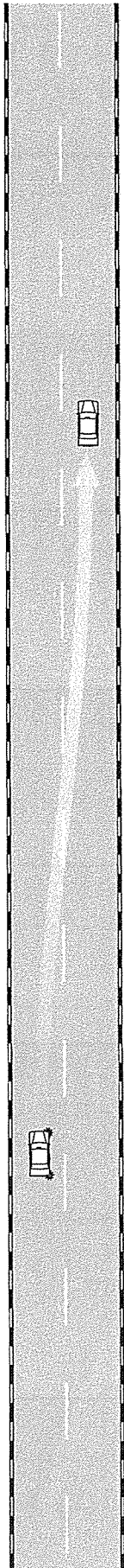
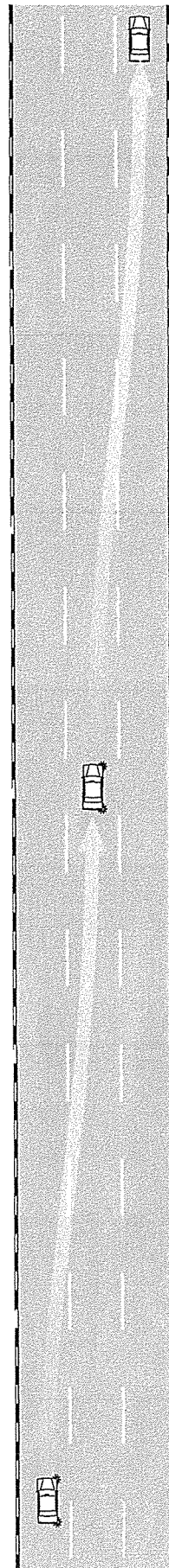




Lane Changing Procedures



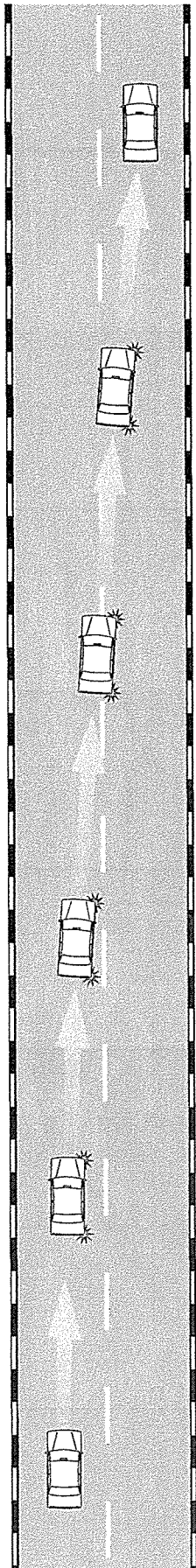
Changing lane in the diagonal procedure in the two lanes traffic.



Changing lane in the diagonal procedure in the staggered manner for the two or more lanes traffic



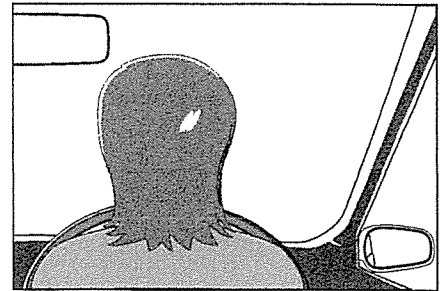
Lane Changing Procedure



Step 6)

After lane changing

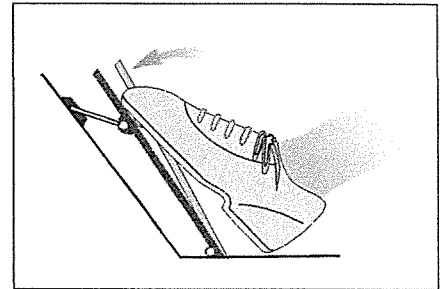
- Straighten the steering wheel
- Cancel signal
- Resume normal driving.



Step 5)

Acceleration

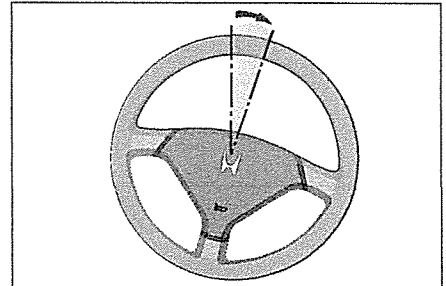
- Depress the accelerator gently as you steer so as not to interrupt the flow of traffic.



Step 4)

Steering

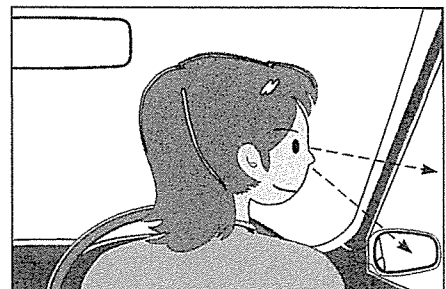
- Steer gently
- Do not jerk or turn the steering wheel abruptly.



Step 3)

Blindspot

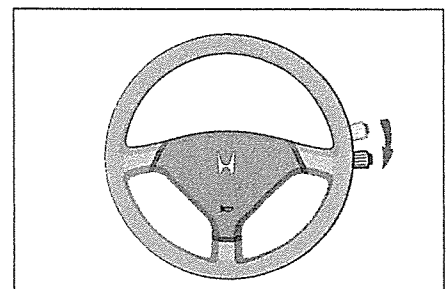
- Check your side-mirror,
- If safe, check your blindspot over the shoulder.
- Remember to keep the steering wheel straight while checking blindspot.



Step 2)

Signal

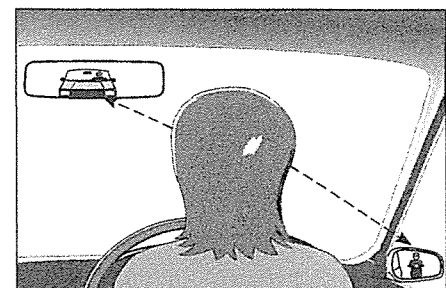
- Signal your intention in good time.
(At least 3 seconds before action)



Step 1)

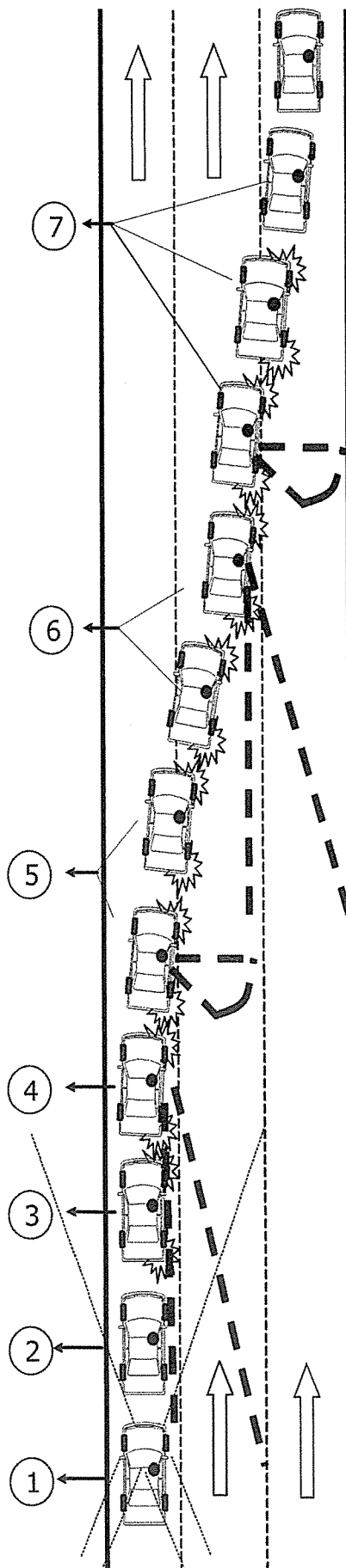
Mirrors

- Check your view-mirror.
- Be aware of the surrounding vehicles and anticipate their movements.





Lane Changing Procedures (Straight Road - 3 Lanes)



Step 7

You may change lane continuously if the road is clear of any other vehicles but you need to signal and perform safety checks for every lane.

Step 6

Cancel your signal and regulate your speed according to traffic conditions.

Step 5

Blind-spot – Once you confirmed that it is safe on the side mirror, proceed to check your blind-spot (look over your shoulder) before filtering to the other lane.

Step 4

Side mirror – Check and give way to vehicles on the other lane until it is safe to filter over.

Step 3

Signal – You can signal your intention straight away but do not change lane yet. **Minimum 3 seconds** of signal required.

Regulate your speed depending on situation:

a) Slow down – if you need to give way

b) Maintain speed – if you need to filter to another lane when there is a safe gap between vehicles.

c) Increase speed – when there is no vehicle around. No excessive steering movement and do not exceed speed limit for the road.

Step 1 & 2

Mirrors (sides & rearview) – To check every 10 seconds during straight forward driving. Not necessary to slow down to check mirrors. Late checking not recommended.

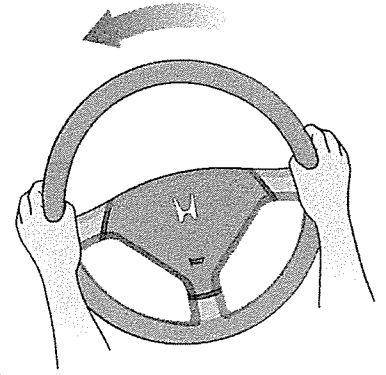
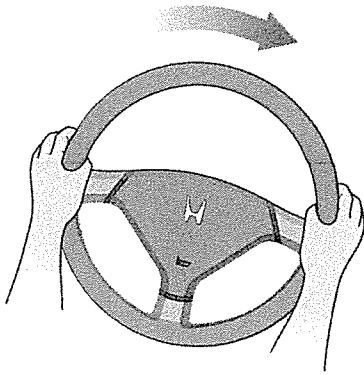
Side mirrors – To adjust until **about 1 cm** of car body can be seen only. Side mirrors are used to check the left / right lane during driving.



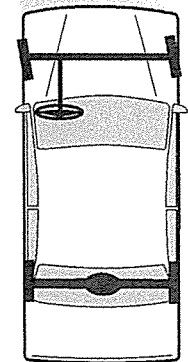
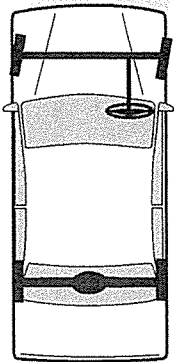
Trainee must be taught to be aware of surrounding vehicles at ALL times.



Steering wheel



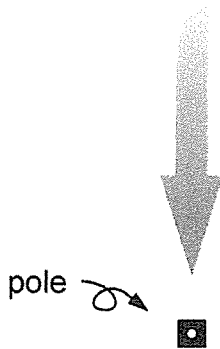
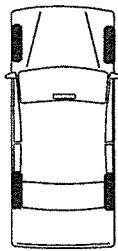
Forward movement



Reverse movement

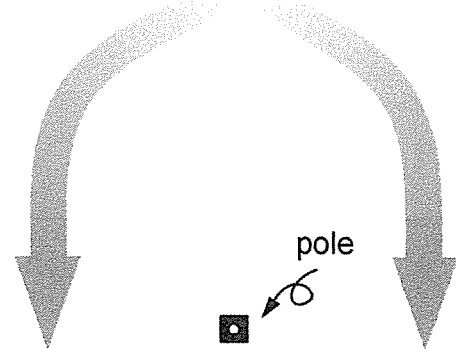
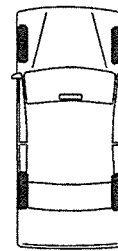


Reversing & Target Estimation



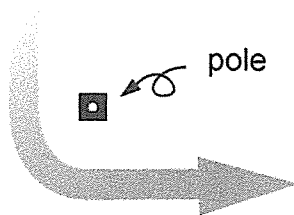
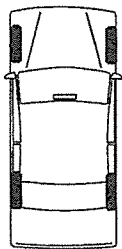
Practise One

- a) Posture
- b) Slow speed control



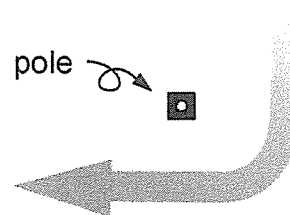
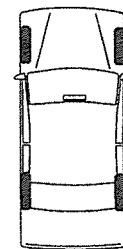
Practise Two

- a) Steering wheel control
- b) Target estimation



Practise Three

- a) Trial for Directional Change
- b) Reverse and turn right

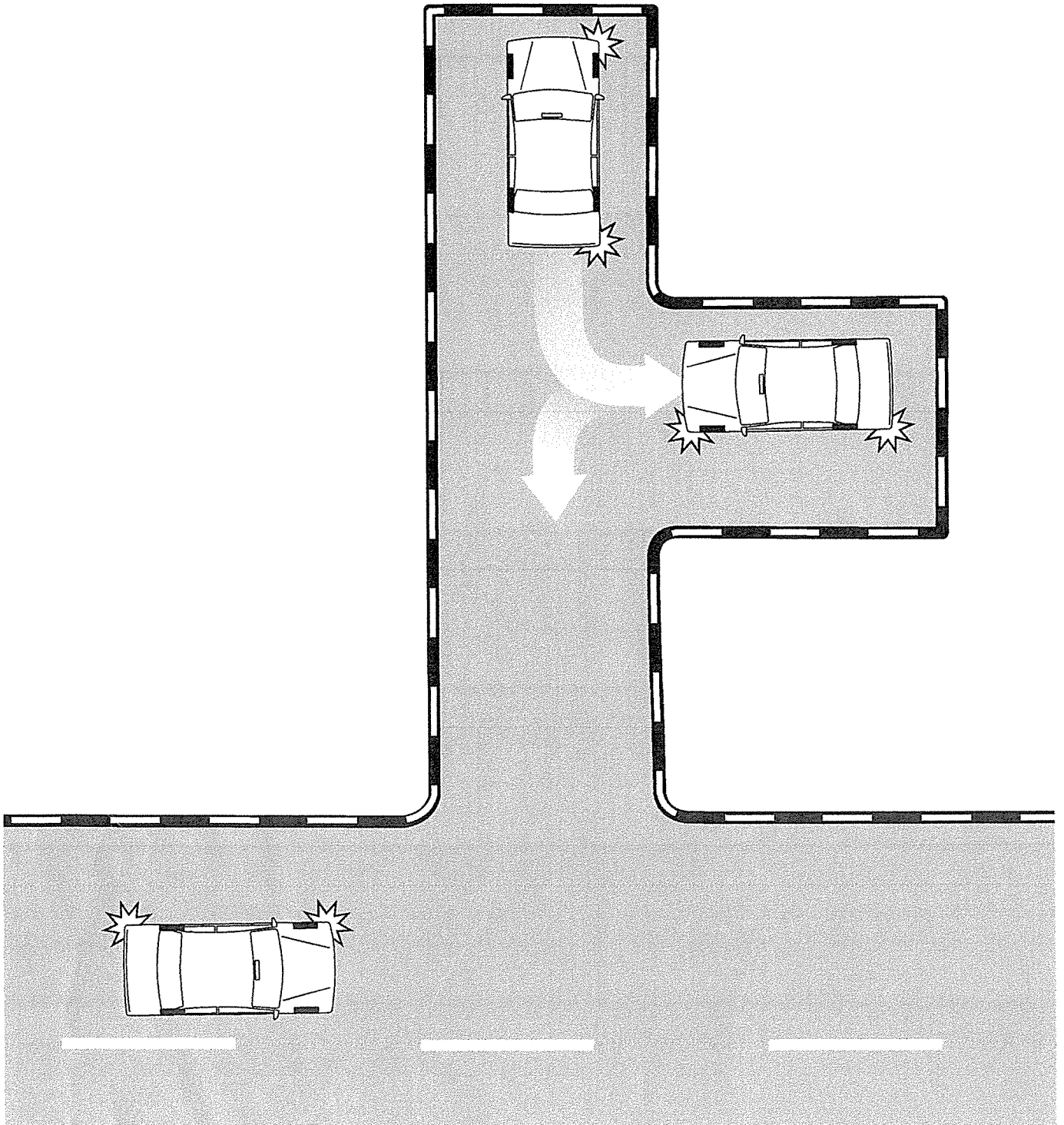


Practise Four

- a) Trial for Vertical Parking
- b) Reverse and turn left



Directional Change



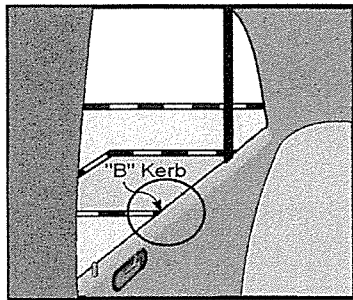


Directional Change

Step 1 Position the car in the centre of the lane and stop before hitting the front kerb.

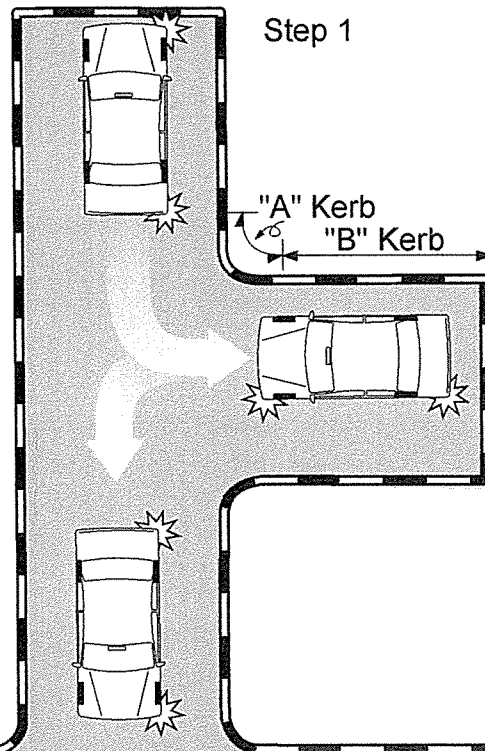
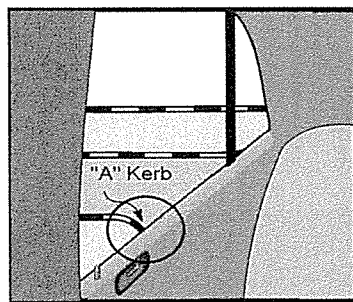
Step 2 After the safety check, reverse slowly until the sighting-point. At this point turn the steering wheel full-lock to the right.

