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Final Competency Assessment (FCA)

Route development guide

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Aim of the guide

The purpose of this Heavy Vehicle Route Development Guide is to supply providers with adequate information and direction to develop compliant Final Competency Assessment (FCA) and Competency Test (CT) assessment routes. It also acts as the primary tool for audits.

To achieve the above it is assumed that route developers will have the following:

- Thorough knowledge of the road rules, regulations and principles that underpin the safe and competent operation of a heavy vehicle on the public road system
- Complete understanding of the content and process within this guide and the primary Heavy Vehicle Assessment Guide
- Qualifications as required by the Regulators of Registered Training Organisations
- Additional qualifications as required by the Licensing Authority.

General information

- All routes must contain the **minimum number of tasks** as detailed in Tables 1 and 2 of the development guide. Providers must make every effort to locate and include all road and traffic conditions outlined in the Assessment Guidelines utilising a variety of roads and intersections rather than designing routes around the same roads and intersections e.g. 'going around the block'
- Routes must be submitted on an approved template
- Route maps must also be prepared so that assessors and auditors are able to accurately follow the route. The map must detail the location of gradients used and where the bus stop and hill stop / start is scheduled
- Route guides and the checklists must be available for audit at all times and must be maintained on a regular basis
- Standard and consistent terminology must be used in delivery of instructions by assessors; therefore it is essential that the instructions are documented in the route guide. Short cut wording and industry jargon must be avoided
- Routes must not travel through locations where a high level of pedestrian traffic exists, i.e. shopping centres / strips and school areas should be avoided if possible. Roads where schools have main road access are exempt from this rule
- Alternative routes must also be developed to ensure variation and assessments can proceed if road works or other disruptions interfere with a primary route
- The best opportunity to achieve lane changes is by using arterial roads, highways and freeways
- Routes must be numbered with the following protocol:
 - Providers name
 - Route number and version – 1.0 or 1.5 (depending on the number of revisions)
 - Location / site
- All routes and versions must be maintained at the test site or HO for audit purposes and obsolete routes identified and controlled.

Range statements

Range statement criteria for the on road component of the FCA

A continuous on road drive assessment with a **minimum** duration of 45 minutes (plus 10 minutes for the Reversing - Criteria 11 if this is conducted on road) must incorporate the items listed below:

1. All items listed in Section B, C, D and Criteria 12 (Hill Stop/Start) and Criteria 15 (Bus Stop Procedure) from Section E if applicable as follows:
 - o Section B – Criteria 3, 4, 5, 6 and 7
 - o Section C – Criteria 8 and 9
 - o Section D – Criteria 10
 - o Section E – Criteria 12 (if available) and Criteria 15 (if applicable).
2. Road and traffic conditions which include medium to heavy traffic and speed zones from 50 kilometres per hour to and including 80 kilometres per hour
3. A laden vehicle (refer to the Heavy Vehicle Assessment Guide, **Vehicle and Load Requirements**). The vehicle must be laden for the duration of the on road drive
4. An assessment route developed by the approved provider and approved by the Licensing Authority which allows for a comprehensive test covering all relevant items listed below in Table 1 – On road requirements – FCA
5. A route that includes a sufficient degree of gradient to allow for a comprehensive test of gear changing and the hill stop/start. In locations where a suitable gradient is not available the Licensing Authority may agree to substitute items proposed by the provider
6. The route must be timed at various times of the day including weekends, school holiday periods and public holidays to ensure the route is compliant with the minimum duration of 45 minutes for the FCA
7. The checklist (appendix A and B) must be completed and provided to the Licensing Authority on request.

Exemption: If any of the listed items such as traffic lights, intersections or roundabouts are not available in the test area, the provider must make a formal submission to the Licensing Authority for approval to substitute other items from one or more of the other test elements. A request for an exemption to requirements and specifications outlined in these guidelines must be submitted in writing to the Licensing Authority.

Exemptions must be approved in writing to be considered valid.

Table 1- On road requirements – FCA

Test route - **minimum** task requirements:

Element	No. of left turns	No. of right turns	No. of straight ahead
Single lanes	4	4	1
(Single lane turn to single lane)			
Multi lanes	2	2	-
(Multi lane turn to multi lane)			
Onto Multi lanes	3	3	-
(Single lane turn to multi lane)			

Note: All the above tasks are to be conducted at intersections controlled by either traffic lights, stop signs, give way signs or uncontrolled.

Roundabouts (must be appropriately sized)	1	1	1
Lane changes	2	2	-
Merge – two lanes merging into one lane	-	-	1
Turning right across traffic (not at traffic lights)	-	2	-
Totals	12	14	3

Intersection hierarchy

Route designers must use the following hierarchy at intersections:

Control item		Intersection type	
1 st	Traffic lights	1 st	Crossroads
2 nd	Stop Sign	2 nd	T intersections
3 rd	Give way Sign	3 rd	Roundabouts
4 th	Uncontrolled (no signs)	4 th	

Range statement criteria for the on road component of CT

A continuous on road drive assessment with a **minimum** duration of 90 minutes must incorporate the items listed below:-

1. All Criteria in Sections A, B, C, and D listed in the guide and Criteria 15 of Section E (Bus Stop Procedure) if applicable as follows:
 - Section A – Criteria 1 and 2
 - Section B – Criteria 3, 4, 5, 6 and 7
 - Section C – Criteria 8 and 9
 - Section D – Criteria 10
 - Section E – Criteria 12 (if available) and Criteria 15 (if applicable).
2. Additional time must be allocated to ensure assessment of the remaining Criteria from Section E, Criteria 11, 13, 16 – Refer table 2 – On Road requirements – CT
3. Road and traffic conditions which include medium to heavy traffic and speed zones from 50 kilometres per hour to and including 80 kilometres per hour
4. A laden vehicle (refer to the Heavy Vehicle Assessment Guide, **Vehicle and Load Requirements**). The vehicle must be laden for the duration of the on road drive
5. An assessment route developed by the approved provider and approved by the Licensing Authority which allows for a comprehensive test covering all relevant items listed below in Table 2 – On road requirements – CT
6. A route that includes a sufficient degree of gradient to allow for a comprehensive test of gear changing and the hill stop/start. In locations where a suitable gradient is not available the Licensing Authority may agree to substitute items proposed by the provider
7. The route must be timed at various times of the day including weekends, school holiday periods and public holidays to ensure that the route duration is compliant with a minimum duration of 90 minutes for the CT
8. An FCA route (45 minutes) can be repeated to create the 90 minute CT route providing that all the tasks required in table 2 are scheduled
9. The checklist (appendix A and B) must be completed and provided to the Licensing Authority on request.

Exemption: If any of the listed items such as traffic lights, intersections or roundabouts are not available in the test area, the provider must make a formal submission to the Licensing Authority for approval to substitute other items from one or more of the other test elements. A request for an exemption to requirements and specifications outlined in these guidelines must be submitted in writing to the Licensing Authority.

Exemptions must be approved in writing to be considered valid.

