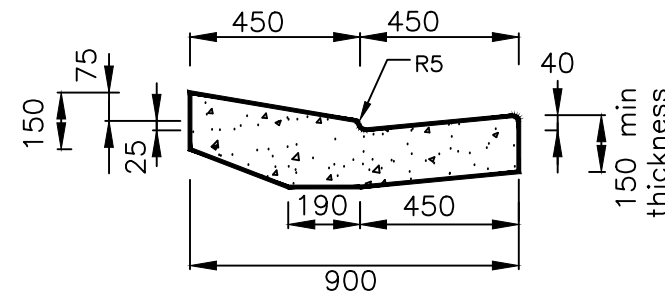
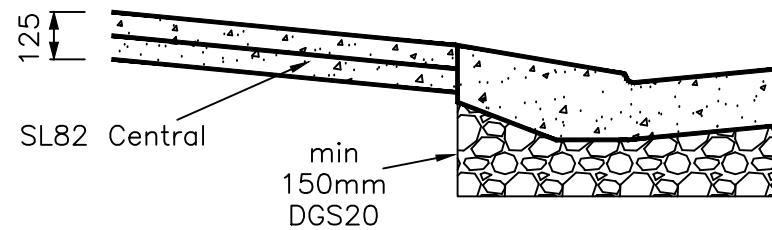


$X = \frac{2}{3} (\text{Paver} + 50 + 200)$

PERMEABLE PAVER AND PAVEMENT WITH SM KERB INTERFACE



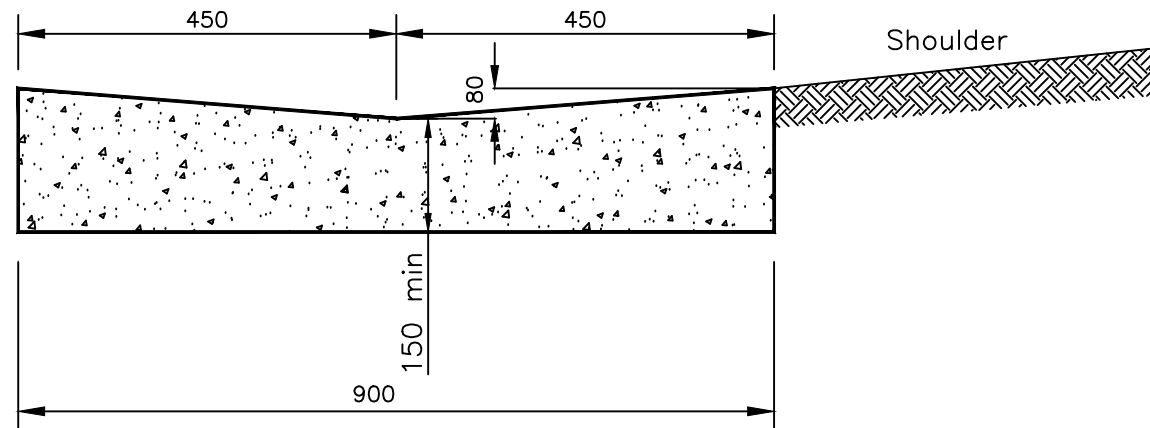
STANDARD VEHICLE CROSSING SECTION



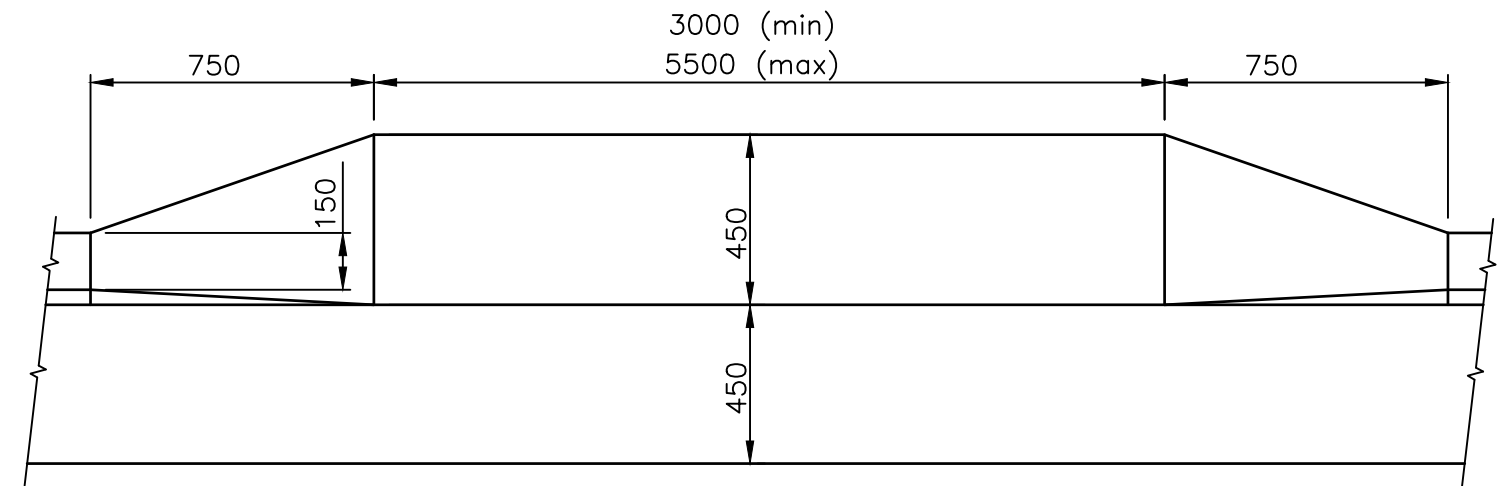
STANDARD VEHICLE CROSSING SECTION AND FOOTPATH SLAB

NOTES:

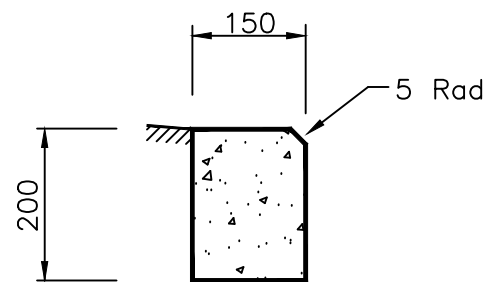
1. Kerbs and dish drain kerbs shall be constructed in accordance with Aus-Spec Aus-Spec 1121 - Open Drains.
2. Concrete strength to be N32 at 28 days
3. Extend base behind back of kerb a minimum of 300mm with a minimum 150mm of base course material below base of kerb compacted to min 98% standard dry density
4. Backfill behind kerb to full height of kerb
5. All dimensions in millimetres unless otherwise stated
6. Fibrecrete may be used subject to approval of Council. All fibrecrete shall be as recommended by the fibre manufacturer for a loading of a 10- tonne truck as a minimum. Minimum Portland cement content of 250kg/m3 and maximum flyash content of 70kg/m3.



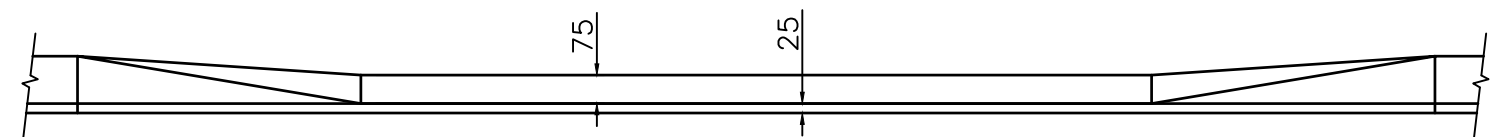
TYPE "SC KERB" STANDARD DISHDRAIN KERB



STANDARD VEHICLE CROSSING PLAN



STANDARD EDGE STRIP



STANDARD VEHICLE CROSSING ELEVATION

NOT TO SCALE

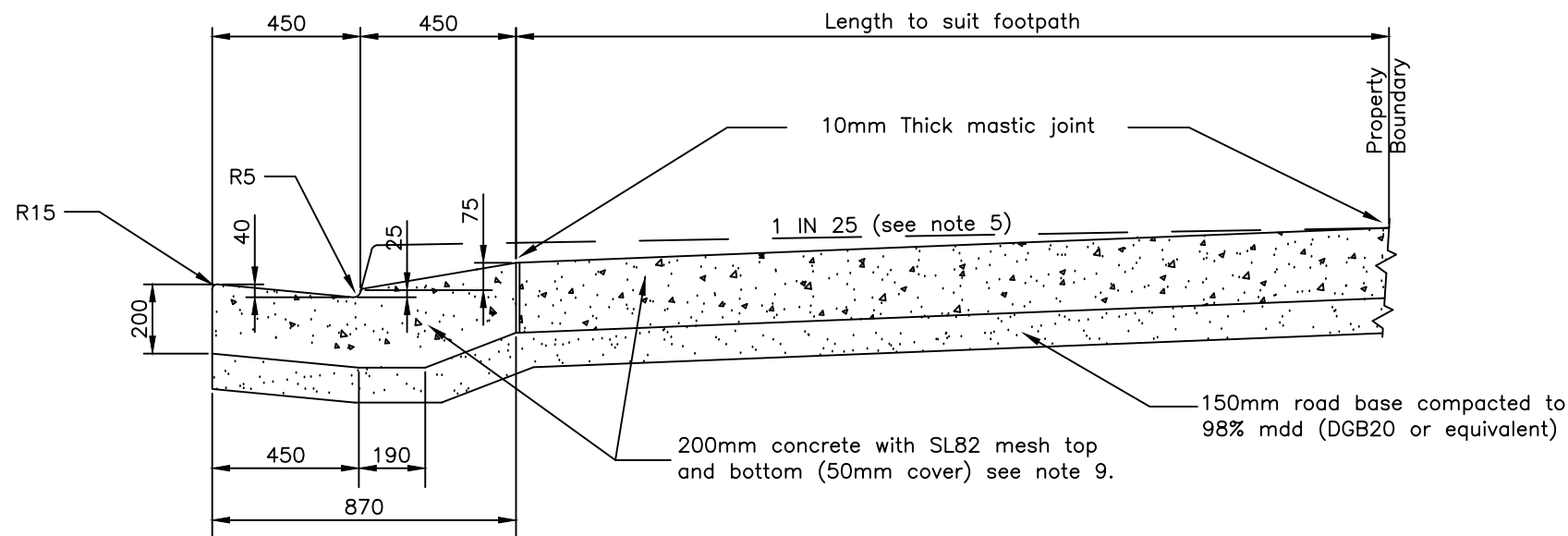
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VEHICLE CROSSING - RESIDENTIAL