Step 2



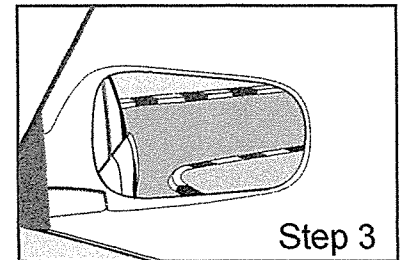
OR

Step 2

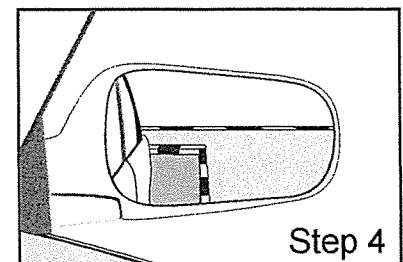


Step 1

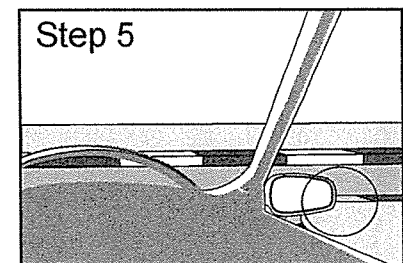
"A" Kerb
"B" Kerb



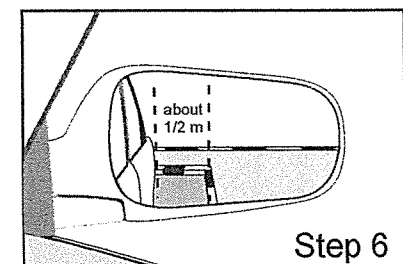
Step 3



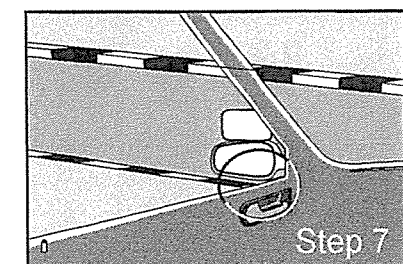
Step 4



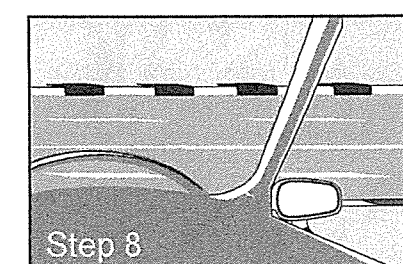
Step 5



Step 6



Step 7



Step 8

Step 3 Check and ensure that the rear right wheel does not hit the right kerb through the right side view-mirror.

Step 4 When the car is almost parallel to the left and right kerb of the reversing lot, straighten the steering wheel.

Step 5 Reverse until the side view-mirrors are covering the left and the right kerb and stop.

Step 6 Check for the side clearance before going out of the reversing lot.

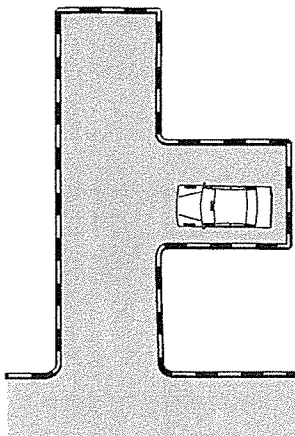
Step 7 When the left view mirror is in-line with the left kerb, turn the steering wheel full lock to the left.

Step 8 Ensure that the left rear wheel does not hit the left kerb and the front right wheel does not hit the front kerb too. Upon reaching the exit, position the car in the centre of the exit and straighten the steering wheel.

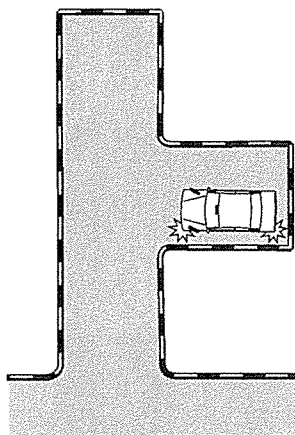


Corrective Action

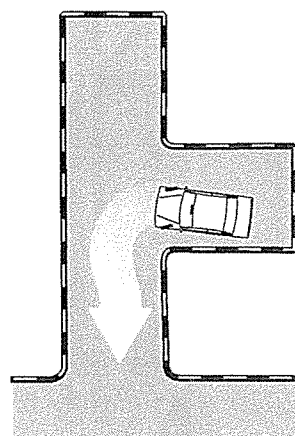
Safety Checking



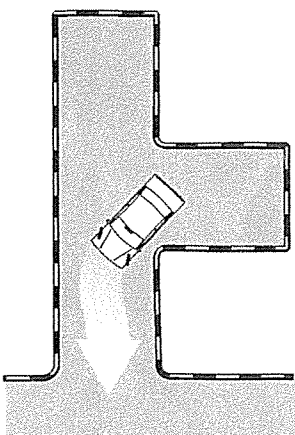
- 1) If the position of the vehicle is too far from kerb on your right, this shows that it is nearer to the kerb on your left.



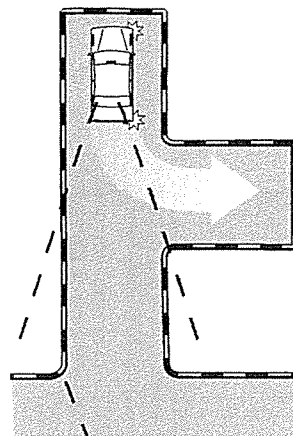
- 2) Then turn the steering wheel one round to the right when moving out of the lot.



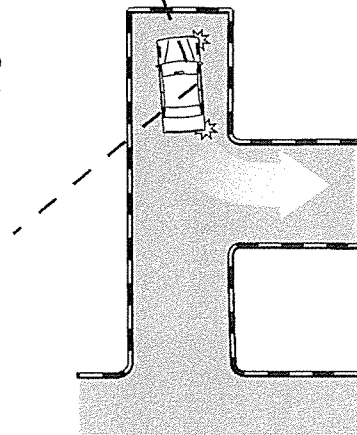
- 3) Move at a very low speed, in order to have a better control.



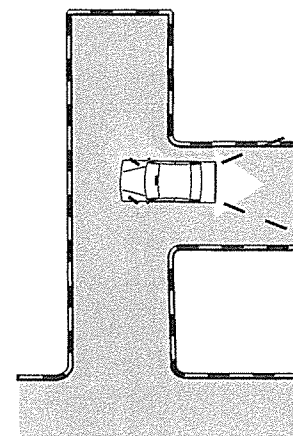
- 4) If you think that it is too close to the front kerb, stop before hitting the kerb. While reversing straighten the steering wheel before redoing.



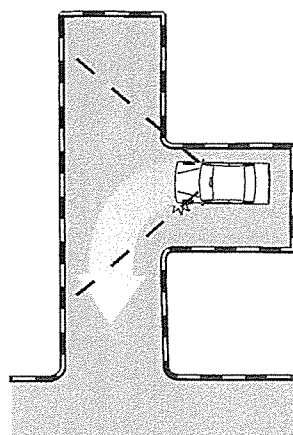
- 1) Check through the rear windscreen before reversing.



- 2) Check front left before turning the steering wheel full lock to the right.



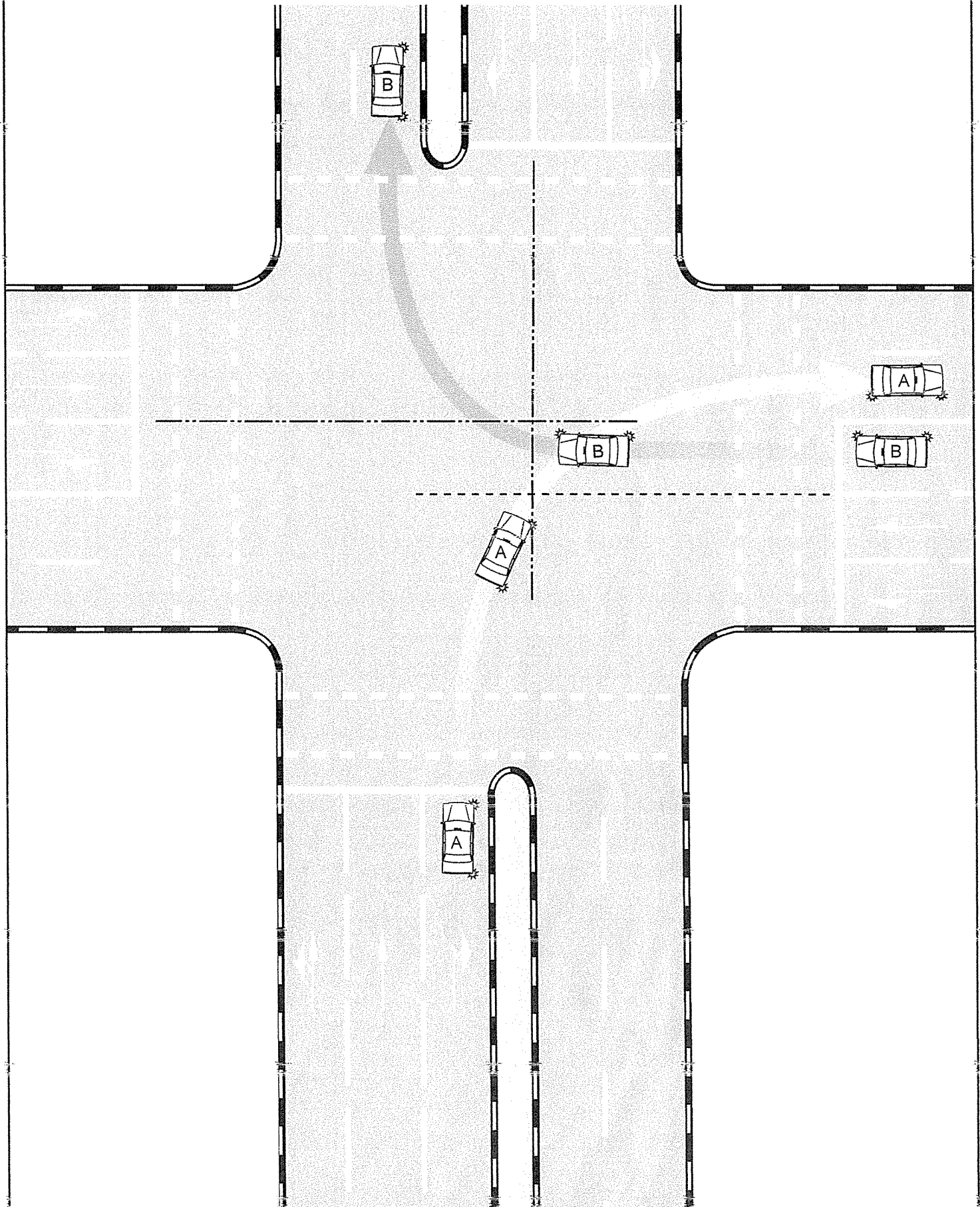
- 3) Check through the rear windscreen before reversing into the lot.



- 4) Check right and left for safety before moving out of the reversing lot.

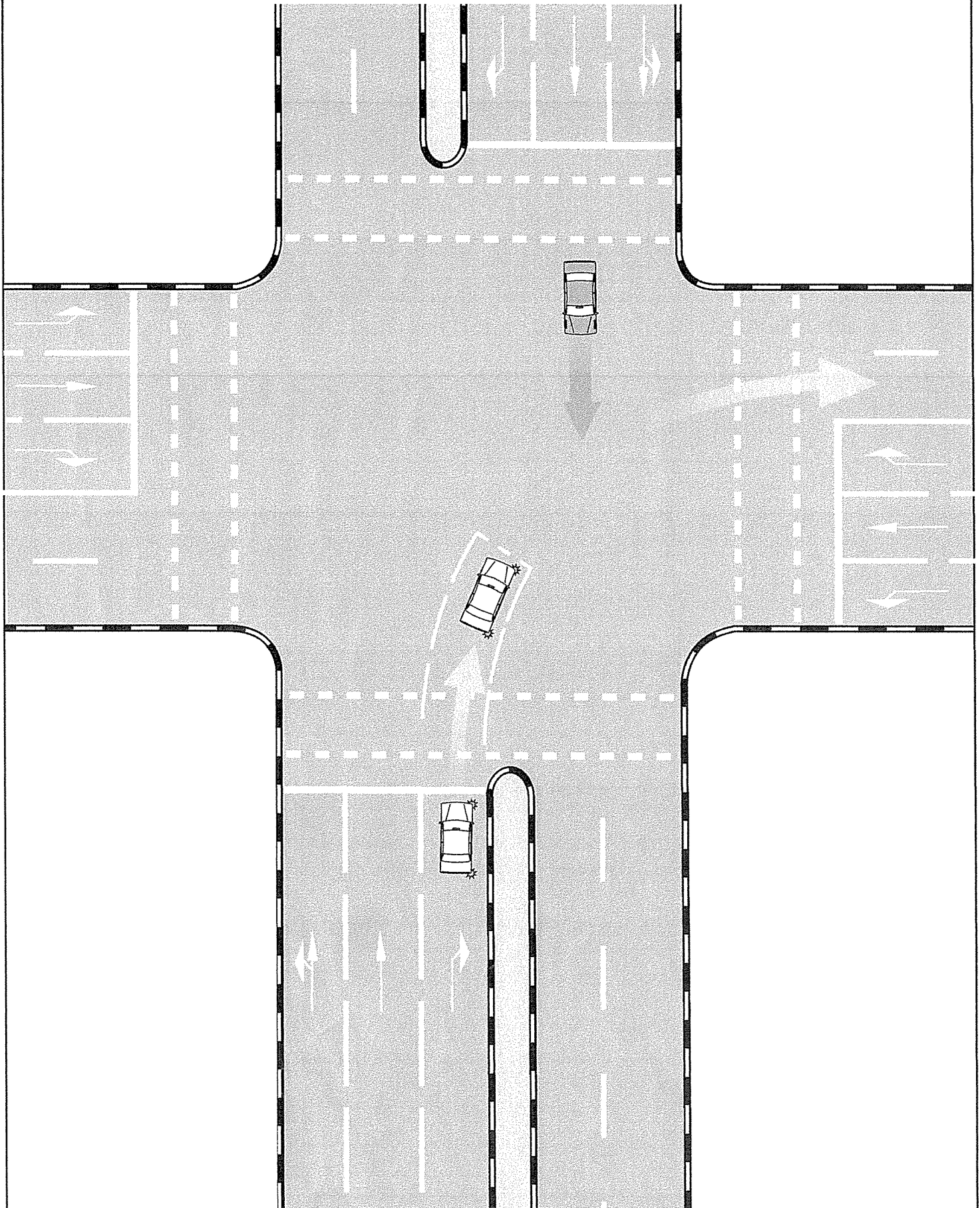


Right Turn (Position Before Turning Right)



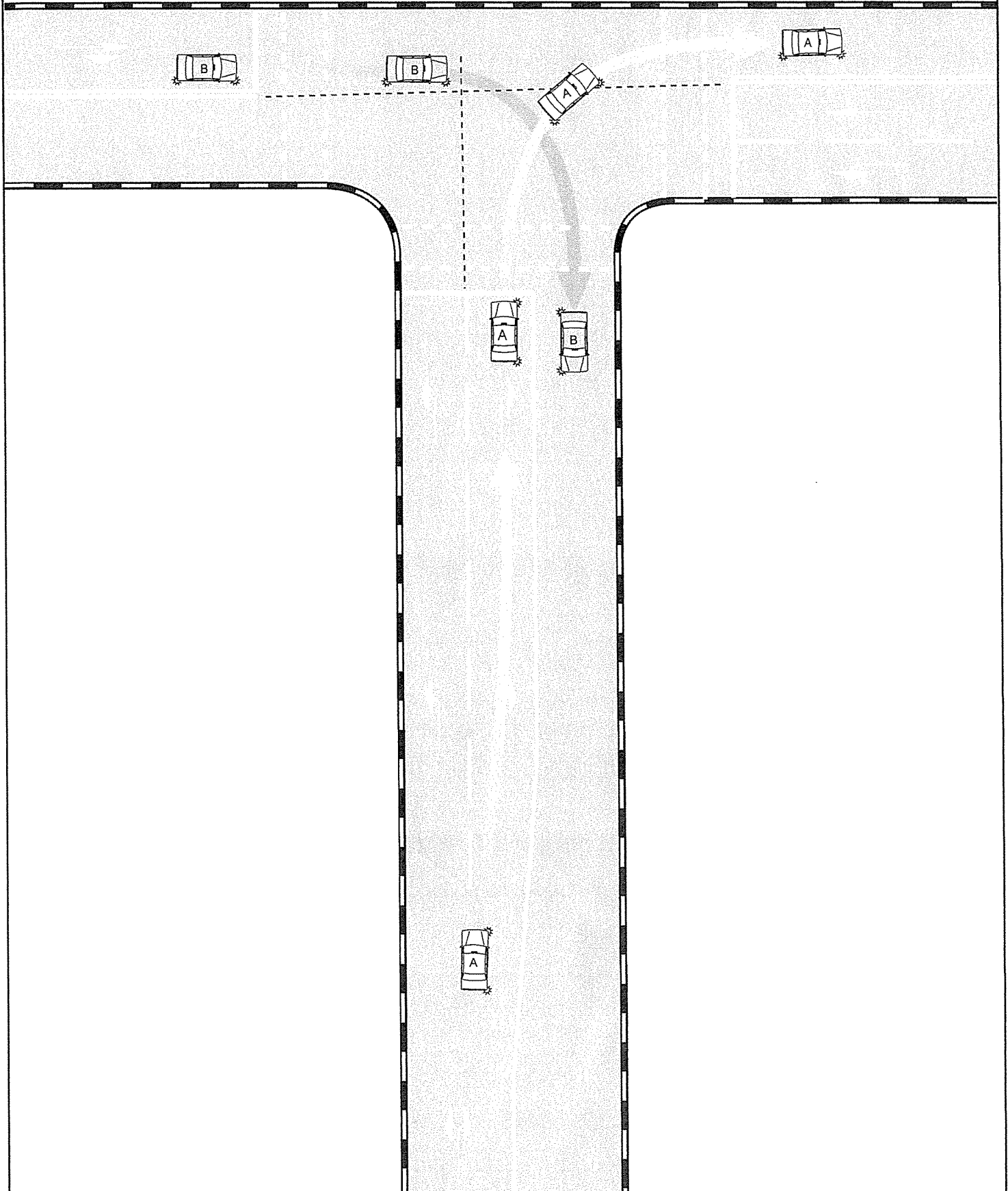


Right Turn (Give-way with road pocket)



