

Chapter 99

DRIVEWAY STANDARDS

§ 99-1. Purpose.	§ 99-6. General design requirements.
§ 99-2. Definitions.	§ 99-7. Penalties for offenses.
§ 99-3. Permit required; application; failure to comply.	Figures 1 through 4, Design Requirements
§ 99-4. Conditions and limitations of driveway permits.	Tables 1 and 2, Design Values for Residential and Commercial Driveways
§ 99-5. Maintenance responsibility.	

[HISTORY: Adopted by the Town Board of the Town of Nichols 12-19-1982 as Ch. 3 of the 1982 Code. Amendments noted where applicable.]

GENERAL REFERENCES

Uniform construction codes — See Ch. 92.

Zoning — See Ch. 194.

Mobile homes and mobile home parks — See Ch. 132.

§ 99-1. Purpose.

It is the purpose of this chapter to establish definite standards and procedures governing the construction of entrances to Town highways so as to regulate traffic entering or leaving commercial establishments, residences, industrial plants, and farms. The purpose of these standards and procedures is to provide maximum protection to the public through the orderly control of traffic movements onto and from the Town highways, to safeguard the traffic-carrying capacity of the highways, and to assure uniform practices throughout the Town in the design and construction of entrances and exits.

§ 99-2. Definitions.

As used in this chapter, the following terms shall have the meanings indicated:

COMMERCIAL DRIVEWAY — A driveway serving a commercial establishment, industry, governmental or educational institution, private utility, hospital, church, apartment building, or other comparable traffic generator. Types of designs for commercial driveways include:

- A. Divided: a driveway so designed that traffic entering it is separated from traffic leaving it by a raised median or physical barrier.
- B. Dual system: a pair of driveways separated at least 30 feet apart by an island area. These driveways may be one-way or two-way.

DEPARTMENT — The Town of Nichols Highway Department.

DRIVEWAY — Every private entrance or exit used by vehicular traffic for ingress to and egress from a Town highway.

FRONTAGE — The distance along the highway pavement in front of the owner's property determined by projecting a perpendicular or radial line from the center of the roadway to the corner points of property.

PERSON — Includes individuals, partnerships, joint ventures, corporations, and municipalities.

RESIDENTIAL DRIVEWAY — A driveway serving a private home or an apartment building containing no more than four family units.

RIGHT-OF-WAY LINE — The boundary between private property and Town highway lands.

§ 99-3. Permit required; application; failure to comply.

- A. Any person desiring access for vehicular traffic to a Town highway shall obtain a permit for an entrance and/or exit for such from the Town of Nichols.
- B. Written application for such permit shall be made to the Town of Nichols Superintendent of Highways. Applications for driveway permits will be accepted only from property owners or their authorized agents. Certification of legal ownership or owners' authorization shall be required. Upon approval of the application by the Town, a permit will be issued, stipulating the design conditions under which the installation is to be performed. The Town will respond to all requests within seven days.
- C. The property owner or his agent may submit his own driveway design for approval or may request the Highway Department to furnish the driveway design within the highway right-of-way. There will be no charge for this service.
- D. If a property owner, lessee, or agent fails to comply with the terms of a permit or fails to obtain a permit, the Town may halt the activity for which a permit is required until adequate corrections have been made. Costs incurred by the Town in correcting failure to comply with the terms and conditions of a permit, failure to obtain a permit, or defective workmanship or materials shall be borne by the permittee undertaking the activity. The provisions of this subsection shall not apply to entrances already in existence prior to October 1, 1987, but shall apply to any improvements of existing driveway connections with the Town made after October 1, 1987. "Improvement" is defined as resurfacing or a change in width, grade, or location of an existing driveway.
- E. Whenever a Town highway is reconstructed or resurfaced, existing entrances to the highway will be altered by the Department at its expense to conform to the spirit and intent and standards set forth in this chapter.

§ 99-4. Conditions and limitations of driveway permits.

