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DRAFT RESOLUTION

BY THE WILMINGTON AREA PLANNING COUNCIL (WILMAPCO) ENDORSIMENT THE NEW CASTLE COUNTY STRATEGIC ACTION PLAN (SAP)

WHEREAS, the Wilmington Area Planning Council (WILMAPCO) has been designated the Metropolitan Planning Organization (MPO) for Cecil County, Maryland and New Castle County, Delaware by the Governors of Maryland and Delaware, respectively; and

WHEREAS, the WILMAPCO Council recognizes that comprehensive planning for future land use, transportation, sustainable economic development, environmental protection and enhancement, and community health and livability are necessary actions to implement the goals and objectives in the 2050 Regional Transportation Plan (RTP); and

WHEREAS, New Castle County Land Use submitted a Unified Planning Work Program (UPWP) request for WILMAPCO to improve the implementation of planned transportation improvements through the land development process; and

WHEREAS, the Strategic Action Plan is designed to assist New Castle County Land Use and DelDOT in implementing elements of NCC2050 and improvements to DelDOT's Development Coordination Manual (DCM) by incorporating best practices as needed and practical;

NOW, THEREFORE, BE IT RESOLVED the Wilmington Area Planning Council hereby endorses the New Castle County Strategic Action Plan.

Date:

John Sisson, Chairperson
Wilmington Area Planning Council



STRATEGIC ACTION PLAN

Aligning the Land Development Review Process in New Castle County
with NCC2050 and Regional Transportation Plan Implementation

FINAL REPORT – JUNE 2025



ACKNOWLEDGEMENTS

The development of this Strategic Action Plan (SAP) was a collaborative effort among three Partner agencies: WILMAPCO, the regional transportation planning agency for New Castle County, Delaware and Cecil County, Maryland; the New Castle County Department of Land Use; and DelDOT.



A consultant team, led by RK&K Engineers (RK&K), with support from Renaissance Planning Group (Renaissance), was responsible for creating and assembling all technical content of the Strategic Action Plan. The consultant team was also responsible for performing best practices research and conducting interviews with stakeholders involved with land development activities in New Castle County, Delaware.



RENAISSANCE
PLANNING

CONTENTS



EXECUTIVE SUMMARY



RECOMMENDATIONS



STUDY PROCESS



APPENDICES



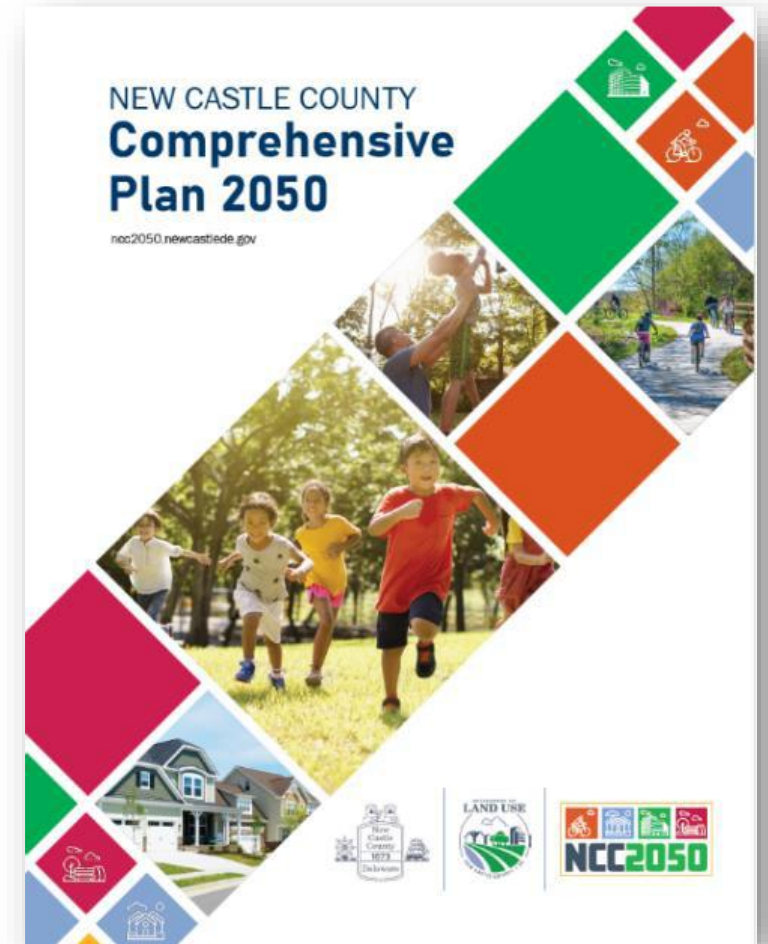
EXECUTIVE SUMMARY

WHAT IS THE STRATEGIC ACTION PLAN?

The Strategic Action Plan (SAP) is a work element of WILMAPCO's 2025 Unified Planning Work Program (UPWP) to improve the implementation of planned transportation improvements through the land development process. The SAP is an element of the NCC2050 Comprehensive Plan implementation, and has two primary objectives:

- Foster planned redevelopment by right-sizing development exactions
- Facilitate private-sector investment in implementing planned transportation projects

The SAP is led by WILMAPCO through consultation with New Castle County's Department of Land Use (NCCDLU) and the Delaware Department of Transportation (DelDOT). The SAP will help NCCDLU and DelDOT in implementing elements of NCC2050 and improvements to DelDOT's Development Coordination Manual (DCM) by incorporating best practices as needed and practical.



WHY UNDERTAKE THE SAP?

The need for the SAP is based on common constituent concerns expressed through public commentary on transportation system adequacy. Interviews with members of New Castle County Council, developers, and land development lawyers and engineers helped fine-tune topics to be addressed by the SAP. The focus of the SAP is on the County's concurrency approach which is focused on intersection auto level-of-service (LOS) and outlined in Article 11 of the Unified Development Code (UDC). Constituent concerns can be broadly categorized as relating to four primary concerns regarding Traffic Impact Studies (TIS) as defined by Article 11 of the County Code and Title 2, Section 2309 of the State Administrative Code.

1. Proportionality: Rather than contributing a fair-share amount toward planned improvements, the current approach suffers from *free-rider* and *last in* problems wherein many applicants can satisfy concurrency simply by using roadway capacity provided by others (whether through public or private funding). Others face concurrency challenges with large and expensive transportation improvements that in most cases cannot be built by one development.

2. Predictability: The unpredictability of the current process can dampen development enthusiasm. A known fair share cost today is often preferable to a slightly lower cost after a year of study, particularly if concurrency requires negotiation. New Castle County and the State of Delaware have many overlapping requirements that can easily double TIS review time (and comments to address), and which in some cases are in direct conflict.

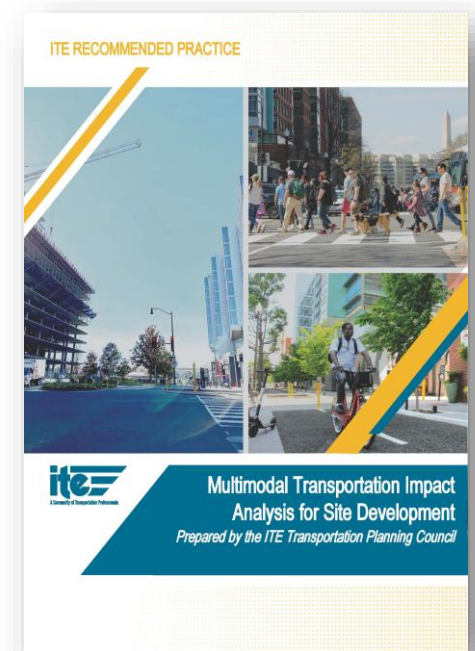
WHY UNDERTAKE THE SAP?

3. Practicality: Some constituents are disillusioned by the auto LOS approach, in part because the public-facing messaging suggests all roads should always operate within the LOS standard, a suggestion that doesn't match lived experience. Others feel intersection congestion is an outdated metric as they are at least equally concerned with impacts to traffic safety (for all road users, not just auto drivers), community effects (such as speeding and noise that do not trigger concurrency thresholds), and travel time reliability.

4. Programming: Ideally, when a land development application constructs off site transportation improvements it is something needed, such as in the state's Capital Transportation Program (CTP) or WILMAPCO's Regional Transportation Plan (RTP), that the public sector no longer has to fund, creating efficiency. This ideal case is often complicated by timing.

These issues are not unique to New Castle County but are important in every municipality nationwide that has economic development, some degree of traffic congestion, and an engaged citizenry.

The study efforts included a national scan of best and emerging practices for innovative ways to address concurrency during development review, including the 2022 Recommended Practice on Multimodal Transportation Impact Analyses prepared by the Institute of Transportation Engineers (ITE).



WHAT DOES THE SAP RECOMMEND?

The SAP provides a Table of Recommendations previewed at right. For each of the recommendations, this report also provides additional details on the types of concerns prompting the recommendation and how the recommendation can address those concerns.

This report benefitted from input from many practitioners and decision makers involved in the New Castle County land development process. Some of the recommendations can be implemented by agency staff under existing policies. Other recommendations include policy changes (mostly, but not all, at the New Castle County level).

Any policy change considered by the Partner agencies both requires, and will benefit from, further public process.

AS1	Remove duplicative TIS scoping requirements from UDC
AS2	Forecast person-trip generation to establish trips by mode
AS3	Options for background traffic
AA1	LOS standards
AA2	Analysis parameters
AA3	Context-sensitive standards
AA4	Urban design
AA5	Proximity
AM1	Traffic Mitigation Agreements
AM2	Vehicle trip mitigation with non-auto facilities
AM3	Phased conditions of approval
AM4	Policy discounts on delay
AM5	Future Project Participation (FPP) fair-share
AM6	Graduated exemptions
I1	Clarify adopted plan authority
I2	Online project info repositories
I3	Future Project Participation (FPP) delivery
I4	Update Southern New Castle County TID
M1	Agency staff coordination
M2	Formalize update processes
M3	Define strategic approach for TID & CCEDs
M4	Stakeholder outreach



RECOMMENDATIONS

This section of the report contains the following elements:

- Table of Recommendations
- Overview of Recommendations
- Details of Recommendations
 - Adequacy
 - Implementation
 - Management
- Study Process

TABLE OF RECOMMENDATIONS

The SAP contains a series of recommendations for the Partner agencies to consider for implementation.

The following pages provide an overview of the full suite of recommendations, followed by detailed descriptions of what each of the suggested actions is intended to accomplish.

Agency staff analysis / internal practices
Stakeholder consensus building
Amendment process
Ongoing effort

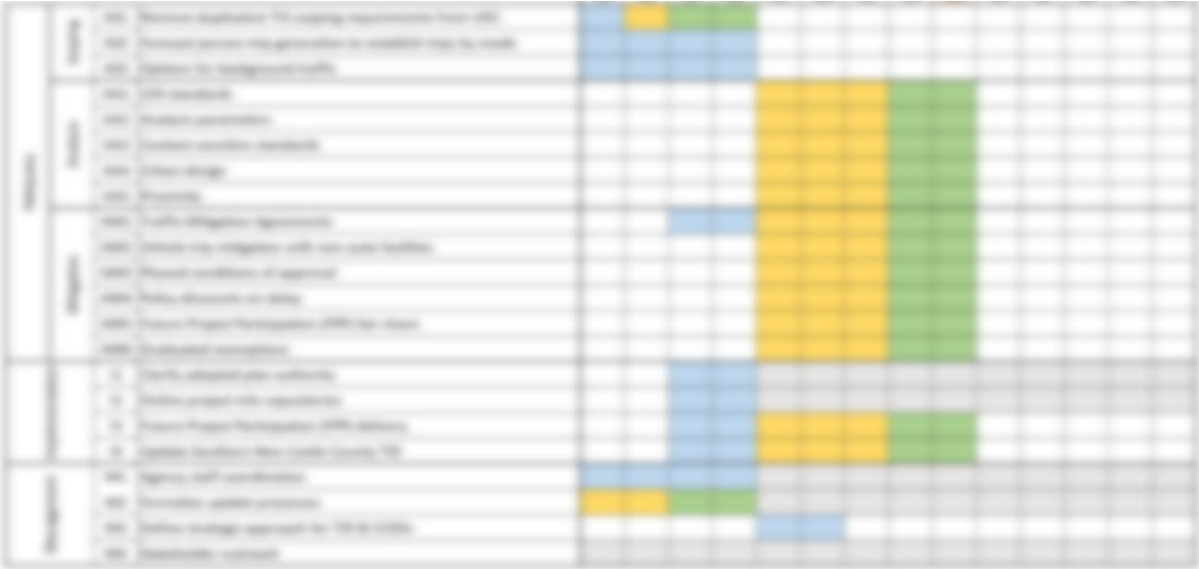
			2025		2026		2027		2028			
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Adequacy	Scoping	AS1	Remove duplicative TIS scoping requirements from UDC									
		AS2	Forecast person-trip generation to establish trips by mode									
		AS3	Options for background traffic									
	Analysis	AA1	LOS standards									
		AA2	Analysis parameters									
		AA3	Context-sensitive standards									
		AA4	Urban design									
		AA5	Proximity									
	Mitigation	AM1	Traffic Mitigation Agreements									
		AM2	Vehicle trip mitigation with non-auto facilities									
		AM3	Phased conditions of approval									
		AM4	Policy discounts on delay									
		AM5	Future Project Participation (FPP) fair-share									
		AM6	Graduated exemptions									
Implementation		I1	Clarify adopted plan authority									
		I2	Online project info repositories									
		I3	Future Project Participation (FPP) delivery									
		I4	Update Southern New Castle County TID									
Management		M1	Agency staff coordination									
		M2	Formalize update processes									
		M3	Define strategic approach for TID & CCEDs									
		M4	Stakeholder outreach									

