

1. FOR DETAILS OF SHARED TRENCH ARRANGEMENT REFER TO STD DRG No ST-001 "UNDERGROUND SERVICES IN A SHARED TRENCH"

2. FOR DETAILS OF ACTEW SERVICE STRUCTURES REFER TO STD DRG No ST-003 "UNDERGROUND SERVICES IN A SHARED TRENCH"

3. FOR EXTERNAL VERTICAL DROPS CHECK VERTICAL CLEARANCE TO OTHER SERVICES.

4. FOR OFFSET MANHOLES CHECK CLEARANCES TO OTHER SERVICES.

5. OTHER UNDERGROUND SERVICE RESERVATIONS MAY ABUT BUT NOT ENCROACH INTO TREE PLANTING RESERVE (TREE ROOT INTRUSION PREVENTION MEASURE).

ACT GOVERNMENT

URBAN SERVICES

DESIGN STANDARD
URBAN INFRASTRUCTURE

Authorised Signature: *[Signature]*

Drawn	Date
Project Engineer	Date
Allan Toohey	Aug 2002

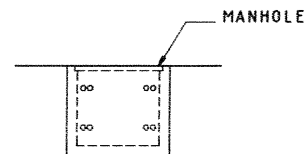
ROAD VERGES
SERVICE MODULES

Scale	Date
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DS4-01	1

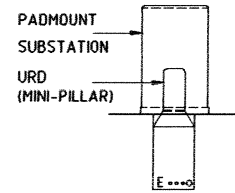
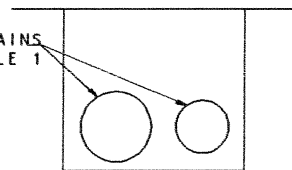
TABLE 1
TRUNK MAINS

WATER MAINS	> 675 DIA
GAS PIPES	> 100 DIA
STORMWATER	> 750 DIA
TELECOMMUNICATION DUCT RUNS	> 1000 WIDE
ACTEW HV CABLES	ADDITIONAL TO CAPACITY IN STANDARD ALIGNMENT

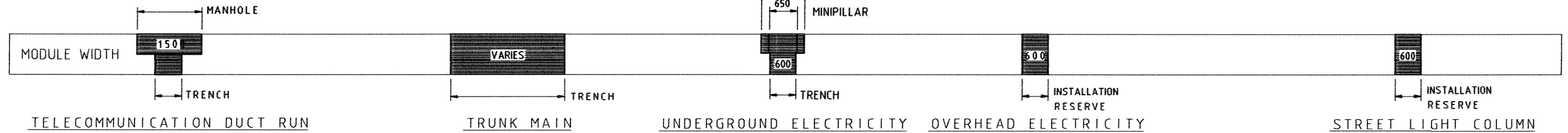
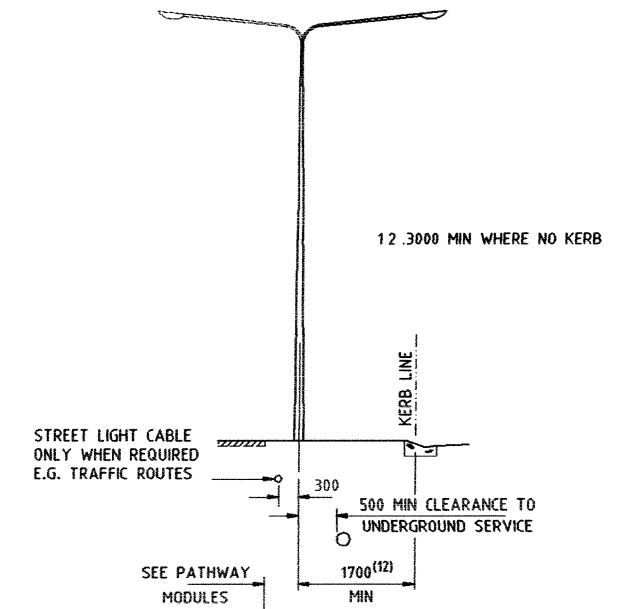
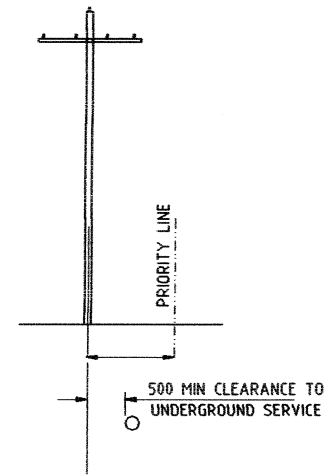
10. TRUNK GAS MAIN TO SHARE TRENCH WITH TELECOMMUNICATION OR USE TRUNK MAIN RESERVATION.



