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THE FOLLOWING AMENDMENT TO THE TENDER DOCUMENTS IS EFFECTIVE
IMMEDIATELY. THE ADDENDUM SHALL FORM A PART OF THE CONTRACT
DOCUMENTS.
.....

AMENDMENT TO SPECIFICATIONS AND DRAWINGS

Infrastructure Upgrades

Lower Terra Nova Fishway, NL

Changes/Updates involved in this addendum include, but are not limited to:

1. Existing refrigerator in the existing storage shed shall be removed from the site and disposed of in an approved facility. All other items in the existing storage shed shall be transferred to the new storage shed, once constructed.
2. Contractors are permitted to use the existing accommodations building during the construction contract.
3. Contractors are advised that a hazard assessment has revealed that asbestos and mould are both present at the site. See Appendix C for details. Contractors are required remove any hazardous items in accordance with all applicable regulations. Contractors shall identify their procedures, as well as a list of qualified personnel, in their Site-Specific Safety Plan.
4. For bidding purposes, allow for removal and replacement the entire plywood roof sheathing on the existing accommodations building.
5. Batteries to be supplied by Canada are to be picked up in Stephenville, NL.
6. Repairs to the concrete diversion wall are removed from the scope of work. No concrete shall be required for this project.
7. 50 hours helicopter time is based on 2000 lbs helicopter lifting capacity.
8. Construction to be substantially complete by February 28, 2018.
9. Other items noted in the updated drawings and specification sections listed above. All changes on the drawings have been identified.

Contractors should note that this Addendum includes all items listed above, as well as any changes noted in the drawings and specifications listed below. Contractors are required to review the replaced drawings and specification sections to ensure awareness of all changes. Contractors are advised that all work associated with this job shall be included in the bid price for this work. Contractor shall include all plant, equipment, materials and labour required to complete the work.

Drawings:

1. Replace:

Replace the following drawings in the construction documents, with the corresponding drawing attached:

C1 of 7
C2 of 7
C3 of 7
C4 of 7
C5 of 7
C7 of 7

Specifications:

1. Replace:

Replace the following specification sections in the construction documents, with the corresponding specification sections attached:

Index
Section 01 10 10 – General Instructions
Section 01 16 10 – Material Supplied by Canada
Section 01 35 29 – Health and Safety Requirements

2. Remove:

Remove the following specification sections in the construction documents:

Section 03 10 00 – Concrete Formwork and Accessories
Section 03 20 00 – Concrete Reinforcement
Section 03 30 00 – Cast-in-Place Concrete
Section 03 35 00 – Concrete Finish
Section 35 00 00 – Dewatering

3. Add:

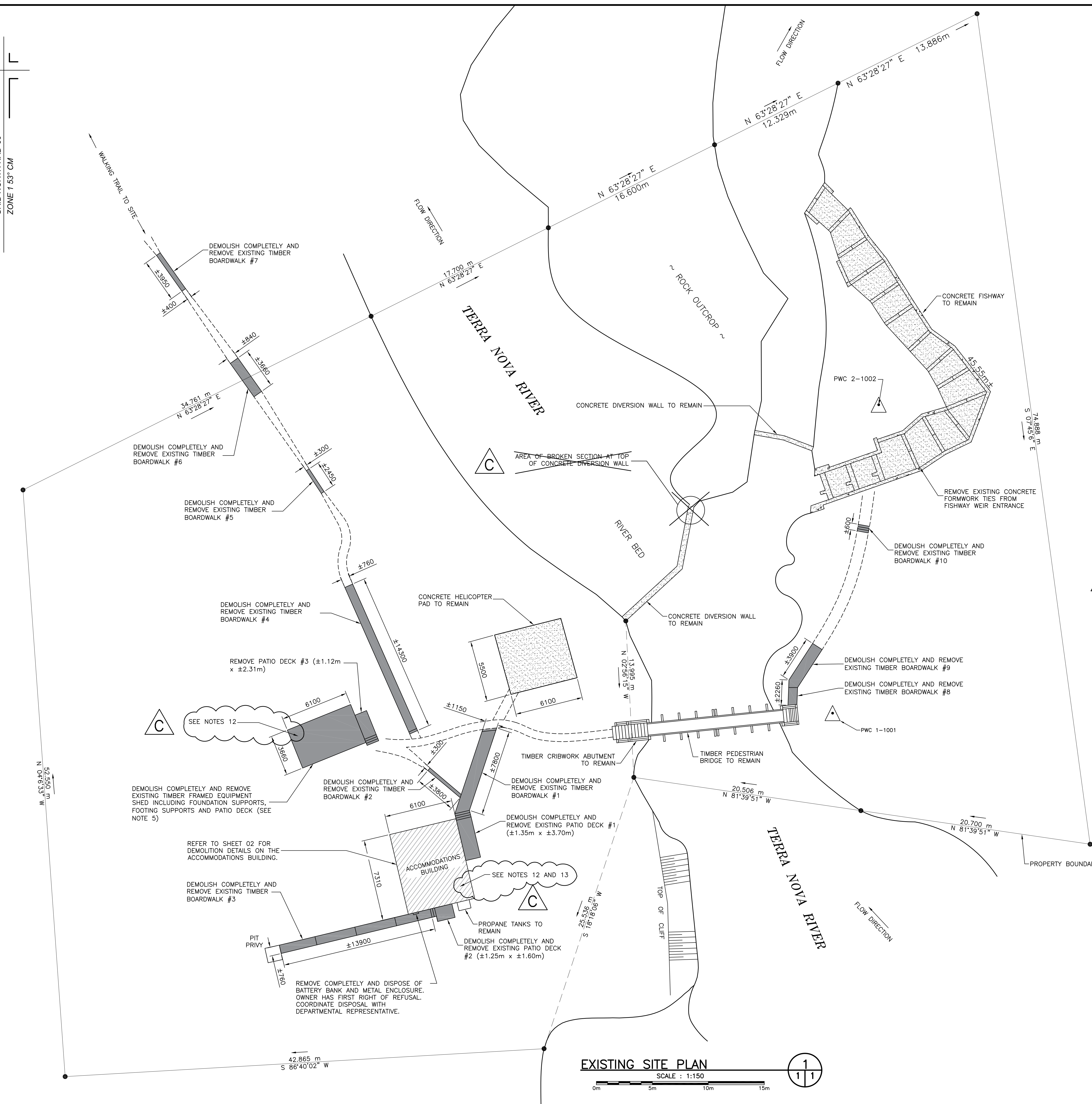
Add the following specification sections in the construction documents:

Appendix C – Hazardous Materials Reports

By submission of its bid, the bidder confirms that it has read and understands the requirements expressed in all addenda and has included all cost of these requirements in its total bid amount.

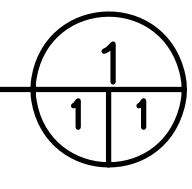
All other terms and conditions remain unchanged.

GRID NORTH NAD-83
ZONE 1 63° CM



EXISTING SITE PLAN

SCALE : 1:150



GENERAL NOTES:

1. ALL DIMENSIONS IN MILLIMETERS UNLESS SPECIFIED OTHERWISE.
2. ALL ELEVATIONS IN METERS.
3. DO NOT SCALE FROM DRAWINGS. USE DIMENSIONS AS SHOWN.
4. RELIABLE AS-BUILT INFORMATION IS LIMITED. EXISTING FEATURES ARE SHOWN FOR INFORMATION PURPOSES ONLY. CONTRACTOR SHALL CONFIRM ALL CRITICAL DIMENSIONS IN THE FIELD. CONTRACTOR TO BARE ALL COSTS FOR DEMOLITION AND ASSOCIATED RISK ACCORDINGLY.
5. EXISTING SHED SHOULD NOT BE DEMOLISHED OR REMOVED UNTIL NEW SHED IS CONSTRUCTED. ALL BUILDING CONTENTS INCLUDING THE ROOF MOUNTED SOLAR PANELS SHALL BE REMOVED AND RELOCATED TO NEW EQUIPMENT SHED, PRIOR TO THE DEMOLITION OF THE EXISTING SHED. THE EXISTING REFRIGERATOR SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR AND DISPOSED OF AT A PROPER WASTE DISPOSAL FACILITY. BE AWARE OF ANY UNDERGROUND SERVICE LINES BETWEEN EXISTING SHED AND ACCOMMODATIONS BUILDINGS DURING EXCAVATION. MAINTAIN AND PROTECT LINES UNTIL THEY CAN BE REMOVED / RELOCATED INTO NEW WORK. COORDINATE WORK WITH THE DEPARTMENTAL REPRESENTATIVE.
6. REMOVE TREES, SHRUBS AND GROUND COVER AS REQUIRED TO REMOVE EXISTING STRUCTURES AND TO CONSTRUCT NEW. COORDINATE REMOVAL OF MATERIAL WITH DEPARTMENTAL REPRESENTATIVE.
7. IT SHOULD BE NOTED THAT THE LOCATION OF WORK IS REMOTE AND NOT ACCESSIBLE BY ROAD. HELICOPTER ACCESS WILL BE APPROVED FOR SITE ACCESS, HOWEVER, THE CONTRACTOR MAY REQUIRE TEMPORARY SITE ACCESS MEASURES ONCE AT THE SITE. TEMPORARY MEASURES IMPLEMENTED ON-SITE MUST BE REMOVED UPON COMPLETION OF PROJECT AND ALL DISTURBED FEATURES MUST BE REINSTATED AS PER EXISTING. IF METHOD OF TEMPORARY SITE ACCESS REQUIRES APPROVAL FROM GOVERNING AUTHORITIES, THE CONTRACTOR SHALL SUBMIT ALL PERMITS/APPROVALS TO THE DEPARTMENTAL REPRESENTATIVE PRIOR TO START OF WORK.
8. DFO WILL PROVIDE UP TO 50 HOURS OF HELICOPTER TIME FOR USE BY THE CONTRACTOR, BASED ON 2000 lb LIFT CAPACITY. THIS TIME IS INTENDED FOR WORKER/MATERIAL TRANSPORT TO AND FROM THE SITE. HELICOPTER TRIPS SHOULD BE SCHEDULED AS EFFICIENTLY AS POSSIBLE, AND SHOULD MAKE USE OF THE DESTINATION AND RETURN TRIPS.
9. ALL DEMOLISHED MATERIALS ARE TO BE REMOVED FROM THE SITE, AND DISPOSED OF APPROPRIATELY.
10. ALL WORK TO BE CARRIED OUT IN THE DRY.
11. LENGTHS OF NEW BOARDWALKS/PATIOS TO MATCH EXISTING, AS A MINIMUM, OR LARGER. CONTRACTOR TO CONFIRM EXISTING DIMENSIONS PRIOR TO DEMOLITION. DIMENSIONS SHOWN ARE CONSIDERED APPROXIMATE.
12. ASBESTOS AND/OR MOULD IS PRESENT IN THESE STRUCTURES. REFER TO APPENDIX "C". HAZARDOUS MATERIALS REPORT FOR MORE INFORMATION. CONTRACTOR TO HANDLE HAZARDOUS ITEMS IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. SUBMIT PROPOSED PROCEDURE, ALONG WITH A LIST OF QUALIFIED PERSONNEL, OR SUBCONTRACTORS WHO WILL BE PERFORMING THE WORK, WITH THE SITE-SPECIFIC SAFETY PLAN.
13. THE CONTRACTOR IS PERMITTED TO USE THE EXISTING ACCOMMODATIONS BUILDING FOR STAFF HOUSING WHILE CONDUCTING THE WORK. THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONSUMABLES REQUIRED, AND SHALL MAINTAIN THE BUILDING AS PER ITS EXISTING CONDITION. THE BUILDING WILL BE PROVIDED FOR USE IN ITS CURRENT CONDITION.

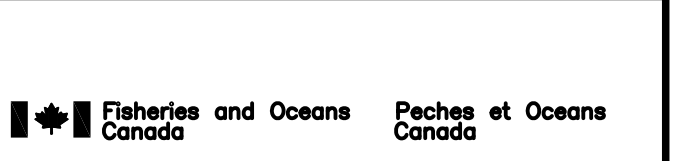
GENERAL LEGEND:

- EXISTING STRUCTURES TO BE COMPLETELY DEMOLISHED AND/OR REMOVED INCLUDING ALL FOUNDATION AND FOOTING SUPPORTS.
- EXISTING STRUCTURES TO BE PARTIALLY RENOVATED AND/OR REPAIRED
- EXISTING CONCRETE STRUCTURES TO REMAIN
- EXISTING FOOTPATH

SURVEY NOTES:

1. ORIGINAL SURVEY WAS COMPLETED ON SEPTEMBER 8, 2005 BY JOHN HORWOOD, NEWFOUNDLAND LAND SURVEYORS. SINCE THIS ORIGINAL SURVEY, ADDITIONAL INFORMATION PERTAINING TO THE LOCATION OF BOARDWALKS AND OTHER FEATURES HAS BEEN ADDED OR MODIFIED. THIS IS NOT AN EXACT DUPLICATE OF THE ORIGINAL SURVEY. CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM ALL REQUIRED INFORMATION AND CARRY THE NECESSARY COSTS TO DO SO.
2. ALL BEARINGS ARE GRID BASED ON NFD. 3 TRANSVERSE MERCATOR PROJECTION.
3. COORDINATES ARE DERIVED FROM STATIC GPS REFERENCED FROM CONTROL STATION 637001.
4. COORDINATES OF NFD. CONTROL STATION 637001 N 5 374 798.968m E 215 351.423m.

Number	Northing	Eastings
PWC1-1001	5 385 152.958	225 254.108
PWC2-1002	5 385 180.513	225 258.228



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revisions	date
C	ISSUED FOR ADDENDUM #1 17/11/20
B	ISSUED FOR TENDER 17/10/22
A	ISSUED FOR 99% REVIEW 17/09/08

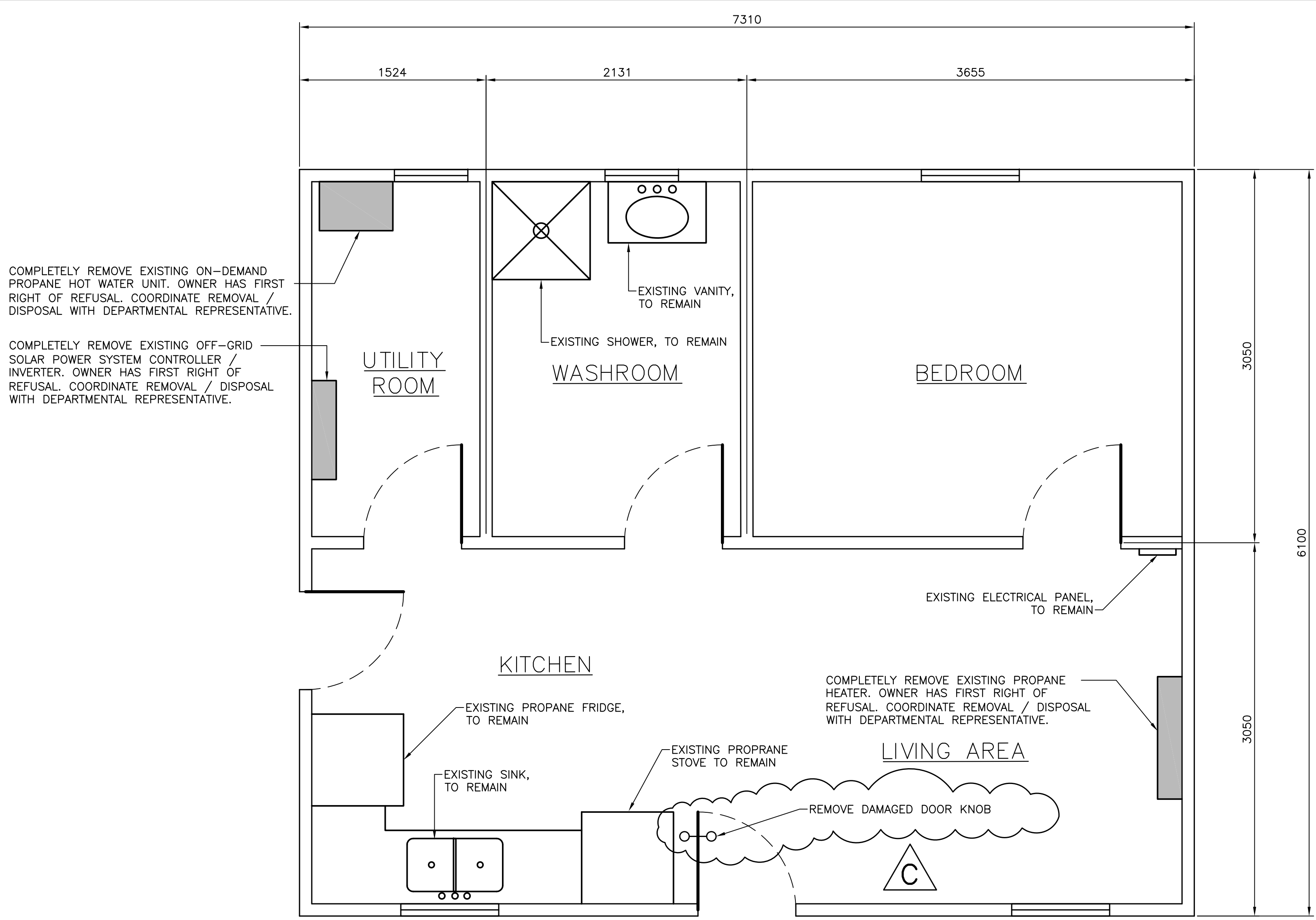
INFRASTRUCTURE UPGRADES - LOWER TERRA NOVA FISHWAY

EXISTING SITE PLAN WITH DEMOLITION

designed K.F.	conclu
date SEPT. 8, 2017	
drawn M.L.	dessine
date SEPT. 8, 2017	
approved L.B.	approuvé
date SEPT. 8, 2017	
Tender	Submission

