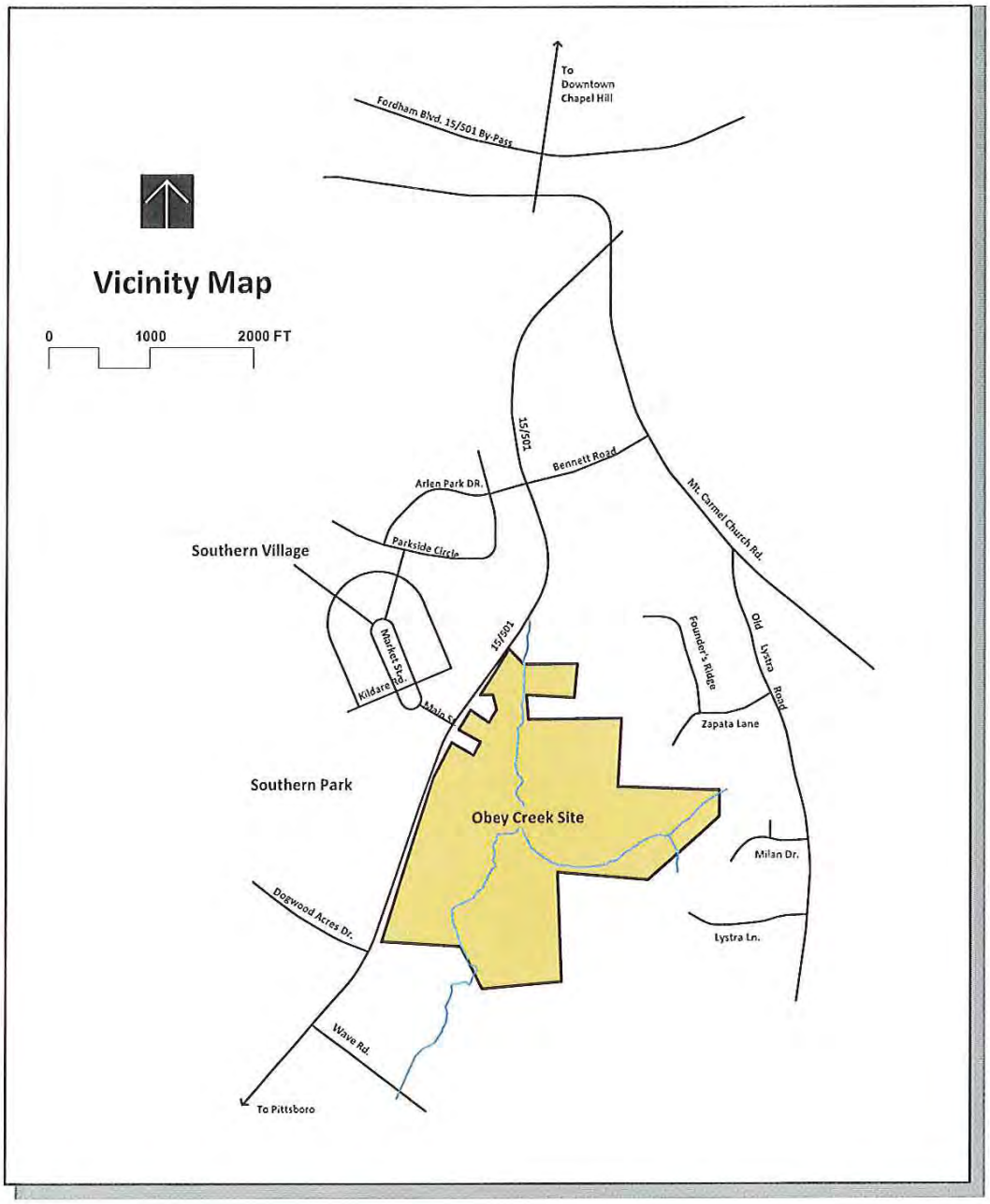
OBEY CREEK COMPASS COMMITTEE
REPORT TO THE CHAPEL HILL TOWN COUNCIL



DECEMBER 16, 2013

FOREWORD

Historical Antecedents

The work of the Obey Creek Compass Committee acknowledges and builds upon prior planning efforts in the southern area:

- The Southern Small Area Plan created in the early 1990s arranged a density-swap between the east and west sides of South 15-501 that resulted in the development of Southern Village and the current zoning for the Obey Creek site (one house per acre).
- The South 15-501 Discussion Group in 2012 acknowledged the desirability of concentrating development on the west side of the Obey Creek site as a means of addressing Town goals for economic development on this environmentally sensitive site, and emphasized emulating the design principles of the Market Street area of Southern Village. The principles developed by this group are currently part of the Town's Comprehensive Plan.

Chapel Hill 2020: South 15-501 Discussion Group Map

TABLE OF CONTENTS

FOREWORD

EXECUTIVE SUMMARY 1

Our Vision 1
Challenges and Concerns 2
General Recommendations 3
Issue-specific Recommendations 3
Process Evaluation & Recommendations 4
About the Committee 5

USES AND IMPACTS 6

Aspirations 6
Principles 6
Recommendations 7
Specific Uses 8
Trade-offs 9
Public Input 10

DESIGN 11

Aspirations 11
Principles 11
Recommendations 16
Public Input 17

CONNECTIVITY AND MOBILITY 18

Aspirations 18
Principles 18
Recommendations 19
Public Input 19

TRAFFIC 20

Aspirations 20
Principles 20
South 15-501 Corridor Traffic Objectives 22
Recommendations 23
Public Input 23

ENVIRONMENTAL CONSIDERATIONS 24

Aspirations 24
Principles 24
Recommendations 26
Public Input 26

APPENDICES 27

Appendix A: Committee Meeting Schedule 28
Appendix B: NC DOT Urban/Suburban Boulevard 29
Appendix C: Radius Map 31
Appendix D: Traffic vs. Tax Revenue Trade-off Illustration 32
Appendix E: Obey Creek/Southern Village Comparison 33
Appendix F: Pedestrian Bridge Examples 35
Appendix G: Activating the West Side of South 15-501 38
Appendix H: Traffic Impact Calculations Based on EPA Smart Growth Modeling 39

EXECUTIVE SUMMARY

From the outset, the Obey Creek Compass Committee (OCCC) has been aspirational in its thinking about development on this site – striving to understand the complex issues necessary for creating principles that will encourage successful development at Obey Creek – development that meets Town economic development goals and which will connect both sides of South 15-501 economically, physically and visually.

This report was approved unanimously by the committee.

Our Vision

The development envisioned by the OCCC balances economic, social and environmental goals for both the Town and the southern community in the following ways.

- Provides opportunities for the Town to increase its commercial tax base through a mix of uses that have an "anchored" presence and an urban format that reflects 21st century retail trends.
- Creates synergy with Southern Village Market Street by planning for development on both sides of South 15-501, linking them physically with a well-placed, iconic pedestrian bridge and multiple at-grade crossings. This includes possible re-development of the Town-owned Southern Village Park & Ride as an anchoring presence on the west side of South 15-501.
- Applies urban design standards to create a walkable, human-scale development that allows for greater density than Southern Village at a scale that complements Southern Village Market Street.

Obey Creek 101: Presentation by town staff

- Addresses traffic concerns by carefully considering the mix of uses and mobility concerns by working with NC DOT and the developer to apply Complete Streets standards for transformation of South 15-501 into an Urban/Suburban Boulevard with a frontage road along the east side of the road. (See Appendix B, NC DOT Urban/Suburban Boulevard Guidelines.)
- Protects environmentally sensitive portions of the Obey Creek site by preserving the east side of the property as a destination parkland in perpetuity and by encouraging stormwater management best practices.
- Encourages use of alternative modes of transportation by increasing connectivity throughout southern Chapel Hill and providing convenient connections to other areas of town.

Challenges and Concerns

The OCCC recognizes the opportunities for economic development at the site; at the same time, committee discussion and public forums revealed clear areas of concern. A development agreement must strike a balance between the potential benefits and these concerns.

Traffic. The currently proposed size and mix of uses is expected to generate substantial additional traffic, but estimates have not been provided to the OCCC, nor have potential mitigations been identified. Committee members agreed that traffic impacts should not overwhelm the area and felt strongly that accommodations for additional traffic must not be at the expense of opportunities for increased connectivity and mobility across South 15-501.

Property tour by committee members and community, May 22, 2013

Connectivity. Safe access for pedestrians and bicycles and increased opportunities for greenway connections are essential. There is strong objection to creating an internally oriented island of development on this site accessible only by automobile.

Environment. This heavily wooded, steeply sloped site is bisected by Wilson Creek, one of Chapel Hill's premier watercourses for water quality. Transitioning from a natural wooded tract to developed area poses a number of challenges, including protection of water quality, conservation of natural area and tree canopy, and mitigation of noise, light and air pollution impacts.

Economic benefit. A thorough and specific economic analysis is required to determine which mix of uses will maximize Town revenue and minimize Town expenses. Analysis must include anticipated revenues, costs of public services and infrastructure, including student population increases and infrastructure improvements needed to accommodate impacts from the proposed development.

Scale of development. Committee responses to the current proposal reflect strong concern about the overall scale of the current proposal, with most preferring "human scale" development as defined by density, building heights and footprints, block sizes and other such factors.

General Recommendations

To achieve this vision, the OCCC recommends that the Town and Council do the following.

1. Require the developer to submit plans that align with the principles developed by the committee.
2. Plan for development at this site within the larger context of the southern area.
3. Extend the exploratory phase to include the following:
    a. Evaluate the scope and direction of work assigned to the Technical Team to ensure that Town Council has a strong negotiation team whose work is geared toward Town goals and the community vision.
    b. Gather the information necessary for effective negotiations before proceeding.
    c. Apply economic data, trip generation and traffic analysis data, and OCCC principles to the Concept Plan as a means of establishing a baseline.
    d. Include all appropriate advisory boards and possible steering committee involvement.
4. Adopt the OCCC Report as part of the Town's Comprehensive Plan.

Issue-specific Recommendations

Issue-specific recommendations are included in each section of the report. The following recommendations are considered immediate in nature, and are therefore repeated in this executive summary.

1. Expand focus of work for Dover, Kohl and Associates to address opportunities on both sides of South 15-501 with particular attention to the Town-owned Southern Village Park & Ride lot. The OCCC understands that this work should not be at the expense of the developer.
2. Retain an urban designer to work on behalf of the Town to "defend the public realm."
3. Begin discussions among Town staff, Technical Team consultants (Fuss & O'Neill) and NC DOT regarding South 15-501 frontage road and Urban/Suburban Boulevard.

Process Evaluation & Recommendations

To explain the limitations of this work product and to help inform the work of similar groups in the future, the OCCC unanimously agreed that it would be useful to acknowledge the strengths and limitations of the process the committee has engaged in for considering development at the Obey Creek site.