A driveway permit shall be issued subject to the following conditions and limitations:

- A. Notification shall be given to the Town Superintendent of Highways when work is started and when it is completed.
- B. All work done and all materials used shall meet the requirements of the Department and the terms and stipulations of the permit. Any alterations or additions must be expressly approved by the Department.
- C. A permittee shall not hold the Department liable for any claim for damages arising from his negligence or his contractor's negligence in operations covered by the permit.
- D. The entire cost of the work specified shall be borne by the permittee, his grantees, successors, and assignees.
- E. The permittee shall have a copy of the permit available at the site during construction.
- F. The Department shall have the right of inspection of any driveway construction or reconstruction within the highway right-of-way, by its authorized representative.
- G. The permittee shall take necessary precautions to prevent injury to persons or damage to property from operations covered by the permit.
- H. Pipe or channelized natural drainage shall not be permitted to flow onto a highway right-of-way unless special provisions are approved by the Department.
- I. The permittee shall remove all surplus materials to an area outside the right-of-way unless the permit provides for disposal at locations within the right-of-way. Excavated material from within the right-of-way shall be disposed of as directed by the Town Superintendent of Highways.

§ 99-5. Maintenance responsibility.

The property owners having access to a Town highway shall be fully responsible for the maintenance of their driveway, including the portion from the highway right-of-way line to the outside edge of the highway shoulder or curbline. This maintenance responsibility includes the removal of snow and ice and keeping the portion within the highway right-of-way in a safe condition for the general public.

§ 99-6. General design requirements.

- A. The design requirements set forth in this section are intended to provide maximum safety and convenience for the traveling motorist and the permittee and are based on the premise that the rights of the highway users and those abutting property owners can mutually be satisfied. The Department reserves the right to impose additional requirements should they be necessary for public safety.
- B. Driveway location and layout. A driveway or driveway system shall be so located as to provide the items discussed in the following subsections:
 - (1) The most favorable vision, grade, and alignment conditions for motorists using the proposed driveway and the highway.

- (2) No undue interference with the free and safe movement of highway traffic.
 - (3) Maximum safety and convenience for pedestrians and other users of the highway right-of-way.
- C. In the interest of public safety and convenience, the Department may restrict the placement of a driveway to a particular location along the owner's frontage or require shifting of an existing driveway.
- D. The following design features shall be shown in laying out all driveway plans submitted for approval to the Department, as illustrated in Figure 1:¹
- (1) The point where the extension of the driveway edge intersects the pavement edge.
 - (2) The point where the driveway corner radius intersects the pavement edge.
 - (3) The point where the driveway corner radius becomes tangent to the driveway edge.
 - (4) The center of the driveway corner radius.
 - (5) Driveway corner radius.
 - (6) Corner angle, the angle the driveway edge makes with the pavement edge.
 - (7) The width of a driveway pavement.
 - (8) The distance between Points A and B.
 - (9) The distance between Points A and C.
- E. The location and geometric alignment of driveways adjacent to intersections will be governed by the angle of intersecting highways, width of private and public right-of-way, sight distance factors, highway and driveway radii, traffic controls, and other conditions. Normally, the distance between Point A of a driveway and the side road pavement edge, as measured along the highway pavement edge, shall be at least twice the width of the driveway plus 15 feet (see Figure 2²). However, the Department may modify this distance if an engineering determination indicates that another dimension is more suitable for a particular site. In no case should a driveway radius encroach on the radius of the intersecting highway pavement. A driveway should be located entirely within the applicant's frontage. The minimum distance between Point B of any driveway system and the point where perpendicular projection of the property line meets the highway pavement edge is to be five feet, measured along the highway pavement edge (see Figure 2). In restricted urban areas and for jointly owned driveways, variances will be permitted.
- F. Normally, only one driveway shall be permitted for each residential property. An additional driveway may be permitted if sufficient frontage exists. The minimum distance between adjacent Points B of two driveways to the same residential property as measured along the highway pavement edge shall be 30 feet.

