

## **City of Yarra's Detailed Vehicle Crossing Design Requirements & Checklists**

- **“What are the Standard requirements that Council assess against”**
  - **Suitable for pedestrians to traverse:** For DDA compliance, footpath cross-falls must be a maximum grade of 1:40 (minimum of 1:60) for a minimum footpath width of 1.2 metres from the property line.
  - **Vehicle can use without scraping:** All crossovers must be in accordance with AS2890.1:2004's vehicle ground clearance requirements
    - For 1-2 unit dwellings compliance with a B85 design vehicle is required
    - For 3+ units/multi-storey developments compliance with a B99 design vehicle is required.
    - Note: the clearance of the B85/B99 design vehicle should be demonstrated by showing the template overlayed on submitted design cross-sections.
  - Council will not accept the following proposals for vehicle crossing designs
    - Culvert Crossings
    - Kerb Ramps or Steel Plates of any form
    - Significant adjustments of kerb, channel and road infrastructure to suit the proposed crossover
    - Drainage & service pits within the crossover area
    - Other service pit lids that are not rated for vehicle loading
  - The proposed vehicle crossing design must be considered in conjunction with setting the internal floor level to ensure appropriate tie into existing infrastructure can be achieved
  - Location of Council assets including drainage infrastructure, speed humps and utility services in proximity to crossing
  - How to achieve appropriate match in with adjacent footpath areas either side of the crossing

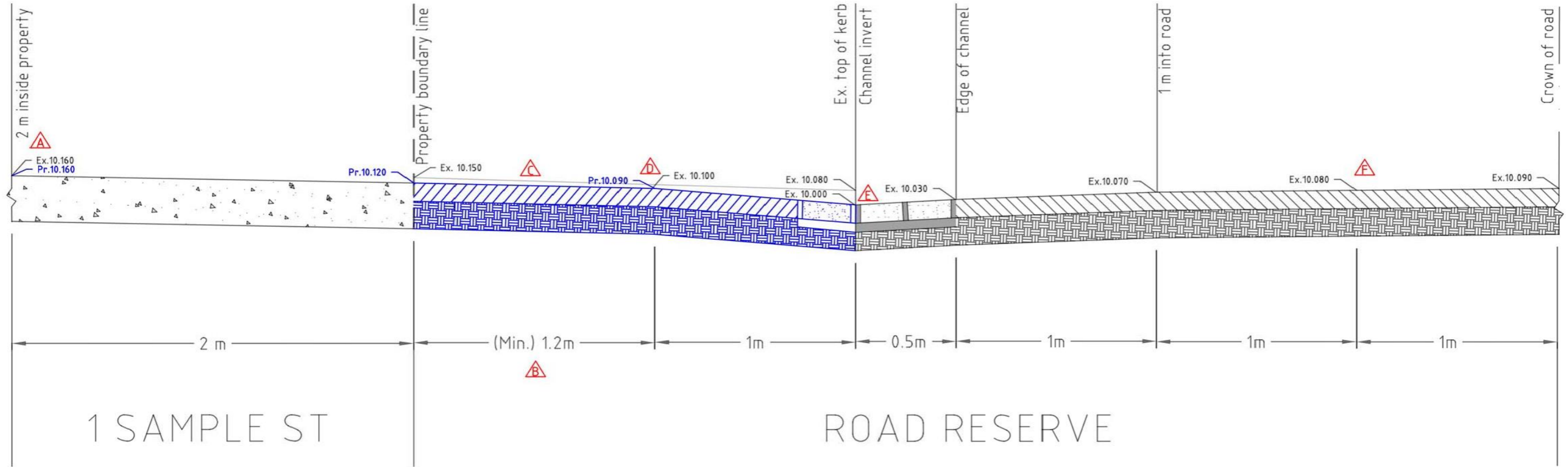
### 1.1 Planning Stage Checklist

Item	Info Required	Provided?	Notes
1	Detailed level survey of the site conducted by qualified surveyor		N/A
2	Existing & Proposed Plan View of Site		Details existing infrastructure surrounding the crossing (pits, LPDs, trees etc) and crossing layout
3	Indicative 1:20 scale cross-sectional crossover design		Must incorporate all levels as per <b>Vehicle Crossing Information Sheet</b>
4	Photos of the existing site condition & where proposed crossover will be positioned		Include existing poles, pits, trees, speed humps etc