STRENGTHS

- OCCC members represented a broad range of interests and expertise. They were thoughtful and respectful in their discussions and shared their expertise freely.
- Three administrative commitments were especially helpful:
    * Having an individual familiar with Chapel Hill and the various stakeholder groups facilitate discussion.
    * Assigning a staff member to the committee to facilitate communication.
    * Posting all meeting information and OCCC resources to the Town website.
- The OCCC was flexible in its work plan, and adapted that plan to include greater opportunities to consider information, discuss key topics and interact with the developer.

LIMITATIONS

- Traffic impact studies, economic data and a fiscal impact analysis were not available to the committee; therefore the guiding principles developed by the OCCC were created without benefit and consideration of this vital data.
- Confusion about the role of the Technical Team resulted in non-productive meetings, and the process did not allow for collaborative exchange between the Technical Team and the OCCC.
- The process did not allow for collaborative exchange between the developer and committee, meaning
    * Initially, no formal interaction between the developer and the OCCC was scheduled until public presentation of the developer's concept plans. The OCCC requested a change to include at least one session to hear the developer's early ideas about concepts.
    * The OCCC had no other opportunity to participate in the formation of concept plans or alternatives to the developer's proposals.
- Absence of information and lack of alternatives meant the OCCC had no opportunity to consider meaningful choices.

OTHER POINTS TO CONSIDER

- Visiting the site at the beginning of committee deliberations provided some historical context for the potential development. The Council should be afforded the same opportunity, possibly through an animated slide show, to provide them context for this important negotiation with the developer.

About the Committee

The Chapel Hill Town Council appointed the Obey Creek Compass Committee in June 2013 to represent the Chapel Hill community during the Exploratory Phase of a Development Agreement process for the Obey Creek Development proposal from East-West Partners.

The OCCC's charge included participating in meetings (21 total), serving as a conduit to the public and, ultimately, producing a report that identifies key issues, principles and interests to be considered in the next phase of discussions and negotiations. The Council will use the report in deciding on next steps and in the negotiation of any Development Agreement. A schedule of meetings appears in Appendix A.

COMMITTEE ROSTER

John Ager	Planning Board member
Kimberly Brewer	Planning Board member
Jeanne Brown	Southern area ETJ resident (ETJ south of NC 54)
William Clark	Chapel Hill business owners, one from Southern Village
Daniel Costello	Southern area resident (south of NC 54, east of Smith Level, within Town limits)
Travis James Crayton	Chapel Hill municipal resident at-large
Susana Dancy	Person knowledgeable in transportation issues
Bobby Funk	Person knowledgeable in business and development issues
Seth Kingsbury	Chapel Hill business owners, one from Southern Village
Susan Lindsay	Southern area ETJ residents (ETJ south of NC 54)
Aaron Nelson	Person knowledgeable in business and development issues
Chris Paul	Person knowledgeable in greenways issues
Alan Rimer	Southern Village residential representative
Danielle Spurlock	Person knowledgeable in bicycle and pedestrian issues
Robert Strauss	Abutting residential landowner
Polly Van de Velde	Chapel Hill municipal residents at-large
Patrick Vernon	Southern area resident (south of NC 54, east of Smith Level, within Town limits)

USES AND IMPACTS

The Town has the potential to benefit economically from a number of different development configurations at Obey Creek, and the OCCC agreed a wide range of uses was acceptable for the site. Identifying the best mix of uses will require additional data, analysis and discussion. **There is significant concern about the size of the current concept plan, and it may not be feasible to include all of the currently proposed uses or density on this site.**

Aspirations

- Development at this site should contribute to an integrated southern Chapel Hill, work synergistically with Southern Village Market Street, increase connectivity and community across South 15-501, and expand opportunities within the southern part of town.
- Preserving land on the east side of Wilson Creek will protect area waterways, preserve wildlife corridors and provide recreation opportunities for the Town – including a greenway along the creek.

Principles

1. Development at this site should be considered within the larger context of long-term redevelopment and/or development opportunities on both sides of South 15-501 – including potential redevelopment of the Southern Village Park & Ride area.
2. The overall mix of uses and density of development should be determined by balancing economic, environmental, socio-economic and transportation benefits and impacts.
3. The mix of uses must not generate vehicular traffic that exceeds what the road system can support, taking into account normal growth projected by the MPO over the next 20 years, and growth that is expected in the area on adjacent parcels and across South 15-501.
4. The land on the east side of the creek should be placed in a conservation easement in perpetuity, managed or owned by a third-party conservation organization, with stewardship funds provided by the developer. No residential or commercial uses should take place there.
5. Development at this site will benefit from an "anchor" presence that helps animate the site (ie: retail, performing arts venue, conference center). Give strong preference to uses that create a distinctive identity for the site that will make it a destination for neighbors, residents of the three to five mile catchment area and others. (See Radius Map, Appendix C.)

This map showing the 3-5 mile retail catchment area around Obey Creek helped the committee consider potential changes in traffic patterns due to different types of retail. See Appendix C: Radius Map for additional detail.

6. Within the site, the mix of uses should complement each other and reduce the amount of traffic that those uses would generate at the same time. Shared parking, counter-cyclical traffic generation, and maximizing internal trip capture are important considerations.

7. Development at this site should generate significant net revenue gains to the Town and county, after accounting for associated costs of services, Town or county-borne costs for infrastructure and mitigation measures, and all other costs.

8. Plan for and accommodate the impact of public school students generated from residential uses at the site using calculations that address county-recognized increases in student generation numbers for multi-family housing.

Recommendations

1. The Town should secure and maintain a capability to analyze the fiscal impacts of this and future developments on the Town's budget. This capability should:

   a. Estimate property and sales tax revenues to the Town, by land use. Estimates should be dynamic so as to account for changing land values near the site as a result of different proposed uses.

   b. Estimate Town and county expenses needed to maintain the site, by program function (e.g., parks and recreation, law enforcement, etc.) for each type of land use.

   c. Estimate how tax incentives and exactions impact the fiscal analysis.

   d. Be available to the public so that its functions can be used to analyze fiscal impacts of different development proposals.

Example of big-picture thinking that might result from expanding the scope of the Technical Team to evaluate both sides of South 15-501. See Appendix G for more detail.

   e. Tax incentives to entice retailers should be avoided.

   f. The capability, and the results of the analysis itself, should be made available to the public for use during Phase 2 of the development agreement process

2. Additional retail expertise/resources should be utilized to create a retail strategy for Southern Chapel Hill that addresses the following: retail opportunities, constraints and mix; synergy with Southern Village, including potential redevelopment of the Southern Village Park & Ride lot; and identity.

3. The school board has identified the Obey Creek site as a potential school site. The developer will need to consider that as any Development Agreement is developed.

Specific Uses

Table 1 outlines uses that are considered acceptable for the site, but the OCCC agrees that it may not be feasible to include all of the currently proposed uses or the currently proposed density on this site.

TABLE 1: ACCEPTABLE USES

Commercial	
Retail	**Neighborhood retail (grocery/pharmacy anchor)** **Anchor retail that supports smaller retailers** **Large-format retail meeting design principles in this document**
Hotels	**A hotel is considered to be a good fit at Obey Creek for the following reasons:** **Low impact on traffic** **High impact on revenues** **Positive impact on community due to public gathering places like restaurants, event spaces, and bars** **Good fit with conference centers and some commercial office uses** **Proximity to hospital and university-serving transit**
Office	**Space that attracts startups, incubator graduates, tech-centric companies and UNC spin-offs is desirable.** **Some uses, like medical office, create greater traffic impacts than others.**
Residential	**A mix of housing that attracts diverse residents and families is preferred.** **New models for integrating affordable workforce housing should be explored.**
Civic and Recreational	**Preserving the land on the east side of the creek offers an opportunity to create a destination park that will draw area residents on its own merits. The land should be managed and utilized in ways that encourage use but minimize disturbance. Examples include hiking, walking and biking trails, and an education pavilion.** **Houses of worship stimulate community building.** **Public space and public and private community amenities are appropriate and encouraged.**

Trade-offs

Different combinations of uses create different traffic, economic and social impacts. The appropriate mix and size of uses should strive to minimize negative impacts while capturing economic benefits to the Town and county. Figure 1 is an illustration of this type of analysis that was completed by one of the OCCC members.

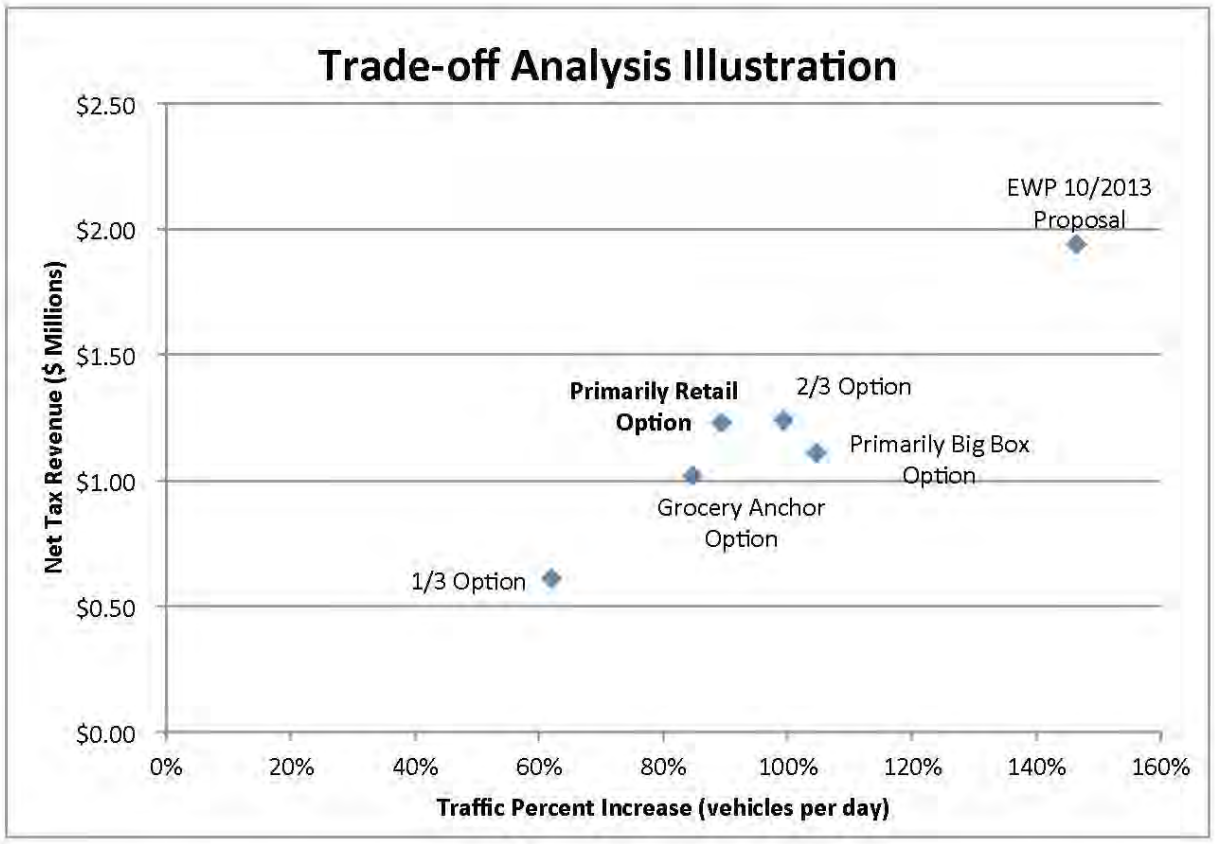


Figure 1: This example uses revenue estimates from the Renkow study commissioned by the town in 2012 and traffic estimates from the EPA Smart Growth website to illustrate one way of considering trade-offs and finding "sweet spots" that maximize revenues while limiting traffic impacts.