1. Editor's Note: Figure 1 is included at the end of this chapter.

2. Editor's Note: Figure 2 is included at the end of this chapter.

- G. Normally, no more than two driveways will be allowed to a property in the commercial category. Where the need for more than two can be substantiated operationally, and adequate frontage exists, the Department may grant permission for an additional driveway. The minimum distance between adjacent Points A of adjacent driveways or driveway systems to a commercial property, as measured along the highway pavement edge, shall be 100 feet (see Figure 2³).
- H. The requirements for a divided commercial driveway shall be those illustrated in Figure 3.⁴
- I. In a dual commercial driveway system, the minimum distance between driveway pavements, as measured along the highway pavement edge, shall be 30 feet (see Figures 2 and 4⁵).
- J. Driveway profile.
- (1) In rural areas, the recommended maximum grade within the highway right-of-way is 10% for commercial driveways and 12% for residential driveways. In urban areas, the recommended maximum grades are 6% and 8%, respectively. Where special circumstances require driveway grades in excess of these recommended maximums, an engineering determination is necessary by the Department to establish the safe profile design.
 - (2) All driveways are to be constructed to slope away from the edge of pavement at the same slope at the highway shoulder, which normally varies in slope from 1/4 inch per foot to one inch per foot. This slope is to be continued the full width of the shoulder or longer so as not to cause a bump or a depression in the shoulder area.
 - (3) Whenever a change in a driveway grade occurs, the profile shall be rounded by connecting the two different grades by a smooth vertical curve. If possible, the low point of the driveway should be at or close to the ditch line of the highway ditch.
 - (4) Where a sidewalk is located close to the curblines and the driveway opening is to be provided by a depressed or cut curb, the sidewalk should be warped to conform to the driveway profile. One or both edges of the sidewalk may be depressed across the driveway, provided the resulting sidewalk cross slope does not exceed 1/2 inch per foot. In some cases, it may be necessary to discontinue the sidewalk across a driveway and to construct a curb along each driveway edge.
 - (5) Where a curb cut is made for the construction of a driveway, the entire curb section shall be removed. The removal of only the raised portion of the curb and paving over the broken section will not be allowed. Cut curb ends shall be tapered from full height to ground level in a distance of approximately two feet. Where

3. Editor's Note: Figure 2 is included at the end of this chapter.

4. Editor's Note: Figure 3 is included at the end of this chapter.

5. Editor's Note: Figures 2 and 4 are included at the end of this chapter.

drainage is carried along the curb, the driveway shall be constructed with a short upgrade to prevent run-off from spilling into private property.

K. Drainage.

- (1) A driveway must be constructed so that it does not adversely affect the highway drainage or drainage of the adjacent property. The drainage and the stability of the highway subgrade should not be impaired by driveway construction of roadside development. In no case may the construction of a driveway cause water to flow across the highway pavement or to pond on the shoulders or in the ditch.
- (2) Where the construction of a driveway necessitates crossing a highway ditch, a culvert pipe shall be furnished by the permittee and of a diameter determined by the Superintendent of Highways and be installed in the ditch by the Highway Department, and the low point of the driveway profile shall be at or close to the ditch line. Under no circumstances will existing ditches or gutters be filled without adequate provisions for alternate drainage by the permittee.
- (3) Culvert pipes shall be of a size adequate to carry the anticipated flow in the ditch as determined by the Department and shall not be smaller than 12 inches in diameter.
- (4) The structural material and gauge of the driveway pipe shall be adequate to carry the anticipated flow in the ditch as determined by the Department and shall not be smaller than 12 inches in inside diameter.
- (5) The structural material and gauge of the driveway pipe shall be adequate to withstand the loads from the anticipated vehicular traffic across the driveway. The length of the culvert shall be determined as the sum of the width of the driveway at the ditch line and the length needed to accommodate a side slope of one vertical to three horizontal from the driveway to the ditch.

§ 99-7. Penalties for offenses. ⁶

Any person who willfully violates any provision of this chapter shall, upon conviction, be subject to a fine which shall not exceed \$250 or to imprisonment not exceeding 15 days, or both. Each day that such violation continues after an initial notice of violation shall constitute a separate offense.

