Table 7.1 Comparison of the different impacts of light rail and Bus Rapid Transit in the CBD

Light RailBHTDescription of ProjectsPartial pedestrianisation of George Street (shared with light rail.Bus humel Harbour Bridge bo Wynyard and Town Hail, possible East-West Reducing by Wynard and Town Hail stations. Full pedestrianisation of George Street (shared with light rail.Bus humel Harbour Bridge bo Wynyard and Town Hail, possible East-West Reducing by Wynard and Town Hail stations. Full pedestrianisation of parts of George Street.Scoping Estimate\$1-2 billion\$2 billionBus Route ChangesMany routes terminated at edge or mid of CBD, or through-routing (trough mid CBD). through and CBD and the sub support fund were were with the patterns.Scoping Future assume and to support fund were were with the patterns.Customer ImpactsFuture part of George Street assume assume with the same and the patterns with the same and the patterns.New sub sufface capacity of 20,000 customers per hour on George Street assume assume with the same and the patterns.StandingWith provide 9,000 customers with be standing in the CBD when full; smoother free wit hog fragesongers per busiNew sub sufface capacity of 20,000 customers per hour utilising standard buses?Passenger InterchangeTwo thrins of customers with be standing in the CBD when full; smoother to interchange on to light rail in the CBD to access north of Town Hail.Stating in standard buses?Wider CBD ImpactsFuture on the full frage on the light rail whice stating on sub-sufface (BBD mages and the sufface capacity of 20,000 customers and the sufface capacity of 20,000 customers and the sufface stating in standard buses?Wider CBD ImpactsFade elde the sufface capacity and capacity and capacity of 20,000 customers and the interchange requirement. </th <th></th> <th></th> <th></th>			
Partial pedestrianisation of George Street (shared with light rail).connections via Cross City Tunnel. Redevoloy Wyryard and Town Hall stations. Full pedestrianisation of parts of George Street.Scoping Estimate\$1-2 billon\$2 billonBus Route ChangesMany routes terminated at edge or mid of CBD, or through-routing through mid CBD).Relatively few network changes required (some desirable to support high frequency true and go' trurk services and to support high frequency (frequency) and cases.Customer ImpactsNew sub surface cases/tv of 20,000 customer tips per hour on George Street - assuming ASm more huly occupied.New sub surface cases/tv of 20,000 customers per hour utilising standard buses (frequency) (frequency) (frequency) and cases.New sub surface cases/tv of 20,000 customers per hour utilising standard buses (frequency) (frequency) (frequency) and cases.StandingWill provide 1000 customers will be standing in the CBD when full; smoother fewer light rail vehicles than the buses they replace, but the light rail vehicles will be more huly occupied.Cone third customers standing in standard busesPassenger InterchangeForce Interchange to access light rail from some subtris will be current direct bos to interchange onto light rail in the CBD to access north of Town Hall.Sub surface buses will travel from Wynyard to Town Hall will take longer than a sub-surface BRT due to to interchange due to minimal change to existing bus services that do the surface disturbances, and the interchange requirement.Wilder CBD ImpactsStared pedestrian use of George Street. One light rail vehicle passes every minute is passen with a consistent use of George Street. One light rail vehicle passes every minute seconds including a s		Light Rail	BRT
Bus Route Changes Many modes terminated at edge or mid of CBD, or through-routing (through mid CBD). Relatively few network changes required (some desirable to support high frequency "turn up and go" trunk services and to support more varied trip patterns). Customer Impacts New sub surface capacity of 20,000 customers per hour on George Street - assuming 45m vehicles every 2 mins (which is less capacity than current busce). Three will be inver tight rail vehicles than the buses they replace, but the light rail vehicles will be more fully occupied. New sub surface capacity of 20,000 customers per hour utilising standard buses (75 passengers per bus) Standing Two thirds of customers will be standing in the CBD when full; smoother ride mildgales. One third customers standing in standard buses Passenger Interchange Forced interchange to access light rail from some suburbs where current direct bus services will cease. Customers on bus services not not rown Hail. Relatively title forced interchange due to minimal change to existing bus services Passenger Interchange Forced interchange to access light rail from some suburbs where current direct bus services will cease. Customers on bus services not not rown Hail. Relatively title forced interchange due to minimal change to existing bus services Wider CBD Impacts Travel time and reliability The trip from Wynyard to Town Hail will take longer strait and whice passes every minute in peak hours (combined up and down services assuming passing times of 30 seconds including a safety buffer) George Street fully pedestrianised George Street ful	Description of Projects		connections via Cross City Tunnel. Redevelop Wynyard and Town Hall stations.