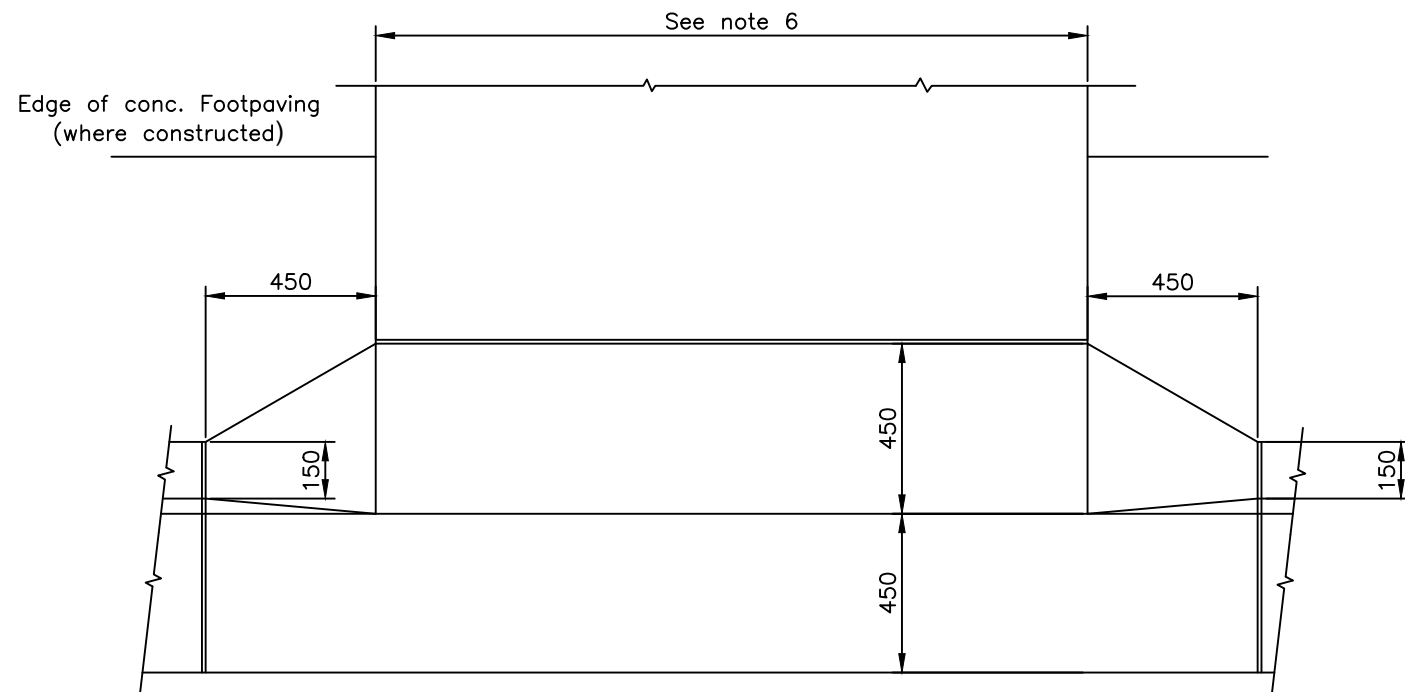
SD-RD-008



CROSS SECTION

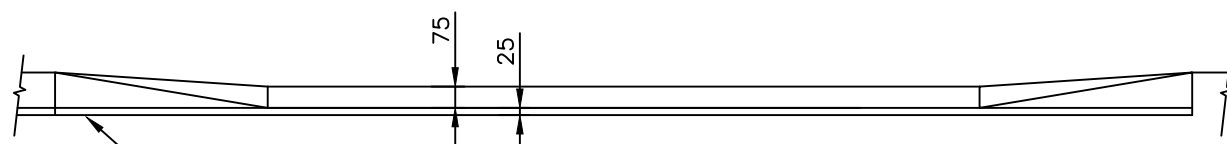
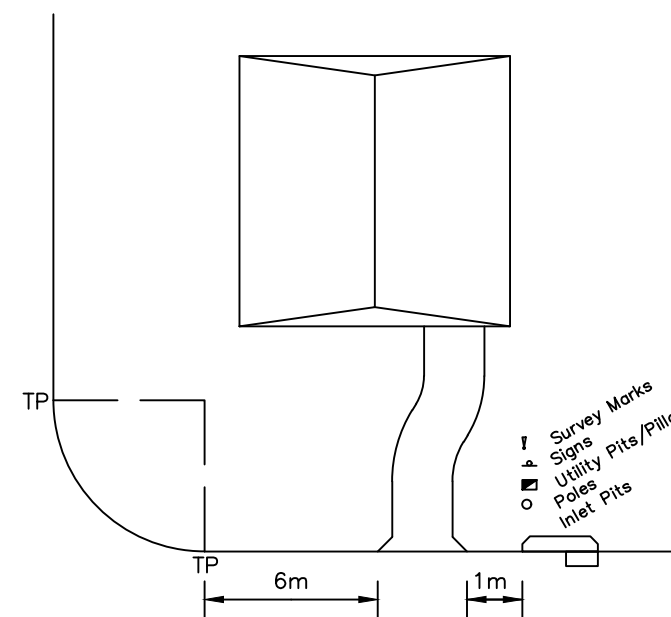
NOTES:

1. All dimensions in millimetres unless otherwise stated
2. Concrete strength to be N32 at 28 Days.
3. All edges to be shaped with an edging tool
4. Joints to be placed at 4.0m to 6.0m centres
5. Variations to footpath crossfall to be approved by Council prior to construction
6. Width of crossing as approved by Council to suit turning movement
7. Provision for services under slab to be investigated prior to construction
8. Provide expansion joints at connections to kerbs and ramps
9. Fibrecrete may be used subject to approval of Council. All fibrecrete shall be as recommended by the fibre manufacturer for a loading of a 42.5-tonne truck as a minimum. Minimum portland cement content of 250kg/m³ and maximum flyash content of 70kg/m³



STANDARD INDUSTRIAL VEHICULAR CROSSING PLAN

Driveways minimum of 6m from tangent point of street curve (corner sites)



