

6 IMPLEMENTATION



The *Liveable Streets Plan* will be implemented over the next ten years. There should be periodic review of the actions to assess achievement, appropriateness and value.

The key component of the Plan's implementation is the four year action plan. A significant component of this action plan is the prioritisation of actions and task for the first years.

6.1 FOUR YEAR ACTION PLAN

This action plan provides direction on actions that will be undertaken in the first four years of the life of this *Plan*. The action plan presents goals, approaches and actions, resources required, partners who are essential to the action and success measures.

A series of actions are presented. Each action is intended to be a significant body of work which may take several years to complete. Within some actions, high priority tasks are also listed.

An action is a discrete piece of work that can be completed in a limited amount of time and which will contribute to the completion of an approach.

FUNDING FOR THIS ACTION PLAN

Approval of the *Plan* does not mean Council has committed budget to its implementation.

Funding for priority tasks will be sought by Council, both from internal funds and external funding opportunities.

Further budget will be allocated in following years as a part of the rolling action planning process.

They also are expected to respond to the local context, connect with other streets and form a wider network.

6.2 STREETS AS PLACES ACTION PLAN

APPROACH		ACTIONS
Approach 1 Commit to a coordinated Council approach to street design and implementation to ensure best possible infrastructure, community and environmental outcomes	Action 1.1	Council to commit to the implementation of this <i>Plan</i> over the next 10 years with a review every 3 years. Each year clear priorities should be agreed to, budgeted for and implemented
	Action 1.2	Ensure each street project is guided and assessed by the Liveable Streets Checklist. Update checklist after a period of use and review
	Action 1.3	Adopt the Liveable Streets Design Guidelines for all new street design and redesign by Council
	Action 1.4	Review <i>Liveable Streets Plan</i> and action plan annually to measure success and update where necessary
	Action 1.5	Develop a risk mitigation plan of street design, maintenance and community street activities

To create and strengthen Knox's distinct sense of place through high quality streets

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
1	Capital Works	Council directorates:	• Plan adopted by 2011 and
	program	 Engineering and Infrastructure 	part of each directorship's yearly planning
		City Development	
		Community Services	
1	Capital Works	Traffic and Transport	• Number of projects guided and
	program managers	 Sustainability 	assessed by the Liveable Streets Checklist
		Project Delivery	Checklist
1	Capital Works and	Engineering infrastructure	Adopted by 2011
	City development	 Sustainability 	
		Asset Protection	
		Parks Services	
		Local Laws	
		City Development	
1	Sustainability	All directorates	 Liveable Streets Plan and Action plan reviewed each year and actions receive funding on an ongoing basis
2	Governance and Assett strategy	• VicRoads	 Risk management review undertaken and projects can proceed with confidence with Council and VicRoads support

6.2 STREETS AS PLACES ACTION PLAN

APPROACH

COUNCIL ACTIONS

Approach 2	Action 2.1	Implement planting and design of Knox's key streets:
Promote and enhance Knox's distinctive urban, suburban and rural landscape identity through the		Dandenong creek gateways Bush boulevards Principal avenues Paths into the hills
design of its major streets and gateways	Action 2.2	Implement the Liveable Streets Design Guidelines to achieve the desired character for Knox's main streets and gateways
	Action 2.3	Establish a protocol or memorandum of understanding with VicRoads for non-standard streets to achieve greater liveability
	Action 2.4	Revise the <i>Knox Street Tree</i> and <i>Nature Strip Policy</i> as separate policies to include recommendations from the:
		Neighbourhood Character Study; Sustainable Environment Strategy; Sites of Biological Significance; Net Gain Policy; Native Vegetation Framework; Draft Native Vegetation Generic Integrity Policy; Indigenous Roadside Vegetation programme; WSUD Strategy; Knox Heat Island Effects Study and to Develop a Street Tree Management Plan
		Develop a Street Tree Selection Tool
		Conduct a Street Tree Audit to feed into the plans above
		Develop a Nature Strip Planting Application form and process
Approach 3 Enhance Knox's neighbourhood	Action 3.1	Ensure street design is consistent with Knox residential design guidelines and the Liveable Streets Design Guidelines
character through integrated street design	Action 3.2	Adopt and implement green neighbourhood streets as a priority street type for improving neighbourhood character

To create and strengthen Knox's distinct sense of place through high quality streets

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
1	Capital works program	 Sustainability Construction Group Traffic and Transport Parks Services 	 Dandenong creek gateways completed in five years Bush boulevards and principle avenues planted in 10 years Paths into the hills planted in 15 years
1	Engineering Infrastructure, Sustainability	 Parks Services Asset Protection City Strategy Local Laws 	Street improvements comply with checklist
3	Engineering Infrastructure	SustainabilityLocal Laws	Memorandum adopted by 2012
1	Sustainability and Parks services	• Parks	• Revision of the <i>Knox Street</i> <i>Tree and Nature Strip Policy</i> by 2011

1	Engineering Infrastructure,	Sustainability	 Street improvements comply with checklist and criteria
	City Strategy		
1	Engineering Infrastructure, City Strategy	Sustainability	 Implement 3 green neighbourhood streets in 5 years.

6.2 STREETS AS PLACES ACTION PLAN

APPROACH		ACTIONS
Approach 4	Action 4.1	Talk to local communities to list the qualities that give their locality a sense of place, and bring their perspectives into
Support community participation in street activities		the design process and maintenance, in particular for home streets
	Action 4.2	Facilitate and promote street and neighbourhood-based sustainable streets, community events and activities (e.g.street parties, garden clubs, nature strip maintenance groups)
	Action 4.3	Work with community groups to facilitate community involvement in streetscape design and maintenance
	Action 4.4	Encourage community initiated groups to form and be proactive in street design and use

To create and strengthen Knox's distinct sense of place through high quality streets

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
3	Traffic and Transport Community Wellbeing	 Sustainability Engineering Infrastructure Community 	 Collaborative consultation approach with residents and levels of community participation
2	Traffic and Transport Community Wellbeing Sustainability	 Local laws Community Programs Parks services Assett strategy Community 	 Clear easy procedures available on web and through customer service Record number of people who download information and number of activities that occur
1	Traffic and Transport Community Wellbeing	 Sustainability Asset Protection Community Parks services 	 Collaborative consultation approach with residents and level of community participation Number of community groups and residents approaching Council for stakeholdership
1	Community Wellbeing	SustainabilityCommunity	Number of community initiated groups

6.2 STREETS AS PLACES ACTION PLAN

COMMUNITY ACTIONS Communities can contribute to this goal by:	Links to Council Action Nos.	Key partner community groups (if any)	Measure of success for community
Community initiation Community groups initiating residential streetscape projects and working with Council to deliver	3, 4, 5	SustainabilityCommunity Wellbeing	 Number of community initiated street projects in Knox
Community participation Participating in street-based programs to improve the design of local streets including Gardens for Wildlife and 'edible streets' and the design of their garden to enhance neighbourhood character	3, 4, 5	 Sustainability Community Wellbeing 	 Level of community involvement in street projects Number and extent of edible and gardens for wildlife private gardens Increase in amenity and maintenance of private gardens

To create and strengthen Knox's distinct sense of place through high quality streets

6.3 STREETS FOR TRAVEL ACTION PLAN

APPROACH	COUNCIL A	ACTIONS
Approach 1 Encourage travel behaviour change by	Action 1.1	Make better provision for cyclists and pedestrians in streets and open spaces to support increased take-up of walking and cycling as an alternative to car travel for short (5 min.) and medium (15 min.) journeys
supporting alternative travel modes	Action 1.2	Improve the number and amenity of pedestrian and cyclist links between neighbourhoods and key attractions. Refer to <i>Knox Pedestrian Plan, Knox Bicycle Plan</i> and <i>Knox Integrated Transport Plan</i>
	Action 1.3	Improve pedestrian and cyclist connections to public transport nodes, by improving the safety and comfort of the journey and facilities at waiting points – e.g. at bus stops, road crossings – through increased seating, shelter, safety, shade
Approach 2 Make walking a viable choice for residents	Action 2.1	Walking trips to schools, shops and community facilities by the footpath to be made safe and more accessible with the introduction of green neighbourhood streets See Section 5 <i>Liveable Street Design Guidelines</i>
	Action 2.2	The 10 hotspots identified in the Knox Pedestrian Plan should be extended to include all key pedestrian generators such as schools and shops
	Action 2.3	Align capital and maintenance works with the <i>Knox</i> Footpath and Shared Path Asset Management Plan
	Action 2.4	Ensure a separation (via nature strips and planting) between the carriageway and pedestrian pathways to increase comfort and safety
	Action 2.5	Implement Knox walkable school programs and support programs, for example a 'walking school bus' program
		Refer to <i>Knox Pedestrian Plan, Knox Bicycle Plan</i> and Knox Integrated Transport Plan
	Action 2.6	Ensure adequate pedestrian lighting in key pedestrian streets as identified in the <i>Knox Pedestrian Plan</i>
	Action 2.7	Implement footpaths on at least one side of the street and preferable both sides of the street

To improve the ability of streets to cater for an increase in sustainable transport options in Knox.

