CITY OF VINCENT

SPECIFICATION FOR THE INSTALLATION OF INSITU CONCRETE CROSSOVERS

Reviewed 20 July 2009

CONSTRUCTION OF CROSSOVERS

OBJECTIVES

To define the City's specification for the construction of crossovers in road reserves.

POLICY STATEMENT

In accordance with Schedule 9.1 Clause 7 (4) of the Local Government Act 1995, it is the Council's Policy that the construction of all crossovers within the road reserve requires the approval of the City.

The City may approve the private construction of either a cast insitu concrete or a clay brick paved crossover located in the road reserve:

- Between the edge of the carriageway (back of kerb) and the existing footpath located adjacent the property boundary; or

- Between the existing footpath located (located adjacent to the edge of the carriageway) and the property boundary.

The crossover construction is to be in accordance with the City's requirements relating to the location and standards of construction.

City will refund one half the cost of the first standard crossover at a property. A standard crossover and the cost of a standard crossover will be determined by the City

SPECIFICATION

INSITU CONCRETE CROSSOVERS

1.0 DEFINITIONS

1.1 ***Superintendent*** shall mean the City Employee responsible for the supervision of the work.

1.2 ***Contractor*** shall mean the person responsible for the construction of the crossover.

1.3 ***Crossover*** is that section of the "drive-in" that replaces the footpath or will ultimately form part of a future footpath.

1.4 ***Approach*** is the section of the "drive-in" that extends from the edge of the path to the street channel.

1.5 ***Sweep*** is that part of the approach which is the transition between the road kerb and the kerbing of the approach.

2.0 PROCEDURE

2.1 **Application**

An owner of a property or their agent, wishing to apply to construct their own crossover, is to apply in writing, stating specific requirements relating to their proposed crossover. Approval to construct a crossover shall be issued by the City.

2.2 **Assessment**

Following receipt of an application to construct a crossover, the site shall be inspected to determine any conditions which will apply to the approval.

2.3 Request for the refund of the bond must be made in writing at which time an inspection will be carried out by a Technical Services Officer.

3. GENERAL

This specification is made pursuant to the provisions of the Local Government Act 1995.

The whole of the works shall be carried out in strict accordance with and to the true intent and purpose of the specification to the satisfaction of the Superintendent

All levels for the grading surface finish jointing or any other thing shall be as directed by the Superintendent.

All material used in the construction of crossovers shall be in accordance with the standard specification and any materials used which are inferior to those specified or as directed by the Superintendent shall be liable to rejection and replacement without any payment or compensation being made to the Contractor of the supply, delivery, laying, placing, finishing, removal or disposal of anything so rejected as directed by the Superintendent.

Any damage which may occur to any City facilities, private property or the crossover itself during the course of the works or which may subsequently become evident from the operations thereof shall be the sole responsibility of the Contractor who shall be held responsible for the repair, replacement and legal claims.

3.1 **Materials**

Crossovers may be constructed in insitu concrete and concrete or clay bricks.

(Refer Specification for the Installation of Brickpaved Crossovers)

3.2 Safety

The Contractor shall take all necessary precautions to ensure the safety of workmen employed on the works site and shall bear sole responsibility for giving effect to such precautions and for any damage or injury to workmen.

The Contractor shall take all action and precautions necessary to protect members of the public from accident injury or hurt whether engaged on their lawful occasions or trespassing on areas abutting or adjacent to the contract works and shall provide erect and maintain adequate barriers, as necessary.

The Contractor shall have an experienced First Aid person on site available at all times when work is in progress.

The Contractor shall comply with the requirements of the Occupational Safety & Health Act 1984 and the Occupational Safety & Health Regulations 1988 as amended.

The Contractor shall give all necessary notices and pay all fees that are relevant to the works included in the contract.

For the purposes of the Occupational Safety & Health Act 1984 and the regulations hereunder the Contractor shall accept full responsibility for control of the workplace and matters relating to the Act and shall be deemed to be the employer (as defined under the Act) of all persons engaged by him and shall accept full responsibility for those persons on matters referred to in the Act.

The Contractor shall fully inform himself of and meet the conditions contained in the Act and regulations.

The Contractor shall indemnify the City against all claims, demands, proceedings, costs and expenses incurred by the City in consequence of any default by the Contractor in observing the obligations imposed by this clause.

3.3 Protection Signs

The Contractor shall provide erect and maintain such road traffic signs barriers and lights in accordance with AS1742 for the proper protection of traffic and pedestrians.

