

# ***DUNKIRK MASTER PLAN AND ZONING ORDINANCE***



***Adopted July 28, 1987***

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DUNKIRK ZONING ORDINANCE

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(02/19/25

A. INTRODUCTION

This Dunkirk Zoning Ordinance specifies permitted land uses and describes additional conditions and use requirements that apply to the Dunkirk Town Center.

Except as otherwise specified in this Dunkirk Zoning Ordinance, the use of any property and the construction or alteration of any building or structure shall conform with the requirements of the Calvert County Zoning Ordinance.

B. PERMITTED LAND USES

(02/19/25)

Refer to the Calvert County Zoning Ordinance for Permitted Land Uses.

D. SPECIAL DEVELOPMENT REQUIREMENTS

1. Road Access

Road access shall be as shown on the Dunkirk Transportation Map.

2. Route 4 Corridor Landscaping

Wherever possible, a 60 foot landscaped buffer should be required along Route 4 for new construction. All landscaping along Route 4 shall be consistent with the Dunkirk Landscaping Plan (see pages 28 and 29).

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(6/17/97)  
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3. Signs

The provisions of Article 29 of the Calvert County Zoning Ordinance apply in the Dunkirk Town Center.

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4. Transfer Zone

Dunkirk is designated as a Transfer Zone. The maximum conventional density is one dwelling unit per acre. The density may be increased to no more than four (4) dwelling units per acre with the purchase of Calvert County Transferable Development Rights (TDRs)<sup>1</sup>. The purchase of five TDRs is required for each dwelling unit over one (1) dwelling unit per acre.

In lieu of purchasing TDRs, applicants with bona fide affordable housing projects may apply to the Board of County Commissioners for a waiver of the requirement to purchase TDRs. The Board may approve the application in whole or in part provided that no more than 30% of the existing housing stock within the Town Center meets the State definition of affordable housing.

E. APPEARANCE CODE

1. Introduction

The Appearance Code is based on the premise that building and landscaping design bears a direct relationship to the economic and social well being of residents; that building and landscape design affect property values and provide economic opportunities and that in view of its impact on the general welfare, the right to determine the appearance of a community should not be limited to the few who are directly involved in building construction and alteration, but should be vested in the general citizenry through a publicly mandated, legally adopted Appearance Code Ordinance.

The purpose of the Appearance Code is to enforce the most necessary elements of the Appearance Guidelines in the Dunkirk Plan. While it is desirable that all aspects of the Guidelines are followed, certain portions must be enforced if the town is to develop into an attractive and economically viable Town Center.

Many architectural styles can be accommodated in the Town Center. However, certain features, such as flat roofs and metal siding, will detract from the Dunkirk Town Center image.

2. Application

Compliance with the Appearance Code is mandatory for all new construction and renovation in the Town Center. Additions to existing buildings not now complying with the Code shall also meet the code if:

- a. the addition will increase the total square footage by more than 100% or
- b. the addition is more than 2,000 square feet.

3. Appearance Code Criteria

The following appearance requirements are imposed:

- a. Building Materials (principal and accessory structures) - Either brick, stone, wood or wood appearance siding is required on all sides.
- b. Rooflines and Pitch - Main roof pitches must be in the range of 6/12 to 12/12. Dormer roofs do not have to comply with this requirement. Mansard roofs shall not be permitted. The Planning Commission may grant modifications based on the size of the building provided that the appearance of a pitch roof is maintained.
- c. Utility areas - all utility areas, including but not limited to refrigeration units, piping, wiring, utility boxes, heating units, trash disposal and loading areas, shall be screened from view.

d. Screening - Security fencing, such as chain link fencing, shall be landscaped.

(02/19/25) 4.

Jurisdiction

Provisions for the Authorization and Process for projects subject to architectural review shall meet the minimum requirements outlined in Section 25-9 of the Calvert County Zoning Ordinance.

Planning & Zoning staff shall have authority to review site designs and external design features of buildings, structures other than buildings and signs for public, quasi-public, commercial, residential, industrial, multi-family or mixed use development. Planning & Zoning staff shall make judgments on the external design features based on the requirements of the local Master Plan.

