

Executive Summary**12.4 Response to Petition - Beckwith Grove Pedestrian Bridge, Seaford**

Enquiries: (Vishal Gupta: Infrastructure and Operations)

Council Plan

Community Outcome:	1. Planned City
Strategy:	1.1 Community Infrastructure
Priority Action	1.1.6 Ensure community infrastructure and services match community need

Purpose

To respond to the petition regarding reinstatement of Beckwith Grove Pedestrian Bridge in Seaford.

Recommendation (Director Infrastructure and Operations)

That Council:

1. Notes historically the Beckwith Grove bridge previously provided access from a former caravan park (now Kananook Creek Reserve) to the beach;
2. Notes Frankston Police has indicated in the past that they do not recommend opening of the pedestrian bridge and associated walkway to general public due to significant safety and privacy concerns;
3. Notes alternate safe pedestrian access to the beach is available via Station Street Bridge (North) and Seaford Road Bridge (South);
4. Notes the location of the bridge is in a significantly constrained environment, attracts low usage and poses significant challenges in terms of reinstatement of the bridge from cost, community safety and constructability perspective;
5. Notes the estimated cost of the bridge including associated works such as DDA compliant pathways, services realignment and safety considerations was \$740,000 based on independent specialist consultant estimates in 2017, which is expected to be a higher figure in current day costs;
6. Notes Council has an active process currently underway to sell the land parcel at 6R Beckwith Grove, between Beckwith Grove and the former bridge location, identified as surplus to its requirements;
7. Upholds its previous decision made at Ordinary Meeting 307 on 25 September 2017 not to reconstruct the Beckwith Grove bridge; and
8. Notifies the Head Petitioner in writing of its decision.

Key Points / Issues

- At its meeting on 15 February 2021, a petition was tabled by Cr Steven Hughes containing 20 signatures. This petition sought;
“Council removed the aged bridge on Beckwith Grove, Seaford with the promise of reinstating it. The bridge is an important link to walking tracks and proposed Kananook Creek arboretum. It offers possible safe evacuation across the creek from fire. If we are to promote a healthy, active community, reinstatement of the bridge is a step in the right direction.”

12.4 Response to Petition - Beckwith Grove Pedestrian Bridge, Seaford**Executive Summary**

- In 2015, Council closed the small timber pedestrian bridge over Kananook Creek at Beckwith Grove, Seaford, due to safety concerns highlighted by Council's structural bridge consultant. The bridge was later demolished to mitigate the safety risk to the community following repeated illegal access through the security fencing.
- In January 2016, Council wrote to local residents advising that the tender process had commenced in order to engage a contractor to reconstruct the bridge 'like-for-like'. Some residents responded to this letter advising Council that they would prefer that the bridge not be replaced. Given the differing views more extensive consultation was undertaken in March 2016.
- Multiple reports were presented to Council in 2016 and 2017 covering range of matters related to Beckwith Grove including outcome of a community consultation process, options for bridge replacement, construction challenges, alternate options and costings.
- At its meeting on 25 September 2017 (OM307), in reviewing a project to reconstruct the former Beckwith Grove bridge, Council resolved:

"That Council:

- 1. Receives an external report at Attachment A outlining a comparison of alternative materials that could be considered for the construction of Beckwith Grove Bridge.*
 - 2. Notes receipt of legal advice which outlines Council's legal obligations and the completion of an Access Audit and recommendations which enables Council to resolve to build the bridge with either with disability access or without disability access based on 'justifiable hardship'.*
 - 3. Resolves not to reconstruct the bridge.*
 - 4. Writes to all residents within immediate proximity to the former Beckwith Bridge explaining Council's recent decision. The letter is to explain why the Council has overturned the previous decision of Council on this matter – i.e. modern disability access requirements, escalating construction costs etc.*
 - 5. Instructs the CEO to install a checks and-balances process to prevent the expenditure of public monies on conceptual designs that do not take into account the full scope of required works (ie. disability access, public safety, statutory specifications etc). Upon the implementation of this new checks-and-balances process, the new procedure is to be articulated in a report to Council in January 2018."*
- Report presented to Council on 25 September 2017 (OM307) highlighted a number of the complexities and issues associated with the location such as:
 - Constructing the bridge within its confined access and complex alignment;
 - Providing safe all abilities access on the pathways leading to the bridge and across the bridge;
 - Vegetation issues and the need for a vegetation plan along with a cultural heritage plan and native vegetation offsets; and
 - Additional community safety requirements to meet Crime Prevention through Environmental Design (CPTED) requirements.

Refer to attached report as per Attachment A.

