

GENERAL NOTES

- 1.0 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS, THE REQUIREMENTS OF THE RELEVANT BUILDING AUTHORITIES, ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 2.0 CONSTRUCTION FROM THESE DRAWINGS, AND THEIR ASSOCIATED CONSULTANTS' DRAWINGS, IS NOT TO COMMENCE UNTIL APPROVED BY THE LOCAL AUTHORITIES.
- 3.0 THIS PERFORMANCE SPECIFICATION DETAILS THE MINIMUM WORKMANSHIP STANDARDS & MATERIALS REQUIRED TO COMPLETE THE WORK. IT IS NOT NECESSARILY PRESCRIPTIVE OF ALL ITEMS REQUIRED. THE CONTRACTOR SHALL COMPLY TO BEST INDUSTRY STANDARDS AS WELL AS ALL RELEVANT AUSTRALIAN STANDARDS.
- 4.0 ALL DIMENSIONS ARE IN MILLIMETRES (MM). ALL LEVELS ARE IN METRES (M) TO 0.0 C.D. (CHART DATUM) APPROX -0.925M AUSTRALIAN HEIGHT DATUM (AHD).
- 5.0 DO NOT OBTAIN DIMENSIONS BY SCALING FROM THESE DRAWINGS. ALL DIMENSIONS & MEASUREMENTS MUST BE VERIFIED ON SITE BY THE CONTRACTOR PRIOR TO COMMENCING WORK.
- 6.0 ANY DISCREPANCY BETWEEN THESE DRAWINGS AND ACTUAL CONDITIONS ON SITE SHALL BE REFERRED TO THE ENGINEER & WRITTEN INSTRUCTION OBTAINED BEFORE PROCEEDING WITH THE WORK.
- 7.0 ALL ABBREVIATIONS ARE IN ACCORDANCE WITH AS 1100.
- 8.0 THE CONTRACTOR MUST FULLY FAMILIARISE THEMSELVES WITH THE SITE AND THE SITE CONDITIONS, AND SHALL ALLOW FOR ALL CONSTRAINTS, TEMPORARY WORKS OR OTHER MEASURES REQUIRED ENABLING THE WORKS TO PROCEED SMOOTHLY.
- 9.0 AN INDUSTRY PRODUCT SPECIFIED MAY ONLY BE SUBSTITUTED WITH AN EQUIVALENT PRODUCT IF FIRST APPROVED BY PRINCIPAL.
- 10.0 THE CONTRACTOR SHALL KEEP DETAILED RECORDS & RECEIPTS OF ALL ASPECTS AND STAGES OF WORK AND MATERIALS USED & SUBMIT TO PRINCIPAL AS REQUESTED.
- 11.0 THE CONTRACTOR SHALL PROTECT ALL WORKERS AGAINST THIS RISK.
- 12.0 DURING CONSTRUCTION THE CONTRACTOR SHALL MAINTAIN THE STRUCTURE AND ANY ASSOCIATED EXCAVATIONS IN A STABLE & SAFE CONDITION & NO PART SHALL BE OVERTRESSSED.
- 13.0 ALL WORK SHALL BE DONE IN SUCH A WAY THAT ADEQUATELY PREVENTS MATERIAL OR POLLUTANTS FROM ENTERING HARBOR. PROVIDE PROPRIETARY SILT CURTAIN AROUND ALL EXCAVATION.
- 14.0 REMOVE ALL CONSTRUCTION DEBRIS FROM SITE.

STANDARDS

- 1.0 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THIS SPECIFICATION AND THE RELEVANT CURRENT STANDARDS AUSTRALIA CODES, AND THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES INCLUDING:
THE NSW MARITIME AUTHORITY ENGINEERING STANDARDS & GUIDELINES FOR MARITIME STRUCTURES
PWS DESIGN GUIDELINES FOR WHARVES & JETTIES - 1990
AS 1170 LOADING CODE
AS 3692 DESIGN OF MARINAS
AS 4897 GUIDELINES FOR DESIGN MARITIME STRUCTURES

