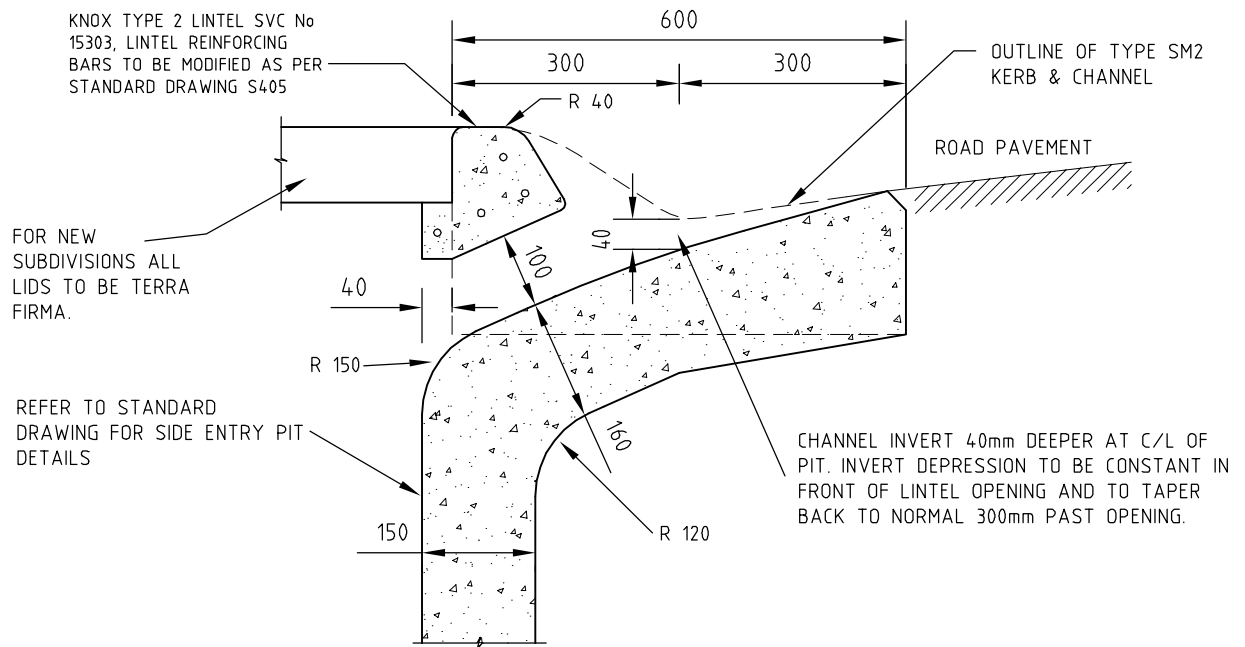


Category	DWG NO.	DRAWING NAME	CURRENT ISSUE DATE
Kerb Profiles	S101	Semi-Mountable kerb type SM1 & SM2 and Modification at side entry pits for types SM2	22/03/2012
	S102	Roll over kerb and channel Modification at side entry pits	22/03/2012
	S103	Kerb and channel type BK1, BK3 and Type BK2	22/03/2012
	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

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

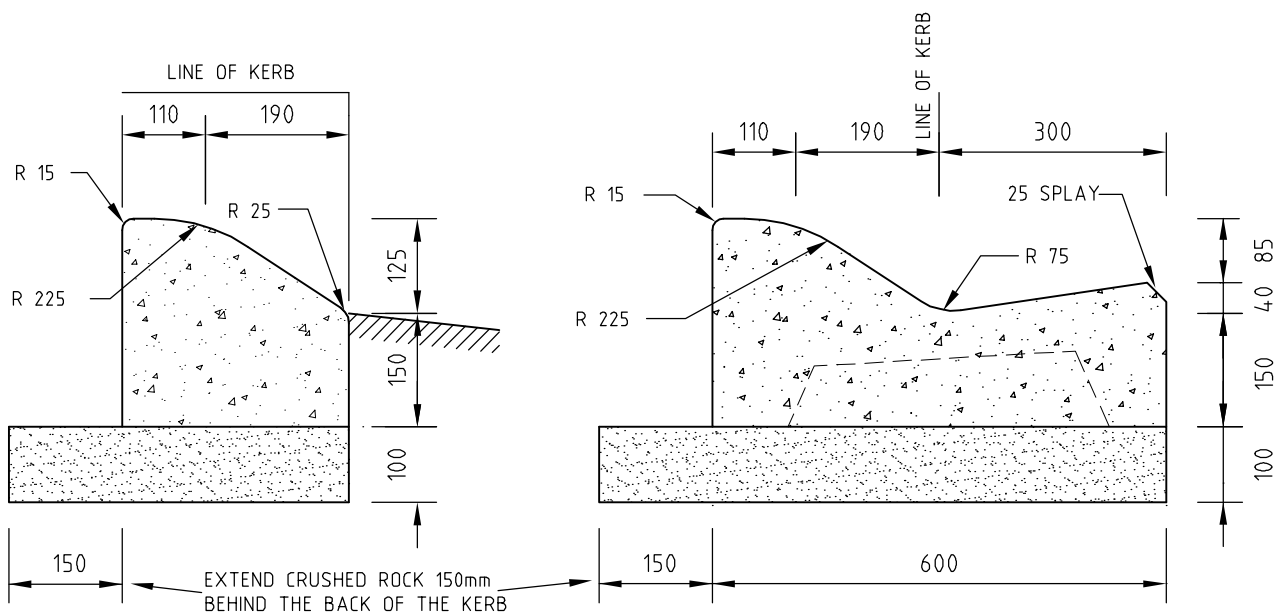
Category	DWG NO.	DRAWING NAME	CURRENT ISSUE DATE
S/W Pipe Connections	S501	Connection of house stormwater drain to kerb and channel	22/03/2012
	S503	Connection of 100 or 150mm drainage pipes to Council stormwater drain.	22/03/2012
	S505	Pipe backfill detail residential pavements	22/03/2012
	S506	Pipe 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)



TYPE SM1

TYPE SM2

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

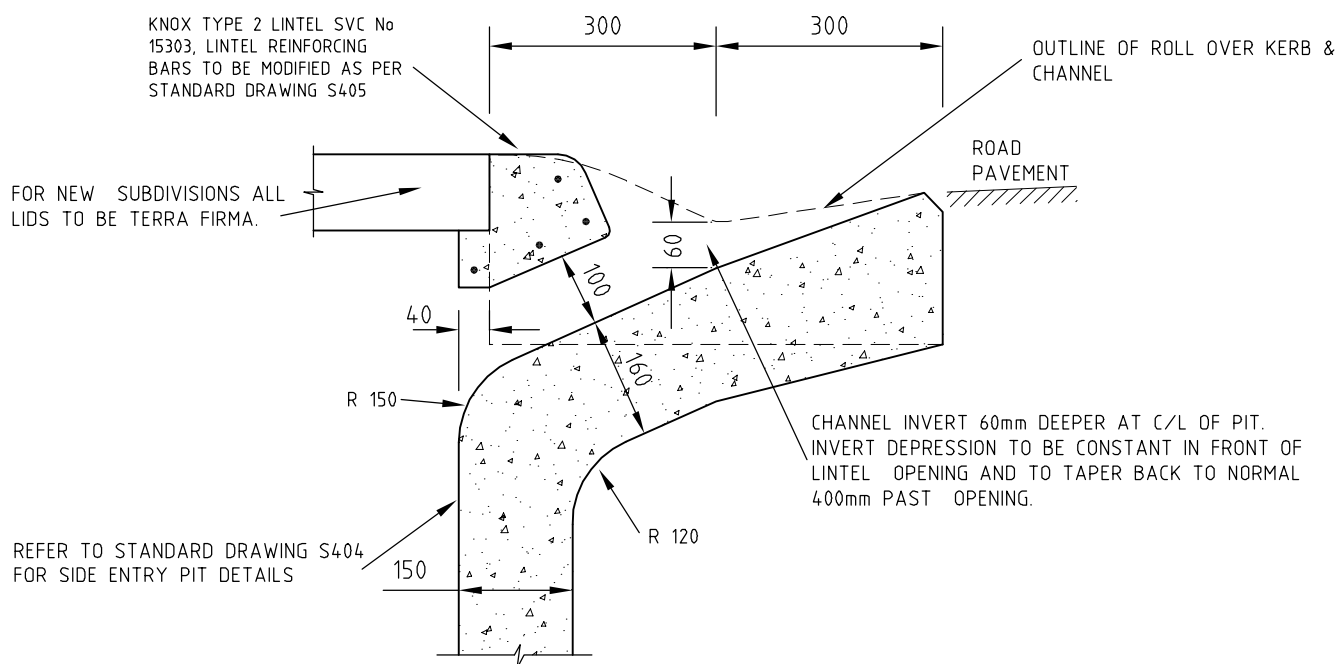
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. **S101**

ISSUE DATE: 22/03/12

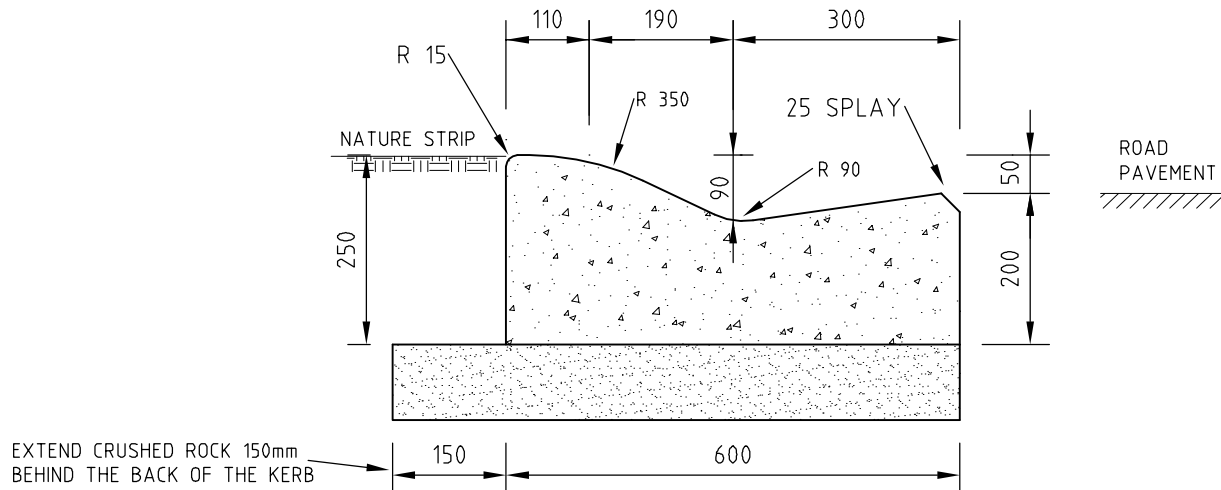
SEMI - MOUNTABLE KERB AND CHANNEL TYPE SM1 AND SM2
MODIFICATION AT SIDE ENTRY PITS FOR TYPE SM2

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



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

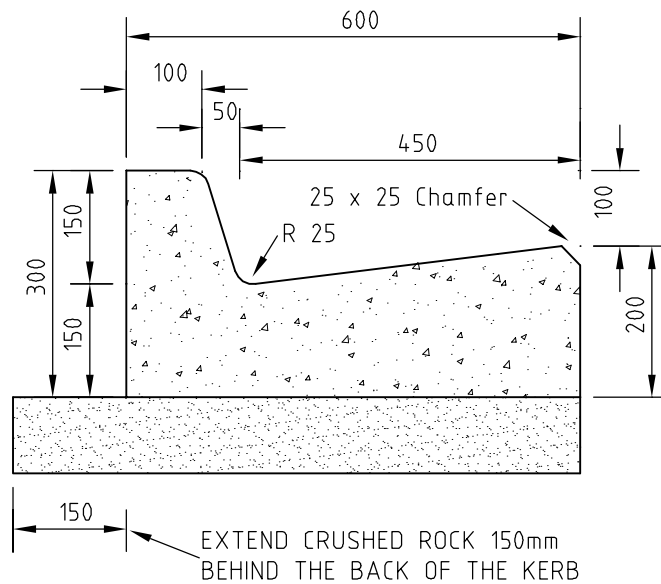
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S102

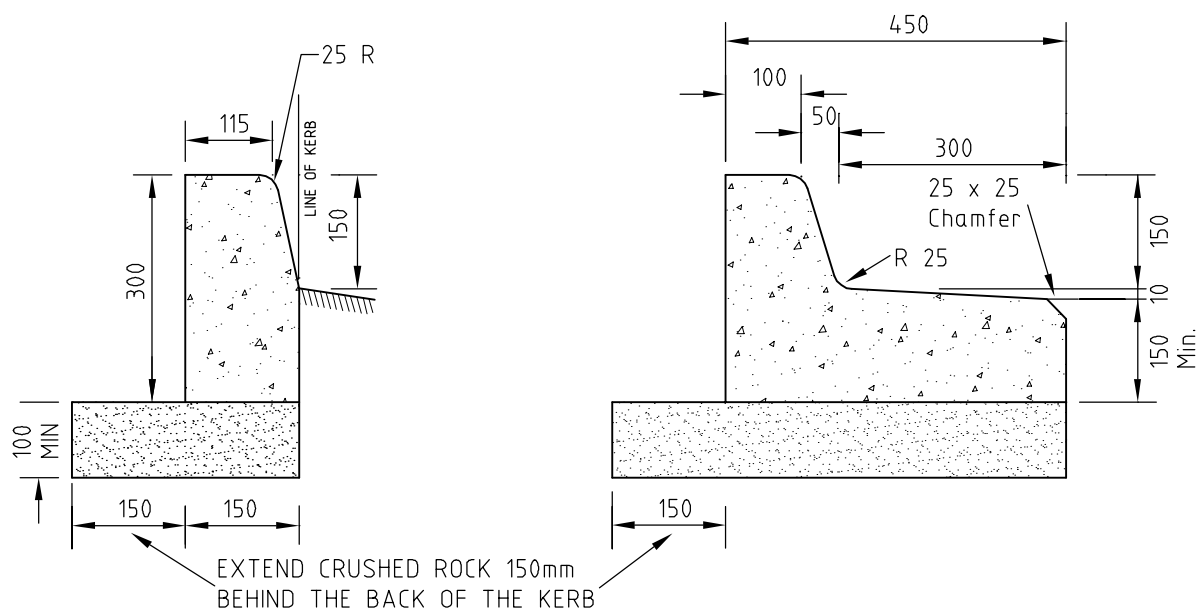
ISSUE DATE: 22/03/12

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

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



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

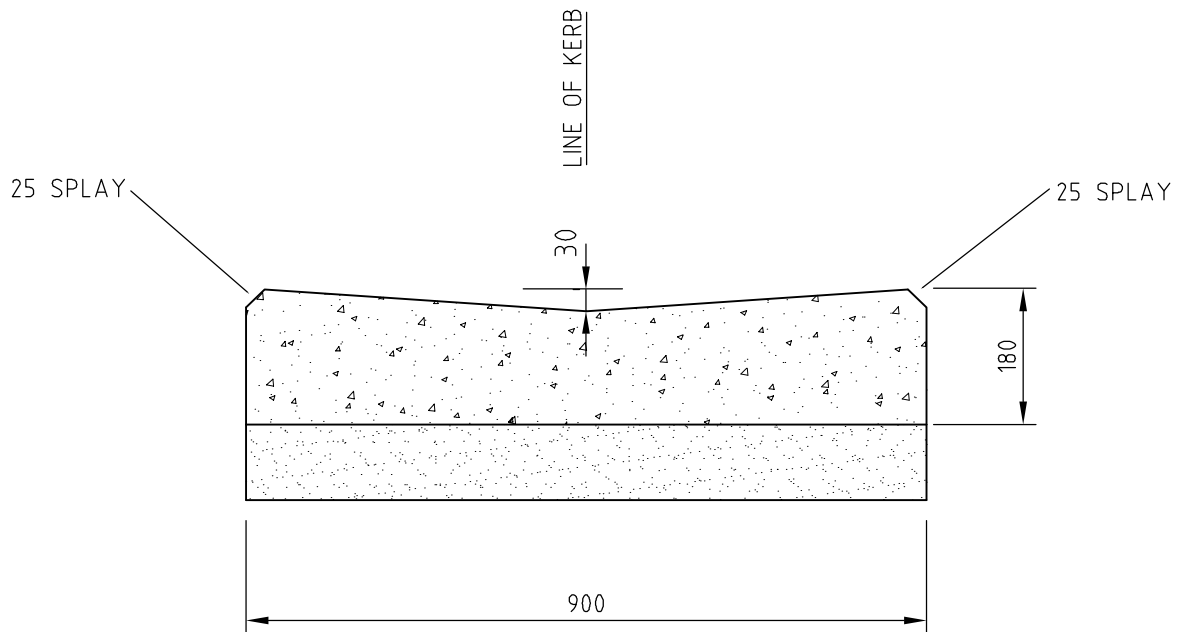
KINGSTON CITY COUNCIL
STANDARD DRAWING

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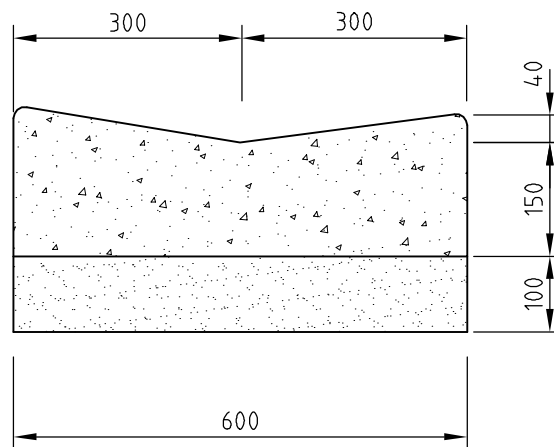
ISSUE DATE: 22/03/12

KERB AND CHANNEL TYPE BK1, BK3
AND KERB TYPE BK2

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



FLOOD DISH (TYPE FD1)



FLOOD DISH (TYPE FD2)

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. 100 mm COMPACTED DEPTH OF CLASS 2 3% CEMENT STABILISED CRUSHED ROCK 20mm NOMINAL TO FINAL LEVEL & GRADE UNLESS OTHERWISE SPECIFIED.

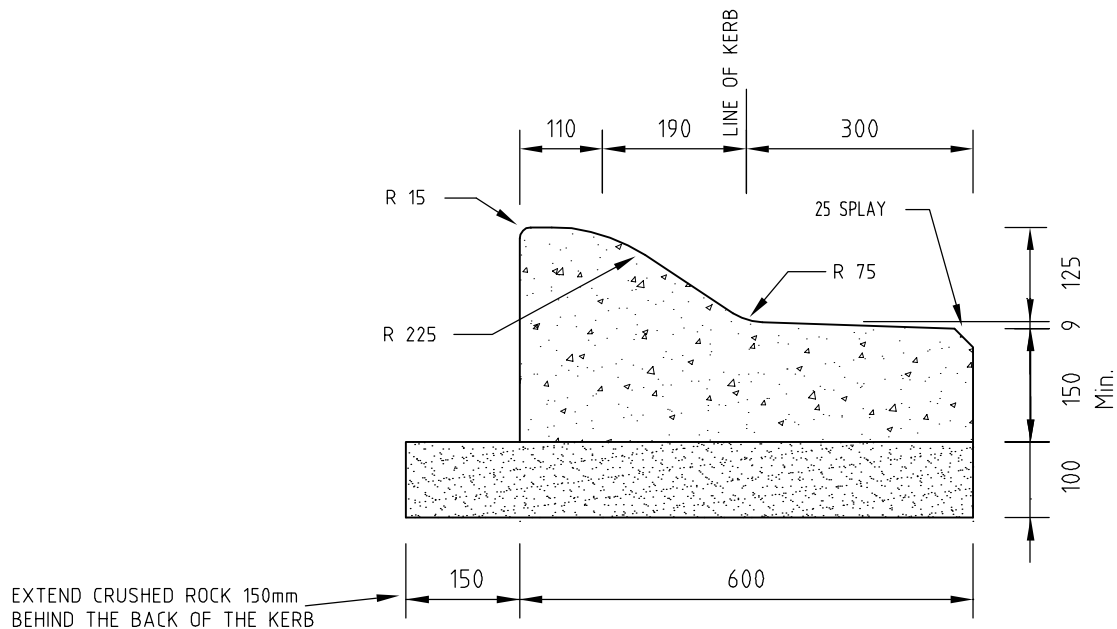
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S104