The town has not yet generated its own data specific to the current development proposal. For more information about how this tool was constructed, see Appendix D.

Public Input

SUPPORT FOR

- Increasing the Town's commercial tax base
- Preserving land across the creek
- Hotel
- Community uses (senior center, teen center)

SOME SUPPORT FOR

- More convenient access to retail
- Affordable housing
- Performing arts center

CONCERN ABOUT

- Size of proposed development, specifically the amount of traffic it will generate
- Amount of traffic generated by various uses (especially retail and movie theater)
- Possible negative impacts on surrounding property values
- Undermining the commercial viability of Southern Village Market Street
- Phasing commitments
- Property ownership passing to owners without community connections
- Increases in light pollution, noise, crime
- School impacts
- Public safety and crime

MORE INFORMATION NEEDED ON

- Net economic impact
- Traffic impact of proposed uses on congestion, changing traffic patterns and public safety
- Retail market research

DESIGN

At its core, any development on this site should embrace the fundamentals of resilient design, which include:

- Density, diversity and mix of uses
- Primary emphasis on pedestrian-oriented design
- Emphasis on placemaking through the creation of squares, plazas, parks, streets and buildings that will attract people because they are pleasurable or interesting
- Integration with the surrounding natural setting
- Adaptability: Block sizes and building footprints should be of a size and scale that can be adapted for future uses, rather than torn down and rebuilt. Internal streets should be dedicated public rights of way to facilitate this end.

Aspirations

- Construction on the Obey Creek parcels should be designed to create a walkable, human-scale development that adds to, integrates with and builds upon the existing communities of southern Chapel Hill.

Principles

1. Defend the public realm: The quality of our public realm is vital if the community is to be successful in creating environments that people want to live and work in and that will create value over time.
   a. The public realm includes, but is not limited to: sidewalks, streets, pathways, right-of ways, plazas, squares, publicly accessible open spaces and any public and civic buildings or facilities.
   b. Through all steps of a Development Agreement for this site, the Town should engage a highly-qualified urban designer, such as Dover, Kohl & Partners or a firm with comparable expertise, to ensure that the public realm is respected and enhanced when new buildings or public amenities are constructed.
   c. Architectural style (e.g. Federal, Neoclassical, Modern or Craftsman) is of lesser importance than building form, articulation and permeability.

Organizing principles for placemaking, Dover, Kohl & Partners. Special Topic Presentation: Design for a Changing World, August 12, 2013. (Available on the OCCC page of the town's website.)

2. Development should be outwardly focused.
    a. Embrace South 15-501 as an important public space that can contribute to the sense of place of southern Chapel Hill, rather than serving only as a through-way for cars. To facilitate this, commercial and/or civic structures adjacent to the east and west sides of 15-501 should face this road.
    b. Create physical and visual connections with the location of the current Southern Village Park & Ride lot (a possible redevelopment site) and the Southern Village core.
    c. Provide visual and physical access to the adjacent natural environment.
    d. Provide opportunities for possible future connections to adjacent parcels.
3. All new roads and improvements to existing roads must be consistent with NC DOT Complete Streets.
    a. To facilitate a safer pedestrian/bicycling environment, all frontage roads and internal streets should be built with design speeds no greater than 25 mph.
    b. All improvements to South 15-501 should comply with the Urban/Suburban Boulevard standards.
    c. No section of South 15-501 (northbound, southbound, frontage road) should be wider than two through lanes.
    d. In addition to a bike/pedestrian bridge over South 15-501, safe, at-grade street crossings should be designed at multiple locations along South 15-501.

Sketch showing retail and residences facing frontage road along South 15-501. Dover, Kohl & Partners: Technical Team workshop, October 7-9, 2013.

4. Human-scale standards should include limits on block sizes, building footprints, sitings of buildings and building heights. Size of blocks and scale of buildings should be physically compatible with existing development in Southern Village (See Appendix E, Block Size and Building Footprint Comparison.)

   a. Blocks

      i. Block sizes may vary within the development, but they should be no larger than 300 feet x 360 feet; recommended block size, based on Southern Village, should be 280 feet x 320 feet.

      ii. Blocks should contain alleys to accommodate service entrances, loading docks, utilities and mechanicals that cannot be placed on roofs or underground.

      iii. Blocks should be permeable, allowing mid-block pedestrian passageways to access alleys and behind-building parking.

   b. Building siting

      i. Buildings should be sited at the street edge to give spatial definition to the public realm, which is critical to supporting pedestrian activity.

      ii. Portions of building facades may be set back from the public right-of-way to accommodate key features such as a plaza or recessed storefront entrance.

   a. Building footprints

      i. Maximum building footprint of 55,000 sq.ft.

   b. Building heights

      i. Building heights can and should vary throughout the development.

      ii. Buildings should be a minimum of two stories and a maximum of six conditioned stories (maximum height of 75 feet with a maximum of 10 additional feet for mechanical penthouse, which must be set back). Allowance may be made for single-story buildings for civic uses such as churches and gymnasiums.

      iii. Buildings of more than three stories should "step back" a minimum of 10 feet on upper floors on building fronts. Step-backs are not necessary on all sides of the building.

Commercial buildings in Southern Village Market Street core are shaded in black in this building footprint diagram. For a detailed comparison of Southern Village block sizes and building footprints with the current concept plan, see Appendix E.

iv. Height of adjacent buildings should be compatible (no more than 50% difference).

v. We defer to the technical team consultants as they advise the council with respect to the mixture of buildings and their heights.

5. Architectural design features such as building facades, entrances and pedestrian access should establish and promote development that is visually interesting and of a scale that is comfortable to pedestrians.

   a. Building facades

      i. Large buildings with monolithic facades or blank walls that face public streets are not to be permitted. Buildings with large footprints should be set back to facilitate "wrapping" them with linear buildings to create multiple facades and entrances.

      ii. Facades that face public streets and open space areas generally should be architecturally subdivided with some form of modulation or articulation every 25 to 50 feet.

      iii. Building facades that face public streets, sidewalks, trails and open space should incorporate architectural features such as building entrances, display windows, awnings, overhangs, balconies, light fixtures, light shades and other design features that add human scale and visual interest.

      iv. Avoid the creation of uninterrupted blank wall surfaces on all building facades.

Dealing with topography. Dover, Kohl & Partners: Technical Team workshop October 7-9, 2013

   b. Building entrances

      i. The design should strive for no more than 50 feet between building entrances.

      ii. Primary building entrances and lobbies should be clearly visible and accessible from the primary street. Buildings that front onto multiple streets should provide an entrance along each street.

      iii. Secondary building entrances from pedestrian passageways, alleys and parking structures are encouraged but should not detract from the primacy of the main building entrance and street.

      iv. Service entrances, loading docks and storage areas should front alleys and parking structures or be screened so they are not visible from public streets and open spaces.

   c. Permeability (Pedestrian and visual impacts)

      i. Street networks and pedestrian paths, including sidewalks and pedestrian passageways, should provide a permeable network, with multiple ways to get from one location to another.

      ii. Building heights, widths and masses should vary sufficiently to allow visual connections between different parts of the developed area, as well as visual connections to the undeveloped/natural areas.

6. Engineered design features such as streets, parking and sidewalks should promote pedestrian-oriented urban design and minimize environmental impact.
   a. Streets
      i. Travel lanes, particularly on frontage roads and other internal streets, should be narrow to encourage cars to travel no faster than 25 mph.
      ii. Roads with posted speed limits above 35 mph should have dedicated bike lanes.
      iii. Roads should provide character to the development by having curvilinear components to avoid long, linear blocks.
   b. Parking
      i. Parking maximums should be one tool for controlling traffic impacts.
      ii. The majority of parking should be located in parking structures and/or on surface lots behind buildings.
      iii. There should be clear pedestrian access between storefronts and parking, on sidewalks and mid-block pedestrian passageways.
      iv. On-street parking is encouraged.
      v. Functional buildings should wrap parking structures.
   c. Sidewalks
      i. Sidewalks should be generous in size in retail and commercial areas (minimum 8 feet).
      ii. Sidewalks should utilize alternative materials or surface treatments for construction where practical.
   d. Environmental design factors
      i. Maximize permanent preservation of open space (east of Wilson Creek) to foster opportunities for development that utilize that open space as a design factor.
      ii. Land area east of creek should be usable natural space, and include features such as hiking trails and meadows.
   e. Light and noise
      i. Light and noise pollution should be minimized on adjacent parcels through appropriate design concepts including LEED Dark Skies requirements.

Liner buildings used to mask structured parking. Dover, Kohl & Partners: Technical Team workshop October 7-9, 2013.

f. Parks and public spaces

   i. Prominent or special locations within the developed area should be reserved for civic uses and/or public spaces.

   ii. Design of developed area should include public and semi-public spaces such as pocket parks, courtyards, paseos, terraces, gardens and plazas.

   iii. A minimum of 10 percent of the land area west of the creek should be allocated to public and semi-public greenspace.

   iv. Plazas and courtyards should be well defined by buildings and landscaping, comfortably scaled, landscaped for shade and ornament, furnished with areas for sitting and lighted for evening use.

g. Stormwater management

   i. Streets, parking, sidewalks, parks and public spaces on the west side of the creek should be designed to integrate multifunctional low-impact development stormwater management practices that retain, infiltrate, cleanse and reuse rainwater (such as raingardens, bioretention areas, planter boxes, permeable paving, dry wells, cisterns, etc.)

h. Landscaping

   i. A Master Streetscape Plan should be developed with the goal of reducing the build-up of radiant heat in paved surfaces and creating a comfortable pedestrian experience. The plan should specify trees that have sufficient canopy to provide shading to the pedestrian zone. Spacing of trees and other landscaping will be dependent on species selected and other factors that will provide sufficient shading within a specified period (50 percent of the public right-of-way to be shaded within 10 years of planting).

Rainwater planters. Special Topic Presentation: Design for a Changing World, August 12, 2013.

Recommendations

1. To ensure synergy with southern Chapel Hill and the preserved natural area, it is imperative that an urban designer be employed on the Town's behalf through all stages of a Development Agreement for this site.

2. The Town Council should pay attention to the importance of phasing in the build out of the project.

Public Input

SUPPORT FOR

- Compact design that preserves open space east of creek
- Preserving natural vistas
- Scale like Southern Village
- Walkable and bikeable
- Three stories in height
- No wall of building. Break up building footprints and block sizes.

