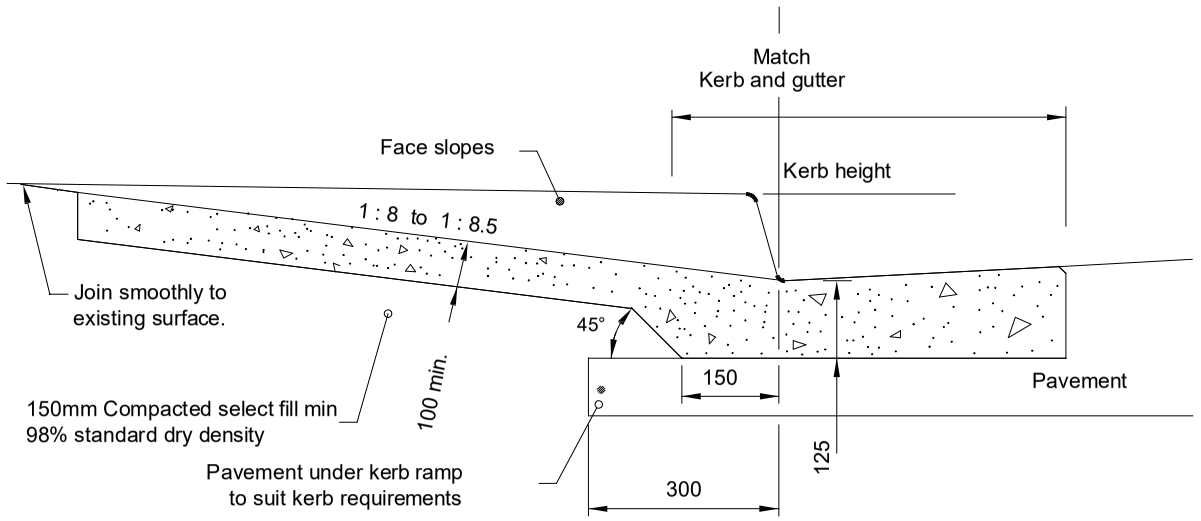
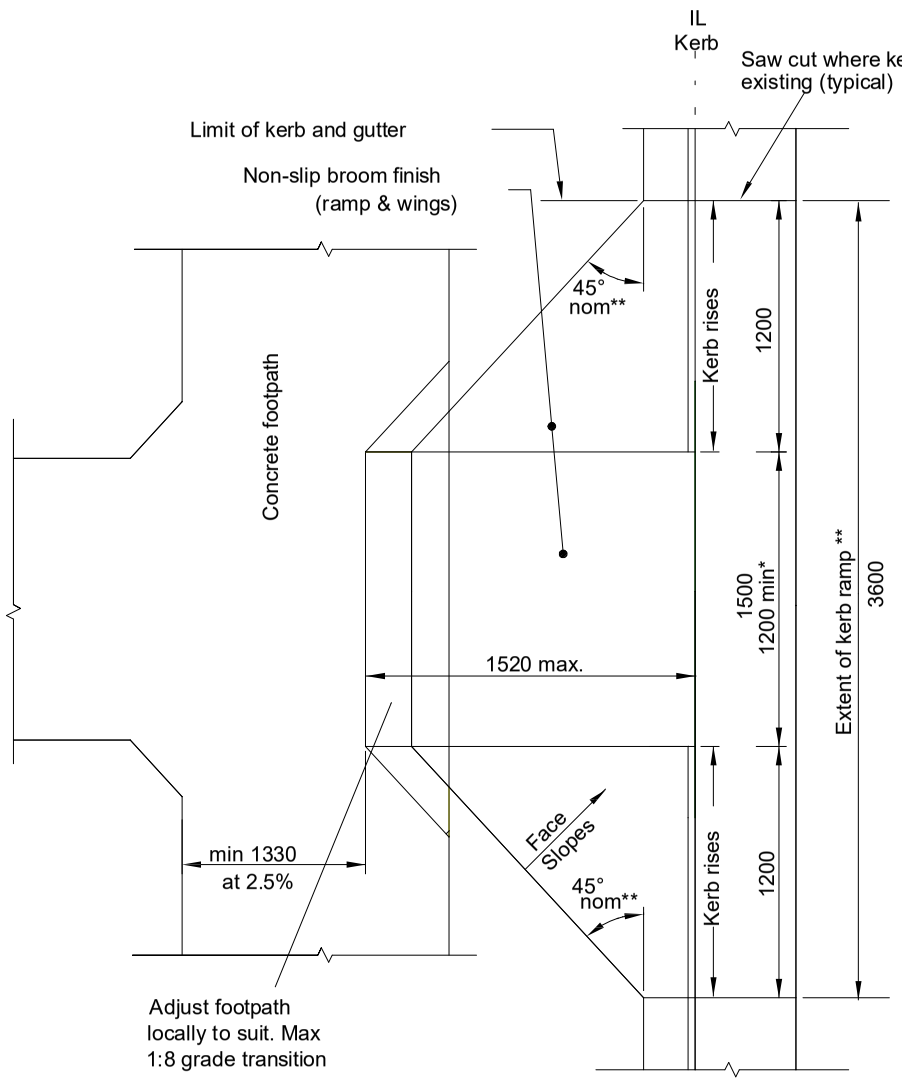
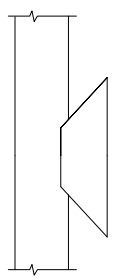


SECTION AT BARRIER KERB



PLAN
KERB RAMP

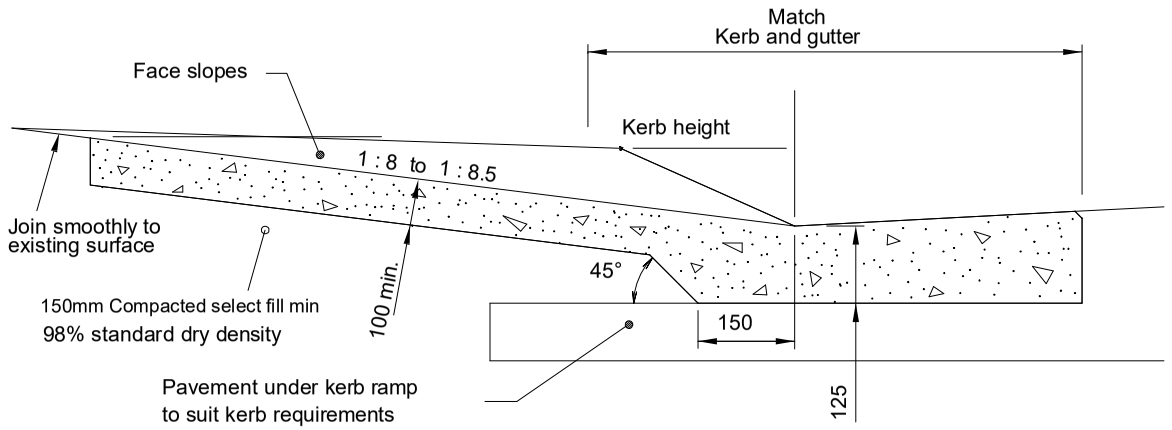
* Note: Increase to 1800mm where ramp is on side of path. eg:



** Note:
Maximum width of ramp
(including wings) 4.5m.
ie: increase wing angle if necessary

NOTES:

1. Concrete shall be min grade N25 in accordance with AS3600
2. Construction shall be in accordance with Aus-Spec #1, C271 - Minor Concrete Works.
3. Refer ASD200 for kerb and gutter details
4. Where possible use ramp grades less than maximum
5. Where hand rail used provide min clear width 800mm
6. Provide full depth bituminous fibreboard expansion joints at connections to kerbs and paths
7. All kerb ramps are to be aligned with the desired direction of pedestrian travel and to be a minimum of 2400 wide.
8. For marked foot crossings (shared pedestrian/bicycle crossing) sloping face of ramp should be as wide as the inside of the paint lines with a push button on it at a practical width no less than 2400.
9. 10mm thick compressible filler. full depth, closed cell, cross linked polyethylene foam, 85-150g/m or compressed granulated cork board.
10. Maximum width of ramp (including wings) 4.5m. ie: increase wing angle if necessary
11. All dimensions in millimetres unless otherwise stated
12. 50mm of compacted sand or crusher dust to be provided under slab (not required over sand and gravel subgrade)
13. TGSI's should be provided for non-complying ramps and heavy pedestrian areas in accordance with AS1428.1



SECTION AT LAYBACK KERB

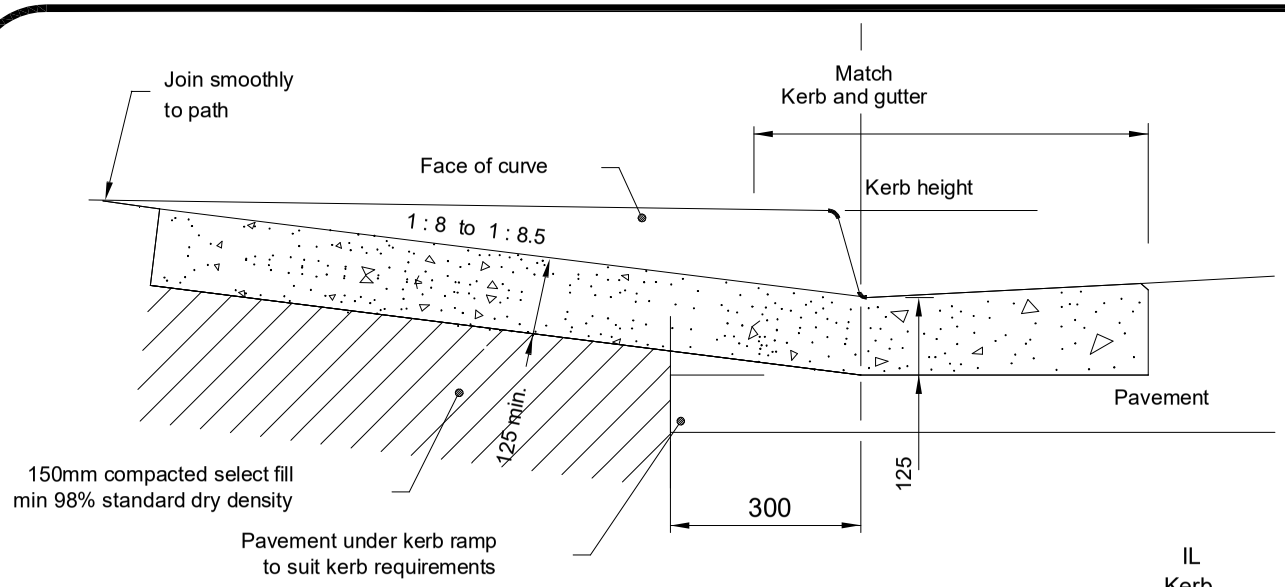
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