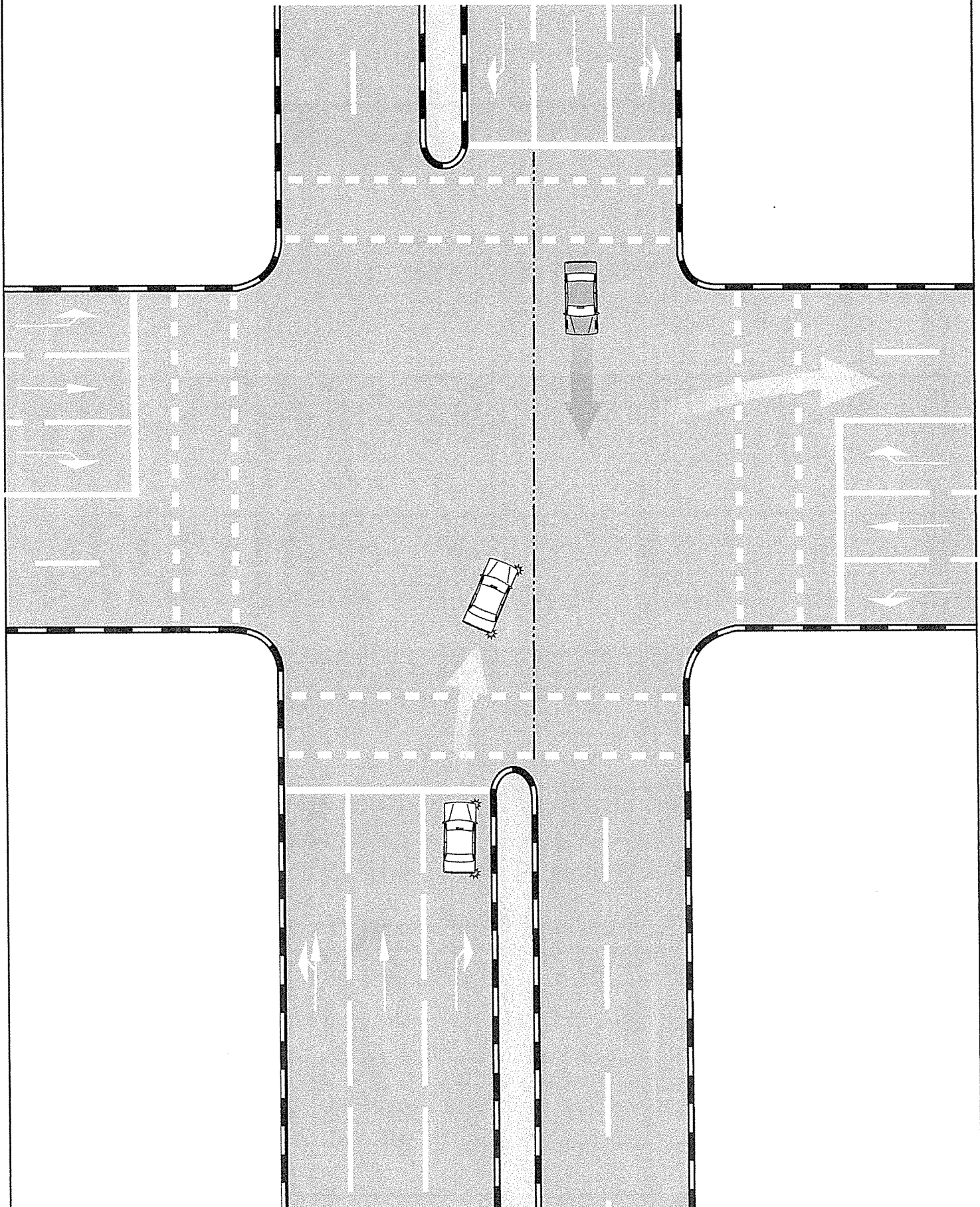


Right turn at 'T' junction (Position Before Turning Right)



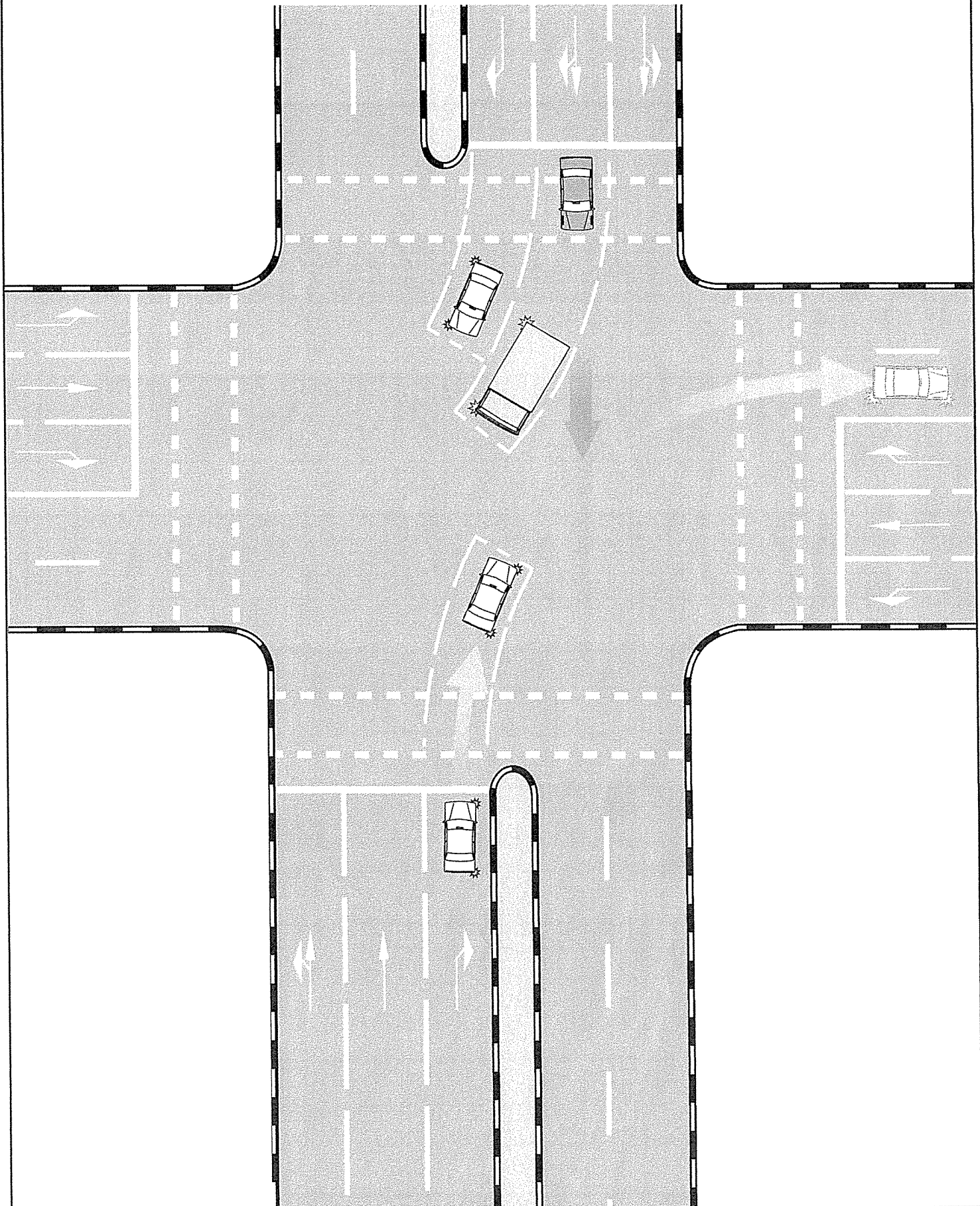


Right Turn (Give-way without road pocket)



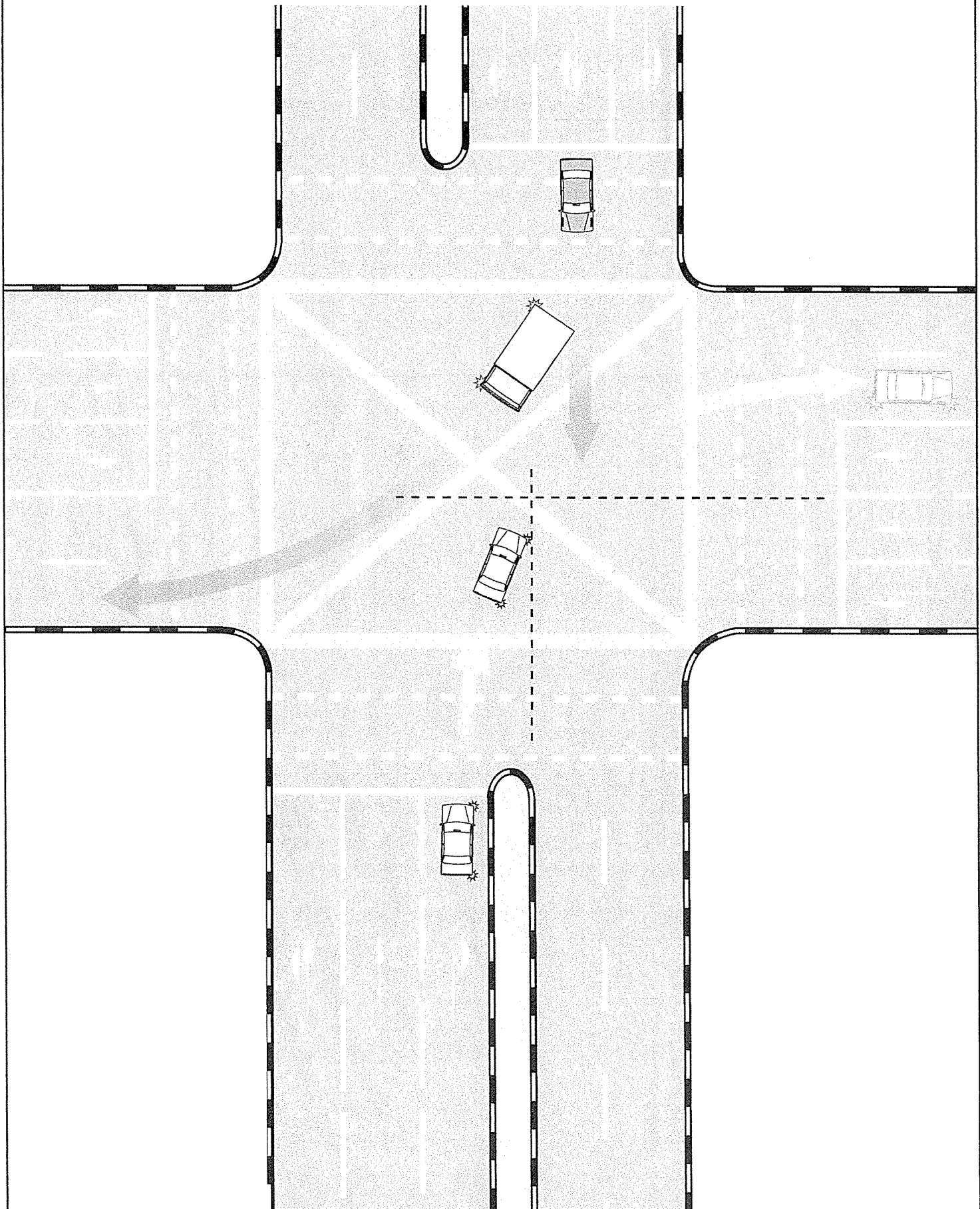


Right Turn (Give-way)



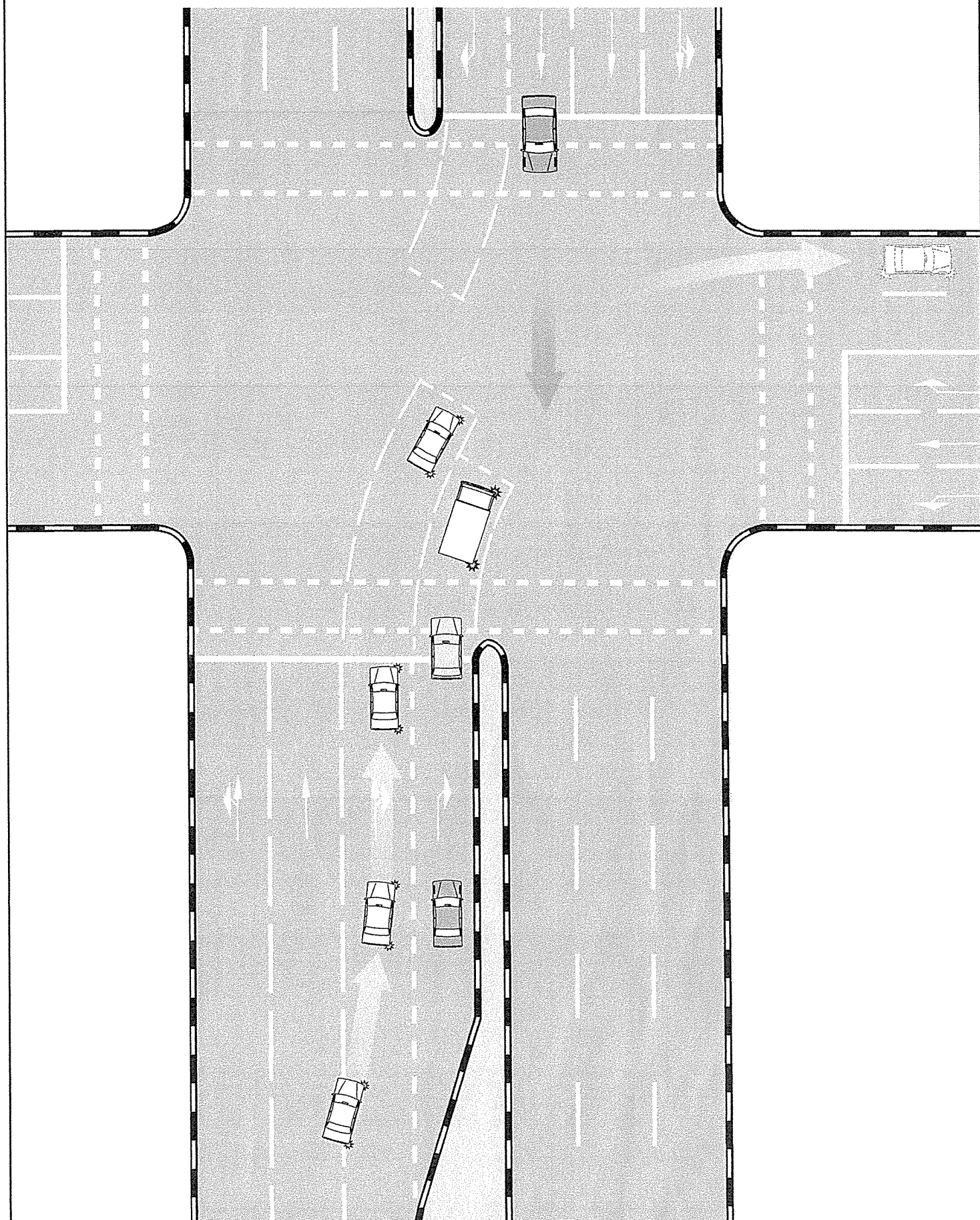


Right Turn (Give-way)



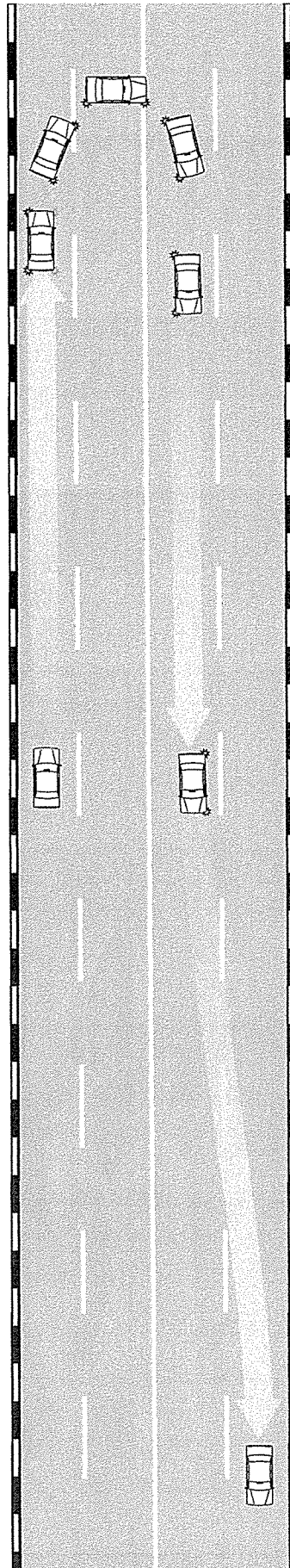


Right Turn (Using 2nd lane to turn right)