Table 2 – On road requirements – CT

Test route – **minimum** task requirements

Element	No. of Left turns	No. of Right turns	No. of Straight ahead
Single lanes			
(Single lane turn to single lane)	8	8	2
Multi lanes			
(Multi lane turn to multi lane)	4	4	-
Onto Multi lanes			
(Single lane turn to multi lane)	6	6	-

Note: All the above tasks are to be conducted at intersections controlled by either traffic lights, stop signs, give way signs or uncontrolled.

Roundabouts (must be appropriately sized)	2	2	2
Lane changes	4	4	-
Merge – two lanes merging into one lane	-	-	2
Turning right across traffic (not at traffic lights)	-	4	-
Totals	24	24	6

Intersection hierarchy

Route designers must use the following hierarchy at intersections:

Control Item		Intersection type	
1 st	Traffic lights	1 st	Crossroads
2 nd	Stop Sign	2 nd	T intersections
3 rd	Give way Sign	3 rd	Roundabouts
4 th	Uncontrolled (no signs)	4 th	

Standard Directional Instruction

Task	Instruction
Commencement	Move to the exit and turn right
Leaving the kerb	Move off
Leaving the kerb closely followed by a turn	Move off and at the end of the street
Continue on the same road	Continue straight ahead/ or follow the road
Continue straight through intersection with Stop or Give Way sign	Continue straight ahead
Lane change	Move to the left/right/middle lane
Left turn	(see instruction for right turns)
Left turn closely followed by right turn	At the next street turn left, then at the first street turn right
Merge lanes	(no instruction)
At the end of the drive	Pull over and stop at the kerb
Right turn	At the end of the street, turn right
	At the next street, turn right
	At the second street, turn right
	At the next break in the median, turn right
	At the roundabout, turn right
	At the traffic lights, turn right
	At the end of the street, turn right
	At the first street after the traffic lights, turn right
	At the first street after the railway crossing, turn right
Straight drive	Continue straight ahead
Turn around or U-Turn	At the end of the street, turn around
	At the roundabout do a U-Turn
Turn left at a roundabout	At the roundabout, turn left
Turn right at a roundabout	At the roundabout, turn right
Straight ahead at a roundabout	At the roundabout, continue straight ahead
	At the roundabout, take the 2 nd exit

Location	Instruction	Checklist
From Depot Entrance – Jenny Street Hamilton	Right turn onto Jenny Street	
On Jenny Street	Right turn at Turner Street	(Right Turn single to multi 1 of 3)
On Turner Street (Next Street)	Left turn at Tudor Street	(Left turn single to multi 1 of 3)
On Tudor Street	Left turn at Henry Street	
On Henry Street	Left turn at John Street	
On John Street	Left turn at Gordon Ave	(Left turn single to single 1 of 4)
On Gordon Ave (At roundabout continue ahead)	Right turn right at Tudor Street	(Right turn multi to multi 1 of 2)
On Tudor Street (After next set of traffic lights)	Right turn at Perry Street	(Right turn multi to multi 2 of 2)
On Perry Street (Between Jenny and Wood St possible right lane change)	Right turn at Stewart Ave	
On Stewart Ave (After Hepburn Street possible lane change)		(Right lane change 1 of 2)
On Stewart Ave (After Turnbull Street possible lane change)		(Left lane change 1 of 2)
Follow road around to the right (Sydney Road)		
On Sydney Road (After William Street at the next set of lights – turn right)		
On Sydney Road	Right turn at Hugh Street	
On Hugh Street (Turn right after Edwards Street)		
On Hugh Street	Right turn at Macquarie Street	(Right turn single to single 1 of 4)

Location	Instruction	Checklist
Possible Hill Start		
On Macquarie Street (At the end of the street)	Right turn at Glebe Road	
On Glebe Road (At traffic lights after Cross Street)	Left turn at Gordon Ave	(Multi to multi 1 of 2)
On Gordon Ave (Turn left after Pullover Street)	Left turn at Darling Street	(Left turn single to single 2 of 4)
On Darling Street (Next street)	Left turn at Henry Street	(Left turn single to single 3 of 4)
On Henry Street (At the end of the street)	Left turn at Thomas Street	(Left turn single to single 4 of 4)
On Thomas Street (Turn right and immediately and turn left)	Right turn at Cross Street	(Right turn single to single 2 of 4)
On Cross Street (At the end of the street)	Left turn at Glebe Road	
On Glebe Road (After Sydney Road)	Right turn at National Park Street	
On National Park Street	Right turn at Railway Road	(Right turn single to single 3 of 4)
On Railway Road	Left turn at Lyn Street	(Left turn at roundabout 1 of 1)
On Lyn Street (At next roundabout)	Right turn at Morgan Street	(Right turn at roundabout 1 of 1)
On Morgan Street (Next street)	Left turn at Ridge Street	
On Ridge Street (At stop sign continue ahead)		
On Ridge Street (At 2 nd stop sign continue ahead)		
On Ridge Street (Right turn after Mitchell Street)	Right turn at Pell Street	(Right turn single to single 4 of 4)

Location	Instruction	Checklist
On Matthew Street (At Stop sign continue ahead)		
On Matthew Street (After Janet Street)	Left turn at Curry Street	
On Curry Street	Right turn at Lloyd Street	
On Lloyd Street	Right turn at Mario Drive	(Turning right across traffic single to single 1 of 2)
On Mario Drive (After Hickson Street possible bus stop)		Bus Stop
On Mario Drive (Near Merry Primary School lane change to left / right)		(Right lane change 2 of 2) and/or(Left lane change 2 of 2)
On Mario Drive (After Hill Drive)		(Merge 1 of 1)
On Mario Drive	Left turn Sydney Road, (Pacific Highway)	(Left turn single to multi 2 of 3)
On Sydney Road (At next street)	Left turn Leigh Loop	80 k Speed Limit
On Leigh Loop (After Michelle Street)		Hill start decline
On Leigh Loop (After Banksia Close)	Right turn at Michelle Street	
On Michelle Street (After Myrtle Close)	Left turn at Leigh Loop	
On Leigh Loop (After Gun Club Road)	Right turn at Sydney Road	(Right Turn single to multi 2 of 3) (Turning right across traffic single to single 2 of 2)
On Sydney Road (At next street)	Right turn Mario Drive	
On Mario Drive (At next street)	Left turn at Hill Drive	
On Hill Drive (After Peak street)	Left turn at Hat Street	
On Hat Street (At the end of the street)	Right turn at Morgan Street	

Location	Instruction	Checklist
On Morgan Street (After Christopher Crescent follow road)		
On Morgan Street (After Ridge Street)	Right turn at Lyn Street	
On Lyn Street (After Merry Street)	Left turn at Hall Street	
On Hall Street (After Townsend Oval)	Right turn at Bernie Street	
On Bernie Street	Left turn at Mitchell Street	
On Mitchell Street (Follow the road and after Union Street)	Left turn at Watkins Street	
On Watkins Street (After Patrick Street)	Left turn at Glebe Road	(Multi to multi 2 of 2)
On Glebe Road (Follow road)		
On Glebe Road (After traffic lights)	Right turn at Gordon Ave	
On Gordon Ave (Veer left)	Right turn at Turnbull Street	
On Turnbull Street	Turn right at Stewart Ave	
On Stewart Ave (Follow road – now Sydney Road – after Alice Street)	Left turn at Mario Drive	
On Mario Drive (At 2 nd street after Merry High School)	Left turn Yule Road	
On Yule Road / Alice Street (At stop sign – straight ahead)	Right turn at Sydney Road	
On Sydney Road (After Glebe Road – veer left – Gordon Avenue)		
On Gordon Ave (At roundabout)	Left at Jenny Street	
On Jenny Street (Stop in front of Bus Depot)	On Jenny Street at Bus Depot	Finish

Course length: 27.1 kilometres

Note:

All FCA's must start and finish in the state of NSW.