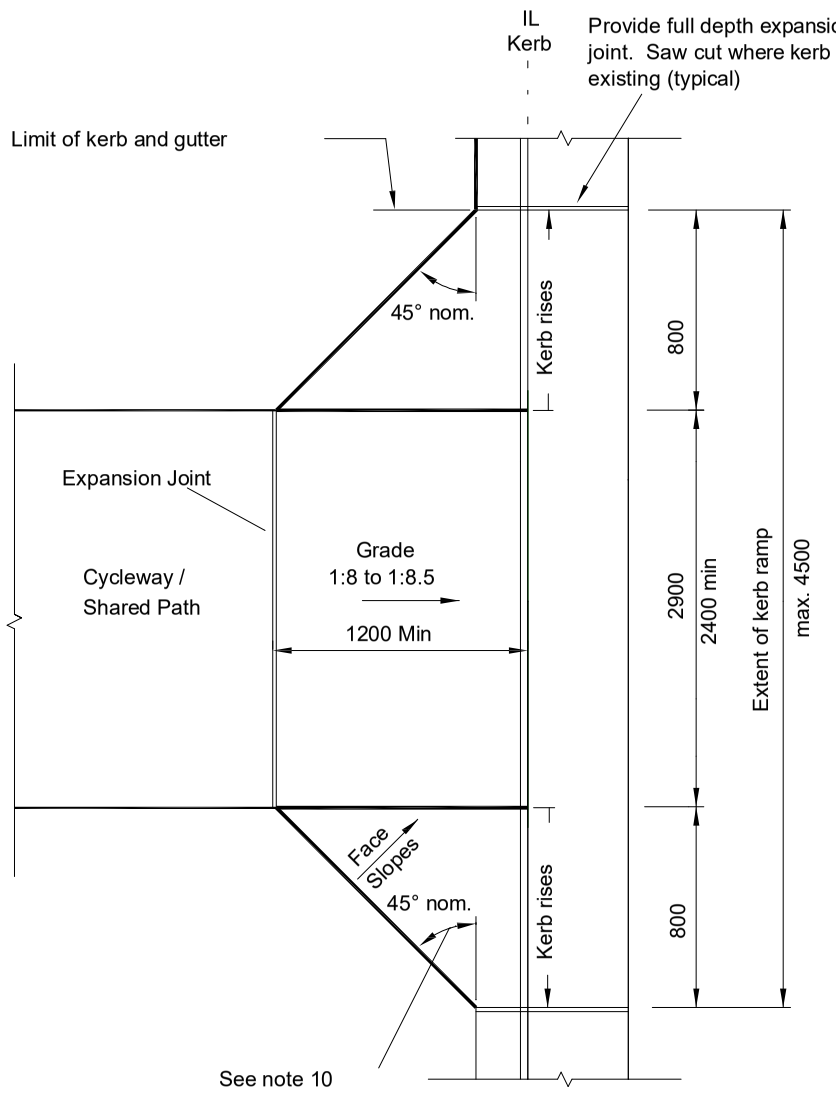
KSC STANDARD DRAWING
STANDARD PEDESTRIAN KERB RAMP

NOT TO SCALE

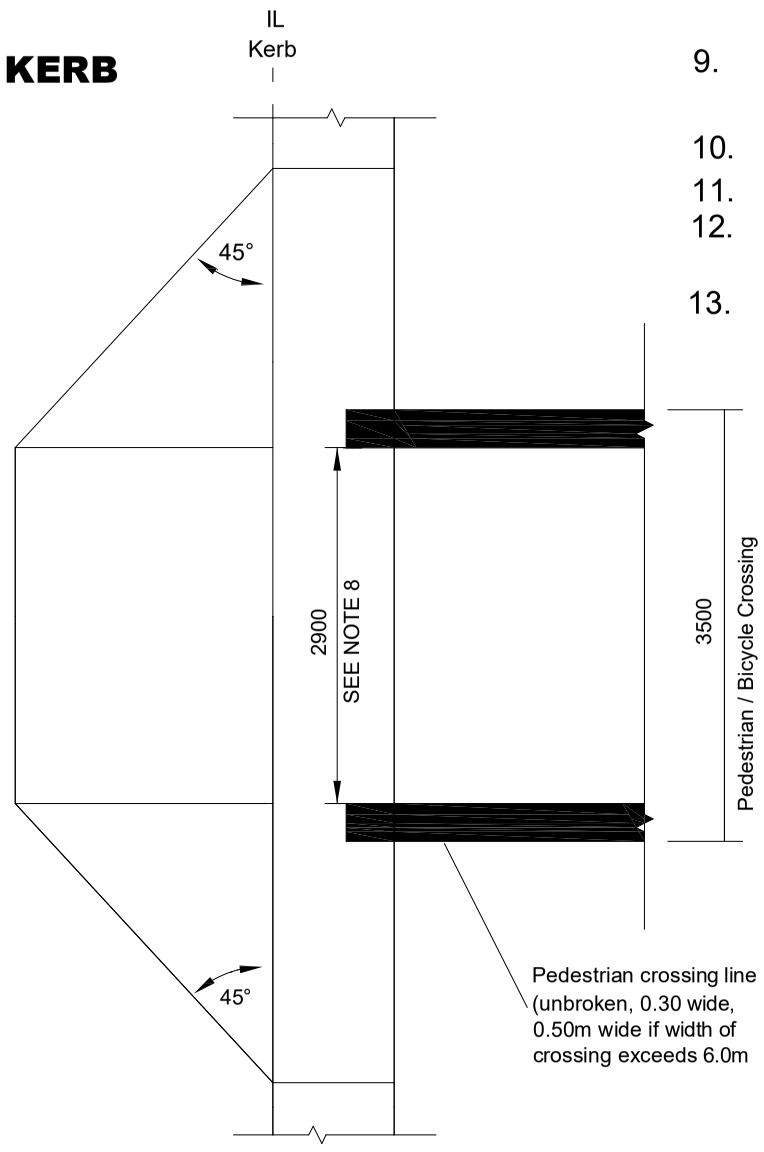
ASD 100



SECTION AT BARRIER KERB



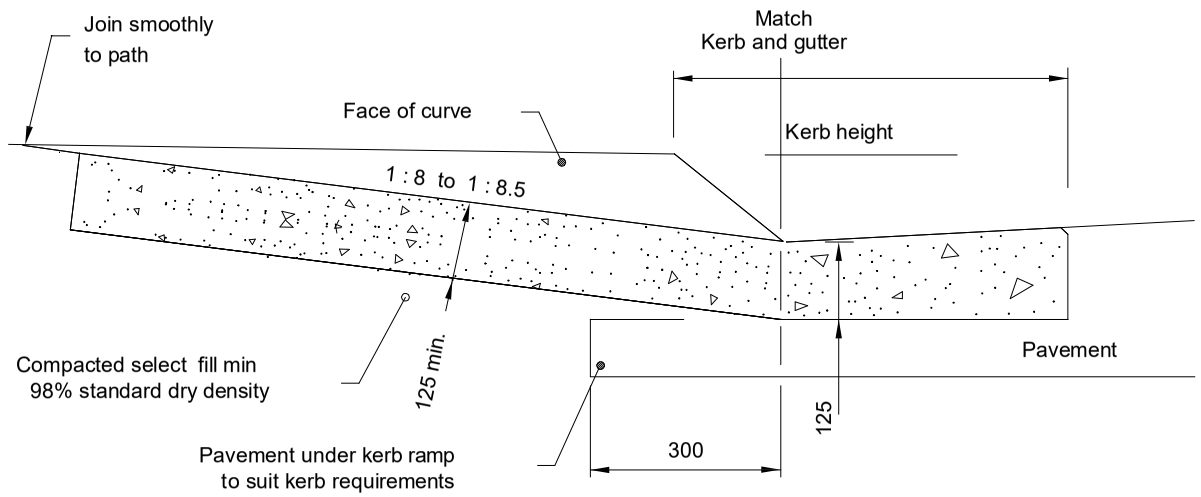
PLAN
KERB RAMP



PLAN
MARKED PEDESTRIAN
AND BICYCLE CROSSINGS

NOTES:

1. Concrete shall be min grade N25 in accordance with AS3600
2. Construction shall be in accordance with Aus-Spec #1, C271 - Minor Concrete Works.
3. Refer ASD200 for kerb and gutter details
4. Where possible use ramp grades less than maximum
5. Where hand rail used provide min clear width 800mm
6. Provide full depth bituminous fibreboard expansion joints at connections to kerbs and paths
7. All kerb ramps are to be aligned with the desired direction of pedestrian travel and to be a minimum of 2400 wide.
8. For marked foot crossings (shared pedestrian/bicycle crossing) sloping face of ramp should be as wide as the inside of the paint lines with a push button on it at a practical width no less than 2400.
9. 10mm thick compressible filler. full depth, closed cell, cross linked polyethylene foam, 85-150g/m or compressed granulated cork board.
10. Maximum width of ramp (including wings) 4.5m. ie: increase wing angle if necessary
11. All dimensions in millimetres unless otherwise stated
12. 50mm of compacted sand or crusher dust to be provided under slab (not required over sand and gravel subgrade)
13. TGSI's should be provided for non-complying ramps and heavy pedestrian areas in accordance with AS1428.1



SECTION AT LAYBACK KERB

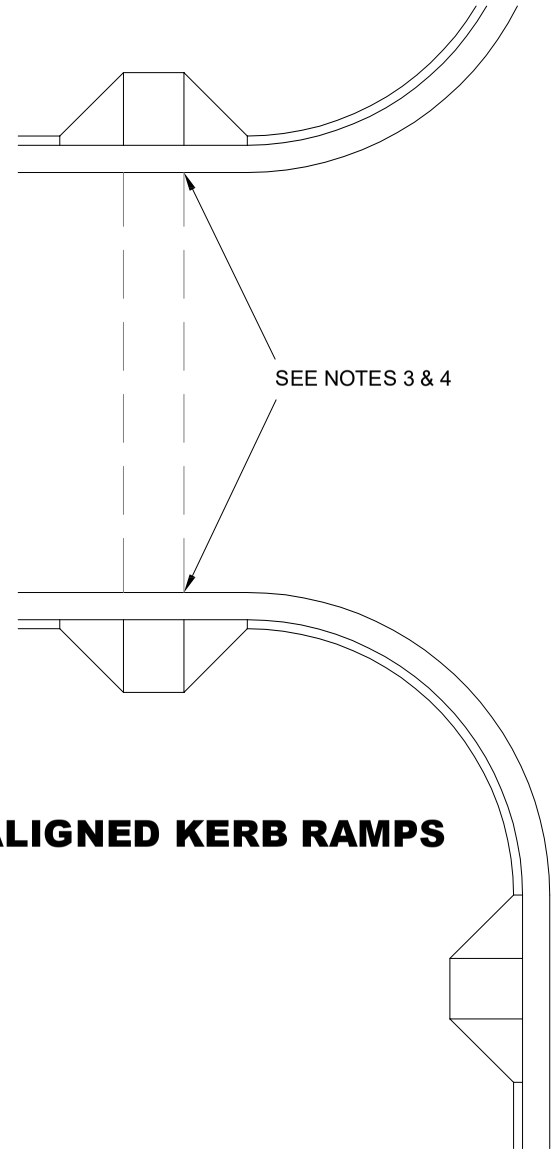
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

