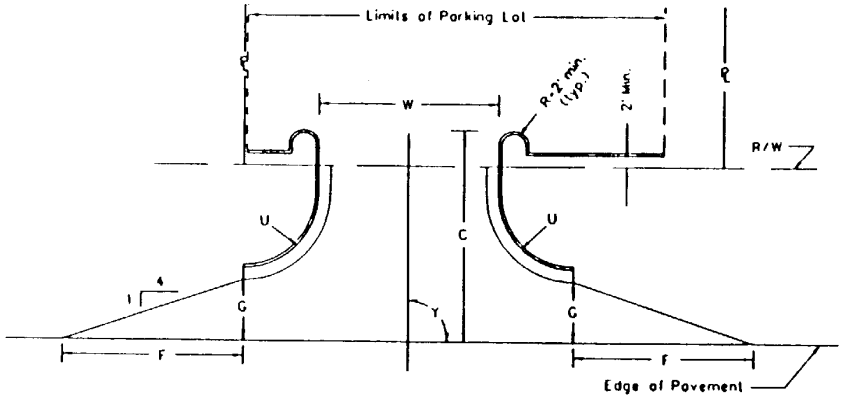
Minimum Standards of Entrances to State Highways

24 VAC 30-71-160. Commercial/private entrance illustrations.

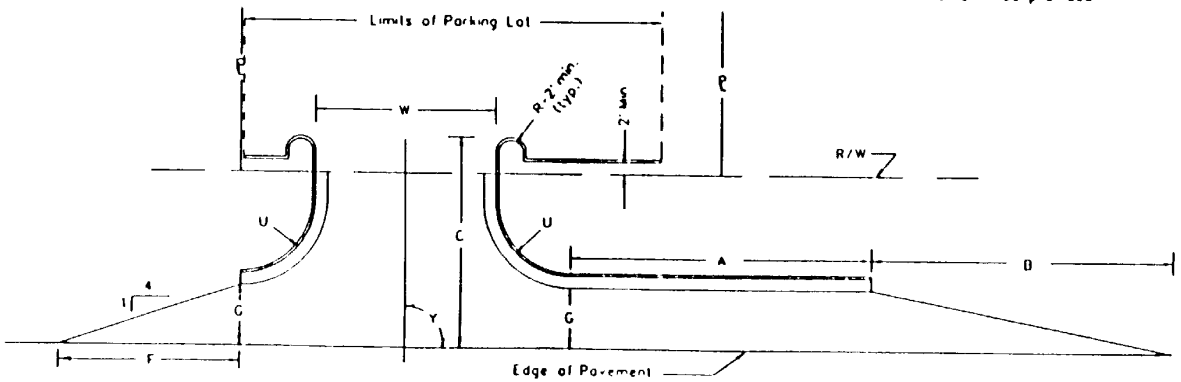
COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH SHOULDERS

(English Units)

SINGLE TWO-WAY ENTRANCE



SINGLE TWO-WAY ENTRANCE WITH RIGHT TURN LANE AND TAPER



LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	100' or greater.
C	25' or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 12' is recommended.
F	48' or greater.
G	12'
U	12.5' - 50'. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the designer or may be required by the Engineer if larger vehicles are anticipated. However, in no case shall radius be less than 12.5'
W	30' - 40'
Y	60° - 90°

Notes:
Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

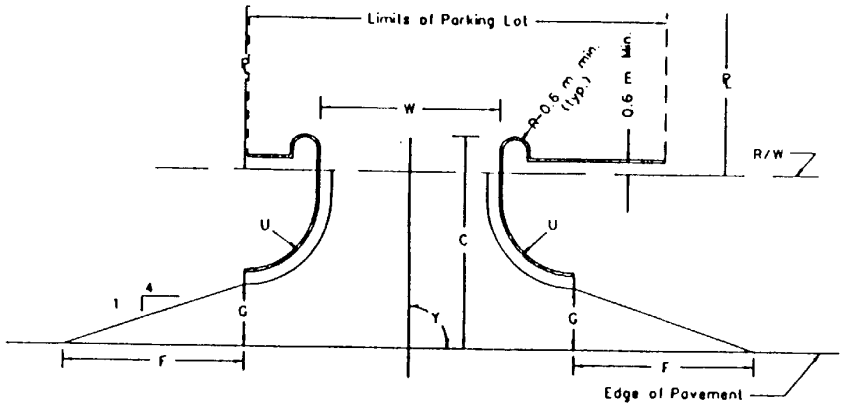
If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with ST'd CG-12 will be provided

Minimum Standards of Entrances to State Highways

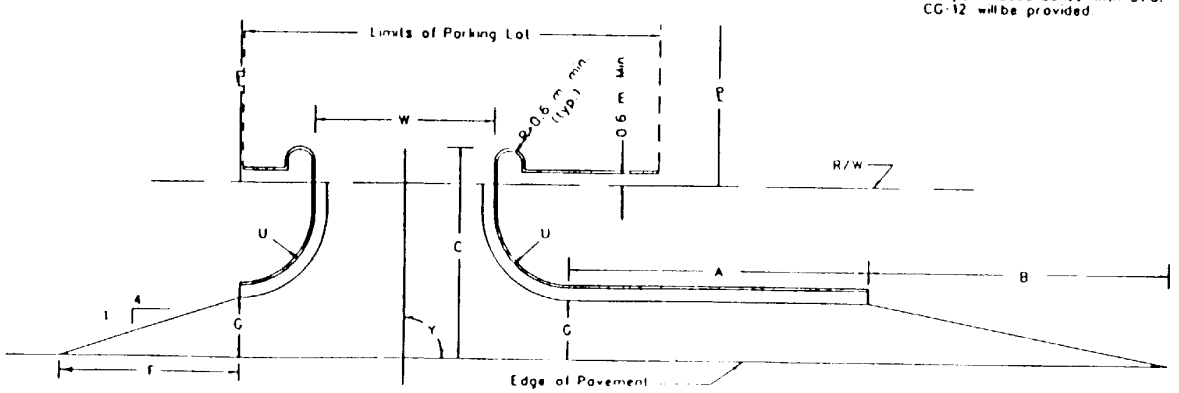
COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH SHOULDERS

(Metric Units)

SINGLE TWO-WAY ENTRANCE



SINGLE TWO-WAY ENTRANCE WITH RIGHT TURN LANE AND TAPER



LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	30 m or greater.
C	7.5 m or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 3.6 m is recommended.
F	14.4 m or greater.
G	3.6 m
U	3.8 m - 15 m. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall radius be less than 3.8 m.
W	9 m - 12 m
Y	60° - 90°

Notes:
Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

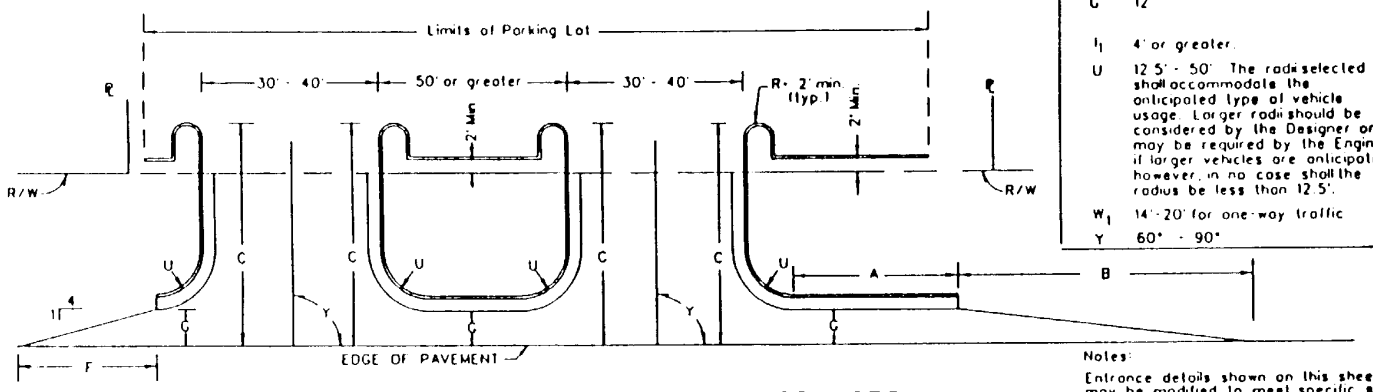
If an Accessible route as defined in page 24 VAC 30-71-10 is present, curb ramps in accordance with Std. CG-12 will be provided.