TRUNK MAINS SEE TABLE 1



11. REFER TO ACTEW GUIDELINES FOR TREE PLANTING RESTRICTIONS ADJACENT OVERHEAD POWERLINES.



KERB TYPE	W1	W2
MLBK	1400	850
K&G	1200	600

PIPE DIA	W3
100-300	600
375-675	1000

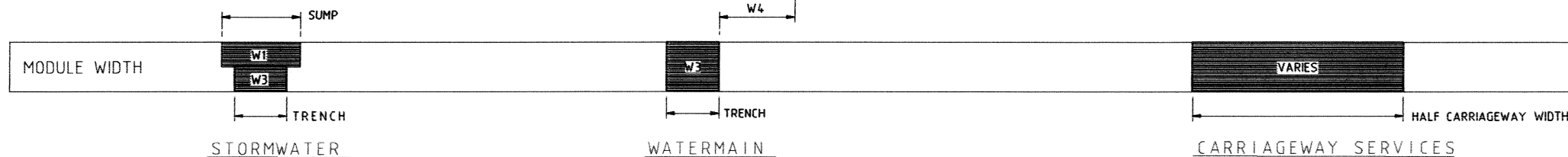
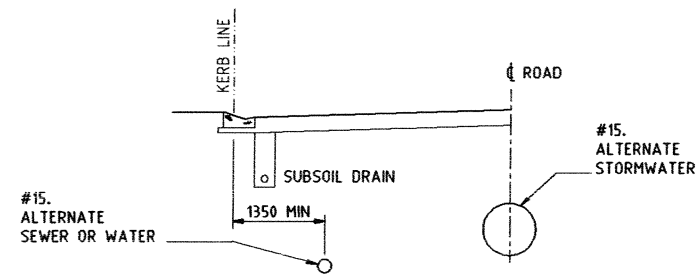
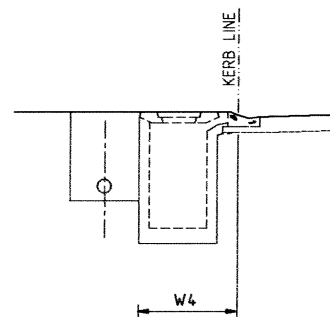
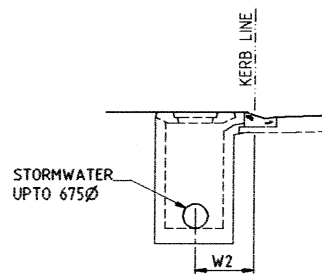
KERB TYPE	W4
MLBK	1400 MIN
K&G	1200 MIN

15 FOR SERVICES LOCATED IN THE CARRIAGEWAY, CHECK CLEARANCES TO ANY OTHER SIMILARLY PLACED SERVICES PARTICULARLY FOR 3500 WIDTH CARRIAGEWAY.

16 THE PLACEMENT OF SERVICES UNDER THE CARRIAGEWAY WILL ONLY BE PERMITTED IN EXCEPTIONAL CIRCUMSTANCES AND REQUIRES SPECIFIC APPROVAL BY BOTH THE SERVICE AUTHORITY AND "DUS TRAFFIC & ROADS SECTION" IN EACH INDIVIDUAL CASE.