### 1.2 VC Permit Stage – Detailed Design

Item	Info Required	Provided?	Notes
1	Detailed 1:20 scale cross-sectional plan incorporating <b>existing/pre-construction &amp; proposed levels</b>		Must include ALL levels shown in <b>Figure 1 - Example Cross-Section</b> .  <b>NOTE: Crossovers &gt;3m wide will require one cross-section taken through either side of the crossing (i.e. Each lane)</b>
2	Site plan of the proposed crossover design		Site plan should typically include: <ul style="list-style-type: none"> <li>• Width of Crossing (minimum 3m)</li> <li>• Splays (typically 650mm)</li> <li>• Existing utilities in proximity</li> <li>• Existing trees in proximity</li> <li>• Existing drainage/road infrastructure in proximity</li> </ul> <b>NOTE: See Figure 2 - Example Site Plan</b>
3	Pre-construction site survey provided for comparison with existing levels		Pre-construction Finished Floor Level prior to vehicle crossing works must be shown
4	Photos of the existing crossover/site condition vs photos of the “as-built” garage floor level		Condition of garage/basement/driveway slabs pre & post construction shown if able.
5	Longitudinal section of the footpath, kerb & channel		Requirement of Longitudinal Section typically assessed on case-by-case basis & is communicated by Council Engineer <ul style="list-style-type: none"> <li>• Levels taken 3m either side of crossing area</li> <li>• Spot levels taken at 1m intervals</li> <li>• Building line, back of kerb, invert and edge of channel levels may be required at each interval</li> </ul>





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GUIDE NOTES FOR VEHICLE CROSSING APPLICANTS (FOR ASSISTANCE ONLY)	
LABEL	DESCRIPTION
	A level 2 m into the property is needed to check if vehicles will scrape the pavement when moving into and out of the property from the road
	Walking section of footpath should be a minimum of 1.2 m from the property boundary line - Can be larger than 1.2 m if preferred or are able to, especially if footpath is wider
	Walking section of footpath should be a maximum of 1:40 or 2.5% grade - i.e. $[(10.120 - 10.090) / 1.2] \times 100\% = 2.5\%$
	Point C is what is referred to as the "break of grade" - this is where the slope of the crossover changes. Council only allows for one break of grade in a crossover
	Point D is the "channel invert". This essentially means the lowest point of the drain in the side of any road, i.e. where water will run. Point D should not be changed
	Usually Council asks for a minimum of a road point 1 m from the edge of channel, and the centre of the road for smaller roads. However, road levels at 1 m intervals is desired

<table border="1"> <thead> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>R1</td> <td>DATE</td> <td>BY</td> <td>R1DETAILS</td> </tr> <tr> <td>R2</td> <td>##</td> <td>##</td> <td>##</td> </tr> <tr> <td>R3</td> <td>##</td> <td>##</td> <td>##</td> </tr> </tbody> </table>	REV	DATE	BY	DESCRIPTION	R1	DATE	BY	R1DETAILS	R2	##	##	##	R3	##	##	##	<p><b>WARNING</b> BEWARE UNDERGROUND SERVICES CALL BEFORE YOU DIG</p> <p>THE LOCATION OF EXISTING SERVICES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHALL BE PROVIDED ON SITE. THE APPROPRIATE AUTHORITY SHALL BE CONTACTED AND THE SERVICES LOCATED PRIOR TO COMMENCEMENT OF ANY WORKS. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.</p>	<p><b>LEGEND</b></p> <table border="1"> <tr> <td></td> <td>EXISTING CROSSOVER</td> <td></td> <td>BLUESTONE CHANNEL</td> </tr> <tr> <td></td> <td>PROPOSED CROSSOVER</td> <td></td> <td>BLUESTONE LAYBACK</td> </tr> <tr> <td></td> <td>PROPOSED CROSSOVER</td> <td></td> <td>EXISTING INTERNAL CONCRETE SLAB</td> </tr> <tr> <td></td> <td>EXISTING ROAD SURFACE</td> <td></td> <td>PROPERTY BOUNDARY</td> </tr> </table>		EXISTING CROSSOVER		BLUESTONE CHANNEL		PROPOSED CROSSOVER		BLUESTONE LAYBACK		PROPOSED CROSSOVER		EXISTING INTERNAL CONCRETE SLAB		EXISTING ROAD SURFACE		PROPERTY BOUNDARY	<p><b>CITIZEN CONSULTANTS</b></p> <p>TITLE: 1 SAMPLE STREET MELBOURNE Vehicle Crossover SECTION A-A</p> <p>STATUS: <b>DESIGN</b> NOT TO BE USED FOR CONSTRUCTION</p> <p>DRAWING NO: 1-A REV: 0 SIZE: A3</p>	<p>DRAWN: J.CITIZEN DATE: 2020.01.01</p> <p>DESIGNED: J.CITIZEN DATE: 2020.01.01</p> <p>CHECKED: J.SMITH DATE: 2020.01.02</p> <p>APPROVED: J.SMITH DATE: 2020.01.02</p>	<p>MELWAYS REF: A1-B2 DATUM: 10.000</p> <p>SCALE: 1:20</p> <p>SHEET 2 OF 2</p>	
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Figure 2 - Example Site Plan

