# Environmental Impact Assessment

# Registration

# Seagull Condo Resort

**Submitted to:** **NB Department of the Environment and Local Government**
**Sustainable Development & Impact Evaluation**
Marysville Place
P. O. Box 6000
Fredericton, NB
E3B 5H1

**Prepared by:** **NATECH Environmental Services Inc.**
2492 Route 640
Hanwell, N.B.
E3E 2C2

**Date:** **September 2, 2016**

NATECH

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# 1 THE PROPONENT

## 1.1 Name of Proponent

Philip Couture, Owner/Propriétaire
CG GROUP LTD

## 1.2 Address of Proponent

281 St-George St, PO, Box 272,
Moncton, N.B.,
E1C 8K9

## 1.3 Chief Executive Officer

Philip Couture, Owner/Propriétaire
CG GROUP LTD
Phone: (506) 312 1068
philipcouture@hotmail.com

## 1.4 Principal Contact for Purposes of Environmental Impact Assessment

Mr. Jochen Schroer, P. Eng.
NATECH Environmental Services Inc., 2492 Route 640, Hanwell, N.B., E3E 2C2
Phone: 506 455 1085
E-mail: jochen.s@natechenv.com

## 1.5 Property Ownership

CG GROUP LTD (PID No. 00875237)

# 2 THE UNDERTAKING

## 2.1 Name of the Undertaking

Seagull Condo Resort.

## 2.2 Project Overview

The project consists in the construction of a new condominium building with 33 units. The building will have three floors (528 $ft^2$ per floor, 1,584 $ft^2$ total above grade). The heating and cooling system for the building will be a central geothermal water to air furnace (1,202 $ft^2$ heated). Preliminary drawings of the building are provided in Appendix A.

The existing buildings will be removed (a restaurant, a motel and five chalets). Photos of the existing buildings are provided in Appendix F.

A new wastewater treatment plant (WWTP) will be built (WSB tertiary treatment system), and the treated effluent will be infiltrated into the ground via a long and narrow septic field. Drawings of the WWTP and the septic field are provided in Appendix B. The wastewater treatment and disposal system has been approved by the NB Department of Public Safety (see Certificate in Appendix C).

## 2.3 Purpose/Rationale/Need for the Undertaking

The undertaking is intended to attract new residents and possibly seasonal tourists in the Shediac Bridge area. The existing buildings are abandoned and need to be removed or replaced.

A new well is being proposed and any existing wells will be properly decommissioned. The existing septic system was disturbed during test pitting. The field was found to be in good condition, however it is located in the area of the proposed building and has to be removed.

## 2.4 Project Location

The proposed project is located on private land identified by Service New Brunswick (SNB) as PID No. 00875237, off highway 134, in the Local Service District of Shediac Bridge-Shediac River, N.B, in the Parish of Shediac and the County of Westmorland. The approximate coordinates of the centre of the property N 7,476,261 m, E 2,648,588 m (in the NB Stereographic system) or N 46.2701º, W -64.5722º (latitude and longitude).

Figure 2-1 shows where the property is located in Shediac Bridge, and Figure 2-2 displays an aerial photograph of the property.


Environmental Impact Assessment

Seagull Condo Resort

Location Map

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| | |
|---|---|
| DATE: 2016/09/02 | FILE: SCR-16-01 |
| SCALE: As shown | FIGURE: 2-1 |


Environmental Impact Assessment

Seagull Condo Resort

Site layout

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| | |
|---|---|
| DATE: 2016/09/02 | FILE: SCR-16-01 |
| SCALE: As shown | FIGURE: 2-2 |

## 2.5 Siting Considerations

The new condominium building will be located slightly further from the water's edge than the existing buildings (see Survey Drawing in Appendix A). The water will be supplied by a new drilled well. A Water Supply Source Assessment is being carried out and will be submitted under separate cover as Appendix D. The location of the wastewater disposal field was chosen based on the slope of the terrain, soils conditions, and to minimize the amount of earth work required. The distance to the shore line was maximized.

Wetlands: Based on the publicly available wetland mapping (http://geonb.snb.ca/geonb/), there are no provincially regulated wetlands near the construction site. The GeoNB Map viewer wetland mapping layer as of August 30, 2016 is attached in Appendix E.

Coastal protection: coastal issues at this site are related to tidal water levels, only. There is no coastal marsh in the vicinity of the property. Available CHS chart information for Shediac Bay lists the mean sea level at 1.0 m , mean high tides at 1.4 m and highest high tides at 1.7 m, with a difference of 0.3 m between the two high tides. The site plan identified the Ordinary High Tide Level at 0.83 m geodetic. The Higher High Water Large Tide (HHWLT) is therefore estimated at a height of 1.13 m geodetic. The distance between the HHWLT and the building location is approximately 43 m. The building is therefore placed in Zone C. Only the on-site disposal system is located within Zone B. The disposal field will be built on land that is currently being used as either driveway or lawn. The elevation of the building is at 3.25 m, thereby 2.12 m above the HHWLT level. Building levels were determined by a local surveyor, experienced with the local building requirements. The design was also discussed with the local planning commission.

Archaeology: testing for archaeological resources will be carried out in the areas that will be disturbed and that have not been disturbed in the past.

Zoning: the property is currently zoned as "commercial" on *Shediac Bridge Zoning Map B-2* in the *BeauBassin West Rural Plan* (map provided in Appendix H).

## 2.6 Physical Components and Dimensions of the Project

The activities associated with the undertaking include: removal the old buildings, decommissioning of existing well and septic system, construction of the new condominium building, excavation of trenches and holes, placement of wastewater treatment tanks and the effluent disposal structures, covering with topsoil, and re-seeding. These activities will increase vehicular traffic during construction.

The components of the proposed 33 two-bedroom units condominium development are shown on the Drawings and Sketches provided in Appendix A.

Drawings of the wastewater treatment and disposal system are provided in Appendix B. The design water and wastewater flow rate is an average of 23 $m^3$/day. Given the limited space available, and the proximity to the beach, a secondary wastewater treatment and tertiary treatment and disposal for this system was selected. Secondary treatment will be provided by a WSB® Clean Pro wastewater treatment plant. The system ensures proper wastewater treatment prior to disposal, as well as flow equalization. The treatment plant components include:

1. One (1) 2,000 IGAL CSA approved concrete flow equalization tank.
2. One (1) 1,000 IGAL CSA approved concrete flow equalization tank.
3. One (1) 2,000 IGAL CSA approved concrete sludge storage tank.
4. One (1) 2,000 IGAL CSA advanced treatment bioreactor tank
5. Two (2) 1,000 IGAL CSA advanced treatment bioreactor tanks
6. One (1) 1,000 IGAL WSB final clarifer tank
7. One (1) 2,000 IGAL CSA effluent pump tank including two (2) effluent pumps

The WSB Clean system utilizes a fluidized floating bed biofilm process. The WSB bioreactors contain specially designed plastic carrier media. Microorganisms settle on the media and consume the organic material in the wastewater. The system has been sized and designed to provide an advanced level of treatment with anticipated water quality equal to or less than:

- ❑ 20 mg/L Five Day Biochemical Oxygen Demand ($BOD_5$).
- ❑ 20 mg/L Total Suspended Solids (TSS).

Tertiary treatment and equalized effluent disposal will be provided through a field of Large Diameter Matted Pipes (LDMP). The pipes are passively vented, thereby providing additional aeration for effluent treatment. The disposal field contains 144 LDMPs arranged into four fields of four rows of nine pipes each. Total pipe length is 440 m. The disposal field covers 600 $m^2$ plus tapers and contains 0.30 m of imported treatment sand below the LDMP pipes. The sand has to meet strict gradation limits. Details of the design are shown in Appendix B.

## 2.7 Construction Details

The construction will occur from the fall of 2016 to the spring of 2017.

Construction and demolition debris will be sent to an approved C&D waste disposal site. Septic tanks will be decommissioned and transported to approved disposal facilities by a licensed septic system installer. Wells will be decommissioned by a licensed well driller.

## 2.8 Management Structure

Each condo will be purchased by an individual party. Condition of the purchase is the commitment to join the Condo Association. The association is an incorporated, legal entity governed by a board of directors. The association takes on legal and financial responsibility. The association looks after management aspects such as collection of fees, payment of bills, upkeep and maintenance of the building and property, etc.

## 2.9 Future Modifications, Extensions, or Abandonment

No future modifications, extensions or abandonment are envisioned for the foreseeable future.