Iteration and the services and to support more varied trip patterns). Customer Impacts Passenger Capacity Will provide 9,000 customer trips per hour on George Street – assuming 45m vehicles every 2 mins (which is less capacity than current buses). There will be favore tight rail vehicles will be immer trips per hour on George Street – assuming 45m vehicles capacity of 20,000 customers per hour utilising standard buses). There will be favore tight rail vehicles will be immer trips per hour on George Street – assuming 45m vehicles capacity of 20,000 customers per hour utilising standard buses. Standing I'vo thirds of customers will be standing in the CBD when full; smoother field entitigates. One third customers standing in standard buses. Passenger Interchange Forced interchange to access light rail from some suburbs where current direct bus services that continue into the CBD will need to interchange onto light rail in the CBD to access north of Town Hall. Sub surface buses will travel from Wynyard to Town Hall consistently in 2-3 minutes. Wider CBD Impacts Shared pedestrian use of George Street. One light rail whick passes every minute in peak hours (combined up and down services assuming passing times of 30 seconds including a satety buffer) George Street fully pedestrianised Traffic congestion Combination of additional light rail whick less busing passing times of 30 is conditioned bus services to mid CBD, and pedestrianised on without increasing infer all whick passing times of 30 is conditioned bus services to mid CBD, and pedestrianises on milliones and busing standard buses.	Scoping Estimate	\$1-2 billion	\$2 billion
Passenger Capacity Will provide 9,000 customer trips per hour on George Street – assuming 45m vehicles every 2 mins (which is less capacity than current buses). There will be fewer light rail vehicles than the buses they replace, but the light rail vehicles will be fewer light rail vehicles than the buses they replace, but the light rail vehicles will be fewer light rail vehicles than the buses they replace, but the light rail vehicles will be from tuition coupled. New sub surface capacity of 20,000 customers per hour utilising standard buses (75 passengers per bus) Standing fwo thirds of customers will be standing in the CBD when full; smoother ride mitigates. One third customers standing in standard buses Passenger Interchange Forced interchange to access light rail from some suburbs where current direct bus services that continue into the CBD will need. Customers on bus services that continue into the CBD will need to interchange onto light rail in the CBD to access anoth of Town Hall. Relatively little forced interchange due to minimal change to existing bus services in the otorwine into the CBD will need to interchange onto light rail in the CBD to access anoth of Town Hall. Travel time and reliability The trip from Wynyard to Town Hall will take longer than a sub-surface BRT due to interchange seconds including a safety buffer) Sub surface buses will travel from Wynyard to Town Hall consistently in 2-3 minutes. Wilder CBD Impacts Every combined up and down services assuming passing times of 30 seconds including a safety buffer) George Street fully pedestrianised George Street fully pedestrianised for pedestrianisation without increasing CED congestion	Bus Route Changes		
WebsiteWebsiteWebsiteCases <th>Customer Impacts</th> <th></th> <th></th>	Customer Impacts		
InterchangeForced interchange to access light rall from some suburbs where current direct bus services will cease, Customers on bus services that continue into the CBD will need to interchange onto light rail in the CBD to access north of Town Hall.Relatively little forced interchange due to minimal change to existing bus services Sub surface buses will travel from Wynyard to Town Hall consistently in 2-3 minutes.Travel time and reliabilityThe trip from Wynyard to Town Hall will take longer than a sub-surface BRT due to intersections and other surface disturbances, and the interchange requirement.Sub surface buses will travel from Wynyard to Town Hall consistently in 2-3 minutes.Wider CBD ImpactsShared pedestrian use