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CHAPTER VI  
GENERAL PROVISIONS

- A. APPLICABILITY OF DUNKIRK ZONING ORDINANCE
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A. APPLICATION OF DUNKIRK ZONING ORDINANCE

The Dunkirk Zoning Ordinance is a supplement to the Calvert County Zoning Ordinance and applies to the Dunkirk Town Center. Except in cases specifically addressed in the Dunkirk Zoning Ordinance, the Calvert County Zoning Ordinance applies.

B. EFFECTIVE DATE OF THE DUNKIRK ZONING ORDINANCE

The Dunkirk Zoning Ordinance shall be effective on July 28, 1987 and continue in force until amended, modified, or repealed. All site plans and subdivision plans which have received final approval as of the above date shall be allowed to be constructed even if they do not conform to this Master Plan. However, if substantial construction is not completed within one year, approval is withdrawn and new plans which meet the requirements of this Master Plan must be submitted and approved before work on the project can continue.

C. SEPARABILITY

If any section, subsection, sentence, clause or phrase of this Zoning Ordinance is declared invalid or unconstitutional by a court of competent jurisdiction, such provision shall be deemed separate and such invalidity or unconstitutionality shall not affect the validity of the Zoning Ordinance in its entirety or of the remaining sections or parts thereof.

D. INTERPRETATIONS

The Zoning Officer shall be responsible for clarifying the intent of this Zoning Ordinance. Should there be a question on the meaning of a section of the Zoning Ordinance, an "official interpretation" shall be approved and signed by the Zoning Officer. All official interpretations shall be attached to the Zoning Ordinance. The following parties shall be notified within seven days following the interpretation: the County Commissioners, Planning Commission, Department of Planning & Zoning, the County Attorney, and the Appearance Review Committee.

E. PERMITS

1. Building Permits

Building permits must be obtained before constructing or erecting buildings or structures covering more than 150 square feet; moving, adding to, extending buildings or structures.

Building permits will be issued only for construction on buildable lots, parcels, or tracts which meet the requirements of the Dunkirk Zoning Ordinance and/or the County Zoning Ordinance, the Subdivision Regulations, and other applicable agency requirements.

2. Additions

Additions to existing structures which do not conform to the architectural standards in the Appearance Code shall be permitted to be constructed in conformance with their own style.

3. Grading & Clearing Permits

No grading or clearing permits for clearing sites shall be issued until a site plan or subdivision plan is approved or in the case of a farm, a soil conservation plan is approved by the Soil Conservation Service.

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APPENDIX 1  
MARKET ANALYSIS

A. INTRODUCTION

The estimate of the Dunkirk Town Center's primary market area is based on general planning standards for commercial shopping facilities, which are summarized in Table 1. These standards are gross measures for estimating market area which were applied in the Dunkirk analysis to test assumptions and conclusions, and to establish a basis for quantifying the demand for commercial space in the Town Center. Consideration of the market effects of specific land uses in the region was incorporated into the market analysis to account for local variables such as physical features, access, and competing market centers.

In that the purpose of the analysis was to evaluate the reasonableness of the purported results of two market studies, one for the Penwick Village project (convention center) and the other for Howlin Real Estate (shopping center), and to establish some basis for quantifying the demand for commercial space in the Dunkirk Center, this analysis attempts to estimate on the high side of demand.

B. MARKET AREA

The radius of the service area for a neighborhood shopping center was set at 0.5 miles, the community shopping center at two miles and the regional center at four miles. These are general guidelines, which provide a basis for defining a reasonable market area for Dunkirk. Even at the extreme radius of four miles, the Dunkirk market area takes in only portions of Calvert County Community Planning Districts 1, 2 and 3.

Considering the market effects of specific land use characteristics also helped define the market area. For example, the Huntingtown Town Center, a competing center projected to be about the same size as Dunkirk, is located approximately 7.8 miles south of Dunkirk. Splitting the distance between the two centers served as a basis for estimating the southernmost boundary of the Dunkirk area.

Proceeding west, the boundary splits the mileage on Briscoe Turn Road and Chaneyville Road, and assumes that those residents along those roads closer to Huntingtown, will travel there to shop. The Patuxent River is a convincing boundary to the west. The urban area boundary on the north was established as the market area's northern boundary and is also a convincing break point between Dunkirk and competing urban market centers.