## 2.10 Project-related Documents (attached)

Appendix A – Drawings and sketches of the proposed development
Appendix B – Drawings of the proposed wastewater treatment and disposal system
Appendix C – Wastewater treatment and disposal system Approval (NB Public Safety)
Appendix D – Water Supply Source Assessment Application
Appendix E – Wetland Map
Appendix F – Site Photographs
Appendix G – Historical Aerial Photographs
Appendix H – Zoning map
Appendix I – Public consultation - draft documents

# 3 DESCRIPTION OF THE EXISTING ENVIRONMENT

## 3.1 Physical and Natural Features

Site topography: minimum elevation: 0.7 m, maximum: 3.5 m. Minimum gradient: 2% (in construction area), maximum gradient: 10% (slope of bank of beach).

General surface drainage: toward the North, as shown on the site plan in Appendix A.

There are no mapped wetlands on the property, the property is located between a beach and a residential street (Chemin Indian Point), with access on the western side from Route 134.

A site visit and a survey were carried out on May 31 and June 10, 2016. Test pit logs are shown on Drawing No. C-05 in Appendix B, photographs are provided in Appendix F.

Protected areas: There are no protected areas on the property where construction will take place (residential neighbourhood).

Species at risk or of conservation concern: the use of the property and the beach will not change significantly due to the development (motel and chalets replaced by condos). There are no concerns beyond the normal concerns related to people living near a beach.

## 3.2 Cultural Features

There are no known cultural features of concern in the construction area.

### 3.3 Existing and Historic Land Uses

Based on a review of aerial photos (provided in Appendix G), the land appeared to be farmed in 1944 and 1954. The first buildings were constructed between 1954 and 1963.

### 3.4 Neighbouring properties

Figure 3-1 shows the PIDs of adjacent properties, and the owners are listed in Table 3.1.

Table 3.1 Neighbouring properties

| No. | PID | Property Owner |
|---|---|---|
| 1 | 780296 | |
| 2 | 859728 | |
| 3 | 872739 | |
| 4 | 874263 | |
| 5 | 874461 | |
| 6 | 874529 | |
| 7 | 874636 | |
| 8 | 874792 | |
| 9 | 874818 | |
| 10 | 874826 | |
| 11 | 70093406 | |
| 12 | 70093760 | |
| 13 | 70093778 | |
| 14 | 70095617 | |
| 15 | 70096797 | |
| 16 | 70293907 | |
| 17 | 70293915 | |
| 18 | 70442975 | |
| 19 | 70473897 | |
| 20 | 70473905 | |
| 21 | 70514336 | |


Environmental Impact Assessment
Seagull Condo Resort
Neighbouring PID`s

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| | |
|---|---|
| Date: 2016/09/02 | Project No.: SCR-16-01 |
| Scale: AS SHOWN | Figure: 3-1 |

# 4 SUMMARY OF ENVIRONMENTAL IMPACTS

The following potential impacts were identified, mainly during the construction phase.

- ❑ Air/Water/Soil Contamination during construction
- ❑ Erosion
- ❑ Noise, Vibration

There are no oil tanks on the property. Heating was always with electricity, and the restaurant used propane for cooking.

The construction site is in a relatively flat area and does not receive runoff from neighbouring properties. No significant amounts of stormwater are anticipated in the construction area.

# 5 SUMMARY OF PROPOSED MITIGATION

## 5.1 Air/Water/Soil Contamination:

Best Construction Management practices will be applied.

## 5.2 Erosion

Air/Water/Soil Contamination: Silt fences and check dams will be installed downgradient of the construction.

## 5.3 Noise and Vibration

Construction will be carried out during normal operation hours from 8:00 to 18:00. A limited amount of truck traffic is expected for the import and export of materials. Access to the site during construction will be predominantly from Route 134.

## 6 PUBLIC INVOLVEMENT

Based on the minimum public involvement standards for registered projects outlined in Appendix C of “A Guide to Environmental Impact Assessment in New Brunswick” (NBDELG, 2012), the proponent is planning to notify the owners of the neighbouring properties (identified in red on Figure 3-1) by hand delivering a flyer with relevant project information. Additional relevant stakeholders (local watershed group, MLA, etc.) will be informed about the development as well. The proponent is also planning to place a notice in the local newspaper (Moncton Transcript). The draft mailout letter and the draft notice are attached in Appendix I, including information on where to find the EIA registration document. The comments received from the public will be provided to the technical review committee.

## 7 APPROVAL OF THE UNDERTAKING

Permits, licenses and other authorizations required for the undertaking include:

- Construction permit for the building (will be obtained by the owner before starting construction)
- Approval from the NB Department of Public Safety for the onsite effluent disposal system (already obtained and attached in Appendix C).

# Appendix A

## Drawings and sketches of the proposed development


Seagull
CONDO RESORT

SHEDIAC BAY

N.B. GRID NORTH
NORD DU SYSTEME DE COORDONNEES DU N.-B.

PID 00874529
PID 00874529

TOP OF BANK

EDGE OF ASPHALT

PROPOSED FINISH GRADE = 3.25

EXISTING BLDG

O-H-W-M

PID 00875237
1.62 ha +/-

30.000m SUBJECT TO WATERCOURSE ALTERATION REGULATION 90-80 UNDER THE CLEAN WATER ACT.

INDIAN POINT ROAD
6.096m WIDE RIGHT-OF-WAY

EDGE OF EXISTING ASPHALT

GUY

U.P.

Elec.

UNIT 101 TYP. = 4.15 DE = 3.25
UNIT 102 TYP. = 4.15 DE = 3.25
UNIT 103 TYP. = 4.15 DE = 3.25
UNIT 104 TYP. = 4.15 DE = 3.25
UNIT 105 TYP. = 4.15 DE = 3.25
UNIT 106 TYP. = 4.15 DE = 3.25
UNIT 107 TYP. = 4.15 DE = 3.25
UNIT 108 TYP. = 4.15 DE = 3.25
UNIT 109 TYP. = 4.15 DE = 3.25
UNIT 110 TYP. = 4.15 DE = 3.25
UNIT 111 TYP. = 4.15 DE = 3.25
UNIT 112 TYP. = 4.15 DE = 3.25
UNIT 113 TYP. = 4.15 DE = 3.25
UNIT 114 TYP. = 4.15 DE = 3.25
UNIT 115 TYP. = 4.15 DE = 3.25
UNIT 116 TYP. = 4.15 DE = 3.25
UNIT 117 TYP. = 4.15 DE = 3.25
UNIT 118 TYP. = 4.15 DE = 3.25
UNIT 119 TYP. = 4.15 DE = 3.25
UNIT 120 TYP. = 4.15 DE = 3.25
UNIT 121 TYP. = 4.15 DE = 3.25
UNIT 122 TYP. = 4.15 DE = 3.25
UNIT 123 TYP. = 4.15 DE = 3.25
UNIT 124 TYP. = 4.15 DE = 3.25
UNIT 125 TYP. = 4.15 DE = 3.25
UNIT 126 TYP. = 4.15 DE = 3.25
UNIT 127 TYP. = 4.15 DE = 3.25
UNIT 128 TYP. = 4.15 DE = 3.25
UNIT 129 TYP. = 4.15 DE = 3.25
UNIT 130 TYP. = 4.15 DE = 3.25
UNIT 131 TYP. = 4.15 DE = 3.25
UNIT 132 TYP. = 4.15 DE = 3.25
UNIT 133 TYP. = 4.15 DE = 3.25

Deck 3.25

6.05
8.53
15.11
8.53

## PROPOSED SITE PLAN

# SEAGULL CONDO REZORT

LOCATED ON THE NORTH SIDE OF ROUTE 134
SHEDIAC BRIDGE
PARISH OF SHEDIAC
COUNTY OF WESTMORLAND
PROVINCE OF NEW BRUNSWICK

SCALE 1 : 300 ECHELLE

DRAWN BY: S.P. CHECKED BY: T.E.

