

# **APPENDIX K**

# STANDARD DRAWINGS



# Appendix K Standard Drawings

The title on all Standard Drawings was amended to remove reference to the year of the DCP revision. All amendment history is noted in the amendment boxes on the Standard Drawings.

Standard Drawing Number	Number of Sheets	Title	Any changes from 2007
			Version
		Notes	
SD-NT01	1	Notes – General	NO
SD-NT02	1	Notes – Concrete	NO
SD-NT03	1	Notes – Earthworks	NO
SD-NT04	1	Notes – Steelwork and Steel Reinforcement	NO
SD-NT05	1	Notes – Special Conditions	NO
SD-NT06	4	Notes – Product Specifications	NO
SD-NT07	1	Notes – Sediment and Erosion Control	NO
		Roads	
SD-R01	1	Vertical Curves	NO
SD-R02	1	Cul-de-sac Standard	NO
SD-R03	1	Kerb Return Layout and Design Details	NO
SD-R04	1	Kerbs and Gutters	NO
SD-R05	1	Sub-soil Drainage	NO
SD-R06	1	Kerb Weephole and Kerb Adaptor	NO
SD-R07	4	Kerb Ramps	NO
SD-R08	2	Residential Vehicle Crossing	YES
SD-R09	2	Medium Density Vehicle Crossing	YES
SD-R10	2	Commercial and Industrial Vehicle Crossing	YES
SD-R11	1	Footpath	YES
SD-R12	1	Bicycle Path	NO
SD-R13	1	Low Mountable Island	NO
SD-R14	1	T-intersection Treatment	NO
SD-R15	1	Roundabouts	YES
SD-R16	1	Parking Modification to Provide Disabled	NO
		Persons Parking	
SD-R17	1	Zig zag Pavement Markers	NO
SD-R18	1	Street Sign	NO
SD-R19	1	Supplementary Road Name Signposting for Roundabouts	NO
SD-R20	1	Log Vehicle Barrier	YES
SD-R21	1	Cycle path Holding Rail	NO
SD-R22	1	Laneway Baulk	NO



Standard Drawing Number	Number of Sheets	Title	Any changes from 2007 Version
SD-R23	1	Pathway Baulks	NO
SD-R24	1	Wire Rope Barrier	NO
		Stormwater	
SD-S01	1	Trash Rack Warning Sign	NO
SD-S02	1	Pipe Flood Warning Sign	NO
SD-S03	1	Floodway Warning Sign	NO
SD-S04	1	Geo-composite Drain	NO
SD-S05	1	Connection to Main Drain	NO
SD-S06	1	Grated Gully Pit with Extended Kerb Inlet Pit	NO
SD-S07	1	Kerb Median Inlet Pit	NO
SD-S08	1	Surcharge Pit	NO
SD-S09	1	Step Irons	NO
SD-S10	1	Minor Drainage Connections	NO
SD-S11	1	Surface Inlet and Letterbox Pit	NO
SD-S12	2	Heavy Duty Junction Pit	NO
SD-S13	2	Outlet Details Grass Lined Channel/Creel	NO
SD-S14	1	Reinforced Turf Detail	NO
SD-S15	1	Pyramid Grate	NEW
SD-S16	1	No climbing warning sign	NEW
SD-S17	1	No planting warning sign	NEW
		Miscellaneous	
SD-M01	1	Erosion and Sediment Control Plan	NO
SD-M02	1	Stockpiles	NO
SD-M03	1	Earth Bank (low flow)	NO
SD-M04	1	Straw Bale Filter	NO
SD-M05	1	Sediment Fence	NO
SD-M06	1	Mesh and Gravel Inlet Filter	NO
SD-M07	1	Geotextile Inlet Filter	NO
SD-M08	1	Kerbside Turf Strip	NO
SD-M09	1	Stabilised Site Access	NO

