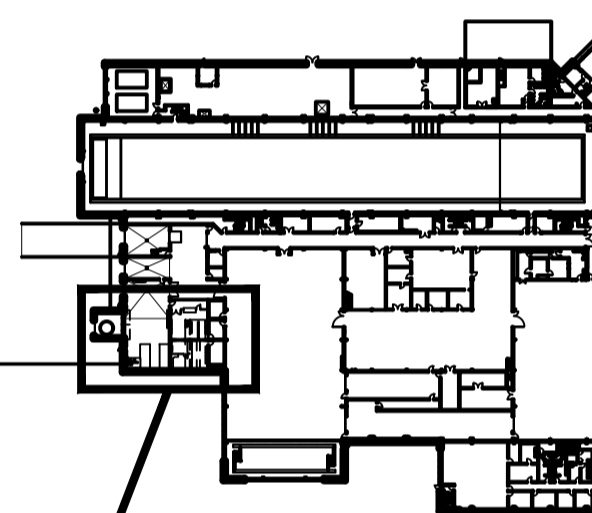




**KEY PLAN**



**AREA OF WORK**

Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

0	ISSUED TENDER REVIEW	Dec. 8 2011
revisions		date
project		project

**NRC SHIPPING RECEIVING RENOVATIONS**

**DEMOLITION FLOOR PLAN**

designed GS	conçu
date AUG 2011	
drawn DDW	dessiné
date AUG 2011	
approved	approuvé
date	
Tender	Soumission

PKNSG Project Manager / Administrateur de projets TPSC

project number no. du projet

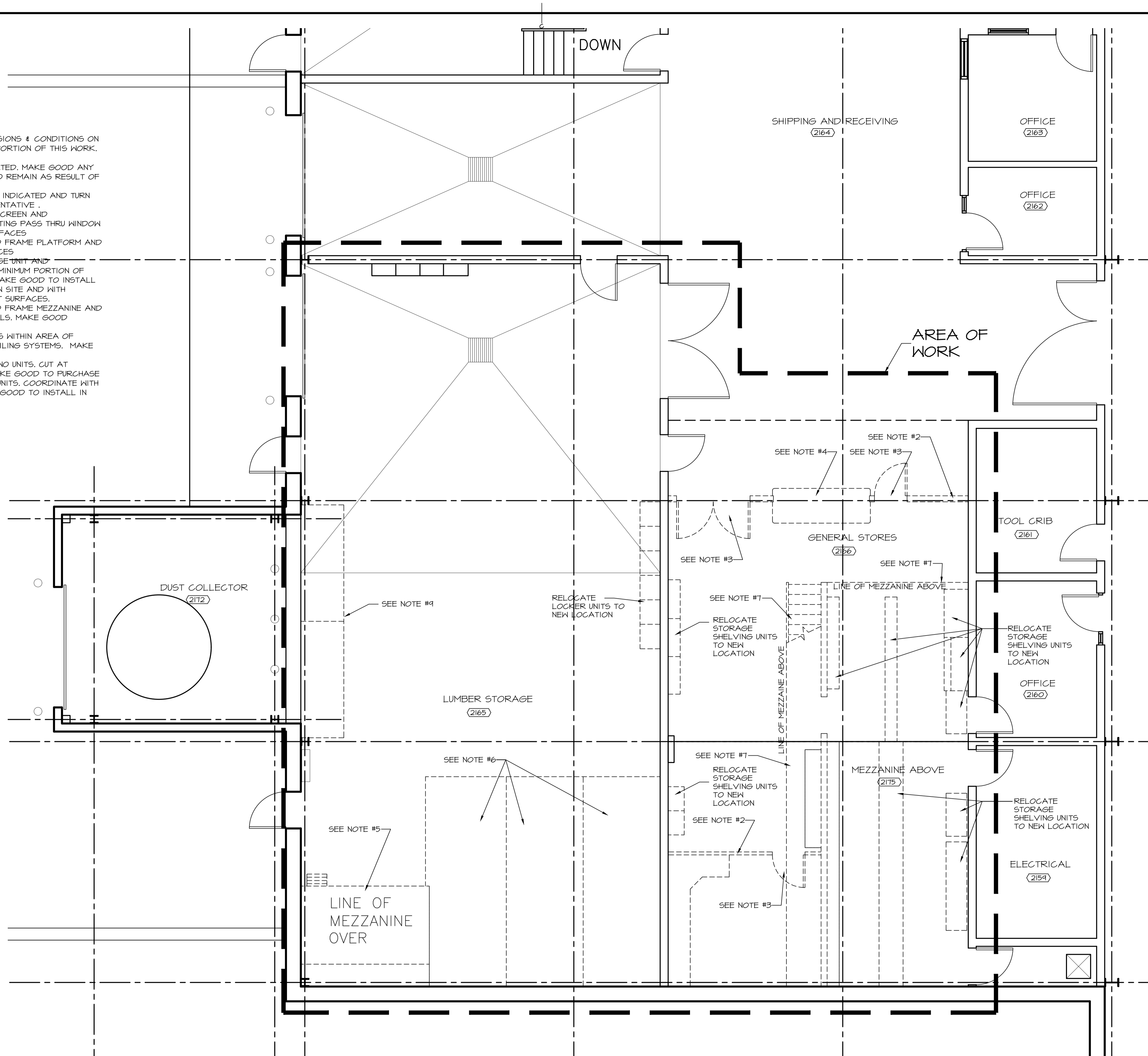
**5442**

drawing no. no. du dessin

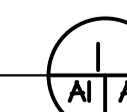
**5442-A01**

**DEMOLITION NOTES:**

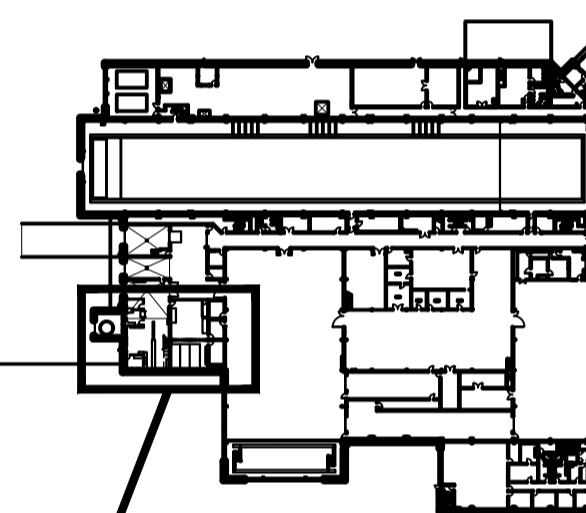
1. CONTRACTOR MUST VERIFY ALL DIMENSIONS & CONDITIONS ON SITE BEFORE PROCEEDING WITH ANY PORTION OF THIS WORK. DO NOT SCALE FROM DRAWING.
2. REMOVE ALL WALLS/PARTITIONS INDICATED. MAKE GOOD ANY DAMAGE TO EXISTING CONSTRUCTION TO REMAIN AS RESULT OF DEMOLITION.
3. REMOVE EXISTING DOORS AND FRAMES INDICATED AND TURN OVER TO NRC DEPARTMENTAL REPRESENTATIVE.
4. REMOVE EXISTING PASS THRU WINDOW SCREEN AND ASSOCIATED MATERIALS. REMOVE EXISTING PASS THRU WINDOW MILLWORK. MAKE GOOD ADJACENT SURFACES.
5. DEMOLISH AND REMOVE EXISTING WOOD FRAME PLATFORM AND STAIRS. MAKE GOOD ADJACENT SURFACES.
6. MODIFY EXISTING STEEL FRAME STORAGE UNIT AND ASSOCIATED MATERIALS. REMOVE/CUT MINIMUM PORTION OF UPPER EXISTING FRAME REQUIRED TO MAKE GOOD TO INSTALL BELOW NEW MEZZANINE. COORDINATE ON SITE AND WITH MANUFACTURER. MAKE GOOD ADJACENT SURFACES.
7. DEMOLISH AND REMOVE EXISTING WOOD FRAME MEZZANINE AND STAIRS AND ALL ASSOCIATED MATERIALS. MAKE GOOD ADJACENT SURFACES.
8. REMOVE ALL EXISTING CEILING SYSTEMS WITHIN AREA OF WORK. MAKE GOOD TO INSTALL NEW CEILING SYSTEMS. MAKE GOOD ADJACENT SURFACES.
9. SEPARATE STORAGE RACK UNIT INTO TWO UNITS. CUT AT MID-SPAN POSTS FRONT AND BACK. MAKE GOOD TO PURCHASE NEW POSTS TO CREATE TWO STORAGE UNITS. COORDINATE WITH STORAGE RACK MANUFACTURER. MAKE GOOD TO INSTALL IN NEW LOCATIONS. SEE DRAWING A-2.



**PARTIAL DEMOLITION FLOOR PLAN LEVEL I**



**KEY PLAN**



**AREA OF WORK**

Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

0	ISSUED TENDER REVIEW	Dec 8 2011
revisions		date
project		project

**NRC SHIPPING RECEIVING RENOVATIONS**

**NEW FLOOR PLAN LEVEL ONE**

designed	ES	conçu
date	AUG 2011	
drawn	DDW	dessiné
date	AUG 2011	
approved		approuvé
date		
Tender		Submission

PNRSC Project Manager / Administrateur de projets TPSC

project number / no. du projet

5442-A02

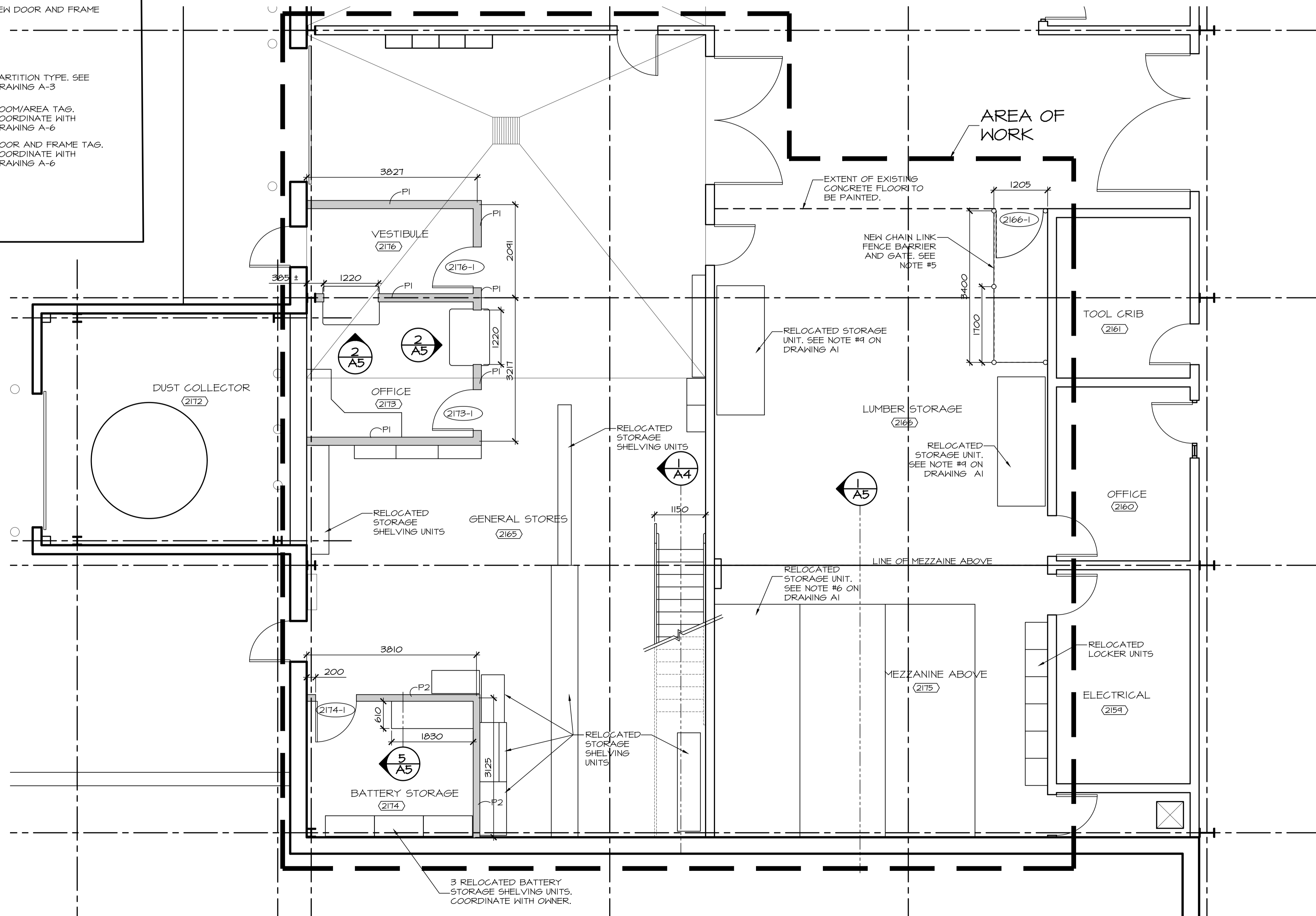
drawing no. / no. du dessin

**NEW CONSTRUCTION NOTES:**

- CONTRACTOR MUST VERIFY ALL DIMENSIONS & CONDITIONS ON SITE BEFORE PROCEEDING WITH ANY PORTION OF THIS WORK. DO NOT SCALE FROM DRAWING.
- PATCH, PLASTER AND PAINT ANY DAMAGE TO EXISTING CONSTRUCTION TO REMAIN AS RESULT OF DEMOLITION.
- NEW FINISHED FLOOR IN AREAS NOTED WITHIN SCOPE OF WORK.
- NEW CEILINGS IN AREAS NOTED WITHIN SCOPE OF WORK. SEE ROOM FINISHED SCHEDULES. COORDINATE WITH MECHANICAL AND ELECTRICAL.
- NEW 2440mm HIGH CHAIN LINK FENCE AND 2100mm HIGH GATE. TYPICAL 100mm DIA POSTS SECURED TO CONCRETE FLOOR WITH 150x150x10mm STEEL PLATE BOLTED TO CONCRETE FLOOR. TYPICAL 50mm RAILS AND STEEL MESH. PROVIDE DETAILED SHOP DRAWINGS TO SHOW COMPONENTS AND INSTALLATION OF FENCE AND GATE.
- PAINT ALL EXISTING AND NEW FLOORS THROUGHOUT AREA OF WORK.
- NEW 100mm HIGH VINYL BASE ON ALL NEW PARTITIONS EACH SIDE. COLOUR BLACK.

**LEGEND**

- EXISTING WALL / PARTITION
- NEW WALL / PARTITION, SEE PARTITION SCHEDULE
- EXISTING DOOR AND FRAME
- NEW DOOR AND FRAME
- P# PARTITION TYPE. SEE DRAWING A-3
- ROOM/AREA TAG. COORDINATE WITH DRAWING A-6
- DOOR AND FRAME TAG. COORDINATE WITH DRAWING A-6



**PARTIAL NEW FLOOR PLAN LEVEL 1**



**LEGEND**

EXISTING WALL / PARTITION

NEW WALL / PARTITION, SEE PARTITION SCHEDULE

EXISTING DOOR AND FRAME

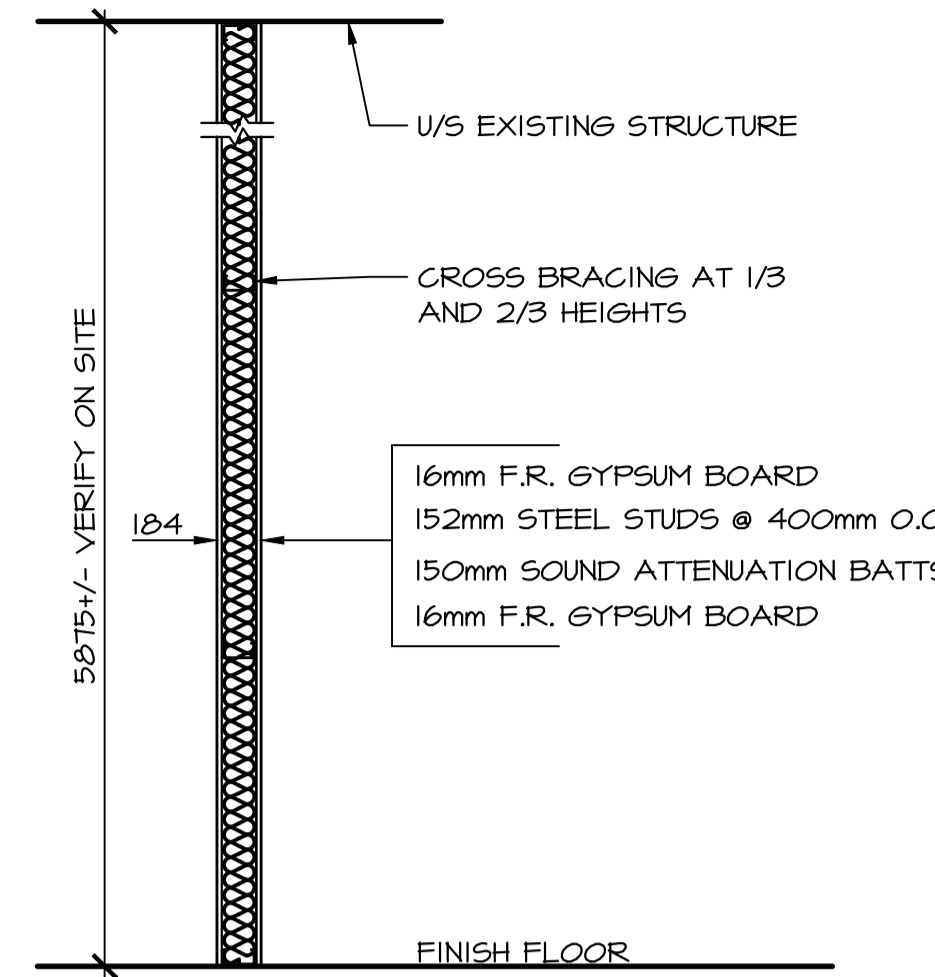
NEW DOOR AND FRAME

P# PARTITION TYPE, SEE DRAWING A-3

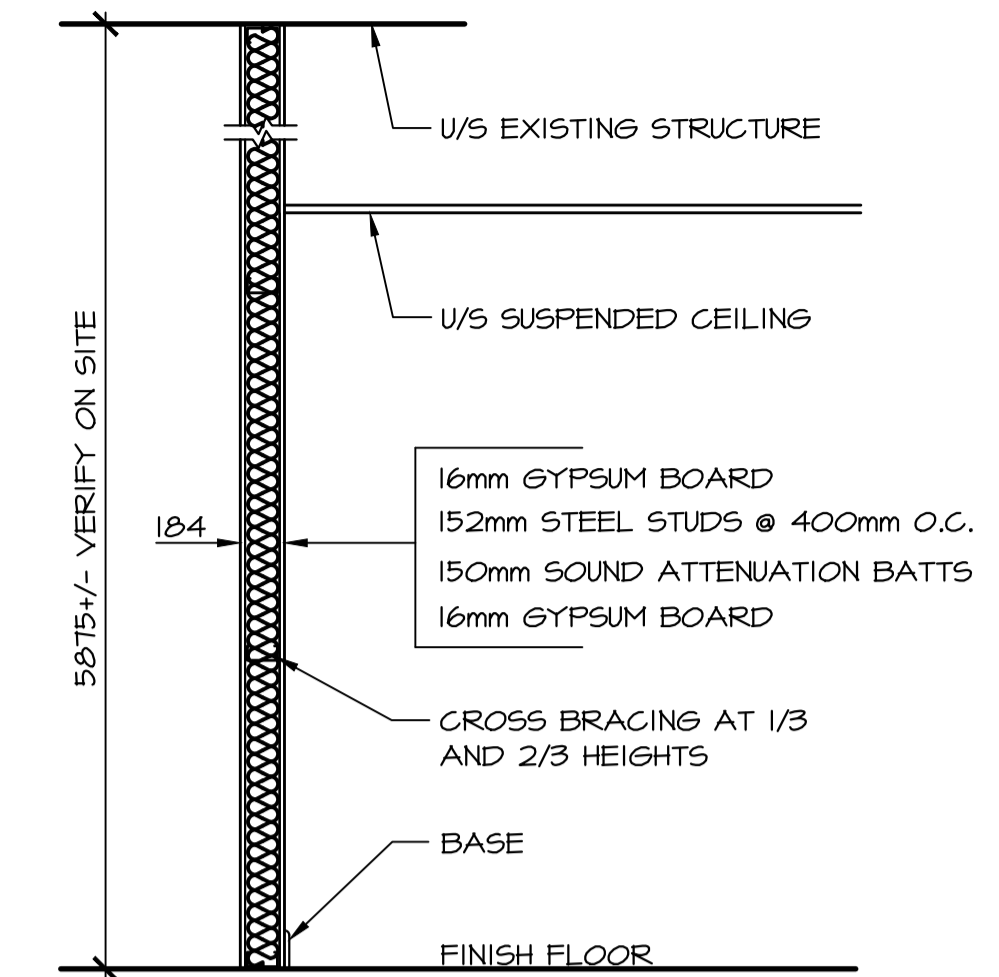
ROOM/AREA TAG, COORDINATE WITH DRAWING A-6