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
1	Traffic and Transport		• Refer to <i>Knox Pedestrian Plan</i> , <i>Knox Bicycle Plan</i> and <i>Knox</i> <i>Integrated Transport Plan</i> success indicators
2	Traffic and Transport		• Refer to Knox Pedestrian Plan, Knox Bicycle Plan and Knox Integrated Transport Plan success indicators
1	Traffic and Transport Sustainability		• Refer to <i>Knox Pedestrian Plan</i> , <i>Knox Bicycle Plan</i> and <i>Knox</i> <i>Integrated Transport Plan</i> success indicators
2	Traffic and Transport		 Implement 3 green neighbourhood streets in 5 years
3	Traffic and Transport		 10 hotspots improved and additional hotspots identified
2			 Asset Strategy, Footpath and Shared Path Asset Management Plan
3	Traffic and Transport	VicRoads	
2	Traffic and Transport	Community	• Refer to Knox Pedestrian Plan, Knox Bicycle Plan and Knox Integrated Transport Plan success indicators
2	Traffic and Transport	 Service Authority eg. SP Ausnet 	
1	Construction Group and	Traffic and Transport	All newly constructed roads have at least one footpath
	Urban planning		

6.3 STREETS FOR TRAVEL ACTION PLAN

APPROACH		COUNCIL ACTIONS			
Approach 3 Make cycling a viable	Action 3.1	Design and implement a network of commuter bike routes in accordance with the recommendations of the <i>Knox Bicycle Plan</i>			
choice for residents	Action 3.2	Indicate entrances to bike paths through signage or artwork, and implement signage on bike paths with distance markers to destinations such as shopping centres			
Approach 4	Action 4.1	Provide road pavement treatments to highlight a non-car dominated space and encourage drivers to slow down			
Encourage pedestrian use of residential streets by reducing vehicle speed	Action 4.2	Ensure carriageway widths for vehicles meet the minimum safety and legislative requirements			
Approach 5	Action 5.1	Provide accessible crossings to all streets			
Provide accessible footpaths and					
crossings	Action 5.2	Determine appropriate widths of footpaths to facilitate pedestrian movement in commercial and residential environments (or example, minimum 1.4 metres for residential streets and 2.5 metres for commercial streetscapes), as defined in the <i>Footpath and Shared</i> <i>Path Asset Management Plan</i>			
	Action 5.3	Provide seats with backs and arm rests along streets and at pedestrian pause points			
Approach 6	Action 6.1	Identify streets in residential and commercial areas which			
Implement shared use zones and home zones in streets to		have the capacity to become shared use zones and prioritise for implementation			
promote walking and cycling	Action 6.2	Identify through the <i>Knox Pedestrian Plan</i> those streets that are likely candidates for home zone treatment and prioritise			

To improve the ability of streets to cater for an increase in sustainable transport options in Knox.

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
1	Traffic and Transport	Bicycle Victoria	Increase in the number of seats on streets
3	Traffic and Transport	 Bicycle Victoria Strategic Planning Marketing and Communications Sustainability 	
3	Project Delivery	Traffic and Transport	
3	Project Delivery	Traffic and Transport	
1	Project Delivery	Traffic and TransportHealthy AgeingCommunity Wellbeing	
3	Construction Group	Traffic and TransportHealthy AgeingCommunity Wellbeing	
1	Sustainability Parks services	Traffic and TransportHealthy AgeingCommunity Wellbeing	
2	Traffic and Transport	Bicycle Victoria	 Shared use zones implemented in key pedestrian priority locations in commercial and residential areas
2	Traffic and Transport	Community WellbeingSustainabilityHealthy Ageing	 Candidates for home zones identified, prioritised and 2 home zones implemented in 5 years

6.3 STREETS FOR TRAVEL ACTION PLAN

COMMUNITY ACTIONS Communities can contribute to	Links to Council	Key partner community	Measure of success for
this goal by: Home Zones	Action Nos.	groups (if any)	communityImplementation of prototype
Communities to work with Council to implement a prototype home zone			 Increase in pedestrian activity and social connectivity within home zone area
			 Increase in perceptions of safety
Shared Use Zones	6		Implementation of prototype
Communities to work with Council to implement shared use zones			 Increase in pedestrian activity and social connectivity within home zone area
			 Increase in perceptions of safety
Walking School Bus		Partner - Travel	Increase in number
Communities to promote and utilise walking and cycling to school programmes		Smart, see www. travelsmart. gov.au/schools/ schools2.html	of pedestrians and cyclists
Pause Points			Number of people
Communities to promote and utilise pause points			observed using pause points

To improve the ability of streets to cater for an increase in sustainable transport options in Knox.

6.4 STREETS FOR THE ENVIRONMENT ACTION PLAN

APPROACH	COUNCIL ACTIONS	
Approach 1 Increase sustainable water use, capture and treatment in	Action 1.1	Incorporate Stormwater Quality Improvement (SQUID) and Water Sensitive Urban Design (WSUD) – into all new streets as per current best practice guidelines as published by Melbourne Water, CSIRO and Monash University
streets	Action 1.2	Coordinate SQUID/WSUD works with <i>Knox Road Asset</i> <i>Management Plan</i> and capital works programme to ensure incorporation into all works
	Action 1.3	Implement SQUID/WSUD through the street network as opportunities arise, based on the <i>Liveable Streets Design Guidelines</i>
	Action 1.4	Capture stormwater on a street scale and allow residents to use it

To improve environmental sustainability of streets in Knox.

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
1	Engineering, Draft WSUD plan	SustainabilityPlace ManagementAsset Management	• Ensure links to WSUD strategy, identify opportunities for water reuse and recycling
1	Engineering	SustainabilityPlace ManagementAsset Management	• Ensure links to WSUD strategy, identify opportunities for water reuse and recycling
1	Engineering	SustainabilityPlace ManagementAsset Management	• Ensure links to WSUD strategy, identify opportunities for water reuse and recycling
3	Engineering	SustainabilityPlace ManagementAsset Management	• Ensure links to WSUD strategy, identify opportunities for water reuse and recycling

6.4 STREETS FOR THE ENVIRONMENT ACTION PLAN

APPROACH

COUNCIL ACTIONS

Approach 2	Action 2.1	Revise the <i>Knox Street Tree and Nature Strip Policy</i> to include recommendations from the:
Improve biodiversity and habitat values through enhancement of Knox's street vegetation		Neighbourhood Character Study; Sustainable Environment Strategy; Sites of Biological Significance; Net Gain Policy; Native Vegetation Framework; Draft Native Vegetation Generic Integrity Policy; Indigenous Roadside Vegetation programme; WSUD Strategy; Revegetation Plan; Knox Heat Island Effects Study
		Develop a Street Tree Management Plan
		Develop a Street Tree Selection Tool
		Conduct a Street Tree Audit to feed into the plans above
		Develop a Nature Strip Planting Application form and process
	Action 2.2	Revise the Knox Street Tree and Nature Strip Policy to include:
		 A valuation method for street trees that includes economic, habitat and amenity values
		 Recommendations from the Bushfires Royal Commission
	Action 2.3	Increase street tree planting across the municipality to provide shade and reduce summer heat gain
	Action 2.4	Review Council's street lighting policy to preserve views of the night sky and respond to the needs of nocturnal species. This should take into account community safety issues and Australian standards

To improve environmental sustainability of streets in Knox.

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
1	Sustainability	 safety risk and well being 	Revise the Knox Street Tree and
	Parks	 asset preservation and urban planning 	Nature Strip Policy by 2012

1	Sustainability	• Parks	 Incorporated into revised Knox Street Tree and Nature Strip Policy
1	Parks	Sustainability	 Increase in number of trees planted annually
3	Engineering	 Sustainability 	 Review Council's street lighting policy by 2012

6.4 STREETS FOR THE ENVIRONMENT ACTION PLAN

APPROACH	COUNCIL A	ACTIONS
Approach 3	Action 3.1	Promote the development of edible streetscapes within the <i>Street Tree and Nature Strip Policy</i>
Design and implement environmentally sustainable streetscapes	Action 3.2	Design and implement one edible street prototype
	Action 3.3	Use appropriate vegetation in conjunction with maintenance in fire prone areas to reduce fire risk and balance environmental outcomes
	Action 3.4	Develop a palette of materials for street construction that will enhance the environmental sustainability of the street. Incorporate this materials palette into the <i>Liveable Streets</i> <i>Design Guidelines</i> and apply to all new street works
	Action 3.5	Investigate the feasibility of wind collectors within public recreational spaces and in streets
	Action 3.6	Implement solar lighting for pedestrian path and shared path lighting in neighbourhood streets
	Action 3.7	Educate residents about the contribution that street trees make to environmental sustainability and involve them in programs to care for their local street trees. Undertake through a "care for your street tree" program that distributes brochures about how to care for your street tree to each resident
	Action 3.8	Educate residents regarding safe use of treated stormwater. Identify opportunities where streets can contribute to wildlife corridors or connect sites of biological significance. Particularly important in foothills area close to the national parks
	Action 3.9	Use porous paving adjacent to significant trees when constructing streets and repairing footpaths

To improve environmental sustainability of streets in Knox.

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
 2	Sustainability	• Parks	
 2	Sustainability	 Local residents & fruit growers Parks Services 	 Design and implement one edible street prototype 2 edible streets created by the
		• Faiks Services	community in 5 years
3	Sustainability	Community safety,	
		Emergency management	
		• CFA	
2	Sustainability	Parks	Installation of tree pits for
		Engineering	water quality, tree health and drainage solutions
		Asset Protection	alallage selations
3	Sustainability	Recreation	
 2	Sustainability	Integrated Transport,	
2	Sustainability	Travelsmart	
 1	Sustainability		Implement a care for your
I		City Planning	 Implement a care for your street tree program
	Parks Services		
 2	Project Delivery	Sustainability	
		City Planning	
	Engineering Infrastructure		

6.4 STREETS FOR THE ENVIRONMENT ACTION PLAN

COMMUNITY ACTIONS Communities can contribute to this goal by:	Links to Council Action Nos.	Key partner community groups (if any)	Measure of success for community
Participation Getting involved when their street is being redesigned, and working with Council to implement improvements			 Greater participation and in put from residents during design process
Instigation Initiating a local activity in their street such as Gardens for Wildlife or edible streetscapes		 Gardens For Wildlife Knox Environment Society 	
Maintenance Care for their street nature strips and vegetation through maintaining their street tree, not parking on nature strips and disposing of rubbish responsibly			• Reduction in the number of complaints and fines in relation to rubbish dumping and parking on nature strips
Stormwater use Utilisation of detained water from WSUD treatments for residential purposes such as gardening and car washing	1.4		 Number of WSUD treatments that are being accessed

To improve environmental sustainability of streets in Knox.

