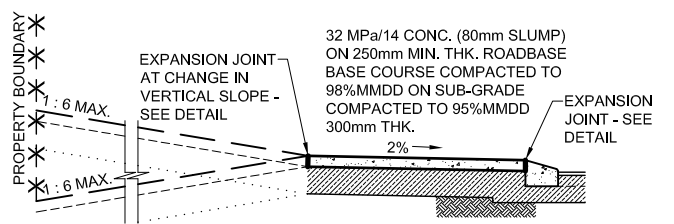
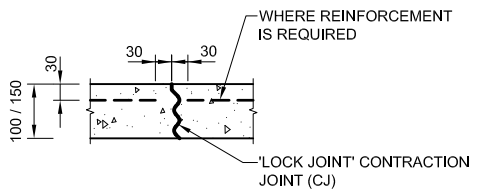


CONCRETE CROSSOVER - LAYOUT N.T.S.

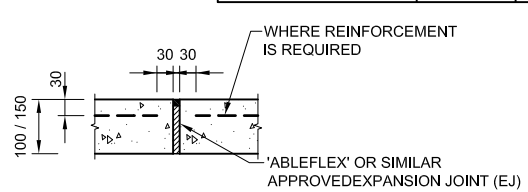


SECTION A N.T.S.

KERB TRANSITION LENGTHS		
	PROFILE	LENGTH (mm)
MOUNTABLE		500
SEMI-MOUNTABLE		600
BARRIER		750



CONTRACTION JOINT (CJ) DETAIL N.T.S.



EXPANSION JOINT (EJ) DETAIL N.T.S.

NOTES: - Concrete Crossovers - Special Specifications and Conditions

- ALL MATERIAL USED AND WORK CARRIED OUT SHALL BE IN ACCORDANCE WITH AUSTRALIAN STANDARDS LISTED BELOW, INCLUDING RELEVANT AUSTRALIAN STANDARDS REFERENCED IN THESE DOCUMENTS:
 - AS 1379-2007 (R2017) 'SPECIFICATION AND SUPPLY OF CONCRETE'
 - AS 3972-2010 'GENERAL PURPOSE AND BLENDED CEMENTS'
 - AS 2758.1-2014 'AGGREGATES AND ROCK FOR ENGINEERING PURPOSES CONCRETE AGGREGATES'
 - AS 3600-2018 'CONCRETE STRUCTURES'
 - AS 3727.1-2016 'PAVEMENTS RESIDENTIAL'
 - AS/NZS 4671-2001 'STEEL REINFORCING MATERIALS'
 - AS/NZS 2425-2015 'BAR CHAIRS IN REINFORCED CONCRETE - PRODUCT REQUIREMENTS AND TEST METHODS'
 - AS 1478 (R2018) 'CHEMICAL ADMIXTURES FOR CONCRETE, MORTAR AND GROUT ADMIXTURES FOR CONCRETE'
 - AS 1012-2014 'METHODS OF TESTING CONCRETE'(ALL VOLUMES INCLUSIVE)
 - AS 4586-2013 'SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS'
 - AS 3799-1998 'LIQUID MEMBRANE-FORMING CURING COMPOUNDS FOR CONCRETE'