DOOR AND FRAME TAG, COORDINATE WITH DRAWING A-6

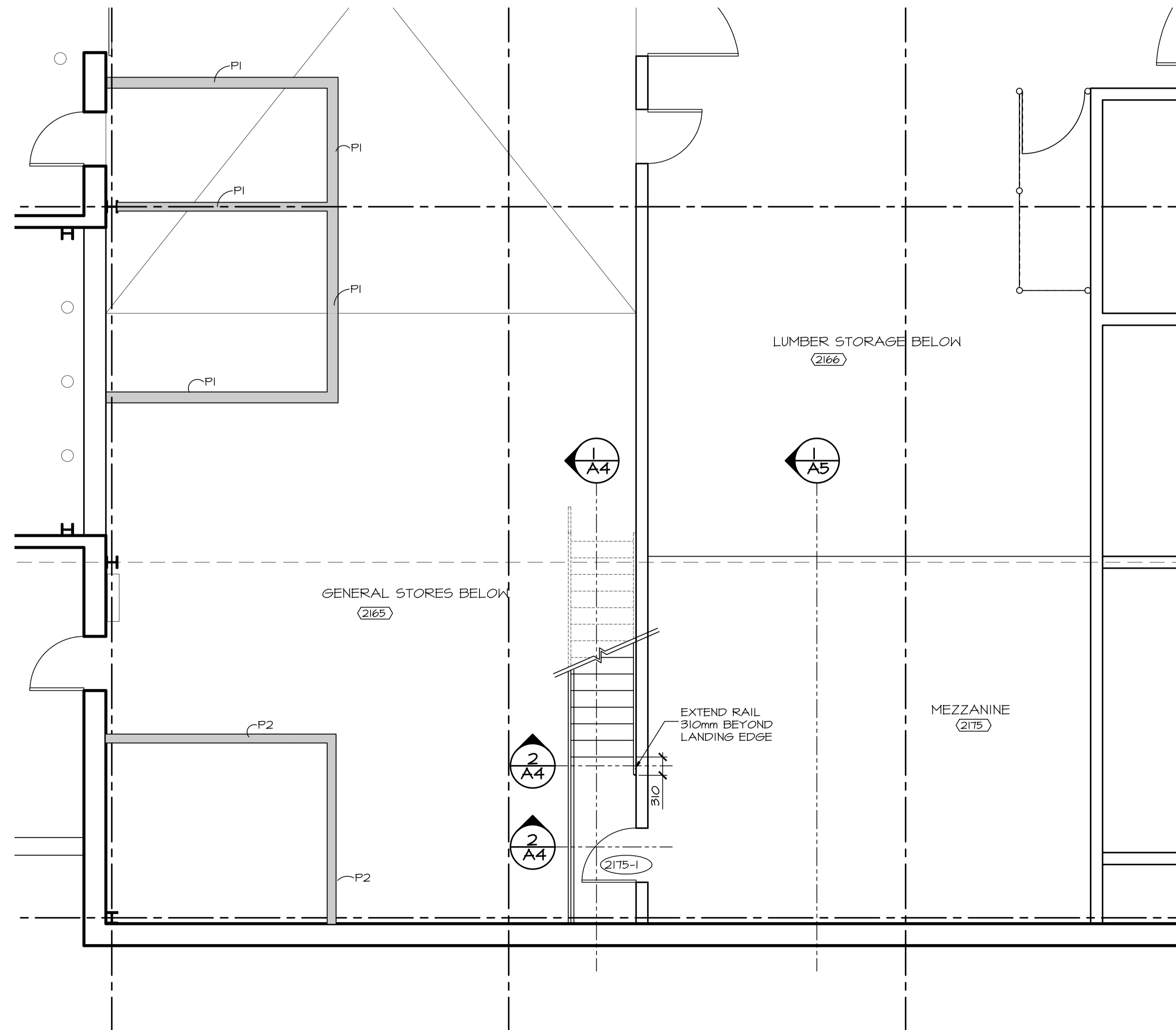
- NEW CONSTRUCTION NOTES:**
- CONTRACTOR MUST VERIFY ALL DIMENSIONS & CONDITIONS ON SITE BEFORE PROCEEDING WITH ANY PORTION OF THIS WORK. DO NOT SCALE FROM DRAWING.
  - PATCH, PLASTER AND PAINT ANY DAMAGE TO EXISTING CONSTRUCTION TO REMAIN AS RESULT OF DEMOLITION.
  - NEW FINISHED FLOOR IN AREAS NOTED WITHIN SCOPE OF WORK.
  - NEW CEILINGS IN AREAS NOTED WITHIN SCOPE OF WORK. SEE ROOM FINISHED SCHEDULES. COORDINATE WITH MECHANICAL AND ELECTRICAL.
  - NEW 2440mm HIGH CHAIN LINK FENCE AND 2100mm HIGH GATE. TYPICAL 100mm DIA POSTS SECURED TO CONCRETE FLOOR WITH 150x150x10mm STEEL PLATE BOLTED TO CONCRETE FLOOR. TYPICAL 50mm RAILS AND STEEL MESH. PROVIDE DETAILED SHOP DRAWINGS TO SHOW COMPONENTS AND INSTALLATION OF FENCE AND GATE.
  - PAINT ALL EXISTING AND NEW FLOORS THROUGHOUT AREA OF WORK.
  - NEW 100mm HIGH VINYL BASE ON ALL NEW PARTITIONS EACH SIDE. COLOUR BLACK.



**TYPE 'P2' PARTITION**  
NTS



**TYPE 'P1' PARTITION**  
NTS



**PARTIAL NEW FLOOR PLAN MEZZANINE**

SCALE: 1:50

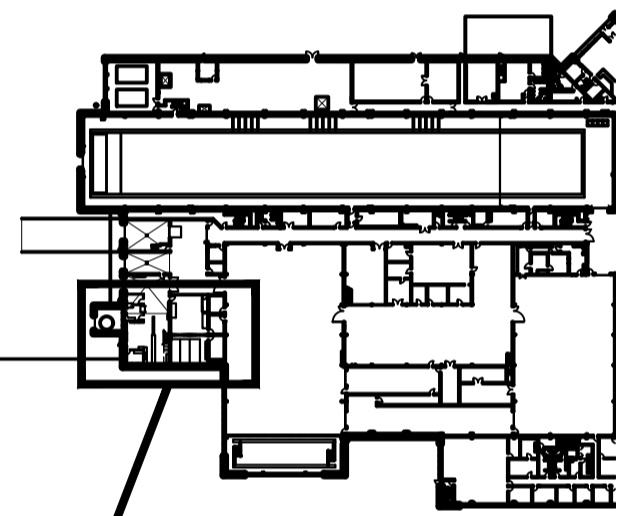


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**KEY PLAN**



**AREA OF WORK**

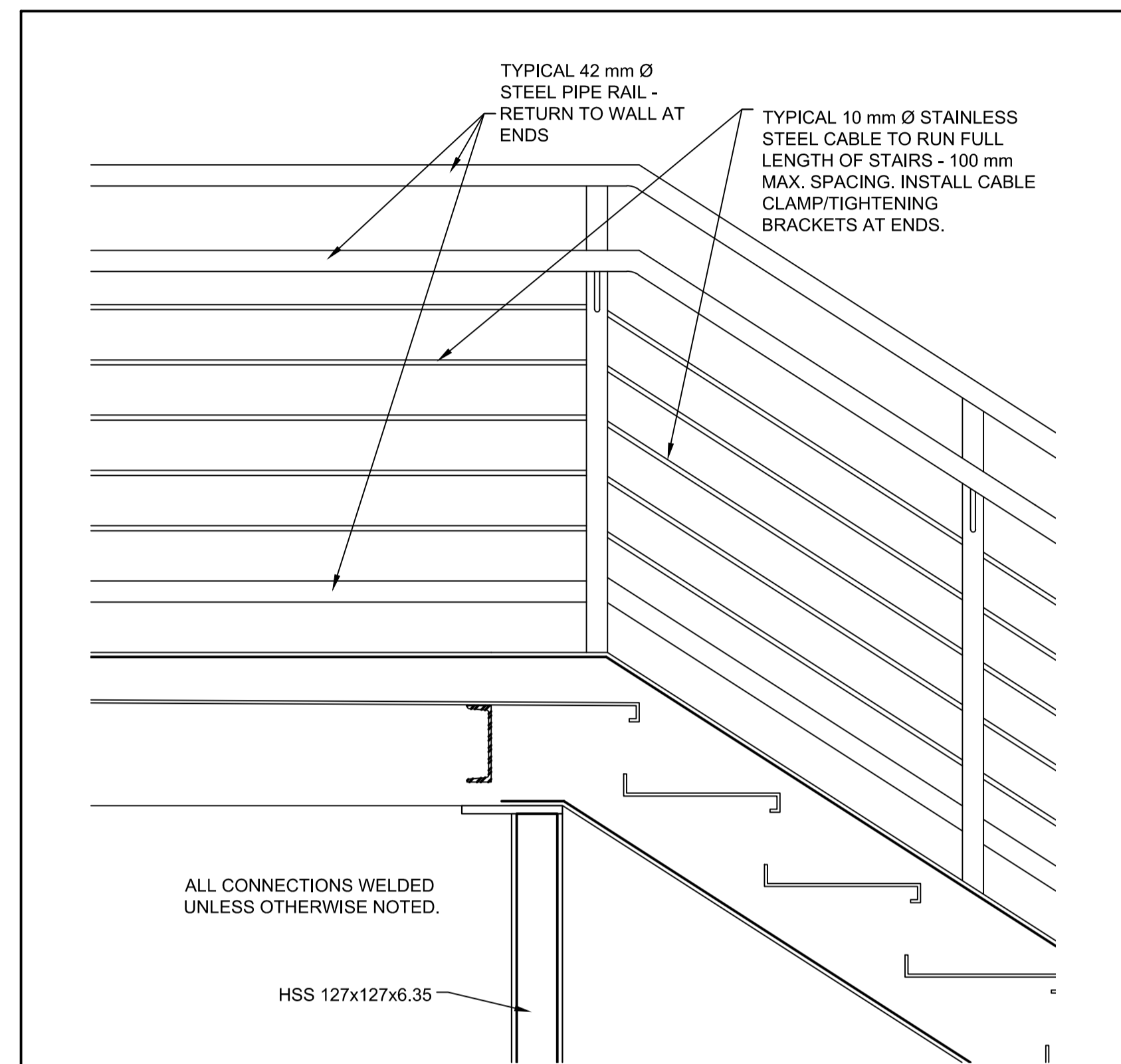
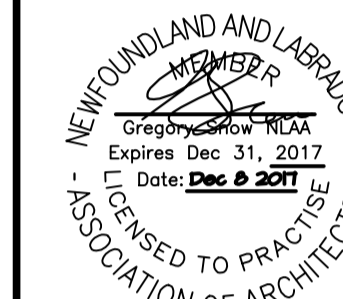
Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

0	ISSUED TENDER REVIEW	Dec 8 2011
revisions		date
project		project

**NRC SHIPPING RECEIVING RENOVATIONS**

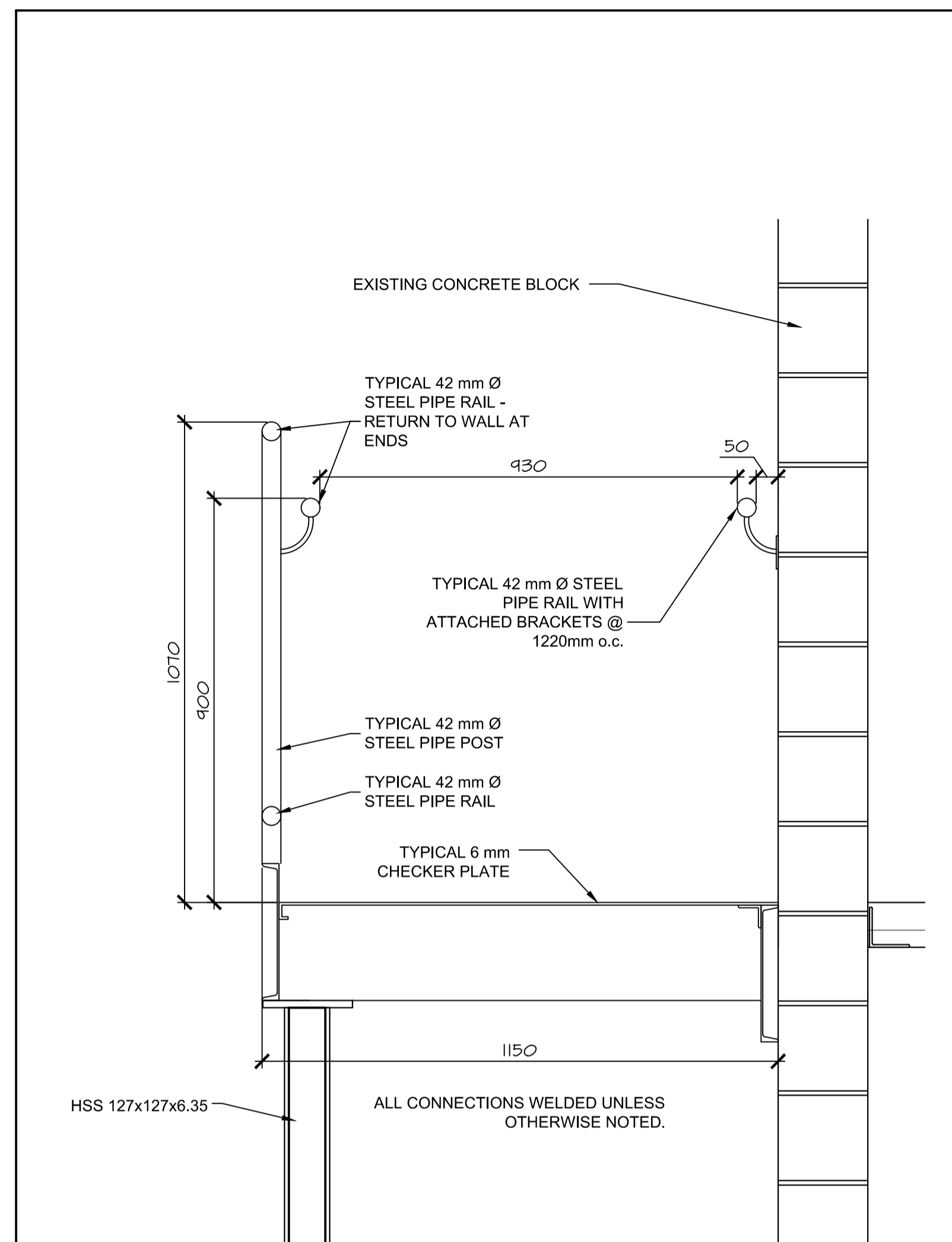
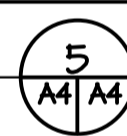
**NEW FLOOR PLAN LEVEL ONE MEZZANINE**

designed <b>GS</b>	conçu
date <b>AUG 2011</b>	
drawn <b>DDW</b>	dessiné
date <b>AUG 2011</b>	
approved	approuvé
date	
Tender	Soumission
PKNSG Project Manager	Administrateur de projets TPSC
project number	no. du projet
	<b>5442</b>
drawing no.	no. du dessin
	<b>5442-A03</b>



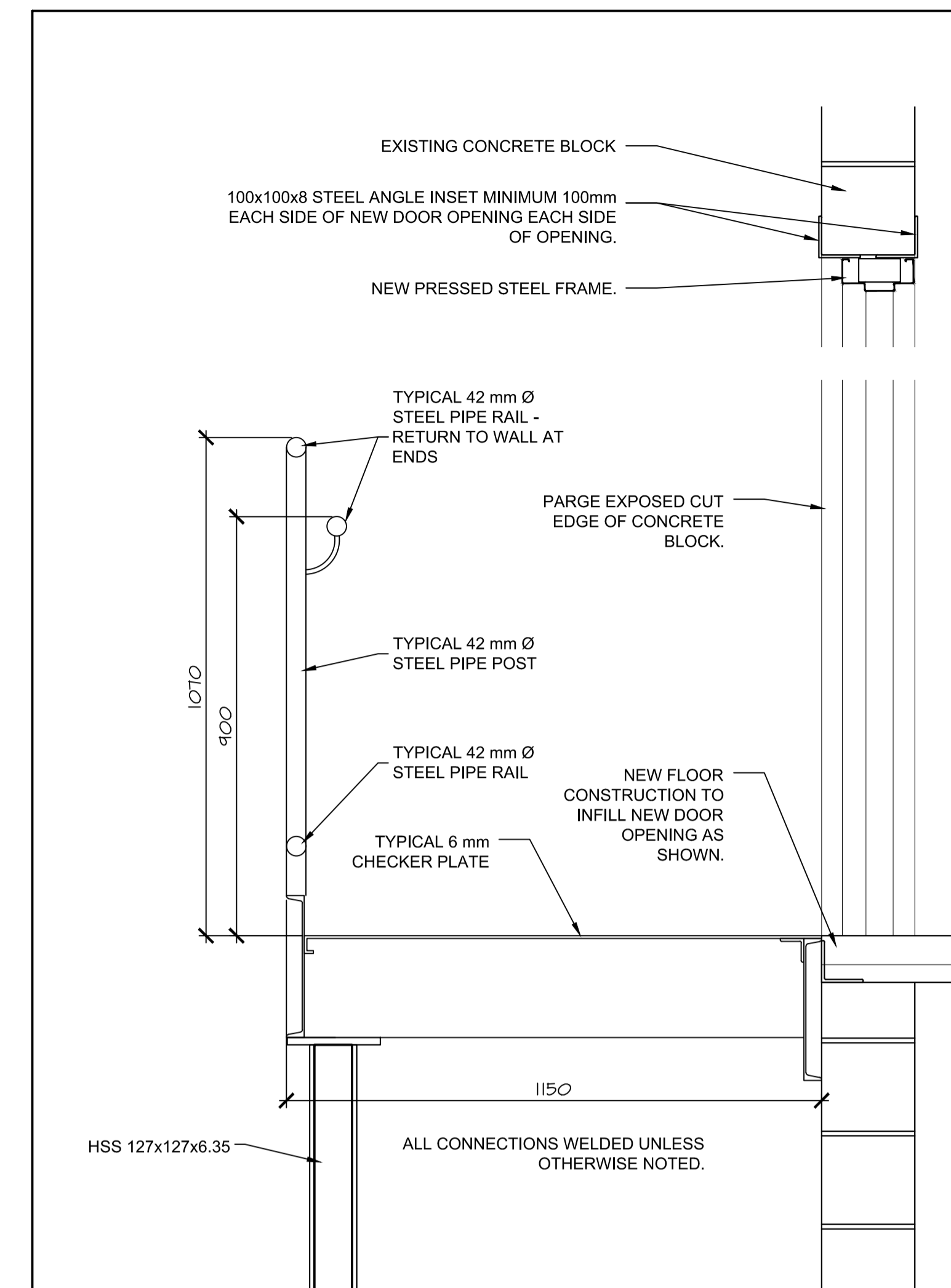
**NEW STAIR/LANDING DETAIL**  
SCALE: 1:10

0mm 100 200 300 400 500 600 700 800 900000mm



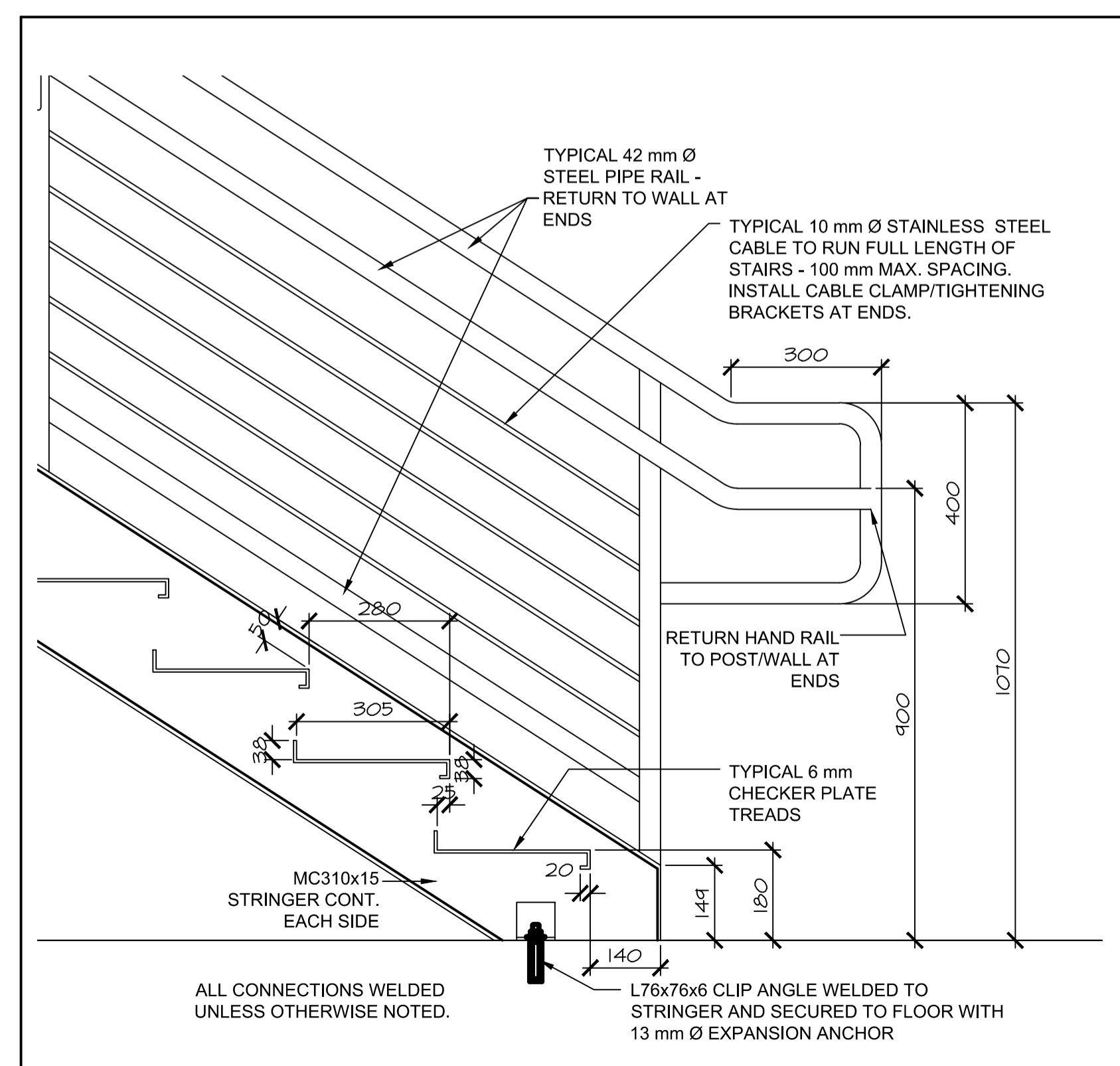
**NEW STAIR/LANDING DETAIL**  
SCALE: 1:10

