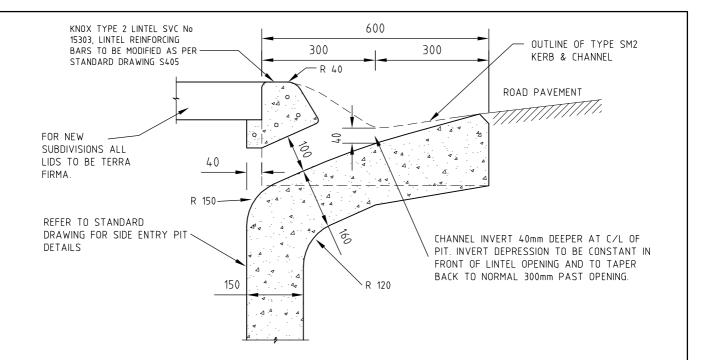
Category	DWG NO.	DRAWING NAME	CURRENT ISSUE		
			DATE		
Kerb Profiles	S101	Semi-Mountable kerb type SM1 & SM2 and Modification at side entry pits for types SM2	22/03/2012		
	S102	Roll over kerb and channel Modification at side entry pits	22/03/2012		
	S103	Kerb and channel type BK1, BK3 and Type BK2	22/03/2012		
	S104	Profile of Concrete Flood Dish	22/03/2012		
	S105	Semi-Mountable kerb Type SM3 & Outfall Rollover kerb and channel Type R2	22/03/2012		
Vehicle Crossings	S201	Standard Vehicle Crossing for residential areas	22/03/2012		
	S202	Reverse fall Vehicle Crossing for residential areas	22/03/2012		
	S203	Heavy duty vehicle crossing for use in Industrial and commercial areas	22/03/2012		
	S204	Side entry pit modification for vehicle crossing construction	22/03/2012		
Paths	S301	Concrete footpaths within new subdivisions	22/03/2012		
	S302	Concrete footpaths not carried out as part of new subdivisions	22/03/2012		
	S303	Concrete shared path for bicycles and pedestrians	22/03/2012		
	S304	Granitic sand shared path for bicycle and pedestrians within reserves	22/03/2012		
Pit Details	S401	Step iron details	22/03/2012		
	S402	Type 1 junction pit less than 1.2m deep and for pipe sizes up to 450 dia.	22/03/2012		
	S403	Type 2 Junction pit greater than 1.2m deep and less than 2.4m deep and for pip sizes up to 675 dia.	22/03/2012		
	S404	Residential side entry pit detail	22/03/2012		
	S405	Pre-cast lintel 'Knox' Type 2 black coloured	22/03/2012		
	S406	Type 3 Junction Pit dimensions and construction notes	22/03/2012		
	S408	Terra Firma Lockable Lid for side entry pits	22/03/2012		
	S409	Double side entry pit	22/03/2012		
	S410	Channel Grate Pit for roll over kerb and channel Type R1	22/03/2012		
	S411	Single Under Channel Grate pit for kerb and channel Type BK1, R1, SM2	22/03/2012		
	S412	Double Under Channel Grate pit for kerb and channel Type BK1, R1, SM2	22/03/2012		
	S413	Single Side Entry Grate pit for kerb and channel Type BK1, R1, SM2	22/03/2012		
	S414	Double Side Entry Grate pit for kerb and channel Type BK1, R1, SM2	22/03/2012		

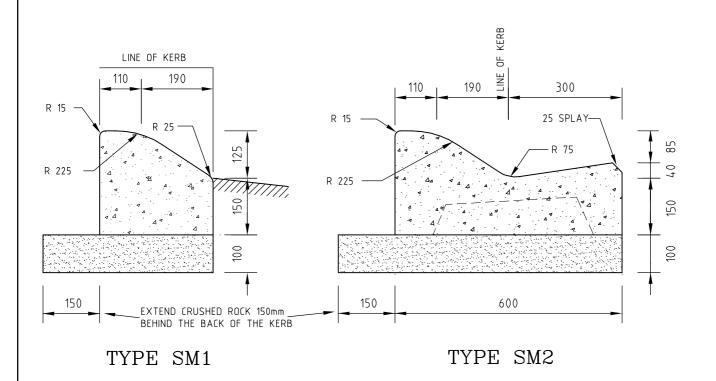
Category	DWG NO.	DRAWING NAME	CURRENT ISSUE DATE			
S/W Pipe Connections	S501	Connection of house stormwater drain to kerb and channel	22/03/2012			
	S503	Connection of 100 or 150mm drainage pipes to Council stormwater drain.	22/03/2012			
	S505	Pipe backfill detail residential pavements	22/03/2012			
	S506	Pipe backfill detail easements	22/03/2012			
Traffic	S601	Give Way & Stop Linemarking general Urban and Rural use	22/03/2012			
	S602	Standard Raised Pavement	22/03/2012			
	S604	Watts Profile Speed Hump	22/03/2012			
	S605	Standard Right of Way construction details	22/03/2012			
Tactile Indicators	S701	Tactile indicator requirements for pram crossings flow chart	22/03/2012			
	S702	Warning Tactile Indicators	22/03/2012			
	S703	Directional Tactile Indicators	22/03/2012			
	S704	Path of travel for sight impaired	22/03/2012			
	S705	Criteria such that tactile indicators are not required	22/03/2012			
	S706	Pram crossing layout	22/03/2012			
	S707	Pram ramp dimensions for pram crossings with tactile indicators	22/03/2012			
	S708	Tactile indicator layout for flat / angled / long pram ramp	22/03/2012			
	S709	Example tactile indicator layout if criteria 1 is not complied with	22/03/2012			
	S710	Example tactile indicator layout if criteria 3 is not complied with	22/03/2012			
	S711	Change of grade between approach and ramp so that tactile indicators are not required	22/03/2012			
	S712	Splitter island example tactile indicator layout	22/03/2012			
	S713	Mid block crossings tactile indicator layout	22/03/2012			
	S714	Tactile indicator layout at Bus Stops	22/03/2012			
	S715	Pram ramp dimensions for crossings without tactile indicators	22/03/2012			

Standard Drawing issue current at time of construction must be used.



MODIFICATION AT SIDE ENTRY PITS FOR TYPE SM2

-ONLY TO BE USED IN LOW RISK LOCATIONS WHERE CHANNEL GRATE WILL NOT WORK (REFER TO S410)



NOTES:

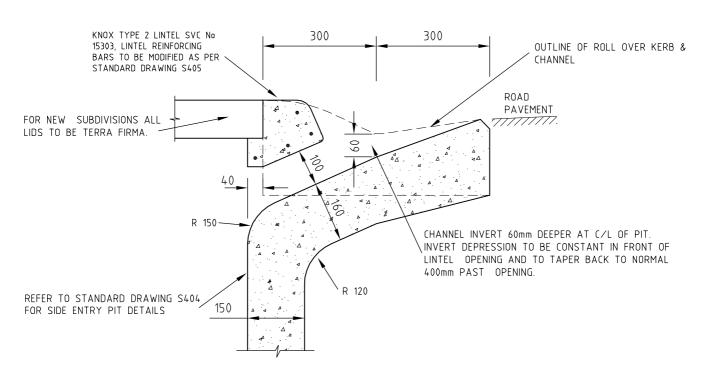
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN. CONCRETE STRENGTH SHALL BE 32 MPA MIN AT 28 DAYS. BEDDING SHALL CONSIST OF A MIN. 100mm COMPACTED DEPTH OF CLASS 2 3% CEMENT STABILISED CRUSHED ROCK 20mm NOMINAL TO FINAL LEVEL & GRADE UNLESS OTHERWISE SPECIFIED

KINGSTON CITY COUNCIL STANDARD DRAWING

SEMI - MOUNTABLE KERB AND CHANNEL TYPE SM1 AND SM2
MODIFICATION AT SIDE ENTRY PITS FOR TYPE SM2

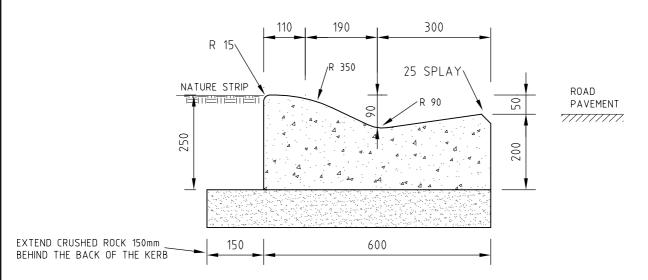
DRG. NO. $S101\,$

ISSUE DATE: 22/03/12



ROLL OVER KERB MODIFICATION AT SIDE ENTRY PITS

-ONLY TO BE USED IN LOW RISK LOCATIONS WHERE CHANNEL GRATE WILL NOT WORK (REFER TO S410)



ROLL OVER KERB AND CHANNEL (TYPE R1)

-SEE S105 FOR OUTFALL ROLL OVER KERB AND CHANNEL (TYPE R2)

NOTES:

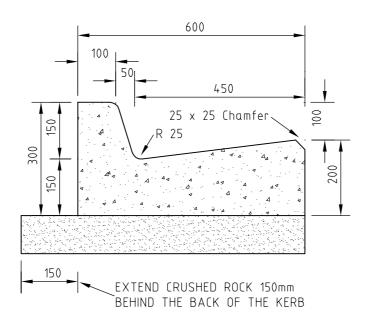
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN. CONCRETE STRENGTH SHALL BE 32 MPA MIN AT 28 DAYS. BEDDING SHALL CONSIST OF A MIN. 100mm COMPACTED DEPTH OF CLASS 2 3% CEMENT STABILISED CRUSHED ROCK 20mm NOMINAL TO FINAL LEVEL & GRADE UNLESS OTHERWISE SPECIFIED

KINGSTON CITY COUNCIL STANDARD DRAWING

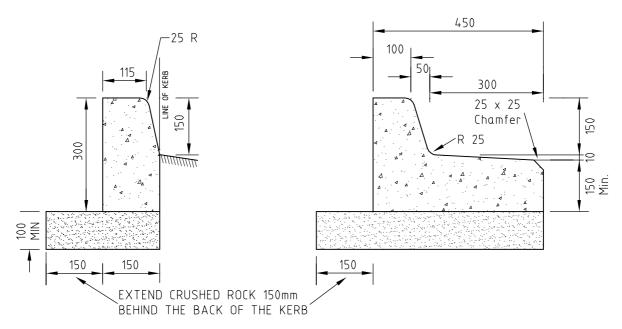
ROLL OVER KERB AND CHANNEL TYPE R1
MODIFICATION AT SIDE ENTRY PITS

DRG. NO. S102

ISSUE DATE: 22/03/12



KERB AND CHANNEL (TYPE BK1)



BARRIER KERB (TYPE BK2) KERB AND CHANNEL (TYPE BK3) OUTFALL TRAY

NOTES:

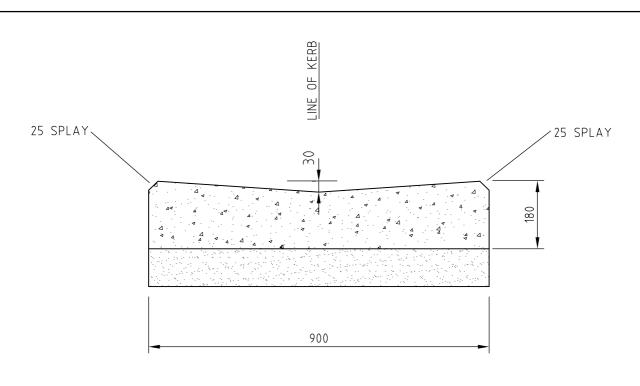
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN. CONCRETE STRENGTH SHALL BE 32 MPA MIN AT 28 DAYS. BEDDING SHALL CONSIST OF A MIN. 100mm COMPACTED DEPTH OF CLASS 2, 3% CEMENT STABILISED CRUSHED ROCK 20mm NOMINAL TO FINAL LEVEL & GRADE UNLESS OTHERWISE SPECIFIED

KINGSTON CITY COUNCIL STANDARD DRAWING

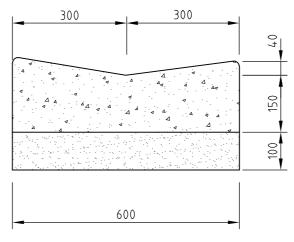
KERB AND CHANNEL TYPE BK1, BK3
AND KERB TYPE BK2

DRG. NO. S103

ISSUE DATE: 22/03/12



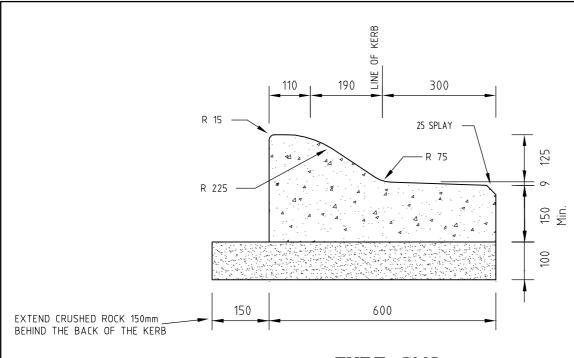
FLOOD DISH (TYPE FD1)



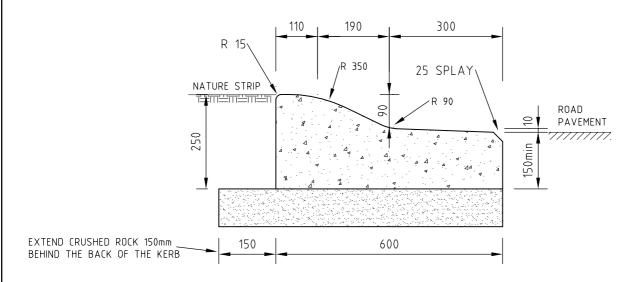
FLOOD DISH (TYPE FD2)

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN. CONCRETE STRENGTH SHALL BE 32 MPA MIN AT 28 DAYS. BEDDING SHALL CONSIST OF A MIN. 100 mm COMPACTED DEPTH OF CLASS 2 3% CEMENT STABILISED CRUSHED ROCK 20mm NOMINALTO FINAL LEVEL & GRADE UNLESS OTHERWISE SPECIFIED.

KINGSTON CITY COUNCIL STANDARD DRAWING PROFILE OF CONCRETE FLOOD DISH PROFILE OF CONCRETE FLOOD DISH STANDARD DRAWING ISSUE CURRENT AT TIME OF CONSTRUCTION MUST BE USED



TYPE SM3



OUTFALL ROLLOVER KERB AND CHANNEL TYPE R2

NOTES:

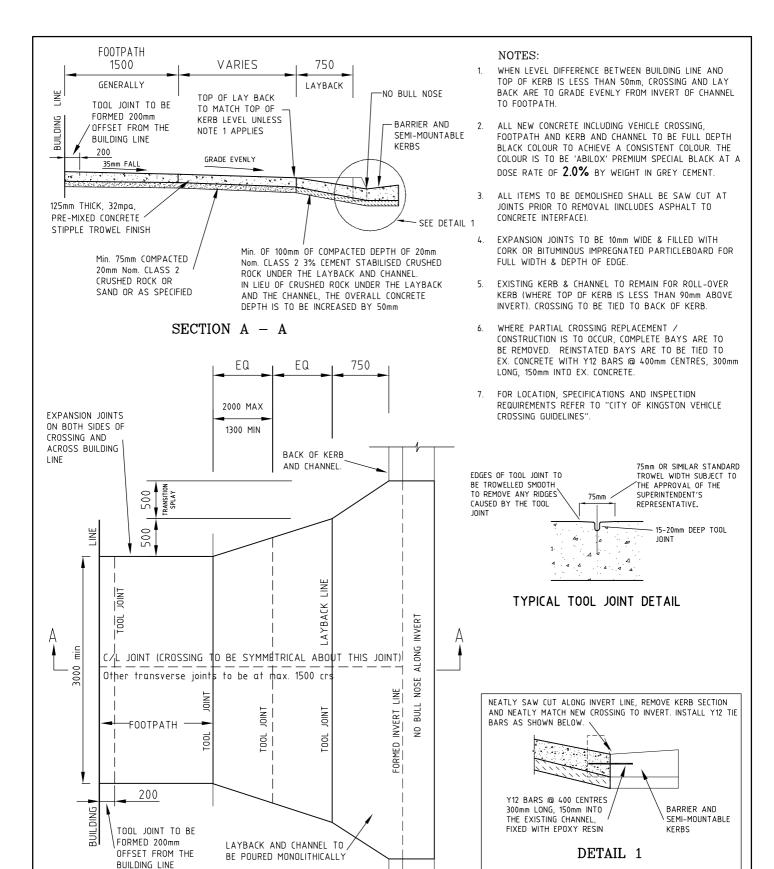
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN. CONCRETE STRENGTH SHALL BE 32 MPA MIN AT 28 DAYS. BEDDING SHALL CONSIST OF A MIN. 100mm COMPACTED DEPTH OF CLASS 2 3% CEMENT STABILISED CRUSHED ROCK 20mm NOMINAL TO FINAL LEVEL & GRADE UNLESS OTHERWISE SPECIFIED