12.4 Response to Petition - Beckwith Grove Pedestrian Bridge, Seaford**Executive Summary**

- Joint CPTED assessment by Frankston City Council Community Safety Team and Frankston Police in 2017 recommended that the walkway and the footbridge should not be opened to general public due to significant community safety issues, privacy issues and location prone to antisocial behaviour.
- CPTED Assessment also noted that much safer public routes for foot traffic are available via Seaford Road Bridge (south) and Station Street Bridge (north). Refer to CPTED report as per Attachment B.
- A Consultant's report analysing the different type of structures which could be deployed to the site. This report also provided a preliminary 'Order of Magnitude' cost estimate comparison for a steel bridge which amounted to a total of \$740,000 (2017 estimate).

The estimated bridge cost also made provisions for the ancillary infrastructure works including all access abilities pathway to the bridge approaches, lighting, gate and CCTV to address the community safety CPTED requirements and necessary cultural heritage and environmental assessments.

- Additionally, Council is currently in the process of considering the sale of land parcel, located at 6R Beckwith Grove, Seaford. This land parcel previously provided an approximately 1.5 metre wide pedestrian link from Beckwith Grove to the eastern side of the Kananook Creek Reserve, via the former Beckwith pedestrian bridge which was removed at the late 2015/early 2016. A separate report relating to the proposed sale of the above parcel is being tabled for Council to consider at its March ordinary meeting.

Financial Impact

There is no budget allocation in the current 10 Year Long Term Infrastructure Plan for the provision of a pedestrian bridge across the Kananook Creek at Beckwith Grove.

Consultation**1. External Stakeholders**

Wider Community, Police, Kananook Creek Association and the Disability Access Inclusion Committee have been consulted in the past (2016/2017). No recent consultation process has taken place.

The Head Petitioner was advised that a response to petition will be considered by Council at its 9 March 2021 ordinary meeting.

2. Other Stakeholders

Council's Property Team and Community Safety Team have been consulted in this matter.

Analysis (Environmental / Economic / Social Implications)

Pedestrian access to the Seaford foreshore/beach is available via Seaford Road Bridge and Station Street Bridge, both of which are located less than 500 metres from the location of Beckwith Grove Bridge. Despite the alternative safe pedestrian access available, local residents have petitioned to have the bridge reinstated.

12.4 Response to Petition - Beckwith Grove Pedestrian Bridge, Seaford**Executive Summary****Legal / Policy / Council Plan Impact**Charter of Human Rights and Responsibilities

All matters relevant to the Charter of Human Rights and Responsibilities have been considered in the preparation of this report and are consistent with the standards set by the Charter.

The Charter of Human Rights and Responsibilities has been considered in the preparation of this report but is not relevant to the content of the report.

Legal

Council has no legal requirement to reinstate Beckwith Grove pedestrian bridge.

Policy Impacts

No policy impact associated with this report.

Officer's Declaration of Interests

Council officers involved in the preparation of this report have no Conflict of Interest in this matter.

Risk Mitigation

Demolition of original bridge in late 2015 addressed safety concerns previously highlighted by Council's structural bridge consultant.

Conclusion

A number of project update reports have been presented to Council regarding Beckwith Grove pedestrian bridge in 2016 and 2017. These reports included details of the outcome of community consultation, engineering assessment on available options to replace the bridge including consideration for a 'like to like' bridge and costings.

It has been noted and highlighted that the location of the bridge is in a constrained environment, would attract low usage and poses significant challenges in terms of reinstatement of the bridge from a cost, community safety and constructability perspective.

It is recommended that Council uphold the previous Council decision not to reconstruct the bridge at Beckwith Grove and advise the Head Petitioner accordingly.

ATTACHMENTS

Attachment A: [↓](#) Council Report - OM307 - 25 Sept 2017

Attachment B: [↓](#) CPTED Assessment

ORDINARY MEETING MINUTES

7

**25 September 2017
OM307**

12.8 Beckwith Grove Bridge Project Update

(GK Community Development)

Recommendation (Director Community Development)

That Council:

1. Receives an external report at Attachment A outlining a comparison of alternative materials that could be considered for the construction of Beckwith Grove Bridge.
2. Notes receipt of legal advice which outlines Council's legal obligations and the completion of an Access Audit and recommendations which enables Council to resolve to build the bridge with either with disability access or without disability access based on 'justifiable hardship'.
3. Resolves to:
 - 3a Reconstruct the bridge as a prefabricated steel I beam bridge with disability access and with additional safety measures as recommended by the CPTED safety Audit
 - Or
 - 3b reconstruct the bridge as a prefabricated steel I beam bridge without disability access and with additional safety measures as recommended by the CPTED safety Audit
 - Or
 - 3c. Do not reconstruct the bridge

Council Decision

Moved: Councillor Bolam

Seconded: Councillor Toms

That Council:

1. Receives an external report at Attachment A outlining a comparison of alternative materials that could be considered for the construction of Beckwith Grove Bridge.
2. Notes receipt of legal advice which outlines Council's legal obligations and the completion of an Access Audit and recommendations which enables Council to resolve to build the bridge with either with disability access or without disability access based on 'justifiable hardship'.
3. Resolves not to reconstruct the bridge.
4. Writes to all residents within immediate proximity to the former Beckwith Bridge explaining Council's recent decision. The letter is to explain why the Council has overturned the previous decision of Council on this matter – i.e. modern disability access requirements, escalating construction costs etc.
5. Instructs the CEO to install a checks and-balances process to prevent the expenditure of public monies on conceptual designs that do not take into account the full scope of required works (ie. disability access, public safety, statutory specifications etc). Upon the implementation of this new checks-and-balances process, the new procedure is to be articulated in a report to Council in January 2018.

Carried Unanimously

Chairperson's initials 

Reports of Officers

647

25 September 2017
OM307

Executive Summary

12.8 Beckwith Grove Bridge Project Update

Enquiries: (Gillian Kay: Community Development)

Council Plan

Community Outcome:	1. Planned City
Strategy:	1.1 Community Infrastructure
Priority Action	1.1.6 Ensure community infrastructure and services match community need

Purpose

To brief Council on the comparison of alternative materials as provided by an external bridge contractor enabling Council to determine the future project to build Beckwith Grove Bridge.

Recommendation (Director Community Development)

That Council:

1. Receives an external report at Attachment A outlining a comparison of alternative materials that could be considered for the construction of Beckwith Grove Bridge.
2. Notes receipt of legal advice which outlines Council's legal obligations and the completion of an Access Audit and recommendations which enables Council to resolve to build the bridge with either with disability access or without disability access based on 'justifiable hardship'.
3. Resolves to:
 - 3a Reconstruct the bridge as a prefabricated steel I beam bridge with disability access and with additional safety measures as recommended by the CPTED safety Audit
 - Or
 - 3b reconstruct the bridge as a prefabricated steel I beam bridge without disability access and with additional safety measures as recommended by the CPTED safety Audit
 - Or
 - 3c. Do not reconstruct the bridge

Key Points / Issues

- At the Ordinary Meeting 14th August 2017 Council deferred the Beckwith Grove Bridge item:

"That the matter be deferred pending the full exploration of cost effective alternative materials costs. Once these costs have been ascertained, the report returns to Council for consideration. The report is to return at the second September ordinary meeting with a view to making a formal decision on this matter."

Reports of Officers

648

25 September 2017
OM307

12.8 Beckwith Grove Bridge Project Update

Executive Summary

- Previously Council resolved at its Ordinary Meeting 8 August 2016:

“That:

1. Council notes its resolution made at Ordinary Meeting 290 on 18 July 2016:

‘That this Council resolves to support the reconstruction of the Beckwith Grove bridge like for like aesthetically and requests that it be referred to in the 2016/17 mid-year budget review and if not funded included in the 2017/18 Capital Works Program.’

2. Council amends its resolution made at Ordinary Meeting 290 on 18 July 2016 and resolves to complete the reconstruction of the Beckwith Grove bridge like for like aesthetically this financial year.

3. The head petitioner be advised of this council decision.

Further, Council at its Ordinary Meeting 20 February 2017 deferred a decision on the construction of the bridge until a meeting with the abutting neighbours of the walk way had occurred.”

- The planned reconstruction of the Beckwith Grove pedestrian bridge has been complex with a number of issues to consider including the increased costs due to:

The constructability of the bridge with its confined access.

The need for a decision to determine disability access of the pathways leading to the bridge and the bridge itself.

Vegetation issues and need for an environmental plan and potentially and cultural heritage plan.

Additional safety requirements as recommended by a Crime Prevention Through Environmental Design (CPTED) audit.

Additional earth, pipe and fencing works dependent upon Council's decision to reconstruct the bridge.

- To respond thoroughly to the resolution of the 14th August to explore costs of alternative materials officers engaged an experienced bridge contractor referred based on the construction of the Koala Bridge. The brief was to review the comparative costs of alternative materials suitable for Beckwith Grove Bridge.
- A summary table of the comparative costs are outlined below. Based on the resolution to build a cranked bridge (like for like) and clad with timber the steel I beam construction method represents the lowest cost.