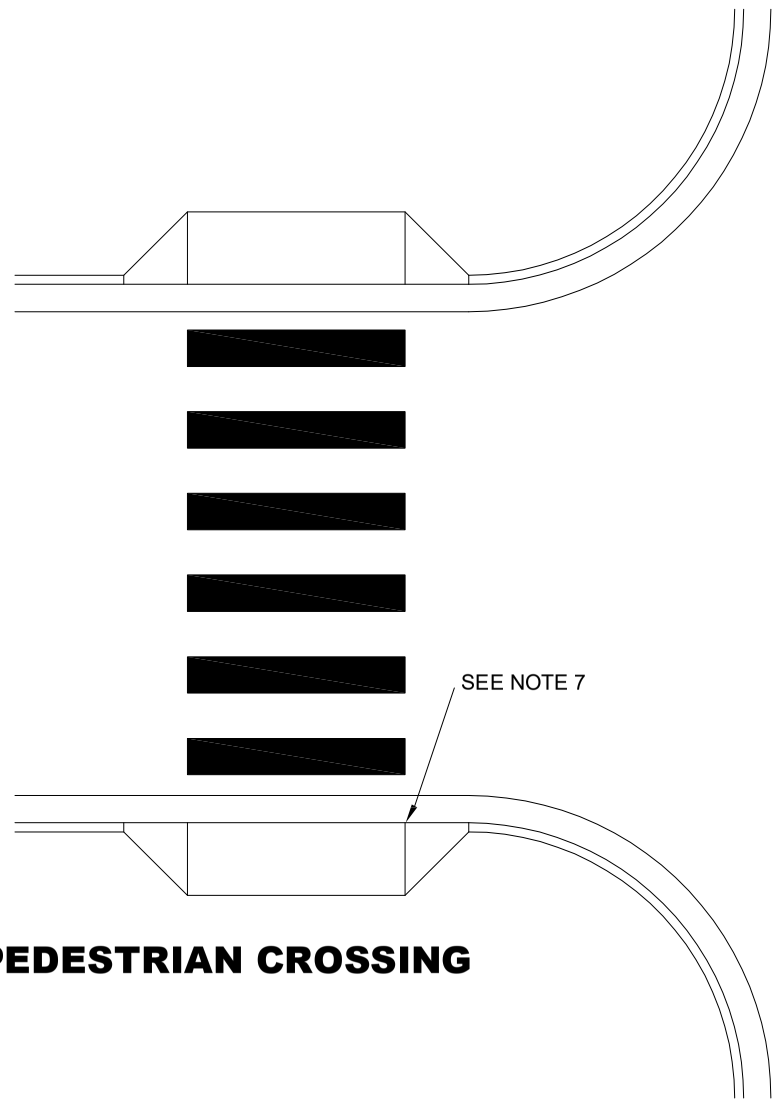
KSC STANDARD DRAWING
MARKED PEDESTRIAN & BICYCLE CROSSING
KERB RAMP

NOT TO SCALE

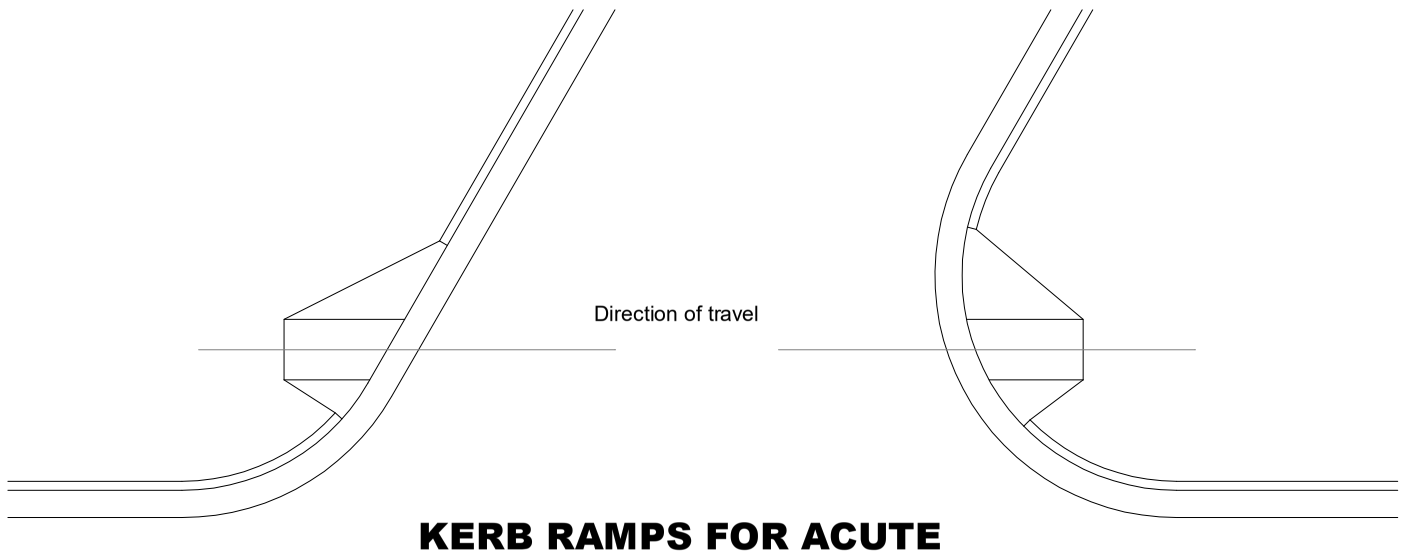
ASD 101



ALIGNED KERB RAMPS



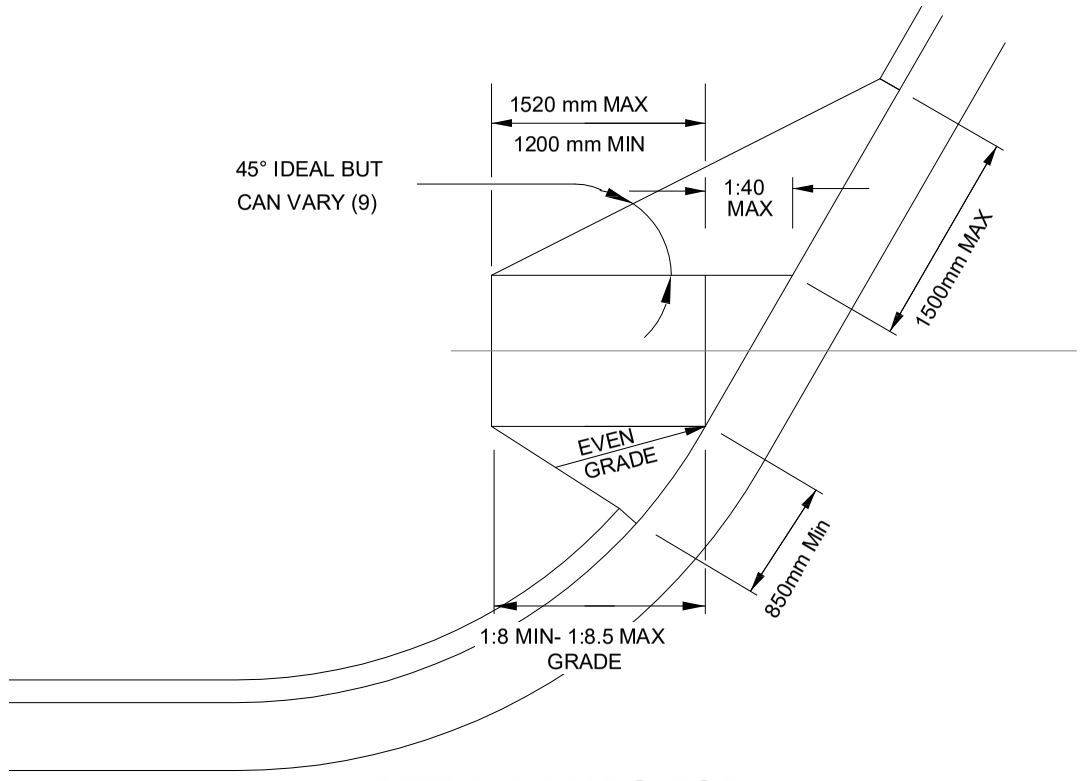
PEDESTRIAN CROSSING



KERB RAMPS FOR ACUTE / OBTUSE INTERSECTION

NOTES:

1. Concrete shall be min grade N25 in accordance with AS3600
2. Construction shall be in accordance with Aus-Spec #1, C271 - Minor Concrete Works.
3. Refer ASD200 for kerb and gutter details
4. Where possible use ramp grades less than maximum
5. Where hand rail used provide min clear width 800mm
6. Provide full depth bituminous fibreboard expansion joints at connections to kerbs and paths
7. All kerb ramps are to be aligned with the desired direction of pedestrian travel and to be a minimum of 2400 wide.
8. For marked foot crossings (shared pedestrian/bicycle crossing) sloping face of ramp should be as wide as the inside of the paint lines with a push button on it at a practical width no less than 2400.
9. 10mm thick compressible filler. full depth, closed cell, cross linked polyethylene foam, 85-150g/m or compressed granulated cork board.
10. Maximum width of ramp (including wings) 4.5m. ie: increase wing angle if necessary
11. All dimensions in millimetres unless otherwise stated
12. 50mm of compacted sand or crusher dust to be provided under slab (not required over sand and gravel subgrade)
13. TGSI's should be provided for non-complying ramps and heavy pedestrian areas in accordance with AS1428.1



KERB RAMPS FOR OBTUSE INTERSECTION

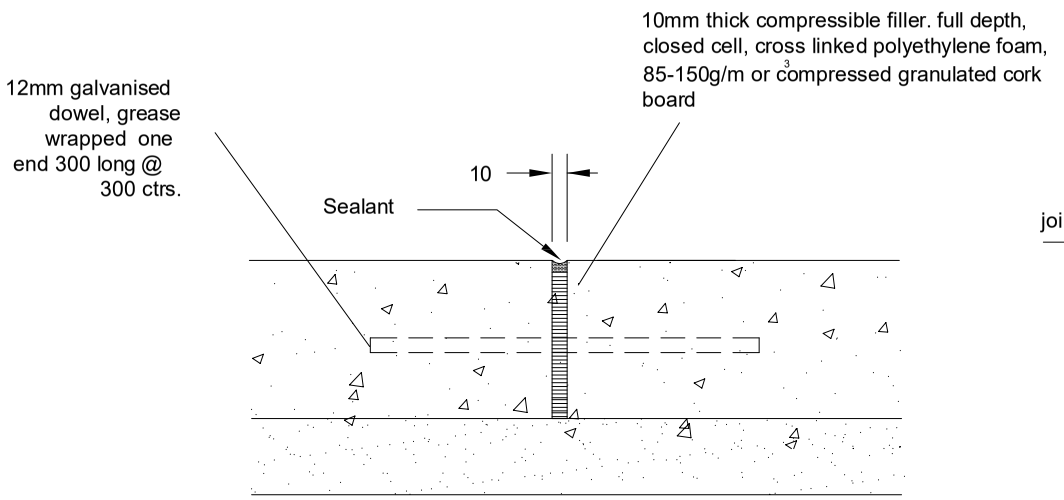
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

