

Query No.	Discipline	Comment or Issue	Response	Response by
1	Traffic Services	The correct ratio of accessible parks to standard parks has not been met as there appears to be 14 designated standard parks only. At least one of these allocated parking spots is required to be accessible.	One park has been earmarked for specific marking as accessible space. WALA landscape plans have been updated.	Ryan Dunn
2	Urban Design	Kerb ramps appear to have been specified at appropriate locations on the drawings provided, however the following specification notes are missing from the details. <ul style="list-style-type: none"> • Width of ramp must be specified as no less than 1000mm, with the recommended width as 1500mm. • Road segment of kerb ramp to be specified as no steeper than 1:20. 	All kerb crossings meet at least WCC standard, width and grades to be shown on drawings. WALA to note on details.	WALA
3	Urban Design	Adjacent surfaces such as planted banks are not always detailed as being flush with the finished surface of the footpath, or having an upstand or barrier. It is important that transitions between the footpath areas and other surfaces are clearly defined.	Planting in rain gardens and garden beds will grow to effect a clear visual and vertical barrier at footpath interfaces.	WALA
4	Street Lighting	Lighting levels appear to not be detailed on the documents provided, the footpath surface is required to be well illuminated at all times with diffused lighting and should be detailed as such. The specification documents from the lighting manufactures website do not confirm if the selected lights are diffused or not.	The luminaires all come with diffusers, therefore it is diffused light. We have done the calculations to show we meet the requirement for 10 lux as per WCC District Plan and AS/NZS 1158 wrt changing lighting levels.(Applies to both foot paths and stairs)	Matthew Lesiak
5	Urban Design	The plan extract above highlights two groupings of bollards where a clear width of 900mm between them is not available. Bollards are required to have a clear space of 900mm minimum between them.	The bollards in question are on top of a vertical kerb transition from 0 to 50mm upstand to indicate a change in road traffic conditions (shared space) - and run in the direction of flow, there is ample room to move around the bollards.	WALA
6	Urban Design	A useful addition would also be having reflective bands at two heights on the bollards where pedestrians will be travelling in low lighting conditions.	Bollards will incorporate an element of reflective material on all faces.	WALA
7	Urban Design	On the urban design plans, stair section 14a indicates the bottom tread is a steeper sloping ground surface than the other treads, if the ground surface is to be sloped it should not be steeper than the treads slope until outside of the one tread width plus 300mm area. Stairs should have a change in surface treatment that provides strong colour contrast at their head & foot as indicated in the below extract from NZS4121:2001. The material finishes on the plan do not give a good indication as to if this contrast will be achieved.	All stairs will be design to ensure ground at the base of the bottom tread is no steeper than stair tread riser falls for the extent of 300mm+1# stair tread width. The design will provide for a colour contrast at the top and bottom of all stone stairs on main access routes. We consider that as the small stair access points between and onto the eastern terraces are not on main access routes they do not require treatment at their top and bottom.	WALA
8	Urban Design	Stairs are typically noted with 'precast stair – concrete' or 'precast stair – stone clad' this alone does not detail the level of finish intended e.g. is it brushed or smooth concrete on the stairs? Surfaces are required to have a minimum coefficient of friction. Refer to Table 2 of the NZBC section D1/AS1 (appended)	All concrete paving/ stairs will be grit blast finished to achieve the required minimum friction coefficient	WALA
9	Urban Design	Nosings are required to have a strong colour contrast with the rest of the stair, both the 'concrete' and 'stone' stair details indicate only saw cuts as the nosing. Saw cuts do not give sufficient contrast when compared to the rest of the stair. It is recommended that another solution is looked at, or that the saw cuts are grouted with a colour that contrasts strongly with the rest of the stair. The grout must be of high quality so that it will not fade rapidly over time, often black oxide grouts will look grey within a matter of years – which on a concrete stair would no longer provide any contrast.	Saw cuts are to be grouted. Grout colour to be confirmed.	WALA
