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Appendix A

Borehole Logs BH1 to BH7

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Binder 3.50

Borehole Log

Borehole No.	**BH1**
Sheet	1 of 1
Job No.	C15916

CLIENT: OCULUS

PROJECT: Dickson Shops & Streetscape Upgrade
Dickson, ACT

Location : See Report

Collar Level : Not Known
Angle From Vertical : 0°
Bearing : N.A.

Equipment Type : Push Tube
Hole Diameter : 50mm

Sample No.	Water	Method/ Casing	RL (m)	Depth (m)	Graphic Log	U.S.C.S.	Material Description, Structure Soil Type: Plasticity or Particle Characteristics, Colour, Secondary and Minor Components, Moisture, Structure	Moisture Condition	Consistency or Relative Density	Field Test Results	Geological Profile
	None Encountered		0.05			GP	FILL: BRICK LAYER: Approx 50mm thick layer of brick, red	D			BRICK PAVEMENT
							Sandy GRAVEL: fine gravel, fine to coarse sand, grey	D	MD	DCP 5	FILL
			0.2			CL-CI	Sandy CLAY: low to medium plasticity clay, fine to coarse sand, grey, brown, mottled grey & brown, trace of ferruginous nodules	w<PL	St-VSt	8 22 14 18 15 18	ALLUVIAL SOIL
				1.0		CL-CI	Sandy CLAY: low to medium plasticity clay, fine to coarse sand, grey, brown, mottled grey & brown	w<PL	VSt		
			1.9				BOREHOLE TERMINATED AT 1.9m Target Stratum				
			2.0								

Dynamic Cone Penetrometer Test. Results in Blows per 100mm

Logged By : AP Date : 21/1/25 | Checked By : JM Date : 22/1/25

BOREHOLE/EXCAVATION LOG GINT FILE - DICKSON SHOPS & STREETSCAPE UPGRADE.GPJ EXC.GDT 22/1/25

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Binder 3.51

Borehole Log

Borehole No.	**BH2**
Sheet	1 of 1
Job No.	C15916

CLIENT: OCULUS

PROJECT: Dickson Shops & Streetscape Upgrade
Dickson, ACT

Location : See Report

Collar Level : Not Known
Angle From Vertical : 0°
Bearing : N.A.

Equipment Type : Push Tube
Hole Diameter : 50mm

Sample No.	Water	Method/ Casing	RL (m)	Depth (m)	Graphic Log	U.S.C.S.	Material Description, Structure Soil Type: Plasticity or Particle Characteristics, Colour, Secondary and Minor Components, Moisture, Structure	Moisture Condition	Consistency or Relative Density	Field Test Results	Geological Profile
	None Encountered		0.05			GP	FILL: BRICK LAYER: Approx 50mm thick layer of brick, red	D			BRICK PAVEMENT
							Sandy GRAVEL: fine gravel, fine to coarse sand, grey	D	MD		FILL
			0.2			CL-ML	Silty Sandy CLAY: low to medium plasticity clay, fine to coarse sand, grey, brown	w<PL	F		
			0.3				BOREHOLE TERMINATED AT 0.3m Refusal				
				1.0							
			2.0								

Logged By : AP Date : 21/1/25 | Checked By : JM Date : 22/1/25

BOREHOLE/EXCAVATION LOG GINT FILE - DICKSON SHOPS & STREETSCAPE UPGRADE.GPJ EXC.GDT 22/1/25

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Binder 3.52

Borehole Log

Borehole No.	**BH3**
Sheet	1 of 1
Job No.	C15916

CLIENT: OCULUS

PROJECT: Dickson Shops & Streetscape Upgrade
Dickson, ACT

Location : See Report

Collar Level : Not Known
Angle From Vertical : 0°
Bearing : N.A.

Equipment Type : Push Tube
Hole Diameter : 50mm

Sample No.	Water	Method/ Casing	RL (m)	Depth (m)	Graphic Log	U.S.C.S.	Material Description, Structure Soil Type: Plasticity or Particle Characteristics, Colour, Secondary and Minor Components, Moisture, Structure	Moisture Condition	Consistency or Relative Density	Field Test Results	Geological Profile
	None Encountered		0.05			GP	FILL: BRICK LAYER: Approx 50mm thick layer of brick, red	D			BRICK PAVEMENT
							Sandy GRAVEL: fine gravel, fine to coarse sand, grey	D	MD		FILL
			0.15 0.18			SM	PLAIN CONCRETE LAYER: Approx 25mm thick concrete slab	D			CONCRETE SLAB
							Silty SAND: fine to coarse sand, low plasticity silt, grey, trace of ferruginous nodules	D-M	MD		SLOPEWASH
			0.4			CL-Cl	Sandy CLAY: low to medium plasticity clay, fine to coarse sand, yellow brown, trace of ferruginous nodules	*w*<PL	St-VSt		ALLUVIAL SOIL
			0.9	1.0		CL-Cl	Sandy CLAY: low to medium plasticity clay, fine to coarse sand, yellow brown	*w*<PL	VSt		
			1.6				BOREHOLE TERMINATED AT 1.6m Refusal				
			2.0								

Logged By : AP Date : 21/1/25 | Checked By : JM Date : 22/1/25

BOREHOLE/EXCAVATION LOG GINT FILE - DICKSON SHOPS & STREETSCAPE UPGRADE.GPJ EXC.GDT 22/1/25

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Binder 3.53

Borehole Log

Borehole No.	**BH4**
Sheet	1 of 1
Job No.	C15916

CLIENT: OCULUS

PROJECT: Dickson Shops & Streetscape Upgrade
Dickson, ACT

Location : See Report

Collar Level : Not Known
Angle From Vertical : 0°
Bearing : N.A.

Equipment Type : Push Tube
Hole Diameter : 50mm

Sample No.	Water	Method/ Casing	RL (m)	Depth (m)	Graphic Log	U.S.C.S.	Material Description, Structure Soil Type: Plasticity or Particle Characteristics, Colour, Secondary and Minor Components, Moisture, Structure	Moisture Condition	Consistency or Relative Density	Field Test Results	Geological Profile
	None Encountered		0.05				FILL: BRICK LAYER: Approx 50mm thick layer of brick, red	D			BRICK PAVEMENT
						GP	Sandy GRAVEL: fine to coarse gravel, fine to coarse sand, grey, dark grey	D	MD	DCP	FILL
			0.15			CL-CI	Sandy CLAY: low to medium plasticity clay, fine to coarse sand, yellow brown, trace of ferruginous nodules	w<PL	St-VSt	17 12 11 8 10	ALLUVIAL SOIL
				1.0		SC-SM	Clayey Silty SAND: fine to coarse sand, low plasticity silt, low to medium plasticity clay, grey	D-M	D		
			1.5				BOREHOLE TERMINATED AT 1.5m Refusal				
			2.0								

Dynamic Cone Penetrometer Test. Results in Blows per 100mm

Logged By : AP Date : 21/1/25 | Checked By : JM Date : 22/1/25

BOREHOLE/EXCAVATION LOG GINT FILE - DICKSON SHOPS & STREETSCAPE UPGRADE.GPJ EXC.GDT 22/1/25

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Binder 3.54

Borehole Log

Borehole No.	**BH5**
Sheet	1 of 1
Job No.	C15916

CLIENT: OCULUS

PROJECT: Dickson Shops & Streetscape Upgrade
Dickson, ACT

Location : See Report

Collar Level : Not Known
Angle From Vertical : 0°
Bearing : N.A.

Equipment Type : Push Tube
Hole Diameter : 50mm

Sample No.	Water	Method/ Casing	RL (m)	Depth (m)	Graphic Log	U.S.C.S.	Material Description, Structure Soil Type: Plasticity or Particle Characteristics, Colour, Secondary and Minor Components, Moisture, Structure	Moisture Condition	Consistency or Relative Density	Field Test Results	Geological Profile
	None Encountered		0.05				FILL: BRICK LAYER: Approx 50mm thick layer of brick, red	D			BRICK PAVEMENT
						GW	Sandy GRAVEL (DGB20): fine to coarse gravel, fine to coarse sand, dark grey, black	D	MD-D	DCP 11	FILL
			0.2			CL-CI	Sandy CLAY: low to medium plasticity clay, fine to coarse sand, grey, brown, mottled grey & brown, trace of ferruginous nodules	w<PL	St	10	ALLUVIAL SOIL
										10	
			0.45			CL-CI	Sandy CLAY: low to medium plasticity clay, fine to coarse sand, mottled red and yellow brown, trace of ferruginous nodules	w<PL	St-VSt	12	
										13	
										14	
			0.85			SC-SM	Clayey Silty SAND: fine to coarse sand, low plasticity silt, low to medium plasticity clay, grey	D-M	D		
				1.0							
			1.5				BOREHOLE TERMINATED AT 1.5m Refusal				
			2.0								

Dynamic Cone Penetrometer Test. Results in Blows per 100mm

Logged By : AP Date : 21/1/25 | Checked By : JM Date : 22/1/25

BOREHOLE/EXCAVATION LOG GINT FILE - DICKSON SHOPS & STREETSCAPE UPGRADE.GPJ EXC.GDT 22/1/25

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Borehole Log

Borehole No.	**BH6**
Sheet	1 of 1
Job No.	C15916

CLIENT: OCULUS

PROJECT: Dickson Shops & Streetscape Upgrade
Dickson, ACT

Location : See Report

Collar Level : Not Known
Angle From Vertical : 0°
Bearing : N.A.

Equipment Type : Push Tube
Hole Diameter : 50mm

Sample No.	Water	Method/ Casing	RL (m)	Depth (m)	Graphic Log	U.S.C.S.	Material Description, Structure Soil Type: Plasticity or Particle Characteristics, Colour, Secondary and Minor Components, Moisture, Structure	Moisture Condition	Consistency or Relative Density	Field Test Results	Geological Profile
	None Encountered		0.05			GP	FILL: BRICK LAYER: Approx 50mm thick layer of brick, red	D			BRICK PAVEMENT
							Sandy GRAVEL: fine gravel, fine to coarse sand, grey	D	MD		FILL
			0.25								
			0.3				PLAIN CONCRETE LAYER: Approx 40mm thick concrete slab	D			CONCRETE SLAB
							BOREHOLE TERMINATED AT 0.3m Target Stratum				
				1.0							
			2.0								

Logged By : AP Date : 21/1/25 | Checked By : JM Date : 22/1/25

BOREHOLE/EXCAVATION LOG GINT FILE - DICKSON SHOPS & STREETSCAPE UPGRADE.GPJ EXC.GDT 22/1/25

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Binder 3.56

Borehole Log

Borehole No.	**BH7**
Sheet	1 of 1
Job No.	C15916

CLIENT: OCULUS

PROJECT: Dickson Shops & Streetscape Upgrade
Dickson, ACT

Location : See Report

Collar Level : Not Known
Angle From Vertical : 0°
Bearing : N.A.

Equipment Type : Push Tube
Hole Diameter : 50mm

Sample No.	Water	Method/ Casing	RL (m)	Depth (m)	Graphic Log	U.S.C.S.	Material Description, Structure Soil Type: Plasticity or Particle Characteristics, Colour, Secondary and Minor Components, Moisture, Structure	Moisture Condition	Consistency or Relative Density	Field Test Results	Geological Profile
	None Encountered		0.05			GP	FILL: BRICK LAYER: Approx 50mm thick layer of brick, red	D			BRICK PAVEMENT
							Sandy GRAVEL: fine gravel, fine to coarse sand, grey	D	MD		FILL
			0.25								
			0.3				PLAIN CONCRETE LAYER: Approx 40mm thick concrete slab	D			CONCRETE SLAB
							BOREHOLE TERMINATED AT 0.3m Target Stratum				
				1.0							
			2.0								

Logged By : AP Date : 21/1/25 | Checked By : JM Date : 22/1/25

BOREHOLE/EXCAVATION LOG GINT FILE - DICKSON SHOPS & STREETSCAPE UPGRADE.GPJ EXC.GDT 22/1/25

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Appendix B

Definitions of Geotechnical Engineering Terms

DESCRIPTION AND CLASSIFICATION OF SOIL

The methods of description and classification of soils used in this report are based on the Australian Standard 1726 – 2017, Geotechnical site investigations. In general, soils are described along the following characteristics: soil name, plasticity or behavioural or particle characteristics of the primary soil component, colour, secondary soil components' plasticity or behavioural or particle characteristics, condition, structure, inclusions, strength or density and origin.

GENERAL DEFINITION - SOIL

SOIL In engineering usage, soil is a natural aggregate of mineral grains which can be separated by such gentle mechanical means as agitation in water, can be remoulded and can be classified according to the Unified Soil Classification System.

SOIL ORIGIN

Soil origins fall into the following categories:

Residual soil: Soils which have been formed in-situ by the chemical weathering of parent rock. These soils no longer retain any visible structure or fabric of the parent soil or rock material.

Extremely weathered material: Formed directly from in situ weathering of geological formations. Although this material of soil strength it retains the structure and/or fabric of the parent rock material.

Alluvial soil: Deposited by streams and rivers.

Estuarine soil: Deposited in coastal estuaries, and including sediments carried by inflowing rivers and streams, and tidal currents.

Marine soil: Deposited in a marine environment.

Lacustrine soil: Deposited in freshwater lakes.

Aeolian soil: Carried and deposited by wind.

Colluvial soil: Soil and rock debris transported down slopes by gravity, with or without the assistance of flowing water.

Topsoil: Mantle of surface and/or near-surface soil often but not always defined by high levels of organic material, both dead and living.

Fill: Any material which has been placed by anthropogenic processes.

SOIL CLASSIFICATION

PARTICLE SIZE DEFINITIONS

Soil components are described according to the predominating particle size, qualified by the grading of other particles present (e.g. sandy clay) on the following basis:

Classification	Components	Subdivision	Particle Size (mm)
Oversize	Boulders		>200
	Cobbles		63 to 200
Coarse grained soil	Gravel	Coarse	19 to 63
		Medium	6.7 to 19
		Fine	2.36 to 6.7
	Sand	Coarse	0.6 to 2.36
		Medium	0.21 to 0.6
		Fine	0.075 to 0.21
Fine grained soil	Silt		0.002 to 0.075
	Clay		<0.002

MOISTURE CONDITION

Coarse Grained Soil		Fine Grained Soil	
Dry (D)	Non-cohesive and free-running.	Moist, dry of plastic limit ($w<W_P$)	Hard and friable or powdery.
Moist (M)	Soil feels cool, darkened in colour. Soil tends to stick together.	Moist, near plastic limit ($w\approx W_P$)	Soils can be moulded at a moisture content approximately equal to the plastic limit.
Wet (W)	As for moist, with free water forming when handled.	Moist, wet of plastic limit ($w>W_P$)	Soils usually weakened and free water forms on hands when handling.
		Wet, near liquid limit ($w\approx W_L$)	Near liquid limit.
		Wet, wet of liquid limit ($w>W_L$)	Wet of liquid limit.

CONSISTENCY/RELATIVE DENSITY

Cohesive soils are classified on the ease by which the soil can be remoulded and can be either assessed in the field by tactile means, by laboratory testing or through mechanical determination methods. Non-cohesive soils are classified on the basis of relative density, generally from the results of in-situ penetration tests and terms for both are defined as below:

Cohesive Soils			Non-cohesive Soils	
Consistency	**Indicative Undrained Shear Strength s_u(kPa)**	**Field Guide to Consistency**	**Term**	**Relative Density (%)**
Very soft (VS)	≤12	Exudes between the fingers when squeezed in hand.	Very Loose (VL)	≤15
Soft (S)	>12 - ≤25	Can be moulded by light finger pressure.	Loose (L)	>15 - ≤35
Firm (F)	>25 - ≤50	Can be moulded by strong finger pressure.	Medium Dense (MD)	>35 - ≤65
Stiff (St)	>50 - ≤100	Cannot be moulded by fingers.	Dense (D)	>65 - ≤85
Very Stiff (VSt)	>100 - ≤200	Can be indented by thumb nail.	Very Dense (VD)	>85
Hard (H)	>200	Can be indented with difficulty by thumb nail.		
Friable (Fr)	-	Can be easily crumbled or broken into small pieces by hand.		

MINOR COMPONENTS

Descriptive Term	Assessment Guide	Proportion of minor component in:
With	Easily detectable by visual or tactile means and little difference between general properties and properties of primary component.	Coarse grained soils: Fines – 5 to 12% Accessory coarse component – 15 to 30% Fine grained soils: Coarse component - 15 to 30%
Trace	Detectable by visual or tactile means but little or no difference between general properties and properties of primary component.	Coarse grained soils: Fines – <5% Accessory coarse component – <15% Fine grained soils: Coarse component - <15%

CEMENTATION

Where cementation is present in soils, they can be either weakly cemented where they are easily disaggregated by hand in air or water or moderately cemented where effort is required to disaggregate the soil by hand in air or water.

SAMPLING

Sampling is carried out during drilling to allow engineering examination (and laboratory testing where required) of soil or rock.

Disturbed samples taken during drilling provide information on colour, type, inclusions and depending upon the degree of disturbance, some information on strength and structure.

Undisturbed samples are generally taken by one of two methods:

1. Driving or pushing a thin walled sample tube into the soil and withdrawing with a sample of soil in a relatively undisturbed state.
2. Core drilling using a retractable inner tube (R.I.T.) core barrel.

Such samples yield information on structure and strength in additions to that obtained from disturbed samples and are necessary for laboratory determination of shear strength and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

Details of the type and method of sampling are given in the report.

PENETRATION TESTING

The relative density of non-cohesive soils is generally assessed by in-situ penetration tests, the most common of which is the standard penetration test. The test procedure is described in Australian Standard 1289 "Testing Soils for Engineering Purposes" – Test No. F3.1.

The standard penetration test is carried out by driving a 50mm diameter split tube penetrometer of standard dimensions under the impact of a 63kg hammer having a free fall of 750mm.

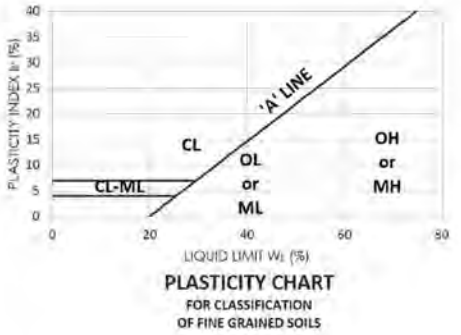
The "N" value is determined as the number of blows to achieve 300mm of penetration (generally after disregarding the first 150mm penetration through possibly disturbed material). The results of these tests can be related empirically to the engineering properties of the soil.

The test is also used to provide useful information in cohesive soils under certain conditions, a good quality disturbed sample being recovered with each test. Other forms of in situ testing are used under certain conditions and where this occurs, details are given in the report.

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Unified Soil Classification System (Metricated)
Data for Description Identification and Classification of Soils

MAJOR DIVISIONS			DESCRIPTION				FIELD IDENTIFICATION						LABORATORY CLASSIFICATION				
			Group Symbol	Graphic Symbol	TYPICAL NAME	DESCRIPTIVE DATA			GRAVELS AND SANDS				Group Symbol	% < 0.075 mm	PLASTICITY OF FINE FRACTION	Coefficient of Uniformity C_u	Coefficient of Curvature C_c	Notes
									GRADATIONS		NATURE OF FINES	DRY STRENGTH						
COARSE GRAINED SOILS	More than 65% by dry mass, less than 63mm is greater than 0.075mm.	GRAVELS More than 50% of coarse grains are greater than 2.36mm.	GW		Well graded gravels and gravel-sand mixtures, little or no fines	Give soil name, indicate approximate percentages of sand and gravel, particle characteristics including particle size subdivision, particle shape, colour, secondary component characteristics and other pertinent descriptive information, symbols in parenthesis. For undisturbed soil add information on structure including zoning, defects and cementing, moisture condition, and relative density. Example: (SP) SAND, trace silt, grey, medium grained, medium derise; dry; Tomago Sand Beds.	COARSE GRAINED SOILS	More than 65% of material less than 63mm is greater than 0.075mm. A 0.075mm particle is about the smallest particle visible to the naked eye.	GOOD	Wide range in grain size	"Clean" materials (not enough fines to bond coarse grains)	None	GW	Use the gradation curve of material passing 63mm for classification of fractions according to criteria for major component.	0-5	-	>4	Between 1 and 3	1. Identify fines by the method given for fine grained soils. 2. For fines contents between 5% and 12%, the soil shall be given a dual classification comprising the two group symbols separated by a dash, e.g. for a gravel with between 5% and 12% silt fines, the classification is GP-GM. 3. Soils that are dominated by boulders, cobbles or peat (Pt) are described separately and are not classified.
			GP		Poorly graded gravels and gravel-sand mixtures, little or no fines				POOR	Predominantly one size or range of sizes			GP	0-5	-	Fails to comply with above		
		GRAVELLY SOILS	GM		Silty gravels, gravel-sand-silt mixtures				GOOD TO FAIR	"Dirty" materials (Excess of fines)	Fines are silty (1)	None to medium	GM	12-50	Below 'A' line and I_p >7	-	-	
			GC		Clayey gravels gravel-sand-clay mixtures						Fines are clayey (1)	Medium to high	GC	12-50	Above 'A' line and I_p >7	-	-	
		SANDS More than 50% of coarse grains are less than 2.36mm.	SW		Well graded sands and gravelly sands, little or no fines				GOOD	Wide range in grain size	"Clean" materials (not enough fines to bond coarse grains)	None	SW	0-5	-	>6	Between 1 and 3	
			SP		Poorly graded sands, little or no fines				POOR	Predominantly one size or range of sizes			SP	0-5	-	Fails to comply with above		
		SANDY SOILS	SM		Silty sand, sand-silt mixtures				GOOD TO FAIR	"Dirty" materials (Excess of fines)	Fines are silty (1)	None to medium	SM	12-50	Below 'A' line or I_p <4	-	-	
			SC		Clayey sands, sand-clay mixtures						Fines are clayey (1)	Medium to high	SC	12-50	Above 'A' line and I_p >7	-	-	
FINE GRAINED SOILS	More than 35% by dry mass, less than 63mm is less than 0.075mm.	Liquid Limit less than 50%.	ML		Inorganic silts, very fine sands, rock flour, silty or clayey fine sands.	Give soil name, indicate degree and character of plasticity, colour, secondary component characteristics other pertinent descriptive information, symbols in parenthesis. For undisturbed soil add information on structure including zoning, defects and cementing, moisture condition, and consistency. Example: (CI) CLAY, with gravel, red-brown, medium plasticity, very stiff; gravel 20%, fine to medium, sub-rounded; moist; with desiccation cracks; residual.	FINE GRAINED SOILS	More than 35% of material less than 63mm is smaller than 0.075mm.	SILT AND CLAY FRACTION			ML	Use the gradation curve of material passing 63mm for classification of fractions according to criteria for major component.	More than 35% of material is less than 63mm passing 0.075mm.	Below 'A' line			
			CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays				Fraction smaller than 0.2 mm AS sieve size				CL, CI		Above 'A' line			
			OL		Organic silts and organic silty clays of low plasticity				DRY STRENGTH	DILANTANCY	TOUGHNESS		OL		Below 'A' line			
		Liquid Limit more than 50%.	MH		Inorganic silts, micaceous or diatomaceous fine sands or silts, elastic silts				None to low	Slow to rapid	Low		MH		Below 'A' line			
			CH		Inorganic clays of high plasticity, fat clays				Medium to high	None to slow	Medium		CH		Above 'A' line			
			OH		Organic clays of medium to high plasticity				Low to medium	Slow	Low		OL		Below 'A' line			
									Low to medium	None to slow	Low to medium		MH		Below 'A' line			
									High to very high	None	High		CH		Above 'A' line			
									High to high	None to very slow	Low to medium		OH		Below 'A' line			
			Pt		Peat muck and other highly organic soils				Readily identified by colour, odour, spongy feel and generally fibrous texture				PT		* Effervescence with H_2O_2			



PLASTICITY CHART
FOR CLASSIFICATION OF FINE GRAINED SOILS

DESCRIPTION AND CLASSIFICATION OF ROCK

The methods of description and classification of rock used in this report are based on the Australian Standard 1726 – 2017, Geotechnical site investigations. In general, descriptions cover the following properties for rock – rock name, grain size, colour, fabric and texture, inclusions or minor components, moisture content, durability, rock material condition including strength and weathering and/or alteration, defects and geological description.

GENERAL DEFINITIONS – ROCK

ROCK In engineering usage, rock is a natural aggregate of minerals connected by strong and permanent cohesive forces. Since "strong" and "permanent" are subject to different interpretations, the boundary between rock and soil is necessarily an arbitrary one. Rock material is intact rock that is bounded by defects.

DEFECT Discontinuity, fracture, break or void in the material or materials across which there is little or no tensile strength.

STRUCTURE The nature and configuration of the different defects within the rock mass and their relationship to each other.

ROCK MASS The entirety of the system formed by all of the rock material and all the defects that are present.

DESCRIPTIVE TERMS

ROCK NAME Simple rock names are used rather than precise geological classification. Rock names fall into category types of sedimentary rocks, igneous rocks, metamorphic rocks and duricrust rocks.

PARTICLE SIZE

Grain size terms for sedimentary rocks with predominantly sand sized grains are:

Coarse grained – mainly 0.6mm to 2mm.

Medium grained – mainly 0.2mm to 0.6mm.

Fine grained – mainly 0.06mm (just visible) to 0.2mm.

In igneous and metamorphic rock types, where significant, the following terms are used to describe the dominant or average grain size and/or the grain size may be recorded in millimetres:

Coarse grained – mainly greater than 2mm.

Medium grained – mainly 0.06mm to 2mm.

Fine grained – mainly less than 0.06mm (just visible).

If readily identifiable, the minerals should be described.

FABRIC

When the arrangement of grains shows an alignment, a preferred orientation or a layering that is visible, descriptive terms for sedimentary rocks are bedding and lamination. Bedding is layering produced by changes in sedimentation. Lamination is similar to bedding but developed in layer thicknesses of less than 20mm. Fabric descriptive terms for metamorphic rocks are foliation, which is the parallel arrangement of minerals due to metamorphic processes and cleavage, which is a type of foliation developed in fine grained metamorphic rocks such as slates. For igneous rocks, flow banding is a layering produced during flow of a partially solidified igneous rock that causes crystals to become oriented.

INDISTINCT FABRIC

Where layering or fabric is just visible. There is little effect on strength properties.

DISTINCT FABRIC

Where layering or fabric is easily visible. The rock may break more easily parallel to the fabric.

ROCK WEATHERING DEFINITIONS

Extremely Weathered (XW)	Rock substance affected by weathering to the extent that the rock exhibits soil properties, i.e. it can be remoulded and can be classified according to the Unified Soil Classification System, but the texture of the original rock is still evident.
Highly Weathered (HW)	Rock substance affected by weathering to the extent that limonite staining or bleaching affects the whole of the rock substance and other signs of the chemical or physical decomposition are evident. Porosity and strength may be increased or decreased compared to the fresh rock usually as a result of iron leaching or deposition. The colour and strength of the original fresh rock substance is no longer recognisable.
Moderately Weathered (MW)	Rock substance affected by weathering to the extent that staining extends throughout the whole of the rock substance and the original colour of the fresh rock is no longer recognisable.
Slightly Weathered (SW)	Rock substance affected by weathering to the extent that partial staining or discolouration of the rock substance, usually limonite, has taken place. The colour and texture of fresh rock is recognisable.
Fresh (FR)	Rock substance unaffected by weathering.

The degrees of rock weathering may be gradational. Intermediate stages are described by dual symbols with the prominent degree of weathering first (e.g. EW-HW).

The various degrees of weathering do not necessarily define strength parameters as some rocks are of low strength, even when fresh, to the extent that they can be broken by hand across the fabric, and some rocks may increase in strength during the weathering process.

ROCK STRENGTH

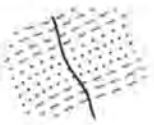
Rock strength is defined by the Point Load Strength Index (Is 50) and refers to the strength of the rock substance in the direction normal to the bedding. The test procedure is described by the International Society of Rock Mechanics.

Term	**Point Load Strength Index $I_{s(50)}$ MPa**	**Field Guide**	**Approx Unconfined Compressive Strength MPa***
Very Low Strength (VL)	0.03 to 0.1	Material crumbles under firm blows with sharp end of pick; can be peeled with knife; too hard to cut a triaxial sample by hand. Pieces up to 30mm thick can be broken by finger pressure.	0.6 to 2
Low Strength (L)	0.1 to 0.3	Easily scored with a knife; indentations 1mm to 3mm show in the specimen with firm blows of the pick point; has dull sound under hammer. A piece of core 150 mm long by 50 mm diameter may be broken by hand. Sharp edges of core may be friable and break during handling.	2 to 6
Medium Strength (M)	0.3 to 1	Readily scored with a knife; a piece of core 150mm long x 50mm dia. can be broken by hand with difficulty.	6 to 20
High Strength (H)	1 to 3	A piece of core 150mm long x 50mm dia. cannot be broken by hand but can be broken by a pick with a single firm blow, rock rings under hammer.	20 to 60
Very High Strength (VH)	3 to 10	Hand specimen breaks with pick after more than one blow; rock rings under hammer.	60 to 200
Extremely High Strength (EH)	more than 10	Specimen requires many blows with geological pick to break through intact material; rock rings under hammer.	more than 200

FORTIFY

ROCK DEFECT TYPES

This classification applies to the range of possible rock defect types that are types of natural fractures along which the core is discontinuous. These include bedding plane partings, joints and other rock defects, but exclude known artificial fractures such as drilling breaks.

Term		Description	Diagram
Parting		A surface or crack across which the rock has little or no tensile strength. Parallel or sub-parallel to layering (e.g. bedding) or a planar anisotropy in the rock material (e.g. cleavage). May be open or closed.	
Joint		A surface or crack with no apparent shear displacement an across which the rock has little or no tensile strength, but which is not parallel to layering or to planar anisotropy in the rock material. May be open or closed.	
Sheared Surface		A near planar, curved or undulating surface which is usually smooth, polished or slickensided and which shows evidence of shear displacement.	
Sheared Zone		Zone of rock material with roughly parallel near planar, curved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects. Some of the defects are usually curved and intersect to divide the mass into lenticular or wedge-shaped blocks.	
Seams	Sheared Seam	Seam of soil material with roughly parallel almost planar boundaries, composed of soil materials with roughly parallel near planar, cuved or undulating boundaries cut by closely spaced joints, sheared surfaces or other defects. Some of the defects are usually curved and intersect to divide the mass into lenticular or wedge-shaped blocks.	
	Crushed Seam	Seam of soil material with roughly parallel almost planar boundaries, composed of disoriented, usually angular fragments of the host rock material which may be more weathered than the host rock. The seam has soil properties.	
	Infilled Seam	Seam of soil material usually with distinct roughly parallel boundaries formed by the migration of soil into an open cavity or joint, infilled seams less than 1mm thick may be described as a veneer or coating on a joint surface.	
	Extremely Weathered Seam	Seam of soil material, often with gradational boundaries. Formed by weathering of the rock material in place.	

The spacing, length (sometimes called persistence), aperture (openness), and seam thickness should generally be described directly in millimetres or metres.

FORTIFY

ROCK DEFECT DESCRIPTIONS

DEFECT ROUGHNESS TERMS		DEFECT SHAPE TERMS		DEFECT COATING TERMS	
Term	**Description**	**Term**	**Description**	**Term**	**Description**
Very Rough	Many large surface irregularities (amplitude generally more than 1mm). Feels like, or coarser than very coarse sand paper.	Planar	The defect does not vary in orientation.	Clean	No visible coating.
Rough	Many small surface irregularities (amplitude generally less than 1mm). Feels like fine to coarse sand paper.	Curved	The defect has a gradual change in orientation.	Stained	No visible coating but surfaces are discoloured.
Smooth	Smooth to touch. Few or no surface irregularities.	Undulating	The defect has a wavy surface.	Veneer	A visible coating or soil or mineral, too thin to measure; may be patchy.
Polished	Shiny smooth surface.	Stepped	The defect has one or more well defined steps.	Coating	A visible coating up to 1mm thick. Thicker soil material should be described using appropriate defect terms (e.g. infilled seam). Thicker rock strength material should be described as a vein.
Slickensided	Grooved or striated surface, usually polished.	Irregular	The defect has many sharp changes of orientation.		

ACCESSED.

PO Box 197 Charlestown NSW 2290
Ph: 02 4943 3834 Email: admin@accessed.com.au
ABN: 22 151 919 489

ACCESS REPORT

PROJECT NAME	Dickson Shops and Streetscapes – Package A
PROJECT NUMBER	CA230165
CLIENT	Oculus

REVISION	ISSUE DATE	DETAILS
A-FSP-DRAFT1	1/10/2024	Draft for review
A-DR	4/02/2025	DR stage

REPORT PREPARED BY

Sch 2.2(a)(ii)

AJA GODDARD
Accredited Access Consultant | ACA 243
Accredited SDA Assessor | SDA00071
Livable Housing Registered Assessor | LHA10038

DOCUMENTATION REVIEWED

Refer to Appendix A.

INTRODUCTION

This Access Report is an assessment of the proposed building work to determine if access for people with a disability is provided in accordance with legislative requirements.

The following comments are based on access requirements of the Building Code of Australia 2022 (BCA), Disability (Access to Premises – Buildings) Standards 2010 (including Compilation No. 2) (Premises Standards), Australian Standards (AS) and Disability Discrimination Act (DDA).

This report contains comments regarding issues of non-compliance and identifies where insufficient information has been provided for an assessment to be made. Recommendations may also be made to enhance accessibility and minimise the risk of action under the Disability Discrimination Act (DDA).

Unless otherwise specified, all Australian Standards references are from the following:

AS 1428.1-2009 (including Amendments No. 1 and 2)
AS 1428.2-1992
AS/NZS 1428.4.1-2009 (including Amendment No. 1)
AS/NZS 2890.6-2009

ITEM	ACCESS ELEMENTS	REFERENCE	ASSESSMENT
1.	**ACCESS REQUIREMENTS**		
1.1	AS 1428.1 is referenced in this report for accessible paths of travel. Access has been considered through all areas of the proposed works with regard to the requirements of AS 1428.1, along with consideration of additional universal design principles. While the BCA does not address external streetscape works, it is relevant for accessing the associated buildings. In this case, levels and gradients are anticipated to be limited by existing topography and will likely remain relatively consistent with the existing conditions due to being the connection between roads and buildings, each having fixed levels. However, given the resurfacing work, it is strongly recommended that consideration be given to providing compliant approaches to building entrances with accessible transitions at doorways. This report therefore provides information about access to this extent. Accessibility standards in relation to street furniture and car parking are also considered in this report.	BCA D4D3 (1)	
2.	**ACCESSIBLE PATH OF TRAVEL**		
2.1	The continuous accessible path of travel is to comply with AS 1428.1, including the following features:		
	a) An unobstructed width of at least 1000mm (with additional space at changes in direction) and an unobstructed vertical clearance of at least 2000mm.	AS 1428.1 6.3 6.2	Width scales sufficiently, height to comply in construction

ITEM	ACCESS ELEMENTS	REFERENCE	ASSESSMENT
b)	Walkways are required to have firm and level ground of a different material to the walkway abutting the sides of the walkway, extending horizontally for at least 600mm and following the same grade unless a kerb; a kerb rail and handrail; or a wall at least 450mm high is provided.	AS 1428.1 10.2 a	Construction to comply
c)	The transition between floor surfaces is to be flush. A construction tolerance is allowed between surfaces of less than 5mm with rounded edges or less than 3mm tolerance for vertical edges. **Comment:** Where continuous paving units are used, AS 1428.1 requires the following:	AS 1428.1 7.2 Fig. 6, 7	Compliance achievable/ construction to comply
	i. For flush-jointed pavers with level surfaces, a maximum 3mm vertical change in level, maximum 5mm change in level with 5mm bevel, or a maximum 5mm bevel on each adjoining edge with no level change.	AS 1428.1 Fig. 6	
	ii. For paving with mortar joints and level surfaces, mortar may be 1-12mm wide and a maximum height variation of 2mm from the paver, regardless of any bevel (maximum 5mm).	AS 1428.1 Fig. 7a	
	iii. For paving with mortar joints and irregular surfaces, the paving profile variation is not to exceed 2mm, mortar joints may be 1-12mm wide and be flush with the top of the paver, with a maximum 2mm depth.	AS 1428.1 Fig. 7b	

ITEM	ACCESS ELEMENTS	REFERENCE	ASSESSMENT
	iv. For paving with mortar joints and domed surfaces, mortar may be 1-12mm wide with the paving profile and mortar joint variation not exceeding 2mm.	AS 1428.1 Fig. 7c	
d)	The gradient and crossfall of a landing or circulation space is required to be shallower than 1:40 (or 1:33 for bitumen surfaces).	AS 1428.1 13.3.1 Appendix C	Construction to comply
e)	External walkways with a gradient shallower than 1:33 are to have a crossfall not steeper than 1:40 (or 1:33 for bitumen surfaces) to allow for the shedding of water. **Comment:** On L304, near Cowper St, falls of 1:25 and 1:29 are shown and they appear to act as crossfalls for intersecting paths. On L306 a 1:39 crossfall is shown to the south-west of the building labelled Various Retail/F&B/Vacant. AS 1428.1 prescribes maximum 1:40 crossfalls.	AS 1428.1 10.1 d	Construction to comply, amend where steeper than 1:40
f)	A slip-resistant surface is required for all floor surfaces and the texture is to be traversable by people who use a wheelchair or have an ambulant or sensory disability. SA HB 198:2014 suggests a slip rating of P4 or R12 for external pavements under 1:14.	AS 1428.1 7.1 SA HB 198:2014 Table 3B	Consider slip resistance
g)	Any grated drains are to have openings less than 13mm in width. Slotted openings with a width of 8-13mm are to be oriented so that the long dimension is transverse to the dominant direction of travel.	AS 1428.1 7.5	Construction to comply

ITEM	ACCESS ELEMENTS	REFERENCE	ASSESSMENT
3.	**KERB RAMPS**		
3.1	Kerb ramps are no longer proposed in the scope of work. Should they be included, they are required to comply with AS 1428.1 and it is recommended that details be provided for assessment if applicable.	BCA D4D4 (a)(i)	N/A
4.	**DOORWAYS**		
4.1	Some entrance doorways of existing buildings are indicated on plans. In the absence of any falls steeper than 1:40 being nominated near these, door circulation spaces have been assessed as compliant with dimensions scaling in accordance with AS 1428.1. Where this varies on site, details are to be provided for further assessment.	AS 1428.1 13.3	Compliance achievable
4.2	Where a flush transition into an existing building entrance is not possible, it is recommended that a localised ramped threshold be provided in accordance with AS 1428.1 including a maximum height of 35mm and gradient of 1:8. **Comment:** It is understood the design intent is for flush transitions to be provided and for steps and ramped thresholds to be avoided.	AS 1428.1 10.5 Fig. 21	Construction to comply if applicable

ITEM	ACCESS ELEMENTS	REFERENCE	ASSESSMENT
5.	**TACTILE GROUND SURFACE INDICATORS (TGSIS)**		
5.1	TGSIs for accessways meeting vehicular ways: It is noted in Appendix A1 of AS/NZS 1428.4.1 that the design industry should not over-use or over-prescribe the installation of TGSIs, but rather should make full use of the range of environmental guidance features available so as to minimise inconvenience to other members of the community. The following situations are to be considered: a) Where the pedestrian area is flush with Hanna Enders Lane – It is recommended that the surface selection offers significant contrast between the pedestrian and vehicular areas. It is also recommended that signage be provided for both pedestrians and drivers to indicate the shared nature of the area and limit the speed of vehicles. (While the installation of TGSIs would be substantial in this area, it is an option should pedestrian hazard be identified). b) The accessible car parking (and Australia Post parking) on Joan Kellett Way – The incidence of someone with a vision impairment unknowingly walking into the vehicular way is reduced if there are vehicles parked in these spaces. Similarly, walking into the spaces presents a low risk given the slow speed at which vehicles would be moving. Should there be no vehicles present, there is some risk of walking through the spaces and onto the vehicular way, however, if there is a level change (eg mountable kerb) between the car parks and vehicular area, this would offer an environmental cue. (While the installation of TGSIs would be substantial in this area, it is an option should pedestrian hazard be identified).	BCA D4D9 (1)(e)(ii)	Consider use of TGSIs

ITEM	ACCESS ELEMENTS	REFERENCE	ASSESSMENT
5.2	If there is any overhead obstruction less than 2m above floor level (other than a doorway), in the absence of any other suitable barrier, tactile ground surface indicators are also prescribed.	BCA D4D9 (1)(e)(i)	Consider use of TGSIs
5.3	Tactile ground surface indicators are to comply with AS 1428.4.1, including:		
	a) Have luminance contrast of at least 30% for integrated tiles, at least 45% for discrete indicators or at least 60% for discrete indicators consisting of two colours. **Comment:** Luminance reflectance values (LRVs) are to be obtained for tactile indicators and the surfaces onto which they are installed and compared using a calculator that utilises the Bowman-Sapolinski Equation to verify compliance.	AS 1428.4.1 2.2 b	Recommend further review if applicable
	b) Be across the path of travel at right angles to the hazard, for a depth of 600-800mm and set back 300mm from the hazard.	AS 1428.4.1 2.3.1 b 2.3.3 a, b, c, e	Recommend further review if applicable

ITEM	ACCESS ELEMENTS	REFERENCE	ASSESSMENT
5.4	Other wayfinding strategies for the precinct have been considered in the design including:		
	a) Shorelines – While currently referenced accessibility standards do not address this feature, generally clear space is provided alongside buildings to enable someone with a vision impairment to shoreline. **Comment:** This is interrupted on the western side of chemist/retail where a tree is located, the eastern side of the library by seating and electrical cabinet, the southern side of the library by bike racks, and around the north-western corner of Woolworths where there are trees. It is recommended that interruptions be minimised where feasible, however, understand that retention of trees may prohibit this. It is recommended relocation of street furniture and bike racks be investigated to provide clear shorelines to the maximum extent possible.		Consider best practice options
	b) Contrast – High visually contrasting elements enhance detection by people with vision impairment and minimise risk of collision/trips. Elements subject to these include: bollards, light poles, drinking fountain, bike racks, sculptures, street furniture and landscape edges.		Construction to comply

ITEM	ACCESS ELEMENTS	REFERENCE	ASSESSMENT
6.	**STREET FURNITURE**		
6.1	Drawing L008 shows the variety of street furniture proposed including bench seating, options with backrests and armrests, and options with clearance beneath seating to enable people to move their feet back for the action of standing. This is intended to suit a range of needs. The picnic tables proposed are depicted with inset legs at one end to enable clearance for wheelchair seating. In relation to garbage bins, the zone of common reach depicted in AS 1428.2 demonstrates a height of 700mm – 1200mm will generally be reachable by seated and standing people. The height of bins on L822 scale within this range.	AS 1428.2	Best practice options adopted
7.	**CAR PARKING**		
7.1	Three accessible car parking spaces are proposed in the Joan Kellett Way car parking area. A fourth space is proposed with the taxi spaces. These are to comply with AS 2890.6 including the following features:	BCA D4D6 (1)(c)	
	a) Minimum dimensions of 3200mm wide x 7800mm long.	AS 2890.6 2.2.2 a	Clarify with dimensions

ITEM	ACCESS ELEMENTS	REFERENCE	ASSESSMENT
b)	A shared area adjacent to the accessible car park with minimum dimensions of 1600mm wide x 7800mm long. **Comment:** AS 2890.5 suggests 3000mm +/- 50mm between bollards alongside parallel accessible car parks. Bollards scale at 3000mm apart on plans.	AS 2890.6 2.2.2 b Fig. 2.4, 2.5 Fig. 2.6 AS 2890.5 Fig. 4.4	Clarify with dimensions
c)	A firm plane surface with a maximum fall of 1:40 in any direction (1:33 if of a bitumen surface and outdoors) for the accessible car parks and associated shared areas.	AS 2890.6 2.3	Construction to comply
d)	Minimum headroom of 2500mm is required above the accessible car parks and the associated shared areas.	AS 2890.6 2.4 Fig. 2.7	Outdoor spaces assumed to comply
e)	Signage is required to designate accessible car parking spaces for the use of people with a disability. The international symbol of access (white symbol on blue background) is to be placed as a pavement marking in accordance with AS 2890.6.	BCA D4D6 (1)(c) AS 2890.6 3.1	Construction to comply
f)	Yellow, slip-resistant pavement markings are to identify dedicated parking spaces and shared areas. Shared areas are to be marked with diagonal lines complying with AS 2890.6 (unless they are on a footpath).	AS 2890.6 3.2 3.2 b ii	Construction to comply

CONCLUSION

Access will need to comply with the elements identified in this report.

Generally, the plans assessed show that compliance with requirements for access for people with a disability is achievable subject to incorporation of specific details. Requirements and recommendations to achieve compliance with the Premises Standards, Building Code of Australia, and Australian Standards for accessibility and to minimise the risk of action under the Disability Discrimination Act, have been explained in this report.

Reference numbers are provided for clarification of comments within this report. Alternatively, the author may be contacted on the details on page 1 for further clarification.

Reasonable care and skill have been exercised in the assessment of the building and the preparation of this report. However, this report shall not be construed as relieving any other party of their responsibilities or obligations.

The advice given is based on the assessment of the plans and other relevant documentation supplied regarding access requirements in the BCA, Australian Standards, Premises Standards and Disability Discrimination Act current at the time. The advice relates specifically to this project and may not apply to any other building or to this building at any other point in time.

APPENDIX A: DOCUMENTATION REVIEWED

Plans by Oculus | Project C-2310

DOCUMENT NUMBER | NAME	REVISION	DATE
L000	D	20/01/2025
L001	D	20/01/2025
L002	D	20/01/2025
L003	D	20/01/2025
L004	D	20/01/2025
L005	D	20/01/2025
L006	D	20/01/2025
L007	C	20/01/2025
L100	D	20/01/2025
L110	D	20/01/2025
L111	D	20/01/2025
L112	D	20/01/2025
L113	D	20/01/2025
L114	D	20/01/2025
L115	D	20/01/2025
L200	E	22/01/2025
L202	D	20/01/2025
L203	D	20/01/2025
L204	E	22/01/2025
L205	D	20/01/2025
L206	D	20/01/2025
L207	D	20/01/2025
A302	B	20/01/2025
A303	B	20/01/2025
A304	B	20/01/2025
A305	B	20/01/2025
A306	B	20/01/2025
A307	B	20/01/2025
L502	C	20/01/2025
L503	C	20/01/2025
L504	C	20/01/2025
L505	C	20/01/2025
L506	C	20/01/2025
L507	C	20/01/2025
L701	D	20/01/2025
L702	B	20/01/2025
L703	B	20/01/2025

L704	B	20/01/2025
L801	C	20/01/2025
L802	A	20/01/2025
L811	B	20/01/2025
L812	B	20/01/2025
L821	B	20/01/2025
L822	B	20/01/2025
L823	B	20/01/2025
L824	B	20/01/2025
L831	B	20/01/2025
L851	B	20/01/2025
L861	B	20/01/2025
L862	B	20/01/2025
L863	B	20/01/2025
L864	B	20/01/2025

From: "Bracey, Josh" <Josh.Bracey@act.gov.au>
Sent: 24/04/2024 12:42 PM
To: "Davis, SophieE" <SophieE.Davis@act.gov.au>
Subject: RE: Dickson Shops vehicle access

OFFICIAL

Hi Soph

Our pressure washer has a 20m hose and we do have an extension that is 15m long I would have to check with the other crew but I think there truck has a 15m hose but they have an extension hose to but I don't know how long. We recently did the pressure washing around the shops and didn't have any trouble getting anywhere so as long as we have the same access as now we should be fine.

