

STANDARD NOTES

GENERAL

- G1.

These drawings are to be read in conjunction with any and/or all other consultant's drawings and specifications, and with such other written instructions as may be issued during the course of the construction.
- G2.

Details shown on these drawings are applicable only to the areas shown on the attached plan(s).
- G3.

All workmanship and materials shall be in accordance with the drawings, the project specification (if applicable) and the current, relevant Australian Standards, the Building Code of Australia and other statutory requirements.
- G4.

The builder/contractor shall confirm all relevant dimensions before commencing construction. Setting out dimensions and sizes of structural members shall not be scaled from the drawings.
- G6.

No substitutions, other than the alternatives shown on the drawings, shall be made without the written approval of Gippsland Ports.
- G7.

The builder/contractor shall maintain the works in a safe, stable condition and ensure that no part shall be over-stressed during construction.
- G8.

If, at any time prior to practical completion, the builder/contractor becomes aware of any sign of distress, excessive settlement or deflection, conflict of components, or any other indication whatsoever of actual or potential damage to the works, or any part thereof, the builder/contractor shall notify Gippsland Ports and confirm such notice in writing as soon as practicable.
- G9.

Design criteria adopted:

- Jetty live load

10.0 kPa uniformly distributed or 45 kN concentrated (non-current)

- Wind load

Region A-1, Terrain category 1.0, Importance level 2

No shielding or topographic effects (Ms = Mt = 1.0)

- Vessel load

200 T displacement, 0.25 m/s berthing speed

- Design literature

AS1170.0, AS1170.1, AS1170.2 Structural design actions

AS1657 Fixed platforms and walkways

AS4997 Guidelines for the design of maritime structures

DEMOLITION

- D1.

All demolition works to be undertaken an appropriate qualified and experienced contractor.
- D2.

All services to be isolated and decommissioned prior to the commencement of demolition works.
- D3.

Where adjacent structures are close by, or may be affected by demolition activities on the site, a dilapidation survey of the adjacent structures, to identify their existing condition, is to be undertaken and a report provided to the superintendent prior to the commencement of demolition works.
- D4.

All demolition materials, other than those nominated for salvage and/or re-use in the new works, shall be disposed of off-site at a facility which can lawfully receive demolition waste classified in accordance with EPA guidelines.
- D5.

Hazardous materials shall be removed and disposed of in accordance according to the relevant statutory requirements.
- D6.

Temporary support shall be provided to adjacent structures where required. Any damage caused to adjacent structures, as a result of the demolition works on the site, shall be repaired to a quality not less than the existing condition prior to the commencement of demolition works.

TIMBER

- T1.

All workmanship and materials shall be in accordance with AS1720.
- T2.

All bolted connections shall use washers under the bolt head and nut. No knots or defects shall occur with 150 mm of the bolt group or connectors. Where possible, re-tighten bolts after 6 weeks and again after 12 months.
- T3.

Member sizes specified on the drawings give the depth first, followed by the width. Such dimensions are nominal only.
- T4.

Make good preservative treatment where checkouts, holes and cuts expose untreated timber.
- T5.

All external timbers shall be durable and suitable for external use and/or comply with the appropriate hazard level for the specific service conditions in which the external timber is to be used.
- T6.

No penetrations or chases, other than those shown on the engineering drawings, shall be made without prior approval of the Engineer.
- T7.

All bolts, nuts and washers to be hot-dip galvanised or Grade 316 stainless steel.
- T8.

Timber used in termite declared areas shall be appropriately treated in accordance with the manufacturer's or supplier's recommendations to the meet the specific termite resistance required.

CONCRETE & REINFORCEMENT

- C1.

All workmanship and materials shall be in accordance with AS3600.
- C2.

The characteristic compressive strength (F'c) of concrete shall be one of the following:

Mass concrete, footings

20 MPa

Precast concrete elements

50 MPa

Specified concrete strengths are required at 28 days, UNO. Maximum slump 80 mm.

Nominal maximum aggregate size is 20 mm.
- C3.

Concrete sizes shown are minimum sizes and do not include finishes. Sizes must not be reduced or holes formed or made in any member.
- C4.

Depths of beams are given first and include slab thickness. Slabs and beams are to be poured together.
- C5.

Minimum cover (mm) to all reinforcement, including fitments, shall be as follows, UNO

	Surface in contact with ground	Above ground exterior environment
Footings & piers	50	-
Precast elements	50	65 bottom, 50 top & sides
- C6.

All reinforcement and inserts shall be supported and held in the design location by approved spacers or ties. Reinforcing bars shown on drawings are diagrammatic only and may not be shown in their absolutely true position for clarity.
- C7.

Symbols on the drawing for reinforcement are as follows

N	Grade 500 MPa deformed reinforcing bars to AS1302
F	Hard-drawn steel wire reinforcing fabric to AS1304
R	Grade 250 MPa plain reinforcing bars to AS1302
TM	Hard drawn steel trench mesh to AS1304

The number immediately following the bar grade symbol represents the nominal diameter (mm). The figure following the fabric symbol is the reference number. The number preceding the trench mesh symbol indicates the number of main wires. Reinforcement spacing not shown to be taken as equal.
- C8.

Splices in reinforcements shall be made only in the positions shown or as otherwise approved by a Structural Engineer. Welding of reinforcement shall not be permitted unless shown on the drawings. Welded splices, in accordance with AS1554.3, may be used in lieu of lapped bars.
- C9.

All hooks, cogs, bends and lap lengths, including side and end laps in welded mesh reinforcement, shall be in accordance with the requirements of AS3600, unless shown otherwise on the drawings.
- C10.

Concrete members bearing onto FRP members shall be separated by an elastomeric or HDPE bearing pad.

FIBRE REINFORCED POLYMER (FRP)

- F1.

All FRP members shall be manufactured with vinyl ester resin and be resistant to ultraviolet rays.
- F2.

Glass fibres used in the manufacturer of FRP members shall be ECR-glass fibres with a glass fibre mass to volume content of 65% and 48% by volume.
- F3.