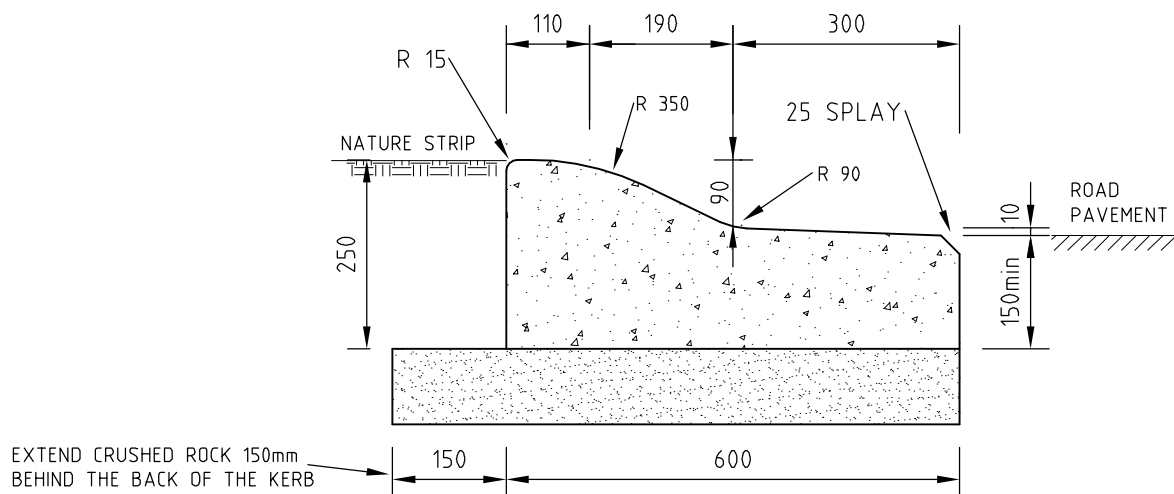
ISSUE DATE: 22/03/12

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
STANDARD DRAWING

DRG. NO. S105

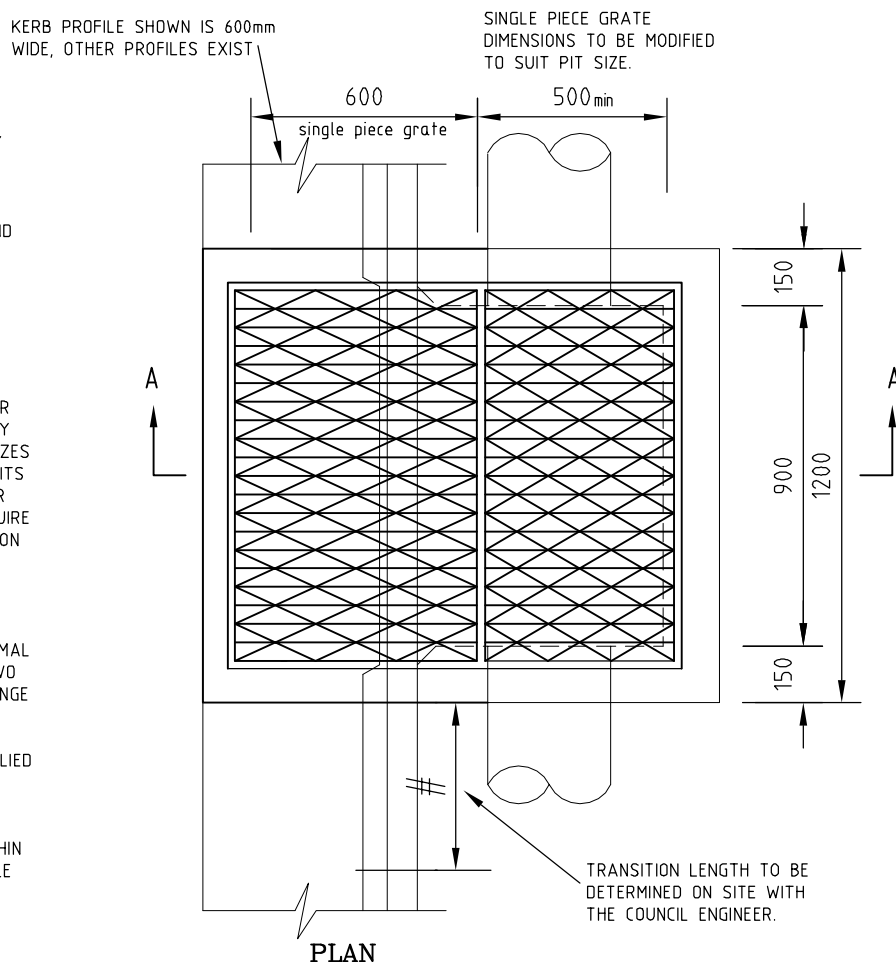
ISSUE DATE: 22/03/12

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

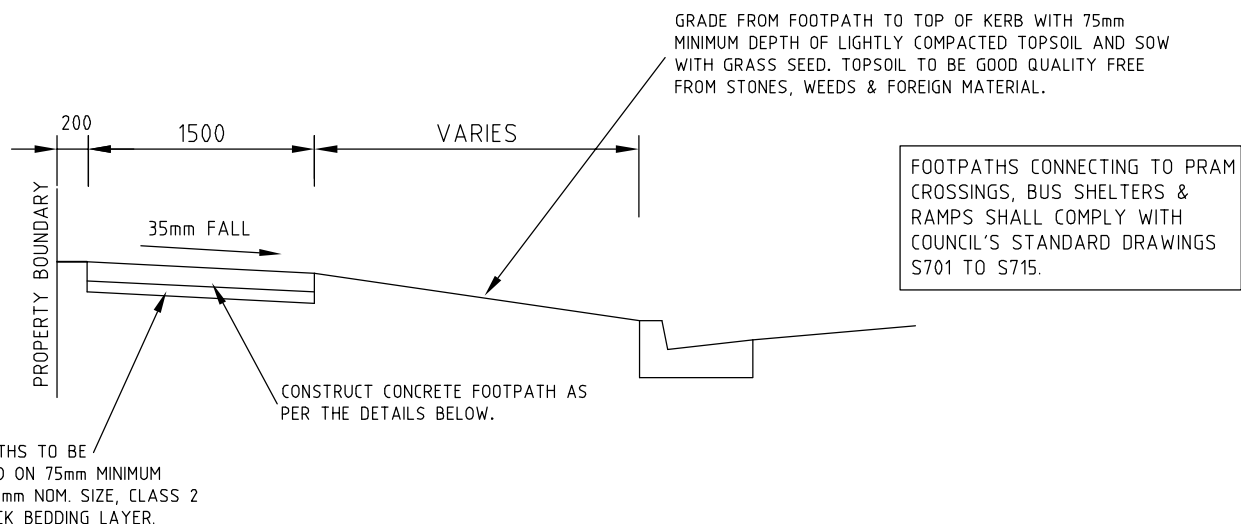
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



1. ALL NEW COVER DIMENSIONS GIVEN ON THIS DRAWING MUST BE VERIFIED FOR SUITABILITY AGAINST THOSE OF THE PIT BEING MODIFIED BEFORE ORDERING COMPONENTS.
2. 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 CROSSINGS WITH MINIMAL SLOPE. FOR STEEP VEHICLE CROSSINGS, A TWO PIECE FRAME WILL BE REQUIRED WITH A CHANGE IN GRADE BETWEEN FRAMES.
5. ALL PROPRIETARY COMPONENTS TO BE SUPPLIED BY MANUFACTURERS LISTED OR OTHERS IF APPROVED BY COUNCIL.
6. THIS MODIFICATION CANNOT BE LOCATED WITHIN THE TRANSITION SPAY ZONE OF THE VEHICLE CROSSING. SEE VEHICLE CROSSING STANDARD DRAWINGS S201, S202 AND S203 FOR THE DEFINITION OF THE TRANSITION SPAY.



STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



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.

NOTES:

- 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.
- 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.
- 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.
- 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.
- CONCRETE STRENGTH SHALL BE 32 MPA MINIMUM AT 28 DAYS. ALL CONCRETE TO BE PRE-MIXED AND HAVE A LIGHT BROOM FINISH.
- BOTH EDGES OF THE PATH MUST BE POURED AGAINST SMOOTH FORMWORK.
- ALL EDGES TO BE ROUNDED BY THE PROPER USE OF A SUITABLE EDGE TOOL.
- NO HIGHLIGHTING OF EDGES AND JOINTS.
- 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 15m MAXIMUM SPACING.
- 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.
- THE APPLICANT IS RESPONSIBLE FOR ENSURING THAT THE WORKS COMPLY WITH ALL REQUIREMENTS OF THE KINGSTON PLANNING SCHEME AND APPLICABLE PERMITS.

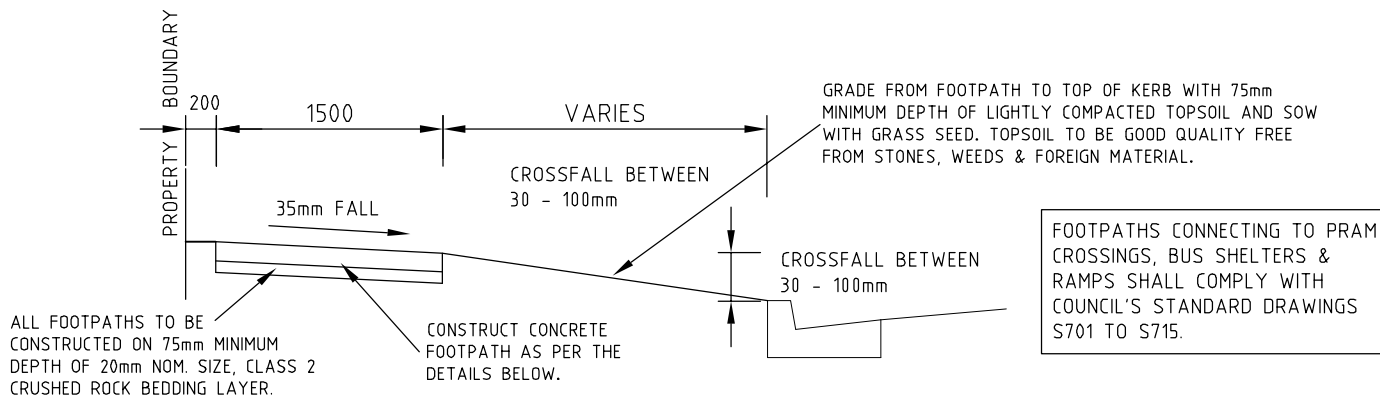
KINGSTON CITY COUNCIL STANDARD DRAWING

CONCRETE FOOTPATHS WITHIN NEW SUBDIVISIONS

DRG. NO. **S301**

ISSUE DATE: 22/03/12

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



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 REINFORCED WITH F82 MESH.
WITHIN SHOPPING CENTRES	REFER TO COUNCIL'S ENGINEERS FOR PAVING PATTERN DETAILS.

NOTES:

- 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.
- FOR PROPOSED PATHS WHICH EXTEND FROM THE BUILDING LINE TO THE BACK OF KERB REFER TO COUNCIL ENGINEERS FOR GUIDANCE.
- 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.
- 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.
- 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.
- CONCRETE STRENGTH SHALL BE 32 MPA MINIMUM AT 28 DAYS. ALL CONCRETE TO BE PRE-MIXED AND HAVE A LIGHT BROOM FINISH.
- BOTH EDGES OF THE PATH MUST BE POURED AGAINST SMOOTH FORMWORK.
- ALL EDGES TO BE ROUNDED BY THE PROPER USE OF A SUITABLE EDGE TOOL.
- NO HIGHLIGHTING OF EDGES AND JOINTS.
- 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 15m MAXIMUM SPACING.
- 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.
- 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.
- 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.
- 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.

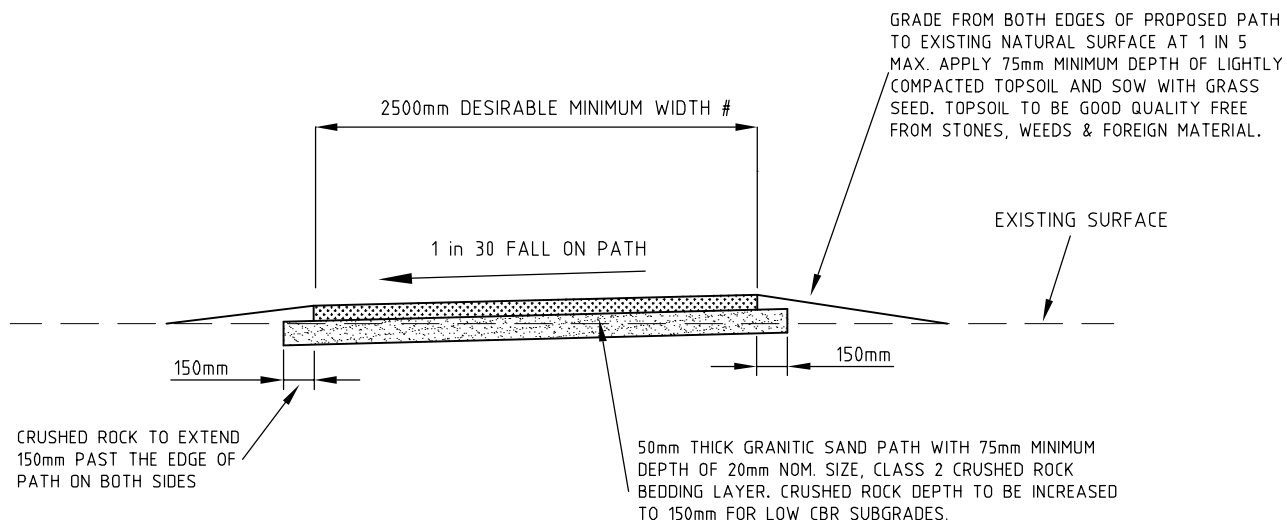
KINGSTON CITY COUNCIL STANDARD DRAWING

DRG. NO. **S302**

ISSUE DATE: **22/03/12**

CONCRETE FOOTPATHS
NOT CARRIED OUT AS PART OF NEW SUBDIVISIONS

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



APPLY TO COUNCIL FOR CONSIDERATION OF
ALTERNATIVE WIDTHS UNDER SPECIAL CIRCUMSTANCES.

NOTES:

1. 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.
2. 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.

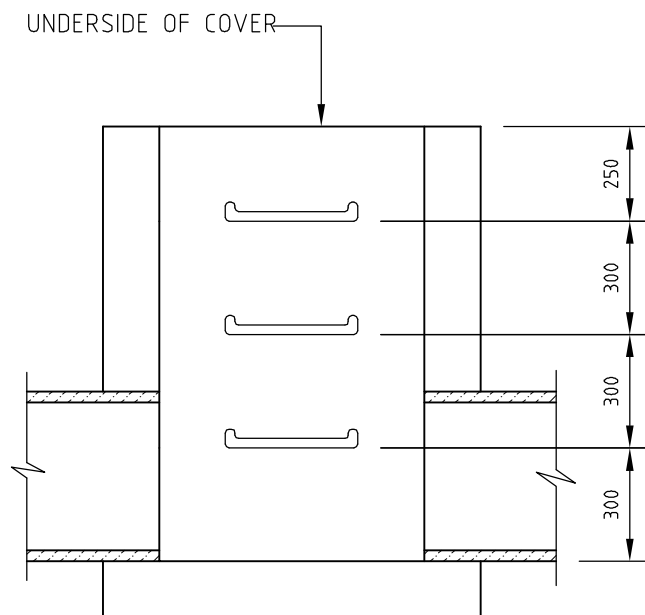
KINGSTON CITY COUNCIL STANDARD DRAWING

DRG. NO. S304

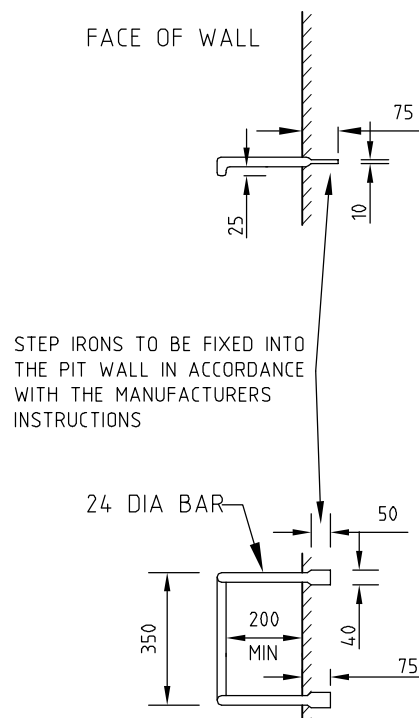
ISSUE DATE: 22/03/12

GRANITIC SAND SHARED PATH
FOR BICYCLES AND PEDESTRIANS WITHIN RESERVES

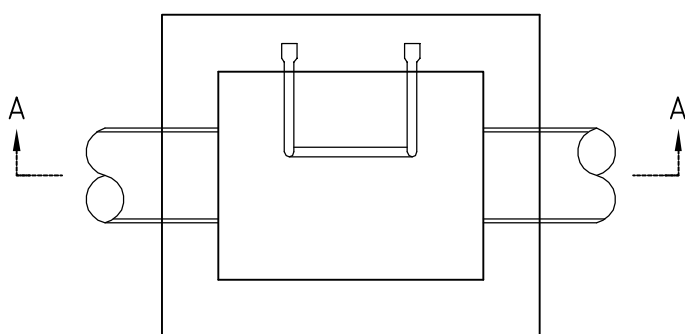
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



SECTION A - A



STEP IRON DETAILS



PLAN

NOTES:

1. 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
3. MATERIAL FOR STEP IRONS SHALL BE STRUCTURAL GRADE 250 TO AS 1204.
4. STEP IRONS SHALL HAVE SHARP EDGES ROUNDED.
5. STEP IRONS TO BE HOT DIPPED GALVANISED AFTER FABRICATION.

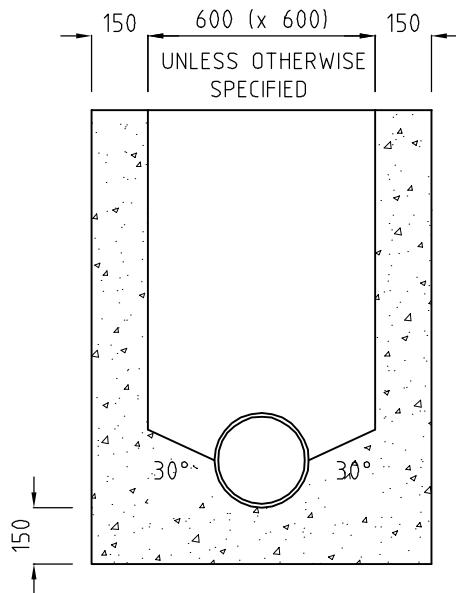
KINGSTON CITY COUNCIL
STANDARD DRAWING

STEP IRON DETAILS

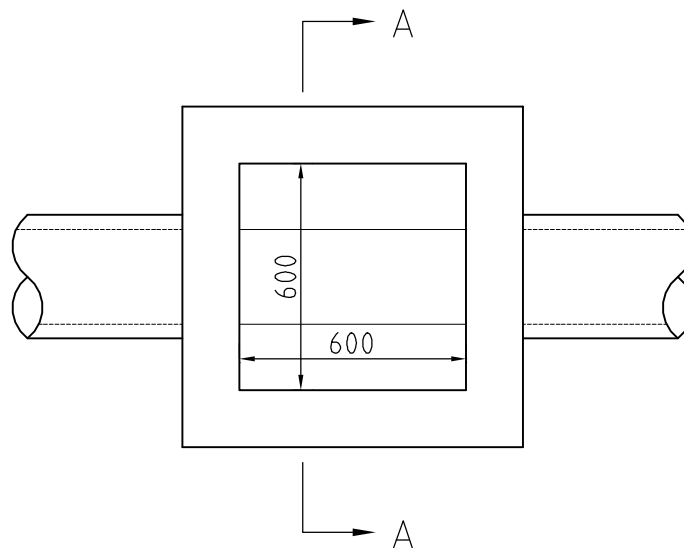
DRG. NO. S401

ISSUE DATE: 22/03/12

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



SECTION A-A



PLAN

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.

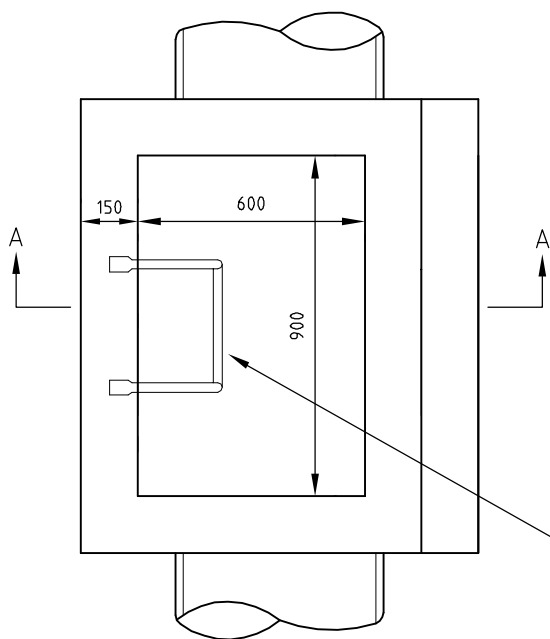
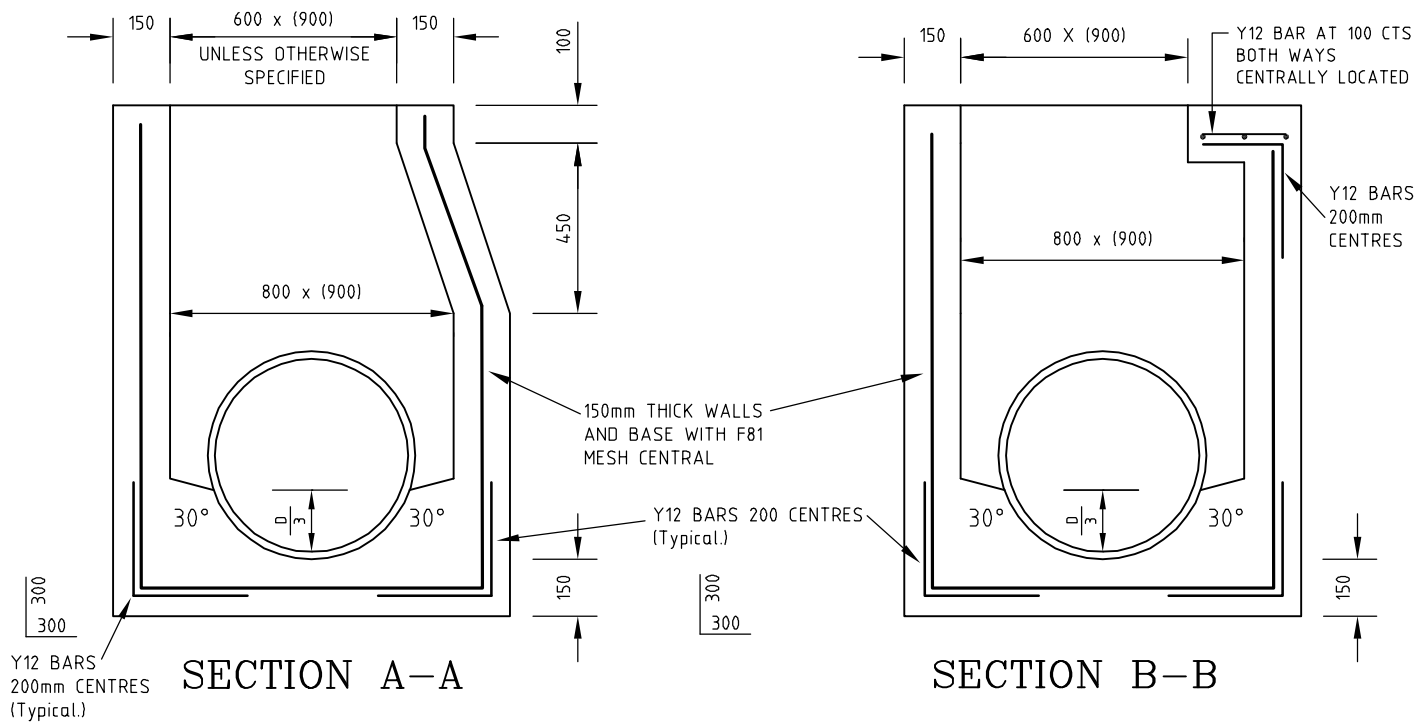
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S402

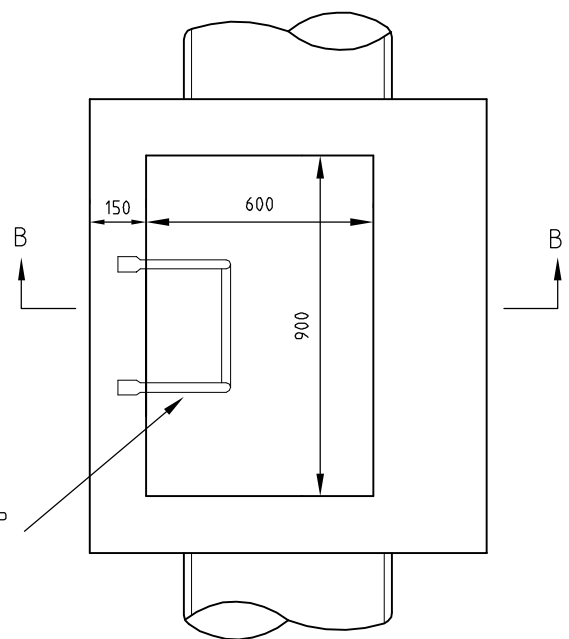
ISSUE DATE: 22/03/12

TYPE 1 JUNCTION PIT
LESS THAN 1.2m DEPTH FOR PIPE SIZES UP TO 450Ø

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



PLAN (TYPE 2A)



PLAN (TYPE 2B)

REFER TO STANDARD DRAWING S401 FOR STEP IRON DETAILS (TO BE INCLUDED WHERE PIT DEPTH > 1.0m)

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, REINFORCING TO HAVE 30mm COVER
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.