Minimum Standards of Entrances to State Highways

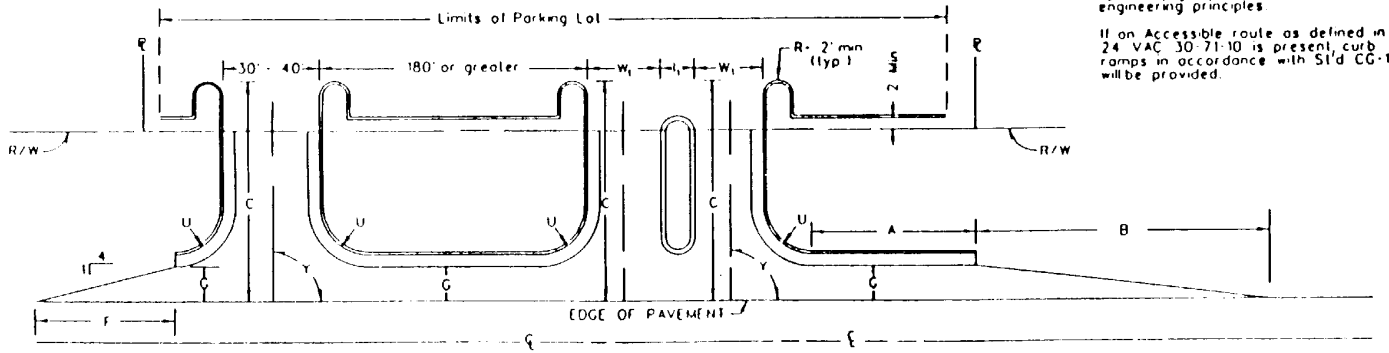
COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH SHOULDERS

(English Units)

MULTIPLE ENTRANCES WITH RIGHT TURN LANE AND TAPER



SHOPPING CENTER ENTRANCES



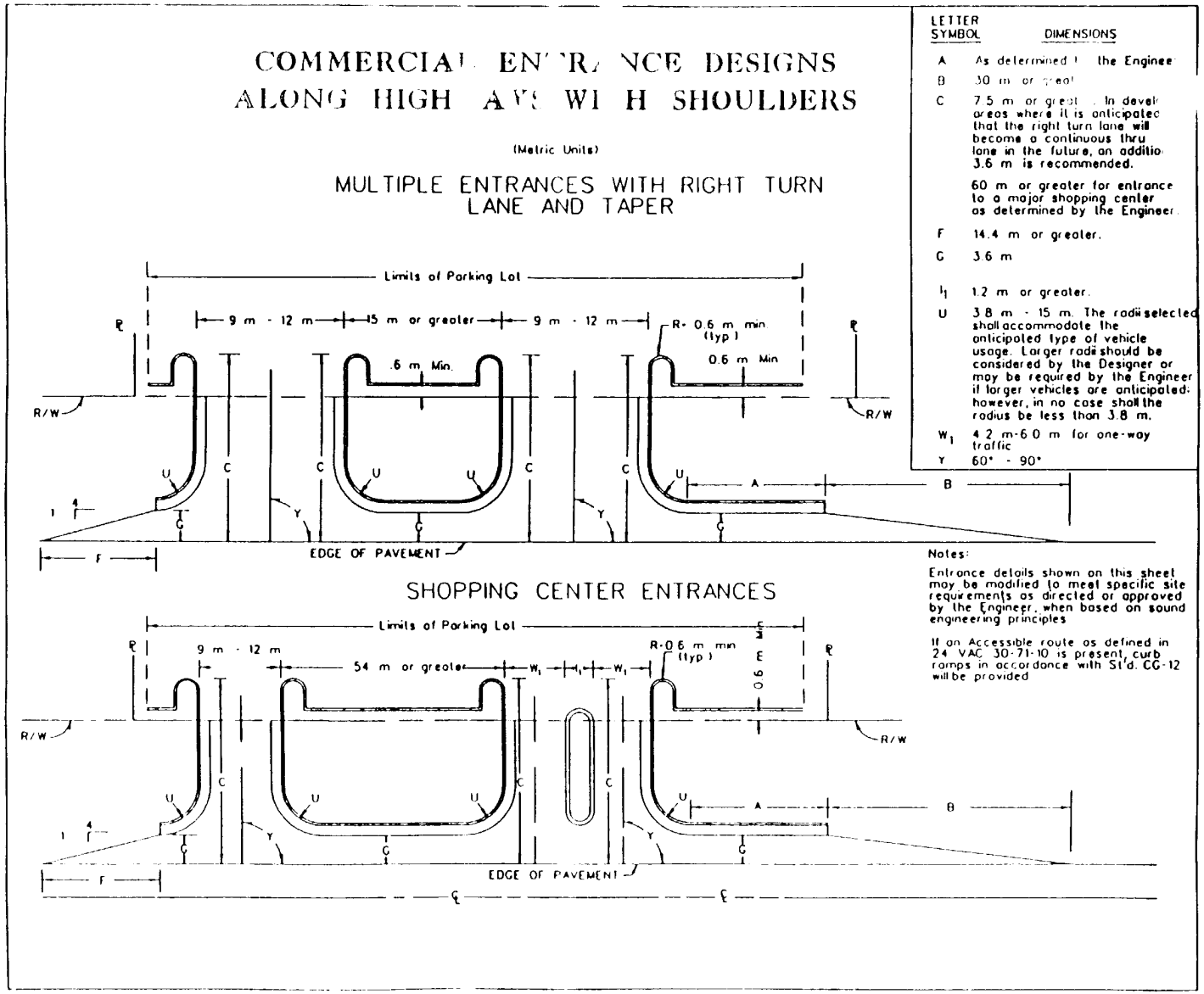
LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	100' or greater
C	25' or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 12' is recommended. 200' or greater for entrance to a major shopping center as determined by the Engineer.
F	48' or greater.
G	12'
I_1	4' or greater.
U	12.5' - 50'. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the Designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall the radius be less than 12.5'.
W_1	14' - 20' for one-way traffic
Y	60° - 90°

Notes:

Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with St'd CG-12 will be provided.

