

Guidance Document on UDO Mapping

The following document is intended to provide guidance on how to choose the best UDO zoning district for a particular property. The guidance is based on the following broad principles from the state enabling statute, namely that zoning districts should be drawn:

- Consistent with a comprehensive plan;
- With consideration for the character of the district:
- And the peculiar suitability of the property for particular uses.

This document does not address the mechanics of drawing the map. Carter Pettibone, as project manager, is in charge of the overseeing the technical aspects of map drafting and production.

District Overview

The UDO contains four different types of districts, summarized in the table below:

Residential	Mixed-Use	Special	Overlay
R-1	RX Residential	AP Agriculture	SHOD-1,2
R-2	OX Office	CM Conservation	HOD-G
R-4	OP Office Park	R-MP Manufactured Housing	HOD-S
R-6	NX Neighborhood	CMP Campus	NCOD
R-10	CX Commercial	IH Heavy Industry	MPOD
	IX Industrial	PD Planned Development	UWPOD
	DX Downtown		FWPOD
			SWPOD
			SRPOD
			AOD
			TOD

The residential districts are lightly modified from the existing R-zones, with the most major change being the elimination of townhouses and multifamily as a principal permitted use in R-6 for sites less than 10 acres in size. These districts will not be altered during the remapping project. They have all been brought into the UDO as of September 1st, with townhouse and multifamily developments currently located in R-6 grandfathered in the UDO text.

The mixed-use districts are intended to be the workhorse districts of the ordinance. Most of the city's commercial and denser multifamily areas will be placed within one of these districts. The mixed-use

districts also have modifiers to regulate height and type of frontage treatment. All mixed-use districts will have a specified height limit, and some will also have a frontage type.

Five of the special districts—AP, CM, R-MP, PD and IH—match up with existing and similarly named districts in the current ordinance. Campus is to be used on public or institutional campuses such as colleges and hospitals.

Lastly, the overlay districts all exist in the current ordinance and are to be mapped one-to-one based on the extent of these districts on the current zoning map. Overlay districts to be eliminated in the UDO are SHOD-3 and 4, PBOD, PDD and DOD. Features of these districts are incorporated into other tools such as frontages or into new base districts such as DX.

All mapping team members should be familiar Chapters 2, 3 and 6 of the UDO and should spend some time familiarizing themselves with the permitted use table.

Guiding Principles

The citywide map amendment proposed for the new UDO will have different impacts on different properties, with some seeing few changes in their existing entitlement, and others experiencing larger impacts, which may be positive or negative. The UDO will in general not preserve all the options present in the current zoning, but it will often provide new options. Perhaps the biggest issue will be how to remap the City's extensive IND-1 and 2 areas, much of which are either vacant or developed for non-industrial purposes. The following guiding principles should apply:

- Within the bounds of good planning, the new zoning map should maintain or enhance existing property value. Downzonings engender controversy and negatively impact the City's tax base.
- The new zoning map should reflect uses on the ground and avoid the creation of use-based nonconformities, unless doing so creates spot zones.
- Where there is no conflict with the existing use of property and the character of the area, the new zoning map should implement the Comprehensive Plan.
- The new zoning map, particularly with regards to the application of height and frontage, should be sensitive to context, and not create jarring transitions in height, use or intensity.

Detailed Methodology

Screens

The detailed methodology that follows provides an order for translating the existing zoning map into the new map. Embedded within the individual steps, however, is the concept of screens. Screens are a way of narrowing down choices based on tests and criteria. In general, the screens for the remapping exercise are, in order:

- The existing zoning of the property. Each existing zone has one or more corresponding zones in the UDO.
- The existing use of the property, which further refines the choices.
- Where the first two screens result in a choice of two or more districts, the Future Land Use Map should be used to choose among districts.
- For the mixed-use districts, heights should be chosen based on existing heights, the height context, or valid approvals for specific height. In some cases, the Comprehensive Plan (including any Area Plan) provides specific height guidance.
- Frontages should be based on the Urban Form Map designations, as well as the existing context. In the Downtown element boundaries, the application of Shopfront should be guided by the designated Primary Retail Streets.