Josh bracey | ag/GSO9 City Place Team Supervisor
Sch 2.2(a)(ii) | **Email** josh.bracey@act.gov.au
Place Management – City Services | Transport Canberra and City Services Directorate | **ACT Government**
Civic Pool Cottage | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

ACT Government
Transport Canberra and City Services

From: Davis, SophieE
Sent: Wednesday, April 24, 2024 8:53 AM
To: Bracey, Josh
Subject: FW: Dickson Shops vehicle access

OFFICIAL

Actually one more question – how long is the pressure washing hose? Someone mentioned 10m, but with a 70 m extension? I understand water pressure decreases with hose length – at what point does this become an issue?

Thanks
Soph

Sophie Davis
Project Manager | Design & Place Strategy

From: Bracey, Josh <Josh.Bracey@act.gov.au>
Sent: Wednesday, April 24, 2024 7:52 AM
To: Davis, SophieE <SophieE.Davis@act.gov.au>
Subject: RE: Dickson Shops vehicle access

OFFICIAL

Hi Sophie

It depends on when work is being done and some jobs are only done once a year and others more regularly we try and take possible but it is only 1.5m wide so it will fit most places but when we pressure wash we need to take our truck in there so v on if there is any turning the truck needs to do please see map below for where we need access.
We mainly enter between block 2 and 32 when working in the area in between block 2 and block 30
We also park in front of block 6 when we need to pressure wash between block 7 and block 5
When we need to pressure wash between block 4 and block 8 we park in the lane next to block 4
We can now use the slip road between coles and wollies when doing the square but it would be good to be able to get the t that will also help with events.



Hope this helps if you have any more questions just let me know.

Josh bracey | ag/GSO9 City Place Team Supervisor
Sch 2.2(a)(ii) | **Email** josh.bracey@act.gov.au
Place Management – City Services | Transport Canberra and City Services Directorate | **ACT Government**
Civic Pool Cottage | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.tccs.act.gov.au | @tccs_act

ACT Government
Transport Canberra and City Services

From: Davis, SophieE <SophieE.Davis@act.gov.au>
Sent: Monday, April 22, 2024 2:49 PM
To: Bracey, Josh <Josh.Bracey@act.gov.au>
Subject: Dickson Shops vehicle access

Hi Josh

I recently met with Tristan, Brian and Bonnie about the Dickson Shops upgrade. Tristan suggested I check with you about th

- How wide are the vehicles currently used in the Dickson shops? (A while back Mathew Grant mentioned about a 2.7 double check with you).
- Where do your crews currently drive through the site? Do you just enter the laneway alongside the back of Dan Mu enter other areas as well?



Thanks
Soph

Sophie Davis
Project Manager, Design and Place

T: Sch 2.2(a)(ii)
E: sophieE.davis@act.gov.au
(Please note I do not work Fridays)

City Renewal Authority
ACT Government
Nara Centre, 3 Constitution Avenue, Canberra City
GPO Box 158 Canberra City ACT 2601
ABN 40 746 096 162
cityrenewalCBR.com.au
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We acknowledge the Ngunnawal people as Traditional Custodians of the ACT and recognise any other people or families with connection to the lands of
continuing culture and the contribution they make to the life of this city and this region.

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immediately. You should not copy or use it for any purpose, nor disclose its contents to any other person.

Binder 3 84

From: "Melville, Andrew" <Andrew.Melville@act.gov.au>
Sent: 05/12/2023 7:45 AM
To: "Davis, SophieE" <SophieE.Davis@act.gov.au>; "Hua, David" <David.Hua@act.gov.au>; "Banappa, Manjunath" <Manjunath.Banappa@act.gov.au>
Subject: RE: Dickson Shops - maintenance vehicles

OFFICIAL

Thanks Sophie
Our trucks are 11 meters long 2.5 meters wide and 3.6 high weighing 42 ton full. So unfortunately don't fit in Dickson place. We use a remote Dingo hose reel to access the area to the moment.
At the moment we are cleaning around every three months, however with an upgrade that should be reduced.

Cheers Andrew.

From: Davis, SophieE <SophieE.Davis@act.gov.au>
Sent: Wednesday, November 29, 2023 4:31 PM
To: Melville, Andrew <Andrew.Melville@act.gov.au>
Subject: Dickson Shops - maintenance vehicles

OFFICIAL

Hi Andrew

Thanks for coming to today's Dickson shops site meeting. Your input there was really valuable.

A question came up about requirements for maintenance vehicle access into the courtyards (for example, outside the newsagent) and what this means for our design in terms of minimum clearances, subsurface specifications, etc.

Would you be able to provide any details of:

- the size and weight of the maintenance vehicles that enter the courtyards
- how frequently this occurs?

Thank you!

Sophie

Sophie Davis
Project Manager | Design & Place Strategy

T: Sch 2.2(a)(ii)
E: SophieE.Davis@act.gov.au

City Renewal Authority
ACT Government
Nara Centre, 3 Constitution Avenue, Canberra City
GPO Box 158 Canberra City ACT 2601
ABN 40 746 096 162
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We acknowledge the Ngunnawal people as Traditional Custodians of the ACT and recognise any other people or families with connection to the lands of the ACT and region. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

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From: Sch 2.2(a)(ii) oculus.info>
Sent: 17/07/2024 1:22 PM
To: "Davis, SophieE" <SophieE.Davis@act.gov.au>
Cc: Sch 2.2(a)(ii) @oculus.info>; Sch 2.2(a)(ii) @oculus.info>
Subject: RE: More stormwater questions

OFFICIAL

Caution: This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi Sophie,

Just following on from the below – we queried the Option 2 highlighted note and WSP confirmed it was a typo. It should read Option 3.

Thanks.

Just to clarify **Option 3** provides the best value of money not **Option 2**, as noted in my email 11.07.24.

Statement in earlier email was a typo, and apologies for any confusion created.

Sch 2.2(a)(ii)
Senior Associate - Landscape Architect
AILA RLA 004447

OCULUS

Ngunnawal and Ngambri Country
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D. +61 3 9002 2411

We acknowledge the Traditional Owners of the lands on which we work, and pay our respects to Elders past and present.
Our Australian studios are proudly Climate Active certified.
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From: Davis, SophieE <SophieE.Davis@act.gov.au>
Sent: Tuesday, July 16, 2024 1:57 PM
To: Sch 2.2(a)(ii) @oculus.info>
Cc: Sch 2.2(a)(ii) @oculus.info>; Sch 2.2(a)(ii) @oculus.info>
Subject: RE: More stormwater questions

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Thanks Sch 2.2(a)(ii) let's discuss further at tomorrow's catchup, especially the highlighted bits below.

From the last response, sounds like it is becoming critical to receive the outstanding survey information from Veris to accurately understand the risks associated with option 2?

Cheers
Soph

From: Sch 2.2(a)(ii) @oculus.info>
Sent: Tuesday, July 16, 2024 11:16 AM
To: Davis, SophieE <SophieE.Davis@act.gov.au>
Cc: Sch 2.2(a)(ii) @oculus.info>; Sch 2.2(a)(ii) @oculus.info>
Subject: RE: More stormwater questions

OFFICIAL

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HI Sophie,

Apologies for the delay.

See below responses from WSP regarding the Stormwater queries.

Let me know if we require WSP to update the report.

- Page 31 – 5.1.2 Comparison of Options – CRA have requested high level comments to accompany the ratings of each option. Further to this they note the Maintenance and Safety are the same between Option 1 and 2 – further explanation has been requested to communicate and justify this.

  Maintenace: Maintenace here only considers the potential of future repair works to existing pits and pipes not replaced for both options (i.e. not cleaning/jetting of the system etc). Options 1 and 2 both replace structurally damaged pipes identified from the CCTV inspection, but with Option 1 being more of a like for like replacement.

  Safety: This is in relation to the operational safety risk of damage to pipes and pits that are not replaced and same applies to both Options 1 and 2.

  Option 2 mainly edges Option 1 hydraulically, and the greater surcharging in Option 1 is considered more a nuisance/performance issue as the flood hazard assessment (VxD) doesn't highlight a high safety risk.

- Page 32 – 5.2.1 Recommended Option – CRA would like to confirm if design is at end of life. If it is provide further detail on why Option 3 is the best option to assist TCCS with securing funds for the update. Further to this - what does WSP think Option 2 is a truly viable options? Please confirm via email in lieu of including within report.

  The condition assessment is from the CCTV inspection report, and WSP have relied on this for possible solutions. There is no indication of residual life of the assets in the CCTV report, and most of the network is not captured on WAE plans.

  Option 2 provides for limited upgrades to network to not just replace structurally damaged sections of the network, but also improve the hydraulic service performance. Though this option reduces the likelihood/frequency of maintenance in the short term, it doesn't eliminate the risk as some pipes currently in moderate condition may further deteriorate, and tree roots may still damage pipes/pits as they are likely to be unprotected by root barriers.

  Option 3 is for complete renewal and provides an opportunity to replace all pipes and pits, and minimise the risk of future damage from tree roots, and traffic loading. We believe this Option provides the best Value for Money .

- SKP-CVL-012/013/014 – Existing stormwater pipe crosses block boundary. Has the realignment of this asset been assessed?

  The proposed stormwater pipe corridors follow the existing pipe layouts (as indicated in the current detail survey). We intend to reassess the pipe layouts once an updated/mapped survey is available.

- SKP-CVL-014 – CRA would like to confirm why there is not a lot of movement in the location of stormwater assets? If this a landscape driven response?

  The existing stormwater pipe alignment has been maintained for several reasons; 1) to minimise impact on tree roots; 2) to reduce risk of spatial clashes with existing inground services and minimise the

costs/programme for diversions; 3) to limit impact on existing building footings/structures line of influence; 4) to allow inlet pits (and low spots) to remain positioned away from building thresholds.

- CRA would like a candid response on how feasible it is to remediate the system (option 2)? How well would it work as an option? It would be great to understand in order to preference with TCCS the importance of a full system replacement, etc.

  Upgrade to limited sections of the network is feasible but not recommended as existing stormwater infrastructure retained in moderate structural/service condition may further deteriorate, and some pits will remain surcharged (flooded) during critical storms. The other consideration is the likelihood of future disruptions in the short term, which may not be acceptable to the business/shopfronts, coming after major public realm upgrades.

  The order of preference for WSP's recommendation is Option 3 > Option 2> Options 1. We believe Option 2 provides the best Value for Money over the asset life, but would defer to the Quantity Surveyor's assessment of Whole of Life costs of the three options.

- CRA would like to confirm if most / all existing pipes undersized?

  The issue with the existing system goes beyond smaller pipe sizes, and includes flat gradients, reversed fall directions, shallow invert levels/depth of network etc, as picked up in the detail survey. It is imperative that these details are verified to properly assess the existing system's hydraulic performance.

- CRA would like to confirm are the only 'new' pipes proposed under option 2 those indicated in dark blue as per the legend?
  If this is the case, then it seems most existing pipes would remain. However the report indicates the performance would be much improved:

  > With improvements proposed for Option 2 the number of pits surcharged or at flood risk is reduced to 2, during critical storms, and in Option 3, where a full upgrade is proposed has no pits reported to be surcharged for critical storm events

  For sections of pipes being replaced in Option 2, pipe gradients and/or pipe sizes are adjusted where feasible and these alterations influence the pipe carrying capacity and position of the hydraulic line, hence an improvement in performance over Option 1.

  The major concern with Option 1 is that the survey information which forms the basis of its network model has a lot of detail (pipe sizes, connections, invert levels etc) that are yet to be ascertained and validated.

- CRA would like to confirm if flooding under option 2 is limited to 2 pits during 'critical storms', how often are these storms likely to occur?

  Pit surcharging within the site is noted in a 1% AEP storm event, i.e. that which has a 1% chance of happening in any one year. This however doesn't consider any downstream backflow effects and is to be re-evaluated once updated detail survey is available/pavement design levels are determined for the public realm.

Sch 2.2(a)(ii)
Senior Associate - Landscape Architect

AILA RLA 004447

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From: Davis, SophieE <SophieE.Davis@act.gov.au>
Sent: Wednesday, July 10, 2024 1:46 PM
To: Sch 2.2(a)(ii) @oculus.info>
Cc: Sch 2.2(a)(ii) @oculus.info>; Sch 2.2(a)(ii) @oculus.info>
Subject: More stormwater questions

OFFICIAL

Sch 2.2(a)(ii)

Further to yesterday's discussion, in addition to understanding how feasible it is to mainly just remediate the system (option 2) I also need to understand how well it would perform.

- Are most / all existing pipes undersized?
- Are the only 'new' pipes proposed under option 2 those indicated in dark blue as per the legend?
- If this is the case, then it seems most existing pipes would remain. However the report indicates the performance would be much improved:

With improvements proposed for Option 2 the number of pits surcharged or at flood risk is reduced to 2, during critical storms, and in Option 3, where a full upgrade is proposed has no pits reported to be surcharged for critical storm events

- If flooding under option 2 is limited to 2 pits during 'critical storms', how often are these storms likely to occur?

Thanks – sorry to be a pain but this information will help us determine the strategy moving forward.

Sophie

Sophie Davis
Project Manager, Design and Place

Sch 2.2(a)(ii)
E: sophieE.davis@act.gov.au
(Please note I do not work Fridays)

City Renewal Authority
ACT Government
Nara Centre, 3 Constitution Avenue, Canberra City
GPO Box 158 Canberra City ACT 2601
ABN 40 746 096 162
cityrenewalCBR.com.au
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Binder 3 91

From: Sch 2.2(a)(ii) @oculus.info>
Sent: 05/12/2024 9:37 AM
To: "Wilson, Lucy" <Lucy.Wilson@act.gov.au>; "Davis, SophieE" <SophieE.Davis@act.gov.au>; "Pellizzer, Reuben" <Reuben.Pellizzer@act.gov.au>; "Blakely-Kidd, Richard" <Richard.Blakely-Kidd@act.gov.au>; "Sukloski, Ivan" <Ivan.Sukloski@act.gov.au>
Sch 2.2(a)(ii)
Subject: RE: Dickson Shops - Public Realm Works and Stormwater Upgrades - Program Delay

Caution: This email originated from outside of the ACT Government. Do not click links or open attachments unless you recognise the sender and know the content is safe.

Hi All,

Further to the below email – please find below the comments from WSP regarding the feasibility of undertaking Option 1 with the following interventions –
Also note, that it was requested that a cost plan be undertaken for Option 1 as a baseline to understand how far $500K (the referenced budget with WSP) would extend to address the stormwater issues.

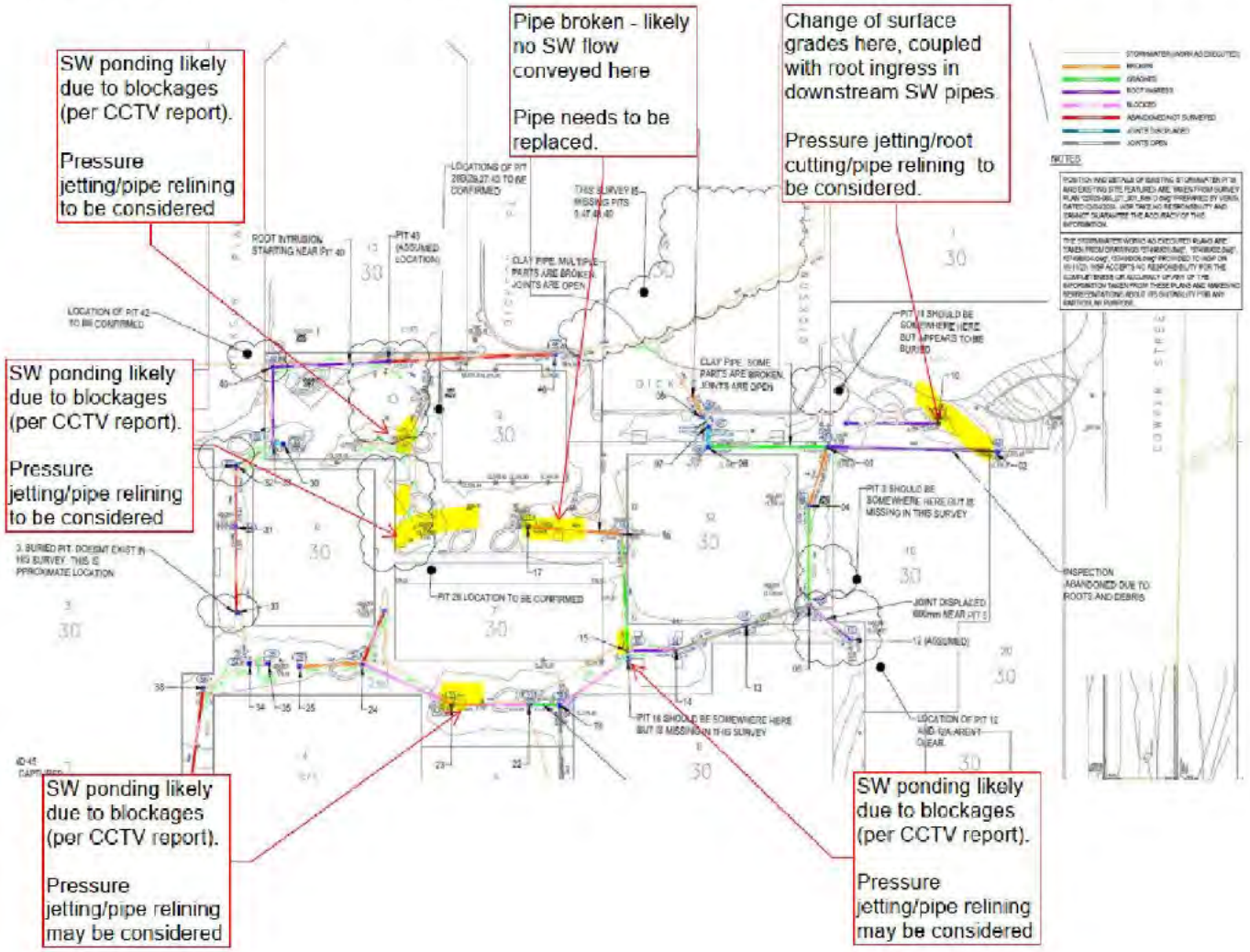
- Replacement of broken / damaged pipes only
  Note. Level of damage to be confirmed prior to replacement
  Though we appreciate the budget limitations, WSP does not recommend a maintenance approach, and suggest below points are considered :
  - **Existing pipes/pits in moderate to poor structural conditions (hence not replaced) may deteriorate rapidly and would eventually collapse sooner that the rest of the renewed public realm infrastructure.**
  - **Capacity issues will still not be addressed within further intervention (e.g. rainwater retention/reuse) which adds cost.**
  - **Only new sections of pipework will have protection from root ingress. If only broken/damaged pipes are replaced, significant sections of pipe/pits remain at risk of root damage.**
  - **To be confirmed by QS, but the trade cost (which will be where the key difference between options is reflected in cost plan) is only a relatively small percentage of the works cost (typically less than 50%), which raises questions about value for money of a maintenance option.**
  - **Even if the maintenance option is marginally cheaper, the costs for regular future maintenance may quickly offset any savings from the initial works.**
  - **Frustration for shopfronts with regular disruptions/closures needed to undertake future regular maintenance works.**
  - **New pavement, and recent public realm infrastructure may need to be removed/excavated to expose future damaged pipes for maintenance works, and not replaced to the same quality of material/workmanship/levels.**
  - **Notwithstanding which stormwater option is taken forward, existing pit lids would need to be replaced/altered with the new paving/grading, and for the maintenance options, this transfers some stormwater works costs to the public realm scheme.**

- Provide input into sacrificial surface treatment that be applied above the pipe network identified for future upgrades to prevent damage to installed public realm works
  The remedial treatments need to be designed/specified (not currently in scope), but we there are a few possibilities:
  - **Root cutting through all pipes to remove all ingrown roots**
  - **High pressure jetting to clean/clear all debris in blocked pipes**
  - **Further CCTV surveys/drainage investigations to confirm current conditions for areas not previously surveyed.**
  - **Pipe lining may limit new root ingress indirectly (as it helps to seal pipes internally, and minimise leakage), but would not be as effective as root barriers.**

- Where ponding occurs, potential to install landscape feature to help alleviate ponding in downpour events
  We may need to workshop with OCULUS to explore the landscape feature options, but note below:
  - **Surface ponding is not only from level variances/flat gradients/low spots. Other potential causes include leaf fall, blockages in pipes, surcharging pits (due to shallow depth of stormwater network). Main challenge with raingardens is with depth - subsoil drains would be too deep for the existing stormwater network levels, and additional diversions of existing services may be required. Furthermore, added tree root impact is to be expected as subsoils would be laid in new**

corridors. We also need Geotechnical investigation to assess infiltration potential and any likely risk to existing building footings/foundations.

- Following the latest rain event over the weekend, WSP were also asked to confirm whether the SW plans for basic, low cost improvements would help to address these areas (ponding areas shown in the yellow)



We hope this assists, but should you require anything further, please do not hesitate to give me a call.

Thanks!

Sch 2.2(a)(ii)
Associate Director
AILA RLA 004447

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From Sch 2.2(a)(ii)
Sent: Tuesday, 3 December 2024 5:49 PM
To: Wilson, Lucy <Lucy.Wilson@act.gov.au>; Davis, SophieE <SophieE.Davis@act.gov.au>; Pellizzer, Reuben <Reuben.Pellizzer@act.gov.au>
Sch 2.2(a)(ii)
Subject: RE: Dickson Shops - Public Realm Works and Stormwater Upgrades - Program Delay

Hello team,

Thank you for your patience as we prepare our Value Engineering List to address the updated Cost Plan prepared as part of our 75% DR Issue.

Please find attached our working file identifying our key moves to achieve the approx.. $1.5 million in savings.

Happy to meet to discuss the savings further with the team and identify if any further savings are required.

Any issues let me know.

From: Wilson, Lucy <Lucy.Wilson@act.gov.au>
Sent: Friday, 29 November 2024 5:30 PM
To: Sch 2.2(a)(ii)
Cc: Pellizzer, Reuben <Reuben.Pellizzer@act.gov.au>; Davis, SophieE <SophieE.Davis@act.gov.au>; Sch 2.2(a)(ii)
Sch 2.2(a)(ii)
Subject: Re: Dickson Shops - Public Realm Works and Stormwater Upgrades - Program Delay

H Sch 2.2(a)(ii)

Thanks for the email.
Confirming this is accepted.

Cheers

Lucy

Lucy Wilson
A/Executive Group Manager – Urbanisation and Renewal

From Sch 2.2(a)(ii) @oculus.info>
Sent: Friday, November 29, 2024 4:37:16 PM
To: Wilson, Lucy <Lucy.Wilson@act.gov.au>
Sch 2.2(a)(ii)
Subject: Dickson Shops - Public Realm Works and Stormwater Upgrades - Program Delay

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Hi Lucy,

Thanks very much for the meeting this afternoon, it was good to discuss how we move forward to ensure we can get the Dickson Shops project underway.

I wanted to confirm in writing the following next steps to ensure we are aligned on what we will be doing regarding the budget for the Public Realm works and the stormwater.

Public Realm Works

- Sub-consultant team will be put on hold until we have achieved the required $1.5 million (min) value engineering target for the public realm works
- OCULUS to undertake workshop with WT to confirm Cost Plan and potential VE Items
- OCULUS to prepare VE matrix identifying items to be modified and/or removed for CRA approval
- Once we receive approval WT to update the Cost Plan for final review with CRA
- Once CRA approval updated Cost Plan OCULUS will update documentation to reflect these changes

Note. Based on the above approach, we are now thinking updated documentation will be provided mid-January 2025 to reflect changes (at the latest). We will aim to have the Cost Plan updated to reflect the required budget to approach market.

Stormwater Works

- OCULUS to liaise with WSP to confirm feasibility of the following:
  - Replacement of broken / damaged pipes only
    Note. Level of damage to be confirmed
  - Provide input into sacrificial surface treatment that be applied above the pipe network identified for future upgrades to prevent damage to installed public realm works
  - Where ponding occurs, potential to install landscape feature to help alleviate ponding in downpour events

Noting the above, we anticipate that we will not be able to meet the requirement to deliver 100% DR by the end of 2024. If CRA can confirm this is acceptable and the above mentioned tasks are to be undertaken that would be much appreciated.

Any issues at all please do not hesitate to give me a call.

Thank you.

Sch 2.2(a)(ii)
Associate Director

AILA RLA 004447

OCULUS

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OCULUS

Dickson Shops 100% Documentation Readiness Report

Date of Issue
24 April 2025

Prepared for
ACT Government | City Renewal Authority | Infrastructure Canberra

We wish to acknowledge the Ngunnawal people as the Traditional Custodians of the ACT and recognises any other people or families with connection to the lands of the ACT and region.

We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

Prepared for:

ACT Government | CITY RENEWAL AUTHORITY

Prepared by:

OCULUS

Urban Design & Landscape Architecture

ACCESSED.

Accessibility

canopy tree experts

Consulting Arborist

PURDON

Planning

WSP

Engineering

WT

Quantity Surveyor

Rev	Issue	Date	By	Checked
V01	100% DR	11.02.2025	Jordan Evans-Tse	Peta Miskovich
V02	100% DR	10.04.2025	Jordan Evans-Tse	Peta Miskovich
V03	100% DR	24.04.2025	Jordan Evans-Tse	Peta Miskovich

4.0 Safety in Design

4.1 Register
Safety in Design

Project Name	Dickson Shops and Streetscape Design
Package	Package A - Dickson Shops
Project Number	C-2310
Client	City Renewal Authority
Date of Issue	11/02/2025 **Revision** G

	Element / Activity	Hazard	Risk	Risk Rating			Risk Mitigation Strategy	Action by	Residual Risk Rating		
				Likelihood	Impact	Risk Rating			Likelihood	Impact	Residual Risk Rating
Design											
1.01	Slips / Trips	Slips / Trips	Injury from tripping due to uneven paving surfaces, wet surfaces, roots lifting paving and other obstacles such as low elements / garden edging.	Possible	Moderate	10	Ensure selected pavers/ground plane treatments have a minimum R11/P4 slip test rating. Understand testing during design development and post installation to ensure conformance with AS4568. Ensure pavers are installed in accordance with AS1428 to mitigate any lippage that could potentially cause trip hazards. Ensure structural design of pavement accounts for future tree growth / root incursion. Improve stormwater drainage to reduce risk of ponding and risk of injury in wet conditions. Ensure low elements have visual contrast and align to paths. Ensure all grates are heel safe.	Design Team / Contractor	Rare	Moderate	3
1.02	Slips / Trips for visually impaired users.	Slips / Trips	Injury from tripping due to uneven paving surfaces, wet surfaces and other obstacles such as low elements / garden edging.	Possible	Moderate	10	Follow recommendations from 1.1, with particular regard to path network. Design gentle/smooth transitions across surfaces. Design rigid pavements with joints to accommodate movements. Ensure shorelines remain clear to improve movement and circulation for the vision impaired.	Design Team / Contractor	Rare	Moderate	3
1.03	Crime	Crime	Injury / Theft of Property / Vandalism	Possible	Moderate	10	Incorporate Crime Prevention Through Environmental Design (CPTED) principles for Dickson Shops. Incorporate appropriate lighting and signage to design for user safety.	Design Team / WSP	Unlikely	Moderate	6
1.04	Crime	Crime	Real and/or perceived lack of safety from users due to spatial arrangement	Likely	Major	18	Ensure design allows for multiple paths through the shop with uninterrupted sightlines and clear options of movement by users.	Design Team	Unlikely	Moderate	6
1.05	User movement	Conflict Between Maintenance Vehicles and Pedestrians or Cyclists	Collision / Serious Injury	Rare	Major	10	Clearly delineate which areas will be accessed by maintenance vehicles with adequate signage. Provide clear sight lines where maintenance access crosses with pedestrian access. Implement bollards and luminance contrast to denote a change in environment to assist in mitigating any potential conflict between pedestrians and vehicles. Removable bollards are installed where vehicle maintenance access is required.	Design Team	Rare	Moderate	3

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1.06	Maintenance access	Inability for maintenance teams to access services	Pit discrepancies between CCTV footage and survey.	Unlikely	Major	12	Contractor to undertake site investigation works during construction, for the replacement of stormwater works, to ensure pit access is maintained and implemented where required.	Design Team / TCCS / Contractor	Rare	Moderate	3
1.07	Stormwater runoff & flooding	Extreme weather events causing damage to contractors, equipment and built work. Floodwater from high intensity storm event (up to 100ARI)	Injury from unsafe water runoff / overland flow and/or damage to property.	Likely	Moderate	12	Ensure design improves existing stormwater infrastructure to mitigate surface run off. Ensure no surcharging for the minor storm event. Design to maintain flow depth and flow velocity at safe levels VxD limits. Maintain clear pathway for overland flow which is well-graded and free from obstructions/any installations above ground. Hydraulic modelling undertaken - low risks highlighted based on current information.	Design Team / WSP	Unlikely	Moderate	6
1.08	Existing underground and above ground services in the vicinity of the design	Service strikes / clashes, crash with cranes / excavators / existing overhead (lighting elements)/ below ground elements (services, etc.)	Injury to Persons and Equipment from electric shock, explosion, contamination.	Unlikely	Major	10	BYDA and Non-destructive digging at key locations to ensure no service clashes. Insulate overhead wires, identify access routes and trim branches if required. Design new stormwater to avoid clash with existing services. Provide cut/fill plan to enable review against service locations from survey and identify known services likely to be impacted. Add note to drawing regarding existing services. Pole locations avoid trees and building awnings where possible. Low-height poles used in some areas.	Design Team / WSP	Rare	Major	10
1.09	Retaining wall design	Overloading of retaining walls	Injuries, subsidence, structural instability, collapse of walls.	Unlikely	Major	10	Ensure walls are designed for sufficient soil height and surcharge loads. Max heights shown on structural documentation.	Design Team	Unlikely	Moderate	6
1.10	Lighting	Provision of appropriate public lighting for Dickson shops, provision of uniform lighting levels	Real and/or perceived lack of safety from users, extensive tree cover obscures public lighting	Likely	Moderate	12	Ensure lighting design accounts for existing "unsafe" locations within the shops, and improves lighting generally through out the shops. Ensure lighting meets required levels for pedestrian use within the shops. Pole locations are designed around tree locations	Design Team / WSP	Unlikely	Minor	4
1.11	Lighting	Possible risk of people climbing the poles using the building wall.	Risk of people climbing poles and falling causing injury. Risk of damaging CCTV + Light fixtures	Likely	Moderate	12	In some areas, have been able to design out using wall-mounted luminaires. May need to consider either additional building-mounted public lighting, or accepting that public	Design Team / WSP	Possible	Minor	6
1.12	Lighting	Non AEMO Feature Lighting on metered supply	Risk of electric shock when maintaining luminaires and appropriate DB is not isolated	Likely	Moderate	12	Adequate labelling to be provided on the poles of the Non AEMO luminaires to indicate where it is being fed from.	WSP Lighting / WSP Electrical	Possible	Minor	6
1.13	DDA Compliance	DDA Compliance	Non-compliance with Australian Standards. Risk of injury to users, risk of legal actions in response to non-compliance	Possible	Moderate	10	All drawings and specifications are to be reviewed and approved by Access compliance consultant. Pathways designed to DDA compliant grades where possible - some residual risk remains at transitions to existing.	Design Team / Access Consultant	Rare	Moderate	3
1.14	Existing trees	Lower limbs obstructing sight lines	Lower limbs on existing trees obstructing sight lines causing safety concerns with	Likely	Moderate	12	In coordination with Urban Treescapes undertake works to prune the lower hanging tree limbs to improve sight lines and safety for pedestrians.	Arborist / Urban Treescapes / ACT Government	Unlikely	Minor	4

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1.15	User movement	Inadequate circulation paths causing risk of user conflict	Inadequate path width causing entrapment and user conflicts (between pedestrians and cyclists) resulting in injury.	Possible	Moderate	12	Ensure the design incorporates a minimum circulation path of 3m to enable adequate passing of pedestrians and cyclists. Where not possible, i.e.. Taglietti Square, modify planter bed alignment/offset from adjacent building to allow for minimum 1.5m circulation path (this may include the trimming of existing tree roots to enable planter bed wall realignment).	OCULUS / WSP / Arborist / Urban Treescapes / ACT Government	Unlikely	Minor	4
1.16	Entrapment	Potential risk of entrapment due to new furtive spaces within the public realm.	Potential to create areas of entrapment within the public realm that may cause harm to users within the public realm.	Possible	Major	16	Implement CPTED principles, and apply GSUD principles to ensure spaces are well light, there are multiple points of entry and exits to ensure that areas of entrapment are eliminated from the design.	OCULUS	Unlikely	Moderate	6
1.17	General Maintenance	Maintenance inspections, cleaning, etc	Falls, injury	Possible	Major	16	Compulsory safety inductions prior to site visits. Protective clothing to be worn at all times on site. Site vehicles to be appropriately marked with flags/headlights and site lights as per TCCS policy.	TCCS	Rare	Moderate	3
1.18	Safety, Security & Health	Vandalism to shops, furniture, wayfinding signage, etc.	Vandalism / Injury	Likely	Minor	12	Incorporate Crime Prevention Through Environmental Design (CPTED) principles for Dickson Shops. Maintain a tidy appearance and upkeep of the shops, regularly removing any vandalism or rubbish.	Design Team / TCCS	Rare	Minor	2
1.19	Lighting	Non-Operational Lighting	Shops Not Lit, Risk of Trips, Lack of Facial Recognition	Possible	Moderate	12	Maintenance of lighting, operational checks after dusk	TCCS Electrician	Unlikely	Minor	4
1.20	Tree maintenance	Reduced visibility, safety and passive surveillance	Injury / Theft of Property / Vandalism	Possible	Major	16	Tree removal/relocation and appropriate pruning to improve lines of sight and function of CCTV infrastructure	TCCS	Unlikely	Minor	4
1.21	Pit Servicing	Risk of being hit by cars when servicing pits	Injury / Death	Possible	Major	16	Design pits to be on pathways and away from roads as much as possible, following OH&S policies when accessing pits.	TCCS	Rare	Minor	2
1.22	Emergency Vehicle Access	Limited site access	Limited site access causing issues relating to emergency vehicles being able to access the Shops precinct in times of	Possible	Major	16	Undertake coordination with emergency services providers to understand key access points that would be required to assist with ensuring timely response times.	OCULUS	Unlikely	Moderate	6
1.23	Paving bond in trafficable areas	Damage to pavers	Stack bond paving layout in trafficable areas and potential for bricks to pop or crack with tyre movements	Possible	Moderate	12	Confirm paving bond is suitable for turning vehicle movements and change bond if not.	WSP Civil / OCULUS	Unlikely	Minor	4
1.24	Retained clay pavers	Damage to pavers / slips and trips / non-compliance	Potential for retained clay pavers to have non compliant grading and/or the possibility to pop due to degraded subbase	Unlikely	Moderate	6	Confirm condition of subbase and clay pavers, ensure grading / condition is reviewed by contractor during construction.	WSP Civil / OCULUS	Unlikely	Minor	4

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1.25	Trip hazards	Raised landscape elements within public realm	The design includes a terraced landscape element within the public realm that utilises the same recycled bricks as the paved area. Potential trip hazard within the public realm with limited luminance contrast.	Likely	Major	18	Grey precast concrete pavers have been used to denote the primary pedestrian circulation spaces within this Zone (Zone A). Recycled brick paving has been proposed around the tiered landscape element to denote a change in environment with the public utilising the space for seating and internal activation. Colour contrast between the grey precast concrete pavers and the brick to achieve 30% contrast to ensure this is visible for the public.	OCULUS / Accessed	Possible	Minor	6
1.26	Vandalism	The use of full and half bricks within the facia treatment of WA01, WA02, WA03 and WA05.	The use of varying brick sizes could potential lead to vandalism and the breaking of the wall details.	Possible	Moderate	12	Review arrangement of the brick design to mitigate any potential vandalism and breakage. Review specification of mortar and brick ties to ensure a study and well construction design for the public realm.	OCULUS / WSP	Possible	Minor	6

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Construction											
2.01	Demolition	Demolition works exposing hazardous materials such as asbestos within switchboards,	Exposure to hazardous materials or chemicals by users and contractors.	Unlikely	Catastrophic	16	Contractor to ensure asbestos controls are implemented when working in areas where asbestos has been identified. Unexpected finds protocol to be implemented in areas where asbestos has not been identified.	Design Team	Unlikely	Minor	4
2.02	Demolition	Demolition of existing structures undermining existing adjacent footings	Injuries, subsidence, structural instability.	Unlikely	Major	12	Contractor to maintain offset to ensure existing footings are outside the zone of influence. Geotechnical report required to advise on required offsets.	Design Team	Unlikely	Moderate	6
2.03	Working on Elevated Structures	Falls from Height	Injury from falls within the shops, including from roof of existing buildings. Demolition works will require some work at height, falls can result in serious injury	Unlikely	Major	12	Contractor to ensure all potential fall heights are reviewed and checked to ensure that the design complies with relevant Australian Standards and NCC . Suitable site measures proper PPE and equipment to use to assist installation during works. Contractor will require safe work method and proper safety equipment and PPE prior to work execution.	Design Team	Rare	Moderate	3
2.04	Manual handling	Improper techniques being used, limited space	Injury to Workers	Unlikely	Moderate	6	Contractor to ensure workers are trained in proper manual handling techniques	Contractor	Rare	Moderate	3
2.05	Excavations / Trenching / Uncovering of live services	Live Electrical Components	Electric shock / Injury / Death	Possible	Major	16	Dial Before You dig information to be reviewed by contractor. Contractor to conduct WHS assessments, follow safety procedures including digging around live power cables. Services demolition to be documented at the later design phases. Contractor to undertake DBYD procedures prior to undertaking underground works. Unexpected finds protocols to be followed by contractor. Hydrovaccum works to be accounted for in SWMS.	WSP Civil / WSP Electrical / Contractor	Rare	Major	10
2.06	Works near live utilities, DBs, power supplies and power bollards.	Live Electrical Components	Electric shock / Injury / Death	Possible	Major	16	Locate existing services and provide protection, isolate when necessary. Contractor to ensure safe access with safe working clearance around DBs, power bollards and equipment isolators with clear labelling to be incorporated into design in DD stage. Power bollard locations to be reviewed to conform with manufacturers requirements. Contractor responsibility to ensure suitably qualified personnel install items / elements within public realm.	Electrical Contractor / WSP Electrical	Rare	Major	10
2.07	Electrical Installation	Live Electrical Components	Electric shock / Injury / Death	Unlikely	Major	12	No live works, installation to AS3000 Wiring Rules requirements. Dial Before You dig information to be reviewed by contractor. Conduct OHS assessments, follow safety procedures including digging around live power cables.	Electrical Contractor / WSP Electrical	Rare	Minor	2

2.08	Tree protection and removal	Installation of tree protection measures	Injury to Workers, Demolition works will require some work at height, falls can result in serious injury	Unlikely	Moderate	6	Works are to be conducted by qualified arborist with SWMS provided prior to commencement. Contractor to follow approved Tree Management Plan. Works to be conducted in accordance with Safe Work Method Statements using appropriate equipment and PPE. Works to be conducted in accordance with Safe Work Method Statements using appropriate equipment and PPE	Contractor	Rare	Minor	2
2.09	Hazardous materials / contamination	Potential unearthing of hazardous substance.	Exposure of Workers to Contaminants	Rare	Major	12	PPE is provided by contractor in case of hazardous material found on site. Ensure adequate measures are set in place to dispose	Contractor	Rare	Moderate	3
2.10	Machine Excavation	Noise & Vibrations	Hearing Loss / Disturbances to Nearby Residents	Likely	Major	18	Contractor to produce Construction Management Plan to facilitate construction activities in accordance with the recommendations of the Construction Noise & Vibration Assessment. Ensure workers have correct PPE (including hearing protection). Construction Management Plan to facilitate construction activities in accordance with the recommendations of the Construction Noise & Vibration Assessment. Construction Management Plan to facilitate construction activities in accordance with the recommendations of the Construction Noise & Vibration Assessment	Contractor	Unlikely	Moderate	6
2.11	Maintenance access	Inability for maintenance teams to access services	Inability for maintenance teams to access services	Rare	Major	12	BYDA and Non-destructive digging at key locations to ensure design doesn't impede access to service pits.	Design Team / Contractor / TCCS	Rare	Moderate	3
2.12	General Construction	General Construction Risks	Injury to Contractors	Possible	Major	16	Methodology statement required from contractor	Contractor	Rare	Moderate	3
2.13	Site Access	Trespassers	Risk of Damage or Injury to Self / Others / Equipment	Unlikely	Major	12	Site fencing to be detailed on plans. Contractor to adjust fencing strategy to suit construction activities.	Contractor	Rare	Major	10
2.14	Plant Operations on Site	Plant - plant collision on site Collision of plant with site personnel	Damage to Equipment Injury / Death to Contractors	Possible	Major	16	Contractor to schedule works such that plant and labour are not working in the same area at the same time. Constructability assessment required. Safe access with safe working clearance around DBs, power bollards and equipment isolators with clear labelling to be incorporated into design in DD stage	Contractor / WSP Electrical	Rare	Moderate	3

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2.15	Compromised accessibility during construction	Reduced access/ lack of equal access to properties and around site during construction	Discrimination against people with a disability	Likely	Moderate	12	Where temporary pathways are provided by contractor, ensure they are accessible or provide an alternative accessible pathway. Remove/secure trip hazards. Provide protective barriers and fencing around construction site with appropriate signage	Contractor	Rare	Moderate	3
2.16	Issues with Construction Access Points	Restricted Widths for Machinery Access	Delays to Construction Works	Likely	Moderate	12	Contractor to use appropriately sized machinery in interior plaza spaces. Contractor to submit construction methodology outlining access routes	Contractor	Unlikely	Moderate	6
2.17	Site Inspections	General Construction Risks	Falls, injury	Possible	Major	16	Compulsory safety inductions by contractor prior to site visits. Protective clothing to be worn at all times on site. Visitors to be escorted throughout site by contractor personnel at all times. Site vehicles to be appropriately marked with flags/headlights and site lights as per contractor policy.	Contractor / TCCS / CRA / MPC / Design Team	Unlikely	Major	12
2.18	Environmental	Extreme weather events causing damage to contractors, equipment and built work	Equipment damage and injury due to slips	Unlikely	Major	12	Contractor to monitor weather forecasts during construction. Works to be done in stages to limit exposure to weather events. Temporary waterproofing could be provided to protect assets and equipment, and to ensure safety.	Contractor	Unlikely	Moderate	6
2.19	CCTV / Lighting	Falling equipment	Injury from falling equipment.	Possible	Minor	6	Contractor to ensure Cameras / Lighting is to be securely mounted on specialised bracketry. Cameras / Lighting to be mounted at a suitable height to reduce potential for vandalism.	Design Team / WSP Security / WSP Lighting	Rare	Minor	2
2.20	Installation of construction fences	Collapse of construction fencing	Serious injury	Possible	Moderate	12	Contractor to ensure fencing is appropriately constructed. Contractor to follow Construction Management Plan and SWMS provided before installation of fencing.	Design Team	Rare	Moderate	3
2.21	Excavations	Falls into pits/trenches	Injury from falls into excavated areas.	Possible	Moderate	12	Locate pits away from common thoroughfares Provide pits as per standards with suitable locking lids and mechanisms Contractors to be suitably qualified that are aware of, and actively mitigate, risks throughout installation. Segregate trenches from the general public when being developed Contractors to be suitably qualified that are aware of, and actively mitigate, risks throughout installation. DDTS lockable pit lids to prevent public access.	Design Team / Contractor	Unlikely	Minor	4
2.22	Steel structure design	Temporary stability of steel elements during installation	Injuries, structural instability, collapse of structures.	Unlikely	Catastrophic	16	Contractor to confirm installation methodology maintains the stability of the structure throughout the installation.	Design Team / Contractor	Unlikely	Moderate	6

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Nielsen Park Safety in Design Risk Register_Rev A
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2.23	Traffic Management	Collisions Between Pedestrians / Power Bollards / DBs / Furniture with Vehicles	Injury / Death	Unlikely	Catastrophic	16	Contractor to appropriately demarcate areas where vehicles will access. Incorporate staging plans during design to minimise interactions during construction. Locate equipment / furniture away from vehicle collision paths, provide bollards / furniture / planting to prevent vehicle access. Use of removable bollards where maintenance vehicle access is required. Site personnel wear reflective clothing to become more visible on site. Ensure design follows all appropriate guidelines set out in MIS 01. Adopt appropriate risk management processes including Road Safety Audits as required by the Principal or TCCS.	Design Team / WSP	Unlikely	Minor	4
2.24	Stockpile location and stability	Collapse of stockpile(s)	Damage to equipment and/or causing injuries to users/contractors	Unlikely	Major	12	Contractor to ensure location of stockpile(s) is accounted for in design. Ensure stockpiles are adequately contained and reinforced to minimise risk of collapse.	Design Team	Unlikely	Minor	4
2.25	Excavation / Trenching	New stormwater drainage / other services may require deep excavations in close proximity to building or furniture footings	Risk of undermining building footings resulting in damage, injuries and/or collapse.	Unlikely	Major	12	Pipe corridors to be outside zone of influence and depths of new installations near building footings to be minimised where possible. Designer to provide exclusion zone for footings to the service based on advice from the services engineer & survey data. Geotech investigations to further inform risk mitigation.	WSP Civil / Hydraulic	Unlikely	Minor	4
2.26	Stormwater Runoff + Flooding	Condition of existing buried Stormwater assets is unknown	Some existing stormwater pipe and pits are poor structural condition and may collapse creating as risk of subsidence, and injury from trips/falls.	Unlikely	Major	12	Investigate condition of existing stormwater assets. Remove and replace defective pipes with new pipe, and ensure new installations are suitable to support the loading. CCTV survey has been reviewed and measures proposed. Contractor to alert design team as to any discrepancies.	WSP Civil / Contractor	Rare	Major	10

Impact		1	2	3	4	5
	Likelihood	Insignificant	Minor	Moderate	Major	Catastrophic
1	Rare	1	2	3	10	12
2	Unlikely	2	4	6	12	16
3	Possible	3	6	10	16	18
4	Likely	4	10	12	18	20
5	Almost Certain	10	12	16	20	25

Risk Rating	
Extreme 16-25	Hold - Immediate Strategy Plan
High 10-15	Improve control measures, reduce risk
Med 3-9	Review and assess implication on project
Low 1-2	Proceed, minimal impact on project

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Binder 3 106

From: "Davis, SophieE"
Sent: 10/12/2024 10:22 AM
To: "Hua, David" <David.Hua@act.gov.au>; "Adrian, Tristan" <Tristan.Adrian@act.gov.au>; "Chaulagain, Krishna" <Krishna.Chaulagain@act.gov.au>; "Greene, Bonnie" <Bonnie.Greene@act.gov.au>; "Goddard, Laurence" <Laurence.Goddard@act.gov.au>; "ODonoghue, Mark" <Mark.ODonoghue@act.gov.au>; "Halgren, Luke" <Luke.Halgren@act.gov.au>
Cc: "Yamin, Rashed" <Rashed.Yamin@act.gov.au>Sch 2.2(a)(ii) oculus.info>;
Sch 2.2(a)(ii)
Subject: Dickson Shops upgrade - Detailed Design (Lighting/Roads/Maintenance) meeting 21 Nov 2024

Hi all

Please see below a summary from the meeting held on 21 November to discuss the design for the Dickson Shops upgrade. Sorry it has taken so long to get this to you! Please let me know if you have any corrections or questions.