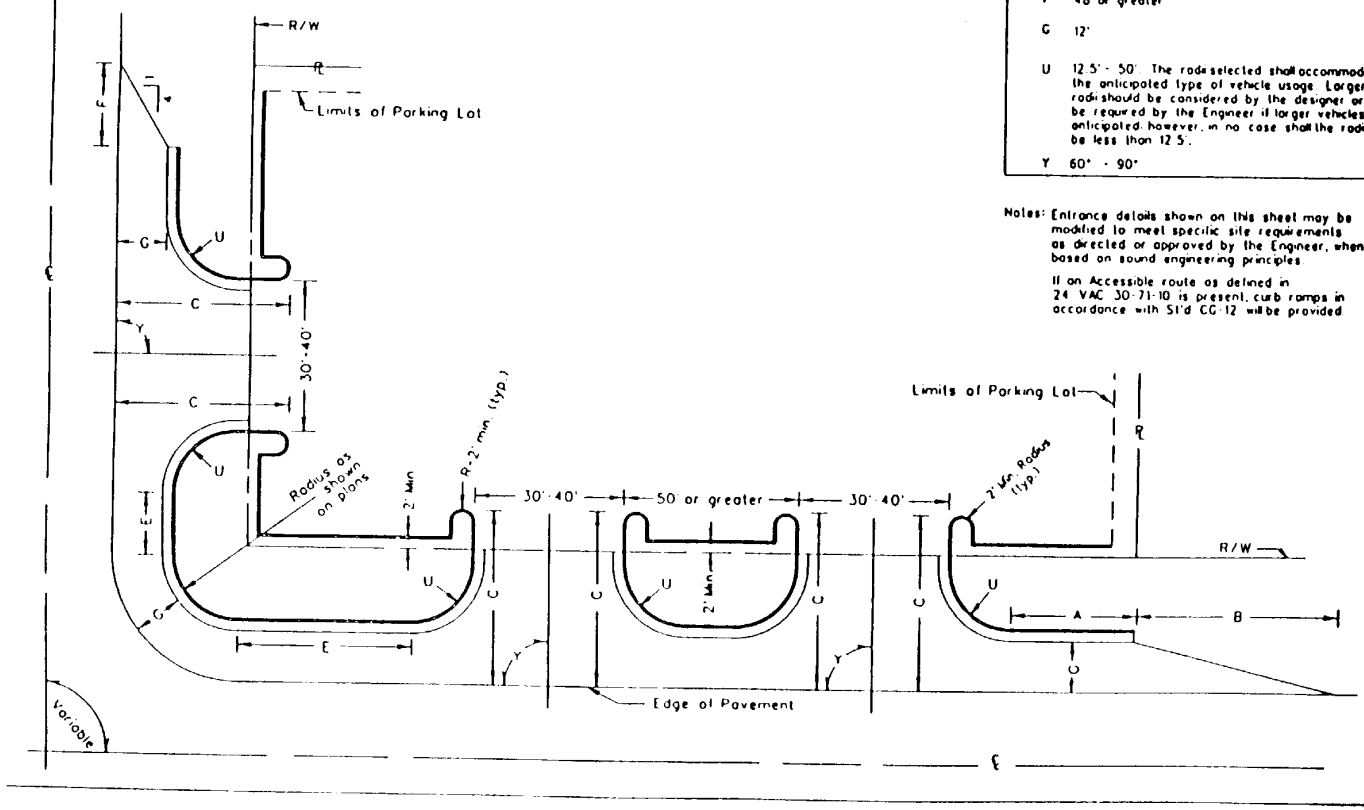
Minimum Standards of Entrances to State Highways



COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH SHOULDERS

(English Units)

MULTIPLE ENTRANCES AT INTERSECTIONS



LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	100' or greater
C	25' or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 12' is recommended. 200' or greater for entrance to a major shopping center as determined by the engineer.
E	50' or greater (additional length will be required as directed by the Engineer if intersection is signalized or future signalization is anticipated).
F	48' or greater
G	12'
U	12.5' - 50'. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall the radius be less than 12.5'.
Y	60° - 90°

Notes: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

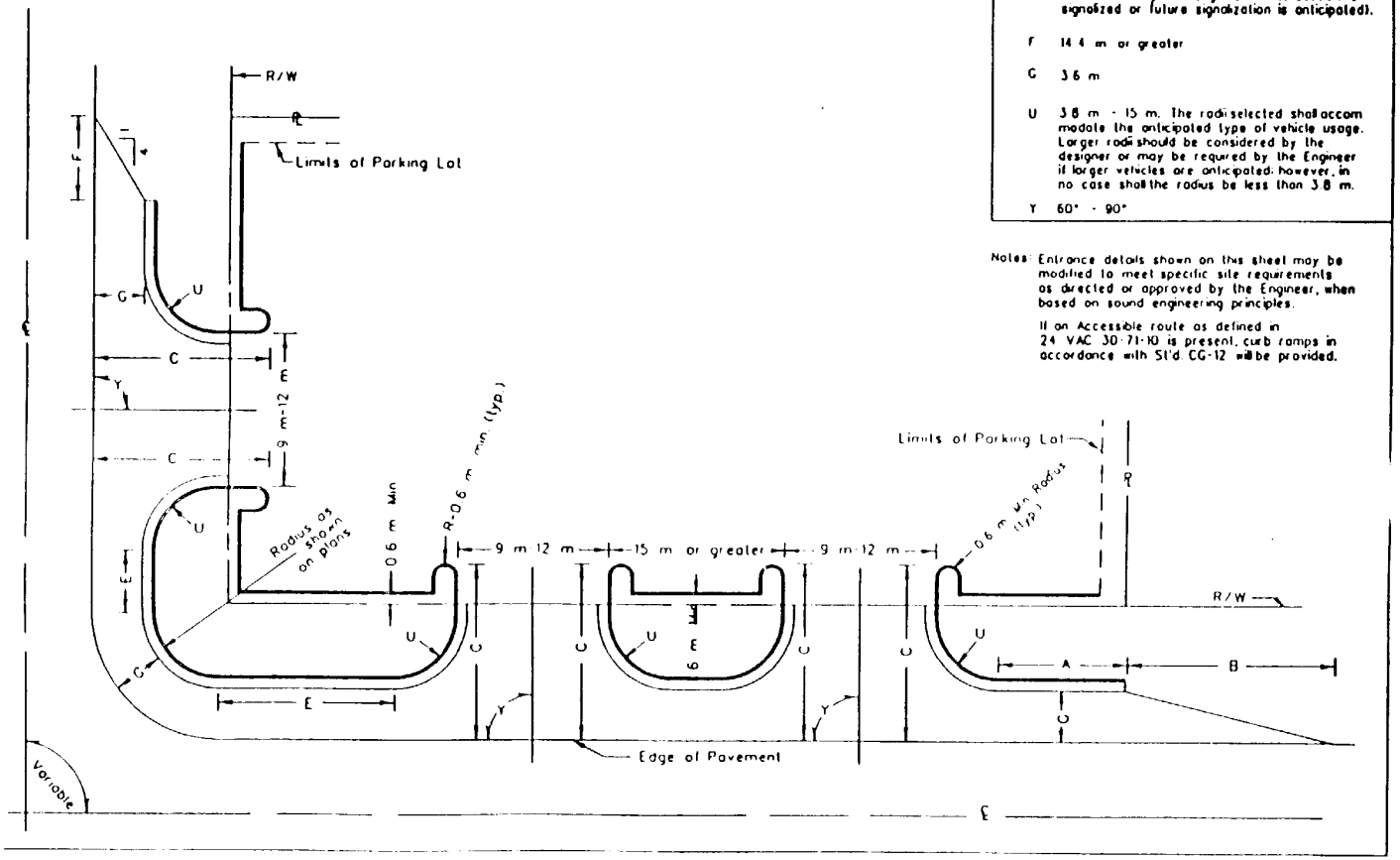
If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with ST'd CG-12 will be provided.