All directions are to be accompanied by a CLEAR and LEGIBLE MAP.

Map is to be MARKED with DIRECTIONAL ARROWS or a CLEAR SEE THROUGH MARKER.

[Attach map.]

Suggested substitute tasks for either the FCA or CT

At intersections controlled by either traffic lights, stop signs, giveaway signs or uncontrolled	Suggested substitutes
Single lanes (Single lane turn to single lane)	No substitute permitted
Multi lanes (Multi lane turn to multi lane)	Onto multi lanes (Single lane turn to multi lane)
Onto Multi lanes (Single turn to multi lane)	No substitute permitted
Roundabouts (Must be appropriately sized)	No substitute permitted
Lane changes	No substitute permitted
Merge	Lane changes
Turning right across traffic – not at traffic lights	No substitute permitted

Special Note:

Where a substitute is used the Provider must indicate clearly on the Roads and Maritime Route what is being substituted – see example on the checklist.

No more than 50% of the required tasks can be substituted – if the area does not all for this requirement the Provider must obtain Roads and Maritime approval to use the area.

Substitution request

Type request and reasons here.....

Time taken to complete route.

Time of Day	Day of Week	Total
Early (8 am – 11 am)		minutes
Mid (11 am – 3pm)		minutes
Late (3pm – 6pm)		minutes

Provider (RTO) Declaration.

I declare that I have checked all the relevant documentation and am satisfied that the route and documentation meets Roads and Maritime Services requirements.

Name:.....

Title:.....

Signature:.....

Date:.....

Licensing Authority Office Use Only - Roads and Maritime Service

Accepted / Not Accepted

HVCBA Audit of Routes Document No:.....

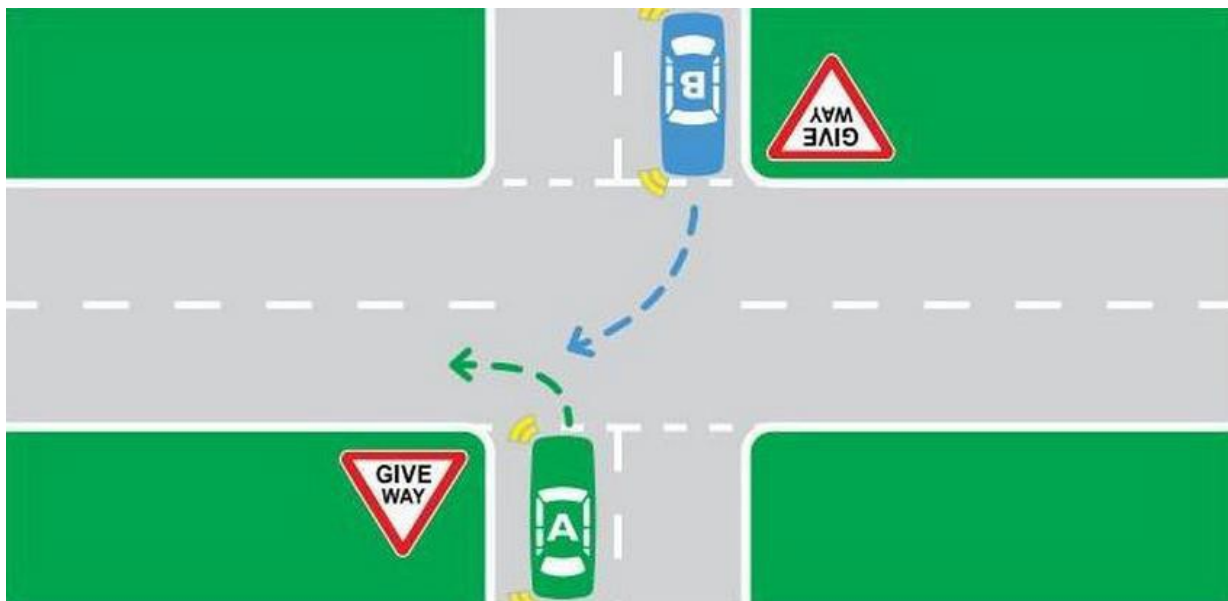
Audited By:..... Approved By:.....

Signature:..... Signature:.....

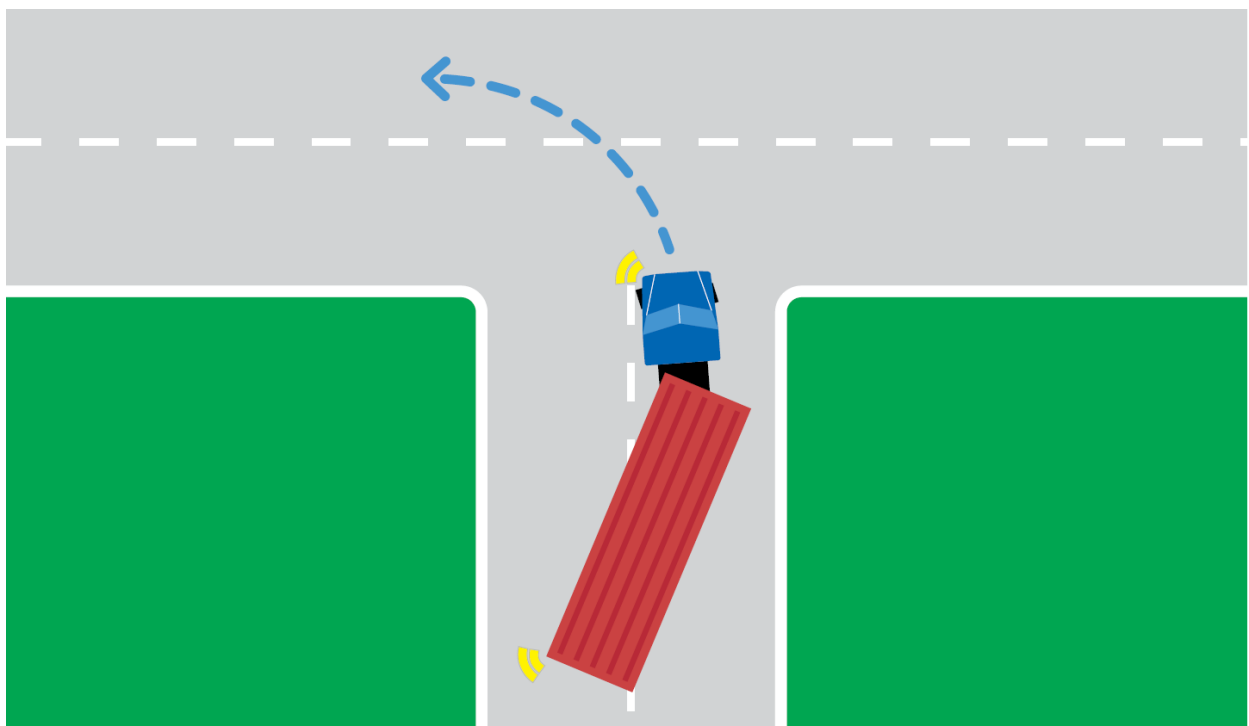
Date:..... Date:.....