All FRP members bearing on concrete or steel surfaces shall be separated by an elastomeric or HDPE bearing pad. This requirement also applies to concrete or steel members bearing onto FRP members.
- F4.

Coatings damaged during transport or erection shall be made good.
- F5.

Bolted connections shall satisfy a miminum edge of distance of 25mm where possible.
- F6.

Recommended bolt hole diameters, washer sizes and maximum fixing torque shall be in accordance with the FRP manufacturer's recommendations / specifications. Periodic inspection and tightening of bolts may be required to ensure nuts have not worked loose.
- F7.

All bolted connections shall use washers under the bolt head and nut. Nuts used in bolted connections shall be lock-nuts or nyloc nuts.

ALUMINIUM

- A1.

All workmanship and materials shall be in accordance with AS1664. All burrs and rough edges to be ground smooth.
- A2.

All aluminium items shall be Grade 6061 Temper T6 unless noted otherwise.
- A3.

All nuts, bolts, washers and other dissimilar metals shall be electrically isolated to prevent galvanic corrosion.
- A4.

Welding of aluminium items shall be in accordance with AS1665. All welds shall be 6mm continuous fillet welds, filler 4043. Structural welds shall be category B unless noted otherwise.

STRUCTURAL STEEL (including STAINLESS STEEL)

- S1.

All workmanship, including fabrication and erection, and materials shall be in accordance with AS4100.
- S2.

Structural steel grades shall be

Grade 300PLUS	Hot-rolled and welded products
Grade 350	SHS & RHS products
Grade 250	CHS products
Grade 250	Plate material
- S3.

Welding of structural steel shall be in accordance with AS4100 and AS1554. All welds shall be 6mm continuous fillet welds or full penetration butt welds. Structural steel welds shall be GP category and laid down using E41xx/W40x consumable - butt welds must develop the full tensile strength of the member.
- S4.

Bolts shall be M20 4.6/S, with a minimum of 2 bolts per connection in 2 mm clearance holes, UNO. All bolts to be of sufficient length to allow one full thread to be exposed beyond the nut after tightening.
- S5.

Holding-down bolts shall be galvanized M20 4.6/S, with 6 mm clearance to the bolt holes, UNO.
- S6.

Connections not specifically detailed shall be in accordance with the appropriate connection detailed in the AISC's Standardised Structural Connections Manual".
- S7.

All cleat and gusset plates are to be 6mm thick, UNO. All cleats and drillings for fixing of timber members and other materials and finishes to steelwork are to be provided by the fabricator.
- S8.

The ends of tubular members shall be sealed with 3 mm thick plates, UNO. Tubular members to be galvanised shall be adequately vented.
- S9.

All exposed structural steel and bolts shall be hot-dipped galvanised in accordance with AS1214 and AS/NZS4680. All galvanised steelwork shall have a 75 micron thickness of ROZC coating. Surface preparation shall be Class 2.5 in accordance with AS1627.
- S10.

Structural/stainless steel, including fasteners, shall be electrically isolated from dissimilar metals with an isolation layer during the installation process.
- S11.

Structural/stainless steel members bearing onto FRP members shall be separated by an elastomeric or HDPE bearing pad.
- S12.

Coatings damaged during transport or erection shall be made good.
- S13.

Stainless steel members be property class 70 G316L stainless steel in accordance with AS4673.
- S14.

Stainless steel welds shall be category 2B in accordance with Table 6.1 of AS1554, laid down using Grade 316L electrodes. Welds shall not be pre-heated, post-heated or stress relieved.

PILING

- P1.

Pile installation and reporting, and including all other workmanship as required, shall be in accordance with AS2159.
- P2.

Pile founding levels (i.e. toe depths) shown on the drawings are indicative only and are based on recommendations from the geotechnical engineer to achieve the design vertical and/or lateral loads. Final pile founding levels are to be assessed during driving to the satisfaction of the superintendent. The Contractor shall engage a geotechnical engineer to confirm that the required pile capacities have been reached.
- F3.

The pile driving contractor shall make their own assessment of the foundation conditions to ascertain the difficulty of pile driving and the size and type of equipment required to carry out installation of the piles. The jetting of piles is not permitted.
- F4.

The location of piles shown on the drawings is the location at finished level. The piles shall be pitched and driven so that the head of the finished pile at cut off level shall finish in the nomination position +/- 25mm. Piles shall finish with 1% off vertical. Should any driven pile exceed the specified tolerances, the superintendent may direct the pile driving contractor to extract and re-install the pile to the specified position at their own expense.
- F5.

The pile driving contractor shall ensure the pile driving method does not overstress any element of the works, and shall give due consideration to the effects of noise and vibration on the surrounding environment, including adjacent structures.
- F6.

Steel piles shall be supplied, manufactured and fabricated in accordance with AS1579 for welded tubular steel piles, in accordance with AS1163 for cold-formed steel hollow section piles, and in accordance with ASTM A572/A for steel sheet piles.

REVISIONS		
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Drawn: D Crozier
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Checked: D Crozier
Date: April 2023

