## PARKING LOT LAYOUT


$X=S T A L L$ NOT ACCESSIBLE IN CERTAIN LAYOUTS ANGLED PARKING DICTATES ONE-WAY AISLES

| ANGLE | StaLL WIDTH | A | B | C | D | E | F | G | H | \| | J | K | L |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $45^{\circ}$ | **7.5 | 10.6 | 21.2 | 14.2 | 13.0 | 12.3 | 39.5 | 38.0 | 38.0 | 1.5 | 5.3 | 10.7 | 14.0 |
|  | 8.5 | 12.0 | 24.8 | 16.5 | 15.0 | 14.5 | 46.0 | 44.0 | 43.5 | 2.5 | 6.3 | 11.0 | " |
|  | 9.0 | 12.7 | " | " | ${ }^{*} 14$ | " | " | " | " | " | " | " | " |
|  |  |  |  |  |  |  |  |  |  | " | " | " | " |
| $60^{\circ}$ | **7.5 | 8.7 | 17.3 | 15.4 | 15.0 | 14.0 | 44.4 | 43.0 | 42.9 | 1.5 | 1.7 | 8.0 | " |
|  | 8.5 | 9.8 | 20.2 | 18.0 | 18.0 | 16.5 | 52.5 | 51.0 | 50.0 | 2.5 | 2.7 | 8.3 | " |
|  | 9.0 | 10.4 | " | " | ${ }^{*} 16$ | " | " | " | " | " | " | " | " |
|  |  |  |  |  |  |  |  |  |  | " | " | " | " |
| $75^{\circ}$ | **7.5 | 7.8 | 15.5 | 16.0 | 17.0 | 15.1 | 48.1 | 47.0 | 46.6 | 1.5 | 0.4 | 4.7 | " |
|  | 8.5 | 8.8 | 18.1 | 18.5 | 22.0 | 17.5 | 58.0 | 57.0 | 55.5 | 2.5 | 0.5 | 5.0 | " |
|  | 9.0 | 9.3 | " | " | * 21 | " | " | " | " | " | " | " | " |
|  |  |  |  |  |  |  |  |  |  | " | " | " | " |
| $90^{\circ}$ | **7.5 | 7.5 | 15.0 | 15.0 | 21.0 | 15.0 | 52.0 | 51.0 | 50.5 | 1.5 | 0.0 | 0.0 | D |
|  | 8.5 | 8.5 | 17.5 | *18 | *26 | 17.5 | 61.0 | 61.0 | 58.5 | 2.5 | " | " | D |
|  | 9.0 | 9.0 | " | " | *24 | " | " | " | " | " | " | " | D |
|  |  |  |  |  |  |  |  |  |  | " | " | " | D |

** 7.5' Wide stalls are for COMPACT cars only and must be signed as such.
(Source)
ITE Technical Council Committee 5D-8, Guidelines for Parking Facility

* LOCATION AND DESIGN, A RECOMMENDED PRACTICE, WASHINGTON, D.C.: IIE, 1994.
* DENOTES DEVIATION FROM SOURCE.


## PARKING LAYOUT NEAR SIDEWALKS

TYPICAL LAYOUT


Note: Compact stalls must be signed and may constitute up to $25 \%$ or Required parking.

| WIDTH | TYpical Turnover | TYpical Uses |
| :---: | :---: | :---: |
| 9.5 FEET | high w/Loading | Grocery and high volume Retall Stores |
| 9.0 Feet | High to Medium | Retail customers, Banks, Fast Foods, other high turnover rates |
| 8.5 FEET | Medium to Low | Visitors, Employees, Residential, Airport, hospitals, Commuter |

## PERIMETER REQUIREMENTS


(1) TIRE STOP OR OTHER APPROVED BARRIER
(2) DISTANCE MAY be reduced at Property Lines when landscaping is not required


Note: $90^{\circ}$ Parking may share hatched area.
ANGLED PARKING REQUIRES INDEPENDENT


Ramp (A) should be moved into the sidewalk, provided side slopes are less than I:IO and 5' OF LEVEL SIDEWALK IS MAINTAINED AT THE ENTRY DOOR.