RECOMMENDATIONS - OVERVIEW

The Table of Recommendations on the prior page provides an example schedule for Partner agency consideration, with the following qualifiers:

- The first recommendation is the most straightforward and could be most quickly advanced into the formal amendment process for Article 11 of the County Code. That amendment process includes public engagement.
- Additional suites of amendment activities are suggested where stakeholder opinions are known to be diverse and require consensus-building
- Several actions related to Partner agency administrative tasks can be addressed by staff analysis and coordination
- Specific calendar dates are shown only for context. These recommendations help implement the 2022 NCC2050 Comprehensive Plan. **A five-year Plan update is expected in Q3 of 2027.**

2025		2026				2027				2028			
Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4



Agency staff analysis / internal practices
Stakeholder consensus building
Amendment process
Ongoing effort

RECOMMENDATIONS - OVERVIEW

Adequacy	Scoping	AS1
		AS2
		AS3
	Analysis	AA1
		AA2
		AA3
		AA4
		AA5
	Mitigation	AM1
		AM2
		AM3
		AM4
		AM5
		AM6
Implementation		I1
		I2
		I3
		I4
Management		M1
		M2
		M3
		M4

The recommendations are organized into three broad categories:

- **Adequacy** (also described as concurrency): What are the performance measures used to define whether proposed development has mitigated its effects on the transportation system? This category has three subcategories that reflect the chronology of a typical Transportation Impact Study (TIS):
 - *Scoping*: How large a study is needed (smaller developments have more localized effects)? What are the processes for collecting and analyzing data?
 - *Analysis*: What tools and/or policy levers are applied in converting TIS data into findings of adequacy?
 - *Mitigation*: If development will cause forecast performance to become inadequate, what remedies can the applicant implement to rectify the inadequacy and therefore meet concurrency?
- **Implementation**: How can private sector actions be implemented most seamlessly? How can those actions be better tied to RTP and CTP project implementation to efficiently leverage private sector contributions in a fair and equitable approach?
- **Management**: How can the Partner agencies streamline their internal coordination and keep stakeholders appropriately involved in the development review process?

RECOMMENDATIONS - OVERVIEW

The recommendations suggest:

- removing duplicative or conflicting state/county administrative specifications in recommendation AS1 as a first step, and
- bundling consideration of the remaining recommendations into a common evaluation process for analysis, outreach, and adoption of appropriate changes to policy elements.

Most of the recommendations could be implemented either as stand-alone elements or in combination with one another, depending on the locations and types of economic development policymakers seek to facilitate by policy levers that improve application predictability and/or reduce private sector costs.

The one set of linked actions is the idea that Future Project Participation would allow applicants to make fair-share contributions toward long-term, planned capital improvements such as those in the RTP or CTP but not yet in the CIP. The County policy to accept such contributions as satisfying concurrency for mitigation (AM5) needs to be paired with a state process for accepting the contributions administratively (I3) and ensuring they are applied in the appropriate geographic location.

Adequacy	Scoping	AS1	Remove duplicative TIS scoping requirements from UDC
		AS2	Forecast person-trip generation to establish trips by mode
		AS3	Options for background traffic
	Analysis	AA1	LOS standards
		AA2	Analysis parameters
		AA3	Context-sensitive standards
		AA4	Urban design
		AA5	Proximity
	Mitigation	AM1	Traffic Mitigation Agreements
		AM2	Vehicle trip mitigation with non-auto facilities
		AM3	Phased conditions of approval
		AM4	Policy discounts on delay
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Implementation		I1	Clarify adopted plan authority
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		M3	Define strategic approach for TID & CCEDs
		M4	Stakeholder outreach

RECOMMENDATIONS - OVERVIEW

Several of the recommendations contemplate the use of value-based credits or debits, such as the Austin, TX requirements linking parking supply to additional TDM point requirements shown in the graphic at right.

Developing an equivalency between concurrency and the provision of improvements that don't directly affect traditional measures of effectiveness is a useful way to use policy to normalize public values without reverting to direct monetization. These types of approaches include (but aren't necessarily limited to):

- Urban design (AA4)
- Proximity (AA5)
- Vehicle trip mitigation with non-auto facilities (AM2)

Such approaches do require stakeholder input on appropriate value-setting. It may therefore be useful to bundle their consideration within a consolidated engagement process considering valuation approaches.

Table 10-2 — TDM Plan Points Requirement Adjustment for Excess Parking

Proposed Parking Supply	TDM Plan Points Requirement (and Associated Trip Reduction) is Increased By		
Context Area	Downtown	Urban	Urban Transition
101%—110% of the Standard Parking Supply Ratio	3	2	1
110%—130% of the Standard Parking Supply Ratio	5	4	3
130%—150% of the Standard Parking Supply Ratio	7	6	5
150% or more of the Standard Parking Supply Ratio	10	8	7

Source: Austin, TX Transportation Criteria Manual

RECOMMENDATIONS - OVERVIEW

The recommendations generally lead in one of three directions: toward formal amendments, formal agency guidance, or informal staff practices:

- **Formal amendments** to Article 11 through County Council ordinances; the anticipated outcome for most of the individual lines in the Table of Recommendations.
- Changes to **agency guidance** such as the DCM through DeIDOT administrative actions; these actions are expected to be fewer largely because the focus of the SAP is on elements specific to New Castle County.
- Improvements to agency **staff practices**; mostly to be incorporated into the regular development-related activities of agency staff. Some may warrant modification of the 2008 MOA between the state and county. This report refers to two new specific administrative products:
 - An interagency Land Development Workgroup (LDW) to formalize information flow.
 - A New Castle County staff-maintained set of Internal Staff Practices (ISP), meant to guide TIS elements requiring staff judgment.

Chapter 40 - UNIFIED DEVELOPMENT CODE
ARTICLE 11. TRANSPORTATION IMPACT

ARTICLE 11. TRANSPORTATION IMPACT¹

Division 40.11.000. Purpose.

The purpose of this Article is to:

- A. Ensure that development occurs only where there are adequate transportation facilities in place, or programmed for construction;
- B. Ensure that development regulation:
 1. Is based on sound and equitable planning principles that avoid unnecessary congestion of transportation facilities, and
 2. Is coordinated with local, regional and state transportation planning and funding decisions; and
- C. Ensure coordination with the Delaware Department of Transportation ("DeIDOT"), which funds and manages the State's transportation improvements.

(Ord. No. 97-172, § 3(ch. 13, div. 11.000), 12-31-1997; Ord. No. 06-060, § 1(Exh. A), 9-26-2006; Ord. No. 19-005, § 2, 5-28-2019)

Division 40.11.100. Transportation capacity.

Sec. 40.11.105. Applicability.

No major land development or rezoning shall be permitted if the proposed development exceeds the level of service ("LOS") standards set forth in this Article or a Transportation Improvement District ("TID") or a Complete Community Enterprise District ("CCED") transportation master plan.

(Ord. No. 19-005, § 3, 5-28-2019)

Sec. 40.11.110. Transportation capacity calculation.

- A. The transportation capacity for a proposed development shall be based upon the available capacity as determined by a traffic impact study ("TIS").
- B. The applicant shall follow the methodology set forth in this Article to determine the transportation impacts of the site.
- C. The TIS shall involve:
 1. A TIS prepared by the applicant, reviewed by DeIDOT and approved by the County; or
 2. A TIS prepared by DeIDOT on behalf of the applicant; or
 3. A transportation master plan prepared to support a TID or a CCED, as provided in Division 40.11.300.

(Ord. No. 97-172, § 3(ch. 13, § 11.110), 12-31-1997; Ord. No. 19-005, § 3, 5-28-2019)

Sec. 40.11.120. Need for traffic analysis.

- A. Except as exempted elsewhere in this Chapter, an applicant shall submit the following traffic information for all major plans and rezonings.

RECOMMENDATIONS - OVERVIEW

The SAP project focused on:

- Right-sizing developer requirements in Article 11 so that they are distributed more appropriately across private sector applicants, rather than the *last-in* applicant being assigned responsibility to address a concurrency limit that prior *free-rider* applicants did not trigger.
- Implementing planned transportation projects, with a focus on larger projects in the RTP and CTP, but also community-level projects described with varying levels of specificity in NCC2050 WILMAPCO-endorsed plans.

During both the review of the national state-of-the-practice and the stakeholder interviews, good ideas were found that are not included as recommendations, but are documented in:

- **Appendix A** for emerging innovations for adequacy being beta-tested in certain jurisdictions.
- **Appendix B** for suggested changes to local practices affecting planning or land development concerns broader than Article 11 topics.

Appendix A: Other Concepts Considered for Article 11

Accessibility
Bicycle LTS
Boundary between capital and operating investments
Connectivity
Highway Capacity Manual Q/LOS for bike/ped/transit
Innovative intersection assessment
Options for existing conditions data
Pay and go
Residential neighborhood protection
Safety
Screenline/cordon trip thresholds
VMT

Appendix B: Stakeholder Commentary Beyond Article 11 and RTP

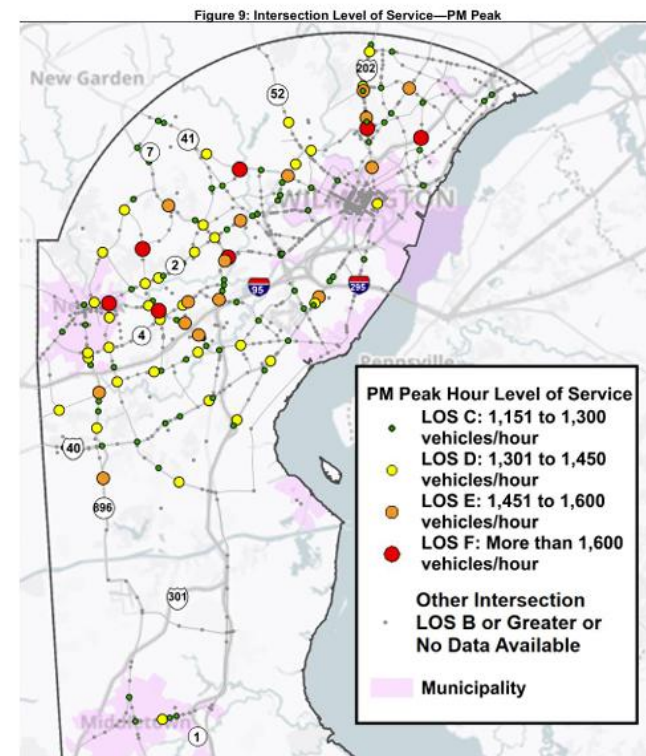
Amend DelDOT sidewalk fee-in-lieu calculations
Interagency communications specificity
Landscaping in ROW
Liability of trails in utility ROW
Truck parking requirements in 40.03

CONCERNS INFORMING ADEQUACY APPROACH

Several related concerns inform the suite of recommendations regarding adequacy:

- For many TIS elements, Article 11 and the DCM either contain duplicative or conflicting guidance.
- The process does not provide a clear approach to fair-share exactions near high-volume congested intersections. In these locations:
 - The lack of practical capacity additions can dissuade applicants from straightforward proposals of desired site plans
 - Some plans end with a LOS waiver, which can be seen by many as a failure
 - Civic support for auto LOS can also be eroded as their observations can lead to either confusion or skepticism.
- The focus on auto LOS creates challenges to implementing multimodal or safety solutions, whereas many constituents express support for those solutions as a constructive mitigation.

2022 WILMAPCO Congestion Management Process Task 1: System-wide Performance Measures



Adequacy	Scoping
	Analysis
	Mitigation
Implementation	
Management	

RECOMMENDATIONS – ADEQUACY THEMES

Proposed amendments to Article 11 follow a strategic approach to address duplication and conflicting policy guidance for transportation impact studies (TIS) at County/State levels:

- Scoping elements, such as the geographic extent of study or data collection procedures, should be managed administratively by agency staffs. While the state defers to the County on many elements of policy, Sections 120 – 130 contain many specifications that conflict with the DCM. Section 230 also contains many outdated administrative details to consider removing entirely.
- Policy elements, such as how the County defines concurrence / adequacy and seeks fair-share participation by the private sector through mitigation, provide opportunities to add to or refine Article 11. These opportunities may amend certain sections (notably Section 210) or result in the creation of new sections TBD.

			Article 11 Section Edits
Adequacy	Scoping	AS1 Remove duplicative TIS scoping requirements from UDC	120-130
		AS2 Forecast person-trip generation to establish trips by mode	
		AS3 Options for background traffic	
	Analysis	AA1 LOS standards	210
		AA2 Analysis parameters	TBD
		AA3 Context-sensitive standards	TBD
		AA4 Urban design	TBD
		AA5 Proximity	TBD
	Mitigation	AM1 Traffic Mitigation Agreements	230
		AM2 Vehicle trip mitigation with non-auto facilities	TBD
		AM3 Phased conditions of approval	210
		AM4 Policy discounts on delay	TBD
		AM5 Future Project Participation (FPP) fair-share	TBD
		AM6 Graduated exemptions	TBD
Implementation		I1 Clarify adopted plan authority	
		I2 Online project info repositories	
		I3 Future Project Participation (FPP) delivery	TBD
		I4 Update Southern New Castle County TID	TBD
Management		M1 Agency staff coordination	
		M2 Formalize update processes	
		M3 Define strategic approach for TID & CCEDs	
		M4 Stakeholder outreach	

Remove conflicting guidance

Add local policy objectives

Adequacy	Scoping
	Analysis
	Mitigation
Implementation	
Management	

RECOMMENDATION AS1: REMOVE DUPLICATIVE SCOPING REQUIREMENTS

The TIS scoping process requires both state and county involvement to define appropriate study parameters. **Article 11** contains many requirements (trip generation study triggers and extent of study area among them) that conflict with the **DCM**.