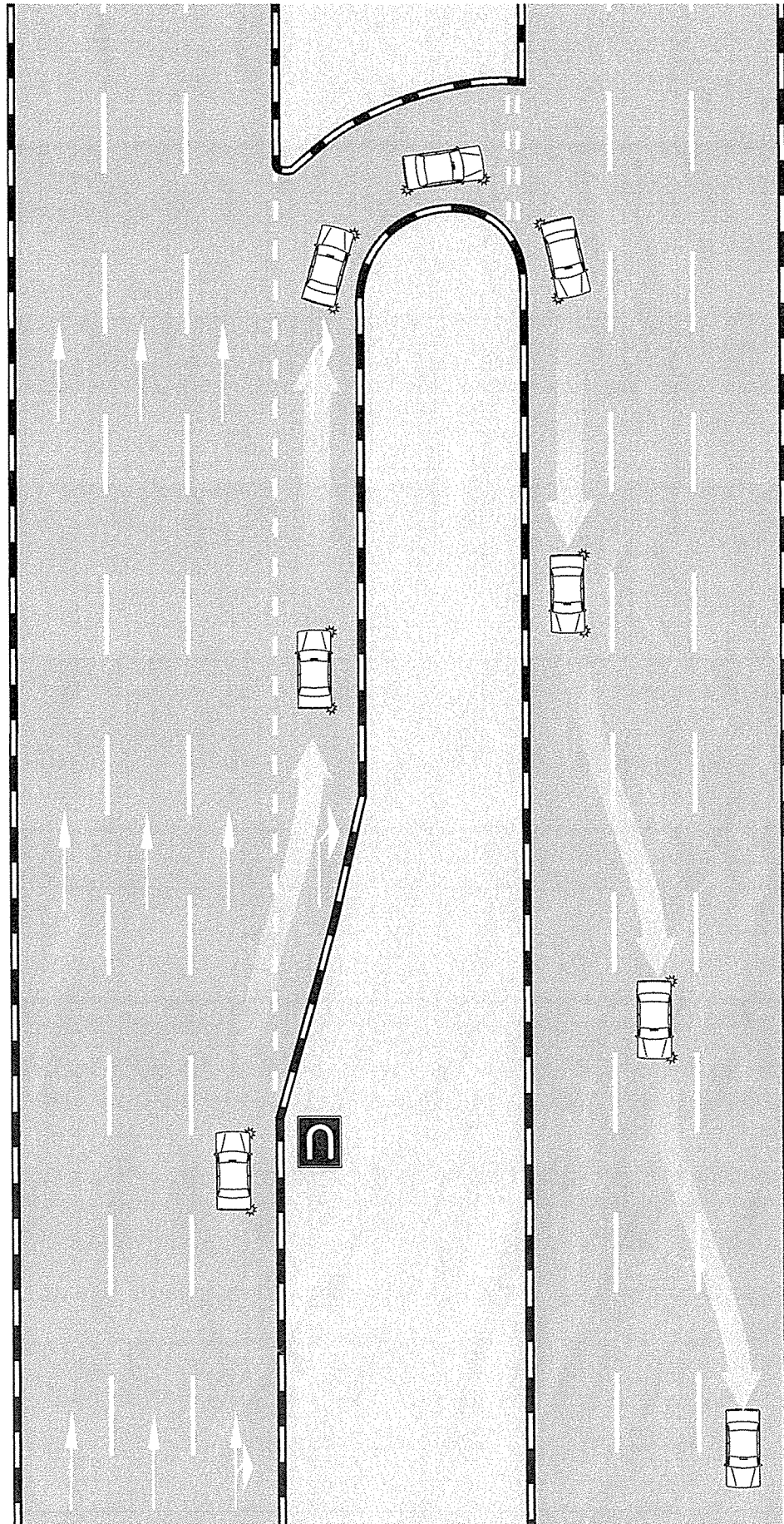


' U ' Turn (at continuous white line)





'U' Turn (Wide divider)

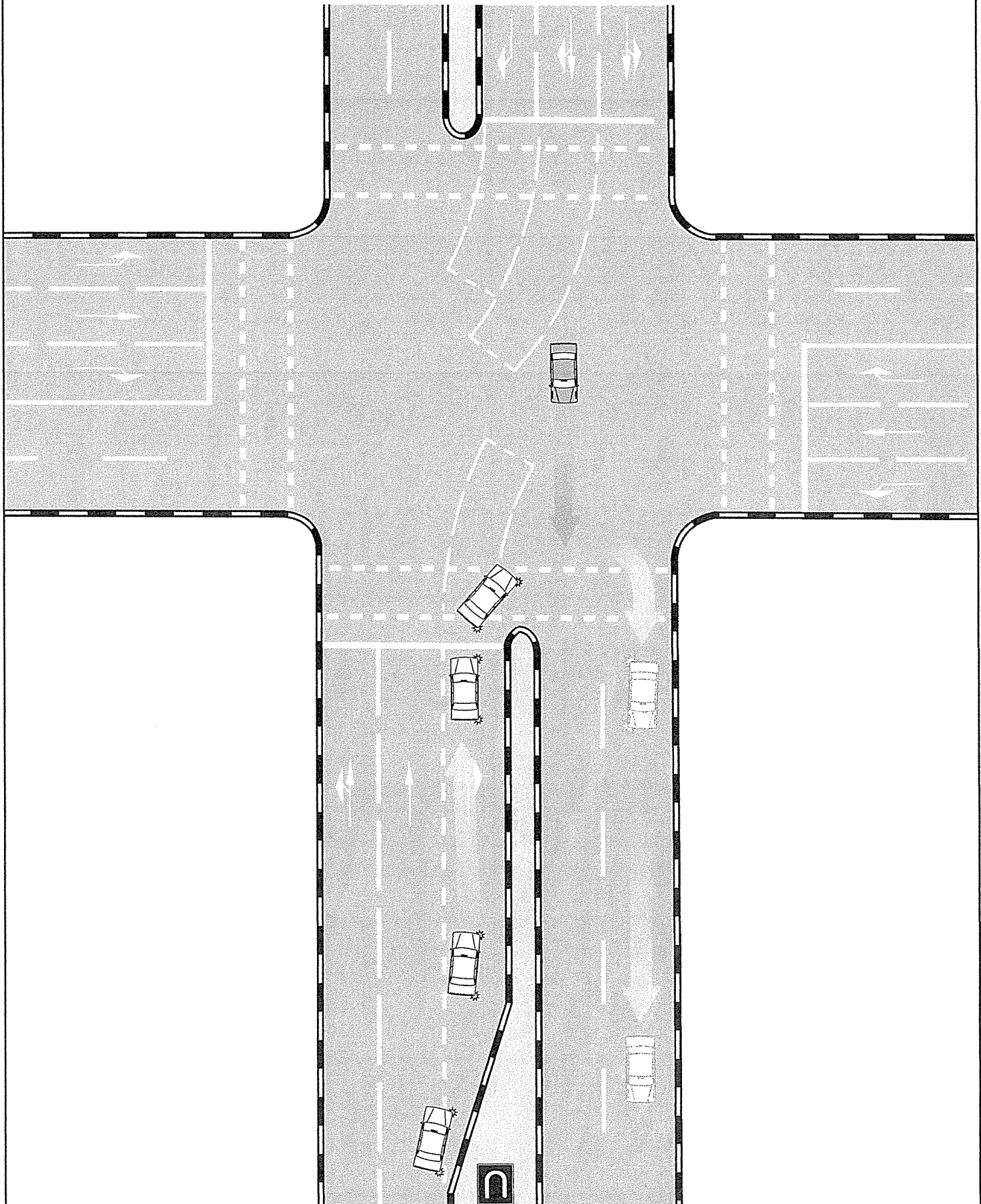




(small kerb / divider with 3 lanes)

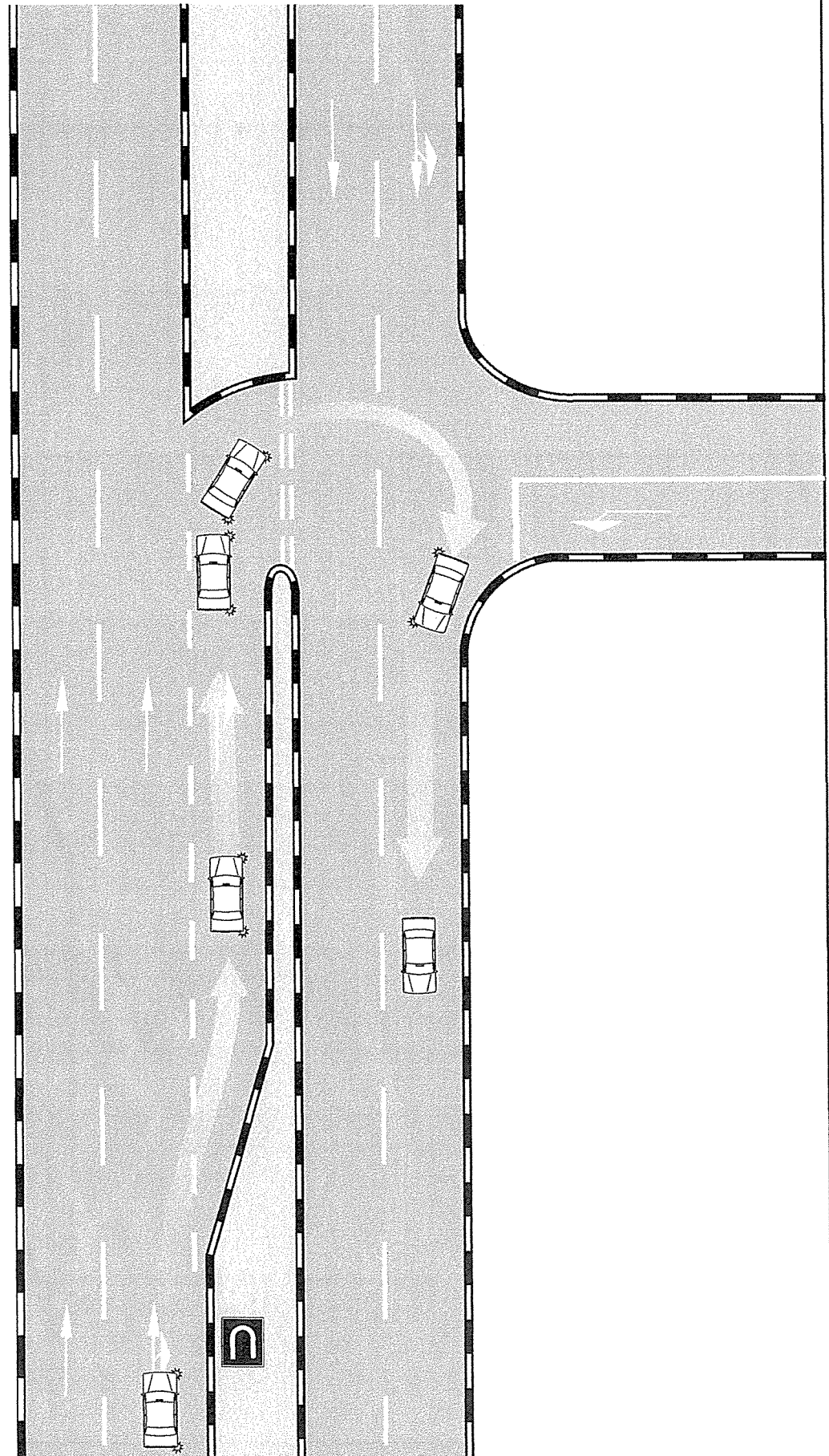


' U ' Turn (small kerb / divider with 2 lanes)



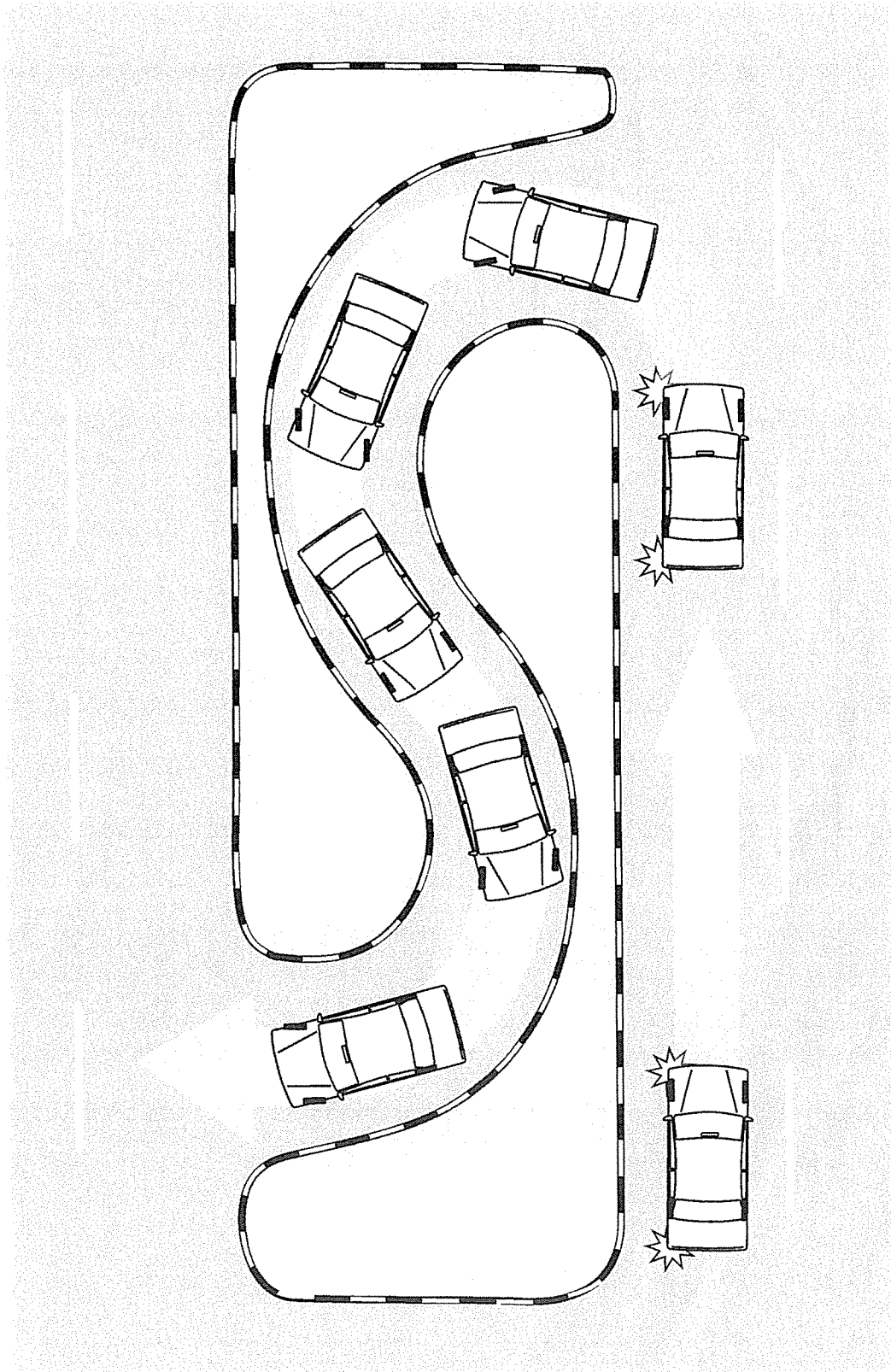


' U ' Turn (small kerb / divider with 2 lanes)



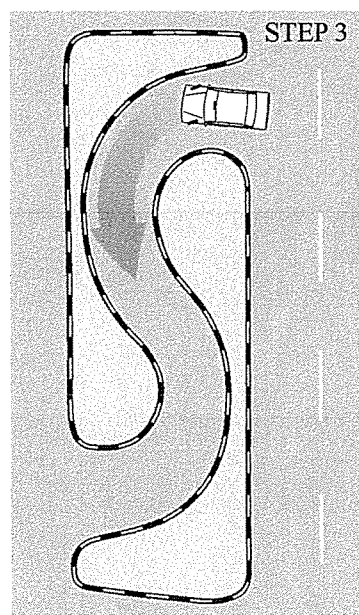


'S' Course

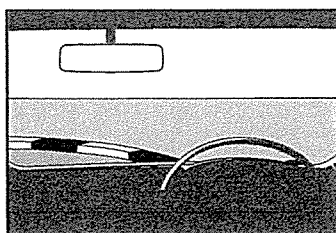




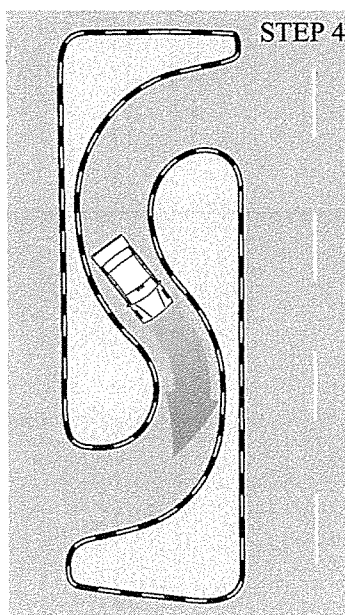
'S' course



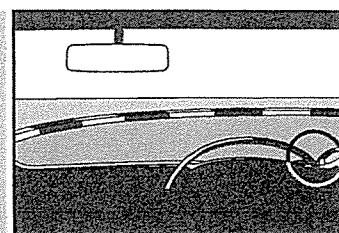
STEP 3



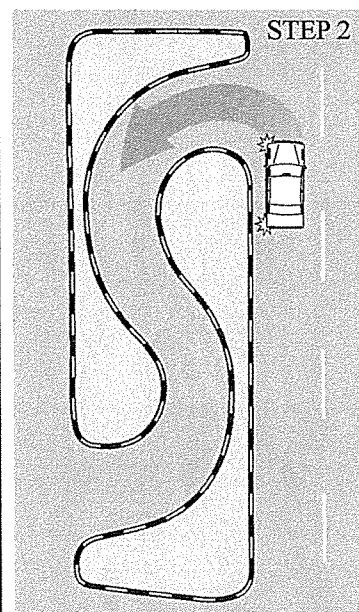
After turning ensure the vehicle is moving in the centre of the track, by keeping the front left wheel moving in the centre of the track or the centre of the bonnet is moving in-line with the front kerb.



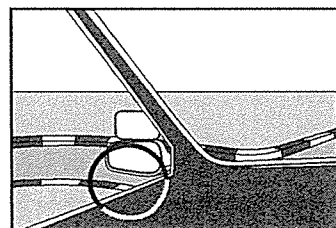
STEP 4



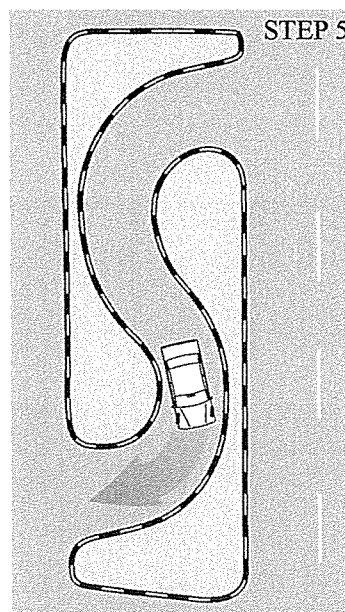
When the right kerb is inline with the right bottom of corner of the front windscreen, straighten the steering wheel.