DESIGN PARAMETERS

- 1.0 FACILITY IS CLASSIFIED
RESTRICTED ACCESS TO AS 3692-2001 PART 4.3.2
- 2.0 LIVE LOAD TO AS 3692 CL 4.1
Q = 4.0 KPA
LIVE LOAD IS ASSUMED NOT TO APPLY THE PONTOON STRUCTURE UNDER ADVERSE WEATHER CONDITIONS INCLUDING MAXIMUM DESIGN WIND AND WAVE CONDITIONS.
- 3.0 DESIGN WIND BASIC WIND VELOCITY
REGION A, CATEGORY 2, R=50
VR(50) = 41 M/S ULTIMATE, VDES = 37 M/S,
CZ = 0.57 KPA
- 4.0 THE MAXIMUM DESIGN WAVE FOR THIS SITE IS
H = 0.6M T = 2.5S
- 5.0 DESIGN WAVE LOAD ON FIXED STRUCTURES IS
FWAVE = 2.0 KN/M
(FACTORED FROM 2 KN/M FOR A 0.6M WAVE AS 3692)
- 6.0 DESIGN CURRENT AT SITE IS MAX
VC = 2 KNOTS
- 7.0 DESIGN VESSEL IS SHOWN ON THE GENERAL ARRANGEMENT

FORESHORE DATA

- 1.0 THE DIGITAL DATA FOR THE FORESHORE LINES, PROPERTY BOUNDARIES & DIVISION OF WATERWAYS LINES SHOWN ON THESE DRAWINGS HAVE BEEN PROVIDED BY NSW MARITIME.
- 2.0 NSWMM DATA IS NOT NECESSARILY THE SAME AS THE LANDS DEPARTMENT AND THE CONTRACTOR SHALL CHECK FOR DISCREPANCIES AS APPROPRIATE.
- 3.0 SURVEY DATA TO ARCHITECT'S SURVEY

GEOTECHNICAL INFORMATION

- 1.0 THE GEOTECHNICAL INFORMATION AVAILABLE AT THE TIME OF DESIGN WAS LIMITED. ASSUMED CONDITIONS ARE BASED ON SURROUNDING HISTORICAL INFORMATION.
- 2.0 THE CONTRACTOR SHALL MAKE THEIR OWN ASSESSMENT OF THE GEOTECHNICAL CONDITIONS TO ENSURE THAT THE DESIGN LOADS ARE ACHIEVED.
- 3.0 THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY IF GROUND CONDITIONS VARY FROM THOSE SHOWN ON THE DRAWINGS TO ALLOW EMBODIMENT TO BE DETERMINED.
- 4.0 ANY PILE LENGTHS SHOWN ON DRAWINGS ARE NOMINAL ONLY FOR INITIAL ESTIMATE AND FINAL LENGTH SHALL BE DETERMINED BY CONTRACTOR ON SITE.

TEMPORARY WORKS

- 1.0 ALL TEMPORARY PROPPING OF THE EXISTING STRUCTURE SHALL BE TO THE CONTRACTOR'S DETAILS AND DESIGN. ALL TEMPORARY WORKS, INCLUDING ASSESSMENT OF EXISTING STRUCTURE TO SUPPORT TEMPORARY PROPPING AND / OR DEMOLITION ACTIVITIES AND EQUIPMENT, ARE THE RESPONSIBILITY OF THE CONTRACTOR.

DEMOLITION

- 1.0 THE CONTRACTOR SHALL CARRY OUT ALL DEMOLITION ACTIVITIES, INCLUDING, BUT NOT LIMITED TO, THE PROTECTION OF THE PUBLIC, THE PROTECTION OF THE ADJOINING PREMISES AND TENANCIES, AND DEMOLITION METHODS, IN STRICT ACCORDANCE WITH THE AUSTRALIAN STANDARD AS 2601 - THE DEMOLITION OF STRUCTURES, AND ALL RELEVANT WORKCOVER GUIDELINES, CODES OF PRACTICE AND REQUIREMENTS AND ALL RELEVANT STATE AND LOCAL AUTHORITIES' REGULATIONS, SPECIFICATIONS AND REQUIREMENTS.
- 2.0 DISPOSE OF DEMOLISHED MATERIAL APPROPRIATELY.
- 3.0 ALL COMPONENTS SPECIFIED FOR REUSE SHALL BE CAREFULLY REMOVED & STORED BY THE CONTRACTOR AND REMAIN THE PROPERTY OF THE PRINCIPAL AT ALL TIMES.
- 4.0 ALL DEMOLISHED STRUCTURES SHALL BE FULLY REMOVED FROM THE SEABED AND FROM THE SITE INCLUDING PILE STUMPS.