0mm 100 200 300 400 500 600 700 800 900000mm



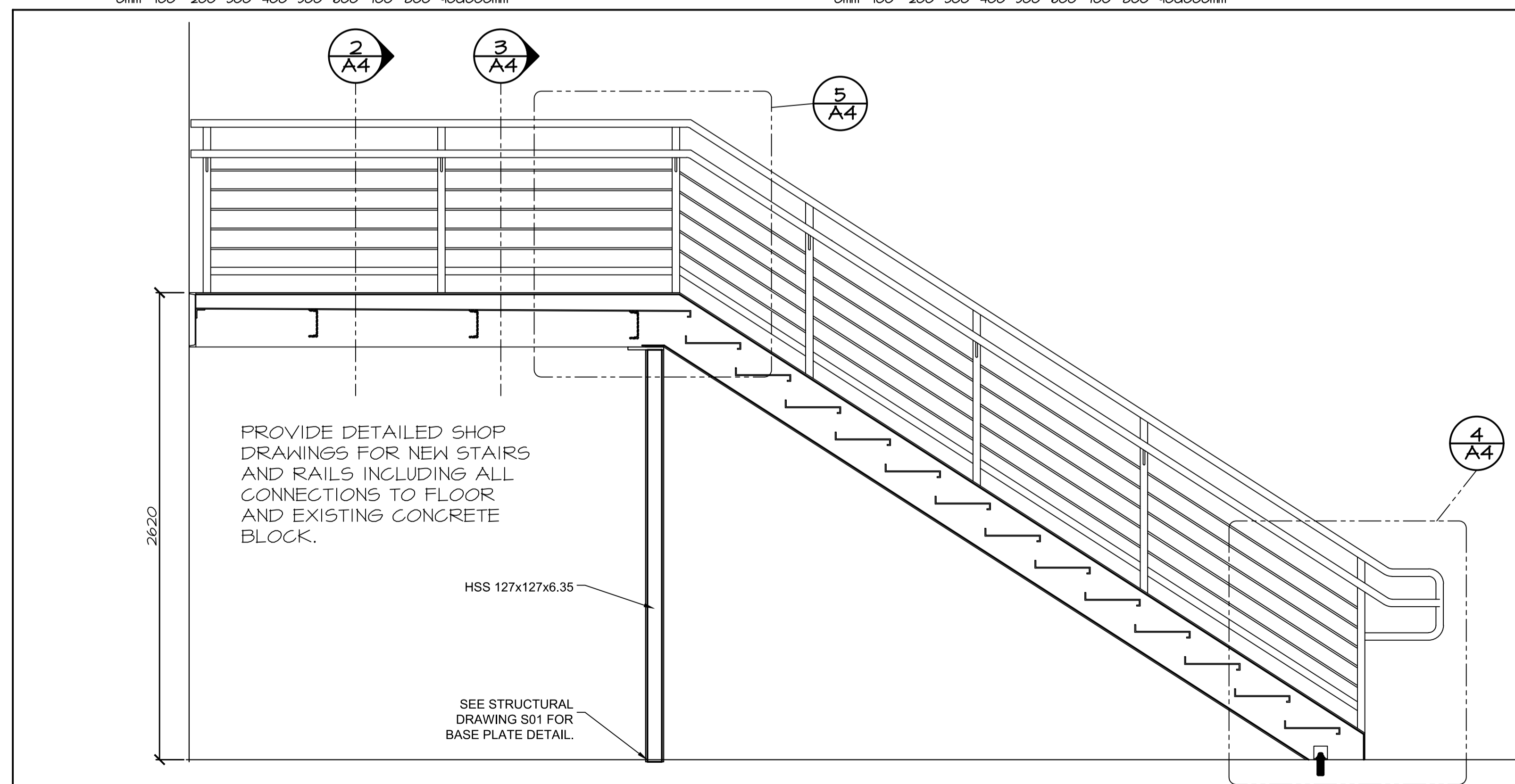
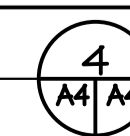
**NEW STAIR/LANDING DETAIL**  
SCALE: 1:10

0mm 100 200 300 400 500 600 700 800 900000mm



**NEW STAIR BASE DETAIL**  
SCALE: 1:10

0mm 100 200 300 400 500 600 700 800 900000mm



**NEW STAIR SECTION**  
SCALE: 1:20

0mm 500mm 1000mm 1500mm 2000mm 2500mm



0	ISSUED TENDER REVIEW	Dec 8 2011
revisions		date
project		project

**NRC SHIPPING RECEIVING RENOVATIONS**

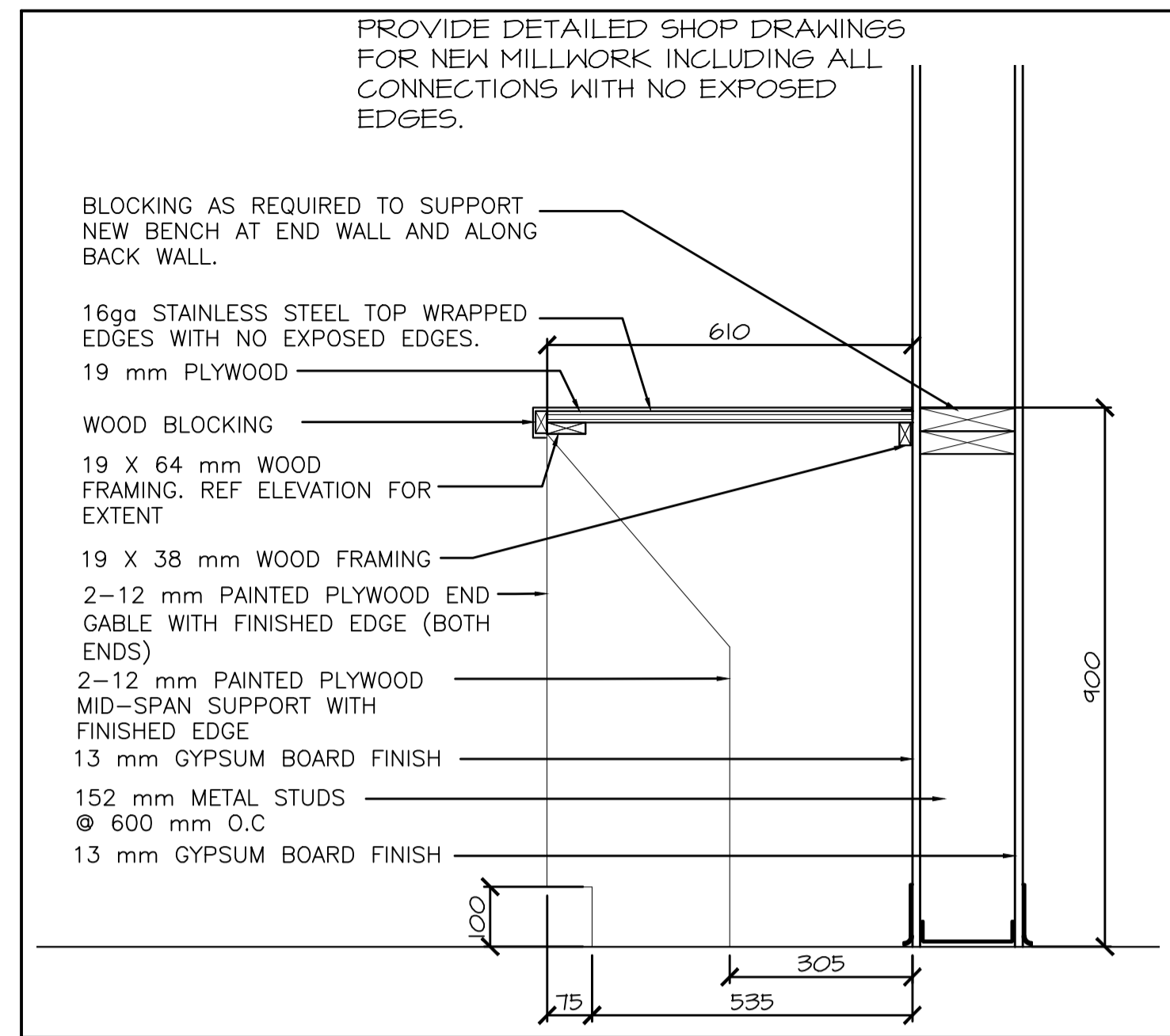
**DETAILS STAIRS**

designed	GS	conçu
date	AUG 2011	
drawn	DDW	dessiné
date	AUG 2011	
approved		approuvé
date		
Tender		Soumission
PKNSC Project Manager	Administrateur de projets TPSC	
project number		no. du projet