KINGSTON	CITY	COUNCIL
STANDA	RD DRA	WING

SEMI - MOUNTABLE KERB AND CHANNEL TYPE SM3
OUTFALL ROLL OVER KERB AND CHANNEL TYPE R2

DRG. NO. S105

ISSUE DATE: 22/03/12



KINGSTON CITY COUNCIL STANDARD DRAWING

PLAN

STANDARD VEHICLE CROSSING FOR RESIDENTIAL AREAS

IF BUILDING LINE >50mm BELOW TOP OF KERB S202 APPLIES

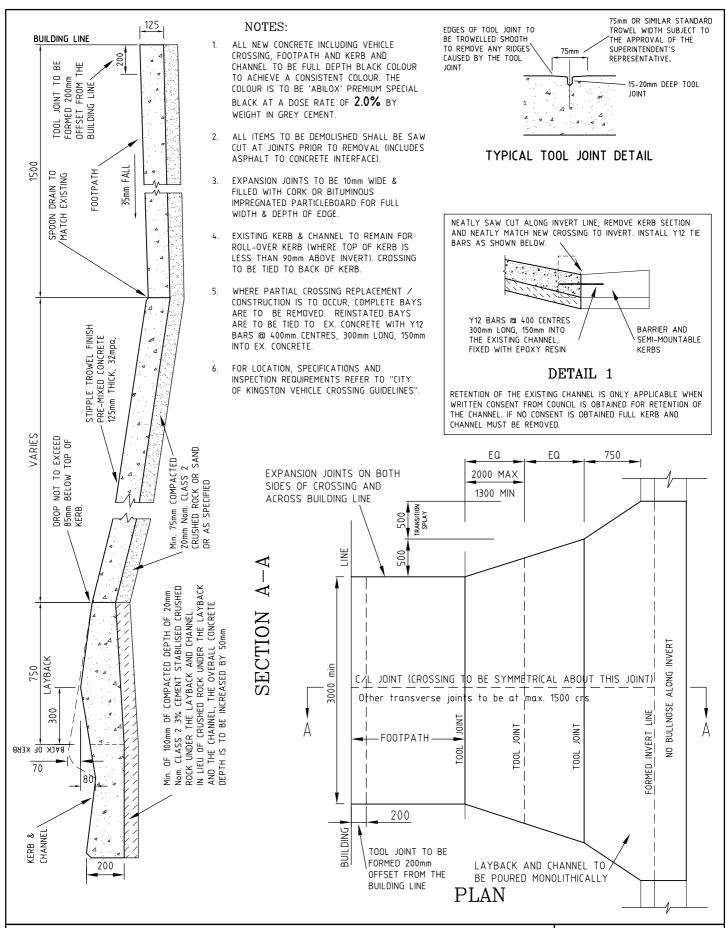
DRG. NO. S201

RETENTION OF THE EXISTING CHANNEL IS ONLY APPLICABLE WHEN WRITTEN CONSENT FROM COUNCIL IS OBTAINED FOR RETENTION OF

THE CHANNEL. IF NO CONSENT IS OBTAINED FULL KERB AND

CHANNEL MUST BE REMOVED

ISSUE DATE: 22/03/12

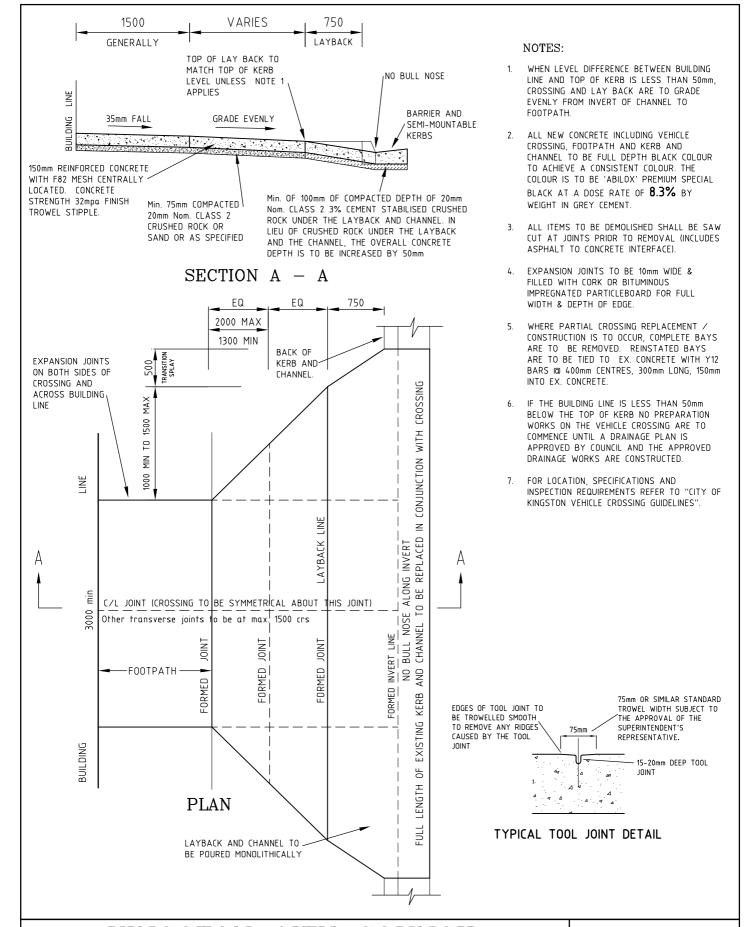


KINGSTON CITY COUNCIL STANDARD DRAWING

REVERSE FALL VEHICLE CROSSING FOR RESIDENTIAL AREAS
BUILDING LINE IS MORE THAN 50mm BELOW TOP PF KERB LEVEL - SEE S201 IF THIS
CONDITION IS NOT MET

DRG. NO. S202

ISSUE DATE: 22/03/12

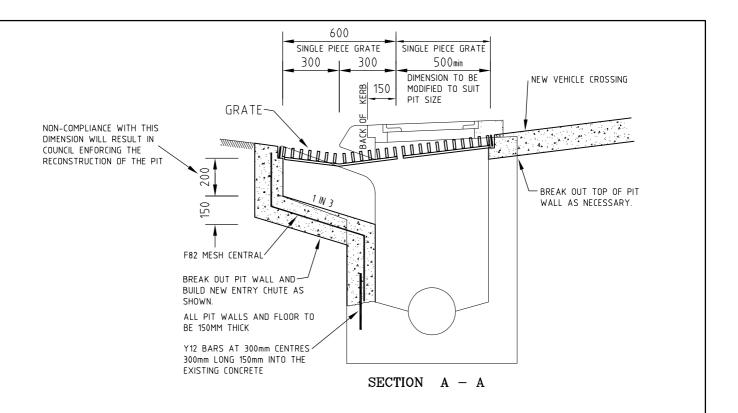


KINGSTON CITY COUNCIL STANDARD DRAWING

HEAVY DUTY VEHICLE CROSSING FOR USE IN INDUSTRIAL AND COMMERCIAL AREAS

DRG. NO. S203

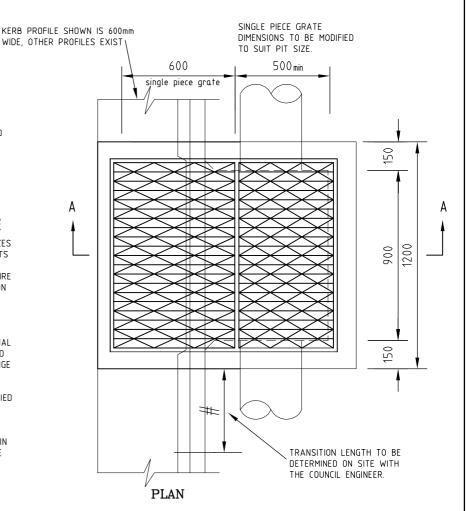
ISSUE DATE: 22/03/12



- ALL NEW COVER DIMENSIONS GIVEN ON THIS DRAWING MUST BE VERIFIED FOR SUITABILITY AGAINST THOSE OF THE PIT BEING MODIFIED BEFORE ORDERING COMPONENTS.
- ALL GRATE COMPONENTS TO BE CLASS D AND GALVANISED. APPROVED SUPPLIERS AS OF MARCH 2012

R&S GRATING, BIKE SAFE GRATES 13 HEALY ROAD DANDENONG SOUTH. Ph. 9238 5888 www.grating.com.au

- 3. DIMENSIONS GIVEN ON THIS DRAWING ARE FOR THE CURRENT STANDARD 900x600 SIDE ENTRY PIT. DUE TO THE LARGE VARIATION IN PIT SIZES WITHIN THE CITY OF KINGSTON, INDIVIDUAL PITS MUST BE MEASURED BEFORE ORDERING COVER COMPONENTS. MOST EXISTING PITS WILL REQUIRE MODIFICATION FROM THE DIMENSIONS SHOWN ON THIS DRAWING.
- 4. THIS DRAWING GIVES DETAILS FOR A SINGLE FRAME (2 SINGLE PIECE GRATES) WHICH IS SUITABLE FOR VEHICLE (ROSSINGS WITH MINIMAL SLOPE. FOR STEEP VEHICLE (ROSSINGS, A TWO PIECE FRAME WILL BE REQUIRED WITH A CHANGE IN GRADE BETWEEN FRAMES.
- ALL PROPRIETARY COMPONENTS TO BE SUPPLIED BY MANUFACTURERS LISTED OR OTHERS IF APPROVED BY COUNCIL.
- 6. THIS MODIFICATION CANNOT BE LOCATED WITHIN THE TRANSITION SPLAY ZONE OF THE VEHICLE CROSSING. SEE VEHICLE CROSSING STANDARD DRAWINGS S201, S202 AND S203 FOR THE DEFINITION OF THE TRANSITION SPLAY.

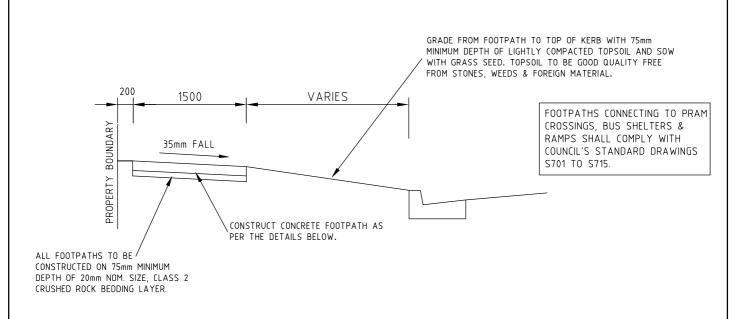


KINGSTON CITY COUNCIL STANDARD DRAWING

SIDE ENTRY PIT MODIFICATION FOR VEHICLE CROSSING CONSTRUCTION

DRG. NO. S204

ISSUE DATE: 22/03/12



LOCATION	PAVEMENT COMPOSITION
RESIDENTIAL AREAS	125mm DEPTH OF CONCRETE.
INDUSTRIAL & COMMERCIAL AREAS	150mm DEPTH OF CONCRETE WITH F82 MESH.
WITHIN SHOPPING CENTRES	REFER TO COUNCIL'S ENGINEERS FOR PAVING PATTERN DETAILS.

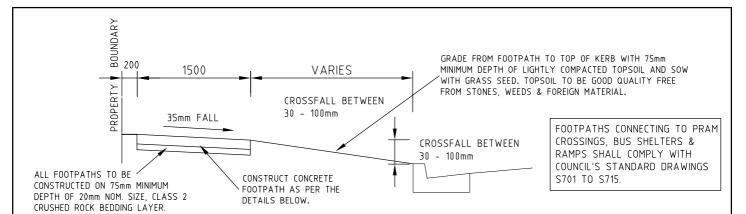
- THIS DRAWING SHOWS DETAILS FOR A TYPICAL FOOTPATH LAYOUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SPECIFIC SITE
 CONDITIONS HAVE BEEN ALLOWED FOR REFER TO COUNCIL ENGINEERS FOR A DECISION AT LOCATIONS WHERE THE PROPOSED PATH IS ABOVE EITHER
 THE BUILDING LINE OR TOP OF KERB LEVELS.
- 2. ALL NEW CONCRETE FOR FOOTPATHS IN RESIDENTIAL AREAS TO BE FULL DEPTH BLACK COLOUR TO ACHIEVE A CONSISTENT COLOUR. THE COLOUR IS TO BE 'ABILOX' PREMIUM SPECIAL BLACK AT A DOSE RATE OF 2.0% BY WEIGHT IN GREY CEMENT.
- 3. ALL NEW CONCRETE FOR FOOTPATHS IN INDUSTRIAL AND COMMERCIAL AREAS TO BE FULL DEPTH BLACK COLOUR TO ACHIEVE A CONSISTENT COLOUR. THE COLOUR IS TO BE 'ABILOX' PREMIUM SPECIAL BLACK AT A DOSE RATE OF 8.3% BY WEIGHT IN GREY CEMENT.
- 4. WHERE PUBLIC UTILITIES' ASSETS (POWER POLES, STORMWATER PITS, TREE ROOT SYSTEMS, ETC) ARE LOCATED WITHIN THE ALIGNMENT OF THE PROPOSED SHARED PATH, THESE ASSETS MUST BE AVOIDED, RELOCATED OR MODIFIED AT THE DEVELOPER'S COST. ALL SUCH WORKS TO COMPLY WITH THE RELEVANT AUTHORITIES' REQUIREMENTS.
- 5. CONCRETE STRENGTH SHALL BE 32 MPA MINIMUM AT 28 DAYS. ALL CONCRETE TO BE PRE-MIXED AND HAVE A LIGHT BROOM FINISH.
- 6. BOTH EDGES OF THE PATH MUST BE POURED AGAINST SMOOTH FORMWORK.
- 7. ALL EDGES TO BE ROUNDED BY THE PROPER USE OF A SUITABLE EDGE TOOL
- 8. NO HIGHLIGHTING OF EDGES AND JOINTS.
- 9. SPACING OF EXPANSION JOINTS FILLED WITH CORK OR BITUMINOUS PARTICLE BOARD (10mm WIDE x FULL DEPTH) MUST NOT EXCEED 15m. TOOLED JOINTS (5mm WIDE x 20mm DEEP) TO BE FORMED AT 1.5m MAXIMUM SPACING.
- 10. THE SITE SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH A.S 1742.3
- 11. ALL EXISTING PATHS OR KERBS TO BE DEMOLISHED SHALL BE SAWCUT AT THE JOINTS PRIOR TO REMOVAL.
- 12. THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT THE WORKS COMPLY WITH ALL REQUIREMENTS OF THE KINGSTON PLANNING SCHEME AND APPLICABLE PERMITS.

KINGSTON CITY COUNCIL STANDARD DRAWING

CONCRETE FOOTPATHS
WITHIN NEW SUBDIVISIONS

DRG. NO. S301

ISSUE DATE: 22/03/12



LOCATION	PAVEMENT COMPOSITION
RESIDENTIAL AREAS	75mm DEPTH OF CONCRETE.
COMMERCIAL AREAS	125mm DEPTH OF CONCRETE.
INDUSTRIAL AREAS	150mm DEPTH OF CONCRETE WITH ALL PATHS SUBJECT TO VEHICLE LOADING TO BE REINFORECED WITH F82 MESH.
WITHIN SHOPPING CENTRES	REFER TO COUNCIL'S ENGINEERS FOR PAVING PATTERN DETAILS.

