

ENVIRONMENTAL ASSESSMENT REGISTRATION FORM

Hydril Canadian Company LP

Casing and Tubing Service Centre

127 Clyde Avenue, Unit A

Mount Pearl, NL

A1N 4R9

NAME OF UNDERTAKING: Casing and Tubing Service Centre

PROPONENT:

(i) Name of Corporate Body: Hydril Canadian Company LP (Tenaris Global Services Canada)

(ii) Address: 127 Clyde Avenue Unit A, Mount Pearl, NL., A1N 4R9

(iii) Chief Executive Officer:

Name: Guillermo Moreno

Official Title: Area Manager Canada

Address: 530 8 Ave SW, Suite 400, Calgary, AB., T2P 3S8

Telephone No: +1 403-767-0100

(iv) Principal Contact Person for purposes of environmental assessment:

Name: Stephen Kelly

Official Title: Account Manager

Address: 127 Clyde Avenue Unit A, Mount Pearl, NL., A1N 4R9

Telephone No: +1 709-728-4124

THE UNDERTAKING:

(i) Name of the Undertaking:

Casing and Tubing Service Centre

(ii) Purpose/Rationale/Need for the Undertaking:

Hydril Canadian Company LP (TGS Canada) has been providing Casing and Tubing products to the NL offshore oil and gas industry since 2002 through an NL-based distributor. Over the past 4 years, these products have included our Dopeless® product, a proprietary environmentally friendly dry coating that eliminates the need for thread compounds making rig sites cleaner and safer while significantly decreasing the operation's environmental footprint. A dry compound ensures there is no discharge of thread running compounds into the environment. The Dopeless® product is applied in our steel mills worldwide to newly manufactured casing and tubing products. When oil and gas operators have the need to apply this to casing and tubing accessories in NL the only option at present is to send the materials to the USA as a location does not exist in Canada to apply the Dopeless® coating. This causes the operator to incur significant transportation costs and operational inefficiencies. Hydril Canadian Company LP (TGS Canada) intends to install and operate a Dopeless® Self Contained Unit in Mount Pearl, NL to support oil and gas operator's requirements.

More information regarding the Dopeless® coating is available at:

<http://www.tenaris.com/en/Products/PremiumConnections/DopelessTechnology.aspx>

The main benefits of this undertaking are as follows:

- Eliminate discharge of casing and tubing thread running compounds to the environment.
- Reduce costs and carbon footprint of transporting materials to and from the USA.
- Create employment for Newfoundland and Labrador residents to support the mission of the Atlantic Accord.
- As this is a proprietary coating and process, there is no comparable alternative that exists in the industry. All other thread running compounds result in a discharge to the environment.
- Canada will be one of 10 countries worldwide with a Dopeless® Self Contained Unit
- Only newly manufactured casing and tubing will be have the Dopeless® coating applied.

DESCRIPTION OF THE UNDERTAKING:

(i) Geographical Location:

The civic address of the proposed facility is 127 Clyde Avenue, Unit A, Mt Pearl, NL. This is a pre-existing structure. There will be no change to the exterior of the facility. The Dopeless® Self Contained Unit will installed on the interior of the building.

