Basic Emergency Vehicle Operators Course

Turnabouts and Turns
Non-Emergency & Emergency Mode

Turnabouts and Turns

Objectives:

By the end of this module, students will be able to:

- **Be able to name the safest type of turnabout**
- **Given three illustrations, will be able identify the correct path for a EV making a U Turn**
- **Given an illustration of each turnabout be able to identify the correct path for an EV make a left and right side road turnabout.**
- **Understand how Driving too fast for conditions can effect turnabouts and turns**

Turnabouts and Turns

Guidelines:

Some agencies have guidelines on when to turn (or not to turn) on a public roadway. In lieu of any definite guidance, the following slides offer some suggestions:

Turnabouts and Turns

Guidelines:

The time required to complete the turnaround or reverse direction of travel can create a hazardous situation.

It may be illegal in some areas unless in an emergency mode

The area needed to complete the turnaround should be sufficiently large enough for the vehicle to turn around.

Sometimes going around the block may be safer and faster (size of vehicle considerations)

Turnabouts and Turns

Guidelines:

Choose safe location for turnabout

Make sure you have good visibility

Clear view of the entire path of travel and all traffic lanes

Avoid hills, blind intersections

Turnabouts and Turns

Turn Classifications

Constant Radius (90°)

Requires constant, consistent steering

Decreasing Radius (90°)

Requires gradual, then sharper steering

Increasing Radius (90°)

Requires sharp to gradual steering

Multiple Turn / Complex Situations

Several Steering Inputs

U Turns (180°)

Constant and smooth steering

Turnabouts and Turns

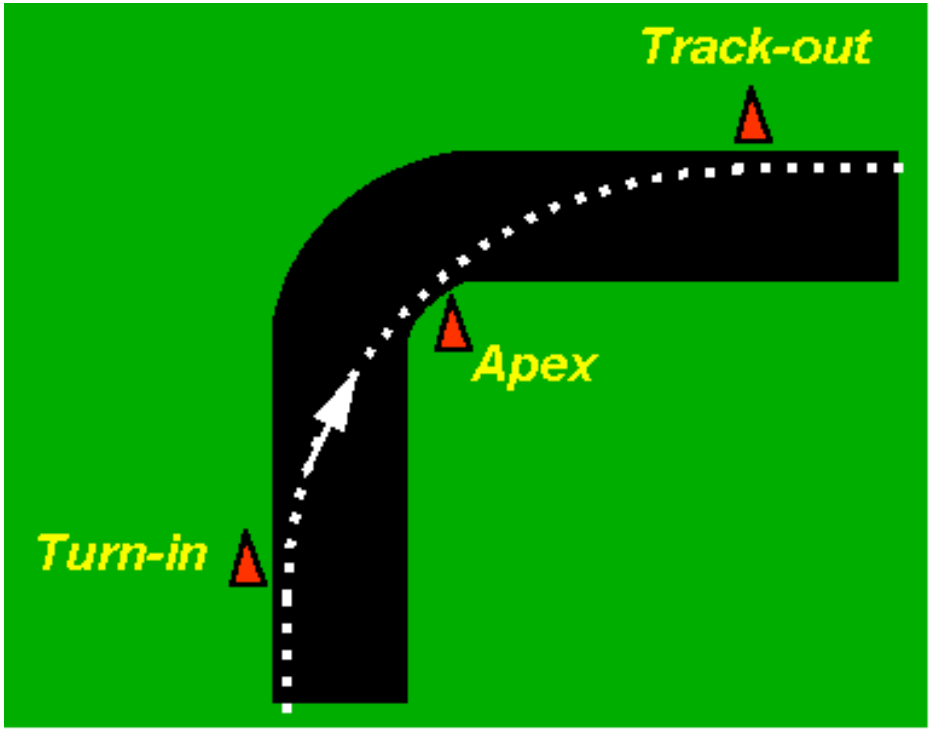
Turn Classifications

Constant Radius (90°)