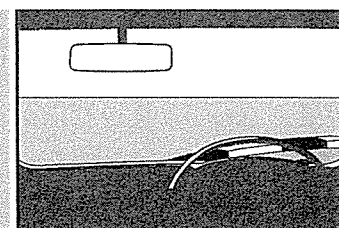
STEP 2



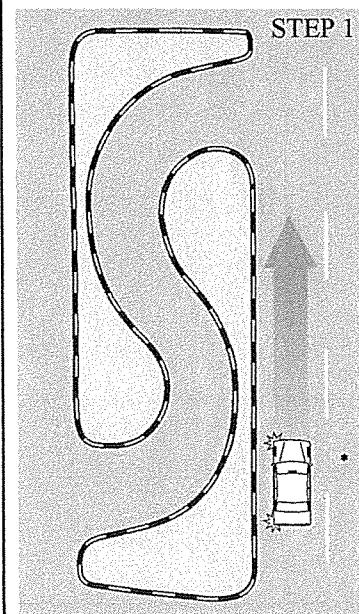
Check the blind-spot on the left, if safe when the left side mirror is in line with the tip of the left kerb, turn the steering-wheel to the left.



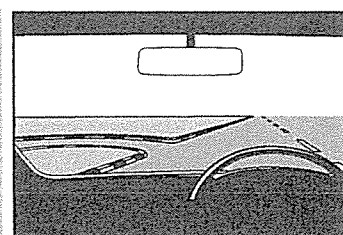
STEP 5



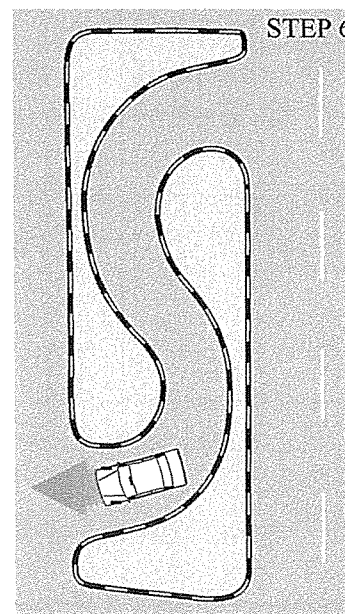
When the centre of the bonnet is in line with the left kerb, turn the steering to the right. Ensure the vehicle is moving in the centre of the track, by keeping the front right wheel moving in the centre of the track.



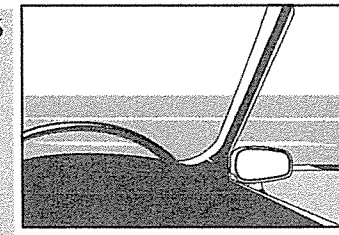
STEP 1



Check the mirrors, signal intention to the left, position the car about a meter away from the left kerb



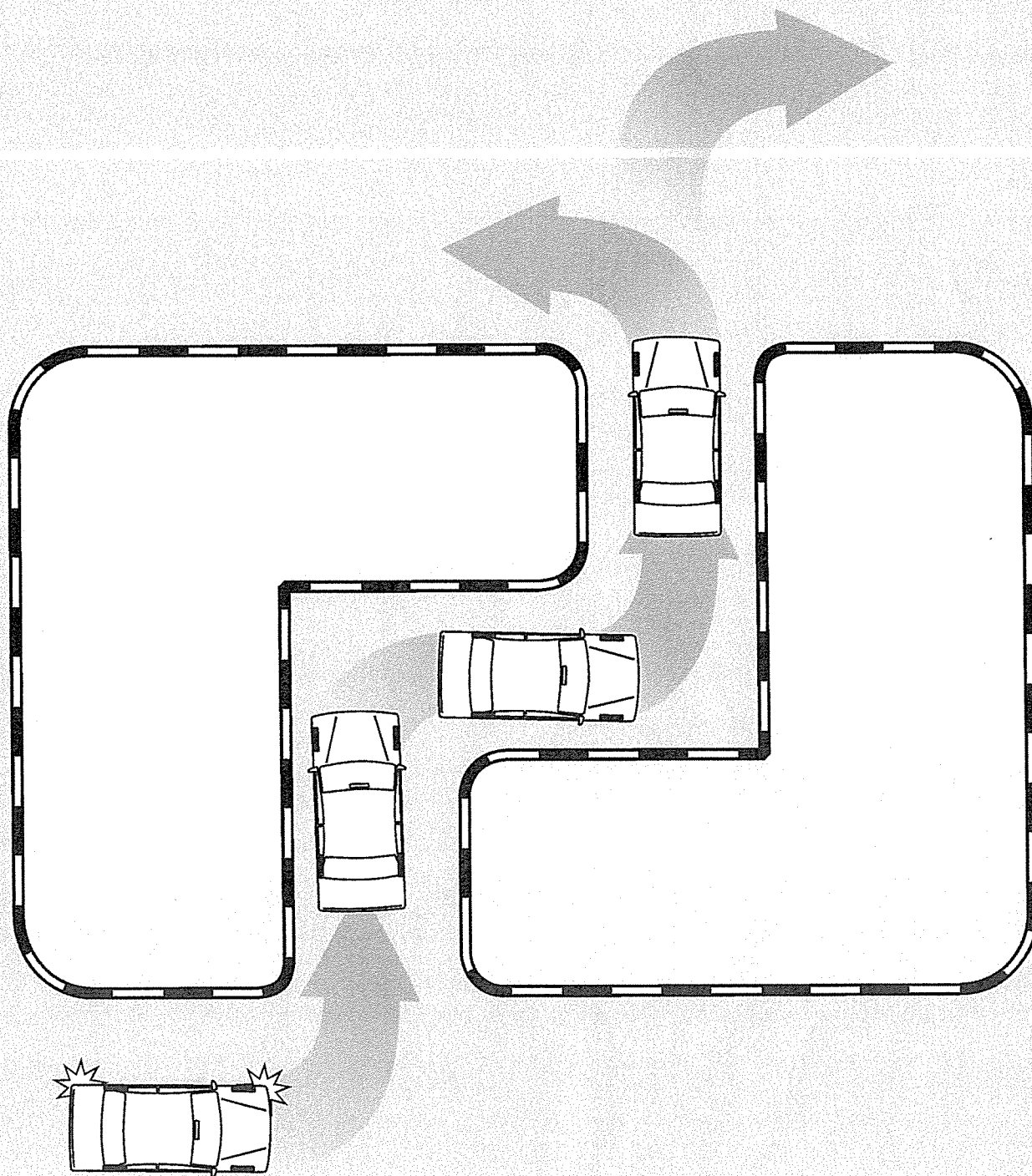
STEP 6



Upon reaching the exit, position the car in the centre of the exit and straighten the steering wheel.



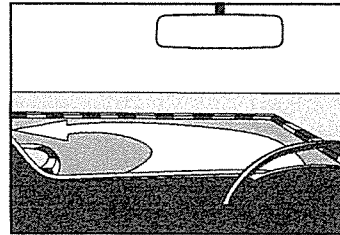
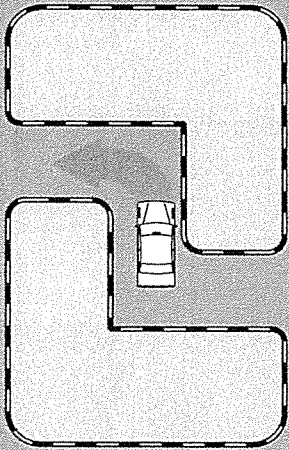
Crank Course





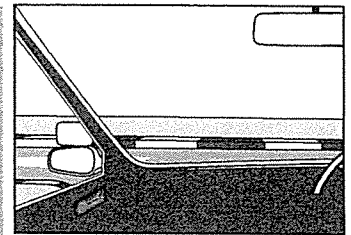
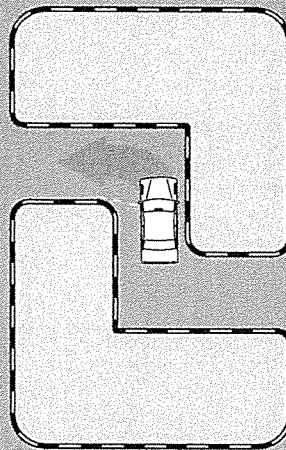
Crank course

STEP 3



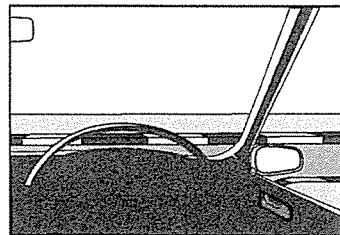
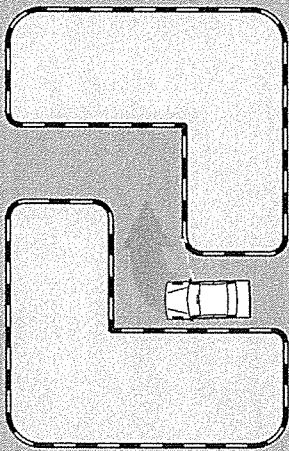
When the car is almost parallel with the right kerb, straighten the steering-wheel and position slightly to the right is to prepare to turn to the left safely.

STEP 4



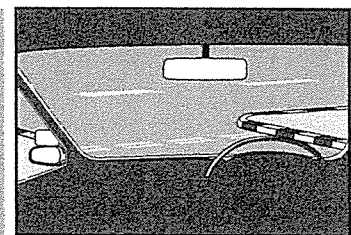
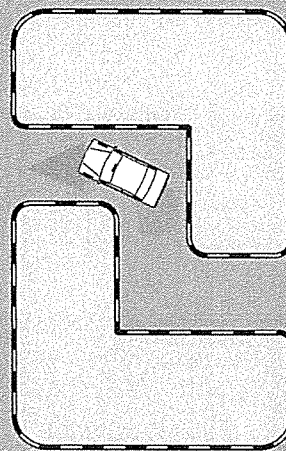
When the left kerb appeared below the left side-view mirror, turn the steering full lock to the left.

STEP 2



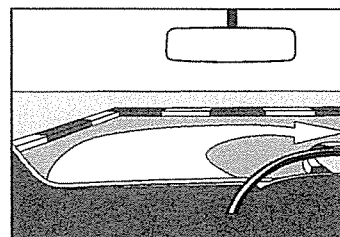
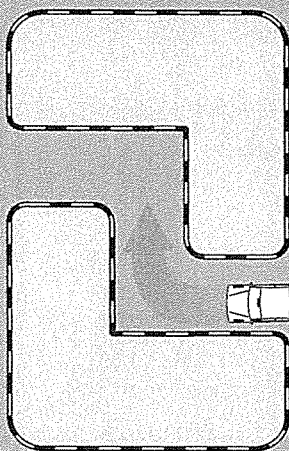
When the right kerb appears below the right side-view mirror, turn the steering full lock to the right.

STEP 5



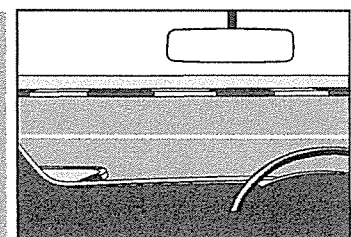
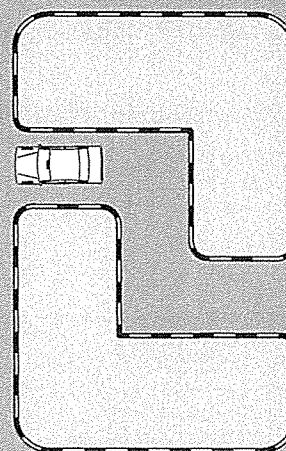
Upon reaching the exit, position the car in the centre of the exit and straighten the steering-wheel.

STEP 1



Upon entering, position the car slightly to the left, this is to prepare for the next turn to the right safely.

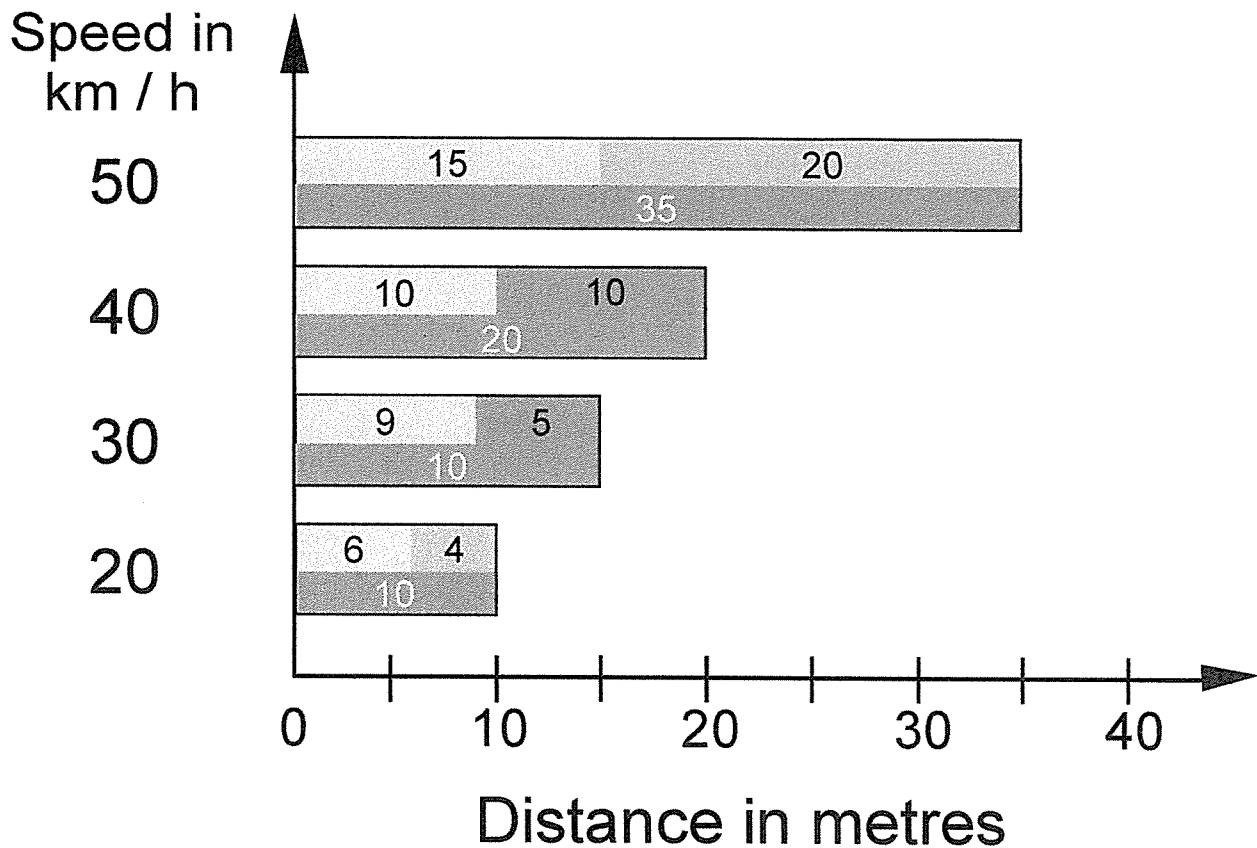
STEP 6



Check the mirrors, signal your intention and check the traffic on the right and left before moving out of the course.



Stopping Distance



Reaction Distance

Braking Distance

Stopping Distance

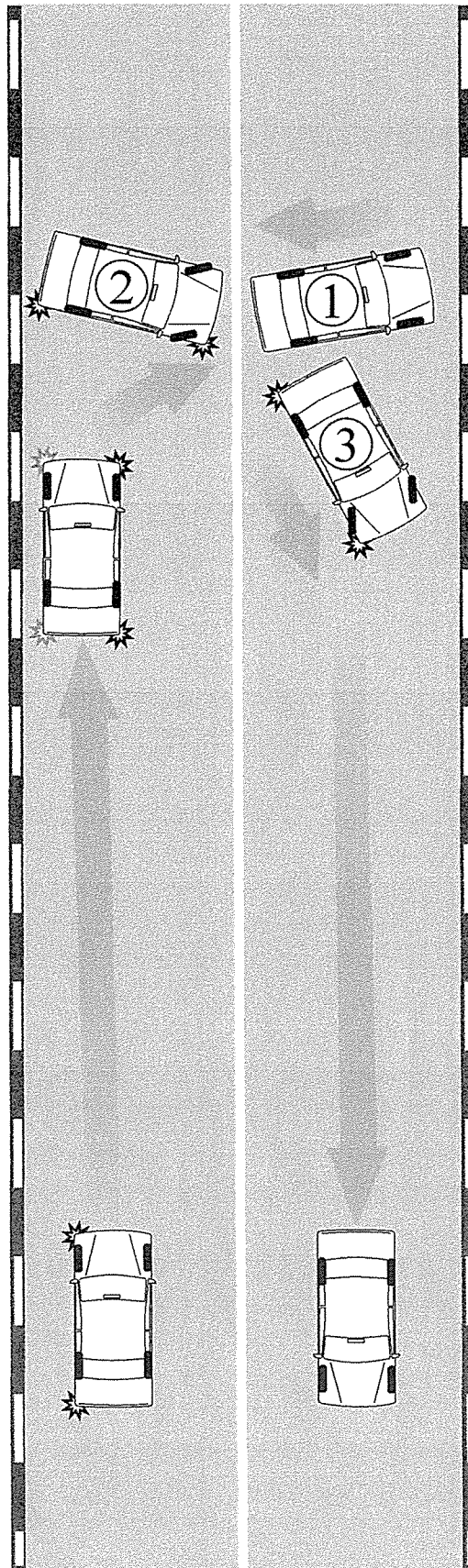
Reaction Distance - Is the distance travelled by the car from the moment the driver sees a danger to the time the driver applies the brake.

Braking distance - Is the distance travelled by the car from the moment the brake is applied to when the car comes to a complete stop.