#### GENERAL

- DOCUMENTS: THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER WORKING DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REFERRED TO THE SUPERINTENDENT FOR DECISION BEFORE PROCEEDING WITH THE WORK.
- G2 DIMENSIONS AND SETTING OUT: REDUCED LEVELS AND CHAINAGES ARE IN METRES ALL OTHER DIMENSIONS ARE IN MILLIMETRES. SET OUT DIMENSIONS ON THE DRAWING SHALL BE VERIFIED BY THE CONTRACTOR ON SITE.
- G3 DIMENSIONS SHALL NOT BE OBTAINED BY SCALING THE DRAWINGS
- G4 DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED.
- G5 ALL EXCAVATION, SHORING OF EXCAVATION AND STABILITY OF ADJACENT STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- G6 WORKMANSHIP AND MATERIALS: THESE SHALL CONFORM WITH THE REQUIREMENTS OF THE RELEVANT S.A.A. CODES AND THE SPECIFICATIONS, BY-LAWS AND ORDINANCES OF CAMPBELLTOWN CITY COUNCIL.
- G7 SERVICES: CONTRACTOR TO CONTACT "DIAL BEFORE YOU DIG" ON TEL: 1100 FOR PLAN INFORMATION ON UNDERGROUND PIPES & CABLES, AT LEAST TWO DAYS PRIOR TO THE COMMENCEMENT OF WORK. USING THE PLANS & ON-SITE LOCATION MARKINGS AS AN INDICATION OF PLANT PRESENCE, HAND DIG TO EXPOSE ALL PLANT WITHIN THE SAFE APPROACH DISTANCES. CONTRACTORS TO BE HELD RESPONSIBLE SHOULD THEY DAMAGE UTILITY PROPERTY.
- G8 SERVICE ADJUSTMENTS: ALL SERVICES AFFECTED BY NEW WORK TO BE ADJUSTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE RELEVANT SERVICE AUTHORITY
- G9 STANDARD DRAWINGS: COUNCILS STANDARD DRAWINGS ARE PREFACED BY THE LETTERS 'SD' WHEN THE DRAWING NUMBER IS QUOTED.

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REV.	MAY 2007 DATE.	REVIEWED - NO CHANGES DESCRIPTION	CK	DW APP'D.	PROJECT TITLE: STANDARD DRAWINGS		D. W	ebb
SHEE	SHEET TITLE: NOTES - GENERAL			SD-NTD01	N.T.S	1 of 1	VER2007 DATE: MAY07	

## CONCRETE

- C1 WORKMANSHIP AND MATERIALS: TO CONFORM WITH THE REQUIREMENTS OF A.S. 3600. FORMWORK TO BE IN ACCORDANCE WITH A.S. 3610.
- C2 ALL FORMS SHALL BE DESIGNED SUCH THAT EXPOSED CONCRETE EDGES SHALL HAVE A MINIMUM OF 15mm CHAMFER AND ALL EXPOSED RE-ENTRANT CORNERS SHALL HAVE A MINIMUM OF 15mm FILLET UNLESS NOTED OTHERWISE.
- C3 CONCRETE STRENGTH TO BE GRADE N32, A.S. 3600 (32 MPa) THROUGHOUT UNLESS NOTED OTHERWISE.
- C4 CONCRETE BLINDING LAYER STRENGTH TO BE GRADE 15, A.S. 3600 (15 MPA) THROUGHOUT UNLESS NOTED OTHERWISE.
- C5 INSPECTION: CONCRETE SHALL NOT BE PLACED UNTIL THE COMPLETED FALSEWORK, FORMWORK AND REINFORCEMENT FIXING HAVE BEEN INSPECTED AND APPROVED BY THE SUPERINTENDENT.
- C6 PLACING: ALL CONCRETE SHALL BE MECHANICALLY VIBRATED. VIBRATORS SHALL NOT BE USED TO SPREAD CONCRETE.
- C7 EXPANSION JOINTS: JOINTS SHALL HAVE DOWEL BARS PLACED CENTRALLY WITH BOND BREAKING COMPOUND ION ONE END. THE JOINT WILL BE FILLED WITH S SUITABLE SILICON OR POLYURETHANE SEALANT. DESIGN OF EXPANSION JOINTS WILL BE UNDERTAKEN BY A STRUCTURAL ENGINEER.
- C8 CRACK CONTROL JOINTS: JOINTS SHALL BE TOOL FINISHED AT 4m INTERVALS (30mm DEEP) BETWEEN EXPANSION JOINTS AND CREATED IMMEDIATELY AFTER CONCRETE PLACEMENT.
- C9 STRUCTURAL JOINT BONDING: EXISTING CONCRETE IS TO BE THOROUGHLY SCABBLED AND CLEANED AT ALL INTERFACES WITH NEW WORK TO OBTAIN A SOUND SURFACE. SURFACE IS TO BE PREPARED WITH AN APPROVED WET TO DRY EXPOXY BINDER (TO PS6) PRIOR TO PLACING NEW CONCRETE.
- C10 CEMENT MORTAR SHALL BE MIXED IN THE RATIO OF 4 PART SAND : 1 PART CEMENT AND WITH STRENGTH NOT LESS THAN 12 MPa.

