

CITY OF CHARLOTTE COST ANALYSIS -REVISION 1  
EXECUTIVE SUMMARY

CITY OF CHARLOTTE  
LANDDESIGN  
US INFRASTRUCTURE OF CAROLINA, INC  
TIMMONS TIMBERS, INC  
SHARPE IMAGES

AUGUST 2007



# 1

## EXECUTIVE SUMMARY

PROJECT OVERVIEW

RESULTS SUMMARY

DRAFT ORDINANCE/POLICY DISCUSSION



The City of Charlotte is expected to grow by approximately 350,000 people over the next 25 years. The City is engaged in assessing a series of initiatives intended to ensure that continued growth can be accommodated in a sustainable fashion. Initiatives include the creation of the following: The Environmental Chapter of the City of Charlotte's General Development Policies (GDP-E), the Urban Street Design Guidelines (USDG), and the Post Construction Controls Ordinance (PCCO). The GDP-E is a policy document intended to provide direction for future growth that fosters continued economic development while ensuring that the potential negative environmental impacts associated with that growth can be minimized. The policies proposed in the GDP-E will be implemented through a wide variety of activities, including making changes to existing regulations, practices and processes, and developing new regulations, practices and processes. The PCCO and the USDG represent two major tools for implementing the policies contained in the draft GDP-E.

This report summarizes potential site-level costs of implementing these initiatives as currently drafted (particularly in combination with one another or individually as may be necessary).

The City of Charlotte Cost Analysis project evaluates four separate, existing developments to varying levels of ordinance implementation. Design examples include sufficient detail to estimate the site-specific expenses incurred by implementing more protective and infrastructure improvements, as specified in the PCCO and USDG respectively. Costs are compared with the current approved design. The cost estimates are limited to the specific costs of the land development associated with each project. No ongoing maintenance costs are estimated, nor are "soft" costs (such as engineering and legal fees) associated with reduced project yields or land value estimates included in the scope of this project, except as provided with the proforma analysis in the single family residential section. However, those costs are recognized as a component of the overall economic effect of any change in development

standards for the specific sites. Furthermore, these costs were developed with the assumption that all other aspects of the specific developments were held as constant as possible for comparison to the actual approved developments.

Previous to this project, rough cost estimates were prepared. These costs represented "rule of thumb" construction costs required to meet ordinance revisions. The purpose of this cost analysis project is to better define the costs to new development and redevelopment of varying land uses and locations within the City. Although the cost estimates developed through this analysis will be site specific, they represent much more detail than has been provided previously. The costs calculated as part of this analysis are compared with the approved design according to existing regulations at the time of plan approval.

From a theoretical standpoint, determining the impact, benefit and cost of implementing more protective development standards versus not implementing can be difficult to quantify because most of the impacts, benefits and costs are very subjective. Unfortunately, the actual cost is not fully determined until the new standard is adopted and work is completed in accordance with that standard. Typically, more protective development standards add cost to development.

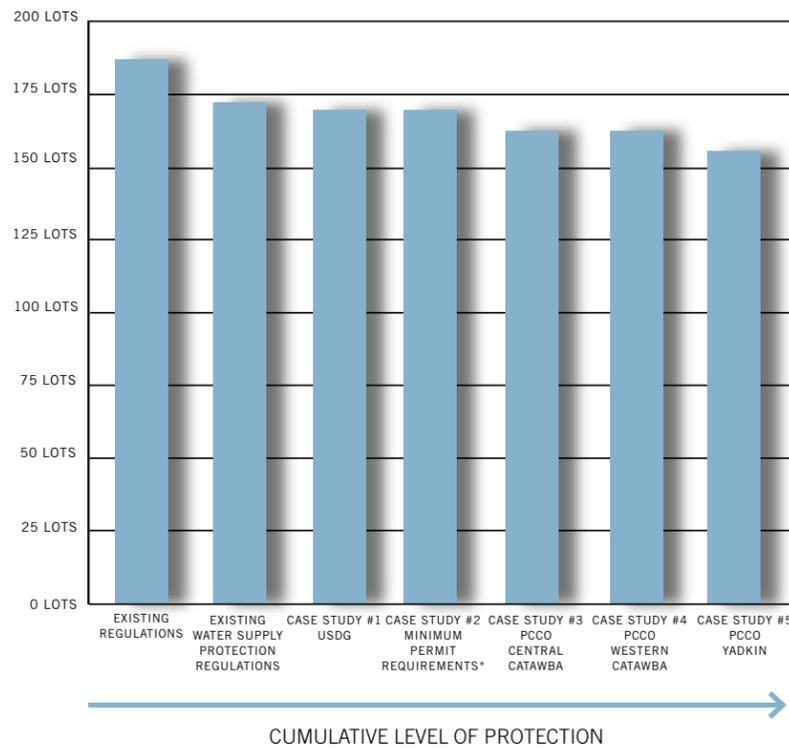
Although this report provides for the direct costs of incorporating the standards of the draft ordinances being evaluated, it is recognized that there are costs and benefits associated with the adoption of more protective development standards that have not been quantified with this analysis. However, they are recognized as an important factor in the decision to implement such ordinances or a version thereof. This cost information, together with consideration of the area-wide, long term implications of not implementing such policies will assist staff and elected officials in refining, finalizing and implementing the above-referenced ordinances and policies to effectively meet the community's goals.