At the completion of each day's work the crossover shall be barricaded off to prevent damage from vehicles and pedestrians.

The Contractor shall be responsible for any damage to the crossover by pedestrians, animals, vehicular traffic or weather etc for twenty-four (24) hours after concrete has been laid. Any damage shall be made good at the Contractors' expense.

3.4 Notification of Pending Works

It is the responsibility of the Contractor to notify the Superintendent at least forty-eight (48) hours prior to the commencement of the works to ensure that any special requirements as required by the Superintendent are incorporated in the works.

In addition, the Contractor is to notify the resident twenty-four (24) hours prior to commencing the works.

4. MATERIALS

4.1 Concrete

The concrete used shall be provided by a reputable pre-mixed concrete company, delivered at the site of the works in company concrete trucks. Each batch provided shall be supported with evidence of strength, slump, aggregate size, etc.

Concrete shall satisfy the following specifications:-

Strength	20 Mpa
Max graded Aggregate Size	14mm
Max Slump	80mm

4.2 **Sand**

Sand required for levelling sub grade should be clean filling sand free from vegetable matter or any other deleterious substance which in the opinion of the Superintendent is unsuitable material.

4.3 **Expansion Joint Filler**

Shall be 100mm x 12mm or 150 x 12mm (for commercial crossovers) Fibre Fill or approved by the Superintendent.

4.4 **Curing Agent**

Shall be “Calcure” “D” or similar.

5.0 CONSTRUCTION

5.1 **Levels**

The crossover levels will be as determined by the Superintendent but in no case shall the crossover junction at the property line be stepped unless specifically authorised by the Superintendent. (Refer Dwg. No 2055-SD sht 4.) Where the level at the property boundary is below the road channel level, the crossover levels are to be determined by the Superintendant (refer clause 3.12)

5.2 **Formation**

The crossover formation shall be boxed out and constructed in accordance with the details shown of Drawing 2055-SD sht 4. Boxing out for the formation shall be carried out taking due care to protect the surrounding verge, public utility services, vegetation and footpath is applicable.

The excavation for crossover bed shall be taken out to the levels, lines and grades as set by the Superintendent and all excavation shall be executed cleanly and efficiently to provide for a consolidated sound base free of depressions or soft spots or any deleterious materials to give a minimum 100mm depth of concrete pavement for residential crossovers or 150mm depth of pavement for commercial crossovers or as directed by the Superintendent.

5.3 **Disposal of Unwanted Material**

Any surplus material arising from the construction of the crossover shall be disposed of by the contractor to a municipal disposal site.

5.4 **Kerbing**

Pre-cast barrier kerbing which is affected by the crossover shall be cut and removed by the contractor. Concrete footpaths which are affected by the crossover shall be neatly cut by the Contractor using a concrete saw and disposed of by the Contractor to a municipal disposal site.

5.5 **Concrete**

All concrete used in the works shall develop a minimum compressive strength of 20 magapascals at 28 days and shall be composed of a mixture of screenings, sand and

cement to give the strength specified with a maximum slump of 80mm delivered by transit truck from an approved mixing plant.

5.6 **Barrier or Semi-Mountable Kerbing**

Where barrier or semi-mountable kerbing is in place at the crossover entrance, the length of kerbing equal to the appropriate entrance width of the crossover shall be removed in all cases.

5.7 **Mountable Kerbing**

Where mountable kerbing is in place at the crossover entrance, the length of kerbing equal to the appropriate entrance width of the crossover shall be removed only if:-

(i) the mountable kerbing is cracked in one or more places; or
(ii) the average depth between the road surface and the front edge of the mountable kerbing exceeds 25mm, where the final hotmix surface has been placed,

Where kerbing is to be removed, it shall be cut clean and removed carefully so as not to disturb the surface of the roadway.

Where any doubt exists regarding removal of kerbing, the Superintendent's advice shall be obtained.

5.8 **Placing Concrete**

The base shall be thoroughly and evenly moistened but not saturated prior to placing concrete.

All stones or other deleterious material shall be removed from the base before pouring concrete. Concrete shall be evenly placed to the depth specified and shovelled into position continuously and spaded, especially at all edges, to give maximum density. No break in operations shall be permitted from time of placing to finishing except as authorised by the Superintendent.