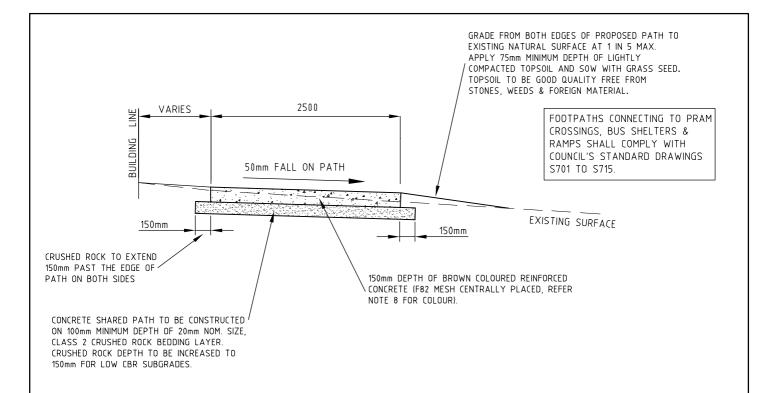
- THIS DRAWING SHOWS DETAILS FOR A TYPICAL FOOTPATH LAYOUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SPECIFIC SITE
 CONDITIONS HAVE BEEN ALLOWED FOR. REFER TO COUNCIL ENGINEERS FOR A DECISION AT LOCATIONS WHERE THE CONSTRUCTION DOES NOT HAVE CROSSFALL
 FALLING TOWARDS THE KERB IN THE RANGE OF 30-100mm.
- IN AREAS OF LOW CBR'S AND EXPANSIVE CLAYS THE DEPTH OF THE CONCRETE FOOTPATH AND CRUSHED ROCK BEDDING TO BE REFERRED TO COUNCILS ENGINEERS FOR A DECISION ON REQUIRED DEPTHS.
- 3. FOR PROPOSED PATHS WHICH EXTEND FROM THE BUILDING LINE TO THE BACK OF KERB REFER TO COUNCIL ENGINEERS FOR GUIDANCE.
- 4. ALL NEW CONCRETE FOR FOOTPATHS IN RESIDENTIAL AREAS TO BE FULL DEPTH BLACK COLOUR TO ACHIEVE A CONSISTENT COLOUR. THE COLOUR IS TO BE 'ABILDX' PREMIUM SPECIAL BLACK AT A DOSE RATE OF 2.0% BY WEIGHT IN GREY CEMENT.
- 5. ALL NEW CONCRETE FOR FOOTPATHS IN INDUSTRIAL AND COMMERCIAL AREAS TO BE FULL DEPTH BLACK COLOUR TO ACHIEVE A CONSISTENT COLOUR. THE COLOUR IS TO BE 'ABILOX' PREMIUM SPECIAL BLACK AT A DOSE RATE OF **8.3%** BY WEIGHT IN GREY CEMENT.
- 6. WHERE PUBLIC UTILITIES' ASSETS (POWER POLES, STORMWATER PITS, TREE ROOT SYSTEMS, ETC) ARE LOCATED WITHIN THE ALIGNMENT OF THE PROPOSED SHARED PATH, THESE ASSETS MUST BE AVOIDED, RELOCATED OR MODIFIED AT THE DEVELOPER'S COST. ALL SUCH WORKS TO COMPLY WITH THE RELEVANT AUTHORITIES' REQUIREMENTS.
- 7. CONCRETE STRENGTH SHALL BE 32 MPA MINIMUM AT 28 DAYS. ALL CONCRETE TO BE PRE-MIXED AND HAVE A LIGHT BROOM FINISH.
- 8. BOTH EDGES OF THE PATH MUST BE POURED AGAINST SMOOTH FORMWORK
- 9. ALL EDGES TO BE ROUNDED BY THE PROPER USE OF A SUITABLE EDGE TOOL
- 10. NO HIGHLIGHTING OF EDGES AND JOINTS
- 11. SPACING OF EXPANSION JOINTS FILLED WITH CORK OR BITUMINOUS PARTICLE BOARD (10mm WIDE x FULL DEPTH) MUST NOT EXCEED 15m. TOOLED JOINTS (5mm WIDE x 20mm DEEP) TO BE FORMED AT 1.5m MAXIMUM SPACING.
- 12. THE SITE SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH A.S 1742.3
- 13. ALL EXISTING PATHS OR KERBS TO BE DEMOLISHED SHALL BE SAWCUT AT THE JOINTS PRIOR TO REMOVAL
- 14. AT THE COMPLETION OF THE CONSTRUCTION WORKS, ALL AREAS DISTURBED DURING THE CONSTRUCTION e.g. KERBS, FOOTPATHS, VEHICLE CROSSINGS, ROAD PAVEMENT, SIGNS etc. ARE TO BE REINSTATED BY THE CONTRACTOR. ALL CONCRETE REINSTATEMENT IS TO BE CARRIED OUT BETWEEN EXISTING JOINTS. EXCAVATED MATERIAL, INCLUDING PIPES, PITS AND BROKEN CONCRETE IS TO BE REMOVED FROM THE SITE AND CARTED TO A SITE DESIGNATED BY THE CONTRACTOR, OR IF DIRECTED BY THE SUPERINTENDENT'S REPRESENTATIVE, TO A SITE WITHIN THE CITY OF KINGSTON. ALL TIPPING CHARGES TO BE BORNE BY THE CONTRACTOR.
- 15. UPON COMPLETION OF CONSTRUCTION THE WHOLE SITE SHALL BE CLEANED UP, ALL RUBBISH REMOVED AND THE SITE LEFT IN A CLEAN AND TIDY CONDITION TO THE SATISFACTION OF THE SUPERINTENDENT'S REPRESENTATIVE.
- 16. IT IS THE CONTRACTORS RESPONSIBILITY TO MAINTAIN THE CONSTRUCTION AREA IN A SAFE MANNER AND TO BE SURE THAT ADEQUATE BARRIERS, LIGHTS AND SIGNS ARE INSTALLED AND MAINTAINED WHERE NECESSARY IN ACCORDANCE WITH A.S.1742.3 AND AS DIRECTED BY COUNCIL OFFICERS.

KINGSTON CITY COUNCIL STANDARD DRAWING

ISSUE DATE: 22/03/12

DRG. NO. S302

CONCRETE FOOTPATHS
NOT CARRIED OUT AS PART OF NEW SUBDIVISIONS



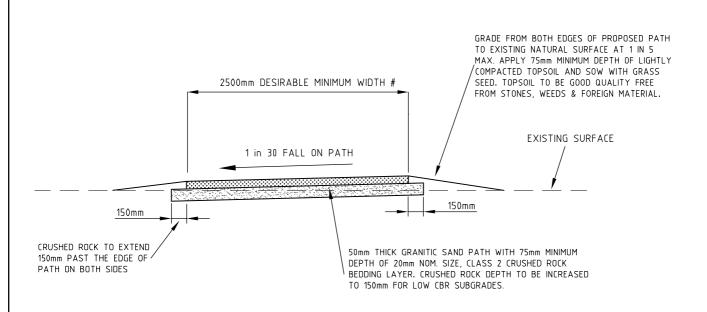
- THIS DRAWING SHOWS DETAILS FOR A TYPICAL SHARED PATH LAYOUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SPECIFIC SITE CONDITIONS HAVE BEEN ALLOWED FOR. REFER TO COUNCIL ENGINEER'S FOR A DECISION AT LOCATIONS WHERE THE PROPOSED PATH IS ABOVE EITHER THE BUILDING LINE OR TOP OF KERB LEVELS.
- WHERE PUBLIC UTILITIES' ASSETS (POWER POLES, STORMWATER PITS, TREE ROOT SYSTEMS, ETC) ARE LOCATED WITHIN THE ALIGNMENT OF THE PROPOSED SHARED PATH, THESE ASSETS MUST BE AVOIDED, RELOCATED OR MODIFIED AT THE DEVELOPER'S COST. ALL SUCH WORKS TO COMPLY WITH THE RELEVANT AUTHORITIES' REQUIREMENTS.
- 3. CONCRETE STRENGTH SHALL BE 32 MPA MINIMUM AT 28 DAYS. ALL CONCRETE TO BE PRE-MIXED AND HAVE A STIPPLE TROWEL FINISH.
- 4. BOTH EDGES OF THE PATH MUST BE POURED AGAINST SMOOTH FORMWORK.
- 5. ALL EDGES TO BE ROUNDED BY THE PROPER USE OF A SUITABLE EDGE TOOL
- 6. NO HIGHLIGHTING OF EDGES AND JOINTS.
- 7. SPACING OF EXPANSION JOINTS FILLED WITH CORK OR BITUMINOUS PARTICLE BOARD (10mm WIDE x FULL DEPTH) MUST NOT EXCEED 15m. TOOLED JOINTS (5mm WIDE x 20mm DEEP) TO BE FORMED AT 2.5m MAXIMUM SPACING.
- 8. ALL SHARED PATHS MUST BE BROWN COLOURED CONCRETE. THE SURFACE SHALL BE FINISHED WITH BE FINISHED WITH BESCON TUFF-TOP DARK BROWN TOPPINGS SPREAD ONTO THE SURFACE AT THE RATE OF ONE BAG PER 10m2, STIPPLE TOWEL FINISHED THEN SEALED WITH TWO COATS OF BESCON CLEAR STASEAL.
- 9. THE SITE SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH A.S 1742.3
- ALL EXISTING PATHS OR KERBS TO BE DEMOLISHED SHALL BE SAWCUT AT THE JOINTS PRIOR TO REMOVAL.
- 11. THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT THE WORKS COMPLY WITH ALL REQUIREMENTS OF THE KINGSTON PLANNING SCHEME AND APPLICABLE PERMITS. BICYCLE PATH DESIGN & ASSOCIATED 'SHARED FOOTWAY' SIGNS SHALL COMFORM WITH 'GUIDE TO TRAFFIC ENGINEERING PRACTICE. PART 14 BICYCLES'.

KINGSTON CITY COUNCIL STANDARD DRAWING

CONCRETE SHARED PATHS
FOR BICYCLES AND PEDESTRIANS

DRG. NO. S303

ISSUE DATE: 22/03/12



APPLY TO COUNCIL FOR CONSIDERATION OF ALTERNATIVE WIDTHS UNDER SPECIAL CIRCUMSTANCES

NOTES:

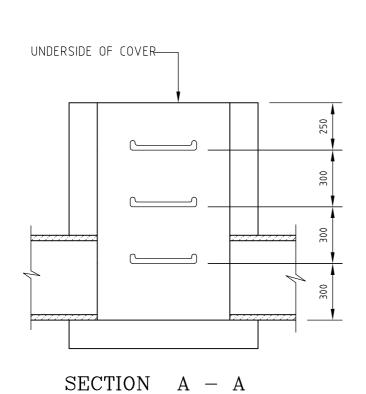
- THIS DRAWING SHOWS DETAILS FOR A TYPICAL SHARED PATH LAYOUT. IT IS THE RESPONSIBILITY OF THE
 CONTRACTOR TO ENSURE THAT SPECIFIC SITE CONDITIONS HAVE BEEN ALLOWED FOR. REFER TO COUNCIL
 ENGINEER'S FOR A DECISION AT LOCATIONS WHERE LEVELS INDICATE THAT THE PROPOSED PATH WOULD CAUSE
 STORM WATER RUNOFF TO POND.
- WHERE PUBLIC UTILITIES' ASSETS (POWER POLES, STORMWATER PITS, TREE ROOT SYSTEMS, ETC) ARE LOCATED
 WITHIN THE ALIGNMENT OF THE PROPOSED SHARED PATH, THESE ASSETS MUST BE AVOIDED, RELOCATED OR
 MODIFIED AT THE DEVELOPER'S COST. ALL SUCH WORKS TO COMPLY WITH THE RELEVANT AUTHORITIES'
 REQUIREMENTS.
- 3. THE SITE SHALL BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH A.S 1742.3
- 4. ALL EXISTING ASPHALT OR CONCRETE PATHS OR KERBS TO BE DEMOLISHED SHALL BE SAWCUT AT THE JOINTS PRIOR TO REMOVAL.
- 5. THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT THE WORKS COMPLY WITH ALL REQUIREMENTS OF THE KINGSTON PLANNING SCHEME AND APPLICABLE PERMITS.

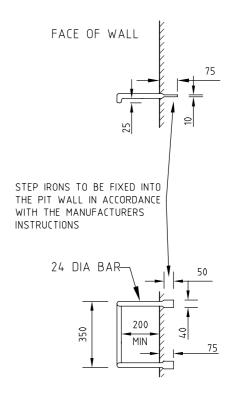
KINGSTON CITY COUNCIL STANDARD DRAWING

GRANITIC SAND SHARED PATH
FOR BICYCLES AND PEDESTRIANS WITHIN RESERVES

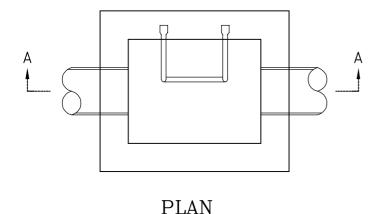
DRG. NO. S304

ISSUE DATE: 22/03/12





STEP IRON DETAILS



NOTES:

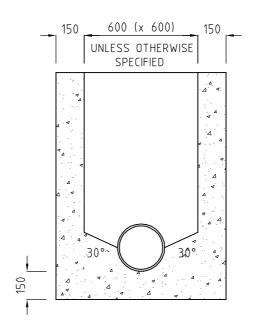
- PITS DEEPER THAN 1000mm SHALL BE FITTED WITH STEP IRONS
- 2. STEP IRONS SHALL BE LOCATED
 - DIRECTLY BELOW THE OPENING IN THE COVER
 - DESIRABLY ON A WALL WITHOUT PIPE OPENINGS
 - DESIRABLY ON ONE OF THE LONG SIDES OF THE PIT
- MATERIAL FOR STEP IRONS SHALL BE STRUCTURAL GRADE 250 TO AS 1204.
- 4. STEP IRONS SHALL HAVE SHARP EDGES ROUNDED.
- STEP IRONS TO BE HOT DIPPED GALVANISED AFTER FABRICATION.

KINGSTON CITY COUNCIL STANDARD DRAWING

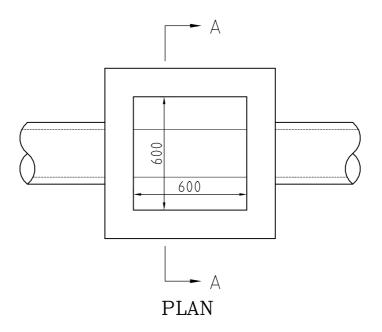
STEP IRON DETAILS

DRG. NO. S401

ISSUE DATE: 22/03/12



SECTION A-A



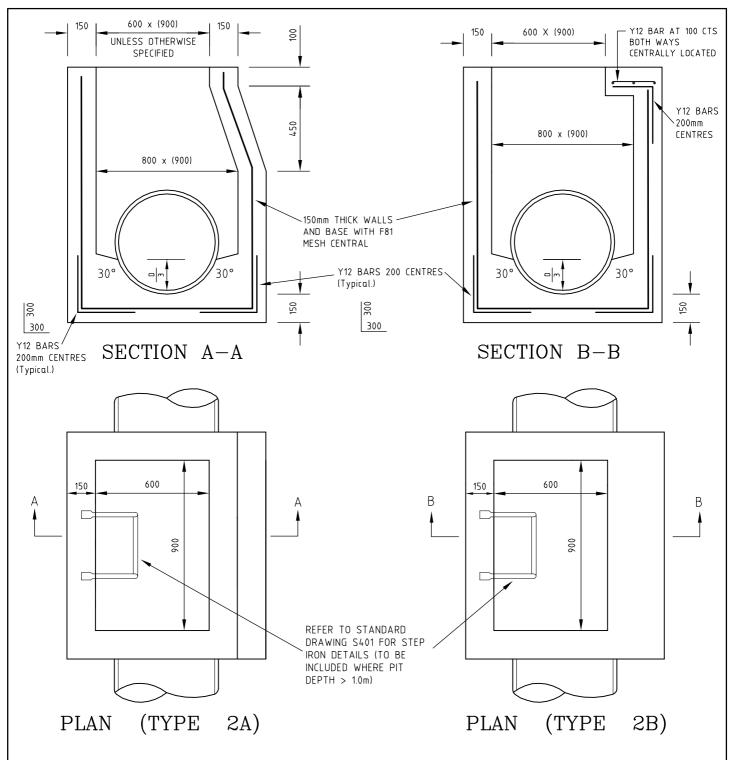
NOTES:

- 1. CONCRETE STRENGTH TO BE 32MPa AT 28 DAYS.
- 2. FLOORS AND WALLS OF PIT TO BE A MINIMUM OF 150mm THICK COMPACTED CONCRETE.
- 3. PRECAST PITS ARE NOT PERMITTED.
- 4. PIT DIMENSIONS ARE INDICATIVE ONLY, REFER TO PIT SCHEDULE FOR PIT SIZES.
- 5. FOR PIT LID DETAILS REFER TO THE PIT SCHEDULE, RELEVANT STANDARD DRAWINGS AND THE CITY OF KINGSTON ROADS DRAINS DESIGN STANDARDS.

KINGSTON CITY COUNCIL STANDARD DRAWING

TYPE 1 JUNCTION PIT LESS THAN 1.2m DEPTH FOR PIPE SIZES UP TO 450¢ DRG. NO. S402

ISSUE DATE: 22/03/12



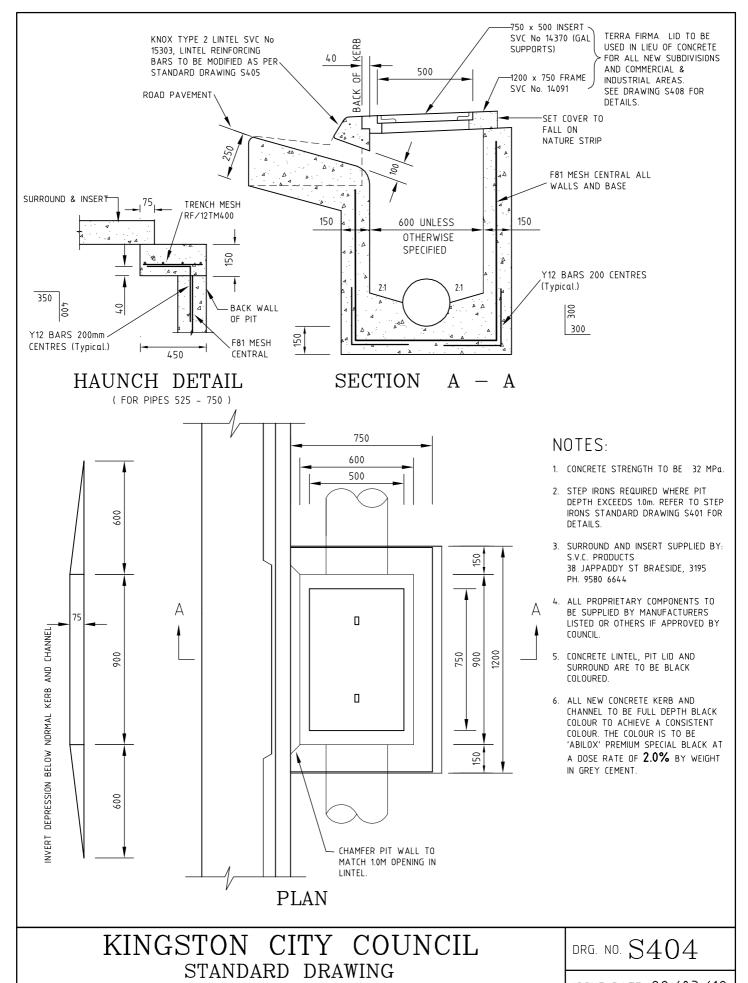
- 1. CONCRETE STRENGTH TO BE 32MPa AT 28 DAYS.
- 2. FLOORS AND WALLS OF PIT TO BE A MINIMUM OF 150mm THICK COMPACTED CONCRETE, REINFORCING TO HAVE 30mm COVER
- 3. PRECAST PITS ARE NOT PERMITTED
- 4. PIT DIMENSIONS ARE INDICATIVE ONLY, REFER TO PIT SCHEDULE FOR PIT SIZES.
- FOR PIT LID DETAILS REFER TO THE PIT SCHEDULE, RELEVANT STANDARD DRAWINGS AND THE CITY OF KINGSTON ROADS DRAINS DESIGN STANDARDS.