This report recommends removal of administrative specifications from Article 11, deferring those to the DCM. Appendix C provides a straw-man, track-changes markup of Article 11 or further consideration.

Deferring to the DCM on scoping matters addresses several concerns:

- As previously noted, the areas of conflict are more technically-oriented than policy-oriented; other changes to Article 11 regarding adequacy and mitigation are more appropriately legislative subjects.
- As a regulatory document (not adopted by an elected body) the DCM is far more comprehensive and appropriately subject to more frequent changes that create inconsistencies.

c) To the extent that a TIS is required based on a vehicle per day (“vpd”) or vehicle per hour (“vph”) standard, DelDOT agrees to require a TIS as follows:

i) Any development that will produce more than two thousand (2,000) vehicles per day (“vpd”) or more than two hundred (200) vehicles per hour (“vph”) shall be required to complete a TIS except:

1. The proposal exceeds two thousand (2,000) projected average daily trips (“ADT”).
2. The proposal is projected to generate more than fifty (50) peak hour trips, including trips that are diverted from existing traffic.

C. The proposed site must either: generate a reduced amount of vehicular traffic or generate a net increase in vehicular traffic (less than 500 Average Daily Trips (ADT) or 50 vehicle peak hour [vph]) and must not be required to perform a Traffic Impact Study (TIS) or a Traffic Operational Analysis (TOA). DelDOT may require a TOA for any project that generates a total of 200 or more ADT.

RECOMMENDATION AS2: FORECAST PERSON TRIPS

The Institute of Transportation Engineers’ (ITE) Trip Generation resources include both a manual of trip generation data and a handbook of recommended practices, now in its 11th edition. The database has historically described only vehicle trips in suburban greenfield development locations. The last two editions have started including data on person trips in addition to vehicle trips for selected land use codes.

Over the past several decades, land development activities and policies nationwide have shifted from suburban, auto-oriented, greenfield development toward multimodal infill development in many different community contexts. In these contexts, the number of new trips that might be made by modes like walking, biking, or transit becomes an important part of study context

This report recommends the Internal Staff Practices (ISP) contain information that helps analysts think in terms of person trips even for cases where the quantitative analysis remains vehicle-oriented. This achieves several objectives in the vein of *you manage what you measure* by:

- Helping applicants target appropriate mode share goals by location and trip purpose for considering both on-site and offsite TDM actions
- Providing context to facilitate conversations on values-based equivalencies between vehicle trips and multimodal mitigation.

Figure 13 | Average Vehicle Occupancy (AVO) for Selected Trip Purposes (Nationwide)

Trip Purpose						
To/From Work	Shopping	Other Family / Personal Errands *	Social / Recreation	All Other Purposes **	School	Childcare
1.18 persons/veh	1.82 persons/veh	1.82 persons/veh	2.10 persons/veh	1.67 persons/veh	1.58 persons/veh	1.60 persons/veh
Source: 2017 National Household Travel Survey (Table 16). School and childcare AVOs came from the NHTS AVO by Trip Origin Purpose breakdown spreadsheet. Rates in this table are nationwide averages.						
Notes:						
* "Other Family/Personal Errands" includes trips such as to post office, dry cleaners, or library.						
** "All Other Purposes" includes trips to school, church, doctor, dentist, and work-related business trips.						

Source: District of Columbia DOT

RECOMMENDATION AS3: OPTIONS FOR BACKGROUND TRAFFIC

In a TIS, background traffic describes the extent of traffic growth over time that is not generated by the subject site development. The DCM provides the analyst substantial leeway to assume traffic growth generated by nearby prior development approvals, an overall growth rate based on historic trends, output from a regional travel demand model, or a combination of approaches. Generally, for New Castle County the prior development approval approach is appropriately applied, the ISP can provide staff guidance as to what to consider in this regard.

Sometimes a nearby development site with a prior approval is widely understood to no longer be an active proposal, but the owner/applicant retains vesting in the trips the development would have generated for the purposes of concurrency (and those trips could be applied to a different, future development proposal).

This report recommends that the County consider processes to encourage the sunseting of vested but unlikely development proposals. Options might include the ability for applicants to exchange vested trips between adjacent/nearby parcels or otherwise incentivizing an applicant to advance sunseting surplus capacity through a streamlined and/or discounted application process (i.e., a partial refund of prior application fees).

Either of those ideas, even in their simplest forms, would reflect policy judgments that should be described in an Article 11 amendment. Otherwise, ISP guidance on methodology should suffice to help address this element of DCM scoping flexibility.

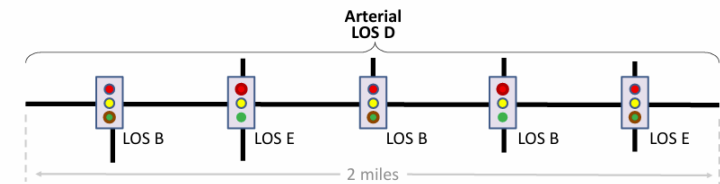
RECOMMENDATION AA1: LEVEL OF SERVICE STANDARDS

Historically, the focus on LOS has been on individual intersections. This report recommends that the County change their LOS standards to consider multiple locations in tandem where congestion exists at any individual intersection. This approach responds to two concerns:

- Evaluating several minutes of travel time across a longer roadway segment is more relatable to constituents than measuring a few seconds of delay at a traffic signal. For instance, the **HCM assessment of Arterial LOS, applied in the 2022 Churchman's Crossing plan update and 2025 TID**, helps communicate a broader perspective of impacts.
- Often intersection performance is affected by adjacent locations, whether positively (intersection A meters flow towards intersection B) or negatively (intersection B has queues that back up into intersection A). Existing patterns can be affected by development site traffic and potential mitigation and operations can be used to help manage flows.

Evaluating Congestion - Arterial LOS

- 40 MPH posted speed
- 2 miles in length
- Three minor intersections @ 15 seconds of delay (LOS B) each
- Two major intersections @ 75 seconds of delay (LOS E) each
- Total travel time = 180 sec (2 mi @ 40mph) + 195 sec (intersection delay) = 6¼ minutes
- Average speed: 2 miles in 6¼ mins = 19 MPH → LOS D



A2. Network Delay

For study intersections where the average intersection vehicle delay is greater than 80 seconds in existing, background, or total future conditions, and the intersection is either:

- On a congested roadway with a travel time index greater than 2.0 as documented by monitoring reports⁴ or
- Within 600 feet of another traffic signal.

A more robust network operations analysis approach should be applied using micro-simulation tools (such as Synchro, SimTraffic, CORSIM and VISSIM). Additional guidance on micro-simulation parameters is available from Planning staff and is provided in the Virginia Department of Transportation (VDOT) [Traffic Analysis Tools Guidebook](#).

Source: Montgomery County, MD

RECOMMENDATION AA1: LEVEL OF SERVICE STANDARDS, cont'd.

Additional considerations should inform a continuing conversation regarding LOS:

- New Castle County last addressed LOS comprehensively in 2017, resulting in amendments to Article 11 under resolution 19-005, most notably refining the establishment of future TIDs.
- Communities nationwide are struggling with this issue. The ITE recommended practice on the topic is in its third edition and updated about once a decade as technologies and civic priorities change. Many communities are experimenting with novel approaches, with particular emphases on traffic safety. Appendix A describes innovative ideas considered but not currently recommended for New Castle County.
- One source of constituent confusion nationwide is that transportation concurrency, as applied to individual land use developments, is not a commitment by either the applicant or the public sector to maintain a similar level of service in perpetuity.

RECOMMENDATION AA2: ANALYSIS OPTIONS

The DCM provides opportunities to apply judgment that should be documented in the ISP. This report recommends that the County develop an ISP document to provide direction to the TIS process where the DCM provides flexibility

The same dynamic applies to the TIS analysis process. Generally, DCM Chapter 2 defaults are appropriate, but analysts and reviewers can benefit from having internal staff practices documented for the sake of consistency.

One idea for the ISP would be to have localized practices tied to DCM chapter 2 references, such as in the excerpt of a possible ISP page shown at right.

Application of the DCM includes consideration of the following elements:

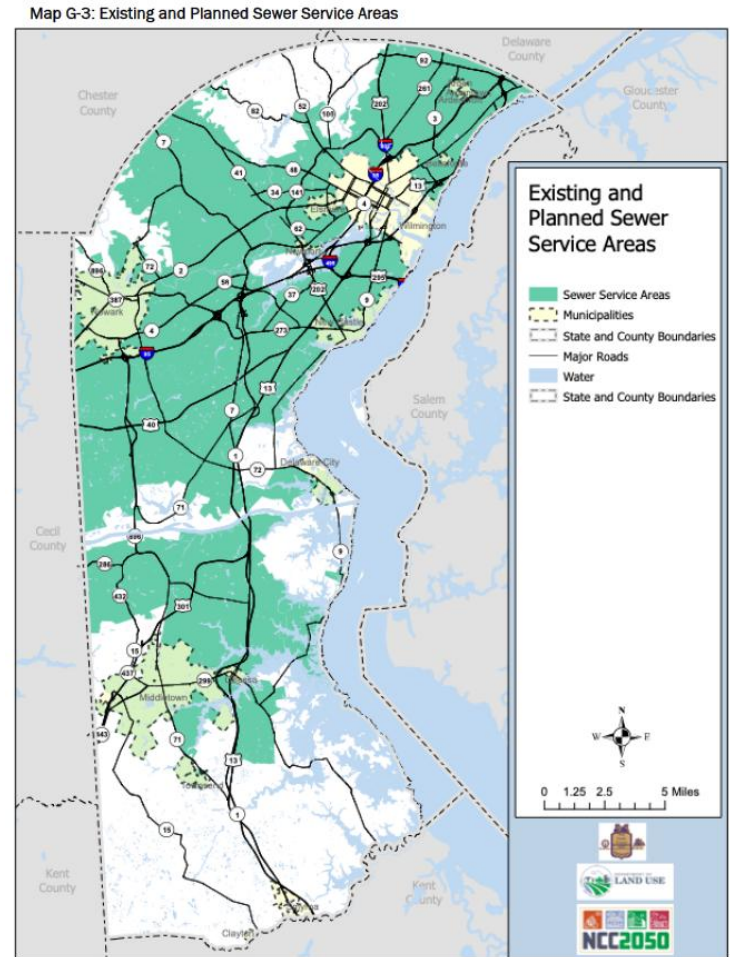
- 2.2.4.2 re: **geographic extent of study**
 - Note that the DCM uses the decreasing volume of site-generated traffic on any segment as traffic gets distributed into smaller flows as the trigger for ending the study area. The County's prior policy focused instead on the percentage of site-generated traffic relative to the background traffic on each link, with adjustments for functional classification (with higher percentages on lower class roads). That prior policy was thoughtful but philosophically (while constituents are concerned about traffic on local roads, it's due to concerns other than concurrency) and computationally challenging. In assessing judgment calls during scoping, consider the information value of LOS on local road segments or local/collector intersections.
- 2.2.2.8 re: **background traffic**
 - Background traffic should generally be based on the evaluation of specific committed developments without any additional growth rate or travel model analysis.
 - The information on committed developments might be supplemented with one of the other two methods either in cases where there are no committed developments in the study area or there is a substantial approved development in an adjacent jurisdiction that needs to be reflected.
- 2.2.8.6 re: **trip generation**; an applicant may seek to mitigate trips through TDM measures that would result in mode shift. A particular area of concern is trip purpose: while an 85% non-auto-driver mode share may be challenging for journey-to-work trips in a suburban environment, it is readily achievable for non-work trips (per the National Household Transportation Survey reflected in the ITE Recommended Practice on Multimodal Transportation Impact Analyses, the typical car occupancy on a daily basis is 1.67 (but many are not adults).
- 2.2.8.11.6 re: **LOS analysis**; where an intersection is sufficiently congested that queuing affects either upstream or downstream conditions, consider using network simulation analysis to consider the analysis of closely-spaced intersections (generally appropriate where signalized intersections are less than 600' apart)

RECOMMENDATION AA3: CONTEXT-SENSITIVE STANDARDS

Concurrency is based on automobile Level of Service (LOS), with LOS D the standard in urban areas, generally defined as places with sewer service as indicated **by the green areas in the map at right from NCC2050**

This idea that roadway capacity should proceed concurrently with land development is fairly well suited for greenfield development in which establishing the infrastructure is paramount. For infill development, defining system adequacy is often more about transportation system evolution and management than it is about constructing basic building blocks.

This approach also resulted in one minor administrative point of conflict between Article 11 and the DCM. In the DCM, LOS D applies to traffic generated by sewerer properties regardless of where the intersection is located. Most jurisdictions with context-sensitive LOS standards apply those standards to the intersection locations themselves (where all customers have similar expectations) regardless of where the application site is located.