5442

drawing no. no. du dessin

5442-A04

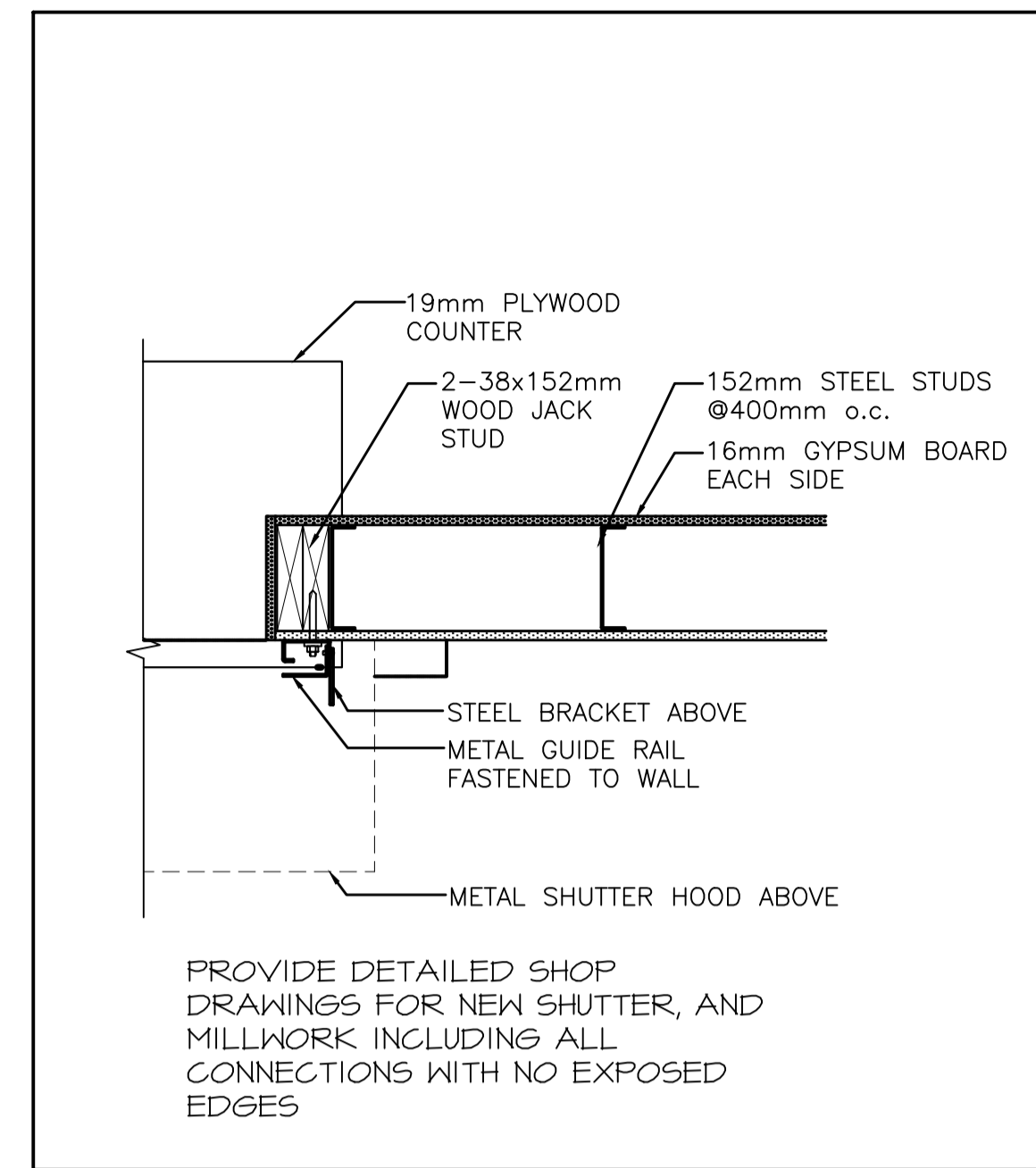


SHUTTER SECTION DETAIL

SCALE : 1:10



5  
A2/A5

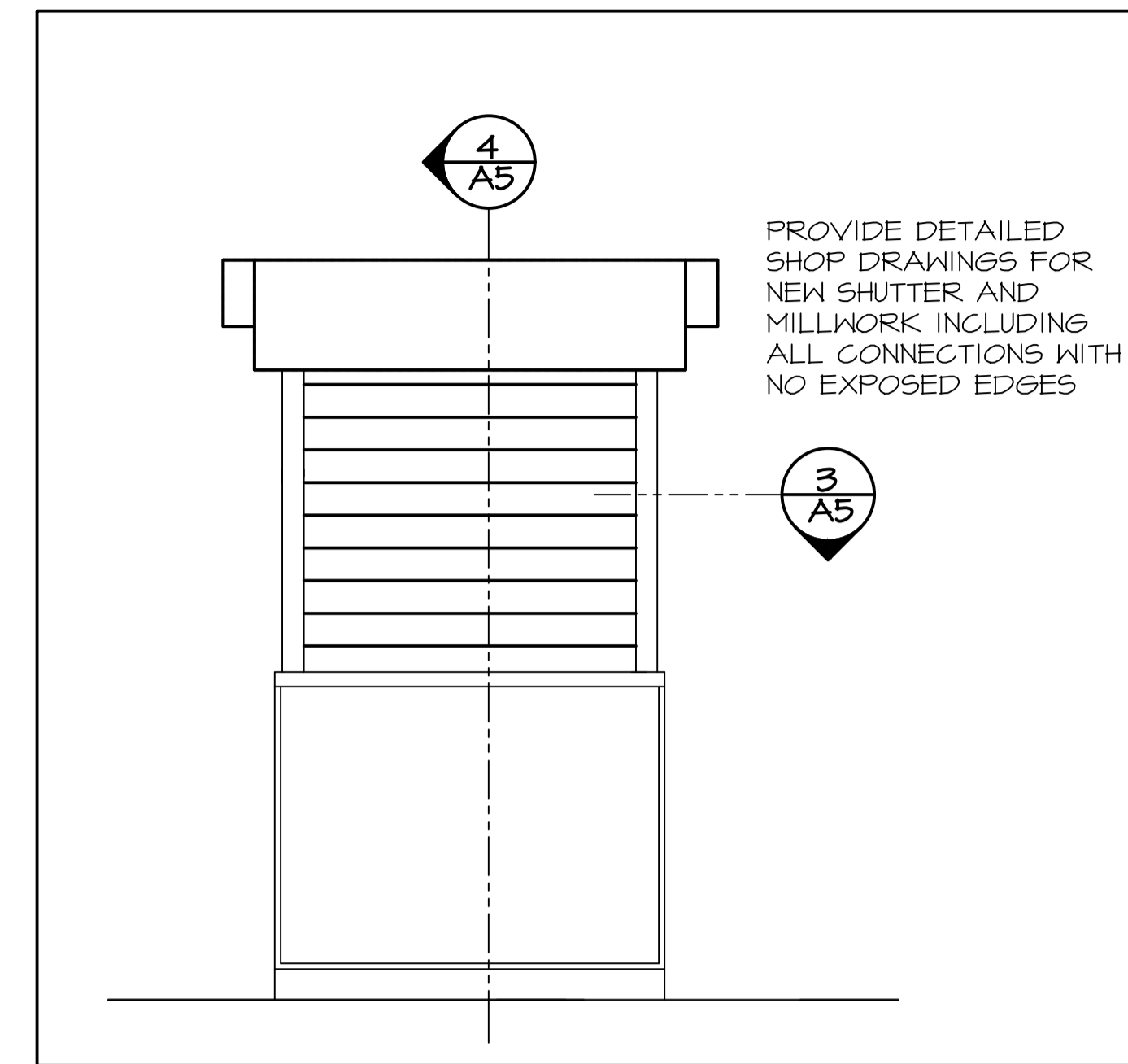


SHUTTER PLAN DETAIL

SCALE : 1:10

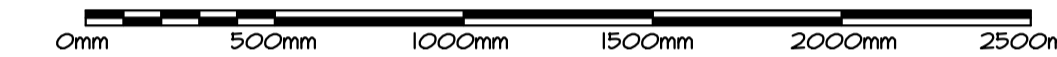


3  
A5/A5

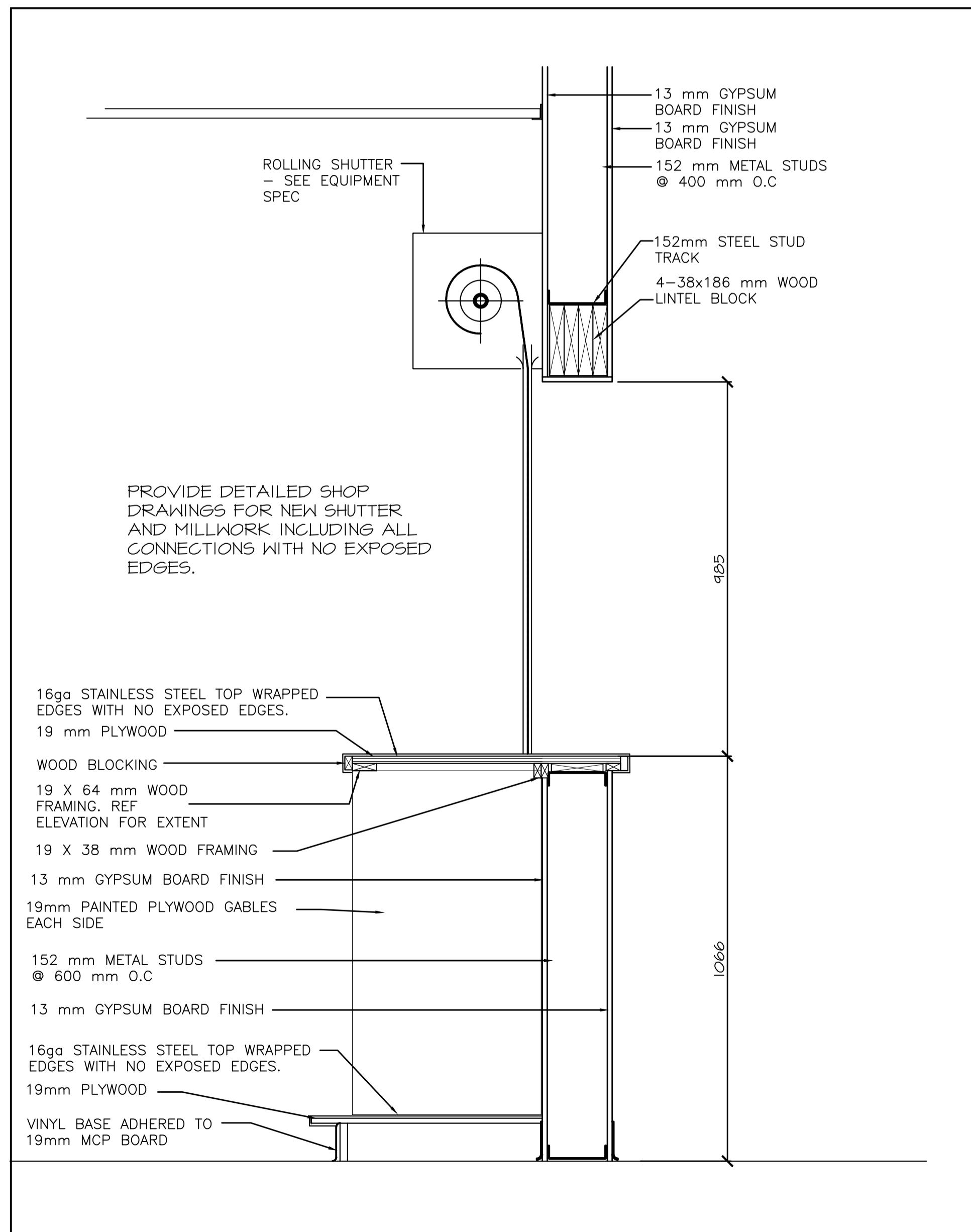


SHUTTER ELEVATION

SCALE : 1:20



2  
A2/A5

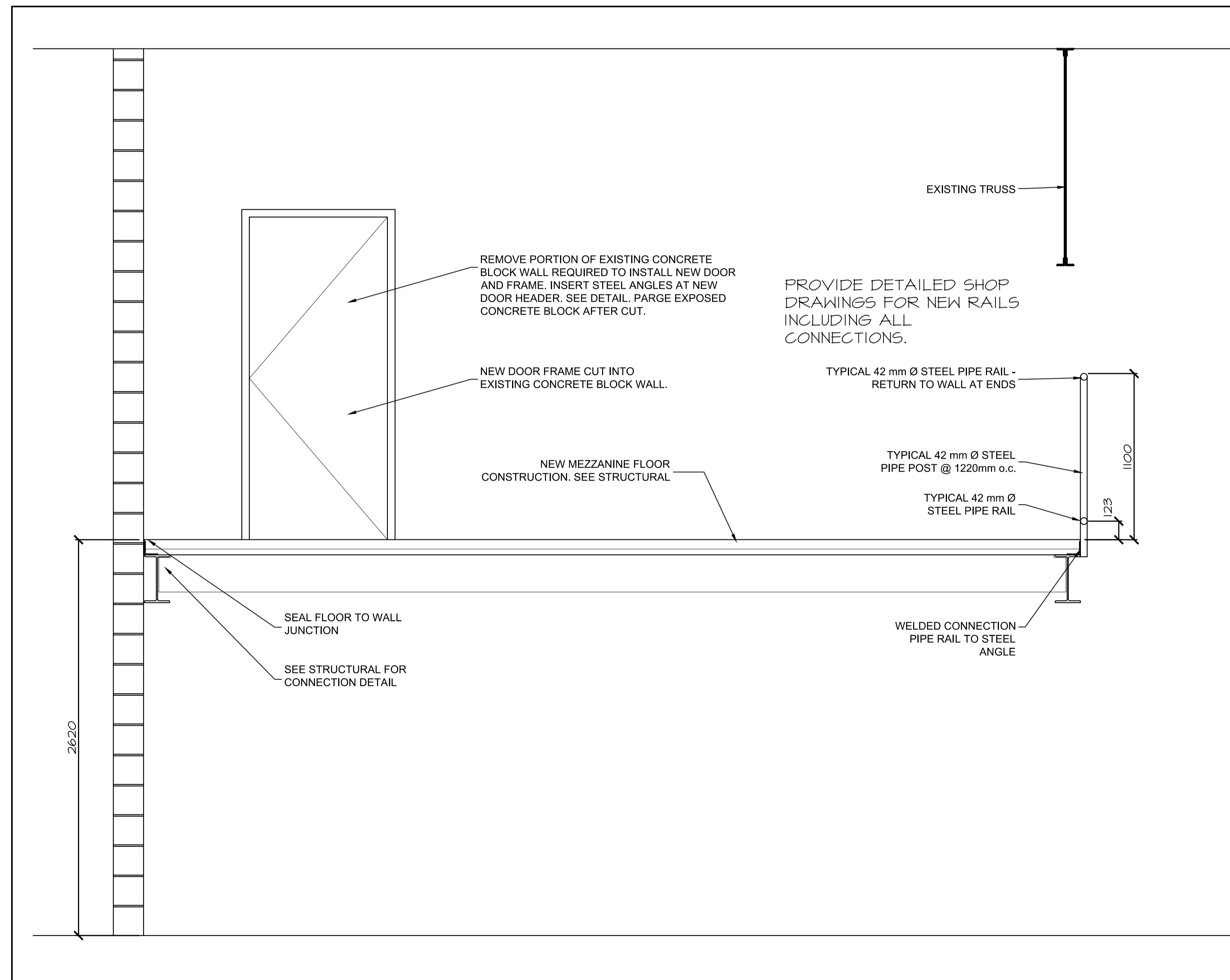


SHUTTER SECTION DETAIL

SCALE : 1:10



4  
A5/A5



NEW MEZZANINE SECTION

SCALE : 1:20



2  
A2/A5

0	ISSUED TENDER REVIEW	Dec 8 2011
revisions		date
project		project

NRC SHIPPING RECEIVING RENOVATIONS

DETAILS

designed	ES	conçu
date	AUG 2011	
drawn	DDW	dessiné
date	AUG 2011	
approved		approuvé
date		
Tender		Soumission
PKNSC Project Manager	Administrateur de projets TPSC	
project number		no. du projet

5442  
drawing no. no. du dessin  
5442-A05



**LEGEND:**

ACT .....ACOUSTIC CEILING TILE - SEE SPEC.  
 AL .....ALUMINUM  
 C .....CONCRETE  
 CT .....CERAMIC TILE  
 GB .....GYPSUM BOARD  
 HM .....HOLLOW METAL  
 PF .....PRE-FINISHED  
 PS .....PRESSED STEEL  
 PT .....PAINT  
 S .....SEALED  
 SCW .....SOLID CORE WOOD  
 V .....VINYL BASE  
 VAR .....VARIES  
 EX .....EXISTING  
 - .....NOT APPLICABLE

• COORDINATE ALL FINISHES WITH SPECIFICATIONS  
 • 100mm HIGH VINYL BASE ON ALL NEW PARTITIONS BOTH SIDES. MAXIMUM LENGTHS REQUIRED.

**LEGEND**

===== EXISTING WALL / PARTITION

===== NEW WALL / PARTITION, SEE PARTITION SCHEDULE

∩ EXISTING DOOR AND FRAME

∩ NEW DOOR AND FRAME

P# PARTITION TYPE. SEE DRAWING A-3

#### ROOM/AREA TAG. COORDINATE WITH DRAWING A-6

####-H DOOR AND FRAME TAG. COORDINATE WITH DRAWING A-6

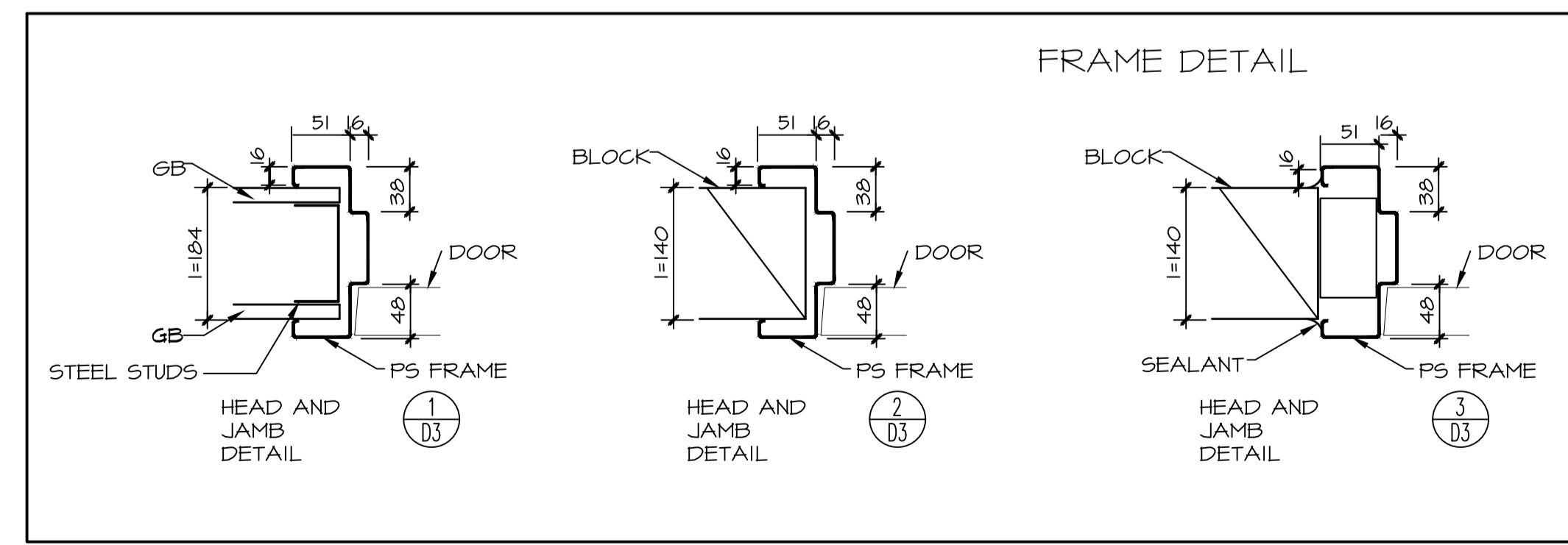
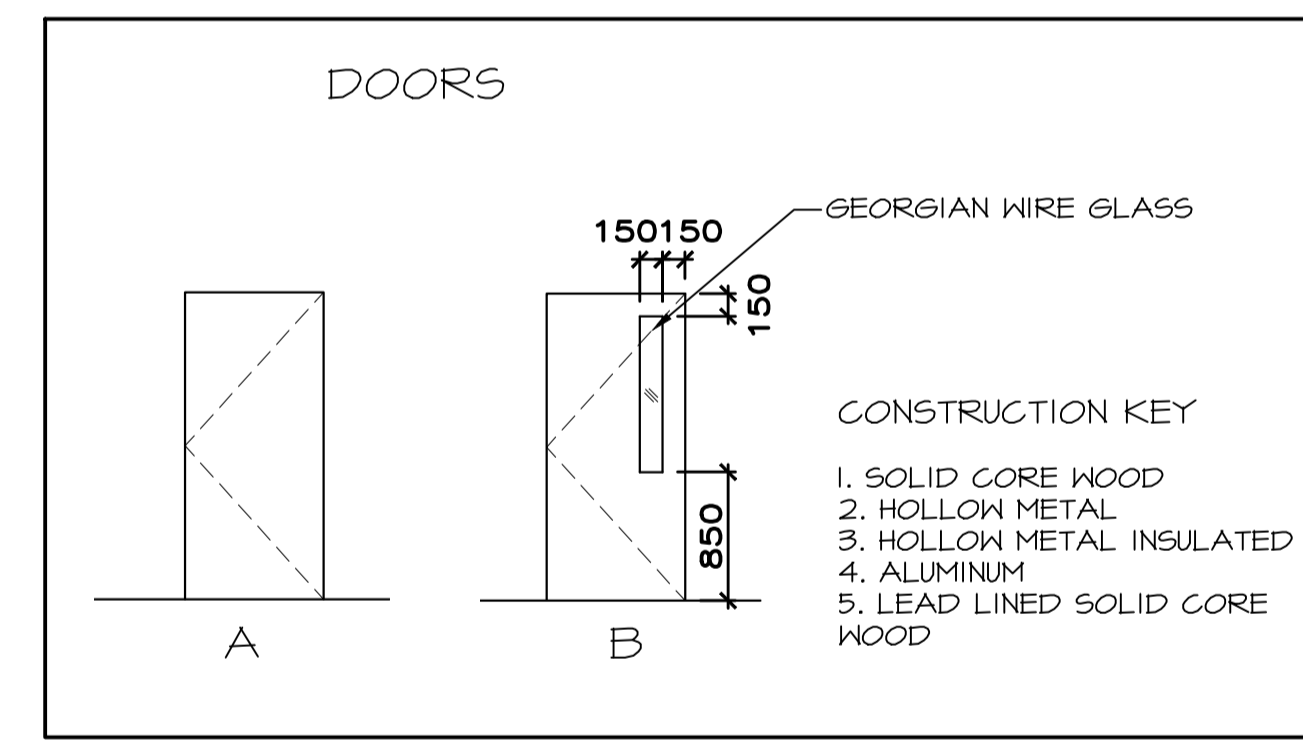
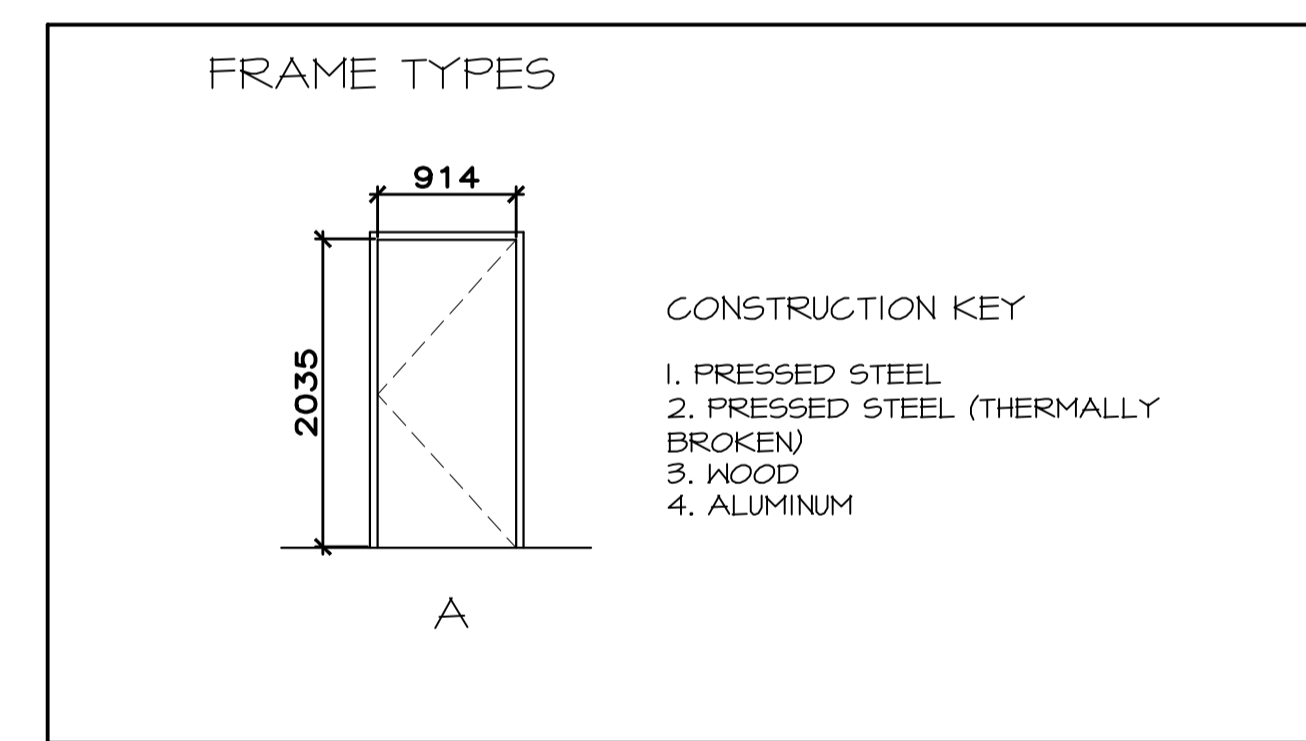
**ROOM FINISH SCHEDULE**

No.	ROOM Name	FLOOR		BASE		N-WALL		E-WALL		S-WALL		W-WALL		CEILING		REMARKS	
		Mat.	Fin.	Mat.	Col.	Mat.	Finish Colour	Mat.	Finish Colour	Mat.	Finish Colour	Mat.	Finish Colour	Mat.	Finish Colour		Height
2059	ELECTRICAL	C	PT	-		EX	-	EX	-	EX	-	EX	-	EX	-	-	
2060	OFFICE	C	PT	-		EX	-	EX	-	EX	-	EX	-	EX	-	-	
2061	TOOL CRIB	C	PT	-		EX	-	EX	-	EX	-	EX	-	EX	-	-	
2165	GENERAL STORES	C	PT	-V	BLACK	GB	PT	EX	PT	EX/GB	PT	EX/GB	PT	-	-	-	
2166	LUMBER STORAGE	C	PT	-		-	-	EX	-	EX	-	EX	-	-	PT	-	PAINT UNDERSIDE OPEN STEEL FRAME OF MEZZANINE
2172	DUST COLLECTOR	C	PT	-		EX	-	EX	-	EX	-	EX	-	EX	-	-	
2173	OFFICE	C	PT	V	BLACK	GB	PT	GB	PT	GB	PT	EX	PT	ACT	PF	2440	
2174	BATTERY STORAGE	C	PT	V	BLACK	GB	PT	GB	PT	EX	PT	EX	PT	ACT	PF	2440	
2175	MEZZANINE	C	PT	-		-	-	EX	PT	EX	PT	EX	PT	-	-	-	
2176	VESTIBULE	C	PT	-		GB	PT	EX	PT	GB	PT	GB	PT	-	-	-	

**DOOR AND FRAME SCHEDULE**

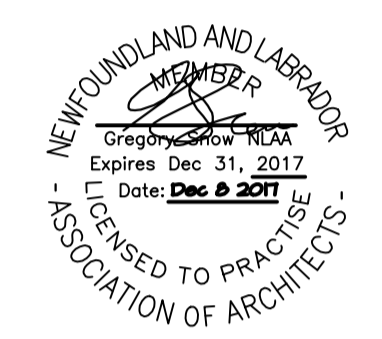
Tag	Type	WIDTH	HEIGHT	THICK	DOOR FINISH	HARDWARE	FRAME TYPE	FRAME FINISH	DET REF	Remarks
2166-1	-	1220	2032	-	PF	??	-	PF	-	CHAIN LINK FENCE GATE
2173-1	B2	914	2032	45	PAINT	H1	AI	PAINTED	1/D3	
2174-1	A2	914	2032	45	PAINT	H2	AI	PAINTED	1/D3	45MIN FIRE RATED
2175-1	B2	914	2032	45	PAINT	H3	AI	PAINTED	3/D3	45MIN FIRE RATED
2176-1	B2	914	2032	45	PAINT	H4	AI	PAINTED	1/D3	

NOTE: FOR HARDWARE GROUP LISTINGS, SEE SPECIFICATION ENSURE NOTED DOORS AND FRAMES ATTAIN REQUIRED RATINGS.



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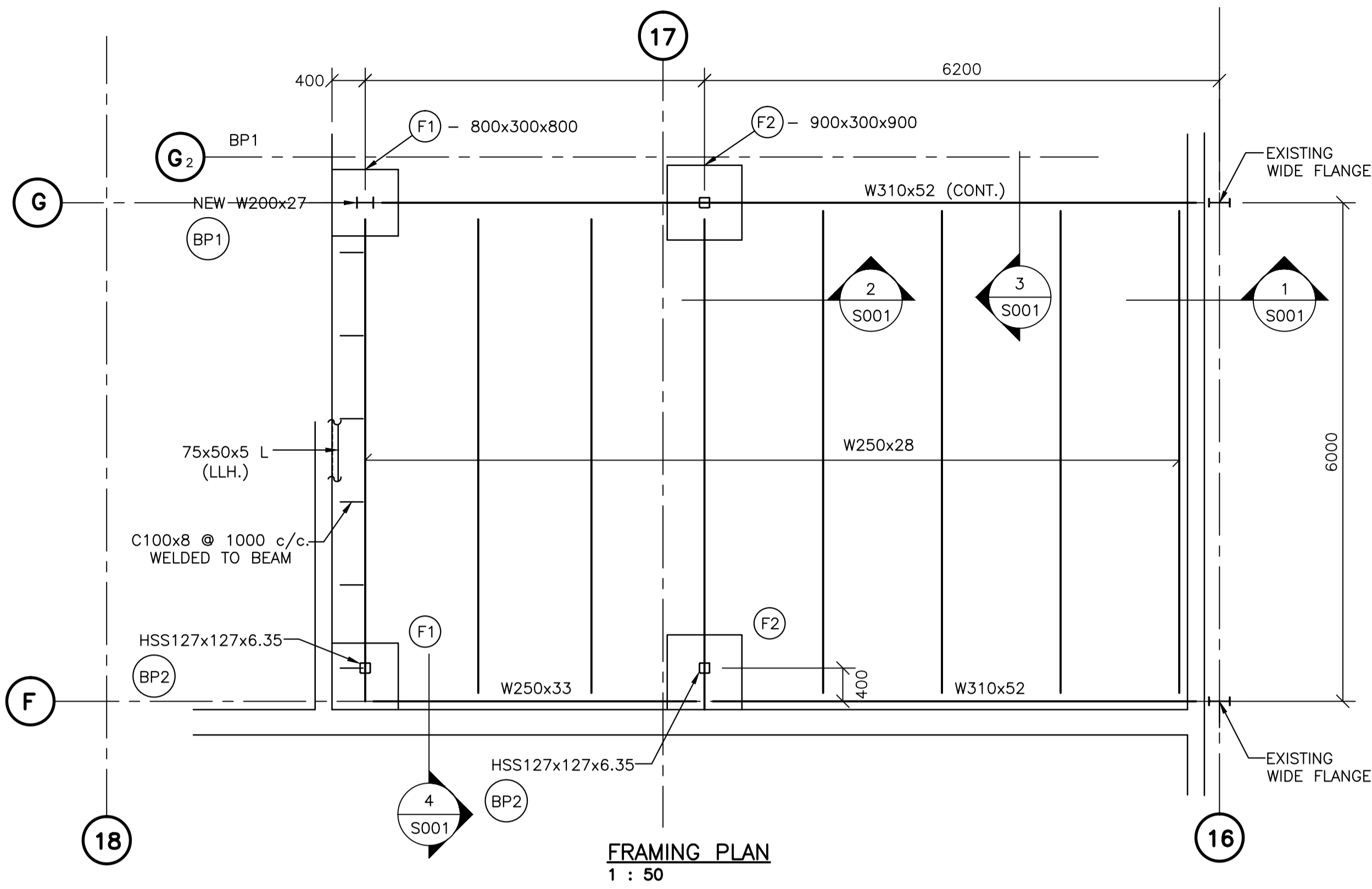


