Winston-Salem/Forsyth County
PLANNING & DEVELOPMENT SERVICES

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Memorandum

TO: Greg Turner, Assistant City Manager
FROM: A. Paul Norby, Director of Planning and Development Services
DATE: May 4, 2018
SUBJECT: Transit Oriented Development and Green Development Incentives

At the request of the City Manager's Office, Planning staff has prepared the following research on Transit Oriented Development and Green Development Incentives. Please let me know if you have any questions or wish to discuss any of this further.

Transit Oriented Development

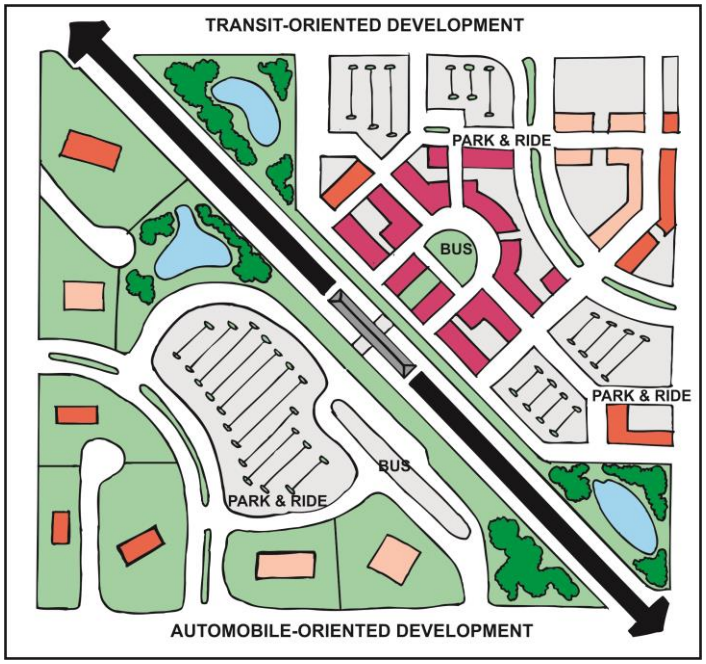
As communities continue to grow and look for ways to increase density and accessibility, Transit Oriented Development (TOD) has emerged as a way to integrate walkable, mixed-use development with multi-modal transit options. At its core, TOD is a method of planning land uses immediately surrounding transit stops. While most conventional development is auto oriented, TOD is distinct in that it prioritizes transit and pedestrian mobility over that of cars.

BRT stop with dedicated travel lanes

Historically, transit oriented development has occurred around rail lines and stops. Whether light rail or commuter rail, trains are able to carry a large number of passengers, and locations near the stops are highly desirable for development. As other modes of transit began to emerge, TOD was considered for other types of "premium transit". Premium transit includes modes such as Heavy Rail (Amtrak), Commuter Rail, Light Rail, streetcar systems in dense areas, and Bus Rapid Transit (BRT). BRT is typically comprised of large, articulated buses with limited stops in dedicated travel lanes adjacent to or along the center line of major corridors. In fact, some smaller communities have begun organizing TOD around BRT stops as a way to encourage density without the population and employment levels that rail needs to be successful. However, the most successful examples of TOD have occurred where there are fixed rail transit options.

Evaluating potential sites for TOD involves considering development options within ¼ or ½ mile of the transit stop. This radius constitutes the "walk-shed" or "catchment area" for the transit stop and any eventual TOD. Several Federal funding sources for both premium transit and TOD projects are tied to housing unit and jobs thresholds within the catchment area. In addition to these thresholds, several other conditions need to be met in order for TOD to be successful. Transit needs to be frequent, reliable, and have fixed stops that allow for certainty for both riders and developers at stop locations. Residential development within the catchment area

needs to achieve a certain minimum level of density, typically 15 dwelling units per acre (this is slightly less than RM-18 zoning allows for locally) for BRT service, and increasing from this level depending on transit mode. Finally, development standards in TODs should require mixed-use, walkable design with places to eat, shop and work.



Auto-oriented development vs TOD

Currently, there is no TOD development in Winston-Salem, and while premium transit exists or is being planned in multiple locations, including the Charlotte Blue Line and the Durham-Orange Light Rail, TOD projects in North Carolina are relatively limited. Charlotte has an extensive ordinance for TOD included as part of its Transit Oriented Development Districts, which act as zoning overlay districts. Requirements of the district include urban design standards, including minimum setbacks; minimum residential density requirements of 20 dwelling units per acre within ¼ mile of transit stations; streetscape requirements, including street trees and sidewalk standards; and connectivity and circulation requirements. Durham, while not yet initiating traditional TOD, has adopted Compact Neighborhoods standards near planned stations along the Durham-Orange Light Rail Transit system. These standards contain specific requirements for each location, and are envisioned to help communities develop into walkable, mixed use and higher density places. As they develop, the projects in these municipalities will be good reference points for any future TOD development in Winston-Salem.