### SINGLE-FAMILY RESIDENTIAL

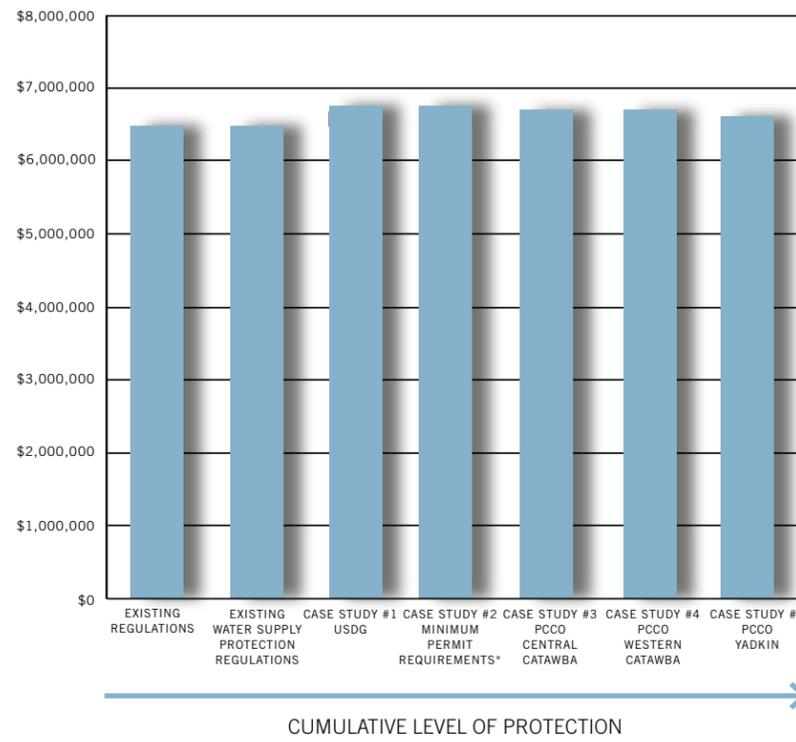
TOTAL ACREAGE: 51.9 ACRES

TOTAL DEVELOPMENT VALUE: APPROXIMATELY \$50 MILLION

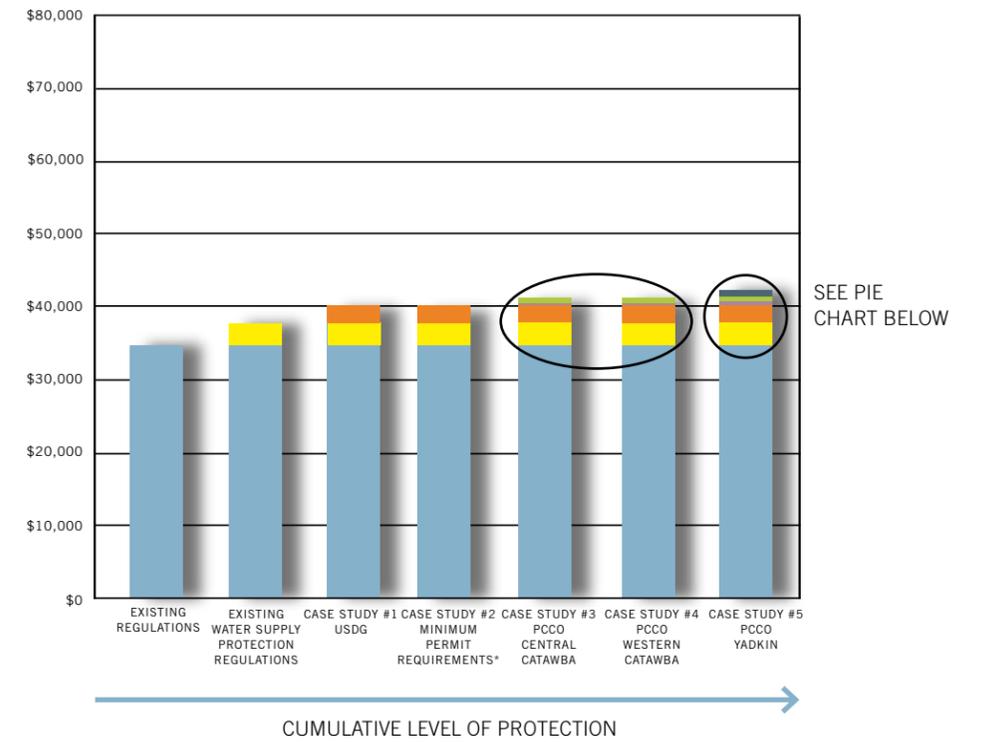
**SINGLE FAMILY INFRASTRUCTURE LOT YIELD**



**SINGLE FAMILY INFRASTRUCTURE COST**

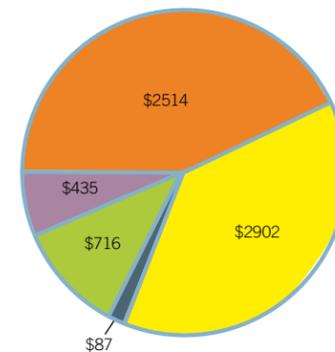


**SINGLE FAMILY INFRASTRUCTURE COST PER LOT**

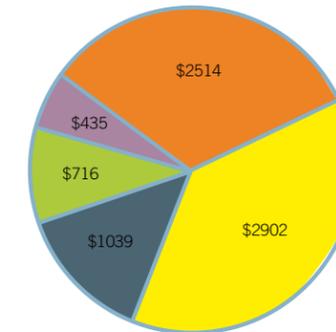


- USDG is included in Case Studies 2-5 and the proposed regulations are additive and build upon the regulations in the previous case study.
- Increased regulations resulted in more street connections, enhanced structural storm water controls, additional undisturbed open space, and expanded stream buffer protection.
- The Single Family case studies were affected by the USDG because an increase in net linear footage of streets resulted in a decrease in the developable property.
- The Single Family case studies were affected by the draft PCCO because increases in open space requirements and buffers caused a decrease in the developable property or lot yield.
- Home sales under existing regulations ranged from approximately \$200,000 to \$350,000.
- The reduction of developable property was minimized by using the mitigation option for open space on individual lots rather than in common areas.
- Lot yield reduction going from Existing Regulations to meeting Minimum Permit Requirements is 8.1% or 15 lots.
- The USDG reduced lot yield by an additional 1.8% or 3 lots.
- Applying requirements in the most sensitive watersheds resulted in an additional lot reduction of 6.5% or 13 lots above Minimum Permit Requirements\*.
- \*See Appendix for definitions

**INFRASTRUCTURE COST PER LOT INCREASE OVER EXISTING REGULATIONS IN THE CENTRAL & WESTERN WATERSHED DISTRICTS (77% of City)**