KINGSTON CITY COUNCIL STANDARD DRAWING

TYPE 2 JUNCTION PIT GREATER THAN 1.2m DEPTH AND LESS THAN 2.4m DEPTH FOR PIPES UP TO 675ϕ

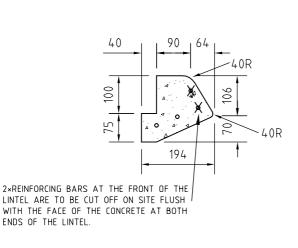
drg. no. ${
m S403}$

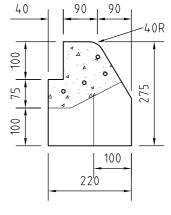
ISSUE DATE: 22/03/12



RESIDENTIAL SIDE ENTRY PIT DETAIL

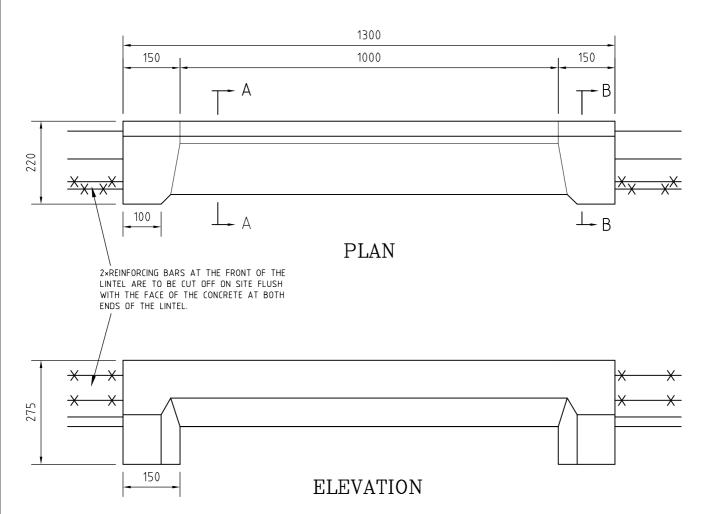
ISSUE DATE: 22/03/12





SECTION A - A

SECTION B - B



NOTES

- THIS IS A CUSTOM MADE LINTEL AND THE CONTRACTOR IS TO CONFIRM ITS AVAILABILITY IMMEDIATELY ON RECIEVING THE COUNCIL ORDER FOR THE WORKS.
- 2. THE LINTEL IS TO BE A BLACK COLOUR. THE COLOUR IS TO BE ABILOX PREMIUM SPECIAL BLACK AT A DOSE RATE OF 2% IN GREY CEMENT

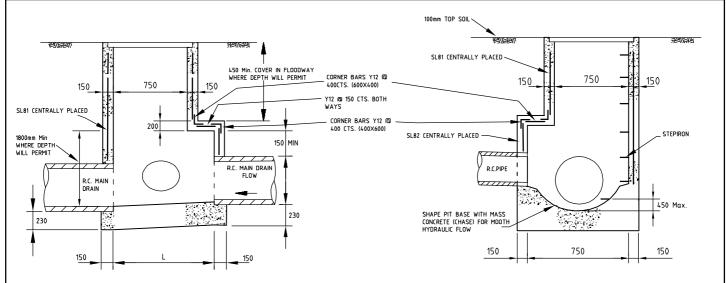
S.V.C. PRODUCTS PTY.LTD CODE: 15.303

KINGSTON CITY COUNCIL STANDARD DRAWING

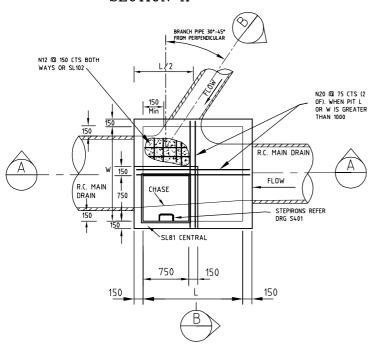
PRE-CAST LINTEL 'KNOX' TYPE 2 BLACK COLOURED

DRG. NO. S405

ISSUE DATE: 22/03/12



SECTION A



SECTION B

MAIN LINE	STANDARD DIMENSIONS								MAX. BRANCH			ONS TO F DING ON I BRANCH	BRANCH A		
DIA.		0°	0°-10°	10-20	20°-30°	30°-40°	40-45								
675	750	1050	225	750	750	750	750	750	750						
675	750	1050	300	750	750	750	750	750	900						
750	750	1050	300	750	750	750	750	750	900						
750	750	1050	375	900	900	900	900	900	900						
825	750	1050	375	900	900	900	900	900	900						
900	750	1200	450	900	900	900	1050	1050	1050						
975	750	1350	450	900	900	900	1050	1050	1050						
1050	750	1350	525	900	1050	1050	1050	1200	1200						
1125	750	1350	525	900	1050	1050	1050	1200	1200						
1200	750	1500	600	1050	1050	1050 1050 1200		1200	1350						
1275	750	1650	0 600 1050 1050 1050		1050	1200	1200	1350							
1350	750	1650	675	1050	1050	0 1050 1200		1350	1500						
1425	750	1800	675	1050	050 1050 1050 1200		1200	1350	1500						
1500	750	1800	750	1200	200 1200 1200 1350		1350	1500	1500						
1575	750	1950	750	1200	1200	1200	1350	1500	1500						
1650	750	1950	825	1200 1350 1350 135		1350	1500	1650							
1725	750	2100	825	325 1200 1350 135		1350	1350	1500	1650						
1800	750	2100	900	1350	350 1350 1350 1		1500	1650	1800						
1875	750	2250	900	1350	350 1350 1350		1500	1650	1800						
1950	750	2250	975	1500	500 1500 1500 1650		1650	1800	1950						
2100	750	2400	1050	1500	1500	1650	1650	1950	2100						
2400	750	2700	1200	1200 1650 1650 1800 1950		1950	2100	2250							

SECTIONAL PLAN

NOTES:

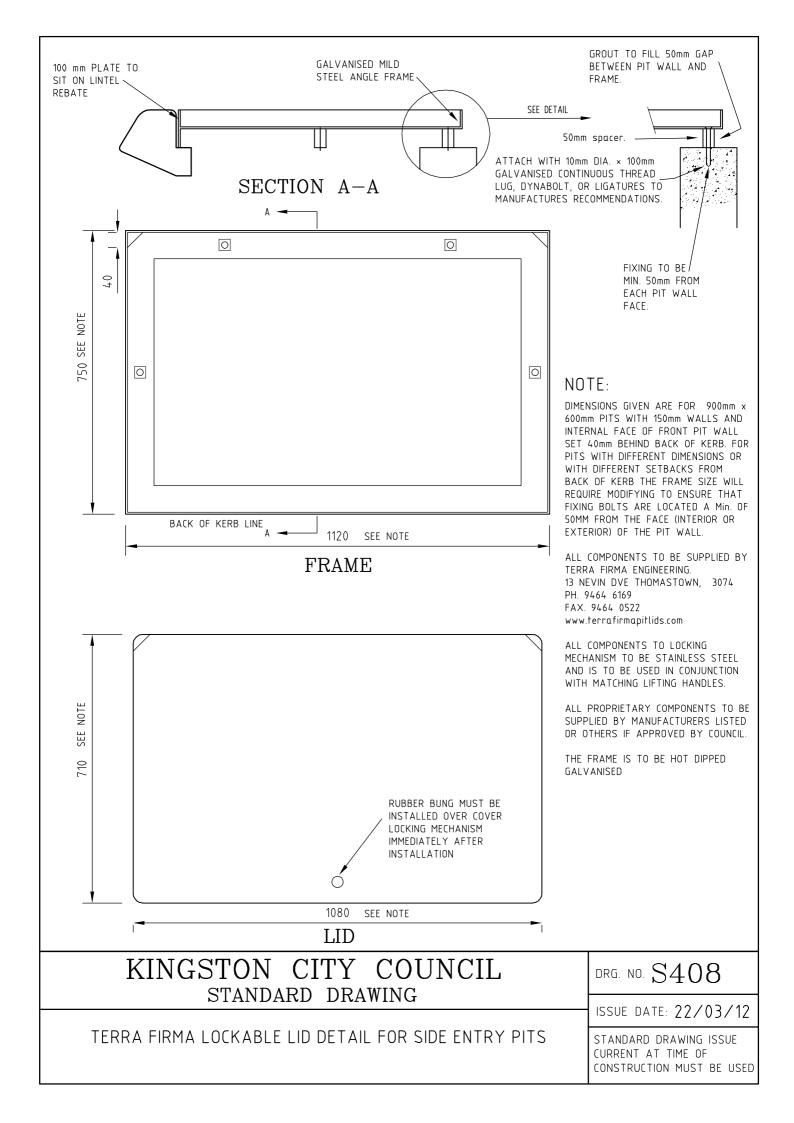
- IF THE TOP OF THE PIT NEEDS TO BE CORBELLED TO SUIT THE COVER, OR IF THE PIT IS SUFFICIENTLY DEEP TO WARRANT CORBELLING, THEN THE CORBEL MUST BE APPROPRIATELY REINFORCED AND BE A MINMUM OF 750X750mm.
- 2. PREFERENCE SHALL BE GIVEN TO ANGLING BRANCH DRAINS DOWNSTREAM AT 30° TO 45° FROM PERPENDICULAR.
- BRANCH PIPES SHALL NOT BE CONNECTED TO CORBELLED SECTIONS AND SHALL BE CLEAR OF STEPIRONS.
 BRANCH PIPES SHALL NOT BE CONNECTED TO ANY PIT CORNERS- 150mm CLEARANCE IS GENERALLY REQUIRED
 BETWEEN A PIT CORNER & OUTSIDE FACE OF PIPE.
- 4. ALL CONCRETE SHALL BE 32MPa min.
- FOR PIT LID DETAILS REFER TO THE PIT SCHEDULE, RELEVANT STANDARD DRAWINGS AND THE CITY OF KINGSTON ROADS DRAINS DESIGN STANDARDS.
- GALVANISED STEP IRONS ARE TO BE PROVIDED AS PER STANDARD DRAWING S401 WHEN THE PIT DEPTH EXCEEDS 1.0m
- ALL PROPRIETY COMPONENTS TO BE SUPPLIED BY MANUFACTURES LISTED OR OTHERS IF APPROVED BY COUNCIL.
- 8. DIMENSIONS ARE IN mm's.

KINGSTON CITY COUNCIL STANDARD DRAWING

TYPE 3 JUNCTION PIT
DIMENSIONS AND CONSTRUCTION NOTES

DRG. NO. S406

ISSUE DATE: 22/03/12

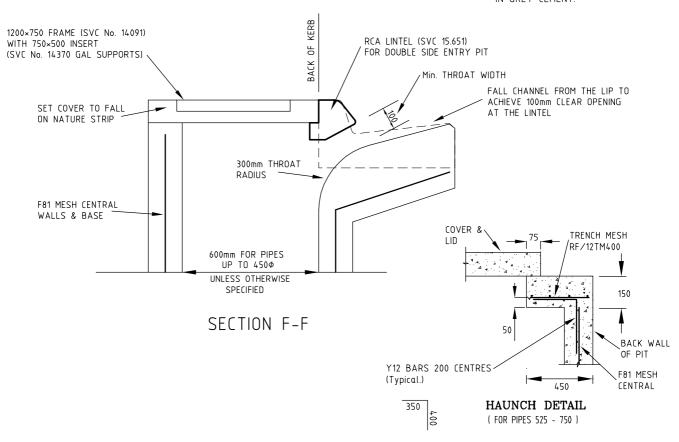


INCREASE DEPTH OF THE CHANNEL INVERT OVER 1.0m TO ACHIEVE 100mm CLEAR OPENING AT THE PIT FALL FALL FALL FALL FALL FALL FALL CHANNEL FROM THE LIP TO ACHIEVE 100mm CLEAR OPENING AT THE LINTEL

PLAN DOUBLE SIDE ENTRY PIT

NOTES:

- 1. CONCRETE STRENGTH TO BE 32 MPa.
- 2. STEP IRONS REQUIRED WHERE PITS EXCEED 1.0m. REFER TO STEP IRONS STANDARD DRAWING \$401 FOR DETAILS.
- 3. SURROUND AND INSERT SUPPLIED BY S.V.C. PRODUCTS
 38 JAPPADDY ST BRAESIDE, 3195
 PH. 9580 6644
- 4. ALL PROPRIETARY COMPONENTS TO BE SUPPLIED BY MANUFACTURERS LISTED OR OTHERS IF APPROVED BY COUNCIL.
- 5. TERRA FIRMA LID TO BE USED IN LIEU OF CONCRETE LID FOR ALL NEW SUBDIVISIONS AND INDUSTRIAL AREAS. SEE DRAWING S408 FOR DETAILS.
- CONCRETE LINTEL, PIT LIDS AND SURROUNDS ARE TO BE BLACK COLOURED.
- 7. ALL NEW CONCRETE KERB AND CHANNEL TO BE FULL DEPTH BLACK COLOUR TO ACHIEVE A CONSISTENT COLOUR. THE COLOUR IS TO BE 'ABILOX' PREMIUM SPECIAL BLACK AT A DOSE RATE OF 2.0% BY WEIGHT IN GREY CEMENT.

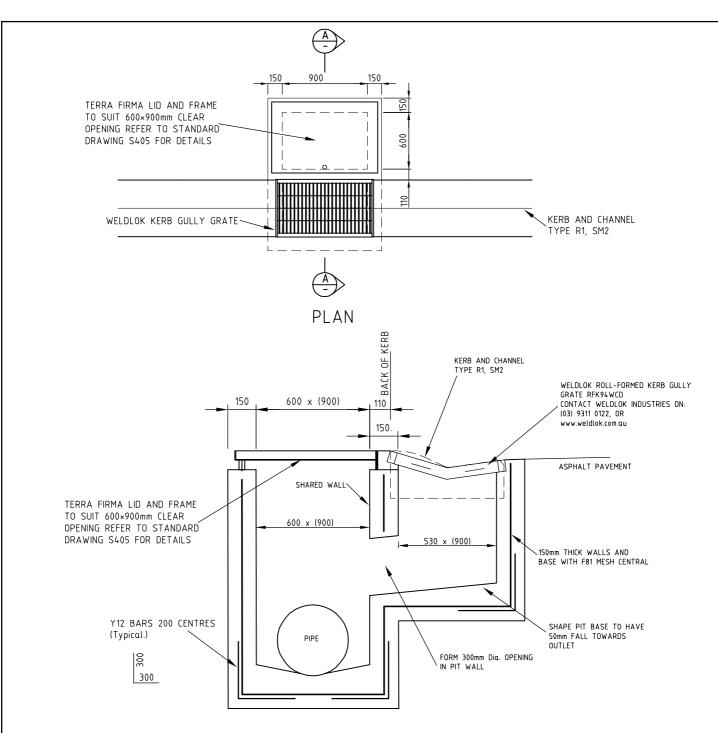


KINGSTON CITY COUNCIL STANDARD DRAWING

DOUBLE SIDE ENTRY PIT

DRG. NO. S409

ISSUE DATE: 22/03/12



SECTION A-A

NOTES

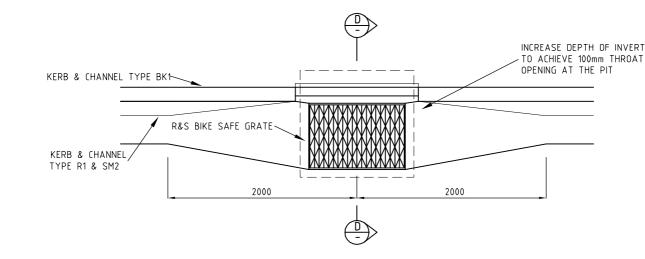
- 1. ALL CONCRETE TO BE 32MPa
- 2. DIMENSIONS ARE IN mm's.
- 3. ALL NEW CONCRETE KERB AND CHANNEL TO BE FULL DEPTH BLACK COLOUR TO ACHIEVE A CONSISTENT COLOUR. THE COLOUR IS TO BE 'ABILOX' PREMIUM SPECIAL BLACK AT A DOSE RATE OF 2.0% BY WEIGHT IN GREY CEMENT.
- GRATE TO BE A WELDLOK ROLL-FORMED KERB GRATE MODEL No. RFK95SYD AVAILABLE FROM WELDLOK INDUSTRIES.
- 5. THE BACK WALL IS TO BE CORBELED FOR PIPES LARGER THAN 525mm Dia. RUNNING PARALLEL WITH THE KERB AND CHANNEL.
- GALVANISED STEP IRONS ARE TO BE PROVIDED AS PER STANDARD DRAWING \$401 WHEN THE PIT DEPTH EXCEEDS 1.0m
- ALL PROPRIETY COMPONENTS TO BE SUPPLIED BY MANUFACTURES LISTED OR OTHERS IF APPROVED BY COUNCIL.