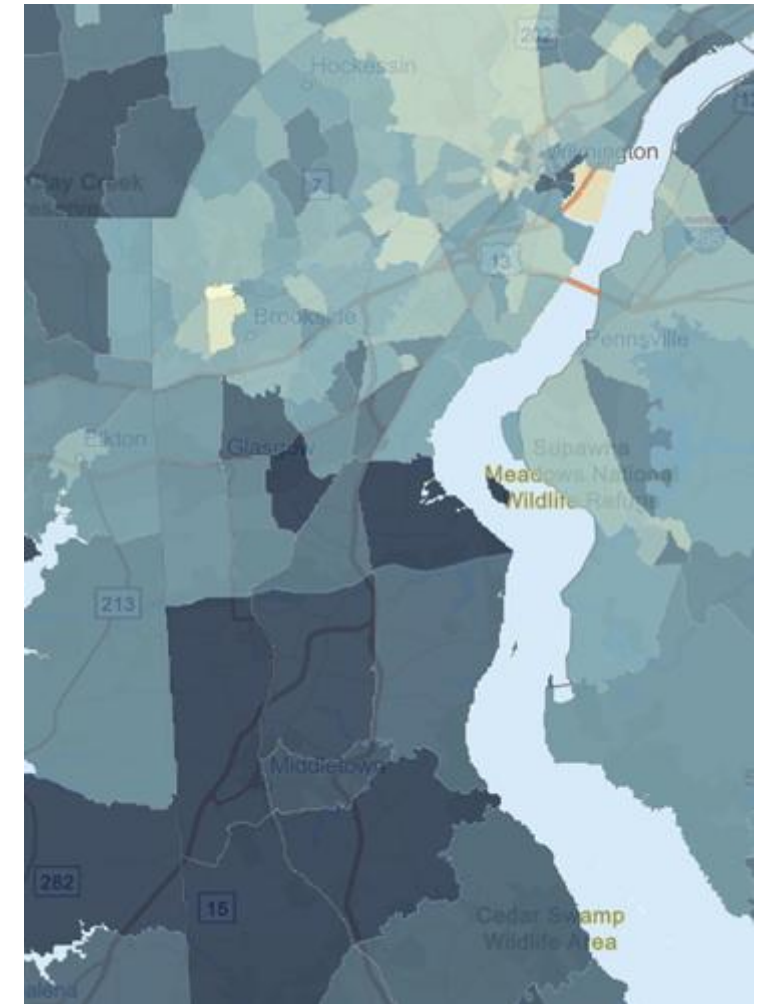


Sewer Service Area Map Developed by the Departments of Land Use and Public Works

RECOMMENDATION AA3: CONTEXT-SENSITIVE STANDARDS, cont'd.

The consideration of appropriate amounts of delay could consider many other factors, each of which are likely to have both proponents and detractors. Possibilities to consider include different LOS thresholds for:

- Alternative geographic boundaries: The C&D Canal had once previously served as a readily understood LOS threshold boundary, less reflective of sewer service as the need for southern county residents to rely on longer commutes, as indicated by darker colors in the map at right showing journey-to-work travel times from the US Census Bureau.
- Roadway functional classification: Some constituents have noted that places like Concord Pike or Kirkwood Highway should feel busy (but not overly crowded) as an indicator of economic success.



RECOMMENDATION AA4: SITE DESIGN COMMITMENTS

TIS approaches to concurrency are implicitly tied to on-site elements including land use type, amount, and site design elements. This report recommends that the County consider a policy that would allow site design commitments to prioritize multimodal access to become an element of mitigating concurrency impacts.

The Austin, TX point-based approach to linking excess parking supply with TDM. **The District of Columbia guidance shown at right focuses on incentivizing site parking reduction** by reducing application submission requirements for applications that substantially reduce on-site parking.

		TRAFFIC IMPACTS TEST			
		No Impacts or No CTR/TIA Required (no intersections degraded to unacceptable levels)	Minor Impacts at One Intersection (signal timing or cycle length adjustments only)	Minor Impacts at Multiple Intersections (signal timing or cycle length adjustments only)	Severe Impacts at One or More Intersections (physical roadway improvements beyond signal timing adjustment)
PARKING SUPPLY TEST (see Figure 10)	At or Below Benchmark	Baseline TDM Plan	Baseline TDM Plan	Enhanced TDM Plan	Enhanced TDM Plan + Direct Mitigation OR Additional TDM OR Monetary Contribution OR Non-Auto Upgrades OR Performance Monitoring TBD
	Up to 15% Over-Parked	Baseline TDM Plan	Enhanced TDM Plan	Enhanced TDM Plan + Additional TDM OR Monetary Contribution OR Non-Auto Upgrades to be negotiated	Enhanced TDM Plan + Direct Mitigation OR Additional TDM OR Monetary Contribution OR Non-Auto Upgrades OR Performance Monitoring TBD
	Up to 25% Over-Parked	Enhanced TDM Plan	Enhanced TDM Plan + Additional TDM OR Monetary Contribution OR Non-Auto Upgrades to be negotiated	Enhanced TDM Plan + Additional TDM OR Monetary Contribution OR Non-Auto Upgrades to be negotiated	Enhanced TDM Plan + Direct Mitigation OR Additional TDM OR Monetary Contribution OR Non-Auto Upgrades OR Performance Monitoring TBD
	Over 25% Over-Parked	Enhanced TDM Plan + Additional TDM OR Monetary Contribution OR Non-Auto Upgrades to be negotiated	Enhanced TDM Plan + Additional TDM OR Monetary Contribution OR Non-Auto Upgrades to be negotiated	Enhanced TDM Plan + Additional TDM OR Monetary Contribution OR Non-Auto Upgrades to be negotiated	Enhanced TDM Plan + Direct Mitigation OR Additional TDM OR Monetary Contribution OR Non-Auto Upgrades OR Performance Monitoring TBD
Notes: 1) This table is intended to be used as a guide for determining mitigation for projects 500,000 GSF or smaller and infill development. There may be situations where it is appropriate to deviate from this guidance or to use it as starting point for projects larger than 500,000 GSF, at the discretion of the Case Manager. 2) "Traffic Impacts" correspond to DDOT's Significant Impact Policy and is defined as a project causing an intersection or travel movement to exceed the vehicle LOS, V/C, or queuing standards (see DEM 38.3.5 and Section 5.1.2 of <i>Guidance for Comprehensive Transportation Review</i>). 3) "Minor impacts" are generally considered to be situations where only a signal timing or cycle length adjustment is necessary to improve LOS back to Background (No Build) conditions. In lieu of making the traffic signal changes in conjunction with the development, per this table, these impacts should be offset with reduced parking supply, a TDM plan of increased strength, non-auto improvements, of a monetary contribution to the Transportation Mitigation Fund. 4) "Severe impacts" are generally considered to be any impact necessitating physical or geometric changes beyond a signal timing or cycle length adjustment, which could include additional turn lanes, through lanes, or intersection reconfiguration. Applicant should work with DDOT on an appropriate mitigation for the specifically identified impact. In lieu of directly mitigating the intersection impact with physical improvements, alternative mitigation options may involve additional TDM commitments, monetary contributions to the Transportation Mitigation Fund, non-auto network upgrades, or performance monitoring.					

Source: District of Columbia DOT

RECOMMENDATION AA5: PROXIMITY

Compact developments in mixed-use neighborhoods result in greater proximity among different uses and therefore shorter trips, particularly for non-work purposes related to other activities of daily life such as trips to neighborhood-serving retail and services.

The LEED Neighborhood Development rating system includes a credit approach for site location in a walkable community with diverse retail/services (or conversely, commits to providing services not yet in the community).

This type of proximity to activities of daily life might be well-paired with incentives for MPDUs (or expanded to other types of affordable housing) as the ability to reach needed goods and services by walking is consistent with policy objective to address affordability.

APPENDIX 1. USE TYPES AND CATEGORIES

Table 1. Use Types and Categories

Category	Use type
Food retail	Supermarket
	Grocery with produce section
Community-serving retail	Convenience store
	Farmers market
	Hardware store
	Pharmacy
	Other retail
Services	Bank
	Family entertainment venue (e.g., theater, sports)
	Gym, health club, exercise studio
	Hair care
	Laundry, dry cleaner
	Restaurant, café, diner (excluding those with only drive-thru service)
Civic and community facilities	Adult or senior care (licensed)
	Child care (licensed)
	Community or recreation center
	Cultural arts facility (museum, performing arts)
	Education facility (e.g., K—12 school, university, adult education center, vocational school, community college)
	Government office that serves public on-site
	Medical clinic or office that treats patients
	Place of worship
	Police or fire station
	Post office
	Public library
	Public park
	Social services center
Community anchor uses (BD&C and ID&C only)	Commercial office (100 or more full-time equivalent jobs)
	Housing (100 or more dwelling units)

Adapted from Criterion Planners, INDEX neighborhood completeness indicator, 2005.

RECOMMENDATION AM1: TRAFFIC MITIGATION AGREEMENTS

Traffic Mitigation Agreements are generally associated with an application that is challenged to pass concurrency without committing to a legal agreement to manage vehicle trip generation to a negotiated level (lower than industry standards would expect) and monitor the performance for a fixed period of time with penalties for non-performance (typically financial and sometimes applied to strengthen TDM programs).

The Traffic Mitigation Agreement process in Article 11, Section 230 has many administrative requirements that are dated. **Conversely, the DCM has one short paragraph on the topic.** This topic requires a deeper dive for both county and state agencies to evaluate what elements should be retained and the appropriate location for those details, considering the thematic approach to limit Article 11 to policy guidance and place administrative elements in the DCM.

2.5.3 Agreements - Traffic Mitigation Agreements (TMAs)

Land use agencies may have adopted specific level of service or adequate facilities requirements. If these requirements cannot be met, the applicant may, through the local land use agency’s process, seek a waiver from such level of service requirements. As a condition of such a waiver, a Traffic Mitigation Agreement between the applicant and DelDOT shall be executed. DelDOT’s participation in such agreements shall not be unreasonably withheld.

WHEREAS, the Applicant and the Delaware Department of Transportation (“DelDOT”) have developed and executed a Traffic Mitigation Agreement (“TMA”) dated September 3, 2019 to implement and monitor the Applicant’s goal to promote use of multi-modal transportation such that no more than eighty-five (85) vehicles per one hundred (100) employees, residents, and patrons arrive or depart from the development during the defined weekday morning and evening peak periods;

RECOMMENDATION AM2: MITIGATE TRIPS WITH NON-AUTO FACILITIES

Some jurisdictions address the concern of addressing auto-oriented analyses with multimodal solutions by developing an equivalency between vehicle trips and the provision of offsite non-auto facilities (as contrasted with reducing vehicle trips by providing on-site commitments described in recommendation AA4).

The equivalencies require a deliberative approach to establish as a matter of policy. The Austin example of a credit-based approach previously described is one means to define equivalencies which works well when mitigation involves some operational commitments such as site-level staffing.

Off-site capital improvements may lend themselves to a more streamlined monetization approach, such as the example from Montgomery County, MD shown below.

The monetized value of the non-auto facilities is \$16,000 per vehicle trip, up to a maximum of 100 vehicle trips. For instance, the provision of a \$160,000 capital project can be used to reduce a site's trip generation by 10 vehicle trips.¹⁶



Opportunities to improve multimodal connections can be hidden in plain sight.

RECOMMENDATION AM3: PHASED CONDITIONS OF APPROVAL

Presently, for all developments requiring TIS, the UDC prohibits development until adequate LOS is achieved for all facilities addressed in the TIS. This hard stop is a significant obstacle because it typically requires a developer to design and build road improvements before receiving any income from their development. It is especially significant because commercial lenders typically will not lend money against the value of a subject property to fund that work. The developer must supply other collateral.

One way to reduce this obstacle is to allow developments to proceed in phases. For example, a residential developer could obtain a certain number of building permits initially but would have to:

- obtain plan approvals from DelDOT for the design of their road improvements for a third of their units,
- have the improvements permitted and under construction for the next third of their units,
- have them complete and accepted by DelDOT before obtaining the remaining units.

Some developments, such as a warehouse or a free-standing retail store, cannot be developed in this way, but most developments large enough to warrant a TIS could be. This phased approach allows a developer to generate income from their development and begin paying off their loans. While many improvements identified in a TIS can be phased, those that are necessary for safe access should not be phased.

This report recommends that the County amend the UDC to allow developments to proceed according to plan notes negotiated by Department of Land Use staff and approved with the record plans, for the phased implementation of road improvements identified through the TIS process.

RECOMMENDATION AM4: POLICY DISCOUNTS ON DELAY

The County should consider relaxing LOS requirements for locations or types of development the County wishes to encourage. **As shown in the table at right, LOS is defined by the Highway Capacity Manual as a letter scale based on numerical measures.** The County could determine that, at the end of the Traffic Impact Study process, certain types of development would get a credit in seconds of delay per vehicle toward meeting the LOS requirement.

For example, suppose the County set a 30 second-of-delay-per-vehicle credit for affordable housing and the TIS for an affordable housing development showed an intersection with a signal and an average of 82 seconds of delay per vehicle (LOS F). The credit would mean the County would treat the intersection as having 52 seconds of delay per vehicle (LOS D) and approve the development without a waiver.

Such credits would reduce or remove barriers for developments almost meeting the County standard, but would not address severely congested intersections, where average delays can be hundreds of seconds per vehicle.