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A REV.	MAY 2007 DATE.	NOTES C7, C8 & C9 AMENDED, NOTE C10 DELETED, NOTE C11 RENUMBERED.  DESCRIPTION	CK	DW APP'D.	STANDARD DRAWINGS		D. Webb	
SHEE	SHEET TITLE:  NOTES - CONCRETE			SD-NTD02	N.T.S	1 of 1	VER2007 DATE: MAY07	

#### EARTHWORKS

- EXCAVATION SHALL BE CARRIED OUT TO THE DEPTHS & DIMENSIONS SHOWN OR IMPLIED ON THE PLANS AND/OR THE DOCUMENTS, OR TO SUCH GREATER DEPTHS & DIMENSIONS, AS WILL ENSURE SOUND, PERMANENT FOUNDATIONS. ALL EXCAVATIONS SHALL BE APPROVED BY THE SUPERINTENDENT BEFORE ANY MATERIALS OR STRUCTURES ARE PLACED.
- E2 REMOVAL OF TOPSOIL: TOPSOIL SHALL BE STRIPPED FROM WITHIN THE AREA OF WORKS INCLUSIVE OF BATTERS & SHALL BE DISPOSED OR STOCKPILES AS DIRECTED BY THE SUPERINTENDENT. THE THICKNESS OF THE TOPSOIL STRIPPING SHALL NOT BE LESS THAN 100mm.
- REMOVAL OF UNSUITABLE MATERIALS: ALL EXPOSED DELETERIOUS MATERIALS WHICH, IN THE OPINION OF THE SUPERINTENDENT, ARE UNSUITABLE FOR THE PLACING OF FILLING SHALL BE REMOVED & DISPOSED OF. IF UNSOUND OR UNSUITABLE MATERIAL IS ENCOUNTERED AT THE SPECIFIED EXCAVATION LEVEL, ADDITIONAL EXCAVATION & REPLACEMENT WITH COMPACTED APPROVED MATERIAL MAY BE ORDERED.
- WHERE FILLING IS REQUIRED, MATERIAL IS TO BE SELECTED IN DISCUSSION WITH AND TO THE SATISFACTION OF THE SUPERINTENDENT. ALL IMPORTED FILL MATERIAL SHALL BE VIRGIN EXCAVATED NATURAL MATERIAL (VENM) FREE FROM CHEMICAL OR OTHER CONTAMINATION. A CONTAMINATION REPORT ON THE PROPOSED IMPORTED FILL MATERIAL, FROM A NATA REGISTERED LABORATORY, MAY BE REQUIRED BY COUNCIL PRIOR TO PLACEMENT OF FILL.
- E5 COMPACTION AROUND STRUCTURES, UNDER APRONS ETC: UNDISTURBED SUBGRADE OR APPROVED MATERIAL TO BE COMPACTED TO 98% OF THE STANDARD MAXIMUM DRY DENSITY & IS TO BE WITHIN -1 TO +2% OF THE OPTIMUM MOISTURE CONTENT AS DETERMINED BY THE STANDARD COMPACTION TEST (A.S 1289.5.1.1)
- E6 PROVIDE PENNISETUM CLANDESTINUM (KIKUYU) TURF ON 200 THICK TOPSOIL, UNLESS NOTED OTHERWISE
- E7 PROVIDE CYNODON DACTYLON (COMMON COUCH) TURF ON 200 THICK TOPSOIL , UNLESS NOTED OTHERWISE
- REINFORCED TURF: PROVIDE TURF CYNODON DACTYLON (COMMON COUCH) ON 25 THICK TOP SOIL LAID ON GEOTEXTILE (REFER TO NOTE PS2 ii), WHICH IN TURN IS LAID ON 175 THICK YOPSOIL. GEOTEXTILE TO BE STRETCHED HORIZONTALLY, ANCHORED WITH STEEL PEGS (500 LONG) AT 500 CENTRES. ALL FREE EDGES TO BE ANCHORED IN A 300 WIDE x 300 DEEP TRENCH. TRENCH TO BE BACKFILLED & COMPACTED TO THE SATISFACTION OF THE SUPERINTENDENT.
- E9 HYDROMULCH OR HYDROSEED ALL OTHER DISTURBED AREAS NOT COVERED BY NOTES E6, E7 & E8. SPECIFICATIONS FOR HYDROMULCH OR HYDROSEEDING TO BE DETERMINED BY THE SUPERINTENDENT.
- E10 EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CARRIED OUT IN ACCORDANCE WITH LANDCOM'S "MANAGING URBAN STORMWATER: SOILS & CONSTRUCTION" VOLUME 1.

