Background information for Transport Network for the Gympie Regional Council Local Government Infrastructure Plan

GYMPIE REGIONAL COUNCIL

1.0 Preliminary

This report provides the background information for the Transport Network, including roads, pathways and public transport, to support the development of the Gympie Regional Council Local Government Infrastructure Plan (LGIP).

The report outlines:

1. The definition of trunk infrastructure (Section 2);
2. The service catchments (Section 3);
3. The demand assumptions and conversions (Section 4);
4. The desired standards of service (Section 5);
5. Network planning and modelling (Section 6);
6. Rural Residential roads methodology (Section 7);
7. Network costings and valuation methodology (Section 8);
8. Schedules of work (Section 9);
9. Source and supporting documents (Section 10).

2.0 Definition of trunk infrastructure

The trunk roads are a sub-set of the total network, with only the major roads included in the definition of trunk infrastructure. Table 1 outlines the definition of trunk infrastructure for the transport network. The roads defined as trunk are shown on the LGIP maps (Plans for Trunk Infrastructure – Transport), but also included here in Appendix A for information. Additionally, not all elements of the road infrastructure are considered trunk; these elements have been listed in Table 1 below as part of the exclusions list. All other road types are considered non-trunk infrastructure.

Where there is any inconsistency between the definition of trunk infrastructure as per Table 1 – Definition of Trunk Infrastructure, and the definition of trunk infrastructure within the Gympie Regional Council Planning Scheme 2013 or Local Government Infrastructure Plan (formerly identified as the Priority Infrastructure Plan) and related mapping, the definitions in Table 1 - Definition of Trunk Infrastructure prevail.

Table 1 – Definition of Trunk Infrastructure

Transport Infrastructure Network	*Definition of Trunk infrastructure*	*Exclusions (non-trunk infrastructure)*
Trunk Urban Roads	• Urban Arterial Roads: pathways including pedestrian bridges, traffic lanes and parking lanes (sub-base, base, seal), kerb and channel, subsoil drains, stormwater pipes, pits and manholes, guardrails, walls within the road reserve, bridges, traffic signals, clearing, earthworks, road furniture, and intersections, excluding intersections directly with State-controlled Roads. • Urban Sub-arterial Roads: pathways including pedestrian bridges, traffic lanes (sub-base, base, seal), guardrails, walls within the road reserve, bridges, traffic signals, clearing, earthworks, road furniture, and intersections, excluding intersections directly with State-controlled Roads. • CBD Roads: pathways including pedestrian bridges, traffic lanes and parking lanes (sub-base, base, seal), kerb and channel, subsoil drains, stormwater pipes, pits and manholes, guardrails, walls, clearing, earthworks, road furniture, and intersections, excluding intersections directly with State-controlled Roads.	• Traffic calming devices; • Traffic signals and intersection works onto State-controlled Roads; • Medians; • Traffic islands not part of intersection works; • Street lighting; • Walls outside of the road reserve; • All other roads. Additional exclusions for Urban Sub-arterial Roads: • parking lanes; • kerb and channel; • cross road drainage; • stormwater pipes, pits and manholes.
Trunk Rural Residential Roads	• Only those Rural Residential Roads identified on LGIP Plans for Trunk Infrastructure - Transport are defined as trunk; • Trunk Rural Residential Roads: clearing, earthworks, pavement, seal, cross road drainage, road furniture, guardrails, bridges, intersections excluding those intersections directly onto State-controlled Roads.	• Traffic calming devices; • Traffic signals and intersection works onto State-controlled Roads; • Medians; • Traffic islands not part of intersection works; • Street lighting; • Walls outside of the road reserve; • All other rural residential roads.