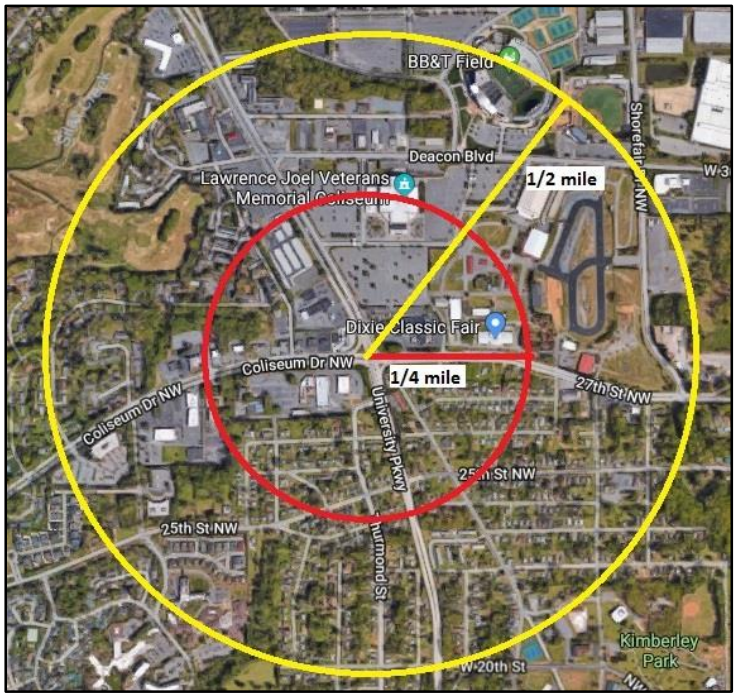
In considering the future of TOD in Winston-Salem, it is imperative to first look at the status of transit within the city. Transit in Winston-Salem is comprised of two bus systems: Winston-Salem Transit Authority (WSTA) handles local service, while the Piedmont Authority for Regional Transportation (PART) system handles regional transit, with multiple stops in Winston-Salem. Ridership on both systems is trending downward, and both are heavily financially subsidized. Without stable ridership, reliable service, and fixed transit stops, it will be challenging to implement successful TOD here.

Locally, several studies have been done to investigate the development of premium transit both in Winston-Salem and the Triad region. These include a commuter rail corridor study from Clemmons to Greensboro, the Regional Transit Development Plan for Forsyth and Guilford Counties, a streetcar study for the 4th street corridor and parts of the center city, and recently, a potential study for a streetcar from Wake Forest University through the Whitaker Park redevelopment area to the Wake Forest Innovation Quarter. However, to date, none of the studies have resulted in investment in or construction of premium transit lines.

A key impediment to TOD locally is the lack of locations outside the center city with adequate density thresholds. As stated above, to successfully implement the mode of premium transit with the lowest population requirement, Bus Rapid Transit (BRT), density within the catchment area must be at least 15 dwelling units per acre. While multifamily housing is becoming more common in the center city, there has been resistance to increasing density in suburban locations that might lend themselves to be TOD nodes.

Currently, conditions in Winston-Salem do not rise to the level to support true TOD due to the following reasons:

- There is no premium transit available;
- Transit stops are not fixed, as evidenced
- by the large-scale local bus route adjustment in January 2017; and
- Outside of the center city, population density does not reach the minimum threshold level within ½ mile of any potential TOD node.



Example of ¼ and ½ mile catchment area.

While it may be premature to consider true TOD in Winston-Salem, Planning staff has been preparing plans and reports that take mixed use, multi-modal design into account. Two specific development areas, Growth Corridors and Activity Centers, are identified in *Legacy 2030* and subsequent area plans. Growth Corridors link suburban activity centers to downtown Winston-Salem and other town centers, and Activity Centers act as nodes along Growth Corridors, usually where there is a large intersection. Both of these areas promote a mix of office, retail, and higher-density housing, reducing development pressure on adjacent residential neighborhoods. Also, UDO-283, which would add multi-family residential uses to the many non-residential uses already allowed in the HB (Highway Business) zoning district, was proposed in order to help build up densities along transit corridors. These factors encourage efficient use of public infrastructure, and support existing and future transit. In the next fiscal year, Planning staff will begin work on a series of targeted Growth Corridor studies. Among other goals, these studies will take into account current and future transportation options and opportunities along the corridor. Key Activity Centers and corridors could easily become TOD overlay districts as density increases and transit stops become more robust and fixed in these areas.