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А	MAY 2007	NOTES E2, E4, E5, E8 & E10 AMENDED.	СК	DW	STANDARD DRAWINGS		APPROVED:	D. Webb			
REV.	DATE.	DESCRIPTION	CHECKED	APP'D.			D. WEDD				
SHEE	SHEET TITLE: NOTES - EARTHWORKS			SD-NTD03	N.T.S	1 of 1	VER2007				

#### STEELWORK

- S1 ALL STEELWORK NOMINATED SHALL BE HOT DIP GALVANISED AFTER FABRICATION, IN ACCORDANCE WITH A.S. 1650.
- S2 ALL WELDING SHALL COMPLY WITH A.S. 1554.
- S3 WORKMANSHIP AND MATERIALS SHALL COMPLY WITH A.S. 4100.
- S4 CARE TO BE TAKEN WITH WELDING AND GALVANISING TECHNIQUES. ALL OUT OF TRUE MEMBERS SHALL BE RECTIFIED. ALL WELDS TO BE NEATLY FINISHED & GROUND SMOOTH. ALL EXCESS GALVANISING TO BE REMOVED.

#### STEEL REINFORCEMENT

- R1 REINFORCEMENT SHALL COMPLY WITH A.S. 3000, A.S. 1302, A.S. 1303 AND A.S. 1304.
- R2 GRADE AND DIAMETER DESIGNATION:

REINF. TYPE	GRADE	SAA CODE	SYMBOL
DEFORMED BAR	D500	AS1302	N
PLAIN ROUND BAR	R250	AS1302	R
RECTANGULAR MESH		AS1304	RL
SQUARE MESH		AS1304	SL
TRENCH MESH		AS1304	L TM

R3 DESIGNATION CODE:

- PLACING: REINFORCEMENT SHALL BE FIRMLY SECURED IN POSITION IN THE FORMS & THE COVER AS DETAILED ON THE DRAWINGS MAINTAINED. BAR CHAIRS SHALL BE SOLID PLASTIC OR PLASTIC TIPPED STEEL CHAIRS AND SHALL BE PLACED AT NOT GREATER THAN 1000mm CENTRES EACH WAY.
- R5 COVER: CONCRETE COVER SHALL BE 50mm UNLESS NOTED OTHERWISE.
- R6 LAP LENGTH: WHERE LAPPING OF REINFORCEMENT OCCURS THE MINIMUM LAP LENGTH SHALL BE AS FOLLOWS:

N12 - 400mm LAP

N16 - 600mm LAP

N20 - 850mm LAP

N24 - 1000mm LAP

FABRIC - 2 TRANSVERSE BARS + 25mm

R7 STRUCTURE REINFORCEMENT: UNLESS SHOWN OTHERWISE, TO CONSIST OF SL81 MESH CENTRALLY PLACED, WITH N12 CORNER BARS (500 LEGS) AT 200 CTRS TO ALL CORNERS, PROVIDE N12 TRIMMER BARS TO ALL FREE EDGES OF MESH.