CONCERN ABOUT

- Out of scale with Southern Village
- Building heights
- Large block sizes and large building footprints
- Density
- Park on top of big box roof not realistic, not really greenspace
- Look from 15-501 (don't want strip mall)

MORE INFORMATION NEEDED

- Need to see alternative concept plans with fewer square feet of development.

CONNECTIVITY AND MOBILITY

Creating safe connections across South 15-501 and synergy with the Southern Village side of the street is critically important if the development is to become an integral part of the community – physically, economically, socially and visually. Therefore, development that creates an island that can only be reached safely by car or that would necessitate widening South 15-501 is not an acceptable option. Committee support is unanimous for these points, and public support is strong.

Aspirations

- **To see development occur on the east and west sides of South 15-501 that facilitates a sense of "place," allowing safe and pleasant crossings for pedestrians, bicycles and other forms of non-motorized transportation.**
- Encourage increased bicycle and pedestrian connectivity among southern area neighborhoods, schools, community facilities, parks and the broader Chapel Hill-Carrboro area.
- Expand bike and pedestrian recreational opportunities by creating a safe, convenient and connected network of bike/ped facilities including an Obey Creek greenway.
- Create an iconic entranceway bridge that serves as a physical gateway to Chapel Hill and an architectural landmark for the area.

Iconic bridge on a medical campus. See Appendix F for additional examples and discussion of important bridge features.

Principles

1. The site and South 15-501 must be safely accessible by all modes of transportation, including bicycle and pedestrian. Multiple strategies should be used, including bridges, crosswalks, timing revisions and other methods to balance person delays with impacts on traffic. Any bridge across South 15-501 should be of ample width for pedestrians, cyclists, strollers and other forms of transportation concurrently, and should also provide places to rest.
2. Create a pedestrian-friendly environment within development at this site.
   a. Locate uses and amenities in places that will be walkable and bikeable (i.e. co-locate uses near the Southern Village Park & Ride, Southern Community Park and the pedestrian bridge).
   b. Use design standards and best practices to encourage people to park once and mode-shift.
3. Internal bike and pedestrian networks should be included in the site's plan. These should be designed to connect with existing bike and pedestrian networks and should anticipate future connectivity with adjacent parcels.

4. Provide facilities and amenities necessary to accommodate transit service to encourage and increase ridership to and from this site.

5. Use "Multi-modal Quality of Service" standards instead of "Levels of Service" for a more comprehensive assessment of mobility that includes bicycle, pedestrian, transit and vehicular modes.

6. Improve bike/pedestrian and school crossing safety on affected neighborhood roads by providing concurrent improvements, including measures to

   a. Slow traffic on Dogwood Acres Drive

   b. Increase crossing safety on Culbreth Road

Recommendations

1. Create an impact area mobility plan that addresses all modes of transportation and includes a well-placed bicycle/pedestrian bridge.

2. Transit service to southern Chapel Hill should be improved to encourage and increase ridership to and from this site.

   a. Increase routes to provide service to community locations and services not currently served (such as the Library and Seymour Center).

   b. Expand service to include evenings and weekends.

   c. Provide covered transit stops with safe and convenient sidewalk access, including stops at South 15-501 and Bennett Road.

3. Plan collaboratively for the South 15-501 corridor with Orange County, Chatham County and regional transit systems.

4. Establish equity by serving the mobility and accessibility needs of all citizens, regardless of age, income or ability.

Public Input

support for

- Bike and pedestrian connectivity
- Greenways
- Pedestrian bridge

concern about

- Impact of increased traffic on bike/pedestrian safety, especially
  * When crossing South 15-501
  * On narrow, winding, hilly Dogwood Acres Drive
  * On busy Culbreth, especially where middle school students cross

TRAFFIC

Traffic impacts are a major concern, both within the OCCC and among the public.

While the OCCC is hopeful that cross–South 15-501 connections and expanded transit, bike and pedestrian opportunities will allow more people to use non-motorized transportation to access the Obey Creek site, automobile travel will continue to be the primary mode of travel for those who live, work, shop or visit in southern Chapel Hill.

Current traffic conditions in Southern Chapel Hill reveal the importance of developing a broad "impact area" mobility plan to address increased traffic volumes and changes in traffic patterns that will occur on South 15-501 and other area roads as a result of development.

The OCCC is in strong agreement with the Technical Team's recommendation for implementing roadway improvements and mitigations that are consistent with an Urban/Suburban Boulevard, including a "frontage road" in front of the Obey Creek site, as a way to accommodate both through traffic and local traffic in a way that is bicycle and pedestrian friendly.

Trip generation data and traffic impact analyses were not provided to the OCCC; however, committee members took advantage of online tools and resources to inform our discussion and recommendations. (See Appendix H, Traffic Impact Calculations Based on EPA Smart Growth Modeling.)

NCDOT Complete Streets Planning and Design Guidelines, published July 2012, is available for download at www.completestreetsnc.org.

Aspirations

- We want people travelling from the south to know they have arrived in Chapel Hill.
- We want our roadways to work.
- Accommodations for additional vehicles and changing traffic patterns for vehicles coming to and through the area are not made at the expense of connectivity and mobility.

Principles

1. Traffic analysis and mitigation must address an impact area that includes South 15-501 from the James Taylor Bridge interchange to Dogwood Acres Drive, and
    - Culbreth Road
    - Mt. Carmel Church Road
    - Bennett Road
    - Arlen Park Drive
    - Southern Village Market Street
    - Dogwood Acres Drive
    - Smith Level Road between Dogwood Acres Drive and Hwy 54

2. Traffic analysis and improvements must take into consideration the following:

    - Volume and flow
    - Changing traffic patterns
    - Weekend traffic
    - Increased danger to public safety
    - Impacts on other modes of travel
    - Air quality and noise impacts

3. Taking into account future growth in the area, the mix of uses and density must not generate vehicular traffic that exceeds what the road system can support.

4. Roadway improvements and traffic mitigations that slow down traffic between Dogwood Acres Drive and the James Taylor Bridge may be acceptable; however, failing intersections and decreased safety are not. (See Traffic Corridor Objectives below.)

5. A plan for addressing traffic impacts must be in place before an agreement is signed.

    a. Public participation in creation and review of transportation and mobility plans must be included in all phases of the development agreement process.

    b. Mitigations and improvements on arterials, connector and collector roads must be made ahead of or concurrent with development.

    c. Mitigations should be monitored for effectiveness and the need for additional improvements.

    d. Planning should require monies are available to be set aside for mitigations.

6. Widening South 15-501 is not an acceptable solution. Instead, traffic impacts should be managed by

    a. Adjusting the density and mix of uses to reduce traffic impacts.

    b. Applying solutions consistent with NC DOT's Complete Streets Standards for Urban/Suburban Boulevards.

    c. Increasing multi-modal transportation opportunities.

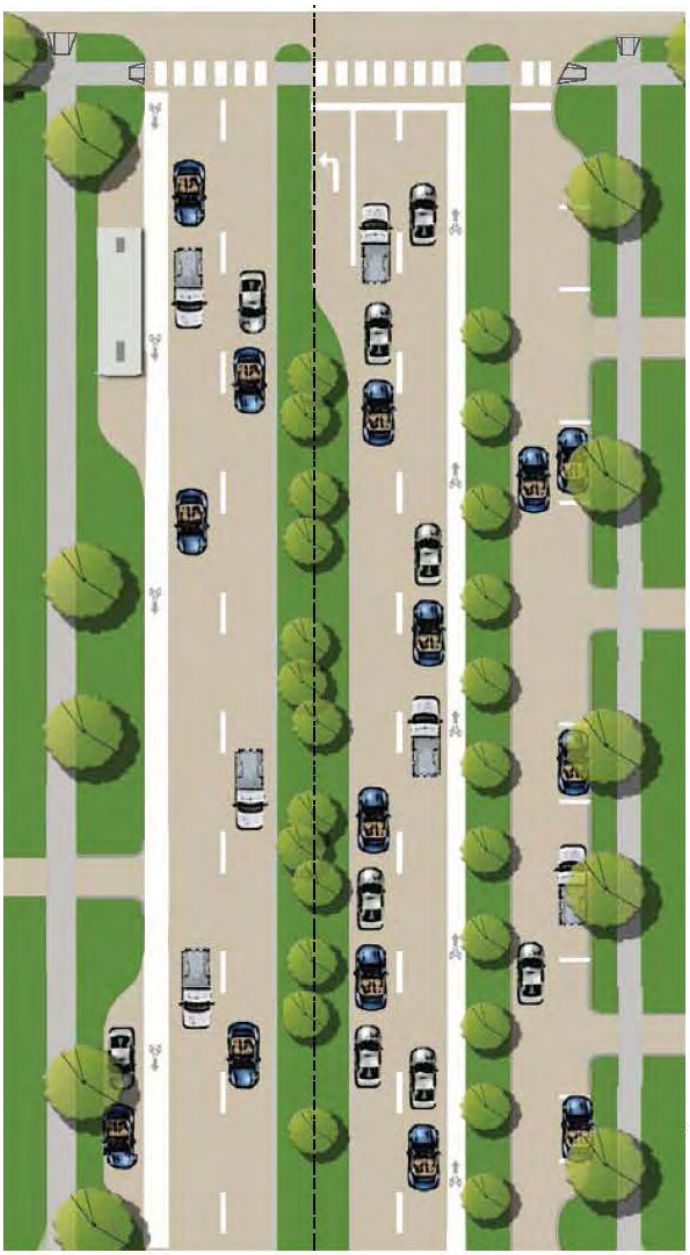


Image of Urban / Suburban Boulevard in NCDOT Complete Streets Planning & Design Guidelines shows separation of through-traffic from local traffic, allowing a safer environment for pedestrians and bicyclists.

7. All improvements and or mitigations made to South 15-501 as a result of development at this site must comply with NC DOT's Complete Streets Standards for Urban/ Suburban Boulevards.

8. The type, cost and feasibility of traffic and mobility-related mitigations and improvements that are necessary to address increased volumes of traffic and changing traffic patterns should be determined. The developer should be held responsible for a portion of those costs based on an understanding of the proportion of increased volume and other changes that their development causes.

South 15-501 Corridor Traffic Objectives

1. Roadway improvements should use Complete Streets methods to accommodate anticipated traffic volumes without compromising the rights of pedestrians and bicyclists. It is understood that this may mean a decrease in speed or an increase in travel times; however, due to the absence of traffic data and the need for roadway policy decisions, specific guidelines and measures should be established with the public based on discussions with NC DOT and Town traffic engineers as well as information provided by trip generation analysis, corridor traffic studies and the Traffic Impact Analysis.

2. Mitigations and changes in traffic management must take into consideration the impacts on arterials, collector roads, neighborhood intersections and "upstream" traffic conditions on Fordham Blvd. and Columbia Street to make sure that backups due to additional wait times do not adversely impact safety, function of neighborhood streets or ability to enter and exit in a timely manner.

3. New approaches to evaluate performance and service levels ("Multi-modal Quality of Service" and "Levels of Service") should be applied for all modes of travel.