6.5 STREETS AND THE ECONOMY ACTION PLAN

APPROACH	COUNCIL ACTIONS		
Approach 1 Build the capability of the residents to	Action 1.1	Create and encourage ownership and pride. Support and allow residents to plant their nature strips	
work collectively to 'populate' the streets to make it a desirable, healthy place to live and work	Action 1.2	Enable appropriate community action through education programs, distribution of guidelines for street based activities, provision of Council grants to groups and in-kind support	
	Action 1.3	Revise Knox Street Tree and Nature Strip Policy to include a valuation method for street trees' economic, habitat and amenity. This will help promote the economic value of street trees and how they contribute to residential desirability	
	Action 1.4	Targeted street tree planting: streets ranked at a higher priority if they have no street trees currently, if the residents in the street approach Council as a collective, or if the planting will have a large impact on the surrounding area	
	Action 1.5	Encourage new developments to implement well designed and appropriate threshold and gateway treatments to residential areas to increase desirability. Refer to <i>Liveable</i> <i>Street Design Guidelines</i>	
Approach 2 Build capacity of	Action 2.1	Council to support traders to develop cohesive traders associations in order to work together to improve their shopping	
the commercial and retail 'people' to animate the refreshed	Action 2.2	Based on trader interest, willingness and drive, develop a priority plan for refreshing shopping streets	
streetscape	Action 2.3	Develop templates toolbox that can be used by traders to develop ideas for enhancing the commercial and pedestrian capacity of their shopping street	
	Action 2.4	Develop a matching funding program for shopping streets and traders associations	

To build and advocate for quality streets that attract, retain and enhance business and workers, families and communities.

	Council	Internal & External	
PRIORITY	Responsibility	Stakeholders	MEASURE OF SUCCESS
2	Parks Services	SustainabilityAsset ProtectionMarketing and communication	 Visible signs of community maintaining their nature strips
2	Traffic and Transport	CommunityResidentsCommunity Wellbeing	 Increase in community street groups
1	Sustainability Parks Services	ResidentsVicRoads	 Increased resources in the 2010/11 budget to implement a 'no net loss' of street tree numbers Achieve overall increase in trees
1	Parks Services	Strategic PlanningSustainabilityVicRoads	 Increased number of streets being planted because of community initiated action, and increase in treed streets
2	Strategic Planning City Planning	Housing developers	All new gateway elements are designed according to <i>Liveable</i> <i>Street Design Guidelines</i>
1	Economic Development	Parks ServicesSustainability	 Trader associations for each shopping precinct
 2	Place Management	Economic Development	Priority plan developed
2	Economic Development	Traders	 Tool box developed and communicated to traders
3	Economic Development	Traders	Programme developed

6.5 STREETS AND THE ECONOMY ACTION PLAN

APPROACH	COUNCIL A	ACTIONS
Approach 3 Refresh streets in activity centres and	Action 3.1	Assess the potential for undergrounding powerlines in key shopping areas and defined Activity Centres to improve the liveability of selected streets and areas
neighbourhood shopping strips to enable improved economic outcomes	Action 3.2	Implement minimum amenity standards including shade, bins, seating, threshold treatments and pedestrian pavements to retail and business precincts, progressively improving the public realm for all
	Action 3.3	Establish car park design standards, based on <i>Liveable Streets Design Guidelines</i> and <i>Knox WSUD Policy</i> , and apply to all public car parks (including those associated with retail and commercial developments)
	Action 3.4	Make allowances for street trading (goods for sale, A-frames), particularly on wide paths in shopping areas. Allowance of 1.2m clear spaces along building frontage as required by local law
Approach 4 Improve economic longevity of street pavements through appropriate street tree planting	Action 4.1	Plant appropriate street trees that provide shade to road pavements and help increase their longevity through reduced exposure to heat
Approach 5 Promote walking	Action 5.1	Enact green neighbourhood streets to increase walking and cycling in local areas
and cycling activity in Knox streets to reduce community health costs and	Action 5.2	Increase pedestrian and cycle amenity to make journeys more desirable with a priority on links to major destinations points such as open space, community hubs, schools and shopping precincts
increase well-being	Action 5.3	Promote street and neighbourhood community events to build a local sense of identity and connection and develop clear and easy procedures for community members to run these events

To build and advocate for quality streets that attract, retain and enhance business and workers, families and communities.

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
2	Place Management	Electrical suppliersTraders	 Undergrounding of powerlines in key activity centre main streets undertaken by 2015
2	Place Management	DevelopmentTraders	 Precinct has adequate street trees, footpaths, pedestrian seating, bins and cycle hoops
2	Project Delivery	TradersParks ServicesSustainability	 All new public car parks to achieve minimum standards of: shade trees, appropriate WSUD treatments, and pedestrian paths
2	Local laws	 Economic Development City Planning Traders Community 	 All traders have applied for a street trading permit and all retail areas have 1.2m clear space along building frontage
2	Parks Services	SustainabilityCity PlanningStrategic Planning	Ensure street trees provide shade to road pavements where possible
3	Traffic and Transport	Community,Traders	 Implement 3 green neighbourhood streets in 5 years
1	Sustainability	Traffic and Transport	 Number of kilometres of improved amenity along paths
2	Economic Development Community Wellbeing	 Community Traders Marketing and communication; Culture and leisure Sustainability 	Community initiated street events increase

6.5 STREETS AND THE ECONOMY ACTION PLAN

COMMUNITY ACTIONS Communities can contribute to this goal by:	Links to Council Action Nos.	Key partner community groups (if any)	Measure of success for community
Residents Initiated Activities	1		 Community initiated street tree planting increased
Communities identifying opportunities to improve the nature strips in their local streets			 Community initiated nature strip plantintg and maintenance increased
Trader Initiated Activities	3 • Gardens For Wildlife	 Increase in shop frontage upgrades 	
Traders can improve their shopping area by upgrading their shop frontages		 Knox Environment Society 	nontage apgrades
Traders to develop cohesive traders associations in order to work together to improve their shopping area	2		 Trader associations for each shopping precinct

To build and advocate for quality streets that attract, retain and enhance business and workers, families and communities.

6.6 SAFE STREETS ACTION PLAN

APPROACH		ACTIONS
Approach 1 Decrease vehicle speeds in residential	Action 1.1	Work with LATM (Local Area Traffic Management) plans to improve problematic streets with treatments that will reduce vehicles speeds
streets and retail environments	Action 1.2	Identify potential shared use zones and implement a program of pilot studies into different areas. For example short streets, school streets, residential courts, transport hubs and within key Activity Centres See also Theme: Streets for Travel
	Action 1.3	Ensure all new and upgraded streets are designed to reduce vehicle speed and increase pedestrian safety
Approach 2 Improve pedestrian	Action 2.1	Implement footpaths to at least one side of streets and preferably to both sides See also Theme: Streets for Travel
access and amenity in streets to provide equitable space for non-vehicle movement	Action 2.2	Enact green neighbourhood streets to promote bike and pedestrian travel See also Theme: Streets for Travel
	Action 2.3	Implement safety lighting as set out in the <i>Knox</i> <i>Pedestrian Plan</i> with a review to ensure appropriate sustainability and environmental outcomes
	Action 2.4	Apply CPTED (Crime Prevention Through Environmental Design) principles to all new capital works projects and public transport structures
	Action 2.5	Encourage residents to improve the safety of their homes, through clear sightlines between street and front door
	Action 2.6	Expand the 'Mothers Living Well' program across all suburbs. This program encourages walking and playing in public spaces
	Action 2.7	Ensure adequate maintenance of footpaths, as per <i>Knox</i> Footpath and Shared Path Asset Management Plan

To improve the safety of Knox's streets for pedestrians, cyclists and motorists.

PRIORIT	Y Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
1	Project delivery	Local communityTraffic and transportPublic transport authority	 Traffic counts showing speed reduction and reduced accidents
1	Engineering, Sustainability, Assets, Strategic Planning,	 Local community, Parks 	 Increased number of shared use zones
	Traffic and transport		
3	Planning, Subdivisions, Engineering	 Planning permit applicants sustainability	 No new streets have ongoing problematic speeding issues
2	Project Delivery	Construction GroupTraffic and Transport	Increase in footpaths
1	City Planning Sustainability Project delivery Traffic and transport	Parks ServicesStrategic Planning	 Increase in pedestrians and cyclists
2	Engineering		 Priority lighting projects in <i>Knox Pedestrian Plan</i> undertaken
2	Community Safety Capital works project managers	Local community	 Reduction in reported crimes and complaints to police and safer communities group within Council
3	Community Safety	Local communityMarketing and communications	 Reduction in reported crimes and complaints to police and safer communities group within Council
2	Community and Engineering, KCHS development	Local community	 Each suburb having their own Mothers Living Well program
1	Asset Operations, Parks, Construction group	Local community	 Reduction in complaints to Council and increased pedestrian activity

6.6 SAFE STREETS ACTION PLAN

APPROACH	COUNCIL ACTIONS		
Approach 3	Action 3.1	Educate residents on legal parking options, ie on the road, not on the footpath or nature strips	
Provide safe areas for parking of vehicles			
	Action 3.2	Mark parking lanes on wider streets	
	Action 3.3	Ensure all new streets provide minimum width for car parking with car parks housed in landscape outstands. Refer to <i>Liveable Streets Design Guidelines</i>	
Approach 4 Create community destinations – reasons to be on the street	Action 4.1	Work with communities and planning permit applications to increase the number of interesting destinations in residential streets, such as gardens of interest, artwork, places for play, meeting places and pause points	

To improve the safety of Knox's streets for pedestrians, cyclists and motorists.