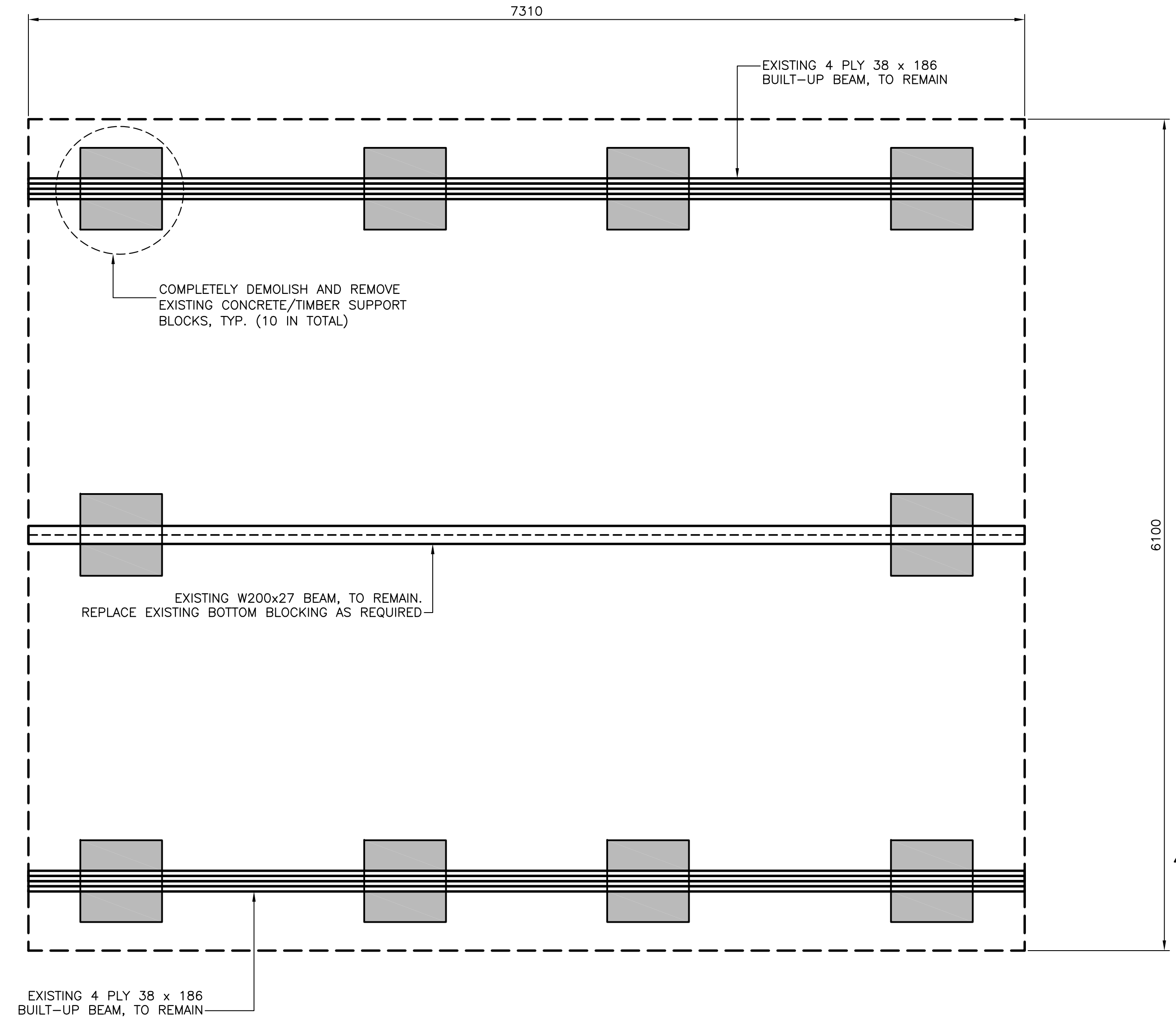
DFO Project Manager Administrateur de projets MPO
 project number no. du projet
F6879-179013

drawing no. no. du dessin
C1 OF 7



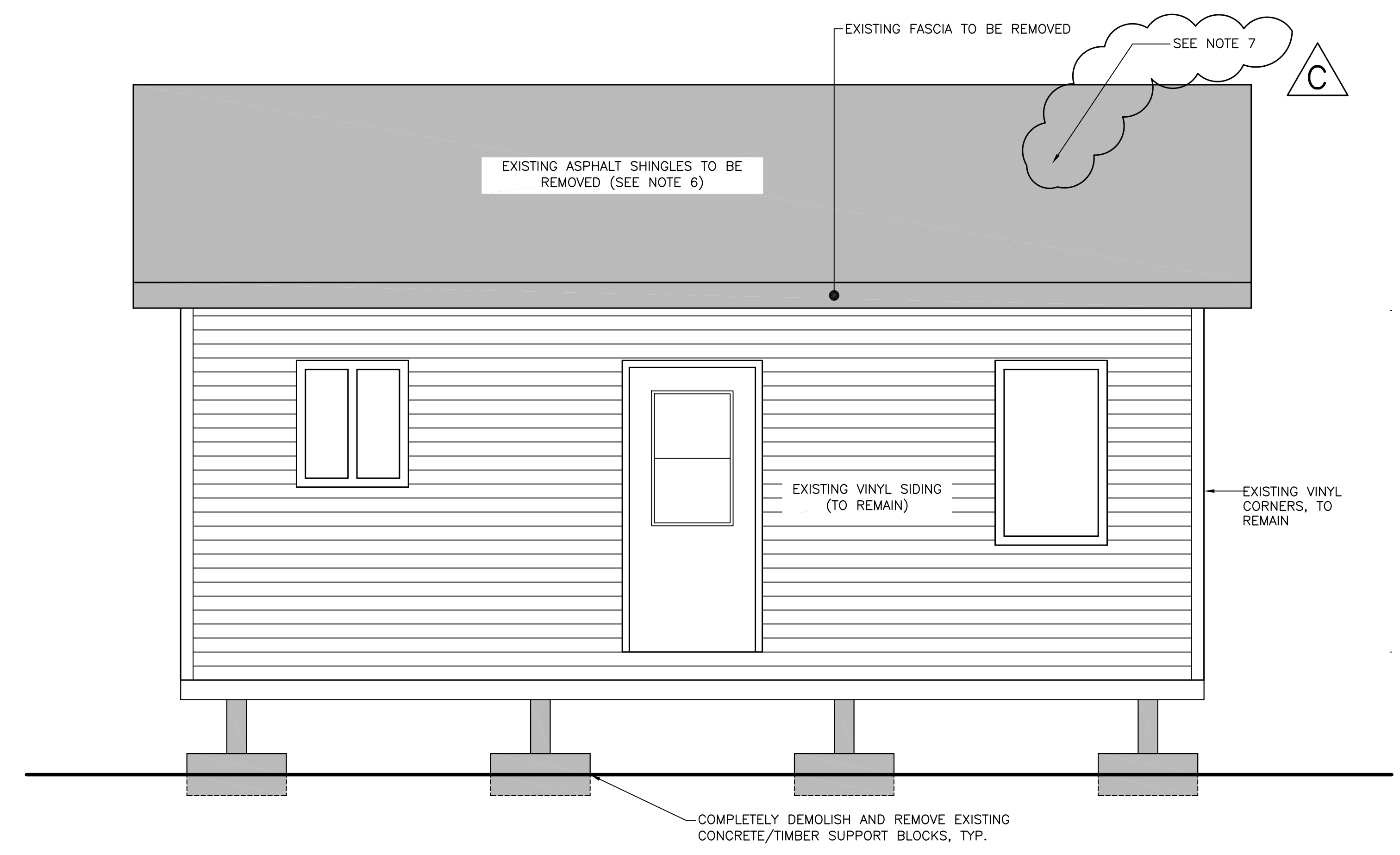
ACCOMMODATIONS BUILDING - FLOOR PLAN 1/2/2

SCALE : 1:25
0mm 500mm 1000mm 1500mm 2000mm 2500mm



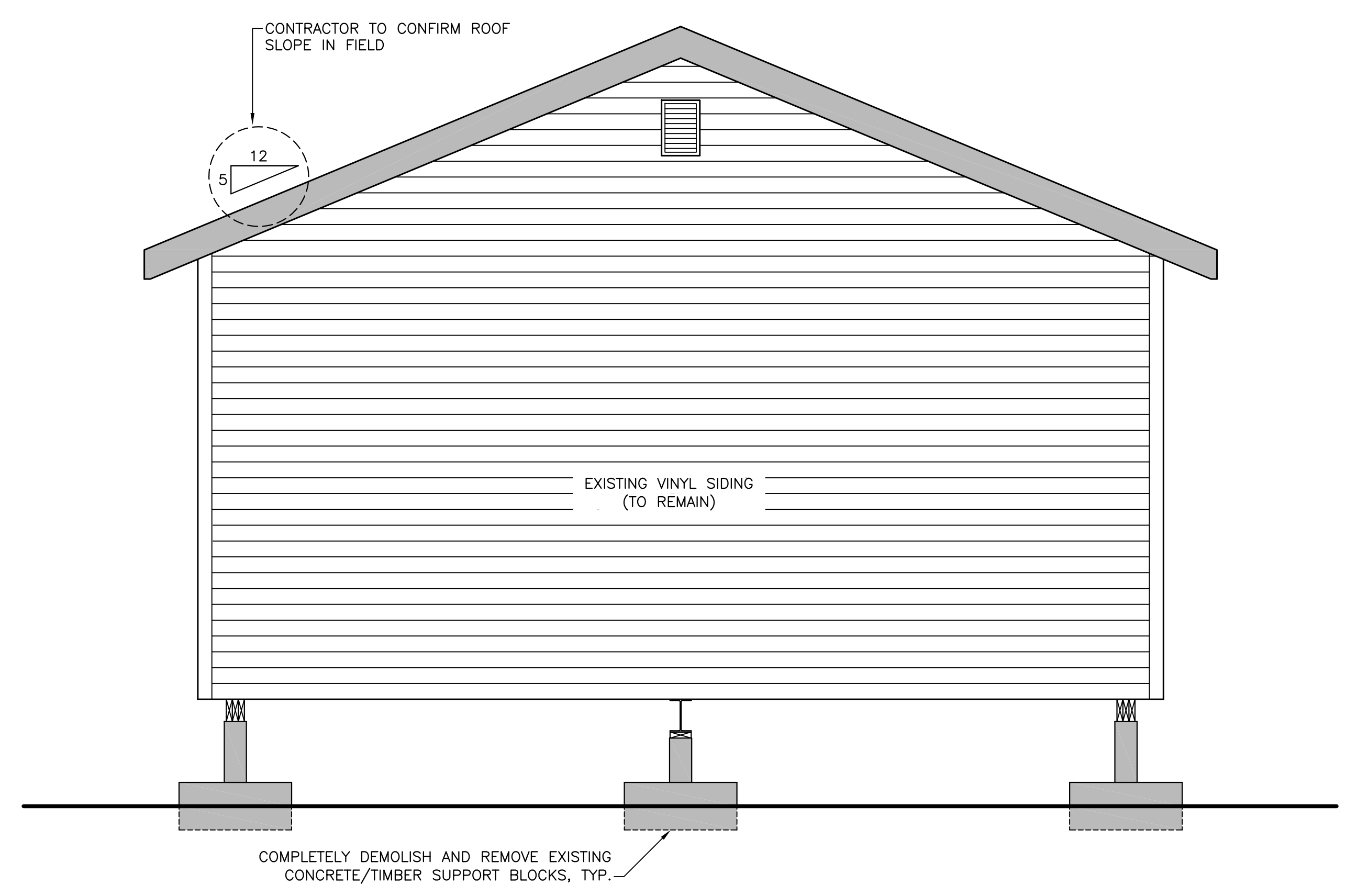
ACCOMMODATIONS BUILDING - FOUNDATION PLAN 2/2/2

SCALE : 1:25
0mm 500mm 1000mm 1500mm 2000mm 2500mm



ACCOMMODATIONS BUILDING - SOUTH ELEVATION 3/2/2

SCALE : 1:25
0mm 500mm 1000mm 1500mm 2000mm 2500mm



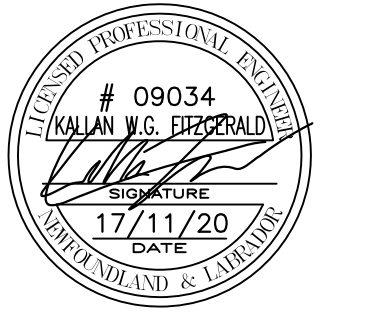
ACCOMMODATIONS BUILDING - EAST ELEVATION 4/2/2

SCALE : 1:25
0mm 500mm 1000mm 1500mm 2000mm 2500mm

GENERAL LEGEND:
EXISTING ITEMS TO BE COMPLETELY DEMOLISHED AND/OR REMOVED

- GENERAL NOTES:
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 - EXISTING EXTERNAL DECKS AND OTHER FEATURES OMITTED FROM THESE DETAILS FOR CLARITY PURPOSES. PLEASE REFER TO OTHER DRAWINGS FOR OTHER DETAILS.
 - CONTRACTOR TO PROVIDE ALL REQUIRED TEMPORARY BRACING AND SHORING REQUIRED DURING DEMOLITION AND CONSTRUCTION TO ENSURE CABIN IS FULLY STABLE AND SAFE FOR WORKING NEAR.
 - CONTRACTOR SHALL INFORM THE DEPARTMENTAL REPRESENTATIVE ONCE EXISTING ASPHALT SHINGLES HAVE BEEN REMOVED. THE DEPARTMENTAL REPRESENTATIVE SHALL INSPECT ALL EXISTING ROOF SHEATHING FOR AREAS OF DETERIORATION. IF ANY AREAS OF THE ROOF SHEATHING WARRANT REPLACEMENT, THE CONTRACTOR SHALL REPLACE THOSE AREAS WITH NEW, TO MATCH EXISTING, AND TO THE APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE. FOR BIDDING PURPOSES, ASSUME ALL ROOF SHEATHING IS TO BE REPLACED.
 - ASBESTOS AND/OR MOULD IS PRESENT IN THESE STRUCTURES. REFER TO APPENDIX 'C', HAZARDOUS MATERIALS REPORT FOR MORE INFORMATION. CONTRACTOR TO HANDLE HAZARDOUS ITEMS IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS. SUBMIT PROPOSED PROCEDURE, ALONG WITH A LIST OF QUALIFIED PERSONNEL, OR SUBCONTRACTORS WHO WILL BE PERFORMING THE WORK, WITH THE SITE-SPECIFIC SAFETY PLAN.

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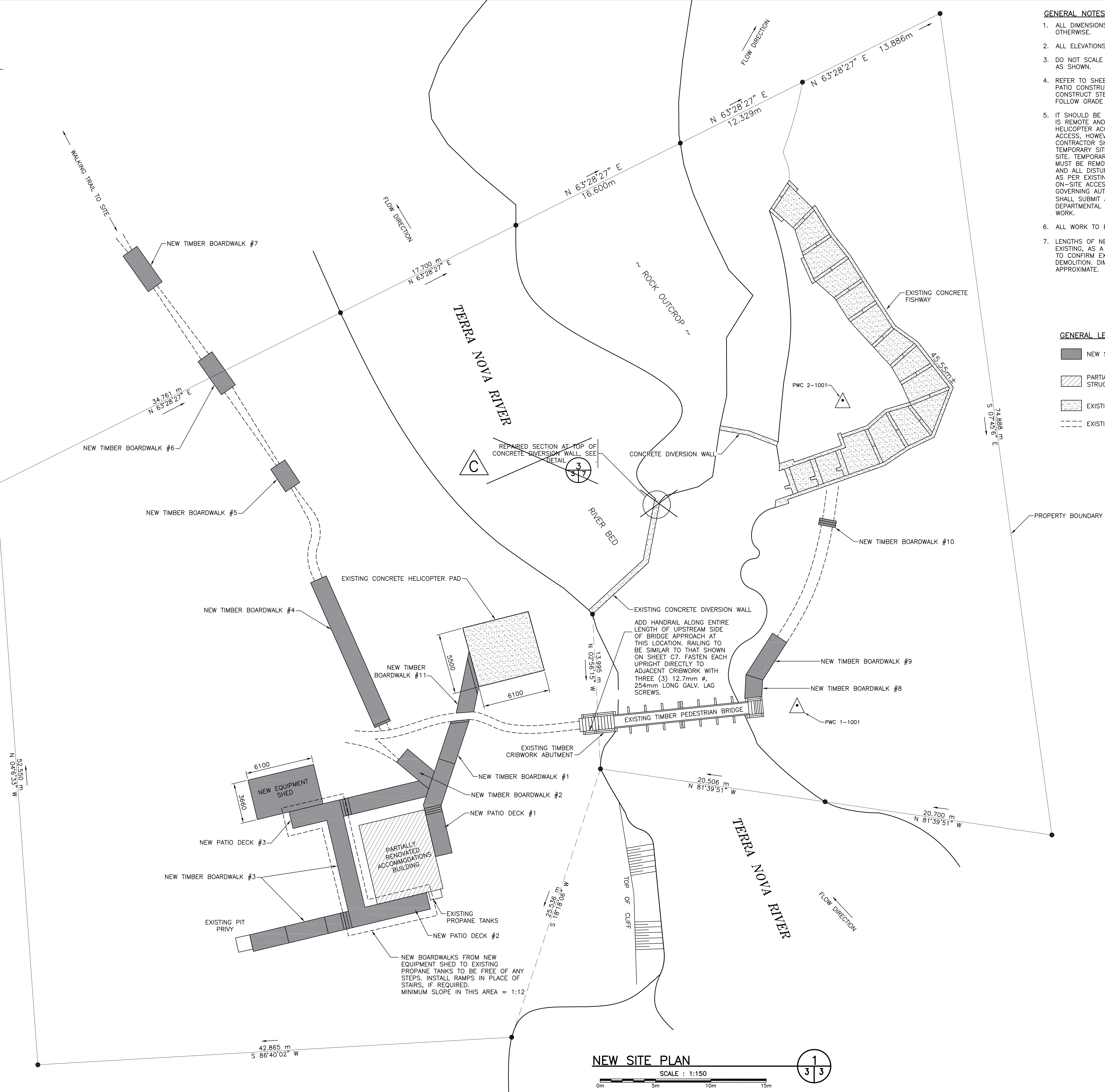
C	ISSUED FOR ADDENDUM #1	17/11/20
B	ISSUED FOR TENDER	17/10/22
A	ISSUED FOR 99% REVIEW	17/09/08

INFRASTRUCTURE UPGRADES - LOWER TERRA NOVA FISHWAY

EXISTING ACCOMMODATIONS BUILDING WITH DEMOLITION

designed K.F.	conclu
date SEPT. 8, 2017	
drawn M.L.	dessine
date SEPT. 8, 2017	
approved L.B.	approuvé
date SEPT. 8, 2017	
Tender	Submission
DFO Project Manager	Administrateur de projets MPD
project number	no. du projet
F6879-179013	
drawing no.	no. du dessin
C2 OF 7	

GRID NORTH NAD-83
ZONE 153° CM

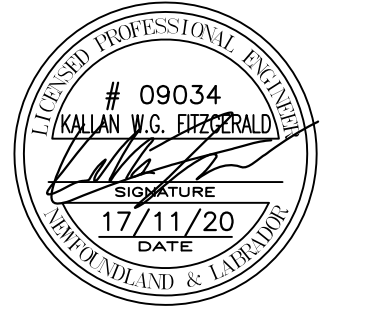


- GENERAL NOTES:**
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 2. ALL ELEVATIONS IN METERS.
 3. DO NOT SCALE FROM DRAWINGS. USE DIMENSIONS AS SHOWN.
 4. REFER TO SHEET 06 FOR TYPICAL BOARDWALK AND PATIO CONSTRUCTION DETAILS. CONTRACTOR TO CONSTRUCT STEPS IN BOARDWALK AS REQUIRED TO FOLLOW GRADE OF EXISTING TOPOGRAPHY.
 5. IT SHOULD BE NOTED THAT THE LOCATION OF WORK IS REMOTE AND NOT ACCESSIBLE BY ROAD. HELICOPTER ACCESS WILL BE APPROVED FOR SITE ACCESS, HOWEVER FOR SAFETY REASONS, THE CONTRACTOR SHALL PROVIDE OR PLAN FOR TEMPORARY SITE ACCESS MEASURES ONCE AT THE SITE. TEMPORARY MEASURES IMPLEMENTED ON-SITE MUST BE REMOVED UPON COMPLETION OF PROJECT AND ALL DISTURBED FEATURES MUST BE REINSTATED AS PER EXISTING. IF METHOD OF TEMPORARY ON-SITE ACCESS REQUIRES APPROVAL FROM GOVERNING AUTHORITIES THEN THE CONTRACTOR SHALL SUBMIT ALL PERMITS/APPROVALS TO THE DEPARTMENTAL REPRESENTATIVE PRIOR TO START OF WORK.
 6. ALL WORK TO BE CARRIED OUT IN THE DRY.
 7. LENGTHS OF NEW BOARDWALKS/PATIOS TO MATCH EXISTING, AS A MINIMUM, OR LARGER. CONTRACTOR TO CONFIRM EXISTING DIMENSIONS PRIOR TO DEMOLITION. DIMENSIONS SHOWN ARE CONSIDERED APPROXIMATE.