**INFRASTRUCTURE COST PER LOT INCREASE OVER EXISTING REGULATIONS IN MOST SENSITIVE WATERSHEDS (23% of City)**

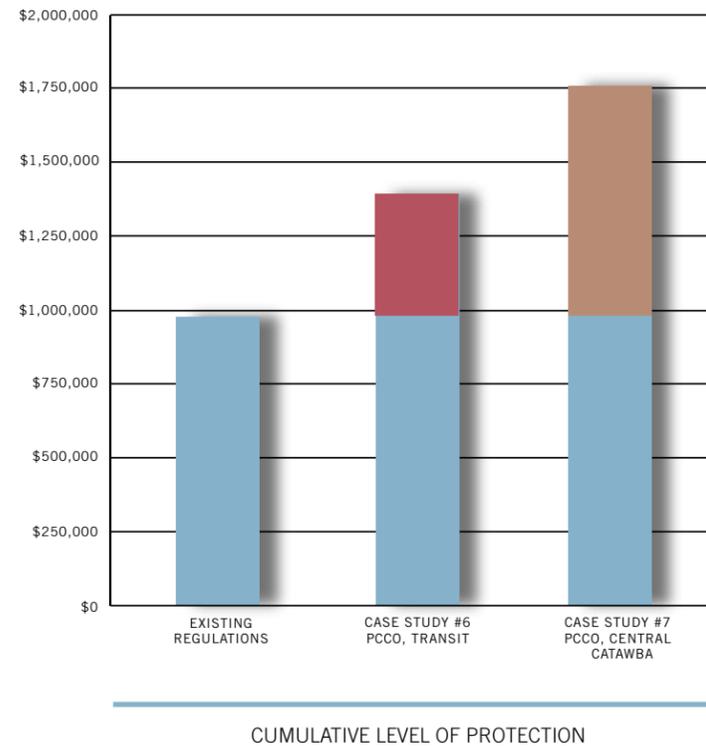


## URBAN INFILL

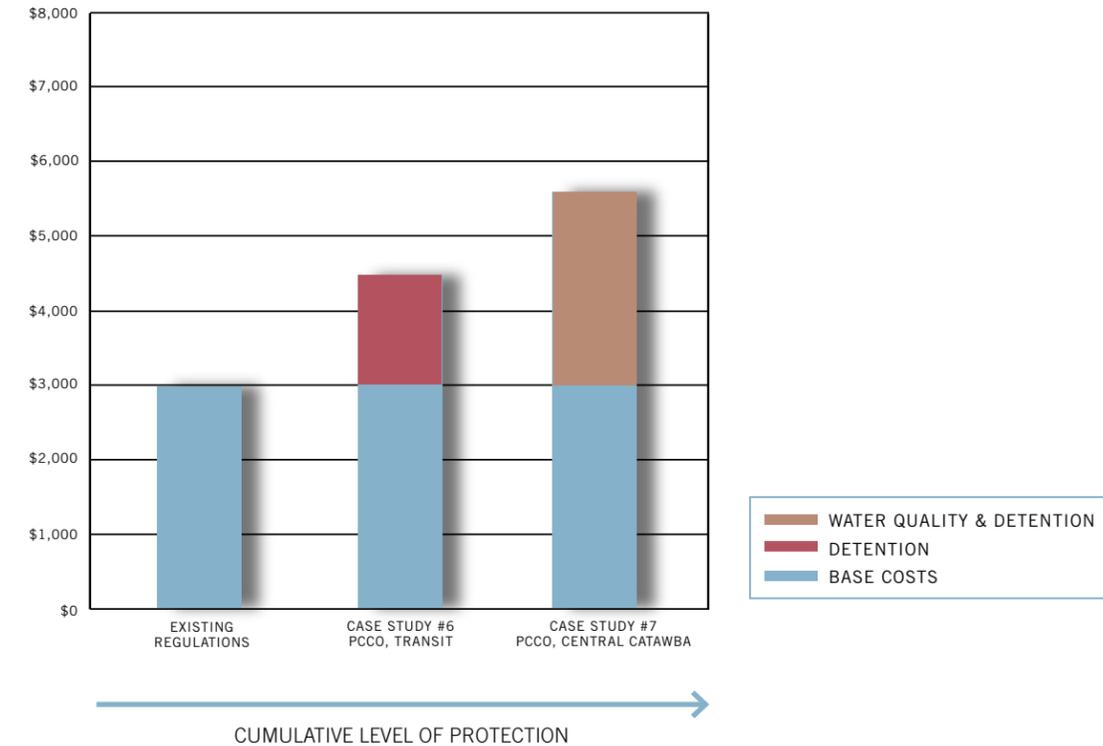
TOTAL ACREAGE: 2.87 ACRES

TOTAL DEVELOPMENT VALUE: APPROXIMATELY \$75 MILLION

**URBAN INFILL INFRASTRUCTURE COST**



**URBAN INFILL INFRASTRUCTURE COST PER UNIT**



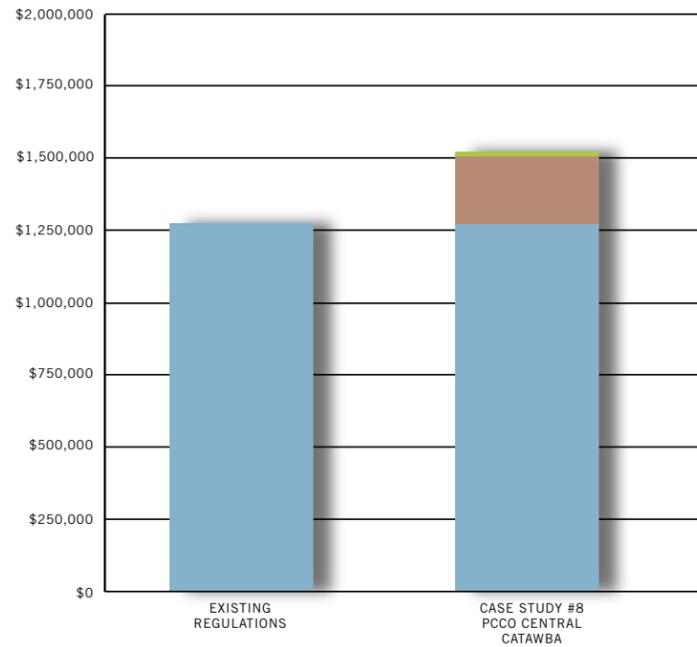
- The Urban Infill case studies site is located in a Transit Station Area. Case study 6 made use of draft ordinance provisions that reduced costs for Economically Depressed and Transit Station Areas.
- The Urban Infill case studies are not affected by the requirements of the USDG as there are no new public roadways proposed.
- The Urban Infill case studies are not affected by the Minimum Permit Requirements\* because the existing site was largely impervious and the approved plan reduced impervious area.
- The Urban Infill case studies are affected by the draft PCCO because underground storm water measures were introduced.
- The projected value of this development is approximately \$75 million. Costs increased \$475,000 or 0.6% to meet the requirements of the draft PCCO.
- Provisions in the ordinance to eliminate the undisturbed open space and water quality requirements for redevelopment projects in Transit and Economically Depressed Areas are included to offset additional costs of redevelopment.
- \*See Appendix for Definitions

## MULTI-FAMILY RESIDENTIAL

TOTAL ACREAGE: 6.16 ACRES

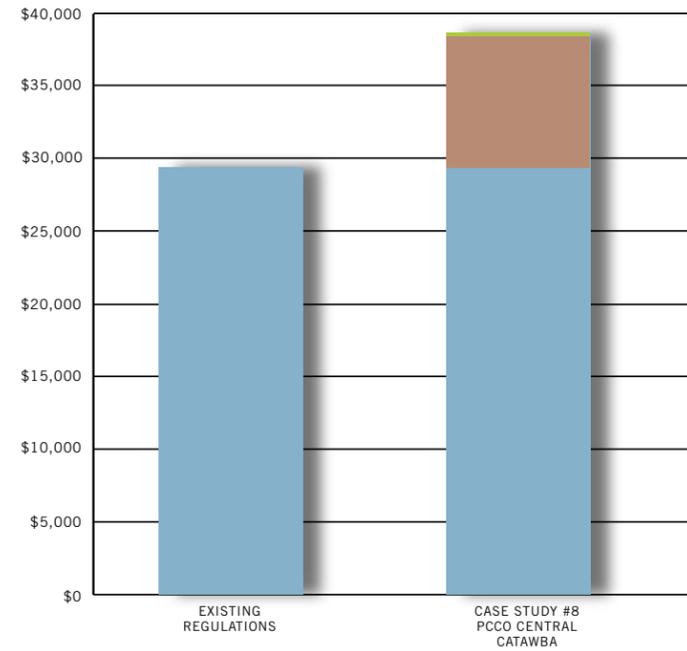
TOTAL DEVELOPMENT VALUE: APPROXIMATELY \$15 MILLION