\*Note by Department of Planning & Zoning: This information was provided by the consultant. These radii apply to urban areas, not rural areas where there may not be only shopping for 5 to 10 miles. However, the following information would be applicable for the confines of the consultant's study area.

TABLE 1

Commercial Facilities

	<u>Neighborhood Center</u>	<u>Community Center</u>
Leading Tenants	Supermarket and drugstore	Variety store and small department store
Radius of Service Area	.5 miles	2 miles
Minimum Population to Support Center	4,000	35,000
Site Area	4-8 acres	10-30 acres
Range of Gross Floor Space	30,000-70,000 sq. ft.	100,000-250,000 sq.ft.
Number of Stores and Shops	5-20	15-40

## Source:

George Nez, Standards for New Urban Development - The Denver Background, Urban Land Institute, Vol. 20, No. 5 Urban Land Institute, 1200 18th Street N.W., Washington, D.C.

The distance between Dunkirk and the Town of North Beach is approximately 7.7 miles straight-line distance. The North Beach/Chesapeake Beach Community Planning District has one of the largest populations in the Third Election District, about 17% and along with Community Planning District 4 is expected to have a total population of nearly 10,000 by 2010, enough to support a small neighborhood center.

Both Community Planning Districts 4 and 18 are located west of Maryland Route 2, putting them on the fringe of the Route 4 and Route 2 corridor. Dunkirk is both closer to Route 2 and more easily accessible to a larger segment of the population in Community Planning District 3, consequently Maryland Route 2 seems appropriate for an eastern border. For purposes of evaluation, the market area was expanded somewhat from the above description to include Community Planning Districts 1, 2 and 3 in their entirety. (See Map 1).

C. POPULATION FORECASTS

Table 2 shows population projections through the year 2005. Projections through 2000 were prepared by the Calvert County Department of Planning & Zoning in 1981 and subsequently used in the County Comprehensive Plan. The various growth rates assumed in the County's projects were extended through the year 2005. They provided a range of population forecasts between the extremes of 71,900 and 122,400 by the year 2005.

An unofficial 2005 population projection for Calvert County prepared by the Maryland Department of State Planning does not exceed 63,000. The modified growth trend as assumed by the planning staff, which projected out to 82,000 people by 2005, appears to be the most reasonable upper range of planning in the Town Center.

TABLE 2

County Population Projections

Assumption	1985	1990	2000	2005
Slow Growth	40,200	46,600	62,000	71,900
Trend Growth	44,600	57,000	95,000	122,400
Modified Trend	40,200	48,900	69,000	82,000

Using the modified growth trend estimates as a base, and assuming that the Third Election District continues to contain 45% of the County population through 2005, the population of the District would be approximately 37,000. Similarly, if Community Planning Districts 1, 2 and 3 continue to contain 16% of the County population through 2005, the population of the Dunkirk area will be about 13,000 at the high end. Assuming a higher rate of growth, "trend growth", the population of Community Planning Districts 1, 2 and 3 would be nearly 20,000. Market area population estimates assume that Community Planning Districts 1, 2 and 3 will continue to represent about 16% of the County's total population through 2005.

Based on commonly accepted planning standards, a minimum population of 4,000 is required to support a neighborhood shopping center (5-20 stores). The minimum population to support a community shopping center (15-40 stores) is 35,000. The population range estimated for the Dunkirk market area clearly exceeds the minimum for the neighborhood center, but falls short of the community shopping center minimum by 15,000. In other words, the growth of Community Planning Districts 1, 2 and 3 would have to exceed the highest current estimates by 75%, which is unlikely.

#### D. DEMAND

The type of shopping facilities most likely to locate in the Dunkirk Town Center are neighborhood facilities. The following standards, suggested by DeChiara and Koppleman (*Urban Planning Design Criteria, 1980*), indicate that the likely range of gross retail floor area will be 30,000 to 75,000 square feet. The Community Builders' Council of the Urban Land Institute suggests that the gross leasable area for neighborhood shopping facilities is in the range of 30,000 to 100,000 square feet, with 50,000 square feet as the average. To support a neighborhood shopping facility, the Community Builders' Council feels a minimum population of between 7,500 and 40,000 people is required.