Dickson Shops - Detailed Design Meeting – 21.11.24

Attendees:

- David Hua, Roads ACT, TCCS
- Krishna Chaulagain, Roads ACT, TCCS
- Tristan Adrian, Place Management, TCCS
- Bonnie Greene, Place Management, TCCS
- Laurence Goddard, Roads ACT, TCCS
- Luke Halgren, City Services, TCCS
- Mark ODonoghue, City Services, TCCS
- Sophie Davis, CRA

Sch 2.2(a)(ii)

Key points

- TCCS:
  - Timber not supported due to maintenance requirements. Maintenance team at capacity with timber elements elsewhere in Canberra
    - CRA to review internally
  - Maintenance vehicle access as per current access at a minimum
    - Design team to review potential to increase if possible
  - 240L shrouds required
  - Preference to salvage existing furniture and plants
  - More trees and plants requested by community, therefore irrigation required (hand watering not possible)
    - Suggestion to use irrigation to establish plants in first years.
    - Can be difficult in smaller areas, therefore, preference for drip irrigation until plants are established.
    - Pick drought-tolerant species, so there is the option to deinstall irrigation and reduce ongoing maintenance requirements.
- Roads ACT:
  - PV03: Exposed aggregate finish: not accepted. If maintenance required, concrete will be replaced with typical grey concrete only
  - Segmental paving on crossings prone to failure
    - Note this has been adjusted and was a graphical error

- Concrete paving on bedding sand and FCR is fine for pedestrian areas

- Lighting:
  - 4 locations for wall-mounted public lighting
  - Lights on CRA owned building do not require approval
  - Other lights on other walls will need negotiations with building owners / MOUs
  - Wall light locations need to be exposed to the sky (can't be under awning), so they automatically turn on when dark
  - Conduit from public lighting network required
  - Wall-mounted circuit breaker required for maintenance, alternatively labelled breaker in closest pole
  - Surface mounted box on wall
  - Schedule for decorative lighting will be provided, e.g. luminaire types to be tallied up, to be submitted mid-week
  - Not on AEMO lighting list: linear LED strips, poles in Taglietti Square, catenary
  - Positioning of catenary lighting is flexible to work around branches
  - Decorative lighting will fall under City Presentation
  - Minimise number of poles in Taglietti Square for events
  - CRA to reach out to building owners re wall-mounted lights
- Other questions / comments:
  - Concrete paving on bedding sand and FCR is fine for pedestrian areas
  - Strong sub-base required for trafficable areas
    - Refer to OC / WSP details
  - Irrigation specifications in MIS are complex, maintenance team happy to accept departure / small drippers for small spaces where required
  - TCCS general support for decorative lighting discussed, but need clarification on who will maintain them / pay the bills

We are hoping to submit the final detailed plans for TCCS design acceptance in February 2025. Thanks for the time you have taken to provide feedback up to now.

Thank you

Sophie

Sophie Davis
Project Manager, Design and Place

T Sch 2.2(a)(ii)
E: sophieE.davis@act.gov.au
(Please note I do not work Fridays)

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We acknowledge the Ngunnawal people as Traditional Custodians of the ACT and recognise any other people or families with connection to the lands of the ACT and region. We acknowledge and respect their continuing culture and the contribution they make to the life of this city and this region.

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Meeting Agenda
Dickson Shops & Streetscapes Design

OCULUS

01 February 2024

Meeting Title	Security and Communications Meeting
Project Name	Dickson Shops & Streetscapes Design
Project Stage	Package A – Task 1 Preliminary Sketch Plan (PSP) Package B – Task 1 Site Investigations & Place Analysis
Meeting Date	4:00pm, 01 February 2024
Meeting Location	Microsoft Teams

Key Stakeholders				
Attendees	**Apology**	**Name & Organisation**		**Transmitted**
☒	☐	Sch 2.2(a)(ii)	Australian Federal Police (AFP)	☒ email
☐	☒	Sch 2.2(a)(ii)	Australian Federal Police (AFP)	☒ email
☒	☐	Laila Kazak, Senior Director, Territory Risk Intelligence	Justice and Community Safety Directorate (JACS)	☒ email
☒	☐	Daniel Clement, Senior Design Engineer, Digital Data and Technology Solutions (DDTS)	Chief Minister, Treasury and Economic Development Directorate (TEDD)	☒ email
☒	☐	Pat Clark, Fibre Network Manager, Digital Data and Technology Solutions (DDTS)	Chief Minister, Treasury and Economic Development Directorate (TEDD)	☒ email

Project Team				
☒	☐	Ivan Sukloski, Major Projects Canberra	Project partner & contract administrator	☒ email
☐	☒	Philip Agius, Major Projects Canberra	Project partner & contract administrator	☒ email
☐	☒	Richard Blakely-Kidd, Major Projects Canberra	Project partner & contract administrator	☒ email
☒	☐	Sophie Davis, City Renewal Authority	Project Lead	☒ email
☒	☐	Sch 2.2(a)(ii)	Lead consultant - Urban Design	☒ email
☒	☐		Lead consultant - Urban Design	☒ email
☒	☐		Lead consultant - Urban Design	☒ email
☒	☐		Subconsultant – Engineering & technical	☒ email
☒	☐		Subconsultant – Engineering & technical	☒ email
☒	☐		Subconsultant – Engineering & technical	☒ email
☒	☐	Emily Heath, Communication Link	Communications and engagement partner	☒ email
☒	☐	Sch 2.2(a)(ii)	Canberra City Place Manager	☒ email

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No.	Agenda Item	Resp.	Date
1.0	**Introduction**		
1.1	Site introduction: + CRA / OCULUS introduce the project location and key images of site describing existing condition.	Note	01/02
2.0	**Security Services Project Requirements**		
2.1	Existing Camera Locations + Connections: + JACS notes that there are existing ACT Government ICT connections to both the Dickson Community Health Centre and Dickson Library. May be a good location for externally mounted CCTV. + JACS lists nearby CCTV located at: o 480 Northbourne Government Office Building o Dickson Ambulance station o Dickson bus station o Dickson College o Dickson Hawdon St TCCS depot o TC bus station o CM light rail station	Note	01/02
2.2	AFP Overview of main issues associated with crime and/or antisocial behaviour: + 251 incidents recorded in Dickson Shops in the last calendar year (01/01/23-31/12/23). + A lot of these incidents were just community patrol – not necessarily related to the shops. + Many of the incidents may not have necessarily occurred at the shops, it is just the location noted in the report (i.e. public talk to police at the shops about an unrelated incident) + Most common reasons for a call out were theft, panhandlers becoming aggressive, assaults and verbal abuse. + Police often attend Dickson Shops as part of a missing person's report. + Additional CCTV would assist with missing persons, giving a better police response time as well as the ability to search backwards through CCTV recordings for any sighting. + People coming out of The Tradies Club are also a cause of disturbance. + The camera at Dickson Pool is well used but no help once people enter Dickson Shops.	Note	01/02
2.3	CCTV Discussion by AFP: + The biggest issue with CCTV visibility is tree blockages. + JACS agrees and notes they work with TCCS for pruning, also notes that it is important to understand future canopy of new planting. + ACT policing notes that the design can be futureproofed through use of multifunction poles with necessary cabling for CCTV configured. CCTV	Note	01/02

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	cameras can then be moved as necessary accounting for changed canopy/future design changes. + AFP noted cameras in the car park would be helpful as well: o 15 incidents have been recorded in the carpark. + Regarding the usefulness of CCTV as a deterrence AFP notes: o CCTV often catches people out who don't realise there are cameras in the area. o Broadening the CCTV network will help ACT Police dramatically. o It generates perceptions of community safety. o Community associations often want CCTV in their local precincts. o AFP also notes lighting is one of the best deterrents other than CCTV. When combined the ability for CCTV to show colour footage greatly improves usefulness. o Dionysus notes the possibility to implement short term lighting solutions. + CRA queries why there isn't already CCTV in Dickson Shops. o JACS: Growth has come in bursts, with no big investment recently, with the most recent addition being Glebe Park in 2021. + DDTS notes to ensure TCCS are included as a stakeholder due to their role in CCTV infrastructure at bus stations and the library.		
2.4	Discussion of CCTV Costs and Funding: + DDTS notes from a DETS view if new multifunction poles are installed it would be unfortunate not to deploy CCTV and operate it, better to spend the extra money at that stage. + CRA queries, as CCTV wasn't included in the project budget, what it might cost to set up the CCTV infrastructure. o JACS notes the cost of the CCTV cameras are not significant, most of the costs come from the backend in terms of data and licencing costs. o JACS would apply to government to request funding for that portion. + WSP queries regarding project funding and if there is anything at this point that needs to be known to aid with funding/the process in general. o JACS: Directorates look at the cost benefit of installation, but recognise it is hard to cost deterrence. + WSP also queries if there is any way this process can be done without a full cost-benefit analysis. o JACS is required to apply for CCTV as per government policy, including cost/benefit analysis. This would be done separately but parallel to the project to achieve CCTV funding.	Note	01/02
2.5	Camera Locations: + WSP requests any existing documents that JACS / AFP / ACTGov would prefer to use as a basis of design to then propose CCTV locations.	JACS / AFP / WSP	06/02

	○ e.g. Other sites with similar layouts/demographics. ○ Places that have ICT access (such as Dickson Library). + AFP notes that ideally every pole would have fibre network connection installed and then could retroactively look at the design and appropriate locations. ○ This allows for easy relocation in the case views become blocked (e.g. when outdoor dining venues put up shade umbrellas blocking CCTV). + JACS puts forward the idea of a site walk with relevant parties to start to discuss possible locations (JACS / AFP / DDTS / WSP). + Regarding the necessary number of CCTV cameras AFP notes: + A lot of cameras used now are single cameras with four heads that cover all directions. + A camera such as that could capture the entirety of The Arcade with a single camera. + As an estimate, AFP believes 10-12 cameras would be required. + WSP requests documentation of existing ICT/CCTV points: ○ DDTS to send as built documentation to WSP + DDTS notes Challis St, Antill St have some but request a follow up email from WSP so they can send through a full list. ○ DDTS to send documentation to WSP ○ WSP to send request via email + DDTS to confirm existing camera locations before undertaking the site visit.	/ DDTS / OCULUS	
2.6	Stakeholder + Community Communication: + Dionysus queries how the number of incidents in Dickson compares to other locations: ○ AFP would need to confirm and will send through some information to Dionysus and CRA. ○ AFP notes less incidents in Manuka and Kingston (due to CCTV coverage), and that Lawson Shops might be similar. + Dionysus requests guidance from AFP on communication with businesses regarding what can and can't be done regarding panhandlers and rough sleepers, and who businesses should contact when there are concerns? ○ AFP notes the best course of action is to call the police. + AFP notes regarding rough sleepers, they do get a lot of calls from businesses, but note their capacity to resolve this is mostly limited to move on orders. Where possible Police will direct rough sleepers to Churches or Women's Shelters but often, they end up still sleeping rough, just in a different location.	Dionysus / CRA / AFP / JACS	06/02

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	○ Dionysus will explain this position to businesses but notes it is more difficult in Dickson as rough sleepers are often at front of house. + JACS notes other business areas have raised similar concerns regarding these lines of communication and will take it to their EGM as something the Dickson community are bringing forward. JACS will keep CRA / Dionysus informed of progress. + AFP to also communicate this to their Superintendent and find out what strategies can be put forward. AFP also notes wher Sch 2.2(a)(ii) eturns he would be a good source for inputs in this area. + CRA notes with community consultation soon to begin, any of those inputs/strategies would be good to have going forward.		
3.0	**Communications Services Project Requirements**		
3.1	Discussion of Public Wi-Fi: + DDTS notes that the public Wi-fi initiative hosted by TPG could be a point of connection for cameras. This contract is at a late stage and AFP would need to confirm contractual information. ○ There is an existing JACS public safety CCTV camera deployed on the Cowper St bus station that is connected to DICK_AP10. + DDTS as part of future proofing recommends all multifunction poles also have conduit allowance for Wi-Fi not only CCTV. ○ This should also consider combining Wi-Fi/CCTV conduit in combined services trenches. + All public Wi-Fi decisions will need to be coordinated with TPG. + CRA to set up a separate meeting regarding Wi-Fi.	DDTS / AFP / CRA	06.02
4.0	**Additional Items**		
4.1	+ CRA to organise site walk with AFP / JACS / WSP to discuss CCTV locations. + JACS / AFP to clarify the appropriate courses of action to be communicated to businesses when concerns arise about homeless people occupying space outside their shops. + CRA to organise an additional meeting with all parties to cover Wi-Fi requirements.	CRA / JACS / AFP	06.02

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Dickson Shops upgrade – Public safety – walk through

Location: On-site (meet Dickson Library)

7 March 2024

Attendee	Apology	Name	Organisation
☒	☐	Sch 2.2(a)(ii)	ACT Policing, Intel
☒	☐		ACT Policing, Intel
☒	☐		ACT Policing, City Station
☒	☐		ACT Policing, City Station
☒	☐		ACT Policing, City Station
☒	☐		Team Leader ACT Policing Operations Support
☒	☐		Commander Risk & Planning, ACT Fire and Rescue
☒	☐	Laila Kazak	Senior Director, Territory Risk Intelligence, Justice and Community Safety Directorate (JACS)
☒	☐	Sch 2.2(a)(ii)	Security Officer, Security and Emergency Management Division, JACS
☐	☒	Daniel Clement	Senior Design Engineer, Digital Data and Technology Solutions (DDTS), Chief Minister, Treasury and Economic Development Directorate (CMTEDD)
☐	☒	Pat Clark	Fibre Network Manager, DDTS, CMTEDD
☒	☐	Sophie Davis	City Renewal Authority, Project Manager
☒	☐	Ivan Sukloski	Major Projects Canberra – project partner
☒	☐	Sch 2.2(a)(ii)	OCULUS – Consultant - Landscape Architect
☒	☐		WSP – subconsultant – engineering and technical
☒	☐		WSP – subconsultant – engineering and technical

Background

- City Renewal Authority (CRA) is planning upgrades to public spaces in the Dickson Shops precinct starting mid-2025 (site map provided at Attachment A).
- One of the aims is to improve public safety – both real and perceived - through environmental design. Other aims include improving amenity, accessibility and connectivity, visual quality and sustainability, to ensure it remains a popular shopping and community destination.
- CRA is working with Major Projects Canberra and consultants OCULUS and WSP.
- On 1 February the project team met with Sch 2.2(a)(ii) Laila Kazak (JACS), Daniel Clement and Pat Clark (DDTS) to discuss issues with crime and antisocial behaviour and potential CCTV infrastructure. It was agreed that a walk-through of the site would be helpful.
- Aim of the walk-through is to identify key 'trouble spots' to inform locations for future CCTV enabling infrastructure, and other environmental design measures that will improve safety.

Key points

- Dickson Shops attracts criminal and antisocial behaviour due in part to proximity to the light rail (accessibility), nearby social housing and drug supply/demand which is self-reinforcing. Situation appears to have worsened in recent years.
- Poor lighting is a contributing factor. Lighting improvements will be delivered in the upgrade.

- The upgrade will also contribute to improving safety by making the public spaces more inviting and comfortable, improving footfall and passive surveillance.

Security cameras

- CRA will install enabling infrastructure for security cameras (e.g. multifunction or 'smart' poles and conduits) at strategic locations. This would enable JACS to roll-out security cameras as funding becomes available.
- Important to prioritise locations to ensure the most important areas are captured, noting budget constraints will mean we can't capture everything.
- Preferred camera type involves 4 heads rather than spinning camera.
- Locating poles at key entry/exit points a smart move because we cannot capture everything.
- Key locations discussed include:
  - Outside Dickson Library (including view toward carpark)
  - Courtyard south of post office
  - Entry/exit points into southern courtyards
  - Near laneway between Woolworths and newsagent
    - Woolworths already has internal CCTV infrastructure so greatest benefit might be achieved by focusing on view into courtyards to provide coverage to small traders.
  - Badham Street Crossing (near McDonalds)
- Other design considerations include:
  - Tree canopies and umbrellas which obstruct camera views.
  - Height of cameras - if too high it is less likely to capture faces.

Other suggestions

- Background music – especially classical – is one method that has been shown to help create a calm environment and help reduce incidence of crime/antisocial behaviour.

Emergency vehicle access

- Access for emergency vehicles also discussed with ACT Fire and Rescue.
- Currently, access is limited due to fixed infrastructure creating obstacles and narrow laneways/courtyards with low hanging eaves.
- Fire crews currently rely on hoses and hydrants to access some areas.

Dickson streetscapes projects

- A masterplan is also being developed for other streets in the Dickson Group Centre which will help to guide future upgrades.
- Some trouble spots include areas along Woolley Street and behind the Coles service station.

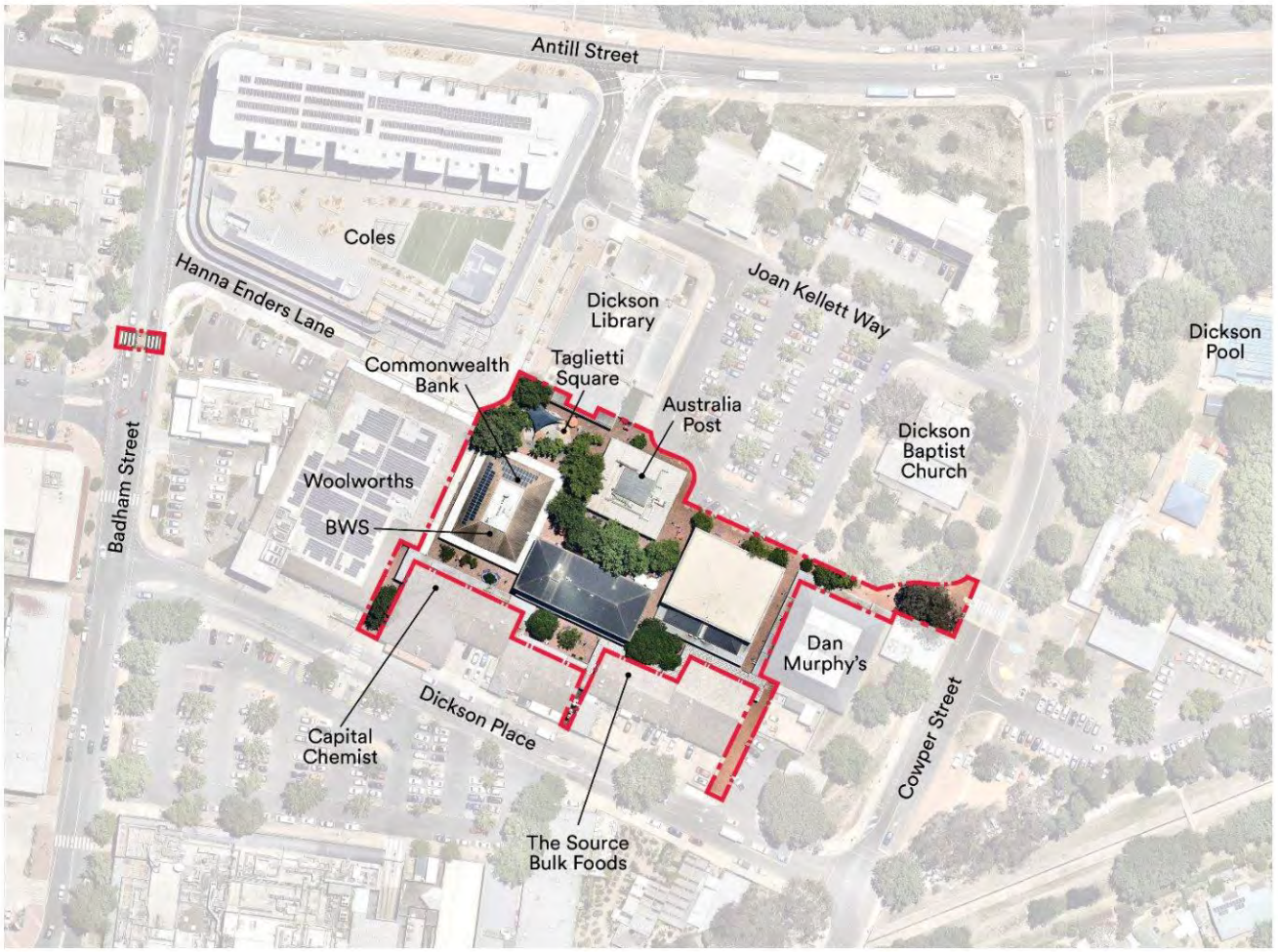
Actions

- CRA consultants to examine site constraints and develop draft plan identifying potential locations for CCTV enabling infrastructure (e.g. smart poles). Will be distributed for comment.

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Attachment A

Project site map



ACT Government | CITY RENEWAL AUTHORITY

Dickson Shops upgrade – Draft PSP

Date: 9 April 2024, 3.30pm – 4.3pm

Location: MS Teams and in-person (480 Northbourne Avenue, GF room 26)

Attendee	Apology	Name	Organisation
☒	☐	Tristan Adrian	Place Management, Transport Canberra and City Services (TCCS)
☒	☐	Brian Bathgate	Place Management, TCCS
☒	☐	Bonnie Greene	Place Management, TCCS
☒	☐	Richard Noble	Design Review and Asset Acceptance, TCCS
☒	☐	Sophie Davis	Project Manager, City Renewal Authority (CRA)
☒	☐	Ivan Sukloski	Infrastructure Officer, Major Projects Canberra
☒	☐	Sch 2.2(a)(ii)	Project Manager & Senior Assoc. Landscape Architect, OCULUS
☒	☐		Assoc. Landscape Architect, OCULUS

Background

- CRA is planning upgrades to courtyards and laneways in the Dickson Shops precinct starting mid-2025. This will include upgraded paving, lighting, furniture, planting beds, and other infrastructure.
- Consultants OCULUS have been engaged, with various subconsultants including WSP.
- Draft PSP has been developed.

Discussion

Maintenance vehicle access

- Existing access for maintenance vehicles is limited due to narrow courtyards, low eaves and other infrastructure. Access is currently off Dickson Place (eastern laneway), stopping at back of Dan Murphy's. Long hoses are used to clean areas that can't otherwise be reached. Hose length 10m TBC. 70m extension possible, noting pressure loss.
- Vehicle Access and Parking Plan (L210) in draft PSP shows intention to retain existing access. TCCS advised it would be ideal to be able to get maintenance vehicles into Taglietti Square, Zone B and the main outdoor dining courtyard (Praga Café and Hudsons). Reaching other areas with a hose would be acceptable.
- RN noted that developers for Dickson Village were to rectify landscaping on eastern edge of Hannah Enders Lane. Could be opportunity to replace a fixed bollard with removable bollard.
- Previous advice from Mathew Grant has indicated that a 2.7m gap would allow cleaning and horticulture trucks is to enter the area.

Action – SD to confirm clearances with Josh Bracey.

- Outdoor dining tables and chairs impede access. Generally dealt with by ensuring any cleaning and maintenance occurs outside business hours.

Action – SD to obtain copies of existing outdoor dining permits.

- Design team to review bin locations to ensure accessibility for cleaning crew. 6m nom. from roads preferred.
- Plants and watering
- OCULUS to develop detailed planting plan. Noted there were a few species not included in MIS 25 being considered, to provide seasonal colour or edible plantings.
- Use of potted lagerstroemia's in laneway along Dan Murphy's (where in-ground planting is not feasible) was suggested at previous meeting with Urban Treescapes. TCCS advised that vehicle access for watering will be important. Proximity to bins is generally a good indicator.

Materiality and infrastructure

- OCULUS proposes timber seating for comfort and visual appeal.
- TCCS noted they don't have capacity to maintain timber. A few possible alternatives were suggested, including aluminium, recycled plastic, and timber composites.
- Bins must be 240L capacity.

Action – SD to consult with RoadsACT for feedback on paving and other assets they would be responsible for (e.g. lights).

Sustainability

- Shade sail outside Dickson Library proposed to be removed. TCCS willing to look at retaining large poles and shade sail for future reuse.

Actions

- Action – SD to confirm access clearances with Josh Bracey.
- Action – SD to obtain copies of existing outdoor dining permits.
- Action – SD to consult with RoadsACT for feedback on paving and other relevant assets.

From: Davis, SophieE
To: Bathgate, Brian
Cc: Greene, Bonnie; Adrian, Tristan
Subject: RE: Davis, SophieE shared the folder "Dickson Shops 75% Document Readiness" with you
Date: Wednesday, 20 November 2024 12:04:00 PM
Attachments: image001.png
image002.gif
image003.png
image004.png
image005.png
image006.png
image007.png
image008.png
Dickson Shops upgrade - vehicular access plan.pdf
image010.png

Hi Brian
Thanks for your comments – please see my responses below.
Regarding service vehicle accessibility – please see below and attached the current vehicular access plan. I believe this is consistent with the existing access but please let me know if you don't believe this is the case.
I asked the design consultants whether vehicle access could be extended as per highlighted paths below and this is their response:

- Past Australia Post (red arrow) - due to the existing location of the planter and building columns we cannot provide additional vehicle access.
- Woollies laneway (south) - due to the width of the laneway and the location of the existing tree we cannot provide additional vehicle access.



Thank you
Sophie

From: Bathgate, Brian
Sent: Tuesday, 19 November 2024 4:22 PM
To: Davis, SophieE
Cc: Greene, Bonnie ; Adrian, Tristan
Subject: RE: Davis, SophieE shared the folder "Dickson Shops 75% Document Readiness" with you

OFFICIAL

Good afternoon Sophie.
Just a few comments from Place Management.

- Please confirm service vehicle accessibility to the central parts of the shops. See above.
- We do not support the use of timber decking. An alternate low maintenance material to be utilised. Noted.
- We do not support the use of green wall along the Woolworths wall, drawing L206 - a mural would be preferable. Noted.
- While we are happy for grass trees and tree ferns to be installed, we will not be in a position to replace them. Noted.
- Can you please confirm that the bin shrouds are 240L in size. I will confirm that all bins are 240L.
- The placement of the bin shrouds on drawing L861. They either need to be abutting the shrub bed or at least 4m away. Noted.
- Could it please be noted we would like the opportunity to salvage existing plants and furniture, (sets, bin shrouds) prior to construction. Noted.

Thanks very much

Brian Bathgate | Assistant Director, Land Management
P [redacted] | E **brian.bathgate@act.gov.au**
Place Management | Transport Canberra and City Services Directorate | **ACT Government**
480 Northbourne Ave Dickson 2602 | GPO Box 158 Canberra ACT 2601
www.act.gov.au | www.cityservices.act.gov.au | @tccs_act

Connected services for the people of Canberra



"You may leave your footprints here" by Ngunnawal, Wiradjuri, Kamilaroi and Barkindji artists Lynnice Church and Leilani Keen-Church.

From: Davis, SophieE <SophieE.Davis@act.gov.au>
Sent: Thursday, 14 November 2024 3:38 PM
To: Adrian, Tristan <Tristan.Adrian@act.gov.au>; Bathgate, Brian <Brian.Bathgate@act.gov.au>; Brookbanks, Paul <Paul.Brookbanks@act.gov.au>; Chaulagain, Krishna <Krishna.Chaulagain@act.gov.au>; De Beckker, Wim <Wim.DeBeckker@act.gov.au>; Dimitrovska, Snezana <Snezana.Dimitrovska@act.gov.au>; Greene, Bonnie <Bonnie.Greene@act.gov.au>; Halgren, Luke <Luke.Halgren@act.gov.au>; Hua, David <David.Hua@act.gov.au>; Jensma, Michael <Michael.Jensma@act.gov.au>; Napier, Anne <Anne.Napier@act.gov.au>; Palmer, Renae <Renae.Palmer@act.gov.au>; Reza, Shium <Shium.Reza@act.gov.au>; Yamin, Rashed <Rashed.Yamin@act.gov.au>
Subject: Davis, SophieE shared the folder "Dickson Shops 75% Document Readiness" with you

Davis, SophieE invited you to view a folder

Dickson Shops detailed design documentation (75%) in case you wish to review ahead of upcoming meetings. Thank you.

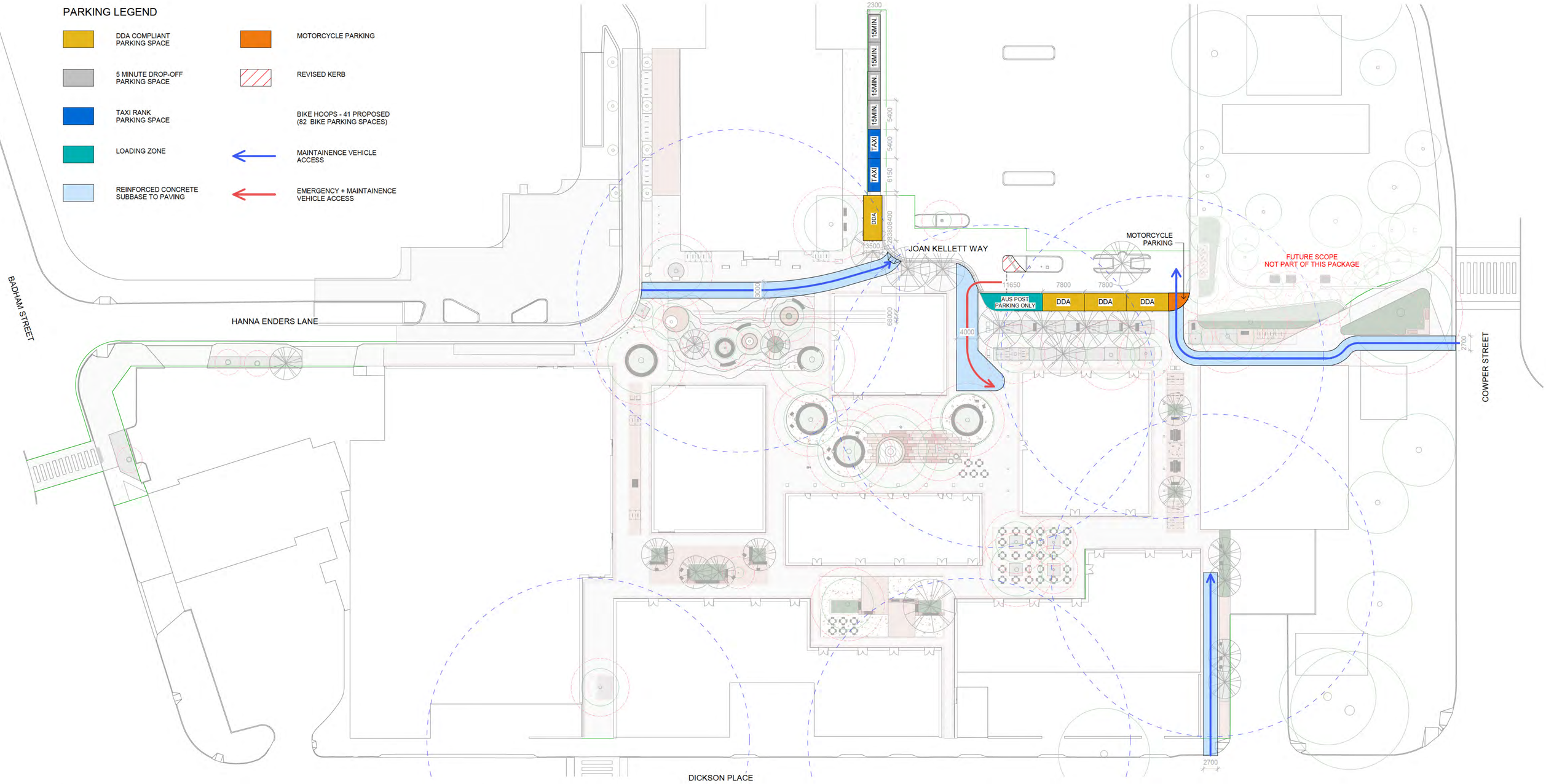
Dickson Shops 75% Document Readiness

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PARKING LEGEND

- DDA COMPLIANT PARKING SPACE
- 5 MINUTE DROP-OFF PARKING SPACE
- TAXI RANK PARKING SPACE
- LOADING ZONE
- REINFORCED CONCRETE SUBBASE TO PAVING
- MOTORCYCLE PARKING
- REVISED KERB
- BIKE HOOPS - 41 PROPOSED (82 BIKE PARKING SPACES)
- MAINTAINENCE VEHICLE ACCESS
- EMERGENCY + MAINTAINENCE VEHICLE ACCESS



PARKING SCHEDULE				
TYPE	CURRENT QUANTITY	PROPOSED QUANTITY	LOSS/GAIN	NOTES
15 MINUTE PARKING	4	4	0	
DDA	4	4	0	
LOADING (AUS POST VEHICLES ONLY)	1	1	0	
MOTORCYCLE (Nom.)	3	3	0	
TAXI	6	2	4	

PARKING NUMBERS HAVE BEEN INFORMED BY UTILISATION DATA AND SITE ANALYSIS.

CRA HAS UNDERTAKEN INITIAL CONSULTATION ON POTENTIAL CHANGES.
FURTHER CONSULTATION WILL TAKE PLACE IN LATE 2024 AFTER ACT ELECTIONS.

NOTES
THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL LANDSCAPE SCHEDULES AND TECHNICAL SPECIFICATION AND OTHER CONSULTANTS DRAWINGS. CHECK AND VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF ANY WORK. DO NOT SCALE DRAWINGS - REFER TO FIGURED D MENSIONS ONLY. INFORM OCULUS OF ANY DISCREPANCIES FOR CLARIFICATION BEFORE PROCEEDING. UNLESS NOTED OTHERWISE THIS DRAWING IS NOT FOR CONSTRUCTION.

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SERVICES SHOWN ON THIS DRAWING ARE APPROX MATELY ONLY. THE EXACT LOCATION IS TO BE CONFIRMED ON SITE BY CONTRACTOR PRIOR TO COMMENCEMENT WORK.

NOTE: PENDING FURTHER CONSULTANT INPUT

ISSUE	DATE	AMENDMENT	DRN	APRVD
A	16.09.24	DRAFT FSP	GF	PM / JET
B	04.10.24	FINAL FSP	FB/GH	PM

OCULUS
Pavillion Studios, 14 Kendall Lane, Canberra
03 9002 2411 australia@oculus.info
Canberra - Ngunnawal Country
Melbourne - Wurundjeri Woi Wurrung Country
Sydney - Gadigal Country

PROJECT
PACKAGE A - DICKSON SHOPS UPGRADE
DICKSON, ACT

CLIENT
CITY RENEWAL AUTHORITY

CONSULTANTS
WSP, PURDON, ACCESSED, WT, CANOPY, VERIS

STATUS
FINAL PSP PACKAGE

DRAWING SCALE
3.5 0 3.5 7 10.5 14 17.5
SCALE 1:350 m

NORTH POINT

DRAWING TITLE
VEHICLE ACCESS + PARKING PLAN

PROJECT Nº C-2310
SHEET SIZE A1
DRAWING Nº L208
ISSUE B

Autodesk Docs://OC_Dickson Shops and Streetscape Design/OC_Dickson Shops and Streetscapes Design_R23.rvt

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CITY RENEWAL AUTHORITY

DICKSON SHOPS REVITALISATION

Design Acceptance Summary Report

June 2025



Taglietti Square © ACT Government 2024

Binder 3a,2

Question today
Imagine tomorrow
Create for the future

Dickson Shops Revitalisation
Design Acceptance Summary Report

City Renewal Authority

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Rev	Date	Details
0	11/06/2025	For TCCS Design Acceptance

	Name	date	signature
Prepared by:	Mehdi Bayat	11/06/2025	
Reviewed by:	James Longkwang	11/06/2025	
Approved by:	James Longkwang	11/06/2025	

WSP acknowledges that every project we work on takes place on First Peoples lands.
We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

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Appendix R Dilapidation Report
Appendix S Design Certificates
Appendix T Safety in Design Register

1 Project Description

1.1 Introduction

The project is a subcomponent (also referred to as Package A) of stage 2 of Dickson Revitalisation Program. The proposed upgrades are focused on creating a sustainable public space that encourages people to visit and stay longer, driving social and economic activity in the process. Some of the key features of the upgrade include:

- improved paving
- enhanced lighting and other safety features
- decluttering of Taglietti Square (library plaza) and other courtyards
- preservation of mature trees in elevated planters
- consideration of existing and new public artworks
- opportunities for incidental play
- improved seating opportunities
- widening the pedestrian link from Cowper Street to the post office
- improved pedestrian connections across Badham Street.

The brief requirement for the stormwater component is to undertake investigation and design of the existing network within the Dickson Shops precinct (as part of Package A) with regards due to its poor condition (drains damaged due to tree root ingress into pipes and blockages), that may have caused flooding of the courtyards during storm events.

1.2 Objectives

CRA's intends for the Dickson Group Centre t have several distinct precincts, each with their own unique identity, mix of uses and public spaces and expect a revitalised Group Centre to improve pedestrian movement and walkability and strengthen the connectivity between these precincts, which will will increase visitation and activate Dickson's diverse shopping, dining and commercial precincts, support surrounding businesses, and encourage private sector investment.

CRA's aspiration is for the upgrades to the Dickson Shops and Streetscapes to revitalise the urban environment of the Dickson Group Centre, which will result in increased visitation and longer dwell times, increased trade for local businesses, greater economic activity and support urban renewal efforts in the Group Centre.

The expected key project benefits include:

- Provide a legible, accessible and pedestrian friendly urban environment;
- Strengthen wayfinding between the different precincts of the Group Centre, from the light stop through to the Dickson Shops and Dickson Pool;
- Support a vibrant social and economic hub through increased day-time and night-time activity;
- Encourage continued private investment in housing, dining, retail and business opportunities within the Group Centre;
- Encourage active travel through investing in improved infrastructure; and
- Enhance sustainable urban renewal outcomes across the City Renewal Precinct.

1.3 Site Location

The project site is bounded by Joan Kellet Way to the north, Hanna Enders to the northwest, Dickson Place to the south, and Cowper Street to the east, as shown below.



Figure 1 - Project Site Masterplan

The site is noted to extend across multiple Blocks (13, 33, 20, and 19), within Section 30, Dickson ACT. The site is zoned as Community Facilities (CF) with a Telecommunication easement west and south of Block 32.

Binder 3a,7



Figure 2 - Project Site Block Divisions (source: ACTmaoi 2025)

1.4 Key Parties

The following are the key parties involved in the project.

Client	City Renewal Authority
Developer	City Renewal Authority
Contractor	Yet to be appointed
Engineering Consultant	WSP Australia Pty Ltd
Landscape Consultant	Oculus Landscape Architecture, Urban Design Pty Limited

1.5 Stakeholder Consultation

There has been several rounds of consultation on the project proposals as the scheme evolved, and feedback and outcomes from the engagements are included in Appendix A.

1.6 Authority Engagements

Relevant Authorities have been consulted with regards to the proposed works including Icon Water, and Evo Energy for supplies to the site.

Status updates are as follow:

- Evo Energy: An offer (connection agreement & invoice) has been sent to the client for endorsement.
- Icon Water: Works are internal, and do not require Icon Waters acceptance.

2 Project Planning and Investigations

2.1 Planning Advice

Urban Planning advice received for the proposed development is included in Appendix B

2.2 Topographical Survey

Topographical and feature site surveys were completed in 2023 and 2024 (and the most recent versions of survey are included in Appendix C).

2.3 CCTV Drainage Inspections

Stormwater drainage closed-circuit television (CCTV) investigations were commissioned in 2023, and reports from these inspections are included in Appendix D.

2.4 Geotechnical Site Investigations

The report from Geotechnical site investigations completed in 2025 is in Appendix E.

2.5 Tree Management Plan

A Tree Management Plan has been prepared which provides advice and outlines protection measures for trees. This plan is included in Appendix F.

2.6 Tree Pruning Plan

The Tree Pruning Plan included in Appendix G provides guidance on pruning of trees to facilitate some construction activities.

2.7 Traffic Assessment

A traffic study was completed to assess the northern car park area and proposed changes and a Traffic Memo outlining this is included in Appendix H. Further swept path analyses were completed for maintenance vehicle access into the site, and sketches are provided in Appendix I

3 Proposed Works

3.1 Landscape Upgrades

Details of the proposed Landscape public realm upgrades are provided on Landscape Drawings in Appendix P. There is no Landscape Management and Protection Plan (LMPP) prepared for the site works (as this is considered irrelevant).

3.2 Pavements

Pavements are to be reconstructed within the public realm, and full detail of the pavement proposals can be found in Civil Drawings included in Appendix O.

Supporting pavement calculations are provided in Pavement Memo report in Appendix J.

3.3 Electrical Works

Street lighting upgrades and electrical connections are required for the site and are detailed within the Electrical Drawing set in Appendix O.

Supporting calculations are provided in separate Lighting and Electrical Memo reports, in Appendix K, and Appendix L respectively.

3.4 Structural Elements

Structural elements are required for the new landscape furniture items proposed within the site.

Structural details for these items are provided on Structural Drawings in Appendix O.

3.5 Stormwater Renewals

Existing stormwater assets within the site are to be renewed and/or replaced.

Further detail of the Stormwater proposals are contained in Civil Drawings included in Appendix O, with supporting information including hydraulic modelling outputs and pipe loading calculations provided in Stormwater Memo report in Appendix M

3.6 Traffic Controls Devices

New Signage and Line Marking are to be provided as consequential works within the car park and circulatory road, and full detail of the Traffic Control Devices (TCD) proposals can be found in Civil Drawings included in Appendix O.

4 Technical Detail

4.1 Products

There are no new and/or custom supplied products associated with the proposed works.

4.2 Exception Clause

The list of variances from, and/or non- compliances with, the requirements are included in Appendix xxx

4.3 Temporary Works

There are no separate Temporary Works designs included in this submission.

4.4 Safety in Design

A Safety in Design Register is included in Appendix T for reference.

4.5 List of Drawings

The full list of drawings included in this submission package is presented in Appendix O (Engineering Package), and Appendix P (Landscape Package), and also supplied in MS Excel format.

5 Other Supporting Documentation

5.1 Submission Cover

The completed Infill Developments Submission Cover Sheet for this design review is provided in line with the requirements for Design Review submission for Infill Developments.

5.2 Letter of Authorisation

A Letter of Authorization was obtained from the client and is included in Appendix Q of this report.

5.3 Dilapidation Report

A dilapidation report has been prepared to highlight the location and condition of visible (above surface) existing features within the site extents. The dilapidation report is included in Appendix R of this report.

5.4 Design Certificates

Design Consultant's certification for respective elements of works are in Appendix S of this report.

Appendix A

Stakeholder Consultation Reports



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ACT Government | CITY RENEWAL AUTHORITY

Revitalisation of Dickson Shops

(Courtyards and Laneways)

Consultation Report

Phase 2 and 3

28 May 2025



ACT Government | CITY RENEWAL AUTHORITY

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Executive summary

The local community has enthusiastically welcomed the opportunity to collaborate on the development of Dickson's future. The community offered valuable insights into the necessary improvements for Dickson Shops. Generally, they showed enthusiasm for the proposed upgrade and provided suggestions for refining and considering additional opportunities.

Between 19 February – 1 May 2024, the ACT Government's City Renewal Authority commenced phase 2 and 3 engagement with local businesses, property owners, residents, community members, and key stakeholders on the draft design for a planned upgrade to Dickson Shops.

Phase 2 consultation involved direct contact with businesses and building owners located within the Dickson Shops area, as well as the Dickson Residents Group and other key stakeholders to provide an initial preview of the draft design prior to public consultation.

Phase 3 involved broader consultation with the public on the proposed draft design.

Building on the Dickson Place Plan, the Authority has engaged in focused consultation initiatives to foster the revitalisation of the Dickson Shops and public areas. In 2024, the consultation efforts specifically targeted business traders, building owners, key community members, the Dickson Residents Group, and the public. It offered the opportunity to share input, voice thoughts, and address concerns to contribute to the forthcoming phases of the project. This document offers a summary of the insights gathered during this period.

Phase 1 was conducted in 2023 focusing on targeted engagement with key community members, building owners, and business traders about potential upgrades for Dickson Shops.

Throughout phase 2 and 3, key stakeholder and community members were provided with project information, illustrated plans, and artists' impressions to help them understand the proposed design.

Phase 2 and 3 engagement received strong levels of participation. Figure 1 summarises the feedback received through various engagement channels.

252
YourSay surveys completed

60+
Dickson Shops businesses visited

77+
Conversations at the pop-up events

3
Submissions received

35
Comments on social posts

865
Pieces of feedback received

Figure 1. Community feedback by consultation method

Key consultation insights

Figure 2 provides a summary of key feedback themes from this consultation process, generated from all feedback methods. Please note that while figures are represented as percentages, feedback was often attributable to more than one theme.

More detailed information can be found in the following report.

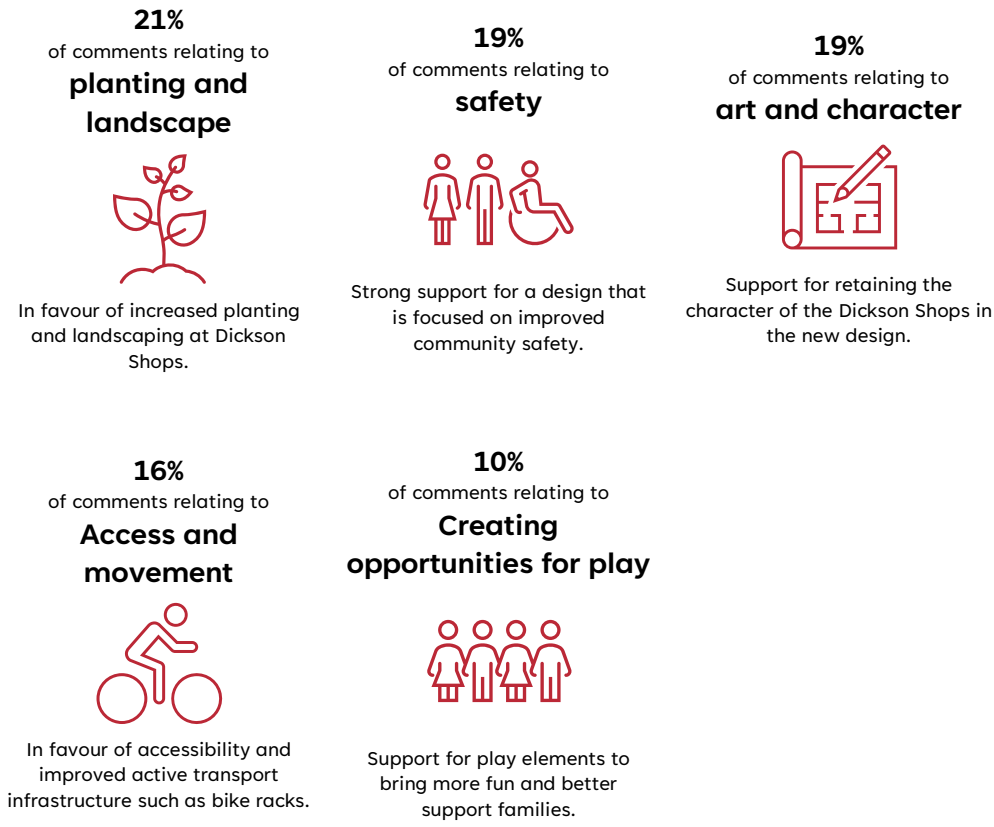


Figure 2. Consultation themes

Project background

Dickson Shops is one of the oldest group centres in Canberra. It is well known as a community and shopping precinct that includes the Dickson Library, supermarkets, specialty stores and eateries. The Shops are surrounded by tree-lined neighbourhoods with a mix of long-term and new residents.

The centre is undergoing significant change with increased higher-density residential dwellings, new commercial office developments, and the new Coles development.

Building on the Dickson Place Plan, the ACT Government's City Renewal Authority (the Authority) engaged with local businesses and community members on the revitalisation of the Dickson Shop's courtyards and laneways.

The proposed upgrades to Dickson shops will include:

- improved paving and stormwater upgrades
- enhanced lighting and other safety features
- decluttering of Taglietti Square (library plaza) and other courtyards
- preservation of mature trees in elevated planters
- consideration of existing and new public artworks
- opportunities for incidental play
- improved seating opportunities
- widening the pedestrian link from Cowper Street to the post office; and
- improved pedestrian connections across Badham Street.



Image 1: Artist impression depicting revitalisation of the Dickson Shops

Location

The draft designs focused on the courtyards and laneways of the Dickson Shops area, as shown in the image below.



Image 2: Draft masterplan for revitalisation of the Dickson Shops

Consultation process

This stage of consultation was made up of phase two and phase three. Phase one of the consultation occurred in 2023, concentrating on initial discussions with business owners, building owners and the Dickson Residents Group. The goal then was to gather feedback to aid in shaping the early-stage concept design.