Examples of FCA/CT route criteria

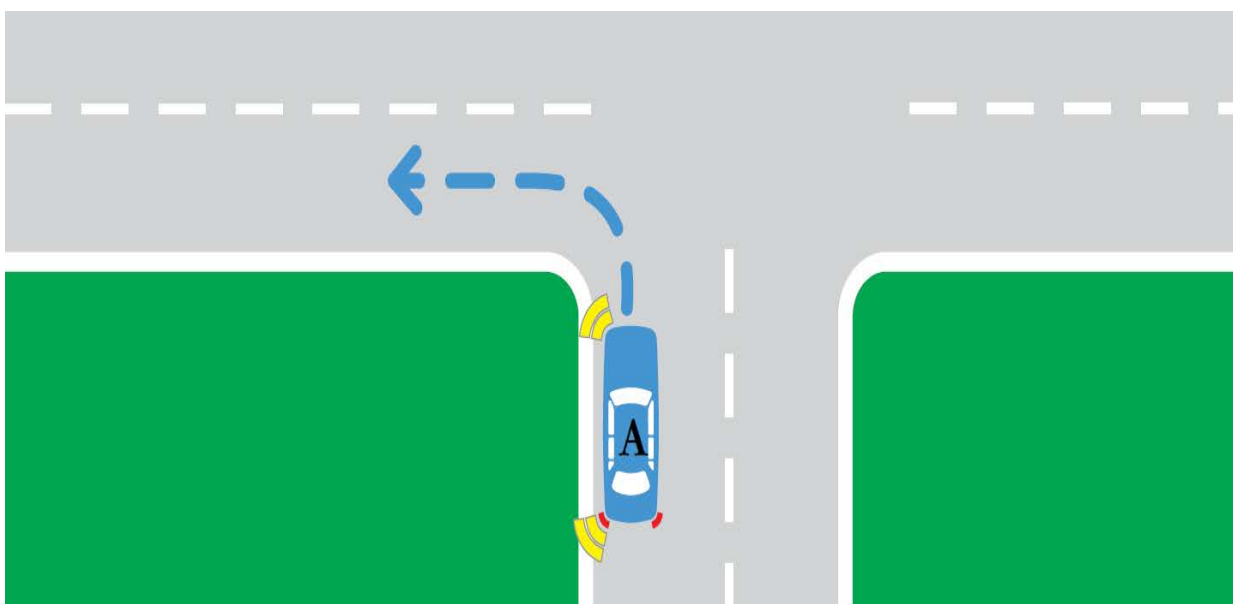
Single to single left and right hand turns



