

TRANSPORT IMPACT STATEMENT

33 Ocean Falls Boulevard

Mindarie

July 2018

Rev B

The logo for Kcett features the word "kcett" in a bold, lowercase, sans-serif font. The letter "k" is significantly larger than the other letters. Above the top left of the "k", there are three short, parallel, slanted lines. The entire logo is rendered in a dark red color.

kcett

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1. Executive Summary

No.33 Ocean Falls Boulevard is an existing marina development guided under the Mindarie Keys Harbourside Village Agreed Structure Plan, under jurisdiction of the City of Wanneroo. The proposed development aims to redevelop an existing volleyball pit located at the south-eastern portion of the site to an outdoor cinema with ancillary uses of a playground, sand pit, bouncy castle and a food van. This Transport Impact Statement assesses the impact of the proposed development on the existing land uses and surrounding road network.

It is expected that the proposed ancillary uses (playground and sand pit, bouncy castle and a food van) will not attract any additional traffic it itself. The patrons of the outdoor cinema in total are expected to be generally from the adjoining Mindarie Marina development and surrounding residential lots. Although it is open to the general community, KCTT believe that there is a low likelihood that the proposed development alone will attract any vehicular trips to the site. However, to be conservative the calculation is made considering a capacity of 45 persons, equating to 30% of total capacity.

The proposed development is expected to generate approximately **79 VPD / 1 AM VPH / 3 PM VPH**. According to WAPC Guidelines the traffic impact of the proposed development is considered to be **low**.

Conclusively, this analysis demonstrates that the proposed development will not have a negative impact on the existing road network surrounding the subject site. Additionally, the proposed development is complimentary to existing surrounding land uses and will serve as an ancillary use.

2. Transport Impact Statement

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2.1 Location

Lot Number	7001
Street Number	33
Road Name	Ocean Falls Boulevard
Suburb	Mindarie
Description of Site	No.33 Ocean Falls Boulevard is an existing marina development guided under the Mindarie Keys Harbourside Village Agreed Structure Plan, under jurisdiction of the City of Wanneroo. The proposed development aims to redevelop an existing volleyball pit located at the south-eastern portion of the site to an outdoor cinema with ancillary uses of a playground, sand pit, bouncy castle and a food van. This development will serve as an ancillary use to the existing marina, specifically aiming to cater for children, whilst parents are enjoying the alternative uses throughout the subject site.

2.2 Technical Literature Used

Local Government Authority	City of Wanneroo
Type of Development	Commercial - Outdoor Cinema
Are the R-Codes referenced?	NO
<i>If YES, nominate which:</i>	State Planning Policy 3.1 Residential Design Codes 2018 R-Codes (incorporating amendments gazetted on 2/8/2013, 23/10/15 and 2/3/2018)
Is the NSW RTA Guide to Traffic Generating Developments Version 2.2 October 2002 (referenced to determine trip generation / attraction rates for various land uses) referenced?	YES
Which WAPC Transport Impact Assessment Guideline should be referenced?	Volume 4 - Individual Developments

Are there applicable LGA schemes for this type of development? YES

If YES, Nominate:

Name of Scheme

City of Wanneroo District Planning Scheme

Number of Scheme

No.2

2.3 Land Uses

Are there any existing Land Uses

YES

If YES, Nominate:

Volleyball Pit

Proposed Land Uses

How many types of land uses are proposed?
Nominate land use type and yield

Outdoor Cinema with ancillary uses
Outdoor Cinema for up to 150 persons,
with ancillary uses as follows:
- Playground
- Sand Soft Fall and Bouncy Castle
- Container bar/ food van

Are the proposed land uses complimentary with the surrounding land-uses? YES

2.4 Review of Available Planning Documents

City of Wanneroo District Planning Scheme No.2

The City of Wanneroo presents The Marina Zone in Part Three – Zoning of the District Planning Scheme (‘the Scheme’). The Scheme states the “Marina Zone is intended to accommodate a wide range of appropriate development adjacent to marinas.” Furthermore, outlining the following objectives of the zone are to:

- a) “accommodate commercial, residential, recreational and associated activities related to marinas;
- b) Guide and manage the planning and development of areas adjacent to marinas to ensure a diverse mix of uses and high standards of amenity.”