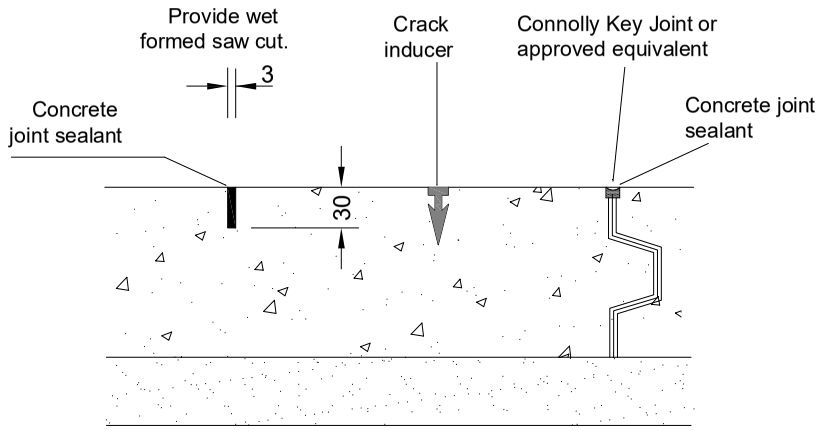
KSC STANDARD DRAWING
KERB RAMP ALIGNMENTS

NOT TO SCALE

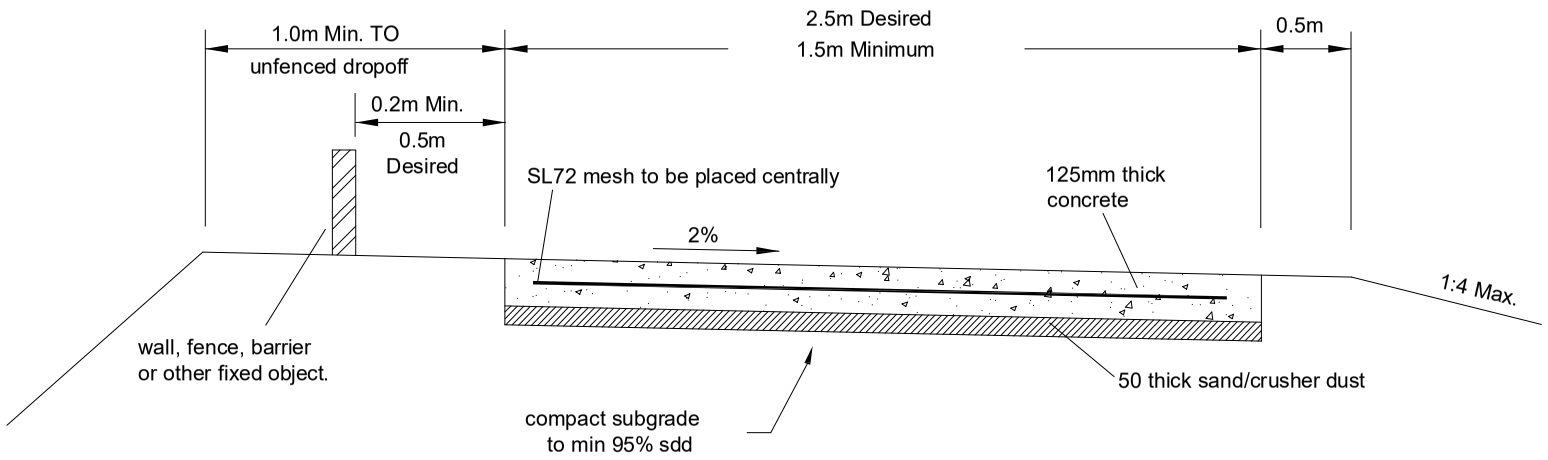
ASD 102



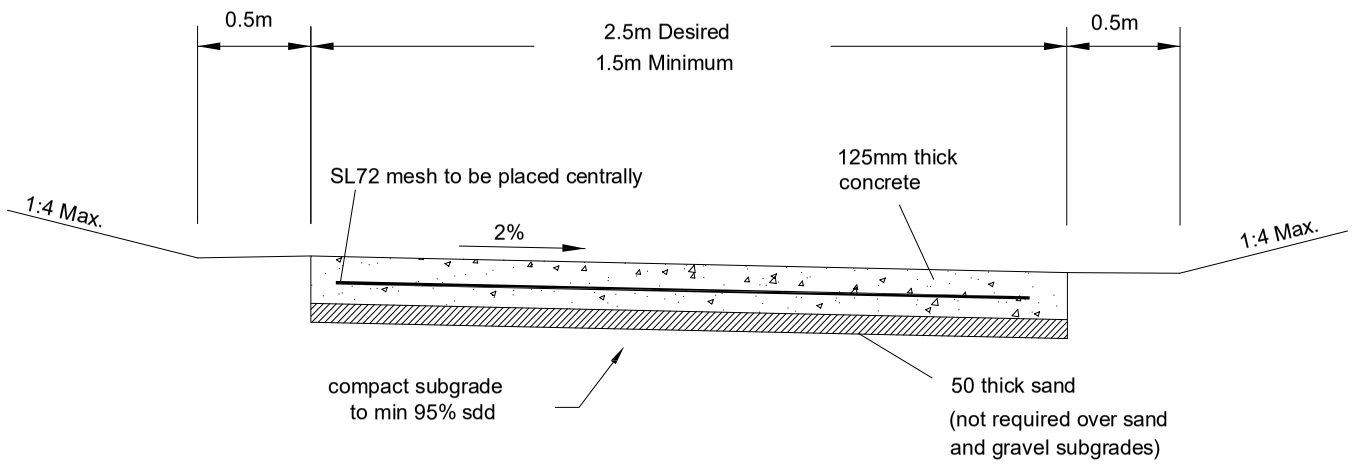
EXPANSION JOINT



CONTRACTION JOINTS



TYPICAL CROSS SECTION (IN FILL)



TYPICAL CROSS SECTION (IN CUT)

NOTES:

1. Concrete to be min N25 to AS3600
2. Construction shall be accordance with Aus-Spec #1,
3. 20mm Aggregate size with an 80mm slump
4. Provide expansion joints at max. 12m centres
5. Provide contraction joints at 2m to 3m centres
6. Provide expansion joints at connections to kerbs and structures.
7. Path surface shall be non slip trowel or broom finished.
8. Make smooth connection to existing paths, max step +3mm above, -0mm below existing. Round all edges.
9. Clearance to obstructions from path shall be min 0.2m
10. Provide expansion joint both sides of vehicle crossing.
11. For industrial vehicle crossings refer to ASD 202
12. For residential vehicle crossings refer to ASD 201
13. Path crossfall shall be max 1:50
14. All dimension are in millimetres unless otherwise stated
15. Refer to AS 1428.2 for gradients of ramps and landings.
16. TGSI's should be provided for non-complying ramps and heavy pedestrian areas in accordance with AS1428.1

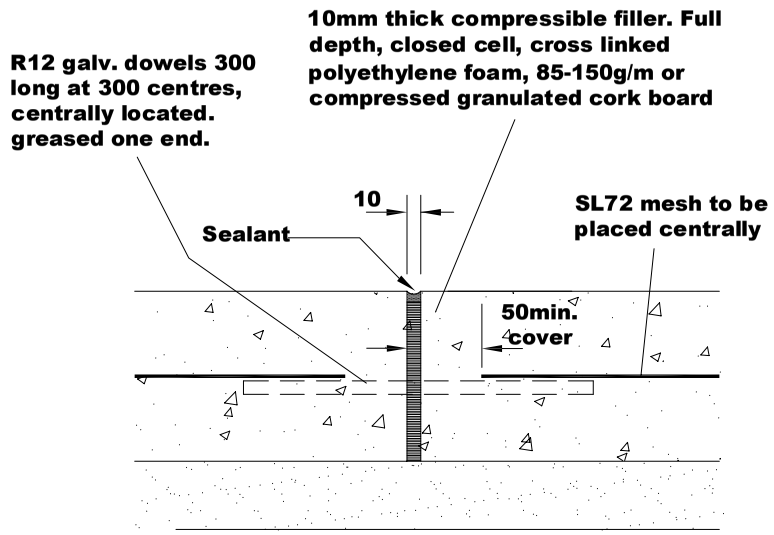
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

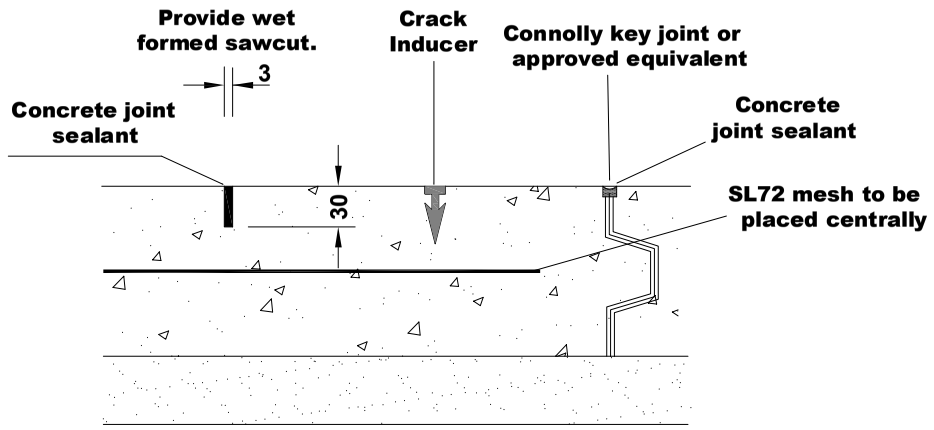
KSC STANDARD DRAWING
STANDARD FOOTPATH DETAILS