GIPPSLAND PORTS

LEFL SOUTH JETTY RECONSTRUCTION, BULLOCK ISLAND

STANDARD NOTES / DRAWING INDEX

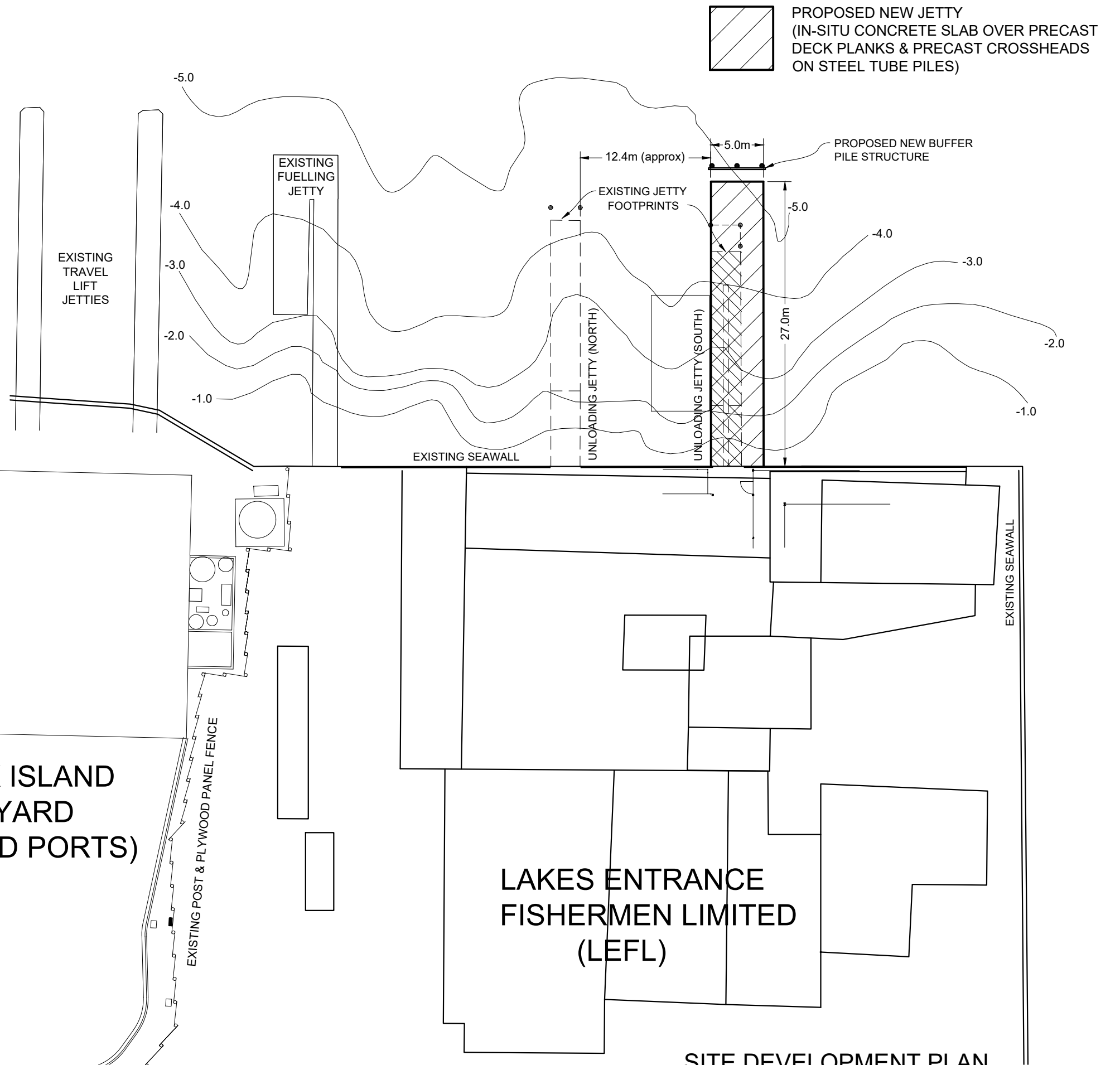
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STANDARD NOTES / DRAWING INDEX	23-417S_LEFL-SJ-00	-
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LOCALITY PLAN

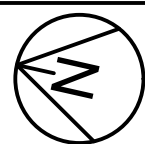
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SITE DEVELOPMENT PLAN