High Side

Low Side

High Side



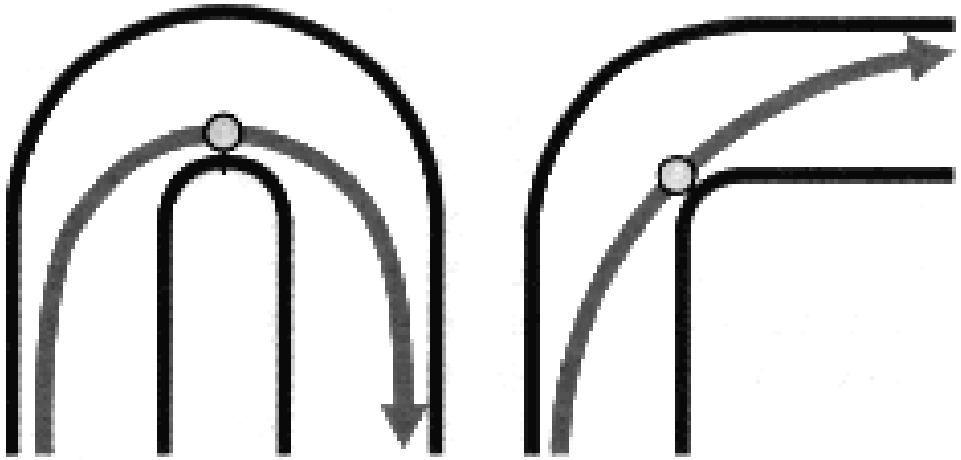
This method of increasing the radius of the curve you are going to take only works when you are on a road with no oncoming traffic and you have an unobstructed view around the curve.

Turnabouts and Turns

Turn Classifications

Constant Radius (90°)

Other Examples



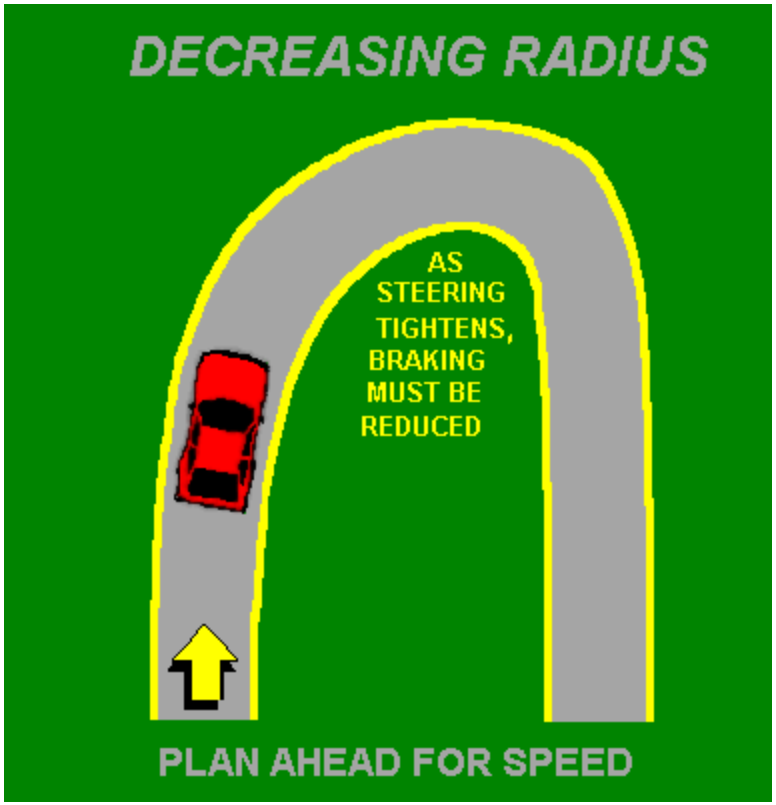
Turnabouts and Turns

Turn Classifications

Decreased Radius

Speed needs to be reduced

Requires additional steering input

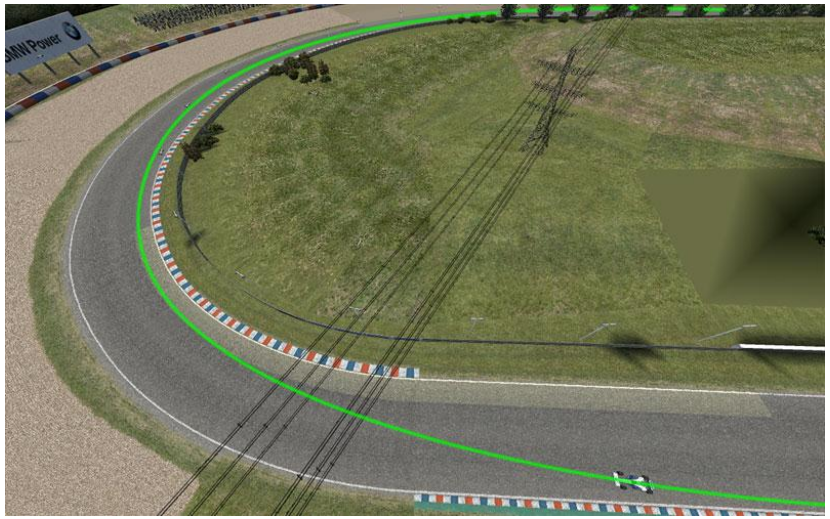


Turnabouts and Turns

Turn Classifications

Increased Radius

You can increase the radius of the curve on how you handle it. By increasing the radius of the curve you are going to enter the curve from the high side to the low side and exit the curve on the high side. This only works when you are on a road with no oncoming traffic and you have an unobstructed view around the curve.