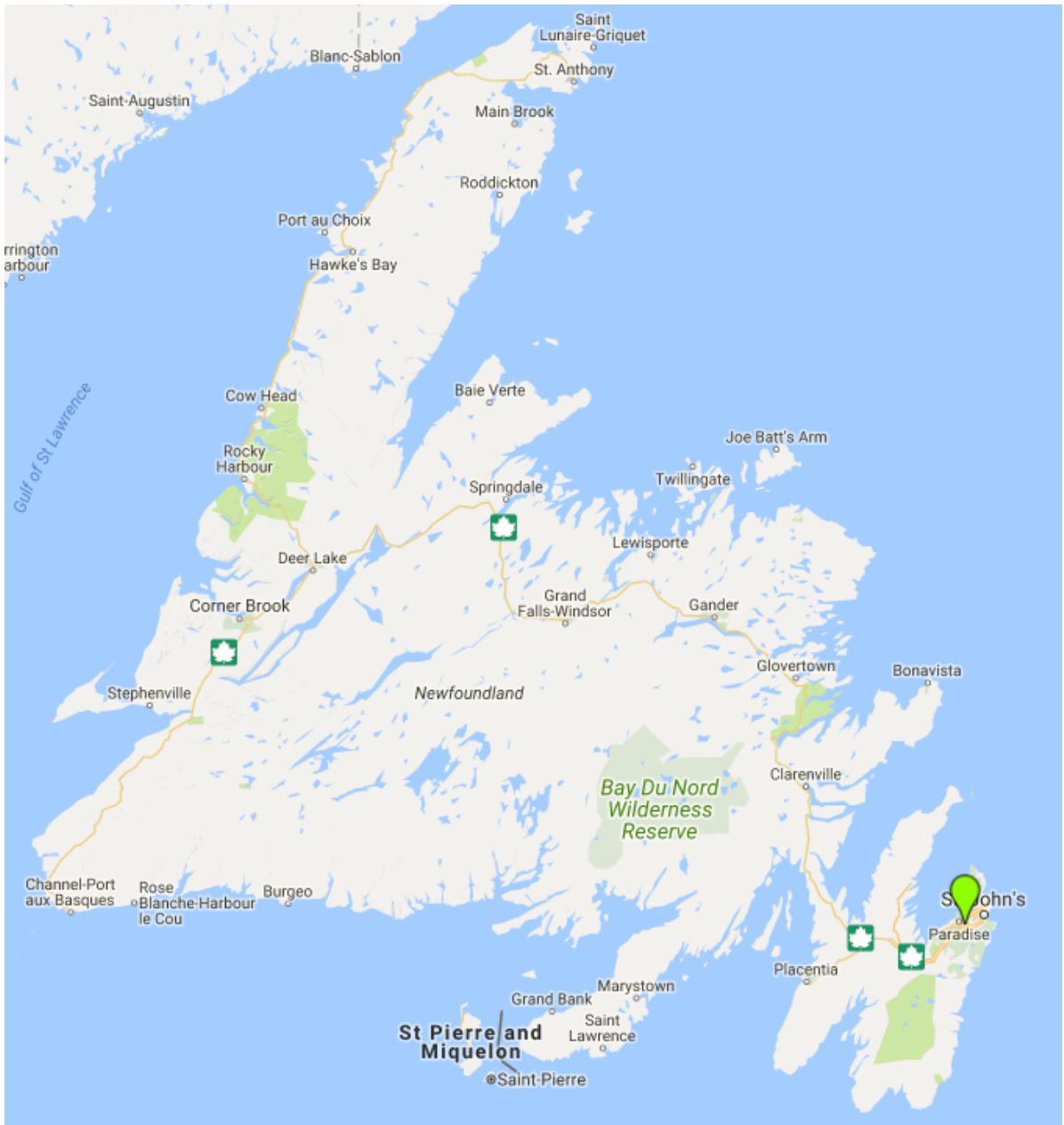


Figure 1 - Location of Undertaking Provincial View

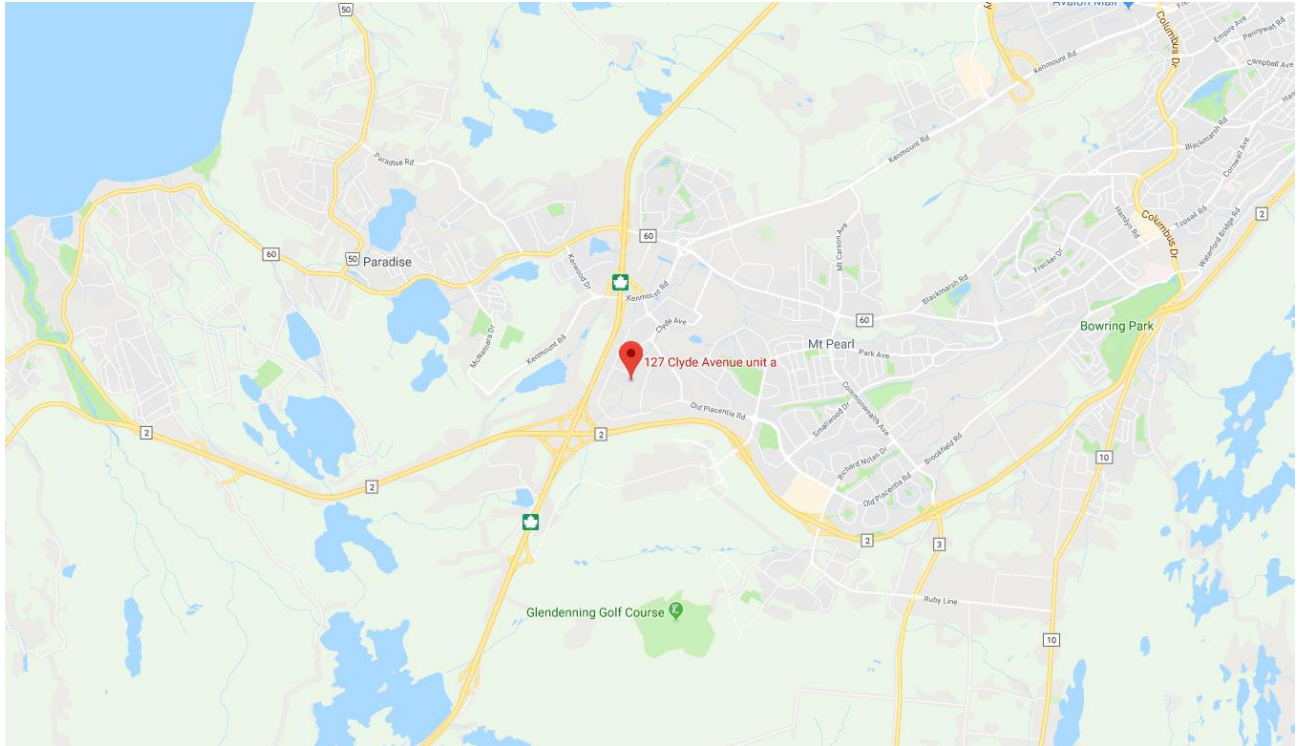


Figure 2 – Location of Undertaking Regional View



Figure 3 – Location of Undertaking Photo of Facility – 127 Clyde Avenue Unit A

The 127 Clyde Avenue building contains 4 other units which are all separated as per National Building Code of Canada. The list of tenants are as follows: Tenant B – Ocean Choice International (storage for fishing vessel equipment), Tenant C – Source Energy Atlantic (electrical and energy product distributor), Tenant D – CrossFit Islander (gym and exercise facility), and Tenant E – Vacant. The adjacent property at 123 Clyde Avenue is Praxair, a supplier of industrial gases, supplies, and equipment.