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
2	Traffic and transport and Local laws	 Local community, VicRoads Marketing and communications 	 Vehicles parked legally and safely Minimal ongoing use of nature strips for residential parking
1	Traffic and transport, Project delivery Local laws	VicRoads	Fewer complaints recorded
1	City Planning	 Planning permit applicants 	• Streets designed in accordance with <i>Liveable Streets Design Guidelines</i>
2	City Planning Traffic and transport Sustainability Community Wellbeing	 Local community Planning permit applicants culture and leisure 	 Increased pedestrian activity on streets
6.6 SAFE STREETS ACTION PLAN

COMMUNITY ACTIONS Communities can contribute to this goal by:	Links to Council Action Nos.	Key partner community groups (if any)	Measure of success for community
Community reporting	1.1, 1.3, 3.1		 Increase in community reporting of issues
Community members identifying opportunities for improved driver and pedestrian safety			reporting or issues
Neighbourhood watch			Active neighbourhood
Becoming active in neighbourhood watch type activities			watch groups across Knox
Activities	4.1		Increase activity in
Actively using the street			streets
Maintenance	2.5, 2.7		Less reported
Educate and encourage residents to keep footpaths clear of foliage			complaints about private vegetation
Gardens	2.5	Gardens for	Increase in gardening
Encourage garden beautification and blending into streetscape to provide interest for pedestrians		Wildlife	as a recreational activity

GOAL

To improve the safety of Knox's streets for pedestrians, cyclists and motorists.

6.7 STREETS FOR THE COMMUNITY ACTION PLAN

APPROACH	COUNCIL ACTIONS		
Approach 1 Design streets to	Action 1.1	Develop a priority list of achievable home zones in Knox based on current list provided by the <i>Knox Pedestrian Plan</i> See also Theme: <i>Streets for Travel</i>	
enable community activity	Action 1.2	Based on community interest and willingness to participate develop a prototype for a home zones See also Theme: <i>Streets for Travel</i>	
	Action 1.3	Initiate community consultation of the green neighbourhood streets in identified priority suburbs. Green neighbourhood streets primary function is to increase community use of key streets in each Knox suburb	
	Action 1.4	Develop templates and toolbox that can be used by residents to develop ideas for enhancing the community capacity of their street	
	Action 1.5	Promote dog walking in neighbourhood streets. Dog walking promotes community socialisations and improves mental and physical health of the community. Refer to the <i>Knox Domestic Animal Management Plan</i>	
Approach 2 Support community	Action 2.1	Work with community groups to establish local street and neighbourhood events focused on creating streets as community spaces	
initiatives in streets		Develop a simplified process and checklist for the community	
	Action 2.2	Support and promote specific community-based programs including Gardens for Wildlife, Mothers Living Well and edible streetscapes	
		Council to provide training, modest resources, education and publications	
	Action 2.3	Undertake 3 community arts projects annually within local streets, based on the Knox Placemakers community artists model	
	Action 2.4	Develop a matching community grants program and guidelines which provides matching funding and resourcing to improve their street	
Approach 3	Action 3.1	Work with community groups and residential street groups to create edible streets and private edible gardens	
Streets as places to produce, harvest and share food		consistent neighbourbood character	

Note: all actions need to contribute to consistent neighbourhood character

GOAL

To increase community pride and action in Knox streets.

PRIORITY	Council	Internal & External	MEASURE OF SUCCESS
2	Responsibility Traffic and Transport	 Stakeholders Sustainability Strategic Planning 	 Priority list of Home zones by 2012
1	Traffic and Transport	 Strategic Planning Sustainability Strategic Planning 	Two home zone prototypes implemented in 5 years
1	Traffic and Transport Sustainability	 Parks Services Project Delivery	 By 2012 communities have been involved in the planning and design of at least 3 green neighbourhood streets
2	Community Wellbeing	SustainabilityGardens for WildlifeCulture and leisure	• Templates and toolbox available to the community by 2012
1	Local Laws		 Increased dog walking in residential streets
2	Community Wellbeing Traffic and Transport	 Safety, Risk and Wellbeing , Culture and leisure Sustainability 	 Streamlined process and checklist for the community street events by 2012
2	Community Wellbeing	SustainabilityMarketing and communications	 Increased number of community base programs in Knox
1	Sustainability Community Wellbeing	Community GroupsCulture and leisure	3 community arts projects annually
4	Community Wellbeing	Sustainability	Matching community grants program established by 2015
3	Sustainability	Parks Services	 Design and implement one edible street prototype 2 edible streets created by the community in 5 years Increase in private edible gardens

6.7 STREETS FOR THE COMMUNITY ACTION PLAN

COMMUNITY ACTIONS	Links to	Key partner	Measure of
Communities can contribute to this goal by:	Council Action Nos.	community groups (if any)	success for community
Community Groups	1.2, 2.1		
Develop a local community group of interested residents to work with Council to identify opportunities to improve community spaces and activities in their streets			
Community involvement in street design	2.1, 3.3		
Getting involved when their street is being redesigned, and working with stakeholders and Council to implement improvements			
Initiate a local activity		Gardens for	Increase community
In their street such as;		Wildlife • Knox	networks;
Gardens for Wildlife		Environment	 Increased activity in streets;
Edible streetscapes		Society	A feeling of greater
Walking tour of edible gardens		 Friends groups 	sense of belonging
Walking tour of Gardens for Wildlife			
 'Walking pool system' with people in your street. 			
• Encourage a 'count the birds competition' in your street			
 Develop a 'barter with your neighbours system' e.g.walk their dogs in return for lemons off their tree 			
• Run a garden competition in			
your street			
Parent supervised play groups in local playgrounds			
 Adopt a street tree program 			
Community Newsletter			
Develop a community newsletter of local activities			

GOAL

To increase community pride and action in Knox streets.

6.8 STREETS FOR INFRASTRUCTURE ACTION PLAN

APPROACH	COUNCIL ACTIONS		
Approach 1 Improve the coordination of street	Action 1.1	Develop a priority plan for undergrounding of overhead power lines to improve visual amenity in main shopping streets and built up residential areas. Priority plan should be based on feasibility and value for money assessment	
design, works and maintenance between Council, state authorities and utility providers	Action 1.2	Develop a priority plan for undergrounding of overhead power lines in fire hazard areas. This requires coordination with relevant authorities and subject to State Government review and Bushfire Royal Commission recommendations	
providers	Action 1.3	Coordinate between service authorities and Council's works programs to ensure works are undertaken in the best sequence	
Approach 2	Action 2.1	Periodic reviews of all capital works to ensure best value for money and recommendations made to improve	
Improve the		•	
coordination of street design, works and maintenance across Council	Action 2.2	Ensure all works identified in the <i>Knox Road and Footpath</i> and <i>Shared Path Asset Management Plans</i> are reviewed on a yearly basis of with this <i>Plan</i>	
Approach 3	Action 3.1	Develop a priority street renewal plan incorporating the Liveable Streets Design Guidelines where appropriate	
Improve the quality of street design			
	Action 3.2	Ensure maintenance principles and requirements inform the design process and final physical outcomes	
	Action 3.3	Build the missing footpath links identified in the <i>Knox</i> <i>Pedestrian Plan</i>	
	Action 3.4	Ensure consistency of speed control measures and other road treatments across the municipality	

GOAL

Coordinate street design and maintenance to balance infrastructure and community needs.

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
4	Place Management	SustainabilityPower utilities	• Undergrounding priority plan by 2015
2	Sustainability	State Government,power utilities	• All power lines in high hazards fire ares to be under grounded by 2015
1	Capital works program managers		
Ongoing	Capital works program		
1	Traffic and Transport		 Missing links footpaths built as per Knox Pedestrian Plan action list
2	Sustainability	Strategic Planning	
1	Capital works program managers	Parks ServicesAsset ProtectionOperations Centre	
1	Traffic and Transport		
1	Project Delivery	SustainabilityTraffic and transport	

6.8 STREETS FOR INFRASTRUCTURE ACTION PLAN

APPROACH		ACTIONS
Approach 4	Action 4.1	Design of new streets must incorporate all requirements such as road width and adequate nature strip width for
Make sustainability a priority for future infrastructure works		required trees. A holistic approach to the design process
	Action 4.2	Facilitate the consideration of integrated water managing systems (ie SQUID and WSUD) in all new and retrofitting streetscape works. Refer to draft <i>Knox WSUD Plan</i>
Approach 5	Action 5.1	Ensure the design and location of on-street car parking is responsive to the needs of pedestrians and cyclists and
Ensure a balanced approach to on-street car parking		the space requirements for street tree and nature strip planting. Refer to Knox Planning Policy in regards to car parking requirements on streets

GOAL

Coordinate street design and maintenance to balance infrastructure and community needs.

PRIORITY	Council Responsibility	Internal & External Stakeholders	MEASURE OF SUCCESS
1	Urban Planning, Traffic and Transport Sustainability	Planning permit applicants	All new streets designed to enable optimum street tree growth
1	City Planning Project Delivery		
 1	Urban Planning	 Planning permit applicants 	

6.8 STREETS FOR INFRASTRUCTURE ACTION PLAN

COMMUNITY ACTIONS	Links to	Key partner	Measure of
Communities can contribute to	Council	community	success for
this goal by:	Action Nos.	groups (if any)	community
Reporting promptly any issues			

Reporting promptly any issues with their street to Council

Work with Council in the maintenance of their streets. For example "adopt a street tree program" and mowing their nature strip

GOAL

Coordinate street design and maintenance to balance infrastructure and community needs.



REFERENCES



KNOX CITY COUNCIL REFERENCES

Cardno Grogan Richards, 2009, *Analysis of the Heat Island Effects*, section 5.3, for Knox City Council, KCC, Melbourne.

Context, 2008, Knox City Council: 2008-2018 Sustainable Environment Strategy, KCC Melbourne

Crocker, R and Associates, EDGe Environmental Design Pty Ltd and Connell Wagner 2004, *Knox Open Space Plan 2004-2014*, Volume 1, Volume 2, and Volume 3, Knox City Council, Melbourne.