Stopping distance - Is the distance travelled by the car from the moment the driver sees a danger to the time that the car comes to a complete stop.



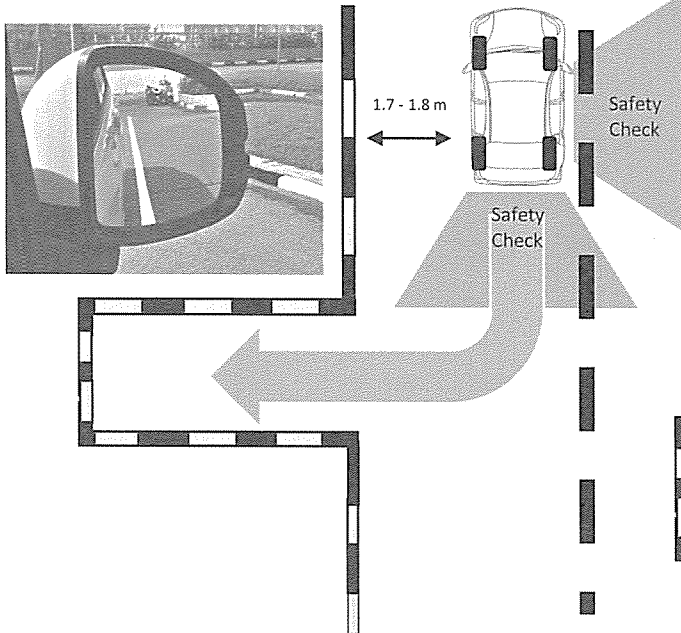
3 points turn



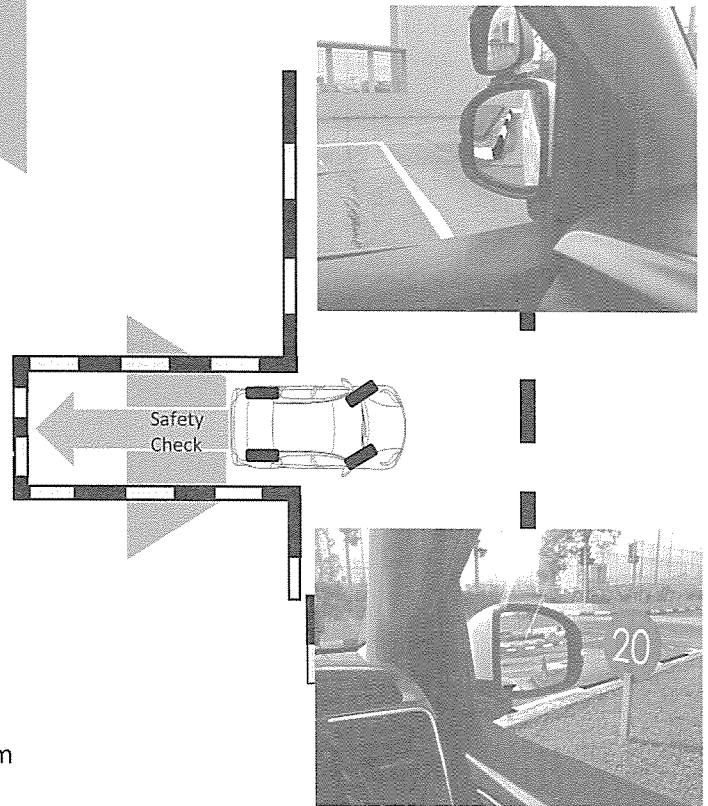
Vertical Parking

GOING IN

STEP 1: Position the car closer to the centre line about 1.7 to 1.8 meters from the left kerb. Engage reverse gear, check on the front, right and look through the rear windscreen for safety before reversing.

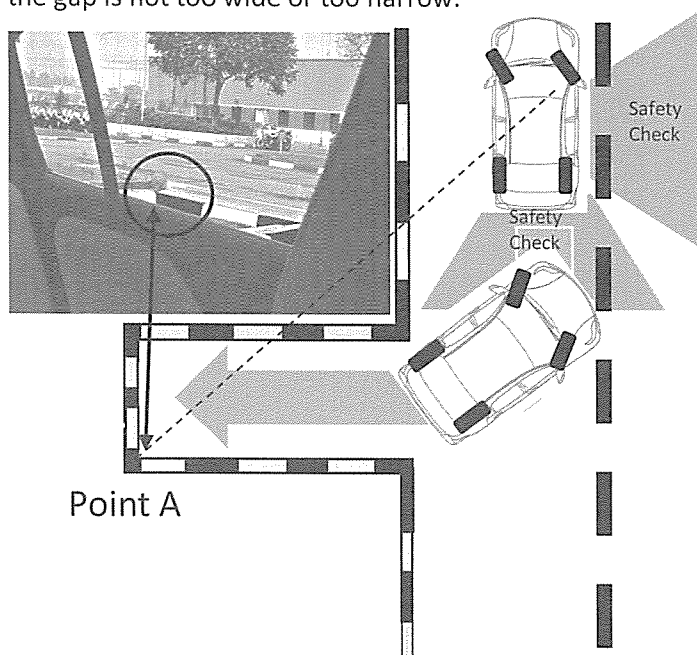


STEP 3: By looking at the left and right side mirror, when the car body is almost parallel with the left and right kerb, turn the steering wheel to 2 rounds to the right to straighten the tyres. Check safety through the rear windscreen while you are reversing. Stop when the side mirrors is in line with the kerb.



STEP 2: Reverse the car slowly and look through the rear left door window to see the turning point in line with the inside corner (**Point A**) of the parking lot. (Instructor will assist to get and determine the sighting point). About to reach the turning point, stop to confirm safety on the right, move the car and full lock the steering wheel to the left.

Adjust the left side mirror downwards to check the gap between the rear left wheel and the kerb. Ensure that the gap is not too wide or too narrow.

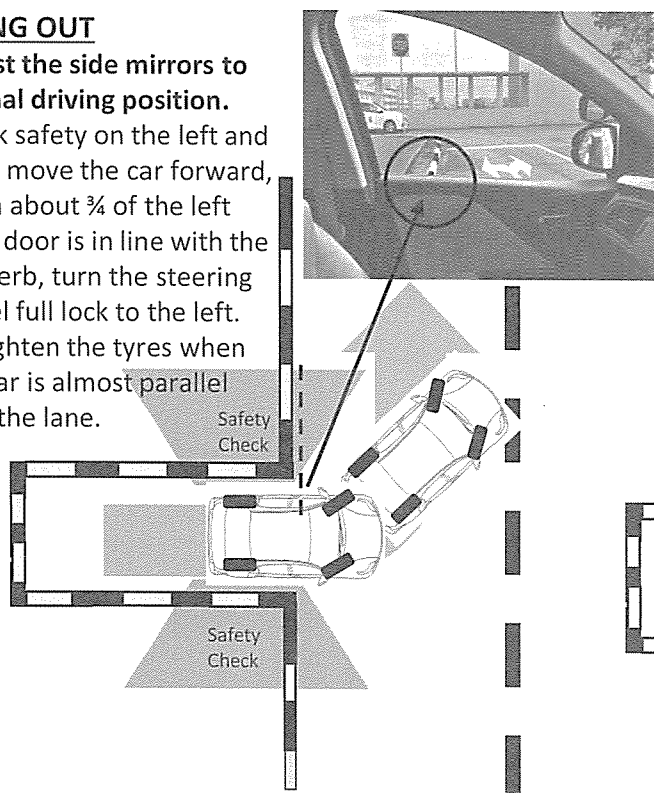


Vertical Parking

GOING OUT

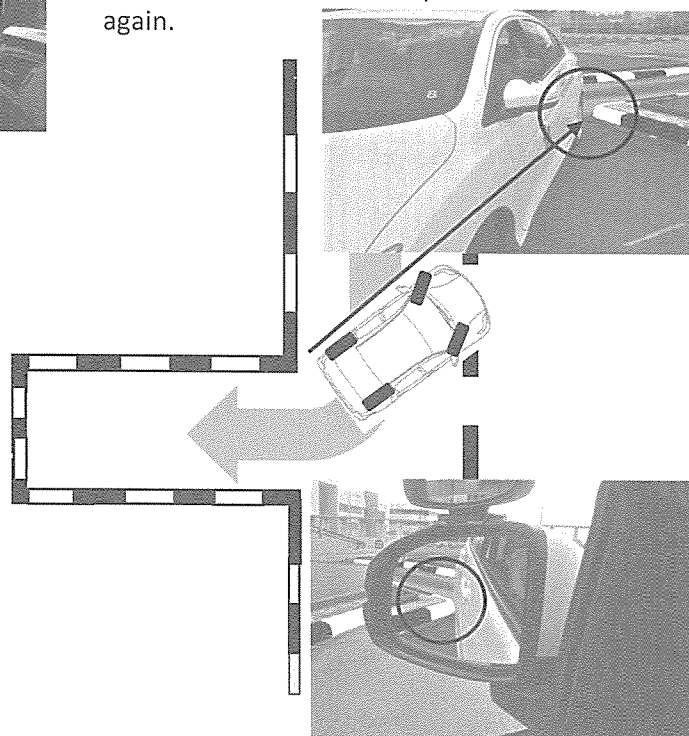
Adjust the side mirrors to normal driving position.

Check safety on the left and right, move the car forward, when about $\frac{3}{4}$ of the left front door is in line with the left kerb, turn the steering wheel full lock to the left. Straighten the tyres when the car is almost parallel with the lane.



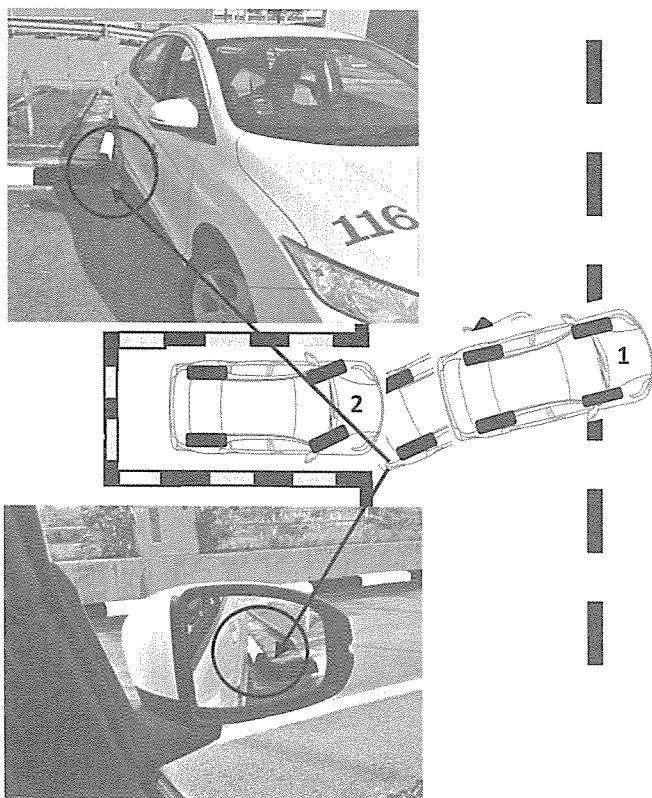
CORRECTIVE ACTIONS

SCENARIO 1 : If turn too early. The rear left tyre is too close to the left corner of the kerb, move forward and reposition the car again.



SCENARIO 2 : If turn too late, the rear right tyre is too close to the right kerb,

Step 1 : Check for safety on the left and right, move forward and turn the steering wheel 2 rounds to the right to straighten the tyres.

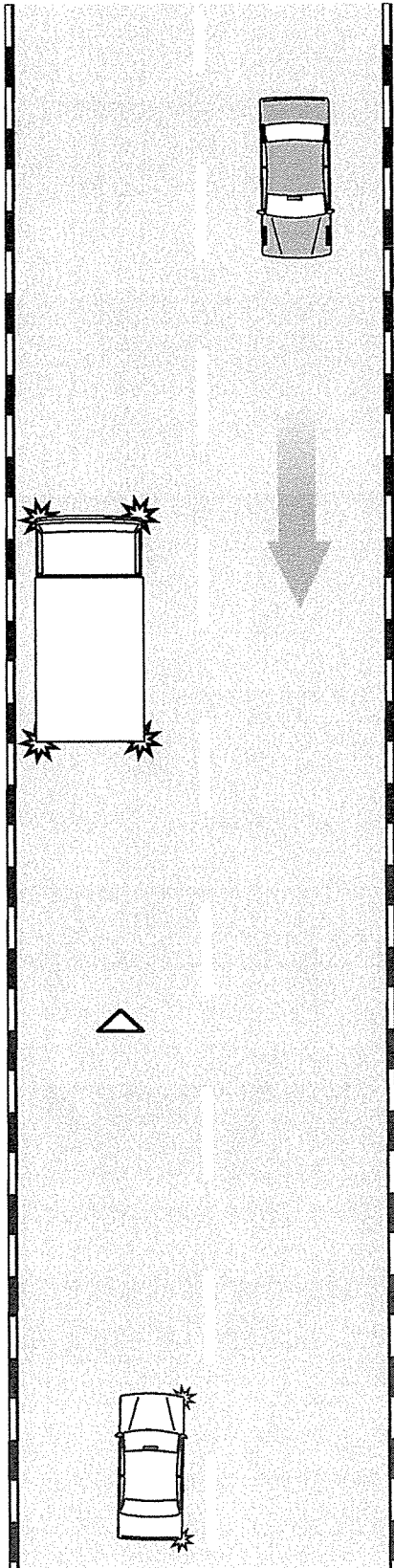


Step 2 : Look through the rear windscreen for safety, reverse the car and turn the steering full lock to the left. When the car body is almost parallel with the left and right kerb, straighten the tyres by turning the steering wheel 2 rounds back to the right. Stop when the side mirrors are in line with the kerb.

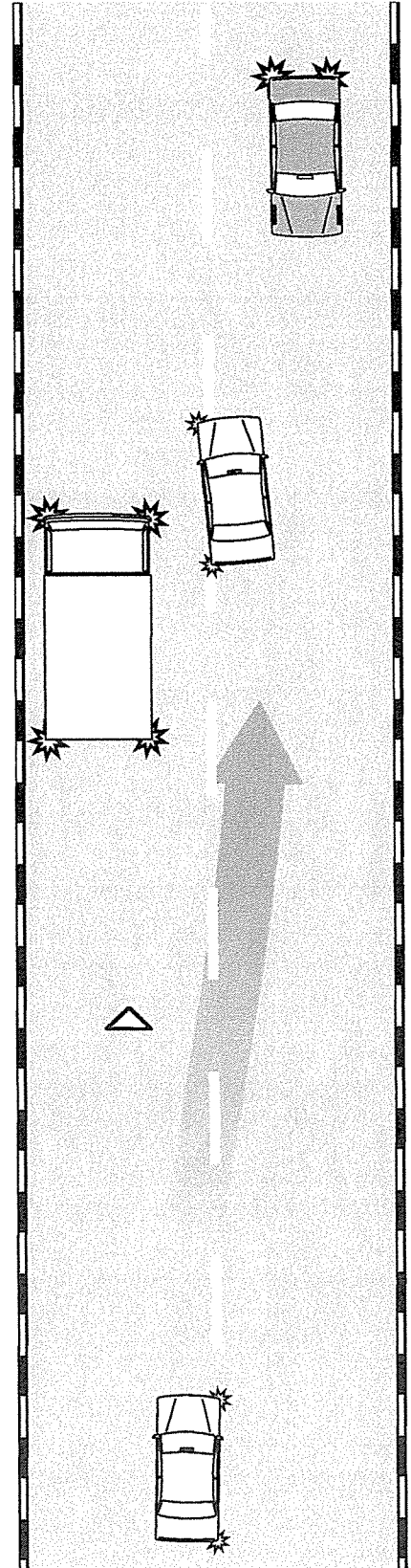


ANTICIPATION (FORWARD DRIVING)

CORRECT



INCORRECT



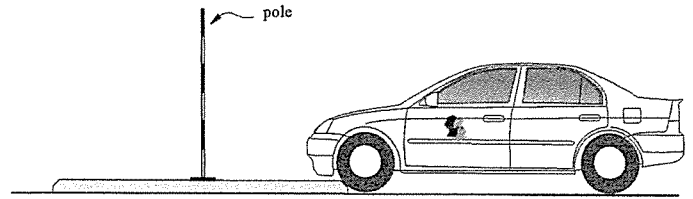


RAMP COURSE

(Sudden acceleration and stopping)

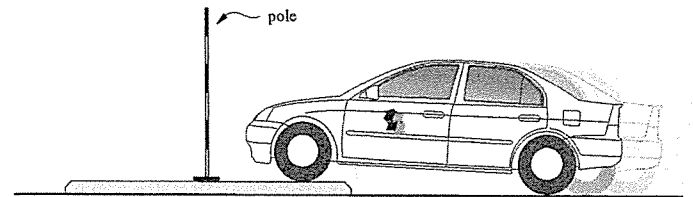
Step 1- Forward movement

"Auto-creep" slowly forward and stop as the front wheels touch the ramp.



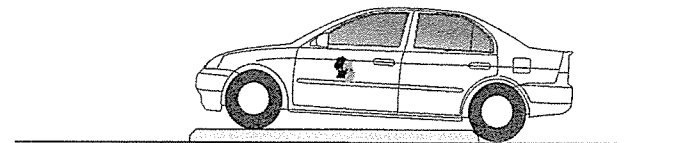
Step 2- Going up the ramp

Accelerate quickly and hard.
Apply the brake pedal immediately as the front wheels up the ramp.



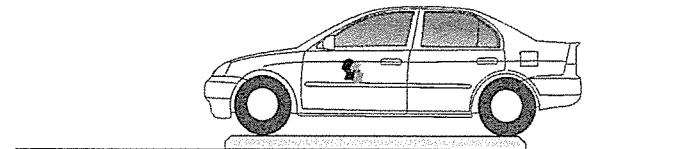
Step 3- Drive over

"Auto-creep" slowly forward and stop as the rear wheels touch the ramp.