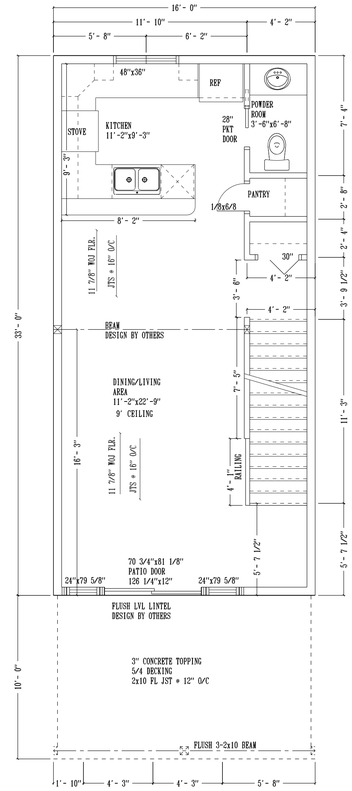

J.R. DAIGLE
ingénierie ▪ engineering
arpentage ▪ land surveying

795 Main St., Suite 200
Moncton NB
EIC 1E9
Tel: (506) 858-1081
Fax: (506) 383-1498
jrdaigle@daigleeng.com





M:\2016738900\SITE PLAN 2016 REV2.DWG SCALE 300 PRINTED 10:07 AM 29-Jun-2016 SP

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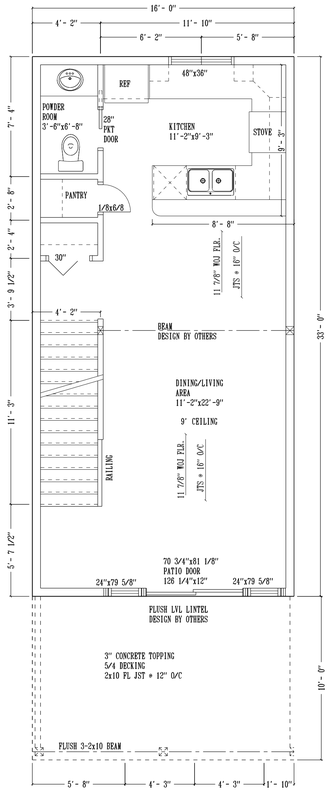


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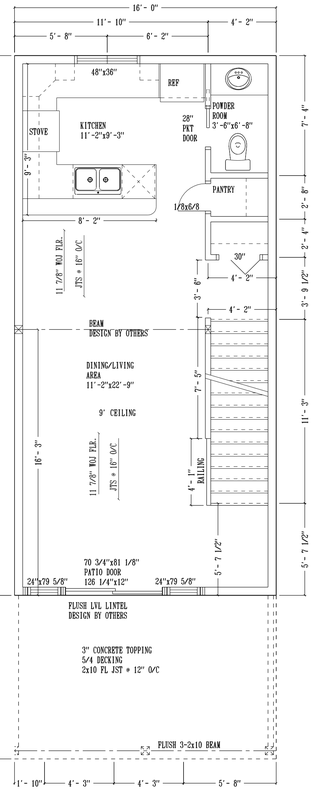


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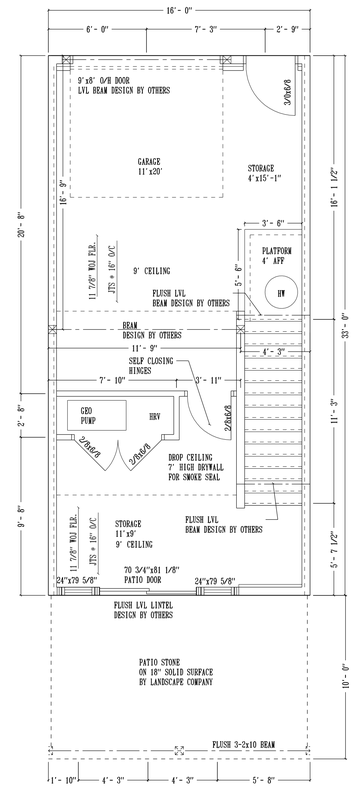


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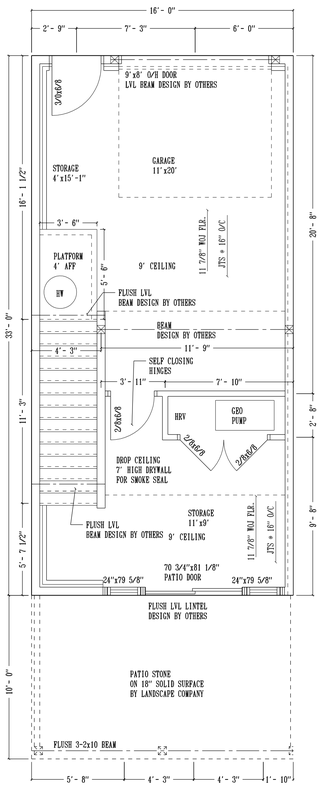


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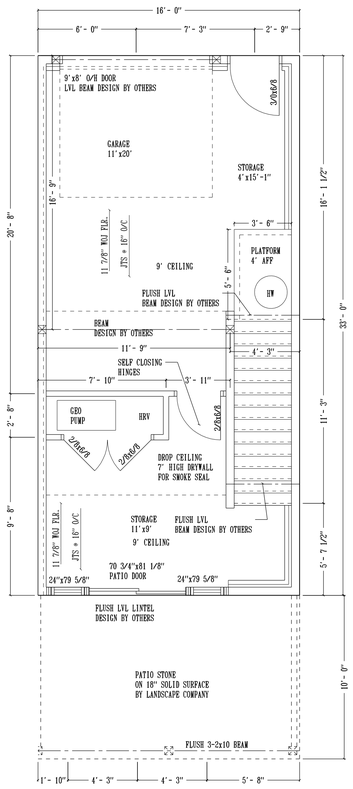


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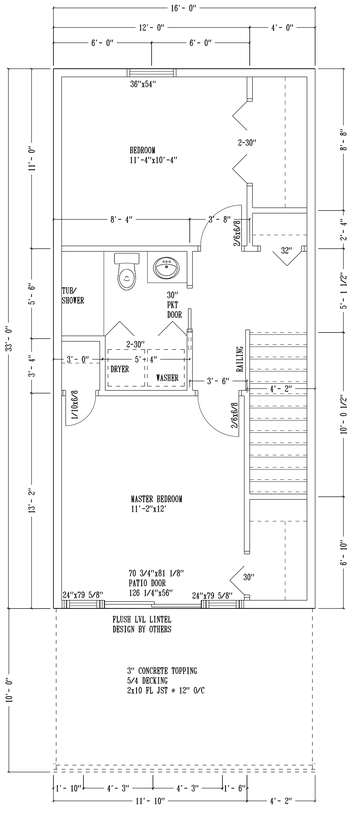


CENTER SECOND FLOOR UNIT

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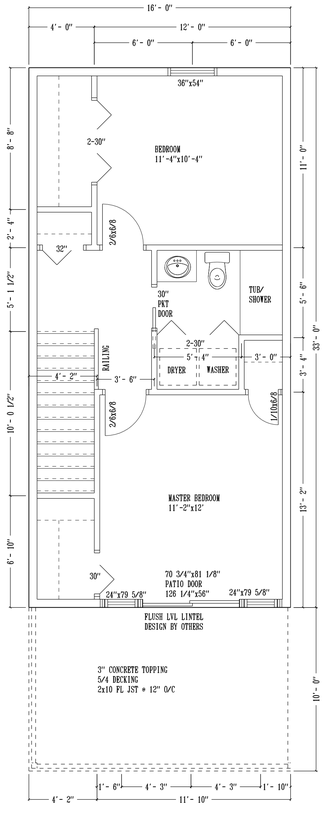


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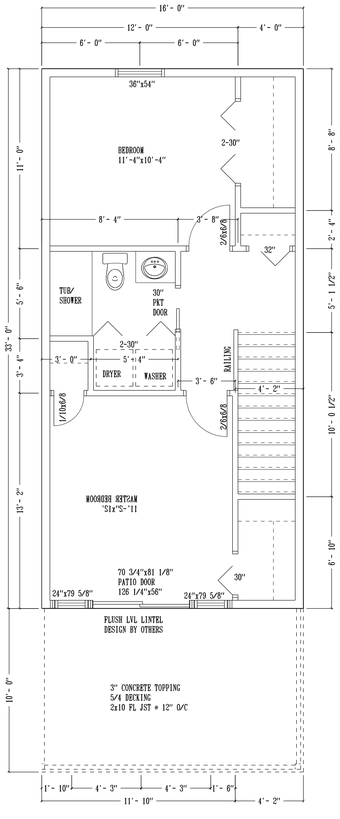


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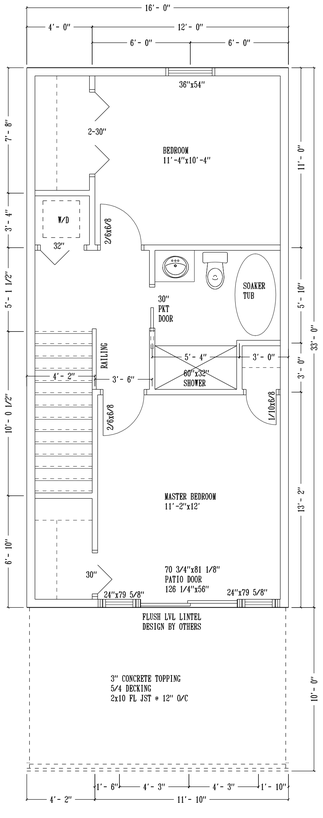


OPTION 2 SECOND FLOOR UNIT

SCALE 1/4"=1'-0"