FRONT VIEW

Invert of kerb & gutter

NOT TO SCALE

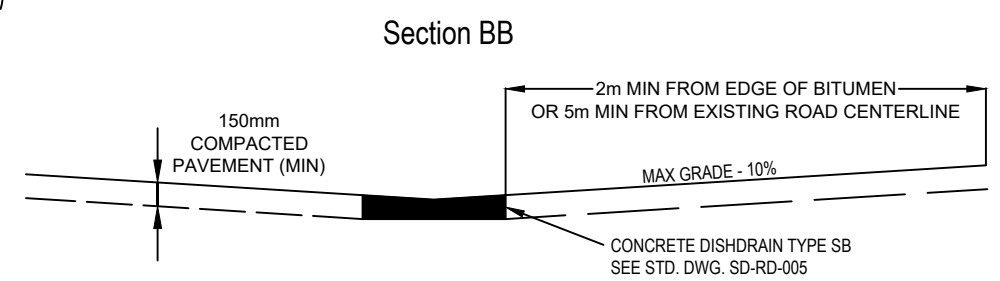
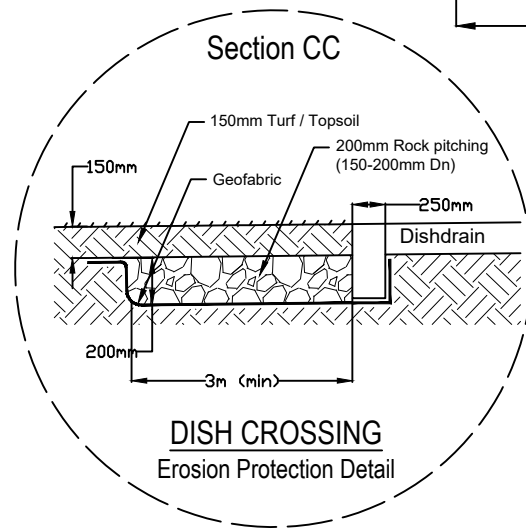
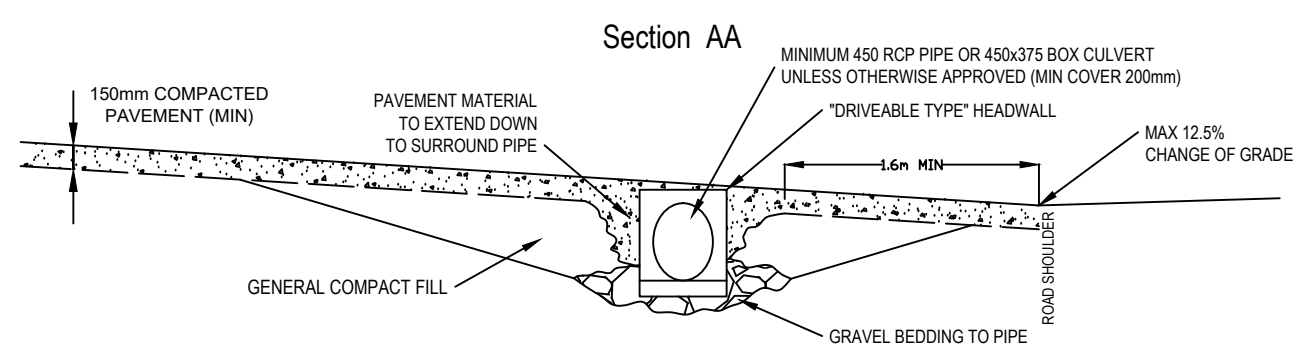
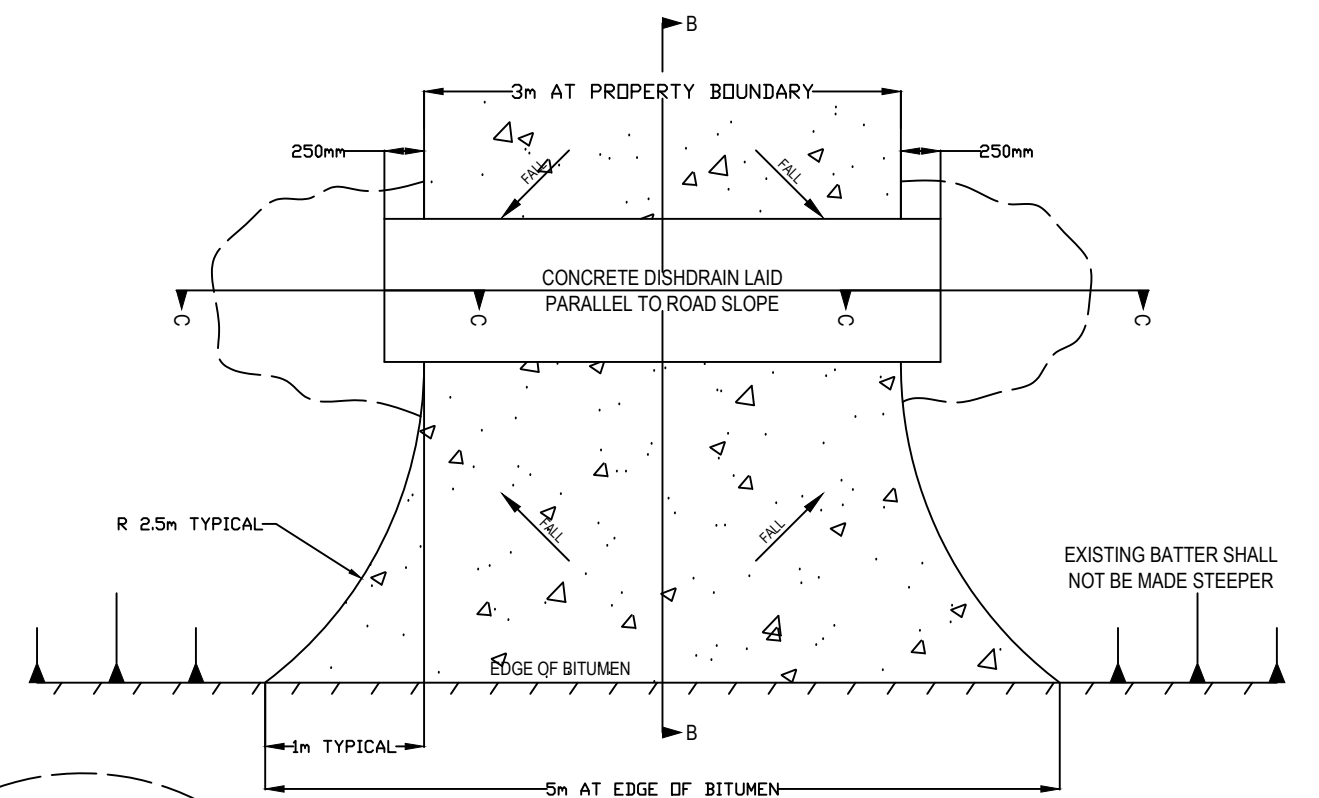
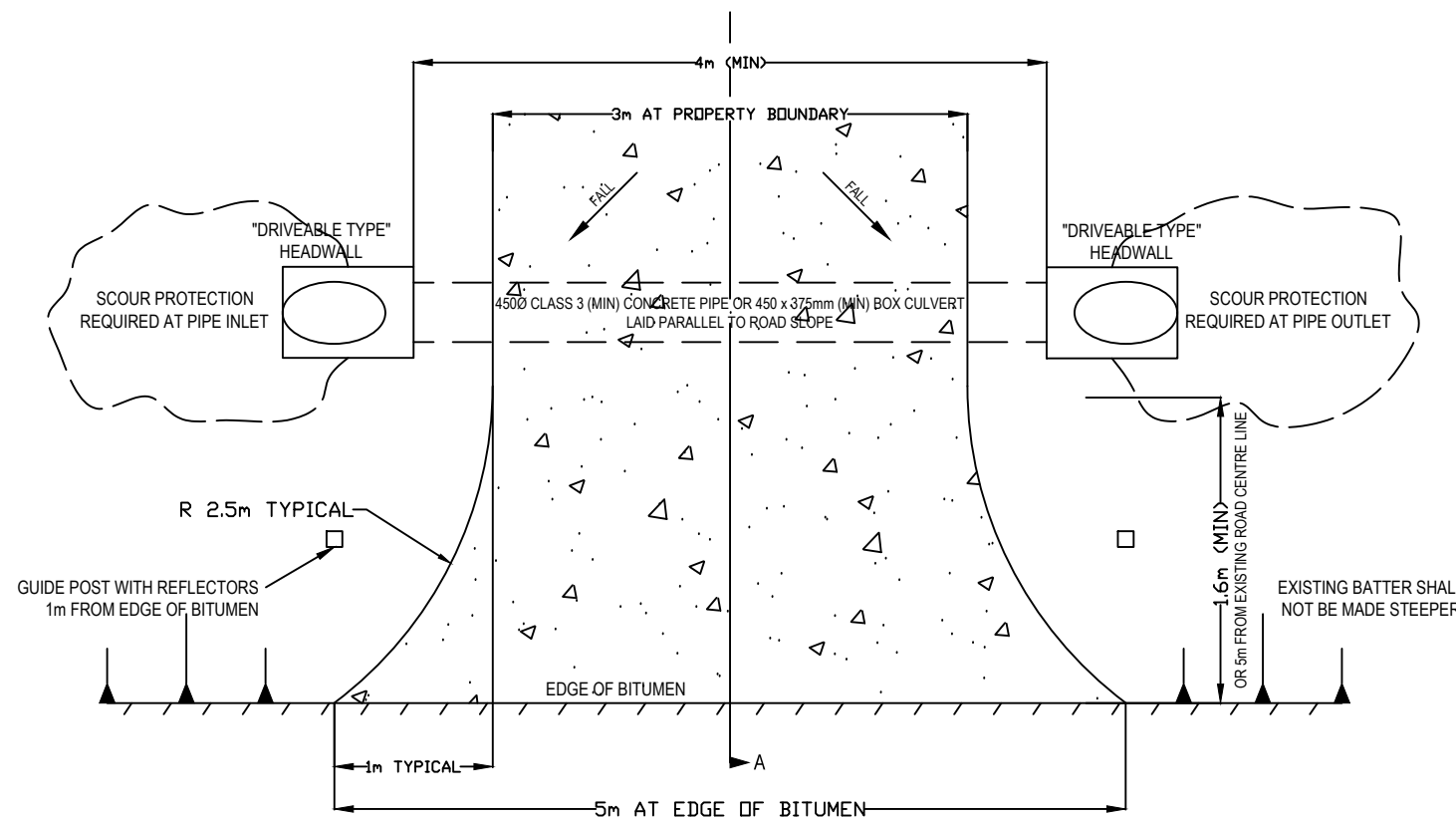
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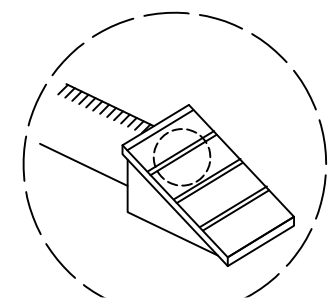
VEHICLE CROSSING - HEAVY DUTY

SD-RD-009



PIPE / CULVERT CROSSING

DISH CROSSING (SB Dishdrain)




"DRIVEABLE TYPE" HEADWALL

NOT TO SCALE

NOTES:

1. Maximum desirable longitudinal grade of 12%. Private access roads with longitudinal grade greater than 15% are to be sealed. Absolute maximum permissible grade is 25%.
2. Where the existing road is sealed the driveway is to be sealed to a minimum 3m within the property boundary.
3. For driveway change of grade greater than 12.5% provide 3.0m transition.
4. Driveway profiles are to conform to the requirements of AS 2890.1 Parking Facilities - Off - Street Car Parking.
5. All dimensions in millimetres unless otherwise noted.
6. Where standard designs cannot be implemented, eg. due to natural surface levels, low points in the road, etc, alternative design should be submitted to Council for consideration. Particular attention shall be made to ensure properties which are below the road level do not create a stormwater overland flow path.
7. Provide scour protection at pipe inlet & outlet.

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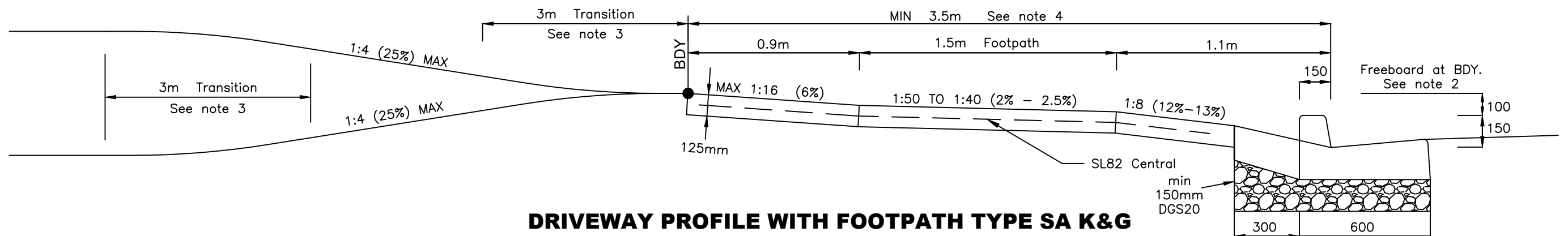
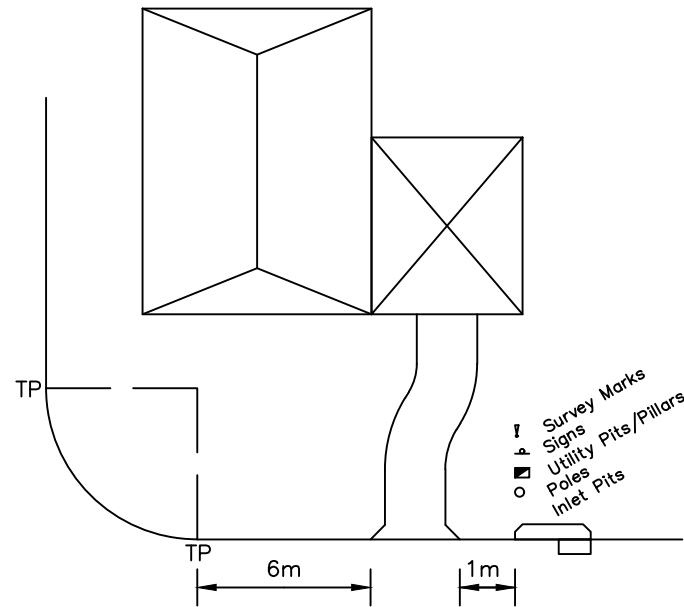

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RURAL DRIVEWAY

SD-RD-016

Driveways minimum of 6m from tangent point of street curve (corner sites)



DRIVEWAY PROFILE WITH FOOTPATH TYPE SA K&G

NOTES:

1. Survey marks are to be located and indicated on design plans prior to construction. Refer to Surveying and Spatial Information Act Sec24 and Surveyor General Direction No11.
2. Driveway profiles are applicable to 1% AEP flows designed to be contained within the kerb and gutter and provide 100mm freeboard in accordance with AUS-SPEC 0074 - Stormwater drainage (Design).
3. Where designed flow depth for major event (1% AEP) exceeds kerb height, minimum 100mm freeboard is to be provided at boundary line. Details to be submitted to Council for approval prior to construction.
4. For driveway change of grade greater than 12.5% provide 3.0m transition. Transition must not start until the 100mm freeboard has been attained.
5. Standard footway & driveway profiles have been based on a typical footway of minimum width 3.0m. For footway width less than 3.0m typical driveway and footway long sections are to be submitted to Council for approval.
6. Driveway profiles are to conform to the requirements of AS/NZS 2890.1 Parking Facilities - Off - Street Car Parking.
7. All dimensions in millimetres unless otherwise noted.
8. Where standard designs cannot be implemented, eg. due to natural surface levels, low points in the road, etc, alternative design should be submitted to Council for consideration. Particular attention shall be made to ensure properties which are below the road level do not create a stormwater overland flow path.