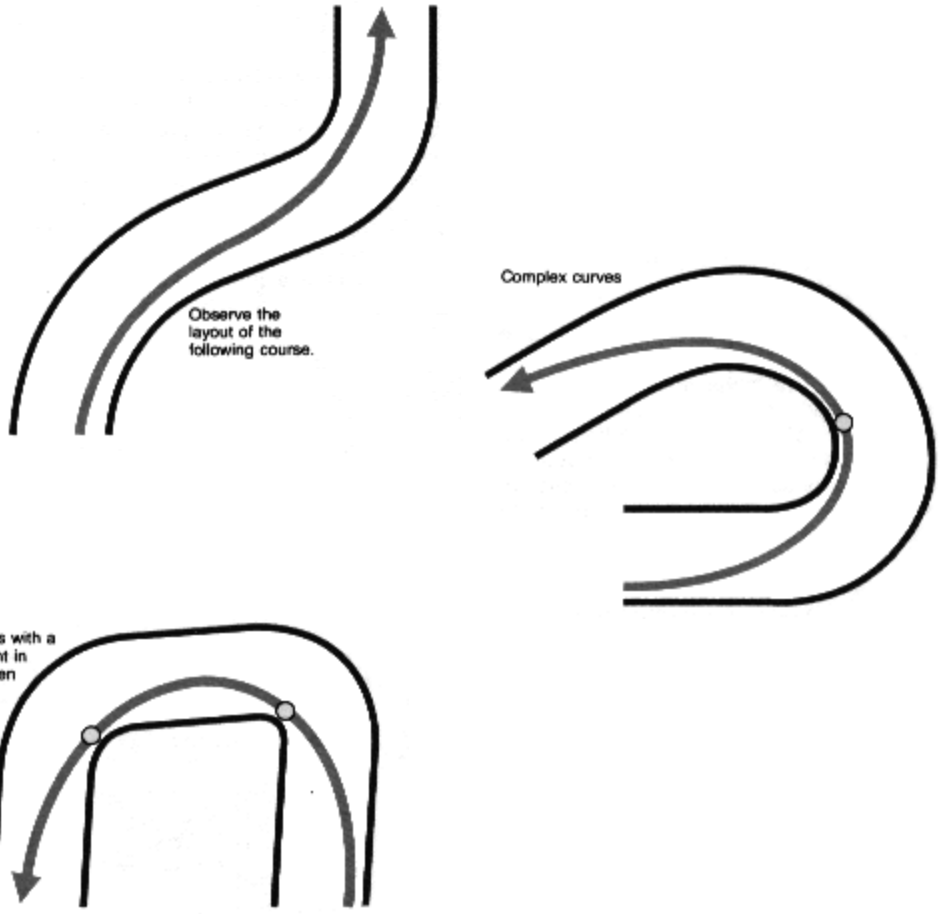


Turnabouts and Turns

Turn Classifications

Multiple Turn Situations

Complex Curves



Turnabouts and Turns

Turn Types:

U Turn

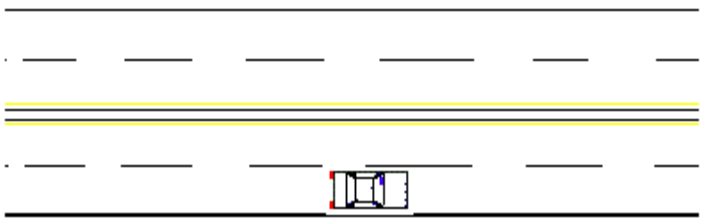
Two Point Turns

Three Point Turns / Y Turns

Turnabouts and Turns

U Turns:

- **Least hazardous**
- **Easiest to perform**
- **Less exposure to any conflicting traffic**
- **Vehicle maneuver is constant**
- **Illegal in many areas (EV not exempt unless in emergency mode)**