### MULTI-FAMILY INFRASTRUCTURE COST



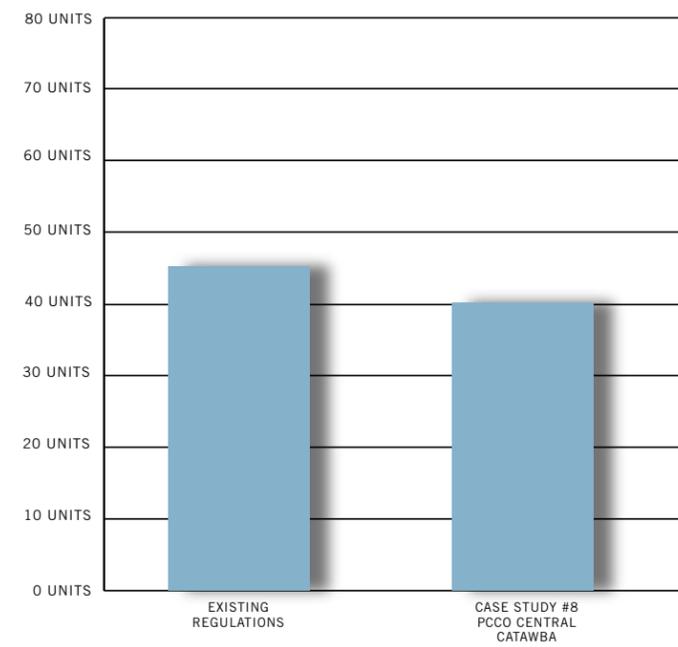
CUMULATIVE LEVEL OF PROTECTION

### MULTI-FAMILY COST PER UNIT

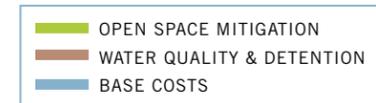


CUMULATIVE LEVEL OF PROTECTION

### MULTI-FAMILY UNITS



CUMULATIVE LEVEL OF PROTECTION



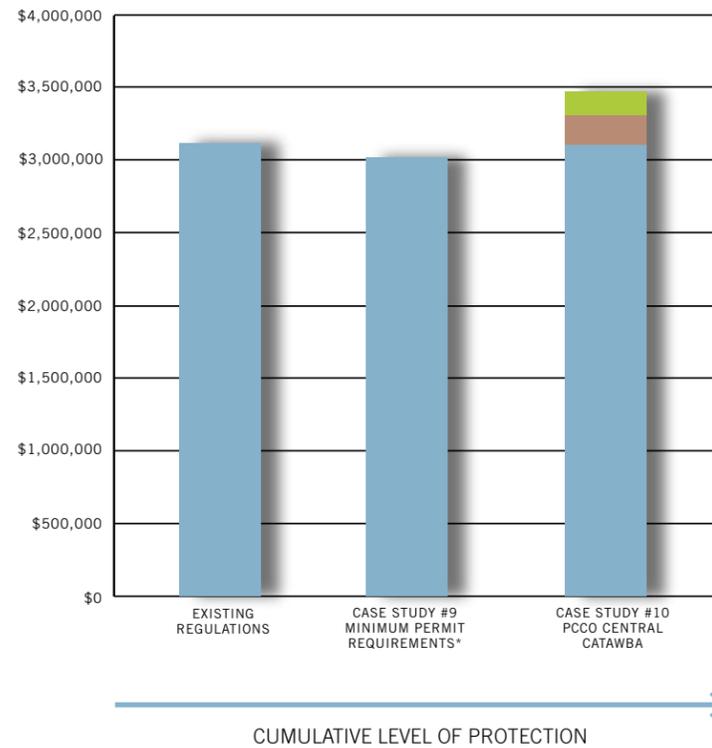
- The Multi-Family Residential case study is not affected by the requirements of the USDG as there are no public roadways proposed.
- The Multi-Family Residential case study is affected by the draft PCCO because storm water measures were introduced. Space needed for storm water controls lead to a reduction in developable property and thereby project density (~10%). Undisturbed open space requirements were satisfied using the on-site mitigation option.
- The projected value of this development is approximately \$15 million. Costs increased \$240,000 or 1.6% to meet the requirements of the draft PCCO.
- Central Catawba provisions closely mimic Minimum Permit Requirements\* and costs are not expected to deviate significantly from the minimum requirements.
- \*See Appendix for Definitions