0	ISSUED TENDER	Dec 8 2011
revisions		date
project		project

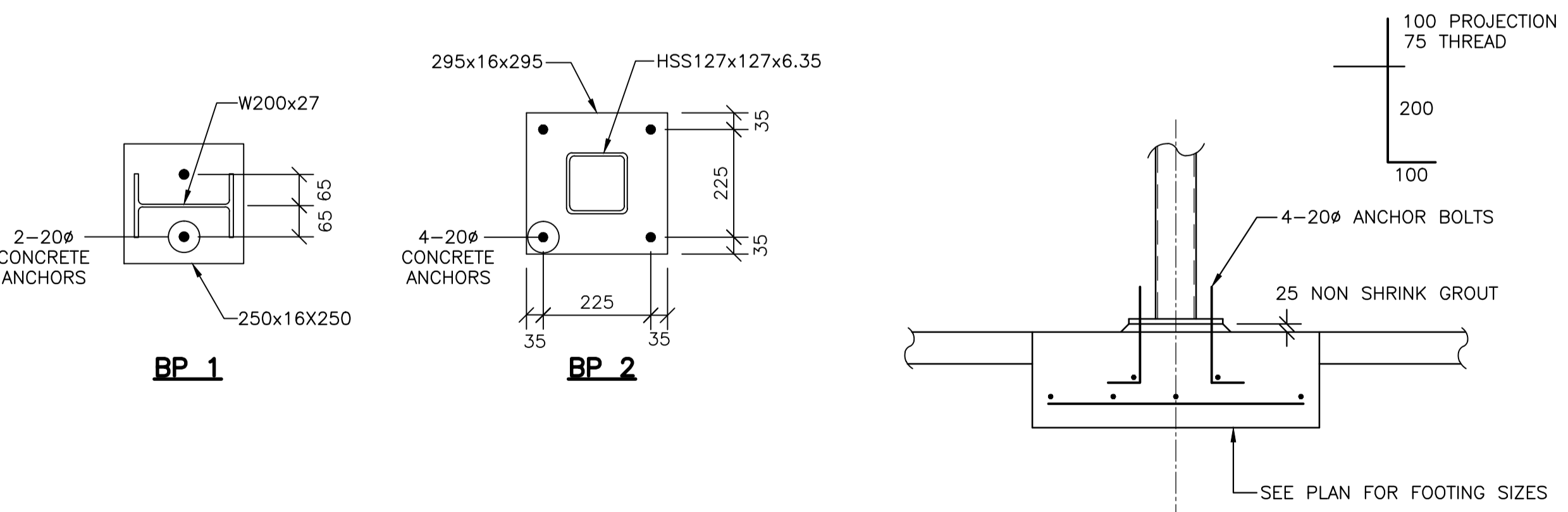
**NRC SHIPPING RECEIVING RENOVATIONS**

**SCHEDULES**

designed	GS	conçu
date	AUG 2011	
drawn	DDW	dessiné
date	AUG 2011	
approved		approuvé
date		
Tender		Soumission
PKS&C Project Manager	Administrateur de projets TPS&C	
project number		no. du projet
	<b>5442</b>	
drawing no.		no. du dessin
	<b>5442-A06</b>	



- NOTES:**
- 1) TOP OF STEEL ELEVATION =
  - 2) COLUMN SIZES 127x127x6.35.
  - 3) DESIGN LOADS  
D.L. = 3.6 kPa.  
L.L. = 4.8 kPa.
  - 4) LIVE LOAD DEFLECTION L/300
  - 5) CONCRETE 28 DAY COMPRESSIVE STRENGTH = 25MPa.
  - 6) METAL DECL ~ 38mm.x0.76 LZC
  - 7) STRUCTURAL STEEL 350W
  - 8) CONNECTIONS TO BE DESIGNED FOR 50% UNIFORM DESIGN LOAD
  - 9) PAINT - CISC CPMA 1-73



**GENERAL NOTES:**

1. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS AND OTHER CONTRACT DOCUMENTS.
2. DO NOT IMPOSE CONSTRUCTION LOADS ON THE STRUCTURE IN EXCESS OF THE DESIGN LOAD
3. REFER TO SPECIFICATIONS FOR CONSTRUCTION AND MATERIAL REQUIREMENTS.
4. PROVIDE TEMPORARY LATERAL BRACING AS REQUIRED UNTIL THE MAIN BRACING SYSTEM IS ERECTED.

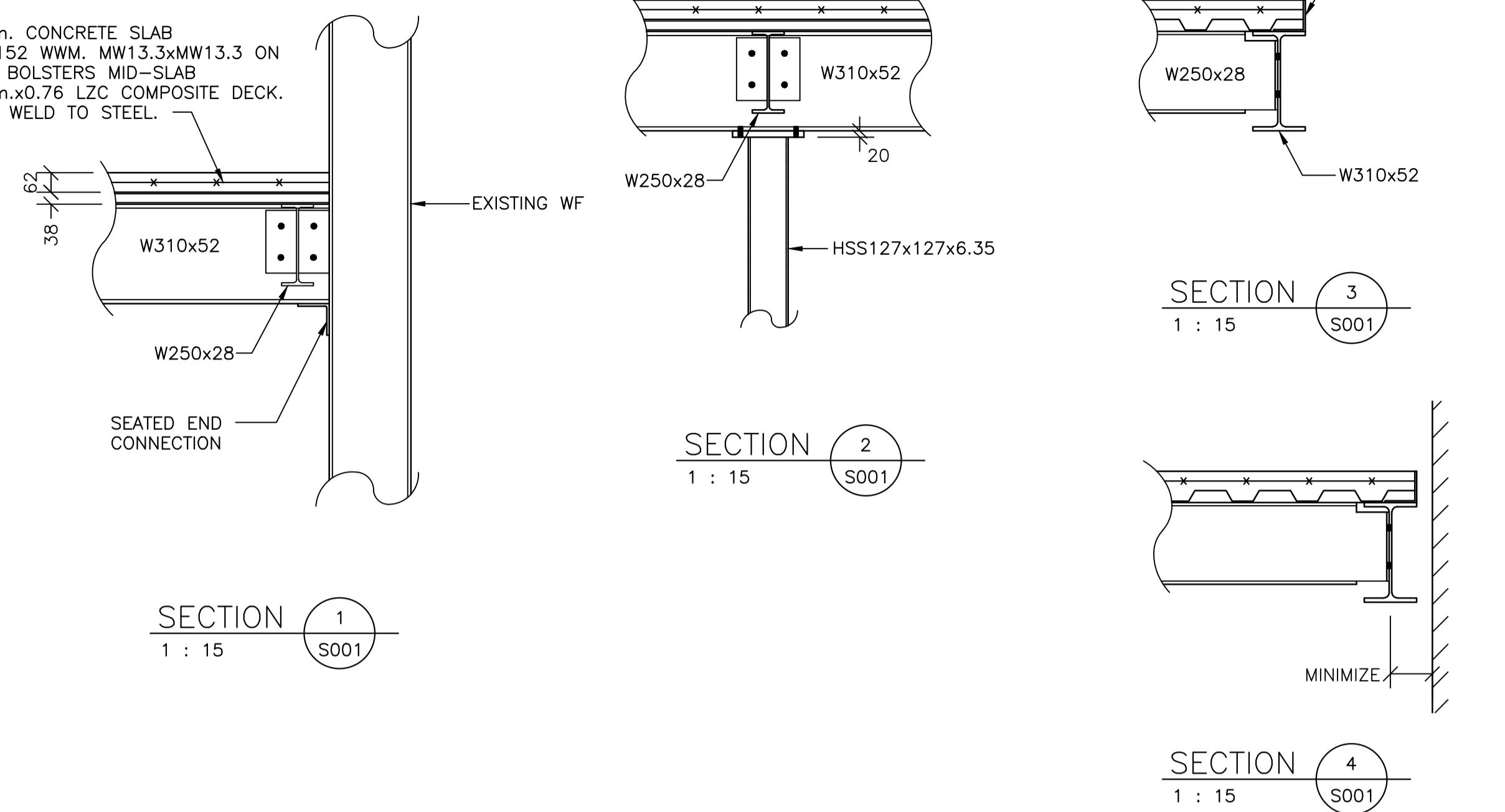
**FOUNDATION NOTES:**

1. SPREAD FOOTINGS ARE DESIGNED FOR ALLOWABLE SOIL PRESSURE OF 200 kPa.
2. LOCATE ALL FOOTINGS CENTRALLY UNDER COLUMNS AND WALLS U/N.
3. EARTH BOTTOMS OF EXCAVATION TO BE DRY UNDISTURBED SOIL, LEVEL, FREE FROM LOOSE OR ORGANIC WATER.

**STEEL NOTES:**

1. DO STRUCTURAL STEEL WORK TO CSA S16.1 STANDARDS. LATEST EDITION
2. STRUCTURAL STEEL TO CONFORM TO CSA G40.21M (LATEST EDITION)  
W SHAPES: GRADE 350W  
ANGLES AND PLATES: GRADE 300W
3. ALL WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH CSA W59 (LATEST EDITION) BY A FABRICATOR APPROVED UNDER CSA W47.1 (LATEST EDITION)
4. ALL BOLTS, NUTS AND WASHERS SHALL CONFORM TO A325M. ALL ANCHOR RODS SHALL CONFORM TO A307 OR A36.
5. ALL STRUCTURAL STEEL TO BE SHOP PRIMED TO CISC/CPMA 2-75.
6. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS PRIOR TO STARTING ANY WORK. REPORT DISCREPANCIES TO THE ENGINEER.
7. DESIGN, FABRICATION AND ERECTION TO CONFORM TO CSA S16 AND NBCC 2010.
8. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF ALL STEEL CONNECTIONS AS INDICATED ON THE DRAWINGS. TYPE OF CONNECTIONS, SHOWN ON THE DRAWINGS, MAY BE MODIFIED BY THE FABRICATOR PROVIDED THAT ALL LOADS ARE ACCOUNTED FOR AND THE CONNECTION DOES NOT INTERFERE WITH OTHER BUILDING ELEMENTS. DESIGN CONNECTIONS FOR SHEAR FORCE CORRESPONDING TO THE FULL MOMENT CAPACITY OF THE MEMBER UNLESS NOTED OTHERWISE. PROPOSED CONNECTIONS TO BE DISPLAYED ON FABRICATOR ERECTION DRAWINGS, SUBJECT TO APPROVAL BY THE ENGINEER.
9. PROVIDE ALL NECESSARY DETAILS, MATERIALS AND CONNECTIONS IN ACCORDANCE WITH CISC STANDARD DETAILS.

62mm. CONCRETE SLAB  
152x152 WWM, MW13.3xMW13.3 ON  
SLAB BOLSTERS MID-SLAB  
38mm.x0.76 LZC COMPOSITE DECK.  
PLUG WELD TO STEEL.



**REINFORCED CONCRETE NOTES:**

1. DO CONCRETE WORK TO A23.1 AND TESTING TO A23.2 LATEST EDITION.
2. CONCRETE COMPRESSIVE STRENGTH AT 28 DAYS TO BE:  
SPREAD FOOTINGS: 25MPa.  
SLAB-ON-GRADE: 25MPa.
3. AIR ENTRAIN ALL CONCRETE 2 TO 3%.
4. MAXIMUM SLUMP TO BE 75mm. MAXIMUM AGGREGATE SIZE TO BE 20mm.
5. CONCRETE COVER TO REINFORCING:  
FOOTING 75mm.
6. REINFORCING STEEL TO CONFORM TO G30.12M REINFORCING STEEL DETAILING TO BE IN ACCORDANCE WITH ACI 315 STANDARDS, LATEST EDITION. REBAR YIELD STRENGTH TO BE 400MPa.
7. REINFORCING STEEL, EMBEDDED PARTS, ANCHOR RODS AND DOWELS, ETC. TO BE SECURED IN POSITION PRIOR TO PLACING CONCRETE AND HELD RIGIDLY DURING PLACEMENT OF CONCRETE.

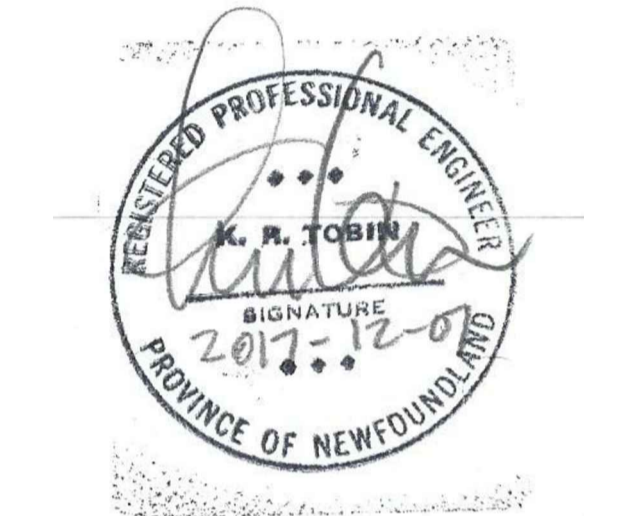
**BASE PLATE GROUT NOTES:**

1. SHRINKAGE COMPENSATING GROUT TO BE PREMIXED CONSISTING OF NON-METALLIC AGGREGATE, PORTLAND COMPOUND CEMENT, WATER REDUCING AND PLASTICIZING AGENTS TO CSA-A23.1/A23.2.
2. MINIMUM COMPRESSIVE STRENGTH TO BE 50MPa. @ 28 DAYS.

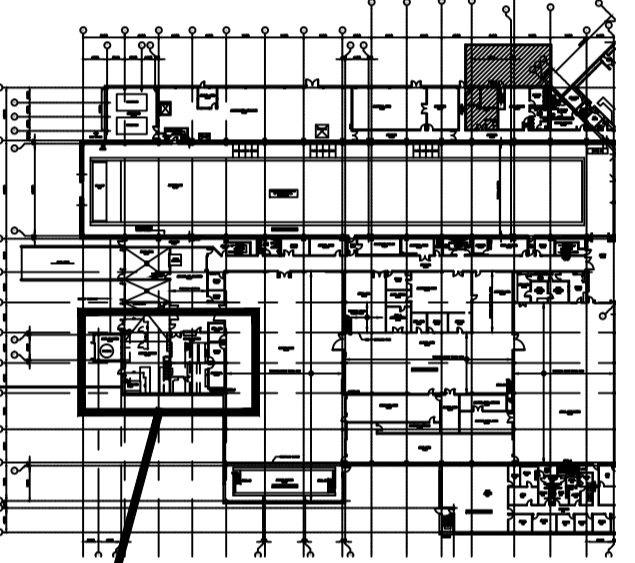


**Ken Tobin, P.Eng.**  
Structural Engineering Manager  
**SOUND Engineering Inc.**  
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Tel: 709-753-3214  
Cell: 709-697-9428  
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PROVINCE OF NEWFOUNDLAND AND LABRADOR  
PERMIT HOLDER  
This Permit Allows  
**SOUND ENGINEERING INC.**  
To practice Professional Engineering  
in Newfoundland and Labrador.  
Permit No. as issued by PEO/NL: **NO7012**  
Which is valid for the year: **2017**



**KEY PLAN**



**AREA OF WORK**  
Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

C	ISSUED FOR TENDER	08.12.17
B	RE-ISSUE FOR PRE-TENDER REVIEW	12.10.17
A	ISSUED FOR PRE-TENDER REVIEW	19.09.17
revisions		date

project project

**NRC SHIPPING RECEIVING RENOVATIONS**

drawing dessin

**PARTIAL FRAMING PLAN SECTIONS AND DETAILS**

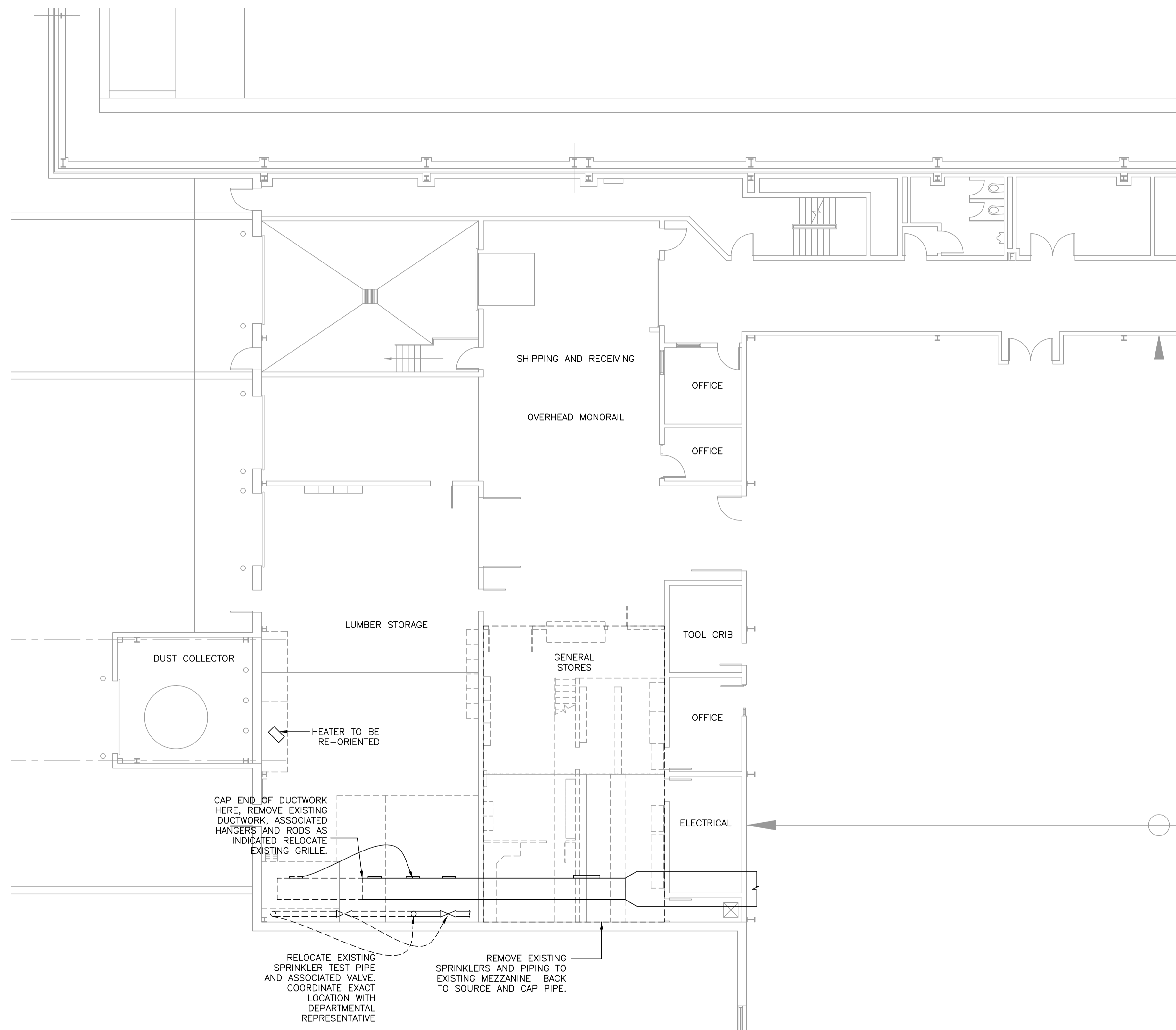
designed	K.R.T.	conçu
date	OCT., 2017	
drawn	J.E.H.	dessiné
date	OCT., 2017	
approved		approuvé
date		
Tender		Soumission
PWGSC Project Manager	Administrateur de projets TPGSC	
project number		no. du projet

drawing no. no. du dessin

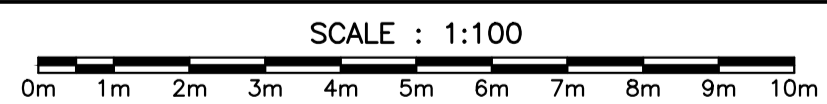
5442-S01

1. CONTRACTORS TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD. ALL DISCREPANCIES AND UNSATISFACTORY CONDITIONS TO BE REPORTED TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
2. DO NOT SCALE FROM DRAWING.