KINGSTON CITY COUNCIL STANDARD DRAWING

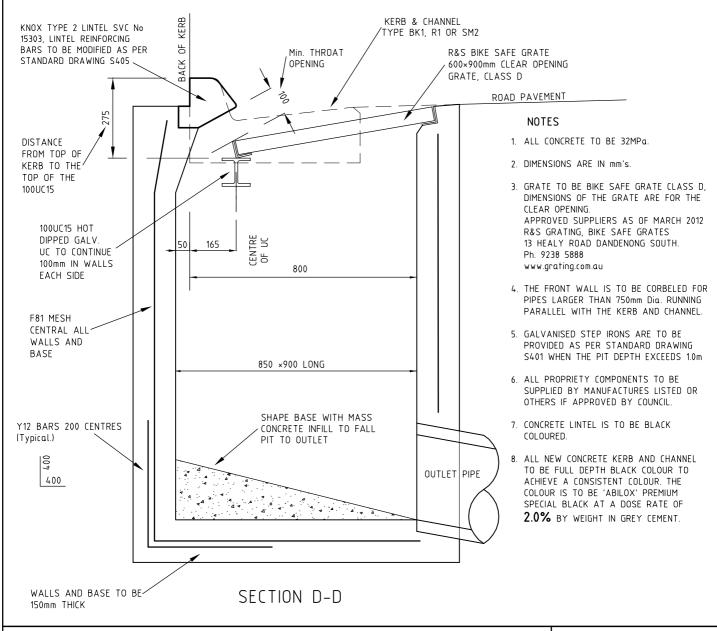
CHANNEL GRATE PIT
FOR ROLL OVER KERB AND CHANNEL TYPE R1

DRG. NO. ${
m S410}$

ISSUE DATE: 22/03/12



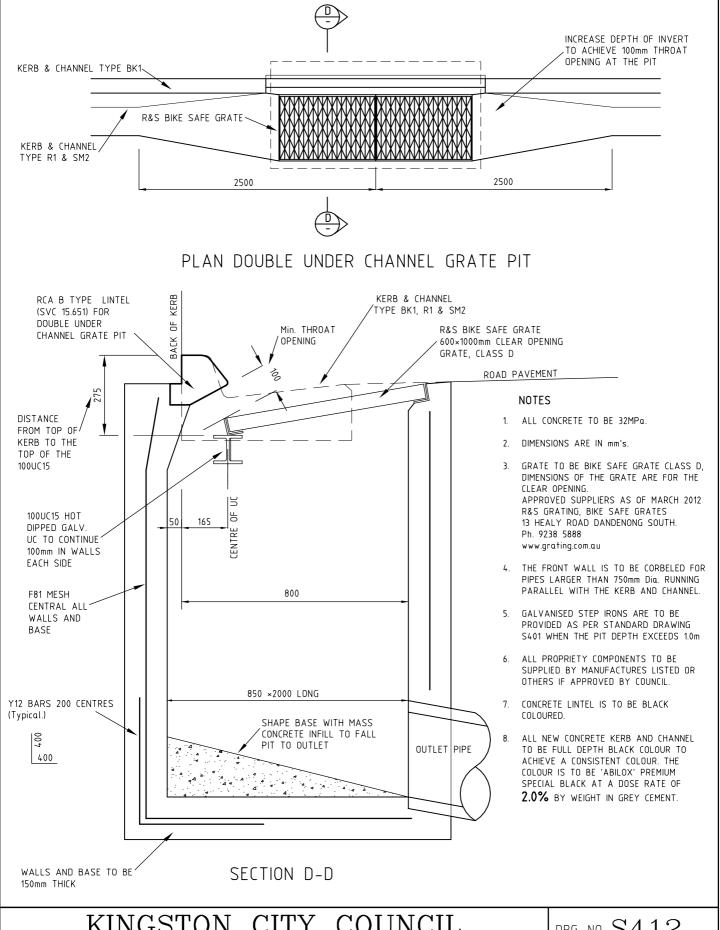
PLAN UNDER CHANNEL GRATE PIT



KINGSTON CITY COUNCIL STANDARD DRAWING

SINGLE UNDER CHANNEL GRATE PIT FOR KERB AND CHANNEL TYPE BK1, R1, SM2 DRG. NO. S411

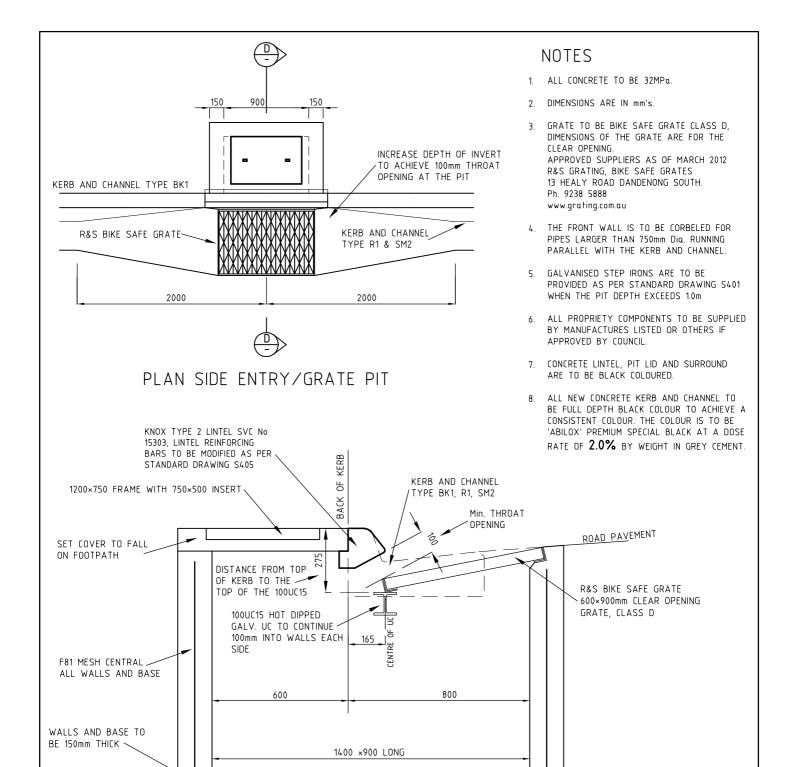
ISSUE DATE: 22/03/12



KINGSTON CITY COUNCIL STANDARD DRAWING

DOUBLE UNDER CHANNEL GRATE PIT FOR KERB AND CHANNEL TYPE BK1, R1, SM2 DRG. NO. S412

ISSUE DATE: 22/03/12



SECTION D-D

SHAPE BASE WITH MASS CONCRETE INFILL TO FALL PIT TO OUTLET

KINGSTON CITY COUNCIL STANDARD DRAWING

Y12 BARS 200 CENTRES

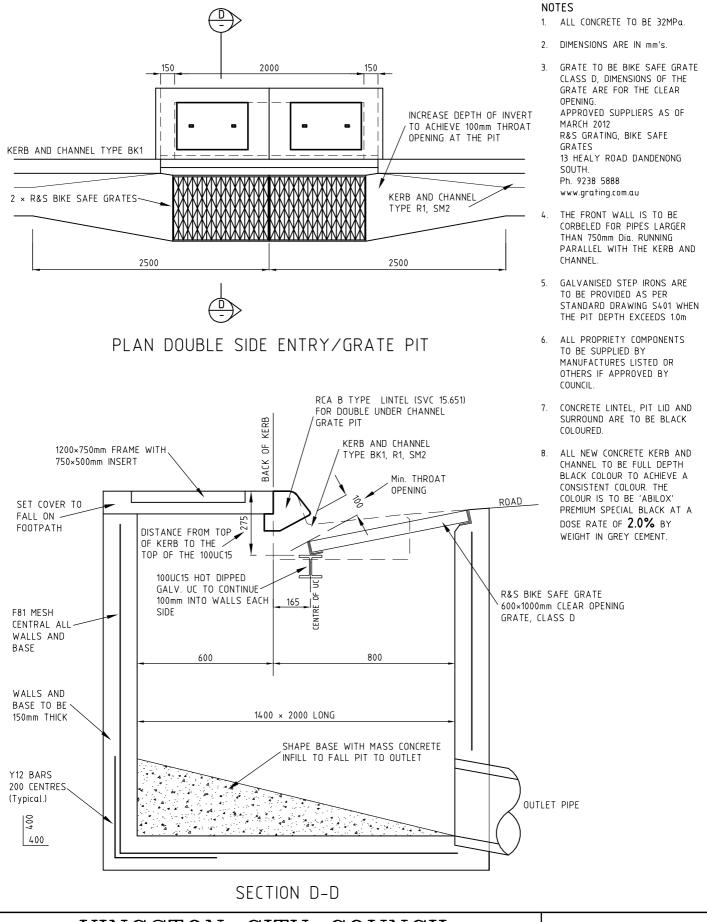
(Typical.)

400

SIDE ENTRY GRATE PIT FOR KERB AND CHANNEL TYPE BK1, R1, SM2 DRG. NO. S413

OUTLET PIPE

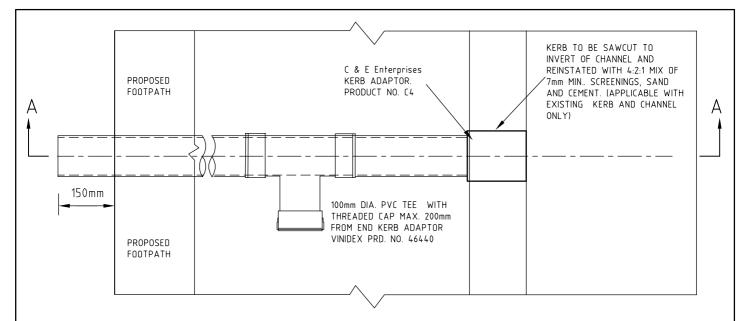
ISSUE DATE: 22/03/12



KINGSTON CITY COUNCIL STANDARD DRAWING

DOUBLE SIDE ENTRY GRATE PIT FOR KERB AND CHANNEL TYPE BK1, R1, SM2 DRG. NO. S414

ISSUE DATE: 22/03/12



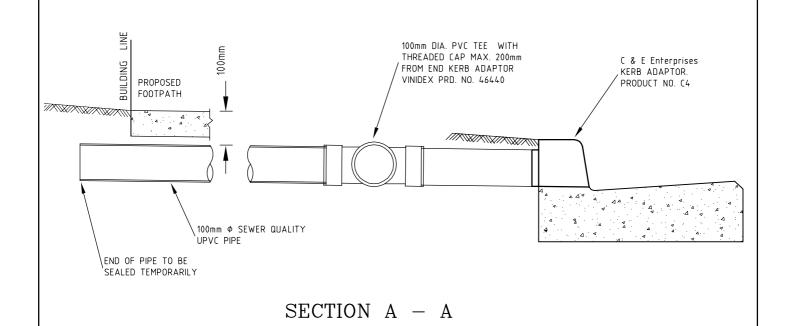
PLAN

- ALL PIPES, FITTINGS AND KERB ADAPTOR TO BE SEWER QUALITY UPVC.
- 2. ALL CONNECTIONS TO BE CARRIED OUT USING FABRICATED FITTINGS TO MANUFACTURERS SPECIFICATIONS.
- 3. HOUSE DRAIN TO BE LAID AT A MINIMUM GRADE OF 1 IN 100.
- WHERE A CHANGE OF DIRECTION IN THE PIPE IS REQUIRED A SEWER QUALITY UPVC I.O. IS TO BE PROVIDED.
- 5. FOR NEW KERB AND CHANNEL, ADAPTORS MUST BE PLACED WITHIN 1 HOUR OF CONCRETE POUR.

- ALL PROPRIETARY COMPONENTS TO BE SUPPLIED BY MANUFACTURERS LISTED OR OTHERS IF APPROVED BY COUNCIL.
- 7. KNOWN MELBOURNE RETAILERS OF C & E KERB ADAPTORS AS AT MARCH 2012 ARE:

R&S GRATING, 13 HEALY ROAD DANDENONG SOUTH. Ph. 9238 5888 www.grating.com.au

8. 'C4' ADAPTOR SHOWN IS FOR BK1 KERB PROFILE. C. & E. ENTERPRISES STOCK DIFFERENT KERB ADAPTORS FOR OTHER KERB PROFILES.

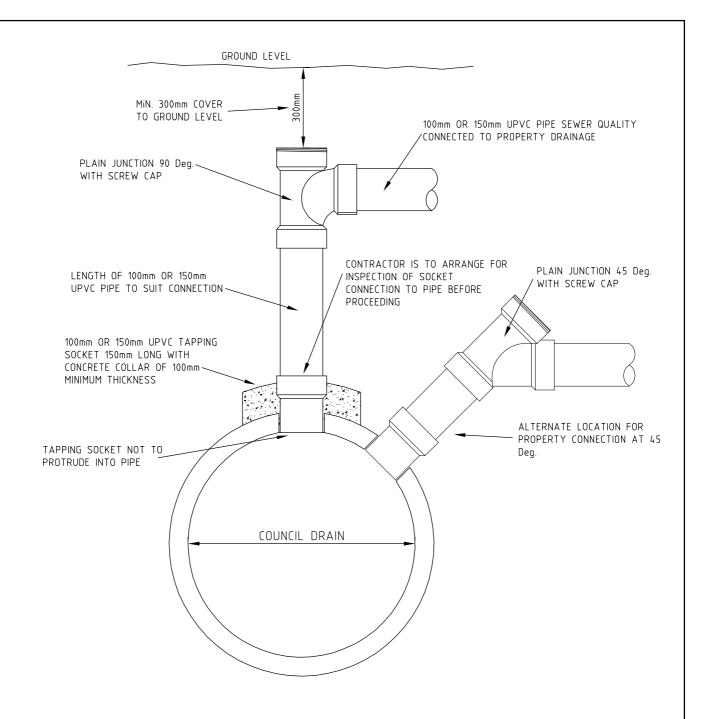


KINGSTON CITY COUNCIL STANDARD DRAWING

CONNECTION OF HOUSE STORMWATER DRAIN
TO KERB AND CHANNEL

DRG. NO. S501

ISSUE DATE: 22/03/12



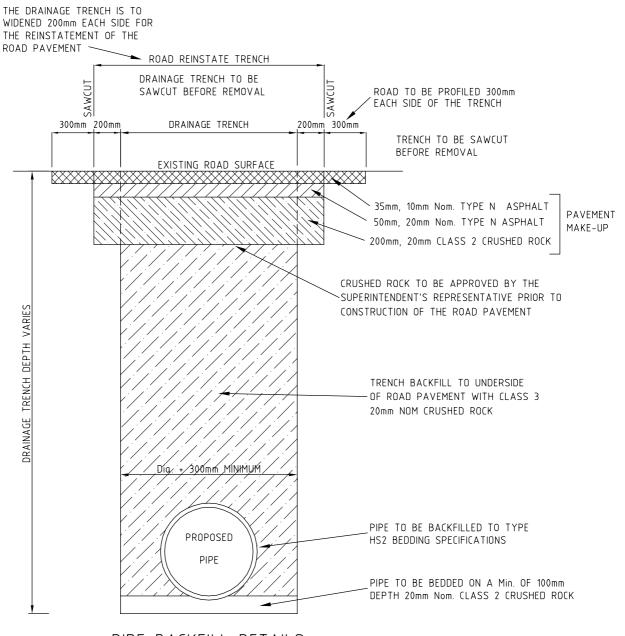
- NOTES 1. CONNECTION OPENING INTO COUNCIL DRAIN TO BE KEPT TO A MINIMUM.
 - 2. REINFORCEMENT IN COUNCIL DRAIN TO BE CUT FLUSH WITH THE EDGE OF THE OPENING.
 - 3. SOCKET MUST NOT PROTUDE INTO THE PIPE, MORTAR TO BE NEATLY RENDERED ON THE INSIDE OF THE PIPE.
 - 4. CONTRACTOR MUST CONTACT COUNCIL TO INSPECT THE SOCKET CONNECTION TO THE PIPE NO FURTHER WORK IS TO PROCEED UNTIL THE SOCKET CONNECTION IS INSPECTED.