Minimize the use of Tire Stops near high pedestrian traffic.
I. Standard handicap parking spaces are to conform to Section 3313.2 of the Kentucky Building CODE.
2. The first handicapped parking space must be dimensioned and signed as "Van Accessible". I of every 8 HC SPaCES must be "Van Accessible".
3. MINIMUM MOUNTING HEIGHT OF SIGNAGE FOR HANDICAP PARKING IS 6' FROM GROUND TO BOTTOM OF THE LOWEST SIGN.
4. Signs are to be centered in front of each space along with the international handicap symbol painted in the vehicle area in either yellow or white paint.
**Refer to the Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and FACILITIES FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
**ADA Accessibility Requirements are Enforced by Building Inspection.

## LOADING DOCK LAYOUT



| Design VEhicle | Length in feet (L) | Dock ANGLE ( $\alpha$ ) | Clearance in feet (D) | BERTH <br> WIDTH IN FEET <br> (W) | APRON <br> SPACE <br> IN FEET <br> (A) | Total OFFSET IN FEET <br> (T) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WB-40 | 50 | $90^{\circ}$ | 50 | 10 | 63 | 113 |
|  |  |  |  | 12 | 56 | 106 |
|  |  |  |  | 14 | 52 | 102 |
|  |  | $60^{\circ}$ | 44 | 10 | 46 | 90 |
|  |  |  |  | 12 | 40 | 84 |
|  |  |  |  | 14 | 35 | 79 |
|  |  | $45^{\circ}$ | 36 | 10 | 37 | 73 |
|  |  |  |  | 12 | 32 | 68 |
|  |  |  |  | 14 | 29 | 65 |
| WB-50 | 55 | $90^{\circ}$ | 55 | 10 | 77 | 132 |
|  |  |  |  | 12 | 72 | 127 |
|  |  |  |  | 14 | 67 | 122 |
|  |  | $60^{\circ}$ | 48 | 10 | 55 | 103 |
|  |  |  |  | 12 | 51 | 99 |
|  |  |  |  | 14 | 46 | 94 |
|  |  | $45^{\circ}$ | 39 | 10 | 45 | 84 |
|  |  |  |  | 12 | 40 | 79 |
|  |  |  |  | 14 | 37 | 76 |


| Design CRITERION | Size of Vehicle to be Accommodated in feet |  |  |
| :---: | :---: | :---: | :---: |
|  | Automobile, PIckup \& PANEL | Single-Unit Truck | Tractor-Trailer Truck |
| Vertical clearance | ---- | 13 | 14 |
| Length | 25 | 35 | 55* |
| WIDTH | 11 | 12 | 12 |
| Dock height | 2-2.5 | 3-4.2 | 4-4.4 |
| * May need to accom | Oodate trucks ov | 65 FEET LONG |  |

## APRON GEOMETRY

SEE DIVISION OF ENGINEERING, ENTRANCE DETAILS (STANDARD DRAWINGS-ATTACHED)


CURRENT STANDARD

| CLASSIFICATION | DRIVEWAY | APRON |
| :---: | :---: | :---: |
| SINGLE RESIDENTIAL | $12^{\prime}$ | $18^{\prime}$ |
| DOUBLE OR JOINT <br> RESIDENTIAL <br> NONRESIDENTIAL | $20^{\prime}$ | $26^{\prime}$ |

PROPOSED STANDARD

| CLASSIFICATION | DRIVEWAY | STANDARD APRON | ALTERNATE APRON |
| :---: | :---: | :---: | :---: |
| SINGLE RESIDENTIAL | 12' | $3{ }^{\prime}$ StRAIGHT FLARE $=18{ }^{\prime}$ CURB CUT | -- |
| DOUBLE OR JOINT RESIDENTIAL | $20^{\prime}$ | $3^{\prime}$ StRAIGHT FLARE $=26^{\prime}$ CURB CUT | -- |
| NONRESIDENTIAL | $30^{\prime}$ | $5^{\prime}$ StRAIGHT FLARE $=40^{\prime} \mathrm{CURB}$ CUT | $10^{\prime}$ RAdIAL FLARE $=50^{\prime}$ CURB CUT |
| COMMERCIAL LOADING | $30^{\prime}$ | $15^{\prime}$ StRAIGHT FLARE $=60^{\circ} \mathrm{CURB}$ CUT | 20' ${ }^{\prime}$ RADIAL FLARE $=70^{\prime} \mathrm{CURB}$ CUT |
| INDUSTRIAL | $40^{\prime}$ | 20' StRAIGHT FLARE $=80^{\circ} \mathrm{CURB}$ CUT | 25' RADIAL FLARE $=90^{\circ} \mathrm{CURB}$ CUT |