13 FOR STORMWATER MANHOLE USE SEWER MODULE

14 FOR WATERMAINS OF DIAMETERS > 600φ USE TRUNK MAIN RESERVATION
FOR STORMWATER DRAINS > 675φ USE CARRIAGEWAY



ACT GOVERNMENT

DESIGN STANDARD
URBAN INFRASTRUCTURE

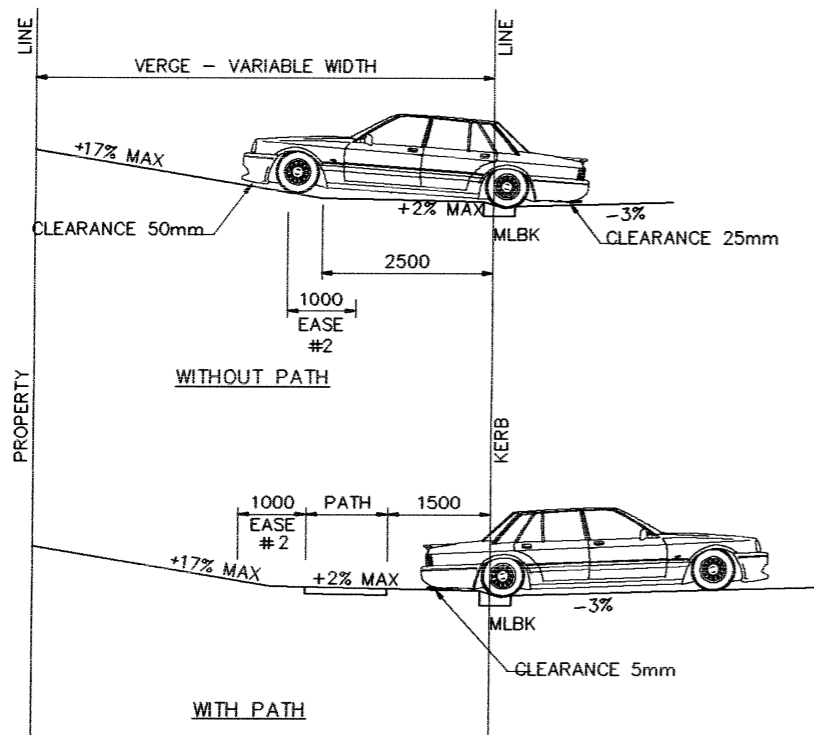
Authorised Signature
Chris Kon

Drawn: Chris Kon Date: Aug 2002
Project Engineer: Allan Toohy Date: Aug 2002

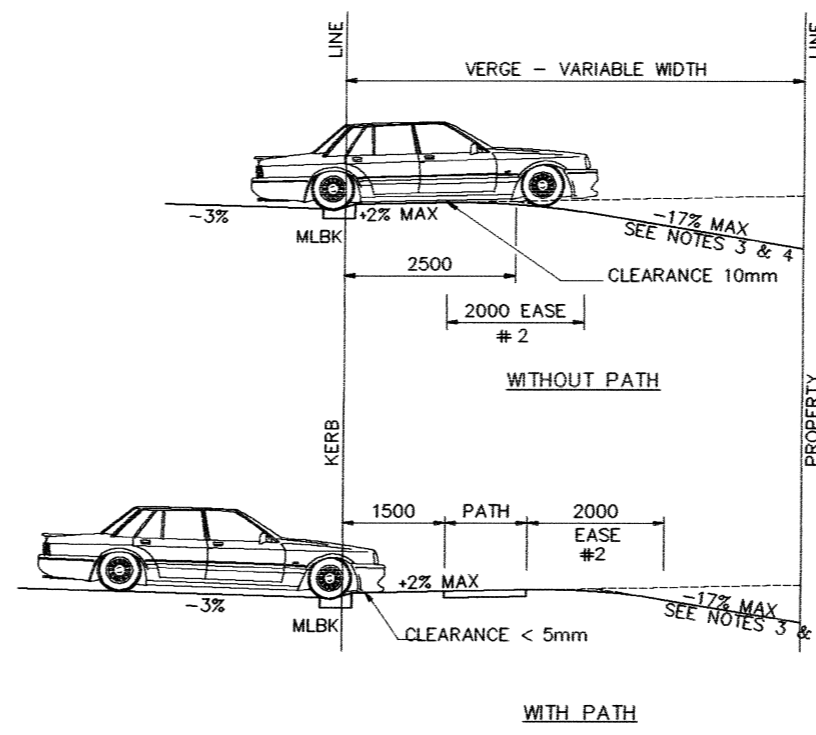
ROAD VERGES
SERVICE MODULES

Scale: 1:100 Date: Aug 2002
AutoCAD File

Drawing No. DS4-02 Sheet No. 2



HIGH SIDE VERGE

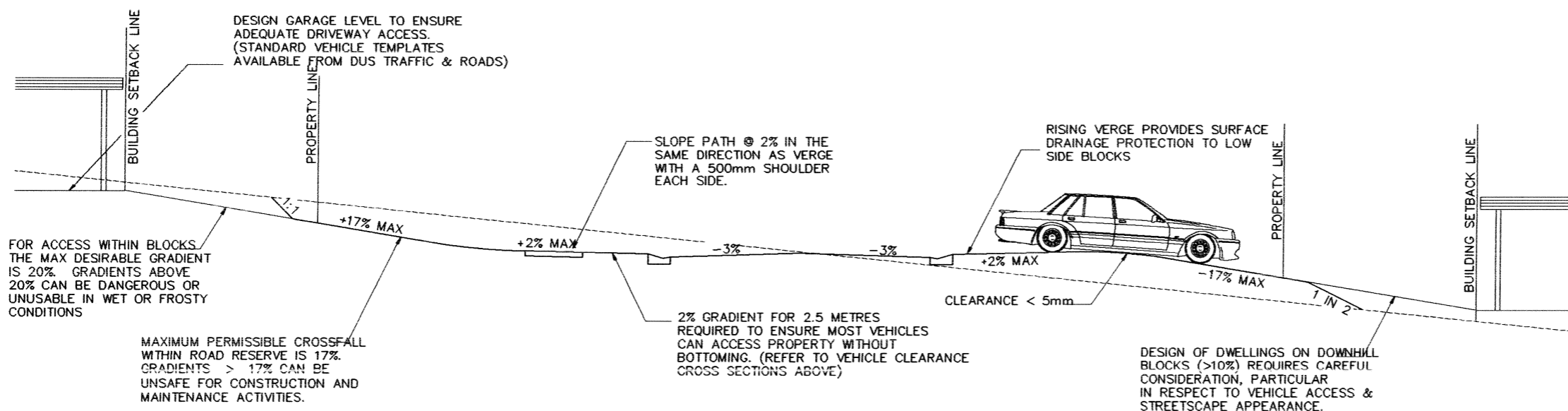


LOW SIDE VERGE