Planning guidelines established by DeChiara and Koppleman for shopping centers and applied in the Dunkirk analysis indicate that the primary market area for the Dunkirk Town Center is within Community Planning Districts 1, 2 and 3. Based on these planning standards, and those set by the Community Builders' Council, the demand for commercial space by 2005 in the Dunkirk Town Center is estimated to be in the range of 30,000 to 100,000 square feet of gross leasable area.

APPENDIX 2

TRAFFIC VOLUME TRENDS AND ACCIDENT INFORMATION

A. VOLUME TRENDS

Traffic volume trends for Maryland Route 4 are shown in Table 1. The Dunkirk analysis assumed an annual average daily traffic (ADT) growth rate of 5% per year through the year 2005. Historic average daily traffic counts or estimates for Maryland Route 4 were provided by the Maryland Department of Transportation (MD DOT) for the years 1978 through 1983.

Table 1 summarizes the projected volumes for Maryland Route 4 through the planning period. They are estimated for through-traffic only and do not include additional traffic that will be generated from new commercial and residential land uses developed within the Town Center. Experience indicates there will be a concurrent deterioration of the level of service at the intersections at Ward and Ferry Landing Roads with Maryland Route 4 that corresponds to the reduced level of service on Maryland Route 4.

TABLE 1

Volume Trends

<u>Year</u>	<u>Average Daily Traffic</u>	<u>Percent Increase</u>
1980	10,200	
1981	10,600	4
1982	10,700	1
1983	11,000	3

Table 2 shows the projected average daily traffic at different growth rates of 4%-8%.

TABLE 2

Projected Average Daily Traffic

Year	Percent Increase		
	4%	5%	6%
1985	11,880	12,100	12,320
1990	14,495	15,440	16,320
1995	17,680	19,870	22,050
2000	21,570	25,570	29,570
2005	26,320	31,150	35,975

B. TRIP GENERATION

Additional trips that will be generated as a result of new development within the Town Center were estimated based on discussions of specific planned improvements with property owners. In instances when no specific plans were mentioned, land uses were assumed in the context of the market estimate and the likely highest and best use of the property.

Trip generation was estimated for the shopping center being planned by Nowlin Realty, the conference center and related retail center and light industrial park being planned for the Penwick site, two alternative site development scenarios assumed for the Lyons property, one an 80,000 square foot commercial center and the other a 40,000 square foot commercial center, and a low density residential development of up to 80 units on the Eisenman property.\*

Trips generated from proposed developments were not distributed and assigned to the highway network, because the short-term impact of the additional traffic is slight. Critical movement summations for the design years 1990, 1995, 2000, and 2005 were prepared to determine the expected level of service at major intersections. Analysis of intersections indicates that by the year 2000 the capacity of the Ward Road and Perry Landing Road intersections will not be adequate and that traffic signals and other traffic management controls will be warranted. Deterioration of the level of service at these intersections corresponds to the decrease in level of service that will occur on Maryland Route 4 as a result of normal growth in traffic volumes, not even considering the additional traffic that may be generated by new commercial development in the Town Center.

\*This estimate was done in 1986.

### C. ACCIDENT EXPERIENCE

Accident records provide insights into how the existing system is operating. Examining accident trends provides indications of design related cause and effects and helps establish the highway system needs of the Town Center. The purpose of accident analysis, in this case, is to estimate the role of current highway design in accidents which result in property damage, personal injury and loss of life.

Accident data was gathered and mapped for a segment of Maryland Route 4, from Brickhouse Road to Mount Harmony Road. The actual Town Center boundaries are encompassed within this area.

Accident data for Ward Road (C0124) and Ferry Landing Road, two County collector roads which serve the Town Center, was too limited to provide a valid measure of design performance. For the most part, the few accidents recorded were well removed from the intersection of these roads with Maryland Route 4. Consequently the accident analysis focused on Maryland Route 4 incidences.

The analysis segment of Maryland Route 4 extends 2.49 miles south from Brickhouse Road to Mount Harmony Road, approximately a mile of which is within the Dunkirk Town Center. In the period, 1978 to 1982, there were a total of 72 accidents on the overall analysis segment.