Transport Infrastructure Network	*Definition of Trunk infrastructure*	*Exclusions (non-trunk infrastructure)*
Pathways	Trunk pathways and pedestrian bridges for pedestrians or cyclists located: • within the road reserve of all State-controlled declared roads within the urban 40, 50 and 60 km/hr speed zones; • CBD Roads; • Urban Arterial Roads; and • Urban Sub-arterial Roads (one side only), as identified on LGIP Plans for Trunk Infrastructure - Pathways. Additional connecting pathways listed below and identified on LGIP Plans for Trunk Infrastructure - Pathways are defined as trunk: • Tin Can Bay Road – Bayside Road; from Dugong Street to Queen Elizabeth Drive • Corella Road - Hamilton Road – Old Maryborough Road; from Corella Court to Fairway Drive • Rifle Range Road - Wises Road; from Gympie Connection Road to Tin Can Bay Road • Crescent Road; from Red Hill Road to Tin Can Bay Road • Rocklea Drive; from Sorensen Road to Power Road • Waldock Road; from Groundwater Road to Heilbronn Road • Heilbronn Road; from Waldock Road to McIntosh Creek Road • Stanley Street; from Crown Road to Excelsior Road • Bligh Street – Church Street; from Hilton Road to Stuart Street • Garrick Street; from Gympie Connection Road to Parsons Road • Power Street; from Gympie Connection Road to Mellor Street • Musgrave Street; from Garrick Street to Popes Road • Popes Road - Myall Street; from Louisa Street to Pine Street • Fisher Lane - AJ Mitchell Park - One Mile Sports Fields; from Gympie State High School to One Mile State School • Carlo Road; from Kurrawa Drive to Carlo Point boat ramp	All other pathways not listed in the inclusions.

Transport Infrastructure Network	*Definition of Trunk infrastructure*	*Exclusions (non-trunk infrastructure)*
Pathways (continued)	• Endeavour Drive - Investigator Avenue; from Bayside Road to Queen Elizabeth Drive • Mauretania Avenue; from Endeavour Drive to Nautilus Drive • Bayside Road; from Queen Elizabeth Drive to Mullins Creek Park • Tin Can Bay Foreshore; from Crab Creek to Bass Street via Norman Point.	
Public Transport	• Bus terminals, bus stops, and shelters owned by Council and located on Trunk Roads.	All public transport infrastructure not listed in the inclusions or not owned by Council.

3.0 Service catchments

There are five service catchments for the transport network:

- Gympie;
- Cooloola Coast;
- Goomeri;
- Imbil;
- Kilkivan;

Refer to Attachment A for the service catchment map.

4.0 Demand assumptions and conversions

The base year for the planning of the transport network is 2016. The base year for the costing of the network is 2015. The planning horizon aligns with the ABS Census years through to 2031 with an estimate for an ultimate development scenario. The demand for each service catchment is shown in Table 2.

Transport demand has been based on generally accepted trips per day rates as follows

- Detached dwelling – 10 per dwelling;
- Attached dwelling – 6 per dwelling;
- Rural Residential dwelling – 6 per dwelling;
- Retail – 50 per 100m2 GFA;
- Commercial – 10 per 100m2 GFA;
- Industrial – 5 per 100m2 GFA;
- Community – 25 per 100m2 GFA;

- Office – 10 per 100m2 GFA.

Table 2 — Existing and projected demand for the transport network

Service catchment	Transport network demand (vehicle trips per day)			
	2016	2021	2026	2031
Gympie	247,670	265,629	282,092	300,503
Cooloola Coast	54,726	58,470	62,564	67,228
Goomeri	10,573	11,034	11,441	12,038
Imbil	6,592	6,728	6,852	7,006
Kilkivan	7,848	9,225	10,613	12,665
Total	327,408	351,086	373,561	399,440

5.0 Desired standards of service

Table 3 outlines the desired standards of service for the Transport network.

