

### 3.2 Accessibility

Pedestrian accessibility and connectivity throughout the streetscape has been considered during the concept design phase. It is acknowledged that this will be developed further during detailed design. This will require further discussions with DCC and members of the blind foundation.

Further consideration for accessibility in the design stages, undertaken following issue of the concept design, will focus on kerb alignment, street furniture placement and differentiating the movement and queuing zones along the footpath.

### 3.3 CPTED

The principles of Crime Prevention through Environmental Design (CPTED) have been considered as part of the proposed concept design and throughout ongoing preliminary design phases. An overall analysis has been carried out on the bus hub and recommendations have been incorporated into the preferred design for the street. Areas that have been identified as potential CPTED risk areas have been mitigated as much as possible within the preliminary design phase.

## 4 Bus Shelters / Industrial Design

One variant of the currently proposed shelter structures is shown in **Figure 6**. Further refinement of the bus shelter design will be undertaken in parallel with the Urban Design element of the Hub design through the preliminary design stage. Shelters are proposed to be located within private land at Bay 6 (The Victoria Hotel) and Bays 9 and 10 (Countdown)



**Figure 6 – Dunedin Bus Hub Concept Shelter with Technology**



## 5 Stakeholder Feedback

Much of the stakeholder feedback received during or after the workshop of 13 July 2016 has been addressed in the latest Concept Design, or the issues raised have been acknowledged in this report. A number of stakeholder comments received following the workshop will need to be revisited throughout the project. These outstanding items are summarised in the table below. These comments will need to be reviewed during the Preliminary Design Stage and during further Stakeholder engagement as the project progresses.

### Responses to Concept Development Stakeholder Feedback

Stakeholder	Stakeholders Comment	Design Team Response
<b>DCC Property</b>	Property have confirmed that they are aware of the plan to change the entry/exit point of the car park for community house, and potentially locate public toilets and bike racks in some of the existing car park space. You confirmed at our meeting that these discussions are still continuing. It would be good to get some timeframes confirmed for these matters to ensure all parties are aware of the arrangements. Kevin Taylor remains the DCC contact for these matters.	The Design Team can assist ORC in defining timeframes for construction at the Preliminary Design Stage. This overall programme can then be used for further stakeholder consultation as the project progresses.
<b>DCC Water and Waste</b>	There are currently no planned renewal works on Great King St between Moray and St Andrew for the next 10-15 years. Water and Waste may choose to condition inspect a storm water main located in this area to determine when this may need renewing. I will keep you updated on this. Timing for all other infrastructure upgrades in the central city will be developed as part of the central city plan.	The construction and use of materials through Great King Street will not prevent access to existing services for inspection and / or repair ( <b>Section 3.2</b> ).
<b>DCC Urban Design</b>	Exploring the possibilities of key adjoining sites and existing pedestrian routes to the site should be a priority with regard to providing a suitably high level of pedestrian amenity/protecting existing pedestrian amenity to ensure a good interface with surrounding central city streetscapes. Synergies with existing buildings/activities etc. There wasn't enough of this discussed, very	The Design Team understand that DCC Urban Design are still in the process of developing their strategy for how the centre of Dunedin will be treated. The Design Team has worked alongside DCC, as the strategy develops, to ensure that consistent pedestrian amenity is achieved between the Hub and other attractors in the centre of Dunedin. Integration of some existing CBD street furniture and surface treatment options have been

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	much focussed on the operational needs of the bus service.	included within the design
<b>DCC Urban Design</b>	The Farmers alternative in/out from Moray Place could be quite harmful with regard to the quality of the pedestrian environment linking through to George Street, Octagon and our building/library etc. Any progression of this idea would need to be designed into an overall solution. The location and design of the toilet needs to be nailed down to ensure it is safe with appropriate sight lines (door closed) and lighting, integrated into the streetscape better. I can't remember why it wasn't designed into the bus shelter on Great King Street itself- maybe space issues?	An alternative in/out from Moray Place for the Farmers Carpark has been disregarded in the preliminary design. Complexity of design and the space required for an appropriate ramp was not warranted. The existing entrance to the carpark is proposed to be narrowed. The pavement level will be lifted to meet the footpath and the surface treatment from the footpaths will continue across the entranceway. This will assist in highlighting to drivers the pedestrian priority along the street  Regarding the toilet location and security concerns, the Design Team are working to resolve this area specifically. The Design Team believe that these can be solved in the next stage of the project.
<b>DCC Urban Design</b>	The design palette looks robust and generally relevant. Both modern and heritage - timber could increase maintenance/look shabby over time and not as relevant as stone and steel. I think care needs to be taken to ensure the final design of furniture either co-ordinates the cities street furniture suite (yet to be confirmed) or be entirely unique.	Comments noted. The design team have been engaging DCC throughout the preliminary design phase to ensure cohesion with the Dunedin Central City design guide are being met. It is also intended there will be continuity with the proposed outlying Superstop sites.
<b>DCC Urban Design</b>	We would expect that a CPTED consultant be engaged to provide a report on the final design of the Hub	The Design Team understand that ORC will be commissioning an independent CPTED consultant to review the design.
<b>DCC Urban Design</b>	Way finding devices outside of the hub would make sense i.e. critical routers, hubs, corners to inform access to the hub.	The Design Team intend to develop a full way finding strategy for the Hub during the Preliminary Design Stage. This way finding strategy will include extending the material palette of the Hub into the adjacent intersections of Moray Place and St Andrew Street. Wayfinding should be co-ordinated in conjunction with bus timetable information and the Central city wayfinding strategy
<b>DCC Urban</b>	Landscaping. Always going to push for native (if not endemic)	Comment noted. Native plant species have been selected in