Actual accidents recorded in the data provided by the Calvert County Engineer were for the years 1976, 1979, 1981 and 1982. Apparently there were no recorded accidents between Brickhouse Road and Mount Harmony Road in 1980. Considering the very low probability of repeating a year with no accidents occurring, when the average for 1978, 1979, 1981 and 1982 was 18 accidents annually, the data was reviewed as a composite of four non-continuous years.

The Dunkirk accident analysis focused on the following characteristics from the accident reports:

1. Accident Results
2. Time of Accident (day, month, year, time of day)
3. Travel Direction
4. Single vs. Multi Vehicle
5. Total Accidents
6. Accident Rate
7. Location

8. Accident Type
9. Results (i.e., property damage, injury or fatality)

A summary of the data is shown in Table 3.

TABLE 3

Accident Analysis Summary for 1978, 1979, 1981 and 1982

Maryland Route 4  
Dunkirk Town Center

Analysis Segment: 0.97 miles  
Total Accidents: 32  
Single Vehicle Accidents: 19

Results:

Fatalities: 1  
Injuries: 16  
Property Damage: 16

Time of Day:

AM Peak (7 a.m. - 9 a.m.) = 3  
PM Peak (6 p.m. - 8 p.m.) = 6  
Night (9 p.m. - dawn) = 15  
Daylight (10 a.m. - 9 p.m.  
less PM Peak) = 9

Direction of Travel:

South: 69%  
North: 22%  
West: 5%  
East: 4%

Accident Rate (per one-hundred million vehicle miles)

1978: 476  
1979: 210  
1981: 198  
1982: 130

Intersection Related Accidents: 16  
by Intersecting Route:

Ward Road = 3  
Ferry Landing Road = 4  
Crossover = 2  
Other = 7

As mentioned, there were a total of 72 accidents in the four years over the entire 2.5+ mile segment. Of these, 33 accidents, or 46%, occurred in the Town Center segment. The Town Center segment includes about 40 percent of the segment miles. Although the Town Center has a larger percentage of accidents as compared with the percentage of miles, the difference is very slight and the significance uncertain.

Accident rates alone would not indicate especially dangerous traffic operating conditions. The rate of accidents per mile along the Dunkirk Town Center segment did not differ greatly, although it was slightly higher than the rate for the entire segment (19%). The 1982 annual average accident rate for four lane divided rural highways with no access control was 250 accidents per one hundred million vehicle miles of travel. The actual 1982 rate in Dunkirk was 130 accidents.

Accidents within the Town Center highway segment were more likely to involve two cars. Nearly 42% of the accidents in the Town Center segment involved more than one vehicle, whereas only 31% of the accidents along the analysis segment involved more than one vehicle during the four years analyzed. The difference in the multiple-vehicle accident rate for the Town Center segment is nearly 40% higher than that of the entire analysis segment.

Accident location distribution along the analysis segment included: 16 accidents, or 22%, at intersections; 17 accidents, or 24%, in shopping or business areas, all within the Town Center; and six accidents, or 8%, in residential areas, two of which were in the Town Center. Of the 16 intersection accidents, nine occurred along the Town Center highway segment; three at Ward road, four at Ferry Landing Road, one in the area of the Penwick Inn, and one approximately 100 feet north of the entrance mapped for Pippin Court.

The locations of the remaining intersection accidents were; one at Mount Harmony Road, two at Yellow Bank Road, two at Brickhouse Road, and one at Cortland Lane. Over half the intersection accidents, 56%, occurred within the Town Center and intersection accidents comprised 30% of the total accidents within the Dunkirk Town Center. By comparison, intersection accidents within the total analysis segment comprised 22% of the total. Considering the density of shopping and business areas within the Town Center, the 36% higher proportion of intersection accidents is not surprising. The actual number of accidents attributable to negotiating access off Maryland Route 4 at Ward Road and Ferry Landing Road was seven for the four years, 1978, 1979, 1981 and 1982.

Although the data does not indicate that the accident experience within the Town Center is unusually high, the location of existing entrances and crossovers is not ideal. Elimination of crossovers that are too close to intersections, e.g., the present emergency crossover for the volunteer fire company, and intersections that have short or obscured sight lines should be an objective of the Town Center design.