

HEARING BEFORE the Gisborne District Council Independent Commissioners

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of applications by Eastland Port Ltd to upgrade Wharf 6 and 7 at the Port of Gisborne.

STATEMENT OF EVIDENCE OF DAVID AUBOURG

INTRODUCTION

1. My full name is David Geoffrey Aubourg. I am a Principal Port Engineer at WorleyParsons Ltd (WorleyParsons hereafter) in Sydney. I hold a Bachelor of Engineering (Civil). I have over twenty years of engineering experience in port development in Australia, New Zealand and other countries. I have been working on port development projects for Eastland Port for nearly five years.
2. This evidence is presented in support of the resource consent application by Eastland Port Ltd (Eastland Port) to upgrade Wharf 6 and 7. I have led and managed the engineering aspects of the project and assisted preparing the engineering report submitted as part of the application.
3. My evidence has been prepared in accordance with the 'Code of Conduct for Expert Witnesses' in the Environment Court Consolidated Practice Note. It is within my area of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

SCOPE OF EVIDENCE

4. My evidence covers the engineering design and construction works to be undertaken as part of the upgrade of Wharf 6 and 7. WorleyParsons report "301015-03380-MA-REP-005 provides a more detailed description of this work.
5. The key aims of the engineering design have been to upgrade Wharf 6 and the northern end of Wharf 7 to accommodate new tug boats with associated dredging, and replacing the existing dilapidated Wharf 7 to allow for the safe berthing of existing and future larger vessels. The proposed extent of works is shown on Drawing 301015-03380-MA-DWG-0016, which is included within the aforementioned report and in Attachment A of this evidence.
6. Eastland Port have recently reviewed the condition of Wharf 7 and it has been found to be in poor condition and unsuitable to support existing traffic and ship loads. Due to its original construction, remediation of the wharf will be expensive

and require ongoing works, while not supporting the future ships expected to utilise this wharf.

7. Eastland Port will also take the opportunity to capture stormwater runoff from Wharf 6 and 7 and pass the collected water through the Wharfside Logyard (WLY) Stormwater Treatment System. This system will treat the water to a much higher standard than runoff from these areas is currently treated to.
8. An additional benefit of these upgrades is that EPL propose to capture water from the areas behind the wharves, currently draining directly into the harbour or collected in pit and pipe networks and discharged via outlets under the wharf, and also treat these within the expanded WLY treatment system.
9. The WLY treatment system collects stormwater into a storage device, from which it is gradually pumped through a lamellar clarifier treatment system before discharge to the harbour. The treatment system includes the addition of coagulant and flocculant to enhance the performance of the clarifiers and provide a higher quality water discharge than occurs from water draining directly to the harbour.
10. Design aspects allowing the tug boats to berth at Wharf 6 can be seen in 301015-03380-MA-DWG-007 and 301015-03380-MA-DWG-008 in Attachment A, and include:
 - removal of fill behind the existing retaining wall to relieve pressure before fill is installed in front of the wall
 - demolition of the existing wharf
 - installation of a new quay wall, 1 m further into the river than the existing quay line
 - dredging in front of the new wall and filling behind the new wall
 - a new fendering arrangement to accommodate the new tugs.
11. Design aspects to allow Handymax sized vessels and larger equipment on the hardstand area at Wharf 7 can be seen in 301015-03380-MA-DWG-0016 and 301015-03380-MA-DWG-0015 in Attachment A, and include:
 - demolition of the existing wharf
 - installation of a new quay wall and rock anchors
 - filling behind the new quay wall
 - install the hardstand area
 - installing new fendering and bollards.
12. It is unlikely that any of the demolished material will be re-used, as the concrete contains reinforcing, preventing crushing for use as backfill.
13. Detailed design and construction works are to be undertaken using a Design and Build contract and, therefore, exact design details and construction methodologies are not available. However, the notes below describe how it is expected that construction work will occur.
14. Construction of Wharf 6 will occur in two stages that will take approximately 6 months each; however, stage two will occur at a later stage when a second new tug

is procured, or maintenance of this section of Wharf 6 determines an upgrade is required.