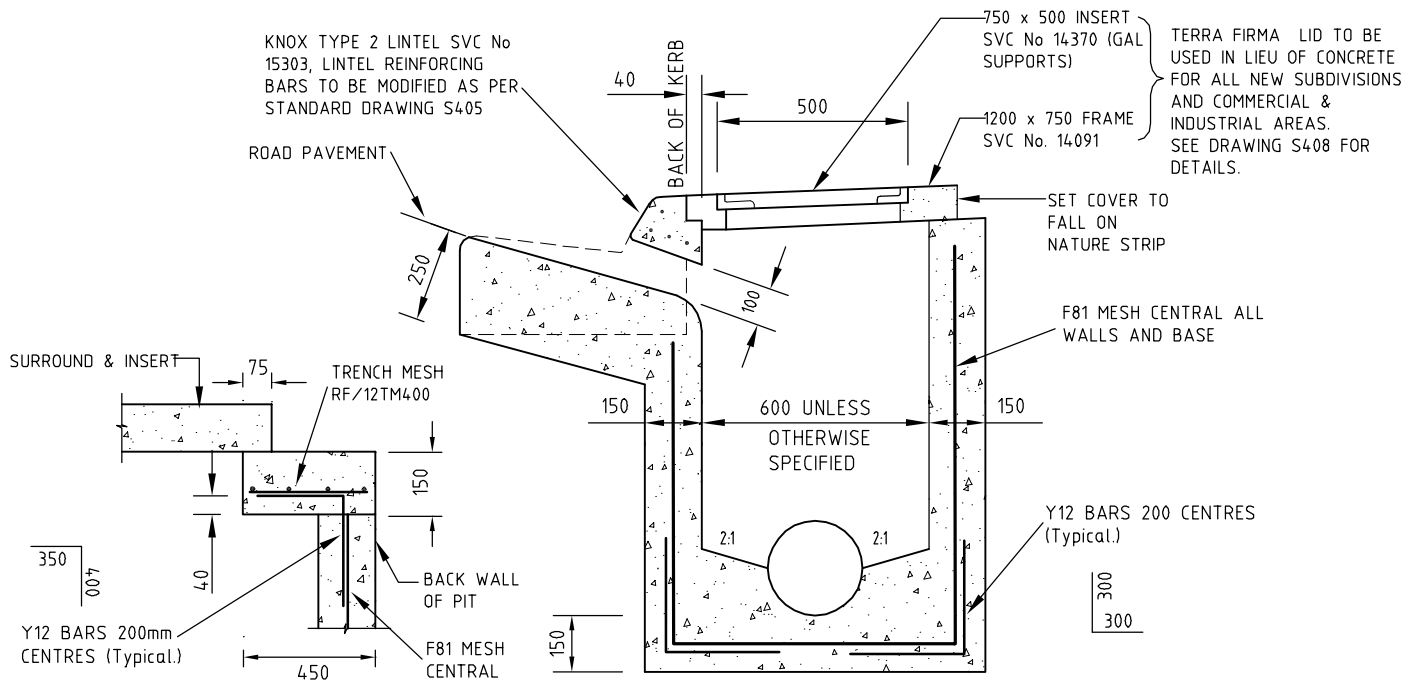
KINGSTON CITY COUNCIL STANDARD DRAWING

DRG. NO. S403

ISSUE DATE: 22/03/12

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

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

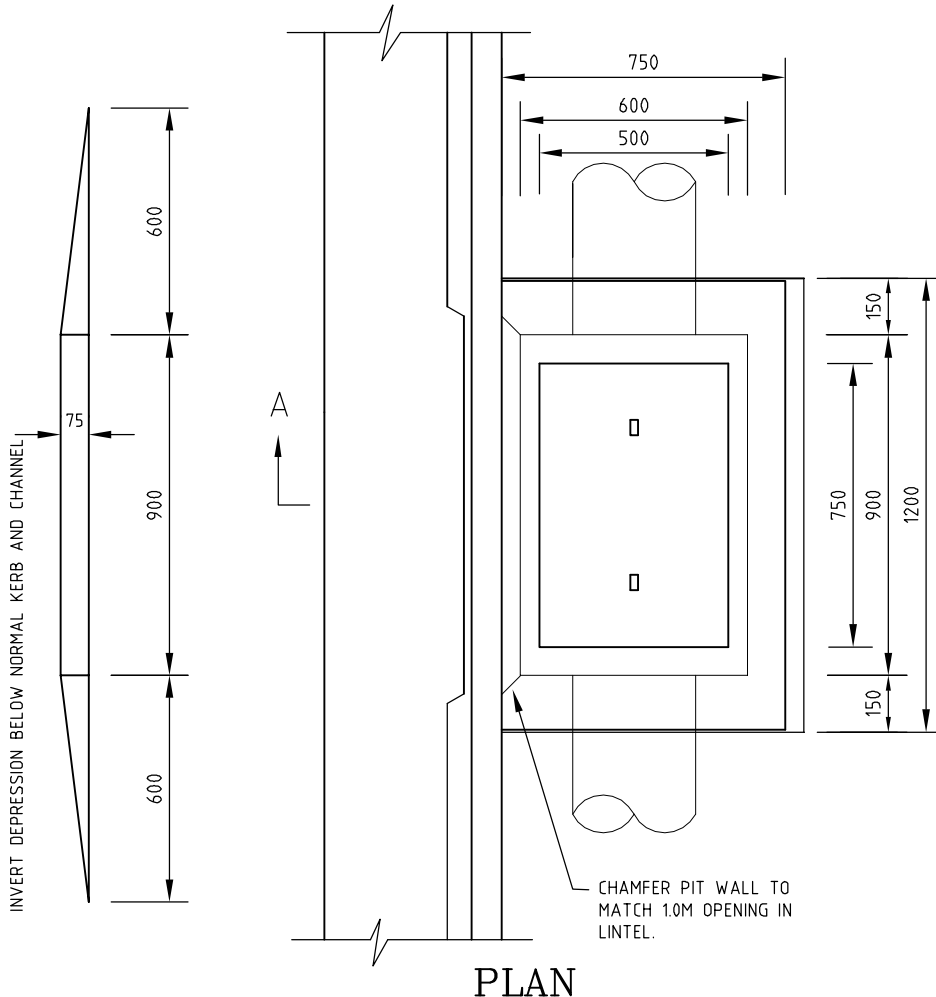


HAUNCH DETAIL
(FOR PIPES 525 - 750)

SECTION A - A

NOTES:

1. CONCRETE STRENGTH TO BE 32 MPa.
2. STEP IRONS REQUIRED WHERE PIT DEPTH EXCEEDS 1.0m. REFER TO STEP IRONS STANDARD DRAWING S401 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. CONCRETE LINTEL, PIT LID AND SURROUND ARE TO BE BLACK COLOURED.
6. 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.



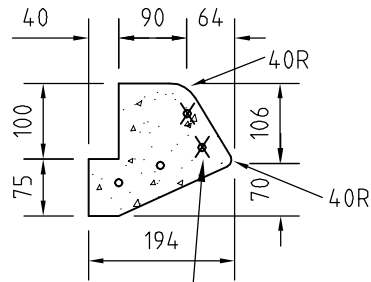
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. **S404**

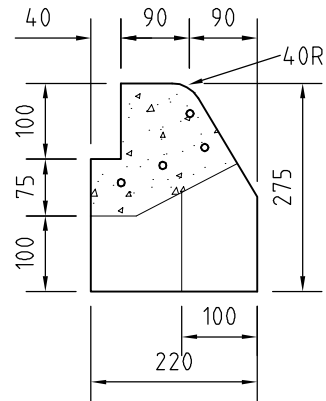
ISSUE DATE: 22/03/12

RESIDENTIAL SIDE ENTRY PIT DETAIL

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

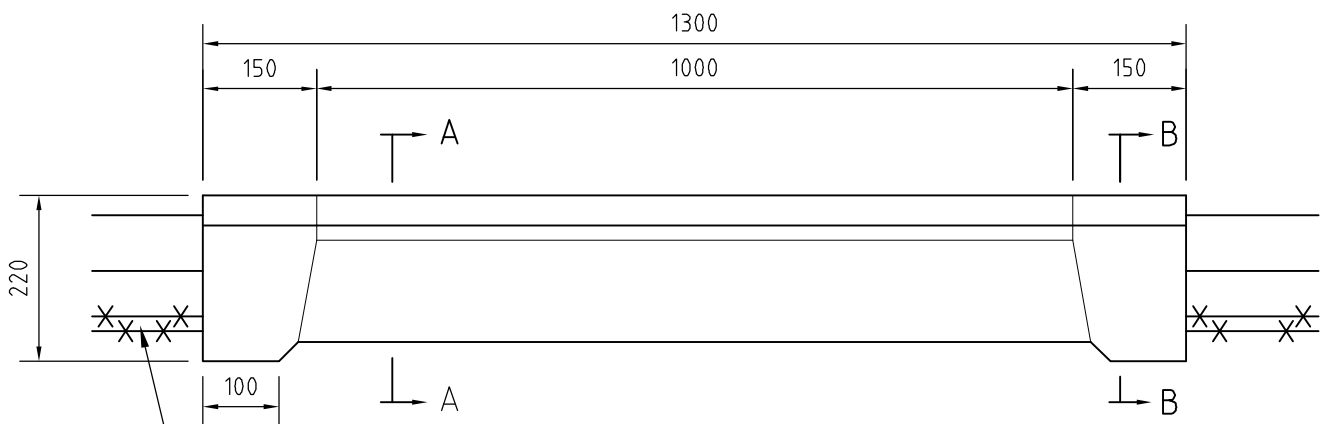


2xREINFORCING BARS AT THE FRONT OF THE LINTEL ARE TO BE CUT OFF ON SITE FLUSH WITH THE FACE OF THE CONCRETE AT BOTH ENDS OF THE LINTEL.



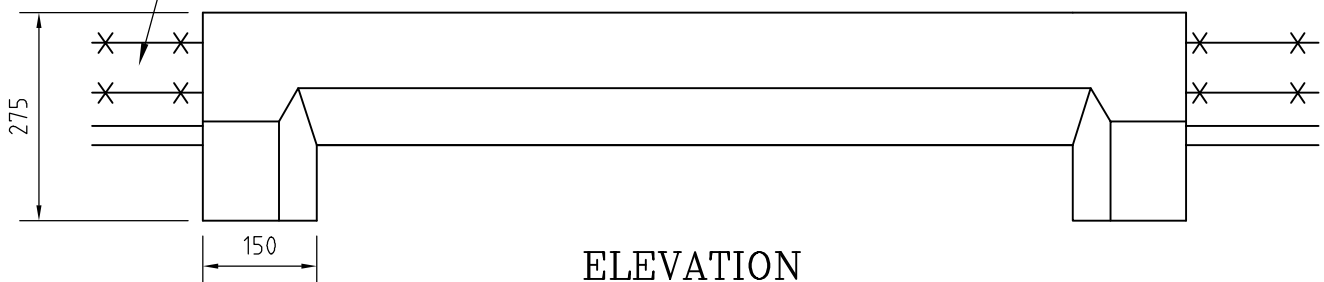
SECTION A - A

SECTION B - B



PLAN

2xREINFORCING BARS AT THE FRONT OF THE LINTEL ARE TO BE CUT OFF ON SITE FLUSH WITH THE FACE OF THE CONCRETE AT BOTH ENDS OF THE LINTEL.



ELEVATION

NOTES

- THIS IS A CUSTOM MADE LINTEL AND THE CONTRACTOR IS TO CONFIRM ITS AVAILABILITY IMMEDIATELY ON RECEIVING THE COUNCIL ORDER FOR THE WORKS.
- 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

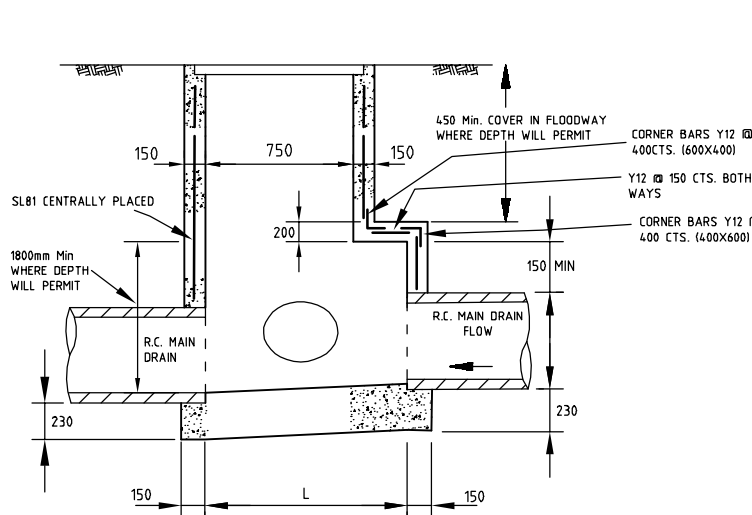
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S405

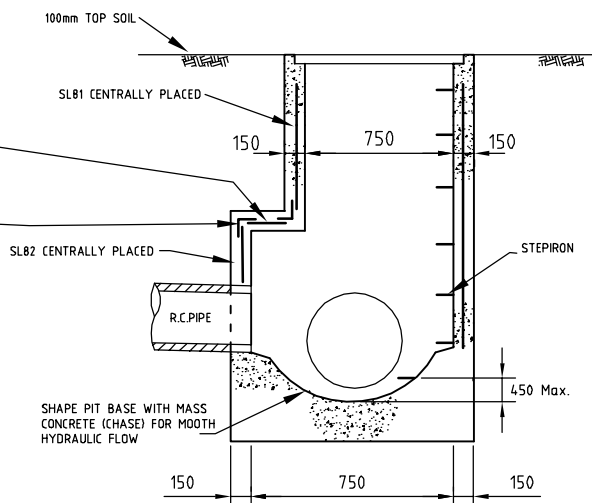
ISSUE DATE: 22/03/12

PRE-CAST LINTEL 'KNOX' TYPE 2 BLACK COLOURED

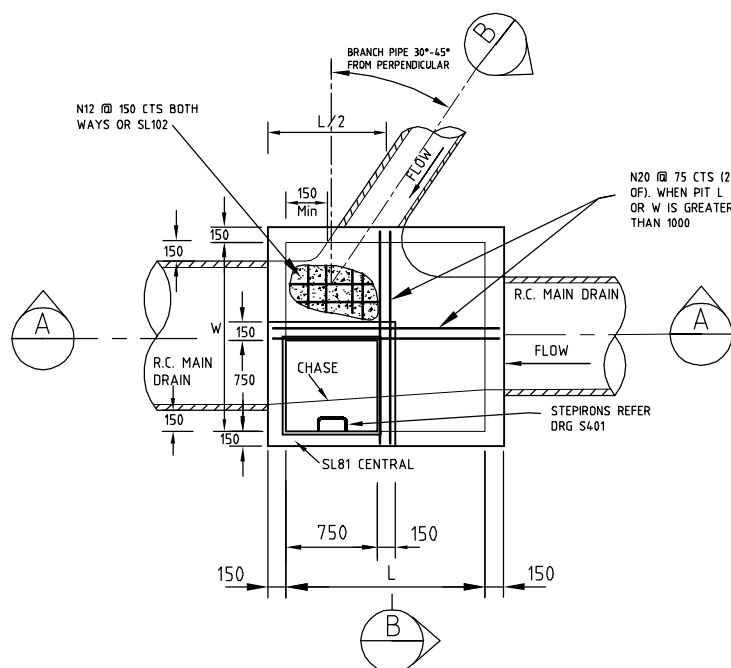
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



SECTION A



SECTION B



SECTIONAL PLAN

MAIN LINE DIA.	STANDARD DIMENSIONS		MAX. BRANCH DIA. ϕ	VARIATIONS TO PIT LENGTH - 'L' DEPENDING ON BRANCH ANGLE						
				BRANCH ANGLE						
	L	W		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	1200	1200	1350	
1275	750	1650	600	1050	1050	1050	1200	1200	1350	
1350	750	1650	675	1050	1050	1050	1200	1350	1500	
1425	750	1800	675	1050	1050	1050	1200	1350	1500	
1500	750	1800	750	1200	1200	1200	1350	1500	1500	
1575	750	1950	750	1200	1200	1200	1350	1500	1500	
1650	750	1950	825	1200	1350	1350	1350	1500	1650	
1725	750	2100	825	1200	1350	1350	1350	1500	1650	
1800	750	2100	900	1350	1350	1350	1500	1650	1800	
1875	750	2250	900	1350	1350	1350	1500	1650	1800	
1950	750	2250	975	1500	1500	1500	1650	1800	1950	
2100	750	2400	1050	1500	1500	1650	1650	1950	2100	
2400	750	2700	1200	1650	1650	1800	1950	2100	2250	

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 MINIMUM OF 750X750mm.
- 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.
- 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.
- DIMENSIONS ARE IN mm's.

KINGSTON CITY COUNCIL STANDARD DRAWING

DRG. NO. S406

ISSUE DATE: 22/03/12

TYPE 3 JUNCTION PIT
DIMENSIONS AND CONSTRUCTION NOTES

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

100 mm PLATE TO SIT ON LINTEL REBATE

GALVANISED MILD STEEL ANGLE FRAME

GROUT TO FILL 50mm GAP BETWEEN PIT WALL AND FRAME.

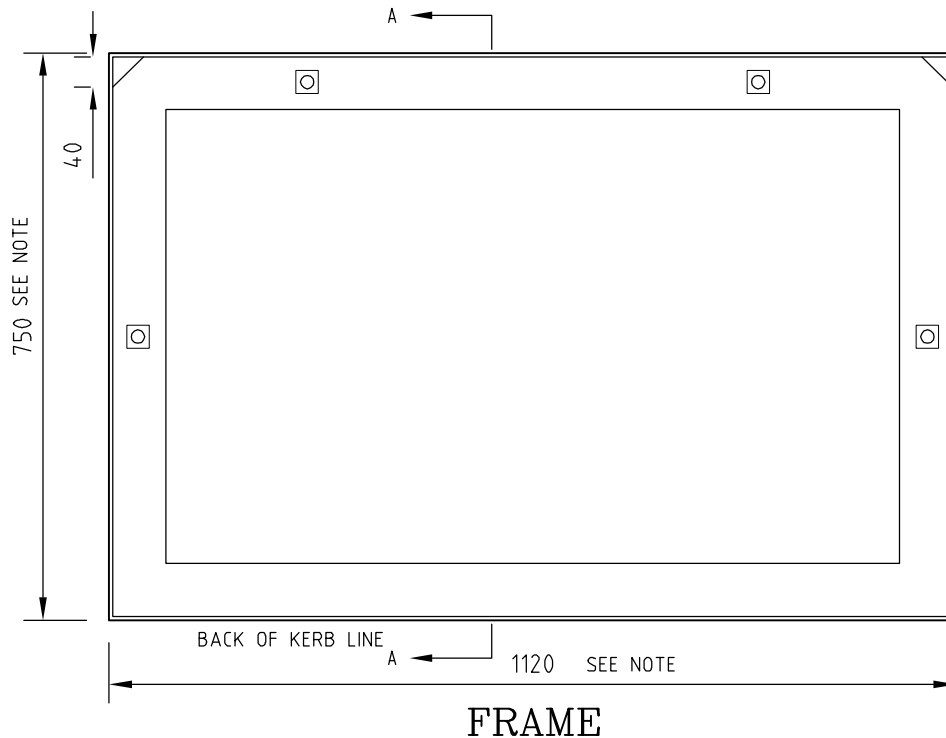
SEE DETAIL

50mm spacer.

ATTACH WITH 10mm DIA. x 100mm GALVANISED CONTINUOUS THREAD LUG, DYNABOLT, OR LIGATURES TO MANUFACTURES RECOMMENDATIONS.

FIXING TO BE MIN. 50mm FROM EACH PIT WALL FACE.

SECTION A-A



NOTE:

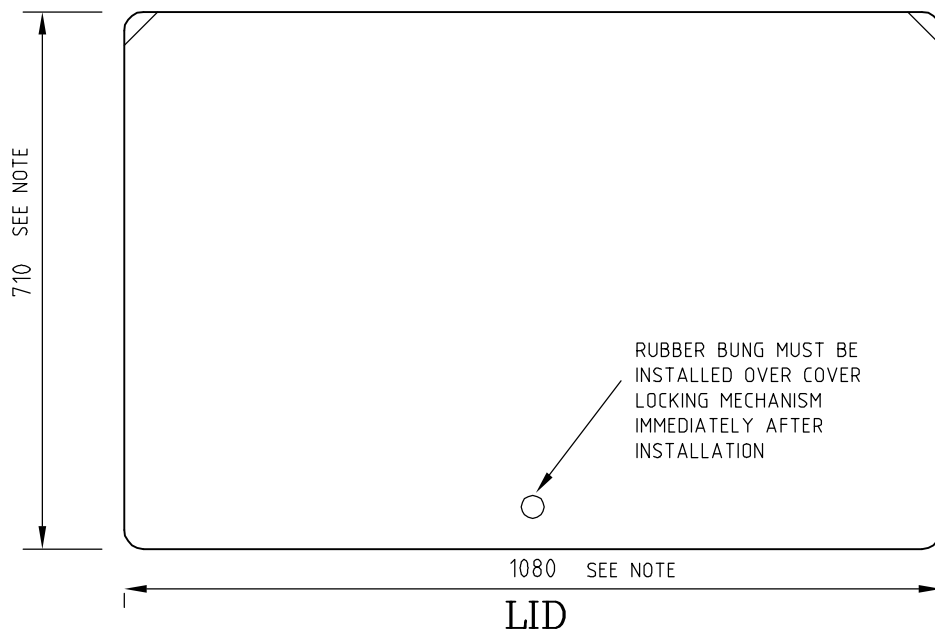
DIMENSIONS GIVEN ARE FOR 900mm x 600mm PITS WITH 150mm WALLS AND INTERNAL FACE OF FRONT PIT WALL SET 40mm BEHIND BACK OF KERB. FOR PITS WITH DIFFERENT DIMENSIONS OR WITH DIFFERENT SETBACKS FROM BACK OF KERB THE FRAME SIZE WILL REQUIRE MODIFYING TO ENSURE THAT FIXING BOLTS ARE LOCATED A Min. OF 50mm FROM THE FACE (INTERIOR OR EXTERIOR) OF THE PIT WALL.

ALL COMPONENTS TO BE SUPPLIED BY TERRA FIRMA ENGINEERING.
13 NEVIN DVE THOMASTOWN, 3074
PH. 9464 6169
FAX. 9464 0522
www.terrafirmapitlids.com

ALL COMPONENTS TO LOCKING MECHANISM TO BE STAINLESS STEEL AND IS TO BE USED IN CONJUNCTION WITH MATCHING LIFTING HANDLES.

ALL PROPRIETARY COMPONENTS TO BE SUPPLIED BY MANUFACTURERS LISTED OR OTHERS IF APPROVED BY COUNCIL.