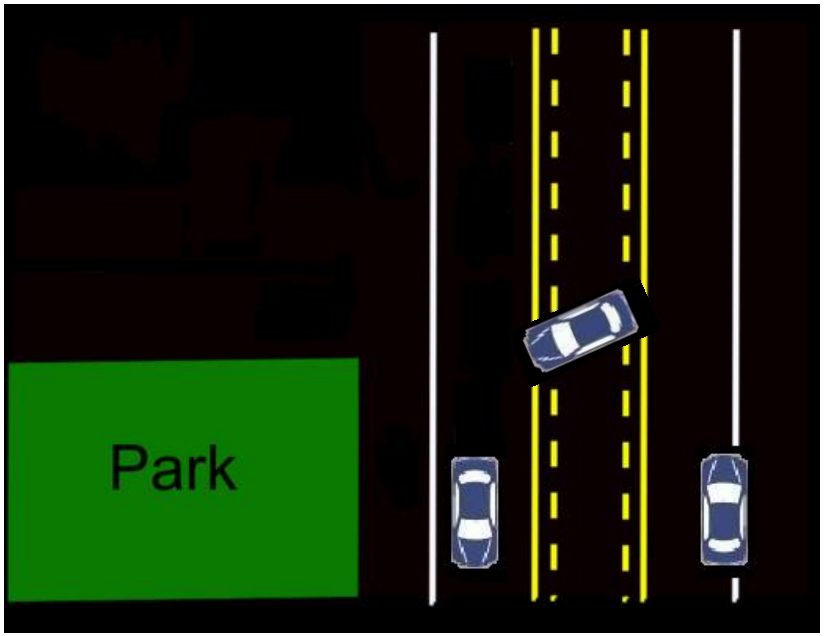


Turnabouts and Turns

Turn Classifications

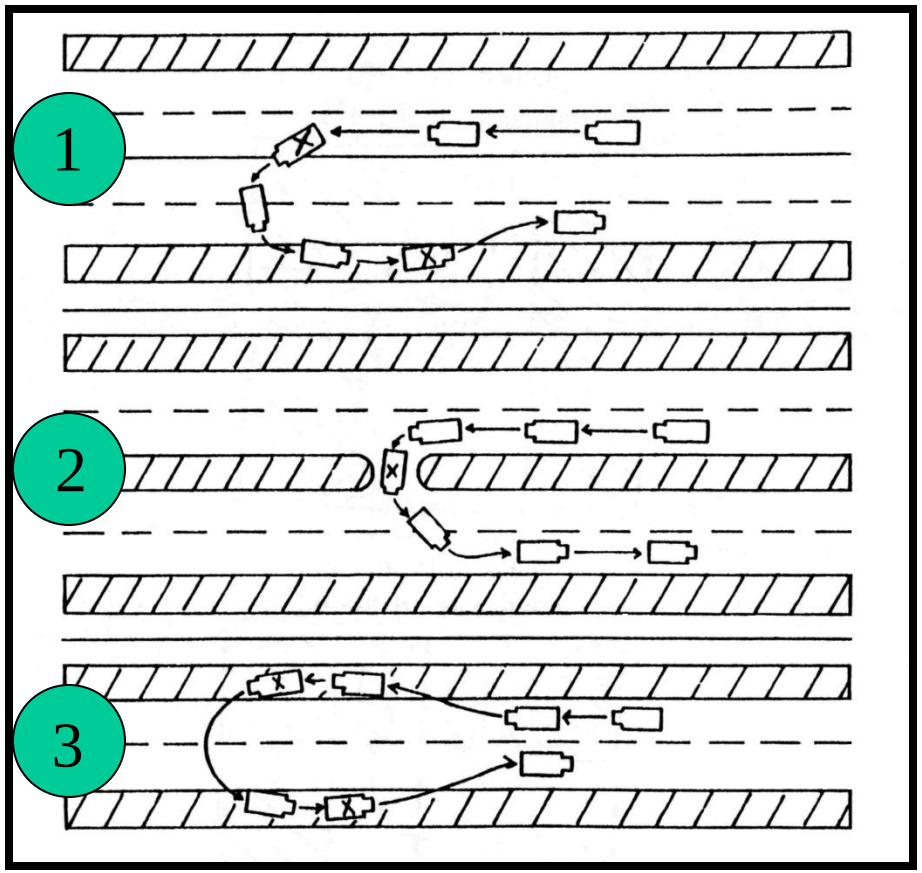
U Turns (180°)

- **Slow vehicle**
- **Pull to extreme right of lane or shoulder**
- **Check traffic**
- **Signal intent to turn**
- **Do not accelerate until after the turn is completed**
- **If the turn cannot be completed in one motion, back-up only so far as to allow for completion of the u-turn**