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<b>Design</b>	species. Red Tussock is the only native plant in the proposed pallet (I think). Is English Oak suitable with regards to being exotic and what about its size and functional requirements of the bus hub? Will buses do the pruning? Columnar NZ species possible?	collaboration with DCC
<b>DCC Urban Design</b>	Is the midpoint pedestrian crossing really in the most logical spot? Police Station to Farmers connection doesn't seem as likely as toilets/bike storage to supermarket. May work for bus passengers but not for others? Will the existing pedestrian crossing/median need improving (pedestrian quality/safety)? Will bus movement create need for additional pedestrian crossings elsewhere outside of the hub? Is T.P going to get involved?	This has been investigated. It was confirmed that this is the best location as it achieves the best sight lines past buses and has been widened as much as possible to attract people to utilise the formal crossing and not cross anywhere. If the connection past in regards to pedestrian safety this point is the safest. Refer to <b>Section 2.3</b> .
<b>DCC Transport</b>	Speed limit through the Bus Hub area should be assessed and possibly restricted to 30km/h. The pedestrian crossing points are indicated as being raised platforms which would make the speed environment naturally less than 30km/h	It is intended to retain the raised mid-block pedestrian crossing point within the Hub, although this will be constructed using bus friendly ramps. The Design Team agree that this feature, along with high amounts of pedestrian and bus activity, will help to naturally reduce traffic speeds.
<b>DCC Transport</b>	St. Andrew St/Great King St intersection is only partially shown. Statement that the right turn lanes on St. Andrew St. will be removed should be assessed on safety and efficiency. Buses will be required to turn right from St. Andrew St. to Great King St. which may be compromised should the lane configuration be changed to a shared right turn and straight through lane. Right turning lane on St. Andrew St. east shows dedicated right turn lane. The approach from the Bus Hub area on Great King St. is shown with two limit lines, however, the inside lane is shown to accommodate bus stop #6. The design should be assessed in detail.	The lane designations at the intersection of St Andrew Street and Great King Street is to be investigated further at Preliminary Design Stage. This is to be undertaken alongside the traffic capacity assessment work currently being undertaken by ORC in the area.
<b>DCC Transport</b>	Moray Pl/Great King St. intersection is shown as catering for the new pedestrian desire line to and from the CBD. The proposed	Pedestrian crossing point positions to be optimised through the Preliminary Design Process. Refer to <b>Sections 2.2 and 2.3</b> .

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	design show a raised pedestrian crossing across Great King St. which would be an improvement, however the distance is increased from the existing. Due to the distance and crossing angle the crossing point remains a cause for safety concern. The pedestrian crossing point, with median refuge and kerb protrusions across Moray Pl. is considered as a positive safety improvement.	
<b>DCC Transport</b>	Pedestrian crossing points shown on the concept plans as being raised platforms, is it confirmed as desirable in regards to the bus traffic? From a transportation safety and service level this is assessed as being the best option and would be supported by Transportation Safety Team.	Refer to <b>Section 2.7</b> .
<b>DCC Transport</b>	Pedestrian desire lines. The existing pedestrian desire lines are shown on the Concept design plan page 4. These desire lines are in accordance with our records. The future desire lines are shown as being crossing Great King St by Moray Pl and on the southern side of the Farmers car park driveway. It is unclear as to why the pedestrian desire lines would change to this, pedestrians would be expected to choose the shortest distance and as per existing go through the parking area by the Community House. As such the pedestrian crossing points should be located where the existing desire lines are shown across Great King St. which would be by the existing driveway to community house parking and on the northern side of the Farmers car park driveway. By providing these pedestrian crossing points the effects on the crossing of Great King St. by Moray Pl. would be greatly reduced.	To be investigate further. Refer to <b>Section 2.3</b> .
<b>DCC Transport</b>	Farmer's car park: access appear very tight with small corner radius and sight lines would be compromised when bus space #4 is occupied.	Investigation as to whether this can be relocated to Moray Place is currently being undertaken. Alternatively, it is proposed that the access to Farmers Car Park will operate as left in – left out, which would mean that the access point could be reduced in width, moving emerging vehicles further away from the rear of a stationary bus within Bay 4.

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<b>DCC Transport</b>	Police and Countdown driveways sightlines would be compromised when stops # 9 and 11 respectively is occupied.	As above. Further investigation as to whether these access points would operate better under a left in-left out arrangement is to be undertaken.
<b>DCC Transport</b>	Bus Stops – marking of any bus stop should be marked a minimum of 1m from any driveway and 6 m from any intersection.	To be addressed during Preliminary Design. Operating vehicular access points as a left in-left out arrangement would enable spacing at driveways to be improved to at least 1m.
<b>DCC Transport</b>	The proposed new access for the \$2 shop will need to be reviewed, plans reviewed does not show the proposed new access.	The design team understand that there will no longer be a requirement to provide access to The \$2 Hop site from Great King Street, as a result of development in the area. Temporary and future access requirements to the site are to be confirmed through discussions between DCC and ORC.
<b>DCC Transport</b>	Community House car park access is proposed moved to Moray Pl. (concept design plan not received and not reviewed). It is not considered ideal to relocate this access to Moray Pl. as the driveway would be in the inside of a bend.	Relocation of access currently being investigated. Findings to be provided at Preliminary Design Stage.
<b>DCC Transport</b>	The proposed treatments for footpaths crossing driveways is considered appropriate and would provide good service to pedestrians and ensure that motorist would give way to pedestrians.	Comment noted.
<b>DCC Transport</b>	The treatment regarding possible conflict zones between waiting passengers and pedestrians walking past appear well thought out.	Comment noted.