



ACT
Government

Transport Canberra
and City Services

ACT Government

ENGINEERING ADVISORY NOTE

EAN 16A

Title: Municipal Infrastructure Standards and Technical Specifications Implementation

Background

NOTE: This advisory note supersedes EAN 16, which was issued on 11 March 2020. The main difference is the update of the list in Attachment A, which now includes the latest MITS documents including standard drawings.

In 2011 the then Territory and Municipal Services (TAMS) Directorate commenced a rolling review and update of the existing Urban Infrastructure Design Standards and Specifications. These documents relate to Directorate's responsibility as both a Roads Authority (Roads ACT), whose responsibility is to manage national and State (Territorial) arterial roads, as well as the custodian of municipal infrastructure and open spaces.

A complete and comprehensive review of the documents had not been undertaken for over a decade, resulting in the Design Standards and Specifications not being reflective of new design and construction practices.

The review was undertaken to:

- reflect improved design, construction practice and technology changes
- ensure compliance with new legislative requirements
- be consistent with national and regional better practice

The first round of new Design Standards and Specifications relative to Trunk Works were released on the Transport Canberra and City Services (TCCS) website in 2012 as part of a trial rollout.

A complete review of the standards relative to municipal infrastructure were then commenced. This review and update has now been completed and has resulted in a comprehensive new suite of Design Standards, Standard Drawings and Technical Specifications. The new standards and specifications are now called the Municipal Infrastructure Standards (MIS) and Municipal Infrastructure Technical Specifications (MITS).

Here within this advisory note, *The Documents* is in reference to the collective Design Standards, Standard Drawings and Technical Specifications.

The Documents will supersede the existing Design Standards for Urban Infrastructure (DSUI), Standard Specification for Urban Infrastructure (SSUI) and the Standard Drawings for Urban Infrastructure. The DSUI and SSUI will still be hosted on the TCCS website for legacy reasons, due to existing contracts and/or works which reference these documents.

Advice

The Documents have completed their development and are now ready for implementation on all new works which result in assets being handed back to the ACT Government.

It should be noted that there are still some documents in development, so this advisory note will only be applicable to the documents listed within this advisory note. For works associated with the non-completed documents, designers and contractors should continue to utilise the Legacy Documents on the [City Services website](#) for relevant assets.

The formal commencement date of the implementation of the Documents is **Wednesday 11 March 2020**. The following additional controls will be applied to Development and Capital Works:

Stage of works	Documents to use
Planning works just commenced (within two months before the date of commencement)	New Documents
Design works (including pre- design work) within two months before the date of commencement or not yet submitted for approval to TCCS	New Documents
Detailed design commenced or already lodged	Legacy Documents
Construction works if design was based on new Standards	New Documents

The above additional controls are subject to additional discussion and agreement with the relevant areas within development and project areas of the ACT Government on a project-by-project basis. It is expected that designers and contractors should refer to their contract documentation, in addition are advised to clarify and confirm with their relevant and applicable ACT Government development assessor/project officer.

If there are any further questions or enquiries please direct them to the following email address TCCS.RoadStandards@act.gov.au.

Attachments

- **Attachment A** – The Documents

Administrative Arrangement

This Engineering Advisory Note will take effect from the latest date of endorsement by the Authorised person/s.

Prepared by:

Steven Hare

Steven Hare

A/Deputy Senior Director, Infrastructure
Planning
Transport Canberra City Services
Date: 8/9/21

Checked by:

OEK

Owen Earl-King

Senior Director, Infrastructure Planning
Transport Canberra City Services
Date: 9/9/21

Endorsed by:

Shelly Fraser

Shelly Fraser

A/g Executive Branch Manager, Roads ACT
Transport Canberra City Services
Date: 9th September 2021

Authorised by:

Ken Marshall

Ken Marshall

A/g Executive Group Manager, City
Operations
Transport Canberra City Services
Date:

Stephen Alegria

Stephen Alegria

Executive Branch Manager, City
Presentation
Transport Canberra City Services
Date: 9 September 2021

Geoffrey Davidson

Geoffrey Davidson

Executive Branch Manager
Development Coordination Branch
Transport Canberra City Services
Date: 13 September 2021