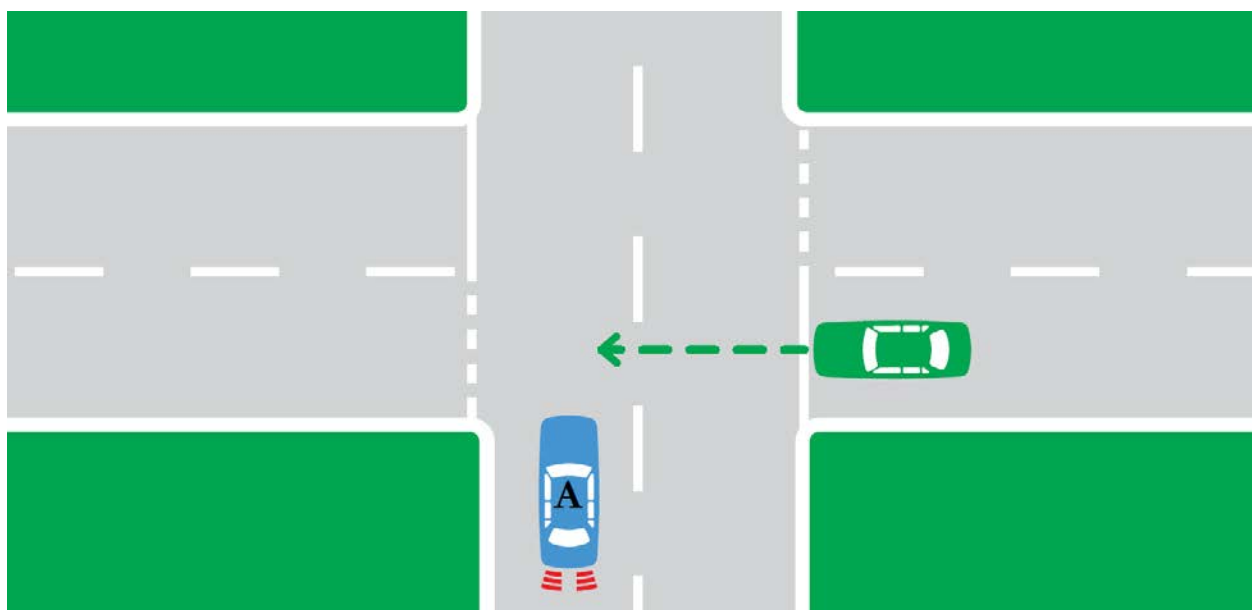
Single/single left hand turn



Single/single left hand turn



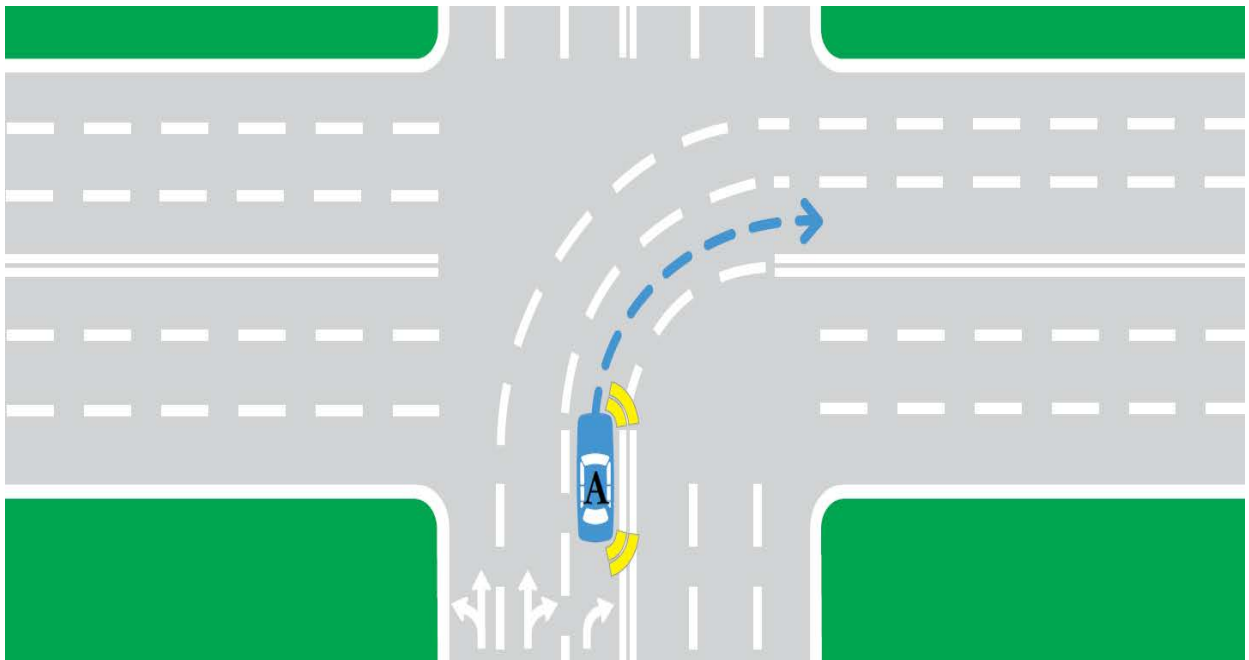
Straight ahead at intersection (green vehicle)



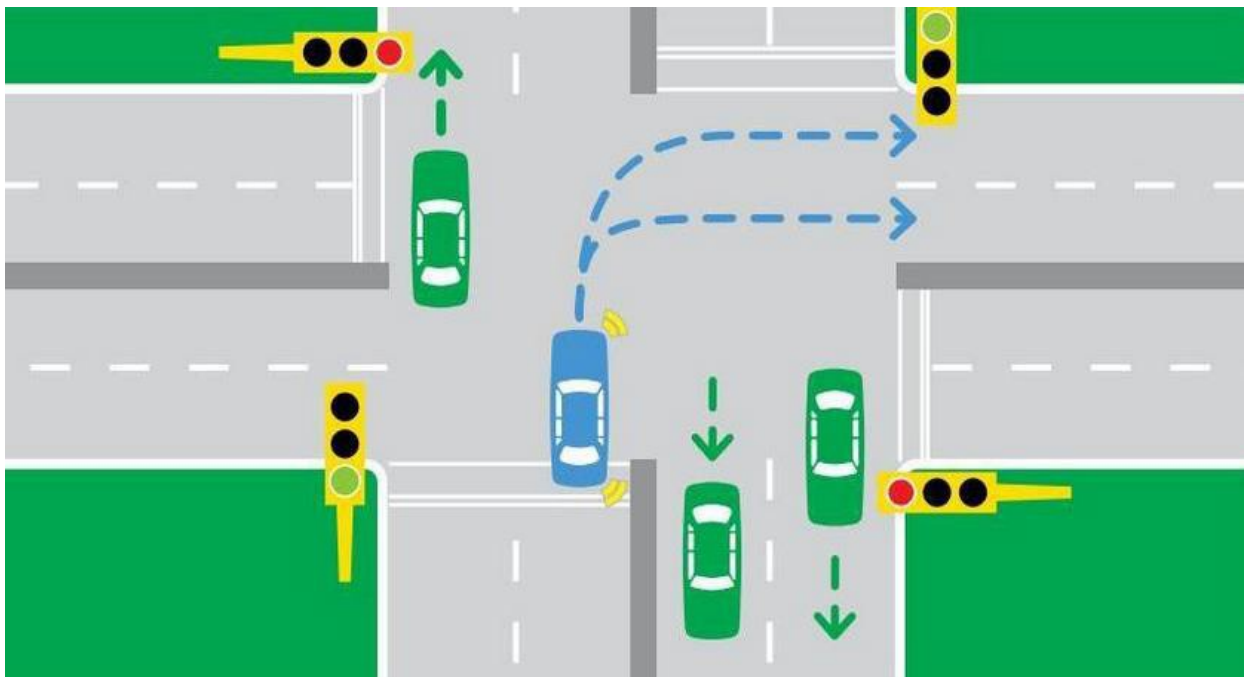
Element	No of left turns	No of right turns	No of straight ahead
Single lanes	4	4	1