MONITORING DURING EXCAVATION

- 1.0 THE BUILDING SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ANY EXCAVATIONS IN A STABLE CONDITION WITHOUT ADVERSELY AFFECTING SURROUNDING PROPERTIES INCLUDING STRUCTURES AND SERVICES. THIS INCLUDES OBTAINING ALL NECESSARY APPROVALS FOR SHORING AND ANCHORING SYSTEMS.
- 2.0 THE CONTRACTOR SHALL CARRY OUT AN APPROPRIATE DETAILED DILATION SURVEY OF SURROUNDING BUILDINGS PRIOR TO ANY SITE WORKS COMMENCING.
- 3.0 THE CONTRACTOR SHALL KEEP DETAILED PHOTOGRAPHIC RECORD OF ALL STAGES OF WORKS & SUBMIT TO PRINCIPAL.
- 4.0 A SURVEY AFTER EXCAVATION IS COMPLETED SHALL BE COMPLETED.
- 5.0 CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY AND MAKE GOOD ANY DAMAGE CAUSED DURING EXCAVATION WORKS.

EXISTING STRUCTURES & SERVICES

- 1.0 THE CONTRACTOR SHALL MAKE GOOD ANY DAMAGE TO EXISTING PROPERTY & SERVICES RESULTING FROM CONSTRUCTION ACTIVITY.
- 2.0 CONTRACTOR MUST ESTABLISH LOCATION AND EXTENT OF ALL EXISTING SERVICES INCLUDING UNDERGROUND SERVICES AND SUBMARINE CABLES AND THE LIKE PRIOR TO COMMENCEMENT ON SITE.
- 3.0 PRIOR TO RELYING ON ANY EXISTING STRUCTURES, THE CONTRACTOR SHALL CONFIRM THAT THE EXISTING STRUCTURE IS IN GOOD CONDITION, AND CAN SUPPORT THE REQUIRED LOADS.
- 4.0 SHOULD THE EXISTING STRUCTURE REQUIRE STRENGTHENING THEN A QUALIFIED STRUCTURAL ENGINEER SHALL BE ENGAGED TO PROVIDE WRITTEN INSTRUCTIONS ON REPAIRS.

FOUNDATIONS

- 1.0 FOUNDATIONS ARE DESIGNED FOR THE FOLLOWING ALLOWABLE PRESSURES:
ELEMENT BEARING SHAFT
LATERAL PRESSURE ADHESION CAPACITY
SLAB ON GROUND 100 KPA N/A N/A
FOOTINGS ON SAND 100 KPA NA NA
FOOTINGS ON CLAY 150 KPA NA NA
FOOTINGS ON SHALE 400 KPA NA NA
FOOTINGS ON SANDSTONE 800 KPA NA NA
PILES ON WEAK ROCK 1500 KPA NA NA
PILES ON GRADE 3 SANDSTONE 3500 KPA 350 KPA 1000 KPA
2.0 CLASS 3 SANDSTONE IS DESCRIBED AS MEDIUM STRONG AND SANDSTONE CORES CAN BE BROKEN BY HAND & EASILY SCORABLE BY KNIFE
3.0 SOUND ROCK TO BE FREE OF DEFECTS OR SEAMS IN THE TOP 800MM AND WITH AGGREGATE THICKNESS OF SEAMS BELOW THIS OF LESS THAN 50MM
4.0 SAND MUST BE MEDIUM DENSE SAND WITH THE FOLLOWING MINIMUM DESIGN CHARACTERISTICS:
INTERNAL FRICTION ANGLE = 30 DEG
DRY DENSITY 18 KN/M³
ELASTIC MODULUS ES = 75 MPa
5.0 COHESIVE MATERIAL MUST BE STIFF TO FIRM WITH THE FOLLOWING MINIMUM DESIGN CHARACTERISTICS:
UNDRAINED SHEAR STRENGTH CU > 35 KPA
ELASTIC MODULUS ES > 6 MPa
6.0 THE CONTRACTOR MUST PROVIDE SUFFICIENT RECORDS AND TO CERTIFY THAT THE FOUNDATION REQUIREMENTS HAVE BEEN ACHIEVED.