<p>STAMP</p>	<p>PERMIT</p> <p>PROVINCE OF NEWFOUNDLAND PERMIT HOLDER Class "A" This Permit Allows <b>CROSBIE ENGINEERING LIMITED</b></p> <p>To practice Professional Engineering in Newfoundland and Labrador Permit No. as issued by PEC-NL 00123 which is valid for the year 2017.</p>



**PARTIAL FLOOR PLAN - DEMOLITION LAYOUT**



0	ISSUED FOR TENDER	12/07/17
A	ISSUED FOR PRE-TENDER REVIEW	12/10/17
revisions		date
project		project

**NRC SHIPPING RECEIVING RENOVATIONS**

drawing dessin

**PARTIAL FLOOR PLAN - DEMOLITION LAYOUT**

designed N.C. conçu

date DEC 2017

drawn B.D. dessiné

date DEC 2017

approved approuvé

date

Tender Soumission

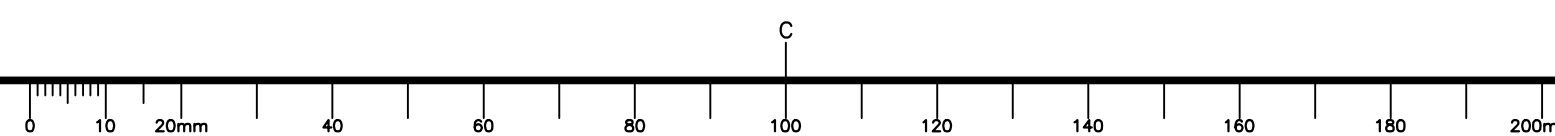
PWGC Project Manager Administrateur de projets TPSGC

project number no. du projet

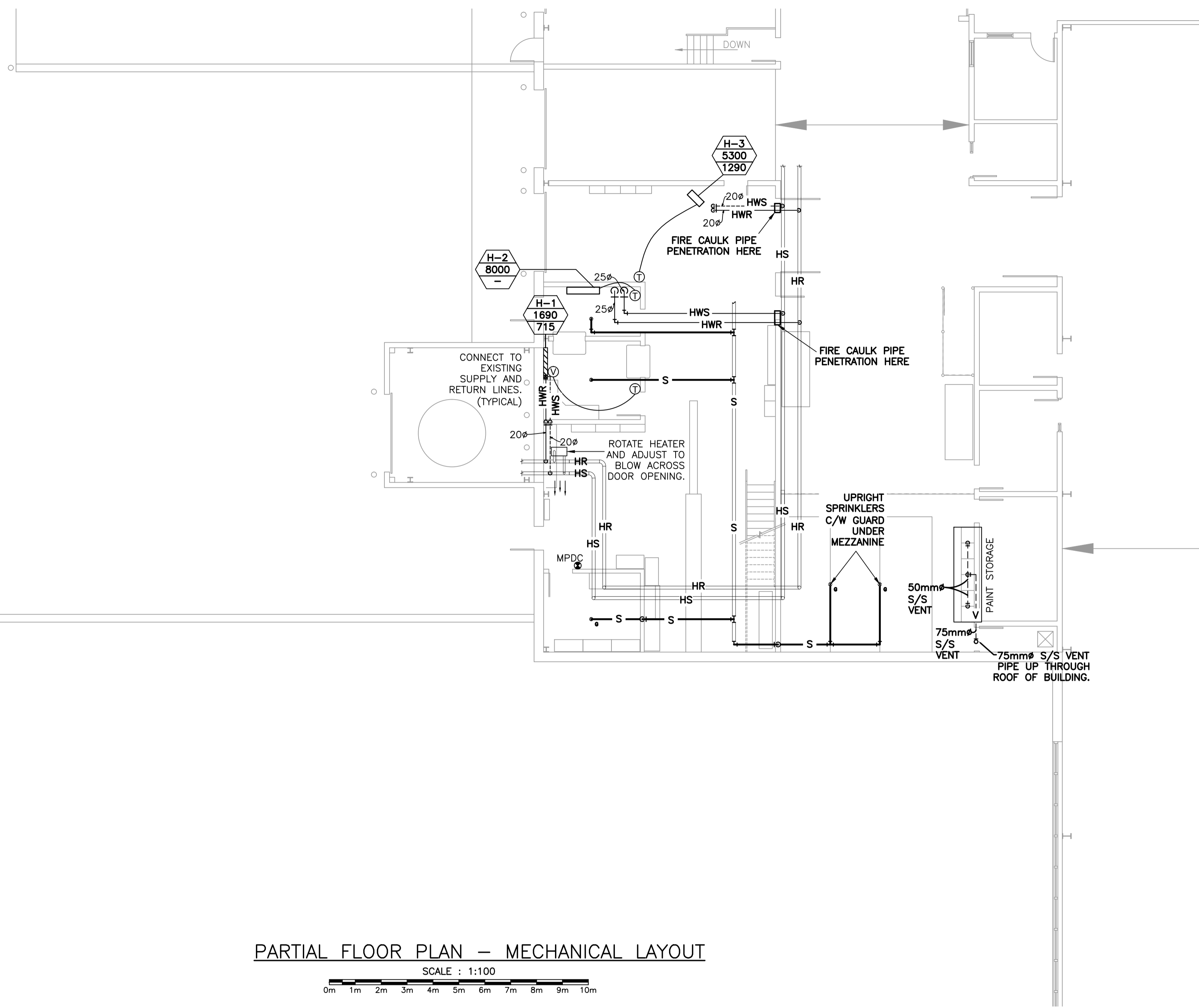
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drawing no. no. du dessin

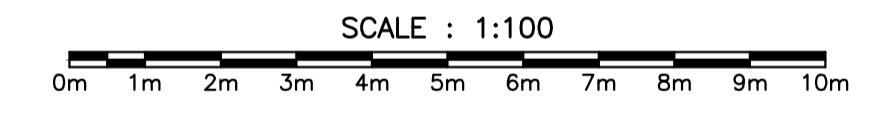
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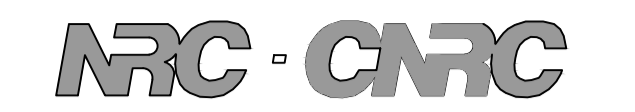


PARTIAL FLOOR PLAN – MECHANICAL LAYOUT



MECHANICAL VENTILATION LEGEND:

- CONTROLS
- Ⓢ PNEUMATIC THERMOSTAT SUPPLIED AND INSTALLED BY MECHANICAL.
  - Ⓥ PNEUMATIC CONTROLS VALVE SERVING HYDRONIC HEATERS
  - ☒ MANUAL STARTER
- PIPING
- HWR ----- HOT WATER RETURN PIPING
  - HWS ———— HOT WATER SUPPLY PIPING
  - S ———— NEW SPRINKLER PIPING
  - V ----- VENT PIPING
  - CI PIPE DROP
  - EL 90° ELBOW
  - α PIPE UP
  - ==== S ==== EXISTING SPRINKLER PIPING
- FIRE PROTECTION
- MPDC FIRE EXTINGUISHER
  - Ⓢ UPRIGHT SPRINKLER HEAD C/W GUARD
  - Ⓢ PENDANT TYPE SPRINKLER HEAD



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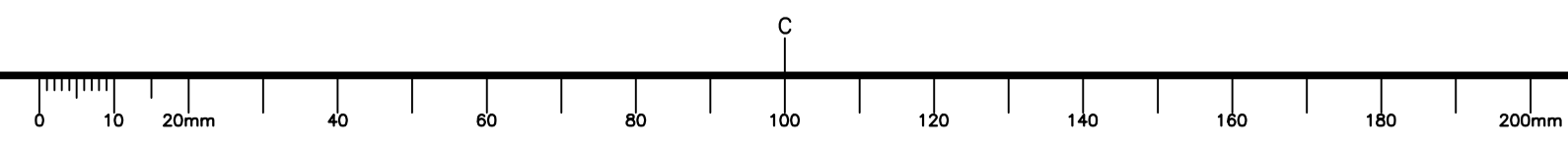
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A	ISSUED FOR PRE-TENDER REVIEW	12/10/17
revisions		date
project		project

**NRC SHIPPING RECEIVING RENOVATIONS**

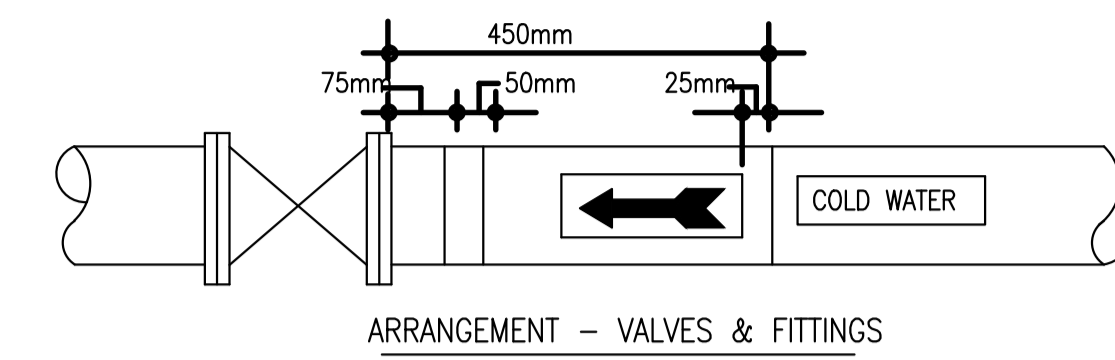
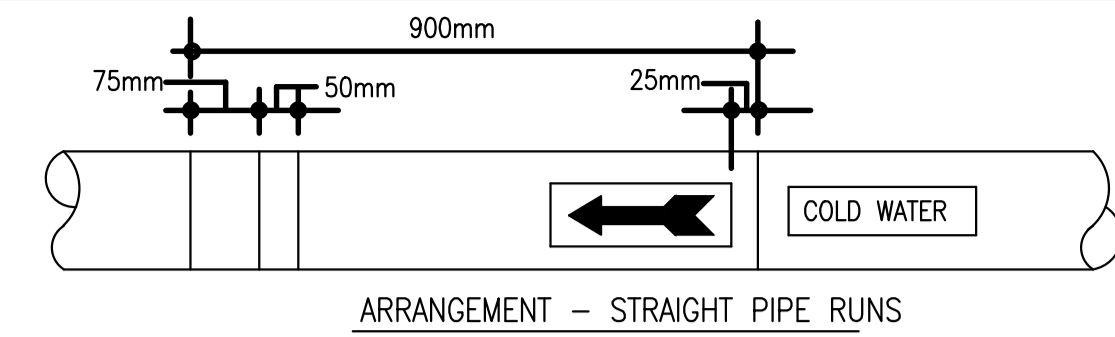
PARTIAL FLOOR PLAN – MECHANICAL LAYOUT AND SCHEDULES

HYDRONIC HEATER SCHEDULE								
TAG	TYPE	TIER	ELEMENT	CABINET TYPE	FLOWRATE (GPM)	CABINET HEIGHT, mm	OUTPUT WATTS	REMARKS
H-1	WALL FIN CONVECTOR	2	ALUMINUM FIN/COPPER TUBE 171 FINS/METER/20mmØ TUBE	MODEL G	1.21	610	AS SHOWN	STANDARD OF ACCEPTANCE – ROSEMEX MODEL RVS. PROVIDE ALL CABINET AND ELEMENT SUPPORTS, WALL TRIM BUTT JOINTS, CONNECTORS, OUTSIDE AND INSIDE CORNERS, ACCESS DOORS AND END CAPS. SELECTED BASED ON AVERAGE WATER TEMPERATURE OF 40°C. ELEMENTS 300mm C/C.
H-2	FORCE FLOW CABINET HEATER	--	ALUMINUM FIN/COPPER TUBES/STEEL PIPE HEADERS/20mmØ PIPE	TYPE F (F-300-C)	3.06	660	AS SHOWN	STANDARD OF ACCEPTANCE – ROSEMEX MODEL F – 120/1/60, C/W COMBINATION MAGNETIC STARTER
H-3	VERTICAL UNIT HEATER	--	ALUMINUM FIN/COPPER TUBES/STEEL PIPE HEADERS/32mmØ PIPE	HS (H-26)	2.30	--	AS SHOWN	STANDARD OF ACCEPTANCE – ROSEMEX MODEL HS – 120/1/60, C/W COMBINATION MAGNETIC STARTER

designed	N.C.	conçu
date	DEC 2017	
drawn	B.D.	dessiné
date	DEC 2017	
approved		approuvé
date		
Tender		Soumission
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project number	no. du projet	
<b>A1-006971-10</b>		
drawing no.	no. du dessin	
<b>5442-M01</b>		

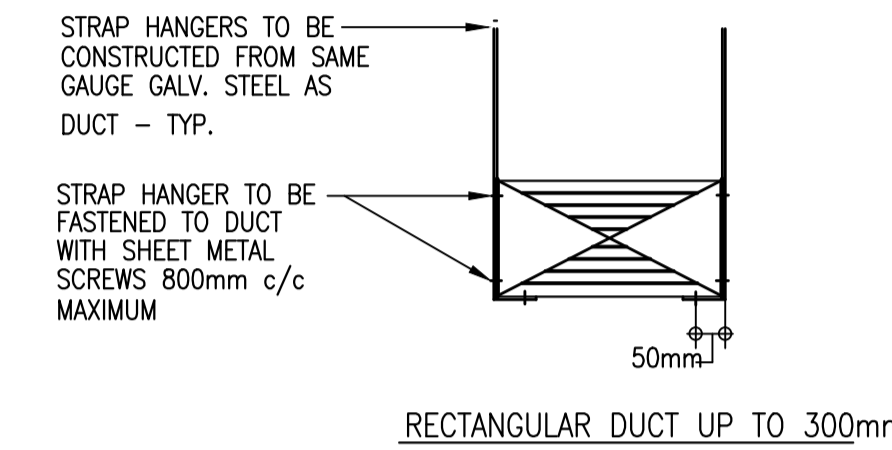


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**PIPING SYSTEM IDENTIFICATION DETAILS** SCALE = N.T.S.

1  
M-2

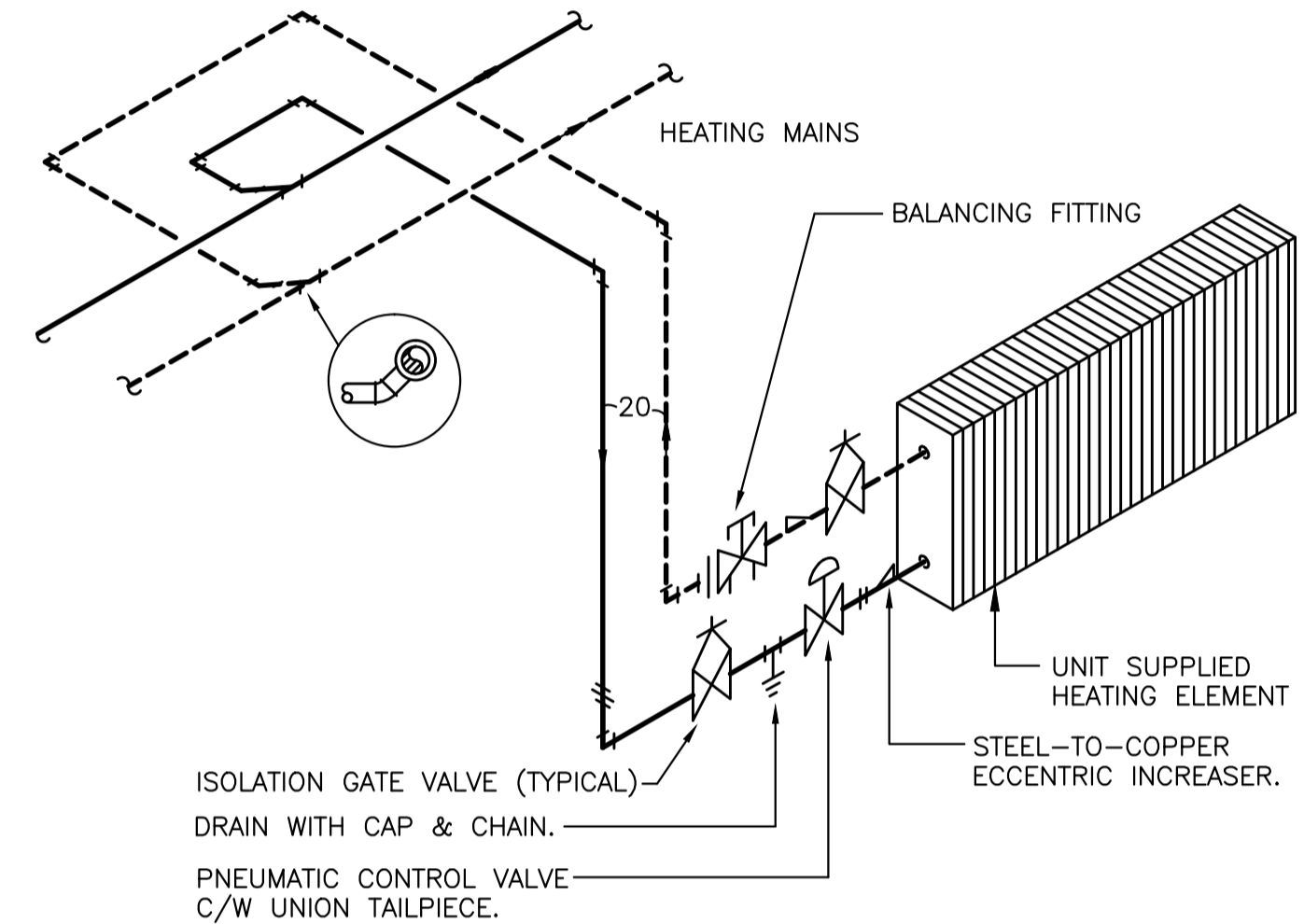


- NOTES:
- 1.) ALL HANGER STRAPS & HANGER RODS SHALL BE FIRMLY SUPPORTED FROM THE STRUCTURAL STEEL.
  - 2.) DUCT SUPPORT UP TO 1500mm DUCT DIM. SHALL BE INSTALLED @ 1200mm c/c MAX.

**DETAIL - TYP. DUCT SUPPORTS**

SCALE = N.T.S.

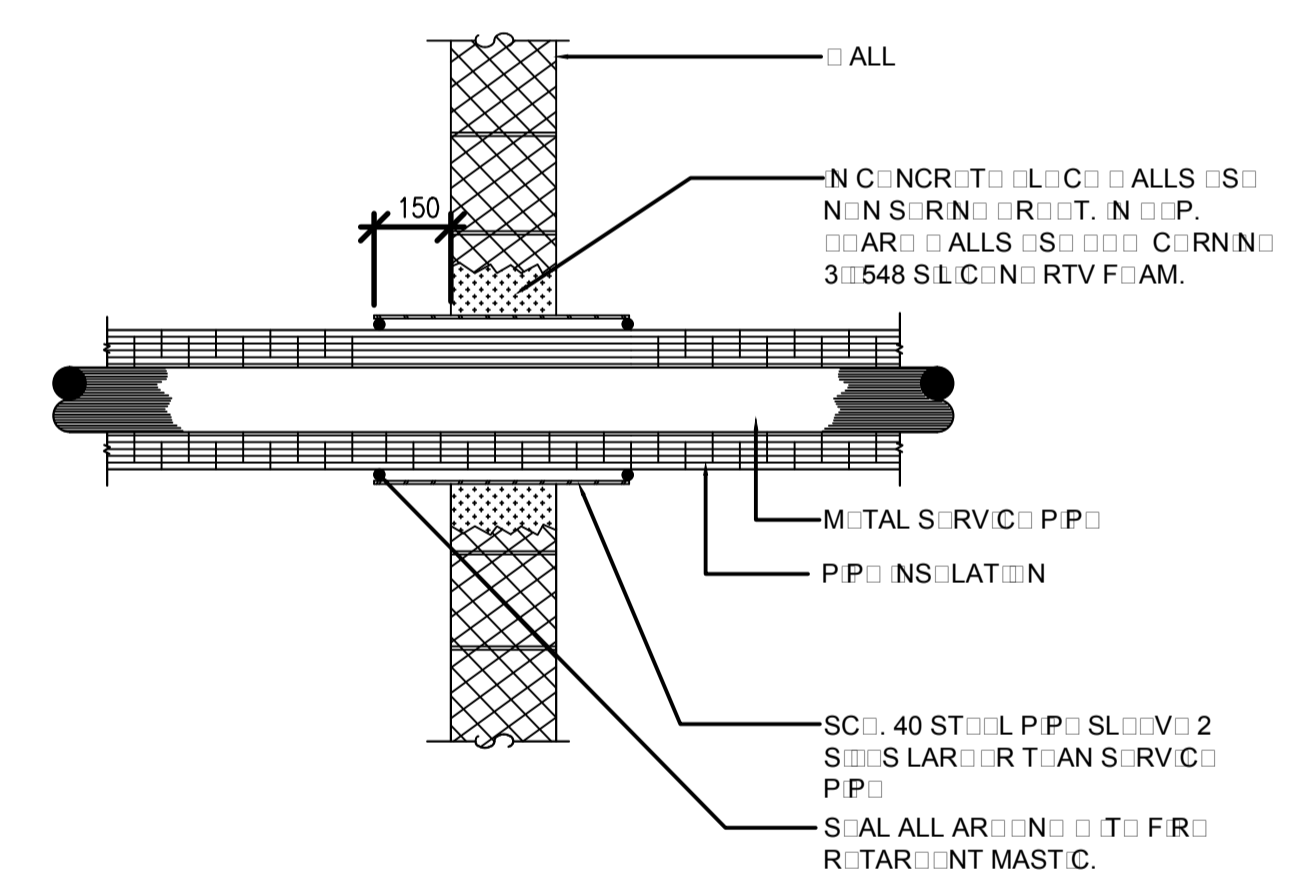
2  
M-2



**TYPICAL FORCED FLOW PIPING DETAIL**

SCALE = N.T.S.

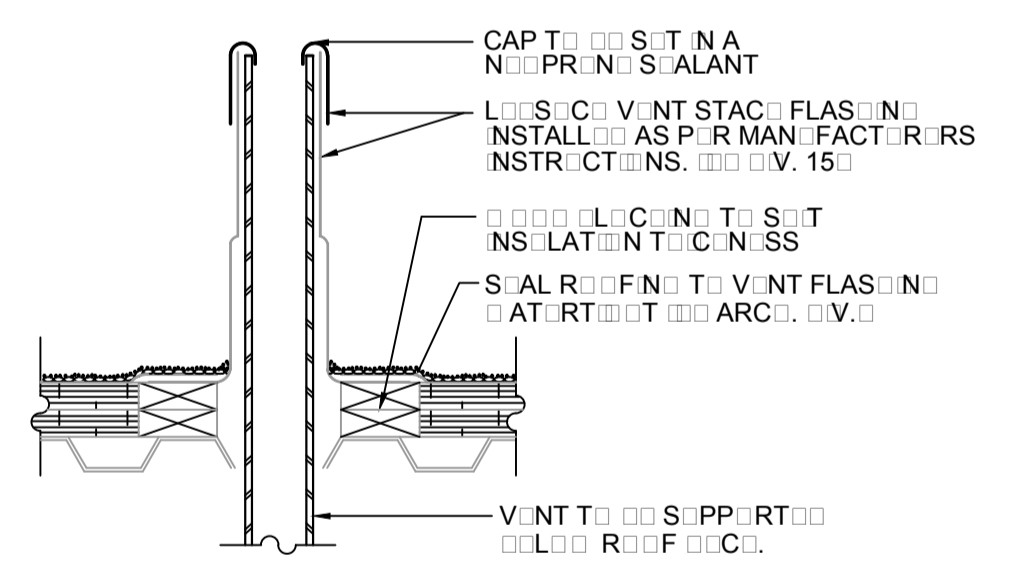
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M-2



**SERVICE PIPE PENETRATING NON-RATED WALL**

SCALE = N.T.S.