David Lock Associates in association with PBAI, 2005, Knox Pedestrian Plan, KCC, Melbourne

KCC – see Knox City Council

Knox City Council, 2001, *Knox 2001/2010 Sustainable City Strategy*, KCC, Melbourne. (reviewed by Context(2008))

Knox City Council 2003, *'Knox City Council Streetscape Policy'*, Version 2, Knox Policy, KCC, Melbourne.

Knox City Council 2003, Knox Urban Design Framework 2020, KCC, Melbourne.

Knox City Council, 2004, Knox Integrated Transport Plan, KCC, Melbourne.

Knox City Council 2004, Knox Youth Plan 2005-2009, KCC, Melbourne.

Knox City Council, 2005, Footpath and Shared Path Asset Management Plan, KCC, Melbourne.

Knox City Council 2005, Knox Central Urban Design Framework July 2005, KCC, Melbourne.

Knox City Council 2005, *Off to a flying start, an early years plan for families with children aged from birth to twelve years, Snapshot 2005-2008*, KCC, Melbourne.

Knox City Council, 2006, Knox City Council Road Management Plan, KCC, Melbourne.

Knox City Council, 2007, *Knox Planning Scheme, 'Local Planning Policies - Clause 22.01 (Dandenong Foothills Policy)'*, KCC, Melbourne.

Knox City Council 2007, Knox Vision 2025, KCC, Melbourne.

Knox City Council, 2007, Road Asset Management Plan March 2007, KCC, Melbourne.

Knox City Council, 2007, Tree Removal and Pruning Handout, KCC, Melbourne.

Knox City Council, 2008, Knox Bicycle Plan Review July 2008, KCC, Melbourne.

Knox City Council, 2008, 'Local Planning Policies - Clause 22.08, Draft August 2008', Knox Planning Scheme, KCC, Melbourne.

Knox City Council, 2009, 'Advanced Street Tree Replacement Program', *Knox Policy*, KCC, Melbourne.

Knox City Council, 2009, Knox Healthy Ageing Strategic Plan 2009-2013, KCC, Melbourne.

Knox City Council, 2009, Knox Planning Scheme Amendment C70, *MSS (municipal strategic statement) review*, panel report, August, 2009, KCC, Melbourne.

Knox City Council, 2010, 'Water Sensitive Urban Design (WSUD)- Interim Policy' Version 1, *Knox Policy*, KCC, Melbourne.

Knox City Council, 2010, *Arts & culture, 'Placemakers Community Artists'* KCC website, accessed 18/10/2010, < http://www.knox.vic.gov.au/page/page.asp?Page_id=660&h=1>

Mike Scott & Associates with Lisa Riddle Planning Services, John Curtis Pty Ltd, Tract Consultants Pty Ltd, 1999, *City of Knox* Neighbourhood Character Study, City of Knox, Melbourne

Murphy Design Group, KLM Development Consultants, 2002, *Water Sensitive Urban Design Guidelines for the City of Knox*, City of Knox, Melbourne

Robin Crocker & Associates, EDGe Environmental Design Pty Ltd, Connell Wagner, 2004, *Knox Open Space Plan 2004–2014*, Volume 1, KCC, Melbourne

OTHER REFERENCES

ABS – see Australian Bureau of Statistics

ACF - see Australian Conservation Foundation

Appleyard D, 1981, *Liveable Streets*, Berkeley, California: University of California Press, 1981.

Australian Bureau of Statistics, 2006, 'Knox (C) (Local Government Area), viewed June 2010, http://www.abs.gov.au/websitedbs/d3310114.nsf/home/census+data

Australian Conservation Foundation, 2010, 'Consumption Atlas', accessed 12 October, 2010 < http://www.acfonline.org.au/consumptionatlas/>

Austroads, 1999, *Guide to Traffic Engineering Practice – Part 14: Bicycles.* Austroads: Sydney, NSW.

Alan Baxter & Associates. & Commission for Architecture and the Built Environment (Great Britain) & Great Britain, Office of the Deputy Prime Minister, 2002, *Paving the way : how we achieve clean, safe and attractive streets / a research project commissioned by CABE and ODPM; produced by Alan Baxter & Associates in association with EDAW* Thomas Telford, London :

Dixon, J., & Broom, D. (Eds.). 2007, *The seven deadly sins of obesity: how the modern world is making us fat Sydney: University of New South Wales Press.*

Burden D, 2001, *Building Communities with Transportation*, Distinguished lecture presentation, 8/01/2001, Transportation Board, Washington, USA

Burden D, 2006, Urban Street Trees, 22 Benefits, Specific Applications., Walkable Communities, inc.

City of Port Phillip, 2009, *Fact Sheet, St Kilda Road,Tree Enhancement Program*, City of Port Phillip, Melbourne.

CABE – see Commission for Architecture and the Built Environment

City of Yarra, 2010, Bicycle strategy 2010–2015, City of Yarra, Melbourne

City of Vancouver, Engineering Services 2004, Crown Street, *sustanible Streetscapes and Fish Habitat Enhancement Project*, Vancouver, Canada

Commission for Architecture and the Built Environment 2007, *Paved with gold, the real value of good street design*, CABE, London.

Commission for Architecture and the Built Environment 2007, *This way to better streets: 10 case studies on improving street design*, CABE, London.

COA - see Commonwealth of Australia

Commonwealth of Australia, principal authors Woodcock S, Shackel S, Reardon S, 2008, Your home technical manual, Section 2.3, *Sustainable communities*, pg.29, Fourth edition, Commonwealth of Australia, < http://www.yourhome.gov.au/technical/pubs/fs23.pdf>

Communities and Local Government 2003, *Better Streets, Better Places Delivering Sustainable Residential Environments, Communities and Local Government*, London.

Darebin City Council, September 1995 'Green Streets' Streetscape Strategy, City of Darabinm Melbourne

Darebin City Council, 2005, *High Street Study, Urban Design Framework*, City of Darebin, Melbourne, (pp. 1-6.)

DFT – see Department for Transport

Department for Transport, 2005, 'Home Zones' Challenging the future of our streets', Department for transport, London

Department for Transport, 2007, *Manual for Streets: a summary*, Department for Transport, London.

Department For Transport, 2007, Manual For Streets, Thomas Telford, London

Department of Victorian Communities, 2006. 'Indicators of Community Strength at the Local Government area in Victoria' Oversampled Data for Bayswater, Boronia and Rowville for Knox City Council

DPCD – See Department of Planning and Community Development

Dumbaugh, E. 2005. 'Safe Streets, Livable Streets'. Journal of the American Planning Association, 71, 3, pg283

Fench K., Major R., Hely K., 2005, Biological Conservation 121, School of Biological Sciences, Institute for Conservation, Biology, University of Wollongong, Terrestrial Ecology, Australian Museum, Sydney

(the) Forestry Source, 2006, 'Study Finds Transportation Policy Regarding Trees Outdated', Vol 11, No. 8, pg13, August 2006

Hart, J. 2008. Driven to Excess: Impacts of Motor Vehicle Traffic on Residential Quality of Life in Bristol, UK. Masters Thesis, University of the West of England, Bristol. Available from http://www. livingstreets.org.uk

cms/downloads/0-driven_to_excess_full_report.pdf, accessed on 1 Dec 2008

Hassell, 2007, City of Salisbury Landscape Plan, City of Salisbury, Adelaide

Kavanagh A, Goller J,King T,Jolley D, Crawford D, and Turrell G, 2005, Urban area disadvantage and physical activity: a multilevel study in Melbourne Australia, Journal of Epidemiol Community Health, 59: 934*-940.

Department of Communities, Queensland Government, 2010, Kelvin Grove Urban Village Design Guidelines, 'Section 2', Brisbane, pp 5-7

Landcom, 2010, Street design guidelines fact sheet, Landcom, New South Wales State Government.

Landcom, 2010, Street design guidelines, Landcom, New South Wales State Government.

Layman R, 2009, With "transit-oriented development" urban design and/or planning is destiny,

OTHER REFERENCES

Washington, USA, <http://urbanplacesandspaces.blogspot.com/2009/08/with-transit-oriented-development-urban.html>, Tuesday, August 04, 2009.

McNichol T, 2004, Roads Gone Wild, Wired Issue 12.12, December

Morrish, G, GM (date unknown) Urban Design and Architecture, Street Design Guidelines fo Landcom projects, Landcom, Melbourne.

Moore, Dr. GM, 2009a, 'Urban Trees: Worth more than they cost', Burnley College, University of Melbourne

Moore, Dr. GM, 2009b, 'Managing Trees in a Changing Environment', Burnley College, University of Melbourne

Moreland City Council, 1997, Street Landscape Strategy 1997–2017, Moreland City council, Melbourne

Mothers Living Well Research Project, Bayswater Community Plan

Murphy Design Group and KLM Development Consultants 2002, *Water Sensitive Urban Design Guidelines for the City of Knox*, MDG Landscape Architects and KLM Development Consultants, Melbourne.

New York City Department of Transportation 2009, *Street Design Manual, PlaNYC 2030* New York City Department of Transportation, New York, USA

VicUrban, 2007, 'Part Two, Implementing The Urban Master Plan' Revitalising central Dandenong, Urban master plan, Melbourne.

Parton and Smith 2006, Knox City Council and VicLANES 2006, case study presented to research forum for local government, 3 October

Pope J and Zhang W, Department of Planning and Community Development, 2010, *Indicators of Community Strength at the Local Government area in Victoria*, over sampled Data for Bayswater, Boronia and Rowville for Knox City Council.

Russell, B., 2007 Urban Transport, Wyndham Talking Point -21 September 2007, The University of Melbourne

Russell B, GAMUT (Australian Centre for governance and management of urban transport) September 2007., 'Making a difference –landscaping the key transport corridors to Melbourne –from good ideas to better policy and Best practice?, University of Melbourne,

Shepherd J, 1992, 'Time to make a choice for our Australian identity', The Age, 18 July, p10

SGV – see State Government Victoria

State Government Victoria, 2005, Melbourne 2030, 'Activity Centre Design Guidelines', Department of Sustainability and Environment, accessed 17.04.2010 < http://www.dse.vic.gov.au/melbourne2030online/content/implementation_plans/05c_appendix3.html>.