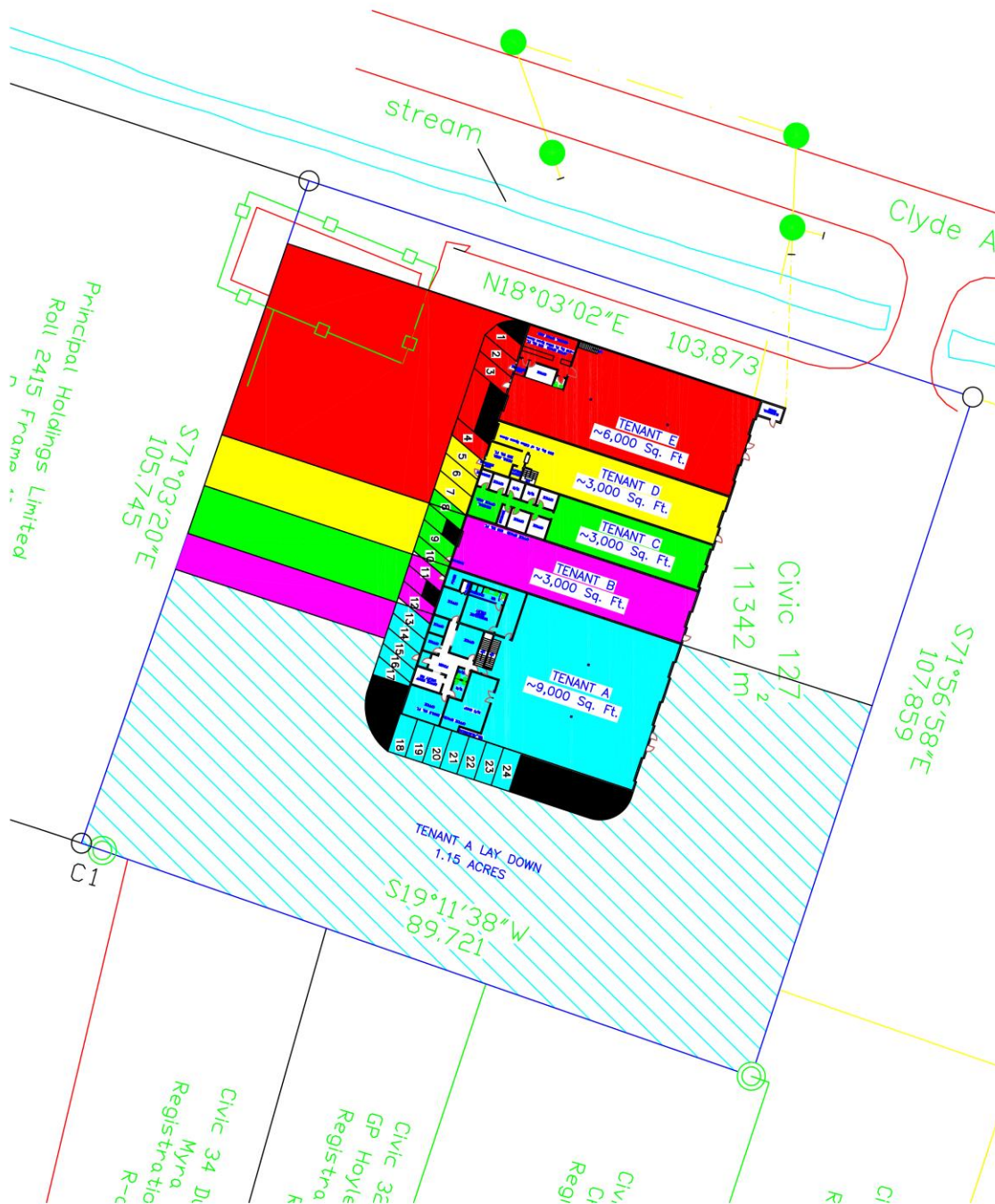


Figure 4 – 127 Clyde Avenue Building Layout
Tenant A – Hydril Canadian Company LP

(ii) Physical Features:

The physical features of the existing building at 127 Clyde Avenue will remain unchanged. The square footage of the interior space to be used is for the undertaking is 9000 sq ft.

(iii) Construction:

While there will not be any exterior construction, the installation of the equipment in the building interior will take approximately 4-6 weeks and will begin once the required permits and approvals are obtained. There will be no sources of pollutants during the installation of the unit.

The equipment layout can be found in Appendix A – Equipment Layout.

The exhaust points and air take can be found in Appendix B – HVAC System Details.

(iv) Operation:

The casing and tubing service center will operate on an 8-hour work day (9am-5pm, 1-hour lunch) serving as both an office and workshop. We estimate that we will perform 200 Dopeless® applications per year, each application takes 2 hours, thus an operation of approximately 400 hours. Only new casing and tubing products will be subject to the process.

Prior to the Dopeless® application the casing or tubing will be sandblasted with steel shot (no silica) with the dust collected by a unit designed for this process. A dust collector collects all dust from this process and is emptied via a sump at the bottom of the collector. A third party will dispose of this waste.

The application of the Dopeless® compound occurs in a contained spray booth using a robot arm through a proprietary process using proprietary chemicals. The ventilation system for the robotic spray system will be equipped with a filtration system to prevent over spray from being exhausted into the environment. The paint system itself using very small quantities per pipe thread. The filter system will come with a differential pressure switch to determine when the filter requires replacement.

The filtering system will contain both a pre and post filter designed to contain paint overspray.

- The prefilter is a Flanders – Model 325 Polyester Dry Panel Filter
- Final Filter is a Flanders – Model PSF-2 synthetic pad in a holding frame

The dual filtering system will remove approximately 99% of particulates from the process. The remaining waste from the Dopeless® application process will be solids from the enclosed paint booth collected in a dedicated bin for disposal. A third party will dispose of solid waste from this process.

The exhaust will vented through the roof, and is not located near any unprotected openings such as doorways or windows. Further information on exhaust and air intake points the air/exhaust layout is contained in Appendix B – HVAC System Details.

The space where the painting operation takes place does not contain any drainage in the floor, and none of the paint/solvents have a path to the buildings sanitary system. A certified third party will dispose all waste properly. The space will have a minimum supply of paint/solvents/chemicals on site at any given time. Bulk chemical storage is provided by a third party and only chemicals for one day will be on site as required.

(v) Occupations:

This facility will employ at capacity 4 employees. The employees will be 3 painters/blasters and one labourer. The identifiers are NOC 9496-C for the painters/blasters and NOC 9612 for the labourer. These positions will be direct hired. Hydril Canadian Company LP (TGS Canada) is an equal opportunity employer and has active diversity and gender diversity committees to ensure equitable employment opportunities.

(vi) Project Related Documents:

Documents have been added to the end of this document.

APPROVAL OF THE UNDERTAKING:

The following are required in order to move forward with this undertaking:

- Occupancy and Building Permits from the City of Mount Pearl.
- Approval from the Environmental Division of NL Government.
- Electrical and Mechanical Permits from Service NL.
- Approval from Environmental Assessment Division
- Approval from Pollution Prevention Division
- Approval from Water Resources Management Division

SCHEDULE:

Environmental Assessment Registration
Hydril Canadian Company LP



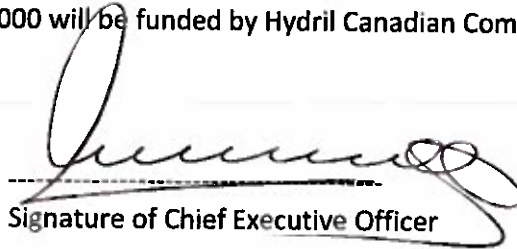
The installation of the equipment will commence within a week of all approvals being secured.
The installation will take 4-6 weeks.

FUNDING

The capital investment of \$200,000 will be funded by Hydril Canadian Company LP (TGS Canada).

