a final Plat and planned unit development (PUD) to allow for a new 54-unit Assisted Living Community. ***Continued from June 23, 2016***
  - Applicant, Owner, and Representative: Balfour Senior Living (Hunter MacLeod)
  - Case Manager: Lauren Trice, Planner I
- **824 South St Final PUD:** A request for a final Planned Unit Development (PUD) and Special Review Use (SRU) for a building with 5,700 square feet of commercial space and the remodel of the existing house on the property.
  - Applicant and Representative: Hartronft Associates (Erik Hartronft)
  - Owner: Ronda Grassi and Nancy Welch
  - Case Manager: Scott Robinson, Planner II
- **McCaslin Blvd Small Area Plan:** A request to review a draft copy of the McCaslin Blvd Small Area Plan. ***Continued from June 23, 2016***
  - Staff member: Scott Robinson, Planner II

VII. Planning Commission Comments

VIII. Staff Comments

IX. Items Tentatively Scheduled for the regular meeting August 11, 2016:

- **Delo Lofts Final Plat/PUD/SRU:** A request for a final Plat and planned unit development (PUD) and special review use (SRU) to allow for eight live/work units and 33 apartment units in the Hwy 42 Revitalization Area.
  - Applicant: Delo East, LLC (Justin McClure)
  - Owner: Boom, LLC (Elizabeth Law-Evans)
  - Representative: RMCS, Inc (Justin McClure)
  - Case Manager: Scott Robinson, Planner II
- **Centennial Pavillions Final Plat:** A request for a re-plat of Centennial Pavilions Filing No. 1 to create three separate legal lots.
  - Applicant and Representative: NexGen Properties (Sean Sjodin)
  - Owner: NexGen Properties, Walorado Partners LLC, Centennial Pavillion Lofts Owner's Association
  - Case Manager: Lauren Trice, Planner I
- **RUPES PUD:** A request for a Planned Unit Development for 30,000 SF office and manufacturing building.
  - Applicant and Representative: Rupes USA (Don Blake)
  - Owner: George Cavanaugh
  - Case Manager: Scott Robinson, Planner II

X. Adjourn

City of Louisville
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Planning Commission
Meeting Minutes
June 23, 2016
City Hall, Council Chambers
749 Main Street
6:30 PM

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Call to Order – Pritchard called the meeting to order at 6:30 P.M.

Roll Call was taken and the following members were present:

Commission Members Present:	Chris Pritchard, Chair Cary Tengler, Vice Chair Tom Rice Jeff Moline David Hsu
Commission Members Absent:	Ann O'Connell, Secretary Steve Brauneis
Staff Members Present:	Rob Zuccaro, Dir. Of Planning & Building Safety Scott Robinson, Planner II

Approval of Agenda:
Tengler moved and **Hsu** seconded a motion to approve the June 23, 2016 agenda. Motion passes 5-0 by voice vote.

Approval of Minutes:
Moline moved and **Hsu** seconded a motion to approve the May 12, 2016 minutes. Motion passes 4-0-1 by voice vote. **Tengler** abstains.

Public Comments: Items not on the Agenda
None.

Regular Business:

- **Balfour Senior Living Plat/PUD Amendment, Resolution No. 14, Series 2016.** A request for a final Plat and planned unit development (PUD) to allow for a new 54-unit Assisted Living Community. ***Continue to July 14, 2016***
  - Applicant, Owner, and Representative: Balfour Senior Living (Hunter MacLeod)
  - Case Manager: Lauren Trice, Planner I

Robinson presents. Staff is continuing to work with the applicant to refine the design of the proposal. The applicant has asked for another month. **Zuccaro** says the applicant is on track for the July meeting. Staff is working with the applicant on resubmittal.

Motion made by **Moline** to continue Balfour Senior Living Plat/PUD Amendment, Resolution No. 14, Series 2016, seconded by **Tengler**. Motion passes 5-0 by voice vote.

- **105 Roosevelt Avenue Minor Subdivision, Resolution No. 15, Series 2016.** A resolution recommending approval of a replat to subdivide a single 15,000 SF lot into two separate lots in the residential low (RL) zone district, located at 105 Roosevelt Avenue, Lots 15-17 & 10 FT vacated alley, Block 4, Johnson's first addition.
  - Applicant, Owner, and Representative: Creel Kerss
  - Case Manager: Scott Robinson, Planner II

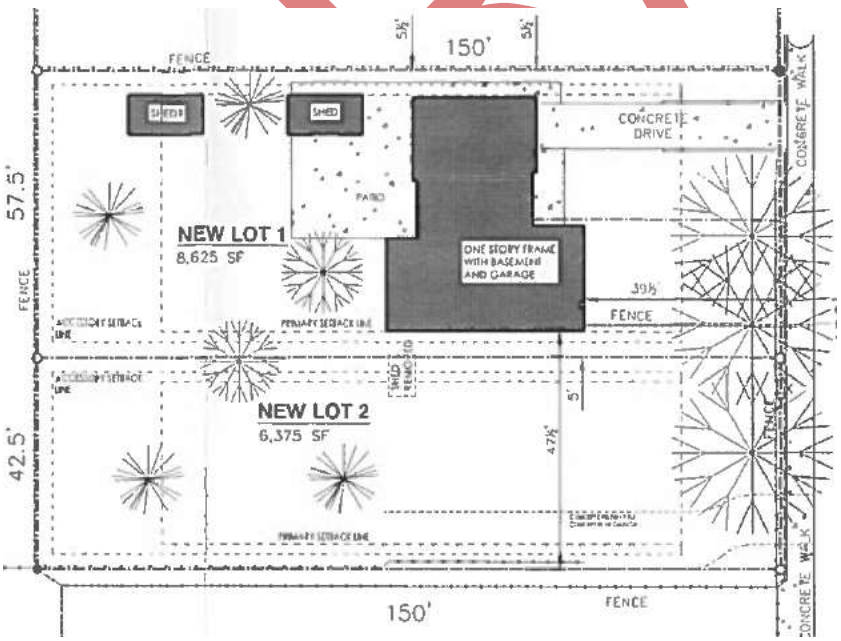
Conflict of Interest and Disclosure:
None.

Email entered in the record:
Motion made by **Moline** to enter email from **Peter Stewart** dated June 23, 2016 into the record, seconded by **Tengler**. Motion passes 5-0 by voice vote.

Public Notice Certification:
Published in the Boulder Daily Camera on June 5, 2016. Posted in City Hall, Public Library, Recreation Center, and the Courts and Police Building and mailed to surrounding property owners and property posted on June 3, 2016.

Staff Report of Facts and Issues:
Robinson presents from Power Point:

- Located at 105 Roosevelt Avenue in Old Town across from Community Park.
- Zoned Residential Low (RL).
- 15,000 SF lot when originally platted composed of three 30' x 150' lots plus 10' vacated alley. Currently 100' wide and 150' deep.
- Existing 1,300 SF single family house and three small sheds.
- Proposal would allow existing house to remain which complies with setbacks. There would be no structures on proposed Lot 2.
- Went to Board of Adjustment (BOA) in December 2015 and received variance approvals for lot width and lot area variance.
- BOA approval does not guarantee approval of replat.



- **Lot 1**
  - 8,625 SF and 57.5' wide.
  - Complies with minimum lot size and received variance for lot width.

  - Lot 1 would allow 2,588 SF coverage and 3,019 SF floor area.
- **Lot 2**
  - 6,375 SF and 42.5' wide.
  - Noncompliant with minimum lot size, received variances for lot size and lot width.
  - Lot 2 would allow 2,250 SF coverage and 2,699 SF floor area.
- Residential Low Density zone district requires minimum lot size of 7,000 SF and minimum lot width of 70'.
- Old Town Overlay District allows on existing 15,000 SF property one unit with 4,500 SF coverage and 5,250 SF of total enclosed space.
- Existing lot could have been divided in half for 7,500 SF lots, but the dividing line would have gone through the existing house.
- Staff looked at existing lots in subdivision and it is the largest lot. Dividing it will create two lots smaller than the average in the subdivision, but they would not be the smallest subdivision. Typical lot size for Old Town and similar to lots along Roosevelt Avenue.
- Given similarity in size to the rest of Old Town, Staff feels it complies with the 2013 Comprehensive Plan and variance approval means it now complies with the zoning regulations in Title 17. Subdivision regulations in Title 16 of the Louisville Municipal Code (LMC) that it needs to meet. It does not meet two.
- Title 16.16.060 requires 50 foot frontage and maximum length/width ratio of 2.5
  - Lot 1 would be 57.5 feet with 2.61 ratio
  - Lot 2 would be 42.5 feet with 3.53 ratio
- Section of LMC allows modifications for hardship and public good.

Staff Recommendations:
Staff recommends Planning Commission approve Resolution No. 15, Series 2016, a resolution recommending approval of a replat to subdivide a single 15,000 SF lot into two separate lots in the Residential Low (RL) zone district, located at 105 Roosevelt Avenue, Lots 15-17 & 10' vacated alley, Block 4, Johnson's First Addition, with no conditions.

Commission Questions of Staff:
Moline asks about the hardship portion of the variance.
Robinson says when an application goes before the BOA for a variance, there are six criteria that have to be met, and the BOA must find all six criteria are met. Criterion #1 says *"That there are unique physical circumstances or conditions such as irregularity, narrowness, or shallowness of lot, or exceptional topographical or other physical conditions peculiar to the affect property."* The BOA decided the lot was large enough to be divided into two lots. It is unusually long at 150' whereas most lots are 125' or shorter. This made the lot unusual.
Rice says on page 6 of the Staff Report, there is data presented about other parcels in this block. The new Lot 2, which is 6,375 SF, would only have two other lots in the survey area that are smaller. The new Lot 1, which is 8,625 SF, would leave four parcels smaller. Looking at this together, this would create two of the five smallest lots in the study area. There are small lots in this study area, but this action would create even more.
Robinson says these lots would be small compared with the other properties in the Johnson's First Addition. Looking at broader Old Town, they would be similar in size to the average lot.
Rice says the lot width of 42.5 feet; is it even feasible to build on? What are the side setbacks?
Robinson says there are lots in Old Town that are more narrow than that. We have some that are 25' in width. Setbacks would be 5' on each side.
Rice says we are talking about 32.5' of buildable space. My other question is about the BOA. If you are going through this process, is it necessary to go to the BOA first?
Robinson says if you need a variance from the requirements of Title 17 such as lot width and lot area, you go to the BOA.
Rice asks if the BOA is simply a recommendation. Is it a final determination on the issue?

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Robinson says the BOA granted the variances so for the Planning Commission (PC) analysis, they comply with the regulations regarding minimum lot size and minimum lot width requirements of Title 17. It is a final determination on the issue.
Rice asks what is the PC deciding tonight?
Robinson says the other requirements of Title 16 require a waiver of minimum lot width of 50' and the ratio of width/depth.
Tengler says the letter from Peter Stewart accepted into the record states *2) "it is questionable if the BOA has the authority to grant a variance to lot size and frontage requirements."* Are you comfortable that the BOA does have this authority?
Robinson says the powers of the BOA are to grant variances from any of the regulations in Title 17. This is not the first lot that has gone through this procedure. One was done in 2015 and another in 2014 followed the same procedure.
Tengler says the lot width is 100' currently. Why not go 50-50 and not ask for a variance?
Robinson says the desire is to keep the existing house so if the lot is divided down the middle, you will cut through the existing house. It will still comply with setbacks.
Pritchard says the email from Peter Stewart lists four reasons for denial. Has Staff had an opportunity to read it? Can we go through the email and respond to his four reasons.
Robinson responds.
1) A significant defining quality and character of Old Town is the diversity of lot size. This subdivision will negatively impact the scale and character of Old Town - by eliminating a large lot and thus eliminating lot size diversity. I believe this is contrary to the Comprehensive Plan section regarding Our Livable Small Town Feel and the city's character and physical form.
Robinson says this is a valid point and policy question of lot size variety. This is one of the biggest lots in Old Town and dividing it will make two average size lots. Staff feels this is compatible with the Comp Plan. It is what the applicant is requesting. This is a point for the PC to consider as to whether you will place more value on diversity versus allowing creation of average size lots.
2) It is questionable if the Board of Adjustment has the authority to grant a variance to lot size and frontage requirements. The purpose of the Board of Adjustments is to allow reasonable development on lots with restricting physical circumstances, not to create two non-conforming lots from a conforming lot. I do not think there are physical circumstances which limit reasonable development on this lot as it currently is.
Robinson says this was addressed previously.
3) The proposed subdivision does not meet Section 16.16.050 of the LMC - A. "Lots shall meet all applicable zoning requirements". This proposal would create two non-conforming lots and eliminate a conforming lot. I also do not like the fact that this type of subdivision may be used to increase density (FAR & Lot Coverage) above what is currently allowed.
Robinson says Staff considers the BOA variance as compliance with zoning requirements of Title 16.
4) The applicant is requesting a waiver from the zone district requirements. It is my understanding that in granting a development waiver there should be some extraordinary benefit to the City - not simply a benefit to the developer. There is no explicit benefit to the city associated with this proposal.
Robinson says the criteria for waivers through a PUD process such as providing some additional public benefit is not the same as the requirements for a waiver in Title 16 which shows hardship and public good. He may be looking at the wrong criteria.
Moline says it looks like the north half of the former alley way was vacated. Was the southern half also vacated? Was the entire alley vacated? To clarify, is this within the Old Town Overlay?
Robinson says the alley was vacated and per standard regulations, it gets split between the adjacent property owners, so they got the north half of the alley. This is within the Old Town Overlay district.

Applicant Presentation:
Creel Kerss, 105 Roosevelt Avenue, Louisville, CO
We have lived in the 105 Roosevelt Avenue house for about 10 years. I intend to retire here and build a new house. My wife just recently retired from her job last June, so we thought we would

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see if we can get this lot split off and build a newer, smaller home. I was a general building contractor for 40 years, so I know I can build on Lot 2. We are both believers in smaller homes, not larger homes. We hear a lot of talk about too many people coming in and tearing down existing old homes and taking the charm away from town. We have seen it happen more in the last four years than the previous six years. The lots you are asking about that compare to mine in the Johnson subdivision are down Johnson Street. Most of those homes are 10,000 to 12,000 SF lots and they built them to the max. There is one behind us that is being remodeled; it should end up at 5,000 SF. It is huge. Down Johnson Street, most of those homes are well over $1 million. We see diversity around Old Town. There is a lot around the corner from us that a lady built a home on with a driveway to a back garage. She backs her car back to her garage. Her lot is probably 32' wide lot. It can be done. 2,600 FS is a large home when you consider you have a basement, so it can be almost 4,000 SF. We have not made the final decision of whether we will build next door or stay in the home and expand. We are working with a local architect named Chip Weincek from Louisville. We have tentative ideas but we do not want to proceed with the expense until we know a lot to build on. We have some very large trees in front that we hope to preserve. I thank Scott and the Planning Department for working with us and the Planning Commission. We feel this is a good fit for the City. This is your chance to have another small house in Old Town.

Patricia Kerss, 105 Roosevelt Avenue, Louisville, CO

I would like to address some of the questions and concerns about the narrow lot. When we first saw this lot, it was 11 years ago during a snow storm. The house was not very pretty. It had not been lived in for some time, but I loved it. We bought it and left the house as it was. It is a 1300 SF bungalow and I love it. I love living in the area. We are across the street from Community Park. We could have scraped this house and done a variety of things. We chose to keep the house. I appreciate people who need bigger homes. I grew up in a big house, we've built big houses, and we've lived in big houses. I see smaller houses in Old Town and see a smaller home that does not overwhelm the lot and other things around them. Our goal is to develop in a manner we think is appropriate. We have worked with a variety of people and this is considered more appropriate than a 5,000 SF across the street from the park.

Commission Questions of Applicant:

Hsu says the dividing line is because of the house. I am struggling with the statute Section 16.24.010 which states, *"The city council, upon advice of the planning commission, may authorize modifications from these regulations in cases where, due to exceptional topographical conditions or other conditions peculiar to the site, an unnecessary hardship would be placed on the subdivider."* It says we can only determine an unnecessary hardship after determining, first, the condition that there are exceptional topographical conditions peculiar to the site. What are those exceptional topographical conditions or other conditions peculiar to the site?

P. Kerss says if I understand you, some of the things that we see as the people living there would be the beautiful 50 year old trees in front that would have to come down. If you lose that part of the house, you have to get rid of the whole house, meaning another scrape off.

C. Kerss says that the back yard is beautiful. Because the lot is so deep, it gives the new house going in a larger back yard than most existing ones. It does not impose on the neighbors because of the back yards of the southern neighbors. The lot is 150' deep and it is more difficult. It is a practical lot to build on.

P. Kerss says with the layout, we will be able to build a two car garage in the back, which is something we have always missed. We now have a one car garage.

Hsu says my question is mainly about the 50-50 dividing line, not the depth. That 50-50 line could not be the subdivision line because of the existing house. An arbitrary line does not necessarily destroy the trees.

C. Kerss says the setback is so the house is not removed. We are giving it a 5' setback on the house side and 5' on the existing house, so there will be 10' between houses. In order to get that 5', Lot 2 ended up at 42' wide.

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Public Comment:
None.

Summary and request by Staff and Applicant:
Staff believes this complies with the regulations and warrants a waiver given the hardship due to the unusual depth and location of the house and public good of compatibility with the Comp Plan. Staff recommends approval.

Closed Public Hearing and discussion by Commission:
Hsu says I don't think we have the authority to approve this modification based on the clear language of the statute. There have been no exceptional topographical conditions or other condition peculiar to the site identified. The house is not part of the site. I looked up site in the dictionary and the site does not include the building. We have not identified any topographical conditions or other conditions such as a river, hill, or cliff that requires the 42.5' and 57.5' division. I don't think we or the City Council has the authority to grant any modifications. I appreciate the applicant coming here. We are constrained by the statute.
Rice says this would be a no-brainer if we were talking about 50'. That would make it really simple. What makes it different is trying to back down from the 50'. We are talking about 7.5' which, considering other lots not necessarily on this block but in that area of town, isn't really a huge difference from what we see elsewhere. I think **Commissioner Hsu's** point is well taken, but I think other conditions can be read a little more broadly. "Other conditions" is intentionally meant to be a catch-all and it allows us to look at things a little more broadly than simply the first clause which is topographical. My thought is that the ordinance does provide us with the flexibility we need to make this decision. It is on the border in terms of size. I am inclined to improve it given what I think is a good faith commentary of the applicant with regard to what their plans are for this site.
Tengler says I agree with **Commissioner Rice's** interpretation of this. I am also comfortable with Scott's interpretation and response to the letter we entered into the record. I am in favor.
Moline says I agree with **Commissioner Rice** and **Commissioner Tengler**. I would like to see if Staff can provide a comment back on **Commissioner Hsu's** concern. What he is saying sounds pretty serious. I am curious on how Staff would view that comment.
Zuccaro says that it is a little bit broader and that is how we saw it and how we came up with our recommendation on the additional circumstances other than the topography. I think historically this is how we have interpreted the code and applied the codes. It is up to interpretation of the PC, but consistent with Staff's previous interpretation that you look at it more broadly.
Moline says based on that, I am leaning towards support.
Pritchard says I agree with my Commission members in everything that has been said. I do believe the ordinance and the code gives us enough flexibility for interpretation on issues like this. I look back to what the Comp Plan is talking about, and how they want these houses to be well balanced. The smaller scale works for the Old Town Overlay. Where I have a problem is if the applicant decides to come back and tear down the entire existing house and build a large home. They are entitled to do this. A large house lessens the Downtown. Moving forward, Staff's recommendations are consistent with what we have interpreted over the last few years. I think this is beneficial to the community. I think the size will be adequate and it will fit in scale with the rest of the neighborhood. I understand **Commissioner Hsu's** concerns. I am comfortable with Staff's findings.
Hsu says this goes to one of my favorite subjects which is statutory interpretation. It says, "other conditions peculiar to the site." I understand everyone is interpreting "other conditions" to be anything we want. The dictionary definition of "site" is the land, not a building. The building cannot be a condition of the site. That would lead to some absurd result. I am comfortable with an interpretation of the statute that basically brings in the building as part of the site.

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Moline asks Staff if the City Attorney has weighed in on this issue.
Robinson says we did not ask him about the interpretation of the site issue.

Motion made by **Rice** to approve **105 Roosevelt Avenue Minor Subdivision, Resolution No. 15, Series 2016,** a resolution recommending approval of a replat to subdivide a single 15,000 SF lot into two separate lots in the residential low (RL) zone district, located at 105 Roosevelt Avenue, Lots 15-17 & 10 FT vacated alley, Block 4, Johnson's first addition.
Resolution No. 15, Series 2016, seconded by **Moline**. Roll call vote.

Name	Vote
Chris Pritchard	Yes
Cary Tengler	Yes
Ann O'Connell	n/a
Jeff Moline	Yes
Steve Brauneis	n/a
Tom Rice	Yes
David Hsu	No
Motion passed/failed:	Pass

Motion passes 4-1.

- **Business Center at CTC Rezoning, Resolution No. 16, Series 2016.** A resolution recommending approval of an amendment to the Business Center at CTC General Development Plan (GDP) and rezoning from PCZD-C to PCZD-I for Lot 1, Block 3, The Business Center at CTC.
  - Applicant, Owner, and Representative: Etkin Johnson (Jim Vasbinder)
  - Case Manager: Scott Robinson, Planner II

Conflict of Interest and Disclosure:
None.

Public Notice Certification:
Published in the Boulder Daily Camera on June 5, 2016. Posted in City Hall, Public Library, Recreation Center, and the Courts and Police Building and mailed to surrounding property owners and property posted on June 3, 2016.

Staff Report of Facts and Issues:
Robinson presented from Power Point:

- Located in CTC at the southwest corner of Highway 42 and 104th Street in the northeast corner of the Colorado Technology Center.
- Property zoned PCZD-C
- Requesting to rezone to PCZD-I
- Governed by Business Center at CTC General Development Plan
- When property was first annexed in Louisville, it was zoned Commercial Business (CB). When the Business Center at CTC GDP was approved in the early 1990s, it was rezoned to PCZC-C. There were originally three parcels in that GDP zoned commercial. Property to the south rezoned to PCZC-I in 2015.
- CDDSG currently applies. The rest of the industrial properties are governed by IDDSG. Along with rezoning, the applicant requests IDDSG to apply if approved.
- North end of CTC along Highway 42 are either zones P-I or P-C and the CDDSG apply.

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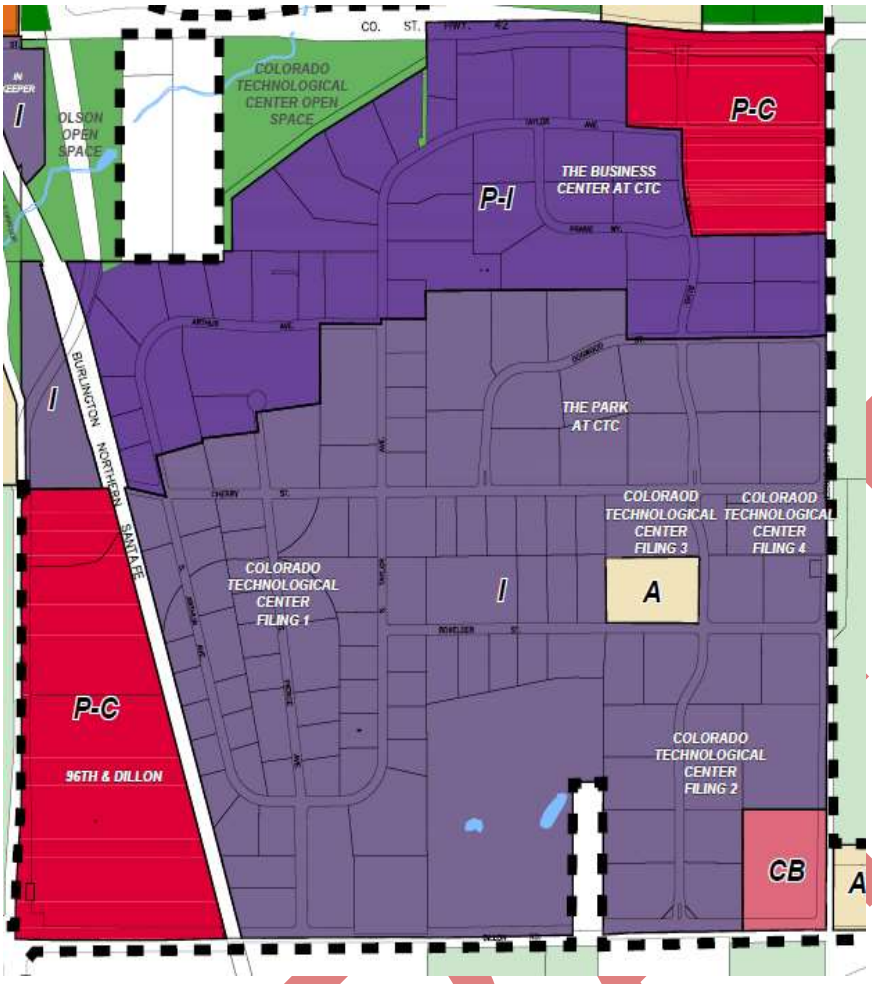

Rezoning should be approved if ANY of the following criteria are met.

LMC Section 17.44.050 – Rezoning Criteria:

1. The land to be rezoned was zoned in error and as presently zoned is inconsistent with the policies and goals of the city's comprehensive plan; *No evidence of error in zoning. It has been zoned commercial for 40 years. Not met.*

2.The area for which rezoning is requested has changed or is changing to such a degree that it is in the public interest to encourage a redevelopment of the area; *The applicant argues that we are now seeing a lot of development in the CTC and demand for industrial flex space. Over the 40 years, we have seen no demand for commercial uses that the zoning calls for. When it was zoned commercial, it was with the intent that this would be a fully developed industrial office park to support ancillary commercial uses. We are near full build out to possibly support commercial uses and demand for commercial use. Met.*

3.The proposed rezoning is necessary in order to provide land for a community-related use which was not anticipated at the time of the adoption of the city's comprehensive plan, and such rezoning will be consistent with the policies and goals of the comprehensive plan; or *There is no specific proposed use for commercial to industrial and there is no evidence of civic use or community use. Not met.*

4.The rezoning would only permit development which, if evaluated as a proposed annexation under the annexation standards and procedures codified in title 16, would qualify for annexation. *Met.*

LMC Section 16.32.030 – Annexation:

A.The comprehensive development plan of the city will be considered in determining whether an annexation will be approved. *Questionable.*
D.Zoning of the area to be annexed shall be reasonable in terms of existing city zoning classifications and shall be considered by the city planning commission. *Met.*

Staff Recommendations:
Staff recommends Planning Commission move to deny Resolution No. 16, Series 2016, rezoning Lot 1, Block 3, Business Center at CTC and amending the Business Center at CTC General Development Plan.

If approved, Staff recommends the following condition:

1. The Louisville Commercial Development Design Standards and Guidelines shall remain the applicable development standards for Lot 1, Block 3, Business Center at CTC.

Commission Questions of Staff:
Moline says based on your presentation, it would be remiss of the PC to approve a rezoning. If we approve a rezoning, how would we do that in a way that has met the code?
Robinson says two of the four criteria could allow rezoning, and two are matters of judgement. If you disagree with Staff's interpretation, you can make some reasonable points to disagree. The first is #2 talking about the change. The response from the applicant mentions what has been going on recently in the CTC and why it should allow this rezoning. The second is #4 which goes to the annexation criteria. Staff thinks D is met and A is questionable. The Comp Plan calls for the CTC to be an industrial park which is what the applicant wants to do with this property. The Comp Plan also calls for some mix of other commercial uses. If this property is rezoned, there is still one property zoned Commercial. There are also commercial uses allowed by Special Review Use (SRU) in Industrial zoning. It does not preclude the possibility of any commercial use in the CTC. Those are the questions the PC should be considering and if the PC wants to approve it, this is where there is possibility.
Moline says if we keep this zoned Commercial and it will be one of two remaining lots left in the subdivision, how viable is just two commercial lots in an industrial park.
Robinson says it depends on how they will be developed. Commercial allows retail uses such as a restaurant or convenience store. The P-C zone allows office use.
Moline says the Udi's used to be up there on 104th and had a retail/commercial component. The Industrial zoning must allow for some of that use.
Robinson says restaurants are allowed as a SRU in the Industrial zone district. The PC recently approved the climbing gym and brew pub through SRU in the CTC.
Tengler says relative to the four criteria for the rezoning, is that an "or" between 1, 2, 3, and 4?
Robinson says yes.
Tengler says last year, we approved the rezoning of a lot immediately to the south. What was different about that?
Robinson says it is further off of Highway 42 and likely less viable as a commercial use. It was originally half Industrial and half Commercial and was then rezoned all Commercial.
Tengler says we appear to have painted ourselves into a corner by allowing that lot and now pushing back on this one. My recollection is that the Udi's closed because they did not make it commercially and therefore, closed down the retail portion.
Robinson says I cannot speak for what happened exactly, but I heard they needed the space for their commercial baking operations.
Tengler says Crystal Springs seems to be doing reasonably well out there from a retail standpoint. Are you aware of anybody else having anything going on in the CTC after hours?
Robinson says no.
Rice says as it's currently zoned, what could be built there?
Robinson says a broad range of things can be built from any retail or service business, office, daycares, restaurants, hotels, or senior care facilities.

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Rice asks are any of those things in existence in that area now.
Robinson says the Pearl Izumi development just west is an office development. There is no industrial or warehouse component. Crystal Springs brewery has an operation with taproom there. There is a gymnastics school and a karate school in the CTC.
Rice says from a practical standpoint, if the applicant gets the rezoning they are asking for, what will that add to the list they can build.
Robinson says it would reduce the variety of things they can do. P-C is a broader zoning category than P-I. It would allow the typical building built out in CTC today, a large industrial flex buildings.
Rice says that means the buildings predominantly out there now.
Robinson says buildings for warehousing and manufacturing.
Rice says when the rezoning occurred in 2015 on the parcel to the south, did Staff support that rezoning?
Robinson says Staff did support it.
Rice says the difference in character is that this parcel is on Highway 42. Why does that make a difference?
Robinson says the additional traffic at the major intersection makes it more viable for commercial use. When we looked at the parcel to the south, was that parcel viable for commercial? The analysis at that time was that because it is off a major road, it is less likely to develop.
Tengler says related to that, it suggests that Staff considers Highway 42 a viable street for producing retail traffic. If I think of the characteristics of Highway 42, there is nothing but a cemetery, an entrance to a park, and some residential further to the east. There is no retail along that street at all. It is a stretch to consider that simply because the property is located along Highway 42, it will become a reasonable retail or commercial space.
Robinson says that is a valid question. There is no guarantee that this property will be a viable commercial property at any time in the foreseeable future. That was the intent of the corner because that is where the traffic is. Staff looked at this as "are we ready to say this is not a viable commercial property" and it should be rezoned Industrial. Looking at the CTC, it is approaching build-out and attracting more employees. Will they be enough to support commercial along with Highway 42 traffic?
Zuccaro says the original intent of the GDP was for the properties along Highway 42 to meet the CDDSG so there would be a consistent frontage along that road. There are higher design standards under commercial versus industrial.
Hsu says assuming we rezone, the applicant made a comment that they could not be zoned industrial and comply with the commercial guidelines. In the CTC area, how many current existing buildings comply with the CDDSG?
Robinson says Pearl Izumi and Lockheed, so only two.
Pritchard asks Staff if they know what the traffic flow is on Highway 42?
Robinson does not have the numbers.

Email entered into the record:
Motion made by **Rice** to enter email and memorandum from **Jim Vasbinder** dated May 13, 2016, seconded by **Tengler**. Motion passes 5-0 by voice vote.

Applicant Presentation:
Jim Vasbinder, Etkin Johnson Real Estate Partners, 1512 Larimer Street, Denver, CO
Thank you for your consideration of our request. I'd like to pass out some additional information.

Site Plan entered into the record:
Motion made by **Moline** to enter Conceptual Site Plan from Etkin Johnson, seconded by **Tengler**. Motion passes 5-0 by voice vote.

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Vasbinder continues. In 1980 when the CTC was developed, there were certain areas zoned commercial and certain areas designated industrial. There is a recorded document that says this. However, the exhibit that was attached to that about which areas are which is nowhere to be found, and not part of the recorded document at the County. We have done title searches. While I will not argue with **Robinson** that 40 years ago, there was commercial, I am not convinced it was this spot. When we did the Business Center in 1998, we created this northern tier and it was requested by the City that we create these two different zones. We had the commercial zone along Highway 42 and had the industrial zone which was the balance of the property at CTC. When we did Filing 2 in early 2002, it is the property that goes down to Dillon Road, and the majority of that property was industrial. The corner piece that **Robinson** indicated is at the intersection of 104th and Dillon Road and is the City Service Center. It was a piece within Filing 2 that is commercial. All the rest of the Filings (we are up to Filing 4) are industrial. The PC was gracious enough to approve the rezoning on the parcel we call 2000 Taylor, which is the building currently under construction. That building is about 120,000 SF. I can tell you today that we have two active leases for the whole building. That is what's happening in the CTC. I cannot announce the two tenants, but you will be satisfied with the employment group. What we'd like to do in this particular rezoning is to take the 8 acres which is PCZD-C and create the PCZD-I and use the IDDSG for the development of this property. There are two things that are particular about this. The properties that front 104th Street that we have built have a 54' easement on the west side of 104th Street. It gives us an additional buffer which we use for landscaping and detention ponds. For this particular property at the corner, the easement runs along both the north side and the east side of this property. It essentially negates about 1.5 acre out of the 8 acres to be non-developable. We have more setback which we agreed to in 1998, and it gives us more room to create some landscaping and berms, and provide additional buffering along Highway 42. Since 1998, we have actively tried to market this property as commercial. We see some benefit to that as well since there is a large daytime employment base. Since 1998, we have not had one request or a proposal to build a building to lease to any commercial users. The problem is that it is a daytime employment base and there is no developable land to the north, which the City cemetery and open space. Everything to the east is open space to almost Highway 287 where there is a subdivision. When we built the Lafayette Corporate Campus and the hospital, we faced the same issues about trying to get retail along Highway 287, which has a substantially higher traffic volume. We were never successful. We have a café at Lafayette Corporate Campus that we subsidize and have for 10 years. It is a benefit to our tenants. There is retail now happening north of the hospital because there is some residential. We are asking for rezoning. I passed out a conceptual plan of this property that we are working on with an international user. We have not signed a transaction because we can't build this building due to zoning. This user has expressed a desire to be at this location. It is a well-known company which I cannot state. They have expressed a desire to vacate a location in one of the neighboring cities and relocate their operation here. We are coming to you for rezoning because we have active interest on this property. We will still build the building even if the transaction falls through. Over the last 5 or 6 years at the CTC, it is build it and they will come. We continue to have that success based on the services the City provides, the opportunity for housing, the retail in the area, and the attributes we love about the northern part of the City.

Commission Questions of Applicant:

Hsu says in your letter, you state you do not think the CDDSG are feasible with your intended use. Yet Staff mentions that there are two buildings that do comply with them. Can you speak about why you cannot comply?

Vasbinder says the Lockheed building is a two-story office building with very little service area. They have one loading dock for their products. The Pearl Izumi building is an office building. It is their marketing center. We sold that property to them and they built their building. We think it is a great addition to the park. It is not a service building but an office building. Our buildings are

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service buildings. We cannot do four-sided architecture; it is not possible. We have docks, we have service doors, and we have access points where we need to provide locations for tenant equipment whether it is processing equipment, cooling equipment, etc. We cannot satisfy the four-sided architecture that commercial requires. Commercial also has different criteria as it relates to the building proper such as stepping the facades differently than we have on our buildings. I'd like to point out that we have a 1,000,000 SF at CTC including with the building currently under construction. We pride ourselves on the buildings we develop with the City's help and input and approval. We don't think those buildings detract from what we've created at CTC. We can't satisfy the criteria with these big buildings if we use the CDDSG.
Hsu says the Pearl Izumi and the Lockheed buildings are built in the commercial zone and follow the CDDSG. When you solicit tenants for buildings or buyers of property, that type of use has also been marketed along with retail. Is that correct? You've had no interest in building an office building in that area. If we rezone it as industrial and you state you can't build four-sided architecture, is it possible to have the north side facing Highway 42 to be at a higher standard? The concern is that the frontage would look consistent with Pearl Izumi.
Vasbinder says you are suggesting that the buildings already developed at CTC don't look good on the front.
Hsu says there are certain guidelines for industrial and certain guidelines for commercial. Can you satisfy the commercial guidelines on the north wall?
Vasbinder says one elevation of our buildings can be are 600' long. We cannot build that in the commercial guidelines.
Rice says I am intrigued by your comments about the recorded document. What do you claim the zoning is on this property?
Vasbinder says in 1998, we created this as commercial.
Rice says you agree that it is zoned commercial. **Robinson** gave us a presentation on Code Section 17.44.050 which is essentially the four rezoning criteria under which we can grant a rezoning. Which of the four do you claim that your petition satisfies?
Vasbinder says I think there are two. I agree with **Robinson**'s analysis.
Tengler says, from memory, as I drive up Highway 42, I don't see much of Lockheed or Pearl Izumi. When I'm out on a dog walk across the street and walking down the hill toward the underpass, I see a lot of it. As you get closer to where this property is, are we still on an incline or it is relatively flat?
Vasbinder says once you get past Pearl Izumi, the property starts to level out. From 104th Street to Highway 287, it drops and is flat.
Tengler says with the 55' easement, it strikes me that there is an opportunity to do some pretty high berming and landscaping that would effectively buffer any industrial design. It seems more of an issue when you are walking and taking advantage of the open space than if you are driving by.
Vasbinder says I agree with you. The IDDSG have a setback of 30'. With the conceptual design I am providing you, we have a setback of 100' to the building. We will utilize that easement area, particularly along Highway 42/Empire Road for exactly what you mentioned, landscaping and berming. We cannot "hide" the building but we can soften it.
Hsu says would you be amendable that if we accept the resolution to put the 100' setback as a condition to rezoning.
Vasbinder says yes.

Public Comment:
None.

Summary and request by Staff and Applicant:
Staff says this is a close call between whether it meets one of these two criteria. In Staff's analysis, we felt it didn't meet them. I think there is room in the criteria to find that they have been met. Staff recommends denial.

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Closed Public Hearing and discussion by Commission:
Hsu says I understand there were some plans developed for this area. We should give some weight to that. I also understand, based on the facts, that since 1998, there has been no interest in a commercial building. We have waited long enough for it to develop. I can conceivably see some use for commercial for that business community there, but it seems we have waited a long time. I am concerned about the design part. I think I will vote for the resolution with some condition attached for the 100' setback or the CDDSG attached.
Rice says I believe the request does meet the rezoning criteria on multiple counts. I think we are within our bounds to grant rezoning of this property. In terms of the nature of the petition, they are simply trying to rezone this property to be entirely consistent with what else is in that area. We are not trying to do something completely different from what is out there. I support the request.
Tengler says for the same reasons **Commissioner Rice** just stated, I am also in support.
Moline says I on the side of Staff on this. I am not compelled at all that the conditions have changed out there. I think this was put into effect to protect this view shed from Downtown looking off to the southeast. I think it was intended to protect the view shed of Highway 42. I don't think that the fronts of the buildings in the CTC are appropriate for this area. They are very appropriate for the middle of the CTC, but I strongly disagree that they are appropriate here on Highway 42. I don't think there will be a big opportunity for commercial and the idea that we will see a commercial development is uncertain. I am not support of giving up the CDDSG in this location. We have open space on the east and we have open space to the north. If we allow a rezoning to industrial here, that is a slight in the face to the Pearl Izumi building which is one of the best looking, amazing buildings in the City. To allow something that is more industrial on this corner makes you wonder what happened.
Pritchard says I have been on the PC since 1998 and those items were never taken into consideration in terms of a view corridor. It was strictly to try to meet a need for the CTC; was there a way to capture some of that daytime population with businesses such as dry cleaning, gas stations, and convenience stores. It has been a long desired effort. In the case of Pearl Izumi, it was their personal philosophy to have a unique property. We could keep the current zoning forever and may have an underutilized parcel. The development this applicant has brought the CTC is where we are today. How do we soften the Highway 42 frontage? Do we encourage berming which would be useful to the applicant and to the City? I think the applicant has some very valid points in their email and memo. I agree with **Commissioner Hsu** that it would be nice to carry over some of the CDDSG but the applicant has made it clear that they do not believe they can meet those. We will have to make the call. I am comfortable with the applicant's request. I would prefer to see the property properly built by going on the experience and track record of the applicant. They will show respect to our community and show pride for their buildings.
Moline says these are good points. The applicant has a stellar track record at CTC and is doing great things for our community. To me, this is an important gateway to the City. With this type of development, it is hard to do the detail I would like to see in a building in this location.
Tengler says given the 600' long building, does that preclude the CDDSG to be applied.
Robinson says yes. The CDDSG calls for breaking up large buildings instead of allowing a 600' long façade. It also calls for a variety of materials. It is the overall mass and length of the façade.
Tengler says what would the applicant have to do to the building to make the commercial minimum guidelines?
Robinson says it would have to be broken up into at least two, possibly more, smaller buildings. The CDDSG says no façade should be longer than 50', but it doesn't have to be a separate building. The articulation should be more than 6", so it would be like separate buildings.
Rice says they should be rezoned and allowed to build an industrial building and meet the IDDSG.

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Motion made by **Hsu** to approve **Business Center at CTC Rezoning, Resolution No. 16, Series 2016**, **Business Center at CTC Rezoning, Resolution No. 16, Series 2016.** A resolution recommending approval of an amendment to the Business Center at CTC General Development Plan (GDP) and rezoning from PCZD-C to PCZD-I for Lot 1, Block 3, The Business Center at CTC, with the condition that the CDDSG apply, seconded by **Moline**. Roll call vote.

Name	Vote
Chris Pritchard	No
Cary Tengler	No
Ann O'Connell	n/a
Jeff Moline	Yes
Steve Brauneis	n/a
Tom Rice	No
David Hsu	Yes
Motion passed/failed:	Denied

Motion denied 3-2.

Motion made by **Hsu** to approve **Business Center at CTC Rezoning, Resolution No. 16, Series 2016**, **Business Center at CTC Rezoning, Resolution No. 16, Series 2016.** A resolution recommending approval of an amendment to the Business Center at CTC General Development Plan (GDP) and rezoning from PCZD-C to PCZD-I for Lot 1, Block 3, The Business Center at CTC, with the condition of a 100' setback on the Highway 42 frontage, seconded by **Rice**. Roll call vote.

Name	Vote
Chris Pritchard	Yes
Cary Tengler	Yes
Ann O'Connell	n/a
Jeff Moline	No
Steve Brauneis	n/a
Tom Rice	Yes
David Hsu	Yes
Motion passed/failed:	Pass

Motion passes 4-1.

Break from 8:12 to 8:18.

- **McCaslin Blvd Small Area Plan, Resolution No. 17, Series 2016.** A resolution recommending approval of the McCaslin Blvd Small Area Plan.
  - Staff Member: Scott Robinson, Planner II

Robinson presents from Power Point:

- **What is a Small Area Plan?**
  - First Step to Implementing the Comprehensive Plan

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STUDY AREA
Both sides of McCaslin from US Highway 36 on the south to Via Appia on the north, stretching east to Dahlia and west to the Davidson Mesa Open Space including Centennial Valley Office Park.

Goals for the Small Area Plan
1. Defines desired land uses for the corridor
2. Establishes preferred physical character (design guidelines)
3. Outlines public infrastructure priorities

Project Schedule
February 2015 – Kick-off Meeting
August 2015 – Walkability Audit/Placemaking Workshop #1
November 2015 – Placemaking Workshop #2
February 2016 – Placemaking Workshop #3

Workshop 3
Three development scenarios
Urban design elements
Roadway improvements

Plan Outline
Introduction
Process
Context
Principles
The Plan
Implementation

Project Principles
1. Improve connectivity and accessibility while accommodating regional transportation needs.

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2. Create public and private gathering spaces to meet the needs of residents, employees, and visitors.
3. Enhance bicycle and pedestrian connections to private and public uses.
4. Utilize poly and design to encourage desired uses to locate in the corridor and to facilitate the reuse or redevelopment of vacant buildings.
5. Establish design regulations to ensure development closely reflects the community's vision for the corridor while accommodating creativity in design.
6. Establish development regulations to meet the fiscal and economic goals of the City.

Community Design Principles

<u>Improve McCaslin</u>

- Safer and more pleasant street to use for all
- Clear distinction between street and driveways
- Buildings that face the street and are accessible from the sidewalk

<u>Connect residents to amenities</u>

- Safer and simpler east/west connections
- Improvements to Cherry/Centennial and Century Drive
- Additional green fingers connecting to Davidson Mesa

<u>Smaller blocks</u>

- Facilitate incremental development with smaller blocks
- Create transportation options with additional street
- Eliminate confusion between driveways and roads

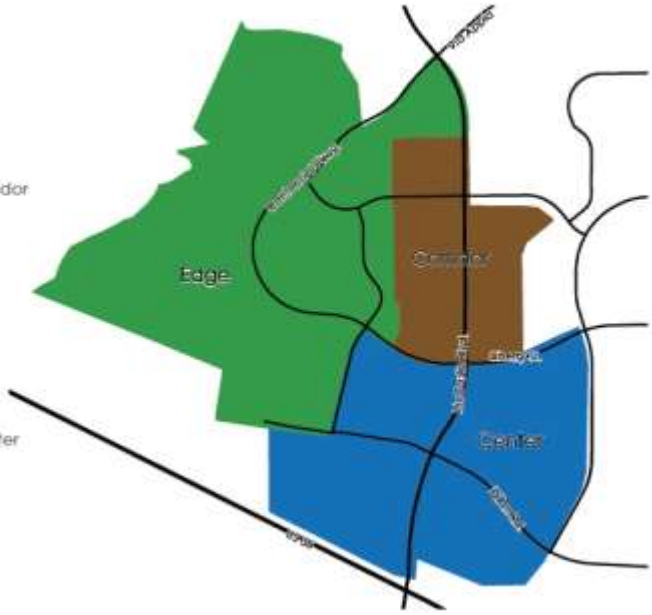
<u>Housing grows from housing, office grows from office</u>

- Introduce housing into redevelopment east of McCaslin
- Encourage low-impact clustered office development in Centennial Valley

<u>Development faces out</u>

- Transition from inward-facing development to outward-facing development
- Make developments fully accessible from sidewalks
- Put parking on the interior of the site and locate buildings on the property

Development Types



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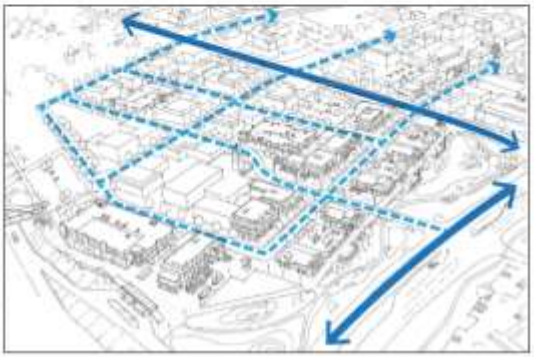
Placemaking Concepts – Center

Placemaking Concepts - Center

Gateway park – a well-landscaped park and transit plaza that creates an attractive and welcoming entry to the community; provides bikes and pedestrian access to the BRT station; and allows for better visibility into the site and station area

View into the site – perpindicular streets and spaces that showcase destinations within the site

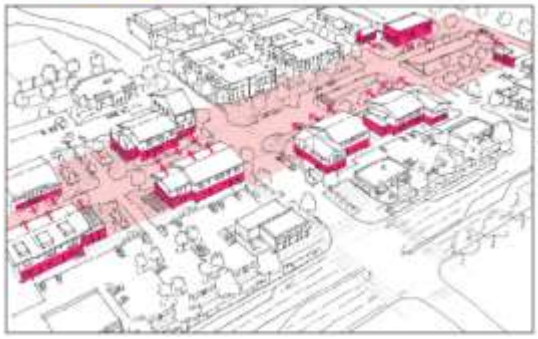


Smaller Blocks – a regular pattern of gridded streets that break down the scale of development to create more walkable blocks

Placemaking Concepts – Corridor

Active Edge – an engaging environment for walkers, bikers, and shoppers along McCaslin, including pedestrian and bicycle accommodations (sidewalk, multi-use trail, and on-street bike lane); landscaping and street trees; adn active retail frontages with access from McCaslin

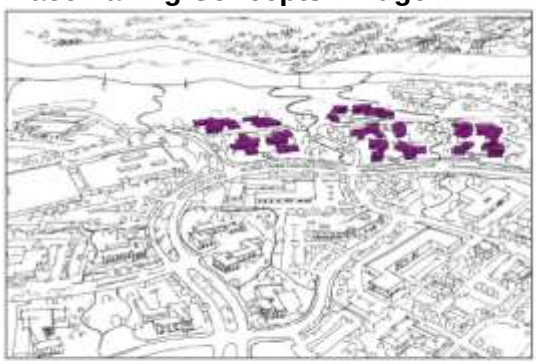
Views into the site – perpindicular streets and spaces that showcase destinations within the site



Core retail street – street parallel to McCaslin that serves as the primary retail spine; new development features active ground-floor retail that addresses the street, as well as pedestrian-friendly streetscape and gathering spaces

Internal gathering spaces – green and/or hardscaped spaces (parks, plazas, courtyards, patios, ect.) that may be public or private and create places for gathering and community interaction within the site

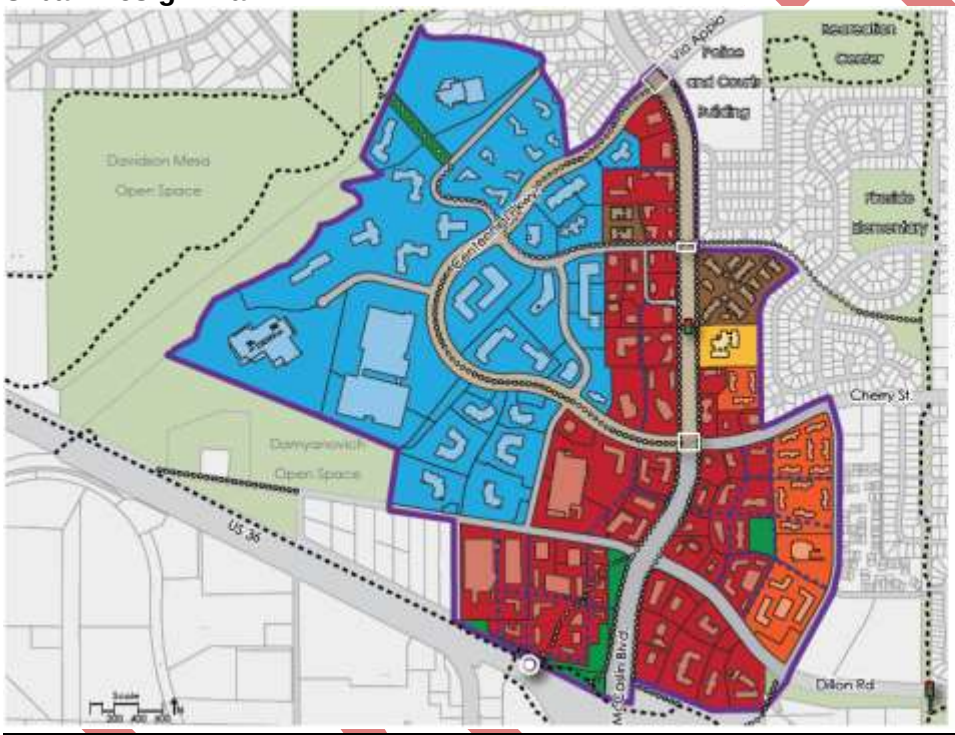
Placemaking Concepts – Edge



Cluster buildings – a pattern of smaller footprint, low-profile buildings arranged in close proximity to one another in order to preserve open space and views into Davidson Mesa

Green fingers – trail and open space corridor between development sites that preserve and enhance access to Davidson Mesa aan local and regional trail networks

Urban Design Plan



Urban Design Plan

The urban design plan is a conceptual illustration of how the corridor could develop under this plan. It includes allowed land uses as well as footprints for existing, planned, and conceptual future buildings. The most significant change in land use is the allowance of residential as a special review use along the west edge of the study area. The plan also includes transportation and pedestrian improvements further detailed on following pages. This map and the maps and illustrations that follow are conceptual and not intended to show the exact locations or designs of improvements. Some areas in the original study area, such as Hillborogh West, have been removed from the plan area. It is recommended these areas be left mostly as they are, with detailed recommendations to come from the neighborhood planning process.

- Retail/Office
- Retail/Office/Residential
- Office
- Residential High Density
- Residential Medium Density
- Park
- Open Space

Community Survey

Figure 24: Level of Support for Housing Options for Former Sam's Club Area

Most of the land zoned for residential uses in Louisville has been built out. In the former Sam's Club shopping area residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing?

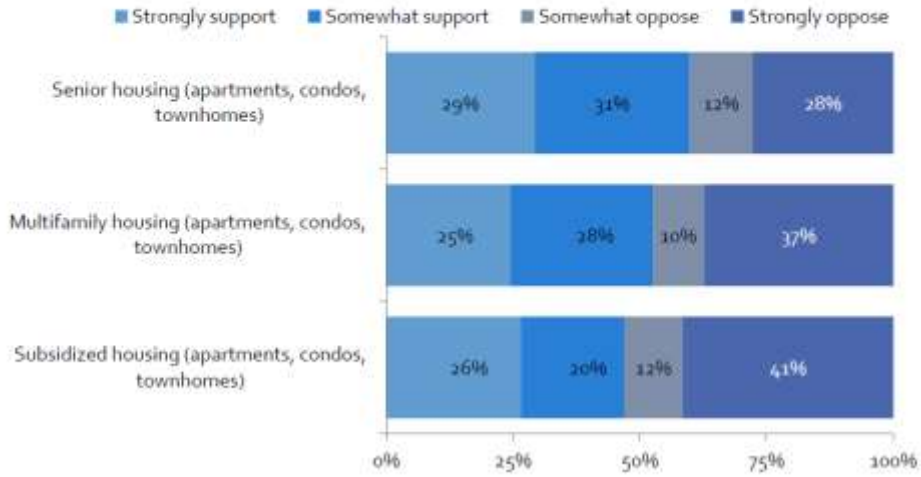
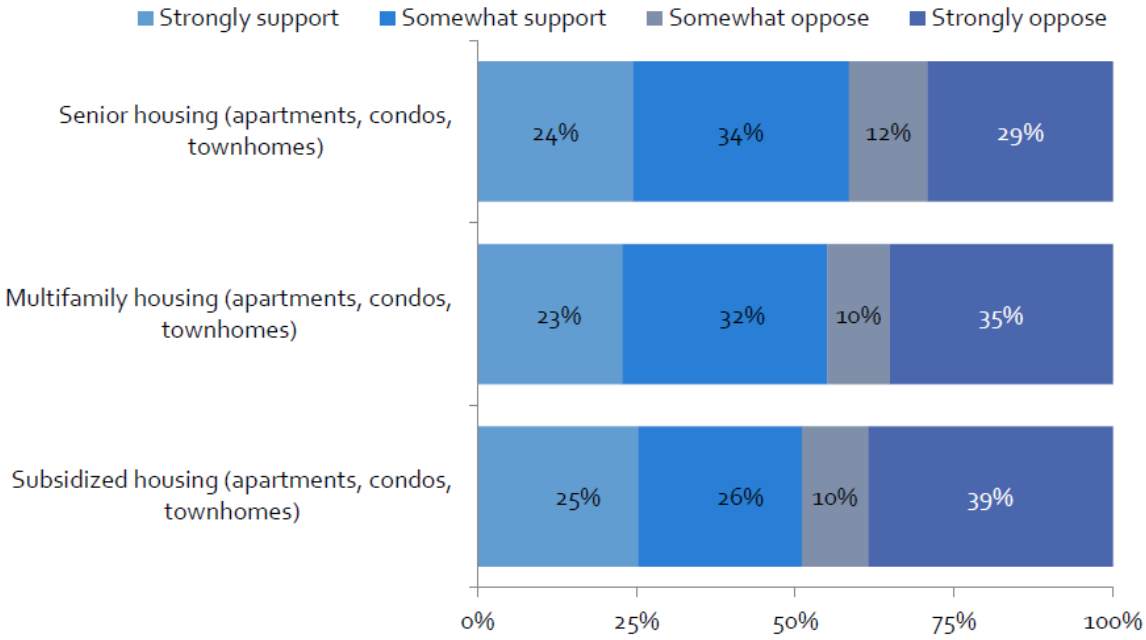
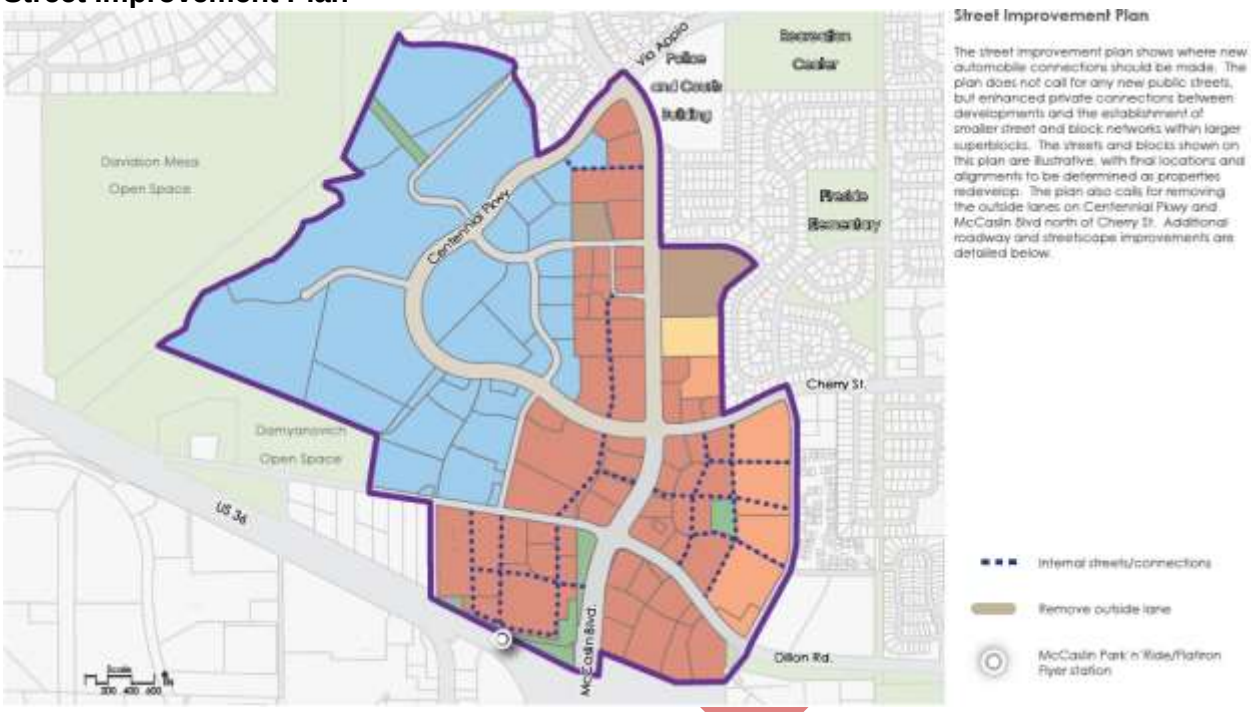


Figure 25: Level of Support for Housing Options for US36/McCaslin Area

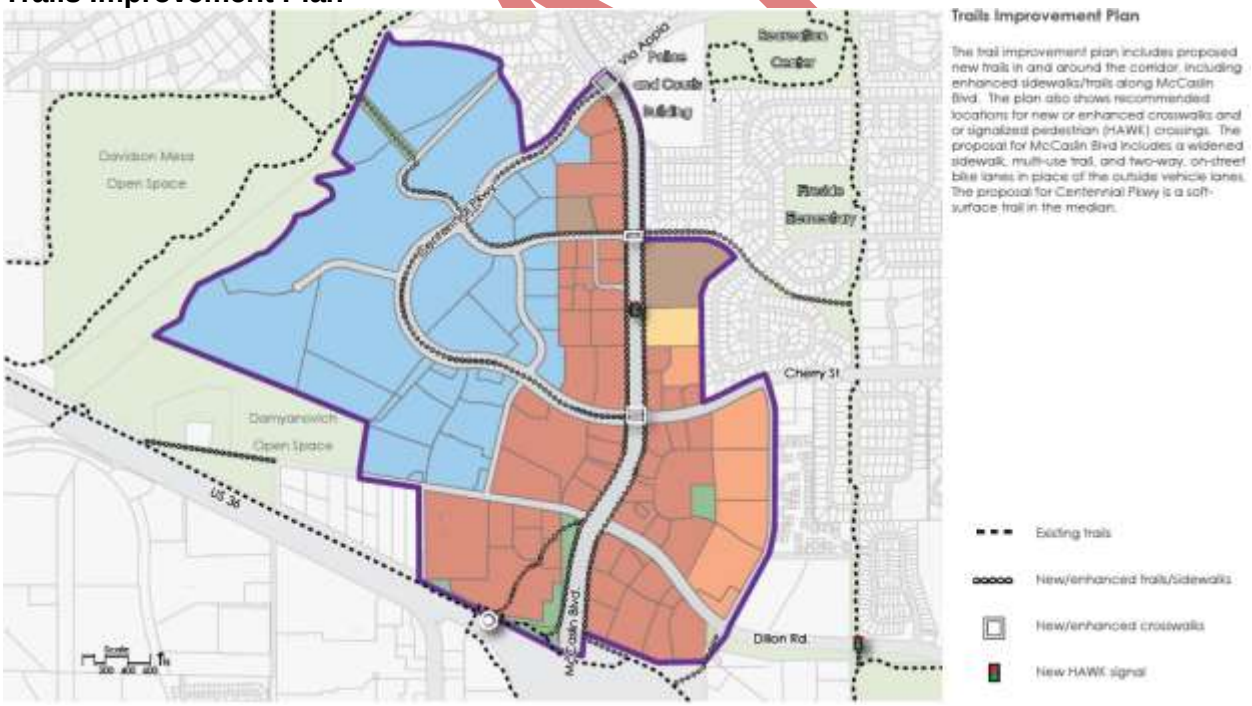
In the area near the US36/McCaslin transit/bus station residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing?



Street Improvement Plan



Trails Improvement Plan



Roadway Improvement Plan

Building Height Plan

Urban Design Elements – Center

Colony Square Concept Illustrative
Center Development Type

Parcel O Concept Illustrative
Center Development Type

Urban Design Elements - Corridor

Urban Design Elements – Edge

Fiscal Impact

Existing Development in Study Area		
Retail	897,781	Square feet
Office	1,769,692	Square feet
Residential	277	Units
Employees	7,993	People
Residents	333	People

Projected 20 year Increase over Existing		
Retail	296,308	Square feet
Office	2,223,745	Square feet
Residential	391	Units
Employees	539	People
Residents	8,923	People

Employees existing and employees projected numbers are reversed. Existing should be 539; projected should be 7,993.

20 Year Cumulative Fiscal Impact	
Revenue by Fund	
General Fund	$49,520,000
Urban Revitalization District Fund	$0
Open Space & Parks Fund	$5,584,000
Lottery Fund	$0
Historic Preservation Fund	$2,112,000
Capital Pojects Fund	$17,761,000
TOTAL REVENUE	$74,978,000
Expenditures by Fund	
General Fund	$35,870,000
Urban Revitalization District Fund	$0
Open Space & Parks Fund	$626,000
Lottery Fund	$0
Historic Preservation Fund	$0
Capital Projects Fund	$31,812,000
TOTAL EXPENDITURES	$68,308,000
Net Fiscal Result by Fund	
General Fund	$13,650,000
Urban Revitalization District Fund	$0
Open Space & Parks Fund	$4,959,000
Lottery Fund	$0
Historic Preservation Fund	$2,112,000
Capital Projects Fund	($14,051,000)
NET FISCAL IMPACT	$6,670,000

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Implementation

- Draft and adopt design standards and guidelines
- Timeline
- Cost estimates given in ranges

Questions from Commission to Staff:
Hsu says in our packet, it says there will be a significant increase in peak hour traffic for McCaslin. Is that all due to the growth of the area or is it, in part, due to the elimination of the third lane?
Robinson says there will be an increase in traffic north of Cherry, but not as significant. Two lanes will be enough to handle it. We will see a more significant increase in traffic south of Cherry coming from another 2 million SF of office with employees driving in and out. We are calling for an additional northbound through lane at McCaslin and Dillon to increase the capacity of that intersection. We did the projections based on full build-out of Centennial Valley and the rest of the corridor.
Hsu asks what Staff heard from residents regarding residential build-out. There are people who are opposed. Are they generally against it for the City or did they have specific complaints about the McCaslin area and that wasn't compatible?
Robinson says it is City-wide. Comments were about the City growing a lot in the last few years and added people on the roads and children in schools and the Recreation Center capacity. Some of the comments were central to the area and fiscal impacts. The McCaslin corridor is the City's prime source of sales tax income. Allowing areas zoned for retail and sales tax generating land to go to residential can be fiscally positive or fiscally negative. It depends on price of the housing unit and annual income of the resident.

Email and scenarios breakdown entered into the record:
Rice makes a motion to enter email from **Brian Larson** dated June 23, 2016 and scenarios breakdown of urban, suburban, and development plans, seconded by **Moline**. Motion passes 5-0 by voice vote.

Public Comment:
Sherry Sommer, 910 S. Palisade Court, Louisville, CO
My question is about the Principles of Connectivity, gathering spaces and pedestrian and bike connections. Will the City be able finance those types of improvements? It seems in the South Boulder Road area, many amenities were promised but there is a budget shortfall. Provision of those amenities is in doubt. I think this is important to think about. We talked about residential being close to existing residential. I have a question about the residential north of Dahlia. Is that high density housing or will that be similar to the single family housing we currently see there?
Robinson says the brown area labeled high density at the southeast corner is currently apartments. It would remain the same allowed density use.
Sommer says there is no commercial area there to be converted to residential. Will it be rezoned?
Robinson says it would maintain its existing zoning, but we were talking about the area in the interior of that shopping center, potentially changed from commercial to allow residential.
Sommer says I have a concern with that. It is adjacent to residential development which is a different type. People chose to live in an area because it is relatively quiet and less dense. Placing higher density residential would not be compatible to the kind of lifestyle these people came to enjoy. I have a big concern about having three stories away from McCaslin. As you drive through, you get a good view because there are lower buildings by the road. However, if you live close to the three story buildings, it is not very pleasant. We see that in the Alfalfa's area where people are having a hard time getting out of their neighborhood and having an ugly view of a big building that blocks them in. I heard something about residential being zoned through SRU. We talked about that with the South Boulder Road Area Plan. I am thankful to

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City Council that they decided to not allow it. I don't think it is a good idea. We talked about more traffic on McCaslin up to Cherry. The intersection on Dahlia and Cherry needs to be looked at because there are families trying to cross at the intersection. We talked about having a roundabout in that area, but I heard nothing tonight.
Bernard Funk, 1104 Hillside Lane, Louisville, CO
I have been a resident for ten years. I have been attending these meetings for about three or four years. I have seen many of these plans. I think some of them are excellent, but some, I think, need to be reconsidered. I do oppose the three story buildings that might run along Centennial Parkway. I live on Hillside Lane which is at the intersection of Centennial and McCaslin. I don't want to look out my back window and see a three story building. I think something should be done with McCaslin; however, if we're bringing in all these corporate buildings and office buildings on the edge, I am not sure we won't need three lanes between Cherry and Century. Would Sam's Club in the light tan area on the map be residences?
Robinson says it would allow for residences. It would allow for the existing uses of commercial and retail/office.
Funk says in the five-year plan we looked at in the past, this area up by Hillside is where there are patio homes. Are we considering that anymore? Are we just considering office buildings?
Robinson says we heard some people in favor of it and some people opposed to it. When the Comp Plan was adopted three years ago, it limited the potential of residential basically to the east of McCaslin. We don't want to put forward any plan not compatible with the adopted Comp Plan.
Funk says I have an 11 year old child at Monarch K-8. I know about the feeding schools that go into there. Many of these schools are at 90+% capacity. Whatever we do, we need to consider some grammar schools are at near capacity.
Moline says I wasn't sure if you were talking about McCaslin or Century when you were talking about traffic concerns of the office park. Were you talking about McCaslin?
Funk says I was talking about McCaslin, going from three lanes down to two between Cherry and Century. Centennial going from two lanes down to one will take a lot more traffic over the next 20 years. I like the idea of a bike lane, a sidewalk, and a single traffic lane which will reduce the speed limit of the drivers. If all the land is developed, you will need two lanes going both ways.
Pritchard asks Staff if the thought process about the third story goes along McCaslin is based on the topography as it slopes down towards Highway 36. Would a third floor be less obtrusive?
Robinson says it is to avoid creating the sense of "canyon" along McCaslin because we've consistently heard people don't want it. It is creating residential protection standards or transition standards so we can avoid the situation of three story buildings abutting against existing residential neighborhoods.
Gary Sanders, 148 Griffith Street, Louisville, CO
I have been a Louisville resident for 33 years. When I moved here, there was only one business on McCaslin by Highway 36 that was a 7-11. It was the busiest 7-11 in the state of Colorado. This corridor is the most important part, I believe, of Louisville from a tax standpoint. One thing I am concerned about is in your fiscal analysis for the 20 year. There is only a $6 million projection of additional revenue for that corridor. Is that correct?
Robinson says it is $6 million net additional, so $6 million more than cost for the development.
Sanders says given what we have here today, what are the fiscal trade-offs of creating more commercial for that commercial tax base rather than use for office or residential? Has that analysis been done?
Robinson says the issue is that you can zone something for retail but that doesn't mean it will be built. That is the problem we've had in other areas of town. If that is the direction we want to go, we can zone more land for retail. Generally, the land that will be successful as retail is already zoned for retail such as the land along McCaslin where they get the most traffic. If you increase the retail zoning, it likely will not be developed as retail. The advantage of allowing

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some residential or other complementary uses that would be built is it will bring more customers to the existing residential we have. That is the analysis we've done.
Sanders says given the impact of the change and looking at the differences like a business case between developing this way and more commercial, has that analysis been done?
Robinson says at the previous meeting in February where we presented the three alternatives, we had a fiscal impact of build-out under the existing zoning and what the difference would be from the three alternatives. I don't remember what the numbers were, but we have looked at it.
Sanders says my concern is that over time, if we reduce the amount of commercial space and we dedicate it to residential, then we've lost any future tax base. I am urging the PC to take that into consideration and look at the trade-offs in association with what we are giving up and where our future should be in terms of commercial tax base. I am thinking more retail tax than use tax.
Tengler says the challenge historically is if you talk to the retailers in town, they say they need more rooftops. Simply zoning something retail, it may never be built, or it may be built and be failed retail because there is not enough residential to support it. That happens on McCaslin and Downtown and virtually everywhere. Your point is well taken. We need to do some analysis that factors in the different blends and how that impacts the tax revenues over time.
Rice says when we talk about fiscal impacts, the $6 million number that has been quoted is the bottom line after we talk about receipts and what gets spent. All of this is built on a model and is highly speculative. In terms of increase in tax revenues, we go to the top of that matrix. The sales tax revenue is reflected in the general fund number.
Robinson says the general fund number captures sales tax and use tax and property tax.
Rice says that is $49.5 million if the development occurred and all the conditions in the model are met. I think that is the number we are looking at, the near $50 million positive in terms of the general fund increase.
Tengler says this also speaks to the earlier point about how do we fund this? That is built into the model as well.
Robinson says the way the model is set up, it assumes a standard level of service at our current level of service. It builds parks and trails at the current ratio of miles per resident or acre per resident. It would, in theory, fund these capital improvements at a consistent level to what we have. Some of this calls for enhancement over existing, and then we would have to find funding for that. These are recommendations that go into our capital budget requests in the future. It is a conversation City Council has every year of what are our priorities and how can we fund it.
Moline says we will be getting $50 million, but the benefit is we will be getting the improvements that we can implement.
Cindy Bedell, 662 W Willow Street, Louisville, CO
I have been a property owner for almost 20 years. One of the reasons Louisville has been listed as one of the top small towns in America by Money Magazine is that it has low stress, is easy to get around, is attractive, has a low crime rate, and is economically viable. I believe in 2014, our sales tax increased to over 8%. I understand that we will be paying off our bonds for the library five years early and ahead of the original maturity date because of the increased property value assessments. I want to mention that we have been doing well economically and I think we should keep this in mind as we plan our city. We need to keep balance in mind and not just think money and sell everything out, and sell our quality of life. What I saw in this plan that concerns me is the words "urban infill". I understand three story buildings are already allowed in some areas, but when I see the projected models here and what I have seen before, I am really concerned. I imagine other residents are as well. The word on the street is "look what's happened to Boulder. You can't see the mountains. It's so dense and it's so crowded. It's ugly." People don't want to go there to shop. When I hear that, and I see the model for the Center area, I am very concerned about these 10-20' setbacks, three story buildings, and the density and scale. The Huckleberry used to be called Karen's in the Country. We are completely changing the vision of Louisville by urbanizing. As we continue to add more density, we will add more traffic. I hear talk of adding office space that will create unsatisfactory traffic conditions. It

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hasn't happened yet. We have the opportunity to create a balance in this plan. The second thing is residential. There are many residents who spoke against residential and I happen to be one of them. I have heard the other side of the argument. I heard at a recent City Council meeting, one of the Council members say, "we can no longer rely on this argument that we need rooftops to draw retail." If you look around east Boulder County, it is nothing but wall-to-wall rooftops and more are coming all the time. I think that it is an old argument and there are drawbacks to adding residential for infrastructure, for crowding, for the schools, and for the traffic. There are a lot of things against residential. My understanding is that Louisville will be receiving some of the sales tax revenues from the Superior Town Center project. I read in the plan in the packet that we see that as competition. But I have had it corroborated that we will receive tax revenue from that. What happens with urban sprawl is we compete with other people to build. At some point, we shoot ourselves in the foot. Finally, in summary, I want to encourage us in looking at the Small Area Plans to consider that quality of life for the current residents should be the most important vision. We have enjoyed one of the best qualities of lives in the country, and I hate to see us sell that.

Malene Mortenson, 947 St Andrews Lane, Louisville, CO

I came for the presentation for the Rec Center, but there are a couple of things that have come up. I haven't heard anybody talk about where the residential is listed on this plan. Why couldn't it be a combination of where you have retail on the ground floor, you have one story of residential above it? That way, you combine two positive impacts. I haven't heard about the impact of the Superior Town Center on any retail we put into the McCaslin corridor.

Linda Boyd, Instant Imprints, 1148 W Dillon Road, #3, Louisville, CO

I am not a resident of Louisville but I have owned a small business in the McCaslin corridor for 12 years. I have a couple of random comments that may seem on both sides of the fence. I really love Louisville and I love having my business here. I did appreciate the drawings in the vision that you have for McCaslin. I think they are interesting and exciting but also scary for businesses. Right now, my business is in the Colony Square Shopping Center and what scares me most is the front facing-out concept. What that means is when the property owners decide to re-develop, it will cost a lot of money which raises rent. It is not easy having a business in Louisville. It is expensive and tough. We try hard and work hard at being a part of the community. I do think the McCaslin corridor is extremely important to Louisville because it is where people come in and out every single day. It is how people get to the Downtown and get to South Boulder Road. They have to drive through McCaslin and Dillon. I have driven that same intersection every day for 12 years. I ride my bike there and I walk there. I eat at restaurants there. I am probably here more waking hours than a lot of residents who live in Louisville. It is an incredibly important area and I want to see it look beautiful. I want it to be inviting. I want it to be an invitation for people to come into the Downtown area. I think we should put a lot of thought into how signage looks as well as buildings. Right now, we have a sign that says Marijuana, and I don't like that sign. The traffic is crazy and I do like the diverging diamond. I think the bike path needs a little more connectivity in the City. I have been coming to these meetings for a long time and I think this is such an important area. We are a huge tax generator for the City. I am happy you want it to look pretty and inviting, but it has to be okay for the businesses too. If it gets too expensive to be there, I can't make it.

Pritchard says in regard to the signage issue, it will be something that will be picked up if this moves forward. It is addressed by sign guidelines. I also want to get information from BVSD. We have given Staff some corrections to be made.

Hsu asks Staff about the Colony Square area. There is a cross-over bridge to Superior. Do we have any collaborative effort where we could do something on both sides of Highway 36 so it is a win-win for both communities? Have we talked to Superior on what we plan to do regarding enhancing that area?

Robinson says we have talked to Superior regarding the Park-n-Ride and the pedestrian bridge on ways to improve them. The shopping center is privately owned. On the east side where the Town Center is being built, we are reviewing those plans as they proceed. We do get a portion

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of the sales tax from a portion of that development. As far as enhancements to the shops and streets over there, we not have talked to Superior about it.
Pritchard says the shared revenue on the Superior side is because of some land annexation. They want to put medical facilities there which will not generate sales tax. It is a valid point to keep it in mind as we move forward.
Robinson says the agreement says they are obligated to build/zone for 200,000 SF of sales tax generating use in that area. Louisville gets half of the sales tax from those uses.
Moline says I have a couple small things. The Gateway Park will be a challenging spot to develop with an appealing place. I like the idea but it seems like a small area. In order to work, it will need some focus like outdoor art. I like most of the aspects of the plan. It does some great things for the corridor. I understand the fatigue that a lot of people have with more residential. My sense is that if we could do all of this without residential, I think we would like to keep the area commercially viable. My sense is that we don't think it is possible. When you have a Sam's Club sitting vacant for many years, it is a signal that there needs to be something done that invigorates this space. My sense is the improvements the plan recommends are worth some additional development. I like the direction that plan is going. I hear what residents are saying about building heights. I think the plan needs to be sensitive to it.
Rice says there are two things that have been said here tonight that I agree with whole-heartedly. This concept of balance has been the focus of this plan from the beginning. In my view, what we are looking at here now has a great deal of balance to it. I had concerns early on that there would be a heavy push towards residential which I strongly oppose. What I think we see here is a very diminutive use of residential. We are talking about 391 additional units and that is not much when you consider the scope of the area we are talking about. The other thing said repeatedly, and I again agree with, is that this is the economic engine of our community. We need to take advantage of that in a way that is both balanced and responsible. I think this plan addresses that as well. The plan lays the seeds for a very vibrant economic area down in the McCaslin corridor. That is what we are after.
Hsu says my initial reaction to the plan is it is very well written. I think it captures the challenges of this corridor very well. The residents spend a lot of time at various shops there, but they go there and drive away. I take the Park-n-Ride every day and there definitely are some problems going through and navigating the area. I go through the Home Depot parking lot or the Colony Square parking lot to park at a bus station. It seems weird. I'd like to understand from the residential survey about who is for or against more residential build out. Is it families with kids in schools? Is it someone who has lived here 50 years? My personal feeling is I do like the idea of mixed use, commercial, office, retail, residential, and I think this plan does a good balance. The technical advisory panel consulting packet mentioned a few award winning places which all had mixed-use residential and I think that may be the trend that people like right now. Living in a place where you can walk to the store, a restaurant, a brewpub, and walk back home. I don't live in that type of place. When I go shopping in that type of place, I am happier shopping there than stopping at a parking lot, going to a store, and driving away. I don't know what the fiscal trade-offs are. If we go from commercial to mixed-use, are we losing revenue or creating revenue? Going back to Colony Square, I feel like that is an area ripe for some mixed-use residential; being a transit hub, but that conflicts with the Comp Plan.
Pritchard says I'd like to see this again and have all seven Commissioners see it. I'd like more public input as well to refine these areas.

Presentation: Proposed Expansion of the Recreation/Senior Center and Upgrades to Memory Square Pool – POSTPONED because the presenter needed to leave. The City wants all the Boards and Commissions updated with information.

Planning Commission Comments:
None.

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Staff Comments:
None.

Items Tentatively Scheduled for the regular meeting: July 14, 2016

- **Balfour Senior Living Plat/PUD Amendment, Resolution No. 14, Series 2016.** A request for a final Plat and planned unit development (PUD) to allow for a new 54-unit Assisted Living Community.
  - Applicant, Owner, and Representative: Balfour Senior Living (Hunter MacLeod)
  - Case Manager: Lauren Trice, Planner I

- **824 South Street Final PUD:** A request for a final PUD to construct a new 10,000 SF commercial building and a 1,200 SF addition to the existing residential building.
  - Applicant and Representative: Hartronft Associates (Erik Hartronft)
  - Owner: Ronda Grassi and Nancy Welch
  - Case Manager: Scott Robinson, Planner II

Items Tentatively Scheduled for the regular meeting: August 11, 2016

- **DELO Lofts Final Plat/PUD/SRU:** A request for a final Plat and planned unit development (PUD) and special review use (SRU) to allow for eight live/work units and 33 apartment units in the Hwy 42 Revitalization Area.
  - Applicant: Delo East, LLC (Justin McClure)
  - Owner: Boom, LLC (Elizabeth Law-Evans)
  - Representative: RMCS, Inc (Justin McClure)
  - Case Manager: Scott Robinson, Planner II

Adjourn:
Rice made motion to adjourn, **Moline** seconded. **Pritchard** adjourned meeting at 9:51 P.M.

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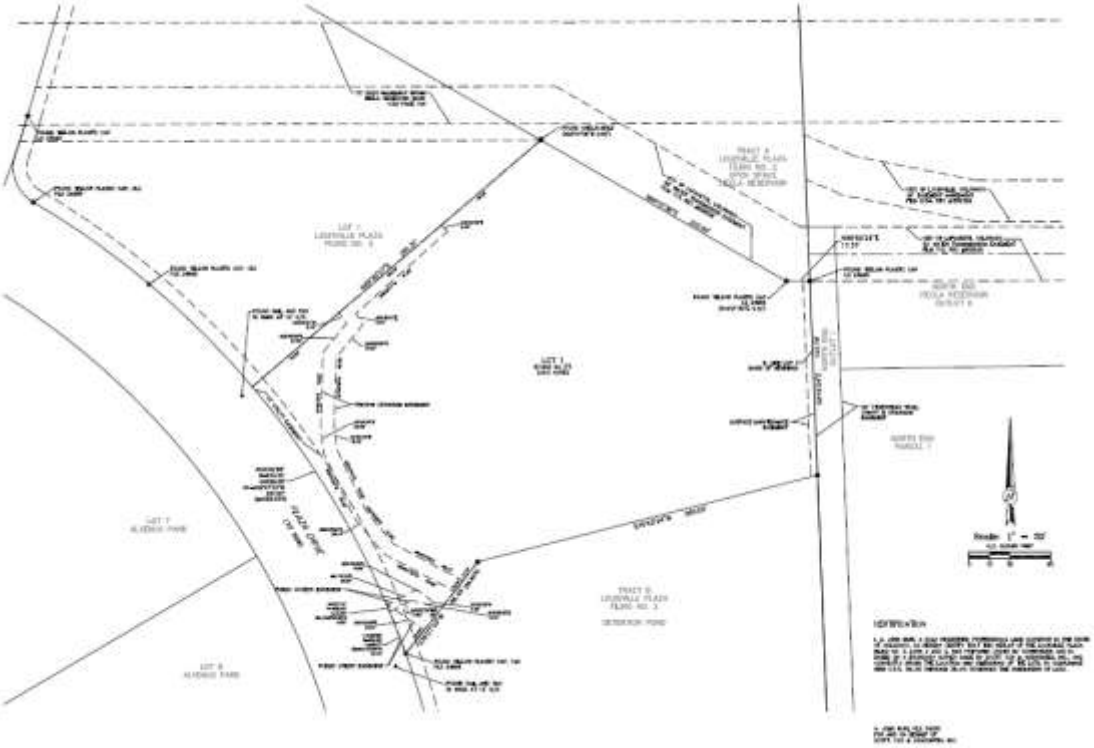
City of Louisville
COLORADO · SINCE 1882

Planning Commission
Staff Report
July 14, 2016

ITEM:	Case #16-009-FS/FP, Balfour Senior Living PUD/Plat
PLANNER:	Lauren Trice, Planner I
APPLICANT:	Hunter McLeod Balfour Senior Living 1331 E Hecla Drive Louisville, CO 80027
OWNER:	Michael Schonbrun Balfour Senior Living 1331 E Hecla Drive Louisville, CO 80027
EXISTING ZONING:	Planned Community Zoned District – Commercial (PCZD-C)
LOCATION:	1800 & 1870 Plaza Drive, Louisville, CO 80027
LEGAL DESCRIPTION:	Lot 3, Louisville Plaza II
TOTAL SITE AREA:	2.01 acres
REQUEST:	Resolution 14, Series 2016: A request for a final plat and final planned unit development (PUD) to construct a 54-unit Assisted Living Community at 1800 & 1870 Plaza Drive.

BACKGROUND:
The applicant, Balfour Senior Living, requests a final plat, and final planned unit development (PUD) to develop a 2.01 acre parcel in the Louisville Plaza Subdivision. The applicant requests a 54-unit assisted living community with 14,400 SF of amenities for residents and 1,200 SF of administrative office space. The proposed three-story structure would contain 54 dwelling units with a wellness center, salon, activity rooms, dining room, kitchen, and offices. The property is zoned Planned Community Zone District – Commercial (PCZD-C) and subject to the Commercial Development Design Standards and Guidelines.

Final Plat/General Development Plan
The subject property was platted as two lots as part of the Louisville Plaza Filing No. 2 subdivision. The applicant requests a replat to combine Lots 2 and 3. The proposed replat includes establishment of a drainage easement and a public access easement for the interpretive sign. The subject property is part of the Louisville Plaza GDP, which allows nursing and rest homes in areas designated commercial/office.



Proposed Louisville Plaza Filing No. 2, Replat A

Public Land Dedication
When the Louisville Plaza Filing No. 2 subdivision was originally platted in 1991, the developer dedicated 40 percent of the land as public land dedication (PLD). According to Chapter 16.12 of the Louisville Municipal Code (LMC), commercially zoned properties require a 12% PLD, while residentially zoned properties requires a 15% PLD. Based on the previous PLD that took place with the original subdivision, no additional PLD is required.

Historic Preservation

The proposal includes the demolition of two residential structures. One of them is the historic Hecla Casino building located at 1800 Plaza Drive and the other is a Victorian-style structure constructed in 1979. The Hecla Casino was relocated in 1991 from its original location at Louisville Plaza. The Casino currently serves as a residence and will be demolished as part of this development unless a new location is identified where it could again be relocated.

Former Hecla Casino - 1800 Plaza Drive

The applicant proposes the preservation of an existing stone and concrete element remains, likely associated with hoisting coal cars from the former Hecla mine. This structure is located on the southernmost corner of the site along Plaza Drive. The proposal includes preserving the structure in a plaza area with an interpretive sign about Louisville's mining heritage and the labor strikes at the Hecla mine. A public access easement to the historic mine element would be included with the replat.

Surrounding Land Use

Across Plaza Drive, west of the property are additional Balfour Senior Living facilities and office space. Northwest of the property is office space. A trail runs along the east side of the property leading to the Hecla Open Space and the Hecla Lake Reservoir to the north. The North End Development is to the east with single family residences directly adjacent to the property. South of the property is the detention pond for the surrounding area.

PLANNED UNIT DEVELOPMENT:

Compliance with 17.28.120
Section 17.28.120 of the Louisville Municipal Code lists 13 criteria for PUDs that must be satisfied or found not applicable for the PUD to be approved. Analysis of each criterion is below:

Criteria 17.28.120 (A)	Finding	Narrative
1. An appropriate relationship to the surrounding area.	Criterion met with conditions	In order to provide a more appropriate relationship to the residential development to the east of the site, the applicant worked with staff to redesign the eastern wing of the structure to be two stories instead of three stories. Staff also recommends a condition that a mature landscape buffer with a minimum of six mature trees be provided on the east and northeast sides of the property to provide privacy to the adjacent residential area. Without the inclusion of mature landscaping, it will take several years for the landscaping buffer to provide adequate landscape screening between the proposed building, which exceeds the maximum height allowed for the zoning district, and the adjacent residential neighborhood.
2. Circulation in terms of the internal street circulation system, designed for the type of traffic generated, safety, separation from living areas, convenience, access, and noise and exhaust control. Proper circulation in parking areas in terms of safety, convenience, separation and screening.	Criterion met	The site plan shows a circulation system designed for vehicular traffic and emergency access that has been reviewed by staff and the fire district and has been found to meet minimum requirements. The site plan includes two access points off of Plaza Drive connecting to a covered drop off area.
3. Consideration and provision for low and moderate-income housing	Not applicable	Not applicable
4. Functional open space	Criterion met	The applicant is providing 47% open

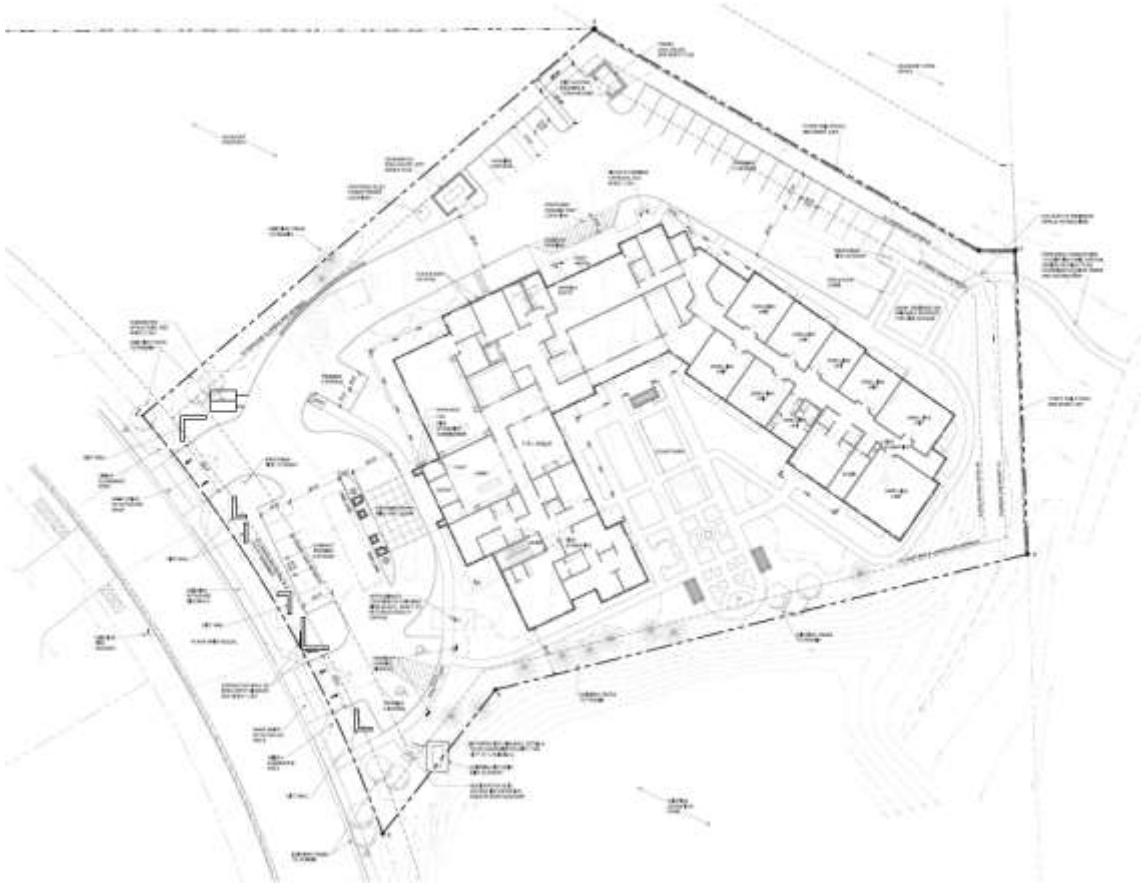
in terms of optimum preservation of natural features, including trees and drainage areas, recreation, views, density relief and convenience of function		space, exceeding the CDDSG requirement of 30%. The site plan includes a courtyard and access to the Louisville trail systems. Several trees and swales are being retained as part of the landscape plan. The applicant provided renderings showing the minimal impact of the structure on the surround mountain views.
5. Variety in terms of housing types, densities, facilities and open space	Not applicable	Not applicable
6. Privacy in terms of the needs of individuals, families and neighbors	Criterion met with conditions	As previously discussed, the applicant worked with staff to redesign eastern wing of the structure to be two stories instead of three stories to provide additional privacy for the neighboring residences. Staff is recommending a condition where the landscape buffer is also enhanced with mature landscaping to provide privacy to the adjacent residential area.
7. Pedestrian and bicycle traffic in terms of safety, separation, convenience, access points of destination and attractiveness	Criterion met	The applicant is providing acceptable pedestrian access including public access to the historic mine element and a trail connection. The proposal also includes bike parking.
8. Building types in terms of appropriateness to density, site relationship and bulk	Criterion met with conditions	As previously discussed, the applicant worked with staff to redesign the eastern wing of the structure to be two stories instead of three stories and has included a condition to provide mature landscape screening. The redesign and landscape screening also address this criterion by providing a more appropriate relationship between the residential neighborhood to the east and the proposed building height.
9. Building design in terms of orientation, spacing, materials, color, texture, storage, signs and lighting	Criterion met	The proposed building is oriented towards Plaza Drive with a U-shape form. The design of the structure includes a variety of building

		materials and textures including horizontal lap siding, vertical board and batten siding, and stone veneer. The proposed signs and lighting comply with the requirements in the CDDSG.
10. Landscaping of total site in terms of purpose, such as screening, ornamental types used, and materials used, if any; and maintenance, suitability and effect on the neighborhood	Criterion met	The proposed landscaping plan complies with the CDDSG. Staff recommends a condition to add mature landscaping on east side of the property to increase the screening. Staff's support of the building height waiver is conditional on provision of this additional mature landscape screening.
11. Compliance with all applicable development design standards and guidelines and all applicable regulations pertaining to matters of state interest, as specified in chapter 17.32	Waivers to Commercial Development Design Standards and Guidelines requested for height, accessory structure setback, fire access, and parking setbacks	See analysis below
12. None of the standards for annexation specified in chapter 16.32 have been violated	Not applicable	Not applicable
13. Services including utilities, fire and police protection, and other such services are available or can be made available to adequately serve the development specified in the final development plan	Criterion met	The Public Works Department and Louisville Fire District reviewed the plat and planned unit development and found them to be in compliance.

Commercial Development Design Standards and Guidelines (CDDSG)
In addition to the criteria described above, developments in properties zoned PCZD-C must comply with the Commercial Development Design Standards and Guidelines.

Site Plan
The proposed site access is from two driveways off of Plaza Drive. The main entrance to the building includes a two-story, covered entry. The proposed U-shaped building

creates an internal courtyard towards the south side of the site. A driveway and the majority of the parking area are located along the north side of the site.



Site Plan

The CDDSG requires a minimum building setback of 20 feet from collector streets. The principal structure is setback 55 feet from Plaza Drive. The CDDSG also requires a 15 foot setback for parking along a collector street. The applicant requests a waiver for a portion of the six compact car spaces on the front of the property to extend 5 feet into the setback. They are buffered from Plaza Drive by landscaping and a decorative wall.

The side setbacks and rear setbacks for the structure and parking are 10 feet. The applicant requests a waiver on the northernmost corner of the property to allow for fire access backing/turnaround extending 10 feet into the side setback/landscape buffer.

A 120 SF accessory structure is proposed in the northwest corner of the property. The structure complies with the 20 foot structure setback but the CDDSG does not have an accessory structure setback requirement. The front yard setback for accessory structures in commercial zone districts is 35 feet. The applicant requests a waiver to allow an accessory structure with a front yard setback of 26 feet.

The applicant is providing 47% open space, exceeding the CDDSG's requirement of 30% open space.

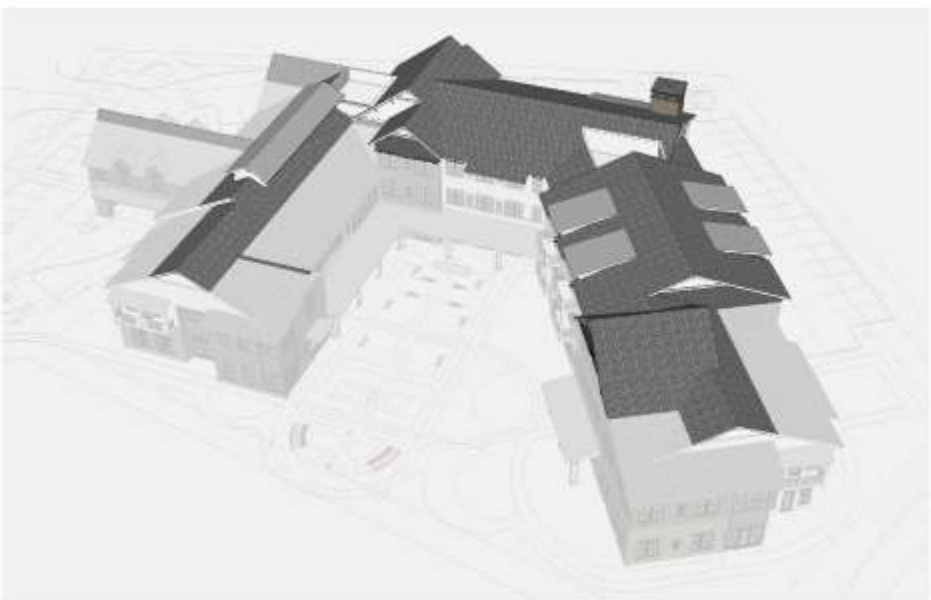
Vehicular/Pedestrian/Bike Circulation
The proposed vehicular circulation includes two access points off of Plaza Drive, a covered passenger drop-off area, and a driveway to the parking on the north side of the site. The internal pedestrian circulation provides access from existing sidewalks on the perimeter of the site to connect to the main entry, courtyard, and trail system.

The Louisville Municipal Code requires 1parking space per 3 beds for uses defined as Residential-Home for the Aged. With 56 beds, the parking requirement is 19 spaces. The office space requires 1 space per 300 SF. With 1,200 SF, the parking requirement is 4 spaces. The project requires a total of 23 spaces. The proposed plan provides 30 parking spaces (24 full size, 6 compact). The applicant is also providing 4 bicycle parking spaces.

Architecture/Height
The architecture is inspired by the old farmhouses in Boulder County and includes a variety of materials. The proposed 3-story, gable-roofed, U-shaped structure is clad in horizontal wood shiplap, vertical board and batten, and stone veneer. The variety of textures adds visual interest to the proposed structures articulated form. Residents, employees, and visitors would enter the structure through the two-story covered entry along Plaza Drive. The structure frames a formal courtyard.

Proposed South Elevation

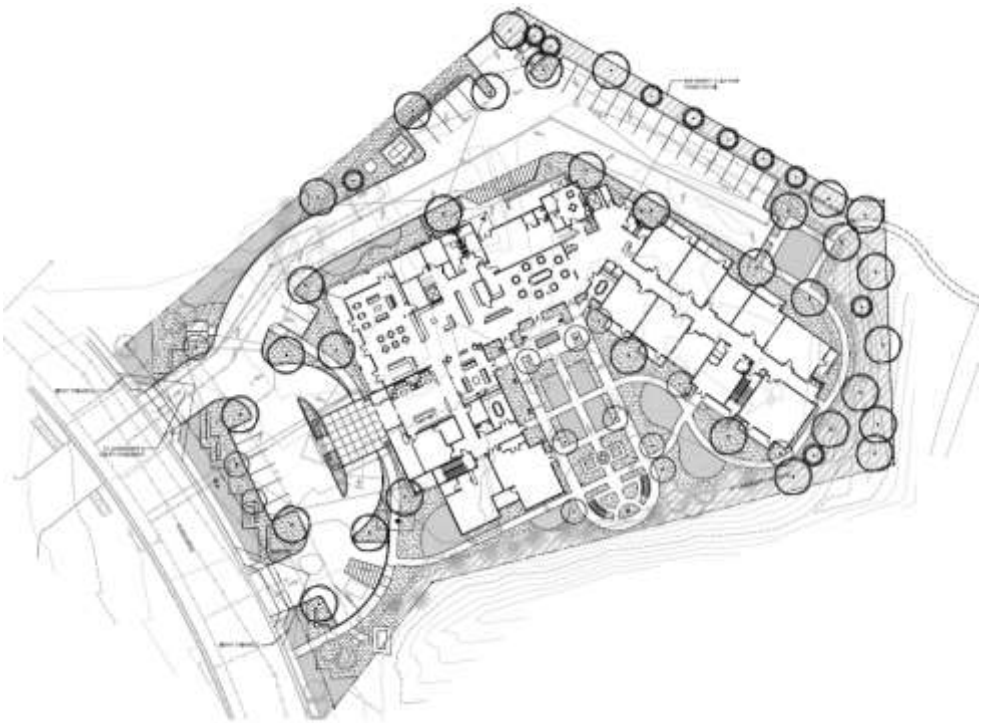
The proposed structure includes a combination of multiple roof angles, clerestory windows, and broken gables. The gables are supported by exposed brackets typical of the Craftsman style. The variety of roof forms breaks up the building, which extends to three stories and up to 52 feet in height. The CDDSG limits building height to 35 feet. The structure is designed to be two stories along Plaza Drive. In addition, the applicant redesigned the east wing to be two stories to create a more appropriate transition to the residential neighborhood. The applicant is requesting a waiver to extend portions of the building to 52 feet.



Roof height above 35 feet

Landscaping/Screening

Chapter 5 of the CDDSG is the governing document for the proposed landscape plan. Staff reviewed the proposed landscaping plan for the development and believes it complies with the CDDSG. The landscaping will consist of areas of woody shrubs, perennial, and lavender. Landscaping will also be used as to screen parking areas.

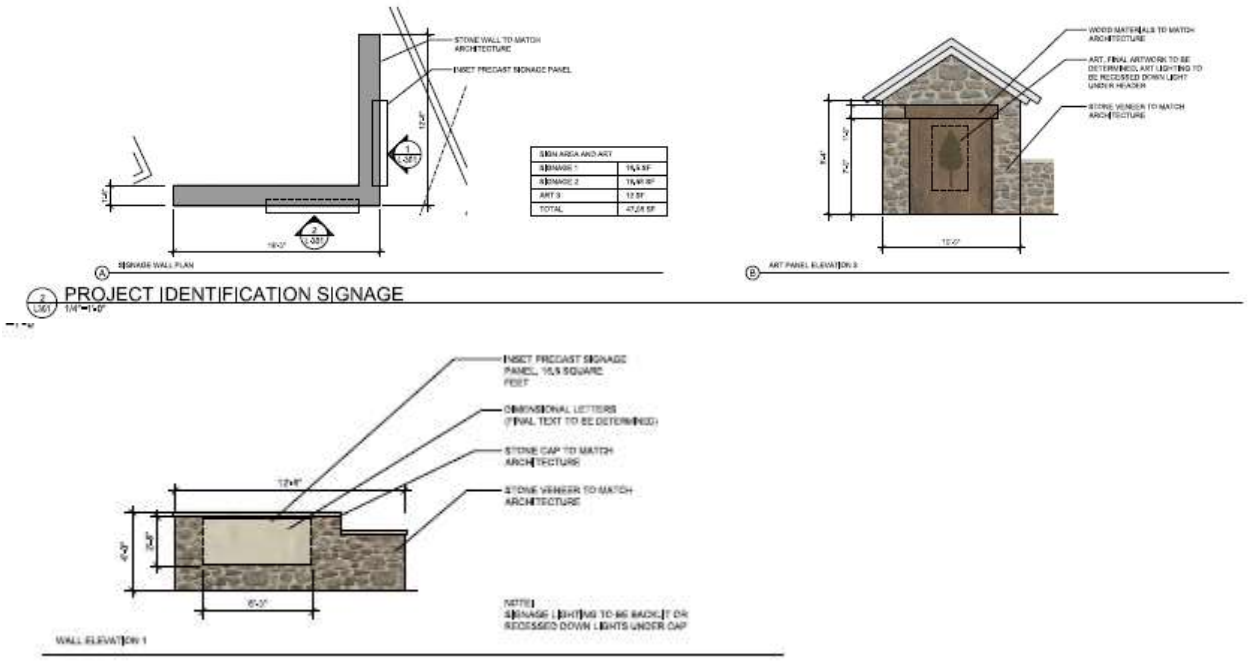


Proposed Landscape Plan

The applicant proposes a tree buffer along the east side of the property. In addition the applicant will construct a fence and provide a trail connection, per the City's Open Space standards.

Signs

The applicant requests two monument signs – one at each entrance to the development. Signage is regulated by Chapter 7 of the CDDSG, which allows one monument sign per access point through the PUD process where a freestanding building has multiple accesses off of a public right of way. One proposed monument sign has a v-shape to make the site name clear to traffic in both directions along Plaza Drive. The additional sign is a Balfour tree logo located on the small shed along the northern access off of Plaza Drive. Staff recommends approval of both signs.



Proposed Signage

Lighting

The lighting complies with the CDDSG by providing ample lighting that is architecturally compatible with the proposed structure.

REQUESTED WAIVERS

Accessory Structure Setback
The applicant requests a waiver to reduce the front yard setback for the accessory structure from 35 feet to 26 feet. Staff believes accessory structure will maintain an appropriate relationship to site with the waiver. Staff finds the waiver request complies with the spirit and intent of Section 17.28.120 of the Louisville Municipal Code.

Parking Setback
The applicant requests a waiver to reduce the parking setback along Plaza Drive from 15 feet to 10 feet for six parking spaces. Staff believes parking design maintains the internal circulation of the site and is appropriately buffered from Plaza Drive. Staff finds the waiver request complies with the spirit and intent of Section 17.28.120 of the Louisville Municipal Code.

Side Yard Setback
The applicant requests a waiver to utilize the 10 foot side yard setback for fire access. The applicant worked with the Louisville Fire District and Public Works Department to develop this solution. Staff believes use of the side yard setback will have a minimal

impact on the over site design. Staff finds the waiver request complies with the spirit and intent of Section 17.28.120 of the Louisville Municipal Code.

Height
The applicant requests a waiver to allow portions of the building to extend beyond the 35 foot height requirement to a maximum of 52 feet.

The proposed structure is brought down to two stories along Plaza Drive. Across Plaza Drive, the three Balfour facilities are over all over 50 feet in height. The applicant redesigned the easternmost corner of the property to be two stories to provide a more appropriate transition to the North End residential neighborhood. The adjacent single-family residential units in the North End development have a maximum height 35 feet. The North End GDP allows a maximum building height of 40 feet for multi-family and commercial buildings in the development. The 40-foot-tall residential buildings are located on the north side of Hecla Way.

Perspective view of proposed structure from Sweet Clover Lane residences

The applicant provided supplemental drawings (attached) analyzing the viewsheds from Hecla Lake and North End, including the amount of building area extending beyond 35 feet, and a shadow analysis. The analysis demonstrates the impact of the proposed building on the view shed and shows that the building will not shadow the adjacent public trails around Hecla Lake. Staff is also concerned about building massing and privacy between the structure and the adjacent residential neighborhood and recommends a condition of approval that mature landscape be installed at the time of construction to provide an immediate buffer.

With the additional landscaping, staff finds the waiver request complies with the spirit and intent of Section 17.28.120 of the Louisville Municipal Code. In addition, staff finds the additional open space (17% more than required), the preservation of the historic mine element, the Hecla mine interpretive sign, trail connection, and overall design of the structure provide a public benefit to the City of Louisville.

FISCAL IMPACT

Staff modeled the fiscal impacts based on information provided by the applicant and standard information incorporated into the model. The following table summarizes the result.

City of Louisville
Fiscal Impact Model

Revenue by Fund		**%**
General Fund	$656	64%
Urban Revitalization District Fund	$0	0%
Open Spaces & Parks Fund	$84	8%
Lottery Fund	$0	0%
Historic Preservation Fund	$30	3%
Capital Projects Fund	$255	25%
TOTAL REVENUE	**$1,026**	**100%**
Expenditures by Fund		
General Fund	$260	36%
Urban Revitalization District Fund	$0	0%
Open Spaces & Parks Fund	($58)	-8%
Lottery Fund	$0	0%
Historic Preservation Fund	$30	4%
Capital Projects Fund	$498	68%
TOTAL EXPENDITURES	**$730**	**100%**
NET FISCAL RESULT BY FUND		
General Fund	$396	
Urban Revitalization District Fund	$0	
Open Spaces & Parks Fund	$143	
Lottery Fund	$0	
Historic Preservation Fund	$0	
Capital Projects Fund	($243)	
NET FISCAL IMPACT	**$296**	

The model estimates that the Balfour Planned Unit Development/Plat proposal would yield a cumulative net positive fiscal impact of **+$296,000** on the City over a 20-year period.

HISTORIC PRESERVATION COMMISSION

The Historic Preservation Commission held a meeting on April 18, 2016 and reviewed the request for the Planned Unit Development and Plat at 1800 & 1870 Plaza Drive for a 54-unit assisted living center. The Historic Preservation Commission had the following comments:

- Every effort should be made to preserve the historic structure at 1800 Plaza Drive, known as the Hecla Casino, by moving it to another location.
- The preservation of the "historic element" associated with the Hecla Mine is an appropriate way to honor the history of the area. The Historic Preservation Commission thanked the applicant for the effort of preserving the "historic element" through survey and interpretive signage.
- The Commission expressed concern about the height of the structure but felt that it made sense at that location and the views across Hecla Lake to the mountains would be retained.

The Historic Preservation Commission also reviewed a request to demolish the structure at 1800 Plaza Drive known as the Hecla Casino. The Commission placed a stay of 180 days on the demolition request. The Commission felt the structure had architectural integrity and was significant to the history of coal mining and labor rights in Louisville. One member of the public spoke for the preservation of the existing historic structure at 1800 Plaza Drive.

STAFF RECOMMENDATION:
Staff recommends approval of the requested Planned Unit Development and final Plat, to allow for the development of a 54-unit assisted living community at 1800 Plaza Drive with the following conditions:

1. Prior to the City Council hearing, the applicant shall incorporate a minimum of six mature trees into the overall landscape plan on the east and northeast side of the site. The trees will be a mix of deciduous and evergreen trees which will provide a mature landscape buffer and appropriate transition to the surrounding public open space and single family residential neighborhood.

ATTACHMENTS:

1. Resolution No. 14, Series 2016
2. Application documents
3. Final Plat
4. Final PUD
5. Louisville Plaza Filing 2 Plat
6. Supplemental drawings
7. Public Comments
8. Louisville Plaza GDP

RESOLUTION NO. 14
SERIES 2016

A RESOLUTION RECOMMENDING APPROVAL OF A PLANNED UNIT DEVELOPMENT (PUD) AND FINAL PLAT TO ALLOW FOR A 54-UNIT ASSISTED LIVING COMMUNITY ON LOTS 2 AND 3 OF LOUISVILLE PLAZA FILING 2

WHEREAS, there has been submitted to the Louisville Planning Commission an application for a Planned Unit Development (PUD) and Final Plat to allow for a 54-unit assisted living community on Lots 2 and 3 of Louisville Plaza Filing 2 subdivision;

WHEREAS, the City Staff has reviewed the information submitted and found that the application complies with the Takoda General Development Plan – 5th Amendment, Louisville zoning regulations, and other applicable sections of the Louisville Municipal Code; and;

WHEREAS, after a duly noticed public hearing on July 14, 2016, where evidence and testimony were entered into the record, including the findings in the Louisville Planning Commission Staff Report dated July 14, 2016, the Planning Commission finds the Balfour Planned Unit Development/Plat should be approved based on the criteria in Section 17.28.110 and Section 17.28.120 of the Louisville Municipal Code.

NOW THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Louisville, Colorado does hereby recommend approval of an amendment to the Balfour Planned Unit Development/Plat to allow for a 54-unit assisted living community on Lots 2 and 3 of Louisville Plaza Filing 2 subdivision with the following condition:

1. Prior to the City Council hearing, the applicant shall incorporate a minimum of six mature trees into the overall landscape plan on the east and northeast side of the site. The trees will be a mix of deciduous and evergreen trees which will provide a mature landscape buffer and appropriate transition to the surrounding public open space and single family residential neighborhood.

PASSED AND ADOPTED this 14th day of July, 2016.

By: _____
Chris Pritchard, Chairman
Planning Commission

Attest: _____
Ann O'Connell, Secretary
Planning Commission

City of Louisville
COLORADO • SINCE 1878

Department of Planning and Building Safety

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

LAND USE APPLICATION

CASE NO. _____

APPLICANT INFORMATION

Firm: Balfour Senior Living
Contact: Hunter MacLeod
Address: 1331 E Hecla Drive
Louisville, CO 80027
Mailing Address: Same
Telephone: 303-926-3012
Fax: 303-867-6346
Email: hmacleod@balfourcare.com

OWNER INFORMATION

Firm: Balfour Senior Living
Contact: Hunter MacLeod
Address: Same
Mailing Address:
Telephone: 303-926-3012
Fax:
Email: hmacleod@balfourcare.com

REPRESENTATIVE INFORMATION

Firm: DTJ Design Inc.
Contact: Lee Payne
Address: 3101 Iris Ave. Suite 130
Boulder, CO 80301
Mailing Address: same
Telephone: 303-443-7533
Fax:
Email: lpayne@dtjdesign.com

PROPERTY INFORMATION

Common Address: 1800/1870 Plaza Drive
Legal Description: Lot 2 & 3 Blk
Subdivision Louisville Plaza Filing 2
Area: 87,578 Sq. Ft.

TYPE (S) OF APPLICATION

- ☐ Annexation
- ☐ Zoning
- ☐ Preliminary Subdivision Plat
- ☒ Final Subdivision Plat
- ☐ Minor Subdivision Plat
- ☐ Preliminary Planned Unit Development (PUD)
- ☒ Final PUD
- ☐ Amended PUD
- ☐ Administrative PUD Amendment
- ☐ Special Review Use (SRU)
- ☐ SRU Amendment
- ☐ SRU Administrative Review
- ☐ Temporary Use Permit: _____
- ☐ CMRS Facility: _____
- ☐ Other: (easement / right-of-way; floodplain; variance; vested right; 1041 permit; oil / gas production permit)

PROJECT INFORMATION

Summary:
New construction of a three story structure to house an Assisted Living Community for senior aged residents. The structure will contain up to 54 Dwelling Units, Kitchen, Dining Room, Administrative Offices, and Amenity Spaces serving the residents.

Current zoning: P-C Proposed zoning: n/a

SIGNATURES & DATE

Applicant:
Print: Michael Schonbrun
Owner:
Print: Michael Schonbrun
Representative:
Print: Hunter MacLeod

CITY STAFF USE ONLY

- ☐ Fee paid: _____
- ☐ Check number: _____
- ☐ Date Received: _____

March 1, 2016

City of Louisville
Planning & Building Commission
749 Main St.
Louisville, CO 80027

Re: 1800 and 1870 Plaza Drive - PUD submittal

Thank you for receiving the submittal on behalf of Balfour Senior Living. The project submitted for review is a proposed two and three story assisted living community. The site is located adjacent to our Senior Living Campus to the east, across Plaza Drive from Balfour Retirement Community (completed in 1999).

The proposed building is 60,000 GSF located on two acres. This assisted living community will be part of the Balfour campus but operated independently from the others, providing our residents the ability to move through the continuum of care as needed while staying within the Louisville community to be close to friends and family.

The design has been influence by historical elements of the site and local community including preserving elements of the farmhouse. The façade of the building incorporates multiple materials including a variety of stone, painted hardy plank and strategically placed metal roof, which together provide architectural interest while meeting the intent and requirements of the Louisville Development Design Standards. Additionally, Balfour will create a sense of arrival and experiences for residents and guest through landscape design.

It is a pleasure to present to you this comprehensive design package which we feel is consistent with the high standards of development throughout our campus. On Behalf of Balfour we are excited to continue our relationship with the City of Louisville and the town itself.

Sincerely,

Hunter MacLeod
Vice President of Development
Balfour Senior Living

Hunter MacLeod Vice President of Development

direct 303.926.3012 cell 303.506.1223 1331 E Hecla Drive Louisville, CO 80027
www.BalfourCare.com

DTJ DESIGN

ARCHITECTURE
PLANNING
LANDSCAPE ARCHITECTURE

March 2, 2016
May 13, 2016-Response to Comments resubmittal

Lauren Trice, Planner I
Department of Planning and Building Safety
City of Louisville
749 Main Street
Louisville, CO 80027

RE: 1800 & 1870 Plaza Drive, Louisville, Colorado - Final PUD Letter of Request

Dear Ms Trice:

Balfour Senior Living, a long time provider of Senior Housing in the City of Louisville, envisions a new, high quality Assisted Living community as a needed complement to its existing campus.

As required for Final PUD submittal, the following is a summary of proposed uses, character, and requested exceptions to City Zoning and Design Standards. This letter is meant to accompany other Final PUD documents and drawings dated March 2, 2016.

Existing Conditions
The site consists of two lots, 1800 & 1870 Plaza Drive. Historically, the site was the location of the Hecla Mine tipple and mine shaft. A low stone and concrete structure, believed to be part of the assembly that hoisted coal cars out of the mine, exists on the southwest corner of the site. The lots contain two existing residences and associated landscape. Neither structure is original to the site, as records indicate that both structures were moved to this site around 1991 from their historic locations along South Boulder Road near the corner of Highway 42. This was done to make way for the development of the King Soopers Grocery Store and associated retail center.

Summary of Proposed Development Concept
Balfour Senior Living proposes to create an Assisted Living Community of approximately 60,000 square feet, including 54 units and associated common and support spaces. The building is organized in a "U" shape which creates a large south facing courtyard for residents and guests. A significant number of the existing trees can be preserved around the perimeter of the site and along Plaza Drive. The building is two stories in height closest to Plaza Drive and steps up to three stories toward the back of the site. The character of the building is inspired by agrarian architecture, utilizing stone, horizontal and board and batten siding, pitched roofs, broad porches and overhangs, dormers and a clerestory. More detailed information about each of these characteristics is contained later in this and the accompanying documents.

Site Design, Utilities and Drainage
The two lots will be combined into a single lot consisting of approximately 2 acres. Balfour Senior Living is proposing to create an assisted living community with associated parking, outdoor areas and access. This new community will be in close proximity to Balfour's other communities, allowing for a well connected campus.

To maximize solar exposure and preserve existing trees, the building is placed in the middle of the site with a south oriented courtyard. This courtyard will be for both guest and resident use, and is not accessed by vehicles.

The site is part of a larger filing that incorporates regional storm water detention in a permanent detention area immediately south of the site. Please refer to the drainage report and documents for more information.

The City parking requirements for this use are 1 space per three beds. Additionally, we are planning to provide 1 space per 300 SF of office area for the project. As such, 19 parking spaces are required based on these requirements. In the current iteration of the site plan, 31 parking spaces are provided. These spaces are well dispersed on the site for the convenience of a variety of users.

Fire access is provided along parking drive aisles on the east and north side of the project. A dedicated fire hydrant will be located on the northeast side and the west side of the building. Additionally, an existing fire hydrant is located on the west side of Plaza Drive. Based on consultation with Fire Department authorities, a standpipe system for the building will also be included, allowing rescue teams to treat fires inside the courtyard from building fire suppression and standpipe systems. A backing area and turning radius for a fire truck along the north side of the site is provided. This backing area reduces the required side yard landscape setback at the north corner of the site in an area approximately 20' wide from 10'-0" to 6".

Architectural Character & Elements
The inspiration for the character of the architecture came from the old farmhouses and homesteads of Boulder County. While not trying to be literal to these structures, the massing, roof lines and materials are familiar elements and create a modern farmhouse vernacular. In staying true to the form and residential character of agrarian architecture, the building massing is two stories along Plaza Drive and then steps up to three stories away from the street.

The roof forms, heights and materials are carefully crafted to create a high quality, visually interesting building that will add to the character of Louisville's architectural fabric in a meaningful way. These are punctuated with the appropriate use of materials along with details such as dormers, porches, and broad overhangs.

Along Plaza Drive, the sense of a farmhouse front yard & fence with stone walls and ornamental landscape areas is created. In a nod to the out buildings of old farms, we have created a maintenance and storage building on the northwest corner of the site to help create a portal to the north portion of the parking area. This adds a high quality architectural element along the street edge, creating variety and visual interest along Plaza Drive. This structure will be as high quality building materials such as stone, wood and metal roofing and will part of the entry wall and signage effect.

Landscape
The landscape approach for the Balfour Site concept is based on patterning and elements translated from a historical farm context. This includes some structured row plantings, themed with current day trends of the lavender farms of the Front Range. Lavender will be a core plant in the landscape palette and will be used in a row pattern element and to line courtyard walkways. To create a unique setting at the project edge along Plaza Drive, selected existing trees are preserved and additional trees are clustered off the street in the middle of the frontage. The trees will be setback from the street in order to allow for a sunny condition where the lavender will thrive. A backdrop of shrubs and canopy trees will create a buffer to screen the cars from the street. The required number of street trees and shrubs will be provided per the code, but will be arranged based on the design principles of his project.

A goal is to preserve the existing perimeter trees which will help land the building on the site visually. The evergreen trees to the southeast, along the existing mixed trees to the east and north will preserved for the most part. The cottonwoods on the corners of the property along Plaza drive will be preserved to the greatest extent possible.

Exceptions to City Zoning and Design Standards
This proposal will require a few exceptions to the City Zoning and Design Standards in order to develop the concept to the high standard presented. These include:

1. Height Limit- 52' maximum requested height, with the majority of the building being below 50'-0". As mentioned previously, the building massing is set up to have two stories along Plaza Drive, stepping up to three stories on the north and east side of the site. Coupled with the sloping roofs, the three story portion of the building exceeds current height limitations in this location as measured by the City of Louisville.

2. Setback at fire lane turn around – The needs of the fire lane turn around requires that the 10' side yard setback be encroached upon for a distance of about 20' at the north corner of the site.

3. The clustered approach to the tree plantings along Plaza Drive may not strictly comply with the City streetscape standards.

4. The out building (accessory structure) is approximately 25' setback from Plaza Drive.

5. Waiver for additional art work (sign at the northwest corner of the site).

To justify these exceptions, the following enhancements to the project are planned:

1. On the southwest corner of the site an existing stone and concrete element remains from the former the Hecla Mine. It is believed that this structure to be the remains of the base of the hoist mechanism for coal cars. This structure will be preserved in place and a landscape and plaza area around this structure will be created for the public to observe this element. An interpretive marker, as a part of the program developed the City can be installed to provide information to visitors about the history of Louisville's mining heritage and the contribution of this site.

2. The more compact, and taller structure results in a significant portion of the site being preserved as open space, well in excess of minimum requirements. This is especially significant along Plaza Drive and in the south facing courtyard. The landscape approach will create a unique presence to the street while the courtyard will establish a dynamic and iconic garden space.

3. The two and three story massing for the building is consistent and compatible with other buildings in the Balfour Senior Living Campus. The Lodge at Balfour and the Residences at Balfour in particular are of similar mass and scale. As demonstrated in the view analysis information in the submittal package, the proposed structure has minimal impact on the adjacent open space around Hecla Lake. The existing trees that will be preserved along this edge screen a significant part of the building from view.

4. The high quality of the architecture and articulation of the building mass will help to mitigate the height increase.

5. Many of the existing trees around the perimeter of the site are being preserved.

6. Most of the side yards, other than the area requiring an exception, are greater than the minimum 10'

Our team looks forward to working with you during the review process. Thank you for consideration of this project.

Sincerely,

DTJ DESIGN, Inc.

David S Williams AIA
Principal

Lee Payne, RA, NCARB, LEED A.P
Associate

BALFOUR
SENIOR LIVING

Comment from City:
Applicant shall provide parking analysis from similar assisted living facilities including guest parking.

There are two projects that we can use as examples for the parking analysis, both very similar to this project and operated by Balfour.

1. Balfour at Stapleton, 74 units (58 AL and 16 MC), 30 parking spaces (40% ratio)
2. Balfour Retirement Community, 151 beds including hospice, 95 spaces (62% ration)

The project being submitted is 54 units with 31 parking spaces.

I would also like to discuss the staffing requirements for this community.

Given that this will be an expansion to the existing campus, Balfour will gain efficiency with the management staff without sacrificing quality of care and service. All department heads are managers in charge of their specific areas. For example, the executive director, marketing-sales, and healthcare directors, will provide tours, discuss concerns and needs of the potential resident, outlining services, making assessments and providing education and consultation. Many of these management positions will not be required in the new community as the current staff will be able to provide oversight.

Positions that will be required on a day to day basis include:
Caregivers assist residents in their rooms, with cueing and reminders to rise from or get ready for bed, assist as needed with bathroom use, grooming, bathing and dressing tasks. They will assist with serving three meals and three snacks a day. Provide clean up and doing spot checks for trash collection as well as light housekeeping such as bed making, putting towels in resident bathrooms and bath area while doing personal and linen laundry on an established schedule. Caregivers that are specially trained will also provide treatments and medication assistance as well as first aide in tangent with the nurse for the day. It may also mean providing a group, large or small program, one on one time, or helping residents go on outings or on walks.

Culinary will arrive prior to breakfast and stay until after dinner is served providing three meals per day, three snacks per day and any special events that are planned (lectures, parties, neighborhood meetings, etc). Dining is an important component for a senior living community. Meals will be served in elegant surroundings. The chef at Balfour Retirement Community will oversee the dining operation at this community. Menus will change seasonally and include entrée specials. There will be menus for people with special diet restrictions that feature gluten-free and sugar-free dishes.

Housekeeping will also arrive prior to the resident's breakfast to clean common areas.

Hunter MacLeod Vice President of Development
direct 303.926.3012 cell 303.506.1223 1331 E Hecla Drive Louisville, CO 80027
www.BalfourCare.com

Housekeeping would continue with planned deep cleaning in a rotation of rooms and finish between 2 pm and 3 pm for the day seven days a week. Maintenance maintains the physical plant and provides safety rounds. Staff in both of these departments will be a combination of new and existing as Balfour Retirement Community has the capacity to share in these responsibilities.

Other Features/Impacts

- Relatives and guests of the seniors living at the community will be allowed to visit during prearranged hours. They will have use of the parking lot and use the entrance on the East side.
- Emergency Vehicles – when called, they will not use parking
- Merchants will be onsite per scheduled agreements/requests as their services and products are needed. This will include but is not limited to food, laundry service and trash.

Parking

Residents

It would be safe to say that 99% of our residents will not be driving. In addition, it is very rare for a resident to have own and park a car on site. To accommodate the needs of the residents, Balfour provides transportation services seven days per week. This service is included as a no charge amenity to the residents for locations within a certain distance from the community. Balfour currently owns a fleet of vehicles to handle these needs and we encourage all of our residents to use this service.

Employees

Total service related employee breakdown by department and hours will be as follows:

- One to two additional managers, 8:30am to 5pm
- Two housekeeping 7am to 7pm
- One maintenance tech 8:30am to 5:00pm
- Five culinary staff 7am to 7pm
- One concierge 7am to 7pm
- Two life enrichment assistants
- One transportation drivers
- Five caregivers 7am to 3pm
- Five caregivers 3pm to 11pm
- Three caregivers 11pm to 7am

It is anticipated that a small percentage of the staff will be dropped off, carpool or use public transportation. During shift change will be the busiest times for parking. As you can determine from the above numbers, the maximum number of employee's vehicles on-site during the peak day shift is approximately 22.

Parking Conclusion:

The community will provide 31 spaces. Assuming the community was parking zero resident

vehicles and 21 employee vehicles, there would be 10 spaces for shift change, visitors and future resident parking. In addition, there is parking on Plaza Drive, Hecla Drive and across the street at our other adjacent communities, Balfour Retirement Community. This community will also have space and access for delivery vehicles and emergency services (when required). Based on historical data and other operating properties within Balfour's portfolio, 31 total parking spaces is sufficient for this size of community and the services provided within the community.