KINGSTON CITY COUNCIL STANDARD DRAWING

CONNECTION OF 100 OR 150mm DRAINAGE PIPES TO COUNCIL STORMWATER DRAIN

DRG. NO. S503

ISSUE DATE: 22/03/12



PIPE BACKFILL DETAILS IN ASPHALT ROAD PAVEMENT

NOT TO SCALE

PIPE BACKFILL DETAILS

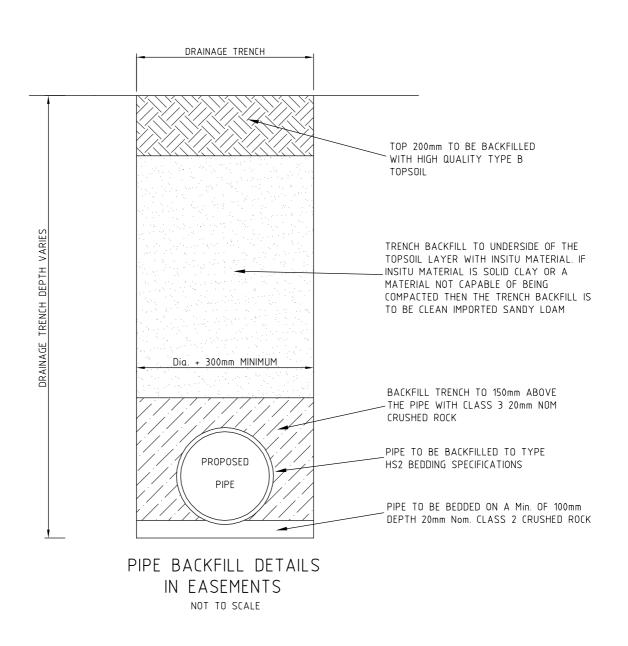
- ALL PIPES LOCATED UNDER THE ROAD PAVEMENT TO HAVE THEIR TRENCHES NEATLY SAWCUT PRIOR TO REMOVAL WITH THE PIPES TO BE BACKFILLED AS PER THE DETAIL SHOWN ABOVE.
- THE DRAINAGE TRENCH IS TO WIDENED AFTER THE DRAINAGE CONSTRUCTION TO ALLOW FOR THE REINSTATEMENT OF THE ROAD PAVEMENT AS SHOWN ABOVE. ANY WIDENING OF THE TRENCHES OVER THE DIMENSIONS AS SHOWN ABOVE IS TO BE AT THE CONTRACTORS EXPENSE.
- 3. FOR ALL OTHER ROAD TYPES PAVEMENT MAKEUP TO BE DIRECTED BY COUNCIL.

KINGSTON CITY COUNCIL STANDARD DRAWING

PIPE BACKFILL DETAIL RESIDENTIAL PAVEMENTS

DRG. NO. S505

ISSUE DATE: 22/03/12



PIPE BACKFILL DETAILS

- ALL PIPES LOCATED UNDER STRUCTURES SUCH AS SHEDS, GARAGES, Etc., DRIVEWAYS OR PAVED AREAS ARE TO BE BACKFILLED TO THE UNDERSIDE OF THE STRUCTURE OR PAVING WITH CLASS 3 20mm Nom. CRUSHED ROCK.
- COMPACTION OF ALL PIPE BACKFILL ZONES TO BE TO COUNCILS STANDARD SPECIFICATIONS FOR ROAD AND DRAINAGE WORKS

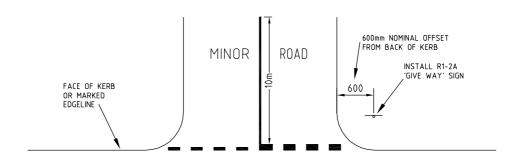
KINGSTON CITY COUNCIL STANDARD DRAWING

PIPE BACKFILL DETAIL EASEMENTS

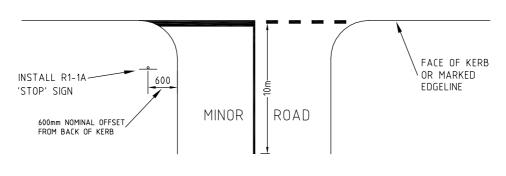
DRG. NO. S506

ISSUE DATE: 22/03/12

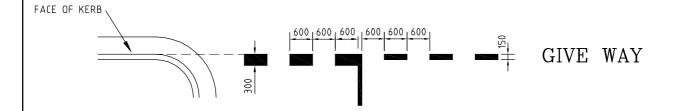
NOTE - SIZE OF SIGNS TO BE CONFIRMED BY SUPERINTENDANT'S REPRESENTATIVE PRIOR TO INSTALLATION

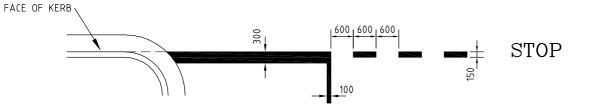






PLAN



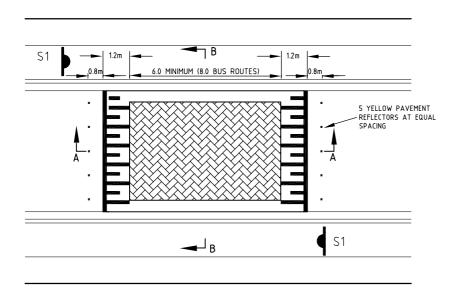


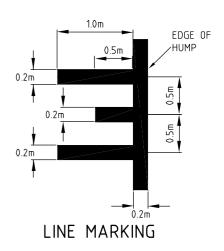
DETAILS OF MARKINGS

KINGSTON CITY COUNCIL STANDARD DRAWING

'GIVEWAY' AND 'STOP' LINEMARKING AND SIGNAGE GENERAL URBAN AND RURAL USE DRG. NO. S601

ISSUE DATE: 22/03/12





PLAN

SIGNAGE AND LINEMARKING NOTES

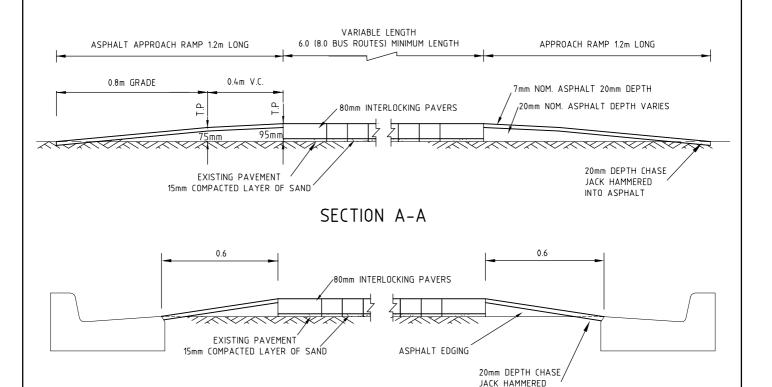
- ALL SIGNAGE TO BE MANUFACTURED IN ACCORDANCE WITH AS1742 "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)
- UNLESS OTHERWISE SHOWN ON THE PLANS, ALL SIGNS, RRPM'S AND LINEMARKING TO BE INSTALLED IN ACCORDANCE WITH VICROADS TRAFFIC ENGINEERING MANUAL VOLUME 2, "SIGNS AND MARKINGS"
- ALL LINEMARKING TO BE CARRIED OUT BY A CONTRACTOR APPROVED BY COUNCIL'S SUPERINTENDENT'S REPRESENTATIVE.
- 4. ALL LINEMARKING MATERIALS TO BE THERMOPLASTIC IN ACCORDANCE WITH VICROADS STANDARD SPECIFICATIONS FOR ROADWORKS AND BRIDGEWORKS SECTION 722 PART D: LONGLIFE PAVEMENT MARKINGS IN THERMOPLASTIC OR COLD-APPLIED PLASTIC WITH GLASS BEADS AND OTHER REQUIREMENTS.



SIGN S1 ROAD HUMP W5-10A



SIGN S1 ADVISORY SPEED SIGN...km/h W8-2A 600×400mm



SECTION B-B

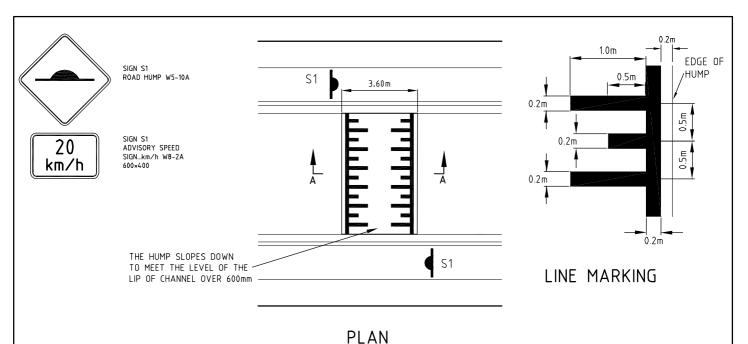
INTO ASPHALT

KINGSTON CITY COUNCIL STANDARD DRAWING

STANDARD RAISED PAVEMENT

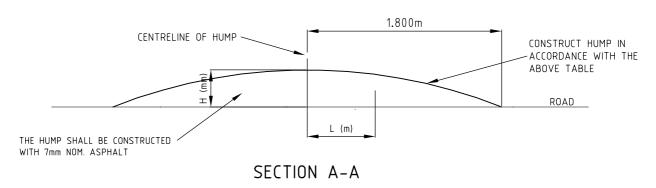
DRG. NO. S602

ISSUE DATE: 22/03/12





	WATTS PROFILE SPEEDHUMP PROFILE																		
L (m)	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
H (mm)	100	100	99	97	95	93	90	86	81	76	71	65	58	51	43	34	25	16	5



SIGNAGE AND LINEMARKING NOTES

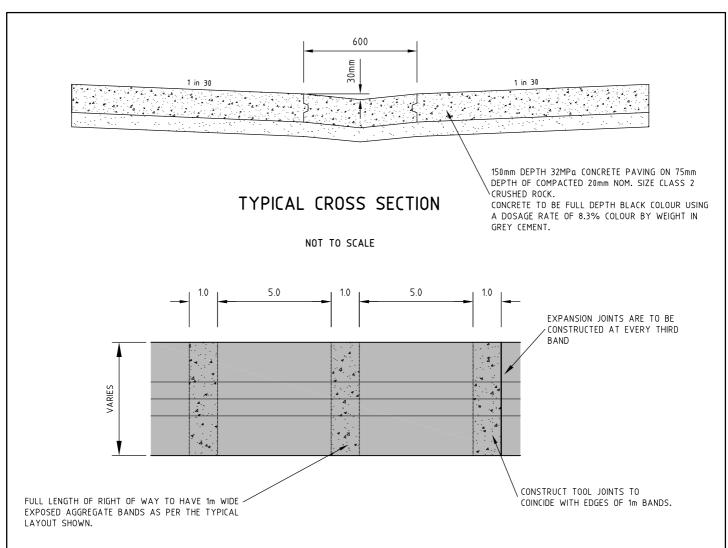
- ALL SIGNAGE TO BE MANUFACTURED IN ACCORDANCE WITH AS1742 "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)
- UNLESS OTHERWISE SHOWN ON THE PLANS, ALL SIGNS, RRPM'S AND LINEMARKING TO BE INSTALLED IN ACCORDANCE WITH VICROADS TRAFFIC ENGINEERING MANUAL VOLUME 2, "SIGNS AND MARKINGS"
- 3. ALL LINEMARKING TO BE CARRIED OUT BY A CONTRACTOR APPROVED BY COUNCIL'S SUPERINTENDENT'S REPRESENTATIVE.
- 4. ALL LINEMARKING MATERIALS TO BE THERMOPLASTIC IN ACCORDANCE WITH VICROADS STANDARD SPECIFICATIONS FOR ROADWORKS AND BRIDGEWORKS SECTION 722 PART D: LONGLIFE PAVEMENT MARKINGS IN THERMOPLASTIC OR COLD-APPLIED PLASTIC WITH GLASS BEADS AND OTHER REQUIREMENTS.

KINGSTON CITY COUNCIL STANDARD DRAWING

'WATTS' PROFILE SPEED HUMP

DRG. NO. S604

ISSUE DATE: 22/03/12

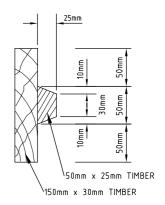


TYPICAL LAYOUT PLAN

NOT TO SCALE

NOTES:

- 1. CONCRETE STRENGTH TO BE 32MPa AT 28 DAYS
- PAVEMENT DEPTH SHOWN IS FOR RIGHT OF WAYS ABBUTTING RESIDENTIAL PROPERTIES WITH SUBGRADES OF A MINIMUM CBR OF 10. FOR LOCATIONS INVOLVING LOWER CBR'S OR WHERE COMMERCIAL TRAFFIC CAN BE ANTICIPATED PAVEMENT DEPTH AND REINFORCING STEELS IS TO BE DESIGNED ON A SITE SPECIFIC BASIS.
- 3. EXPOSED BANDS ARE TO BE POURED MONOLITHICALLY WITH ADJOINING COLOURED CONCRETE.
- 4. EXPANSION JOINTS ARE TO BE CONSTRUCTED AT EVERY THIRD BAND USING A 'CONNOLLY EXPANSION JOINT'. CONTACT 'CONNOLLY KEY JOINT' ON 1800 335 215 FOR DETAILS.
- THERE ARE MULTIPLE CHEMICAL RETARDENTS READILY AVAILABLE TO PROVIDE THE EXPOSED AGGREGATE FINISH.
- THE RETARDER IS TO BE APPLIED IN A UNIFORM APPLICATION TO THE FRESHLY PLACED CONCRETE SURFACE PRIOR TO THE INITIAL SET.
- ONCE THE CONCRETE HAS SET THE SOFT CEMENT PASTE MAY BE BRUSHED OFF. EXACT TIMING OF THE CHEMICAL APPLICATION AND CEMENT PASTE REMOVAL IS TO BE IN ACCORDANCE WITH THE MANUFACTURERS DETAILS.



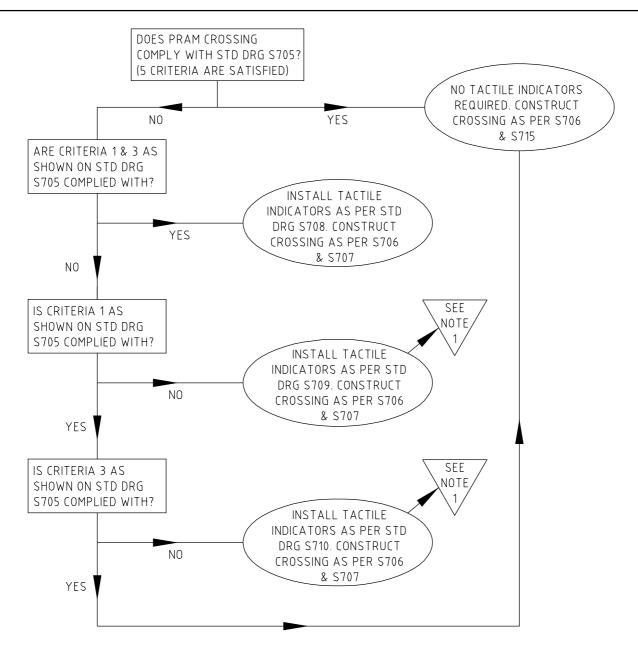
KEY DETAIL
NOT TO SCALE

KINGSTON CITY COUNCIL STANDARD DRAWING

STANDARD RIGHT OF WAY CONSTRUCTION DETAILS

DRG. NO. S605

ISSUE DATE: 22/03/12



THE FLOW CHART ABOVE REFERS DIRECTLY OR INDIRECTLY TO THE FOLLOWING STANDARD DRAWINGS

S702 WARNING TACTILE INDICATORS

S703 DIRECTIONAL TACTILE INDICATORS

S704 PATH OF TRAVEL FOR SIGHT IMPAIRED

S705 CRITERIA SUCH THAT TACTILE INDICATORS ARE NOT REQUIRED

S706 PRAM CROSSING LAYOUT

S707 PRAM RAMP DIMENSIONS FOR CROSSINGS WITH TACTILE INDICATORS.

S708 TACTILE INDICATOR LAYOUT IF CRITERIA 2, 4 OR 5 ARE NOT COMPLIED WITH

S709 EXAMPLE TACTILE INDICATOR LAYOUT IF CRITERIA 1 IS NOT COMPLIED WITH

S710 EXAMPLE TACTILE INDICATOR LAYOUT IF CRITERIA 3 IS NOT COMPLIED WITH

S711 CHANGE OF GRADE BETWEEN APPROACH & RAMP SO THAT TACTILE INDICATORS ARE NOT REQUIRED

S712 SPLITTER ISLAND EXAMPLE TACTILE INDICATOR LAYOUT

S713 MID BLOCK CROSSINGS TACTILE INDICATOR LAYOUT

S714 BUS STOP TACTILE INDICATOR LAYOUT

S715 PRAM RAMP DIMENSIONS FOR CROSSINGS WITHOUT TACTILE INDICATORS.