To assist with the development of potential future TOD areas, City management and the City Council can:

- Prioritize and support projects and ordinances that increase density along identified Growth Corridors and at associated Activity Centers.
- Consider potential corridors for premium transit in future land use and transportation planning documents.
- Continue to develop multi-modal connections through the extension of pedestrian and bicycle infrastructure, especially surrounding Growth Corridors and Activity Centers.
- Continue to work closely with regional transit partners (PART, Greensboro, and High Point) to coordinate local and regional transit plans.
- Encourage and facilitate coordination between multiple City departments, including Planning and Development Services, Transportation, Business Inclusion and Advancement, and Community Development to ensure that all land use, transportation, economic development and affordable housing goals are being met within potential TOD areas.

Parking Requirements for Transit Oriented Development

Because of the multi-modal access inherent in transit oriented development, parking requirements for such projects can often be substantially reduced compared to conventional suburban development. Currently, Winston-Salem allows for a reduction in the number of parking spaces for development along a local bus route. For certain zoning districts (Central Business and Central Industrial) in the dense Downtown area, there is no parking requirement at all. Certain other pedestrian-oriented zoning districts allow parking reductions as well. As mentioned above, as areas of the city are identified for TOD, additional parking reductions, if desired, can be included as part of any future TOD overlay districts. As robust alternative transit modes do not yet exist in these areas, staff would not recommend reducing UDO parking requirements at this time.

Green Development Incentives

While TOD is one way to create more sustainable, walkable places, Green Development is a way to further reduce the carbon footprint of proposed projects. There are many programs that encourage green building design and development, from the LEED (Leadership in Energy and Environmental Design) program of the US Green Building Council, to the Energy Star program for residences, to better access to recycling programs for both construction projects and residential customers.

Several programs for green development have been initiated in North Carolina and Winston-Salem within the past 10 years. A report to the City Manager from 2015 (**Attachment A**) references the 2012 North Carolina Energy Conservation Code which surpassed the energy efficiency requirements of the Energy Star program. Our City/County government has also offered financial incentives through a Green Building Rebate program to contractors who installed green systems, such as geothermal or photovoltaic systems, in existing structures. However, no contractors have taken advantage of the program to date since the rebate did not exceed the additional costs of such systems for the developer, or the additional inspection of the green systems. Lowering permit fees as another incentive is also not likely to work, as our current permit fees are already among the lowest in the state.

As mentioned in the 2015 report, tax incentives offered in other states are not immediately viable here due to the fact that this would require state enabling legislation. As such, little has changed in the area of Green Development Incentives since the 2015 report was prepared.

Leading by example by committing to energy efficiency and following green building standards in municipal buildings is one way the City of Winston-Salem can commit to green development. An important step has been taken with the City's participation in the STAR Communities rating system, overseen by the City's Office of Sustainability. As they continue to evaluate conditions for the STAR system, Sustainability staff should make it a priority to stay aware of any current or future trends or programs that would allow both the City of Winston-Salem and our local developers to take advantage of green incentives.

ATTACHMENT A

Winston-Salem/Forsyth County
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Memorandum

TO: Lee Garrity, City Manager
FROM: A. Paul Norby, FAICP, Planning/Development Services Director
DATE: March 30, 2015
SUBJECT: Report on Results of Plumbing and Electrical Permit Fee Incentives for Gray Water Reclamation or Solar Energy; and on Potential Additional Incentives for Green Building

The need for creating a culture and a building environment that promotes sustainable and energy conscious structures has become increasingly important since the early 1970's. With the launch of the national "Energy Star" program for residential structures in the 1990's a new focus on efficient systems for housing became more than a byword in the building community. By 2006 the program had become a household brand name across the United States, and it included not only building standards but also commodities such as appliances, televisions, and even devices as common as hair dryers. Commercial structures were also being designed and built with energy conservation as an important compliment to the operating expenses for the life of the building. The National Association of Home Builders, United States Green Building Council, International Code Council and major research campuses around the world united in developing methods of construction and use of materials that would create more sustainable and efficient structures, and help decrease the carbon footprint and embodied energy totals for our built environment.