Intersection LOS Measures		
(seconds of delay/vehicle)		
LOS	Signal	No Signal
A	≤ 10	≤ 10
B	>10 - 20	>10 - 15
C	>20 - 35	>15 - 25
D	>35 - 55	>25 - 35
E	>55 - 80	>35 - 50
F	> 80	> 50

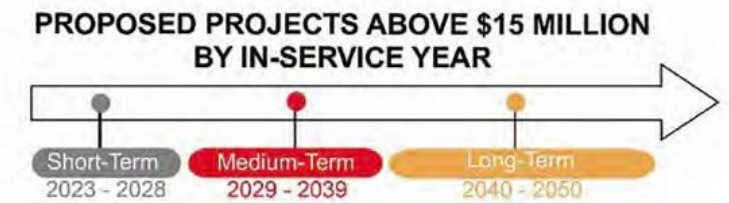
RECOMMENDATION AM5: FUTURE PROJECT PARTICIPATION FAIR SHARE

This element begins with acknowledging that there are locations where the improvements needed to meet LOS standards or to meaningfully approach meeting those standards would pose a disproportionate burden on any one developer if they were required to fund the entire improvement and then identifying those locations in the County. Briefly, a DelDOT project will be needed to make the needed improvements.

Having identified those locations, there are three options by which the County could exempt developers from having to meet the UDC LOS standards at these locations:

- Payment of a fee, based either on a conceptual proposal for a future DelDOT project or on an areawide precedent (much like a TID fee payment).
- Provision of alternative improvements either of a monetary value equivalent to the payment just discussed or as determined on a policy basis in a yet-to-be-created UDC section or ISP document.
- No developer participation

This report recommends the first option above, requirement of a payment. Recommendation I3 explores two ways in which this option could be implemented.



RECOMMENDATION AM6: GRADUATED EXEMPTIONS

As described elsewhere in this report, physical mitigation tends to be *lumpy*. An applicant who provides some infrastructure capacity to satisfy the concurrency needs of their own land development project will almost certainly create excess capacity (for which another applicant might later become a *free-rider*).

One manner to address the equitability of the lumpiness of infrastructure is to provide some recognition that if mitigation is needed at multiple sites, provision of excess capacity at one location might philosophically be paired with the exemption of the need to provide capacity at a second location where the impacts of site-generated traffic are not as severe.

The level of acceptable *lumpiness* needs to be defined for both the measurement of excess capacity at one location as well as the level of inadequacy at other locations. For example, a *de minimis* impact could be established whereby a build-without-mitigation exceeds the auto LOS standard by 2 seconds per vehicle and the applicant provides mitigation that saves 4 seconds per vehicle, then some of the excess capacity could be used to exempt improvements at a second location with substantially lower impacts.

CONCERNS AND THEMES INFORMING IMPLEMENTATION APPROACH

Several related concerns inform the suite of recommendations regarding implementation:

- The private sector has a challenge with partial participation in major transportation investment projects (other than through a TID) under current funding processes:
 - Projects sufficiently in the queue to confirm scope relevance may not be able to accept additional funding
 - Projects not yet ready for the CTP may be too undefined and long-range to accept funding
- Reviewers from all agencies would benefit from more seamless resources to understand how candidate development projects might find candidate transportation projects to help implement as part of the mitigation process.
- The traveling public would benefit from more communications regarding the topics in this report, particularly regarding LOS.



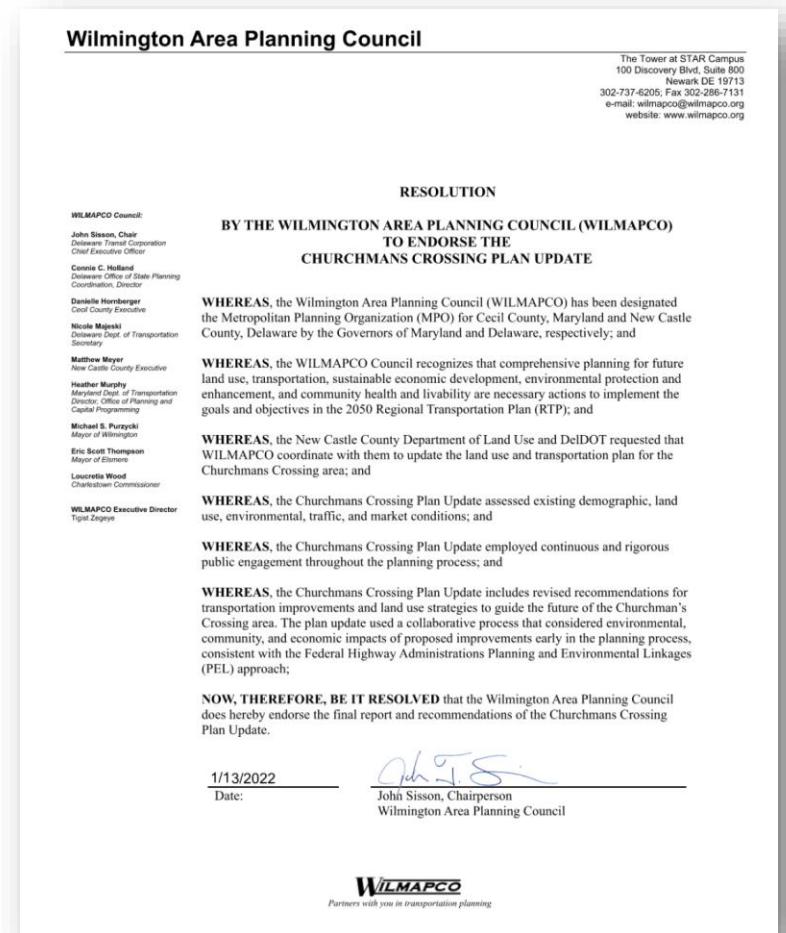
Adequacy	Scoping
	Analysis
	Mitigation
Implementation	
Management	

RECOMMENDATION I1: CLARIFY ADOPTED PLAN AUTHORITY

The Partner agencies maintain an integrated and collaborative approach to land use and transportation coordination. The state generally takes the lead role in transportation, with the county leading land use decisions and the region conducting planning and prioritization that considers both independent municipalities and adjacent jurisdictions. The County Council's adoption of the NCC2050 Plan brought the WILMAPCO-endorsed land use and transportation plans for Claymont and Route 9 under one source.

The Comprehensive Plan is intended to have a ten-year lifespan and is scheduled for a five-year update in 2027. Elements such as the Churchman's Crossing Transportation Improvement District (TID establishment expected in 2025) need to be incorporated into the Comprehensive Plan and new Community Development Areas in the Kirkwood Highway corridor area need to be added to the Future Land Use map.

The plan amendment processes will need to be clearly documented so that plan reviewers and implementers understand which elements of each document remain in effect and which have been amended by another plan. In particular, the legal standing of recommendations between WILMAPCO endorsement and County Council adoption should be clarified.

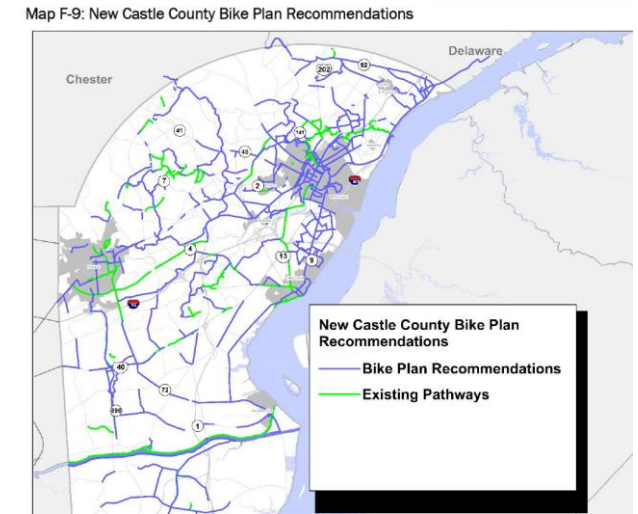


RECOMMENDATION I1: CLARIFY ADOPTED PLAN AUTHORITY, cont'd.

A proposed bicycle path provides an illustrative example of the concern this recommendation seeks to address. Map F-9 in NCC2050 includes a new shared-use path following the powerline easement parallel to and directly north of I-95 between Newark and Churchman's Crossing. The term *bike plan recommendation* refers to the WILMAPCO-endorsed 2020 New Castle County Bicycle Plan. Yet neither plan appears to name or describe the alignment.

Agency staff might benefit from guidance in the ISP regarding resources to review for planned transportation improvements along with guidance for plan priorities, perhaps:

- Plans adopted by the County Council with clear and unambiguous legal authority (NCC2050 unambiguous elements, RTP, CTP) take priority
- Plans with less clear authority where recommendations may require staff interpretation (generally in order of authority where conflicts exist – and national experience suggests such conflicts can be reduced but not eliminated)
 - Those NCC2050 elements requiring reader interpretation of graphics/prose, including appendices
 - Plans by others not explicitly incorporated in NCC2050 (e.g., Small Area Plans, municipality plans, TID initiatives)
 - Improvements underway below the radar of the CTP

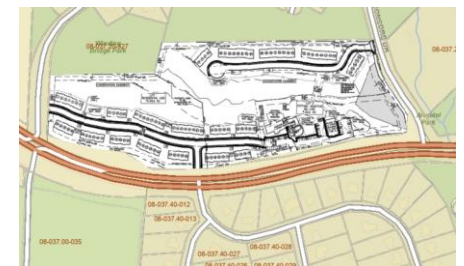
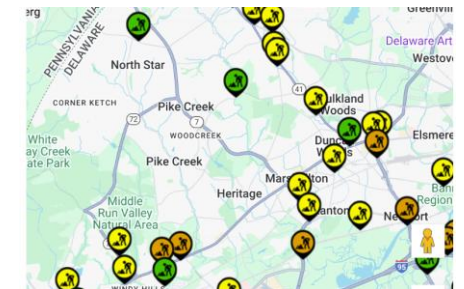
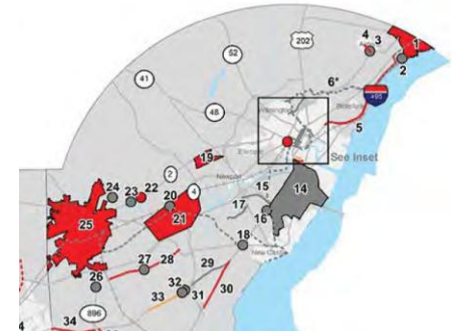


RECOMMENDATION I2: ONLINE PROJECT INFO REPOSITORIES

The Partner agencies each have robust GIS resources for a variety of transportation and land use projects as each type of project moves from long-range concept to detailed implementation plan. Each agency curates online resources to provide basic geographic insight on project locations. Challenges exist in linking the silos across:

- *Functions*, so that the land use and transportation databases become more integrated to identify opportunities for synergy.
- *Implementation*, so that those synergies are timely; both land use and transportation projects are at appropriate stages of design and approval.
- *Scale*, so that additional planimetric and process detail are made available as approvals proceed.

This recommendation also relates to recommendation I1, although this recommendation's objective is broader: to help applicants and reviewers match land use impacts and transportation mitigation while leveraging prior planning efforts at any level of formality. After a potential match is found, then the level of approval authority becomes important for both defining public/private implementation roles and managing community expectations.

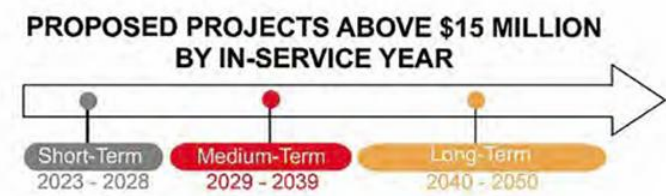


RECOMMENDATION I3: FUTURE PROJECT PARTICIPATION DELIVERY

This report recommends two elements that relate to recommendation AM5: developer payments and developer loans. Directly related to recommendation AM5, the idea of developer payments is that the County should create a means by which payments in support of DeIDOT Capital Projects could satisfy the LOS requirements in the UDC.

This approach would entail a revision to the MOA between NCC and DeIDOT so that, at County request, DeIDOT could create a project (set up an account) for the development of a capital improvement (road, bridge, or otherwise) and include that project in the next cycle of the DeIDOT Capital Transportation Program. It would also entail a revision to the UDC to establish a fee formula whereby the County may require a developer to contribute to a relevant DeIDOT project, including but not limited to those projects established through the MOA. An appropriate place to make this revision is UDC Section 40.11.230, but other options are possible if further County and DeIDOT coordination results in separating this new process from the existing LOS Waiver process.

Regarding the fee formula, DeIDOT could adopt their existing formula as used in other local jurisdictions. It could be adopted as written or modified as found appropriate.



RECOMMENDATION I3: FUTURE PROJECT PARTICIPATION DELIVERY, cont'd.

Also potentially related to recommendation AM5, the idea of developer loans is that the County should create a means by which a developer's loan to DelDOT to advance a DelDOT Capital Project can satisfy the LOS requirements in the UDC. Sometimes projects in the RTP but not yet in the CTP, or in Years 5 and 6 of the CTP would mitigate a development's traffic. This change would allow developers to help get those projects built sooner.

This recommendation would entail a revision to the MOA between NCC and DelDOT so that, at County request, DelDOT could create a project (set up an account) for the development of a capital improvement (road, bridge, or otherwise) and include that project in the next cycle of the DelDOT Capital Transportation Program. It may also require a revision to DelDOT regulations to provide that DelDOT may enter an agreement with a private party to accept a loan for all or part of the cost of a project listed in the unfunded portion of the CTP and then reimburse that private party when construction funding is allocated for that project.