## COMMERCIAL

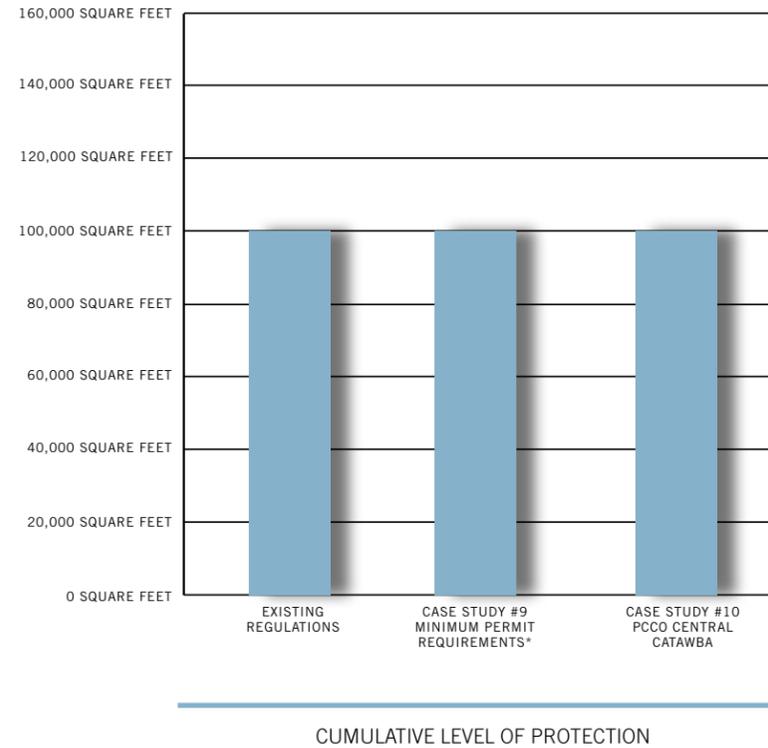
TOTAL ACREAGE: 9.66 ACRES

TOTAL DEVELOPMENT VALUE: APPROXIMATELY \$12.4 MILLION

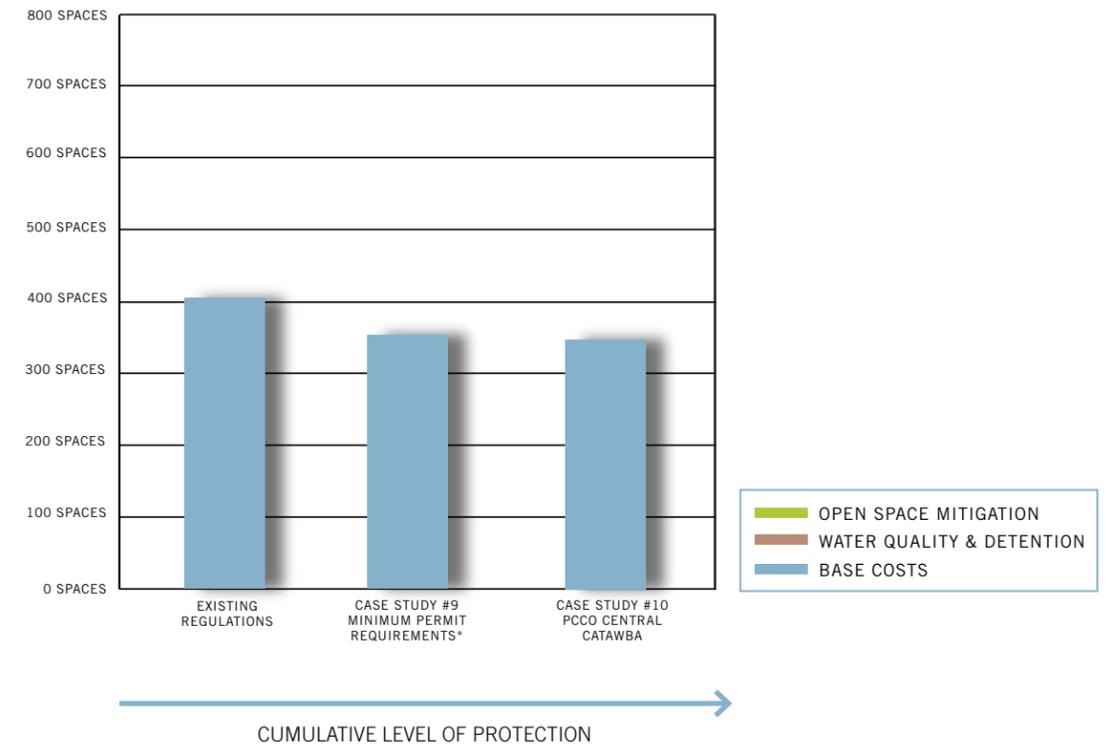
### COMMERCIAL INFRASTRUCTURE COST



### COMMERCIAL GROSS LEASABLE AREA



### PARKING SPACES PROVIDED



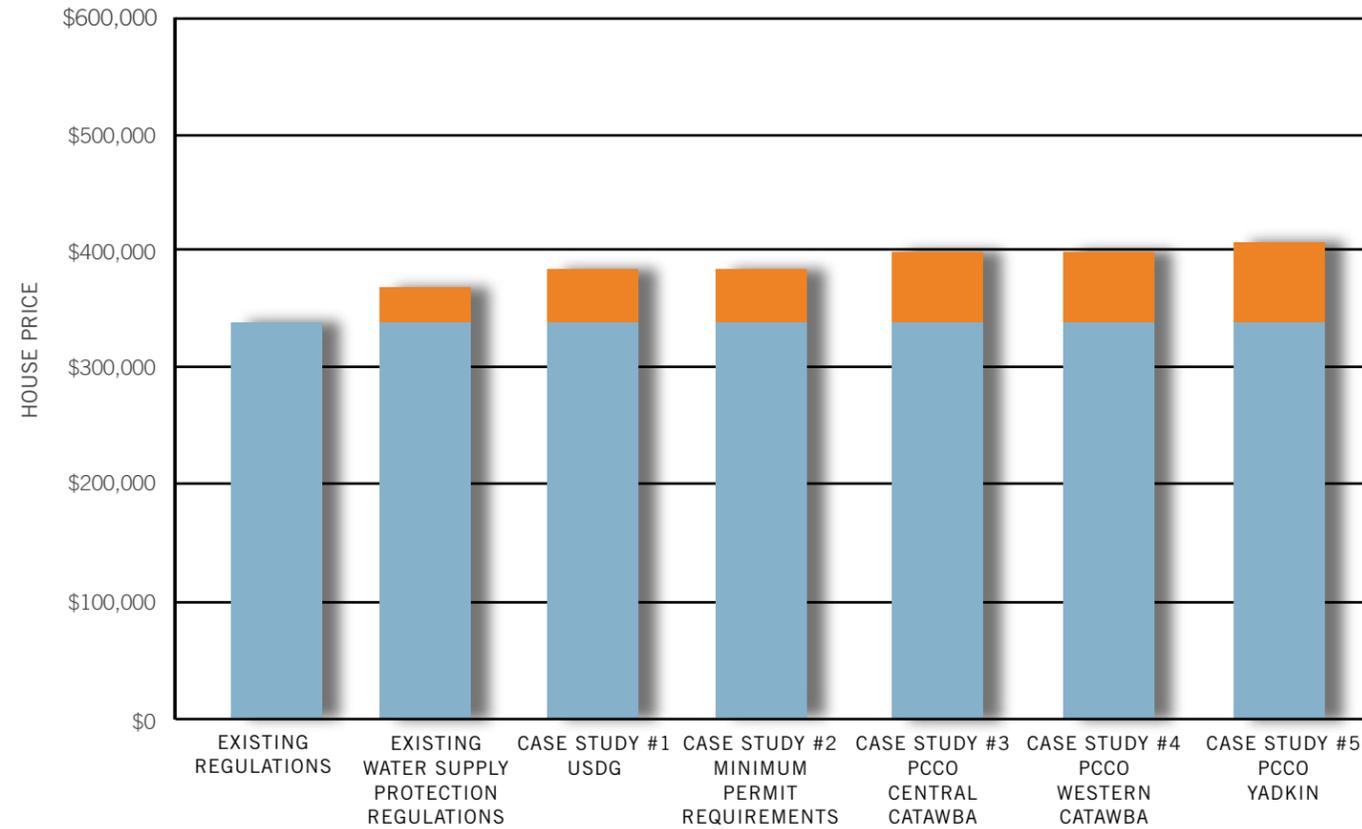
■ OPEN SPACE MITIGATION  
■ WATER QUALITY & DETENTION  
■ BASE COSTS

- The Commercial case studies were not affected by the requirements of the USDG as there are no public roadways proposed.
- The Commercial case studies were affected by the Minimum Permit Requirements. However, the costs to meet Minimum Permit Requirements *decreased* approximately \$50,000 by utilizing above-ground storm water treatment controls, although a net loss of 42 parking spaces resulted.
- The Commercial case studies were affected by the draft PCCO because open-space requirements were met using the off-site mitigation option instead of sacrificing developable on-site area. The cost for the off-site mitigation was \$157,000.
- The tax value of this development is approximately \$12.4 million. Costs increased \$350,000 or 2.8% to meet all the requirements of the draft PCCO in the most sensitive watersheds including the off-site open space mitigation payment.
- Although parking spaces were reduced by approximately 10% (4.0 parking spaces per 1,000 square feet of leasable space to 3.6 parking spaces per 1,000 square feet of leasable space), this effect still represents an approvable parking ratio consistent with the proposed GDP-E.
- \*See Appendix for Definitions

SINGLE FAMILY  
RESIDENTIAL  
PROFORMA ANALYSIS

- In an effort to define how the costs of more protective regulations could be absorbed, a proforma analysis was conducted to serve as a model for the projected cash flows during the single-family project development.
- The analyses assumed boundary conditions of 1) the Home Buyer absorbs the changing costs exclusively and 2) the land seller absorbs the changing costs exclusively.
- Results of the proforma analysis indicate if the single family home buyer absorbed all of the cost of more protective regulations it could increase the purchase price of the home by 2 to 5%, depending on the case study. This assumes a 20% profit margin on the increased lot cost to the home builder due to increased site preparation costs with all other costs remaining constant.
- If the property seller absorbed all the costs of more protective regulations it could devalue the property by 19 to 40%, depending upon the case study.
- The projected percentage increases are not meant to be combined but rather to define boundary conditions if either the home buyer or land seller were to exclusively absorb the changing costs. However, costs can be absorbed exclusively or in combination by the home buyer, the land seller, land developer or home builder. The exact distribution of absorption will only be dictated by market requirements and changes due to the adoption of more protective regulations.
- See proforma analysis in Appendix for additional information.

**ANALYSIS 1 INCREASED COST TO HOME BUYER 5X MULTIPLIER**  
(DEVELOPMENT COST PER CITY OF CHARLOTTE ESTIMATE)



| PLAN   | HOUSE PRICE | HOUSE PRICE INCREASE | % INCREASE |
|--|-------------|----------------------|------------|
| EXISTING REGULATIONS                         | \$338,200   |                      | 0%         |
| EXISTING WATER SUPPLY PROTECTION REGULATIONS | \$366,900   | \$28,700             | 9%         |
| CASE STUDY 1-USDG                            | \$385,000   | \$46,800             | 14%        |
| CASE STUDY 2-MIN PERMIT REQUIREMENTS         | \$385,000   | \$46,800             | 14%        |
| CASE STUDY 3-PCCO, CENTRAL CATAWBA           | \$397,700   | \$59,500             | 18%        |
| CASE STUDY 4-PCCO, WESTERN CATAWBA           | \$397,700   | \$59,500             | 18%        |
| CASE STUDY 5-PCCO, YADKIN                    | \$409,000   | \$70,800             | 21%        |

In the Increased Cost to Home Buyer – Five Times Multiplier scenario, the Home Buyer exclusively absorbs the increase infrastructure costs and decreased project yield due to more protective regulations.