THE FRAME IS TO BE HOT DIPPED GALVANISED



KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S408

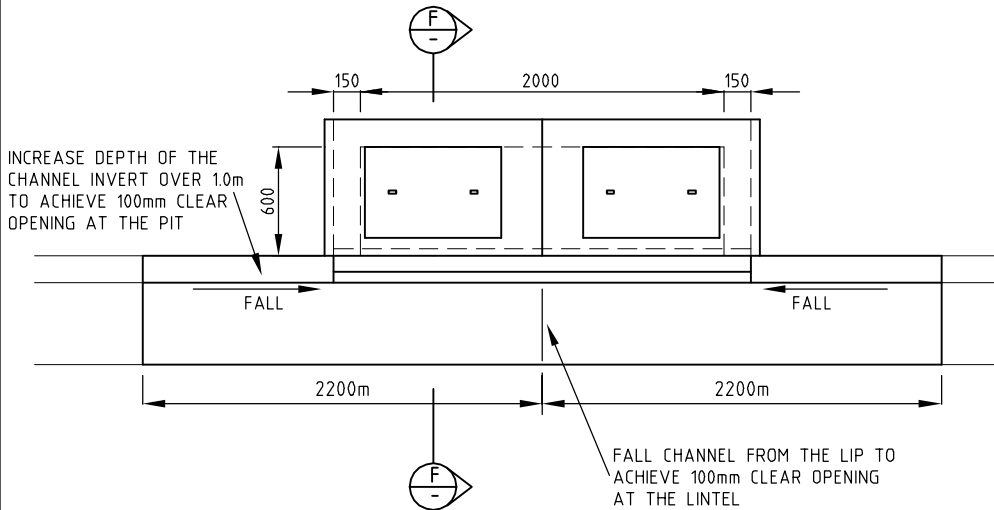
ISSUE DATE: 22/03/12

TERRA FIRMA LOCKABLE LID DETAIL FOR SIDE ENTRY PITS

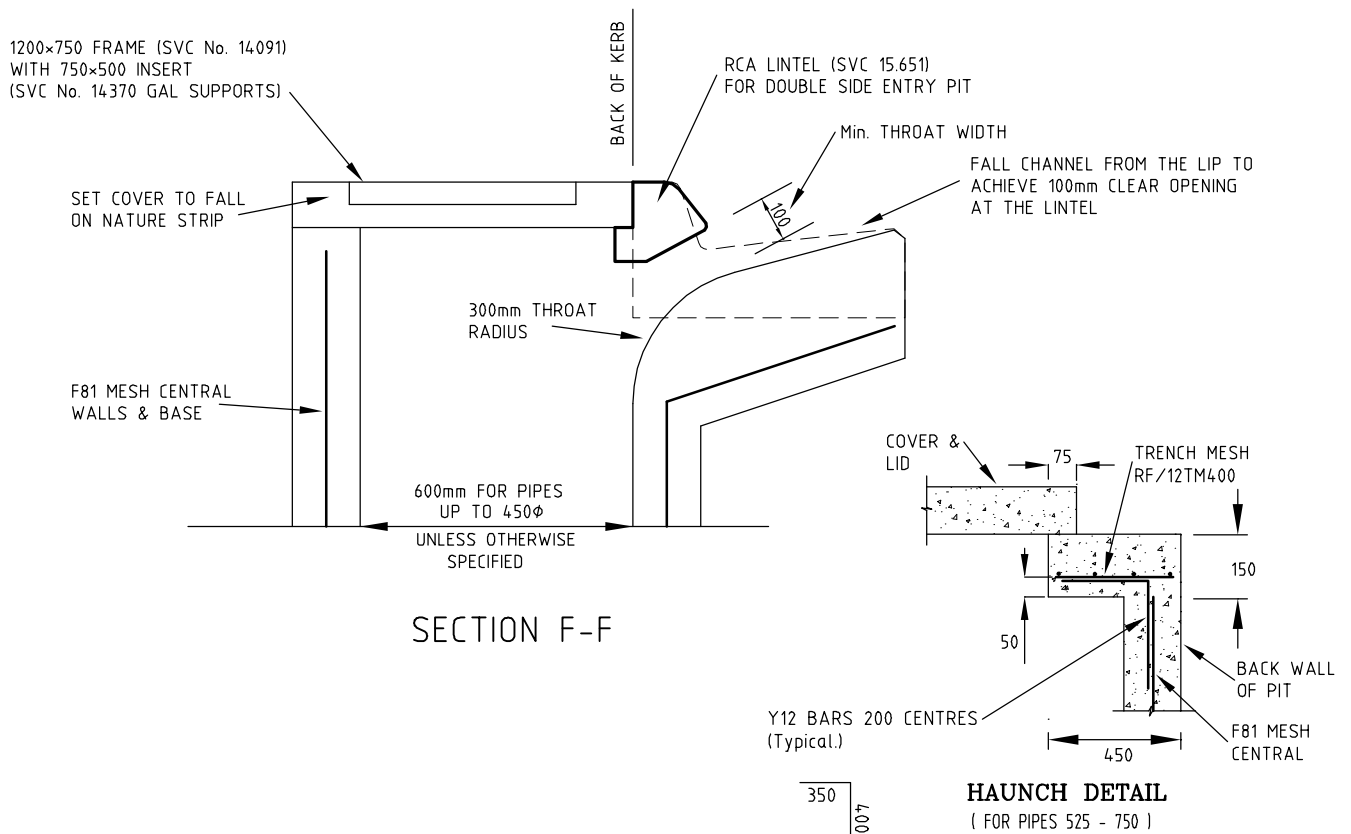
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

NOTES:

1. CONCRETE STRENGTH TO BE 32 MPa.
2. STEP IRONS REQUIRED WHERE PITS EXCEED 1.0m. REFER TO STEP IRONS STANDARD DRAWING S401 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.
6. 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.



PLAN DOUBLE SIDE ENTRY PIT



SECTION F-F

HAUNCH DETAIL
(FOR PIPES 525 - 750)

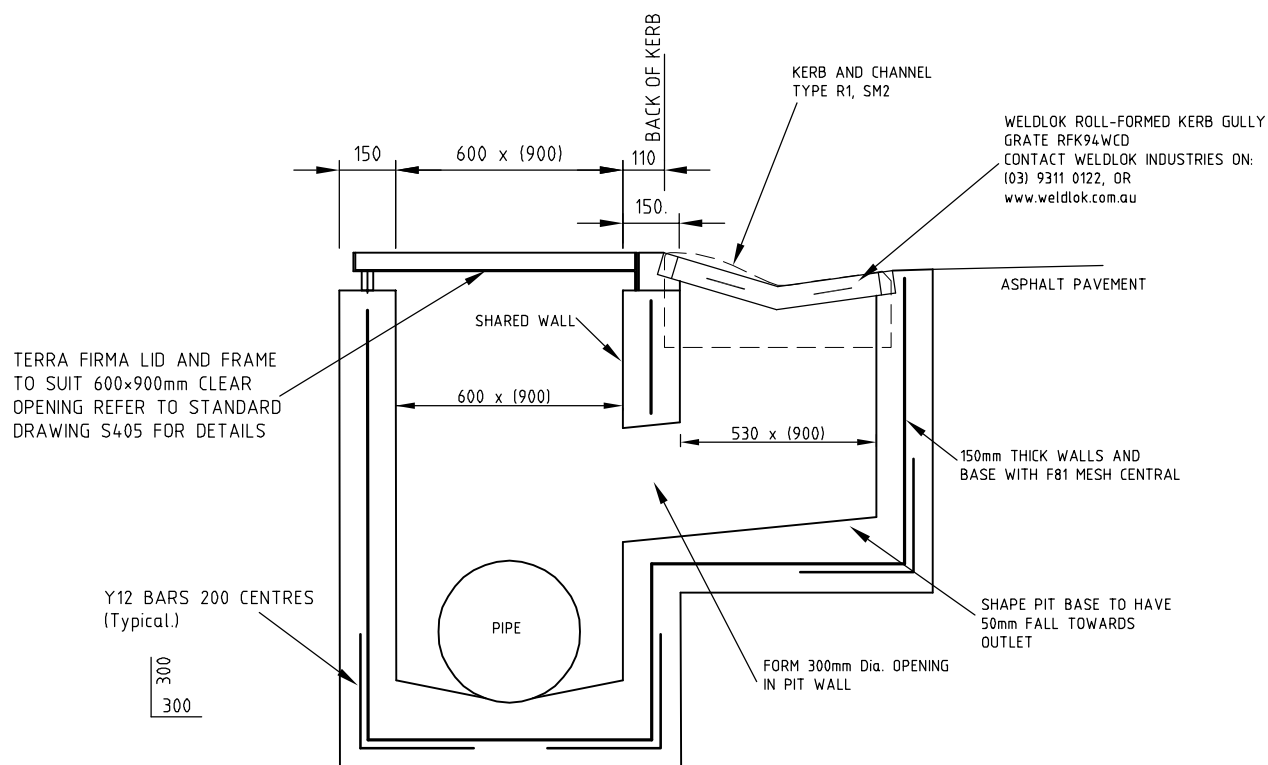
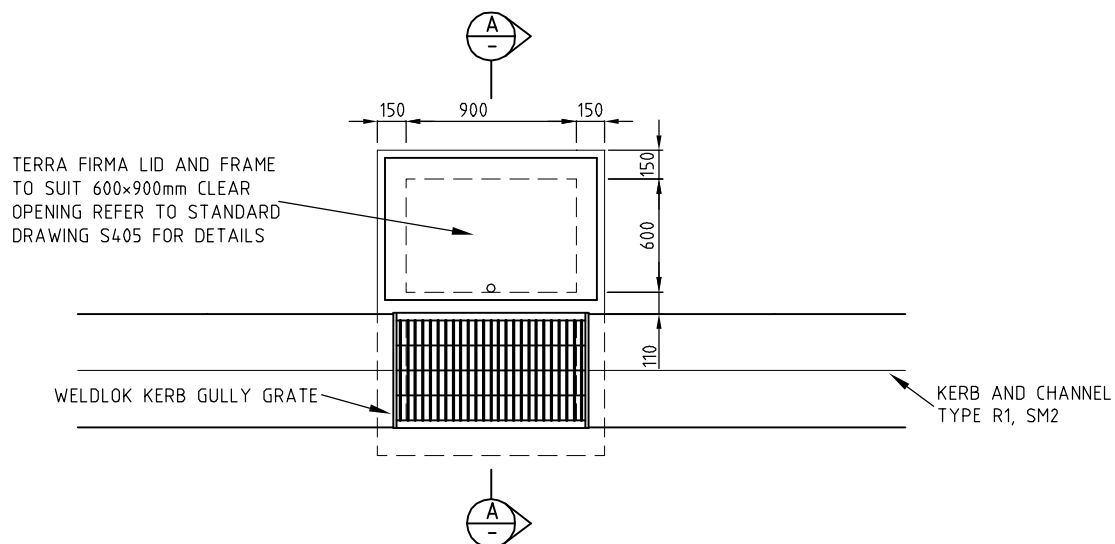
KINGSTON CITY COUNCIL
STANDARD DRAWING

DOUBLE SIDE ENTRY PIT

DRG. NO. S409

ISSUE DATE: 22/03/12

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



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.
4. 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.
6. GALVANISED STEP IRONS ARE TO BE PROVIDED AS PER STANDARD DRAWING S401 WHEN THE PIT DEPTH EXCEEDS 1.0m
7. ALL PROPRIETY COMPONENTS TO BE SUPPLIED BY MANUFACTURES LISTED OR OTHERS IF APPROVED BY COUNCIL.

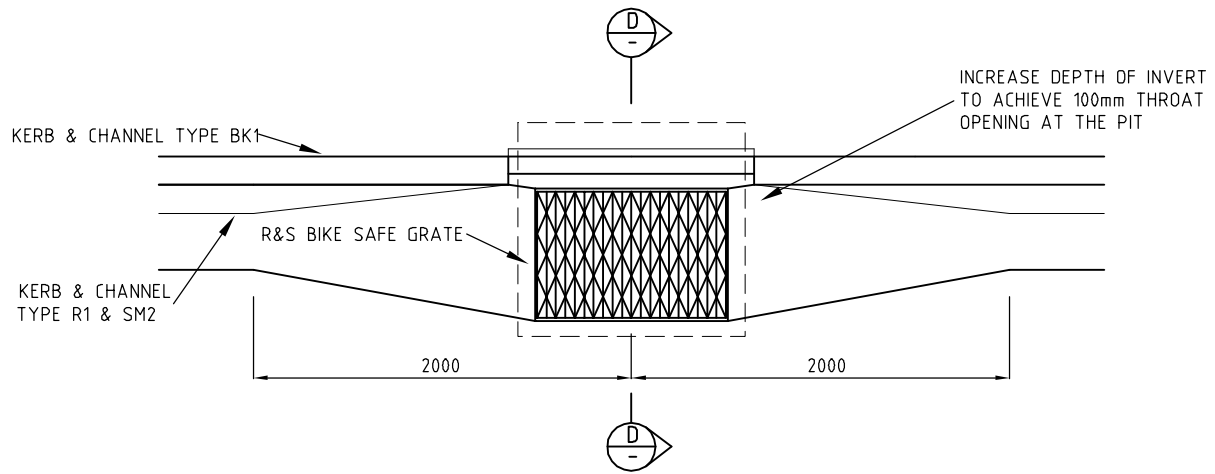
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. **S410**

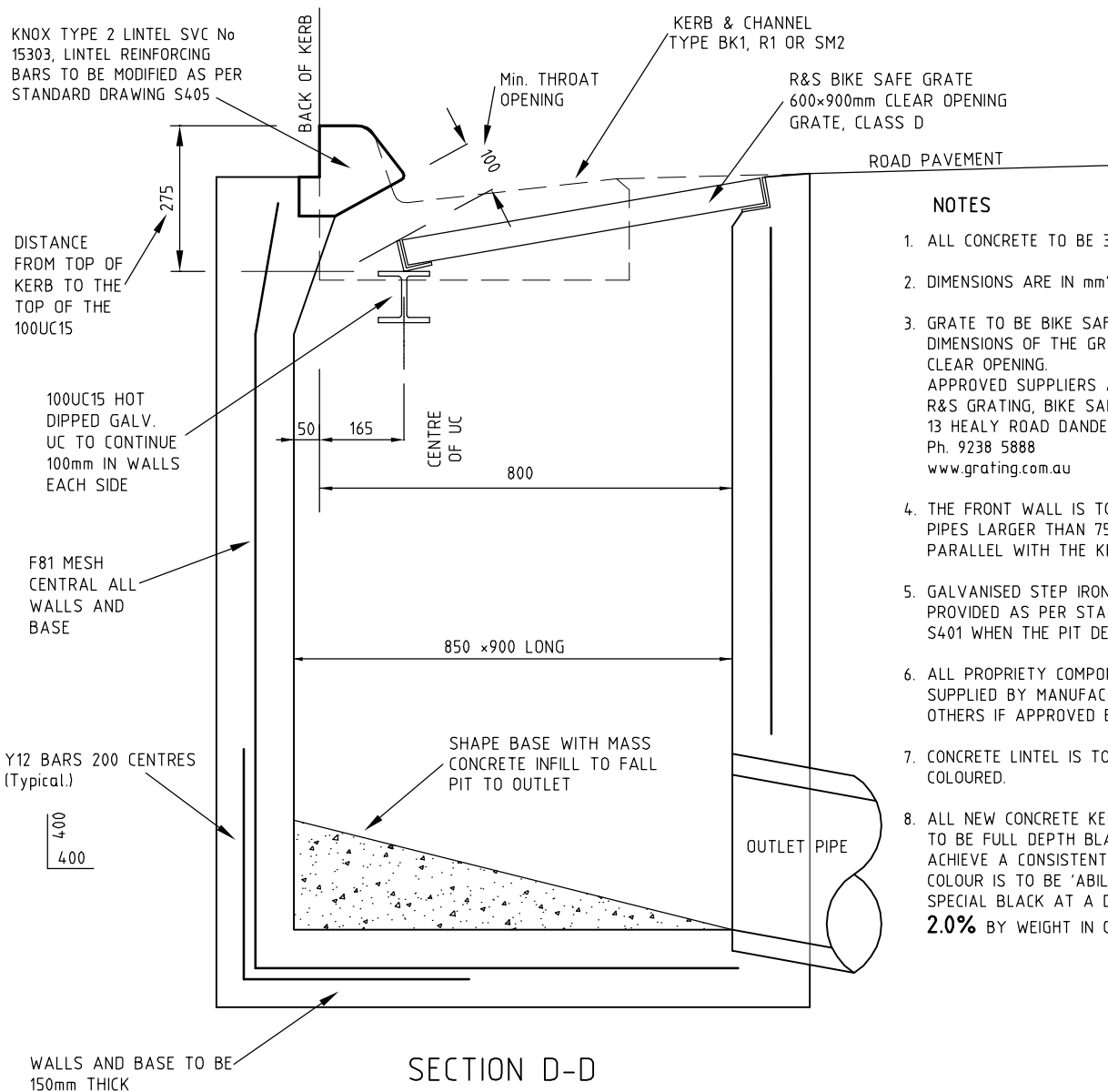
ISSUE DATE: 22/03/12

CHANNEL GRATE PIT
FOR ROLL OVER KERB AND CHANNEL TYPE R1

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



PLAN UNDER CHANNEL GRATE PIT



NOTES

1. ALL CONCRETE TO BE 32MPa.
2. DIMENSIONS ARE IN mm's.
3. GRATE TO BE BIKE SAFE GRATE CLASS D, DIMENSIONS OF THE GRATE ARE FOR THE CLEAR OPENING. APPROVED SUPPLIERS AS OF MARCH 2012 R&S GRATING, BIKE SAFE GRATES 13 HEALY ROAD DANDENONG SOUTH. Ph. 9238 5888 www.grating.com.au
4. THE FRONT WALL IS TO BE CORBELED FOR PIPES LARGER THAN 750mm Dia. RUNNING PARALLEL WITH THE KERB AND CHANNEL.
5. GALVANISED STEP IRONS ARE TO BE PROVIDED AS PER STANDARD DRAWING S401 WHEN THE PIT DEPTH EXCEEDS 1.0m
6. ALL PROPRIETY COMPONENTS TO BE SUPPLIED BY MANUFACTURES LISTED OR OTHERS IF APPROVED BY COUNCIL.
7. CONCRETE LINTEL IS TO BE BLACK COLOURED.
8. 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.

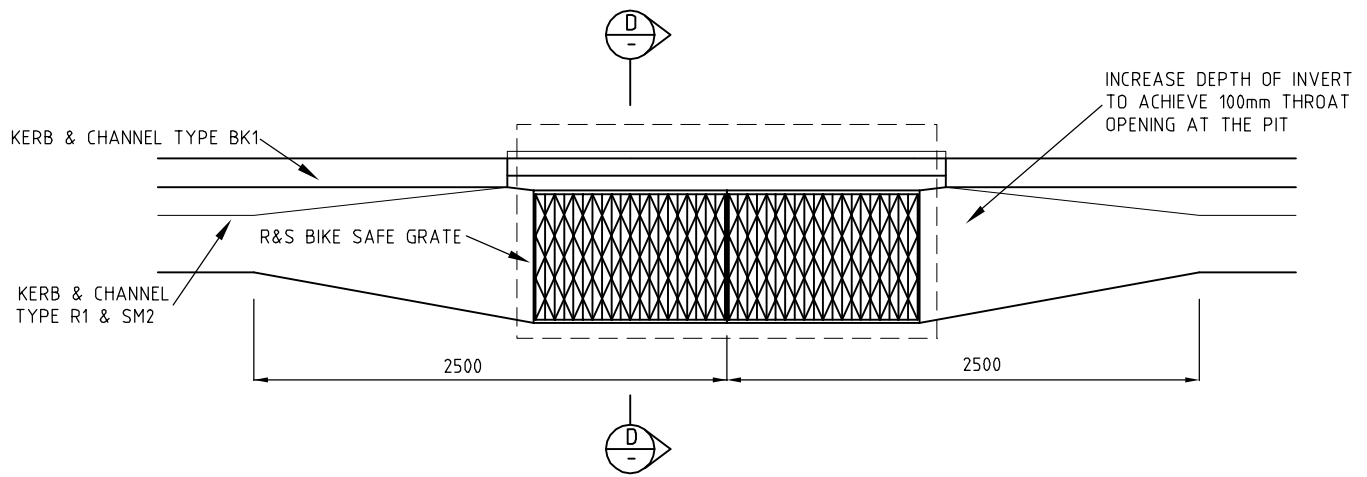
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S411

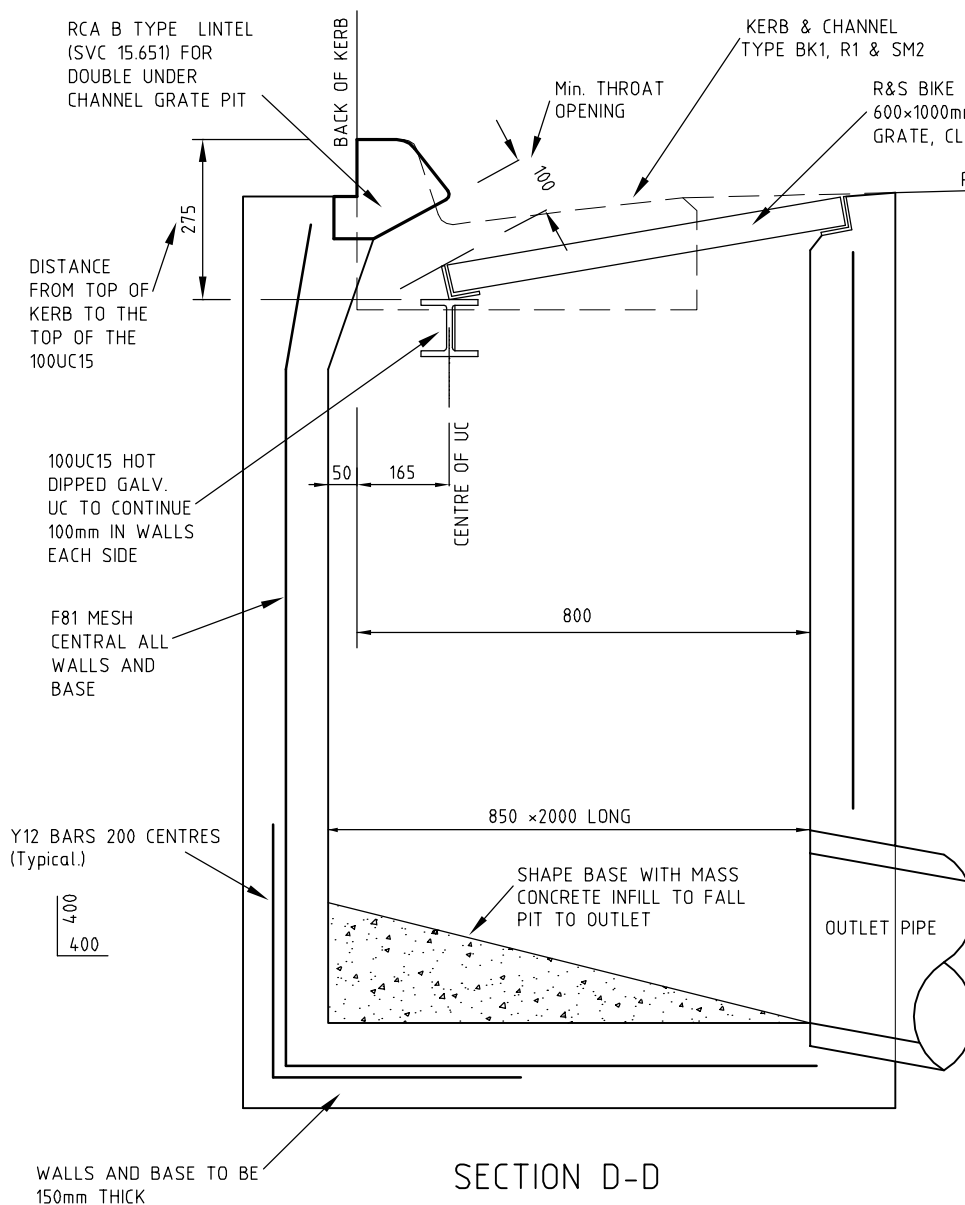
ISSUE DATE: 22/03/12

SINGLE UNDER CHANNEL GRATE PIT
FOR KERB AND CHANNEL TYPE BK1, R1, SM2

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



PLAN DOUBLE UNDER CHANNEL GRATE PIT



SECTION D-D

NOTES

1. ALL CONCRETE TO BE 32MPa.
2. DIMENSIONS ARE IN mm's.
3. GRATE TO BE BIKE SAFE GRATE CLASS D, DIMENSIONS OF THE GRATE ARE FOR THE CLEAR OPENING.
APPROVED SUPPLIERS AS OF MARCH 2012
R&S GRATING, BIKE SAFE GRATES
13 HEALY ROAD DANDENONG SOUTH.
Ph. 9238 5888
www.grating.com.au
4. THE FRONT WALL IS TO BE CORBELED FOR PIPES LARGER THAN 750mm Dia. RUNNING PARALLEL WITH THE KERB AND CHANNEL.
5. GALVANISED STEP IRONS ARE TO BE PROVIDED AS PER STANDARD DRAWING S401 WHEN THE PIT DEPTH EXCEEDS 1.0m
6. ALL PROPRIETY COMPONENTS TO BE SUPPLIED BY MANUFACTURES LISTED OR OTHERS IF APPROVED BY COUNCIL.
7. CONCRETE LINTEL IS TO BE BLACK COLOURED.
8. 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