Phase two – draft design preview

19 February 2024 – 7 March 2024

Phase two consultation involved direct contact with businesses and building owners located within the Dickson Shops area, as well as the Dickson Residents Group and other key stakeholders to provide an initial preview of draft design prior to public consultation. Activities included:

Table 1: Phase 2 engagement activities

Method/Activity	Date	Number of participants
Door knocking Direct engagement with businesses in the area to discuss the draft design and to promote the upcoming drop-in session before public consultation.	Thursday 22 February 2024 Friday 23 February 2024	Approximately 60 businesses
Drop-in session Aimed at local businesses and building owners to provide an opportunity to preview the draft designs, ask questions, and provide feedback before public consultation	Tuesday 27 February 2024	16 business owners or representatives attended
Stakeholder meetings Held with key stakeholders including: • Dickson Residents Group (DRG). • Dickson Library branch manager • Local artist Bev Hogg who produced most artwork in the Dickson Shops area. • Tanja and Tabitha Taglietti (daughters of the late Enrico Taglietti AO, architect of the Dickson Library)	Various between 19 February and 7 March 2024	1 representative from Dickson Library 3 representatives from DRG 3 more key stakeholders.
Email The Authority reached out to the Dhawura Ngunnawal Caring for Country Committee (via the Traditional Custodian Engagement Coordinator at EPSDD) to provide the	21 February - 30 April 2024	8 representatives

opportunity to preview the design and provide input prior to public consultation.		

Phase three – public consultation

12 March 2024 – 23 April 2024

Phase three involved broader consultation with the public on the proposed draft design. Engagement activities included:

Method/Activity	Date	Number of participants
YourSay Survey A dedicated YourSay webpage and survey were available for six weeks, giving the public an opportunity to review and offer feedback on the proposed plans.	12 March – 23 April	252 survey responses 3 written submissions
Pop-up events Two pop-up events took place near Dickson Library, within Dickson shops, inviting the public to view the designs and share their feedback. See **Appendix B** for engagement collateral.	Thursday 4 April 2024 Saturday 13 April 2024	77+ conversations with community members
Blind Society Workshop The Authority collaborated with the University of Canberra to develop a tactile model to communicate the proposed changes to those with vision impairments. A workshop with the Canberra Blind Society was conducted to present the proposed design using the tactile model and gather feedback.	Wednesday 1 May 2024	9 representatives from the Blind Society attended



Image 3: Image from the workshop conducted with the Blind Society, featuring the tactile model.

Promotional activities

To ensure stakeholders were aware of the project and consultation details, a range of promotional activities were undertaken. These included:

Phase 2 – Draft design

- **Website** – the Authority's website was updated to include key messages about the project including project milestones and consultation information.
- **Stakeholder email updates** – an email was sent to key stakeholders and business owners to inform them about the project and future consultation activities.
- **Project poster**– a poster was developed and placed at the CRA shopfront at Dickson Shops to inform business owners about the project and to encourage their participation in consultation activities.
- **Flyer** – a flyer was created to help promote the upcoming drop-in session during doorknocking.
- **Letters** – an email was sent to building owners to inform them about the project and inviting them to the drop-in session.

Phase 3 – Public Consultation

- **Media release** – issued by the Authority on 12 March 2024, to launch the consultation and key project milestones.
- **E-newsletter** – an update about the project was included in the Authority's March e-newsletter.
    - The e-newsletter was delivered to 2,008 recipients with 893 opens and 516 clicks.
- **Letterbox drops** – Residents and key stakeholders within the Dickson Group Centre and surrounding streets were provided with a flyer presenting the project and outlining the specifics of the public consultation.
- **Poster –** A poster was displayed on the Authority's shop front in Dickson. While we explored additional locations, securing permission from building owners proved challenging.
- **Dickson Library screen** – A digital poster was displayed on screens within the Dickson Library.
- **Letterbox drops** – a project letter from the Authority was provided to residents, Dickson streetscapes businesses and key stakeholders within Dickson Group Centre.
- **Dickson Library screen** – promotion flyer displayed on the Dickson Library's digital screens.
- **Social media** – social media posts were shared across the Authority's social media channels to promote the consultation. The below tables outline the statistics for each social media channel throughout the Public Consultation period.

Communication collateral examples are in **Appendix C.**

Social media statistics

- Facebook statistics

Posts	Impressions	Reach	Reactions, comments and shares	Reactions	Comments	Shares	Link clicks
6	15,453	14,997	170	134	29	7	99

- Instagram statistics

Posts	Impressions	Reach	Shares	Likes	Comments	Saves
5	4,025	3,709	31	158	6	3

- LinkedIn statistics

Posts	Impressions	Engagement	Clicks	Reactions	Reposts
2	4,845	490	490	76	3

Stakeholder mapping

Before beginning engagement activities, a thorough stakeholder map was developed to highlight key stakeholders to ensure they can be contacted to provide feedback for the revitalisation project.

Stakeholder details were gathered through doorknocking, online research, and ACTLIS and ASIC searches. This information was compiled into a stakeholder list that was developed into visual stakeholder maps for businesses and building owners.

See **Appendix A** for the Dickson stakeholder maps.

Consultation feedback summary – Phase two

Feedback from local businesses and organisations

The table below outlines the main feedback received from businesses and the Dickson Library branch manager during this phase of targeted engagement (phase 2).

Table 2: Phase 2 summary of feedback from businesses and Dickson Library Branch Manager

Theme	Feedback
Landscape and Infrastructure	• Garden beds at grade – consider ways to reduce risk of being trampled. • Proposed seating design – o concerns about the new seating being occupied by homeless people. o gaps between timber slats may be difficult to clean. • Questions raised about whether removal of stage will impact on busking, performances and community events.
Safety	• Concerns raised over issues relating to safety and social problems in the area (e.g. homeless community) and whether the upgrade will help to alleviate these. CRA noted that the upgrade would deliver better lighting and allow for CCTV to be installed in future. By providing better quality spaces this will entice more visitors, which will also improve passive surveillance, which contributes to reducing crime and antisocial behaviour. • A-frames impede accessibility, however are currently permitted. • Desire for improving wayfinding throughout the area. • Concerns raised over trip hazards in the existing paving.
Dickson character	• Majority of businesses were supportive of the design. • Business owners want to ensure the upgrades refresh the area, while maintaining the character of Dickson (for example, by retaining sculptures). • Maintain high-quality standards, even with outdoor dining arrangements. • Suggestion to repurpose the glazed tiles atop the raised garden beds. • Vacant shopfronts a concern.
Access and movement	• Recommendations to increase the number of bike parking spaces, including spaces visible from cafes. • Suggestion to include charging stations for electric bikes and a bike repair station. • Suggestion to ensure bike parking does not obstruct access to postal boxes.
Play	• Respondents wanted to ensure the sheep and dog sculptures were retained. • Suggestion to incorporate a water feature into the design if funding permits.
Other	• Concerns were raised over the impact on business throughout construction and how this will be mitigated. CRA noted that once the design was finalised a construction plan will be developed that will identify timelines and staging. Minimizing impacts on businesses will be a key priority.

	• Rear courtyards – suggestion to ensure the centre of each courtyard is accessible not just E-W but also N-S direction. • Suggestion to make Dickson Shops a sustainability leader (for example, trialling waste management initiatives or stormwater harvesting).

Dickson Residents Group summary

The below table outlines feedback from the Dickson Residents Group meeting on 19 February 2024.

Table 3: summary of feedback received from members of the Dickson Residents Group.

Area	Notes
Taglietti Square	• Support the open space in front of the library which will increase flexibility to accommodate events. • Clutter from A-frames is a problem. It was noted that it will continue to be a challenge post-upgrade, as they are currently permitted under Code of Practice for Movable Signs. • The square is very hot in summer. Please consider the placement of trees and seating to ensure adequate shade. • Umbrellas are good for temporary additional shade. UV protection is required. • Consider softening the corners of design elements (e.g seating). • Water misting is good for cooling and play opportunities. • Query regarding the tree species. CRA confirmed these are currently Crepe Myrtles for aesthetic appeal and to suit conditions, however species selection is still being considered. • Query regarding ground surfaces. CRA confirmed it was concrete with warm tones.
Feedback Zone A (courtyard south of post office)	• Pleased with the intention for this to be a social, relaxing zone with informal play opportunities. • Need to ensure there are peaceful spaces to sit, and set away from activity. • Flexibility to accommodate future outdoor dining is important. • Most food and beverage outlets close early afternoon, with no night-time activation. Would love to be able to eat at the shops at night. • Would like to see decorative lights in trees to provide ambiance.

Consultation feedback summary – Phase three

Public consultation summary

More than 865 pieces of feedback sourced from phase 3, including the YourSay survey, written submissions and pop-up inputs, underwent thorough review and analysis. The top 5 themes represented in feedback received are listed in table 4. This represents over 85% of the feedback received.

Table 4: Phase 3 summary of themes across feedback provided

Theme	Summary
Urban greening 21% of comments relate to planting and landscaping	**Strong support for additional trees and plants.** • Respondents emphasize the importance of trees, garden beds, and greenery as top priorities for enhancing the area. • There is a strong community desire for this to improve shade and thermal comfort, aesthetics, sustainability, as well as the health benefits. • Some advocated for the preservation of all existing trees, expressing concerns about insufficient plantings. • Respondents appreciate the addition of new planter beds to increase greenery and improve the area's overall appeal. • Improvements to maintenance needed. "It needs a more welcoming space with greenery, shade and lighting so we want to spend time there, not just pass through hastily."
Safety 19% of comments relate to safety	**Strong support for creating more inviting and safe spaces for the community and to reduce anti-social behaviour.** • Many respondents express concerns about safety. Improved lighting is seen as crucial for pedestrian safety and deterring antisocial behaviour. • Community members highlight the need for clearer information about proposed safety features like lighting and CCTV. • Effective lighting is deemed essential for enhancing feelings of safety at nighttime, with calls for better placement than current lighting to discourage theft and improve surveillance. • Some respondents doubt the design's ability to address antisocial behaviour effectively, expressing scepticism about its capacity to create a safer environment. Solutions and a focus on improving pedestrian safety and security are requested. • While outside the project scope, there were requests for more active surveillance and increased police presence to address concerns about crime and antisocial behaviour. "There are many 'characters' in Dickson, and it feels unsafe at night for women and families."

Dickson Character 19% of comments relate to art and character	**A desire to improve the area while preserving its unique character.** • Majority of respondents view the proposed design favourably, appreciating the addition of upgraded seating and garden beds for a more comfortable and inviting environment. However, there were varying opinions on the extent of change. Some desired minimal alterations, while others felt the design wasn't ambitious enough. • Preserving the existing character of the shops was important to many, although felt the proposed changes were too superficial and expressed a desire for more significant or creative proposals. • Suggestions for incorporating more colour and greenery to match Dickson's character are made to enhance its appeal further. • Suggestions to increase the appeal of all entry areas to the shops precinct and its external surrounds. • Reusing some of the existing bricks was welcomed for environmental benefits and to preserve the existing atmosphere of the shops. • Caution is urged to retain elements like public art and the public piano which are considered successful existing elements. • Some respondents also requested new public art and decorative lighting. • Respondents emphasise the importance of maintenance. "Dickson Shops has an existing unique character that I would be sad to see go. The focus should be on thoughtful, preservative upgrades with opportunities for local art and culture."
Access and movement 16% of comments related to active travel and infrastructure	**Support for more active travel, infrastructure and better accessibility.** • Respondents stressed the need for increased bike parking in well-lit areas, catering to various bike types, including electric bikes. • There were suggestions for clean and safe public toilets within the area. • Charging stations were suggested for added convenience. • The importance of accessibility was highlighted, particularly for elderly members of the community. Some members of the public expressed concerns about whether some of the proposed elements, particularly in Zone C and laneway E, would create too much clutter and compromise accessibility. The importance of ensuring accessibility for those with mobility issues and vision impairments was also highlighted. • Retaining disability and short-stay parking was important to many. • There is a strong demand for improved active travel connections to surrounding areas. • Strengthening the east-west pedestrian link was seen as a positive. • Respondents emphasised the importance of ensuring that bike parking and infrastructure cater to diverse user needs, including those with mobility challenges, to promote inclusivity and accessibility. • Questions raised over the lack of information on the pedestrian crossing at Badham Street. "There are not enough bike racks. The ones available are crowded with bikes when I go to the shops."

Play 10% of comments relate to play	**A desire for increased opportunities for play.** • Parents and community members expressed frustration over the lack of current play options within or close to the Dickson Group Centre for kids. • There were a wide variety of suggestions for play opportunities. These ranged from climbable sculptures, musical elements, and tactile play, to stepping logs and 'ground surface play' (for example, hopscotch and chalk drawing). Safety, inclusivity, and catering to different age groups was a recurring theme. • While some advocate for play, others stress the area's primary function as a shopping centre. Concerns are raised about proposals like water play zones, with opinions divided on their suitability. • There was also a desire for larger play opportunities nearby, with suggestions for grassy areas, playground equipment, and nature or water play. • Incorporating incidental play options and facilities for teenagers is also proposed. The open space south of the Baptist church was cited as a potential location by several respondents. • Whilst the retention of existing artwork was appreciated, there were suggestions to include new artwork into the design. "There's not much opportunity for urban play other than keeping sheep. How about incidental options for play in courtyards (small walls to balance on, fun public art to engage with, stepping stones through gardens or rocks to climb). Some seating for teens to hang out too - not just all bench seats."

Blind Society summary

The below table outlines a summary of feedback provided by the Blind Society held on 1 May 2024.

Table 4: summary of feedback from the Blind Society workshop

Theme	Summary
Infrastructure	• **Infrastructure** - better integrating and aligning infrastructure was supported. • **Objects** (e.g. public art) - that are narrower at the base than above are a hazard. ◦ ground-level tactile markers can be used to assist individuals with vision impairment in detecting changes in their surroundings. • **Fixed seating** - preferred to loose seating which can be problematic due to changes in placement. • **Bike racks** – visual contrast helpful when approaching bike racks and bollards, especially if they are silver or have reflective surfaces.
Building and construction	• **Building edges** - ensure that building edges are clear and unobstructed. • **A-frames** - concerns raised regarding A-frames as potential trip hazards. • **Railings -** consider barriers at base to prevent guide dogs from crossing over.

	• **Construction fencing** - ensure construction fencing feet do not stick out causing trip hazards.
Other	• **Seeing-eye dogs** – access to grassed areas is important for guide dogs to have a toilet break.

YourSay Feedback

A survey was run on the ACT Government's YourSay platform to gauge community feedback in the following areas:

- **Design prioritisation** - What features are most important to the public
- **Zone prioritisation** - Which areas most need an upgrade and which zones are the highest priority
- **Project satisfaction** - Satisfaction with key focus areas of the project
- **Playful elements -** Opportunities to improve playful elements' and/or play opportunities for all ages.

Throughout this consultation, a total of 252 people participated in the survey. Survey participants were primarily aged between 35-44 years (30%). 20% of respondents fell within the age range of 45-54 years, followed by 16% aged 55-64 years, and 15.5% aged 24-34 years.

The survey responses showed that 3 participants identified as Aboriginal or Torres Strait Islander. 59% identified as female, 30% identified as male, 3% identified as non-binary, and the remaining preferred not to say.

A summary of the feedback received is provided in this section of the report.

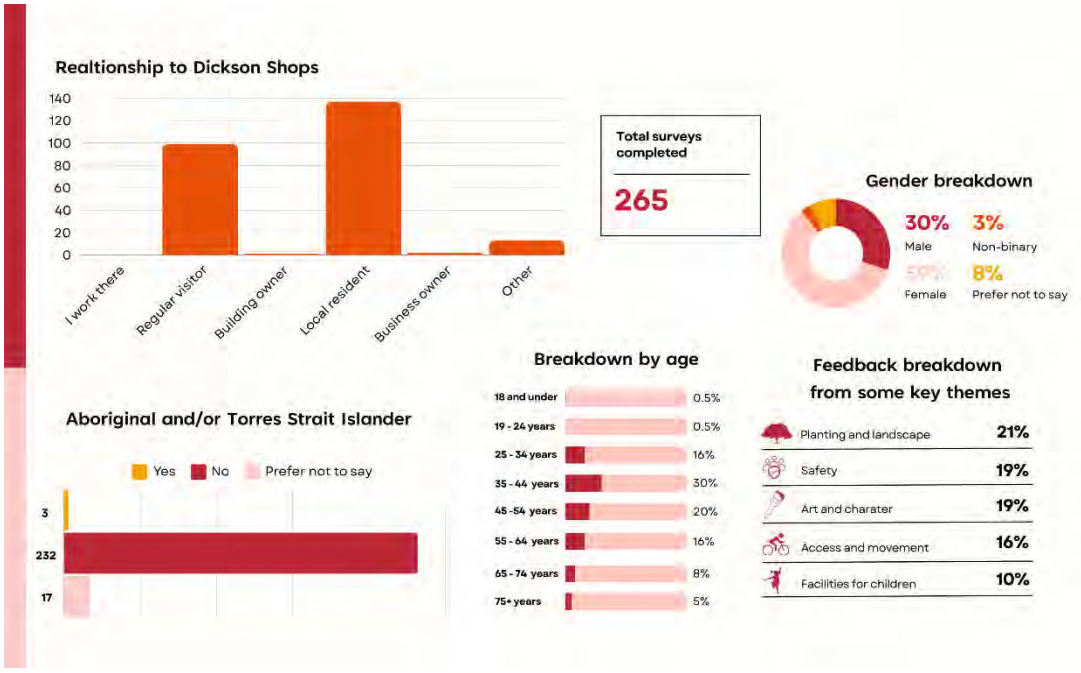


Image 4: YourSay statistics

Prioritisation of features

The survey provided a list of elements that could potentially be used within the final design for the upgrade of Dickson Shops. Prioritisation would assist in determining what should be included in the final design.

11 elements were provided to participants for ranking. The below table shows the average rank for each element. The average rank is the sum of the ranked position of the choice, multiplied by the response count for the position choice, divided by the total 'Count' of the choice. A low average rank indicated a higher preference from participants.

After ranking the provided themes from 1-11, respondents were then asked:

'What makes these things a priority for Dickson Shops?'

Considering that the range between the lowest and highest averages is a factor of 1, it can be concluded that all elements are regarded as equally important to the community. The following table lists the proposed elements from highest to lowest priority and summarises the feedback provided.

Table 1. Design prioritisation

Proposed element and its rank	Summary
1st - More trees and garden beds **Average rank 2.5**	Trees, garden beds and greenery were seen as the highest priority for respondents. The community has a strong desire for more trees and garden beds. Respondents highlight the importance of greenery not only for its aesthetic appeal but also for environmental sustainability and temperature control in large open spaces. Many express a desire for increased urban greenery to create a more inviting atmosphere, attract more visitors, and enhance the area's overall appeal.
2nd - Updated paving **Average rank 2.7**	Feedback on current paving highlighted concerns about safety, accessibility, and maintenance. There is a strong emphasis on smooth pathways for pedestrians and cyclists. Overall, the consensus is that updating the paving is essential for creating a more welcoming and functional public space.
Equal 3rd - improved stormwater drainage **Average rank 3**	Respondents believed that enhancements were needed to fix current flooding issues within the area.
Equal 3rd – Better lighting **Average rank 3**	Many respondents' express concerns about the current lack of adequate lighting, particularly at night, which contributes to feelings of insecurity and uneasiness. Improved lighting is seen as essential to create a safer environment for pedestrians and deter antisocial behaviour.

Equal 3rd – updated furniture **Average rank 3**	Respondents' express dissatisfaction with the current seating, describing it as uncomfortable and dated. They expressed the need for modern, inviting furniture that complements the unique character of Dickson while providing ample seating for visitors to relax and enjoy the area.
Equal 3rd – bike racks **Average rank 3**	Community members expressed the need for an increase in bike parking in visible areas.
Equal 3rd –playful elements **Average rank 3**	Feedback regarding play features highlights a significant need for family-friendly amenities and play opportunities. Parents express frustration over the lack of options for their children, noting the absence of parks, playgrounds, or play equipment in the area. Suggestions include incorporating subtle urban play opportunities within courtyards and retaining existing features like the sheep. Respondents emphasise the importance of making the area more inviting and accessible for families, especially with the growing population of young children in the neighbourhood.
4th - Wider pedestrian space (zone B) **Average range 3.2**	Feedback regarding wider pedestrian space emphasised the need for improvements to enhance safety, accessibility, and overall attractiveness of the area.
5th – Open space for events **Average range 3.3**	Community feedback was positive about plan to maintain open spaces and minimising clutter to ensure ease of movement, especially for people with disabilities. Some comments were raised over increasing greenery in open space to minimise the eat impact during the warmer months.
6th – Reuse of existing bricks (as feature paving or seating and planter walls) **Average range 3.4**	There is a consensus on the environmental benefits of recycling bricks where possible and preserving the existing atmosphere of the shops. Some residents advocate for incorporating artistic elements using reused bricks while ensuring that decorative features do not compromise pedestrian safety or accessibility.
7th – Public art **Average range 3.5**	Respondents noted that they appreciate the existing public art but emphasise the need for maintenance and additions to prevent the space from becoming generic. There are concerns about safety, particularly at night, which could be addressed not only through better lighting but activation of the space with events and artistic elements.

Zone prioritisation

To understand which areas are in most need of an upgrade, the following survey question was asked:

'Which areas most need an upgrade? Which zones on the map do you think should be the highest priority?'

6 zones were provided to participants for ranking from 1-3 with 1 being the highest priority. The below table shows the average rank for each element. The average rank is the sum of the ranked position of the choice, multiplied by the response count for the position choice, divided by the total 'Count' of the choice. A low average rank indicated higher preference from participants.

Considering that the difference in average score factor across all areas is less than 1, it can be concluded that all zones are regarded as equally important on a priority scale to the community.

Table 2. Zone prioritisation

Zone/area	Number of responses	Average score
Taglietti Square (outside library)	164	1.4
Zone E (laneway along Woolworth)	146	1.4
Zone A (south of post office)	111	2.0
Zone B (stretch between Cowper Street and the post office)	113	2.2
Zone D (eastern-most laneway)	89	2.2
Zone C (smaller courtyards to the south)	133	2.3

Project satisfaction

10 project design elements were provided for participants to rate on a scale of 1 to 10, with 10 being highly satisfied and 1 being not satisfied or design does not address objective. Table 3 provides these elements ranked from highest rating to lowest rating, based on their average score out of 10. All elements showed some level of satisfaction as the rated scores were above 5, but high levels of satisfaction were not seen with the highest score achieved being 6.8. As a follow-up, participants were asked:

'We're interested to know why you liked or disliked elements of the design. Do you have any comments about why you gave the above ratings?'

The following table lists the proposed elements from highest to lowest priority and summarises the feedback provided.

Table 3. Project satisfaction

Ranked elements	Rank	Total score	Average score out of 10
Trees and plantings	**1**	**1715**	**6.8**
	Community members were highly in favour of maintaining existing greenery for shade and character. There are comments surrounding the lack of sufficient plantings and greenery to create a pleasant environment and combat urban heat in open areas. Concerns are also raised about potential obstacles created by new garden beds and the need for accessibility. Additionally, respondents express a desire for native species and regular maintenance.		
Lighting	**2**	**1631**	**6.5**
	Community members considered lighting to be one of the best improvement suggestions for the area. However, respondents emphasised the need for clearer information about proposed improvements, particularly regarding safety features like lighting and CCTV. Respondents stress the importance of effective lighting to enhance feelings of safety, particularly at night. There are also calls for better placement of lighting to discourage theft and improve surveillance. Additionally, respondents' express scepticism about the proposed changes' ability to address safety concerns effectively.		
Refreshing the area while retaining Dickson's distinct character	3	1614	6.4
	Respondents appreciate efforts to refresh the centre, such as updated furniture and paving with planters, but express a desire for more innovative features like space for busking, the public piano, and interactive art. Some worry that proposed changes may destroy existing character, urging that existing elements like public art and play elements to be retained. There were calls for more creativity and consideration of Dickson's distinct vibe.		
	4	1605	6.3

Ranked elements	Rank	Total score	Average score out of 10
Comfort and visual appeal	The proposed design received positive feedback as a significant improvement over the current layout at Dickson Shops, with respondents appreciating the addition of public seating and garden beds creating a more family-friendly atmosphere. However, some individuals suggested incorporating more colour and greenery into the design to further enhance its appeal.		
Space for events and social gatherings	5	1567	6.2
	Respondents appreciated the modern update and the creation of more open spaces, hoping it would alleviate the feeling of congestion in the area. There were also suggestions to enhance specific areas like Taglietti Square for better event hosting. Overall, opinions varied on the effectiveness of the proposed design in facilitating events and fostering a welcoming atmosphere.		
Bike parking	6	1538	6.1
	The respondents emphasised the necessity for increased bike parking in well-lit areas. Additionally, they urged for bike parking to cater to various types of bikes, including electric and suggested the installation of charging stations.		
Accessibility and wayfinding	7	1530	6
	Some members of the public raised concerns about the design's suitability for individuals with mobility issues, particularly those using walking aids. The presence of inadequate wayfinding systems hinders navigation for some users.		
Safety	8	1505	6
	Some respondents expressed doubts about the design's ability to address antisocial behaviour effectively. Overall, there is scepticism about the design's capacity to create a safer environment, with calls for more concrete solutions and a focus on improving pedestrian safety and security.		
Public Art	9	1422	5.6
	Respondents emphasise the importance of preserving existing art elements, while also advocating for the addition of new art pieces to engage and inspire visitors. Overall, there's a call for a balance between modernisation and the retention of Dickson's distinctive charm through thoughtful art integration.		
Play opportunities	10	136	5.5
	Respondents express a desire for playgrounds or other play opportunities inspired by locations like Majura Shops, which offer engaging areas suitable for families. Suggestions include incorporating features like grassy areas, playground equipment, and water splash parks to create inviting spaces for children to play and enjoy.		

Playful elements

To understand opportunities to improve playful elements the following survey question was asked:

'Through consultation, we have heard that there is a desire for the area to be family-friendly, with 'playful elements' and/or play opportunities for all ages. What kind of play opportunities would you most like to see?'

A summary of response themes is provided in Table X.

Table 4. Opportunities for play

Theme	Summary
Urban play features	Incorporating incidental play options, like low walls for balancing, interactive public art, and stepping stones, was suggested. Additionally, seating areas for teenagers beyond standard benches were proposed.
Mixed reactions to play elements	While some advocated for more play opportunities, others emphasised the primary function of the area as a shopping centre, not a playground. Concerns were raised about proposals like water play, with opinions divided on the suitability of such features.
Diverse Play Opportunities:	Various suggestions were made, ranging from traditional playgrounds for children to interactive art installations, natural play elements, and musical features. The importance of considering safety, inclusivity, and the preferences of different age groups was highlighted
Community Engagement and Safety	Feedback noted the need to address safety concerns, including anti-social behaviour and homelessness, to ensure a safe and welcoming environment for play. Suggestions also included creating safer environments for families, improving lighting, and providing clean public toilet facilities.

Additional comments

For the last question, we asked:

'Do you have any additional comments on the proposed design? We are particularly interested in why you liked or disliked elements of the design'

This provided respondents with the opportunity to provide any further feedback on elements mentioned in the proposed upgrade and any additional ideas they may have for the future of Dickson Shops.

Table 5. Additional comments

Theme	Summary
Green space and landscaping 61 responses	A strong focus on increasing greenery within the area was highly valued. Concerns were raised about the discomfort of open spaces without shade during the warmer months. The addition of new planter beds was particularly appreciated.

Active travel 42 responses	A strong demand emerged for more extensive active travel routes and infrastructure such as bike racks. Concerns were raised about inadequate connectivity for active travel to surrounding areas.
Artwork 34 responses	An increase in public art installation was requested
Antisocial behaviour 31 responses	Respondents expressed apprehension that unless the issues of antisocial behaviour and homelessness are effectively addressed, the project's advantages may not be fully actualised, leaving the community feeling insecure in the vicinity. Recommendations included implementing both passive and active surveillance measures, along with increasing police presence.
Safety 27 responses	Enhancing safety and security was considered important
Support 15 responses	Proposed plans were well-received with many feeling that the upgrades were long-awaited and expressing gratitude.

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Appendix A – Dickson stakeholder maps

DICKSON SHOPS: Businesses



Map Ref	Business location: Block	Section	Level	Business details: Business Name	Business Type	Contact details: Business Owner/Rep.
1	1	30	Ground	The Baptist Union of Australia Incorporated	Religious Organisations	Mathew
3	2	30	Ground	Australia Post	Professional Services	Leesa
4	2	30	Ground	Bakers Delight	Cafe/Restaurant	Holly
5	2	30	Ground	Elaines Gourmet Pie Café	Cafe/Restaurant	Melissa
6	4	30	Ground	Dickson Newsagency	Professional Services	Carolyn
7	4	30	Ground	Capital Chemist Dickson	Health/Medical	Andrea
8	4	30	Ground	Modern Dental Dickson	Health/Medical	Daniel
9	4	30	Ground	Tuno BikeWorks	Professional Services	Jesse
10	4	30	Ground	Tip Toe Nail Salon	Hair/Beauty	Kathy
11	5	30	Ground	The Butcher's Shop	Cafe/Restaurant	Ian
12	5	30	Ground	Yu Café	Cafe/Restaurant	Olivia
13	5	30	Ground	About Health in Dickson	Grocer	George
14	5	30	Ground	Saigon Asian Foods	Grocer	Tien
15	6	30	Ground	The Source Bulk Foods Dickson	Grocer	Rowan
16	6	30	Ground	Praga Cafe	Cafe/Restaurant	Petryk
17	6	30	Ground	Hudsons of Dickson	Cafe/Restaurant	Tuan
18	6	30	Ground	Vietnamese House Restaurant	Cafe/Restaurant	Kim
19	6	30	Ground	Queen Bee Beauty Studio	Hair/Beauty	Wendy
20	6	30	Ground	Vacant		
21	6	30	Ground	Vacant		
22	7	30	Ground	My Rainbow-Dreams Vegetarian Cafe	Cafe/Restaurant	Rathin
23	7	30	Ground	Vacant		
24	7	30	Ground	Princess Nails Spa and Beauty	Hair/Beauty	Vo
25	7	30	Ground	Best One Barber	Hair/Beauty	Ali
26	7	30	Ground	TSG Dickson	Retail	Per
27	7	30	Ground	The Dickson Key	Professional Services	Matt
28	7	30	Ground	Good day gift shop	Retail	TBC
29	7	30	Ground	Goodies N More Tobacconist	Retail	Bill
30	7	30	Ground	Centrepiece Creole	Retail	Per
31	7	30	Ground	Trove Canberra	Retail	Abby
32	7	30	Ground	Vacant		
33	7	30	First Floor	Yellow Bridge	Professional Services	Muhammad
34	7	30	First Floor	Dentist at Dickson	Health/Medical	Mallikarjuna
35	7	30	First Floor	Vacant – no signage		
36	7	30	First Floor	Nathan Harris Psychology	Health/Medical	Nathan
37	7	30	First Floor	Empower Living Disability Services Canberra	Professional Services	General
38	7	30	First Floor	Vacant - no signage		
39	7	30	First Floor	Dickson Psychology	Health/Medical	Eliza
40	7	30	First Floor	The Denture Clinic	Health/Medical	General
41	7	30	First Floor	Vacant - no signage	Health/Medical	
42	7	30	First Floor	Eva Boland – Exercise Physiology and Women's Health	Health/Medical	Eva
43	7	30	Second Floor	Awesome Japanese Language & Culture School	Professional Services	Asuka Imamura
44	7	30	Second Floor	Vacant – no signage		
45	7	30	Second Floor	Bec Taylor School of Music	Professional Services	Rebecca
46	7	30	Second Floor	Vacant – no signage		
47	7	30	Second Floor	Brindabella Natural Health	Health/Medical	General
48	7	30	Second Floor	My Canberra Osteopath	Health/Medical	Aaron
49	7	30	Second Floor	Safe Work and Environments	Professional Services	Andrew
50	7	30	Second Floor	Sri Chinmoy Centre	Religious Organisations	General
51	8	30	Ground	BWS	Retail	Shankar
52	8	30	Ground	Commonwealth Bank	Professional Services	Justin
53	10	30	Ground	Dan Murphy's	Retail	Pat
54	21	78	Ground	Dickson Village apartments	Residential	Amber
55	21	78	Ground	Lashbrow Beauty	Hair/Beauty	Benita
56	21	78	Ground	Discount Chemist Cincotta Chemist	Health/Medical	Tracey
57	21	78	Ground	Sushi and more	Cafe/Restaurant	Kiho
58	21	78	Ground	J&J Hair	Hair/Beauty	Eunho
59	21	78	Ground	Coles	Grocer	Aidan
60	24	30	Ground	McDonald's	Cafe/Restaurant	David
61	29	30	Ground	The Healthy Foot	Health/Medical	Mark
62	29	30	Ground	Capital Pathology	Health/Medical	General
63	29	30	Ground	Dickson General Practice	Health/Medical	General
64	29	30	Ground	SportsCare Canberra	Health/Medical	Graeme
65	29	30	Ground	Dickson Medical and Travel Clinic	Health/Medical	Zdenka
66	29	30	Ground	Dickson Park Dental Surgery	Health/Medical	Lucille
67	31	30	Ground	Woolworths	Grocer	Kylie
68	32	30	Ground	Ampliffon Dickson	Health/Medical	Leanne
69	32	30	Ground	Rans Massage	Health/Medical	Ran
70	32	30	Ground	Vacant – no signage		
71	32	30	Ground	Vacant – no signage		
72	32	30	Ground	Solutions Hair Studio	Hair/Beauty	Tien
73	32	30	Ground	Vacant – no signage		
74	32	30	Ground	Booksorted	Professional Services	Christine
75	13	30	Ground	Dickson Library	Public Services	Rav

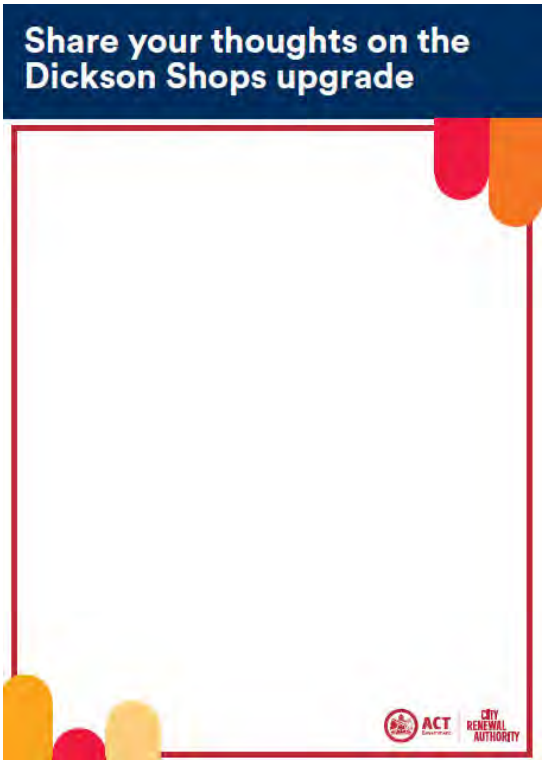
DICKSON SHOPS: Building owners



Unit	Block	Section	Registered Crown Lessee	Mailing
–	1	30	The Baptist Union of Australia Incorporated	Mathew Glowacki 133 Cowper St, Dickson 2602
–	2		Antonio Giorgio Pty Ltd	Antonio Giorgio 16 Bugden Avenue Gowrie ACT 2904
–	4		Harry Notaras Investments Pty Ltd	Harry Notaras 'Baileys Corner' Level 1 Suite 12 143 London Circuit Canberra ACT 2601
–	5		Elgin Pty Limited	Bill Goula GPO Box 1569, Canberra City ACT 2601
–	6		The Owners Unit Plan No 69	C/- LJ Hooker Strata ACT 1st Floor 182-200 City Walk Canberra ACT 2601
1			Sunrose Farm Pty Ltd	21 Alexandra Street Hall ACT 2618
2			Jimmyjaz Pty Ltd	39 Barada Crescent Aranda ACT 2614
3			Connie and Lino Leon	Connie Leon, c/- 806/8 Gribble Street Gungahlin ACT 2913
4 5			Group ownership (refer to Consultation Manager for list of names)	22 Molesworth Street Watson ACT 2602
6			Group ownership (refer to Consultation Manager for list of names)	Kalavrita Pty Ltd 41 Murchison Street Kaleen ACT 2617
7			Anastasios and Maria Totos	Not available
–	7		Gyttania Investments Pty Ltd	36 Barrington Crescent Amaroo ACT 2914
–	8		Commonwealth Bank of Australia	Commonwealth Bank Place South Level 1, 11 Harbour Street Sydney NSW 2000
–	10		Selvam Holdings Pty Ltd	33 Richmond Road Homebush West NSW 2140
–	21		The Trust Company	Level 19, 60 Castlereagh Street, Sydney
–	24		McDonald's Australia Limited	21 Central Avenue Thornleigh NSW 2120
–	29		The Owners Unit Plan No 470	ACT Strata Management Services PO Box 3208 Weston ACT 2611
1			Mark and Robyn Clayton	Not available
2 3			Karalumba Pty Ltd	3 Nungara Street Aranda ACT 2614
4			Goutree Investments Pty Ltd (1/2 share) and Big G Pty Ltd (1/2 share)	Goutree Investments Pty Ltd 45 Ormiston Circuit, Harrison ACT 2914 Big G Pty Ltd Dickson Park Professional Centre 151 Cowper Street, Dickson ACT 2602
5 6 7			Huynh Family Company Pty Ltd	Unit 24, 11 Joy Cummings Place Belconnen ACT 2617
8			Karen Kim Holas	144 Old Gold Mines Road Sutton NSW 2620
9 10			Huynh Family Company Pty Ltd	Unit 24, 11 Joy Cummings Place Belconnen ACT 2617
–	31		Perpetual Limited	Level 18, 123 Pitt Street Sydney NSW 2000
–	32		Licheni Pty Ltd	23 Mugga Way, Red Hill ACT 2603

Appendix B – Engagement collateral examples

Pop-up collateral - A0 corflutes





Appendix C – Communication collateral examples

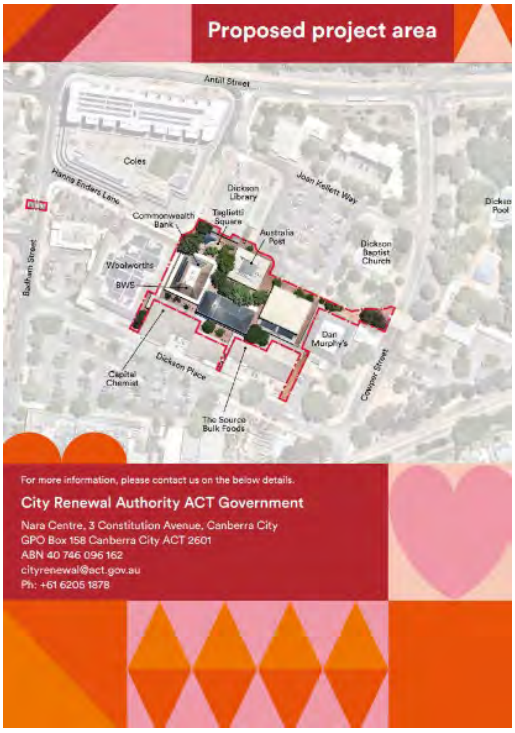
A5 flyer consultation flyer (phase 3)





Drop-in session business promotional flyer (phase 2)





EDM



Draft designs revealed for Dickson Shops upgrade

The draft designs for the Dickson Shops upgrades are in, and we'd like to hear your thoughts.

Building upon previous consultations, improvements are designed to revitalise Dickson Shops and to ensure this popular shopping destination meets growing community needs and complements our recent Woolley Street upgrades and other nearby developments.

Key features:

- Improved paving
- Enhanced lighting and other safety features
- Preservation of mature trees in elevated planters
- Opportunities for incidental play
- Improved pedestrian connections across Badham Street.

Please take a moment to complete the short survey and submit feedback on the draft designs.

Complete the survey

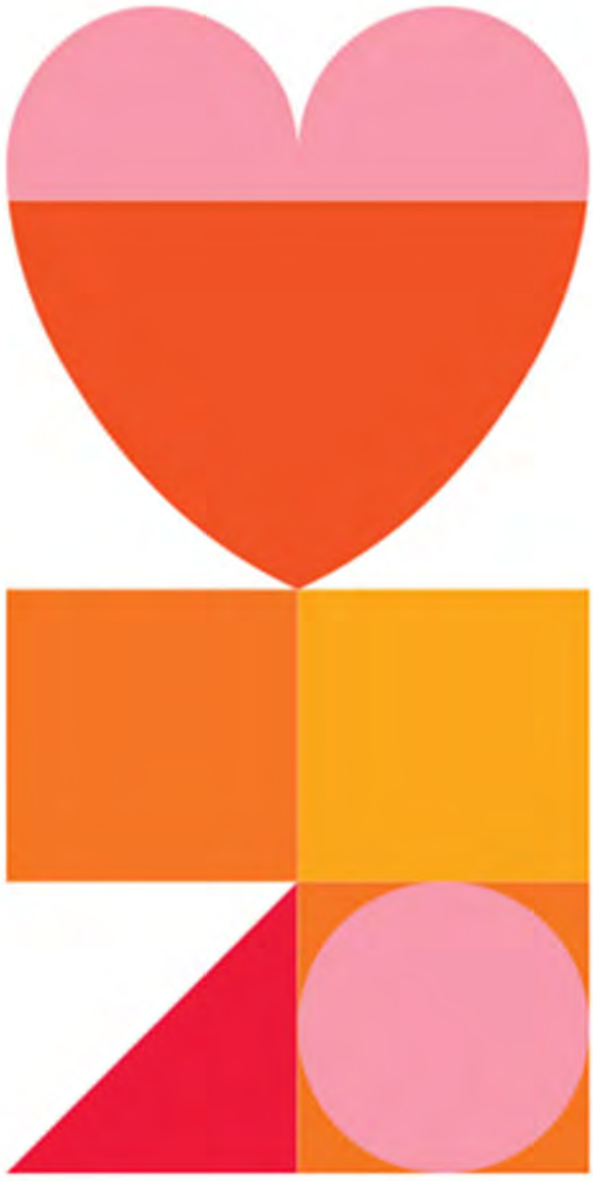
ACT Government | CITY RENEWAL AUTHORITY

Dickson Shops Upgrade

Snapshot Summary

Phase 3 (pre-construction)

28 May 2025



ACT Government | CITY RENEWAL AUTHORITY

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Introduction

This report covers the period of Phase 3 (pre-construction) engagement held from 11 November 2024 to 3 April 2025.

The City Renewal Authority has been working to progress plans that will breathe new life into the Dickson Shops precinct.

These upgrades aim to create a welcoming and vibrant public space that attracts visitors, in turn encouraging increased spending at local businesses.

They include improved lighting, paving, better quality seating, playful elements, improved accessibility and more trees. The designs are thoughtfully crafted to refresh the Dickson Shops area while retaining its distinct character.

Location

The updated designs focus on the courtyards and laneways of the Dickson shops area and public spaces, as shown in the image below.



Image 1: Final plans for the revitalisation of the Dickson Shops

Project background

Dickson Shops is one of the oldest group centres in Canberra. It is well known as a family-friendly shopping precinct that includes supermarkets, specialty stores and a range of diverse restaurants and eateries. The shops are surrounded by heavily tree-lined neighbourhoods with a mix of long-term and new residents.

The centre is undergoing significant change with increased higher-density residential dwellings, new commercial office developments, and the new Coles development.

The ACT Government's City Renewal Authority (the Authority) engaged with local businesses and community members on the revitalisation of the Dickson shop's courtyards and laneways.

Building on the Dickson Place Plan, the Authority is focusing its attention on opportunities to revitalise the Dickson Shops area and improve public spaces.

Previous engagement

Between 19 February – 1 May 2024, the ACT Government's City Renewal Authority commenced phase two and three engagements with local businesses, property owners, residents, community members, and key stakeholders on the draft design for a planned upgrade to Dickson Shops.

Phase one consultation involved direct contact with businesses and building owners located within the Dickson Shops area, as well as the Dickson Residents Group and other key stakeholders to provide an initial preview of draft design prior to public consultation.

Phase two consultation involved broader consultation with the public on the proposed draft Preliminary Sketch Plan.

Designs were then updated, drawing on stakeholder feedback, including from local businesses, building owners, and key community members in 2024.

Consultation process

Caretaker period

The project commenced in November 2024, after the ACT Government come out of Caretaker period for the ACT Election held on 19 October 2024. During caretaker the City Renewal Authority engaged with stakeholders from a relationship perspective but did not hold any active consultations during this time.

Recent engagement

The City Renewal Authority held meetings with interested key stakeholders and drop-in sessions for businesses and building owners in the Dickson Shops area, to discuss the upgrade and view the updated designs.

We worked with businesses in early 2025 to better understand how businesses operate and identify their unique needs. This enabled the City Renewal Authority to prepare a construction plan that minimises negative impacts as much as possible.

Recent engagement included collecting information from businesses about operating hours, peak business times, access to delivery and any future plans to inform the construction plan.

Method/Activity	Details
Door knocking Direct engagement with businesses in the impact zone to provide an update and promote the drop-in sessions.	19 November 2024
Drop-in sessions Two drop-in sessions were held with local businesses and building owners to discuss the upgrade and view the updated designs.	Drop-in session 01: 26 November 2024 from 10.30 am - 12.00 pm at the Dickson Library in the Community Room. Drop-in session 02: 28 November 2024 from 5.30 pm – 7.00 pm online via Microsoft Teams.
Stakeholder meetings The following stakeholders were invited to meet including: Dickson Residents Group (DRG)	DRG meetings held on 20 November 2024 and 11 February 2025.
Woolworths Group	9 January 2025
Aware Super (Dickson Village)	22 January 2025
Artist Bev Hogg and ArtsACT	29 January 2025
Tanja Taglietti (daughter of Architect Enrico Taglietti who designed the Dickson Library)	3 February 2025
ACT Library (Dickson branch library manager and staff)	6 February 2025
Door knocking Direct engagement with businesses in the impact zone to inform about the construction plan and collect business information via survey.	17 February 2025
Taxi Association	13 March 2025
DRG and Lisa Crooke (Dickson Working Group)	13 March 2025
Post Office	3 April 2025

Engagement collateral examples are in Appendix A.



Image 2: Drop-in session held with businesses at the Dickson Library in the Community Room.

Promotional activities

To ensure stakeholders were aware of the project and consultation details, a targeted communication approach was developed to inform stakeholders about the project and consultation activities. Communication activities included:

- **Stakeholder email updates** – emails were sent to business owners to inform about the updated designs and future consultation activities.
- **Letter** - project letters from the Authority was provided to building owners to inform about the updated designs and future consultation activities.
- **Flyer** – a flyer was created to help promote the upcoming drop-in sessions during doorknocking.
- **Website** – the Authority's website displayed key messages about the project including project milestones and consultation information.

Communication collateral examples are in Appendix B.

Consultation feedback summary

We engaged more than 100 people including business owners and staff, building owners and stakeholders and received more than 170 pieces of feedback collected at drop-in sessions, via email and during stakeholder meetings.

Anti-social behaviour and safety

During our consultation, we heard that anti-social behaviour and safety is a major concern. Anti-social behaviours, vandalism, homelessness, and crime are complex issues which require a whole-of-government response.

In response to concerns raised during consultation, the City Renewal Authority worked closely with ACT Government colleagues, including ACT Policing and the Justice and Community Safety Directorate (JACS) to inform and elevate these concerns.

Key actions

This initiated several meetings with ACT Policing and JACS and a cross-directorate working group was established called Dickson Working Group to better understand and respond to the challenges at Dickson shops.

This group includes representation from Chief Minister, Treasury and Economic Development Directorate (CMTEDD), JACS, Community Services Directorate (CSD), Canberra Health Services (CHS), Transport Canberra and City Services (TCCS, City Services and Libraries ACT) and ACT Policing. It is a subset of the Deputy-Director General's (DDG) Group, which includes all DDGs in ACT Government.

CMTEDD was appointed to lead a whole of Government response to help address anti-social behaviour.