Table 3— Desired Standards of Service for the transport network

Column 1 **Measure**	**Column 2** **Planning criteria (qualitative standards)**	**Column 3** **Design criteria (quantitative standards)**
Road network design/planning standards	The road network provides a safe, reliable and functional urban, rural residential and rural hierarchy that supports settlement patterns, commercial, tourist, agricultural and economic activities. Design of the road system will comply with established codes and standards.	*Gympie Regional Council Planning Scheme Policy Schedule SC6.1.7 *Austroads Design Guidelines 2009 *Department of Transport and Main Roads Road Planning and Design Manual *The desirable standards in Table 4, columns 1 to 7

Column 1 Measure	Column 2 Planning criteria (qualitative standards)	Column 3 Design criteria (quantitative standards)
Footpaths and cycleways	The footpath and cycle network provides a safe, attractive and convenient network that links residential areas to desirable activity nodes thereby encouraging walking and cycling as acceptable travel alternatives as well as for fitness and well-being.	*Gympie Regional Council Planning Scheme Policy Schedule SC6.1.7 *Gympie Region Walk Cycle Strategy *The desirable standards in Table 4, columns 1 and 8
Public transport design/planning standards	New urban development is designed to achieve safe and convenient distances to existing and future bus stops. Improve inter-city bus access and functionality. Increase use of public transport as an attractive alternative to personal vehicle use.	*Gympie Regional Council Planning Scheme Policy Schedule SC6.1.7.4 *Austroads Design Guidelines 2009 *Department of Transport and Main Roads Road Planning and Design Manual

Table 4 Desirable standards

Column 1 Road Type	Column 2 Typical Volume (vpd)	Column 3 Typical Posted Speed (km/h)	Column 4 Carriage-way Width (m)	Column 5 Minimum Reserve Width (m)	Column 6 Minimum Level of Service^	Column 7 Maximum Rough-ness (IRI)	Column 8 Footpath Width* (m)
Urban Arterial	6,000	60	12	22	B-C	2	1.5 including DTMR roads
Urban Sub-arterial	3,500	50	10	22	B	4	1.2
CBD Roads	n/a	40	12	22	C	2	Full width
Rural Residential	500	80	8	22#	B	4	0

Table notes:

 # Subject to cut/fill batter points clear of property boundary by 3.0 m on curves, cul de sac heads and 4.0 m elsewhere.

^Defined in Guide to Traffic Management Part 3 – Austroads 2009

** Connecting pathways 2.4 m wide wherever possible within existing reservation, otherwise as shown.*

6.0 Network planning and modelling

The Gympie Regional Council area is characterised by low population growth, above the national average unemployment level, and a low socio-economic standard. This is reflected in the council's capital works programs which have historically been restricted to affordable works only with heavy reliance upon developers having to fund all necessary infrastructure required by the legislated and adopted standards as well as those expected in today's modern living standards.

The city of Gympie was founded in 1867 when alluvial gold was discovered along James Nash Gully which then became the main street in the Central Business District, Mary Street. The gold rush that followed resulted in a network of winding streets and roads and odd shaped parcels of land

throughout the steep and hilly terrain with little thought initially given to a planned future township. Although more outlying areas were better planned and laid out, the roads, pathways and stormwater infrastructure has become an engineering challenge to define a clear hierarchy within each network.

Up until 1993 the area was administered by two local governments with each competing to attract growth and giving limited regard for the city as a whole. Since then a much better approach has been transitioning towards orderly growth and development for the area as a whole. Hence this LGIP is seen as finally bringing together different cultures in a difficult natural environment within a community that has a very limited capital.

ROADS

The Gympie road network is one that has grown over time by drivers choosing shortest distances and quickest travel times for their journeys. This also applies to the principal roads in Gympie which are controlled by DTMR. Being a relatively small country city, traffic volumes in Gympie are well below those used for defining arterial roads in larger cities. Therefore, trunk roads have been identified as only those roads in urban areas where volumes exceed 6000 vpd (Urban Arterial Roads), 3500 vpd (Urban Sub-arterial Roads) and those roads in the Gympie CBD.