	Single span	Design Intent	Straight	Cranked	Curved	Prefabrication	Cost Comparison Plus GST
Steel I Beam	Yes	Yes	Yes	Yes	Yes	Yes	\$200K
Timber Laminated	Yes	Yes	Yes	No	Yes	Yes	\$308K
Concrete	Yes	No	Yes	No	No	Yes	\$308K
Composite	Yes	No	Yes	No	No	Yes	\$352K

Reports of Officers

649

25 September 2017
OM307

12.8 Beckwith Grove Bridge Project Update

Executive Summary

- However, it should be noted that the above costs relate to the bridge only and do not include other work that will be required to completed the project including earth, pipe and fencing work on the western side of the creek, an Environmental Management Plan and recurrent costs for vegetation offsets, a Cultural Heritage Management Plan for the eastern side of the creek and any resulting costs together with the additional safety measures as recommended in the CPTED Audit. A breakdown of the add on costs are available in the confidential attachment. Importantly, to enable the project to progress Council is requested to resolve the following options:

Noting the legal advice outlining Council's obligations to consider disability access and the Access Audit resolve to either

- Reconstruct the bridge and pathways for people with disabilities; or
- Reconstruct the bridge without accessibility for people with disabilities.

Endorse inclusion of the additional safety measures in the project scope including: lighting, CCTV and lockable gates as per the CPTED audit recommendations.

Financial Impact

For the 2017-2018 financial year, the State Government Minister for Local Government has announced a limit on the amount Victorian councils may increase rates. The cap for the 2017-2018 financial year is 2%. The cap is based on the Consumer Price Index expected for the financial year.

This cap has a significant effect on Council's current Long Term Financial Planning, with rate revenue being \$9 million less than anticipated over the first four years, growing to \$17 million over five years. This reduction will have a severe impact on Council's financial capacity to maintain service levels and deliver key capital projects.

After additional design considerations further investigative work the cost of the bridge has increased to cover a number of additional requirements detailed by both statutory and community stakeholder requirements. This information has previously been presented to Councillors as part of a briefing. The cost of alternative materials is included in this report. The estimated cost of the bridge construction is supported by an external comparative materials report at Attachment A and a more detailed breakdown at confidential Attachment B which are to remain confidential pending the tendering process. Notwithstanding this, the tender process will attract a range of submissions which ideally would identify options to reduce the costs, ensuring design codes and Melbourne Water's requirements would still be met.

Consultation

1. External S takeholders

Following the presentation by residents of Beckwith Grove to Council at its Ordinary Meeting 20 February 2017, it was decided to defer the item pending a meeting with the neighbours abutting the walk way and obtaining a formal report a Police Safety report. The meeting, attended by Cr O'Connor, the CEO, Director Community Development, Manager Infrastructure and both neighbours, occurred 9 March 2017 to enable a visual understanding of the challenges as presented.

Reports of Officers	650	25 September 2017 OM307
12.8 Beckwith Grove Bridge Project Update Executive Summary		

Regular communication has been maintained when required with the property owners abutting the laneway and the head petitioner's family seeking the reconstruction of the bridge. Most recently this occurred following the onsite meeting 9 March, following the Councillors Agenda Review meeting to update stakeholders and the head petitioner and also to discuss the impact of widening the path with the neighbours abutting the walk way. They subsequently requested a meeting with the ward councillors.

The Police were consulted and undertook the CPTED audit. The view was that ideally the bridge would not be rebuilt, however, supported the bridge with the additional safety measures recommended in the CPTED report.

The Kananook Creek Association and the Disability Access Inclusion Committee has also been consulted.

An external contractor has been consulted with regard to alternative materials.

2. Other S takeholders

Meetings have taken place with internal subject matter experts in:

- Construction
- Environment
- Risk / insurance
- Safety
- Disability access
- Public Realm and Landscaping.

Numerous meetings and / or communication has taken place with residents, the head petitioner and internal subject matter experts in construction, the environment, safety, disability access and landscaping.

Melbourne Water - Melbourne Water is an approval authority, as Kananook Creek is a Melbourne Water Asset. The ability or not of constructing in or near the creek and its banks will be examined, together with environmental protections and controls as part of the detailed design process and during and post construction and for the ongoing use of the structure and site.

Cultural Heritage -Archaeological assessment for potential Aboriginal and European archaeological remains has not been undertaken. Should Council resolve to build the bridge to cater for people with disabilities this assessment and technical expertise to examine and assess the site will be required.

The Department of Environment Land Water and Planning - It is understood that DELWP will be a stakeholder for consultation/approval together with Environmental Protection Authority.

Analysis (Environmental / Economic / Social Implications)

While pedestrian access to the Seaford foreshore, shops and train station is available via Nepean Highway, local residents have petitioned to have the bridge reinstated.

Legal / Policy / Council Plan Impact

Charter of Human Rights and Responsibilities

The Charter of Human Rights and Responsibilities has been considered in the preparation of this report but is not relevant to the content of the report.

Reports of Officers	651	25 September 2017 OM307
12.8 Beckwith Grove Bridge Project Update Executive Summary		

Legal

There are legal requirements in relation to the construction of this bridge as outlined above and legal advice discussed in confidential Attachment A.