VERGE GRADIENTS AND VEHICLE CLEARANCES

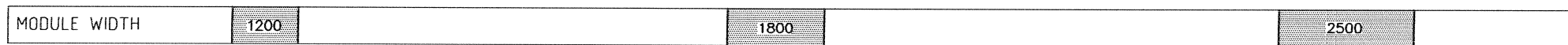
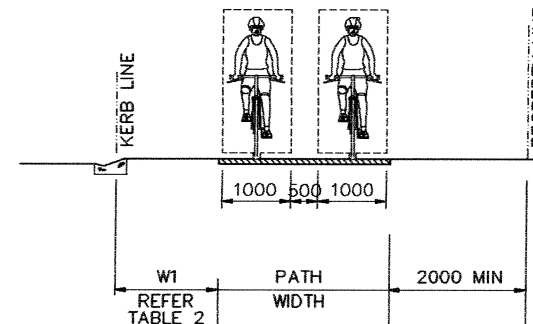
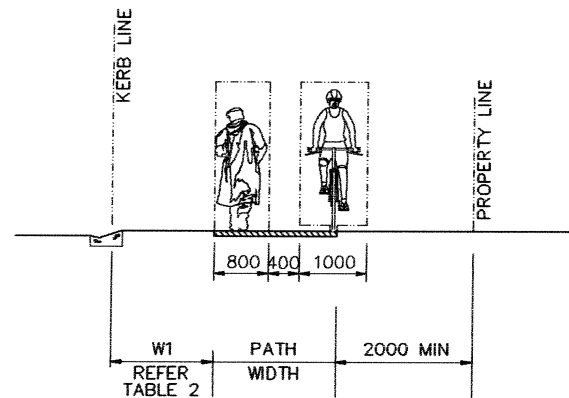
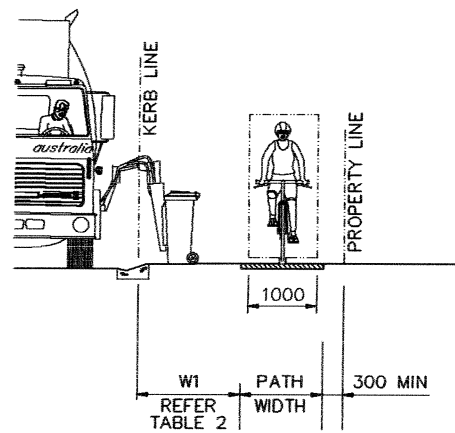
NOTES

1. CAR TEMPLATE BASED ON A.S. 2890.1-1993
2. EASE BUILT DURING DRIVEWAY CONSTRUCTION
3. LOW SIDE VERGE PROFILE SUBJECT TO SURFACE DRAINAGE REQUIREMENTS FOR 1:100 YEAR AVERAGE RECURRENCE INTERVAL
4. WHEN THE WATERMAIN IS LOCATED ON THE LOW SIDE, THE TOTAL VERGE SHOULD SLOPE TOWARDS THE KERB & GUTTER TO CONTAIN BURST WATERMAIN FLOWS.
5. MINIMUM VERGE GRADIENT TO BE 1% FOR DRAINAGE PURPOSES.