SCALE: 1 : 400

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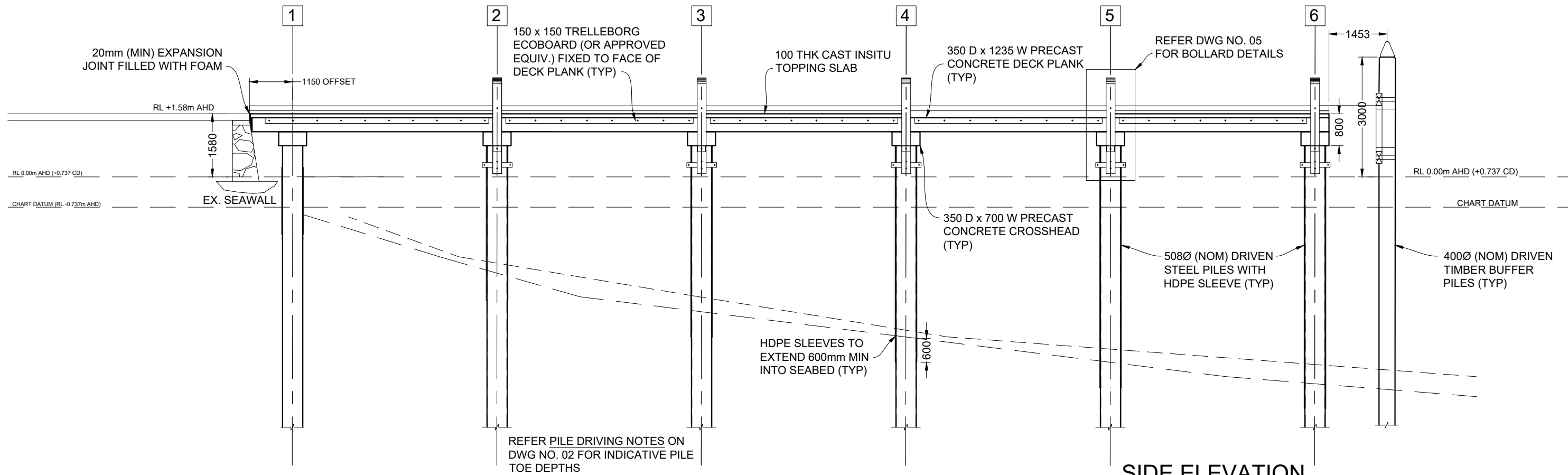
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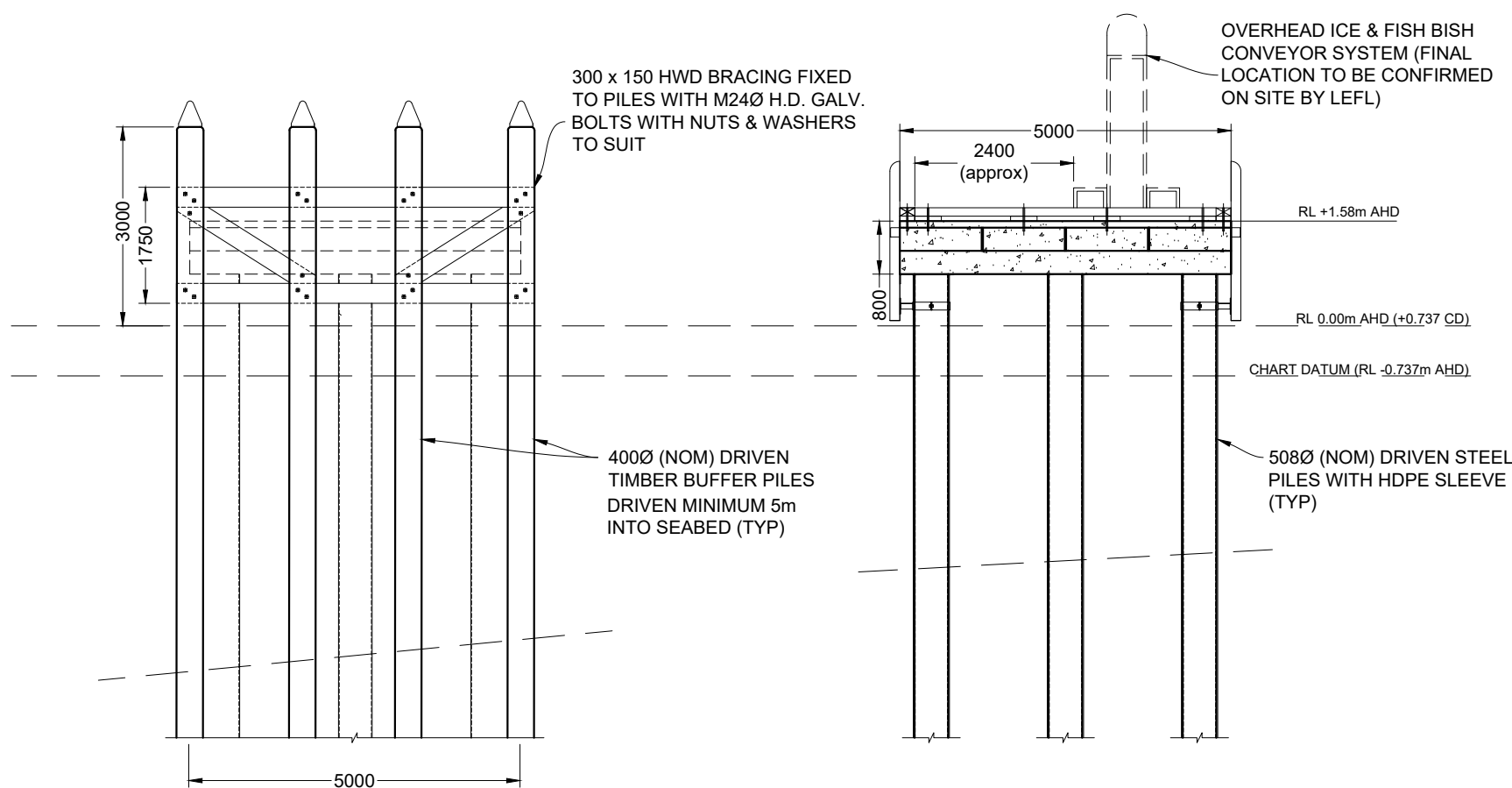
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LEFL SOUTH JETTY RECONSTRUCTION, BULLOCK ISLAND
LOCALITY PLAN / SITE DEVELOPMENT PLAN

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SIDE ELEVATION

SCALE: 1:100



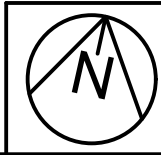
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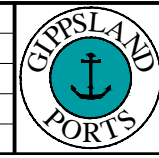
END ELEVATION (JETTY)