- GENERAL LEGEND:**
- NEW STRUCTURES
 - PARTIALLY RENOVATED AND/OR REPAIRED STRUCTURES
 - EXISTING CONCRETE STRUCTURES
 - EXISTING FOOTPATH



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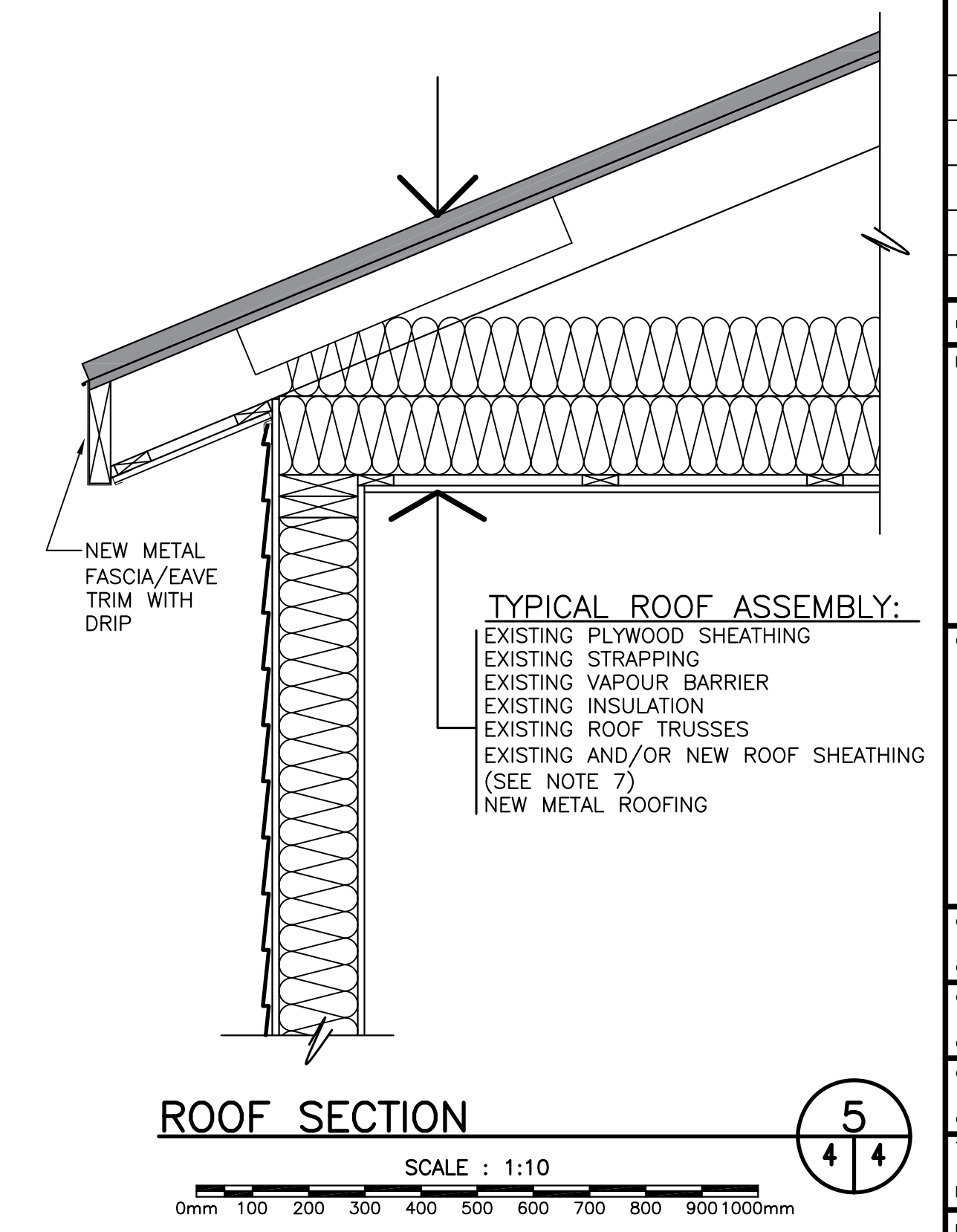
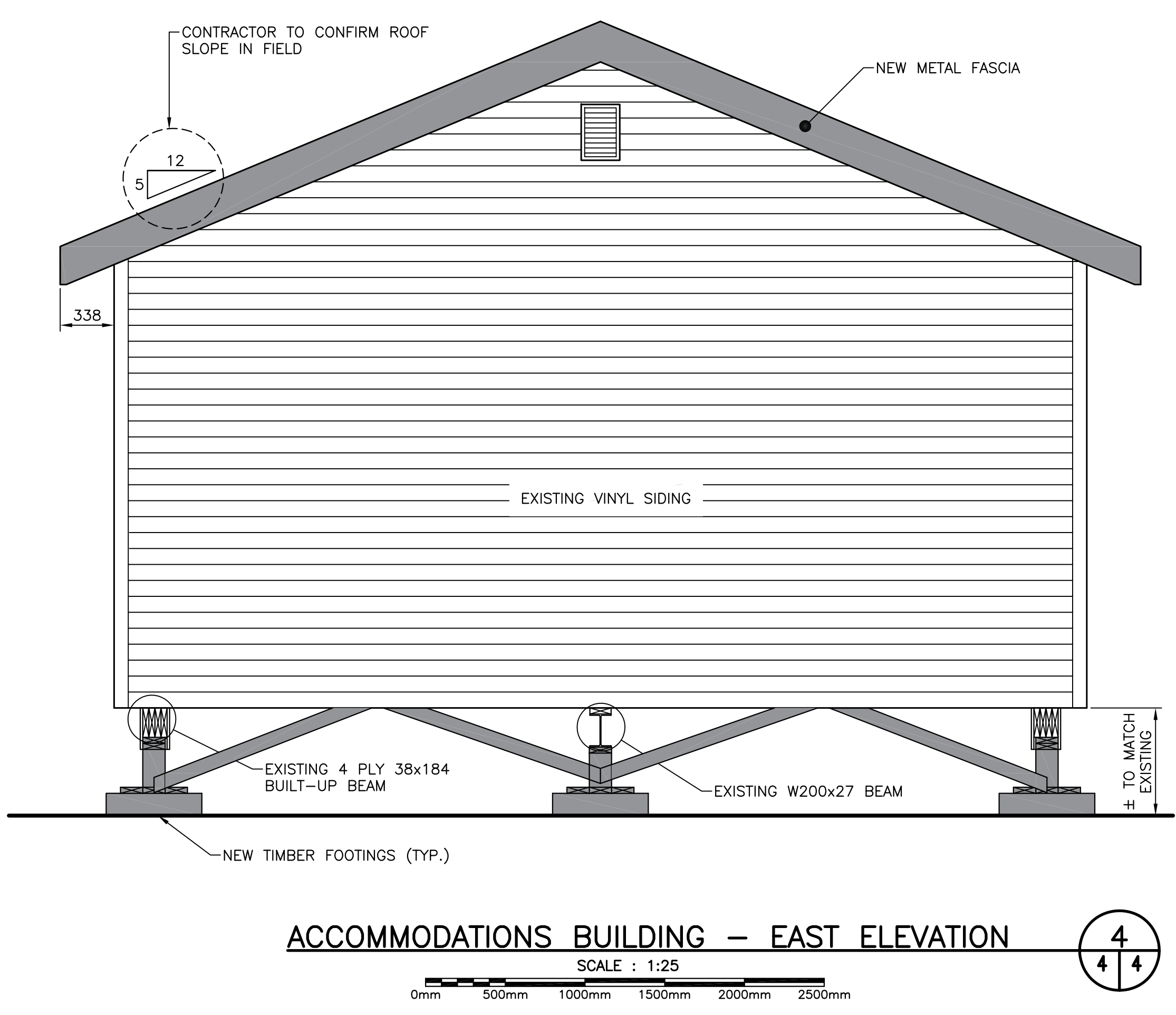
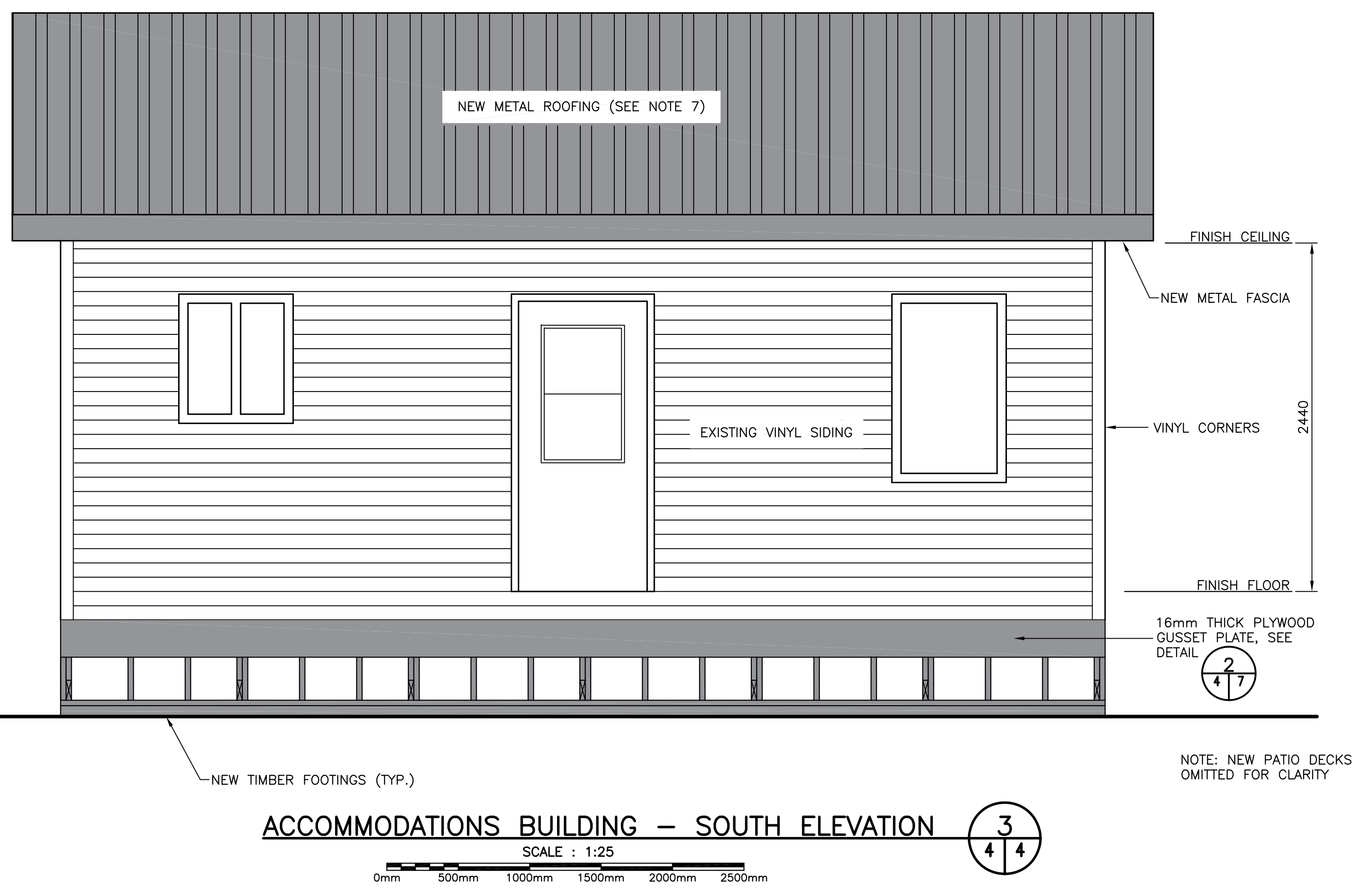
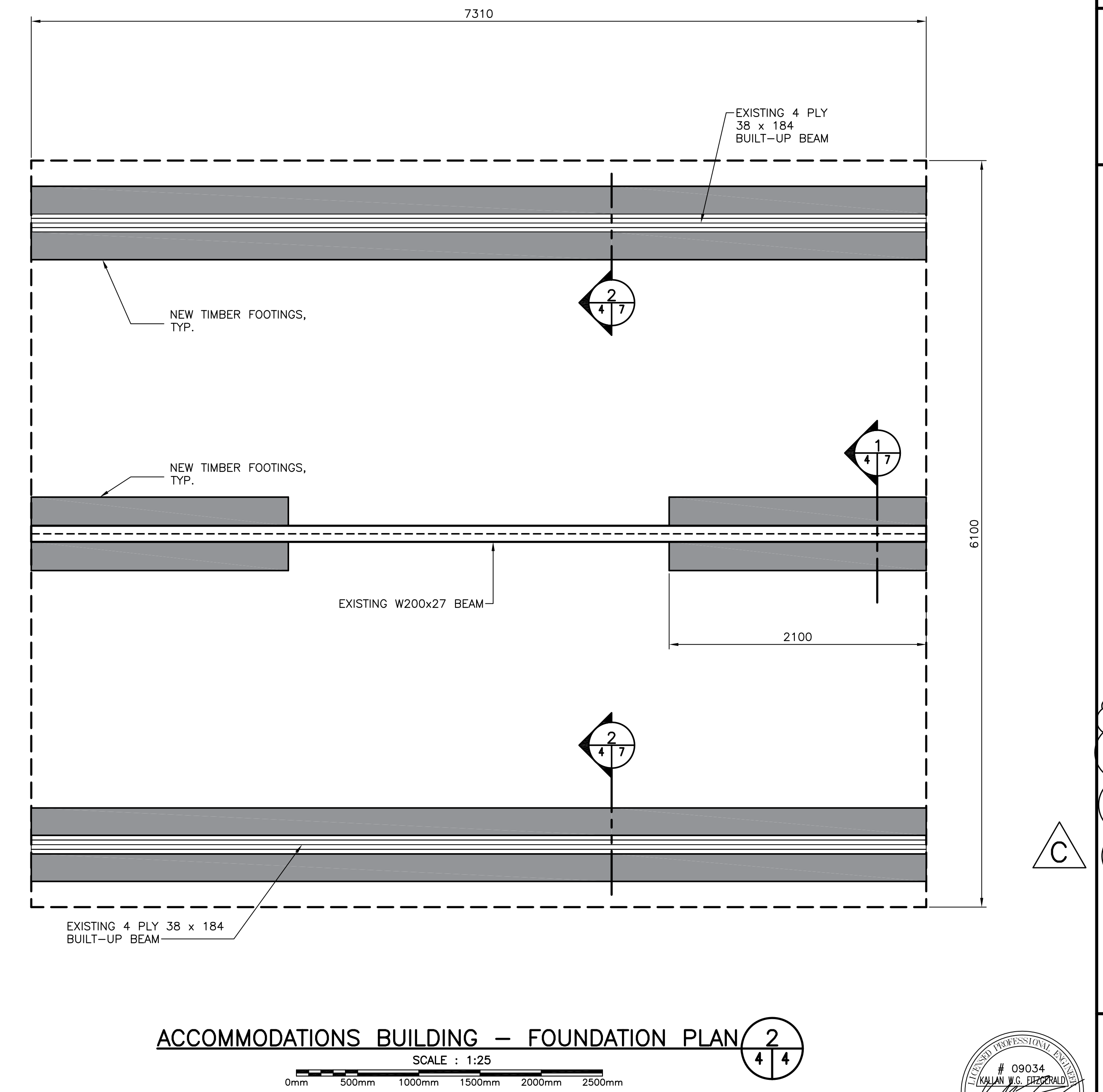
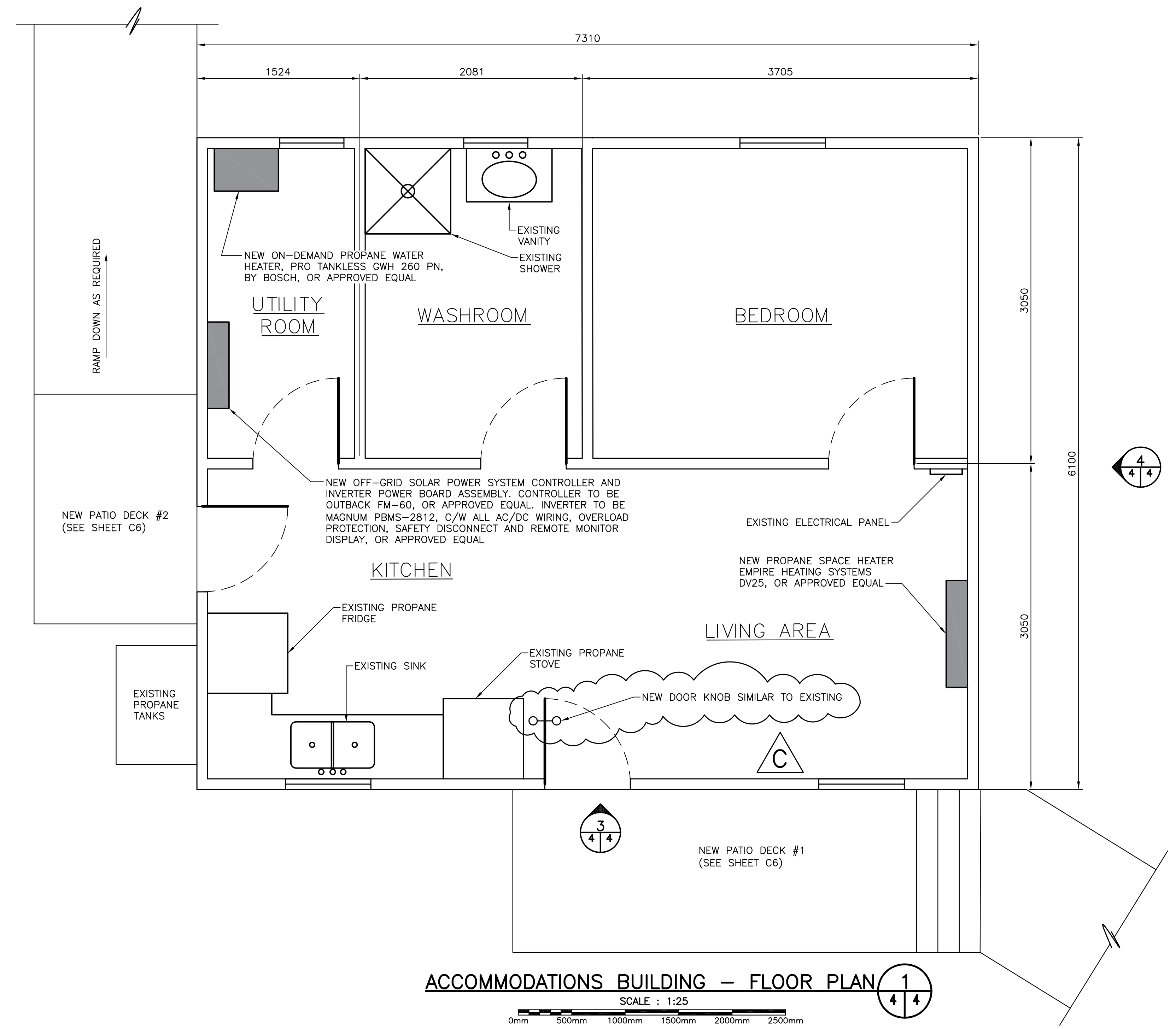
revisions	description	date
C	ISSUED FOR ADDENDUM #1	17/11/20
B	ISSUED FOR TENDER	17/10/02
A	ISSUED FOR 99% REVIEW	17/09/08