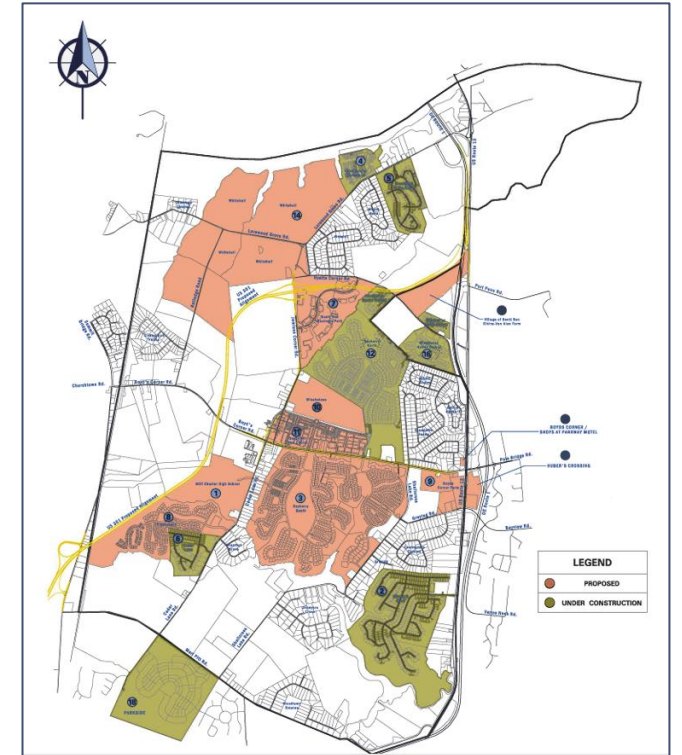
Whether a UDC amendment is needed depends on what the County is willing to accept. If the County continues to require completion of the capital project, only the MOA and, perhaps DelDOT regulations, would need to change. If the County is willing to accept the fact of the loan having been made, or some other measure of progress, as a basis for approval then a UDC amendment would be needed to recognize that. The obvious place to make such an amendment is UDC Section 40.11.230, but other options are possible.

RECOMMENDATION I4: UPDATE SOUTHERN NEW CASTLE COUNTY TID

While the development community has expressed interest in and support for TIDs and some Councilpersons in the northern part of the County agree that TIDs can be helpful, the Councilpersons representing the southern part of the County expressed concern with the Southern New Castle County (SNCC) TID and the management of it. Addressing that concern is important in that a significant number of County and State residents live there and a growing number work there. (Secondarily, it will be important to building support for the creation of additional TIDs elsewhere in the County.)

The WILMAPCO FY 2026 UPWP includes an update to the SNCC Land Use and Transportation Plan through which the TID update process can begin.

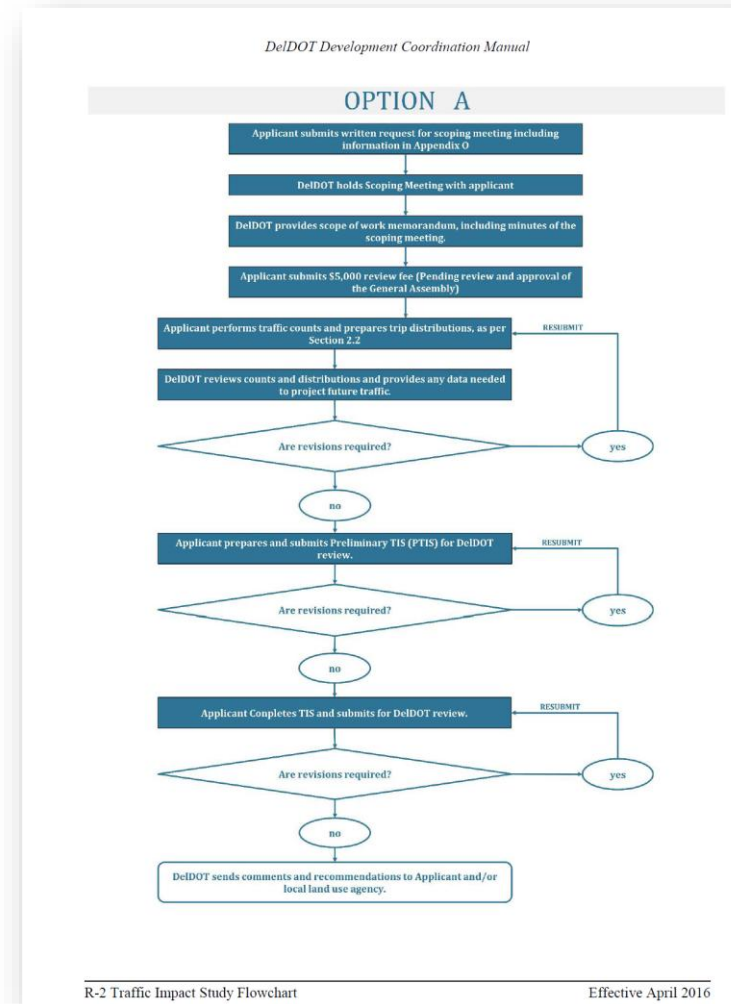
While the SNCC TID appears to be compliant with DCM Section 2.2.2.4, the TID pre-dates DCM Section 2.4 and current Article 11 of the UDC, and its creation did not follow the process outlined therein. Re-creating the TID per the current process would help to address public and Council concerns and possibly change the improvements contemplated.



CONCERNS AND THEMES INFORMING MANAGEMENT APPROACH

Several concerns heard in the Stakeholder Interviews related more to the management of the land development and transportation process than to what that process is or should be. Areas of concern included:

- **Education:** As County and DeIDOT staff turnover and processes and regulations change, there is a constant need to educate new employees, appointed and elected officials and the interested public about current processes and regulations.
- **Communication:** Always, but particularly where education is lacking, communication within and between agencies is important.
- **Outreach:** Because changes to UDC Article 11 and the DeIDOT DCM are important to both economic development and the broader quality of life in New Castle County, the public involvement appropriate to changing these documents may be greater than the minimum efforts that State and County laws require.



Adequacy	Scoping
	Analysis
Implementation	Mitigation
	Management

RECOMMENDATION M1: AGENCY STAFF COORDINATION

This report includes three recommendations that relate to coordination between agency staff, eliminating DeIDOT review of some plans, and providing DeIDOT experts for County meetings.

- 1. Establish an interagency Land Development Workgroup.** The recommendations in this report will benefit from close and continued attention by state and local agency staff involved in TIS reviews. The working group could comprise other county/municipal members as some recommendations have wide transferability. The workgroup could also facilitate cross-training as new administrations settle in to their positions.
- 2. Reduce DeIDOT Reviews:** Presently, some types of plan, and plan modifications necessitating re-recording, are being sent to DeIDOT unnecessarily. For example, most lot-line adjustments or plans reallocating space within a shopping center or office do not affect streets or highways and should not require a review and response from DeIDOT. While a plan sent unnecessarily can often be identified and addressed through informal coordination between agency staff, that approach requires additional time that could be better spent elsewhere.
- 3. Increased DeIDOT Meeting Support.** Conversely, DeIDOT could provide value-added support with subject matter experts able to attend Council, Committee and Board meetings on relevant agenda topics with a reasonable amount of advance notice from NCCDLU staff.

These elements could be incorporated in a revised MOA between DeIDOT and the County.

RECOMMENDATION M2: FORMALIZE UPDATE PROCESSES

The state of the practice in transportation impact analyses evolves regularly. Both state and county practices need to be updated and synchronized from time to time. The study team understands that a proposed set of revisions to DCM Chapter 2 (part of Delaware's Administrative Code, Title 2, Section 2309) is currently under consideration within DelDOT staff but not yet available for use in the SAP.

Appendix C summarizes areas of overlap between Article 11 and Chapter 2 of the DCM (dated April 2016). Recommendation AS1 would remove duplicating and conflicting scoping elements from Article 11, under the rationale that scoping elements are more administrative in nature than policies guiding the analysis and mitigation elements of a TIS. Understanding potential changes to DCM Chapter 2 is the next step needed to advance the comparison and ensure alignment between the UDC and the DCM.

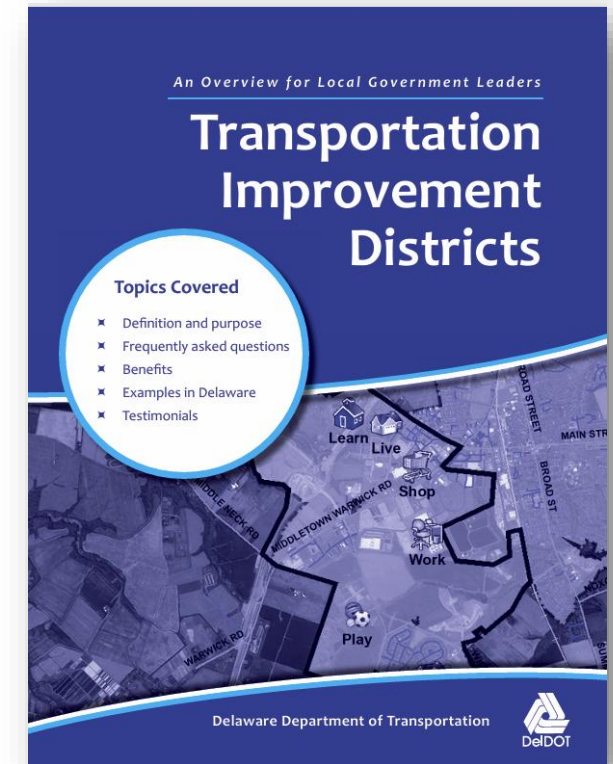
This report recommends that the County and DelDOT consider including a revision to their MOA to conduct regular coordinated reviews and updates of the DCM Chapter 2 and UDC Article 11 and to a public outreach process for revisions to the DCM. A coordinated review on regular cycles (perhaps one iteration every three to five years) could be led by DelDOT in coordination with all three counties to improve stakeholder expectations for opportunities to propose amendments.

RECOMMENDATION M3: STRATEGIC APPROACH FOR TIDs AND CCEDs

Transportation Improvement Districts (TID) are an available tool to address many of the stakeholder concerns described in this report. Similarly, the county has adopted a Complete Community Enterprise District (CCED) that provides a similarly holistic approach to concurrency, but for a smaller, more targeted geographic area.

TIDs have a fairly established record in Delaware and similar pro-rata share districts are common elsewhere. National experience suggests they are most effective when the following elements are present:

- Substantial economic development pressures spanning multiple properties.
- Regional capital transportation improvement needs that would also support local concurrency.
- A manageable size (up to several hundred acres, generally nodal rather than linear, within a single jurisdiction) with sufficient density and diversity to warrant multimodal solutions.
- A sense of place or community, with champions for the TID process within both the development and civic communities.



RECOMMENDATION M3: STRATEGIC APPROACH FOR TIDs AND CCEDs, cont'd.

As the Partners consider the next generation of more detailed community area master plans, the applicability of TIDs and CCEDs should be considered concurrently. That consideration could potentially help identify and prioritize candidate community area plan locations and boundaries. Advance awareness of elements that increase TID or CCED success (beyond just the codified minimum qualifying criteria) could help guide plan development.

No CCED has yet been designated in the county. The CCED process appears incomplete:

- Section 320 of Article 11 requires that a “master development plan” be adopted by the County Council after which TIS do not apply. The final step in Article 11 is for DelDOT to conduct a transportation planning study, but without closure on whether/how that study would address concurrency or which entities (including private sector applicants) would be asked to participate in implementation.
- CCEDs should be added to the DCM in a manner similar to the section that describes TIDs (Section 2.2.2.4).

1. The County shall adopt a master development plan for the CCED. When the County adopts a CCED with all of the elements provided in Subsection C.2 below, the traffic study requirements established in Sections 40.11.110, 40.11.120 and 40.11.121 do not apply.

2. The master development plan shall include the following elements:

a. Mass transit routes;

b. A mix of parcels of land zoned for residential, commercial, light industrial, or institutional uses;

c. A guide for the specific design of the physical form, public spaces, and amenities of the District so that transit, walking, and cycling are safe and comfortable modes of travel for all the residents of the District;

d. Level of service requirements specific to the District and

3. The master development plan shall be adopted as part of the Comprehensive Plan.

4. Once a master development plan has been created, DelDOT will conduct a transportation planning study pursuant to 2 *Del. C.* § 2103.

Ord. No. 19-005, § 5, 5-28-2019)

RECOMMENDATION M4: STAKEHOLDER OUTREACH

From the stakeholder interviews, both Council and many of their constituents have concerns around transportation that Article 11 does not currently address. At the same time, they have at best a conceptual idea of what Article 11 does.

This report recommends the County have the Transportation Planner regularly attend Council, Planning Board and Land Use Committee meetings to hear concerns and answer questions and be available, on request, to attend other public meetings with Council members in their districts to hear and respond to constituent concerns.