Step 1: Base Information

The first step is to gather base information necessary for the mapping effort. In general, the data needed to choose an appropriate district for a particular property consists of the following:

- The draft UDO.
- Existing zoning.
- The existing use of the site and surrounding properties.
- The proposed Future Land Use for the property in the Comprehensive Plan.
- Recently completed area plans and corridor studies, such as Jones Franklin, Blue Ridge Road, New Bern Avenue, and Capital Boulevard.
- Other Comprehensive Plan designation, including the recently-adopted Urban Form Map; TOD locations; and, in the downtown, specific maps including Edge Areas, Green Streets, Retail Priority Streets, and Parking Constraints.
- Pending development plan approvals may be useful in some circumstances, particularly with regards to Council-approved plans for additional height.

The above information can either be in the form of printed maps, or computerized map access. In general, access to both iMaps and Google Maps in the workspace is desirable.

There is an existing land use layer in the City's GIS system that is in the process of being updated. In general, this layer should be reliable. However, if there is ever any doubt about the current use of a property, field visits are recommended.

Step 2: Base Mapping

The base map for drawing the new districts should likely be limited to showing parcels and basic planimetrics for reference purposes. However, to speed the process, the base map should show those zoning features that will not change with the new UDO. These include the following:

- The RR, R-2 R-4, R-6, SpR-6 and R-10 districts in their current extent.
- All PDDs.
- The AP, MH, and CM districts in their current extent.
- Overlay districts except for SHOD-3 and 4, DOD and PBOD.

Coloring in these districts will show how much of the zoning map—anticipated to be well over 60 percent—is not changing as part of the mapping exercise.

Step 3: Existing Residential Districts

New zoning designations will need to be considered for the following residential districts: R-15, R-20, R-30 and SpR-30. The following correspondence table provides guidance on how to select the appropriate base districts.

Current District(s)	Proposed district(s)	Notes
R-15, R-20, R-30	R-10, RX	In theory, all areas zoned for densities in excess of 10 units per acre should be placed within the RX category. In reality, there are many single-family neighborhoods, primarily in southeast Raleigh, that are zoned R-20 even though the development pattern is more akin to R-10. R-10 zoning should be used for these areas. RX can be used along major street and other areas where denser development is appropriate.
SpR-30	R-10, RX w/ NCOD	Special R-30 is currently mapped over many areas where single-family is the predominant use. These areas should be remapped R-10, which has a similar minimum lot size. If there are any SpR-30 areas where built densities exceed 10 DU/acre, they should be placed within the RX district unless the result is a spot zone. The contextual standards in SpR-30 will be superseded by the new contextual infill standards in the UDO, and/or will be replaced by an NCOD.

Choosing the appropriate height for RX-districts

All RX districts need to have a height attached. In general, the appropriate height will be determined by a combination of the existing building height on the property and the height of nearby properties (this

will be the determining factor for undeveloped properties). Most RX districts translated from existing R-zones will be limited to 3 stories, although a few may be mapped for 4 or 5 stories.

Step 4: Campus Uses

Campus uses are typically easy to identify, and consist of all large institutions of higher learning; big hospital complexes such as Wake Med and Rex (but not smaller, stand-alone walk-in centers and clinics); and office or research parks that function as a campus under centralized management (there may not be any of these in Raleigh). These uses are generally located within O&I districts.

The appropriate zoning for most campuses is either CMP or a flavor of OX. For CMP zoning to function well, an associated campus Master Plan is needed. An outreach effort to the two major hospitals and all the colleges and universities needs to be undertaken to determine their interest in adapting their existing master plan, if they have one, to serve as the regulating plan for the CMP district. If not, then OX district should be used with the appropriate height standard.