Meeting summaries

Door knocking, drop-in sessions and email summary

We had representatives from five businesses and one building owner attend drop-in sessions. Below is a summary of the key issues raised.

Theme	Feedback
Impact of construction on businesses	• Dickson businesses are concerned about construction timing, especially during their busiest period, from late November to mid-January. • They have requested clear communication about dates to avoid disruptions, particularly during Christmas. • Some suggested exploring the feasibility of construction occurring outside of core business trading hours.
Anti-social behaviour	• Anti-social behaviour, such as theft and graffiti, was raised as a significant problem. • Businesses would like to see CCTV and a regular police response in the area particularly during early mornings and evenings.
Parking	• Parking is considered a major issue, with limited spaces for delivery trucks and a lack of free parking for both business employees and customers. • Suggestions for more disabled parking spots and drop/off pick up areas were received.
Coles development	• Businesses are not in favour of the Coles development only allowing their trolleys to be used in their development boundary using a geo-locking trolley system. This is seen as a prohibitor for customers to easily access Taglietti Square and the businesses nearby.
Extent of works	• Improvements like better lighting, seating, and pedestrian access are considered essential, with some unsure about the need for pavement upgrades noting this type of work will be more disruptive to businesses.
Events and activations	• There is support for events being held in Dickson shops (similar to Haig Park experiments) to help activate the area.

Dickson Residents Group meeting summary

We had <insert number> representatives from the Dickson Residents Group attend two meetings. Below is a summary of the key issues raised.

Theme	Feedback
Vacant shops	• Expressed concerns over the declining state of the Dickson shopping centre and vacant shops. • They also shared major concerns about the construction having a big impact on businesses revenue and potentially closing due to disruptions caused by construction
Anti-social behaviour	• Major concerns about anti-social behaviour were raised by the DRG. Calls for action to improve safety, such as increased police presence and CCTV. • Support a coordinated approach involving the City Renewal Authority, ACT Police, and social services to tackle both social and infrastructure problems.
Funding	• Suggestions for reallocating some funding to address anti-social behaviours, providing free parking and re-opening the public toilets were received. • Major concerns were expressed about a current lack of funding available to complete major stormwater upgrades to address flooding issues at the shops.
Materials	• Support the re-use of existing warmer colours and texture of the current red bricks in the design. • Expressed a preference for timber seating in the design to increase comfort of amenity.
Place activations and events	• Support the activation of vacant spaces, involving artists and recognising Dickson's 60th anniversary during the shops upgrade. This could extend to holding children's activities in the square upon competition.
Parking	• There is a call for better parking solutions to support businesses. • Shortening the taxi bay to include more short-term parking bays close to the shops is supported.
Signage	• Consider arrival points at the Dickson Shops and the placement of signage to welcome visitors.
Planting	• More greenery is supported but the DRG would like to see it maintained correctly.

Woolworths Group meeting summary

We had 5 representatives from Woolworths Group attend a meeting with the project team. Below is a summary of the key issues raised.

Theme	Feedback
Laneway connection	• The laneway leading to the side entrance of Woolworths was identified as a busy and important throughfare for customers.
Bike parking	• Convenient and secure bike parking was discussed and the importance of providing more bike racks under cover and out of the weather.
Parking	• Short stay parking access is another concern as customers habits have changed since covid, now relying more on click and collect services, home delivery and independent delivery drivers. • Suggestions for free 15-minute parking spots for the above services to use was suggested.
Seating	• There is support for more seating located close to the front entrance of Woolworths, including seating with arm rests.
Trolleys	• Allow enough room between walkways and trolley bays. • Smooth pavement is important so that trolleys can easily be pushed across. • Double trolley bays are needed to fit different sized trolleys.
Leasing of shops	• The shopping centre struggles with vacant leases, impacting its economic vitality. • Dickson Shops has an older demographic who prefers cash payments and use the ATM frequently.

Aware Super (Dickson Village) meeting summary

We had <insert number> representatives from Aware Super attend a meeting with the project team. Below is a summary of the key issues raised.

Theme	Feedback
Anti-social behaviour	• There are significant issues with anti-social behaviour and crime at the Dickson Village. Regular break-ins, theft and vandalism, including cars and private property, drug use and paraphernalia and setting off fire alarms were all noted.
Security breaches	• Regular attendance by emergency services is required, particularly after hours. • There have been numerous security breaches, with persistent anti-social behaviour occurring at all hours in both the public areas and the basement carparking. This has led to ongoing disruptions and compromising a safe and secure environment for tenants, residents and visitors. • A lease variation request has been submitted so that they can close the public carpark overnight.
Public toilets	• Public access to the toilets has been closed.
Trolleys	• Confirmed that the geo-locking trolley system was already in place when Aware Real Estate purchased the Dickson Village and involves infrastructure embedded into concrete slabs which cannot be readily changed.

Artist Bev Hogg and ArtsACT meeting summary

Artist Bev Hogg and <insert number> representatives from ArtsACT attended a meeting with the project team. Below is a summary of the key issues raised.

Theme	Feedback
Artwork	• Pleased to see many artworks being retained in the design.
Relocation of sculptures	• Ensure the sheep and dog sculptures are relocated by a specialist arts handler to ensure they are not broken during the process. • No special requirements relating to handling of other artworks.
Public arts register	• Arts ACT noted the Harding sculptures were not on the public art register (originally commissioned as part of a streetscape project). • They might use the upgrade as opportunity to arrange for this to be added – which will facilitate maintenance.

Tanja Taglietti meeting summary

Tanja Taglietti, daughter of Enroci Taglietti (Architect of the Dickson Library) attended a meeting with the project team. Below is a summary of the key issues raised.

Theme	Feedback
Seating	• Preference expressed for a burgundy colour to be used on seating materiality, as is considered a 'safe' colour that would go well. Lime was considered as a second preference.

ACT Library Staff meeting summary

We had 15 staff members from ACT Library Dickson attend a meeting with the project team. Below is a summary of the key issues raised.

Theme	Feedback
Lighting	• There is general support for the upgrades and support for improving lighting to increase safety in the area.
Bike racks	• The existing bike racks are located too close to the building walls, making it difficult for users to fit their bikes in-between the wall and securely lock it to the rack.
Seating	• Consider placement of chair in front of the library book chute. To avoid obstructing the chute and allowing easy access and movement around the chair.
Place activation	• Support for design being able to accommodate bringing in a larger stage for bigger performances when needed. • Ping Pong tables and piano are both popular, especially during school holidays.

Taxi Association meeting summary

We had 1 representative from the Taxi Association attend a meeting with the project team. Below is a summary of the key issues raised.

Theme	Feedback
Kerb/pram ramp	• Queried whether a kerb/pram ramp along the taxi zone can be incorporated, without losing any taxi/parking spaces.
Line markings	• Preference for marking perimeter of taxi zone over individually line-marking each taxi 'space'.

Dickson Residents Group and Dickson Working Group meeting summary

We had <insert number> representatives from the Dickson Residents Group attend a meeting with Lisa Crooke (convenor) from the Dickson Working Group established to address anti-social behaviour in Dickson. Below is a summary of the key issues raised.

Theme	Feedback
Anti-social behaviour	• Concerns about anti-social behaviour and crime and impacts on public safety and local business. • Incidents of loud public shouting and swearing, vandalism, assault, theft, illegal sales, and threatening behaviour creating widespread perceptions of danger and intimidation.
Parking	• Expressed concerns about lack of available free parking in the immediate vicinity of the Dickson shops and the impact that has on customers leading to a decline in business revenue.
Trolleys	• Geo-locking of Coles trolleys seen as a barrier for interaction with the remainder of the shops, undermining economic activity in the broader Dickson Shops area.

Post Office meeting summary

We had <insert number> representatives from the Post Office attend a meeting with the project team. Below is a summary of the key issues raised.

Theme	Feedback
Loading zone	• Comfortable with the proposed changes to loading zone.
PO boxes	• Comfortable with the proposed changes to location of PO boxes. • Requested CRA provide a week's notice before the PO boxes need to be moved as they have a contractor that would do this.

Next steps

Once the design is finalised, incorporating feedback received during this recent engagement, over the next few months CRA undertake a procurement process to select a construction partner to deliver the works.

CRA will continue to provide updates to businesses, building owners and key stakeholders as this progresses and will provide further details about the construction, including staging and timeframes, as it becomes available.

Appendix A – Engagement collateral examples

Drop-in session posters

Appendix B – Communication collateral examples

A5 consultation flyer

EDM

Letter

2.1 TCCS Comments
Comments Register

Location	Comment	Additional Comments	Consultant Team Response
Active Travel			
All	2.0m is insufficient to support the inclusion of the Active Routes including: – The Local Route runs East-West through the site from Cowper Street to Badham Street. – A North-South route shall be facilitated which connects Hanna Enders Place to the Local Route along Dickson Place. This connection is important as it will eventually continue through the proposed Dickson Tradies (Section 34) development to the C6 Principal Active Travel Route. Design to be updated to include an unencumbered 3.0m within these areas.	-	Refer to **L200 Landscape General Arrangement Plan** and **L202-207 Surface Finishes Plans**. A min. 3.0m path of travel have been incorporated along the desired north / south and east / west Active Routes.
All	The design needs to provide clear and legible access along key corridors through the site. These access corridors should be clear of furniture, obstructions, and confusing pavement variations. Incorporating the Active Travel links will help to achieve this outcome.	-	Refer to **L200 Landscape General Arrangement Plan** and **L202-207 Surface Finishes Plans**. A min. 3.0m path of travel have been incorporated along the desired north / south and east / west Active Routes. A min. 2.0m unimpeded pedestrian circulation path has been provided along all building shorelines except for the following locations: – Taglietti Square – outside Elaine's Pies / Bakers Delight where we have improved the pedestrian circulation path to a min. 1.62m in width. – Taglietti Square – the replacement of bicycle hoops out the front of Dickson Library. – Zone A / B / D – we note that the inclusion of the existing columns has been shown on the plan and would provide a min. 2m circulation path along the building shorelines. The design team have proposed a reduction in light poles within key areas to reduce overall clutter within the public realm and seating has been integrated within planter bed walls and other elements to ensure that we are making use of all elements and space within the Dickson Shops. Great care has been taken to ensure we are creating and delivering a thoughtful and carefully curated public realm experience.
Taglietti Square	The arrangement of furniture in Taglietti Plaza and adjacent spaces documented on this drawing provides insufficient clearance for a 3m safe Active Travel corridor through the centre: – Relocate furniture to provide min. 3m clearance. – The 1.62m provided between the deck structure surrounding the existing tree and the Post Office building is insufficient. Suggest that there's no reason (apart from looking symmetrical on plan) for the deck structure to create this pinch point and it can and should be modified to not obstruct movement along this building edge. – Suggest bin enclosures also could be better placed in a location off the diagonal desire line through the plaza and directly adjacent to an attractive planted garden bed. – Arrangement of seats beside Dickson Library entrance obstructs use of bike racks and book return chute. These seats need to be rearranged or removed. – Existing Telstra Phone Box and Electrical cabinet not shown on plan – are these being removed or relocated?	Bollards: – Potential relocation of bollards to be discussed with TCCS design acceptance team (who approved current locate). Not to hold up this stage of project. Clearances: – For new items (e.g. community noticeboard, tree deck), aim to get close to 3m clearance. – For large existing tree, no change required. In fact slight narrowing is a helpful device to slow cyclists in this busy area. Library seating: – Question raised about whether people would feel safer being closer to the building edge (i.e. back protection)? However this would mean reducing number of benches under fascia. Given this is only covered seating area, probably not desirable. For consideration. – Concern that there won't be enough space between seats and bike racks once bikes are placed on them. Please review. – Diagonal desire line - agree this is an important path through shops and should aim for close to 3m. – Clearance outside Bakers Delight – no change required.	Refer to **L202 Surface Finishes Plan - Taglietti Square**. Bollards have been re-aligned to provide additional circulation path. Community Noticeboard has been relocated to provide a minimum 3m circulation path. Refer to **L203 Surface Finishes Plan - Zone A**. Seating has been reduced outside of the Dickson Library and bicycle racks have been reduced to ensure clear access in and around the return chute. 3.0m path of travel has been maintained between the integrated planter bed wall seating and furniture elements.
Zone B	The pavement area adjacent to the Australia Post Parcel Lockers is impractically constrained. This location requires 3.0m clearance for the Local Active Travel Route. The design needs to facilitate this movement in the knowledge that there will regularly be people accessing a locker and locker doors opening which constrain access through this space.	Urban Treescapes – confirmed they would be willing to deviate from standard in this instance to allow wider path.	Refer to **L203 Surface Finishes Plan - Zone A**. 3.0m path of travel has been maintained between proposed trees and Australia Post Parcel Lockers.
Zone B	The arrangement of furniture adjacent to Joan Kellett Way documented on this drawing provides insufficient clearance for a 3m Active Travel corridor through the centre: – These locations are noted in orange – relocate furniture to provide min. 3m clearance – The present arrangement suggests footpath trading on the red brick areas which will constrain this access. Suggest that the trees and seats need to be relocated closer to Joan Kellett Way and/or reconfigured.	Please consider creating wider central path. Some options discussed for you to consider include: – Removing raised garden beds. – Rotating seating (retention of seating is important here to assist those using the DDA parking). – Reducing 2m path clearance from edge of parking spaces noting that as this is flush perhaps there is scope in standards to reduce? – Shifting trees closer to car park edge, perhaps between spaces (replacing function of bollards).	Refer to **L203 Surface Finishes Plan - Zone A**. Central path of travel has been increased to 3m. Planting at grade has been removed and replaced with permeable pavers to increased passive irrigation and up stand/edge treatments (obstacles within the public realm).

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Location	Comment	Additional Comments	Consultant Team Response
Traffic & Parking			
All	Parking changes/removals are sensitive for local traders and people that visit the centre and regularly use existing parking. On-street parking tends to be the most popular. Removing on-street parking was one of the biggest contentious points in on-street changes in previous CRA Braddon street change proposals. Based on previous community feedback, similar concerns by community, particularly the local business community is expected for Dickson. This will need a community engagement consideration. Communicating numbers reduced, and alternative off-street parking that's available nearby as an alternative will be important. Also the economic/customer benefits to traders, particularly those that may be 'losing' the majority of the 'convenient' customer parking right outside their store. Will need to clearly communicate how the overall benefit of the project will outweigh lost spaces. If any 5min parking is proposed, suggest 15min parking instead. It's understood that TCCS is moving away from 5min parking – 5min spaces are subject to frequent overstays (not many trips these days take less than 5mins) and Parking Operations has requested for them to be progressively replaced over time with 15min in previous parking working group discussions.		Refer to **Traffic Memo** in relation to carpark arrangement. We confirm no parking changes have been indicated for on-street parking along Dickson Place, and no loss of parking has been incurred within the Joan Kellett Way carpark. 15min parking has also been incorporated to reflect comments.
Pavement			
All	It's preference to have some form of root barrier between the base material of the pavement and the earth within which the tree is planted. With that, there is no approved or available permeable root barriers marketed in Australia to our knowledge.		Refer to **C101 - Civil Works Details - Sheet 1**. A 50mm geogrid glassfibre reinforcing mesh is proposed within the permeable pavement build up to limit the movement but further measures to minimise the risk of root ingress.
All	Some permeable segmental pavements are laid on a course aggregate with a 40mm crushed rock base with geofabric, the geofabric depending on the pore size (the smaller the better) might offer some protection from the ingress of roots.		Refer to **C101 - Civil Works Details - Sheet 1**. A 50mm geogrid glassfibre reinforcing mesh is proposed within the permeable pavement build up to limit the movement but further measures to minimise the risk of root ingress.
All	Another permeable solution is for a less flexible pavement with a resin bound gravel finish on a no fines concrete base, possibly again on top of a geofabric.		Refer to **L207 - Surface Finishes Plan - Zone D and L801 - Paving Details**. Noted. Where required resin bound gravel permeable paving (PV10) has been installed to mitigate impacts to the existing tree roots.
All	Another point of consideration on the efficacy of the of the permeable pavement design, will be the percolation rate of the underlying subgrade soil, if this isn't free draining to a degree, it could trap water in the base material which would be very attractive for the tree roots, and as such possibly destructive to the structural integrity of the path and subsequently a hazard to path users and an ongoing maintenance issue.		The project team has undertaken a Geotechnical Site Investigation to determine the subbase and buildup requirements. This has been reflected in the Engineering and Landscape Paving Details.
All	What is the design strategy employed to effectively keep the roots from damaging the path construction, whilst still allowing the Trees the access to the moisture in the subgrade.		Refer to **C103 - Civil Works Details - Sheet 3**. Details include a root barrier pipe wrap - permathene or similar to all pipes.
All	Link below is for a permeable root barrier which may be of interest. TCCS has not been fully investigated or endorse the product, but include it, for the principle of an approved effective permeable root barrier, for discussion.		Refer to **C103 - Civil Works Details - Sheet 3**. Details include a root barrier pipe wrap - permathene or similar to all pipes.
Place Management			
All	Any timber furniture will not be supported.		Refer to **L821-L822 Furniture Details.** Noted. All furniture has been updated to reflect an aluminium powdercoated finish. T
All	We do not support the use of timber decking. An alternate low maintenance material to be utilised.		Refer to **L823-L824 Furniture Details.** Timber decking elements have been retained within the design noting the these will be 'maintained by the CRA'.
Al	Can you please confirm that the bin shrouds are 240L in size.		Refer to **L006 - Materials Schedule & L822 - Furniture Details**. Confirmed. 240L bin shrouds have been incorporated.
Taglietti Square	The placement of the bin shrouds on drawing L861. They either need to be abutting the shrub bed or at least 4m away.		Refer **L202 - Taglietti Square & L861 - Detail Plans - Taglietti Square**. FN10A and FN10B have been updated to abut the garden bed.
All	Could it please be noted we would like the opportunity to salvage existing plants and furniture, (sets, bin shrouds) prior to construction.		Refer to **L100 - Demolition Plan & L900 - Landscape Technical Specification**. Extent of salvaged materials outlined within the above documentation.

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Location	Comment	Additional Comments	Consultant Team Response
All	Please confirm service vehicle accessibility to the central parts of the shops.		Refer to **L201-L207 Surface Finishes Plans**. Vehicle access areas shown with PV01V - Concrete unit paving (vehicular). Please note that there will be no change in materiality - the same paved treatment will extend through these vehicular spaces.
Trees			
All	If pruning of public trees is proposed, UTS will require a pruning plan with photos of individual trees identifying proposed pruning cuts.		Refer to **Tree Pruning Plan**.
All	UTS require adequate offsets from tree trunks to the pavement edges to prevent lifting of pavement		Refer to **L802 - Paving Details**. Noted. Refer to typical Permeable Paving Unit Details with nominated offsets.
Zone C	UTS provide in principle support for the transplant of Tree 29 based on information provided for review.		Noted.
Zone C	UTS support staged root severance proposed for Tree 29		Noted.
Zone B	During the site meeting in April, UTS were advised that the path section adjacent to this tree was not included in this package, but it appears to be included in these plans. UTS require confirmation on whether this section is now included. UTS support the proposal to include this section providing T1, T2, T3 and T4 are retained and protected during the works.		Refer to **L110 - Landscape Tree Management Plan**. Noted. The scope of works is along the Block 20 Section 30 boundary line. The footpath north of T1 is included, but the landscape upgrades on Block 20 are not. T1, T3 and T4 are all proposed to be retained.
All	Adequate permeable areas around trees must be provided – minimum 2.4 x 2.4 metres or equivalent area.		Refer to **L802 - Paving Details**. Noted. Confirmed permeable paving have a minimum 2.4 x 2.4m as per MIS24 Soft Landscape Design.
All	UTS will require a staged plan to detail the removal of paving.		Refer to **Tree Management Plan.**
All	The Tree Management Plan should be a spatial plan that details all protection measures that will be used to reduce the impact of the works on the existing trees. Just noting that tree protection measures will be used is not sufficient. Measures should be clearly shown on a plan.		Refer to **Tree Management Plan.**

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Appendix B

Urban Planning Advice

Binder 3a,62

15 April 2025

Peta Miskovich
Oculus
Suite 310, 221 London Circuit
Canberra, ACT

By email: peta@oculus.info

URBAN PLANNING ADVICE – DICKSON SHOPS

The letter has been prepared by Purdon as planning advice to assist Oculus in finalising the design and delivery of the public works at the Dickson shops. This letter is provided as an attachment to the previously provided advice from Purdon regarding the site and project.

I can confirm I have reviewed the documentation (dated 10/04/2025) provided by Oculus to Purdon on 15/04/2025. The documents reviewed indicate the previous advice stands - All works are able to meet the definition of *public works*, and therefore can be undertaken without a DA, provided:

- the works are built by and/or for the Territory and
- the works can meet the general exemption criteria (found within Part 1.2 of Schedule 1 of the *Planning (Exempt Development) Regulation 2023*).

My review of the general exemption criteria and the current plans indicate a need to be compliant with:

- Entity Requirements – works in easements and other access clearances must be approved by the relevant entity (notably in this case TCCS for streetlights and stormwater, Icon water for water and sewerage, and evo energy for electrical reticulation).
- Plumbing and drainage clearances – the development can't contravene AS/NZS 3500 (Plumbing and Drainage)
- Heritage Act requirements – notably for this project the Dickson Library and associated Taglietti Square are recognised as heritage sites and endorsement via the Heritage Act is required for the works in these areas.
- Tree, environment and conservation legislation – notably for this project, there is significant work within the Tree Protection Zone of protected trees. Therefore, endorsement for the works under the Urban Forest Act 2023 is required.

Irrespective of whether a development needs approval under the Planning Act or not, buildings require approval under the Building Act, prior to commencing construction. Please ensure that, if required, your certifier has reviewed the assessment provided above and in previous documents, prior to pursuing an exempt development pathway.

Sincerely,

Bradley Yates
Senior Urban Planner - Purdon

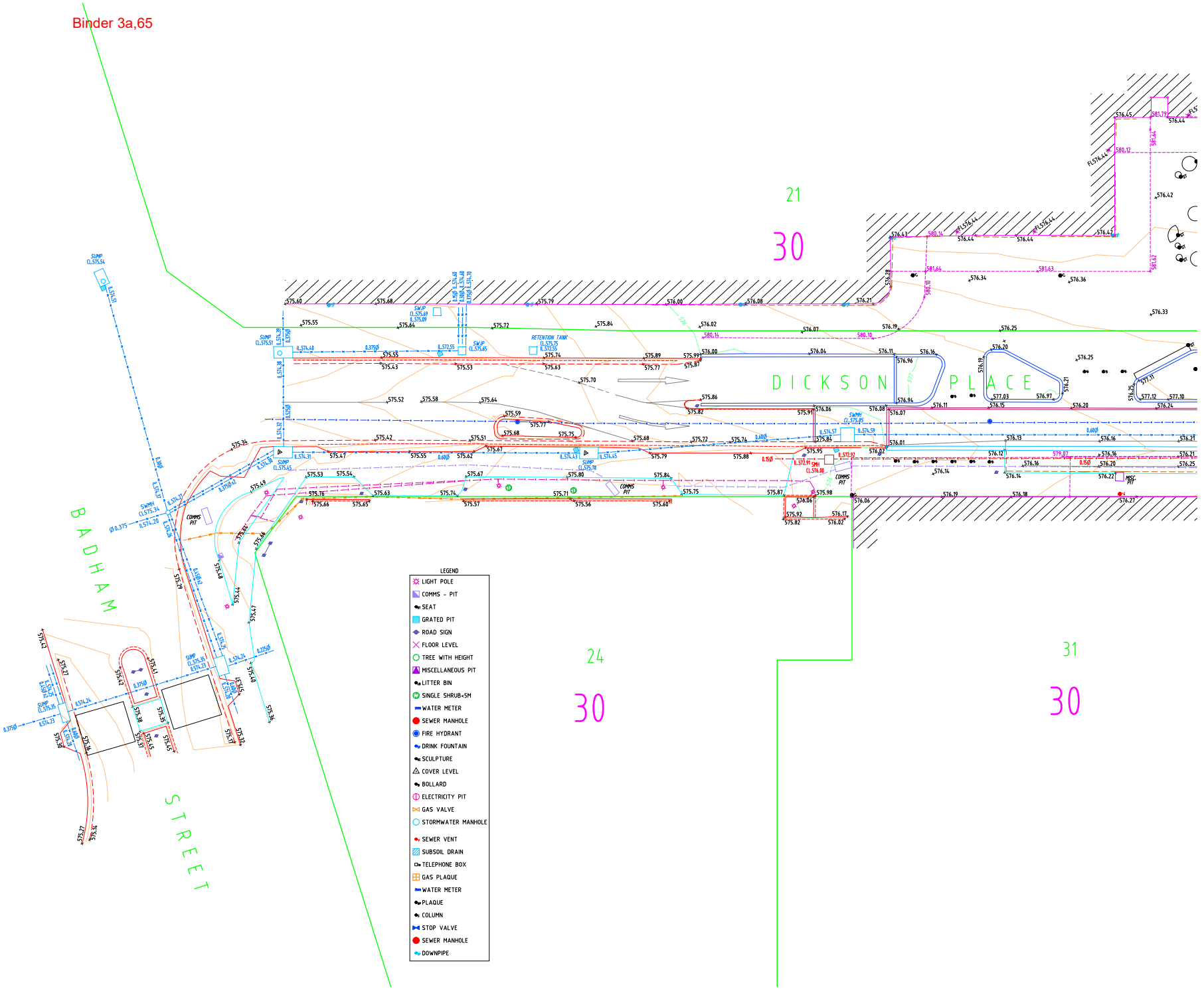
Appendix C

Topographical Survey

Binder 3a,64



Binder 3a,65



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D	UNDERGROUND SERVICES ADDED	02/04/24
C	SURVEY UPDATED	18/03/24
B	ADDITIONAL SURVEY PRELIMINARY DRAWING	15/03/24
A	STORMWATER INFRASTRUCTURE RE-SURVEY	22/12/23

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Plan to be read in conjunction with the digital data.

Underground Service Location Note

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Quality Level	Horizontal Accuracy	Vertical Accuracy
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B	+/- 0.3m	+/- 0.5m
C	+/- 0.3m	--
D	--	--

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This plan does not replace DBYD Plans.

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Scale 1:150 0 2 4 8

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Macquarie, ACT. 2614
Phone 02 6202 7600

Surveyed	J.Ferrier / L Shaw / J Woo	08/03/24
Drawn	B. Skeers / I Stewart	28/03/24
Checked	B.Skeers	02/04/24
Approved	S. Noakes	02/04/24

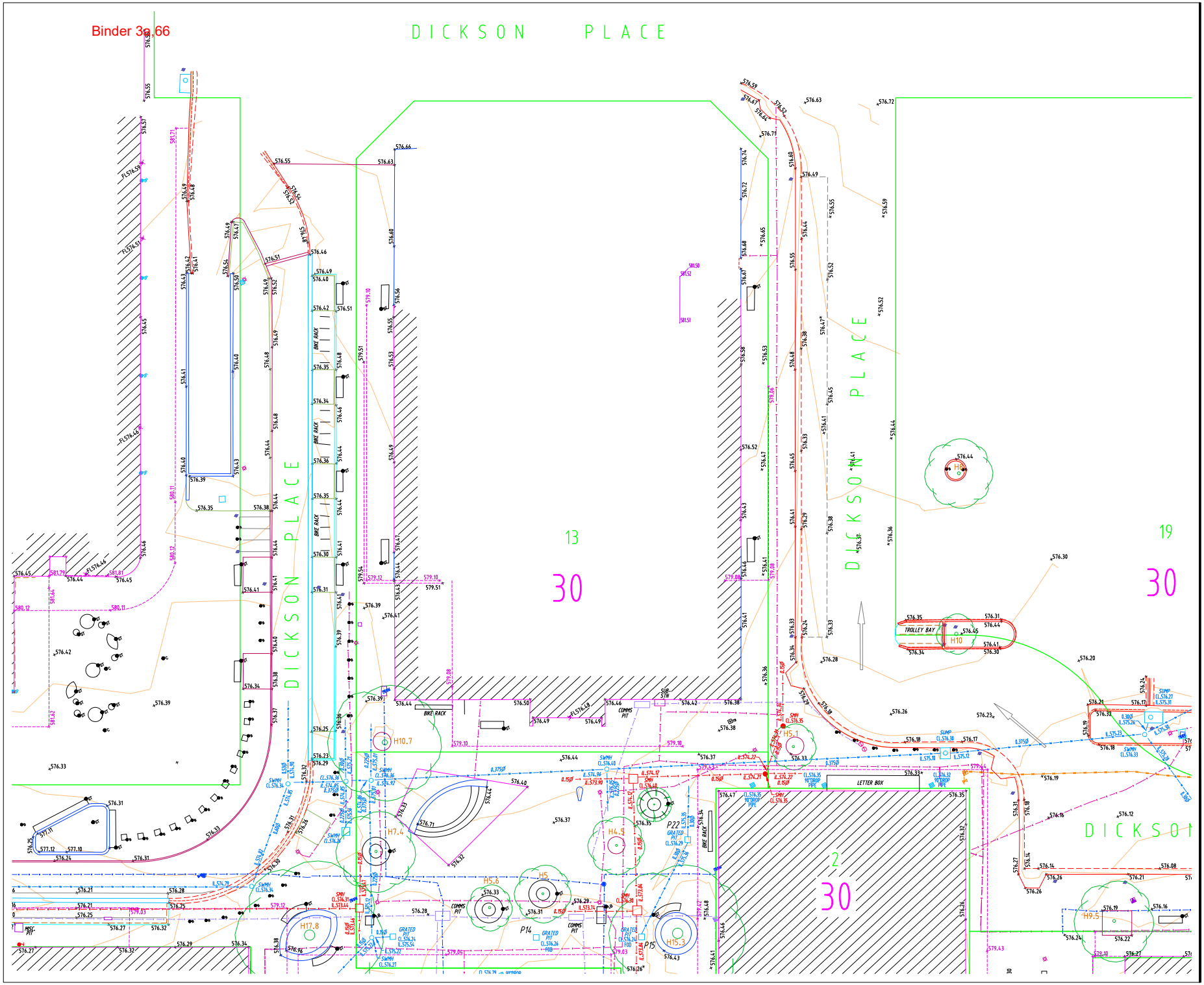
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DICKSON SHOPS
DETAIL SURVEY OVER
PART SECTION 30 DICKSON

ProjectNo. 22023-085 **Rev D**

Sheet No. 1 of 5 22023-085_DT_001_Rev D.dwg

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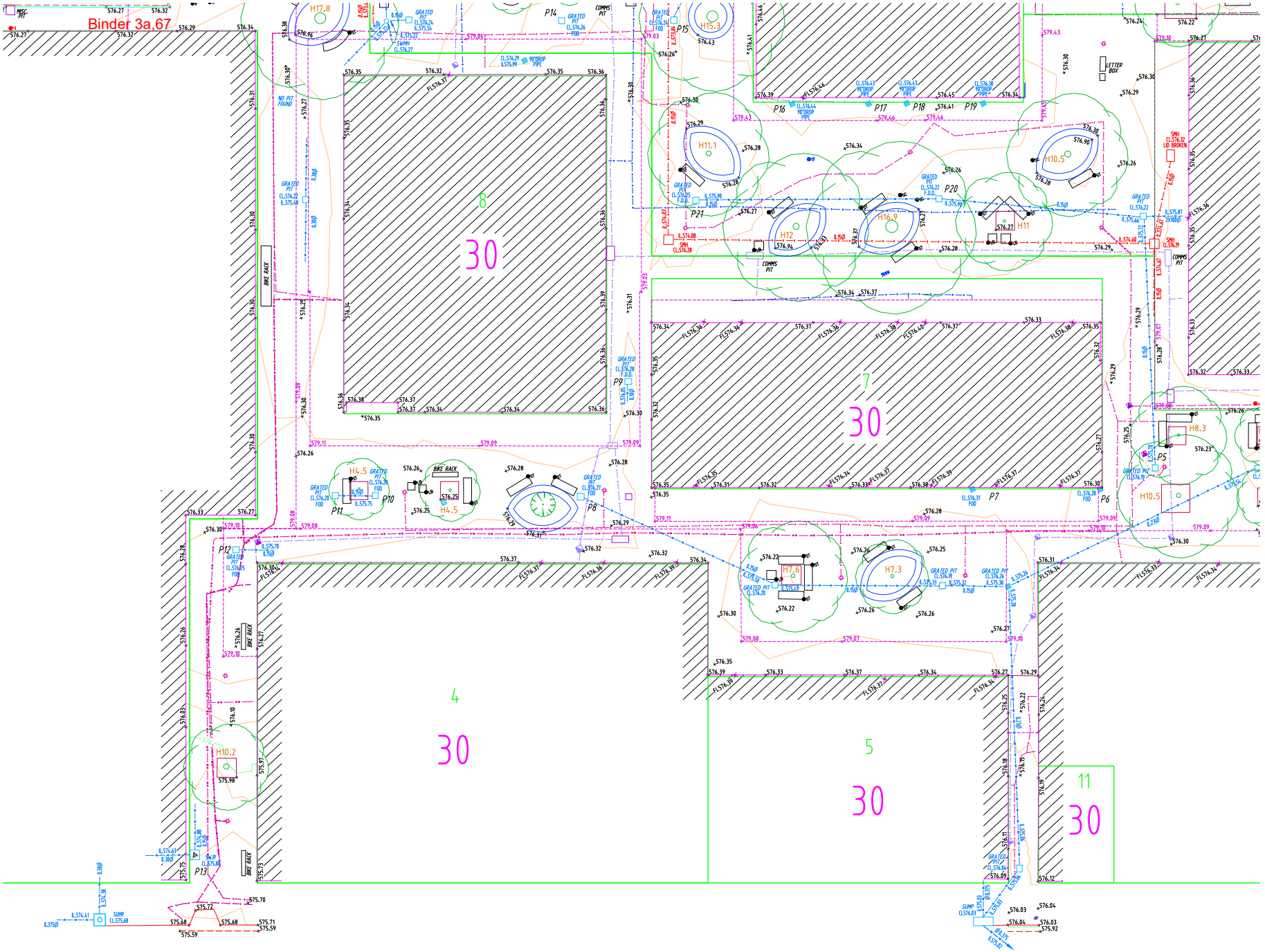
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DICKSON SHOPS
DETAIL SURVEY OVER
PART SECTION 30 DICKSON

ProjectNo. 22023-085 **Rev D**

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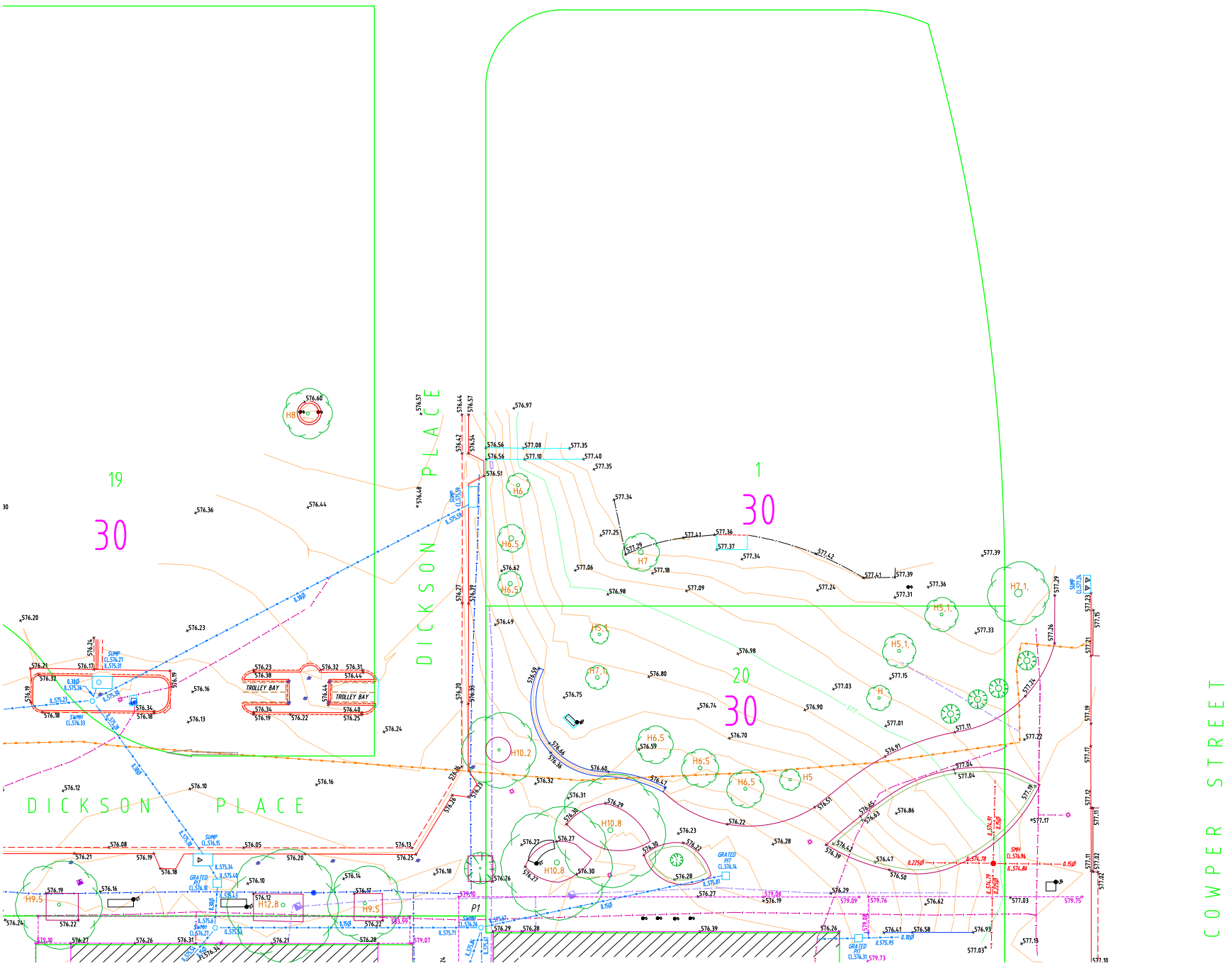
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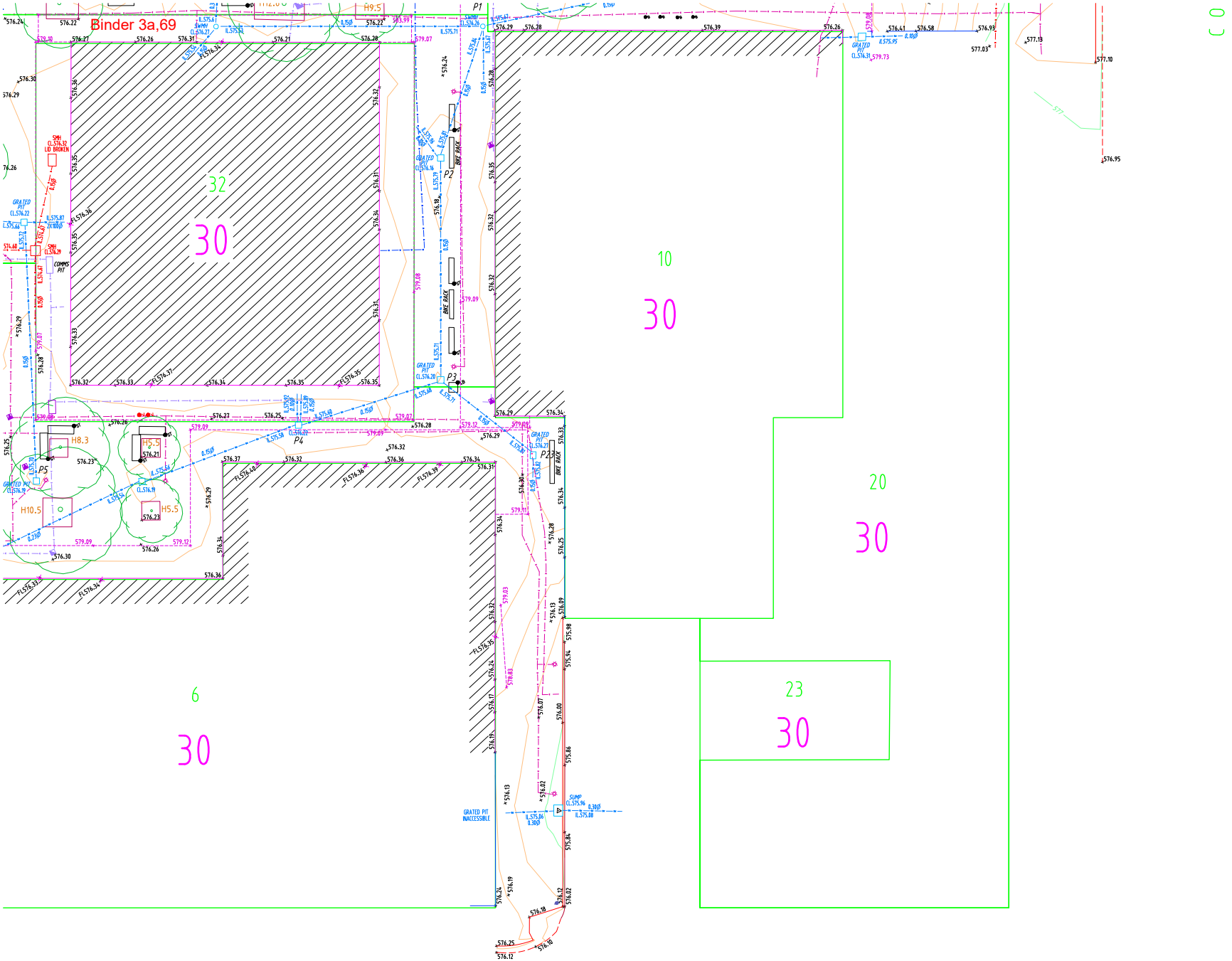
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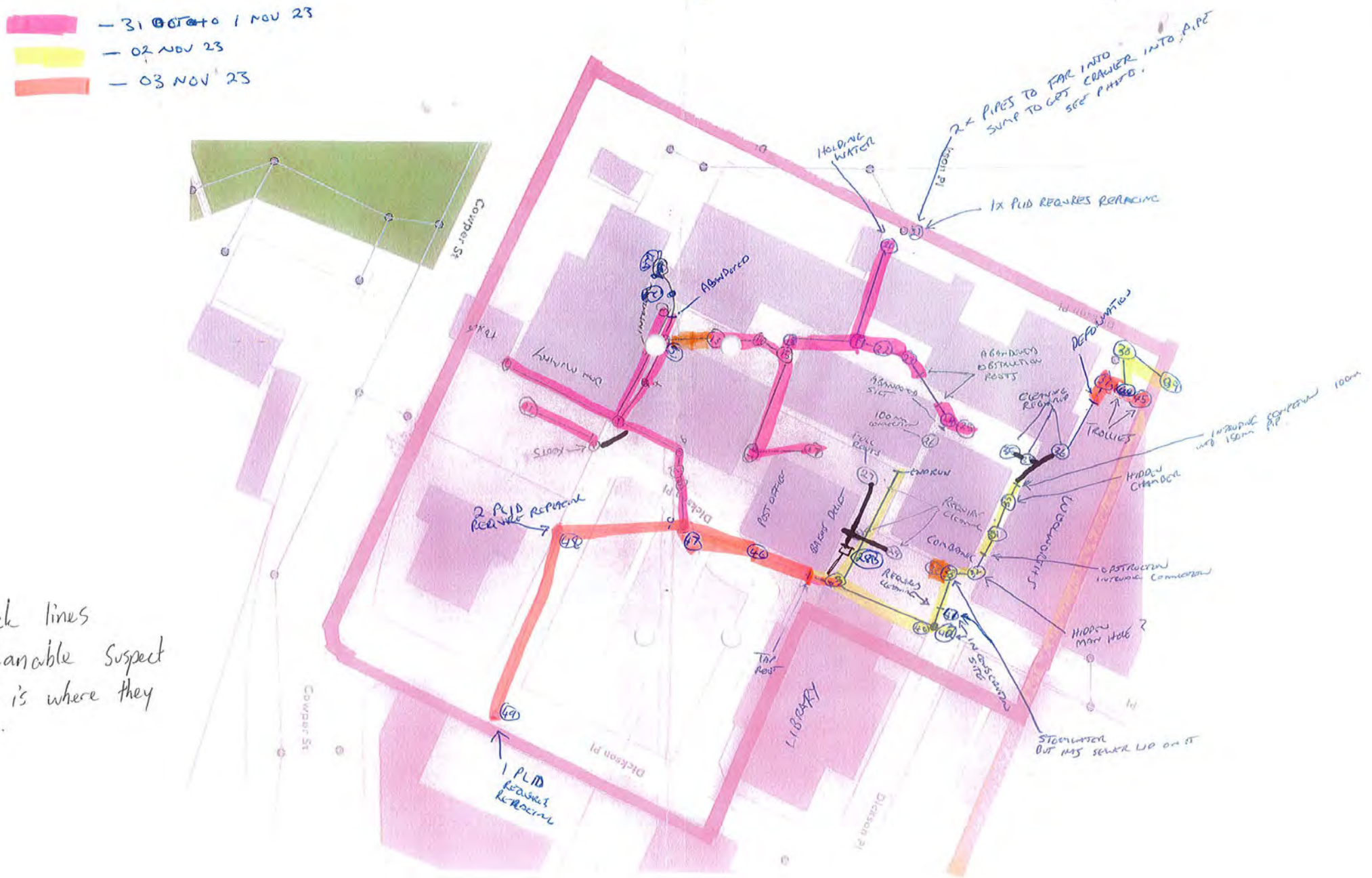
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Appendix D

CCTV Drainage Inspection Reports

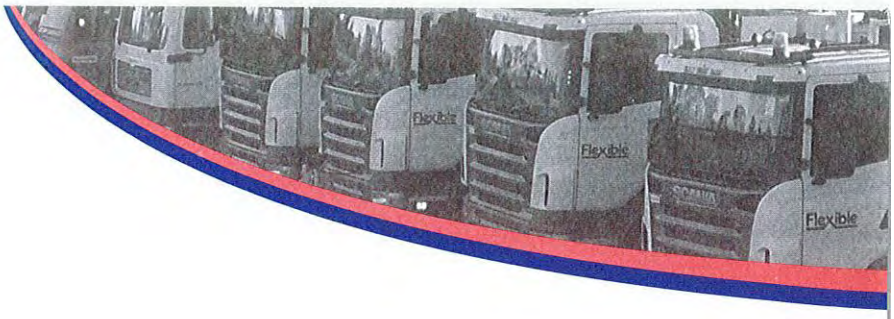
Binder 3a,71



Black lines uncleanable Suspect that is where they go.

Binder 3a,72

Flexible
When Performance Matters



14 November 2023

12-12A
150 - 3.48

S-12
150- 4.90

28B- 43
225 - 6.01

28B- 28
225 - .53 - abandoned.