LEBLANC'S
Architectural Drafting & Design

PROJECT:
PROPOSED TOWN HOUSE
PHASE I FOR PVC HOME
BUILDERS

TITLE: PLANS UNIT LAYOUT

| | |
|---|---|
| DATE: JUNE 15/16 | DRAWN BY: SPL |
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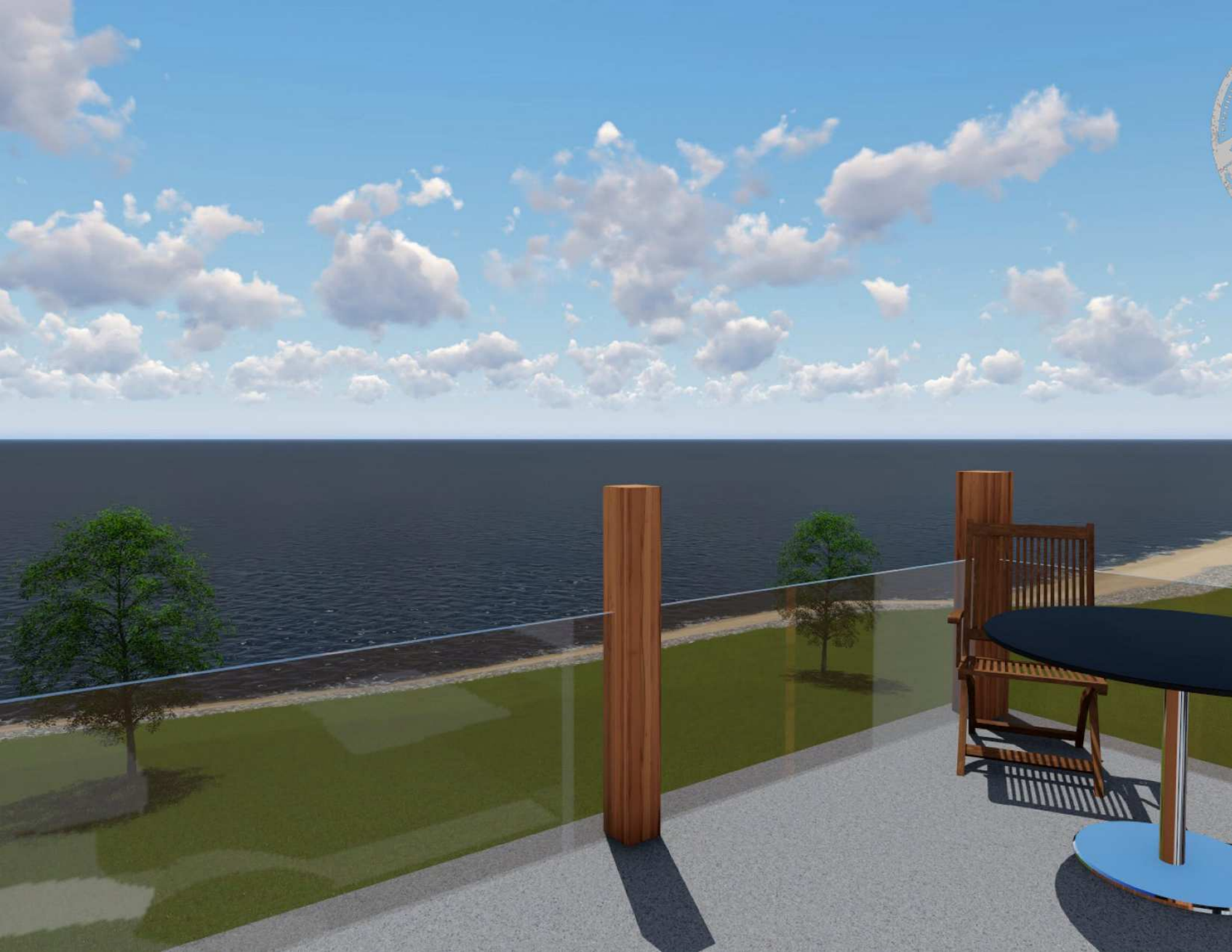
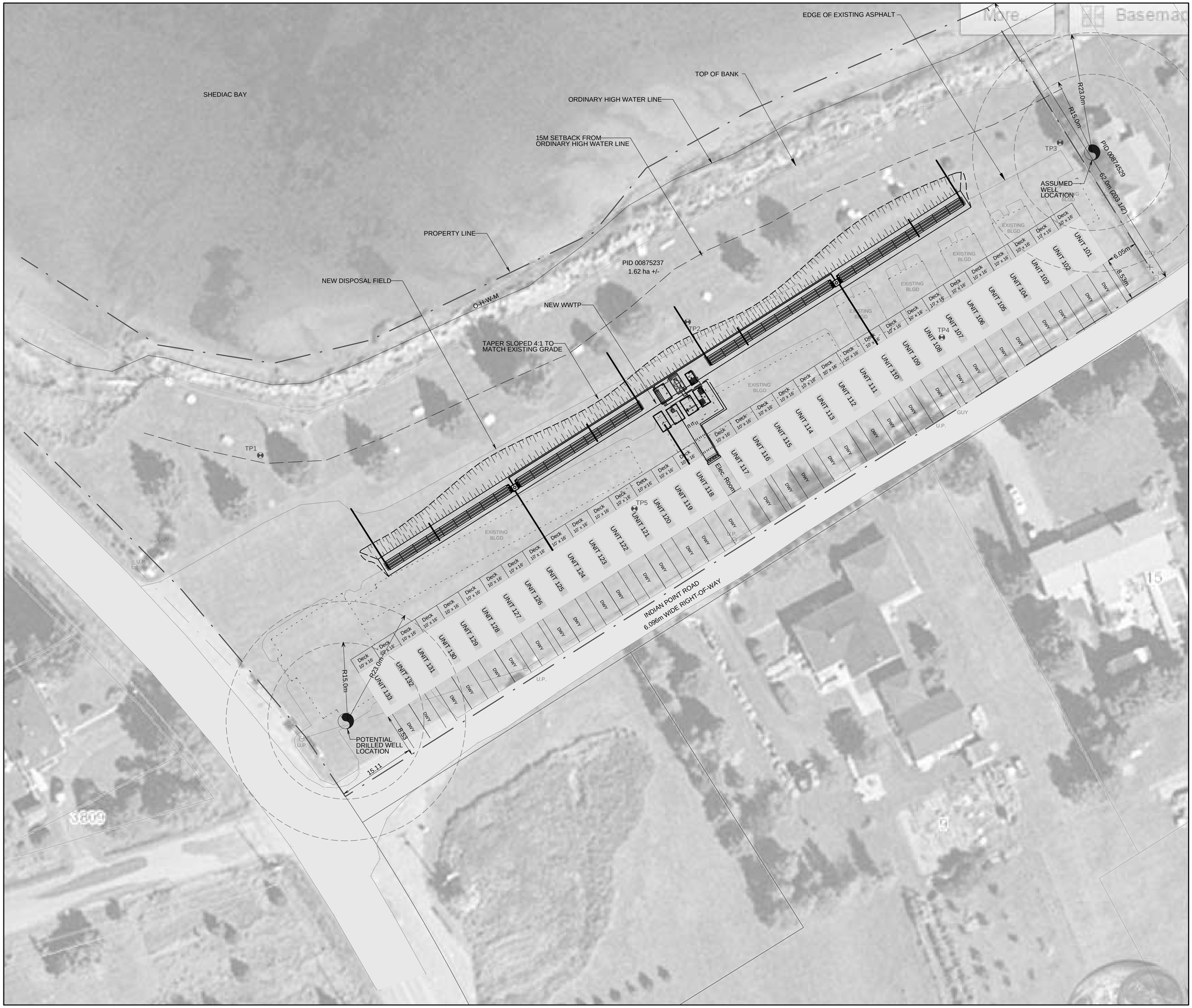
| SCALE: 1/4"=1'-0" | DWG. NO. A4 |



# Appendix B

## Drawings of the proposed wastewater treatment and disposal system





**NATECH**

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ph: (506) 455-1085, fax: (506) 455-1088


LEGEND

| | |
|---|---|
| ROADS | |
| PROPERTY LINE | |
| SECTION LINE | |
| CONTOUR (M) | 9.5 |
| RESERVED AREA BOUNDARY | |
| FORCE MAIN | |
| BLOWER LINE | |
| ELECTRICAL TO CONTROL BUILDING | |
| ELECTRICAL TO TANKS | |
| RECIRCULATION LINE | |
| SANITARY PIPE | GAS HYD HYS |
| TEST PIT | BUILDING |
| WAY POINTS | CULVERT |
| UTILITY POLE UP | LIFT STATION |