NOT TO SCALE

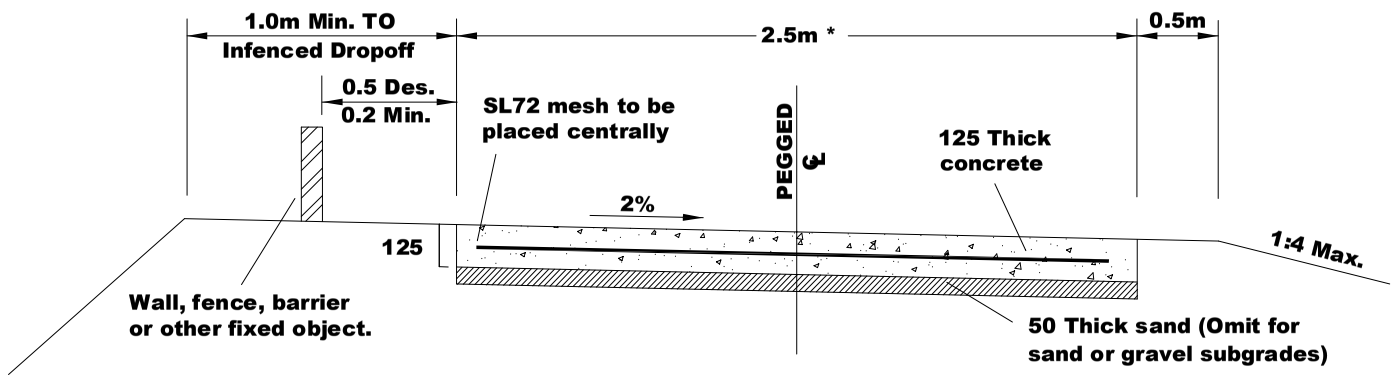
ASD 103



EXPANSION JOINT

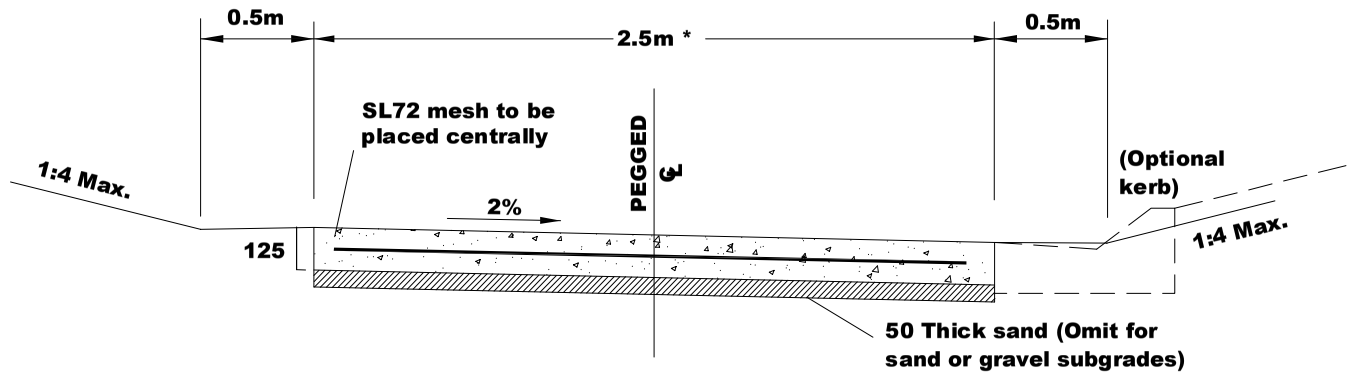


CONTRACTION JOINTS



TYPICAL CROSS SECTION (IN FILL)

*** 2.1m minimum where justified due to site constraints and/or low speed**



TYPICAL CROSS SECTION (IN CUT)

NOTES:

1. Concrete to be min N25 to AS3600
2. Construction shall be accordance with Aus-Spec #1, C271 - Minor Concrete Works.
3. 20mm Aggregate size with an 80mm slump
4. Provide expansion joints at max. 12m centres
5. Provide contraction joints at 2m to 3m centres
6. Provide expansion joints at connections to kerbs and structures.
7. Path surface shall be non slip trowel finished.
8. Make smooth connection to existing paths, max step +3mm above, -0mm below existing. Round all edges.
9. Clearance to obstructions from path shall be min 0.2m
10. Provide expansion joint both sides of vehicle crossing.
11. For industrial vehicle crossings refer to ASD 202
12. For residential vehicle crossings refer to ASD 201
13. Path crossfall shall be max 1:50
14. All dimensions in millimetres unless otherwise stated
15. TGSI's should be provided for non-complying ramps and heavy pedestrian areas in accordance with AS1428.1

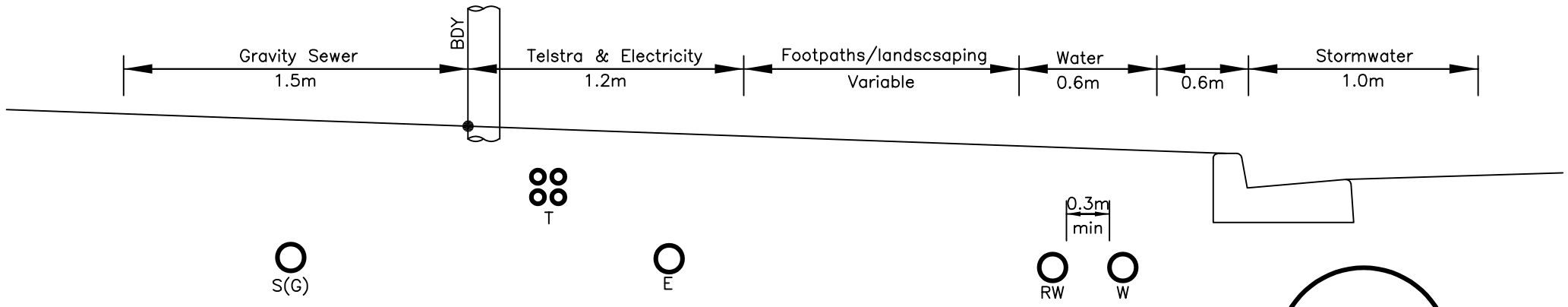
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

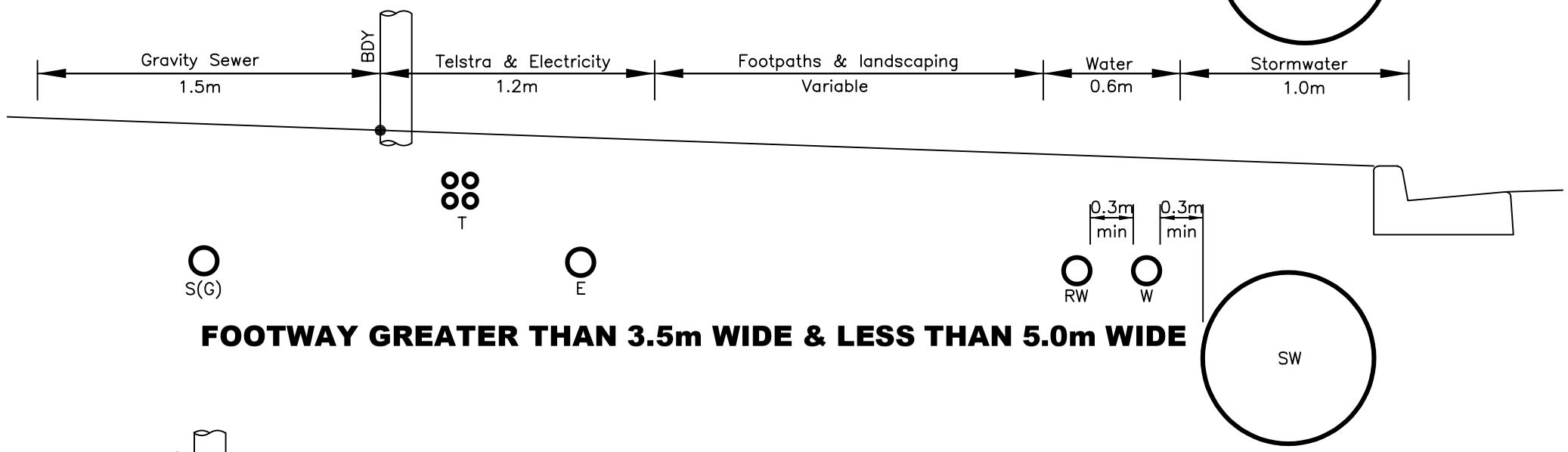
KSC STANDARD DRAWING
STANDARD CYCLEWAY DETAILS

NOT TO SCALE

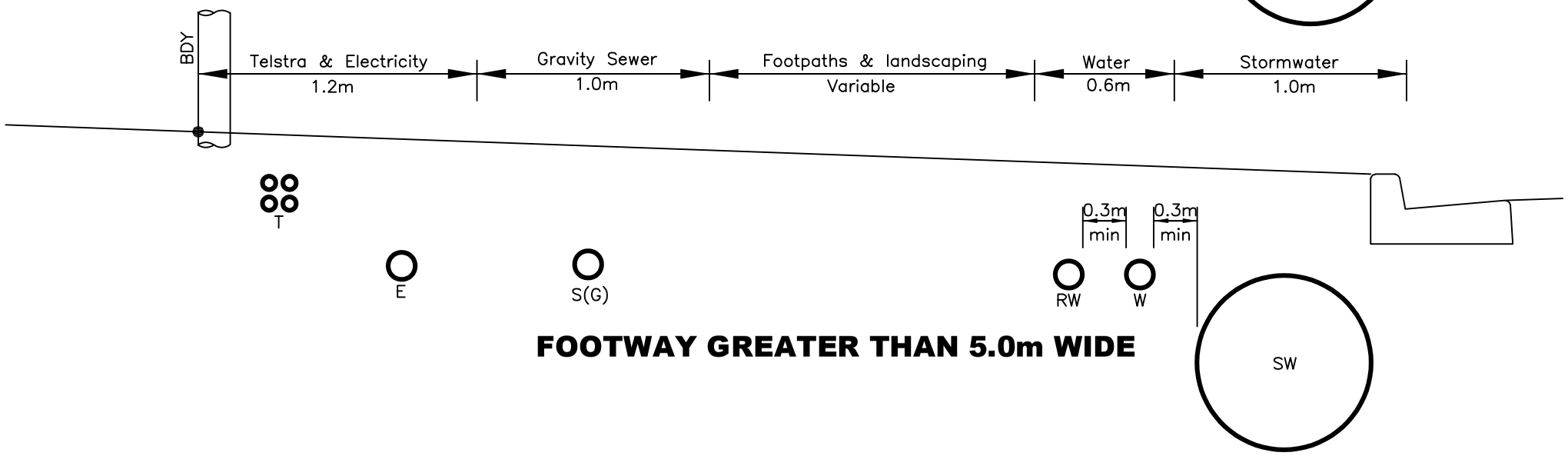
ASD 104



FOOTWAY LESS THAN 3.5m WIDE



FOOTWAY GREATER THAN 3.5m WIDE & LESS THAN 5.0m WIDE



FOOTWAY GREATER THAN 5.0m WIDE

NOTES:

1. For more detail on water main location, clearance & cover see ASD405 & ASD406
2. For details on tree planting see ASD808
3. Refer to ASD106 for underground power details.
4. Sewer Rising mains to be located outside property. Subject to approval by council.