Gympie is also unique in that its residents have over time developed a love of rural residential living. There is such a high continuing demand for this lifestyle in Gympie that despite State Government planning guidelines for population concentration, the 2013 Town Plan still allowed further development of rural residential living in certain areas whilst at the same time making restrictions in other such areas. Lead-in roads to these areas for additional rural residential growth have therefore been identified also as trunk roads. (See Section 7 for more information.)

It is recognised that on primarily traffic carrying trunk roads, through traffic only utilises the central traffic lanes but impacts on all intersections. Other trunk roads such as those in the CBD and those in the urban arterial category all have a parking component as part of their traffic carrying capacity. Therefore, only works relating to these impacts from increased traffic have been identified as trunk works.

FOOTPATHS and CYCLEWAYS

Since 1993 there has been a great increase in the length of footpaths constructed per year. Respective councils have continued this upwards trend to encourage less motor vehicle use for short trips and increased physical activity. In this time two planning studies into cycle and walking strategies have been prepared to forward plan the continued construction of the pathway network to cater for increased demands from the expanding urban population.

The trunk pathway network has been restricted to the urban trunk roads plus important inter-connecting pathways to encourage shorter and/or more interesting routes for pedestrians and cyclists as well as those driven by demand from activity-based focal points.

PUBLIC TRANSPORT

Gympie is also unique in that it has only ever had a privately run public transport system although Council owns and manages the bus stops and shelters in consultation with the Department of Transport and Main Roads. The further advent of privately owned school bus runs being able to charge students for trips beyond the designated school bus route has only exacerbated this matter for locally based users. This has resulted in an unco-ordinated approach to public transport with the local community. Upgrading of existing bus shelters as demand increases will be ongoing.

Additionally, there has been an increasing demand for inter-city bus travel with less use of rail passenger services. Council believes an inner-city bus terminal will encourage more use of public transport from within and beyond the city and lessen the need for vehicle use from the expanding urban population.

7.0 Rural residential roads methodology

The former PSP which dealt with the collection of infrastructure charges for rural residential roads outlined a methodology of spending contributions to upgrade roads in an efficient and logical sequence.

In this report, this methodology is continued, focussing resources on rural residential areas where growth is possible under the provisions of the planning scheme and likely over the horizon of the PIA. This means that only lead-in rural residential roads have been defined as trunk in these areas, with a small number of roads defined as trunk in these areas:

- McIntosh Creek Road; Lawson Road – Premier Avenue;
- Sandy Creek Road; Gympie Connection Road – North Deep Creek Road;
- Fritz Road; Bruce Highway – Rammutt Road;
- Rammutt Road; Bruce Highway – Old Maryborough Road;
- Nash Road; Old Maryborough Road – Quinlan Road;
- Eel Creek Road; Watson Road – Ayrshire Court.

This limited number of rural residential roads are defined as trunk and shown on the LGIP Plans for Trunk Infrastructure – Transport, but also included here in Appendix B for completeness. However, if there is an inconsistency between Appendix B and the LGIP, the LGIP prevails.

8.0 Network costings and valuation methodology

The valuation of the existing road and pathway network was derived from Council's asset management system, based on a GIS layer of items which meet the definition of trunk infrastructure. The asset system provided primarily the replacement value of the pavement formation, sub-base, base and surface. Additional amounts have been included in the replacement values of existing road assets to allow for the items which have not been extracted directly from council's asset database.

For CBD Roads, the amount added is $1,415 per lineal metre of road. This comprises $200/lm for kerb and channel and subsoil drainage, $150/lm for stormwater pipes and pits, $800/lm for full verge width paved pathways, $100/lm for retaining walls, $150/lm for intersections and $15/lm for linemarking, signs and other roadside furniture.

For other urban roads, the amount added is $565 per lineal metre of road. This comprises $200/lm for kerb and channel and subsoil drainage, $150/lm for stormwater pipes and pits, $100/lm for retaining walls, $100/lm for intersections and $15/lm for linemarking, signs and other roadside furniture.