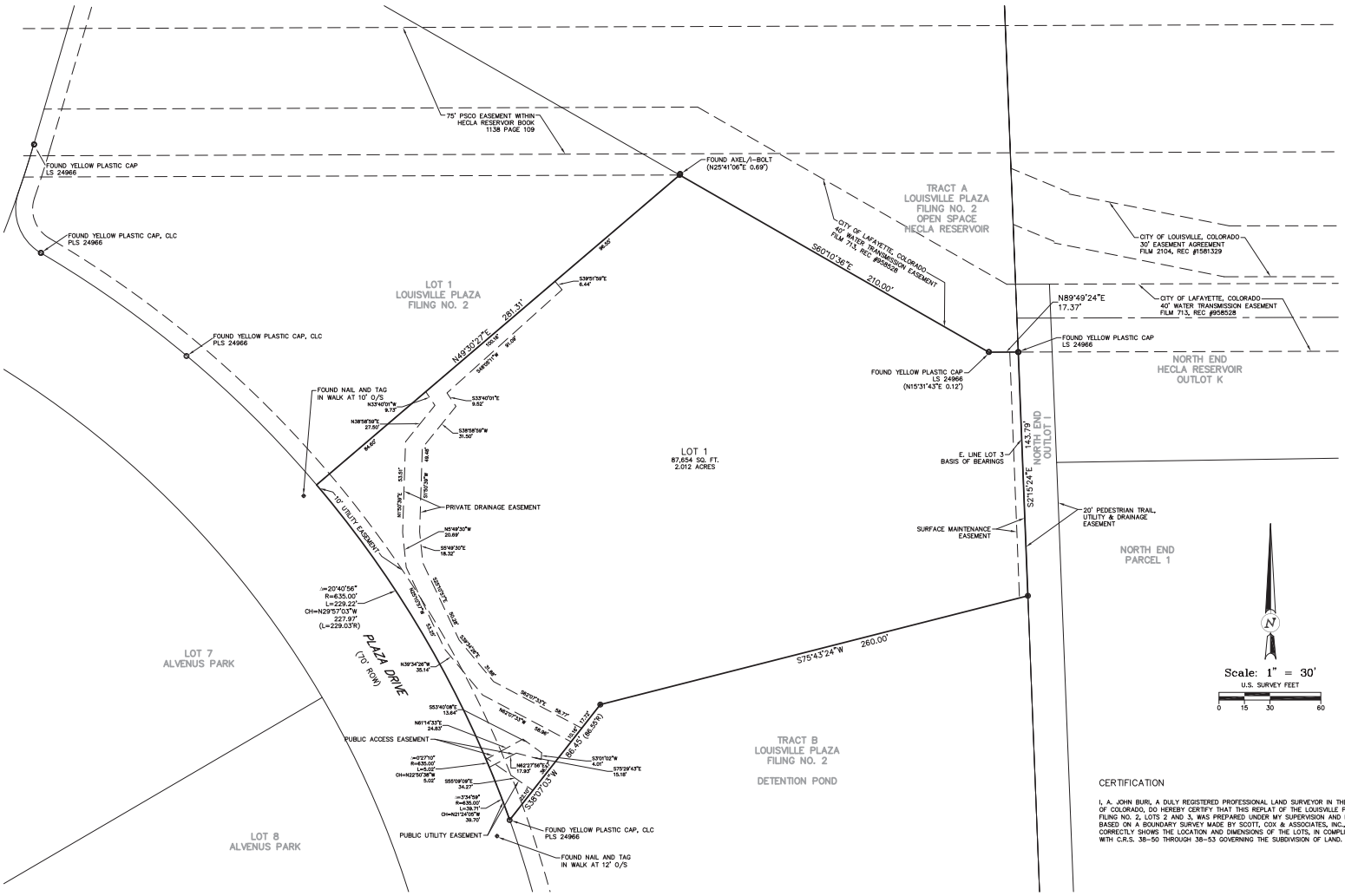
Hunter MacLeod Vice President of Development

direct 303.926.3012 cell 303.506.1223 1331 E Hecla Drive Louisville, CO 80027

www.BalfourCare.com

LOUISVILLE PLAZA FILING NO. 2 REPLAT A

A REPLAT OF LOTS 2 AND 3, LOUISVILLE PLAZA FILING NO. 2
LOCATED IN THE SW 1/4 OF SECTION 4, T1S, R69W OF THE 6TH P.M.
CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO



LEGEND

●	FOUND #5 REBAR WITH 1" RED PLASTIC CAP STAMPED SCOTT COX ASSOC PLS 24302
○	FOUND MONUMENT AS NOTED
⊕	FOUND NAIL AND 3/4" BRASS TAG PLS 24302 AT NOTED OFFSET
(M)	MEASURED DIMENSIONS
(R)	RECORD MEASUREMENT PER PLAT
(S54°08'29"W 0.08')	RECORD OR CALCULATED POSITION TO FOUND MONUMENT

SURVEY NOTES

1. THE BASIS OF BEARINGS IS THE RECORD BEARING OF THE EAST LINE OF LOT 3 LOUISVILLE PLAZA FILING NO. 2, RECORDED JULY 1, 1991 AT RECEPTION NO. 1113009, AS SHOWN ON THE RECORDED PLAT THEREOF AND BEARS S02°15'24"E.
2. THE SIZE AND TYPE OF MONUMENTS FOUND ARE SHOWN HEREON.
4. ALL OF THIS PROPERTY LIES WITHIN ZONE X AS SHOWN ON FLOOD INSURANCE RATE MAP, BOULDER COUNTY, COLORADO, COMMUNITY–PANEL NO. 08013C0601 J, MAP REVISED DECEMBER 18, 2012. ZONE X, BEING AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
5. NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED ON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON. CRS–13–80–105 (3)(a)
7. PLATS AND LAND SURVEY PLATS REFERENCED OR USED FOR THIS SURVEY: LOUISVILLE PLAZA FILING NO. 2, RECEPTION NO. 1113009; SCOTT, COX & ASSOCIATES INC., ALTA/ASCM LAND SURVEY PLAT, DRAWING NO. 07540, DATED 10/2/07; FLATIRONS SURVEYING, INC. LS–05–0089.

DEDICATION

KNOW ALL MEN BY THESE PRESENTS, THAT THE UNDERSIGNED BEING THE OWNER OF LOTS 2 AND 3 LOUISVILLE PLAZA FILING NO. 2, A PLAT RECORDED JULY 1, 1991 AT RECEPTION NO. 1113009 OF THE BOULDER COUNTY RECORDS, BEING A PORTION OF THE SOUTHWEST ONE–QUARTER OF SECTION 4, TOWNSHIP 1 SOUTH AND RANGE 69 WEST, 6TH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO.

HAS LAID OUT, SUBDIVIDED AND PLATTED SAID LAND AS PER DRAWING HEREON CONTAINED UNDER THE NAME AND STYLE OF LOUISVILLE PLAZA FILING NO. 2 REPLAT A, A SUBDIVISION OF A PART OF THE CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO, IT BEING EXPRESSLY UNDERSTOOD AND AGREED BY THE UNDERSIGNED THAT ALL EXPENSES AND COSTS INVOLVED IN CONSTRUCTING AND INSTALLING SANITARY SEWER SYSTEM WORKS AND LINES, GAS SERVICE LINES, ELECTRICAL SERVICE WORKS AND LINES, STORM SEWERS AND DRAINS, STREET LIGHTING, GRADING AND LANDSCAPING, CURBS, GUTTERS, STREET PAVEMENT, SIDEWALKS AND OTHER SUCH UTILITIES AND SERVICES SHALL BE GUARANTEED AND PAID FOR BY THE SUBDIVIDER OR ARRANGEMENTS MADE BY THE SUBDIVIDER THEREOF WHICH ARE APPROVED BY THE CITY OF LOUISVILLE, COLORADO, AND SUCH SUMS SHALL NOT BE PAID BY THE CITY OF LOUISVILLE, COLORADO, AND THAT ANY ITEM SO CONSTRUCTED OR INSTALLED WHEN ACCEPTED BY THE CITY OF LOUISVILLE, COLORADO, SHALL BECOME THE SOLE PROPERTY OF SAID CITY OF LOUISVILLE, COLORADO, EXCEPT PRIVATE ROADWAY CURBS, GUTTER AND PAVEMENT AND ITEMS OWNED BY MUNICIPALLY FRANCHISED UTILITIES AND/OR U.S. WEST COMMUNICATIONS, INC. WHICH WHEN CONSTRUCTED OR INSTALLED, SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL NOT BECOME THE PROPERTY OF THE CITY OF LOUISVILLE, COLORADO.

OWNERSHIP

HAVE LAID OUT, PLATTED AND SUBDIVIDED THE SAME INTO LOTS UNDER THE NAME OF LOUISVILLE PLAZA FILING NO. 2 REPLAT A AND ALSO DEDICATE EASEMENTS AS SHOWN ON SAID LOUISVILLE PLAZA FILING NO. 2 REPLAT A AS LAID OUT AND DESIGNATED ON THIS PLAT. WITNESS OUR HANDS AND SEALS THIS_____ DAY OF _____ 201__.

OWNER: _____ OWNER: _____

NOTARY: _____

CITY COUNCIL CERTIFICATE

APPROVED THIS _____ DAY OF _____, 201__ BY THE CITY COUNCIL OF THE CITY OF LOUISVILLE, COLORADO. RESOLUTION NO. _____ SERIES _____

MAYOR: _____ CITY CLERK: _____

CERTIFICATION

I, A. JOHN BURI, A DULY REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, DO HEREBY CERTIFY THAT THIS REPLAT OF THE LOUISVILLE PLAZA FILING NO. 2, LOTS 2 AND 3, WAS PREPARED UNDER MY SUPERVISION AND IS BASED ON A BOUNDARY SURVEY MADE BY SCOTT, COX & ASSOCIATES, INC., AND CORRECTLY SHOWS THE LOCATION AND DIMENSIONS OF THE LOTS, IN COMPLIANCE WITH C.R.S. 38–50 THROUGH 38–53 GOVERNING THE SUBDIVISION OF LAND.

A. JOHN BURI, PLS 24302
FOR AND ON BEHALF OF
SCOTT, COX & ASSOCIATES, INC.

CLERK AND RECORDER CERTIFICATE

STATE OF COLORADO)
COUNTY OF BOULDER)

I HEREBY CERTIFY THAT THIS INSTRUMENT WAS FILED IN MY OFFICE AT _____ O'CLOCK, __ M., THIS _____ DAY OF _____ 201__, AND IS RECORDED IN PLAN FILE _____, FEE PAID _____
FILM NO. _____, RECEPTION NO. _____

RECORDER: _____ DEPUTY: _____

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 – 3051

Designed by AJB	Date	Scale	Drawing no.		Sheet
Drawn by JAS	03/04/16	1"=30'	15625D–1		1
	Revision	Description		Date	Project no.
Checked by AJB	1	CITY COMMENTS		05/12/16	15625D

ALTA/NSPS LAND TITLE SURVEY

1800 PLAZA DRIVE
LOT 2 AND 3, LOUISVILLE PLAZA FILING NO. 2
LOCATED IN THE SW 1/4 OF SECTION 4, T1S, R69W OF THE 6TH P.M.
CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO

TITLE COMMITMENT NOTES

THIS SURVEY DOES NOT CONSTITUTE A TITLE SEARCH BY SCOTT, COX & ASSOCIATES, INC. LAND TITLE GUARANTEE COMPANY REPRESENTING OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY ORDER NUMBER: ABZ 70475452, POLICY NUMBER: PIB70475452.1324629 DATE: DECEMBER 1, 2015 WAS SOLELY RELIED UPON FOR INFORMATION REGARDING EASEMENTS, RIGHTS-OF-WAY, AND ENCUMBRANCES OF RECORD IN THE PREPARATION OF THIS SURVEY.

THE FOLLOWING ITEMS ARE AS ENUMERATED IN THE PROPERTY INFORMATION BINDER [SURVEYOR'S NOTES]

ITEM 1 EXCEPTIONS, RESERVATIONS AND CONDITIONS HEREBY CONVEYED AND THE EASEMENTS AND RIGHTS CONNECTED THEREWITH, AS SAME APPEARS IN THE DEEDS RECORDED APRIL 16, 1919 IN BOOK 425, AT PAGES 542 AND 543; DECEMBER 21, 1920 IN BOOK 445, AT PAGE 531 AND MAY 17, 1952 IN BOOK 906, AT PAGE 322. [AFFECTS PROPERTY BUT IS BLANKET IN NATURE]

ITEM 2 EASEMENT AND RIGHT OF WAY FOR INGRESS AND EGRESS PURPOSES AS SET FORTH IN DEED RECORDED JANUARY 08, 1979, UNDER RECEPTION NO. 317757. [AFFECTS PROPERTY BUT IS SOUTH OF SITE]

ITEM 3 THE EFFECT OF ORDINANCE NO. 902, RECORDED SEPTEMBER 02, 1986, UNDER RECEPTION NO. 00785484. [AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

ITEM 4 THE EFFECT OF LOUISVILLE PLAZA GENERAL DEVELOPMENT PLAN, RECORDED JULY 01, 1991, UNDER RECEPTION NO. 1113011. [AFFECTS PROPERTY BUT IS BLANKET IN NATURE]

ITEM 5 TERMS, CONDITIONS AND PROVISIONS OF DETENTION POND AGREEMENT RECORDED JULY 01, 1991 UNDER RECEPTION NO. 1113013. [AFFECTS PROPERTY BUT POND IS SOUTH AND EAST OF SITE]

ITEM 6 TERMS, CONDITIONS AND PROVISIONS OF SUBDIVISION AGREEMENT RECORDED JANUARY 06, 1992 UNDER RECEPTION NO. 1152607. [AFFECTS PROPERTY BUT IS BLANKET IN NATURE]

ITEM 7 OIL AND GAS LEASE RECORDED JULY 08, 1996 UNDER RECEPTION NO. 01623456, AND ANY AND ALL ASSIGNMENTS THEREOF OR INTERESTS THEREIN. [AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

ITEM 8 ANY TAX, LIEN, FEE, OR ASSESSMENT BY REASON OF INCLUSION OF SUBJECT PROPERTY IN THE NORTHERN COLORADO WATER CONSERVANCY DISTRICT, AS EVIDENCED BY INSTRUMENT RECORDED FEBRUARY 12, 1997, UNDER RECEPTION NO. 01676839 AND 01676840. [AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

ITEM 9 TERMS, CONDITIONS, PROVISIONS, BURDENS, OBLIGATIONS AND EASEMENTS AS SET FORTH AND GRANTED IN DEVELOPMENT AGREEMENT RECORDED APRIL 30, 2001 UNDER RECEPTION NO. 2143254. [AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE, REFERS TO HECLA WAY CONSTRUCTION PLANS]

ITEM 10 RESERVATIONS ON MINERAL DEED RECORDED JUNE 16, 2008, UNDER RECEPTION NO. 2936492. [AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

ITEM 11 NOTICE OF SURFACE DEVELOPMENT RECORDED SEPTEMBER 28, 2009 UNDER RECEPTION NO. 03032258. [AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

ITEM 12 EASEMENTS, CONDITIONS, COVENANTS, RESTRICTIONS, RESERVATIONS AND NOTES IN THE PLAT OF LOUISVILLE PLAZA FILING NO. 2 RECORDED JULY 01, 1991 UNDER RECEPTION NO. 1113009. [AFFECTS PROPERTY AND IS SHOWN HEREON AS PLAT]

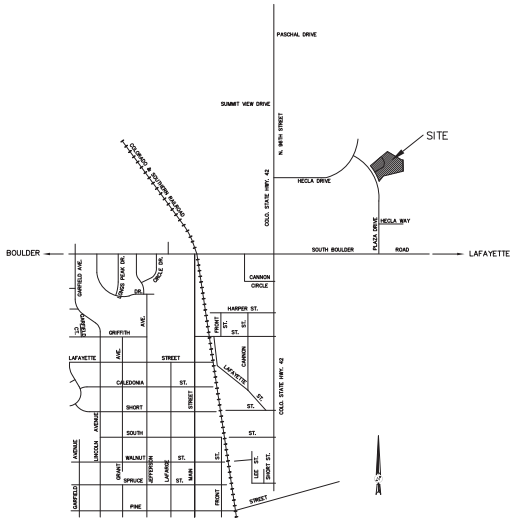
ITEM 13 DEED OF TRUST DATED OCTOBER 16, 2007, FROM MICHAEL K SCHONBRUN AND SUSAN E JUROE TO THE PUBLIC TRUSTEE OF BOULDER COUNTY FOR THE USE OF WELLS FARGO BANK, TO SECURE THE SUM OF $51,000.00 RECORDED OCTOBER 23, 2007, UNDER RECEPTION 2890771. [AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

ITEM 14 DEED OF TRUST DATED DECEMBER 02, 2013, FROM MICHAEL K SCHONBRUN TO THE PUBLIC TRUSTEE OF BOULDER COUNTY FOR THE USE OF WELLS FARGO BANK, N.A. TO SECURE THE SUM OF $395,260.00 RECORDED DECEMBER 11, 2013, UNDER RECEPTION NO. 03356748. [AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

(ITEMS 13 AND 14 AFFECT LOT 3)

ITEM 14 DEED OF TRUST DATED JANUARY 17, 2014, FROM MICHAEL SCHONBRUN AND SUSAN JUROE TO THE PUBLIC TRUSTEE OF BOULDER COUNTY FOR THE USE OF WELLS FARGO BANK, TO SECURE THE SUM OF $262,500.00 RECORDED JANUARY 27, 2014, UNDER RECEPTION 03363649 RE RECORDED FEBRUARY 3, 2014 UNDER RECEPTION NO. 03364536. [AFFECTS THE PROPERTY BUT IS BLANKET IN NATURE]

(AFFECTS LOT 2)



VICINITY MAP
NOT TO SCALE

SURVEY NOTES

1. THE BASIS OF BEARINGS IS THE RECORD BEARING OF THE EAST LINE OF LOT 3 LOUISVILLE PLAZA FILING NO. 2, RECORDED JULY 1, 1991 AT RECEPTION NO. 1113009, AS SHOWN ON THE RECORDED PLAT THEREOF AND BEARS S02°15'24"E.
2. THE SIZE AND TYPE OF MONUMENTS FOUND ARE SHOWN HEREON.
3. BUILDING MEASUREMENTS ARE AT GROUND LEVEL. ROOF OVERHANGS AND ARCHITECTURAL PROJECTIONS OF THE BUILDINGS ARE WITHIN THE BOUNDARY OF THE SITE BUT ARE NOT SHOWN ON THIS SURVEY UNLESS NOTED.
4. ALL OF THIS PROPERTY LIES WITHIN ZONE X AS SHOWN ON FLOOD INSURANCE RATE MAP, BOULDER COUNTY, COLORADO, COMMUNITY-PANEL NO. 0801C0061 J, MAP REVISED DECEMBER 18, 2012. ZONE X, BEING AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.
5. NOTICE: ACCORDING TO COLORADO LAW, YOU MUST COMMENCE ANY LEGAL ACTION BASED ON ANY DEFECT IN THIS SURVEY WITHIN THREE YEARS AFTER YOU FIRST DISCOVERED SUCH DEFECT. IN NO EVENT, MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON. CRS-13-80-105 (3)(a)
6. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE FIELD SURVEY BY SCOTT, COX & ASSOCIATES, INC. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY OTHERS (WHICH MAY INCLUDE THE UTILITY OWNER OR UTILITY LOCATING SERVICES). SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
7. PLATS AND LAND SURVEY PLATS REFERENCED OR USED FOR THIS SURVEY: LOUISVILLE PLAZA FILING NO. 2, RECEPTION NO. 1113009; SCOTT, COX & ASSOCIATES INC., ALTA/ASCM LAND SURVEY PLAT, DRAWING NO. 07540, DATED 10/2/07; FLATIRONS SURVEYING, INC. LS-05-0089.
8. ALL ADJOINING STREETS ARE PUBLIC. THE SITE HAS ACCESS TO PUBLIC STREET AS SHOWN.
9. BENCH MARK:ORIGIN BENCHMARK FOR THE PROJECT WAS ESTABLISHED FROM A 1 1/2" BRASS CAP IN A RANGE BOX AT THE INTERSECTION OF HWY 42 AND SOUTH BOULDER ROAD, WHICH IS THE SW CORNER OF SECTION 4 (CITY OF LOUISVILLE LAND CORNER #15) IN 1994 USING THE CITY ELEVATION OF 5352.30'.
FROM THE ORIGIN BM A PROJECT BENCHMARK WAS ESTABLISHED ON A 1 1/2" ALUM. CAP, PLS 175002 AT THE NW CORNER OF LOT 5, ALVENUS PARK ON THE SOUTH SIDE OF HECLA DRIVE. ELEVATION=5354.69'.
FROM THIS PROJECT BM WE ESTABLISHED A SITE BENCHMARK FOR THIS SURVEY BEING A NAIL AND TAG SET IN THE SIDEWALK ON A 10 FOOT OFFSET TO THE NW CORNER OF LOT 2 AS SHOWN HEREON. ELEVATION = 5331.16' CITY OF LOUISVILLE DATUM
10. THE PRELIMINARY GEOTECHNICAL ENGINEERING REPORT BY TERRACON INDICATES A DOUBLE HOIST MINE SHAFT LOCATED APPROXIMATELY 70 FEET NORTH OF THE FORMER STONE AND CONCRETE HOIST FOUNDATION. PER THE REPORT THIS MINE SHAFT WAS GROUTED BY THE COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY (DRMS) IN 1990. WE FOUND A 2 3/4" BRASS CAP, 1.0' BELOW GRADE MARKING; MINE: HECLA 1, OPENING: HOIST 2, AS NOTED IN MINE CLOSURE REPORT, HECLA MINE DATED JUNE 1989 PREPARED FOR STATE OF COLORADO DEPARTMENT OF NATURAL RESOURCES DIVISION OF MINED LAND RECLAMATION PREPARED BY MONTGOMERY-PHILLIPS, INC. MPI JOB CO. 219.004.
11. FOR THE PURPOSES OF THIS SURVEY LOT 2 AND LOT 3 ARE BEING SURVEYED AS ONE PARCEL. THEREFORE THE CORNER MONUMENTS BETWEEN THE LOTS WERE NOT SET AS SHOWN HEREON.
13. NO OBSERVED EVIDENCE OF CURRENT EARTH MOVING WORK, BUILDING CONSTRUCTION OR BUILDING ADDITIONS. NO OBSERVED EVIDENCE OF RECENT STREET OR SIDEWALK CONSTRUCTION OR REPAIRS.

LEGAL DESCRIPTION

LOTS 2 AND 3, LOUISVILLE PLAZA FILING NO. 2, CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO.

CERTIFICATION

TO: BALFOUR SENIOR LIVING; LAND TITLE GUARANTEE COMPANY/ OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY

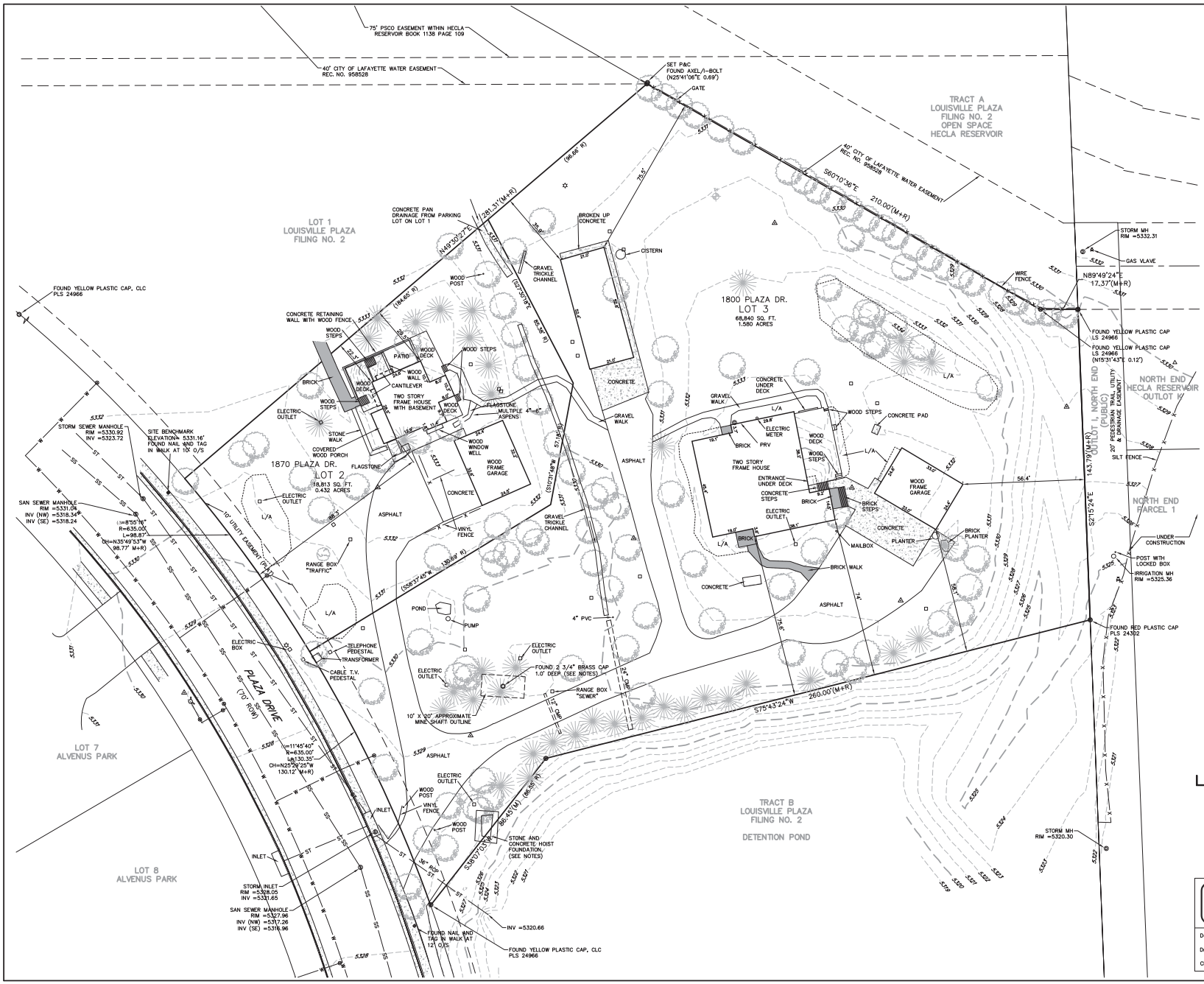
THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS IN 2016, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7(a), 8, 16 AND 17 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON 12/01/15.

COLORADO REGISTERED A. JOHN BURI 24302 PROFESSIONAL LAND SURVEYOR

A. JOHN BURI, PLS 24302
FOR AND ON BEHALF OF
SCOTT, COX & ASSOCIATES, INC.

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 - 3051

Designed by AJB	Date	Scale	Drawing no.		Sheet
Drawn by JAS	03/02/16	1"=20'	15625A-2		C1.01
	Revision	Description		Date	Project no.
Checked by AJB					15625A



LEGEND

	EXISTING DECIDUOUS TREE
	EXISTING PINE TREE
	EXISTING SHRUB
5,525	EXISTING CONTOUR
	SET #5 REBAR WITH 1" RED PLASTIC CAP STAMPED SCOTT COX ASSOC PLS 24302 (P&C)
	FOUND MONUMENT AS NOTED
	FOUND NAIL AND 3/4" BRASS TAG PLS 24302 AT NOTED OFFSET
	EXISTING WATER VALVE
GM	EXISTING GAS METER
	EXISTING LIGHT POLE
	EXISTING FIRE HYDRANT
	EXISTING SPRINKLER VALVE BOX
— X — X — X — X —	EXISTING FENCE
— SS — SS —	EXISTING SANITARY SEWER W/MANHOLE
— W — W —	EXISTING WATER W/FIRE HYDRANT
— ST — ST —	EXISTING STORM SEWER W/MANHOLE
(S54°08'29"W 0.08')	RECORD OR CALCULATED POSITION TO FOUND MONUMENT
L/A	LANDSCAPE AREA
(M)	MEASURED DIMENSIONS
(R)	RECORD MEASUREMENT PER PLAT

Scale: 1" = 20'
U.S. SURVEY FEET
0 10 20 40

ALTA/NSPS LAND SURVEY PLAT
LOT 2 AND 3
LOUISVILLE PLAZA FILING NO. 2
LOCATED IN THE SW 1/4 OF SEC. 4
T1S, R69W OF THE 6TH P.M.
CITY OF LOUISVILLE
COUNTY OF BOULDER
STATE OF COLORADO
1800 PLAZA DRIVE

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 - 3051

Designed by AJB	Date 03/02/16	Scale 1"=20'	Drawing no. 15625A-2	Sheet C1.02
Drawn by JAS	Revision	Description	Date	Project no. 15625A
Checked by AJB				

Ownership Signature Block

By signing this PUD, the owner acknowledges and accepts all the requirements and intent set forth in this PUD. Witness my/our hand(s) seal(s) this ___ day of _____, 20___.

_____
Owner Name and Signature

_____ (Notary Seal)
Notary Name (print)

_____
Notary Signature

My Commission Expires _____

Planning Commission Certificate

Approved this ___ day of _____, 20___, by the Planning Commission of the City of Louisville, Colorado.

Resolution No. _____, Series _____

City Council Certificate

Approved this ___ day of _____, 20___, by the City Council of the City of Louisville, Colorado.

Resolution No. _____, Series _____

(City Seal)

_____
Mayor Signature

_____
City Clerk Signature

Clerk and Recorder Certificate
(County of Boulder, State of Colorado)

I hereby certify that this instrument was filed in my office at _____ o'clock, ____ M., this ____ day of _____, 20___, and is recorded in Plan File _____. Fee _____ paid: _____ Film No. _____ Reception.

_____
Clerk & Recorder

_____
Deputy

BALFOUR
Senior Living
Assisted Living Community

Lot 2 and 3
Louisville Plaza Filing No. 2, Replat A
Final Planned Unit Development

PROJECT DIRECTORY

OWNER:

BALFOUR Senior Living
1331 E. Hecla Drive
Louisville, Colorado 80027
tel. 303-926-3012
email. hmacleod@balfourcare.com
Contact: Hunter McLeod

ARCHITECT & LANDSCAPE ARCHITECT:

DTJ DESIGN, INC.
3101 Iris Avenue, Suite 130
Boulder, Colorado 80301
tel. 303-443-7533
email. dwilliams@dtjdesign.com
Contact: David S. Williams AIA

CIVIL ENGINEER:

Scott Cox and Associates, Inc.
1530 55th Street
Boulder, Colorado 80303
tel. 303-444-3051
email. ash@scottcox.com
Contact: Don Ash

ELECTRICAL ENGINEER:

Given and Associates, Inc.
735 S. Xenon Ct. Suite 201
Lakewood, Colorado 80228
tel. 303-716-1270
email. trevork@givenandassociates.com
Contact: Trevor Kindell P.E.

SHEET INDEX

ARCHITECTURAL

A001	Cover Sheet
A100	Site Plan
A105	Emergency Access Plan
A110	First & Second Floor Plan
A120	Third Floor Plan
A200	Building Elevations
A210	Building Elevations
A400	Site Photometric Plan
A410	Site Lighting Details

CIVIL

C1.01	Grading and Drainage Plan
C1.02	Utility Plan

LANDSCAPE

L201	Planting Plan
L301	Signage Details

VICINITY MAP

CONCEPTUAL RENDERING

PROJECT SUMMARY

PROJECT LOCATION:	1800 & 1870 PLAZA DRIVE LOUISVILLE, CO 80027
PROJECT DESCRIPTION:	NEW CONSTRUCTION OF A 3-STORY STRUCTURE TO HOUSE AN ASSISTED LIVING COMMUNITY FOR SENIOR LIVING. THE STRUCTURE WILL CONTAIN UP TO 54 DWELLING UNITS, FITNESS CENTER, SALON, ACTIVITY ROOMS, DINING ROOM, KITCHEN, AND ADMINISTRATIVE OFFICES
ZONE DISTRICT:	ZONE P-C (Planned Community)
LAND AREA:	87,578 SF (2.01 ACRES)
BUILDING AREA:	FIRST FLOOR: 23,000 GSF SECOND FLOOR: 23,600 GSF THIRD FLOOR: 11,600 GSF TOTAL: 58,200 GSF DWELLING UNITS 42,600 SF AMENITIES 14,400 SF ADMIN. OFFICE 1,200 SF
BUILDING HEIGHT:	CODE ALLOWABLE - 35' WITH MECHANICAL ELEMENTS TO 42' PROPOSED BUILDING HEIGHT VARIES BETWEEN 40' AND 52' ROOFTOP MECHANICAL EQUIPMENT WILL BE LOCATED IN SCREENED MECHANICAL WELLS
DWELLING UNITS:	STUDIO 15 UNITS ONE-BEDROOM 37 UNITS TWO-BEDROOM 2 UNITS TOTAL 54 UNITS
FAR / LOT COVERAGE:	.66 FAR 53% BUILDING / PARKING / DRIVEWAYS 47% OPEN SPACE
SETBACKS:	FRONT YARD: 25' REAR YARD: 20' SIDE YARD: 10'
PARKING SPACES	ASSISTED LIVING COMMUNITY 1 SPACE PER 3 BEDS (RESIDENTIAL - HOME FOR THE AGED) 56 BEDS / 3 = 19 SPACES REQUIRED ADMINISTRATIVE OFFICES 1 SPACE PER 300 SF 1,200 / 300 = 4 SPACES REQUIRED 23 PARKING SPACES REQUIRED 24 FULL SIZE SPACES PROVIDED 6 COMPACT SPACES PROVIDED 4 BICYCLE PARKING SPACES PROVIDED

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DTJ DESIGN, Inc.
3101 Iris Avenue, Suite 130
Boulder, Colorado 80301
T 303.443.7533
F 303.443.7534
www.dtjdesign.com

BALFOUR Senior Living
Assisted Living Community
Final P.U.D.
1800/1870 Plaza Drive Louisville, Colorado 80027

DRAWN BY:	BJS,TJ
CHECKED BY:	LPP,GW
PROJECT NO.:	2015052.20
ISSUE DATE:	3/03/2016
REVISIONS:	
	PC 5/13/2016
	PC 6/27/2016

SHEET TITLE:

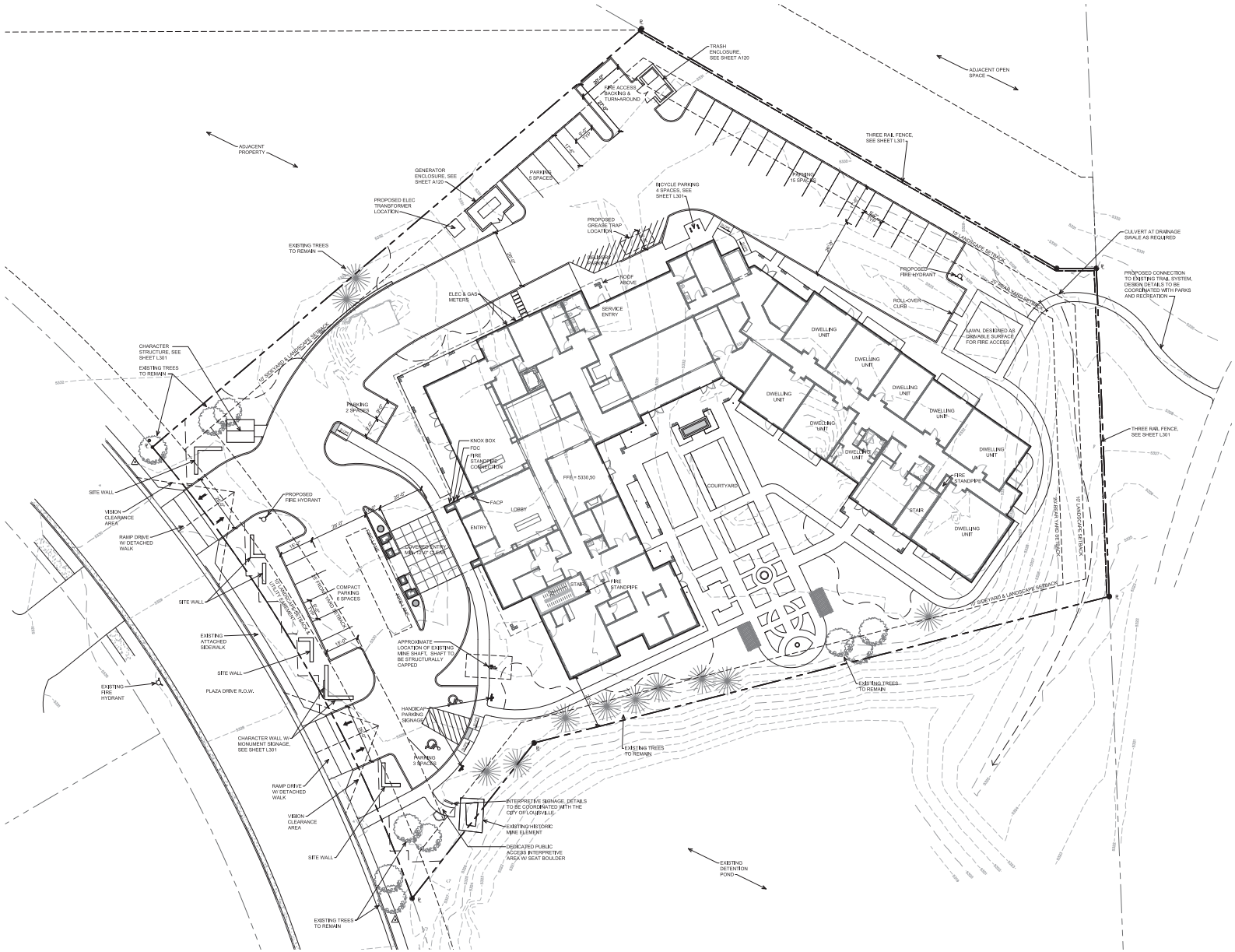
PROJECT INFORMATION

SHEET NUMBER:

A001

GENERAL NOTES

1. The existing foundation of the historic hoist structure for the Hecla Mine is proposed to be retained and an area dedicated for interpretive signage per the City of Louisville.
2. The existing mine shaft will be capped per the recommendations outlined in the Mine Subsidence Investigation conducted by Western Environmental and Ecology Inc. Dated February 24, 2016.
3. The topography indicated is existing. See Grading and Drainage Plan for proposed finished topography.
4. A fire access lane will be provided on three sides of the structure with a dedicated turn-around area. A fire standpipe system will be provided within the structure to provide fire access to all points of the structure.
5. All roof mounted mechanical equipment shall be set within screened mechanical wells on the roof.



1 A100 SITE PLAN
SCALE: 1" = 20'

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SHEET TITLE:
SITE PLAN

SHEET NUMBER:
A100

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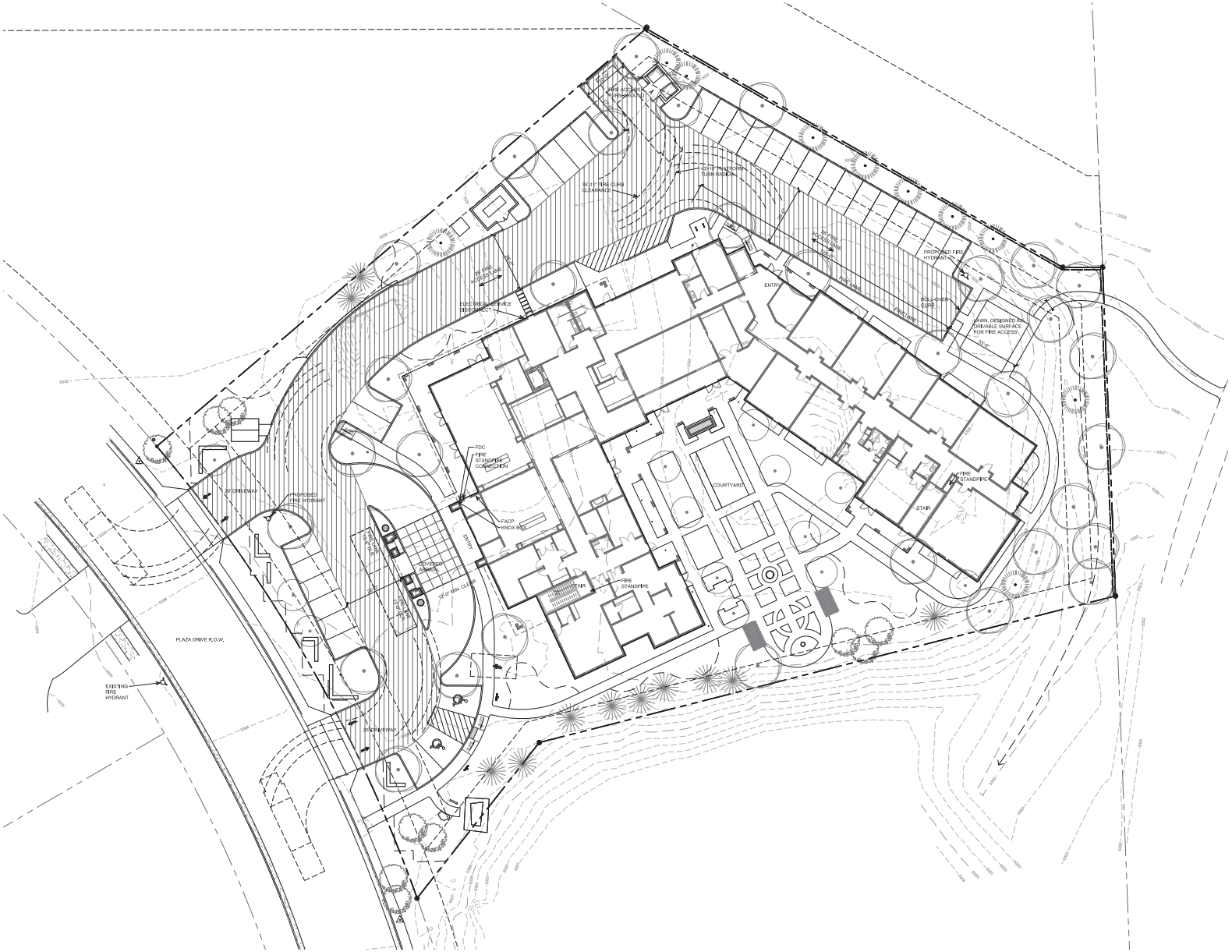

1 A105 EMERGENCY ACCESS PLAN
SCALE: 1" = 20'

North

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SHEET TITLE:

ACCESS PLAN

SHEET NUMBER:

A105

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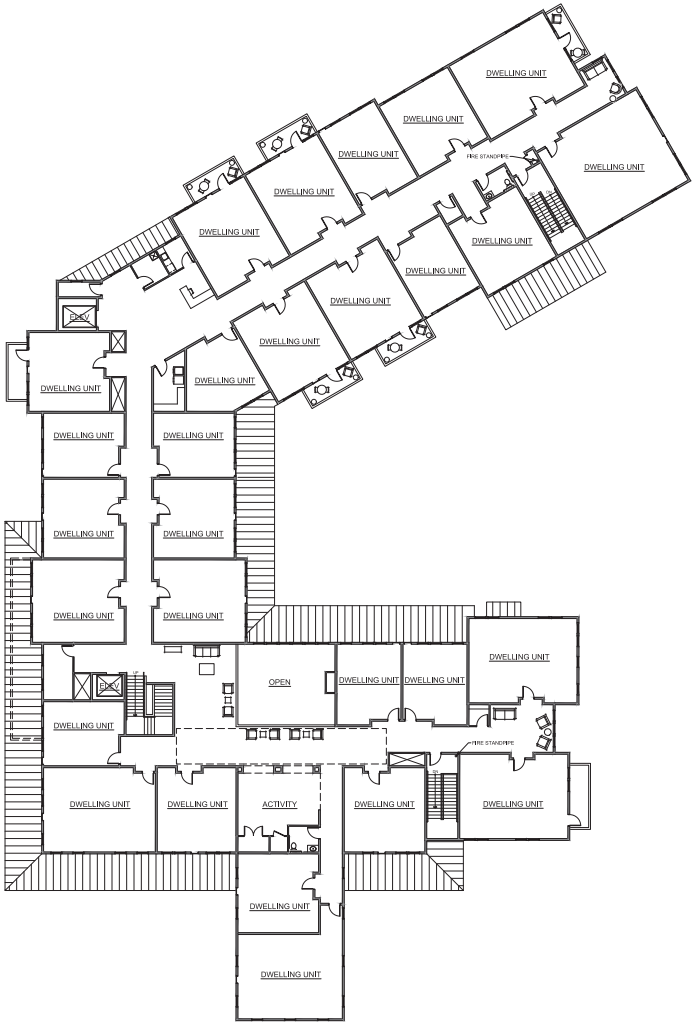
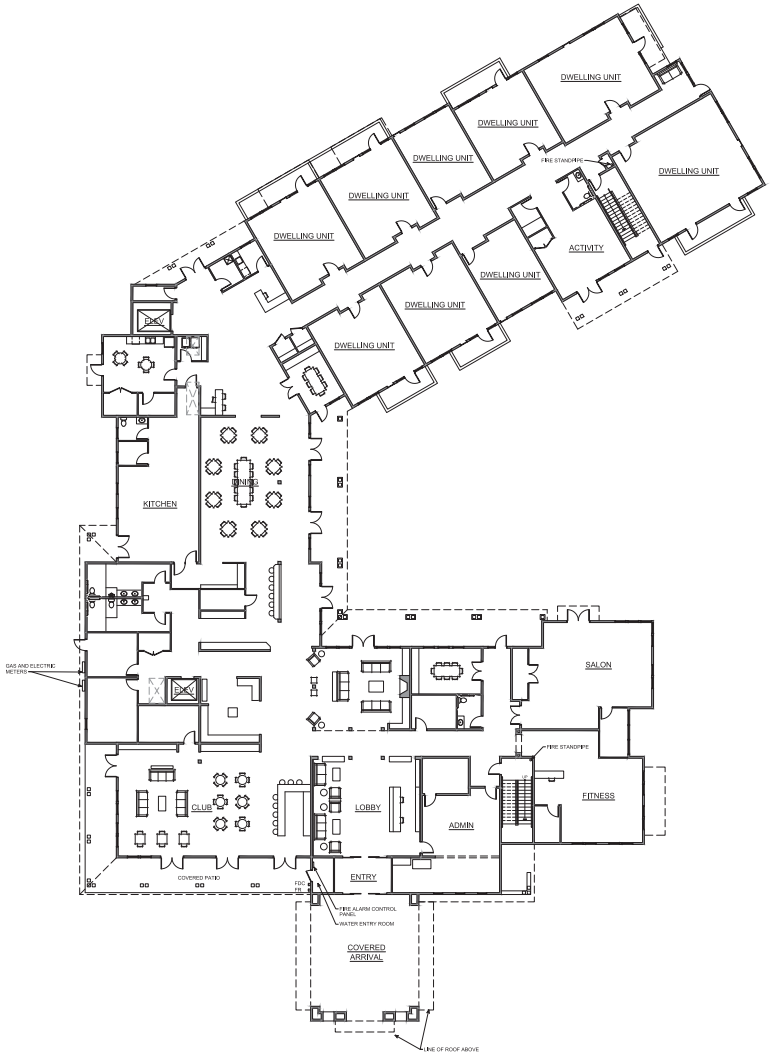


2 A110 SECOND LEVEL FLOOR PLAN
SCALE: 1/16" = 1'-0"

23,600 GROSS SF
28 DWELLING UNITS



1 A110 FIRST LEVEL FLOOR PLAN
SCALE: 1/16" = 1'-0"

23,000 GROSS SF
9 DWELLING UNITS

NORTH

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Boulder, Colorado 80301
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F 303.443.7534
www.dtjdesign.com

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SHEET TITLE:

FLOOR PLAN

SHEET NUMBER:

A110

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Layout: A110 - 1/16" = 1'-0" - Model - Arch & Structural
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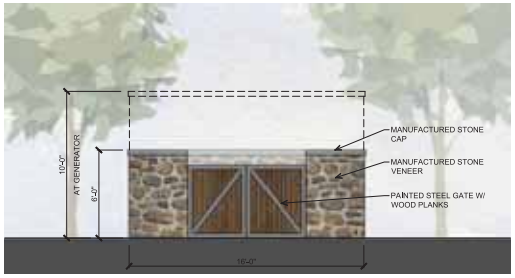
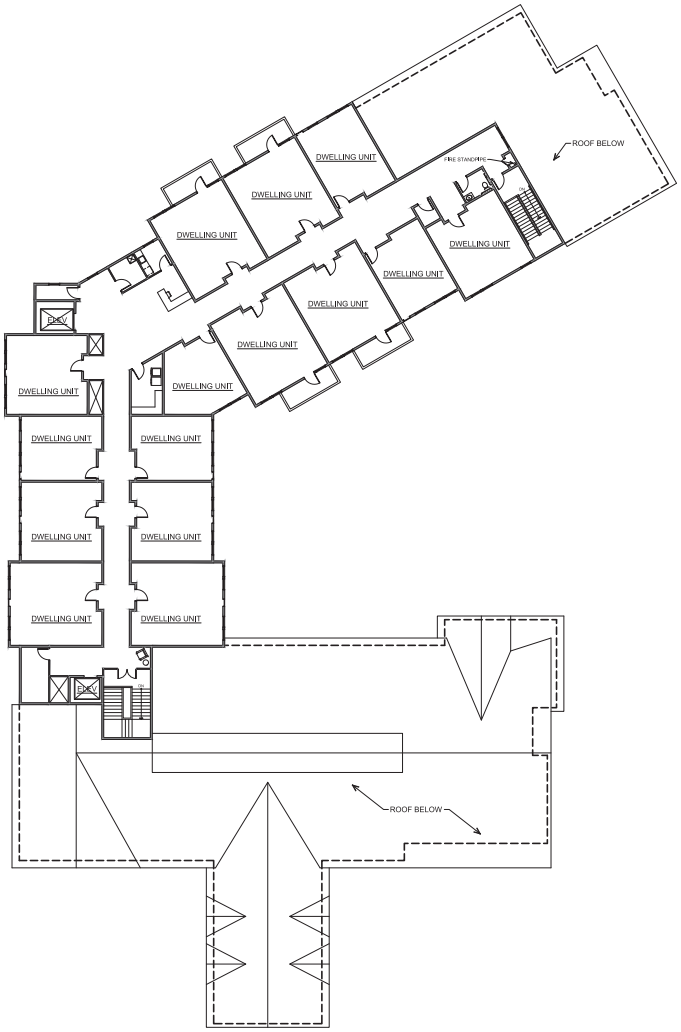


2 A120 TYP TRASH & GENERATOR ENCLOSURE ELEVATION
SCALE: 1/4" = 1'-0"



1 A120 THIRD LEVEL FLOOR PLAN
SCALE: 1/16" = 1'-0"

11,600 GROSS SF
17 DWELLING UNITS

NORTH

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F 303.443.7534

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	PC 6/27/2016

SHEET TITLE:

FLOOR PLAN

SHEET NUMBER:

A120

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2 A200 WEST ELEVATION
SCALE: 1" = 10'

1 A200 SOUTH ELEVATION
SCALE: 1" = 10'

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T 303.443.7533
F 303.443.7534
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SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

A200

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2 A210 EAST ELEVATION
SCALE: 1" = 10'

1 A210 NORTH ELEVATION
SCALE: 1" = 10'

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3101 Iris Avenue, Suite 130
Boulder, Colorado 80301
T 303.443.7533
F 303.443.7534

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1800/1870 Plaza Drive Louisville, Colorado 80027

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	PC 6/27/2016

SHEET TITLE:

BUILDING ELEVATIONS

SHEET NUMBER:

A210

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Xref(s): ARCH-TB-ISO; ARCH-TB-ISO-XR; ARCH-TB-ISO-XR-ATTRIB; ARCH-TB-ISO-XR-ATTRIB-ATTRIB; ARCH-TB-ISO-XR-ATTRIB-ATTRIB-ATTRIB

DRAWING NOTES:

1. ALL EXTERIOR SITE LIGHTING FIXTURES SHALL BE CONTROLLED BY AN ASTRONOMICAL TIMECLOCK OR PHOTOCELL.
2. PHOTOMETRIC CALCULATIONS HAVE BEEN DETERMINED USING A LIGHT LOSS FACTOR OF 1.0

LIGHTING STATISTICS

Description	Avg	Max	Min	Max/Min	Avg/Min
SITE	1.8 fc	26.5 fc	0.1 fc	N/A	N/A

DTJ DESIGN

ARCHITECTURE
PLANNING
LANDSCAPE ARCHITECTURE

DTJ DESIGN, Inc.
3101 Iris Avenue, Suite 130
Boulder, Colorado 80301
T 303.443.7533
F 303.443.7534
www.dtjdesign.com

GIVEN & ASSOCIATES INC.
735 S. Xenon Ct. #201
Lakewood, Colorado 80228
Ph: 303.716.1270
Fax: 303.716.1272
www.givenandassociates.com
Project # 15187

BALFOUR Senior Living

Assisted Living Community

Final P.U.D.

1800/1870 Plaza Drive Louisville, Colorado 80027

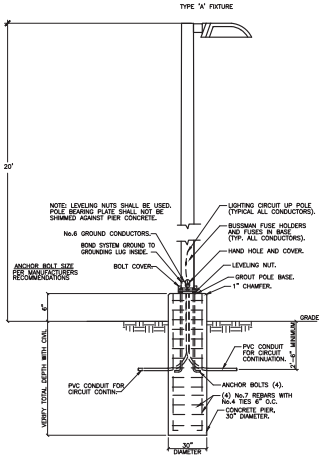
DRAWN BY: ----
CHECKED BY: ----
PROJECT NO.: 2015052.20
ISSUE DATE: 2/17/2016
REVISIONS: PC 5/13/2016
PC 6/27/2016

SHEET TITLE:
SITE PHOTOMETRIC

SHEET NUMBER:
A400

"A"

LUMINAIRE SCHEDULE							
PLAN MARK	MOUNTING	DESCRIPTION	MANUFACTURER AND CATALOG NUMBER	VOLTAGE	NO. OF LAMPS	LAMP TYPE	REMARKS
A	POLE	20' HEIGHT	PHILIPS GL18-3-50LA-4835-NW-HS	MVOLT	--	50W LED	
B	INGRADE		KICHLER 15800BBR30R	MVOLT	--	4.3W LED	
C	WALL SCONCE		MAXIM LIGHTING 35001OB	MVOLT	1	100W INC. MAX	WET LOCATION
D	RECESSED DOWNLIGHT	SPOT DOWNLIGHT	AURORALIGHT LSW8-FL-BR-ALL-29-B-R-BLP	12V	--	15W LED	WET LOCATION MOUNTED IN SOFFIT
D1	RECESSED DOWNLIGHT	DOWNLIGHT	PHILIPS P4R-D-10-8-35-N-U-VB	MVOLT	--	11W LED	WET LOCATION MOUNTED IN SOFFIT
D2	SURFACE/ J-BOX	TRELLIS	FOREVER BRIGHT SPJ-MU1+MBR-3W-FLOOD-105-2700K-8-15V	8-12V	--	3W LED	WET LOCATION MOUNTED IN TRELLIS



1 A410 POLE & BASE DETAILS

N.T.S.

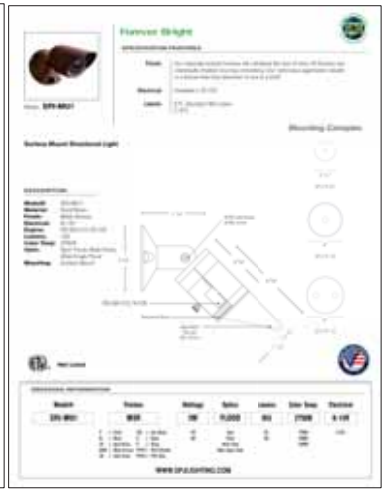
"B"

"C"

"D"

"D1"

"D2"



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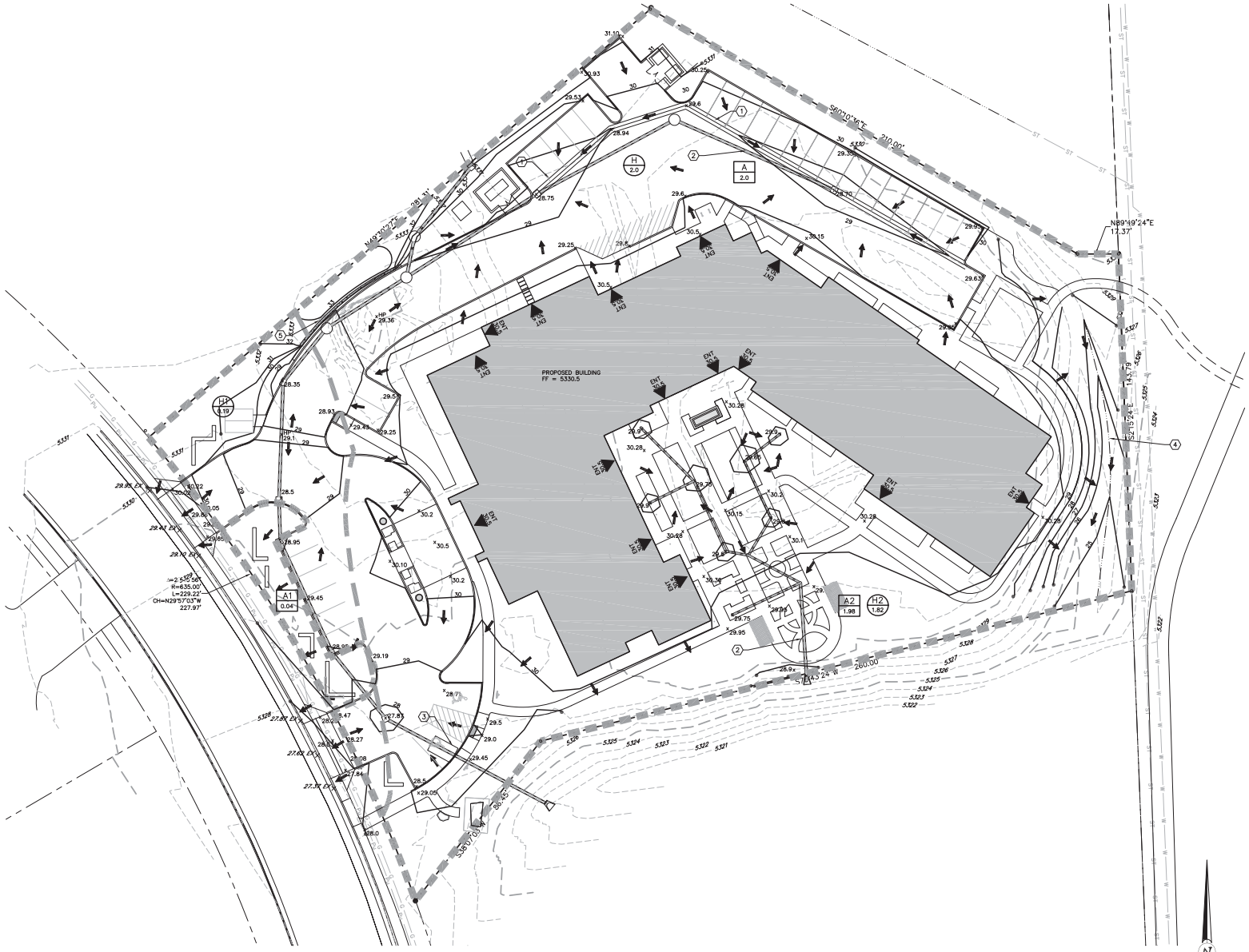
	PC 6/27/2016

SHEET TITLE:
SITE LIGHTING DETAILS

SHEET NUMBER:
A410



Scale: 1" = 20'

0 10 20 40

LEGEND

- EXISTING DECIDUOUS TREE
- EXISTING PINE TREE
- EXISTING SHRUB
- EXISTING STORM SEWER W/MANHOLE
- SWALE
- PROPOSED CONTOUR ADD 5500 TO ALL CONTOURS
- EXISTING CONTOUR
- POINT WHERE PROPOSED GRADE MEETS EXISTING GRADE
- PROPOSED SPOT ELEVATION ADD 5500 TO ALL SPOT ELEVATIONS
- EXISTING SPOT ELEVATION
- HISTORIC SHEET FLOW
- PROPOSED FLOW DIRECTION
- FINISHED FLOOR ELEVATION
- PROPOSED BASIN BOUNDARY
- HISTORIC BASIN BOUNDARY
- SUB-BASIN DESIGNATION (HISTORIC)
- AREA IN ACRES
- PROPOSED SUB-BASIN DESIGNATION
- AREA IN ACRES

KEYED NOTES (1)

1. PROPOSED CONCRETE PAN.
2. PROPOSED STORM SEWER.
3. PROPOSED WATER QUALITY STRUCTURE.
4. MAINTAIN EXISTING SWALE TO CONVEY OFFSITE FLOW THROUGH TO DETENTION POND.
5. PROPOSED BOULDER WALL.

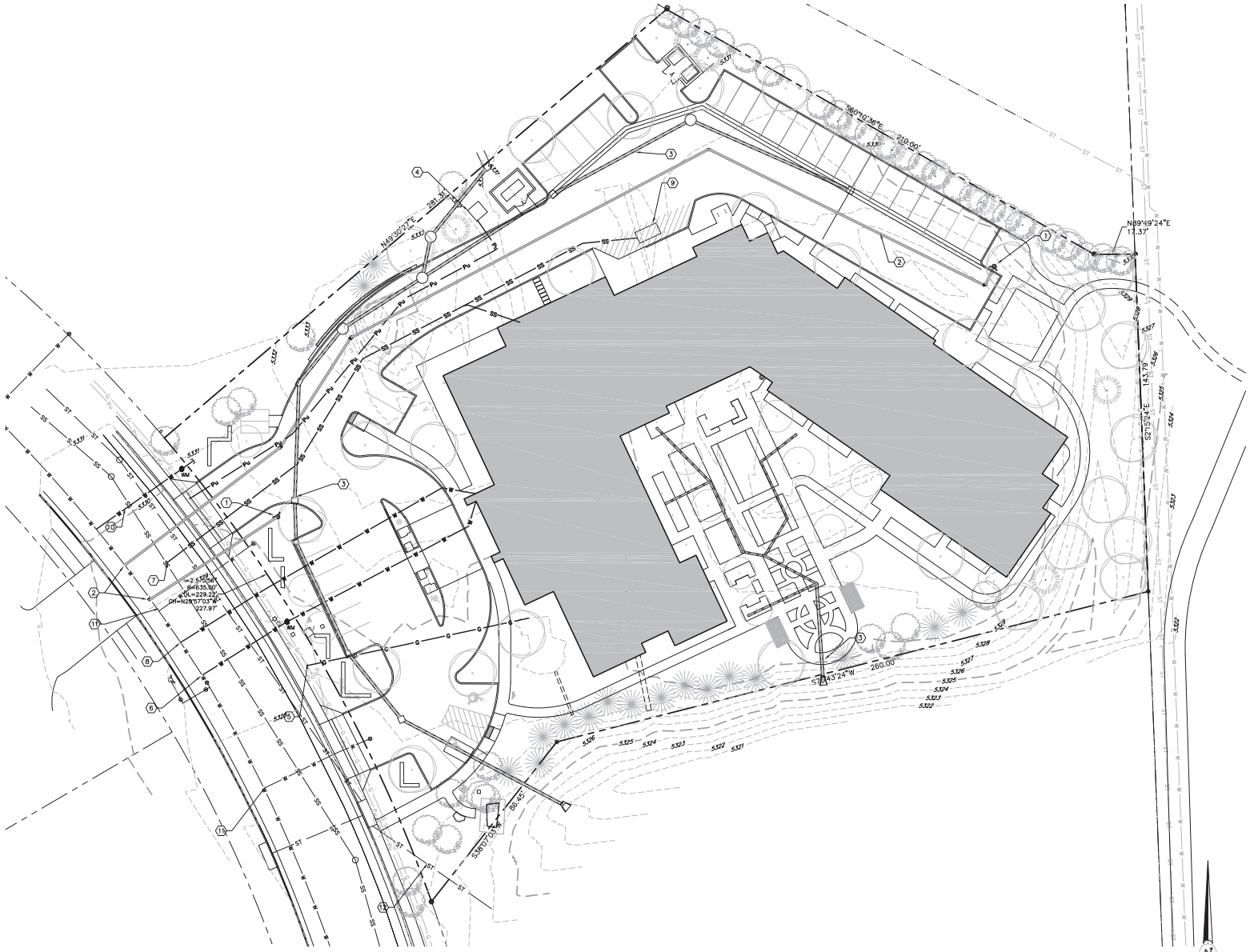
GRADING NOTES

1. GRADE AWAY FROM BUILDINGS AT A MINIMUM 10% SLOPE IN THE FIRST 10 FEET AT LANDSCAPE AREAS AND AT A MINIMUM 2% SLOPE IN THE FIRST 10 FEET AT IMPERVIOUS AREAS, EXCEPT AS NOTED.
2. TOP OF FOUNDATION ELEVATION SHALL BE SET AT LEAST 8" ABOVE THE PROPOSED GRADING AT THE EXTERIOR OF THE FOUNDATION AT LANDSCAPE AREAS.
3. ALL OF THIS PROPERTY LIES WITHIN ZONE X AS SHOWN ON FLOOD INSURANCE RATE MAP, BOULDER COUNTY, COLORADO, COMMUNITY-PANEL NO.08013C0576 H, MAP REVISED OCTOBER 4, 2002. ZONE X REFERS TO AREAS OF 500-YEAR FLOOD; AREAS OF 100-YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 100-YEAR FLOOD.
4. ALL ROOF DRAINAGE SHALL DRAIN TO THE STORM SEWER SYSTEM.
5. ALL CITY UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF LOUISVILLE STANDARD SPECIFICATIONS.
6. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE TOPOGRAPHIC SURVEY BY SCOTT, COX & ASSOCIATES, INC. ON 12/01/15. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY OTHERS (WHICH MAY INCLUDE THE UTILITY OWNER OR UTILITY LOCATING SERVICES). SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
7. BENCH MARK:ORIGIN BENCHMARK FOR THE PROJECT WAS ESTABLISHED FROM A 1 1/2" BRASS CAP IN A RANGE BOX AT THE INTERSECTION OF HWY 42 AND SOUTH BOULDER ROAD, WHICH IS THE SW CORNER OF SECTION 4 (CITY OF LOUISVILLE LAND CORNER #15) IN 1994 USING THE CITY ELEVATION OF 5352.30'.
   FROM THE ORIGIN BM A PROJECT BENCHMARK WAS ESTABLISHED ON A 1 1/2" ALUM. CAP, PLS 175002 AT THE NW CORNER OF LOT 5, ALVENUS PARK ON THE SOUTH SIDE OF HECLA DRIVE. ELEVATION=5354.69'.
   FROM THIS PROJECT BM WE ESTABLISHED A SITE BENCHMARK FOR THIS SURVEY BEING A NAIL AND TAG SET IN THE SIDEWALK ON A 10 FOOT OFFSET TO THE NW CORNER OF LOT 2 AS SHOWN HEREON. ELEVATION = 5331.16' CITY OF LOUISVILLE DATUM.

FINAL GRADING AND DRAINAGE PLAN
BALFOUR SENIOR LIVING
1800 PLAZA DRIVE
LOUISVILLE, COLORADO

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 - 3051

Designed by MRF	Date 03/04/16	Scale 1"=20'	Drawing no. 15625B-3		Sheet C1.01
Drawn by JAS	Revision		Description	Date	Project no.
Checked by DPA	1		CITY COMMENTS	05/12/16	15625B
	2		CITY COMMENTS	06/27/16	



LEGEND

- EXISTING DECIDUOUS TREE
- EXISTING PINE TREE
- EXISTING SHRUB
- EXISTING WATER VALVE
- EXISTING GAS METER
- EXISTING LIGHT POLE
- EXISTING FIRE HYDRANT
- EXISTING SPRINKLER VALVE BOX
- EXISTING FENCE
- EXISTING SANITARY SEWER W/MANHOLE
- EXISTING WATER W/FIRE HYDRANT
- EXISTING STORM SEWER W/MANHOLE
- EXISTING CONTOUR
- EXISTING SPOT ELEVATION
- FINISHED FLOOR ELEVATION

KEYED NOTES

1. PROPOSED PRIVATE FIRE HYDRANT.
2. PROPOSED PRIVATE FIRE HYDRANT LATERAL.
3. PROPOSED STORM SEWER.
4. PROPOSED TRANSFORMER.
5. PROPOSED GAS SERVICE.
6. PROPOSED WATER SERVICE.
7. PROPOSED SANITARY SEWER SERVICE. EXISTING SANITARY SEWER SERVICE WILL BE ABANDONED AT THE MAIN WITHIN PLAZA DRIVE.
8. PROPOSED FIRE SERVICE.
9. PROPOSED GREASE TRAP.
10. PROPOSED IRRIGATION SERVICE.
11. EXISTING WATER SERVICE WILL BE ABANDONED AT THE MAIN WITHIN PLAZA DRIVE.
12. EXISTING STORM SEWER. A PUBLIC UTILITY EASEMENT WILL BE DEDICATED.

UTILITY NOTES

1. ALL CITY UTILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF LOUISVILLE STANDARD SPECIFICATIONS.
2. WATER, FIRELINE, SEWER TAPS, AND SERVICE LINE SIZES SHALL BE DETERMINED AT THE TIME OF BUILDING PERMIT APPLICATION.
3. ALL NEW WATER AND SANITARY SEWER SERVICE TAPS TO EXISTING MAINS SHALL BE MADE BY CITY CREWS AT THE DEVELOPER'S EXPENSE.
4. ALL CONNECTIONS TO EXISTING UTILITIES SHALL BE DONE IN A WAY SO AS TO MINIMIZE DISRUPTION IN SERVICE TO EXISTING USERS.
5. THE LOCATION OF THE ABOVE GROUND UTILITIES SHOWN HEREON ARE BASED ON THE TOPOGRAPHIC SURVEY BY SCOTT, COX & ASSOCIATES, INC. ON 12/01/15. THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON SAID SURVEY AND INFORMATION PROVIDED BY OTHERS (WHICH MAY INCLUDE THE UTILITY OWNER OR UTILITY LOCATING SERVICES). SCOTT, COX & ASSOCIATES, INC. IS NOT RESPONSIBLE FOR UTILITY INFORMATION PROVIDED BY OTHERS. SCOTT, COX & ASSOCIATES, INC. RECOMMENDS THAT THE LOCATION OF THE UTILITIES BE FIELD VERIFIED PRIOR TO ANY DIGGING ON, OR ADJACENT TO THE SUBJECT PROPERTY.
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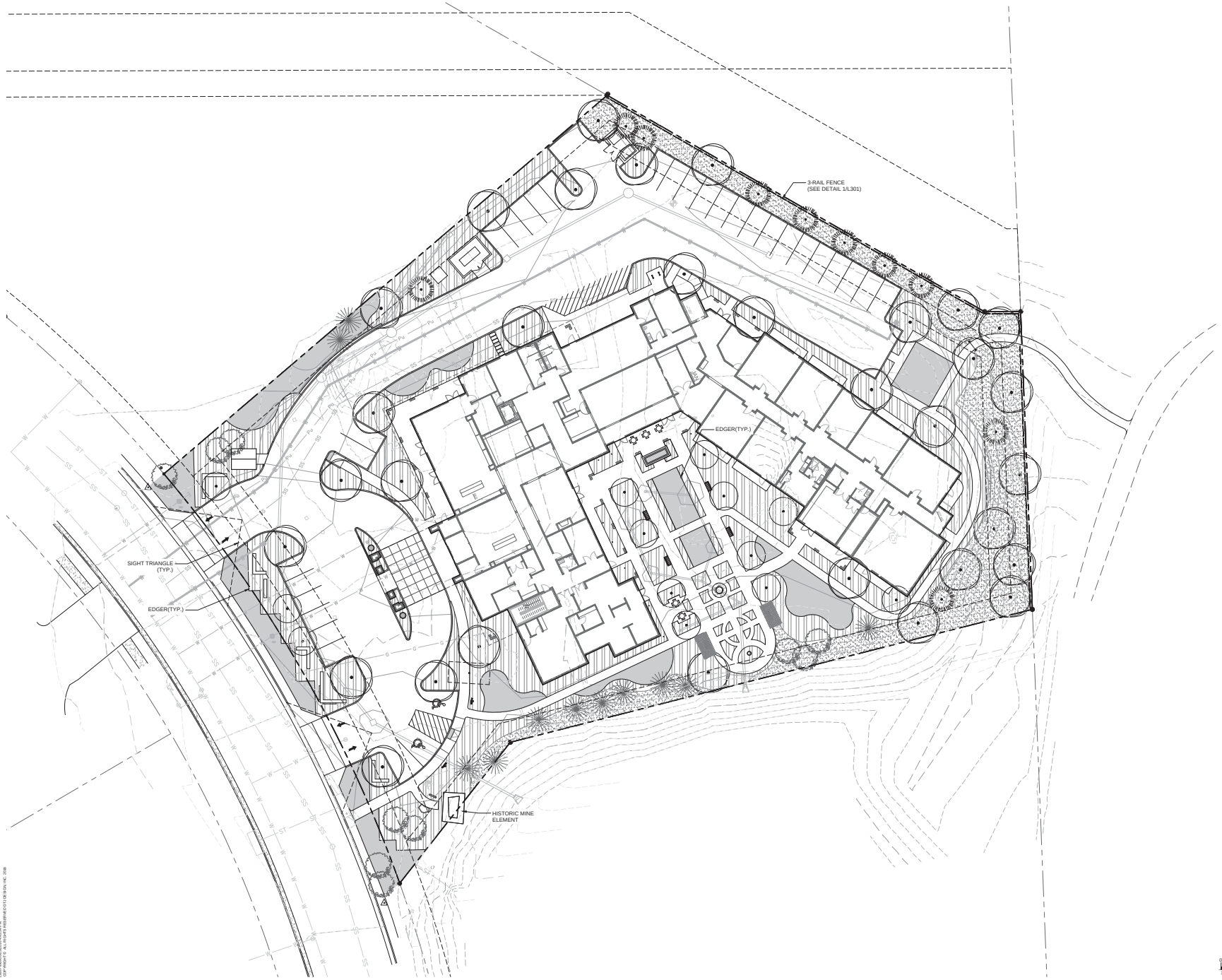
FINAL UTILITY PLAN
BALFOUR SENIOR LIVING
1800 PLAZA DRIVE
LOUISVILLE, COLORADO

SCOTT, COX & ASSOCIATES, INC.
consulting engineers • surveyors
1530 55th Street • Boulder, Colorado 80303
(303) 444 - 3051

Designed by MRF	Date 03/04/16	Scale 1"=20'	Drawing no. 15625B-3		Sheet C1.02
Drawn by JAS	Revision		Description	Date	Project no.
Checked by DPA	1		CITY COMMENTS	05/12/16	15625B
	2		CITY COMMENTS	06/27/16	



LANDSCAPE PLAN LEGEND

- SHADE TREE
- ORNAMENTAL TREE
- EXISTING TREE TO REMAIN
- TURF
- SHRUBS/ PERENNIAL PLANTING
- ENHANCED GRASS SEED MIX

NOTES

1. THE PLANT LIST PROVIDED IS A GENERAL INDICATION OF THE APPROACH TO THE PLANT PALETTE. MINOR MODIFICATIONS WILL BE MADE BETWEEN FILING AS THE DESIGN IS FINALIZED. FINAL PLANT MATERIAL SELECTION AND SPECIFICATION WILL BE BASED ON MARKET AVAILABILITY AT THE TIME OF CONSTRUCTION.
2. THE SHRUB BED AREAS WILL CONSIST OF A MIX OF WOODY SHRUBS, SHRUBBY PERENNIALS, AND PERENNIALS. LAVENDER WILL BE A DOMINANT PLANTING WITH ORNAMENTAL GRASSES AS A BACKDROP/COMPANION PLANT. PLANT MASSINGS WILL BE PROVIDED TO SCREEN PARKING AREAS AND UNDESIRABLE VIEWS.
3. SEE SHEET L301 FOR PLANTING LIST
4. SEE SHEET L301 FOR ENHANCED GRASS MIX

0' 20' 40' 60'
1 = 20'
NORTH

DTJ DESIGN

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Boulder, Colorado 80301
T 303.443.7533
F 303.443.7534
www.dtjdesign.com

BALFOUR Senior Living
Assisted Living Community
Final P.U.D.
1800/1870 Plaza Drive Louisville, Colorado 80027

DRAWN BY:	BJS,TJ
CHECKED BY:	LPP,GW
PROJECT NO.:	2015052.20
ISSUE DATE:	3/03/2016
REVISIONS:	
	PC 5/13/2016
	PC 6/27/2016

SHEET TITLE:
PLANTING PLAN

SHEET NUMBER:
L201

Drawing: L:\2015052.20 - BalfourAssisted Living\01-CAD\Revised\LP\PDF\L201_PLANTING PLAN.dwg
Layout: L201 - PLANTING PLAN
Last Saved: 6/27/2016 2:12:00 PM by TJ
Last Plotted: 6/27/2016 2:14:12 PM by TJ
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LANDSCAPE AREA CHART	
LAWN	6,202 SF
SHRUBS/PERENNIAL AREA	17,714 SF
ENHANCED GRASS SEED MIX	8,816 SF
TOTAL	32,732 SF

KEY	BOTANICAL NAME	COMMON NAME	SPACING	SIZE
	SHADE TREES			
AG	Acer grandidentatum	Big Tooth Maple	30'	2.5" cal.
QR	Quercus rubra	English Oak	30'	2.5" cal.
GT	Gleditsia triacanthos inermis 'Imperial'	Imperial Honeylocust	30'	2.5" cal.
EJ	Eleptera japonica	Japanese pittosie tree	30'	2.5" cal.
TT	Tilia tomentosa 'Sterling'	Sterling Tree	30'	2.5" cal.
QB	Quercus bicolor	Swamp White Oak	30'	2.5" cal.
CO	Celtis occidentalis	Western Hackberry	30'	2.5" cal.
PG	Pinus ponderosa	Ponderosa Pine	30'	2.5" cal.
	Ornamental Trees			
AA	Amelanchier alnifolia	Saskatoon Serviceberry	20'	2.5" cal.
AC	Amelanchier canadensis	Shadblow Serviceberry	20'	2.5" cal.
AFB	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Serviceberry	20'	2.5" cal.
AJ	Acer tataricum 'Hot Wings'	Hot Wings Maple	20'	2.5" cal.
CA	Crataegus ambigua	Russian Hawthorne	20'	2.5" cal.
CC	Crataegus crusgalli	Cockspur Hawthorn	20'	2.5" cal.
KP	Koelreuteria paniculata	Golden Rain Tree	20'	2.5" cal.
MR	Malus x 'Radiant'	Crabapple 'Radiant'	20'	2.5" cal.
	EVERGREEN TREES			
PBD	Pinus ponderosa	Colorado Blue Spruce	20'	6' ht.
PN	Pinus nigra	Austrian Pine	20'	6' ht.
PS	Pinus sylvestris	Scotch Pine	20'	6' ht.
	SHRUB/PERENNIAL PLANTING			
AC	Achnatherum calamagrostis	Silver Spike Grass	3'	1 gal.
ACA	Agastache cana	Hummingbird Mint	30"	1 gal.
AM	Achillea millefolium	Lady's Mantle	12"	1 gal.
AU	Arctostaphylos uva-ursi	Bear Berry(Kinnic)	24"	1 gal.
AVS	Artemisia ludoviciana 'Silver Sage'	Silver Sage Artemisia	12"	1 gal.
BMS	Caryopteris x clandonensis	Blue Mist Spirea	4'	5 gal.
BWB	Buddleia 'Nanho Blue'	Blue Butterfly Bush	3'x4'	1 gal.
CA	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	24"	1 gal.
CI	Cercocarpus intricatus	Evergreen Mt. Mahogany	6'	1 gal.
CR	Ceratoides lanata	Winterfat	3'x3'	1 gal.
EMR	Ericameria nauseosa var. nauseosa	Dwarf Rabbit Brush	4'	1 gal.
HP	Hesperaloe parviflora	Red Yucca	3'	1 gal.
HS	Helianthemum scoparium	Pink Rock Rose	12"	1 gal.
LAH	Lavandula angustifolia 'Hidcote'	English lavender Hidcote	1.5'	1 gal.
LAHP	Lavandula angustifolia 'Hidcote Pink'	English lavender Hidcote Pink	1'	1 gal.
LAM	Lavandula angustifolia 'Melissa Gray'	English lavender Melissa Gray	1.5'	1 gal.
LAR	Lavandula angustifolia 'Royal Velvet'	English lavender Royal Velvet	2'	1 gal.
LW	Leucophyllum x intermedia 'Rio'	White Leucophyll	2'	1 gal.
MAC	Mahonia aquifolium 'Compacta'	Compact Oregon Grape Holly	1.5'	1 gal.
MQ	Mahonia aquifolium	Oregon Grape	4'x4'	5 gal. 36"
MW	Mahonia x 'Walter's Lost'	Lemmon' Walter's Lost'	24"	1 gal.
PS	Pennisetum grass/fine	Pennisetum Sage	3'	1 gal.
PCN	Physocarpus opulifolius 'Nanus'	Dwarf Ninebark	4'	1 gal.
PPS	Prunus cerasus (sorbo var. Montmor	Montmor Sand Cherry	5'	1 gal.
PCB	Physocarpus opulifolius 'Northwest'	Northwest Ninebark	5'	1 gal.
QU	Quercus undulata	Wavy Leaf Oak	30'	5 gal. 6'
RAT	Rhus aromatica var. 'Trilobata'	Three Leaf Sumac	5'	1 gal.
SW	Sporobolus wrightii	Giant Sacaton Grass	5'	1 gal.
VC	Viburnum carlesii	Korean Spice Viburnum	5'	1 gal. 6'
VDA	Viburnum dentatum 'Autumn Jazz'	Arrowwood Viburnum	5'	1 gal.
YFG	Yucca filamentosa 'Color Guard'	Yucca 'Color Guard'	5'	1 gal.
	GRASSES			
AC	Achnatherum calamagrostis	Silver Spike Grass	2.5'	1 gal.
BAG	Bouteloua gracilis	Blue Grama Grass	1'	1 gal.
BG	Bouteloua gracilis	Blue Grama	1.5'	1 gal.
CAF	Calamagrostis acutiflora 'Karl Foerster'	Feather Reed Grass	1'	1 gal.
FG	Festuca ovina glauca	Elijah Blue Grass	1'	1 gal.
MRM	Muhlenbergia reverchonii 'Morning Light'	Muhly Grass	1'	1 gal.
PV	Panicum virgatum	Switch Grass	3-4'	1 gal.
SG	Sporobolus cryptandrus	Sand Dropseed	1'	1 gal.

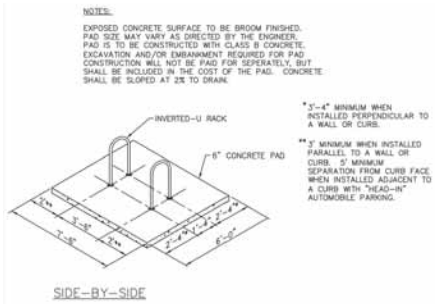
PP = Per Plan

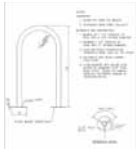
SEED MIX TO BE HIGH PLAINS/FOOTHILLS MIX SUPPLIED BY WESTERN NATIVE SEED, OR APPROVED EQUAL. APPLICATION RATE OF 1-2 LBS PER 1000 SF SEE DETAIL BELOW.

%	Species	Common Name
20	Bouteloua curtipendula	Side Oats Grama
20	Pascopyrum smithii	Western Wheatgrass
10	Elymus trachycaulus	Slender Wheatgrass
5	Elymus elymoides	Bottlebrush Squirreltail
5	Bouteloua gracilis	Blue Grama
5	Oryzopsis hymenoides	Indian Ricegrass
5	Andropogon gerardii	Big Bluestem
5	Schizachyrium scoparium	Little Bluestem
5	Sorghastrum nutans	Yellow Indiangrass
5	Sporobolus cryptandrus	Sand Dropseed

NOTES:
THE SHRUB BED AREAS WILL CONSIST OF A MIX OF WOODY SHRUBS, SHRUBBY PERENNIALS, AND PERENNIALS. LAVENDER WILL BE A DOMINANT PLANTING WITH ORNAMENTAL GRASSES AS A BACKDROP/COMPANION PLANT. PLANT MASSINGS WILL BE PROVIDED TO SCREEN PARKING AREAS AND UNDESIRABLE VIEWS.

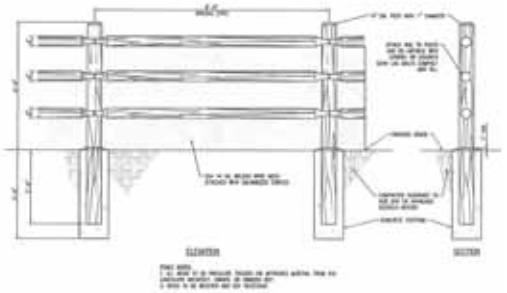
4 L301 PLANT LIST
N.T.S



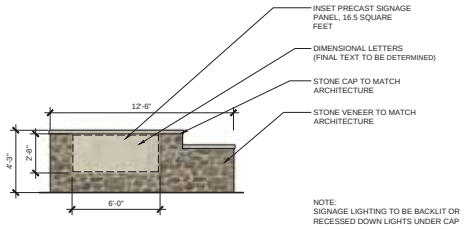


1 BIKE PARKING DETAIL
1/2" =1'-0"

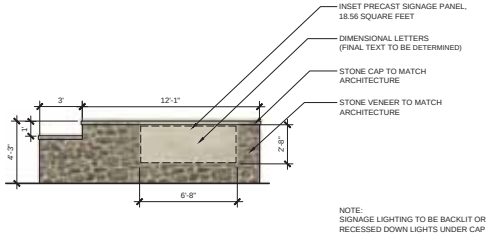
3 L301 BIKE PARKING
1/4"=1'-0"



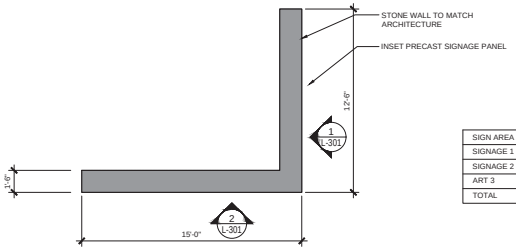
1 L501 FENCE DETAIL
1/2"=1'-0"



WALL ELEVATION 1

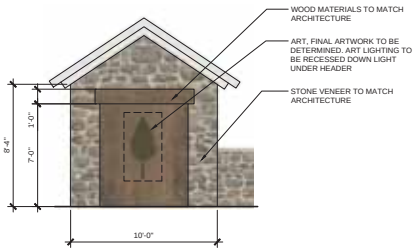


WALL ELEVATION 2



A SIGNAGE WALL PLAN

SIGN AREA AND ART	
SIGNAGE 1	16.5 SF
SIGNAGE 2	18.56 SF
ART 3	12 SF
TOTAL	47.06 SF



B CHARACTER STRUCTURE ELEVATION 3

2 L301 PROJECT IDENTIFICATION SIGNAGE
1/4"=1'-0"

DTJ DESIGN
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BALFOUR Senior Living
Assisted Living Community
Final P.U.D.
1800 / 1870 Plaza Drive Louisville, Colorado 80027

DRAWN BY:	BJS,TJ
CHECKED BY:	LPP,GW
PROJECT NO.:	2015052.20
ISSUE DATE:	3/03/2016
REVISIONS:	
	PC 5/13/2016
	PC 6/27/2016

SHEET TITLE:
LANDSCAPE AND SITE DETAILS

SHEET NUMBER:
L301

Drawing: L:\2015052.20 - Balfour Assisted Living\B CAD\Sheets\0-PLAN\L301_SITE AND PLANTS.dwg
Last Saved: Mar 3, 2016 - 10:19:22 AM by: Gregory Wolfe
Last Plotted: 3/3/2016 - 10:22:29 AM
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+/- 60' BALFOUR - THE L0DGE

+/- 65' BALFOUR - RESIDENCES

+/- 50' BALFOUR RETIREMENT COMMUNITY

+/- 35' BIG BOX RETAIL

+/- 25-35' SINGLE STORY RETAIL

+/- 25' ONE & TWO STORY RESIDENTIAL

+/-40' 3-STORY MULTI-FAMILY RESIDENTIAL UNDER CONSTRUCTION

1 SD01 SITE & BUILDING HEIGHT CONTEXT
N.T.S.

PEDESTRIAN PATHS

North

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PROJECT NO.:	2015052.20
ISSUE DATE:	3/03/2016
REVISIONS:	
	PC 5/13/2016
	PC 6/27/2016

SHEET TITLE:

SITE CONTEXT

SHEET NUMBER:

SD01

Tuesday, 11/03/2015 - Balfour / Laurel Living/05-CAD/Architecture/Sheets/SD01 Project Site.dwg
Layout: SD01 - Site Context
Last Saved: June 27, 2016 3:43:42 PM by Bschneider
Last Plotted: June 27, 2016 3:43:42 PM
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1 SD02 PROJECTED SHADOW ON DECEMBER 21st (9AM - 3PM)
N.T.S.

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CHECKED BY: LPP,GW
PROJECT NO.: 2015052.20
ISSUE DATE: 3/03/2016
REVISIONS:
PC 5/13/2016
PC 6/27/2016

SHEET TITLE:
SUN / SHADOW ANALYSIS

SHEET NUMBER:
SD02

Tuesday, 11/10/15 2:20 - Balfour / Louisville / Drawings / CD / Architecture / Sheets / SD02 Project Info.dwg
Layout: SD02 - 24x36
Last Saved: June 23, 2015 10:10:00 AM by Rachel Ashur
Last Plotted: Nov 10, 2015 2:19 PM
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1 SD03 PROJECTED SHADOW ON MARCH 21st (9AM - 3PM)
N.T.S.

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CHECKED BY: LPP,GW
PROJECT NO.: 2015052.20
ISSUE DATE: 3/03/2016
REVISIONS:
PC 5/13/2016
PC 6/27/2016

SHEET TITLE:
SUN / SHADOW ANALYSIS

SHEET NUMBER:
SD03

Tuesday, 11/15/2016 - Balfour / Louisville Living/01-CAD/Architecture/Sheets/SD03-Prospective.dwg
Layout: SD03 - 24x36
Last Saved: June 23, 2016 10:20:06 AM by Rachel Kerr
Last Plotted: Nov 15, 2016 2:14:00 PM
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1 SD04 PROJECTED SHADOW ON JUNE 21st (9AM - 3PM)
N.T.S.

North

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PROJECT NO.: 2015052.20
ISSUE DATE: 3/03/2016
REVISIONS:
PC 5/13/2016
PC 6/27/2016

SHEET TITLE:
SUN / SHADOW ANALYSIS

SHEET NUMBER:
SD04

Tuesday, 11/15/2016 - Balfour / Louisville Living/05-CAD/Architecture/Sheets/SD04 Presentation.dwg
Layout: SD04 - 24x36
Last Saved: June 23, 2016 10:20:06 AM by Rachel Ashur
Last Plotted: Nov 15, 2016 2:14 PM
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VICINTY MAP

2 SD05 PERSPECTIVE VIEW FROM SOUTH APPROACH ON PLAZA DRIVE
N.T.S.

VICINTY MAP

1 SD05 PERSPECTIVE VIEW FROM NORTHWEST APPROACH ON PLAZA DRIVE
N.T.S.

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ISSUE DATE: 3/03/2016
REVISIONS:
PC 5/13/2016
PC 6/27/2016

SHEET TITLE:

PERSPECTIVE VIEWS

SHEET NUMBER:

SD05

Tuesday, 11/15/2016 - Balfour / Louisville Living/01-CAD/Architecture/Sheets/SD05 Perspectives.dwg
User: tjohnson
Last Saved: June 23, 2016 10:20:06 AM by tjohnson
Layout: SD05 - 24x36 - 1:1 - 0 Plot Scale
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VICINTY MAP

1 SD06 PERSPECTIVE VIEW FROM NORTH OF HECLA LAKE
N.T.S.

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REVISIONS:	
	PC 5/13/2016
	PC 6/27/2016

SHEET TITLE:

PERSPECTIVE VIEWS

SHEET NUMBER:

SD06

Tuesday, 11/15/2016 - Balfour Louisville Living/05-CAD/Architecture/Sheets/SD06 Perspectives.dwg
Layout: SD06 - Perspectives
Last Saved: June 23, 2016 10:20:06 AM by Rachel Ar
Last Plotted: Nov 15, 2016 1:47:27 PM
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3 SD07 EXISTING SITE
N.T.S.

2 SD07 BUILDING MASS AT 35' HEIGHT LEVEL
N.T.S.

1 SD07 PERSPECTIVE VIEW FROM HECLA LAKE TRAIL JUNCTION
N.T.S.

VICINITY MAP

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SHEET TITLE:
PERSPECTIVE VIEWS

SHEET NUMBER:
SD07

Tuesday, 11/15/2016 - Balfour Louisville Living/01-CAD/Architecture/Sheets/SD07-Perspectives.dwg
Layout: SD07 - 24x36
Last Saved: June 27, 2016 10:30:21 AM by Rachel Ayer
Plotted on: Nov 15, 2016 - 3:47 PM
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3 SD08 EXISTING SITE
N.T.S.

2 SD08 BUILDING MASS AT 35' HEIGHT LEVEL
N.T.S.

1 SD08 PERSPECTIVE VIEW FROM SWEET CLOVER LANE RESIDENCES
N.T.S.

VICINTY MAP

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PROJECT NO.: 2015052.20
ISSUE DATE: 3/03/2016
REVISIONS:
PC 5/13/2016
PC 6/27/2016

SHEET TITLE:
PERSPECTIVE VIEWS

SHEET NUMBER:
SD08

Tuesday, 11/15/2016 - Balfour Assisted Living/DC-CA/Architecture/Sheets/SD08 Perspectives.dwg
Layout: SD08 - 24x36
Last Saved: June 23, 2016 10:20:05 AM by Bob Hunter
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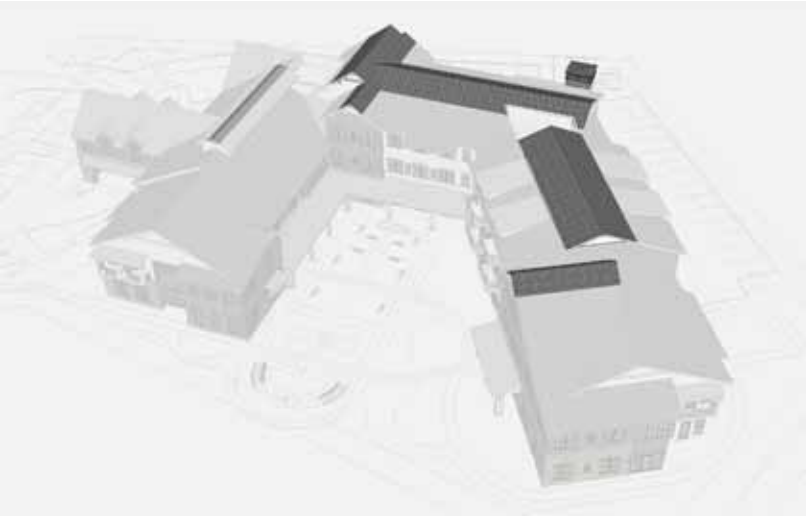
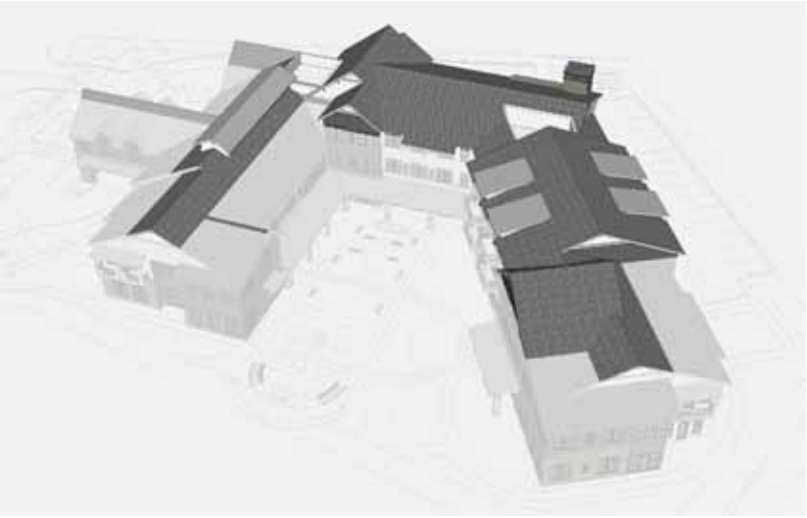


2 SD09 ROOF HEIGHT ABOVE 45'
N.T.S.

3 SD09 ROOF HEIGHT - FULL BUILDING
N.T.S.



1 SD09 ROOF HEIGHT ABOVE 35'
N.T.S.

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PROJECT NO.:	2015052.20
ISSUE DATE:	3/03/2016
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	PC 5/13/2016
	PC 6/27/2016

SHEET TITLE:

ROOF HEIGHT DIAGRAMS

SHEET NUMBER:

SD09

Tuesday, 11/15/2016 - 09:00:17 - Balfour Louisville Living/DC-CA/Architecture/Sheets/SD09 Perspectives.dwg
Layout: SD09 - 24x36 - 1:1
Last Saved: June 23, 2016 10:20:06 AM by Bob Hunter
Plotted: Nov 15, 2016 9:00:17 AM
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COMPANION PLANTS IMAGES

Achnatherum calamagrostis

Bouteloua gracilis

Panicum virgatum

Sorghastrum natans

NOTES:

THE SITE AND LANDSCAPE CONCEPT IS BASED ON PATTERNING AND ELEMENTS TRANSLATED FROM A HISTORICAL FARM CONTEXT. THIS INCLUDES SOME STRUCTURED ROW PLANTINGS THEMED WITH CURRENT DAY TRENDS OF THE LAVENDER FARMS OF THE FRONT RANGE AND WESTERN SLOPE. LAVENDER WILL BE A CORE PLANT IN THE LANDSCAPE PALETTE AND WILL BE USED AS A ROW PATTERN ELEMENT AND TO LINE COURTYARD WALKWAYS. LAVENDER MAY BE USED FOR CUT FLOWERS AND HAS AROMATIC PROPERTIES THAT WILL BE GOOD FOR THE RESIDENTS. THERE WILL PLANTINGS OF BACKDROP ORNAMENTAL GRASSES AND A MIXTURE OF OTHER TALLER SHRUBS TO MEET OTHER SITE NEEDS LIKE SCREENING PARKING, UTILITY STRUCTURES AND OTHER ELEMENTS. LAWN WILL BE USED AS AN ACCENT TO THE PLANTINGS AND THE LANDSCAPE PALETTE WILL PRIMARILY BE MADE UP OF XERIC PLANTS. IN THE CASE OF ANY HIGHER WATER NEED PLANTS THEY WILL BE HYDRO ZONED APPROPRIATELY.

PATTERN AND CHARACTER IAMGES

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PROJECT NO.: 2015052.20
ISSUE DATE: 3/03/2016
REVISIONS:
PC 5/13/2016

SHEET TITLE:
LANDSCAPE CHARACTER IMAGERY

SHEET NUMBER:
SD10

Tuesday, 11/10/2015 2:34:18 PM
Balfour Assisted Living
C:\CADData\DWG\PROJECTS_PROJECTS\LANDSCAPE.dwg
Layout: SD10
Last Saved: Nov 12, 2014 4:09:00 PM by Tim
Last Plotted: Nov 12, 2014 4:09:00 PM by Tim
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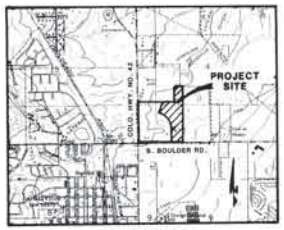
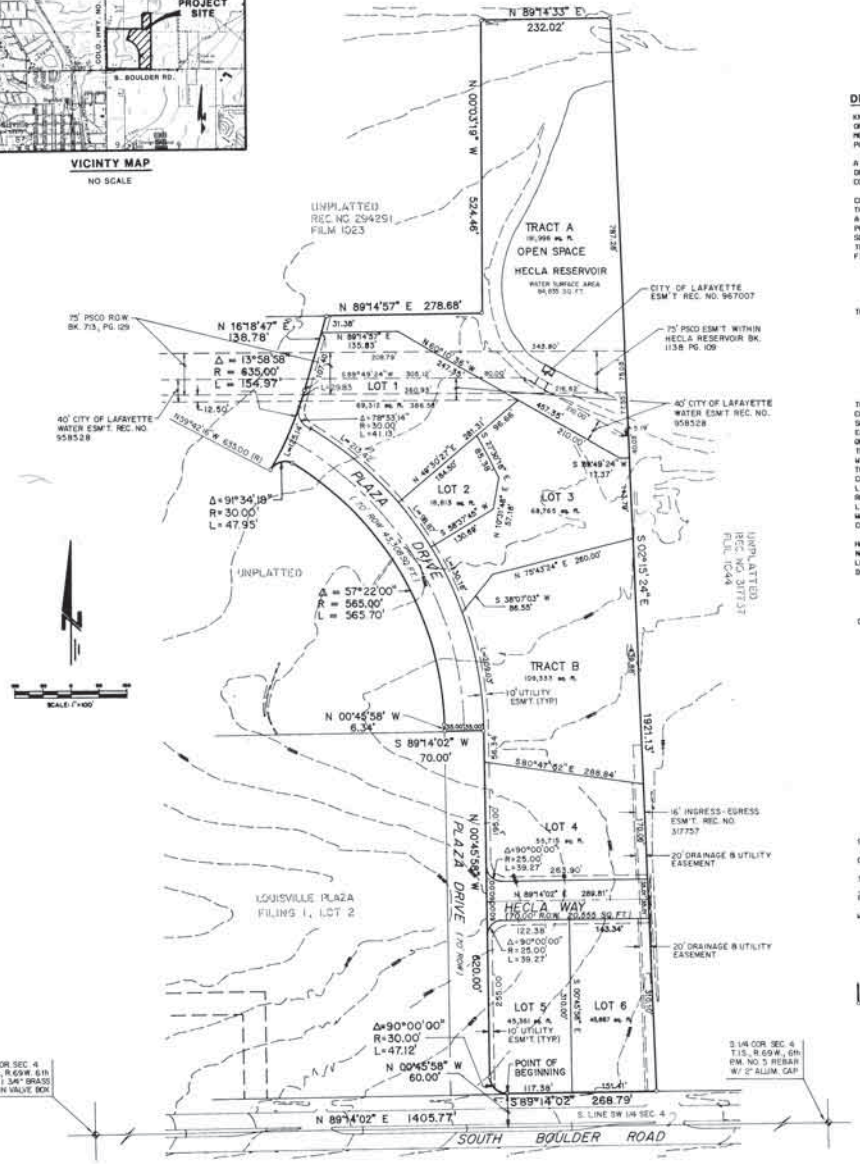
LOUISVILLE PLAZA FILING NO. 2

A PART OF THE SW 1/4 OF SECTION 4 T1S, R69W, 6th P.M.
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO



VICINITY MAP

NO SCALE



DEDICATION

KNOW ALL MEN BY THESE PRESENTS THAT THE UNDERSIGNED BEING THE OWNER OF A TRACT OF LAND, SECTION 4, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, BOULDER COUNTY, STATE OF COLORADO, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

A PART OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, BOULDER COUNTY, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER OF SECTION 4; THENCE N89°14'02"E ALONG THE SOUTH LINE OF SAID SOUTHWEST QUARTER OF SECTION 4, A DISTANCE OF 1405.77 FEET; THENCE N00°45'58"W, A DISTANCE OF 60.00 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF SOUTH BOULDER ROAD SAID POINT BEING THE SOUTHEAST CORNER OF LOUISVILLE PLAZA FILING NO. 1 AND THE POINT OF BEGINNING; THENCE ALONG THE EASTERLY AND NORTHERLY BOUNDARY OF SAID LOUISVILLE PLAZA FILING NO. 1 THE FOLLOWING THREE (3) COURSES:

1. ALONG THE ARC OF A CURVE TO THE RIGHT THE CENTER OF WHICH BEARS N00°45'58"W, A DISTANCE OF 30.00 FEET HAVING A CENTRAL ANGLE OF 90°00'00" AND AN ARC LENGTH OF 47.12 FEET;
2. N00°45'58"W, A DISTANCE OF 620.00 FEET;
3. S89°14'02"W, A DISTANCE OF 70.00 FEET;

THENCE ALONG THE FOLLOWING FIVE (5) COURSES:

1. N00°45'58"W, A DISTANCE OF 6.34 FEET;
2. ALONG THE ARC OF A CURVE TO THE LEFT HAVING A CENTRAL ANGLE OF 57°22'00", A RADIUS OF 565.00 FEET AND AN ARC LENGTH OF 565.70 FEET;
3. ALONG THE ARC OF A COMPOUND CURVE TO THE LEFT HAVING A CENTRAL ANGLE OF 91°34'18", A RADIUS OF 30.00 FEET AND AN ARC LENGTH OF 47.95 FEET;
4. ALONG THE ARC OF A CURVE TO THE LEFT THE CENTER OF WHICH BEARS N59°42'16"W AND HAVING A CENTRAL ANGLE OF 13°58'58", A RADIUS OF 635.00 FEET AND AN ARC LENGTH OF 154.97 FEET;
5. N16°18'47"E, A DISTANCE OF 138.78 FEET

TO THE SOUTH LINE OF THAT TRACT OF LAND DESCRIBED IN A DEED RECORDED IN BOULDER COUNTY AS RECEPTION NO. 294291 FILM 1023; THENCE N89°14'57"E ALONG SAID SOUTHERLY LINE, A DISTANCE OF 278.68 FEET; THENCE N00°03'19"W ALONG THE EASTERLY LINE OF SAID TRACT AND PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST QUARTER OF SECTION 4, A DISTANCE OF 524.46 FEET TO A POINT 660.00 FEET SOUTH OF THE EAST-WEST CENTERLINE OF SAID SECTION 4; THENCE N89°14'33"E AND PARALLEL WITH THE EAST-WEST CENTERLINE OF SAID SECTION 4, A DISTANCE OF 232.02 FEET TO THE WEST LINE OF THAT TRACT OF LAND DESCRIBED IN A DEED RECORDED IN BOULDER COUNTY AS RECEPTION NO. 317757 FILM 1044; THENCE S02°15'24"E ALONG SAID WEST LINE, A DISTANCE OF 1921.13 FEET TO THE NORTHERLY RIGHT-OF-WAY OF SOUTH BOULDER ROAD; THENCE S89°14'02"W PARALLEL WITH AND 60.00 FEET NORTHERLY OF THE SOUTH LINE OF SAID SOUTHWEST QUARTER OF SECTION 4 AND ALONG THE NORTHERLY RIGHT-OF-WAY OF SOUTH BOULDER ROAD, A DISTANCE OF 268.79 FEET TO THE POINT OF BEGINNING CONTAINING 671,020 SQUARE FEET OR 15.4045 ACRES, MORE OR LESS.

HAVE LAID OUT, PLATTED AND SUBDIVIDED THE SAME INTO LOTS AND TRACTS UNDER THE NAME OF LOUISVILLE PLAZA FILING NO. 2 AND ALSO DEDICATE TO THE CITY OF LOUISVILLE, COLORADO, TRACT A, THE RIGHT-OF-WAY, AND EASEMENTS AS LAID OUT AND DESIGNATED ON THIS PLAT.

OWNER: SOUTH BOULDER ROAD CORPORATION

ROBERT B. BRISNEHAM, JR.

STATE OF COLORADO)
COUNTY OF BOULDER)

THE ABOVE FOREGOING INSTRUMENT WAS EXECUTED BEFORE ME THIS 14th DAY OF JUNE, 1991, BY ROBERT BRISNEHAM JR.REPRESENTATIVE FOR SOUTH BOULDER ROAD CORPORATION.

WITNESS MY HAND AND OFFICIAL SEAL. MY COMMISSION EXPIRES: 12/8/94

Rita L. Anderson
NOTARY PUBLIC

└ INDICATES NO. 5 REBAR WITH PLASTIC CAP LS 24966

SURVEYOR'S CRETIFICATE

THIS PLAT AND THE SURVEY ON WHICH IT IS BASED WERE PREPARED UNDER MY DIRECT SUPERVISION. BEARINGS ARE BASED ON THE SOUTH LINE OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 1 SOUTH, RANGE 69 WEST, ASSUMED TO BEAR N89°14'02"E AS DEFINED BY THE MONUMENTS SHOWN HEREON.

WARREN L. RUBY, REGISTERED LAND SURVEYOR
COLORADO REGISTRATION NO. 24966
FOR AND ON BEHALF OF COLORADO LAND CONSULTANTS, INC.

PLANNING COMMISSION CERTIFICATE

APPROVED THIS 8th DAY OF January, 1991 BY THE PLANNING COMMISSION OF THE CITY OF LOUISVILLE, COLORADO. RESOLUTION NO. 4 SERIES 1991.

Normal A. DiSalle
CHAIRPERSON

CITY COUNCIL CERTIFICATE

APPROVED THIS 19th DAY OF January, 1991 BY THE CITY COUNCIL OF THE CITY OF LOUISVILLE, COLORADO. RESOLUTION NO. 5 SERIES 91.

Vernon Lunn
MAYOR

Donna Cunning
CITY CLERK

CLERK AND RECORDER'S CERTIFICATE

COUNTY OF BOULDER)
) SS.
STATE OF COLORADO)

I HEREBY CERTIFY THAT THIS INSTRUMENT WAS FILED IN MY OFFICE AT 9:23 O'CLOCK, A.M., THIS 15th DAY OF July, 1991, AND IS DULY RECORDED IN PLAN FILE P-26 P-1 #41, FEE 410.00, PAYD, FILM NO. 1680, RECEPTION NO. 1113009

Charlotte Houston
RECORDER

Warren McCartin
DEPUTY

Colorado
Land
Consultants, Inc.

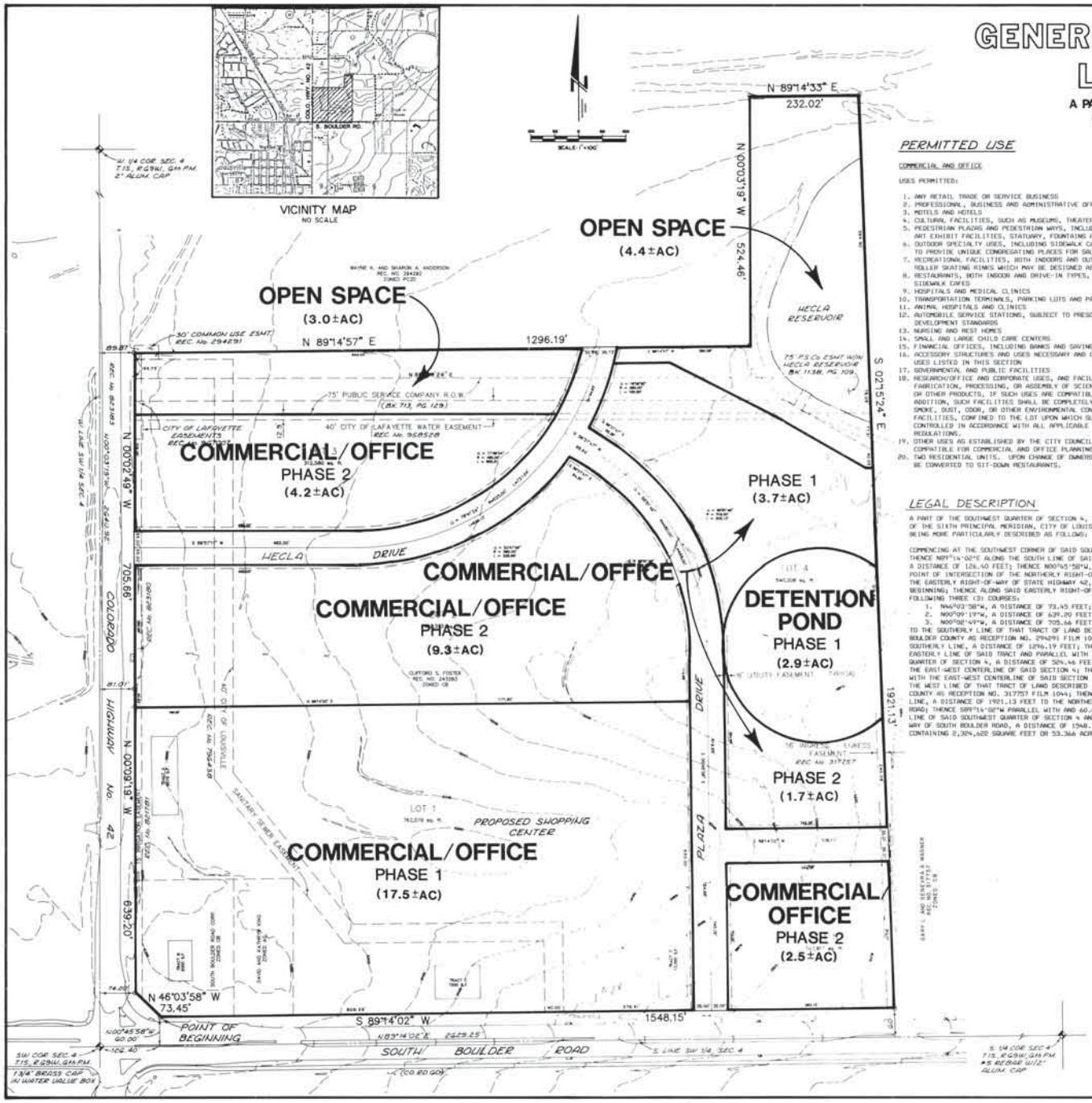
Planning/Engineering/Land Surveying

8480 E. Orchard Road
Suite 2000
Englewood, Colorado 80111
(303) 770-5800
FAX (303) 770-2348

JOB NO. 324
NOV. 1990

GENERAL DEVELOPMENT PLAN
LOUISVILLE PLAZA

A PART OF THE SW 1/4 OF SECTION 4 T1S, R69W, 6th P.M.
CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO



PERMITTED USE

COMMERCIAL AND OFFICE

USES PERMITTED:

1. ANY RETAIL TRADE OR SERVICE BUSINESS
2. PROFESSIONAL, BUSINESS AND ADMINISTRATIVE OFFICES
3. MOTELS AND HOTELS
4. CULTURAL FACILITIES, SUCH AS MUSEUMS, THEATERS, ART GALLERIES AND CHURCHES
5. PEDESTRIAN PLAZAS AND PEDESTRIAN WAYS, INCLUDING SUCH AMENITIES AS OUTDOOR ART EXHIBIT FACILITIES, STATUARY, FOUNTAINS AND LANDSCAPING FEATURES
6. OUTDOOR SPECIALTY USES, INCLUDING SIDEWALK CAFES AND OUTDOOR MARKETPLACES TO PROVIDE UNIQUE CONVERSATING PLACES FOR SALES AND SHOPPER INTERESTS
7. RECREATIONAL FACILITIES, BOTH INDOORS AND OUTDOORS, SUCH AS ICE SKATING AND ROLLER SKATING RINKS WHICH MAY BE DESIGNED AS INTEGRAL PARTS OF A CENTER
8. RESTAURANTS, BOTH INDOOR AND DRIVE-IN TYPES, FOOD-TO-GO FACILITIES, SIDEWALK CAFES
9. HOSPITALS AND MEDICAL CLINICS
10. TRANSPORTATION TERMINALS, PARKING LOTS AND PARKING BUILDINGS
11. ANIMAL HOSPITALS AND CLINICS
12. AUTOMOBILE SERVICE STATIONS, SUBJECT TO PRESCRIBED PERFORMANCE AND DEVELOPMENT STANDARDS
13. NURSING AND REST HOMES
14. SMALL AND LARGE CHILD CARE CENTERS
15. FINANCIAL OFFICES, INCLUDING BANKS AND SAVINGS AND LOANS
16. ACCESSORY STRUCTURES AND USES NECESSARY AND CUSTOMARILY INCIDENTAL TO THE USES LISTED IN THIS SECTION
17. GOVERNMENTAL AND PUBLIC FACILITIES
18. RESEARCH/OFFICE AND CORPORATE USES, AND FACILITIES FOR THE MANUFACTURING, FABRICATION, PROCESSING, OR ASSEMBLY OF SCIENTIFIC OR TECHNICAL PRODUCTS, OR OTHER PRODUCTS, IF SUCH USES ARE COMPATIBLE WITH SURROUNDING AREAS. IN ADDITION, SUCH FACILITIES SHALL BE COMPLETELY ENCLOSED AND ANY NOISE, SMOKE, DUST, ODOR, OR OTHER ENVIRONMENTAL CONTAMINATION PRODUCED BY SUCH FACILITIES, CONFINED TO THE LOT UPON WHICH SUCH FACILITIES ARE LOCATED AND CONTROLLED IN ACCORDANCE WITH ALL APPLICABLE CITY, STATE, OR FEDERAL REGULATIONS.
19. OTHER USES AS ESTABLISHED BY THE CITY COUNCIL AS FOUND TO BE SPECIFICALLY COMPATIBLE FOR COMMERCIAL AND OFFICE PLANNING AREAS.
20. TWO RESIDENTIAL UNITS. UPON CHANGE OF OWNERSHIP OR USE, THE TWO UNITS MAY BE CONVERTED TO SIT-DOWN RESTAURANTS.

LEGAL DESCRIPTION

A PART OF THE SOUTHWEST QUARTER OF SECTION 4, TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF LOUISVILLE, BOULDER COUNTY, COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHWEST CORNER OF SAID SOUTHWEST QUARTER OF SECTION 4; THENCE N89°14'02"E ALONG THE SOUTH LINE OF SAID SOUTHWEST QUARTER OF SECTION 4, A DISTANCE OF 126.40 FEET; THENCE N00°45'58"W, A DISTANCE OF 60.00 FEET TO THE POINT OF INTERSECTION OF THE NORTHERLY RIGHT-OF-WAY OF SOUTH BOULDER ROAD AND THE EASTERLY RIGHT-OF-WAY OF STATE HIGHWAY 42, SAID POINT BEING THE POINT OF BEGINNING; THENCE ALONG SAID EASTERLY RIGHT-OF-WAY OF STATE HIGHWAY 42, THE FOLLOWING THREE (3) COURSES:

1. N46°03'58"W, A DISTANCE OF 73.45 FEET;
2. N00°09'19"W, A DISTANCE OF 639.20 FEET;
3. N00°02'49"W, A DISTANCE OF 705.86 FEET

TO THE SOUTHERLY LINE OF THAT TRACT OF LAND DESCRIBED IN A DEED RECORDED IN BOULDER COUNTY AS RECEPTION NO. 294291 FILM 1923; THENCE N89°14'57"E ALONG SAID SOUTHERLY LINE, A DISTANCE OF 1296.19 FEET; THENCE N00°03'19"W ALONG THE EASTERLY LINE OF SAID TRACT AND PARALLEL WITH THE WEST LINE OF SAID SOUTHWEST QUARTER OF SECTION 4, A DISTANCE OF 524.46 FEET TO A POINT 660.00 FEET SOUTH OF THE EAST-WEST CENTERLINE OF SAID SECTION 4; THENCE N89°14'33"E AND PARALLEL WITH THE EAST-WEST CENTERLINE OF SAID SECTION 4, A DISTANCE OF 232.02 FEET TO THE WEST LINE OF THAT TRACT OF LAND DESCRIBED IN A DEED RECORDED IN BOULDER COUNTY AS RECEPTION NO. 317757 FILM 1044; THENCE S02°15'24"E ALONG SAID WEST LINE, A DISTANCE OF 1921.13 FEET TO THE NORTHERLY RIGHT-OF-WAY OF SOUTH BOULDER ROAD; THENCE S89°14'02"W PARALLEL WITH AND 60.00 FEET NORTHERLY OF THE SOUTH LINE OF SAID SOUTHWEST QUARTER OF SECTION 4 AND ALONG THE NORTHERLY RIGHT-OF-WAY OF SOUTH BOULDER ROAD, A DISTANCE OF 1548.15 FEET TO THE POINT OF BEGINNING CONTAINING 2,324,622 SQUARE FEET OR 53.366 ACRES, MORE OR LESS.

OWNERS

OWNER: SOUTH BOULDER ROAD CORPORATION

ROBERT D. BRISNEHAN, JR.

STATE OF COLORADO)
COUNTY OF Boulder)

THE ABOVE FOREGOING INSTRUMENT WAS EXECUTED BEFORE ME THIS 14th DAY OF June, 1991, BY ROBERT D. BRISNEHAN, JR., REPRESENTATIVE FOR SOUTH BOULDER ROAD CORPORATION.

WITNESS MY HAND AND OFFICIAL SEAL. MY COMMISSION EXPIRES: 12/6/94

NOTARY PUBLIC

OWNER: LOUISVILLE PLAZA, INC.

BY: PETER M. CUDLIP, VICE PRESIDENT

STATE OF COLORADO)
COUNTY OF Denver)

THE ABOVE FOREGOING INSTRUMENT WAS EXECUTED BEFORE ME THIS 27th DAY OF June, 1991, BY PETER M. CUDLIP, VICE PRESIDENT, OF LOUISVILLE PLAZA, INC.

WITNESS MY HAND AND OFFICIAL SEAL. MY COMMISSION EXPIRES: August

NOTARY PUBLIC

NOTARY PUBLIC BONNIE SUPAN STATE OF COLORADO

PLANNING COMMISSION CERTIFICATE

APPROVED THIS 17th DAY OF SEPTEMBER, 1990 BY THE PLANNING COMMISSION OF THE CITY OF LOUISVILLE, COLORADO. RESOLUTION NO. 21 SERIES 1990.

CHAIRMAN SECRETARY

CITY COUNCIL CERTIFICATE

APPROVED THIS 6th DAY OF November, 1990 BY THE CITY COUNCIL OF THE CITY OF LOUISVILLE, COLORADO. RESOLUTION NO. 1055 SERIES 1990.

MAYOR CITY CLERK

CLERK AND RECORDER CERTIFICATE

COUNTY OF BOULDER)
) SS.
STATE OF COLORADO)

I HEREBY CERTIFY THAT THIS INSTRUMENT WAS FILED IN MY OFFICE AT 9:23 O'CLOCK, A.M., THIS 1st DAY OF July, 1991, AND IS DULY RECORDED IN PLAN FILE P-26 F1 #22 FEE $10.00, PAID
FILM NO. 1680, RECEPTION NO. 1113011.

RECORDER DEPUTY

Colorado Land Consultants, Inc.
Planning/Engineering/Land Surveying
8480 E. Orchard Road
Suite 2000
Englewood, Colorado 80111
(303) 770-5600
FAX (303) 770-2349

JOB No. 524
JULY, 1990

P 26 F 1 #22

Lauren Trice

From: swneville@aol.com
Sent: Monday, June 20, 2016 1:31 PM
To: Lauren Trice
Subject: RE: Balfour Senior Living expansion on Plaza Drive
Attachments: Balfour letter.docx

June 21, 2016

Dear Planning Commission,

We live on Hecla Drive east of the Balfour Senior Living complex. During the week, east Hecla is lined with the cars of employees and visitors to Balfour making it difficult to navigate by car and dangerous for residents of the neighborhood and of Balfour to cross at the crosswalk. In addition, the intersection of east Hecla and Plaza Drive is very busy and being able to see oncoming traffic is important when turning at the intersection. It appears the present living facility has inadequate off-street parking to accommodate their employees and visitors.

With the newly planned Balfour Assisted Living on Plaza Drive having 0.5 designated parking spaces per unit, we fear there will not be enough off-street parking to accommodate visitors and employees. As a result, increased on-street parking on Plaza will compound the present on-street parking on Hecla, making traffic and pedestrian safety a larger concern.

Following the announcement of the upcoming Assisted Living Facility at Balfour in the Boulder Camera in late 2015, we sent a letter to Balfour CEO Michael Schonbrun regarding our concerns, however we did not receive a response. The letter is attached for your information.

We appreciate your consideration of our concerns for adequate parking at the new Balfour Assisted Living Facility on Plaza Drive. The services Balfour provides are an asset to our community and we have enjoyed having them as "neighbors." While the new facility will increase their ability to provide much needed services to the elderly, Balfour should be responsible for providing adequate parking for their employees and visitors and we hope you agree.

Sincerely yours,

Thomas M. Neville MD
Sandra W. Neville
2110D Hecla Drive
Louisville, CO 80027
303-284-6730

November 30, 2015

Michael Schonbrun, CEO
Balfour Senior Living
Balfour Retirement Community
1331 E. Hecla Drive
Louisville, CO 80027

Dear Mr. Schonbrun,

We read with interest the November 25th article in the Boulder Camera outlining your plans to expand Balfour by building an assisted living complex on Plaza Drive across from the Balfour Retirement Community. As health care providers we understand the need and the value of assisted living units for our aging population. Both of our mothers resided in lovely retirement communities in Ohio prior to their deaths. Each moved from their apartments into assisted living as their health declined and their needs increased. We do however have some concerns we would like to address.

We moved to the North End community in Louisville about 15 months ago from southwest Ohio. We have a son and daughter-in law living close by. We live on Hecla Drive just down from Balfour. We moved to the North End location because it was a quiet, beautiful community with a reputation for quality homes and nearby open space and trails. It also had a variety of neighbors—young families, older families, singles, retirees—which we wanted in our new neighborhood. Construction is underway for new homes in our community along Hecla Dr., close to Balfour. The residents of North End have voiced a safety concern due to anticipated increased traffic with the addition of new residents. The possibility of added on street parking by Balfour staff and visitors in the new facility is very worrisome and would compound the situation even further leading to increased congestion and safety concerns.

Our primary concern is regarding the present on street parking by Balfour staff and visitors on Hecla Drive and the anticipation of increased parking along the adjacent streets (both Plaza and Hecla) with the assisted living construction. It appears there is insufficient off-street parking available at the present Balfour facility. During the week, from the hours of 8 AM – 5 PM, Hecla Dr. from Rt. 42 to Plaza Drive is lined with parked cars on both sides of the street. We have seen a few near accidents as residents and visitors have crossed the street on Hecla between parked cars. In addition, the parked cars on both sides of the road narrow the street considerably.

We ask you to consider adding sufficient off street parking at your new facility to facilitate visitors and staff. This would avoid additional on street parking and help alleviate the current on street parking situation along Hecla Drive.

Lastly, we ask that you keep as many trees as possible that exist on the eastern and southern part of your property which helps provide a buffer between your building and the open space trails/lake. It would be a shame to see these trees destroyed as they add natural beauty to our community.

We have enjoyed seeing our Balfour neighbors and their families walk through our neighborhood and along Hecla Lake to enjoy the wildlife and beautiful views. The grounds of Balfour are beautifully maintained and the buildings are lovely and we likewise enjoy walking by Balfour. We wish to keep our community beautiful, safe, and friendly. By keeping the on street parking to a minimum along Hecla and

Plaza Drives and keeping the mature trees adjacent to the open space intact makes for good neighbors and helps maintain our beautiful North Louisville community.

Thank you for this opportunity to express our concerns.

Thomas M. Neville, MD
Sandra W. Neville, PNP
We have enjoyed seeing our Balfour neighbors and seen many residents and their families walk to Hecla Lake to enjoy the wildlife and beautiful views. The grounds of Balfour are beautifully maintained and the buildings are lovely.

Lauren Trice

From: Planning Commission
Sent: Friday, June 24, 2016 9:34 AM
To: Lauren Trice
Subject: FW: Balfour PUD/PLAT

Monica Garland
Senior Administrative Assistant
Planning & Building Safety Division
City of Louisville
Phone: 303.335.4592
Fax: 303.335.4588
monicag@louisvilleco.gov

From: Kathleen Hauge [mailto:kbh1945@gmail.com]
Sent: Thursday, June 23, 2016 4:04 PM
To: Planning Commission
Subject: Balfour PUD/PLAT

Please consider not allowing Balfour to build the 55' building. I'm not against development yet would like to see smart and interesting design without encroaching on our views. Let's keep the height restriction and try hard to keep Louisville the special town that it is. Kathleen Hauge, 323 So Hoover Ave., Louisville in Dutch Creek

Sent from Mail for Windows 10

Lauren Trice

From: Tom Fredericks <TFredericks@ndnlaw.com>
Sent: Thursday, June 23, 2016 6:03 PM
To: Planning Commission; Lauren Trice
Cc: Benjamin Maresca; Monique Douville
Subject: Balfour Senior Living PUD/Plat Application

Dear Planning Commissioners and Ms. Trice,

My name is Thomas W. Fredericks, Senior Partner for Fredericks, Peebles & Morgan, LLP, 1900 Plaza Drive, Louisville CO 80029, owner of the property directly adjacent to the Balfour Senior Living at 1800 & 1870 Plaza Drive. I apologize for the late comments. I have been on vacation and notice of the meeting date did not come to my attention until late this afternoon.

As the neighbor who is most directly affected by the development I am not opposed to the project, but have serious concerns with the impact this development, as designed, will have on my office. Balfour has designed its site to push the majority of its vehicular traffic towards our property, which will cause noise and detriment to the professionals in this space. There are also concerns with the amount of parking on the site as our property is already being used, without our permission, by visitors to the existing Balfour Senior Living Center. We expressed this concern to Mr. MacLeod, who stated he would provide us with language to be included in his request that would rectify our parking issues. To date he has still not addressed this concern. It is our concern that the addition of this new development will further impact our parking situation. Therefore, we request the following conditions be placed on any recommendation for approval of the PUD/Plat:

1. All required resident, staff, and visitor parking shall be accommodated onsite.

2. A combination of mature landscaping and sound fencing shall be installed along the northern property line to mitigate noise impacts on the property at 1900 Plaza Drive.

Thank you for your time and attention to this matter and I apologize that I cannot be there tonight in person. If you have any questions regarding our concerns please contact Benjamin Maresca at bmaresca@ndnlaw.com or (303)673-9600.

Sincerely,

Thomas W. Fredericks

Senior Partner

Fredericks Peebles & Morgan LLP

1900 Plaza Drive

Louisville, Colorado 80027

(303)673-9600

Cell: (303)601-6746

Fax: (303)601-6746

tfredericks@ndnlaw.com

www.ndnlaw.com

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Lauren Trice

From: Eric Lyders <elyders@yahoo.com>
Sent: Thursday, June 23, 2016 8:15 PM
To: Lauren Trice
Subject: Balfour PUD/Plat 16-009-FP/FS

I'd like to express my concern for the height of the Balfour building near Hecla Lake. Their justifications for the excessive height don't seem to add up.
What is the city council's thoughts on the project?