Step 5: Existing Industrial Districts

IND-1 and 2, along with Thoroughfare District, present some of the thorniest mapping issues, and therefore have their own step. Current industrial zoning permits most uses except for residential, and industrial is widely mapped over areas extending north and south from downtown along Capital, Atlantic, and South Saunders. A wide variety of non-industrial uses are found in the I-zones, including retail, office, and hotel development. Some judgment will be required when remapping these areas.

The new UDO has two industrial districts proposed: IH heavy industrial district reserved for high-impact uses such as manufacturing, quarries, and large-scale distribution; and the IX industrial mixed-use district. IH does not permit most retail. Like the current I-zones, IX does broadly permit retail, but unlike the current district is also permits limited housing under certain circumstances. It differs from the similar CX district in permitting a wider variety of light-industrial and auto-related uses, including self storage.

Choosing the Base Districts

Potential districts to replace specific I-zones include IH, IX, CX, OX and OP. The specific choice should take into account the following factors:

- IH should be reserved for heavy industrial users such as quarries, Pepsi and Mallencrot. The IH district may also be used in areas where the future land use map recommends industrial use, and where retail is not a preferred future use.
- IX is appropriate for light-industrial areas, flex parks, auto-oriented sales and services, and big-box retail such as home improvement stores. There will likely be a lot of IX zoning along places such as Capital Boulevard, Atlantic Avenue and New Bern Avenue. IX also corresponds to the Future Land Use designation of Business and Commercial Services.

- CX should be used where retail is the predominant use, or where a broad range of commercial uses including retail are contemplated.
- OP or OX are appropriate where the prevailing character is similar to an office park or is otherwise predominately office in use. The decision to use OX or OP rather than CX over office development will be based in part on whether retail is not appropriate for the area, such as in transitional locations or where traffic is a concern. The decision to use OP instead of OX should depend on the character of the area, and whether it is currently mapped for employment on the Future Land Use Map. Highwoods is an example of an IND-1 area that would be appropriate for OP.

Choosing an Appropriate Height

In general, most of these areas will be given a maximum height of three stories unless in a TOD location or if the existing condition includes additional height. Additional height may also be assigned to encourage redevelopment, if consistent with the Comprehensive Plan.

Step 6: Small-Scale Mixed-Use Districts (RB, NB, BC)

These existing districts permit varying levels of commercial development, and residential development to a maximum density of 10 units per acre. These districts therefore pose an issue because the only new district which is similar in terms of residential density (R-10) does not permit commercial development, and the new mixed-use categories do not regulate density.

Most of these areas should be remapped to a combination of R-10, OX-3, and NX-3, depending on the current use pattern. OX will generally be preferred for BC and RB areas, and NX will be more appropriate for NB areas. R-10 should only be used to the extent that properties are developed for exclusive residential use and mixed-use redevelopment is not contemplated.

Additional height over 3 stories is not appropriate for most of these areas given the prior 10 unit per acre cap, but may be contemplated in areas such as near Glenwood South where these districts may intersect with a PBOD. In these cases CX may be a more appropriate district. CX should only be used instead of NX where consistent with the Future Land Use Map.

Step 7: PBODs

Speaking of PBODs, most of these should be remapped NX or CX with an Urban General or Shopfront frontage. NX is appropriate for PBODs such as Hillsborough Street or Person Street. CX would be appropriate for Glenwood South. OX or RX may be appropriate in limited circumstances where retail is not contemplated in the Comprehensive Plan, such as near Cameron Park. Heights should reflect to the extent possible the underlying streetscape plan—NX-3 for Hillsborough and Person, CX-5 or 7 for Glenwood, etc.

The Cameron Village PBOD should also be placed in a CX district, but may require a wider variety of frontages based on existing conditions and proposed redevelopment. In general, CX-3 to 5 should be

used, although additional height may be allocated to the corner of Clark and Oberlin consistent the recent rezoning for the Crescent and 401 Oberlin projects.

Glen Lake will not need to be a PBOD under the new UDO. OX or OP zoning would be appropriate.

Step 8: Office & Institution Areas

O&I-1 and 2 are commonly used for office development, multi-family complexes, and institutional uses. Corresponding districts will include RM, CX, OX, OP, and Campus.