For rural residential roads, the amount added is $110 per lineal metre of road. This comprises $25m for subsoil drainage in cuttings, $25/lm for stormwater pipes, $50/lm for intersections and $10/lm for linemarking, signs and other roadside furniture.

The future transport infrastructure projects have been costed by using Council's audited unit rates.

9.0 Schedules of work

The following tables are the schedules of future work as a result of network planning. The establishment cost is the baseline cost plus an allowance for contingency, planning, design and other on-costs, as calculated by the Schedule of Works model in accordance with the statutory guideline.

Table 5—Road transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Baseline cost	Column 5 Establishment cost ($)
T01	Hall Road - Upgrade	2016	110,565	142,629
T02	Louisa Street - Upgrade	2016	205,000	264,450
T03	Old Maryborough Road - Upgrade	2021	77,490	99,962
T04	Stewart Terrace - Upgrade	2017	26,460	34,133
T05	Tozer Street - Upgrade	2017	118,125	152,381
T06	Nautilus Drive - Upgrade	2024	238,896	329,676
T07	Bayside Road - Upgrade	2025	156,870	216,481
T08	Queen Elizabeth Drive - Upgrade	2023	113,400	156,492
T09	Excelsior Road - Widening	2026	122,235	168,684
T10	Clarkson Drive - Upgrade	2027	28,800	41,472
T11	Ramsey Road - Upgrade	2022	106,260	146,639
T12	Sorensen Road - Upgrade	2019	224,280	289,321
T13	Oak Street - Upgrade	2016	519,250	669,833
T14	Reef Street - Upgrade	2022	195,580	269,900
T15	Rammutt Road - Widening	2019	1,154,938	1,489,870
T16	Eel Creek Road - Widening	2021	256,725	331,175
T17	Eel Creek Road - Widening	2022	604,475	834,176
T18	Fritz Road - Widening	2023	55,050	75,969

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Baseline cost	Column 5 Establishment cost ($)
T19	Fritz Road - Widening	2023	835,000	1,152,300
T20	Nash Road - Widening	2021	43,225	55,760
T21	Nash Road - Widening	2024	333,080	459,650
T22	McIntosh Creek Road - Widening	2021	778,100	1,003,749
T23	Young Street - Widening	2020	231,000	297,990
T24	Young Street - Widening	2020	25,000	32,250
T25	Hall Road - Langton Road - Intersection upgrade	2016	300,000	387,000
T26	Bayside Road - Endeavour Drive - Intersection upgrade	2025	150,000	207,000
T27	Investigator Avenue - Nautilus Drive - Intersection upgrade	2027	150,000	216,000
T28	Bayside Road - Queen Elizabeth Dr - Intersection upgrade	2018	150,000	193,500
T29	Mellor Street - Power Street - Intersection upgrade	2028	150,000	216,000
T30	Mellor Street - Fern Street - Intersection upgrade	2029	150,000	216,000
T31	Duke Street - Alfred Street - Intersection upgrade	2030	150,000	216,000
T32	Duke Street - Jane Street - Intersection upgrade	2031	150,000	216,000
T33	Watson Road - Sorensen Road - Intersection upgrade	2025	150,000	207,000
T34	Monkland Street - O'Connell Street - Intersection upgrade	2027	500,000	720,000
T35	Station Road - Tozer Street - Intersection upgrade	2028	260,000	374,400
T36	Station Road - Cogan Street - Intersection upgrade	2020	300,000	387,000
T37	Louisa Street - Popes Road - Intersection upgrade	2019	350,000	451,500
T38	Excelsior Road - Perseverance St - Intersection upgrade	2022	225,000	310,500
T39	Monkland Street - Myall Street - Intersection upgrade	2030	300,000	432,000
T40	Mellor St - Chapple St - Lady Mary Tce - Intersection upgrade	2029	500,000	720,000
T41	Exhibition Road - Watson Road - Intersection upgrade	2028	250,000	360,000
T42	Groundwater Road - Sorensen	2030	250,000	360,000