FOOTINGS

- 1.0 FOOTINGS SHALL BE LOCATED CENTRALLY UNDER WALLS AND COLUMNS UNO
- 2.0 FOOTINGS MUST BEAR 250 MM (MINIMUM) INTO NATURAL GROUND
- 3.0 FOOTINGS NEAR BOUNDARIES MUST NOT BE LOCATED HIGHER OR LOWER THAN FOOTINGS OF ADJACENT PROPERTIES UNLESS APPROVED.
- 4.0 OBTAIN THE APPROVAL OF THE ENGINEER FOR ALL EXCAVATIONS AND FOOTINGS PRIOR TO CONCRETING.
- 5.0 WHERE FOOTINGS ARE OVER-EXCAVATED, FILL OVER-EXCAVATED AREAS WITH BLINDING CONCRETE GRADE SAME AS FOOTING TO A MINIMUM THICKNESS OF 50MM.
- 6.0 KEEP FOOTINGS CLEAN AND FREE OF LOOSE MATERIAL BEFORE INSPECTION, IMMEDIATELY PRIOR TO POURING OF CONCRETE, AND DURING POURING.
- 7.0 DO NOT EXCEED A RISE OF 1 IN A RUN OF 3 FOR THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATIONS.
- 8.0 FOOTINGS ARE TO BE CONSTRUCTED AND BACKFILLED AS SOON AS POSSIBLE FOLLOWING EXCAVATION TO AVOID SOFTENING OR DRYING OUT BY EXPOSURE.
- 9.0 SHOULD THE FOUNDATION CONDITION PROVE TO BE PART ROCK AND PART SOIL (SUCH AS FLOATERS AND THE LIKE) THE CONTRACTOR SHALL OBTAIN STRUCTURAL DETAILS AND APPROVAL IN WRITING FROM THE ENGINEER PRIOR TO CONTINUING.
- 10.0 FILLING SHALL BE GRANULAR MATERIAL COMPACTED IN NOT MORE THAN 200 MM LAYERS TO A MINIMUM DRY DENSITY RATIO (AS 1289/E2.2 1982)

PILING & PIERS

- 1.0 ALL PILING MATERIALS, SUPPLY & INSTALLATION SHALL BE TO AS 2159 - SNA PILING CODE AND TO THE NSW MARITIME REQUIREMENTS.
- 1.1 PILE OUTLIFT TO COMPLY WITH AS 2010.3 AND AS 1163
- 2.0 ANY SITE INFORMATION IS LIMITED AND THE DESCRIPTIONS OF THE MATERIALS AND CONDITIONS ENCOUNTERED ON SITE ARE BASED ON THE INFORMATION PROVIDED AND MAY VARY. NO GUARANTEE IS GIVEN THAT THOSE MATERIALS ENCOUNTERED WILL NOT VARY THROUGHOUT THE SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSESSING THE INFORMATION PROVIDED AND CONDUCTING ANY FURTHER INVESTIGATIONS HE MAY DEEM NECESSARY TO ENSURE PROPER FOUNDING OF THE PILES.
- 3.0 PILE SETOUT TO BE BY A REGISTERED SURVEYOR BY CONTRACTOR
- 3.1 PILES TO BE INSTALLED USING APPROPRIATE PLANT & TECHNIQUES USING A SKILLED OPERATOR
- 4.0 PROVIDE COMPREHENSIVE PILE RECORDS IN ACCORDANCE WITH NSW MARITIME REQUIREMENTS AND AS 2159 FOR EACH AND EVERY PILE INSTALLED SUFFICIENT TO CERTIFY THAT THE FOUNDATION REQUIREMENTS HAVE BEEN ACHIEVED & THAT PILE DESIGN CAPACITY HAS BEEN REACHED.
- 5.0 RECORD THE DEPTH OF OVERBURDEN TO ROCK, ANY SOFT OVERBURDEN SHALL NOT BE TAKEN INTO ACCOUNT FOR THE POTTING DRIVING DEPTH.
- 6.0 MONITOR THE GROUND CONDITIONS DURING DRIVING AND NOTIFY THE ENGINEER IMMEDIATELY IF ANY GROUND CONDITIONS DIFFER FROM THOSE EXPECTED BY THE CONTRACTOR.
- 7.0 DRILLED SOCKET HOLES TO HAVE A DIAMETER LESS THAN THE DIAMETER OF THE PILE TO ENSURE THAT PILE IS HARD UP AGAINST FOUNDATION FOR ITS FULL DEPTH AND CIRCUMFERENCE.
- 8.0 THE DESIGN CAPACITIES ARE TO BE ACHIEVED.
- 9.0 JETTING OF PILES SHALL NOT BE PERMITTED WITHIN 1000MM OF THE SPECIFIED MINIMUM EMBEDMENT DEPTH.
- 10.0 SUPPLY PILES IN ONE CONTINUOUS LENGTH. PILES ARE NOT TO BE SPLICED UNLESS APPROVED BY ENGINEER IN WRITING. WHERE APPROVED, NO SPLICE SHALL BE LOCATED WITHIN 1.5M OF SEABED.
- 11.0 THE FOUNDING LEVEL AT THE TOE OF THE PILES SHOWN ON THE DRAWINGS ARE INDICATIVE ONLY FOR PILING. THESE LEVELS DO NOT NECESSARILY REPRESENT THE ACTUAL FOUNDING LEVELS. ALL SOCKETING DRIVING DEPTHS TO BE MINIMUM. THE CONTRACTOR SHALL DETERMINE THE PILE LENGTHS INTO ROCK OR SEDIMENT TO ACHIEVE THE CAPACITIES.
- 12.0 THE LENGTHS OF PILES SHALL BE DETERMINED BY THE CONTRACTOR TAKING INTO ACCOUNT ALL PERTINENT FACTORS AND ALLOWANCES FOR WASTAGE.
- 13.0 ANY PILES FOUND TO BE BENT, BUCKLED OR OTHERWISE DEFECTIVE, DAMAGED OR OUT OF POSITION SHALL BE REMOVED AND REPLACEMENT PILES INSTALLED BY THE CONTRACTOR AT HIS COST.
- 14.0 PILES SHALL BE SETOUT APPROPRIATELY & ACCURATELY TO ACHIEVE:
PILE TH: 100V
ALL 1H: 100V
PLAN
CUTOFF
+25MM