Thank you.
-Eric Lyders
141 W Elm St.
Louisville, CO 80027

City of Louisville
COLORADO • SINCE 1882

Planning Commission
Staff Report
July 14, 2016

ITEM:	Case #15-032-FP/UR, 824 South Street
PLANNER:	Scott Robinson, Planner II
APPLICANT:	Hartronft Associates, Erik Hartronft 850 Spruce St, #2A Louisville, CO 80027
OWNER:	Ronda Grassi & Nancy Welch 1894 Grenfell Ct Erie, CO 80516
REPRESENTATIVE:	Hartronft Associates, Erik Hartroft
EXISTING ZONING:	Commercial Community (CC)
LOCATION:	824 South Street
LEGAL DESCRIPTION:	Lot 1, Block 5, Town of Louisville Subdivision
TOTAL SITE AREA:	7,481 SF
REQUEST:	A request for a final Planned Unit Development (PUD) and Special Review Use (SRU) for a building with 5,700 square feet of commercial space and the remodel of the existing house on the property.

BACKGROUND:
The applicant, Erik Hartronft, has submitted a plan to construct a new 7,510 square foot office/retail building, containing 5,700 square feet of commercial space at 824 South Street. The proposal includes the retention of the existing house on the property, with some modifications, retaining the one residential unit on the property. The property is 7,481 SF and was platted as part of the Town of Louisville subdivision in 1890. The existing 1100 SF house was built around 1929. Vehicle access to the property is off of South Street to the north.

A proposal for the property was reviewed by Planning Commission at their November, 2015 meeting, at which the Commission voted to recommend denial. The applicant has foregone the opportunity to have a hearing on the original submittal before City Council, and has instead submitted revised plans. The revised plans have undergone referral and review by staff and referral partners, and are now being presented to Planning Commission. Planning Commission should review the new proposal on its own merits, and not in relation to the previous proposal.

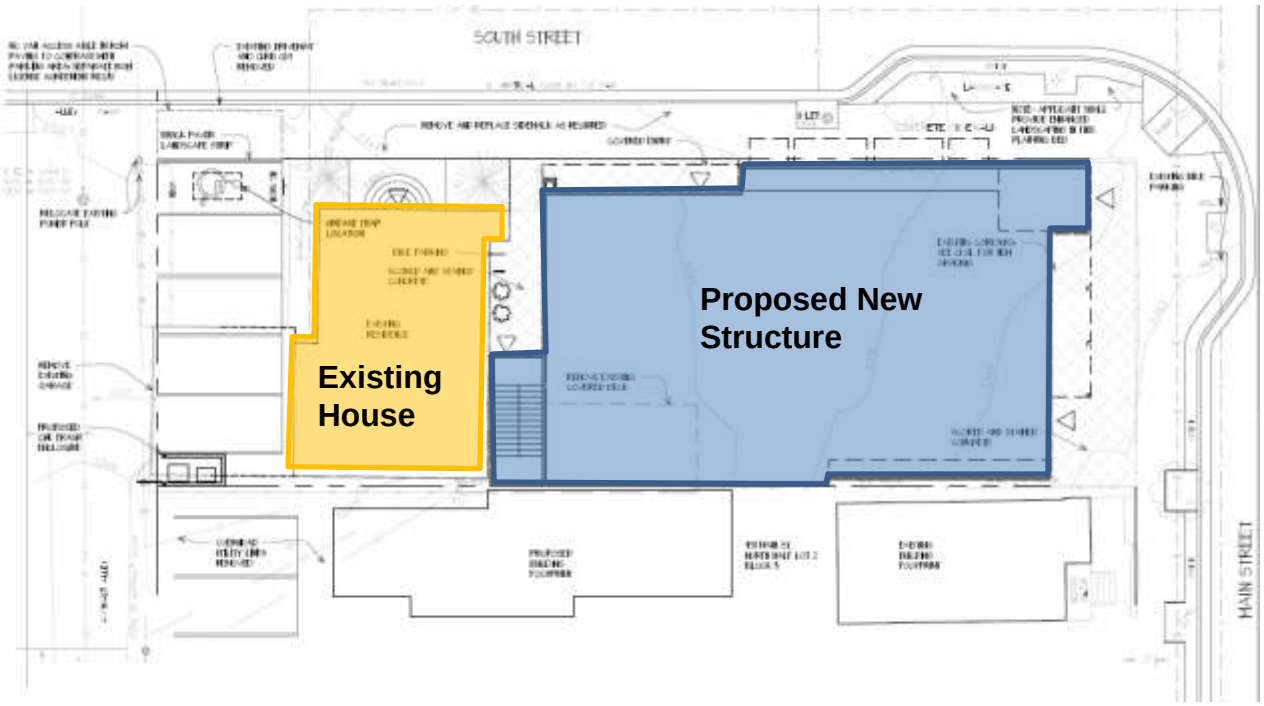
The property is located in the Community Commercial (CC) zone district and within the area of town formally referred to as Downtown Louisville. All development in the CC zone district requires the establishment of a Planned Unit Development (PUD), and all PUD's in Downtown Louisville must comply with the development regulations established in the Louisville Municipal Code (LMC) and the design standards outlined in the Downtown Design Handbook. Guidelines for allowed floor area of structures in Downtown are provided by the Downtown Framework Plan. The applicant is requesting outdoor dining at several locations on the site, which requires special review use approval. There is one existing residential unit on the property, which the applicant intends to retain. The applicant has applied for a demolition permit for the changes to the existing house, which has been approved by the Historic Preservation Commission.

REQUEST:
As stated above, the applicant is requesting to build a 7,510 square foot office/retail structure and modify the existing home. The original house has about 1100 square feet of living space and a 560 square foot garage, which would be removed in the proposed development.

Parcel Information
The existing parcel is a standard City double lot, measuring 50' in width by 150' in length, with a total square footage of 7,481 SF. The property has development on all sides:

1. *North – South St, across which is the Louisville Historical Museum, zoned Residential Medium Density (RM).*
2. *South – zoned CC; contains a 1000 SF retail building and was recently approved for a new 2-story building on the back half of the property*
3. *West – alley; adjacent to RM zoned properties fronting Lafarge Avenue*
4. *East – Main Street, across which is more commercial property zoned CC*

Planned Unit Development
As mentioned above, the proposed development is governed by the regulations and guidelines established in the LMC, the Downtown Design Handbook, and the Downtown Framework Plan. The proposed plan includes a new two story structure on the east, currently vacant portion of the lot, separated by a courtyard from the existing house. The existing house would be maintained for the most part, except the garage on the west side of the house would be removed.



Bulk and Dimension Standards

The following table shows the requested yard and bulk standards. The highlighted text indicates where the proposal does and does not comply with the applicable yard and bulk standards and a wavier is being requested:

Zoning Data	City Standards	Proposed
Commercial Floor Area	N/A	7,510 SF
Residential Floor Area	N/A	1,126 SF
Total		8,636 SF
Floor Area Ratio	1.3	1.15
Building Coverage	N/A	5,006 SF
Bldg. Cover %	N/A	67%
Residential Parking (2/unit)	2 Spaces	2 spaces
Office Parking (1/500SF, first 999 sf exempt)	9 Spaces	3 Spaces
Building Height	35’	35’
No. of Stories	2	2
Setbacks		
- Front Yard	0’	7’
- Side Yard – North	0’	1’
- Side Yard - South	0’	0’
- Rear Yard	20’	21’

As illustrated above, the proposal meets the requirements of the Louisville Municipal Code except for parking.

Floor Area and Height

The LMC establishes height requirements for Downtown Louisville. This property is located in the Transition Area of Downtown, as shown in the illustration below:

The Transition Area of is designed to provide a buffer between commercial development and the existing residential area in the adjacent Old Town Neighborhood. The buffer zone requires a lower building height (two stories and 35' maximum in the Transition Area as opposed to three stories and 45'). The proposed building would be two stories, with a maximum height of 35 feet at the stair tower. The majority of the building would be less than 35 feet tall.

35' max height

The Downtown Framework Plan provides guidelines for floor area in Downtown. In the Transition area, the Plan recommends a maximum floor area ratio of 1.3, with which the proposed plan would comply.

Parking

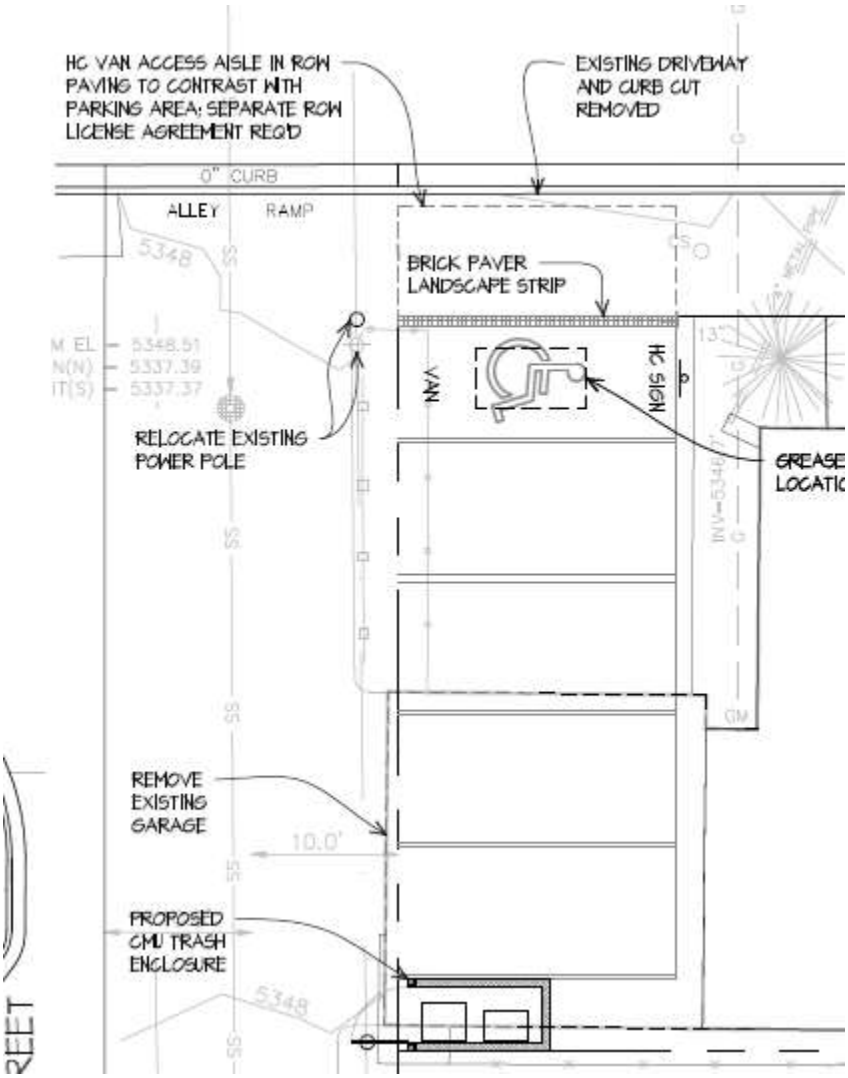
Section 17.20.025 of the LMC requires one parking space for every 500 square feet of leasable commercial area in Downtown, regardless of use. However, the first 999 square feet added to a property after 2002 are exempt. The proposal includes 5,700 square feet of leasable commercial space, resulting in a commercial parking requirement of nine spaces.

Section 17.20.025 also requires two parking spaces for every residential unit. The existing house has two off-street parking spaces, meaning it currently meets the requirements and the existing spaces need to be maintained.

Together, the parking requirement for the proposed development is 11 spaces. The applicant is proposing providing five spaces at the rear of the lot, accessed from the alley. By moving the access from South Street to the alley, the City would be able to add at least one on-street space to South Street, however this space does not count towards the development's parking requirements.

Under the International Building Code, the proposal is required to provide one handicap accessible parking space. The accessible space is proposed for the north end of the parking area, and the applicant is requesting to use a portion of the adjacent sidewalk for access. Vehicles using the space would park on the 824 South St property, but would, if necessary, utilize part of the sidewalk for getting in and out of the vehicle. The access area would be demarcated by different painting or paving on the sidewalk, and the use of the area would be secured through a license agreement with the City. A similar arrangement was allowed for the recently approved addition at 945 Front Street.

Staff is concerned about the use of the public right-of-way for access to the handicap space and recommends one regular parking space be removed to accommodate the access on the property. This would eliminate the possibility of conflicts between pedestrians and vehicles using the space, and not require the use of public space to accommodate private development. This situation is different from 945 Front Street because there the access, while extending into the right-of-way, did not impact the sidewalk. The request for 824 South is to designate nearly the entire width of the sidewalk for access.



Section 17.20.025 of the LMC allows an applicant to satisfy the parking requirement in whole or in part by paying a parking fee-in-lieu, which the applicant is proposing to do for the six spaces that are not provided. The current fee, set by Council, is $3,600 per space, which would result in a total payment of $21,600 to the Downtown Parking Improvement Fund. If a space is removed to provide the handicap access on the property, the proposal would then be deficient seven spaces, and the fee-in-lieu would be $25,200.

Architecture

The Downtown Design Handbook provides guidance for all new construction proposed in Downtown Louisville. For new construction, the Downtown Design Handbook requires new buildings use similar materials, scale and design as established in Downtown. It is recommended the building should appear as though it belongs, but it should be obvious the building is a "product of its own time." (Page 25, Downtown Design Handbook).

Sheet A3 of the PUD provides elevations of the proposed new mixed-use building and modified existing house. The new building is designed in a neo-traditional style, with a

mix of gable and flat roof forms. The proposed building would be set back about seven feet from the Main Street right-of-way, and about one foot from the South Street right-of-way, with awnings extending over the property lines into the rights-of-way. If approved, the awning extensions will require a license agreement.

Section T1 of the Design Handbook states buildings in the Transition Area should maintain the general alignment of building fronts. The Handbook recommends front setbacks of 5-25 feet, except where the neighboring buildings have different front setbacks. In this case, the Museum, across the street to the north, and 927 Main, two properties to the south, both have no front setback, while 931 Main, immediately to the south, has a front setback of around five feet.

Section T3 states the even spacing of side yards should be maintained, suggesting a standard of five foot setbacks. Both 931 and 927 Main are very close to their north property lines, but have three to five foot setbacks on their south side. The proposed building at 824 South would be one foot or less from the south property line.

Section T4 states new construction should be similar in mass and scale to surrounding buildings. All of the other buildings along the east side of Main Street on this block are one story, as is the Museum across South Street. Both 931 and 927 Main have been approved for new, two-story structures which would be constructed behind the existing one-story structures.

Section T6 states the primary width of buildings along the street should be maintained, suggesting no primary façade should exceed 20-30 feet. The front façade is broken up into three segments: the main entrance at the northeast corner is about 10 feet wide,

there is an overhang in the middle of the façade which is about 25 feet wide, and the south portion is set back further and is about 12 feet wide.

Section T8 states buildings should be primarily rectangular in form. The proposed building is mostly rectangular.

Section T9 states simple, traditional roof forms should be used, including "roofs composed of a combination of roof planes, but simple in form, are also encouraged." The proposed roof is predominately flat, with a false front along Main Street and a gabled portion along South Street. The adjacent buildings have either simple front gables or false fronts.

The proposed new building would include mostly windows on the first story, with painted composite siding and stucco on the second story and portions of the first. The building would include significant glazing, with aluminum-frame storefront windows on the first floor and smaller windows on the second floor. The gabled portion of the roof would have asphalt shingles. There would be canvas awnings above the storefront windows with a metal mesh grid above the awnings for mounting signage.

Section G29 of the Design Handbook states buildings should use materials traditionally found in Downtown, including vertical and horizontal siding, shingles, and brick. The proposed composite siding would look like horizontal wood siding.

East Elevation

Section G33 states windows should be of traditional size and relate to the pedestrian scale. Large storefront windows with knee walls are found in Downtown – although more often in the Core Area than the Transition Area – and are pedestrian friendly. Section G35 states upper-story windows should be smaller than first-story windows, which the proposed second-story windows are.

Section G32 states traditional roof materials should be used, including asphalt shingles in muted colors. The asphalt shingle roofs on surrounding buildings are either gray or brown.

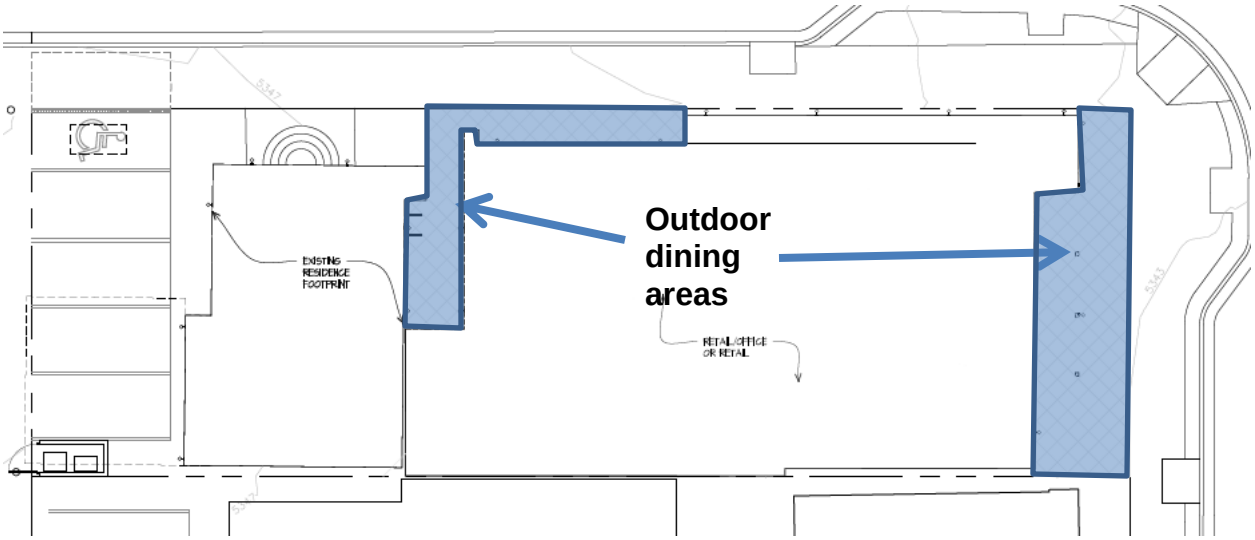
Section G26 states awnings are encouraged. The proposed awnings fit the dimensions of the openings they are above.

The existing one-story house would maintain its overall form and materials, except the garage on the west side of the house would be removed to comply with the rear setback requirement. The area in front of the house, and the adjacent interior courtyard, both include landscape amenities including trees, planting beds, and potted plants.

In general, staff finds the proposal is compatible with the standards for the transition area of Downtown and the surrounding properties.

Utility Plan
The proposed utility plan complies with City requirements. All mechanical units would either be housed internally or screened from public view. A trash enclosure would be provided at the rear alley. There are a few remaining utility items that need to be addressed, as described in the attached memo from the Public Works Department. Staff recommends a condition that those items be addressed before recording of the PUD.

Special Review Use
Under the use table in Section 17.12.030 of the LMC, outdoor dining is allowed as a special review use in the CC zone district. The outdoor dining is proposed for the courtyard between the two buildings, and in front of the new building along Main Street. The portion of the outdoor dining area extending into the right-of-way would require a license agreement from the City.



Section 17.40.100.(A) of the LMC lists five criteria to be considered by the Planning Commission in reviewing a Special Review Use application. The Planning Commission is authorized to place conditions on their recommendation of approval, if they believe conditions are necessary to comply with the criteria listed below.

1. *That the proposed use/development is consistent in all respects with the spirit and intent of the comprehensive plan and of this chapter, and that it would not be contrary to the general welfare and economic prosperity of the city or the immediate neighborhood;*

The proposed outdoor dining would help any future restaurant use be more successful, contributing to the economic prosperity of Downtown. The Comprehensive Plan calls for pedestrian friendly uses in Downtown. **Staff finds this criterion is met.**

2. *That such use/development will lend economic stability, compatible with the character of any surrounding established areas;*

Most restaurants in Downtown have outdoor dining, and the outdoor dining would make a restaurant at the location more likely to be successful. **Staff finds this criterion is met.**

3. *That the use/development is adequate for the internal efficiency of the proposal, considering the functions of residents, recreation, public access, safety and such factors including storm drainage facilities, sewage and water facilities, grades, dust control and such other factors directly related to public health and convenience;*

As described above, the applicant is not meeting parking requirements by providing the required number of spaces, but instead paying the parking fee-in-lieu, as permitted under the LMC. In addition, the parking that is provided requires the use of a portion of the sidewalk for handicap accessibility. Moving the vehicle access from South Street to the alley, however, improves safety and the pedestrian environment. Otherwise, the

proposed development's site plan, if approved, is designed consistent with the standards established in the Louisville Municipal Code and the Design Handbook for Downtown Louisville. **Staff finds this criterion is met.**

4. *That external effects of the proposal are controlled, considering compatibility of land use; movement or congestion of traffic; services, including arrangement of signs and lighting devices as to prevent the occurrence of nuisances; landscaping and other similar features to prevent the littering or accumulation of trash, together with other factors deemed to affect public health, welfare, safety and convenience;*

The proposed development, if approved should not generate external impacts beyond what is allowed in the applicable regulations. The external effects of the proposal are controlled and the site plan as proposed provides appropriate vehicular / pedestrian circulation, adequate lighting, and appropriate drainage control. **Staff finds this criterion is met.**

5. *That an adequate amount and proper location of pedestrian walks, malls and landscaped spaces to prevent pedestrian use of vehicular ways and parking spaces and to separate pedestrian walks, malls and public transportation loading places from general vehicular circulation facilities.*

This development requested provides appropriate pedestrian walks and landscaped spaces and engages the City's public realm and limits the use of the parking area for pedestrian circulation. **Staff finds this criterion is met.**

HISTORIC PRESERVATION COMMISSION COMMENTS:
The Historic Preservation Commission reviewed the initial application at their October 19, 2015 meeting. The Historic Preservation Commission appreciated the retention of the historic structure and the courtyard separation between the existing structure and proposed building. The Commission had concerns about the scale and compatibility of the original proposal, which have been addressed with the revised plan.

STAFF RECOMMENDATION:
Staff recommends Planning Commission recommend approval of Resolution No. 18, Series 2016, a resolution recommending approval of a final Planned Unit Development (PUD) and Special Review Use (SRU) for a building with 5,700 square feet of commercial space and the remodel of the existing house at 824 South Street with the following conditions:

1. *The access area for the handicap parking space shall be moved on to the property.*
2. *The items outlined in the Public Works memo dated June 23, 2016 shall be satisfied before recordation of the PUD.*

The Planning Commission may approve (with or without conditions), continue, or deny the applicant's request for Final Planned Unit Development and Special Review Use approval.

ATTACHMENTS:

1. *Resolution No. 18, Series 2016*
2. *Letter of Intent*
3. *Final PUD*
4. *SRU Plan*
5. *Public Works memo*

RESOLUTION NO. 18
SERIES 2016

A RESOLUTION RECOMMENDING APPROVAL OF PLANNED UNIT DEVELOPMENT (PUD) AND SPECIAL REVIEW USE (SRU) TO ALLOW FOR THE CONSTRUCTION OF A NEW BUILDING WITH 5,700 SF OF COMMERCIAL SPACE, THE REMODEL OF THE EXISTING HOUSE, AND OUTDOOR SALES AT 824 SOUTH STREET

WHEREAS, there has been submitted to the Louisville Planning Commission an application for approval of a final planned unit development (PUD) and special review use (SRU) to allow for the construction of a new building with 5,700 SF of commercial space, the remodel of the existing house, and outdoor sales at 824 South Street, Lot 1, Block 5, Louisville Old Town; and

WHEREAS, the subject property is zoned Commercial Community (CC); and

WHEREAS, the City Staff has reviewed the information submitted and found it to comply with Louisville Municipal Code Chapters 17.28; and

WHEREAS, after a duly noticed public hearing on July 14, 2016, where evidence and testimony were entered into the record, including the findings in the Louisville Planning Commission Staff Report dated July 14, 2016, the Planning Commission finds the PUD and SRU for 824 South Street, Lot 1, Block 5, Louisville Old Town, should be approved with the following conditions:

1. The access area for the handicap parking space shall be moved on to the property.
2. The items outlined in the Public Works memo dated June 23, 2016 shall be satisfied before recordation of the PUD.

NOW THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Louisville, Colorado does hereby recommend approval of a planned unit development (PUD) and special review use (SRU) to allow for the construction of a new building with 5,700 SF of commercial space, the remodel of the existing house, and outdoor sales at 824 South Street with the following conditions:

1. The access area for the handicap parking space shall be moved on to the property.
2. The items outlined in the Public Works memo dated June 23, 2016 shall be satisfied before recordation of the PUD.

PASSED AND ADOPTED this 14th day of July, 2016.

By: _____
Chris Pritchard, Chairman
Planning Commission

Attest: _____
Ann O'Connell, Secretary
Planning Commission

City of Louisville
COLORADO • SINCE 1878

Department of Planning and Building Safety

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

LAND USE APPLICATION

CASE NO. _____

APPLICANT INFORMATION

Firm: Hartronft Associates
Contact: Erik Hartronft
Address: 950 Spruce St. #2A
Louisville, CO 80027
Mailing Address: 950 Spruce St. #2A
Louisville, CO 80027
Telephone: 303-673-9304
Fax:
Email: erik@hapcdesign.com

OWNER INFORMATION

Firm: Ronda Grassi & Nancy Welch
Contact: Ronda Grassi
Address: 1894 Grenfell Ct.
Erie, CO 80516
Mailing Address: 1894 Grenfell Ct.
Erie, CO 80516
Telephone: 303-665-3217
Fax:
Email: ronda@cadcoinc.com

REPRESENTATIVE INFORMATION

Firm: Hartronft Associates
Contact: Erik Hartronft
Address: 950 Spruce St. #2A
Louisville, CO 80027
Mailing Address: 950 Spruce St. #2A
Louisville, CO 80027
Telephone: 303-673-9304
Fax:
Email: erik@hapcdesign.com

PROPERTY INFORMATION

Common Address: 824 South Street
Legal Description: Lot 1 Blk 5
Subdivision Louisville Old Town
Area: 7,481 Sq. Ft.

TYPE (S) OF APPLICATION

- ☐ Annexation
- ☐ Zoning
- ☐ Preliminary Subdivision Plat
- ☐ Final Subdivision Plat
- ☐ Minor Subdivision Plat
- ☐ Preliminary Planned Unit Development (PUD)
- ☒ Final PUD
- ☐ Amended PUD
- ☐ Administrative PUD Amendment
- ☐ Special Review Use (SRU)
- ☐ SRU Amendment
- ☐ SRU Administrative Review
- ☐ Temporary Use Permit: _____
- ☐ CMRS Facility: _____
- ☐ Other: (easement / right-of-way; floodplain; variance; vested right; 1041 permit; oil / gas production permit)

PROJECT INFORMATION

Summary:

New construction on the open portion of lot at the corner of South St. and Main St. in downtown Louisville. The existing house is to remain with the existing garage removed. The existing house is to be renovated to include a new second level and partially covered parking on west side. The proposed new building is to include three levels. Potential uses of the site include office space, retail, restaurant, and up to three dwelling units.

Current zoning: CC Proposed zoning: CC

SIGNATURES & DATE

Applicant:
Print: Erik Hartronft
Owner:
Print: Ronda Grassi & Nancy Welch
Representative:
Print: Erik Hartronft

CITY STAFF USE ONLY

- ☐ Fee paid: _____
- ☐ Check number: _____
- ☐ Date Received: _____

City of Louisville
COLORADO • SINCE 1878

Department of Planning and Building Safety

749 Main Street • Louisville CO 80027 • 303.335.4592 • www.louisvilleco.gov

LAND USE APPLICATION

CASE NO. _____

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- ☐ CMRS Facility: _____
- ☐ Other: (easement / right-of-way; floodplain; variance; vested right; 1041 permit; oil / gas production permit)

PROJECT INFORMATION

Summary:

The project includes 2-3 dwelling units. Special Review Use is requested for multi-family dwelling units.

Current zoning: CC Proposed zoning: CC

SIGNATURES & DATE

Applicant:
Print: Erik Hartronft
Owner:
Print: Ronda Grassi & Nancy Welch
Representative:
Print: Erik Hartronft

CITY STAFF USE ONLY

- ☐ Fee paid: _____
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- ☐ Date Received: _____

HARTRONFT
ASSOCIATES
A Professional Corporation

Planning
Architecture
Interior Design

950 SPRUCE STREET, #2A
LOUISVILLE, CO 80027
TEL: 303.673.9304
FAX: 303.673.9319

Mr. Robert Zuccaro, Planning Director
Mr. Scott Robinson, Planner
City of Louisville, Colorado
749 Main Street
Louisville, CO 80027

3 June, 2016

Re: 824 South Street
Final PUD Review

Rob and Scott,

Per our last meeting, we are pleased to be resubmitting the Final Planned Unit Development Plan for the 824 South Street mixed use development for the next available Planning Commission hearing. We have made a number of revisions to the proposed building based on the feedback received from staff comments and the Planning Commission hearing on November 12th, 2015. The scale and massing of the building have been modified significantly. The third floor has been removed and the entire building is less than 35' in height, in compliance with the Downtown Design Handbook and the one previous condition of approval for this case.

In addition to the height and massing revision, the primary east facade of the building has been set back 13 feet from the property line and the semi-transparent porch element in front of the façade is in alignment with the building to the south. This revision further reduces the pedestrian scale at the street and provides for a generous patio area for outdoor seating on Main Street, enhancing the public realm with activity. Otherwise, the proposed development is functionally similar to the previous submittal, without the third floor residential unit, .

We are excited by the potential of the redevelopment of this property and its positive affect on Downtown Louisville. Please consider this request for approval of the Planned Unit Development Plan attached herein. We look forward to your comments as we move forward with this important infill development project.

Sincerely,

J. Erik Hartronft, AIA,

M:_MAIN_065_Proj\1551-824 South Street\Proj Admin\PUD&SRU\Resubmittal\MEMO-PUD-824 S-060316.doc

FINAL P.U.D.
824 SOUTH STREET
MIXED USE DEVELOPMENT

LOCATED IN THE SOUTHEAST QUARTER OF SECTION 8 TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE THE 6TH P.M., CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO

VACINITY MAP

SHEET INDEX

SHEET	DESCRIPTION
ARCHITECTURAL	
A1	Cover Sheet, Project Data & Renderings
A2	Site, Landscape & Parking Plan/Floor Plans
A3	Building Elevations
A4	Site Photometric
SURVEY	
Improvement Survey Plat	
CIVIL	
C1.01	Utility Plan
EX-1	ROW Encroachments Exhibit

PROJECT DIRECTORY

OWNER	Ronda Grassi & Nancy Welch 908 Main Street, Suite 220 Louisville, Colorado 80027 Contact: Ronda Grassi 303-665-7992
ARCHITECT/PLANNER	Hartronft Associates, p.c. 950 Spruce Street, Suite 1A Louisville, Colorado 80027 Contact: Erik Hartronft, AIA 303-673-9304
CIVIL ENGINEER	Scott, Cox & Assoc., Inc. 1530 55th Street Boulder, Colorado 80303 Contact: Don Ash 303-444-3051

SIGNATURES

Owner/Owner Signature Block

By signing this PUD, the owner acknowledges and accepts all the requirements and intent set forth in this PUD. Witness my/our hand(s) seal(s) this ___ day of _____, 20__.

_____
Owner Name and Signature

_____
Owner Name and Signature

Notary Name (print) _____ (Notary Seal)

_____
Notary Signature

My Commission Expires _____

Planning Commission Certificate

Approved this ___ day of _____, 20__, by the Planning Commission of the City of Louisville, Colorado.

Resolution No. _____, Series _____

Clerk and Recorder Certificate

(County of Boulder, State of Colorado)

I hereby certify that this instrument was filed in my office at _____ o'clock, ___ M., this ____ day of _____, 20__, and is recorded in Plat File _____, Page _____, with _____, File No. _____, Reception _____.

_____
Clerk & Recorder

_____
Deputy

City Council Certificate

Approved this ___ day of _____, 20__, by the City Council of the City of Louisville, Colorado.

Resolution No. _____, Series _____

(City Seal)

_____
Mayor Signature

_____
City Clerk Signature

PROJECT DATA

PROJECT LOCATION: 824 South St.
Louisville, CO 80027

PROJECT DESCRIPTION: New construction on open portion of lot at the corner of South St. and Main St. in downtown Louisville, CO. The existing house is to remain with the existing garage removed. The proposed new building is to be two levels. Potential uses of the site include office space, retail, restaurant, and one existing dwelling unit.

ZONE DISTRICT: CC- Commercial Community
Transitional Area of Downtown Louisville

PROPERTY AREA: 7481 sf

RESIDENTIAL UNITS: 1 Existing 2 Bedroom

BUILDING AREAS:	NEW BUILDING	EXISTING DWELLING UNIT (Garage Removed)	TOTAL
Basement:	2180 gsf	1100 gsf	3280 gsf
Main Level:	3880 gsf	1126 gsf (Res.)	5006 gsf
2nd Level:	3630 gsf	--	3630 gsf
TOTAL BUILDING AREA:	9690 gsf	2226 gsf	11916 gsf
TOTAL BUILDING AREA: (ABOVE GRADE)	7510 gsf	1126 gsf	8636 gsf
TOTAL BUILDING AREA: (FOR PARKING)	[1]5700 net (Commercial)	--	[1]5700 net (Commercial)

FLOOR AREA RATIO: 1.15
PARKING REQUIRED: 13 spaces (5500/500= 11 sp. + 2 sp.)
PARKING PROVIDED: 5 spaces
BICYCLE PARKING: 4 spaces
DESIGN ELEMENTS: Building Height Allowed: 35'
Building Height Requested: 35' at stair tower

[1]Only commercial space is included in the calculation per Sec. 17.20.025. Section 17.20.025 Note B allows hallways, stairways, bathrooms, kitchens, and uninhabitable areas to be removed from the building area calculated for parking. This area removed from the parking calculations equal 600 sf on the main level, 880 sf on the second level, and 1510 sf in the basement. In addition, Section 17.20.025 Note F exempts the first 999 sf of floor area from the parking calculation. The 1 dwelling unit is not included in net sf but requires 2 spaces.

Note: Existing public improvements indicated within South St. and Main St. rights of way may be revised or modified by the City at the discretion of the City to address health, welfare or safety concerns.

HARTRONFT ASSOCIATES
A Professional Corporation
Planning
Architecture
Interior Design
950 Spruce Street, #1A
Louisville, CO 80027
TEL: 303.673.9304
FAX: 303.673.9339

824 SOUTH STREET
MIXED USE DEVELOPMENT
824 South St. Louisville CO 80027
Louisville, Block 5, Lot 1

FINAL PUD

PROJECT # 1551
DATE: 08/06/2015
DRAWN BY: HAPC
CHECKED BY: EH
REVISIONS:
FINAL PC 10/16/15
FINAL PC 06/05/16

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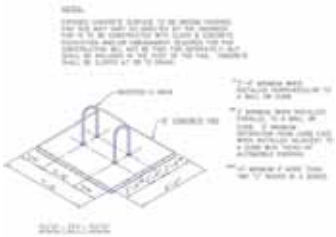
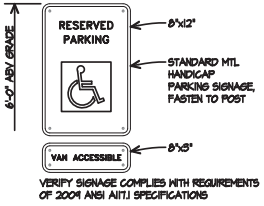
COVER SHEET
PROJECT DATA
RENDERINGS
SIGNATURES

Sheet
A1
1 of 7 Sheets



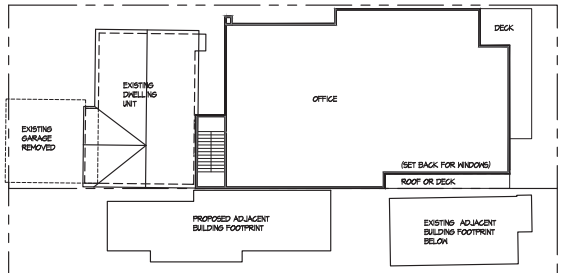
D3 / A2 U-RACK DETAIL @ BIKE PK'G
1" = 10'-0"



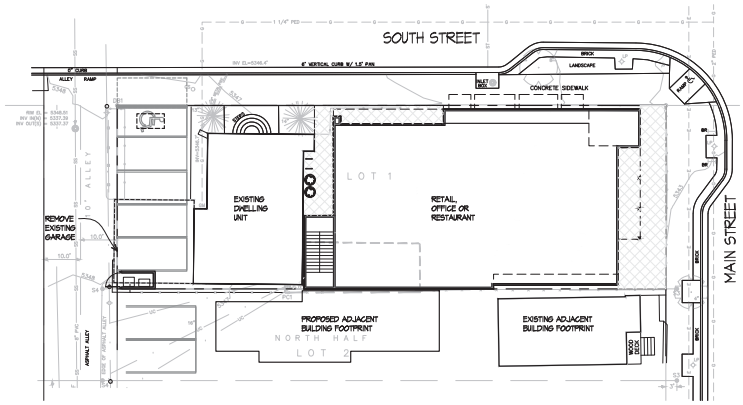
D2 / A2 H.C. PK'G SIGN DETAIL
1" = 10'-0"

LANDSCAPE LEGEND

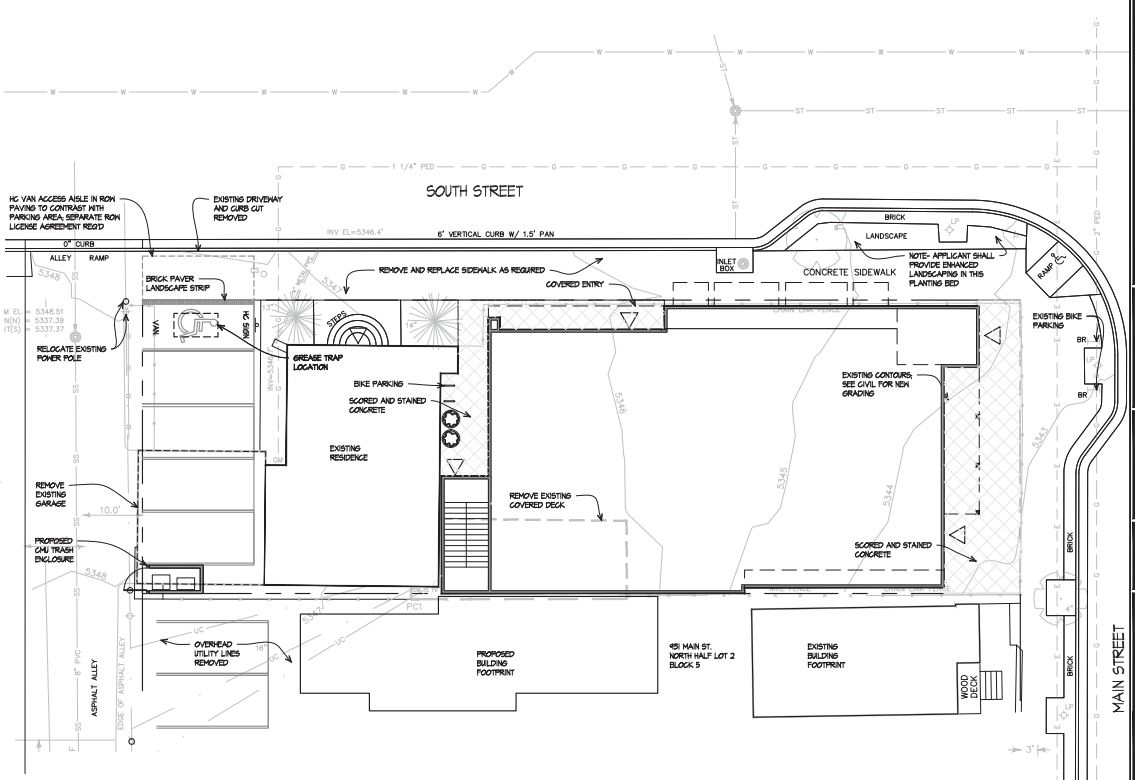
- Ornamental Grasses
- Potted Perennials
- Proposed Deciduous Tree Ornamental
- Existing Coniferous Tree over 12" Caliper
- Existing Deciduous Tree 5" Caliper
- Existing Deciduous Tree 4" Caliper



B4 / A2 2ND FLOOR PLAN
1/16" = 1'-0"



A4 / A2 1ST FLOOR PLAN
1/16" = 1'-0"



A1 / A2 ARCHITECTURAL SITE PLAN, LANDSCAPE & PARKING PLAN
1" = 10'-0"

HARTRONFT ASSOCIATES
A Professional Corporation
Planning
Architecture
Interior Design
950 Spruce Street, #1A
Louisville, CO 80027
TEL: 303.673.8004
FAX: 303.673.9339

824 SOUTH STREET MIXED USE DEVELOPMENT

824 South St. Louisville CO 80027
Louisville, Block 5, Lot 1

SPECIAL REVIEW USE FINAL PUD

PROJECT # 1551
DATE: 08/06/2015
DRAWN BY: HAPC
CHECKED BY: EH
REVISIONS:
FINAL PC 10/16/15
FINAL PC 08/05/16

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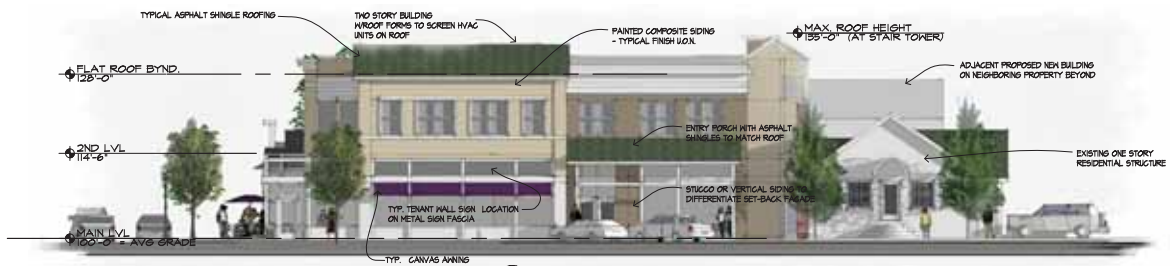
SITE, LANDSCAPE PLAN & PARKING PLAN
FLOOR PLANS
DETAILS

Sheet
A2

D1 / A3 WEST ELEVATION - ALLEY

SCALE: 1" = 10'-0"

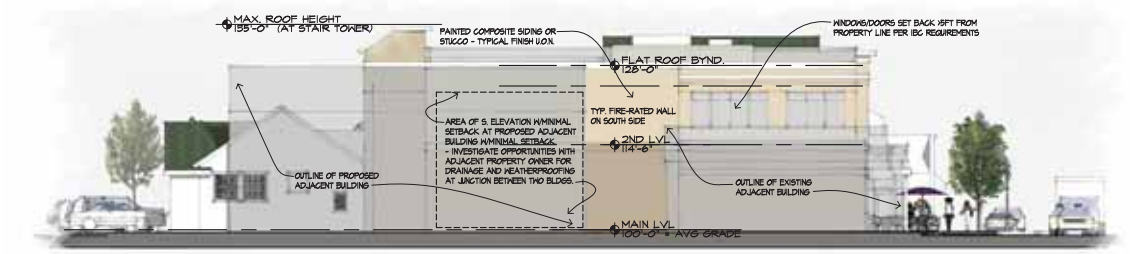


C1 / A3 NORTH ELEVATION - SOUTH STREET

SCALE: 1" = 10'-0"

B1 / A3 EAST ELEVATION - MAIN STREET

SCALE: 1" = 10'-0"



A1 / A3 SOUTH ELEVATION - ADJACENT PROPERTY

SCALE: 1" = 10'-0"

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Planning
Architecture
Interior Design
950 Spruce Street, #1A
Louisville, CO 80027
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824 SOUTH STREET MIXED USE DEVELOPMENT

824 South St. Louisville CO 80027
Louisville, Block 5, Lot 1

FINAL PUD

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BUILDING ELEVATIONS

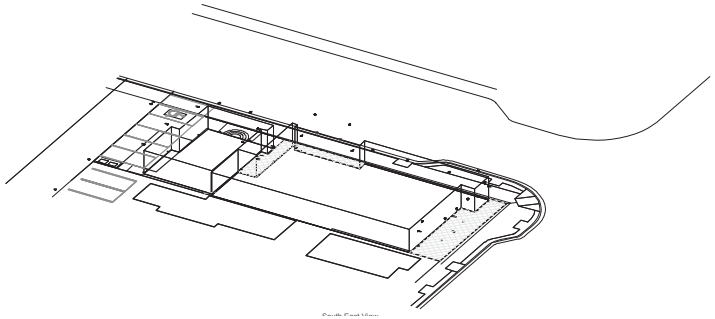
Sheet
A3

FIXTURE SCHEDULE

KEY	PHOTO	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	LAMP	VOLTS	MOUNTING INFORMATION	NOTE	QUANTITY
A		RECESSED DOWNLIGHT WITH LOCATION LENTEC 1040 LUMEN LED LAMP WARM	LITHONIA	PROJECT A DAL 7W4L WW 90CRI 120 LPW LO 1000	LED INCLUDED	120	RECESSED		19
B		WALL MOUNTED 1/2 CYLINDER WALL SCONCE WITH BLACK FINISH	SCOTT ARCHITECTURAL	PB06-BL-CY-05	CFCFL	120	SURFACE		18
C		WALL MOUNTED LED BEAM LIGHTER WITH 40° CAP AND INTEGRAL POWER CHARGER	BK LIGHTING	BRUM A LED 5000 WPL KAK 12 A PC	3000K	120	SURFACE		5

Statistics						
Symbol	Description	Avg	Max/Min	Min	Avg/Min	Max
+	Calc Zone #1	1.0 fc	N/A	0.0 fc	N/A	15.8 fc

Luminaire Locations										
		Location						Aim		
No.	Label	X	Y	Z	MH	Orientation	Tilt	X	Y	Z
1	A	90.00	-870.00	9.00	9.00	0.00	0.00	90.00	-870.00	0.00
2	A	90.00	-878.00	9.00	9.00	0.00	0.00	90.00	-878.00	0.00
3	A	90.00	-886.00	9.00	9.00	0.00	0.00	90.00	-886.00	0.00
4	A	19.50	-853.00	9.00	9.00	0.00	0.00	19.50	-853.00	0.00
6	A	29.50	-853.00	9.00	9.00	0.00	0.00	29.50	-853.00	0.00
1	B	16.50	-849.50	14.00	14.00	180.00	81.62	16.50	-866.48	11.50
2	B	31.50	-849.50	14.00	14.00	180.00	85.50	31.50	-881.25	11.50
4	B	87.50	-892.50	10.00	10.00	270.00	70.28	77.74	-892.50	6.50
5	B	94.00	-886.50	10.00	10.00	270.00	60.95	89.50	-886.50	7.50
8	B	94.00	-869.50	10.00	10.00	270.00	60.95	89.50	-869.50	7.50
9	B	94.00	-878.00	10.00	10.00	270.00	60.95	89.50	-878.00	7.50
10	B	93.50	-856.00	10.00	10.00	270.00	60.95	89.00	-856.00	7.50
11	B	87.00	-849.50	10.00	10.00	180.00	60.95	87.00	-854.00	7.50
1	C	8.50	-877.50	6.50	6.50	270.00	0.00	8.50	-877.50	0.00
2	C	8.50	-866.50	6.50	6.50	270.00	0.00	8.50	-866.50	0.00
3	C	13.50	-854.50	6.50	6.50	0.00	0.00	13.50	-854.50	0.00
4	C	35.50	-854.50	6.50	6.50	0.00	0.00	35.50	-854.50	0.00
5	C	42.00	-850.50	6.50	6.50	0.00	0.00	42.00	-850.50	0.00
6	C	57.00	-850.50	6.50	6.50	0.00	0.00	57.00	-850.50	0.00
7	C	75.00	-850.50	6.50	6.50	0.00	0.00	75.00	-850.50	0.00
8	C	90.50	-850.50	6.50	6.50	0.00	0.00	90.50	-850.50	0.00
9	C	93.00	-860.50	6.50	6.50	90.00	0.00	93.00	-860.50	0.00
10	C	87.00	-894.00	6.50	6.50	90.00	0.00	87.00	-894.00	0.00
11	C	93.00	-878.00	6.50	6.50	90.00	0.00	93.00	-878.00	0.00
12	C	1.50	-877.50	12.00	12.00	90.00	0.00	1.50	-877.50	0.00
13	C	1.50	-866.00	12.00	12.00	90.00	0.00	1.50	-866.00	0.00
14	C	-20.50	-857.00	12.00	12.00	0.00	0.00	-20.50	-857.00	0.00
15	C	-7.00	-857.00	12.00	12.00	0.00	0.00	-7.00	-857.00	0.00
16	C	-26.00	-863.00	12.00	12.00	270.00	0.00	-26.00	-863.00	0.00
17	C	-29.50	-880.00	12.00	12.00	270.00	0.00	-29.50	-880.00	0.00
18	C	-29.50	-897.50	12.00	12.00	270.00	0.00	-29.50	-897.50	0.00
19	C	93.00	-852.00	6.50	6.50	90.00	0.00	93.00	-852.00	0.00

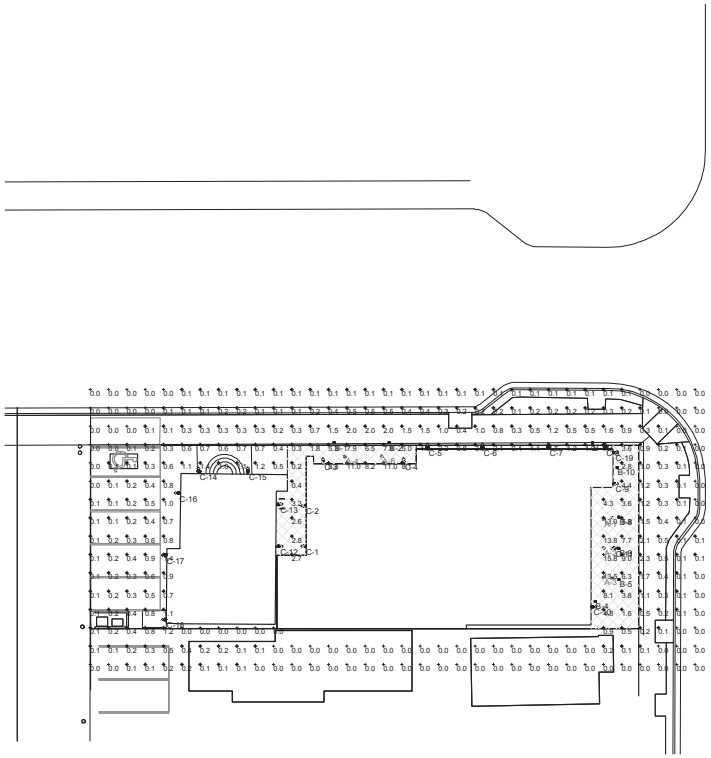


South East View

LIGHT - C

LIGHT - B

LIGHT - A



A1/A4 SITE PHOTOMETRIC

1/16" = 1'-0"

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824 SOUTH STREET MIXED USE DEVELOPMENT

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FINAL PUD

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FINAL PC 06/05/16

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SITE PHOTOMETRICS

Sheet
A4

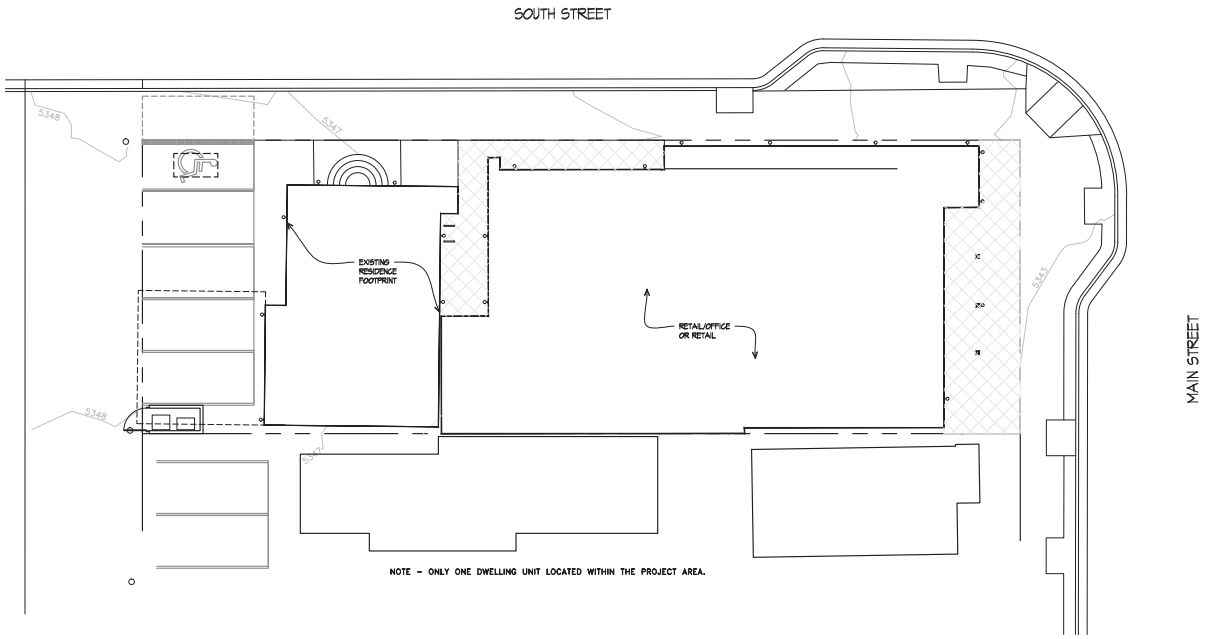
4 of 7 Sheets

VICINITY MAP

SIGNATURES

SPECIAL REVIEW USE
824 SOUTH STREET
MIXED USE DEVELOPMENT

LOCATED IN THE SOUTHEAST QUARTER OF SECTION 8 TOWNSHIP 1 SOUTH, RANGE 69 WEST OF THE THE 6TH P.M., CITY OF LOUISVILLE, COUNTY OF BOULDER, STATE OF COLORADO



NOTE – ONLY ONE DWELLING UNIT LOCATED WITHIN THE PROJECT AREA.

824 SOUTH STREET – SPECIAL REVIEW USE

With one dwelling unit combined with commercial space, this property will be a Mixed Use Residential–Commercial land use designation. Existing zoning CC allows dwellings and mixed use configuration when authorized through a Special Review Use.

–Indicates location of proposed lighting. Bottom of lights to be 6'–8" above walking surface.

A1 / 1 SPECIAL REVIEW USE PLAN
1" = 10'-0"

HARTRONFT ASSOCIATES
A Professional Corporation
Planning
Architecture
Interior Design
950 Spruce Street, #1A
Louisville, CO 80027
TEL: 303.673.9304
FAX: 303.673.9319

824 SOUTH STREET
MIXED USE DEVELOPMENT
824 South St, Louisville CO 80027
Louisville, Block 5, Lot 1

SPECIAL REVIEW USE FINAL PUD

PROJECT # 1551
DATE: 08/06/2015
DRAWN BY: HAPC
CHECKED BY: JEH
REVISIONS:
FINAL PC 10/16/15
FINAL PC 08/05/16

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SPECIAL REVIEW USE PLAN

Sheet 1 of Sheets

City of Louisville
COLORADO • SINCE 1878

Memorandum | Department of Public Works

TO: Scott Robinson, Planner II

FROM: Craig Duffin, City Engineer CF for CD

DATE: June 23, 2016

SUBJECT: 824 South Street 2nd Review

Public Works reviewed the resubmittal of the 824 South Street PUD received on June 6, 2016. Comments are as follows:

FINAL PUD

Site, Landscape Plan and Parking Plan… Sheet A2 (Sheet 2 of 7)

1. Remove the note concerning City issuance of a Revocable License Agreement for "Handicap Van Access in right of way paving to contrast with parking area". Public Works does not support delineating a segment of public walk as a van accessible aisle for a private parking space. The public walk can be used for the "purpose" without delineation as long as the walk is not unreasonable obstructed. Also please confirm the brick paver landscape strip will be installed on private property.
2. Plan indicates window awnings along north side of building that extend over the right of way. **Planning Department** can prepare a revocable license agreement with height restrictions for the awnings.
3. As previously mentioned, staff requests additional right of way at northeast corner of property to accommodate accessible route guidelines at back of handicap ramp. If not possible and as an alternative, an easement for the walk and pedestrian access 3' minimum/4' preferred can be provided the City. Staff also requests a surface maintenance easement adjacent back of public walk approximately 3' in width to accommodate future concrete walk repair/replacement.

Preliminary Utility Plan – Sheet C1.01

1. Add existing water service to single family residence. The sanitary sewer service for the existing single family residence is combined with service to the south property. Provide a new sanitary sewer service and abandon existing combined service connection as directed by the City.
2. Down spouts that direct water to Main Street may require installation of drain piping under the walk and brick pavers. Staff will determine if necessary during civil plan review. These lines will be maintained by the property owner.
3. As previously mentioned, the sanitary sewer services indicated on the plan are conceptual. Staff reserves the right to adjust/redesign the service lines and main line connection during civil plan review.

4. A Development Agreement will be necessary due to the level of concrete replacement and utility work on South Street.

Right of Way Encroachment – Sheet EX-1

1. Storm pipe connection to South Street inlet is not shown and will require a license agreement. As previously mentioned, remove the call out for a van access aisle in right of way and delete Note B.

Drainage Letter dated May 25, 1016

1. Correspondence reviewed and is acceptable.`

City of Louisville
COLORADO • SINCE 1878

Planning Commission
Staff Report
July 14, 2016

ITEM: McCaslin Blvd Small Area Plan

PLANNER: Scott Robinson, AICP, Planner II

APPLICANT: City of Louisville

REQUEST: To review and endorse the McCaslin Blvd small area plan

SUMMARY

Attached is the draft McCaslin Blvd small area plan. The McCaslin Blvd small area plan is intended to define desired community character, land uses, and public infrastructure priorities to provide a reliable roadmap for public and private investments in the corridor. Staff requests that the Planning Commission review the draft document, recommend any desired changes, and then endorse the plan for adoption by City Council.

The creation of the plan followed a robust public process, as described in the plan. Also attached are results of that process, including the report from the Urban Land Institute Technical Advisory Panel in 2013, the community survey report, results from the last public workshop in February 2016, and the detailed traffic impact analysis.

The draft plan recommends allowing residential as a special review use on the east side of Parcel O (Sam's Club shopping center) and the back portion of the Centennial Shopping Center (Via Toscana and others). Throughout the planning process, whether to allow more residential uses in the corridor was one of the most contentious issues. Staff heard from many participants who did not want any additional residential uses, and many who wanted residential to be allowed more widely, including at Colony Square and the northern portion of Centennial Valley. The 2013 Comprehensive Plan update calls for allowing residential in the McCaslin corridor in areas adjacent to existing residential. Staff believes the draft plan strikes a balance between the various opinions and is compatible with the adopted Comprehensive Plan.

July 14, 2016 update:
Staff presented the plan to the Parks and Public Landscaping Advisory Board and the Open Space Advisory Board after the packet was published. Input from those boards will be provided at the July 14 meeting.

Boulder Valley School District staff have reviewed the draft plan and project 37 new elementary students, 14 new middle school students, and 18 new high school students. These would feed into Fireside Elementary, Monarch K-8, and Monarch High. In summary from BVSD: "Fireside has virtually no new housing potential and could easily absorb these new students. Monarch K-8 and Monarch High… are going to see significant growth in the next few years from Superior, they can both likely accommodate these students by restricting the number of new open enrollment students from outside

their attendance area." Staff is still waiting on peak enrollment projections to be plugged into the plan.

The full report from the 2016 Louisville Citizen Survey is attached, including details on the responses to the two questions about additional residential in the McCaslin Blvd corridor. Breakdowns by demographic are on pages 87 and 88 of the document, and breakdowns by ward are on pages 101 and 102.

Planning Commission asked for a summary of the Intergovernmental Agreement with Superior regarding development in the Superior Town Center. In summary, the agreement requires Superior to permit 250,000 square feet of sales tax generating retail development, from which Louisville will receive half of the sales tax revenue.

Planning Commission requested a comparison of the projected fiscal impact of the draft plan with the projected impact of buildout under the existing regulations. This comparison is difficult to make, because the full buildout under the existing zoning allows far more development than the market would support over the next 20 years. If the full allowed buildout is entered into the fiscal model, it projects a significantly stronger fiscal return than the draft plan. However, if an estimate of likely buildout in the next 20 years is input, the projected fiscal return is similar to the draft plan.

RECOMMENDATION
Staff recommends Planning Commission make any desired changes to the McCaslin Blvd small area plan, then vote to endorse it. Once the plan has been endorsed by Planning Commission, it will be presented to City Council for review and adoption.

ATTACHMENTS:
1. Resolution No. 17, Series 2016
2. Draft McCaslin Blvd small area plan
3. ULI TAP report
4. Community survey report
5. Materials from February, 2016 placemaking workshop
6. Traffic impact study
7. 2016 Louisville Citizen Survey
8. Public comments

RESOLUTION NO. 17,
SERIES 2016

A RESOLUTION RECOMMENDING APPROVAL OF THE McCASLIN BLVD SMALL AREA PLAN

WHEREAS, the City of Louisville is a home rule municipal corporation organized under and pursuant to Article XX of the Colorado Constitution and the Louisville Home Rule Charter; and

WHEREAS, by virtue of such authority, and as further authorized by state statutes, including but not limited to C.R.S. §§ 31-23-206 et seq. the City has broad authority to make and adopt a comprehensive plan for the physical development of the municipality; and

WHEREAS, pursuant to such authorities, the City has also adopted a 2005 Comprehensive Plan, updated in 2009 and 2013, which Plan serves as a guiding document containing the policy framework under which new development and redevelopment within the City will be evaluated; and

WHEREAS, the City Council formally initiated a process to supplement the City's Comprehensive Plan, which process consists of several phases and includes various workshops, meetings and hearings regarding the drafting and adoption of the supplemental McCaslin Blvd Small Area Plan; and

WHEREAS, the public record reflects the Planning Commission has held duly noticed public hearings regarding the McCaslin Blvd Small Area Plan on April 9, 2015, April 23, 2015, May 14, 2015, June 23, 2016, and July 14, 2016; and

WHEREAS, the Planning Commission has entered into the record extensive public comment and testimony; and

WHEREAS, the Planning Commission finds that a need exists to supplement the current 2013 Comprehensive Plan update, and that the adoption of the McCaslin Blvd Small Area Plan will promote the health, safety, and welfare of the present and future residents of the City through facilitating the adequate provisions for transportation, water resources, utility infrastructure, parks, recreation, schools, maintaining the level of services provided by all service sector departments; and

WHEREAS, after a duly noticed public hearing on July 14, 2016, where evidence and testimony was entered into the record, the Planning Commission finds that the McCaslin Blvd Small Area Plan should be approved.

NOW THEREFORE, BE IT RESOLVED that the Planning Commission of the City of Louisville, Colorado does hereby recommend approval of the McCaslin Blvd Small Area Plan.

PASSED AND ADOPTED this 14th day of July, 2016.

By: _____
Chris Pritchard, Chair
Planning Commission

Attest: _____
Ann O'Connell, Secretary
Planning Commission

McCASLIN BLVD

SMALL AREA PLAN

City of Louisville
COLORADO • SINCE 1878

July 7, 2016 Draft

Runners
Roost
SMILING
DELI MOOSE
BlackPaw

ACKNOWLEDGEMENTS

City Council

Robert P. Muckle, Mayor
Jeff Lipton, Mayor Pro Tem, Ward 2
Jay Keany, Ward 1
Chris Leh, Ward 1
Susan Loo, Ward 2
Dennis Maloney, Ward 3
Ashley Stolzmann, Ward 3

Planning Commission

Chris Pritchard, Chair
Cary Tengler, Vice-chair
Steve Brauneis
David Hsu
Jeff Moline
Ann O'Connell
Tom Rice

City Boards and Commissions

Business Retention & Development Committee
Open Space Advisory Board
Parks & Public Landscaping Advisory Board
Revitalization Commission

Planning & Building Safety Department

Scott Robinson, Project Manager
Rob Zuccaro, Planning and Building Safety Director
Lauren Trice, Planner I
Monica Garland, Senior Administrative Assistant

City Staff

Malcolm Fleming, City Manager
Heather Balser, Deputy City Manager
Aaron DeJong, Economic Development Director
Kevin Watson, Finance Director
Kurt Kowar, Public Works Director
Craig Duffin, City Engineer
Cameron Fowlkes, Engineer III
Joliette Woodson, Engineer III
Joe Stevens, Parks and Recreation Director
Ember Brignull, Open Space Manager
Allan Gill, Parks Project Manager
Dean Johnson, Park Superintendent

Consultants

Cuningham Group Associates
Kimley-Horn
mySidewalk
National Research Center
ArtHouse Design

McCaslin
Boulevard

TABLE OF CONTENTS

ACKNOWLEDGMENTS i
INTRODUCTION 1
PROCESS 3
CONTEXT 7
PRINCIPLES 15
THE PLAN 23
IMPLEMENTATION 35

DRIVE THRU
HOOTERS
BlackPaw

Annexation of the McCaslin Blvd area of Louisville began in the late 1970s and development of the area began in the 1980s and 1990s. By the time the 2013 Comprehensive Plan update was adopted, the area ranged from undeveloped greenfield sites to sites undergoing redevelopment. Given this diversity, the Comprehensive Plan called for a more in-depth look at how the McCaslin Blvd area should continue to evolve.

Purpose

The McCaslin Blvd small area plan is intended to define desired community character, land uses, and public infrastructure priorities to provide a reliable roadmap for public and private investments in the corridor. As an extension of the Comprehensive Plan, the small area plan is a policy document and not a regulatory document. However, the plan will serve as the basis for updated design guidelines, any potential zoning changes, capital improvement project requests, and public dedication requirements from private developers. The McCaslin Blvd small area plan translates the broad policies of the Comprehensive Plan into the specific actions and regulations that will achieve those policies. The 2013 Comprehensive Plan update had two key purposes:

1. Better meet today's unique challenges of redevelopment versus new development, regional traffic and City transportation policy, the economy and the realities of retail growth, and neighborhood issues and concerns

2. Better clarify the Community's vision in terms of community character and physical design to provide the public and staff with a common language and tools to review and discuss redevelopment requests

The Comprehensive Plan created a framework to address these purposes through changes in land use, design, and infrastructure. The McCaslin Blvd small area plan takes that framework a step further by setting guidelines for how design and land use regulations should be changed and identifying what infrastructure is needed. The final step, following this plan, will be to draft and adopt the new regulations and build the new infrastructure, through a combination of the City's capital improvement program and private investment.

How to use this plan

The McCaslin Blvd small area plan defines the community's vision for the corridor to guide future public and private investment. The document is divided into five sections

1. The Process describes the public involvement and community outreach effort used to generate the small area plan

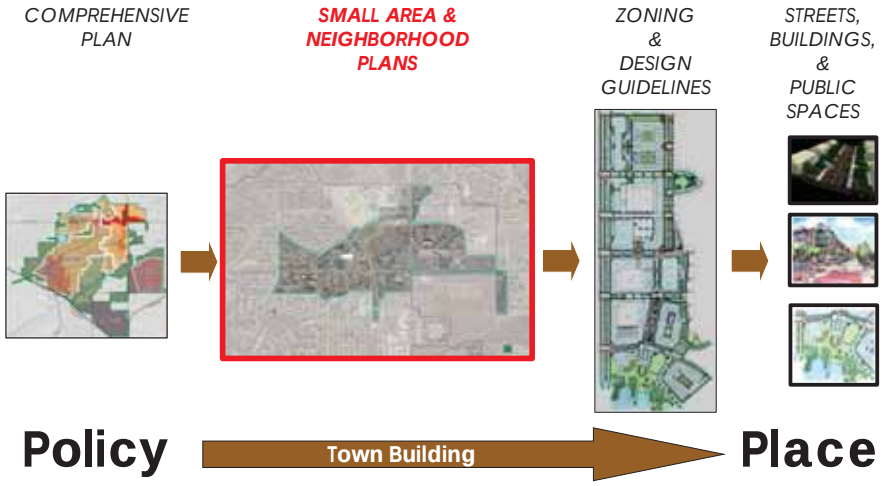
2. The Context describes the current conditions in the study area and key trends and challenges facing the corridor

3. The Principles describe the general goals for the plan, referred to as the Measures of Success, and the broad design principles to guide future action in the corridor

4. The Plan includes maps and illustrations describing the desired land uses, building character, and street, trail, and park improvements in the study area

5. Implementation describes steps to be taken to achieve the goals of the plan, and includes cost estimates for the anticipated public improvements

The McCaslin Blvd small area plan is a policy document. In order to achieve the community's vision for the corridor described in the plan, regulatory changes will need to be adopted to the Louisville Municipal Code, including zoning changes and the incorporation of new design guidelines for the area. The plan does, however, provide the basis for the City to require private property owners to build or dedicate some public infrastructure or land when properties develop or redevelop. Other public investments will need to be made by the City through the annual capital budgeting process.



The McCaslin Blvd small area plan was developed through a five-step process and involved extensive input from residents within the corridor and throughout the community, property owners, business owners, and elected and appointed officials.

Step 1 – Set Goals

Goals, represented by the Measures of Success (see page 17), were needed to guide the development of the plan. This began with a Technical Advisory Panel (TAP) conducted by the Urban Land Institute in June, 2013. The TAP brought in five outside experts in community development and design, who worked with residents, property owners, and business owners in and around the corridor. The TAP examined possible factors holding back successful development in the corridor and made recommendations for improvements. Questions were also posted on the City's discussion website, EnvisionLouisvilleCO.com, allowing anyone in the community to provide early input.

A public Kick-off Meeting was held in February, 2015. Over 70 people attended the meeting. Participants were asked to identify areas they liked, disliked, and wanted to see change. They also discussed how they would like to use the corridor in the future and how the Core Community Values from the Comprehensive Plan could be incorporated into the area. This input was used to develop an Opportunities and Constraints analysis (see page 13) and the Measures of Success, which were endorsed by Planning Commission and City Council.

Step 2 – Corridor Analysis

The current built environment of the corridor was analyzed, including the existing regulations and how people currently use the corridor. A corridor character assessment was conducted, as was a buildout analysis estimating how much development the existing zoning would allow. Members of the public participated in a Walkability Audit to identify areas where pedestrian and bicycle facilities could be improved.

A Placemaking Workshop was held where participants could brainstorm ideas for solving the problems identified in the Walkability Audit. Attendees reviewed the major intersections in the corridor and the corridor as a whole, identifying opportunities where connections could be enhanced. The City also conducted a mail and internet survey of 1,200 randomly

Sketches for Parcel O from the ULI TAP

Areas particpants like (green dots), dislike (red), and want to see change (blue) from the Kick-off Meeting

selected homes throughout the community to received input on the desired physical character for the corridor.

Step 3 – Development of Alternatives

Three alternative development scenarios were created based on input received through the public process. A second Placemaking Workshop was held in November, 2015, where participants were asked how they would like to see example sites develop or redevelop in the future. Attendees identified desired land uses and selected sample photos showing the types of buildings and park spaces they would prefer to see on the sites.

The results of this meeting and all the previous public input and analysis were used to develop outlines for three varying development alternatives. Each alternative indicated future allowed land uses and development intensities throughout the corridor.

Step 4 – Review of Alternatives

The alternatives were analyzed and the results presented to the public for review. For each alternative, a maximum potential buildout, including employee and population projections, was calculated. These data were used to generate a fiscal impact analysis. Potential transportation improvements were also identified, and the buildout data were used to run traffic analyses.

Ideas for improving the McCaslin and Cherry intersection from Placemaking Workshop #1

Proposed development at Colony Square from Placemaking Workshop #2

Drawings showing possible building size, location, and character were created for various sites in the corridor. This information was presented to the public at a third Placemaking Workshop in February, 2016, where attendees were asked to identify the character elements, transportation improvements, and buildout scenarios they preferred.

Step 5 – Creation of Preferred Alternative

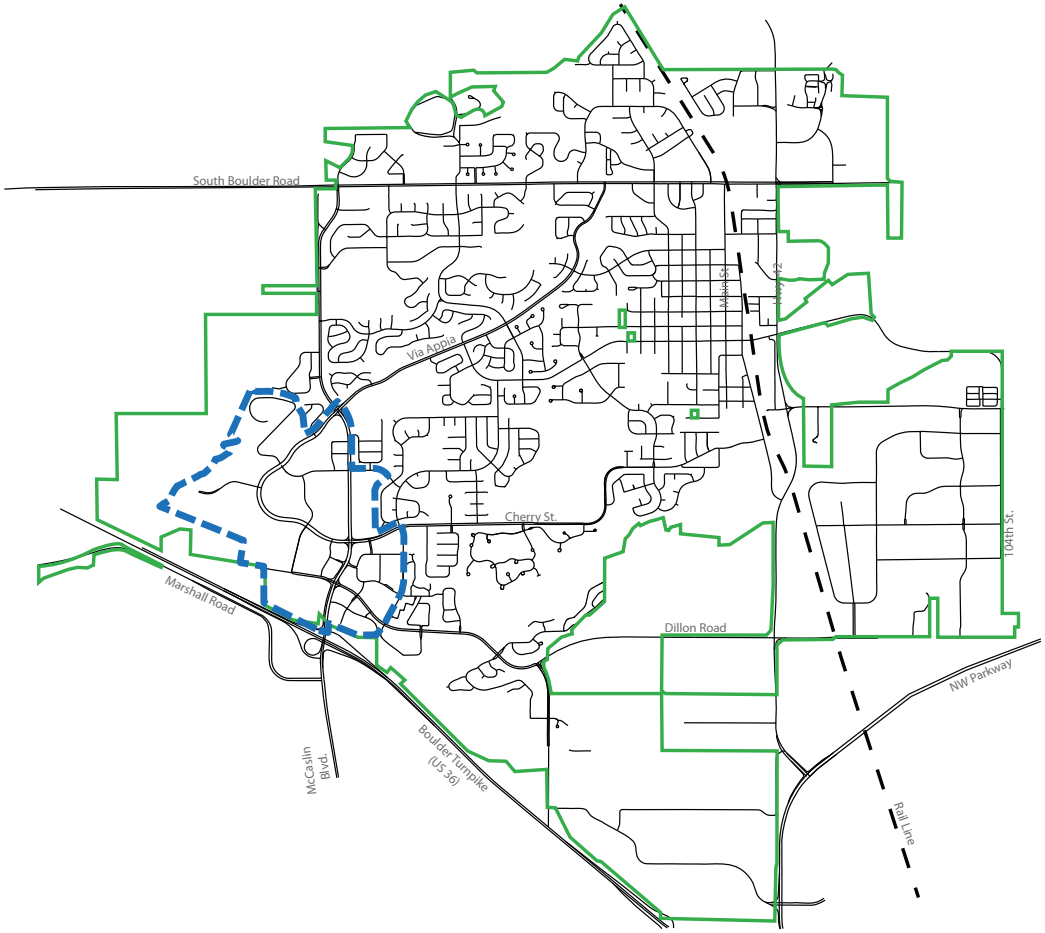
All the input gathered in the previous steps was used to develop a preferred alternative to serve as the basis for the plan. Input from the third placemaking workshop was utilized to determine favored elements of each alternative to be incorporated into the preferred alternative. Details of the preferred alternative, which serves as the basis for this plan, were then developed for analysis.

Staff estimated the maximum amount of development the preferred alternative could generate and analyzed the expected transportation and fiscal impacts. The preferred alternative was also evaluated against the Measures of Success defined in Step 1. The preferred alternative was documented in the draft plan presented to Planning Commission and City Council at public hearings. The McCaslin Blvd small area plan was adopted by City Council on XXXX.

Community comments on the draft roadway improvements plan from Placemaking Workshop #3

McCABLIN BLVD

City-wide Context



Study Area

The study area for the McCaslin Blvd small area plan is in the southwest portion of Louisville, stretching along McCaslin Blvd from Via Appia to the north to the City limit at US 36 to the south. The study area includes areas on both sides of McCaslin Blvd, and extends west to include all of Centennial Valley.

History

Until the late 20th century, the area, now known as McCaslin Boulevard, was a series of farms clustered around 80th Street, a dirt road following the township and range system laid out in the early 1860s across Boulder County. The McCaslin Boulevard area became a part of the City of Louisville after the 1979 Centennial Valley annexation which more than doubled the size of the Louisville.

North 80th Street was realigned in the early 1980s to create a new US36 interchange and a retail center. In 1983, the area was branded as the Centennial Valley with an iconic four pillar monument at the intersection of McCaslin Boulevard and Cherry Street and distinctive stoplights along McCaslin. The first commercial development off of the new McCaslin Boulevard was the Centennial Shopping Center at the intersection of McCaslin Blvd and Cherry Street.

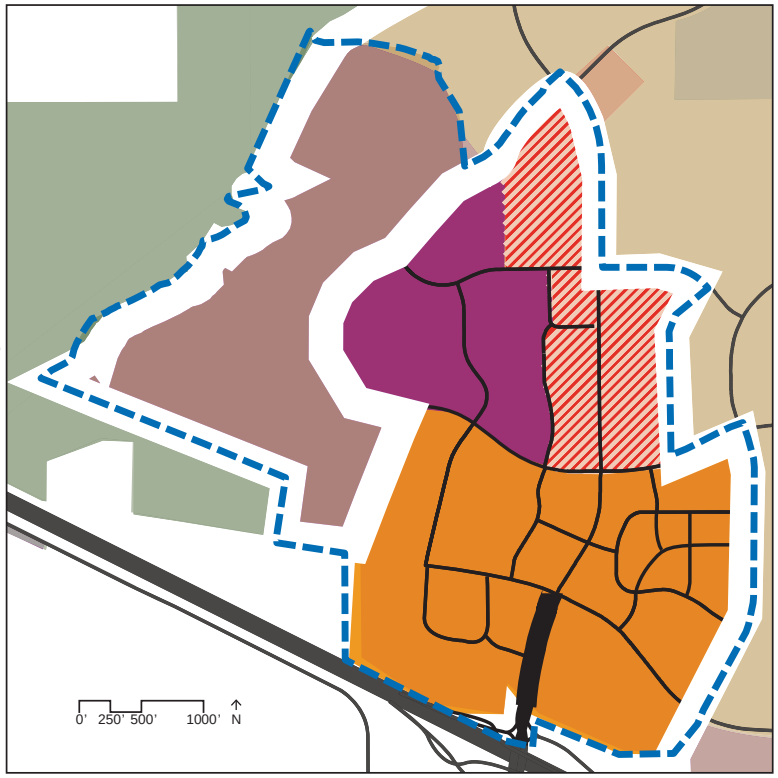
Throughout the 1990s, commercial development continued along the corridor with big box stores like Home Depot, Kohl's, and Sam's Club. Hotels located along the southern portion of the corridor close to US 36. Residential subdivisions developed east of McCaslin Boulevard and office developed west of the corridor.

Emphasis on commercial growth along McCaslin Boulevard and South Boulder Road not only boosted Louisville's economy but also contributed to the preservation of historic

CONTEXT

< Study Area Map

Comprehensive Plan Framework >



buildings within the commercial core of Old Town. After 30 years, McCaslin Boulevard is no longer a rural road but a center of commercial development. In 2015, the City, in partnership with CDOT, once again rethought the McCaslin Boulevard interchange and created an award-winning divergent diamond to improve this threshold into Louisville.

2013 Comprehensive Plan update

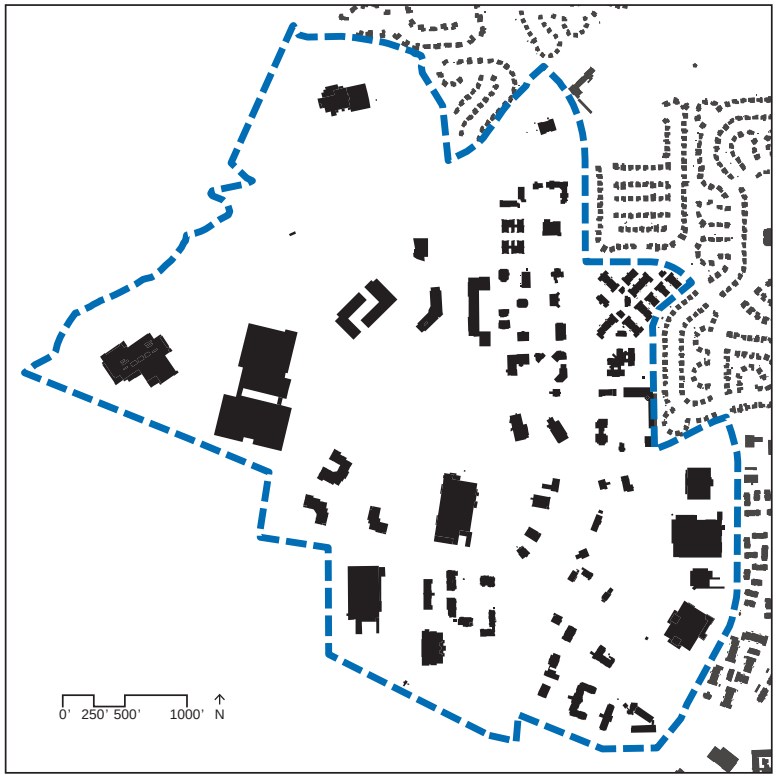
The 2013 Comprehensive Plan update divided the City into three character zones and five development types. The southern portion of the McCaslin Blvd area is in the Urban character zone, while the northern portion was left undetermined between Urban and Suburban. The final designation was to be decided by this small area plan process. Centennial Valley office park, to the west, was designated Suburban.

The Urban character zone calls for smaller blocks, more connected streets, and a more pedestrian friendly environment, while the Suburban character zone calls for more auto-oriented development on larger blocks with larger streets.

The area around the intersection of McCaslin Blvd and Dillon Rd was designated a Center development type, with the Corridor development type to the north, and the Special District type in Centennial Valley. Centers are intended for a mix of uses and more activity, while Corridors are for more specialized uses along major roads, and Special Districts are for developments like office parks.

Character Photos

Building Footprints >



Existing Conditions

Character

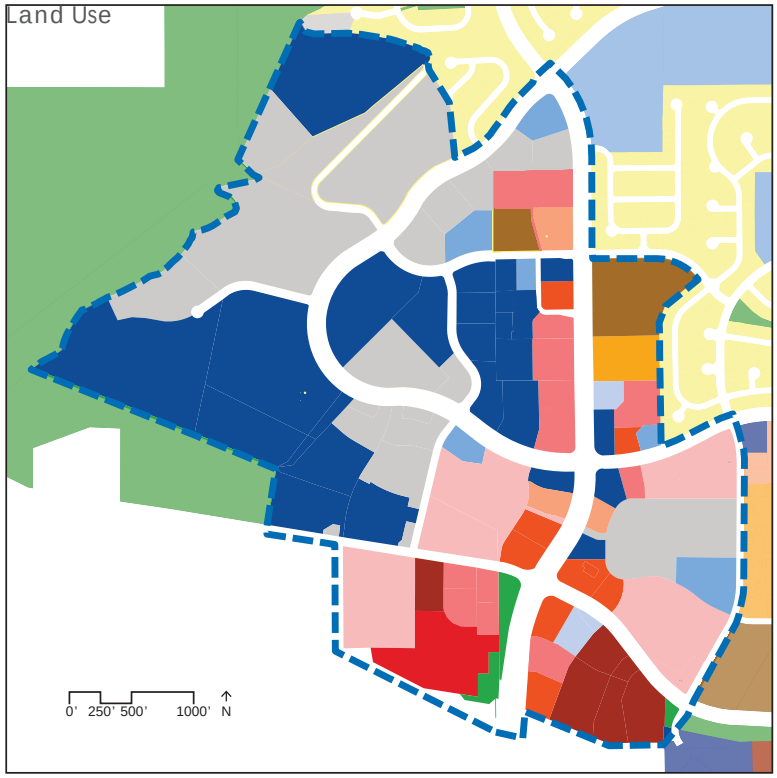
The McCaslin Blvd corridor primarly functions as a suburban commercial area, with a suburban office park to the west in Centennial Valley. The majority of the development is commercial, with a few residential developments in the northern portion of the study area. The commercial buildings range from big box stores to strip retail centers, stand alone restaurants and hotels, and smaller office buildings. In Centennial Valley, larger office buildings predominate, along with vacant land.

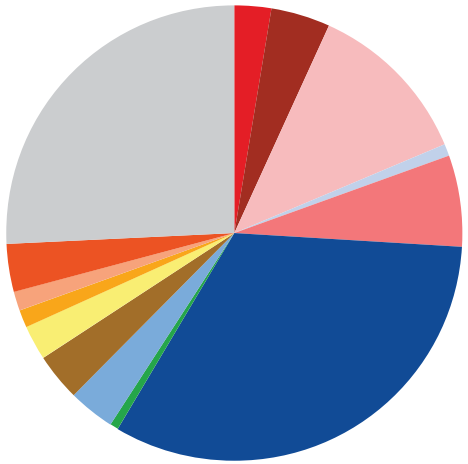
Access is mostly from McCaslin itself, with cross streets creating large blocks of development. The McCaslin right-of-way is wide, often with significant landscaping. This creates a signifcant separation between buildings and the street, even when property line setbacks are not very great. Monument signs along the street bring attention to the businesses that are less visible.

Architecture in the corridor ranges from 1980's stucco and masonry (commercial), to contemporary brick and glass. Commercial building forms are relatively square with flat roofs and parapets used to hide rooftop mechanical units. The buildings are articulated with large aluminum frame windows, post and lintel awnings with metal roof coverings used to engage the public realm. New commercial development in the corridor is governed by the Commercial Development Design Standards and Guidelines, adopted by the City in 1997.

Pedestrian movement in the corridor is mostly on detached sidewalks that vary from four to six feet in width. Tree lawns are placed sporadically through the corridor and bicycle movement is in the right-of-way with designated bike lanes.

CONTEXT



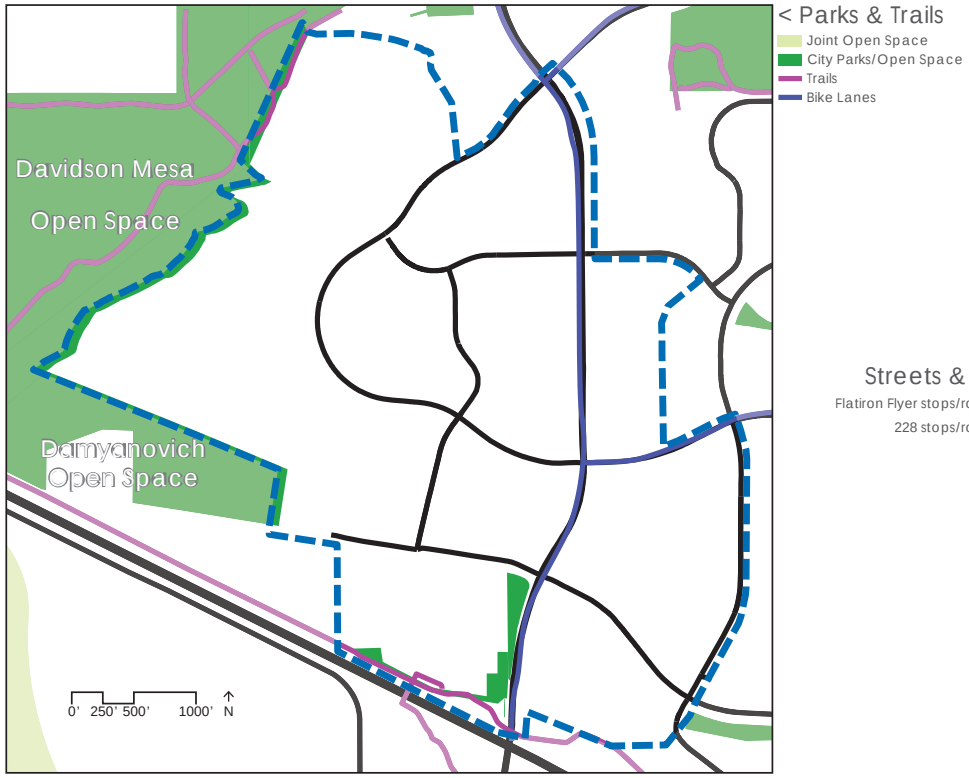


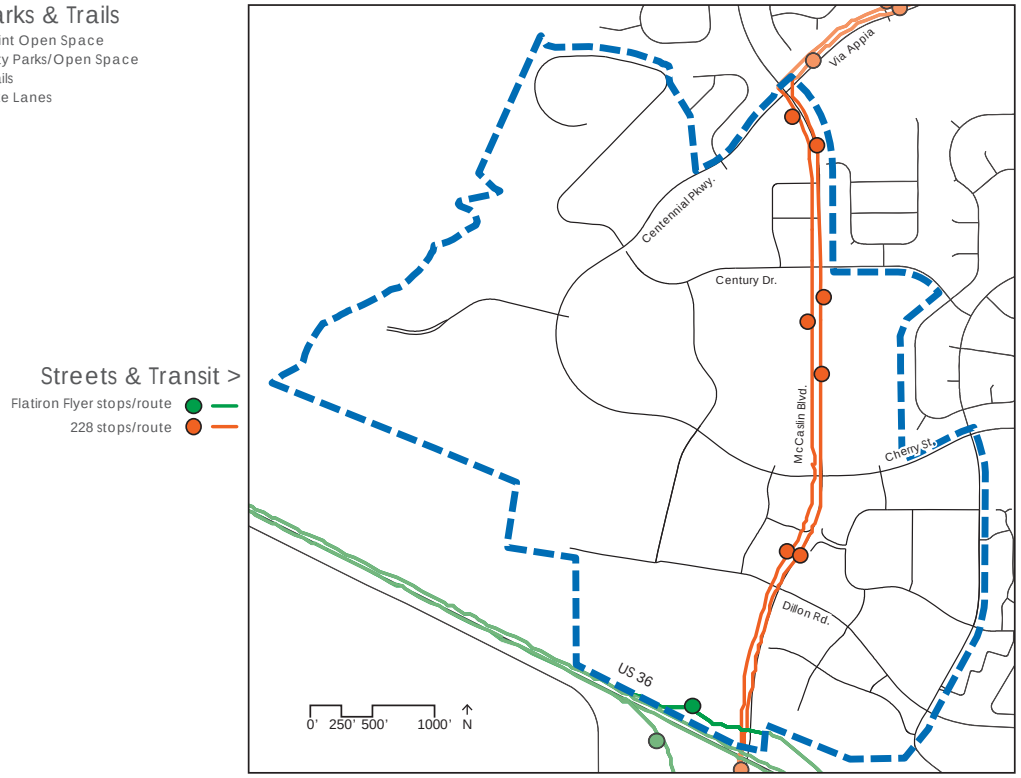
Land Use

Entertainment	2.61%
Hotel	4.20%
Large Format Retail	11.82%
Mixed Use Commercial	0.86%
Multi-Tenant Retail	6.49%
Office	32.56%
Open Space/Park	0.59%
Public Service/Institutional	3.28%
Residential High Density	3.37%
Residential Low Density	2.46%
Residential Medium Density	1.24%
Single Tenant Retail	1.37%
Stand Alone Restaurant	3.41%
Vacant	25.75%

Development

The most common land uses in the study area are office and vacant, mostly to the west in the Centennial Valley office park. Retail uses are concentrated along McCaslin, particularly to the south. There is relatively little residential in study area, making up just seven percent of the land area. Most of the land to the east of the study area is residential development, providing support for the businesses in the corridor. Land to the west is primarily protected open space.





Parks and Open Space

The study area does not have significant park facilities within the developed area. However, there are large open space nearby, notably Davidson Mesa immediately to the west, though there is no direct access to the open space from the study area. There are no active park facilities or civic gathering spaces adjacent to the study area, but the Recreation Center is just to the northeast.

Pedestrian and Bike Facilities

There are several trails on the periphery of the study area, but there are generally poor connections to them. The new US 36 bike way can be accessed from McCaslin, but there are limited connections to Davidson Mesa trails to the west and the Powerline Trail to the east. McCaslin, Cherry, and Via Appia all have on-street bike lanes. The large blocks provide limited opportunities to cross McCaslin.

Streets

Traffic in the area is heavily influenced by US 36, which carries around 100,000 cars per day. McCaslin Blvd carries around 50,000 cars per day near the interchange with US 36, and about 40,000 further north. Most traffic is directed onto the arterials, with large traffic numbers also on Dillon and Via Appia, and smaller volumes on Centennial and Cherry.

Transit

The McCaslin Blvd Park'n'Ride, with service from the RTD Flatiron Flyer bus rapid transit, is accessible from Colony Square, at the south end of the study area. Connections through the study area are provided by the 228, connecting to northern Louisville, Superior, and Broomfield, with 30 minute intervals during peak hours, and 60 minute intervals off-peak.

< Redevelopment-Pressure

Ratio of structure value to total property value

- More than 0.5 (Little to no pressure)
- 0.4 to 0.5 (Some pressure)
- 0.3 to 0.4 (Moderate pressure)
- Less than 0.3 (Significant pressure)

Development Potential >

Ratio of existing development to maximum potential buildout

- Less than 0.5
- 0.5 to 0.9
- More than 0.9

Remaining potential development in the corridor:

Residential:	42 units
Office:	6,475,712 sq ft
Retail:	871,911 sq ft

Property Values

The ratio of a property's structure value to total value is one indicator of how likely the property is to redevelop. While many other factors will be considered before a property owner redevelops a property, a low ratio of structure value to property value indicates the property is not being used to its fullest potential. By this measure, there are many stable properties at the core of the study area, but several properties elsewhere in the corridor, particularly the vacant parcels, are potential candidates for redevelopment.

Existing Zoning

The zoning for a property sets limits for how much can be built on a property based on the allowed building height and lot coverage. The ratio of existing square footage to allowed maximum square footage is another indicator of which properties may redevelop, where additional development is more likely on properties with a low ratio. Many commercial properties throughout the study area could see additional development under the existing zoning, while the few residential properties are near their maximum allowed buildout.

Opportunities	Constraints
• Traffic volume providing potential customers for businesses • Investments at McCaslin/US 36 interchange and RTD Park'n'Ride • Significant park/open space amenities just outside the corridor • Several areas ready for investment • Significant landscaping along the corridor • Potential for identity-defining features • Existing hotels in area	• Disconnected parcels and difficulty of adding new connections • Traffic speeds making the corridor unpleasant for visitors • Lack of visibility for businesses • Limited bike and pedestrian connectivity • Lack of civic gathering spaces in the corridor • Outdated site and building designs and development, signage, and zoning regulations • Visitors unaware of connections to the rest of Louisville • Potential customer base limited by transportation connections, regional competition, reliance on daytime office workers, and surrounding open space • Lack of community consensus on desired uses

Opportunites/Constraints Analysis

An Opportunities/Constraints analysis categorizes characteristics of the study area based on their value. Opportunities are characteristics that will likely have a positive impact on the area, while constraints will more likely have a negative impact.

The above Opportunities/Constraints analysis was compiled based on the ULI TAP and comments collected at public meetings and through EnvisionLouisvilleCO.com. The analysis was endorsed by Planning Commission and City Council during the goal setting phase of the project to help identify project principles and measures of success and guide the creation of the plan.

Survey Preferences

Community Survey

The City mailed out a community survey in Spring, 2015, the results of which were returned in Summer, 2015. The survey was mailed to 1,200 randomly selected residents, of whom 426 returned the completed survey. The survey included questions about how respondents currently use the corridor and how they would like to use it in the future. The survey also included a visual preference portion, providing respondents with photos showing options for different types of buildings, parks, and rights of way, and asking them to rate how appropriate each element was for the study area.

Pedestrian-friendly buildings of one to three stories were the most desired in the visual preference questions. Natural parks and open spaces, as well as wide detached sidwalks and trails were also preferred. The most preferred photos are shown above.

Project Principles and Measures of Success

The overall goal of the McCaslin Blvd small area plan project, based on direction from the Comprehensive Plan and City Council, is to create a land use and infrastructure plan that conforms to Louisville's character and is supported by the community. To that end, the plan must support the core community values identified in the Comprehensive Plan. Based on community input, the three values in which the McCaslin Blvd area is deficient and most needs improvement are as follows:

- A sense of community
- Sustainable practices for the economy, community, and environment
- Unique commercial areas and distinctive neighborhoods

To address these deficiencies the following six project principles were adopted, with associated measures of success for each. The principles and measures of success were endorsed by Planning Commission and City Council early in the planning process and served as guides for the development and evaluation of the alternative scenarios. The preferred alternative adopted as the basis for this plan best satisfied these principles and measures of success.

Principle 1 – Improve connectivity and accessibility while accommodating regional transportation needs.

a) Increase the network connectivity of roads parallel to McCaslin Blvd
   i) Are vehicles able to move between parcels without returning to McCaslin Blvd?
b) Make sure traffic passing through the corridor does not make it an undesirable place to live, work, play, and travel
   i) Does traffic noise decrease?
   ii) Do pedestrians and bicyclists feel safe?
   iii) How long will a trip take on the corridor?
c) Accommodate future regional transportation plans
   i) How does the corridor alternative adequately address future transportation needs?
   ii) How does the corridor alternative accommodate adopted regional transit plans?
d) Provide wayfinding to locations within and outside the corridor
   i) Are visitors able to find key destinations and locations in the study area?
   ii) Are visitors able to find connections to key destination outside the study area, such as Downtown?
e) Allow visitors arriving by bus or car to the area to easily access the entire area
   i) Are visitors arriving at the RTD Park'n'Ride able to make connections to final destinations and back to the Park'n'Ride?
   ii) Are visitors arriving by car able to park once and visit multiple destinations?

Principle 2 – Create public and private gathering spaces to meet the needs of residents, employees, and visitors.

a) Provide for community amenities identified in the survey and elsewhere
b) Provide a central civic space to help create a sense of place
c) Encourage, through design guidelines or incentives, private developers to incorporate publicly accessible spaces into new developments
d) Identify which, if any, undeveloped parcels should be purchased for park/ open space
   i) Does the ratio of acres to users meet City standards?
   ii) Do public spaces connect to form a cohesive network?
e) Provide programming to activate public spaces

Principle 3 – Enhance bicycle and pedestrian connections to private and public uses.

a) Provide safe and convenient facilities that serve a broad range of users with multiple modes of travel
   i) Are all modes of travel accommodated?
   ii) Are users of all ages and ability levels accommodated?
   iii) Do the improvements proposed provide safer conditions for all users and ability levels?
   iv) Are existing deficiencies addressed?
   v) Do bike and pedestrian facilities connect to trip beginning and end points?
b) Design solutions that the City can realistically maintain over time
c) Promote regional trail connectivity within the study area
   i) Is a connection provided through the study area to Davidson Mesa and the new underpass?

Principle 4 – Utilize policy and design to encourage desired uses to locate in the corridor and to facilitate the reuse or redevelopment of vacant buildings.

a) Does the land use mix demonstrate strong fiscal benefits?
b) Do allowed uses serve community needs as defined in survey and elsewhere?
c) Are allowed uses supported by the market?
   i) To what extent are incentives and/ or public infrastructure partnerships needed to induce identified uses to locate in the study area?
   ii) To what extent do uses capitalize on investments at the US 36 interchange and Bus Rapid Transit station?
d) Is the process for approving desired uses and desired character simpler and more predictable?

Principle 5 - Establish design regulations to ensure development closely reflects the community's vision for the corridor while accommodating creativity in design.

a) Physical form should incorporate desires expressed in the community survey and elsewhere
b) Ensure signage and landscape regulations allow for adequate business visibility without detracting from aesthetic qualities of the corridor
   i) Does signage clearly direct visitors to businesses without appearing overbearing or too cluttered?
   ii) Does landscaping provide for a pleasant visitor experience while still providing visibility to businesses?
c) Allow flexibility to respond to changes in market requirements, design trends, and creativity in design

Principle 6 – Establish development regulations to meet the fiscal and economic goals of the City.

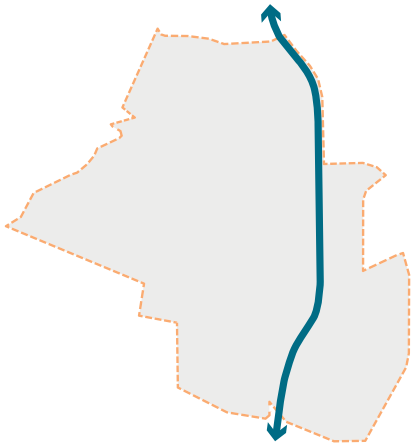
a) Does the proposed plan demonstrate long-term, strong economic benefits for the corridor?
   i) Are allowed uses complimentary and will they reinforce each other?
   ii) Are allowed uses supported by the market and likely to locate in the corridor?
b) Does the proposed plan demonstrate strong positive fiscal returns to the City?
   i) Will the timing of development maintain sufficiently strong returns at all times?
   ii) Are alternative funding or taxing schemes required to meet the City's other goals for the corridor?

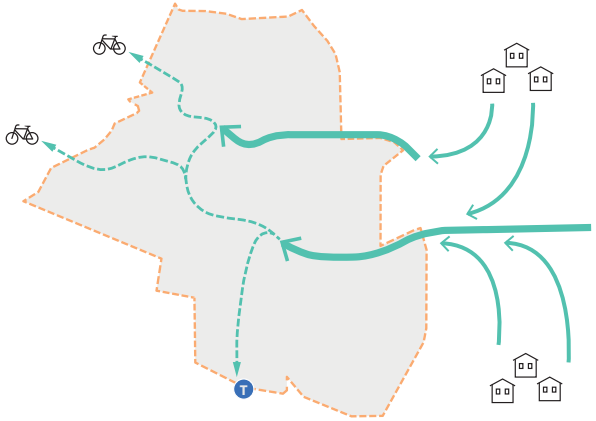
PRINCIPLES

Community Design Principles and Placemaking Concepts

The Project Principles and Measures of Success, along with additional public input and analysis, led to the development of the community design principles, development types, and placemaking concepts described on the following pages. While the above section directed the outcome of the plan, the following section provides general guidelines for development in the corridor. The community design principles provide goals for public and private investment in the corridor. The development types describe desired patterns of development for different subareas within the corridor. The placemaking concepts call for more specific items to be included in new development based on development type. These will all be incorporated into new design standards and guidelines to be developed after adoption of this plan.

Community Design Principles



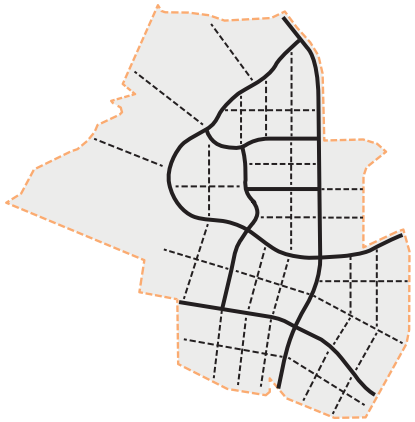


Improve McCaslin

- Safer and more pleasant street to use for all
- Clear distinction between street and driveways
- Buildings that face the street and are accessible from the sidewalk

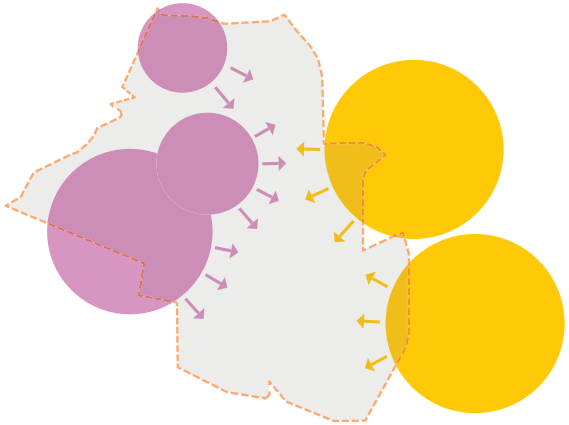
Connect residents to amenities

- Safer and simpler east/west connections
- Improvments to Cherry/Centennial and Century Drive
- Additional green fingers connecting to Davidson Mesa



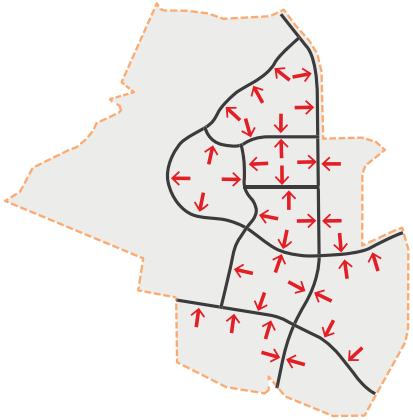
Smaller blocks

- Facilitate incremental development with smaller blocks
- Create transportation options with additional streets
- Eliminate confusion between driveways and roads



Housing grows from housing, office grows from office

- Introduce housing into redevelopment east of McCaslin
- Encourage low-impact clustered office development in Centennial Valley



Development faces out

- Transition from inward-facing development to outward-facing development
- Make developments fully accessible from sidewalks
- Put parking on the interior of teh site and locate buildings on the periphery

PRINCIPLES

Development Types

Development types dictate how streets are laid out, how property parcels are subdivided, how buildings are designed and arranged on a site, and how parks and public spaces are integrated into the community. The types below correspond to the Development Patterns identified in the 2013 Comprehensive Plan update.

Edge - corresponds to the rural pattern. Consists of large parcels with natural landscaping. Buildings are clustered with significant setbacks from streets. Pedestrian and bike connectivity is provided by soft-surface trails.

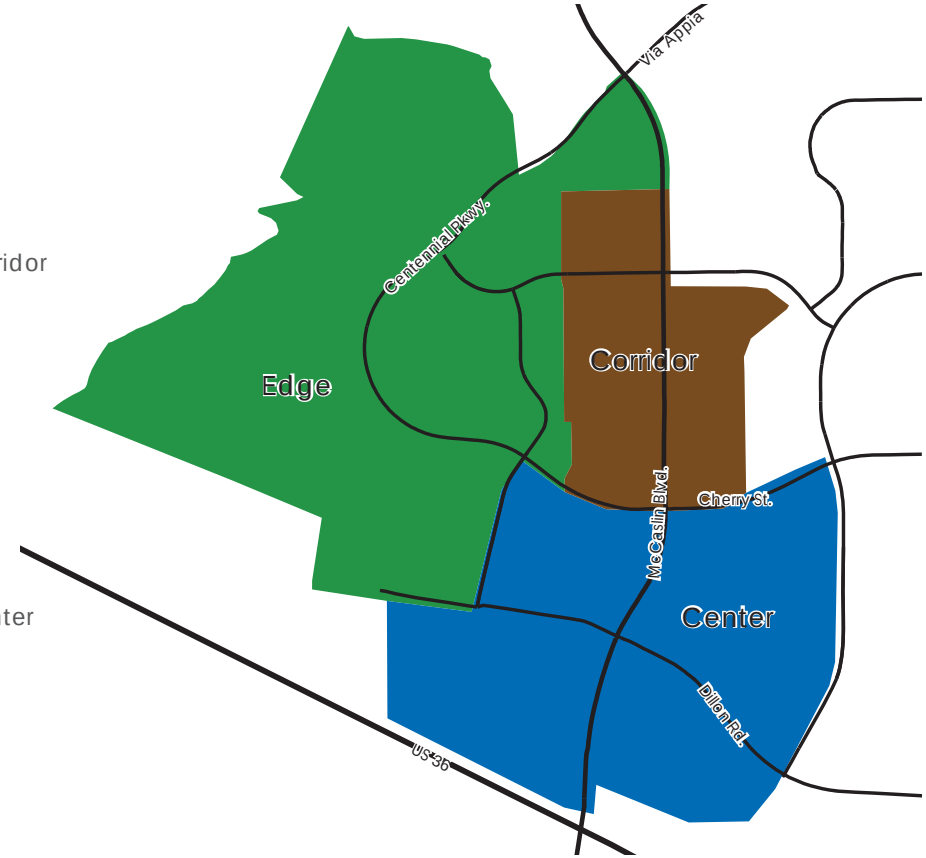
Corridor - corresponds to the suburban pattern. Consists of medium-sized parcels with more formal landscaping. Buildings are oriented toward streets and parking lots with varying setbacks. Pedestrian and bike connectivity is provided by large sidewalks, on-street bike lanes, and hard-surface trails.

Center - corresponds to the urban pattern. Consists of small parcels with limited landscaping. Buildings are oriented toward streets and sidewalks with small, consistent setbacks. Pedestrian and bike connectivity is provided by street and sidewalk networks.

Edge

Corridor

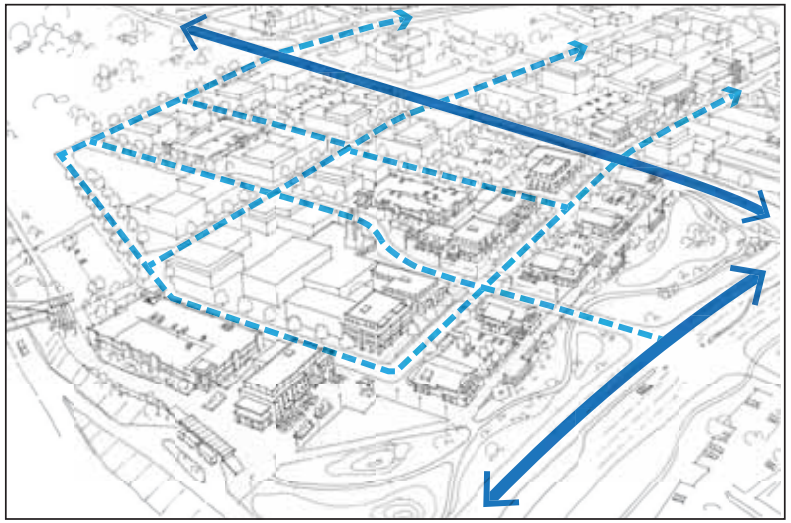
Center



Placemaking Concepts - Center

Views into the site – perpindicular streets and spaces that showcase destinations within the site

Gateway park – a well-landscaped park and transit plaza that creates an attractive and welcoming entry to the community; provides bikes and pedestrian access to the BRT station; and allows for better visibility into the site and station area



Smaller Blocks – a regular pattern of gridded streets that break down the scale of development to create more walkable blocks

PRINCIPLES

Placemaking Concepts - Corridor

Active Edge – an engaging environment for walkers, bikers, and shoppers along McCaslin, including pedestrian and bicycle accommodations (sidewalk, multi-use trail, and on-street bike lane); landscaping and street trees; adn active retail frontages with access from McCaslin

Views into the site – perpindicular streets and spaces that showcase destinations within the site

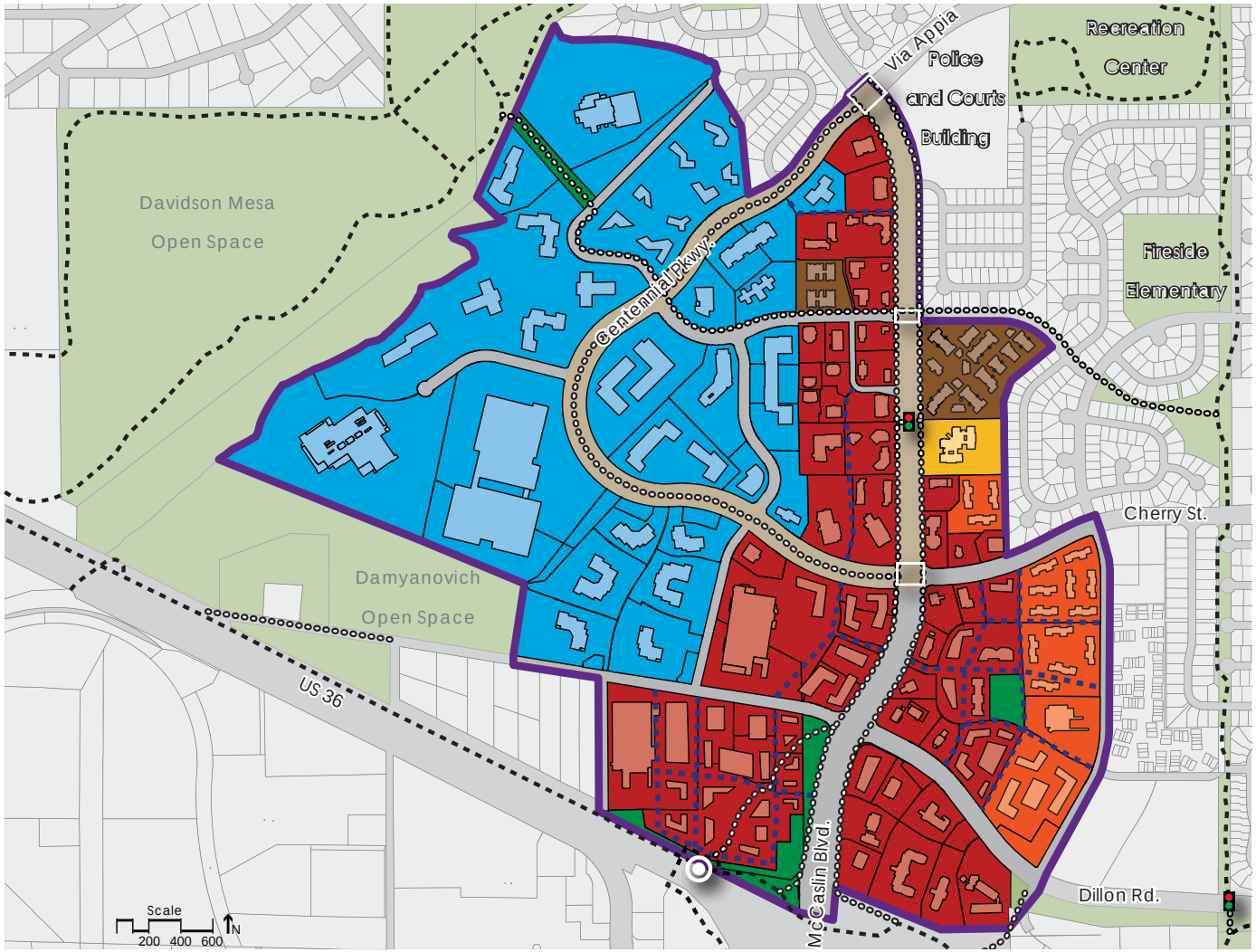
Core retail street – street parallel to McCaslin that serves as the primary retail spine; new development features active ground-floor retail that addresses the street, as well as pedestrian-friendly streetscape and gathering spaces

Internal gathering spaces – green and/or hardscaped spaces (parks, plazas, courtyards, patios, ect.) that may be public or private and create places for gathering and commuity interaction within the site

Placemaking Concepts - Edge

Cluster buildings – a pattern of smaller footprint, low-profile buildings arranged in close proximity to one another in order to preserve open space and views into Davidson Mesa

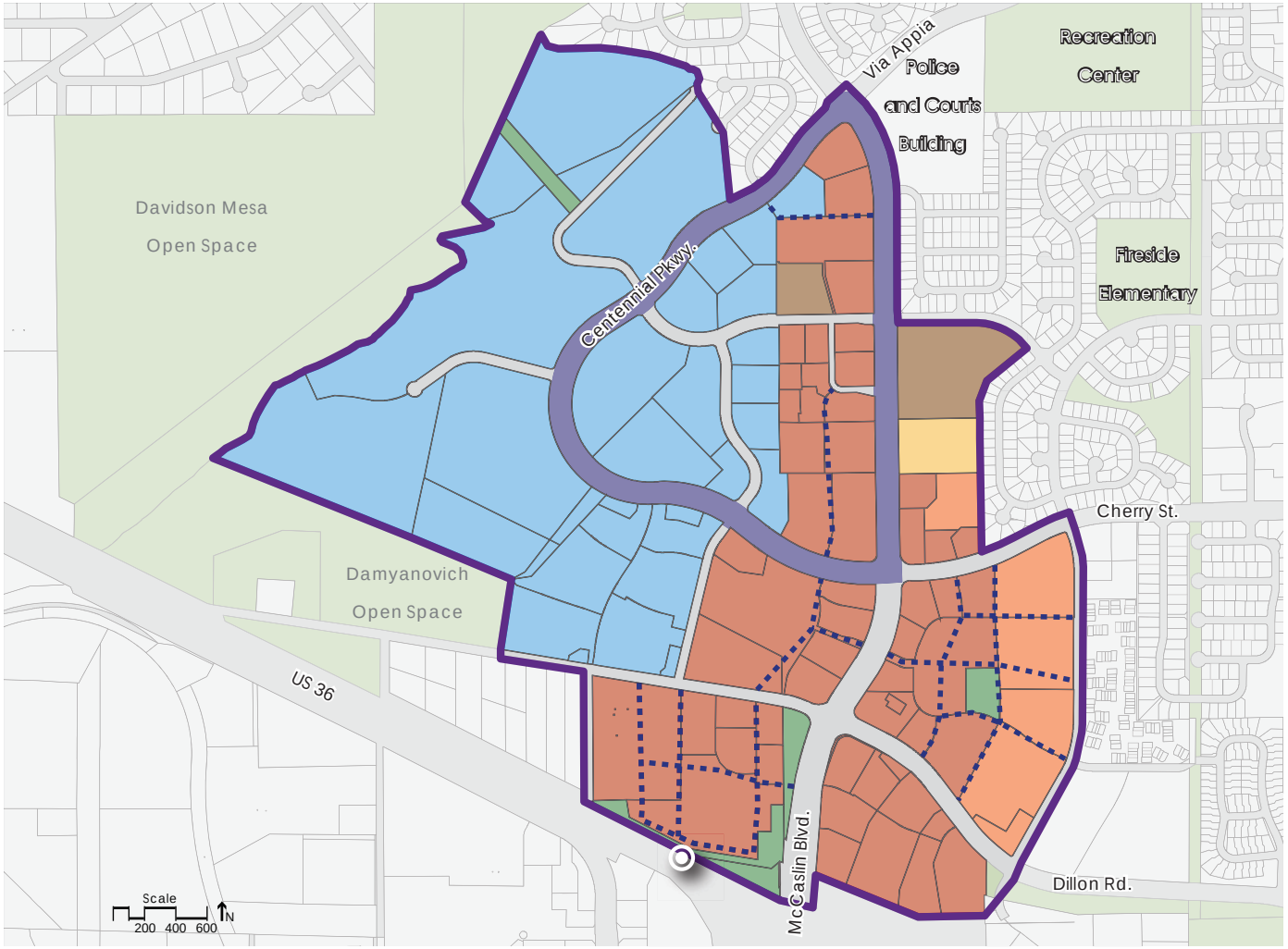
Green fingers – trail and open space corridors between development sites that preserve and enhance access to Davidson Mesa and local and regional trail networks



Urban Design Plan

The urban design plan is a conceptual illustration of how the corridor could develop under this plan. It includes allowed land uses as well as footprints for existing, planned, and conceptual future buildings. The most significant change in land use is the allowance of residential as a special review use along the east edge of the study area. The plan also includes transportation and pedestrian improvements further detailed on following pages. This map and the maps and illustrations that follow are conceptual and not intended to show the exact locations or designs of improvements. Some areas in the original study area, such as Hillsborogh West, have been removed from the plan area. It is recommended these areas be left mostly as they are, with detailed recommendations to come from the neighborhood planning process.

- Retail/Office
- Retail/Office/Residential
- Office
- Residential High Density
- Residential Medium Density
- Park
- Open Space



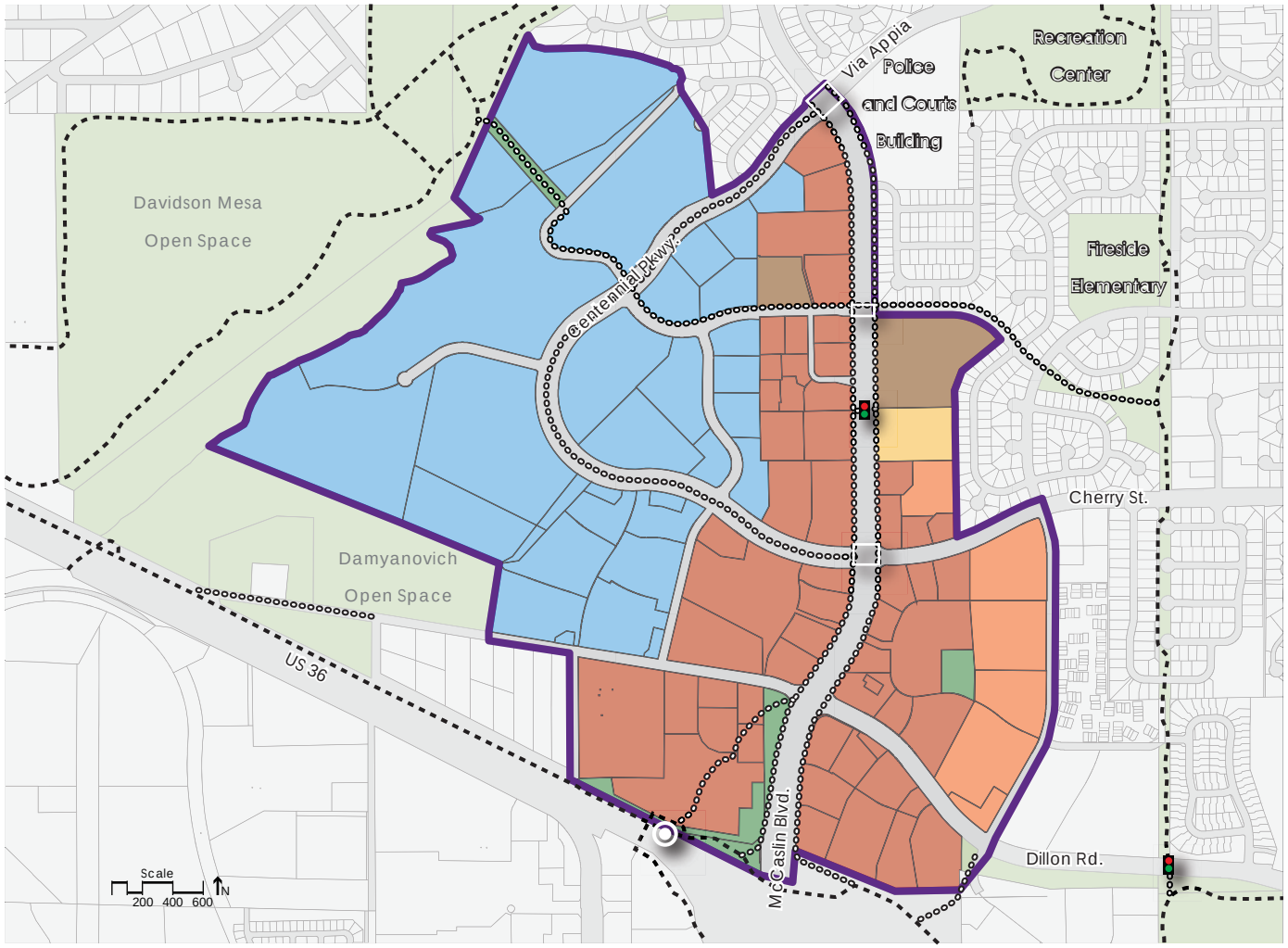
Street Improvement Plan

The street improvement plan shows where new automobile connections should be made. The plan does not call for any new public streets, but enhanced private connections between developments and the establishment of smaller street and block networks within larger superblocks. The streets and blocks shown on this plan are illustrative, with final locations and alignments to be determined as properties redevelop. The plan also calls for removing the outside lanes on Centennial Pkwy and McCaslin Blvd north of Cherry St. Additional roadway and streetscape improvements are detailed in the Roasway Plan and Traffic Improvement table below.

Internal streets/connections

Remove outside lane

McCaslin Park'n'Ride/Flatiron Flyer station



Trails Improvement Plan

The trail improvement plan includes proposed new trails in and around the corridor, including enhanced sidewalks/trails along McCaslin Blvd. The plan also shows recommended locations for new or enhanced crosswalks and or signalized pedestrian (HAWK) crossings. The proposal for McCaslin Blvd includes a widened sidewalk, multi-use trail, and two-way, on-street bike lanes in place of the outside vehicle lanes. The proposal for Centennial Pkwy is a soft-surface trail in the median.

- Existing trails
- New/enhanced trails/sidewalks
- New/enhanced crosswalks
- New HAWK signal

Roadway Improvements

Roadway Improvements

The roadway improvements map provides an illustration of the transportation and trail improvements. More specifically, this plan calls for modifications to McCaslin Blvd described by intersection in the table to the right. These improvements will in some places help traffic function more efficiently or provide additional vehicular access, and in others will increase pedestrian safety and accessibility without significant detrimental impacts on traffic operations.

In addition, as properties develop and redevelop, pedestrian connections from streets and sidewalks to destinations inside developments must be provided.

Transit

As the corridor develops, the City should continue to capitalize on the investment in enhanced bus service at at the McCaslin Park'n'Ride/Flatiron Flyer station. The recommendations in the First and Final Mile Study and other enhancements should be implemented to improve accessibility to and from the corridor and the rest of the City. The 228 route, which already serves the McCaslin Blvd corridor, should be periodically evaluated to ensure it is providing adequate service as development occurs. The City should continue to work with RTD and other partners to implement these enhancements.

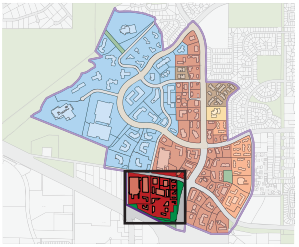
McCaslin Blvd Traffic Improvements by Intersection	
Via Appia	Reduce Centennial Parkway to one lane in each direction. Reduce McCaslin to two lanes in each direction. Provide acceleration and deceleration right turn lanes with raised tables to and from the south.
Centennial Pavilion (North Entrance)	Reconfigure to allow eastbound left from access road. Reduce McCaslin to two lanes in each direction.
Century Drive	Reduce McCaslin to two lanes in each direction. Extend medians to create pedestrian refuges.
Century Circle	Reduce McCaslin to two lanes in each direction.
Shops at Centennial Valley/Centennial Center Driveways	Eliminate westbound left. Re-design to allow independent left turns to each driveway. Reduce McCaslin to two lanes in each direction.
Cherry Street	Reduce Centennial Parkway to one lane in each direction. Reduce McCaslin to two lanes in each direction, with acceleration and deceleration right turn lanes, north of Cherry. Install raised tables in all channeled right turn lanes.
Parcel L/Parcel O Driveways	Install raised tables in all channeled right turn lanes.
Dillon Road	Construct third northbound through lane, new northbound right, and convert westbound right to yield condition.
Colony Square Access	Create new right-in, right-out access street on west side of McCaslin between Dillon Rd and US 36 to serve Colony Square.
Dahlia Drive and Cherry Street	Install a one lane roundabout with appropriate single lane transitions to/from the west on Cherry. Downtown size Cherry to one-lane in each direction east of Dahlia.

Parks and Open Space

The plan recommends a new green space and public plaza on the Parcel O (Sam's Club) site. The space can be acquired either through dedication or easement if and when the shopping center redevelops. The public space should provide a gathering spaces for residents, workers, and visitors in the corridor.

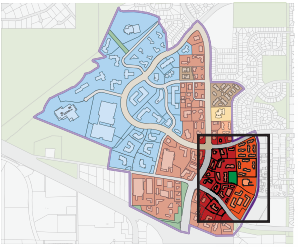
The plan also recommends acquiring land in the west of Centennial Valley to provide a new trailhead and connection to Davidson Mesa. The property can either be purchased, or acquired in conjunction with development, perhaps in exchange for zoning concessions.

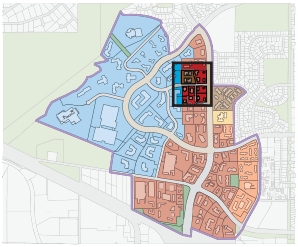
Finally, the City should enhance the open space between McCaslin Blvd and Colony Square to create an attractive gateway instead of simply a landscape buffer.