While the cost to the Home Buyer goes up, we assumed the following:

- The Land Seller sells the land for the same price for each case study.
- The Developer will make a 20% profit, as the Developer sells subdivided lots to the Home Builder.
- The Home Builder will sell homes for 5 times the cost of the subdivided lot.

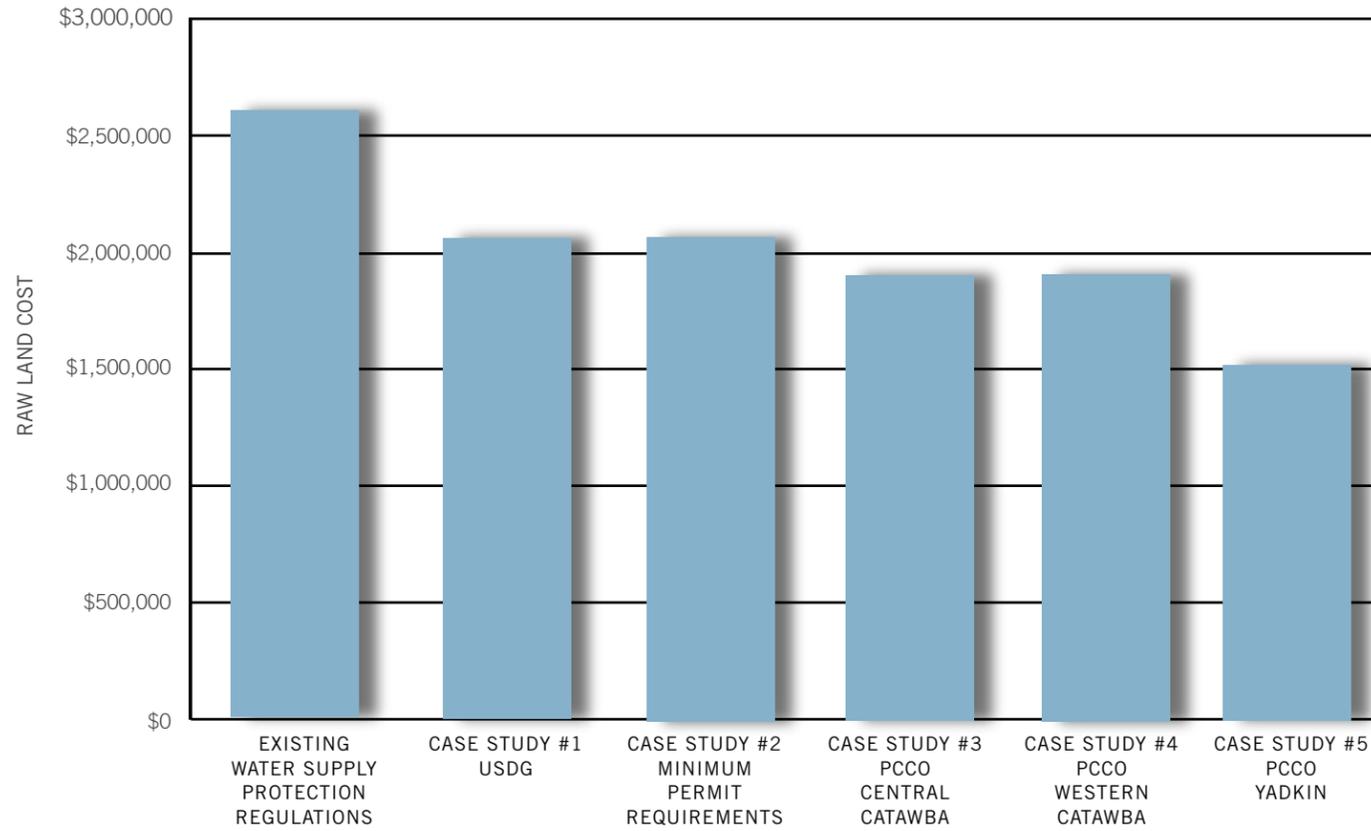
In this scenario, the Home Builder sells a home that is five times the cost of the subdivided lot purchased from the Developer. Therefore, if the Developer were to sell a subdivided lot for \$50,000, the Home Builder would build a home that would sell for \$250,000 in order to make the Home Builder’s desired profit.

These projected home prices are theoretical and do not accurately reflect the sale price of homes in this development.

Possible reasons for discrepancy include the following:

- The current estimated costs are estimates that sometimes do not reflect the actual cost incurred by developers and home builders.
- Construction of the development began in 2002 and labor and material costs have increased substantially in the past 5 years.