The additional costs associated with implementing these energy strategies frequently increased the construction costs of the homes or commercial structures to a level that made owners and investors retreat to the minimums required by the building codes. The average increase in expense associated with building an Energy Star house in 2006 often was calculated to be as much as 6% of the hard costs of the dwelling. The design/build costs associated with constructing a Silver, Gold or Platinum Leeds Certified commercial building averaged from $1.75 per square foot for the lesser rating to as much as $6.00 per foot for the most energy efficient. In addition to this construction cost, third party certifications that were required throughout the construction process could add as much as two (2) percent or more to the building costs. For investors the value offsets gained by decreased operating expenses of the more efficient systems were seldom justified when looking at long range dollars and cents in upfront building expenses; and that justification was made more difficult by the simple economic arguments that the great majority of homeowners now owned their homes less than seven years before a resale, and commercial structures benefitted more from tax depreciations for their maintained systems.

In 2009 the North Carolina Building Codes, with the issuance of a stand-alone energy code, made great strides towards the requirements that would ensure more energy efficient structures, both residential and commercial. By 2012, with the acceptance of the North Carolina Energy Conservation Code, the residential code requirements had surpassed the energy efficiencies of the Energy Star program that was commonly used, and Energy Star and other ratings developers devised new programs to stay ahead of the code requirements.

Testing methods for the tightness of structural envelopes, and maximum leakage requirements for heating and cooling systems are now code requirements. Contractors are also required to complete certification documents to be placed in the homes permanently for the use of the homeowners. In addition, programs to measure energy efficiency such as Res-Check, Com-Check and Net-Check are commonplace among our builder and designer communities.

Programs and systems that are effective such as geo-thermal heating systems, photovoltaic energy systems, solar water heating systems and gray/rain water collection systems are still in use; and we see them infrequently throughout our jurisdiction. The costs of installation still often exceed the rates of return in energy savings for the homeowner who chooses to install these systems. That expense alone is usually the deciding factor for whether or not to take advantage of the "savings" in energy. We, as a collective of owners and users, are saving energy, but not saving money. That realization, coupled with the severe downturn in building following the mid 2000's economic decline has greatly affected the introduction of newer, more efficient systems into the market. Until systems become more efficient and the demand for them drives down prices, we think their installation and use will remain scarce.

And while the City and County can be applauded for their efforts to offer financial incentives to contractors who install these systems, we can't expect those incentives to be taken advantage of unless the incentives save the installer money. At the time our Green Building Rebate program was launched in January, 2013, we offered maximum rebates of $40.00 residential and $80.00 commercial as incentives to install specific "green" systems in existing structures. The verification for the installation of those systems required an on-site meeting and an extra trip to our office to sign for the rebate. In time and money those two trips alone would cost the installer more than the rebate's value. Also our requirement for a 3rd party inspection would cost a minimum of $200.00 for a residential installation and thousands of dollars for a commercial certification, while our maximum commercial refund on a new structure was $500.00. For this reason, there have been no contractors who have shown any interest in our Green Building Rebate program since it was instituted. Because our permit fees are so low, increasing the permit rebate would not be realistic since the rebate would exceed the cost of the permit.

The cities who have had moderate success in Green Rebate programs have generally attempted to institute a well-publicized culture of energy conservation that included such measures as property tax incentives for certified structures; and the commitment by the local governments that to set an example, all buildings owned by that locality would be retrofitted to increase the efficiency of the building's operation; and that all new public buildings would be constructed to meet a nationally recognized energy efficiency standard. Such communities include Indianapolis, Ind. which offers rebates up to 50% of all total municipal building costs, Scottsdale, Az, which offers no monetary reward but publishes the green structures owner's name in an awards recognition flier, has special green permit signs, highlights the builder in a city sponsored newslink, etc, and Anaheim, California where commercial fee rebates can go to $30,000.00 and higher and residential rebates start at $1,000.00 for a single unit and up to $6,000.00 for 11 (eleven) units. Several Northeastern communities offer property tax rebates for a period of 5 to 10 years based on the structure.

To implement tax incentives as described above in North Carolina, there would need to be state legislation allowing for such incentives. Given the current legislative climate concerning tax incentives or credits, it is not likely that this will happen in the foreseeable future. That would leave what the local government is willing to do by example in setting a higher standard for its own buildings, with the hope that other private or non-profit entities would follow that example for their buildings.