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Baseline cost	Column 5 Establishment cost ($)
	Rd - Intersection upgrade			
T43	Parsons Road - various sites - Intersection upgrade & associated roadworks	2030	75,000	108,000
T44	Young Street - Reef Street - Intersection upgrade	2030	75,000	108,000
T45	Red Hill Road - Crescent Road - Intersection upgrade	2030	50,000	72,000
T46	Power Road - Woolgar Road - Intersection upgrade	2030	50,000	72,000
T47	River Road - Watt Street - Intersection upgrade	2030	100,000	144,000
T48	Graham Street - Bridge upgrade	2026	800,000	1,104,000
T49	Stewart Terrace -Tozer Street - Bridge upgrade	2031	1,200,000	1,728,000
T50	Duke Street – Widening	2026	48,000	66,240
T51	Station Road – Widening	2020	108,000	139,320
T52	Monkland Street – Spicer Street – Intersection upgrade	2030	150,000	216,000
T53	Power Road – Widening	2027	175,750	253,080
T54	Exhibition Road - Widenings	2026	551,000	760,380
T55	Eel Creek Road-Rocks Road Intersection upgrade	2027	150,000	216,000
T56	Investigator Avenue- Queen Elizabeth Drive Intersection upgrade	2028	150,000	216,000
T57	Fern-Lawrence-Myall Streets Intersection upgrade	2029	300,000	432,000
T58	Apollonian Vale-Lady Mary Terrace-Bligh Street-Caledonian Hill Intersection Upgrade	2028	300,000	432,000
T59	Karoonda Road-Carlo Road Intersection upgrade	2024	300,000	414,000
T60	Groundwater Road-Waldock Road Intersection upgrade	2029	150,000	216,000
T61	Investigator Avenue - Widening	2018	1,500,000	1,935,000
T62	Groundwater Rd (Power Rd to Sorensen Rd) – pavement widening for safety	2016	280,000	361,200
T63	Groundwater Rd (Perry L to Cox Rd) – pavement widening for safety	2020	520,000	670,800
T64	Tyrell Rd – pavement upgrade	2017	200,000	258,000

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Baseline cost	Column 5 Establishment cost ($)
	for safety			
T65	Pritchard Rd / Smerdon Rd intersection	2021	338,000	436,020
TOTAL				25,262,882

Table 6 —Public transport network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Baseline Cost ($)	Column 5 Establishment Cost ($)
T66	Land Purchase for Gympie Transit Centre – Stage 1	2016	400,000	400,000
T67	Land Purchase for Gympie Transit Centre Stage 2	2018	600,000	600,000
T68	Gympie Transit Centre	2024	3,000,000	4,140,000
T69	Upgrade Bus Stop at cinema complex	2017	40,000	51,600
TOTAL			$4,040,000	$5,191,600

Table 7 —Pathway network schedule of works

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Baseline Cost ($)	Column 5 Establishment Cost ($)
T70	Gympie Connection Road Pathway	2021	39,600.	51,084
T71	Rifle Range Road Pathway	2021	38,700	49,923
T72	Watson Road Pathway	2016	181,000	233,490
T73	Sorensen Road Pathway	2016	105,400	135,966
T74	Groundwater Road Pathway	2022	86,400	119,232
T75	Station Road Pathway	2021	89,400	115,326
T76	Gympie Connection Road Pathway	2023	264,800	365,424
T77	Gympie Connection Road Pathway	2024	82,800	114,264
T78	Old Maryborough Road Pathway	2016	32,400	41,796
T79	Bruce Highway Pathway	2022	39,600	54,648
T80	Bruce Highway Pathway	2022	43,200	59,616
T81	Corella Circuit Pathway	2025	240,000	331,200