General notes — Notes generales

LOCATION OF UNDER GROUND INFRASTRUCTURES ARE APPROXIMATE ONLY

25 20 15 10 5 0 10 20 feet

10 0 5 10 metres

| No/N$^{O}$ | Date |
|---|---|
| FOR APPROVAL (REVISED FLOWS) | 03 | 16/08/04 |
| FOR APPROVAL | 02 | 16/06/28 |
| FOR INFORMATION | 01 | 16/06/02 |

# ON-SITE EFFLUENT TREATMENT AND DISPOSAL FOR CONDOMINIUM DEVELOPMENT SHEDIAC BRIDGE, NB

## COVER PAGE

| | |
|---|---|
| Date — Date | 2016/06/02 |
| Scale — Echelle | 1 : 450 |
| Drawn by — Dessine par | T. CLEGHORN |
| Approved by — Approuve par | J. SCHROER |
| Consultant reference number — Numéro de référence de l'expert-conseil | |

PROFESSIONAL ENGINEER — Province of New Brunswick — #M3799 — Jochen Schroer — Signature — 16/06/28 — Date — Province du Nouveau-Brunswick — INGÉNIEUR IMMATRICULÉ

| Project No. — N$^{O}$ du projet | Sheet No. — N$^{O}$ de la feuille |
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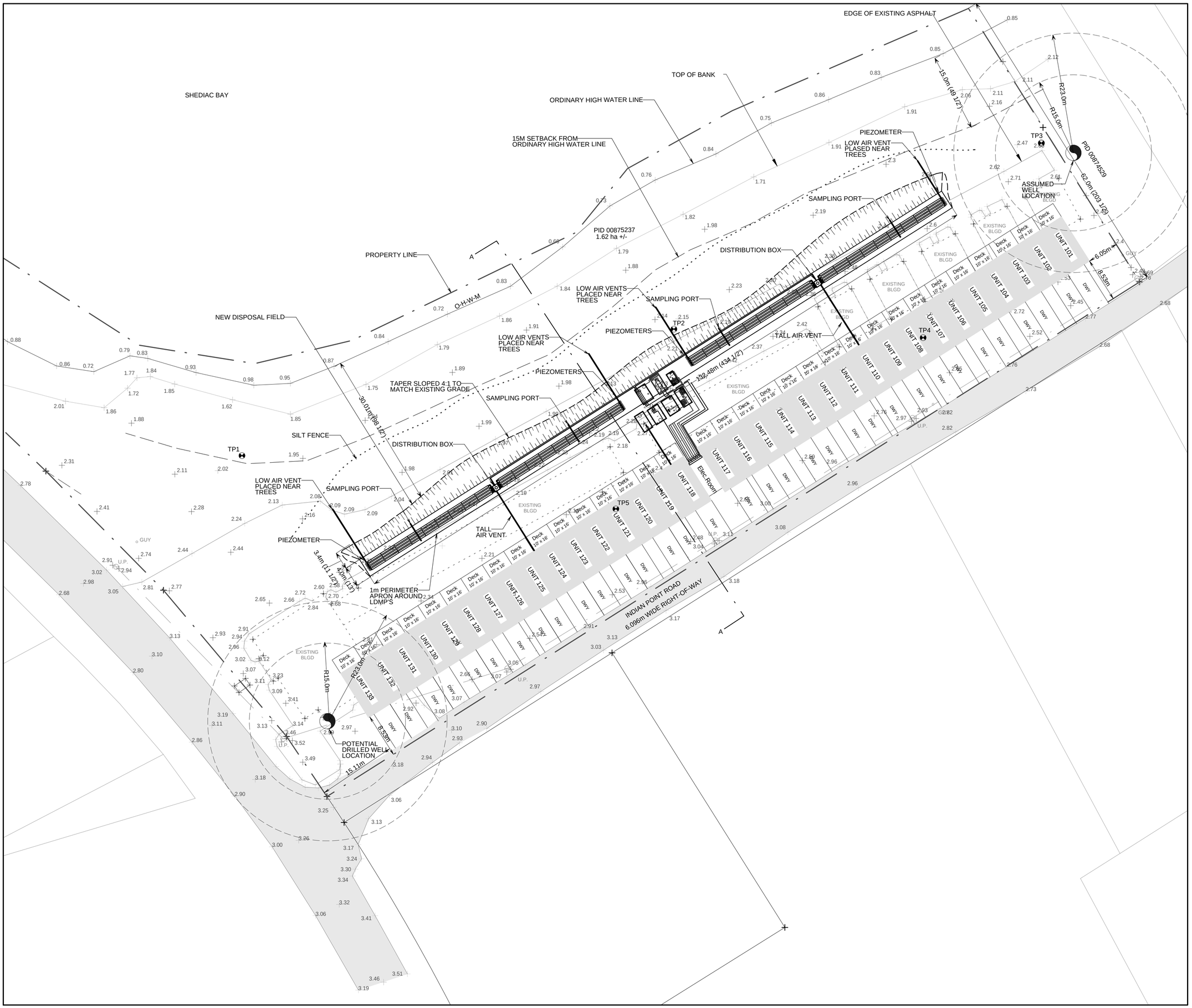


**NATECH**

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LEGEND

| | |
|---|---|
| ROADS | |
| PROPERTY LINE | |
| SECTION LINE | |
| CONTOUR (M) | 9.5 |
| RESERVED AREA BOUNDARY | |
| FORCE MAIN | |
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| ELECTRICAL TO CONTROL BUILDING | |
| ELECTRICAL TO TANKS | |
| RECIRCULATION LINE | |
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General notes — Notes generales

LOCATION OF UNDER GROUND INFRASTRUCTURES ARE APPROXIMATE ONLY

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|---|---|
| FOR APPROVAL (REVISED FLOWS) | 03 16/08/04 |
| FOR APPROVAL | 02 16/06/28 |
| FOR INFORMATION | 01 16/06/02 |

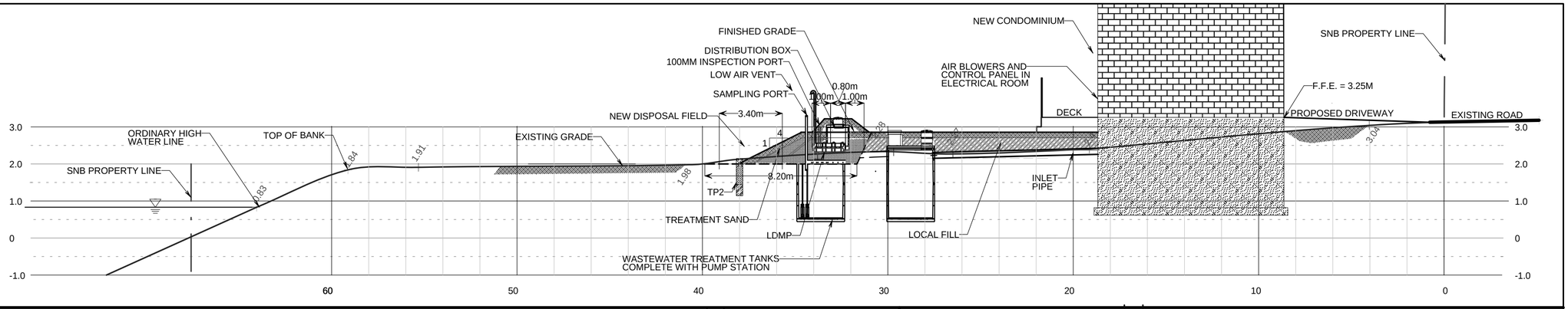
# ON-SITE EFFLUENT TREATMENT AND DISPOSAL FOR CONDOMINIUM DEVELOPMENT SHEDIAC BRIDGE, NB