Jeremy Smith
Digitally signed
by Jeremy Smith
Date: 2021.09.20
10:15:13 +10'00'

Executive Branch Manager, Infrastructure
Delivery
Transport Canberra City Services
Date:

Attachment A – The Documents

Municipal Infrastructure Standards (MIS)
Preface
Planning for Active Travel in the ACT
Guideline to Landscape Municipal Infrastructure Standards
Version Tracking Sheet
MIS 01 Street Planning and Design
MIS 02 Earthworks and Site Grading
MIS 03 Pavement Design
MIS 04 Subsurface Drainage
MIS 05 Active Travel Facilities Design
MIS 06 Verges
MIS 07 Driveways
MIS 08 Stormwater
MIS 09 Bridges and related structures
MIS 10 Fences, guardrails and barriers
MIS 11 Off Street Parking
MIS 12 Guide Signs
MIS 13 Traffic Control Devices
MIS 15 Urban Edges Management Zone
MIS 16 Urban Open Space
MIS 17 Shopping Centres and Commercial Areas
MIS 18 Irrigation
MIS 19a Sportsground Pavilions
MIS 20 Street and Park Furniture
MIS 21 Recreation Facilities
MIS 22 Signage for Urban Parks and Open Spaces
MIS 23 Public Toilets
MIS 24 Soft Landscape Design
MIS 25 Plant Species for Urban Landscape Projects

Municipal Infrastructure Technical Specifications (MITS)
Preface
Version Tracking Sheet
MITS 00 Preliminaries
MITS 00A General Requirements
MITS 00B Quality Construction
MITS 00C Control of Erosion and Sedimentation
MITS 01 Roadworks
MITS 01 Traffic Management
MITS 02 Earthworks
MITS 02A Clearing and Grubbing
MITS 02B Bulk Earthworks
MITS 02C Stabilisation
MITS 03 Underground Services
MITS 03A Trenching for Underground Services
MITS 03B Pipe Drainage
MITS 03C Precast Box Culverts
MITS 03D Drainage Structures
MITS 03E Water Supply Reticulation
MITS 03F Sewerage Systems Reticulation
MITS 03G Service Conduits
MITS 03H Road Openings and Restorations
MITS 03I Subsurface Drainage
MITS 03J Subsoil and Foundation drains
MITS 03K Drainage Mats
MITS 04 Flexible Pavement Construction
MITS 04 Flexible Pavements
MITS 05 Sportsgrounds
MITS 05A Sportsground Pavilions
MITS 06 Concrete Kerbs, Footpaths and Minor Works
MITS 06A Concrete Kerbs and Open Drains
MITS 06B Concrete Paths, Driveways and Medians

Municipal Infrastructure Technical Specifications (MITS)**MITS 07 Segmental Paving**

MITS 07 Segmental Paving

MITS 08 Incidental Works

MITS 08A Fences and Barriers

MITS 08B Play Equipment and Organic Surfacing

MITS 08C Rubber Impact Attenuating Surfacing

MITS 08D Furniture and Fixtures

MITS 09 Landscape

MITS 09A Topsoil

MITS 09B Grassing

MITS 09C Planting

MITS 09D Irrigation

MITS 09E Consolidation

MITS 10 Concrete Works

MITS 10 Concrete Works

MITS 11 Pavement Marking

MITS 11 Pavement Marking

MITS 13 Traffic Signals

MITS 13 Traffic Signals

MITS 14 Road Signs

MITS 14 Road Signs

MITS 15 Road Side Furniture

MITS 15A Guide Posts

MITS 15B Non-Rigid Safety Barrier Systems

MITS 15C Rigid Road Safety Barrier Systems

MITS 16 Stormwater

MITS 16A Bioretention Systems

MITS 16B Ponds

MITS 16C Wetlands

MITS 16D Gross Pollutant Traps

Municipal Design Standard Drawings (MDSD)