- 1.0 ALL PILES SHALL BE DRIVEN TO A SET CALCULATED USING AN APPROPRIATE METHOD SUCH AS THE HILEY FORMULA. THE FINAL SET OF EACH PILE SHALL BE RECORDED AS THE PENETRATION IN MILLIMETRES PER TEN (10) BLOWS.
- 2.0 DETAILED SET RECORDS FOR THE WHOLE DRIVE SHALL BE MAINTAINED AND PROVIDED FOR EACH PILE, INCLUDING THE PENETRATION UNDER OWN WEIGHT AND SET FOR 10 BLOWS. THE WEIGHT OF THE HAMMER SHALL BE PROVIDED IN ACCORDANCE WITH AS 2159 AND THE DROP HEIGHT SELECTED AND RECORDED FOR EACH BLOW.
- 3.0 WHEN THE APPROVED SET IS ACHIEVED, TEN (10) MORE BLOWS SHALL BE GIVEN TO THE PILE AND THE SET RECORDED, PROVIDED THAT, WHERE PRACTICAL REFUSAL IS REACHED, THE ADDITIONAL DRIVING SHALL NOT DAMAGE THE PILE.

- 1.0 DRIVEN PILES USING HYDRAULIC HAMMER
2.0 PROVIDE AN APPROPRIATE RECORD OF EACH DRIVE SUCH THAT THE GEOTECHNICAL CONDITIONS CAN BE DETERMINED. PROVIDE THE RATED ENERGY AND WEIGHT OF THE UNIT USED. MEASURE THE DISPLACEMENT PER HIT.
- 2.0 THE METHOD MAY BE TO USE CAPWAP / OR BIRMINGHAM PILE DRIVING MONITOR TO RECORD INFORMATION ON IMPACT ENERGY VS CAPACITY.

- 1.0 DRILLED AND DRIVEN PILES
2.0 DRILLED SOCKET HOLES TO HAVE A DIAMETER LESS THAN THE DIAMETER OF THE PILE TO ENSURE THAT PILE IS HARD UP AGAINST FOUNDATION FOR ITS FULL DEPTH AND CIRCUMFERENCE.

- 1.0 SCAFFOLDING SHALL BE ESTABLISHED AS WELL AS OVERBURDEN GEOTECH PRIOR TO INSTALLING THE FIRST PILE IN A PILE GROUP OF SIMILAR GEOTECH.
- 2.0 DURING INSTALLATION THE RATE OF PROGRESS OF PILING IS TO BE RECORDED SUCH THAT ANY SPAMS AND UNSUITABLE LAYERS OF MATERIAL ARE IDENTIFIED. THE PENETRATION DISTANCE MAY THEN NEED TO BE ADJUSTED. REFER TO ENGINEER.
- 3.0 CUTTING TEETH WELDED TO THE BASE SHALL BE ANGLED 15° TO RESULT IN A MAXIMUM DISTANCE 15 MM FROM THE OUTSIDE OF THE PILE TO THE ROCK FACE.
- 4.0 ON COMPLETION OF DRILLING PILES ARE TO BE DRIVEN TO REFUSAL.