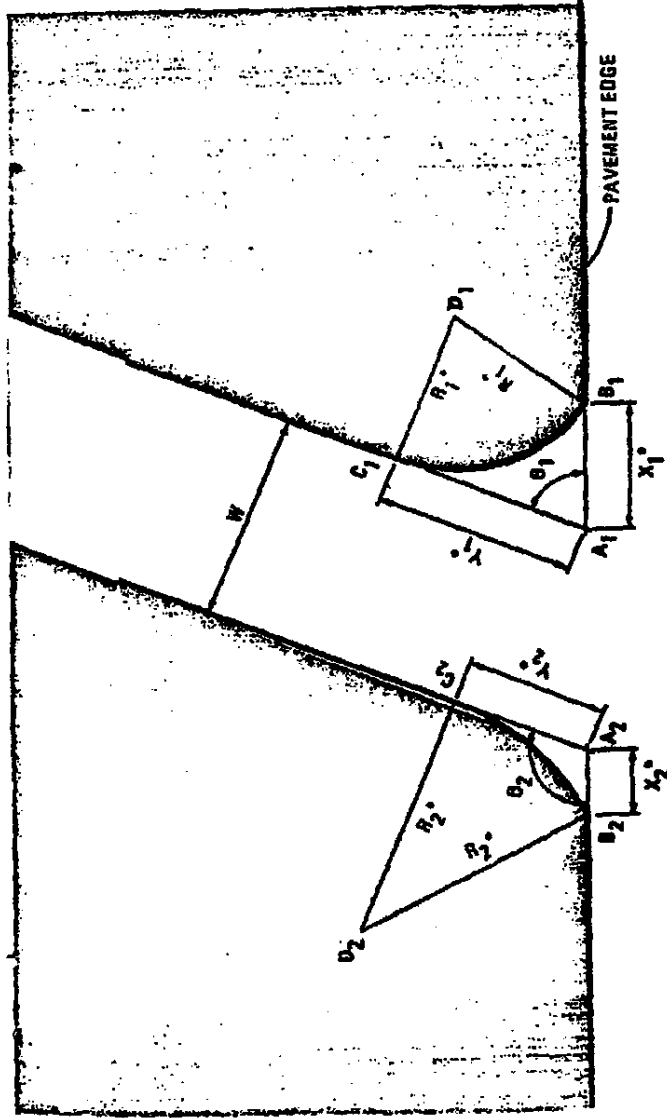
6. Editor's Note: Added at time of adoption of Code (see Ch. 1, General Provisions, Art. I).