MAXIMUM PERMISSIBLE VERGE GRADIENTS

ACT GOVERNMENT	
	
DESIGN STANDARD URBAN INFRASTRUCTURE	
Authorised Signature: 	
Drawn: Chris Kon	Date: Aug 2002
Project Engineer: Allan Toohy	Date: Aug 2002
ROAD VERGES VERGE GRADIENTS	
Scale: 1:100	Date: Aug 2002
AutoCAD File	
Drawing No. DS4-03	Sheet No. 3



1200 WIDE PATH

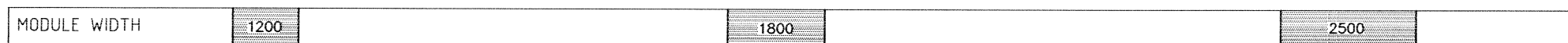
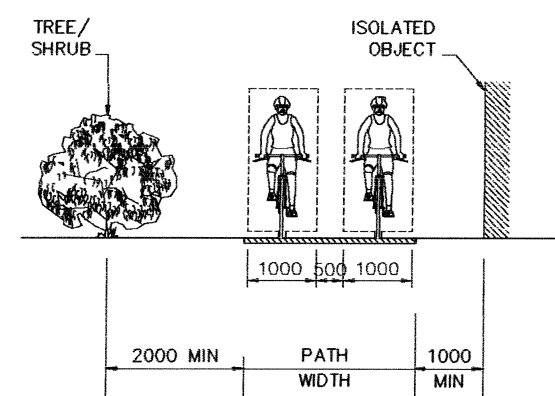
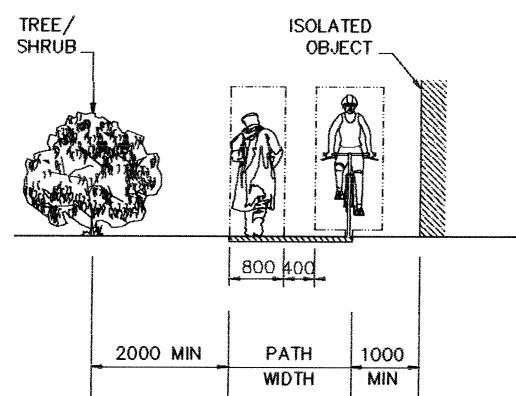
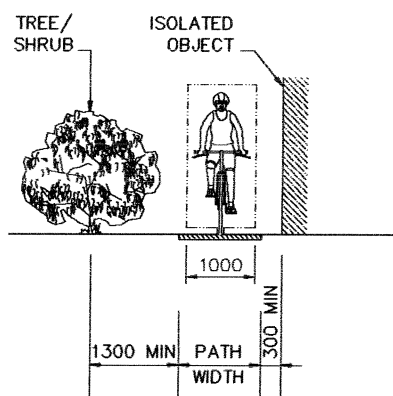
1800 WIDE PATH
PATHWAYS

2500 WIDE PATH

1. ISOLATED OBJECTS INCLUDE STREETLIGHT COLUMNS, POWER POLES, TREES ETC. FOR CONTINUING OBJECTS (FENCES, WALLS, BARRIERS ETC) INCREASE THE MINIMUM CLEARANCE BY 500mm
2. FOR PEDESTRIAN & BICYCLE OPERATING SPACE DETAILS REFER TO AUSTRROADS GUIDE TO TRAFFIC ENGINEERING PRACTICE PART 14 - BICYCLES
3. 2500 WIDE PATHS SHALL NOT BE LOCATED WITHIN STREETS WITH DIRECT BLOCK ACCESS. (SAFETY REASONS MEASURE)

TABLE 2

STREET & ROAD TYPE	W1
ACCESS	1500 MIN
COLLECTOR	1500 MIN
TRAFFIC ROUTES	REFER AUSTRROADS PART 14



1200 WIDE PATH

1800 WIDE PATH
PATHWAYS

2500 WIDE PATH

ACT GOVERNMENT

**DESIGN STANDARD
URBAN INFRASTRUCTURE**

Authorised Signature: *Chris Kon*

Drawn Chris Kon	Date Aug 2002
Project Engineer Allan Toohy	Date Aug 2002

**FOOTPATHS
SERVICE MODULES**

Scale 1:100	Date Aug 2002
AutoCAD File	
Drawing No. DS4-04	Sheet No. 4