Version Tracking Sheet

MDSD General

ACTSD-0000 General Notes

MDSD Kerb and Subsoil Drainage

ACTSD-0101 Kerb and Gutter Standard Details Sheet 1

ACTSD-0102 Kerb and Gutter Standard Details Sheet 2

ACTSD-0103 Vehicle Crossing Standard Details

ACTSD-0301 Subsoil Drainage Standard Details Sheet 1

ACTSD-0302 Subsoil Drainage Standard Details Sheet 2

MDDS Walking and Cycling Facilities

ACTSD-0501 Paths Standard Details

ACTSD-0502 Vehicle Restriction to Trunk and Intermediate Paths Main and Local Community Routes Inner Urban / Suburban

ACTSD-0503 Vehicle Restriction to Minor Paths Inner Urban / Suburban

ACTSD-0505 Bicycle-Only Path Details Two-Way Paths

ACTSD-0506 Bicycle-Only Path Details: One-Way Pairs With Bent-In and Continuous Verge Side Street Crossings

ACTSD-0507 Bicycle-Only Path Details: One-Way Pairs With Bent-Out Side Street Crossings

ACTSD-0508 Bicycle-Only Path Details: Connection Between Two-Way and One-Way Bicycle-Only Paths

ACTSD-0509 Bicycle-Only Path Details: Connection Arrangements to Paths (Shared)

ACTSD-0510 Roadway to Path Transition Details for Cyclists

ACTSD-0511 Mixed Traffic Linemarking main and Local Community Routes

ACTSD-0512 Active Travel Streets & Bicycle Boulevards Design Guidance

ACTSD-0513 Streets Without Paths Retrofit – T-Junction Connection – Main & Local CRs

ACTSD-0514 Streets Without Paths Retrofit – Offset Junction Connection – Main & Local CRs

ACTSD-0515 Suburban Kerb Ramps

ACTSD-0516 Inner Urban Kerb Ramps

ACTSD-0517 Kerb Ramps In Islands and Kerb Slots Details

Municipal Design Standard Drawings (MDSD)

ACTSD-0520 Path Priority Crossings Main Community Routes At Intersections Suburban Land Use In Retrofit
ACTSD-0521 Mid Block path priority crossing Main Community Routes
ACTSD-0522 Zebra crossings - visibility splay and other details
ACTSD-0523 Risk minimisation treatments for zebra and path priority crossing approaches
ACTSD-0525 Cycle rest rail details
ACTSD-0526 Mid-block treatments - Driveway crossings of bicycle only path
ACTSD-0527 Mid-block treatments - Driveway crossing of paths (shared) on main or location community routes
ACTSD-0528 Side street crossing treatments (on platforms) for paths (shared) on main and local community routes
ACTSD-0529 Side street crossing treatments (retrofit only) for paths (shared) on main and local community routes
ACTSD-0530 Bus Stop Standard Details - connecting path behind kerb
ACTSD-0531 Bus Stop Standard Details - access path away from the kerb and extended pad details
ACTSD-0532 Bus Stop Standard Details - access path away from kerb with splay connecting path
ACTSD-0540 On-road cycling - bicycle lanes and marked shoulders - linemarking and signage details
ACTSD-0541 On-road cycling - major collector - road pavement marking in retrofit
ACTSD-0545 On-road cycling coloured pavement treatment - Slip lanes and adjacent parallel parking
ACTSD-0546 On-road cycling coloured pavement treatment - Exit ramps
ACTSD-0551 Single lane roundabout treatment - 50km/hr or less
ACTSD-0552 Single lane roundabout treatment - >50km/hr
ACTSD-0553 Two lane roundabout treatment - 60km/hr - Main on-road cycling routes
ACTSD-0554 Two lane roundabout treatment - >=70km/hr - Main on-road cycling routes
ACTSD-0560 Bicycle-only paths - signalised intersections - two-way path details
ACTSD-0561 Bicycle-only paths at signalised intersections - one-way paired paths
ACTSD-0562 Bicycle-only paths in the verge at signalised intersections two-way path details

Municipal Design Standard Drawings (MDSD)