Turnabouts and Turns

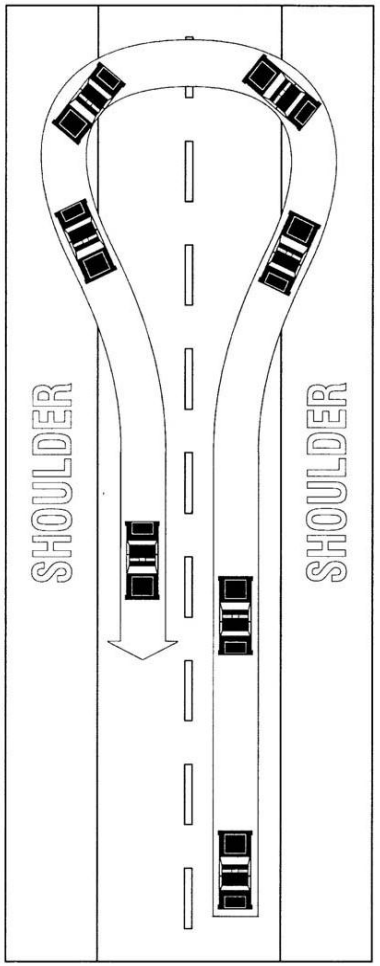
Different road configurations:



Turnabouts and Turns

U Turn

You must develop the coordination of acceleration, turning, judgment or road width and signaling.



You Must

- Signal your intent to turn at least 100 ft in advance.
- Maintain smooth acceleration and steering control.
- Make head-checks before executing the turn
- Complete the turn in one movement
- Follows through with counterclockwise or clockwise turn.

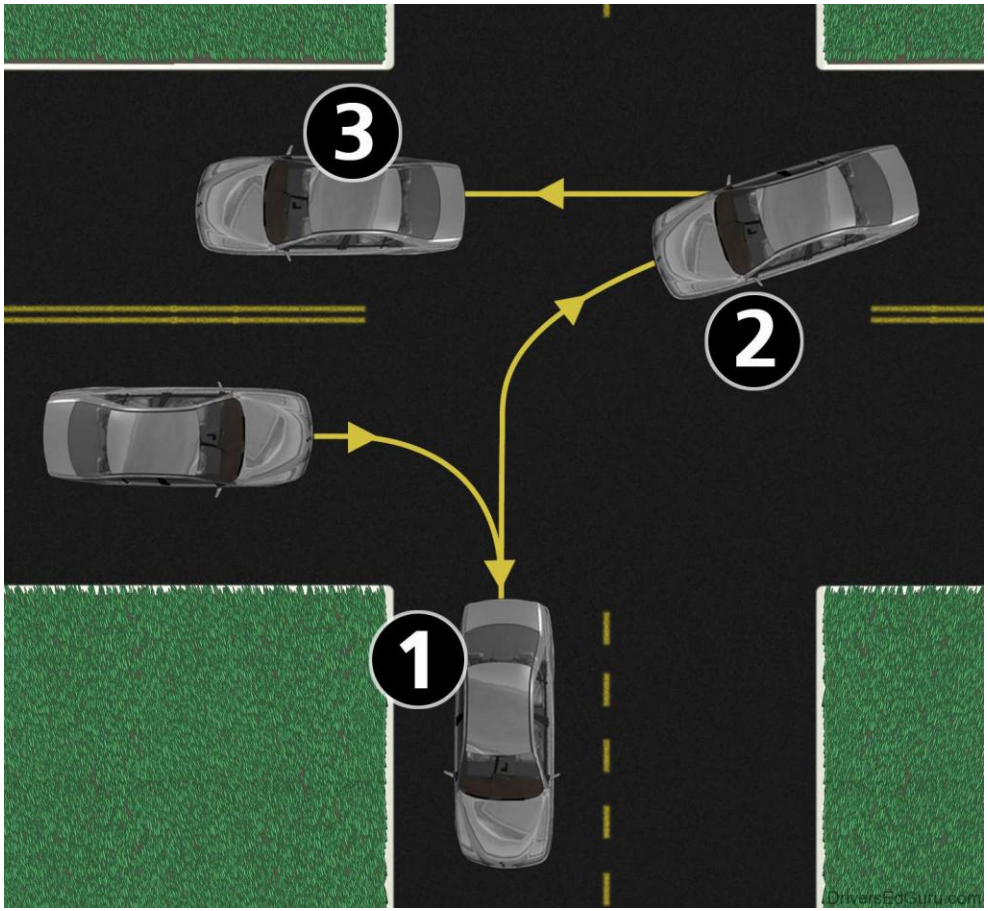
Turnabouts and Turns

Two Point Turns:

- **Made when roadway is too narrow for U-Turns**
- **Made when visibility is restricted**
- **Used when an alley or side street is available**
- **Driveways are PRIVATE PROPERTY**