Colony Square Concept Illustrative
Center Development Type

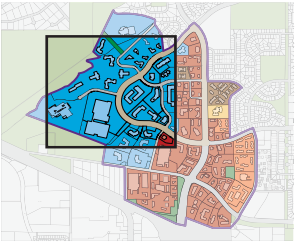
Parcel O Concept Illustrative Center Development Type

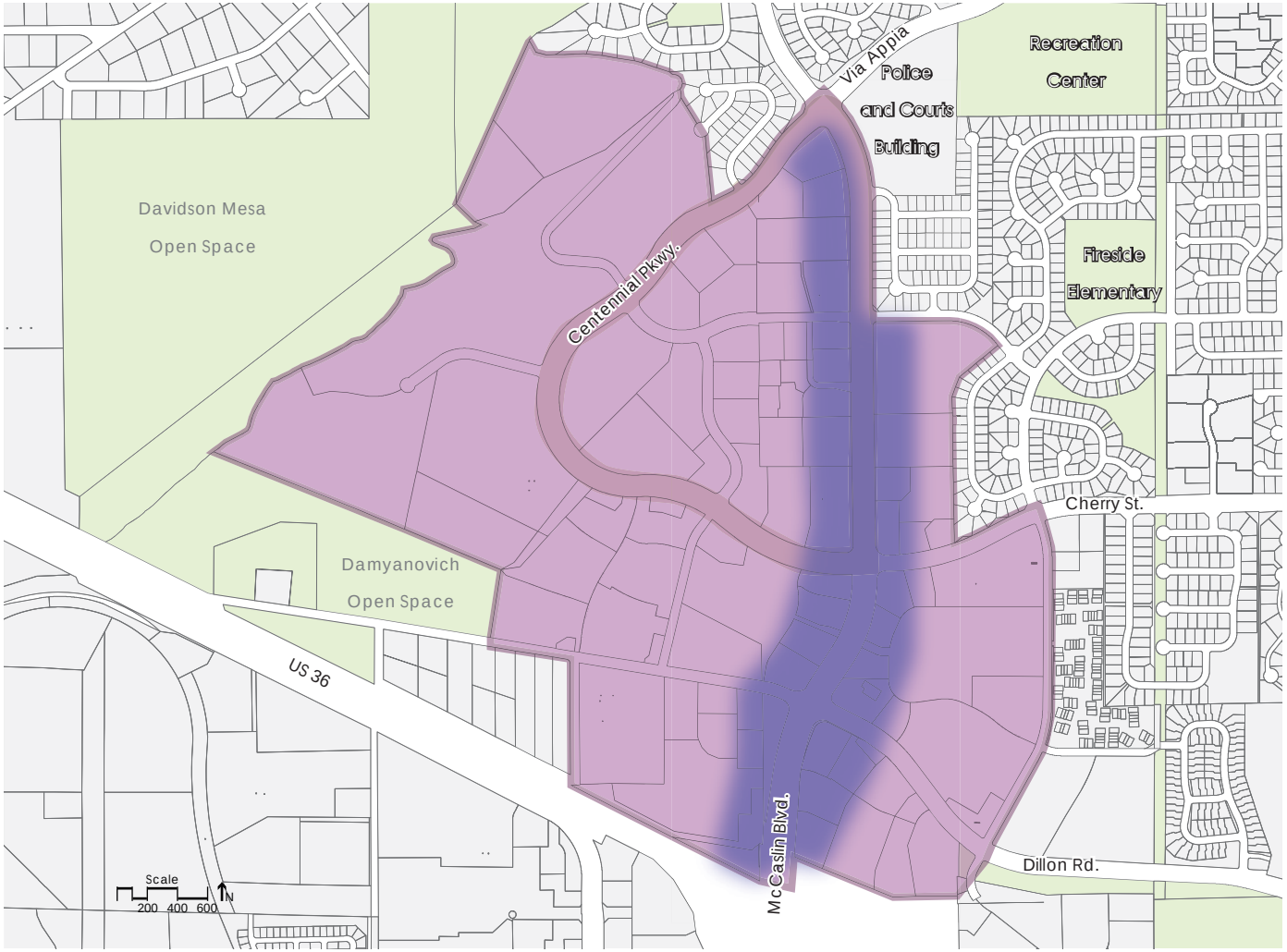




Centennial Pavilions Concept Illustrative Corridor Development Type

Centennial Valley Concept Illustrative
Edge Development Type





Building Height Plan

The building height plan shows where different heights are allowed in the corridor. Buildings along McCaslin Blvd should be a mix of one and two stories. Further back from the corridor, buildings should be a mix of two and three stories. In addition, residential protection standards should be developed to ensure existing residential neighborhoods are not adversely impacted by the height of new development. These conditions and standards are to be further defined in the new design standards and guidelines for the corridor.

Maximum 2 stories

Maximum 3 stories

Development Impact

This plan modifies allowed land uses in the corridor and the amount of development allowed. The tables below show what development is currently in the study area and how much more development could occur under this plan at full buildout. This is a reduction from what the existing zoning allows at the time of adoption, mostly because of the decreased height allowances.

Existing Development in Study Area		
Retail	897,781	Square feet
Office	1,769,692	Square feet
Residential	277	Units
Employees	7,993	People
Residents	333	People

Projected 20 year Increase over Existing		
Retail	296,308	Square feet
Office	2,223,745	Square feet
Residential	391	Units
Employees	8,923	People
Residents	539	People

Fiscal Impact

The table below shows the projected 20 year cumulative fiscal impact based on the projected maximum buildout and the City's 2015 fiscal model. This is the impact from new development, which will be in addition to the areas current positivie fiscal impacts. As required by the 2013 Comprehensive Plan update, the area will have a positive fiscal impact.

20 Year Cumulative Fiscal Impact	
Revenue by Fund	
General Fund	$49,520,000
Urban Revitalization District Fund	$0
Open Space & Parks Fund	$5,584,000
Lottery Fund	$0
Historic Preservation Fund	$2,112,000
Capital Pojects Fund	$17,761,000
TOTAL REVENUE	$74,978,000
Expenditures by Fund	
General Fund	$35,870,000
Urban Revitalization District Fund	$0
Open Space & Parks Fund	$626,000
Lottery Fund	$0
Historic Preservation Fund	$0
Capital Projects Fund	$31,812,000
TOTAL EXPENDITURES	$68,308,000
Net Fiscal Result by Fund	
General Fund	$13,650,000
Urban Revitalization District Fund	$0
Open Space & Parks Fund	$4,959,000
Lottery Fund	$0
Historic Preservation Fund	$2,112,000
Capital Projects Fund	($14,051,000)
NET FISCAL IMPACT	$6,670,000

Schools Impact

The McCaslin Blvd corridor includes portions of the attendance areas of Fireside Elementary, Monarch K-8, and Monarch High. The table below shows the projected peak enrollment for each of the schools as provided by Boulder Valley School District.

BVSD Schools[1]		
	Peak Projected Enrollment	Percent of Capacity Filled
Fireside Elementary		
Monarch K-8		
Monarch High		

1: Staff is awaiting updated projection numbers from BVSD.

Traffic Impact

The table below summarizes traffic impacts by using the amount of time it would take a car to travel the length of the McCaslin Blvd corridor during the morning and evening rush hours. The buildout of the corridor, particularly the substantial amount of potential office development in Centennial Valley, will significantly increase peak-hour traffic. Most of the additional delay would occur at the Dillon Rd and McCaslin Blvd intersection.

McCaslin Blvd Corridor		
Average Corridor Travel Time		
	Northbound	Southbound
Existing Network		
AM Peak	2 min 13 sec	2 min 30 sec
PM Peak	2 min 24 sec	2 min 27 sec
Buildout		
AM Peak	3 min 45 sec	6 min 40 sec
PM Peak	5 min 0 sec	5 min 0 sec

The McCaslin Blvd small area plan proposes allowing the rezoning of some parcels to allow residential as a special review use. This would happen if and when the properties in question redevelop, and at the request of the property owner. The major recommendations of the plan will be implemented through the adoption of new design standards and guidelines for the corridor. The design elements highlighted in the Plan section will serve as the basis for the new guidelines, which will need to be reviewed by Planning Commission and adopted by City Council. The new design standards and guidelines will ensure future private development in the corridor complies with the community's vision and this plan. Funding for this will come from the City's annual operating budget.

Public improvements in the corridor will be implemented either by City funding, contributions from private developers, or a combination. The City's annual capital improvement program budgeting process provides an opportunity for the City to fund and construct infrastructure. The capital improvements listed in the table below are recommended for inclusion in upcoming budgets to help meet the goals of the plan. The timeline is intended to guide requests as funding and opportunity allows.

Some public infrastructure may be built and paid for by private property owners in conjunction with development of their property. The City may require such improvements if the need for them is identified in an adopted plan, such as this one. Some of the capital improvements identified in this plan and listed below can be required from private development projects, and some may be funded or built jointly by the developer and the City.

Infrastructure design, whether built by the City or by private developers, must meet the applicable local, state, and federal construction standards. The construction standards control the design of streets, sidewalks, and public utilities. The standards will need to be updated along with the design standards and guidelines so public infrastructure conforms to the principles of this plan. In addition, most of the infrastructure improvements called for in this plan have not been engineered yet, so they will continue to be evaluated and modified as design work proceeds.

The plan also calls for additional public spaces, including plazas, parks, and open space. The Parcel O public space should be acquired when and if the shopping center redevelops. The Davidson Mesa trailhead should be acquired either through purchase or in conjunction with development.

Cost Estimates

Cost estimates in the table below use broad ranges because the improvements have not been designed yet and to account for changing construction costs. Estimates are categorized as follows:

$	Less than $100,000
$$	Between $100,000 and $500,000
$$$	Between $500,000 and $1 million
$$$$	More than $1 million

Recommended Public Improvements

Project	Description	Opinion of Probable Cost	Schedule		
			1-5 Years	6-10 Years	11-20 Years
PLANNING (Operating Budget)					
McCaslin Blvd Design Guidelines	New design standards and guidelines for the study area based on this plan	$	•		
Rezonings	Rezone properties in accordance with this plan when they redevelop	$			
DESIGN AND CONSTRUCTION (Capital Budget)					
Parks and Public Spaces					
Davidson Mesa Trailhead	New trailhead off of Centennial Pkwy to access Davidson Mesa	$$$$		•	
Parcel O Public Space	Public plaza and green space in the Parcel O (Sam's Club) development				
Colony Square Improvements	Enhance open space between Colony Square and McCaslin Blvd to create gateway	$$$			•
Pedestrian and Bicycle Connections					
Pedestrian signal between Century and Cherry	New pedestrian crossing signal mid-block on McCaslin between Century and Cherry	$$		•	
Connection to Park'n'Ride	Create pedestrian/bike connection from McCaslin/Dillon intersection to bus station	$$		•	
Pedestrian signal on Dillon	New pedestrian crossing connecting Powerline Trail with Coal Creek Trail	$$	•		

Recommended Public Improvements					
Project	Description	Opinion of Probable Cost	Schedule		
			1-5 Years	6-10 Years	11-20 Years
Trails					
Multi-use path on McCaslin	Convert sidewalks to multi-use paths on both sides of McCaslin from US 36 to Via Appia	$$$			•
Mulit-use path on Centennial Pkwy	Create multi-use path in the median on Centennial Pkwy	$$$			•
Centennial Pkwy to Davidson Mesa	Create trail connection from Centennial Pkwy to new trailhead at Davidson Mesa	$$		•	
Century Dr West	Create multi-use path connection along Century between McCaslin and Centennial Pkwy	$		•	
Century Dr East	Create multi-use path connection along Century between McCaslin and Powerline Trail	$$		•	
Connection from 36 to Dillon	New trail connection from US 36 bikeway to Dillon Rd sidewalk near La Quinta Inn	$		•	
Roadways (Private)					
Connection West of McCaslin	New vehicular access between Key Bank and McCaslin Plaza (Chipotle shopping center)				
Connection from McCaslin to Centennial Pkwy	New driveway connecting McCaslin to Centennial Pkwy north of Centennial Pavilions				
Colony Square Access	New right-in-right-out access from McCaslin to Colony Square				
Internal Street Network - Parcel O	Create internal street and block pattern within the development				
Internal Street Network - Parcel L1	Create internal street and block pattern within the development				
Internal Street Network - Colony Square	Create internal street and block pattern within the development				
Pedestrian Crossings/Traffic Calming					
McCaslin and Via Appia	Add speed table in right turn lanes	$			•
McCaslin and Century Drive	Extend McCaslin medians to create pedestrian refuges	$		•	
McCaslin and Cherry	Add speed table in right turn lanes	$			•
Parcel O/Parcel L1 Accesses	Add speed table in right turn lanes	$			•

Recommended Public Improvements					
Project	Description	Opinion of Probable Cost	Schedule		
			1-5 Years	6-10 Years	11-20 Years
Roadway					
McCaslin bike lane	Convert outside lanes of McCaslin to enhanced bike facilities between Cherry and Via Appia	$$$			•
Centennial Pkwy on-street parking	Convert outside lanes of Centennial Pkwy to parking, install curb bump-outs at intersections	$$$			•
Roundabout					
Cherry and Dahlia	Install one-lane roundabout at Cherry and Dahlia intersection	$$$$			•
Intersection Improvements					
Dillon and McCaslin	Add additional northbound through lane	$$$$			•
Cherry and McCaslin	Modify to accommodate reduced widths of Centennial and McCaslin	$$$			•
Century and McCaslin	Modify to accommodate reduced width of McCaslin	$$$			•
Via Appia and McCaslin	Modify to accommodate reduced widths of Centennial and McCaslin	$$$			•
Median Improvements					
Median north of Cherry	Modify center median to allow left turn into Key Bank/Starbucks shopping center	$			•
Median north of Centennial Pavilion	Modify center median to allow left turn onto McCaslin from drive north of Centennial Pavilion	$			•
Bike Lanes					
McCaslin Blvd	Convert outside lanes of McCaslin to two-way bike lanes between Cherry and Via Appia	$			•

PLANNING AND BUILDING SAFETY
DEPARTMENT
749 Main Street
Lousiville, Colorado 80027

(303) 335-4592

planning@louisvilleco.gov

www.louisvillco.gov

City of Louisville
COLORADO • SINCE 1878

TAPs

Technical Advisory Panels

What's Ahead for the Economic Center
of this "Most Livable City"

Louisville McCaslin Boulevard

June 11-12, 2013

Urban Land Colorado Institute

Leadership in Responsible Land Use

Contents of TAP Report:

I) Overview

II) Background and Problem Statement

III) Major Findings

IV) Summary Recommendations

V) Answers to Questions

VI) Redevelopment Scenarios

VII) Key Stake Holder Comments

VIII) Overview of ULI Advisory Services

IX) Panel Bios

X) Acknowledgements

XI) Appendix: Drawings A1-A7

Technical Advisory Panels (TAPs)

Technical Advisory panels (TAPs) bring Colorado expertise directly into communities on tough real estate problems. TAPs provide advisory panels comprised of ULI Colorado members for local communities.

ULI Colorado's volunteer panelists, from left: Brian Levitt, Jim Leggitt, Robert Kaufmann, Laura Aldrete, Jonathan Bush, Anna Jones

1730 17th Street #630
Denver, CO 80202

P: (303)893-1760
F: (303)893-1762

http://Colorado.uli.org

I. OVERVIEW

As Louisville's main commercial center, the McCaslin corridor is critical to the city's economic health and ability to pay for city services. In recent years this retail and office base has shrunk. Neodata moved out of a 400,000 square-foot building. One large store, Sam's Club, closed, leaving a 127,000 square-foot empty big box store. Other large-format retailers have lost sales to newer stores in competing locations surrounding Louisville. More competition is on the way as Superior contemplates a large Town Center just across US 36.

Can the McCaslin corridor be revitalized? Is it okay with some fine-tuning? Or does it need to be reinvented to continue to provide services, jobs and economic benefits for the entire city? Can "urban infill" solutions such as density, walkability, and mixed-use be made to fit Louisville's suburban environs?

Drivers approaching McCaslin from US 36 cannot see businesses in the corridor

Panelists asked: Can McCaslin benefit from Old Town's success?

McCaslin is disconnected from major amenities like Davidson Mesa.

On June 11-12, at the invitation of City of Louisville, Urban Land Institute (ULI) Colorado assembled a Technical Advisory Panel (TAP) to study the McCaslin corridor. The six panelists (see bios in section IX) studied the corridor and a background Advance Packet, toured the area, and interviewed community stakeholders before producing findings and recommendations.

A TAP is a non-binding exercise in which disinterested industry experts volunteer their time to help communities address land use issues. Recommendations are both strategic and practical with next steps outlined.

Stakeholder/property owner Buz Koelbel makes a point in panel interviews.

II. BACKGROUND AND PROBLEM STATEMENT

Unlike McCaslin, Old Town's building scale and grid streetscapes encourage everyday walking, lingering and shopping.

Flatirons views are a major assets.

Study Area
For the purposes of this TAP, the McCaslin Boulevard District is bounded by Via Appia to the north, city limits and the Davidson Mesa Open Space to the west, Highway 36 to the south, and the eastern boundary of the commercially zoned properties to the east.

Project Sponsor
The City of Louisville is a home rule municipality located in southeast Boulder County, and is the project sponsor for this TAP. Louisville covers roughly 8 square miles with a population of about 18,400. Louisville is located 6 miles east of Boulder and 19 miles northwest of Denver. Highway 36 forms the southwest border of Louisville, and the Northwest Parkway runs next to the southeast corner of the City, connecting Louisville to Interstate 25.

Expected Outcome
The City seeks a professional, objective and unbiased set of strategic recommendations for the future development, evolution, and revitalization of the McCaslin Boulevard District. These recommendations will help facilitate a conversation among citizens, property owners, business owners, and elected officials about the future of the McCaslin Boulevard District.

Problem Statement
Most of the McCaslin Boulevard District developed in the 1990s as the City of Louisville's primary regional retail and employment center. Although the corridor has experienced success over the past 20 years, the area is not performing as the vital and economically vibrant center it was originally envisioned to be. The following list identifies some of the key issues facing the district;

- Relatively flat sales tax revenues over the past five years
- Poor visibility for retail uses
- Retail and office vacancies
- Lack of civic spaces
- Not viewed as a community amenity
- A lack of automobile, pedestrian, and bicycle connectivity
- Poor pedestrian circulation along the corridor and between properties
- Land use entitlements and private covenants hinder redevelopment
- Poor connections to open space amenities such as Davidson Mesa
- Challenging wayfinding and navigation between properties and within the district
- Numerous property owners with varying motivations
- Disconnected commercial parcels which do not relate to one another or the district as a whole
- Underserved and isolated residential neighborhoods within the study area

III. MAJOR FINDINGS

A-1, A-2, A-3
Jim Leggitt's illustrations show (above left) today's condition of disconnected streets and path. Above right: A first step to link streets in a grid could make it easier to find businesses. Below right: At the same time, circulation for bikes and pedestrians can be connected into a legible system (see larger graphics in Appendix).

Opportunities:

- The coming of BRT creates a major opportunity to redevelop the area
- The vacant Sam's Club site offers a blank slate for a catalytic redevelopment, and an opportunity to connect residential neighborhoods to a vibrant retail and entertainment center
- Louisville's strong demographics and reputation as a livable city can attract redevelopment

Comp: Arvada

- Worth studying and comparing: Colorado has several vibrant Old Towns complemented by large-format shopping areas that provide services and tax dollars.

  Examples with lessons to be learned include Arvada, Boulder, Edgewater, and Frisco.

Arvada provides an example of a large-format shopping area that complements a successful Old Town.

- Numerous suburban areas have redeveloped their declining commercial zones to make them more vital and more people-friendly. Examples include the Streets of Southglenn in Centennial and Belmar in Lakewood

- Open space and mountain views are also major assets

According to stakeholder interviews, many Louisville residents think that the district's undeveloped private land is actually publicly owned and preserved open space. Some stakeholders contended that housing would be a good use on some of these sites. The community at large may not endorse this.

Challenges:

- The layout, circulation, look and feel of McCaslin are tired and outdated
- As a result the business district may not compete well in the next 10 years, especially at US 36 evolves into a multi-modal corridor with mixed-use centers located at new transit stops
- There is no long-term vision for the evolution of the McCaslin corridor
- Legal covenants and a lack of agreement among current landowners about future land uses create a challenge
- Retail trends toward smaller stores in walkable and attractive urban environments do not work in favor of McCaslin, whose physical layout is awkward and based on the model of large-format stores in a drive-everywhere environment
- To say nothing of challenges from online retailing, competition is increasing in the corridor, especially from Boulder to Broomfield
- For example, the proposed Superior Town Center and the current Superior Marketplace are likely to continue to capture most or all of larger retail stores
- The District lacks an identity or any connection to Louisville's visual character and heritage
- Businesses in the McCaslin corridor suffer from lack of visibility from Highway 36
- Poor signs along McCaslin itself make it hard to find businesses
- Secondary roads, sidewalks and trails are disconnected, confusing and incomplete
- Businesses are set too far back from streets and are often hidden by too much landscaping
- As a result, one would rarely drive or bike down McCaslin and happen to find a store, restaurant, or other business (or even find the one you were looking for)
- Even when located on the same side of the street, building sites are cut off from each other; people often need to drive to businesses that are literally next to each other.
- Vacant stores and underused sites are a problem; especially the vacant Sam's Club, a 127,000-square-foot building
- Other stores and venues are underperforming and could be at risk of closing, taking away services and tax revenues from Louisville and its residents
- Because of wide streets and poor crossings and connections, the area is not safe or friendly for walking or biking
- The lack of mixed-use also contributes to the lack of walkability. People need more than sidewalks to become pedestrians; they need destinations with access located within convenient distance
- Doing nothing could lead to the District losing jobs, development opportunities, retail services, and tax dollars to other places in the region

Pedestrians are rarely seen braving such intersections as Dillon and McCaslin.

IV. SUMMARY RECOMMENDATIONS

- **Move** forward with a small area plan and pilot projects to flesh out concepts of the Comprehensive Plan

- **Consult** with citizens using a Visual Preference Survey to begin the process of developing a character, identity and long-term vision for the McCaslin corridor

- **Consider** any and all legal tools to overcome issues with covenants and development rights that restrict future land uses

- **Make** new connections to transit and to downtown and capitalize on these to link the McCaslin District to Old Town Louisville's strong brand

- **Form** a special district to organize, fund and administer physical improvements

Make new connections to transit and to downtown and capitalize on these to link McCaslin to the Old Town "brand."

A-4
Leggitt's illustrations show four possible redevelopment schemes in the core fo the McCaslin District.

- **Reconsider** the role of housing in creating vibrant, walkable, mixed-use urban environments in the McCaslin District

Less expensive and complex than changing buildings and streets, amenities like shaded arbors can be the building blocks toward more livable, walkable districts.

V. PANELIST ANSWERS TO SPONSOR QUESTIONS

1. What improvements could be made to help the McCaslin Boulevard District compete in an increasingly competitive regional retail market?

The District would benefit from a new framework of smaller streets, pathways and connections to link current assets such as employment, retail and hotels with adjacent residential neighborhoods and open space. Such a network (illustrated by architect Jim Leggitt, FAIA, for this report) will improve access and convenience for cars, pedestrians, cyclists and transit, and should help create a more robust and lively district.

This framework could also attract and underpin future mixed-use development and lead to a District with vitality beyond 8 a.m. to 8 p.m. business hours. ULI research points toward a future of mixed-use districts that support social and economic vitality over time.

Next steps:

- Betters signs and other enticements to draw people off of US 36 and direct them toward businesses in the McCaslin corridor
- Create stronger connections between McCaslin and Old Town that leverage Old Town's status as a destination
- Focus and orient retail toward US 36
- Focus on the "opportunity sites" (vacant Sam's Club and cinema complex) first
- Consider architectural enhancements to buildings fronting US 36
- Create retail, entertainment, hospitality sub-districts identified by architectural branding elements
- Work with retail brokers and developers to project realistic future retail demand, format, function, and timing
- Minimize building setbacks to push retail uses closer to street for maximum exposure
- Redesign the corner of Dillon and McCaslin to encourage more use by pedestrians and cyclists, as well as better wayfinding for businesses
- Eliminate/avoid single-use retail pads, where possible
- Encourage mixed-use zoning throughout the corridor
- Offer TIF, PIF and Sales Tax Rebates to fund improvements and spur strategic redevelopment
- Create framework plan for future retail formats

A-5
Left: A network of public markers and gateways are noted in Leggitt's drawing. Right: At their best, these wayfinding devices are elevated to art.

V. PANELIST ANSWERS TO SPONSOR QUESTIONS

2. What improvements would be necessary to accommodate future development trends and opportunities?

Initially, Louisville should examine and begin overhauling the regulatory framework. Current regs and standards are dated, confusing and counterproductive. Beyond the need of a new network of streets and paths, the District needs fresh design guidelines for signs, setbacks and buildings. As noted in the "Findings" section, current businesses are too spread out, set back too far from the street, and poorly signed.

Next steps:

- Clean up dated/confusing development regs and standards
- Investigate revised standards for site design and streetscape standards/guidlines
- Begin a public visioning project, perhaps using visual preference surveys, to help the community identify a direction and vision for the McCaslin corridor
- Begin planning an integrated street, sidewalk, path and connection network that benefits all modes of transit
- Begin planning for the design, finance and construction of placemaking elements such as public art, plazas, water features, and other elements that will attract people and investment
- Create concepts for redeveloping vacant Sam's Club and cinema complex

The panel interviews stakeholders from adjacent neighborhoods.

3. How can planned transportation improvements be leveraged to increase commercial activity and provide a valued community amenity?

The Bus Rapid Transit and other highway improvements coming to US 36 present major opportunities for Louisville and the McCaslin corridor. These new train-like buses will stop at Louisville McCaslin dozens every two to four minutes daily. Up to 124,000 cars daily drive by the interchange. The panel liked the idea proposed by US 36 Commuting solutions during stakeholder interviews.

This involved creating a commercial street grid on land now (under-)used for parking around the Regal Colony Square Cinemas, and allowing this grid to grow organically to the east, providing the physical framework for future redevelopment along McCaslin.

Next steps:

- Consider station area planning as part of the Small Area Plan proposed to flesh out the Comprehensive Plan
- Study other communities with bus rapid transit to see what works for integrated TOD development
- Develop land-use concepts based on anticipated transit patterns with the creation of new transportation facilities in the next two years.

A-6
Two concepts for street grids that relate to the future bus rapid transit station.

4. What are some successful strategies for accommodating entitled property rights and private covenants, while motivating market driven redevelopment?

The panel thinks some underlying issues with property owners can be negotiated. For example, some local owners may be blocking redevelopment by their neighbors. Allowing those owners to realize development on their own properties may make them friendlier to adjacent redevelopment.

In other cases, large national chains may be protecting their own interests by invoking restrictive covenants. In these cases, the city may have to be more aggressive. Proven strategies include condemnation of leases.

Next steps:

- Create a timeline and action plan for redeveloping Sam's Club and cinema complex
- Begin negotiating with Sam's Club and cinema owners making them understand the city may use condemnation unless redevelopment agreements can be reached

5. What role, if any, could the introduction of new residential uses play in the successful redevelopment of the district?

This is a delicate question given Louisville's preferences for slow growth and preservation of small-town character. It is hard to argue with values that have contributed to a successful community; one consistently rated among the most livable in the U.S. However, the panel asks the community to keep an open mind on this issue. From Aurora to Centennial to Lakewood, communities have revived underperforming commercial areas by adding housing, entertainment, food, civic facilities, and placemaking to the mix. Examples include Belmar, Central Platte Valley, Southlands, Stapleton, and the Streets at Southglenn.

- Residential is a driver and catalyst for retail and office use
- Retailers like rooftops AND activity 24/7
- Residents want retail amenities close by
- Residents want to WALK to places, not drive
- Employers must offer lifestyle to attract talent
- Employers want smart, local, accessible workforce
- Mixed-Use reduces vehicle miles traveled (VMTs), parking and lot size.
- Residential can be a combination of market rent, workforce, and senior product types.

Three placemaking ideas. Above: Outdoor seating and bike racks help make a 1950s shopping center a cool place to hang out with a cup of joe, a dog, and a bike. Left: Water features soften paved areas and attract all kinds, but especially kids. Right: A suburban shopping area with an inviting, walkable environment.

6. How can established adjacent residential areas be sustained and strengthened through redevelopment of the district?

Clearly neighbors are wary about new development and redevelopment in the McCaslin corridor. They will be suspect of proposals that include more residences and multistory buildings.

But positive elements of redevelopment may also appeal to adjacent residents. These could include:

- increased retail convenience with walkable destinations;
- improved access to transit and open space;
- a safer environment for bikes and pedestrians; more choices in dining and entertainment;
- an opportunity to be part of a neighborhood, rather than an isolated residential development; and
- a more stable or better sales tax base to pay for local services.

With plenty of free parking but also plenty of shops, apartments, shade, and sidewalks, Stapleton's East 29th Avenue Town Center is a successful example of an "urban-suburban" environment.

An example of this type of urban environment is the East 29th Avenue Town Center in Stapleton. This "urban/suburban" district mixes 300 homes with 100,000 square feet of office, 150,000 square feet of retail, a park/amphitheater, and a public library. The commercial and institutional uses provide both service and buffer residences. The environment is safe, comfortable and convenient for biking and walking and is well used in this regard. It also provides ample parking to serve businesses.

7. What fiscal tools or financial structures could be utilized to strengthen the performance of the district?

The panel noted that very little redevelopment occurs in Colorado without public-private partnerships. The best practices of the last 20 years suggest that public sector-funded improvements provide a major multiplier of private investment and development.

Two key examples exist in Denver's Central Platte Valley and Lakewood's Belmar. In Denver the public sector removed the visual and environmental blight of a vast railyard, rezoned a 54-acre site for mixed use, and created a new riverfront park with new trails spanned a rail line, river, and highway, and linking the east and west sides of downtown. This resulted not only in billions of private dollars invested, but in the creation of an award-winning new neighborhood and the revitalization of the historic Highlands neighborhood.

In Lakewood, the city worked closely with a private company to redevelop a dead shopping mall. The city led the planning and public visioning processes and used tax-increment financing to build structured parking. The developer built the award-winning Belmar center with major retail, housing and civic spaces.

While partnerships help build redevelopment, special districts help fund, program and maintain the places that result.

Types of Special Districts typically used in Colorado included: (Title 31,32 CRS):

- Business Improvement Districts (BID)
- Downtown Development Authorities (DDA)
- Urban Renewal Authorities (URA)
- General Improvement District (GID)
- Special Improvement District (SID)
- Metro Districts

Finance tools include:

- Mil levy
- Special assessment (based on property characteristic , i.e. square footage or linear frontage)
- Tax Increment Financing (public funds for improvements are repaid through increased property or sales taxes that result from redevelopment)
- Public Improvement Fees (self-imposed private tax)

Or these finance strategies can be layered.

VI. REDEVELOPMENT STRATEGIES

There is no one way to sustain or redevelop a large commercial district like McCaslin. The panel evaluated four basic options with varying levels of risk and rewards, pros and cons.

These options range from "do very little or nothing" to "go for the glory with a sweeping redevelopment."

Louisville's citizens and leaders should carefully consider each option. Change can also come incrementally. This report includes first steps that will allow Louisville to try our various options before committing to a long-term course of action.
"The best time to plant a tree was 20 years ago. The second best time is tomorrow."

a) **Little or no public intervention.** Let the private sector redevelop properties when and how they see fit within the city's regulatory guidelines.

Pros:
- McCaslin may not be broken, so why fix it?
- The private sector will ultimately find the highest and best use for underused and vacant properties
- The McCaslin District may provide adequate retail and commercial services and sale taxes as is
- Wait and see how adjacent areas such as Superior Town Center and BRT develop
- Neighbors will not feel threatened by new development

Cons
- The city's new Comp Plan has opened a window for change, and this scenario does not capitalize on the opportunity
- The area may stagnate and lose business and tax dollars to adjacent communities
- The underlying issues of scattered land use, conflicts between property owners, and lack of walkability will not be addressed

b) **Address underlying issues of circulation and visibility.** Under this scenario, the city takes the lead on making new pedestrian connections, making streets more pedestrian and bike friendly, and improving signs, wayfinding, and visibility for businesses in the District. The city considers modifying landscaping and setbacks. Links to Old Town, neighborhoods, and transit are specifically improved. The city secures funding or helps set up a special tax district to build and maintain such improvements.

Pros
- The scenario creates a framework for more dramatic redevelopment later
- Underlying issues of mobility and connections are addressed
- The city creates a friendlier, clearer, more legible environment for businesses in the District

Cons
- The scenario may not be bold enough to compete in the region and help businesses already struggling
- Legal and logistical roadblocks will remain to redeveloping large sites and buildings now vacant or underused

c) **Pilot projects**. Under this scenario, the city works closely with private developers and property owners to create a pilot project or projects dramatically different from anything now in the District. Examples might include a redeveloped movie theater complex built around a walkable, transit-oriented street grid; or Sam's Club redeveloped as a walkable town center with smaller stores. The goal is to set a new standard and expectations for McCaslin District redevelopment over time.

Pros
- This approach can be applied incrementally as funds become available
- It could boost the District's business environment by improving circulation and visibility
- It addresses underused and vacant properties strategically and one at a time, rather than proposing a large amount of new development under a sweeping vision
- Individual owners can make a difference by redeveloping a single property
- It takes advantage of new transit and could provide more retail services for existing neighborhoods

Cons
- This approach may not be bold enough to keep McCaslin competitive with other commercial centers nearby
- It leaves open the issues of undeveloped land and vacant/underused buildings in the corridor
- It does not provide additional rooftops to support local and regional retail
- It does not provide a vision for the District

d) **A grand, sweeping vision.** Possibly under a long-term master plan, this strategy would remake the McCaslin District as an entirely different place: a mixed-use, transit-oriented urban-suburban neighborhood for live-work-play.

Multi-story, mixed-use buildings, a walkable street grid and new public spaces would be major ingredients.

A-7
Diagram shows how development can be organized to anchor the entire district.

Pros

- A successful District would bring new vitality to Louisville with a gateway to the city providing a source of civic pride
- A successful redevelopment would address all issues mentioned the problem statement
- Additional rooftops would support Louisville's retail base
- The development would take advantage of transit and highway access
- Belmar and Stapleton provide successful examples of large-scale redevelopment

Cons

- This is a complex option and a long-term play requiring major regulatory changes, land assembly, and financial risk for the public and private sectors
- Louisville residents may not welcome development of this scale
- Market demand is unclear

Example of sweeping redevelopment: Lakewood's Belmar transformed a dead shopping mall into a thriving and award-winning mixed-use project.

VII. STAKEHOLDER INTERVIEWS AND KEY COMMENTS

*"We've been working with planning staff to understand that retail does not work in isolation, you need rooftops. We've come in a couple of times to discuss residential with apartments… continuing to add to the activation of the area. We're doing the same things on another site in the Denver Tech Center. You have to have this synergy to attract the big corporate users who are looking for vibrant users and walkability."***—Property owner**

"To improve retail, I would look over the signage and landscaping requirements. Retailers need to be seen. They have so many trees in front of stores which works for office but not for retail. If I can't be seen from McCaslin, I'm not coming."
—Property owner

*"If you read the economic report this area has done as well as the rest of the city with 7 percent increase, so I don't see the vacant Sam's as a big problem. And we don't own it. If you put 300 houses on that site, those kids go to school. So who pays for that school? It's not free to just serve the new people."***—Louisville resident**

"My shopping center could be redone like Ideal Market in Boulder, it's very nice, beautiful. It would absolutely help my business to have more people living in the district. We need signs on the highways telling people there is a hotel district and restaurants."
—local restaurant owner

*"You speed down McCaslin and there's no reason to stop. More connectivity would help for driving, walking and connectivity. The biggest problem is that many businesses face away from the street."***—Economic development official**

"Adding a street network to Colony Square would be very effective in connecting to the new transit network along US 36."
-- Local transportation activist/Louisville resident

"McCaslin is more convenient from a driveability standpoint but lacks the walkability and cohesion of Old Town. It was focused and now the trend is back toward walking and biking, especially in this part of the state, but McCaslin doesn't lend itself to that."
—Citizen board member

"I have a different feel for the area. I do think it's walkable. I walk almost everywhere but King Soopers is far and I have to bike. I like the feel that things are set back with big areas of grass. I like buildings no more than two stories so you can see the mountains."
—Neighborhood resident

"Superior is working on a Town Center and we have no sense of place here.
BRT will be in place soon, mimicking rail. We need to market the access to transit, which will be phenomenal. What's happening in this area is a missed opportunity." **– Local transportation activist/Louisville resident**

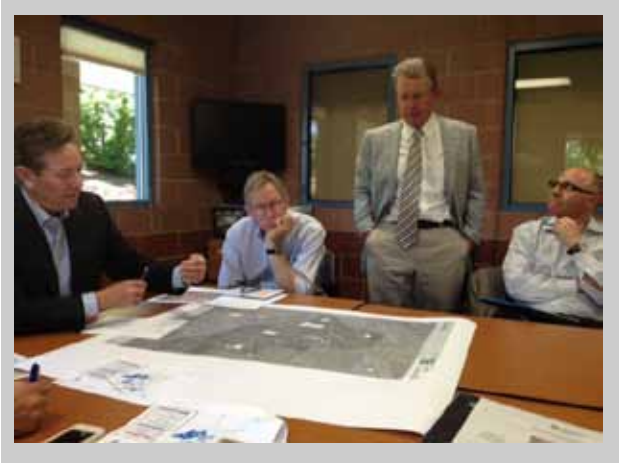
*"People say we need more regional retail but we're not going to get it here because we don't have the visibility."***—Elected official**

*"We need a convincing case that if we act it will improve our city's fiscal situation. Someone needs to demonstrate that some of these schemes will attract more retail to generate that much more tax revenue."***—Elected official**

*"We should consider conserving all the good things we like about L-ville while providing opportunities for changing demographics. Where do the seniors go as they age out of their houses and where does the next generation who grew up in Louisville come back to live after college?"***—Public official**

Interviews:
Walter A. 'Buz' Koelbel and Jeffrey G. Sheets, Koelbel and Company; Travis McNeil and Sean Sjodin, nexgen properties; Jim Loftus, Loftus Development; Ryan Knott, US Bank; Neil A. Littman, Signature Partners; Audrey deBarros, US 36 Commuting Solutions; Shelley Angell, Louisville Chamber of Commerce; Louisville City Council; Malcolm Fleming, City Manager; Alex Gorsevski; Louisville Redevelopment Corporation; Ashley Stolzmann, resident; Sarah Jarman, owner, Le Peep restaurant

VIII. OVERVIEW OF ULI ADVISORY SERVICES



The Urban Land Institute (ULI) is an international 501-c-3 nonprofit organization whose mission is leadership in responsible land use. ULI realizes this mission by engaging the volunteer expertise of its 30,000 members, who represent 26 different professions including architect, developer, financier, planner, and public official. Since 1947, the national ULI Advisory Services program has assembled more than 400 ULI-member teams to help sponsors find solutions for pressing land use. In Colorado ULI Advisory Services have provided solutions for such key sites as the Colorado Convention Center, Coors Field, Fitzsimons, 16th Street Mall, and the Denver Justice Center.

ULI Colorado's Technical Advisory Panels (TAPs) offer ULI expertise at the local level through our 1,000-member District Council. Founded in 1998, ULI Colorado is one ULI's most active District Councils. Each panel team is composed of qualified and unbiased professionals who volunteer their time to ULI. Panel chairs are respected ULI members with previous panel experience. Panel findings and recommendations are non-binding and are strategic to help communities move forward on key sites and issues.

IX. PANELIST BIO'S

Laura Aldrete (panel chair) is expert in urban infill redevelopment projects in both the private and public sectors. While with the City and County of Denver, she directed redevelopment for challenging infill sites in the City and managed a cabinet-level development policy council. She served as the Denver Mayor's Office Project Manager for the Stapleton Redevelopment, a 4,700-acre urban infill development project and subsequently as the Assistant Director for the Denver Urban Renewal Authority. She currently leads the PlaceMaking Group of Parsons Brinckerhoff in the Denver office and is focused on redevelopment and transit-oriented development. The Denver native holds a BA from CU Boulder, and two masters' degrees from UCLA in Urban and Regional Planning and Latin American Studies.

Jonathan D. Bush is senior partner in Littleton Capital Partners, a private development and investment company. Recent projects include Littleton Station, a mixed-use transit oriented development in downtown Littleton; Riverside Downs, a 98,000 SF retail and office infill mixed-use project; 2124 Larimer Street, a retail redevelopment in Denver's Ballpark District. Previous Mr. Bush was a shareholder and EVP of Lowe Enterprises, Inc., a national real estate investment, development and management company. Mr. Bush is a fourth generation Colorado native and lives in Littleton with his wife and two children. Education: University of Denver, MBA; Bowdoin College, Bachelor of Arts in Economics.

Anna Jones, VP, Progressive Urban Management Associates, Inc. (P.U.M.A.), provides project management and lead support for P.U.M.A.'s downtown and strategic planning, community development, downtown and special district formation including Business Improvement Districts (BIDs), Downtown Development Authorities (DDAs) and others. Her specialties include project management, community outreach, plan development, consensus building and public policy formation. Prior to joining P.U.M.A. Anna served as a Peace Corps volunteer in Sri Lanka. Anna is serving her second term as a Mayoral-appointed member of the Denver Planning Board and serves as Chair of Downtown Colorado Inc. (DCI). Anna served as co-chair of the East Colfax planning process in Denver which led to the first comprehensive citywide rezoning in nearly 50 years, which was the precursor to Denver's comprehensive form-based rezoning effort completed last year. Anna holds a BA in History from Western State College in Gunnison and has completed coursework in the MPA program at the University of Colorado at Denver.

Robert Kaufmann is co-chair of the Real Estate Department for Brownstein Hyatt Farber and Schreck. His practice focuses on the acquisition, development, leasing and management of office buildings, shopping centers and industrial projects. Rob has represented several high-end real estate developers in complex transactions, including the redevelopment of the Southglenn Mall in Centennial, Colorado, and the acquisition, financing, leasing and disposition of shopping centers and office buildings throughout the US. Rob has practiced at BHFS since graduating from law school in 1990. A graduate of the Leadership Denver Program of the Denver Metro Chamber of Commerce, Rob has also chaired many fund-raising events for local charitable organizations and for political campaigns.

Jim Leggitt, FAIA, LEED® AP, is Principal, Planning and Illustration, for studioINSITE, in Denver. With 35+ years of experience, Jim specializes in conceptual design, community planning, team collaboration and visualization. Jim combines his quick hand drawing skills with architectural and planning experience on projects ranging from small urban blocks to large city plans. He authored DRAWING SHORTCUTS: Developing Quick Drawing Skills Using Today's Technology published in 2002 by John Wiley and Sons, New York. Leggitt is a Fellow with the American Institute of Architects and adjunct professor at CU Denver's College of Architecture and Planning. He teaches drawing courses throughout the country and Canada to design professionals and students.

Brian J. Levitt, MRECM, LEED AP, is a commercial real estate developer who specializes in sustainable, mixed-use, urban projects with an entertainment focus. He has managed the development of more than $500 million of retail, multi-family and mixed-use space hand-on, including the first LEED Certified shopping mall in the U.S., Northfield Stapleton. Brian has also advised on an additional $1.75-B of real estate assets for clients managing all aspects of the development process. Brian is a 1994 graduate of CU Boulder with a BA in Psychology, and a 1996 graduate of the University of Denver, Daniels College of Business, with a Master's in Real Estate and Construction Management. His experience includes the development management of more than four-million SF of real estate assets including East 29th Avenue Town Center at Stapleton. Brian serves on numerous nonprofit boards and co-chairs ULI Colorado's Sustainable Communities Committee.

X. ACKNOWLEDGMENTS

Urban Land Institute Colorado

Would like to thank
our sponsors, hosts, volunteer leadership,
panelists, and stakeholders.

ULI Colorado thanks the City of Louisville and its citizens for inviting us into your community and for hosting us graciously during this two-day exercise.

Special thanks to: Al Colussy and Arleen Taniwaki,
TAPS co-chairs for ULI Colorado

City of Louisville: Troy Russ, Gavin McMillan and Scott Robinson

ULI Colorado volunteers: Dan Cohen, Derek Soule

Our panelists.

l730 17th Street #630
Denver, CO 80202

P: (303)893-1760
F: (303)893-1762

http://Colorado.uli.org

ULI Staff and Board

Chair: Kirk Monroe
Vice Chair: Amy Cara
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Development Director: Kacey Wilkins
Associate: Sarah Franklin

XI. Appendix: Workshop Drawings by Jim Leggitt, FAIA

A-1

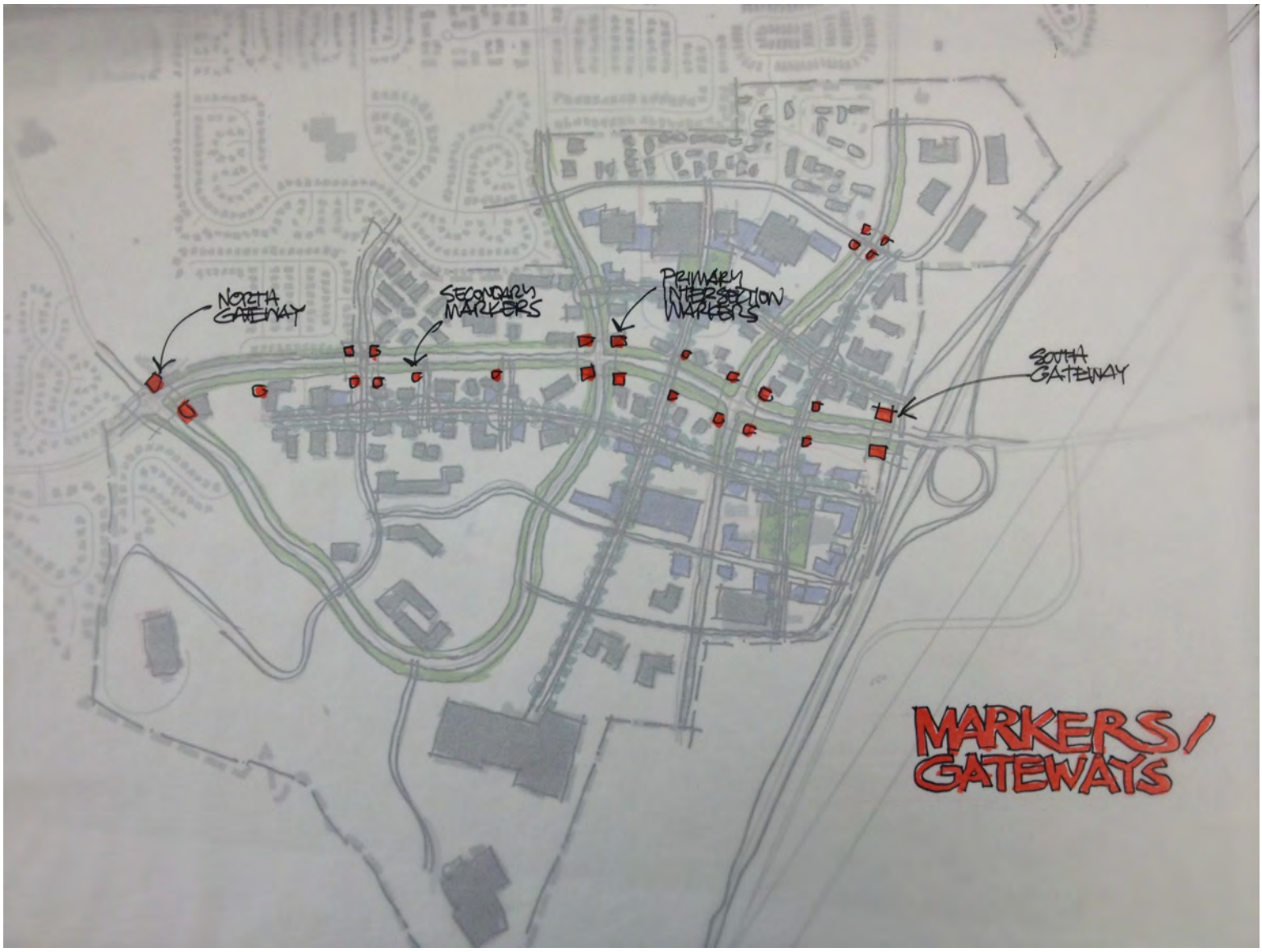
W. DAHLIA ST
CHARLEY ST.
W. CENTURY PL.
VIA APPALOOSA
McCASLIN BLVD
W. DILLON RD.
COAL CREEK DR.
CENTENNIAL FRWY
W. CENTURY PL.
CENTURY PLACE
US 36
VEHICULAR CIRCULATION

A-2

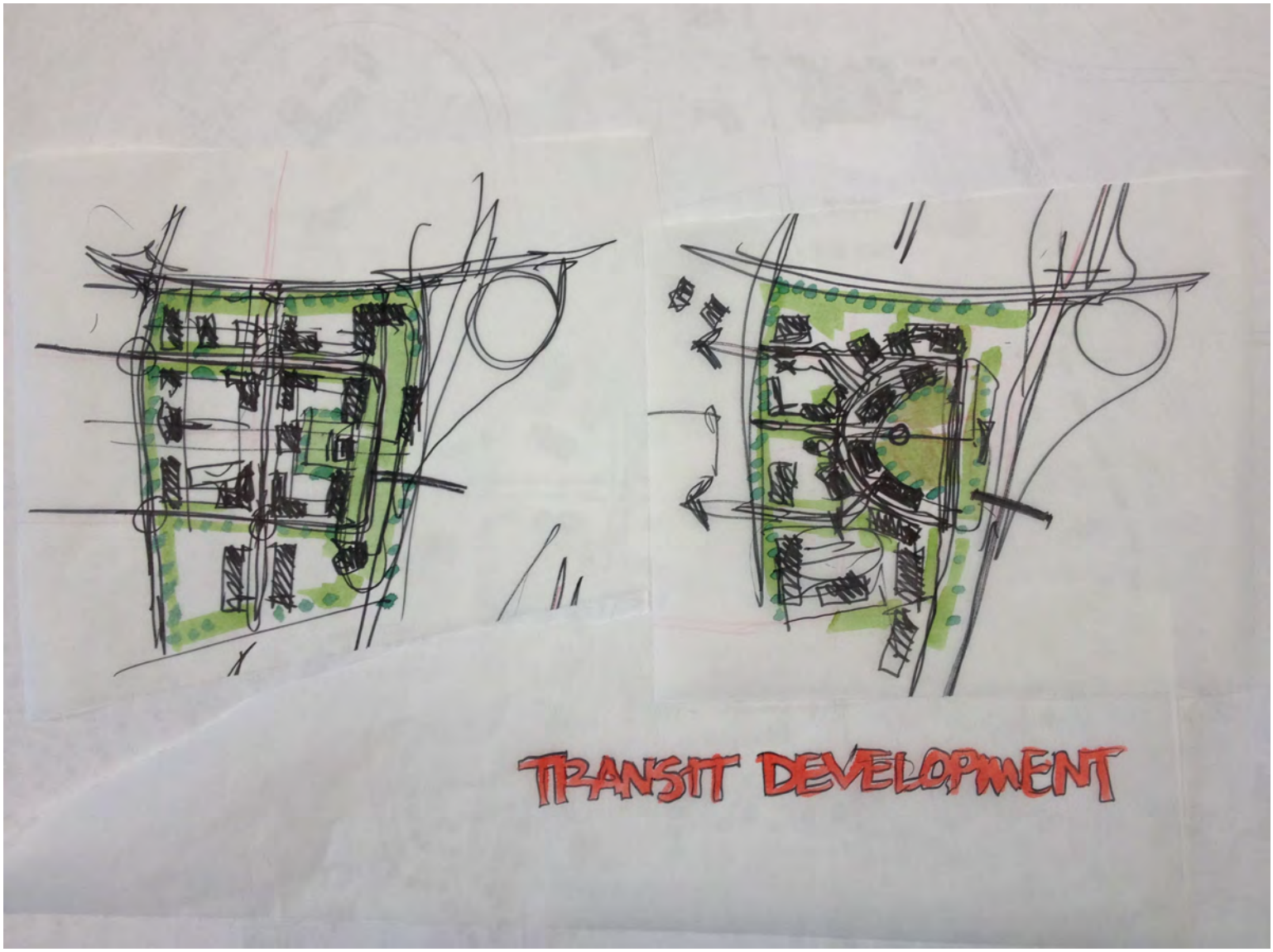
A-3

"TRANSITIONAL"
"REPURPOSED"
"RESIDENTIAL CORE"
"OLD SOUTH GAYLORD"
SITE VARIATIONS

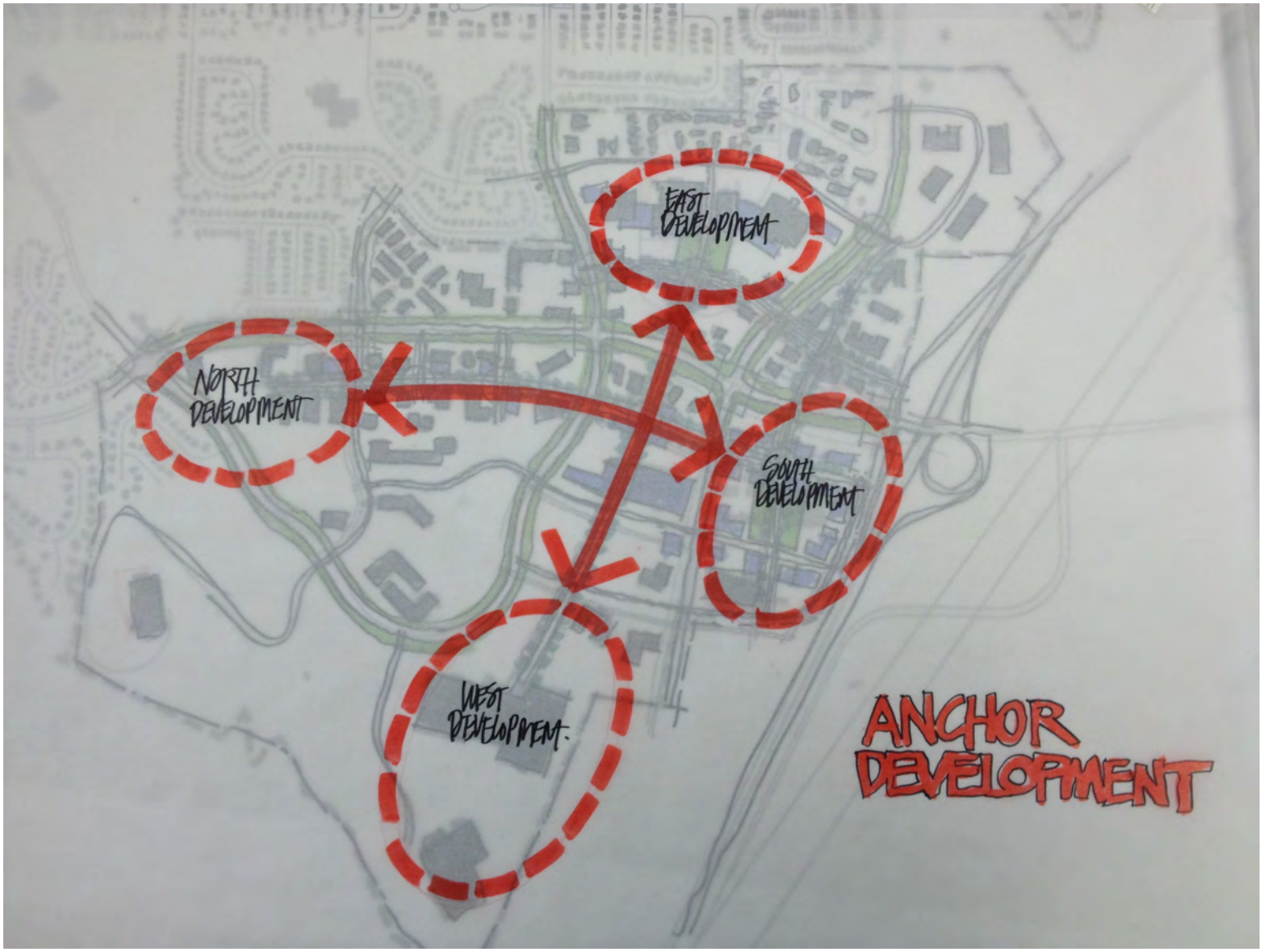
A-4


NORTH GATEWAY
SECONDARY MARKERS
PRIMARY INTERSECTION MARKERS
SOUTH GATEWAY
MARKERS/ GATEWAYS

A-5



A-6


EAST DEVELOPMENT
NORTH DEVELOPMENT
SOUTH DEVELOPMENT
WEST DEVELOPMENT
ANCHOR DEVELOPMENT

A-7

City of Louisville

COLORADO • SINCE 1878

McCaslin Boulevard Planning Survey

2015

NRC

National Research Center Inc

2955 Valmont Road Suite 300 • Boulder, CO 80301
303-444-7863 • nrc@n-r-c.com •www.n-r-c.com

Contents

Summary 1
Tables of Results 3
Complete Survey Responses 17
Responses to Open-ended Questions 27
Appendix A: Subgroup Comparisons for Selected Survey Questions 29
Appendix B: Survey Methodology 42
Appendix C: Survey Materials 47

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Summary

- The City of Louisville and Cuningham Group Architecture, Inc. contracted with National Research Center, Inc. to develop and administer a topical survey to residents regarding future development of the McCaslin Boulevard area in northeast Louisville.
- The 2015 McCaslin Boulevard Planning Survey was mailed to a random sample of 1,200 households in the city.
- A total of 426 surveys were returned, providing a response rate of 36%.
- The margin of error is plus or minus five percentage points around any given percentage point for the entire sample.

Residents of Louisville enjoy a high overall quality of life.

- Nearly all residents (97%) rated the overall quality of life in Louisville as excellent or good. Respondents also gave high marks to many other aspects of community overall, with 9 in 10 residents giving positive ratings to the overall economic health, quality of parks, trails and open space, ease of travel by car, walking and bicycle and the sense of safety traveling throughout the city (Table 1).

Residents tended to give lower quality ratings to housing options in the McCaslin Boulevard study area, but did not consider housing a priority for the City.

- Many aspects of the McCaslin study area also were rated highly by at least 7 in 10 respondents, including safety while traveling through the corridor, ease of car travel, the physical condition of residential and commercial buildings and the quality of parks, trails and open space. However, the ease of travel by bus (49% excellent or good), variety of housing options (46%) and availability of affordable quality housing (23%) tended to be rated less positively (Table 2). In fact, 41% of respondents felt the availability of affordable quality house in the McCaslin Boulevard area was poor, which was on par with resident's perceptions of the community as a whole.
- The aspects that were cited as the most important features of the study area to improve included sense of safety traveling through the corridor, quality of parks, trails and open spaces and quality of shopping and dining opportunities, with about 8 in 10 reporting they were essential or very important (Table 3).
- About 4 in 10 respondents felt that the City should improve the variety of housing options or the availability of affordable quality housing (Table 3).

The McCaslin Boulevard area is highly traversed and visited.

- Nearly all residents (96%) had shopped or dined in the McCaslin Boulevard study area while 6 in 10 respondents had walked or biked and 4 in 10 have used medical or professional services in the area (Table 4).
- Businesses south of Dillion road and businesses between Dillion and Cherry both east and west of McCaslin were the most frequently locations in the study area, with about 9 in 10 respondents reporting that they visited these locations at least once in a typical month; between 36% and 49% of residents visited these businesses at least

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once a week. A majority of residents had never visited the Centennial Valley office park or the RTD station/Park'n'Ride (59%, Table 5).

- About 8 in 10 respondents stated they travel through the study area in a car at least multiple times a week, with half driving through the McCaslin Boulevard area daily (Table 6). About three-quarters of residents had never traveled through the area in a bus (Table 6), but about one-quarter would like to use the bus more often (Table 7). Additionally, a little less than half had traveled by bicycle or by walking through the McCaslin Boulevard area, but at least half of respondents would like to do so more often than they do currently.

Residents' preferences for design elements favored lower building heights, natural open spaces, wider sidewalks and less visible parking.

- Respondents preferred 1- and 2- story buildings for commercial use (Table 8) with 15-20 foot or more than 20 foot setbacks (Table 9).
- Mixed-use buildings and 2-story townhouses were the most preferred multi-family residential building types (Table 10), with at least 6 in 10 respondents selecting 15-20 foot setbacks with porches or small yards or over 20 foot setbacks as an excellent or good fit for building placement (Table 11).
- A majority of residents were in favor of all park/plaza options, with 8 in 10 designating natural open space as an excellent or good fit and three-quarters of residents in favor of a town green or plaza. Half of respondents felt natural open space was an excellent fit for the McCaslin Boulevard area. About 6 in 10 would prefer a recreational park (Table 12).
- Respondents were open to a variety of streetscapes, with the exception of basic sidewalks, which was considered an excellent or good fit by only 2 in 10 residents (Table 13).
- Regarding the placement of parking, a majority of residents would choose either a parking lot on the side of the building or a parking ramp behind the buildings over parallel street parking or large parking lots in front of buildings (Table 14).
- At least 8 in 10 residents felt that a landscaped buffer or a fence and landscaped buffer with pedestrian amenities would be the best fit for parking edge designs (Table 15), followed by a landscaped buffer.
- Most respondents preferred an awning or projecting option for business signage (Table16).

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Tables of Results

The following pages contain a complete set of responses to each question on the survey, excluding the "not familiar" responses.

Survey Results

Table 1: Question 1

Please rate each of the following for Louisville (City-wide):	Excellent	Good	Fair	Poor	Total
Overall quality of life	65%	32%	3%	0%	100%
Overall economic health	32%	57%	9%	3%	100%
Variety of housing options	11%	40%	34%	15%	100%
Availability of affordable quality housing	5%	16%	35%	44%	100%
Overall quality of shopping and dining opportunities	28%	52%	19%	1%	100%
Overall quality of parks, trails and open spaces	61%	35%	4%	1%	100%
Ease of travel by car	41%	49%	8%	3%	100%
Ease of travel walking	46%	43%	10%	1%	100%
Ease of travel by bicycle	47%	42%	9%	2%	100%
Ease of travel by bus	22%	36%	30%	11%	100%
Sense of safety traveling throughout the city	64%	32%	4%	0%	100%
Physical condition of commercial buildings	23%	61%	14%	1%	100%
Physical condition of residential buildings	20%	66%	13%	0%	100%

Table 2: Question 2 (Quality)

First, please rate the quality of each of the following aspects or characteristics as they relate to the McCaslin Boulevard study area (shown in the letter). Then, please tell us how important to you, if at all, it is that the City attempt to improve each of the following in the McCaslin Boulevard study area.	Excellent	Good	Fair	Poor	Total
Variety of housing options	7%	39%	36%	18%	100%
Availability of affordable quality housing	3%	20%	35%	41%	100%
Overall quality of shopping and dining opportunities	13%	48%	30%	9%	100%
Overall quality of parks, trails and open space	36%	41%	12%	10%	100%
Ease of travel by car	29%	50%	16%	5%	100%
Ease of travel walking	24%	42%	24%	11%	100%
Ease of travel by bicycle	23%	45%	23%	10%	100%
Ease of travel by bus	13%	36%	37%	13%	100%
Sense of safety traveling through the corridor	37%	45%	14%	4%	100%
Physical condition of commercial buildings	14%	63%	19%	4%	100%
Physical condition of residential buildings	17%	62%	20%	1%	100%

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Table 3: Question 2 (Importance)

First, please rate the quality of each of the following aspects or characteristics as they relate to the McCaslin Boulevard study area (shown in the letter). Then, please tell us how important to you, if at all, it is that the City attempt to improve each of the following in the McCaslin Boulevard study area.	Essential	Very important	Somewhat important	Not at all important	Total
Variety of housing options	10%	33%	35%	21%	100%
Availability of affordable quality housing	16%	33%	32%	19%	100%
Overall quality of shopping and dining opportunities	27%	51%	18%	4%	100%
Overall quality of parks, trails and open space	39%	41%	16%	4%	100%
Ease of travel by car	28%	44%	20%	7%	100%
Ease of travel walking	30%	44%	21%	6%	100%
Ease of travel by bicycle	33%	39%	21%	6%	100%
Ease of travel by bus	19%	38%	31%	12%	100%
Sense of safety traveling through the corridor	49%	36%	11%	4%	100%
Physical condition of commercial buildings	17%	55%	23%	5%	100%
Physical condition of residential buildings	16%	52%	24%	8%	100%

Table 4: Question 3

Which, if any, of the following applies to you in relation to the McCaslin Boulevard study area? (Mark all that apply.)	Percent
I live in the area	35%
My child attends daycare/preschool	5%
I walk or bike in the area	59%
I shop/dine in the area	96%
I use medical/professional services in the area	42%
I only travel through the area	13%
I work in the area	4%
None of the above	0%

Total may exceed 100% as respondents could select more than one option.

Table 5: Question 4

In a typical month, how many times, if at all, do you visit each of the following?	Never	1-3 times a month	Once a week	Multiple times a week	Daily	Total
Centennial Valley office park	63%	31%	2%	2%	1%	100%
Businesses south of Dillon (Home Depot, Cinebarre, hotels)	6%	50%	30%	15%	0%	100%
Businesses between Dillon & Cherry, west of McCaslin (Lowes/Carrabbas)	5%	58%	22%	13%	1%	100%
Businesses between Dillon & Cherry, east of McCaslin (Albertsons/Kohl's)	8%	43%	25%	22%	2%	100%
Businesses north of Cherry (Walgreens, Via Toscana, Starbucks)	11%	47%	22%	16%	3%	100%
RTD station/Park'n'Ride	59%	29%	4%	6%	2%	100%
Davidson Mesa Open Space	29%	43%	11%	14%	4%	100%

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Table 6: Question 5 (Actual Use)

First, tell us how many times in a typical month, if at all, you travel through the study area using each of the following modes. Then, please indicate if you'd like to use each mode more, the same amount or less in the study area.	Never	1-3 times a month	Once a week	Multiple times a week	Daily	Total
In a car	1%	5%	9%	36%	48%	100%
In a bus	79%	16%	2%	2%	2%	100%
On a bicycle	48%	35%	8%	7%	2%	100%
Walking	42%	29%	14%	9%	6%	100%

Table 7: Question 5 (Preferred Use)

First, tell us how many times in a typical month, if at all, you travel through the study area using each of the following modes. Then, please indicate if you'd like to use each mode more, the same amount or less in the study area.	Use more	Use the same	Use less	Total
In a car	7%	75%	18%	100%
In a bus	28%	62%	10%	100%
On a bicycle	57%	38%	5%	100%
Walking	52%	44%	5%	100%

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Design Elements

Table 8: Design Element #1: Commercial Building Height/Size

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.		Excellent fit	Good fit	Fair fit	Poor fit	Total
	1-story	38%	34%	21%	6%	100%
	2-story	25%	48%	20%	7%	100%
	2 or 3-story	7%	22%	39%	32%	100%
	4-story	5%	9%	23%	63%	100%

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Table 9: Design Element #2: Commercial Building Placement (Setback)

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.		Excellent fit	Good fit	Fair fit	Poor fit	Total
	No setback	15%	24%	25%	37%	100%
	15-20 foot setback, oriented toward street	21%	46%	26%	7%	100%
	Setback 20+ feet, oriented toward parking	15%	44%	23%	18%	100%
	Parking lot in front	11%	28%	23%	38%	100%

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Table 10: Design Element #3: Multi Family Residential Building Height/Size

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.		Excellent fit	Good fit	Fair fit	Poor fit	Total
	2-story townhouses	26%	47%	16%	11%	100%
	3-story apartment/condo building	4%	25%	27%	43%	100%
	Apartments/condos above retail/commercial (mixed-use building)	16%	36%	26%	22%	100%
	4-story apartment/condo building	5%	12%	24%	59%	100%

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Table 11: Design Element #4: Multi Family Residential Building Placement (Setback)

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.		Excellent fit	Good fit	Fair fit	Poor fit	Total
	5 - 10 foot setback with porches	8%	31%	29%	32%	100%
	15 - 20 foot setback with porches and small yards	25%	45%	19%	11%	100%
	20+ foot setback	21%	38%	25%	16%	100%
	20+ foot setback, oriented to parking lot	7%	22%	26%	46%	100%

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Table 12: Design Element #5: Park/Plaza

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.		Excellent fit	Good fit	Fair fit	Poor fit	Total
	Recreational Park	24%	39%	22%	15%	100%
	Town Green	29%	46%	19%	6%	100%
	Natural open space	52%	29%	11%	7%	100%
	Plaza	33%	40%	16%	11%	100%

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Table 13: Design Element #6: Streetscape

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.		Excellent fit	Good fit	Fair fit	Poor fit	Total
	Wide sidewalk/trail separated from street	44%	36%	14%	6%	100%
	Sidewalk buffered from street and parking with landscaping	17%	45%	26%	11%	100%
	Basic sidewalk	4%	18%	45%	34%	100%
	Wide sidewalk with many pedestrian amenities	31%	44%	17%	8%	100%

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Table 14: Design Element #7: Parking Placement

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.		Excellent fit	Good fit	Fair fit	Poor fit	Total
	Parking lot on side of building	12%	54%	28%	7%	100%
	Parking ramp behind buildings	21%	43%	23%	13%	100%
	Parallel street parking	5%	28%	31%	36%	100%
	Large parking lot in front of building	5%	16%	22%	57%	100%

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Table 15: Design Element #8: Parking Edge

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.		Excellent fit	Good fit	Fair fit	Poor fit	Total
	Large grass buffer	7%	31%	35%	27%	100%
	Landscaped buffer	13%	56%	25%	7%	100%
	Fence and landscaped buffer with pedestrian amenities	42%	40%	16%	3%	100%
	Low wall	4%	17%	37%	42%	100%

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Table 16: Design Element #9: Business Signage

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.		Excellent fit	Good fit	Fair fit	Poor fit	Total
	Business directional sign	8%	24%	35%	33%	100%
	Internally-illuminated	8%	46%	35%	12%	100%
	Projecting	34%	42%	17%	7%	100%
	Awning	24%	47%	23%	6%	100%

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Respondent Characteristics

Table 17: Question D1

Which best describes the building you live in?	Percent
One family house detached from any other houses	74%
Building with two or more homes (duplex, townhome, apartment or condominium)	26%
Mobile home	0%
Other	1%
Total	100%

Table 18: Question D2

Do you rent or own your home?	Percent
Rent	27%
Own	73%
Total	100%

Table 19: Question D3

How many people, including yourself, live in your household?	Percent
1	19%
2	30%
3	18%
4	26%
5	6%
6+	0%
Total	100%

Table 20: Question D4

What is your gender?	Percent
Female	51%
Male	49%
Total	100%

Table 21: Question D5

In which category is your age?	Percent
18-24 years	1%
25-34 years	21%
35-44 years	21%
45-54 years	24%
55-64 years	19%
65-74 years	8%
75 years or older	5%
Total	100%

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Table 22: Question D6

Are you currently employed?	Percent
Yes	78%
No	22%
Total	100%

Table 23: Question D7

In which city do you work?	Percent
Boulder, Longmont, Niwot	35%
Broomfield, Westminster, Arvada, Lafayette, Superior	22%
Denver, Lakewood, Aurora	12%
Louisville	23%
Multiple areas	5%
Other	3%
Total	100%

Table 24: Question D8

About how much do you estimate your household's total income before taxes will be for the current year?	Percent
Less than $24,999	6%
$25,000 to $49,999	13%
$50,000 to $99,999	23%
$100,000 to $149,999	22%
$150,000 or more	21%
Prefer not to answer	15%
Total	100%

Prepared by National Research Center, Inc.

Complete Survey Responses

The following pages contain a complete set of responses to each question on the survey, including the "not familiar" responses. The percent of respondents giving a particular response is shown followed by the number of respondents.

Table 25: Question 1

Please rate each of the following for Louisville (City-wide):	Excellent		Good		Fair		Poor		Not familiar		Total	
Overall quality of life	65%	N=278	32%	N=135	3%	N=12	0%	N=0	0%	N=1	100%	N=425
Overall economic health	31%	N=132	55%	N=235	8%	N=36	3%	N=12	2%	N=10	100%	N=424
Variety of housing options	11%	N=46	38%	N=162	33%	N=139	14%	N=60	3%	N=15	100%	N=421
Availability of affordable quality housing	5%	N=19	14%	N=58	31%	N=129	38%	N=161	12%	N=51	100%	N=418
Overall quality of shopping and dining opportunities	28%	N=118	52%	N=221	19%	N=81	1%	N=6	0%	N=0	100%	N=425
Overall quality of parks, trails and open spaces	61%	N=258	34%	N=146	4%	N=16	1%	N=3	1%	N=2	100%	N=425
Ease of travel by car	40%	N=171	48%	N=205	8%	N=33	3%	N=12	0%	N=2	100%	N=423
Ease of travel walking	46%	N=195	42%	N=181	10%	N=42	1%	N=4	1%	N=5	100%	N=426
Ease of travel by bicycle	43%	N=180	39%	N=164	8%	N=36	2%	N=6	9%	N=36	100%	N=422
Ease of travel by bus	15%	N=62	24%	N=100	20%	N=84	7%	N=30	34%	N=143	100%	N=419
Sense of safety traveling throughout the city	64%	N=271	32%	N=134	4%	N=19	0%	N=1	0%	N=0	100%	N=425
Physical condition of commercial buildings	23%	N=98	60%	N=256	14%	N=59	1%	N=6	1%	N=5	100%	N=425
Physical condition of residential buildings	20%	N=83	66%	N=277	13%	N=56	0%	N=1	1%	N=5	100%	N=423

Table 26: Question 2 (Quality)

First, please rate the quality of each of the following aspects or characteristics as they relate to the McCaslin Boulevard study area (shown in the letter). Then, please tell us how important to you, if at all, it is that the City attempt to improve each of the following in the McCaslin Boulevard study area.	Excellent		Good		Fair		Poor		Not familiar		Total	
Variety of housing options	6%	N=26	34%	N=140	31%	N=128	16%	N=64	13%	N=53	100%	N=411
Availability of affordable quality housing	3%	N=11	16%	N=65	29%	N=117	34%	N=137	19%	N=76	100%	N=407
Overall quality of shopping and dining opportunities	13%	N=51	48%	N=195	29%	N=119	9%	N=37	1%	N=5	100%	N=407
Overall quality of parks, trails and open space	34%	N=140	39%	N=162	12%	N=49	10%	N=40	5%	N=20	100%	N=411

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First, please rate the quality of each of the following aspects or characteristics as they relate to the McCaslin Boulevard study area (shown in the letter). Then, please tell us how important to you, if at all, it is that the City attempt to improve each of the following in the McCaslin Boulevard study area.	Excellent		Good		Fair		Poor		Not familiar		Total	
Ease of travel by car	29%	N=117	50%	N=202	15%	N=63	5%	N=21	1%	N=4	100%	N=407
Ease of travel walking	22%	N=92	40%	N=161	23%	N=92	10%	N=42	5%	N=21	100%	N=408
Ease of travel by bicycle	19%	N=79	38%	N=155	19%	N=80	8%	N=33	15%	N=62	100%	N=409
Ease of travel by bus	8%	N=31	21%	N=86	22%	N=89	8%	N=32	42%	N=170	100%	N=408
Sense of safety traveling through the corridor	36%	N=147	44%	N=180	14%	N=57	3%	N=14	2%	N=8	100%	N=406
Physical condition of commercial buildings	14%	N=57	61%	N=249	18%	N=74	4%	N=15	3%	N=11	100%	N=406
Physical condition of residential buildings	15%	N=63	56%	N=228	18%	N=72	1%	N=3	10%	N=40	100%	N=405

Table 27: Question 2 (Importance)

First, please rate the quality of each of the following aspects or characteristics as they relate to the McCaslin Boulevard study area (shown in the letter). Then, please tell us how important to you, if at all, it is that the City attempt to improve each of the following in the McCaslin Boulevard study area.	Essential		Very important		Somewhat important		Not at all important		Not familiar		Total	
Variety of housing options	10%	N=36	31%	N=119	33%	N=126	20%	N=75	6%	N=22	100%	N=379
Availability of affordable quality housing	15%	N=57	31%	N=117	30%	N=114	18%	N=67	6%	N=23	100%	N=379
Overall quality of shopping and dining opportunities	27%	N=104	50%	N=192	18%	N=68	4%	N=15	1%	N=3	100%	N=382
Overall quality of parks, trails and open space	38%	N=147	40%	N=154	16%	N=60	4%	N=15	2%	N=6	100%	N=382
Ease of travel by car	28%	N=107	44%	N=169	20%	N=76	7%	N=28	1%	N=3	100%	N=383
Ease of travel walking	29%	N=112	43%	N=165	20%	N=78	5%	N=21	2%	N=9	100%	N=384
Ease of travel by bicycle	31%	N=116	36%	N=137	19%	N=73	6%	N=23	8%	N=32	100%	N=381
Ease of travel by bus	15%	N=56	30%	N=113	24%	N=93	9%	N=36	22%	N=83	100%	N=381
Sense of safety traveling through the corridor	48%	N=184	36%	N=137	11%	N=42	4%	N=16	1%	N=5	100%	N=384
Physical condition of commercial buildings	17%	N=65	54%	N=206	23%	N=86	5%	N=20	2%	N=7	100%	N=384
Physical condition of residential buildings	15%	N=59	50%	N=190	23%	N=87	8%	N=31	4%	N=16	100%	N=383

Prepared by National Research Center, Inc.

Table 28: Question 3

Which, if any, of the following applies to you in relation to the McCaslin Boulevard study area? (Mark all that apply.)	Percent	Number
I live in the area	35%	N=142
My child attends daycare/preschool	5%	N=19
I walk or bike in the area	59%	N=243
I shop/dine in the area	96%	N=393
I use medical/professional services in the area	42%	N=171
I only travel through the area	13%	N=54
I work in the area	4%	N=18
None of the above	0%	N=1

Total may exceed 100% as respondents could select more than one option.

Table 29: Question 4

In a typical month, how many times, if at all, do you visit each of the following?	Never		1-3 times a month		Once a week		Multiple times a week		Daily		Total	
Centennial Valley office park	63%	N=245	31%	N=121	2%	N=9	2%	N=9	1%	N=4	100%	N=387
Businesses south of Dillon (Home Depot, Cinebarre, hotels)	6%	N=24	50%	N=203	30%	N=121	15%	N=59	0%	N=1	100%	N=409
Businesses between Dillon & Cherry, west of McCaslin (Lowes/Carrabbas)	5%	N=22	58%	N=240	22%	N=92	13%	N=52	1%	N=4	100%	N=411
Businesses between Dillon & Cherry, east of McCaslin (Albertsons/Kohl's)	8%	N=34	43%	N=179	25%	N=102	22%	N=90	2%	N=10	100%	N=414
Businesses north of Cherry (Walgreens, Via Toscana, Starbucks)	11%	N=47	47%	N=193	22%	N=90	16%	N=68	3%	N=13	100%	N=411
RTD station/Park'n'Ride	59%	N=241	29%	N=119	4%	N=16	6%	N=26	2%	N=7	100%	N=409
Davidson Mesa Open Space	29%	N=118	43%	N=176	11%	N=46	14%	N=56	4%	N=16	100%	N=412

Prepared by National Research Center, Inc.

Table 30: Question 5 (Actual Use)

First, tell us how many times in a typical month, if at all, you travel through the study area using each of the following modes. Then, please indicate if you'd like to use each mode more, the same amount or less in the study area.	Never		1-3 times a month		Once a week		Multiple times a week		Daily		Total	
In a car	1%	N=3	5%	N=22	9%	N=38	36%	N=151	48%	N=199	100%	N=413
In a bus	79%	N=323	16%	N=64	2%	N=7	2%	N=6	2%	N=7	100%	N=407
On a bicycle	48%	N=194	35%	N=144	8%	N=34	7%	N=28	2%	N=7	100%	N=408
Walking	42%	N=174	29%	N=117	14%	N=56	9%	N=37	6%	N=26	100%	N=410

Table 31: Question 5 (Preferred Use)

First, tell us how many times in a typical month, if at all, you travel through the study area using each of the following modes. Then, please indicate if you'd like to use each mode more, the same amount or less in the study area.	Use more		Use the same		Use less		Total	
In a car	7%	N=27	75%	N=277	18%	N=67	100%	N=370
In a bus	28%	N=95	62%	N=213	10%	N=34	100%	N=342
On a bicycle	57%	N=206	38%	N=138	5%	N=17	100%	N=361
Walking	52%	N=186	44%	N=158	5%	N=17	100%	N=361

Table 32: Question D1

Which best describes the building you live in?	Percent	Number
One family house detached from any other houses	74%	N=307
Building with two or more homes (duplex, townhome, apartment or condominium)	26%	N=107
Mobile home	0%	N=0
Other	1%	N=2
Total	100%	N=416

Prepared by National Research Center, Inc.

Table 33: Question D2

Do you rent or own your home?	Percent	Number
Rent	27%	N=112
Own	73%	N=303
Total	100%	N=415

Table 34: Question D3

How many people, including yourself, live in your household?	Percent	Number
1	19%	N=81
2	30%	N=126
3	18%	N=74
4	26%	N=108
5	6%	N=25
6+	0%	N=0
Total	100%	N=415

Table 35: Question D4

What is your gender?	Percent	Number
Female	51%	N=210
Male	49%	N=200
Total	100%	N=410

Prepared by National Research Center, Inc.

Table 36: Question D5

In which category is your age?	Percent	Number
18-24 years	1%	N=5
25-34 years	21%	N=87
35-44 years	21%	N=88
45-54 years	24%	N=101
55-64 years	19%	N=78
65-74 years	8%	N=33
75 years or older	5%	N=20
Total	100%	N=413

Table 37: Question D6

Are you currently employed?	Percent	Number
Yes	78%	N=319
No	22%	N=89
Total	100%	N=408

Table 38: Question D7

In which city do you work?	Percent	Number
Boulder, Longmont, Niwot	35%	N=106
Broomfield, Westminster, Arvada, Lafayette, Superior	22%	N=66
Denver, Lakewood, Aurora	12%	N=37
Louisville	23%	N=69
Multiple areas	5%	N=16
Other	3%	N=10
Total	100%	N=304

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Table 39: Question D8

About how much do you estimate your household's total income before taxes will be for the current year?	Percent	Number
Less than $24,999	6%	N=24
$25,000 to $49,999	13%	N=55
$50,000 to $99,999	23%	N=95
$100,000 to $149,999	22%	N=90
$150,000 or more	21%	N=87
Prefer not to answer	15%	N=61
Total	100%	N=411

Table 40: Design Element #1: Commercial Building Height/Size

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.	Excellent fit		Good fit		Fair fit		Poor fit		Total	
1-story	38%	N=127	34%	N=115	21%	N=71	6%	N=22	100%	N=334
2-story	25%	N=82	48%	N=160	20%	N=68	7%	N=23	100%	N=334
2 or 3-story	7%	N=22	22%	N=74	39%	N=131	32%	N=107	100%	N=334
4-story	5%	N=18	9%	N=30	23%	N=77	63%	N=212	100%	N=337

Table 41: Design Element #2: Commercial Building Placement (Setback)

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.	Excellent fit		Good fit		Fair fit		Poor fit		Total	
No setback	15%	N=49	24%	N=80	25%	N=84	37%	N=122	100%	N=335
15-20 foot setback, oriented toward street	21%	N=70	46%	N=155	26%	N=86	7%	N=24	100%	N=335
Setback 20+ feet, oriented toward parking	15%	N=51	44%	N=149	23%	N=76	18%	N=59	100%	N=335
Parking lot in front	11%	N=38	28%	N=94	23%	N=76	38%	N=128	100%	N=335

Prepared by National Research Center, Inc.

Table 42: Design Element #3: Multi Family Residential Building Height/Size

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.	Excellent fit		Good fit		Fair fit		Poor fit		Total	
2-story townhouses	26%	N=85	47%	N=155	16%	N=55	11%	N=38	100%	N=333
3-story apartment/condo building	4%	N=14	25%	N=84	27%	N=91	43%	N=145	100%	N=334
Apartments/condos above retail/commercial (mixed-use building)	16%	N=53	36%	N=122	26%	N=86	22%	N=74	100%	N=336
4-story apartment/condo building	5%	N=16	12%	N=39	24%	N=81	59%	N=199	100%	N=335

Table 43: Design Element #4: Multi Family Residential Building Placement (Setback)

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.	Excellent fit		Good fit		Fair fit		Poor fit		Total	
5 - 10 foot setback with porches	8%	N=25	31%	N=101	29%	N=97	32%	N=107	100%	N=330
15 - 20 foot setback with porches and small yards	25%	N=84	45%	N=150	19%	N=64	11%	N=38	100%	N=336
20+ foot setback	21%	N=71	38%	N=126	25%	N=85	16%	N=54	100%	N=336
20+ foot setback, oriented to parking lot	7%	N=22	22%	N=74	26%	N=86	46%	N=154	100%	N=336

Table 44: Design Element #5: Park/Plaza

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.	Excellent fit		Good fit		Fair fit		Poor fit		Total	
Recreational Park	24%	N=81	39%	N=130	22%	N=75	15%	N=50	100%	N=335
Town Green	29%	N=97	46%	N=154	19%	N=64	6%	N=18	100%	N=334
Natural open space	52%	N=174	29%	N=98	11%	N=38	7%	N=24	100%	N=334
Plaza	33%	N=112	40%	N=135	16%	N=53	11%	N=36	100%	N=335

Prepared by National Research Center, Inc.

Table 45: Design Element #6: Streetscape

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.	Excellent fit		Good fit		Fair fit		Poor fit		Total	
Wide sidewalk/trail separated from street	44%	N=145	36%	N=121	14%	N=47	6%	N=20	100%	N=333
Sidewalk buffered from street and parking with landscaping	17%	N=58	45%	N=149	26%	N=88	11%	N=38	100%	N=334
Basic sidewalk	4%	N=12	18%	N=59	45%	N=149	34%	N=112	100%	N=333
Wide sidewalk with many pedestrian amenities	31%	N=102	44%	N=148	17%	N=59	8%	N=26	100%	N=335

Table 46: Design Element #7: Parking Placement

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.	Excellent fit		Good fit		Fair fit		Poor fit		Total	
Parking lot on side of building	12%	N=39	54%	N=179	28%	N=94	7%	N=22	100%	N=333
Parking ramp behind buildings	21%	N=72	43%	N=143	23%	N=77	13%	N=44	100%	N=336
Parallel street parking	5%	N=15	28%	N=94	31%	N=105	36%	N=121	100%	N=335
Large parking lot in front of building	5%	N=17	16%	N=53	22%	N=73	57%	N=193	100%	N=336

Table 47: Design Element #8: Parking Edge

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.	Excellent fit		Good fit		Fair fit		Poor fit		Total	
Large grass buffer	7%	N=23	31%	N=103	35%	N=115	27%	N=90	100%	N=331
Landscaped buffer	13%	N=42	56%	N=185	25%	N=83	7%	N=24	100%	N=333
Fence and landscaped buffer with pedestrian amenities	42%	N=138	40%	N=132	16%	N=54	3%	N=9	100%	N=332
Low wall	4%	N=12	17%	N=56	37%	N=124	42%	N=141	100%	N=333

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Table 48: Design Element #9: Business Signage

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area.	Excellent fit		Good fit		Fair fit		Poor fit		Total	
Business directional sign	8%	N=26	24%	N=81	35%	N=116	33%	N=109	100%	N=333
Internally-illuminated	8%	N=26	46%	N=152	35%	N=116	12%	N=39	100%	N=333
Projecting	34%	N=114	42%	N=139	17%	N=55	7%	N=25	100%	N=332
Awning	24%	N=79	47%	N=154	23%	N=78	6%	N=20	100%	N=332

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Responses to Open-ended Questions

Following are verbatim responses to the open-ended question on the survey, grouped by coded theme. The verbatim responses were not edited for grammar or punctuation.

Question D7: In which city do you work?

Boulder, Longmont, Niwot

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Broomfield, Westminster, Arvada, Lafayette, Superior

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- WESTMINSTER
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Denver, Lakewood, Aurora

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- Louisville - from home

Multiple areas

- Boulder & Denver
- DENVER & LOUISVILLE
- DENVER/BOULDER
- DENVER/BOULDER
- LAFAYETTE/BOULDER
- LONGMONT/LOUISVILLE
- LOUISVILLE/BOULDER
- LOUISVILLE/BOULDER
- LOUISVILLE/BOULDER
- LOUISVILLE/DENVER
- LOUISVILLE/LONGMONT
- Louisville/home
- Louisville/home
- THORNTON/ARVADA/DENVER/LAKEWOOD

Other

- Centennial
- DIA
- ENGLEWOOD
- Erie
- Evergreen
- Golden
- Greeley
- GREELEY
- NORTHGLENN
- NORTHGLENN
- Remote, from home
- Self-employed
- THORNTON
- thornton
- Thornton
- THORNTON/ARVADA/DENVER/LAKEWOOD

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Appendix A: Subgroup Comparisons for Selected Survey Questions

Responses in the following tables show only the proportion of respondents giving a certain answer; for example, the percent of respondents who rated the quality of life as "excellent" or "good," or the percent of respondents who visited certain areas at least once a month. ANOVA and chi-square tests of significance were applied to these comparisons of survey questions. A "p-value" of 0.05 or less indicates that there is less than a 5% probability that differences observed between subgroups are due to chance; or in other words, a greater than 95% probability that the differences observed are "real." Where differences were statistically significant, they have been shaded grey.

Comparisons by Respondent Characteristics

- Homeowners tended to give higher ratings to aspects of living in Louisville as a whole than renters, including overall quality of life, overall economic health, various aspects of housing, shopping and dining opportunities and the physical condition of commercial and residential buildings (Table 49).
- Renters and those living in attached housing units tended to view aspects of housing in the McCaslin Boulevard area less favorably than their counterparts (Table 50). On the other hand, respondents who owned their own homes and lived in detached housing units gave less positive ratings to the overall quality of parks, trails and open space in the McCaslin Boulevard area than respondents who rented.
- The youngest residents (18-34), those who lived in attached housing units and renters were more likely to travel through the McCaslin Boulevard study area in a bus than other residents. Male respondents, those that were middle aged (aged 35 to 54), those who lived in detached housing and homeowners were more likely to traverse the area on a bicycle than were their counterparts (Table 53).
- Regarding preferences for design elements of the McCaslin Boulevard area, few differences were found based on gender or housing unit type. Among the differences found, many were by age and housing tenure. The youngest residents and renters preferred design options such as 5 to 20 foot setbacks with porches or small yards for multi-family residential building placement, parallel street parking and landscaped buffers; renters also preferred these design elements. Renters tended to prefer design options such as 4-story commercial buildings, 2- or 4-story multi-family residential buildings and 5 to 20 foot setbacks with porches for multi-family residential building placement and fence and landscaped buffers with pedestrian amenities (Table 55 to Table 63).

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Table 49: Question 1

Please rate each of the following for Louisville (City-wide) (Percent excellent or good):	Gender		Age			Housing type		Housing tenure		Overall
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	
Overall quality of life	98%	96%	94%	100%	96%	97%	97%	93%	99%	97%
Overall economic health	94%	83%	80%	93%	87%	89%	87%	81%	91%	88%
Variety of housing options	49%	53%	43%	52%	55%	53%	46%	30%	59%	51%
Availability of affordable quality housing	21%	22%	20%	22%	23%	24%	14%	8%	26%	21%
Overall quality of shopping and dining opportunities	86%	72%	73%	83%	78%	80%	79%	72%	82%	80%
Overall quality of parks, trails and open spaces	97%	95%	100%	95%	94%	96%	96%	97%	95%	96%
Ease of travel by car	91%	87%	94%	88%	87%	89%	89%	90%	89%	89%
Ease of travel walking	89%	89%	94%	84%	93%	90%	87%	93%	88%	89%
Ease of travel by bicycle	89%	90%	96%	87%	89%	89%	93%	96%	87%	89%
Ease of travel by bus	63%	54%	58%	56%	64%	56%	64%	62%	57%	59%
Sense of safety traveling throughout the city	93%	98%	98%	96%	93%	95%	96%	97%	95%	95%
Physical condition of commercial buildings	81%	88%	77%	84%	91%	83%	89%	78%	87%	84%
Physical condition of residential buildings	88%	85%	82%	86%	90%	87%	84%	77%	90%	86%

Table 50: Question 2 (Quality)

First, please rate the quality of each of the following aspects or characteristics as they relate to the McCaslin Boulevard study area (shown in the letter). (Percent excellent or good)	Gender		Age			Housing type		Housing tenure		Overall
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	
Variety of housing options	52%	40%	39%	48%	49%	48%	41%	30%	53%	46%
Availability of affordable quality housing	23%	23%	27%	22%	21%	27%	14%	7%	30%	23%
Overall quality of shopping and dining opportunities	63%	60%	53%	64%	63%	57%	73%	67%	60%	61%
Overall quality of parks, trails and open space	77%	77%	81%	72%	81%	74%	86%	90%	72%	77%
Ease of travel by car	79%	79%	74%	80%	83%	81%	75%	72%	82%	79%
Ease of travel walking	63%	67%	60%	59%	78%	66%	64%	67%	65%	65%
Ease of travel by bicycle	65%	69%	64%	64%	75%	67%	68%	71%	67%	67%
Ease of travel by bus	54%	45%	44%	48%	55%	43%	64%	51%	49%	49%
Sense of safety traveling through the corridor	76%	89%	83%	83%	81%	82%	82%	84%	82%	82%

Prepared by National Research Center, Inc.

First, please rate the quality of each of the following aspects or characteristics as they relate to the McCaslin Boulevard study area (shown in the letter). (Percent excellent or good)	Gender		Age			Housing type		Housing tenure		
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	Overall
Physical condition of commercial buildings	70%	85%	71%	77%	82%	74%	88%	75%	79%	77%
Physical condition of residential buildings	80%	79%	57%	85%	86%	79%	81%	64%	86%	79%

Table 51: Question 2 (Importance)

Then, please tell us how important to you, if at all, it is that the City attempt to improve each of the following in the McCaslin Boulevard study area. (Percent essential or very important)	Gender		Age			Housing type		Housing tenure		
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	Overall
Variety of housing options	45%	41%	52%	33%	52%	34%	70%	68%	34%	44%
Availability of affordable quality housing	52%	44%	73%	36%	51%	40%	72%	82%	36%	49%
Overall quality of shopping and dining opportunities	81%	75%	83%	77%	77%	76%	86%	83%	77%	78%
Overall quality of parks, trails and open space	80%	79%	92%	76%	78%	76%	91%	86%	78%	80%
Ease of travel by car	74%	71%	61%	74%	79%	74%	71%	71%	74%	73%
Ease of travel walking	76%	70%	82%	70%	72%	73%	75%	78%	72%	74%
Ease of travel by bicycle	67%	78%	70%	76%	68%	76%	62%	67%	74%	73%
Ease of travel by bus	61%	51%	61%	52%	60%	53%	66%	59%	56%	57%
Sense of safety traveling through the corridor	86%	83%	89%	82%	86%	85%	84%	82%	86%	85%
Physical condition of commercial buildings	74%	69%	66%	73%	74%	73%	68%	64%	75%	72%
Physical condition of residential buildings	69%	66%	61%	67%	73%	67%	69%	64%	70%	68%

Prepared by National Research Center, Inc.

Table 52: Question 4

In a typical month, how many times, if at all, do you visit each of the following? (Percent at least once a month)	Gender		Age			Housing type		Housing tenure		Overall
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	
Centennial Valley office park	34%	40%	35%	43%	31%	40%	29%	40%	36%	37%
Businesses south of Dillon (Home Depot, Cinebarre, hotels)	94%	95%	83%	98%	98%	98%	85%	90%	96%	94%
Businesses between Dillon & Cherry, west of McCaslin (Lowes/Carrabbas)	92%	97%	95%	94%	96%	96%	92%	95%	95%	95%
Businesses between Dillon & Cherry, east of McCaslin (Albertsons/Kohl's)	95%	90%	85%	93%	96%	94%	87%	91%	92%	92%
Businesses north of Cherry (Walgreens, Via Toscana, Starbucks)	91%	86%	81%	92%	90%	90%	86%	81%	92%	89%
RTD station/Park'n'Ride	40%	43%	48%	43%	33%	40%	44%	44%	40%	41%
Davidson Mesa Open Space	72%	70%	76%	76%	62%	74%	65%	67%	73%	71%

Table 53: Question 5 (Actual Use)

First, tell us how many times in a typical month, if at all, you travel through the study area using each of the following modes. (Percent at least once a month)	Gender		Age			Housing type		Housing tenure		Overall
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	
In a car	98%	100%	100%	99%	99%	100%	97%	97%	100%	99%
In a bus	21%	21%	39%	16%	14%	16%	35%	42%	13%	21%
On a bicycle	44%	61%	50%	62%	42%	60%	33%	38%	58%	52%
Walking	59%	56%	58%	56%	59%	58%	58%	58%	58%	58%

Prepared by National Research Center, Inc.

Table 54: Question 5 (Preferred Use)

First, tell us how many times in a typical month, if at all, you travel through the study area using each of the following modes. Then, please indicate if you'd like to use each mode more, the same amount or less in the study area.		Gender		Age			Housing type		Housing tenure		
		Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	Overall
In a car	Use more	6%	8%	15%	5%	4%	5%	13%	10%	6%	7%
	Use the same	70%	78%	64%	73%	85%	78%	67%	76%	74%	75%
	Use less	23%	13%	21%	22%	11%	17%	20%	14%	20%	18%
In a bus	Use more	32%	23%	27%	30%	23%	29%	25%	28%	27%	28%
	Use the same	58%	66%	59%	62%	67%	63%	60%	65%	61%	62%
	Use less	9%	11%	15%	7%	10%	8%	15%	7%	11%	10%
On a bicycle	Use more	54%	60%	66%	66%	35%	59%	51%	53%	59%	57%
	Use the same	41%	36%	22%	33%	61%	37%	40%	43%	37%	38%
	Use less	5%	4%	12%	1%	4%	3%	9%	5%	5%	5%
Walking	Use more	52%	51%	65%	56%	34%	51%	54%	51%	52%	52%
	Use the same	43%	44%	23%	43%	63%	46%	39%	44%	43%	44%
	Use less	4%	5%	12%	1%	4%	4%	7%	5%	5%	5%

Table 55: Design Element #1: Commercial Building Height/Size

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Gender		Age			Housing type		Housing tenure		
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	Overall
1-story	73%	72%	59%	74%	81%	75%	66%	63%	76%	72%
2-story	71%	75%	72%	77%	66%	73%	71%	73%	73%	73%
2 or 3-story	33%	25%	26%	33%	26%	30%	27%	27%	30%	29%
4-story	13%	16%	16%	18%	8%	12%	22%	25%	11%	14%

Prepared by National Research Center, Inc.

Table 56: Design Element #2: Commercial Building Placement (Setback)

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Gender		Age			Housing type		Housing tenure		Overall
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	
No setback	36%	41%	47%	40%	30%	39%	36%	43%	37%	38%
15-20 foot setback, oriented toward street	67%	68%	66%	70%	65%	71%	58%	63%	69%	67%
Setback 20+ feet, oriented toward parking	64%	55%	47%	59%	69%	58%	65%	59%	60%	60%
Parking lot in front	40%	38%	42%	32%	48%	37%	44%	46%	37%	39%

Table 57: Design Element #3: Multi Family Residential Building Height/Size

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Gender		Age			Housing type		Housing tenure		Overall
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	
2-story townhouses	78%	65%	78%	68%	76%	70%	79%	81%	69%	72%
3-story apartment/condo building	35%	23%	33%	30%	25%	24%	44%	44%	24%	29%
Apartments/condos above retail/commercial (mixed-use building)	53%	52%	42%	62%	44%	54%	48%	53%	52%	52%
4-story apartment/condo building	21%	12%	23%	16%	13%	13%	27%	31%	11%	17%

Table 58: Design Element #4: Multi Family Residential Building Placement (Setback)

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Gender		Age			Housing type		Housing tenure		Overall
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	
5 - 10 foot setback with porches	43%	33%	50%	39%	28%	35%	47%	53%	33%	38%
15 - 20 foot setback with porches and small yards	70%	70%	80%	70%	62%	69%	74%	81%	66%	70%
20+ foot setback	58%	60%	66%	57%	56%	60%	56%	65%	57%	59%
20+ foot setback, oriented to parking lot	28%	28%	38%	19%	35%	25%	37%	31%	28%	29%

Prepared by National Research Center, Inc.

Table 59: Design Element #5: Park/Plaza

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Gender		Age			Housing type		Housing tenure		
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	Overall
Recreational Park	69%	56%	73%	60%	59%	61%	66%	72%	60%	63%
Town Green	79%	72%	81%	77%	70%	76%	72%	79%	74%	75%
Natural open space	87%	75%	87%	81%	77%	82%	81%	88%	79%	81%
Plaza	80%	66%	75%	70%	79%	71%	81%	77%	73%	74%

Table 60: Design Element #6: Streetscape

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Gender		Age			Housing type		Housing tenure		
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	Overall
Wide sidewalk/trail separated from street	78%	82%	82%	83%	75%	81%	77%	78%	81%	80%
Sidewalk buffered from street and parking with landscaping	65%	60%	61%	60%	68%	58%	75%	75%	58%	62%
Basic sidewalk	24%	19%	19%	20%	26%	21%	23%	22%	22%	22%
Wide sidewalk with many pedestrian amenities	74%	76%	73%	75%	76%	74%	78%	78%	74%	75%

Table 61: Design Element #7: Parking Placement

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Gender		Age			Housing type		Housing tenure		
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	Overall
Parking lot on side of building	71%	59%	69%	65%	64%	63%	73%	65%	66%	65%
Parking ramp behind buildings	63%	65%	61%	69%	60%	65%	63%	67%	63%	64%
Parallel street parking	28%	39%	41%	36%	22%	32%	34%	44%	29%	33%
Large parking lot in front of building	18%	23%	15%	18%	28%	20%	22%	21%	21%	21%

Prepared by National Research Center, Inc.

Table 62: Design Element #8: Parking Edge

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Gender		Age			Housing type		Housing tenure		
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	Overall
Large grass buffer	37%	39%	47%	35%	36%	36%	44%	44%	37%	38%
Landscaped buffer	63%	74%	85%	62%	64%	65%	79%	79%	65%	68%
Fence and landscaped buffer with pedestrian amenities	87%	76%	81%	79%	86%	79%	89%	89%	79%	81%
Low wall	21%	18%	9%	20%	28%	18%	26%	22%	19%	20%

Table 63: Design Element #9: Business Signage

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Gender		Age			Housing type		Housing tenure		
	Female	Male	18 to 34	35 to 54	55 and over	Detached	Attached	Rent	Own	Overall
Business directional sign	34%	31%	23%	29%	44%	33%	29%	32%	32%	32%
Internally-illuminated	56%	51%	54%	48%	63%	53%	56%	56%	53%	53%
Projecting	77%	74%	82%	77%	70%	78%	71%	80%	75%	76%
Awning	71%	70%	64%	71%	73%	71%	68%	67%	71%	70%

Prepared by National Research Center, Inc.

Comparisons by Proximity to McCaslin Boulevard Study Area

- Those living in the McCaslin Boulevard area tended to give higher ratings than those outside the area to aspects of city-wide quality of life (Table 64), as well as the aspects of the study area (Table 65).
- As may be expected, those living in the McCaslin Boulevard area tended to walk through the study area more often than those outside the area (Table 68), while those living outside the McCaslin Boulevard study area wanted to use the bus and their bicycles more (Table 69).
- Only a few differences were found between residents and non-residents of the McCaslin Boulevard study area when examining preferences for the nine design elements of the study area. Where differences were found, those who did not live in the area indicated stronger preferences for mixed-use buildings and 15-20 foot setbacks with porches and small yards (Table 72 and Table 73), while residents of the study area were more likely to prefer fence and landscaped buffers with pedestrian amenities, low walls to edge parking and business directional signs (Table 77 and Table 78).

Table 64: Question 1

Please rate each of the following for Louisville (City-wide) (Percent excellent or good):	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Overall quality of life	100%	95%	97%
Overall economic health	93%	86%	88%
Variety of housing options	52%	51%	51%
Availability of affordable quality housing	21%	22%	21%
Overall quality of shopping and dining opportunities	85%	77%	80%
Overall quality of parks, trails and open spaces	97%	95%	96%
Ease of travel by car	96%	86%	89%
Ease of travel walking	91%	88%	89%
Ease of travel by bicycle	95%	87%	89%
Ease of travel by bus	60%	58%	59%
Sense of safety traveling throughout the city	99%	93%	95%
Physical condition of commercial buildings	86%	83%	84%
Physical condition of residential buildings	88%	85%	86%

Table 65: Question 2 (Quality)

First, please rate the quality of each of the following aspects or characteristics as they relate to the McCaslin Boulevard study area (shown in the letter). (Percent excellent or good)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Variety of housing options	60%	39%	46%
Availability of affordable quality housing	24%	23%	23%
Overall quality of shopping and dining opportunities	72%	54%	61%

Prepared by National Research Center, Inc.

First, please rate the quality of each of the following aspects or characteristics as they relate to the McCaslin Boulevard study area (shown in the letter). (Percent excellent or good)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Overall quality of parks, trails and open space	86%	72%	77%
Ease of travel by car	87%	75%	79%
Ease of travel walking	76%	59%	65%
Ease of travel by bicycle	85%	57%	67%
Ease of travel by bus	52%	49%	49%
Sense of safety traveling through the corridor	87%	79%	82%
Physical condition of commercial buildings	75%	78%	77%
Physical condition of residential buildings	83%	77%	79%

Table 66: Question 2 (Importance)

Then, please tell us how important to you, if at all, it is that the City attempt to improve each of the following in the McCaslin Boulevard study area. (Percent essential or very important)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Variety of housing options	50%	39%	44%
Availability of affordable quality housing	47%	49%	49%
Overall quality of shopping and dining opportunities	79%	78%	78%
Overall quality of parks, trails and open space	84%	78%	80%
Ease of travel by car	68%	75%	73%
Ease of travel walking	78%	71%	74%
Ease of travel by bicycle	69%	74%	73%
Ease of travel by bus	49%	60%	57%
Sense of safety traveling through the corridor	81%	87%	85%
Physical condition of commercial buildings	69%	73%	72%
Physical condition of residential buildings	73%	65%	68%

Table 67: Question 4

In a typical month, how many times, if at all, do you visit each of the following? (Percent at least once a month)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Centennial Valley office park	33%	38%	37%
Businesses south of Dillon (Home Depot, Cinebarre, hotels)	95%	94%	94%
Businesses between Dillon & Cherry, west of McCaslin (Lowes/Carrabbas)	94%	95%	95%
Businesses between Dillon & Cherry, east of McCaslin (Albertsons/Kohl's)	96%	90%	92%
Businesses north of Cherry (Walgreens, Via Toscana, Starbucks)	92%	86%	89%
RTD station/Park'n'Ride	39%	42%	41%
Davidson Mesa Open Space	76%	70%	71%

Prepared by National Research Center, Inc.

Table 68: Question 5 (Actual Use)

First, tell us how many times in a typical month, if at all, you travel through the study area using each of the following modes. (Percent at least once a month)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
In a car	100%	100%	99%
In a bus	20%	21%	21%
On a bicycle	59%	49%	52%
Walking	81%	45%	58%

Table 69: Question 5 (Preferred Use)

First, tell us how many times in a typical month, if at all, you travel through the study area using each of the following modes. Then, please indicate if you'd like to use each mode more, the same amount or less in the study area.		Proximity to MCB		Overall
		Live in area	Do NOT live in area	
In a car	Use more	5%	7%	7%
	Use the same	74%	75%	75%
	Use less	20%	17%	18%
In a bus	Use more	20%	31%	28%
	Use the same	64%	62%	62%
	Use less	15%	7%	10%
On a bicycle	Use more	45%	63%	57%
	Use the same	48%	33%	38%
	Use less	7%	3%	5%
Walking	Use more	44%	55%	52%
	Use the same	51%	40%	44%
	Use less	5%	4%	5%

Table 70: Design Element #1: Commercial Building Height/Size

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
1-story	74%	72%	72%
2-story	71%	74%	73%
2 or 3-story	33%	27%	29%
4-story	10%	17%	14%

Prepared by National Research Center, Inc.

Table 71: Design Element #2: Commercial Building Placement (Setback)

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
No setback	43%	35%	38%
15-20 foot setback, oriented toward street	65%	68%	67%
Setback 20+ feet, oriented toward parking	65%	57%	60%
Parking lot in front	40%	38%	39%

Table 72: Design Element #3: Multi Family Residential Building Height/Size

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
2-story townhouses	74%	71%	72%
3-story apartment/condo building	34%	27%	29%
Apartments/condos above retail/commercial (mixed-use building)	42%	59%	52%
4-story apartment/condo building	15%	18%	17%

Table 73: Design Element #4: Multi Family Residential Building Placement (Setback)

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
5 - 10 foot setback with porches	33%	42%	38%
15 - 20 foot setback with porches and small yards	63%	74%	70%
20+ foot setback	63%	55%	59%
20+ foot setback, oriented to parking lot	27%	29%	29%

Table 74: Design Element #5: Park/Plaza

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Recreational Park	69%	59%	63%
Town Green	78%	74%	75%
Natural open space	80%	82%	81%
Plaza	78%	72%	74%

Prepared by National Research Center, Inc.

Table 75: Design Element #6: Streetscape

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Wide sidewalk/trail separated from street	82%	79%	80%
Sidewalk buffered from street and parking with landscaping	60%	63%	62%
Basic sidewalk	22%	22%	22%
Wide sidewalk with many pedestrian amenities	72%	77%	75%

Table 76: Design Element #7: Parking Placement

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Parking lot on side of building	69%	64%	65%
Parking ramp behind buildings	66%	62%	64%
Parallel street parking	28%	35%	33%
Large parking lot in front of building	17%	22%	21%

Table 77: Design Element #8: Parking Edge

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Large grass buffer	37%	38%	38%
Landscaped buffer	69%	67%	68%
Fence and landscaped buffer with pedestrian amenities	89%	77%	81%
Low wall	27%	16%	20%

Table 78: Design Element #9: Business Signage

For each photo below, tell us whether you think the design element shown would be an excellent fit, a good fit, a fair fit or a poor fit for the McCaslin Boulevard study area. (Percent excellent or good fit)	Proximity to MCB		Overall
	Live in area	Do NOT live in area	
Business directional sign	39%	29%	32%
Internally-illuminated	57%	52%	53%
Projecting	75%	76%	76%
Awning	67%	72%	70%

Prepared by National Research Center, Inc.

Appendix B: Survey Methodology

Survey Instrument Development

Louisville has conducted a general residential survey every two or three years for more than 20 years. The general residential surveys ask recipients about their perspectives on the quality of life in the city, use of city amenities, opinion on policy issues facing the city and assessment of City service delivery. This topical survey was developed to explore key issues related to the development of the McCaslin Boulevard area. The survey instrument development process began with a review of the topics to be explored. In an iterative process between City staff, Cuningham Group Architecture, Inc. and NRC staff, a final 11-page questionnaire was developed.

Selecting Survey Recipients

"Sampling" refers to the method by which survey recipients are chosen. The "sample" refers to all those who were given a chance to participate in the survey. All households located in the city boundaries were eligible for the survey. Because City governments generally do not have inclusive lists of all the residences in the jurisdiction (tax assessor and utility billing databases often omit rental units), lists from the United States Postal Service (USPS), updated every three months, usually provide the best representation of all households in a specific geographic location. NRC used USPS data to randomly select the sample of households.

A larger list than needed was selected so that a process referred to as "geocoding" could be used to eliminate addresses from the list that were outside the study boundaries. Geocoding is a computerized process in which addresses are compared to electronically mapped boundaries and coded as inside or outside desired boundaries. All addresses determined to be outside the study boundaries were eliminated from the list. A random selection was made of the remaining addresses to create a final list of 1,200 addresses. Attached household units were over-sampled because residents of this type of housing typically respond at lower rates to surveys than do those in detached housing units.

An individual within each household was randomly selected to complete the survey using the birthday method. The birthday method selects a person within the household by asking the "person whose birthday has most recently passed" to complete the questionnaire. The underlying assumption in this method is that day of birth has no relationship to the way people respond to surveys. This instruction was contained in the cover letter accompanying the questionnaire.

Survey Administration and Response

Two versions of the survey were created. The full 11-page version included two pages of questions and demographics, plus nine pages of photograph comparisons representing the potential design elements for respondents to evaluate. The shorter, two-page version included just the two pages of questions and demographics. Residents receiving

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the two-page version were then asked to go online (using a URL included on the survey) to complete the photograph comparison portion of the survey. Households selected to participate were randomly assigned the two- or 11-page version of the survey – 600 households received each version. All survey recipients were provided the option to complete the entire survey online. All surveys were given a unique identifier to access the online survey; this identifier also permitted the matching of responses from the two-page hard copies to the online photographic comparisons submitted via the Internet.

Each selected household was contacted three times. First, a prenotification announcement was sent, informing the household members that they had been selected to participate in the McCaslin Boulevard Planning Survey. Approximately one week after mailing the prenotification, each household was mailed a survey and a cover letter signed by the Mayor enlisting participation. The packet also contained a postage-paid return envelope in which the survey recipients could return the completed questionnaire to NRC. A reminder letter and survey, scheduled to arrive one week after the first survey, was the final contact. The second cover letter asked those who had not completed the survey to do so and those who had already done so to refrain from turning in another survey. The cover letters included a URL where respondents could go online to complete the survey.

The mailings were sent in June 2015 and completed surveys were collected over the following seven weeks. About 1% of the 1,200 surveys mailed were returned because the housing unit was vacant or the postal service was unable to deliver the survey as addressed. Of the remaining 1,191 households, 426 completed the survey (including 184 web responses), providing a response rate of 36%; average response rates for a mailed resident survey range from 25% to 40%.

95% Confidence Intervals

The 95% confidence interval (or “margin of error”) quantifies the “sampling error” or precision of the estimates made from the survey results. A 95% confidence interval can be calculated for any sample size, and indicates that in 95 of 100 surveys conducted like this one, for a particular item, a result would be found that is within plus or minus five percentage points of the result that would be found if everyone in the population of interest was surveyed. The practical difficulties of conducting any resident survey may introduce other sources of error in addition to sampling error. Despite best efforts to boost participation and ensure potential inclusion of all households, some selected households will decline participation in the survey (potentially introducing non-response error) and some eligible households may be unintentionally excluded from the listed sources for the sample (referred to as coverage error).

While the 95 percent confidence interval for the survey is generally no greater than plus or minus five percentage points around any given percent reported for the entire sample; results for subgroups will have wider confidence intervals. Where estimates are

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given for subgroups, they are less precise. For each subgroup from the survey, the margin of error rises to as much as plus or minus 10% for a sample size of 100 completed surveys.

Survey Processing (Data Entry)

Mailed surveys were submitted via postage-paid business reply envelopes. Each survey was reviewed and "cleaned" as necessary. For example, a question may have asked a respondent to pick two items out of a list of five, but the respondent checked three; staff would choose randomly two of the three selected items to be coded in the survey responses dataset.

All surveys are entered into an electronic dataset, which was subject to a data entry protocol of "key and verify." In this process, data were entered twice into an electronic dataset and then compared. Discrepancies were evaluated against the original survey form and corrected. Range checks as well as other forms of quality control were also performed.

Survey data collected via the web were automatically stored electronically. The web data were downloaded, cleaned as necessary and then merged with the mail data for analysis.

Weighting the Data

The primary objective of weighting survey data is to make the survey sample reflective of the larger population of of the larger population of the city. This is done by: 1) reviewing the sample demographics and comparing them to demographics and comparing them to the population norms from the most recent Census or other sources and 2) Census or other sources and 2) comparing the responses to different questions for demographic subgroups. The demographic subgroups. The demographic characteristics that are least similar to the Census and yield the most Census and yield the most different results are the best candidates for data weighting. Several different weighting Several different weighting "schemes" are tested to ensure the best fit for the data. The data were weighted by data were weighted by housing tenure (rent or own), housing type (attached or detached), age and gender. The detached), age and gender. The results of the weighting scheme are presented in

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Table 79 on the following page.

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Table 79: Weighting Table for the City of Louisville McCaslin Boulevard Planning Survey

	2010 Census*	Unweighted	Weighted
Rent	27%	10%	27%
Own	73%	90%	73%
Detached†	74%	82%	74%
Attached†	26%	18%	26%
Female	51%	55%	51%
Male	49%	45%	49%
Age 18-34	23%	7%	22%
Age 35-54	46%	46%	46%
Age 55 and over	31%	47%	32%
Female 18-34	11%	4%	12%
Female 35-54	24%	24%	23%
Female 55 and over	16%	26%	16%
Male 18-34	12%	3%	11%
Male 35-54	22%	22%	23%
Male 55 and over	15%	21%	15%

* Population in households
† ACS 2011 5-year estimates

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Analyzing the Data

The surveys were analyzed using IBM's Statistical Package for the Social Sciences (SPSS). Frequency distributions are presented in the body of the report. Chi-square and ANOVA tests of significance were applied to breakdowns of selected survey questions by respondent characteristics. A "p-value" of 0.05 or less indicates that there is less than a 5% probability that differences observed between groups are due to chance; or in other words, a greater than 95% probability that the differences observed in the selected categories of our sample represent "real" differences among those populations. Where differences between subgroups are statistically significant, they are marked with grey shading in the appendices.

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Appendix C: Survey Materials

The pages that follow display the survey materials that were mailed to residents.

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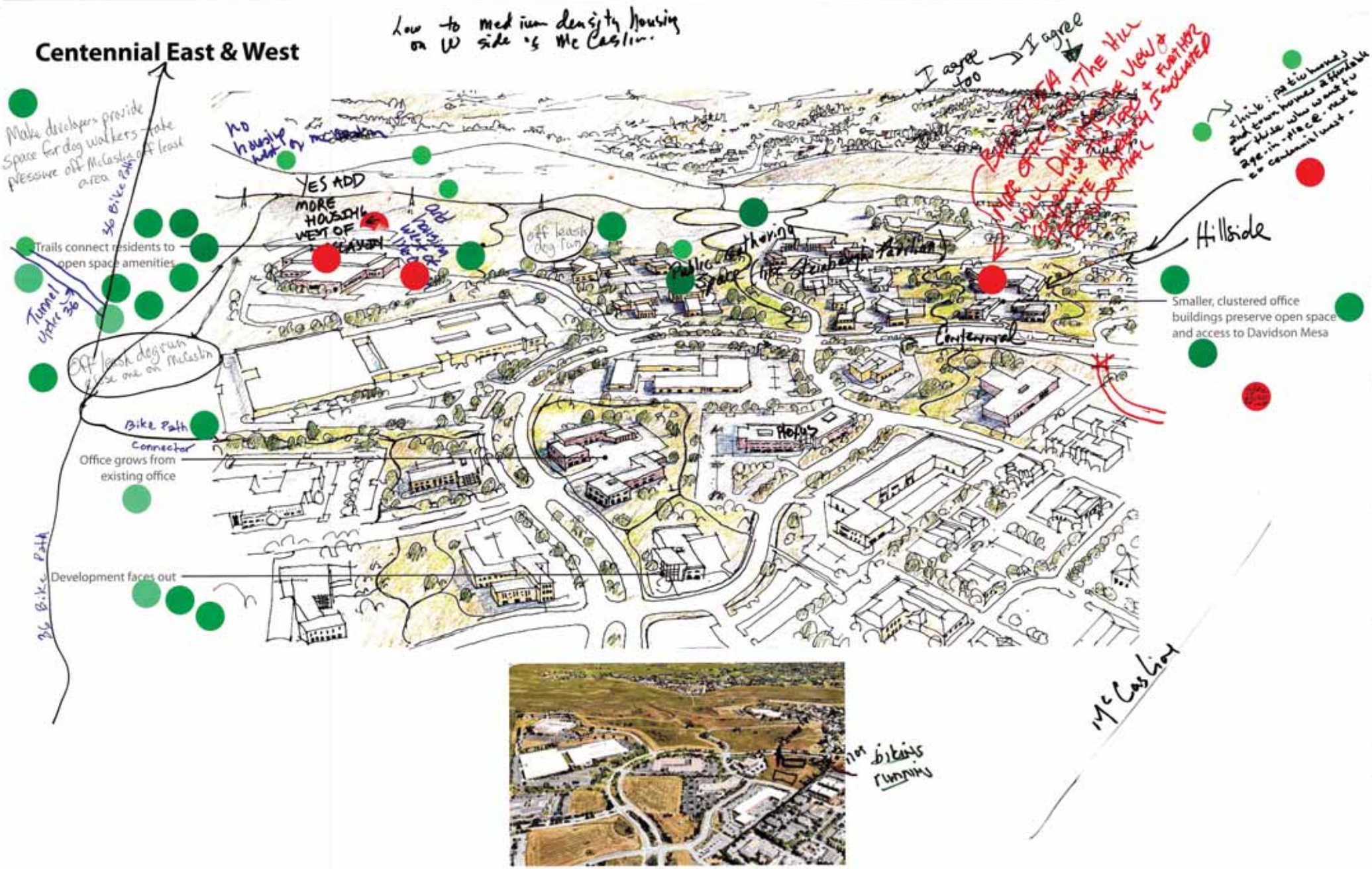
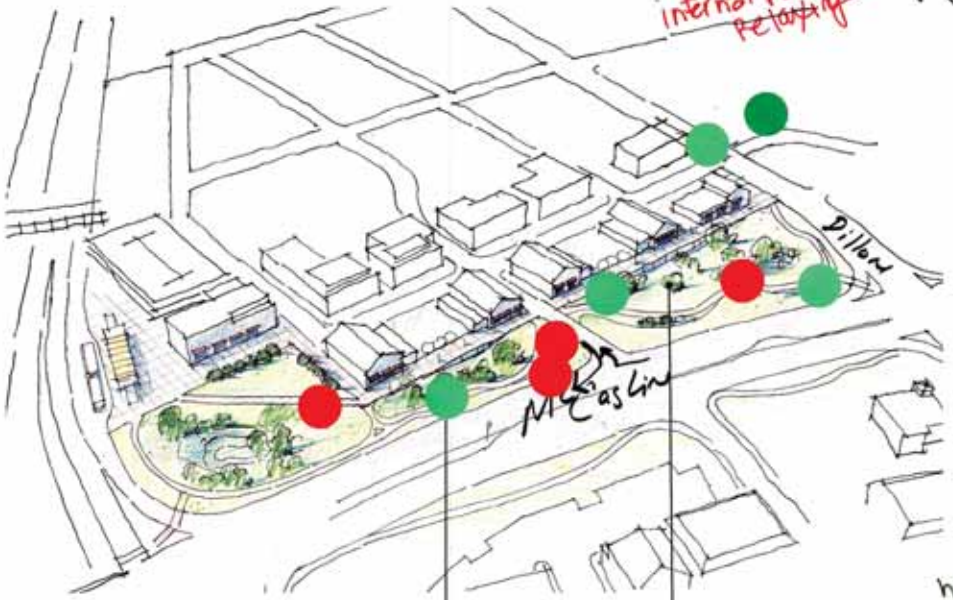
Centennial East & West



Colony Square

Park along McCaslin



WOULD BE GOOD with Both!
PARK ALONG McCASLIN good for Bikes/Ped getting to Trans
internal Park more Relaxing

keep building height under 3stories

Mixed use trail connects residents to BRT station

Landscape park creates a gateway

Trail access to station

Retail promenade

Landscaping

Stormwater management

Internal Park

take advantage of viewsheds

Same person plot on two days and comment

We Need housing here.

TOO NEEDS Housing.

- Quiet pedestrian/outdoor seating/eating away from cars.
- Good Landscaping

no more housing.

soften w/ some landscaping

I don't want to stare at back of building

hybrid of these two

Mixed use trail connects residents to BRT station

Boulevard street design creates a series of linear park spaces

Boulevard design

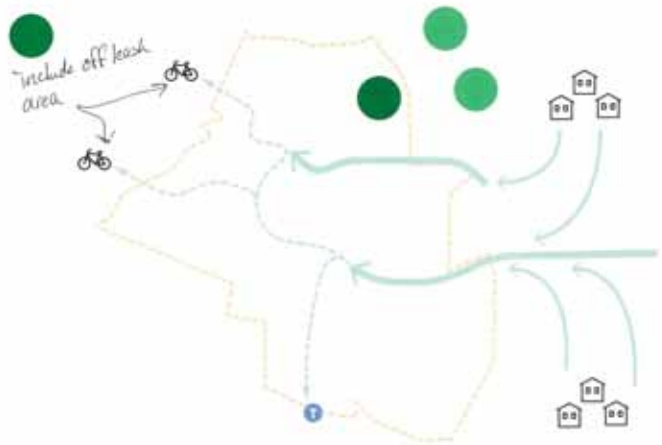
keep building height low!