INFRASTRUCTURE UPGRADES - LOWER TERRA NOVA FISHWAY

NEW SITE PLAN

designed K.F.	conclu
date SEPT. 8, 2017	
drawn M.L.	dessine
date SEPT. 8, 2017	
approved L.B.	approuvé
date SEPT. 8, 2017	
Tender	Submission
DFO Project Manager Administrateur de projets MPO	no. du projet
project number	
F6879-179013	
drawing no.	no. du dessin
C3 OF 7	

NEW SITE PLAN
 SCALE : 1:150
 0m 5m 10m 15m



- GENERAL NOTES:**
- UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS.
 - DO NOT SCALE FROM DRAWINGS.
 - ALL CONNECTING WIRES (INDOOR AND OUTDOOR), FITTINGS, CONDUIT, MOUNTING EQUIPMENT AND ANY OTHER ITEMS REQUIRED TO COMPLETELY INSTALL AND OPERATE THE OFF-GRID POWER SUPPLY AND PROPANE HEATERS ARE TO BE INCLUDED.
 - ALL OFF-GRID POWER AND HEATING ITEMS TO BE INSTALLED BY A CERTIFIED TECHNICIAN, FAMILIAR WITH OFF-GRID ELECTRICAL SYSTEMS. IF THE SYSTEM IS NOT INSTALLED BY SUCH A TECHNICIAN, IT MUST BE INSPECTED AND COMMISSIONED BY SUCH A TECHNICIAN, TO THE APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE PRIOR TO PROJECT COMPLETION.
 - CONTRACTOR TO PROVIDE ALL REQUIRED TEMPORARY BRACING AND SHORING DURING DEMOLITION AND CONSTRUCTION TO ENSURE CABIN IS FULLY STABLE AND SAFE FOR WORKING NEAR.
 - CONTRACTOR SHALL TOUCH-UP ALL INTERIOR WALL AND CEILING SURFACES THAT ARE DISTURBED BY THE NEW WORK WITH 1 COAT OF ALKYD PRIMER AND 2 COATS OF ALKYD FINISH PAINT TO MATCH EXISTING SURFACES. PAINT MATERIALS TO BE APPROVED BY THE DEPARTMENTAL REPRESENTATIVE.
 - CONTRACTOR SHALL INFORM THE DEPARTMENTAL REPRESENTATIVE ONCE EXISTING ASPHALT SHINGLES HAVE BEEN REMOVED. THE DEPARTMENTAL REPRESENTATIVE SHALL INSPECT ALL EXISTING ROOF SHEATHING FOR AREAS OF DETRIORATION. IF ANY AREAS OF THE ROOF SHEATHING WARRANT REPLACEMENT, THE CONTRACTOR SHALL REPLACE THOSE AREAS WITH NEW, TO MATCH EXISTING, AND TO THE APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE. FOR BIDDING PURPOSES, ASSUME ALL ROOF SHEATHING TO BE REPLACED.

GENERAL LEGEND:

NEW WORK RENOVATIONS/REPAIRS



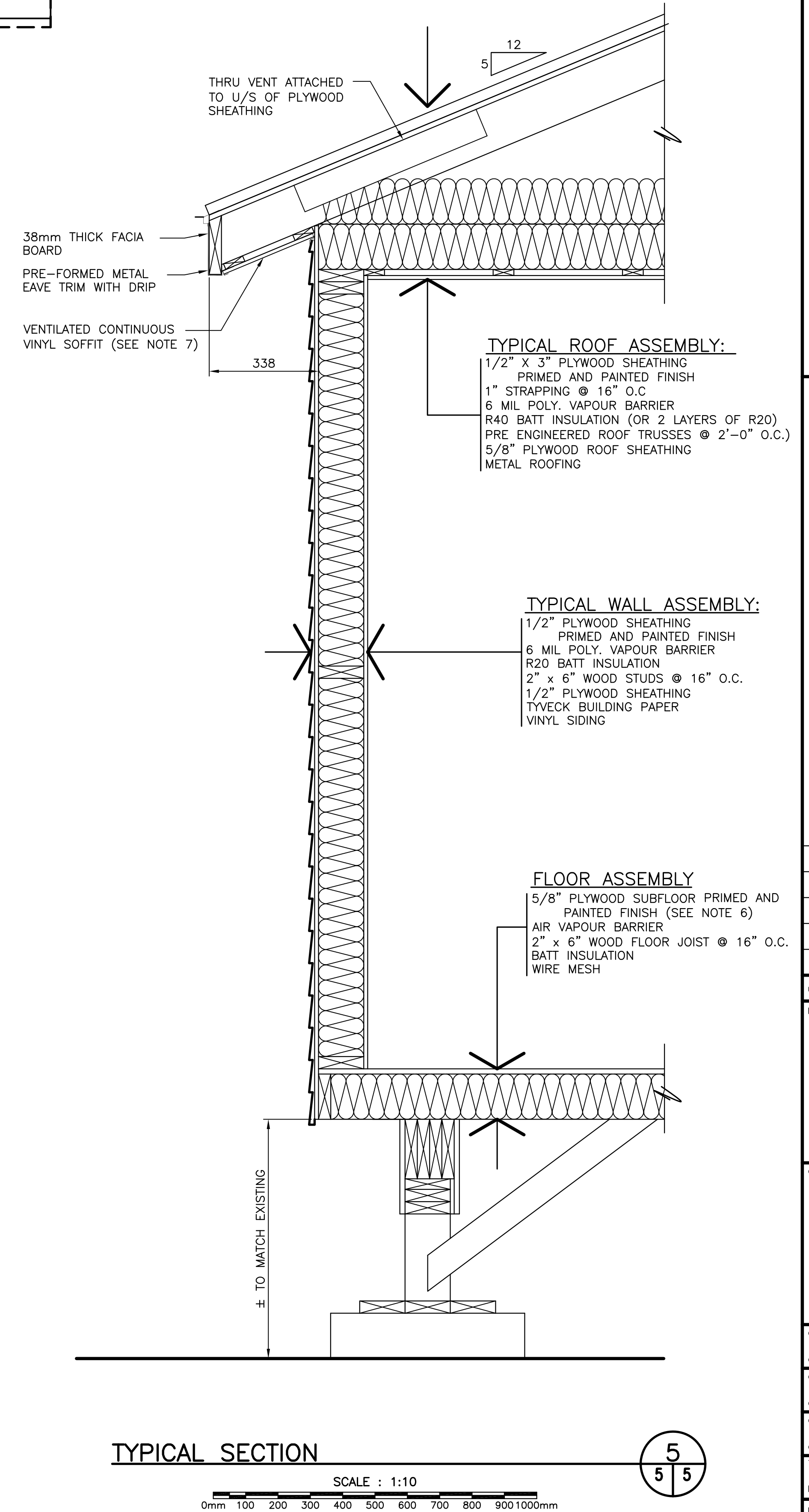
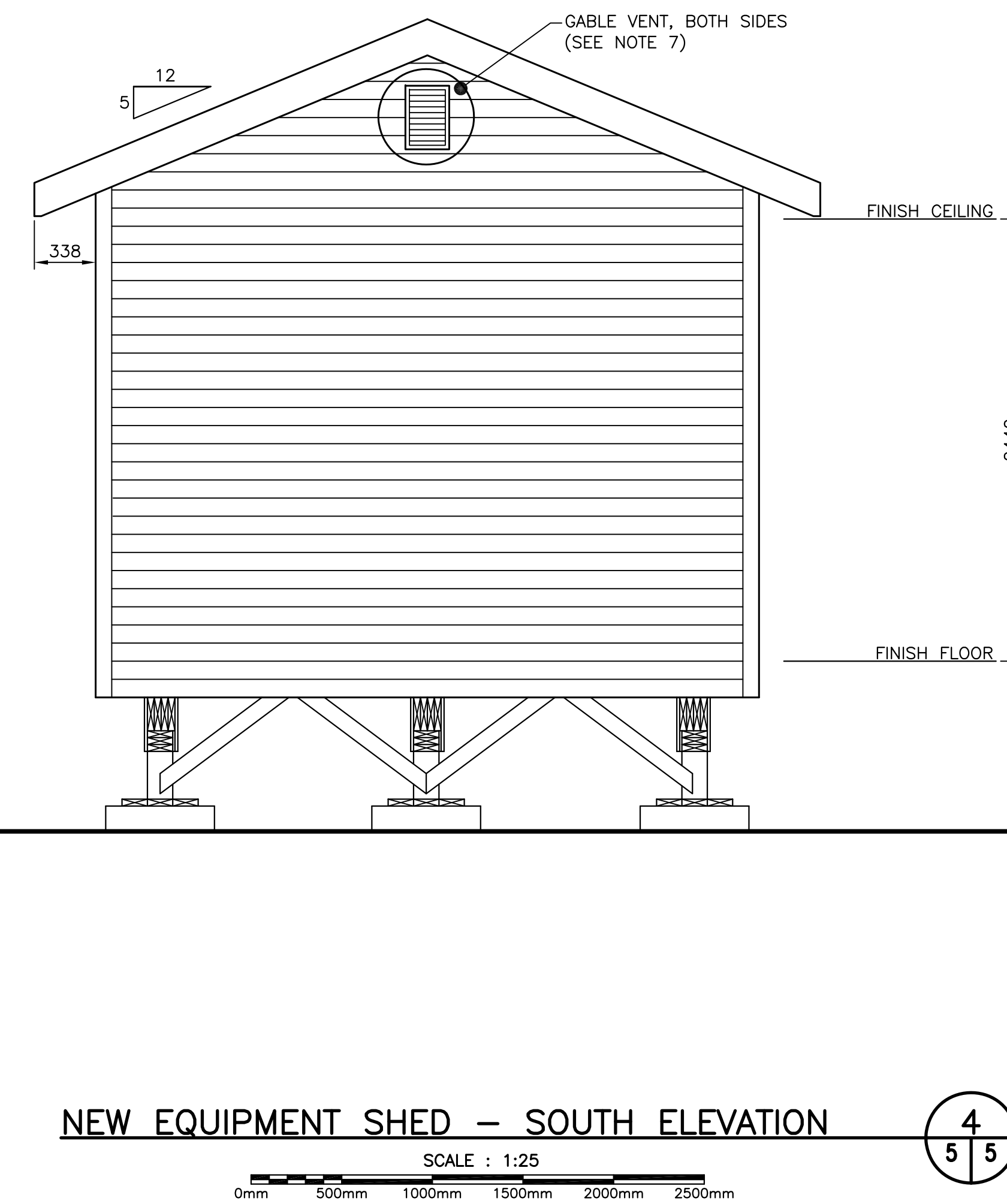
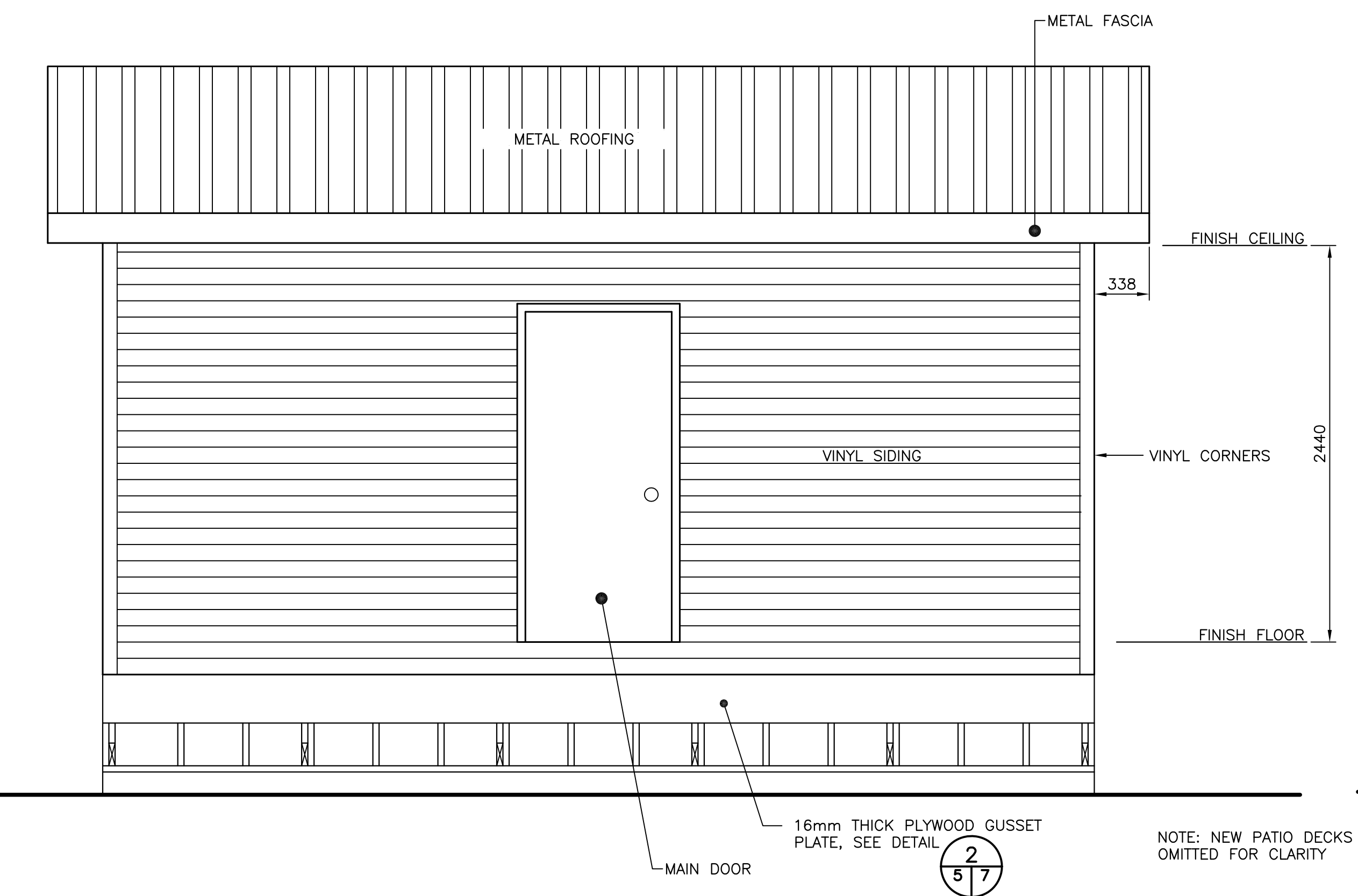
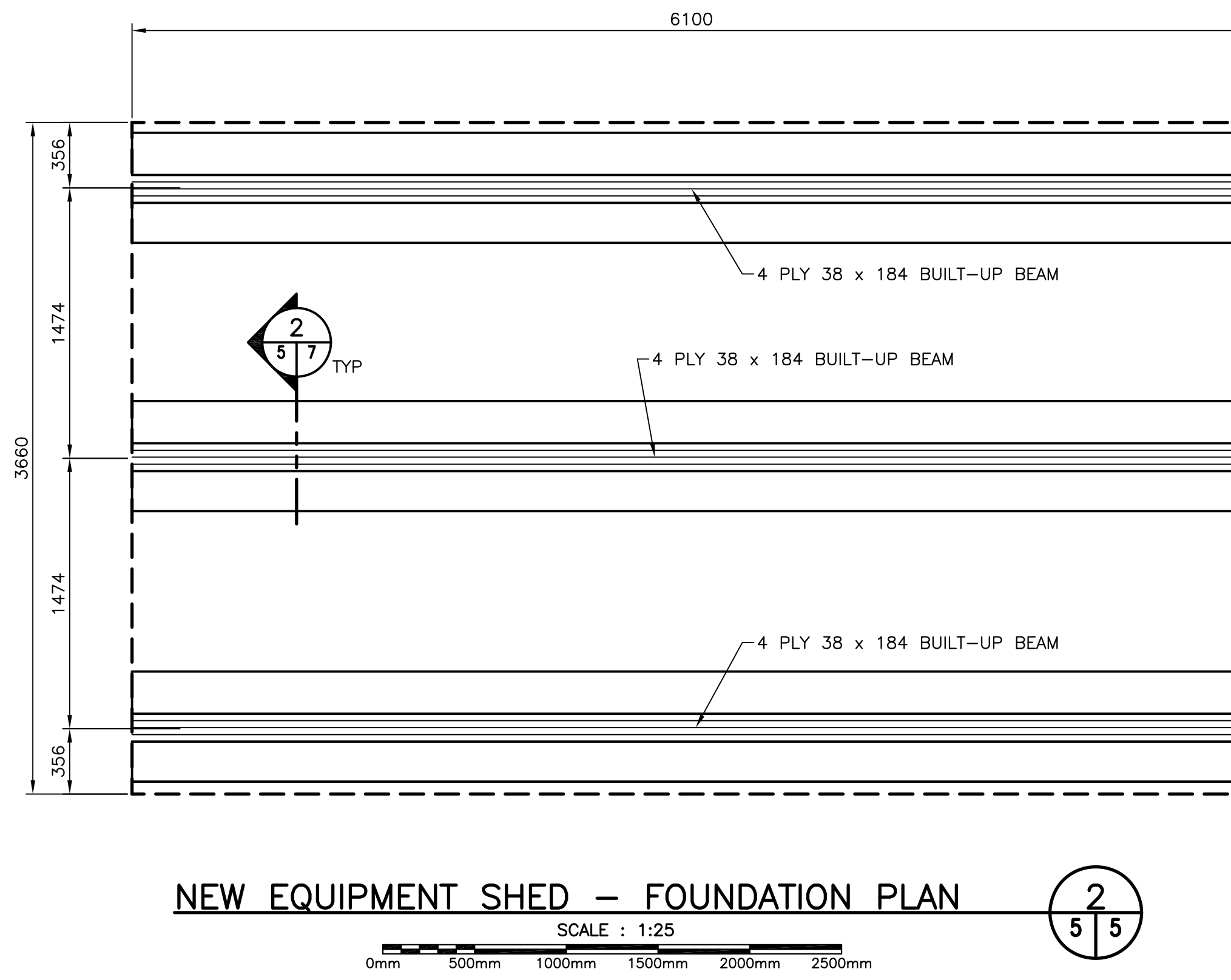
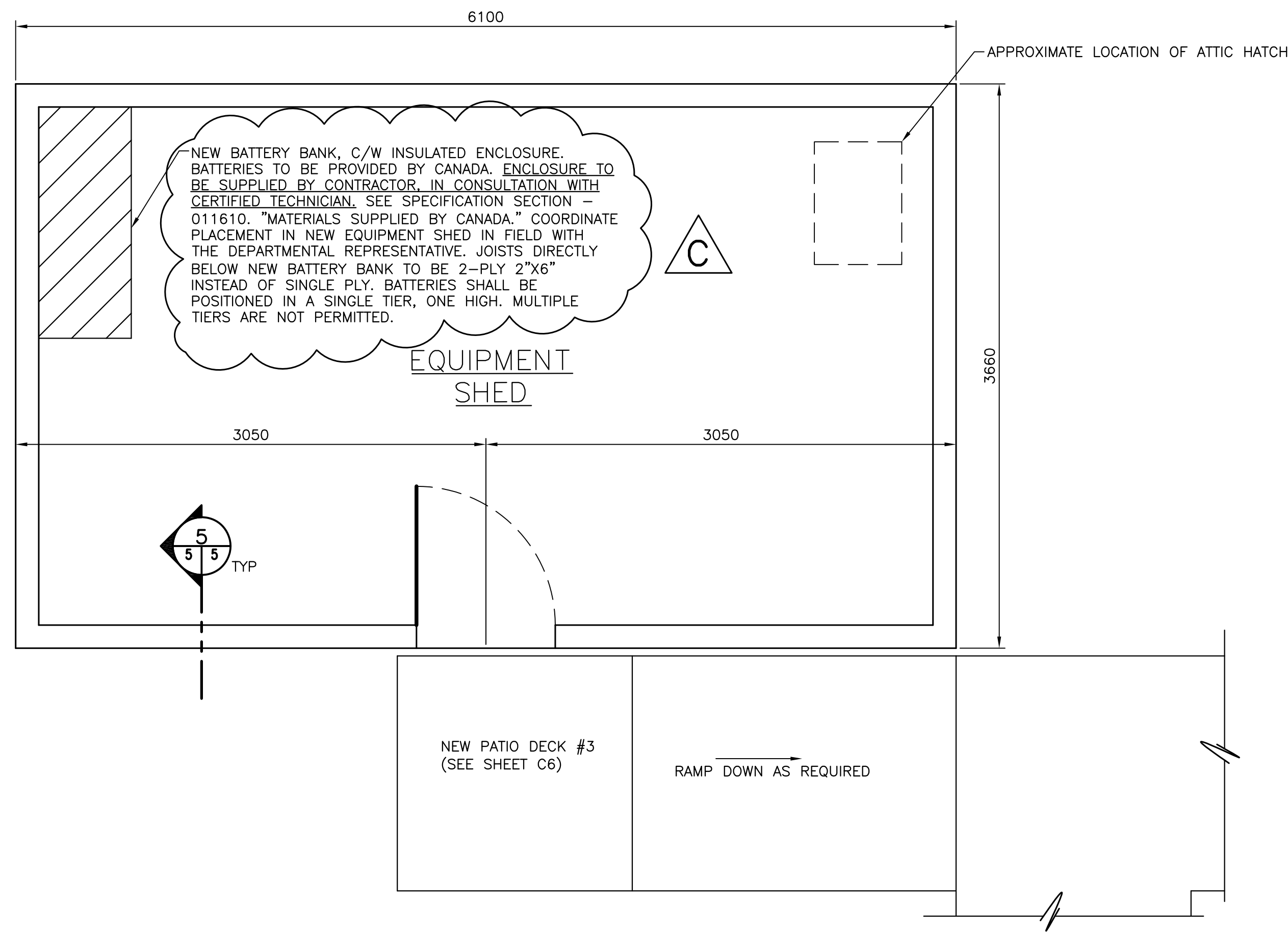
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revisions	date
C	ISSUED FOR ADDENDUM #1 17/11/20
B	ISSUED FOR TENDER 17/10/22
A	ISSUED FOR 99% REVIEW 17/09/08