Mindarie Keys Harbourside Village Agreed Structure Plan

Adopted by Council in March 2000, the Mindarie Keys Harbourside Village Structure Plan is characterised by two districts. The development site is located within District 2 Harbourside Village, specifically within Precinct 2A the Harbourside Commercial Precinct. The Structure Plan outlines the following objectives for Precinct 2A as:

- i. “create an active focus for the community with a balance of viable uses and a diversity of retail and commercial uses and leisure opportunities that generate day and evening activity.
- ii. Encourage high standard of built form.
- iii. Provide continuity of activity along streets and around the harbour.
- iv. Provide efficient vehicle access with pedestrian priority.”

The objectives of the Mindarie Keys Harbourside Village Agreed Structure Plan and specifically Precinct 2A Harbourside Commercial precinct will be considered throughout this Transport Impact Statement.

2.5 Local Road Network Information

How many roads front the subject site? Two

Name of Roads Fronting Subject Site / Road Classification and Description:

Road 1

Road Name	Ocean Falls Boulevard
Number of Lanes	two way, one lane each direction, divided with raised central median
Road Reservation Width	32m
Road Pavement Width	Varying, up to 12.5m
Classification	Significant Urban Local Road / Local Distributor
Speed Limit	50kph
Bus Route	YES
<i>If YES Nominate Bus Routes</i>	Bus No.481
On-street parking	YES

Road 2

Road Name	Boston Quays
Number of Lanes	two way, one lane each direction, undivided
Road Reservation Width	14.5m
Road Pavement Width	6.5m
Classification	Urban Local Road / Access Road
Speed Limit	50kph
Bus Route	NO
<i>If YES Nominate Bus Routes</i>	-
On-street parking	YES

Name of Other Roads within 400m radius of site, or roads likely to take increased traffic due to the development.

Road 1

Road Name	Swansea Promenade
Number of Lanes	two way, one lane each direction, divided with raised central median
Road Reservation Width	Approx. 32m
Road Pavement Width	Approx. 6+6m
Classification	Significant Urban Local Road / Local Distributor
Speed Limit	50kph
Bus Route	NO
<i>If YES Nominate Bus Routes</i>	-
On-street parking	YES

Road 2

Road Name	Anchorage Drive
Number of Lanes	two way, two lanes each direction, divided with raised central median
Road Reservation Width	32.5m
Road Pavement Width	6+8m
Classification	Significant Urban Local Road / Local Distributor
Speed Limit	60kph
Bus Route	YES
<i>If YES Nominate Bus Routes</i>	Bus No.481
On-street parking	YES

2.6 Traffic Volumes

Road Name	Location of Traffic Count	Vehicles Per Day (VPD)	Vehicles per Peak Hour (VPH)				Heavy Vehicle % <i>If HV count is Not Available, are HV likely to be in higher volumes than generally expected?</i>	Year	
			AM Peak Time	AM Peak - Peak VPH	PM Peak Time	PM Peak - Peak VPH		Date of Traffic Count	<i>If older than 3 years multiply with a growth rate</i>
Ocean Falls Boulevard	West of Anchorage Drive	778	12:00 - 50		15:00 - 91		<i>N/A - HV not likely to be in higher volumes than generally expected</i>	June 2013	902 <i>(with 3% annual growth rate)</i>
Swansea Promenade	n/a	515	11:00 - 106 (Sunday)		14:00 - 135 (Sunday)		5.1%	Nov 2016	-
Swansea Promenade Westbound	West of Anchorage Drive	257	12:00 - 18		18:00 - 27		<i>N/A - HV not likely to be in higher volumes than generally expected</i>	Nov 2016	-
Anchorage Drive*	South of Alexandria View	2,312	12:00 - 123		18:00 - 264		<i>N/A - HV not likely to be in higher volumes than generally expected</i>	May 2013	2,680 <i>(with 3% annual growth rate)</i>
Anchorage Drive	n/a	3,009	08:00 - 384 (Monday)		15:00 - 385 (Monday)		3%	May 2016	-

Note - All traffic counts data have been received from the City of Wanneroo.