- o A compliant CT route will require double the minimum task requirements

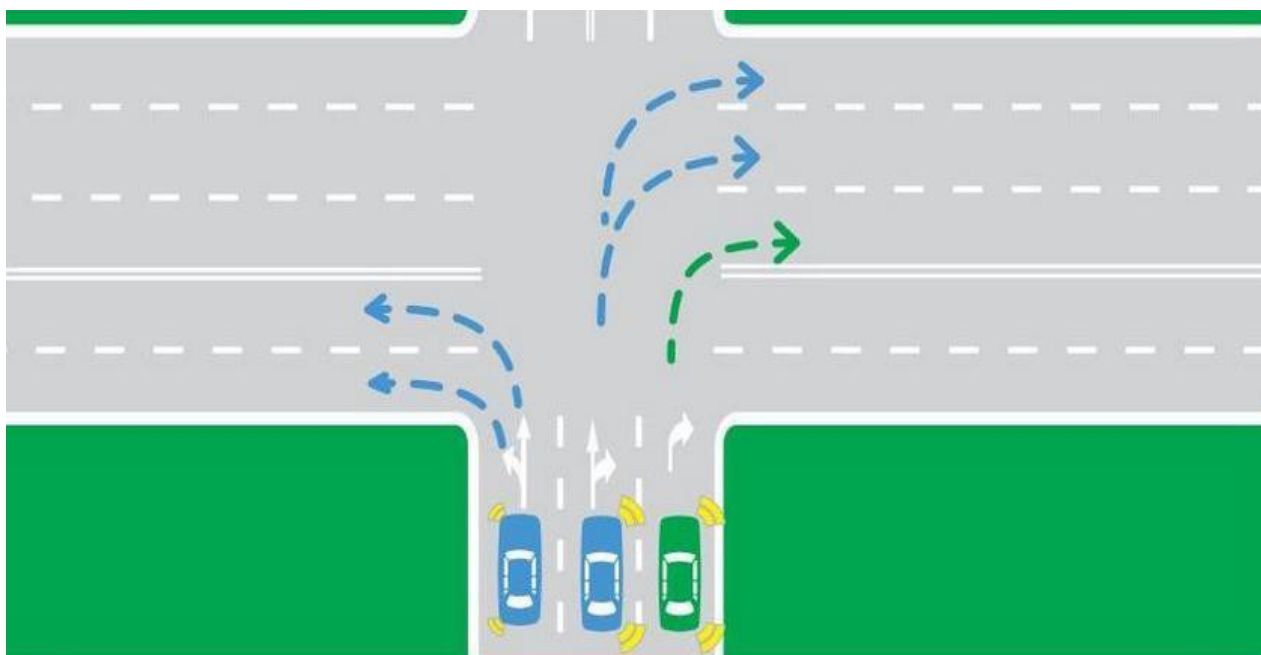
Multi to multi right hand turn



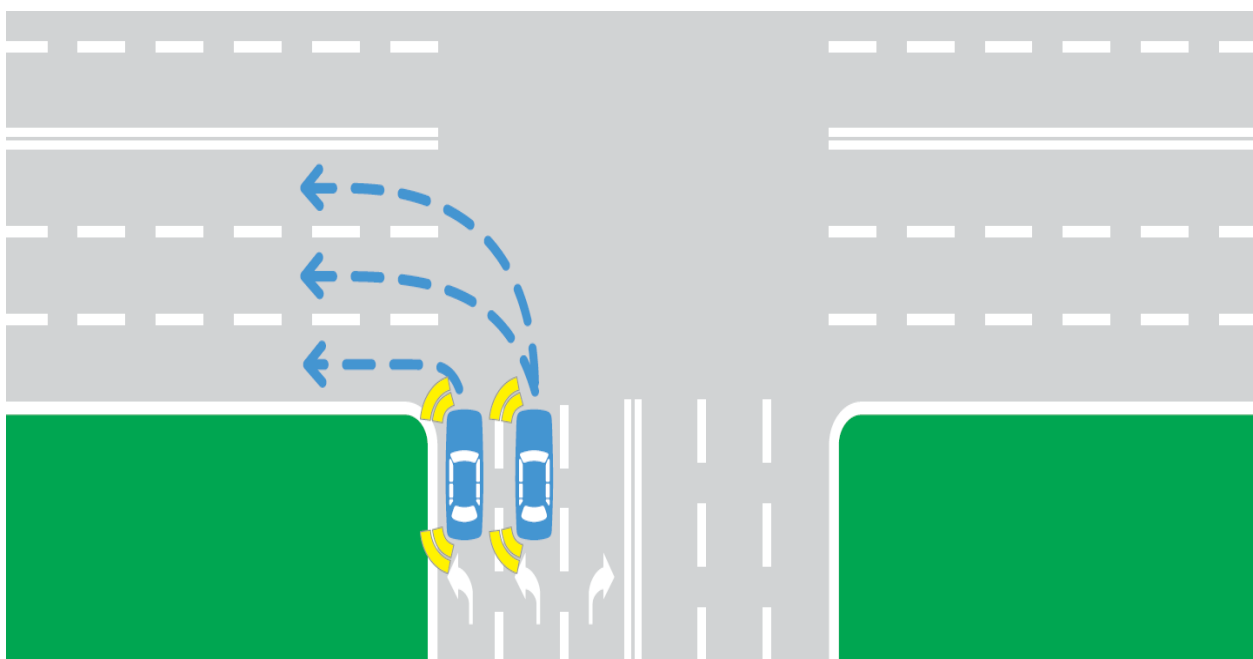
Multi/multi right hand turn



Multi/multi right and single/multi left hand turn



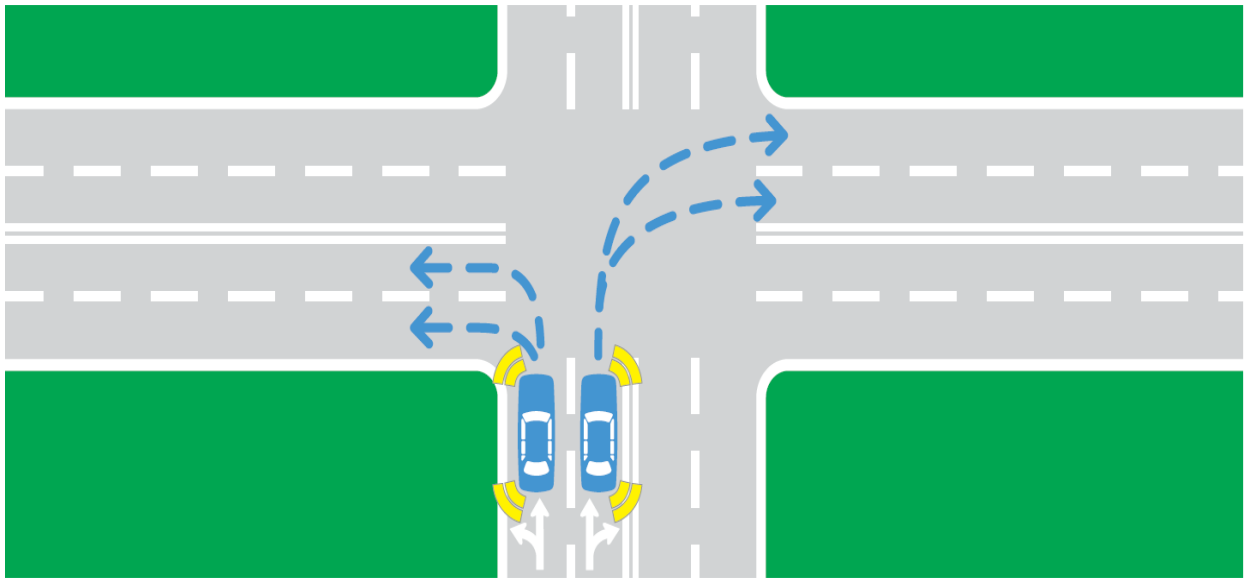
Multi/multi left hand turn



Element	No of left turns	No of right turns	No of straight ahead
Multi lane turn to Multi lane	2	2	