Minimum Standards of Entrances to State Highways

COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH SHOULDERS

(Metric Units)

MULTIPLE ENTRANCES AT INTERSECTIONS



LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	30 m or greater
C	7.5 m or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 3.6 m is recommended. 60 m or greater for entrance to a major shopping center as determined by the engineer.
E	15 m or greater (additional length will be required as directed by the Engineer if intersection is signalized or future signalization is anticipated).
F	14.4 m or greater
G	3.6 m
U	3.8 m - 15 m. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall the radius be less than 3.8 m.
Y	60° - 90°

Notes: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

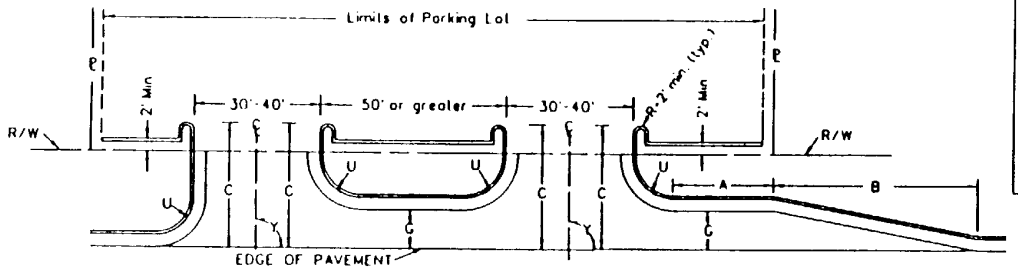
If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with Std. CG-12 will be provided.

Minimum Standards of Entrances to State Highways

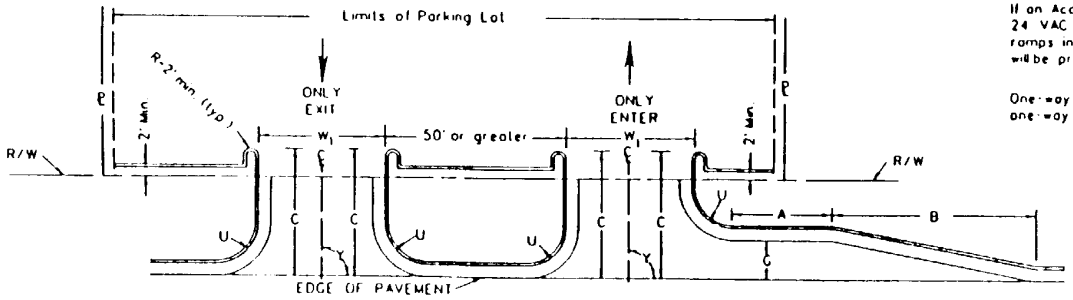
COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH CURB AND GUTTER

(English Units)

MULTIPLE ENTRANCES WITH RIGHT TURN LANE AND TAPER



TWO ONE-WAY ENTRANCES WITH RIGHT TURN LANE AND TAPER



LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer.
B	100' or greater.
C	25' or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 12' is recommended. 200' or greater for entrance to a major shopping center as determined by the Engineer
G	12'
U	12.5' to 50'. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the Designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall the radius be less than 12.5'.
W_1	14'-20' for one-way traffic
Y	60° - 90°

Notes: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles

If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with Std CG-12 will be provided

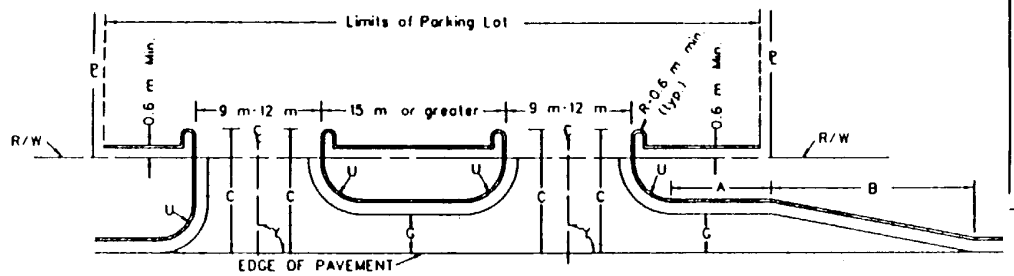
One-way entrances must be signed one-way

Minimum Standards of Entrances to State Highways

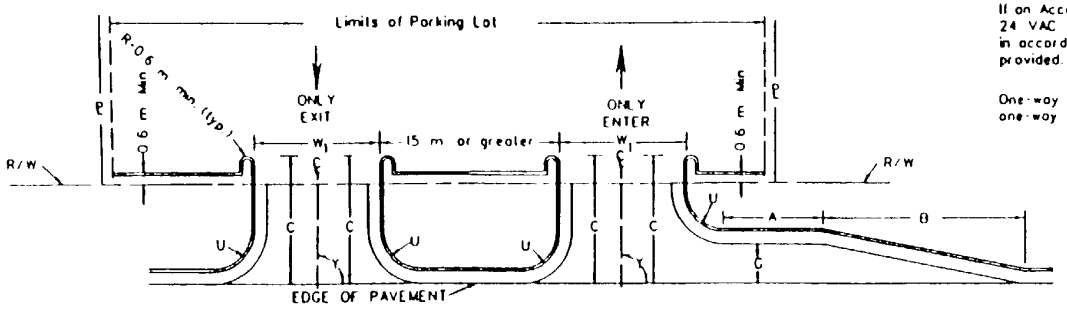
COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH CURB AND GUTTER

(Metric Units)

MULTIPLE ENTRANCES WITH RIGHT TURN LANE AND TAPER



TWO ONE-WAY ENTRANCES WITH RIGHT TURN LANE AND TAPER



LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer.
B	30 m or greater.
C	7.5 m or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 3.6 m is recommended. 60 m or greater for entrance to a major shopping center as determined by the Engineer.
G	3.6 m
U	3.8 m to 15 m. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the Designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall the radius be less than 3.8 m.
W_1	4.2 m-6.0 m for one-way traffic.
Y	60° - 90°

Notes: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with Std. CG-12 will be provided.