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	MAY 2007	REVIEWED - NO CHANGES	СК	DW	PROJECT TITLE:		APPROVED:	D. Webb				
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	NOTES - STEELWORK & STEEL REINFORCEMENT				SD-NTD04	N.T.S	1 of 1	VER2007 DATE: MAY07				

#### SPECIAL CONDITIONS

- SC1 DUST CONTROL: TO LIMIT DUST AFFECTATION TO ADJOINING PROPERTIES, DUST SUPPRESSANTS ARE TO BE USED AS NECESSARY. IF THE PREVAILING WEATHER CONDITIONS ARE SUCH THAT, IN THE OPINION OF THE SUPERINTENDENT, A DUST RISK TO THE ADJACENT PROPERTIES EXISTS, THEN THE CONTRACTOR, AT THE DIRECTION OF THE SUPERINTENDENT SHALL BE REQUIRED TO CEASE THOSE OPERATIONS CAUSING THE DUST NUISANCE.
- SC2 VIBRATION NEAR PROPERTIES: NO VIBRATING ROLLERS TO BE USED IN THE VICINITY OF PROPERTIES. HOUSES IN CLOSE PROXIMITY TO BE INSPECTED PRIOR TO THE COMMENCEMENT OF WORK.
- SC3 EXISTING ENVIRONMENT: NO DISTURBANCE TO OCCUR TO THOSE PARTS OF THE SITE NOT DIRECTLY AFFECTED BY THE WORKS. NO EXCAVATION FILLING, DUMPING, BURNING OF TREE STUMPS, OR ANY OTHER ACTIVITY IS PERMITTED IN THESE AREAS. THE STATUS OF THE ENVIRONMENT & ECOLOGY MUST BE STRICTLY PRESERVED. DISTURBED AREAS MUST BE REINSTATED.
- SC4 SAFETY OF THE GENERAL PUBLIC SHALL BE PROVIDED DURING THE CONSTRUCTION WORK. SAFETY FENCE BARRIERS SHALL BE PROVIDED TO PREVENT UNAUTHORISED PERSONNEL ENTERING THE WORK SITE.
- SC5 TRAFFIC CONTROL: ALL MEASURES TO CONTROL OR DIVERT VEHICULAR AND PEDESTRIAN TRAFFIC IS TO BE COVERED BY A TRAFFIC CONTROL PLAN PREPARED BY AN AUTHORISED PERSON.

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А	NOV 04	NOTE SC1 AMENDED	СК	DW	PROJECT TITLE:		APPROVED:	D. Webb			
REV.	DATE.	DESCRIPTION	CHECKED	APP'D.	STANDARD DRAWIN	STANDARD DRAWINGS					
SHEE	NOTES - SPECIAL CONDITIONS			SD-NTD05	N.T.S	1 of 1	VER2007  DATE: MAY07				

#### PRODUCT SPECIFICATIONS

- PS1 PROPRIETARY PRODUCTS USED SHALL BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND TO THE SATISFACTION OF THE SUPERINTENDENT.
- PS2 (i) THE GEOTEXTILE TO BE USED AROUND GRANULAR BACKFILL IS TO COMPLY WITH THE RTA QA SPECIFICATION R63 GEOTEXTILES (SEPARATION AND FILTRATION) FOR GEOTEXTILE APPLICATION G4.
  - (ii) THE GEOTEXTILE TO BE USED UNDER TURF IS TO COMPLY WITH THE RTA QA SPECIFICATION R63 GEOTEXTILES (SEPARATION AND FILTRATION) FOR GEOTEXTILE APPLICATION G3.
- PS3 THE GEOCOMPOSITE DRAIN SHALL CONSIST OF A PLASTIC CORE WRAPPED WITH GEOTEXTILE ON ONE SIDE ONLY.

THE PLASTIC CORE SHALL COMPLY WITH THE FOLLOWING MINIMUM CRITERIA:

- CRUSH STRENGTH 100kPa - CORE THICKNESS 12mm

- IN-PLANE FLOW RATE/m-WIDTH (NOMINAL) 75 litres/min/m

@ SLOPE@ PRESSURE1%100kPa

THE GEOTEXTILE WRAP SHALL COMPLY WITH THE FOLLOWING MINIMUM CRITERIA:

- NON WOVEN GEOTEXTILE.

- FLOW RATE UNDER 100mm HEAD 80 litres/m /sec<sup>2</sup>

THE GEOCOMPOSITE DRAIN IS TO BE CONNECTED TO WEEP HOLES WITH A SUITABLE FITTING AS PER MANUFACTURER'S RECOMMENDATIONS.