Policy Impacts

Council has embedded the requirements of the Disability Action Plan into its Municipal Health and Wellbeing plan

Officer's Declaration of Interests

Council officers involved in the preparation of this report have no Conflict of Interest in this matter.

Risk Mitigation

Cost escalation, disability access, legal obligations, environmental management and personal safety issues have all been raised in reports and briefings to councillors with respect to Beckwith Grove Bridge.

Mitigation is primarily reliant on ensuring the bridge and its accesses are safe and compliant and the reserve's vegetation is protected as much as reasonably possible. To this end a series of reports from technical experts is listed in this report to guide and minimise risk events.

An Access Audit was undertaken in July 2017 with a subsequent report received outlining recommendations and the case for 'unjustifiable hardship' should the Council resolve the bridge be constructed without access for people with disabilities and a complaint of discrimination be lodged.

Conclusion

Consideration of alternative building materials has been attached to this report for Council's consideration of the construction of the Beckwith Grove Bridge.

Construction and materials has taken into account the engineering design standards and controls, Melbourne Water's requirements as the referral authority.

A key consideration to rebuild the bridge prior to tendering the work is whether to apply best practice and build it with access for people with disabilities or alternatively, without access for people with disabilities.

The second key consideration is the adoption of the recommendations of the CPTED Audit to include the safety measures of lighting, CCTV and lockable gates into the project scope. This is recommended.

ATTACHMENTS

Attachment A: Beckwith Bridge Analysis

Attachment B: Preliminary Cost Estimates - Confidential (*Under Separate Cover*)



GR Design & Construct Pty Ltd ABN 52 132 285 511
112 Salmon Street, PORT MELBOURNE VIC 3207
Phone: 1300 733 492 | Fax: (03) 8616 0771
Email: recprodvic@grdesignandconstruct.com.au

GR DESIGN AND CONSTRUCT

BECKWITH GROVE BRIDGE ANALYSIS



GR Design & Construct Pty Ltd - ABN 52 132 285 511
112 Salmon Street, PORT MELBOURNE VIC 3207
Phone: 1300 733 492 | Fax: (03) 8616 0771
Email: recprodvic@grdesignandconstruct.com.au

Table of Contents:

Steel I-beam
Timber beam
Concrete
Composite material
Summary
Recommendations
Preliminary Drawing





GR Design & Construct Pty Ltd ABN 52 132 285 511
112 Salmon Street, PORT MELBOURNE VIC 3207
Phone: 1300 733 492 | Fax: (03) 8616 0771
Email: recprodvic@grdesignandconstruct.com.au

Steel I-beam Construction – Timber clad



- Clear span achievable
- Cranked, curved and truss options available
- Multiple handrail options
- Prefabricated off site / sections joined on site
- Flexibility in materials: decking, joists, handrail, cladding
- Installed in single crane lift
- 10 – 12 week lead time
- Cost estimate: \$9 – 10k per lineal metre allowance at the Beckwith Grove Location



GR Design & Construct Pty Ltd ABN 52 132 285 511
112 Salmon Street, PORT MELBOURNE VIC 3207
Phone: 1300 733 492 | Fax: (03) 8616 0771
Email: recprodvic@grdesignandconstruct.com.au

Laminated Timber Beam Construction



- Clear span achievable
- Straight or curved options available
- Multiple handrail options
- Limited clearance to underside of beams
- Cranked option available only with additional piers
- Prefabricated off site
- Installed in single crane lift
- Flexibility with handrail design and decking materials
- Limited manufacturing capability – specialty construction
- Increase in transportation costs – single member spans
- Additional maintenance required
- 20+ week lead time
- Cost Estimate: \$13 – 15k per lineal metre allowance at the Beckwith Bridge Location



GR Design & Construct Pty Ltd ABN 52 132 285 511
112 Salmon Street, PORT MELBOURNE VIC 3207
Phone: 1300 733 492 | Fax: (03) 8616 0771
Email: recprodvic@grdesignandconstruct.com.au

Concrete Construction



- Clear span achievable
- Straight or curved options available
- Cranked option available only with additional piers
- Will not match pre-existing Beckwith Grove Bridge
- Prefabricated off site
- Installed in single crane lift
- Flexibility with handrail design
- Limited manufacturing capability – specialty construction
- Increase in transportation costs – single member spans / weight
- Additional cost in crane installation - weight
- 14 - 16 week lead time
- Cost Estimate: \$12 - 15k per lineal metre allowance at the Beckwith Bridge Location



GR Design & Construct Pty Ltd ABN 52 132 285 511
112 Salmon Street, PORT MELBOURNE VIC 3207
Phone: 1300 733 492 | Fax: (03) 8616 0771
Email: recprodvic@grdesignandconstruct.com.au