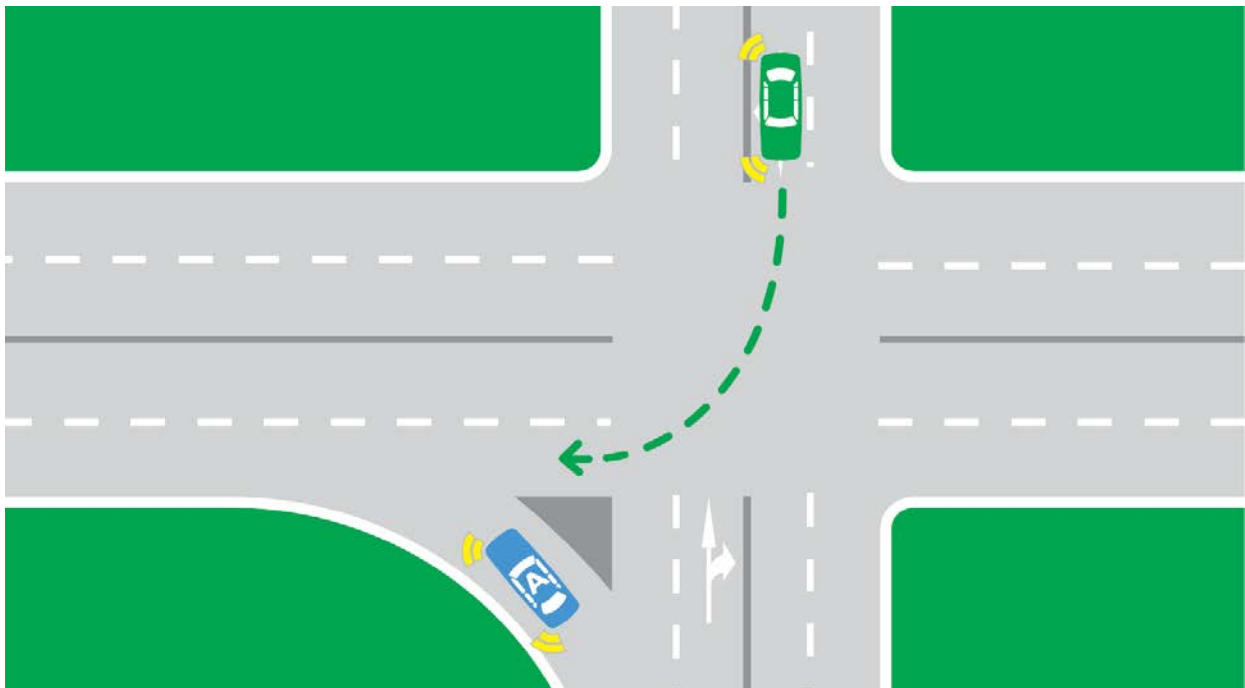
- o A compliant CT route will require double the minimum task requirements

Single to multi right and left hand turns



Single /multi left hand turn (vehicle A)

Multi / multi right hand turn (Green vehicle)



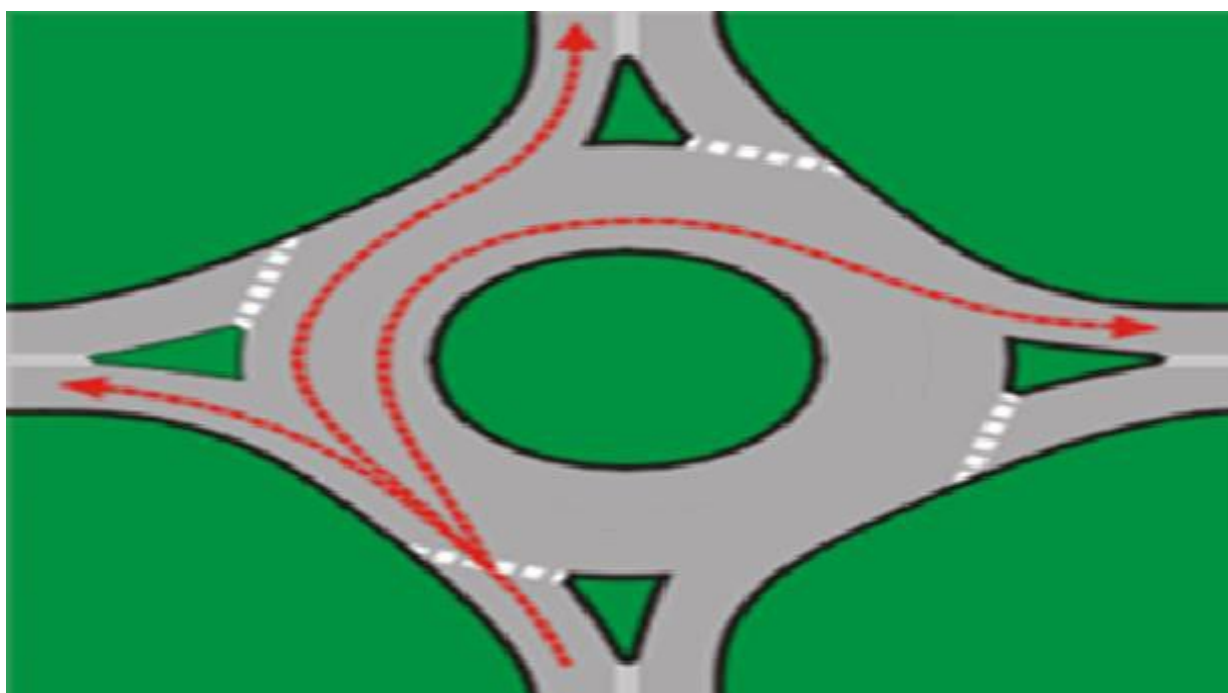
Element	No of left turns	No of right turns	No of straight ahead
Single lane turn to multi lane	3	3	

- o A compliant CT route will require double the minimum task requirements

Roundabout (multi lane)



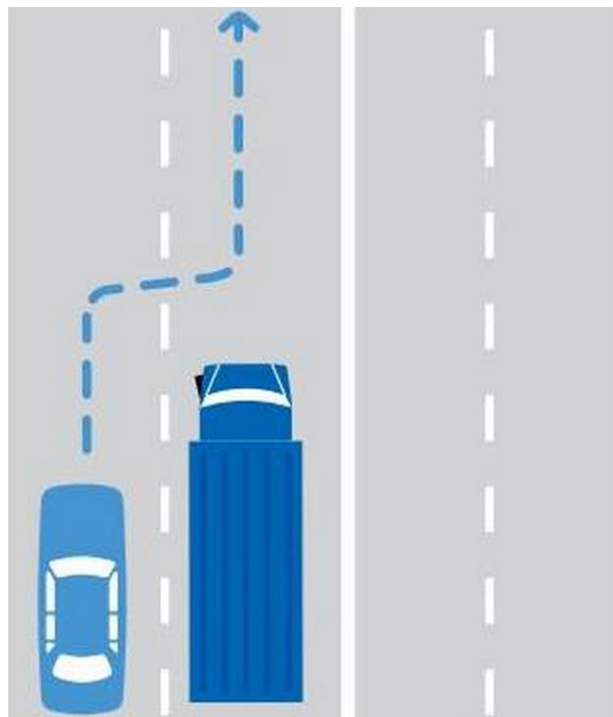
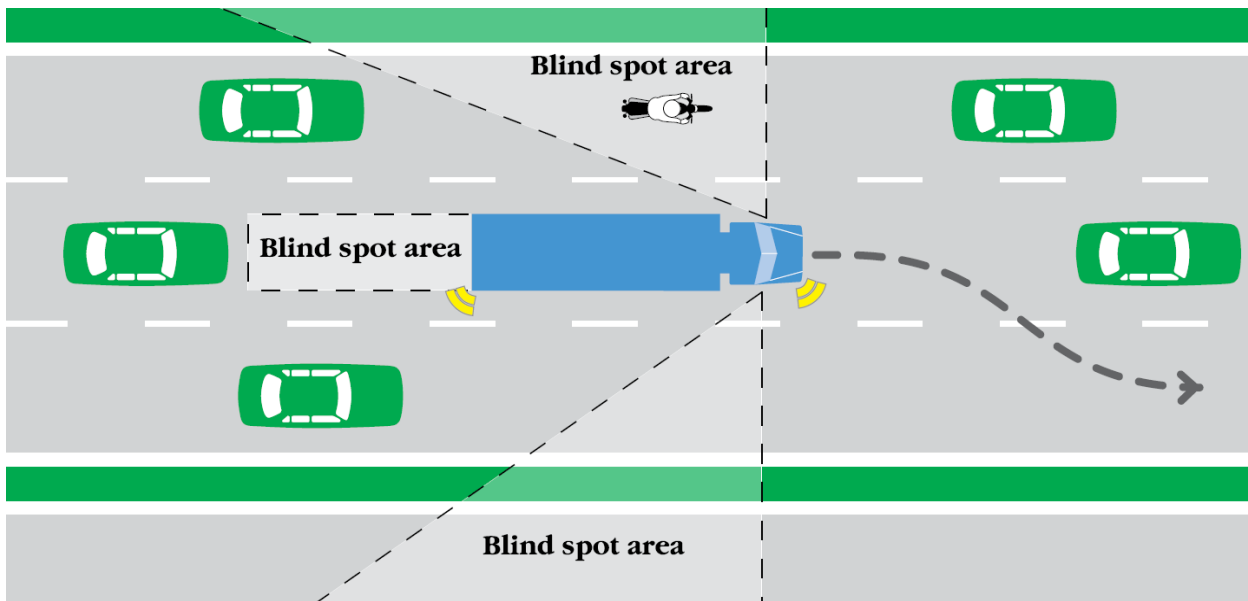
Roundabout (single lane)