State Government Victoria, 2010, '*Walking for good health*', Home > Healthy living > Physical activity - Outdoor activities > Walking for good health, SGV, <http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Walking_for_good_health>.

TDM Encylodedia, Traffic Speeds and Volume,

Traffic Engineering Manual, September 2008, Vol 1, Chapter 4 –Edition 4, *VicRoads: Shared Use Zones are defined in the Road Rules of Victoria* (Rule 24(2) and are MTCI's (Major Traffic Control Items) requiring the approval of VicRoads.

Transport Management and Planning Darebin City Council 2007, *Going Places, Darebin Transport Strategy 2007*, City of Darebin, Melbourne.

Transportation Research Board (January 22-26, 2006). Washington D. C.:Transportation Research Board of the National Academies of Science, TRB 2006 Annual Meeting CD-ROM

Urban Design Compendium 2, '2.5 Streets as Places', London, pp. 92-99.

Urban Street Design Guidelines 2007, 'Draft Adopted 22 October 2007 Segments', pp. 61-132.

Urban Street Design Guidelines 2007, 'Draft Adopted 22 October 2007 Intersections', pp. 133-216.

Victorian Eco Innovation Lab (VEIL), Food Map, http://www.ecoinnovationlab.com/veil-food-map, accessed 17th May, 2010

VicRoads 2008, *Road Crash Statistics: Victoria Accidents by Site 2004-2008*, VicRoads, Melbourne.

VicRoads 2007, 'Part 8.1 Soft Landscape – A1 Clear Zones, Rev 0 Draft for Consultaion', *Road Design Guidelines,* VicRoads, Melbourne.

VicRoads 2002, 'Part 2 Horizontal and Vertical Geometry', *Road Design Guidelines*, VicRoads, Melbourne, pp. 2.0-1 - 2.9-4.

Walford, R 2001, *Melbourne Metropolitan Strategy: A Proposal*, Town and Country Planning Association Bulleting, June 2001, Volume 8 Number 4.

Webster, S 2007, Damage Control, Royal Auto Motor Extra May 2007, pg 48

Whitzman and Pike 2007, From Battery-Reared to Free Range Children: Institutional Barriers and Enabler to Children's Independent Mobility of Urban Transportation.

Wolf K., Bratton N., Urban Trees and Traffic Safety: Considering Roadside Policy and Crash Data, pg 170.

Wolf, K. L. 2005. Trees In the Small City Retail Business District: Comparing Resident and Visitor Perceptions. Journal of Forestry, 103, 8, 390-395.

Wolf, K. L. 2006. Assessing Public Response to Freeway Roadsides: Urban Forestry and Context Sensitive Solutions, Paper 06-1586. In Proceedings of the 85th Annual Meeting of the

WSUD Case Studies, 4. Napier and Kerr St, Fitzroy – Streetscape renewal, Melbourne Water

OTHER REFERENCES

Wulff (Dr.) R. T., Generating landscape and Urban Design solutions for Transport Corridors. Celebrating a sense of place and cultural context, Tract Landscape Architects, Urban Designers, Town Planners

York, I, Bradbury, A, Reid, S, Ewings, T and Paradise, R 2007, *The Manual for Streets: evidence and research*, TRL Report TRL661, Department for Transport, Traffic Management Division, London.



APPENDIX



STATE GOVERNMENT POLICY FRAMEWORK

Planning for all of Melbourne, Victorian State Government

Policy directions specifically relevant to this strategy are:

- Transport and managing congestion: Implement 'Keep Melbourne Moving' to deliver traffic management and road network improvements to alleviate congestion, and deliver new walking and cycling infrastructure to provide more transport choice.
- Improved Planning and design for sustainable communities – which emphases the importance of well designed and sustainable built environments and coordinated planning
- Prioritising actions to support a rapid modal shift over the next five years from car to public transport – tram, train/ or bus – and walking and cycling.
- Make Melbourne, the surrounding cities and town and critical infrastructure more resilient to climate change impacts.
- Land-use and transport: Land-use planning guides urban form, street and neighbourhood layout, solar orientation of lots, diversity of development and building type. All these factors influence the amount of energy used to run a home or building, and the choices we make on whether to walk or drive to the local shops. Practical transport choices must also be supported by infrastructure improvements in the metropolitan area that encourages walking, cycling and use of public transport.
- The government will develop urban design standards that build on the 'Neighbourhood Principles' in Melbourne 2030 to promote walkable and less car-dependent communities in both existing and newly developing areas

Melbourne 2030

- Policy 5.3 Improve community safety and encourage neighbourhood design that makes people feel safe. 'Concerns about safety may restrict people's mobility and levels of activity and may exclude them from some places, particularly at night. 'Perceptions of safety have an influence on travel choice'.
- Policy 5.5 Promote excellent neighbourhood design to create attractive, walkable and diverse communities. Melbourne 2030 intends that neighbourhoods should be created as integrated and interconnected communities, not just as subdivisions; See also Neighbourhood Principles.
- Reduce dependence on car use because public transport is easy to use, there are safe and attractive spaces for walking and cycling, and subdivision layouts allow easy movement through and between neighbourhoods;
- Environmentally friendly development that includes improved energy efficiency, water conservation, local management of stormwater and waste water treatment, less waste and reduced air pollution.

CITY OF KNOX POLICY FRAMEWORK

The following policies are strategic, outlining the vision for the City of Knox. Below are noted the key points that relate to Knox streetscapes:

Vision 2025

The recent plan 'Vision 2025' describes the Knox community's hopes and aspirations for the future. The Vision directly influences the decisions and actions that the Council undertakes to move towards a sustainable future for the municipality. The Vision aims to simultaneously pursue social equity, economic prosperity and environmental sustainability. The key themes articulated by the community are summarised as:

- · Healthy, Connected Communities;
- Culturally Rich and Active Communities;
- Dynamic Services and Facilities;
- Accessible Transport Choices;
- Sustainable Natural Environment;
- Balanced Quality Urban Development;
- A Prosperous, Modern Economy

Sustainable Environment Strategy

The Sustainable Environment Strategy is a high level document developed by Knox City Council to guide the Council's ambition of achieving a sustainable city within a sustainable environment. The document focus's on a number of themes, all of which contribute to and guide the design of liveable streetscapes. These themes include biodiversity; water quality; community engagement; waste minimisation; sustainable planning and development; integrated transport and climate change mitigation and adaptation.

Municipal Strategic Statement (MSS)

Key elements of the MSS are:

Clause 21.05 Promoting the identity and image of Knox

Overview/Objective:

- The attractive, green, leafy, lifestyle image which Knox presents contributes significantly to the popularity of Knox as a residential and business address. Maintenance and enhancement of this image is important in order to retain and attract business and residents.
- To retain and enhance valued character elements of Knox, in particular the 'green, leafy image' of urban areas and the rural image of non-urban areas, which give the community a sense of identity and make Knox an attractive place to live and do business in.

Relevant Strategies / Actions

- Maintain and enhance the "green leafy" character of public open space.
- Maintain and enhance a high standard of urban design along major roads and entries ("gateways") to the municipality.
- Maintain and enhance a high standard of visual amenity in industrial, business and restricted retail sales areas.
- Undertaking Council initiated landscape works at major gateways to the municipality.

CITY OF KNOX POLICY FRAMEWORK

Clause 21.06 Making better use if urban facilities and services

Overview/Objective:

The City of Knox is a well regarded and sought after residential and business address.

Relevant Strategies / Actions

- Maintaining a high standard of urban design and amenity in industrial precincts, and business parks designed for businesses seeking a high profile location.
- Ensuring that a high level of residential amenity is provided in residential areas.

Clause 21.08 Recognising and Protecting Significant Natural Features and Cultural Heritage

Overview/Objective:

 Knox contains important habitats for flora and fauna and plays an important role in maintaining natural processes in the broader region. The importance of Knox's natural assets has been documented in a number of state, regional and local studies. The local community values the natural flora and fauna of Knox and sees its preservation and enhancement important.

Relevant Strategies / Actions

- Ensuring best practice environmental management be used in the design, construction and operation of drainage systems to reduce impacts on surface waters and ground water.
- Ensuring development be designed and managed to minimise the impact of urban storm water runoff on waterways, in accordance with any best practice environmental management guidelines approved by relevant statutory authorities.
- Encouraging the retention of remnant native vegetation for its habitat and other ecological values, particularly where the vegetation is located:
- Along creek valleys.
- Along linear reserves.
- In the vicinity of the Dandenong Ranges National Park.
- In the vicinity of other parks and reserves.

Clause 21.09 Enhancing the Potential for Lifestyle and Cultural Activities in the Community

Overview/Objective:

• To encourage the provision of places where there is a strong community focus and where the community can carry out their domestic, business, leisure or social life.

Relevant Strategies / Actions

- Promote mixed uses and higher density housing around Activity Centres.
- Preparing urban design guidelines which promote safe, interactive spaces.

Clause 21.10 Facilitating Effective Transportation and Movement in the Municipality

Overview/Objective:

- Facilitating effective movement of both people and goods in Knox is important in social, economic and environmental terms.
- To reduce dependence on private cars for travel.
- To achieve good access by all modes of movement to all Activity Centres and community facilities within the City.

Relevant Strategies / Actions

- Promote higher density housing and mixed uses within walking distance to community and commercial facilities including major public transport nodes.
- Plan for an integrated movement system that assists the economic vitality and development of the City.
- Encouraging new development to connect to the bicycle/pedestrian trail system.
- Encouraging trails to link with the key public transport network.
- Investigating means of re-designing inappropriate street patterns.
- Encouraging provision of safe and sheltered transport stops.
- Encouraging improved access to public transport for people with restricted physical mobility.
- Installing traffic calming works where appropriate.