4. Factors to consider include: design, facilities, reliability, overall travel time, safety and security.

5. Evaluation of intersection performance should take into account impacts on arterial and collector roads as well as South 15-501. The following standards should be used as triggers for mitigation:

    a. Current Town standards: "Averaged" intersection Levels of Service "D" for signalized intersections and "E" for unsignalized intersections.

    b. Specific lane movements that show Levels of Service "E" or "F".

6. Traffic conditions must not adversely impact community services such as the timeliness and efficiency of transit and school bus services.

7. Because South 15-501 serves as a primary emergency response route, mitigation strategies and traffic management plans must ensure that emergency response times are not increased.

Recommendations

1. Transitioning South 15-501 to Urban/Suburban Boulevard standards will require the full commitment of all parties involved, Town Council and staff, citizens, the developer, the Town's traffic consultants and NC DOT; discussions about this transition should begin as soon as possible.

2. Ascertain completion dates for the 15-501 Corridor Study (and the South 15-501 portion of that study) prior to setting any negotiation schedule and timeline to ensure inclusion of that information, including cumulative impacts and NC DOT mitigation recommendations in decision-making and negotiations.

3. Ascertain milestones and timeline for the MLK – South Columbia – South 15-501 Alternatives Analysis to determine its importance to decision-making/negotiations and plan accordingly.

4. Employ traffic simulation modeling software as a planning and decision-making tool.

5. The Town should conduct a town-wide modeling analysis of the traffic impacts from the proposed developments in all Focus Areas.

Public Input

support for

- Mobility plan
- Frontage road
- Concurrent mitigations and improvements

concern about

- Congestion
- Safety
- Volume
- Impacts on arterials and collector roads due to changing traffic patterns, cut-through traffic

more information needed

- Traffic analysis, including broader area
- Mitigations
- Simulation of traffic volumes, mitigations

ENVIRONMENTAL CONSIDERATIONS

The Obey Creek site is a 120-acre, heavily wooded site that is bisected east-to-west by Wilson Creek, one of Chapel Hill's premier watercourses for water quality. As pointed out in the Town staff's 2013 Obey Creek White Paper, existing natural conditions at this site pose a challenge to development including regulated stream buffers and floodplains, regulated steep slopes and erodible soils.

Issues that were most important to OCCC and community members included: water quality and flow on-site and downstream; conservation and management of land east of the creek; protection of the tree canopy and wildlife corridor; impervious surface and greenspace in developed area; and air, noise and light pollution impacts.

The OCCC also recognized that the existing conditions offer an opportunity to create a destination point: a development built in harmony with nature and Wilson Creek.

Because Wilson Creek feeds into Morgan Creek, and ultimately Jordan Lake, development of this site must include careful management of the site during construction activity and highly engineered stormwater best management practices (BMPs) on the west side of the property to mitigate stormwater volumes and pollution impacts from the development.

SITE CONDITIONS

- **Approximately 95 percent of site is in forest or meadow**
- **30 – 40 acres of regulated stream buffers**
- **Wilson Creek runs approximately 4,000 linear feet east-west**
- **Includes regulatory floodplains**
- **Includes regulated steep slopes**
- **USDA Soil Survey indicates soils pose "severe" limitations in all categories of Building Site Development**

From the 2013 staff whitepaper on Obey Creek

Aspirations

- Existing conditions create the opportunity to design a development built in harmony with nature and Wilson Creek.
- The land east of the creek has the potential to become a destination park that would draw people to the site on its own merits.

Principles

1. Preserve and enhance natural resources including stream water quality through appropriate stormwater management and design criteria.
    a. Evaluate and integrate potential climate change impacts on the development.
        i.. Modify the storm water design frequency to a 25-yr event instead of the current 10-yr event due to expected larger-volume storm events.
    b. Develop a stormwater management Master Plan that includes
        i. Short and long range objectives to enhance and maintain Wilson Creek water quality.
        ii. A phasing plan as the development progresses.

c. Consider site limitations that impact "conventional" stormwater management strategies and implement innovative stormwater management techniques.

   i. Limitations include: soil conditions (types, depth to bedrock, erodability, permeability, etc.).

   ii. Opportunities include: Low impact design/infiltration techniques to collect and store rainwater for reuse; natural areas/tree preservation; green roofs; permeable surfaces.

d. Implement stormwater management practices on the west side of Wilson Creek. No stormwater pipes should cross the creek.

e. Work with utilities (OWASA, PSNC, and Duke Power) to ensure that Wilson Creek and its immediate flood plain do not contain any utilities and that all utilities work to avoid overhead wires, pipes, etc.

f. Implement designs that are consistent with existing legislation (RCD, Jordan Riparian Buffers, Jordan Stormwater Management and various Town ordinance requirements).

2. Buildings, streets, parking, sidewalks, parks and public spaces on the west side of the creek should be designed to integrate multifunctional, low-impact stormwater management practices that retain, infiltrate, cleanse, and reuse rainwater, such as raingardens, bioretention areas, planter boxes, permeable paving, dry wells, cisterns, etc.

3. Develop with conscious decision to save and protect existing tree canopy as appropriate.

4. Maximize permanent preservation of open space.

   a. Protect and manage the land on the east side of Wilson Creek.

   b. Maintain existing wetlands (or provide appropriate mitigation).

   c. Catalog upland habitat to establish a baseline.

   d. Catalog biological species of concern (if any).

   e. Preserve the wildlife corridor.

   f. Consider archeological aspects of both open space and built areas.

5. Development at this site should mitigate air, noise and light pollution impacts in the development design.

   a. Design considerations should minimize opportunity for idling vehicles to reduce impact on air quality.

Neighborhood greens can function for water management and be inviting focal points. Dover, Kohl & Partners: Special Topic Presentation: Design for a Changing World, August 12, 2013.

b. Plans to mitigate noise and light pollution must take into account area topography and the fact that some neighbors live on the ridge above the project.

c. Create internal (and external) natural and constructed buffers to minimize noise impacts internal to and offsite of the development.

d. Be respectful of internal and external neighbors when creating public and private lighting schemes that adhere to Town and LEED Dark Skies requirements.

6. All Town environmental ordinances should be met or exceeded.

Recommendations

- Evaluate opportunities for conservation and management of open space on east side of Wilson Creek. Arrangements should consider desire of Town for current and future recreational uses.
- Adhere to Dark Skies ordinances as specified for LEED certification.
- An Invasive Species Management Plan based on state's guidance documents should be created.
- Obtain surveyor information from applicant to better understand slopes.

Stormwater Management: Constructed wetlands

Public Input

strong support for

- Permanent preservation of open space, park

concern about

- Water quality
- Amount of green space in developed area (too little)
- Amount of impervious surface in developed area (too much)
- Impacts downstream (flooding, rate of flow)
- Air, noise and light pollution

APPENDICES

Appendix A: OCCC Meeting Schedule

Appendix B: NC DOT Urban/Suburban Boulevard

Appendix C: Radius Map

Appendix D: Traffic vs. Tax Revenue Trade-off Illustration

Appendix E: Obey Creek/Southern Village Comparison

Appendix F: Pedestrian Bridge Examples

Appendix G: Activating the West Side of South 15-501

Appendix H: Traffic Impact Calculations Based on EPA Smart Growth Modeling

LIST OF RESOURCES AVAILABLE AT TOWN WEBSITE

Obey Creek Compass Committee Meeting Materials

October 2013 Concept Plan Submittal and Review Documents

South 15-501 Focus Area Principles (Chapel Hill 2020 Comprehensive Plan, p. 75)

South 15-501 Discussion Group

Obey Creek Site Tour Map

Photos from the Obey Creek Property Tour May 22, 2013

Obey Creek Traffic Impact Study Area

Public Forum Input, October 16, 2013

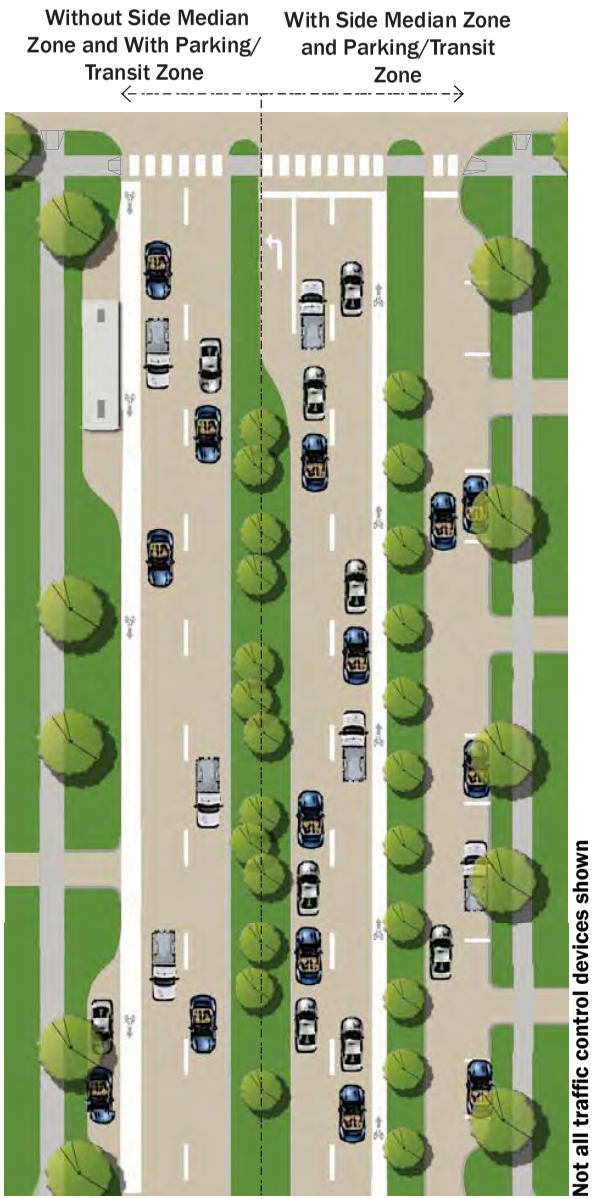
APPENDIX A: COMMITTEE MEETING SCHEDULE

OBEY CREEK COMPASS COMMITTEE MEETINGS, 2013

July 10	**Organizational Meeting**
July 24	**Obey Creek 101: Area Tour**
August 8	**Obey Creek 101: Information Session**
August 12	**Special topic presentation: Dover, Kohl & Partners, Design for a Changing World (placemaking)**
August 13	**Meeting with Technical Team**
August 19	**Committee meeting**
August 28	**Committee meeting**
September 3	**Committee meeting**
September 12	**Committee meeting**
September 18	**Public Forum**
September 26	**Committee meeting**
October 7	**Technical Team and developer, public presentation of concept plan**
October 8	**Committee meeting with Technical Team**
October 9	**Technical Team presentation, public presentation of concept plan revision**
October 16	**Public forum to discuss plan revision**
October 22	**Committee meeting**
October 29	**Committee meeting**
November 1	**Committee meeting**
November 9	**Committee meeting**
November 20	**Committee meeting**
December 3	**Committee meeting**
December 16	**Final committee meeting**

URBAN / SUBURBAN BOULEVARD

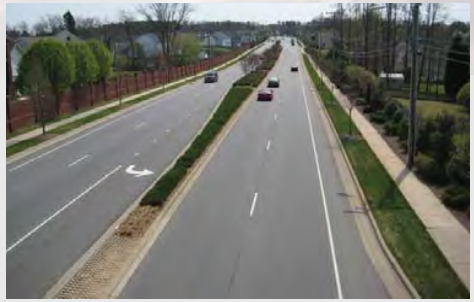
PLAN VIEW



Not all traffic control devices shown

KEY ELEMENTS

- Most often functions as an arterial designed to carry vehicles at moderate speeds.
- Thoroughfare characterized by multiple lanes and including a street median.
- Wide sidewalks and on-street bicycle lanes are necessary to accommodate pedestrians and bicyclists due to higher speeds and higher traffic volumes for motor vehicles.
- Transit stops and shelters may be located within the right of way, requiring connections to sidewalks.
- On-street parking is not required. It is allowed where appropriate, but rare due to the nature of the street. If provided, parking should typically be placed on a separate, parallel frontage street separated with a side median.