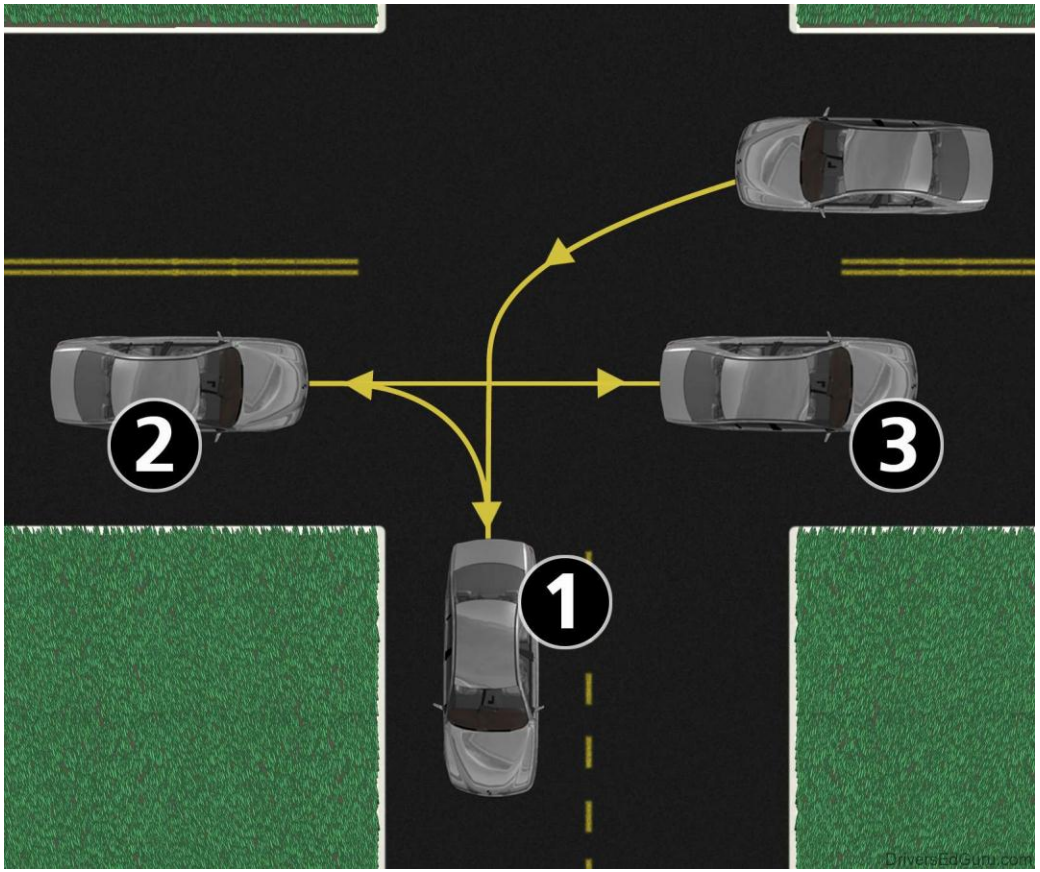
Turnabouts and Turns

Two Point Turns:



Turnabouts and Turns

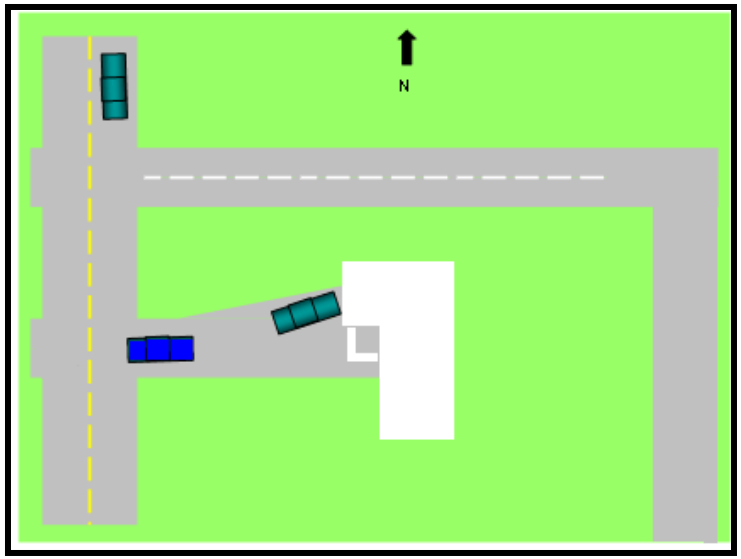
Two Point Turns:



Turnabouts and Turns

Why you would not want to use a private driveway:

- **Requires it to be wide enough**
- **Any damage caused to the apron or driveway may be liable to the department for damages.**
- **Requires a backing movement where the roadway will have to be checked for traffic before and during maneuver**



Driveway's are private property only use as a last resort.