June 7, 2018

Date


Signature of Chief Executive Officer

Appendix A – Equipment Layout

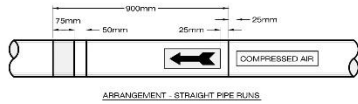
DRAWING NOTES -

- 1) COORDINATE CONNECTION REQUIREMENTS FOR COMPRESSOR AND AIR DRYER w/ MANUFACTURER.
- 2) ROUTE COMPRESSED AIR PIPING SECURELY SUPPORTED ALONG WALL. COORDINATE EXACT ROUTING AND MOUNTING HEIGHT ON-SITE.
- 3) COMPRESSED AIR PIPING TO DROP DOWN AND RUN IN FLOOR TRENCH TO SHOP EQUIPMENT. COORDINATE ON-SITE AND w/ WORK OF OTHER TRADES.
- 4) SECURE COMPRESSED AIR PIPING TO SIDE OF FLOOR TRENCH. COORDINATE ON-SITE AND w/ WORK OF OTHER TRADES.
- 5) CLOSELY COORDINATE CONNECTION REQUIREMENTS TO BLASTING MACHINE AND RELATED EQUIPMENT w/ OWNER AND EQUIPMENT MANUFACTURER. SEE ALSO GENERAL NOTE #3.
- 6) CLOSELY COORDINATE CONNECTION REQUIREMENTS TO DOPELESS MACHINE AND RELATED EQUIPMENT w/ OWNER AND EQUIPMENT MANUFACTURER. SEE ALSO GENERAL NOTE #3.

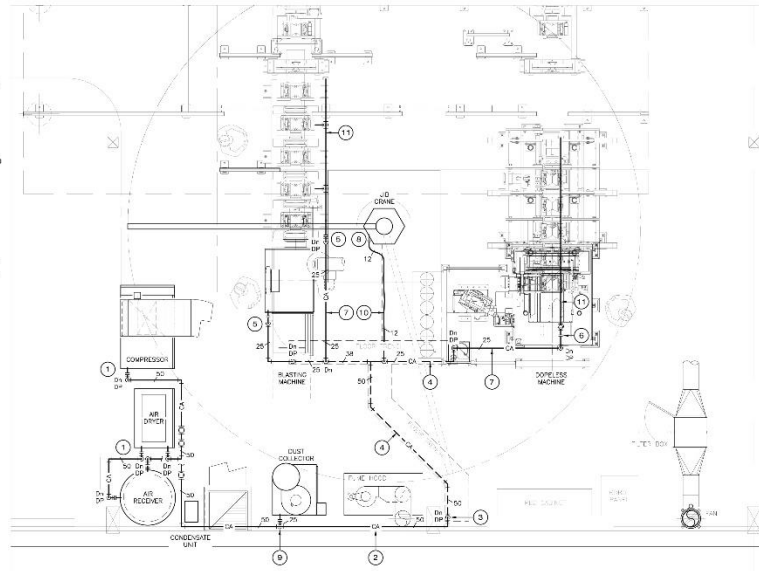
- 7) ROUTE COMPRESSED AIR PIPING ABOVE FIN FLOOR WHERE REQUIRED. INSTALL w/ PROTECTIVE SPOON-LATE COVER. COORDINATE ON-SITE AND w/ OWNER.
- 8) CLOSELY COORDINATE CONNECTION REQUIREMENTS TO JIB CRANE w/ OWNER AND EQUIPMENT MANUFACTURER. REQUIRED FLEXIBLE AIR HOSE SUPPLIED BY JIB CRANE MANUFACTURER. SEE ALSO GENERAL NOTE #3.
- 9) CLOSELY COORDINATE CONNECTION REQUIREMENTS TO DUST COLLECTION UNIT AND RELATED EQUIPMENT w/ OWNER AND EQUIPMENT MANUFACTURER.
- 10) ROUTE NEW 12mm (1/2") Ø FLEXIBLE COMPRESSED AIR HOSE (RATED FOR MIN. 300 psi) FROM MAIN LINE IN FLOOR TRENCH THRU IN FLOOR CONDUIT TO JIB CRANE. PROVIDE ALL ADAPTORS AS REQUIRED. COORDINATE INSTALLATION ON-SITE AND w/ WORK OF OTHER TRADES.
- 11) SEE GENERAL NOTE #3 BELOW THIS DRAWING.

GENERAL NOTES -

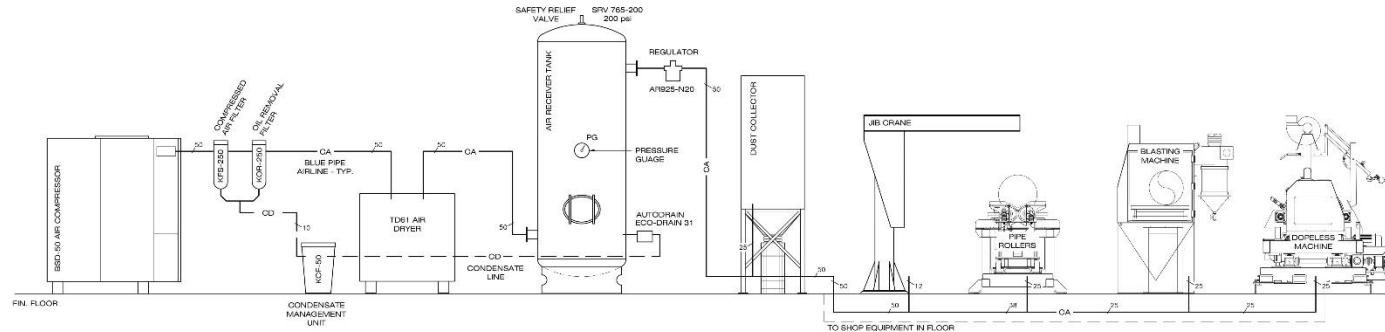
- 1.) ALL COMPRESSED AIR PIPING AND FITTINGS TO BE EQUAL TO: SDOAIR SERIES 56' BLUE ALUMINUM PIPING TO ASME B31.3 LATEST EDITION.
- 2.) LAYOUT OF COMPRESSED AIR SYSTEM IS DIAGRAMATIC ONLY. EXACT ROUTING AND INSTALLATION TO BE DETERMINED ON-SITE AND COORDINATED w/ WORK OF OTHER TRADES. MAKE ALLOWANCES FOR ANY/ALL EXTRA PIPING, FITTINGS, VALVING, ETC. REQUIRED TO ENSURE A FULLY OPERATIONAL SYSTEM.
- 3.) EXISTING COMPRESSED AIR PIPING ON ALL SHOP EQUIPMENT (INCLUDING BUT NOT LIMITED TO: BLASTING MACHINE, DOPELESS MACHINE AND ASSOCIATED PIPE ROLLER SYSTEMS) IS TO BE INCLUDED IN THE SCOPE OF THIS PERMIT APPLICATION. CONTRACTOR SHALL INSPECT REVIEW ON-SITE AND REPLACE EXISTING EQUIPMENT COMPRESSED AIR PIPING AS REQUIRED.