Binder 3a,73

Flexible

When Performance Matters



SHANE / [illegible] 2

DICKSON SHOPS WO 75488 02 NOV 23

1 - 27 - 31 to 32 - 300mm - 7.31m - INSPECTION ABANDONED - INTRUDING CONNECTION BLOCKING PATH

2 - 28 - 31 to 33 - 300mm - 6.75m - INSPECTION ABANDONED - 300mm to 150mm INTRUDING CONNECTION DEBRIS

3 - 29 - 30 to 33 - 150mm - 0.94m -

4 - 30 - 33 to 40 - 225mm - 11.68m - INSPECTION ABANDONED - ROOTS / DEBRIS

5 - 31 - 33 to 32 - 225mm - 7.38m -

6 - 32 - 40 to 33 - 225mm - 0.19m - INSPECTION ABANDONED - ROOTS / DEBRIS

7 - 33 - 40 to 42 - 375mm - 1.12m -

8 - 34 - 40 to 43 - 375mm - 19.14m -

9 - 35 - 43 to 9 - 375mm - 5.16m - INSPECTION ABANDONED - TAP ROOTS

10 - 36 - 43 to 28 - 225mm - 35.44m - END CAPPED OFF

11 - 37 - 38 to 44 - 300mm - 3.37m -

12 - 38 - 38 to 39 - 300mm - 34.21m -

- HIDDEN MAN HOLE - 32

- CLEANING REQUIRED SUMP - (34) - (35) - (36)

- CLEANING REQUIRED PIPE - (43 to 9) (40 to 33)

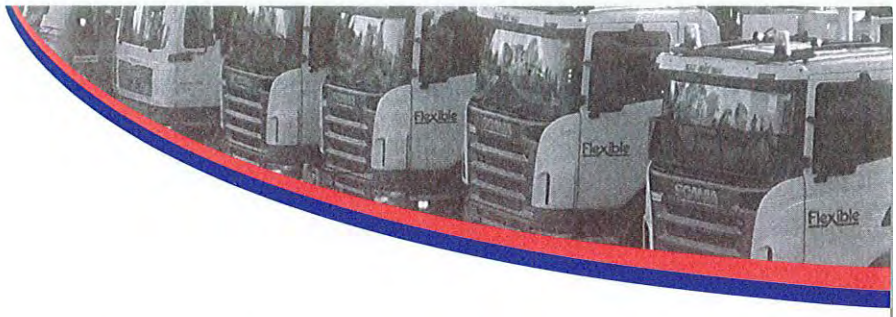
- MH INSIDE CONSTRUCTION SITE - (41) - (42)

- ~~UNABLE TO~~ ABANDONED DUE TO INTRUDING CONNECTIONS.
(31 to 32) (31 to 33)

- STORMWATER SUMP BUT HAS SEWER LID - 33 AND 41

Binder 3a,74

Flexible
When Performance Matters



DICKSON SHOPS WO 75488 08 NOV 2023 SWANG/TOM

SECTION NO				
1	39 – 37 to 36	225mm	3.61m	INSPECTION ABANDONED (VC PIPE DEFORMATION)
2	40 – 37 to 44	300mm	6.96m	
3	41 – 44 to 45	300mm	19.80m	
4	42 – 9 to 46	375mm	16.16m	
5	43 – 46 to 43	375mm	22.57m	INSPECTION ABANDONED TAP ROOTS
6	44 – 9 to 47	300mm	0.19m	
7	45 – 9 to 48	300mm	32.79m	
8	46 – 48 to 49	300mm	48.61m	

3x P LIDS REQUIRE REPLACING – 1X P LID SUMP 49
2X P-LID SUMP 48

Binder 3a,75

Flexible
When Performance Matters



01 NOV 23

DICKSON 5 HOPS - DICKSON WO 75488

STONE / TOM

(RUN) SECTION NO.

1 - 16 - ~~15 to 18~~ - 225mm - 0.58m -

2 - 17 - 18 to 19 - 225mm - 14.47m -

3 - 18 - 19 to 20 - 225mm - 22.23m -

4 - 19 - 19 to 22 - 150mm - 4.54m -

5 - 20 - 22 to 23 - 150mm - 3.91m - ABANDONED (EXTRODING CONNECTION)

6 - 21 - 23 to 22 - 150mm - 11.27m - ABANDONED (EXTRODING CONNECTION)

7 - 22 - 23 to 24 - 150mm - 4.44m - ABANDONED (ROOTS)

8 - 23 - 24 to 25 - 150mm - 3.19m -

9 - 24 - 24 to 23 - 150mm - 3.39m - ABANDONED (ROOTS / SILT

10 - 25 - 24 to 26 - 150mm - 0.44m - ABANDONED (SILT / DEBRIS)

11 - 26 - 10 to 11 - 150mm - 13.72m - ABANDONED (ROOTS)

SUMP 21 - ON MAP REQUIRES REPLACING 1 X P-LID

SUMP 21 - COULD NOT GET CRAWLER INTO 2 PIPES TO FOR INTO CAVITY SEE PHOTO

SUMP 20 - HOLDING TO MUCH WATER.

FOLLOWING ~~G~~RATED SUMPS REQUIRE CLEANING. SEE MAP

27 - 28 - 29 - (10 - 11) - 23 - 24

Binder 3a.76

Flexible
When Performance Matters



31 OCT 23

DICKSON SITOPS — DICKSON — WO 75488

1 — 1 to 2 — 150mm — 28.28 m —
2 — 1 to 3 — 150mm — 22.62 m — ABANDONED SAND/SILT (INTERVAL)
3 — 1 to 4 — 150mm — 9.87m —
4 — 4 to 5 — 150mm — 17.13m —
5 — 1 to 6 — 150mm — 20.14m —
6 — 7 to 6 — 300mm — 2.43m —
7 — 7 to 8 — 300mm — 1.12 m —
8 — 8 to 9 — 300mm — 14.44m —
9 — 10 to 11 — 150mm — 21.39m — ABANDONED / ROOTS
10 — 5 to 12 — 150mm — 0.45m — ABANDONED / SAND GRAVEL
11 — 5 to 13 — 150mm — 16.87m —
12 — 13 to 14 — 150mm — 12.76m —
13 — 14 to 15 — 150mm — 8.90m —
14 — 16 to 15 — 150mm — 18.38m —
15 — 16 to 17 — 150mm — 15.79m —

SHANE AND TOM 2

Binder 3a,77

Flexible Australia
P.O Box 575
Fyshwick ACT 2609
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Email: info@flexibledrain.com

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WO75488		31/10/2023		

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Section: 33, 40 --- 42 171
Section: 34, 40 --- 43 173
Section: 35, 43 --- 9 177
Section: 36, 43 --- 28 180
Section: 37, 38 --- 44 185
Section: 38, 38 --- 39 187
Section: 39, 37 --- 36 189
Section: 40, 37 --- 44 196
Section: 41, 44 --- 45 199
Section: 42, 9 --- 46 205
Section: 43, 46 --- 43 207
Section: 44, 9 --- 47 213
Section: 45, 9 --- 48 215
Section: 46, 48 --- 49 217
Section: 47, 5 --- 12 221
Section: 48, 12 --- 12A 226
Section: 49, 28B --- 43 232
Section: 50, 28B --- 28 242

Binder 3a,79

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Inspection Report

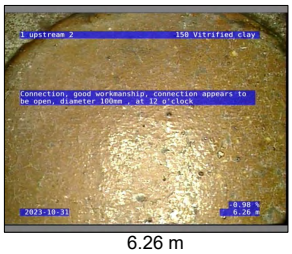
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**1**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**1**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**2**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**28.29 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:225 Position	Code	Observation	Grade
0.00	STMH	Start node, maintenance hole, Nodename: 2	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
6.27	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 12 o'clock	
6.27	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock	
21.24	CNGC	Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock	
21.26	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock	
28.14	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock	
28.14	MC	New material, PVC, at joint	
28.29	FHJ	Finish node, junction or connection with another conduit, Nodename: 1	



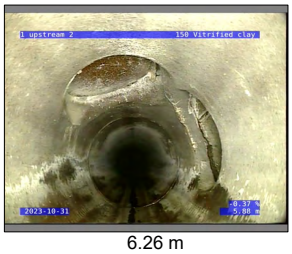
6.26 m



6.26 m



6.26 m



6.26 m



21.24 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**1**	



Photo: 1_1_4_A.JPG, 00:02:16
6.26m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 12 o'clock



Photo: 1_1_4_B.JPG, 00:02:16
6.26m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**1**	



Photo: 1_1_5_A.JPG, 00:02:37
6.26m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock



Photo: 1_1_5_B.JPG, 00:02:37
6.26m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**1**	



Photo: 1_1_6_A.JPG, 00:05:37
21.24m, Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock



Photo: 1_1_6_B.JPG, 00:05:37
21.24m, Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**1**	



Photo: 1_1_7_A.JPG, 00:05:55
21.26m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock



Photo: 1_1_7_B.JPG, 00:05:55
21.26m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**1**	



Photo: 1_1_8_A.JPG, 00:07:45
28.14m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock



Photo: 1_1_8_B.JPG, 00:07:45
28.14m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**1**	



Photo: 1_1_9_A.JPG, 00:07:53
28.14m, New material, PVC, at joint



Photo: 1_1_10_A.JPG, 00:08:01
28.29m, Finish node, junction or connection with another conduit, Nodename: 1

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**1**	



Photo: 1_1_10_B.JPG, 00:08:01
28.29m, Finish node, junction or connection with another conduit, Nodename: 1

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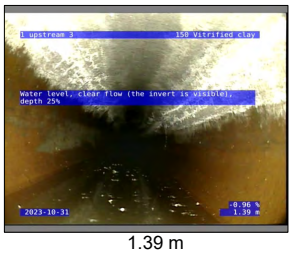
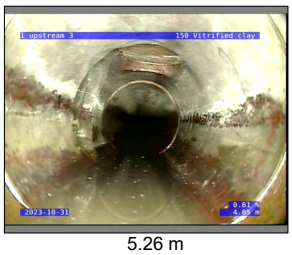
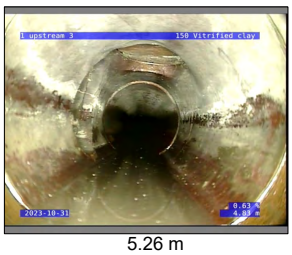
Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**2**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**4**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**1**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**3**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**22.62 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:180 Position	Code	Observation	Grade
0.00	STMH	Start node, maintenance hole, Nodename: 3	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
1.39	WLC	Water level, clear flow (the invert is visible), depth 25%	 1.39 m
5.27	CNGC	Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock	
5.27	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock	 5.26 m
8.81	WLC	Water level, clear flow (the invert is visible), depth 40%	
10.74	WLC	Water level, clear flow (the invert is visible), depth 5%	
11.64	CNGC	Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock	 5.26 m
11.64	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock	
12.97	CNGC	Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock	 5.26 m
17.71	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock	
18.72	WLC	Water level, clear flow (the invert is visible), depth 5%	
21.81	DES	Deposit is fine sediments- Sand or Silt in the invert, at joint , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 t	 5.26 m
22.62	SAOB	Inspection (survey) abandoned, obstruction, at joint, General Comments Cleaning Req for acc report	

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**40**	**1.77**	**40**	**4**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**2**	



Photo: 3_3_13_A.JPG, 00:00:52
1.39m, Water level, clear flow (the invert is visible), depth 25%



Photo: 3_3_14_A.JPG, 00:01:56
5.26m, Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**2**	

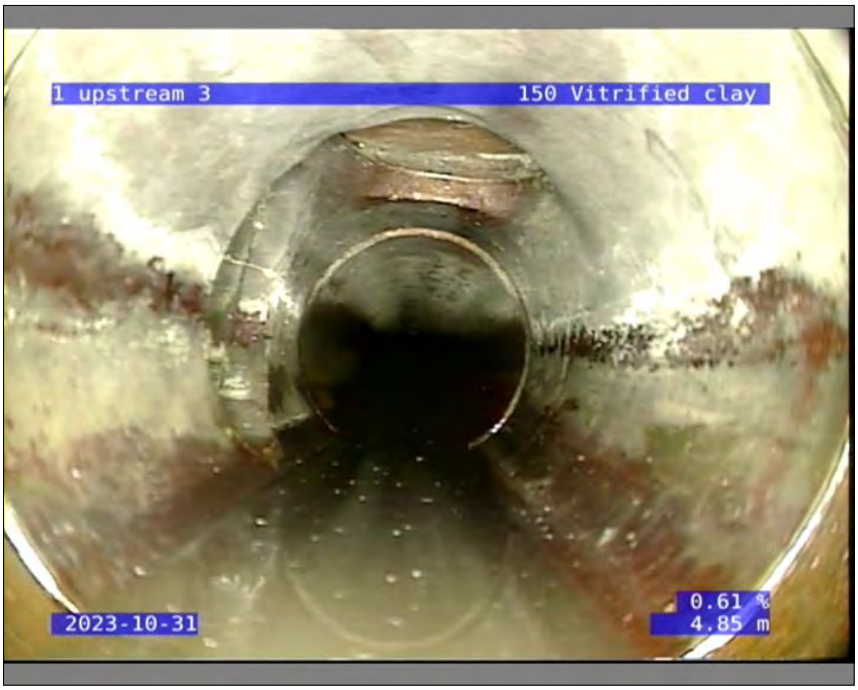


Photo: 3_3_14_B.JPG, 00:01:56
5.26m, Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock



Photo: 3_3_15_A.JPG, 00:02:35
5.26m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**2**	



Photo: 3_3_15_B.JPG, 00:02:35
5.26m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock



Photo: 3_3_18_A.JPG, 00:04:20
11.64m, Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**2**	



Photo: 3_3_18_B.JPG, 00:04:20
11.64m, Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock



Photo: 3_3_19_A.JPG, 00:04:47
11.64m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**2**	



Photo: 3_3_19_B.JPG, 00:04:47
11.64m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock



Photo: 3_3_20_A.JPG, 00:05:12
12.97m, Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**2**	



Photo: 3_3_20_B.JPG, 00:05:12
12.97m, Connection, good workmanship, connection appears to be closed, diameter 100mm , at 12 o'clock

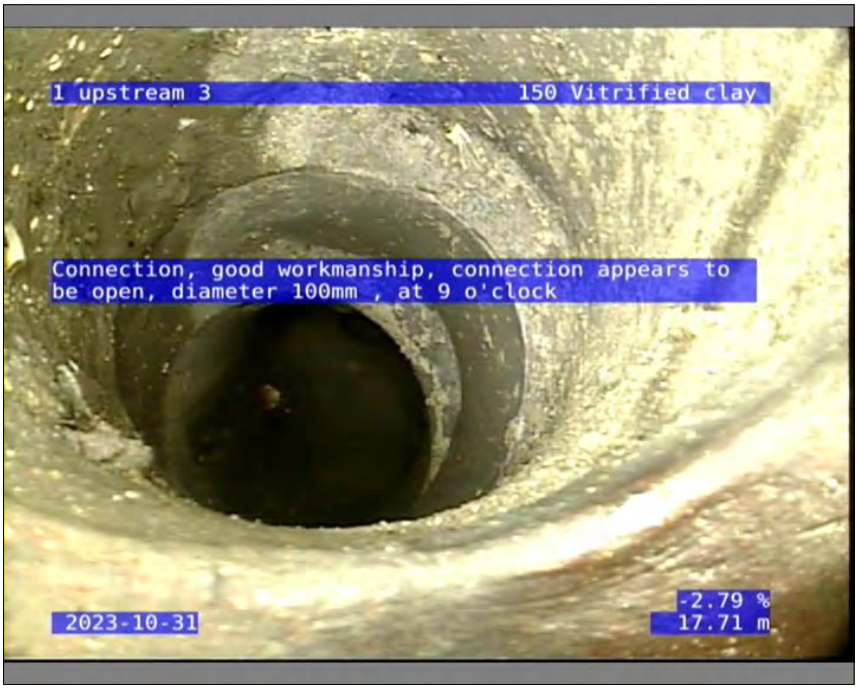


Photo: 3_3_21_A.JPG, 00:06:35
17.71m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**2**	



Photo: 3_3_21_B.JPG, 00:06:35
17.71m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock



Photo: 3_3_23_A.JPG, 00:07:40
21.81m, Deposit is fine sediments- Sand or Silt in the invert, at joint , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**2**	



Photo: 3_3_23_B.JPG, 00:07:40
21.81m, Deposit is fine sediments- Sand or Silt in the invert, at joint , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock



Photo: 3_3_24_A.JPG, 00:08:31
22.62m, Inspection (survey) abandoned, obstruction, at joint, General Comments Cleaning Req for acc report

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**2**	



Photo: 3_3_24_B.JPG, 00:08:31
22.62m, Inspection (survey) abandoned, obstruction, at joint, General Comments Cleaning Req for acc report

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Inspection Report

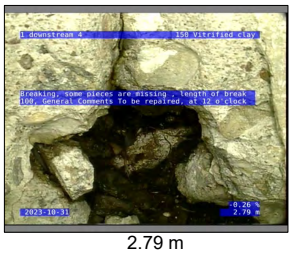
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**3**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**5**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**1**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**4**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**9.87 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

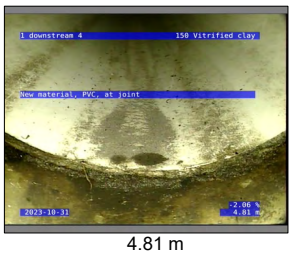
1:90	Position	Code	Observation	Grade
1	0.00	STMH	Start node, maintenance hole, Nodename: 1	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	2.79	BM	Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock	
	4.81	MC	New material, PVC, at joint	
	5.47	MC	New material, Concrete Pipe, at joint, General Comments To be repaired	
	5.47	JDL	Joint displaced longitudinaly, longitudinal displacement 21-30mm, General Comments To be repaired	
4	9.87	FHGP	Finish node, grated inlet pit, Nodename: 4	



2.79 m



2.79 m



4.81 m



4.81 m



5.47 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
2	**60**	**6.28**	**62**	**5**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**3**	



Photo: 4_4_27_A.JPG, 00:01:17
2.79m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock



Photo: 4_4_27_B.JPG, 00:01:17
2.79m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**3**	



Photo: 4_4_28_A.JPG, 00:02:07
4.81m, New material, PVC, at joint



Photo: 4_4_28_B.JPG, 00:02:07
4.81m, New material, PVC, at joint

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**3**	

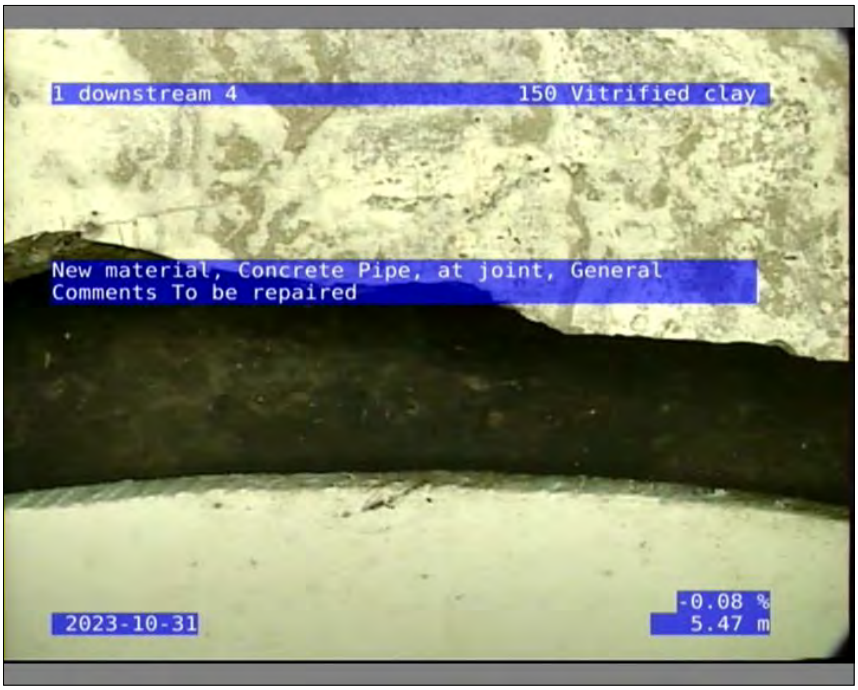


Photo: 4_4_29_A.JPG, 00:02:53
5.47m, New material, Concrete Pipe, at joint, General Comments To be repaired



Photo: 4_4_29_B.JPG, 00:02:53
5.47m, New material, Concrete Pipe, at joint, General Comments To be repaired

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Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**3**	



Photo: 4_4_30_A.JPG, 00:02:58
5.47m, Joint displaced longitudinaly, longitudinal displacement 21-30mm, General Comments To be repaired



Photo: 4_4_30_B.JPG, 00:02:58
5.47m, Joint displaced longitudinaly, longitudinal displacement 21-30mm, General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**3**	



Photo: 4_4_31_A.JPG, 00:04:29
9.87m, Finish node, grated inlet pit, Nodename: 4



Photo: 4_4_31_B.JPG, 00:04:29
9.87m, Finish node, grated inlet pit, Nodename: 4

Binder 3a,103

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Inspection Report

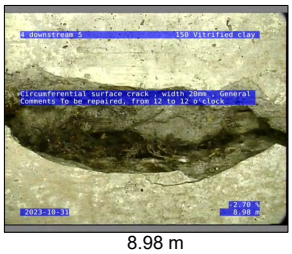
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**4**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**5**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**4**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**5**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**17.13 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**400**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

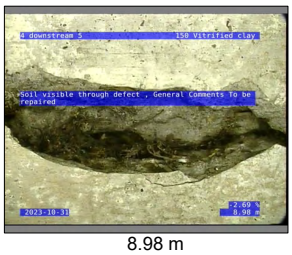
1:135 Position	Code	Observation	Grade
0.00	STGP	Start node, grated inlet pit, Nodename: 4	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
8.99	CCS	Circumferential surface crack , width 20mm , General Comments To be repaired, from 12 to 12 o'clock	
8.99	SV	Soil visible through defect , General Comments To be repaired	
9.57	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 12 o'clock	
9.57	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock	
9.78	JDL	Joint displaced longitudinaly, longitudinal displacement 10-20mm, General Comments To be repaired	
16.53	SH	Hole in wall , General Comments To be repaired, at 2 o'clock	
17.13	FHGP	Finish node, grated inlet pit, Nodename: 5	



8.98 m



8.98 m



8.98 m



8.98 m



9.57 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
4	**100**	**9.38**	**160.6**	**5**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**4**	



Photo: 5_5_34_A.JPG, 00:02:39
8.98m, Circumferential surface crack , width 20mm , General Comments To be repaired, from 12 to 12 o'clock



Photo: 5_5_34_B.JPG, 00:02:39
8.98m, Circumferential surface crack , width 20mm , General Comments To be repaired, from 12 to 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**4**	



Photo: 5_5_35_A.JPG, 00:02:45
8.98m, Soil visible through defect , General Comments To be repaired



Photo: 5_5_35_B.JPG, 00:02:45
8.98m, Soil visible through defect , General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**4**	



Photo: 5_5_36_A.JPG, 00:03:11
9.57m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 12 o'clock



Photo: 5_5_36_B.JPG, 00:03:11
9.57m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**4**	

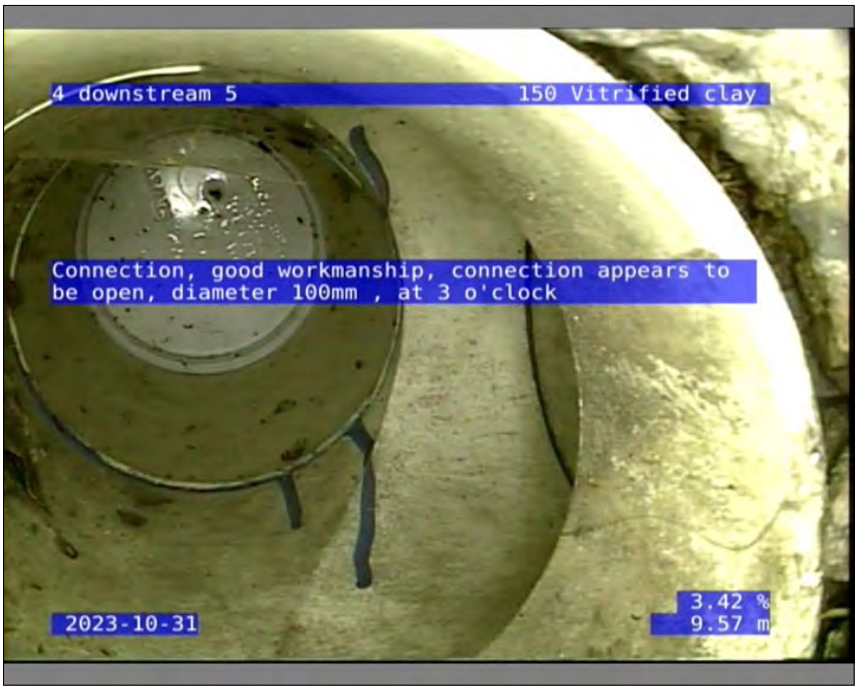


Photo: 5_5_37_A.JPG, 00:03:24
9.57m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock



Photo: 5_5_37_B.JPG, 00:03:24
9.57m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**4**	



Photo: 5_5_38_A.JPG, 00:04:14
9.78m, Joint displaced longitudinaly, longitudinal displacement 10-20mm, General Comments To be repaired



Photo: 5_5_38_B.JPG, 00:04:14
9.78m, Joint displaced longitudinaly, longitudinal displacement 10-20mm, General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**4**	



Photo: 5_5_39_A.JPG, 00:05:52
16.53m, Hole in wall , General Comments To be repaired, at 2 o'clock



Photo: 5_5_39_B.JPG, 00:05:52
16.53m, Hole in wall , General Comments To be repaired, at 2 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**4**	



Photo: 5_5_40_A.JPG, 00:06:33
17.13m, Finish node, grated inlet pit, Nodename: 5



Photo: 5_5_40_B.JPG, 00:06:33
17.13m, Finish node, grated inlet pit, Nodename: 5

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**5**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**3**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**1**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**6**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**20.14 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:



1:165 Position	Code	Observation	Grade
0.00	STMH	Start node, maintenance hole, Nodename: 1	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
1.02	CNPO	Connection, poor workmanship, connection appears to be open , diameter 100mm , General Comments To be repaired	
8.28	CM	Multiple or complex surface crack(s) , width 10mm, General Comments To be repaired	
13.55	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 11 o'clock	
13.58	CI	Intruding connection, magnitude of intrusion: 5-20%, General Comments To be repaired, at 11 o'clock	
20.14	FHMH	Finish node, maintenance hole, Nodename: 6	



1.02 m



8.28 m



8.28 m



13.55 m



13.55 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**30**	**1.49**	**30**	**3**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**5**	



Photo: 6_6_43_A.JPG, 00:01:15
1.02m, Connection, poor workmanship, connection appears to be open , diameter 100mm , General Comments To be repaired



Photo: 6_6_45_A.JPG, 00:03:17
8.28m, Multiple or complex surface crack(s) , width 10mm, General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**5**	



Photo: 6_6_45_B.JPG, 00:03:17
8.28m, Multiple or complex surface crack(s) , width 10mm, General Comments To be repaired



Photo: 6_6_46_A.JPG, 00:04:32
13.55m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 11 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**5**	



Photo: 6_6_46_B.JPG, 00:04:32
13.55m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 11 o'clock



Photo: 6_6_47_A.JPG, 00:04:40
13.58m, Intruding connection, magnitude of intrusion: 5-20%, General Comments To be repaired, at 11 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**5**	



Photo: 6_6_47_B.JPG, 00:04:40
13.58m, Intruding connection, magnitude of intrusion: 5-20%, General Comments To be repaired, at 11 o'clock



Photo: 6_6_48_A.JPG, 00:06:20
20.14m, Finish node, maintenance hole, Nodename: 6

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**5**	



Photo: 6_6_48_B.JPG, 00:06:20
20.14m, Finish node, maintenance hole, Nodename: 6

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**6**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**300 mm**	Start Manhole:	**7**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**6**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**2.43 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**750**
Pipe Unit Length:		Perciptiation:	**No**

Comments:



1:50	Position	Code	Observation	Grade
6				
	0.00	STMH	Start node, maintenance hole, Nodename: 6	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	2.43	FHMH	Finish node, maintenance hole, Nodename: 7	
7				



2.43 m



2.43 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**6**	



Photo: 7_7_53_A.JPG, 00:01:44
2.43m, Finish node, maintenance hole, Nodename: 7



Photo: 7_7_53_B.JPG, 00:01:44
2.43m, Finish node, maintenance hole, Nodename: 7

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**7**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**300 mm**	Start Manhole:	**7**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**8**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**1.12 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**750**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:50	Position	Code	Observation	Grade
7	0.00	STMH	Start node, maintenance hole, Nodename: 7	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
8	1.12	FHMH	Finish node, maintenance hole, Nodename: 8	



1.12 m



1.12 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**7**	



Photo: 8_8_55_A.JPG, 00:01:22
1.12m, Finish node, maintenance hole, Nodename: 8



Photo: 8_8_55_B.JPG, 00:01:22
1.12m, Finish node, maintenance hole, Nodename: 8

Binder 3a,121

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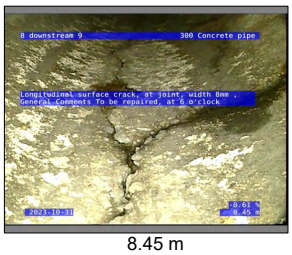
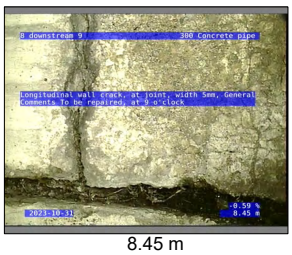
Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**8**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Wall**	**5**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**300 mm**	Start Manhole:	**8**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**9**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**14.44 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**750**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:120 Position	Code	Observation	Grade
8			
0.00	STMH	Start node, maintenance hole, Nodename: 8	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
2.30	CM	Multiple or complex surface crack(s), at joint, width 5mm, General Comments To be repaired	 2.3 m
			 2.3 m
8.45	CLS	Longitudinal surface crack, at joint, width 8mm , General Comments To be repaired, at 6 o'clock	 8.45 m
8.45	CLW	Longitudinal wall crack, at joint, width 5mm, General Comments To be repaired, at 9 o'clock	
8.46	CLW	Longitudinal wall crack, at joint, width 5mm, General Comments To be repaired, at 3 o'clock	 8.45 m
8.95	BM	Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 3 o'clock	
9.41	CLS	Longitudinal surface crack, at joint, width 5mm , General Comments To be repaired, at 6 o'clock	
14.44	FHMH	Finish node, maintenance hole, Nodename: 9	 8.45 m
9			

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
5	**64.2**	**4.44**	**64.2**	**5**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**8**	



Photo: 9_9_57_A.JPG, 00:01:21
2.3m, Multiple or complex surface crack(s), at joint, width 5mm, General Comments To be repaired



Photo: 9_9_57_B.JPG, 00:01:21
2.3m, Multiple or complex surface crack(s), at joint, width 5mm, General Comments To be repaired

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Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**8**	



Photo: 9_9_58_A.JPG, 00:03:04
8.45m, Longitudinal surface crack, at joint, width 8mm , General Comments To be repaired, at 6 o'clock



Photo: 9_9_58_B.JPG, 00:03:04
8.45m, Longitudinal surface crack, at joint, width 8mm , General Comments To be repaired, at 6 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**8**	



Photo: 9_9_59_A.JPG, 00:03:22
8.45m, Longitudinal wall crack, at joint, width 5mm, General Comments To be repaired, at 9 o'clock



Photo: 9_9_59_B.JPG, 00:03:22
8.45m, Longitudinal wall crack, at joint, width 5mm, General Comments To be repaired, at 9 o'clock

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Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**8**	

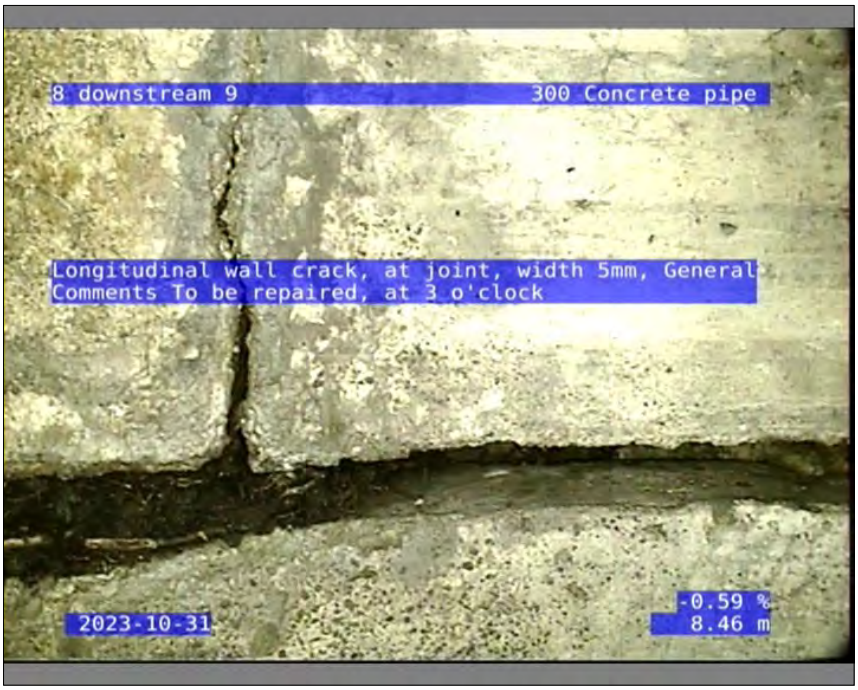


Photo: 9_9_60_A.JPG, 00:03:58
8.46m, Longitudinal wall crack, at joint, width 5mm, General Comments To be repaired, at 3 o'clock



Photo: 9_9_60_B.JPG, 00:03:58
8.46m, Longitudinal wall crack, at joint, width 5mm, General Comments To be repaired, at 3 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**8**	



Photo: 9_9_61_A.JPG, 00:04:29
8.95m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 3 o'clock



Photo: 9_9_61_B.JPG, 00:04:29
8.95m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 3 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**8**	



Photo: 9_9_62_A.JPG, 00:05:07
9.41m, Longitudinal surface crack, at joint, width 5mm , General Comments To be repaired, at 6 o'clock



Photo: 9_9_62_B.JPG, 00:05:07
9.41m, Longitudinal surface crack, at joint, width 5mm , General Comments To be repaired, at 6 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**8**	



Photo: 9_9_63_A.JPG, 00:06:13
14.44m, Finish node, maintenance hole, Nodename: 9



Photo: 9_9_63_B.JPG, 00:06:13
14.44m, Finish node, maintenance hole, Nodename: 9

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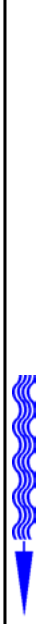
Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**9**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**5**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**10**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**11**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**21.39 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**250**
Pipe Unit Length:		Perciptiation:	**No**

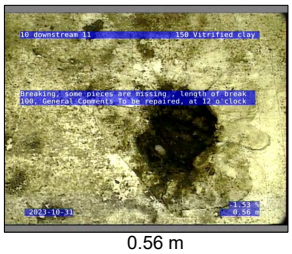
Comments:



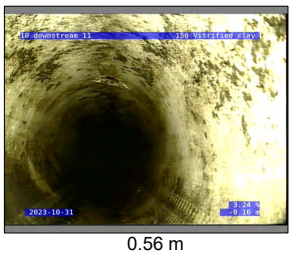
1:180 Position	Code	Observation	Grade
10			
0.00	STMH	Start node, maintenance hole, Nodename: 10	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
0.10	MC	New material, PVC, at joint	
0.56	BM	Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock	
2.99	SH	Hole in wall , General Comments To be repaired, at 12 o'clock	
21.39	RF	Fine Roots , reduction in cross sectional area, at joint, Obstruction: >75%, General Comments Cleaning Req for acc report, from 12 to 12 o'cloc	
21.39	SAR	Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report	



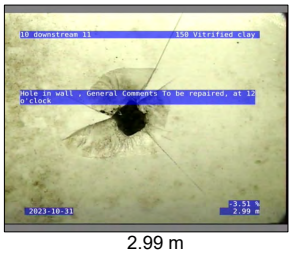
0.1 m



0.56 m



0.56 m



2.99 m



2.99 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
2	**100**	**7.48**	**160**	**5**	**1**	**1**	**0.05**	**1**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**9**	



Photo: 10_10_67_A.JPG, 00:01:40
0.1m, New material, PVC, at joint

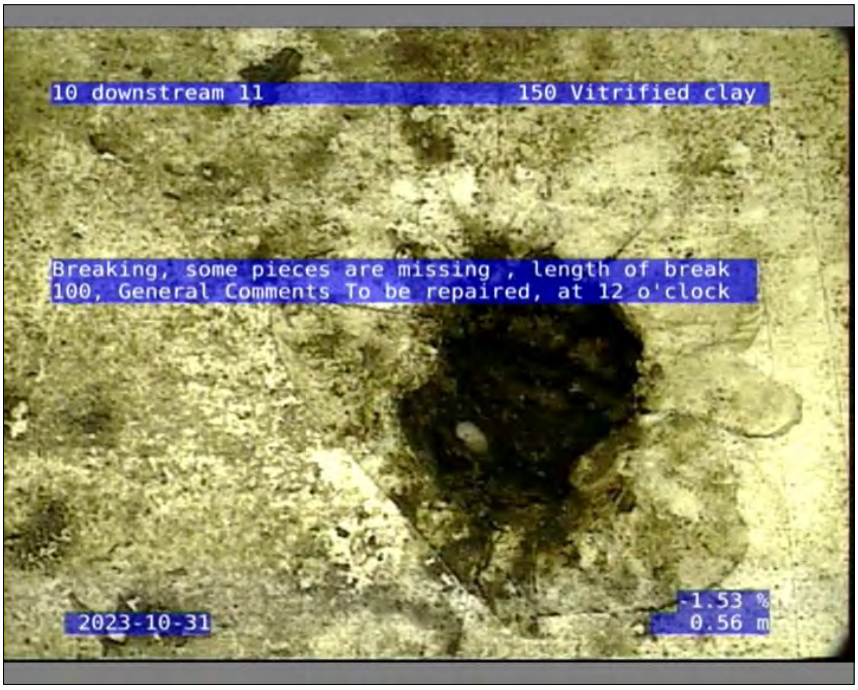


Photo: 10_10_66_A.JPG, 00:00:55
0.56m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**9**	



Photo: 10_10_66_B.JPG, 00:00:55
0.56m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock



Photo: 10_10_68_A.JPG, 00:01:43
2.99m, Hole in wall , General Comments To be repaired, at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**9**	



Photo: 10_10_68_B.JPG, 00:01:43
2.99m, Hole in wall , General Comments To be repaired, at 12 o'clock



Photo: 10_10_69_A.JPG, 00:03:49
21.38m, Fine Roots , reduction in cross sectional area, at joint, Obstruction: >75%, General Comments Cleaning Req for acc report, from 12 to 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**9**	



Photo: 10_10_69_B.JPG, 00:03:49
21.38m, Fine Roots , reduction in cross sectional area, at joint, Obstruction: >75%, General Comments Cleaning Req for acc report, from 12 to 12 o'clock



Photo: 10_10_70_A.JPG, 00:03:56
21.38m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**9**	



Photo: 10_10_70_B.JPG, 00:03:56
21.38m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**10**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**5**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**5**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**12**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**0.45 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:



1:50 Position	Code	Observation	Grade
0.00	STGP	Start node, grated inlet pit, Nodename: 5	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
0.45	DER	Deposit is coarse sediments- Gravel or Rubble in the invert, at joint , Obstruction: 21-50%, General Comments Suspected under water, from 4 to 8 o'	
0.45	SAOB	Inspection (survey) abandoned, obstruction, at joint, General Comments Cleaning Req for acc report	



0.45 m



0.45 m



0.45 m



0.45 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**40**	**89.49**	**40**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**10**	



Photo: 11_11_73_A.JPG, 00:00:51
0.45m, Deposit is coarse sediments- Gravel or Rubble in the invert, at joint , Obstruction: 21-50%, General Comments Suspected under water, from 4 to 8 o'clock



Photo: 11_11_73_B.JPG, 00:00:51
0.45m, Deposit is coarse sediments- Gravel or Rubble in the invert, at joint , Obstruction: 21-50%, General Comments Suspected under water, from 4 to 8 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**10**	



Photo: 11_11_74_A.JPG, 00:00:56
0.45m, Inspection (survey) abandoned, obstruction, at joint, General Comments Cleaning Req for acc report



Photo: 11_11_74_B.JPG, 00:00:56
0.45m, Inspection (survey) abandoned, obstruction, at joint, General Comments Cleaning Req for acc report

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Inspection Report

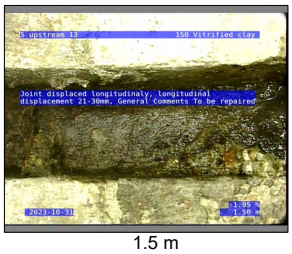
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**11**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**5**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**13**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**16.87 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

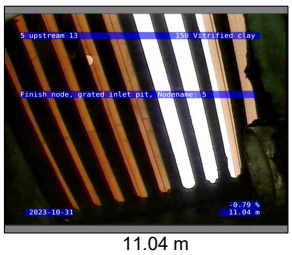
1:90	Position	Code	Observation	Grade
13				
	0.00	STGP	Start node, grated inlet pit, Nodename: 13	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	1.50	JDL	Joint displaced longitudinaly, longitudinal displacement 21-30mm, General Comments To be repaired	
	11.04	FHGP	Finish node, grated inlet pit, Nodename: 5	



1.5 m



1.5 m



11.04 m



11.04 m

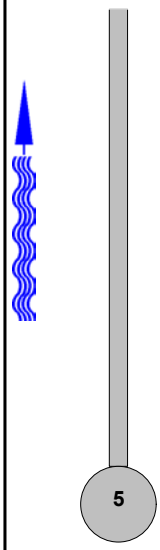
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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**11**		**WSA 05-2006**
Method of Inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length:	
Television Camera	**Other**	**1**	**1**		

1:90	Position	Code	Observation	Rate



STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
1	**2**	**0.12**	**2**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**11**	



Photo: 12_12_80_A.JPG, 00:01:22
1.5m, Joint displaced longitudinaly, longitudinal displacement 21-30mm, General Comments To be repaired



Photo: 12_12_80_B.JPG, 00:01:22
1.5m, Joint displaced longitudinaly, longitudinal displacement 21-30mm, General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**11**	



Photo: 12_12_81_A.JPG, 00:03:36
11.04m, Finish node, grated inlet pit, Nodename: 5



Photo: 12_12_81_B.JPG, 00:03:36
11.04m, Finish node, grated inlet pit, Nodename: 5

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**12**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**5**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**13**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**14**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**12.76 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:105 Position	Code	Observation	Grade
14			
0.00	STGP	Start node, grated inlet pit, Nodename: 14	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
0.57	JDA	Joint displaced angular, angular displacement 2° , at 11 o'clock	
0.57	OBJ	Obstruction, an object is wedged in the joint, at joint, reduction in cross sectional area: 5-20%, General Comments To be repaired, at 12 o'clock	
4.41	CNPO	Connection, poor workmanship, connection appears to be open , diameter 150mm	
4.41	GPFU	General photograph, the camera is pointing up and in the direction of travel, General Comments Suspected, at 12 o'clock	
5.80	OBP	Obstruction, external Cables or Pipes have been built through the conduit , reduction in cross sectional area: 5-20%, General Comments To be	
11.20	OBP	Obstruction, external Cables or Pipes have been built through the conduit , reduction in cross sectional area: 5-20%, General Comments To be	
12.76	FHGP	Finish node, grated inlet pit, Nodename: 13	
13			



0.57 m



0.57 m



4.41 m



4.41 m



4.41 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**3**	**30**	**7.05**	**90**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**12**	



Photo: 13_13_84_A.JPG, 00:01:21
0.57m, Joint displaced angular, angular displacement 2° , at 11 o'clock



Photo: 13_13_85_A.JPG, 00:01:34
0.57m, Obstruction, an object is wedged in the joint, at joint, reduction in cross sectional area: 5-20%, General Comments To be repaired, at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**12**	



Photo: 13_13_86_A.JPG, 00:03:07
4.41m, Connection, poor workmanship, connection appears to be open , diameter 150mm



Photo: 13_13_86_B.JPG, 00:03:07
4.41m, Connection, poor workmanship, connection appears to be open , diameter 150mm

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**12**	



Photo: 13_13_87_A.JPG, 00:03:26
4.41m, General photograph, the camera is pointing up and in the direction of travel, General Comments Suspected, at 12 o'clock



Photo: 13_13_87_B.JPG, 00:03:26
4.41m, General photograph, the camera is pointing up and in the direction of travel, General Comments Suspected, at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**12**	



Photo: 13_13_88_A.JPG, 00:03:56
5.8m, Obstruction, external Cables or Pipes have been built through the conduit , reduction in cross sectional area: 5-20%, General Comments To be repaired, at 11 o'clock



Photo: 13_13_88_B.JPG, 00:03:56
5.8m, Obstruction, external Cables or Pipes have been built through the conduit , reduction in cross sectional area: 5-20%, General Comments To be repaired, at 11 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**12**	



Photo: 13_13_89_A.JPG, 00:05:07
11.2m, Obstruction, external Cables or Pipes have been built through the conduit , reduction in cross sectional area: 5-20%, General Comments To be repaired, at 1 o'clock



Photo: 13_13_89_B.JPG, 00:05:07
11.2m, Obstruction, external Cables or Pipes have been built through the conduit , reduction in cross sectional area: 5-20%, General Comments To be repaired, at 1 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**12**	



Photo: 13_13_90_A.JPG, 00:06:07
12.76m, Finish node, grated inlet pit, Nodename: 13



Photo: 13_13_90_B.JPG, 00:06:07
12.76m, Finish node, grated inlet pit, Nodename: 13

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**13**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**5**		

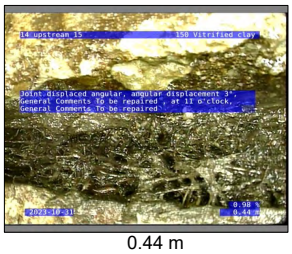
Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**14**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**15**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**8.90 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:



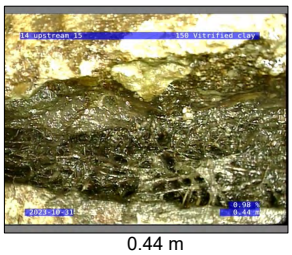
1:75 Position	Code	Observation	Grade
0.00	STMH	Start node, maintenance hole, Nodename: 15	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
0.44	JDA	Joint displaced angular, angular displacement 3°, General Comments To be repaired , at 11 o'clock, General Comments To be repaired	
0.44	EYY	Suspected Exfiltration, at joint, General Comments Suspected, from 5 to 7 o'clock	
0.64	CNPO	Connection, poor workmanship, connection appears to be open , diameter 50mm	
0.64	CXSR	Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction >75% , at 2 o'clock	
3.25	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 12 o'clock	
3.25	CXSR	Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction >75%, General Comments Cleani	
8.90	FHMH	Finish node, maintenance hole, Nodename: 14	



0.44 m



0.44 m



0.44 m



0.44 m



0.64 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**2**	**60**	**13.48**	**120**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**13**	

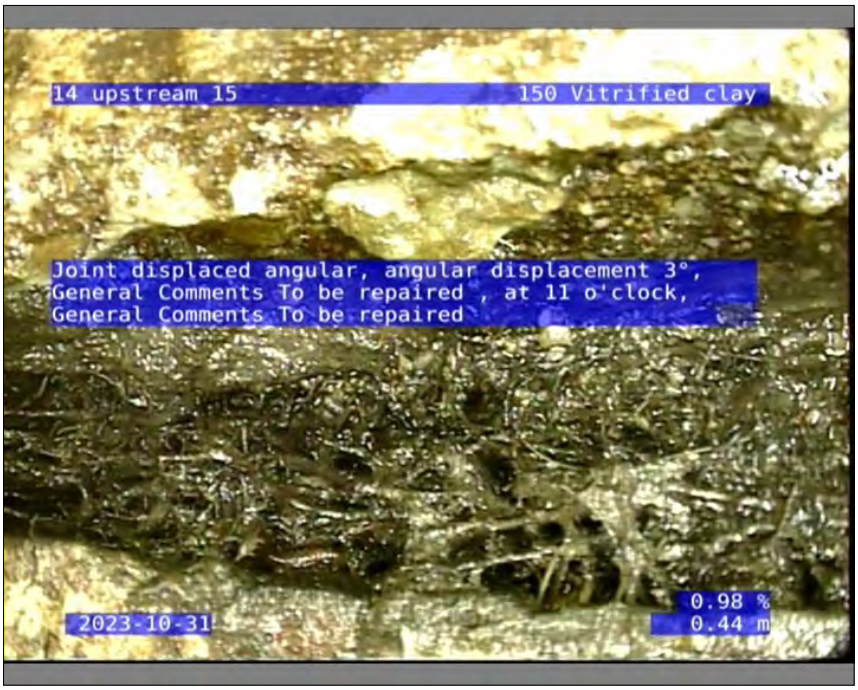


Photo: 14_14_93_A.JPG, 00:01:24
0.44m, Joint displaced angular, angular displacement 3°, General Comments To be repaired , at 11 o'clock, General Comments To be repaired