DRIVEWAY STANDARDS

99 Attachment 1

Town of Nichols
Driveway Design Requirements

Figure 1



*VALUES TO BE DETERMINED FROM TABLES 1 OR 2

FIGURE 1
RESIDENTIAL OR COMMERCIAL DRIVEWAY OUTLINE

Figure 2

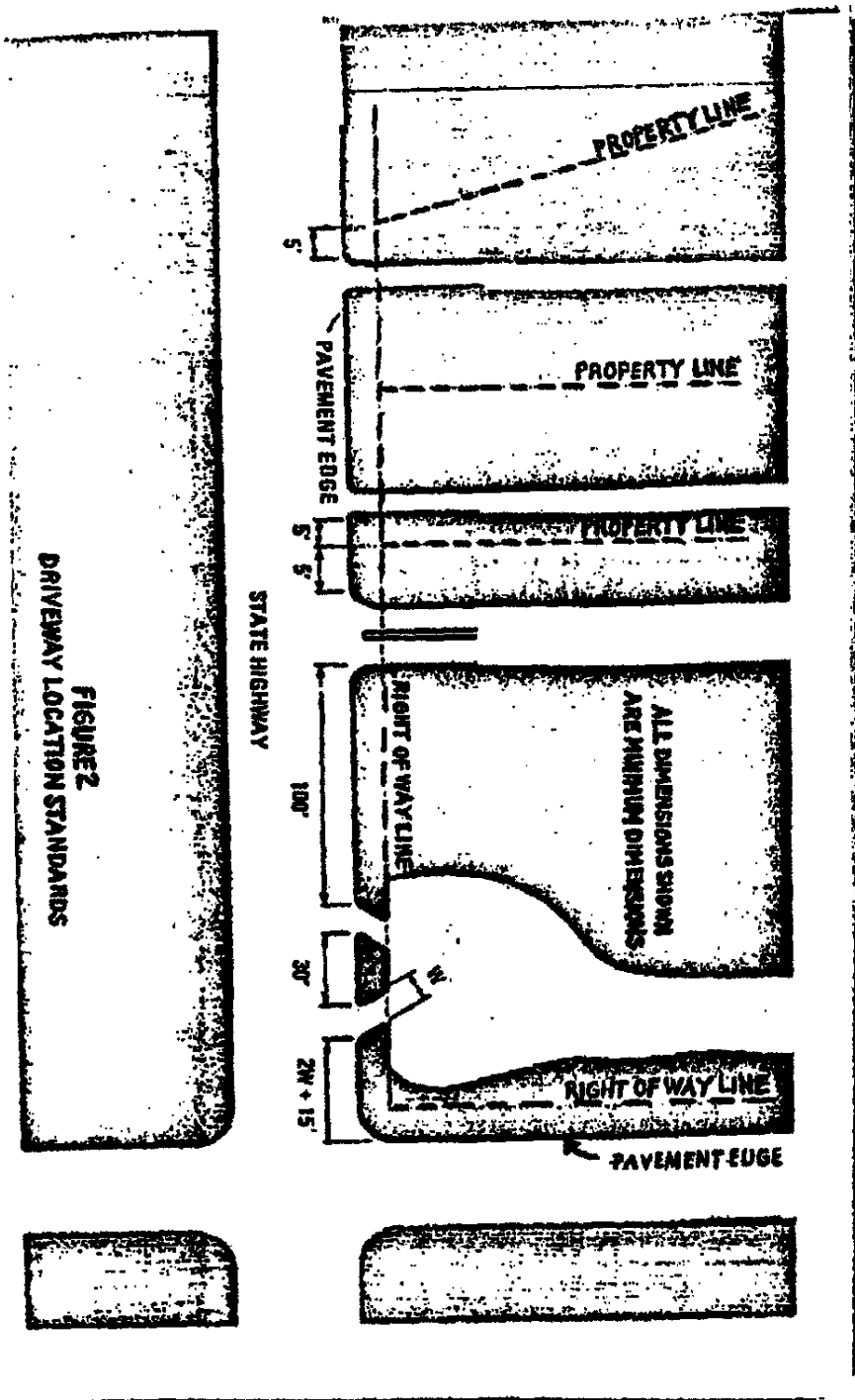


FIGURE 2
DRIVEWAY LOCATION STANDARDS

DRIVEWAY STANDARDS

Figure 3