Flexible gathering spaces

Urban Design Principles

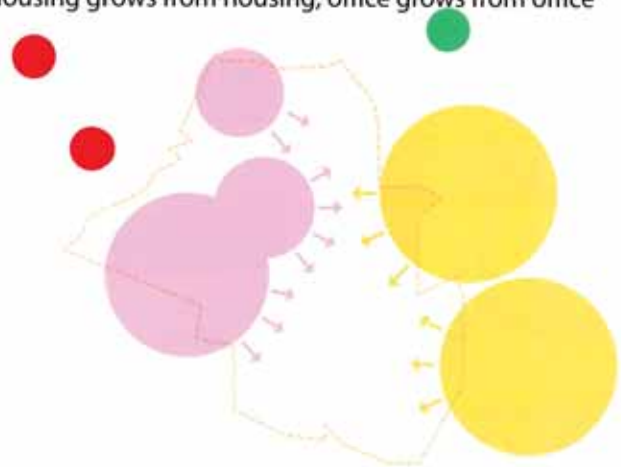
Improve McCaslin

Connect residents to amenities



Smaller blocks

Housing grows from housing; office grows from office



Development faces out

McCaslin Boulevard

YES! PLEASE DO THIS

will existing trees be preserved? I hope so

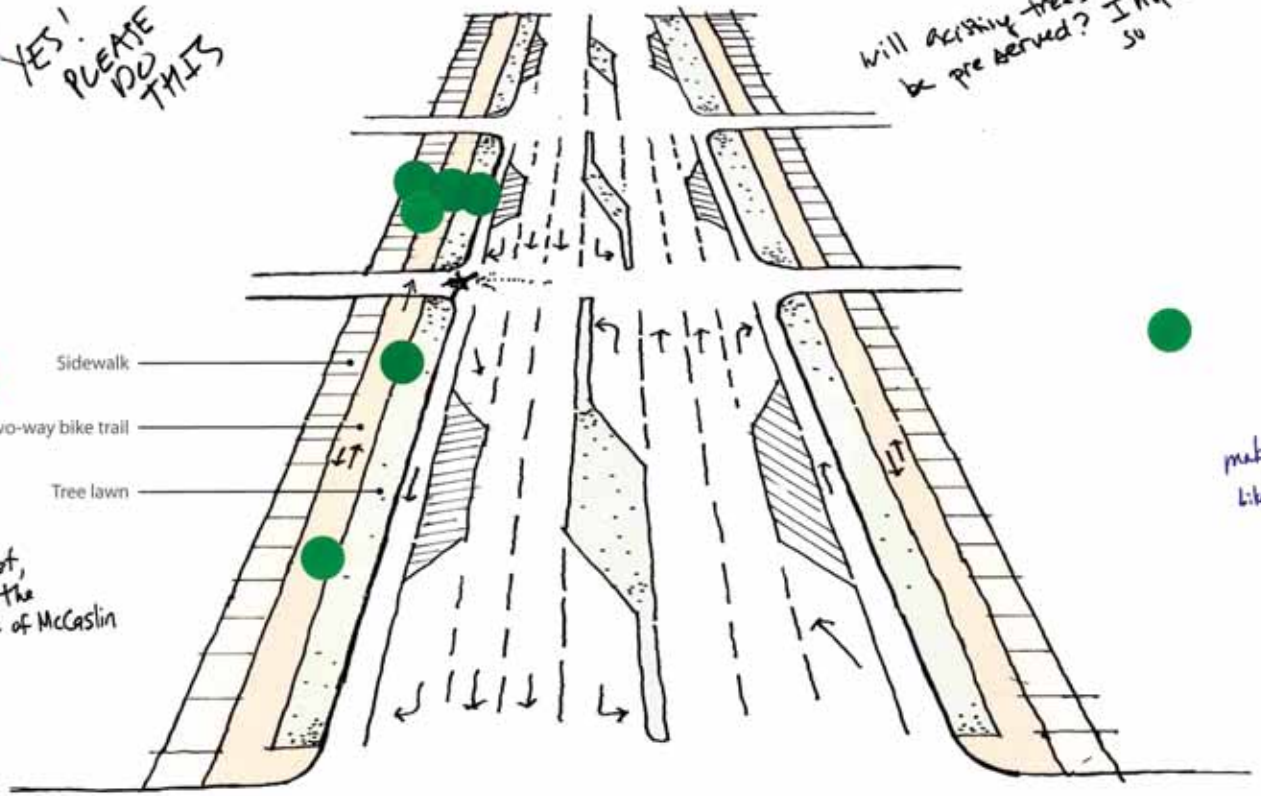
But this is a great point

Sidewalk

Two-way bike trail

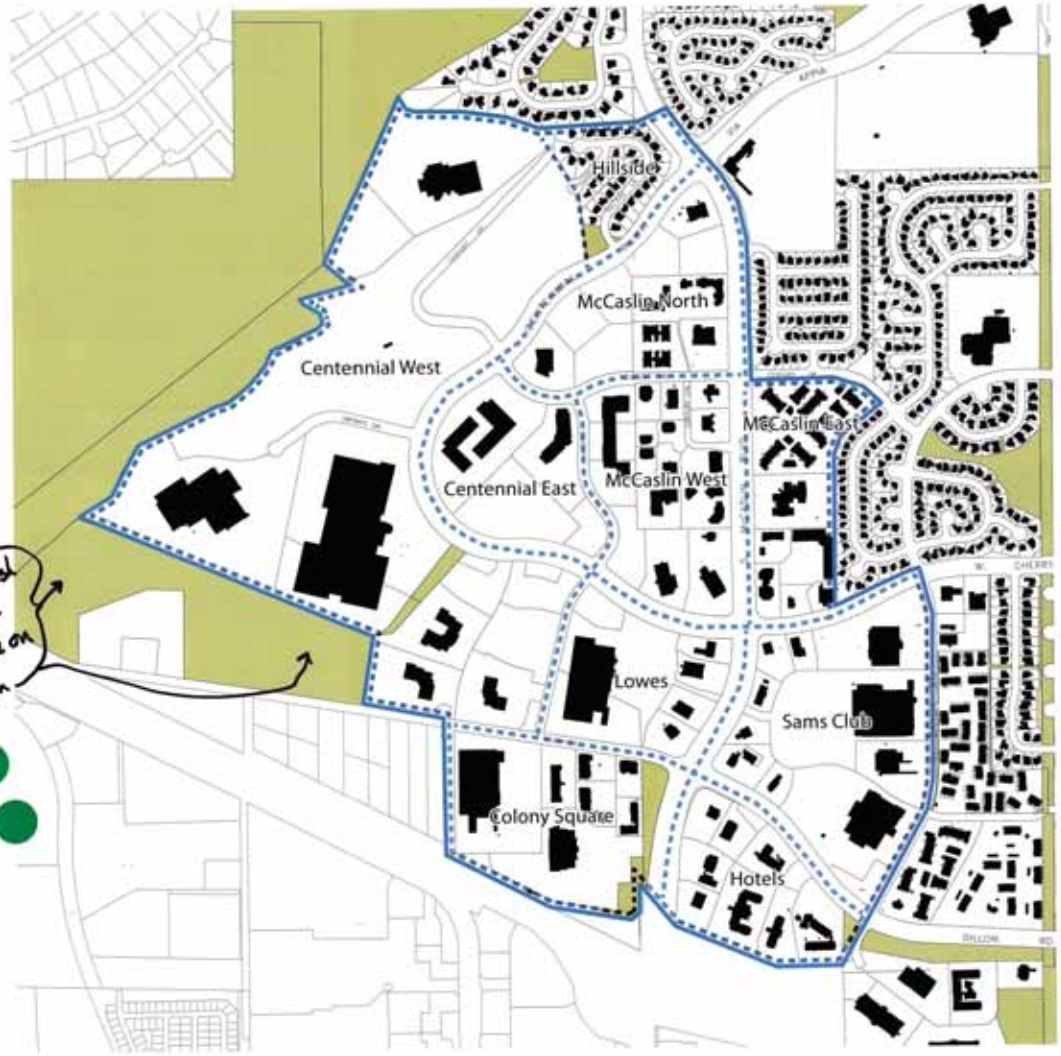
Tree lawn

Why 2-way? people going N will look N if they turn left onto side street, no one will look S to see the bikes going N on the W side of McCaslin



make McCaslin "feel" safe for residents to cross + use bike lanes, crosswalks, slower speed (not traffic backed up at lights)

Existing Study Area

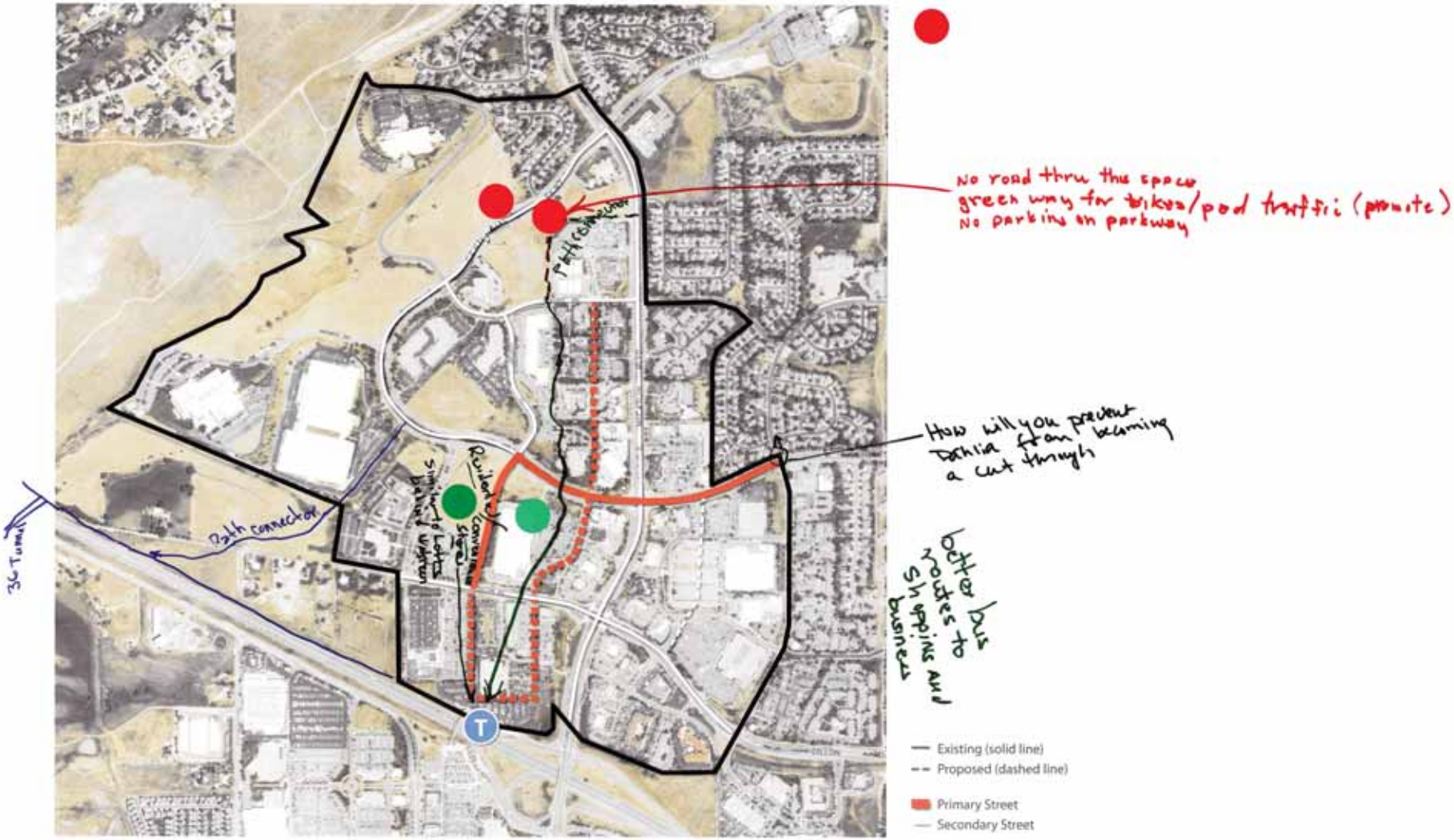


off least dogma-close one on McCaslin

High Density housing imposes burden on existing homeowners

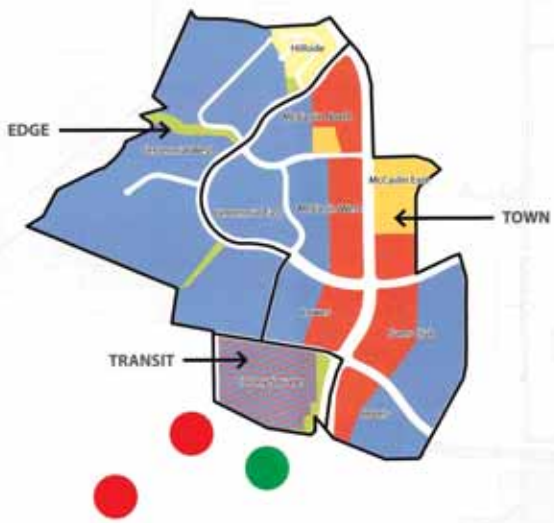
agreed

Primary and Secondary Streets



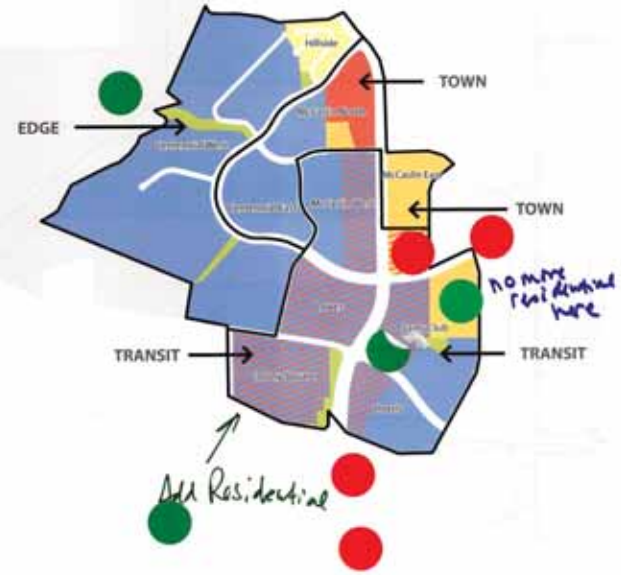
Land Use Alternatives: CGA

Alternative 1: Small transit area; no new res



Alternative 2: Medium transit area; some new res

Alternative 3: Large transit area; most new res



- Low Density Residential
- Medium Density Residental
- Retail
- Office
- Mixed Use (Office over Retail)
- Mixed Use (Housing over Retail)

please consider
Mixed income residential
to improve diversity
(economic + other) in Louisville
This is sorely needed

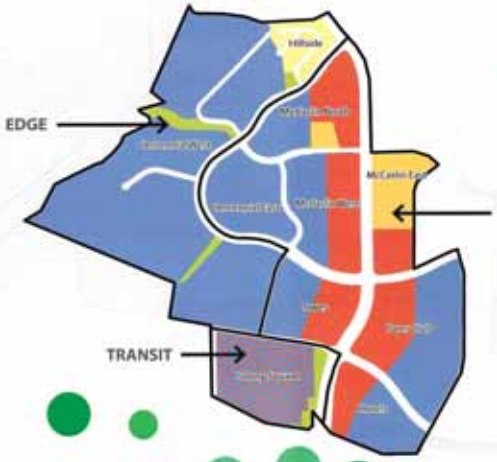
Fiscal Analysis

Projected Development by Scenario	
Existing in Study Area	
Retail	790,603 Square feet
Office	1,638,284 Square feet
Residential	277 Units
Employees	7,993 People
Residents	333 People
20 yr Increase over Existing	
Alternative 1	
Retail	133,362 Square feet
Office	2,396,893 Square feet
Residential	77 Units ? 0 ?
Employees	9,366 People
Residents	109 People
Alternative 2	
Retail	337,669 Square feet
Office	2,755,332 Square feet
Residential	293 Units
Employees	10,952 People
Residents	382 People
Alternative 3	
Retail	410,608 Square feet
Office	2,839,743 Square feet
Residential	514 Units
Employees	11,561 People
Residents	669 People

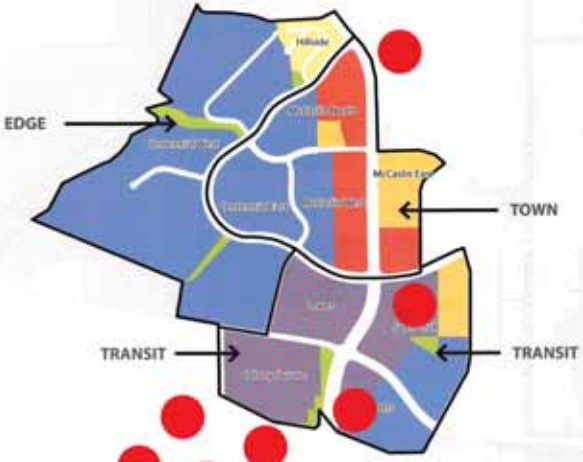
20 yr Cumulative Fiscal Impact **Revenue by Fund**	Alternative 1	Alternative 2	Alternative 3
General Fund	$40,060,000	$58,304,000	$67,580,000
Urban Revitalization District Fund	$0	$0	$0
Open Spaces & Parks Fund	$3,993,000	$6,717,000	$8,090,000
Lottery Fund	$0	$0	$0
Historic Preservation Fund	$1,572,000	$2,525,000	$3,007,000
Capital Projects Fund	$12,402,000	$20,683,000	$25,214,000
TOTAL REVENUE	**$58,027,000**	**$88,229,000**	**$103,891,000**
Expenditures by Fund			
General Fund	$35,435,000	$42,118,000	$43,838,000
Urban Revitalization District Fund	$0	$0	$0
Open Spaces & Parks Fund	$447,000	$842,000	$932,000
Lottery Fund	$0	$0	$0
Historic Preservation Fund	$0	$0	$0
Capital Projects Fund	$30,312,000	$43,204,000	$46,322,000
TOTAL EXPENDITURES	**$66,194,000**	**$86,164,000**	**$91,092,000**
NET FISCAL RESULT BY FUND			
General Fund	$4,625,000	$16,187,000	$23,742,000
Urban Revitalization District Fund	$0	$0	$0
Open Spaces & Parks Fund	$3,546,000	$5,875,000	$7,158,000
Lottery Fund	$0	$0	$0
Historic Preservation Fund	$1,572,000	$2,525,000	$3,007,000
Capital Projects Fund	-$17,910,000	-$22,521,000	-$21,108,000
NET FISCAL IMPACT	**-$8,167,000**	**$2,066,000**	**$12,799,000**

Land Use Alternatives: CGA

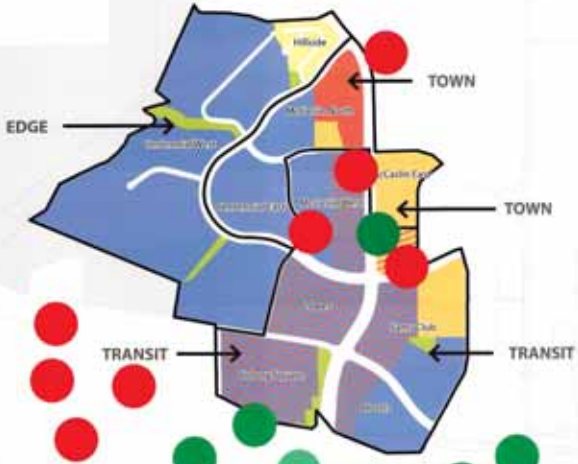
Alternative 1: Small transit area; no new res



Alternative 2: Medium transit area; some new res



Alternative 3: Large transit area; most new res



- Low Density Residential
- Medium Density Residental
- Retail
- Office
- Mixed Use (Office over Retail)
- Mixed Use (Housing over Retail)

Makes no sense to develop a Transit hub with zero housing.

And would like to see incentives for affordable housing.

we need a mix of residence + business to support the transit destination area

- We need the land use to support the new + significant investments in transportation to ensure it is successful.
- maximize use of the system.

Keep building less than 3 stories (A+)
- Do not block views of mountains!

What is wrong leaving it as it is now? — or small scale. ++ agree

I agree → We don't need dense, 4 story massive buildings as Gateway to city.

- The fastest way to decrease quality of life is to create traffic jams. The more traffic = the more it will shop on-line.

Sam's Club

Like the housing @ Sam's club site.

ADD MORE HOUSING FOR ALL TYPES OF PEOPLE.

agreed - name of that

Likes! ... a structure & ... impacts of traffic & crowding housing ... of schools, roads & rec center

no more housing yes

Please no more housing agree

yes to retail/office

no housing

Housing grows from existing housing

no more housing here

Public SAM'S CLUB.

Post Office

Cherry

McCaslin

Development faces out onto primary and secondary streets

New neighborhood park

more green space yes

yes

Introduction of new roads creates smaller blocks

A 'Fri. Nite Faire' venue.

A farmers' Mkt. / Concerts in the Park.

create a destination-gathering place like Sloan Park pavilion small stores farmer's market yes

preserve view corridors yes

Ground floor retail with office above

Dillon

CHANGE THIS INTERSECTION
- NARROW
- SLOW

PARK needs to be bigger!

also consider school not just housing

- consider uses for greenspaces for green spaces, food production and entertainment venues

- 1st/final mile connection
- neighborhood ecopass
- business ecopass

underground parking for commercial. to tear it down build mixed-use.

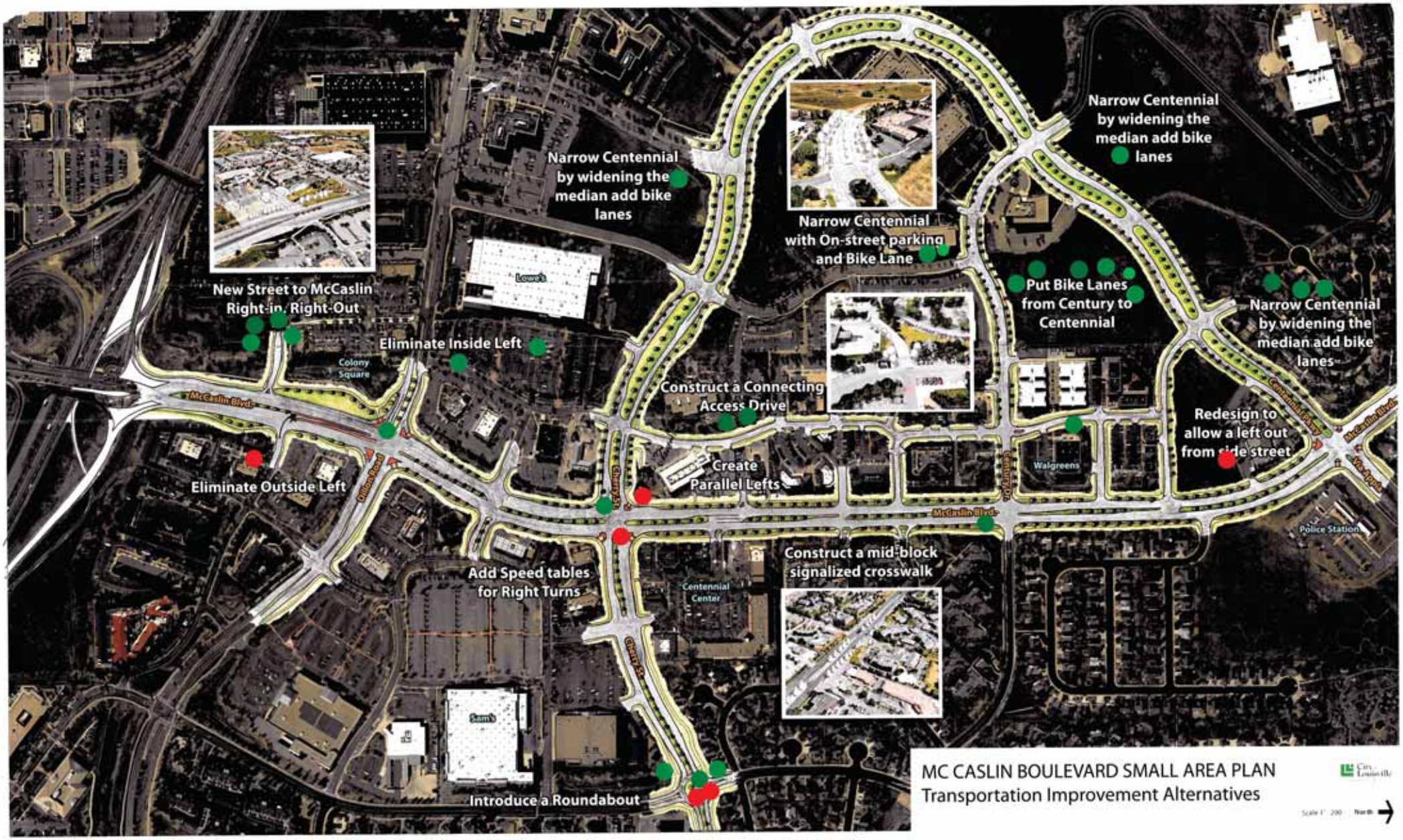
good idea

I need Kohl's! Please don't

MC CASLIN BOULEVARD SMALL AREA PLAN
Transportation Improvement Alternatives

City Louisville

Scale 1" 200 North



MC CASLIN BOULEVARD SMALL AREA PLAN
Transportation Improvement Alternatives

City of Louisville
McCaslin Boulevard
Small Area Plan

TRANSPORATION ASSESSMENT MEMORANDUM

MARCH 2016

Prepared By:

Kimley»Horn

Contents

Introduction 3
Existing Conditions 3
Roadway Characteristics 3
Traffic Volumes 3
Level of Service 3
Queue Lengths 5
Travel Times 6
CRASH History 7
Future Conditions 7

Figures

Figure 1. Study Area
Figure 2. Existing Lane Configurations, Control and Level of Service
Figure 3. Existing Traffic Volumes
Figure 4. 2012-2014 Accident History
Figure 5. Future Alternate 1 Build Out Traffic Volumes
Figure 6. Future Alternate 2 Build Out Traffic Volumes
Figure 7. Future Alternate Build Out Traffic Volumes
Figure 8. Buildout Lane Configurations, Control and Level of Service

TABLES

Table 1. Level of Service Definitions 4
Table 2. Existing Intersection LOS 5
Table 3. Existing Queue Lengths 6
Table 4. McCaslin Boulevard– Existing Peak Hour Travel Times 7
Table 5. McCaslin Boulevard Trip Generation 7
Table 6. McCaslin Boulevard Intersection Delay and Level of Service 8
Table 7. McCaslin Boulevard Measures of Effectiveness Comparison 9

INTRODUCTION

This Transportation Assessment Memorandum has been prepared for the City of Louisville (Louisville) to help understand how well the existing transportation system along the McCaslin Boulevard corridor performs. For the purposes of this assessment, the McCaslin Boulevard corridor is generally bound by Via Appia Way to the north and Dillon Road to the south.

A map illustrating the study area is attached as **Figure 1**.

EXISTING CONDITIONS

ROADWAY CHARACTERISTICS

According to Louisville's Comprehensive Plan, McCaslin Boulevard transitions from an urban center to an urban corridor from Cherry Street north to Via Appia Way. McCaslin Boulevard provides two through lanes of travel in each direction (northbound and southbound) and has a posted speed limit of 40 miles per hour (MPH) north of Cherry Street and 35 MPH south of Cherry Street. In addition to the two through lanes, a continuous auxiliary lane exists that provides right turn deceleration and acceleration movements from major intersections or three through lanes. McCaslin Boulevard serves both local and commuter traffic. The roadway provides a connection between Louisville and the Boulder Turnpike (US-36).

The following four signalized Intersections are located along McCaslin Boulevard within the study area:

- Centennial Parkway/Via Appia Way
- Century Drive
- Centennial Parkway/Cherry Street
- Dillon Road

The existing intersection lane configuration and control for each of the signalized intersections is shown in **Figure 2**.

TRAFFIC VOLUMES

Existing peak hour turning movement counts were provided by Louisville for each signalized intersection along McCaslin Boulevard. The turning movement counts were conducted on Thursday, October 3, 2013 for the Century Drive intersection, Wednesday, October 9, 2013 for the Centennial Parkway/Cherry Street and Dillon Road intersections, and Thursday, October 10, 2013 for the Via Appia Way intersection. The counts were conducted in 15-minute intervals during the morning (AM) and afternoon (PM) peak hours of adjacent street traffic from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM on the count days. Existing traffic volumes from the turning movement counts are shown in **Figure 3** and the count sheets are provided in the **Appendix**.

LEVEL OF SERVICE

Kimley-Horn performed a level of service analysis of the corridor to determine any existing capacity deficiencies at the four signalized intersections. The acknowledged source for determining overall capacity is the Transportation Research Board's *Highway Capacity Manual, Special Report 209* (2010). Per the Highway Capacity Manual, capacity analysis results are listed in terms of level of service (LOS).

LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. It ranges from A (very little delay) to F (long delays and congestion). **Table 1** shows the definition of level of service for signalized intersections. LOS for a signalized intersection is defined for the intersection as a whole as well as each approach/ movement.

Table 1. Level of Service Definitions

Level of Service	Signalized Intersection Average Total Delay (sec/veh)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80
Source: **Highway Capacity Manual, Special Report 209, Transportation Research Board (2010)**	

Synchro traffic analysis software was used to analyze the study area intersections for LOS. The Synchro software utilizes Highway Capacity Manual (HCM) methodology to calculate intersection delay and LOS. The results of the Syncho LOS analysis for the four signalized intersections and each of their approaches within the study corridor are shown in **Table 2** and also illustrated on **Figure 2**. The Synchro worksheets for the LOS analysis are provided in the **Appendix**.

The LOS analysis was conducted utilizing the existing signal phasing observed during a site visit.

Table 2. Existing Intersection LOS

Intersection	Intersection Approach	LOS (AM/PM)
Via Appia Way		**B/B**
	Northbound	A/A
	Southbound	A/A
	Eastbound	D/D
	Westbound	D/D
Century Drive		**A/B**
	Northbound	A/B
	Southbound	A/A
	Eastbound	C/D
	Westbound	D/D
Cherry Street		**B/B**
	Northbound	A/A
	Southbound	B/B
	Eastbound	D/D
	Westbound	D/D
Dillon Road		**C/C**
	Northbound	C/D
	Southbound	A/A
	Eastbound	D/D
	Westbound	D/D

QUEUE LENGTHS

Queue lengths were also analyzed utilizing the Synchro traffic analysis software. The Synchro software utilizes Highway Capacity Manual (HCM) methodology to calculate queue lengths at each intersection approach. The results of the queue analysis for each approach of the four study signalized intersections is provided in **Table 3**. The Synchro worksheets showing the queue length analysis are provided in the **Appendix**.

Table 3. Existing Queue Lengths

Intersection	Movement	Existing Length (feet)	Existing AM (feet)	Existing PM (feet)
Via Appia				
	Northbound Left	100	9	9
	Southbound Left	150	19	58
	Eastbound Left	200	30	38
	Westbound Left	150/C #	132	120
Century Drive				
	Northbound Left	250	18	19
	Southbound Left	125	12	33
	Eastbound Left	100	38	**124**
	Westbound Left	100	52	43
Cherry Street				
	Northbound Left	300	110	3
	Southbound Left	300	49	35
	Eastbound Left	75	51	62
	Westbound Left	125/C #	119	111
Dillon Road				
	Northbound Left	425 #	93	85
	Southbound Left	225 #	88	176
	Eastbound Left	150/C	26	64
	Westbound Left	275/C	235	258

C = Continuous, # = Dual Left Turn Lanes

As shown in the table, all existing queues of the McCaslin Boulevard study area intersections are accommodated within the existing storage bays except for the eastbound left turn at the Century Drive/McCaslin Boulevard intersection during the afternoon peak hour. It was found that the existing left turn lane may need to be restriped to accommodate a length of 125 feet.

TRAVEL TIMES

Travel time data was calculated along the segment of McCaslin Boulevard between Via Appia and Dillon Road based on vehicle travel speeds. The northbound and southbound AM and PM peak hour travel times for this segment of the study corridor are provided in **Table 4** below.

Table 4. McCaslin Boulevard– Existing Peak Hour Travel Times

Direction	Travel Time	
	AM Peak Hour	PM Peak Hour
Northbound	2 minutes, 13 seconds	2 minutes, 24 seconds
Southbound	2 minutes, 30 seconds	2 minutes, 37 seconds

CRASH HISTORY

Louisville provided crash history data for the study. Based on this data, a total of 60 accidents were reported at the four signalized intersections along the study corridor over the three year study period of 2012, 2013, and 2014. The 60 accidents involved 123 vehicles, resulting in 16 injuries. Data on the severity of the injuries was not provided. The intersection with the highest crash concentration was the Dillon Road/McCaslin Boulevard intersection, where 46 of the crashes occurred. The remaining three study area intersections all had similar crash numbers and rates. The reported crashes by intersection are shown in **Figure 4**.

FUTURE CONDITIONS

Future traffic volumes were identified for the study area based on the planned development locations, uses, and type. These were refined into three separate development densities, known as Alternate 1, Alternate 2, and Alternate 3. An evaluation of the three build out alternatives was conducted to provide an overall comparison. The trip generation for the new development in the study area for each development density is shown in **Table 5**.

Table 5. McCaslin Boulevard Trip Generation

Vehicle Trip Generation							
		AM			PM		
Scenario	**Size**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Alternate 1							
Residential	77 Units						
Office	2,396,893 SF						
Retail	133,362 SF	3,175	535	3,710	840	3,025	3,865
Alternate 2							
Residential	293 Units						
Office	2,755,332 SF						
Retail	337,669 SF	3,590	720	4,310	1,150	3,515	4,665
Alternate 3							
Residential	514 Units						
Office	2,839,743 SF						
Retail	410,608 SF	3,800	880	4,680	1,400	3,810	5,210

As shown in the trip generation table, Alternate 1 of development is anticipated to generate approximately 3,710 morning peak hour and 3,865 afternoon peak hour new trips to the surrounding street network. By comparison, Alternate 2 development would generate approximately 4,310 morning peak hour trips and 4,665 afternoon peak hour trips. Alternate 3 development would generate approximately 4,680 morning peak hour trips and 5,210 afternoon peak hour trips.

The projected trip generation for each development alternative was assigned to the street network and study area intersections based on development location and an overall trip distribution. The resultant future traffic volumes were compared with the Denver Regional Council of Governments DRCOG transportation model 2035 forecast volumes as provided in the comprehensive plan. As identified, the project traffic volumes from the assignment of these future build out traffic volumes exceed the DRCOG projections slightly. The future traffic volumes for the three studied development alternatives are shown in **Figure 5** for Alternate 1, **Figure 6** for Alternate 2, and **Figure 7** for Alternate 3. Based on these future traffic volume estimates for the three build out alternatives, Synchro traffic models were developed to identify future level of service at the intersections. These are summarized in **Table 6**.

Table 6. McCaslin Boulevard Intersection Delay and Level of Service

Intersection		AM Peak Hour		PM Peak Hour	
		Delay (sec/veh)	**LOS**	**Delay (sec/veh)**	**LOS**
1	**Via Appia**				
	Existing	12.4	B	12.5	B
	Alternate 1	28.0	C	32.3	C
	Alternate 2	30.9	C	33.9	C
	Alternate 3	36.4	D	51.9	D
2	**Century Drive**				
	Existing	6.9	A	12.2	B
	Alternate 1	18.0	B	21.9	C
	Alternate 2	28.2	C	31.0	C
	Alternate 3	35.7	D	45.6	D
3	**Centennial Parkway/Cherry Street**				
	Existing	14.5	B	13.6	B
	Alternate 1	49.9	D	31.9	C
	Alternate 2	68.0	E	53.1	D
	Alternate 3	96.6	F	63.2	E
4	**Dillon Road**				
	Existing	26.3	C	29.7	C
	Alternate 1	52.5	D	62.3	E
	Alternate 2	62.2	E	85.8	F
	Alternate 3	67.0	E	98.7	F

The increased development density with each alternative results in an increase to the average vehicle delay through the intersections. All study intersections are anticipated to operate acceptably (LOS E or better) during the morning and afternoon peak hours with the Alternate 1 development. With Alternate 2, the Dillon Road and McCaslin Boulevard intersection may operate at LOS F during the afternoon peak hour. Alternate 3 density traffic volumes result in the Centennial Parkway/Cherry Street and McCaslin Boulevard intersection operating at LOS F during the morning peak hour as well as the Dillon Road and McCaslin Boulevard intersection operating at LOS F.

In addition, a comparison of the corridor travel times was performed to provide a comparison of congestion levels anticipated through the corridor based on each buildout alternative. This is shown in **Table 7**.

Table 7. McCaslin Boulevard Measures of Effectiveness Comparison

McCaslin Boulevard Corridor	Average Speed (mph)		Average Corridor Travel Time		Fuel Consumed (gal)	
	NB	SB	NB	SB	NB	SB
Existing Network						
AM Peak	27	24	2 min 13 sec	2 min 30 sec	59	48
PM Peak	25	23	2 min 24 sec	2 min 27 sec	71	79
Buildout (Alternative 1)						
AM Peak	20	14	3 min 0 sec	4 min 17 sec	137	124
PM Peak	15	14	4 min 0 sec	4 min 17 sec	162	168
Buildout (Alternative 2)						
AM Peak	16	9	3 min 45 sec	6 min 40 sec	155	179
PM Peak	12	12	5 min 0 sec	5 min 0 sec	208	195
Buildout (Alternative 3)						
AM Peak	13	8	4 min 37 sec	7 min 30 sec	182	206
PM Peak	11	9	5 min 27 sec	6 min 40 sec	223	259

The study area analysis results in the following recommendations, as summarized in **Figure 8**.

McCaslin Boulevard

- Reduce McCaslin Boulevard to two through lanes in each direction north of Cherry Street. Auxiliary turn lanes are also not needed through this section of McCaslin Boulevard other than a northbound right turn lane at Via Appia.
- Maintain McCaslin Boulevard providing three through lanes in each direction between US 36 Boulder Turnpike and Cherry Street. The third outside northbound through lane to become a forced right turn lane at Cherry Street. The third outside southbound through lane to be introduced on the approach to Cherry Street, approximately 300 feet prior to the intersection.

Centennial Parkway

- Reduce Centennial Parkway to one lane in each direction. This will allow for on-street parking and/or bicycle lanes as desired.

Via Appia and McCaslin Boulevard Intersection

- Remove the outside eastbound through lane
- Designate northbound right turn lane as free movement
- Lengthen northbound left turn lane to 200 feet
- Construct northbound right turn lane to 300 feet
- Lengthen southbound left turn lane to 200 feet
- Lengthen inside westbound dual left turn lane to 250 feet
- Introduce pedestrian tables within the dedicated right turn lanes similar to those on Dillon Road

Century Drive and McCaslin Boulevard Intersection

- Remove northbound and southbound third through lane and separate right turn lanes
- Lengthen eastbound left turn lane to 200 feet

Centennial Parkway/Cherry Street and McCaslin Boulevard Intersection

- Remove the outside eastbound through lane
- Designate northbound outside third through lane to drop right turn lane as free movement
- Lengthen northbound left turn lane to 450 feet
- Reconstruct southbound approach and right turn lane to include three through lanes on approach to intersection (300 feet prior)
- Lengthen eastbound left turn lane to 175 feet
- Designate eastbound right turn movement to YIELD condition
- Introduce pedestrian tables within the dedicated right turn lanes similar to those on Dillon Road

Dillon Road and McCaslin Boulevard Intersection

- Shorten northbound dual left turn lanes to 250 feet
- Construct third northbound through lane
- Construct 200-foot separate northbound right turn lane
- Lengthen westbound right turn lane to 500 feet with conversion to YIELD condition

Two significant community design and economic development opportunities arise from the future year traffic analysis. First, reducing Centennial Parkway from a four-lane parkway to a two-lane boulevard with on-street parking and a regional trail incorporated into the median. This will significantly increase the livability of the corridor and assist the adjacent property owners in reducing their on-site parking demand and strengthen the economic viability of the properties. Second, reducing McCaslin Boulevard from a six-lane to a four-lane facility north of Cherry Street. An interim design could include protected bike-lanes, while a long-term solution should be identified in a comprehensive streetscape project intent on reimagining McCaslin Boulevard to strengthen the livability and economic performance of the corridor.

McCaslin Blvd Small Area Plan

City of Louisville
COLORADO • SINCE 1878

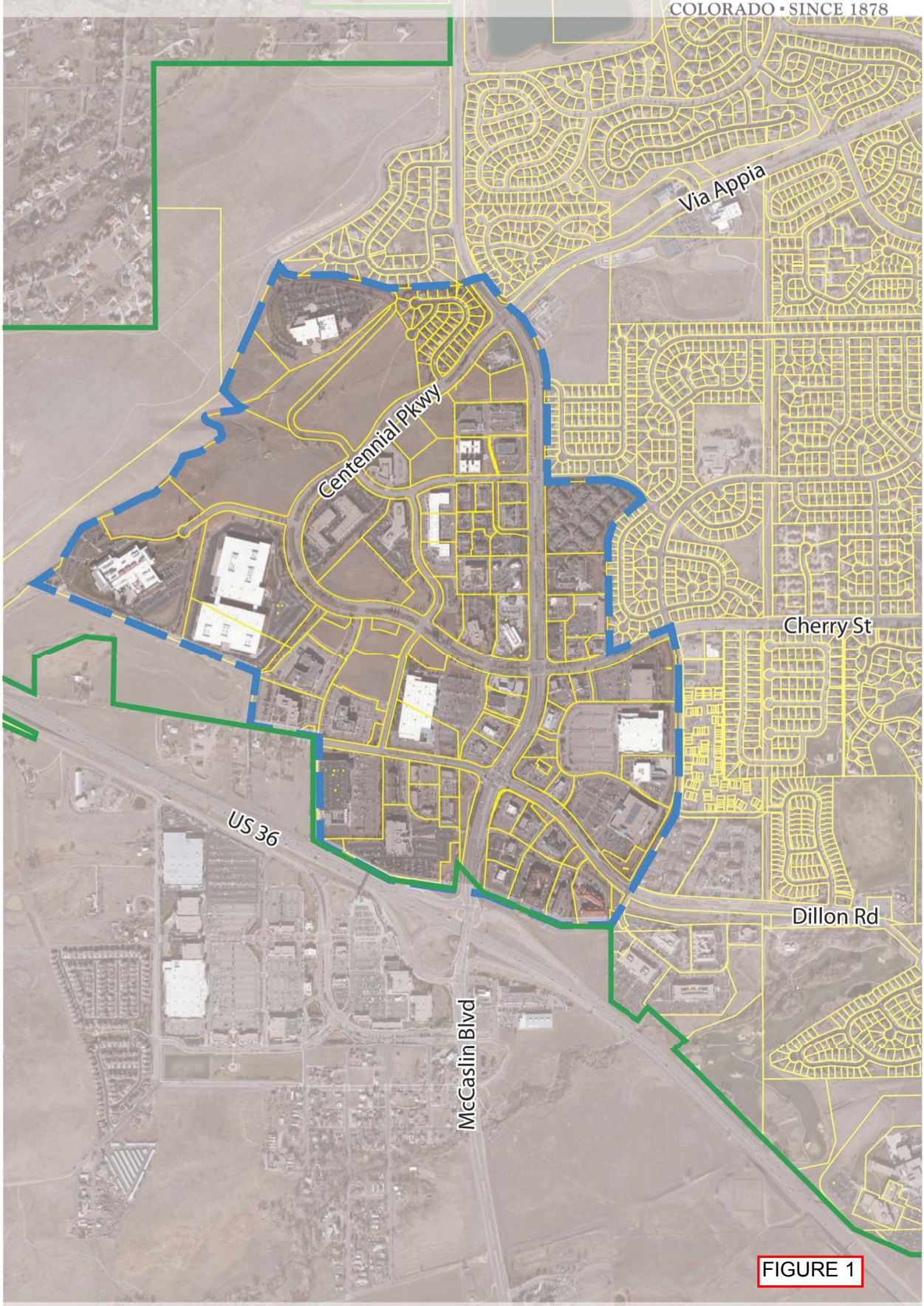
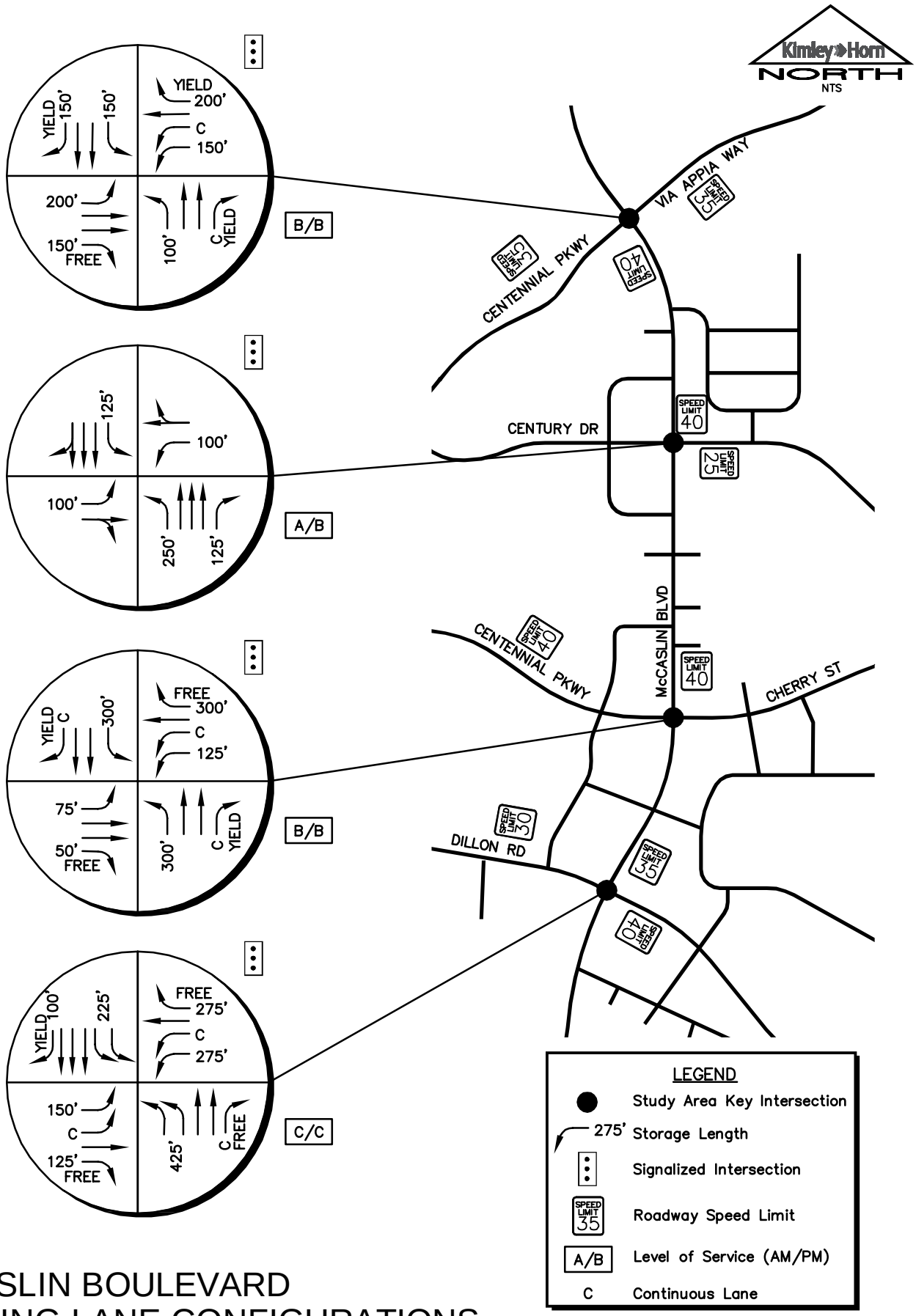


FIGURE 1

City Limits | Parcels | Study Area | 1″ = 800′

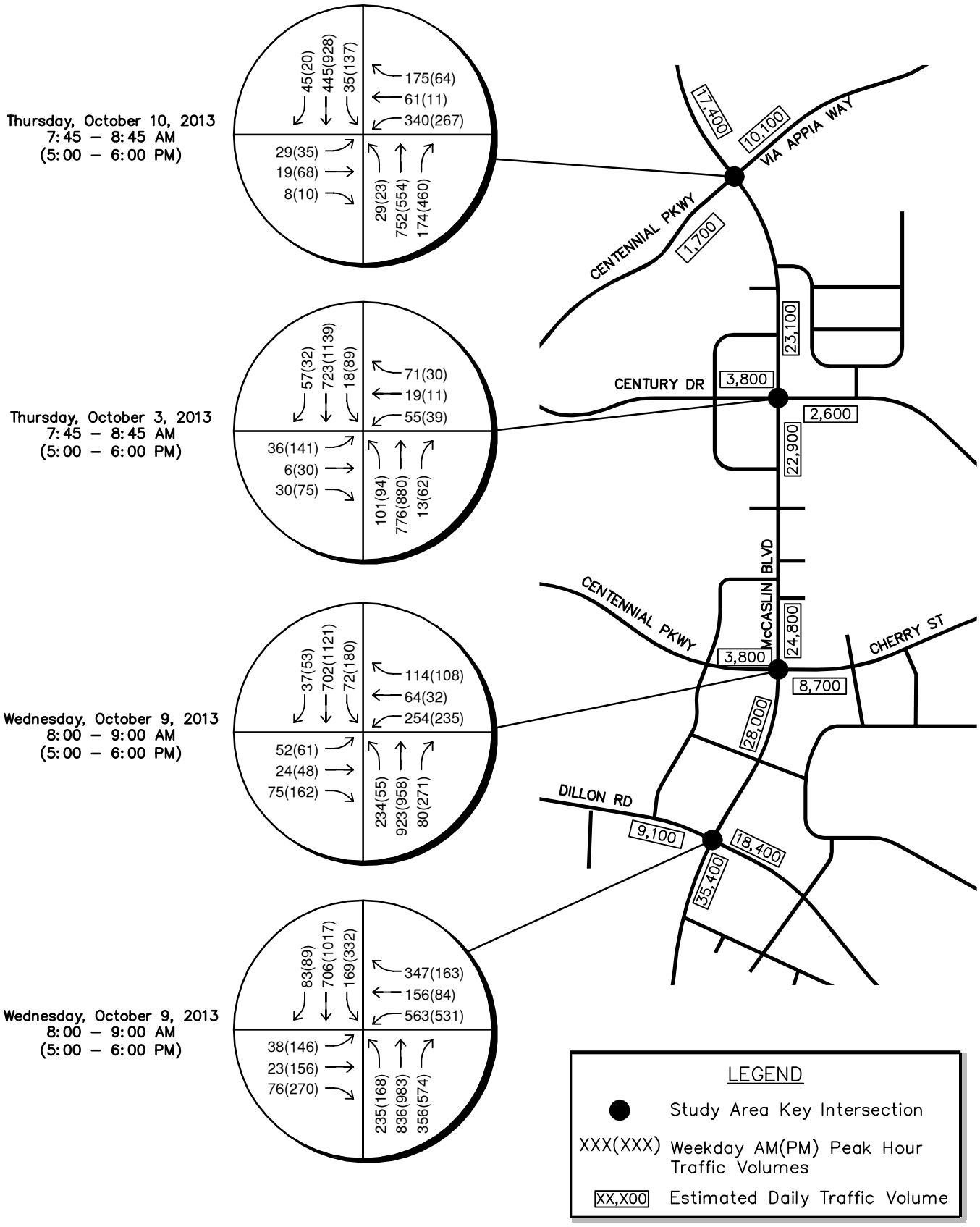
N



McCASLIN BOULEVARD
EXISTING LANE CONFIGURATIONS
CONTROL AND LEVEL OF SERVICE

FIGURE 2

Kimley»Horn



McCASLIN BOULEVARD EXISTING TRAFFIC VOLUMES

FIGURE 3

Kimley»Horn

McCaslin & Via Appia

2014 = 0 Crashes
2013 = 1 Crash
2012 = 5 Crashes
Total = 6 Crashes

Turning Movement = 2
Careless Driving = 1
Required Method of Turning = 1
Roadway Lanes for Traffic = 1
Unsafe Lane Change = 1

McCaslin & Century

2014 = 3 Crashes
2013 = 4 Crashes
2012 = 0 Crashes
Total = 7 Crashes

Careless Driving = 3
Unsafe Lane Change = 2
Unsafe Bicycle Operation = 1
Failure to Yield on Left Turn = 1

McCaslin & Centennial/Cherry

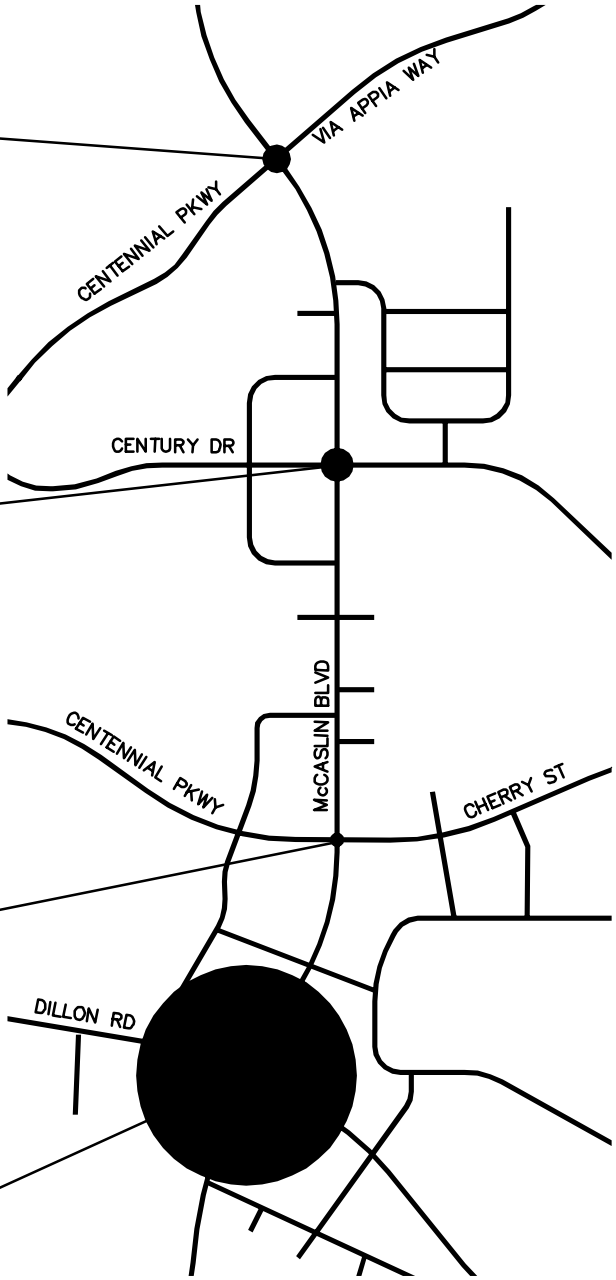
2014 = 0 Crashes
2013 = 1 Crash
2012 = 0 Crashes
Total = 1 Crash

Failure to Yield on Left Turn = 1

McCaslin & Dillon

2014 = 8 Crashes
2013 = 22 Crashes
2012 = 16 Crashes
Total = 46 Crashes

Careless Driving = 23
Following Too Closely = 10
Failed to Stop at Red Light = 5
Roadways Laned for Traffic = 3
Special Hazard = 2
Failed to Turn as Required = 1
Stopping, Standing, Parking = 1
Unsafe Lane Change = 1



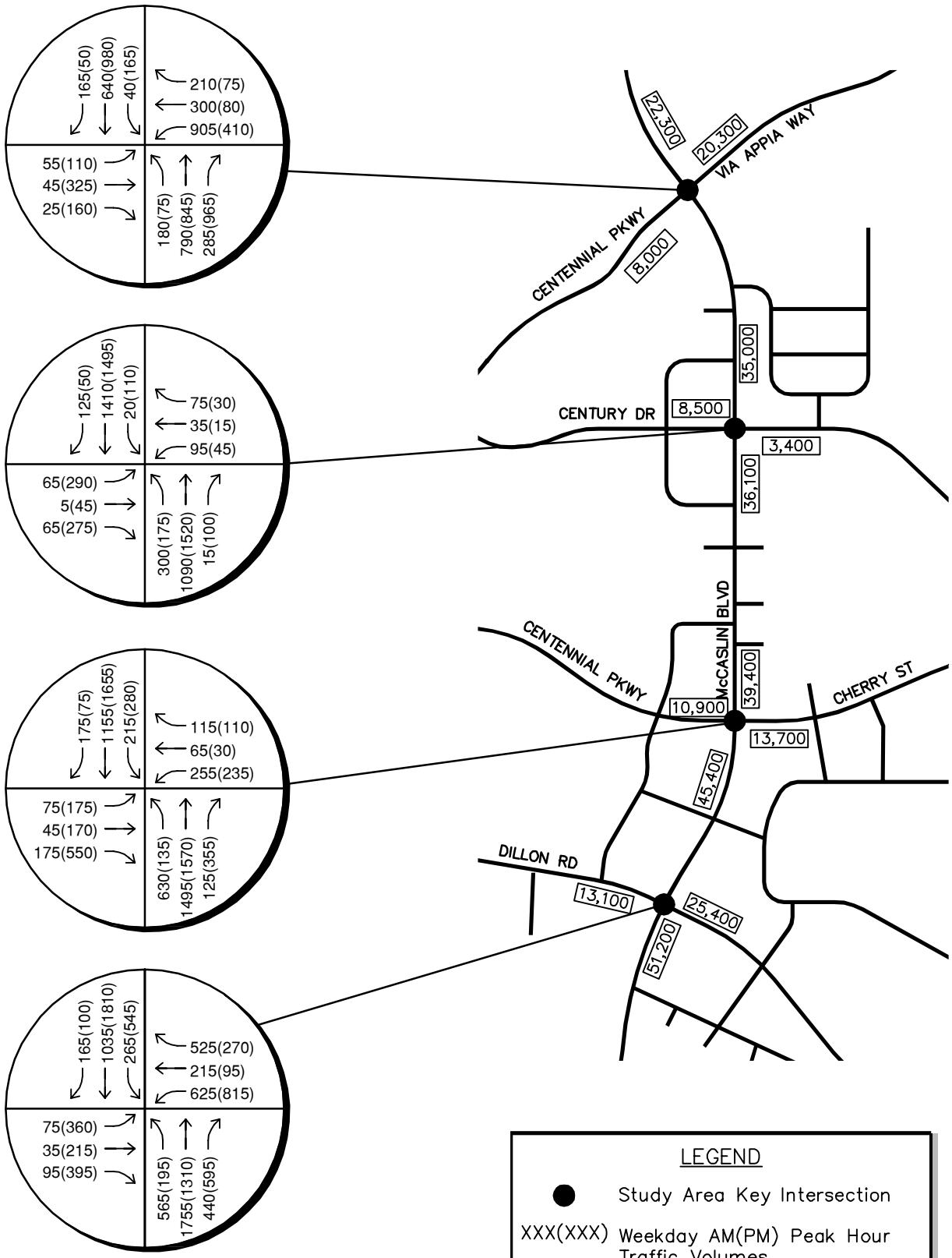
LEGEND

● Study Area Key Intersection

McCASLIN BOULEVARD CRASH HISTORY

FIGURE 4

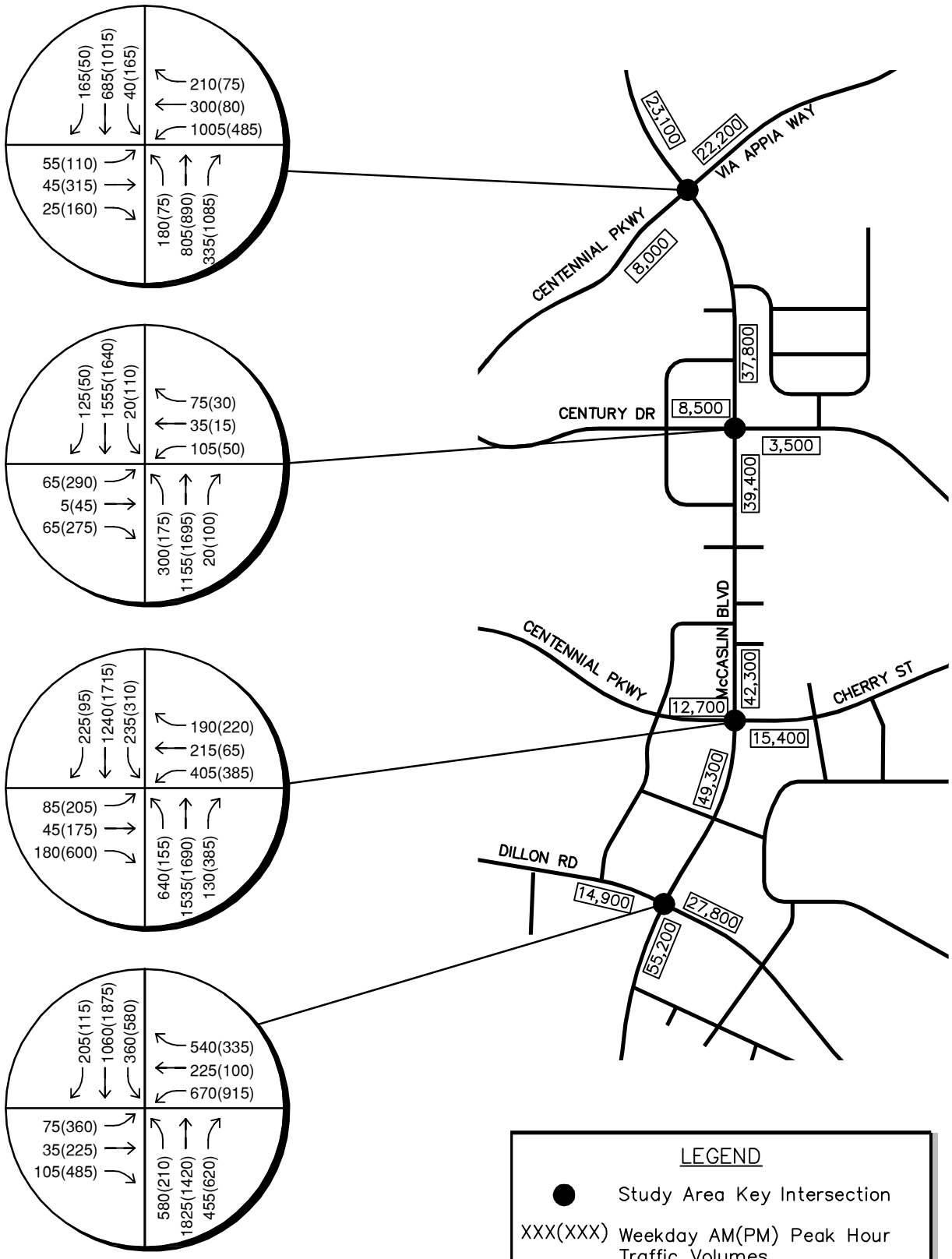
Kimley»Horn



McCASLIN BOULEVARD
ALTERNATIVE 1
FUTURE TRAFFIC VOLUMES

FIGURE 5

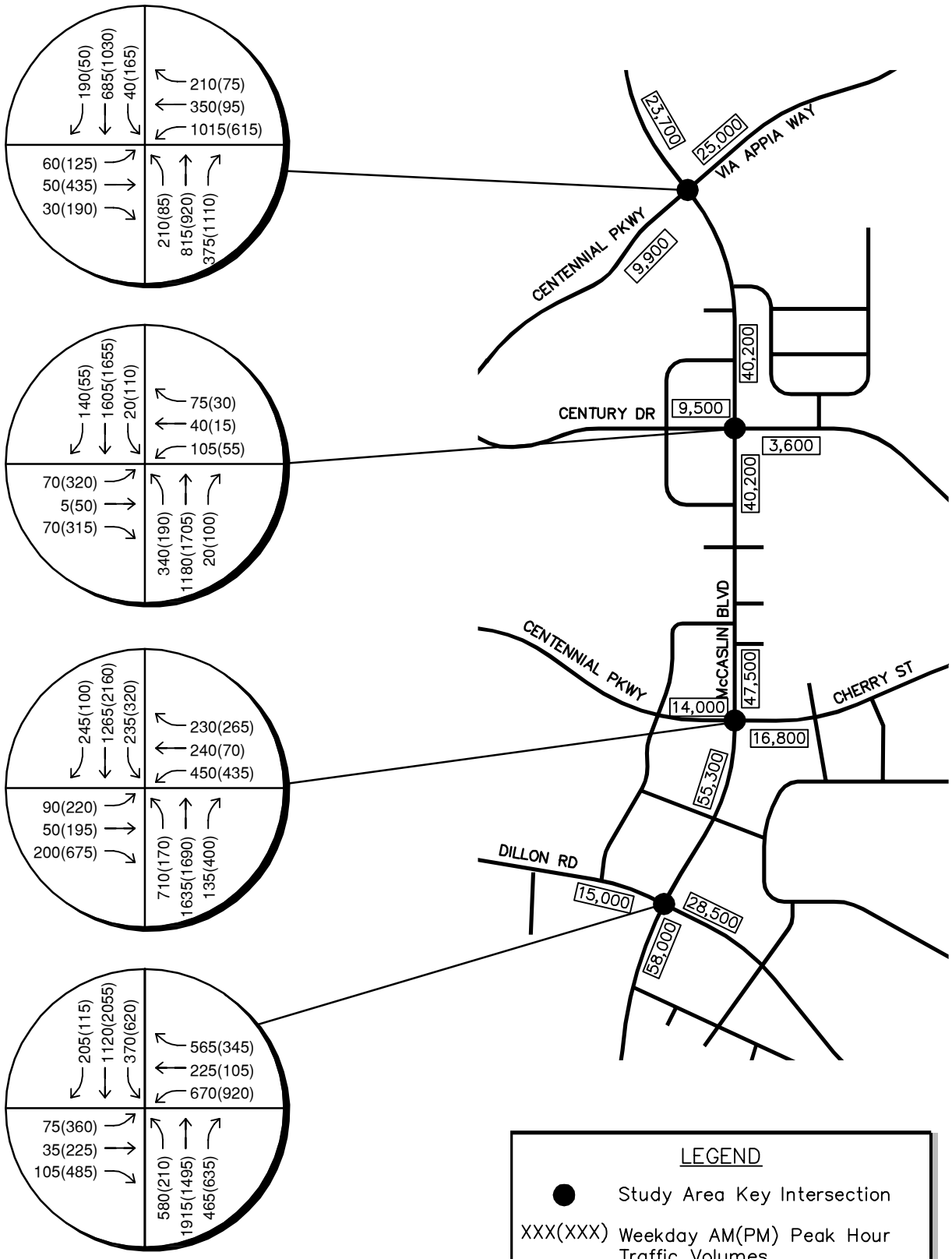
Kimley»Horn



McCASLIN BOULEVARD
ALTERNATIVE 2
FUTURE TRAFFIC VOLUMES

FIGURE 6

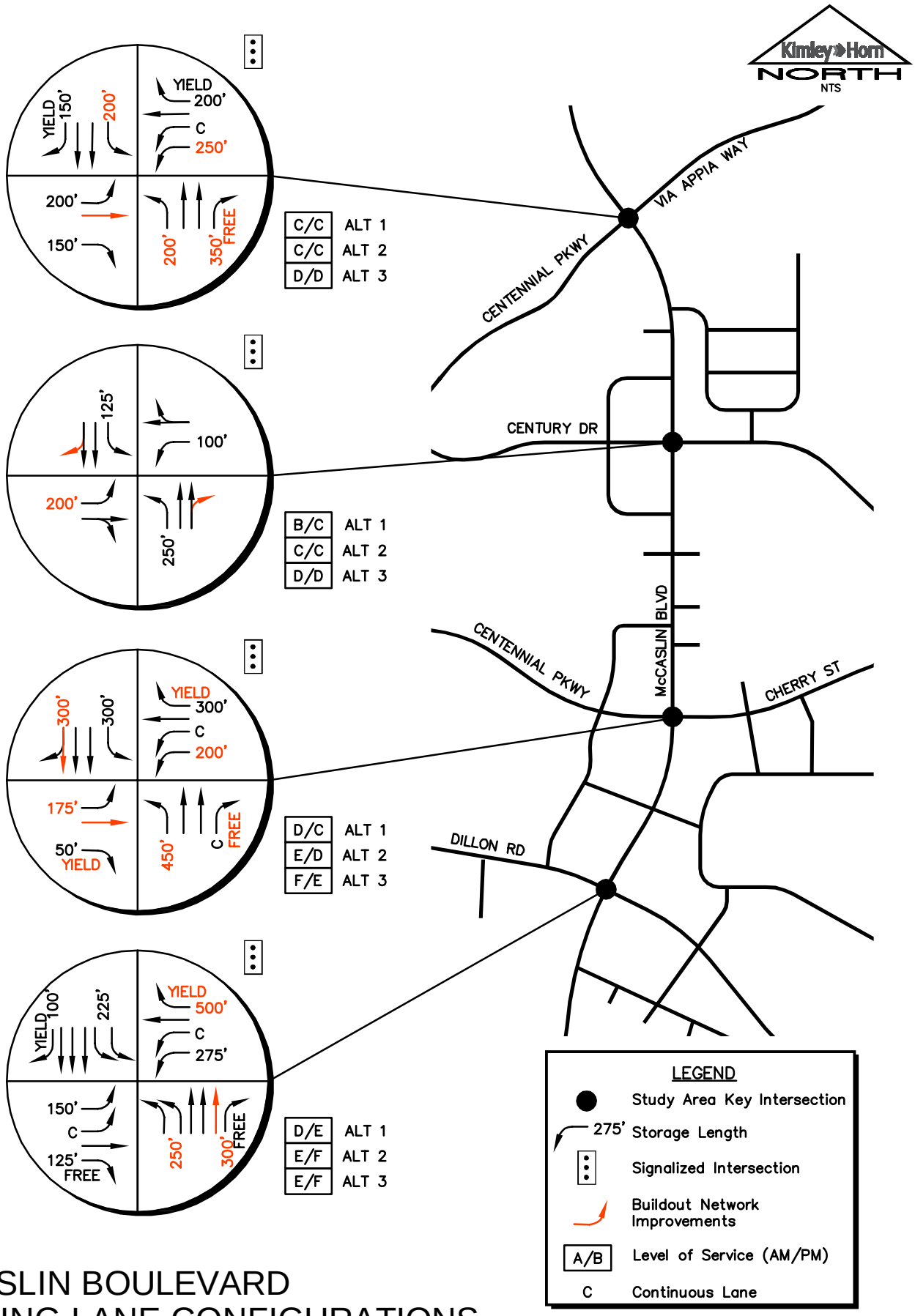
Kimley»Horn



McCASLIN BOULEVARD
ALTERNATIVE 3
FUTURE TRAFFIC VOLUMES

FIGURE 7

Kimley»Horn



McCASLIN BOULEVARD
EXISTING LANE CONFIGURATIONS
CONTROL AND LEVEL OF SERVICE

FIGURE 8

Kimley»Horn

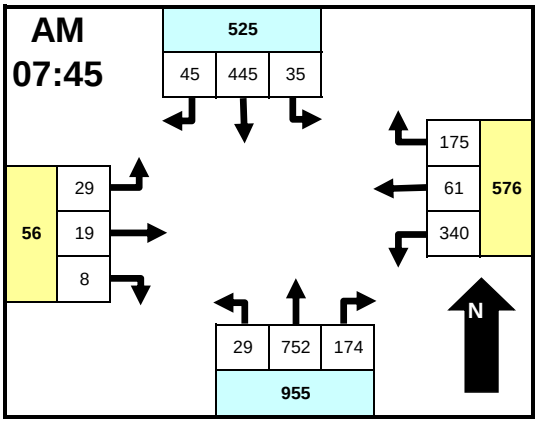
APPENDIX

TRAFFIC RESEARCH & ANALYSIS, INC.
Specializing in Traffic Data Collection

Traffic Research & Analysis, Inc.
3844 East Indian School Road
Phoenix, AZ 85018
(602) 840-1500

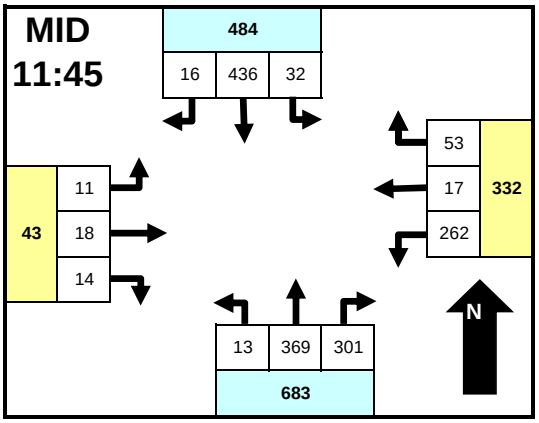
Intersection TMC: 1300566
Count Date: 10/10/2013

AM 07:45



Time	From North: MCCASLIN BLVD LT	Thru	RT	Ped	From East: VIA APPIA LT	Thru	RT	Ped	From South: MCCASLIN BLVD LT	Thru	RT	Ped	From West: CENTENNIAL PKWY LT	Thru	RT	Ped	INTSEC TOTAL
7:00	4	113	6	0	60	10	23	0	1	86	24	0	0	1	6	0	334
7:15	6	104	7	2	71	14	25	0	8	140	27	0	6	3	2	0	415
7:30	9	98	6	4	78	11	40	0	3	178	20	0	5	7	2	2	463
7:45	11	115	13	0	84	8	41	0	10	191	50	0	7	5	2	0	537
8:00	9	115	14	1	105	23	56	0	6	180	48	0	9	9	2	1	578
8:15	10	120	6	0	80	22	37	2	8	179	41	4	4	4	2	1	520
8:30	5	95	12	0	71	8	41	0	5	202	35	0	9	1	2	0	486
8:45	12	114	4	0	65	13	29	1	6	164	51	3	2	2	1	0	467
Total	66	874	68	7	614	109	292	3	47	1320	296	7	42	32	19	4	3800
Peak	35	445	45	1	340	61	175	2	29	752	174	4	29	19	8	2	2121

MID 11:45



Time	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	TOTAL
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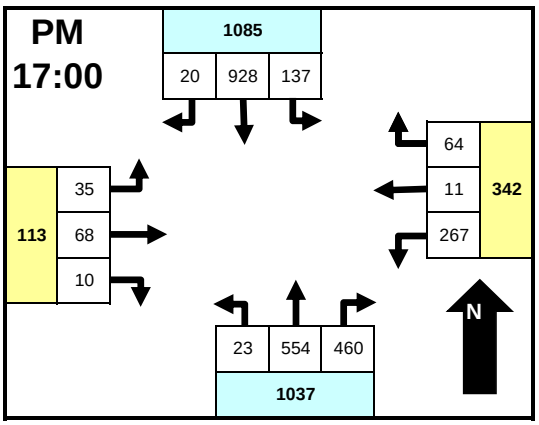
11:45	5	107	4	1	73	4	16	0	5	87	77	1	2	7	1	2	392
12:00	11	100	4	0	52	8	12	0	2	91	60	0	5	8	3	1	357
12:15	9	115	4	0	65	2	11	0	2	86	77	0	1	0	4	1	377
12:30	7	114	4	0	72	3	14	0	4	105	87	0	3	3	6	0	422
12:45	13	86	0	0	63	6	11	0	1	105	65	0	1	6	2	0	359
13:00	9	86	9	0	61	7	17	0	4	90	63	0	1	6	0	0	353
13:15	10	91	2	0	73	4	7	0	2	111	72	0	0	2	1	0	375
Total	77	802	31	2	524	38	102	0	21	760	576	1	16	39	24	4	3017
Peak	32	436	16	1	262	17	53	0	13	369	301	1	11	18	14	4	1548

PM 17:00



Time	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	TOTAL
16:00	31	183	5	0	71	7	17	0	2	120	107	0	5	19	1	0	568
16:15	27	201	2	0	73	4	10	0	2	117	86	0	6	21	1	1	551
16:30	20	192	7	0	56	2	9	0	4	127	109	0	9	15	2	0	552
16:45	29	202	3	0	68	2	10	0	9	126	118	0	11	18	5	0	601
17:00	28	235	3	0	62	3	18	0	5	125	121	1	11	27	2	0	641
17:15	35	228	5	0	66	1	16	0	8	145	118	2	14	13	2	0	653
17:30	36	246	6	1	75	3	10	0	4	161	113	0	5	14	2	0	676
17:45	38	219	6	0	64	4	20	1	6	123	108	1	5	14	4	1	614
Total	244	1706	37	1	535	26	110	1	40	1044	880	4	66	141	19	2	4856
Peak	137	928	20	1	267	11	64	1	23	554	460	4	35	68	10	1	2584

Intersection Statistics

Per	Peak Hour	Pk Hr Vol	Peak Intvl	Pk Intv Vol
AM	7:45 AM	2121	8:00 AM	578
MID	11:45 AM	1548	12:30 PM	422
PM	5:00 PM	2584	5:30 PM	676

Approach Statistics

Per	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol
AM	7:30 AM	531	7:30 AM	587	7:45 AM	959	7:15 AM	62
MID	11:45 AM	485	12:30 PM	338	12:30 PM	709	11:30 AM	52
PM	5:00 PM	1086	5:00 PM	343	4:45 PM	1056	4:15 PM	129

Comments

Approach & Departure Volumes (No Peds)

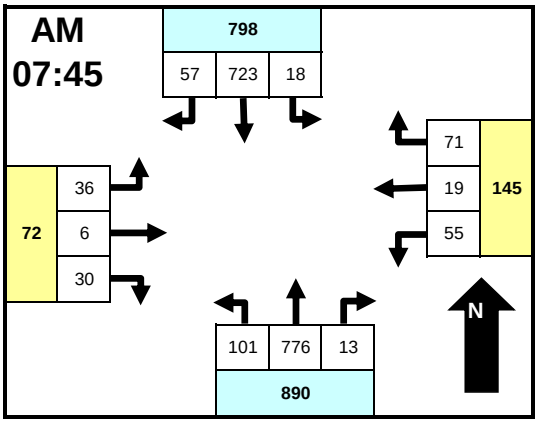
Per	Approach	Depart	Approach	Depart	Approach	Depart	Approach	Depart
AM	1008	1654	1015	394	1663	1507	93	224
MID	910	878	664	692	1357	1350	79	90
PM	1987	1220	671	1265	1964	2260	226	103

TRAFFIC RESEARCH & ANALYSIS, INC.
Specializing in Traffic Data Collection

Traffic Research & Analysis, Inc.
3844 East Indian School Road
Phoenix, AZ 85018
(602) 840-1500

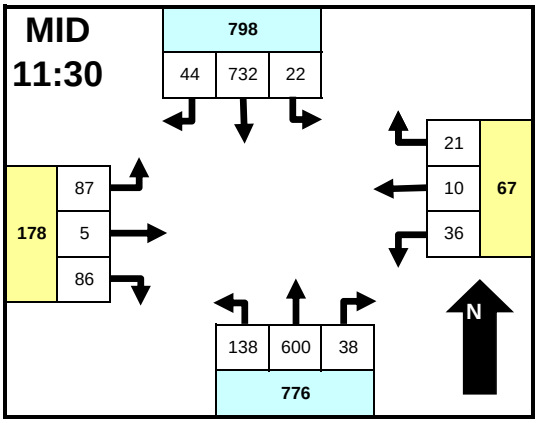
Intersection TMC: 1300558
Count Date: 10/3/2013

AM 07:45



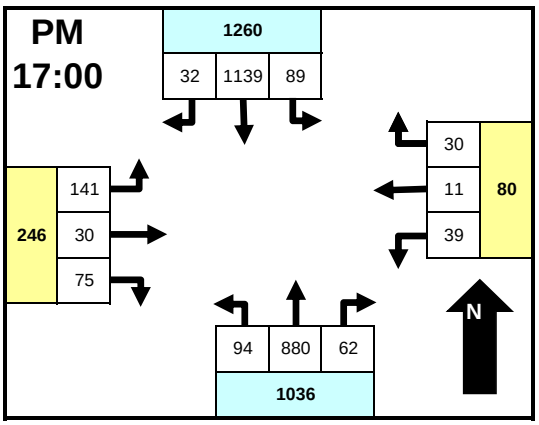
Time	From North MCCASLIN BLVD LT	Thru	RT	Ped	From East CENTURY DR LT	Thru	RT	Ped	From South MCCASLIN BLVD LT	Thru	RT	Ped	From West CENTURY DR LT	Thru	RT	Ped	INTSEC TOTAL
7:00	3	173	1	0	8	4	0	0	9	113	1	0	6	0	2	0	320
7:15	7	156	8	0	9	2	6	0	15	160	4	0	5	2	4	0	378
7:30	7	142	13	0	16	2	19	0	13	218	8	0	7	1	9	0	455
7:45	2	203	14	0	18	5	20	0	18	199	2	0	4	2	8	0	495
8:00	6	182	15	0	14	8	25	3	19	186	4	2	8	1	5	0	478
8:15	6	159	16	0	10	4	11	1	38	194	4	0	15	2	7	0	467
8:30	4	179	12	0	13	2	15	0	26	197	3	0	9	1	10	1	472
8:45	2	178	21	5	12	3	12	3	19	163	4	1	7	0	8	4	442
Total	37	1372	100	5	100	30	108	7	157	1430	30	3	61	9	53	5	3507
Peak	18	723	57	0	55	19	71	4	101	776	13	2	36	6	30	1	1912

MID 11:30



Time	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	TOTAL
11:30	5	154	11	0	11	3	9	0	24	150	8	1	25	1	20	0	422
11:45	8	202	14	0	5	3	4	0	42	177	9	0	20	3	26	1	514
12:00	1	197	7	0	9	2	3	1	38	123	10	0	20	0	27	2	440
12:15	8	179	12	0	11	2	5	0	34	150	11	1	22	1	13	2	451
12:30	6	147	5	0	9	2	3	3	30	145	7	1	22	2	23	0	405
12:45	8	172	8	0	7	1	3	0	23	136	4	0	24	3	23	4	416
13:00	8	144	8	0	6	2	2	2	23	145	3	0	19	2	23	0	387
13:15	6	153	4	2	5	0	3	0	16	126	4	0	17	3	13	0	352
Total	50	1348	69	2	63	15	32	6	230	1152	56	3	169	15	168	9	3387
Peak	22	732	44	0	36	10	21	1	138	600	38	2	87	5	86	5	1827

PM 17:00



Time	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	TOTAL
16:00	9	220	8	0	7	1	5	0	16	165	11	0	20	1	13	0	476
16:15	13	215	7	0	8	1	6	0	21	168	12	0	22	1	15	0	489
16:30	16	227	7	1	7	0	5	0	23	198	15	0	32	6	17	1	555
16:45	20	253	13	2	15	0	6	0	27	219	17	0	31	8	17	0	628
17:00	24	298	9	0	7	4	8	1	16	211	11	1	42	9	27	0	668
17:15	20	291	14	0	9	3	8	0	19	252	21	0	33	8	17	0	695
17:30	17	284	2	0	13	3	5	1	39	201	16	0	32	5	14	0	632
17:45	28	266	7	0	10	1	9	0	20	216	14	0	34	8	17	0	630
Total	147	2054	67	3	76	13	52	2	181	1630	117	1	246	46	137	1	4773
Peak	89	1139	32	0	39	11	30	2	94	880	62	1	141	30	75	0	2625

Intersection Statistics

Per	Peak Hour	Pk Hr Vol	Peak Intvl	Pk Intv Vol
AM	7:45 AM	1912	7:45 AM	495
MID	11:30 AM	1827	11:45 AM	514
PM	5:00 PM	2625	5:15 PM	695

Approach Statistics

Per	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol
AM	7:45 AM	798	7:30 AM	156	7:30 AM	905	8:00 AM	78
MID	11:30 AM	798	11:30 AM	68	11:30 AM	778	12:00 PM	188
PM	5:00 PM	1260	4:45 PM	83	4:45 PM	1050	4:30 PM	248

Comments

Approach & Departure Volumes (No Peds)

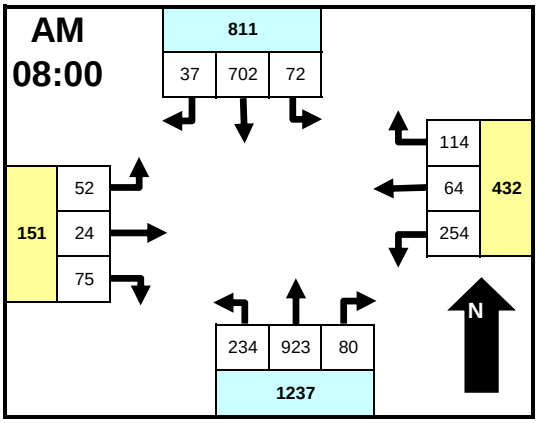
Per	Approach	Depart	Approach	Depart	Approach	Depart	Approach	Depart
AM	1509	1599	238	76	1617	1525	123	287
MID	1467	1353	110	121	1438	1579	352	314
PM	2268	1928	141	310	1928	2267	429	261

TRAFFIC RESEARCH & ANALYSIS, INC.
Specializing in Traffic Data Collection

Traffic Research & Analysis, Inc.
3844 East Indian School Road
Phoenix, AZ 85018
(602) 840-1500

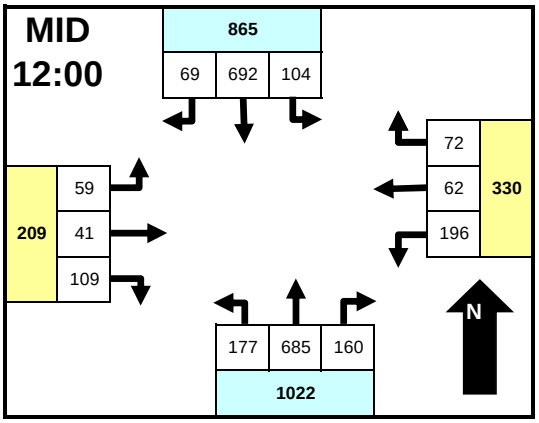
Intersection TMC: 1300565
Count Date: 10/9/2013

AM 08:00



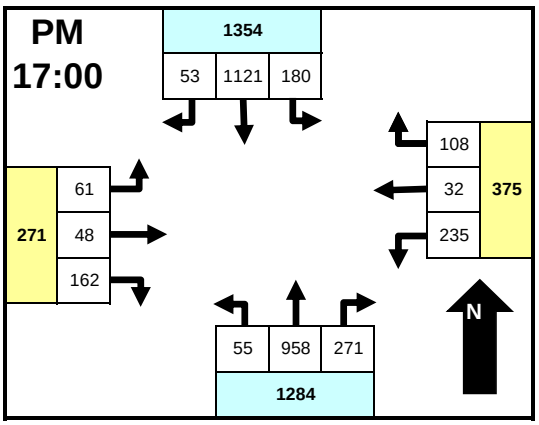
Time	From North: MCCASLIN BLVD LT	Thru	RT	Ped	From East: CHERRY ST LT	Thru	RT	Ped	From South: MCCASLIN BLVD LT	Thru	RT	Ped	From West: CHERRY ST LT	Thru	RT	Ped	INTSEC TOTAL
7:00	13	116	3	1	60	5	13	2	42	114	16	0	6	3	15	0	409
7:15	14	115	5	4	66	10	22	2	50	137	14	2	8	2	15	2	468
7:30	7	167	8	0	66	15	33	0	66	212	26	0	6	2	13	0	621
7:45	21	158	7	2	63	11	26	3	81	193	24	1	9	5	22	0	626
8:00	19	197	8	6	76	13	43	0	69	227	17	0	9	7	23	0	714
8:15	20	198	13	0	67	14	26	0	57	235	20	1	13	4	17	1	686
8:30	17	156	9	4	49	14	22	4	53	243	18	2	15	7	15	4	632
8:45	16	151	7	3	62	23	23	0	55	218	25	1	15	6	20	4	629
Total	127	1258	60	20	509	105	208	11	473	1579	160	7	81	36	140	11	4785
Peak	72	702	37	13	254	64	114	4	234	923	80	4	52	24	75	9	2661

MID 12:00



Time	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	TOTAL
11:30	30	191	9	0	46	6	24	0	33	155	32	0	23	16	36	0	601
11:45	32	163	11	1	49	9	21	0	34	162	47	0	13	16	33	1	592
12:00	24	182	17	1	44	14	14	0	31	189	48	0	17	10	46	0	637
12:15	22	159	14	1	60	17	19	0	54	141	28	0	13	13	30	0	571
12:30	31	179	19	1	42	12	18	1	42	174	40	0	16	6	5	1	587
12:45	27	172	19	0	50	19	21	2	50	181	44	2	13	12	28	0	640
13:00	24	164	18	1	40	14	16	0	36	194	45	1	11	12	36	1	613
13:15	23	156	10	3	33	4	19	0	43	171	31	1	24	10	29	2	559
Total	213	1366	117	8	364	95	152	3	323	1367	315	4	130	95	243	5	4800
Peak	104	692	69	3	196	62	72	3	177	685	160	2	59	41	109	1	2435

PM 17:00



Time	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	TOTAL
16:00	43	233	12	1	34	3	24	1	19	194	53	0	10	14	54	0	695
16:15	32	246	9	2	41	4	32	1	16	206	44	1	15	13	36	2	700
16:30	42	229	11	2	53	6	28	0	13	193	66	0	8	11	44	2	708
16:45	58	267	18	0	44	5	22	0	21	220	65	0	18	21	48	4	811
17:00	42	304	15	0	52	9	30	0	15	214	57	1	20	14	55	1	829
17:15	50	267	12	0	66	9	28	0	17	232	76	2	13	10	40	2	824
17:30	55	260	14	1	46	10	21	1	11	268	61	2	16	14	43	1	824
17:45	33	290	12	1	71	4	29	0	12	244	77	3	12	10	24	2	824
Total	355	2096	103	7	407	50	214	3	124	1771	499	9	112	107	344	14	6215
Peak	180	1121	53	2	235	32	108	1	55	958	271	8	61	48	162	6	3301

Intersection Statistics

Per	Peak Hour	Pk Hr Vol	Peak Intvl	Pk Intv Vol
AM	8:00 AM	2661	8:00 AM	714
MID	12:00 PM	2435	12:45 PM	640
PM	5:00 PM	3301	5:00 PM	829

Approach Statistics

Per	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol
AM	7:45 AM	835	7:30 AM	456	7:45 AM	1241	8:00 AM	160
MID	12:00 PM	868	12:00 PM	333	12:30 PM	1055	11:30 AM	267
PM	4:45 PM	1363	5:00 PM	376	5:00 PM	1292	4:45 PM	320

Comments

Approach & Departure Volumes (No Peds)

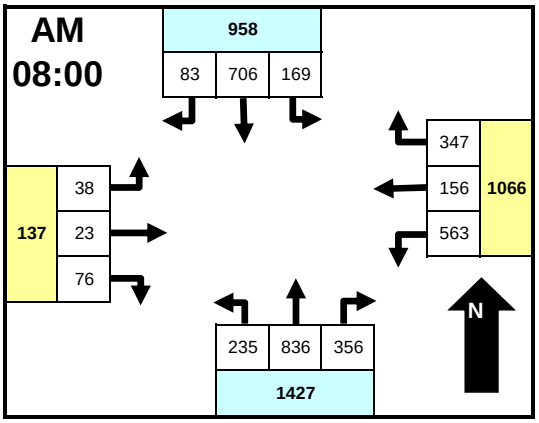
Per	Approach	Depart	Approach	Depart	Approach	Depart	Approach	Depart
AM	1445	1868	822	323	2212	1907	257	638
MID	1696	1649	611	623	2005	1973	468	535
PM	2554	2097	671	961	2394	2847	563	277

TRAFFIC RESEARCH & ANALYSIS, INC.
Specializing in Traffic Data Collection

Traffic Research & Analysis, Inc.
3844 East Indian School Road
Phoenix, AZ 85018
(602) 840-1500

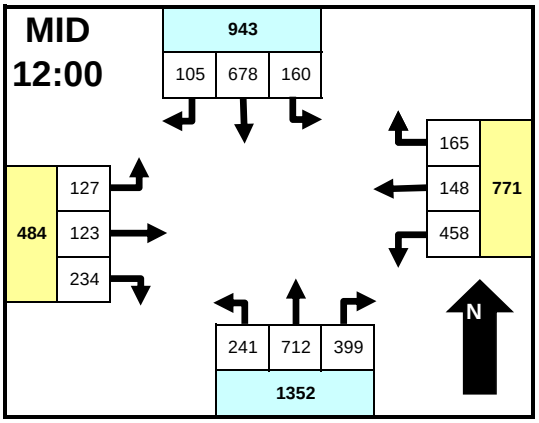
Intersection TMC: 1300564
Count Date: 10/9/2013

AM 08:00



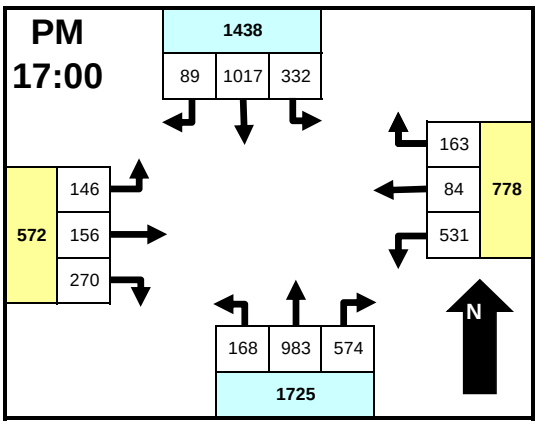
Time	From North MCCASLIN BLVD LT	Thru	RT	Ped	From East DILLON RD LT	Thru	RT	Ped	From South MCCASLIN BLVD LT	Thru	RT	Ped	From West DILLON RD LT	Thru	RT	Ped	INTSEC TOTAL
7:00	28	140	27	0	75	14	35	0	22	145	56	1	4	0	9	0	556
7:15	20	151	19	0	84	21	44	0	22	155	72	0	2	0	14	0	604
7:30	18	211	14	0	138	28	79	0	25	191	77	0	12	0	16	0	809
7:45	28	170	17	0	108	25	79	0	43	215	116	0	5	2	19	0	827
8:00	46	201	23	1	143	39	72	0	55	218	95	1	5	5	18	2	924
8:15	48	176	24	1	143	42	92	0	70	221	97	2	7	4	17	1	945
8:30	35	181	19	0	135	39	94	0	59	202	87	0	11	7	25	0	894
8:45	40	148	17	0	142	36	89	0	51	195	77	2	15	7	16	0	835
Total	263	1378	160	2	968	244	584	0	347	1542	677	6	61	25	134	3	6394
Peak	169	706	83	2	563	156	347	0	235	836	356	5	38	23	76	3	3598

MID 12:00



Time	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	TOTAL
11:30	36	189	32	3	104	40	48	0	48	160	83	0	10	27	54	1	835
11:45	36	166	23	0	124	40	49	2	59	165	78	2	28	26	51	0	849
12:00	39	168	29	0	123	44	44	1	56	197	92	0	26	35	69	0	923
12:15	34	144	21	0	114	37	45	0	58	153	92	0	32	32	55	0	817
12:30	40	198	23	0	122	40	32	0	57	188	97	0	32	25	59	0	913
12:45	47	168	32	1	99	27	44	0	70	174	118	0	37	31	51	1	900
13:00	47	152	33	2	98	28	39	2	64	190	106	0	42	30	49	0	882
13:15	42	160	23	5	106	22	37	3	53	154	98	0	26	31	40	0	800
Total	321	1345	216	11	890	278	338	8	465	1381	764	2	233	237	428	2	6919
Peak	160	678	105	1	458	148	165	1	241	712	399	0	127	123	234	1	3553

PM 17:00



Time	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	LT	Thru	RT	Ped	TOTAL
16:00	67	236	16	0	141	26	43	0	29	183	102	2	30	26	68	0	969
16:15	55	220	22	0	127	17	40	3	22	229	93	2	19	25	47	0	921
16:30	59	249	19	1	112	18	41	0	37	179	127	4	31	36	40	2	955
16:45	62	235	15	0	152	30	40	1	37	229	133	0	34	38	54	0	1060
17:00	95	266	22	0	153	18	31	0	37	247	146	0	33	52	80	0	1180
17:15	76	245	28	1	137	30	45	2	47	239	135	3	41	36	78	0	1143
17:30	81	250	19	4	145	23	50	4	39	253	141	3	40	36	55	0	1143
17:45	80	256	20	1	96	13	37	1	45	244	152	4	32	32	57	2	1072
Total	575	1957	161	7	1063	175	327	11	293	1803	1029	18	260	281	479	4	8443
Peak	332	1017	89	6	531	84	163	7	168	983	574	10	146	156	270	2	4538

Intersection Statistics

Per	Peak Hour	Pk Hr Vol	Peak Intvl	Pk Intv Vol
AM	8:00 AM	3598	8:15 AM	945
MID	12:00 PM	3553	12:00 PM	923
PM	5:00 PM	4538	5:00 PM	1180

Approach Statistics

Per	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol	Peak Hour	Pk Hr Vol
AM	7:30 AM	978	8:00 AM	1066	7:45 AM	1481	8:00 AM	140
MID	12:30 PM	973	11:45 AM	817	12:30 PM	1369	12:00 PM	485
PM	5:00 PM	1444	4:45 PM	861	5:00 PM	1735	4:45 PM	577

Comments

Approach & Departure Volumes (No Peds)

Per	Approach	Depart	Approach	Depart	Approach	Depart	Approach	Depart
AM	1801	2187	1796	965	2566	2480	220	751
MID	1882	1952	1506	1322	2610	2663	898	959
PM	2693	2390	1565	1885	3125	3499	1020	629

McCaslin and Via Appia Accidents

McCASLIN & VIA APPIA

2013

	DATE	TIME	VIOLATION	No. Injured	# of Cars	Conditions
1	25-Apr	8:00	Careless Driving	0	3	
2						
3						
4						
5						

13 TOTAL	
	Failed to yield on left turn
	Following too closely
1	Careless driving
	Hit & Run
	Special hazard
1	

2012

	DATE	TIME	VIOLATION	No. Injured	# of Cars	Conditions
1	13-Feb	17:23	Unsafe Lane Change	0	2	
2	28-Apr	9:34	Required Method of Turning	0	2	
3	26-Jul	10:00	Roadway Lanes for Traffic	0	2	
4	17-Aug	16:22	Turning Movement	0	2	
5	14-Sep	17:31	Turning Movement	0	2	

12 TOTAL	
1	Required Method of Turning
1	Roadway Lanes for Traffic
2	Turning Movement
1	Unsafe Lane Change
5	

McCaslin & Century

2014

	DATE	TIME	VIOLATION	No. Injured	# of Cars	Conditions
1	7-Mar	11:40	Unsafe lane change	0	2	
2	29-Apr	16:35	Unsafe lane change	0	2	Hit & Run
3	22-May	20:39	Unsafe operation of bicycle	1	2	Bicycle's fault
4						

14 TOTAL

2	Unsafe lane change
1	unsafe bicycle operation
	Special hazard
3	

2013

	DATE	TIME	VIOLATION	No. Injured	# of Cars	Conditions
1	28-May	9:15	Careless Driving	0	2	
2	20-Jun	19:50	Careless Driving	0	2	
3	26-Aug	17:59	Failed to yield turning left	1	2	
4	21-Nov	8:40	Careless Driving	0	2	Ice/Snow
5						

13 TOTAL

1	Failed to yield on left turn
3	Careless driving
	Special hazard
4	

2012

	DATE	TIME	VIOLATION	No. Injured	# of Cars	Conditions
1						
2						
3						
4						
5						

TOTAL

	Failed to yield on left turn
	Careless driving
	Special hazard
0	

McCaslin & Centennial Parkway

2013

	DATE	TIME	VIOLATION	No. Injured	# of Cars	Conditions
1	25-Jun	16:43	Failed to yield on left turn	0	2	
2						
3						
4						
5						

13 TOTAL	
1	Failed to yield on left turn
	Following too closely
	Careless driving
	Hit & Run
	Special hazard
1	

McCASLIN & DILLON ROAD

2014

	DATE	TIME	VIOLATION	No. Injured	# of Cars	Conditions
1	14-Jan	11:28	Careless Driving	0	2	
2	17-Feb	16:45	Following too close	0	2	
3	27-Feb	15:55	Careless Driving	0	2	
4	28-Feb	8:22	Following too close	0	2	
5	13-Mar	13:25	Careless Driving	0	2	
6	21-Mar	18:27	Following too close	1	2	
7	17-Apr	17:36	Failed to stop at red light	1	2	
8	22-May	18:34	Careless Driving	4	3	DUI

14 TOTAL	
1	Failed stop at red light/stop sign
3	Following too closely
4	Careless driving
8	

2013

	DATE	TIME	VIOLATION	No. Injured	# of Cars	Conditions
1	18-Jan	14:40	Following too close	0	2	
2	20-Feb	18:20	Special Hazards	0	2	Icy
3	3-Mar	12:53	Failed to stop on red light	0	2	
4	25-Mar	5:59	Failed to stop on red light	1	2	
5	12-Apr	13:29	Careless-Turning Movements	0	2	Merge Collision
6	19-Apr	14:47	Following too close	1	2	
7	30-Apr	20:25	Careless Driving	0	2	
8	4-May	22:21	Failed to stop on red light	0	2	
9	7-May	10:52	Failed to yield at stop sign	0	2	
10	10-Jun	14:45	Special Hazards	0	1	Vehicle Fire
11	9-Jul	12:20	Careless Driving	0	1	
12	29-Jul	13:51	Careless Driving	0	2	
13	27-Aug	12:20	No Citation	0	2	
14	26-Aug	15:00	Careless Driving	2	2	
15	8-Sep	19:50	Careless Driving	1	2	
16	27-Sep	17:23	Careless Driving	0	2	
17	27-Sep	16:10	Careless Driving	0	2	
18	9-Oct	18:56	Careless Driving	0	2	
19	5-Nov	9:38	Careless Driving	0	2	
20	15-Nov	7:40	Careless Driving	0	3	
21	3-Dec	12:28	Careless Driving	0	2	
22	11-Dec	12:56	Following too close	0	2	
23	23-Dec	12:15	Careless Driving	2	2	

13 TOTAL	
4	Failed stop at red light/stop sign
3	Following too closely
13	Careless driving
2	Special hazard
22	

2012

	DATE	TIME	VIOLATION	No. Injured	# of Cars	Conditions
1	9-Jan	18:05	Careless Driving	0	2	
2	10-Feb	8:55	Unsafe lane change	0	4	
3	21-Mar	17:37	Stopping,Standing,Prkg Prohibited	0	2	
4	7-Apr	14:26	Failed to turn as required	0	2	
5	14-Apr	10:50	Careless Driving	0	2	
6	27-Apr	17:21	Roadways laned for traffic	0	2	
7	8-May	14:41	Roadways laned for traffic	0	2	
8	22-Jun	12:25	Following too close	0	2	
9	3-Jul	13:22	Careless Driving	0	2	
10	4-Jul	11:09	Careless Driving	0	1	Sign Dmg
11	18-Jul	16:55	Following too close	0	2	
12	21-Aug	22:08	Careless Driving	0	2	
13	25-Aug	12:57	Following too close	0	2	
14	17-Sep	15:20	Roadways laned for traffic	0	2	
15	5-Oct	11:26	Following too close	1	3	
16	12-Oct	16:55	Careless Driving	0	2	

12 TOTAL	
4	Following too close
3	Roadways laned for traffic
1	Failed to turn as required
1	Stopping,Standing,Prkg Prohibited
6	Careless Driving
1	Unsafe lane change
16	

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Blvd Overall - Alt 1**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Daily Rate	AM Rate	PM Rate	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)	77	Avg	9.52	0.75	1.00	734	58	77	15	43	49	28	464	46	46	10	36	33	13	464	46	46	10	36	33	13
710	Office	General Office Building (1)	1,000 Sq Ft	2396.9	Avg	11.03	1.56	1.49	26438	3739	3571	3290	449	607	2964	26228	3735	3557	3289	446	599	2958	26228	3735	3557	3289	446	599	2958
820	Retail	Shopping Center	1,000 Sq Ft GLA	133.36	Avg	42.70	0.96	3.71	5696	128	495	79	49	238	257	5238	112	452	69	43	218	234	5238	112	298	69	43	144	154
	Select Use																												
								Totals	32868	3925	4143	3384	541	894	3249	31930	3893	4055	3368	525	850	3205	31930	3893	3901	3368	525	776	3125

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Blvd Overall - Alt 2**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Daily Rate	AM Rate	PM Rate	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)	293	Avg	9.52	0.75	1.00	2790	220	293	55	165	185	108	1758	186	178	39	147	124	54	1758	186	178	39	147	124	54
710	Office	General Office Building (1)	1,000 Sq Ft	2755.3	Avg	11.03	1.56	1.49	30392	4298	4105	3782	516	698	3407	29846	4284	4069	3778	506	678	3391	29846	4284	4069	3778	506	678	3391
820	Retail	Shopping Center	1,000 Sq Ft GLA	337.67	Avg	42.70	0.96	3.71	14420	324	1253	201	123	601	652	12926	280	1110	175	105	535	575	12926	280	806	175	105	388	417
	Select Use																												
								Totals	47602	4842	5651	4038	804	1484	4167	44530	4750	5357	3992	758	1337	4020	44530	4750	5053	3992	758	1190	3862

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Blvd Overall - Alt 3**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Daily Rate	AM Rate	PM Rate	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)	514	Avg	9.52	0.75	1.00	4894	386	514	97	289	324	190	3224	344	347	77	267	223	124	3224	344	347	77	267	223	124
710	Office	General Office Building (1)	1,000 Sq Ft	2839.7	Avg	11.03	1.56	1.49	31324	4430	4231	3898	532	719	3512	30638	4412	4186	3893	519	695	3491	30638	4412	4186	3893	519	695	3491
820	Retail	Shopping Center	1,000 Sq Ft GLA	410.61	Avg	42.70	0.96	3.71	17534	394	1523	244	150	731	792	15324	340	1323	212	128	650	673	15324	340	980	212	128	482	499
	Select Use																												
								Totals	53752	5210	6268	4239	971	1774	4494	49186	5096	5856	4182	914	1568	4288	49186	5096	5513	4182	914	1400	4114

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Colony Square 1,2,3**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	**Internal Capture Land Use**	**Land Use Description**	**Independent Variable**	**No. of Units**	**Avg Rate or Eq**	**Daily Rate**	**AM Rate**	**PM Rate**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00								454	10	42	4	6	25	17	454	10	42	4	6	25	17
710	Office	General Office Building (1)	1,000 Sq Ft	577.16	Avg	11.03	1.56	1.49	6368	900	860	792	108	146	714	6528	904	870	793	111	152	718	6528	904	870	793	111	152	718
820	Retail	Shopping Center	1,000 Sq Ft GLA	-106.11	Avg	42.70	0.96	3.71	-4532	-102	-394	-63	-39	-189	-205	-3920	-88	-342	-54	-34	-168	-174	-3920	-88	-226	-54	-34	-111	-115
	Select Use																												
								Totals	1836	798	466	729	69	-43	509	3062	826	570	743	83	9	561	3062	826	686	743	83	66	620

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Hotels - Alt 1**
Project Number **096426000**

ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Rates: Daily Rate	Rates: AM Rate	Rates: PM Rate	Total Trips: Daily Trips	Total Trips: AM Trips	Total Trips: PM Trips	Total Trips: AM Trips In	Total Trips: AM Trips Out	Total Trips: PM Trips In	Total Trips: PM Trips Out	Net Trips after Internal Capture: Daily Trips	Net Trips after Internal Capture: AM Trips	Net Trips after Internal Capture: PM Trips	Net Trips after Internal Capture: AM Trips In	Net Trips after Internal Capture: AM Trips Out	Net Trips after Internal Capture: PM Trips In	Net Trips after Internal Capture: PM Trips Out	Net Trips after Internal Capture & Pass-By: Daily Trips	Net Trips after Internal Capture & Pass-By: AM Trips	Net Trips after Internal Capture & Pass-By: PM Trips	Net Trips after Internal Capture & Pass-By: AM Trips In	Net Trips after Internal Capture & Pass-By: AM Trips Out	Net Trips after Internal Capture & Pass-By: PM Trips In	Net Trips after Internal Capture & Pass-By: PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00																					
710	Office	General Office Building (1)	1,000 Sq Ft	57.961	Avg	11.03	1.56	1.49	640	90	86	79	11	15	71	530	87	79	78	9	11	68	530	87	79	78	9	11	68
820	Retail	Shopping Center	1,000 Sq Ft GLA	73.313	Avg	42.70	0.96	3.71	3132	70	272	43	27	131	141	3022	67	265	41	26	128	137	3022	67	175	41	26	85	90
	Select Use																												
								Totals	3772	160	358	122	38	146	212	3552	154	344	119	35	139	205	3552	154	254	119	35	96	158

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Hotels - Alt 2**
Project Number **096426000**

ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Rates: Daily Rate	Rates: AM Rate	Rates: PM Rate	Total Trips: Daily Trips	Total Trips: AM Trips	Total Trips: PM Trips	Total Trips: AM Trips In	Total Trips: AM Trips Out	Total Trips: PM Trips In	Total Trips: PM Trips Out	Net Trips after Internal Capture: Daily Trips	Net Trips after Internal Capture: AM Trips	Net Trips after Internal Capture: PM Trips	Net Trips after Internal Capture: AM Trips In	Net Trips after Internal Capture: AM Trips Out	Net Trips after Internal Capture: PM Trips In	Net Trips after Internal Capture: PM Trips Out	Net Trips after Internal Capture & Pass-By: Daily Trips	Net Trips after Internal Capture & Pass-By: AM Trips	Net Trips after Internal Capture & Pass-By: PM Trips	Net Trips after Internal Capture & Pass-By: AM Trips In	Net Trips after Internal Capture & Pass-By: AM Trips Out	Net Trips after Internal Capture & Pass-By: PM Trips In	Net Trips after Internal Capture & Pass-By: PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00																					
710	Office	General Office Building (1)	1,000 Sq Ft	206.81	Avg	11.03	1.56	1.49	2282	323	308	284	39	52	256	2100	319	297	283	36	45	252	2100	319	297	283	36	45	252
820	Retail	Shopping Center	1,000 Sq Ft GLA	122.19	Avg	42.70	0.96	3.71	5218	117	453	73	44	217	236	5036	113	442	70	43	213	229	5036	113	292	70	43	141	151
	Select Use																												
								Totals	7500	440	761	357	83	269	492	7136	432	739	353	79	258	481	7136	432	589	353	79	186	403

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Sams - Alt 1**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	**Internal Capture Land Use**	**Land Use Description**	**Independent Variable**	**No. of Units**	**Avg Rate or Eq**	**Daily Rate**	**AM Rate**	**PM Rate**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00																					
710	Office	General Office Building (1)	1,000 Sq Ft	471.13	Avg	11.03	1.56	1.49	5198	735	702	647	88	119	583	5138	734	699	647	87	117	582	5138	734	699	647	87	117	582
820	Retail	Shopping Center	1,000 Sq Ft GLA	41.159	Avg	42.70	0.96	3.71	1758	40	153	25	15	73	80	1698	39	150	24	15	72	78	1698	39	99	24	15	48	52
	Select Use																												
								Totals	6956	775	855	672	103	192	663	6836	773	849	671	102	189	660	6836	773	798	671	102	165	634

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Sams - Alt 2**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	**Internal Capture Land Use**	**Land Use Description**	**Independent Variable**	**No. of Units**	**Avg Rate or Eq**	**Daily Rate**	**AM Rate**	**PM Rate**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)	216	Avg	9.52	0.75	1.00	2058	162	216	41	121	136	80	1516	150	166	35	115	105	61	1516	150	166	35	115	105	61
710	Office	General Office Building (1)	1,000 Sq Ft	565.36	Avg	11.03	1.56	1.49	6236	882	842	776	106	143	699	6026	877	828	775	102	136	692	6026	877	828	775	102	136	692
820	Retail	Shopping Center	1,000 Sq Ft GLA	119.68	Avg	42.70	0.96	3.71	5112	115	444	71	44	213	231	4422	100	386	62	38	190	196	4422	100	255	62	38	125	129
	Select Use																												
								Totals	13406	1159	1502	888	271	492	1010	11964	1127	1380	872	255	431	949	11964	1127	1249	872	255	366	882

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Sams - Alt 3**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	**Internal Capture Land Use**	**Land Use Description**	**Independent Variable**	**No. of Units**	**Avg Rate or Eq**	**Daily Rate**	**AM Rate**	**PM Rate**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)	361	Avg	9.52	0.75	1.00	3438	271	361	68	203	227	134	3042	262	324	63	199	203	121	3042	262	324	63	199	203	121
710	Office	General Office Building (1)	1,000 Sq Ft	494.69	Avg	11.03	1.56	1.49	5458	772	737	679	93	125	612	5286	767	724	678	89	120	604	5286	767	724	678	89	120	604
820	Retail	Shopping Center	1,000 Sq Ft GLA	80.42	Avg	42.70	0.96	3.71	3434	77	298	48	29	143	155	2970	67	258	42	25	127	131	2970	67	170	42	25	84	87
	Select Use																												
								Totals	12330	1120	1396	795	325	495	901	11298	1096	1306	783	313	450	856	11298	1096	1218	783	313	407	812

Notes:
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C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Lowes - Alt 1**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	**Internal Capture Land Use**	**Land Use Description**	**Independent Variable**	**No. of Units**	**Avg Rate or Eq**	**Daily Rate**	**AM Rate**	**PM Rate**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00								268	6	25	3	3	15	10	268	6	25	3	3	15	10
710	Office	General Office Building (1)	1,000 Sq Ft	230.73	Avg	11.03	1.56	1.49	2546	360	344	317	43	58	286	2640	362	350	318	44	62	288	2640	362	350	318	44	62	288
820	Retail	Shopping Center	1,000 Sq Ft GLA	-62.48	Avg	42.70	0.96	3.71	-2668	-60	-232	-37	-23	-111	-121	-2308	-52	-201	-33	-19	-99	-102	-2308	-52	-133	-33	-19	-65	-67
	Select Use																												
								Totals	-122	300	112	280	20	-53	165	600	316	174	288	28	-22	196	600	316	242	288	28	12	231

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Lowes - Alt 2&3**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Daily Rate	AM Rate	PM Rate	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out	Daily Trips	AM Trips	PM Trips	AM Trips In	AM Trips Out	PM Trips In	PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00																					
710	Office	General Office Building (1)	1,000 Sq Ft	346.1	Avg	11.03	1.56	1.49	3818	540	516	475	65	88	428	3798	540	514	475	65	87	427	3798	540	514	475	65	87	427
820	Retail	Shopping Center	1,000 Sq Ft GLA	14.43	Avg	42.70	0.96	3.71	618	14	54	9	5	26	28	598	14	52	9	5	25	27	598	14	34	9	5	17	18
	Select Use																												
								Totals	4436	554	570	484	70	114	456	4396	554	566	484	70	112	454	4396	554	548	484	70	104	445

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

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B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin East 1 & 2**
Project Number **096426000**

ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Rates: Daily Rate	Rates: AM Rate	Rates: PM Rate	Total Trips: Daily Trips	Total Trips: AM Trips	Total Trips: PM Trips	Total Trips: AM Trips In	Total Trips: AM Trips Out	Total Trips: PM Trips In	Total Trips: PM Trips Out	Net Trips after Internal Capture: Daily Trips	Net Trips after Internal Capture: AM Trips	Net Trips after Internal Capture: PM Trips	Net Trips after Internal Capture: AM Trips In	Net Trips after Internal Capture: AM Trips Out	Net Trips after Internal Capture: PM Trips In	Net Trips after Internal Capture: PM Trips Out	Net Trips after Internal Capture & Pass-By: Daily Trips	Net Trips after Internal Capture & Pass-By: AM Trips	Net Trips after Internal Capture & Pass-By: PM Trips	Net Trips after Internal Capture & Pass-By: AM Trips In	Net Trips after Internal Capture & Pass-By: AM Trips Out	Net Trips after Internal Capture & Pass-By: PM Trips In	Net Trips after Internal Capture & Pass-By: PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)	60	Avg	9.52	0.75	1.00	572	45	60	11	34	38	22	438	42	48	10	32	31	17	438	42	48	10	32	31	17
710	Office	General Office Building (1)	1,000 Sq Ft	-41.991	Avg	11.03	1.56	1.49	-464	-66	-63	-58	-8	-11	-52	-374	-55	-47	-49	-6	-8	-39	-374	-55	-47	-49	-6	-8	-39
820	Retail	Shopping Center	1,000 Sq Ft GLA	32.952	Avg	42.70	0.96	3.71	1408	32	122	20	12	59	63	1354	40	124	20	20	66	58	1354	40	82	20	20	44	38
	Select Use																												
								Totals	1516	11	119	-27	38	86	33	1418	27	125	-19	46	89	36	1418	27	83	-19	46	67	16

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin East Alt 3**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	**Internal Capture Land Use**	**Land Use Description**	**Independent Variable**	**No. of Units**	**Avg Rate or Eq**	**Daily Rate**	**AM Rate**	**PM Rate**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)	136	Avg	9.52	0.75	1.00	1296	102	136	26	76	86	50	1124	98	120	24	74	77	43	1124	98	120	24	74	77	43
710	Office	General Office Building (1)	1,000 Sq Ft	-41.991	Avg	11.03	1.56	1.49	-464	-66	-63	-58	-8	-11	-52	-374	-55	-47	-49	-6	-8	-39	-374	-55	-47	-49	-6	-8	-39
820	Retail	Shopping Center	1,000 Sq Ft GLA	41.764	Avg	42.70	0.96	3.71	1784	40	155	25	15	74	81	1692	47	153	25	22	79	74	1692	47	101	25	22	52	49
	Select Use																												
								Totals	2616	76	228	-7	83	149	79	2442	90	226		90	148	78	2442	90	174		90	121	53

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin West Alt 1&2**
Project Number **096426000**

ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Rates: Daily Rate	Rates: AM Rate	Rates: PM Rate	Total Trips: Daily Trips	Total Trips: AM Trips	Total Trips: PM Trips	Total Trips: AM Trips In	Total Trips: AM Trips Out	Total Trips: PM Trips In	Total Trips: PM Trips Out	Net Trips after Internal Capture: Daily Trips	Net Trips after Internal Capture: AM Trips	Net Trips after Internal Capture: PM Trips	Net Trips after Internal Capture: AM Trips In	Net Trips after Internal Capture: AM Trips Out	Net Trips after Internal Capture: PM Trips In	Net Trips after Internal Capture: PM Trips Out	Net Trips after Internal Capture & Pass-By: Daily Trips	Net Trips after Internal Capture & Pass-By: AM Trips	Net Trips after Internal Capture & Pass-By: PM Trips	Net Trips after Internal Capture & Pass-By: AM Trips In	Net Trips after Internal Capture & Pass-By: AM Trips Out	Net Trips after Internal Capture & Pass-By: PM Trips In	Net Trips after Internal Capture & Pass-By: PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00																					
710	Office	General Office Building (1)	1,000 Sq Ft	84.821	Avg	11.03	1.56	1.49	936	132	126	116	16	21	105	804	129	118	115	14	16	102	804	129	118	115	14	16	102
820	Retail	Shopping Center	1,000 Sq Ft GLA	89.516	Avg	42.70	0.96	3.71	3824	86	332	53	33	159	173	3692	83	324	51	32	156	168	3692	83	214	51	32	103	111
	Select Use																												
								Totals	4760	218	458	169	49	180	278	4496	212	442	166	46	172	270	4496	212	332	166	46	119	213

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin West Alt 3**
Project Number **096426000**

ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Rates: Daily Rate	Rates: AM Rate	Rates: PM Rate	Total Trips: Daily Trips	Total Trips: AM Trips	Total Trips: PM Trips	Total Trips: AM Trips In	Total Trips: AM Trips Out	Total Trips: PM Trips In	Total Trips: PM Trips Out	Net Trips after Internal Capture: Daily Trips	Net Trips after Internal Capture: AM Trips	Net Trips after Internal Capture: PM Trips	Net Trips after Internal Capture: AM Trips In	Net Trips after Internal Capture: AM Trips Out	Net Trips after Internal Capture: PM Trips In	Net Trips after Internal Capture: PM Trips Out	Net Trips after Internal Capture & Pass-By: Daily Trips	Net Trips after Internal Capture & Pass-By: AM Trips	Net Trips after Internal Capture & Pass-By: PM Trips	Net Trips after Internal Capture & Pass-By: AM Trips In	Net Trips after Internal Capture & Pass-By: AM Trips Out	Net Trips after Internal Capture & Pass-By: PM Trips In	Net Trips after Internal Capture & Pass-By: PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00																					
710	Office	General Office Building (1)	1,000 Sq Ft	239.9	Avg	11.03	1.56	1.49	2648	374	357	329	45	61	296	2360	367	339	327	40	50	289	2360	367	339	327	40	50	289
820	Retail	Shopping Center	1,000 Sq Ft GLA	192.9	Avg	42.70	0.96	3.71	8238	185	716	115	70	344	372	7950	178	698	110	68	337	361	7950	178	473	110	68	228	245
	Select Use																												
								Totals	10886	559	1073	444	115	405	668	10310	545	1037	437	108	387	650	10310	545	812	437	108	278	534

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

A Trip Generation data from ITE *Trip Generation, 9th Edition*
B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin North - 1, 2, and 3**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	**Internal Capture Land Use**	**Land Use Description**	**Independent Variable**	**No. of Units**	**Avg Rate or Eq**	**Daily Rate**	**AM Rate**	**PM Rate**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)	19	Avg	9.52	0.75	1.00	182	14	19	4	10	12	7	114	10	11	3	7	8	3	114	10	11	3	7	8	3
710	Office	General Office Building (1)	1,000 Sq Ft	174.61	Avg	11.03	1.56	1.49	1926	272	260	239	33	44	216	1826	269	254	238	31	40	214	1826	269	254	238	31	40	214
820	Retail	Shopping Center	1,000 Sq Ft GLA	65.013	Avg	42.70	0.96	3.71	2778	62	241	38	24	116	125	2616	55	227	33	22	110	117	2616	55	150	33	22	73	77
	Select Use																												
								Totals	4886	348	520	281	67	172	348	4556	334	492	274	60	158	334	4556	334	415	274	60	121	294

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

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C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Centennial East 1 2 3**
Project Number **096426000**

ITE Code	Internal Capture Land Use	Land Use Description	Independent Variable	No. of Units	Avg Rate or Eq	Rates: Daily Rate	Rates: AM Rate	Rates: PM Rate	Total Trips: Daily Trips	Total Trips: AM Trips	Total Trips: PM Trips	Total Trips: AM Trips In	Total Trips: AM Trips Out	Total Trips: PM Trips In	Total Trips: PM Trips Out	Net Trips after Internal Capture: Daily Trips	Net Trips after Internal Capture: AM Trips	Net Trips after Internal Capture: PM Trips	Net Trips after Internal Capture: AM Trips In	Net Trips after Internal Capture: AM Trips Out	Net Trips after Internal Capture: PM Trips In	Net Trips after Internal Capture: PM Trips Out	Net Trips after Internal Capture & Pass-By: Daily Trips	Net Trips after Internal Capture & Pass-By: AM Trips	Net Trips after Internal Capture & Pass-By: PM Trips	Net Trips after Internal Capture & Pass-By: AM Trips In	Net Trips after Internal Capture & Pass-By: AM Trips Out	Net Trips after Internal Capture & Pass-By: PM Trips In	Net Trips after Internal Capture & Pass-By: PM Trips Out
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00																					
710	Office	General Office Building (1)	1,000 Sq Ft	306.69	Avg	11.03	1.56	1.49	3384	478	457	421	57	78	379	3384	478	457	421	57	78	379	3384	478	457	421	57	78	379
820	Retail	Shopping Center	1,000 Sq Ft GLA		Avg	42.70	0.96	3.71																					
	Select Use																												
								Totals	3384	478	457	421	57	78	379	3384	478	457	421	57	78	379	3384	478	457	421	57	78	379

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

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B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Trip Generation Planner (ITE 9th Edition) - Summary Report

Kimley»Horn

Weekday Trip Generation
Trips Based on Average Rates/Equations

Project Name **McCaslin Centennial West 1 2 3**
Project Number **096426000**

						Rates			Total Trips							Net Trips after Internal Capture							Net Trips after Internal Capture & Pass-By						
ITE Code	**Internal Capture Land Use**	**Land Use Description**	**Independent Variable**	**No. of Units**	**Avg Rate or Eq**	**Daily Rate**	**AM Rate**	**PM Rate**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**	**Daily Trips**	**AM Trips**	**PM Trips**	**AM Trips In**	**AM Trips Out**	**PM Trips In**	**PM Trips Out**
210	Residential	Single-Family Detached Housing	Dwelling Unit(s)		Avg	9.52	0.75	1.00																					
710	Office	General Office Building (1)	1,000 Sq Ft	535.72	Avg	11.03	1.56	1.49	5910	836	798	736	100	136	662	5910	836	798	736	100	136	662	5910	836	798	736	100	136	662
820	Retail	Shopping Center	1,000 Sq Ft GLA		Avg	42.70	0.96	3.71																					
	Select Use																												
								Totals	5910	836	798	736	100	136	662	5910	836	798	736	100	136	662	5910	836	798	736	100	136	662

Notes:
(1) AM and/or PM rates correspond to peak hour of generator

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B AM/PM rates correspond to peak of adjacent street traffic (if data available)
C Includes weekday rates only
D Total trips include pass-by trips w/ no internal capture
E Pass-by rates from ITE *Trip Generation Handbook, 2nd Edition*
F Internal capture rates from ITE *Trip Generation Handbook, 2nd Edition*
G Worksheet is intended as a planning tool. Verify results w/ ITE *Trip Generation 9th Edition*

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	19	8	340	61	175	29	752	174	35	445	45
Future Volume (veh/h)	29	19	8	340	61	175	29	752	174	35	445	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	32	21	0	370	66	0	32	817	0	38	484	0
Adj No. of Lanes	1	2	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	197	164	74	466	291	247	615	2087	934	534	2098	939
Arrive On Green	0.03	0.05	0.00	0.14	0.16	0.00	0.05	1.00	0.00	0.03	0.59	0.00
Sat Flow, veh/h	1774	3539	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	32	21	0	370	66	0	32	817	0	38	484	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.4	0.5	0.0	8.3	2.5	0.0	0.6	0.0	0.0	0.7	5.2	0.0
Cycle Q Clear(g_c), s	1.4	0.5	0.0	8.3	2.5	0.0	0.6	0.0	0.0	0.7	5.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	197	164	74	466	291	247	615	2087	934	534	2098	939
V/C Ratio(X)	0.16	0.13	0.00	0.79	0.23	0.00	0.05	0.39	0.00	0.07	0.23	0.00
Avail Cap(c_a), veh/h	240	708	317	602	605	515	658	2087	934	572	2098	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.98	0.98	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.1	36.6	0.0	33.5	29.5	0.0	6.0	0.0	0.0	6.0	7.7	0.0
Incr Delay (d2), s/veh	0.4	0.3	0.0	5.6	0.4	0.0	0.0	0.5	0.0	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	0.0	4.3	1.3	0.0	0.3	0.2	0.0	0.3	2.6	0.0
LnGrp Delay(d),s/veh	35.5	36.9	0.0	39.1	29.9	0.0	6.1	0.5	0.0	6.0	7.9	0.0
LnGrp LOS	D	D		D	C		A	A		A	A	
Approach Vol, veh/h		53			436			849			522	
Approach Delay, s/veh		36.1			37.7			0.8			7.8	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	51.2	14.8	7.7	6.0	51.4	6.0	16.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	30.0	14.0	16.0	4.0	30.0	4.0	26.0
Max Q Clear Time (g_c+I1), s	2.7	2.0	10.3	2.5	2.6	7.2	3.4	4.5
Green Ext Time (p_c), s	0.0	9.9	0.5	0.3	0.0	9.1	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	68	10	267	11	64	23	554	460	137	928	20
Future Volume (veh/h)	35	68	10	267	11	64	23	554	460	137	928	20
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	38	74	0	290	12	0	25	602	0	149	1009	0
Adj No. of Lanes	1	2	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	189	154	69	375	233	198	400	2190	980	674	2297	1028
Arrive On Green	0.03	0.04	0.00	0.11	0.13	0.00	0.04	1.00	0.00	0.05	0.65	0.00
Sat Flow, veh/h	1774	3539	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	38	74	0	290	12	0	25	602	0	149	1009	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	1.8	1.8	0.0	7.4	0.5	0.0	0.5	0.0	0.0	2.7	12.6	0.0
Cycle Q Clear(g_c), s	1.8	1.8	0.0	7.4	0.5	0.0	0.5	0.0	0.0	2.7	12.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	189	154	69	375	233	198	400	2190	980	674	2297	1028
V/C Ratio(X)	0.20	0.48	0.00	0.77	0.05	0.00	0.06	0.27	0.00	0.22	0.44	0.00
Avail Cap(c_a), veh/h	220	629	281	535	538	457	442	2190	980	702	2297	1028
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.95	0.95	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.7	42.0	0.0	39.0	34.7	0.0	6.4	0.0	0.0	5.1	7.7	0.0
Incr Delay (d2), s/veh	0.5	2.3	0.0	4.4	0.1	0.0	0.1	0.3	0.0	0.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.9	0.0	3.7	0.3	0.0	0.2	0.1	0.0	1.3	6.2	0.0
LnGrp Delay(d),s/veh	40.2	44.3	0.0	43.5	34.8	0.0	6.4	0.3	0.0	5.3	8.4	0.0
LnGrp LOS	D	D		D	C		A	A		A	A	
Approach Vol, veh/h		112			302			627			1158	
Approach Delay, s/veh		42.9			43.1			0.5			8.0	
Approach LOS		D			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	59.7	13.8	7.9	5.9	62.4	6.5	15.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	38.0	14.0	16.0	4.0	40.0	4.0	26.0
Max Q Clear Time (g_c+I1), s	4.7	2.0	9.4	3.8	2.5	14.6	3.8	2.5
Green Ext Time (p_c), s	0.0	14.4	0.4	0.3	0.0	12.3	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	45	25	905	300	210	180	790	285	40	640	165
Future Volume (veh/h)	55	45	25	905	300	210	180	790	285	40	640	165
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	60	49	0	984	326	0	196	859	0	43	696	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	133	113	989	592	503	370	1452	650	353	1340	599
Arrive On Green	0.04	0.07	0.00	0.29	0.32	0.00	0.13	0.82	0.00	0.03	0.38	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	60	49	0	984	326	0	196	859	0	43	696	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.5	2.0	0.0	22.8	11.6	0.0	5.0	6.8	0.0	1.2	12.2	0.0
Cycle Q Clear(g_c), s	2.5	2.0	0.0	22.8	11.6	0.0	5.0	6.8	0.0	1.2	12.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	133	113	989	592	503	370	1452	650	353	1340	599
V/C Ratio(X)	0.25	0.37	0.00	0.99	0.55	0.00	0.53	0.59	0.00	0.12	0.52	0.00
Avail Cap(c_a), veh/h	254	373	317	989	815	693	370	1452	650	387	1340	599
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.87	0.87	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.6	35.4	0.0	28.4	22.6	0.0	15.4	4.8	0.0	14.4	19.2	0.0
Incr Delay (d2), s/veh	0.5	1.7	0.0	27.2	0.8	0.0	1.3	1.6	0.0	0.2	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.1	0.0	14.5	6.0	0.0	1.4	3.4	0.0	0.6	6.2	0.0
LnGrp Delay(d),s/veh	33.1	37.1	0.0	55.6	23.4	0.0	16.7	6.4	0.0	14.6	20.7	0.0
LnGrp LOS	C	D		E	C		B	A		B	C	
Approach Vol, veh/h		109			1310			1055			739	
Approach Delay, s/veh		34.9			47.6			8.3			20.3	
Approach LOS		C			D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	36.8	27.0	9.7	9.0	34.3	7.3	29.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	21.0	23.0	16.0	5.0	20.0	4.0	35.0
Max Q Clear Time (g_c+I1), s	3.2	8.8	24.8	4.0	7.0	14.2	4.5	13.6
Green Ext Time (p_c), s	0.0	7.5	0.0	1.7	0.0	4.2	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	28.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	325	160	410	80	75	75	845	965	165	980	50
Future Volume (veh/h)	110	325	160	410	80	75	75	845	965	165	980	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	120	353	0	446	87	0	82	918	0	179	1065	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	479	401	341	517	556	473	242	1342	600	306	1463	654
Arrive On Green	0.07	0.22	0.00	0.15	0.30	0.00	0.03	0.25	0.00	0.08	0.41	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	120	353	0	446	87	0	82	918	0	179	1065	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.7	16.5	0.0	11.4	3.1	0.0	2.5	21.1	0.0	5.4	22.7	0.0
Cycle Q Clear(g_c), s	4.7	16.5	0.0	11.4	3.1	0.0	2.5	21.1	0.0	5.4	22.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	479	401	341	517	556	473	242	1342	600	306	1463	654
V/C Ratio(X)	0.25	0.88	0.00	0.86	0.16	0.00	0.34	0.68	0.00	0.59	0.73	0.00
Avail Cap(c_a), veh/h	479	455	387	535	621	528	244	1342	600	306	1463	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.31	0.31	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.9	34.2	0.0	37.3	23.2	0.0	18.5	28.7	0.0	18.0	22.2	0.0
Incr Delay (d2), s/veh	0.3	16.5	0.0	13.3	0.1	0.0	0.3	0.9	0.0	2.9	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	10.3	0.0	6.3	1.6	0.0	1.2	10.4	0.0	2.8	11.7	0.0
LnGrp Delay(d),s/veh	25.2	50.7	0.0	50.7	23.4	0.0	18.8	29.6	0.0	20.8	25.4	0.0
LnGrp LOS	C	D		D	C		B	C		C	C	
Approach Vol, veh/h		473			533			1000			1244	
Approach Delay, s/veh		44.2			46.2			28.7			24.7	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	38.1	17.5	23.4	7.9	41.2	10.0	30.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	31.0	14.0	22.0	4.0	34.0	6.0	30.0
Max Q Clear Time (g_c+I1), s	7.4	23.1	13.4	18.5	4.5	24.7	6.7	5.1
Green Ext Time (p_c), s	0.0	6.3	0.1	0.8	0.0	7.3	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	32.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	45	25	1005	300	210	180	805	335	40	685	165
Future Volume (veh/h)	55	45	25	1005	300	210	180	805	335	40	685	165
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	60	49	0	1092	326	0	196	875	0	43	745	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	238	133	113	1076	638	543	330	1364	610	317	1251	560
Arrive On Green	0.04	0.07	0.00	0.31	0.34	0.00	0.13	0.77	0.00	0.03	0.35	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	60	49	0	1092	326	0	196	875	0	43	745	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.5	2.0	0.0	25.0	11.2	0.0	5.0	9.0	0.0	1.2	13.8	0.0
Cycle Q Clear(g_c), s	2.5	2.0	0.0	25.0	11.2	0.0	5.0	9.0	0.0	1.2	13.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	238	133	113	1076	638	543	330	1364	610	317	1251	560
V/C Ratio(X)	0.25	0.37	0.00	1.02	0.51	0.00	0.59	0.64	0.00	0.14	0.60	0.00
Avail Cap(c_a), veh/h	254	373	317	1076	862	732	330	1364	610	351	1251	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.85	0.85	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.6	35.4	0.0	27.5	20.9	0.0	17.7	6.7	0.0	15.8	21.2	0.0
Incr Delay (d2), s/veh	0.5	1.7	0.0	31.3	0.6	0.0	2.4	2.0	0.0	0.2	2.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.1	0.0	16.5	5.8	0.0	1.7	4.5	0.0	0.6	7.1	0.0
LnGrp Delay(d),s/veh	33.1	37.1	0.0	58.8	21.6	0.0	20.1	8.7	0.0	16.0	23.3	0.0
LnGrp LOS	C	D		F	C		C	A		B	C	
Approach Vol, veh/h		109			1418			1071			788	
Approach Delay, s/veh		34.9			50.3			10.8			22.9	
Approach LOS		C			D			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	34.8	29.0	9.7	9.0	32.3	7.3	31.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	19.0	25.0	16.0	5.0	18.0	4.0	37.0
Max Q Clear Time (g_c+I1), s	3.2	11.0	27.0	4.0	7.0	15.8	4.5	13.2
Green Ext Time (p_c), s	0.0	5.6	0.0	1.7	0.0	1.8	0.0	2.2