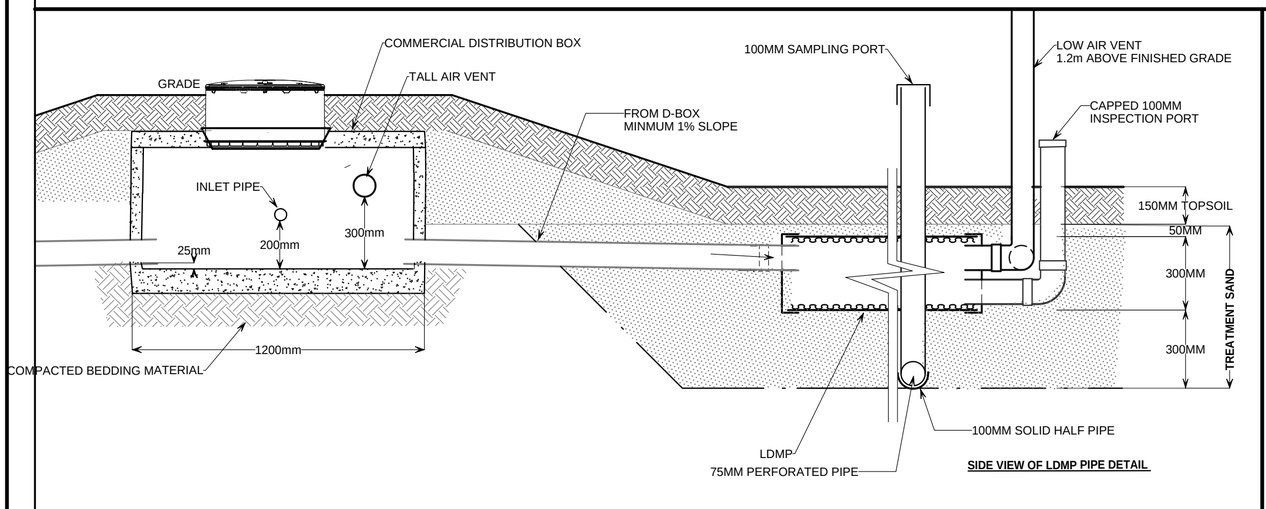
## SITE LAYOUT

Date: 2016/06/02
Scale / Echelle: 1 : 450
Drawn by / Dessine par: T. CLEGHORN
Approved by / Approuvé par: J. SCHROER
Consultant reference number / Numero de reference de l'expert-conseil:

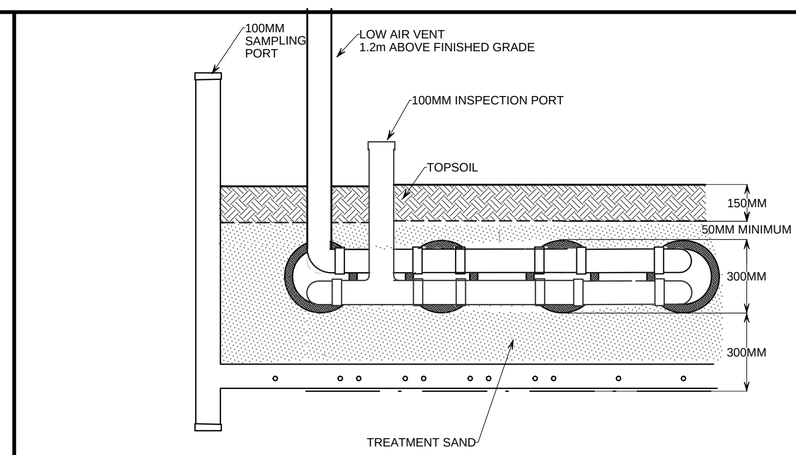
REGISTERED PROFESSIONAL ENGINEER
Province of New Brunswick
#M3799
Jochen Schroer
Signature
16/06/28
Date
Province du Nouveau - Brunswick
INGÉNIEUR IMMATRICULÉ

Project No. / N$^{O}$ du projet:
Sheet No. / N$^{O}$ de la feuille: C-02

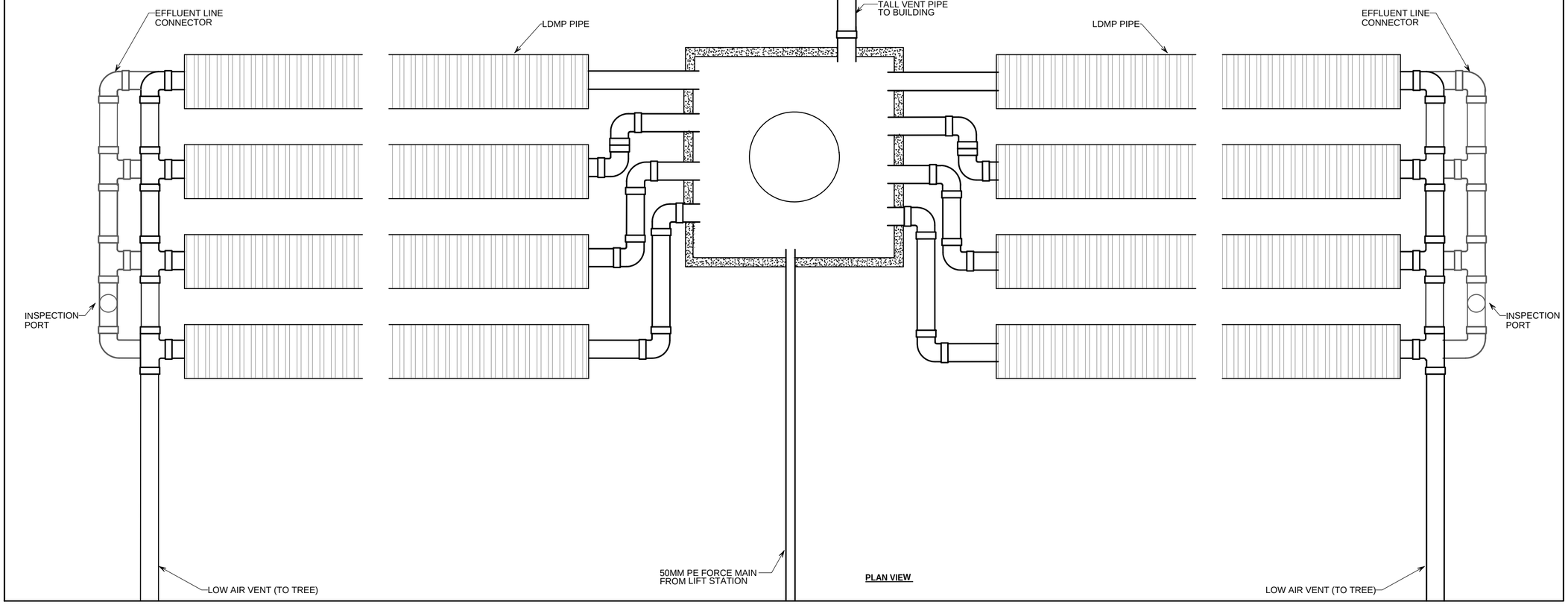



SIDE VIEW OF LDMP PIPE DETAIL




END SECTION OF LDMP PIPE DETAIL




PLAN VIEW

NATECH
Environmental Services Inc.
2492 Route 640., Hanwell N.B. E3E 2C2
ph: (506) 455-1085, fax: (506) 455-1088

LEGEND

| No/N$^{O}$ | | Date |
|---|---|---|
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| FOR APPROVAL (REVISED FLOWS) | 03 | 16/08/04 |
| FOR APPROVAL | 02 | 16/06/28 |
| FOR INFORMATION | 01 | 16/06/02 |

# ON-SITE EFFLUENT TREATMENT AND DISPOSAL FOR CONDOMINIUM DEVELOPMENT SHEDIAC BRIDGE, NB

## SECTION & DETAILS

| | |
|---|---|
| Date / Date | 2016/06/02 |
| Scale / Echelle | AS SHOWN |
| Drawn by / Dessine par | T. CLEGHORN |
| Approved by / Approuve par | J. SCHROER |
| Consultant reference number / Numéro de reference de l'expert-conseil | |

REGISTERED PROFESSIONAL ENGINEER
Province of New Brunswick
#M3799
Jochen Schroer
16/06/28
Date
Province du Nouveau - Brunswick
INGÉNIEUR IMMATRICULÉ

| Project No. / N$^{O}$ du projet | Sheet No. / N$^{O}$ de la feuille |
|---|---|
| | C-03 |

NOTES:

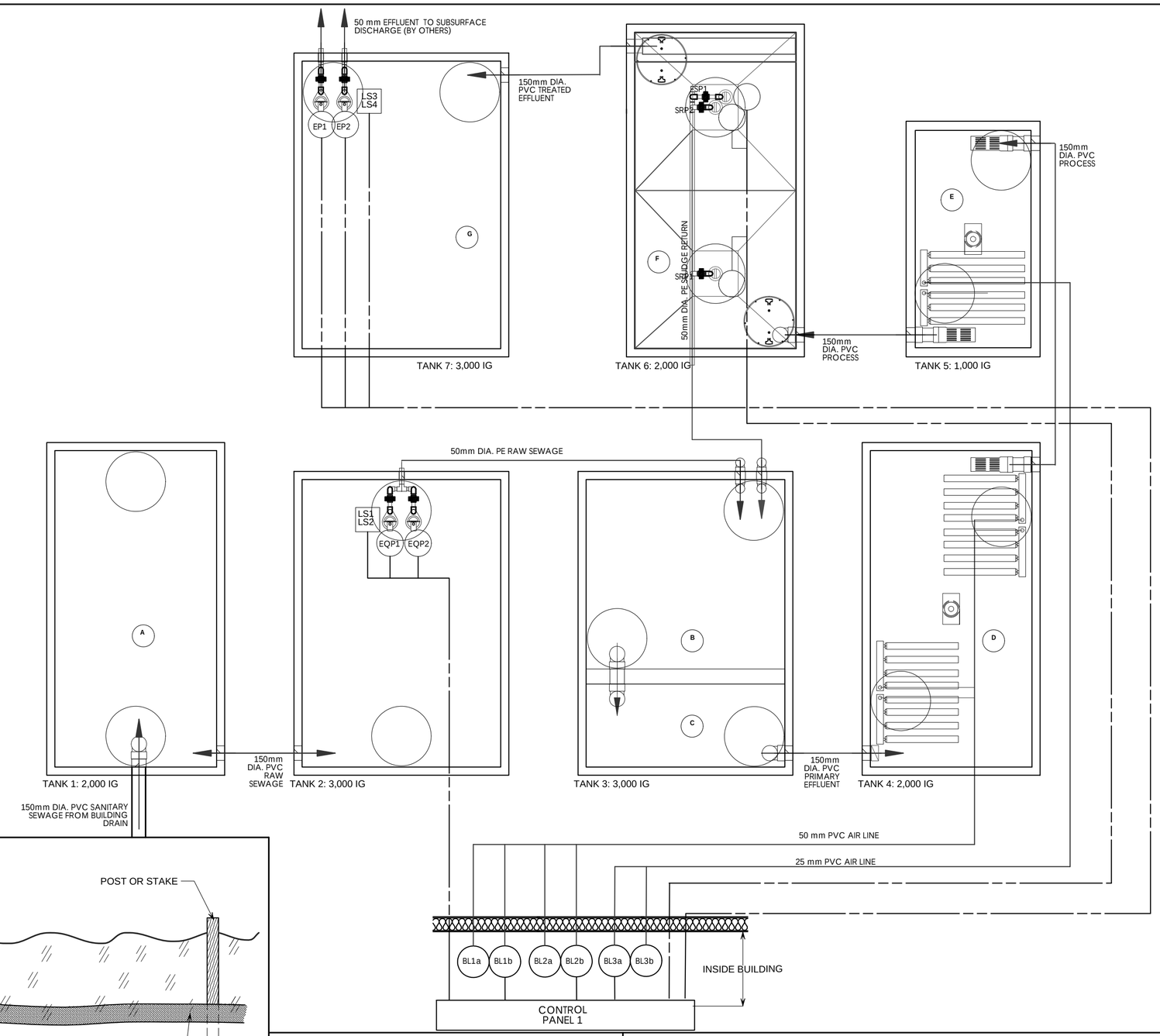
A. ALL WORK, INSTALLATION AND CONNECTIONS OF THE WSB® CLEAN SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE WRITTEN INSTRUCTIONS IN THE WSB® CLEAN INSTALLATION MANUAL AND IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES AND REGULATIONS.
B. THE WSB® CLEAN SYSTEM SHALL COME EQUIPPED WITH AN AIR BLOWER FOR DELIVERING AIR INTO THE BIOREACTOR. THE AIR BLOWER MUST BE INSTALLED WITHIN 15 M (50 FT) OF THE TREATMENT SYSTEM. THE AIR BLOWER MUST BE IDENTIFIED AS AN APPROPRIATE MATCH FOR THE WSB® MODEL.
C. THE WSB® CONTROL PANEL PROVIDES POWER TO THE MECHANICAL EQUIPMENT AND COMES EQUIPPED WITH A VISUAL AND AUDIBLE ALARM CAPABLE OF SIGNALING MECHANICAL MALFUNCTION AND HIGH WATER CONDITIONS.
D. ALL ACCESS OPENINGS MUST BE INSTALLED TO GRADE AND SECURED TO PREVENT ACCIDENTAL OR UNAUTHORIZED ACCESS.
E. ALL TANKS BY A&P CONCRETE PRODUCTS INC. OR APPROVED ALTERNATE AS SUPPLIED BY RH2O.

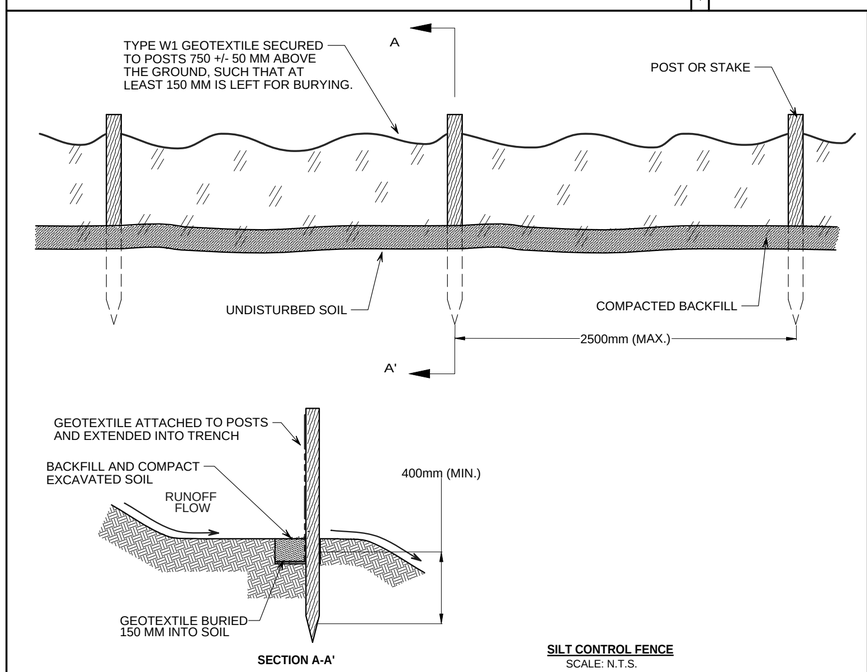
| | |
|---|---|
| BL | BLOWER |
| VFD | VARIABLE FREQUENCY DRIVE |
| SRP | SLUDGE RETURN PUMP |
| FSP | FLOATING SLUDGE (SKIMMER) PUMP |
| EQP | FLOW EQUALIZATION PUMP |
| EP | EFFLUENT PUMP |
| RSP | RAW SEWAGE PUMP |
| LS | LEVEL SWITCH ASSEMBLY (FLOATS) |

ELECTRICAL

AIR LINE

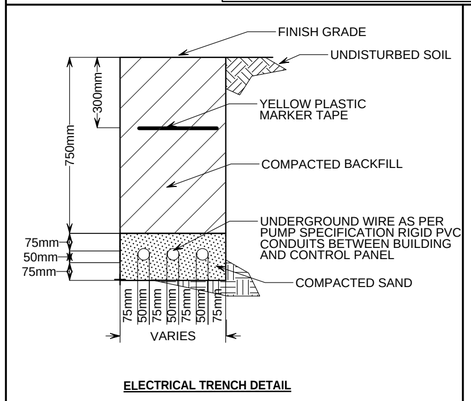
- (A) FLOW EQUALIZATION (TANKS 1 & 2: 23 m³)
- (B) SLUDGE STORAGE (TANK 3: 9.3 m³)
- (C) PRIMARY CLARIFICATION (TANK 3: 4.2 m³)
- (D) BIOREACTOR 1 (TANK 4: 9.5 m³)
- (E) BIOREACTOR 2 (TANK 5: 3.6 m³)
- (F) FINAL CLARIFIER (TANK 6: 6.9 m³)
- (G) EFFLUENT PUMP TANK (TANK 7: 13.5 m³)



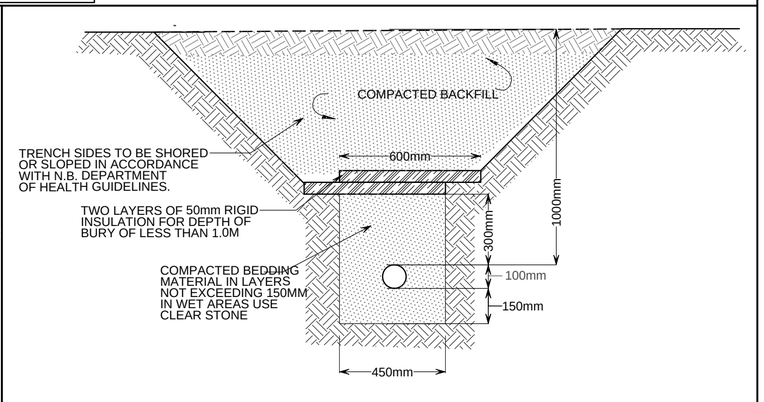




**SECTION A-A'**

**SILT CONTROL FENCE**
SCALE: N.T.S.




**ELECTRICAL TRENCH DETAIL**




**TYPICAL TRENCH DETAIL**


NATECH
Environmental Services Inc.
2492 Route 640., Hanwell N.B. E3E 2C2
ph: (506) 455-1085, fax: (506) 455-1088


| No/N° | Date |
|---|---|
| FOR APPROVAL | 16/06/28 |
| FOR INFORMATION | 16/06/02 |

ON-SITE EFFLUENT TREATMENT AND DISPOSAL FOR CONDOMINIUM DEVELOPMENT SHEDIAC BRIDGE, NB

DETAILS

| | |
|---|---|
| Date | 2016/06/02 |
| Scale | AS SHOWN |
| Drawn by | T. CLEGHORN |
| Approved by | J. SCHROER |
| Consultant reference number | |