DRG. NO. **S412**

ISSUE DATE: 22/03/12

DOUBLE UNDER CHANNEL GRATE PIT
FOR KERB AND CHANNEL TYPE BK1, R1, SM2

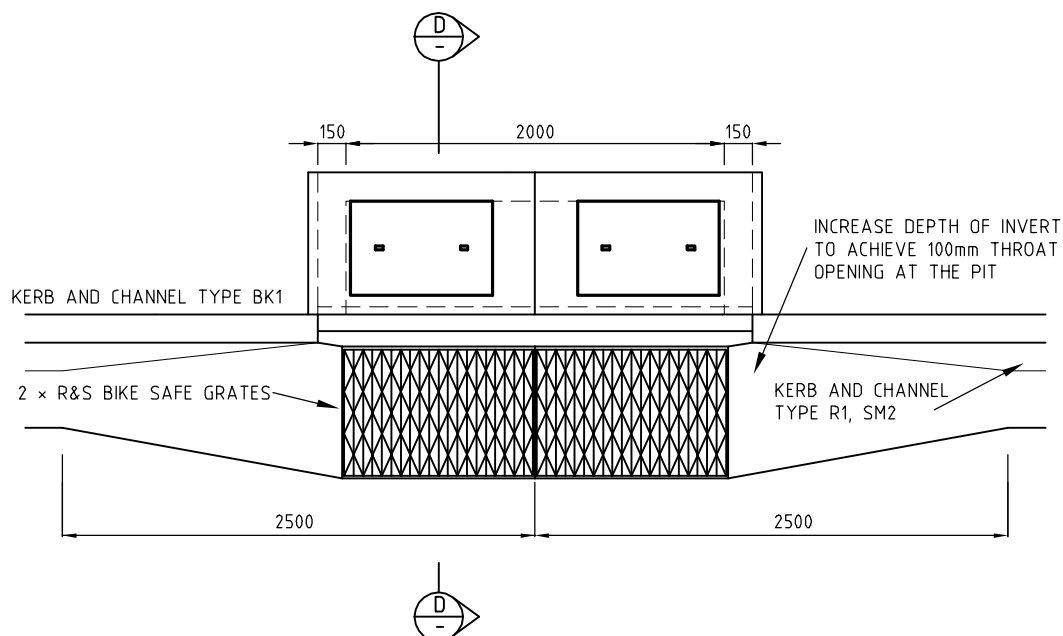
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



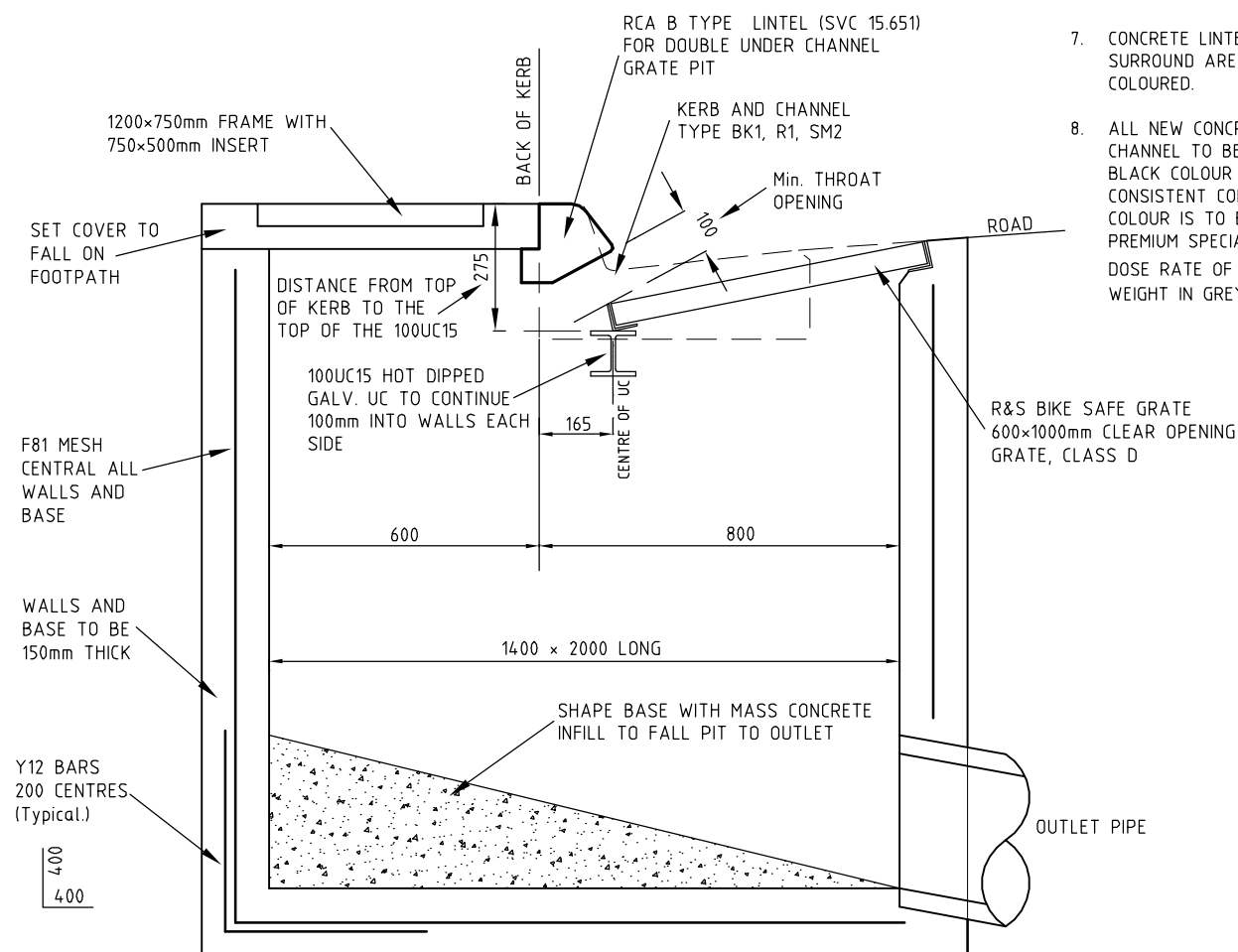
1. ALL CONCRETE TO BE 32MPa.
2. DIMENSIONS ARE IN mm's.
3. GRATE TO BE BIKE SAFE GRATE CLASS D, DIMENSIONS OF THE GRATE ARE FOR THE CLEAR OPENING.
APPROVED SUPPLIERS AS OF MARCH 2012
R&S GRATING, BIKE SAFE GRATES
13 HEALY ROAD DANDENONG SOUTH.
Ph. 9238 5888
www.grating.com.au
4. THE FRONT WALL IS TO BE CORBELED FOR PIPES LARGER THAN 750mm Dia. RUNNING PARALLEL WITH THE KERB AND CHANNEL.
5. GALVANISED STEP IRONS ARE TO BE PROVIDED AS PER STANDARD DRAWING S401 WHEN THE PIT DEPTH EXCEEDS 1.0m
6. ALL PROPRIETY COMPONENTS TO BE SUPPLIED BY MANUFACTURES LISTED OR OTHERS IF APPROVED BY COUNCIL.
7. CONCRETE LINTEL, PIT LID AND SURROUND ARE TO BE BLACK COLOURED.
8. 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.



STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



PLAN DOUBLE SIDE ENTRY/GRATE PIT



SECTION D-D

NOTES

1. ALL CONCRETE TO BE 32MPa.
2. DIMENSIONS ARE IN mm's.
3. GRATE TO BE BIKE SAFE GRATE CLASS D, DIMENSIONS OF THE GRATE ARE FOR THE CLEAR OPENING. APPROVED SUPPLIERS AS OF MARCH 2012
R&S GRATING, BIKE SAFE GRATES
13 HEALY ROAD DANDENONG SOUTH.
Ph. 9238 5888
www.grating.com.au
4. THE FRONT WALL IS TO BE CORBELED FOR PIPES LARGER THAN 750mm Dia. RUNNING PARALLEL WITH THE KERB AND CHANNEL.
5. GALVANISED STEP IRONS ARE TO BE PROVIDED AS PER STANDARD DRAWING S401 WHEN THE PIT DEPTH EXCEEDS 1.0m
6. ALL PROPRIETY COMPONENTS TO BE SUPPLIED BY MANUFACTURES LISTED OR OTHERS IF APPROVED BY COUNCIL.
7. CONCRETE LINTEL, PIT LID AND SURROUND ARE TO BE BLACK COLOURED.
8. 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.

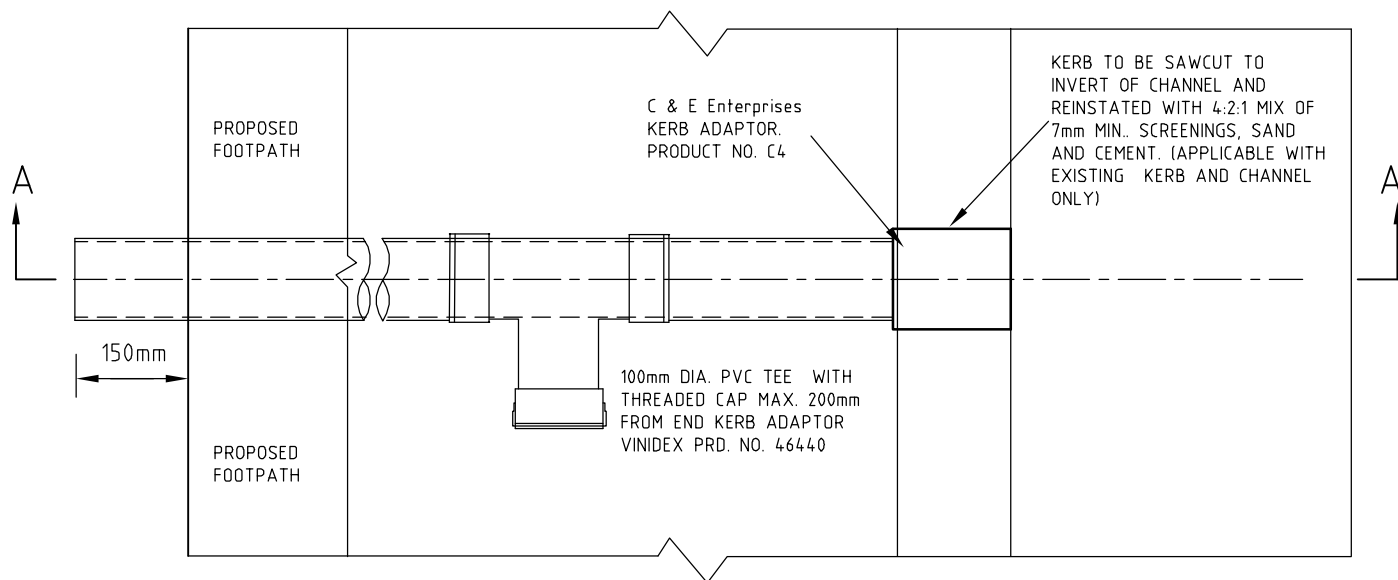
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. **S414**

ISSUE DATE: 22/03/12

DOUBLE SIDE ENTRY GRATE PIT
FOR KERB AND CHANNEL TYPE BK1, R1, SM2

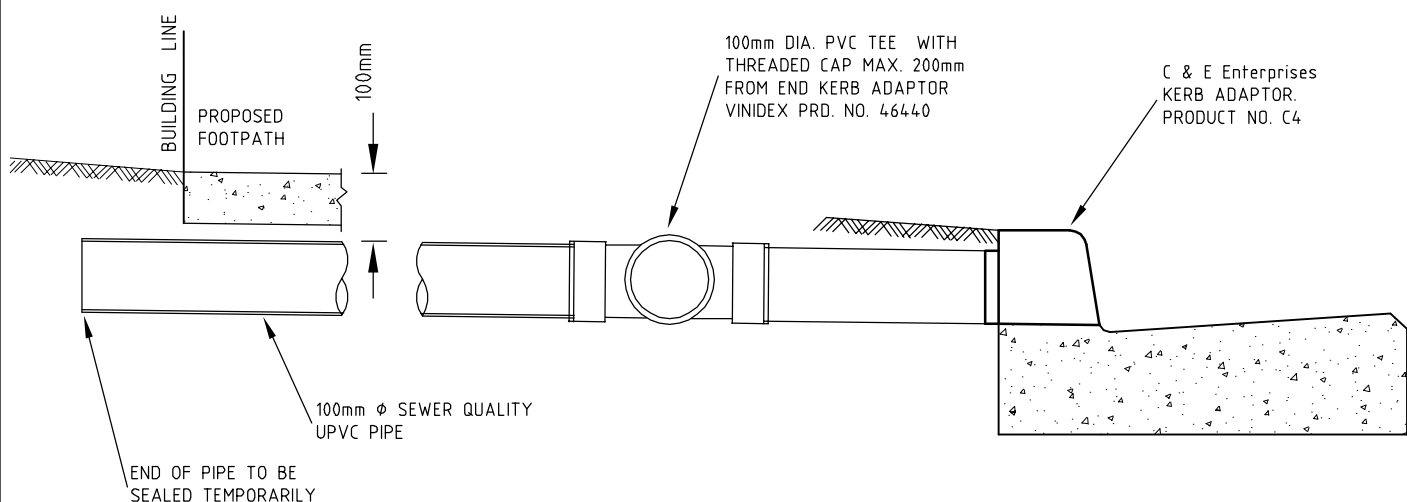
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



PLAN

1. 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.
4. 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.
6. 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.



SECTION A - A

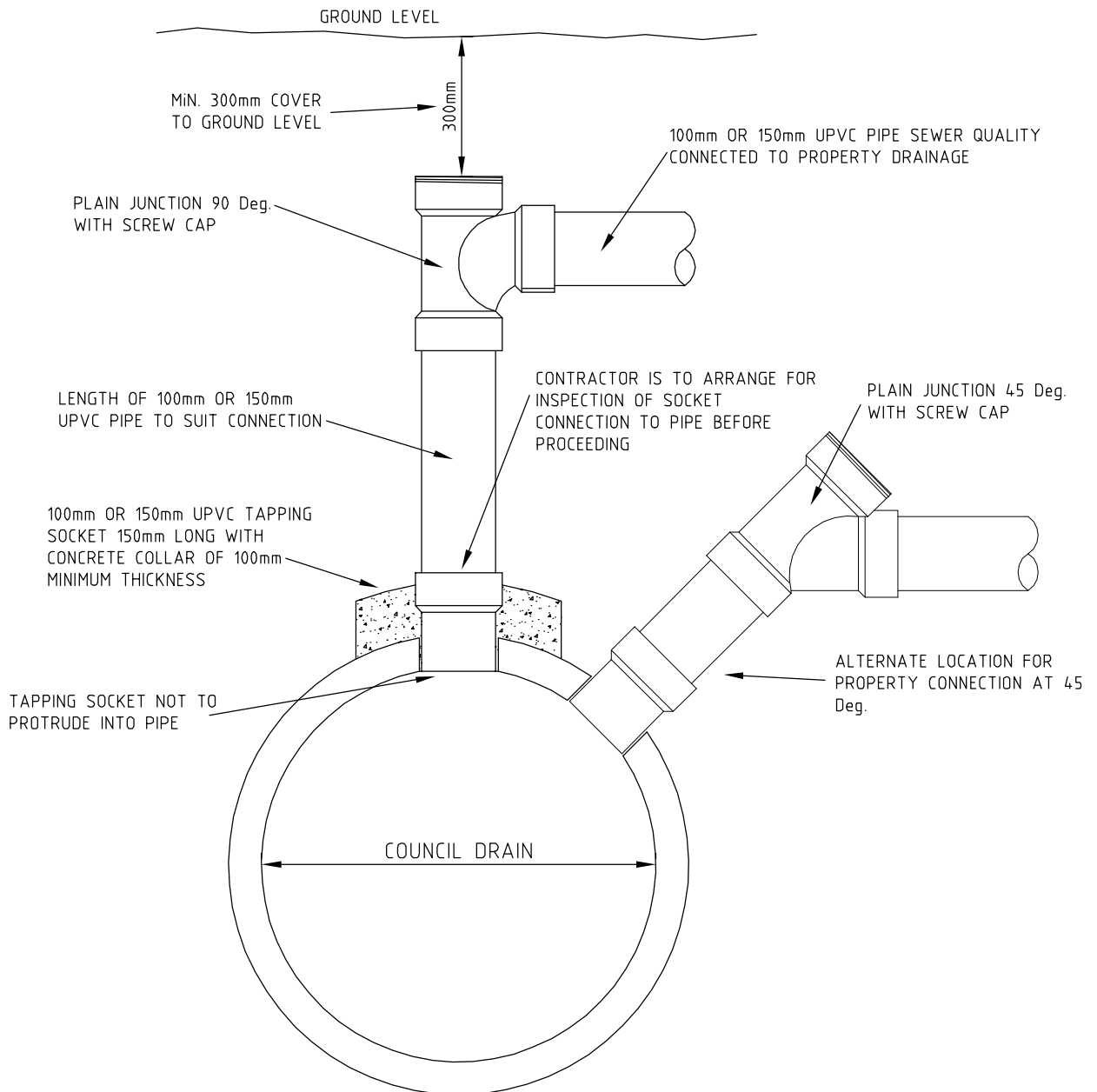
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S501

ISSUE DATE: 22/03/12

CONNECTION OF HOUSE STORMWATER DRAIN
TO KERB AND CHANNEL

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



- 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 PROTRUDE 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.

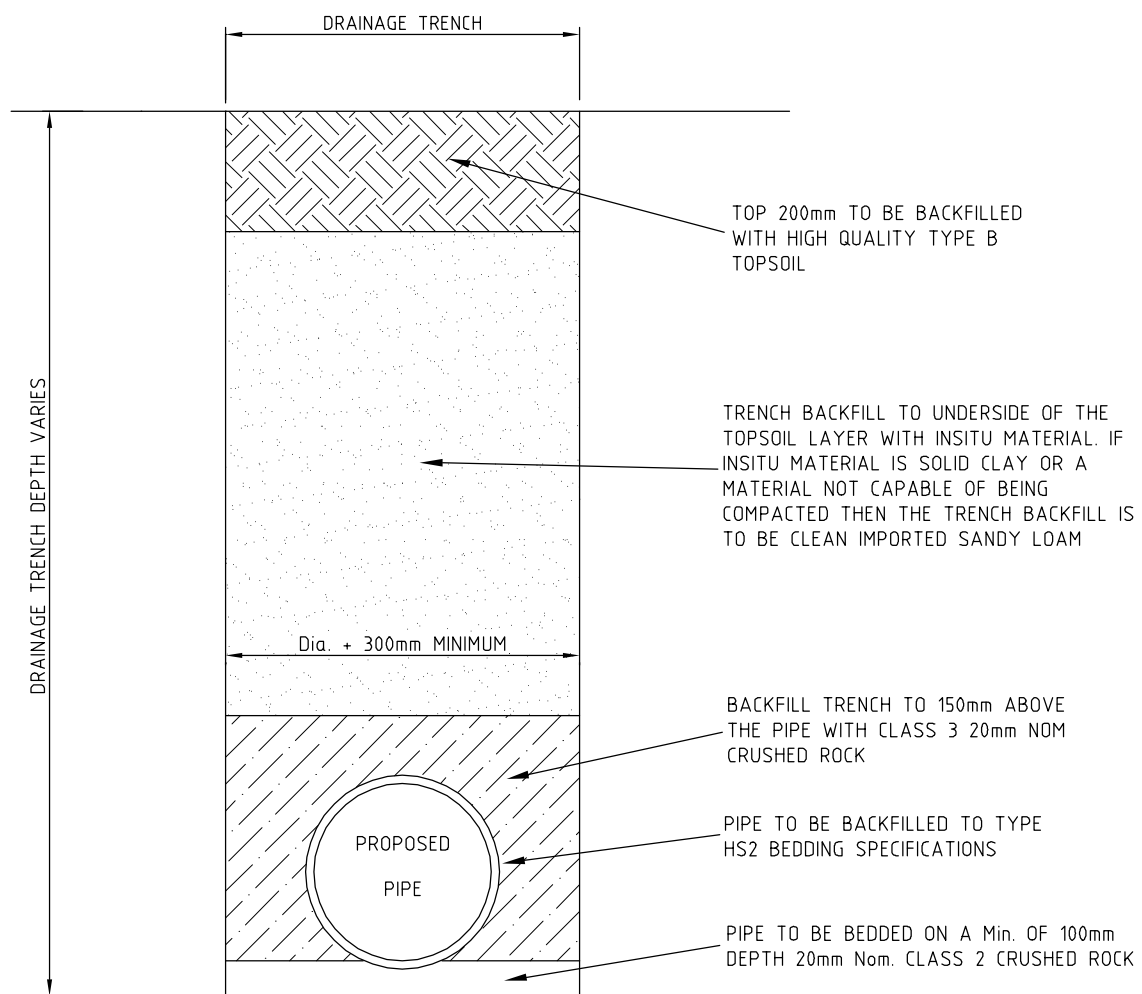
KINGSTON CITY COUNCIL STANDARD DRAWING

DRG. NO. S503

ISSUE DATE: 22/03/12

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

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



PIPE BACKFILL DETAILS
IN EASEMENTS
NOT TO SCALE

PIPE BACKFILL DETAILS

1. 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.
2. COMPACTION OF ALL PIPE BACKFILL ZONES TO BE TO COUNCILS STANDARD SPECIFICATIONS FOR ROAD AND DRAINAGE WORKS

KINGSTON CITY COUNCIL
STANDARD DRAWING

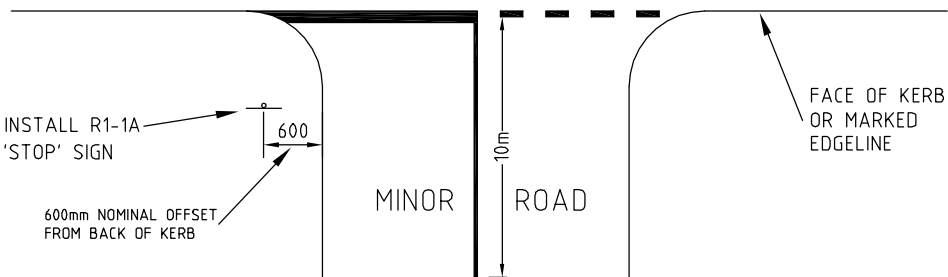
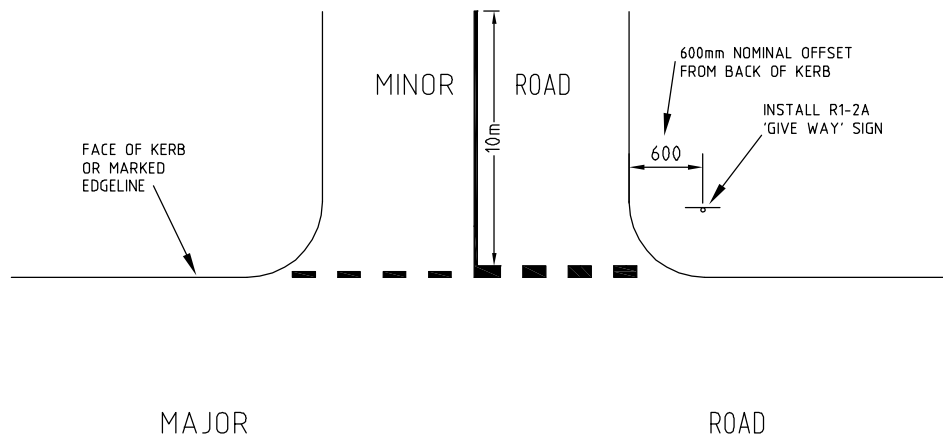
PIPE BACKFILL DETAIL EASEMENTS