**ANALYSIS #2 DECREASED REVENUE FOR THE LAND SELLER**  
(DEVELOPMENT COST PER CITY OF CHARLOTTE ESTIMATE)

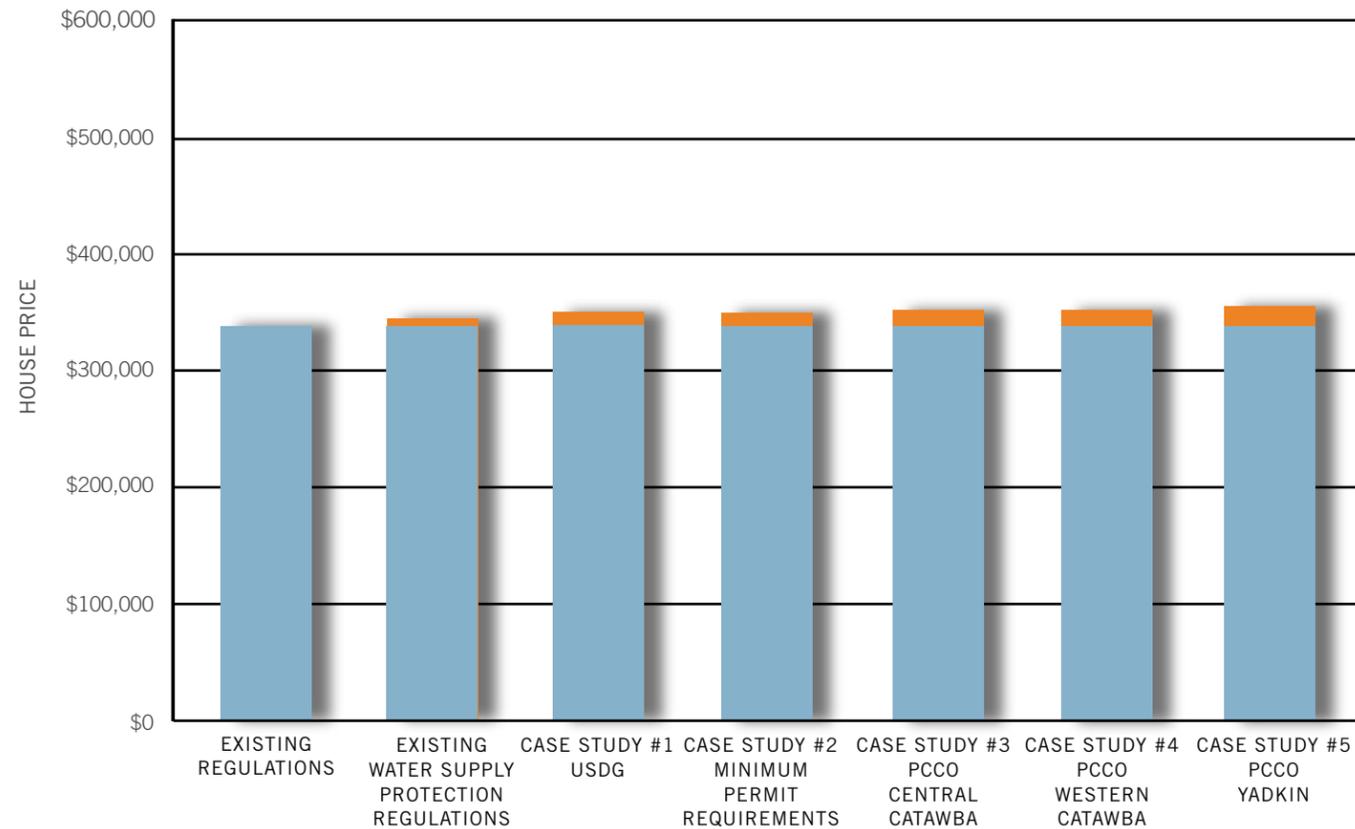


In the Decreased Revenue for the Land Seller scenario, the Land Seller exclusively absorbs the increase infrastructure costs and decreased project yield due to more protective regulations. While selling price of the land decreases, we have assumed the following:

- The Home Buyer purchases homes for the same price for each case study.
- The Developer will make a 20% profit, as the Developer sells subdivided lots to the Home Builder.
- The Home Builder will sell homes for 5 times the cost of the subdivided lot.

| PLAN   | RAW LAND COST | RAW LAND VALUE DECREASE | % DECREASE |
|--|---------------|-------------------------|------------|
| EXISTING WATER SUPPLY PROTECTION REGULATIONS | \$2,600,000   |                         | 0%         |
| CASE STUDY 1-USDG                            | \$2,114,500   | \$485,500               | 19%        |
| CASE STUDY 2-MIN PERMIT REQUIREMENTS         | \$2,114,500   | \$485,500               | 19%        |
| CASE STUDY 3-PCCO, CENTRAL CATAWBA           | \$1,802,700   | \$797,300               | 31%        |
| CASE STUDY 4-PCCO, WESTERN CATAWBA           | \$1,802,700   | \$797,300               | 31%        |
| CASE STUDY 5-PCCO, YADKIN                    | \$1,550,300   | \$1,049,700             | 40%        |

**ANALYSIS #3 INCREASED COST TO HOME BUYER – CONSTANT HOME PRODUCT**  
(DEVELOPMENT COST PER CITY OF CHARLOTTE ESTIMATE)



In the Increased Cost to Home Buyer – Constant Home Size scenario, the Home Buyer exclusively absorbs the increase infrastructure costs and decreased project yield due to more protective regulations.

While the cost to the Home Buyer goes up, we assumed the following:

- The Land Seller sells the land for the same price for each case study.
- The Developer will make a 20% profit, as the Developer sells subdivided lots to the Home Builder.
- Home Builder product does not change.

In this scenario, the Home Builder builds the same home product even though the cost of the subdivided lot increases with each case study. The Home Builder does not sell a home that is 5 times the cost of the subdivided lot purchased from the Developer. The Home Builder takes the increased cost of the subdivided lot and increases the selling price of the home to realize a 20% return on additional investment.

| PLAN   | HOUSE PRICE | HOUSE PRICE INCREASE | % INCREASE |
|--|-------------|----------------------|------------|
| EXISTING REGULATIONS                         | \$338,200   |                      | 0%         |
| EXISTING WATER SUPPLY PROTECTION REGULATIONS | \$345,400   | \$7,200              | 2%         |
| CASE STUDY 1-USDG                            | \$349,900   | \$11,700             | 3%         |
| CASE STUDY 2-MIN PERMIT REQUIREMENTS         | \$349,900   | \$11,700             | 3%         |
| CASE STUDY 3-PCCO, CENTRAL CATAWBA           | \$353,100   | \$14,900             | 4%         |
| CASE STUDY 4-PCCO, WESTERN CATAWBA           | \$353,100   | \$14,900             | 4%         |
| CASE STUDY 5-PCCO, YADKIN                    | \$355,900   | \$17,700             | 5%         |

The City of Charlotte wishes to evaluate multiple proposed policies/ordinances in an effort to better understand the cumulative economic impact that may occur with their adoption and implementation. The City of Charlotte Cost Analysis project evaluates the construction costs associated with the implementation of: The Environmental Chapter (Phase II) of the General Development Policies (GDP-E), the Urban Street Design Guidelines (USDG), and the Post Construction Controls Ordinance (PCCO). The following describes each of these policies/ordinances which, taken together, are intended to allow Charlotte to continue to grow, while accommodating that growth in a sustainable fashion.

#### GENERAL DEVELOPMENT POLICIES

The *General Development Policies (Phase II)* is a policy document intended to provide a context for future growth that fosters continued economic development while ensuring that the potential negative environmental impacts associated with that growth can be minimized. The principles of the GDP-E include the protection of the natural environment by identifying significant environmentally sensitive areas and providing direction as to their protection or mitigation; facilitating a land use pattern to accommodate growth while respecting the natural environment; promoting environmentally sensitive site designs; and, finally, balancing environmental impacts of land use with other land development considerations, including cost/benefit considerations.

The policies proposed in the GDP-E will be implemented through a wide variety of activities, including making changes to existing regulations, practices and processes, and developing new regulations, practices and processes.

Although the site design evaluation and costs associated with this report will be tied to specific design changes necessitated by the standards set forth in the draft PCCO and USDG, a more qualitative evaluation of the project case studies is provided with this report in relation to the goals of the GDP-E. Specifically, each case study is evaluated to determine if the goals of the GDP-E are effectively met with the implementation of the ordinance/ordinances being incorporated into its site design.

#### POST-CONSTRUCTION CONTROLS ORDINANCE

Under North Carolina's implementation of the Phase I and II storm water regulations for the National Pollution Discharge Elimination System (NPDES), the City of Charlotte

is required to develop and implement a post-construction controls ordinance intended to address the impacts of storm water runoff in areas of new development or redevelopment. In response to this requirement and other storm water quality and quantity challenges, the City of Charlotte partnered with the seven jurisdictions of Mecklenburg County to form a stakeholder committee tasked with developing a new ordinance that addresses storm water runoff by meeting four primary goals:

1. Achieve compliance with the Phase I and Phase II NPDES Storm Water Permit requirements for post-construction pollution control, as applied to the respective jurisdictions, by the EPA.
2. Satisfactorily address the guidelines to mitigate the cumulative and secondary impacts to aquatic and terrestrial wildlife resources and water quality specified by the N.C. Wildlife Resources Commission and the U.S. Fish and Wildlife Service for Goose Creek and the Yadkin River Watershed.
3. Satisfactorily address the causes of impairment identified in the N.C. 2002 Integrated 305(b) and 303(d) Report for surface waters in Mecklenburg County when the potential sources of water quality impairment are identified as urban runoff/storm sewers.
4. Satisfactorily address detention measures for the control of storm water volumes and peaks associated with new construction.