Key

S(G)	=	Sewer (gravity main only)
T	=	Telstra cable
E	=	Electricity Cable/pole
W	=	Water Pipe
SW	=	Stormwater pipe
RW	=	Reclaimed Water

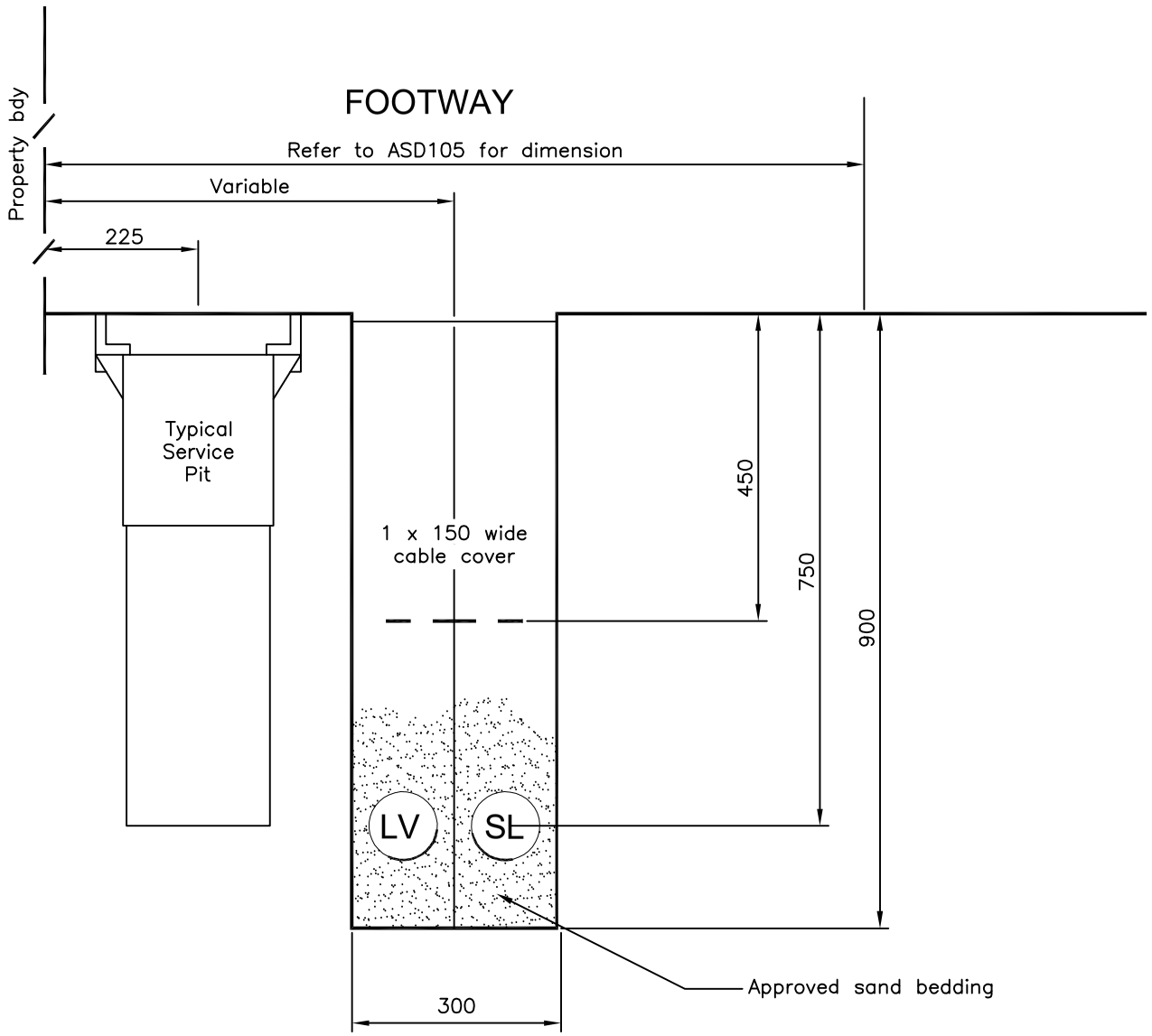
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

KSC STANDARD DRAWING
FOOTWAY SERVICE ALLOCATIONS

NOT TO SCALE

ASD 105



TRENCHING REQUIREMENTS FOR UNDERGROUND POWER IN ROAD OPENINGS

NOTES:

1. LV = Low voltage power conduit.
2. SL = Streetlight power conduit.
3. All dimensions shown are in millimetres.
4. Where trenching occurs in existing footway, area of disturbed ground is to be topsoiled & turfed upon backfilling of trench.
5. Refer to ASD105 for footway allocation.

REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

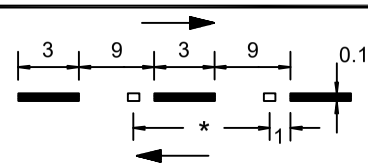
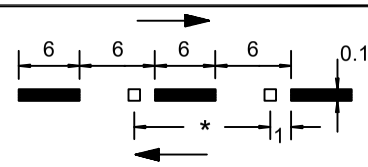
KSC STANDARD DRAWING
TRENCHING REQUIREMENTS FOR LOW VOLTAGE UNDERGROUND POWER IN ROAD OPENINGS

NOT TO SCALE

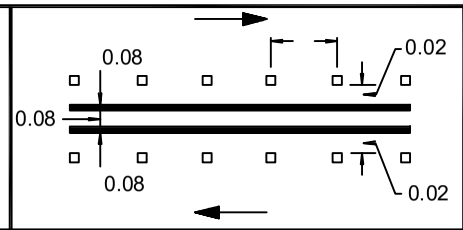
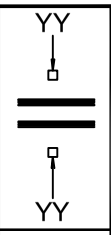
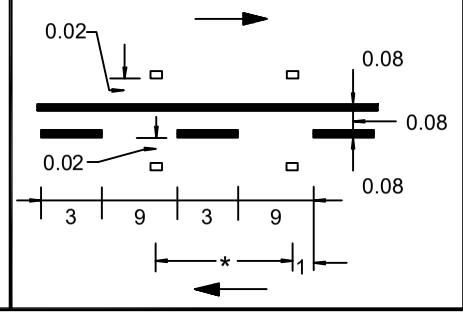
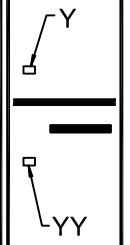
ASD 107

Line Type	Use	Dimensions (m) (for dimensions shown * see marker spacing column)	Colour	Raised Marker Type	* Marker Spacing (m)	
					Normal spacing ①	Alternate spacing ②

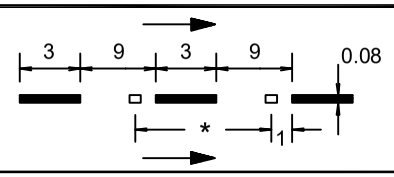
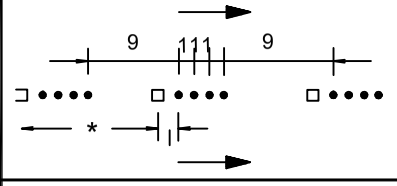
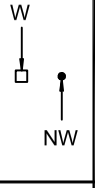
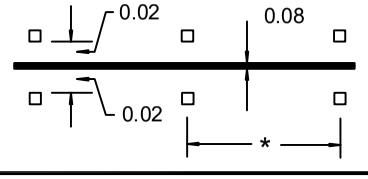
SEPARATION LINES

S1	Separation line on 2 lane road		White	YY	24	12
S2	Separation line on multi lane road		White	YY	24	12

BARRIER LINES

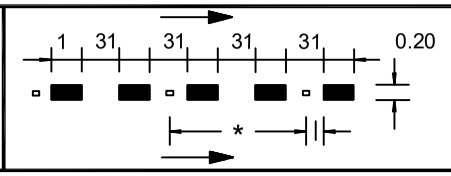
BB	1. Replaces separation line if restricted sight distance for both directions. or 2. Approach to median Island.		White		12	12
BS	1. Replaces separation line if restricted sight distance in one direction. or 2. Approach to median or 3. Approach to a pedestrian crossing		White		12	12

LANE LINES

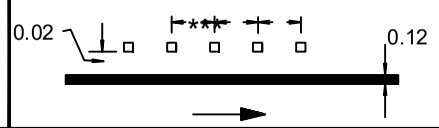
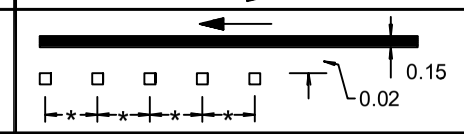
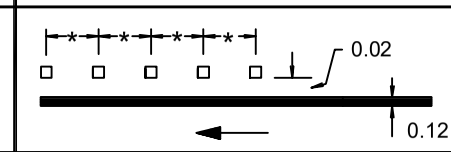
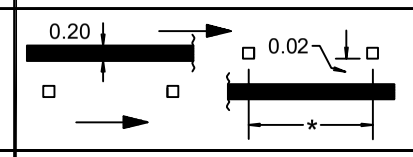
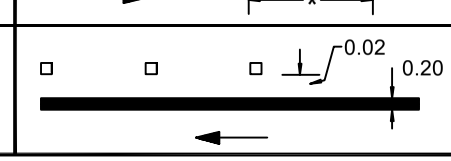
L1	Lane line on multi lane road		White	YY	24	12
L2	Lane line on multi lane road		White		24	12
L3	Lane line on multi lane road		White	YY	24	12

Line Type	Use	Dimensions (m) (for dimensions shown * see marker spacing column)	Colour	Raised Marker Type	* Marker Spacing (m)	
					Normal spacing ①	Alternate spacing ②

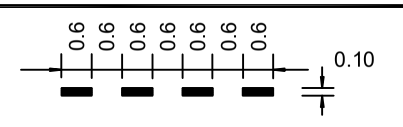
CONTINUITY LINES

C1	Defines edge of through carriageway adjacent to turning lane, freeway ramp, bus bay and start or finish of auxiliary lane.		White	W	8	8

EDGE LINES

E1	Left hand edge line on general purpose road		White	R	24	12
E2	Left hand edge line on freeway		White	R	24	12
E3	Right hand edge line on divided carriageway		White	Y	24	12
E4	Outline of traffic island or freeway ramp gore		White	W	12	12
E5	Outline of painted median		White	YY	12	12

TURN LINES

T1	Defines turning paths at complex intersections		White	–	–	–

RAISED PAVEMENT MARKERS

When pavement markers are used to supplement lines, two different spacings may be employed:-

1. Normal spacing applies when their is no street lighting and travel speed is greater than or equal to 75 km/h.
2. Alternative spacing is adopted when either street lighting exists or travel speed is less than 75 km/h. Closer spacing may be required on sharp crests or curves to ensure that at least two markers are in a driver's field of view at all times.

This plan has been adopted from the plan produced by the Roads and Traffic Authority NSW (RTA) Drawing Number MD.R60.A01.A Amended January 1996 (RTA) (Edge Line (E1) Continuous Line). REFER TO CURRENT EQUIVALENT EDITION BEFORE USING.