15. Construction of Wharf 7 will be conducted in a single stage after the Wharf 6 construction and take approximately 14-16 months.
16. Wharf 6 is to be fitted with a refuelling hardstand area, which will be bunded to capture any spill and subsequently minimise contamination of “clean water” during rainfall events.
17. Due to the low current velocities within the proposed dredge area, silt plumes are not expected to travel to the harbour entrance or into the inner harbour basin. Nevertheless, should silt plumes and turbidity become an issue during works, silt curtains could be installed around the perimeter to contain any plumes.
18. Construction will be limited to the wharf and hardstand areas, with increased truck movements along The Esplanade and Crawford Road during this period. There will be a maximum of approximately 30 trucks/day accessing the site for each stage, with a Traffic Management Plan prepared for the construction phase of the works.
19. A Construction Management Plan will be prepared covering management of the site and compliance with relevant health, safety, environment, noise and other requirements, including those that are part of the Conditions of Consent.

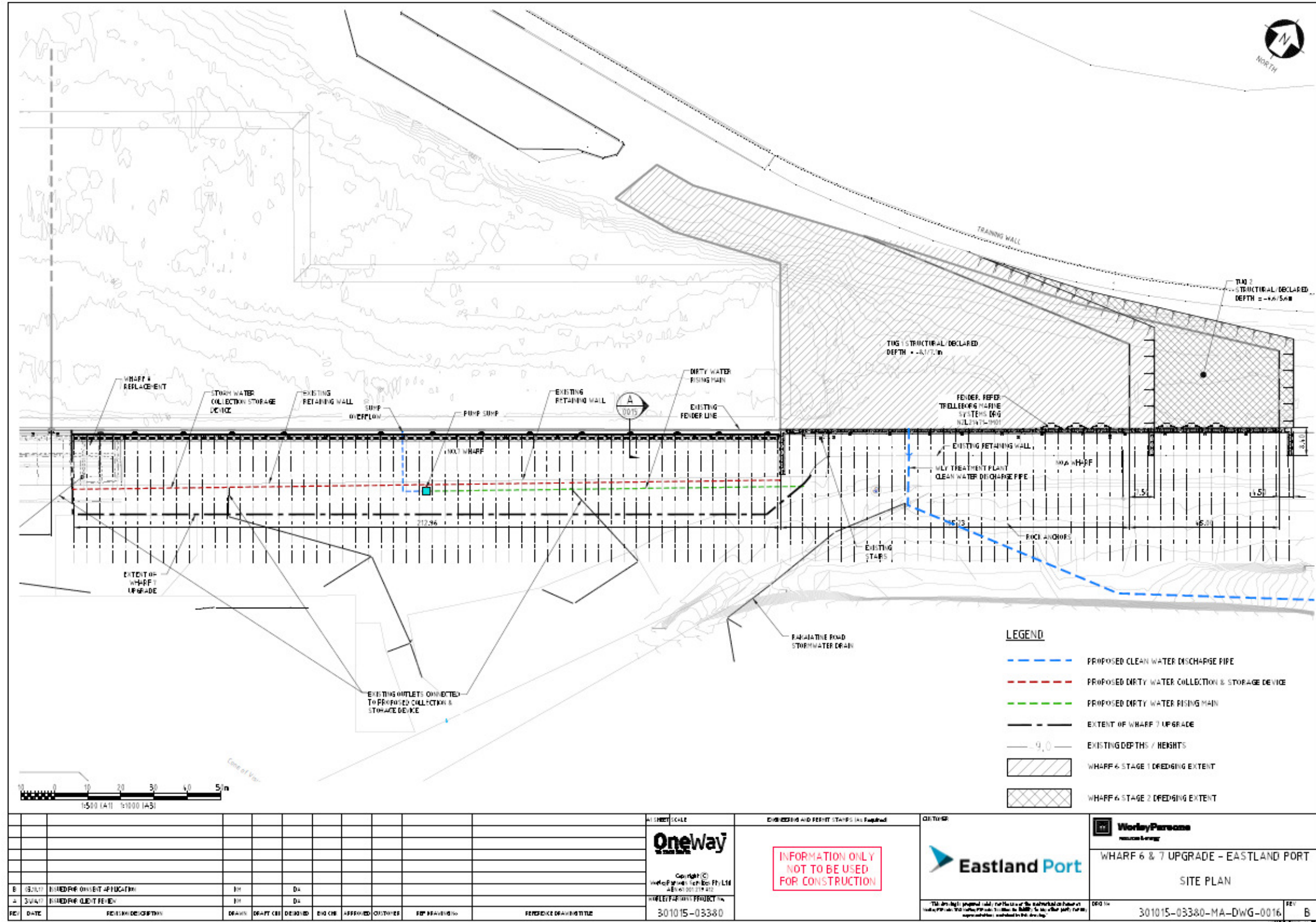
RECOMMENDED CONSENT CONDITIONS

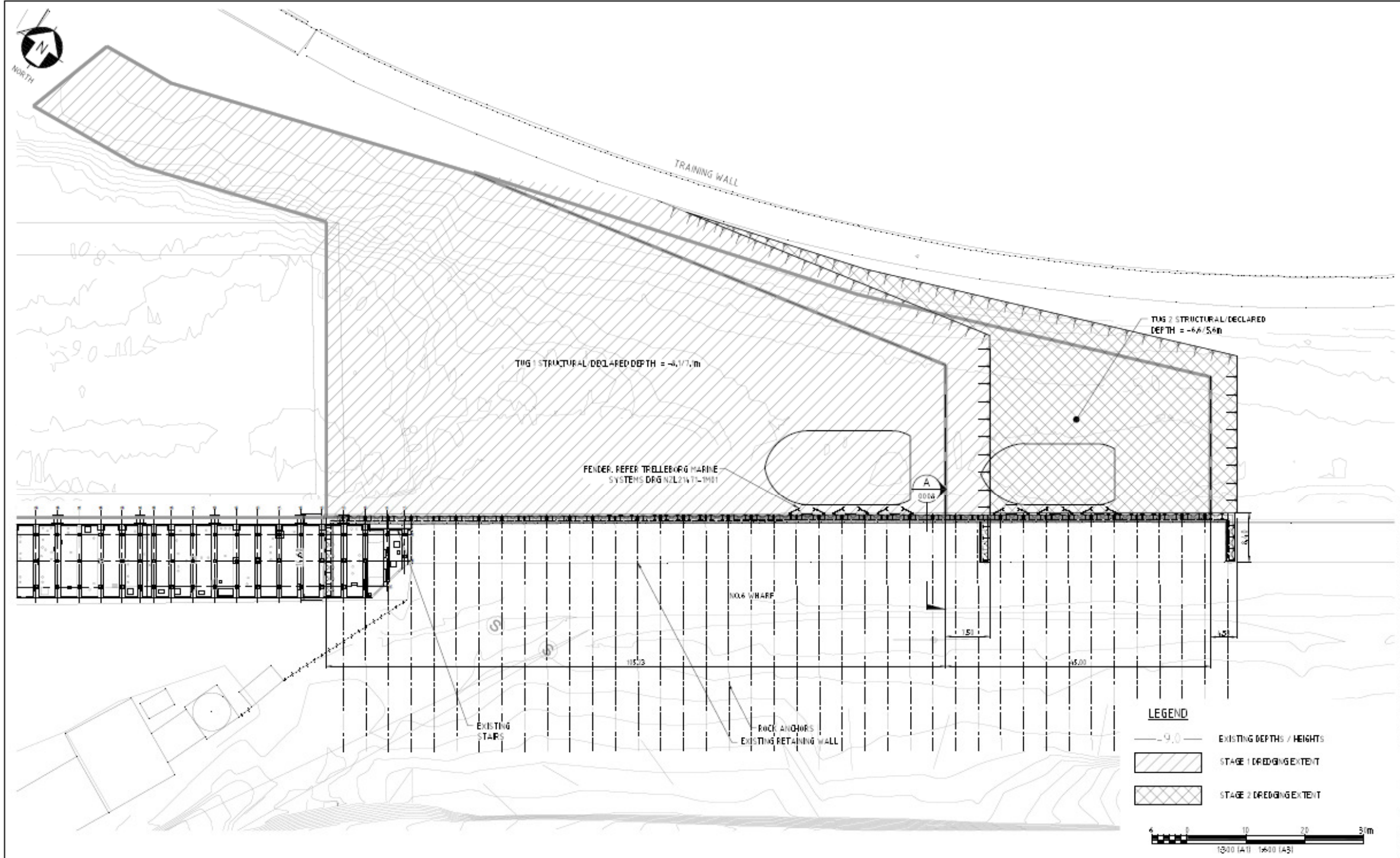
20. I have reviewed the Recommended Conditions of Consent included within the Gisborne District Council’s Officer’s Report dated 1 May 2018. I have no concerns with any conditions from an engineering perspective, but would like to comment on one aspect of Condition 48.
21. Condition 48 accepts that stormwater sampling associated with the WLY treatment system is suitable, but requires it to target the first flush for Wharf 6 and 7. The stormwater from Wharf 6, 7 and the WLY is collected within the same storage device, and then gradually pumped through the treatment system.
22. As the water is all combined together, the impact of the Wharf 6 and 7 first flush on the discharge to the harbour may not be as significant as in a typical stormwater system which discharges without delay.