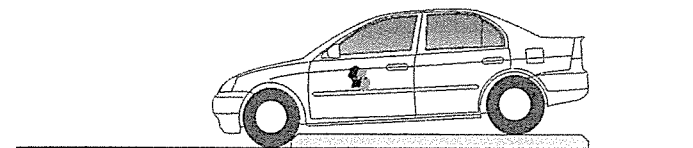
Step 4- Drive over

Accelerate gradually and stop when the rear wheels go up the ramp.



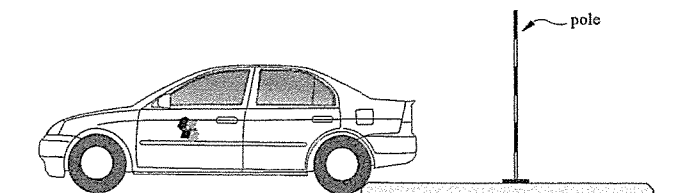
Step 5- Drive over

"Auto-creep" slowly forward.
Allow the front and rear wheels to go down the ramp slowly by controlling the brakes.



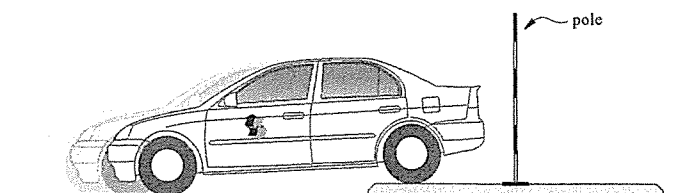
Step 1- Backward movement

"Auto-creep," slowly backward and stop as the rear wheels touch the ramp.



Step 2- Reversing up the ramp

Accelerate quickly and hard.
Apply the brake pedal immediately as the rear wheels up the ramp.



Note:

- 1) The trainee is required to react and stop within 1 metre.
- 2) Strike pole constitutes to an immediate failure.

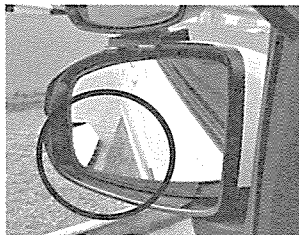
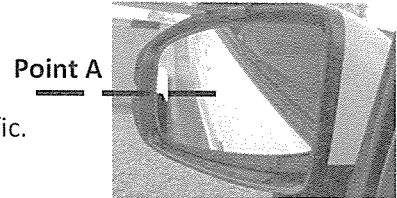
Parallel Parking

Reversing Into The Parking Lot

Step 1 : Signal left early. Position the car about 0.5 metres away from the kerb. Check through the rear windscreen and on the right for safety before reversing.

Adjust the left side mirror downwards to see the rear wheel and the kerb.

Step 2 : Reverse the car and turn steering full lock to the left when the rear left wheel is about 1 metres from the corner of the parking lot (**Point A**). Check on the right again and give way to oncoming traffic.

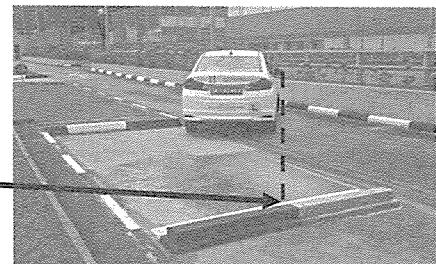


Ensure there's a clearance between the rear tyre and the corner of the kerb.

STEP 3 : When the right side of the car body is in line with the centre of the rear kerb (**Point B**) by looking at the right side mirror, turn back 2 rounds to the right to straighten the tyres and check safety again through the rear windscreen before reversing.



Point B



Adjust the right side mirror downwards to see the rear tyre.

Step 4 : When the rear right tyre touches the yellow line (**Point C**), turn the steering full lock to the right.



Point C



Point C

Step 5 : Reverse the car further back and stop before the rear wheel touches the rear kerb. (Approx. 0.3m)



Step 6 : Move forward, straighten the car, the tyres and park the car in the centre of the parking lot. If additional movements are required, check safety behind again before reversing

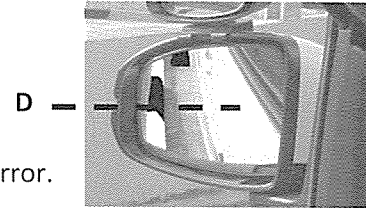


Note: Sense the movement of the car to confirm the front tyres are straight. Do not assume the front tyres are straight by looking at the steering wheel position as it may differ by one round.

Parallel Parking

Moving Out of The Parking Lot

Step 1 : Move the car forward and stop when the left rear tyre is in line with the black and white mark (**Point D**) on the kerbside by looking at the left side mirror.



Step 2 : Check safety by looking through the rear windscreen before reversing. Turn the steering wheel at least 1 round to the left. Stop before the rear tyre touches the rear kerb.



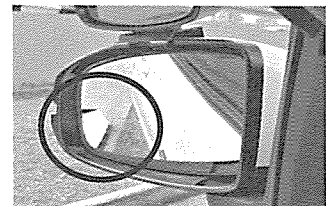
Step 3 : Check safety on the right, move the car forward and turn the steering wheel full lock to the right to move out of the parking lot.

Step 4 : Once the front left corner of the windscreen is in line with the kerb, turn the steering 2 rounds back to the left to straighten the tyres. Steer back accordingly to the left when the left corner of the windscreen reaches the centre of your lane to proceed on.



Check and ensure the rear left wheel does not hit the kerb by looking at the side mirror.

Adjust back the side mirrors to normal driving position before proceeding on.



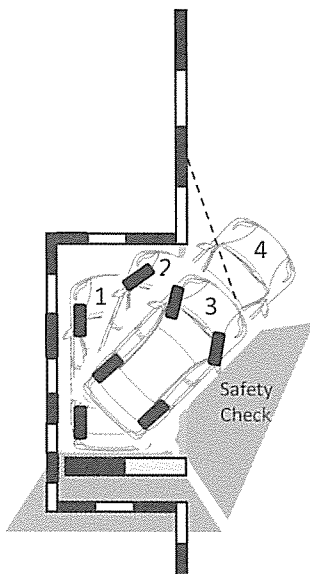
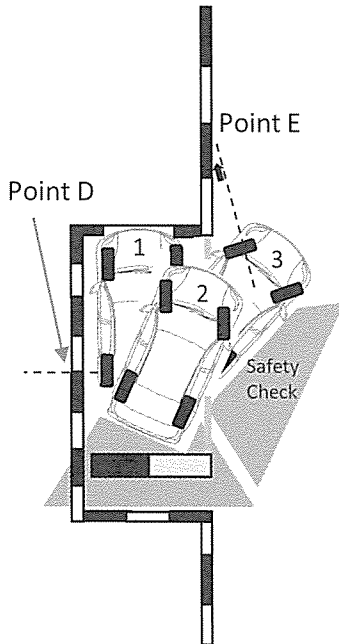
If too close to the left side of the kerb

Step 1 : Check safety by looking through the rear windscreen before reversing and stop before the rear tyre touches the rear kerb.

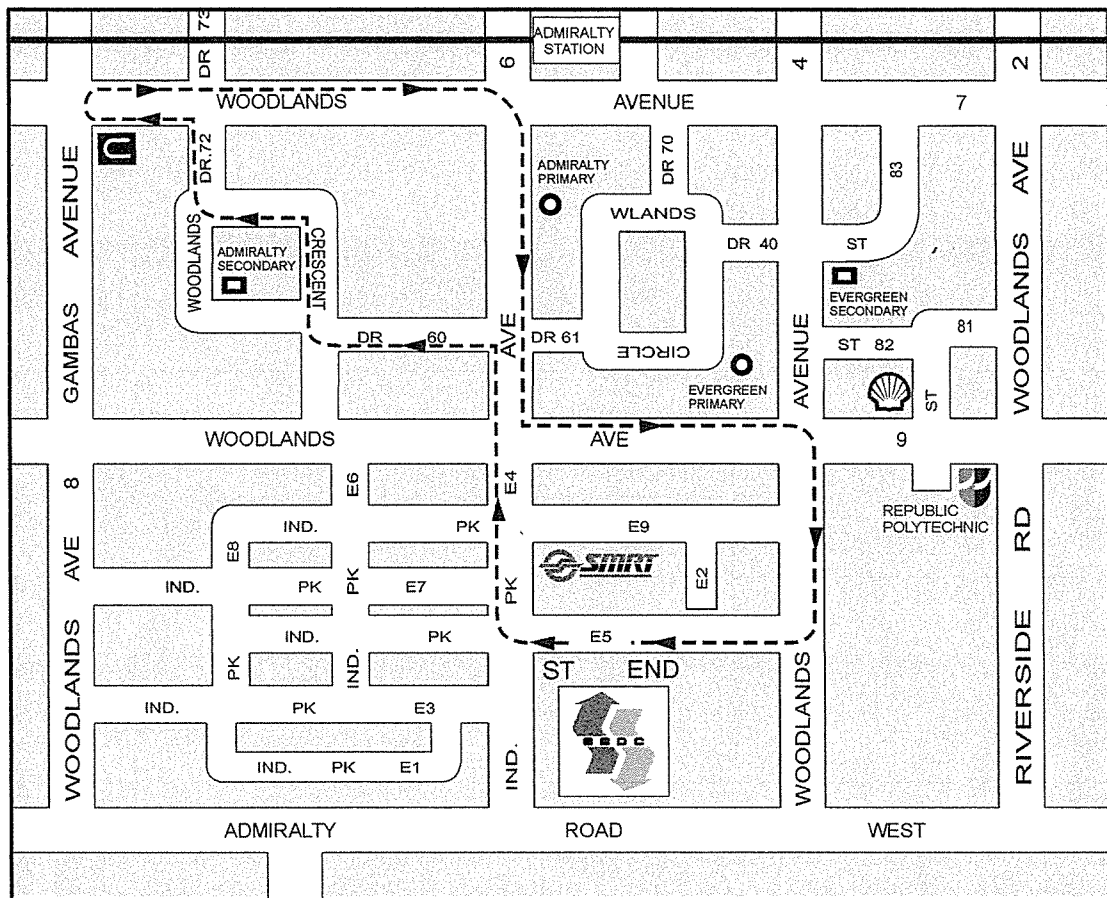
Step 2 : Check safety on the right, move forward and turn steering 2 rounds to the right. Stop before hitting the front kerb.

Step 3 : Check safety by looking through the rear windscreen, reverse and turn steering 2 rounds back to the left to straighten the tyres. Stop before the rear tyre touches the rear kerb.

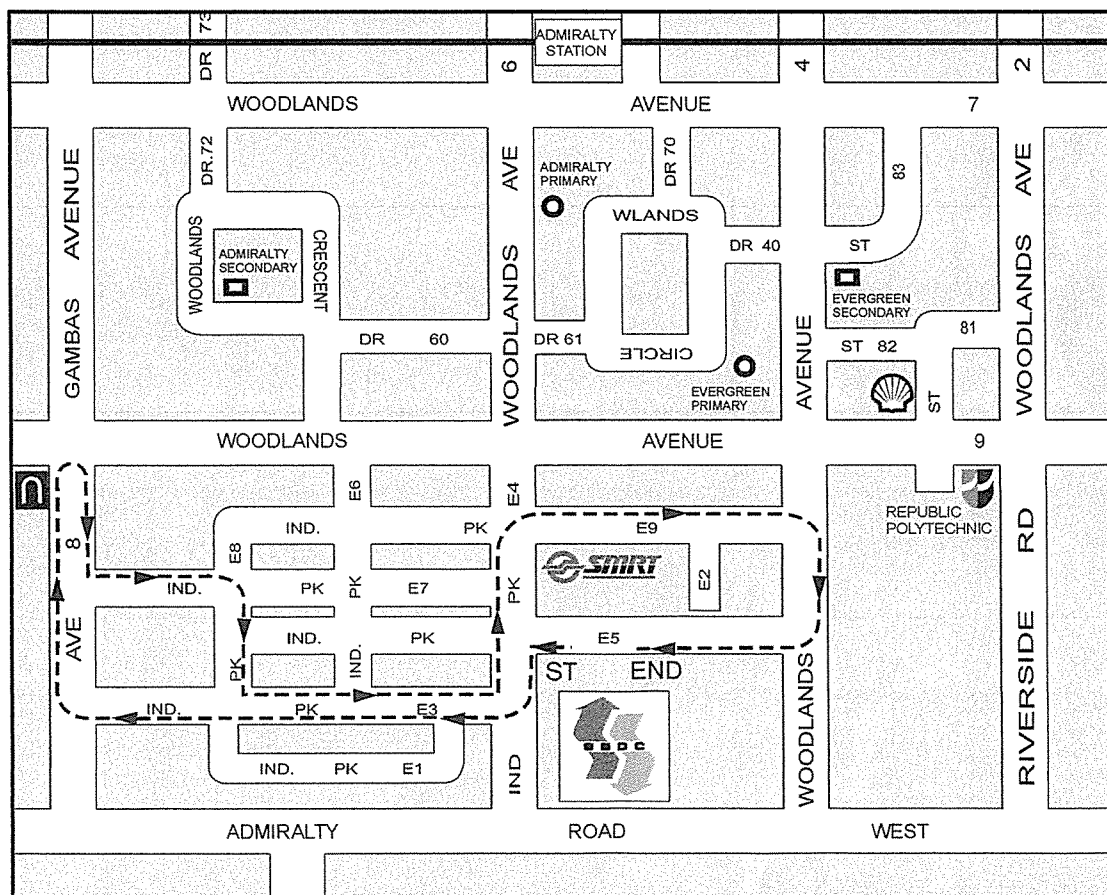
Step 4 : Check safety on the right, move the car forward and turn the steering wheel full lock to the right to move out of the parking lot. Once the front left corner of the windscreen is in line with the kerb, turn the steering 2 rounds back to the left to straighten the tyres. Steer back accordingly to the left when the left corner of the windscreen reaches the towards the centre of the lane. Check and ensure the rear left wheel does not hit the kerb by looking at the left side mirror.