Photo: 14_14_93_B.JPG, 00:01:24
0.44m, Joint displaced angular, angular displacement 3°, General Comments To be repaired , at 11 o'clock, General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**13**	

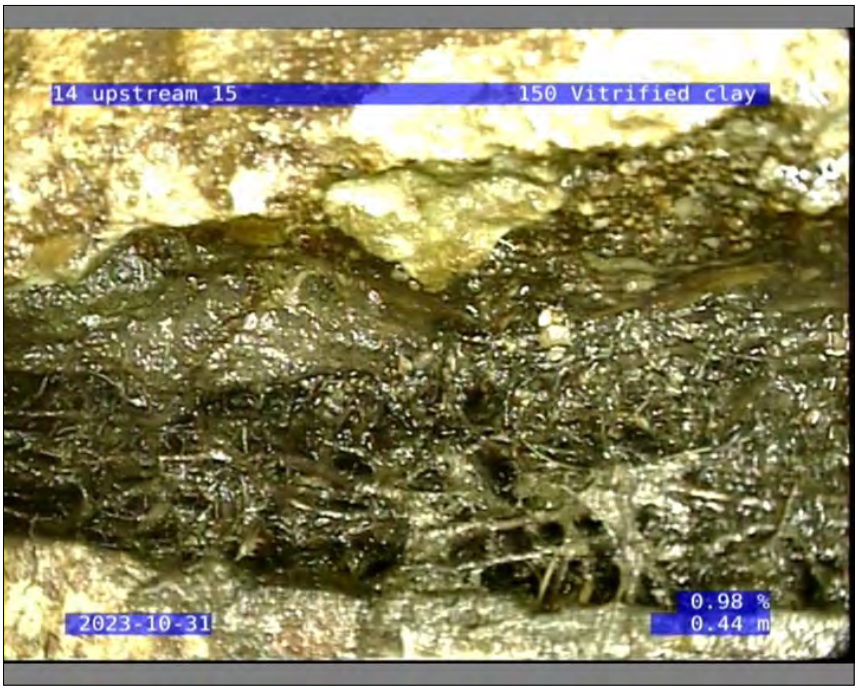


Photo: 14_14_94_A.JPG, 00:01:30
0.44m, Suspected Exfiltration, at joint, General Comments Suspected, from 5 to 7 o'clock



Photo: 14_14_94_B.JPG, 00:01:30
0.44m, Suspected Exfiltration, at joint, General Comments Suspected, from 5 to 7 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**13**	



Photo: 14_14_95_A.JPG, 00:02:02
0.64m, Connection, poor workmanship, connection appears to be open , diameter 50mm



Photo: 14_14_95_B.JPG, 00:02:02
0.64m, Connection, poor workmanship, connection appears to be open , diameter 50mm

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**13**	



Photo: 14_14_96_A.JPG, 00:02:10
0.64m, Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction >75% , at 2 o'clock



Photo: 14_14_96_B.JPG, 00:02:10
0.64m, Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction >75% , at 2 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**13**	



Photo: 14_14_97_A.JPG, 00:02:57
3.25m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 12 o'clock



Photo: 14_14_97_B.JPG, 00:02:57
3.25m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**13**	



Photo: 14_14_98_A.JPG, 00:03:01
3.25m, Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction >75%, General Comments Cleaning Req for acc report, at 12 o'clock



Photo: 14_14_98_B.JPG, 00:03:01
3.25m, Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction >75%, General Comments Cleaning Req for acc report, at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**13**	

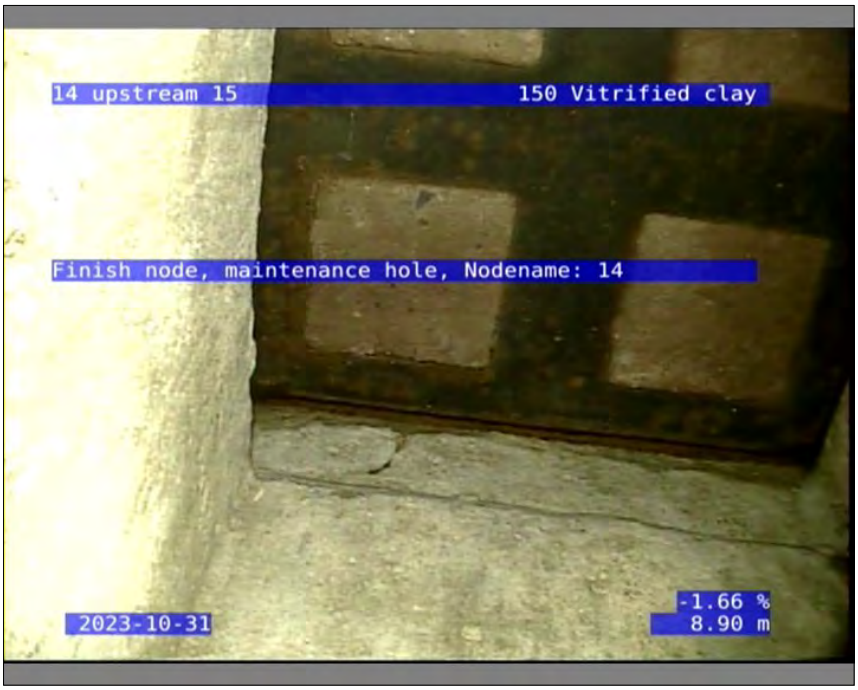


Photo: 14_14_99_A.JPG, 00:04:38
8.9m, Finish node, maintenance hole, Nodename: 14



Photo: 14_14_99_B.JPG, 00:04:38
8.9m, Finish node, maintenance hole, Nodename: 14

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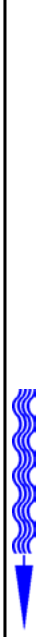
Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**14**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**5**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**16**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**15**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**18.38 m**
Location Type:	**Developed**	Lining:		Direction:	**not known**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**600**
Pipe Unit Length:		Perciptiation:	**No**

Comments:



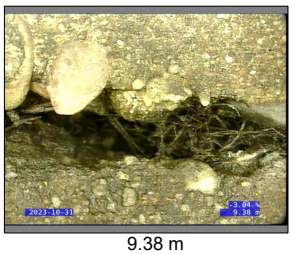
1:150 Position	Code	Observation	Grade
16			
0.00	STGP	Start node, grated inlet pit, Nodename: 16	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
0.36	MC	New material, PVC, at joint, General Comments To be Replaced	
9.38	CCS	Circumferential surface crack , width 10mm , General Comments To be repaired, from 12 to 12 o'clock	
9.38	SV	Soil visible through defect , General Comments To be repaired	
9.38	VV	Void visible through defect , General Comments To be repaired	
17.19	CCS	Circumferential surface crack , width 25mm , General Comments To be Replaced, from 12 to 12 o'clock	
17.25	JDA	Joint displaced angular, angular displacement 4°, General Comments To be Replaced , at 2 o'clock, General Comments To be Replaced	
18.38	FHMH	Finish node, maintenance hole, Nodename: 15	
15			

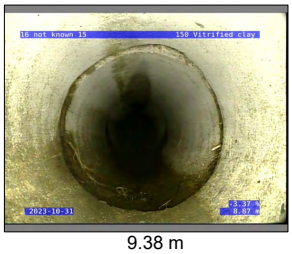


0.36 m

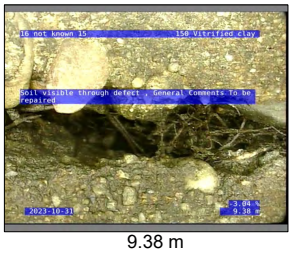


0.36 m


9.38 m



9.38 m



9.38 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
4	**120.1**	**6.54**	**120.2**	**5**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**14**	



Photo: 15_15_102_A.JPG, 00:00:48
0.36m, New material, PVC, at joint, General Comments To be Replaced



Photo: 15_15_102_B.JPG, 00:00:48
0.36m, New material, PVC, at joint, General Comments To be Replaced

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**14**	



Photo: 15_15_103_A.JPG, 00:02:44
9.38m, Circumferential surface crack , width 10mm , General Comments To be repaired, from 12 to 12 o'clock



Photo: 15_15_103_B.JPG, 00:02:44
9.38m, Circumferential surface crack , width 10mm , General Comments To be repaired, from 12 to 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**14**	



Photo: 15_15_104_A.JPG, 00:02:50
9.38m, Soil visible through defect , General Comments To be repaired



Photo: 15_15_104_B.JPG, 00:02:50
9.38m, Soil visible through defect , General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**14**	

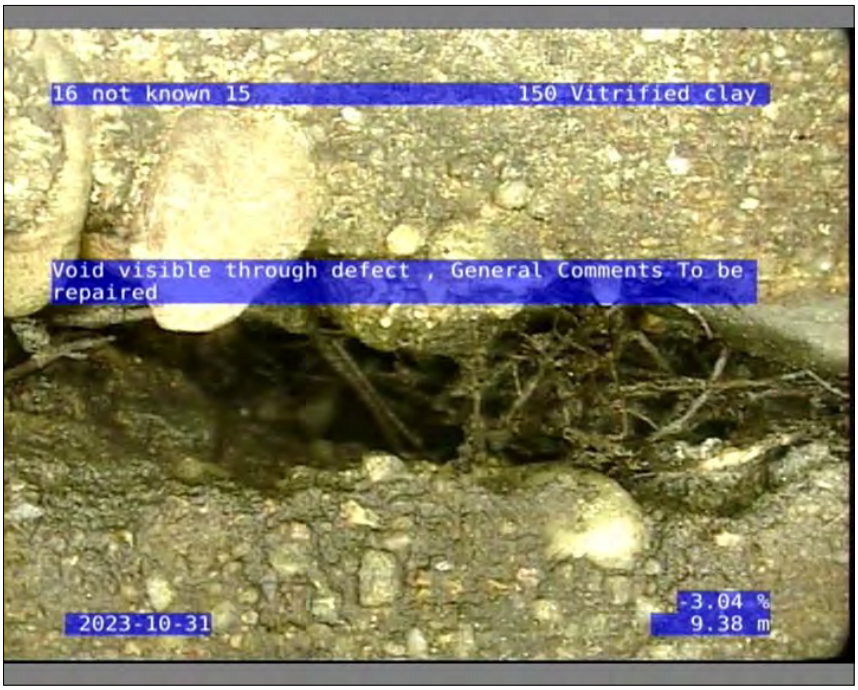


Photo: 15_15_105_A.JPG, 00:02:57
9.38m, Void visible through defect , General Comments To be repaired



Photo: 15_15_105_B.JPG, 00:02:57
9.38m, Void visible through defect , General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**14**	



Photo: 15_15_106_A.JPG, 00:04:59
17.19m, Circumferential surface crack , width 25mm , General Comments To be Replaced, from 12 to 12 o'clock



Photo: 15_15_106_B.JPG, 00:04:59
17.19m, Circumferential surface crack , width 25mm , General Comments To be Replaced, from 12 to 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**14**	



Photo: 15_15_108_A.JPG, 00:05:58
17.25m, Joint displaced angular, angular displacement 4°, General Comments To be Replaced , at 2 o'clock, General Comments To be Replaced



Photo: 15_15_108_B.JPG, 00:05:58
17.25m, Joint displaced angular, angular displacement 4°, General Comments To be Replaced , at 2 o'clock, General Comments To be Replaced

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**14**	



Photo: 15_15_109_A.JPG, 00:06:58
18.38m, Finish node, maintenance hole, Nodename: 15



Photo: 15_15_109_B.JPG, 00:06:58
18.38m, Finish node, maintenance hole, Nodename: 15

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
31/10/2023	**WO75488**	**Shane Dawes**	**15**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**16**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**17**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**15.79 m**
Location Type:	**Developed**	Lining:		Direction:	**not known**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**600**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:135 Position	Code	Observation	Grade
16			
0.00	STGP	Start node, grated inlet pit, Nodename: 16	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
2.52	BYY	Suspected Breaking , General Comments To be Replaced, from 10 to 2 o'clock	
5.47	CM	Multiple or complex surface crack(s) , width 2mm, General Comments To be repaired	
8.56	CLW	Longitudinal wall crack, at joint, width 3mm, General Comments To be repaired, at 3 o'clock	
8.56	CLW	Longitudinal wall crack, at joint, width 3mm , at 9 o'clock	
11.62	CSW	Simple wall crack, at joint, width 3mm , General Comments To be repaired, from 10 to 2 o'clock	
15.79	FHGP	Finish node, grated inlet pit, Nodename: 17	
17			



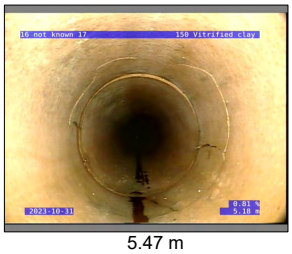
2.52 m



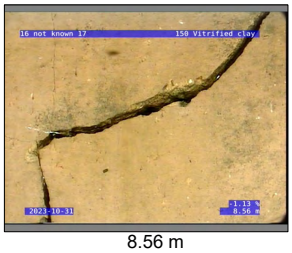
2.52 m



5.47 m



5.47 m



8.56 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
3	**4**	**0.32**	**5**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**15**	



Photo: 16_16_112_A.JPG, 00:01:55
2.52m, Suspected Breaking , General Comments To be Replaced, from 10 to 2 o'clock



Photo: 16_16_112_B.JPG, 00:01:55
2.52m, Suspected Breaking , General Comments To be Replaced, from 10 to 2 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**15**	



Photo: 16_16_113_A.JPG, 00:03:04
5.47m, Multiple or complex surface crack(s) , width 2mm, General Comments To be repaired



Photo: 16_16_113_B.JPG, 00:03:04
5.47m, Multiple or complex surface crack(s) , width 2mm, General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**15**	



Photo: 16_16_114_A.JPG, 00:04:09
8.56m, Longitudinal wall crack, at joint, width 3mm, General Comments To be repaired, at 3 o'clock

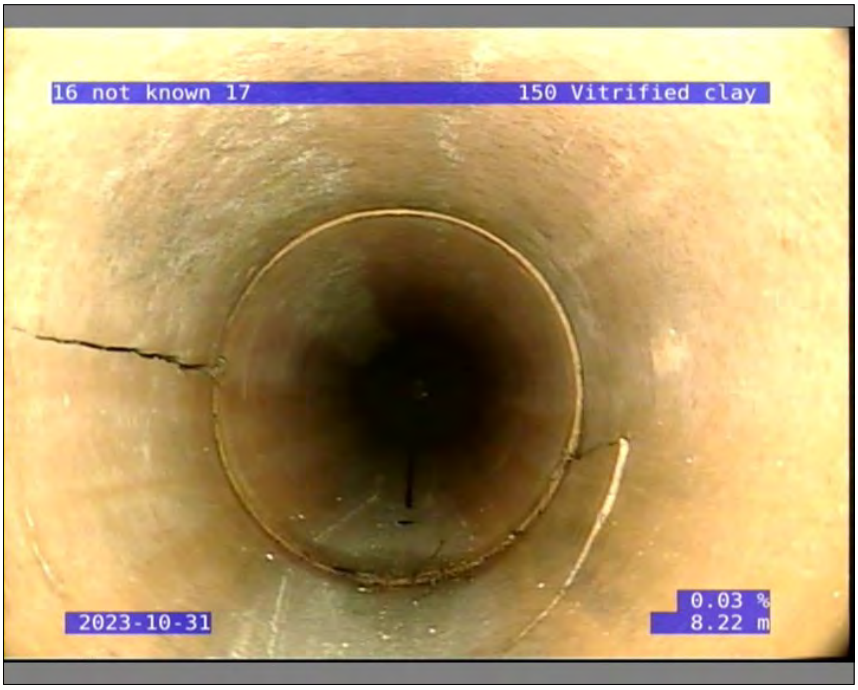


Photo: 16_16_114_B.JPG, 00:04:09
8.56m, Longitudinal wall crack, at joint, width 3mm, General Comments To be repaired, at 3 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**15**	

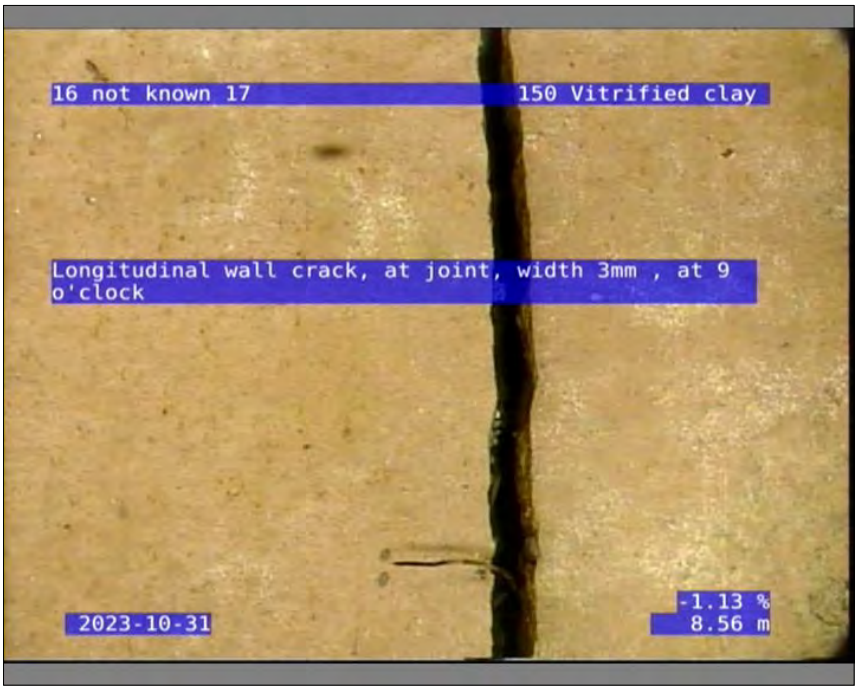


Photo: 16_16_115_A.JPG, 00:04:25
8.56m, Longitudinal wall crack, at joint, width 3mm , at 9 o'clock

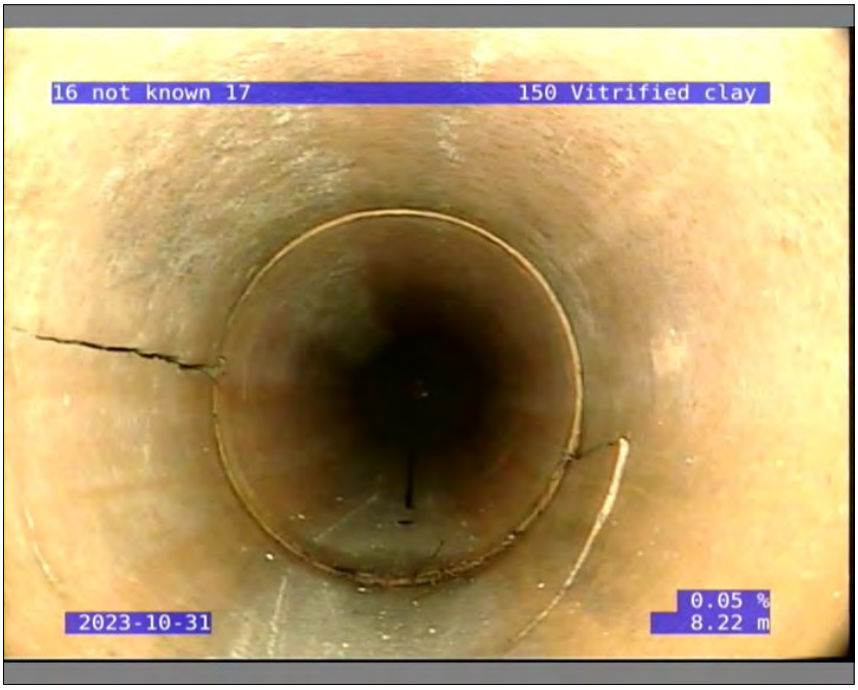


Photo: 16_16_115_B.JPG, 00:04:25
8.56m, Longitudinal wall crack, at joint, width 3mm , at 9 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**15**	



Photo: 16_16_116_A.JPG, 00:06:14
11.62m, Simple wall crack, at joint, width 3mm , General Comments To be repaired, from 10 to 2 o'clock



Photo: 16_16_116_B.JPG, 00:06:14
11.62m, Simple wall crack, at joint, width 3mm , General Comments To be repaired, from 10 to 2 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**31/10/2023**	**15**	



Photo: 16_16_117_A.JPG, 00:07:32
15.79m, Finish node, grated inlet pit, Nodename: 17



Photo: 16_16_117_B.JPG, 00:07:32
15.79m, Finish node, grated inlet pit, Nodename: 17

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Inspection Report

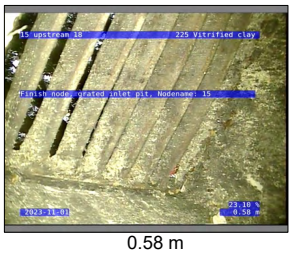
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**16**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**225 mm**	Start Manhole:	**15**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**18**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**0.58 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

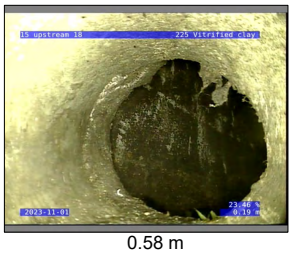
Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**800**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:50	Position	Code	Observation	Grade
18	0.00	STMH	Start node, maintenance hole, Nodename: 18	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
15	0.58	FHGP	Finish node, grated inlet pit, Nodename: 15	



0.58 m



0.58 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**16**	



Photo: 17_17_120_A.JPG, 00:01:31
0.58m, Finish node, grated inlet pit, Nodename: 15



Photo: 17_17_120_B.JPG, 00:01:31
0.58m, Finish node, grated inlet pit, Nodename: 15

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Inspection Report

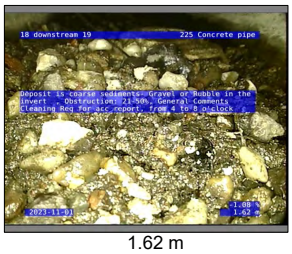
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**17**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**5**		

Location:	**Dickson Shops**	Pipe Diameter:	**225 mm**	Start Manhole:	**18**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**19**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**14.47 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**800**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

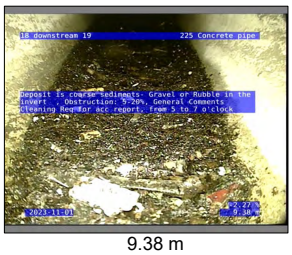
1:120	Position	Code	Observation	Grade
18	0.00	STMH	Start node, maintenance hole, Nodename: 18	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	1.62	DER	Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 t	
	6.22	WLC	Water level, clear flow (the invert is visible), depth 10%	
	9.38	DER	Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 5-20%, General Comments Cleaning Req for acc report, from 5 t	
	10.25	GPFU	General photograph, the camera is pointing up and in the direction of travel, General Comments Suspected, from 12 to 12 o'clock	
	11.12	CNGO	Connection, good workmanship, connection appears to be open, diameter 150mm , at 11 o'clock	
	13.88	DER	Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 t	
19	14.47	FHGP	Finish node, grated inlet pit, Nodename: 19	



1.62 m



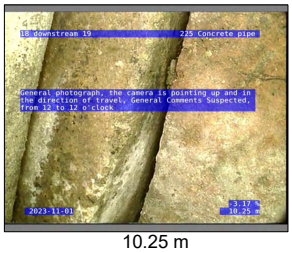
1.62 m



9.38 m



9.38 m



10.25 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**3**	**40**	**7.6**	**110**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**17**	



Photo: 18_18_125_A.JPG, 00:00:56
1.62m, Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock



Photo: 18_18_125_B.JPG, 00:00:56
1.62m, Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**17**	



Photo: 18_18_127_A.JPG, 00:02:06
9.38m, Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 5-20%, General Comments Cleaning Req for acc report, from 5 to 7 o'clock



Photo: 18_18_127_B.JPG, 00:02:06
9.38m, Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 5-20%, General Comments Cleaning Req for acc report, from 5 to 7 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**17**	



Photo: 18_18_128_A.JPG, 00:03:12
10.25m, General photograph, the camera is pointing up and in the direction of travel, General Comments Suspected, from 12 to 12 o'clock



Photo: 18_18_128_B.JPG, 00:03:12
10.25m, General photograph, the camera is pointing up and in the direction of travel, General Comments Suspected, from 12 to 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**17**	



Photo: 18_18_129_A.JPG, 00:04:00
11.12m, Connection, good workmanship, connection appears to be open, diameter 150mm , at 11 o'clock



Photo: 18_18_129_B.JPG, 00:04:00
11.12m, Connection, good workmanship, connection appears to be open, diameter 150mm , at 11 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**17**	



Photo: 18_18_130_A.JPG, 00:04:38
13.88m, Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock



Photo: 18_18_130_B.JPG, 00:04:38
13.88m, Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**17**	



Photo: 18_18_131_A.JPG, 00:05:22
14.47m, Finish node, grated inlet pit, Nodename: 19



Photo: 18_18_131_B.JPG, 00:05:22
14.47m, Finish node, grated inlet pit, Nodename: 19

Binder 3a,181

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Inspection Report

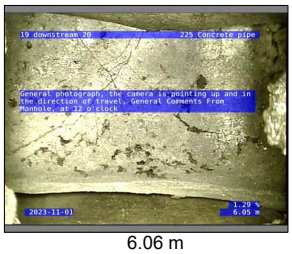
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**18**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Wall**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**225 mm**	Start Manhole:	**19**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**20**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**22.23 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**900**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

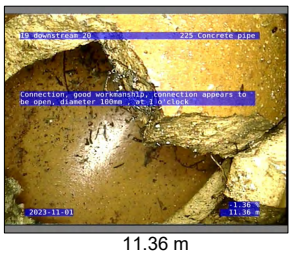
1:180 Position	Code	Observation	Grade
19			
0.00	STMH	Start node, maintenance hole, Nodename: 19	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
6.06	GPFU	General photograph, the camera is pointing up and in the direction of travel, General Comments From Manhole, at 12 o'clock	
11.36	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 1 o'clock	
21.30	CNGO	Connection, good workmanship, connection appears to be open, diameter 150mm , at 1 o'clock	
22.23	FHGP	Finish node, grated inlet pit, Nodename: 20	
20			



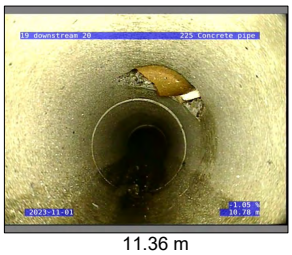
6.06 m



6.06 m



11.36 m



11.36 m



21.3 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**18**	



Photo: 19_19_134_A.JPG, 00:01:43
6.06m, General photograph, the camera is pointing up and in the direction of travel, General Comments From Manhole, at 12 o'clock



Photo: 19_19_134_B.JPG, 00:01:43
6.06m, General photograph, the camera is pointing up and in the direction of travel, General Comments From Manhole, at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**18**	



Photo: 19_19_135_A.JPG, 00:02:52
11.36m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 1 o'clock



Photo: 19_19_135_B.JPG, 00:02:52
11.36m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 1 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**18**	



Photo: 19_19_136_A.JPG, 00:04:38
21.3m, Connection, good workmanship, connection appears to be open, diameter 150mm , at 1 o'clock



Photo: 19_19_136_B.JPG, 00:04:38
21.3m, Connection, good workmanship, connection appears to be open, diameter 150mm , at 1 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**18**	



Photo: 19_19_137_A.JPG, 00:05:31
22.23m, Finish node, grated inlet pit, Nodename: 20



Photo: 19_19_137_B.JPG, 00:05:31
22.23m, Finish node, grated inlet pit, Nodename: 20

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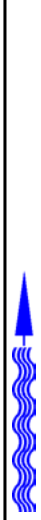
Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**19**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

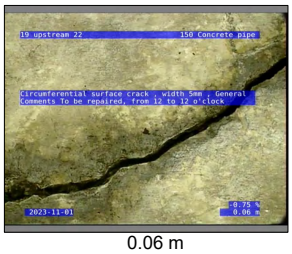
Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**19**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**22**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**4.54 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**900**
Pipe Unit Length:		Perciptiation:	**No**

Comments:



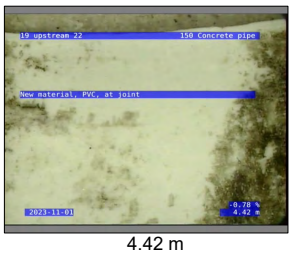
1:50 Position	Code	Observation	Grade
22			
0.00	STGP	Start node, grated inlet pit, Nodename: 22	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
0.06	CCS	Circumferential surface crack , width 5mm , General Comments To be repaired, from 12 to 12 o'clock	
4.42	MC	New material, PVC, at joint	
19			
4.54	FHGP	Finish node, grated inlet pit, Nodename: 19	



0.06 m



0.06 m



4.42 m



4.42 m



4.54 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
1	**0.1**	**0.02**	**0.1**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**19**	



Photo: 20_20_140_A.JPG, 00:01:11
0.06m, Circumferential surface crack , width 5mm , General Comments To be repaired, from 12 to 12 o'clock



Photo: 20_20_140_B.JPG, 00:01:11
0.06m, Circumferential surface crack , width 5mm , General Comments To be repaired, from 12 to 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**19**	



Photo: 20_20_141_A.JPG, 00:02:26
4.42m, New material, PVC, at joint



Photo: 20_20_141_B.JPG, 00:02:26
4.42m, New material, PVC, at joint

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**19**	

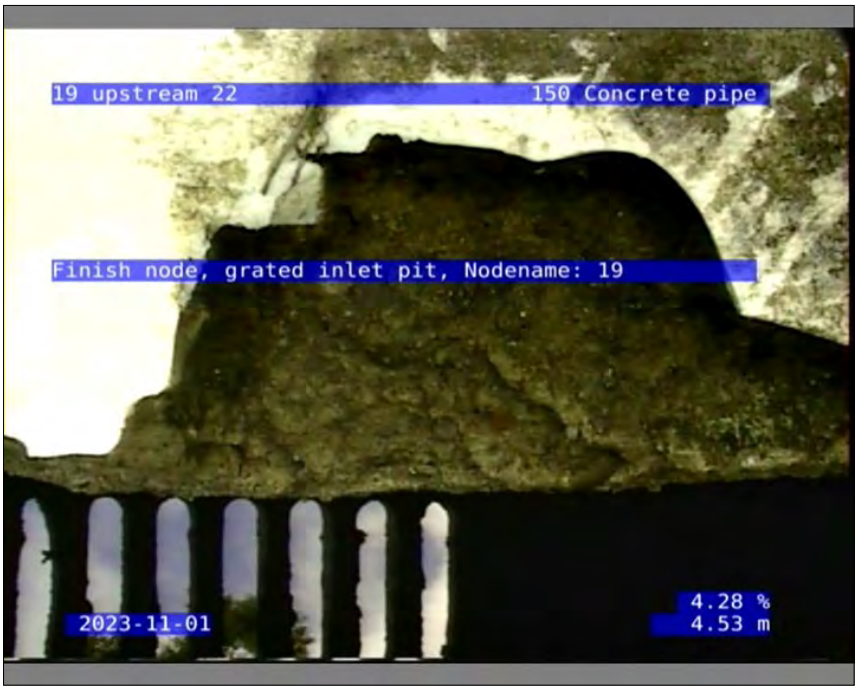


Photo: 20_20_142_A.JPG, 00:03:14
4.54m, Finish node, grated inlet pit, Nodename: 19



Photo: 20_20_142_B.JPG, 00:03:14
4.54m, Finish node, grated inlet pit, Nodename: 19

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**20**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**5**	**5**		

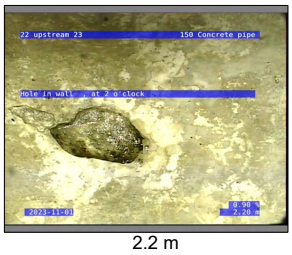
Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**22**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**23**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**3.91 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**900**
Pipe Unit Length:		Perciptiation:	**No**

Comments:



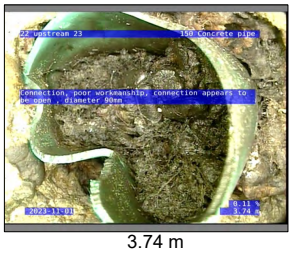
1:50 Position	Code	Observation	Grade
23			
0.00	STGP	Start node, grated inlet pit, Nodename: 23	
0.00	WLC	Water level, clear flow (the invert is visible), depth 0%	
2.20	SH	Hole in wall , at 2 o'clock	2.2 m
2.84	RF	Fine Roots , reduction in cross sectional area, at joint, Obstruction: <5%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock	2.84 m
3.75	CNPO	Connection, poor workmanship, connection appears to be open , diameter 90mm	2.84 m
3.75	CXSR	Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction >75%, General Comments Cleani	
3.91	SAOB	Inspection (survey) abandoned, obstruction , General Comments From Connection	3.74 m











STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
1	**100**	**25.6**	**100**	**5**	**2**	**61**	**15.62**	**61**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**20**	



Photo: 21_21_145_A.JPG, 00:01:21
2.2m, Hole in wall , at 2 o'clock



Photo: 21_21_145_B.JPG, 00:01:21
2.2m, Hole in wall , at 2 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**20**	



Photo: 21_21_146_A.JPG, 00:01:54
2.84m, Fine Roots , reduction in cross sectional area, at joint, Obstruction: <5%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock



Photo: 21_21_146_B.JPG, 00:01:54
2.84m, Fine Roots , reduction in cross sectional area, at joint, Obstruction: <5%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**20**	



Photo: 21_21_147_A.JPG, 00:02:28
3.74m, Connection, poor workmanship, connection appears to be open , diameter 90mm



Photo: 21_21_147_B.JPG, 00:02:28
3.74m, Connection, poor workmanship, connection appears to be open , diameter 90mm

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**20**	



Photo: 21_21_148_A.JPG, 00:02:36
3.74m, Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction >75%, General Comments Cleaning Req for acc report, at 2 o'clock



Photo: 21_21_148_B.JPG, 00:02:36
3.74m, Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction >75%, General Comments Cleaning Req for acc report, at 2 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**20**	



Photo: 21_21_149_A.JPG, 00:04:03
3.91m, Inspection (survey) abandoned, obstruction , General Comments From Connection



Photo: 21_21_149_B.JPG, 00:04:03
3.91m, Inspection (survey) abandoned, obstruction , General Comments From Connection

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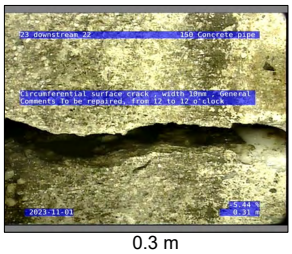
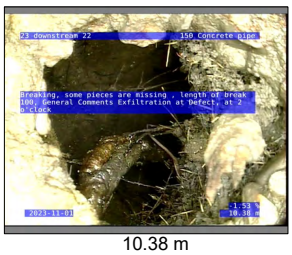
Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**21**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**5**	**3**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**23**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**22**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**11.27 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**700**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:90	Position	Code	Observation	Grade
23	0.01	STGP	Start node, grated inlet pit, Nodename: 23	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	0.31	CCS	Circumferential surface crack , width 10mm , General Comments To be repaired, from 12 to 12 o'clock	 0.3 m
	2.56	OBZ	Obstruction, some other object is lying in the invert , reduction in cross sectional area: 5-20% , from 5 to 10 o'clock	 0.3 m
				 2.56 m
	10.38	BM	Breaking, some pieces are missing , length of break 100, General Comments Exfiltration at Defect, at 2 o'clock	
	10.38	EYY	Suspected Exfiltration , General Comments Through Defect, at 2 o'clock	 2.56 m
	10.38	SV	Soil visible through defect , General Comments Through Defect	
	10.38	VV	Void visible through defect , General Comments Through Defect	
	11.27	SAOB	Inspection (survey) abandoned, obstruction , General Comments From Connection	 10.38 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
4	**180**	**15.98**	**180.1**	**5**	**1**	**30**	**2.66**	**30**	**3**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**21**	

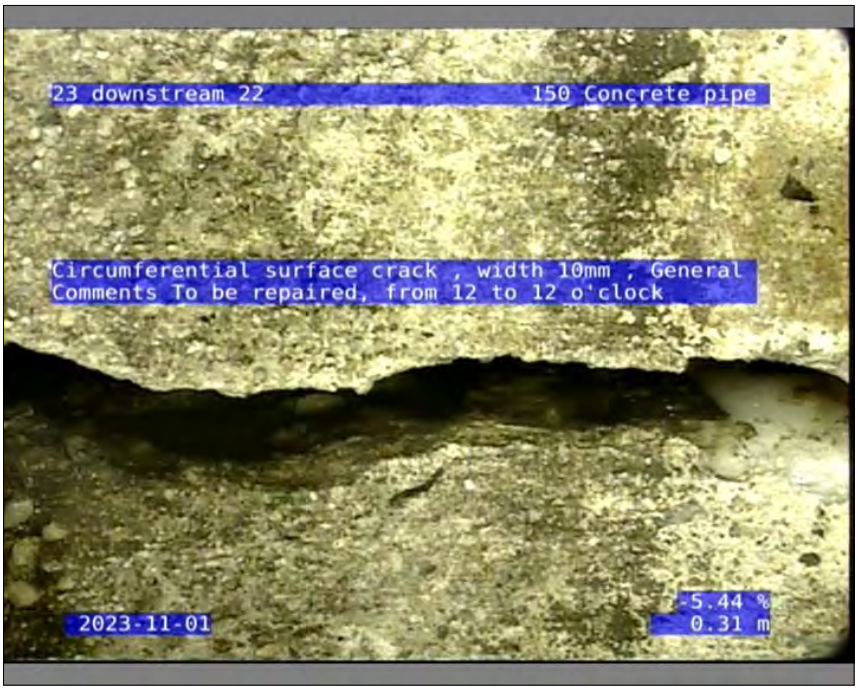


Photo: 22_22_152_A.JPG, 00:01:25
0.3m, Circumferential surface crack , width 10mm , General Comments To be repaired, from 12 to 12 o'clock



Photo: 22_22_152_B.JPG, 00:01:25
0.3m, Circumferential surface crack , width 10mm , General Comments To be repaired, from 12 to 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**21**	



Photo: 22_22_153_A.JPG, 00:02:08
2.56m, Obstruction, some other object is lying in the invert , reduction in cross sectional area: 5-20% , from 5 to 10 o'clock



Photo: 22_22_153_B.JPG, 00:02:08
2.56m, Obstruction, some other object is lying in the invert , reduction in cross sectional area: 5-20% , from 5 to 10 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**21**	



Photo: 22_22_154_A.JPG, 00:03:34
10.38m, Breaking, some pieces are missing , length of break 100, General Comments Exfiltration at Defect, at 2 o'clock



Photo: 22_22_154_B.JPG, 00:03:34
10.38m, Breaking, some pieces are missing , length of break 100, General Comments Exfiltration at Defect, at 2 o'clock

Binder 3a,200

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**21**	



Photo: 22_22_155_A.JPG, 00:03:41
10.38m, Suspected Exfiltration , General Comments Through Defect, at 2 o'clock



Photo: 22_22_155_B.JPG, 00:03:41
10.38m, Suspected Exfiltration , General Comments Through Defect, at 2 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**21**	



Photo: 22_22_156_A.JPG, 00:03:47
10.38m, Soil visible through defect , General Comments Through Defect



Photo: 22_22_156_B.JPG, 00:03:47
10.38m, Soil visible through defect , General Comments Through Defect

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**21**	



Photo: 22_22_157_A.JPG, 00:03:50
10.38m, Void visible through defect , General Comments Through Defect



Photo: 22_22_157_B.JPG, 00:03:50
10.38m, Void visible through defect , General Comments Through Defect

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**21**	



Photo: 22_22_158_A.JPG, 00:04:16
11.27m, Inspection (survey) abandoned, obstruction , General Comments From Connection



Photo: 22_22_158_B.JPG, 00:04:16
11.27m, Inspection (survey) abandoned, obstruction , General Comments From Connection

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Inspection Report

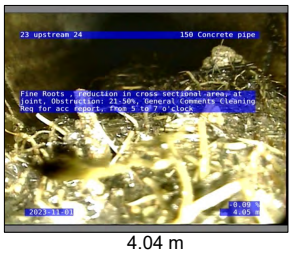
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**22**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**5**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**23**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**24**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**4.44 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**700**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

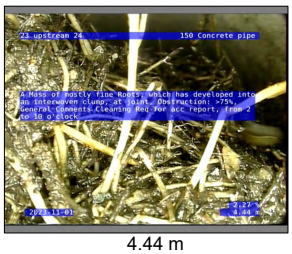
1:50	Position	Code	Observation	Grade
24	0.00	STMH	Start node, maintenance hole, Nodename: 24	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	0.21	WLC	Water level, clear flow (the invert is visible), depth 30%	
	1.18	WLC	Water level, clear flow (the invert is visible), depth 45%	
	2.68	WLC	Water level, clear flow (the invert is visible), depth 20%	
	4.05	RF	Fine Roots , reduction in cross sectional area, at joint, Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 5 to 7 o'clock	
	4.44	RM	A Mass of mostly fine Roots, which has developed into an interwoven clump, at joint, Obstruction: >75%, General Comments Cleaning	
	4.44	SAR	Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report	



4.04 m



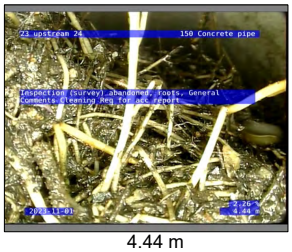
4.04 m



4.44 m



4.44 m



4.44 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**2**	**61**	**13.73**	**61**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**22**	



Photo: 23_23_164_A.JPG, 00:02:11
4.04m, Fine Roots , reduction in cross sectional area, at joint, Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 5 to 7 o'clock



Photo: 23_23_164_B.JPG, 00:02:11
4.04m, Fine Roots , reduction in cross sectional area, at joint, Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 5 to 7 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**22**	



Photo: 23_23_165_A.JPG, 00:02:42
4.44m, A Mass of mostly fine Roots, which has developed into an interwoven clump, at joint, Obstruction: >75%, General Comments Cleaning Req for acc report, from 2 to 10 o'clock



Photo: 23_23_165_B.JPG, 00:02:42
4.44m, A Mass of mostly fine Roots, which has developed into an interwoven clump, at joint, Obstruction: >75%, General Comments Cleaning Req for acc report, from 2 to 10 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**22**	



Photo: 23_23_166_A.JPG, 00:02:48
4.44m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report



Photo: 23_23_166_B.JPG, 00:02:48
4.44m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**23**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**5**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**24**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**25**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**3.19 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

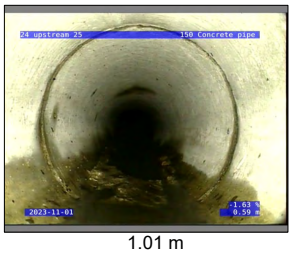
Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**700**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

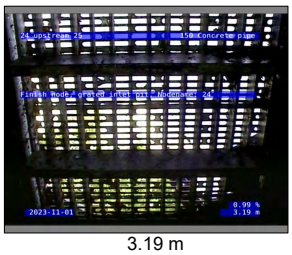
1:50	Position	Code	Observation	Grade
25				
	0.00	STMH	Start node, maintenance hole, Nodename: 25	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	1.02	DEC	Deposit is Hard or compacted material in the invert , Obstruction: 5-20% , from 5 to 8 o'clock	
	3.19	FHGP	Finish node, grated inlet pit, Nodename: 24	
24				



1.01 m



1.01 m



3.19 m



3.19 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**30**	**9.39**	**30**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**23**	



Photo: 24_24_169_A.JPG, 00:01:06
1.01m, Deposit is Hard or compacted material in the invert , Obstruction: 5-20% , from 5 to 8 o'clock



Photo: 24_24_169_B.JPG, 00:01:06
1.01m, Deposit is Hard or compacted material in the invert , Obstruction: 5-20% , from 5 to 8 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**23**	



Photo: 24_24_170_A.JPG, 00:02:14
3.19m, Finish node, grated inlet pit, Nodename: 24



Photo: 24_24_170_B.JPG, 00:02:14
3.19m, Finish node, grated inlet pit, Nodename: 24

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Inspection Report

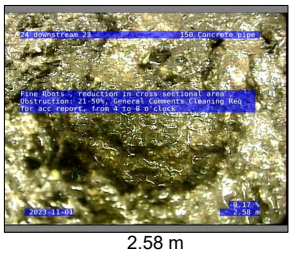
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**24**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**24**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**23**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**3.39 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**700**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:50	Position	Code	Observation	Grade
24	0.00	STMH	Start node, maintenance hole, Nodename: 24	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	2.58	RF	Fine Roots , reduction in cross sectional area , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock	
	3.39	SAR	Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report	



2.58 m



2.58 m



3.39 m



3.39 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**1**	**0.3**	**1**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**24**	



Photo: 25_25_173_A.JPG, 00:01:29
2.58m, Fine Roots , reduction in cross sectional area , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock



Photo: 25_25_173_B.JPG, 00:01:29
2.58m, Fine Roots , reduction in cross sectional area , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**24**	



Photo: 25_25_174_A.JPG, 00:02:04
3.39m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report



Photo: 25_25_174_B.JPG, 00:02:04
3.39m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**25**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**5**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**24**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**26**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**0.44 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**700**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:50	Position	Code	Observation	Grade
24	0.00	STGP	Start node, grated inlet pit, Nodename: 24	
	0.00	WLC	Water level, clear flow (the invert is visible), depth 0%	
	0.44	DER	Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 t	
	0.44	SAOB	Inspection (survey) abandoned, obstruction , General Comments Cleaning Req for acc report	



0.44 m



0.44 m



0.44 m



0.44 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**40**	**90.5**	**40**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**25**	



Photo: 26_26_177_A.JPG, 00:00:51
0.44m, Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock



Photo: 26_26_177_B.JPG, 00:00:51
0.44m, Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 to 8 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**25**	



Photo: 26_26_178_A.JPG, 00:01:07
0.44m, Inspection (survey) abandoned, obstruction , General Comments Cleaning Req for acc report



Photo: 26_26_178_B.JPG, 00:01:07
0.44m, Inspection (survey) abandoned, obstruction , General Comments Cleaning Req for acc report

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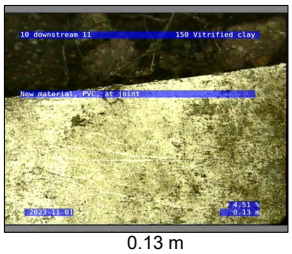
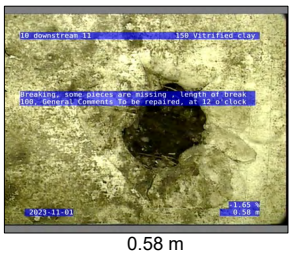
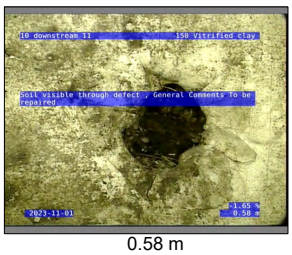
Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
1/11/2023	**WO75488**	**Shane Dawes**	**26**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**5**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**10**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**11**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**13.72 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**300**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:120 Position	Code	Observation	Grade
0.00	STGP	Start node, grated inlet pit, Nodename: 10	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
0.13	MC	New material, PVC, at joint	 0.13 m
0.58	BM	Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock	
0.58	SV	Soil visible through defect , General Comments To be repaired	 0.13 m
3.18	BM	Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock	
3.18	CM	Multiple or complex surface crack(s) , width 1mm, General Comments To be repaired	 0.58 m
13.36	RF	Fine Roots , reduction in cross sectional area , Obstruction: >75%, General Comments Cleaning Req for acc report, from 12 to 12 o'clock	 0.58 m
13.72	SAR	Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report	 0.58 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
3	**120**	**13.12**	**180**	**5**	**1**	**1**	**0.07**	**1**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**26**	