Intersection Summary	
HCM 2010 Ctrl Delay	30.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	315	160	485	80	75	75	890	1085	165	1015	50
Future Volume (veh/h)	110	315	160	485	80	75	75	890	1085	165	1015	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	120	342	0	527	87	0	82	967	0	179	1103	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	470	388	330	604	590	502	220	1277	571	280	1395	624
Arrive On Green	0.07	0.21	0.00	0.18	0.32	0.00	0.03	0.24	0.00	0.08	0.39	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	120	342	0	527	87	0	82	967	0	179	1103	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	4.7	16.0	0.0	13.4	3.0	0.0	2.6	22.8	0.0	5.6	24.7	0.0
Cycle Q Clear(g_c), s	4.7	16.0	0.0	13.4	3.0	0.0	2.6	22.8	0.0	5.6	24.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	470	388	330	604	590	502	220	1277	571	280	1395	624
V/C Ratio(X)	0.26	0.88	0.00	0.87	0.15	0.00	0.37	0.76	0.00	0.64	0.79	0.00
Avail Cap(c_a), veh/h	470	435	369	650	662	563	220	1277	571	280	1395	624
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.11	0.11	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.4	34.6	0.0	36.1	22.0	0.0	20.1	30.5	0.0	19.7	24.0	0.0
Incr Delay (d2), s/veh	0.3	17.4	0.0	11.9	0.1	0.0	0.1	0.5	0.0	4.8	4.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	10.1	0.0	7.4	1.6	0.0	1.3	11.3	0.0	3.1	12.8	0.0
LnGrp Delay(d),s/veh	25.7	51.9	0.0	48.0	22.1	0.0	20.2	30.9	0.0	24.5	28.6	0.0
LnGrp LOS	C	D		D	C		C	C		C	C	
Approach Vol, veh/h		462			614			1049			1282	
Approach Delay, s/veh		45.1			44.4			30.1			28.1	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	36.5	19.8	22.7	8.0	39.5	10.0	32.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	29.0	17.0	21.0	4.0	32.0	6.0	32.0
Max Q Clear Time (g_c+I1), s	7.6	24.8	15.4	18.0	4.6	26.7	6.7	5.0
Green Ext Time (p_c), s	0.0	3.6	0.4	0.7	0.0	4.5	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	33.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	50	30	1015	350	210	210	815	375	40	685	190
Future Volume (veh/h)	60	50	30	1015	350	210	210	815	375	40	685	190
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	65	54	0	1103	380	0	228	886	0	43	745	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	247	145	123	1032	621	528	346	1385	620	321	1228	550
Arrive On Green	0.04	0.08	0.00	0.30	0.33	0.00	0.15	0.78	0.00	0.03	0.35	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	65	54	0	1103	380	0	228	886	0	43	745	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.7	2.2	0.0	24.0	13.7	0.0	6.0	8.7	0.0	1.2	13.9	0.0
Cycle Q Clear(g_c), s	2.7	2.2	0.0	24.0	13.7	0.0	6.0	8.7	0.0	1.2	13.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	247	145	123	1032	621	528	346	1385	620	321	1228	550
V/C Ratio(X)	0.26	0.37	0.00	1.07	0.61	0.00	0.66	0.64	0.00	0.13	0.61	0.00
Avail Cap(c_a), veh/h	279	373	317	1032	815	693	346	1385	620	355	1228	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.84	0.84	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	32.0	35.0	0.0	28.0	22.3	0.0	17.1	6.2	0.0	16.0	21.6	0.0
Incr Delay (d2), s/veh	0.6	1.6	0.0	48.1	1.0	0.0	3.8	1.9	0.0	0.2	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.2	0.0	18.2	7.1	0.0	2.2	4.3	0.0	0.6	7.1	0.0
LnGrp Delay(d),s/veh	32.5	36.6	0.0	76.1	23.3	0.0	20.9	8.2	0.0	16.2	23.8	0.0
LnGrp LOS	C	D		F	C		C	A		B	C	
Approach Vol, veh/h		119			1483			1114			788	
Approach Delay, s/veh		34.4			62.6			10.8			23.4	
Approach LOS		C			E			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.5	35.3	28.0	10.2	10.0	31.8	7.6	30.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	20.0	24.0	16.0	6.0	18.0	5.0	35.0
Max Q Clear Time (g_c+I1), s	3.2	10.7	26.0	4.2	8.0	15.9	4.7	15.7
Green Ext Time (p_c), s	0.0	6.4	0.0	2.0	0.0	1.7	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	36.4
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	125	435	190	615	95	75	85	920	1110	165	1030	50
Future Volume (veh/h)	125	435	190	615	95	75	85	920	1110	165	1030	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	136	473	0	668	103	0	92	1000	0	179	1120	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	527	476	405	688	724	616	163	1101	493	196	1140	510
Arrive On Green	0.07	0.26	0.00	0.20	0.39	0.00	0.01	0.10	0.00	0.06	0.32	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	136	473	0	668	103	0	92	1000	0	179	1120	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	5.1	22.8	0.0	17.3	3.2	0.0	3.2	25.2	0.0	5.0	28.2	0.0
Cycle Q Clear(g_c), s	5.1	22.8	0.0	17.3	3.2	0.0	3.2	25.2	0.0	5.0	28.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	527	476	405	688	724	616	163	1101	493	196	1140	510
V/C Ratio(X)	0.26	0.99	0.00	0.97	0.14	0.00	0.56	0.91	0.00	0.91	0.98	0.00
Avail Cap(c_a), veh/h	527	476	405	688	724	616	163	1101	493	196	1140	510
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.09	0.09	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.4	33.4	0.0	35.7	17.8	0.0	24.8	39.1	0.0	28.1	30.2	0.0
Incr Delay (d2), s/veh	0.3	39.5	0.0	27.0	0.1	0.0	0.4	1.4	0.0	40.6	22.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	16.9	0.0	10.8	1.7	0.0	1.5	12.6	0.0	4.2	17.3	0.0
LnGrp Delay(d),s/veh	22.6	72.9	0.0	62.8	17.9	0.0	25.2	40.5	0.0	68.6	52.9	0.0
LnGrp LOS	C	E		E	B		C	D		E	D	
Approach Vol, veh/h		609			771			1092			1299	
Approach Delay, s/veh		61.7			56.8			39.2			55.1	
Approach LOS		E			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	32.0	22.0	27.0	8.0	33.0	10.0	39.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	28.0	18.0	23.0	4.0	29.0	6.0	35.0
Max Q Clear Time (g_c+I1), s	7.0	27.2	19.3	24.8	5.2	30.2	7.1	5.2
Green Ext Time (p_c), s	0.0	0.8	0.0	0.0	0.0	0.0	0.0	3.8

Intersection Summary	
HCM 2010 Ctrl Delay	51.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	6	30	55	19	71	101	776	13	18	723	57
Future Volume (veh/h)	36	6	30	55	19	71	101	776	13	18	723	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	39	7	33	60	21	77	110	843	14	20	786	62
Adj No. of Lanes	1	1	0	1	1	0	1	3	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	181	22	103	236	31	114	583	3377	1052	505	3060	240
Arrive On Green	0.03	0.08	0.08	0.04	0.09	0.09	0.05	0.66	0.66	0.04	1.00	1.00
Sat Flow, veh/h	1774	285	1341	1774	351	1285	1774	5085	1583	1774	4809	378
Grp Volume(v), veh/h	39	0	40	60	0	98	110	843	14	20	553	295
Grp Sat Flow(s),veh/h/ln	1774	0	1626	1774	0	1636	1774	1695	1583	1774	1695	1796
Q Serve(g_s), s	1.6	0.0	1.9	2.5	0.0	4.6	1.7	5.3	0.2	0.3	0.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	1.9	2.5	0.0	4.6	1.7	5.3	0.2	0.3	0.0	0.0
Prop In Lane	1.00		0.82	1.00		0.79	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	181	0	125	236	0	146	583	3377	1052	505	2158	1143
V/C Ratio(X)	0.22	0.00	0.32	0.25	0.00	0.67	0.19	0.25	0.01	0.04	0.26	0.26
Avail Cap(c_a), veh/h	263	0	386	296	0	389	724	3377	1052	606	2158	1143
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.91	0.91	0.91	0.92	0.92	0.92
Uniform Delay (d), s/veh	32.8	0.0	35.0	32.2	0.0	35.3	4.2	5.4	4.6	4.8	0.0	0.0
Incr Delay (d2), s/veh	0.6	0.0	1.5	0.6	0.0	5.3	0.1	0.2	0.0	0.0	0.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.9	1.2	0.0	2.3	0.8	2.5	0.1	0.1	0.1	0.2
LnGrp Delay(d),s/veh	33.4	0.0	36.4	32.8	0.0	40.6	4.4	5.6	4.6	4.8	0.3	0.5
LnGrp LOS	C		D	C		D	A	A	A	A	A	A
Approach Vol, veh/h		79			158			967			868	
Approach Delay, s/veh		34.9			37.7			5.4			0.4	
Approach LOS		C			D			A			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	57.1	7.3	10.1	7.7	54.9	6.3	11.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	33.0	6.0	19.0	10.0	29.0	6.0	19.0
Max Q Clear Time (g_c+I1), s	2.3	7.3	4.5	3.9	3.7	2.0	3.6	6.6
Green Ext Time (p_c), s	0.0	12.7	0.0	0.6	0.1	13.0	0.0	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	6.9
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	141	30	75	39	11	30	94	880	62	89	1139	32
Future Volume (veh/h)	141	30	75	39	11	30	94	880	62	89	1139	32
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	153	33	82	42	12	33	102	957	67	97	1238	35
Adj No. of Lanes	1	1	0	1	1	0	1	3	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	294	59	148	202	24	67	424	3191	994	409	3188	90
Arrive On Green	0.10	0.13	0.13	0.03	0.06	0.06	0.01	0.21	0.21	0.08	1.00	1.00
Sat Flow, veh/h	1774	475	1180	1774	440	1209	1774	5085	1583	1774	5084	144
Grp Volume(v), veh/h	153	0	115	42	0	45	102	957	67	97	826	447
Grp Sat Flow(s),veh/h/ln	1774	0	1655	1774	0	1649	1774	1695	1583	1774	1695	1837
Q Serve(g_s), s	7.0	0.0	5.9	2.0	0.0	2.4	1.8	14.3	3.1	1.8	0.0	0.0
Cycle Q Clear(g_c), s	7.0	0.0	5.9	2.0	0.0	2.4	1.8	14.3	3.1	1.8	0.0	0.0
Prop In Lane	1.00		0.71	1.00		0.73	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	294	0	207	202	0	92	424	3191	994	409	2126	1152
V/C Ratio(X)	0.52	0.00	0.55	0.21	0.00	0.49	0.24	0.30	0.07	0.24	0.39	0.39
Avail Cap(c_a), veh/h	336	0	423	230	0	293	549	3191	994	455	2126	1152
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.88	0.88	0.88	0.87	0.87	0.87
Uniform Delay (d), s/veh	33.5	0.0	37.0	38.6	0.0	41.3	5.4	19.0	14.5	6.3	0.0	0.0
Incr Delay (d2), s/veh	1.4	0.0	2.3	0.5	0.0	4.0	0.3	0.2	0.1	0.3	0.5	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	2.8	1.0	0.0	1.2	0.9	6.8	1.4	0.9	0.1	0.3
LnGrp Delay(d),s/veh	34.9	0.0	39.3	39.1	0.0	45.3	5.7	19.2	14.6	6.6	0.5	0.9
LnGrp LOS	C		D	D		D	A	B	B	A	A	A
Approach Vol, veh/h		268			87			1126			1370	
Approach Delay, s/veh		36.8			42.3			17.7			1.0	
Approach LOS		D			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.6	60.5	6.6	15.3	7.7	60.4	12.9	9.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	41.0	4.0	23.0	10.0	37.0	11.0	16.0
Max Q Clear Time (g_c+I1), s	3.8	16.3	4.0	7.9	3.8	2.0	9.0	4.4
Green Ext Time (p_c), s	0.0	16.8	0.0	0.8	0.1	21.0	0.1	0.6

Intersection Summary	
HCM 2010 Ctrl Delay	12.2
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	5	65	95	35	75	300	1090	15	20	1410	125
Future Volume (veh/h)	65	5	65	95	35	75	300	1090	15	20	1410	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	71	5	71	103	38	82	326	1185	16	22	1533	136
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	217	11	151	253	54	117	342	2251	30	367	1724	152
Arrive On Green	0.05	0.10	0.10	0.05	0.10	0.10	0.25	1.00	1.00	0.02	0.52	0.52
Sat Flow, veh/h	1774	105	1494	1774	526	1136	1774	3576	48	1774	3291	290
Grp Volume(v), veh/h	71	0	76	103	0	120	326	586	615	22	819	850
Grp Sat Flow(s),veh/h/ln	1774	0	1599	1774	0	1662	1774	1770	1854	1774	1770	1812
Q Serve(g_s), s	2.8	0.0	3.6	4.0	0.0	5.6	8.8	0.0	0.0	0.5	32.8	33.7
Cycle Q Clear(g_c), s	2.8	0.0	3.6	4.0	0.0	5.6	8.8	0.0	0.0	0.5	32.8	33.7
Prop In Lane	1.00		0.93	1.00		0.68	1.00		0.03	1.00		0.16
Lane Grp Cap(c), veh/h	217	0	162	253	0	172	342	1114	1167	367	927	949
V/C Ratio(X)	0.33	0.00	0.47	0.41	0.00	0.70	0.95	0.53	0.53	0.06	0.88	0.90
Avail Cap(c_a), veh/h	221	0	320	253	0	332	342	1114	1167	422	927	949
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.44	0.44	0.44	0.40	0.40	0.40
Uniform Delay (d), s/veh	30.4	0.0	33.9	30.8	0.0	34.7	17.9	0.0	0.0	8.5	16.9	17.1
Incr Delay (d2), s/veh	0.9	0.0	2.1	1.1	0.0	5.1	21.5	0.8	0.7	0.0	5.4	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.7	0.3	0.0	2.8	8.9	0.2	0.2	0.2	17.3	18.1
LnGrp Delay(d),s/veh	31.2	0.0	36.0	31.9	0.0	39.8	39.4	0.8	0.7	8.5	22.3	23.0
LnGrp LOS	C		D	C		D	D	A	A	A	C	C
Approach Vol, veh/h		147			223			1527			1691	
Approach Delay, s/veh		33.7			36.1			9.0			22.4	
Approach LOS		C			D			A			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	54.4	8.0	12.1	14.0	45.9	7.8	12.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	40.0	4.0	16.0	10.0	34.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	2.5	2.0	6.0	5.6	10.8	35.7	4.8	7.6
Green Ext Time (p_c), s	0.0	29.1	0.0	0.8	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	45	275	45	15	30	175	1520	100	110	1495	50
Future Volume (veh/h)	290	45	275	45	15	30	175	1520	100	110	1495	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	315	49	299	49	16	33	190	1652	109	120	1625	54
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	427	51	309	146	90	185	334	1766	116	183	1730	57
Arrive On Green	0.09	0.22	0.22	0.03	0.17	0.17	0.10	0.70	0.70	0.09	0.99	0.99
Sat Flow, veh/h	1774	228	1390	1774	544	1121	1774	3372	221	1774	3496	116
Grp Volume(v), veh/h	315	0	348	49	0	49	190	861	900	120	820	859
Grp Sat Flow(s),veh/h/ln	1774	0	1617	1774	0	1665	1774	1770	1824	1774	1770	1842
Q Serve(g_s), s	8.0	0.0	19.2	2.1	0.0	2.3	4.7	37.7	39.2	3.1	6.0	6.5
Cycle Q Clear(g_c), s	8.0	0.0	19.2	2.1	0.0	2.3	4.7	37.7	39.2	3.1	6.0	6.5
Prop In Lane	1.00		0.86	1.00		0.67	1.00		0.12	1.00		0.06
Lane Grp Cap(c), veh/h	427	0	359	146	0	275	334	927	955	183	875	911
V/C Ratio(X)	0.74	0.00	0.97	0.34	0.00	0.18	0.57	0.93	0.94	0.66	0.94	0.94
Avail Cap(c_a), veh/h	427	0	359	168	0	296	342	927	955	183	875	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.21	0.21	0.21	0.62	0.62	0.62
Uniform Delay (d), s/veh	30.9	0.0	34.7	31.0	0.0	32.3	9.6	12.2	12.4	19.5	0.3	0.3
Incr Delay (d2), s/veh	6.7	0.0	38.9	1.3	0.0	0.3	0.5	4.8	5.4	5.2	12.9	13.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	12.4	1.1	0.0	1.1	2.2	18.9	20.6	1.7	3.4	3.6
LnGrp Delay(d),s/veh	37.6	0.0	73.6	32.3	0.0	32.6	10.1	17.0	17.9	24.7	13.2	13.5
LnGrp LOS	D		E	C		C	B	B	B	C	B	B
Approach Vol, veh/h		663			98			1951			1799	
Approach Delay, s/veh		56.5			32.5			16.7			14.1	
Approach LOS		E			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	51.1	6.9	24.0	10.6	48.5	12.0	18.9
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	46.0	4.0	20.0	7.0	43.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	5.1	41.2	4.1	21.2	6.7	8.5	10.0	4.3
Green Ext Time (p_c), s	0.0	4.7	0.0	0.0	0.0	30.9	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	21.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	5	65	105	35	75	300	1155	20	20	1555	125
Future Volume (veh/h)	65	5	65	105	35	75	300	1155	20	20	1555	125
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	71	5	71	114	38	82	326	1255	22	22	1690	136
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	217	11	151	253	54	117	264	2240	39	366	1864	148
Arrive On Green	0.05	0.10	0.10	0.05	0.10	0.10	0.17	1.00	1.00	0.01	0.38	0.38
Sat Flow, veh/h	1774	105	1494	1774	526	1136	1774	3559	62	1774	3321	265
Grp Volume(v), veh/h	71	0	76	114	0	120	326	624	653	22	892	934
Grp Sat Flow(s),veh/h/ln	1774	0	1599	1774	0	1662	1774	1770	1852	1774	1770	1816
Q Serve(g_s), s	2.8	0.0	3.6	4.0	0.0	5.6	7.0	0.0	0.0	0.4	38.0	39.1
Cycle Q Clear(g_c), s	2.8	0.0	3.6	4.0	0.0	5.6	7.0	0.0	0.0	0.4	38.0	39.1
Prop In Lane	1.00		0.93	1.00		0.68	1.00		0.03	1.00		0.15
Lane Grp Cap(c), veh/h	217	0	162	253	0	172	264	1114	1166	366	993	1019
V/C Ratio(X)	0.33	0.00	0.47	0.45	0.00	0.70	1.24	0.56	0.56	0.06	0.90	0.92
Avail Cap(c_a), veh/h	221	0	320	253	0	332	264	1114	1166	421	993	1019
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.22	0.22	0.22	0.28	0.28	0.28
Uniform Delay (d), s/veh	30.4	0.0	33.9	31.4	0.0	34.7	20.6	0.0	0.0	7.2	22.8	23.2
Incr Delay (d2), s/veh	0.9	0.0	2.1	1.3	0.0	5.1	114.1	0.5	0.4	0.0	4.1	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	1.7	0.5	0.0	2.8	14.1	0.1	0.1	0.2	19.6	20.9
LnGrp Delay(d),s/veh	31.2	0.0	36.0	32.6	0.0	39.8	134.8	0.5	0.4	7.2	26.9	27.9
LnGrp LOS	C		D	C		D	F	A	A	A	C	C
Approach Vol, veh/h		147			234			1603			1848	
Approach Delay, s/veh		33.7			36.3			27.8			27.2	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	54.4	8.0	12.1	11.0	48.9	7.8	12.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	40.0	4.0	16.0	7.0	37.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	2.4	2.0	6.0	5.6	9.0	41.1	4.8	7.6
Green Ext Time (p_c), s	0.0	31.4	0.0	0.8	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	28.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	290	45	275	50	15	30	175	1695	100	110	1640	50
Future Volume (veh/h)	290	45	275	50	15	30	175	1695	100	110	1640	50
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	315	49	299	54	16	33	190	1842	109	120	1783	54
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	411	48	293	142	92	189	202	1807	106	159	1787	54
Arrive On Green	0.08	0.21	0.21	0.03	0.17	0.17	0.09	0.71	0.71	0.09	1.00	1.00
Sat Flow, veh/h	1774	228	1390	1774	544	1121	1774	3398	199	1774	3508	106
Grp Volume(v), veh/h	315	0	348	54	0	49	190	950	1001	120	896	941
Grp Sat Flow(s),veh/h/ln	1774	0	1617	1774	0	1665	1774	1770	1828	1774	1770	1844
Q Serve(g_s), s	7.0	0.0	19.0	2.3	0.0	2.3	5.3	47.9	47.9	3.0	0.0	45.9
Cycle Q Clear(g_c), s	7.0	0.0	19.0	2.3	0.0	2.3	5.3	47.9	47.9	3.0	0.0	45.9
Prop In Lane	1.00		0.86	1.00		0.67	1.00		0.11	1.00		0.06
Lane Grp Cap(c), veh/h	411	0	341	142	0	280	202	941	972	159	902	939
V/C Ratio(X)	0.77	0.00	1.02	0.38	0.00	0.17	0.94	1.01	1.03	0.76	0.99	1.00
Avail Cap(c_a), veh/h	411	0	341	159	0	296	202	941	972	159	902	939
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	0.55	0.55	0.55
Uniform Delay (d), s/veh	32.1	0.0	35.5	30.7	0.0	32.1	22.6	13.2	13.2	20.3	0.0	0.0
Incr Delay (d2), s/veh	8.4	0.0	53.7	1.7	0.0	0.3	8.6	11.4	17.7	10.9	20.9	22.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	13.5	1.2	0.0	1.1	5.2	25.5	28.0	1.9	5.2	5.8
LnGrp Delay(d),s/veh	40.5	0.0	89.2	32.4	0.0	32.4	31.2	24.6	30.9	31.2	20.9	22.2
LnGrp LOS	D		F	C		C	C	F	F	C	C	F
Approach Vol, veh/h		663			103			2141			1957	
Approach Delay, s/veh		66.1			32.4			28.1			22.2	
Approach LOS		E			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	51.9	7.1	23.0	10.0	49.9	11.0	19.1
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	47.0	4.0	19.0	6.0	45.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	5.0	49.9	4.3	21.0	7.3	47.9	9.0	4.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1

Intersection Summary	
HCM 2010 Ctrl Delay	31.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	5	70	105	40	75	340	1180	20	20	1605	140
Future Volume (veh/h)	70	5	70	105	40	75	340	1180	20	20	1605	140
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	76	5	76	114	43	82	370	1283	22	22	1745	152
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	221	10	159	255	61	116	290	2223	38	347	1753	151
Arrive On Green	0.05	0.11	0.11	0.05	0.11	0.11	0.22	1.00	1.00	0.01	0.36	0.36
Sat Flow, veh/h	1774	99	1499	1774	574	1095	1774	3561	61	1774	3299	284
Grp Volume(v), veh/h	76	0	81	114	0	125	370	637	668	22	925	972
Grp Sat Flow(s),veh/h/ln	1774	0	1598	1774	0	1669	1774	1770	1852	1774	1770	1813
Q Serve(g_s), s	3.0	0.0	3.8	4.0	0.0	5.8	9.0	0.0	0.0	0.5	41.5	42.5
Cycle Q Clear(g_c), s	3.0	0.0	3.8	4.0	0.0	5.8	9.0	0.0	0.0	0.5	41.5	42.5
Prop In Lane	1.00		0.94	1.00		0.66	1.00		0.03	1.00		0.16
Lane Grp Cap(c), veh/h	221	0	170	255	0	177	290	1105	1156	347	940	963
V/C Ratio(X)	0.34	0.00	0.48	0.45	0.00	0.70	1.28	0.58	0.58	0.06	0.98	1.01
Avail Cap(c_a), veh/h	221	0	320	255	0	334	290	1105	1156	402	940	963
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.16	0.16	0.16	0.19	0.19	0.19
Uniform Delay (d), s/veh	30.0	0.0	33.7	31.0	0.0	34.5	21.4	0.0	0.0	8.2	25.4	25.8
Incr Delay (d2), s/veh	0.9	0.0	2.1	1.2	0.0	5.0	129.4	0.4	0.3	0.0	9.8	15.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	1.8	0.5	0.0	2.9	16.7	0.1	0.1	0.2	22.8	25.2
LnGrp Delay(d),s/veh	30.9	0.0	35.7	32.3	0.0	39.6	150.7	0.4	0.3	8.2	35.2	40.7
LnGrp LOS	C		D	C		D	F	A	A	A	D	F
Approach Vol, veh/h		157			239			1675			1919	
Approach Delay, s/veh		33.4			36.1			33.6			37.7	
Approach LOS		C			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	54.0	8.0	12.5	13.0	46.5	8.0	12.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	40.0	4.0	16.0	9.0	35.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	2.5	2.0	6.0	5.8	11.0	44.5	5.0	7.8
Green Ext Time (p_c), s	0.0	32.3	0.0	0.8	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 2010 Ctrl Delay	35.7
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	320	50	315	55	15	30	190	1705	100	110	1655	55
Future Volume (veh/h)	320	50	315	55	15	30	190	1705	100	110	1655	55
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	348	54	342	60	16	33	207	1853	109	120	1799	60
Adj No. of Lanes	1	1	0	1	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	436	49	310	149	94	193	218	1757	102	159	1690	56
Arrive On Green	0.09	0.22	0.22	0.04	0.17	0.17	0.10	0.69	0.69	0.09	0.97	0.97
Sat Flow, veh/h	1774	220	1396	1774	544	1121	1774	3399	198	1774	3496	116
Grp Volume(v), veh/h	348	0	396	60	0	49	207	956	1006	120	907	952
Grp Sat Flow(s),veh/h/ln	1774	0	1616	1774	0	1665	1774	1770	1828	1774	1770	1842
Q Serve(g_s), s	8.0	0.0	20.0	2.5	0.0	2.3	6.3	46.5	46.5	3.2	43.5	43.5
Cycle Q Clear(g_c), s	8.0	0.0	20.0	2.5	0.0	2.3	6.3	46.5	46.5	3.2	43.5	43.5
Prop In Lane	1.00		0.86	1.00		0.67	1.00		0.11	1.00		0.06
Lane Grp Cap(c), veh/h	436	0	359	149	0	286	218	915	945	159	856	891
V/C Ratio(X)	0.80	0.00	1.10	0.40	0.00	0.17	0.95	1.05	1.07	0.76	1.06	1.07
Avail Cap(c_a), veh/h	436	0	359	159	0	296	218	915	945	159	856	891
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	2.00	2.00	2.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.09	0.09	0.33	0.33	0.33
Uniform Delay (d), s/veh	31.5	0.0	35.0	30.3	0.0	31.8	24.0	14.1	14.1	20.3	1.5	1.5
Incr Delay (d2), s/veh	10.0	0.0	78.0	1.8	0.0	0.3	9.2	23.8	31.9	6.8	36.1	39.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	0.0	16.7	1.3	0.0	1.1	5.7	27.9	30.9	1.8	15.7	17.2
LnGrp Delay(d),s/veh	41.5	0.0	113.0	32.1	0.0	32.1	33.1	37.9	45.9	27.1	37.6	40.9
LnGrp LOS	D		F	C		C	C	F	F	C	F	F
Approach Vol, veh/h		744			109			2169			1979	
Approach Delay, s/veh		79.6			32.1			41.2			38.5	
Approach LOS		E			C			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	50.5	7.5	24.0	11.0	47.5	12.0	19.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	46.0	4.0	20.0	7.0	43.0	8.0	16.0
Max Q Clear Time (g_c+I1), s	5.2	48.5	4.5	22.0	8.3	45.5	10.0	4.3
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4

Intersection Summary	
HCM 2010 Ctrl Delay	45.6
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	24	75	254	64	114	234	923	80	72	702	37
Future Volume (veh/h)	52	24	75	254	64	114	234	923	80	72	702	37
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	57	26	0	276	70	0	254	1003	0	78	763	0
Adj No. of Lanes	1	2	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	171	77	358	210	178	507	2147	960	476	1977	885
Arrive On Green	0.04	0.05	0.00	0.10	0.11	0.00	0.18	1.00	0.00	0.01	0.18	0.00
Sat Flow, veh/h	1774	3539	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	57	26	0	276	70	0	254	1003	0	78	763	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	2.4	0.6	0.0	6.3	2.8	0.0	4.8	0.0	0.0	1.5	15.1	0.0
Cycle Q Clear(g_c), s	2.4	0.6	0.0	6.3	2.8	0.0	4.8	0.0	0.0	1.5	15.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	224	171	77	358	210	178	507	2147	960	476	1977	885
V/C Ratio(X)	0.25	0.15	0.00	0.77	0.33	0.00	0.50	0.47	0.00	0.16	0.39	0.00
Avail Cap(c_a), veh/h	243	708	317	387	489	416	637	2147	960	513	1977	885
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.91	0.91	0.00	0.98	0.98	0.00
Uniform Delay (d), s/veh	34.4	36.5	0.0	34.9	32.7	0.0	7.0	0.0	0.0	6.9	20.6	0.0
Incr Delay (d2), s/veh	0.6	0.4	0.0	8.6	0.9	0.0	0.7	0.7	0.0	0.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.3	0.0	3.4	1.5	0.0	2.3	0.2	0.0	0.7	7.6	0.0
LnGrp Delay(d),s/veh	35.0	36.9	0.0	43.6	33.7	0.0	7.7	0.7	0.0	7.0	21.1	0.0
LnGrp LOS	C	D		D	C		A	A		A	C	
Approach Vol, veh/h		83			346			1257			841	
Approach Delay, s/veh		35.6			41.6			2.1			19.8	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	52.5	12.3	7.9	11.1	48.7	7.2	13.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	34.0	9.0	16.0	13.0	26.0	4.0	21.0
Max Q Clear Time (g_c+I1), s	3.5	2.0	8.3	2.6	6.8	17.1	4.4	4.8
Green Ext Time (p_c), s	0.0	15.8	0.1	0.3	0.4	6.6	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	48	162	235	32	108	55	958	271	180	1121	53
Future Volume (veh/h)	61	48	162	235	32	108	55	958	271	180	1121	53
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	66	52	0	255	35	0	60	1041	0	196	1218	0
Adj No. of Lanes	1	2	1	2	1	1	1	2	1	1	2	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	154	69	333	178	152	321	2192	980	526	2292	1025
Arrive On Green	0.04	0.04	0.00	0.10	0.10	0.00	0.07	1.00	0.00	0.04	0.43	0.00
Sat Flow, veh/h	1774	3539	1583	3442	1863	1583	1774	3539	1583	1774	3539	1583
Grp Volume(v), veh/h	66	52	0	255	35	0	60	1041	0	196	1218	0
Grp Sat Flow(s),veh/h/ln	1774	1770	1583	1721	1863	1583	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	3.2	1.3	0.0	6.5	1.6	0.0	1.1	0.0	0.0	3.4	22.8	0.0
Cycle Q Clear(g_c), s	3.2	1.3	0.0	6.5	1.6	0.0	1.1	0.0	0.0	3.4	22.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	218	154	69	333	178	152	321	2192	980	526	2292	1025
V/C Ratio(X)	0.30	0.34	0.00	0.77	0.20	0.00	0.19	0.48	0.00	0.37	0.53	0.00
Avail Cap(c_a), veh/h	218	629	281	421	476	405	358	2192	980	651	2292	1025
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.70	0.70	0.00	0.92	0.92	0.00
Uniform Delay (d), s/veh	38.9	41.8	0.0	39.7	37.5	0.0	7.9	0.0	0.0	5.0	15.4	0.0
Incr Delay (d2), s/veh	0.8	1.3	0.0	6.4	0.5	0.0	0.2	0.5	0.0	0.4	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.7	0.0	3.4	0.8	0.0	0.5	0.2	0.0	1.7	11.4	0.0
LnGrp Delay(d),s/veh	39.7	43.1	0.0	46.0	38.0	0.0	8.1	0.5	0.0	5.4	16.3	0.0
LnGrp LOS	D	D		D	D		A	A		A	B	
Approach Vol, veh/h		118			290			1101			1414	
Approach Delay, s/veh		41.2			45.1			0.9			14.8	
Approach LOS		D			D			A			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.7	59.7	12.7	7.9	7.1	62.3	8.0	12.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	35.0	11.0	16.0	5.0	42.0	4.0	23.0
Max Q Clear Time (g_c+I1), s	5.4	2.0	8.5	3.3	3.1	24.8	5.2	3.6
Green Ext Time (p_c), s	0.3	21.6	0.2	0.3	0.0	13.3	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	13.6
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	45	175	255	65	115	630	1495	125	215	1155	175
Future Volume (veh/h)	75	45	175	255	65	115	630	1495	125	215	1155	175
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	82	49	0	277	71	0	685	1625	0	234	1255	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	218	124	541	172	124	106	655	2153	963	290	2077	0
Arrive On Green	0.05	0.07	0.00	0.05	0.07	0.00	0.18	0.41	0.00	0.02	0.13	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	5253	0
Grp Volume(v), veh/h	82	49	0	277	71	0	685	1625	0	234	1255	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1695	0
Q Serve(g_s), s	3.4	2.0	0.0	4.0	3.0	0.0	22.0	31.4	0.0	6.0	18.6	0.0
Cycle Q Clear(g_c), s	3.4	2.0	0.0	4.0	3.0	0.0	22.0	31.4	0.0	6.0	18.6	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	218	124	541	172	124	106	655	2153	963	290	2077	0
V/C Ratio(X)	0.38	0.39	0.00	1.61	0.57	0.00	1.05	0.75	0.00	0.81	0.60	0.00
Avail Cap(c_a), veh/h	218	373	752	172	373	317	655	2153	963	290	2077	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.39	0.39	0.00	0.21	0.21	0.00
Uniform Delay (d), s/veh	32.8	35.8	0.0	38.0	36.2	0.0	23.0	18.6	0.0	17.5	28.5	0.0
Incr Delay (d2), s/veh	1.1	2.0	0.0	299.6	4.1	0.0	34.9	1.0	0.0	3.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.1	0.0	9.0	1.7	0.0	20.8	15.6	0.0	3.2	8.8	0.0
LnGrp Delay(d),s/veh	33.9	37.8	0.0	337.6	40.3	0.0	57.9	19.6	0.0	21.2	28.8	0.0
LnGrp LOS	C	D		F	D		F	B		C	C	
Approach Vol, veh/h		131			348			2310			1489	
Approach Delay, s/veh		35.3			277.0			31.0			27.6	
Approach LOS		D			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	52.7	8.0	9.3	26.0	36.7	8.0	9.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	38.0	4.0	16.0	22.0	22.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	8.0	33.4	6.0	4.0	24.0	20.6	5.4	5.0
Green Ext Time (p_c), s	0.0	4.4	0.0	0.4	0.0	1.4	0.0	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	49.9
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	170	550	235	30	110	135	1570	355	280	1655	75
Future Volume (veh/h)	175	170	550	235	30	110	135	1570	355	280	1655	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	190	185	0	255	33	0	147	1707	0	304	1799	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	367	232	294	268	232	197	250	1841	824	288	2840	0
Arrive On Green	0.08	0.12	0.00	0.08	0.12	0.00	0.08	0.69	0.00	0.03	0.18	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	5253	0
Grp Volume(v), veh/h	190	185	0	255	33	0	147	1707	0	304	1799	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1695	0
Q Serve(g_s), s	7.0	8.7	0.0	6.6	1.4	0.0	3.4	37.3	0.0	9.0	29.4	0.0
Cycle Q Clear(g_c), s	7.0	8.7	0.0	6.6	1.4	0.0	3.4	37.3	0.0	9.0	29.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	367	232	294	268	232	197	250	1841	824	288	2840	0
V/C Ratio(X)	0.52	0.80	0.00	0.95	0.14	0.00	0.59	0.93	0.00	1.06	0.63	0.00
Avail Cap(c_a), veh/h	367	331	379	268	331	281	476	1841	824	288	2840	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.60	0.60	0.00	0.38	0.38	0.00
Uniform Delay (d), s/veh	32.4	38.3	0.0	41.3	35.1	0.0	16.0	12.4	0.0	28.8	28.2	0.0
Incr Delay (d2), s/veh	1.3	8.7	0.0	42.1	0.3	0.0	1.3	6.3	0.0	49.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	5.0	0.0	4.7	0.8	0.0	1.9	19.2	0.0	11.1	14.0	0.0
LnGrp Delay(d),s/veh	33.7	47.0	0.0	83.4	35.4	0.0	17.3	18.7	0.0	77.9	28.6	0.0
LnGrp LOS	C	D		F	D		B	B		F	C	
Approach Vol, veh/h		375			288			1854			2103	
Approach Delay, s/veh		40.3			77.9			18.6			35.7	
Approach LOS		D			E			B			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.0	50.8	11.0	15.2	9.6	54.3	11.0	15.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	9.0	42.0	7.0	16.0	17.0	34.0	7.0	16.0
Max Q Clear Time (g_c+I1), s	11.0	39.3	8.6	10.7	5.4	31.4	9.0	3.4
Green Ext Time (p_c), s	0.0	2.7	0.0	0.5	0.3	2.6	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	31.9
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	45	180	405	215	190	640	1535	130	235	1240	225
Future Volume (veh/h)	85	45	180	405	215	190	640	1535	130	235	1240	225
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	92	49	0	440	234	0	696	1668	0	255	1348	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	239	196	523	387	291	247	530	1883	843	200	1816	0
Arrive On Green	0.06	0.11	0.00	0.11	0.16	0.00	0.07	0.18	0.00	0.02	0.12	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	5253	0
Grp Volume(v), veh/h	92	49	0	440	234	0	696	1668	0	255	1348	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1695	0
Q Serve(g_s), s	3.6	1.9	0.0	9.0	9.7	0.0	18.0	36.8	0.0	4.0	20.5	0.0
Cycle Q Clear(g_c), s	3.6	1.9	0.0	9.0	9.7	0.0	18.0	36.8	0.0	4.0	20.5	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	239	196	523	387	291	247	530	1883	843	200	1816	0
V/C Ratio(X)	0.38	0.25	0.00	1.14	0.80	0.00	1.31	0.89	0.00	1.27	0.74	0.00
Avail Cap(c_a), veh/h	285	373	673	387	419	356	530	1883	843	200	1816	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.33	0.33	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	29.5	32.9	0.0	35.5	32.6	0.0	26.7	30.6	0.0	26.5	31.7	0.0
Incr Delay (d2), s/veh	1.0	0.7	0.0	88.3	7.2	0.0	145.6	2.3	0.0	127.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	1.0	0.0	9.0	5.6	0.0	33.2	18.7	0.0	9.5	9.7	0.0
LnGrp Delay(d),s/veh	30.5	33.5	0.0	123.8	39.8	0.0	172.4	32.9	0.0	153.7	32.0	0.0
LnGrp LOS	C	C		F	D		F	C		F	C	
Approach Vol, veh/h		141			674			2364			1603	
Approach Delay, s/veh		31.6			94.6			74.0			51.3	
Approach LOS		C			F			E			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	46.6	13.0	12.4	22.0	32.6	8.9	16.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	35.0	9.0	16.0	18.0	21.0	7.0	18.0
Max Q Clear Time (g_c+I1), s	6.0	38.8	11.0	3.9	20.0	22.5	5.6	11.7
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.8

Intersection Summary	
HCM 2010 Ctrl Delay	68.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	170	600	385	65	220	155	1690	385	310	1715	95
Future Volume (veh/h)	205	170	600	385	65	220	155	1690	385	310	1715	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	223	185	0	418	71	0	168	1837	0	337	1864	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	373	234	306	344	254	216	253	1837	822	218	2690	0
Arrive On Green	0.09	0.13	0.00	0.10	0.14	0.00	0.09	0.69	0.00	0.05	0.35	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	5253	0
Grp Volume(v), veh/h	223	185	0	418	71	0	168	1837	0	337	1864	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1695	0
Q Serve(g_s), s	8.0	8.7	0.0	9.0	3.1	0.0	3.9	46.7	0.0	7.0	28.2	0.0
Cycle Q Clear(g_c), s	8.0	8.7	0.0	9.0	3.1	0.0	3.9	46.7	0.0	7.0	28.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	373	234	306	344	254	216	253	1837	822	218	2690	0
V/C Ratio(X)	0.60	0.79	0.00	1.21	0.28	0.00	0.66	1.00	0.00	1.55	0.69	0.00
Avail Cap(c_a), veh/h	373	331	389	344	352	299	409	1837	822	218	2690	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.26	0.26	0.00	0.17	0.17	0.00
Uniform Delay (d), s/veh	32.3	38.2	0.0	40.5	34.9	0.0	17.1	13.9	0.0	28.1	22.8	0.0
Incr Delay (d2), s/veh	2.6	8.3	0.0	120.3	0.6	0.0	0.8	10.8	0.0	249.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	5.0	0.0	10.0	1.6	0.0	2.2	24.7	0.0	20.5	13.3	0.0
LnGrp Delay(d),s/veh	34.9	46.5	0.0	160.8	35.5	0.0	17.9	24.7	0.0	277.6	23.0	0.0
LnGrp LOS	C	D		F	D		B	F		F	C	
Approach Vol, veh/h		408			489			2005			2201	
Approach Delay, s/veh		40.2			142.6			24.2			62.0	
Approach LOS		D			F			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	50.7	13.0	15.3	10.1	51.6	12.0	16.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	7.0	42.0	9.0	16.0	14.0	35.0	8.0	17.0
Max Q Clear Time (g_c+I1), s	9.0	48.7	11.0	10.7	5.9	30.2	10.0	5.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.3	4.7	0.0	1.1

Intersection Summary	
HCM 2010 Ctrl Delay	53.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	50	200	450	240	230	710	1635	135	235	1265	245
Future Volume (veh/h)	90	50	200	450	240	230	710	1635	135	235	1265	245
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	98	54	0	489	261	0	772	1777	0	255	1375	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	241	249	568	344	319	271	520	1827	817	183	1735	0
Arrive On Green	0.06	0.13	0.00	0.10	0.17	0.00	0.07	0.17	0.00	0.02	0.11	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	5253	0
Grp Volume(v), veh/h	98	54	0	489	261	0	772	1777	0	255	1375	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1695	0
Q Serve(g_s), s	3.8	2.1	0.0	8.0	10.8	0.0	18.0	39.9	0.0	4.0	21.1	0.0
Cycle Q Clear(g_c), s	3.8	2.1	0.0	8.0	10.8	0.0	18.0	39.9	0.0	4.0	21.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	241	249	568	344	319	271	520	1827	817	183	1735	0
V/C Ratio(X)	0.41	0.22	0.00	1.42	0.82	0.00	1.49	0.97	0.00	1.39	0.79	0.00
Avail Cap(c_a), veh/h	241	373	673	344	442	376	520	1827	817	183	1735	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.23	0.23	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	27.8	30.9	0.0	36.0	31.9	0.0	27.2	32.6	0.0	26.2	32.7	0.0
Incr Delay (d2), s/veh	1.1	0.4	0.0	205.6	8.2	0.0	220.9	5.6	0.0	179.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	1.1	0.0	13.6	6.2	0.0	43.4	21.0	0.0	11.2	10.0	0.0
LnGrp Delay(d),s/veh	28.9	31.3	0.0	241.6	40.2	0.0	248.1	38.3	0.0	205.6	33.1	0.0
LnGrp LOS	C	C		F	D		F	D		F	C	
Approach Vol, veh/h		152			750			2549			1630	
Approach Delay, s/veh		29.7			171.5			101.8			60.1	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	45.3	12.0	14.7	22.0	31.3	9.0	17.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	4.0	36.0	8.0	16.0	18.0	22.0	5.0	19.0
Max Q Clear Time (g_c+I1), s	6.0	41.9	10.0	4.1	20.0	23.1	5.8	12.8
Green Ext Time (p_c), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	96.6
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	220	195	675	435	70	265	170	1690	400	320	2160	100
Future Volume (veh/h)	220	195	675	435	70	265	170	1690	400	320	2160	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	239	212	0	473	76	0	185	1837	0	348	2348	0
Adj No. of Lanes	1	1	1	2	1	1	1	2	1	1	3	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	384	259	339	344	301	255	223	1749	782	238	2585	0
Arrive On Green	0.08	0.14	0.00	0.10	0.16	0.00	0.10	0.66	0.00	0.06	0.34	0.00
Sat Flow, veh/h	1774	1863	1583	3442	1863	1583	1774	3539	1583	1774	5253	0
Grp Volume(v), veh/h	239	212	0	473	76	0	185	1837	0	348	2348	0
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1721	1863	1583	1774	1770	1583	1774	1695	0
Q Serve(g_s), s	7.0	10.0	0.0	9.0	3.2	0.0	4.6	44.5	0.0	8.0	39.7	0.0
Cycle Q Clear(g_c), s	7.0	10.0	0.0	9.0	3.2	0.0	4.6	44.5	0.0	8.0	39.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	384	259	339	344	301	255	223	1749	782	238	2585	0
V/C Ratio(X)	0.62	0.82	0.00	1.37	0.25	0.00	0.83	1.05	0.00	1.46	0.91	0.00
Avail Cap(c_a), veh/h	384	331	400	344	373	317	327	1749	782	238	2585	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	0.27	0.27	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	32.6	37.6	0.0	40.5	33.0	0.0	19.6	15.4	0.0	28.3	27.7	0.0
Incr Delay (d2), s/veh	3.1	11.9	0.0	185.9	0.4	0.0	3.2	27.4	0.0	211.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	6.0	0.0	13.1	1.7	0.0	2.4	27.9	0.0	19.8	18.7	0.0
LnGrp Delay(d),s/veh	35.7	49.5	0.0	226.4	33.4	0.0	22.9	42.8	0.0	239.3	28.3	0.0
LnGrp LOS	D	D		F	C		C	F		F	C	
Approach Vol, veh/h		451			549			2022			2696	
Approach Delay, s/veh		42.2			199.7			41.0			55.5	
Approach LOS		D			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.0	48.5	13.0	16.5	10.7	49.8	11.0	18.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	41.0	9.0	16.0	12.0	37.0	7.0	18.0
Max Q Clear Time (g_c+I1), s	10.0	46.5	11.0	12.0	6.6	41.7	9.0	5.2
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.2	0.0	0.0	1.3

Intersection Summary	
HCM 2010 Ctrl Delay	63.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	23	76	563	156	347	235	836	356	169	706	83
Future Volume (veh/h)	38	23	76	563	156	347	235	836	356	169	706	83
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	41	25	0	612	170	0	255	909	0	184	767	0
Adj No. of Lanes	2	1	1	2	1	1	2	2	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	103	93	79	695	413	351	344	1106	495	812	2280	710
Arrive On Green	0.03	0.05	0.00	0.20	0.22	0.00	0.10	0.31	0.00	0.47	0.90	0.00
Sat Flow, veh/h	3442	1863	1583	3442	1863	1583	3442	3539	1583	3442	5085	1583
Grp Volume(v), veh/h	41	25	0	612	170	0	255	909	0	184	767	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1770	1583	1721	1695	1583
Q Serve(g_s), s	0.9	1.0	0.0	13.8	6.3	0.0	5.8	19.0	0.0	2.5	1.8	0.0
Cycle Q Clear(g_c), s	0.9	1.0	0.0	13.8	6.3	0.0	5.8	19.0	0.0	2.5	1.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	93	79	695	413	351	344	1106	495	812	2280	710
V/C Ratio(X)	0.40	0.27	0.00	0.88	0.41	0.00	0.74	0.82	0.00	0.23	0.34	0.00
Avail Cap(c_a), veh/h	172	373	317	731	675	574	473	1106	495	812	2280	710
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.91	0.91	0.00
Uniform Delay (d), s/veh	38.1	36.6	0.0	31.0	26.7	0.0	35.0	25.4	0.0	16.8	2.4	0.0
Incr Delay (d2), s/veh	2.5	1.5	0.0	11.7	0.7	0.0	4.0	6.9	0.0	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.6	0.0	7.7	3.3	0.0	2.9	10.3	0.0	1.2	0.8	0.0
LnGrp Delay(d),s/veh	40.6	38.2	0.0	42.7	27.3	0.0	39.0	32.4	0.0	16.9	2.7	0.0
LnGrp LOS	D	D		D	C		D	C		B	A	
Approach Vol, veh/h		66			782			1164			951	
Approach Delay, s/veh		39.7			39.4			33.8			5.5	
Approach LOS		D			D			C			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.9	29.0	20.1	8.0	12.0	39.9	6.4	21.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	6.0	25.0	17.0	16.0	11.0	20.0	4.0	29.0
Max Q Clear Time (g_c+I1), s	4.5	21.0	15.8	3.0	7.8	3.8	2.9	8.3
Green Ext Time (p_c), s	0.2	2.1	0.3	0.7	0.3	5.3	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	26.3
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	156	270	531	84	163	168	983	574	332	1017	89
Future Volume (veh/h)	146	156	270	531	84	163	168	983	574	332	1017	89
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	159	170	0	577	91	0	183	1068	0	361	1105	0
Adj No. of Lanes	2	1	1	2	1	1	2	2	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	787	215	183	643	137	116	257	1180	528	642	2264	705
Arrive On Green	0.23	0.12	0.00	0.19	0.07	0.00	0.07	0.33	0.00	0.37	0.89	0.00
Sat Flow, veh/h	3442	1863	1583	3442	1863	1583	3442	3539	1583	3442	5085	1583
Grp Volume(v), veh/h	159	170	0	577	91	0	183	1068	0	361	1105	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1770	1583	1721	1695	1583
Q Serve(g_s), s	3.4	8.0	0.0	14.7	4.3	0.0	4.7	25.9	0.0	7.5	3.8	0.0
Cycle Q Clear(g_c), s	3.4	8.0	0.0	14.7	4.3	0.0	4.7	25.9	0.0	7.5	3.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	787	215	183	643	137	116	257	1180	528	642	2264	705
V/C Ratio(X)	0.20	0.79	0.00	0.90	0.66	0.00	0.71	0.91	0.00	0.56	0.49	0.00
Avail Cap(c_a), veh/h	787	331	281	650	517	440	344	1180	528	642	2264	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	28.1	38.7	0.0	35.8	40.6	0.0	40.7	28.6	0.0	25.3	2.9	0.0
Incr Delay (d2), s/veh	0.1	7.0	0.0	15.2	5.4	0.0	4.4	11.5	0.0	0.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	4.5	0.0	8.3	2.4	0.0	2.4	14.5	0.0	3.6	1.8	0.0
LnGrp Delay(d),s/veh	28.2	45.7	0.0	50.9	46.1	0.0	45.1	40.1	0.0	26.2	3.6	0.0
LnGrp LOS	C	D		D	D		D	D		C	A	
Approach Vol, veh/h		329			668			1251			1466	
Approach Delay, s/veh		37.2			50.3			40.9			9.2	
Approach LOS		D			D			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.8	34.0	20.8	14.4	10.7	44.1	24.6	10.6
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	30.0	17.0	16.0	9.0	32.0	8.0	25.0
Max Q Clear Time (g_c+I1), s	9.5	27.9	16.7	10.0	6.7	5.8	5.4	6.3
Green Ext Time (p_c), s	0.3	1.4	0.1	0.4	0.1	10.4	0.4	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	29.7
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	35	95	625	215	525	565	1755	440	265	1035	165
Future Volume (veh/h)	75	35	95	625	215	525	565	1755	440	265	1035	165
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	82	38	0	679	234	0	614	1908	0	288	1125	0
Adj No. of Lanes	2	1	1	2	1	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	109	92	516	310	587	645	1971	614	703	2056	706
Arrive On Green	0.04	0.06	0.00	0.15	0.17	0.00	0.19	0.39	0.00	0.41	0.81	0.00
Sat Flow, veh/h	3442	1863	1583	3442	1863	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	82	38	0	679	234	0	614	1908	0	288	1125	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	1.9	1.6	0.0	12.0	9.6	0.0	14.1	29.4	0.0	4.8	6.1	0.0
Cycle Q Clear(g_c), s	1.9	1.6	0.0	12.0	9.6	0.0	14.1	29.4	0.0	4.8	6.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	109	92	516	310	587	645	1971	614	703	2056	706
V/C Ratio(X)	0.57	0.35	0.00	1.32	0.76	0.00	0.95	0.97	0.00	0.41	0.55	0.00
Avail Cap(c_a), veh/h	258	373	317	516	512	759	645	1971	614	703	2056	706
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.21	0.21	0.00
Uniform Delay (d), s/veh	37.6	36.2	0.0	34.0	31.8	0.0	32.1	24.0	0.0	20.2	5.1	0.0
Incr Delay (d2), s/veh	3.5	1.9	0.0	155.2	3.7	0.0	24.0	14.0	0.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.9	0.0	16.8	5.3	0.0	8.8	16.2	0.0	2.2	2.5	0.0
LnGrp Delay(d),s/veh	41.1	38.1	0.0	189.2	35.5	0.0	56.2	38.1	0.0	20.3	5.4	0.0
LnGrp LOS	D	D		F	D		E	D		C	A	
Approach Vol, veh/h		120			913			2522			1413	
Approach Delay, s/veh		40.2			149.8			42.5			8.4	
Approach LOS		D			F			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.3	35.0	16.0	8.7	19.0	36.3	7.4	17.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	31.0	12.0	16.0	15.0	21.0	6.0	22.0
Max Q Clear Time (g_c+I1), s	6.8	31.4	14.0	3.6	16.1	8.1	3.9	11.6
Green Ext Time (p_c), s	0.0	0.0	0.0	1.1	0.0	7.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	52.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	215	395	815	95	270	195	1310	595	545	1810	100
Future Volume (veh/h)	360	215	395	815	95	270	195	1310	595	545	1810	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	391	234	0	886	103	0	212	1424	0	592	1967	0
Adj No. of Lanes	2	1	1	2	1	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	887	276	235	650	148	126	191	1695	528	522	2184	680
Arrive On Green	0.26	0.15	0.00	0.19	0.08	0.00	0.06	0.33	0.00	0.30	0.86	0.00
Sat Flow, veh/h	3442	1863	1583	3442	1863	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	391	234	0	886	103	0	212	1424	0	592	1967	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	8.6	11.0	0.0	17.0	4.8	0.0	5.0	23.3	0.0	13.6	21.7	0.0
Cycle Q Clear(g_c), s	8.6	11.0	0.0	17.0	4.8	0.0	5.0	23.3	0.0	13.6	21.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	887	276	235	650	148	126	191	1695	528	522	2184	680
V/C Ratio(X)	0.44	0.85	0.00	1.36	0.69	0.00	1.11	0.84	0.00	1.13	0.90	0.00
Avail Cap(c_a), veh/h	887	331	281	650	414	352	191	1695	528	522	2184	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.22	0.22	0.00
Uniform Delay (d), s/veh	28.0	37.3	0.0	36.5	40.4	0.0	42.5	27.8	0.0	31.4	5.2	0.0
Incr Delay (d2), s/veh	0.3	15.8	0.0	173.1	5.7	0.0	97.2	5.2	0.0	66.3	1.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	6.9	0.0	23.7	2.7	0.0	4.9	11.6	0.0	11.2	9.1	0.0
LnGrp Delay(d),s/veh	28.3	53.1	0.0	209.6	46.1	0.0	139.7	33.0	0.0	97.7	6.8	0.0
LnGrp LOS	C	D		F	D		F	C		F	A	
Approach Vol, veh/h		625			989			1636			2559	
Approach Delay, s/veh		37.6			192.6			46.8			27.8	
Approach LOS		D			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.6	34.0	21.0	17.4	9.0	42.6	27.2	11.2
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	11.0	30.0	17.0	16.0	5.0	36.0	13.0	20.0
Max Q Clear Time (g_c+I1), s	15.6	25.3	19.0	13.0	7.0	23.7	10.6	6.8
Green Ext Time (p_c), s	0.0	3.4	0.0	0.3	0.0	10.5	0.8	0.3

Intersection Summary	
HCM 2010 Ctrl Delay	62.3
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	35	105	670	225	540	580	1825	455	360	1060	205
Future Volume (veh/h)	75	35	105	670	225	540	580	1825	455	360	1060	205
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	82	38	0	728	245	0	630	1984	0	391	1152	0
Adj No. of Lanes	2	1	1	2	1	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	110	93	516	311	587	645	1971	614	701	2052	705
Arrive On Green	0.04	0.06	0.00	0.15	0.17	0.00	0.19	0.39	0.00	0.41	0.81	0.00
Sat Flow, veh/h	3442	1863	1583	3442	1863	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	82	38	0	728	245	0	630	1984	0	391	1152	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	1.9	1.6	0.0	12.0	10.1	0.0	14.6	31.0	0.0	7.0	6.4	0.0
Cycle Q Clear(g_c), s	1.9	1.6	0.0	12.0	10.1	0.0	14.6	31.0	0.0	7.0	6.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	110	93	516	311	587	645	1971	614	701	2052	705
V/C Ratio(X)	0.57	0.35	0.00	1.41	0.79	0.00	0.98	1.01	0.00	0.56	0.56	0.00
Avail Cap(c_a), veh/h	258	373	317	516	512	758	645	1971	614	701	2052	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	37.6	36.2	0.0	34.0	32.0	0.0	32.3	24.5	0.0	21.0	5.2	0.0
Incr Delay (d2), s/veh	3.5	1.9	0.0	195.9	4.4	0.0	29.4	21.9	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.9	0.0	19.7	5.6	0.0	9.5	18.4	0.0	3.3	2.8	0.0
LnGrp Delay(d),s/veh	41.1	38.0	0.0	229.9	36.4	0.0	61.7	46.4	0.0	21.0	5.3	0.0
LnGrp LOS	D	D		F	D		E	F		C	A	
Approach Vol, veh/h		120			973			2614			1543	
Approach Delay, s/veh		40.1			181.2			50.1			9.3	
Approach LOS		D			F			D			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.3	35.0	16.0	8.7	19.0	36.3	7.4	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	31.0	12.0	16.0	15.0	21.0	6.0	22.0
Max Q Clear Time (g_c+I1), s	9.0	33.0	14.0	3.6	16.6	8.4	3.9	12.1
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	7.3	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	62.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	225	485	915	100	335	210	1420	620	580	1875	115
Future Volume (veh/h)	360	225	485	915	100	335	210	1420	620	580	1875	115
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	391	245	0	995	109	0	228	1543	0	630	2038	0
Adj No. of Lanes	2	1	1	2	1	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1046	286	243	803	155	132	153	1356	422	580	1987	619
Arrive On Green	0.30	0.15	0.00	0.23	0.08	0.00	0.04	0.27	0.00	0.22	0.52	0.00
Sat Flow, veh/h	3442	1863	1583	3442	1863	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	391	245	0	995	109	0	228	1543	0	630	2038	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	8.0	11.5	0.0	21.0	5.1	0.0	4.0	24.0	0.0	15.2	35.2	0.0
Cycle Q Clear(g_c), s	8.0	11.5	0.0	21.0	5.1	0.0	4.0	24.0	0.0	15.2	35.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	1046	286	243	803	155	132	153	1356	422	580	1987	619
V/C Ratio(X)	0.37	0.86	0.00	1.24	0.70	0.00	1.49	1.14	0.00	1.09	1.03	0.00
Avail Cap(c_a), veh/h	1046	331	281	803	435	369	153	1356	422	580	1987	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	24.6	37.1	0.0	34.5	40.2	0.0	43.0	33.0	0.0	34.9	21.6	0.0
Incr Delay (d2), s/veh	0.2	17.4	0.0	118.1	5.7	0.0	252.1	71.5	0.0	42.2	14.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	7.3	0.0	23.1	2.9	0.0	7.2	20.2	0.0	10.5	18.9	0.0
LnGrp Delay(d),s/veh	24.8	54.5	0.0	152.6	45.9	0.0	295.1	104.5	0.0	77.1	35.9	0.0
LnGrp LOS	C	D		F	D		F	F		F	F	
Approach Vol, veh/h		636			1104			1771			2668	
Approach Delay, s/veh		36.2			142.1			129.1			45.6	
Approach LOS		D			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	28.0	25.0	17.8	8.0	39.2	31.4	11.5
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	24.0	21.0	16.0	4.0	33.0	16.0	21.0
Max Q Clear Time (g_c+I1), s	17.2	26.0	23.0	13.5	6.0	37.2	10.0	7.1
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	0.0	1.6	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	85.8
HCM 2010 LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	35	105	670	225	565	580	1915	465	370	1120	205
Future Volume (veh/h)	75	35	105	670	225	565	580	1915	465	370	1120	205
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	82	38	0	728	245	0	630	2082	0	402	1217	0
Adj No. of Lanes	2	1	1	2	1	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	110	93	516	311	587	645	1971	614	701	2052	705
Arrive On Green	0.04	0.06	0.00	0.15	0.17	0.00	0.19	0.39	0.00	0.41	0.81	0.00
Sat Flow, veh/h	3442	1863	1583	3442	1863	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	82	38	0	728	245	0	630	2082	0	402	1217	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	1.9	1.6	0.0	12.0	10.1	0.0	14.6	31.0	0.0	7.2	7.1	0.0
Cycle Q Clear(g_c), s	1.9	1.6	0.0	12.0	10.1	0.0	14.6	31.0	0.0	7.2	7.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	110	93	516	311	587	645	1971	614	701	2052	705
V/C Ratio(X)	0.57	0.35	0.00	1.41	0.79	0.00	0.98	1.06	0.00	0.57	0.59	0.00
Avail Cap(c_a), veh/h	258	373	317	516	512	758	645	1971	614	701	2052	705
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	37.6	36.2	0.0	34.0	32.0	0.0	32.3	24.5	0.0	21.0	5.3	0.0
Incr Delay (d2), s/veh	3.5	1.9	0.0	195.9	4.4	0.0	29.4	37.1	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.9	0.0	19.7	5.6	0.0	9.5	21.2	0.0	3.4	2.9	0.0
LnGrp Delay(d),s/veh	41.1	38.0	0.0	229.9	36.4	0.0	61.7	61.6	0.0	21.1	5.4	0.0
LnGrp LOS	D	D		F	D		E	F		C	A	
Approach Vol, veh/h		120			973			2712			1619	
Approach Delay, s/veh		40.1			181.2			61.7			9.3	
Approach LOS		D			F			E			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.3	35.0	16.0	8.7	19.0	36.3	7.4	17.4
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	5.0	31.0	12.0	16.0	15.0	21.0	6.0	22.0
Max Q Clear Time (g_c+I1), s	9.2	33.0	14.0	3.6	16.6	9.1	3.9	12.1
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	7.3	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	67.0
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	360	225	485	920	105	345	210	1495	635	620	2055	115
Future Volume (veh/h)	360	225	485	920	105	345	210	1495	635	620	2055	115
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	391	245	0	1000	114	0	228	1625	0	674	2234	0
Adj No. of Lanes	2	1	1	2	1	1	2	3	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	959	286	243	727	160	136	153	1469	457	580	2100	654
Arrive On Green	0.28	0.15	0.00	0.21	0.09	0.00	0.04	0.29	0.00	0.22	0.55	0.00
Sat Flow, veh/h	3442	1863	1583	3442	1863	1583	3442	5085	1583	3442	5085	1583
Grp Volume(v), veh/h	391	245	0	1000	114	0	228	1625	0	674	2234	0
Grp Sat Flow(s),veh/h/ln	1721	1863	1583	1721	1863	1583	1721	1695	1583	1721	1695	1583
Q Serve(g_s), s	8.3	11.5	0.0	19.0	5.4	0.0	4.0	26.0	0.0	15.2	37.2	0.0
Cycle Q Clear(g_c), s	8.3	11.5	0.0	19.0	5.4	0.0	4.0	26.0	0.0	15.2	37.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	959	286	243	727	160	136	153	1469	457	580	2100	654
V/C Ratio(X)	0.41	0.86	0.00	1.38	0.71	0.00	1.49	1.11	0.00	1.16	1.06	0.00
Avail Cap(c_a), veh/h	959	331	281	727	455	387	153	1469	457	580	2100	654
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	26.4	37.1	0.0	35.5	40.0	0.0	43.0	32.0	0.0	34.9	20.3	0.0
Incr Delay (d2), s/veh	0.3	17.4	0.0	178.0	5.7	0.0	252.1	58.2	0.0	75.0	30.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	7.3	0.0	26.9	3.0	0.0	7.2	20.0	0.0	13.2	22.8	0.0
LnGrp Delay(d),s/veh	26.7	54.5	0.0	213.5	45.7	0.0	295.1	90.2	0.0	110.0	50.3	0.0
LnGrp LOS	C	D		F	D		F	F		F	F	
Approach Vol, veh/h		636			1114			1853			2908	
Approach Delay, s/veh		37.4			196.3			115.4			64.1	
Approach LOS		D			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	30.0	23.0	17.8	8.0	41.2	29.1	11.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	13.0	26.0	19.0	16.0	4.0	35.0	13.0	22.0
Max Q Clear Time (g_c+I1), s	17.2	28.0	21.0	13.5	6.0	39.2	10.3	7.4
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	0.0	0.8	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	98.7
HCM 2010 LOS	F

1: McCaslin Boulevard & Centennial Parkway/Via Appia

3/7/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	32	21	9	370	66	190	32	817	189	38	484	49
v/c Ratio	0.21	0.08	0.01	0.67	0.20	0.44	0.05	0.38	0.18	0.09	0.22	0.05
Control Delay	28.3	34.8	0.0	38.0	28.8	8.0	2.5	4.3	0.4	6.3	8.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	34.8	0.0	38.0	28.8	8.0	2.5	4.3	0.4	6.3	8.9	0.1
Queue Length 50th (ft)	16	5	0	89	29	0	1	33	1	4	32	0
Queue Length 95th (ft)	30	16	0	132	60	51	6	57	0	19	111	0
Internal Link Dist (ft)		1110			648			1407			263	
Turn Bay Length (ft)	200		150	150		200	100			150		150
Base Capacity (vph)	149	707	1583	600	605	642	644	2150	1036	446	2242	1067
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.03	0.01	0.62	0.11	0.30	0.05	0.38	0.18	0.09	0.22	0.05

Intersection Summary

1: McCaslin Boulevard & Centennial Parkway/Via Appia

3/7/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	38	74	11	290	12	70	25	602	500	149	1009	22
v/c Ratio	0.22	0.26	0.01	0.62	0.03	0.18	0.07	0.32	0.47	0.28	0.46	0.02
Control Delay	27.7	40.6	0.0	42.5	29.3	3.4	5.3	7.5	6.9	7.9	11.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	40.6	0.0	42.5	29.3	3.4	5.3	7.5	6.9	7.9	11.9	0.1
Queue Length 50th (ft)	16	21	0	80	6	0	2	44	49	30	134	0
Queue Length 95th (ft)	38	42	0	120	20	15	m9	94	140	58	266	0
Internal Link Dist (ft)		1110			648			1407			263	
Turn Bay Length (ft)	200		150	150		200	100			150		150
Base Capacity (vph)	174	629	1583	534	538	534	362	1880	1075	536	2206	1046
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.12	0.01	0.54	0.02	0.13	0.07	0.32	0.47	0.28	0.46	0.02

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

1: McCaslin Boulevard & Centennial Parkway/Via Appia

3/7/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	60	49	27	984	326	228	196	859	310	43	696	179
v/c Ratio	0.33	0.28	0.09	1.00	0.53	0.34	0.52	0.60	0.37	0.15	0.68	0.31
Control Delay	21.4	37.0	0.6	58.4	25.1	4.2	28.5	20.4	8.1	14.2	30.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	37.0	0.6	58.4	25.1	4.2	28.5	20.4	8.1	14.2	30.6	5.7
Queue Length 50th (ft)	17	23	0	252	130	0	47	54	0	11	170	0
Queue Length 95th (ft)	36	54	0	#382	198	44	149	#247	105	30	#235	47
Internal Link Dist (ft)		1110			648			1407			263	
Turn Bay Length (ft)	200		150	150		200	100		300	150		150
Base Capacity (vph)	181	372	458	986	815	820	376	1441	828	285	1023	585
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.13	0.06	1.00	0.40	0.28	0.52	0.60	0.37	0.15	0.68	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	120	353	174	446	87	82	82	918	1049	179	1065	54
v/c Ratio	0.29	0.84	0.36	0.85	0.14	0.14	0.46	0.72	0.66	0.74	0.73	0.07
Control Delay	18.6	52.3	8.4	53.4	22.0	2.9	28.7	37.4	4.1	35.5	27.0	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	52.3	8.4	53.4	22.0	2.9	28.7	37.4	4.1	35.5	27.0	0.2
Queue Length 50th (ft)	39	187	7	128	34	0	39	280	41	58	278	0
Queue Length 95th (ft)	73	#317	57	#204	68	19	m44	m314	m95	#156	360	0
Internal Link Dist (ft)		1110			648			1407			263	
Turn Bay Length (ft)	200		150	150		200	100		300	150		150
Base Capacity (vph)	411	455	506	534	631	608	179	1267	1583	242	1458	745
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.78	0.34	0.84	0.14	0.13	0.46	0.72	0.66	0.74	0.73	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	60	49	27	1092	326	228	196	875	364	43	745	179
v/c Ratio	0.33	0.28	0.09	1.02	0.50	0.32	0.54	0.65	0.44	0.17	0.80	0.33
Control Delay	20.9	37.0	0.6	61.3	22.9	3.9	31.6	27.0	11.2	15.6	37.4	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	37.0	0.6	61.3	22.9	3.9	31.6	27.0	11.2	15.6	37.4	6.2
Queue Length 50th (ft)	16	23	0	~288	125	0	62	93	0	12	193	0
Queue Length 95th (ft)	34	54	0	#421	189	42	161	#332	144	31	#301	48
Internal Link Dist (ft)		1110			648			1407			263	
Turn Bay Length (ft)	200		150	150		200	100		300	150		150
Base Capacity (vph)	181	372	458	1072	861	854	366	1350	829	260	931	548
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.13	0.06	1.02	0.38	0.27	0.54	0.65	0.44	0.17	0.80	0.33

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	120	342	174	527	87	82	82	967	1179	179	1103	54
v/c Ratio	0.30	0.85	0.37	0.84	0.13	0.13	0.47	0.81	0.74	0.77	0.80	0.08
Control Delay	17.9	53.9	8.8	48.6	20.5	2.7	30.5	43.4	6.7	40.6	30.9	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	53.9	8.8	48.6	20.5	2.7	30.5	43.4	6.7	40.6	30.9	0.2
Queue Length 50th (ft)	38	184	7	149	33	0	42	313	104	61	304	0
Queue Length 95th (ft)	70	#315	58	#224	66	18	m43	m317	m109	#165	#424	0
Internal Link Dist (ft)		1110			648			1407			263	
Turn Bay Length (ft)	200		150	150		200	100		300	150		150
Base Capacity (vph)	400	434	490	648	669	639	176	1193	1583	232	1385	715
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.79	0.36	0.81	0.13	0.13	0.47	0.81	0.74	0.77	0.80	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	65	54	33	1103	380	228	228	886	408	43	745	207
v/c Ratio	0.32	0.28	0.10	1.07	0.60	0.33	0.59	0.65	0.47	0.17	0.82	0.37
Control Delay	19.5	35.7	0.6	78.5	26.0	4.0	34.0	26.0	10.0	15.9	38.8	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	35.7	0.6	78.5	26.0	4.0	34.0	26.0	10.0	15.9	38.8	6.3
Queue Length 50th (ft)	18	26	0	~320	157	0	73	88	0	12	193	0
Queue Length 95th (ft)	35	56	0	#439	221	41	#193	#350	143	33	#301	52
Internal Link Dist (ft)		1110			648			1407			263	
Turn Bay Length (ft)	200		150	150		200	100		300	150		150
Base Capacity (vph)	203	372	458	1029	815	820	385	1373	863	256	907	559
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.15	0.07	1.07	0.47	0.28	0.59	0.65	0.47	0.17	0.82	0.37

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

1: McCaslin Boulevard & Centennial Parkway/Via Appia

3/7/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	136	473	207	668	103	82	92	1000	1207	179	1120	54
v/c Ratio	0.30	0.99	0.40	0.97	0.13	0.11	0.56	0.91	0.76	0.98	0.93	0.08
Control Delay	16.2	75.1	10.5	65.7	18.2	2.4	34.9	47.7	7.2	87.2	44.4	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	75.1	10.5	65.7	18.2	2.4	34.9	47.7	7.2	87.2	44.4	0.3
Queue Length 50th (ft)	40	269	21	195	37	0	48	323	129	65	329	0
Queue Length 95th (ft)	72	#467	78	#307	71	17	m48	m321	m112	#185	#472	0
Internal Link Dist (ft)		1110			648			1407			263	
Turn Bay Length (ft)	200		150	150		200	100		300	150		150
Base Capacity (vph)	446	476	522	686	765	715	163	1101	1583	183	1203	642
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.99	0.40	0.97	0.13	0.11	0.56	0.91	0.76	0.98	0.93	0.08

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	39	40	60	98	110	843	14	20	848
v/c Ratio	0.19	0.22	0.28	0.45	0.22	0.23	0.01	0.04	0.26
Control Delay	27.1	17.4	29.0	18.7	2.7	4.1	0.0	7.6	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.1	17.4	29.0	18.7	2.7	4.1	0.0	7.6	10.3
Queue Length 50th (ft)	16	3	25	10	12	41	0	1	37
Queue Length 95th (ft)	38	30	52	51	18	92	m0	m12	104
Internal Link Dist (ft)		492		573		1558			1407
Turn Bay Length (ft)	100		100		250		125	125	
Base Capacity (vph)	211	412	219	448	554	3644	1169	512	3289
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.10	0.27	0.22	0.20	0.23	0.01	0.04	0.26

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	153	115	42	45	102	957	67	97	1273
v/c Ratio	0.56	0.38	0.26	0.29	0.30	0.31	0.06	0.22	0.41
Control Delay	38.6	16.4	32.1	23.2	5.5	6.4	1.0	5.7	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	16.4	32.1	23.2	5.5	6.4	1.0	5.7	9.3
Queue Length 50th (ft)	73	17	19	7	9	95	0	12	119
Queue Length 95th (ft)	124	62	43	39	19	154	m6	m33	153
Internal Link Dist (ft)		492		573		1558			1407
Turn Bay Length (ft)	100		100		250		125	125	
Base Capacity (vph)	283	486	160	321	386	3133	1036	434	3119
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.24	0.26	0.14	0.26	0.31	0.06	0.22	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	71	76	103	120	326	1201	22	1669
v/c Ratio	0.39	0.34	0.52	0.50	0.70	0.48	0.06	0.97
Control Delay	32.7	14.1	37.2	20.8	15.9	10.9	10.4	44.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	14.1	37.2	20.8	15.9	10.9	10.4	44.5
Queue Length 50th (ft)	30	2	45	18	39	133	5	~526
Queue Length 95th (ft)	61	38	82	63	m97	m374	m6	m#590
Internal Link Dist (ft)		492		573		1558		1407
Turn Bay Length (ft)	100		100		250		125	
Base Capacity (vph)	181	377	200	399	464	2487	342	1712
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.20	0.52	0.30	0.70	0.48	0.06	0.97

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	315	348	49	49	190	1761	120	1679
v/c Ratio	1.01	0.83	0.30	0.20	0.78	0.88	0.62	0.88
Control Delay	86.5	37.9	29.8	17.9	26.5	24.1	33.1	22.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.5	37.9	29.8	17.9	26.5	24.1	33.1	22.0
Queue Length 50th (ft)	153	110	20	8	43	572	43	225
Queue Length 95th (ft)	#297	#229	46	38	m56	m562	m#79	#645
Internal Link Dist (ft)		492		573		1558		1407
Turn Bay Length (ft)	100		100		250		125	
Base Capacity (vph)	312	474	161	324	243	1999	193	1907
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.73	0.30	0.15	0.78	0.88	0.62	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	71	76	114	120	326	1277	22	1826
v/c Ratio	0.39	0.34	0.57	0.50	0.68	0.51	0.07	1.09
Control Delay	32.7	14.1	39.8	20.8	14.6	12.7	9.2	75.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	14.1	39.8	20.8	14.6	12.7	9.2	75.2
Queue Length 50th (ft)	30	2	50	18	46	221	4	~543
Queue Length 95th (ft)	61	38	89	63	m82	m345	m6	m#592
Internal Link Dist (ft)		492		573		1558		1407
Turn Bay Length (ft)	100		100		250		125	
Base Capacity (vph)	181	377	200	399	482	2485	321	1678
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.20	0.57	0.30	0.68	0.51	0.07	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	315	348	54	49	190	1951	120	1837
v/c Ratio	0.93	0.85	0.34	0.20	0.82	1.00	0.64	0.99
Control Delay	68.3	41.1	31.3	17.7	22.0	31.7	32.9	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.3	41.1	31.3	17.7	22.0	31.7	32.9	33.4
Queue Length 50th (ft)	152	115	22	8	49	~673	40	~588
Queue Length 95th (ft)	#335	#249	50	38	m54	m#581	m#66	#720
Internal Link Dist (ft)		492		573		1558		1407
Turn Bay Length (ft)	100		100		250		125	
Base Capacity (vph)	337	449	161	324	232	1948	187	1863
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.78	0.34	0.15	0.82	1.00	0.64	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	76	81	114	125	370	1305	22	1897
v/c Ratio	0.42	0.35	0.56	0.52	0.71	0.53	0.07	1.19
Control Delay	33.4	13.7	39.3	21.5	15.8	11.3	10.1	118.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.4	13.7	39.3	21.5	15.8	11.3	10.1	118.8
Queue Length 50th (ft)	32	2	50	20	59	155	4	~636
Queue Length 95th (ft)	63	39	89	66	m95	m342	m5	m#654
Internal Link Dist (ft)		492		573		1558		1407
Turn Bay Length (ft)	100		100		250		125	
Base Capacity (vph)	182	380	202	401	519	2478	307	1596
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.21	0.56	0.31	0.71	0.53	0.07	1.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	348	396	60	49	207	1962	120	1859
v/c Ratio	0.91	0.89	0.37	0.20	0.87	1.04	0.68	1.05
Control Delay	60.2	46.6	32.0	17.7	24.8	41.6	31.0	51.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	46.6	32.0	17.7	24.8	41.6	31.0	51.8
Queue Length 50th (ft)	169	146	24	8	57	~692	44	~618
Queue Length 95th (ft)	#363	#307	53	38	m59	m#562	m52	m#694
Internal Link Dist (ft)		492		573		1558		1407
Turn Bay Length (ft)	100		100		250		125	
Base Capacity (vph)	383	466	161	324	238	1889	177	1772
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.91	0.85	0.37	0.15	0.87	1.04	0.68	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

3: McCaslin Boulevard & Centennial Parkway/Cherry Street

3/7/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	57	26	82	276	70	124	254	1003	87	78	763	40
v/c Ratio	0.38	0.10	0.05	0.62	0.30	0.08	0.49	0.47	0.08	0.20	0.40	0.04
Control Delay	35.8	34.9	0.1	40.1	35.1	0.1	13.1	5.8	0.2	9.7	10.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	34.9	0.1	40.1	35.1	0.1	13.1	5.8	0.2	9.7	10.2	0.7
Queue Length 50th (ft)	29	6	0	61	33	0	20	65	0	4	149	0
Queue Length 95th (ft)	51	18	0	#119	68	0	110	88	m1	49	261	5
Internal Link Dist (ft)		371			715			1003			1558	
Turn Bay Length (ft)	75		50	125		300	300			300		
Base Capacity (vph)	150	707	1583	449	489	1583	575	2148	1030	393	1914	962
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.38	0.04	0.05	0.61	0.14	0.08	0.44	0.47	0.08	0.20	0.40	0.04

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

3: McCaslin Boulevard & Centennial Parkway/Cherry Street

3/7/2016

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	66	52	176	255	35	117	60	1041	295	196	1218	58
v/c Ratio	0.35	0.20	0.11	0.64	0.15	0.07	0.19	0.53	0.29	0.48	0.55	0.06
Control Delay	34.7	40.4	0.1	45.8	34.5	0.1	2.0	3.3	0.9	8.6	7.8	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.7	40.4	0.1	45.8	34.5	0.1	2.0	3.3	0.9	8.6	7.8	0.6
Queue Length 50th (ft)	30	14	0	72	17	0	1	54	0	7	311	1
Queue Length 95th (ft)	62	32	0	111	44	0	m3	73	m0	35	227	3
Internal Link Dist (ft)		371			715			1003			1558	
Turn Bay Length (ft)	75		50	125		300	300			300		
Base Capacity (vph)	186	629	1583	419	476	1583	313	1965	1010	446	2206	1046
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.08	0.11	0.61	0.07	0.07	0.19	0.53	0.29	0.44	0.55	0.06

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	82	49	190	277	71	125	685	1625	136	234	1445
v/c Ratio	0.44	0.26	0.23	0.99	0.36	0.08	0.87	0.91	0.16	0.61	1.04
Control Delay	35.4	35.3	7.7	95.4	37.8	0.1	35.6	18.9	3.3	27.3	44.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	35.3	7.7	95.4	37.8	0.1	35.6	18.9	3.3	27.3	44.3
Queue Length 50th (ft)	34	23	29	~104	34	0	296	176	1	73	~209
Queue Length 95th (ft)	69	52	63	#179	70	0	m#442	m#315	m11	m84	m#290
Internal Link Dist (ft)		371			715			1003			1558
Turn Bay Length (ft)	75		50	125		300	300			300	
Base Capacity (vph)	185	372	815	280	372	1583	789	1780	863	386	1395
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.13	0.23	0.99	0.19	0.08	0.87	0.91	0.16	0.61	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	190	185	598	255	33	120	147	1707	386	304	1881
v/c Ratio	0.56	0.67	0.89	0.96	0.12	0.32	0.33	1.03	0.24	0.98	0.96
Control Delay	33.9	47.9	40.3	88.1	32.8	5.0	19.3	41.1	0.3	73.2	27.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	47.9	40.3	88.1	32.8	5.0	19.3	41.1	0.3	73.2	27.5
Queue Length 50th (ft)	87	100	278	75	16	0	35	~546	0	~144	346
Queue Length 95th (ft)	143	165	#486	#151	42	26	m65	#665	m0	m#245	#512
Internal Link Dist (ft)		371			715			1003			1558
Turn Bay Length (ft)	75		50	125		300	300			300	
Base Capacity (vph)	342	331	669	267	331	411	448	1651	1583	310	1968
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.56	0.89	0.96	0.10	0.29	0.33	1.03	0.24	0.98	0.96

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	92	49	196	440	234	207	696	1668	141	255	1593
v/c Ratio	0.33	0.19	0.27	0.84	0.69	0.13	1.12	1.08	0.09	0.82	1.19
Control Delay	24.0	29.7	9.9	53.0	40.8	0.2	97.7	59.6	0.0	32.4	109.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	29.7	9.9	53.0	40.8	0.2	97.7	59.6	0.0	32.4	109.1
Queue Length 50th (ft)	32	21	35	~134	109	0	~399	~476	0	~88	~338
Queue Length 95th (ft)	62	49	74	#223	176	0	m#526	m#550	m0	m#77	m#302
Internal Link Dist (ft)		371			715			1003			1558
Turn Bay Length (ft)	75		50	125		300	300			300	
Base Capacity (vph)	282	372	728	521	419	1583	619	1548	1583	311	1336
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.13	0.27	0.84	0.56	0.13	1.12	1.08	0.09	0.82	1.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	223	185	652	418	71	239	168	1837	418	337	1967
v/c Ratio	0.63	0.67	1.03	1.22	0.24	0.58	0.41	1.11	0.26	1.25	1.00
Control Delay	35.1	47.9	69.9	158.6	34.0	14.5	23.4	70.1	0.2	158.0	31.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.1	47.9	69.9	158.6	34.0	14.5	23.4	70.1	0.2	158.0	31.6
Queue Length 50th (ft)	101	100	~376	~151	35	23	47	~628	0	~204	352
Queue Length 95th (ft)	161	165	#589	#244	72	91	m63	m#619	m0	m#266	m#463
Internal Link Dist (ft)		371			715			1003			1558
Turn Bay Length (ft)	75		50	125		300	300			300	
Base Capacity (vph)	354	331	635	343	351	454	409	1651	1583	270	1968
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.56	1.03	1.22	0.20	0.53	0.41	1.11	0.26	1.25	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	98	54	217	489	261	250	772	1777	147	255	1641
v/c Ratio	0.42	0.20	0.30	0.99	0.72	0.16	1.27	1.12	0.09	0.84	1.17
Control Delay	27.7	29.9	10.7	79.0	41.1	0.2	154.2	74.5	0.0	33.8	97.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	29.9	10.7	79.0	41.1	0.2	154.2	74.5	0.0	33.8	97.9
Queue Length 50th (ft)	35	23	41	~172	122	0	~483	~526	0	~90	~341
Queue Length 95th (ft)	66	53	84	#265	192	0	m#577	m#588	m0	m#55	m#198
Internal Link Dist (ft)		371			715			1003			1558
Turn Bay Length (ft)	75		50	125		300	300			300	
Base Capacity (vph)	235	372	721	493	442	1583	610	1592	1583	302	1400
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.15	0.30	0.99	0.59	0.16	1.27	1.12	0.09	0.84	1.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	239	212	734	473	76	288	185	1837	435	348	2457
v/c Ratio	0.69	0.73	1.22	1.38	0.23	0.64	0.52	1.14	0.27	1.26	1.18
Control Delay	38.8	50.9	139.9	221.3	32.6	17.7	27.8	79.7	0.2	162.6	105.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	50.9	139.9	221.3	32.6	17.7	27.8	79.7	0.2	162.6	105.5
Queue Length 50th (ft)	107	114	~497	~185	37	41	59	~642	0	~212	~632
Queue Length 95th (ft)	173	187	#717	#281	75	122	m74	m#645	m0	m#254	m#639
Internal Link Dist (ft)		371			715			1003			1558
Turn Bay Length (ft)	75		50	125		300	300			300	
Base Capacity (vph)	344	331	602	343	372	479	357	1612	1583	277	2081
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.64	1.22	1.38	0.20	0.60	0.52	1.14	0.27	1.26	1.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	41	25	83	612	170	377	255	909	387	184	767	90
v/c Ratio	0.24	0.16	0.05	0.82	0.42	0.24	0.53	0.51	0.24	0.72	0.35	0.11
Control Delay	40.1	36.0	0.1	40.8	30.1	0.4	35.8	16.1	0.4	48.1	16.0	3.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	36.0	0.1	40.8	30.1	0.4	35.8	16.1	0.4	48.1	16.0	3.5
Queue Length 50th (ft)	10	12	0	142	80	0	61	145	0	40	58	0
Queue Length 95th (ft)	26	34	0	#235	122	0	93	246	0	m#88	141	m13
Internal Link Dist (ft)		509			661			808			1003	
Turn Bay Length (ft)	150		125	275		275	425			225		100
Base Capacity (vph)	171	372	1583	760	675	1583	513	1768	1583	257	2213	789
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.07	0.05	0.81	0.25	0.24	0.50	0.51	0.24	0.72	0.35	0.11

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	159	170	293	577	91	177	183	1068	624	361	1105	97
v/c Ratio	0.19	0.64	0.19	0.90	0.45	0.11	0.53	0.82	0.39	0.86	0.56	0.14
Control Delay	28.6	47.0	0.3	54.5	44.1	0.1	44.5	32.9	0.7	54.3	20.3	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	47.0	0.3	54.5	44.1	0.1	44.5	32.9	0.7	54.3	20.3	3.1
Queue Length 50th (ft)	37	92	0	166	49	0	51	287	0	88	112	0
Queue Length 95th (ft)	64	152	0	#258	92	0	85	#425	0	#176	181	m15
Internal Link Dist (ft)		509			661			808			1003	
Turn Bay Length (ft)	150		125	275		275	425			225		100
Base Capacity (vph)	841	331	1583	648	517	1583	356	1306	1583	419	1990	715
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.51	0.19	0.89	0.18	0.11	0.51	0.82	0.39	0.86	0.56	0.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	82	38	103	679	234	571	614	1908	478	288	1125	179
v/c Ratio	0.32	0.17	0.07	1.01	0.66	1.16	0.77	0.79	0.48	1.35	0.73	0.23
Control Delay	38.8	31.6	0.1	75.1	38.6	114.7	37.0	22.1	4.0	208.0	44.4	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	31.6	0.1	75.1	38.6	114.7	37.0	22.1	4.0	208.0	44.4	8.8
Queue Length 50th (ft)	20	17	0	~229	109	~253	142	282	7	~95	204	9
Queue Length 95th (ft)	41	41	0	#333	167	#452	#243	#435	65	m#100	m205	m9
Internal Link Dist (ft)		509			661			808			1003	
Turn Bay Length (ft)	150		125	275		275	425		200	225		100
Base Capacity (vph)	257	372	1583	670	512	492	799	2406	987	214	1540	769
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.10	0.07	1.01	0.46	1.16	0.77	0.79	0.48	1.35	0.73	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	391	234	429	886	103	293	212	1424	647	592	1967	109
v/c Ratio	0.50	0.77	0.27	1.37	0.45	0.71	0.88	0.80	0.41	1.41	0.97	0.16
Control Delay	33.6	53.7	0.4	206.3	41.4	17.6	79.0	31.2	0.8	225.2	38.2	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.6	53.7	0.4	206.3	41.4	17.6	79.0	31.2	0.8	225.2	38.2	9.7
Queue Length 50th (ft)	96	126	0	~345	56	23	~71	271	0	~231	349	11
Queue Length 95th (ft)	157	#225	0	#463	95	95	#142	331	0	m#255	m#386	m13
Internal Link Dist (ft)		509			661			808			1003	
Turn Bay Length (ft)	150		125	275		275	425		200	225		100
Base Capacity (vph)	781	331	1583	648	414	545	241	1771	1583	419	2034	698
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.71	0.27	1.37	0.25	0.54	0.88	0.80	0.41	1.41	0.97	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	82	38	114	728	245	587	630	1984	495	391	1152	223
v/c Ratio	0.32	0.17	0.07	1.08	0.67	1.18	0.77	0.83	0.51	1.83	0.77	0.29
Control Delay	38.8	31.1	0.1	92.5	38.6	120.2	37.1	24.0	4.5	404.9	43.9	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	31.1	0.1	92.5	38.6	120.2	37.1	24.0	4.5	404.9	43.9	8.6
Queue Length 50th (ft)	20	17	0	~256	114	~270	145	304	12	~152	210	16
Queue Length 95th (ft)	41	41	0	#362	173	#465	#259	#471	78	m#146	m200	m15
Internal Link Dist (ft)		509			661			808			1003	
Turn Bay Length (ft)	150		125	275		275	425		200	225		100
Base Capacity (vph)	257	372	1583	676	512	499	816	2379	980	214	1488	773
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.10	0.07	1.08	0.48	1.18	0.77	0.83	0.51	1.83	0.77	0.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	391	245	527	995	109	364	228	1543	674	630	2038	125
v/c Ratio	0.43	0.80	0.33	1.24	0.43	0.76	1.18	1.09	0.43	1.27	1.09	0.19
Control Delay	30.5	55.6	0.6	151.4	39.2	17.7	161.0	84.4	0.8	163.0	78.2	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	55.6	0.6	151.4	39.2	17.7	161.0	84.4	0.8	163.0	78.2	12.0
Queue Length 50th (ft)	90	133	0	~366	59	30	~93	~378	0	~231	~473	15
Queue Length 95th (ft)	154	#241	0	#487	96	109	#167	#472	0	m#220	m#446	m14
Internal Link Dist (ft)		509			661			808			1003	
Turn Bay Length (ft)	150		125	275		275	425		200	225		100
Base Capacity (vph)	900	331	1583	801	434	605	194	1418	1583	495	1864	649
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.74	0.33	1.24	0.25	0.60	1.18	1.09	0.43	1.27	1.09	0.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	82	38	114	728	245	614	630	2082	505	402	1217	223
v/c Ratio	0.32	0.17	0.07	1.08	0.67	1.23	0.77	0.88	0.52	1.88	0.82	0.29
Control Delay	38.8	31.1	0.1	92.5	38.6	141.9	37.1	26.0	5.1	427.1	43.9	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	31.1	0.1	92.5	38.6	141.9	37.1	26.0	5.1	427.1	43.9	9.7
Queue Length 50th (ft)	20	17	0	~256	114	~314	145	329	18	~158	224	16
Queue Length 95th (ft)	41	41	0	#362	173	#497	#259	#509	91	m#147	m207	m14
Internal Link Dist (ft)		509			661			808			1003	
Turn Bay Length (ft)	150		125	275		275	425		200	225		100
Base Capacity (vph)	257	372	1583	676	512	499	816	2379	973	214	1488	768
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.10	0.07	1.08	0.48	1.23	0.77	0.88	0.52	1.88	0.82	0.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	391	245	527	1000	114	375	228	1625	690	674	2234	125
v/c Ratio	0.49	0.80	0.33	1.38	0.43	0.77	1.18	1.06	0.44	1.36	1.13	0.18
Control Delay	33.9	55.6	0.6	210.7	38.4	19.2	161.0	73.4	0.9	200.1	92.2	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	55.6	0.6	210.7	38.4	19.2	161.0	73.4	0.9	200.1	92.2	10.9
Queue Length 50th (ft)	94	133	0	~392	62	38	~93	~389	0	~259	~534	15
Queue Length 95th (ft)	#177	#241	0	#513	98	119	#167	#483	0	m#186	m345	m9
Internal Link Dist (ft)		509			661			808			1003	
Turn Bay Length (ft)	150		125	275		275	425		200	225		100
Base Capacity (vph)	801	331	1583	724	455	615	194	1531	1583	495	1977	682
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.74	0.33	1.38	0.25	0.61	1.18	1.06	0.44	1.36	1.13	0.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

McCaslin Boulevard

Direction	NB	SB	All
Total Delay (hr)	10	11	21
Stops (#)	1550	1509	3059
Average Speed (mph)	27	24	26
Total Travel Time (hr)	38	29	68
Distance Traveled (mi)	1039	707	1746
Fuel Consumed (gal)	59	48	106
Fuel Economy (mpg)	17.7	14.9	16.4
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	148	226	374
Performance Index	14.6	15.3	29.9

Network Totals

Number of Intersections	4
Total Delay (hr)	40
Stops (#)	4660
Average Speed (mph)	22
Total Travel Time (hr)	97
Distance Traveled (mi)	2106
Fuel Consumed (gal)	146
Fuel Economy (mpg)	14.5
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	382
Performance Index	53.2

McCaslin Boulevard

Direction	NB	SB	All
Total Delay (hr)	16	20	36
Stops (#)	1908	2529	4437
Average Speed (mph)	25	23	24
Total Travel Time (hr)	47	50	97
Distance Traveled (mi)	1167	1140	2307
Fuel Consumed (gal)	71	79	150
Fuel Economy (mpg)	16.5	14.4	15.4
Unserved Vehicles (#)	0	0	0
Vehicles in dilemma zone (#)	135	222	357
Performance Index	21.2	27.3	48.5

Network Totals

Number of Intersections	4
Total Delay (hr)	60
Stops (#)	6155
Average Speed (mph)	20
Total Travel Time (hr)	132
Distance Traveled (mi)	2669
Fuel Consumed (gal)	194
Fuel Economy (mpg)	13.8
Unserved Vehicles (#)	0
Vehicles in dilemma zone (#)	364
Performance Index	76.9

McCaslin Boulevard

Direction	NB	SB	All
Total Delay (hr)	40	55	96
Stops (#)	5349	4080	9429
Average Speed (mph)	20	14	17
Total Travel Time (hr)	87	88	175
Distance Traveled (mi)	1715	1272	2987
Fuel Consumed (gal)	137	124	261
Fuel Economy (mpg)	12.5	10.3	11.4
Unserved Vehicles (#)	0	112	112
Vehicles in dilemma zone (#)	131	116	247
Performance Index	55.3	66.4	121.7

Network Totals

Number of Intersections	4
Total Delay (hr)	158
Stops (#)	12341
Average Speed (mph)	14
Total Travel Time (hr)	254
Distance Traveled (mi)	3556
Fuel Consumed (gal)	350
Fuel Economy (mpg)	10.2
Unserved Vehicles (#)	192
Vehicles in dilemma zone (#)	259
Performance Index	192.3

McCaslin Boulevard

Direction	NB	SB	All
Total Delay (hr)	72	74	146
Stops (#)	4831	5835	10666
Average Speed (mph)	15	14	15
Total Travel Time (hr)	121	118	239
Distance Traveled (mi)	1863	1671	3535
Fuel Consumed (gal)	162	168	330
Fuel Economy (mpg)	11.5	9.9	10.7
Unserved Vehicles (#)	184	83	267
Vehicles in dilemma zone (#)	120	178	298
Performance Index	85.1	90.4	175.5

Network Totals

Number of Intersections	4
Total Delay (hr)	217
Stops (#)	14286
Average Speed (mph)	13
Total Travel Time (hr)	331
Distance Traveled (mi)	4231
Fuel Consumed (gal)	433
Fuel Economy (mpg)	9.8
Unserved Vehicles (#)	348
Vehicles in dilemma zone (#)	318
Performance Index	256.3

McCaslin Boulevard

Direction	NB	SB	All
Total Delay (hr)	65	119	184
Stops (#)	5041	4483	9524
Average Speed (mph)	16	9	12
Total Travel Time (hr)	113	155	268
Distance Traveled (mi)	1783	1398	3181
Fuel Consumed (gal)	155	179	334
Fuel Economy (mpg)	11.5	7.8	9.5
Unserved Vehicles (#)	144	476	619
Vehicles in dilemma zone (#)	171	104	275
Performance Index	78.9	131.8	210.7

Network Totals

Number of Intersections	4
Total Delay (hr)	257
Stops (#)	12836
Average Speed (mph)	11
Total Travel Time (hr)	361
Distance Traveled (mi)	3833
Fuel Consumed (gal)	436
Fuel Economy (mpg)	8.8
Unserved Vehicles (#)	764
Vehicles in dilemma zone (#)	288
Performance Index	292.3

McCaslin Boulevard

Direction	NB	SB	All
Total Delay (hr)	114	102	216
Stops (#)	5793	6147	11940
Average Speed (mph)	12	12	12
Total Travel Time (hr)	167	148	315
Distance Traveled (mi)	2024	1772	3796
Fuel Consumed (gal)	208	195	403
Fuel Economy (mpg)	9.7	9.1	9.4
Unserved Vehicles (#)	414	248	662
Vehicles in dilemma zone (#)	152	178	330
Performance Index	129.6	119.1	248.7

Network Totals

Number of Intersections	4
Total Delay (hr)	321
Stops (#)	15960
Average Speed (mph)	10
Total Travel Time (hr)	445
Distance Traveled (mi)	4587
Fuel Consumed (gal)	537
Fuel Economy (mpg)	8.5
Unserved Vehicles (#)	924
Vehicles in dilemma zone (#)	349
Performance Index	364.9

McCaslin Boulevard

Direction	NB	SB	All
Total Delay (hr)	94	153	247
Stops (#)	5377	4572	9949
Average Speed (mph)	13	8	10
Total Travel Time (hr)	145	190	335
Distance Traveled (mi)	1879	1446	3324
Fuel Consumed (gal)	182	206	389
Fuel Economy (mpg)	10.3	7.0	8.6
Unserved Vehicles (#)	317	670	987
Vehicles in dilemma zone (#)	149	108	257
Performance Index	109.2	165.7	274.9

Network Totals

Number of Intersections	4
Total Delay (hr)	333
Stops (#)	13407
Average Speed (mph)	9
Total Travel Time (hr)	442
Distance Traveled (mi)	4012
Fuel Consumed (gal)	503
Fuel Economy (mpg)	8.0
Unserved Vehicles (#)	1206
Vehicles in dilemma zone (#)	270
Performance Index	370.3

McCaslin Boulevard

Direction	NB	SB	All
Total Delay (hr)	130	179	309
Stops (#)	5995	6187	12182
Average Speed (mph)	11	9	10
Total Travel Time (hr)	185	230	415
Distance Traveled (mi)	2072	1966	4038
Fuel Consumed (gal)	223	259	482
Fuel Economy (mpg)	9.3	7.6	8.4
Unserved Vehicles (#)	486	794	1280
Vehicles in dilemma zone (#)	130	228	358
Performance Index	146.5	196.2	342.8

Network Totals

Number of Intersections	4
Total Delay (hr)	466
Stops (#)	16626
Average Speed (mph)	8
Total Travel Time (hr)	600
Distance Traveled (mi)	4922
Fuel Consumed (gal)	661
Fuel Economy (mpg)	7.4
Unserved Vehicles (#)	1774
Vehicles in dilemma zone (#)	384
Performance Index	512.4

City of Louisville, CO

2016 Citizen Survey

Report of Results

June 2016

NRC
National Research Center Inc

2955 Valmont Rd., Suite 300 • Boulder, Colorado 80301 • t: 303-444-7863 • f: 303-444-1145 • www.n-r-c.com

Contents

Executive Summary **1**

Survey Background **4**

Survey Results **6**

Quality of Life and Community *6*
- Quality of Life 6
- Community Characteristics 8
- Safety in Louisville 10

City Services and Departments *12*
- Quality of Services 12
- Government Performance 13
- Public Safety Services 14
- Planning and Building Safety Department 16
- Parks and Recreation 18
- Public Library 20
- Public Works 21

City Employees *23*

Information Sources *25*
- Frequency of Use 25
- Quality and Reliability 26
- Social Media Use 28

Resident Participation *29*

Planning and Policy Topics *30*
- Funding Priorities 30
- Changes to Trash Service 33
- Priorities for Redevelopment 34
- Historic Preservation Tax Extension 36

Appendix A: Complete Set of Frequencies **37**

Appendix B: Comparison of Responses by Respondent Demographics **67**

Appendix C: Verbatim Responses to Open-ended Survey Questions **104**

Appendix D: Benchmark Comparisons **116**

Appendix E: Survey Methodology **130**

Appendix F: Survey Instrument **134**

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List of Figures

Figure 1: Overall Quality of Life in Louisville 6
Figure 2: Overall Quality of Life Compared by Year 6
Figure 3: Aspects of Quality of Life Compared by Year 7
Figure 4: Community Characteristics Compared by Year 9
Figure 5: Ratings of Safety from Crime and in Public Areas Compared by Year 11
Figure 6: Overall Quality of City Services 12
Figure 7: Overall Quality of Services Compared by Year 12
Figure 8: Government Performance Compared by Year 13
Figure 9: Ratings for the Louisville Police Department Compared by Year 15
Figure 10: Ratings for the Louisville Planning and Building Safety Department Compared by Year 17
Figure 11: Ratings for the Louisville Parks and Recreation Department Compared by Year 19
Figure 12: Ratings for the Louisville Public Library and Historical Museum Compared by Year 20
Figure 13: Ratings for Public Works Department Compared by Year 22
Figure 14: Ratings for the Louisville Employees Compared by Year 23
Figure 15: Department Contacted 24
Figure 16: Frequency of Use of Information Sources Compared by Year 25
Figure 17: Quality and Reliability of Information Sources Compared by Year 26
Figure 18: Other Information Sources 27
Figure 19: Likelihood of Social Media Use 28
Figure 20: Resident Participation in Louisville Activities Compared by Year 29
Figure 21: City Funding Priorities 31
Figure 22: Top Three City Funding Priorities 32
Figure 23: Level of Support for Decreasing Frequency of Trash Pick-up 33
Figure 24: Level of Support for Housing Options for Former Sam's Club Area 34
Figure 25: Level of Support for Housing Options for US36/McCaslin Area 35
Figure 26: Level of Support for Historic Preservation Tax Options 36

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Executive Summary

Survey Background and Methods

The Louisville Citizen Survey gives residents the opportunity to rate their satisfaction with the quality of life in the city, the community's amenities and satisfaction with local government. The survey gathers community-wide feedback on what is working well and what is not and helps map out residents' priorities for community planning and resource allocation. It serves as a consumer report card for Louisville; providing a check-in with residents to make sure the City policies and services are on course. This is the fourth time National Research Center, Inc. (NRC) conducted the Louisville Citizen Survey and the seventh iteration in a series of citizen survey projects completed by the City of Louisville since 1990.

The Louisville Citizen Survey was administered by mail to 2,000 randomly selected households within the city. Of those households receiving the survey, 790 residents responded to the mailed questionnaire, giving a high response rate of 40%. The margin of error is plus or minus three percentage points around any given percentage for all survey respondents. Survey results were weighted so that the characteristics of gender, age, tenure (rent versus own), housing unit type (attached versus detached) and Council Ward are represented in proportions reflective of the entire city.

Comparisons are made between 2016 responses and those from prior years, when possible. Louisville's results also are compared to those of other jurisdictions around the nation as well as to those of other Front Range jurisdictions. These comparisons were made possible through NRC's national benchmark database. This database contains resident perspectives gathered in citizen surveys from approximately 500 jurisdictions.

Key Findings

Louisville residents continue to enjoy a high quality of life.

- Almost all respondents felt that the overall quality of life in Louisville was excellent or good (97%), which was similar to previous years. Compared to other jurisdictions across the nation and in Colorado's Front Range, Louisville's overall quality of life ratings were much higher than both benchmarks.
- Over 9 in 10 participants gave high marks to Louisville as a place to live and to raise children and three-quarters or more rated the community as a place to retire and to work as excellent or good. Evaluations of Louisville as place to retire decreased from 2012 to 2016, while all other ratings remained stable over time.
- Ratings for aspects of quality of life were much higher in Louisville than in national and Front Range comparison communities.
- Regarding community characteristics of Louisville, at least 9 in 10 respondents rated the overall image or reputation of Louisville, ease of walking, quality of overall natural environment and Louisville's overall appearance as excellent or good. Additionally, 8 in 10 highly rated opportunities to participate in special events, ease of bike travel, the sense of community, recreational opportunities, opportunities to participate in community matters and ease of car travel in the city.
- While most evaluations of characteristics of the community remained stable from 2012 to 2016, several changes were observed. Lower ratings were given in 2016 compared to 2012 to recreational opportunities, ease of car travel, openness and acceptance of the community, traffic flow on major streets, ease of bus travel, variety of housing options and availability of affordable quality housing. Opportunities to participate in community matters increased from 2012 to 2016.

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- Most ratings for community characteristics were much higher when compared to the national and Front Range benchmarks. Only ratings for the variety of housing options and availability of affordable quality housing were much lower than jurisdictions elsewhere in the country and the Front Range.

Residents feel safe in their community.

- Almost all Louisville residents indicated they felt safe in and around the community during the day and a similar proportion felt safe from violent crime and in the downtown area and in their neighborhoods at night. At least 8 in 10 also reported they felt safe from property crimes and in Louisville's parks after dark.
- Compared to ratings in 2012, fewer residents felt safe in Louisville's parks after dark and from property crimes in 2016. Ratings for all other perceptions of safety were similar to 2012.
- All safety ratings were much higher those given by residents in other communities across the nation and in the Front Range.

The performance of the City of Louisville government performance is viewed favorably by residents.

- Three-quarters or more of participants felt that information about City Council, Planning Commission and other official City meetings, overall performance of the City government, the City's website, information about City plans and programs and availability of City government employees as excellent or good. About two-thirds rated the City's response to citizen complaints or concerns highly.
- Residents who had contact with a City employee gave positive reviews to their interactions, with at least 8 in 10 saying the employees' courtesy, knowledge, availability, responsiveness/promptness and their overall impression of the employee were excellent or good. Compared to 2012 evaluations, only the responsiveness/promptness of employees decreased in 2016, while all other ratings remained similar.
- Almost all evaluations of employee characteristics were higher or much higher than comparisons to both the nation and Front Range. Ratings for the courtesy of Louisville employees were similar to other jurisdictions in the Front Range.

Respondents think highly of City government services.

- About 9 in 10 Louisville residents rated the overall quality of City services as excellent or good, which was similar to ratings given in 2012 and 2008. Compared to other jurisdictions across the U.S. and compared to jurisdictions in Colorado's Front Range, Louisville's quality of services rating was much higher than both benchmarks.
- Most safety services were given favorable assessments, with the highest ratings given to 911 service, the overall performance of the police department and the visibility of patrol cars. When comparisons could be made, all ratings of police services were much higher than the national and Front Range benchmarks.
- Many services provided by the Parks and Recreation Department were given high marks by most respondents, including the adequacy of parks, bike paths, playing fields and playgrounds, maintenance of parks, maintenance of the trail system and the overall performance of the Parks and Recreation department. Current recreation programs for youth, maintenance and cleanliness of the Louisville Recreation Center and maintenance of the trail system were evaluated much higher than national comparisons.

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- However, some declines in ratings of parks and recreation services were seen from 2012 to 2016, including maintenance and cleanliness of the Louisville Recreation Center, overall quality of the Senior Center, current recreation programs for adults and overall quality of the community Recreation Center.
- Of those who had an opinion about the Library and Museum, nearly all respondents gave favorable ratings to library programs, services, the building and the overall performance of the Public Library. Nine in 10 awarded high marks to Historical Museum programs and the overall performance of the museum.
- A number of services provided by the Louisville Public Works Department received favorable ratings, with about 9 in 10 respondents rating wastewater, quality of City water, storm drainage and the overall performance of the department as excellent or good.

Respondents prioritize maintaining streets and the appearance of Louisville.

- When asked to rate the importance of the City funding several projects in Louisville, about 9 in 10 indicated that maintaining, repairing and paving streets was essential or very important, while 8 in 10 prioritized maintaining the City's appearance/attractiveness. Less of a priority for residents were providing new outdoor multi-purpose turf fields or expanding the Historical Museum.
- When asked to select their top three priorities from the list of 15, maintaining, repairing and paving streets topped the list by far, with almost 6 in 10 residents selecting as one of their top three priorities. Maintaining the City's appearance/attractiveness, subsidizing affordable housing, encouraging sustainability, providing additional recreation facilities and amenities and using incentives to create business and employment opportunities were each selected as one of the three top priorities by about one-quarter of respondents.

Most Louisville residents support extending the Historical Preservation Tax, are on the fence about rezoning for housing and oppose to changing their trash service.

- Three-quarters of residents supported continuing the Historic Preservation sales tax until 2028 and over two-thirds supported extending the tax and dedicating a portion of the proceeds for operation costs for the Louisville Historical Museum.
- When asked about their level of support for rezoning the former Sam's Club for different types of residential housing. Six in 10 strongly or somewhat supported senior housing and about half supported subsidized or multifamily housing; however, about 4 in 10 were strongly opposed to subsidized or multifamily housing options.
- Respondents were also asked a similar question about different housing types in the US36/McCaslin area. While just over half supported each of the three housing options, about one-third were strongly opposed to each.
- When asked to indicate their level of support for decreasing the frequency of trash pickup from once a week to once every two weeks and increasing the frequency of compost pickup from every two weeks to once a week, over half of respondents were strongly opposed to decreasing trash service; only one-quarter of participant strongly or somewhat supported the change.

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Survey Background

Survey Purpose

The Louisville Citizen Survey gives residents the opportunity to rate their satisfaction with the quality of life in the city, the community's amenities and satisfaction with local government. The survey gathers community-wide feedback on what is working well and what is not and helps map out residents priorities for community planning and resource allocation. It serves as a consumer report card for Louisville; providing a check-in with residents to make sure the City policies and services are on course.

This is the fourth time National Research Center, Inc. (NRC) conducted the Louisville Citizen Survey and the seventh iteration in a series of citizen survey projects completed by the City of Louisville since 1990.

Survey Methods

The Louisville Citizen Survey was administered by mail beginning in March 2016 to 2,000 randomly selected households within the City of Louisville. Each household received three mailings. Completed surveys were collected over the following seven weeks. The first mailing was a prenotification postcard announcing the upcoming survey. Over the following two weeks, two survey mailings were sent to residents; each contained a letter from the Mayor inviting the household to participate in the 2016 Louisville Citizen Survey, a five-page questionnaire and a pre-addressed, postage-paid return envelope. The survey instrument itself appears in *Appendix F: Survey Instrument.*

Of those households receiving the survey, 790 residents responded to the questionnaire either by mail or Web, giving a response rate of 40%. Survey results were weighted so that the characteristics of gender, age, tenure (rent versus own), housing unit type (attached versus detached) and Ward were represented in the proportions reflective of the entire city. (For more information see *Appendix E: Survey Methodology*.)

Understanding the Results

Precision of Estimates

It is customary to describe the precision of estimates made from surveys by a "level of confidence" (or margin of error). The 95% confidence level for this survey is generally no greater than plus or minus three percentage points around any given percent reported for all respondents (790 completed surveys).

"Don't Know" Responses and Rounding

On many of the questions in the survey, respondents gave an answer of "don't know." The proportion of respondents giving this reply is shown in the full set of responses included in *Appendix A: Complete Set of Frequencies* and is discussed in the body of this report if it is 30% or greater. However, these responses have been removed from the analyses presented in the body of the report, unless otherwise indicated. In other words, the majority of the tables and graphs in the body of the report display the responses from respondents who had an opinion about a specific item.

When a table for a question that permitted only a single response does not total to exactly 100%, it is due to the customary practice of rounding percentages to the nearest whole number.

Comparing to Past Years

Because this survey was the seventh in a series of citizen surveys, the 2016 results are presented along with past ratings when available. Differences between 2016 and 2012 can be considered "statistically significant" if they are greater than five percentage points. Trend data for Louisville represent important comparisons and

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should be examined for improvements or declines. Deviations from stable trends over time especially represent opportunities for understanding how local policies, programs or public information may have affected residents' opinions.

In 2004, substantial changes were made to the survey instrument and implementation methodology. The surveys conducted in 2004, 2008, 2012 and 2016 used similar survey instruments and survey methodologies. Comparisons across these more recent years are more robust than comparisons to results from the surveys conducted in 1990, 1994 and 1999. In those first three survey iterations, the question wording and the response scales were often different than question wording and response scales used starting in 2004.

The report body notes any differences between the 2012 and 2016 survey instruments. These are minor changes in wording to clarify a question or note a change in a department name. Previous reports contain detailed notes on the more substantial differences between the 2008 and 2004 survey instruments compared to the 1990, 1994 and 1999 survey instruments. Most of the trend lines did not change markedly with the 2004 change in methods and question wording (about 60% of the ratings were similar, 10% went up and 30% went down). However, caution should be used in comparing the newer trend line (2004 to 2016) to the 1990, 1994 and 1999 results. The differences in ratings may be due to real change in practice or policy but also may be affected by the changes in how they were measured (the methods and question wording).

Comparing by Respondent Subgroups

Selected survey results were compared to certain demographic characteristics of survey respondents as well as by Ward. These crosstabulations are presented in *Appendix B: Comparison of Responses by Respondent Demographics*.

Comparing to Other Jurisdictions

NRC's database of comparative resident opinion is comprised of resident perspectives gathered in citizen surveys from approximately 500 jurisdictions whose residents evaluated local government services. Conducted with typically no fewer than 400 residents in each jurisdiction, opinions are intended to represent over 30 million Americans.

National and Front Range benchmark comparisons have been provided when similar questions on the Louisville survey are included in NRC's database and there are at least five jurisdictions in which the question was asked, though most questions are compared to more than five other cities across the country or in the Front Range. Additional information on NRC's benchmarking database as well as jurisdictions to which Louisville is compared can be found in *Appendix D: Benchmark Comparisons*.

Where comparisons for quality ratings were available, the City of Louisville's results were generally noted as being "above" the benchmark, "below" the benchmark or "similar" to the benchmark and are discussed throughout the body of the report, when applicable. In instances where ratings are considerably higher or lower than the benchmark, these ratings have been further demarcated by the attribute of "much," (for example, "much less" or "much above"). These labels come from a statistical comparison of Louisville's rating to the benchmark where a rating is considered "similar" if it is within the margin of error (less than two points on the 100-point scale); "above" or "below" if the difference between Louisville's rating and the benchmark is greater than the margin of error (greater than two points but less than six points); and "much above" or "much below" if the difference between Louisville's rating and the benchmark is more than twice the margin of error (four points or greater). Comparison data for a number of items on the survey is not available in the benchmark database (e.g., some of the city services or aspects of government performance). These items are excluded from the benchmark tables.

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Survey Results

Quality of Life and Community

The 2016 City of Louisville Citizen Survey included a number of questions that can be used to paint a picture of how residents view their community. Answers to questions about overall quality of life, specific community characteristics and feelings of safety, are the brush strokes that contribute to a picture of a vibrant community.

Quality of Life

Residents of Louisville continue to enjoy a high quality of life. Almost all respondents felt that the overall quality of life in Louisville was excellent or good (97%), a rating that was similar to previous years. Compared to other jurisdictions across the nation and communities in the Front Range, Louisville's overall quality of life ratings were much higher than both benchmarks (please see *Appendix D: Benchmark Comparisons* for a complete list of comparisons).

Survey results were compared by respondent demographic characteristics as well as geographic area of residence (Council Ward). Homeowners and those living in detached units were more likely to give positive ratings to the overall quality of life in the city than were renters and those living in attached units (see *Appendix B: Comparison of Responses by Respondent Demographics*). No differences were observed by ward.

Figure 1: Overall Quality of Life in Louisville

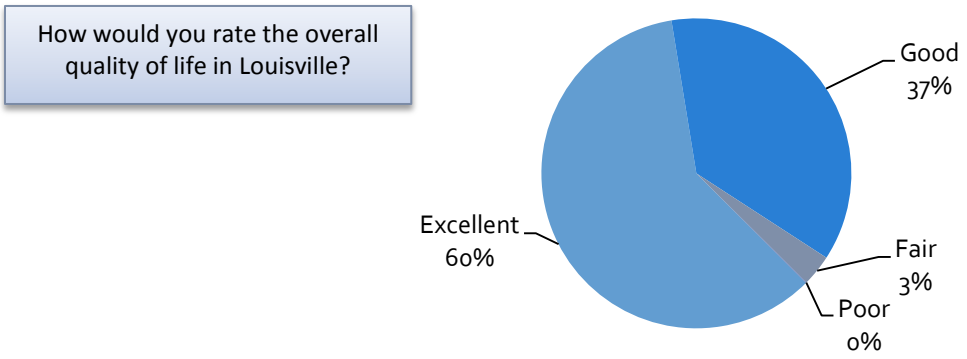
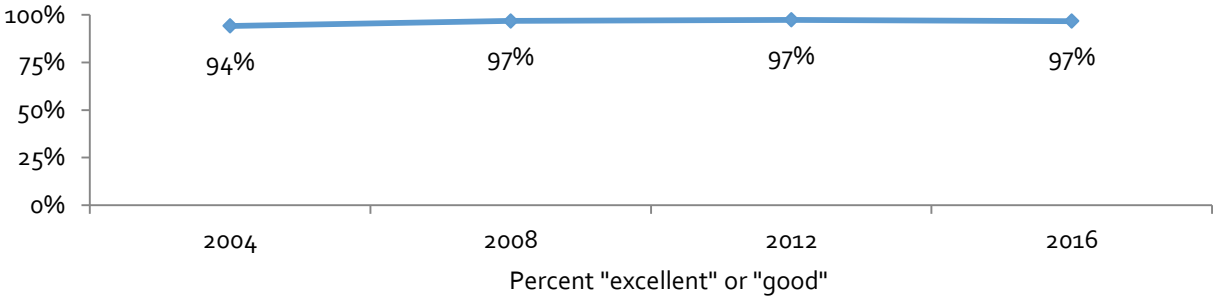


Figure 2: Overall Quality of Life Compared by Year



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Regarding other aspects that contribute to a high quality of life, over 9 in 10 participants gave high marks to Louisville as a place to live and to raise children. At least three-quarters of respondents rated the community as a place to retire and to work as excellent or good. Evaluations of Louisville as place to retire decreased from 2012 to 2016, while all other ratings remained stable over time.

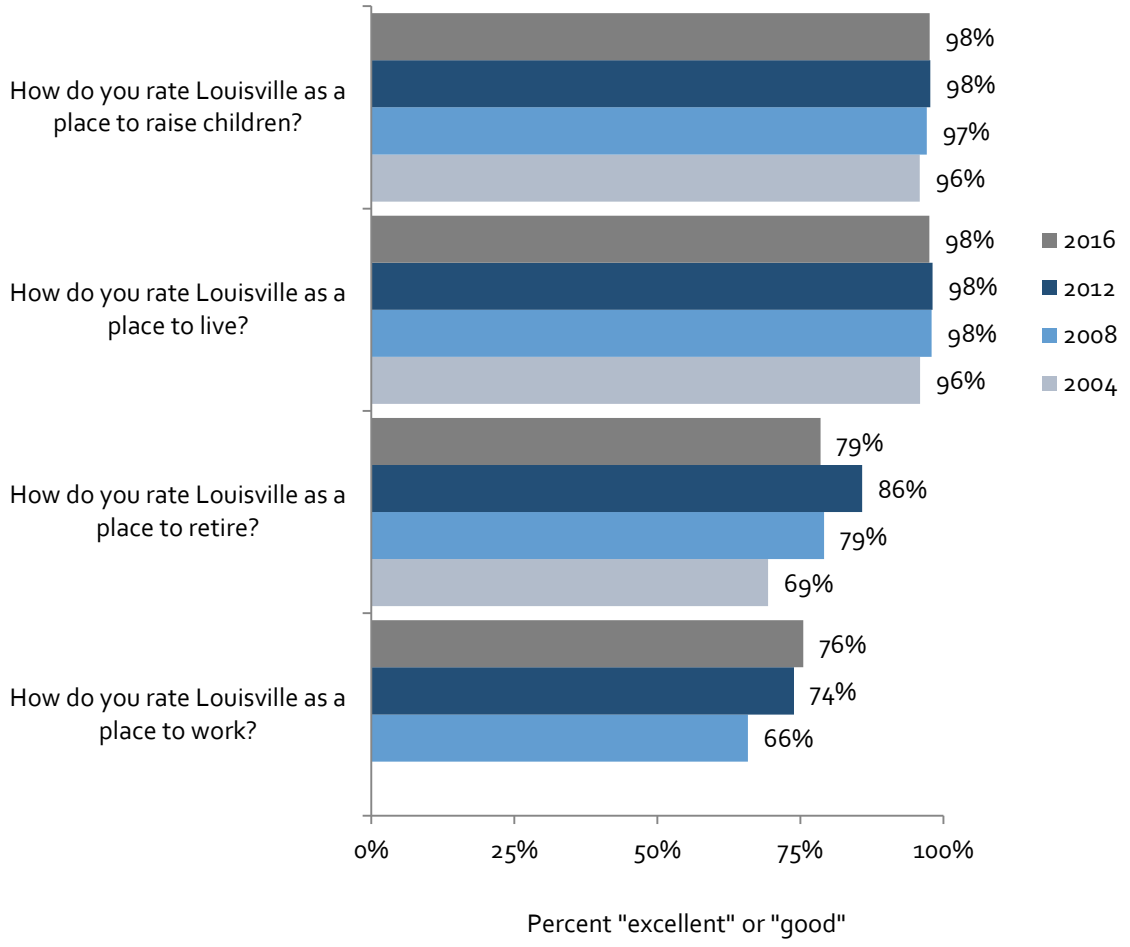
It should be noted that about one-third of respondents selected "don't know" when rating Louisville as a place to work. Ratings shown in the body of the report are for those who had an opinion. (For a full set of responses, including "don't know," see *Appendix A: Complete Set of Frequencies.*)

Ratings for these measures were much higher in Louisville than in national and Front Range comparison communities (see *Appendix D: Benchmark Comparisons*).

When ratings of aspects of quality of life were compared by respondent demographics, homeowners were more likely to give positive evaluations to the city as a place to live and as a place to raise children than were their counterparts, while those living in Ward 1 tended to give less positive ratings to these aspects than did those living in the other wards (see *Appendix B: Comparison of Responses by Respondent Demographics* for more details).

Figure 3: Aspects of Quality of Life Compared by Year

Please circle the number that comes closest to your opinion about the quality of life in Louisville:



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Community Characteristics

A wide variety of characteristics contribute to how residents view and experience their community. In the Louisville survey, respondents were asked to evaluate the quality of 18 specific characteristics of their city.

Overall, residents gave high marks to many of the 18 characteristics of Louisville. At least 9 in 10 respondents rated the overall image or reputation of Louisville (96%), ease of walking (91%), quality of overall natural environment (90%) and Louisville's overall appearance (90%) as excellent or good (see the table on the following page.) Additionally, 8 in 10 highly rated opportunities to participate in special events, the sense of community, recreational opportunities, opportunities to participate in community matters and ease of car travel in the city. Two-thirds or more evaluated opportunities to attend cultural activities, traffic flow and openness and acceptance of the community as excellent or good and less than 6 in 10 awarded high marks to shopping opportunities (58%), variety of housing options (42%), employment opportunities (41%) and availability of affordable quality housing (17%).

About half of the ratings for community characteristics were similar to those given in 2012; however, ratings for recreational opportunities, ease of car travel, openness and acceptance of the community, traffic flow on major streets, ease of bus travel, variety of housing options and availability of affordable quality housing were lower in 2016 compared to 2012. Positive evaluations for opportunities to participate in community matters increased from 2012 to 2016.

At least one-third of respondents selected "don't know" when rating the quality of employment opportunities and ease of bus travel (see *Appendix A: Complete Set of Frequencies* for a full set of responses, including "don't know").

Most ratings for community characteristics were much higher when compared to the national and Front Range benchmarks. Evaluations of shopping opportunities were similar to communities across the nation as well as the Front Range and ratings for the variety of housing options and availability of affordable quality housing were much lower than jurisdictions elsewhere in the country and the Front Range (see *Appendix D: Benchmark Comparisons*).

Younger respondents (18-34) were more likely to give excellent or good ratings to shopping opportunities and ease of car travel than older residents. Middle-aged residents (35-54) tended to give lower quality evaluations to shopping opportunities, the variety of housing options and ease of bus travel in Louisville. Renters were more likely than homeowners to give positive assessments to ease of bus travel. Overall, those living in detached housing units tended to give higher marks to most community characteristics than did those living in attached units. Residents from Ward 2 were more likely to give excellent or good assessments to the sense of community, ease of bicycle travel and ease of walking in the city than were those from other wards (see *Appendix B: Comparison of Responses by Respondent Demographics*).

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Figure 4: Community Characteristics Compared by Year

Please rate Louisville as a community on each of the items listed below: (Percent excellent or good)	2016	2012	2008	2004	1999	1994	1990
Overall image or reputation of Louisville	96%	98%	95%	NA	NA	NA	NA
Ease of walking in Louisville	91%	92%	90%	88%	NA	NA	NA
Quality of overall natural environment in Louisville	90%	92%	87%	NA	NA	NA	NA
Overall appearance of Louisville	90%	89%	89%	85%	NA	NA	NA
Ease of bicycle travel in Louisville	89%	88%	89%	79%	NA	NA	NA
Opportunities to participate in special events and community activities	87%	87%	73%	NA	NA	79%	NA
Sense of community	87%	92%	82%	76%	NA	NA	NA
Recreational opportunities	84%	90%	85%	80%	NA	NA	NA
Opportunities to participate in community matters	84%	78%	75%	NA	NA	40%	NA
Ease of car travel in Louisville	82%	88%	88%	76%	NA	NA	NA
Openness and acceptance of the community towards people of diverse backgrounds	70%	81%	67%	68%	NA	NA	NA
Traffic flow on major streets	69%	80%	78%	61%	NA	NA	NA
Opportunities to attend cultural activities	68%	69%	60%	49%	NA	41%	NA
Ease of bus travel in Louisville	60%	67%	67%	62%	NA	NA	NA
Shopping opportunities	58%	53%	46%	60%	NA	NA	NA
Variety of housing options	42%	68%	61%	NA	NA	NA	NA
Employment opportunities	41%	39%	33%	25%	NA	NA	NA
Availability of affordable quality housing	17%	42%	39%	30%	NA	32%	NA

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Safety in Louisville

Almost all Louisville residents indicated they felt safe in the downtown area, parks and in their neighborhoods during the day and a similar proportion felt safe from violent crime, in the downtown area and in their neighborhoods at night. At least 8 in 10 also reported they felt safe from property crimes and in Louisville's parks after dark.