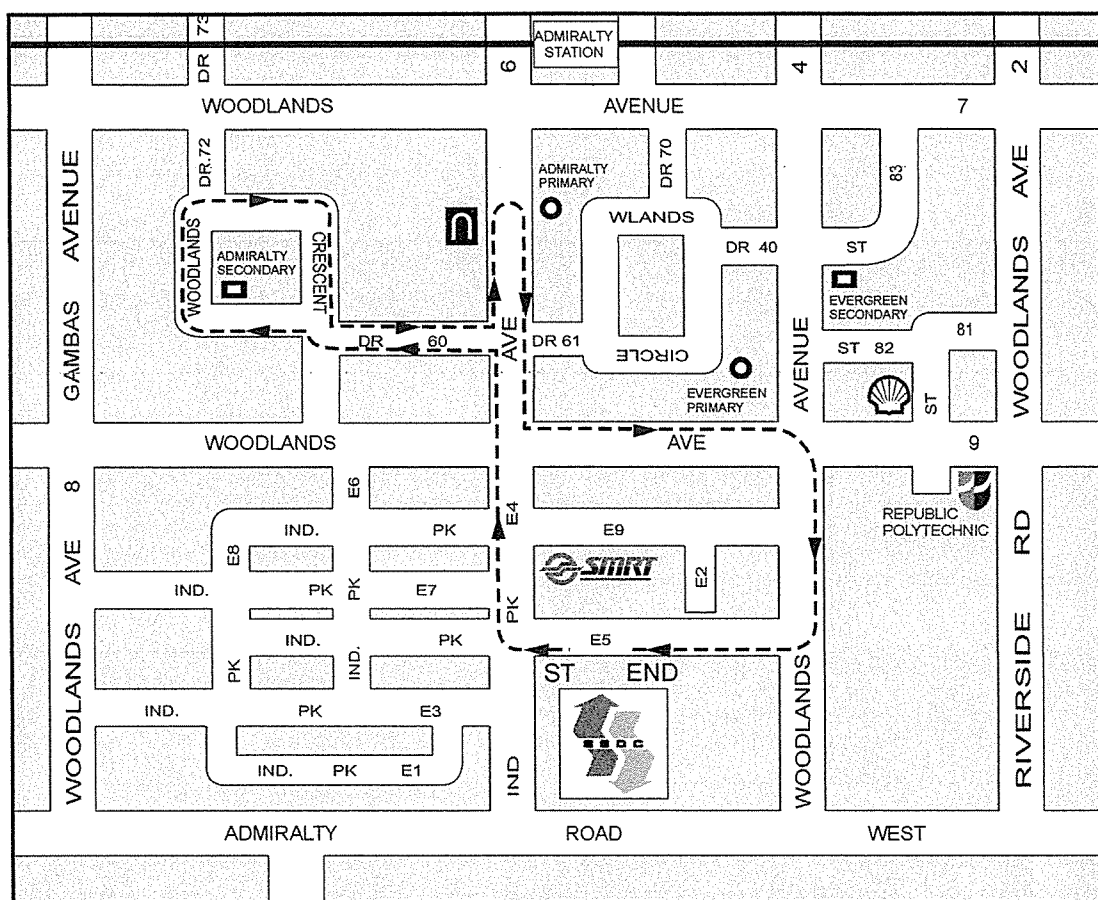
TEST ROUTE 1



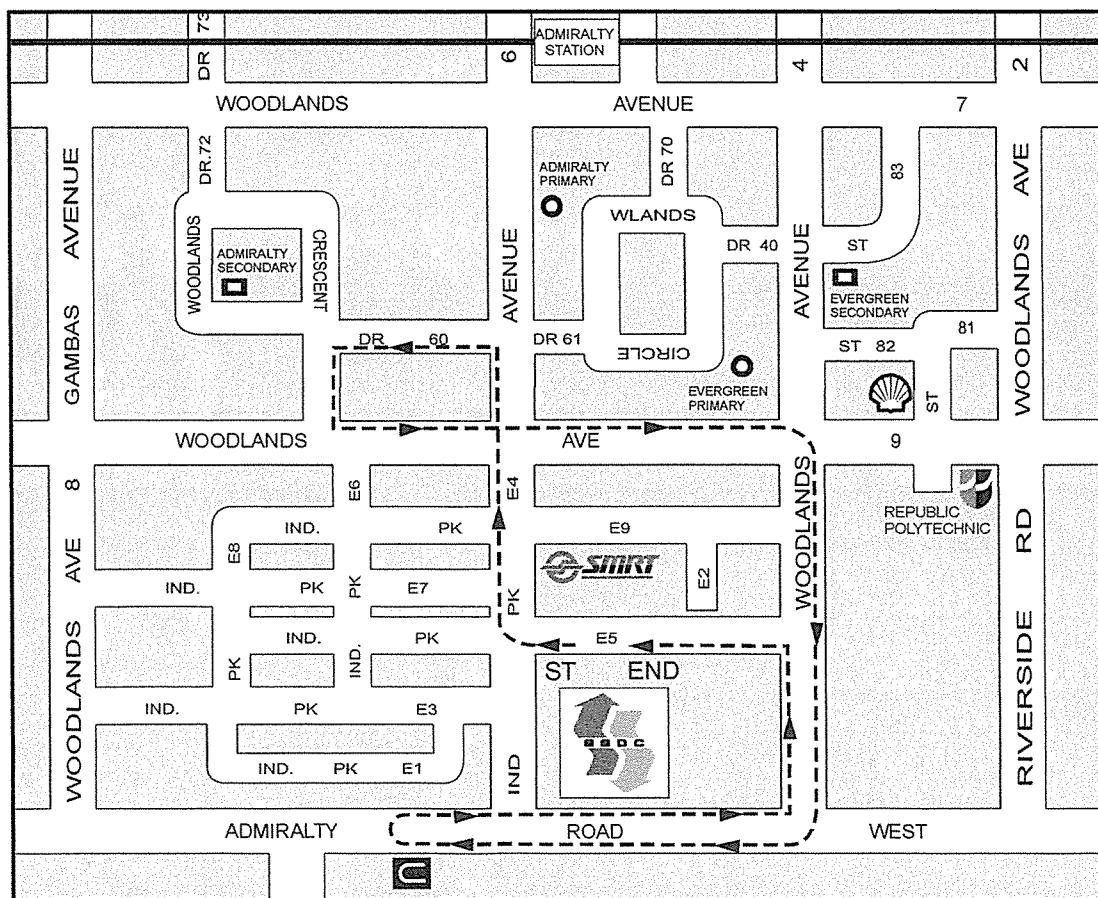
TEST ROUTE 2



TEST ROUTE 3

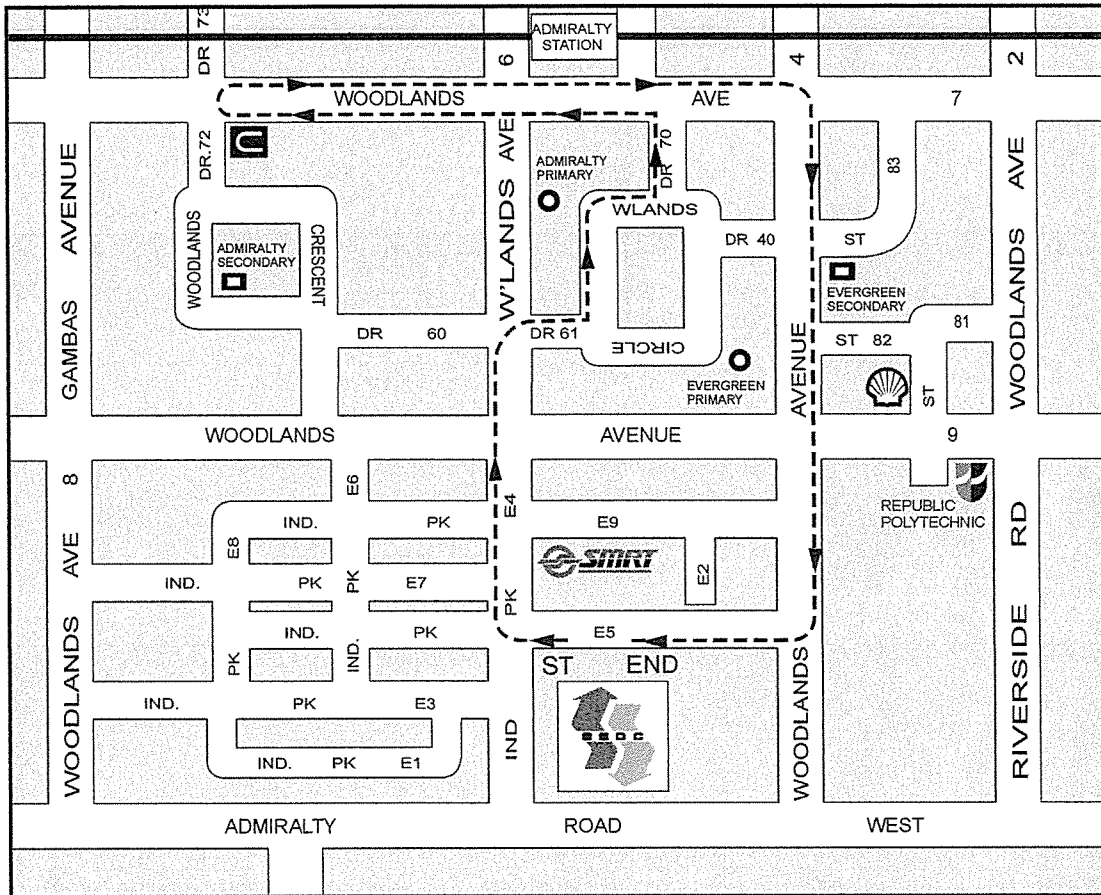


TEST ROUTE 4

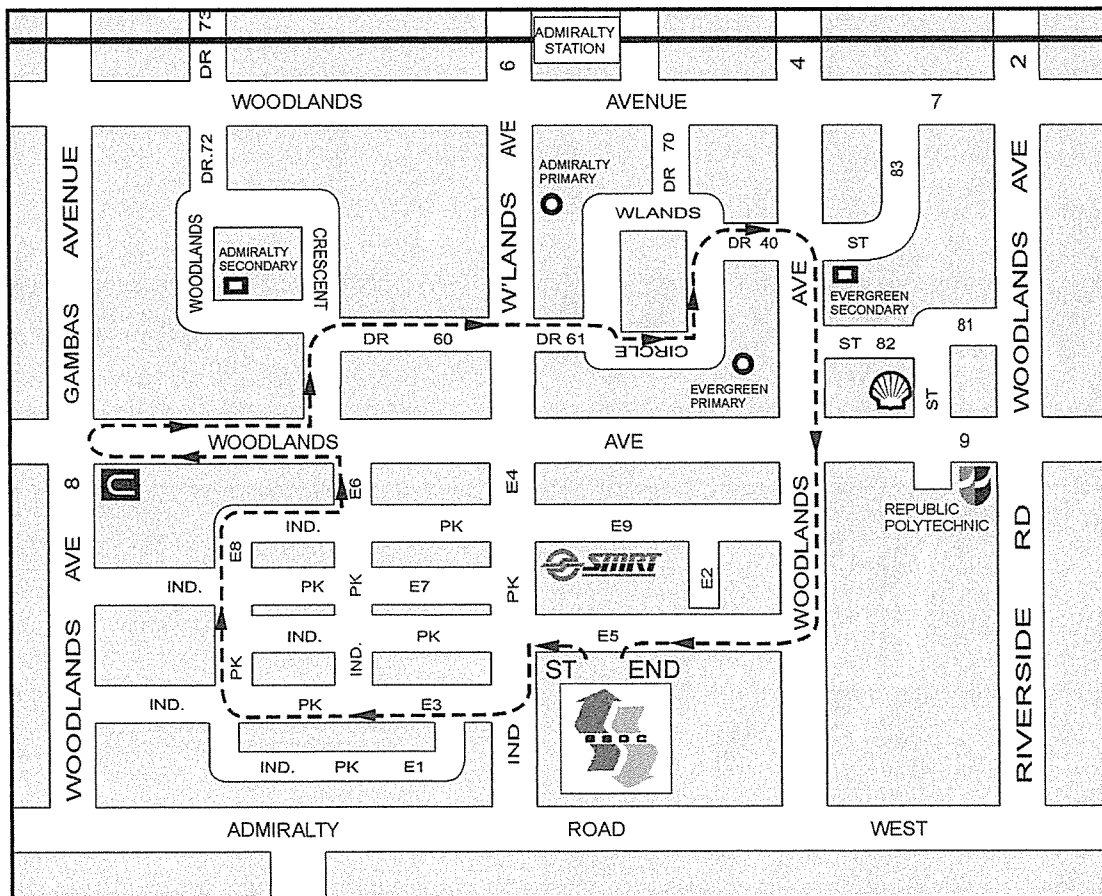


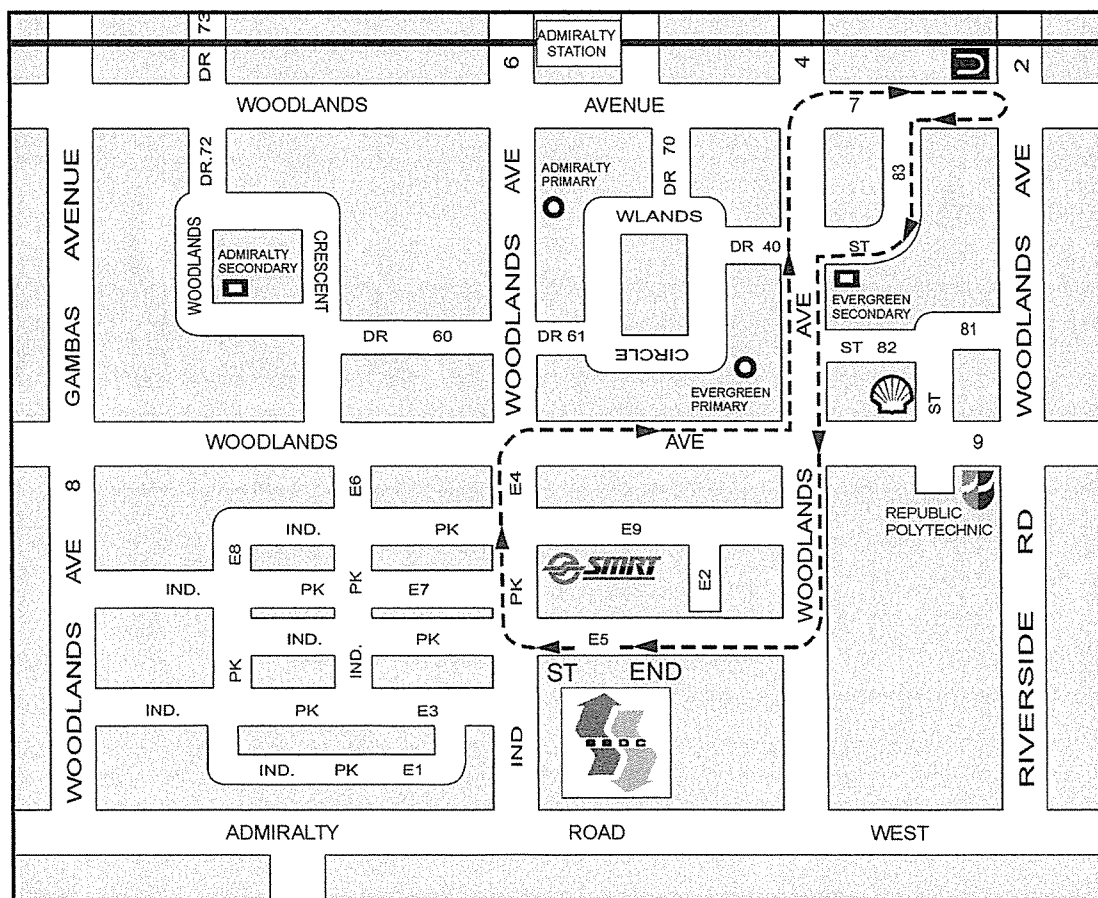
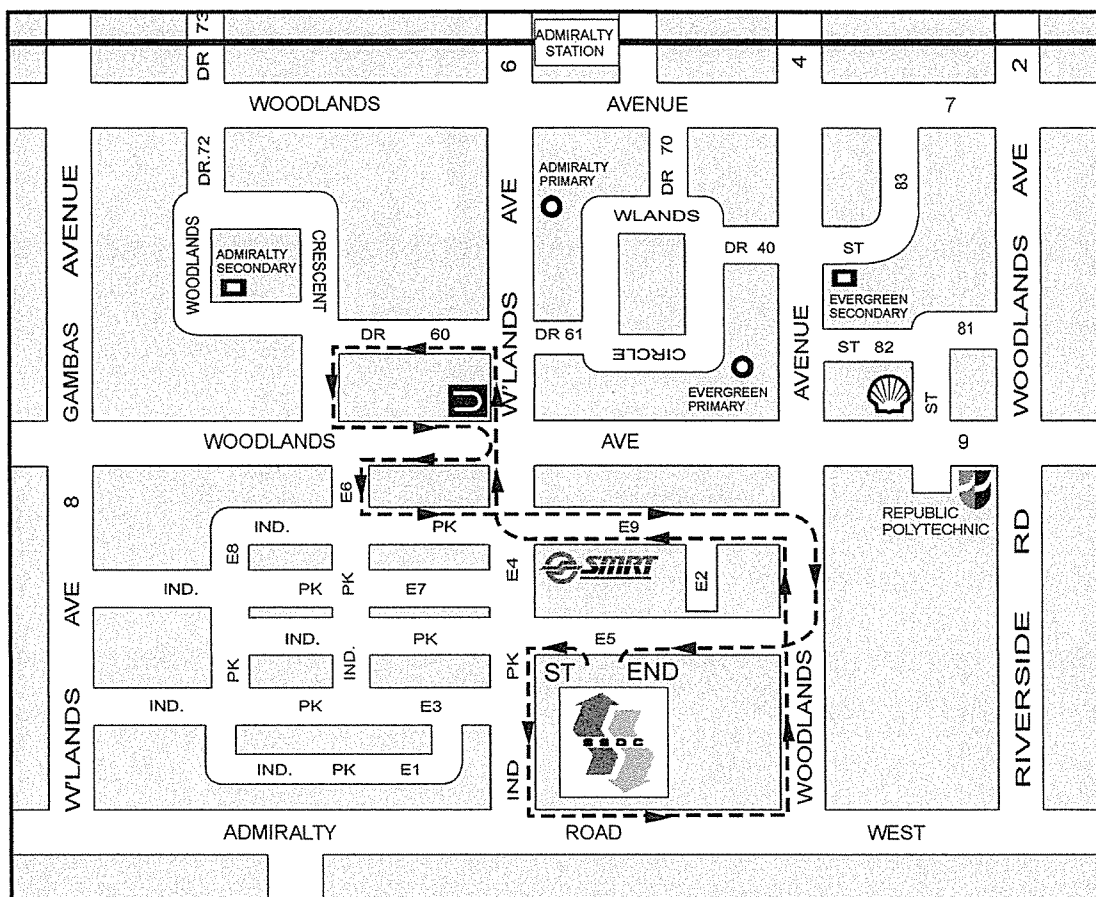


TEST ROUTE 5



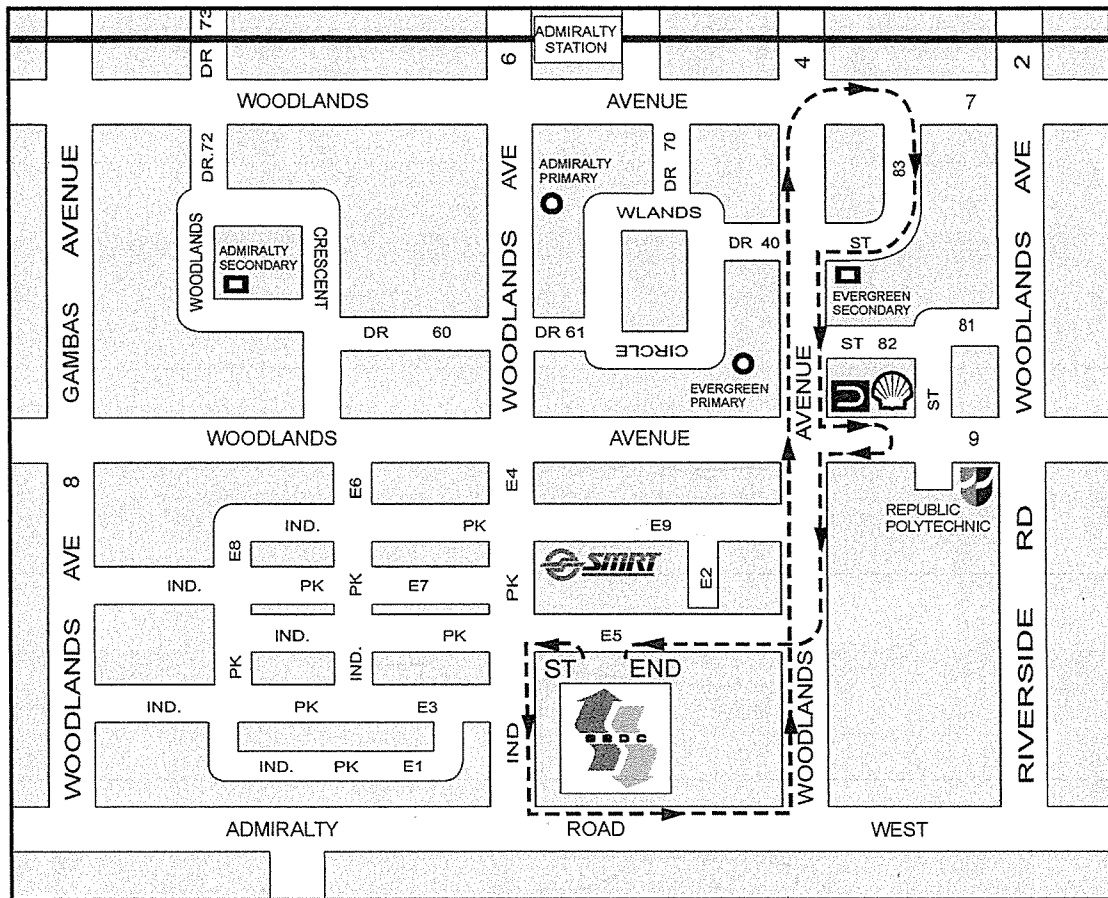
TEST ROUTE 6(NEW)







TEST ROUTE 9



TEST ROUTE 10(NEW)