Composite Material Construction



- Clear span achievable
- Straight option only as clear span
- Cranked option available only with additional piers
- Will not match pre-existing Beckwith Grove Bridge
- Prefabricated off site
- Installed in single crane lift
- Limited handrail / balustrade options
- Multiple decking options available
- Limited manufacturing capability – specialty construction
- Increase in transportation costs – single member spans
- 14 - 16 week lead time
- Cost Estimate: \$16 - 18k per lineal metre allowance at the Beckwith Bridge Location

Reports of Officers 12.8 Beckwith Grove Bridge Project Update Attachment A: Beckwith Bridge Analysis	658	25 September 2017 OM307
--	-----	-------------------------



GR Design & Construct Pty Ltd ABN 52 132 285 511
112 Salmon Street, PORT MELBOURNE VIC 3207
Phone: 1300 733 492 | Fax: (03) 8616 0771
Email: recprodvic@grdesignandconstruct.com.au

Summary

	Single Span	Design Intent	Straight	Cranked	Curved	Prefabrication	Cost Comparison
Steel I-beam	✓	✓	✓	✓	✓	✓	Low
Timber Lam	✓	✓	✓	x	✓	✓	High
Concrete	✓	x	✓	x	x	✓	Medium
Composite	✓	x	✓	x	x	✓	High

GRDC has been to site with a number of required contractors and understands the projects requirements and complexities. Discussion has been held with piling contractors, crane operators and the GR Project Management Team. We understand the site constraints in regards to access from the eastern bank and feel in our preliminary work we have addressed that. Further, we understand that it is a Melbourne Water Asset and a Permit to Work will be required. We feel our steel preliminary design will satisfy MW requirements for the location.

Steel I-beam Construction:

The timber-clad steel I-beam bridge option has the flexibility in design and construction to achieve the best overall outcome for the project. Aesthetically the bridge will be similar to the pre-existing timber bridge without the need of piers in the waterway. Oiled or painted timbers can be used to clad the structure to replicate the bridges at Beach St and Flocchi Ave. Construction cost and time are reduced in this option due to the availability of materials and simplicity of the construction method. Maintenance will be required for oiling/painting.

Laminated Timber Construction:

The span required for a laminated timber beam bridge is approaching the maximum allowable for such construction within the site constraints. The timber beams be will in the region of 800mm in height and require ongoing maintenance to ensure that the structure performs well for the life span of the structure. Handrail design options will be compromised by the height of the timber beams with minimal resemblance to the pre-existing structure. To achieve an acceptable clearance to the river a cranked option is more suitable although this will require two sets of piers in the water way. Lead times are extended to allow for the fabrication of the laminated members with costs also escalating for specialty construction and transportation costs.

Reports of Officers 12.8 Beckwith Grove Bridge Project Update Attachment A: Beckwith Bridge Analysis	659	25 September 2017 OM307
--	-----	-------------------------



GR Design & Construct Pty Ltd ABN 52 132 285 511
112 Salmon Street, PORT MELBOURNE VIC 3207
Phone: 1300 733 492 | Fax: (03) 8616 0771
Email: recprodvic@grdesignandconstruct.com.au

Concrete Construction:

Concrete construction whilst having an increased expected life span has limited variations available in terms of finishes. The structure can be dressed with timber to improve the aesthetics of the bridge however it will not resemble the previous bridge structure. Further as the concrete structure will come as a 'complete' structure the logistics involved in transportation and installation make this option the least desirable due to the added costs. We feel that the concrete option is cost prohibitive and not suited given the scope of the project.

Composite Bridge Construction:

The composite structure option can only be installed as a straight beam or truss arrangement. Without additional sets of piers in the waterway, this construction material is not a viable option. To gain adequate clearance from the underside of the bridge beams, the span will need to be increased significantly affecting the cost dramatically. As there are major constraints on the eastern bank of the creek increased clearance is not possible as a single span. The overall cost of the installation of a composite material bridge will be the highest of all four options.

Recommendation:

In consideration to the project scope, location and constraints, GRDC is recommending a timber clad steel I-beam bridge. This option is best suited to the project for the following reasons:

- Design intent – similarity to pre-existing structure
- Cost – most cost effective
- Prefabrication off site
- Increased clearance to underside – cranked option
- Ease of onsite installation



Crime Prevention through Environmental Design Audit

Beckwith Foot Bridge

TO: [REDACTED] – Director Community Development

FROM: [REDACTED] – Coordinator Compliance & Safety
[REDACTED] – Senior Sergeant OIC Frankston Police.

REF: A3318835

DATE: 17th March, 2017

RE: CPTED Assessment – Beckwith Foot Bridge Seaford.