NOT TO SCALE

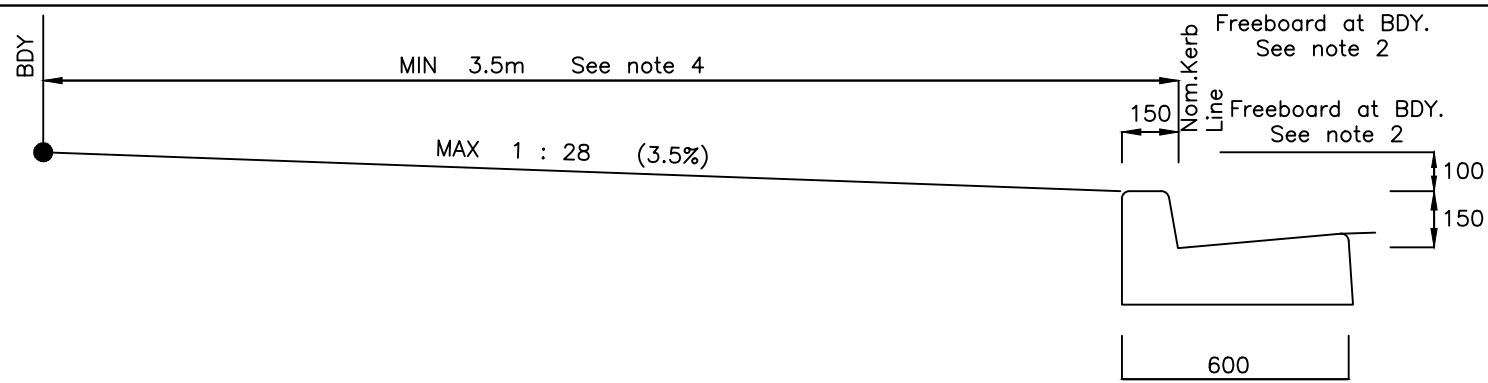
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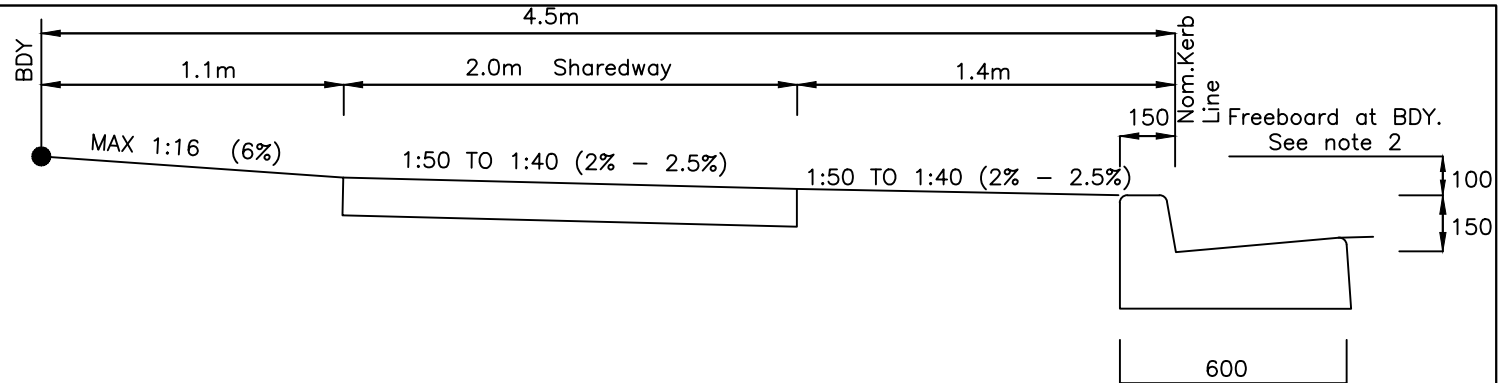
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FOOTWAY AND DRIVEWAY PROFILES FOR SA KERB AND GUTTER

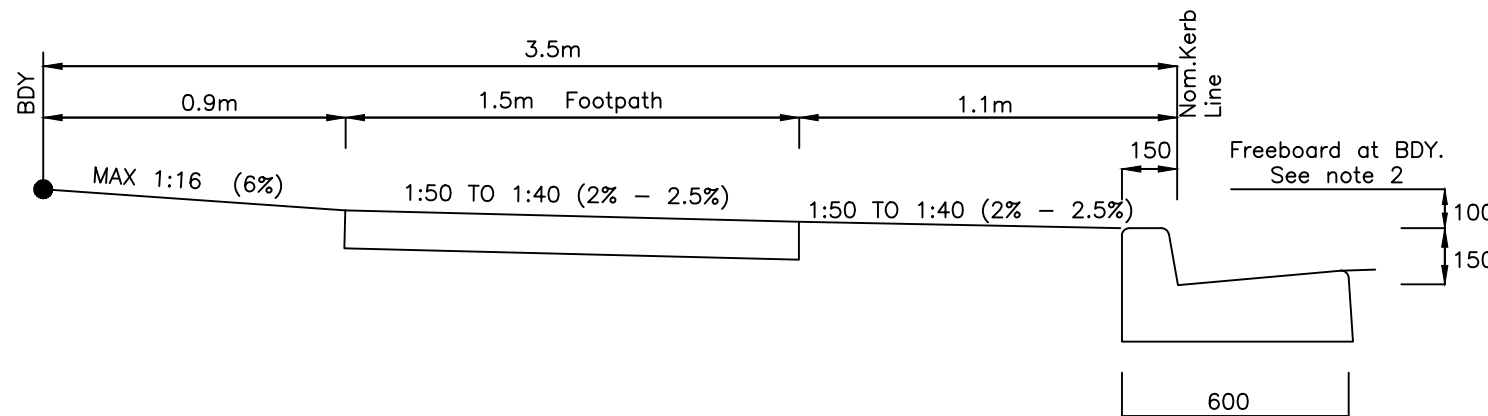
SD-FC-004B



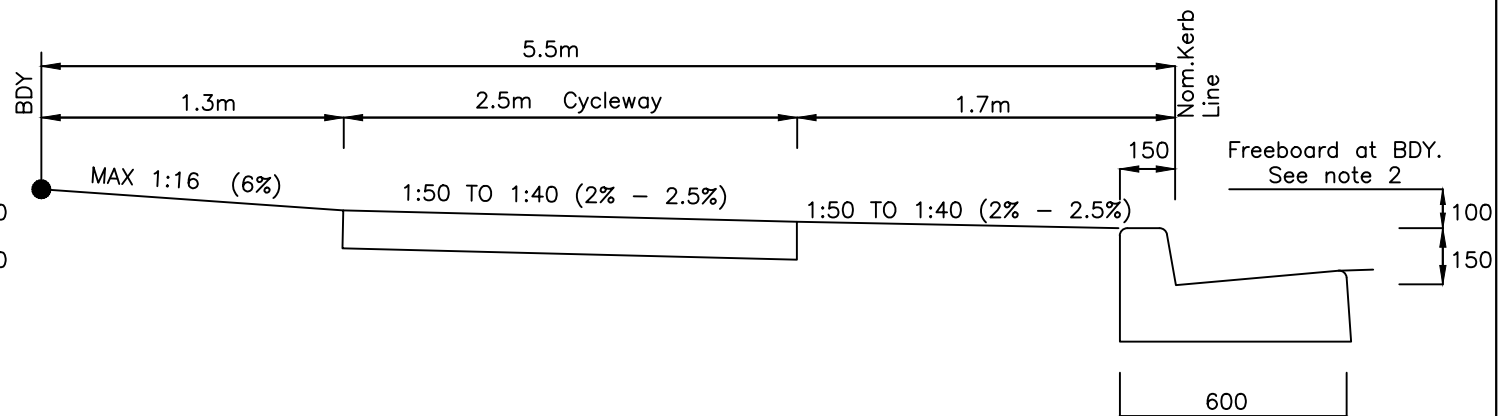
FOOTWAY PROFILE WITHOUT FOOTPATH TYPE SA K&G - 3.5M VERGE



FOOTWAY PROFILE WITH FOOTPATH TYPE SA K&G - 4.5M VERGE



FOOTWAY PROFILE WITH FOOTPATH TYPE SA K&G - 3.5M VERGE



FOOTWAY PROFILE WITH FOOTPATH TYPE SA K&G - 5.5M VERGE

NOTES:

1. Survey marks are to be located and indicated on design plans prior to construction. Refer to Surveying and Spatial Information Act Sec24 and Surveyor General Direction No11.
2. Driveway profiles are applicable to 1% AEP flows designed to be contained within the kerb and gutter and provide 100mm freeboard in accordance with AUS-SPEC 0074 - Stormwater drainage (Design).
3. Where designed flow depth for major event (1% AEP) exceeds kerb height, minimum 100mm freeboard is to be provided at boundary line. Details to be submitted to Council for approval prior to construction.
4. For driveway change of grade greater than 12.5% provide 3.0m transition. Transition must not start until the 100mm freeboard has been attained.
5. Standard footway & driveway profiles have been based on a typical footway of minimum width 3.0m. For footway width less than 3.0m typical driveway and footway long sections are to be submitted to Council for approval.
6. Driveway profiles are to conform to the requirements of AS/NZS 2890.1 Parking Facilities - Off - Street Car Parking.
7. All dimensions in millimetres unless otherwise noted.
8. Where standard designs cannot be implemented, eg. due to natural surface levels, low points in the road, etc, alternative design should be submitted to Council for consideration. Particular attention shall be made to ensure properties which are below the road level do not create a stormwater overland flow path.