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2.7 Vehicular Crash Information

Is Crash Data Available on Main Roads WA website? YES

If YES, nominate important survey locations:

Location 1 Ocean Falls Boulevard (0.00 to 0.28)
 Location 2 Ocean Falls Boulevard & Anchorage Drive - Intersection
 Location 3 Ocean Falls Boulevard & Boston Quays - Intersection
 Location 4 Boston Quays (0.00 to 0.16)
 Period of crash data collection 01/01/2013 - 31/12/2017

Road Name	SLK	Functional Classification	Road Hierarchy	Speed Limit	Crash Statistics			
					No of KSI Crashes	No of Medical Attention Crashes	No of PDO Major Crashes	No of PDO Minor Crashes
Ocean Falls Boulevard	0.00 to 0.28	Significant Urban Local Road	Local Distributor	50kph	0	0	1	0
Ocean Falls Boulevard & Anchorage Drive	0.00	Significant Urban Local Road / Significant Urban Local Road	Local Distributor / Local Distributor	50kph/60kph	0	0	1	0
No of MVKT Travelled at Location					Approx. 3,500 VPD*365*5 years*0.3 km = 1.92 MVKT			
KSI Crash Rate					No KSI crashes			
All Crash Rate					1 crashes / 1.92 MVKT = 0.52 crashes/MVKT			
Comparison with Crash Density and Crash Rate Statistics					All crashes rate is significantly lower than the local road network average of 1.73.			
Ocean Falls Boulevard & Boston Quays	0.28	Significant Urban Local Road / Urban Local Road	Local Distributor / Access Road	50kph/50kph	<i>KCTT have accessed the Main Roads WA website on 18.07.2018 and no crash data was reported for these locations.</i>			
Boston Quays	0.00 to 0.16	Urban Local Road	Access Road	50kph				

The following table shows the Crash Density and Crash Rates on Metropolitan Local Roads as obtained from Main Roads WA on the 14th May 2018 by email request: -

Crash Density and Crash Rate on Metropolitan Local Roads Network only

	All Crashes		Serious Injury Crashes (Fatal+Hospital)	
	Average Annual Crash Density (All Crashes/KM)	Average Annual Crash Rate (All Crashes/MVKT)	Average Annual Crash Density (Ser. Inj. Crashes/KM)	Average Annual Crash Rate (Ser. Inj. Crashes/MVKT)
Metro Local Road - Midblock	2.99	0.81	0.13	0.03
Metro Local Road - All	6.41	1.73	0.26	0.07

Note: Based on 5-years data for the period 2013 to 2017.

2.8 Calculation of Development Generated / Attracted Trips

What are the likely hours of operation? 12:00- 21:00
 What are the likely peak hours of operation? PM Peak - 18:00
 Do the development generated peaks coincide with existing road network peaks? YES

If YES, Which:

Guideline Document Used ITE Common Trip Generation Rates (9th edition)
 Rates from above document: **Movie Theatre**
 Base data for trip calculation (daily trips) 1.76 vehicles per seat
 Base data for trip calculation (AM peak trips) 0.01 vehicle per seat
 Base data for trip calculation (PM peak trips) 0.07 vehicle per seat

Land Use Type	Rate above	Yield	Daily Traffic Generation	Peak Hour Traffic Generation
Outdoor Cinema (with ancillary uses)	Daily – 1.76 vehicles per seat AM PEAK - 0.01 vehicle per seat PM PEAK - 0.07 vehicle per seat	45 (150) *	79 VPD (264 VPD) *	AM - 1(2) *VPH PM - 3(11) *VPH
Total Traffic Generation			79 VPD	AM - 1VPH PM - 3VPH

Note* - Volumes in brackets represent scenario with no reciprocity applied.