STREET CROSS-SECTION ZONES

Sidewalk Zone: The pedestrian walk area is of sufficient width to allow pedestrians to walk safely and comfortably.

Green Zone: This zone serves to separate the sidewalk from the vehicles. This zone contains landscaping and trees or, in some circumstances, hardscape treatments.

Parking/Transit Zone: Accommodates on-street parking and transit pull-outs. Parking on the street is rare, but may be separated from the motor vehicle zone by side medians. Width and layout may vary depending on the type of parking provided.

Bicycle Zone: A zone for bicyclists separate from vehicular traffic.

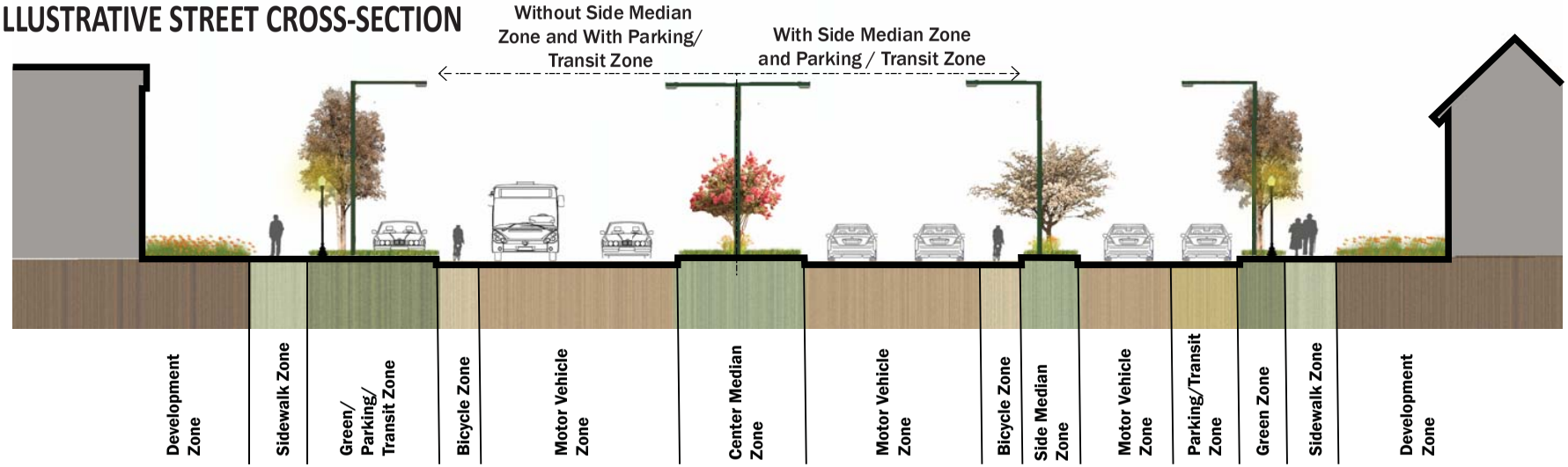
Motor Vehicle Zone: The primary travel way for motor vehicles.

Median Zone: A landscaped zone located between the travel lanes as a center median or as side medians that separate one-way parallel lanes. Median zones should consider provision for turn bays at intersections. May include hardscaping at pedestrian crossings.

Development Zone: Building setbacks vary but are typically deeper than on avenues. Building frontage may not always be directed to the street but physical connections to the street from building entrances are important.

URBAN / SUBURBAN BOULEVARD

ILLUSTRATIVE STREET CROSS-SECTION



STREET COMPONENT DIMENSIONAL GUIDELINES

	Sidewalk Zone *(feet)*	Green Zone *(feet)*	Parking /Transit Zone *(feet)*	Bicycle Zone *(feet)*	Motor Vehicle Zone *(lane width- feet)*	Center Median Zone *(feet)*	Side Median Zone *(feet)*
Central Business District	6' - 10' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	4' - 6' lanes (see notes 3 and 4)	10' - 11'	8' - 30'	8'+
Urban Center / Suburban Center	6' - 8' 12' - 20' in high volume pedestrian areas	6' - 8'	8' - 10'	4' - 6' lanes (see notes 3 and 4)	10' - 11'	8' - 30'	8'+
Suburban Corridor / Urban Residential / Suburban Residential	6' - 8' 12 '- 20' in high volume pedestrian areas	6' - 8'	8' - 10'	4' - 6' lanes (see notes 3 and 4)	10' - 11'	8' - 30'	8'+

NOTES

1. Sidewalk zone should typically be a minimum unobstructed width of 6'. In areas that are currently or are planned to be pedestrian-oriented or mixed-use development, minimum 8' wide unobstructed sidewalks should be provided.
2. Green zone may include landscaping, street trees, lighting, street furniture, and related pedestrian/bike/transit amenities. 8' minimum green zone is preferred, to allow for separation between pedestrians and vehicles, and space for street trees.
3. 5' bicycle lanes are the preferred treatment. Steep grades may call for wider bike lanes. If bicycle lanes are not possible, shared lanes may be allowed. For a shared lane, the outside lane should be a minimum of 14' wide. Shared lane markings can be used on streets ≤ 35 mph, with either shared lane or standard lane dimensions.
4. The gutter pan is not considered part of the bicycle lane width. Bicycle lanes located next to parking should be a minimum of 5' or 6' wide.
5. The gutter pan is not considered part of the motor vehicle lane width in most circumstances.
6. Median zone requirements vary depending upon appropriate treatment (hardscape, landscape, drainage, curb and gutter, or street trees). Though the median width may vary, the median will typically be 17' 6", to allow for a turn lane and pedestrian refuge at intersections. The minimal 8' width will allow for landscaping and pedestrian refuge at appropriate locations. A 30' wide median should be provided to accommodate double left turn lanes when multi-modal analysis confirms the need.
7. Continuous two-way left turn lanes are not permitted on a boulevard.
8. Parking/transit stop zone is rare, but is allowed where appropriate.

RADIUS MAP

Distance of familiar landmarks from Southern Village/Obey Creek

Note: map not to scale

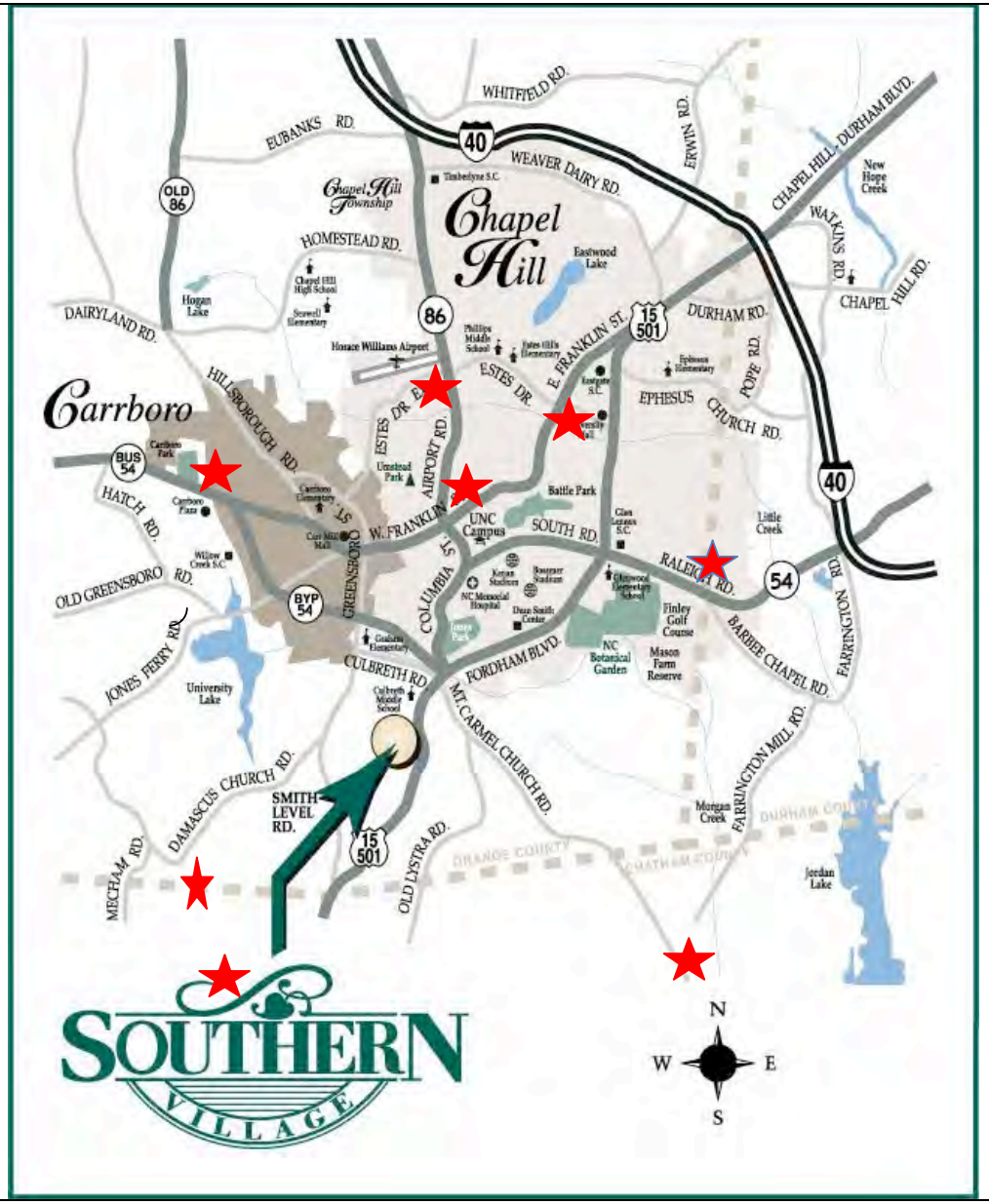
NORTH WEST:
3.01 Carr Mill Mall

NORTHWEST (54):
3.63 Carrboro Plaza

SOUTH: (15-501)
2.29 miles Walmart
2.87 miles Cole Park Plaza

6.50 miles: Briar Chapel
(4.7 miles down 15-501)
12 minutes

SOUTHWEST (Smith Level)
2.13 miles Heritage Hills



NORTH: (Columbia/MLK)
2.8 miles: Franklin/Columbia
4.3 miles MLK/Estes*

NORTHEAST (54)
3.57 miles: Rite Aid
4.58 miles Courtyard hotel**

NORTHEAST (15-501)
4.68 miles: U-Mall

SOUTHEAST (Mt. Carmel)
Governor's neighborhoods***
4.1 miles (to cut off)
1,968 residences