NOT TO SCALE

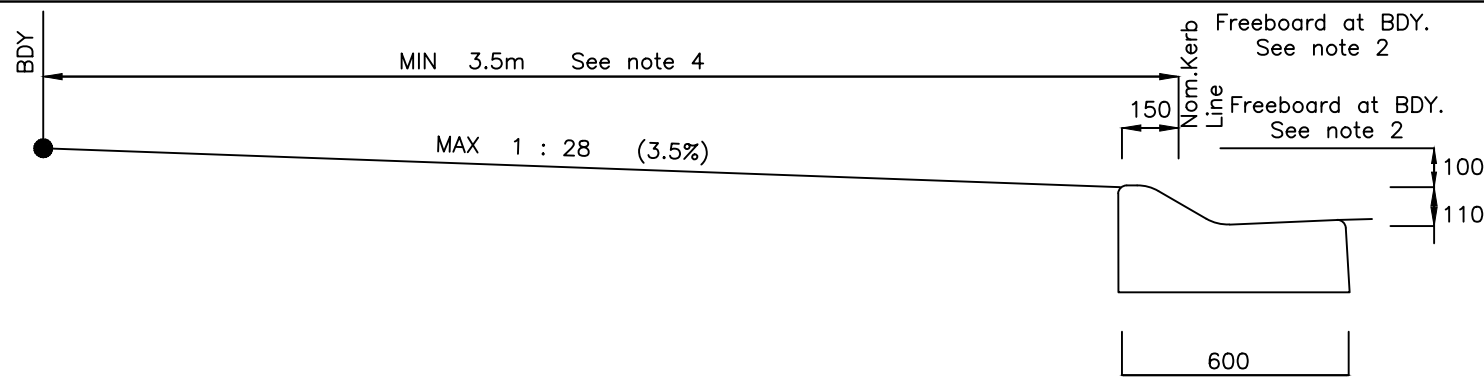
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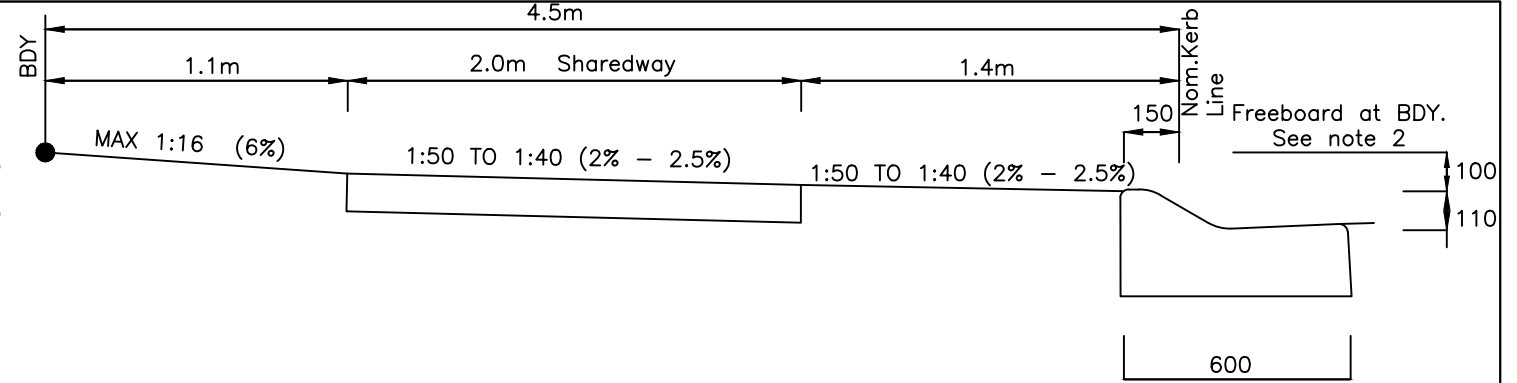
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FOOTWAY AND DRIVEWAY PROFILES FOR SA KERB AND GUTTER

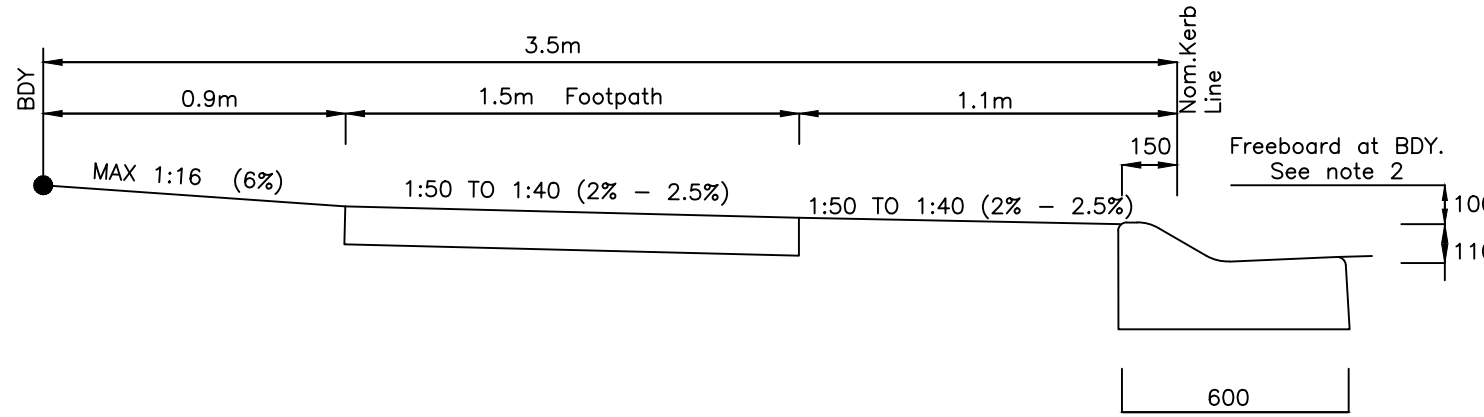
SD-FC-004A



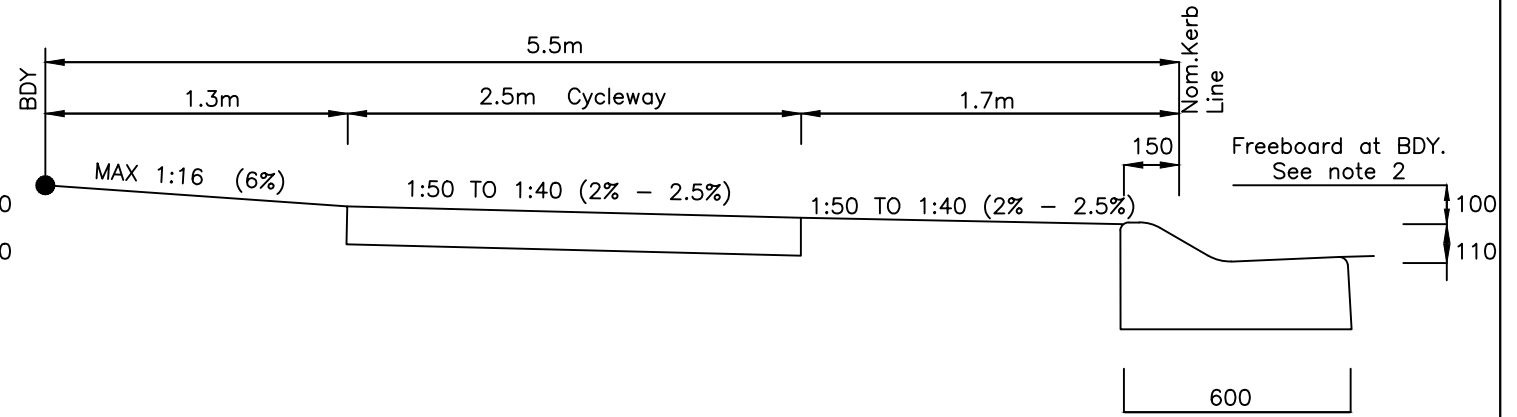
FOOTWAY PROFILE WITHOUT FOOTPATH TYPE RT K&G - 3.5M VERGE



FOOTWAY PROFILE WITH FOOTPATH TYPE RT K&G - 4.5M VERGE



FOOTWAY PROFILE WITH FOOTPATH TYPE RT K&G - 3.5M VERGE



FOOTWAY PROFILE WITH FOOTPATH TYPE RT K&G - 5.5M VERGE

NOTES:

1. Survey marks are to be located and indicated on design plans prior to construction. Refer to Surveying and Spatial Information Act Sec24 and Surveyor General Direction No11.
2. Driveway profiles are applicable to 1% AEP flows designed to be contained within the kerb and gutter and provide 100mm freeboard in accordance with AUS-SPEC 0074 - Stormwater drainage (Design).
3. Where designed flow depth for major event (1% AEP) exceeds kerb height, minimum 100mm freeboard is to be provided at boundary line. Details to be submitted to Council for approval prior to construction.
4. For driveway change of grade greater than 12.5% provide 3.0m transition. Transition must not start until the 100mm freeboard has been attained.
5. Standard footway & driveway profiles have been based on a typical footway of minimum width 3.0m. For footway width less than 3.0m typical driveway and footway long sections are to be submitted to Council for approval.
6. Driveway profiles are to conform to the requirements of AS/NZS 2890.1 Parking Facilities - Off - Street Car Parking.
7. All dimensions in millimetres unless otherwise noted.
8. Where standard designs cannot be implemented, eg. due to natural surface levels, low points in the road, etc, alternative design should be submitted to Council for consideration. Particular attention shall be made to ensure properties which are below the road level do not create a stormwater overland flow path.

NOT TO SCALE

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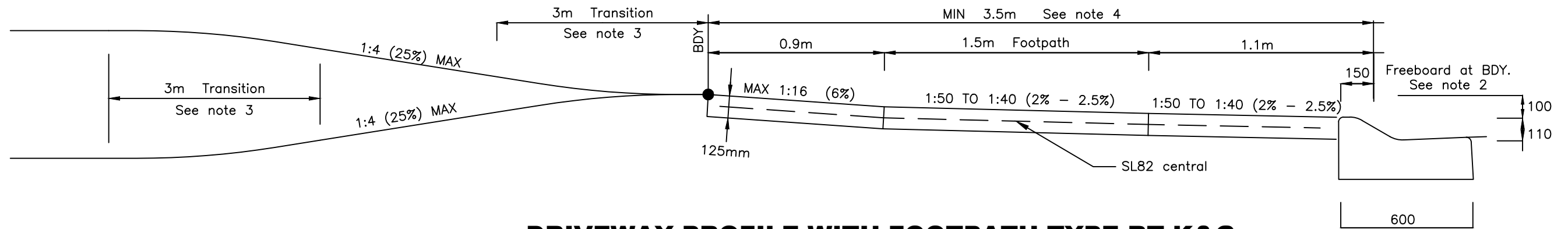
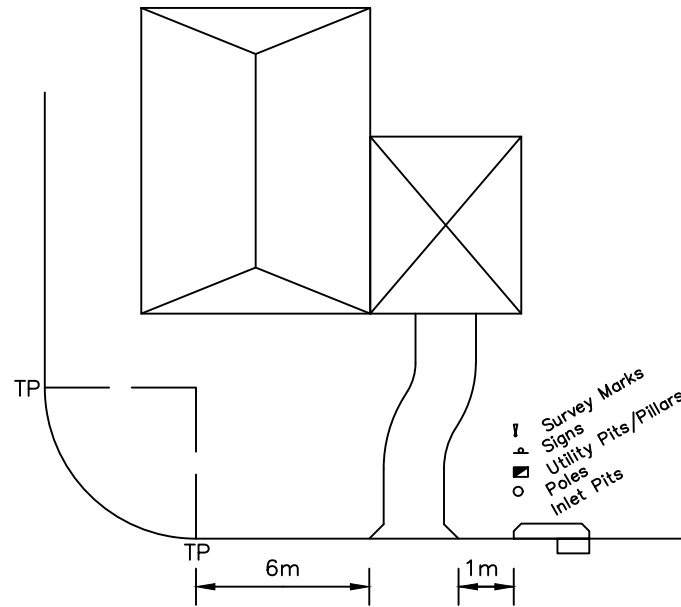

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FOOTWAY AND DRIVEWAY PROFILES FOR RT KERB AND GUTTER

SD-FC-005A

Driveways minimum of 6m from tangent point of street curve (corner sites)




DRIVEWAY PROFILE WITH FOOTPATH TYPE RT K&G

NOTES:

1. Survey marks are to be located and indicated on design plans prior to construction. Refer to Surveying and Spatial Information Act Sec24 and Surveyor General Direction No11.
2. Driveway profiles are applicable to 1% AEP flows designed to be contained within the kerb and gutter and provide 100mm freeboard in accordance with AUS-SPEC 0074 - Stormwater drainage (Design).
3. Where designed flow depth for major event (1% AEP) exceeds kerb height, minimum 100mm freeboard is to be provided at boundary line. Details to be submitted to Council for approval prior to construction.
4. For driveway change of grade greater than 12.5% provide 3.0m transition. Transition must not start until the 100mm freeboard has been attained.
5. Standard footway & driveway profiles have been based on a typical footway of minimum width 3.0m. For footway width less than 3.0m typical driveway and footway long sections are to be submitted to Council for approval.
6. Driveway profiles are to conform to the requirements of AS/NZS 2890.1 Parking Facilities - Off - Street Car Parking.
7. All dimensions in millimetres unless otherwise noted.
8. Where standard designs cannot be implemented, eg. due to natural surface levels, low points in the road, etc, alternative design should be submitted to Council for consideration. Particular attention shall be made to ensure properties which are below the road level do not create a stormwater overland flow path.