Topics on which the County Transportation Planner should begin educating Council, Planning Board and executive branch personnel include:

- the nature of LOS
- possible alternative measures of adequacy (alternatives to LOS)
- the LOS waiver process and possible improvements thereto
- DeIDOT and County regulations regarding Transportation Improvement Districts

STUDY PROCESS

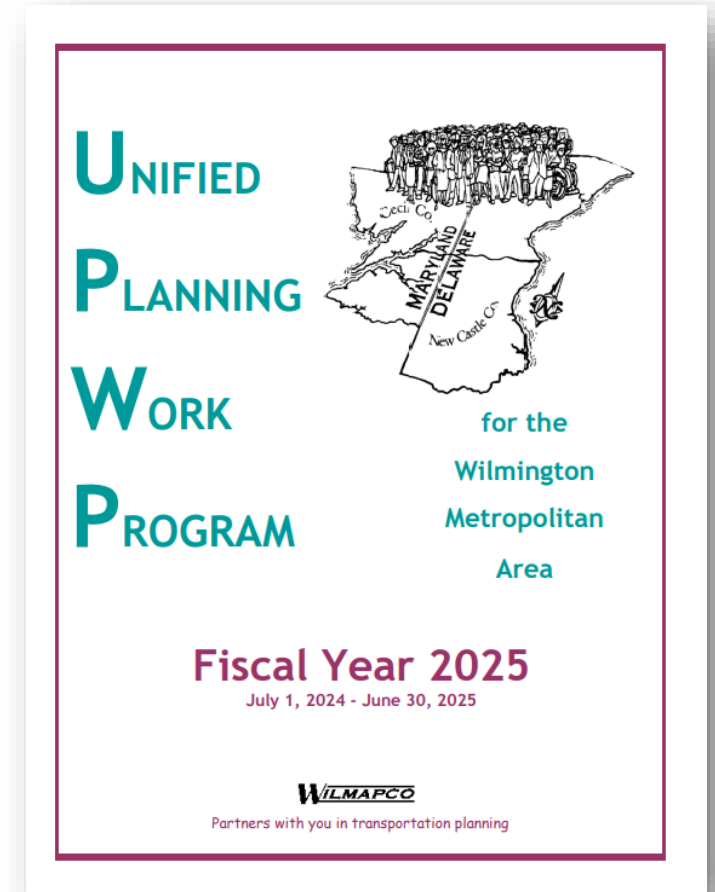
This section of the report provides background on the process used to develop the recommendations in the SAP:

- Study rationale / sourcing
- Coordination / outreach
- Interview summary
- Next Steps / Partner agency meetings / schedule

STUDY PROCESS – RATIONALE/SOURCING

The Wilmington Area Planning Council's (WILMAPCO) Unified Planning Work Program (UPWP) for Fiscal Year 2025 includes a task to develop a Strategic Action Plan (SAP) that will provide guidance for New Castle County, WILMAPCO, and DelDOT in implementing the New Castle County Comprehensive Plan (NCCCP) and the Regional Transportation Plan (RTP) based on best practices across the country. The SAP was developed to explore innovative initiatives to achieve the aspirations of those two plans.

Rummel, Klepper and Kahl, LLP (RK&K), with assistance from Renaissance Planning Group (Renaissance), were selected as consultants to assist with this task and this report is the result of that effort.



STUDY PROCESS – COORDINATION AND OUTREACH

- Throughout the study, RK&K and Renaissance staff met monthly with WILMAPCO, NCC Department of Land Use and DeIDOT Division of Planning representatives to review progress and coordinate on next steps.
- The RK&K study team conducted a scan of national literature to review best and emerging practices for assessing concurrency with a focus on plan implementation.
- RK&K staff undertook a series of structured stakeholder interviews.
 - They invited all 13 members of County Council, 6 developers, and 6 engineers and 4 lawyers who routinely represent developers to be interviewed.
 - They asked 13 questions, 3 asked of all participants, 4 specific to Councilpersons, 1 specific to developers, 5 specific to non-Councilpersons



STUDY PROCESS - STAKEHOLDER INTERVIEWS SUMMARY

Who participated? 5 Councilpersons, 3 developers, 4 engineers and all 4 lawyers. The participating Councilpersons were all from outer suburban districts, places where growth and traffic are significant issues.

The participating developers each have a long history of developing in New Castle County and between them represent a good variety of development projects, but they are a small sample of their community. The same observations could be made about the participating engineers and lawyers. However, in aggregate, the 4 lawyers and their firms probably handle a large percentage of the County's major land development applications.

STUDY PROCESS - STAKEHOLDER INTERVIEWS SUMMARY, cont'd.

Key messages heard included:

- **Level of Service (LOS)** does not seem to address residents' traffic concerns; Council does not seem to understand it; most of the professionals who do understand it don't like it. On the other hand, most of the participants see it as important to people who want to use it to block developments.
- **LOS Waivers** - There is widespread agreement that the current process is not good but there is some variation on what is wrong with it.
- **Alternative modes** – Most people are more concerned about bicycle and pedestrian safety than about making these modes competitive.
- **Financing of DelDOT Capital Projects** - Council does not want to touch it but developers, who are already burdened with the cost of improvements are open to anything that might help them.
- **Locations that developers avoid** - Engineers are reporting LOS issues on all the numbered US and State routes.
- **Regulations to fix** – The two big things are the Traffic Impact Study (TIS) warrants and agreement on the facilities to be evaluated in TIS.
- **Staffing Issues** - Both County and DelDOT staff were found to need additional capacity in terms of both manpower and analytic skills.
- **Communication/Education** - Everyone interviewed sees a need for the County and DelDOT to do better with the public, Council and each other.

STUDY PROCESS – NEXT STEPS

The next steps are for WILMAPCO to endorse this report and for the County and DeIDOT to begin implementing the ideas contemplated herein.



LIST OF APPENDICES

APPENDIX A – ADEQUACY PARKING LOT

APPENDIX B – IMPLEMENTATION PARKING LOT

APPENDIX C – ARTICLE 11 DUPLICATIVE ELEMENTS

APPENDIX D – ANNOTATED LIST OF ACRONYMS

APPENDIX E – SELECTED BIBLIOGRAPHY



APPENDIX A – ADEQUACY PARKING LOT

This Appendix describes emerging innovations not included among the recommended actions.

APPENDIX A – ADEQUACY PARKING LOT

This parking lot list of innovative but unproven approaches are not currently recommended for New Castle County. Some will evolve in practical directions over time.

Concept	Conceptual Example	Intended Benefit	Caution
Accessibility	Consider value of adding intermediate destination opportunities in conjunction with increased congestion	Streamlines approval in centralized, mixed-use environments	No accepted standards, mitigation "lumpy"
Bicycle LTS	Apply a Level of Traffic Stress evaluation	More relatable than HCM	No accepted standards, mitigation "lumpy"
Boundary between capital and operating investments	Allow applicants to mitigate by funding operations such as shuttles/bikeshare	Reflects national shift from system expansion to system preservation	Slippery slope (i.e., the "assume we can shave 0.1 seconds from amber time" temptation)
Connectivity	Define link/node ratios, block sizes, etc.	Improves walkability	Hard to prevent "gaming" the system
Highway Capacity Manual Q/LOS	Apply Ped / Bike / Transit chapters	Promotes a multimodal approach	Hard to "move the needle"
Innovative intersection assessment	Require consideration of roundabouts; other alternative designs for any impacted location	Promotes safety considerations	Can be viewed as busywork
Options for existing conditions data	Consider means to formalize synthesis of multiple data sources for existing conditions	Addresses critique of one-day sampling	Can be viewed as busywork
Pay and go	Applicant fee based on mitigation cost estimates	Streamlining exactions	Challenging to manage while maintaining public trust
Residential neighborhood protection	Apply stricter thresholds for lower-functional class (i.e., minor collectors) serving residential areas	Addresses common community concerns	No accepted standards, mitigation "lumpy"
Safety	Establish nexus for mitigation based on safety data	Leverages Vision Zero environment	No accepted standards, mitigation "lumpy"
Screenline/cordon trip thresholds	Similar to Arterial LOS but perpendicular to travel rather than parallel along the arterial	Simple / transparent	Most applicable to urban areas with multiple parallel modes/routes
VMT	Adopt California-style approach to reward low-VMT locations	Streamlines approval in centralized, mixed-use environments	California "standards" complex, debatable; mitigation generally TDM

APPENDIX A – ADEQUACY PARKING LOT

Common cautions with these emerging concepts in the Adequacy Parking Lot List include:

- **No accepted standards** - the auto LOS paradigm, now frequently found lacking by many constituents, began as essentially a values-based, credit-type approach to consider how much congestion was felt to be too much by volunteer test subjects. For performance measures such as accessibility, connectivity, or VMT reduction, more is always better, but defining how much is enough requires ad-hoc policymaking.
- **Mitigation is lumpy** – a *last-in* applicant who implements a capacity improvement almost certainly provides more capacity than needed. The same concern applies to emerging metrics that appear conceptually elegant but are difficult to operationalize. For instance, bicycle LTS is an excellent planning tool, but it’s easy to set standards or values that are not practical to mitigate.
- **Hard to move the needle** – the Highway Capacity Manual has dozens of multimodal LOS tools and metrics. Yet those methods are generally not sensitive to elements in control of applicants (i.e. bicycle LOS depends more on traffic speed than facility width) and details such as “proportion of sidewalk adjacent to window, building, or fence” would be essentially busywork if applied to the development review arena.

Highway Capacity Manual: A Guide for Multimodal Mobility Analysis

Exhibit 18-16

Required Input Data, Potential Data Sources, and Default Values for Pedestrian Analysis

Required Data and Units	Potential Data Source(s)	Suggested Default Value
Traffic Characteristics		
Midsegment motorized vehicle flow rate* (veh/h)	Field data, past counts, forecasts	Must be provided
Midsegment pedestrian flow rate (p/h)	Field data, past counts	Must be provided
Proportion of on-street parking occupied (decimal)	Field data	0.50 (if parking lane present)
Geometric Design		
Downstream intersection width* (ft)	Field data, aerial photo	Must be provided
Segment length* (ft)	Field data, aerial photo	Must be provided
Number of midsegment through lanes*	Field data, aerial photo	Must be provided
Outside through lane width (ft)	Field data, aerial photo	12 ft
Bicycle lane width (ft)	Field data, aerial photo	5.0 ft (if provided)
Paved outside shoulder width (ft)	Field data, aerial photo	Must be provided
Striped parking lane width (ft)	Field data, aerial photo	8.0 ft (if provided)
Curb presence (yes or no)	Field data, aerial photo	Must be provided
Sidewalk presence (yes or no)	Field data, aerial photo	Must be provided
Total walkway width (ft)	Field data, aerial photo	9.0 ft (business/office uses) 11.0 ft (residential/industrial uses)
Effective width of fixed objects (ft)	Field data	2.0 ft inside, 2.0 ft outside (business/office uses) 0.0 ft inside, 0.0 ft outside (residential/industrial uses)
Buffer width (ft)	Field data, aerial photo	0.0 ft (business/office uses) 6.0 ft (residential/industrial uses)
Spacing of objects in buffer (ft)	Field data, aerial photo	Must be provided
Other Data		
Distance to nearest signal-controlled crossing (ft)	Field data, aerial photo	One-third the distance between signal-controlled crossings that bracket the segment
Legality of midsegment pedestrian crossing (legal or illegal)	Field data, local traffic laws	Must be provided
Proportion of sidewalk adjacent to window, building, or fence (decimal)	Field data	0.0 (non-CBD area) 0.5 building, 0.5 window (CBD)
Performance Measures		
Motorized vehicle midsegment running speed* (mi/h)	HCM method output	Must be provided
Pedestrian delay at boundary intersection (s/p)	HCM method output	Must be provided
Pedestrian delay at midsegment signalized crosswalk (s/p)	HCM method output	20 s/p (if present)
Pedestrian delay at uncontrolled crossing (s/p)	HCM method output	Must be provided
Pedestrian LOS score for intersection (decimal)	HCM method output	Must be provided

Notes: CBD = central business district; p = person.
* Also used or calculated by the motorized vehicle methodology.

APPENDIX A – ADEQUACY PARKING LOT

Two elements on the Adequacy Parking Lot list warrant additional explanation as they are currently hot topics on the national stage, but subject to the cautions previously described:

Vehicle Miles of Travel metrics seek reward both smart location sites where traditional auto LOS may be poor but desirable outcomes like shorter trip lengths, use of multiple modes, and implementation of non-auto facilities and TDM programs are desired. The California Office of Planning and Policy (OPP) took a leadership role in the 2010s by removing auto LOS as a required measure of environmental quality. This meant that local jurisdictions no longer needed to study LOS to satisfy the state’s environmental regulations, and could no longer blame the state for requiring auto LOS. The OPP recommends using VMT to consider the environmental impacts of auto travel.

Traffic Safety is a global concern, with many US jurisdictions adopting Vision Zero policies seeking to eliminate traffic fatalities and serious injuries. This type of focus on crash reduction has helped facilitate the evaluation of roadway design. For instance, replacing a lower-volume traffic signal with a roundabout may result in some additional low-speed fender-benders but eliminates the high-speed, red-light-running T-bone fatality. However, assessing land development applicants some responsibility for off-site traffic safety performance is tricky: the traffic generated by new development generally does not make off-site conditions any less safe. Yet, just as each individual vehicle generated may add nanoseconds of delay to the network, it can be argued to have an equivalent effect on overall safety (i.e., an additional 1/100,000,000th of a vehicle crash).

In summary, both VMT and traffic safety are integral to systems planning, but not considered ready for land development exaction.



APPENDIX B – IMPLEMENTATION PARKING LOT

Several concepts were suggested during the stakeholder outreach process that reflect practical concerns but were not considered integral to the study scope on Article 11 or transportation project implementation through site development. These included concerns in the following areas:

- DelDOT Comment Letters
- Off-Road Trail Liability Issues
- Pedestrian Facility Funding
- Sidewalk Requirements for Industrial/Office/Institutional Uses
- Sidewalk Widths
- Truck Parking Requirements
- UDC Landscaping Requirements

DELDOT COMMENT LETTERS

Presently, most of DelDOT's comment letters do not cite the legal basis, such as the section of the DCM or the Delaware Code, on which they are made. DelDOT could start adding those citations. DelDOT's comments through the PLUS process are an exception and may be useful as a model for other DelDOT review processes.

NCC comment letters, in contrast to DelDOT's, typically cite applicable County code sections. In responding to and discussing comments, these points of reference help to keep all parties on the same page and to identify requests versus code requirements.

This concern was specifically raised by one of the lawyers interviewed but could have come from any of the developers, their lawyers or their engineers. If the County finds that this change would also be helpful to them, the requirement for citations could be added to the MOA, but presently this is just a matter for DelDOT to address.