Concrete Specifications

- ALL CONCRETE USED SHALL CONFORM TO AUSTRALIAN STANDARD AS 1379 'SPECIFICATION AND SUPPLY OF CONCRETE' INCLUDING LATEST AMENDMENTS AND SUPPLEMENTS AND SHALL BE MIXED FROM USING GENERAL PURPOSE PORTLAND (GP) CEMENT ONLY, CONFORMING TO AS 3972-2010 'GENERAL PURPOSE AND BLENDED CEMENTS'. NO BLENDED CEMENTS OR SUPPLEMENTARY CEMENTITIOUS MATERIALS (SCM), FOR EXAMPLE 'FLYASH', 'SLAG' AND/OR 'SILICA FUME' SHALL BE USED UNLESS OTHERWISE APPROVED BY THE PRINCIPAL IN WRITING. THE CONCRETE MIX RATIO SHALL BE 1 CEMENT : 2 FINE AGGREGATE (SAND) : 3 COARSE AGGREGATE (STONE) UNLESS OTHERWISE APPROVED BY THE CITY IN WRITING.
- COARSE AGGREGATES FOR CONCRETE SHALL BE CRUSHED IGNEOUS ROCK OR COARSE OR SCREENED RIVER GRAVEL CONFORMING TO THE REQUIREMENTS OF AS 2758.1. AGGREGATE SIZE SHALL BE 14mm MAXIMUM FOR A CONCRETE THICKNESS OF UP TO 100mm AND 19mm MAXIMUM FOR CONCRETE THICKNESS EXCEEDING 100mm, OR, AS OTHERWISE INSTRUCTED BY THE CITY'S NOMINATED OFFICER. ALL AGGREGATES USED SHALL COMPLY WITH THE REQUIREMENTS OF THE 'ALKALI-REACTIVE MATERIALS AS PER AS 2758 .1.
- ALL FINE AGGREGATES SHALL BE WASHED SAND CONFORMING TO AS 2758.1.
- ALL FOREIGN MATERIAL SHALL BE REMOVED FROM THE BASE BEFORE POURING CONCRETE.
- CONCRETE SHALL BE EVENLY PLACED AND SHOVELLED INTO POSITION CONTINUOUSLY TO GIVE MAXIMUM DENSITY.
- THE CONCRETE WHEN PLACED SHALL BE COMPACTED SUFFICIENT TO REMOVE ALL VOIDS AND TO WORK FINES TO THE SURFACE FOR FINISHING.
- THE CONCRETE PLACEMENT OPERATION SHALL BE CONTINUOUS. ANY BREAK IN THE OPERATION WILL NOT BE PERMITTED UNTIL TOTAL PLACEMENT OF CONCRETE HAS BEEN UNDERTAKEN, UNLESS APPROVED BY THE PRINCIPAL.
- SURFACE IRREGULARITIES, INCLUDING ADJOINING TO SERVICE AUTHORITY MANHOLES, ETC., WILL NOT EXCEED 3mm.
- FINISHING SHALL BE OBTAINED BY SCREENING TO THE CORRECT LEVELS AND FLOATING TO PROVIDE A DENSE SURFACE FREE FROM DEPRESSIONS, FLOAT MARKS AND IRREGULARITIES. THE FINAL SURFACE SHALL BE TRANSVERSE BROOMED TO PROVIDE A NON-SLIP SURFACE. A PATTERN OR EXPOSED AGGREGATE FINISH MAY BE APPROVED IN SOME AREAS.UNLESS OTHERWISE APPROVED BY THE CITY'S NOMINATED OFFICER, EDGES OF CONCRETED AREAS SHALL BE POLISHED SMOOTH AND ROUNDED USING AN EDGER OF RADIUS 10mm. THE EDGES SHALL BE FREE FROM IRREGULARITIES OF ALIGNMENT AND /OR LEVEL.
- WHERE THE VERGE GRADE EXCEEDS ONE IN 1:10 (FROM PROPERTY BOUNDARY TO ROAD EDGE) THE CONCRETE CROSSOVER IS TO BE KEED-IN TO THE EXISTING SURFACE.
- IS COLOURING, COLOUR OXIDE SHALL BE APPLIED TO CONCRETE SURFACE WITHOUT DRY CEMENT ADDED TO THE MIX. THE COLOUR SHALL BE FLOATED TO ACHIEVE MAXIMUM COLOUR STRENGTH OR COLOUR TO BE ADDED AT BATCHING PLANT. COLOUR IS TO BE ADDED AND MIXED ENTIRELY THROUGH THE CONCRETE AT THE BATCHING PLANT.

Joints

- CONTRACTION (CONSTRUCTION) JOINTS (CJ): - UNLESS OTHERWISE APPROVED BY THE CITY'S NOMINATED OFFICER, CONTRACTION JOINTS SHALL BE THE 'LOCK JOINT' TYPE OR SIMILAR APPROVED AND INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
- EXPANSION (ISOLATION) JOINTS (EJ): - UNLESS OTHERWISE APPROVED BY THE CITY'S NOMINATED OFFICER, EXPANSION JOINT MATERIAL SHALL BE OF COMPRESSIBLE FOAM OR POLYURETHANE MATERIAL, FOR EXAMPLE, 'ABLEFLEX' EXPANSION JOINT PRODUCT, OR SIMILAR APPROVED, WITH BUTYL MASTIC JOINT SEALANT. ALL PRODUCTS SHALL BE INSTALLED AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. COLOUR SHALL BE GREY, UNLESS OTHERWISE DIRECTED BY THE PRINCIPAL.

Reinforcement

- MESH REINFORCEMENT: - MESH REINFORCEMENT SHALL BE PROVIDED IN ALL CONCRETE CROSSOVERS AND PATHS AT COMMERCIAL I INDUSTRIAL CROSSINGS, UNLESS OTHERWISE SPECIFIED BY THE CITY'S NOMINATED OFFICER IN WRITING. MESH REINFORCEMENT SHALL BE SL62 MINIMUM, PLACED IN THE TOP OF THE SECTION, ON BAR CHAIRS SPACED AT 750mm EACH WAY SO AS TO ENSURE A 30mm CONCRETE COVER TO THE UPPER STRAND OF BARS.
- FIBRE REINFORCEMENT: - THE CITY ENCOURAGES THE ADDITION OF FIBRE REINFORCEMENT FOR THE CONSTRUCTION OF CONCRETE CROSSOVERS. PRODUCTS USED SHALL BE OF THE STRUCTURAL SYNTHETIC FIBRE TYPE AS APPROVED BY THE CITY'S NOMINATED OFFICER. DOSAGE SHALL BE IN ACCORDANCE TO THE MANUFACTURER'S SPECIFICATIONS. FIBRE REINFORCEMENT WILL NOT BE REGARDED AS A REPLACEMENT FOR CONVENTIONAL MESH REINFORCEMENT.

No	Date	Revision	By	Approved

Scale: N.T.S.

Date: 08/11/20

Surveyed: 08/11/20

CITY OF Armadale
7 ORCHARD AVENUE, ARMADALE, WA 6112

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Author: EV
Date: 11/20

Designer: EV
Date: 11/20

Checker: TN
Date: 11/20

Executive Manager Technical Services Approval

CROSSOVER DETAILS

CROSSOVER DETAILS - CONCRETE

PC No: 01
CND No: 01
Sheet No: 01
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DWG No: 09-08-C