VERTICAL ALIGNMENT


| TYPE | DESIRABLE <br> (D) | MAXIMUM <br> (D) |
| :---: | :---: | :---: |
| HIGH VOLUME DRIVEWAY | $0 \%$ | $+/-3 \%$ |
| LOW VOLUME DRIVEWAY ON <br> MAJOR OR COLLECTOR STREETS | $+/-3 \%$ | $+/-6 \%$ |
| LOW VOLUME DRIVEWAY ON <br> LOCAL STREETS | $+/-6 \%$ | $+/-$ I $5 \%$ <br> CONTROLLED BY <br> VEHICLE CLEARANCE |
| HIFA GRADE CHANGE GREATER THAN I5\% IS NECESSARY, AT LEAST |  |  |

G2 RANGE $15 \%$ TO - $15 \%$ (RESIDENTIAL)


# CODE OF ORDINACES (Chapter 17 as it pertains to Traffic Engineering) 

## ARTICLE III. SIDEWALK, CURB AND GUTTER CONSTRUCTION AND IMPROVEMENT

Sec. 17-146.1 Ramps for persons using wheelchairs.
A. All new curbs and all existing curbs which are a part of any construction or reconstruction shall comply with the provisions of subsection (b).
B. In order to enable persons using wheelchairs to travel freely and without assistance at each crosswalk, a ramp with non-slip surface shall be built into the curb so that the sidewalk and street blend to a common level. The bottom to he ramp and the street shall be at the same elevation and there shall be no lip permitted at the ramp bottom. Such ramp shall not be less than thirty-two (32) inches wide and shall not have a slope greater than one (1) inch rise per twelve (12) inches length, where practicable, in all ramps there shall be a gradual rounding at the bottom of the slope. (Ord. No. 66-74, d 1, 4-25-74; Ord. No. 131-75, d 1, 5-29-75)

## ARTICLE V. DRIVEWAY CONSTRUCTION

Sec. 17-153. Definitions
The following words and phrases when used in this article shall, for the purpose in this article, have the meanings respectively ascribed to them in this section:

1) SIDEWALK: That portion of the street right-of-way between the curblines or the lateral lines of a roadway, and adjacent property lines intended for the use of pedestrians and generally separated from the curb or roadway surface by a utility strip or grass plot.
2) DRIVEWAY (RESIDENTIAL): A passageway for vehicle ingress and egress to private property meeting one (1) or more of the following criteria:
i. Must extend into an enclosed area such as a garage or carport.
ii. Must extend a sufficient distance beyond the front building line for a parked vehicle to completely clear such front building line.
iii. In the event of a corner lot, where the passageway leads from the street side lot line, such passageway must extend a sufficient distance beyond the street side building line for a parked vehicle to completely clear such street side building line.
iv. Paraphrased - Townhouses may have driveways constructed to allow for parking between the street and front building line. (See Ordinance)
3) DRIVEWAY (NON-RESIDENTIAL): A passageway for vehicle ingress or egress to private property meeting one (1) or more of the following criteria:
i. must extend into an enclosed area such as a garage or carport.
ii. Must extend a sufficient distance beyond the front building line for a parked vehicle to completely clear such front building line.
iii. In the event of a corner lot, where the passageway leads from the street side lot line, such passageway must extend as sufficient distance beyond the street side building line for a parked vehicle to completely clear such street side building line.
iv. Must be for the purpose of passageway to an area of sufficient size between the street right-ofway line and the building line to permit storage and maneuvering of a vehicle in such a manner as not to encroach upon the street right-of-way except at an approved driveway.
4) JOINT DRIVEWAY: A passageway for vehicle ingress or egress to two (2) or more parcels of property.
5) APRON: That portion of a passageway that lies between the street side of the sidewalk and the curbline or edge of roadway surface.
6) COMMISSIONER OF PUBLIC WORKS: Commissioner of Sanitation and Public Works of the Urban County. (Ord. No. 3511, _ 1, 3-24-56; Ord. No. 29-82, _ 1, 3-25-82

Sec. 17-154. Permit.
Paraphrased - Anyone wishing to construct or alter a driveway (residential or commercial) must apply for a permit from the Commissioner of Public Works (CPW). The CPW or designee will evaluate the proposal and grant such permit if it will not create a hazardous condition. "However, final approval shall be contingent on the work's being done so as to conform to all other requirements of this article. (Ord. No. 3511, _ 2, 3-24-56) (See Ordinance)