PS4 GRANULAR BACKFILL; THE FILTER MATERIAL SHALL BE 20mm NOMINAL SIZE AGGREGATE.

					campbelltown city council		C. Kinsey DATE: OCT 04	
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SHEE	NOTES - PRODUCT SPECIFICATIONS		•	SD-NTD06	N.T.S	1 of 4	VER2007 DATE: MAY07	

# PS5 THE ROCK BASKETS & ROCK MATTRESSES TO BE USED ARE TO COMPLY WITH THE FOLLOWING:

- TYPE: PVC COATED HEAVY GALVANISED.
- MESH WIRE SIZE:

BASKETS 2.7mm (CORE WIRE DIA.); 3.8mm (OVERALL DIA.)
MATTRESSES 2.0mm (CORE WIRE DIA.); 3.1mm (OVERALL DIA.)

- MESH SIZE:

BASKETS 80mm x 100mm MATTRESSES 60mm x 80mm

- SELVAGE WIRE SIZE:

BASKETS 3.4mm (CORE WIRE DIA.); 4.6mm (OVERALL DIA.)

MATTRESSES 2.7mm (CORE WIRE DIA.); 3.8mm (OVERALL DIA.)

CHARACTERISTICS OF FILLING MATERIALS:

SUITABLE TYPES OF FILLING MATERIAL:

- BASALT
- GRANITE
- CRUSHED CONCRETE

SIZE RANGE OF FILLING MATERIAL:

- ROCK BASKETS

100 - 200mm

- ROCK MATTRESSES 80 - 160mm INTERNAL DIAPHRAGMS: TO BE FIXED AT 1000mm INTERVALS.

PS6 THE BONDING AGENT BETWEEN NEW & OLD CONCRETE IS TO COMPLY WITH THE FOLLOWING:

- FORM SLIGHTLY THIXOTROPIC LIQUID.

- SECANT FLEXURAL ELASTICITY MIN 2.5GPa @ 20°C - COMPRESSIVE STRENGTH @ 7 DAYS MIN 60 MPa @ 20°C @ 24 HOURS MIN 14MPa @ 20°C

- FLEXURAL STRENGTH @ 7 DAYS MIN 28 MPa @ 20°C
- TENSILE STRENGTH @ 7 DAYS MIN 13 MPa @ 20°C
- ADHESION TO CONCRETE >3 MPa APPROX

- APPLICATION TEMPERATURE ( min - max ) 5°C - 30°C

- APPLICATION TEMPERATURE (IIIIII - IIIax ) 5 C - 30 C

PS7 THE EXTERNAL JOINT SEAL IS TO PREVENT BACKFILL INFILTRATION & IS TO COMPLY WITH THE FOLLOWING:

- WIDTH: 150mm.

- ELONGATION AT BREAK: MINIMUM 30%.
- APPLICATION TEMPERATURE RANGE: 10° C TO 45° C.

- STABLE IN COMPOSITION.

- THE REINFORCED CARRIER IS TO BE NON-HARDENING, NON-CRACKING & NON-CORRODING.
- A COLD APPLIED MEMBRANE WHICH IS HIGHLY CONFORMABLE.
- ONE SIDE IS TO BE OF A HIGHLY ADHESIVE QUALITY.
- THE OTHER SIDE IS TO BE BACKED WITH A DURABLE LAMINATE.

PREPARATION: SURFACE TO BE CLEAN AND DRY. APPLY ADHESIVE MASTIC OR TAPE TO JOINT WITH EQUAL OVERLAP EACH SIDE OF JOINT.

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<u> </u>	MAY 2007	REVIEWED - NO CHANGES	СК	DW	STANDARD DRAWINGS		APPROVED:	D. Webb			
REV.	DATE.	DESCRIPTION	CHECKED	APP'D.			D. VV DATE: NOV 04	epp			
SHEE	NOTES - PRODUCT SPECIFICATIONS				SD-NTD06	N.T.S	2 of 4	VER2007 DATE: MAY07			

#### PS8 THE JOINT SEALANT IS TO BE A POLYURETHANE BASED ELASTOMERIC JOINT SEALANT, AND IS TO COMPLY WITH THE FOLLOWING:

MAXIMUM 4 HOURS. - INITIAL CURE (TACK FREE): - FULL CURE (DEPENDS ON JOINT SECTION): MAXIMUM 7 DAYS. - DURABILITY MINIMUM AVERAGE LIFE EXPECTANCY: >20 YEARS & U.V.

RESISTANT.

- TENSILE STRENGTH:

MINIMUM 0.1 MPa @ 50% ELONGATION. (20° C).