NOT TO SCALE

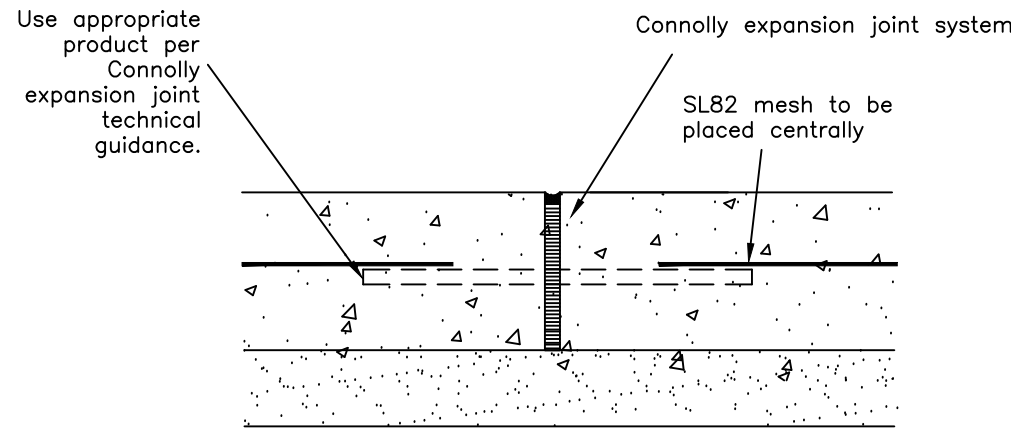
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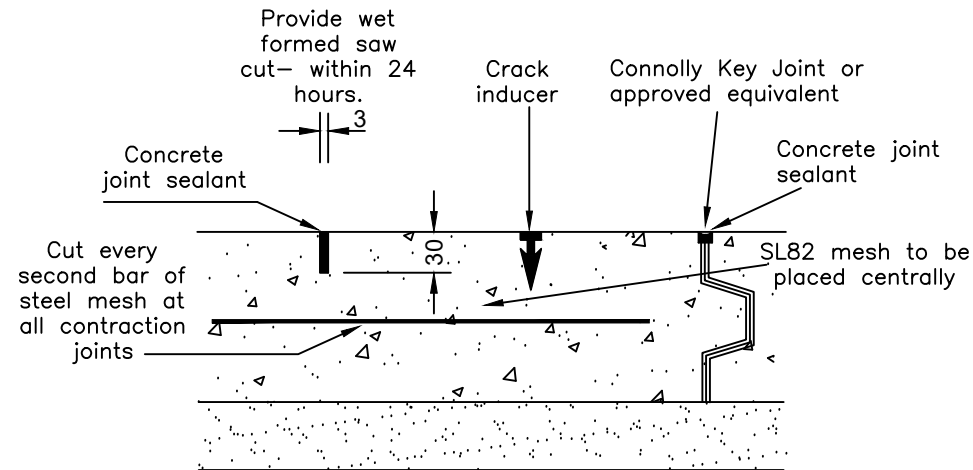
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FOOTWAY AND DRIVEWAY PROFILES FOR RT KERB AND GUTTER

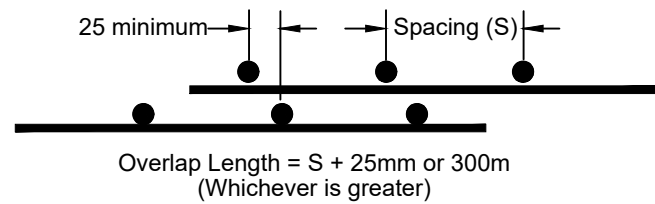
SD-FC-005B



**EXPANSION JOINT- CONNOLLY
EXPANSION JOINT SYSTEM**



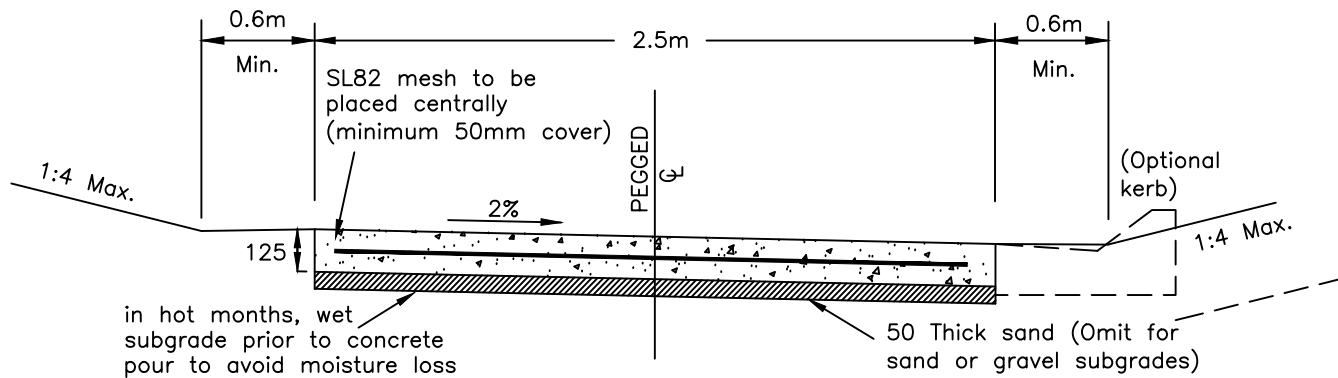
CONTRACTION JOINTS OPTIONS



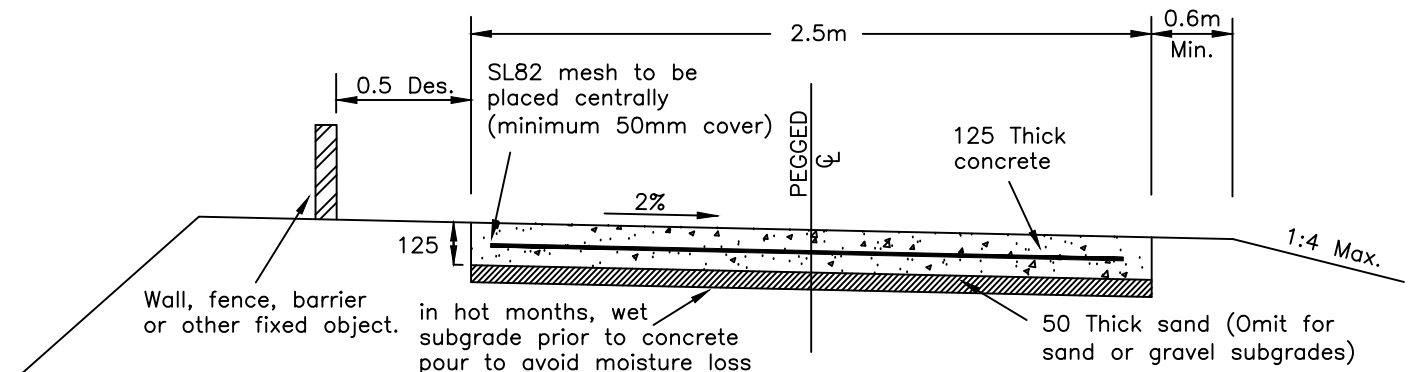
**TYPICAL LAPS OF STEEL
MESH REINFORCEMENT**

NOTES:

1. Concrete to be min N32 to AS3600
2. Construction shall be accordance with Aus-Spec 0319 - Auxillary Concrete Works
3. 10mm Aggregate size with an 80mm slump
4. Provide expansion joints at max. 3 x width
5. Provide contraction joints at max. 1 x width
6. Provide expansion joints at connections to kerbs and structures
7. Every second bar of steel reinforcing mesh shall be cut at all contraction joints.
8. Path surface shall be broom finished, Trowel and round all edges.
9. Make smooth connection to existing paths, max step +3mm above, -0mm below existing. Trowel and round all edges.
10. Clearance to obstructions from path shall be min 0.2m
11. Provide expansion joint both sides of vehicle crossing.
12. For industrial vehicle crossings refer to SD-RD-009
13. For residential vehicle crossings refer to SD-RD-008
14. Path crossfall shall be max 1:50
15. All dimension are in millimetres unless otherwise stated.
16. Refer to AS1428 and SD-FC-001 for TGSI standard treatment.



TYPICAL CROSS SECTION (IN CUT)



TYPICAL CROSS SECTION (IN FILL)

NOT TO SCALE

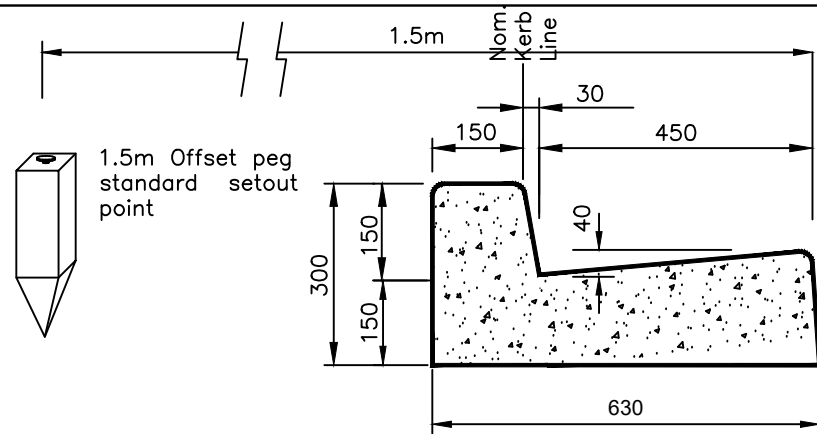
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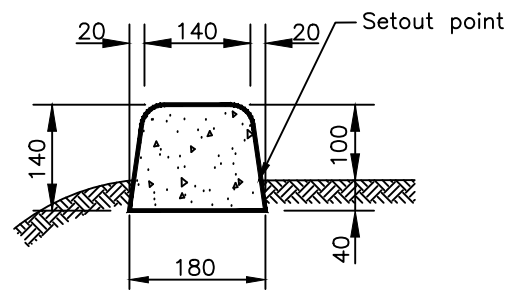
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STANDARD CYCLEWAY DETAILS