DETAIL - TYPICAL PIPING IDENTIFICATION
SCALE = N.T.S.



PARTIAL FLOOR PLAN - COMPRESSED AIR SYSTEMS
SCALE = 1:40



- NOTES:**
- 1.) THIS DIAGRAM IS SCHEMATIC ONLY. EXACT CONFIGURATION OF EQUIPMENT AND ROUTING OF PIPING TO BE COORDINATED ON-SITE. FINAL INSTALLATION REQUIREMENTS FOR THE SHOP COMPRESSED AIR SYSTEM TO BE CLOSELY COORDINATED BETWEEN THE OWNER, EQUIPMENT MANUFACTURER AND THE VENDOR.
 - 2.) DIRT POCKETS TO BE INSTALLED AT ALL LOW POINTS, COORDINATE ON-SITE.
 - 3.) ALL COMPRESSED AIR PIPING TO BE CLEARLY IDENTIFIED AS COMPRESSED AIR w/ APPROPRIATE, CLEAR LABELLING, COORD. ON-SITE.
 - 4.) MAINTAIN MIN. 1% SLOPE TO DRAIN ON ALL CONDENSATE LINES; COORD. ON-SITE.

SCHEMATIC DIAGRAM - COMPRESSED AIR SYSTEM
SCALE = N.T.S.

DRAWING NOTES

- NOTES:**
- 1.) CONTRACTOR TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON-SITE. ANY DISCREPANCIES AND/OR UNSATISFACTORY CONDITIONS SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
 - 2.) DO NOT SCALE FROM THE DRAWINGS.
 - 3.) ALL SHOP EQUIPMENT SHOWN ON DRAWINGS TO BE SUPPLIED BY OWNER UNLESS OTHERWISE NOTED. COORD. FIELD MECHANICAL WORK-UP ON-SITE AND w/ MANUFACTURER'S LITERATURE.

NO.	DESCRIPTION	DATE	BY
C	RE-ISSUED FOR PERMIT	11 APR '18	PK
B	ISSUED FOR PERMIT	29 MAR '18	PK
NO.	DESCRIPTION	DATE	BY

REVISIONS

NO.	DESCRIPTION	DATE	BY
A	DETAIL NO.		A
B	SHEET SIZE		B
C	REFERENCE SHEET		C

NUMBER OF SETS GENERATED AND LOCATION: **1** PERMIT - HCD DEPT THE PERMIT DIVISION

MADERRA ENGINEERING
To practice Professional Engineering or Mechanical Engineering (Permit No. 93 issued by PES 2225, which is valid for the year 2018, as per Permit Holder (MPE No.) 2329)

STAMP
Professional Engineer
Senior L. CA1
PES 2225
2018
REGISTERED

CONTRACTOR
Newfoundland HVAC
16 THOMAS BYRNE PLACE, P.O. BOX 8213, ST. JOHN'S, NL A1B 3M4 PH: 709-738-7700

PRIME CONSULTANT
MADERRA ENGINEERING
45 HERON WAY | SUITE 302 | ST. JOHN'S, NL A1A 3P5 | 709-738-5002 | F: 709-738-7741 |