- 1.0 JETTED PILES
2.0 JETTED PILES ARE JETTED OUT TO ALLOW THE WATER TO ESCAPE
3.0 JET TO WITHIN 1M OR SO THEN DRIVE FINAL METER TO STABILISE SOIL AROUND PILE
4.0 CONCRETE PILES NORMALLY JETTED

- 1.0 PILE TESTING
2.0 LATERAL LOAD PILE TEST SHALL BE CARRIED OUT TO AT LEAST ONE PILE IN A SIMILAR PILE GROUP BY INSTALLING TURFERS TO THE PILE HEAD AFTER DRIVING. A LOAD OF 2T SHALL BE APPLIED AND CALIBRATED USING A LOAD CELL. THE DEFLECTION SHALL BE MEASURED BY A SURVEYOR. THE LOAD SHALL THEN BE INCREASED TO 4T AND THE DEFLECTION REMEASURED. FINALLY THE PERMANENT DEFLECTION AFTER THE LOAD IS RELEASED SHALL BE MEASURED.
- 3.0 PROVIDE RESULTS TO ENGINEER FOR ANALYSIS.

STRUCTURAL TIMBER - WHARF

- 1.0 ALL TIMBER CONSTRUCTION TO RELEVANT CURRENT AUSTRALIAN STANDARDS - AS 1720 TIMBER CODE; AS 2062 - GRADING OF TIMBER; AS 3680 PROTECTION OF BUILDINGS FROM SUBTERRANEAN TERMITES; AS 1684 IS RELEVANT TO LAUMESTIC CONSTRUCTION IN SHELTERED LOCATIONS.
- 2.0 TIMBERWORK TO BE SUPPLIED, KITTLED AND FINISHED TO BEST PRACTICE FOR WHARF & BRIDGE CARPENTRY USING SKILLED TRADESMEN
- 3.0 ALL TIMBER TO BE JOINT GROUP 12 OR BETTER.
- 4.0 ALL TIMBER BELOW THE TIDE ZONE TO BE DURABILITY CLASS 1 PILES - F17 HW TURPENTINE UNSEASONED
KOPERS PILES - F27 DOUBLE TREATED
BEAMS - F17 TURPENTINE UNSEASONED
- 5.0 TIMBER ABOVE THE TIDE ZONE SHALL BE
DECK - F17 HW STRINGY BARK YELLOW UNSEASONED PLYWOOD - DURABILITY CLASS 1, F14
OREGON TO BE GRADE F7
WHERE SPECIFIED EXPOSED SOFTWOOD TIMBER TO BE COCA TREATED RADIATA PINE (TO AS 1604) REDIED AFTER FULL IMPREGNATION, OR HARDWOOD DURABILITY CLASS 1 OR 2
- 6.0 PROVIDE SUPPORTING DOCUMENTATION ON TIMBER MATERIALS USED
- 7.0 HARDWOODS TO BE NON-ASH TYPE EUCALYPT FROM NSW OR Q.L.D.
- 8.0 ALL TIMBER TO BE STRAIGHT & FAIR & TRUE WITH NO DEFECTS THAT MAY AFFECT THE STRENGTH & SERVICEABILITY OF THE MEMBER.
- 9.0 CONTRACTOR TO PROVIDE ALL TIMBERS AND DETERMINE CORRECT LENGTHS. FULL LENGTHS OF TIMBER SHALL BE USED. SPLICES SHALL ONLY BE MADE WHERE ALLOWED BY ENGINEER
- 10.0 JOINTS TO BE WELL FITTING PACKING & SPLICING TO BE SMOOT FIT WITHOUT WEDGING OR PACKING / FAYING SURFACES TO BE STRAIGHT & PARALLEL.
- 11.0 JOINTS SHALL BE NOTCHED MIN 50MM TO PILE & 25MM TO BEAM
- 12.0 ALL JOISTS TO HAVE BLOCKING OVER SUPPORT BEARERS AND AT MAXIMUM 3M CENTRES.
- 13.0 STORE ALL TIMBER APPROPRIATELY OFF GROUND TO AVOID DAMAGE
- 14.0 PROVIDE STAINLESS STEEL NAILING PLATES TO ENDS OF ALL BEAMS BY PRYDA KNUCKLE NAILPLATES COVERING THE WHOLE CROSS SECTION OF THE MEMBER LESS 25MM EACH SIDE
- 15.0 TREAT ALL TIMBER FAYING SURFACES & ANY CUT END OF TIMBER TO BE PAINTED WITH COPPER NAPHTHATE (CN) EMULSION ABOVE TIDE ZONE & VESSEY VEF 9X COAT IN TIDE ZONE. ALTERNATIVE PRODUCTS INCLUDE XI CLEAR BY PROTIM OR ALTEX COATINGS EVERSEAL - AMBER