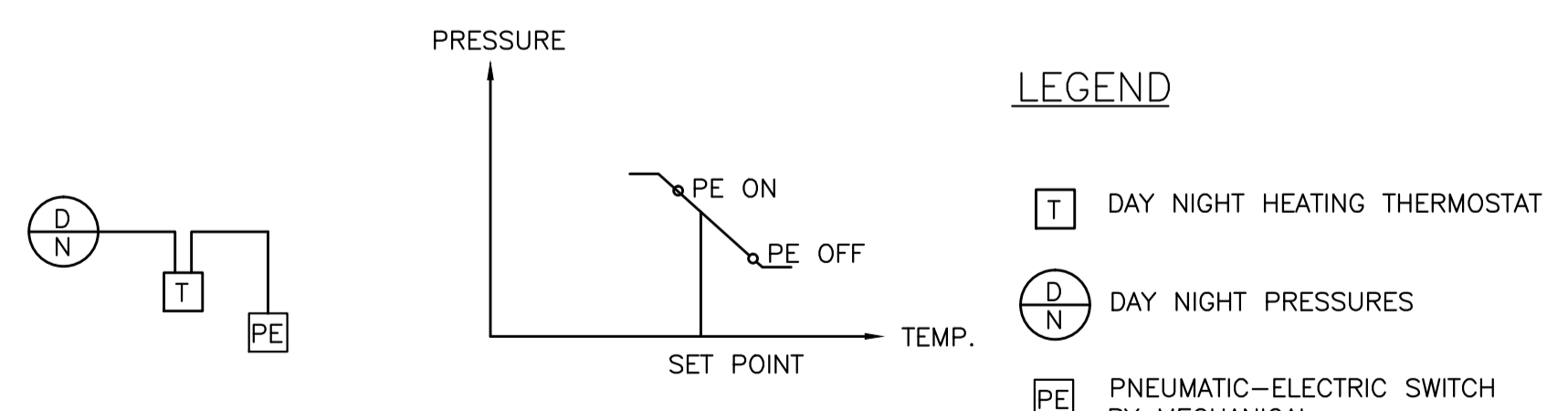
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**TYPICAL VENT FLASHING**

SCALE = N.T.S.

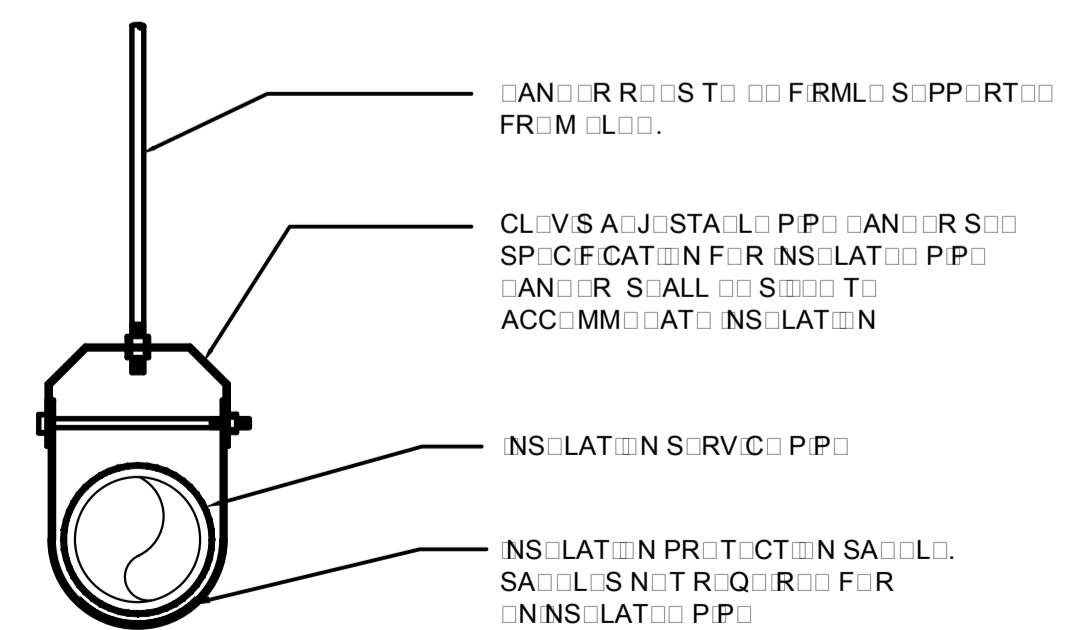
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**SPACE THERMOSTAT CONTROL DETAIL**

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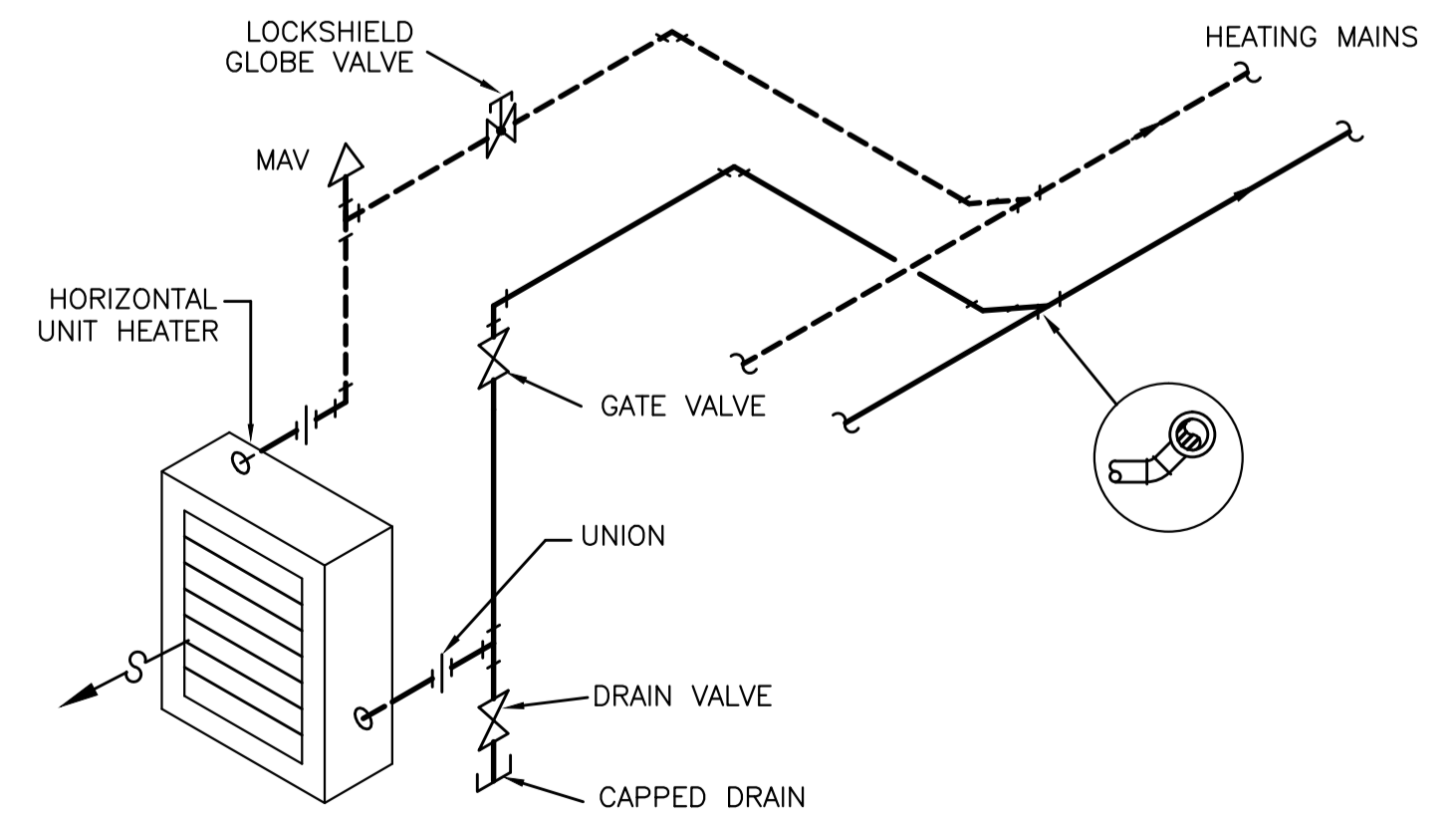
8  
M-2



**TYPICAL CLEVIS PIPE HANGER**

SCALE = N.T.S.

7  
M-2



**DOWNFED UNIT HEATER PIPING DETAIL**

SCALE = N.T.S.

4  
M-2

STAMP

REGISTERED PROFESSIONAL ENGINEER  
K. NEIL CLEARY  
12/07/17  
PROF. ENG. OF NEWFOUNDLAND

PERMIT

PROVINCE OF NEWFOUNDLAND  
PERMIT HOLDER  
Class "A"  
This Permit Allows  
CROSBIER ENGINEERING LIMITED  
To practice Professional Engineering in Newfoundland and Labrador  
Permit No. as issued by PEC-NL 00123 which is valid for the year 2017.

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A	ISSUED FOR PRE-TENDER REVIEW	12/10/17
revisions		date
project		project

**NRC SHIPPING RECEIVING RENOVATIONS**

**MECHANICAL DETAILS**

designed	N.C.	conçu
date	DEC 2017	
drawn	B.D.	dessiné
date	DEC 2017	
approved		approuvé
date		
Tender		Soumission
PWGSC Project Manager	Administrateur de projets TPGSC	
project number	no. du projet	
<b>A1-006971-10</b>		
drawing no.	no. du dessin	
<b>5442-M02</b>		

# LEGEND

- A** FLUORESCENT/LED LIGHTING FIXTURE. LETTER DENOTES TYPE. SEE LIGHTING FIXTURE SCHEDULE & SPECIFICATIONS FOR DESCRIPTION.
- S<sub>a,b</sub>** SINGLE POLE TOGGLE SWITCH. 15 AMP. SPECIFICATION GRADE. WHITE C/W STAINLESS STEEL COVERPLATE. SEE SPEC. FOR MORE INFORMATION. MOUNT 1200mm ABOVE FINISHED FLOOR.  
**p** "a" OR "b" INDICATES CIRCUIT TO BE CONTROLLED.  
**k** "p" INDICATES PILOT LIGHT  
**k** "k" INDICATES KEY OPERATED
- S<sub>3</sub>** "3" INDICATES THREE WAY SWITCH, SIMILAR TO ABOVE.  
**4** "4" INDICATES FOUR WAY SWITCH, SIMILAR TO ABOVE.
- EMERGENCY LIGHTING BATTERY UNIT "LUMACELL" #RG12S200-2LD7 OR APPROVED EQUAL. 347 VOLT AC, 12 VOLT DC. BATTERY TO MOUNT 300MM BELOW CEILING. BE RATED FOR 200 WATTS (66W FOR 90 MINUTES MINIMUM) C/W TWO 4W MR-16 LED HEADS & COME WITH A 10 YEAR RATED LIFE MINIMUM. #1 INDICATES BATTERY PACK DESIGNATION.**
- REMOTE HEAD "LUMACELL" #MQM2LD7 (DOUBLE) OR OR APPROVED EQUAL. 12 VOLT, C/W 4 WATT, MR16 LED LAMPS. WALL MOUNT 300mm BELOW FINISHED CEILING. #1 INDICATES CONNECTION TO BATTERY PACK #1**
- EXIT SIGN. " LUMACELL" LA1WU SERIES OR APPROVED EQUAL. (RUNNING MAN) NRCAN/CSA COMPLIANT. UNIVERSAL MOUNT 347 VOLT AC & 12 VOLT DC, C/W 25 YEAR LED TYPE LAMPS. SEE LIGHTING FIXTURE SCHEDULE AND SPECIFICATION. ARROWS INDICATE DIRECTION OF TRAVEL**
- DUAL TELEPHONE/DATA OUTLET C/W COVERPLATE. WALL MOUNT 400mm. A.F.F. UNLESS OTHERWISE NOTED. SUPPLY AND INSTALL 21mm. EMT CONDUITS FROM OUTLET BOX TO TELEPHONE BACKBOARD & DATA RACK C/W INSULATING BUSHINGS & CABLES TO MATCH EXISTING SYSTEM. COORDINATE ON SITE.**
- DISCONNECT SWITCH SUPPLIED AND INSTALLED BY ELECTRICAL DIVISION UNLESS NOTED OTHERWISE, EEMAC 2 (SPRINKLER PROOF) FOR INTERIOR AND EEMAC 4X FOR EXTERIOR.**
- ELECTRIC MOTOR. SUPPLIED BY MECHANICAL DIVISION, WIRED BY ELECTRICAL DIVISION.**
- MANUAL STARTER SUPPLIED AND INSTALLED BY MECHANICAL DIVISION WIRED BY ELECTRICAL DIVISION. WALL MOUNT 1400mm ABOVE FINISHED FLOOR.**
- COMBINATION MAGNETIC STARTER SUPPLIED AND INSTALLED BY MECHANICAL DIVISION WIRED BY ELECTRICAL DIVISION. WALL MOUNT 1400mm ABOVE FINISHED FLOOR.**
- FIRE ALARM MANUAL PULL STATION. SURFACE MOUNT 1200mm A.F.F. FIRE ALARM DEVICES TO MATCH EXISTING SYSTEM. COORDINATE ON SITE.**
- FIRE ALARM BELL TO MATCH EXISTING. FIRE ALARM DEVICES TO MATCH EXISTING SYSTEM. COORDINATE ON SITE.**
- DUPLEX U-GROUND RECEPTACLE. 120 VOLT, 15 AMP, SPECIFICATION GRADE. WHITE & C/W STAINLESS STEEL COVERPLATE. WALL MOUNT 400mm ABOVE FINISHED FLOOR. "WP" INDICATES WEATHERPROOF COVERPLATE.**
- ACCESS CONTROL SYSTEM PROX CARD READER.**

## GENERAL NOTES:

1. CONTRACTOR TO PROVIDE ALL CUTTING, PATCHING AND PAINTING TO MATCH EXISTING. SEE SPECIFICATION FOR DETAILS. COORDINATE ON SITE.
2. CONTRACTOR TO ASSESS WORK AREA IN ADVANCE WITH DEPARTMENTAL REPRESENTATIVE FOR COORDINATION OF RELATED DAILY WORK SCHEDULES, PARKING, BUILDING ACCESS, AND STORAGE OF EQUIPMENT.
3. WORK SHALL BE SCHEDULED DURING NORMAL WORKING HOURS HOWEVER CONTRACTOR MAY WORK AFTER NORMAL WORKING HOURS AS COORDINATED BY DEPARTMENTAL REPRESENTATIVE. BUILDING TO REMAIN OPERATIONAL DURING CONSTRUCTION.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP AND DISPOSALS OF WORK AREA ON A DAILY BASIS. AFTER EACH WORKING SHIFT BUILDING TO BE CLEANED AND FREE OF DEBRIS. BUILDING GARBAGE BINS ARE NOT TO BE USED.
5. ANY ELECTRICAL SYSTEM SHUTDOWN TO BE SCHEDULED AFTER NORMAL BUSINESS HOURS AND SHALL BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE. SUFFICIENT NOTICE SHALL BE GIVEN. 5 WORKING DAYS NOTICE IS REQUIRED FOR ANY DISRUPTION.
6. WORK TO BE CARRIED OUT IN CONSIDERATION OF CLIENT COMFORT AND OPERATIONS.
7. ALL WIRING TO BE INSTALLED IN CONDUIT AS INDICATED.
8. ACCESS TO THE BUILDING TO BE COORDINATED WITH DEPARTMENTAL REPRESENTATIVE.
9. PROVIDE TYPED REVISED PANELBOARD DIRECTORIES FOR ALL PANELBOARDS WHERE BRANCH CIRCUITS WERE REMOVED, ADDED OR MODIFIED.
10. LABEL ALL EQUIPMENT WITH LAMACOID TAGS AAS PER SPECIFICATIONS.
11. ALL EXISTING ELECTRICAL EQUIPMENT REMOVED TO BE TURNED OVER TO DEPARTMENTAL REPRESENTATIVE. IF DEPARTMENTAL REPRESENTATIVE REFUSES THEN CONTRACTOR TO REMOVE FROM SITE AND DISPOSE.



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2. DO NOT SCALE FROM DRAWING.

<b>STAMP</b> 	<b>PERMIT</b> PROVINCE OF NEWFOUNDLAND PERMIT HOLDER Class "A" This Permit Allows <b>CROSBIE ENGINEERING LIMITED</b> To practice Professional Engineering in Newfoundland and Labrador Permit No. 06 Issued by PEG-NL 00123 (which is valid for the year 2017)
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O	ISSUED FOR TENDER 12.07.17
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B	ISSUED FOR PRE-TENDER REVIEW 09.15.17
A	ISSUED FOR REVIEW 08.29.17

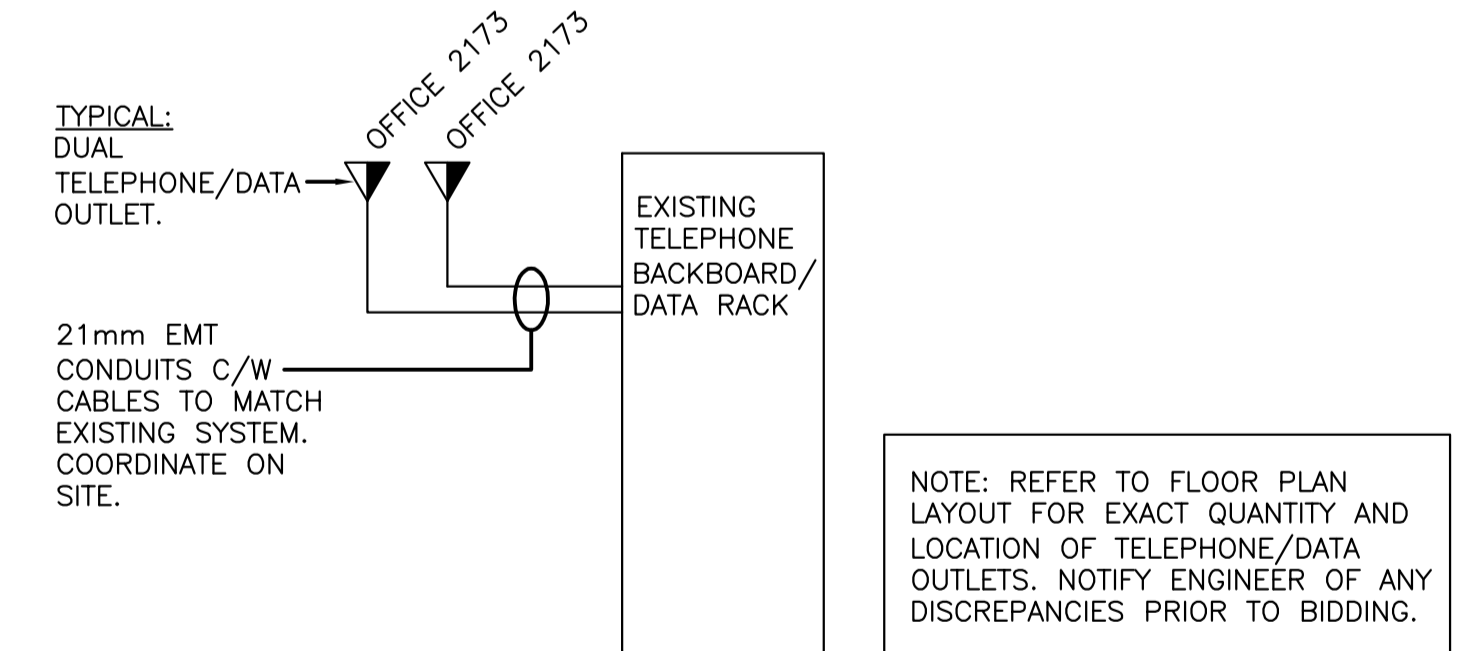
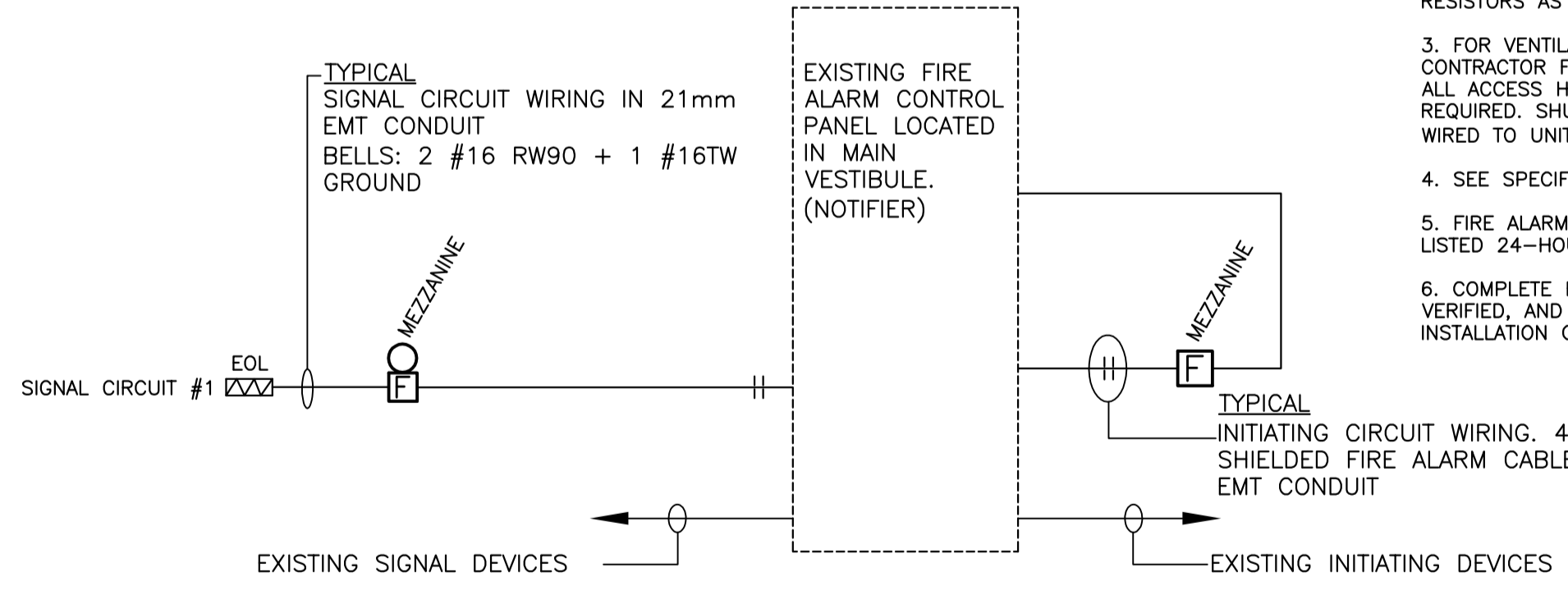
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## LEGEND AND ELECTRICAL DETAILS