Situation:

Crime Prevention through Environmental Design (CPTED) Audit assessment requested for the Frankston City Council walkway and foot bridge, located in Beckwith Grove Seaford near Brodie Street. This request is as a result of concerns by neighbours about the reopening of the walkway and Foot Bridge and the impact on their personal safety, particularly during the night.

Location:

The Frankston City Council owned walkway once operated as a walk through connecting Beckwith Grove and the eastern side of Kananook Creek Reserve via a footbridge that crosses the creek itself. Neighbours to the walkway estimate that when the bridge was in service it was utilised by up to 20 pedestrians per day. Public access is available via Beckwith Grove and is isolated and generally out of sight from the general community. The entry from Beckwith Grove is consealed by vegetation leading to a walk way that is 1.3 Meters wide and 61 Meters to the Creek.

There is currently no public access and no indication of infrastructure such as CCTV or lighting other than one street light at the corner of Beckwith Grove and Brodie Street.

The walk way is fenced both sides by high wooden fences that are currently broken and leaning inward to the pathway.

No public car parking is provided on site or near the location of the walkway the area is accessed by gravel roads that service 18 properties.

Photo 1 below –

Indicates overview of location at Beckworth Grove, Seaford as described.



Area Demographic / Topography:

Beckworth Grove is located on the outer perimeter of the Seaford Shopping District, and between the Nepean Hwy and Kananook Creek. The general locality comprises residential, light commercial business and retail. The residential properties vary from single establishment to multiple unit type developments with a recent increase noticed with town house type developments. Housing statistics indicate a high proportion of the housing is used for rental with above 28% of resident families falling into the low income bracket.

Comments Regarding Security.

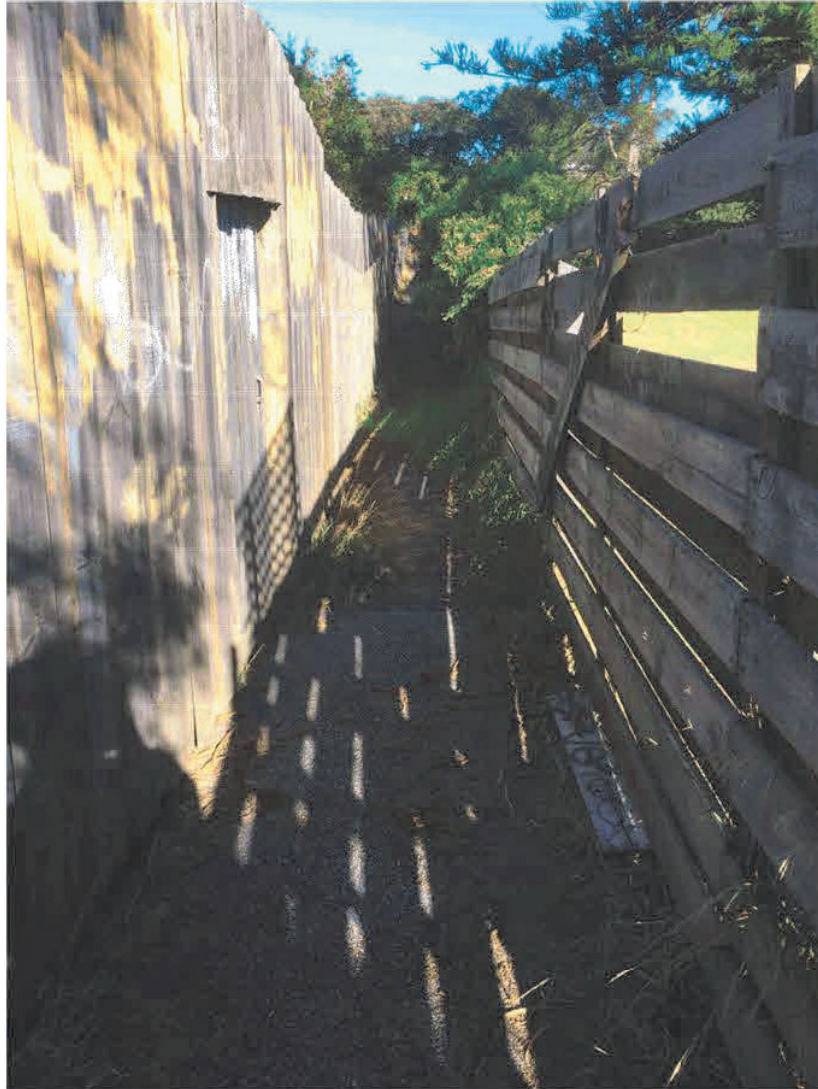
Access/Egress

- Entrance and egress – entrances and exits to the walkway / foot bridge are concealed from public surveillance and view.
- Infrastructure – No relevant infrastructure was observed, including CCTV or public lighting.
- The entry / exit on the eastern side of Kananook Creek split to 3 exits and has no significant infrastructure.