The most common translation will be to remap O&I areas to either RX-3 or OX-3, based on the current use of the property. Frontages will be applied in a later step based on context, the Comprehensive Plan, or the draft Urban Form Map.

Some O&I areas correspond to office parks. OP zoning is appropriate for these areas when they are mapped for employment on the Future Land Use Map (an example of an office park that is not so mapped is National Drive off of Glenwood Avenue—this area should be mapped OX). Examples of OP areas include Highwoods, the Forum on Six Forks, and Corporate Center Drive in West Raleigh.

O&I-2 permits additional height to be approved by the City Council. The most significant such approval in recent years was the Soleil Center next to Crabtree Valley Mall. Preserving this height would require that this site be mapped OX-40. This would be very unusual, since the surrounding mapping is likely to call for 5 to 7 stories maximum. Likely, Council and Commission guidance should be sought for this site.

The new UDO has no district similar to O&I-3, which permits offices but not residential. Depending on the use, OX-3 or Campus may be appropriate districts.

Step 9: The Remaining Mixed-Use Districts (SC, TD)

These are two of the most liberal zoning districts in the current code. Accordingly, CX and IX will be the most common replacements for these districts.

TD has special frontage requirements that can best be duplicated through the use of the Parkway frontage. Most TD areas should have a frontage applied. Low-scale shopping centers may be left without a frontage. Parking Limited should be chosen where there is a need for a more pedestrian-friendly pattern.

Heights should generally be three to five stories (note that 50 feet is permitted within the three-story height limit, consistent with the base height in TD). Additional height over three stories should be provided in TOD areas, in PBODs, or where consistent with the Comprehensive Plan.

Step 10: Special Considerations for Downtown

Downtown today is a mixed of BUS, Industrial, and O&I zoning, with much of it covered by a special overlay, the DOD, that will be retired with the new UDO. Currently, the proposal is to replace much of the current zoning with DX combined with appropriate heights and frontages (this likely includes the State Government facilities). OX may be used in some areas where the Comprehensive Plan calls for retail to be limited.

Heights will taper to as low as 3 stories at the edge of special neighborhoods, such as Cameron Park, although four or five stories should be used wherever appropriate. (The Downtown West Gateway and West Morgan plans provide detailed height guidance for the west site of Downtown). Heights in the core will be 20 or 40 stories, and Urban General and Shopfront will be the most common frontages. Shopfront should only be applied on Priority Retail Streets as designated in the Comprehensive Plan, or if retail is mandated by existing zoning (such as the West Morgan area).

Step 11: Frontages

The application of frontages is called out as a separate step, even though some frontages may have already been applied as part of earlier steps. Applying appropriate frontages will be one of the most complex steps, requiring the greatest use of planning judgment. Where significant doubts exist, a frontage should not be applied.

As per the Comprehensive Plan and existing zoning policy, the priority areas for frontages are:

- Downtown and pedestrian business districts
- Urban and multi-modal corridors
- Mixed-use community centers
- TOD locations
- TD-zoned areas
- SHOD-3 and 4 areas

Frontages also depend on context. Urban General, Urban Limited, and Shopfront are intended for pedestrian-oriented streets, and generally should not be mapped along major streets lacking on-street parking or significant pedestrian volumes. The Parking Limited frontage will be most applicable to retail and office development fronting along thoroughfares. The Parkway frontage can be applied in suburban contexts where landscaping is the dominant urban design feature, but its use should be deprecated along urban corridors and in more transit-rich locations. The Green frontage will be primarily useful for office and multifamily residential areas.

The Urban Form Map brings all the adopted frontage guidance together on one map. It indicates where suburban and urban approaches to frontage are recommended. This map should serve as a guide to frontage application in the remapping process. The Transit Emphasis corridors on this map show future

transit-intensive routes and are therefore contiguous, even though portions of these corridors have a more parkway-like development pattern. Frontages along these corridors should respect such context, but Parking Limited or urban frontage types are appropriate at important nodes and intensely developed areas.