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Baseline Cost ($)	Column 5 Establishment Cost ($)
T82	Corella Circuit Pathway	2025	164,000	226,320
T83	Nash Street Pathway	2022	20,800	28,704
T84	Gympie Connection Road Pathway	2026	144,000	198,720
T85	Oak Street Pathway	2026	54,000	74,520
T86	Crescent Road Pathway	2027	121,700	175,248
T87	Exhibition Road	2028	43,200	62,208
T88	Exhibition Road	2024	66,600	91,908
T89	Glastonbury Road	2024	66,600	91,908
T90	Groundwater Road Pathway	2028	61,200	88,128
T91	Groundwater Road Pathway	2022	160,200	221,076
T92	Groundwater Road Pathway	2020	312,000	402,480
T93	Groundwater Road Pathway	2016	96,000	123,840
T94	Groundwater Road Pathway	2029	147,600	212,544
T95	Heilbronn Road Pathway	2018	63,000	81,270
T96	Waldock Road Pathway	2018	187,500	241,875
T97	Sorensen Road Pathway	2018	144,400	186,276
T98	Rocklea Drive Pathway	2030	183,600	264,384
T99	Hughes Terrace Pathway	2028	64,800	93,312
T100	Mary Valley Road Pathway	2028	7,098,000	10,221,120
T101	Mary Valley Road Pathway	2024	70,400	97,152
T102	Mary Valley Road Pathway	2024	31,500	43,470
T103	Power Road Pathway	2023	128,000	176,640
T104	Power Road Pathway	2021	172,000	221,880
T105	Power Road Pathway	2019	560,000	722,400
T106	Rifle Range Road Pathway	2029	153,000	220,320
T107	Wises Road Pathway	2030	144,000	207,360
T108	Bligh Street - Church Street Pathway	2020	100,000	129,000
T109	Tin Can Bay Road Pathway	2031	52,200	75,168
T110	Tin Can Bay Road Pathway	2018	90,000	116,100
T111	Popes Road - Myall Street Pathway	2027	162,000	233,280
T112	Stanley Street Pathway	2031	90,000	129,600
T113	Garrick Street Pathway	2031	114,000	164,160
T114	Power Street Pathway	2031	77,400	111,456
T115	Musgrave Street Pathway	2031	97,800	140,832
T116	GSHS - One Mile SS Pathway	2025	670,000	924,600

Column 1 Map reference	Column 2 Trunk infrastructure	Column 3 Estimated timing	Column 4 Baseline Cost ($)	Column 5 Establishment Cost ($)
T117	Investigator Avenue Pathway	2020	551,250	711,112
T118	Investigator Avenue Pathway	2019	186,750	240,907
T119	Endeavour Drive Pathway	2026	232,875	321,367
T120	Endeavour Drive Pathway	2027	166,500	239,760
T121	Mauretania Avenue Pathway	2031	249,750	359,640
T122	Bayside Road Pathway	2030	344,250	495,720
T123	Rainbow Beach Road Pathway	2016	42,750	55,147
T124	Carlo Road Pathway	2029	1,096,000	1578,240
T125	Tin Can Bay Road Pathway	2026	189,000	260,820
T126	Tin Can Bay Road Pathway	2024	232,000	320,160
T127	Tin Can Bay Foreshore Pathway	2016	33,750	43,537
T128	Tin Can Bay Foreshore Pathway	2021	168,750	217,687
T129	Tin Can Bay Foreshore Pathway	2022	58,500	80,730
T130	Burnett Highway Pathway	2019	60,000	77,400
T131	Burnett Highway Pathway	2020	52,200	67,338
TOTAL			$16,819,125	$23,540,796

10.0 Source and supporting documents

The following documents have been used to form the basis and background of this information material:

- GRC Capital Works Program (Gympie Region Road Infrastructure Upgrades.xls)
- RTA Guide to Traffic Generation Developments
- GRC Planning Scheme Policy SC6
- Gympie Region Walk & Cycle Strategy – Feb 2012.

Appendix A – Trunk Road Network maps