of George Street. One light rail vehicle passes every minute in peak hours (combined up and down services assuming passing times of 30 seconds including a safety buffer)George Street fully pedestrianisedTraffic congestionCombination of additional light rail vehicles (with limited flexibility in traffic), likely continued bus services to mid CBD, and pedestrianisation will increase traffic congestionAdditional sub-surface capacity allows for pedestrianisation without increasing CBD congestion	Passenger Capacity	vehicles every 2 mins (which is less capacity than current buses). There will be fewer light rail vehicles than the buses they replace, but the light rail vehicles will be	
ConstraintServices will cease. Customers on bus services that continue into the CBD will need to interchange onto light rail in the CBD to access north of Town Hall.Sub surface buses will travel from Wynyard to Town Hall consistently in 2-3 minutes.Travel time and reliabilityThe trip from Wynyard to Town Hall will take longer than a sub-surface BRT due to intersections and other surface disturbances, and the interchange requirement.Sub surface buses will travel from Wynyard to Town Hall consistently in 2-3 minutes.Wider CBD ImpactsPedestrian amenityShared pedestrian use of George Street. One light rail vehicle passes every minute in peak hours (combined up and down services assuming passing times of 30 seconds including a safety buffer)George Street fully pedestrianisedTraffic congestionCombination of additional light rail vehicles (with limited flexibility in traffic)), likely continued bus services to mid CBD, and pedestrianisation will increase traffic congestion.Additional sub-surface capacity allows for pedestrianisation without increasing CBD congestion	Standing		One third customers standing in standard buses
Wider CBD Impacts Shared pedestrian use of George Street. One light rail vehicle passes every minute in peak hours (combined up and down services assuming passing times of 30 seconds including a safety buffer) George Street fully pedestrianised Traffic congestion Combination of additional light rail vehicles (with limited flexibility in traffic), likely continued bus services to mid CBD, and pedestrianisation will increase traffic congestion. Additional sub-surface capacity allows for pedestrianisation without increasing CBD congestion	Passenger Interchange	services will cease. Customers on bus services that continue into the CBD will need	(Relatively little forced interchange due to minimal change to existing bus services)
Pedestrian amenity Shared pedestrian use of George Street. One light rail vehicle passes every minute in peak hours (combined up and down services assuming passing times of 30 seconds including a safety buffer) George Street fully pedestrianised Traffic congestion Combination of additional light rail vehicles (with limited flexibility in traffic), likely continued bus services to mid CBD, and pedestrianisation will increase traffic congestion. Additional sub-surface capacity allows for pedestrianisation without increasing CBD congestion	Travel time and reliability		Sub surface buses will travel from Wynyard to Town Hall consistently in 2-3 minutes.
in peak hours (combined up and down services assuming passing times of 30 seconds including a safety buffer) Traffic congestion Combination of additional light rail vehicles (with limited flexibility in traffic), likely continued bus services to mid CBD, and pedestrianisation will increase traffic congestion. Additional sub-surface capacity allows for pedestrianisation without increasing CBD congestion	Wider CBD Impacts		
(likely continued bus services to mid CBD, and pedestrianisation will increase) (CBD congestion) (traffic congestion).	Pedestrian amenity	in peak hours (combined up and down services assuming passing times of 30	George Street fully pedestrianised
Wynyard and Town Hall stations Does not include full redevelopment Includes full redevelopment.	Traffic congestion	likely continued bus services to mid CBD, and pedestrianisation will increase	
	Wynyard and Town Hall stations	Does not include full redevelopment	Includes full redevelopment.