Element	No of left turns	No of right turns	No of straight ahead
Roundabout	1	1	1

- o A compliant CT route will require double the minimum task requirements

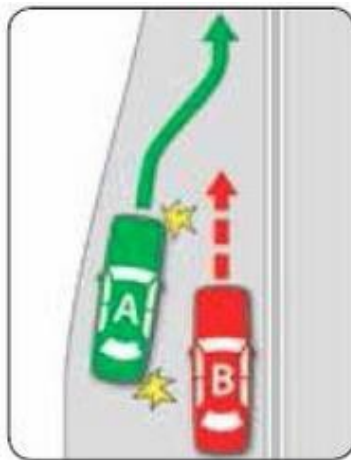
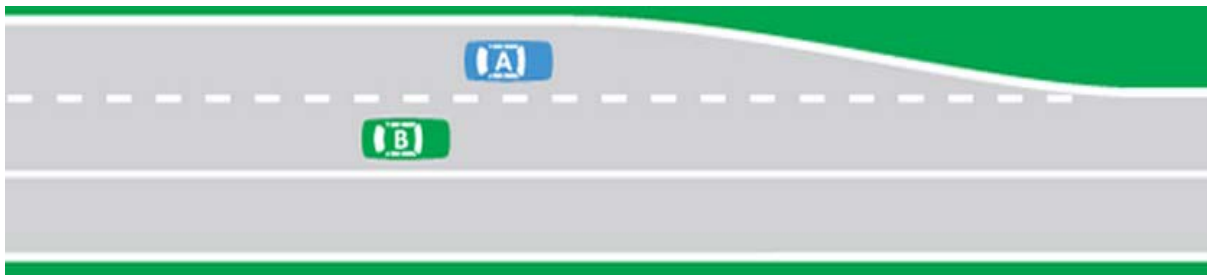
Lane changes



Element	No of left diverge	No of right diverge	No of straight ahead
Lane change	2	2	

- A compliant CT route will require double the minimum task requirements

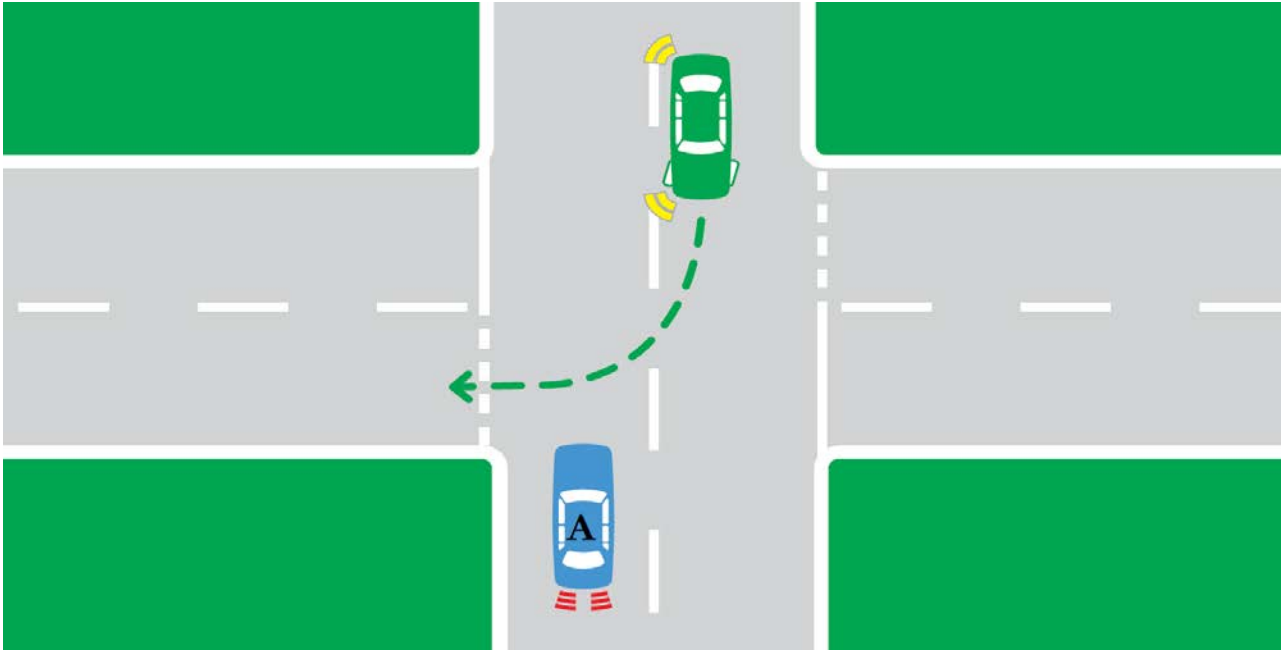
Merge - (Vehicle A)



Element	No of left turns	No of right turns	No of straight ahead
Merge			1

- A compliant CT route will require double the minimum task requirements

Turning right across traffic – (Green Vehicle)



Element	No of left turns	No of right turns	No of straight ahead
Turning right across traffic		2	

- A compliant CT route will require double the minimum task requirement