CITY OF KNOX POLICY FRAMEWORK

Local Planning Policy 22.01 Dandenong Foothills

Relevant Objectives:

- Protect and enhance the metropolitan landscape significance of the Dandenong Foothills and maintain uninterrupted view lines from within the municipality and vantage points in metropolitan Melbourne by ensuring that all buildings and works are sensitively designed and sited to sit below the dominant tree canopy height.
- Promote the maintenance and improvement of the continuous closed tree canopy by allowing enough open space within new development for the retention of existing canopy vegetation and growth of new canopy vegetation.
- Maintain the low density residential character of the landscape areas by ensuring that preferred subdivision patterns and lot sizes are retained.
- Protect the rural environments of The Basin and the Lysterfield Valley and Lysterfield Hills.
- Ensure that new buildings, works and landscaping in The Basin and the Lysterfield Valley and Lysterfield Hills protect the physical and visual amenity of the open pastoral setting.

Relevant Strategies / Actions

Lysterfield Valley and Lysterfield Hills Rural Landscape

- Buildings and works be designed and sited to ensure that the rural landscape character is maintained and enhanced.
- Indigenous trees and understorey vegetation be retained and protected.
- A minimum of 80% of all new vegetation (both canopy trees and under storey) be indigenous.

Dandenong Foothills: Foothills Backdrop and Ridgeline Area'

- The design and siting of buildings, works and landscaping protects and enhances the visual dominance of vegetation, including canopy trees and native under storey plants, to ensure that:
- There is a continuous vegetation canopy across residential lots and roads.
- The significant landscape character of the area is protected and enhanced by retaining existing vegetation and planting indigenous canopy and under storey vegetation.
- Indigenous trees and under storey vegetation be retained and protected.
- A minimum of 80% of all new vegetation (both canopy trees and under storey) be indigenous.

The Basin Rural Landscape

• Indigenous trees and under storey vegetation be retained and protected.

Lysterfield Urban/Rural Transition and Lysterfield Valley Contributory Area

- Roads be aligned to provide an edge to the urban area and provide public access to reserves, parkland and views.
- Streets connect with adjoining development and provide informal street treatments incorporating indigenous vegetation and rollover kerbing.
- Indigenous trees and under storey vegetation be retained and protected.

Local Planning Policy 22.07 Neighbourhood Character

Relevant Analysis of Precincts:

Garden Court Character Precincts

Analysis:

• Planted street trees are generally medium height and formally arranged, with some informally or irregularly planted.

Statement of Desired Future Character

• Low scale dwellings set within an open landscape with, in some areas, occasional pockets of large native trees.

Villa Court Character Precincts

Analysis:

• Street trees are usually formally arranged, and are small and establishing at present.

Statement of Desired Future Character:

• Predominantly large scale dwellings set within an open garden setting.

Garden Suburban Character Precincts

Analysis:

- Planted street trees are generally medium height; sometimes formally arranged and
- Sometimes informally or irregularly planted. Nature strips are frequently wide.

Statement of Desired Future Character:

- Low scale dwellings set within an open landscape with occasional large native trees and
- In some precincts large stands of native and exotic trees.

Rural Parkland Character Precinct

Analysis:

• Trees in the public domain are informally occurring, and appear to be extensions of the private plantings or remnant indigenous trees.

Statement of Desired Future Character:

 Low scale dwellings set within a park-like landscape with occasional pockets of large native and exotic trees.

Bush Suburban Character Precincts

Analysis

- Planted street trees are generally medium height and informally or irregularly planted.
- In some streets the public area planting is indistinguishable from the private.

Statement of Desired Future Character

• Dwellings located within frequent bands of high canopy indigenous and native vegetation, creating a vegetation dominated backdrop.

Foothills Character Precincts

Analysis:

- Vegetation dominates the streetscape.
- Frequent native high canopy indigenous trees and planted Eucalypts, sometimes forming a closed canopy.
- Planted street trees are rare, with the public planting being remnant indigenous vegetation in a natural setting.

Statement of Desired Future Character

 Varied but often low scale buildings placed behind a heavily vegetated streetscape with a continuous flow of bush vegetation spread across private and public property.

CITY OF KNOX POLICY FRAMEWORK

Streetscape Policy

In some instances, the nature strips are very generous, in some instances up to ten (10) metres in width, with the footpath being centrally placed. In these situations, residents have extended their landscaping up to the footpath.

Most naturestrips are provided with a concrete footpath to provide for the safe movement of pedestrians. Often vegetation from residents' properties is seen to grow over the footpath area, which can present a hazard to pedestrians when using the footpath.

A number of residents within the City of Knox have undertaken landscaping to their nature strip areas.

This landscaping often includes for structures such as letterboxes. This has been undertaken for practical purposes, as the "Postie" will not deviate from the footpath to deliver the mail (i.e. drive down a driveway to place mail in a letterbox situated on the property boundary).

In other situations, the nature strips have been landscaped for a reason of practicality for the resident or for public safety. These types of situations include;

- Where the resident is disabled and is unable to maintain a grassed nature strip area.
- Where there is a steep and hazardous batter or embankment associated with the nature strip.
- Where there are erosion problems caused by a slope.

Whilst in a number of cases permission has been sought from Council to undertake landscaping, in most cases it has been determined that no permission has been provided. Any landscaping within the streetscape is ultimately the responsibility of Council, even if it has not been placed by Council. Whilst Council would not wish to restrict opportunities for residents to enhance their environment, Council has to be mindful of the risk that this landscaping could present to members of the community and, ultimately, the risk exposure to Council if an injury should occur and a claim is made.

Given that Council owns and is responsible for the land that contains nature strips, then even if a resident is permitted to landscape the nature strip, the liability risk would still ultimately rest with Council. This risk is considered to be at higher level than if the nature strip was just grassed.

Further, in a number of instances residents have planted their own trees in the nature strip or tree reserve. This has involved in some cases, the removal of the Council planted species with a species of the residents own preference. In a number of instances the trees selected are not in keeping with the character of the surrounding landscape setting and streetscape environment and, based on the growing characteristics of the tree, will cause substantial damage to Council infrastructure such as paths, kerb and channel and the infrastructure of service authorities, including water, gas and electricity. In these situations approval has not been sought and, if it had been, would not have been provided.

RELEVANT KNOX STRATEGIES AND PLANS

STRATEGIES AND PLANS

Knox Vision 2025

Vision 2025 describes the Knox community's hopes and aspirations for the future. It addresses a range of questions.

Vision 2025 is described around seven key themes which have been articulated by the community for the community.

- Healthy, Connected Communities
- Culturally Rich and Active
 Communities
- Dynamic Services and Facilities
- Accessible Transport Choices
- Sustainable Natural Environment
- Balanced Quality Urban
 Development
- A Prosperous, Modern Economy

RELEVANT GOALS AND ACTIONS FOR LIVEABLE STREETSCAPES PLAN

Relevant Goals:

- Healthy connected communities, with people working jointly toward the goals of sustainability;
- People feeling physically, spiritually and emotionally connected to their neighbourhood through greater access to open space and nature, and through collaborative community activity;
- Open spaces which are shared safe places that increase community cohesion and wellbeing through positive social interactions;
- Support for sustainable living. Within all sectors of the community, the norm will be conservative use of energy and water, waste minimization and enhancement and protection of the natural environment;
- · Knox will have a green and leafy image

Relevant Key Initiatives:

- Establishing cycling as a transport mode of choice.
- Delivering strategic main road infrastructure including the Dorset Road extension, the Kelletts Road duplication, the Wantirna Road Bridge widening, the Dorset Road widening and the Bayswater Bypass.
- Achieving a 25% reduction in water use by Council by 2015 where alternative water sources such as grey water, storm water and rain water are used.
- Planting of a minimum of 100,000trees in public spaces per year until 2025 to enhance natural habitats, open spaces and bush boulevards.
- Creating a seamless tree canopy stretching from the Dandenong Valley to the tip of the Dandenongs.
- Maximising design standards for the urban and landscape environment through the encouragement of quality design.

STRATEGIES AND PLANS

Knox Urban Design Framework

Sets out an urban design vision, framework and policy for the future of Knox. It is a design tool that provides physical interpretations of local visions and strategies. It focus's on managing change and setting new directions for integrated development of the urban environment.

This document provides a series of design guidelines for streetscapes that provide a strong basis for this Plan.

RELEVANT GOALS AND ACTIONS FOR LIVEABLE STREETSCAPES PLAN

Establishes key urban design objectives strategies, actions and design guidelines for whole of Knox.

Relevant key areas include:

- · Activity Centers and Working Environments,
- Activity Centre Vitality
- Pedestrian Friendly Environments
- Commercial Strips
- Industrial Areas
- Transport Corridors
- Bush Boulevard
- Gateway Route
- Principal Avenue
- Path into the Hills
- Rail Corridor
- Scoresby Corridor
- Residential Environments
- Knox Neighbourhood Character Study
- Public Domain Planting
- Improve Layouts for Walking

Key Themes and Goals:

Knox City Council 2008/2018 Sustainable Environmental Strategy

The Environment Strategy is a high level document developed by Knox City Council to guide the Council's ambition of achieving a sustainable city within a sustainable environment. The document focus's on a number of themes, all of which contribute to and guide the design of liveable streetscapes.