KINGSTON CITY COUNCIL STANDARD DRAWING

TACTILE INDICATOR REQUIREMENTS FOR PRAM CROSSINGS FLOW CHART

DRG. NO. S701

IF THE EXAMPLE PATH

LAYOUT

CONFIGURATIONS DO NOT

REPRESENT THE ON SITE SITUATION THEN CONTACT

COUNCIL TO NOMINATE THE

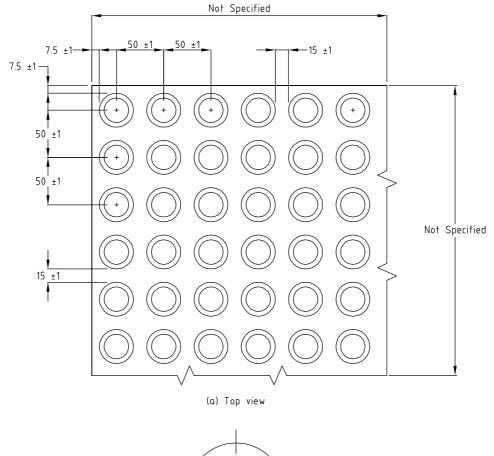
REQUIRED TACTILE INDICATOR

NOTE 1.

ISSUE DATE: 22/03/12

2.2.3.3 Design requirements

The design of warning indicators shall comply with Figure 1.



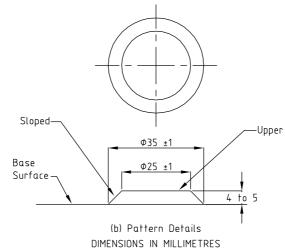


FIGURE 1 TYPICAL WARNING INDICATOR PATTERN

NOTES

REFER TO SECTION 2.2.3.3 OF AS1428.4 :2002 (PAGE 12) FOR THE DESIGN REQUIREMENTS OF WARNING INDICATORS.

REFER TO SECTION 2.1(b) OF AS1428.4 :2002 (PAGE 10) FOR LUMINANCE CONTRAST CRITERIA FOR TACTILE INDICATORS.

NOTE THAT COUNCIL HAS ADOPTED THE USE OF TACTILE INDICATOR LAYOUTS PLACED IN MULTIPLES OF 300mm (EG WARNING INDICATOR PADS ON PRAM CROSSINGS ARE GENERALLY 900mm x 600mm)

KINGSTON CITY COUNCIL STANDARD DRAWING

WARNING TACTILE INDICATORS

DRG. NO. S702

ISSUE DATE: 22/03/12

2.243.3 Design requirements

The design of directional indicators shall comply with Figure 2.

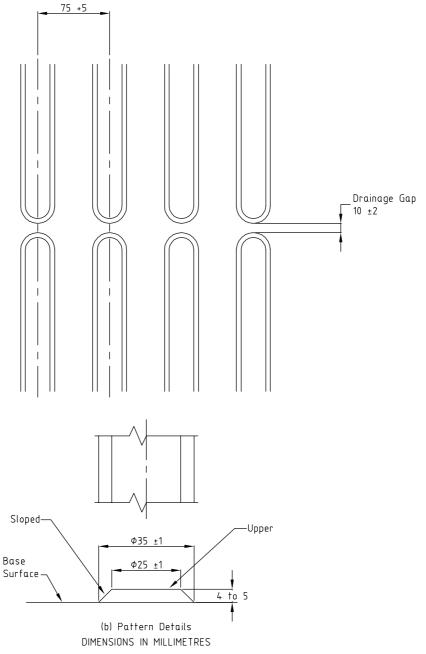


FIGURE 2 TYPICAL DIRECTIONAL INDICATOR PATTERN

NOTES

REFER TO SECTION 2.2.4.3 OF AS 1428.4 :2002 (PAGES 13 & 14) FOR THE DESIGN REQUIREMENTS OF DIRECTIONAL INDICATORS.

REFER TO SECTION 2.1(b) OF AS1428.4 :2002 (PAGE 10) FOR LUMINANCE CONTRAST CRITERIA FOR TACTILE INDICATORS.

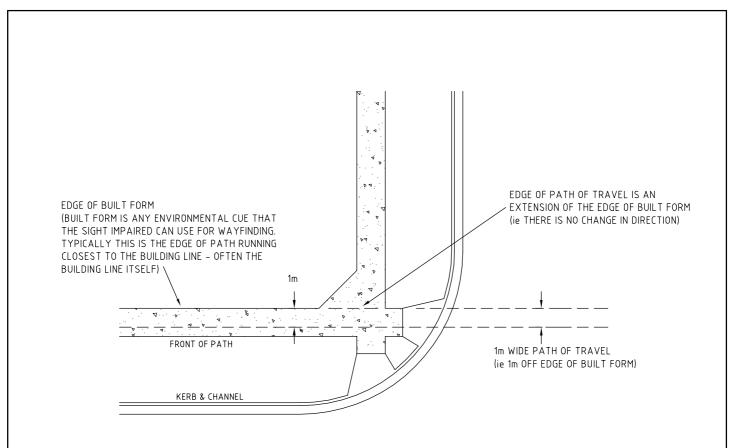
NOTE THAT COUNCIL HAS ADOPTED THE USE OF TACTILE INDICATOR LAYOUTS PLACED IN MULTIPLES OF 300mm (EG WARNING INDICATOR PADS ON PRAM CROSSINGS ARE GENERALLY 900mm x 600mm)

KINGSTON CITY COUNCIL STANDARD DRAWING

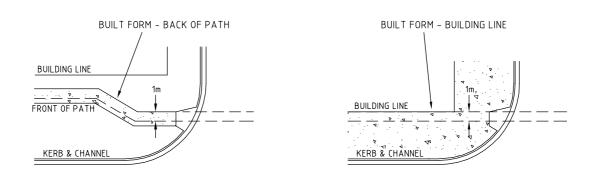
DIRECTIONAL TACTILE INDICATORS

DRG. NO. S703

ISSUE DATE: 22/03/12



EXAMPLES



THIS DRAWING IS INTENDED TO CLARIFY COUNCIL'S DEFINITION OF THE TRAVEL PATH FOR SITE IMPAIRED PEDESTRIANS. THIS DEFINITION IS BASED ON COUNCIL'S UNDERSTANDING OF AS1428.4:2002

KINGSTON CITY COUNCIL STANDARD DRAWING

PATH OF TRAVEL FOR SIGHT IMPAIRED

DRG. NO. S704

ISSUE DATE: 22/03/12

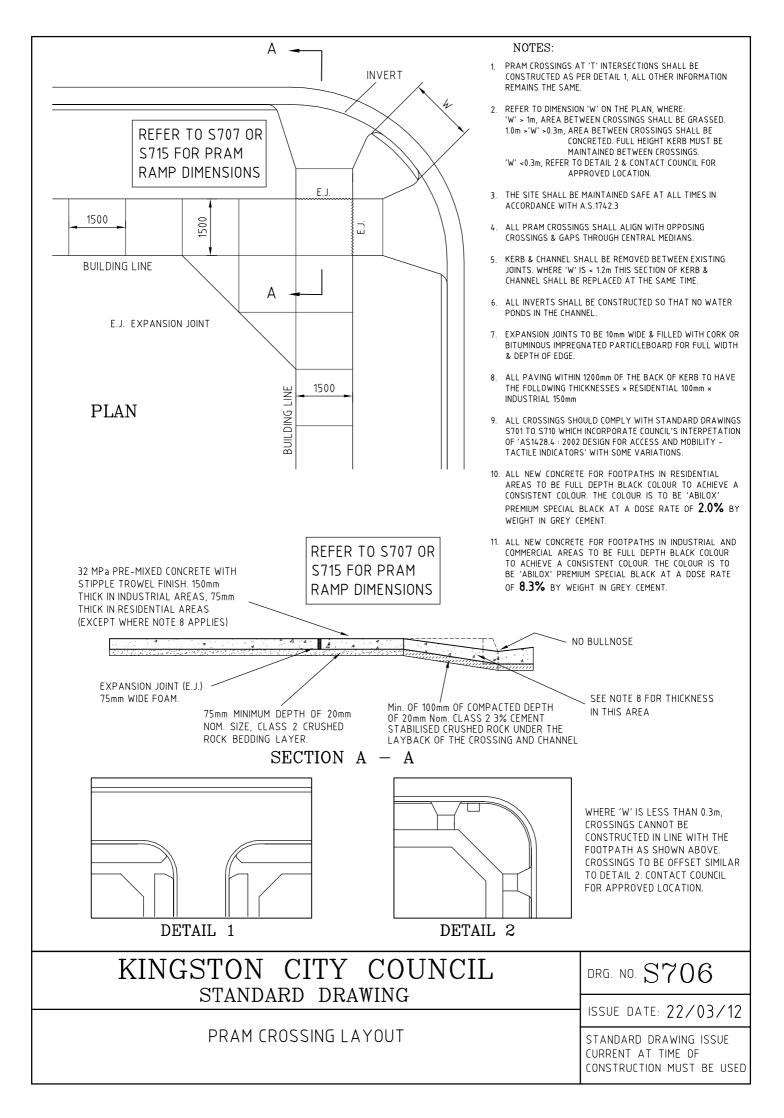
EDGE OF BUILT FORM (REFER TO S704 FOR DEFINITION) NOTE – THESE CRITERIA (EXCLUDING THE NOTE MARKED AS #1) ARE COUNCIL'S INTERPRETATION OF AS1428.4 :2002 3. a) EDGE OF NATURE STRIP TO BE WITHIN 3m (SEE #) OF CORNER OF BUILT FORM WHEN NATURE STRIP PRESENT # IF THERE IS A REASONABLE EXPECTATION THAT A VISION IMPAIRED PEDESTRIAN WILL BE ABLE TO RE-ESTABLISH THE CORRECT TRAVEL PATH WITHOUT ENDANGERING THEMSELVES THEN THE 3m LIMIT CAN BE (ERB & CHANNE) b) BACK OF PRAM RAMP TO BE WITHIN 3m (SEE #) OF CORNER OF BUILT FORM WHEN AREA FULLY PAVED 1. In WIDE PATH OF TRAVEL (REFER TO S704 FOR DEFINITION) TO FALL WITHIN PRAM CROSSINGS CHANGE IN GRADE BETWEEN RAMP AND PATH TO BE 6.7° MIN (REFER TO STD DRG S711) 3m OR SEE # CRITERIA 3b. 5 BASIC CRITERIA TO BE MET SUCH THAT TACTILE INDICATORS ARE NOT REQUIRED ESS THAN 4. BACK OF PRAM RAMP TO BE 90° TO THE PEDESTRIAN'S DIRECTION OF TRAVEL 5. THE SHORT SIDE OF THE PRAM RAMP TO BE A MAXIMUM OF 1.52m FULLY PAVED TO BACK OF KERB PATH OF TRAVEL TO FALL WITHIN PRAM CRITERIA 1. CROSSING INCREASED TO 8m RAMP LENGTH MAX 1.52m AT CRITERIA 5. THIS POINT GRASSED NATURE STRIP CRITERIA 2. CHANGE IN GRADE OF 6.7° MIN LESS THAN 3m OR SEE # CRITERIA 3a. PEDESTRIANS DIRECTION 0 4 TOP OF RAMP 90° TO CRITERIA 4 OF TRAVEL : þ (REFER TO S704 FOR DEFINITION) EDGE OF BUILT FORM A 4 |-

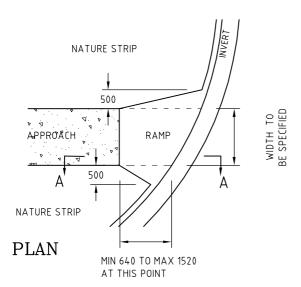
KINGSTON CITY COUNCIL STANDARD DRAWING

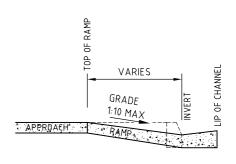
CRITERIA SUCH THAT TACTILE INDICATORS ARE NOT REQUIRED

DRG. NO. S705

ISSUE DATE: 22/03/12

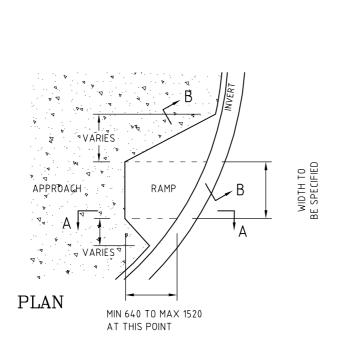


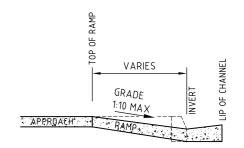




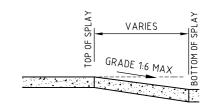
SECTION A - A

PRAM CROSSINGS BORDERING NATURE STRIP





SECTION A - A



SECTION B - B

PRAM CROSSINGS IN FULLY PAVED AREAS

LEGEND



SHARP CHANGE IN GRADE

PAVED SURFACE BEHIND PRAM RAMP

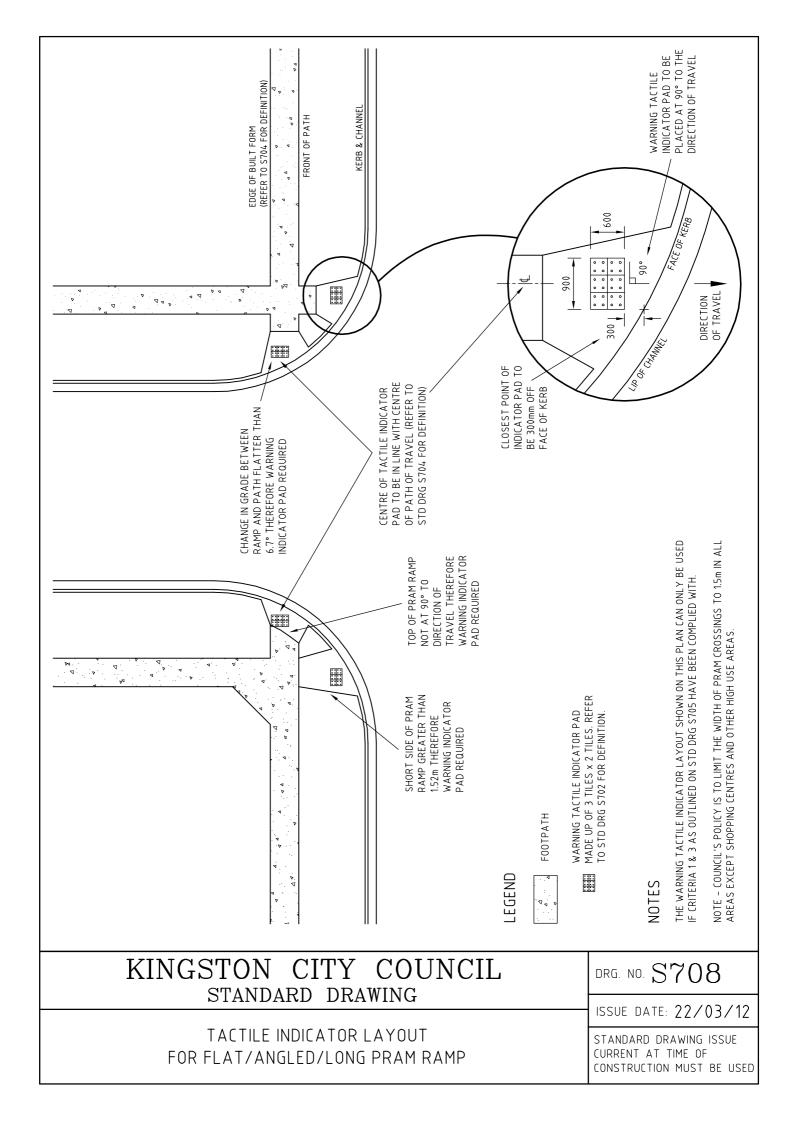
REFER TO S706 FOR PRAM CROSSING LOCATION AND MAKEUP