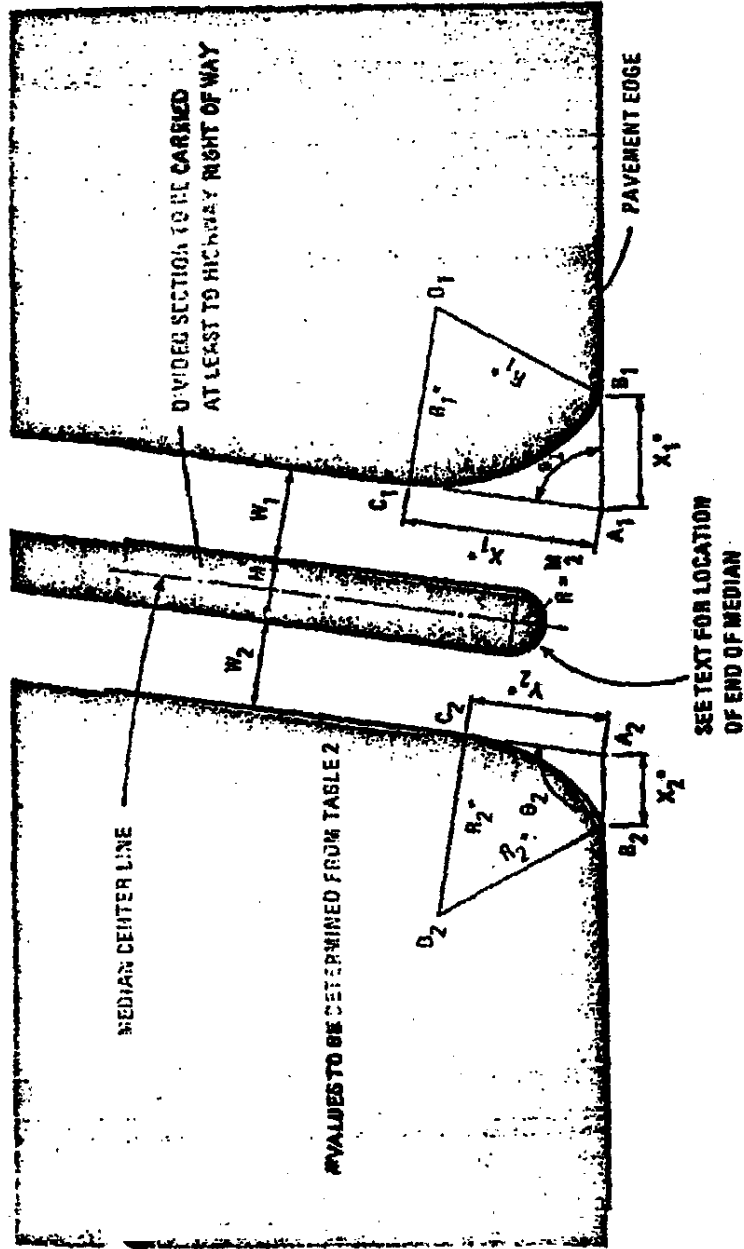


FIGURE 3
DIVIDED COMMERCIAL DRIVEWAY OUTLINE

Figure 4

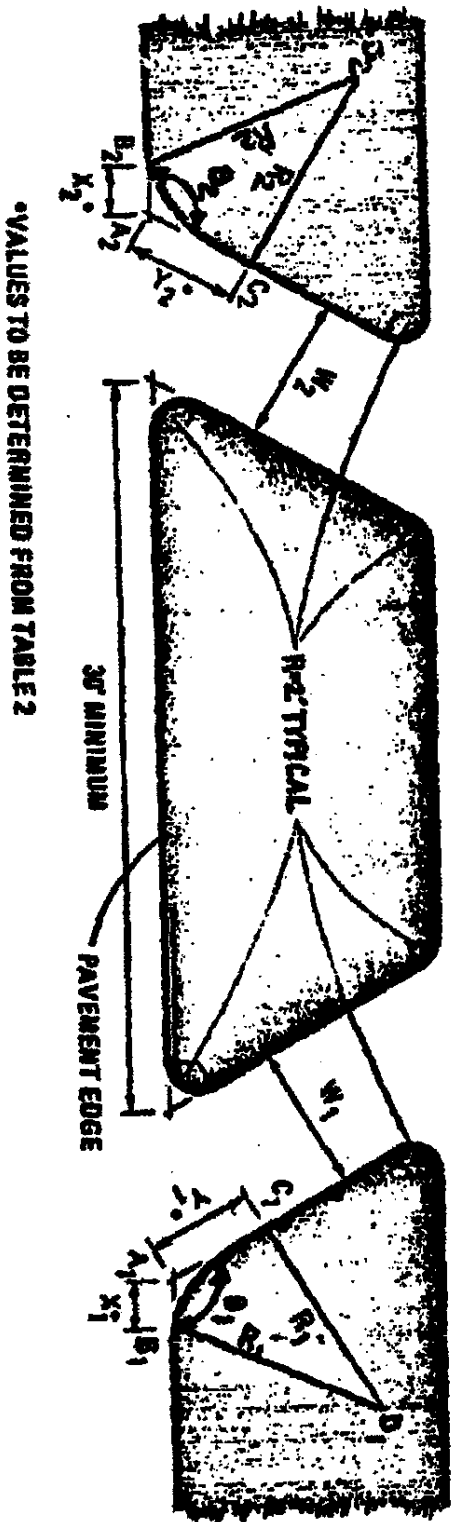


FIGURE 4
DUAL SYSTEM COMMERCIAL DRIVEWAY OUTLINE

DRIVEWAY STANDARDS

99 Attachment 2

Town of Nichols

Table 1
Recommended Design Values for Residential Driveways
(R, X and Y in feet)