Two initial steps are suggested for DelDOT. First, the DCM could be reviewed, and amended as needed, to make sure that all applicable standard documents, such as those from AASHTO, FHWA, ITE and internal DelDOT sections can be cited as requirements. Second, one or more reference documents, containing frequently used comments could be developed for use by DelDOT staff and consultants.

OFF-ROAD TRAIL LIABILITY ISSUES

An issue in the development of at least one public off-road trail in New Castle County is the refusal of an electric utility company to allow the use of their right-of-way. This issue was reported by a Councilperson who understood that the company's concern was about liability.

DeIDOT could discuss with utility (primarily electric) companies their concerns about the construction of public off-road trails in utility rights-of-way. To the extent that their concerns are about liability, this report suggests that DeIDOT propose legislation to extend liability protection to those rights-of-way where such liability is an obstacle to the development of public off-road trails.

PEDESTRIAN FACILITY FUNDING

While opinions varied on the optimal types and locations for facilities (SUP, Sidewalks and off-road trails), all five Councilpersons interviewed expressed a desire for more and better pedestrian facilities, if only to improve safety.

DeIDOT provides some of those pedestrian facilities through its Pedestrian Access Routes (PAR) Program. DeIDOT funds the PAR Program through its Shared-Use Path (SUP) & Sidewalk Fee and the current calculation for that fee appears to underestimate actual construction costs. The fee is a fee-in-lieu-of-construction, intended for use when the Department finds it appropriate to assume responsibility for a specific facility and relieve the developer of that responsibility, but it presently requires the developer to pay only a fraction of the actual cost.

This report suggests that DeIDOT revise the calculation to include lump-sum, percentage or area-based adjustments for preliminary engineering, permitting, stream crossings (separate options for pipe and structure), and utility relocations. DeIDOT could retain the right to require an engineered plan and estimate where they deem the situation to be beyond the scope of work anticipated by the calculation formula.

SIDEWALK REQUIREMENTS FOR INDUSTRIAL/OFFICE/INSTITUTIONAL USES

One engineer raised a concern that tying the requirements for pedestrian facilities to the Strategies for State Policies and Spending, as in DCM Section 3.5.4.2.A poses a challenge for legacy industrial, office and institutional sites with significant roadway frontage. They cited an example of a manufacturing site that had to build a half-mile of sidewalk for a Resubdivision Plan because it is in Level 1.

Besides their point that the cost of the improvement was a burden to a property owner engaged in an economic activity that the State and County want to encourage, there are other considerations. Site employees who walk, or ride transit and then walk, to reach the site should at least have a safe place to walk when they are on the site frontage. Arguably, the property owner with extensive frontage should not bear full responsibility to provide a sidewalk or Shared Use Path serving pedestrians who are only walking past their property, but there is no established standard for what would be a fair measure of responsibility.

Because of their size and limited pedestrian access needs, the current requirement (full frontage in all Level I and II Investment Areas) does appear to unduly burden legacy Industrial, Office and Institutional developments. This reports suggests that DelDOT consider amending DCM Section 3.5.4.2.A to provide some financial relief for redevelopments or modifications of existing industrial, office and institutional sites in certain locations.

SIDEWALK WIDTHS

Two Councilpersons commented on sidewalks, as distinct from shared use paths and off-road trails. One suggested that sidewalk projects should be more focused on more urban, less suburban, areas where people were more likely to walk, as opposed to driving. Relative to the Statewide Investment Level Areas, this comment could be interpreted as being to require sidewalks only in Level I Areas as opposed to Level I and II Areas as the DCM currently does. However, other Councilpersons expressed concerns for pedestrian safety that would suggest possibly going beyond Levels I and II.

Another Councilperson commented to the effect that DelDOT's standard five-foot sidewalks (DCM Section 3.5.4.2) are too narrow and that DelDOT needs to start requiring and building wider ones.

This report suggests that DelDOT consider amending DCM Section 3.5.4.2 to require sidewalks wider than five feet, perhaps eight feet, in areas where two-way pedestrian traffic is expected to be routine. To cite a distance already used in DCM Section 3.5.5.1, such areas could be defined as Level 1 and Level 2 Investment Areas within 1,000 feet of retail commercial uses.

Currently standard five-foot sidewalks provide for pedestrian safety but are not wide enough for people to walk two abreast or pass comfortably.

TRUCK PARKING REQUIREMENTS

As the county addresses the effects of e-commerce, constituents raised the need to revisit truck parking requirements contained in Section 40.03 of the UDC. This concern is most visible regarding new distribution centers but also includes general concerns regarding noise and other impacts. It is also a consideration for loading zone capacity at the other end of the production/consumption chain (from producers, through assemblers and distributors to the customer, often in a residential neighborhood). In particular, new multifamily residential developments should have access and circulation plans that reflect e-commerce deliveries.

UDC LANDSCAPING REQUIREMENTS

The UDC's landscaping requirements (Section 40.23) give no credit for landscaping in the right-of-way; they must be outside the right-of-way to count, and trees set 50 to 75 feet back from the road don't provide the shading of paved roadways and reduced heat island effect that are the intent of the required street trees.

This concern was raised by one engineer, and we have no confirmation of its validity, but it may warrant a broader discussion between County staff and the development community. Because of the subject of street trees, DelDOT should be involved in at least part of that discussion.



APPENDIX C – ARTICLE 11 DUPLICATIVE ELEMENTS

The following pages present a summary of Article 11 edits described in recommendation AS1 to remove duplicative / conflicting administrative requirements.

APPENDIX C – ARTICLE 11 DUPLICATIVE ELEMENTS

Most of the sections of Article 11 that describe elements of TIS scoping are duplicative, and in some cases in conflict with, the DCM. The following table identifies those duplicative / conflicting elements.

This report suggests that:

- Sections 120, 122, 124, and 130 could be deleted in their entirety without losing the ability for the County to negotiate on areas of scoping judgment as described in the DCM. The following tables indicate explicit DCM references where available. Other Article 11 elements without an explicit DCM section reference are elements that reinforce the value of agency staff to exercise judgment (rather than set an explicit County policy that differs from the DCM).
- There are two key policies where neither Article 11 nor the DCM provide explicit guidance and such guidance should be considered for the DCM (and possibly Article 11):
 - Defining the process for assuming capacity provided by background transportation projects
 - Addressing Traffic Mitigation Agreements (described in recommendation AM1)

APPENDIX C – ARTICLE 11 DUPLICATIVE ELEMENTS

Article 11 Section	Article 11 topic	Rationale for deletion (or edit)	Corresponding DCM Section
120.A.1. - A.4.	TIS to document traffic / network / safety data	Duplicative with DCM	2.2.5.
120.A.5.	TIS to document previous studies in area (if available)	"Available" unclear and likely irrelevant as those that matter will have surfaced in public knowledge	
120.A.6.	TIS to document existing travel time (if available)	"Available" unclear.	
120.B.	Applicant has option to transmit data to DelDOT before scoping meeting	True without codifying	
120.C.1.2.	Vehicle trip thresholds (50 peak hour, 2000 daily)	Duplicative with DCM (which has stronger judgment language)	2.2.2.1.
120.C.1.3.	TIS required if property "near" a failing intersection or segment regardless of trip threshold	"Near" unclear; preceding "shall" requires a finding that the property is not "near"...	
120.C.1.4.	Forecast TAZ total check for TIDs/CCEDs	"Adjacent TAZ" unclear (intended to be flexible within a TID/CCED but implicates all development countywide). Also no longer relevant per Churchman's TID approach.	
120.C.1.5.	Will impact dangerous roads	Several definitions unclear; preceding "shall" requires a finding that the property will not impact safety. For <50 trip developments, this is more a site access concern; shouldn't require a full TIS.	
122.	Scoping meeting within 30 days	Duplicative / conflicting with DCM	2.2.4.1. - 2.2.4.2.
124.A.	Area of influence	Conflicts with DCM (which follows siten assignment of trips rather than siten proportion of traffic with thresholds based on functional class). Article 11 is slightly more responsive to civic concerns but likely unrelated to intersection LOS impact and technically requires a greater geographic scoping analysis (unless clarified that one stops following the assignment once the flow drops below a certain level regardless of functional class...)	2.2.4.2.2.
124.B.1 - 3.	Definition of intersection	Duplicative / conflicting with DCM	2.2.4.2.2.
124.B.4.	Specified pass-by trip percentages to assume	Conflicting with DCM, which uses an appropriate "follow ITE unless better assumptions agreed upon in Scoping Meeting"	2.2.4.2.1.
124.B.5.	Special event venues require customized assumptions	Implicit in Scoping Meeting (more explicit re: (F) days/times to be analyzed, more implicit in other elements)	2.2.4.2.1.

APPENDIX C – ARTICLE 11 DUPLICATIVE ELEMENTS

Article 11 Section	Article 11 topic	Rationale for deletion (or edit)	Corresponding DCM Section
130.A.	Citation to follow the DCM (with subbullets noted as exceptions - some are)	Duplicative with DCM (by definition)	
130.A.1.	Tripgen tabulated weekdays/weekends	Duplicative with DCM	2.2.8.6.
130.A.2.	Traffic counts may be a year old	Duplicative with DCM	2.2.8.5.
130.A.3.	Consider planned/programmed improvements	Unclear - description only for context, or for assumed future background conditions? DCM guidance also not clearly stated and should be clarified.	2.2.10.
130.A.4.	Document LOS for multiple scenarios	DCM includes 'future without project', so technically more stringent (as well as industry standard).	2.2.8.11.
130.A.5.	Documentation of geometric/safety concerns	Duplicative with DCM	2.2.8.11.
130.A.6.	Definition of non-motorized facilities/concerns	Duplicative with DCM (although with more examples than 2.2.8.11.6; offsite lighting is a good example; not directly related to concurrency, but part of DCM 5.15)	2.2.8.11.
130.A.7.	Background traffic	DCM generally cedes to locals - question is whether these are a policy decisions or staff decisions. 130.A.7.b. is vague "inclusion of trip generation based upon a growth factor for background traffic." One of the SAP technical recommendations for the ISP is to not apply a background traffic growth factor where background development exists to avoid over-estimation.	2.2.8.10.
130.A.8.	Statement of LOS results / adequacy	Duplicative with DCM	2.2.10.
130.A.9.	Improvements needed to attain adequacy if not practical (lead-in to waiver / TM)	Generally duplicative with intent on DCM. However, the county/state definitions on Traffic Mitigation agreements require further coordination as this is the one category that the DCM does not address in detail in 2.5.3 whereas Article 11 Section 230 has both policy and administrative detail.	
130.A.10.	Statement of validity	"Referenced on the plan" unclear. Otherwise intent is generally duplicative with DCM (covered by P.E. stamp)	



APPENDIX D – ANNOTATED LIST OF ACRONYMS

This Appendix describes acronyms commonly used throughout the report.

APPENDIX D – ANNOTATED LIST OF ACRONYMS

This report includes several acronyms that are spelled out below (with descriptions for technical terms added in parentheses as appropriate).

- CCED: Complete Community Enterprise District
- CTP: Consolidated Transportation Program (DeIDOT project-level funding plan)
- DCM: Development Coordination Manual (DeIDOT publication)
- DeIDOT: Delaware Department of Transportation
- ISP: Internal Staff Practices (proposed as a living document for NCCDLU staff)
- ITE: Institute of Transportation Engineers
- LDW: Land Development Workgroup (state/county staff collaborating on TIS reviews)
- LOS: Level of Service
- LTS: Level of Traffic Stress
- MOA: Memorandum of Agreement
- NCC2050: New Castle County Comprehensive Plan (2022 edition branded title)
- NCCDLU: New Castle County Department of Land Use
- RTP: Regional Transportation Plan (WILMAPCO project-level funding plan)
- SAP: Strategic Action Plan (this report)
- TDM: Travel Demand Management

APPENDIX D – ANNOTATED LIST OF ACRONYMS, cont'd.

- TID: Transportation Improvement District
- TIS: Transportation Impact Study (sometimes also known as Traffic Impact Study)
- UDC: Unified Development Code (Article 40 of the New Castle County Code)
- UPWP: Unified Planning Work Program (WILMAPCO staff work program)
- VMT: Vehicle-Miles of Travel
- WILMAPCO: Wilmington Metropolitan Area Planning Commission



APPENDIX E – SELECTED BIBLIOGRAPHY

This Appendix contains hotlinks to relevant reading supporting the Final Report Finding

APPENDIX E – SELECTED BIBLIOGRAPHY

Cited policies:

- [ARTICLE 11. - TRANSPORTATION IMPACT | Code of Ordinances | New Castle County, DE | Municode Library](#)
- [Delaware Code Online](#)

Cited plans:

- [NCC2050 Comprehensive Plan | New Castle County, DE - Official Website](#)
- [Regional Transportation Plan | WILMAPCO](#)
- [Capital Transportation Program \(CTP\) - Delaware Department of Transportation](#)
- [Unified Planning Work Program \(UPWP\) | WILMAPCO](#)

Selected best practice documents

- [Highway Capacity Manual 7th Edition: A Guide for Multimodal Mobility Analysis | The National Academies Press](#)
- [Multimodal Transportation Impact Analysis for Site Development \(MTIA\) - Institute of Transportation Engineers](#)
- [CTR Guidance - January 2022 Version 2.0.pdf](#)
- [2021-LATR-Guidelines-Update.pdf](#)
- [tdm Menu Options-031518.pdf](#)
- [LEED certification for neighborhood development | U.S. Green Building Council](#)