DRG. NO. S506

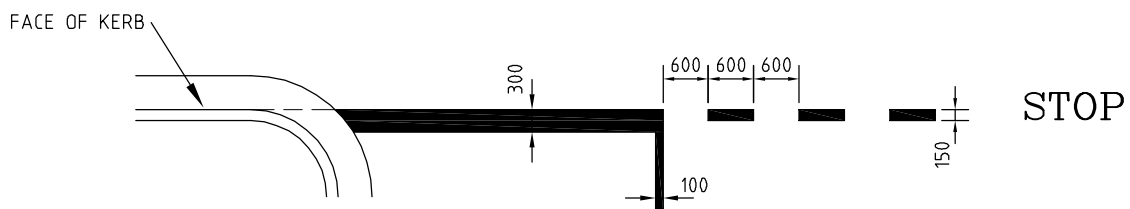
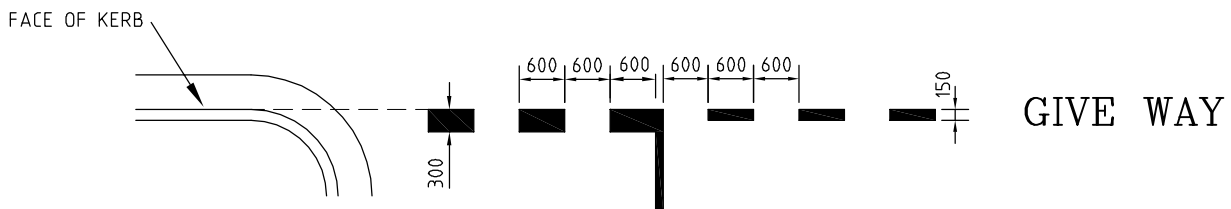
ISSUE DATE: 22/03/12

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

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



PLAN



DETAILS OF MARKINGS

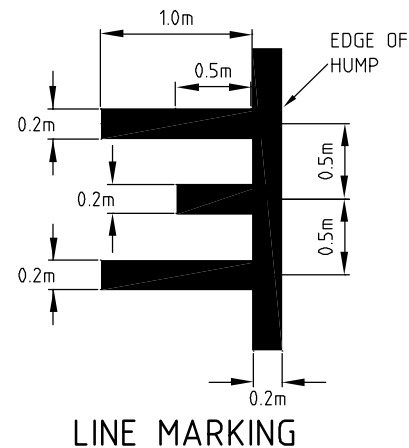
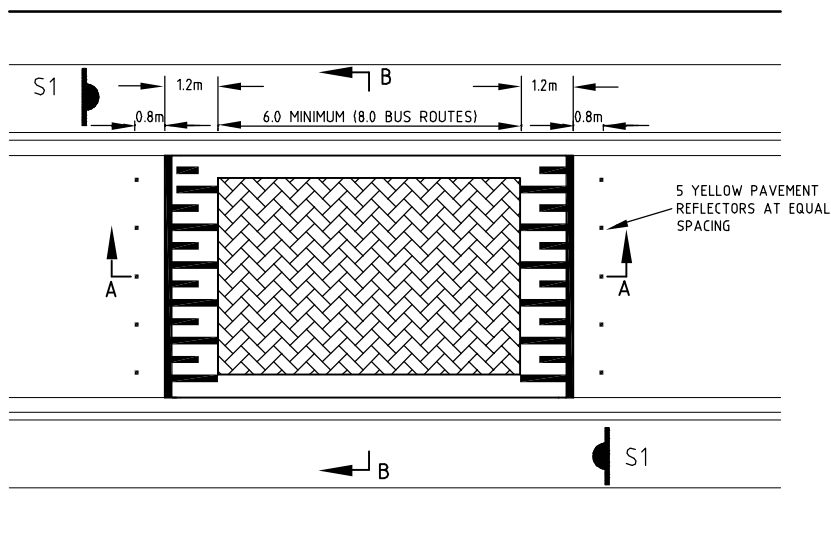
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S601

ISSUE DATE: 22/03/12

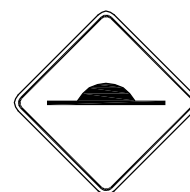
'GIVEWAY' AND 'STOP' LINEMARKING AND SIGNAGE
GENERAL URBAN AND RURAL USE

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

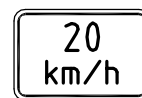


SIGNAGE AND LINEMARKING NOTES

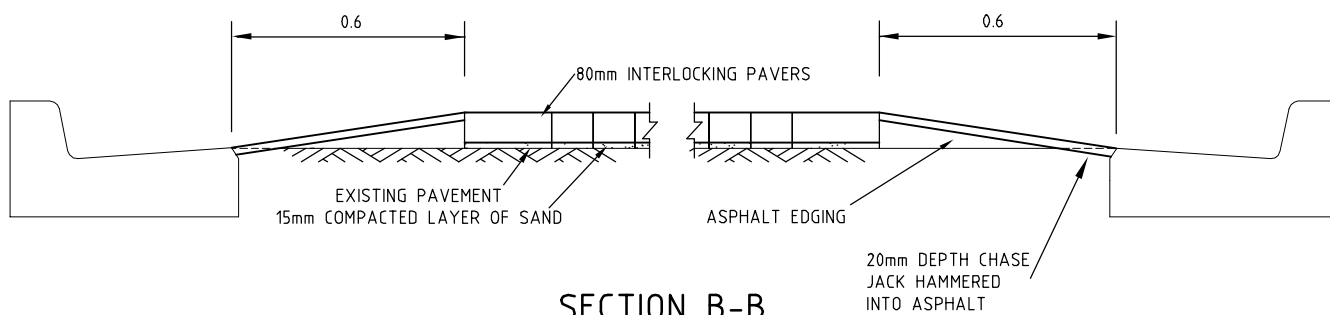
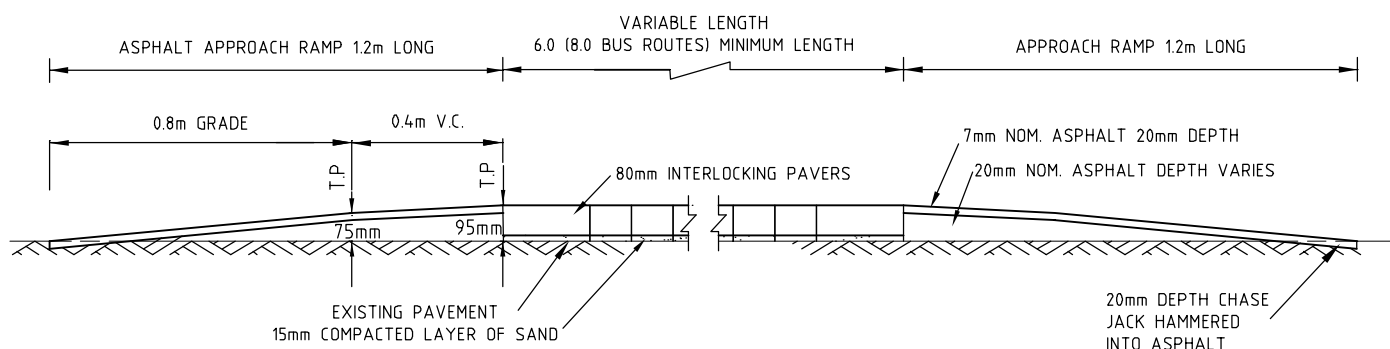
1. ALL SIGNAGE TO BE MANUFACTURED IN ACCORDANCE WITH AS1742 "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)
2. UNLESS OTHERWISE SHOWN ON THE PLANS, ALL SIGNS, RRPM'S AND LINEMARKING TO BE INSTALLED IN ACCORDANCE WITH VICROADS TRAFFIC ENGINEERING MANUAL VOLUME 2, "SIGNS AND MARKINGS"
3. 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.



SIGN S1
ROAD HUMPS W5-10A



SIGN S1
ADVISORY SPEED
SIGN...km/h W8-2A
600x400mm



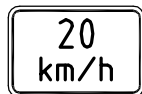
KINGSTON CITY COUNCIL
STANDARD DRAWING

STANDARD RAISED PAVEMENT

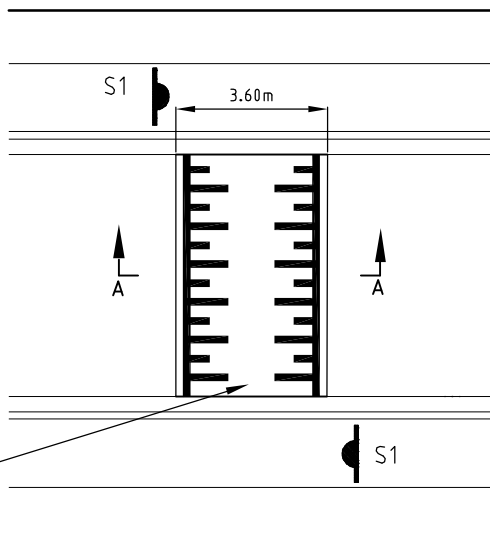
DRG. NO. S602

ISSUE DATE: 22/03/12

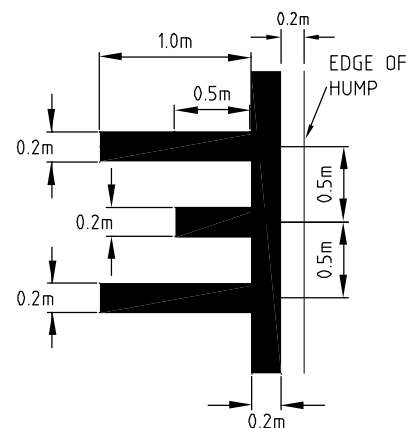
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



SIGN S1
ADVISORY SPEED
SIGN...km/h W8-2A
600x400



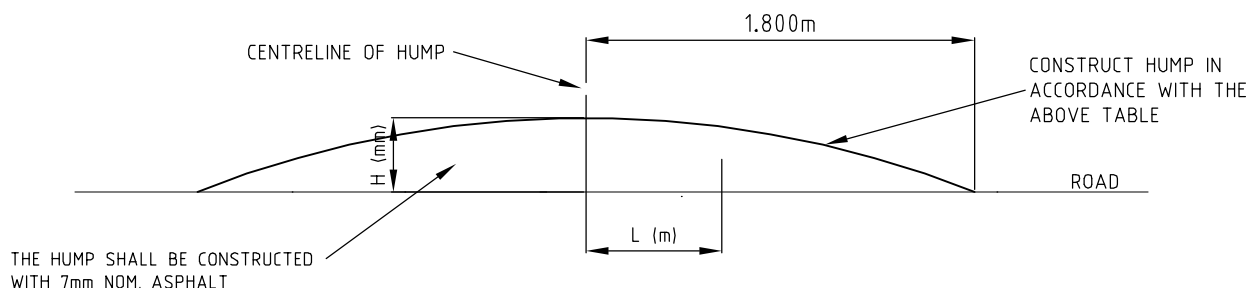
THE HUMP SLOPES DOWN
TO MEET THE LEVEL OF THE
LIP OF CHANNEL OVER 600mm



LINE MARKING

PLAN

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



SECTION A-A

SIGNAGE AND LINEMARKING NOTES

1. ALL SIGNAGE TO BE MANUFACTURED IN ACCORDANCE WITH AS1742 "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES" (CURRENT EDITION)
2. 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.

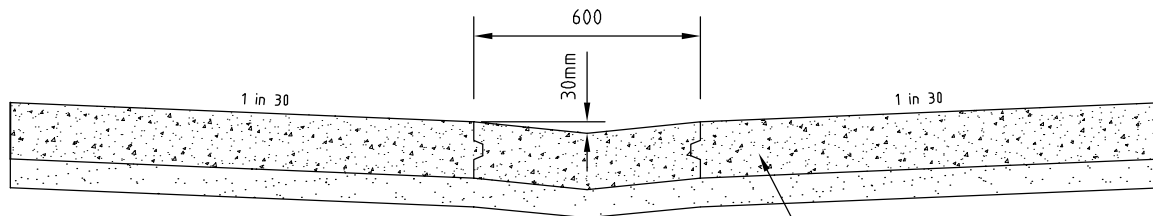
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S604

ISSUE DATE: 22/03/12

'WATTS' PROFILE SPEED HUMP

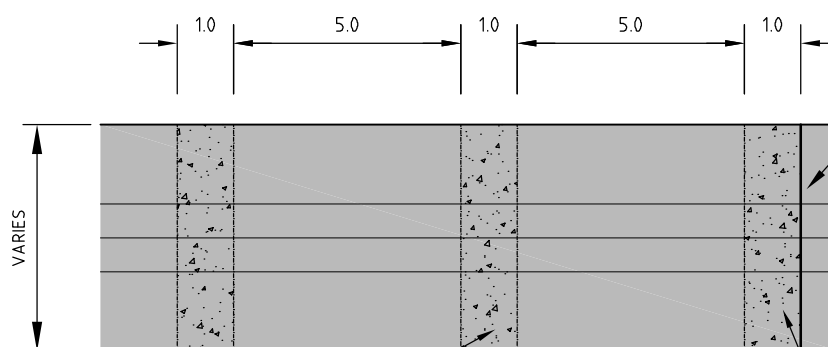
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



TYPICAL CROSS SECTION

NOT TO SCALE

150mm DEPTH 32MPa CONCRETE PAVING ON 75mm DEPTH OF COMPACTED 20mm NOM. SIZE CLASS 2 CRUSHED ROCK. CONCRETE TO BE FULL DEPTH BLACK COLOUR USING A DOSAGE RATE OF 8.3% COLOUR BY WEIGHT IN GREY CEMENT.



EXPANSION JOINTS ARE TO BE CONSTRUCTED AT EVERY THIRD BAND

CONSTRUCT TOOL JOINTS TO COINCIDE WITH EDGES OF 1m BANDS.

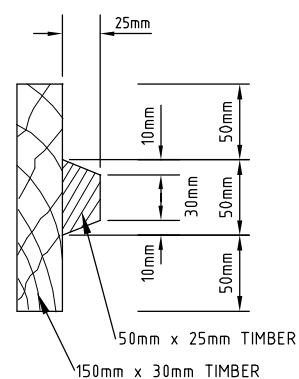
FULL LENGTH OF RIGHT OF WAY TO HAVE 1m WIDE EXPOSED AGGREGATE BANDS AS PER THE TYPICAL LAYOUT SHOWN.

TYPICAL LAYOUT PLAN

NOT TO SCALE

NOTES:

1. CONCRETE STRENGTH TO BE 32MPa AT 28 DAYS
2. PAVEMENT DEPTH SHOWN IS FOR RIGHT OF WAYS ABUTTING 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.
5. THERE ARE MULTIPLE CHEMICAL RETARDENTS READILY AVAILABLE TO PROVIDE THE EXPOSED AGGREGATE FINISH.
6. THE RETARDER IS TO BE APPLIED IN A UNIFORM APPLICATION TO THE FRESHLY PLACED CONCRETE SURFACE PRIOR TO THE INITIAL SET.
7. 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

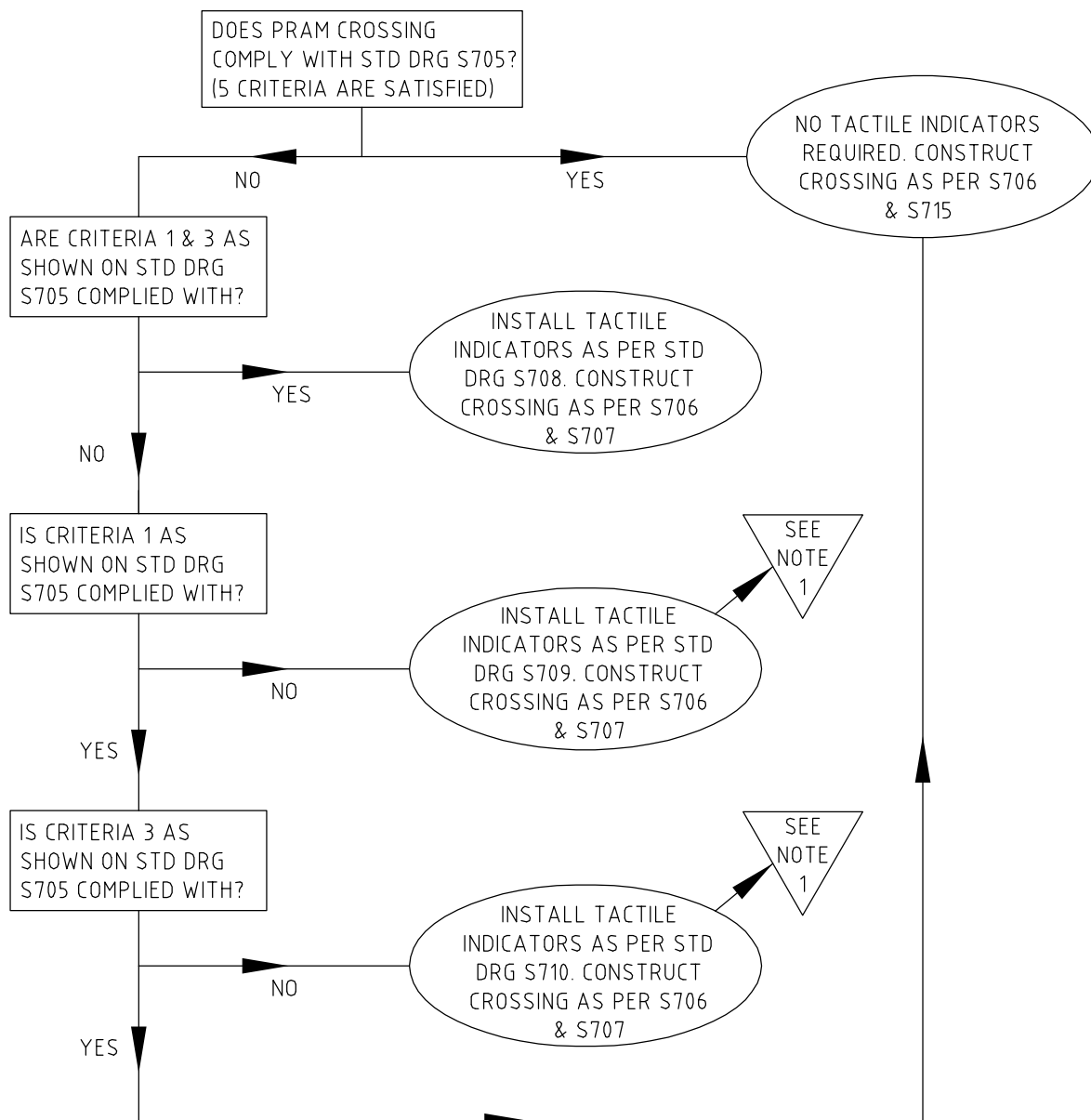
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S605

ISSUE DATE: 22/03/12

STANDARD RIGHT OF WAY
CONSTRUCTION DETAILS

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



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.

NOTE 1. IF THE EXAMPLE PATH CONFIGURATIONS DO NOT REPRESENT THE ON SITE SITUATION THEN CONTACT COUNCIL TO NOMINATE THE REQUIRED TACTILE INDICATOR LAYOUT

KINGSTON CITY COUNCIL STANDARD DRAWING

DRG. NO. **S701**

ISSUE DATE: 22/03/12

TACTILE INDICATOR REQUIREMENTS FOR PRAM CROSSINGS
FLOW CHART

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

2.243.3 Design requirements

The design of directional indicators shall comply with Figure 2.