One-way entrances must be signed one-way

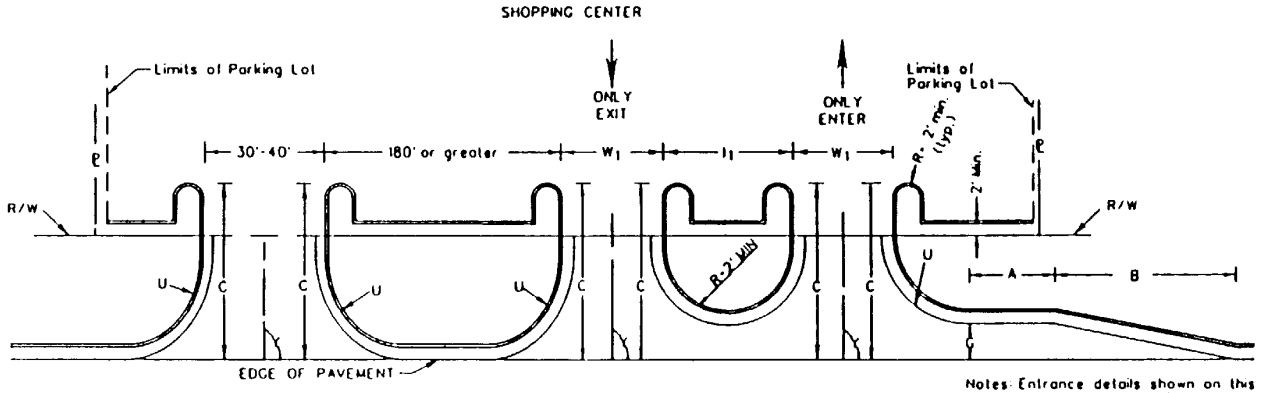
Minimum Standards of Entrances to State Highways

COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH CURB AND GUTTER

(English Units)

MULTIPLE ENTRANCES WITH RIGHT TURN LANES AND TAPER FOR SHOPPING CENTER ENTRANCES

LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	100' or greater
C	25' or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 12' is recommended. 200' or greater for entrance to a major shopping center as determined by the Engineer.
G	12'
I_1	4' or greater
U	12.5'-50'. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall the radius be less than 12.5'.
W_1	14'-20' for one-way traffic
Y	60°-90°



Notes: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with Std. CG-12 will be provided.

One-way entrances must be signed one-way.

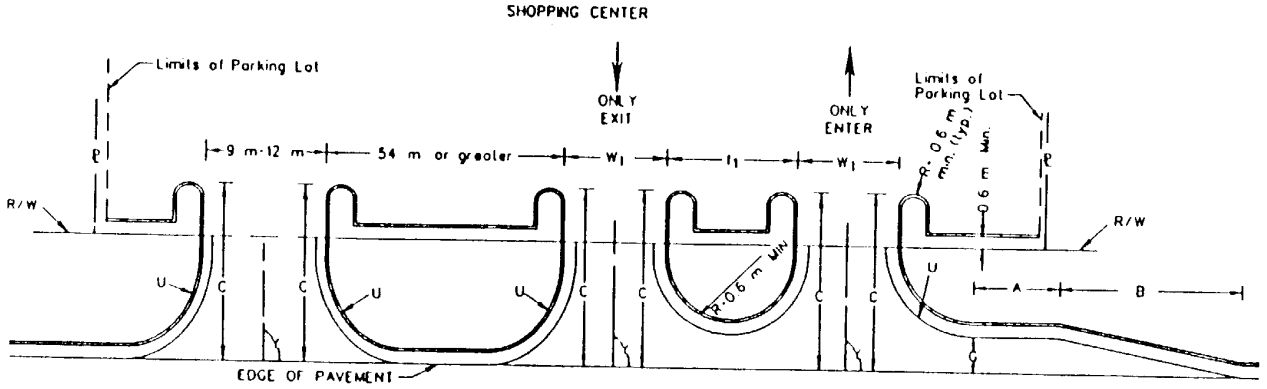
Minimum Standards of Entrances to State Highways

COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH CURB AND GUTTER

(Metric Units)

MULTIPLE ENTRANCES WITH RIGHT TURN LANES AND TAPER FOR SHOPPING CENTER ENTRANCES

LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	30 m or greater
C	7.5 m or greater. In developing are where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 3.6 m is recommended. 60 m or greater for entrance to a major shopping center as determined by the Engineer.
G	3.6 m
I_1	1.2 m or greater
U	3.8 m-15 m. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall the radius be less than 3.8 m.
W_1	4.2 m-6.0 m for one-way traffic
Y	60°-90°



Notes: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with Std. CG-12 will be provided.

One-way entrances must be signed one-way

Minimum Standards of Entrances to State Highways

COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH CURB AND GUTTER

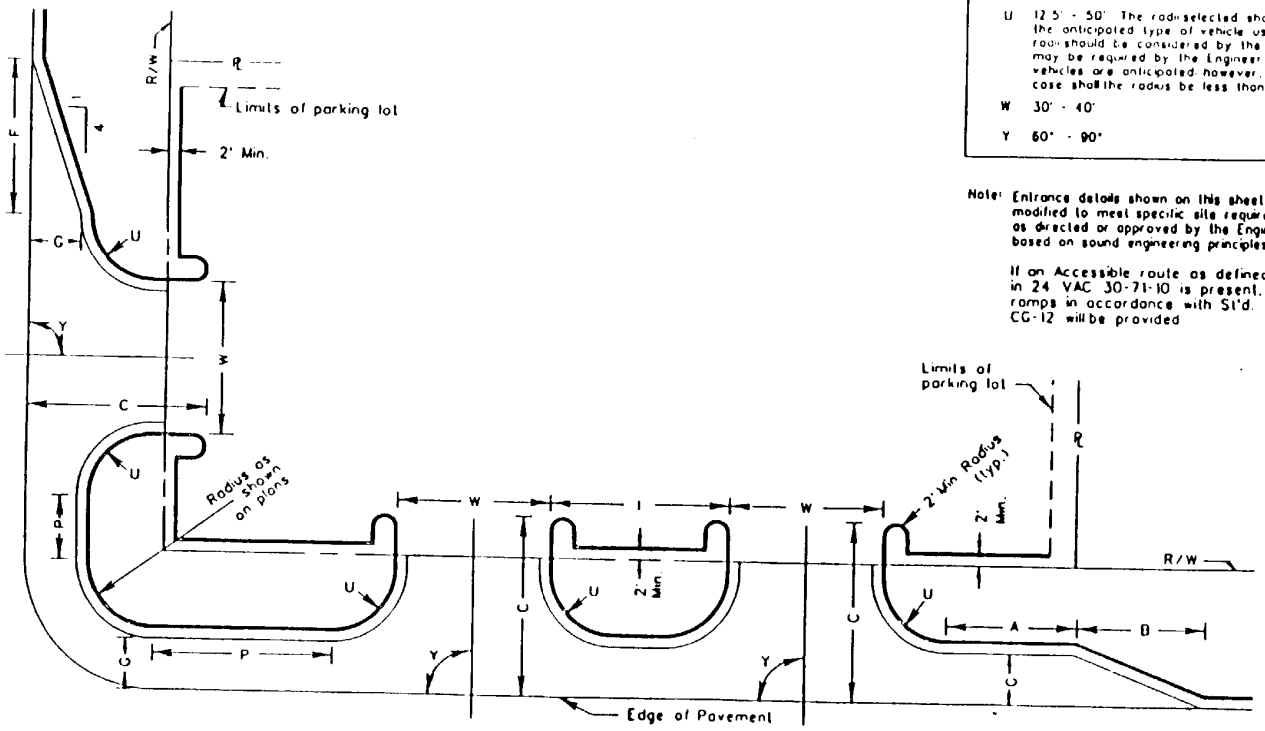
(English Units)

MULTIPLE ENTRANCES AT INTERSECTION WITH RIGHT TURN LANE AND TAPER

LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	100' or greater.
C	25' or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 12' is recommended. 200' or greater for entrance to shopping center or other major traffic generator as determined by the engineer.
F	48' or greater.
G	12'
I	50' or greater.
P	50' or greater (additional length will be required as directed by the Engineer if intersection is signalized or future signalization is anticipated.)
U	12.5' - 50'. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall the radius be less than 12.5'.
W	30' - 40'
Y	60° - 90°

Note: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with St'd. CG-12 will be provided