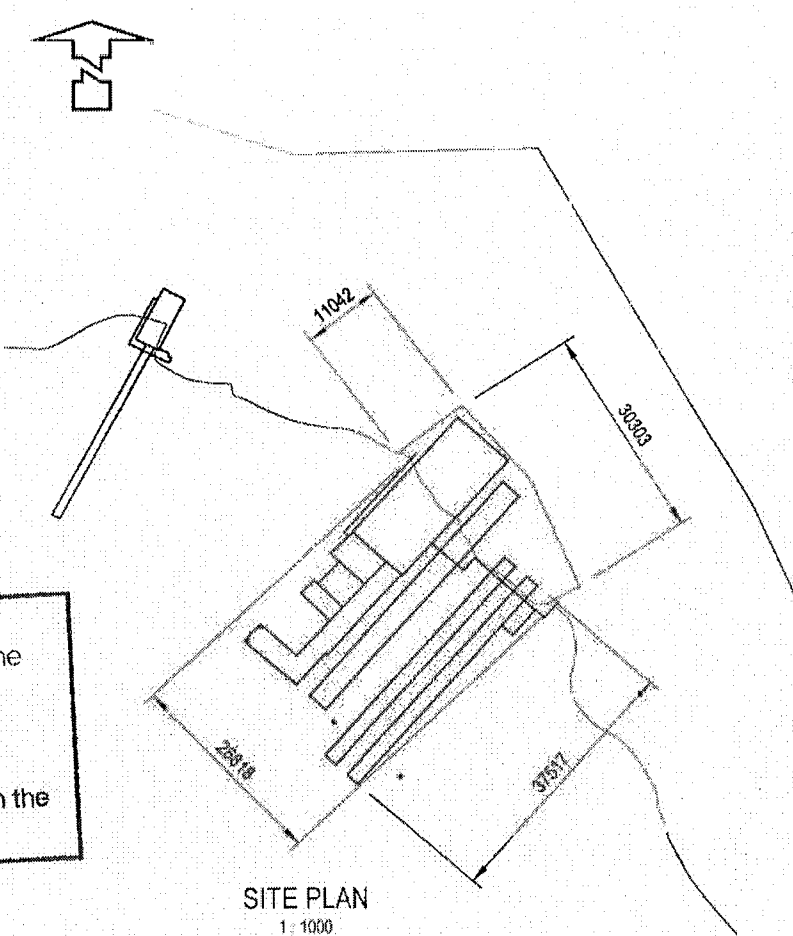
BOLTING TIMBER

- 1.0 ALL BOLTING IN ACCORDANCE WITH AS 1684 AND AS 1720
- 2.0 ALL BOLTS TO BE GALVANIZED OR 30-4.6 / 8 SHUT TIGHT UNO
- 3.0 NO CONNECTION SHALL HAVE LESS THAN 2 BOLTS UNO
- 4.0 INSTALL BOLTS IN PRE-DRILLED HOLES 2MM Ø GREATER THAN THE BOLT DIAMETER.
- 5.0 PROVIDE 65/65 PL WASHERS
- 6.0 BOLTS SHALL BE GIVEN MIN CLEARANCE OF 8 BOLT Ø TO END OF TIMBERS AND 4 Ø TO EDGES OF TIMBER
- 7.0 THREAD ON BOLT SHALL NOT EXCEED 75MM INTO TIMBER & SHALL NOT PROTRUDE > 2 BOLT Ø PAST NUT AND WASHER
- 8.0 ALL BOLTS TO BE RECESSED INTO MEMBERS.
- 9.0 ALL RECESSED BOLT HOLES IN TIMBER TO BE FILLED WITH SIKAFLEX OR EQUIV. WITH A DOWEL SURFACE.
- 10.0 ALL COACHBOLTS TO BE INSTALLED IN PRE-DRILLED HOLES 80% Ø BOLT
- 11.0 ALL BOLTED CONNECTIONS TO BE INSPECTED AND RE-TIGHTENED BY CONTRACTOR AFTER 6 MONTHS OF OPERATION. ANY WEAR TO BE COMMUNICATED TO THE ENGINEER FOR INSPECTION, AND THEN REPAIRED