PROXIMITIES TO OTHER SHOPPING:

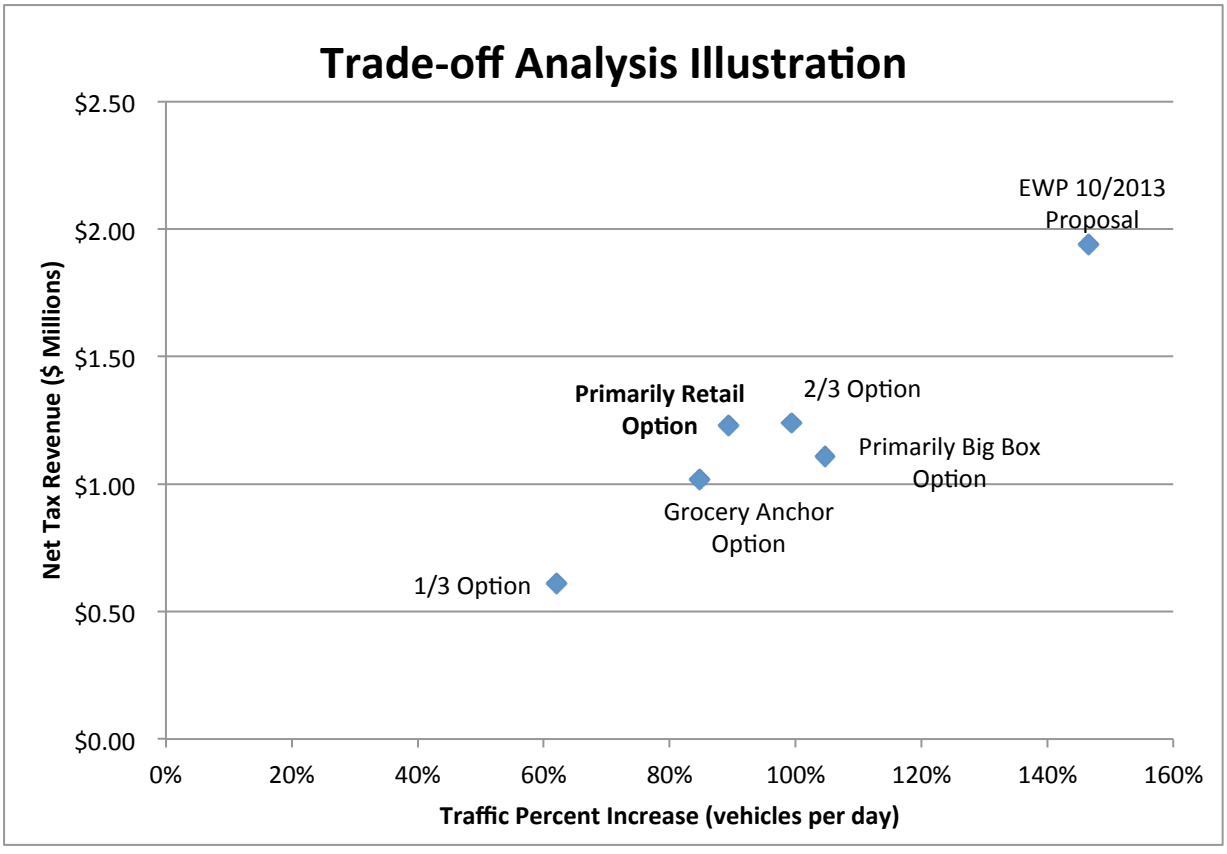
*6.72 miles to South Square
** 4.61 MILES Southpoint
*** 7.4 miles to Southpoint

TRADE-OFF ANALYSIS ILLUSTRATION – TRAFFIC AND NET TOWN REVENUE

Observations. Various types of development, or uses (e.g., retail, office), impact revenues and expenses in different ways. For example, retail uses generate sales taxes while residential uses do not. These uses similarly require different blends of services at the town's expense.

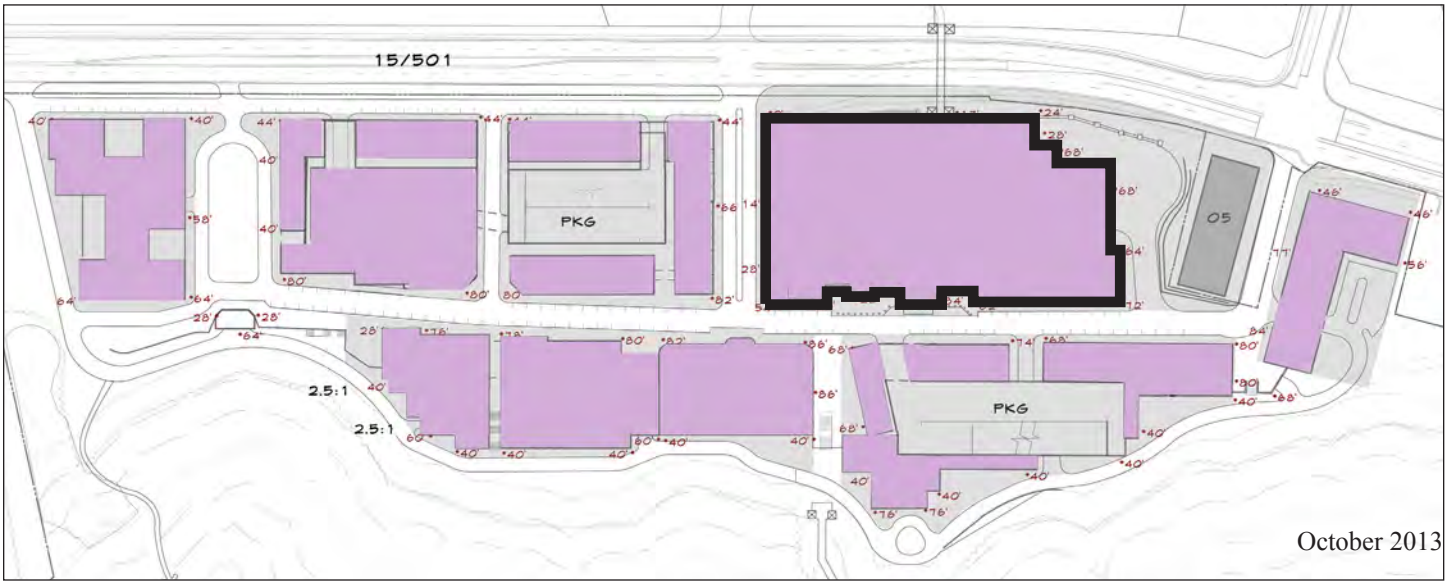
The Committee estimates development at Obey Creek can produce net revenues to Chapel Hill. Generally, dense and intense development produces higher net revenue, but more signifantly impacts other issues described in the report (e.g., traffic, environmental factors, etc). The chart below illustrates one way to estimate how various development scenarios impact revenue and traffic. This kind of trade-off analysis can assist the town in evalauting the costs and benefits of development at Obey Creek so as to prioritize decision making.

Each scenario increases traffic and produces net revenue to the town's tax base. The relationship is not perfectly linear; an increase in traffic doesn't proportionally increase revenue. Instead, some options can strike a better overall benefit ("a sweeter spot") by maximizing revenue while controlling traffic. For example, an option that is "primarily retail" (but still mixed use) offers an equivalent net gain to the town ($1.23 million) as some other options, but generates less traffic.



When evaluating trade-offs it is important to understand how selected issues (e.g., traffic and tax revenue) do not interplay independently from other issues (e.g., design, green space, etc.) described in this report. In addition, many factors other than the mix of uses have substantial fiscal impacts. These include issues discussed elsewhere in this report (e.g., accessible housing, etc).

REVISED OBEY CREEK CONCEPT PLAN



Concept Plan (30 acres west of creek)

Retail	350,000	sf
Office-Commercial and Civic	375,000	sf
Hotel	100,000	sf (130 rooms)
Residential - Multi-Family	unknown	sf (600 units)
TOTAL	approx 1,600,000	sf

SOUTHERN VILLAGE CORE

Village Core Land Uses (25 acres)

Office	131,483	sf
Retail	53,794	sf
Residential	138,499	sf (~110 units)
TOTAL	323,776	sf

Estimated building footprint of 550 ft x 300 ft., from developer's conceptual plan, is superimposed on Southern Village Green and not intended to be an exact measurement. Southern Village Core and Obey Creek Concept Plan are approximately the same scale.

SOUTHERN VILLAGE CORE

Commercial Block Sizes
280 x 320
340 x 320
130 x 130

Residential Block Sizes
100 x 360
490 x 360

Maximum Building Heights

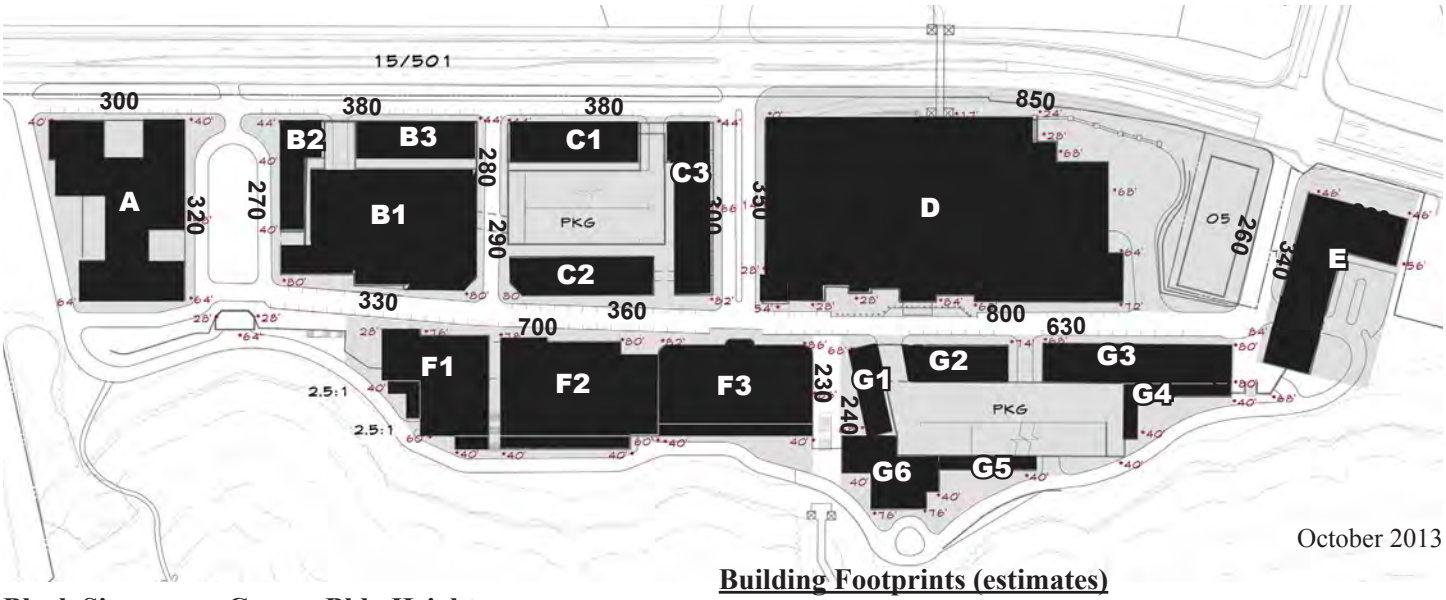
Town Hall Grill Bldg	43' front, 58' back
La Vita + Tumble Gym	42' front, 49' back

Building Footprints (estimates)

100 Market Office	9,000 sf
300 Market Mixed Bldg	22,000 sf
Subway + Spa	10,400 sf
Town Hall Grill Bldg	27,000 sf
500 Market Condos	8,000 sf
600 Market Office Bldg	3,000 sf
La Vita + Tumble Gym	5,000 sf
Lumina Building	12,000 sf
Pazzo, Shops + WSM	19,600 sf
Christ Church	15,000 sf
Harrington Bank	4,800 sf

Buildings are listed counterclockwise, starting at lower right (entrance to SV).