INFRASTRUCTURE UPGRADES - LOWER TERRA NOVA FISHWAY

NEW REPAIRS - ACCOMMODATIONS BUILDING

designed K.F. concu
 date SEPT. 8, 2017
 drawn M.L. dessine
 date SEPT. 8, 2017
 approved L.B. approuve
 date SEPT. 8, 2017
 Tender Soumission
 DFO Project Manager Administrateur de projets MPO
 project number no. du projet
F6879-179013
 drawing no. no. du dessin
C4 OF 7



- GENERAL NOTES:
- UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN MILLIMETERS.
 - DO NOT SCALE FROM DRAWINGS.
 - CONFIRM EXACT LOCATION OF NEW EQUIPMENT SHED IN THE FIELD WITH THE DEPARTMENTAL REPRESENTATIVE, PRIOR TO CONSTRUCTION.
 - ALL CONNECTING WIRES (INDOOR AND OUTDOOR), FITTINGS, CONDUIT, MOUNTING EQUIPMENT AND ANY OTHER ITEMS REQUIRED TO COMPLETELY INSTALL AND OPERATE THE OFF-GRID POWER SUPPLY AND PROPANE HEATERS ARE TO BE INCLUDED.
 - ALL OFF-GRID POWER AND HEATING ITEMS TO BE INSTALLED BY A CERTIFIED TECHNICIAN, FAMILAR WITH OFF-GRID ELECTRICAL SYSTEMS. IF THE SYSTEM IS NOT INSTALLED BY SUCH A TECHNICIAN, IT MUST BE INSPECTED AND COMMISSIONED BY SUCH A TECHNICIAN, TO THE APPROVAL OF THE DEPARTMENTAL REPRESENTATIVE PRIOR TO PROJECT COMPLETION.
 - FINISH INTERIOR SURFACES WITH A MINIMUM OF 1 COAT OF ALKYD PRIMER AND 2 COATS OF ALKYD FINISH. PROVIDE NON-SLIP ADDITIVE TO FLOOR PAINT AND SUBMIT SHOP DRAWINGS OF PAINT MATERIALS TO THE DEPARTMENTAL REPRESENTATIVE FOR APPROVAL. COLOUR AS SELECTED BY THE DEPARTMENTAL REPRESENTATIVE.
 - PROVIDE THE REQUIRED AMOUNT OF UNOBSTRUCTED VENT AREA IN ATTIC SPACE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE, LATEST EDITION.

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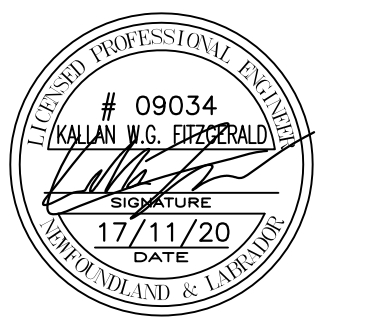
INFRASTRUCTURE UPGRADES - LOWER TERRA NOVA FISHWAY

NEW EQUIPMENT SHED

designed K.F.	concu
date SEPT. 8, 2017	
drawn M.L.	designe
date SEPT. 8, 2017	
approved L.B.	approve
date SEPT. 8, 2017	
Tender	Submission
DFO Project Manager	Administrateur de projets MPO
project number	no. du projet
F6879-179013	
drawing no.	no. du dessin
C5 OF 7	

- NOTE(S):
- DO NOT SCALE FROM DRAWINGS.
 - ALL DIMENSIONS SHOWN ON DRAWINGS ARE IN MILLIMETERS. ALL ELEVATIONS AND STATIONS ARE IN METERS UNLESS NOTED OTHERWISE.
 - CONTRACTOR TO VERIFY ALL CRITICAL DIMENSIONS IN THE FIELD PRIOR TO START OF WORK AND NOTIFY DEPARTMENTAL REPRESENTATIVE ON ANY DISCREPANCIES.
 - CONTRACTOR SHALL TAKE ALL AS-BUILT MEASURES FOR ITEMS WHICH REQUIRE REMOVAL AND REINSTATEMENT TO MATCH THAT OF THE EXISTING CONDITIONS.
 - ALL NEW REINFORCING STEEL TO BE UNCOATED.
 - CONCRETE PROTECTIVE COVERING FOR NEW REINFORCING STEEL SHALL BE 75mm OR AS NOTED ON THE DRAWINGS. THESE COVER REQUIREMENTS MAY BE SUBJECT TO CHANGE BY DEPARTMENTAL REPRESENTATIVE IN AREAS WHERE EXISTING REINFORCEMENT IS TO REMAIN IN PLACE AND NEW REINFORCEMENT IS TO BE TIED INTO EXISTING.
 - CONCRETE COVER TO BE 75mm ALL AREAS, ALL CONDITIONS.
 - MINIMUM 28 DAY CONCRETE STRENGTH = 35 MPa.
 - REINFORCING STEEL YIELD STRENGTH = 400 MPa.
 - BONDING AGENT TO BE "WEDCRETE" OR APPROVED EQUAL. BONDING AGENT TO BE APPLIED TO ALL CONCRETE/ROCK AND CONCRETE/CONCRETE INTERFACES.

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PEGL PERMIT HOLDER
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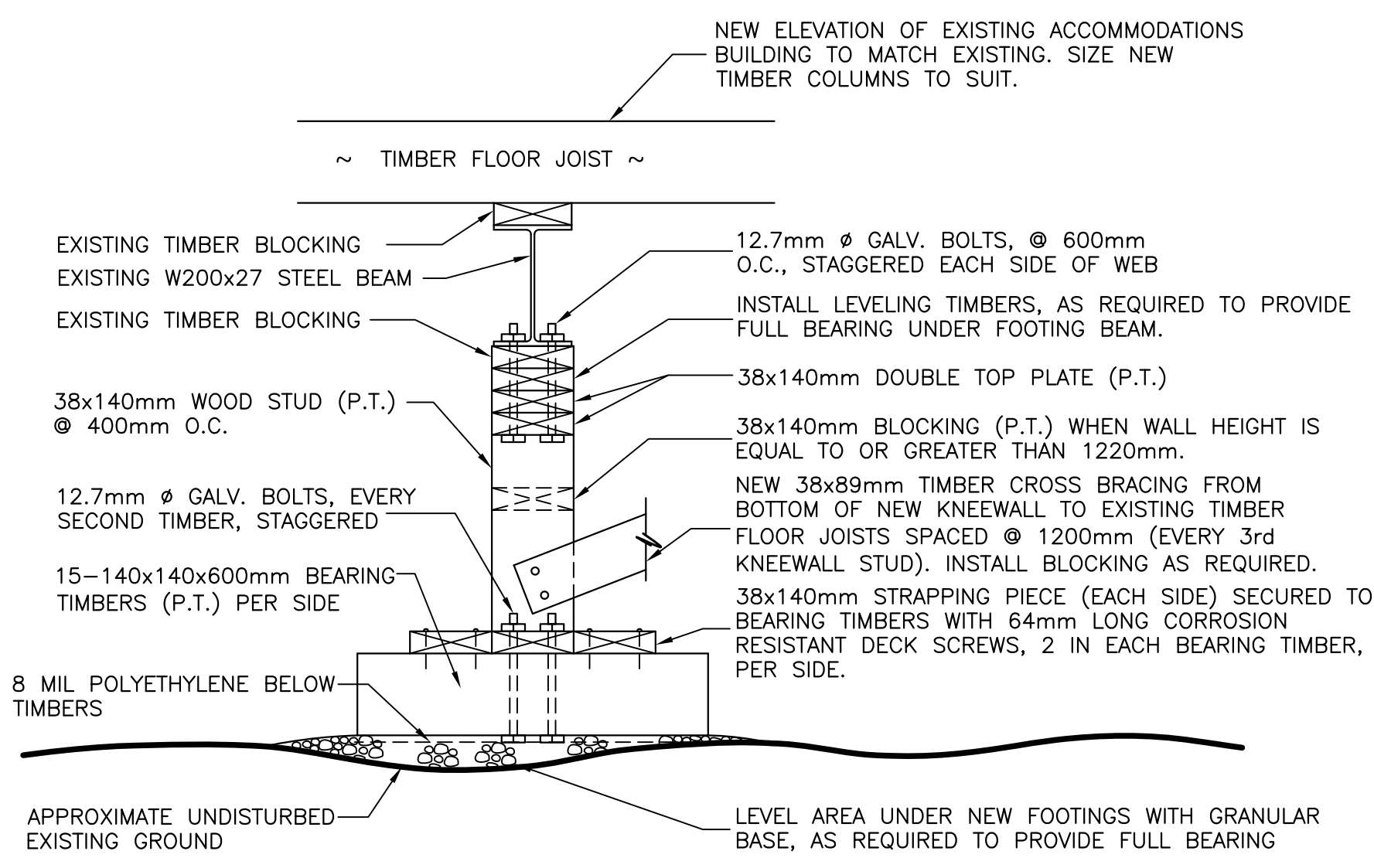


C	ISSUED FOR ADDENDUM #1	17/11/20
B	ISSUED FOR TENDER	17/10/22
A	ISSUED FOR 99% REVIEW	17/09/08

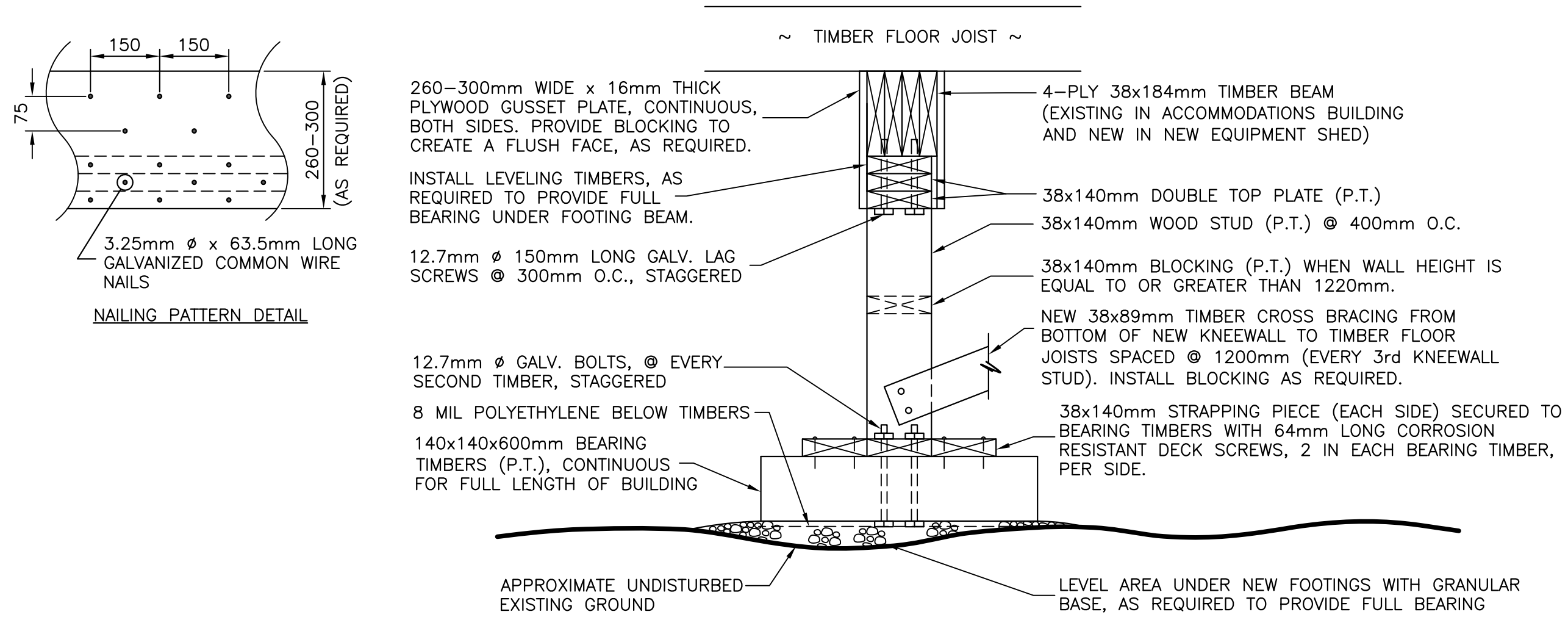
INFRASTRUCTURE UPGRADES – LOWER TERRA NOVA FISHWAY