5.9 **Finishing**

The finish shall be obtained by screeding to correct levels to provide a non-slip dense surface free of any depressions, float marks, irregularities, honey comb sections or accumulation of fine dusty accretions liable to cause excessive surface wear. The final surface finish shall be to the entire satisfaction of the Superintendent who shall reserve the right to require the removal of or the correction of any surface deficiencies or finish. The surface shall be treated with a transverse brooming tool to provide a non-slip surface.

A STEEL TROWEL FINISH IS NOT PERMITTED ON ANY SURFACE OF A VEHICLE CROSSOVER.

5.10 **Restoration of Water Channel**

Where kerbing has been removed to permit the construction of a crossover, the water channel shall be restored by creating a lip 25mm in height between the road surface and the surface of the reconstructed kerbing (i.e. the front of the crossover).

Any damage caused to the edge of the road surface shall NOT be corrected with concrete. The Superintendent shall be advised of the damage on completion of the crossover.

5.11 **Jointing**

Contraction joints shall be made in the form of plain dummy joints and finished with an approved jointing tool and provided in positions shown on the relevant crossover plan.

Expansion joints shall be full depth joints 12mm wide and shall be as per Clause 2.3 and located at the property boundary and at junctions with existing kerbing. (Refer Drawing No. 2055-SD sht 4).

5.12 **Aesthetics**

If due to the alignment of road or boundary or any other reason the installation of a standard crossover shape is difficult or would result in a shape that detracts from the specification the Contractor must make immediate contact the Superintendent and must not proceed with the work until the crossover alignment has been approved by the Superintendent.

LIGHT VEHICLES ARE TO REFRAIN FROM TRAVERSING THE CONCRETE FOR AT LEAST 24 HOURS AND HEAVY VEHICLES FOR AT LEAST 3 DAYS.

5.13 **Internal Driveway**

When the internal driveway has not been installed the contractor must ensure that the location width and levels of the crossover are to the satisfaction of the Superintendant prior to any works being undertaken.

6. DETAILS

6.1 **Width**

The general minimum width of a crossover is to be 3.0m and the maximum width or any crossover and or adjoining crossover is to be 7.3 metres, except for service stations, which shall be 10.5 metres.

6.2 **Island Separators**

Island separators may be used for crossovers exceeding 7.3 metres at the discretion of the Superintendent.

6.3 **Location**

The location of crossovers shall be approved by the Superintendent. They shall be no closer to an intersection (Refer Drawing No. 2055-SD sht 1) than: -

(a) the point of intersection between a standard truncation and the street alignment; or

(b) 6.0 metres from the tangent point of the street kerb;

whichever is furthest from the corner.

6.4 **Clearance**

The minimum clearance of any existing tree or pole in the verge is to be 0.5 metres. Where an existing tree is within 1.5 metres of a crossover, advice shall be obtained from Parks Services on the future size of the tree and the advisability of it being retained.

6.5 **Alignment and Profile** (refer Dwg No. 2055-SD sht 4)

All crossovers shall be at right angles to the carriageway kerb lines.

Crossovers shall be no closer than 500mm to an adjoining property boundary unless approved by the Superintendent.

Turn out radii shall not be less than 1.0m and no portion of radius is to extend beyond the frontage limits of the property it serves. All crossovers shall have turning radii.

No crossover shall be constructed closer than 7.5m to the property alignment of another road intersecting with the carriageway that the driveway services, nor shall it infringe upon any part of a truncation corner cut-off.

6.6 Existing Footpath

The portion of the existing footpath (concrete) traversing the proposed crossover, subject to the existing footpath being in ~~a~~ good condition as determined by the superintendent, MUST BE RETAINED such that it forms a part of the proposed crossover, indicates a visual continuation of the footpath. The proposed crossover levels shall match the level/s of the existing footpath.

Where the existing footpath *(Concrete)* is located adjacent to the road carriageway the portion of existing kerbing and footpath is to be removed and reconstructed *(in concrete)* as directed by the superintendent. The City may carry out this work at the applicant's expense.

6.7 Main Roads

Where it is proposed that the crossover will connect the property boundary with a Main Road (Primary Distributor) i.e. Charles Street or East Parade, approval for the crossover shall in the first instance be obtained from Main Roads Western Australia (MRWA).

Where it is proposed that the crossover will connect a property with a District Distributor Road (as defined by the Metropolitan Area Functional Road Hierarchy) the City will issue approval for the crossover.

Note: Where the road is the subject of an MRS widening the approval of the Western Australian Planning Commission may also be required.