David Aubourg

10 May 2018

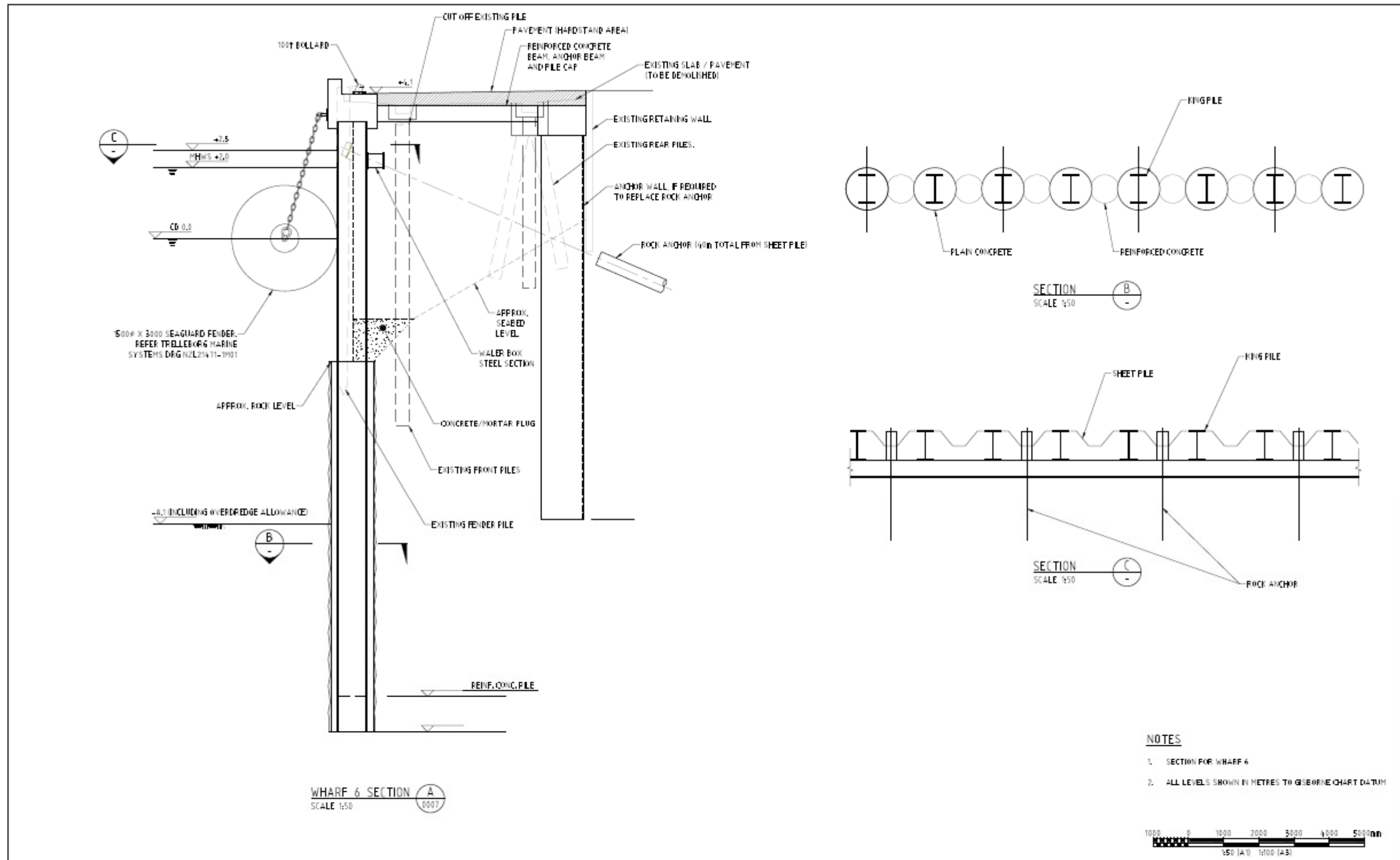
ATTACHMENT A





REV	DATE	REVISION DESCRIPTION	DESIGN	DEPT	CHKD	APPV	OUTLINE	REP	REVISION TITLE
F	13/10/17	REVISION ORIENT APPLICATION	EN	PA		DA			
E	14/10/17	REVISION ORIENT APPLICATION	EN	PA		DA			
D	15/10/17	REVISION ORIENT APPLICATION	EN	PDC	AB	DA			
C	15/10/17	REVISION ORIENT APPLICATION	EN			AB			
B	15/10/17	REVISION ORIENT APPLICATION	EN			AB			
A	15/10/17	REVISION ORIENT APPLICATION	EN			AB			

PROJECT SCALE	DATE ISSUED AND PRINT STAMPING REQUIRED	CUSTOMER
Oneway	INFORMATION ONLY NOT TO BE USED FOR CONSTRUCTION	Eastland Port
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PROJECT IDENTIFICATION		WHARF 6 UPGRADE - EASTLAND PORT
301015-03380		SITE PLAN
		301015-03380-MA-DWG-0007
		F