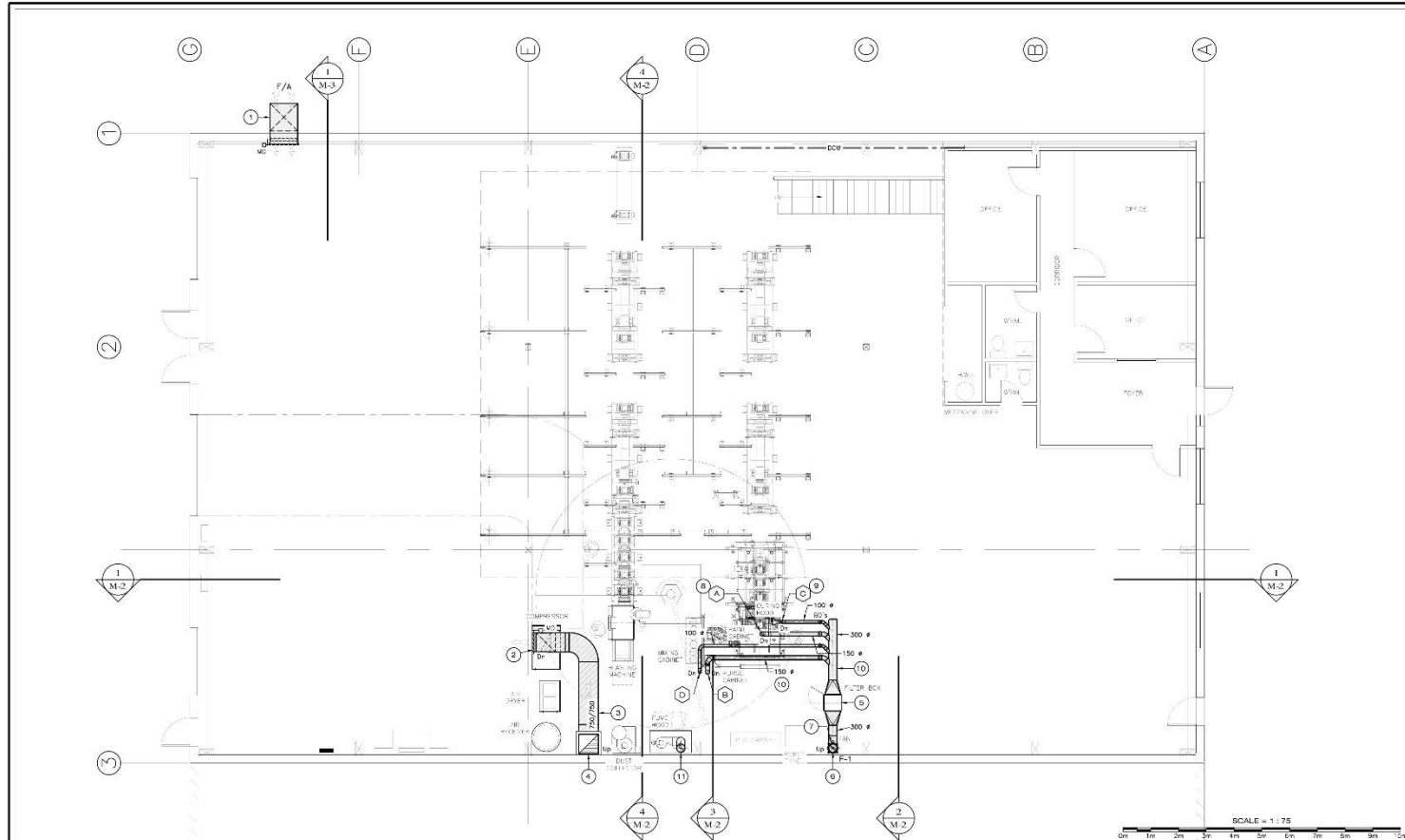
CLIENT
HYDRIL CANADIAN COMPANY LP

PROJECT
HYDRIL CANADIAN COMPANY LP COMPRESSED AIR SYSTEM
127 CLYDE AVENUE, MOUNT PEARL, NL

DRAWING
MECHANICAL COMPRESSED AIR SYSTEM LAYOUT AND DETAILS

DESIGNED BY	CHECKED BY	APPROVED BY
J.G.C.	J.G.C.	J.G.C.
TEN004	DATE FILE NO.	DATE FILE NO.
FEB. 2018	AS SHOWN	CA1 of 1

Appendix B – HVAC System Details



PARTIAL FLOOR PLAN - 127 CLYDE AVENUE - HVAC SYSTEMS
SCALE = 1 : 75

DRAWING NOTES -

- 1) 1000x1000mm 18 Gb. GALV. FRESH AIR INTAKE HOOD/DUCT ON THERMALLY INSULATED LOW-LEAKAGE MOTORIZED DAMPER. COORD. EXACT INSTALLED LOCATION AND MTG. HEIGHT ON-SITE.
- 2) 750x750mm (90kg) MOTORIZED, LOW-LEAKAGE TYPE OPPOSED BLADE BY-PASS DAMPER
- 3) 750x750mm (200kg) THERMALLY INSULATED HEAT RELIEF DUCT FROM COMPRESSOR. COORD. CONNECTION TO UNIT, ROUTING & MOUNTING HEIGHT ON-SITE.
- 4) 750x750mm (200kg) EXH. DUCT UP TO ALONG WALL TO CURB MTD. GOOSENECK HOOD ON ROOF. COORD. EXACT POSITION ON-SITE.
- 5) FILTER BOX ON GASKETED ACCESS DOOR (Eq. 10: CAMPIL FARR GLIDEPAK MULTI-TRACK 25-MT25) AND PAINT ARRESTOR FILTER (Eq. 10: CAMPIL FARR COM CATCHER CS-225PQ, 600x600mm). PROVIDE ALSO, FILTER PAD HOLDING FRAME, Eq. 10: CFM SERVICE FRAME. SUSPEND ASSEMBLY W/ THREADED HANGER RODS. COORD. MTG. HEIGHT ON-SITE.
- 6) 300mm Ø (12" Ø) EXH. DUCT UP TO ALONG WALL TO 350x350mm (14" sq) CURB MTD. GOOSENECK HOOD ON ROOF. COORD. EXACT POSITION ON-SITE.
- 7) TUBE-AXIAL TYPE EXHAUST FAN (F-1). SUSPEND TO STRUCTURE W/ THREADED HANGER RODS & VIBRATION HANGERS. INSTALL AIRTIGHT FLEX. DUCT CONNECTIONS AT INLET/OUTLET. COORD. POSITION AND MTG. HEIGHT ON-SITE.
- 8) 1" - PAINT CABINET FINAL CONNECTION TO PAINT CABINET TO BE W/ MIN. 600MM LENGTH OF AIRTIGHT FLEXIBLE HIGH-VELOCITY DUCT. COORD. W/ EQUIPMENT. (TO ACCOMMODATE MOVEMENT OF PAINT CABINET)
- 9) C - CURING HOOD EXHAUST DUCT TO BE FITTED W/ A NEW 100mm (4") NON-PAN DUCT ROUTER HOOD. COORD. OF EXH. DUCT W/ CONFIGURATION OF CURING LAMPS. MAY NOT BE EXACTLY AS SHOWN. NOODY DUCTWORK AS HELD TO SUIT. SEE ALSO DRAWING NOTE #20 DWG. M-2
- 10) COORDINATE EXACT ROUTING AND MOUNTING HEIGHT OF ALL REQ'D DUCTWORK ON-SITE AND W/ WORK OF OTHER TRADES
- 11) 325mm Ø (13" Ø) EXH. DUCT FROM FUME HOOD UP TO ALONG WALL TO 350x350mm (14" sq) CURB MTD. GOOSENECK HOOD ON ROOF. COORD. EXACT POSITION ON-SITE.

SYSTEM FAN F-1 AIRFLOW BALANCING

TAG	EQUIPMENT	AIRFLOW
A	PAINT CABINET	212 LITRES/SEC (450 CFM)
B	PURGE CABINET	142 LITRES/SEC (300 CFM)
C	CURING HOOD	118 LITRES/SEC (250 CFM)
D	MIXING CABINET	71 LITRES/SEC (150 CFM)
TOTAL:		543 LITRES/SEC (1150 CFM)

DRAWING NOTES

- NOTES:
- 1) CONTRACTOR TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON-SITE. ANY DISCREPANCIES AND/OR UNSATISFACTORY CONDITIONS SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
 - 2) DO NOT SCALE FROM THE DRAWINGS
 - 3) ALL DUCTWORK PENETRATING BUILDING ENVELOPE SHALL BE THERMALLY INSULATED TO MIN. OF 3.0M (10'-0") FROM EXTERIOR WALL
 - 4) ALL REQUIRED SWITCHES, SENSORS AND CONTROL DEVICES TO BE RATED 'EXPLOSION PROOF'.
 - 5) COORDINATE ALL REQ'D DUCT DROPS AND CONNECTIONS TO EQUIPMENT. PROVIDE TRANSITIONS AS REQ'D - TYPICAL
 - 6) ALL SHOP EQUIPMENT SHOWN ON DRAWINGS TO BE SUPPLIED BY OWNER UNLESS OTHERWISE NOTED. COORD. REQ'D MECHANICAL HOOK-UP ON-SITE

NO.	DESCRIPTION	DATE	BY
A	ISSUED FOR PERMIT	01 MAR 18	PK

REVISIONS

A	A - DETAIL NO.	A
B	B - SHEET SIZE	B/C
C	C - REFERENCE SHEET	

PROVIDE 13 THERMALLY INSULATED AIR BRIDGE

TEST HOLDER
THIS PERMIT ALLOWS

MADERRA ENGINEERING

REGISTERED PROFESSIONAL ENGINEERING
IN Newfoundland and Labrador
Permit No. as issued by FEED 2018
which is valid for the year 2018.
By Permit Holder: MRC No. 3388.