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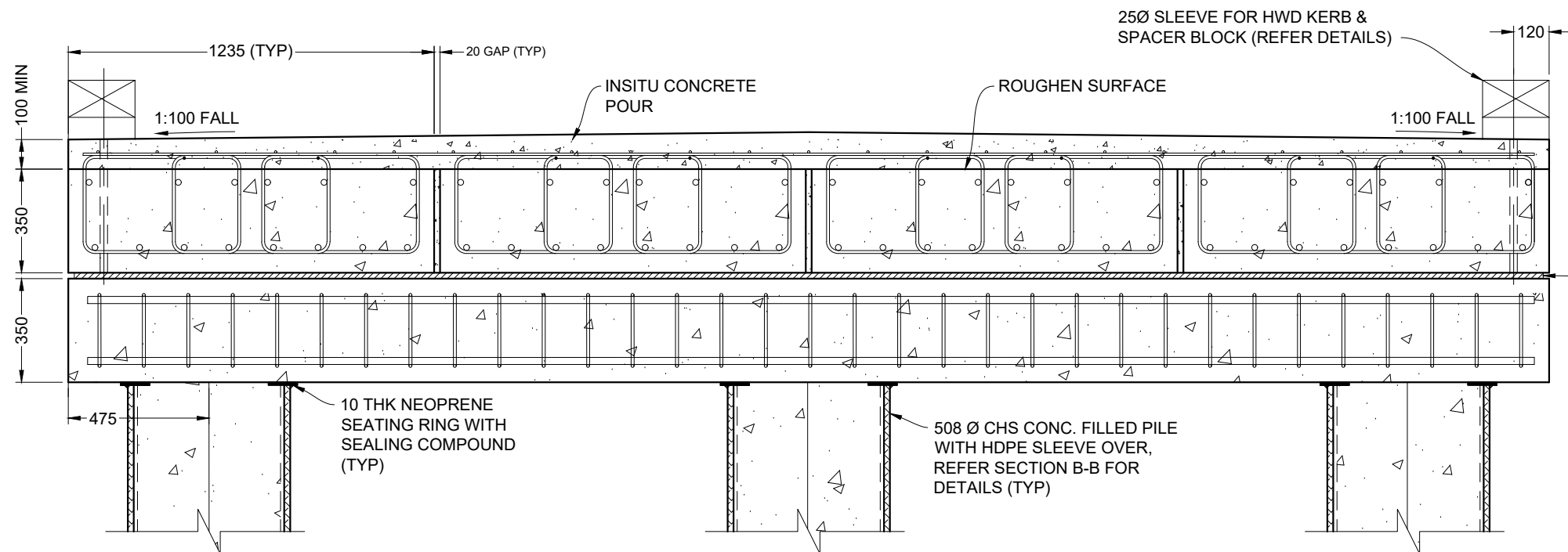
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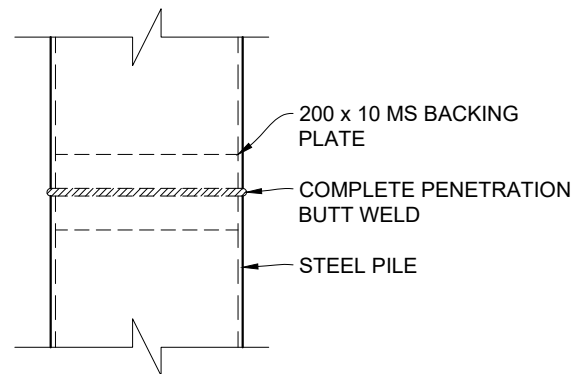
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ELEVATIONS

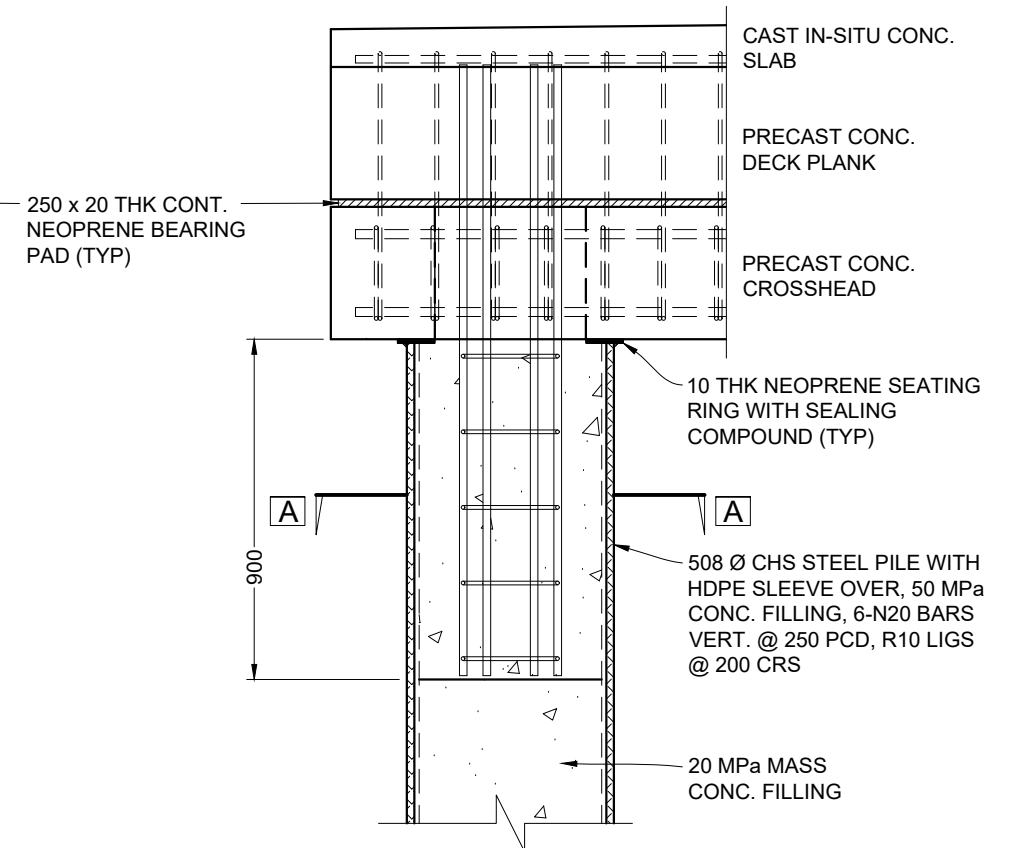
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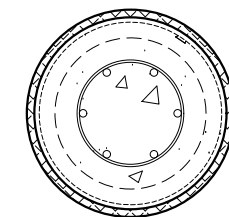
SECTION A-A
SCALE: 1:20



PILE SPLICE DETAIL
SCALE: 1:20



PILE CONNECTION DETAIL
SCALE: 1:20



VIEW A-A
SCALE: 1:20

PRECAST CONCRETE DECK PLANKS
350 D x 1235 W, 50 MPa MARINE GRADE CONCRETE
8-N20 BARS BOTTOM, 65 COVER
6-N20 BARS TOP, 35 COVER
3/R10 LIGS @ 200 CRS, 50 COVER

PRECAST CONCRETE CROSSHEADS
350 D x 700 W, 50 MPa MARINE GRADE CONCRETE
4-N20 BARS TOP & BOTTOM, 2/R10 LIGS @150 CRS
65 COVER BOTTOM, TOP & SIDES