ACTSD-0570 Principal and main community routes - directional signs - standard details
ACTSD-0571 Principal community routes and on-road cycling route - connection signs
ACTSD-0572 Local community routes - directional signs - standard details
ACTSD-0573 Local community routes - service plates
ACTSD-0574 Local community route - destination signage - design and layout guidance
ACTSD-0575 Principal community routes – Route branding and route label details
ACTSD-0576 Principal and main community routes destination signs design and layout guidance
ACTSD-0577 Principal and main community routes destination signs examples
ACTSD-0578 Principal cycle training route markers and warning signs layout details
ACTSD-0580 Behavioural signs - share the path
ACTSD-0590 Main Community Routes - Directional Signage installation at key decision points and MORCRs
ACTSD-0591 Main and Local Community Routes - Directional Signage installation at key decision points and underpasses
ACTSD-0592 Main and Local Community Routes - Directional Signage on inner-urban loops
ACTSD-0593 Main and Local Community Routes - Directional Signage at local destinations and for reassurance
ACTSD-0594 Main and Local Community Routes - Directional Signage at secondary and local destinations
ACTSD-0595 Local Community Routes - Directional Signage examples in Suburban areas
ACTSD-0601 Equestrian trail facilities - General Trail Design
ACTSD-0602 Equestrian facilities - Cavaletti including holding pen detail
ACTSD-0605 Equestrian facilities - At-grade road and path crossings uncontrolled
ACTSD-0606 Equestrian crossings at-grade - signalised
ACTSD-0610 Equestrian trail - Underpass layouts for estate development
ACTSD-0611 Equestrian facilities - Grade separated crossings - retrofit only
ACTSD-0615 Equestrian trails floodway crossing

Municipal Design Standard Drawings (MDSD)

MDSD Driveways

ACTSD-0701 Domestic driveways

ACTSD-0702 Heavy duty driveways

ACTSD-0703 Domestic driveway details

MDSD Stormwater

ACTSD-0801 Typical Pipe Junctions

ACTSD-0802 Typical Service Connections

ACTSD-0803 RCP splayed pipe details

ACTSD-0804 Stormwater Tie Kerb Connections

ACTSD-0820 Type R&QS Sump inlets

ACTSD-0821 Type R&QS Sumps

ACTSD-0822 KI Sump QLD Grate

ACTSD-0823 KI Sump NSW Grate

ACTSD-0824 KIS Sumps lintel details

ACTSD-0825 Plantation and grated sumps in open space

ACTSD-0826 Multiple R Sumps

ACTSD-0827 1050 ND Manholes

ACTSD-0828 Special Chambered Manholes

ACTSD-0829 Surcharge structures

ACTSD-0830 Structures Miscellaneous details

ACTSD-0831 Pipe Connections

ACTSD-0840 Bioretention outlet pit

ACTSD-0841 Pond/wetland twin chamber outlet pit (EDD control and drawdown)

ACTSD-0842 Bioretention drainage layer details

ACTSD-0843 Sediment forebay typical high flow bypass weir

ACTSD-0844 Inlet scour protection details

ACTSD-0845 Typical flow splitters

ACTSD-0846 Typical pond/wetland edge details

ACTSD-0851 Pipe Culverts 300-675 Dia Endwalls

ACTSD-0852 Pipe Culverts 750-1200 Dia Headwalls

ACTSD-0853 Endwalls for Precast Box Culverts

ACTSD-0854 Headwalls for Precast Box Culverts

Municipal Design Standard Drawings (MDSD)