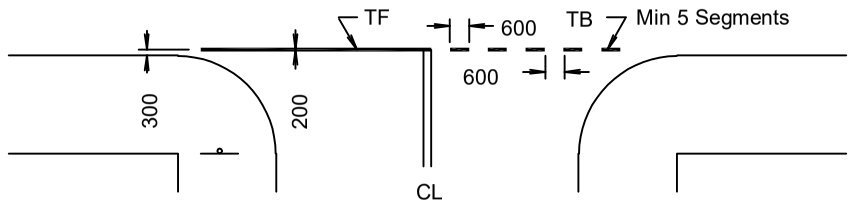
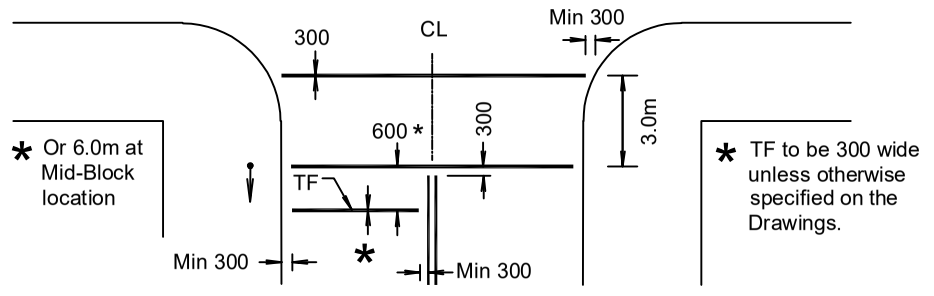
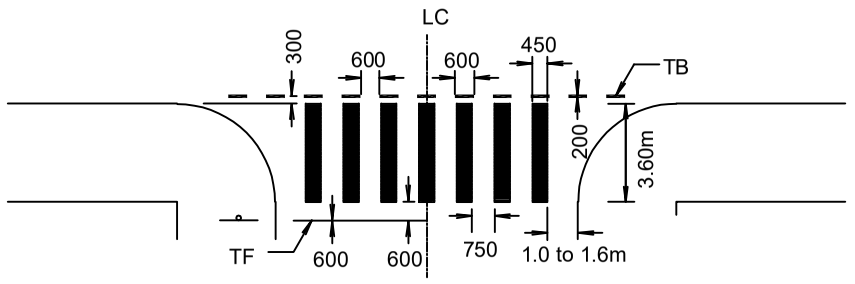
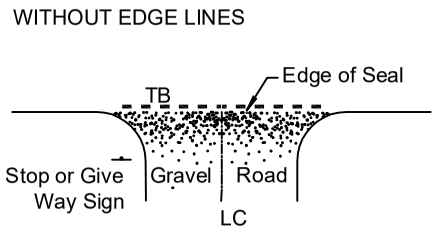
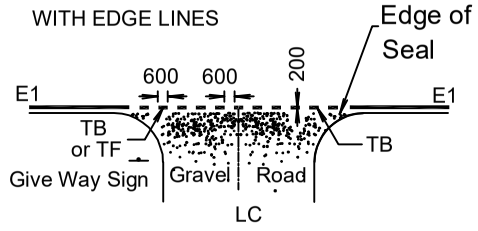
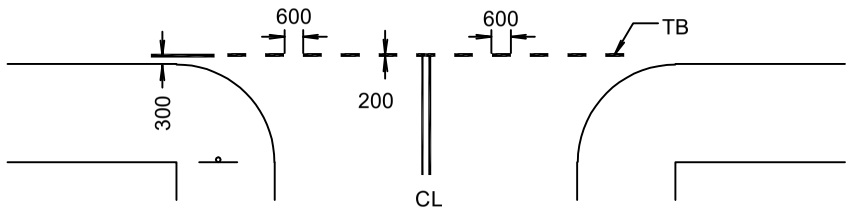
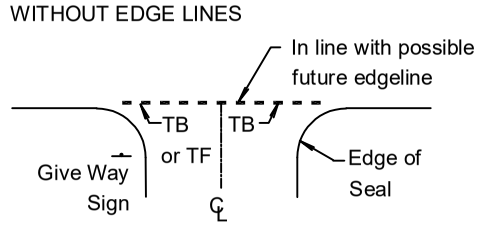
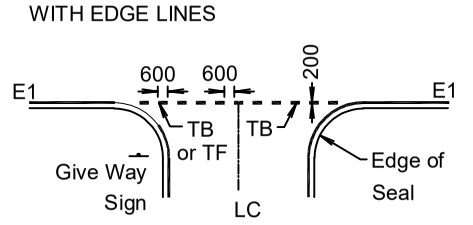
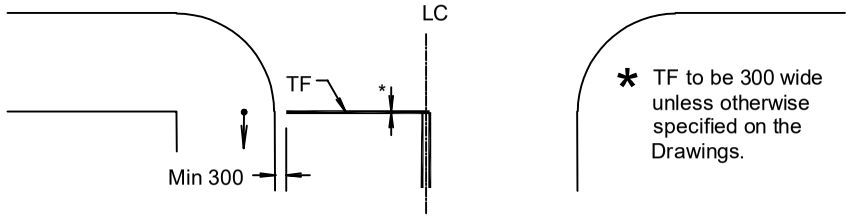
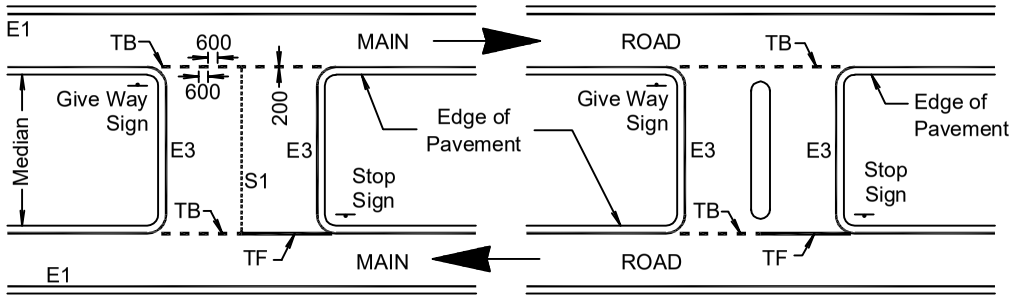
REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

KEMPSEY Shire Council

KSC STANDARD DRAWING PAVEMENT LINEMARKING & DIMENSIONS

NOT TO SCALE

ASD 108

Situation	Line Combination	Situation	Line Combination
Stop Sign		Traffic Signal with Pedestrian Crossing	
Stop Sign with Pedestrian Crossing		Junction with Gravel Road	 
Give Way Sign		Junction with Sealed Road	 
Traffic Signal		Stop & Give Way Signs on Connecting Roads on Dual Carriageways	

TRANSVERSE LINES

Two forms of transverse lines are painted across road pavements :-

- Stop lines TF (Unbroken line)
- Holding lines TB (Broken line with 600mm segments separated by 600 gaps)

All Dimensions are in millimetres.

This plan has been adopted from the plan produced by the Roads and Traffic Authority NSW (RTA) Drawing Number MD.R60.A02.A. REFER TO CURRENT EQUIVALENT EDITION BEFORE USING.