CONTRACTOR

Newfoundland and Labrador

HVAC

16 THOMAS BYRNE PLACE, P.O. BOX 8213,
ST. JOHN'S, NL A1B 3N4 ph: 709-738-7700

PRIME CONSULTANT

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CLIENT

PROJECT

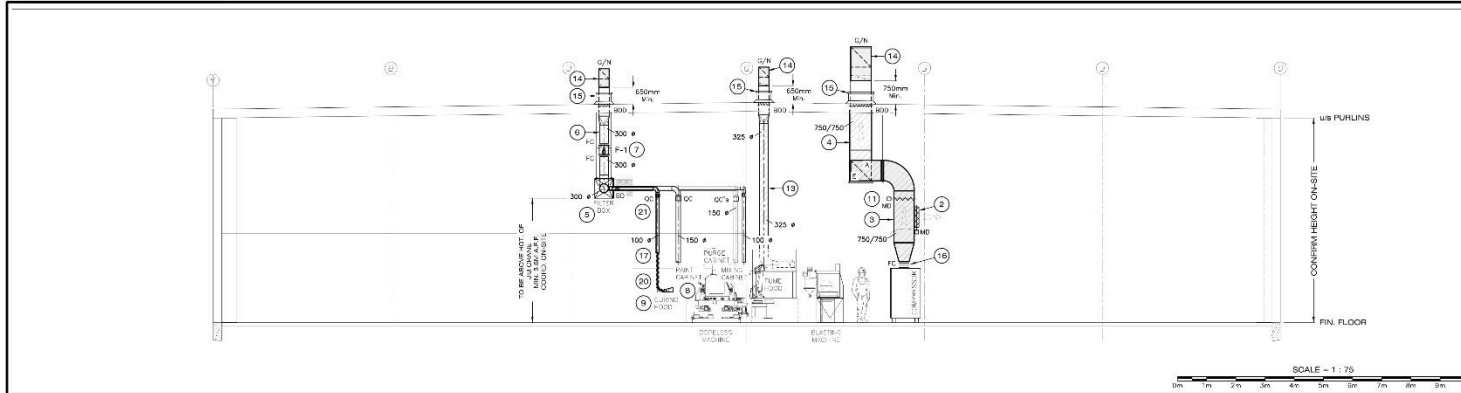
TENARIS BUILDING FIT-UP

127 CLYDE AVENUE, MOUNT PEARL, NL

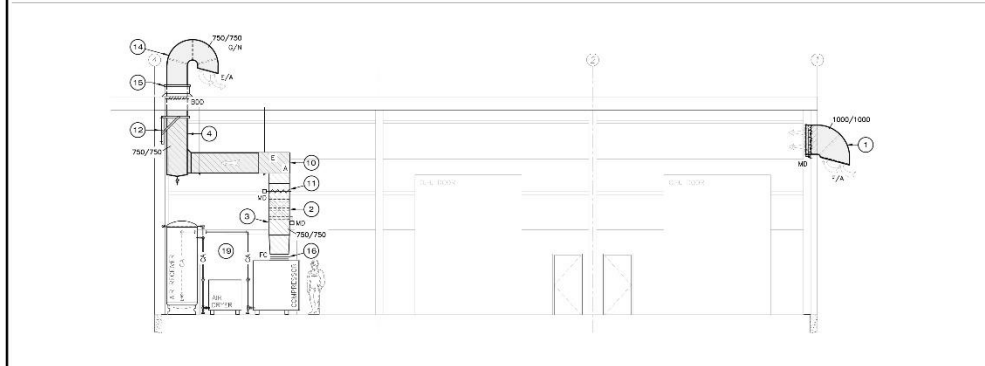
DRAWING

FLOOR PLAN H.V.A.C. SYSTEMS LAYOUT

DESIGN BY	CHECKED BY	APPROVED BY
PROJECT NO.	DWG. FILE NO.	FILE NO.
TEN004	11	231
DATE	SCALE	DRAWING NO. / REV
FEB. 2018	1 : 75	M-1 of 5 A