10	Urban Design	While the general provision of handrails on both sides of stairs, and in the middle of the stair where appropriate is good, side handrails are not indicated on the plans in the following areas.	The eastern terraces incorporate multiple access points. Accessible routes onto all terraces are provided along the main pedestrian path at the southern edge of each terrace. Stairs accessing north lane are a secondary route on to the terraces, not an accessible route.	WALA

11	Pavements	Description of surfaces on the provided plans were insufficient to determine compliance against the requirements of the NZBC D1/AS1- Table 2 (appended) If manufactures specifications are available they should provide typical values for coefficient of friction (wet) which can then be compared to the table.	<p><i>Surface Texture</i> The finish to the exposed surfaces of all flags and kerbs unless otherwise stated will be natural finish. Coarse textured and split face/natural setts are assumed to give satisfactory slip resistance. Surface finishes include, rubbed slabs (slight hone to remove sawn cuts), split face or dolly pointed (bush hammered) to setts, and all kerbs to be rubbed. All sides to be sawn cut unless otherwise stated. Table 9.2 Natural Stone schedule details surface finishes for the particular element's to be supplied under this contract.</p> <p><i>Abrasion Resistance</i> The abrasion resistance shall be determined using test method in EN 14157:2004 Natural Stone – determination of Abrasion Resistance, or equivalent and the highest expected value shall be declared.</p> <p><i>Skid and Slip Resistance</i> New pedestrian surfaces to be tested to AS 4586 :1999 which provides a method for determining dry slip resistance (using a Floor Friction Tester) and a range of different methods for evaluating slip resistance in a wet condition (i.e. Pendulum, Wet/barefoot Ramp and Oil-wet Ramp).</p> <p>Wet slip resistance can be measured by different methods depending on the surface and location. The Pendulum method (TRL Rubber) could be considered the most versatile and relevant method for most pedestrian situations. All readings of the Pendulum to be recorded as the Skid Resistance Values (SRV), where the mean British Pendulum Number (BPN) value for the sample that has been tested and calculated in accordance AS 4586.</p> <p><i>Resistance to Polishing</i> Resistance to polishing is an indicator of the skid resistance durability, traditionally determined using Polished Stone Value (PSV) however a Polished Paver Value (PPV) to BS 7932:2003 - Determination of the unpolished and polished pendulum test value of surfacing units value is more comprehensive. The test accelerates the surface wear of the stone identifying any reduction of the skid/slip values that could result in a dangerous surface being formed where paving is being used by vehicles</p>	Duncan Thomson
12	Urban Design	Inadequate signage	This is already known, we have agreed that signage design will take place towards the end of the process	WALA and Ryan
13	Urban Design	Some road crossing tactile indicators are not aligned with the opposite crossing point, it is important the tactiles are aligned with each other to ensure that a blind person is able to navigate their way directly back onto the footpath safely. Please refer to the below plan extract for location of the unaligned tactiles.	This is likely simply a CAD error, if so then it's easy to fix	WALA
14	Utilities	Service covers generally appear to be suitable as detailed in drawing set MP-05-DES-RP Service Covers and Lids 30 Percent Detailed Design. The exception to this is the below CP located in the carparks accessible route. If the flow rates can accommodate it, this should be detailed as the new WCC 'cycle safe – wave pattern' grating to reduce the risk of assistive mobility devices such as wheelchairs getting caught in it.	This requirement has been noted on our list of chamber lids, and will be included as we develop the design	JXP
15	Urban Design	The proposed seating does not meet the requirements of NZS4121:2001 and therefore does not cater for a wide range of people who may have varying levels of ability. Seating must have a back rest and arms to assist those with limited mobility or strength. Refer to below detail from NZS4121:2001.	Currently the furniture package provides a range of seating options for a wide demographic with or without backrests . WALA to review and provide some seating with armrests.	WALA
16	Urban Design	The transition point of detail 25 from 'stone paving' to the vehicle access ways 'stone sett paving' appears to have no defining features or tactile indication. It is vital that tactile and visual cues each side of the vehicle route are provided.	The central memorial space is designed to operate as a shared space with slow moving traffic. The central laneway will comprise stone setts with a bush hammered finish - we consider this finish will clearly define the road surface in comparison to the rubbed finish paving of the plaza area. The bush hammered finished setts will be visually lighter in colour and more tactile than the adjacent rubbed finished paving.	WALA