Driveway Width (feet)	Corner Angle (degrees)																											
	60		65		70		75		80		85		90		95		100											
8	R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y										
9	19.0	23.2	30.6	19.0	20.3	27.6	19.0	17.9	25.1	19.0	15.8	22.6	19.0	13.9	20.5	19.0	12.1	19.0	10.5	17.1	19.0	9.1	15.4	19.0	7.8	13.9	19.0	
10	18.5	22.6	29.8	18.5	19.8	26.8	18.4	17.3	24.3	18.4	15.3	21.9	18.3	13.3	19.8	18.2	11.7	18.2	18.1	10.0	16.3	18.0	8.6	14.5	17.8	7.3	13.0	17.7
11	18.1	22.1	29.1	18.0	19.3	26.1	17.9	16.8	23.5	17.8	14.8	21.2	17.6	12.8	19.0	17.4	11.1	17.4	17.2	9.5	15.5	16.9	8.1	13.7	16.5	6.8	12.1	16.6
12	17.6	21.5	28.3	17.5	18.7	25.4	17.3	16.2	22.8	17.1	14.3	20.4	16.9	12.3	18.3	16.6	10.6	16.6	16.3	9.0	14.7	15.9	7.6	12.8	15.3	6.3	11.2	14.4
13	17.1	20.9	27.5	17.0	18.2	24.6	16.7	15.7	22.0	16.5	13.7	19.6	16.2	11.8	17.5	15.8	10.1	15.8	15.4	8.5	13.9	14.8	7.1	12.0	14.1	5.8	10.3	13.1
14	16.6	20.3	26.7	16.4	17.6	23.9	16.2	15.2	21.4	15.9	13.2	18.9	15.5	11.3	16.8	15.1	9.6	15.0	14.5	8.0	13.0	13.8	6.6	11.1	12.8	5.3	9.3	11.1
15	16.2	19.8	26.0	15.9	17.1	23.1	15.6	14.7	20.6	15.3	12.7	18.2	14.8	10.8	16.0	14.3	9.1	14.3	13.6	7.5	12.2	12.7	6.1	10.3	11.6	4.8	8.4	10.1
16	15.7	19.2	25.3	15.4	16.5	22.4	15.1	14.2	19.9	14.6	12.1	17.5	14.1	10.3	15.3	13.5	8.6	13.5	12.7	7.0	11.4	11.7	5.6	9.4	10.4	4.3	7.5	8.6
18	15.2	18.6	24.5	14.9	15.9	21.6	14.5	13.6	19.1	14.0	11.6	16.7	13.4	9.8	14.5	12.7	8.1	12.7	11.8	6.5	10.6	10.6	5.1	8.6	9.1	3.7	6.6	8.6
20	14.3	17.4	23.0	13.9	14.9	20.1	13.4	12.6	17.7	12.8	10.5	15.2	12.0	8.7	13.0	11.1	7.1	11.1	10.0	5.5	9.0	8.5	4.1	6.9	7.3	3.0	5.3	8.6
22	13.4	16.3	21.6	12.8	13.7	18.6	12.2	11.5	16.1	11.5	9.5	13.7	10.6	7.7	11.4	9.5	6.1	9.5	8.2	4.5	7.4	6.4	3.1	5.2	7.3	3.0	5.3	8.6
24	12.4	15.1	20.0	11.8	12.6	17.1	11.1	10.5	14.7	10.3	8.5	12.2	9.2	6.7	9.9	8.0	5.1	8.0	6.4	3.5	5.7	6.3	3.0	5.1	7.3	3.0	5.3	8.6
24	11.5	14.0	18.5	10.8	11.6	15.6	10.0	9.4	13.2	9.0	7.5	10.7	8.2	5.7	8.4	6.4	4.1	6.4	5.4	3.0	4.8	6.3	3.0	5.1	7.3	3.0	5.3	8.6

Table 2
Recommended Design Values for Commercial Driveways
(R, X and Y in feet)

Driveway Width (feet)	Corner Angle (degrees)																											
	60		65		70		75		80		85		90		95		100											
All	R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y										
All	34.0	46.2	56.6	34.0	40.9	51.2	34.0	36.3	46.4	34.0	32.3	42.2	34.0	28.7	38.5	34.0	25.4	35.1	34.0	22.5	32.0	34.0	19.9	29.1	34.0	17.4	26.5	34.1