INSITU CONCRETE SLAB
100 THK (MIN), 1:100 FALL TO OUTER EDGE
50 MPa MARINE GRADE CONCRETE
SL82 MESH, 50 COVER TOP

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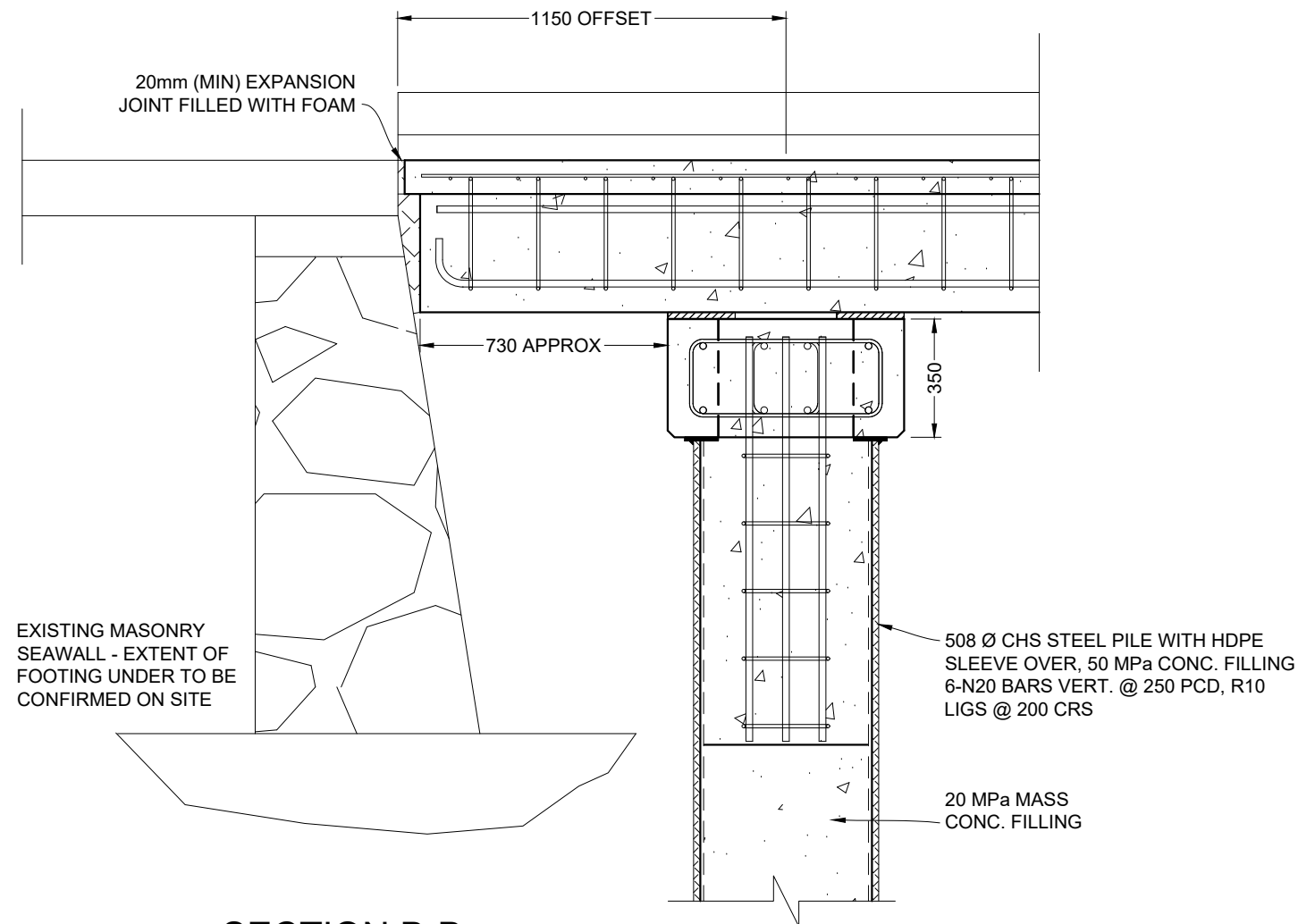
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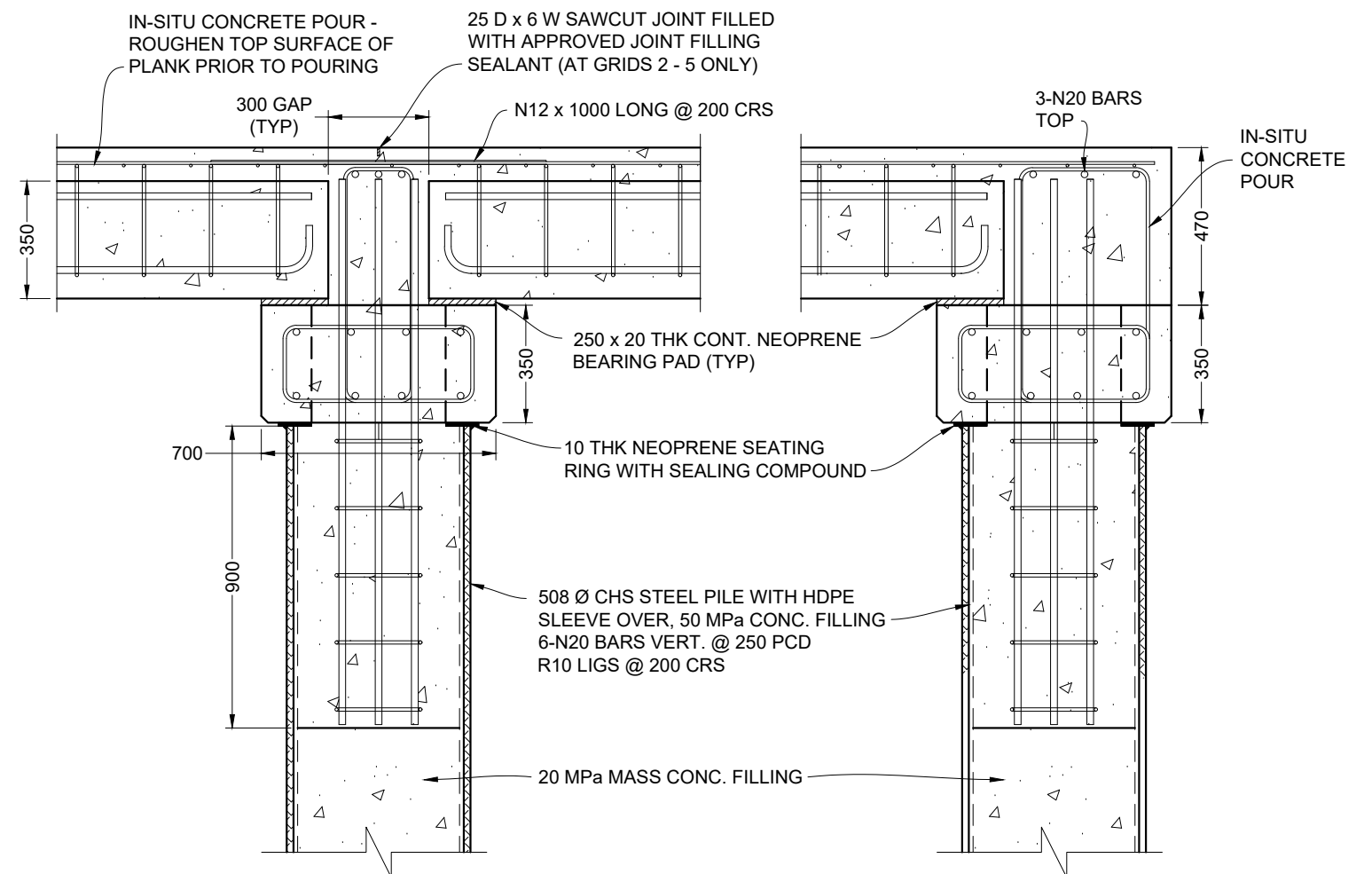
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SECTIONS & DETAILS