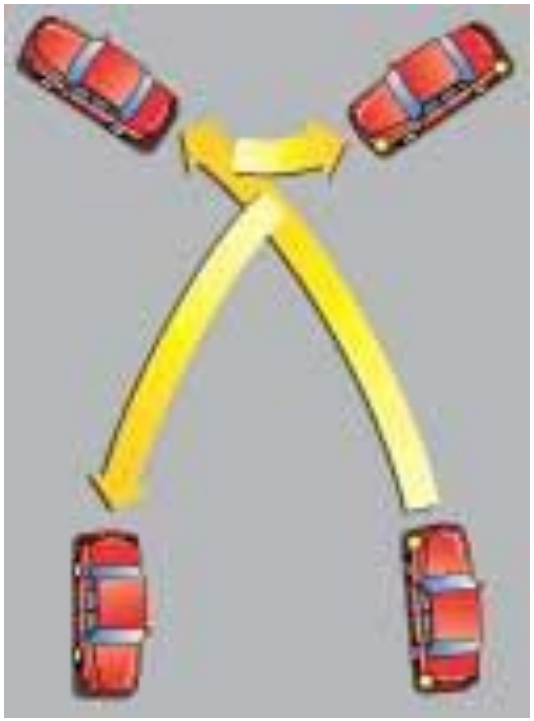
Turnabouts and Turns

Three Point Turns or Y Turns

- **Are the most hazardous**
- **Made when the roadway is too narrow for a U –Turn**
- **Made when there are no alleys or side roads**
- **Made when traffic is light**

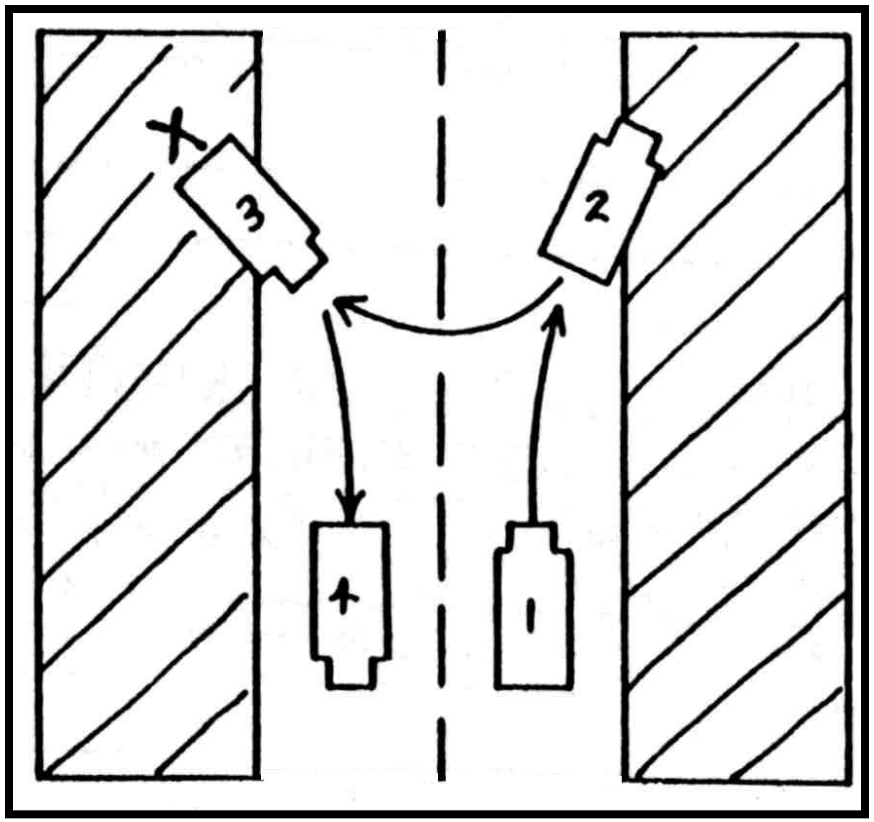
Turnabouts and Turns

Three Point Turns or Y Turn



Turnabouts and Turns

Three Point Turns:



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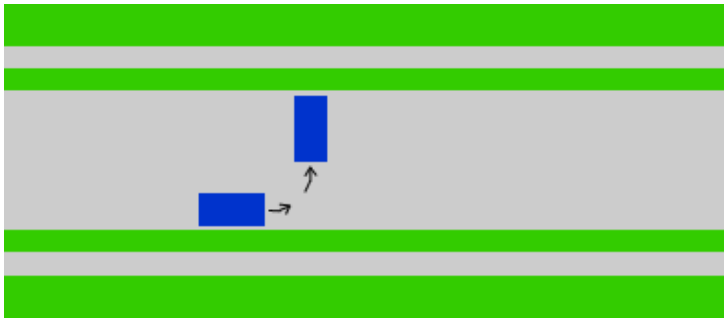