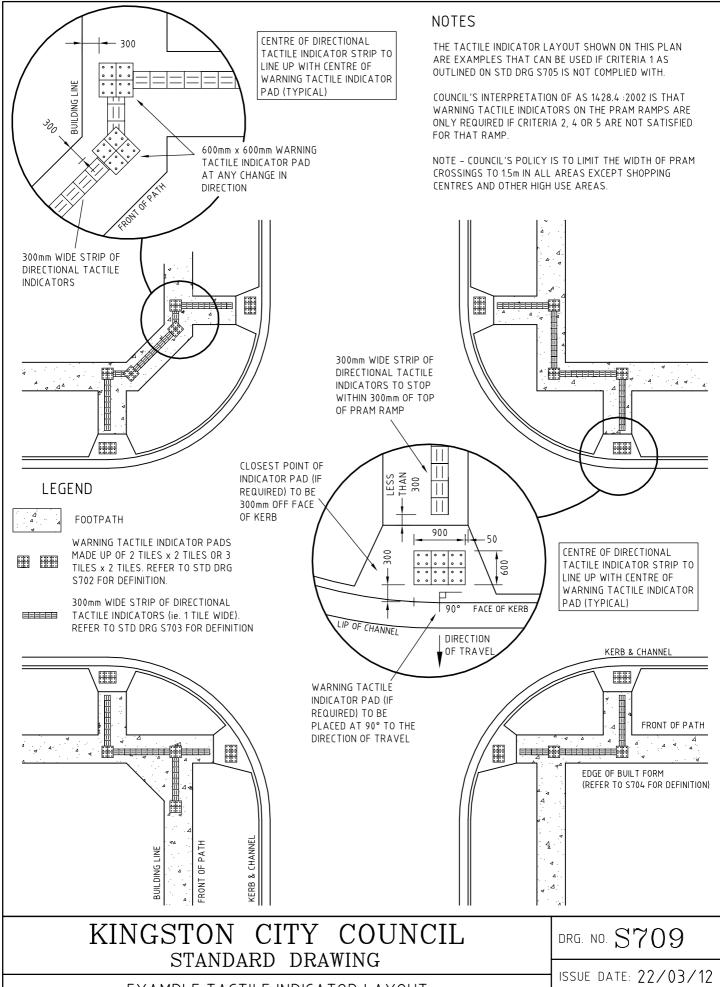
KINGSTON CITY COUNCIL STANDARD DRAWING

PRAM RAMP DIMENSIONS
FOR PRAM CROSSINGS WITH TACTILE INDICATORS

DRG. NO. S707

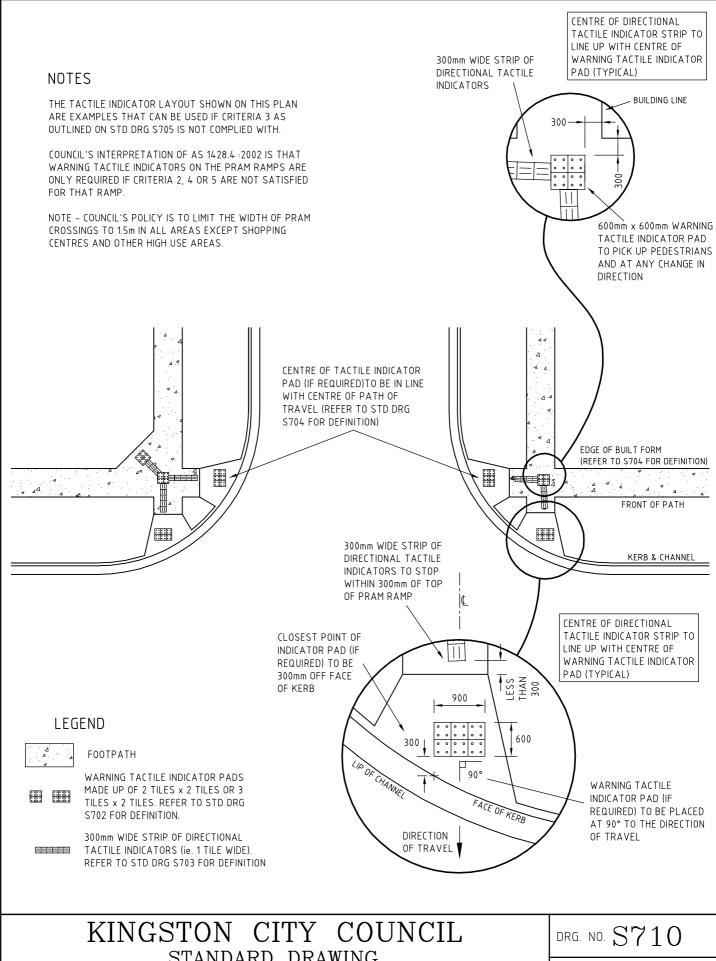
ISSUE DATE: 22/03/12





EXAMPLE TACTILE INDICATOR LAYOUT
IF CRITERIA 1 IS NOT COMPLIED WITH

(CRITERIA 1 - PATH OF TRAVEL TO BE WITHIN PRAM CROSSING)



STANDARD DRAWING

EXAMPLE TACTILE INDICATOR LAYOUT IF CRITERIA 3 IS NOT COMPLIED WITH

(CRITERIA 3 - RAMP OR NATURE STRIP [AS REQUIRED] NOT WITHIN 3m OF BUILDING LINE)

ISSUE DATE: 22/03/12

TABLES AND NOTES ON THIS PAGE ARE BASED ON COUNCIL'S INTERPRETATION OF AS1428.4. IF WARNING TACTILE INDICATORS ON A PRAM RAMP ARE NOT USED THEN THIS STANDARD REQUIRES THAT A CHANGE IN GRADE BETWEEN THE PRAM RAMP AND THE FOOTPATH BEHIND THE PRAM RAMP (OVER A LENGTH OF MIN 1.2m) IS TO BE A MINIMUM OF 6.7° (EQUIVALENT TO 1 IN 8.5)

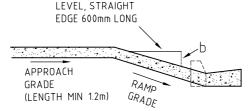
SETOUT OF PRAM CROSSING CAN ONLY BE CARRIED OUT IF INVERT LEVEL OF CHANNEL AT CENTRE OF PRAM CROSSING IS KNOWN. NOTE THAT THE MAIN DESIGN CRITERIA FOR PRAM CROSSING LAYOUT IS NOW GRADE AND NOT SET LEVEL DIFFERENCES, WITH ONLY A SMALL RANGE OF ALLOWABLE GRADES TO WORK WITH.

TO ACHIEVE THE REQUIRED GRADES AND TO MATCH IN WITH SURROUNDING FOOTPATH, THE SIZE OF INDIVIDUAL PRAM CROSSINGS WILL NEED TO BE VARIED, SUBJECT TO VARIOUS LIMITING FACTORS.

NOTE THAT DUE TO MAXIMUM GRADES ALLOWABLE TO CONFORM WITH WHEELCHAIR ACCESS REQUIREMENTS AND THE REQUIREMENT OF THE VISUALLY IMPAIRED TO HAVE A DISTINCT CHANGE IN GRADE IF TACTILE INDICATORS ARE TO BE AVOIDED, FOOTPATH APPROACHING A PRAM CROSSING CAN NOT HAVE FALL TOWARDS THE PRAM CROSSING IF TACTILE INDICATORS ARE NOT TO BE USED. IE APPROACHING FOOTPATH MUST EITHER HAVE ZERO LONGITUDINAL FALL OR FALL AWAY FROM THE CROSSING.

FLAT PATH APPROACHING RAMP

b = 71mm (+/- 5mm)



HEIGHT 'b' IS TO BE MEASURED IN LINE WITH THE CENTRE OF THE PRAM RAMP.

'b' must be 71mm(+/- 5mm)

FOR MAXIMUM AND MINIMUM RAMP LENGTHS SEE DRAWING \$715.

PRAM CROSSING WITH FLAT APPROACHING RAMP

STEP 1 - IF 'b' IS MORE THAN 71mm THE PRAM RAMP NEEDS TO BE RECONSTRUCTED AT A FLATTER GRADE

STEP 2 – IF 'b' IS LESS THAN 71mm TACTILE INDICATORS ARE REQUIRED ON THE PRAM RAMP

STEP 3 - IF APPROACH HAS FALL TOWARDS CHANNEL TACTILE INDICATORS MUST BE USED

0R

RECONSTRUCT PRAM RAMP AND/OR APPROACH PATH TO COMPLY WITH ABOVE DIMENSIONS

PATH FALLING AWAY FROM RAMP

a + b > 71mm

PRAM CROSSING WITH PATH FALLING AWAY FROM RAMP

STEP 1 - IF 'b' IS 76mm OR MORE THEN THE PRAM RAMP NEEDS TO BE RECONSTRUCTED AT A FLATTER GRADE

STEP 2 - IF TABLES 1 OR 2 ARE NOT COMPLIED WITH THEN TACTILE INDICATORS ARE REQUIRED ON THE PRAM RAMP

0R

RECONSTRUCT PRAM RAMP AND/OR APPROACH PATH TO COMPLY WITH TABLES 1 & 2

TABLE 1 (ALL MEASUREMENTS IN mm)

IF 'b' EQUALS	75	73	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41
THEN 'a' MUST BE GREATER THAN OR EQUAL TO	0	0	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30

TABLE 2 (ALL MEASUREMENTS IN mm)

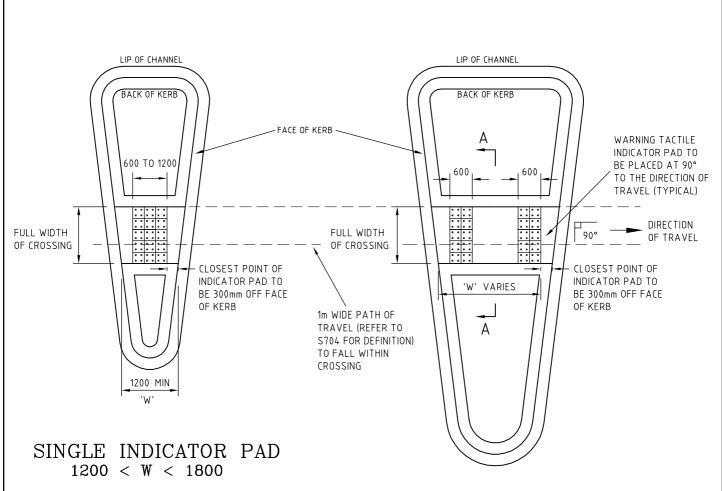
IF 'a' EQUALS	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
THEN 'b' MUST BE GREATER THAN OR EQUAL TO	71	69	67	65	63	61	59	57	55	53	51	49	47	45	43	41

KINGSTON CITY COUNCIL STANDARD DRAWING

CHANGE OF GRADE BETWEEN APPROACH AND RAMP SO THAT TACTILE INDICATORS ARE NOT REQUIRED

DRG. NO. S711

ISSUE DATE: 22/03/12



TWO INDICATOR PADS W > 1800

LEGEND



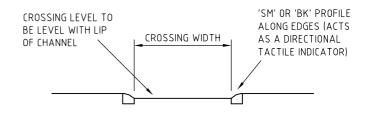
WARNING TACTILE INDICATOR PADS. REFER TO STD DRG S702 FOR DEFINITION.

NOTES

THE TACTILE INDICATOR LAYOUTS ABOVE ASSUME CROSSINGS ARE CUT THROUGH (REFER TO SECTION A-A). REFER TO VICROADS STD DRG SD2032 FOR AN EXAMPLE OF AN ISLAND WITH PRAM RAMPS.

COUNCIL'S POLICY IS TO PLACE WARNING TACTILES IN ALL SPLITTER ISLANDS (AS1428.4 DOES NOT REQUIRE WARNING TACTILES IN SPLITTER ISLANDS WHERE PEDESTRIANS ARE ONLY CROSSING NARROW ROADS).

NOTE – COUNCIL'S POLICY IS TO LIMIT THE WIDTH OF PRAM CROSSINGS TO 1.5m IN ALL AREAS EXCEPT SHOPPING CENTRES AND OTHER HIGH USE AREAS.



SECTION A - A

KINGSTON CITY COUNCIL STANDARD DRAWING

SPLITTER ISLAND
EXAMPLE TACTILE INDICATOR LAYOUT

DRG. NO. S712

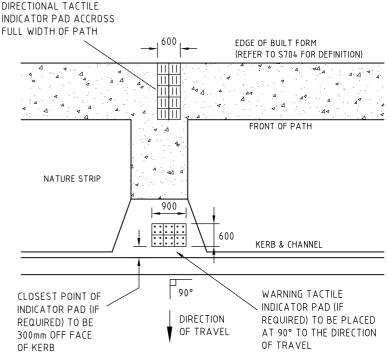
ISSUE DATE: 22/03/12

NOTES

COUNCIL'S INTERPRETATION OF AS 1428.4:2002 IS THAT ALL MID BLOCK CROSSINGS REQUIRE DIRECTIONAL TACTILE INDICATORS. WARNING TACTILE INDICATORS ON THE PRAM RAMP ARE ONLY REQUIRED IF CRITERIA 2, 4 OR 5 AS SPECIFIED ON STD DRG S705 ARE NOT SATISFIED.

NOTE - COUNCIL'S POLICY IS TO LIMIT THE WIDTH OF PRAM CROSSINGS TO 1.5m IN ALL AREAS EXCEPT SHOPPING CENTRES AND OTHER HIGH USE AREAS.

> CENTRE OF DIRECTIONAL TACTILE INDICATOR STRIP TO LINE UP WITH CENTRE OF WARNING TACTILE INDICATOR PAD (TYPICAL)



WITH NATURE STRIP

LEGEND

FOOTPATH



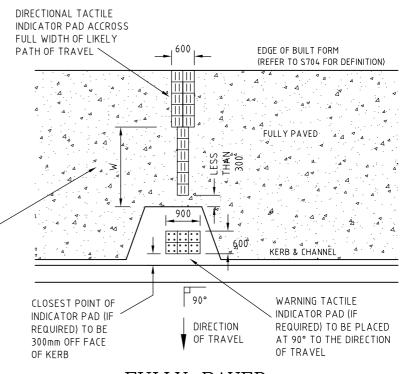
WARNING TACTILE INDICATOR PADS MADE UP OF 3 TILES x 2 TILES. REFER TO STD DRG S702 FOR DEFINITION.



300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS (ie. 1 TILE WIDE). REFER TO STD DRG S703 FOR DEFINITION

> IF 'W' < 3m THEN TACTILE INDICATORS ARE NOT REQUIRED IN THIS AREA.

IF 'W' > 3m THEN CENTRED 300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS REQUIRED TO WITHIN 300mm OF TOP OF PRAM RAMP.

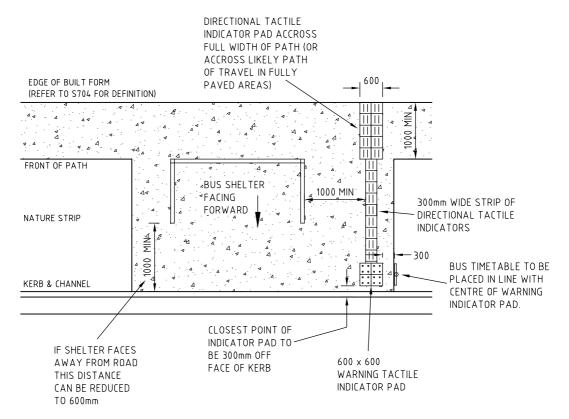


FULLY PAVED

KINGSTON CITY COUNCIL STANDARD DRAWING

MID BLOCK CROSSINGS TACTILE INDICATOR LAYOUT DRG. NO. S713

ISSUE DATE: 22/03/12



TACTILE INDICATOR LAYOUT WITH OR WITHOUT SHELTER

NOTES

ALL BUS STOPS REQUIRE TACTILE INDICATORS ON THE DOWNSTREAM END OF THE BUS STOP.

IF THE ROAD SURFACE IS FLUSH WITH THE PEDESTRIAN WAITING AREA (ie. NO KERB & CHANNEL) THEN EXTRA TACTILE INDICATORS ARE REQUIRED IN ACCORDANCE WITH APPENDIX E OF AS1428.4:2002.

BUS OVERHANG TO BE TAKEN INTO ACCOUNT WHERE A BUS EXECUTES A TURN IN THE VICINITY OF THE BUS BAY. THIS MAY RESULT IN THE TACTILE INDICATORS BEING SET BACK FURTHER THAN THE 300mm SHOWN.

LEGEND



PAVED SURFACE



WARNING TACTILE INDICATOR PAD MADE UP OF 2 TILES x 2 TILES. REFER TO STD DRG S702 FOR DEFINITION.



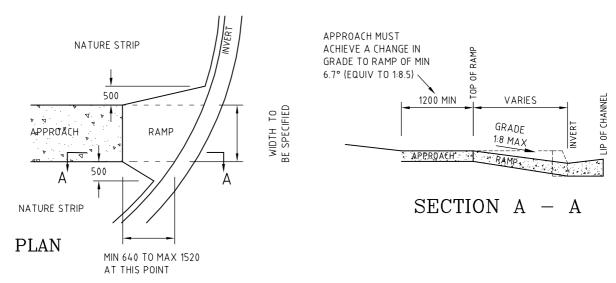
300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS (ie. 1 TILE WIDE). REFER TO STD DRG S703 FOR DEFINITION

KINGSTON CITY COUNCIL STANDARD DRAWING

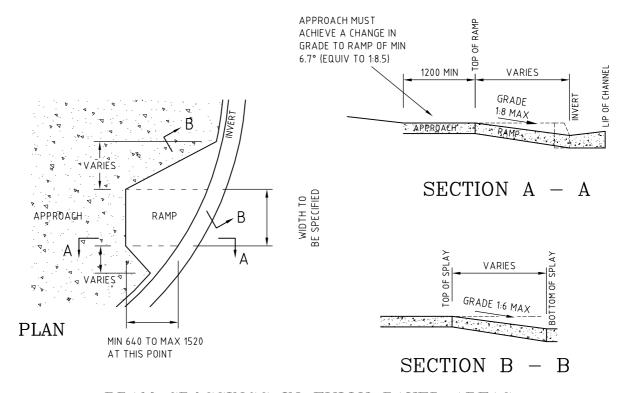
TACTILE INDICATOR LAYOUT AT BUS STOPS

DRG. NO. S714

ISSUE DATE: 22/03/12



PRAM CROSSINGS BORDERING NATURE STRIP



PRAM CROSSINGS IN FULLY PAVED AREAS



PAVED SURFACE BEHIND PRAM RAMP

REFER TO S706 FOR PRAM CROSSING LOCATION AND MAKEUP

KINGSTON CITY COUNCIL STANDARD DRAWING

PRAM RAMP DIMENSIONS
FOR CROSSINGS WITHOUT TACTILE INDICATORS

DRG. NO. S715

ISSUE DATE: 22/03/12