Justification

It is expected that the proposed ancillary uses (playground and sand pit, bouncy castle and a food van) will not attract any additional traffic in itself. The patrons of Outdoor cinema in total are expected to be generally from the adjoining Mindarie Marina development and surrounding residential lots. Although it is open to general community, KCTT believe that there is a small likelihood that the proposed development will attract any vehicular trips to the site. However, for the purpose of calculation in this report KCTT assume that up to 30% of capacity of the proposed Outdoor Cinema would be additionally attracted traffic. Therefore, calculation is made for 45 persons.

Does the site have existing trip generation / attraction? YES

Existing Land Use

Given that neither the WAPC Transport Assessment Guidelines for Developments, the NSW RTA Guide to Traffic Generating Developments nor ITE Common Trip Generation Rates (9th edition) offer daily vehicle trip generation rates for Volleyball Pit, KCTT assume existing traffic generation from the Volleyball Pit is equal to approximately **10%** of assumed total traffic generation of the proposed Outdoor Cinema with ancillary uses.

What is the total impact of the new proposed development? The proposed development is expected to generate approximately **79 VPD / 1 AM VPH / 3 PM VPH**.

According to WAPC Guidelines the traffic impact of the proposed development is considered to be **low**.

2.9 Traffic Flow Distribution

How many routes are available for access / egress to the site? 2

Route 1

Provide details for Route No 1

From north via pedestrian path adjacent parking area linked to the Boston Quays

Percentage of Vehicular Movements via Route No 1 20%

Route 2

Provide details for Route No 2 **From southwest via pedestrian path that links the proposed development and adjacent parking area next to the Ocean Falls Boulevard**

Percentage of Vehicular Movements via Route No 2 80%

2.10 Road Safety

Are sight distances adequate at proposed intersections? YES

Justification

The development is expected to be utilised by the patrons of the surrounding land uses which will use the existing provision of parking surrounding the development.

Road safety internal to the development:

No outstanding safety concerns are presented within the internal area of the proposed development.

2.11 Vehicle Crossover Requirements

Are vehicle crossovers required onto existing road networks? NO

How many existing crossovers? 0

How many proposed crossovers? 0

If there are greater numbers of new crossovers, than existing, provide justification:

-

How close are proposed crossovers to existing intersections? n/a

Does this meet existing standards? YES

Provide justification if NO.

-

2.12 Public Transport Accessibility

How many bus routes are within 400 metres of the subject site? One (1)

How many rail routes are within 800 metres of the subject site? None

Bus Route	Description	Peak Frequency	Off-Peak Frequency
481	Clarkson Station - Quinns Rocks via Mindarie	10 minutes	60 minutes

Walk Score Rating for Accessibility to Public Transport

38 - Some Transit. A few nearby public transportation opportunities.

Is the development in a Greenfields area? NO

2.13 Pedestrian Infrastructure

Describe existing local pedestrian infrastructure within a 400m radius of the site:

Classification	Road Name
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<i>Other Shared Path (Shared by Cyclists and Pedestrians)</i>	Ocean Falls Boulevard; Alexandria View; Shoreham Turn; Salford Promenade; Anchorage Drive; Swansea Promenade; Honiara Way
Does the site have existing pedestrian facilities	YES
Does the site propose to improve pedestrian facilities?	NO
What is the Walk Score Rating?	
37 - Car Dependent. Most errands require a car.	

2.14 Cyclist Infrastructure

Are there any PBN Routes within a 400m radius of the subject site? YES
 If YES, describe:

Classification	Road Name
<i>Other Shared Path (Shared by Cyclists and Pedestrians)</i>	Ocean Falls Boulevard; Alexandria View; Shoreham Turn; Salford Promenade; Anchorage Drive; Swansea Promenade; Honiara Way
<i>Good Road Riding Environment</i>	Anchorage Drive; Lautoka Rise; Clarecastle Retreat; Mariners View
<i>Bicycle Lanes or Sealed Shoulder Either Side</i>	Anchorage Drive
Does the site have existing cyclist facilities?	YES
Does the site propose to improve cyclist facilities?	NO