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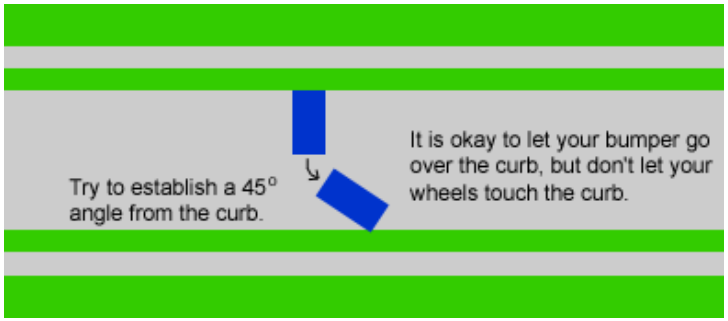

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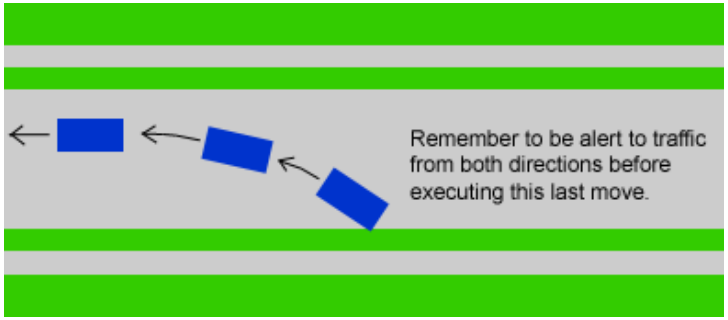
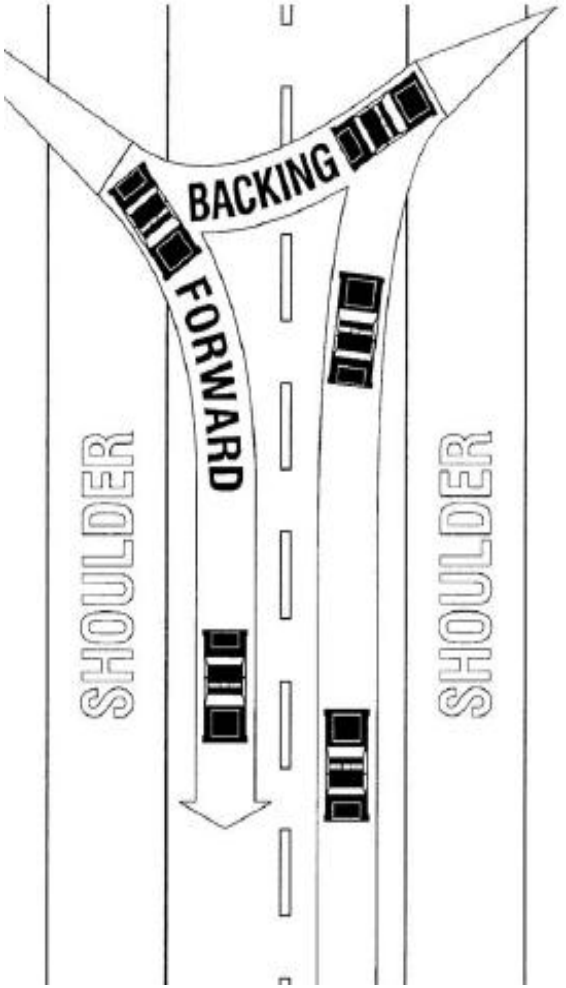


Turnabouts and Turns

Y - Turn

You will develop the coordination of acceleration, turning, judgment of road width, and signaling.



You must:

Check rear traffic and signal for a stop at least 100 ft. in advance

Brings vehicle to a stop at approximately a 15 degree angle from the center of the road

Begins backing turning the wheel slowly for the first five feet.

Steers counter –clockwise until rear wheels barely hit the shoulder.

Moves forward into the right lane.

Maintains proper hand position on the steering wheel

Completes the turn smoothly.

Summary

- Making turns is one of the basic task in driving
- All most all intersections have to be negotiated by making a turn.
- Decide early if you are going to need to make a turn.
- Never make a last second turn.
- Always use turn signals.
- In the emergency mode, if any exemptions are being exercised, while turning make sure emergency signaling equipment is activated.

REVIEW QUESTIONS

1) What are three essential points of reference when negotiating a constant radius turning maneuver?

2) When negotiating a constant radius turn what is the biggest concern?

3) What is the drivers best course of action when negotiating a roadway with multiple turns?

4) Which type of turn is the least hazardous, easiest to perform and has the least exposure to conflicting traffic?

5) Which type of turn is the most hazardous?