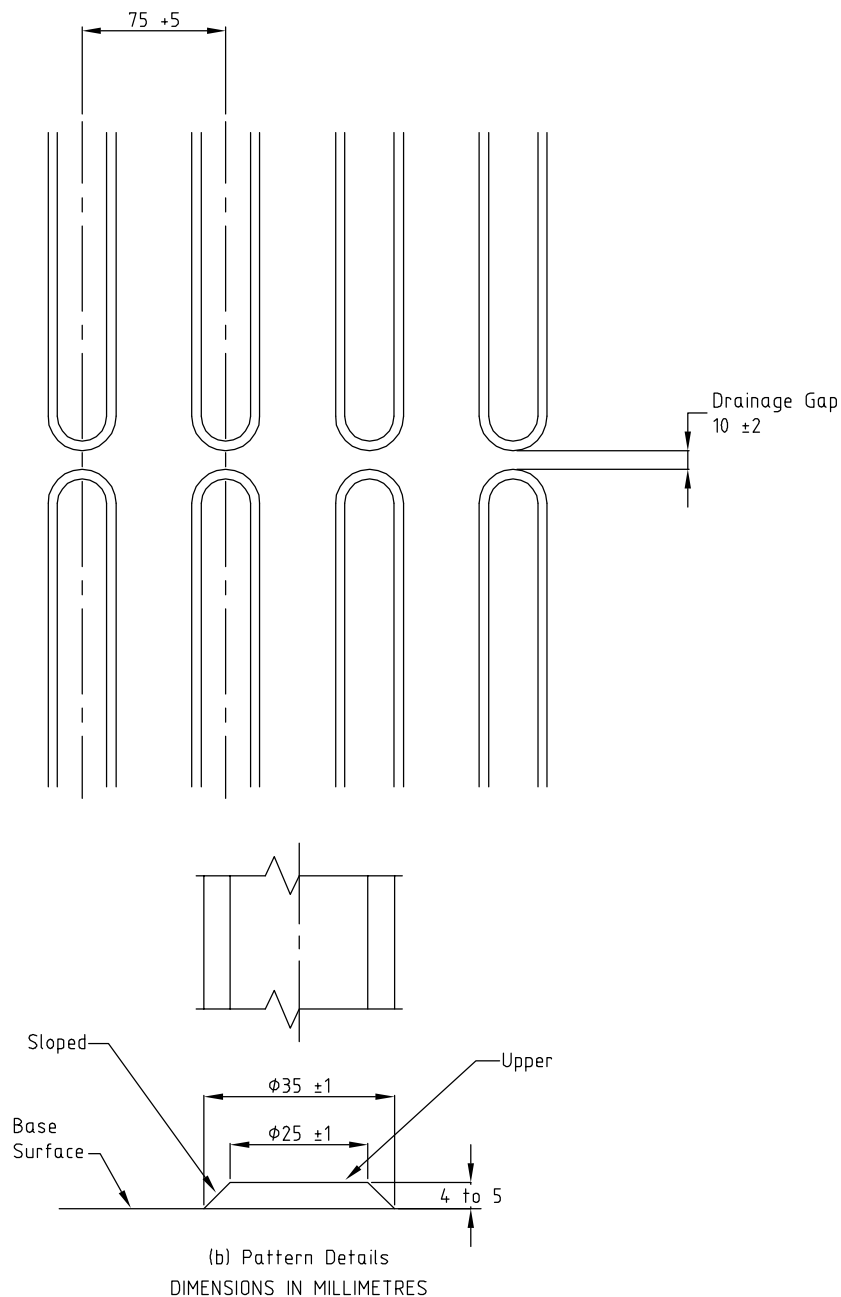


FIGURE 2 TYPICAL DIRECTIONAL INDICATOR PATTERN

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

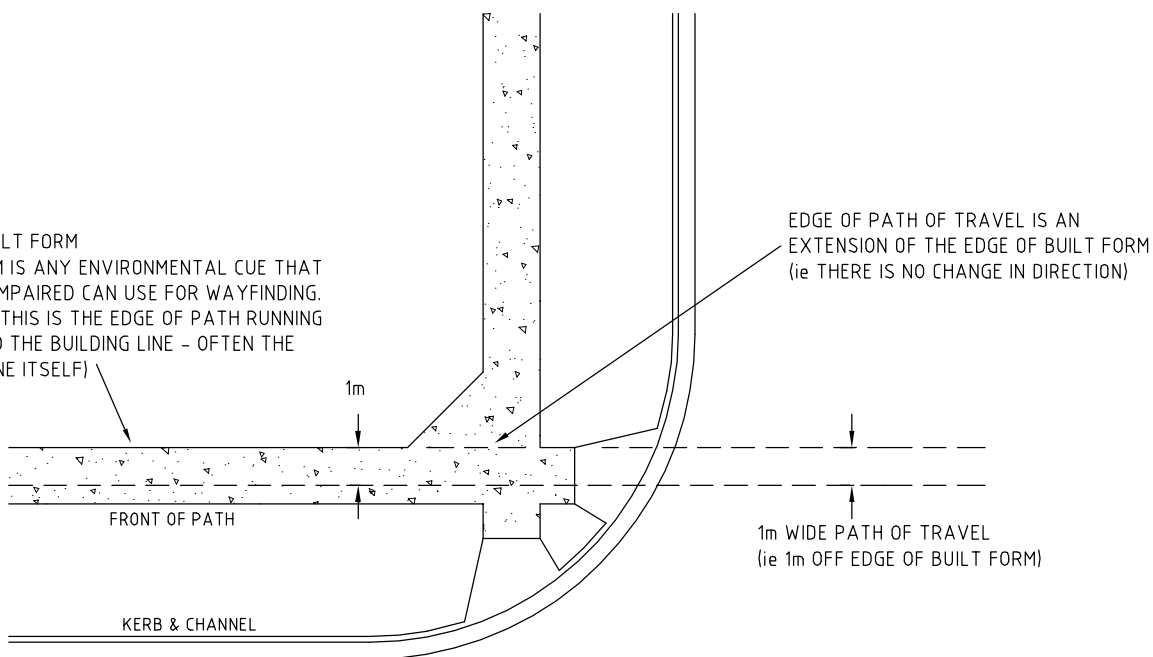
DIRECTIONAL TACTILE INDICATORS

DRG. NO. S703

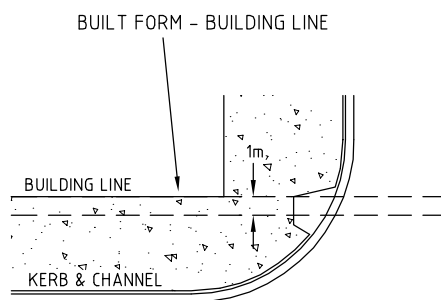
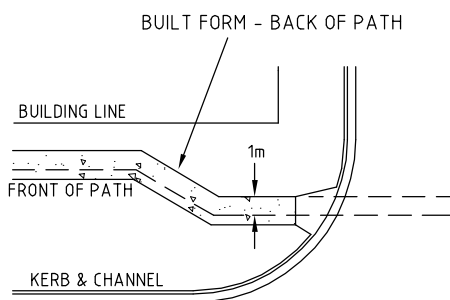
ISSUE DATE: 22/03/12

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

EDGE OF BUILT FORM
(BUILT FORM IS ANY ENVIRONMENTAL CUE THAT THE SIGHT IMPAIRED CAN USE FOR WAYFINDING. TYPICALLY THIS IS THE EDGE OF PATH RUNNING CLOSEST TO THE BUILDING LINE - OFTEN THE BUILDING LINE ITSELF)



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

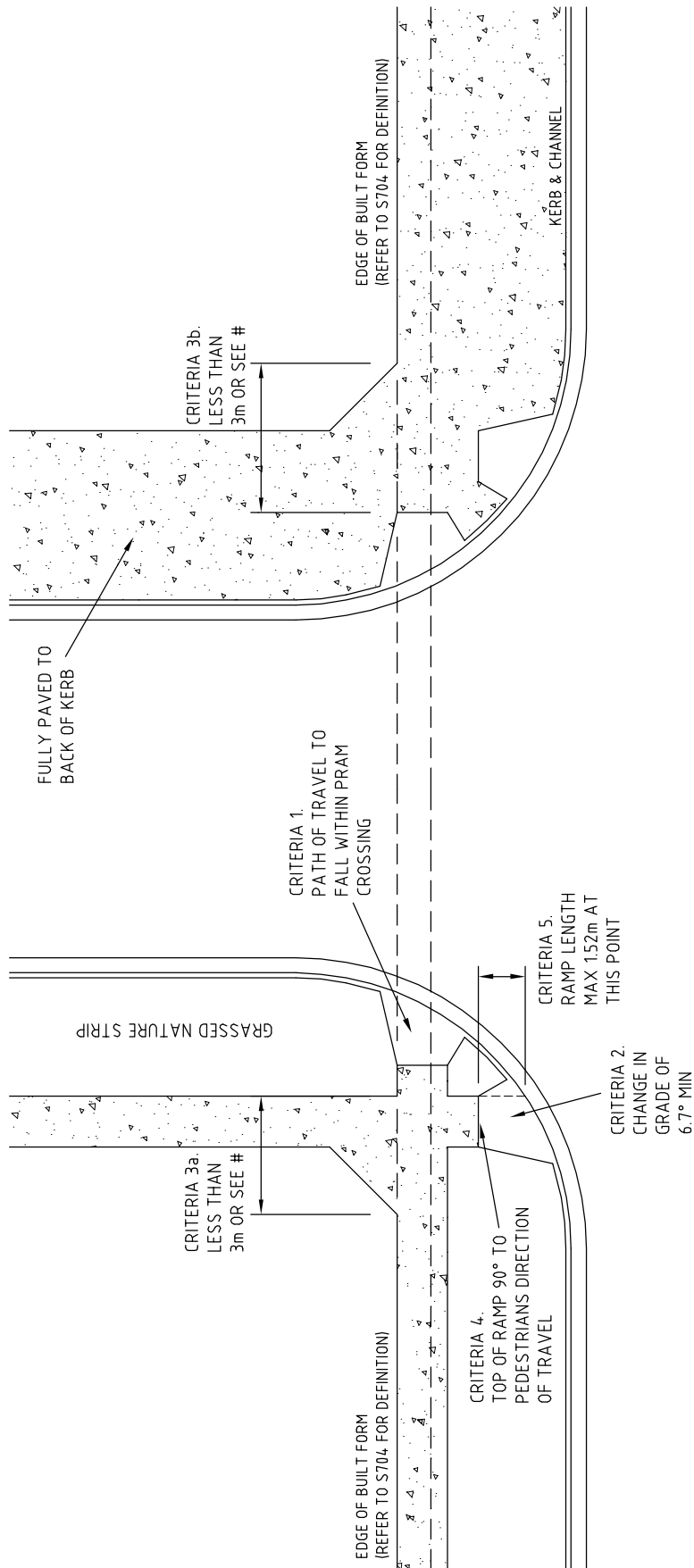
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. **S704**

ISSUE DATE: 22/03/12

PATH OF TRAVEL FOR SIGHT IMPAIRED

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



5 BASIC CRITERIA TO BE MET SUCH THAT TACTILE INDICATORS ARE NOT REQUIRED

- 1m 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)
- a) EDGE OF NATURE STRIP TO BE WITHIN 3m (SEE #) OF CORNER OF BUILT FORM WHEN NATURE STRIP PRESENT
b) BACK OF PRAM RAMP TO BE WITHIN 3m (SEE #) OF CORNER OF BUILT FORM WHEN AREA FULLY PAVED
- BACK OF PRAM RAMP TO BE 90° TO THE PEDESTRIAN'S DIRECTION OF TRAVEL
- THE SHORT SIDE OF THE PRAM RAMP TO BE A MAXIMUM OF 152m

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 INCREASED TO 8m.

NOTE - THESE CRITERIA (EXCLUDING THE NOTE MARKED AS #) ARE COUNCIL'S INTERPRETATION OF AS1428.4 :2002

KINGSTON CITY COUNCIL STANDARD DRAWING

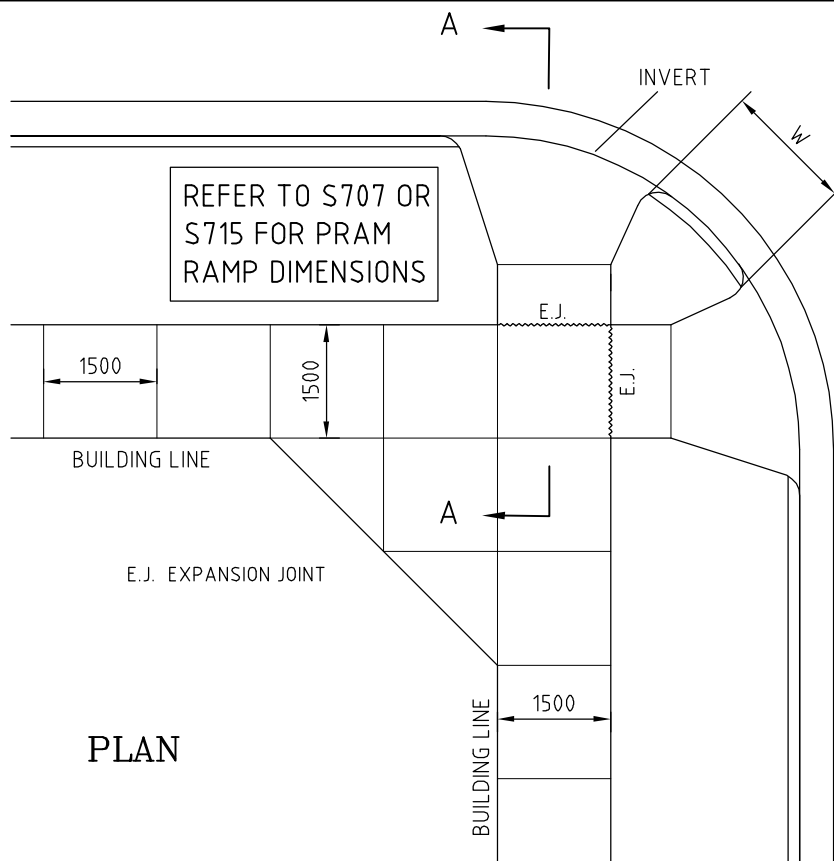
DRG. NO. S705

ISSUE DATE: 22/03/12

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

CRITERIA SUCH THAT TACTILE INDICATORS ARE NOT REQUIRED

PLAN

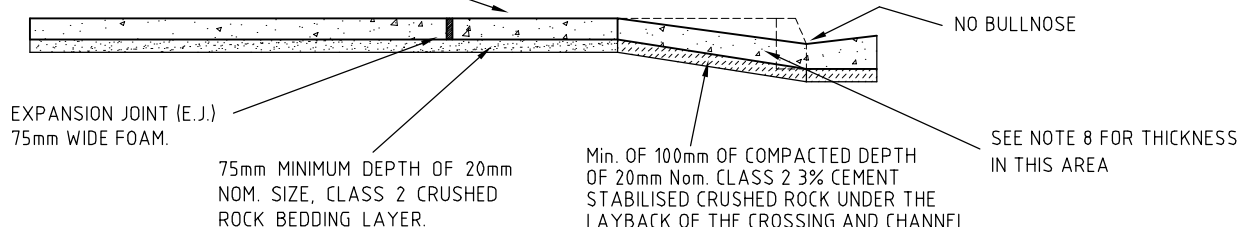


NOTES:

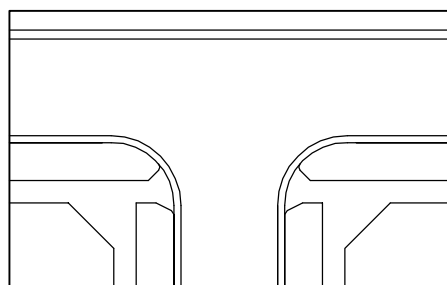
1. PRAM CROSSINGS AT 'T' INTERSECTIONS SHALL BE CONSTRUCTED AS PER DETAIL 1, ALL OTHER INFORMATION REMAINS THE SAME.
2. REFER TO DIMENSION 'W' ON THE PLAN, WHERE:
'W' > 1m, AREA BETWEEN CROSSINGS SHALL BE GRASSED.
1.0m > 'W' > 0.3m, AREA BETWEEN CROSSINGS SHALL BE CONCRETED. FULL HEIGHT KERB MUST BE MAINTAINED BETWEEN CROSSINGS.
'W' < 0.3m, REFER TO DETAIL 2 & CONTACT COUNCIL FOR APPROVED LOCATION.
3. THE SITE SHALL BE MAINTAINED SAFE AT ALL TIMES IN ACCORDANCE WITH A.S.1742.3
4. ALL PRAM CROSSINGS SHALL ALIGN WITH OPPOSING CROSSINGS & GAPS THROUGH CENTRAL MEDIANS.
5. KERB & CHANNEL SHALL BE REMOVED BETWEEN EXISTING JOINTS. WHERE 'W' IS < 1.2m THIS SECTION OF KERB & CHANNEL SHALL BE REPLACED AT THE SAME TIME.
6. ALL INVERTS SHALL BE CONSTRUCTED SO THAT NO WATER PONDS IN THE CHANNEL.
7. EXPANSION JOINTS TO BE 10mm WIDE & FILLED WITH CORK OR BITUMINOUS IMPREGNATED PARTICLEBOARD FOR FULL WIDTH & DEPTH OF EDGE.
8. ALL PAVING WITHIN 1200mm OF THE BACK OF KERB TO HAVE THE FOLLOWING THICKNESSES x RESIDENTIAL 100mm x INDUSTRIAL 150mm
9. ALL CROSSINGS SHOULD COMPLY WITH STANDARD DRAWINGS S701 TO S710 WHICH INCORPORATE COUNCIL'S INTERPETATION OF 'AS1428.4 : 2002 DESIGN FOR ACCESS AND MOBILITY - TACTILE INDICATORS' WITH SOME VARIATIONS.
10. 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.
11. 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.

32 MPa PRE-MIXED CONCRETE WITH STIPPLE TROWEL FINISH. 150mm THICK IN INDUSTRIAL AREAS, 75mm THICK IN RESIDENTIAL AREAS (EXCEPT WHERE NOTE 8 APPLIES)

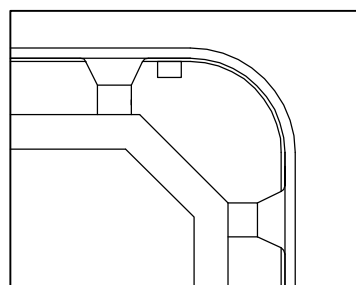
REFER TO S707 OR S715 FOR PRAM RAMP DIMENSIONS



SECTION A - A



DETAIL 1



DETAIL 2

WHERE 'W' IS LESS THAN 0.3m, CROSSINGS CANNOT BE CONSTRUCTED IN LINE WITH THE FOOTPATH AS SHOWN ABOVE. CROSSINGS TO BE OFFSET SIMILAR TO DETAIL 2. CONTACT COUNCIL FOR APPROVED LOCATION.

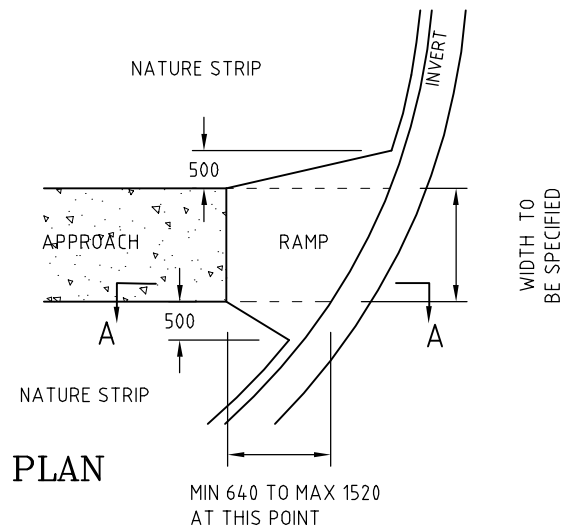
KINGSTON CITY COUNCIL
STANDARD DRAWING

PRAM CROSSING LAYOUT

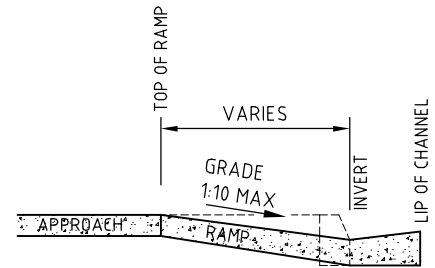
DRG. NO. S706

ISSUE DATE: 22/03/12

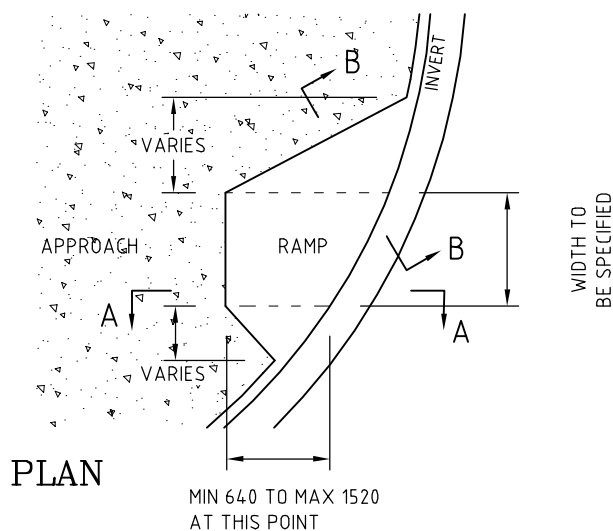
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