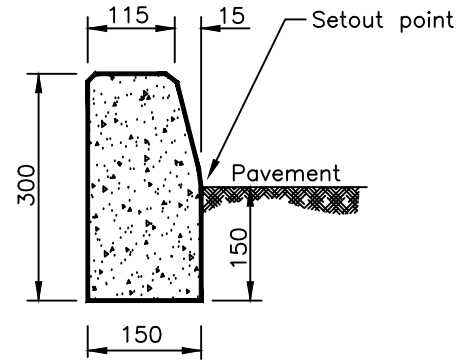
SD-FC-002



MODIFIED SA TYPE KERB & GUTTER



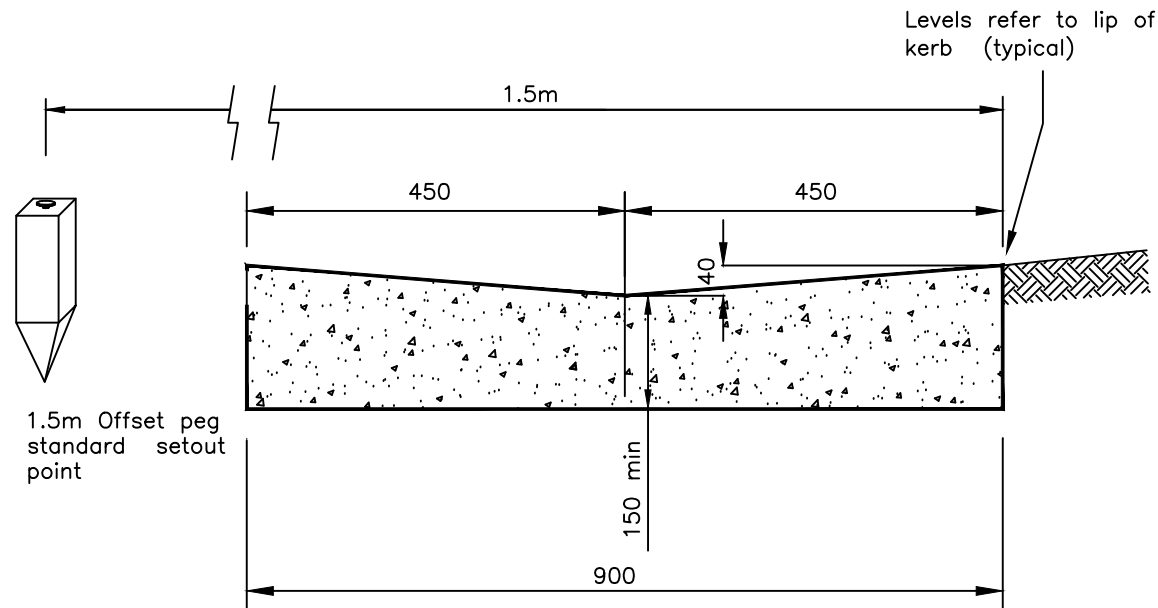
**MODIFIED TYPE "SG KERB"
STANDARD GUARDFENCE KERB**



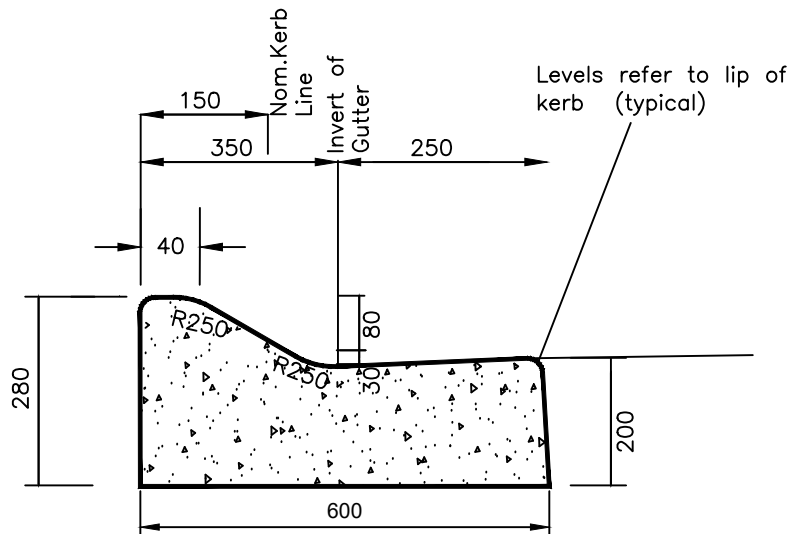
**MODIFIED TYPE "SM KERB"
KERB ONLY**

NOTES:

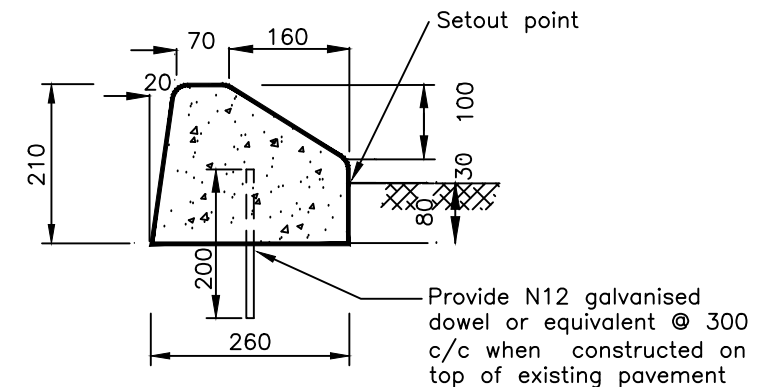
- Kerb and gutter and dish drain kerb shall be constructed in accordance with Aus-Spec 1121 - Open Drains.
- Concrete strength to be N32 at 28 days
- Gravel thickness below kerb:
New Road Works: Road Sub-base to be extended under kerbs, gutters, aprons & dish drains
Kerb & Gutter retrofit to existing roads: Provide Sub-base equivalent to existing Sub-base under pavement. Where existing Sub-base depth cannot be determined provide min. 200mm roadbase compacted to 98% standard dry density
- Setout requirements, unless shown otherwise shall be
Kerb & Gutter - Setout 1.50m behind lip of kerb
 - Setout radii less than 1m at centre points
 - Levels to lip of kerb
Dish Drains - Setout 1.50m behind lip of kerb
 - Setout to radii less than 1m at centre points
 - Levels to lip
- Backfill behind kerb to full height of kerb.
- Radius < 2.0m - CP & TP
 Radius > 2.0m & < 5m - TP & mid point
 Radius > 5m - TP & 3m segments
- All dimensions in millimetres unless otherwise stated



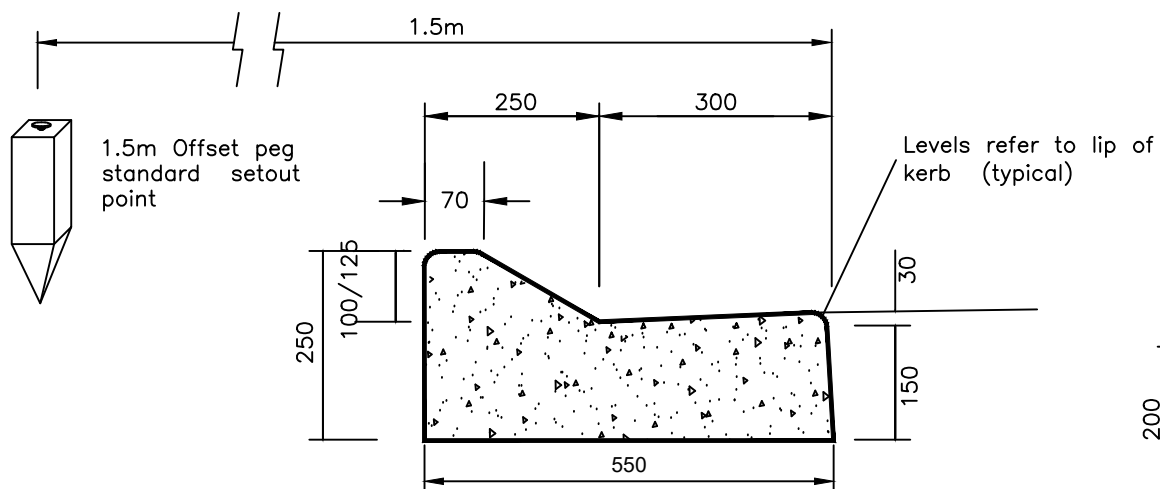
**MODIFIED TYPE "SB KERB"
DISHDRAIN KERB**



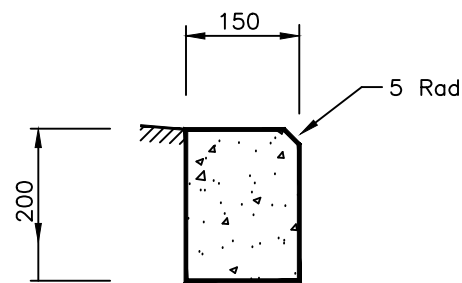
**MODIFIED TYPE "RT KERB"
ROLL TOP KERB & GUTTER**



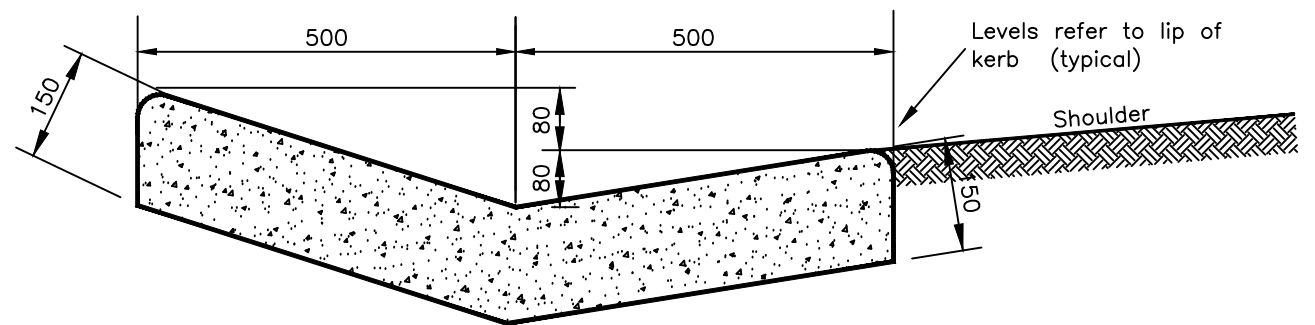
**MODIFIED TYPE "SF KERB"
MEDIAN KERB**



**MODIFIED TYPE "SE KERB"
STANDARD LAYBACK KERB & GUTTER**



**STANDARD
EDGE STRIP**



**MODIFIED TYPE "SH KERB"
DISHDRAIN KERB**

NOT TO SCALE

REV.	DATE	REVISION
1	JAN 2024	INITIAL ISSUE- CCC DRAWING SET
0	JAN 2020	INITIAL ISSUE- IPWEA DRAWING SET

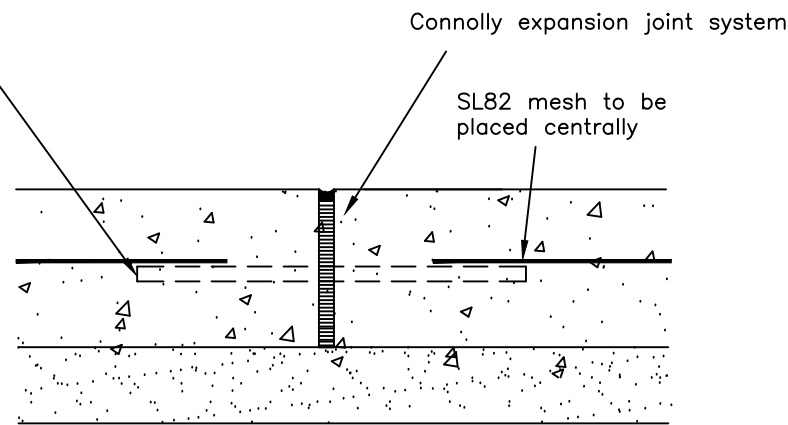
CESSNOCK CITY COUNCIL
 P.O. BOX 152 CESSNOCK
 PHONE 4993 4100
 ENGINEERING GUIDELINES FAX 4993 2505

Disclaimer: This is a generic drawing. CCC makes no representation of any kind as to its use, suitability or accuracy, including for a specific project or application and users must undertake their own assessment and accept all risk in the drawing and its use. CCC has no liability of any kind arising out of or in connection with the use of this drawing.