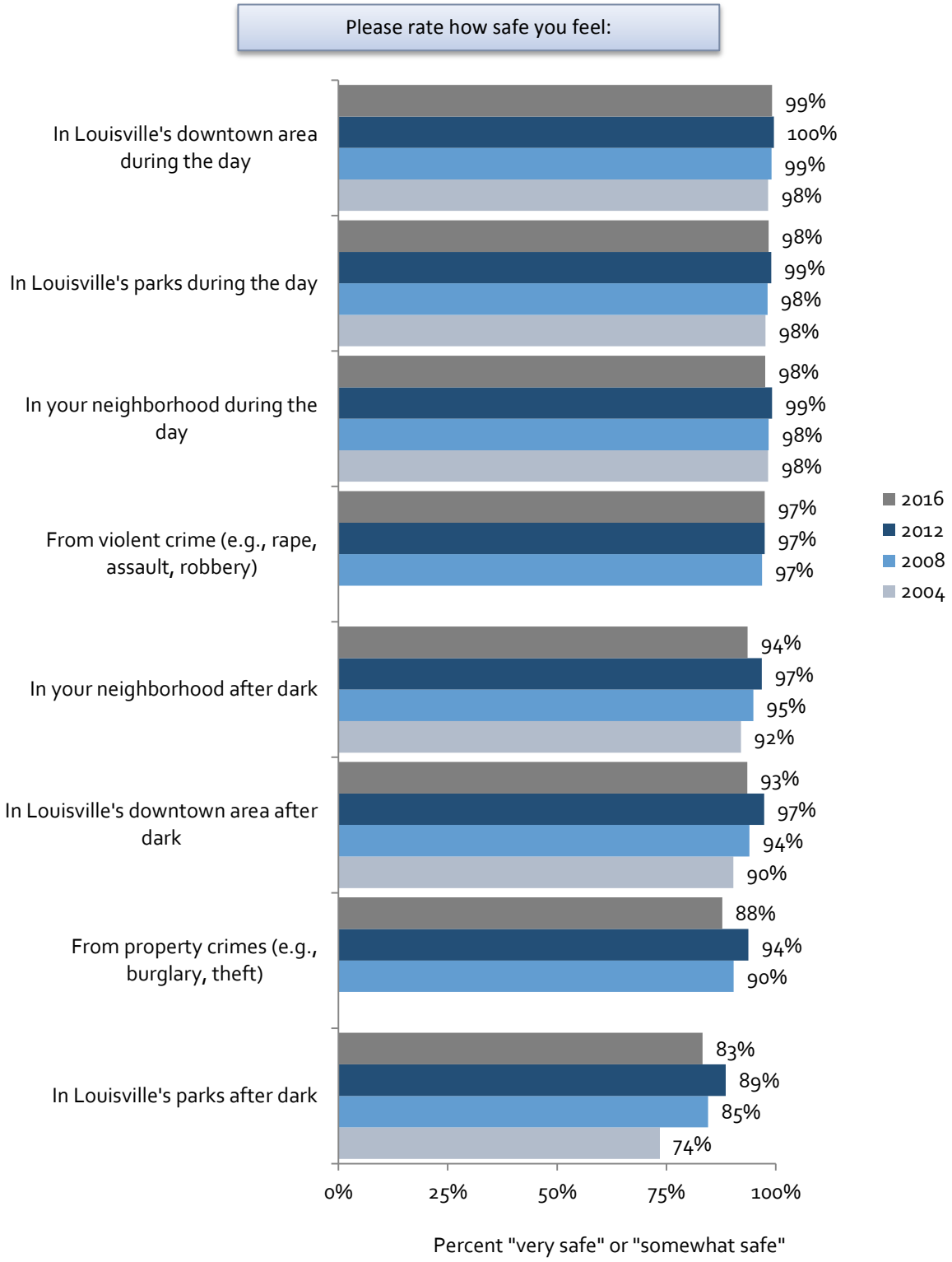
Compared to ratings in 2012, fewer residents felt safe in Louisville's parks after dark and from property crimes in 2016. All other ratings of perceptions of safety were similar to 2012.

All safety ratings were much higher those given by residents in other communities across the nation and in the Front Range (see *Appendix D: Benchmark Comparisons*).

Few differences in safety ratings were observed by respondent demographics. Feelings of safety in Louisville's downtown after dark tended to decrease with age and length of residency. Those living in detached units felt safer in Louisville's parks after dark than did those living in attached units. No differences were observed by ward (see *Appendix B: Comparison of Responses by Respondent Demographics*).

Prepared by National Research Center, Inc.

Figure 5: Ratings of Safety from Crime and in Public Areas Compared by Year



Prepared by National Research Center, Inc.

City Services and Departments

Gauging residents' perceptions about the quality of City services and the job City departments are doing can be invaluable for local governments to set budget priorities and determine which, if any, specific services and departments offer opportunities for improvement.

Quality of Services

About 9 in 10 Louisville residents rated the overall quality of City services as excellent or good, which was similar to ratings awarded in 2012 and 2008.

Compared to other jurisdictions across the U.S. and those in Colorado's Front Range, Louisville's overall quality of services rating was much higher than both benchmarks (see *Appendix D: Benchmark Comparisons*).

When looking at ratings compared by respondent demographics, younger residents (18-34), newer residents (lived in the city five years or less) and renters tended to award higher marks to the overall quality of City services than did their counterparts (see *Appendix B: Comparison of Responses by Respondent Demographics)*. No differences were observed by ward.

Figure 6: Overall Quality of City Services

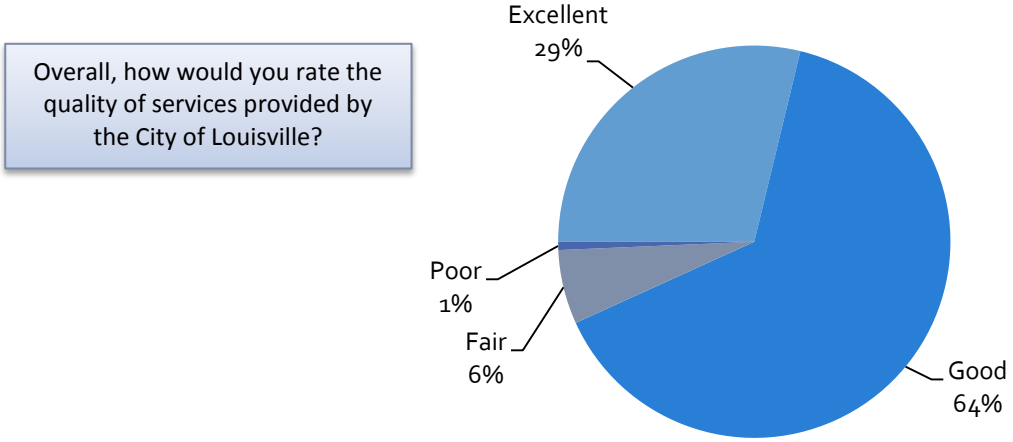
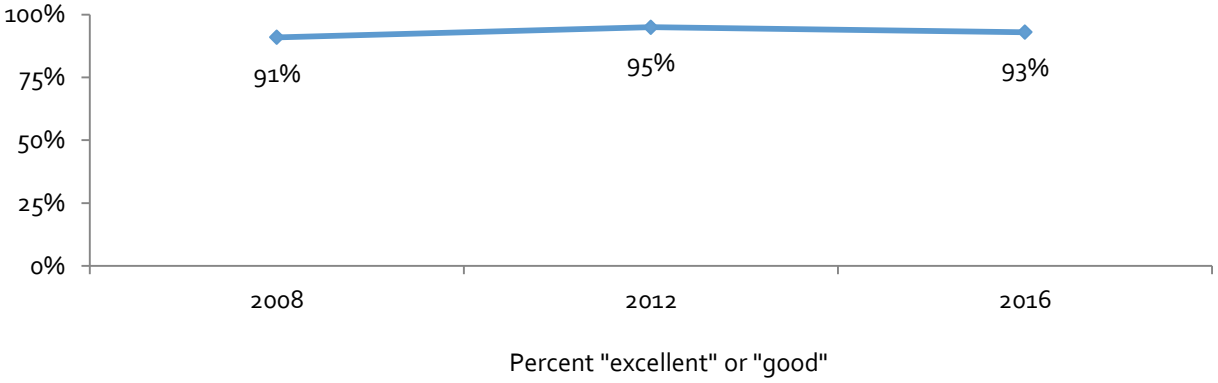


Figure 7: Overall Quality of Services Compared by Year



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Government Performance

Three-quarters or more of participants said that information about City Council, Planning Commission and other official City meetings, overall performance of the City government, the City's website, information about City plans and programs and availability of City employees was excellent or good. About two-thirds rated the City's response to citizen complaints or concerns highly and over half awarded high marks to programming on Louisville cable TV.

In 2016, most ratings for government performance were similar to those given in previous years. Evaluations of overall performance, City response to citizen complaints or concerns and programming on cable TV decreased since 2012.

At least 4 in 10 respondents said "don't know" when evaluating the city's response to citizen complaints or concerns, the availability of city employees and programming on Louisville cable TV, municipal channel 8 (see *Appendix A: Complete Set of Frequencies)*.

Of the four items that could be compared to the national and Front Range benchmarks, ratings for information about City plans and programs, the City website and overall performance of Louisville government were higher or much higher than the averages. Programming on Louisville cable TV was rated lower than other communities across the nation (a comparison to the Front Range was not available, see *Appendix D: Benchmark Comparisons*).

Females, those living in detached units and those living in the community for 11 to 15 years tended to give more positive reviews to the information provided about City plans and programs than did their counterparts. Males and younger respondents (less than 55 years old) tended to give less favorable ratings to the programming on Louisville cable TV (Channel 8) than did females and older respondents (see *Appendix B: Comparison of Responses by Respondent Demographics*). No differences were observed by ward.

Figure 8: Government Performance Compared by Year

Please circle the number that comes closest to your opinion about the performance of the following areas of the City of Louisville: (Percent excellent or good)	2016	2012	2008	2004
Information about City Council, Planning Commission and other official City meetings	80%	78%	73%	74%
Overall performance of Louisville City government	78%	84%	76%	75%
Louisville Web site (www.louisvilleco.gov)	78%	78%	71%	75%
Information about City plans and programs	75%	74%	67%	69%
Availability of City Employees	75%	79%	74%	66%
City response to citizen complaints or concerns	67%	74%	66%	65%
Programming on Louisville cable TV, municipal channel 8	57%	66%	66%	60%

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Public Safety Services

Survey participants were also asked to evaluate the Louisville Police Department (see the figure on the following page). About 9 in 10 rated 911 service, overall performance of the department and the visibility of patrol cars highly. Close to 8 in 10 awarded excellent or good ratings for enforcement of traffic regulations and two-thirds evaluated municipal code enforcement positively. While ratings for enforcement of traffic regulations decreased since 2012, all other ratings remained stable over time.

About 6 in 10 respondents said "don't know" when rating the quality of 911 services (see *Appendix A: Complete Set of Frequencies*).

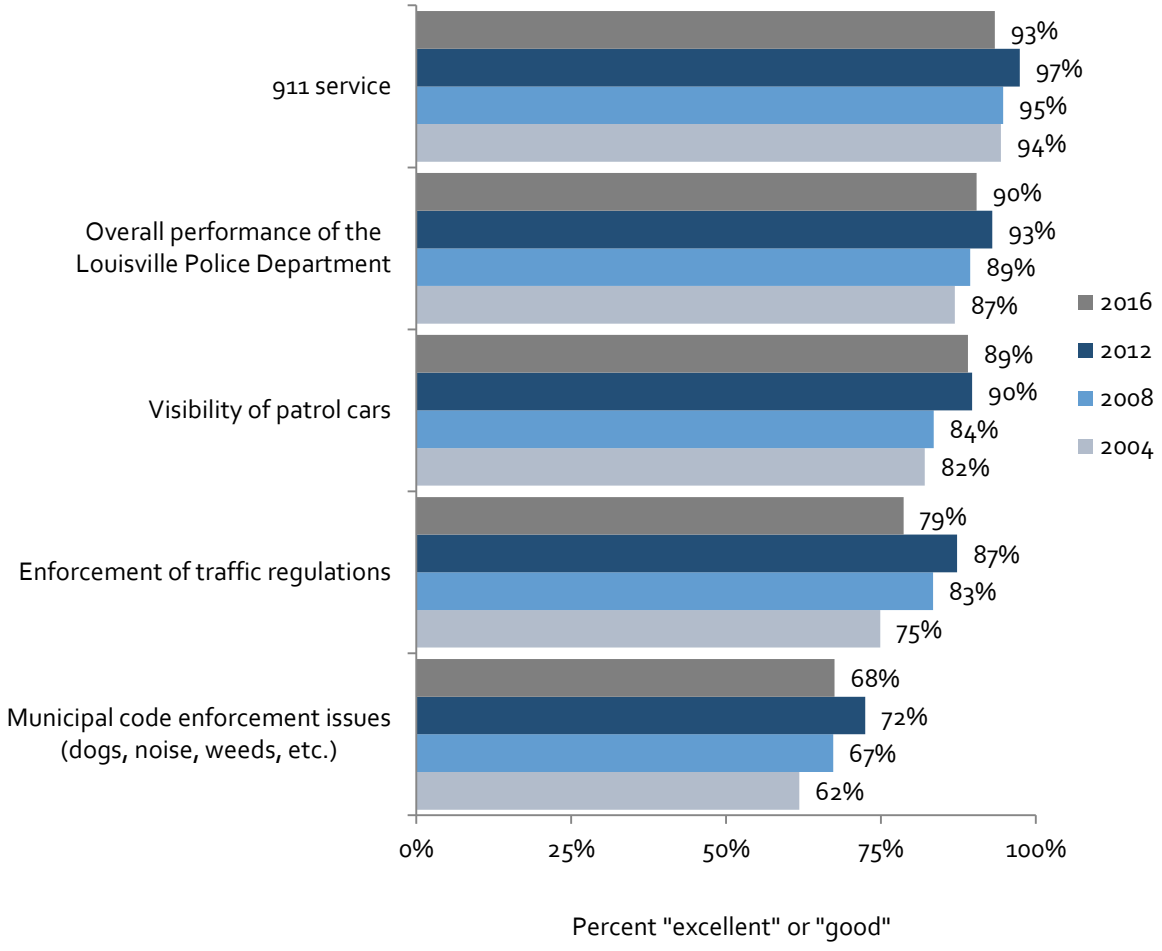
When comparisons could be made, all ratings for police were much higher than the national and Front Range benchmarks (see *Appendix D: Benchmark Comparisons* for all comparisons).

When comparing results by demographics, younger residents (18-34) gave more positive marks to the visibility of patrol cars than older residents. Those living in detached housing units were more likely to give excellent or good ratings to the enforcement of traffic regulations than were those living in attached units (see *Appendix B: Comparison of Responses by Respondent Demographics*). No differences were observed by ward.

Prepared by National Research Center, Inc.

Figure 9: Ratings for the Louisville Police Department Compared by Year

Please circle the number that comes closest to your opinion about the following areas related to the Louisville Police Department:



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Planning and Building Safety Department

Between 60% and 71% of those with an opinion rated the aspects of the Louisville Planning and Building Safety Department as excellent or good. Public input on planning issues was rated most positively, while the building permit process received less favorable ratings (see the figure on the following page).

It should be noted that at least 40% of respondents selected "don't know" when assessing the quality of each of the planning and building safety services (see *Appendix A: Complete Set of Frequencies* for a full set of responses, including "don't know").

Ratings for the Planning and Building Safety Department tended to decrease since the last survey iteration, including building/construction inspection process (77% excellent or good in 2012 vs %65 in 2016), planning review process for new development (from 71% to 63%) and overall performance of the department (76% to 63%). Some of the difference in opinions could be at least partially attributable to changes in question wording.

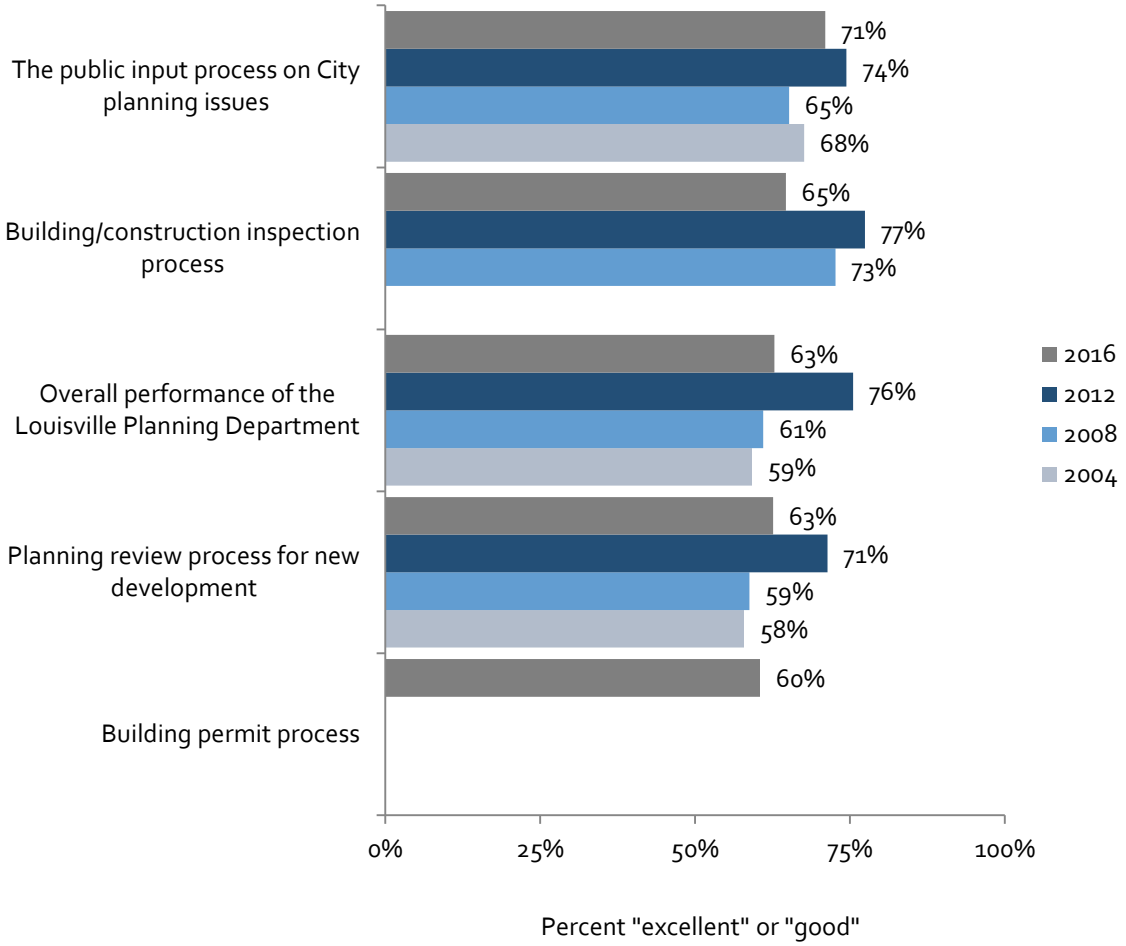
The only item that could be compared to the benchmark database was the overall performance of the Louisville Planning Department. This rating was much higher the national benchmark (see *Appendix D: Benchmark Comparisons*). A Front Range comparison was not available.

Males, those living in attached units and households without children tended to give lower quality ratings to the public input process on City planning issues than did females, those living in detached units and households with children (see *Appendix B: Comparison of Responses by Respondent Demographics).* No differences were observed by ward.

Prepared by National Research Center, Inc.

Figure 10: Ratings for the Louisville Planning and Building Safety Department Compared by Year

Please circle the number that comes closest to your opinion about the following areas related to the Louisville Planning and Building Safety Department:



In 2012, "building/construction inspection process" was worded "building inspection."

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Parks and Recreation

The Parks and Recreation Department is responsible for a variety of programs and amenities that contribute to the overall health and wellbeing of the community. Their services provide opportunities for things such as exercise, alternatives to using automobiles for commuting, connections to nature and to other community members.

Survey respondents were asked to rate the quality of 14 services provided by the Parks and Recreation Department and at least two-thirds gave positive reviews to all aspects (ranging from 67% to 91% excellent or good). About 9 in 10 scored the adequacy of parks, bike paths, playing fields and playgrounds, maintenance of parks and maintenance of the trail system as excellent or good. Eight in 10 gave high marks to the following services: overall performance of the department, current programs for seniors and youth, maintenance of open space and medians and street landscaping, the maintenance and cleanliness of the Recreation Center, the overall quality of the Senior Center and the quality of the Coal Creek Golf Course.

Four services were rated lower in 2016 than in 2012: maintenance and cleanliness of the Louisville Recreation Center, overall quality of the Senior Center, current recreation programs for adults and overall quality of the community Recreation Center. All other 2016 ratings for the Parks and Recreation Department were similar to those given in 2012.

At least 40% of respondents said "don't know" when rating the quality of the following parks and recreation services: current recreation programs for youth, current programs and services for seniors, overall quality of the Louisville Senior Center and overall quality of the Coal Creek Golf Course (see *Appendix A: Complete Set of Frequencies*).

Six of the 14 Parks and Recreation Department services could be compared to national benchmarks (see *Appendix D: Benchmark Comparisons*). Current recreation programs for youth, maintenance and cleanliness of the Louisville Recreation Center and maintenance of the trail system were evaluated much higher and the overall quality of the Louisville Recreation Center, Senior Center and Coal Creek Golf Course were each rated lower or much lower than communities elsewhere. Of the two comparisons that could be made to other Front Range communities, ratings for the maintenance of the trail system was similar to other jurisdictions, while the overall quality of the Recreation Center was much lower.

Ratings of parks and recreation services were compared by respondent demographics and Council Ward. Respondents age 55 years or older tended to give more positive evaluations to current recreation programs for adults and the overall quality of the recreation center, while those 18 to 34 gave more positive assessments to the maintenance of parks, maintenance of open space and maintenance of medians and street landscaping. Residents living in the city for more than 15 years, households without children and households with older adults were less likely to give excellent or good ratings to the maintenance of parks, open space, trails and street landscaping than were their counterparts (see *Appendix B: Comparison of Responses by Respondent Demographics*). No differences were observed by ward.

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Figure 11: Ratings for the Louisville Parks and Recreation Department Compared by Year

Please circle the number that comes closest to your opinion about the following areas related to the Louisville Parks and Recreation Department: (Percent excellent or good)	2016	2012	2008	2004
Adequacy of parks, bike paths, playing fields and playgrounds	91%	94%	91%	86%
Maintenance of parks (e.g., landscaping, turf areas, playgrounds, picnic areas, etc.)	90%	NA	NA	NA
Maintenance of the trail system	90%	90%	92%	85%
Overall performance of the Louisville Parks and Recreation Department	89%	91%	88%	84%
Current programs and services for seniors	87%	91%	89%	86%
Maintenance of open space	87%	87%	87%	85%
Current recreation programs for youth	85%	88%	88%	86%
Maintenance of medians and street landscaping	84%	NA	NA	NA
Maintenance and cleanliness of the Louisville Recreation Center	83%	91%	88%	85%
Overall quality of the Louisville Senior Center	81%	87%	89%	86%
Overall quality of the Coal Creek Golf Course	80%	76%	75%	71%
Current recreation programs for adults	77%	87%	79%	77%
Recreation fees in Louisville	75%	73%	64%	55%
Overall quality of the Louisville Recreation Center	67%	87%	82%	82%

In 2012, "overall quality" for the Recreation Center, Senior Center and Coal Creek Golf Course was worded "overall performance."

Prepared by National Research Center, Inc.

Public Library

Of those who had an opinion, nearly all Louisville residents gave favorable ratings to library programs, services, the building and the overall performance of the Public Library. Nine in 10 awarded high marks to library services online, Internet and computer services, Historical Museum programs and the overall performance of the museum. At least 8 in 10 also gave positive scores to the Historical Museum campus and library materials and collections. All of these ratings remained stable over time.

Most aspects of the library or museum received "don't know" responses from between 40% and 65% of respondents (see *Appendix A: Complete Set of Frequencies* for a full set of responses, including "don't know").

National benchmark comparisons were available for three of the seven (services at the library, materials and collections and overall performance) and each were higher or much higher than other communities. The overall performance of the Louisville Public Library was compared to the Front Range benchmark and was evaluated much higher (see *Appendix D: Benchmark Comparisons*).

Several differences were found when looking at evaluations of the library and museum by respondent demographics. Older respondents (35 years or older), females and those living in detached housing units were more likely to give positive evaluations to the to the internet and computer services at the library than were others. Females tended to give higher marks to the library's online services and the Louisville Historical Museum campus than did males. Residents living in Ward 2 gave more positive reviews to the services at the library than those living in Wards 1 and 3 (see *Appendix B: Comparison of Responses by Respondent Demographics*).

Figure 12: Ratings for the Louisville Public Library and Historical Museum Compared by Year

Please circle the number that comes closest to your opinion about the following areas related to the Louisville Public Library and Historical Museum and their services: (Percent excellent or good)	2016	2012	2008	2004
Louisville Public Library programs (e.g., story time, One Book program, etc.)	98%	96%	93%	83%
Services at the Louisville Public Library (e.g., reference desk check out, etc.)	98%	97%	92%	83%
Louisville Public Library building	97%	97%	96%	NA
Overall performance of the Louisville Public Library	96%	96%	94%	80%
Louisville Public Library services online at www.louisville-library.org accessed from home or elsewhere (e.g., book holds, access databases, research, etc.)	93%	93%	NA	NA
Internet and computer services at the Louisville Public Library	92%	93%	90%	76%
Louisville Historical Museum programs (e.g., lectures, walking tours, newsletters)	90%	NA	NA	NA
Overall performance of the Louisville Historical Museum	89%	NA	NA	NA
Louisville Historical Museum campus	88%	NA	NA	NA
Louisville Public Library materials and collections	85%	84%	77%	62%

In 2016, the word "building" was added to the item "Louisville Public Library."

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Public Works

Most services offered by the Louisville Public Works Department received favorable ratings from a majority of residents. About 9 in 10 residents rated wastewater, quality of City water, storm drainage and the overall performance of the department as excellent or good. Most respondents also awarded positive marks for street lighting (82%), access on sidewalks/crosswalks for disabled persons (82%), bike lanes (71%), street sweeping (71%) and street maintenance in Louisville (70%). Half of participants evaluated snow removal/street sanding highly.

Most ratings for public works services remained stable from 2012 to 2016, except for street sweeping, street maintenance in Louisville, street maintenance in neighborhoods and snow removal/street sanding, which decreased since the last survey was conducted.

One-third of respondents selected "don't know" when rating the quality of access on sidewalks/crosswalks for disabled persons (see *Appendix A: Complete Set of Frequencies* for a full set of responses, including "don't know").

Eight of the 11 services could be compared to the national benchmark and five could be compared to the Front Range benchmark. Most of these services received ratings much higher than the national and Front Range benchmarks, except for snow removal/sanding, which was given a rating much lower than both the benchmarks and the quality of bike lanes, which was similar to the national benchmark. Comparisons to Front Range communities for bike lanes could not be made (see *Appendix D: Benchmark Comparisons*).

In general, ratings of street maintenance (in neighborhoods and in the City), street sweeping and storm drainage decreased as length of residency increased. Younger respondents (18-34) and renters tended to give more positive marks to street sweeping than did older respondents. Residents from Ward 1 tended to give lower ratings to snow removal and street sanding than did those from other wards (see *Appendix B: Comparison of Responses by Respondent Demographics*).

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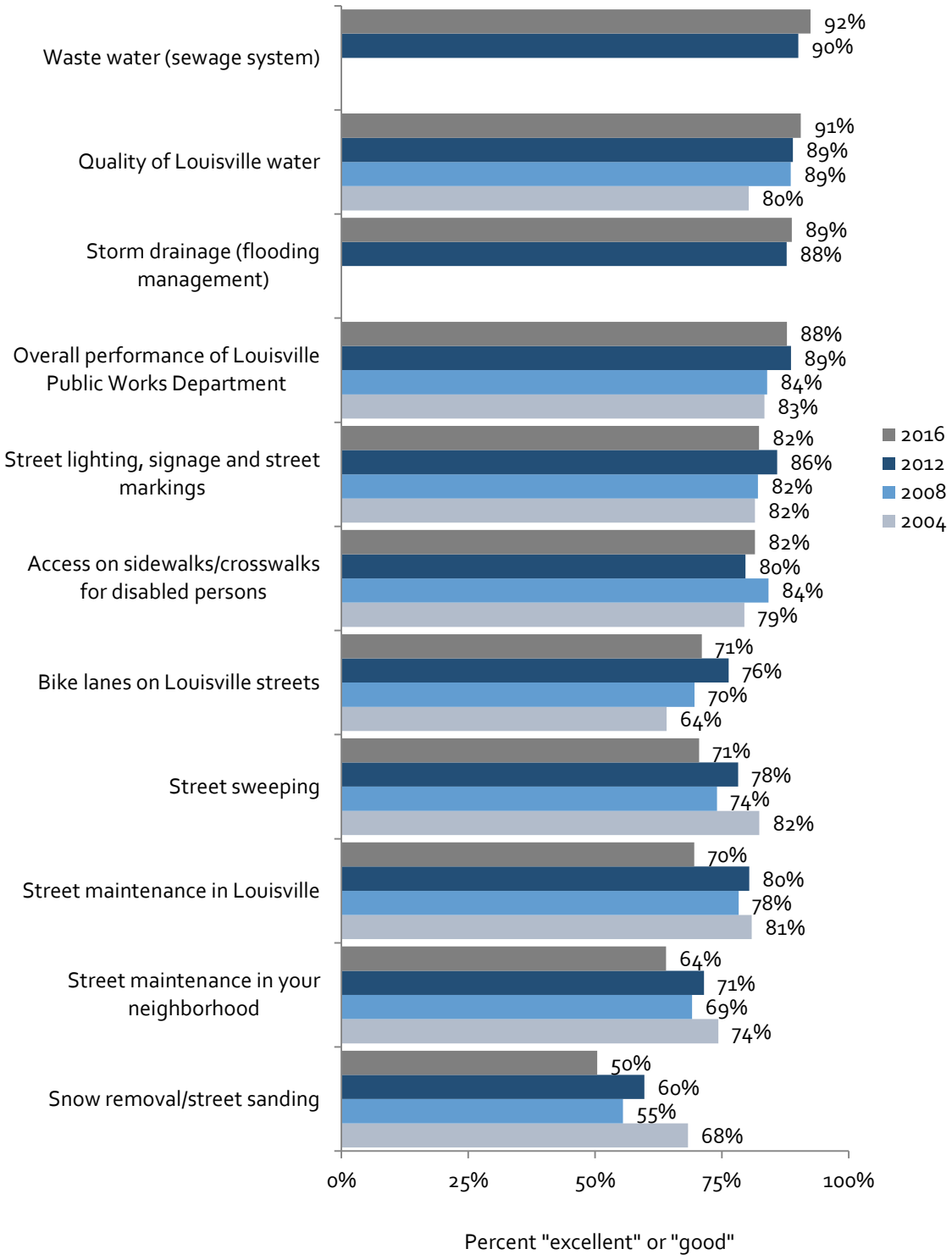
Figure 13: Ratings for Public Works Department Compared by Year

Please circle the number that comes closest to your opinion about the performance of the following areas of Louisville Public Works Department:



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City Employees

At least 8 in 10 Louisville residents gave favorable scores to their interactions with City employees, including the employees' courtesy, knowledge, availability, responsiveness/promptness and their overall impression of the employee they contacted. Compared to 2012 evaluations, only the responsiveness/promptness of employees decreased in 2016, while all other ratings remained similar. However, this could be due, in part, to changes in question wording from 2012 to 2016.

About 4 in 10 respondents selected "don't know" when asked to evaluate the characteristics of City employees (see *Appendix A: Complete Set of Frequencies*) for a full set of responses, including "don't know"). However, it is likely that a large proportion of those selecting "don't know" did not have contact with a City employee.

While ratings for the availability of City employees could not be compared to the benchmarks, almost all other evaluation of employee characteristics were higher or much higher than comparisons to both the nation and Front Range. Ratings for the courtesy of Louisville employees were similar to other jurisdictions in the Front Range (see *Appendix D: Benchmark Comparisons)*.

A few differences were seen in ratings of employee characteristics by respondent demographics. Females and households with older adults were more likely to give positive assessments to the courtesy of the employee with whom they interacted than did males and households without older adults. Households with children and homeowners tended to give lower ratings to the availability of the employee in their most recent contact than did their counterparts. Ward 3 residents were more likely to give favorable reviews to the employee's knowledge and courtesy than were those living in other wards (see *Appendix B: Comparison of Responses by Respondent Demographics*).

Figure 14: Ratings for the Louisville Employees Compared by Year

If you have had any email, in-person or phone contact with a City of Louisville employee in the last 12 months, what was your impression of the employee in your most recent contact? (Percent excellent or good.)	2016	2012	2008	2004
Courtesy	90%	92%	86%	88%
Knowledge	89%	92%	89%	88%
Overall impression	85%	89%	84%	87%
Availability	84%	NA	NA	NA
Responsiveness/promptness	83%	89%	84%	86%

In 2016, a question asking if respondents had contact with a City employee in the 12 months prior the survey preceded this question. Therefore, ratings of employee characteristics were asked only of those who had contact. The wording for this question in 2012 was "What was your impression of the employee in your most recent contact?" In 2012, the item "responsiveness/promptness" was worded "responsiveness."

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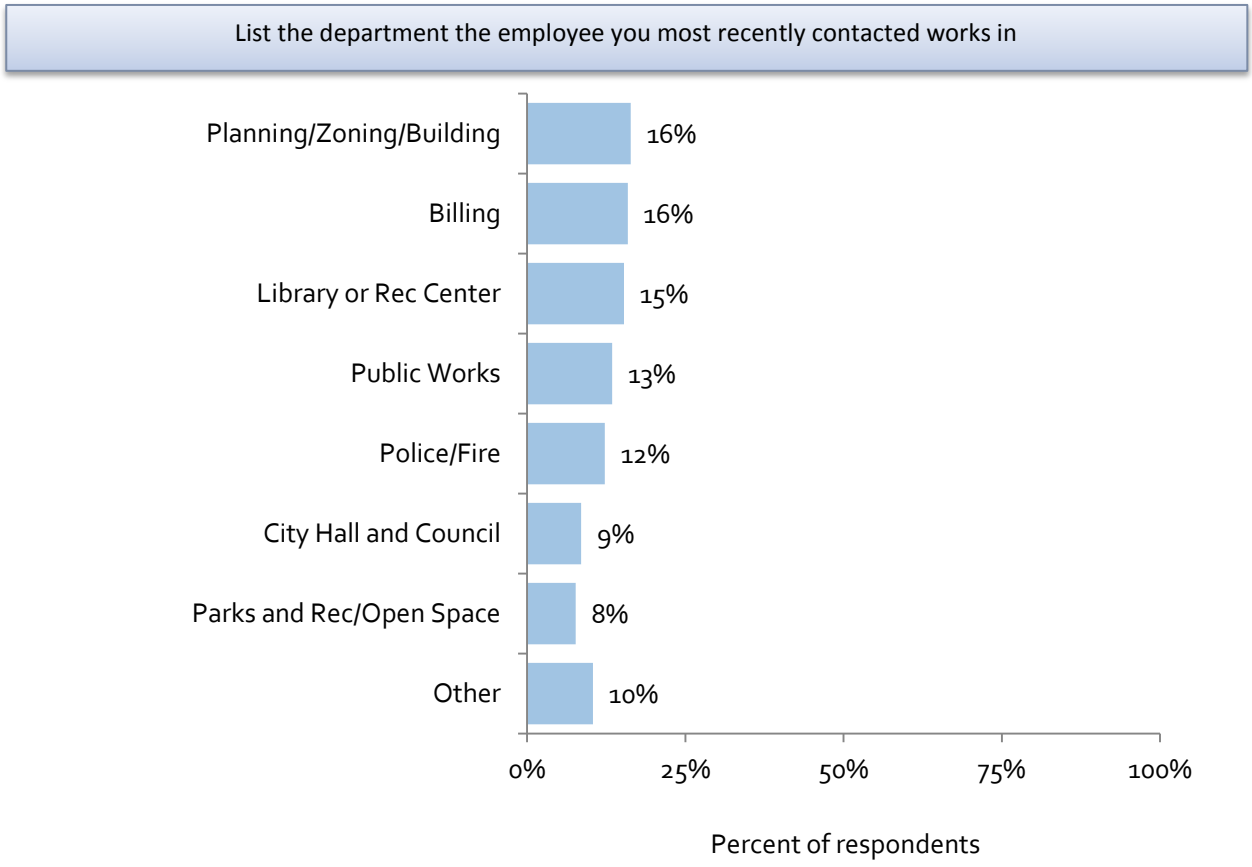
Residents who had reported they had contacted a City of Louisville employee were asked to write in their own words the department with which they had contact. Responses were grouped into themes and categorized. The most frequently contacted departments as reported by respondents were planning/zoning/building, billing, the library or recreation center and public works. About 12% had contacted the police or fire department, while less than 1 in 10 had interacted with City Hall and Council or the parks and recreation/open space department. A list of the "other" departments contacted can be found in *Appendix C: Verbatim Responses to Open-ended Survey Questions*.

Figure 15: Department Contacted



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Information Sources

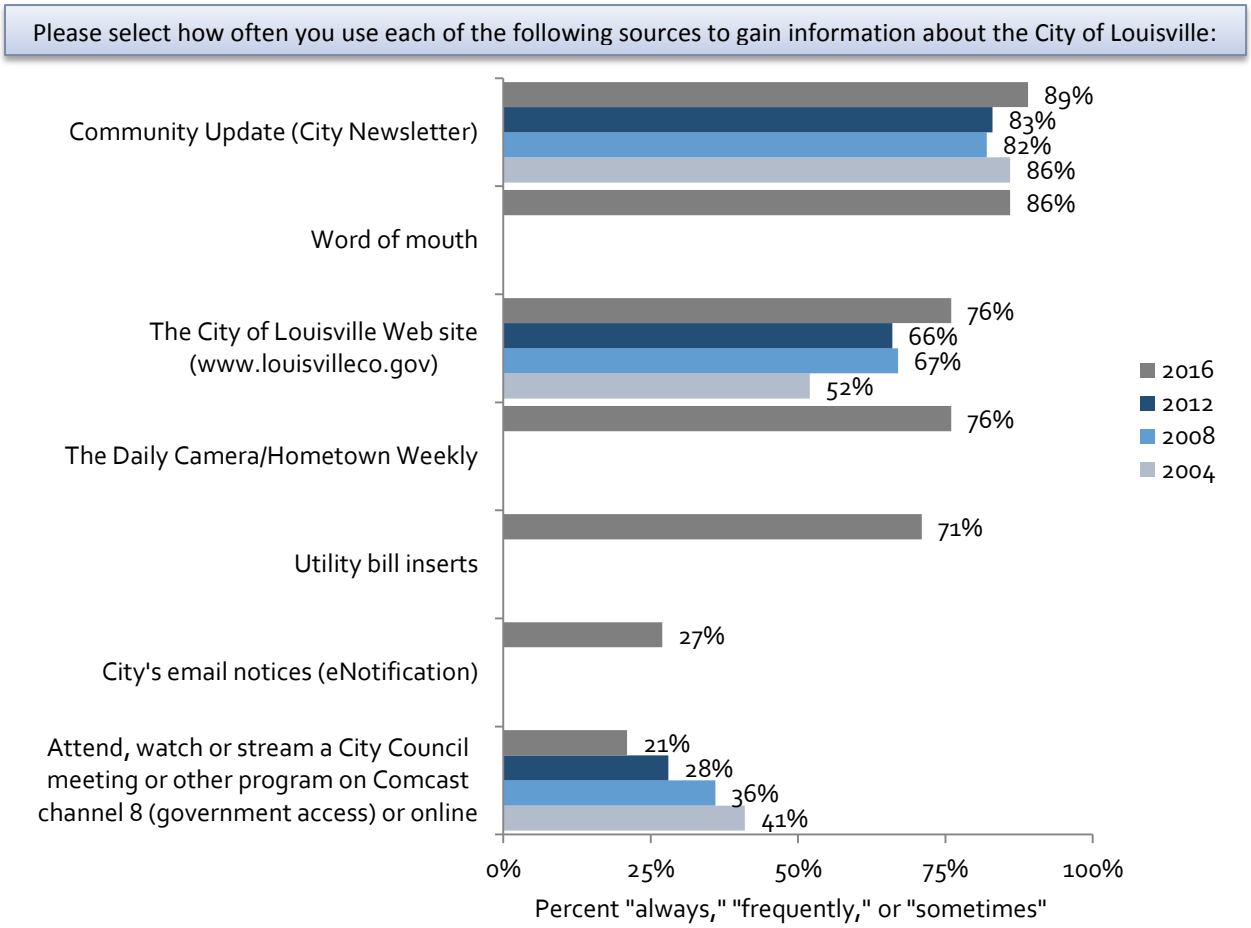
Frequency of Use

Survey respondents were asked how frequently they used a variety of sources to gain information about the City of Louisville. Almost 9 in 10 reported they used *Community Update*, the City newsletter, at least sometimes and 8 in 10 relied on word of mouth. At least 7 in 10 had accessed the City's website, the *Daily Camera/Hometown Weekly* or utility inserts to gain information. One-quarter or less reported that they sometimes, frequently or always used the Louisville's email notices or attended, watched or streamed a City Council meeting.

Fewer residents reported using City Council meetings on Channel 8 or online to get City information in 2016 than in 2012, but more residents indicated they had used the City's website or *Community Update* to gain information in 2016 than in 2012.

Use of information sources varied by respondent subgroups. Overall, use of the various sources for information about the City was higher as age increased, among homeowners, those who lived in detached housing units, those who had lived in the city for a longer period of time and households with older adults. Respondents from Ward 2 were more likely to have used each source than were those in Wards 1 and 3 (see *Appendix B: Comparison of Responses by Respondent Demographics).*

Figure 16: Frequency of Use of Information Sources Compared by Year



In 2016, the wording "streaming through the City's website" was added to "Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access). In 2012, "The Daily Camera/Hometown Weekly" was separated into two items.

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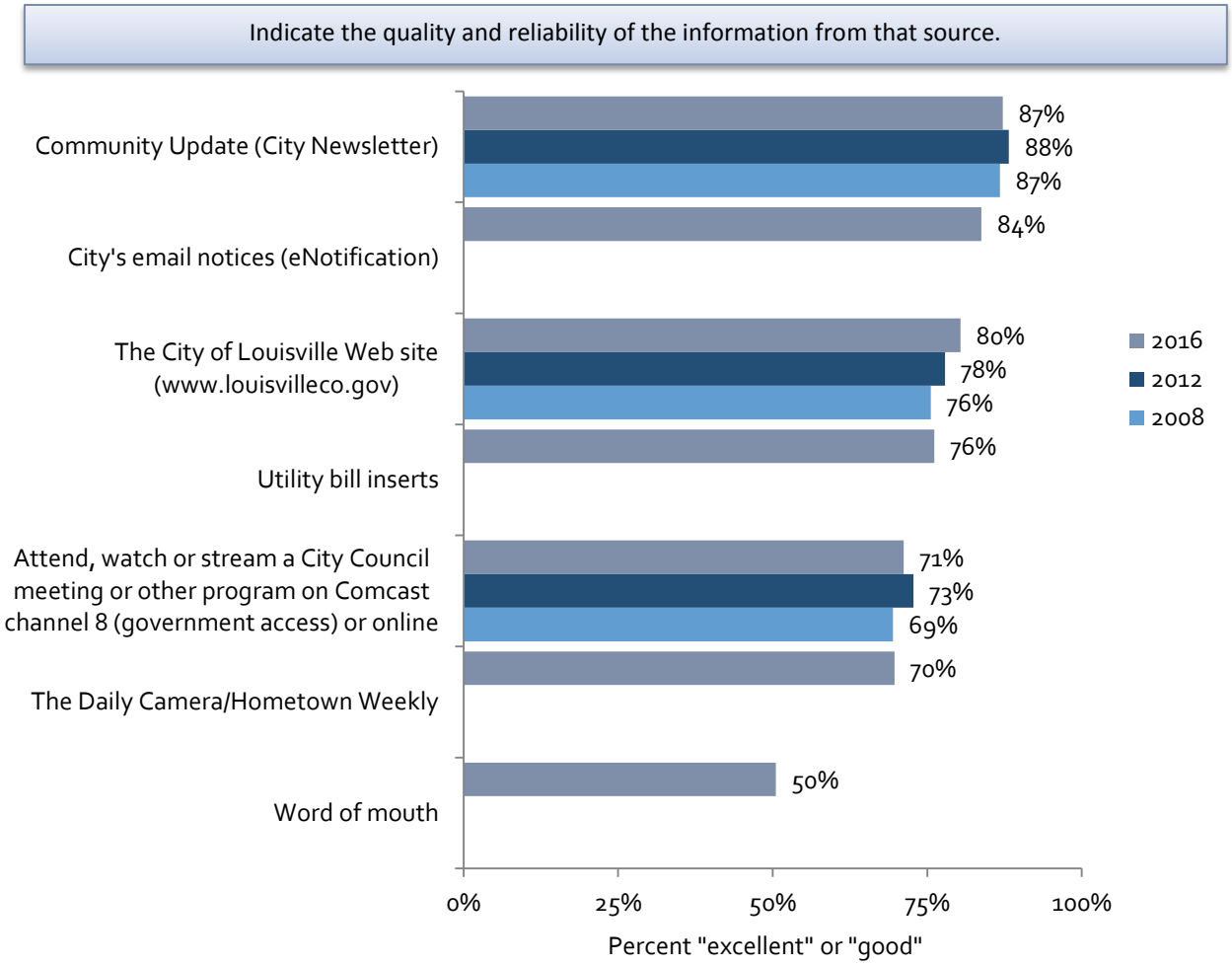
Quality and Reliability

Respondents were also asked to rate the quality and reliability of the information from each source. The City newsletter, *Community Update*, was thought to be an excellent or good source of information about the City by 87% and about 8 in 10 or more awarded high marks to the City's email notices and website. Only about half of residents rated word of mouth as at least good in terms or quality and reliability. All ratings for these items were similar to 2012 evaluations.

When evaluating the quality of the various information sources, at least 7 in 10 residents selected "don't know" for attending, watching or streaming a City Council meeting on Channel 8 and City email notices (see *Appendix A: Complete Set of Frequencies* for a full set of responses, including "don't know"). However, it is likely that a large proportion of those selecting "don't know" do not use the source to get information about the City.

Figure 17: Quality and Reliability of Information Sources Compared by Year



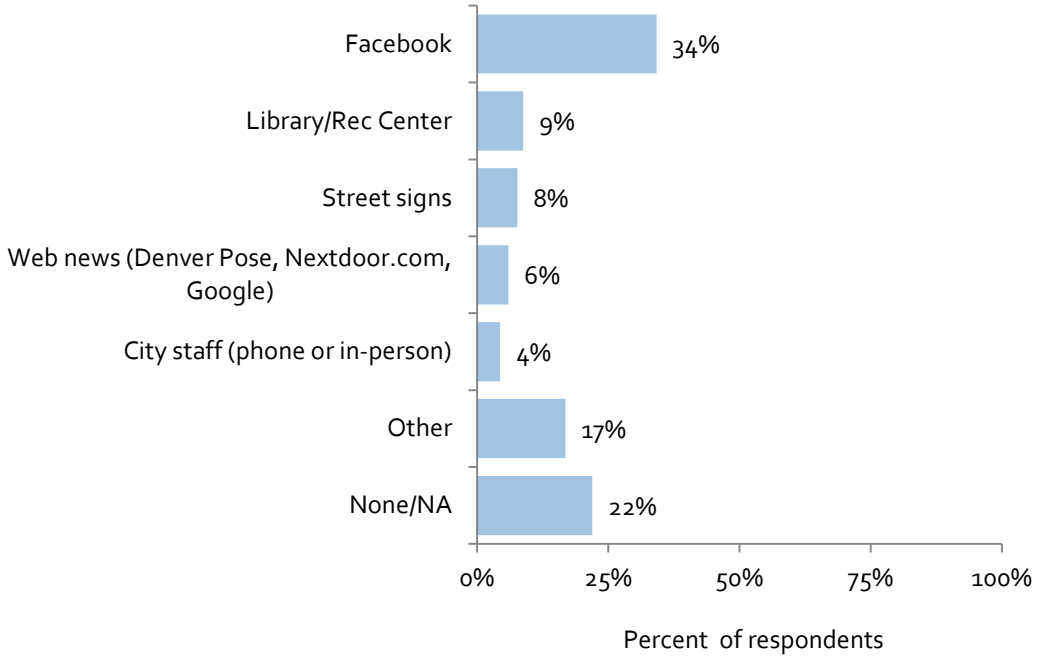
In 2016, the wording "streaming through the City's website" was added to "Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access). In 2012, "The Daily Camera/Hometown Weekly" was separated into two items.

Prepared by National Research Center, Inc.

When asked to write in any other sources of information they used to gain information about the City, about one-third of those providing a response reported that they used Facebook, while less than 1 in 10 utilized other sources (all responses to open-ended questions can be found in *Appendix C: Verbatim Responses to Open-ended Survey Questions*).

Figure 18: Other Information Sources

What sources, other than those listed above, would you or do you use to get information about the City of Louisville?



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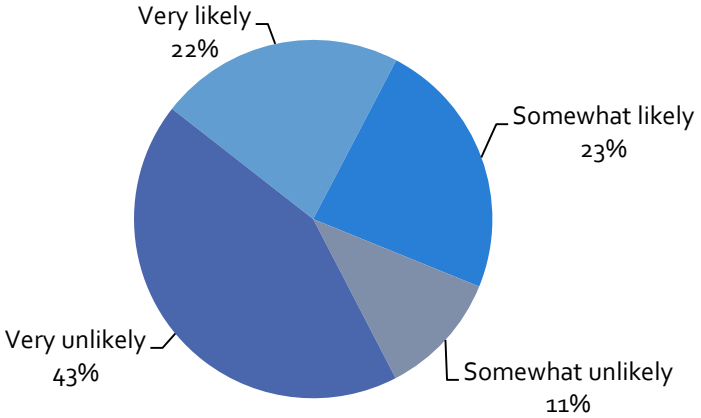
Social Media Use

On the 2016 survey, participants were asked how likely they would be to use social media to look for official City information. About half of resident indicated they would be at least somewhat likely to use Facebook, Twitter or Instagram to gain information; 4 in 10 reported being very unlikely.

The likelihood of use of social media websites to look for official City information decreased as age increased. Females, renters, residents with a shorter tenure in the city (five years or less), households with three or four members, households with children and households without older adults were more likely to say they would look for City information on social media websites (see *Appendix B: Comparison of Responses by Respondent Demographics*).

Figure 19: Likelihood of Social Media Use

How likely, if at all, would you be to look for official City information on social media websites (e.g., Facebook, Twitter, Instagram, etc.) if the City were to increase its presence or activity?



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Resident Participation

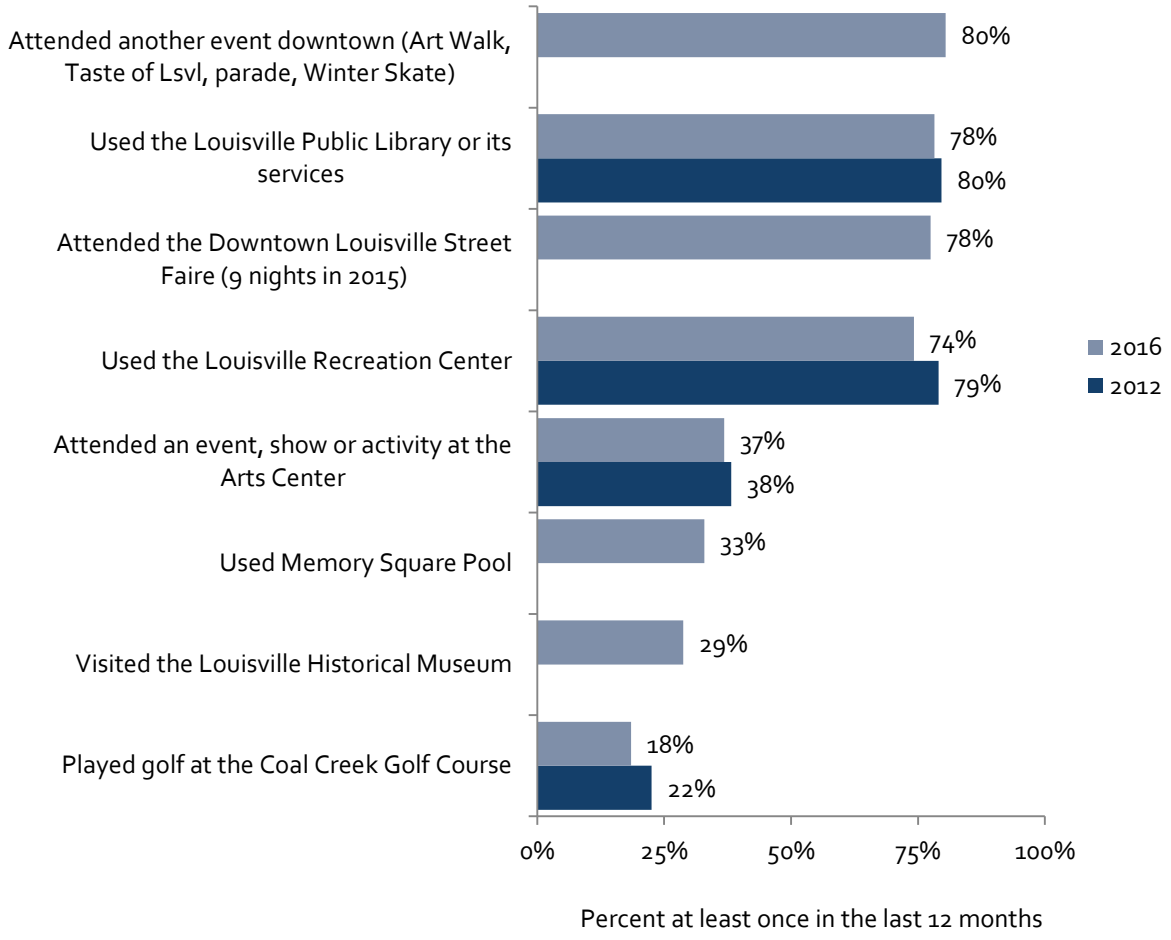
Survey respondents were active in their community, with at least three-quarter saying that they had attended an event downtown (such as Art Walk, Taste of Louisville or a parade), used the public library or its services and attended the Downtown Louisville Street Faire. About one-third or less had attended an event, show or activity at the Arts Center, used Memory Square Pool, visited the Historical Museum or played golf at the golf course at least once in the past 12 months prior to the survey. These rates of participation were similar to rates reported in 2012.

When comparing rates of resident participation, Louisville residents reported much higher use of the public library and the recreation center compared to residents across the nation and the Front Range.

Overall, those 35 to 54, homeowners, households with five or more members, households with children, and those who had lived in the community for 11 to 15 years participated at higher rates than did their counterparts. Residents living in Ward 2 were more likely to use the recreation center, while residents living in Ward 1 were least likely (see *Appendix B: Comparison of Responses by Respondent Demographics*).

Figure 20: Resident Participation in Louisville Activities Compared by Year

In the last 12 months, about how many times, if ever, have you or other household members participated in the following activities in Louisville?



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Planning and Policy Topics

Funding Priorities

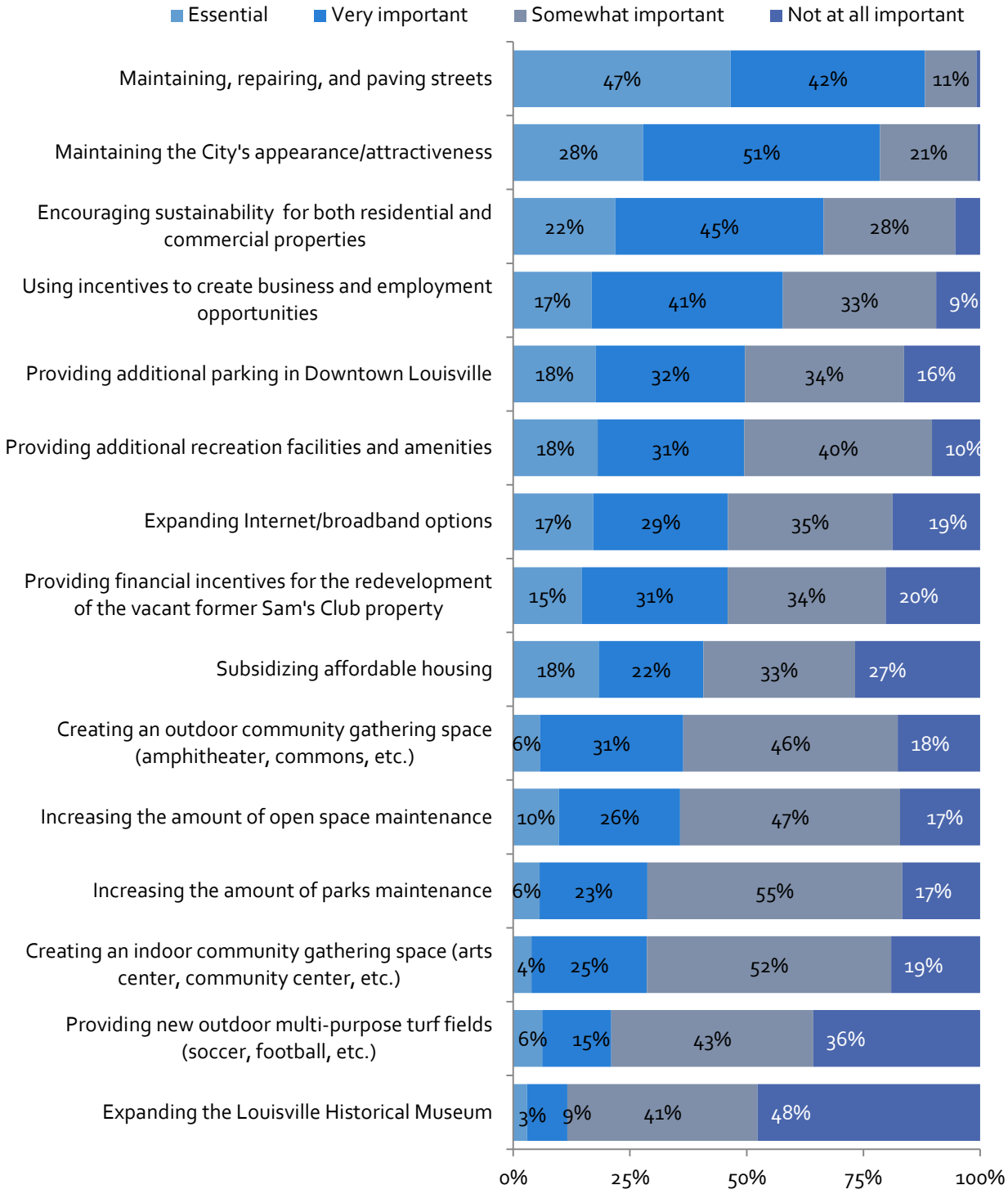
To help the City prioritize potential projects, in 2016, residents were asked to rate the importance of funding several projects in Louisville (see the figure on the following page). About 9 in 10 indicated that maintaining, repairing and paving streets was essential or very important, while 8 in 10 prioritized maintaining the City's appearance/attractiveness. Two-thirds of participants rated encouraging sustainability as a priority for the City. Less than 2 in 10 thought that providing new outdoor multi-purpose turf fields or expanding the Historical Museum were essential or very important priorities. About half of respondents said that expanding the Historical Museum was not at all important.

The importance of the various funding priorities varied by respondent demographic characteristics and Ward of residence. Older residents (55 or older), those who had lived in the city for more than 15 years, smaller households (1-2 members), households without children and households with older adults were more likely to indicate that additional parking Downtown was essential or very important. Middle-aged residents (35-54), females, homeowners, those living in detached units, larger households and households with children were more likely to feel that providing additional recreation facilities and amenities was a priority for the city. Ward 3 residents tended to give higher importance ratings to outdoor community gathering spaces, incentives to create businesses and employment opportunities, providing financial incentives for redevelopment of the former Sam's Club and subsidizing affordable housing than residents from other wards (see *Appendix B: Comparison of Responses by Respondent Demographics* for more information).

Prepared by National Research Center, Inc.

Figure 21: City Funding Priorities

Beyond basic City services (police, water, sewer, etc.), the City has limited resources and must make hard decisions about funding priorities. Indicate how important to you each of the following areas are as the City considers residents' current and future needs.



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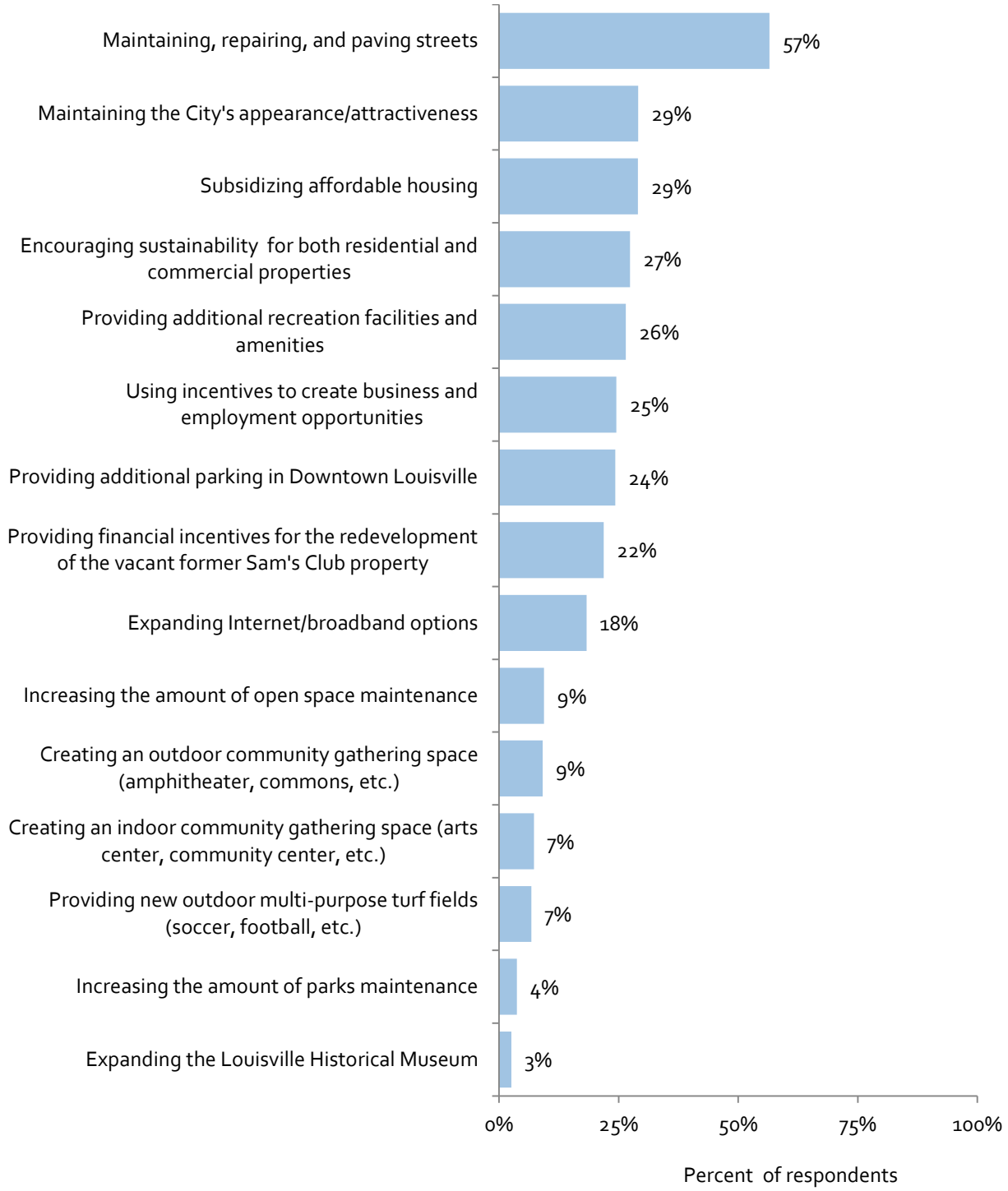
In addition to rating the importance of each potential priority, respondents were asked to select their top three from the list of 15 projects provided. Of all of the potential projects for the City of Louisville to fund, maintaining, repairing and paving streets was indicated to be one of respondents' top three priorities by almost 6 in 10 residents, while about one-quarter or more chose maintaining the City's appearance/attractiveness, subsidizing affordable housing, encouraging sustainability, providing additional recreation facilities and amenities and using incentives to create business and employment opportunities.

Figure 22: Top Three City Funding Priorities



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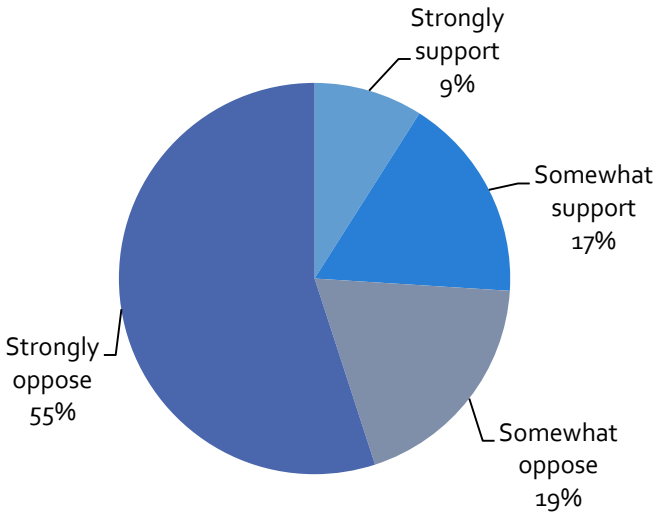
Changes to Trash Service

Residents of Louisville were also asked to indicate their level of support for decreasing the frequency of trash pickup from once a week to once every two weeks while increasing the frequency of compost pickup from every two weeks to once a week. Over half of respondents indicated they were strongly opposed to decreasing trash service and only one-quarter of participant strongly or somewhat supported the change.

Respondents who were most likely to support the changes to the City's trash service were female, renters, those living in attached units, households with one or two members, households without children and Ward 3 residents (see *Appendix B: Comparison of Responses by Respondent Demographics*).

Figure 23: Level of Support for Decreasing Frequency of Trash Pick-up

Currently, the City's trash service (through Western Disposal) provides once per week trash pickup and compost and recycling pickup every two weeks. To what extent would you support or oppose changing the service to once per week compost pickup and trash pickup every two weeks (leaving recycling pickup every two weeks)?



Prepared by National Research Center, Inc.

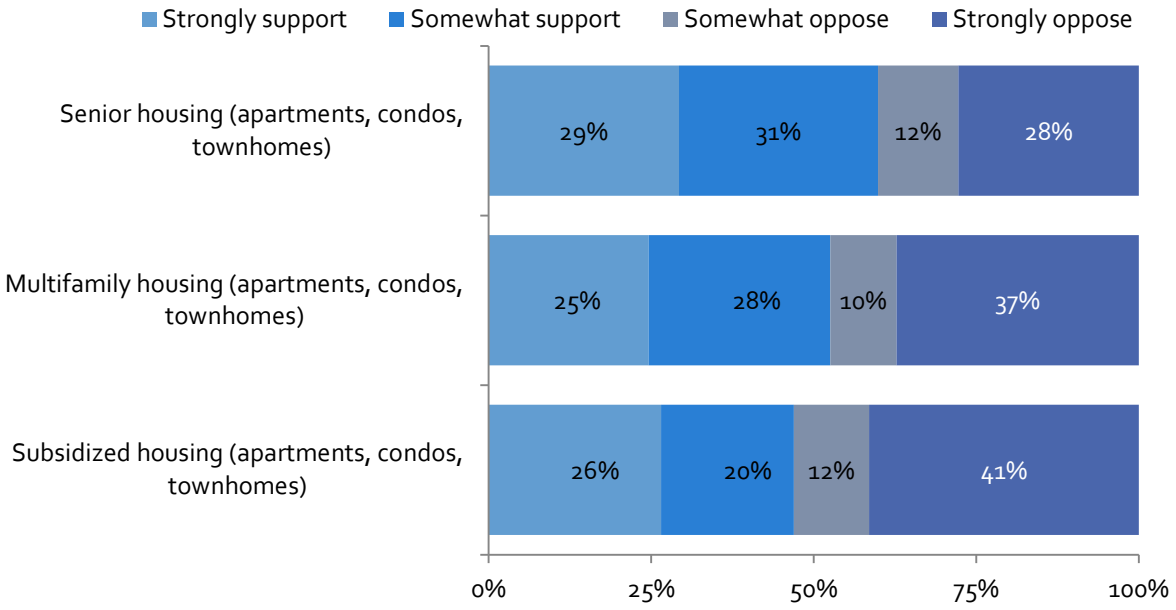
Priorities for Redevelopment

Louisville residents were asked to rate their level of support for or opposition to rezoning the former Sam's Club for different types of residential housing. Six in 10 indicated they would strongly or somewhat support senior housing and about half would support subsidized or multifamily housing; however, about 4 in 10 were strongly opposed to subsidized or multifamily housing options.

Levels of support for the various types of housing at the former Sam's Club site differed by respondent characteristics. Younger residents (18-34), renters, shorter-term residents, households with fewer members and those without children were more supportive of including multifamily and subsidized housing at the former Sam's Club site than were their counterparts. Older residents (55 or older), females, those living in attached units, households with one or two members, households with children and those with older adults were more in favor of including senior housing at the former Sam's Club. No differences were observed by ward (see *Appendix B: Comparison of Responses by Respondent Demographics*).

Figure 24: Level of Support for Housing Options for Former Sam's Club Area

Most of the land zoned for residential uses in Louisville has been built out. In the former Sam's Club shopping area residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing?



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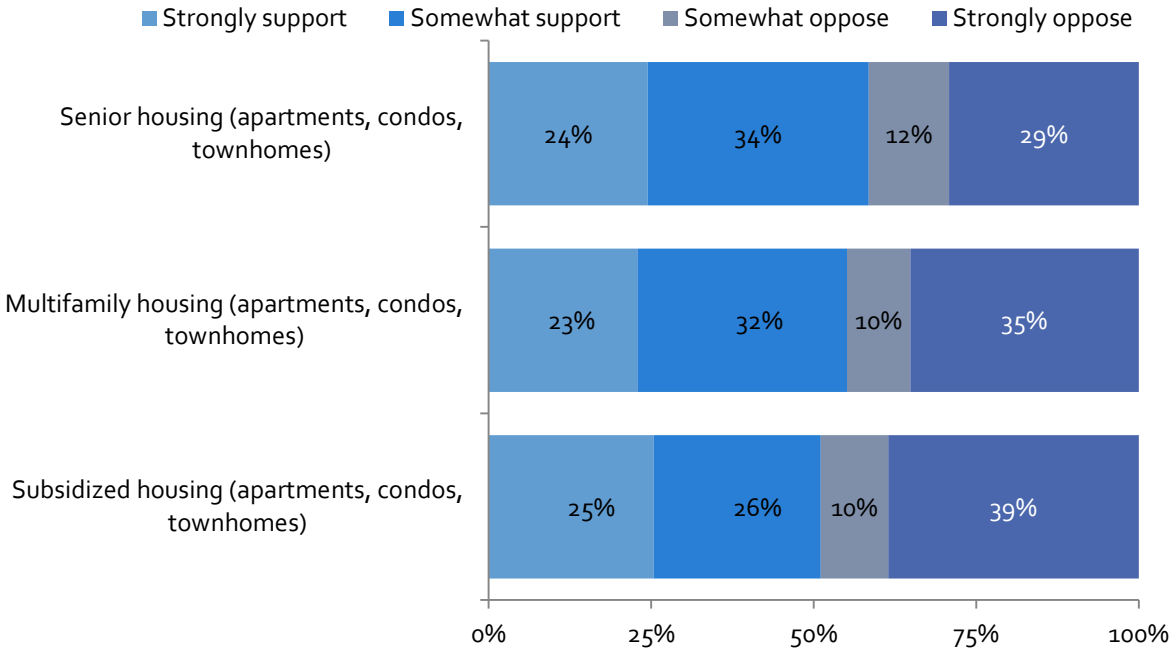
Respondents were also asked if they would support or oppose different housing types in the US36/McCaslin area. The largest amount of support was for senior housing in the US36/McCaslin area, with 58% saying they would strongly or somewhat support this type of housing, followed by multifamily housing (55%). However, about one-quarter of residents voiced strongly support senior, subsidized or multifamily housing near the transit/bus station, but about one-third were strongly opposed to each of the three housing options.

The respondent subgroups that were more supportive of including the various types of housing at the former Sam's Club site also were supportive of the same types of development at the US 36/McCaslin transit station (see *Appendix B: Comparison of Responses by Respondent Demographics).*

Figure 25: Level of Support for Housing Options for US36/McCaslin Area

In the area near the US36/McCaslin transit/bus station residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing?



Prepared by National Research Center, Inc.

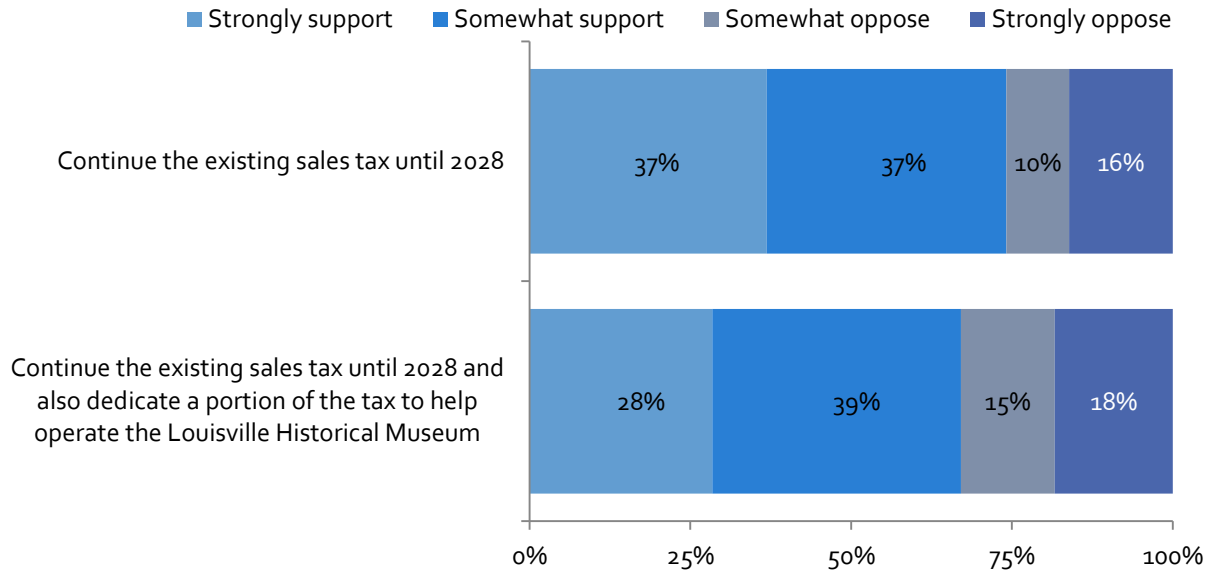
Historic Preservation Tax Extension

Survey participants were asked if they would support extending the Historic Preservation Tax for another 10 years, which is set to expire in 2018. Over one-third strongly supported continuing the sales tax until 2028 and another 37% would somewhat support the measure; less than 2 in 10 strongly opposed it. Similarly, over two-thirds of respondents would at least somewhat support extending the tax and dedicating a portion of the proceeds for operation costs for the Louisville Historical Museum; only 2 in 10 were strongly opposed to this option.

Female residents, renters and households with fewer members were more likely to support the continuation of the existing historic preservation tax and the continuing the tax while dedicating a portion of it to help operate the museum (see *Appendix B: Comparison of Responses by Respondent Demographics)*.

Figure 26: Level of Support for Historic Preservation Tax Options

The City of Louisville currently has a Historic Preservation Tax, which is a dedicated sales tax (0.125 cents on every dollar spent). Revenue from this tax is used to help property owners rehabilitate and preserve historic landmarks which contribute to the character of Historic Old Town Louisville. This tax was approved by voters in 2008 and is set to expire in 2018. To what extent would you support or oppose each of the following options to continue the tax?



Prepared by National Research Center, Inc.

Appendix A: Complete Set of Frequencies

Frequencies Excluding "Don't Know" Responses

The following pages contain a complete set of responses to each question on the survey excluding the "don't know" responses.

Table 1: Question 1

Please circle the number that comes closest to your opinion about the quality of life in Louisville:	Excellent		Good		Fair		Poor		Total	
How do you rate Louisville as a place to live?	69%	N=544	28%	N=222	2%	N=19	0%	N=1	100%	N=785
How do you rate Louisville as a place to raise children?	75%	N=495	22%	N=146	2%	N=15	0%	N=1	100%	N=657
How do you rate Louisville as a place to retire?	43%	N=242	36%	N=201	17%	N=96	4%	N=25	100%	N=565
How do you rate Louisville as a place to work?	36%	N=179	40%	N=200	20%	N=98	5%	N=24	100%	N=501
How do you rate the overall quality of life in Louisville?	60%	N=466	37%	N=285	3%	N=25	0%	N=1	100%	N=777

Table 2: Question 2

Please rate Louisville as a community on each of the items listed below:	Excellent		Good		Fair		Poor		Total	
Sense of community	42%	N=322	45%	N=346	12%	N=89	2%	N=12	100%	N=769
Openness and acceptance of the community towards people of diverse backgrounds	25%	N=174	45%	N=312	24%	N=167	5%	N=36	100%	N=689
Overall appearance of Louisville	34%	N=263	56%	N=439	9%	N=71	1%	N=7	100%	N=780
Opportunities to attend cultural activities	20%	N=150	47%	N=345	26%	N=192	6%	N=46	100%	N=733
Shopping opportunities	12%	N=95	45%	N=351	35%	N=274	7%	N=55	100%	N=774
Opportunities to participate in special events and community activities	36%	N=269	51%	N=381	11%	N=83	2%	N=14	100%	N=747
Opportunities to participate in community matters	32%	N=227	52%	N=369	14%	N=103	2%	N=13	100%	N=712
Recreational opportunities	41%	N=313	44%	N=339	13%	N=101	2%	N=19	100%	N=772
Employment opportunities	10%	N=49	31%	N=155	45%	N=224	14%	N=71	100%	N=499
Variety of housing options	9%	N=65	33%	N=239	38%	N=277	20%	N=144	100%	N=726
Availability of affordable quality housing	4%	N=27	13%	N=89	36%	N=242	47%	N=319	100%	N=677
Ease of car travel in Louisville	30%	N=237	52%	N=404	14%	N=112	3%	N=25	100%	N=778
Ease of bus travel in Louisville	20%	N=99	40%	N=202	29%	N=147	12%	N=59	100%	N=507

Prepared by National Research Center, Inc.

Please rate Louisville as a community on each of the items listed below:	Excellent		Good		Fair		Poor		Total	
Ease of bicycle travel in Louisville	46%	N=323	44%	N=307	9%	N=64	1%	N=10	100%	N=705
Ease of walking in Louisville	50%	N=387	41%	N=317	7%	N=57	2%	N=12	100%	N=773
Traffic flow on major streets	20%	N=156	49%	N=383	25%	N=197	6%	N=48	100%	N=784
Quality of overall natural environment in Louisville	35%	N=274	55%	N=425	9%	N=70	1%	N=7	100%	N=777
Overall image or reputation of Louisville	61%	N=476	35%	N=269	4%	N=31	0%	N=1	100%	N=777

Table 3: Question 3

Please rate how safe you feel:	Very safe		Somewhat safe		Neither safe nor unsafe		Somewhat unsafe		Very unsafe		Total	
From violent crime (e.g., rape, assault, robbery)	81%	N=636	16%	N=128	2%	N=14	0%	N=4	0%	N=2	100%	N=783
From property crimes (e.g., burglary, theft)	43%	N=339	44%	N=348	8%	N=59	4%	N=29	1%	N=7	100%	N=782
In your neighborhood during the day	86%	N=671	12%	N=94	2%	N=14	0%	N=2	0%	N=2	100%	N=784
In your neighborhood after dark	63%	N=493	30%	N=237	5%	N=35	2%	N=13	0%	N=2	100%	N=780
In Louisville's downtown area during the day	89%	N=688	10%	N=80	1%	N=4	0%	N=0	0%	N=2	100%	N=774
In Louisville's downtown area after dark	65%	N=478	29%	N=214	6%	N=41	1%	N=6	0%	N=1	100%	N=740
In Louisville's parks during the day	85%	N=648	14%	N=106	1%	N=9	0%	N=0	1%	N=4	100%	N=766
In Louisville's parks after dark	42%	N=276	41%	N=271	12%	N=78	4%	N=28	1%	N=3	100%	N=657

Prepared by National Research Center, Inc.

Table 4: Question 4

Please circle the number that comes closest to your opinion about the performance of the following areas of the City of Louisville Administration:	Excellent		Good		Fair		Poor		Total	
City response to citizen complaints or concerns	20%	N=89	47%	N=210	25%	N=109	8%	N=35	100%	N=444
Information about City Council, Planning Commission and other official City meetings	24%	N=151	56%	N=356	16%	N=101	4%	N=26	100%	N=634
Information about City plans and programs	22%	N=147	53%	N=354	19%	N=126	6%	N=42	100%	N=668
Availability of City Employees	25%	N=107	50%	N=215	22%	N=93	4%	N=17	100%	N=432
Programming on Louisville cable TV, municipal channel 8	15%	N=25	42%	N=72	32%	N=55	12%	N=20	100%	N=172
Louisville Web site (www.louisvilleco.gov)	17%	N=95	61%	N=340	18%	N=101	4%	N=24	100%	N=559
Overall performance of Louisville City government	14%	N=92	64%	N=425	20%	N=130	2%	N=12	100%	N=659

Table 5: Question 5

Please circle the number that comes closest to your opinion about the following areas related to the Louisville Police Department:	Excellent		Good		Fair		Poor		Total	
Visibility of patrol cars	40%	N=303	49%	N=373	8%	N=60	3%	N=24	100%	N=759
911 service	56%	N=178	37%	N=117	6%	N=19	1%	N=2	100%	N=315
Enforcement of traffic regulations	29%	N=179	50%	N=306	16%	N=101	5%	N=30	100%	N=616
Municipal code enforcement issues (dogs, noise, weeds, etc.)	21%	N=117	47%	N=260	23%	N=126	10%	N=55	100%	N=557
Overall performance of the Louisville Police Department	38%	N=268	52%	N=366	8%	N=57	1%	N=10	100%	N=701

Prepared by National Research Center, Inc.

Table 6: Question 6

Please circle the number that comes closest to your opinion about the following areas of Louisville Planning and Building Safety Department:	Excellent		Good		Fair		Poor		Total	
The public input process on City planning issues	21%	N=99	50%	N=230	23%	N=108	6%	N=26	100%	N=462
Planning review process for new development	19%	N=76	44%	N=179	24%	N=99	13%	N=54	100%	N=407
Overall performance of the Louisville Planning Department	16%	N=68	47%	N=199	25%	N=108	12%	N=50	100%	N=426
Building permit process	18%	N=53	43%	N=127	28%	N=84	11%	N=34	100%	N=298
Building/construction inspection process	20%	N=58	45%	N=133	26%	N=75	10%	N=29	100%	N=295

Table 7: Question 7

Please circle the number that comes closest to your opinion about the following areas of the Louisville Parks and Recreation Department:	Excellent		Good		Fair		Poor		Total	
Current recreation programs for youth	31%	N=145	54%	N=251	13%	N=59	2%	N=11	100%	N=467
Current recreation programs for adults	25%	N=142	51%	N=289	20%	N=113	3%	N=19	100%	N=563
Current programs and services for seniors	36%	N=130	51%	N=183	11%	N=39	2%	N=6	100%	N=358
Recreation fees in Louisville	26%	N=163	49%	N=303	21%	N=130	4%	N=25	100%	N=621
Overall quality of the Louisville Recreation Center	19%	N=127	47%	N=308	27%	N=176	6%	N=41	100%	N=652
Overall quality of the Louisville Senior Center	29%	N=77	51%	N=135	16%	N=43	3%	N=8	100%	N=264
Overall quality of the Coal Creek Golf Course	22%	N=63	57%	N=162	17%	N=49	3%	N=8	100%	N=281
Maintenance and cleanliness of the Louisville Recreation Center	32%	N=204	51%	N=320	15%	N=91	2%	N=14	100%	N=629
Adequacy of parks, bike paths, playing fields and playgrounds	44%	N=329	47%	N=350	8%	N=56	1%	N=7	100%	N=743
Maintenance of parks (e.g., landscaping, turf areas, playgrounds, picnic areas, etc.)	41%	N=305	49%	N=367	8%	N=60	1%	N=11	100%	N=744
Maintenance of open space	40%	N=298	47%	N=346	10%	N=77	3%	N=19	100%	N=739
Maintenance of the trail system	44%	N=319	46%	N=336	9%	N=64	1%	N=7	100%	N=725
Maintenance of medians and street landscaping	29%	N=221	55%	N=413	14%	N=104	3%	N=19	100%	N=757
Overall performance of the Louisville Parks and Recreation Department	33%	N=246	56%	N=422	10%	N=76	1%	N=9	100%	N=753

Prepared by National Research Center, Inc.

Table 8: Question 8

Please circle the number that comes closest to your opinion about the Louisville Public Library and Historical Museum and their services:	Excellent		Good		Fair		Poor		Total	
Louisville Public Library programs (e.g., story time, One Book program, etc.)	59%	N=247	39%	N=164	2%	N=10	0%	N=0	100%	N=420
Services at the Louisville Public Library (e.g., reference desk check out, etc.)	64%	N=363	34%	N=192	2%	N=13	0%	N=2	100%	N=569
Internet and computer services at the Louisville Public Library	44%	N=178	48%	N=192	8%	N=30	0%	N=1	100%	N=401
Louisville Public Library services online at www.louisville-library.org accessed from home or elsewhere (e.g., book holds, access databases, research, etc.)	55%	N=251	38%	N=173	7%	N=33	0%	N=0	100%	N=457
Louisville Public Library materials and collections	33%	N=181	51%	N=278	14%	N=79	1%	N=5	100%	N=544
Louisville Public Library building	63%	N=380	35%	N=212	3%	N=16	0%	N=0	100%	N=607
Overall performance of the Louisville Public Library	56%	N=325	40%	N=232	3%	N=19	0%	N=1	100%	N=577
Louisville Historical Museum programs (e.g., lectures, walking tours, newsletters)	40%	N=109	49%	N=132	10%	N=26	1%	N=2	100%	N=269
Louisville Historical Museum campus	37%	N=102	51%	N=141	11%	N=29	1%	N=3	100%	N=275
Overall performance of the Louisville Historical Museum	41%	N=117	48%	N=139	11%	N=31	0%	N=1	100%	N=288

Prepared by National Research Center, Inc.

Table 9: Question 9

Please circle the number that comes closest to your opinion about the performance of the following areas of Louisville Public Works Department:	Excellent		Good		Fair		Poor		Total	
Street maintenance in your neighborhood	17%	N=132	47%	N=354	26%	N=200	10%	N=72	100%	N=758
Street maintenance in Louisville	16%	N=120	54%	N=405	25%	N=188	6%	N=42	100%	N=754
Street sweeping	17%	N=121	53%	N=369	24%	N=164	6%	N=41	100%	N=694
Snow removal/street sanding	12%	N=90	38%	N=290	31%	N=237	18%	N=137	100%	N=754
Street lighting, signage and street markings	22%	N=162	61%	N=457	16%	N=118	2%	N=14	100%	N=752
Waste water (sewage system)	29%	N=187	63%	N=398	7%	N=42	1%	N=6	100%	N=632
Storm drainage (flooding management)	26%	N=171	63%	N=413	10%	N=67	1%	N=6	100%	N=657
Bike lanes on Louisville streets	22%	N=153	49%	N=345	25%	N=177	4%	N=26	100%	N=701
Access on sidewalks/crosswalks for disabled persons	24%	N=122	57%	N=290	15%	N=76	3%	N=17	100%	N=505
Quality of Louisville water	42%	N=312	48%	N=357	8%	N=56	2%	N=13	100%	N=738
Overall performance of Louisville Public Works Department	22%	N=162	66%	N=487	12%	N=86	1%	N=4	100%	N=738

Table 10: Question 10

Overall, how do you rate the quality of services provided by the City of Louisville?	Excellent		Good		Fair		Poor		Total	
Overall, how do you rate the quality of services provided by the City of Louisville?	29%	N=213	64%	N=476	6%	N=45	1%	N=5	100%	N=739

Table 11: Question 11

If you have had any email, in-person or phone contact with a City of Louisville employee in the last 12 months, what was your impression of the employee in your most recent contact? (Rate each characteristic below.)	Excellent		Good		Fair		Poor		Total	
Knowledge	46%	N=180	43%	N=170	6%	N=24	5%	N=21	100%	N=395
Responsiveness/promptness	47%	N=188	36%	N=142	9%	N=37	8%	N=30	100%	N=397
Availability	47%	N=187	37%	N=144	9%	N=34	7%	N=28	100%	N=394
Courtesy	57%	N=226	33%	N=133	5%	N=21	5%	N=19	100%	N=399
Overall impression	49%	N=194	36%	N=145	9%	N=35	6%	N=23	100%	N=397

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Table 12: Question 11a

List the department the employee you most recently contacted works in	Percent	Number
City Hall and Council	9%	N=25
Library or Rec Center	15%	N=45
Billing	16%	N=47
Planning/Zoning/Building	16%	N=48
Parks and Rec/Open Space	8%	N=23
Police/Fire	12%	N=36
Public Works	13%	N=40
Other	10%	N=31
Total	100%	N=294

Table 13: Question 12

In the last 12 months, about how many times, if ever, have you or other household members participated in the following activities in Louisville?	Never		Once or twice		3 to 12 times		13 to 26 times		More than 26 times		Total	
Played golf at the Coal Creek Golf Course	82%	N=621	11%	N=81	5%	N=41	1%	N=8	1%	N=10	100%	N=762
Used the Louisville Public Library or its services	22%	N=166	15%	N=113	28%	N=213	18%	N=136	18%	N=136	100%	N=763
Used the Louisville Recreation Center	26%	N=197	16%	N=126	22%	N=164	13%	N=99	23%	N=177	100%	N=762
Used Memory Square Pool	67%	N=509	14%	N=107	13%	N=100	3%	N=24	2%	N=18	100%	N=760
Visited the Louisville Historical Museum	71%	N=541	23%	N=178	4%	N=31	1%	N=4	1%	N=6	100%	N=759
Attended the Downtown Louisville Street Faire (9 nights in 2015)	22%	N=171	35%	N=264	40%	N=307	1%	N=9	1%	N=10	100%	N=761
Attended an event, show or activity at the Arts Center	63%	N=482	28%	N=217	7%	N=54	0%	N=4	1%	N=6	100%	N=763
Attended another event downtown (Art Walk, Taste of Lsvl, parade, Winter Skate)	20%	N=149	37%	N=283	40%	N=303	3%	N=23	1%	N=5	100%	N=763

Prepared by National Research Center, Inc.

Table 14: Question 13

Beyond basic City services (police, water, sewer, etc.), the City has limited resources and must make hard decisions about funding priorities. Indicate how important to you each of the following areas are as the City considers residents' current and future needs.	Essential		Very important		Somewhat important		Not at all important		Total	
Maintaining, repairing, and paving streets	47%	N=349	42%	N=312	11%	N=83	1%	N=6	100%	N=750
Encouraging sustainability (in buildings, energy and water use, recycling, etc.) for both residential and commercial properties	22%	N=160	45%	N=327	28%	N=207	5%	N=39	100%	N=733
Creating an indoor community gathering space (arts center, community center, etc.)	4%	N=29	25%	N=181	52%	N=384	19%	N=140	100%	N=735
Creating an outdoor community gathering space (amphitheater, commons, etc.)	6%	N=42	31%	N=226	46%	N=338	18%	N=130	100%	N=735
Providing additional recreation facilities and amenities	18%	N=133	31%	N=230	40%	N=295	10%	N=76	100%	N=734
Expanding Internet/broadband options	17%	N=125	29%	N=211	35%	N=258	19%	N=137	100%	N=731
Using incentives to create business and employment opportunities	17%	N=124	41%	N=301	33%	N=241	9%	N=69	100%	N=735
Maintaining the City's appearance/attractiveness	28%	N=205	51%	N=373	21%	N=154	1%	N=5	100%	N=737
Providing additional parking in Downtown Louisville	18%	N=132	32%	N=238	34%	N=254	16%	N=122	100%	N=746
Providing financial incentives for the redevelopment of the vacant former Sam's Club property	15%	N=110	31%	N=232	34%	N=252	20%	N=151	100%	N=745
Increasing the amount of open space maintenance	10%	N=72	26%	N=191	47%	N=347	17%	N=126	100%	N=737
Increasing the amount of parks maintenance	6%	N=42	23%	N=169	55%	N=400	17%	N=123	100%	N=733
Providing new outdoor multi-purpose turf fields (soccer, football, etc.)	6%	N=46	15%	N=108	43%	N=316	36%	N=261	100%	N=731
Expanding the Louisville Historical Museum	3%	N=22	9%	N=63	41%	N=300	48%	N=350	100%	N=735
Subsidizing affordable housing	18%	N=137	22%	N=167	33%	N=243	27%	N=200	100%	N=746

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Table 15: Question 13a

What are the top issues for the City Council to invest in today? (Please select up to three responses.)	Percent	Number
Maintaining, repairing, and paving streets	57%	N=402
Encouraging sustainability (in buildings, energy and water use, recycling, etc.) for both residential and commercial properties	27%	N=195
Creating an indoor community gathering space (arts center, community center, etc.)	7%	N=52
Creating an outdoor community gathering space (amphitheater, commons, etc.)	9%	N=65
Providing additional recreation facilities and amenities	26%	N=189
Expanding Internet/broadband options	18%	N=130
Using incentives to create business and employment opportunities	25%	N=175
Maintaining the City's appearance/attractiveness	29%	N=207
Providing additional parking in Downtown Louisville	24%	N=173
Providing financial incentives for the redevelopment of the vacant former Sam's Club property	22%	N=156
Increasing the amount of open space maintenance	9%	N=67
Increasing the amount of parks maintenance	4%	N=26
Providing new outdoor multi-purpose turf fields (soccer, football, etc.)	7%	N=48
Expanding the Louisville Historical Museum	3%	N=18
Subsidizing affordable housing	29%	N=207
Total	100%	N=712

Total may exceed 100% as respondents could select more than one option.

Table 16: Question 14

	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Total	
Currently, the City's trash service (through Western Disposal) provides once per week trash pickup and compost and recycling pickup every two weeks. To what extent would you support or oppose changing the service to once per week compost pickup and trash p	9%	N=61	17%	N=118	19%	N=128	55%	N=373	100%	N=680

Prepared by National Research Center, Inc.

Table 17: Question 15

The City of Louisville currently has a Historic Preservation Tax, which is a dedicated sales tax (0.125 cents on every dollar spent). Revenue from this tax is used to help property owners rehabilitate and preserve historic landmarks which contribute to the character of Historic Old Town Louisville. This tax was approved by voters in 2008 and is set to expire in 2018. To what extent would you support or oppose each of the following options to continue the tax?	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Total	
Continue the existing sales tax until 2028	37%	N=262	37%	N=264	10%	N=69	16%	N=114	100%	N=710
Continue the existing sales tax until 2028 and also dedicate a portion of the tax to help operate the Louisville Historical Museum	28%	N=199	39%	N=271	15%	N=102	18%	N=129	100%	N=701

Table 18: Question 16

Most of the land zoned for residential uses in Louisville has been built out. In the former Sam's Club shopping area residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing?	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Total	
Multifamily housing (apartments, condos, townhomes)	25%	N=185	28%	N=210	10%	N=77	37%	N=280	100%	N=752
Subsidized housing (apartments, condos, townhomes)	26%	N=198	20%	N=153	12%	N=87	41%	N=311	100%	N=749
Senior housing (apartments, condos, townhomes)	29%	N=220	31%	N=230	12%	N=93	28%	N=208	100%	N=750

Prepared by National Research Center, Inc.

Table 19: Question 17

In the area near the US36/McCaslin transit/bus station residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing?	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Total	
Multifamily housing (apartments, condos, townhomes)	23%	N=166	32%	N=234	10%	N=70	35%	N=256	100%	N=727
Subsidized housing (apartments, condos, townhomes)	25%	N=174	26%	N=176	10%	N=71	39%	N=265	100%	N=687
Senior housing (apartments, condos, townhomes)	24%	N=178	34%	N=248	12%	N=90	29%	N=213	100%	N=728

Table 20: Question 18

Following is a list of information sources. Please select how often you use each of the following sources to gain information about the City of Louisville.	Always		Frequently		Sometimes		Never		Total	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	0%	N=2	2%	N=19	18%	N=139	79%	N=612	100%	N=772
Community Update (City Newsletter)	32%	N=246	33%	N=254	24%	N=184	11%	N=83	100%	N=767
The Daily Camera/Hometown Weekly	21%	N=160	25%	N=193	30%	N=230	24%	N=186	100%	N=769
The City of Louisville Web site (www.louisvilleco.gov)	7%	N=56	19%	N=150	49%	N=379	24%	N=184	100%	N=768
City's email notices (eNotification)	6%	N=43	9%	N=71	12%	N=94	73%	N=551	100%	N=760
Utility bill inserts	23%	N=175	23%	N=175	26%	N=196	29%	N=219	100%	N=766
Word of mouth	13%	N=98	34%	N=261	39%	N=300	14%	N=106	100%	N=765

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Table 21: Question 18a

Following is a list of information sources. Indicate the quality of the information from that source.	Excellent		Good		Fair		Poor		Total	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	7%	N=13	64%	N=108	22%	N=37	7%	N=12	100%	N=169
Community Update (City Newsletter)	25%	N=156	62%	N=393	12%	N=76	1%	N=4	100%	N=630
The Daily Camera/Hometown Weekly	11%	N=59	59%	N=315	27%	N=146	3%	N=17	100%	N=536
The City of Louisville Web site (www.louisvilleco.gov)	17%	N=87	64%	N=335	17%	N=90	2%	N=13	100%	N=524
City's email notices (eNotification)	23%	N=44	61%	N=116	14%	N=26	3%	N=5	100%	N=191
Utility bill inserts	21%	N=106	55%	N=277	21%	N=105	3%	N=15	100%	N=503
Word of mouth	8%	N=44	43%	N=237	42%	N=235	7%	N=39	100%	N=555

Table 22: Question 19

What sources, other than those listed above, would you or do you use to get information about the City of Louisville?	Percent	Number
Facebook	34%	N=74
Street signs	8%	N=17
Library/Rec Center	9%	N=19
Web news (Denver Pose, Nextdoor.com, Google)	6%	N=13
City staff (phone or in-person)	4%	N=10
Other	17%	N=36
None/NA	22%	N=48
Total	100%	N=216

Table 23: Question 20

How likely, if at all, would you be to look for official City information on social media websites (e.g., Facebook, Twitter, Instagram, etc.) if the City were to increase its presence or activity?	Percent	Number
Very likely	22%	N=166
Somewhat likely	23%	N=176
Somewhat unlikely	11%	N=84
Very unlikely	43%	N=324
Total	100%	N=750

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Table 24: Question 21

Comments	Percent	Number
Development and affordable housing	22%	N=41
Responses to Question 20	41%	N=78
Recreation, open space, programs	14%	N=26
Positive comments	6%	N=12
Other	18%	N=35
Total	100%	N=192

Table 25: Question D1

How many years have you lived in Louisville?	Percent	Number
Less than 1 year	10%	N=78
1-5 years	25%	N=197
6-10 years	18%	N=137
11-15 years	10%	N=78
More than 15 years	37%	N=292
Total	100%	N=783

Table 26: Question D2

Which best describes the building you live in?	Percent	Number
One family house detached from any other houses	74%	N=578
House attached to one or more houses (e.g., a duplex or townhome)	7%	N=58
Building with two or more apartments or condominiums	18%	N=137
Mobile home	0%	N=3
Other	1%	N=6
Total	100%	N=782

Table 27: Question D3

Do you rent or own your home?	Percent	Number
Rent	27%	N=209
Own	73%	N=572
Total	100%	N=781

Table 28: Question D4

What is your gender	Percent	Number
Female	51%	N=396
Male	49%	N=380
Total	100%	N=776

Prepared by National Research Center, Inc.

Table 29: Question D5

In which category is your age?	Percent	Number
18-24 years	2%	N=15
25-34 years	21%	N=163
35-44 years	22%	N=173
45-54 years	24%	N=183
55-64 years	16%	N=124
65-74 years	9%	N=74
75 years or older	6%	N=47
Total	100%	N=778

Table 30: Question D6

How many people (including yourself) currently live in your household?	Percent	Number
1	18%	N=141
2	33%	N=256
3	21%	N=159
4	23%	N=173
5 or more	5%	N=40
Total	100%	N=770

Table 31: Question D7

Do any children 17 or under live in your household?	Percent	Number
No	60%	N=468
Yes	40%	N=312
Total	100%	N=781

Table 32: Question D8

Are you or any other members of your household aged 60 or older?	Percent	Number
No	75%	N=583
Yes	25%	N=198
Total	100%	N=781

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Frequencies Including "Don't Know" Response

The following pages contain a complete set of responses to each question on the survey including the number of responses and the "don't know" responses.

Table 33: Question 1

Please circle the number that comes closest to your opinion about the quality of life in Louisville:	Excellent		Good		Fair		Poor		Don't know		Total	
How do you rate Louisville as a place to live?	69%	N=544	28%	N=222	2%	N=19	0%	N=1	0%	N=1	100%	N=786
How do you rate Louisville as a place to raise children?	64%	N=495	19%	N=146	2%	N=15	0%	N=1	15%	N=120	100%	N=777
How do you rate Louisville as a place to retire?	31%	N=242	26%	N=201	12%	N=96	3%	N=25	27%	N=212	100%	N=776
How do you rate Louisville as a place to work?	23%	N=179	26%	N=200	13%	N=98	3%	N=24	35%	N=272	100%	N=773
How do you rate the overall quality of life in Louisville?	60%	N=466	37%	N=285	3%	N=25	0%	N=1	0%	N=3	100%	N=780

Table 34: Question 2

Please rate Louisville as a community on each of the items listed below:	Excellent		Good		Fair		Poor		Don't know		Total	
Sense of community	41%	N=322	44%	N=346	11%	N=89	2%	N=12	2%	N=13	100%	N=781
Openness and acceptance of the community towards people of diverse backgrounds	22%	N=174	40%	N=312	21%	N=167	5%	N=36	12%	N=93	100%	N=782
Overall appearance of Louisville	34%	N=263	56%	N=439	9%	N=71	1%	N=7	0%	N=1	100%	N=781
Opportunities to attend cultural activities	19%	N=150	44%	N=345	25%	N=192	6%	N=46	6%	N=50	100%	N=783
Shopping opportunities	12%	N=95	45%	N=351	35%	N=274	7%	N=55	1%	N=6	100%	N=780
Opportunities to participate in special events and community activities	34%	N=269	49%	N=381	11%	N=83	2%	N=14	5%	N=36	100%	N=783
Opportunities to participate in community matters	29%	N=227	47%	N=369	13%	N=103	2%	N=13	9%	N=72	100%	N=784
Recreational opportunities	40%	N=313	43%	N=339	13%	N=101	2%	N=19	2%	N=13	100%	N=785
Employment opportunities	6%	N=49	20%	N=155	29%	N=224	9%	N=71	36%	N=282	100%	N=780
Variety of housing options	8%	N=65	31%	N=239	36%	N=277	18%	N=144	7%	N=55	100%	N=780
Availability of affordable quality housing	3%	N=27	11%	N=89	31%	N=242	41%	N=319	13%	N=103	100%	N=780
Ease of car travel in Louisville	30%	N=237	52%	N=404	14%	N=112	3%	N=25	0%	N=3	100%	N=781

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Please rate Louisville as a community on each of the items listed below:	Excellent		Good		Fair		Poor		Don't know		Total	
Ease of bus travel in Louisville	13%	N=99	26%	N=202	19%	N=147	8%	N=59	35%	N=274	100%	N=780
Ease of bicycle travel in Louisville	41%	N=323	39%	N=307	8%	N=64	1%	N=10	10%	N=77	100%	N=782
Ease of walking in Louisville	50%	N=387	41%	N=317	7%	N=57	2%	N=12	1%	N=8	100%	N=781
Traffic flow on major streets	20%	N=156	49%	N=383	25%	N=197	6%	N=48	0%	N=1	100%	N=785
Quality of overall natural environment in Louisville	35%	N=274	55%	N=425	9%	N=70	1%	N=7	0%	N=3	100%	N=780
Overall image or reputation of Louisville	61%	N=476	34%	N=269	4%	N=31	0%	N=1	1%	N=8	100%	N=785

Table 35: Question 3

Please rate how safe you feel:	Very safe		Somewhat safe		Neither safe nor unsafe		Somewhat unsafe		Very unsafe		Don't know		Total	
From violent crime (e.g., rape, assault, robbery)	81%	N=636	16%	N=128	2%	N=14	0%	N=4	0%	N=2	0%	N=2	100%	N=785
From property crimes (e.g., burglary, theft)	43%	N=339	44%	N=348	8%	N=59	4%	N=29	1%	N=7	1%	N=4	100%	N=786
In your neighborhood during the day	85%	N=671	12%	N=94	2%	N=14	0%	N=2	0%	N=2	0%	N=2	100%	N=786
In your neighborhood after dark	63%	N=493	30%	N=237	5%	N=35	2%	N=13	0%	N=2	1%	N=6	100%	N=785
In Louisville's downtown area during the day	88%	N=688	10%	N=80	1%	N=4	0%	N=0	0%	N=2	1%	N=11	100%	N=785
In Louisville's downtown area after dark	61%	N=478	27%	N=214	5%	N=41	1%	N=6	0%	N=1	5%	N=43	100%	N=783
In Louisville's parks during the day	82%	N=648	13%	N=106	1%	N=9	0%	N=0	0%	N=4	2%	N=19	100%	N=785
In Louisville's parks after dark	35%	N=276	34%	N=271	10%	N=78	4%	N=28	0%	N=3	16%	N=130	100%	N=787

Prepared by National Research Center, Inc.

Table 36: Question 4

Please circle the number that comes closest to your opinion about the performance of the following areas of the City of Louisville Administration:	Excellent		Good		Fair		Poor		Don't know		Total	
City response to citizen complaints or concerns	11%	N=89	27%	N=210	14%	N=109	5%	N=35	43%	N=334	100%	N=777
Information about City Council, Planning Commission and other official City meetings	19%	N=151	46%	N=356	13%	N=101	3%	N=26	19%	N=144	100%	N=778
Information about City plans and programs	19%	N=147	46%	N=354	16%	N=126	5%	N=42	14%	N=108	100%	N=776
Availability of City Employees	14%	N=107	28%	N=215	12%	N=93	2%	N=17	44%	N=345	100%	N=776
Programming on Louisville cable TV, municipal channel 8	3%	N=25	9%	N=72	7%	N=55	3%	N=20	78%	N=602	100%	N=774
Louisville Web site (www.louisvilleco.gov)	12%	N=95	44%	N=340	13%	N=101	3%	N=24	28%	N=214	100%	N=773
Overall performance of Louisville City government	12%	N=92	55%	N=425	17%	N=130	2%	N=12	15%	N=118	100%	N=777

Table 37: Question 5

Please circle the number that comes closest to your opinion about the following areas related to the Louisville Police Department:	Excellent		Good		Fair		Poor		Don't know		Total	
Visibility of patrol cars	39%	N=303	48%	N=373	8%	N=60	3%	N=24	3%	N=22	100%	N=781
911 service	23%	N=178	15%	N=117	2%	N=19	0%	N=2	59%	N=463	100%	N=779
Enforcement of traffic regulations	23%	N=179	39%	N=306	13%	N=101	4%	N=30	21%	N=160	100%	N=777
Municipal code enforcement issues (dogs, noise, weeds, etc.)	15%	N=117	33%	N=260	16%	N=126	7%	N=55	29%	N=222	100%	N=779
Overall performance of the Louisville Police Department	34%	N=268	47%	N=366	7%	N=57	1%	N=10	10%	N=76	100%	N=776

Prepared by National Research Center, Inc.

Table 38: Question 6

Please circle the number that comes closest to your opinion about the following areas of Louisville Planning and Building Safety Department:	Excellent		Good		Fair		Poor		Don't know		Total	
The public input process on City planning issues	13%	N=99	30%	N=230	14%	N=108	3%	N=26	40%	N=315	100%	N=777
Planning review process for new development	10%	N=76	23%	N=179	13%	N=99	7%	N=54	47%	N=366	100%	N=774
Overall performance of the Louisville Planning Department	9%	N=68	26%	N=199	14%	N=108	7%	N=50	45%	N=344	100%	N=770
Building permit process	7%	N=53	16%	N=127	11%	N=84	4%	N=34	62%	N=478	100%	N=775
Building/construction inspection process	7%	N=58	17%	N=133	10%	N=75	4%	N=29	62%	N=481	100%	N=776

Table 39: Question 7

Please circle the number that comes closest to your opinion about the following areas of the Louisville Parks and Recreation Department:	Excellent		Good		Fair		Poor		Don't know		Total	
Current recreation programs for youth	19%	N=145	32%	N=251	8%	N=59	1%	N=11	40%	N=313	100%	N=779
Current recreation programs for adults	18%	N=142	37%	N=289	15%	N=113	2%	N=19	28%	N=214	100%	N=778
Current programs and services for seniors	17%	N=130	23%	N=183	5%	N=39	1%	N=6	54%	N=420	100%	N=778
Recreation fees in Louisville	21%	N=163	39%	N=303	17%	N=130	3%	N=25	20%	N=154	100%	N=775
Overall quality of the Louisville Recreation Center	16%	N=127	40%	N=308	23%	N=176	5%	N=41	16%	N=127	100%	N=779
Overall quality of the Louisville Senior Center	10%	N=77	17%	N=135	6%	N=43	1%	N=8	66%	N=513	100%	N=777
Overall quality of the Coal Creek Golf Course	8%	N=63	21%	N=162	6%	N=49	1%	N=8	64%	N=492	100%	N=773
Maintenance and cleanliness of the Louisville Recreation Center	26%	N=204	41%	N=320	12%	N=91	2%	N=14	19%	N=149	100%	N=779
Adequacy of parks, bike paths, playing fields and playgrounds	42%	N=329	45%	N=350	7%	N=56	1%	N=7	4%	N=33	100%	N=776
Maintenance of parks (e.g., landscaping, turf areas, playgrounds, picnic areas, etc.)	39%	N=305	47%	N=367	8%	N=60	1%	N=11	5%	N=36	100%	N=780
Maintenance of open space	38%	N=298	44%	N=346	10%	N=77	2%	N=19	5%	N=39	100%	N=778
Maintenance of the trail system	41%	N=319	43%	N=336	8%	N=64	1%	N=7	7%	N=51	100%	N=776
Maintenance of medians and street landscaping	28%	N=221	53%	N=413	13%	N=104	2%	N=19	3%	N=22	100%	N=778
Overall performance of the Louisville Parks and Recreation Department	32%	N=246	54%	N=422	10%	N=76	1%	N=9	3%	N=27	100%	N=780

Prepared by National Research Center, Inc.

Table 40: Question 8

Please circle the number that comes closest to your opinion about the Louisville Public Library and Historical Museum and their services:	Excellent		Good		Fair		Poor		Don't know		Total	
Louisville Public Library programs (e.g., story time, One Book program, etc.)	32%	N=247	21%	N=164	1%	N=10	0%	N=0	45%	N=342	100%	N=762
Services at the Louisville Public Library (e.g., reference desk check out, etc.)	48%	N=363	25%	N=192	2%	N=13	0%	N=2	25%	N=194	100%	N=763
Internet and computer services at the Louisville Public Library	23%	N=178	25%	N=192	4%	N=30	0%	N=1	47%	N=360	100%	N=762
Louisville Public Library services online at www.louisville-library.org accessed from home or elsewhere (e.g., book holds, access databases, research, etc.)	33%	N=251	23%	N=173	4%	N=33	0%	N=0	40%	N=305	100%	N=762
Louisville Public Library materials and collections	24%	N=181	37%	N=278	10%	N=79	1%	N=5	29%	N=219	100%	N=763
Louisville Public Library building	50%	N=380	28%	N=212	2%	N=16	0%	N=0	20%	N=155	100%	N=762
Overall performance of the Louisville Public Library	43%	N=325	31%	N=232	3%	N=19	0%	N=1	24%	N=178	100%	N=755
Louisville Historical Museum programs (e.g., lectures, walking tours, newsletters)	14%	N=109	17%	N=132	3%	N=26	0%	N=2	65%	N=490	100%	N=759
Louisville Historical Museum campus	13%	N=102	19%	N=141	4%	N=29	0%	N=3	64%	N=485	100%	N=760
Overall performance of the Louisville Historical Museum	15%	N=117	18%	N=139	4%	N=31	0%	N=1	62%	N=472	100%	N=760

Prepared by National Research Center, Inc.

Table 41: Question 9

Please circle the number that comes closest to your opinion about the performance of the following areas of Louisville Public Works Department:	Excellent		Good		Fair		Poor		Don't know		Total	
Street maintenance in your neighborhood	17%	N=132	46%	N=354	26%	N=200	9%	N=72	1%	N=9	100%	N=767
Street maintenance in Louisville	16%	N=120	53%	N=405	25%	N=188	5%	N=42	1%	N=11	100%	N=765
Street sweeping	16%	N=121	48%	N=369	22%	N=164	5%	N=41	9%	N=68	100%	N=763
Snow removal/street sanding	12%	N=90	38%	N=290	31%	N=237	18%	N=137	2%	N=12	100%	N=766
Street lighting, signage and street markings	21%	N=162	60%	N=457	16%	N=118	2%	N=14	1%	N=10	100%	N=762
Waste water (sewage system)	24%	N=187	52%	N=398	5%	N=42	1%	N=6	17%	N=133	100%	N=765
Storm drainage (flooding management)	23%	N=171	54%	N=413	9%	N=67	1%	N=6	13%	N=102	100%	N=759
Bike lanes on Louisville streets	20%	N=153	45%	N=345	23%	N=177	3%	N=26	8%	N=64	100%	N=765
Access on sidewalks/crosswalks for disabled persons	16%	N=122	38%	N=290	10%	N=76	2%	N=17	34%	N=258	100%	N=763
Quality of Louisville water	41%	N=312	47%	N=357	7%	N=56	2%	N=13	4%	N=28	100%	N=766
Overall performance of Louisville Public Works Department	21%	N=162	64%	N=487	11%	N=86	0%	N=4	3%	N=26	100%	N=764

Table 42: Question 10

Overall, how do you rate the quality of services provided by the City of Louisville?	Excellent		Good		Fair		Poor		Don't know		Total	
Overall, how do you rate the quality of services provided by the City of Louisville?	28%	N=213	64%	N=476	6%	N=45	1%	N=5	1%	N=11	100%	N=750

Prepared by National Research Center, Inc.

Table 43: Question 11

If you have had any email, in-person or phone contact with a City of Louisville employee in the last 12 months, what was your impression of the employee in your most recent contact? (Rate each characteristic below.)	Excellent		Good		Fair		Poor		Don't know		Total	
Knowledge	27%	N=180	26%	N=170	4%	N=24	3%	N=21	40%	N=265	100%	N=659
Responsiveness/promptness	29%	N=188	22%	N=142	6%	N=37	5%	N=30	40%	N=260	100%	N=657
Availability	29%	N=187	22%	N=144	5%	N=34	4%	N=28	40%	N=260	100%	N=654
Courtesy	35%	N=226	20%	N=133	3%	N=21	3%	N=19	39%	N=257	100%	N=656
Overall impression	30%	N=194	22%	N=145	5%	N=35	4%	N=23	39%	N=256	100%	N=653

Table 44: Question 11a

List the department the employee you most recently contacted works in	Percent	Number
City Hall and Council	7%	N=25
Library or Rec Center	13%	N=45
Billing	13%	N=47
Planning/Zoning/Building	14%	N=48
Parks and Rec/Open Space	6%	N=23
Police/Fire	10%	N=36
Public Works	11%	N=40
Other	9%	N=31
Don't know/NA	17%	N=60
Total	100%	N=354

Prepared by National Research Center, Inc.

Table 45: Question 12

In the last 12 months, about how many times, if ever, have you or other household members participated in the following activities in Louisville?	Never		Once or twice		3 to 12 times		13 to 26 times		More than 26 times		Total	
Played golf at the Coal Creek Golf Course	82%	N=621	11%	N=81	5%	N=41	1%	N=8	1%	N=10	100%	N=762
Used the Louisville Public Library or its services	22%	N=166	15%	N=113	28%	N=213	18%	N=136	18%	N=136	100%	N=763
Used the Louisville Recreation Center	26%	N=197	16%	N=126	22%	N=164	13%	N=99	23%	N=177	100%	N=762
Used Memory Square Pool	67%	N=509	14%	N=107	13%	N=100	3%	N=24	2%	N=18	100%	N=760
Visited the Louisville Historical Museum	71%	N=541	23%	N=178	4%	N=31	1%	N=4	1%	N=6	100%	N=759
Attended the Downtown Louisville Street Faire (9 nights in 2015)	22%	N=171	35%	N=264	40%	N=307	1%	N=9	1%	N=10	100%	N=761
Attended an event, show or activity at the Arts Center	63%	N=482	28%	N=217	7%	N=54	0%	N=4	1%	N=6	100%	N=763
Attended another event downtown (Art Walk, Taste of Lsvl, parade, Winter Skate)	20%	N=149	37%	N=283	40%	N=303	3%	N=23	1%	N=5	100%	N=763

Prepared by National Research Center, Inc.

Table 46: Question 13

Beyond basic City services (police, water, sewer, etc.), the City has limited resources and must make hard decisions about funding priorities. Indicate how important to you each of the following areas are as the City considers residents' current and future needs.	Essential		Very important		Somewhat important		Not at all important		Total	
Maintaining, repairing, and paving streets	47%	N=349	42%	N=312	11%	N=83	1%	N=6	100%	N=750
Encouraging sustainability (in buildings, energy and water use, recycling, etc.) for both residential and commercial properties	22%	N=160	45%	N=327	28%	N=207	5%	N=39	100%	N=733
Creating an indoor community gathering space (arts center, community center, etc.)	4%	N=29	25%	N=181	52%	N=384	19%	N=140	100%	N=735
Creating an outdoor community gathering space (amphitheater, commons, etc.)	6%	N=42	31%	N=226	46%	N=338	18%	N=130	100%	N=735
Providing additional recreation facilities and amenities	18%	N=133	31%	N=230	40%	N=295	10%	N=76	100%	N=734
Expanding Internet/broadband options	17%	N=125	29%	N=211	35%	N=258	19%	N=137	100%	N=731
Using incentives to create business and employment opportunities	17%	N=124	41%	N=301	33%	N=241	9%	N=69	100%	N=735
Maintaining the City's appearance/attractiveness	28%	N=205	51%	N=373	21%	N=154	1%	N=5	100%	N=737
Providing additional parking in Downtown Louisville	18%	N=132	32%	N=238	34%	N=254	16%	N=122	100%	N=746
Providing financial incentives for the redevelopment of the vacant former Sam's Club property	15%	N=110	31%	N=232	34%	N=252	20%	N=151	100%	N=745
Increasing the amount of open space maintenance	10%	N=72	26%	N=191	47%	N=347	17%	N=126	100%	N=737
Increasing the amount of parks maintenance	6%	N=42	23%	N=169	55%	N=400	17%	N=123	100%	N=733
Providing new outdoor multi-purpose turf fields (soccer, football, etc.)	6%	N=46	15%	N=108	43%	N=316	36%	N=261	100%	N=731
Expanding the Louisville Historical Museum	3%	N=22	9%	N=63	41%	N=300	48%	N=350	100%	N=735
Subsidizing affordable housing	18%	N=137	22%	N=167	33%	N=243	27%	N=200	100%	N=746

Prepared by National Research Center, Inc.

Table 47: Question 13a

What are the top issues for the City Council to invest in today? (Please select up to three responses.)	Percent	Number
Maintaining, repairing, and paving streets	57%	N=402
Encouraging sustainability (in buildings, energy and water use, recycling, etc.) for both residential and commercial properties	27%	N=195
Creating an indoor community gathering space (arts center, community center, etc.)	7%	N=52
Creating an outdoor community gathering space (amphitheater, commons, etc.)	9%	N=65
Providing additional recreation facilities and amenities	26%	N=189
Expanding Internet/broadband options	18%	N=130
Using incentives to create business and employment opportunities	25%	N=175
Maintaining the City's appearance/attractiveness	29%	N=207
Providing additional parking in Downtown Louisville	24%	N=173
Providing financial incentives for the redevelopment of the vacant former Sam's Club property	22%	N=156
Increasing the amount of open space maintenance	9%	N=67
Increasing the amount of parks maintenance	4%	N=26
Providing new outdoor multi-purpose turf fields (soccer, football, etc.)	7%	N=48
Expanding the Louisville Historical Museum	3%	N=18
Subsidizing affordable housing	29%	N=207
Total	100%	N=712

Total may exceed 100% as respondents could select more than one option.

Table 48: Question 14

	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Don't know		Total	
Currently, the City's trash service (through Western Disposal) provides once per week trash pickup and compost and recycling pickup every two weeks. To what extent would you support or oppose changing the service to once per week compost pickup and trash p	8%	N=61	15%	N=118	16%	N=128	48%	N=373	13%	N=98	100%	N=778

Prepared by National Research Center, Inc.

Table 49: Question 15

The City of Louisville currently has a Historic Preservation Tax, which is a dedicated sales tax (0.125 cents on every dollar spent). Revenue from this tax is used to help property owners rehabilitate and preserve historic landmarks which contribute to the character of Historic Old Town Louisville. This tax was approved by voters in 2008 and is set to expire in 2018. To what extent would you support or oppose each of the following options to continue the tax?	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Don't know		Total	
Continue the existing sales tax until 2028	35%	N=262	35%	N=264	9%	N=69	15%	N=114	5%	N=35	100%	N=745
Continue the existing sales tax until 2028 and also dedicate a portion of the tax to help operate the Louisville Historical Museum	26%	N=199	35%	N=271	13%	N=102	17%	N=129	9%	N=68	100%	N=768

Table 50: Question 16

Most of the land zoned for residential uses in Louisville has been built out. In the former Sam's Club shopping area residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing?	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Don't know		Total	
Multifamily housing (apartments, condos, townhomes)	24%	N=185	27%	N=210	10%	N=77	36%	N=280	3%	N=25	100%	N=777
Subsidized housing (apartments, condos, townhomes)	26%	N=198	20%	N=153	11%	N=87	40%	N=311	3%	N=26	100%	N=775
Senior housing (apartments, condos, townhomes)	28%	N=220	30%	N=230	12%	N=93	27%	N=208	4%	N=27	100%	N=778

Prepared by National Research Center, Inc.

Table 51: Question 17

In the area near the US36/McCaslin transit/bus station residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing?	Strongly support		Somewhat support		Somewhat oppose		Strongly oppose		Don't know		Total	
Multifamily housing (apartments, condos, townhomes)	21%	N=166	30%	N=234	9%	N=70	33%	N=256	6%	N=47	100%	N=774
Subsidized housing (apartments, condos, townhomes)	24%	N=174	24%	N=176	10%	N=71	36%	N=265	6%	N=45	100%	N=732
Senior housing (apartments, condos, townhomes)	23%	N=178	32%	N=248	12%	N=90	27%	N=213	6%	N=48	100%	N=776

Table 52: Question 18

Following is a list of information sources. Please select how often you use each of the following sources to gain information about the City of Louisville.	Always		Frequently		Sometimes		Never		Total	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	0%	N=2	2%	N=19	18%	N=139	79%	N=612	100%	N=772
Community Update (City Newsletter)	32%	N=246	33%	N=254	24%	N=184	11%	N=83	100%	N=767
The Daily Camera/Hometown Weekly	21%	N=160	25%	N=193	30%	N=230	24%	N=186	100%	N=769
The City of Louisville Web site (www.louisvilleco.gov)	7%	N=56	19%	N=150	49%	N=379	24%	N=184	100%	N=768
City's email notices (eNotification)	6%	N=43	9%	N=71	12%	N=94	73%	N=551	100%	N=760
Utility bill inserts	23%	N=175	23%	N=175	26%	N=196	29%	N=219	100%	N=766
Word of mouth	13%	N=98	34%	N=261	39%	N=300	14%	N=106	100%	N=765

Prepared by National Research Center, Inc.

Table 53: Question 18a

Following is a list of information sources. Indicate the quality of the information from that source.	Excellent		Good		Fair		Poor		Don't know		Total	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	2%	N=13	17%	N=108	6%	N=37	2%	N=12	74%	N=471	100%	N=640
Community Update (City Newsletter)	22%	N=156	56%	N=393	11%	N=76	1%	N=4	11%	N=76	100%	N=706
The Daily Camera/Hometown Weekly	9%	N=59	46%	N=315	21%	N=146	2%	N=17	21%	N=142	100%	N=678
The City of Louisville Web site (www.louisvilleco.gov)	13%	N=87	49%	N=335	13%	N=90	2%	N=13	23%	N=158	100%	N=683
City's email notices (eNotification)	7%	N=44	18%	N=116	4%	N=26	1%	N=5	71%	N=463	100%	N=655
Utility bill inserts	16%	N=106	40%	N=277	15%	N=105	2%	N=15	27%	N=183	100%	N=686
Word of mouth	6%	N=44	35%	N=237	34%	N=235	6%	N=39	19%	N=128	100%	N=683

Table 54: Question 19

What sources, other than those listed above, would you or do you use to get information about the City of Louisville?	Percent	Number
Facebook	34%	N=74
Street signs	8%	N=17
Library/Rec Center	9%	N=19
Web news (Denver Pose, Nextdoor.com, Google)	6%	N=13
City staff (phone or in-person)	4%	N=10
Other	17%	N=36
None/NA	22%	N=48
Total	100%	N=216

Prepared by National Research Center, Inc.

Table 55: Question 20

How likely, if at all, would you be to look for official City information on social media websites (e.g., Facebook, Twitter, Instagram, etc.) if the City were to increase its presence or activity?	Percent	Number
Very likely	21%	N=166
Somewhat likely	23%	N=176
Somewhat unlikely	11%	N=84
Very unlikely	42%	N=324
Don't know	3%	N=23
Total	100%	N=772

Table 56: Question 21

Comments	Percent	Number
Development and affordable housing	22%	N=41
Responses to Question 20	41%	N=78
Recreation, open space, programs	14%	N=26
Positive comments	6%	N=12
Other	18%	N=35
Total	100%	N=192

Table 57: Question D1

How many years have you lived in Louisville?	Percent	Number
Less than 1 year	10%	N=78
1-5 years	25%	N=197
6-10 years	18%	N=137
11-15 years	10%	N=78
More than 15 years	37%	N=292
Total	100%	N=783

Prepared by National Research Center, Inc.

Table 58: Question D2

Which best describes the building you live in?	Percent	Number
One family house detached from any other houses	74%	N=578
House attached to one or more houses (e.g., a duplex or townhome)	7%	N=58
Building with two or more apartments or condominiums	18%	N=137
Mobile home	0%	N=3
Other	1%	N=6
Total	100%	N=782

Table 59: Question D3

Do you rent or own your home?	Percent	Number
Rent	27%	N=209
Own	73%	N=572
Total	100%	N=781

Table 60: Question D4

What is your gender	Percent	Number
Female	51%	N=396
Male	49%	N=380
Total	100%	N=776

Table 61: Question D5

In which category is your age?	Percent	Number
18-24 years	2%	N=15
25-34 years	21%	N=163
35-44 years	22%	N=173
45-54 years	24%	N=183
55-64 years	16%	N=124
65-74 years	9%	N=74
75 years or older	6%	N=47
Total	100%	N=778

Prepared by National Research Center, Inc.

Table 62: Question D6

How many people (including yourself) currently live in your household?	Percent	Number
1	18%	N=141
2	33%	N=256
3	21%	N=159
4	23%	N=173
5 or more	5%	N=40
Total	100%	N=770

Table 63: Question D7

Do any children 17 or under live in your household?	Percent	Number
No	60%	N=468
Yes	40%	N=312
Total	100%	N=781

Table 64: Question D8

Are you or any other members of your household aged 60 or older?	Percent	Number
No	75%	N=583
Yes	25%	N=198
Total	100%	N=781

Prepared by National Research Center, Inc.

Appendix B: Comparison of Responses by Respondent Demographics

Responses to selected survey questions by respondent demographics are compared in this appendix. Responses that are significantly different ($p < .05$) are marked with grey shading.