In September 2005, the Post Construction Controls Ordinance Stakeholders Group delivered the draft Post-Construction Controls Ordinance after 18 months of study and deliberation. The ordinance established increased levels of protection from storm water runoff pollution based on the watershed district in which a planned development might be located. Three districts were established in Mecklenburg County: the Central Catawba, the Western Catawba and the Yadkin-Southeast Catawba. Development standards focused on storm water quality treatment for suspended solids and phosphorus pollution generated by the first inch of a rainfall event, storm water volume control for the one-year design storm event, and peak flow detention for the 10-year and 25-year design storm events, if necessary. Stream buffer standards were included, as well as requirements for project open space. Provisions were provided in the ordinance that allowed for reduced standards for projects that were developed to low-density thresholds, as well as projects that were developed within a described transit station area and distressed business district.

The chart on the next page summarizes the development standards required by the PCCO for the applicable watershed districts, as well as the minimum requirements of the regulations of the NPDES as issued by the EPA.

The PCCO references a design manual that is to be used for policy, criteria and information, including technical standards and specifications, for the design, implementation, and performance of structural and non-structural storm water BMPs incorporated to meet the performance standards set forth in the PCCO. The City of Charlotte and Mecklenburg County are currently in the process of developing this manual and have elected not to use the statewide BMP Manual developed by the North Carolina Department of Environment and Natural Resources. The *Charlotte-Mecklenburg BMP Design Manual* intends to provide design methodologies and criteria that are based on local conditions, and are intended to provide a more effective design based on specific watershed conditions present in Charlotte-Mecklenburg. The City of Charlotte Cost Analysis project worked in concert with the BMP Design Manual project to apply the design requirements of the City's refined BMP standards with the projects being analyzed with this study. Therefore, the Cost Analysis results, including the designs and cost estimates, represent the most accurate depiction of future project requirements. The design manual effort is ongoing, and slight refinements to the BMP designs proposed in the Charlotte-Mecklenburg manual may result in slight changes to the results of the Cost Analysis project.

## PCCO DEVELOPMENT STANDARDS

### LOW DENSITY THRESHOLDS / PERFORMANCE STANDARDS

| WATERSHED DISTRICT           | DENSITY    | BMP                  | BUFFERS     |
|------------------------------|------------|----------------------|-------------|
| MINIMUM PERMIT REQUIREMENTS* | ≤ 24% BUA* | N/A                  | REQUIRED*** |
| CENTRAL CATAWBA              | ≤ 24% BUA  | VEGETATED CONVEYANCE | REQUIRED**  |
| WESTERN CATAWBA              | ≤ 12% BUA  | VEGETATED CONVEYANCE | REQUIRED**  |
| YADKIN-SOUTHEAST CATAWBA     | ≤ 10% BUA  | VEGETATED CONVEYANCE | REQUIRED**  |

\* See Appendix for definitions.

\*\* Refer to ordinance for buffer standard requirements

\*\*\* 30-foot no-build zone on all intermittent and perennial streams

### HIGH DENSITY THRESHOLDS / PERFORMANCE STANDARDS

| WATERSHED DISTRICT             | DENSITY   | STORM WATER QUALITY TREATMENT VOLUME | WATER QUALITY TREATMENT | STORM WATER VOLUME CONTROL  | STORM WATER PEAK CONTROL    | BUFFERS  |
|--------------------------------|-----------|--------------------------------------|-------------------------|-----------------------------|-----------------------------|----------|
| MINIMUM PERMIT REQUIREMENTS*** | > 24% BUA | 1" RAINFALL EVENT                    | 85% TSS***              | 1-YR / 24- HR STORM EVENT*  | NOT REQUIRED                | REQUIRED |
| CENTRAL CATAWBA                | > 24% BUA | 1" RAINFALL EVENT                    | 85% TSS***              | 1-YR / 24- HR STORM EVENT** | 10 YR AND 25 YR, 6 HR STORM | REQUIRED |
| WESTERN CATAWBA                | > 12% BUA | 1" RAINFALL EVENT                    | 85% TSS / 70% TP***     | 1-YR / 24- HR STORM EVENT** | 10 YR AND 25 YR, 6 HR STORM | REQUIRED |
| YADKIN-SOUTHEAST CATAWBA       | > 10% BUA | 1" RAINFALL EVENT                    | 85% TSS / 70% TP***     | 1-YR / 24- HR STORM EVENT** | 10 YR AND 25 YR, 6 HR STORM | REQUIRED |

\* Difference between pre- and post-development run-off volume.

\*\* Entire 1 year volume

\*\*\* See Appendix for definitions.

Notes:

1. Pollutant removal efficiencies shall be obtained via methodologies described in the Design Manual.
2. Runoff volume drawdown shall be a minimum of 24 hours, but no greater than 120 hours.
3. A downstream analysis may be performed as described in the Design Manual to reduce detention requirements.
4. Refer to ordinance for buffer standard requirements.

### OPEN SPACE REQUIREMENTS

| PROJECT DENSITY              | UNDISTURBED OPEN SPACE REQUIRED |
|------------------------------|---------------------------------|
| MINIMUM PERMIT REQUIREMENTS* | NOT REQUIRED                    |
| < 24% BUA                    | 25% OF PROJECT AREA             |
| > 24% BUA, < 50% BUA         | 17.5% OF PROJECT AREA           |
| > 50% BUA                    | 10% OF PROJECT AREA             |

\* See Appendix for definitions.

Notes:

1. Undisturbed open space shall be recorded at the Register of Deeds as "Undisturbed Open Space."
2. Refer to ordinance for mitigation and payment-in-lieu-of options for undisturbed open space requirements.



**URBAN STREET DESIGN GUIDELINES**

Charlotte's ability to accommodate growth, while maintaining its quality of life, requires a concerted effort to enhance the City's approach to providing transportation. The *Urban Street Design Guidelines* (USDG) present a comprehensive approach to designing new and modified streets within Charlotte's sphere of influence. By applying the USDG to streets that will be constructed (or re-constructed) by the City, and constructed through the land development process, Charlotte will have a street network that continues to function well, even as growth continues.

A key implementation component of the *Transportation Action Plan* (adopted in 2006), the USDG are intended to help Charlotte accommodate growth by meeting the following objectives:

1. Support economic development and quality of life, by providing both transportation capacity and building better streets for all users;
2. Provide more and safer transportation choices, by improving network connectivity (providing both capacity and shorter travel routes), and by building streets that are safe and functional for motorists, bicyclists, pedestrians, and transit users; and
3. Better integrate land use and transportation decisions, by building context-based streets that match the surrounding land uses and by building the street network that will accommodate differing levels of land use intensity.

To develop the street network that accomplishes these objectives, the USDG establish five street classifications that reflect and complement a variety of land use and transportation contexts: Main Streets, Avenues, Boulevards, Parkways, and Local Streets. The Local Street category is further divided into street types that support a variety of different local street land use contexts. The USDG street categories range from very auto-oriented, thoroughfare-type streets to local, neighborhood streets, and all include design elements and dimensions intended to achieve the best street for a given land use and transportation context.

Implementing the USDG will, over time, result in a well-connected network of functional, safe, and attractive streets that serve all users and complement the communities and neighborhoods they connect, while also providing the transportation capacity and travel choices necessary to sustain long-term growth and development.