BUILDING SECTION - HVAC SYSTEMS
SCALE = 1 : 75

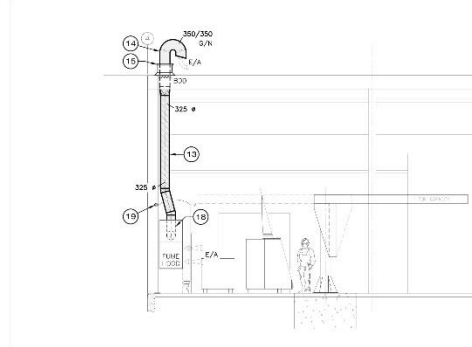


BUILDING SECTION - HVAC SYSTEMS
SCALE = 1 : 75

DRAWING NOTES -

- 1) 1000x1000mm 18 Gb. GALV. FRESH AIR INTAKE HOOD DUCT c/w THERMALLY INSULATED LOW-LEAKAGE MOTORIZED DAMPER. COORD. EXACT INSTALLED LOCATION AND MTD. HEIGHT ON-SITE.
- 2) 750x750mm (30sq) MOTORIZED, LOW-LEAKAGE TYPE OPPOSED BLADE BY-PASS DAMPER
- 3) 750x750mm (30sq) THERMALLY INSULATED HEAT RELIEF DUCT FROM COMPRESSOR. COORD. CONNECTION TO UNIT, ROUTING & MOUNTING HEIGHT ON-SITE.
- 4) 750x750mm (30sq) EXH. DUCT UP TO ALONG WALL TO CURB MTD. 'GOOSENECK' HOOD ON ROOF. COORD. EXACT POSITION ON-SITE.
- 5) FILTER BOX c/w GASKETED ACCESS DOOR AND 600x600mm FILTER AND FILTER FRAME. SUSPEND ASSEMBLY w/ THREADED HANGER RODS. COORD. MTD. HEIGHT ON-SITE.
- 6) 300mm Ø (1 1/2") EXH. DUCT UP TO ALONG WALL TO 350x350mm (14" sq) CURB MTD. 'GOOSENECK' HOOD ON ROOF. COORD. EXACT POSITION ON-SITE.
- 7) TUBE-AXIAL TYRE EXHAUST FAN (P-1). SUSPEND F. STRUCTURE w/ THREADED HANGER RODS & VIBRATION HANGERS. INSTALL AIRTIGHT FLEX. DUCT CONNECTIONS AT INLET/OUTLET. COORD. POSITION AND MTD. HEIGHT ON-SITE.
- 8) 'A' - PAINT CABINET FINAL CONNECTION TO PAINT CABINET TO BE w/ MIN. 600mm LENGTH OF AIRTIGHT FLEXIBLE HIGH-VELOCITY DUCT. COORD. w/ EQUIPMENT. (TO ACCOMMODATE MOVEMENT OF PAINT CABINET)
- 9) 'C' - CURING HOOD EXHAUST DUCT TO BE FITTED w/ A NEW 100mm (4") NONFAB DUCT ROUTER HOOD. COORD. OF EXH. DUCT w/ CONVEYORATION OR CURING LAMIN. MAY NOT BE EXACTLY AS SHOWN. MODIFY DUCTWORK AS REQD TO SUIT. SEE ALSO DRAWING NOTE #20.
- 10) COORDINATE EXACT ROUTING AND MOUNTING HEIGHT OF ALL REQD DUCTWORK ON-SITE AND w/ WORK OF OTHER TRADES.
- 11) 750x750mm (30 sq) MOTORIZED, LOW-LEAKAGE TYPE OPPOSED BLADE EXHAUST DAMPER
- 12) WELDED STEEL ANGLE DUCT WALL SUPPORT BRACKET(S) TO SUIT. FABRICATE TO SMACNA STANDARDS. FINISH w/ 1-COAT PRIMER & 1-COAT FLAT RETARDANT PAINT.
- 13) 325mm Ø (1 3/8") EXH. DUCT FROM FLAME HOOD UP TO ALONG WALL TO 350x350mm (14" sq) CURB MTD. 'GOOSENECK' HOOD ON ROOF. COORD. EXACT POSITION ON-SITE.
- 14) TYPICAL 18 Gb. GALVANIZED STEEL 'GOOSENECK' TYPE EXH. HOOD c/w BIRDSCREEN. FABRICATE TO SMACNA STANDARDS. SIZES) AS SHOWN ON DRAWINGS.
- 15) TYPICAL THERMALLY INSULATED ROOF CURB (SIZES) TO SUIT. ENSURE LABELED AND SEALED WATER-TIGHT. COORD. ON-SITE AND TO SUIT ROOF CONSTRUCTION.
- 16) INSTALL AIRTIGHT FLEXIBLE DUCT CONNECTION AT COMPRESSOR DISCHARGE COLLAR AND EXHAUST DUCT
- 17) COORDINATE ALL REQD DUCT DROPS AND CONNECTIONS TO EQUIPMENT; PROVIDE TRANSITIONS AS REQD - TYPICAL.
- 18) INSTALL CHEMICAL RESISTANT, AIR TIGHT FLEXIBLE DUCT CONNECTION AT FLAME HOOD DUCT COLLAR. COORD. ON-SITE.
- 19) COORDINATE INSTALLATION AND ROUTING OF ALL REQUIRED COMPRESSED AIR PIPING ON-SITE AND w/ WORK OF OTHER TRADES.
- 20) INSTALL HIGH TEMPERATURE FLEXIBLE HOSE AT CURING HOOD DUCT DROP. COORDINATE REQUIRED LENGTH w/ OWNER. TO BE EQ. TO: NEDERMAN HFO-6-S EXTREME HIGH TEMPERATURE HOSE (RATED FOR MIN. 650°C / 1200°F)
- 21) TYPICAL - INSTALL ROUND DUCT 'QUICK CONNECT' COUPLINGS (SIZES) TO SUIT AT EACH BRANCH DUCT DROP APPROX. AS INDICATED; COORD. ON-SITE

BUILDING SECTION - HVAC SYSTEMS
SCALE = 1:75



BUILDING SECTION - HVAC SYSTEMS
SCALE = 1:75

DRAWING NOTES

- NOTES:
- CONTRACTOR TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON-SITE. ANY DISCREPANCIES AND/OR UNSATISFACTORY CONDITIONS SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
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 - ALL DUCTWORK PENETRATING BUILDING ENVELOPE SHALL BE THERMALLY INSULATED TO MIN. OF 3.0M (10'-0") FROM EXTERIOR WALL.
 - ALL REQUIRED SWITCHES, SENSORS AND CONTROL DEVICES TO BE RATED 'EXPLSION PROOF'.
 - COORDINATE ALL REQD DUCT DROPS AND CONNECTIONS TO EQUIPMENT; PROVIDE TRANSITIONS AS REQD - TYPICAL.
 - ALL SHOP EQUIPMENT SHOWN ON DRAWINGS TO BE SUPPLIED BY OWNER UNLESS OTHERWISE NOTED. COORD. REQD MECHANICAL HOOD-UP ON-SITE

NO.	DESCRIPTION	DATE	BY
A	ISSUED FOR PERMIT	01 MAR 18	PK

REVISIONS

A	A - DETAIL NO.	A
B	B - SHEET SIZE	B/C
C	C - REFERENCE SHEET	

PROVINCE OF NEW BRUNSWICK AND LABRADOR
REGISTERED PROFESSIONAL ENGINEER
PEPITE HOLDING
THIS FIRM: ALONG
MADERRA ENGINEERING
To practice Professional Engineering
Permits for as issued by P.E.O.C. 2000,
which is valid for the year 2018
by Permit Holder No. 11100
MERC No. 2362

CONTRACTOR
Newfoundland HVAC
16 THOMAS BYRNE PLACE, P.O. BOX 8213,
ST. JOHNS, NL A1B 3N4 ph: 709-738-7700

PRIME CONSULTANT
MADERRA ENGINEERING
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ST. JOHNS, N. L. A1A 0P1
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CLIENT
Tenaris

PROJECT
TENARIS BUILDING FIT-UP
127 CLYDE AVENUE, MOUNT PEARL, NL

MECHANICAL SYSTEMS SECTIONS AND DETAILS

DESIGNED BY J.C.	CHECKED BY J.C.	APPROVED BY J.C.
PROJECT NO. TEN004	DRG. FILE NO. T-11	FILE NO. T-DT
DATE FEB. 2018	SCALE AS SHOWN	REV M-2 of 5 A