REVISED OBEY CREEK CONCEPT PLAN



October 2013

Block Sizes

300 x 320	
330 x 270	
360 x 300	
800 x 350	
700 x 230	
630 x 240	
340 x 220	

Corner Bldg Heights

Block A	40' west, 64' east
Block B	80' west, 44' east
Block C	80' west, 44' east
Block D	24' & 68' west, 84' east
Block E	46' west, 84' east
Block F	86' west, 40' east
Block G	74' west, 76' & 40' east

Building Footprints (estimates)

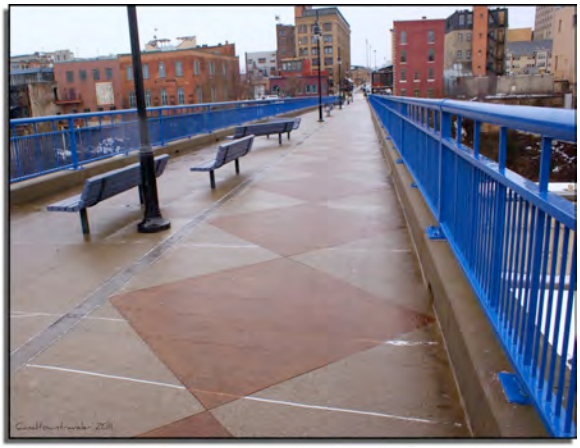
Bldg A	52,000 sf	Bldg D	168,000 sf
Bldg B1	64,200 sf	Bldg E	26,400 sf
Bldg B2	10,000 sf	Bldg F1	26,000 sf
Bldg B3	16,000 sf	Bldg F2	44,150 sf
Bldg C1	12,000 sf	Bldg F3	31,640 sf
Bldg C2	13,800 sf	Bldgs G1-G6	41,580 sf
Bldg C3	16,800 sf		

Obey Creek: 15-501 Pedestrian Bridge

Throughout the Obey Creek process, the community, the committee, and the developers have agreed that one requirement of a successful project is to knit together the two sides of 15-501. The benefits include increased mobility options between Obey Creek and Southern Village, better connectivity across southern Chapel Hill from Carrboro High School to Mount Carmel Road, and a reduction in vehicle-based traffic in and out of the project. In the absence of a permeable street network that offers multiple formal and informal at-grade crossings, a pedestrian bridge must serve that role.

The importance then of the pedestrian bridge in diverting vehicle traffic, serving as a component to greater mobility and connectivity, should argue for being aspirational with the bridge design. As the main architectural element of southern Chapel Hill, the bridge should not be a mere concrete conduit but a physical gateway to Chapel Hill and a landmark for the area. It should provide ample width for pedestrians, cyclists, strollers, and other non-motorized traffic to use the bridge concurrently. Shelters and benches, either on the bridge or its approaches, should be integrated into the project to create additional park space.

This bridge is too narrow for safe passage and aesthetically inappropriate for a gateway feature.



This old rail bed in Rochester, New York was converted to a multi-use pedestrian and bike bridge. Benches along one side of the bridge provide welcome seating to enjoy the views and also serve to subtly remind cyclists to use appropriate speeds.

This bridge in Pittsburgh uses an old rail bridge to add sufficient space and greenery to the path. The overhead lights recall nearby factories, and the small open area with benches and planting soften the transition to the parking lot.

This bridge over the Des Moines River separates directional traffic and uses its structure as an elegant landmark.

Platte River Pedestrian Bridge, Denver, CO allows safe passage for pedestrians and cyclists.

Demand drivers on both sides of this bridge in Tempe were used to ensure widespread use.

The Tempe Town Lake bridge is wide enough for multiple pedestrians to enjoy the bridge.

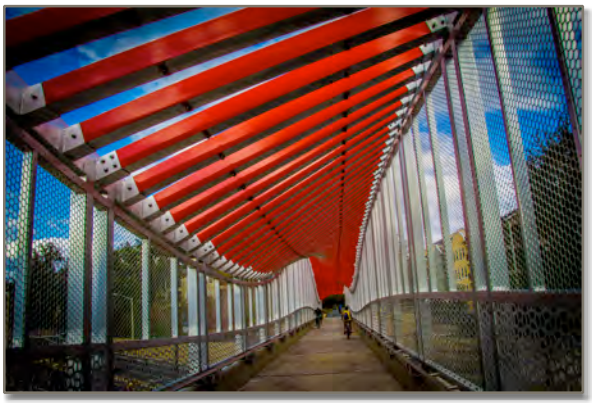
The Tempe Town Lake bridge augments simple shapes with the creative use of lighting to produce this local landmark. The bridge connects residential and commercial demand drivers as well as recreational users of the lake. It also forms an important link within a 5-mile trail network.

APPENDIX F: PEDESTRIAN BRIDGE EXAMPLES

This old rail bridge in Gainesville, FL links the UF medical center with residential uses and is part of a continuous 22-mile trail system.

The old bridge enclosure was replaced by this more welcoming structure. The double helix echoes both the rail history and the proximity of the medical center. It also forms the southern gateway to the University.

This pedestrian plaza provides a place for rest and reflection.



The undulating roof in Gator orange makes this a functional piece of public art.

The broad bikepath and improved sightlines give pedestrians and cyclicsts confidence in a safe crossing.

Town-owned property at the Southern Village Park & Ride will be available for re-development in the next few years. Creating commercial activities on both sides of 15-501 at a pedestrian bridge would leverage the connection between Southern Village and development at the Obey Creek site to the benefit of both by drawing people from one side of S15-50 to the other. This also allows co-location of uses with the Park & Ride lot, Southern Community Park and Southern Village Market Street.

Existing Condiitons

TRAFFIC IMPACT CALCULATIONS BASED ON EPA SMART GROWTH MODEL

Various methodologies can be used to estimate traffic performance. A model published by the Environmental Protection Agency (EPA) applies standards for estimating the number of vehicles generated by mixed-use sites.[1] The town of Chapel Hill used a similar model based on these standards to estimate traffic increases from development at Ephesus Church.[2] The developer provided feedback to the Committee describing limitations in the EPA model, but did not share their estimates. The estimates below address issues raised by the developer by deducing pass through and internal capture.

Table 1 summarizes the results of these estimates based upon the developer's most recent proposal and a smaller, scaled back alternative. Our analysis suggests either scenario generates a significant increase in the number of vehicles to and from Obey Creek during peak and non-peak hours. Similar increases are seen using different models, including additional adjustments identified by the developer.

Table 1

	Developer's Proposal (1.6 mil sqf)	Alternative Proposal[3] (745 k sqf)
Daily	26,107	16,762
AM Peak	1,484	955
PM Peak	3,039	1,973
Hourly Non Peak	2,290	1,459

The intersection of 15/501 and Culbreth/Mt. Carmel Roads is of particular interest to the Committee. This intersection is already at capacity and is performing the worst in the coverage area recommended by the Committee for deeper review. Two lanes have been assessed as "failing" due to long wait times in the AM peak hour, and another two are projected to fail by 2015 without any new development. Depending on development scenarios and methodology (see Table 2), analysis suggests:

- Daily traffic at this intersection would exceed total capacity by 26 to 61 percent;[4] and
- AM peak and non-peak traffic would exceed current AM peak traffic by up to 39 percent.

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[1] The EPA model can be found at: http://www.epa.gov/smartgrowth/mxd_tripgeneration.html.
[2] The town of Chapel Hill's model can be found at: http://www.townofchapelhill.org/Modules/ShowDocument.aspx?documentid=12856.
[3] The scaled back alternative includes 200 housing and 120 hotel units; 150 ksq ft of retail; 45 ksq ft of grocery retail; 150 ksq ft of non-medical office; and 100 ksq ft of medical office space.
[4] A scaled back development where only fifty percent of traffic generated by Obey Creek passes by the intersection at 15/501 and Culbreth produces an excess of 8,000 vehicles over capacity (i.e., 40,381 vehicles, or 26 percent), whereas the developer's proposal and 75 percent of traffic generated by Obey Creek passing by 15/501 and Culbreth produces an excess of 19,500 vehicles over capacity (i.e., 61 percent).

Table 2

				Developer's Proposal		Alternative Scenario	
				Total vehicles if XX of Obey Creek traffic estimate passes this intersection:			
	Current Traffic	Adjusted Developer Total	Adjusted Alternative Total	75%	50%	75%	50%
Daily	32,000	26,107	16,762	51,580	45,054	44,572	40,381
AM Peak	2,863	1,484	955	3,976	3,605	3,579	3,341
PM Peak	3,434	3,039	1,973	5,713	4,954	4,914	4,421
Hourly Non Peak	2,246	2,290	1,459	3,964	3,391	3,340	2,976
Current Capacity	34,000						

While it is not clear how additional vehicles impact other measures recommended by the Committee for decision making (e.g., wait times, safety, air quality), additional dynamics further compound the above estimates. These include, for example, incorporating:

- annual "background" growth (the town uses an annual growth factor around two percent).
- additional traffic generated by new and planned developments (e.g., the Southern Village hotel, Walmart, development in Chatham County, etc.).
- various development scenarios, such as more medical office space (which generates about twice as many vehicle trips as non-medical offices), or more retail office space (which generates about twice as many vehicle trips as medical office space).

Further refinement of these estimates is necessary. Refinement should be based upon multiple development scenarios, and should include various mitigation strategies (with varying levels of feasibility) that are consistent with the Urban/Suburban Boulevard design standards recommended by the Committee. The results of further analysis should be publically transparent and used to establish parameters for development at Obey Creek prior to negotiation in phase two of the development agreement process.