Sec. 17-155. Residential Specifications.
(1) The driveway width measured at any point on the sidewalk shall not exceed twelve (12) feet for a single driveway or twenty (20) feet for a double or joint driveway. In the event the sidewalk is not separated from the curb by a utility strip or grass plot at any point along the frontage of the property, the point at which the above measurement is made will be determined by the CPW in accord with good engineering practices.
(2) The width of the driveway apron measured at the curbline shall not exceed eighteen (18) feet for a single driveway or twenty-six (26) feet for a double driveway.
(3) The sidewalk portion of the driveway shall be of portland cement concrete with a minimum thickness of four and one-half (4 1/2) inches.
(4) The apron shall be either six (6) inches of rock base with a one and one-half (1 1/2) inch bituminous surface or a six-inch thickness of portland cement concrete.
(Ord. No. 3511, _ 3, 3-24-56)

Sec. 17-156. Nonresidential, specifications.

1) At the time a request is made for a permit, there shall be submitted to the CPW a plat and plan of the area to be improved. Such plat shall be drawn to a scale of not less than one-eighth inch to one foot $\left(1 / 8 "=1^{\prime}\right)$ and with all principal dimensions shown. Such plans shall show the location of all existing walks, curbs and the relative elevation of the gutters, the top of the curb, and the sidewalk; all existing trees, their size and kind, fire hydrants, mailboxes, traffic signs, water shutoff boxes, storm sewer inlets, utility poles and conduits, and any other structure existing on or in the street adjacent to the property; and shall also show the proposed location of tanks, buildings, air hose, wash racks, oil pits, pump islands, and all other equipment which the applicant proposed to install on the property, together with the distance from such equipment to the street property line.
2) Where the property line on any street extends for a distance of one hundred fifty (150) feet or less, there shall not be more than two (2) driveways constructed not more than thirty (30) feet in width at the property line, and not more than forty (40) feet at the curbline.
3) Where the property line on any street extends for a distance greater than one hundred fifty (150) feet, there shall not be more than three (3) driveways of the same dimensions set forth in subsection (2) of this section; except that the CPW may issue a permit for more than three (3) driveways if said driveways are shown on a plat approved by the planning commission of the urban county. Said approval must have been given subsequent to January 1, 1956.
4) Where two (2) or more driveways are constructed on any one property, there shall be a curb between each driveway not less than six (6) feet in length measured at and parallel to the curbline.
5) The curb for the driveway shall not be cut except in front of the property for which the driveway is to be used, and in no event shall it be cut to a point closer than three (3) feet from the side property line.
6) When property used for nonresidential purposes is located at an intersection of two (2) streets, no driveway or any part thereof which is intended to serve such property shall be closer than five (5) feet to the intersection of the street right-of-way lines but in no event shall be closer than twentyfive (25) feet from the point of intersection of a projection of the face of the curbline or edge of the pavement surface.
7) The apron shall be of Portland cement concrete of a minimum depth of six (6) inches and where it adjoins the gutter line shall be faced with a raised vertical lip of not less than one and five-eighths ( $15 / 8$ ) inch.
8) The sidewalk portion of the driveway shall be of Portland cement concrete with a minimum thickness of six (6) inches.
9) To prevent any part of any vehicle using the driveway from projecting over or crossing the public sidewalk except at points designated, there shall be installed on the property six (6) inches inside the property line a curb or other suitable barrier to be approved by the CPW (Ord. No. 3511, _ 4, 3-24-56)

Sec. 17-157. Use.

Paraphrased - You need a permit for almost everything.
Sec. 17-158. Abandonment.
Paraphrased - If a driveway is abandoned the property owner must remove the apron and restore public curbing and sidewalks. The CPW may order such action and serve fines to the property owner with in ten (10) days of notification if work is not performed.

Sec. 17-159. Utilities.
Paraphrased - Coordinate with utility companies involved if a utility is in the way of a proposed entrance.

Sec. 17-160. Barricades, etc.
Applicants for a driveway permit shall, during construction, reconstruction or alteration, maintain the premises in a safe manner and shall provide adequate barricades and lights at his own expense to protect the safety of the public using the adjacent streets and sidewalks and shall hold the urban county government free from any damages incurred by his operations. All debris and surplus material shall be removed immediately. (Ord. No. 3511, Sec. 8, 3-24-56)

Sec. 17-161. Penalties.
Any person violating and provisions of this article shall be fined not less than fifty dollars (\$50.00), nor more than one hundred dollars (\$100.00) and each day during which any violation continues shall be considered a separate offense. (Ord. No. 3511, Sec. 9, 3-24-56

## SIGHT TRIANGLES

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