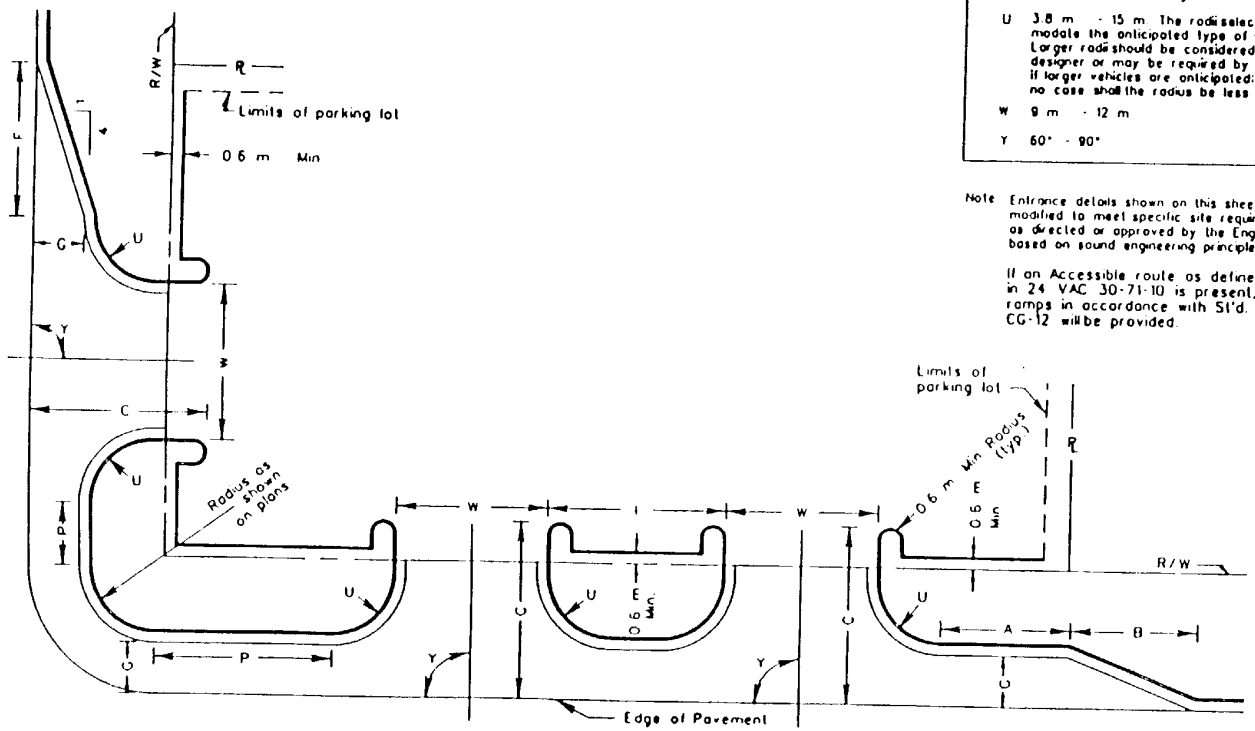


Minimum Standards of Entrances to State Highways

COMMERCIAL ENTRANCE DESIGNS ALONG HIGHWAYS WITH CURB AND GUTTER

(Metric Units)

MULTIPLE ENTRANCES AT INTERSECTION WITH RIGHT TURN LANE AND TAPER



LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	30 m or greater.
C	7.5 m or greater in developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 3.6 m is recommended. 60 m or greater for entrance to shopping center or other major traffic generator as determined by the engineer.
F	14.4 m or greater.
G	3.6 m
I	15 m or greater.
P	15 m or greater (additional length will be required as directed by the Engineer if intersection is signalized or future signalization is anticipated.)
U	3.8 m - 15 m. The radii selected shall accommodate the anticipated type of vehicle usage. Larger radii should be considered by the designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall the radius be less than 3.8 m.
W	9 m - 12 m
Y	60° - 90°

Note: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with STD. CG-12 will be provided.

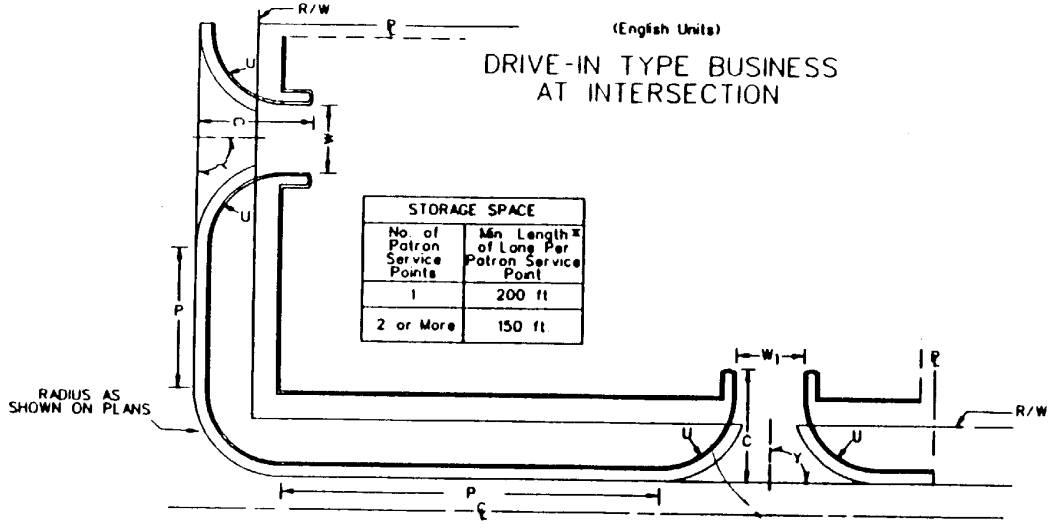
[redacted]

Minimum Standards of Entrances to State Highways

COMMERCIAL ENTRANCE DESIGNS TO SERVE DRIVE-IN TYPE BUSINESSES SUCH AS DRIVE-IN BANKS, FAST FOOD RESTAURANTS, SERVICE STATIONS, AND CAR WASHES WITH ONE WAY TRAFFIC ENTERING AND/OR EXITING MAJOR HIGHWAY

(English Units)

DRIVE-IN TYPE BUSINESS AT INTERSECTION

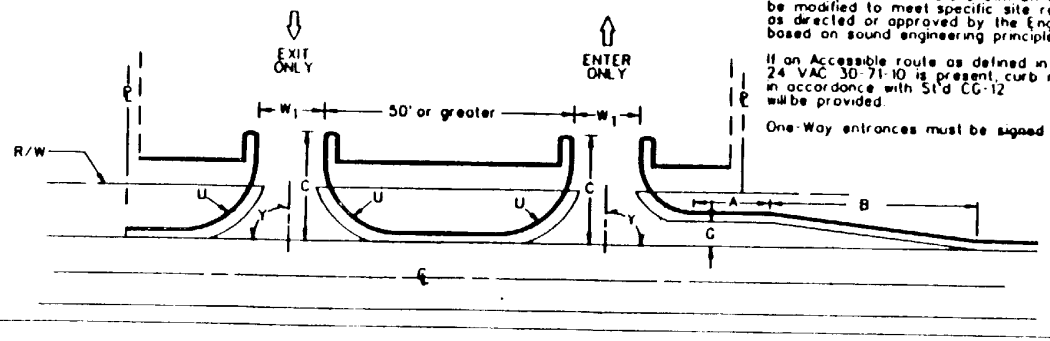


STORAGE SPACE	
No. of Patron Service Points	Min. Length* of Lane Per Patron Service Point
1	200 ft
2 or More	150 ft

LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	100' or greater
C	25' or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane in the future, an additional 12' is recommended
G	12'
P	50' or greater (additional length will be required as directed by the Engineer if intersection is signalized or future signalization is anticipated
U	12.5'-50'. The radii selected shall accomodate the anticipated type of vehicle usage. Larger radii should be considered by the Designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall radius beless than 12.5'
W	30'-40'
W_1	14'-20' for one-way traffic
Y	60° - 90°

Minimum distance from gasoline pump to R/W line for Service Station	
Pump Island to Pavement Edge	Distance
Parallel	12 ft
1° to 45°	20 ft
46° to 90°	30 ft

DRIVE-IN TYPE BUSINESS MID BLOCK WITH RIGHT TURN LANE AND TAPER



STORAGE SPACE	
No. of Patron Service Points	Min. Length* of Lane Per Patron Service Point
1	200 ft
2 or More	150 ft

*Length measured from nearest service point to highway

NOTES: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with Std CG-12 will be provided.