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SECTION B-B
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SECTION C-C
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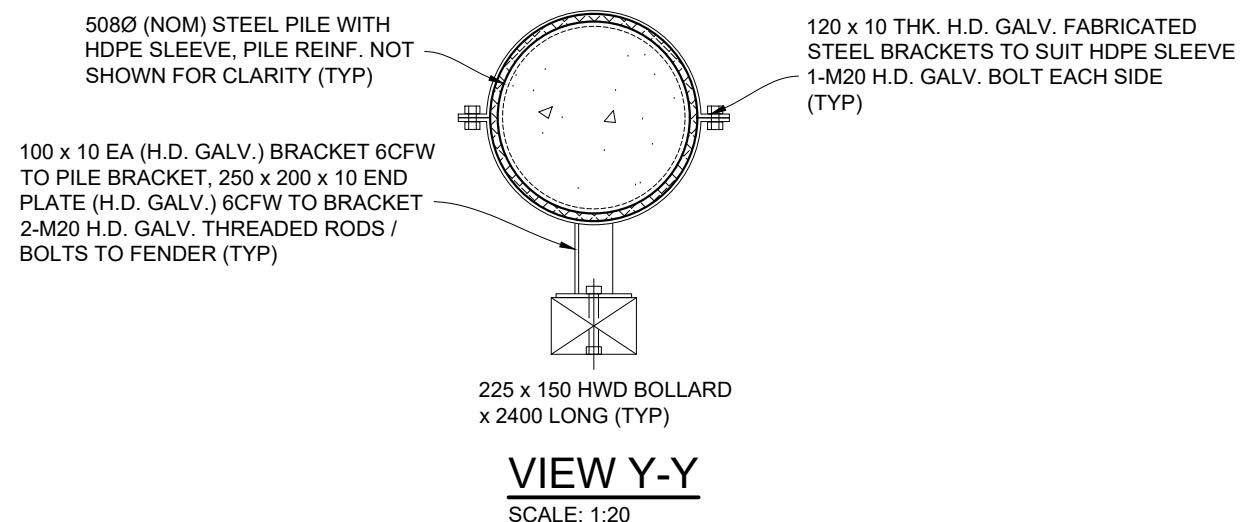