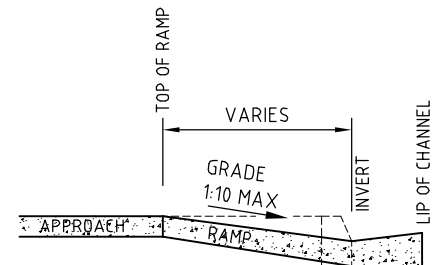
PRAM CROSSINGS BORDERING NATURE STRIP



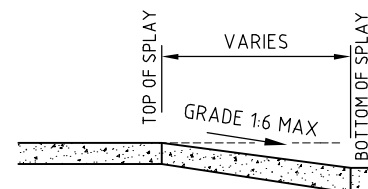
SECTION A - A



PRAM CROSSINGS IN FULLY PAVED AREAS

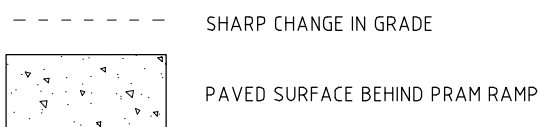


SECTION A - A



SECTION B - B

LEGEND



REFER TO S706 FOR
PRAM CROSSING
LOCATION AND
MAKEUP

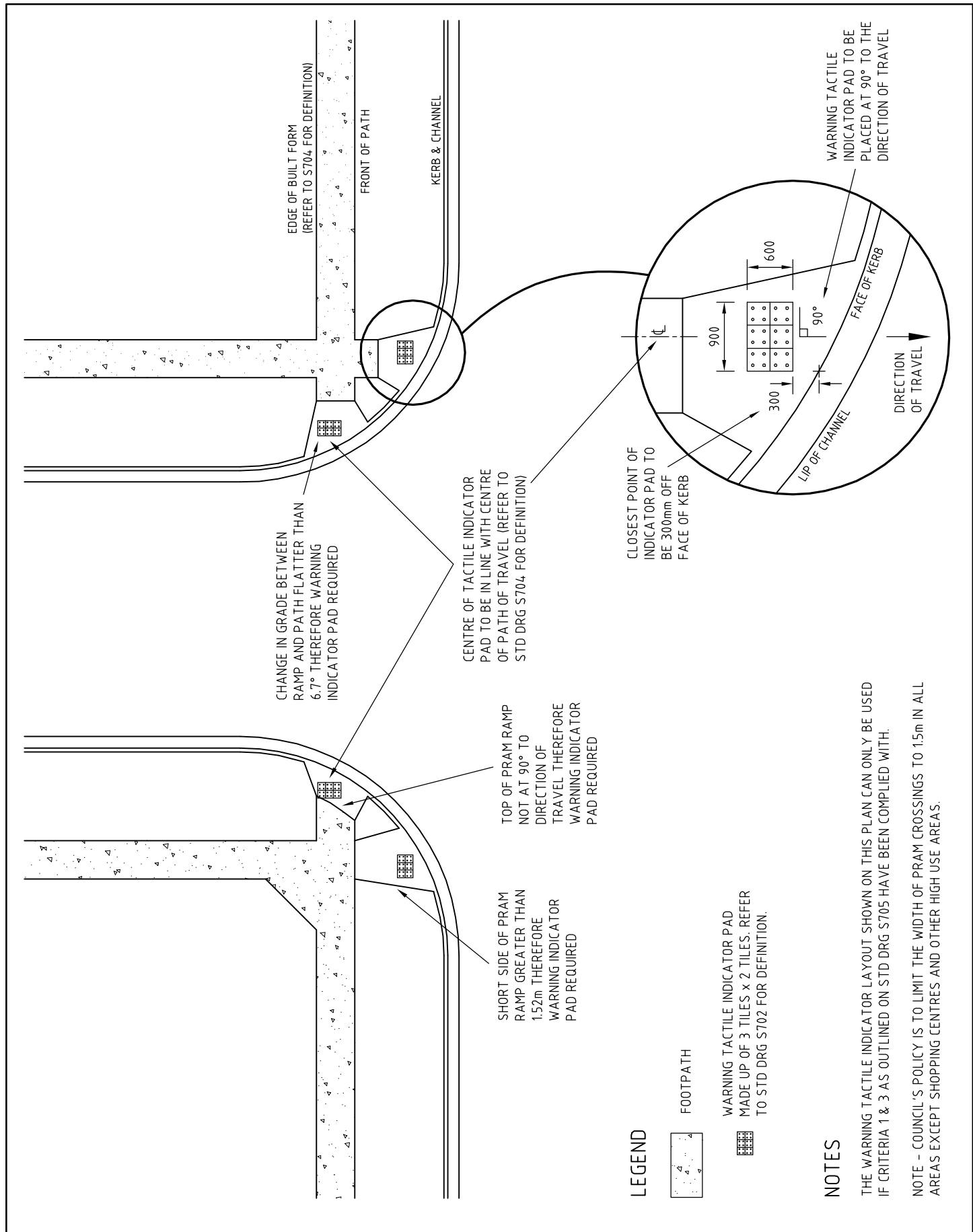
KINGSTON CITY COUNCIL
STANDARD DRAWING

DRG. NO. S707

ISSUE DATE: 22/03/12

PRAM RAMP DIMENSIONS
FOR PRAM CROSSINGS WITH TACTILE INDICATORS

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED



KINGSTON CITY COUNCIL STANDARD DRAWING

TACTILE INDICATOR LAYOUT FOR FLAT/ANGLED/LONG PRAM RAMP

DRG. NO. **S708**

ISSUE DATE: 22/03/12

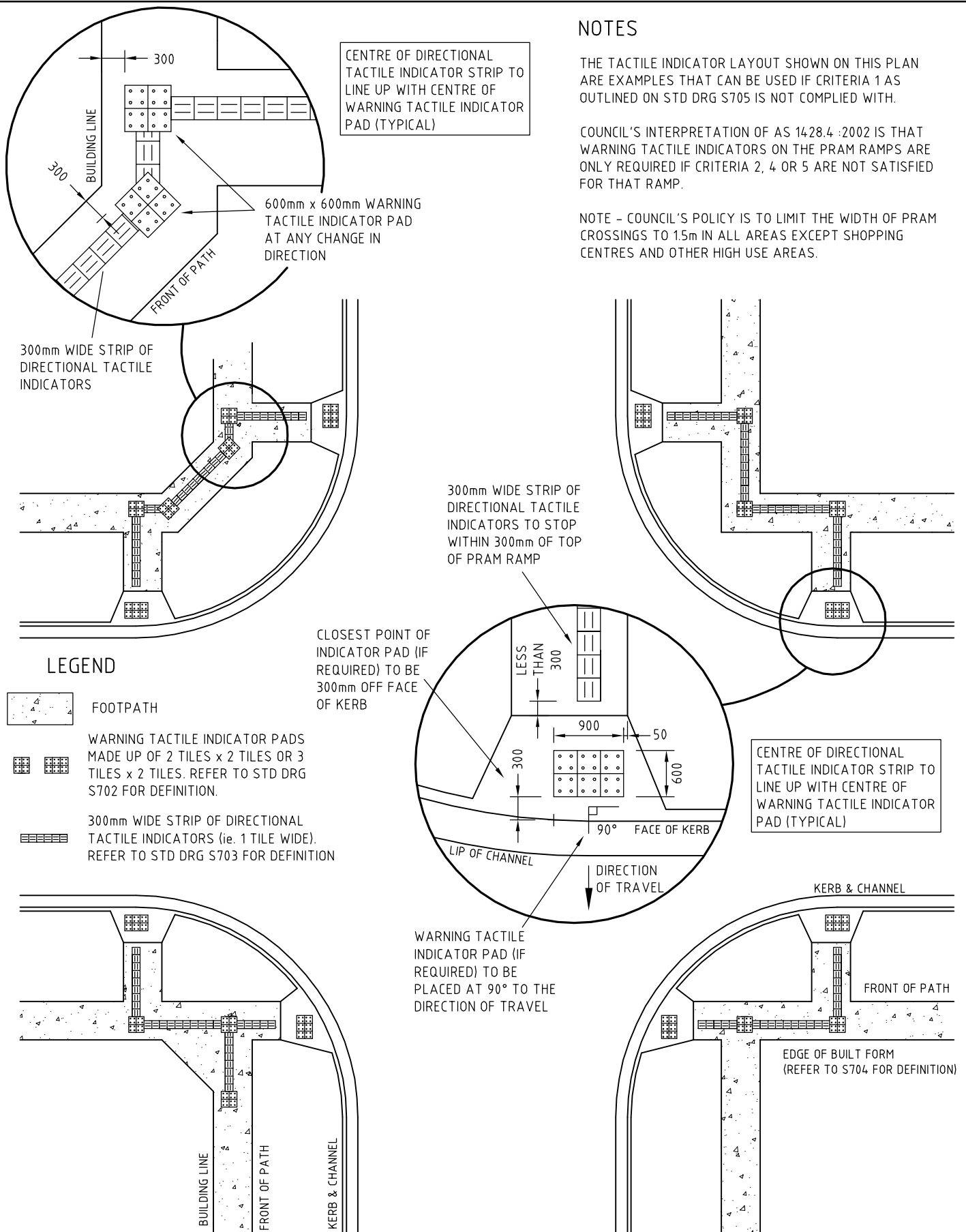
STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

NOTES

THE TACTILE INDICATOR LAYOUT SHOWN ON THIS PLAN ARE EXAMPLES THAT CAN BE USED IF CRITERIA 1 AS OUTLINED ON STD DRG S705 IS NOT COMPLIED WITH.

COUNCIL'S INTERPRETATION OF AS 1428.4 :2002 IS THAT WARNING TACTILE INDICATORS ON THE PRAM RAMP ARE ONLY REQUIRED IF CRITERIA 2, 4 OR 5 ARE NOT SATISFIED FOR THAT RAMP.

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.



KINGSTON CITY COUNCIL STANDARD DRAWING

DRG. NO. **S709**

ISSUE DATE: 22/03/12

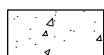
EXAMPLE TACTILE INDICATOR LAYOUT
IF CRITERIA 1 IS NOT COMPLIED WITH
(CRITERIA 1 - PATH OF TRAVEL TO BE WITHIN PRAM CROSSING)

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

THE TACTILE INDICATOR LAYOUT SHOWN ON THIS PLAN ARE EXAMPLES THAT CAN BE USED IF CRITERIA 3 AS OUTLINED ON STD DRG S705 IS NOT COMPLIED WITH.

COUNCIL'S INTERPRETATION OF AS 1428.4 :2002 IS THAT WARNING TACTILE INDICATORS ON THE PRAM RAMPs ARE ONLY REQUIRED IF CRITERIA 2, 4 OR 5 ARE NOT SATISFIED FOR THAT RAMP.

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.



FOOTPATH



WARNING TACTILE INDICATOR PADS
MADE UP OF 2 TILES x 2 TILES OR 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

DRG. NO. S710

ISSUE DATE: 22/03/12

STANDARD DRAWING ISSUE
CURRENT AT TIME OF
CONSTRUCTION MUST BE USED

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)

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)

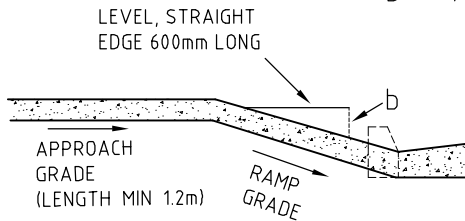
SETOUT OF PRAM CROSSING CAN ONLY BE CARRIED OUT IF INVERT LEVEL OF CHANNEL AT CENTRE OF PRAM CROSSING IS KNOWN. NOTE THAT THE MAIN DESIGN CRITERIA FOR PRAM CROSSING LAYOUT IS NOW GRADE AND NOT SET LEVEL DIFFERENCES, WITH ONLY A SMALL RANGE OF ALLOWABLE GRADES TO WORK WITH.

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

$$b = 71\text{mm (+/- 5mm)}$$



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 S715.

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

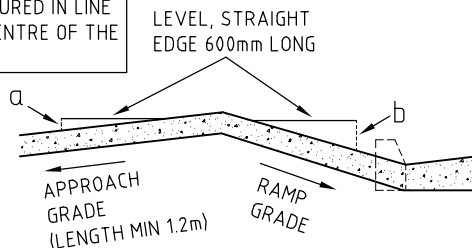
OR

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

PATH FALLING AWAY FROM RAMP

$$a + b > 71\text{mm}$$

HEIGHTS 'a' AND 'b' ARE TO BE MEASURED IN LINE WITH THE CENTRE OF THE PRAM RAMP



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

OR

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

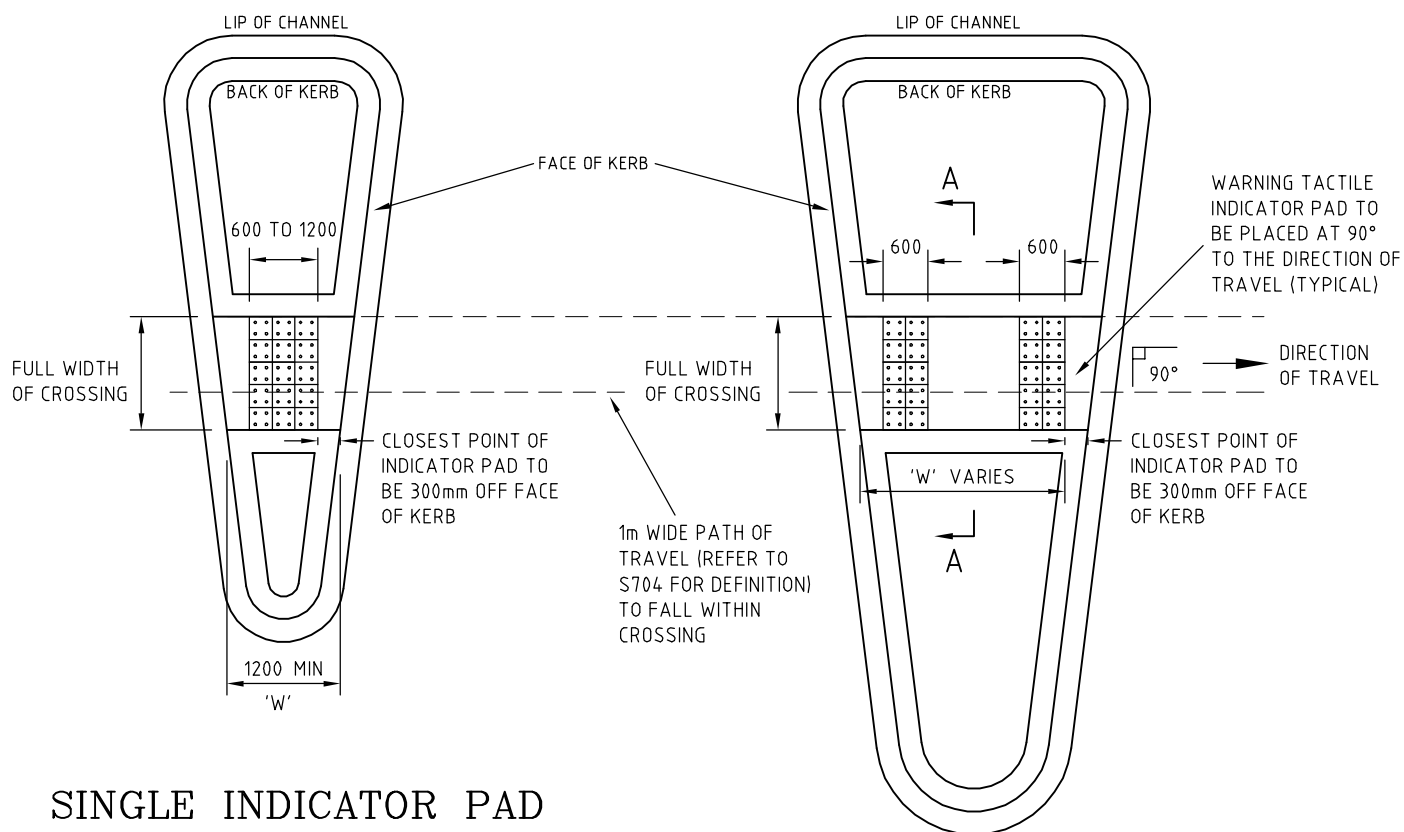
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DRG. NO. S711

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


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SINGLE INDICATOR PAD
 $1200 < W < 1800$

TWO INDICATOR PADS
 $W > 1800$

LEGEND

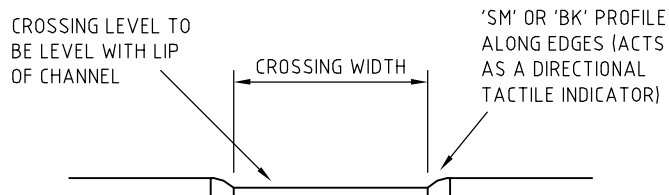
 WARNING TACTILE INDICATOR PADS.
 REFER TO STD DRG S702 FOR DEFINITION.

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

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SPLITTER ISLAND
EXAMPLE TACTILE INDICATOR LAYOUT

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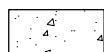
NOTES

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)

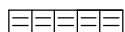
LEGEND



FOOTPATH



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

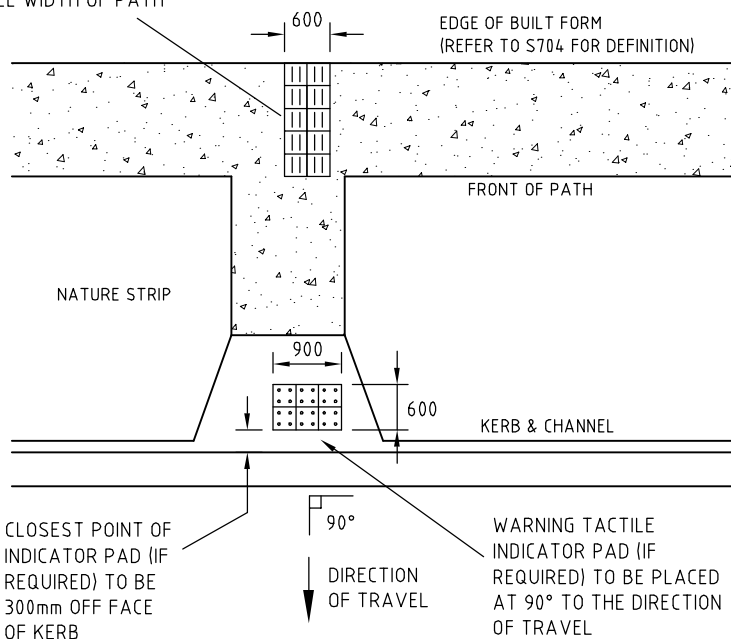


300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS (ie. 1 TILE WIDE). REFER TO STD DRG S703 FOR DEFINITION

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

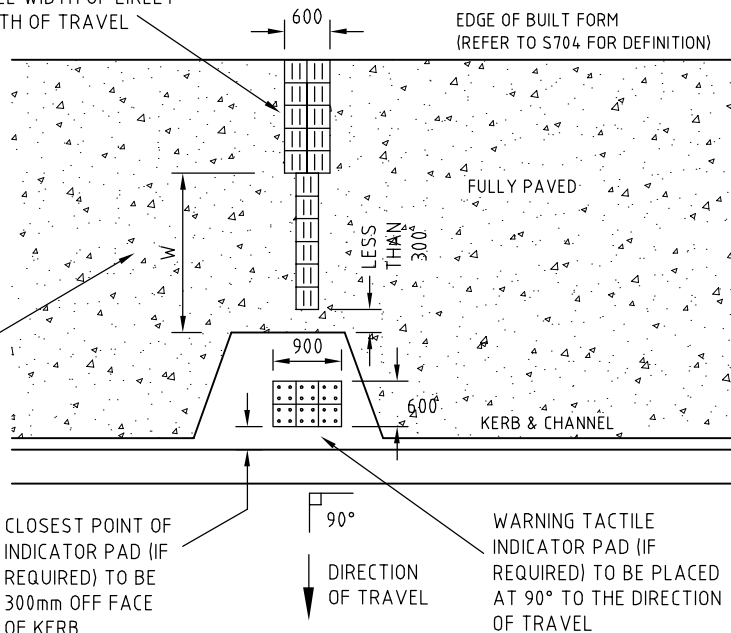
IF 'W' > 3m THEN CENTRED 300mm WIDE STRIP OF DIRECTIONAL TACTILE INDICATORS REQUIRED TO WITHIN 300mm OF TOP OF PRAM RAMP.

DIRECTIONAL TACTILE INDICATOR PAD ACROSS FULL WIDTH OF PATH



WITH NATURE STRIP

DIRECTIONAL TACTILE INDICATOR PAD ACROSS FULL WIDTH OF LIKELY PATH OF TRAVEL



FULLY PAVED

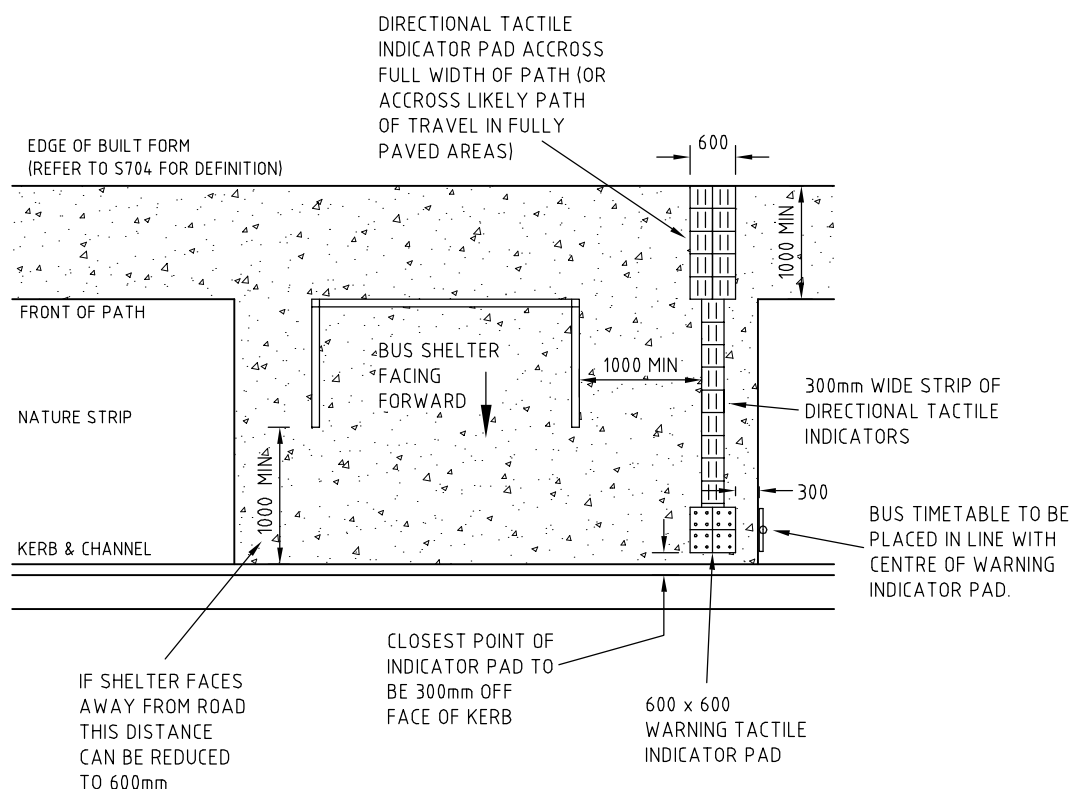
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MID BLOCK CROSSINGS
TACTILE INDICATOR LAYOUT

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TACTILE INDICATOR LAYOUT WITH OR WITHOUT SHELTER

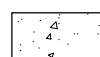
NOTES

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.

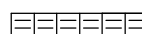
LEGEND



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

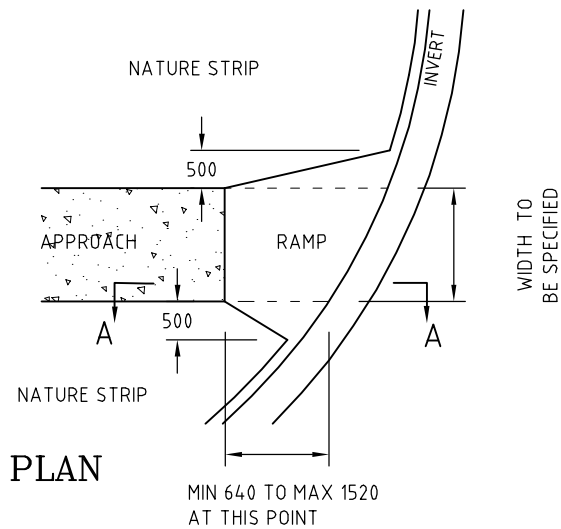
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DRG. NO. S714

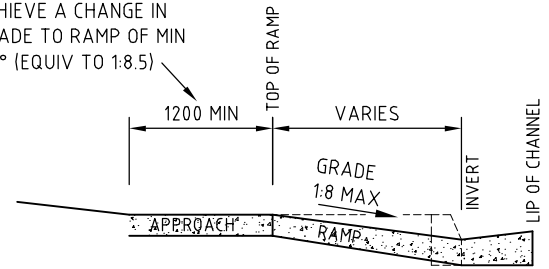
ISSUE DATE: 22/03/12

TACTILE INDICATOR LAYOUT AT BUS STOPS

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CONSTRUCTION MUST BE USED

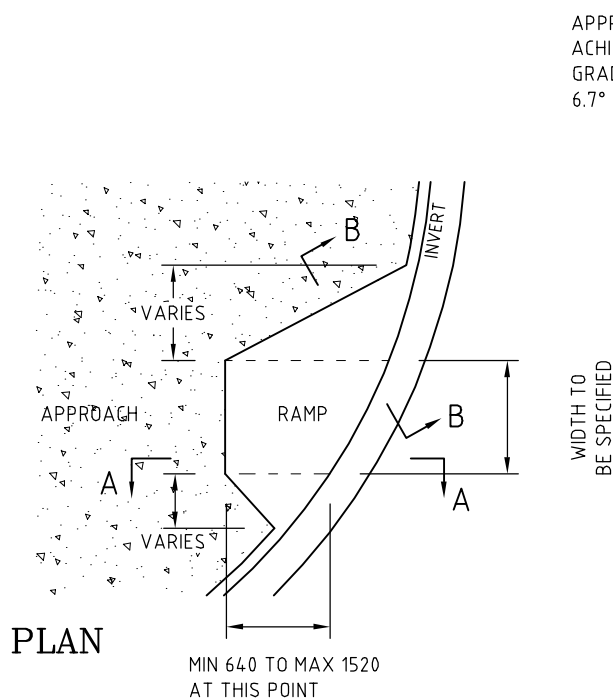


APPROACH MUST ACHIEVE A CHANGE IN GRADE TO RAMP OF MIN 6.7° (EQUIV TO 1:8.5)

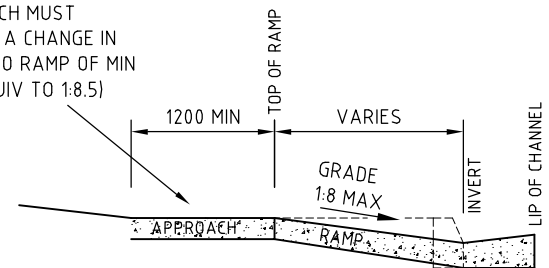


SECTION A - A

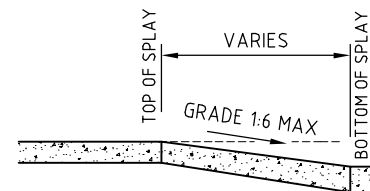
PRAM CROSSINGS BORDERING NATURE STRIP



APPROACH MUST ACHIEVE A CHANGE IN GRADE TO RAMP OF MIN 6.7° (EQUIV TO 1:8.5)



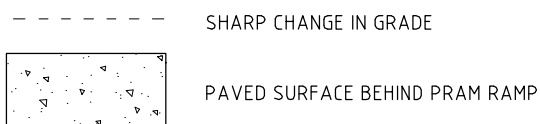
SECTION A - A



SECTION B - B

PRAM CROSSINGS IN FULLY PAVED AREAS

LEGEND



REFER TO S706 FOR
PRAM CROSSING
LOCATION AND
MAKEUP

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STANDARD DRAWING

DRG. NO. S715

ISSUE DATE: 22/03/12

PRAM RAMP DIMENSIONS
FOR CROSSINGS WITHOUT TACTILE INDICATORS

STANDARD DRAWING ISSUE
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CONSTRUCTION MUST BE USED