MISCELLANEOUS DETAILS

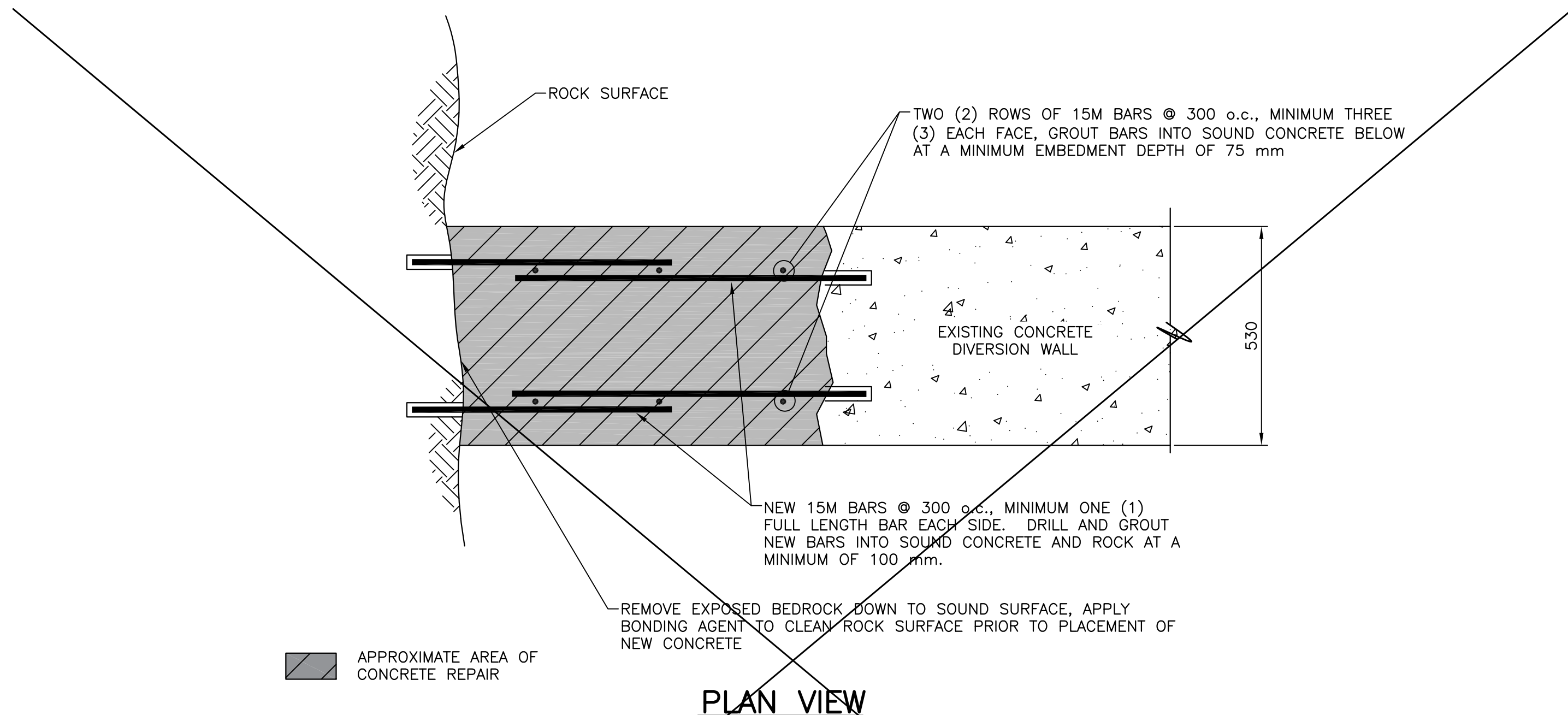
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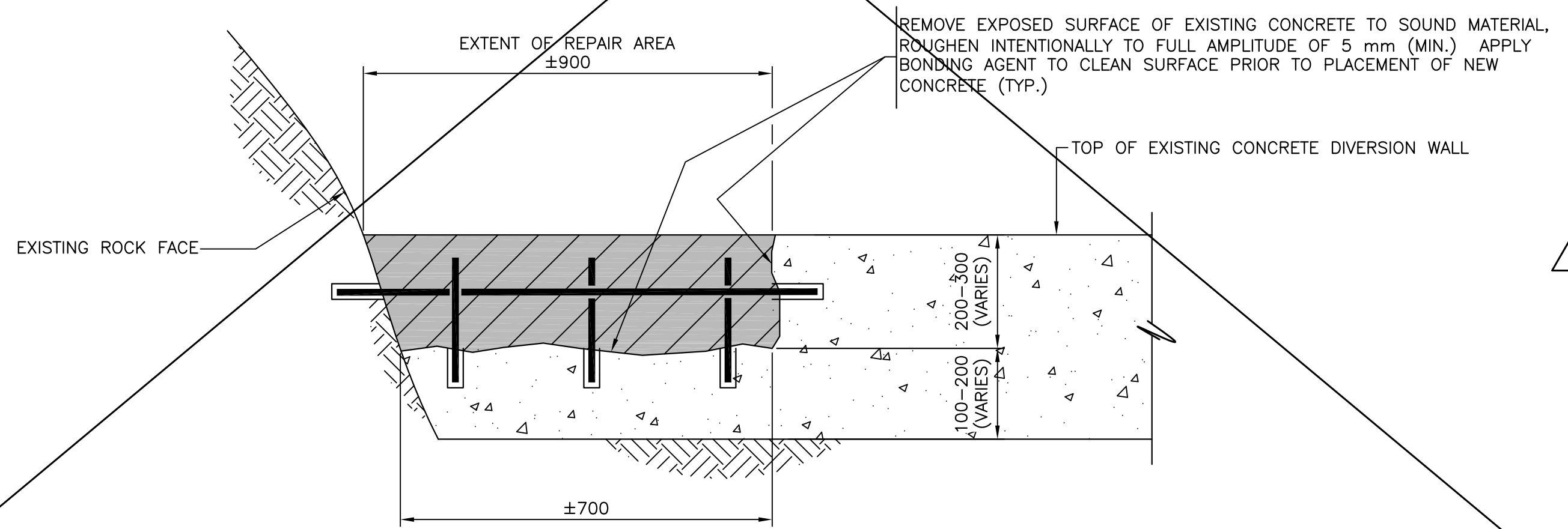
PRESSURE TREATED FOUNDATION – STEEL BEAM
 SCALE : 1:10
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PRESSURE TREATED FOUNDATION – TIMBER BEAM
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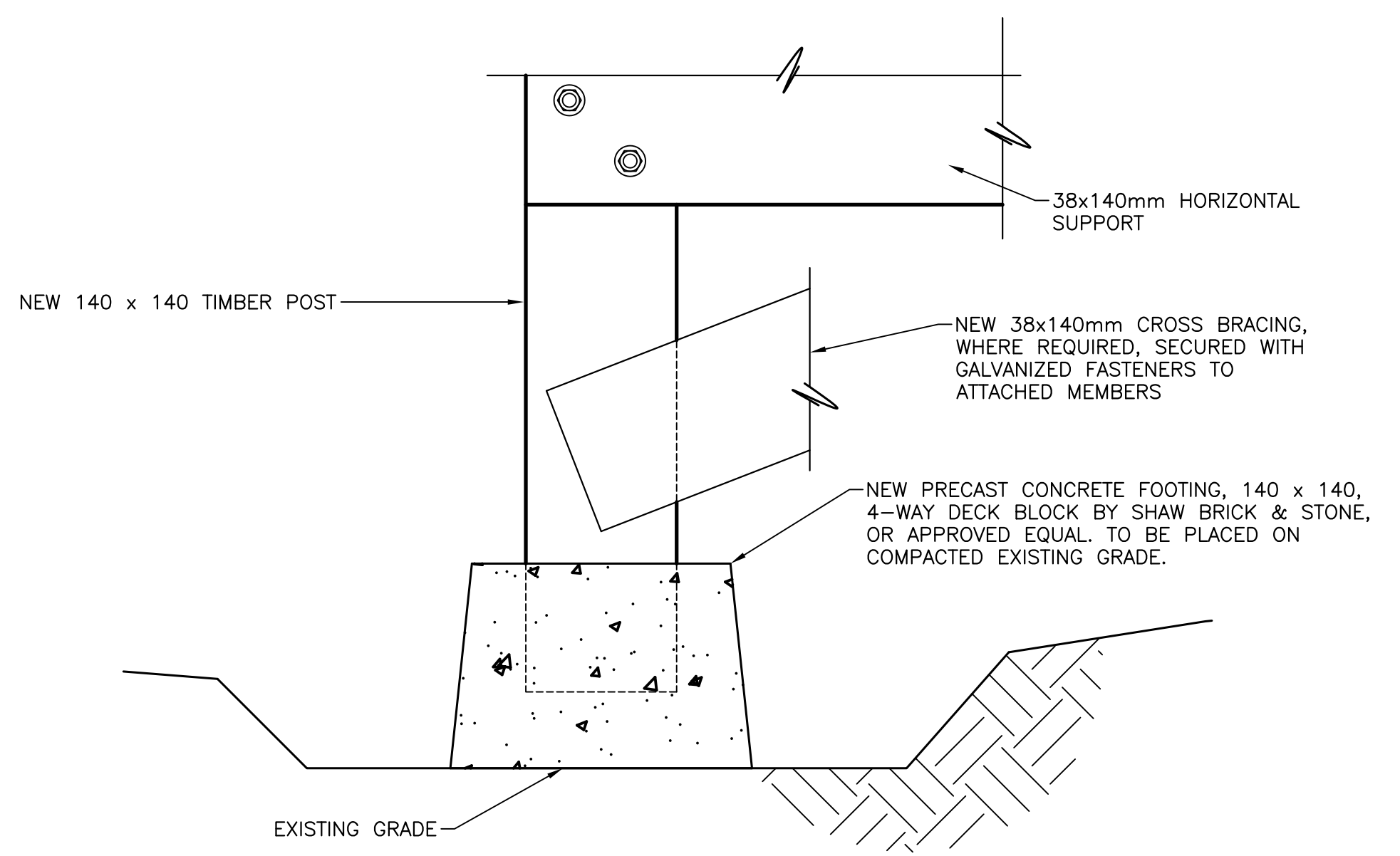


PLAN VIEW



ELEVATION

DAMAGED DIVERSION WALL
 SCALE : 1:10
 0mm 100 200 300 400 500 600 700 800 900 1000mm



FOOTING DETAIL – BOARDWALK
 SCALE : 1:5
 0mm 100mm 200mm 300mm 400mm 500mm

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	List of Drawings	1
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01 29 83	Payment Procedures for Testing Laboratory Services	2
01 32 18	Construction Progress Schedules - Bar (GANTT) Chart	3
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List of Appendices

Appendix A	-	Contractor's Copy of the Regulatory Approvals
Appendix B	-	Photos
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PART 1 - GENERAL

1.1 SCOPE

- .1 The work covered under this project consists of the furnishing of all plant, labour, equipment, hardware and materials, complete and in strict accordance with specifications and accompanying drawings and subject to all terms and conditions of contract. Bidders are advised that opportunities and requirements may arise that may warrant changes to the work that are in keeping with this general scope of work. Such changes will be made through the change order processes as outlined in the contract documents.

1.2 DESCRIPTION

- .1 The work will generally consist of but will not necessarily be limited to the following:
- .1 Demolition and removal of the existing timber boardwalks, patio decks, and equipment shed, as indicated on the drawings;
 - .2 Removal of the existing formwork tie rods located at the existing fishway entrance, as indicated on the drawings;
 - .3 Repairs to the accommodations building, including replacement of underlying footings and new metal roofing and underlying roof sheathing, as indicated on the drawings;
 - .4 Construction of new timber boardwalks and patio decks, as indicated on the drawings;
 - .5 Construction of a new equipment shed, as indicated on the drawings;
 - .6 Replacement of the existing on-demand propane water heater and propane space heater, as indicated on the drawings;
 - .7 Upgrades to the off-grid power supply system (solar power system), as indicated on the drawings, including replacement of the charge controller/regulator, batteries and insulated enclosure, and inverter power board assembly;
 - .8 Proper removal and disposal of hazardous materials, as indicated on the drawings and in Appendix C. Handling of ant hazardous materials to be carried out in accordance with all applicable regulations and by properly trained and certified personnel;
 - .9 Construction of handrailing on one side of existing timber bridge approach, as indicated on the drawings;
 - .10 Site clean-up;
 - .11 **Note: See Part 1.7 Examination of Site and Part 1.16 Site Access for details regarding DFO provided helicopter services.**
 - .12 **Note: See part 1.5 scheduling and work methodology for construction deadline details.**

1.3 FISH HABITAT/DOMESTIC
USAGE

- .1 Contractors are advised that this project is being carried out in an area where fish habitat may be affected. The contractor will perform the work to conform with all rules and regulations governing fish habitat and in accordance with governing authorities.
- .2 There shall be no fishing in and around the construction site during the regulated fishing season, even if the employees are in possession of a legal fishing license.
- .3 The Contractor shall confirm the times, dates, and extent of work required with local fish habitat authorities.
- .4 Contact the Department of Fisheries and Oceans (DFO) at least 48 hours in advance of starting any work on site.
- .5 For inquiries regarding fish habitat please contact the Departmental Representative (Contracting Officer).

1.4 SITE OF WORK

- .1 Work will be carried out at the existing site at Lower Terra Nova Fishway, NL, in the location as shown on the accompanying drawings. The Lower Terra Nova Fishway site is located on the Terra Nova River approximately 9km upstream from Glovertown, NL. The work site is remote and not accessible by road. For the purpose of this work, DFO will be providing helicopter services. Refer to part 1.16 of this section for additional information.

1.5 SCHEDULING AND
WORK METHODOLOGY

- .1 Construction must be substantially complete by February 28, 2018, which requires work to be completed during the winter of 2017/2018.
- .2 All work must be carried out in the dry. Where berms are required to accomplish this, the design of such berms is to be carried out by a professional engineer licensed to practice in Newfoundland and Labrador. Drawings of the berm design, stamped by the engineer, are to be submitted to the Departmental Representative before any work starts.

1.6 DATUM

- .1 All bearings on the Drawings are grid based on NFLD 3 Transverse Mercator Projection. Coordinates are derived from static GPS referenced from control station 637001 (N 5,374,798.968 E 215,351.423). PWC control

point coordinates are listed on the drawing.

- .2 Bidders are advised to consult the Department of Environment and Conservation and the Government of Canada Wateroffice in order to make sure of changing water level conditions affecting work.

1.7 EXAMINATION OF SITE

- .1 Before submitting a bid, it is mandatory that bidders visit the site and its surroundings to review and verify the form, nature and extend of work, materials necessary for the completion of the works, the means of access to the site, severity, exposure and uncertainty of weather, soil conditions, any accommodations they may require, and in general shall obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. No allowance shall be made subsequently in this connection on account of error or negligence to properly observe and determine the conditions that will apply. DFO will provide helicopter services for the mandatory pre-tender site visit. See below.

- .2 DFO will schedule a site visit during the tender period. The site visit will occur over a one day period with helicopter flights leaving from and returning to Clarenville. Contractor is responsible for all costs associated with getting to and from Clarenville. Specific meeting location will be clarified at the tender stage. Departmental Representative will pay for helicopter services associated with the one day site visit held during the tender period. Contractors wishing to visit site shall contact the Departmental Representative to obtain flight times/schedule.

Please note the following:

- If weather doesn't permit flying on the scheduled site visit day, it will occur on the following day.
 - A maximum of 1 person per Contractor will be permitted.
 - Time allocated on site will be a maximum of 2 hours.
 - 2 days advance notice is to be given to the Departmental Representative with respect to the company and individuals attending the visit.
 - The Site visit will occur within 8 calendars days after the project is tendered.
- .3 Contractors, bidders or those they invite to site are to review specification Section 01 35 29 - Health and Safety Requirements before visiting site. Take all appropriate safety measures for any visit to site, either before or after acceptance of bid.

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- 1.8 ARCHIVAL PHOTOGRAPHS .1 Archival photographs of the existing site are included in Appendix B. These photos are intended to give the contractors an appreciation of site conditions and general understanding of the project scope of work. These photos should in no way be considered a replacement to an actual site visit. Contractors are required to visit the site as per part 1.7 of this specification section. Any interpretations and/or assumptions made with respect to these photos are the contractor's responsibility.
- 1.9 TERMS .1 Unless specifically stated otherwise, the term Engineer where used in the Specifications and on the Drawings shall mean the Department Representative as defined in the General Conditions of the Contract.
- .2 In cases where submittals are required to be submitted under seal of a professional Engineer licensed to practice in NL, this does refer to an Engineer, and not the Departmental Representative.
- 1.10 COST BREAKDOWN .1 Before submitting first progress claim submit breakdown of Contract price in detail as directed by Departmental Representative and aggregating contract price.
- .2 Provide cost breakdown in same format as the numerical and subject title system used in this specification and thereafter sub-divided into major work components as directed by Departmental Representative.
- .3 Upon approval by Departmental Representative, cost breakdown will be used as basis for progress payment.
- .4 This project will be lump sum. All work items and costs to be included.
- 1.11 WORK SCHEDULE .1 Submit within seven (7) working days of notification of acceptance of bid, a construction schedule showing commencement and completion of all work within the time stated on the bid and acceptance form and the date stated in the bid acceptance letter.
- .2 Provide sufficient details in schedule to clearly illustrate entire implementation plan, depicting efficient coordination of tasks and resources, to achieve completion of work on time and permit effective monitoring of work progress in relation to established

milestones.

- .3 As a minimum, work schedule to be prepared and submitted in the form of bar (GANTT) charts, indicating work activities, tasks and other project elements, their anticipated durations and planned dates for achieving key activities and major project milestones provided in sufficient details and supported by narratives to demonstrate a reasonable plan for completion of project within designated time (e.g., show target dates for completion of each structure element, if applicable). Breakdown the structure elements to indicate target dates for completion of each element. Generally, bar charts derived from commercially available computerized project management systems are preferred but not mandatory.
- .4 Submit schedule updates on a minimum monthly basis and more often, when requested by Departmental Representative, due to frequent changing project conditions. Provide a narrative explanation of necessary changes and schedule revisions at each update.
- .5 The schedule, including all updates, shall be to the Departmental Representative's approval. Take necessary measures to complete work within approved time. Do not change schedule without Departmental Representative's approval.
- .6 All work on the project will be completed within the time indicated on the Bid and Acceptance Form.
- .7 Should contractor find that he cannot maintain schedule as originally intended, he will immediately submit a revised schedule without being requested to do so by Departmental Representative.
- .8 Work schedule to be consistent with scheduling and methodology restrictions previously noted in Part 1.5.

1.12 ABBREVIATIONS

- .1 Following abbreviations of standard specifications have been used in this specification and on drawings.

CGSB - Canadian Government Specifications Board
CSA - Canadian Standards Association
NLGA - National Lumber Grades Authority
ASTM - American Society for Testing and Materials.
- .2 Where these abbreviations and standards are used in this project, latest edition in effect on date of tender call will be considered as applicable.