REVISION	DESCRIPTION	INITIAL	DATE
REV 0	REVISION 0	XX	xx/xx/xxxx

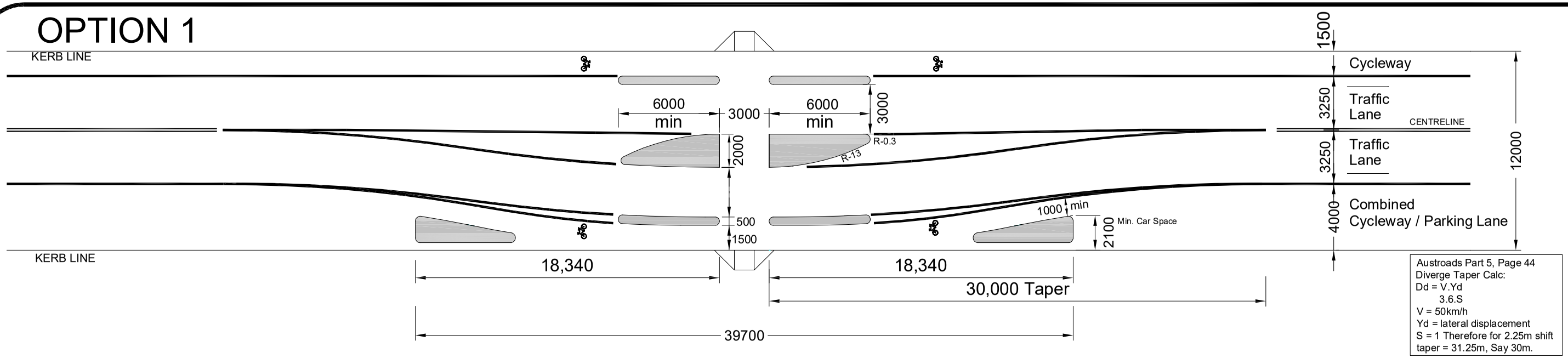
KEMPSEY Shire Council

KSC STANDARD DRAWING
DETAILS OF TRANSVERSE LINES

NOT TO SCALE

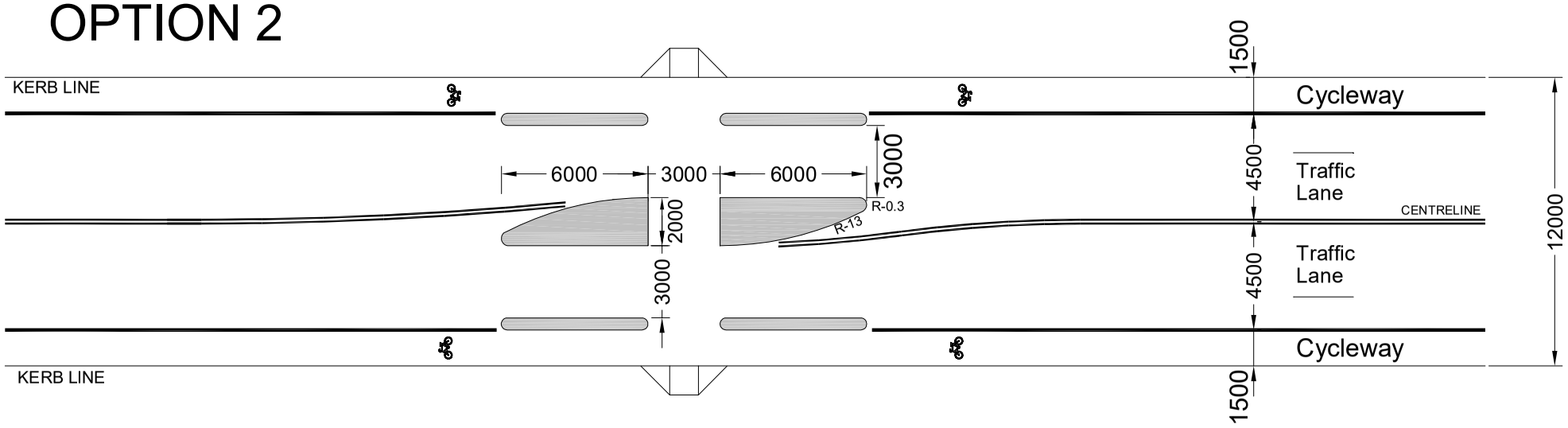
ASD 109

OPTION 1



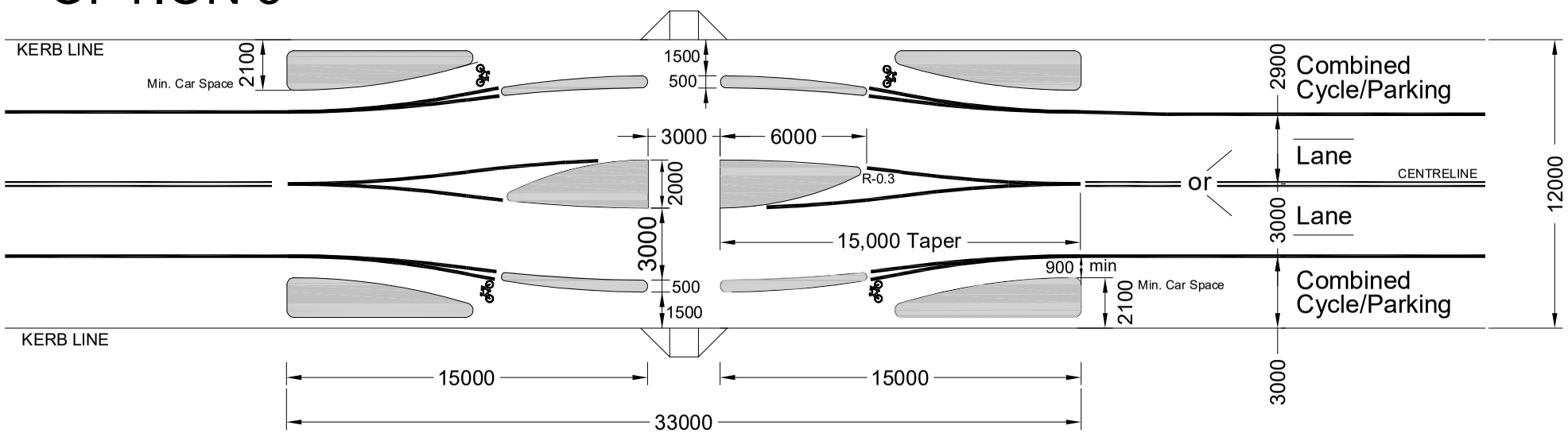
Austroads Part 5, Page 44
Diverge Taper Calc:
Dd = V.Yd
3.6.S
V = 50km/h
Yd = lateral displacement
S = 1 Therefore for 2.25m shift
taper = 31.25m, Say 30m.

OPTION 2



Austroads Part 5, Page 44
Diverge Taper Calc:
Dd = V.Yd
3.6.S
V = 50km/h
Yd = lateral displacement
S = 1 Therefore for 1.0m shift
taper = 13.9m, Say 15m.

OPTION 3



Austroads Part 5, Page 44
Diverge Taper Calc:
Dd = V.Yd
3.6.S
V = 50km/h
Yd = lateral displacement
S = 1 Therefore for 1.0m shift
taper = 13.9m, Say 15m.

Notes for all options:

1. Lighting to be in accordance with AS1158 and confirmed with Public Lighting Authority prior to construction.
2. RPMs shall be installed in accordance with ASD107, AUSTROADS, and RTA Requirements. To be confirmed with Council Construction Engineer, Council Traffic Engineer, and Council Principal Design Engineer prior to installation.

Plan compiled from Technical Direction TDT 2002/10 Pedestrian Refuges. Check current standard Technical Direction before use.

REVISION	DESCRIPTION	INITIAL	DATE
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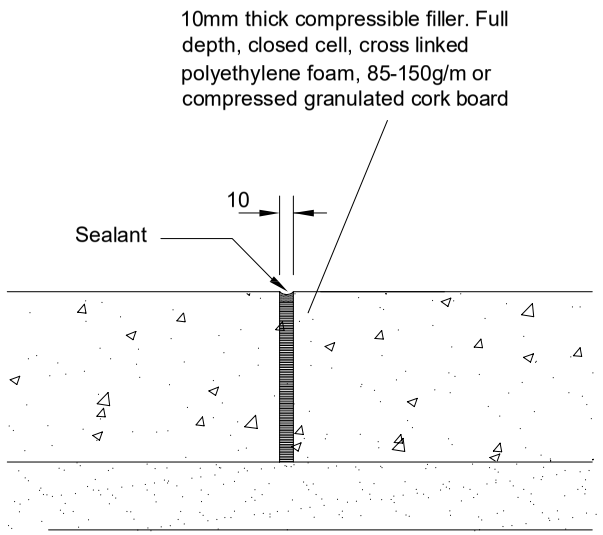
KEMPSEY Shire Council

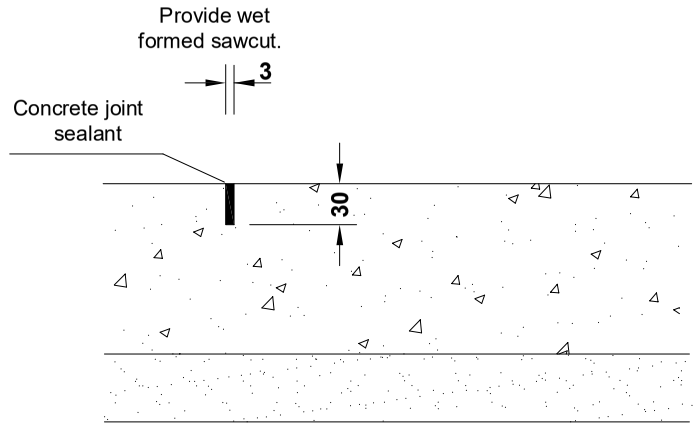
KSC STANDARD DRAWING PEDESTRIAN REFUGE CROSSING WITH CYCLEWAY PROVISION

NOT TO SCALE

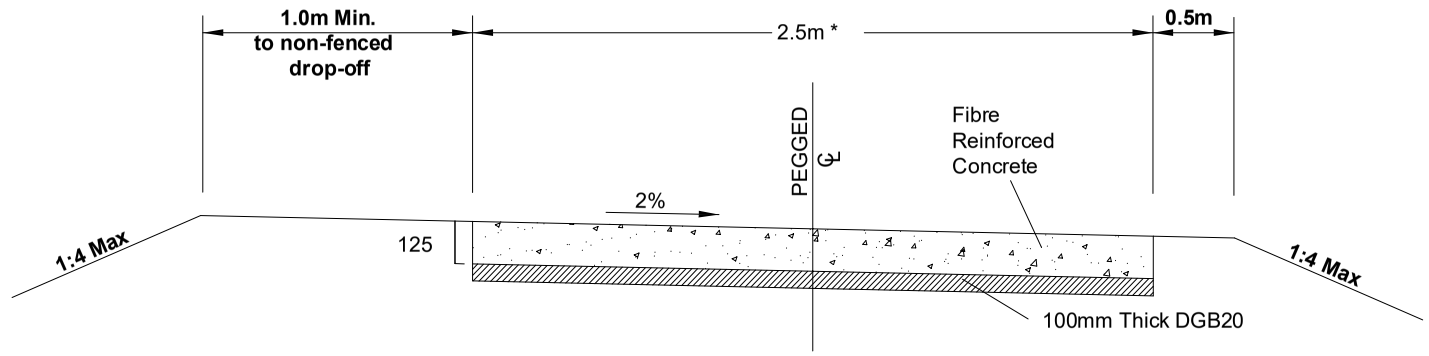
ASD 110



EXPANSION JOINT

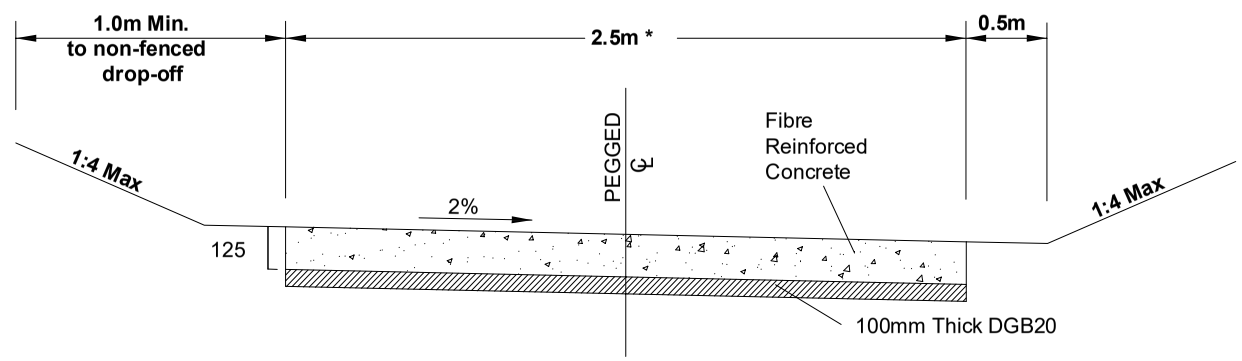


CONTRACTION JOINTS



TYPICAL CROSS SECTION (IN FILL)

* 2.1m minimum where justified due to site constraints and/or low speed



TYPICAL CROSS SECTION (IN CUT)

* 2.1m minimum where justified due to site constraints and/or low speed

NOTES:

1. **Concrete to be min N25 to AS3600**
2. **Construction shall be accordance with Aus-Spec #1, C271 - Minor Concrete Works**
3. **20mm Aggregate size with an 30mm slump**
4. **Provide expansion joints at max. 36m centres**
5. **Provide contraction joints at 2.5m to 3m centres**
6. **Provide expansion joints at connections to kerbs and structures**
7. **Path surface shall be non slip trowel finished**
8. **Make smooth connection to existing paths, max step +3mm above, -0mm below existing. Round all edges**
9. **Provide expansion joint both sides of vehicle crossing**
10. **For industrial vehicle crossings refer to ASD 202**
11. **For residential vehicle crossings refer to ASD 201**
12. **Path crossfall shall be max 1:50**
13. **All dimensions in millimetres unless otherwise stated**
14. **Machine clearances: 0.6m - Track Side**
    1.6m - String Line Side
15. **Fibre @ 0.9 kg/m³ (Typical)**
16. **Excavate 0.15m each side of path width**
17. **Extend grade of 2% for minimum of 0.5m each side of path**

REVISION	DESCRIPTION	INITIAL	DATE
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KEMPSEY Shire Council

KSC STANDARD DRAWING
STANDARD CYCLEWAY DETAILS - SLIPFORMED CONSTRUCTION

NOT TO SCALE

ASD 111