DRIVEWAY STANDARDS

99 Attachment 2

Town of Nichols

Table 1
Recommended Design Values for Residential Driveways
(R, X and Y in feet)

		Corner Angle (degrees)																							
		80		85		90		95		100		105		110		115		120							
R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y					
19.0	13.9	20.5	19.0	12.1	19.0	10.5	17.1	19.0	9.1	15.4	19.0	7.8	13.9	19.0	6.7	12.5	19.0	5.5	11.2	19.0	4.6	9.9	19.0	3.6	8.7
18.3	13.3	19.8	18.2	11.7	18.2	10.0	16.3	18.0	8.6	14.5	17.8	7.3	13.0	17.5	6.1	11.6	17.2	5.0	10.1	16.7	4.1	8.7	16.0	3.1	7.3
17.6	12.8	19.0	17.4	11.1	17.4	9.5	15.5	16.9	8.1	13.7	16.5	6.8	12.1	16.0	5.6	10.6	15.4	4.5	9.1	14.4	3.5	7.5	15.7	3.0	7.1
16.9	12.3	18.3	16.6	10.6	16.6	9.0	14.7	15.9	7.6	12.8	15.3	6.3	11.2	14.6	5.1	9.6	13.5	3.9	8.0	12.5	3.0	6.5	15.7	3.0	7.1
16.2	11.8	17.5	15.8	10.1	15.8	8.5	13.9	14.8	7.1	12.0	14.1	5.8	10.3	13.1	4.6	8.6	11.7	3.4	6.9	12.5	3.0	6.5	15.7	3.0	7.1
15.5	11.3	16.8	15.1	9.6	15.0	8.0	13.0	13.8	6.6	11.1	12.8	5.3	9.3	11.6	4.0	7.6	10.3	3.0	6.0	12.5	3.0	6.5	15.7	3.0	7.1
14.8	10.8	16.0	14.3	9.1	14.3	7.5	12.2	12.7	6.1	10.3	11.6	4.8	8.4	10.1	3.5	6.7	10.3	3.0	6.0	12.5	3.0	6.5	15.7	3.0	7.1
14.1	10.3	15.3	13.5	8.6	13.5	7.0	11.4	11.7	5.6	9.4	10.4	4.3	7.5	8.6	3.0	5.7	10.3	3.0	6.0	12.5	3.0	6.5	15.7	3.0	7.1
13.4	9.8	14.5	12.7	8.1	12.7	6.5	10.6	10.6	5.1	8.6	9.1	3.7	6.6	8.6	3.0	5.7	10.3	3.0	6.0	12.5	3.0	6.5	15.7	3.0	7.1
12.0	8.7	13.0	11.1	7.1	11.1	6.0	9.0	8.5	4.1	6.9	7.3	3.0	5.3	8.6	3.0	5.7	10.3	3.0	6.0	12.5	3.0	6.5	15.7	3.0	7.1
10.6	7.7	11.4	9.5	6.1	9.5	5.5	8.2	7.4	3.1	5.2	7.3	3.0	5.3	8.6	3.0	5.7	10.3	3.0	6.0	12.5	3.0	6.5	15.7	3.0	7.1
9.2	6.7	9.9	8.0	5.1	8.0	4.5	7.4	6.4	2.1	4.2	6.3	3.0	5.3	8.6	3.0	5.7	10.3	3.0	6.0	12.5	3.0	6.5	15.7	3.0	7.1
7.8	5.7	8.4	6.4	4.1	6.4	3.0	4.8	6.3	3.0	5.1	7.3	3.0	5.3	8.6	3.0	5.7	10.3	3.0	6.0	12.5	3.0	6.5	15.7	3.0	7.1

Table 2
Recommended Design Values for Commercial Driveways
(R, X and Y in feet)

		Corner Angle (degrees)																								
		80		85		90		95		100		105		110		115		120								
R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y	R	X	Y						
34.0	28.7	38.5	34.0	25.4	35.1	34.0	22.5	32.0	34.0	19.9	29.1	34.0	17.4	26.5	34.0	15.1	24.0	34.0	13.0	21.7	34.0	11.1	19.4	34.0	9.3	17.3