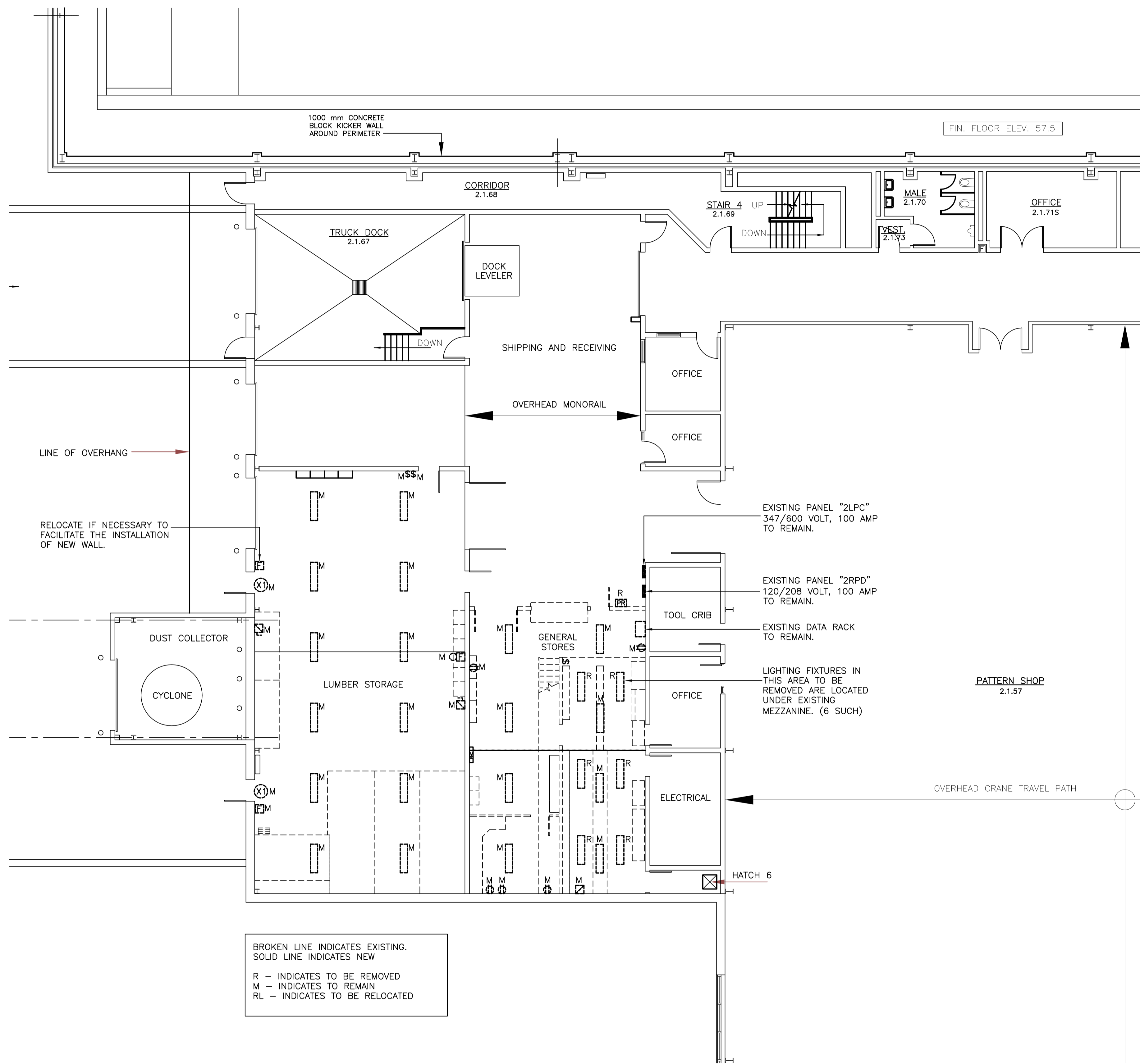
designed	K.N.	conçu
date	AUG 2017	
drawn	D.R.	dessiné
date	AUG 2017	
approved		approuvé
date		
Tender		Soumission
PWGSC Project Manager	Administrateur de projets TPSSC	
project number	no. du projet	
<b>5442</b>		
drawing no.	no. du dessin	
<b>5442-E01</b>		

### GENERAL NOTES (FIRE ALARM)

1. REFER TO FLOOR PLAN LAYOUT FOR EXACT QUANTITY AND LOCATION OF FIRE ALARM DEVICES. NOTIFY ENGINEER OF ANY DISCREPANCIES. FIRE ALARM PANEL TO HAVE MIN. 2 SPARE ZONES. PROVIDE FIRE ALARM GRAPHIC.
2. PROVIDE SEPARATE CIRCUITS FOR BELLS AND STROBES. NO MORE THAN 15 DEVICES PER CIRCUIT. PROVIDE END OF LINE RESISTORS AS REQUIRED.
3. FOR VENTILATION UNIT SHUTDOWN COORDINATE WITH MECH. CONTRACTOR FOR EXACT LOCATION. CONTRACTOR TO PROVIDE ALL ACCESS HATCHES FOR DUCT SMOKE DETECTORS AS REQUIRED. SHUTDOWNS FOR MECH. EQUIPMENT TO BE HARD WIRED TO UNIT START/STOP CONTROLLER.
4. SEE SPECIFICATION FOR WIRING INFORMATION.
5. FIRE ALARM SYSTEM IS TO BE MONITORED BY A U.L.C LISTED 24-HOUR STAFFED STATION.
6. COMPLETE FIRE ALARM SYSTEM SHALL BE TESTED AND VERIFIED, AND VERIFICATION LETTER ISSUED AFTER INSTALLATION OF NEW FIRE ALARM DEVICES.



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2. DO NOT SCALE FROM DRAWING.



STAMP

PERMIT

PROVINCE OF NEWFOUNDLAND PERMIT HOLDER Class "A" This Permit Allows CROSBIE ENGINEERING LIMITED To practice Professional Engineering in Newfoundland and Labrador Permit No. 08 issued by PEG-NL 00123 which is valid for the year 2017.

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A	ISSUED FOR REVIEW 08.29.17

project project

**NRC SHIPPING RECEIVING RENOVATIONS**

drawing dessin

**PARTIAL FLOOR PLAN - DEMOLITION LAYOUT**

designed K.N. conçu

date AUG 2017

drawn D.R. dessiné

date AUG 2017

approved approuvé

date

Tender Soumission

PWGSC Project Manager Administrateur de projets TPWGC

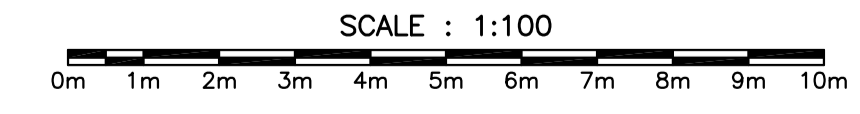
project number no. du projet

**5442**

drawing no. no. du dessin

**5442-E02**

**PARTIAL FLOOR PLAN - DEMOLITION LAYOUT**





LIGHTING FIXTURE SCHEDULE							
SYMBOL	LIGHT SOURCE	MOUNTING	LAMPS	VOLTS	MANUFACTURER	CAT. NO.	REMARKS
A	LED	CEILING SURFACE	30W LED	347	LITHONIA	DMW2LED L24 4000LMACLMD35K	OR APPROVED EQUAL
B	LED	CEILING SURFACE	35W LED	347	LITHONIA	STL4 48L 347 LP835	OR APPROVED EQUAL
C	LED	CEILING RECESSED	41.2W LED	347	LITHONIA	2GTL4 5000LM LP835	OR APPROVED EQUAL

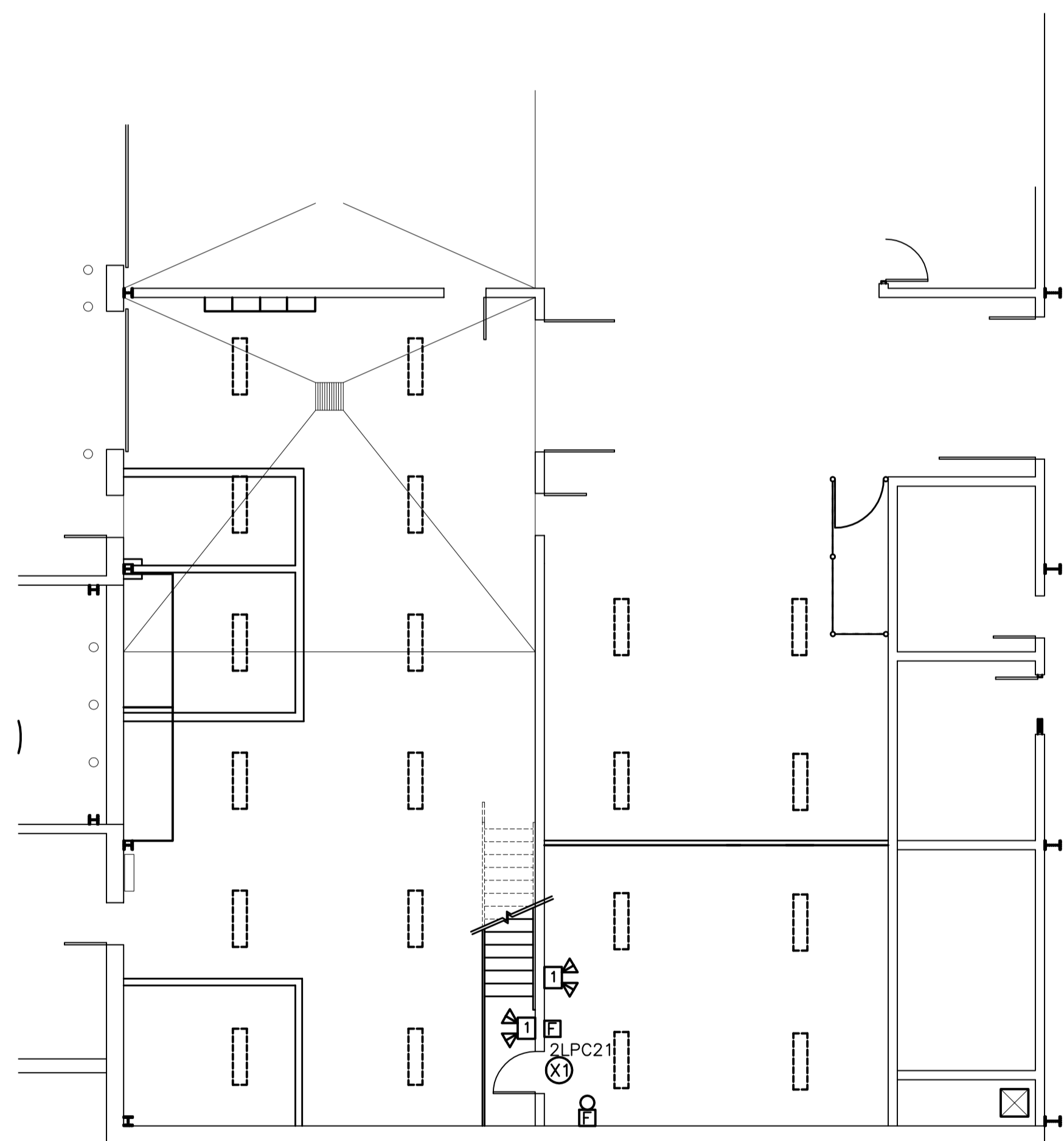
NOTES:

- SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING IN PANEL 2LPC (2 #12 T90 + 1 #12 GRD IN 21mm. EMT CONDUIT) FOR FOR NEW LIGHTING FIXTURES (CIRCUIT 2LPC-19). IC RATING TO MATCH. SEE FLOOR PLAN FOR LOCATIONS.
- SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W LOCK ON DEVICE, MOUNTING HARDWARE AND WIRING IN PANEL 2LPC (2 #12 T90 + 1 #12 GRD IN 21mm. EMT CONDUIT) FOR FOR NEW EXIT AND EMERGENCY LIGHTING (CIRCUIT 2LPC-21). IC RATING TO MATCH. SEE FLOOR PLAN FOR LOCATIONS.
- SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING IN PANEL 2RPD (2 #12 T90 + 1 #12 GRD IN 21mm. EMT CONDUIT) FOR NEW DUPLEX RECEPTACLES (CIRCUIT 2RPD-13). IC RATING TO MATCH. SEE FLOOR PLAN FOR LOCATIONS.
- SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING IN PANEL 2RPD (2 #12 T90 + 1 #12 GRD IN 21mm. EMT CONDUIT) FOR NEW DUPLEX RECEPTACLES (CIRCUIT 2RPD-15). IC RATING TO MATCH. SEE FLOOR PLAN FOR LOCATIONS.
- SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING IN PANEL 2RPD (2 #12 T90 + 1 #12 GRD IN 21mm. EMT CONDUIT) FOR FAN WITHIN NEW MECHANICAL HYDRONIC HEATERS. (2 SUCH) (CIRCUIT 2RPD-41). IC RATING TO MATCH. SEE FLOOR PLAN FOR LOCATIONS.
- SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING IN PANEL 2RPD (2 #12 T90 + 1 #12 GRD IN 21mm. EMT CONDUIT) FOR NEW EXHAUST FAN EF-1 (CIRCUIT 2RPD-42). IC RATING TO MATCH. SEE FLOOR PLAN FOR LOCATION.



- CONTRACTORS TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS IN THE FIELD. ALL DISCREPANCIES AND UNSATISFACTORY CONDITIONS TO BE REPORTED TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
- DO NOT SCALE FROM DRAWING.

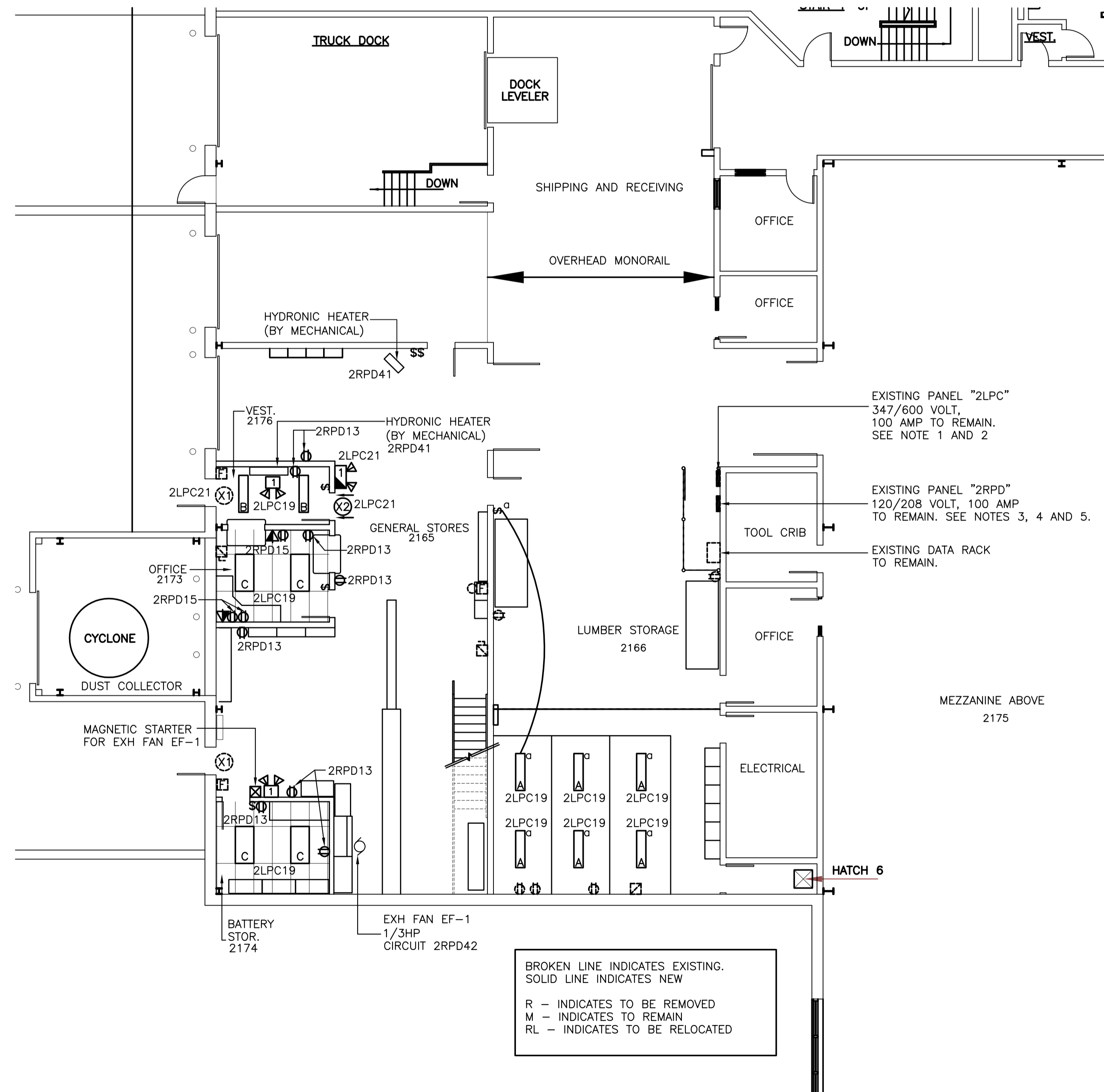
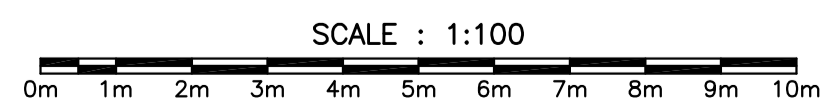
	<p>PROVINCE OF NEWFOUNDLAND PERMIT HOLDER Class "A" This Permit Allows <b>CROSBIE ENGINEERING LIMITED</b> To practice Professional Engineering in Newfoundland and Labrador Permit No. 08 issued by PEG-NL 00123 which is valid for the year 2017.</p>
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BROKEN LINE INDICATES EXISTING.  
SOLID LINE INDICATES NEW

R - INDICATES TO BE REMOVED  
M - INDICATES TO REMAIN  
RL - INDICATES TO BE RELOCATED

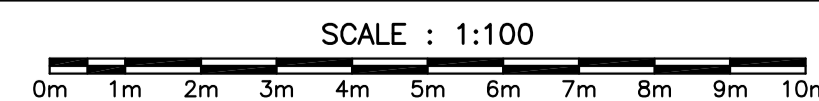
PARTIAL MEZZANINE PLAN - NEW ELECTRICAL LAYOUT



BROKEN LINE INDICATES EXISTING.  
SOLID LINE INDICATES NEW

R - INDICATES TO BE REMOVED  
M - INDICATES TO REMAIN  
RL - INDICATES TO BE RELOCATED

PARTIAL FIRST FLOOR PLAN - NEW ELECTRICAL LAYOUT



revisions	date
O	ISSUED FOR TENDER 12.07.17
C	ISSUED FOR PRE-TENDER REVIEW 10.12.17
B	ISSUED FOR PRE-TENDER REVIEW 09.15.17
A	ISSUED FOR REVIEW 08.29.17

NRC SHIPPING RECEIVING RENOVATIONS

PARTIAL FLOOR PLANS - NEW ELECTRICAL LAYOUTS

designed	K.N.	conçu
date	AUG 2017	
drawn	D.R.	dessiné
date	AUG 2017	
approved		approuvé
date		
Tender		Soumission
PWGSC Project Manager	Administrateur de projets TPSCG	
project number	no. du projet	
	<b>5442</b>	
drawing no.	no. du dessin	
	<b>5442-E03</b>	