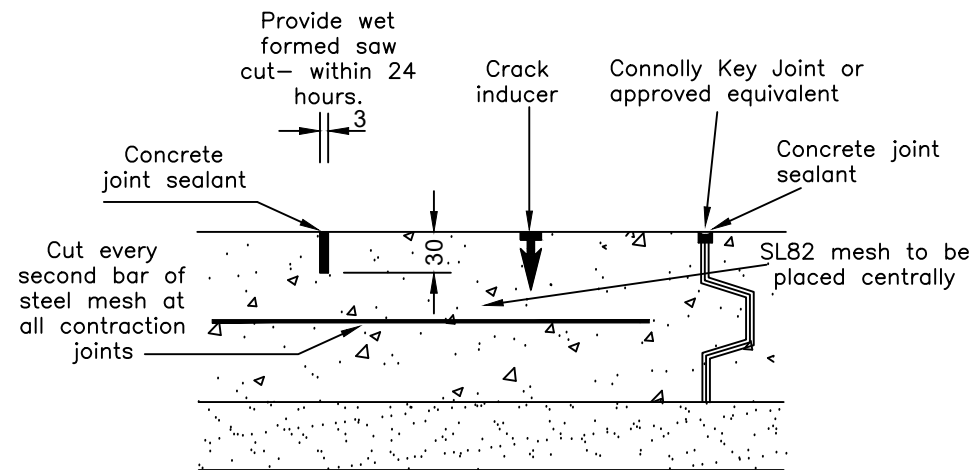
**STANDARD KERB PROFILES
AND SETOUT**

SD-RD-005

Use appropriate product per Connolly expansion joint technical guidance.



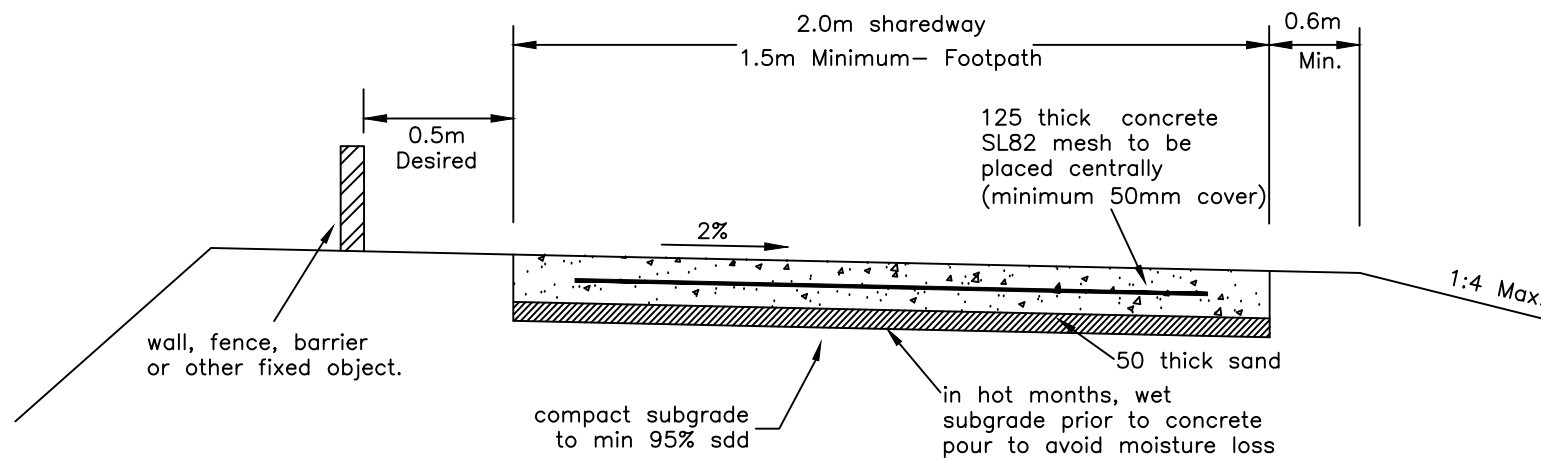
EXPANSION JOINT- CONNOLLY EXPANSION JOINT SYSTEM



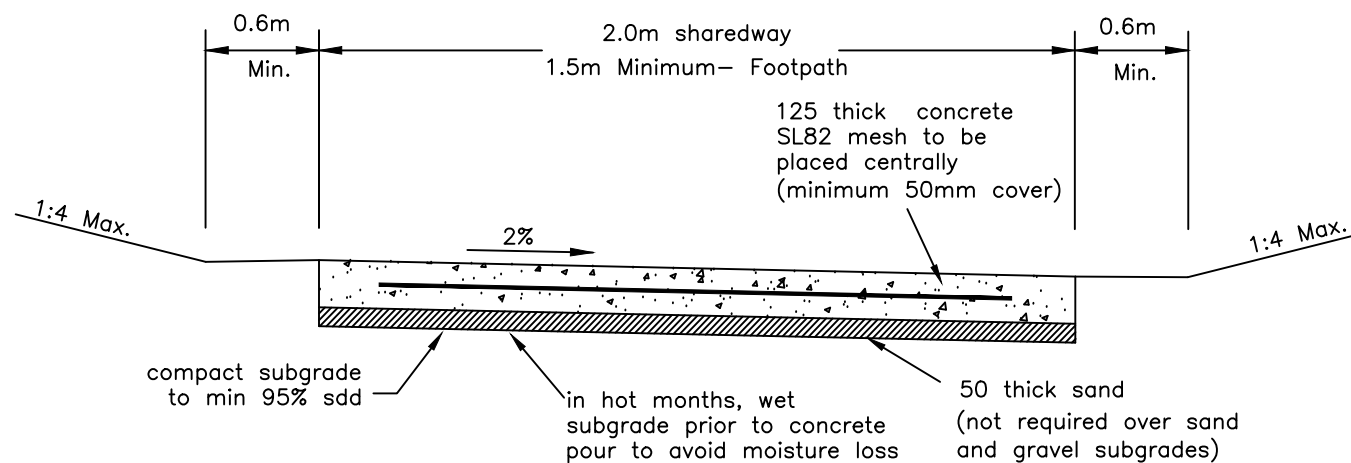
CONTRACTION JOINTS OPTIONS

NOTES:

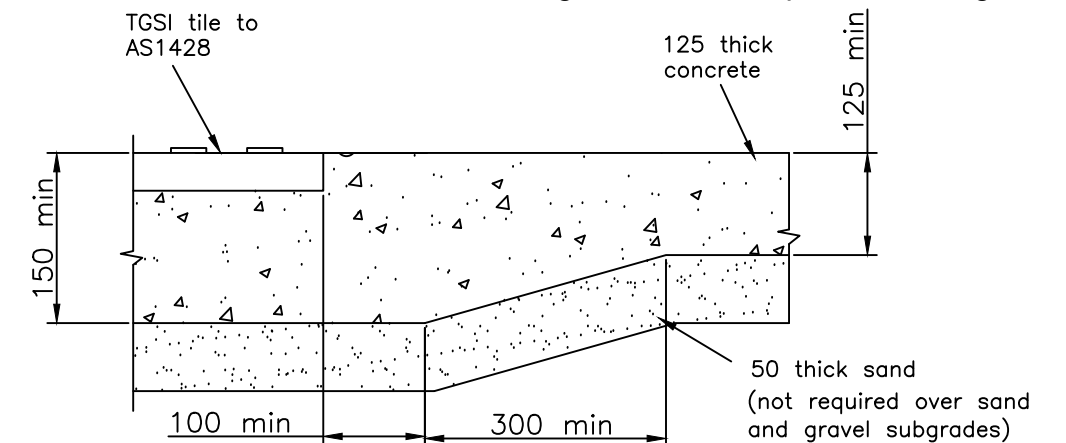
1. Concrete to be min N32 to AS3600
2. Construction shall be accordance with Aus-Spec 0319 - Auxillary Concrete Works
3. 10mm Aggregate size with an 80mm slump
4. Provide expansion joints at max. 3 x width
5. Provide contraction joints at max. 1 x width
6. Provide expansion joints at connections to kerbs and structures
7. Every second bar of steel reinforcing mesh shall be cut at all contraction joints.
8. Path surface shall be broom finished, Trowel and round all edges.
9. Make smooth connection to existing paths, max step +3mm above, -0mm below existing. Trowel and round all edges.
10. Clearance to obstructions from path shall be min 0.2m
11. Provide expansion joint both sides of vehicle crossing.
12. For industrial vehicle crossings refer to SD-RD-009
13. For residential vehicle crossings refer to SD-RD-008
14. Path crossfall shall be max 1:50
15. All dimension are in millimetres unless otherwise stated
16. TGSI Placement to be in accordance with AS1428
17. Refer to AS 1428.2 for gradients of ramps and landings.



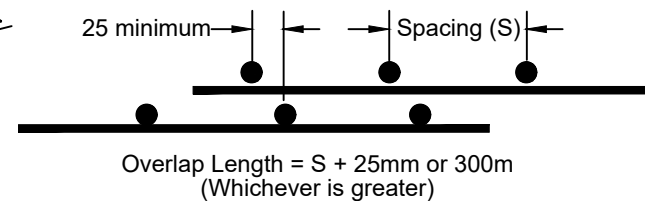
TYPICAL CROSS SECTION (IN FILL)



TYPICAL CROSS SECTION (IN CUT)



LOCALISED THICKENING UNDER TGSI (HALF SECTION)



TYPICAL LAPS OF STEEL MESH REINFORCEMENT

NOT TO SCALE

REV.	DATE	REVISION
1	JAN 2024	INITIAL ISSUE- CCC DRAWING SET
0	AUG 2022	INITIAL ISSUE- IPWEA DRAWING SET (REVISED CROSS-SECTION AND NOTES)

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STANDARD FOOTPATH DETAILS

SD-FC-001