- Biodiversity (protection of habitat, flora and fauna). To improve biodiversity and health of ecosystems
- Water (conservation and quality). To create healthy and productive water systems
- Community Engagement and Leading by Example. To lead an engaged and empowered community
- Waste Minimisation. To reduce waste and improve product lifecycles
- Integrated Transport. To develop integrated, sustainable transport systems that provide multiple, connected transport choices
- Climate Change Mitigation and Adaptation (greenhouse action). To reduce greenhouse gas emissions, improve air quality and be well prepared for climate change

RELEVANT KNOX STRATEGIES AND PLANS

STRATEGIES AND PLANS	RELEVANT GOALS AND ACTIONS FOR LIVEABLE STREETSCAPES PLAN
Access and inclusion Plan for People with Disabilities The vision for this plan is for Council to be responsive, innovative and energetic in developing an accessible and inclusive community that embraces people with disabilities. Council seeks to ensure that all Knox residents can participate in, and contribute to community life with independence, equity and dignity.	 Objectives: An Accessible Community: Physical Access, Information Provision, Transport, Employment an Inclusive Community: Organisational culture, Civic Life, Advocacy, Recreation, Arts and Culture a Supportive Community: Council and Community Services
The plan outlines a range of objectives and actions. These are based on the premise that the main issues affecting people with disabilities on a daily basis are interconnected and require a number of initiatives to address them effectively.	
Knox Bicycle Plan The plan visions that the City of Knox will, through well planned bicycle networks and programs, increase the use of bicycles for commuting and recreation in a safe, convenient and sustainable manner for residents and visitors.	 To reduce the reliance on and use of cars for transport to work, school, shopping and recreation. Provide well designed shared paths and on-road lanes that link the Knox communities to public transport, Activity Centres and recreation areas as well as regional destinations. Plan to further reduce casualty crashes through well designed infrastructure and increase driver awareness of cyclists through pavement markings and signs. To advocate that VicRoads provide on-road lanes as
	 To advocate that VicRoads provide on-road lanes as part of the Principal Bike Network and ensure that all new road works and or the introduction of bus lanes incorporate provision for bicycles.

STRATEGIES AND PLANS

Knox Integrated Transport Plan • Ensure that all transport projects include an assessment if integration opportunities with other The development of the Knox Integrated transport modes; Transport Plan recognises that trying to provide for continuous traffic growth is . Create a safe and connected environment, which will both unwarranted and unsustainable. encourage patronage onto public transport services Any efficient and equitable transport throughout Knox; network requires legitimate travel Increase the use of cycling to account for 5% of all alternatives. The purpose of the KITP is trips; to bring the key elements of individual Provide accessible on-road and off-road networks transport strategies together, so future that provides for safe and continuous travel transport projects can be developed, throughout the municipality; assessed and delivered within a common framework. Ensure the needs of cyclists are taken into account through all infrastructure planning and design phases; Embrace all opportunities to develop cycling links; Deliver full DDA compliance on designated principal pedestrian corridors by 2015; Maximise resident access to a connected path network: Provide a safe, economical and continuous VicRoads network for the movement of goods and people, whilst maintaining local amenity and connectivity; Provide a comprehensive range of public transport and pedestrian improvements as part of the Mitcham-Frankston Integrated Transport Corridor Water Sensitive Urban Design Summarise the environmental issues around urban (WSUD) Guidelines for the stormwater management; City of Knox Outline the benefits of incorporation of WSUD The Guidelines for WSUD have been principles; developed in response to the Knox Provide guidance for the implementation and 2001/2010 Sustainable City Plan and maintenance and WSUD principles in new and the embodied mission statement. existing environments; and Provide indicative details of adoption by council in order to include WSUD principles in new and existing developments.

RELEVANT GOALS AND ACTIONS FOR

LIVEABLE STREETSCAPES PLAN

RELEVANT KNOX STRATEGIES AND PLANS

STRATEGIES AND PLANS

Risk management, compliance and integration; Road Asset Management Plan The Road Asset Management Plan Meeting community outcomes; focuses on forward planning of Embed sustainability principles within road delivery the road network through strategic and management processes; and operational techniques of Improving the management processes; management. It considers all lifecycle requirements and set out Emphasise the interdependency of decision makers a management approach to obtain across the asset lifecycle; optimal return on its investment in Integrate delivery of capital programs to realize road asset. construction efficiencies: Reduce reactive maintenance costs by encouraging a shift toward proactive preventative maintenance practices and timely road surface renewal; Review road design, construction and renewal standards to deliver an increase in asset life, meet sustainable resource use objectives and minimize adverse impacts on natural environment; Delivering financial sustainability; Introduce more strategic methods for prioritisation of asset renewal and upgrade projects Knox City Council Streetscape Policy Street tree management The Streetscape Policy provides a Street tree selection strategic and practical framework for Precinct Character Area Policy Guidelines Council and the community with regard Landscaping of Nature Strips to the management, protection and care of assets within the streetscape and in particular, the selection and management of street trees. The development of this Policy was intended to establish guidelines for all stakeholders and the community as to the objectives and priorities for management of the Streetscape into the future.

RELEVANT GOALS AND ACTIONS FOR

LIVEABLE STREETSCAPES PLAN

STRATEGIES AND PLANS

Neighbourhood Character Study

The Neighbourhood Character Study is a detailed investigation into physical characteristics of Knox. It forms a collection of guidelines to aid Council in development controls that safeguard the important characteristics of special areas, and define, in a less prescriptive manner, what is acceptable across the municipality in terms of new types of higher density development, and more broadly in maintaining and enhancing particular recognised identities of streetscapes.

RELEVANT GOALS AND ACTIONS FOR LIVEABLE STREETSCAPES PLAN

Recommendations:

- Vegetation Protection Overlays;
- Specific and detailed Design guidelines to each character area;
- Coordinated Design Policies, That a project be imitated to establish coordinated design policy for all works in the public domain of residential areas, including street trees, traffic management devices, paving, kerb and channel and overhead and underground services, taking into account the variations of local character described in this study.

RELEVANT KNOX STRATEGIES AND PLANS

STRATEGIES AND PLANS	RELEVANT GOALS AND ACTIONS FOR LIVEABLE STREETSCAPES PLAN
Footpaths and Shared Path Asset Management Plan The Knox municipality has an extensive shared pathway network, extending over 1250km. (1204km footpath, 70km shared path) This plan has been developed in response to the maintenance and establishment of this asset valued at \$94,536,000 in replacement terms in 2003/04. Sound asset management practices will ensure that Knox continues to meet the needs of current and future generations in a sustainable manner.	Council is committed to providing accessible connected communities within Knox and employing strategies to ensure sustainable sound stewardship of the footpath and shared path networks; Council has recognized the importance of providing health and environmental transport alternatives within the community;

STRATEGIES AND PLANS

Knox Pedestrian Plan

The Knox Pedestrian Plan's vision is to enhance the walkability of Knox. It accepts that increased levels of walking within a neighbourhood create greater benefits for the community, and can also measure an area's 'liveability' and social inclusiveness. The Plan makes focus on ten 'hotspots' with specific issues and recommendations for each. In this way the recognised benefits that walking provides to the environment and the community can be monitored and then expanded into areas of Knox.

RELEVANT GOALS AND ACTIONS FOR LIVEABLE STREETSCAPES PLAN

Related objectives of the pedestrian plan include:

- To facilitate walking as both a method of travel (walking as a means to an end) and walking as leisure/ recreational activity (walking as an end in itself);
- To stimulate more residents to choose walking as their preferred mode of travel for a variety of daily trips;
- To provide a clear and long-term vision for the development of an integrated pedestrian network for the municipality. This will encourage a modal shift towards this active and sustainable transport option;
- To identify opportunities to promote and encourage walking throughout the municipality through the promotion of safe neighbourhood design and interesting streetscapes that encourage an attractive walking environment;
- To tailor different environments to different needs where appropriate, for example, a recreational route may have different characteristics to a commuting route;
- To assist in the establishment of a network of safe and enjoyable pedestrian routes for the widest range of community members, in particular: commuters, recreational walkers, school children and older persons;
- To integrate walking with other appropriate transport infrastructure to enable people to combine walking with cycling or public transport.

Specific Recommendations / Actions:

- · Footpath construction priorities identified
- Design Guidelines for Major and Minor pedestrian pause places
- Milestone signage options
- Home Zones and recommended Home Zones locations
- Physical improvements for:
 - Knox City
 - Fountain gate
 - Stud park
 - Wantirna Mall
 - Bayswater
 - Boronia
 - Ferntree Gully
 - Upper Ferntree Gully
 - Dandenong Creek and Blind Creek

STUDIES AND INFORMATION

EXISTING ROAD CLASSIFICATION

VicRoads Managed Roads

ROAD HIERARCHY CLASSIFICATION	ROADS
Declared State Highways	 Burwood Highway. Dandenong Valley Highway (Stud Road) - Burwood Highway to Dandenong Creek. Monash Highway (Wellington Road) - Dandenong Creek to Stud Road.
Declared Main Roads	 Boronia Road Brenock Park Drive Burwood Hwy Croydon - Scoresby Road (Bayswater and Scoresby Roads) Dorset Road Forntree Gully Road Forest Road (Boronia Road to Mountain Hwy) Glenfern Rd (Brenock Park Dr to Napoleon Rd) High Street Road Kelletts Road Lysterfield Road Stud Road Stud Road Wantirna Road Wantirna Road Wantirna Road Wantirna Road Wellington Road

EXISTING ROAD CLASSIFICATION

City of Knox Managed Roads

ROAD HIERARCHY CLASSIFICATION	CURRENT FUNCTIONS / FEATURES
Link Roads	 Efficiently channel traffic through the Municipality Carry traffic between major commercial, industrial and residential areas
	Link VicRoads arterial roads
	 Provide for through traffic movements and heavy vehicle use
Collector Roads	 Provide connectivity to commercial and residential areas from Link Roads or directly from the VicRoads arterial network
	 Concentrate locally generated traffic to an outlet
	 Provide direct access to the local road network without acting as a through traffic route
	 Carry local traffic to shops, schools, commercial districts, hospitals, sporting and other local facilities.
Industrial Roads	 Service local light industrial as concentrated in small areas that tend to be adjacent to VicRoads arterial roads
	Channel traffic through an Industrial Zone
Access Roads	 Provide access to abutting residential properties/and or fire truck access
	 Public amenity, safety and aesthetic aspects of thee constructed roads take priority over speed and ease of movement of vehicles.
Unsealed Roads	Generally have a gravel/crushed road surface
	May function as Link, Collector or Access Roads.



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