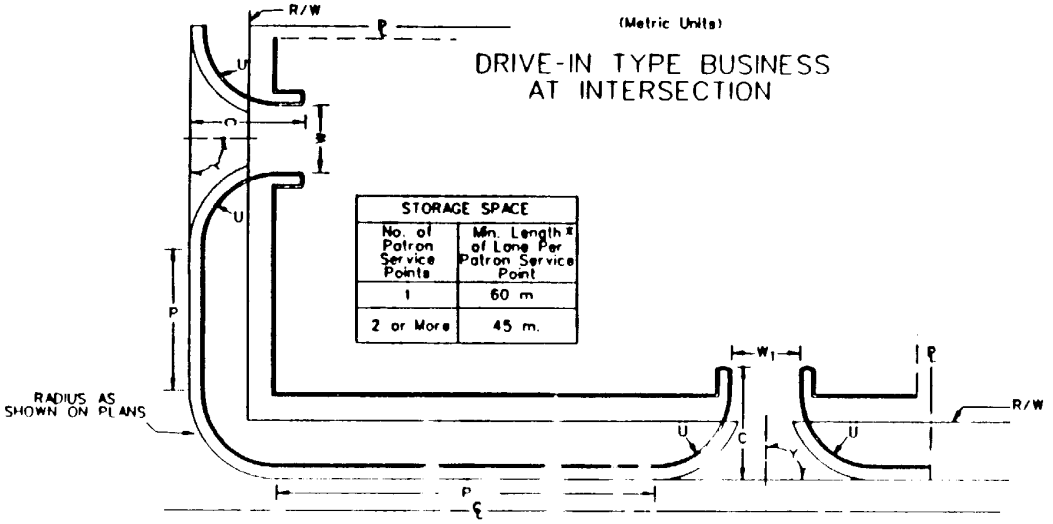
One-Way entrances must be signed one-way

Minimum Standards of Entrances to State Highways

COMMERCIAL ENTRANCE DESIGNS TO SERVE DRIVE-IN TYPE BUSINESSES SUCH AS DRIVE-IN BANKS, FAST FOOD RESTAURANTS, SERVICE STATIONS, AND CAR WASHES WITH ONE WAY TRAFFIC ENTERING AND/OR EXITING MAJOR HIGHWAY

(Metric Units)

DRIVE-IN TYPE BUSINESS AT INTERSECTION

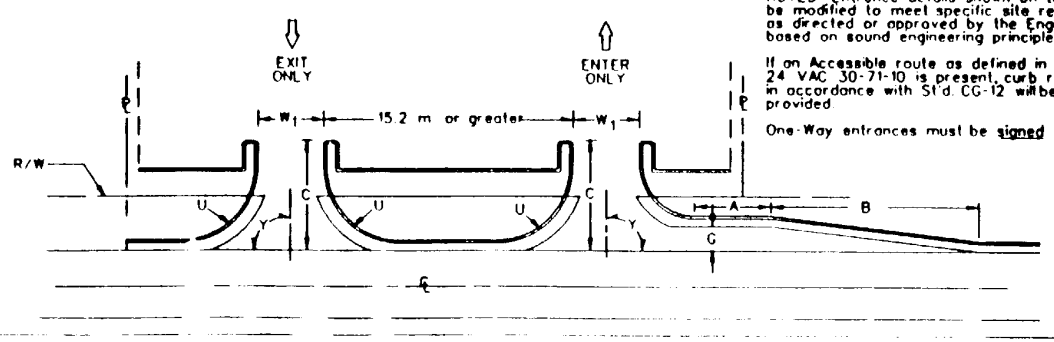


STORAGE SPACE	
No. of Patron Service Points	Min. Length* of Lane Per Patron Service Point
1	60 m
2 or More	45 m.

LETTER SYMBOL	DIMENSIONS
A	As determined by the Engineer
B	30 m or greater
C	7.5 m or greater. In developing areas where it is anticipated that the right turn lane will become a continuous thru lane an additional 3.6 m is recommended.
G	3.6 m
P	15 m or greater (additional length will be required as directed by the Engineer if intersection is signalized or future signalization is anticipated.
U	3.8 m-15 m. The radii selected shall accomodate the anticipated type of vehicle usage. Larger radii should be considered by the Designer or may be required by the Engineer if larger vehicles are anticipated; however, in no case shall radius be less than 3.8 m.
W	9 m-12 m
W_1	4.2 m-6.0 m for one-way traffic
Y	60° - 90°

Minimum distance from gasoline pump to R/W line for Service Station	
Pump Island to Pavement Edge	ice
Parallel	m
1° to 45°	
46° to 90°	

DRIVE-IN TYPE BUSINESS MID BLOCK WITH RIGHT TURN LANE AND TAPER



STORAGE SPACE	
No. of Patron Service Points	Min. Length* of Lane Per Patron Service Point
1	60 m
2 or More	45 m.

* Length measured from nearest service point to highway

NOTES: Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles

If an Accessible route as defined in 24 VAC 30-71-10 is present, curb ramps in accordance with Std. CG-12 will be provided

One-Way entrances must be signed one-way

Minimum Standards of Entrances to State Highways

STANDARD PRIVATE SUBDIVISION ROAD/STREET ENTRANCE

(English Units)

Note:

Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

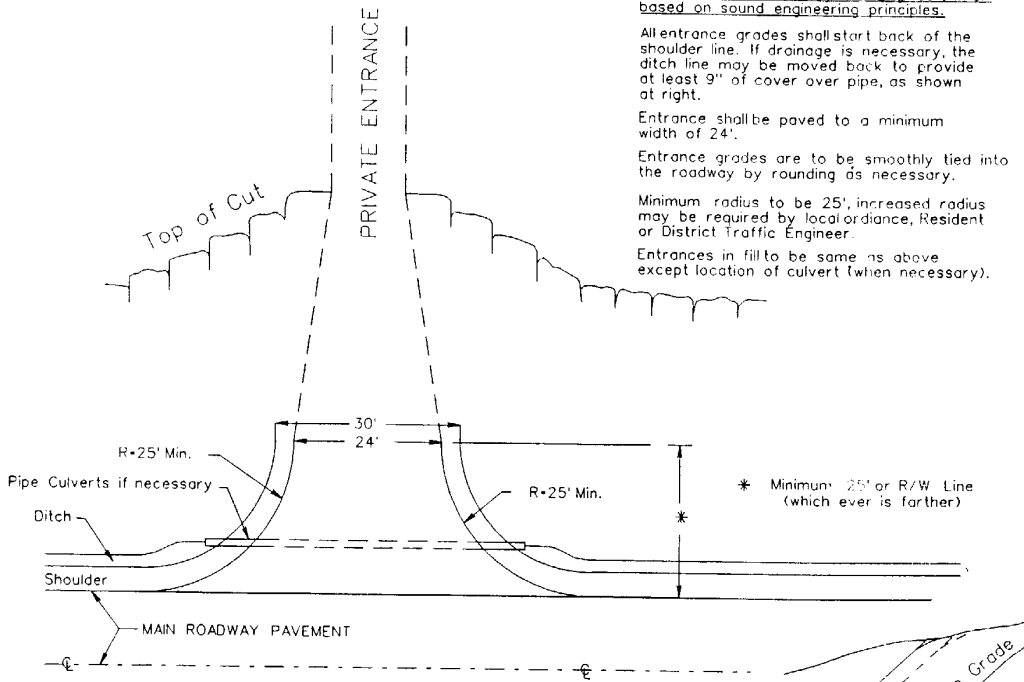
All entrance grades shall start back of the shoulder line. If drainage is necessary, the ditch line may be moved back to provide at least 9" of cover over pipe, as shown at right.

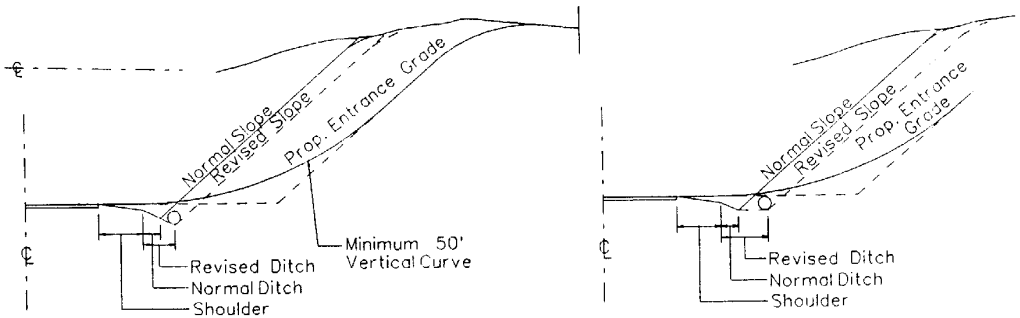
Entrance shall be paved to a minimum width of 24'.

Entrance grades are to be smoothly tied into the roadway by rounding as necessary.

Minimum radius to be 25', increased radius may be required by local ordiance, Resident or District Traffic Engineer.

Entrances in fill to be same as above except location of culvert (when necessary).



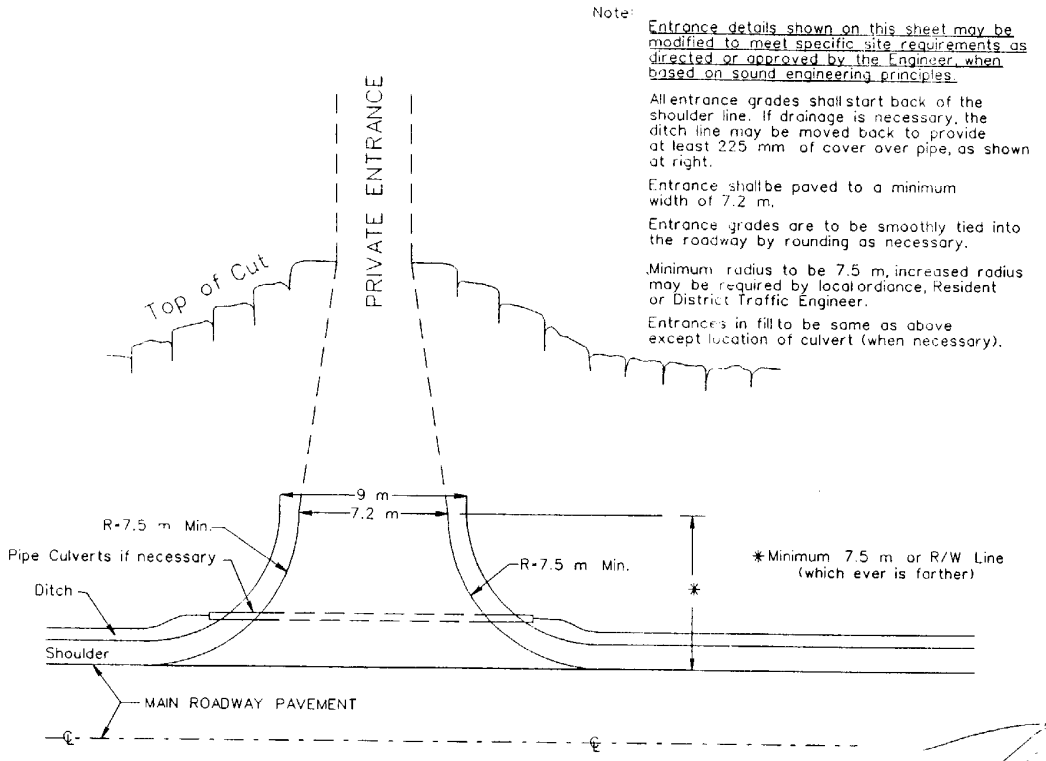


ALTERNATE METHODS FOR PLACING PIPES UNDER ENTRANCES

Minimum Standards of Entrances to State Highways

STANDARD PRIVATE SUBDIVISION ROAD/STREET ENTRANCE

(Metric Units)



Note:

Entrance details shown on this sheet may be modified to meet specific site requirements as directed or approved by the Engineer, when based on sound engineering principles.

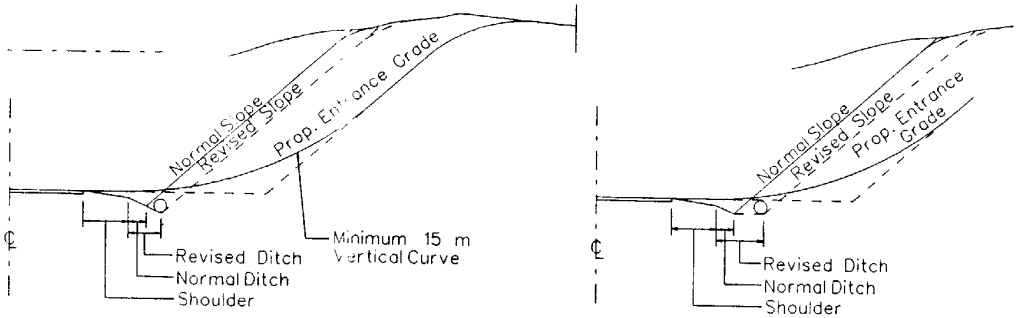
All entrance grades shall start back of the shoulder line. If drainage is necessary, the ditch line may be moved back to provide at least 225 mm of cover over pipe, as shown at right.

Entrance shall be paved to a minimum width of 7.2 m.

Entrance grades are to be smoothly tied into the roadway by rounding as necessary.

Minimum radius to be 7.5 m, increased radius may be required by local ordiance, Resident or District Traffic Engineer.

Entrances in fill to be same as above except location of culvert (when necessary).



ALTERNATE METHODS FOR PLACING PIPES UNDER ENTRANCES