7. CONTRACTORS RESPONSIBILITY

7.1 General

All works associated with the construction of the crossover shall be carried out in accordance with the specification and drawings contained herewith and to the satisfaction of the Superintendent.

Reinstatement must be made to kerbing, concrete paving or bituminous road surfaces damaged during the cross over construction. Any concrete must be totally removed from the road surface.

The area must be cleared of debris, bitumen and concrete products, etc., on completion of works.

Crossovers shall be backfilled to the original verge levels, or to the satisfaction of the Superintendent.

Any special requirements placed on the construction or location of a crossover by the Superintendent or his authorised deputy must be adhered to.

7.2 Obstruction and Safety Precautions

The work shall be carried out with minimum disruption to pedestrians and vehicular traffic. Every precaution shall be taken to ensure that safety of persons and property.

All excavations, materials, plant and equipment must be made safe, barricaded and provided with warning lights, during the hours of darkness to the satisfaction of the Superintendent.

All work is to be carried out in accordance with the Occupational Safety and Health act 1984 and Regulations as amended.

7.3 Testing

Testing shall be carried out in accordance with the relevant Australian Standards.

7.4 Making Good

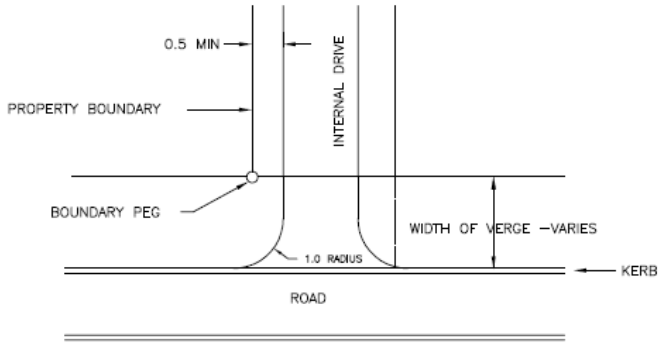
Any reinstatement necessary, caused as a result of the Contractor's work, shall be carried out by the Contractor, at the Contractor's cost.

7.5 Public Utilities

It is the responsibility of the Contractor to apply to the relevant public utility authorities for approval to alter any utility service that is in conflict with the proposed crossover. Any costs incurred in the alteration of any service and subsequent reinstatement of the verge to original shall be borne by the Contractor.

8.0 UNUSED/BLIND CROSSOVERS

Crossovers that are no longer required or no longer connect with an internal driveway are not permitted and shall be removed at the cost of the property owner.

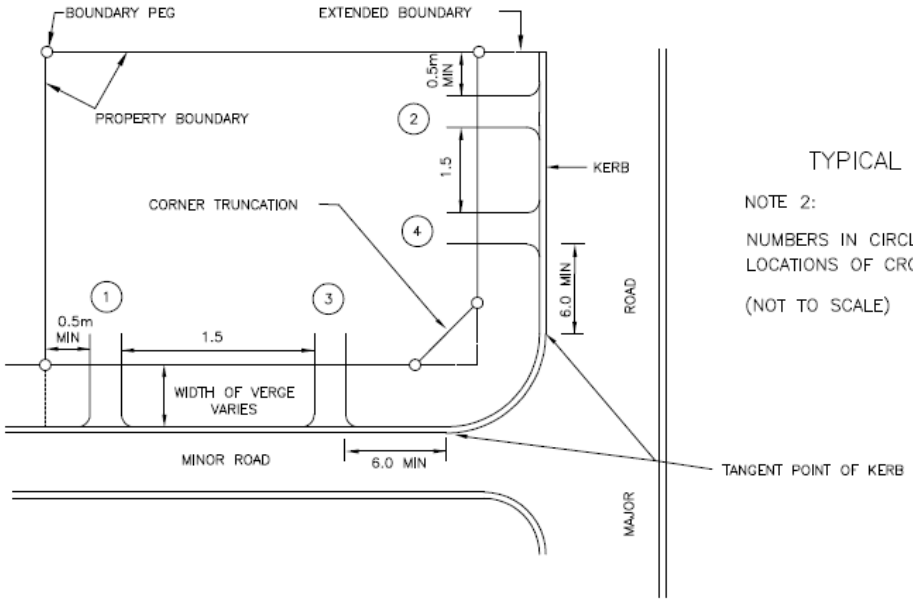


TYPICAL CASE 1

NOTE 1:

WIDTH OF CROSSOVER ALLOWED IS BETWEEN 3.0m – 7.3m FOR RESIDENTIAL

(NOT TO SCALE)

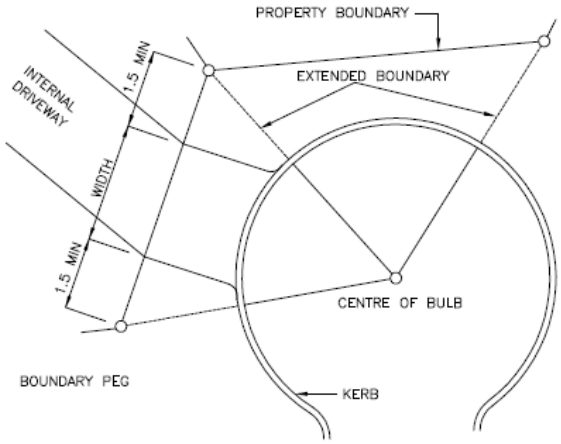


TYPICAL CASE 2

NOTE 2:

NUMBERS IN CIRCLE SHOW PREFERED LOCATIONS OF CROSSOVER.

(NOT TO SCALE)



TYPICAL CASE 3

NOTE 3:

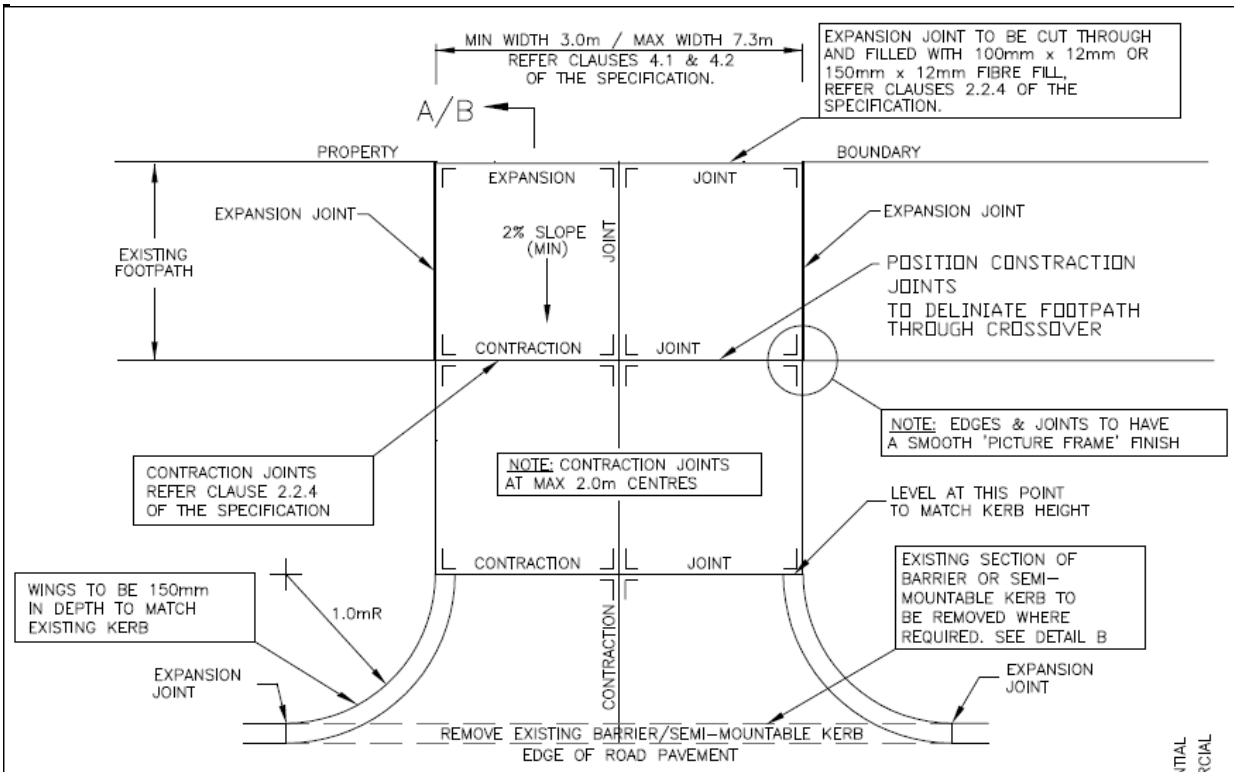
CROSSOVERS TO BE LOCATED WITHIN THE AREA CREATED BY JOINING THE BOUNDARY PEGS TO THE CENTRE OF THE CUL–DE–SAC BULB.
ANY DIFFICULTIES IN LOCATING THE CROSSOVER OR OTHER QUERIES, PLEASE CONTACT THE SUPERINTENDENT.