ACTSD-0855 Stormwater advisory signs - Sheet 1 of 2

ACTSD-0856 Stormwater advisory signs - Sheet 2

MDSD Bridges

ACTSD-0905 Bridge identification plate

MDSD Landscape

ACTSD-2508 Bin enclosure standard detail

ACTSD-2509 Signage Standard Detail - Sheet 1

ACTSD-2510 Signage Standard Detail - Sheet 2

ACTSD-2511 Signage Standard Detail - Sheet 3

ACTSD-2512 Signage Standard Detail - Sheet 4

ACTSD-2513 Signage Standard Detail - Sheet 5

ACTSD-2514 Signage Standard Detail - Sheet 6

ACTSD-2515 Signage Standard Detail - Sheet 7

ACTSD-2516 Signage Standard Detail - Sheet 8

ACTSD-2517 Signage Standard Detail - Sheet 9

ACTSD-2518 Signage Standard Detail - Sheet 10

ACTSD-2519 Signage Standard Detail Key

MDSD Pavement Markings

ACTSD-3501 Pavement Markings - Linemarking types

ACTSD-3502 Pavement Markings - Chevrons at islands and medians

ACTSD-3503 Pavement Markings - Traffic Islands

ACTSD-3504 Pavement Markings - Refuge island details

ACTSD-3505 Pavement Markings - T-intersections

ACTSD-3506 Pavement Markings - Centre barrier lines

ACTSD-3510 Pavement Markings - Bus Stop details

ACTSD-3511 Pavement Markings - Parking

ACTSD-3519 'Look' Pavement Message

ACTSD-3520 Pavement messages - Traffic lane messages

ACTSD-3521 Pavement messages - Form one/two lane details

ACTSD-3522 Active Travel - Path pavement markings

ACTSD-3523 Active Travel - Roadway pavement markings

ACTSD-3524 Active Travel - Composite pavement markings

Municipal Design Standard Drawings (MDSD)

MDSD Crossings and raised platforms

ACTSD-3530 Children's and pedestrian (zebra) crossing details

ACTSD-3531 Concrete raised pavement platform details

ACTSD-3532 Raised pavement platform layout details

ACTSD-3533 Asphaltic Concrete road hump details

ACTSD-3534 Path Priority Crossing Linemarking Layout Details

MSDS Typical TCD layouts

ACTSD-3540 TCD's at traffic lights

ACTSD-3541 TCD's for arterial road roundabouts

ACTSD-3542 TCD's for local street roundabouts

MSDS Signposting

ACTSD-3601 Vertical and lateral sign posting

ACTSD-3602 Endorsed sign systems

ACTSD-3610 School zone sign details

ACTSD-3611 Refuge island sign details

ACTSD-3620 Finger board sign details

ACTSD-3630 Signpost and footing details

MDSD Parking Signs

ACTSD-3701 ACT Standard Parking Signs

ACTSD-3702 ACT Standard Parking Signs

ACTSD-3703 ACT Standard Parking Signs

ACTSD-3704 ACT Standard Parking Signs

ACTSD-3705 ACT Standard Parking Signs

ACTSD-3706 ACT Standard Parking Signs

ACTSD-3707 ACT Standard Parking Signs

ACTSD-3708 ACT Standard Parking Signs

ACTSD-3709 ACT Standard Parking Signs

ACTSD-3710 ACT Standard Parking Signs

ACTSD-3711 ACT Standard Parking Signs

ACTSD-3712 ACT Standard Parking Signs

ACTSD-3713 ACT Standard Parking Signs

ACTSD-3714 ACT Standard Parking Signs

Municipal Design Standard Drawings (MDSD)

ACTSD-3720 ACT Pay Parking Standard Drawings

ACTSD-3721 ACT Pay Parking Standard Drawings

ACTSD-3722 ACT Pay Parking Standard Drawings

ACTSD-3723 ACT Pay Parking Standard Drawings

ACTSD-3724 ACT Pay Parking Standard Drawings

ACTSD-3725 ACT Pay Parking Standard Drawings

ACTSD-3726 ACT Pay Parking Standard Drawings

ACTSD-3727 ACT Pay Parking Standard Drawings

ACTSD-3728 ACT Pay Parking Standard Drawings

ACTSD-3729 ACT Pay Parking Standard Drawings

ACTSD-3730 ACT Pay Parking Standard Drawings

ACTSD-3731 ACT Pay Parking Standard Drawings

ACTSD-3732 ACT Pay Parking Standard Drawings

ACTSD-3733 ACT Pay Parking Standard Drawings

ACTSD-3734 ACT Pay Parking Standard Drawings

ACTSD-3735 ACT Pay Parking Standard Drawings

ACTSD-3750 Park and Ride Directional Signage

MDSD Traffic Signals

ACTSD-3901 Traffic Signals - Cable and loop layout

ACTSD-3902 Traffic Signals - Hardware layout

ACTSD-3911 Traffic Signals - Installation of loop detectors

ACTSD-3912 Traffic Signals - Standard post arrangement

ACTSD-3913 Traffic Signals - Controller housing footing

ACTSD-3914 Traffic Signals - Junction box arrangement

ACTSD-3915 Traffic Signals - Mast arm and joint use post details

ACTSD-3916 Traffic Signals - Out-of-service testing lantern cover