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- 1.13 LAYOUT OF WORK
- .1 Set grades and layout work in detail from control points and grades established by Departmental Representative.
 - .2 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated or as directed by Departmental Representative.
 - .3 Provide devices needed to layout and construct work.
 - .4 Supply such devices as straight edges and templates required to facilitate Departmental Representative's inspection of work.
 - .5 Supply stakes and other survey markers required for laying out work.
 - .6 Contractor will be responsible to complete and submit as-built survey of all new work.
- 1.14 QUARRY AND EXPLOSIVES
- .1 Contractor will make own arrangements with Provincial authorities and owners of private properties, for the quarrying and transportation of rock and all materials and machinery necessary for work over their property, roads, or streets as case may be.
- 1.15 SITE OPERATIONS
- .1 Arrange for sufficient space adjacent to project site for conduct of operations, storage of materials and so on. Exercise care so as not to obstruct or damage public or private property in area. All arrangements for space and access will be made by contractor and to the approval of the Departmental Representative. All clearing and grubbing work, including tree preservation, to be in accordance with applicable specification sections.
 - .2 At completion of work, restore area to its original condition. Damage to ground and property will be repaired by contractor. Remove all construction materials, residue, excess, etc., and leave site in a condition acceptable to Departmental Representative.
 - .3 Remove snow and ice as required to maintain safe access in a manner that does not damage existing structures or interfere with the operations of others.
- 1.16 SITE ACCESS
- .1 The existing fishway site is in a remote location that is not accessible by roadway. Therefore, helicopter access will be approved for site access. The Contractor shall submit a Helicopter Site Access

Plan/Timeline to the Departmental Representative no later than seven (7) days following the contract award.

- .2 DFO will provide helicopter services for slinging purposes, to a maximum of 50 hours helicopter flying time. Any additional helicopter time required to complete the work in accordance with the contract documents will be at the Contractor's expense. Coordinate all helicopter service work with the Departmental Representative.
- .3 The Contractor may require temporary site access measures, once at the site. These on-site measures must be removed upon completion of the project, and all distributed features must be reinstated, as per the existing conditions. If any temporary on-site access measures require approval from governing authorities, it is the responsibility of the Contractor to obtain these approvals/permits and submit them to the Departmental Representative prior to the start of work.

1.17 PROJECT MEETING

- .1 Departmental Representative will arrange project meetings and assume responsibility for setting times and recording minutes.
- .2 Project meetings will take place on site of work unless so directed by Departmental Representative.
- .3 Departmental Representative will assume responsibility for recording minutes of meetings and forwarding copies to all parties present at meetings.
- .4 Have a responsible member of firm present at all Project Meetings.

1.18 PROTECTION

- .1 Store all materials and equipment to be incorporated into work to prevent damage by any means.
- .2 Repair or replace all materials or equipment damaged in transit or storage to the satisfaction of, and at no cost to, the Departmental Representative.

1.19 DOCUMENTS REQUIRED

- .1 Maintain at job site, one (1) copy each of the following:
 - .1 Contract drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed shop drawings.
 - .5 List of outstanding shop drawings.
 - .6 Change Orders.
 - .7 Other modifications to contract.

- .8 Field test reports.
- .9 Copy of approved work schedule.
- .10 Site specific Health and Safety Plan and other safety related documents.
- .11 Permits and Regulatory Approvals and Requirements.
- .12 Other documents as stipulated elsewhere in the Contract Documents.

1.20 TAXES AND PERMITS

- .1 Obtain and pay for all permits, certificates and licenses as required by Municipal, Provincial, Federal and other authorities.
- .2 Provide appropriate notifications of project to Municipal and Provincial inspection authorities.
- .3 Obtain compliance certificates as prescribed by legislative and regulatory provisions of Municipal, Provincial and Federal authorities as applicable to the performance of work.
- .4 Submit to Departmental Representative, copy of application submissions and approval documents received for above referenced authorities.
- .5 Submit to Departmental Representative, copy of quarry permit, if applicable, prior to start of quarry operations.
- .6 Comply with all requirements, recommendations and advice by all regulatory authorities unless otherwise agreed in writing by Departmental Representative. Make requests for such deviations to these requirements sufficiently in advance of related work.
- .7 See Appendices for Regulatory Approvals and Responses already obtained by Canada for this project.

1.21 EXISTING
SUB-SURFACE CONDITIONS

- .1 There is no previous information pertaining to the existing sub-surface conditions.

1.22 CONTRACTOR'S USE
OF SITE

- .1 The contractor is advised that the construction operations, including storage of materials, for this contract must not interfere with the normal operations at the site.
- .2 The contractor will be solely responsible for arranging the storage of materials on or off the site.
- .3 Exercise care so as not to obstruct or damage public

or private property in the area.

1.23 WORK COMMENCEMENT

- .1 Mobilization to project site is to commence immediately after acceptance of bid and submission of site specific Safety Plan, unless otherwise directed by Departmental Representative.
- .2 Construction activities/project work on site to begin as soon as possible after notice of tender award, with a continuous reasonable workforce unless otherwise directed by Departmental Representative.
- .3 Weather conditions, winter construction, site restrictions, delivery challenges, project completion deadlines (substantially complete by February 28, 2018), and the location of the work site may require the use of longer working days and additional workforce to complete the project within the specified completion time.
- .4 Make every effort to ensure that sufficient material and equipment is delivered to site at the earliest possible date after acceptance of bid and replenished as required.

1.24 ACCEPTANCE

- .1 Prior to the issuance of the Certificate of Substantial Performance, in company with Departmental Representative, make a check of all work. Correct all discrepancies before final inspection and acceptance.

1.25 WORKS COORDINATION

- .1 Responsible for coordinating the work of the various trades, where the work of such trades interfaces with each other.
- .2 Convene meetings between trades whose work interfaces and ensure that they are fully aware of the areas and the extent of where interfacing is required. Provide each trade with the plans and specifications of the interfacing trade, as required, to assist them in planning and carrying out their respective work.
- .3 Canada will not be responsible for or held accountable for any extra costs incurred as a result of the failure to carry out coordination work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor and shall be resolved at no extra cost to Canada.

1.26 INTERPRETATION OF DOCUMENTS .1 Supplementary to the General Conditions, the Division 01 sections of the specifications take precedence over technical specification in other divisions of the specifications.

1.27 BIODEGRADABLE HYDRAULIC OILS .1 Equipment working in and adjacent to water way shall be equipped with biodegradable hydraulic oils specifically intended for environmentally sensitive areas. Contractor shall submit MSDS and Technical Data sheets on hydraulic oil to be used for approval by the Departmental Representative.

PART 2 - PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 NOT USED

PART 1 - GENERAL

1.1 GENERAL .1 Canada will supply certain materials in the Contract for installation and incorporation into the Work by the Contractor.

1.2 MATERIAL SUPPLIED .1 Canada will supply: New Solar Batteries - 12 x Deca Solar Photovoltaic Batteries, Cell Type AVR95-25L.

The above materials supplied by Canada is not a complete list required to complete the work in accordance with the drawings and specifications. Additional accessories may be required, including wiring, conduit, etc., any of these items are the responsibility of the Contractor, and may not be supplied by Canada.

.2 The materials supplied by Canada are to be picked-up by the Contractor and delivered to the site. The location of all Canada supplied materials to be picked-up, is at the CCG Base in Stephenville, NL. The contact person is Jackie Rodway (709-772-6409). Contractor to provide three (3) day notice prior to pick-up of materials.

1.3 DELIVERY REQUIREMENTS .1 Materials supplied by Canada will be available for pick-up following acceptance of Bid. Once turned over to the Contractor, the Contractor will be responsible for delivery to the work site.

.2 The Contractor will become responsible to supply all missing materials and repair or replace damaged items and missing parts discovered during transportation to site.

.3 Failure of the Contractor to make a complete check of the Canada-supplied material and to acknowledge receipt of same once picked up at the CCG Base in

- Stephenville, NL, shall not relieve him of this contractual responsibility to replace or repair any item subsequently found to be missing or damaged.
- .4 Departmental Representative will make final determination as to whether an item can be repaired or must be replaced.
- 1.4 CONTRACTOR'S DUTIES
- .1 Pick-up Canada-supplied material, at the CCG Base in Stephenville, NL.
- .2 Take possession of Canada-supplied material immediately upon pick-up and be responsible for transportation to site.
- .3 Obtain and pay for services to load and transport to site.
- .4 Unload and handle at site, including lifting, uncrating, etc.
- .5 Store material on site at a location approved by Departmental Representative. Provide protection against inclement weather and site damage by use of appropriate covers.
- .6 Be responsible for the protection of such material against damage, loss, theft and fire from date of receipt, during transportation, loading, unloading, temporary storage and until final installation of work is accepted by the Departmental Representative.
- .7 Any damage or loss of such material shall result in the Contractor being responsible for replacement or repair of equipment at no cost to Canada.
- .8 The decision as to whether damaged items may be repaired or must be replaced with new equipment shall be the Departmental Representative's decision.
- .9 Install such material and incorporate into the work. Perform assembly and

make all connections as required to
make item functional.

- .10 Dispose of containers, crating and
protective covering off site as
directed by the Departmental
Representative.

1.1 RELATED WORK

- .1 Section 01 35 24 - Special Procedures on Fire Safety Requirements.

1.2 DEFINITIONS

- .1 COSH: Canada Occupational Health and Safety Regulations made under Part II of the Canada Labour Code.
- .2 Competent Person: means a person who is:
 - .1 Qualified by virtue of personalknowledge, training and experience to perform assigned work in a manner that will ensure the health and safety of persons in the workplace, and;
 - .2 Knowledgeable about the provisions of occupational health and safety statutes and regulations that apply to the Work and;
 - .3 Knowledgeable about potential or actual danger to health or safety associated with the Work.
- .3 Medical Aid Injury: any minor injury for which medical treatment was provided and the cost of which is covered by Workers' Compensation Board of the province in which the injury was incurred.
- .4 PPE: personal protective equipment.
- .5 Work Site: where used in this section shall mean areas, located at the premises where Work is undertaken, used by Contractor to perform all of the activities associated with the performance of the Work.

1.3 SUBMITTALS

- .1 Make submittals in accordance with Section 01 33 00.
- .2 Submit site-specific Health and Safety Plan prior to commencement of work.
 - .1 Submit within (5) work days of notification of Bid and Acceptance Form.
 - .2 Departmental Representative will review Health and Safety Plan and provide comments.
 - .3 Revise the Plan as appropriate and resubmit within five (5) work days after receipt of comments.
 - .4 Departmental Representative's review and comments made of the Plan shall not be construed as an endorsement, approval or implied warranty of any kind by Canada and does not reduce Contractor's overall responsibility for Occupational Health and Safety of the Work.
 - .5 Submit revisions and updates made to the Plan during the course of Work.

- .6 Plan shall include procedures, along with a list of qualified personnel, for handling hazardous materials (asbestos/mould. Plan shall adhere to all applicable regulations.
- .3 Submit name of designated Health & Safety Site Representative and support documentation specified in the Health and Safety Plan.
- .4 Submit building permit, compliance certificates and other permits obtained.
- .5 Submit copy of Letter in Good Standing from Provincial Workers Compensation or other department of labour organization.
- .1 Submit update of Letter in Good Standing whenever expiration date occurs during the period of work.
- .6 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .7 Submit copies of incident reports.
- .8 Submit WHMIS MDS - Material Safety Data Sheets, unless otherwise directed by the Departmental Representative.

1.4 COMPLIANCE
REQUIREMENTS

- .1 Comply with the Occupational Health and Safety Act for the Province of Newfoundland and Labrador, and the Occupational Health and Safety Regulations made pursuant to the Act.
- .2 Comply with Canada Labour Code Part II, (entitled Occupational Health and Safety) and the Canada Occupational Health and Safety Regulations (COSH) as well as any other regulations made pursuant to the Act.
 - .1 The Canada Labour Code can be viewed at:
[www.http://laws.justice.gc.ca/en/L-2/](http://laws.justice.gc.ca/en/L-2/)
 - .2 COSH can be viewed at:
[www.http://laws.justice.gc.ca/eng/SOR-86-304/ne.html](http://laws.justice.gc.ca/eng/SOR-86-304/ne.html).
 - .3 A copy may be obtained at: Canadian Government Publishing Public Works & Government Services Canada Ottawa, Ontario, K1A 0S9 Tel: (819) 956-4800 (1-800-635-7943) Publication No. L31-85/2000 E or F).
- .3 Observe construction safety measures of:
 - .1 Part 8 of National Building Code.

.2 Municipal by-laws and ordinances.

.4 In case of conflict or discrepancy between any specified requirements, the more stringent shall apply.

.5 Maintain Workers Compensation Coverage in good standing for duration of Contract. Provide proof through submission of Letter in Good Standing

.6 Medical Surveillance: Where prescribed by legislation or regulation, obtain and maintain worker medical surveillance documentation.

1.5 RESPONSIBILITY

.1 Be responsible for health and safety of persons on site, safety of property and for protection of persons and environment adjacent to the site to extent that they may be affected by conduct of Work.

.2 Comply with and enforce compliance by all workers, sub-contractors and other persons granted access to work site with safety requirements of Contract Documents, applicable Federal, Provincial, and local by-laws, regulations, and ordinances, and with site specific Health and Safety Plan.

1.6 SITE CONTROL AND ACCESS

.1 Control the Work and entry points to Work Site. Approve and grant access only to workers and authorized persons. Immediately stop and remove non-authorized persons.

.1 Departmental Representative will provide names of those persons authorized by Departmental Representative to enter onto Work Site and will ensure that such authorized persons have the required knowledge and training on Health and Safety pertinent to their reason for being at the site, however, Contractor remains responsible for the health and safety of authorized persons while at the Work Site.

.2 Isolate Work Site from other areas of the premises by use of appropriate means.

.1 Erect fences, hoarding, barricades and temporary lighting as required to effectively delineate the Work Site, stop non-authorized entry, and to protect pedestrians and vehicular traffic around and adjacent to the Work and create a safe environment.

.2 Post signage at entry points and other strategic locations indicating restricted access and conditions for access.

.3 Use professionally made signs with bilingual message in the 2 official languages or

international known graphic symbols.

- .3 Provide safety orientation session to persons granted access to Work Site. Advise of hazards and safety rules to be observed while on site.
- .4 Ensure persons granted site access wear appropriate PPE. Supply PPE to inspection authorities who require access to conduct tests or perform inspections.
- .5 Secure Work Site against entry when inactive or unoccupied and to protect persons against harm. Provide security guard where adequate protection cannot be achieved by other means.
- .6 Given the remote location of the site, the Contractor shall provide or plan for a method of site access and communication in case of an on-site emergency.

1.7 PROTECTION

- .1 Give precedence to safety and health of persons and protection of environment over cost and schedule considerations for Work.
- .2 Should unforeseen or peculiar safety related hazard or condition become evident during performance of Work, immediately take measures to rectify situation and prevent damage or harm. Advise Departmental Representative verbally and in writing.

1.8 FILING OF NOTICE

- .1 File Notice of Project with pertinent Provincial health and safety authorities prior to beginning of Work.
 - .1 Departmental Representative will assist in locating address in needed.

1.9 PERMITS

- .1 Post permits, licenses and compliance certificates, specified in section 01 10 10, at Work Site.
- .2 Where a particular permit or compliance certificate cannot be obtained, notify Departmental Representative in writing and obtain approval to proceed before carrying out applicable portion of work.

1.10 HAZARD ASSESSMENTS

- .1 Perform site specific health and safety hazard assessment of the Work and its site.

1.11 PROJECT/SITE
CONDITIONS

- .2 Carryout initial assessment prior to commencement of Work with further assessments as needed during progress of work, including when new trades and subcontractors arrive on site.
- .3 Record results and address in Health and Safety Plan.
- .4 Keep documentation on site for entire duration of the Work.
- .1 The following are potential health, environmental and safety hazards at site for which work may involve contact with:
 - .1 Isolated site location.
 - .2 Wet and slippery conditions.
 - .3 Inclement weather conditions.
 - .4 Working during the winter.
 - .5 Heavy lifting.
 - .6 Falls.
 - .7 Drowning.
 - .8 Working at heights.
 - .9 Cutting tools and other construction power tools.
 - .10 Working in close proximity with other contractors.
 - .11 Flooding and high water levels.
 - .12 Rapid flowing water.
 - .13 River falls and steep drop-offs.
 - .14 Sharp objects.
 - .15 Handling hazardous materials (asbestos/mould)
- .2 Above items shall not be construed as being complete and inclusive of potential health, and safety hazards encountered during work.
- .3 Include above items into hazard assessment process.

1.12 MEETINGS

- .1 Contractor to hold pre-construction health and safety meeting prior to commencement of Work. Ensure attendance of:
 - .1 Superintendent of Work.
 - .2 Contractor's designated Health & Safety Site Representative.
 - .3 Subcontractor's Health and Safety Site Representative.
 - .4 Health and Safety Site Coordinator.
- .2 Conduct regularly scheduled tool box and safety meetings during the Work in conformance with Occupational Health and Safety regulations.
- .3 Keep documents on site.

1.13 HEALTH AND SAFETY PLAN

- .1 Prior to commencement of Work, develop written Health and Safety Plan specific to the work. Implement, maintain, and enforce Plan for entire duration of Work and until final demobilization from site.
- .2 Health and Safety Plan shall include the following components:
 - .1 List of health risks and safety hazards identified by hazard assessment.
 - .2 Control measures used to mitigate risks and hazards identified.
 - .3 On-site Contingency and Emergency Response Plan as specified below.
 - .4 On-site Communication Plan as specified below.
 - .5 Name of Contractor's designated Health & Safety Site Representative and information showing proof of his/her competence and reporting relationship in Contractor's company.
 - .6 Names, competence and reporting relationship of other supervisory personnel used in the Work for occupational health and safety purposes.
 - .7 Procedures and list of qualified personnel for handling hazardous materials (asbestos/mould). Procedures shall conform to all applicable regulations.
- .3 On-site Contingency and Emergency Response Plan shall include:
 - .1 Operational procedures, evacuation measures and communication process to be implemented in the event of an emergency.
 - .2 Evacuation Plan: site and floor plan layouts showing escape routes, marshaling areas. Details on alarm notification methods, fire drills, location of firefighting equipment and other related data.
 - .3 Name, duties and responsibilities of persons designated as Emergency Warden(s) and deputies.
 - .4 Emergency Contacts: name and telephone number of officials from:
 - .1 General Contractor and subcontractors.
 - .2 Pertinent Federal and Provincial Departments and Authorities having jurisdiction.
 - .3 Local emergency resource organizations.
 - .5 Harmonize Plan with Facility's Emergency Response and Evacuation Plan. Departmental Representative will provide pertinent data including name of PWGSC and Facility Management contact.