5° C TO 40° C. - APPLICATION TEMPERATURE RANGE: -30° C TO 70° C. - SERVICE TEMPERATURE RANGE (MINIMUM): - MAX. WORKING JOINT EXPANSION & CONTRACTION: +30% AVERAGE

JOINT WIDTH.

- ELONGATION AT BREAK:

MINIMUM 350%.

MINIMUM 75%. - ELASTIC RECOVERY:

CHEMICAL RESISTANCE: PERMANENT- WATER, DETERGENT SOLUTIONS, DILUTE ALKALIS. DILUTE MINERAL ACIDS.

TEMPORARY- MINERAL OILS, VEGETABLE OILS, GREASES, FUEL OILS & PETROL. SHORT TERM- ORGANIC SOLVENTS, PAINT THINNERS, STRONG ACIDS & ALKALIS.

PREPARATION: ALL SURFACES MUST BE SOUND CLEAN, DRY AND FREE FROM ANY SURFACE CONTAMINANTS.

PRIMING: APPLY COMPLIMENTARY PRODUCT PRIMER TO CONCRETE PRIOR TO APPLICATION OF JOINT SEALANT.

#### PS9 THE BOND BREAKER TAPE IS TO COMPLY WITH THE FOLLOWING:

- A COLD APPLIED MEMBRANE WHICH IS HIGHLY CONFORMABLE.
- STABLE IN COMPOSITION.
- NON-HARDENING & NON-CRACKING.
- ONE SIDE TO BE FULLY IMPREGNATED AND COATED WITH A NEUTRAL PETROLATUM WAX BASE.
- THE OTHER SIDE TO BE OF A HIGHLY ADHESIVE QUALITY.

PREPARATION: ALL SURFACES TO BE SOUND, CLEAN, DRY AND FREE FROM ANY SURFACE CONTAMINANTS.

#### PS10 THE SELF EXPANDING CORK FILLER IS TO COMPLY WITH THE FOLLOWING:

- SEMI RIGID.
- DOES NOT EXTRUDE FROM THE JOINT UNDER LOAD.
- WATER RESISTANT AND CHEMICALLY INERT.
- RESISTS FUNGUS AND VERMIN ATTACK.
- MAINTENANCE-FREE AND HAS A LIFE EXPECTANCY EXCEEDING 20 YEARS.
- U.V. RESISTANT.

#### PS11 THE THIXOTROPIC ADHESIVE MORTAR IS TO COMPLY WITH THE FOLLOWING:

- COMPRESSIVE STRENGTH @ 7 DAYS MIN 55 MPa @ 20°C MIN 22 MPa @ 20°C - SHEAR STRENGTH @ 7 DAYS - TENSILE STRENGTH @ 7 DAYS MIN 6 MPa @ 20°C 3.5 MPa APPROX - ADHESION TO CONCRETE

- APPLICATION TEMPERATURE ( min - max ) 10°C - 30°C

#### PS12 THE ELASTOMERIC BEARING STRIP IS TO BE MANUFACTURED IN HIGH QUALITY NATURAL RUBBER TO AS1646 AND IS TO COMPLY WITH THE FOLLOWING:

- SHORE DUROMETER HARDNESS: 60 - 65

MINIMUM 400%. - ELONGATION AT BREAK: MIN 18 MPa - TENSILE STRENGTH:

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SHEE	NOTES - PRODUCT SPECIFICATIONS				SD-NTD06	N.T.S	3 of 4	VER2007	

PS13 THE CHEMICAL FOR ANCHOR BOLTS AND THE EPOXY FOR DOWELLING & EPOXY RESIN GROUT IS TO COMPLY WITH THE FOLLOWING:

- FORM THIXOTROPIC PASTE

- COMPRESSIVE STRENGTH @ 7 DAYS 80 MPa

@ 24 HOURS 60 MPa 55 MPa

- FLEXURAL STRENGTH 55 MPa - TENSILE STRENGTH 15-20 MPa

- ADHESION TO CONCRETE 3.5 MPa APPROX - ADHESION TO STEEL 20 MPa APPROX

- APPLICATION TEMPERATURE ( min - max ) 5°C - 30°C

PS14 THE DRAINAGE GRATE SHALL COMPLY WITH AS3996, CLASS B STRENGTH WITH TEST LOAD OF 80KN AND HOT-DIP GALVANIZED TO AS/NZS 4680.