NOTES

- SECTION FOR WHARF 6
- ALL LEVELS SHOWN IN METRES TO GEORGINA CHART DATUM

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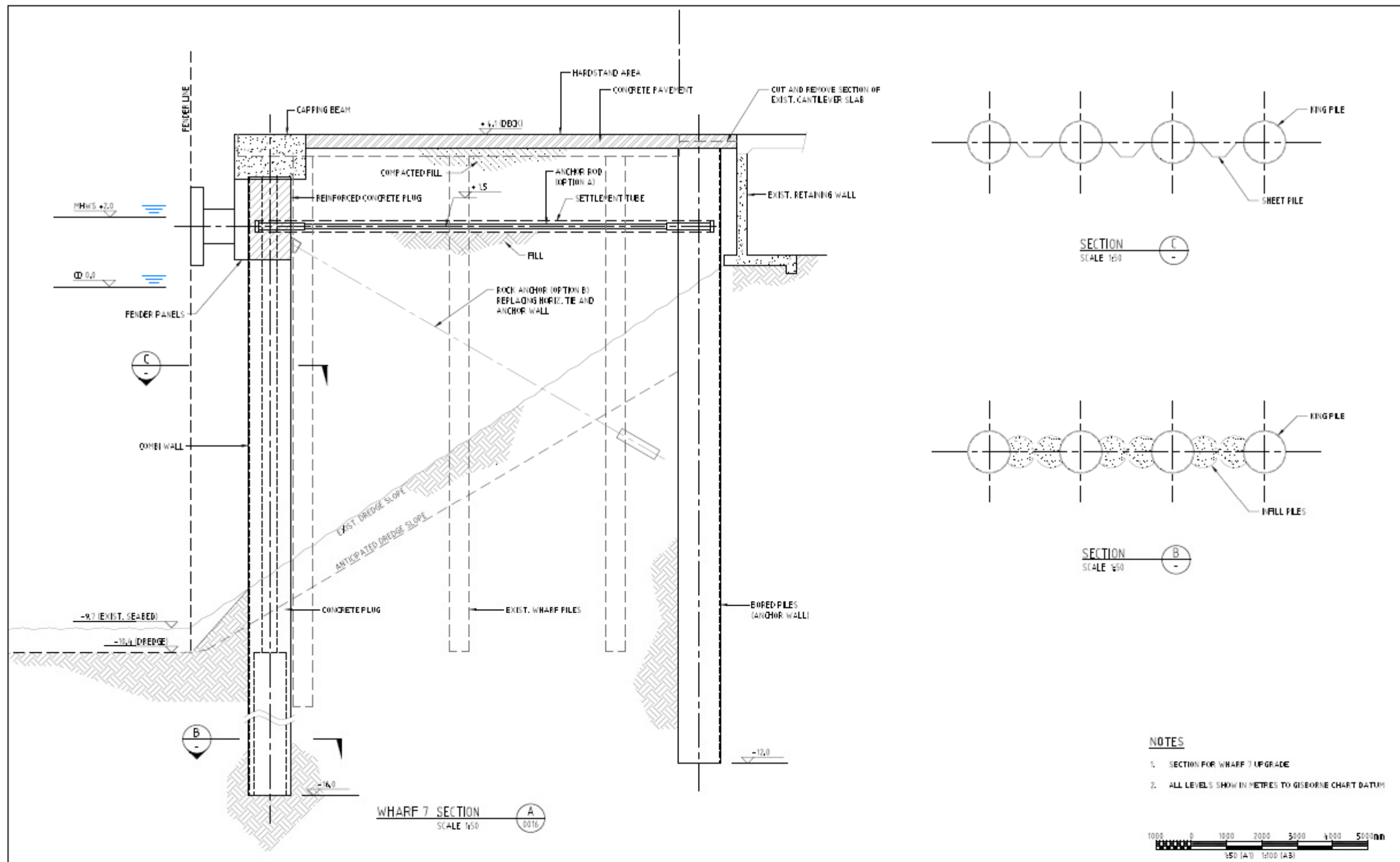
REV	DATE	REVISION/DESCRIPTION	DRAWN	DRAFT	CHKD	ENGR	APPROVED	OUTPOST	REP	REVISION	DESCRIPTION
D	18/01/17	EXISTING DESIGN APPLICATION	BN	BN	BN						
C	16/01/17	REVISIONS	AN		BS						
I	16/01/16	REVISIONS	EN		4ER						
A	15/01/14	INITIAL DESIGN	EN		4ER						

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Eastland Port

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 WHARF 6 UPGRADE - EASTLAND PORT
 TYPICAL SECTIONS
 301015-03380-MA-DWG-0008
 REV D



NOTES

- SECTION FOR WHARF 7 UPGRADE
- ALL LEVELS SHOWN IN METRES TO GIBBORNE CHART DATUM

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1:50 (A) 1:100 (A3)

REV	DATE	REVISION DESCRIPTION	DESIGN	DEPT CH	DESIGN	CHK	APPROVED	DATE	REP	PROJECT NO.	PROJECT TITLE
E	13/11/17	REVISIONS FOR CONSTRUCTION	DR	RS	DA					301015-03380	WHARF 7 UPGRADE - EASTLAND PORT
A	14/11/17	REVISIONS FOR CONSTRUCTION	DR	RS						301015-03380	WHARF 7 UPGRADE - EASTLAND PORT

Scale: 1:50

Oneway

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WHARF 7 UPGRADE PROJECT NO.
301015-03380

DESIGNED AND CHECKED BY: [Redacted]

DATE: [Redacted]

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Eastland Port

THE DESIGN IS PRELIMINARY AND NOT TO BE USED FOR CONSTRUCTION WITHOUT THE APPROVAL OF THE DESIGNER.

WorleyParsons
resources energy

WHARF 7 UPGRADE - EASTLAND PORT

TYPICAL SECTIONS

301015-03380-MA-DWG-0015

REV: B

PROJECT: WHARF 7 UPGRADE - EASTLAND PORT
 SHEET: TYPICAL SECTIONS
 DATE: 14/11/17