Demographic Characteristics

Table 65: Aspects of Quality of Life by Respondent Characteristics

Please circle the number that comes closest to your opinion about the quality of life in Louisville: (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
How do you rate Louisville as a place to live?	97%	98%	98%	98%	97%	96%	98%	98%	97%	98%
How do you rate Louisville as a place to raise children?	96%	99%	97%	97%	99%	94%	99%	98%	95%	98%
How do you rate Louisville as a place to retire?	84%	74%	82%	82%	75%	84%	77%	77%	82%	79%
How do you rate Louisville as a place to work?	81%	73%	75%	77%	73%	74%	76%	74%	78%	76%
How do you rate the overall quality of life in Louisville?	94%	97%	98%	98%	96%	93%	98%	97%	94%	97%

Table 66: Aspects of Quality of Life by Respondent Characteristics

Please circle the number that comes closest to your opinion about the quality of life in Louisville: (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
How do you rate Louisville as a place to live?	98%	98%	100%	97%	98%	97%	100%	97%	98%	98%	97%	98%
How do you rate Louisville as a place to raise children?	97%	99%	100%	97%	98%	97%	100%	97%	98%	98%	96%	98%
How do you rate Louisville as a place to retire?	84%	77%	68%	77%	82%	74%	88%	81%	74%	77%	82%	79%
How do you rate Louisville as a place to work?	79%	66%	70%	78%	75%	76%	69%	77%	72%	76%	74%	76%
How do you rate the overall quality of life in Louisville?	96%	97%	97%	97%	97%	96%	100%	96%	97%	96%	98%	97%

Prepared by National Research Center, Inc.

Table 67: Select Community Characteristics by Respondent Characteristics

Please rate Louisville as a community on each of the items listed below: (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Sense of community	84%	88%	88%	90%	84%	84%	88%	89%	80%	87%
Openness and acceptance of the community towards people of diverse backgrounds	67%	69%	76%	72%	68%	68%	71%	72%	65%	70%
Overall appearance of Louisville	91%	90%	89%	92%	87%	93%	89%	90%	91%	90%
Opportunities to attend cultural activities	63%	65%	75%	70%	65%	63%	69%	66%	71%	68%
Shopping opportunities	65%	52%	60%	61%	53%	66%	54%	55%	65%	58%
Opportunities to participate in special events and community activities	84%	90%	87%	89%	85%	84%	88%	89%	83%	87%
Opportunities to participate in community matters	79%	87%	84%	84%	84%	78%	86%	87%	74%	84%
Recreational opportunities	84%	84%	85%	85%	84%	82%	85%	86%	79%	84%
Employment opportunities	47%	36%	44%	42%	40%	39%	41%	39%	45%	41%
Variety of housing options	48%	37%	45%	40%	44%	37%	44%	44%	35%	42%
Availability of affordable quality housing	13%	15%	23%	19%	16%	11%	19%	18%	15%	17%
Ease of car travel in Louisville	88%	83%	76%	81%	83%	83%	82%	84%	77%	82%
Ease of bus travel in Louisville	67%	52%	65%	62%	56%	68%	57%	61%	56%	60%
Ease of bicycle travel in Louisville	93%	90%	86%	89%	90%	90%	89%	92%	83%	89%
Ease of walking in Louisville	89%	93%	89%	93%	89%	89%	91%	93%	85%	91%
Traffic flow on major streets	68%	68%	70%	68%	68%	66%	70%	71%	62%	69%
Quality of overall natural environment in Louisville	93%	90%	88%	91%	88%	86%	91%	91%	86%	90%
Overall image or reputation of Louisville	97%	96%	95%	97%	95%	94%	96%	97%	92%	96%

Prepared by National Research Center, Inc.

Table 68: Select Community Characteristics by Respondent Characteristics

Please rate Louisville as a community on each of the items listed below: (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
Sense of community	87%	86%	87%	87%	86%	88%	87%	86%	88%	86%	89%	87%
Openness and acceptance of the community towards people of diverse backgrounds	69%	71%	64%	73%	67%	75%	62%	68%	74%	69%	75%	70%
Overall appearance of Louisville	91%	88%	87%	90%	90%	91%	79%	90%	90%	91%	88%	90%
Opportunities to attend cultural activities	68%	64%	56%	72%	72%	62%	69%	71%	63%	65%	74%	68%
Shopping opportunities	64%	57%	52%	53%	61%	54%	57%	58%	56%	57%	59%	58%
Opportunities to participate in special events and community activities	88%	91%	89%	85%	86%	90%	78%	86%	90%	88%	85%	87%
Opportunities to participate in community matters	86%	88%	81%	80%	83%	85%	91%	81%	88%	85%	82%	84%
Recreational opportunities	83%	89%	85%	83%	86%	83%	85%	84%	85%	84%	85%	84%
Employment opportunities	43%	38%	39%	41%	41%	42%	34%	40%	42%	42%	38%	41%
Variety of housing options	41%	45%	40%	42%	44%	40%	36%	45%	38%	42%	43%	42%
Availability of affordable quality housing	14%	18%	16%	20%	18%	17%	14%	18%	15%	16%	21%	17%
Ease of car travel in Louisville	86%	83%	86%	77%	81%	85%	75%	80%	86%	84%	77%	82%
Ease of bus travel in Louisville	61%	68%	49%	57%	61%	58%	68%	59%	59%	58%	63%	60%
Ease of bicycle travel in Louisville	93%	89%	88%	87%	88%	92%	87%	89%	91%	91%	86%	89%
Ease of walking in Louisville	94%	91%	92%	87%	89%	93%	95%	89%	95%	92%	88%	91%
Traffic flow on major streets	71%	67%	71%	66%	66%	74%	56%	65%	74%	69%	67%	69%
Quality of overall natural environment in Louisville	90%	92%	94%	88%	88%	92%	97%	88%	93%	91%	87%	90%
Overall image or reputation of Louisville	98%	96%	97%	93%	95%	96%	98%	95%	97%	96%	95%	96%

Prepared by National Research Center, Inc.

Table 69: Safety Ratings by Respondent Characteristics

Please rate how safe you feel: (Percent rating positively e.g., very safe/somewhat safe)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
From violent crime (e.g., rape, assault, robbery)	100%	97%	97%	98%	98%	97%	97%	98%	98%	97%
From property crimes (e.g., burglary, theft)	90%	86%	90%	88%	88%	88%	87%	88%	87%	88%
In your neighborhood during the day	98%	97%	98%	98%	97%	99%	97%	97%	99%	98%
In your neighborhood after dark	94%	94%	93%	93%	94%	94%	93%	95%	91%	94%
In Louisville's downtown area during the day	100%	99%	99%	99%	99%	99%	99%	99%	99%	99%
In Louisville's downtown area after dark	97%	94%	90%	94%	93%	94%	93%	94%	91%	93%
In Louisville's parks during the day	100%	98%	98%	98%	99%	99%	98%	98%	99%	98%
In Louisville's parks after dark	85%	85%	79%	82%	85%	82%	83%	85%	75%	83%

Table 70: Safety Ratings by Respondent Characteristics

Please rate how safe you feel: (Percent rating positively e.g., very safe/somewhat safe)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
From violent crime (e.g., rape, assault, robbery)	100%	98%	95%	96%	98%	98%	98%	97%	98%	98%	97%	97%
From property crimes (e.g., burglary, theft)	90%	84%	81%	89%	90%	86%	80%	89%	86%	87%	91%	88%
In your neighborhood during the day	100%	93%	100%	97%	98%	97%	95%	97%	98%	97%	98%	98%
In your neighborhood after dark	97%	91%	96%	91%	94%	93%	95%	93%	94%	94%	92%	94%
In Louisville's downtown area during the day	100%	99%	100%	98%	99%	99%	98%	99%	99%	99%	99%	99%
In Louisville's downtown area after dark	97%	96%	91%	90%	94%	94%	94%	94%	93%	95%	91%	93%
In Louisville's parks during the day	100%	98%	96%	98%	99%	98%	98%	98%	98%	98%	98%	98%
In Louisville's parks after dark	86%	85%	80%	81%	83%	84%	87%	81%	86%	85%	80%	83%

Prepared by National Research Center, Inc.

Table 71: Government Performance Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the performance of the following areas of the City of Louisville Administration: (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
City response to citizen complaints or concerns	75%	63%	69%	65%	69%	69%	67%	69%	58%	67%
Information about City Council, Planning Commission and other official City meetings	83%	79%	80%	84%	76%	82%	79%	80%	78%	80%
Information about City plans and programs	68%	78%	75%	79%	71%	73%	75%	77%	67%	75%
Availability of City Employees	74%	72%	78%	77%	73%	71%	75%	77%	60%	75%
Programming on Louisville cable TV, municipal channel 8	45%	50%	67%	66%	47%	55%	57%	55%	60%	57%
Louisville Web site (www.louisvilleco.gov)	77%	76%	81%	81%	74%	81%	77%	77%	79%	78%
Overall performance of Louisville City government	74%	80%	79%	81%	76%	77%	79%	79%	75%	78%

Table 72: Government Performance Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the performance of the following areas of the City of Louisville Administration: (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
City response to citizen complaints or concerns	72%	75%	69%	61%	66%	69%	73%	67%	67%	67%	68%	67%
Information about City Council, Planning Commission and other official City meetings	81%	83%	86%	76%	82%	77%	94%	80%	80%	80%	79%	80%
Information about City plans and programs	81%	71%	86%	68%	75%	74%	86%	73%	78%	76%	71%	75%
Availability of City Employees	78%	73%	80%	72%	72%	78%	82%	73%	77%	73%	77%	75%
Programming on Louisville cable TV, municipal channel 8	58%	53%	50%	58%	58%	54%	100%	60%	50%	52%	66%	57%
Louisville Web site (www.louisvilleco.gov)	81%	70%	75%	79%	78%	78%	69%	79%	76%	77%	82%	78%
Overall performance of Louisville City government	82%	76%	85%	74%	78%	80%	81%	76%	82%	78%	80%	78%

Prepared by National Research Center, Inc.

Table 73: Police Department Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the following areas related to the Louisville Police Department: (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Visibility of patrol cars	95%	87%	89%	89%	90%	88%	89%	90%	87%	89%
911 service	91%	91%	97%	95%	92%	94%	93%	94%	92%	93%
Enforcement of traffic regulations	83%	76%	80%	78%	79%	75%	80%	81%	72%	79%
Municipal code enforcement issues (dogs, noise, weeds, etc.)	72%	66%	67%	71%	64%	66%	67%	69%	63%	68%
Overall performance of the Louisville Police Department	94%	89%	90%	91%	90%	89%	91%	92%	87%	90%

Table 74: Police Department Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the following areas related to the Louisville Police Department: (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
Visibility of patrol cars	90%	89%	92%	87%	89%	88%	100%	89%	89%	89%	90%	89%
911 service	91%	95%	95%	93%	93%	92%	100%	94%	93%	91%	98%	93%
Enforcement of traffic regulations	82%	81%	76%	76%	77%	80%	85%	78%	80%	78%	82%	79%
Municipal code enforcement issues (dogs, noise, weeds, etc.)	72%	62%	72%	66%	65%	70%	70%	66%	70%	68%	67%	68%
Overall performance of the Louisville Police Department	93%	92%	90%	88%	91%	90%	97%	91%	90%	90%	92%	90%

Prepared by National Research Center, Inc.

Table 75: Planning and Building Department Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the following areas of Louisville Planning and Building Safety Department: (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
The public input process on City planning issues	67%	74%	69%	75%	66%	66%	72%	74%	59%	71%
Planning review process for new development	64%	64%	60%	65%	59%	63%	62%	65%	53%	63%
Overall performance of the Louisville Planning Department	67%	60%	65%	64%	61%	60%	63%	65%	54%	63%
Building permit process	62%	56%	65%	60%	60%	63%	60%	62%	52%	60%
Building/construction inspection process	65%	62%	67%	65%	64%	63%	65%	66%	53%	65%

Table 76: Planning and Building Department Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the following areas of Louisville Planning and Building Safety Department: (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
The public input process on City planning issues	75%	77%	71%	66%	68%	75%	77%	68%	76%	72%	70%	71%
Planning review process for new development	71%	66%	56%	58%	63%	64%	55%	60%	66%	63%	62%	63%
Overall performance of the Louisville Planning Department	73%	65%	55%	57%	64%	63%	51%	62%	64%	62%	66%	63%
Building permit process	54%	67%	58%	61%	66%	56%	48%	65%	55%	57%	69%	60%
Building/construction inspection process	59%	72%	63%	64%	67%	62%	59%	67%	62%	62%	71%	65%

Prepared by National Research Center, Inc.

Table 77: Parks and Recreation Department Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the following areas of the Louisville Parks and Recreation Department: (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Current recreation programs for youth	81%	84%	88%	87%	83%	85%	85%	85%	86%	85%
Current recreation programs for adults	66%	74%	86%	82%	70%	77%	76%	77%	75%	77%
Current programs and services for seniors	88%	90%	85%	90%	84%	87%	87%	88%	86%	87%
Recreation fees in Louisville	72%	75%	78%	81%	69%	70%	76%	78%	60%	75%
Overall quality of the Louisville Recreation Center	72%	57%	80%	67%	67%	74%	65%	64%	77%	67%
Overall quality of the Louisville Senior Center	87%	75%	82%	79%	82%	84%	80%	81%	80%	81%
Overall quality of the Coal Creek Golf Course	83%	77%	80%	84%	76%	91%	76%	81%	77%	80%
Maintenance and cleanliness of the Louisville Recreation Center	86%	80%	87%	81%	85%	85%	82%	83%	84%	83%
Adequacy of parks, bike paths, playing fields and playgrounds	93%	91%	91%	93%	90%	94%	90%	91%	93%	91%
Maintenance of parks (e.g., landscaping, turf areas, playgrounds, picnic areas, etc.)	95%	91%	87%	91%	89%	93%	89%	90%	92%	90%
Maintenance of open space	92%	89%	81%	87%	87%	92%	85%	86%	89%	87%
Maintenance of the trail system	95%	92%	85%	91%	89%	94%	89%	90%	90%	90%
Maintenance of medians and street landscaping	89%	84%	79%	87%	80%	90%	81%	84%	85%	84%
Overall performance of the Louisville Parks and Recreation Department	92%	90%	85%	91%	86%	93%	87%	89%	87%	89%

Prepared by National Research Center, Inc.

Table 78: Parks and Recreation Department Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the following areas of the Louisville Parks and Recreation Department: (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
Current recreation programs for youth	86%	88%	79%	84%	91%	82%	78%	90%	81%	84%	87%	85%
Current recreation programs for adults	76%	76%	70%	78%	81%	73%	66%	80%	71%	74%	85%	77%
Current programs and services for seniors	90%	91%	85%	85%	88%	86%	100%	87%	89%	91%	82%	87%
Recreation fees in Louisville	75%	78%	72%	74%	77%	75%	62%	77%	73%	73%	80%	75%
Overall quality of the Louisville Recreation Center	68%	63%	56%	70%	76%	60%	48%	75%	58%	62%	80%	67%
Overall quality of the Louisville Senior Center	88%	88%	68%	79%	81%	78%	91%	82%	78%	82%	81%	81%
Overall quality of the Coal Creek Golf Course	80%	76%	77%	82%	79%	79%	89%	80%	80%	80%	80%	80%
Maintenance and cleanliness of the Louisville Recreation Center	81%	88%	78%	84%	85%	82%	82%	84%	83%	82%	87%	83%
Adequacy of parks, bike paths, playing fields and playgrounds	92%	92%	92%	90%	92%	92%	85%	92%	92%	92%	89%	91%
Maintenance of parks (e.g., landscaping, turf areas, playgrounds, picnic areas, etc.)	95%	89%	91%	86%	91%	90%	92%	90%	92%	92%	87%	90%
Maintenance of open space	94%	87%	89%	80%	86%	88%	93%	85%	91%	90%	79%	87%
Maintenance of the trail system	95%	93%	95%	83%	89%	91%	97%	88%	94%	93%	82%	90%
Maintenance of medians and street landscaping	87%	85%	90%	79%	82%	87%	82%	81%	88%	86%	79%	84%
Overall performance of the Louisville Parks and Recreation Department	91%	88%	93%	86%	87%	91%	92%	86%	93%	90%	85%	89%

Prepared by National Research Center, Inc.

Table 79: Library and Museum Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the Louisville Public Library and Historical Museum and their services: (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Louisville Public Library programs (e.g., story time, One Book program, etc.)	96%	98%	98%	98%	97%	98%	97%	98%	98%	98%
Services at the Louisville Public Library (e.g., reference desk check out, etc.)	96%	98%	97%	98%	97%	95%	98%	99%	94%	98%
Internet and computer services at the Louisville Public Library	85%	93%	95%	95%	89%	90%	93%	94%	86%	92%
Louisville Public Library services online at www.louisville-library.org accessed from home or elsewhere (e.g., book holds, access databases, research, etc.)	89%	93%	94%	96%	89%	95%	92%	93%	91%	93%
Louisville Public Library materials and collections	80%	86%	84%	86%	82%	85%	84%	85%	83%	85%
Louisville Public Library building	94%	99%	97%	98%	97%	99%	97%	98%	97%	97%
Overall performance of the Louisville Public Library	94%	97%	97%	97%	96%	98%	96%	97%	95%	96%
Louisville Historical Museum programs (e.g., lectures, walking tours, newsletters)	86%	89%	92%	91%	88%	92%	88%	91%	85%	90%
Louisville Historical Museum campus	85%	91%	86%	92%	84%	91%	87%	89%	84%	88%
Overall performance of the Louisville Historical Museum	86%	89%	90%	92%	86%	91%	88%	90%	85%	89%

Prepared by National Research Center, Inc.

Table 80: Library and Museum Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the Louisville Public Library and Historical Museum and their services: (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	Overall
Louisville Public Library programs (e.g., story time, One Book program, etc.)	97%	97%	99%	98%	98%	97%	100%	98%	97%	97%	98%	98%
Services at the Louisville Public Library (e.g., reference desk check out, etc.)	99%	99%	96%	96%	96%	99%	100%	97%	99%	97%	98%	98%
Internet and computer services at the Louisville Public Library	93%	95%	92%	91%	91%	93%	100%	92%	93%	91%	95%	92%
Louisville Public Library services online at www.louisville-library.org accessed from home or elsewhere (e.g., book holds, access databases, research, etc.)	92%	97%	88%	92%	93%	93%	92%	93%	92%	92%	94%	93%
Louisville Public Library materials and collections	84%	92%	77%	83%	82%	87%	78%	84%	85%	85%	84%	85%
Louisville Public Library building	97%	99%	98%	97%	97%	98%	100%	97%	98%	97%	97%	97%
Overall performance of the Louisville Public Library	95%	99%	93%	97%	97%	96%	100%	97%	96%	96%	97%	96%
Louisville Historical Museum programs (e.g., lectures, walking tours, newsletters)	93%	80%	93%	91%	92%	89%	77%	91%	88%	89%	93%	90%
Louisville Historical Museum campus	93%	83%	91%	87%	87%	89%	90%	87%	90%	89%	86%	88%
Overall performance of the Louisville Historical Museum	91%	84%	87%	90%	90%	89%	79%	90%	88%	89%	88%	89%

Prepared by National Research Center, Inc.

Table 81: Public Works Department Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the performance of the following areas of Louisville Public Works Department: (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Street maintenance in your neighborhood	67%	61%	68%	65%	63%	64%	64%	63%	67%	64%
Street maintenance in Louisville	69%	68%	73%	70%	69%	74%	68%	69%	72%	70%
Street sweeping	80%	66%	71%	72%	69%	82%	67%	69%	76%	71%
Snow removal/street sanding	50%	48%	54%	52%	48%	54%	49%	51%	50%	50%
Street lighting, signage and street markings	81%	83%	82%	86%	79%	85%	82%	83%	82%	82%
Waste water (sewage system)	91%	94%	91%	92%	94%	93%	92%	94%	87%	92%
Storm drainage (flooding management)	97%	88%	85%	86%	91%	89%	89%	90%	86%	89%
Bike lanes on Louisville streets	74%	70%	70%	70%	72%	74%	70%	72%	68%	71%
Access on sidewalks/crosswalks for disabled persons	80%	85%	79%	78%	85%	84%	80%	82%	81%	82%
Quality of Louisville water	93%	89%	92%	91%	91%	91%	91%	91%	89%	91%
Overall performance of Louisville Public Works Department	93%	86%	87%	91%	85%	94%	85%	87%	90%	88%

Prepared by National Research Center, Inc.

Table 82: Public Works Department Ratings by Respondent Characteristics

Please circle the number that comes closest to your opinion about the performance of the following areas of Louisville Public Works Department: (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	Overall
Street maintenance in your neighborhood	70%	64%	67%	58%	68%	60%	64%	66%	61%	64%	66%	64%
Street maintenance in Louisville	75%	74%	74%	62%	71%	68%	71%	69%	70%	69%	70%	70%
Street sweeping	80%	74%	64%	63%	72%	70%	68%	71%	70%	71%	70%	71%
Snow removal/street sanding	47%	60%	55%	48%	50%	52%	46%	51%	50%	50%	52%	50%
Street lighting, signage and street markings	83%	83%	83%	81%	81%	84%	86%	82%	83%	83%	82%	82%
Waste water (sewage system)	96%	91%	96%	89%	92%	93%	94%	92%	94%	93%	93%	92%
Storm drainage (flooding management)	93%	91%	88%	85%	88%	90%	94%	88%	91%	90%	85%	89%
Bike lanes on Louisville streets	75%	64%	68%	71%	70%	74%	62%	70%	73%	72%	68%	71%
Access on sidewalks/crosswalks for disabled persons	86%	73%	81%	81%	84%	79%	82%	81%	82%	83%	77%	82%
Quality of Louisville water	89%	85%	91%	94%	89%	92%	90%	91%	91%	90%	92%	91%
Overall performance of Louisville Public Works Department	94%	81%	88%	85%	89%	87%	92%	88%	89%	89%	86%	88%

Prepared by National Research Center, Inc.

Table 83: Overall Services Rating by Respondent Characteristics

Overall, how would you rate the quality of services provided by the City of Louisville? (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Overall, how do you rate the quality of services provided by the City of Louisville?	98%	93%	91%	95%	92%	97%	92%	93%	93%	93%

Table 84: Overall Services Rating by Respondent Characteristics

Overall, how would you rate the quality of services provided by the City of Louisville? (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
Overall, how do you rate the quality of services provided by the City of Louisville?	97%	90%	95%	91%	92%	95%	95%	92%	95%	94%	90%	93%

Prepared by National Research Center, Inc.

Table 85: Louisville Employee Ratings by Respondent Characteristics

If you have had any email, in-person or phone contact with a City of Louisville employee in the last 12 months, what was your impression of the employee in your most recent contact? (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	Overall
Knowledge	82%	90%	89%	87%	90%	88%	89%	89%	86%	89%
Responsiveness/promptness	80%	82%	85%	84%	82%	89%	81%	83%	85%	83%
Availability	84%	84%	84%	86%	83%	92%	82%	83%	90%	84%
Courtesy	84%	91%	92%	93%	87%	90%	90%	90%	88%	90%
Overall impression	80%	85%	87%	86%	85%	89%	84%	85%	85%	85%

Table 86: Louisville Employee Ratings by Respondent Characteristics

If you have had any email, in-person or phone contact with a City of Louisville employee in the last 12 months, what was your impression of the employee in your most recent contact? (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	Overall
Knowledge	90%	85%	89%	89%	90%	85%	100%	91%	85%	88%	91%	89%
Responsiveness/promptness	83%	81%	85%	83%	87%	80%	74%	86%	80%	81%	89%	83%
Availability	89%	77%	86%	84%	88%	81%	75%	88%	80%	83%	87%	84%
Courtesy	90%	91%	92%	89%	92%	87%	96%	91%	88%	88%	96%	90%
Overall impression	84%	87%	88%	84%	89%	81%	92%	88%	83%	83%	92%	85%

Prepared by National Research Center, Inc.

Table 87: Participation Ratings by Respondent Characteristics

In the last 12 months, about how many times, if ever, have you or other household members participated in the following activities in Louisville? (Percent rating positively e.g., at least once or twice)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Played golf at the Coal Creek Golf Course	28%	15%	16%	16%	21%	18%	18%	18%	20%	18%
Used the Louisville Public Library or its services	63%	86%	78%	80%	76%	76%	79%	78%	78%	78%
Used the Louisville Recreation Center	63%	80%	73%	75%	73%	62%	78%	80%	57%	74%
Used Memory Square Pool	15%	50%	22%	33%	34%	15%	39%	40%	11%	33%
Visited the Louisville Historical Museum	25%	27%	35%	27%	31%	29%	29%	29%	27%	29%
Attended the Downtown Louisville Street Faire (9 nights in 2015)	77%	82%	71%	74%	81%	73%	79%	80%	69%	78%
Attended an event, show or activity at the Arts Center	29%	34%	46%	38%	35%	29%	40%	39%	29%	37%
Attended another event downtown (Art Walk, Taste of Lsvl, parade, Winter Skate)	73%	86%	77%	83%	78%	72%	83%	83%	74%	80%

Table 88: Participation Ratings by Respondent Characteristics

In the last 12 months, about how many times, if ever, have you or other household members participated in the following activities in Louisville? (Percent rating positively e.g., at least once or twice)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
Played golf at the Coal Creek Golf Course	18%	16%	23%	19%	19%	20%	11%	18%	19%	19%	18%	18%
Used the Louisville Public Library or its services	73%	83%	92%	77%	71%	85%	95%	70%	91%	79%	77%	78%
Used the Louisville Recreation Center	69%	74%	89%	75%	63%	85%	91%	63%	91%	74%	73%	74%
Used Memory Square Pool	23%	45%	53%	32%	13%	52%	72%	14%	60%	37%	22%	33%
Visited the Louisville Historical Museum	22%	32%	32%	32%	29%	30%	25%	29%	29%	27%	34%	29%
Attended the Downtown Louisville Street Faire (9 nights in 2015)	74%	78%	88%	77%	74%	83%	83%	74%	82%	81%	68%	78%
Attended an event, show or activity at the Arts Center	26%	29%	50%	47%	36%	38%	29%	36%	37%	33%	48%	37%
Attended another event downtown (Art Walk, Taste of Lsvl, parade, Winter Skate)	77%	80%	94%	80%	74%	88%	90%	74%	90%	82%	75%	80%

Prepared by National Research Center, Inc.

Table 89: Funding Priority Ratings by Respondent Characteristics

Beyond basic City services (police, water, sewer, etc.), the City has limited resources and must make hard decisions about funding priorities. Indicate how important to you each of the following areas are as the City considers residents' current and future needs. (Percent rating positively e.g., essential/very important)	Age			Gender		Rent or own		Housing unit type		
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	Overall
Maintaining, repairing, and paving streets	83%	86%	95%	88%	88%	86%	89%	88%	90%	88%
Encouraging sustainability (in buildings, energy and water use, recycling, etc.) for both residential and commercial properties	63%	67%	69%	73%	60%	78%	62%	62%	79%	66%
Creating an indoor community gathering space (arts center, community center, etc.)	28%	27%	32%	28%	29%	30%	28%	28%	31%	29%
Creating an outdoor community gathering space (amphitheater, commons, etc.)	49%	34%	30%	36%	37%	49%	32%	35%	42%	36%
Providing additional recreation facilities and amenities	41%	56%	46%	54%	45%	41%	52%	53%	40%	49%
Expanding Internet/broadband options	52%	48%	39%	43%	49%	53%	44%	45%	50%	46%
Using incentives to create business and employment opportunities	58%	58%	58%	58%	57%	58%	58%	59%	55%	58%
Maintaining the City's appearance/attractiveness	73%	78%	85%	75%	81%	71%	81%	81%	71%	79%
Providing additional parking in Downtown Louisville	45%	41%	66%	50%	49%	50%	50%	48%	53%	50%
Providing financial incentives for the redevelopment of the vacant former Sam's Club property	45%	45%	49%	47%	45%	45%	46%	47%	42%	46%
Increasing the amount of open space maintenance	36%	33%	41%	35%	36%	45%	32%	35%	38%	36%
Increasing the amount of parks maintenance	23%	28%	35%	28%	29%	36%	26%	28%	30%	29%
Providing new outdoor multi-purpose turf fields (soccer, football, etc.)	20%	24%	18%	19%	23%	22%	21%	22%	19%	21%
Expanding the Louisville Historical Museum	12%	9%	16%	11%	12%	17%	9%	10%	17%	12%
Subsidizing affordable housing	53%	34%	42%	47%	35%	69%	30%	31%	68%	41%

Prepared by National Research Center, Inc.

Table 90: Funding Priority Ratings by Respondent Characteristics

Beyond basic City services (police, water, sewer, etc.), the City has limited resources and must make hard decisions about funding priorities. Indicate how important to you each of the following areas are as the City considers residents' current and future needs. (Percent rating positively e.g., essential/very important)	Length of residency				Number of household members			Presence of children		Presence of older adults		
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	Overall
Maintaining, repairing, and paving streets	84%	94%	89%	88%	91%	85%	83%	91%	83%	86%	95%	88%
Encouraging sustainability (in buildings, energy and water use, recycling, etc.) for both residential and commercial properties	76%	67%	61%	58%	68%	65%	55%	65%	68%	67%	66%	66%
Creating an indoor community gathering space (arts center, community center, etc.)	30%	26%	34%	27%	27%	31%	28%	28%	30%	28%	30%	29%
Creating an outdoor community gathering space (amphitheater, commons, etc.)	46%	39%	35%	26%	36%	36%	46%	35%	38%	39%	30%	36%
Providing additional recreation facilities and amenities	49%	48%	55%	49%	43%	55%	67%	42%	60%	52%	43%	49%
Expanding Internet/broadband options	51%	44%	39%	43%	45%	47%	39%	45%	47%	49%	35%	46%
Using incentives to create business and employment opportunities	57%	56%	60%	59%	57%	58%	56%	57%	59%	59%	54%	58%
Maintaining the City's appearance/attractiveness	82%	75%	84%	76%	79%	79%	75%	78%	79%	78%	81%	79%
Providing additional parking in Downtown Louisville	44%	44%	37%	61%	56%	44%	40%	58%	37%	44%	67%	50%
Providing financial incentives for the redevelopment of the vacant former Sam's Club property	41%	49%	48%	49%	48%	44%	43%	47%	45%	46%	46%	46%
Increasing the amount of open space maintenance	38%	40%	26%	34%	39%	33%	25%	40%	30%	35%	39%	36%
Increasing the amount of parks maintenance	32%	27%	16%	30%	32%	24%	33%	32%	24%	28%	32%	29%
Providing new outdoor multi-purpose turf fields (soccer, football, etc.)	26%	17%	14%	21%	16%	25%	37%	16%	29%	23%	17%	21%
Expanding the Louisville Historical Museum	12%	9%	11%	13%	14%	9%	7%	13%	10%	10%	16%	12%
Subsidizing affordable housing	49%	41%	31%	35%	49%	33%	28%	47%	32%	41%	40%	41%

Prepared by National Research Center, Inc.

Table 91: Support for Changing Trash Service by Respondent Characteristics

(Percent rating positively e.g., strongly support/somewhat support)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Currently, the City's trash service (through Western Disposal) provides once per week trash pickup and compost and recycling pickup every two weeks. To what extent would you support or oppose changing the service to once per week compost pickup and trash	24%	27%	28%	31%	22%	36%	23%	25%	35%	26%

Table 92: Support for Changing Trash Service by Respondent Characteristics

(Percent rating positively e.g., strongly support/somewhat support)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
Currently, the City's trash service (through Western Disposal) provides once per week trash pickup and compost and recycling pickup every two weeks. To what extent would you support or oppose changing the service to once per week compost pickup and trash	23%	37%	29%	23%	34%	20%	8%	31%	20%	26%	26%	26%

Prepared by National Research Center, Inc.

Table 93: Support for Historic Preservation Tax Options by Respondent Characteristics

The City of Louisville currently has a Historic Preservation Tax, which is a dedicated sales tax (0.125 cents on every dollar spent). Revenue from this tax is used to help property owners rehabilitate and preserve historic landmarks which contribute to the character of Historic Old Town Louisville. This tax was approved by voters in 2008 and is set to expire in 2018. To what extent would you support or oppose each of the following options to continue the tax? (Percent rating positively e.g., strongly support/somewhat support)	Age			Gender		Rent or own		Housing unit type		
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	Overall
Continue the existing sales tax until 2028	77%	76%	71%	78%	70%	82%	71%	72%	80%	74%
Continue the existing sales tax until 2028 and also dedicate a portion of the tax to help operate the Louisville Historical Museum	69%	66%	68%	71%	62%	77%	63%	64%	76%	67%

Table 94: Support for Historic Preservation Tax Options by Respondent Characteristics

The City of Louisville currently has a Historic Preservation Tax, which is a dedicated sales tax (0.125 cents on every dollar spent). Revenue from this tax is used to help property owners rehabilitate and preserve historic landmarks which contribute to the character of Historic Old Town Louisville. This tax was approved by voters in 2008 and is set to expire in 2018. To what extent would you support or oppose each of the following options to continue the tax? (Percent rating positively e.g., strongly support/somewhat support)	Length of residency				Number of household members			Presence of children		Presence of older adults		
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	Overall
Continue the existing sales tax until 2028	79%	78%	76%	67%	76%	75%	56%	74%	75%	76%	69%	74%
Continue the existing sales tax until 2028 and also dedicate a portion of the tax to help operate the Louisville Historical Museum	70%	70%	63%	64%	70%	67%	41%	68%	66%	67%	67%	67%

Prepared by National Research Center, Inc.

Table 95: Support for Housing Options for Former Sam's Club Area by Respondent Characteristics

Most of the land zoned for residential uses in Louisville has been built out. In the former Sam's Club shopping area residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing? (Percent rating positively e.g., strongly support/somewhat support)	Age			Gender		Rent or own		Housing unit type		
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	Overall
Multifamily housing (apartments, condos, townhomes)	71%	49%	45%	55%	51%	74%	45%	46%	72%	53%
Subsidized housing (apartments, condos, townhomes)	61%	43%	43%	53%	42%	74%	37%	39%	69%	47%
Senior housing (apartments, condos, townhomes)	52%	58%	69%	66%	53%	64%	58%	57%	69%	60%

Table 96: Support for Housing Options for Former Sam's Club Area by Respondent Characteristics

Most of the land zoned for residential uses in Louisville has been built out. In the former Sam's Club shopping area residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing? (Percent rating positively e.g., strongly support/somewhat support)	Length of residency				Number of household members			Presence of children		Presence of older adults		
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	Overall
Multifamily housing (apartments, condos, townhomes)	69%	46%	47%	42%	59%	47%	38%	56%	48%	54%	47%	53%
Subsidized housing (apartments, condos, townhomes)	58%	46%	41%	38%	54%	42%	26%	51%	41%	49%	42%	47%
Senior housing (apartments, condos, townhomes)	68%	51%	53%	58%	66%	54%	51%	63%	55%	57%	67%	60%

Prepared by National Research Center, Inc.

Table 97: Support for Housing Options for US36/McCaslin Area by Respondent Characteristics

In the area near the US36/McCaslin transit/bus station residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing? (Percent rating positively e.g., strongly support/somewhat support)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Multifamily housing (apartments, condos, townhomes)	73%	53%	45%	56%	54%	73%	49%	50%	72%	55%
Subsidized housing (apartments, condos, townhomes)	68%	48%	44%	57%	46%	75%	43%	45%	69%	51%
Senior housing (apartments, condos, townhomes)	51%	60%	62%	64%	53%	63%	57%	56%	65%	58%

Table 98: Support for Housing Options for US36/McCaslin Area by Respondent Characteristics

In the area near the US36/McCaslin transit/bus station residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing? (Percent rating positively e.g., strongly support/somewhat support)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
Multifamily housing (apartments, condos, townhomes)	71%	54%	45%	44%	58%	54%	39%	56%	54%	58%	47%	55%
Subsidized housing (apartments, condos, townhomes)	62%	51%	47%	42%	54%	51%	34%	53%	49%	54%	43%	51%
Senior housing (apartments, condos, townhomes)	67%	53%	54%	54%	62%	56%	49%	60%	57%	58%	61%	58%

Prepared by National Research Center, Inc.

Table 99: Use of Information Sources by Respondent Characteristics

Please select how often you use each of the following sources to gain information about the City of Louisville. (Percent rating positively e.g., at least sometimes)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	11%	17%	34%	19%	22%	13%	24%	23%	13%	21%
Community Update (City Newsletter)	80%	92%	93%	91%	88%	78%	93%	93%	78%	89%
The Daily Camera/Hometown Weekly	66%	78%	80%	76%	76%	69%	78%	79%	67%	76%
The City of Louisville Web site (www.louisvilleco.gov)	70%	86%	67%	74%	79%	59%	83%	83%	58%	76%
City's email notices (eNotification)	13%	33%	30%	31%	24%	15%	32%	33%	12%	27%
Utility bill inserts	46%	78%	79%	70%	73%	40%	83%	85%	31%	71%
Word of mouth	82%	89%	85%	89%	83%	84%	87%	89%	79%	86%

Table 100: Use of Information Sources by Respondent Characteristics

Please select how often you use each of the following sources to gain information about the City of Louisville. (Percent rating positively e.g., at least sometimes)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	7%	16%	29%	34%	25%	17%	14%	24%	16%	17%	33%	21%
Community Update (City Newsletter)	81%	93%	94%	94%	87%	90%	94%	88%	91%	88%	93%	89%
The Daily Camera/Hometown Weekly	68%	84%	78%	79%	74%	77%	82%	73%	80%	75%	79%	76%
The City of Louisville Web site (www.louisvilleco.gov)	73%	82%	86%	74%	68%	84%	84%	70%	86%	80%	64%	76%
City's email notices (eNotification)	23%	28%	37%	28%	25%	31%	25%	25%	31%	27%	27%	27%
Utility bill inserts	51%	82%	84%	82%	62%	81%	82%	64%	82%	69%	78%	71%
Word of mouth	83%	91%	90%	86%	82%	91%	88%	82%	92%	88%	82%	86%

Prepared by National Research Center, Inc.

Table 101: Information Source Ratings by Respondent Characteristics

Indicate the quality and reliability of the information from that source. (Percent rating positively e.g., excellent/good)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	75%	68%	73%	71%	70%	79%	69%	68%	84%	71%
Community Update (City Newsletter)	81%	91%	87%	88%	87%	87%	87%	89%	82%	87%
The Daily Camera/Hometown Weekly	72%	66%	74%	77%	62%	80%	67%	69%	72%	70%
The City of Louisville Web site (www.louisvilleco.gov)	81%	78%	85%	86%	74%	92%	77%	80%	81%	80%
City's email notices (eNotification)	81%	86%	81%	85%	82%	82%	84%	85%	77%	84%
Utility bill inserts	65%	75%	83%	81%	71%	71%	77%	79%	51%	76%
Word of mouth	59%	47%	51%	58%	42%	53%	49%	52%	46%	50%

Table 102: Information Source Ratings by Respondent Characteristics

Indicate the quality and reliability of the information from that source. (Percent rating positively e.g., excellent/good)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	89%	58%	72%	70%	74%	68%	60%	72%	69%	70%	73%	71%
Community Update (City Newsletter)	88%	88%	90%	86%	88%	87%	79%	87%	87%	89%	83%	87%
The Daily Camera/Hometown Weekly	73%	67%	71%	68%	72%	69%	54%	71%	67%	70%	68%	70%
The City of Louisville Web site (www.louisvilleco.gov)	83%	80%	75%	80%	82%	80%	74%	82%	78%	81%	80%	80%
City's email notices (eNotification)	88%	80%	89%	80%	84%	84%	88%	83%	85%	84%	83%	84%
Utility bill inserts	67%	80%	75%	81%	78%	76%	68%	75%	77%	75%	79%	76%
Word of mouth	53%	55%	44%	47%	51%	50%	51%	49%	52%	50%	51%	50%

Prepared by National Research Center, Inc.

Table 103: Likelihood of Social Media Use by Respondent Characteristics

(Percent rating positively e.g., very likely/somewhat likely)	Age			Gender		Rent or own		Housing unit type		Overall
	18-34	35-54	55+	Female	Male	Rent	Own	Detached	Attached	
How likely, if at all, would you be to look for official City information on social media websites (e.g., Facebook, Twitter, Instagram, etc.) if the City were to increase its presence or activity?	67%	48%	26%	50%	42%	52%	43%	44%	49%	46%

Table 104: Likelihood of Social Media Use by Respondent Characteristics

(Percent rating positively e.g., very likely/somewhat likely)	Length of residency				Number of household members			Presence of children		Presence of older adults		Overall
	Five years or less	6 to 10 years	11 to 15 years	More than 15 years	1-2	3-4	5 or more	No	Yes	No	Yes	
How likely, if at all, would you be to look for official City information on social media websites (e.g., Facebook, Twitter, Instagram, etc.) if the City were to increase its presence or activity?	59%	47%	45%	31%	39%	56%	26%	41%	52%	53%	23%	46%

Prepared by National Research Center, Inc.

Geographic Area of Residence Comparisons

Table 105: Aspects of Quality of Life by Respondent Geographic Area

Please circle the number that comes closest to your opinion about the quality of life in Louisville: (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
How do you rate Louisville as a place to live?	96%	99%	99%	98%
How do you rate Louisville as a place to raise children?	96%	100%	98%	98%
How do you rate Louisville as a place to retire?	78%	81%	77%	79%
How do you rate Louisville as a place to work?	74%	77%	77%	76%
How do you rate the overall quality of life in Louisville?	96%	99%	96%	97%

Prepared by National Research Center, Inc.

Table 106: Select Community Characteristics by Respondent Geographic Area

Please rate Louisville as a community on each of the items listed below: (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Sense of community	84%	92%	86%	87%
Openness and acceptance of the community towards people of diverse backgrounds	71%	73%	68%	70%
Overall appearance of Louisville	90%	89%	91%	90%
Opportunities to attend cultural activities	67%	65%	70%	68%
Shopping opportunities	57%	56%	60%	58%
Opportunities to participate in special events and community activities	86%	87%	88%	87%
Opportunities to participate in community matters	82%	85%	84%	84%
Recreational opportunities	82%	86%	86%	84%
Employment opportunities	38%	41%	44%	41%
Variety of housing options	44%	42%	39%	42%
Availability of affordable quality housing	22%	13%	15%	17%
Ease of car travel in Louisville	74%	89%	88%	82%
Ease of bus travel in Louisville	62%	60%	56%	60%
Ease of bicycle travel in Louisville	85%	94%	92%	89%
Ease of walking in Louisville	87%	95%	92%	91%
Traffic flow on major streets	64%	73%	71%	69%
Quality of overall natural environment in Louisville	88%	92%	91%	90%
Overall image or reputation of Louisville	94%	97%	98%	96%

Prepared by National Research Center, Inc.

Table 107: Safety Ratings by Respondent Geographic Area

Please rate how safe you feel: (Percent rating positively e.g., very safe/somewhat safe)	Area			Overall
	Ward 1	Ward 2	Ward 3	
From violent crime (e.g., rape, assault, robbery)	98%	97%	97%	97%
From property crimes (e.g., burglary, theft)	86%	87%	91%	88%
In your neighborhood during the day	98%	98%	97%	98%
In your neighborhood after dark	94%	92%	95%	94%
In Louisville's downtown area during the day	99%	99%	99%	99%
In Louisville's downtown area after dark	93%	91%	95%	93%
In Louisville's parks during the day	98%	98%	98%	98%
In Louisville's parks after dark	82%	82%	87%	83%

Table 108: Government Performance Ratings by Respondent Geographic Area

Please circle the number that comes closest to your opinion about the performance of the following areas of the City of Louisville Administration: (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
City response to citizen complaints or concerns	63%	69%	72%	67%
Information about City Council, Planning Commission and other official City meetings	81%	75%	84%	80%
Information about City plans and programs	73%	74%	78%	75%
Availability of City Employees	74%	74%	76%	75%
Programming on Louisville cable TV, municipal channel 8	56%	64%	51%	57%
Louisville Web site (www.louisvilleco.gov)	79%	77%	77%	78%
Overall performance of Louisville City government	77%	78%	81%	78%

Prepared by National Research Center, Inc.

Table 109: Police Department Ratings by Respondent Geographic Area

Please circle the number that comes closest to your opinion about the following areas related to the Louisville Police Department: (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Visibility of patrol cars	88%	92%	88%	89%
911 service	94%	93%	92%	93%
Enforcement of traffic regulations	78%	83%	75%	79%
Municipal code enforcement issues (dogs, noise, weeds, etc.)	68%	69%	66%	68%
Overall performance of the Louisville Police Department	88%	92%	92%	90%

Table 110: Planning and Building Department Ratings by Respondent Geographic Area

Please circle the number that comes closest to your opinion about the following areas of Louisville Planning and Building Safety Department: (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
The public input process on City planning issues	67%	74%	74%	71%
Planning review process for new development	56%	67%	67%	63%
Overall performance of the Louisville Planning Department	58%	67%	66%	63%
Building permit process	61%	57%	63%	60%
Building/construction inspection process	69%	58%	65%	65%

Prepared by National Research Center, Inc.

Table 111: Parks and Recreation Department Ratings by Respondent Geographic Area

Please circle the number that comes closest to your opinion about the following areas of the Louisville Parks and Recreation Department: (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Current recreation programs for youth	85%	83%	88%	85%
Current recreation programs for adults	75%	80%	75%	77%
Current programs and services for seniors	87%	91%	85%	87%
Recreation fees in Louisville	70%	77%	79%	75%
Overall quality of the Louisville Recreation Center	68%	67%	65%	67%
Overall quality of the Louisville Senior Center	76%	82%	84%	81%
Overall quality of the Coal Creek Golf Course	79%	76%	83%	80%
Maintenance and cleanliness of the Louisville Recreation Center	82%	86%	82%	83%
Adequacy of parks, bike paths, playing fields and playgrounds	90%	93%	92%	91%
Maintenance of parks (e.g., landscaping, turf areas, playgrounds, picnic areas, etc.)	89%	91%	91%	90%
Maintenance of open space	84%	88%	90%	87%
Maintenance of the trail system	90%	90%	91%	90%
Maintenance of medians and street landscaping	85%	82%	84%	84%
Overall performance of the Louisville Parks and Recreation Department	88%	90%	88%	89%

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Table 112: Library and Museum Ratings by Respondent Geographic Area

Please circle the number that comes closest to your opinion about the Louisville Public Library and Historical Museum and their services: (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Louisville Public Library programs (e.g., story time, One Book program, etc.)	96%	98%	99%	98%
Services at the Louisville Public Library (e.g., reference desk check out, etc.)	96%	100%	98%	98%
Internet and computer services at the Louisville Public Library	92%	92%	94%	92%
Louisville Public Library services online at www.louisville-library.org accessed from home or elsewhere (e.g., book holds, access databases, research, etc.)	92%	92%	95%	93%
Louisville Public Library materials and collections	85%	82%	86%	85%
Louisville Public Library building	97%	97%	99%	97%
Overall performance of the Louisville Public Library	96%	96%	97%	96%
Louisville Historical Museum programs (e.g., lectures, walking tours, newsletters)	86%	89%	95%	90%
Louisville Historical Museum campus	85%	90%	92%	88%
Overall performance of the Louisville Historical Museum	87%	88%	92%	89%

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Table 113: Public Works Department Ratings by Respondent Geographic Area

Please circle the number that comes closest to your opinion about the performance of the following areas of Louisville Public Works Department: (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Street maintenance in your neighborhood	63%	64%	66%	64%
Street maintenance in Louisville	71%	68%	69%	70%
Street sweeping	73%	66%	72%	71%
Snow removal/street sanding	44%	51%	58%	50%
Street lighting, signage and street markings	85%	82%	80%	82%
Waste water (sewage system)	94%	90%	93%	92%
Storm drainage (flooding management)	90%	89%	88%	89%
Bike lanes on Louisville streets	69%	76%	69%	71%
Access on sidewalks/crosswalks for disabled persons	78%	87%	81%	82%
Quality of Louisville water	92%	92%	88%	91%
Overall performance of Louisville Public Works Department	88%	84%	91%	88%

Table 114: Overall Services Rating by Respondent Geographic Area

Overall, how would you rate the quality of services provided by the City of Louisville? (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Overall, how do you rate the quality of services provided by the City of Louisville?	93%	93%	94%	93%

Prepared by National Research Center, Inc.

Table 115: Louisville Employee Ratings by Respondent Geographic Area

If you have had any email, in-person or phone contact with a City of Louisville employee in the last 12 months, what was your impression of the employee in your most recent contact? (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Knowledge	86%	85%	95%	89%
Responsiveness/promptness	81%	83%	86%	83%
Availability	81%	82%	90%	84%
Courtesy	85%	92%	95%	90%
Overall impression	82%	85%	90%	85%

Table 116: Participation Ratings by Respondent Geographic Area

In the last 12 months, about how many times, if ever, have you or other household members participated in the following activities in Louisville? (Percent rating positively e.g., at least once or twice)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Played golf at the Coal Creek Golf Course	15%	19%	23%	18%
Used the Louisville Public Library or its services	79%	78%	78%	78%
Used the Louisville Recreation Center	69%	84%	73%	74%
Used Memory Square Pool	29%	39%	32%	33%
Visited the Louisville Historical Museum	29%	24%	32%	29%
Attended the Downtown Louisville Street Faire (9 nights in 2015)	74%	79%	81%	78%
Attended an event, show or activity at the Arts Center	38%	35%	37%	37%
Attended another event downtown (Art Walk, Taste of Lsvl, parade, Winter Skate)	79%	79%	83%	80%

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Table 117: Funding Priority Ratings by Respondent Geographic Area

Beyond basic City services (police, water, sewer, etc.), the City has limited resources and must make hard decisions about funding priorities. Indicate how important to you each of the following areas are as the City considers residents' current and future needs. (Percent rating positively e.g., essential/very important)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Maintaining, repairing, and paving streets	88%	87%	90%	88%
Encouraging sustainability (in buildings, energy and water use, recycling, etc.) for both residential and commercial properties	69%	61%	68%	66%
Creating an indoor community gathering space (arts center, community center, etc.)	25%	29%	33%	29%
Creating an outdoor community gathering space (amphitheater, commons, etc.)	31%	38%	42%	36%
Providing additional recreation facilities and amenities	45%	54%	52%	49%
Expanding Internet/broadband options	44%	42%	52%	46%
Using incentives to create business and employment opportunities	52%	58%	65%	58%
Maintaining the City's appearance/attractiveness	75%	86%	76%	79%
Providing additional parking in Downtown Louisville	50%	46%	53%	50%
Providing financial incentives for the redevelopment of the vacant former Sam's Club property	39%	48%	53%	46%
Increasing the amount of open space maintenance	38%	32%	36%	36%
Increasing the amount of parks maintenance	31%	26%	28%	29%
Providing new outdoor multi-purpose turf fields (soccer, football, etc.)	18%	21%	25%	21%
Expanding the Louisville Historical Museum	13%	8%	13%	12%
Subsidizing affordable housing	42%	31%	48%	41%

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Table 118: Support for Changing Trash Service by Respondent Geographic Area

Currently, the City's trash service (through Western Disposal) provides once per week trash pickup and compost and recycling pickup every two weeks. To what extent would you support or oppose changing the service to once per week compost pickup and trash pickup every two weeks (leaving recycling pickup every two weeks)? (Percent rating positively e.g., strongly support/somewhat support)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Currently, the City's trash service (through Western Disposal) provides once per week trash pickup and compost and recycling pickup every two weeks. To what extent would you support or oppose changing the service to once per week compost pickup and trash	27%	19%	32%	26%

Table 119: Support for Historic Preservation Tax Options by Respondent Geographic Area

The City of Louisville currently has a Historic Preservation Tax, which is a dedicated sales tax (0.125 cents on every dollar spent). Revenue from this tax is used to help property owners rehabilitate and preserve historic landmarks which contribute to the character of Historic Old Town Louisville. This tax was approved by voters in 2008 and is set to expire in 2018. To what extent would you support or oppose each of the following options to continue the tax? (Percent rating positively e.g., strongly support/somewhat support)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Continue the existing sales tax until 2028	70%	74%	79%	74%
Continue the existing sales tax until 2028 and also dedicate a portion of the tax to help operate the Louisville Historical Museum	63%	69%	71%	67%

Table 120: Support for Housing Options for Former Sam's Club Area by Respondent Geographic Area

Most of the land zoned for residential uses in Louisville has been built out. In the former Sam's Club shopping area residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing? (Percent rating positively e.g., strongly support/somewhat support)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Multifamily housing (apartments, condos, townhomes)	49%	53%	57%	53%
Subsidized housing (apartments, condos, townhomes)	46%	44%	50%	47%
Senior housing (apartments, condos, townhomes)	58%	62%	60%	60%

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Table 121: Support for Housing Options for US36/McCaslin Area by Respondent Geographic Area

In the area near the US36/McCaslin transit/bus station residential development is currently not allowed. If this area was to redevelop with retail and offices, to what extent would you support or oppose including any of the following types of housing? (Percent rating positively e.g., strongly support/somewhat support)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Multifamily housing (apartments, condos, townhomes)	52%	55%	59%	55%
Subsidized housing (apartments, condos, townhomes)	46%	52%	57%	51%
Senior housing (apartments, condos, townhomes)	58%	62%	56%	58%

Table 122: Use of Information Sources by Respondent Geographic Area

Please select how often you use each of the following sources to gain information about the City of Louisville. (Percent rating positively e.g., at least sometimes)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	19%	21%	23%	21%
Community Update (City Newsletter)	85%	96%	89%	89%
The Daily Camera/Hometown Weekly	72%	79%	78%	76%
The City of Louisville Web site (www.louisvilleco.gov)	68%	87%	76%	76%
City's email notices (eNotification)	23%	30%	32%	27%
Utility bill inserts	62%	84%	73%	71%
Word of mouth	84%	88%	88%	86%

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Table 123: Information Source Ratings by Respondent Geographic Area

Indicate the quality and reliability of the information from that source. (Percent rating positively e.g., excellent/good)	Area			Overall
	Ward 1	Ward 2	Ward 3	
Attend, watch or stream a City Council meeting or other program on Comcast channel 8 (government access) or online	69%	74%	71%	71%
Community Update (City Newsletter)	87%	88%	87%	87%
The Daily Camera/Hometown Weekly	69%	66%	75%	70%
The City of Louisville Web site (www.louisvilleco.gov)	82%	81%	78%	80%
City's email notices (eNotification)	79%	91%	82%	84%
Utility bill inserts	75%	77%	77%	76%
Word of mouth	50%	49%	53%	50%

Table 124: Likelihood of Social Media Use by Respondent Geographic Area

(Percent rating positively e.g., very likely/somewhat likely)	Area			Overall
	Ward 1	Ward 2	Ward 3	
How likely, if at all, would you be to look for official City information on social media websites (e.g., Facebook, Twitter, Instagram, etc.) if the City were to increase its presence or activity?	45%	48%	44%	46%

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Appendix C: Verbatim Responses to Open-ended Survey Questions

All write-in responses are presented below verbatim, meaning spelling and grammar has not been corrected.

Question 11a: List the department the employee you most recently contacted works in:

- 911
- 1st Responders/police.
- Administration.
- Administration.
- animal control I think also a judge in the court.
- Arborist questions (dying big trees).
- Arborist.
- Ardor specialist.
- Bill pay.
- Billing (water/trash).
- Billing for Water & material disposal.
- Billing for Water etc.
- Billing, Rec Center.
- Billing.
- Billing.
- Billing.
- Billing/Water & sewer bill.
- Bldg.
- Building and zoning.
- Building Code dept.
- Building dept.
- Building dept.
- Building dept.
- Building dept.
- Building dept.
- Building dept.
- Building new heater insp.
- Building Permit & Planning.
- Building permit.
- Building permit.
- Building permits.
- Building permits/inspections.
- Building Planning.
- Building safety.
- Building.
- Building.
- Building.
- Building.
- Building/permits.
- Called about Water/sewer bill.
- Can't recall!
- Can't recall.
- city clerk - dog licensing.
- city clerk XXXX.
- city council.
- city council.
- city Forrester.
- City hall Re: birth certification female (XXXX?).
- city Hall reception.
- city Hall.
- city manager.
- city manager.
- city manager.
- city manager.
- city manager/arts admin.
- City manager's office- no follow up was received.
- city of Louisville utilities.
- city to Pay Utility bill.
- Code enforcement- does not enforce dog off leash law.
- Code enforcement Louisville police.
- Code enforcement non-emergency dogs-barking.
- Code enforcement, animal control.
- Code enforcement.
- Code enforcement.
- Code enforcement.
- Code enforcement.
- Code enforcement/Fire dept.
- County clerk- very lazy!
- County courthouse.
- courthouse.
- Dept of Planning & bldg safety.
- Deputy city manager.
- dog catcher.

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- dog licenses.
- dog off leash not enforced.
- Don't know.
- Don't remember the name- HR dept. person.
- Economic development.
- EMT (911).
- Events.
- Finance.
- Finance.
- Finance/Sales tax.
- Fingerprinting @ LPD.
- Fire Dep.- for ambulance service if needed.
- Fire Dept to put in car seat.
- Fire.
- Forestry.
- Front desk.
- Front desk.
- Golf course.
- Haven't had any contact.
- Head of tree maint supv! Very unconcerned about my issue!
- inspection.
- Inspection/permit.
- inspections.
- Inspections/ Permitting office.
- Less expense on over 55 condos.
- Library & Public works.
- Library, energy, trash, Rec Center.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- Library.
- License department.
- Line locator.
- Louisville Art Center.
- Louisville police.
- Louisville Public Library.
- Louisville Rec.
- Louisville Recreation & senior Center.
- Main Building.
- Mulching Public works?
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
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- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- NA.
- NA.
- NA.
- NA.
- NA.
- No contact.
- No contact.

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- No one contacted.
- None lately.
- None.
- None.
- not sure.
- Oh dear- someone on the council I wrote to!
- open space.
- open space.
- open space.
- open space/Parks.
- park & Rec / XXXX.
- park & Recreation dept.
- park reservations.
- Park.
- Parks - open space.
- Parks & open space on Davidson Mesa.
- Parks & open space.
- Parks & Rec dept.
- Parks & Rec.
- Parks & Rec.
- Parks & Rec.
- Parks & Rec.
- Parks & Rec.
- Parks & Rec.
- Parks & Rec.
- Parks & recreation.
- Parks & recreation.
- Parks & recreation.
- Parks about pesticides & herbicides.
- Parks and recreation.
- Parks.
- Parks.
- Parks.
- Parks/open space.
- Parks/open space.
- Parks/Rec.
- Parks/works with trees.
- Pay Water bill.
- Permit Residential remodel.
- Permit, police.
- permit.
- Permit/inspection.
- permits for Building decks.
- permits.
- permits.
- permits.
- permits-for fence.
- Permitting (construction).
- Pet License renewal- not sure depart.
- Photo contest & catalog production.
- Planning & Building safe.
- Planning & Building safety division.
- Planning & Building safety.
- Planning & Building.
- Planning & zoning (Permit).
- Planning dot shed non-compliant for city works.
- Planning office.
- Planning.
- Planning.
- Planning.
- Planning.
- Planning.
- Planning.
- Planning.
- Planning.
- Planning.
- Planning.
- Planning.
- Planning/Building.
- Police - Library - Rec Museum.
- Police dept.
- Police dept.
- Police dept.
- Police dept.
- Police dept.
- Police officer.
- police.
- police.
- police.
- police.
- police.
- police.
- police.
- police.
- police.
- police.
- police.
- police.
- Police/court house.
- Police/Fire.
- Police/senior Center.
- Public Library.
- Public Library.

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- Public works & park & Rec.
- Public works XXXX.
- Public works- XXXX
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works.
- Public works/Bldg.
- Public works-concerning the lateness of my city Water & trash bill.
- Rec Center & Library.
- Rec Center, Fire dept.
- Rec Center.
- Rec Center.
- Rec Center.
- Rec Center.
- Rec Center.
- Rec Center.
- Rec Ctr.
- Rec.
- Rec.
- Rec. Center.
- Reception & dog license.
- Recreation Center.
- Recreation Center.
- Recreation Center.
- Recreation Center.
- recreation.
- recreation.
- recreation.
- Recreation/Rec Center.
- Registering kayaks.
- Residential Billing.
- Retail Sales tax.
- Sales tax.
- senior Center.
- senior services.
- snow removal.
- Street lighting person.
- Street maintenance.
- Streets & snow removal.
- Tennis courts.
- tree issues.
- Utilities (water, trash etc).
- Utilities dept. (XXXX?).
- utilities.
- utilities.
- utilities.
- Utilities/Billing.
- Utility bill.
- Utility Billing, park ranger.
- Utility Billing.
- Utility Billing.
- Utility Billing.
- Utility Billing.
- Utility Billing.
- Utility.
- Water & sewer.
- Water bill.
- Water Billing.
- Water department.
- Water dept.
- Water dept.
- Water meter maint.
- Water payments.
- Water- Rec dept.
- Water resources/utilities.
- Water.
- Water.
- Water.
- Water.
- Water.
- Water.
- Water/Billing.

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- Water/Public works.
- Water-accounting.
- XXXX, open space.
- XXXX (Forester).
- XXXX @ Rec Center.
- XXXX in Reception area when paying H20/trash bill.

Question 19: What sources, other than those listed above, would you or do you use to get information about the City of Louisville?

- "0027" FB : Quality is poor.
- "Oh Oh two seven" Louisville FB page, open space FB page.
- ? unknown.
- 0027 Facebook page.
- 0027 Facebook page.
- 0027 Facebook.
- 80027 Facebook page.
- 80027 feed - Facebook.
- 9 News.
- Auto phone message about parades & arts events.
- Billboards in coffee shops, etc.
- Boulder weekly, yellow scene, Denver post.
- Bulletin Board Louisville library.
- Bulletin Boards in cafes and stores.
- Call city hall.
- Call city.
- Call the department I need.
- Calling on phone.
- Certainly not the daily comers.
- Channel 9 news.
- Cheilitis magazines, Sr. services.
- Citizens Action Committee.
- City employees.
- City offices.
- Colorado public radio.
- Come to city offices and converse with staff.
- Council members.
- County & Cdot websites.
- Crime updates.
- Denver post.
- Denver post.
- Denver post.
- Don't know of any.
- Don't know.
- Driving around/neighbors.
- Email notification thru Nextdoor Neighbor.com.
- Email to HOA's & let them distribute to homeowners. Better communications with fire department- street closures, etc..
- Emails would be good.
- Facebook - Oh Oh group.
- Facebook - Oh Oh two seven.
- Facebook "80027" group.
- Facebook -"Oh Oh 27 site".
- Facebook "Oh Oh 27" Group.
- Facebook (80027).
- Facebook 0027 group.
- Facebook 80027 page.
- Facebook 80027 page.
- Facebook group "80027" fair quality & reliability.
- Facebook group- The Oh Oh.
- Facebook groups, Denver post, street signage for events.
- Facebook groups.
- Facebook Oh Oh 27 group.
- Facebook- Oh Oh 27.
- Facebook pages.
- Facebook- The 0027.
- Facebook- the Oh Oh 27.
- Facebook Twitter.
- Facebook-"0027".
- Facebook-"Oh-Oh-two-seven."
- Facebook, Instagram.
- Facebook, Next Door.
- Facebook.
- Facebook.
- Facebook.
- Facebook.
- Facebook.
- Facebook.
- Facebook/0027 website.
- Facebook/social media.
- FB - 80027 page.

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- Flyers.
- Flyers/info packets located at library.
- Google
- Google search for specific info.
- Google search.
- Google.
- Historical newsletter.
- HOA Community & Louisville updates.
- HOA.
- How about electronic posting @ police stn (street- SME boards).
- How do I get e Notifications?
- I am worn out with the city's reliability - noise, commotion, frenzy with street fairs & music & events in the park & main street. It is not a good of town as it use to be in the 1980's. Way too fancy and expensive.
- I call whatever dept. I'm seeking info from.
- I get out and around and see for myself!
- I go to "the Oh Oh two seven" Facebook page.
- I live at Balfour-Surround- Head of the Transportation Service.
- In the past I used the library a lot. -I use my computer now.
- Intellicast.com, Google.
- Just looking around.
- Library free center.
- Library porting boards.
- Library, City Hall.
- Library.
- Listed above and 0027.
- Lived here forever.
- Local Bulletin Boards (art underground, library, preschool).
- Local neighborhood groups.
- Local social media groups.
- Louisville public library/ Street signs/ Boulder county publications re human services in Lsvl.
- Louisville Senior Center.
- More mail notifications.
- More social media, more info in emails & easier to find.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- N/A.
- News channels that broadcast info.
- Nextdoor.com
- None other.
- None- we have enough sources already.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None.
- None. Town cryer maybe?
- Not Boulder.
- Notices at the Louisville Rec. Ctr.
- Notices up in the library.
- Noun.
- Oh Oh 17 Facebook group.
- Oh Oh 27 Facebook page.
- Oh Oh 27 FB page.
- Oh Oh Facebook.
- Oh oh two seven on FB.
- Oh Oh website.

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- Oh on two seven Facebook group.
- On the Oh Oh 27 facebook group.
- Other business owners.
- Outdoor signage.
- Phone call to City Hall.
- Phone call.
- Phone, paper & newsletters & word of mouth.
- Posters around town.
- Postings at Rec Center.
- Postings downtown along Main St. & in the library.
- Postings in the library.
- Rec Center Boards.
- Rec center catalog.
- Rec Center catalogue.
- Rec Center, library.
- Recreation Center brochure & Facebook.
- Recreation Center.
- RSS feed - Advertised on website.
- Sandwich board notices along the streets.
- Schools, local businesses.
- Search web.
- Shop owners.
- Signs and the monitors at the Rec Center.
- Signs around town (e.g. farmers mkt, summer concerts, etc).
- Signs on streets/corners.
- Signs on the street.
- Signs posted along open space/trails.
- Signs posted at rec center.
- Signs posted on properties (notices, etc).
- Signs posted on the roadside about community meetings.
- Social media (Oh-Oh Two-Seven FB page; Twitter).
- Social media i.e. Facebook.
- Social media, postings downtown.
- Social media.
- Social media.
- Some business owners.
- Staff.
- Street notices.
- Street signs/flags; library.
- Television.
- Text message, facebook.
- Texts.
- That's plenty any more would be overwhelming.
- The 0027 Facebook page.
- The community weekly & Denver post.
- The corner signs promoting city meetings- well done! Notices E library effective, too.
- The Denver post (sometimes) prints/delivers info about Louisville.
- The Facebook group "Oh Oh two seven".
- The library is the primary place I go. And also the playgrounds. Due to family circumstances I don't follow info mailed out. Was disappointed when my mom moved here no affordable housing for seniors available.
- The mail.
- The planning meeting signs postal on corners.
- The Recreation Center catalog.
- TV & Radio news.
- TV or newsletter.
- Twitter, Facebook, website.
- Twitter.
- Unknown.
- Vic's.
- Visits to downtown M.
- Walking around town.
- Website 80027, Linkedin (for professionals), digital billboard that blends into the landscape (not obnoxious)- can be programmed remotely to change info often.
- Would use social media.
- Yellow pages or community guide & business directory.
- Zhexs[?].

Question 21: Comments:

- "Blast" type info on city services e.g.
- #1 source today.
- (1) A parking solution that actually allows residents to park at their own homes is

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essential in the downtown business area. Some do not have alley access parking or driveways that can be parked in without blocking the sidewalk. i.e. Permit parking.(2) Trash pickup every other week in nonsense. Some don't compost everything.
- (1) Need extra room for seniors. (a)Rec center. (2) Need to relocate prairie dogs/rabbits north of wells range. (3) Need stop light. (a)Pine and via Rapid.
- 0027 Facebook is great!
- 1. Re: Rec Center overcrowding- Superior residents should pay non-resident fees. 2. Re: Sam's Club development - Commercial use for youth activity center.
- 3-4 yrs ago, I would have listed everything as excellent, instead of small charming town, with additional housing projects it is becoming overcrowded & city not prepared for what they created, roads are congested, not enough schools or water [?] hospital downtown too busy.
- Add more time to the left arrow at South Boulder Road and McCaslin Blvd.
- Already do.
- Always go to website! Social media doesn't seem as reliable & current.
- Am 91, crippled, very hard of hearing. Use the Lafayette library regularly.
- Any future construction should only be allowed on previously built up land. Leave the fields, farms, and open spaces as they are.
- As long as it is accurate!
- Bumping the sidewalks out was a bad idea. Tearing out the wild sweet peas was appalling.
- Can you post on snap chat and there are too many loose dogs.
- Charging for 911 service (fire/rescue) is outrageous!! No snow removal on side streets is embarrassing.
- City Council makes bad decisions on spending, expenses, property purchase.
- City starting to get get too crowded/ no more apartments or multi-family housing- concerned about impact on school class size.
- Code enforcement needs to enforce dog off leash law between 7am-8am & 6pm-7pm & weekends.
- Concerned about the residential development increases which I do not support.
- Development of residential (especially Hi-Density) is ruining Louisville. It is losing its unique character and becoming like all other generic towns.
- Do not have a computer.
- Do not subsidize a Sam's Club redev. Require upgrade of Albertsons to 2010, or do not renew their exclusive license.
- Do not use social media websites.
- Do you/we want that information made public to everyone? Will you be inundated with non-residents?
- Don't ever use social media.
- Don't expose my privacy to social media!
- Don't have cable or a web-site.
- Don't have computer.
- Don't use a blog or allow comments!
- Don't use social media.
- Don't use social media.
- Don't use those social media sites.
- Don't.
- Email (or paper) is best. It reaches a wider audience. I do not support social media.
- Emergency information- i.e. blizzard, flooding, crime.
- Enforce your dog off leash law!
- Enough with building homes & apartments! There is going to be so much traffic & congestion at S. Boulder Rd & 95th in the very near future!
- Facebook (preferred).
- Facebook- already use street fair posts.
- Facebook especially.
- Facebook might be useful, but not the others particularly. E.g. etc. Whatever that might mean.
- Facebook- not twitter or instagram.
- Facebook or Instagram only.
- Facebook would be most useful for me.

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- Facebook!
- FB is becoming a news source.
- FB.
- Following on Facebook would give me info and updates.
- For community events like movie night in park, etc. A community calendar would be great.
- For multi family living, - I would want a safe place for children to play-
- Forget Sam's Club site. Focus on crap along S. Boulder Rd: Parco & Crummy Apartments; Rundown vacant stores @ Hwy 42!!
- General. When contractors are hired by the city please supervise their work- there has been damage done to private property by them. No response from contractors.
- Have only lived here a couple of months.
- I am disabled so can't take part of a lot that Louisville has to offer. Too much multifamily housing.
- I do not currently use social media. Facebook might be a good idea, though, since that would be available to the public.
- I don't do social media.
- I don't like to have to go to multiple sites to find information using social media has to be well thought out so those that don't use it can still find the same info elsewhere.
- I don't participate with social media, but I am not opposed.
- I don't use any of those social media sites.
- I don't use social media in this way. I like traditional media.
- I don't use social media.
- I don't use these social media outlets, by choice.
- I don't use these websites.
- I don't use-or want to have to use-social media.
- I grew up in Louisville until I went to college, then moved back last September. In total, have lived 19 years in Louisville .
- I have none of the above and never want to get them.
- I live in Balfour Retirement Community so somewhat isolated from "real" world.
- I loathe social media. Just keep the website up to date!
- I look living in Louisville & would like to stay as I age, but it's hard to downsize my house & stay in Louisville. Need smaller, net zero housing.
- I love living in Louisville! It's better than Boulder!
- I really wish the city would stop building high density housing and ruining what make Louisville a great place!
- I use a water filter so unsure of water quality. I get lost on bike/walk paths & so request street signs when paths (inter section 00) cross a magic street.
- I use Twitter & Instagram & Facebook everyday.
- I used to live in Louisville in my house from 2003-2009 when my children were young & just recently moved back to a townhome town.
- I want more bike trails. The police should ticket people for off leash dogs.
- I would encourage the city to invest in a better outdoor recreational swimming pool.
- I would like to see light reduction policies in neighborhoods- give us back the evening sky & get neighbors to use motion detectors not garage lights.
- I would love to see a small dog area at a dog park!
- I would love to see the weight room at the Rec Center gym set a face lift/expansion.
- I would recommend Facebook.
- I wouldn't look for info on SM. But if it pops up u would notice it.
- If I'm wondering about an issue I will check the city's website but I suppose news alerts/announcements would be good. Twitter.
- If Louisville's demographic becomes "younger", then social media makes sense, it's likely we'll be getting some google employees living in Louisville, so we should be using social media.
- If something big is happening.
- I'm not sure where the police officer/cars hang out... McCaslin and South Boulder

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road have a lot of speeders... seems like a good way to make money!
- Jay Keany has been very helpful with postings on the local Facebook pages.
- Keep city business professional. Social media is not professional. Police & fire services are top notch in our town, keep it up!!
- Lafayette is a model to follow on this. I've found their updates to be useful.
- Less money or trails and parks, more on open space -we passed box primarily for open space. Limit scrapes through ordinance.
- Louisville is a great place to live. Lack of ranch style single family housing (Not patio homes) is a problem.
- Louisville is becoming too crowded. Stop allowing development. Louisville is losing in character stop allowing scrape offs.
- Louisville is close to a perfect town. Now if I could afford to buy a house here.
- Louisville is not very diverse bk it is too expensive to live here. Downfall- the cost to live here.
- Louisville is quickly becoming homogenized and is losing it's soul with all the building and the type of people it attracts.
- Louisville is very wonderful city to live and everything is close by. I enjoy rec center the most.
- Louisville leaders need to know: Don't block the mountains, don't overcrowd the city, give us open spaces!
- Louisville, co. Great place to live years ago but a circus now.
- Love the senior center.
- Love to see the Rec Center have better hours (later access).
- Managing issues related to Louisville's growth/demographic shift are important to keeping Louisville a high desirable place to love.
- Might bring our community even closer.
- More adult recreation options for team sports would be nice (soccer, basketball, ultimate frisbee).
- More info in my Facebook feed please.
- More summer camp at Rec Center-availability!!! Expand swim area-lazy river-children's are (Lafayette much better).
- Most likely Facebook.
- Moved to Louisville in 1993 from Boulder. We love it here!
- Mr. Muckle needs to keep the sidewalks in front of his personal property cleared of unsightly overgrowth of weeds etc.
- Need a youth center for teenagers. Too many lawns out of control, or filled w/ junk.
- Never use social media.
- Never.
- New website is a big disappointment. Especially Planning Dept.
- No computer! And no interest in getting one.
- No more residential building. Traffics in S. Bldr is terrible. Many shops & have to go to Bldr or Lafay. for goods & services gently better biz in Lville.
- Non-compostable trash could get very stinky over 2 wks ex(baby diapers) and we do have babies that use disposable.
- None- To much social media. We did not choose website for social media.
- None.
- Not big into social media in general (caveat).
- Not on social media due to privacy concerns.
- On facebook especially.
- Once or twice a year.
- Other family members may use Facebook. Not twitter or instagram.
- Overall this city is awesome, but I have concern about how the influx of new families to Louisville, Boulder, Lafayette & Erie will impact our quality of life, traffic etc. Lets work together to make smart decisions for the future.
- Please add a small dog park/enclosure for safety of small dogs. Please enforce leash law especially on bike paths and parks. Leash law on bike paths, in parks & every

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where need to be enforced. It is dangerous to have all the loose dogs. TY
- Please consider demolishing the old Sam's Club property and putting in park space, etc. or a public outdoor pool!!
- Please do not bring King Soopers to McCaslin. Please find a developer that will do high density mixed use. I would love a brewery there too.
- Please fix the potholes an McCaslin Blvd. in front of HR block. They are terrible on my car.
- Please no more new housing developments.
- Please provide more info on FB.
- Please think about providing more affordable housing options. We need the diversity in this town.
- Probably would be a good idea as many residents have these. I just don't use social media so I wouldn't pay attention this way.
- Questions 16 & 17 are poor questions because it all depends on what is proposed (density quantity etc.)
- Recreation for young children is sorely lacking in winter, as you can see during overcrowded library story hour. Please find space for indoor playroom or family center-as Westminster and Broomfield have done!
- Right now, I get updates via the Oh Oh 27 Facebook page- If it's happening in Louisville, someone posts about it (including when that guy was smashing into cars in old town).
- Sadly, Louisville is turning into a mini-Boulder so its loosing some of its charm & the values are changing negatively.
- See attached new homes. Stop building!! The roads are already much busier than 5 yrs ago. Leave the church it brings so much to the community & 100's of people who go. It is a community center. It was vacant for at least a yr before the church!!
- Slow down growth- this growth in ridiculous!
- Snow removal in Louisville is terrible. That is the worst part of this city. Also very little affordable housing-esp for seniors. And most other pools in the area are better for little kids so we don't use the Rec Center.
- Social media is helpful.
- Social media is what is wrong w/ America and the world. It is sad but our country is close to doomed... I feel sorry for the youth.
- Some of us don't do social media.
- Spending $25 million+ for a new Rec Center for a community of 20,000 people is irresponsible.
- Thanks for wanting input.
- The city currently lacks sufficient housing for young professionals or entry-level workers. Not against senior housing, but young workers & families should get housing priority.
- The city has been severely overdeveloped in a short period of time. All these condos/town homes will ruin Louisville's unique advantages and community character. For shame!
- The city of Louisville is great!
- The city website is not that easy to navigate, would be nice to be able to store info for paying utility bills (address, credit card) Library- store library card numbers.
- The city would have to do it so it's accurate. There's a Facebook group with our zip code, but i don't follow because I hear its more gossip than news.
- The government which governs least, governs best!!!
- The Lsvl Rec Center could much better serve seniors (50+) users in improving cleanliness of pool, steam room, hot tub, locker rooms, etc by limiting/isolating services/location/sections to adults only- No young children day. No potty issues! Noise issues! crowding issues.
- The main road are maintained well, but residential roads have lots of cracks/pot holes. The Rec Center needs an expansion/update.
- The more you build, the more you want to raise rent on prices greed IS SO strong.

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- The peace and quiet that made Louisville a comfortable place to live is pretty much gone. Sad to see the place crowded and frenetic.
- The quality of life in Louisville has gone down in the last 4 yrs. due to traffic restricted access to services and businesses in downtown. Louisville; high density houses & huge loss of open areas in the city.
- The question says "look for". That sounds like the way a website to pull data. Works-searchable to answer specific questions. Social media pushes data.
- The Rec Center needs more programs for tweens (10-12 years) and younger teens. These ages are left out (except for sports).
- The urns for hot chocolate at winter skate need replacing to ones with thermostates. My son leg was burned and scarred this last winter.
- This city's civil servants do an excellent job. This has been a great place to live!
- Too much residential development! Getting too much traffic. We have become too successful.
- Twitter & Facebook are a great way to keep us informed.
- Twitter waw be good.
- Use Facebook "0027" to post announcements.
- Very happy living & retiring in Louisville.
- We are new residents to Louisville although we have lived in the area for years. After moving to North-end I have become dismayed/disappointed in the level of high density housing at NE, Balfour, Kestrel & Steel Ranch that Louisville has approved. I do not feel there is adequate street infrastructure for services to support this level of growth!
- We could use more teen activities.
- We have enough multifamily housing. It detracts from Louisville anxieties. Please no more.
- We like oh oh 27.
- We love Louisville! What a wonderful place to live!
- We need more of a hometown feel and not a media or marketing strategy.
- We need to figure out a way to stop train from blowing horn... It is impacting value of properties near tracks.
- We would also support weekly recycling but overall every other week trash is strongly supported.
- What is up with the black hole storage tech?
- Where are we suppose to worship? At a Rec Center? On Friday downtown?
- Why have stop signs in residential areas police do no care. Why use/have valid plates, most out of state & new cars have expired plates rich folks do not care.
- Would ask relatives eg, Mayor.
- Would be nice.
- Would like more senior housing that is more affordable for low income seniors.
- Would like to see funding allocated to beautifying the fencing on the Appia and the trailer homes park at S Boulder Rd.
- Would like to see Louisville bring back the Louisville triathlon.
- Would love to see senior housing- single-level patio homes & condos.
- You do not have any Hispanic police supervisors. Why?
- You should replace the entire building department. They are rude and thankless.

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Appendix D: Benchmark Comparisons

Comparing Louisville's Results to the Benchmarking Database

Jurisdictions use the comparative information provided by benchmarks to help interpret their own citizen survey results, to create or revise community plans, to evaluate the success of policy or budget decisions and to measure local government performance. Taking the pulse of the community has little meaning without knowing what pulse rate is too high and what is too low. When surveys of service satisfaction turn up "good" citizen evaluations, it is necessary to know how others rate their services to understand if "good" is good enough or if most other communities are "excellent." Furthermore, in the absence of national or peer community comparisons, a jurisdiction is left with comparing its police protection rating to its street maintenance rating. That comparison is unfair as street maintenance always gets lower ratings than police protection. More illuminating is how residents' ratings of police service compare to opinions about police service in other communities and to resident ratings over time.

A police department that provides the fastest and most efficient service – one that closes most of its cases, solves most of its crimes, and keeps the crime rate low – still has a problem to fix if the residents in the city rate police services lower than ratings given by residents in other cities with objectively "worse" departments. Benchmark data can help that police department – or any city department – to understand how well citizens think it is doing.

NRC has innovated a method for quantitatively integrating the results of surveys that we have conducted with those that others have conducted. These integration methods have been described thoroughly in *Public Administration Review*, *Journal of Policy Analysis and Management*, and in NRC's first book on conducting and using citizen surveys, *Citizen Surveys: how to do them, how to use them, what they mean*, published by the International City/County Management Association (ICMA). Scholars who specialize in the analysis of citizen surveys regularly have relied on NRC's work[1]. The method described in those publications is refined regularly and statistically tested on a growing number of citizen surveys in NRC's proprietary databases.

Jurisdictions in NRC's benchmark database are distributed geographically across the country and range from small to large in population size. Comparisons may be made to all jurisdictions in the database or to a subset of jurisdictions (within a given region or population category such as Front Range jurisdictions), as in this report. Despite the differences in jurisdiction characteristics, all are in the business of providing local government services to residents. Though individual jurisdiction circumstances, resources, and practices vary, the objective in every community is to provide services that are so timely, tailored, and effective that residents conclude the services are of the highest quality. High ratings in any jurisdiction, like SAT scores in any teen household, bring pride and a sense of accomplishment.

While benchmarks help set the basis for evaluation, citizen opinion should be used in conjunction with other sources of data about budget, population demographics, personnel, and politics to help managers know how to respond to comparative results.

Interpreting the Results

Ratings are compared when similar questions are included in NRC's database, and there are at least five communities in which the question was asked. Where comparisons are available, three numbers are provided

[1] Kelly, J. & Swindell, D. (2002). Service quality variation across urban space: First steps towards a model of citizen satisfaction, *Journal of Urban Affairs*, 24, 271-288.; Van Ryzin, G., Muzzio, D., Immerwahr, S., Gulick, L. & Martinez, E. (2004). Drivers and consequences of citizen satisfaction: An application of the American Customer Satisfaction Index Model to New York City, *Public Administration Review*, 64, 331-341.

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in the table. The first column is Louisville's "percent positive" rating (e.g., "excellent" or "good," "very safe" or "somewhat safe"). The second column is the rank assigned to Louisville's rating among communities where a similar question was asked. The third column is the number of communities that asked a similar question. The fourth column shows the comparison of Louisville's rating to the benchmark.

Where comparisons for quality ratings were available, the City of Louisville's results were generally noted as being "higher" than the benchmark, "lower" than the benchmark or "similar" to the benchmark. In instances where ratings are considerably higher or lower than the benchmark, these ratings have been further demarcated by the attribute of "much," (for example, "much lower" or "much higher"). These labels come from a statistical comparison of Louisville's rating to the benchmark where a rating is considered "similar" if it is within the margin of error; "higher" or "lower" if the difference between Louisville's rating and the benchmark is greater than, but less than twice, the margin of error; and "much higher" or "much lower" if the difference between Louisville's rating and the benchmark is more than twice the margin of error.

National Benchmark Tables

Table 125: Aspects of Quality of Life Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
How do you rate Louisville as a place to live?	98%	15	357	Much higher
How do you rate Louisville as a place to raise children?	98%	3	349	Much higher
How do you rate Louisville as a place to retire?	79%	49	331	Much higher
How do you rate Louisville as a place to work?	76%	66	323	Much higher
How do you rate the overall quality of life in Louisville?	97%	10	413	Much higher

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Table 126: Community Characteristics Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Sense of community	87%	7	278	Much higher
Openness and acceptance of the community towards people of diverse backgrounds	70%	40	261	Much higher
Overall appearance of Louisville	90%	57	326	Much higher
Opportunities to attend cultural activities	68%	86	267	Much higher
Shopping opportunities	58%	133	267	Similar
Opportunities to participate in special events and community activities	87%	9	232	Much higher
Opportunities to participate in community matters	84%	6	244	Much higher
Recreational opportunities	84%	25	274	Much higher
Employment opportunities	41%	92	282	Much higher
Variety of housing options	42%	206	250	Much lower
Availability of affordable quality housing	17%	252	272	Much lower
Ease of car travel in Louisville	82%	24	271	Much higher
Ease of bus travel in Louisville	60%	18	92	Much higher
Ease of bicycle travel in Louisville	89%	1	267	Much higher
Ease of walking in Louisville	91%	10	263	Much higher
Traffic flow on major streets	69%	34	316	Much higher
Quality of overall natural environment in Louisville	90%	61	250	Much higher
Overall image or reputation of Louisville	96%	5	313	Much higher

Table 127: Safety from Crime and in Public Areas Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
From violent crime (e.g., rape, assault, robbery)	97%	1	124	Much higher
From property crimes (e.g., burglary, theft)	88%	2	124	Much higher
In your neighborhood during the day	98%	28	320	Much higher
In your neighborhood after dark	94%	1	171	Much higher
In Louisville's downtown area during the day	99%	7	272	Much higher
In Louisville's downtown area after dark	93%	2	140	Much higher
In Louisville's parks during the day	98%	1	12	Much higher
In Louisville's parks after dark	83%	1	11	Much higher

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Table 128: Quality of City Administration Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Information about City plans and programs	75%	91	264	Much higher
City response to citizen complaints or concerns	67%	NA	NA	NA
Programming on Louisville cable TV, municipal channel 8	57%	10	13	Lower
Louisville Web site (www.louisvilleco.gov)	78%	10	43	Higher
Overall performance of Louisville City government	78%	4	10	Much higher

Table 129: Quality of Louisville Public Safety Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Visibility of patrol cars	89%	1	27	Much higher
Enforcement of traffic regulations	79%	23	343	Much higher
Municipal code enforcement issues (dogs, noise, weeds, etc.)	68%	53	331	Much higher
Overall performance of the Louisville Police Department	90%	90	404	Much higher

Table 130: Quality of Louisville Planning and Building Safety Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Overall performance of the Louisville Planning Department	63%	4	12	Much higher

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Table 131: Quality of Louisville Parks and Recreation Department Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Current recreation programs for youth	85%	4	12	Much higher
Current programs and services for seniors	87%	NA	NA	NA
Overall quality of the Louisville Recreation Center	67%	156	258	Lower
Overall quality of the Louisville Senior Center	81%	6	9	Much lower
Overall quality of the Coal Creek Golf Course	80%	5	8	Lower
Maintenance and cleanliness of the Louisville Recreation Center	83%	3	7	Much higher
Maintenance of open space	87%	NA	NA	NA
Maintenance of the trail system	90%	6	22	Much higher
Overall performance of the Louisville Parks and Recreation Department	89%	NA	NA	NA

Table 132: Quality of Louisville Public Library Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Services at the Louisville Public Library (e.g., reference desk check out, etc.)	98%	1	6	Much higher
Internet and computer services at the Louisville Public Library	92%	NA	NA	NA
Louisville Public Library materials and collections	85%	2	9	Higher
Louisville Public Library building	97%	NA	NA	NA
Overall performance of the Louisville Public Library	96%	17	314	Much higher

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Table 133: Quality of Louisville Public Works Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Street maintenance in Louisville	70%	56	387	Much higher
Street sweeping	71%	108	291	Much higher
Snow removal/street sanding	50%	212	266	Much lower
Street lighting, signage and street markings	82%	2	7	Much higher
Waste water (sewage system)	92%	1	8	Much higher
Storm drainage (flooding management)	89%	7	330	Much higher
Access on sidewalks/crosswalks for disabled persons	91%	2	17	Much higher
Bike lanes on Louisville streets	71%	5	7	Similar

Table 134: Overall Quality of City Services Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Overall, how do you rate the quality of services provided by the City of Louisville?	93%	33	401	Much higher

Table 135: Quality of City Employees Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Knowledge	89%	41	141	Higher
Responsiveness/promptness	83%	43	142	Higher
Courtesy	90%	8	35	Much higher
Overall impression	85%	32	336	Much higher

Table 136: Participation in Activities in Louisville Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Used the Louisville Public Library or its services	78%	23	216	Much higher
Used the Louisville Recreation Center	74%	12	216	Much higher

Jurisdictions Included in the National Benchmark Comparisons

Listed below are the jurisdictions included in the national benchmark comparisons provided for the City of Louisville followed by its 2010 population according to the U.S. Census.

Adams County, CO 441,603
Airway Heights city, WA 6,114
Albany city, OR 50,158
Albemarle County, VA 98,970
Albert Lea city, MN 18,016
Alexandria city, VA 139,966
Algonquin village, IL 30,046
Aliso Viejo city, CA.....47,823
Altoona city, IA 14,541
American Canyon city, CA 19,454
Ames city, IA 58,965
Andover CDP, MA 8,762

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Ankeny city, IA 45,582
Ann Arbor city, MI 113,934
Annapolis city, MD 38,394
Junction city 35,840
Apple Valley town, CA 69,135
Arapahoe County, CO..... 572,003
Arkansas City city, AR.....366
Arlington city, TX 365,438
Arlington County, VA 207,627
Arvada city, CO 106,433
Asheville city, NC 83,393
Ashland city, OR..... 20,078
Ashland town, VA..... 7,225
Aspen city, CO.....6,658
Athens-Clarke County unified
government, ... 115,452
Auburn city, AL 53,380
Auburn city, WA 70,180
Augusta CCD, GA 134,777
Aurora city, CO..... 325,078
Austin city, TX 790,390
Bainbridge Island city, WA 23,025
Baltimore city, MD 620,961
Bartonville town, TX.....1,469
Battle Creek city, MI 52,347
Bay City city, MI 34,932
Baytown city, TX 71,802
Bedford city, TX 46,979
Bedford town, MA 13,320
Bellevue city, WA 122,363
Bellingham city, WA 80,885
Beltrami County, MN.....44,442
Benbrook city, TX..... 21,234
Bend city, OR 76,639
Benicia city, CA 26,997
Bettendorf city, IA 33,217
Billings city, MT 104,170
Blaine city, MN 57,186
Bloomfield Hills city, MI 3,869
Bloomington city, MN 82,893
Blue Springs city, MO 52,575
Boise City city, ID 205,671
Boone County, KY 118,811
Boulder city, CO 97,385
Bowling Green city, KY 58,067
Bozeman city, MT 37,280
Brentwood city, MO 8,055
Brentwood city, TN 37,060
Brighton city, CO..... 33,352
Bristol city, TN..... 26,702
Broken Arrow city, OK.....98,850
Brookfield city, WI 37,920
Brookline CDP, MA..... 58,732
Broomfield city, CO.....55,889
Brownsburg town, IN..... 21,285
Bryan city, TX 76,201
Burien city, WA..... 33,313
Burleson city, TX..... 36,690
Cabarrus County, NC 178,011
Cambridge city, MA 105,162
Cannon Beach city, OR 1,690
Canton city, SD.....3,057
Cape Coral city, FL 154,305
Cape Girardeau city, MO... 37,941
Carlisle borough, PA 18,682
Carlsbad city, CA.....105,328
Carroll city, IA 10,103
Cartersville city, GA 19,731
Cary town, NC 135,234
Casa Grande city, AZ 48,571
Casper city, WY 55,316
Castine town, ME.....1,366
Castle Pines North city, CO10,360
Castle Rock town, CO 48,231
Cedar Rapids city, IA 126,326
Centennial city, CO 100,377
Centralia city, IL.....13,032
Chambersburg borough, PA20,268
Chandler city, AZ 236,123
Chanhassen city, MN 22,952
Chapel Hill town, NC..... 57,233
Charlotte city, NC 731,424
Charlotte County, FL.....159,978
Charlottesville city, VA.....43,475
Chattanooga city, TN..... 167,674
Chesterfield County, VA.. 316,236
Chippewa Falls city, WI 13,661
Citrus Heights city, CA 83,301
Clackamas County, OR ... 375,992
Clarendon Hills village, IL 8,427
Clayton city, MO 15,939
Clearwater city, FL 107,685
Cleveland Heights city, OH46,121
Clinton city, SC 8,490
Clive city, IA 15,447
Clovis city, CA 95,631
College Park city, MD.....30,413
College Station city, TX..... 93,857
Colleyville city, TX.....22,807
Collinsville city, IL 25,579
Columbia city, MO 108,500
Columbia city, SC.....129,272
Columbia Falls city, MT 4,688
Columbus city, WI..... 4,991
Commerce City city, CO.... 45,913
Concord city, CA 122,067
Concord town, MA 17,668
Cookeville city, TN 30,435
Coon Rapids city, MN.....61,476
Copperas Cove city, TX 32,032
Coronado city, CA 18,912
Corvallis city, OR 54,462
Creve Coeur city, MO 17,833
Cross Roads town, TX..... 1,563
Crystal Lake city, IL 40,743
Dacono city, CO 4,152
Dade City city, FL 6,437
Dakota County, MN 398,552
Dallas city, OR..... 14,583
Dallas city, TX 1,197,816
Danville city, KY 16,218
Dardenne Prairie city, MO 11,494
Davenport city, IA 99,685
Davidson town, NC 10,944
Dayton city, OH 141,527
Decatur city, GA.....19,335
Del Mar city, CA 4,161
Delray Beach city, FL..... 60,522
Denison city, TX 22,682
Denton city, TX 113,383
Denver city, CO 600,158
Derby city, KS 22,158
Des Peres city, MO 8,373
Destin city, FL 12,305
Dorchester County, MD.... 32,618
Dothan city, AL 65,496
Douglas County, CO..... 285,465
Dover city, NH..... 29,987
Dublin city, CA 46,036
Duluth city, MN 86,265
Duncanville city, TX..... 38,524
Durham city, NC..... 228,330
Eagle town, CO 6,508
East Baton Rouge Parish, LA440,171
East Grand Forks city, MN .. 8,601
East Lansing city, MI 48,579
Eau Claire city, WI 65,883
Eden Prairie city, MN..... 60,797
Edgerton city, KS 1,671
Edgewater city, CO 5,170
Edina city, MN..... 47,941
Edmond city, OK 81,405
Edmonds city, WA..... 39,709
El Cerrito city, CA 23,549
El Dorado County, CA 181,058
El Paso city, TX..... 649,121
Elk Grove city, CA.....153,015
Elk River city, MN 22,974
Elko New Market city, MN.. 4,110
Elmhurst city, IL 44,121
Encinitas city, CA 59,518
Englewood city, CO..... 30,255
Erie town, CO.....18,135
Escambia County, FL..... 297,619
Estes Park town, CO..... 5,858

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Fairview town, TX.....7,248
Farmington Hills city, MI... 79,740
Fayetteville city, NC 200,564
Fishers town, IN..... 76,794
Flower Mound town, TX .. 64,669
Forest Grove city, OR 21,083
Fort Collins city, CO..... 143,986
Fort Smith city, AR 86,209
Fort Worth city, TX..... 741,206
Fountain Hills town, AZ 22,489
Franklin city, TN 62,487
Fredericksburg city, VA 24,286
Fremont city, CA 214,089
Friendswood city, TX..... 35,805
Fruita city, CO 12,646
Gahanna city, OH 33,248
Gaithersburg city, MD 59,933
Galveston city, TX 47,743
Gardner city, KS 19,123
Geneva city, NY..... 13,261
Georgetown city, TX..... 47,400
Gilbert town, AZ..... 208,453
Gillette city, WY 29,087
Glendora city, CA 50,073
Glenview village, IL.....44,692
Globe city, AZ 7,532
Golden city, CO 18,867
Golden Valley city, MN 20,371
Goodyear city, AZ 65,275
Grafton village, WI..... 11,459
Grand Blanc city, MI 8,276
Grand Island city, NE 48,520
Grass Valley city, CA.....12,860
Greeley city, CO 92,889
Green Valley CDP, AZ..... 21,391
Greenville city, NC.....84,554
Greenwich town, CT 61,171
Greenwood Village city, CO13,925
Greer city, SC 25,515
Guilford County, NC 488,406
Gunnison County, CO..... 15,324
Gurnee village, IL..... 31,295
Hailey city, ID 7,960
Haines Borough, AK 2,508
Hallandale Beach city, FL... 37,113
Hamilton city, OH..... 62,477
Hanover County, VA.....99,863
Harrisonburg city, VA 48,914
Harrisonville city, MO 10,019
Hayward city, CA..... 144,186
Henderson city, NV 257,729
Herndon town, VA.....23,292
High Point city, NC 104,371
Highland Park city, IL..... 29,763
Highlands Ranch CDP, CO 96,713
Hillsborough town, NC..... 6,087
Holland city, MI..... 33,051
Honolulu County, HI 953,207
Hooksett town, NH 13,451
Hopkins city, MN 17,591
Hopkinton town, MA 14,925
Hoquiam city, WA.....8,726
Horry County, SC..... 269,291
Hudson city, OH 22,262
Hudson town, CO 2,356
Hudsonville city, MI 7,116
Huntersville town, NC..... 46,773
Hurst city, TX.....37,337
Hutchinson city, MN 14,178
Hutto city, TX 14,698
Hyattsville city, MD..... 17,557
Independence city, MO... 116,830
Indian Trail town, NC 33,518
Indianola city, IA 14,782
Iowa City city, IA 67,862
Issaquah city, WA 30,434
Jackson County, MI.....160,248
James City County, VA.....67,009
Jefferson City city, MO.....43,079
Jefferson County, CO..... 534,543
Jefferson County, NY.....116,229
Jerome city, ID..... 10,890
Johnson City city, TN 63,152
Johnston city, IA 17,278
Jupiter town, FL.....55,156
Kalamazoo city, MI 74,262
Kansas City city, KS 145,786
Kansas City city, MO 459,787
Keizer city, OR.....36,478
Kenmore city, WA..... 20,460
Kennedale city, TX.....6,763
Kennett Square borough, PA6,072
Kettering city, OH.....56,163
Key West city, FL 24,649
King County, WA 1,931,249
Kirkland city, WA 48,787
Kirkwood city, MO 27,540
Knoxville city, IA 7,313
La Mesa city, CA 57,065
La Plata town, MD 8,753
La Porte city, TX 33,800
La Vista city, NE..... 15,758
Lafayette city, CO.....24,453
Laguna Beach city, CA 22,723
Laguna Hills city, CA 30,344
Laguna Niguel city, CA..... 62,979
Lake Oswego city, OR.....36,619
Lake Stevens city, WA 28,069
Lake Worth city, FL.....34,910
Lake Zurich village, IL 19,631
Lakeville city, MN..... 55,954
Lakewood city, CO 142,980
Lakewood city, WA 58,163
Lane County, OR..... 351,715
Larimer County, CO 299,630
Las Cruces city, NM..... 97,618
Las Vegas city, NV.....583,756
Lawrence city, KS..... 87,643
League City city, TX 83,560
Lee's Summit city, MO 91,364
Lehi city, UT.....47,407
Lenexa city, KS..... 48,190
Lewis County, NY.....27,087
Lewisville city, TX..... 95,290
Libertyville village, IL 20,315
Lincoln city, NE 258,379
Lindsborg city, KS 3,458
Littleton city, CO..... 41,737
Livermore city, CA.....80,968
Lombard village, IL..... 43,165
Lone Tree city, CO 10,218
Long Grove village, IL..... 8,043
Longmont city, CO..... 86,270
Longview city, TX..... 80,455
Los Alamos County, NM....17,950
Louisville city, CO.....18,376
Lynchburg city, VA..... 75,568
Lynnwood city, WA 35,836
Macomb County, MI..... 840,978
Madison city, WI..... 233,209
Manhattan Beach city, CA.35,135
Mankato city, MN 39,309
Maple Grove city, MN.....61,567
Maple Valley city, WA 22,684
Maricopa County, AZ 3,817,117
Martinez city, CA..... 35,824
Maryland Heights city, MO 27,472
Matthews town, NC 27,198
McAllen city, TX 129,877
McDonough city, GA 22,084
McKinney city, TX 131,117
McMinnville city, OR 32,187
Medford city, OR..... 74,907
Menlo Park city, CA..... 32,026
Mercer Island city, WA 22,699
Meridian charter township, MI39,688
Meridian city, ID 75,092
Merriam city, KS 11,003
Mesa County, CO 146,723
Miami Beach city, FL 87,779
Miami city, FL 399,457
Middleton city, WI..... 17,442
Midland city, MI 41,863
Milford city, DE 9,559
Milton city, GA 32,661

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Minneapolis city, MN..... 382,578
Mission Viejo city, CA 93,305
Modesto city, CA 201,165
Monterey city, CA..... 27,810
Montgomery County, VA.. 94,392
Monticello city, UT 1,972
Monument town, CO..... 5,530
Mooresville town, NC 32,711
Morristown city, TN..... 29,137
Morrisville town, NC..... 18,576
Moscow city, ID 23,800
Mountain Village town, CO. 1,320
Mountlake Terrace city, WA19,909
Muscatine city, IA 22,886
Naperville city, IL.....141,853
Needham CDP, MA 28,886
New Braunfels city, TX 57,740
New Brighton city, MN 21,456
New Hanover County, NC202,667
New Orleans city, LA 343,829
New Smyrna Beach city, FL22,464
Newberg city, OR 22,068
Newport Beach city, CA.... 85,186
Newport News city, VA .. 180,719
Newton city, IA..... 15,254
Noblesville city, IN..... 51,969
Nogales city, AZ 20,837
Norfolk city, VA 242,803
North Port city, FL 57,357
North Richland Hills city, TX63,343
Northglenn city, CO 35,789
Novato city, CA 51,904
Novi city, MI 55,224
O'Fallon city, IL..... 28,281
O'Fallon city, MO..... 79,329
Oak Park village, IL 51,878
Oakland city, CA..... 390,724
Oakland Park city, FL 41,363
Oakley city, CA..... 35,432
Ogdensburg city, NY 11,128
Oklahoma City city, OK .. 579,999
Olathe city, KS 125,872
Old Town city, ME 7,840
Olmsted County, MN..... 144,248
Olympia city, WA 46,478
Orland Park village, IL 56,767
Oshkosh city, WI 66,083
Oshtemo charter township, MI21,705
Otsego County, MI 24,164
Overland Park city, KS..... 173,372
Oviedo city, FL 33,342
Paducah city, KY 25,024
Palm Coast city, FL 75,180
Palo Alto city, CA.....64,403
Papillion city, NE 18,894
Park City city, UT 7,558
Parker town, CO 45,297
Parkland city, FL 23,962
Pasadena city, CA 137,122
Pasco city, WA 59,781
Pasco County, FL 464,697
Pearland city, TX.....91,252
Peoria city, AZ 154,065
Peoria city, IL 115,007
Peoria County, IL 186,494
Petoskey city, MI 5,670
Pflugerville city, TX 46,936
Phoenix city, AZ.....1,445,632
Pinal County, AZ 375,770
Pinehurst village, NC..... 13,124
Piqua city, OH..... 20,522
Pitkin County, CO 17,148
Plano city, TX.....259,841
Platte City city, MO..... 4,691
Plymouth city, MN 70,576
Pocatello city, ID 54,255
Polk County, IA 430,640
Pompano Beach city, FL .. 99,845
Port Huron city, MI.....30,184
Port Orange city, FL..... 56,048
Portland city, OR 583,776
Post Falls city, ID..... 27,574
Prince William County, VA402,002
Prior Lake city, MN 22,796
Provo city, UT 112,488
Pueblo city, CO 106,595
Purcellville town, VA 7,727
Queen Creek town, AZ.....26,361
Radnor township, PA 31,531
Ramsey city, MN..... 23,668
Rapid City city, SD 67,956
Raymore city, MO..... 19,206
Redmond city, WA.....54,144
Rehoboth Beach city, DE 1,327
Reno city, NV.....225,221
Reston CDP, VA..... 58,404
Richmond city, CA 103,701
Richmond Heights city, MO 8,603
Rifle city, CO.....9,172
Rio Rancho city, NM 87,521
River Falls city, WI.....15,000
Riverdale city, UT..... 8,426
Riverside city, CA 303,871
Riverside city, MO.....2,937
Rochester Hills city, MI.....70,995
Rock Hill city, SC.....66,154
Rockford city, IL..... 152,871
Rockville city, MD 61,209
Rogers city, MN 8,597
Rolla city, MO 19,559
Roselle village, IL..... 22,763
Rosemount city, MN 21,874
Rosenberg city, TX 30,618
Roseville city, MN..... 33,660
Roswell city, GA 88,346
Round Rock city, TX 99,887
Royal Oak city, MI 57,236
Saco city, ME 18,482
Sahuarita town, AZ 25,259
Sammamish city, WA 45,780
San Anselmo town, CA.....12,336
San Antonio city, TX..... 1,327,407
San Carlos city, CA 28,406
San Diego city, CA.....1,307,402
San Francisco city, CA 805,235
San Jose city, CA 945,942
San Juan County, NM 130,044
San Marcos city, CA 83,781
San Marcos city, TX.....44,894
San Rafael city, CA 57,713
Sandy Springs city, GA 93,853
Sanford city, FL 53,570
Sangamon County, IL.....197,465
Santa Clarita city, CA 176,320
Santa Fe County, NM 144,170
Santa Monica city, CA 89,736
Sarasota County, FL 379,448
Savage city, MN 26,911
Scarborough CDP, ME..... 4,403
Schaumburg village, IL 74,227
Scott County, MN 129,928
Scottsdale city, AZ 217,385
Seaside city, CA 33,025
SeaTac city, WA 26,909
Sevierville city, TN 14,807
Shawnee city, KS 62,209
Sheboygan city, WI 49,288
Shoreview city, MN 25,043
Shorewood city, MN 7,307
Shorewood village, IL 15,615
Shorewood village, WI 13,162
Sierra Vista city, AZ..... 43,888
Sioux Center city, IA 7,048
Sioux Falls city, SD 153,888
Skokie village, IL 64,784
Snellville city, GA 18,242
Snowmass Village town, CO2,826
South Kingstown town, RI 30,639
South Lake Tahoe city, CA 21,403
South Portland city, ME ... 25,002
Southborough town, MA.... 9,767
Southlake city, TX 26,575
Sparks city, NV 90,264
Spokane Valley city, WA .. 89,755
Spring Hill city, KS..... 5,437

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Springboro city, OH..... 17,409
Springfield city, MO 159,498
Springfield city, OR 59,403
Springville city, UT 29,466
St. Augustine city, FL..... 12,975
St. Charles city, IL..... 32,974
St. Cloud city, FL 35,183
St. Cloud city, MN 65,842
St. Joseph city, MO..... 76,780
St. Louis County, MN.....200,226
St. Louis Park city, MN 45,250
Stallings town, NC.....13,831
State College borough, PA42,034
Steamboat Springs city, CO12,088
Sterling Heights city, MI .129,699
Sugar Grove village, IL.....8,997
Sugar Land city, TX 78,817
Summit city, NJ..... 21,457
Summit County, UT..... 36,324
Sunnyvale city, CA..... 140,081
Surprise city, AZ..... 117,517
Suwanee city, GA 15,355
Tacoma city, WA 198,397
Takoma Park city, MD 16,715
Tamarac city, FL.....60,427
Temecula city, CA 100,097
Tempe city, AZ.....161,719
Temple city, TX 66,102
The Woodlands CDP, TX .. 93,847
Thornton city, CO 118,772
Thousand Oaks city, CA ..126,683
Tigard city, OR.....48,035
Tracy city, CA 82,922
Tualatin city, OR 26,054
Tulsa city, OK 391,906
Twin Falls city, ID.....44,125
Tyler city, TX..... 96,900
Umatilla city, OR 6,906
Upper Arlington city, OH ...33,771
Urbandale city, IA 39,463
Vail town, CO.....5,305
Vancouver city, WA 161,791
Vernon Hills village, IL..... 25,113
Vestavia Hills city, AL.....34,033
Victoria city, MN.....7,345
Virginia Beach city, VA....437,994
Wake Forest town, NC..... 30,117
Walnut Creek city, CA 64,173
Washington County, MN. 238,136
Washington town, NH 1,123
Washoe County, NV..... 421,407
Watauga city, TX 23,497
Wauwatosa city, WI 46,396
Waverly city, IA..... 9,874
Weddington town, NC 9,459
Wentzville city, MO 29,070
West Carrollton city, OH ... 13,143
West Chester borough, PA18,461
West Des Moines city, IA .. 56,609
West Richland city, WA 11,811
Western Springs village, IL 12,975
Westerville city, OH 36,120
Westlake town, TX.....992
Westminster city, CO 106,114
Weston town, MA 11,261
Wheat Ridge city, CO 30,166
White House city, TN 10,255
Wichita city, KS 382,368
Williamsburg city, VA 14,068
Wilmington city, NC 106,476
Wilsonville city, OR 19,509
Winchester city, VA..... 26,203
Windsor town, CO..... 18,644
Windsor town, CT 29,044
Winnetka village, IL.....12,187
Winston-Salem city, NC . 229,617
Winter Garden city, FL 34,568
Woodbury city, MN 61,961
Woodland city, CA 55,468
Woodland city, WA 5,509
Wrentham town, MA..... 10,955
Yakima city, WA..... 91,067
York County, VA 65,464
Yorktown town, IN 9,405
Yountville city, CA..... 2,933

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Front Range Benchmark Tables

Table 137: Aspects of Quality of Life Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
How do you rate Louisville as a place to live?	98%	2	27	Much higher
How do you rate Louisville as a place to raise children?	98%	1	28	Much higher
How do you rate Louisville as a place to retire?	79%	6	29	Much higher
How do you rate Louisville as a place to work?	76%	7	29	Much higher
How do you rate the overall quality of life in Louisville?	97%	3	33	Much higher

Table 138: Community Characteristics Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Sense of community	87%	1	23	Much higher
Openness and acceptance of the community towards people of diverse backgrounds	70%	4	20	Much higher
Overall appearance of Louisville	90%	5	22	Much higher
Opportunities to attend cultural activities	68%	9	18	Much higher
Shopping opportunities	58%	13	22	Similar
Opportunities to participate in special events and community activities	87%	1	14	Much higher
Opportunities to participate in community matters	84%	1	16	Much higher
Recreational opportunities	84%	5	22	Much higher
Employment opportunities	41%	9	25	Much higher
Variety of housing options	42%	13	16	Much lower
Availability of affordable quality housing	17%	17	18	Much lower
Ease of car travel in Louisville	82%	3	23	Much higher
Ease of bus travel in Louisville	60%	3	9	Much higher
Ease of bicycle travel in Louisville	89%	1	23	Much higher
Ease of walking in Louisville	91%	1	22	Much higher
Traffic flow on major streets	69%	3	21	Much higher
Quality of overall natural environment in Louisville	90%	7	18	Much higher
Overall image or reputation of Louisville	96%	1	23	Much higher

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Table 139: Safety from Crime and in Public Areas Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
From violent crime (e.g., rape, assault, robbery)	97%	1	11	Much higher
From property crimes (e.g., burglary, theft)	88%	1	11	Much higher
In your neighborhood during the day	98%	3	22	Much higher
In your neighborhood after dark	94%	1	14	Much higher
In Louisville's downtown area during the day	99%	2	18	Much higher
In Louisville's downtown area after dark	93%	1	11	Much higher

Table 140: Quality of City Administration Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Information about City plans and programs	75%	4	14	Much higher
Louisville Web site (www.louisvilleco.gov)	78%	1	6	Much higher

Table 141: Quality of Louisville Public Safety Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Enforcement of traffic regulations	79%	3	24	Much higher
Municipal code enforcement issues (dogs, noise, weeds, etc.)	68%	3	23	Much higher
Overall performance of the Louisville Police Department	90%	4	26	Much higher

Table 142: Quality of Louisville Parks and Recreation Department Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Overall quality of the Louisville Recreation Center	67%	15	19	Much lower
Maintenance of the trail system	90%	3	5	Similar

Table 143: Quality of Louisville Public Library Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Overall performance of the Louisville Public Library	96%	1	22	Much higher

Prepared by National Research Center, Inc.

Table 144: Quality of Louisville Public Works Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Street maintenance in Louisville	70%	2	28	Much higher
Street sweeping	71%	5	21	Much higher
Snow removal/street sanding	50%	19	27	Much lower
Storm drainage (flooding management)	89%	4	20	Much higher
Access on sidewalks/crosswalks for disabled persons	91%	1	5	Much higher

Table 145: Overall Quality of City Services Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Overall, how do you rate the quality of services provided by the City of Louisville?	93%	4	28	Much higher

Table 146: Quality of City Employees Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Knowledge	89%	6	17	Much higher
Responsiveness/promptness	83%	5	14	Higher
Courtesy	90%	5	6	Similar
Overall impression	85%	5	28	Much higher

Table 147: Participation in Activities in Louisville Benchmarks

	Percent positive	Rank	Number of communities in comparison	Comparison to benchmark
Used the Louisville Public Library or its services	78%	3	14	Much higher
Used the Louisville Recreation Center	74%	4	13	Much higher

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Jurisdictions Included in the Front Range Benchmark Comparisons

Listed below are the jurisdictions included in the Front Range benchmark comparisons provided for the City of Louisville followed by its 2010 population according to the U.S. Census.

Arapahoe County, CO..... 572,003
Arvada city, CO 106,433
Aurora city, CO..... 325,078
Boulder city, CO 97,385
Brighton city, CO..... 33,352
Broomfield city, CO..... 55,889
Castle Pines North city, CO.....10,360
Castle Rock town, CO.....48,231
Centennial city, CO..... 100,377
Commerce City city, CO 45,913
Dacono city, CO 4,152
Denver city, CO 600,158
Douglas County, CO 285,465
Edgewater city, CO 5,170
Englewood city, CO.....30,255
Erie town, CO 18,135
Fort Collins city, CO.....143,986
Golden city, CO 18,867
Greeley city, CO 92,889
Greenwood Village city, CO 13,925
Highlands Ranch CDP, CO 96,713
Jefferson County, CO..... 534,543
Lafayette city, CO.....24,453
Lakewood city, CO..... 142,980
Larimer County, CO 299,630
Littleton city, CO 41,737
Lone Tree city, CO 10,218
Longmont city, CO 86,270
Louisville city, CO 18,376
Monument town, CO 5,530
Northglenn city, CO.....35,789
Parker town, CO 45,297
Pueblo city, CO 106,595
Thornton city, CO 118,772
Westminster city, CO..... 106,114
Windsor town, CO 18,644

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Appendix E: Survey Methodology

Survey Instrument Development

General citizen surveys, such as this one, ask recipients their perspectives about the quality of life in the city, their use of city amenities, their opinion on policy issues facing the city and their assessment of city service delivery. The 2016 citizen survey instrument for Louisville was developed by starting with the version from the previous implementation in 2012. A list of topics was generated for new questions; topics and questions were modified to find those that were the best fit for the 2016 questionnaire. In an iterative process between City staff, elected officials appointed to the survey committee and NRC staff, a final five-page questionnaire was created.

Selecting Survey Recipients

Approximately 2,000 Louisville households were selected to participate in the survey. To ensure households selected to participate in the survey were within the City of Louisville boundaries, the latitude and longitude of each address was plotted to determine its location within the city. Addresses that fell outside of the city boundaries were removed from the list. Additionally, the voter ward for each address was tracked to enable further breakdowns of survey results. Attached units within the city were oversampled to compensate for detached unit residents' tendency to return surveys at a higher rate.

An individual within each household was selected using the birthday method. (The birthday method selects a person within the household by asking the "person whose birthday has most recently passed" to complete the questionnaire regardless of year of birth. The underlying assumption in this method is that day of birth has no relationship to the way people respond to surveys.)

Survey Administration and Response

Households received three mailings each, beginning in March 2016. Completed surveys were collected over the following seven weeks. The first mailing was a prenotification postcard announcing the upcoming survey. A week after the prenotification postcard was sent, the first wave of the survey was sent. The second wave was sent one week after the first. The survey mailings contained a letter from the mayor inviting the household to participate in the 2016 Citizen Survey, a questionnaire and postage-paid envelope. The cover letters included a web address for the survey in case respondents preferred to complete the survey online. About 2% of the surveys were returned because the housing unit was vacant or the postal service was unable to deliver the survey as addressed. Of the 1,965 households that received a survey, 790 completed the survey (including 66 completed online), providing a response rate of 40%. The response rates by voter ward ranged from 38% to 45% (details appear in the following table).

Table 148: 2016 Survey Response Rates

	Number of surveys mailed	Number of completed surveys	Number of households receiving a survey (minus undeliverables)	Response rate
Ward 1	939	350	924	38%
Ward 2	481	213	473	45%
Ward 3	580	227	568	40%
Overall	2000	790	1965	40%

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95% Confidence Intervals

The 95% confidence interval (or "margin of error") quantifies the "sampling error" or precision of the estimates made from the survey results. A 95% confidence interval can be calculated for any number of respondents, and indicates that in 95 of 100 surveys conducted like this one, for a particular item, a result would be found that is within plus or minus five percentage points of the result that would be found if everyone in the population of interest was surveyed. The practical difficulties of conducting any resident survey may introduce other sources of error in addition to sampling error. Despite best efforts to boost participation and ensure potential inclusion of all households, some selected households will decline participation in the survey (potentially introducing non-response error) and some eligible households may be unintentionally excluded from the listed sources for the mailing list (referred to as coverage error).

While the 95 percent confidence level for the survey is generally no greater than plus or minus three percentage points around any given percent reported for all respondents (790), results for subgroups will have wider confidence intervals. Where estimates are given for subgroups, they are less precise. For each subgroup from the survey, the margin of error is higher: as much as plus or minus 18% for a sample size of 30 to plus or minus 7% for 200 completed surveys.

Survey Processing (Data Entry)

Mailed surveys were submitted via postage-paid business reply envelopes. Once received, staff assigned a unique identification number to each questionnaire. Additionally, each survey was reviewed and "cleaned" as necessary. For example, a question may have asked a respondent to pick two items out of a list of five, but the respondent checked three; staff would choose randomly two of the three selected items to be coded in the dataset.

Once cleaned and numbered, all surveys were entered into an electronic dataset. This dataset was subject to a data entry protocol of "key and verify," in which survey data were entered twice into an electronic dataset and then compared. Discrepancies were evaluated against the original survey form and corrected. Range checks as well as other forms of quality control were also performed.

Data from the web surveys were automatically entered into an electronic dataset and, therefore, generally require little cleaning. The web data were downloaded, cleaned as necessary and then merged with the data from the mail survey to create one complete dataset.

Weighting the Data

The demographic characteristics of the survey respondents were compared to those found in the 2010 U.S. Census estimates for adults in the city. Survey results were weighted using the population norms to reflect the appropriate percent of those residents in the city. Other discrepancies between the whole population and the survey respondents were also aided by the weighting due to the intercorrelation of many socioeconomic characteristics.

The variables used for weighting were respondent gender, age, tenure (rent versus own), housing unit type and Ward. This decision was based on:

- The disparity between the survey respondent characteristics and the population norms for these variables
- The saliency of these variables in differences of opinion among subgroups
- The historical profile created and the desirability of consistently representing different groups over the years

The primary objective of weighting survey data is to make the survey respondents reflective of the larger population of the community. This is done by: 1) reviewing the respondent demographics and comparing them

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to the population norms from the most recent Census or other sources and 2) comparing the responses to different questions for demographic subgroups. The demographic characteristics that are least similar to the Census and yield the most different results are the best candidates for data weighting. A third criterion sometimes used is the importance that the community places on a specific variable. For example, if a jurisdiction feels that accurate race representation is key to staff and public acceptance of the study results, additional consideration will be given in the weighting process to adjusting the race variable. Several different weighting "schemes" are tested to ensure the best fit for the data.

The process actually begins at the point of sampling. Knowing that residents in single-family dwellings are more likely to respond to a mail survey, NRC oversamples residents of multi-family dwellings to ensure they are accurately represented in the sample data. Rather than giving all residents an equal chance of receiving the survey, this is systematic, stratified sampling, which gives each resident of the jurisdiction a known chance of receiving the survey (and apartment dwellers, for example, a greater chance than single family home dwellers). As a consequence, results must be weighted to recapture the proper representation of apartment dwellers.

The results of the weighting scheme are presented in the figure below.

Table 149: City of Louisville Weighting Table 2016

Characteristic	2010 Census	Unweighted Data	Weighted Data
Housing			
Rent	27%	18%	27%
Own	73%	82%	73%
Detached*	74%	76%	74%
Attached*	26%	24%	26%
Gender and Age			
Female	51%	59%	51%
Male	49%	41%	49%
Age 18-34	23%	8%	23%
Age 35-54	46%	38%	46%
Age 55 and over	31%	54%	31%
Female 18-34	11%	5%	11%
Female 35-54	24%	23%	24%
Female 55 and over	16%	31%	16%
Male 18-34	12%	3%	12%
Male 35-54	22%	15%	22%
Male 55 and over	15%	23%	15%
Ward			
Ward 1	42%	44%	42%
Ward 2	28%	27%	28%
Ward 3	30%	29%	30%

** ACS 2005-2010*

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Analyzing the Data

The surveys were analyzed using the Statistical Package for the Social Sciences (SPSS). Frequency distributions are presented in the body of the report. Chi-square and ANOVA tests of significance were applied to breakdowns of selected survey questions by respondent and geographic characteristics. A "p-value" of 0.05 or less indicates that there is less than a 5% probability that differences observed between groups are due to chance; or in other words, a greater than 95% probability that the differences observed in the selected categories of our sample represent "real" differences among those populations. Where differences between subgroups are statistically significant, they are marked with grey shading in the appendices (see Appendix B: Comparison of Responses by Respondent Demographics.

Prepared by National Research Center, Inc.

Appendix F: Survey Instrument

The following is a copy of the survey instrument.

Prepared by National Research Center, Inc.

Scott Robinson

From: Monica Garland on behalf of Planning
Sent: Friday, March 18, 2016 10:44 AM
To: Scott Robinson; Aaron DeJong
Subject: FW: Sam's Club Area Ideas

Monica Garland
Senior Administrative Assistant
Planning & Building Safety Division
City of Louisville
Phone: 303.335.4592
Fax: 303.335.4588
monicag@louisvilleco.gov

From: Kristin Dean [mailto:kristindean11@gmail.com]
Sent: Friday, March 18, 2016 10:02 AM
To: Planning
Subject: Sam's Club Area Ideas

Hello,
I am a resident of Louisville and own a home nearby on S. Lark Ave. I'm also a professional land use planner. I would like to submit my input on the redevelopment of the Sam's Club site and surrounding property. I strongly encourage high density, mixed use for the entire site. I would love to see it energized with boutique shops and locally owned restaurants anchored by a great brewery!! :) I recognize that chains help to ensure funding for projects, but the less the better in my opinion.

As for the Sam's club building, I attend Ascent church and love it. The congregation is growing! It is such a value to the community. Over 700 people there on Sundays, leaving to shop and dine in Louisville!!! I would love to see a building constructed within the mixed-use development that would house the church on Sundays and then could serve as an event space and other flex space throughout the week. This could be owned by the city or other entity and leased to the church and interested business. The space could be designed with movable walls so that various uses could take place during the week such as art and yoga classes, workshops, general meeting space, and events in general.

I have not been able to attend any of the meetings due to scheduling conflicts, but hope you will consider these comments.

Best Regards,
Kristin Dean
, AICP

City of Louisville
COLORADO • SINCE 1878

Business Retention and Development Committee

June 16, 2016

Re: McCaslin Small Area Plan

Dear Louisville Planning Commission, Mayor and City Council:

The McCaslin Small Area Plan will be coming soon for your review. This document is intended to lay out the vision for the area for the foreseeable future. It will have great implications on how residents utilize the corridor, how property owners view the potential for their properties, and how businesses evaluate their viability in the area. **Please note that in preparing these recommendations, the City Council Members serving on the BRaD Committee did not participate in this opinion.**

The BRaD Committee held a property owner roundtable very early in the process to make sure we understood if the business district was thriving or struggling. Businesses and property owners attended the meeting and provided input on a variety of issues. The main input received was:

- The area is not friendly to pedestrians
- More rooftops would help the retailers
- There is an opportunity to provide a greater mix of housing types in town
- There is an opportunity to create a place for special events in addition to Old Town

The Planning Department held several public input meetings to discuss the area with residents and outlined options and improvements being considered in the area. The preliminary outcome of that work product appears to have many of these key ingredients; however, the BRaD Committee believes that many of the key issues to create the best possible outcome are still missing.

BRaD believes the McCaslin Small Area Plan must anticipate and allow for future conditions that will require additional permitted uses in order for the area to maintain its vibrancy and relevance to the City. Specifically, BRaD endorses planning that will allow for moderately dense, residential development in proximity to the new Bus Rapid Transit (BRT) corridor along US 36. Mixed use developments are essential for economic viability and this is precisely the scenario brought to our attention by the Urban Land Institute when they studied the area in 2013. One of ULI's key recommendations was:

"Reconsider the role of housing in creating vibrant, walkable, mixed-use urban environments in the McCaslin District."

The BRaD Committee believes that if the McCaslin area remains as solely retail centers and business parks, it will limit the potential for the area to create a new vibrancy. The McCaslin Small Area Plan should allow for some properties to transition to allow for a mix of uses, which will encourage redevelopment of underperforming properties and begin to evolve the corridor.

The McCaslin Area is well positioned to be a lasting asset for Louisville if we listen to the market and the needs of our community. With an expansion of the uses and infrastructure, McCaslin can again be a vibrant area for residents, businesses, and owners.

Sincerely,

The Business Retention and Development Committee

Scott Robinson

From: Justen Staufer <justen@stauferteam.com>
Sent: Tuesday, April 19, 2016 1:44 PM
To: City Council; Scott Robinson; Robert Muckle
Cc: Ciel Lawrence; Cindy Mueller; Fran Ryan; Jeff Lucas; Jennifer Grathwohl; Marilyn Davenport; Mark Zaremba; MaryLynn Gillaspie; Michael Crowe; Norman F. Rick Kron; Patrick Walsh; Wendy Atkin
Subject: RE: McCaslin Small Area Plan

LOUISVILLE HISTORIC DOWNTOWN MAIN STREET BUSINESS ASSOCIATION

TO: Mayor, City Council and Planning Commission

FROM: Downtown Business Association

Date: April 19th, 2016

RE: McCaslin Small Area Plan

The DBA would like to thank the Planning Commission for all their hard work on the McCaslin Small Area Plan. We understand how many citizens you have to consider when coming up with a plan as extensive as this one. We know that rezoning is very complicated and that it affects all the residents in Louisville and not just the ones near the rezoning.

After reviewing your plan for the McCaslin corridor, we felt we needed to speak up on behalf of the businesses in Historic Downtown Louisville. We would urge you to select a plan that allows for moderately dense, residential development. We believe this is vital to commercial and retail in the McCaslin corridor as well as those in other areas of Louisville such as Historic Downtown. The market is dynamic and having an area plan that is flexible will allow the area to remain stable during shifts in the economy. Permitting this area to strike a balance between commercial, retail, and residential will ensure a healthy future for Louisville. More residents will allow the area to remain relevant, support retailers in the corridor and Historic Downtown, and encourage the growth of retail and commercial interests in the corridor.

Thank you for your consideration and all your hard work.

Yours Faithfully,

The Members of the Downtown Business Association

Louisville
Chamber of Commerce

TO: Mayor, City Council and Planning Commission

FROM: Louisville Chamber of Commerce Board of Directors

DATE: June 15, 2016

RE: McCaslin Small Area Plan

The Louisville Chamber of Commerce feels that the City has done an excellent job working on the McCaslin Small Area Plan by involving businesses and citizens. Their input is vital to the success and future growth of the corridor.

We understand that the McCaslin Small Area Plan will be coming soon for your review. After talking to many of the business owners in that area, and attending the property owner roundtable that the BRaD committee held, the Chamber Board wanted to communicate what changes we would like to see added to the McCaslin corridor.

The Chamber Board feels it is necessary for the McCaslin Small Area Plan to allow some residential development. We believe there needs to be a balance of new occupancy fees from commercial development while at the same time increasing the customer base and development fees from new residential development. Research has shown that rooftops are needed to help businesses thrive. The Chamber Board endorses planning that will allow for moderately dense residential development on the west side of McCaslin. We feel this is essential for the success of all the businesses in that area. We also believe this will encourage redevelopment of underperforming properties and help keep the area an asset to our beautiful city.

We appreciate everything that you do to for our City and we thank you for your consideration.

Scott Robinson

From: Brian Larson <larson.brian.m@gmail.com>
Sent: Thursday, June 23, 2016 4:46 PM
To: Scott Robinson
Subject: Re: McCaslin small area plan at Planning Commission

Good evening Mr. Robinson,

I would like to add a comment for tonight that I am highly supportive of the draft plan, particularly the redevelopment ideas for the west side of McCaslin to improve connectivity, increase business, retail, and residential space, and reduce car demand for the area closest to our major transit hub.

The City of Louisville planning department has done an excellent job listening to citizen input while also positioning Louisville for continued growth opportunities and redevelopment that will allow a variety of people to live in the city.

Thank you very much.

Sincerely,

Brian M. Larson

On Fri, Jun 17, 2016 at 2:11 PM, Scott Robinson <scottr@louisvilleco.gov> wrote:

Good afternoon,

The draft McCaslin Blvd small area plan will be discussed at next week's Planning Commission meeting. The packet for the meeting is available here: http://www.louisvilleco.gov/home/showdocument?id=9169. The meeting starts at 6:30 pm on Thursday, June 23, in City Hall. Please let me know if you have any questions or comments.

Thanks

Scott Robinson, AICP

Planner II

City of Louisville

303-335-4596

scottr@louisvilleco.gov