- ANGLE FRAME: 55x55x5mm ANGLE
- LOAD BARS OF GRATE: 50x5mm AT 30mm CTRS.
- CROSS RODS OF GRATE: 6mm TWIST BARS AT 100mm CTRS.
- PS15 HANDRAILING TO BE OF A BALUSTRADE TYPE, HOT DIPPED GALVANISED & CONSISTING OF 2m LENGTH PANELS.
  - POSTS & RAILS TO BE 76.1mm x 3.2mm C.H.S.
  - TOP RAIL TO BE 1200mm (+-5mm) HIGH OFF FINISHED SURFACE LEVEL.
  - BOTTOM RAIL TO BE 121mm (+-5mm) HIGH OFF FINISHED SURFACE LEVEL.
  - 16mm VERTICAL ROUNDS @ 100 CENTRES BETWEEN RAILS.
  - BASE PLATES TO BE 150mm x 150mm x 16mm.
- PS16 THE WATERPROOF MEMBRANE SHALL COMPLY WITH AS2870 AND CONSIST OF 0.2mm THICK POLYETHYLENE FILM OF HIGH IMPACT RESISTANCE. THE MEMBRANE IS TO BE LAID ON A PREPARED 30mm DEPTH SAND BASE.

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А	SEPT 05	NOTE PS16 ADDED	СК	DW	PROJECT TITLE:		APPROVED:				
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SHEE	NOTES - PRODUCT SPECIFICATIONS				SD-NTD06	N.T.S	4 of 4	VER2007 DATE: MAY07			

### SEDIMENT & EROSION CONTROL

- SE1. THE CONTRACTOR SHALL IMPLEMENT ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO DISTURBANCE OF THE WORK AREA & TO BE CARRIED OUT IN ACCORDANCE WITH LANDCOM'S "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION" VOLUME 1.
- SE2. THE CONTRACTOR SHALL REGULARLY MAINTAIN ALL SEDIMENT AND EROSION CONTROL DEVICES AND REMOVE ACCUMULATED SILT FROM SUCH DEVICES BEFORE MORE THAN 60% OF THEIR CAPACITY IS LOST. ALL THE SILT REMOVED SHALL BE DISPOSED OF AS DIRECTED BY THE SUPERINTENDENT. NO SILT IS TO BE PLACED OUTSIDE THE LIMIT OF WORKS. THE PERIOD FOR MAINTAINING THESE DEVICES SHALL BE AT LEAST UNTIL ALL DISTURBED AREAS ARE REVEGETATED AND LONGER AS MAY BE DIRECTED BY THE SUPERINTENDENT OR COUNCIL.
- SE3. VEHICULAR TRAFFIC SHALL BE CONTROLLED DURING CONSTRUCTION CONFINING ACCESS WHERE POSSIBLE TO PROPOSED OR EXISTING ROAD ALIGNMENTS.
- SE4. WHEN ANY DEVICES ARE TO BE HANDED OVER TO COUNCIL THEY SHALL BE IN A CLEAN & STABLE CONDITION.
- SE5. THE CONTRACTOR SHALL MAINTAIN ALL REVEGETATED AREAS INCLUDING WATERING UNTIL FINAL COMPLETION OF WORKS.
- SE6. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL UNTIL FINAL COMPLETION OF WORKS.
- SE7. THE CONTRACTOR'S RESPONSIBILITY IS TO ENSURE ALL NECESSARY MEASURES SO AS TO PROTECT ALL DISTURBED AREAS AS PER NOTE SE1. ALL ADDITIONAL COSTS ARE TO BE REFLECTED IN TENDER PRICE EVEN IF SUCH MEASURES ARE NOT INDICATED ON THE SEDIMENT AND EROSION CONTROL PLAN.
- SE8. THE CONTRACTOR MUST COMMENCE REHABILITATION WITHIN 10 DAYS OF ANY SITE REGRADING & BATTER FORMATION.

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Α	APR 2007	NOTES SE1 & SE2 AMENDED.	СК	DW	PROJECT TITLE:	APPROVED:			
REV.	DATE.	DESCRIPTION	CHECKED	APP'D.	STANDARD DRAWINGS 2007			D. Webb DATE: NOV 04	
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	NOT	ES - SEDIMENT & EROSION CONTR	SD-NTD07	N.T.S	1 of 1	VER2007 DATE: MAY07			