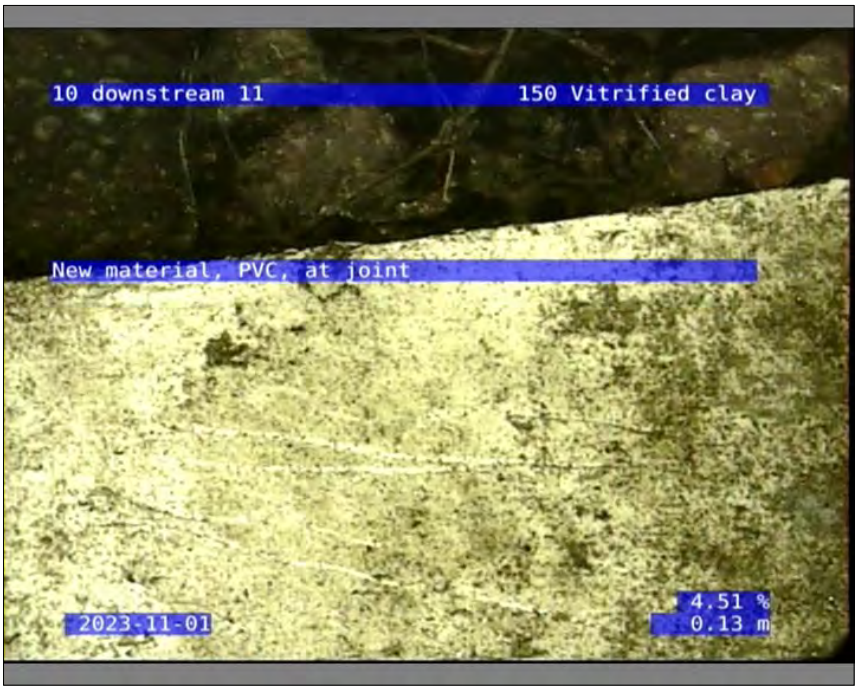


Photo: 28_28_183_A.JPG, 00:01:13
0.13m, New material, PVC, at joint



Photo: 28_28_183_B.JPG, 00:01:13
0.13m, New material, PVC, at joint

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**26**	

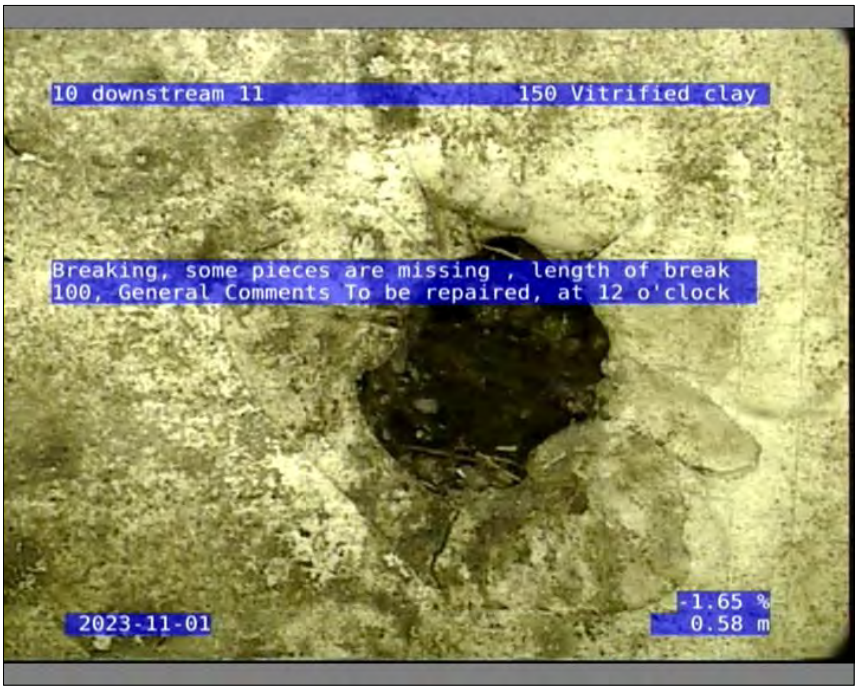


Photo: 28_28_184_A.JPG, 00:01:40
0.58m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock



Photo: 28_28_184_B.JPG, 00:01:40
0.58m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock

Binder 3a,220

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**26**	

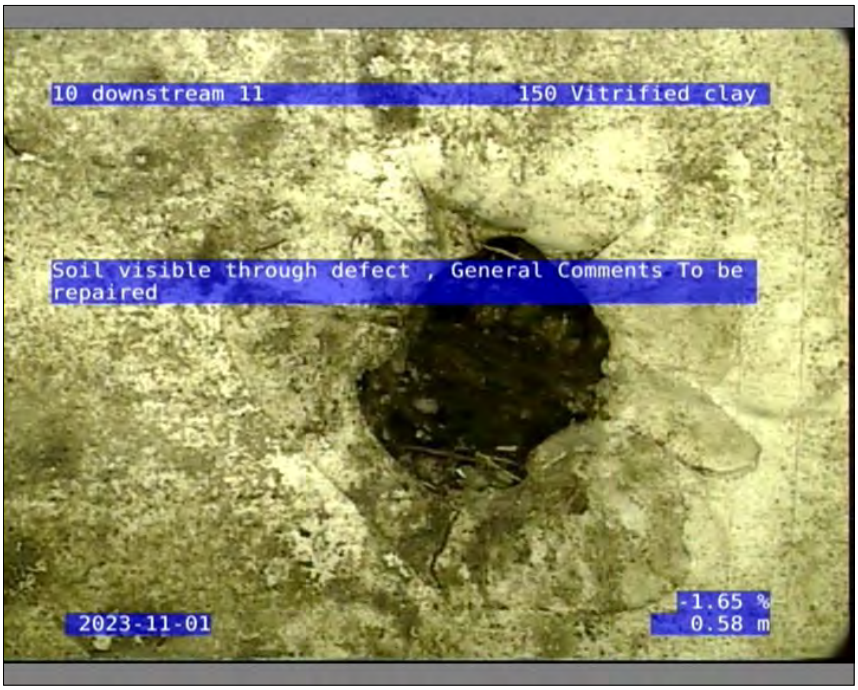


Photo: 28_28_185_A.JPG, 00:01:48
0.58m, Soil visible through defect , General Comments To be repaired



Photo: 28_28_185_B.JPG, 00:01:48
0.58m, Soil visible through defect , General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**26**	



Photo: 28_28_186_A.JPG, 00:02:39
3.18m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock



Photo: 28_28_186_B.JPG, 00:02:39
3.18m, Breaking, some pieces are missing , length of break 100, General Comments To be repaired, at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**26**	



Photo: 28_28_187_A.JPG, 00:02:46
3.18m, Multiple or complex surface crack(s) , width 1mm, General Comments To be repaired



Photo: 28_28_187_B.JPG, 00:02:46
3.18m, Multiple or complex surface crack(s) , width 1mm, General Comments To be repaired

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**26**	

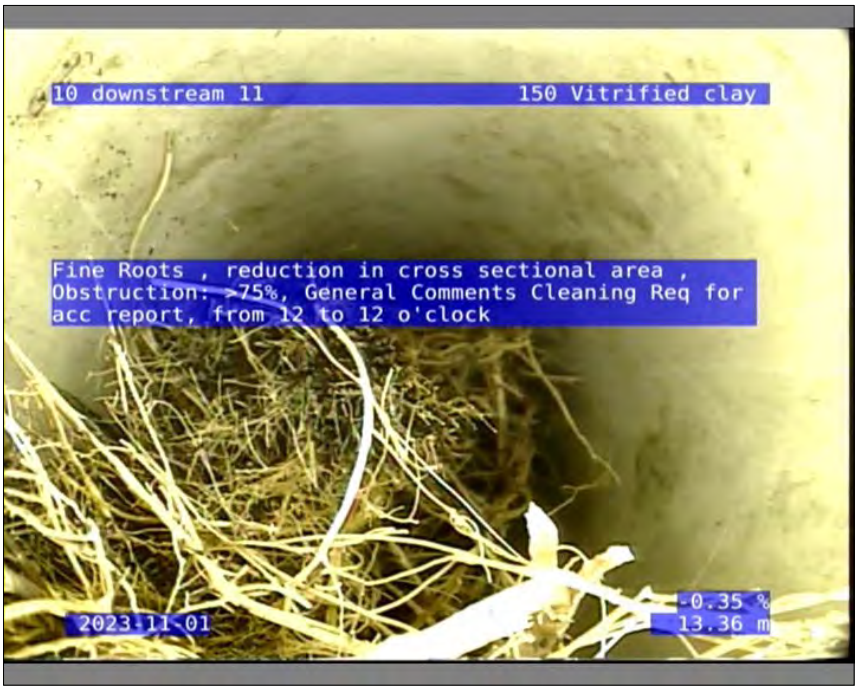


Photo: 28_28_188_A.JPG, 00:05:23
13.36m, Fine Roots , reduction in cross sectional area , Obstruction: >75%, General Comments Cleaning Req for acc report, from 12 to 12 o'clock



Photo: 28_28_188_B.JPG, 00:05:23
13.36m, Fine Roots , reduction in cross sectional area , Obstruction: >75%, General Comments Cleaning Req for acc report, from 12 to 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**1/11/2023**	**26**	



Photo: 28_28_189_A.JPG, 00:05:40
13.72m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report



Photo: 28_28_189_B.JPG, 00:05:40
13.72m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**27**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**3**		

Location:	**Dickson Shops**	Pipe Diameter:	**300 mm**	Start Manhole:	**31**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**32**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**7.31 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**800**
Pipe Unit Length:		Perciptiation:	**No**

Comments:



1:60 Position	Code	Observation	Grade
32			
0.00	STGP	Start node, grated inlet pit, Nodename: 32	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
7.31	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 11 o'clock	
7.31	CI	Intruding connection, magnitude of intrusion: 5-20%, General Comments To be Replaced, at 11 o'clock	
7.31	SAOB	Inspection (survey) abandoned, obstruction , General Comments From Connection	



7.31 m



7.31 m



7.31 m



7.31 m



7.31 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**30**	**4.1**	**30**	**3**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**27**	



Photo: 29_29_192_A.JPG, 00:01:53
7.31m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 11 o'clock



Photo: 29_29_192_B.JPG, 00:01:53
7.31m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 11 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**27**	



Photo: 29_29_193_A.JPG, 00:01:59
7.31m, Intruding connection, magnitude of intrusion: 5-20%, General Comments To be Replaced, at 11 o'clock



Photo: 29_29_193_B.JPG, 00:01:59
7.31m, Intruding connection, magnitude of intrusion: 5-20%, General Comments To be Replaced, at 11 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**27**	

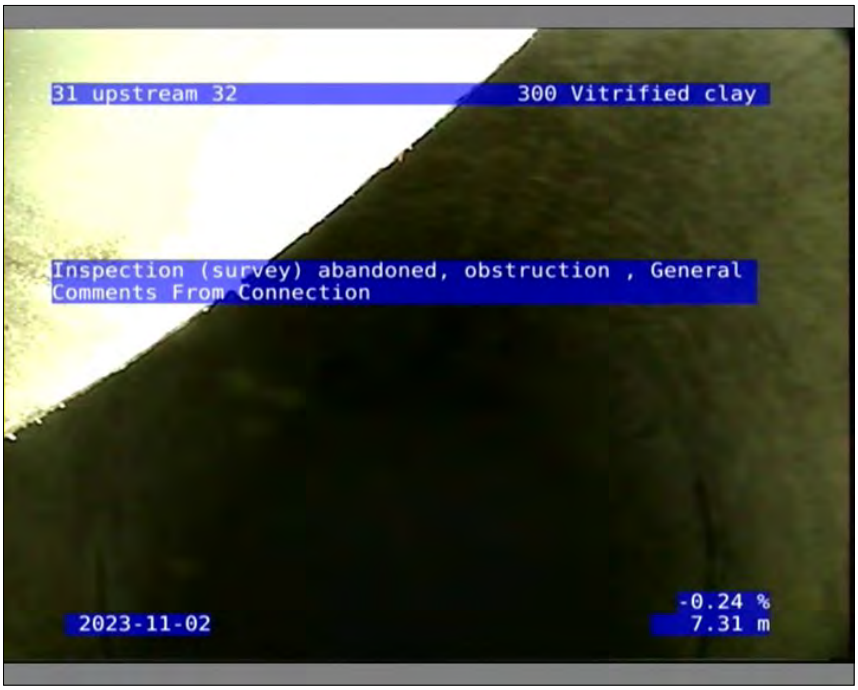


Photo: 29_29_194_A.JPG, 00:02:12
7.31m, Inspection (survey) abandoned, obstruction , General Comments From Connection

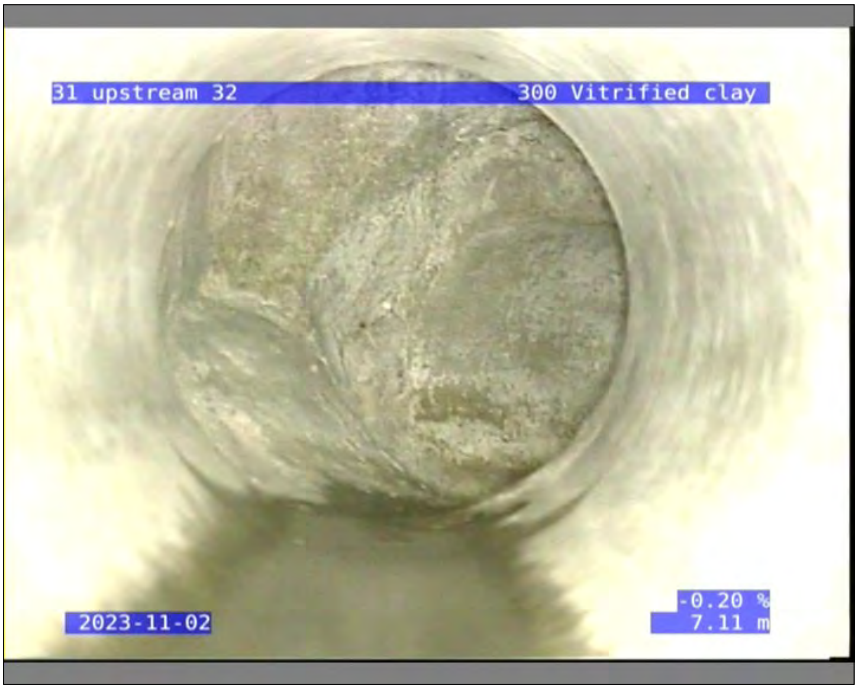


Photo: 29_29_194_B.JPG, 00:02:12
7.31m, Inspection (survey) abandoned, obstruction , General Comments From Connection

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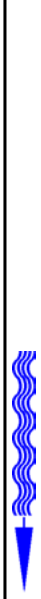
Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**28**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**5**		

Location:	**Dickson Shops**	Pipe Diameter:	**300 mm**	Start Manhole:	**31**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**33**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**6.75 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**800**
Pipe Unit Length:		Perciptiation:	**No**

Comments:



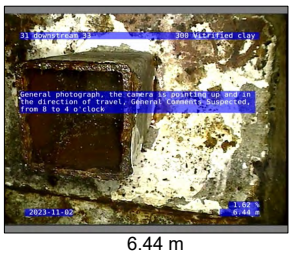
1:60 Position	Code	Observation	Grade
0.00	STGP	Start node, grated inlet pit, Nodename: 31	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
2.48	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 2 o'clock	
6.44	GPFU	General photograph, the camera is pointing up and in the direction of travel, General Comments Suspected, from 8 to 4 o'clock	
6.70	MC	New material, Concrete Pipe, at joint, General Comments From Manhole	
6.75	CNPO	Connection, poor workmanship, connection appears to be open , diameter 100mm	
6.75	CI	Intruding connection, magnitude of intrusion: 51-75%, General Comments To be Replaced, at 2 o'clock	
6.75	SAOB	Inspection (survey) abandoned, obstruction , General Comments From Manhole	



2.48 m



2.48 m



6.44 m



6.44 m



6.7 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**50**	**7.41**	**50**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**28**	



Photo: 30_30_197_A.JPG, 00:01:20
2.48m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 2 o'clock



Photo: 30_30_197_B.JPG, 00:01:20
2.48m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 2 o'clock

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Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**28**	



Photo: 30_30_198_A.JPG, 00:03:05
6.44m, General photograph, the camera is pointing up and in the direction of travel, General Comments Suspected, from 8 to 4 o'clock



Photo: 30_30_198_B.JPG, 00:03:05
6.44m, General photograph, the camera is pointing up and in the direction of travel, General Comments Suspected, from 8 to 4 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**28**	



Photo: 30_30_199_A.JPG, 00:03:38
6.7m, New material, Concrete Pipe, at joint, General Comments From Manhole



Photo: 30_30_199_B.JPG, 00:03:38
6.7m, New material, Concrete Pipe, at joint, General Comments From Manhole

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**28**	



Photo: 30_30_200_A.JPG, 00:04:22
6.75m, Connection, poor workmanship, connection appears to be open , diameter 100mm



Photo: 30_30_200_B.JPG, 00:04:22
6.75m, Connection, poor workmanship, connection appears to be open , diameter 100mm

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**28**	



Photo: 30_30_201_A.JPG, 00:04:29
6.75m, Intruding connection, magnitude of intrusion: 51-75%, General Comments To be Replaced, at 2 o'clock



Photo: 30_30_201_B.JPG, 00:04:29
6.75m, Intruding connection, magnitude of intrusion: 51-75%, General Comments To be Replaced, at 2 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**28**	



Photo: 30_30_202_A.JPG, 00:04:37
6.75m, Inspection (survey) abandoned, obstruction , General Comments From Manhole



Photo: 30_30_202_B.JPG, 00:04:37
6.75m, Inspection (survey) abandoned, obstruction , General Comments From Manhole

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**29**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**150 mm**	Start Manhole:	**30**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**33**
State:	**ACT**	Pipe Material:	**Vitrified clay**	Section Length :	**0.94 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

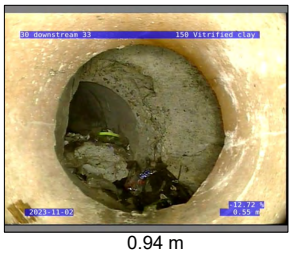
Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**750**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:50	Position	Code	Observation	Grade
30	0.00	STGP	Start node, grated inlet pit, Nodename: 30	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
33	0.94	FHMS	Finish node, maintenance shaft, Nodename: 33	



0.94 m



0.94 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**29**	



Photo: 31_31_204_A.JPG, 00:01:24
0.94m, Finish node, maintenance shaft, Nodename: 33



Photo: 31_31_204_B.JPG, 00:01:24
0.94m, Finish node, maintenance shaft, Nodename: 33

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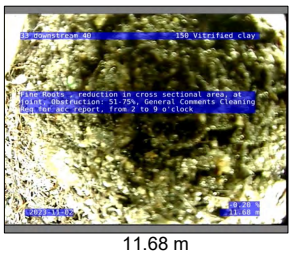
Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**30**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**3**		

Location:	**Dickson Shops**	Pipe Diameter:	**225 mm**	Start Manhole:	**33**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**40**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**11.68 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**1100**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:105 Position	Code	Observation	Grade
0.00	STMH	Start node, maintenance hole, Nodename: 33	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	 6.83 m
6.83	RT	Tap Roots, reduction in cross sectional area, at joint, Obstruction: 5-20%, General Comments Cleaning Req for acc report, from 2 to 5 o'clock	 6.83 m
11.68	RF	Fine Roots , reduction in cross sectional area, at joint, Obstruction: 51-75%, General Comments Cleaning Req for acc report, from 2 to 9 o'clock	 11.68 m
11.68	SAR	Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report	 11.68 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**2**	**10**	**0.94**	**11**	**3**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**30**	



Photo: 32_32_209_A.JPG, 00:01:39
6.83m, Tap Roots, reduction in cross sectional area, at joint, Obstruction: 5-20%, General Comments Cleaning Req for acc report, from 2 to 5 o'clock



Photo: 32_32_209_B.JPG, 00:01:39
6.83m, Tap Roots, reduction in cross sectional area, at joint, Obstruction: 5-20%, General Comments Cleaning Req for acc report, from 2 to 5 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**30**	

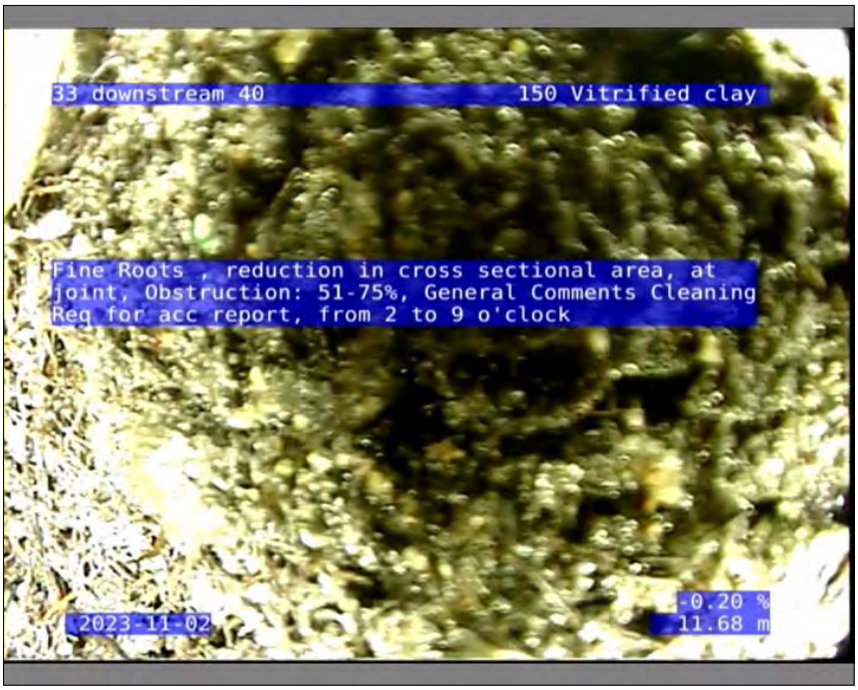


Photo: 32_32_210_A.JPG, 00:02:32
11.68m, Fine Roots , reduction in cross sectional area, at joint, Obstruction: 51-75%, General Comments Cleaning Req for acc report, from 2 to 9 o'clock



Photo: 32_32_210_B.JPG, 00:02:32
11.68m, Fine Roots , reduction in cross sectional area, at joint, Obstruction: 51-75%, General Comments Cleaning Req for acc report, from 2 to 9 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**30**	



Photo: 32_32_211_A.JPG, 00:02:44
11.68m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report



Photo: 32_32_211_B.JPG, 00:02:44
11.68m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**31**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**3**		

Location:	**Dickson Shops**	Pipe Diameter:	**225 mm**	Start Manhole:	**33**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**32**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**7.38 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**1100**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:60	Position	Code	Observation	Grade
33				
	0.00	STMH	Start node, maintenance hole, Nodename: 33	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	2.47	CNGO	Connection, good workmanship, connection appears to be open, diameter 60mm , at 1 o'clock	
	2.47	CI	Intruding connection, magnitude of intrusion: 5-20%, General Comments To be repaired, at 1 o'clock	
	7.38	FHMH	Finish node, maintenance hole, Nodename: 32	
32				



2.47 m



2.47 m



2.47 m



2.47 m



7.38 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**30**	**4.06**	**30**	**3**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**31**	



Photo: 33_33_214_A.JPG, 00:01:09
2.47m, Connection, good workmanship, connection appears to be open, diameter 60mm , at 1 o'clock



Photo: 33_33_214_B.JPG, 00:01:09
2.47m, Connection, good workmanship, connection appears to be open, diameter 60mm , at 1 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**31**	



Photo: 33_33_215_A.JPG, 00:01:15
2.47m, Intruding connection, magnitude of intrusion: 5-20%, General Comments To be repaired, at 1 o'clock



Photo: 33_33_215_B.JPG, 00:01:15
2.47m, Intruding connection, magnitude of intrusion: 5-20%, General Comments To be repaired, at 1 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**31**	



Photo: 33_33_216_A.JPG, 00:02:37
7.38m, Finish node, maintenance hole, Nodename: 32



Photo: 33_33_216_B.JPG, 00:02:37
7.38m, Finish node, maintenance hole, Nodename: 32

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Inspection Report

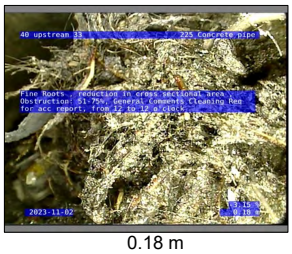
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**32**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**4**		

Location:	**Dickson Shops**	Pipe Diameter:	**225 mm**	Start Manhole:	**40**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**33**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**0.19 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**1400**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

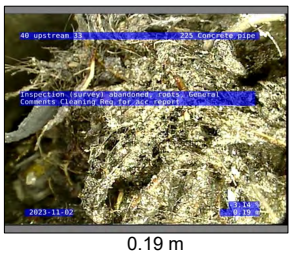
1:50	Position	Code	Observation	Grade
33	0.00	STMH	Start node, maintenance hole, Nodename: 33	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	0.18	RF	Fine Roots , reduction in cross sectional area , Obstruction: 51-75%, General Comments Cleaning Req for acc report, from 12 to 12 o'cloc	
	0.19	SAR	Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report	



0.18 m



0.18 m



0.19 m



0.19 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**1**	**5.32**	**1**	**4**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**32**	



Photo: 34_34_219_A.JPG, 00:00:43
0.18m, Fine Roots , reduction in cross sectional area , Obstruction: 51-75%, General Comments Cleaning Req for acc report, from 12 to 12 o'clock



Photo: 34_34_219_B.JPG, 00:00:43
0.18m, Fine Roots , reduction in cross sectional area , Obstruction: 51-75%, General Comments Cleaning Req for acc report, from 12 to 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**32**	



Photo: 34_34_220_A.JPG, 00:00:52
0.19m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report



Photo: 34_34_220_B.JPG, 00:00:52
0.19m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report

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Inspection Report

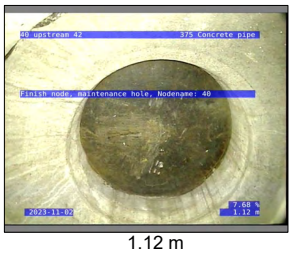
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**33**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**375 mm**	Start Manhole:	**40**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**42**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**1.12 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**1500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:50	Position	Code	Observation	Grade
42				
	0.00	STMH	Start node, maintenance hole, Nodename: 42	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	1.12	FHMH	Finish node, maintenance hole, Nodename: 40	
40				



1.12 m



1.12 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**33**	



Photo: 35_35_224_A.JPG, 00:01:19
1.12m, Finish node, maintenance hole, Nodename: 40



Photo: 35_35_224_B.JPG, 00:01:19
1.12m, Finish node, maintenance hole, Nodename: 40

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**34**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**4**		

Location:	**Dickson Shops**	Pipe Diameter:	**375 mm**	Start Manhole:	**40**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**43**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**19.14 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**1500**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:165	Position	Code	Observation	Grade
43				
	0.00	STMH	Start node, maintenance hole, Nodename: 43	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	17.11	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock	
	17.11	CXSR	Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction 21-50% , at 3 o'clock	
40	19.14	FHMH	Finish node, maintenance hole, Nodename: 40	



17.11 m



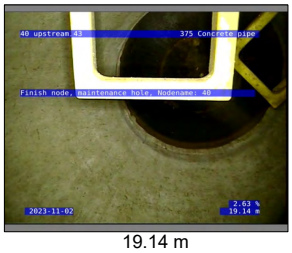
17.11 m



17.11 m



17.11 m



19.14 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**40**	**2.09**	**40**	**4**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**34**	



Photo: 36_36_227_A.JPG, 00:03:55
17.11m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock



Photo: 36_36_227_B.JPG, 00:03:55
17.11m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 3 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**34**	



Photo: 36_36_228_A.JPG, 00:04:00
17.11m, Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction 21-50% , at 3 o'clock



Photo: 36_36_228_B.JPG, 00:04:00
17.11m, Defective Connection - Roots are growing into and/or down the connecting conduit, magnitude of obstruction 21-50% , at 3 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**34**	



Photo: 36_36_229_A.JPG, 00:04:58
19.14m, Finish node, maintenance hole, Nodename: 40



Photo: 36_36_229_B.JPG, 00:04:58
19.14m, Finish node, maintenance hole, Nodename: 40

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Inspection Report

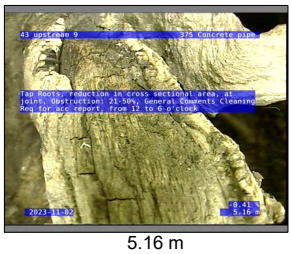
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**35**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**3**		

Location:	**Dickson Shops**	Pipe Diameter:	**375 mm**	Start Manhole:	**43**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**9**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**5.16 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

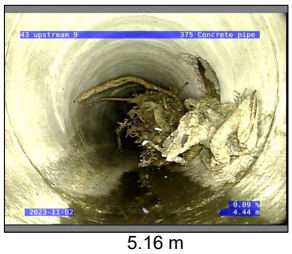
Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**1300**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:50	Position	Code	Observation	Grade
9	0.00	STMH	Start node, maintenance hole, Nodename: 9	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	5.16	RT	Tap Roots, reduction in cross sectional area, at joint, Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 12 to 6 o'clock	
	5.16	SAR	Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report	



5.16 m



5.16 m



5.16 m



5.16 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**10**	**1.94**	**10**	**3**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**35**	



Photo: 37_37_232_A.JPG, 00:01:30
5.16m, Tap Roots, reduction in cross sectional area, at joint, Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 12 to 6 o'clock



Photo: 37_37_232_B.JPG, 00:01:30
5.16m, Tap Roots, reduction in cross sectional area, at joint, Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 12 to 6 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**35**	



Photo: 37_37_233_A.JPG, 00:02:12
5.16m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report



Photo: 37_37_233_B.JPG, 00:02:12
5.16m, Inspection (survey) abandoned, roots, General Comments Cleaning Req for acc report

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Inspection Report

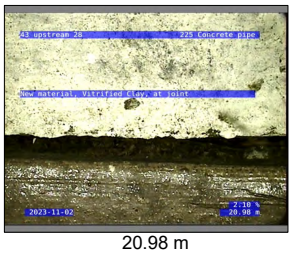
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**36**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**5**		

Location:	**Dickson Shops**	Pipe Diameter:	**225 mm**	Start Manhole:	**43**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**28**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**35.44 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

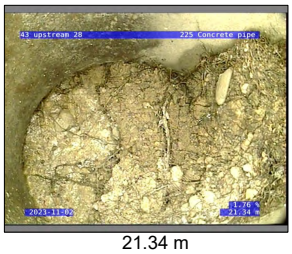
Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**1300**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

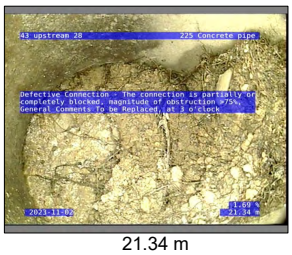
1:285 Position	Code	Observation	Grade
28			
0.00	STMH	Start node, maintenance hole, Nodename: 28	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
20.98	MC	New material, Vitrified Clay, at joint	
21.34	CNGO	Connection, good workmanship, connection appears to be open, diameter 150mm , at 3 o'clock	
21.34	CXB	Defective Connection - The connection is partially or completely blocked, magnitude of obstruction >75%, General Comments To be Re	
21.58	MC	New material, Concrete Pipe, at joint	
35.15	CNGO	Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock	
35.44	FHDE	Finish node, dead end, Nodename: 43 , General Comments Suspected	
43			



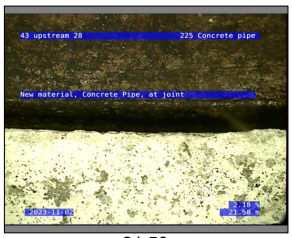
20.98 m



21.34 m



21.34 m



21.58 m



35.15 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**1**	**60**	**1.69**	**60**	**5**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**36**	



Photo: 38_38_236_A.JPG, 00:04:46
20.98m, New material, Vitrified Clay, at joint



Photo: 38_38_237_A.JPG, 00:05:17
21.34m, Connection, good workmanship, connection appears to be open, diameter 150mm , at 3 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**36**	

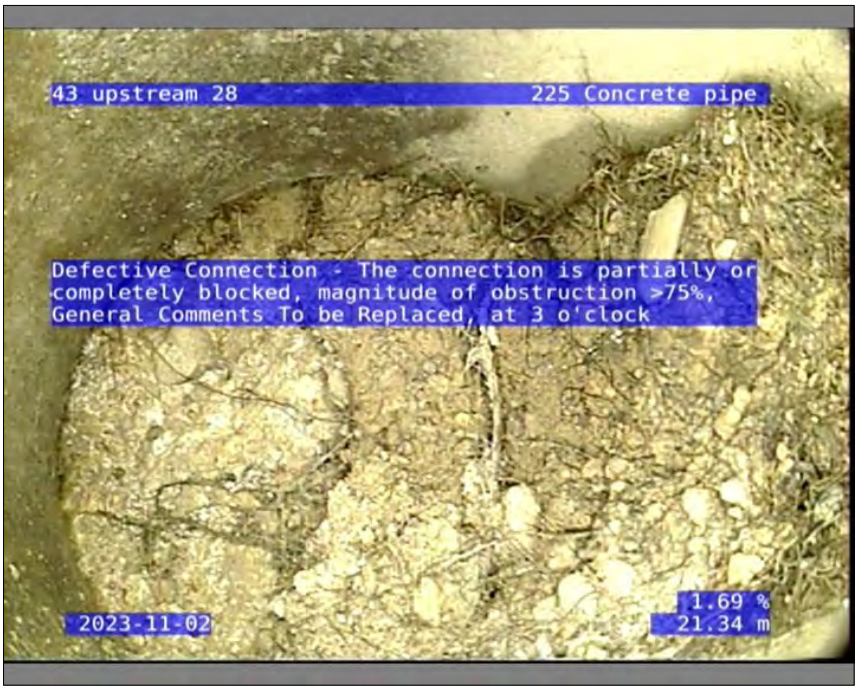


Photo: 38_38_238_A.JPG, 00:05:22
21.34m, Defective Connection - The connection is partially or completely blocked, magnitude of obstruction >75%, General Comments To be Replaced, at 3 o'clock

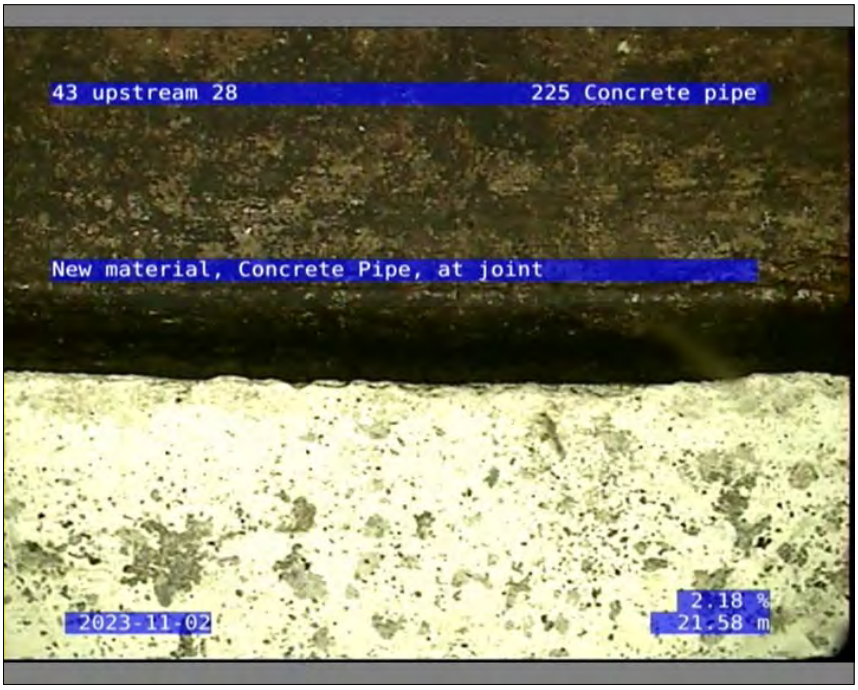


Photo: 38_38_239_A.JPG, 00:05:46
21.58m, New material, Concrete Pipe, at joint

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**36**	



Photo: 38_38_240_A.JPG, 00:07:53
35.15m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock



Photo: 38_38_240_B.JPG, 00:07:53
35.15m, Connection, good workmanship, connection appears to be open, diameter 100mm , at 9 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**36**	

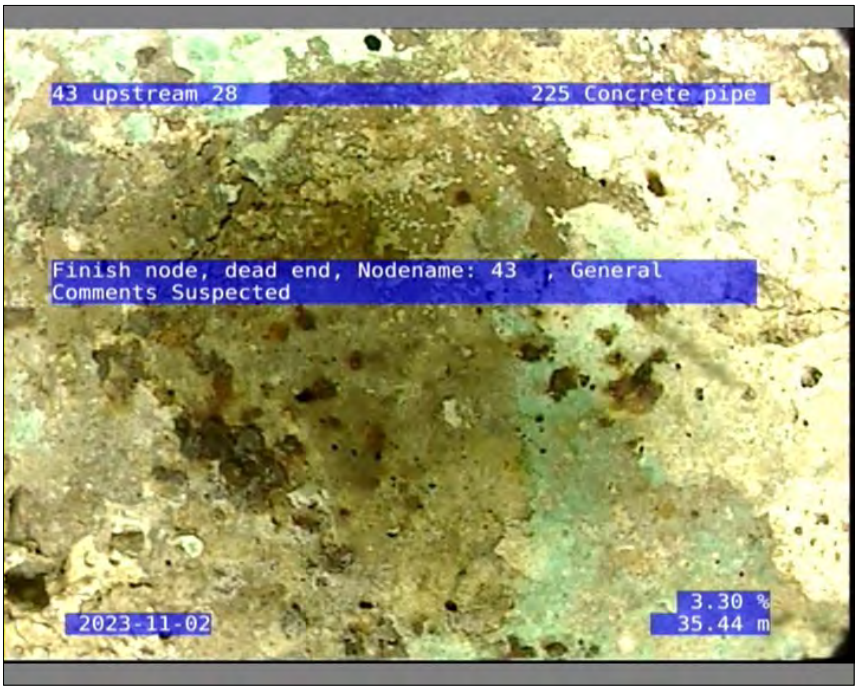


Photo: 38_38_241_A.JPG, 00:08:34
35.44m, Finish node, dead end, Nodename: 43 , General Comments Suspected



Photo: 38_38_241_B.JPG, 00:08:34
35.44m, Finish node, dead end, Nodename: 43 , General Comments Suspected

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Inspection Report

Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**37**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**300 mm**	Start Manhole:	**38**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**44**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**3.37 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**1300**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:50	Position	Code	Observation	Grade
44				
	0.00	STMH	Start node, maintenance hole, Nodename: 44	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	3.37	FHGP	Finish node, grated inlet pit, Nodename: 38	
38				



3.37 m



3.37 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**37**	



Photo: 39_39_244_A.JPG, 00:01:37
3.37m, Finish node, grated inlet pit, Nodename: 38



Photo: 39_39_244_B.JPG, 00:01:37
3.37m, Finish node, grated inlet pit, Nodename: 38

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Inspection Report

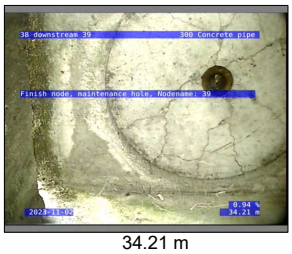
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
2/11/2023	**WO75488**	**Shane Dawes**	**38**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**300 mm**	Start Manhole:	**38**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**39**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**34.21 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**1300**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

1:270 Position	Code	Observation	Grade
38			
0.00	STMH	Start node, maintenance hole, Nodename: 38	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
34.21	FHMH	Finish node, maintenance hole, Nodename: 39	
39			



34.21 m



34.21 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
0	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**2/11/2023**	**38**	



Photo: 40_40_247_A.JPG, 00:05:03
34.21m, Finish node, maintenance hole, Nodename: 39



Photo: 40_40_247_B.JPG, 00:05:03
34.21m, Finish node, maintenance hole, Nodename: 39

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Inspection Report

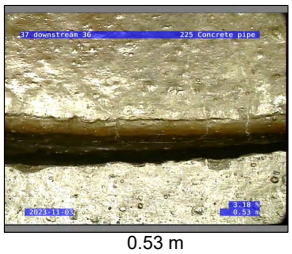
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
3/11/2023	**WO75488**	**Shane Dawes**	**39**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**5**	**1**		

Location:	**Dickson Shops**	Pipe Diameter:	**225 mm**	Start Manhole:	**37**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**36**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**3.61 m**
Location Type:	**Developed**	Lining:		Direction:	**upstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**750**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

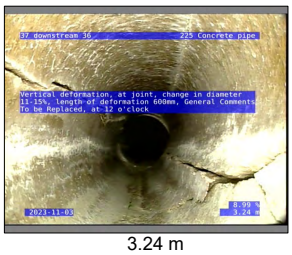
1:50 Position	Code	Observation	Grade
0.00	STMH	Start node, maintenance hole, Nodename: 37	
0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
0.53	JDR	Joint displaced radially, radial displacement 11-20mm , at 12 o'clock	
3.24	DV	Vertical deformation, at joint, change in diameter 11-15%, length of deformation 600mm, General Comments To be Replaced, at 12 o'clock	
3.61	CLS	Longitudinal surface crack, at joint, width 3mm , General Comments To be Replaced, at 10 o'clock	
3.61	CLW	Longitudinal wall crack, at joint, width 4mm, General Comments To be Replaced, at 4 o'clock	
3.61	DV	Vertical deformation, at joint, change in diameter 16-20%, length of deformation 500mm, General Comments To be Replaced, at 10 o'clock	
3.61	SAOB	Inspection (survey) abandoned, obstruction , General Comments To be Replaced	



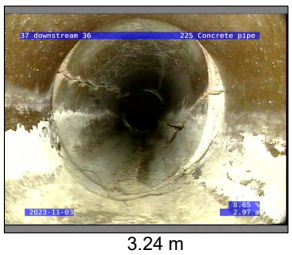
0.53 m



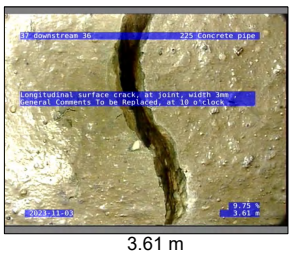
0.53 m



3.24 m



3.24 m



3.61 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
5	**122.1**	**35.19**	**127.1**	**5**	**0**	**0**	**0**	**0**	**1**

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**3/11/2023**	**39**	



Photo: 41_41_250_A.JPG, 00:01:18
0.53m, Joint displaced radially, radial displacement 11-20mm , at 12 o'clock



Photo: 41_41_250_B.JPG, 00:01:18
0.53m, Joint displaced radially, radial displacement 11-20mm , at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**3/11/2023**	**39**	



Photo: 41_41_251_A.JPG, 00:02:33
3.24m, Vertical deformation, at joint, change in diameter 11-15%, length of deformation 600mm, General Comments To be Replaced, at 12 o'clock



Photo: 41_41_251_B.JPG, 00:02:33
3.24m, Vertical deformation, at joint, change in diameter 11-15%, length of deformation 600mm, General Comments To be Replaced, at 12 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**3/11/2023**	**39**	



Photo: 41_41_252_A.JPG, 00:02:50
3.61m, Longitudinal surface crack, at joint, width 3mm , General Comments To be Replaced, at 10 o'clock



Photo: 41_41_252_B.JPG, 00:02:50
3.61m, Longitudinal surface crack, at joint, width 3mm , General Comments To be Replaced, at 10 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**3/11/2023**	**39**	



Photo: 41_41_254_A.JPG, 00:03:13
3.61m, Longitudinal wall crack, at joint, width 4mm, General Comments To be Replaced, at 4 o'clock



Photo: 41_41_254_B.JPG, 00:03:13
3.61m, Longitudinal wall crack, at joint, width 4mm, General Comments To be Replaced, at 4 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**3/11/2023**	**39**	



Photo: 41_41_256_A.JPG, 00:03:26
3.61m, Vertical deformation, at joint, change in diameter 16-20%, length of deformation 500mm, General Comments To be Replaced, at 10 o'clock



Photo: 41_41_256_B.JPG, 00:03:26
3.61m, Vertical deformation, at joint, change in diameter 16-20%, length of deformation 500mm, General Comments To be Replaced, at 10 o'clock

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Inspection Pictures

Location:	Suburb:	Date :	Section number:	Sewer Ref.:
Dickson Shops	**Dickson**	**3/11/2023**	**39**	



Photo: 41_41_257_A.JPG, 00:03:31
3.61m, Inspection (survey) abandoned, obstruction , General Comments To be Replaced



Photo: 41_41_257_B.JPG, 00:03:31
3.61m, Inspection (survey) abandoned, obstruction , General Comments To be Replaced

Binder 3a,274

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Inspection Report

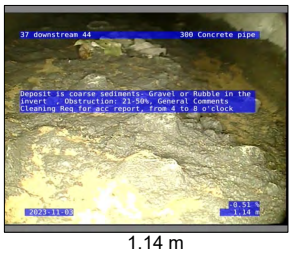
Date:	Asset Owner's Job Ref:	Operator:	Section Number:	Section ID:	Standard:
3/11/2023	**WO75488**	**Shane Dawes**	**40**		**WSA 05-2006**
Method of inspection:	LRP:	Structural Grade:	Service Grade:	Expected Length	
Television Camera	**Other**	**1**	**4**		

Location:	**Dickson Shops**	Pipe Diameter:	**300 mm**	Start Manhole:	**37**
Suburb:	**Dickson**	Pipe Width:		Finish Manhole:	**44**
State:	**ACT**	Pipe Material:	**Concrete pipe**	Section Length :	**6.96 m**
Location Type:	**Developed**	Lining:		Direction:	**downstream**

Purpose of inspection :	**Structural exam**	Cleaning:	**cleaned**
Use of pipe:		Flow Control:	**No measures**
Shape of Pipe:	**Circular**	Start Manhole Depth:	**900**
Pipe Unit Length:		Perciptiation:	**No**

Comments:

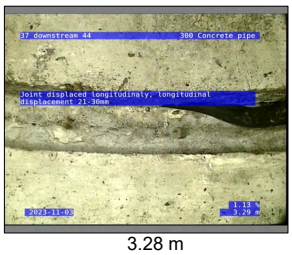
1:60	Position	Code	Observation	Grade
37				
	0.00	STMH	Start node, maintenance hole, Nodename: 37	
	0.01	WLC	Water level, clear flow (the invert is visible), depth 0%	
	1.14	DER	Deposit is coarse sediments- Gravel or Rubble in the invert , Obstruction: 21-50%, General Comments Cleaning Req for acc report, from 4 t	
	3.29	OBJ	Obstruction, an object is wedged in the joint, at joint, reduction in cross sectional area: <5% , from 11 to 2 o'clock	
	3.29	JDL	Joint displaced longitudinaly, longitudinal displacement 21-30mm	
	6.96	FHGP	Finish node, grated inlet pit, Nodename: 44	
44				



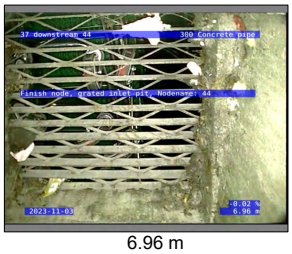
1.14 m



3.28 m



3.28 m



6.96 m

STR no def	STR peak	STR mean	STR total	STR grade	SER no def	SER peak	SER mean	SER total	SER grade
1	**2**	**0.29**	**2**	**1**	**1**	**40**	**5.75**	**40**	**4**