Perimeter Security

- Entries are current closed to the public with cyclone type fencing
- Boundary fencing is of good height however is currently in a state of disrepair and allows for the public to view in to private property from the foot bridge entries

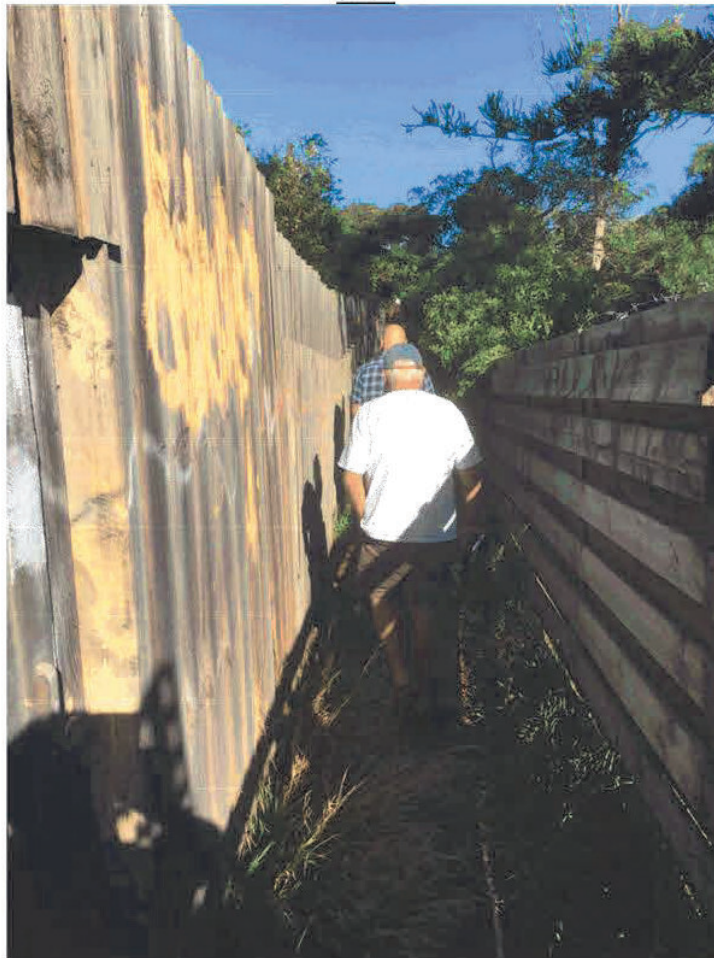
Photo 2 shows Boundary Fencing adjoining 8 & 6 Beckwith Grove.



Surveillance

- The area is not fitted with exterior fixed CCTV camera systems.
- The area is not in open space allowing public surveillance.
- The Walkway is only 1.3 Meters wide not allowing foot traffic to pass each other.

Photo 3 - Highlights the width of the path and the inability to allow pedestrians to pass each other.



NOTE: Graffiti on fences when the walkway was on to the general public.



One Street Light in area



Vegetation allowing for offenders to hide.



Current entry from Beckwith



Creek Crossing point

Recommendations

After a CPTED evaluation we make the following comments and recommendations regarding the general level of public safety in the event that this walkway is reopened to the general public.

It is recommended to not reopen the walk way without the following

- Adequate CCTV be installed that feeds back to the Frankston Police Complex
(Note that due to the width of the walkway this may not be possible)
- No CCTV is to view private property
(Note that due to the width of the walkway this may not be possible)
- Adequate public lighting to be installed.
(Note that due to the width of the walkway this may not be possible)
- Walkway be locked and closed to the general public after dusk every night.
- Vegetation surround walkway be removed and uplifted to allow for public surveillance.

Whilst the above may be achieved with significant costs and works, the walkway is only 1.3 Meters wide this is considered a significant danger as a person has no clear exit away from an offender that may be approaching this is considered significantly worse for people with prams pushing children and people in wheel chairs. It would also be difficult to block public view of private property resulting in privacy concerns for the neighbouring property. It would be expected that the area would be subject to antisocial behaviour due to its location as a walkway through from the beach to Seaford rail station.

It is also noted that the Seaford Road Bridge is within 280 meters and offers a much safer public route for foot traffic, as does the Station Street Bridge 418 meters to the north.

It is for these reasons we do not recommend that this walkway and foot bridge be reopened to the general public.

[Redacted Signature]

Coordinator Compliance & Safety
Frankston City Council

[Redacted Signature]

Senior Sergeant
Frankston Police