Supporting Guidance

Heights in the Future Land Use Map

The current Comprehensive Plan does not provide specific height guidance, but rather recommends density ranges for specific future land use categories. These categories will need to be revised following the adoption of the new UDO, which emphasizes height rather than density for the mixed-use area. The following table provides a draft of how height guidance is proposed to be introduced into the Comprehensive Plan.

Category	Recommended Building Heights		
	Core/Transit	General	Edge
Medium Density Residential	5 stories	3 – 4 stories	3 stories
High Density Residential	7 – 12 stories	3 – 5 stories	3 – 4 stories
Neighborhood Mixed Use	5 stories	3 – 4 stories	3 stories
Community Mixed Use	7 – 12 stories	3 – 5 stories	3 – 4 stories
Regional Mixed Use	12 – 20 stories	5 – 7 stories	3 – 4 stories
Central Business District	20 – 40 stories	5 – 12 stories	3 – 4 stories
Office-Residential Mixed Use	5 – 7 stories	3 – 5 stories	3 – 4 stories
Office/Research & Development	7 – 12 stories	5 – 7 stories	3 – 4 stories

Zoning District Correspondence Table

Current District(s)	Proposed district(s)	Notes
Residential Districts		
R-15, R-20, R-30	RX-3, 4, 5	All areas zoned for densities in excess of 10 units per acre should be placed within the RX category. RX-3 would be used for nearly all of these areas, unless there is precedent or policy for taller buildings.

Current District(s)	Proposed district(s)	Notes
SpR-30	R-10, RX-3	<p>Special R-30 is currently mapped over many areas where single-family is the predominant use. These areas should be remapped R-10, which has a similar minimum lot size. If there are any SpR-30 areas where build densities exceed 10 DU/acre, they should be placed within the RX district.</p> <p>The contextual standards in SpR-30 will be superseded by the new contextual infill standards in the UDO and/or replaced with an NCOD.</p>
Mixed-Use Districts		
RB	R-10, OX-3, NX-3	Use OX unless there is retail in the area, or a desire for retail. Use R-10 for multi-family if additional density is not desired.
O&I-1	RX-3, 4, 5; OX-3, 4, 5; OP-3,4, 5; IX-3,4, 5; Campus	Height based on context. Use RX for multi-family developments, OX or OP for office, and IX for flex parks or R&D. Campus is appropriate for colleges and hospitals if a master plan exists.
O&I-2	RX-3, 4, 5; OX-3, 4, 5; OP-3,5; IX-3, 4, 5; Campus	Height based on context. Use RX for multi-family developments, OX or OP for office, and IX for flex parks or R&D. Campus is appropriate for colleges and hospitals if a master plan existso.
BC	R-10, NX-3, OX-3	Use NX unless there is a specific need to prohibit retail. Use R-10 for multi-family if additional density is not desired.
SC	CX-3, 4, 5, 7; IX-3, 4, 5, 7	CX should generally be used unless IX is a better fit with existing uses patterns.
NB	R-10, NX-3, CX-3	Use R-10 for multi-family if additional density is not desired; otherwise, use NX (or CX if the sites are large and/or well-buffered from adjacent neighborhoods). Additional height is appropriate if also in a PBOD that permits additional height.
BUS	DX-3, 4, 5, 7, 12, 20, 40 OX-3, 4, 5, 7, 12, 20, 40	Use DX except in areas where retail is not contemplated, such as in certain edge areas near particular neighborhoods.

Remapping Guidance Document

Current District(s)	Proposed district(s)	Notes
TD	Various	Refer to narrative guidance; district selection should be based on current use or Comprehensive Plan.
I-1	IX-3, OP, IH	Use IH where retail is not desired or for heavy uses.
I-2	IX-3, IH	Use IH where retail is not desired or for heavy uses.
Other Zoning Districts		
O&I-3	OX-3	Closest available match, although it permits additional uses and height compared with O&I-3.