(NOT TO SCALE)

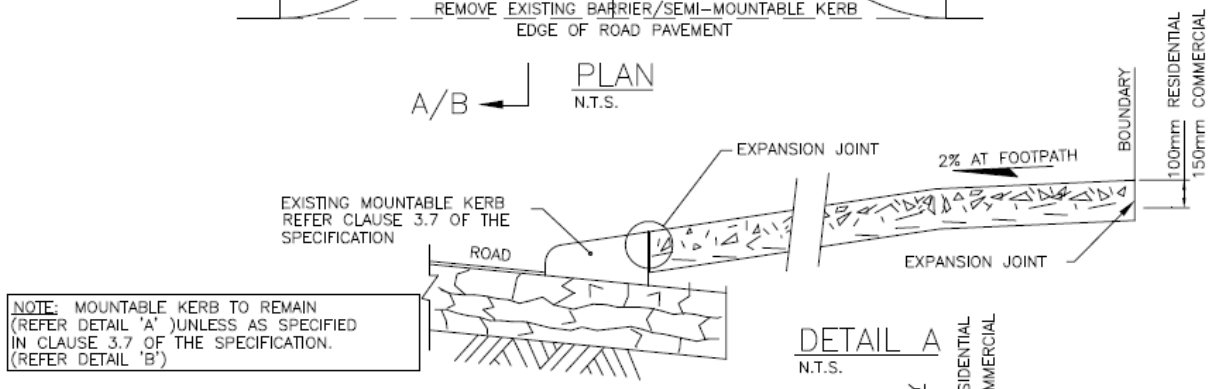
CITY OF VINCENT
244 VINCENT STREET LEEDERVILLE, 6007
TECHNICAL SERVICES

STANDARD CROSSOVER LOCATIONS

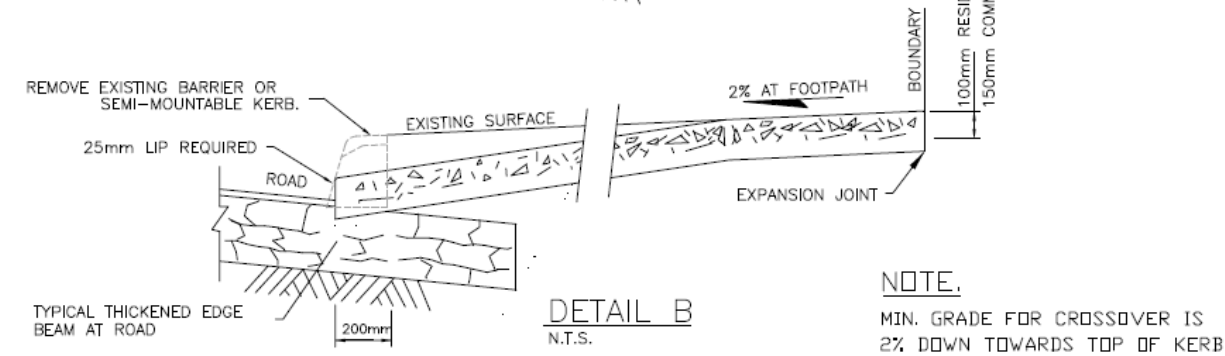
SCALE: N.T.S.	DRAWN: KW	DRAWING NO: 2055–SD	
DATE: 10 '2003	CHECKED: CW	SHEET 1 OF 4.	A4



A/B PLAN
N.T.S.



DETAIL A
N.T.S.



DETAIL B
N.T.S.

NOTE.

MIN. GRADE FOR CROSSOVER IS 2% DOWN TOWARDS TOP OF KERB OR AS DIRECTED BY THE TOWN'S TECHNICAL SERVICES.

CITY OF VINCENT
244 VINCENT STREET LEEDERVILLE, 6007
TECHNICAL SERVICES

CONCRETE CROSSOVER
STANDARD DRAWING

SCALE: N.T.S.	DRAWN: KW	DRAWING NO: 2055-SD
DATE: 12 '2005	CHECKED: CW	SHEET 4 OF 4. A4