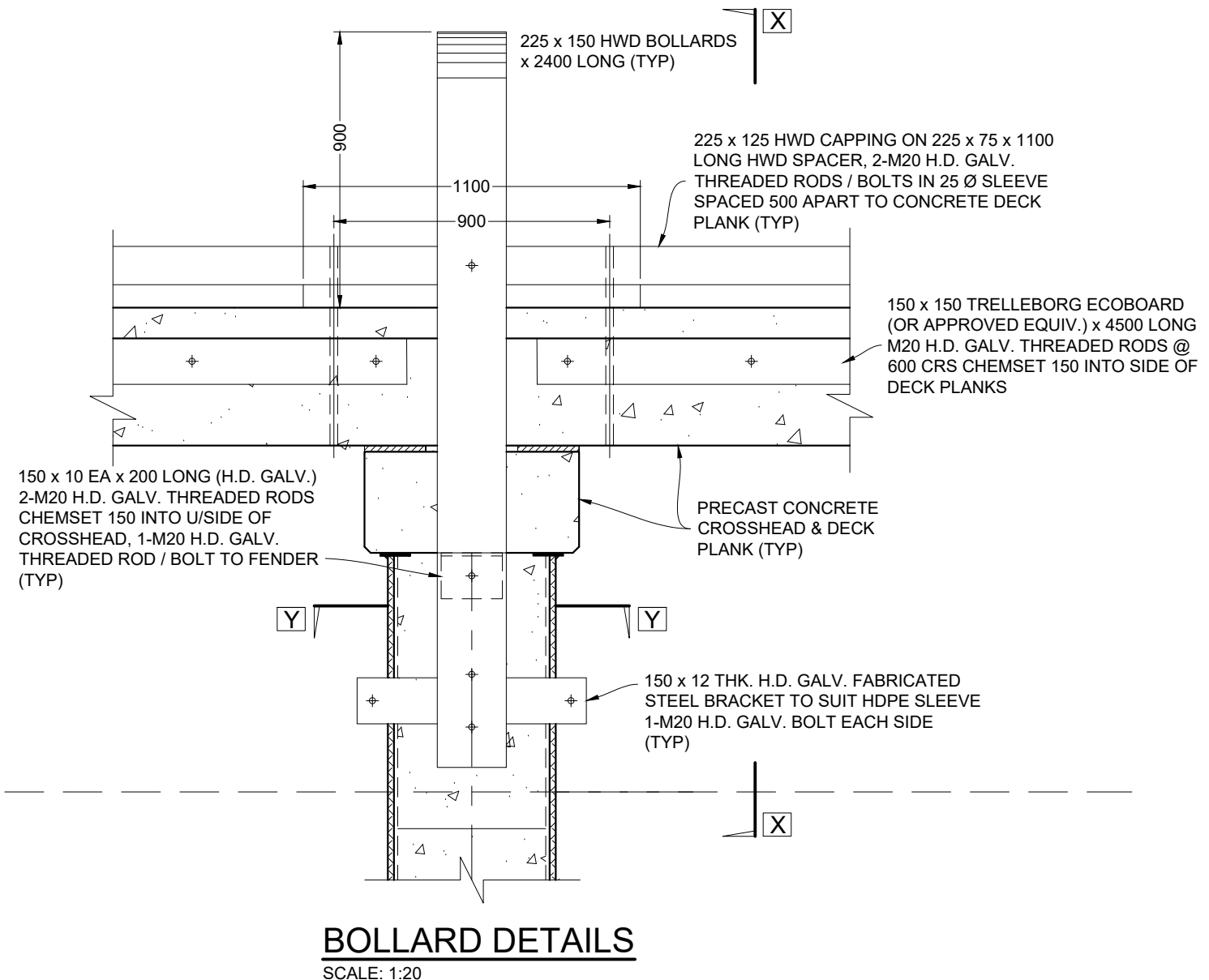
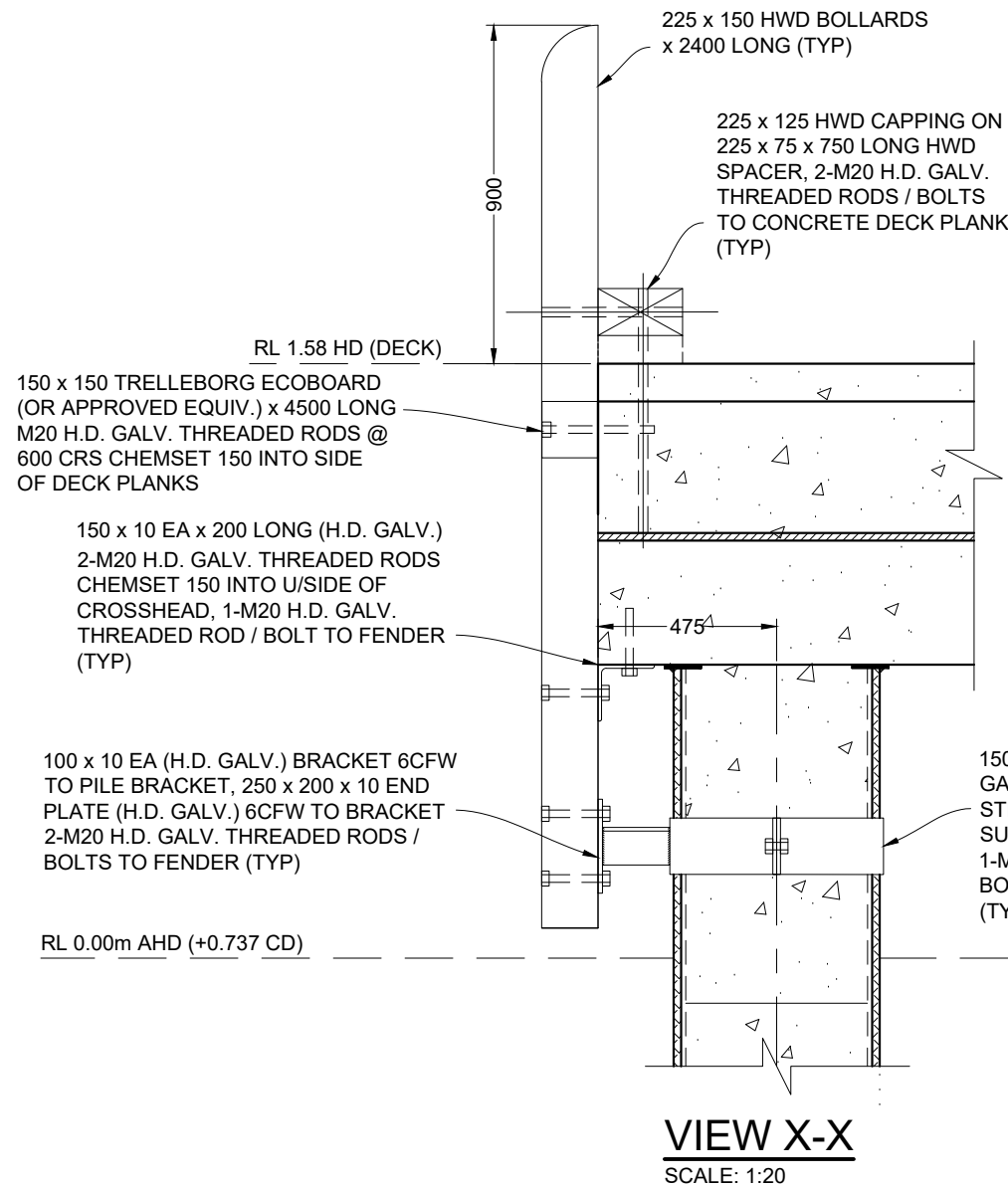
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SECTIONS & DETAILS

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