- .4 On-site Communication Plan:
 - .1 Procedures for sharing of work related safety information to workers and subcontractors, including emergency and evacuation measures.
 - .2 List of critical work activities to be communicated with Facility Manager which have a risk of endangering health & safety of Facility users.
- .5 Address all activities of the Work including those of subcontractors.
- .6 Review Health and Safety Plan regularly during the Work. Update as conditions warrant to address emerging risks and hazards, such as whenever new trade or subcontractor arrive at Work Site.
- .7 Departmental Representative will respond in writing, where deficiencies or concerns are noted and may request re-submission of the Plan with correction of deficiencies or concerns.
- .8 Post copy of the Plan, and updates, prominently on Work Site.

1.14 SAFETY
SUPERVISION

- .1 Employ Health & Safety Site Representative responsible for daily supervision of Health and Safety of the Work.
- .2 Health & Safety Site Representative may be the Superintendent of the Work or other person designated by Contractor and shall be assigned the responsibility and authority to:
 - .1 Implement, monitor and enforce daily compliance with health and safety requirements of the Work
 - .2 Monitor and enforce Contractor's site-specific Health and Safety Plan.
 - .3 Conduct site safety orientation session to persons granted access to Work Site.
 - .4 Ensure that persons allowed site access are knowledgeable and trained in health and safety pertinent to their activities at the site or are escorted by a competent person while on the Work Site.
 - .5 Stop the Work as deemed necessary for reasons of health and safety.
- .3 Health & Safety Site Representative must:
 - .1 Be qualified and competent person in occupational health and safety.
 - .2 Have site-related working experience specific to activities of the Work.
 - .3 Be on Work Site at all times during execution of the Work.

- .4 All supervisory personnel assigned to the Work shall also be competent persons.
- .5 Inspections:
 - .1 Conduct regularly scheduled safety inspections of the Work on a minimum daily basis. Record deficiencies and remedial action taken.
 - .2 Conduct Formal Inspections on a minimum monthly basis. Use standardized safety inspection forms. Distribute to subcontractors.
 - .3 Follow-up and ensure corrective measures are taken.
- .6 Keep inspection reports and supervision related documentation on site.
- .7 Cooperate with Facility's Occupational Health & Safety representative should one be designated by the Departmental Representative.

1.15 TRAINING

- .1 Use only skilled workers on Work Site who are effectively trained in occupational health and safety procedures and practices pertinent to their assigned task.
- .2 Maintain employee records and evidence of training received. Make data available to Departmental Representative upon request.
- .3 When unforeseen or peculiar safety-related hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province having jurisdiction and advise Departmental Representative verbally and in writing.
- .4 All workers dealing with hazardous materials are required to provide evidence of training, in accordance with Provincial regulations.

1.16 MINIMUM
SITE SAFETY RULES

- .1 Notwithstanding requirement to abide by federal and provincial health and safety regulations; ensure the following minimum safety rules are obeyed by persons granted access to Work Site:
 - .1 Wear appropriate PPE pertinent to the Work or assigned task; minimum being hard hat, safety footwear, safety glasses safety vest and hearing protection.
 - .2 Immediately report unsafe condition at site, near-miss accident, injury and damage.
 - .3 Maintain site and storage areas in a tidy condition free of hazards causing injury.
 - .4 Obey warning signs and safety tags.

- .2 Brief persons of disciplinary protocols to be taken for non-compliance. Post rules on site.

- 1.17 CORRECTION OF NON-COMPLIANCE
 - .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Departmental Representative.
 - .2 Provide Departmental Representative with written report of action taken to correct non-compliance of health and safety issues identified.
 - .3 Departmental Representative will stop Work if non-compliance of health and safety regulations is not corrected in a timely manner.

- 1.18 INCIDENT REPORTING
 - .1 Investigate and report the following incidents to Departmental Representative:
 - .1 Incidents requiring notification to Provincial Department of Occupational Safety and Health, Workers Compensation Board or to other regulatory Agency.
 - .2 Medical aid injuries.
 - .3 Property damage in excess of \$10,000.00.
 - .4 Interruptions to facility operations resulting in an operational lost to a federal department in excess of \$5,000.
 - .2 Submit report in writing.

- 1.19 HAZARDOUS PRODUCTS
 - .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS).
 - .2 Keep MSDS data sheets for all products delivered to site.
 - .1 Post on site.
 - .2 Submit copy to Departmental Representative.

- 1.20 BLASTING
 - .1 Blasting or other use of explosives is not permitted on site (without prior receipt of written permission and instructions from Departmental Representative).

- 1.21 POWDER ACTUATED DEVICES
 - .1 Use powder actuated fastening devices only after receipt of written permission from Departmental Representatives.

- 1.22 CONFINED SPACES
 - .1 Abide by occupational health and safety regulations regarding work in confined spaces.

1.23 SITE RECORDS

- .1 Maintain on Work Site copy of safety related documentation and reports stipulated to be produced in compliance with Acts and Regulations of authorities having jurisdiction and of those documents specified herein.
- .2 Upon request, make available to Departmental Representative or authorized Safety Officer for inspection.

1.24 POSTING OF DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on Work Site in accordance with Acts and Regulations of Province having jurisdiction.
- .2 Post other documents as specified herein, including:
 - .1 Site specific Health and Safety Plan.
 - .2 WHMIS data sheets.

1.25 DIVING OPERATIONS

- .1 All diving work to comply fully with the requirements of the latest editions of CSA Standard Z275.2 "Occupational Safety Code for Diving Operations", CSA Z275.4, "Competency Standards for Diving Operations", and CSA Z180.1, "Compressed Breathing Air and Systems".
- .2 Dive personnel must meet the minimum competency requirements of the latest edition of CSA Z275.4 and all divers must possess a valid Category I Diving Certificate, or an unrestricted surface supply certificate.
- .3 Diving in free-swim mode is not permitted at the work site.
- .4 Divers must have a current (less than one year) validated medical examination certificate from a licensed diving physician in Newfoundland and Labrador, who is knowledgeable and competent in diving and hyperbaric medicine, for all dives.

Appendix C

Hazardous Materials Reports

Table C-1: Bulk Sample Descriptions and Asbestos Analytical Results (Terra Nova Fishway - Cabin) DRAFT

Sample ID	Material (Layer) Analyzed	Detailed Material Description	Sample Location	Room (Photo No.)	Analytical Result
CB-AS-1-Shingle	shingle	Black asphalt shingle and tar	Roof	Cabin - Exterior	ND
CB-AS-1-Tar	tar	tar	Roof	Cabin - Exterior	10% Chrysotile
CB-AS-2	concrete	Concrete block	Under Cabin	Cabin - Exterior	ND
CB-AS-3	cinder block	Cinder block	Under Cabin	Cabin - Exterior	ND
CB-AS-4	caulking	Grey caulking	Exterior (propane line)	Cabin - Exterior	ND
CB-AS-5	caulking	White caulking	Door frame	Cabin - Exterior	ND
CB-AS-6	DJC	Drywall joint compound (painted white)	Wall (exterior)	Cabin - Room 1	ND
CB-AS-7	DJC	Drywall joint compound (painted white)	Ceiling	Cabin - Room 1	ND
CB-AS-8	DJC	Drywall joint compound (painted white)	Wall (interior)	Cabin - Room 1	ND
CB-AS-9	caulking	White caulking	Shower	Cabin - Room 3	ND

Notes:

*Caulking/sealant sample was also analyzed for PCBs

ND: Non-detect ($\leq 1\%$ asbestos)

ACM: Asbestos-containing material

Shaded value $>1\%$ asbestos (dry weight) is considered to be an ACM as outlined in the NL Asbestos Abatement Regulations (Reg. 111/98)

Table C-2: Bulk Sample Descriptions and Asbestos Analytical Results (Terra Nova Fishway - Outhouse) DRAFT

Sample ID	Material (Layer) Analyzed	Detailed Material Description	Sample Location	Room (Photo No.)	Analytical Result
OH-AS-1-Roofing Material	roofing material	Roofing material (black) and tar (black)	Roof	Outhouse Exterior	ND
OH-AS-1-Tar	tar	tar (black)	Roof	Outhouse Exterior	5.1% Chrysotile

Notes:

ND: Non-detect ($\leq 1\%$ asbestos)

ACM: Asbestos-containing material

Shaded value $>1\%$ asbestos (dry weight) is considered to be an ACM as outlined in the NL Asbestos Abatement Regulations (Reg. 111/98)

Table C-3: Bulk Sample Descriptions and Asbestos Analytical Results (Terra Nova Fishway - Equipment Building) DRAFT

Sample ID	Material (Layer) Analyzed	Detailed Material Description	Sample Location	Room (Photo No.)	Analytical Result
EB-AS-1-Shingle	shingles	Black asphalt shingles and tar	Roof	Equipment Bulding - Exterior	ND
EB-AS-1-Tar	tar	Tar	Roof	Equipment Bulding - Exterior	ND
EB-AS-2A*	caulking	White caulking	Clapboard	Equipment Bulding - Exterior	ND
EB-AS-3	cinder block	Cinder block	Under Equipment Building	Equipment Bulding - Exterior	ND
EB-AS-4	drywall	Drywall	Ceiling	Equipment Bulding - Room 1	ND
EB-AS-5	drywall	Drywall	Wall (interior)	Equipment Bulding - Room 1	ND
EB-AS-6	drywall	Drywall	Wall (exterior)	Equipment Bulding - Room 2	ND

Notes:

*Caulking/sealant sample was also analyzed for PCBs

ND: Non-detect ($\leq 1\%$ asbestos)

ACM: Asbestos-containing material

Shaded value $> 1\%$ asbestos (dry weight) is considered to be an ACM as outlined in the NL Asbestos Abatement Regulations (Reg. 111/98)

Table C-4: Paint Sample Descriptions and Lead Analytical Results (Terra Nova Fishway - Cabin) DRAFT

Sample ID	Colour Description	Substrate	Sample Location	Room No. (Photo No.)	RDL (mg/kg)	Total Lead (mg/kg)
CB-PS-1	Light grey	Wood	Patio	Cabin Exterior	5.0	5.2
CB-PS-DUP1	Light grey	Wood	Patio	Cabin Exterior	5.0	7.3
CB-PS-2*	Dark grey	Wood	Baseboard	Cabin - Room 1	5.0	<5.0
CB-PS-3	Light grey over dark grey	Wood	Floor	Cabin - Room 1	50.0	<50
CB-PS-4	White	Drywall	Wall	Cabin - Room 1	5.0	7.3

Notes

CB-PS-DUP1 is a blind field duplicate of paint sample CB-PS-1

*Paint sample included substrate

RDL: Reportable detection limit

<X: non detect

Bold and underlined value exceeds Federal HPA criterion (90 mg/kg)

Shaded value exceeds former Federal HPA criterion (5,000 mg/kg)

Table C-5: Paint Sample Descriptions and Lead Analytical Results (Terra Nova Fishway - Outhouse) DRAFT

Sample ID	Colour Description	Substrate	Sample Location	Room No. (Photo No.)	RDL (mg/kg)	Total Lead (mg/kg)
OH-PS-1	White	Wood	Wall	Outhouse	5.0	<5.0
OH-PS-2	Grey	Wood	Floor	Outhouse	5.0	72

Notes

RDL: Reportable detection limit

<X: non detect

Bold and underlined value exceeds Federal HPA criterion (90 mg/kg)

Shaded value exceeds former Federal HPA criterion (5,000 mg/kg)

Table C-6: Paint Sample Descriptions and Lead Analytical Results (Terra Nova Fishway - Equipment Building) DRAFT

Sample ID	Colour Description	Substrate	Sample Location	Room No. (Photo No.)	RDL (mg/kg)	Total Lead (mg/kg)
EB-PS-1	White	Wood	Clapboard	Equipment Building - Exterior	5.0	37
EB-PS-2	White	Drywall	Wall	Equipment Building - Room 1	5.0	50
EB-PS-3	Dark green	Wood	Floor	Equipment Building - Room 1	5.0	21

Notes

RDL: Reportable detection limit

<X: non detect

Bold and underlined value exceeds Federal HPA criterion (90 mg/kg)

Shaded value exceeds former Federal HPA criterion (5,000 mg/kg)

Table C-7: Paint Sample Descriptions and Mercury Analytical Results (Terra Nova Fishway - Cabin) DRAFT

Sample ID	Colour Description	Substrate	Sample Location	Room No. (Photo No.)	RDL (mg/kg)	Total Mercury (mg/kg)
CB-PS-1	Light grey	Wood	Patio	Cabin Exterior	1.0	<1.0
CB-PS-DUP1	Light grey	Wood	Patio	Cabin Exterior	1.0	<1.0
CB-PS-2*	Dark grey	Wood	Baseboard	Cabin - Room 1	1.0	<1.0
CB-PS-3	Light grey over dark grey	Wood	Floor	Cabin - Room 1	1.0	2.0
CB-PS-4	White	Drywall	Wall	Cabin - Room 1	1.0	<1.0

Notes

CB-PS-DUP1 is a blind field duplicate of paint sample CB-PS-1

*Paint sample included substrate

RDL: Reportable detection limit

<X: Not detected

CCME: Canadian Council of Ministers of the Environment

CSQG: Canadian Soil Quality Guideline

HPA: Hazardous Products Act

Bold and underlined value exceeds Federal HPA criterion (10 mg/kg)

Shaded value exceeds CCME CSQG for an industrial site (50 mg/kg)

Table C-8: Paint Sample Descriptions and Mercury Analytical Results (Terra Nova Fishway - Outhouse) DRAFT

Sample ID	Colour Description	Substrate	Sample Location	Room No. (Photo No.)	RDL (mg/kg)	Total Mercury (mg/kg)
OH-PS-1	White	Wood	Wall	Outhouse	1.0	1.1
OH-PS-2	Grey	Wood	Floor	Outhouse	1.0	<1.0

Notes

RDL: Reportable detection limit

<X: Not detected

CCME: Canadian Council of Ministers of the Environment

CSQG: Canadian Soil Quality Guideline

HPA: Hazardous Products Act

Bold and underlined value exceeds Federal HPA criterion (10 mg/kg)

Shaded value exceeds CCME CSQG for an industrial site (50 mg/kg)

Table C-9: Paint Sample Descriptions and Mercury Analytical Results (Terra Nova Fishway - Equipment Building) DRAFT

Sample ID	Colour Description	Substrate	Sample Location	Room No. (Photo No.)	RDL (mg/kg)	Total Mercury (mg/kg)
EB-PS-1	White	Wood	Clapboard	Equipment Building - Exterior	1.0	<1.0
EB-PS-2	White	Drywall	Wall	Equipment Building - Room 1	1.0	<1.0
EB-PS-3	Dark green	Wood	Floor	Equipment Building - Room 1	1.0	<1.0

Notes

RDL: Reportable detection limit

<X: Not detected

CCME: Canadian Council of Ministers of the Environment

CSQG: Canadian Soil Quality Guideline

HPA: Hazardous Products Act

Bold and underlined value exceeds Federal HPA criterion (10 mg/kg)

Shaded value exceeds CCME CSQG for an industrial site (50 mg/kg)

**Table C-10: Sample Descriptions and PCB Analytical Results
(Terra Nova Fishway - Outhouse) DRAFT**

	Paint		
Sample ID	OH-PS-1	OH-PS-2	RDL (mg/kg)
Sample Location and Room No.	Outhouse	Outhouse	
Colour Description	White	Grey	
Substrate	wood	wood	
Location (Photo No.)	wall	floor	
Parameter			
Aroclor 1016	<5.0	<5.0	5.0
Aroclor 1221	<5.0	<5.0	5.0
Aroclor 1232	<5.0	<5.0	5.0
Aroclor 1248	<5.0	<5.0	5.0
Aroclor 1242	<5.0	<5.0	5.0
Aroclor 1254	<5.0	<5.0	5.0
Aroclor 1260	<5.0	<5.0	5.0
Total PCB (Calculated)	<5.0	<5.0	5.0

Notes:

RDL: Reportable detection limit

<X: Non-detect

CCME: Canadian Council of Ministers of the Environment

CSQG: Canadian Soil Quality Guideline

Shaded value exceeds CCME CSQG for an industrial site (33 mg/kg)

**Table C-11: Sample Descriptions and PCB Analytical Results
(Terra Nova Fishway - Equipment Building) DRAFT**

Sample ID	Paint			RDL (mg/kg)	Caulking	
	EB-PS-1	EB-PS-2	EB-PS-3		EB-AS-2B	RDL (mg/kg)
Sample Location and Room No.	Equipment Building - Exterior	Equipment Building - Room 1	Equipment Building - Room 1		Equipment Building - Exterior	
Colour Description	White	White	Dark green		White	
Substrate	Wood	Drywall	Wood		Wood	
Location (Photo No.)	Clapboard	Wall	Floor		Clapboard	
Parameter						
Aroclor 1016	<5.0	<5.0	<5.0	5.0	<0.50	0.50
Aroclor 1221	<5.0	<5.0	<5.0	5.0	<0.50	0.50
Aroclor 1232	<5.0	<5.0	<5.0	5.0	<0.50	0.50
Aroclor 1248	<5.0	<5.0	<5.0	5.0	<0.50	0.50
Aroclor 1242	<5.0	<5.0	<5.0	5.0	<0.50	0.50
Aroclor 1254	<5.0	<5.0	<5.0	5.0	<0.50	0.50
Aroclor 1260	<5.0	<5.0	<5.0	5.0	<0.50	0.50
Total PCB (Calculated)	<5.0	<5.0	<5.0	5.0	<0.50	0.50

Notes:

RDL: Reportable detection limit

<X: Non-detect

CCME: Canadian Council of Ministers of the Environment

CSQG: Canadian Soil Quality Guideline

Shaded value exceeds CCME CSQG for an industrial site (33 mg/kg)

Table C-12: Mould Sample Descriptions and Analytical Results (Terra Nova Fishway - Equipment Building) DRAFT

Sample ID	Detailed Material Description	Sample Location / Room No. (Photo No.)	Mould Identified	Analytical Result
EB-MS-1	Mould on wall	Equipment Building - Room 1	<i>Cladosporium</i> <i>Ulocladium</i> <i>Aspergillus</i> <i>Phoma</i>	Abundant

Notes:

1. Mould growth is subjectively assessed with description terms sparse, moderate and abundant.
2. The presence of spores (lacking other fungal structures associated) is assessed as following: a few spores (< 10 spores average per microscopic field at 400X), some spores (10 - 100 spores average per microscopic field at 400X), many spores (> 100 spores average per microscopic field at 400X).
3. The presence of a few spores generally represents settled spores on the surface of the sample rather than indicating mould growth.