TIMBER DECKING

- 1.0 TIMBER DECKING TO BE FIXED TO TIMBER BEAMS USING 2 OFF 5MM Ø STAINLESS STEEL 316 BUGLE HEADED SCREWS WITH COUNTERSUNK HEADS Ø 10MM x 150mm
- 2.0 PRE-DRILL HOLE 1MM Ø LESS THAN 1 SCREW
- 3.0 INSERT ON EMULSION INTO EACH HOLE PRIOR TO INSERTING SCREW
- 4.0 PROVIDE 1 LAYER OF CONTINUOUS BITUMINOUS MALTHOID TO BE INSTALLED TOP OF EACH TIMBER BEAM & BENEATH DECKING LAY HEARTWOOD FACE DOWN WITH ANTI CUPPING SCALLOP
- 5.0 DECKING TO HAVE APPROPRIATE NON-SLIP
- 6.0 IN TIDE ZONE WHERE TIMBER DECKING IS USED APPLY EPIREZ NON-SLIP WITH QUARTZ GRIP
- 7.0 PROVIDE 2 COATS OSMOSE PROTIM TIMBERCARE 'RAINCOAT UV PLUS' WATER REPELLING AGENT TO ALL SURFACES OF PLANKS, HOLES AND CHECKS.
- 8.0 TOLERANCE
9.0 DECKING SHALL BE EVEN & THE TOP CORNERS OF PLANKS SHALL BE LIGHTLY CHAMFERED. MAXIMUM LEVEL DIFFERENCE BETWEEN ADJACENT PLANKS 1.5MM

 **Transport
Roads & Maritime
Services**
- 8 APR 2016
This is the plan referred to in the
Letter Dated Above



SERVICES

- 1.0 PROVIDE ADEQUATE CONDUITS SET INTO THE PONTOON TO ACCOMMODATE THE SERVICES.
- 2.0 ALL SERVICES TO BE PROVIDED TO BEST INDUSTRY PRACTICE, THE APPROPRIATE CONSULTANTS DRAWINGS AND SPECIFICATION AND TO RELEVANT AUSTRALIAN STANDARDS.
- 3.0 FINAL CONDUIT LAYOUT AND PLACEMENT SHALL BE BY PONTOON SUPPLIER AND PONTOON SUPPLIER TO DETAIL WORKSHOP DRAWINGS FOR LAYOUT FOR REVIEW BY ALL CONSULTANTS PRIOR TO MANUFACTURE.

PEDESTALS

- 1.0 PEDESTALS ARE TO BE BY CONTRACTOR PROPRIETARY UNITS WELL TESTED FOR A SIMILAR ENVIRONMENT AND TO THE CLIENTS CHOOSING.

INSPECTIONS & TESTING

- 1.0 THE CONTRACTOR MUST UNDERTAKE APPROPRIATE INSPECTIONS AND TESTING TO DEMONSTRATE COMPLIANCE WITH THE REQUIREMENTS OF THE SPECIFICATION.
- 2.0 WORK SHALL NOT BE APPROVED NOR PRACTICAL COMPLETION GIVEN WITHOUT ADEQUATE INSPECTION BY THE ENGINEER. SUCH INSPECTION SHALL NOT RELIEVE THE CONTRACTOR FROM ANY OF HIS RESPONSIBILITIES UNDER THIS CONTRACT.
- 3.0 THE CONTRACTOR SHALL PERFORM ANY TESTS WHICH THE ENGINEER MAY REASONABLY DIRECT THE CONTRACTOR TO ENGAGE TO DEMONSTRATE THE INTEGRITY, FUNCTIONALITY, QUALITY OR STANDARD OF THE WORK.
- 4.0 CONTRACTOR MUST GIVE ADEQUATE 24 HOUR NOTICE FOR ENGINEER TO INSPECT THE FOLLOWING MINIMUM STAGES:
A. AFTER INSTALLATION OF PILES AND SUBMISSION OF PILE DRIVING DATA
B. DURING INSTALLATION OF TIMBER BEAMS
C. DURING DECKING
D. PRIOR TO PRACTICAL COMPLETION
E. CONTACT YOUR PCA (PRINCIPAL CERTIFYING AUTHORITY) AS TO REQUIREMENTS FOR MANDATORY CRITICAL STAGE INSPECTIONS.

DRAWING SCHEDULE

- S00 GENERAL NOTES & SPECIFICATION
- S01 SITE PLAN & DEMOLITION PLAN
- S10 GENERAL ARRANGEMENT
- S11 PLAN ON SUBSTRUCTURE
- S20 SECTIONS ON JETTY
- S21 SECTIONS
- S30 F1 FVATIONS
- S100 UNAUTHORISED STRUCTURES PLAN
- S101 UNAUTHORISED STRUCTURES SECTIONS

Drawing Status
PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

G	UNAUTHORISED STRUCTURES	151215
F	COMMENTS	151130
E	FTL	151118
C	REPORT	151021

MR HUGH TREHARNE
18 BOLLINGBROKE PDE FAIRLIGHT

PROPOSED ALTERATIONS & ADDITIONS
18 BOLLINGBROKE PDE FAIRLIGHT
MANLY BOATSHED

GENERAL NOTES AND SPECIFICATION

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