REGISTERED PROFESSIONAL ENGINEER
Province of New Brunswick
#M3799
Jochen Schroer
16/06/28
Date
Province du Nouveau-Brunswick
INGÉNIEUR IMMATRICULÉ

| Project No. | Sheet No. |
|---|---|
| N° du projet | N° de la feuille |
| | C-04 |

# Test Pit Log

| | | | |
|---|---|---|---|
| **Project:** | PID 00875237<br>SHEDIAC BRIDGE, NB | **Date Dug:** | 2016/06/01 |
| **Ground Elevation:** | | **Pit ID:** | TP1 |
| **Logged By:** | J. Schroer | **Dug By:** | |
| **Easting, Northing:** | | | |

| STRATIGRAPHIC UNIT DESCRIPTION | Geology | Sample Number | Sample Type |
|---|---|---|---|
| ORGANIC OVERBURDEN | | | |
| SAND<br>CLASS B | | | |
| RED CLAY<br>CLASS D | | | |
| NO GROUND WATER | | | |

NATECH Environmental Services Inc.
2492 Route 640, Hanwell, N.B., E3E 2C2
ph: (506) 455 1085, fax: (506) 455 1088

# Test Pit Log

| | | | |
|---|---|---|---|
| **Project:** | PID 00875237<br>SHEDIAC BRIDGE, NB | **Date Dug:** | 2016/06/01 |
| **Ground Elevation:** | | **Pit ID:** | TP2 |
| **Logged By:** | J. Schroer | **Dug By:** | |
| **Easting, Northing:** | | | |

| STRATIGRAPHIC UNIT DESCRIPTION | Geology | Sample Number | Sample Type |
|---|---|---|---|
| ORGANIC OVERBURDEN | | | |
| SAND MIXED WITH SANDSTONE<br>CLASS B | | | |
| RED CLAY<br>SOME SANDSTONE <30CM DIAM. | | | |
| NO GROUND WATER | | | |

NATECH Environmental Services Inc
2492 Route 640, Hanwell, N.B., E3E 2C2
ph: (506) 455 1085, fax: (506) 455 1088

# Test Pit Log

| | | | |
|---|---|---|---|
| **Project:** | PID 00875237<br>SHEDIAC BRIDGE, NB | **Date Dug:** | 2016/06/01 |
| **Ground Elevation:** | | **Pit ID:** | TP3 |
| **Logged By:** | J. Schroer | **Dug By:** | |
| **Easting, Northing:** | | | |

| DEPTH (m) | STRATIGRAPHIC UNIT DESCRIPTION | Geology | DEPTH (ft) | COMPR. STRENGTH (kPa) | Sample Number | Sample Type |
|---|---|---|---|---|---|---|
| | ORGANIC OVERBURDEN | | | | | |
| | YELLOW SAND<br>WITH BLACK TRACES<br>CLASS B | | | | | |
| | NO GROUND WATER | | | | | |
| | SANDSTONE BOULDERS | | | | | |

NATECH Environmental Services Inc.
2492 Route 640, Hanwell, N.B., E3E 2C2
ph: (506) 455 1085, fax: (506) 455 1088

# Test Pit Log

| | | | |
|---|---|---|---|
| **Project:** | PID 00875237<br>SHEDIAC BRIDGE, NB | **Date Dug:** | 2016/06/01 |
| **Ground Elevation:** | | **Pit ID:** | TP4 |
| **Logged By:** | J. Schroer | **Dug By:** | |
| **Easting, Northing:** | | | |

| DEPTH (m) | STRATIGRAPHIC UNIT DESCRIPTION | Geology | DEPTH (ft) | COMPR. STRENGTH (kPa) | Sample Number | Sample Type |
|---|---|---|---|---|---|---|
| | ORGANIC OVERBURDEN | | | | | |
| | PERFORATED PIPE | | | | | |
| | CRUSHED ROCK 1 - 1 1/2" | | | | | |
| | SAND | | | | | |
| | RED CLAY | | | | | |
| | NO GROUND WATER | | | | | |

NATECH Environmental Services Inc.
2492 Route 640, Hanwell, N.B., E3E 2C2
ph: (506) 455 1085, fax: (506) 455 1088

# Test Pit Log

| | | | |
|---|---|---|---|
| **Project:** | PID 00875237<br>SHEDIAC BRIDGE, NB | **Date Dug:** | 2016/06/01 |
| **Ground Elevation:** | | **Pit ID:** | TP5 |
| **Logged By:** | J. Schroer | **Dug By:** | |
| **Easting, Northing:** | | | |

| DEPTH (m) | STRATIGRAPHIC UNIT DESCRIPTION | Geology | DEPTH (ft) | COMPR. STRENGTH (kPa) | Sample Number | Sample Type |
|---|---|---|---|---|---|---|
| | ORGANIC OVERBURDEN | | | | | |
| | SAND<br>CLASS B | | | | | |
| | GREY CLAY | | | | | |
| | NO GROUND WATER | | | | | |

NATECH Environmental Services Inc
2492 Route 640, Hanwell, N.B., E3E 2C2
ph: (506) 455 1085, fax: (506) 455 1088

NATECH
Environmental Services Inc.
2492 Route 640., Hanwell N.B. E3E 2C2
ph: (506) 455-1085, fax: (506) 455-1088

LEGEND

| | | |
|---|---|---|
| FOR APPROVAL | 02 | 16/06/28 |
| FOR INFORMATION | 01 | 16/06/02 |
| | No/N$^{O}$ | Date |

ON-SITE EFFLUENT TREATMENT AND DISPOSAL FOR CONDOMINIUM DEVELOPMENT SHEDIAC BRIDGE, NB

TEST PITS

| | |
|---|---|
| Date<br>2016/06/02 | |
| Scale<br>1 : 450 | Echelle |
| Drawn by<br>T. CLEGHORN | Déssine par |
| Approved by<br>J. SCHROER | Approuve par |
| Consultant reference number | Numéro de référence de l'expert-conseil |

REGISTERED PROFESSIONAL ENGINEER
Province of New Brunswick
#9437/20
Jochen Schroer
Signature
16/06/28
Date
Province du Nouveau - Brunswick
INGÉNIEUR IMMATRICULÉ

| | |
|---|---|
| Project No.<br>N$^{O}$ du projet | Sheet No.<br>N$^{O}$ de la feuille<br>C-05 |

# SPECIFICATIONS

## 1. GENERAL SPECIFICATIONS:

1.1 ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL LOCAL PROVINCIAL, AND NATIONAL BUILDING CODES, THE CANADIAN BUILDING CODE, THE CANADIAN ELECTRICAL CODE AND THE CANADIAN PLUMBING CODE, LATEST EDITIONS.

1.2 ALL WORK SHALL BE CARRIED OUT BY PERSONS QUALIFIED IN THEIR TRADE AND LICENSED TO PRACTICE SUCH TRADE IN N.B. THE INSTALLER SHALL BE A MEMBER IN GOOD STANDING OF THE NB AOWP (THE NEW BRUNSWICK ASSOCIATION OF ONSITE WASTERWATER PROFESSIONALS).

1.3 ALL SHOP DRAWINGS PROVIDED BY OTHERS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO THE FABRICATION OF MATERIAL OR THE PURCHASE OF NON-RETURNABLE STOCK. DIMENSIONAL REVIEW IS THE CONTRACTOR'S RESPONSIBILITY.

1.4 ANY AND ALL TEMPORARY BRACING AND SHORING WHICH IS NEEDED TO HOLD THE STRUCTURES IN PLACE IN A SAFE AND STABLE POSITION UNTIL THE PROJECT IS COMPLETE IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR HAS TO CONSULT AN INDEPENDENT ENGINEER IF DESIGN ASSISTANCE OR REVIEW IS NEEDED.

1.5 ALL MATERIAL AND WORK SHALL CARRY A MINIMUM ONE YEAR WARRANTY AFTER THE DATE OF COMMISSIONING.

1.6 ALL CHANGES TO THE DESIGN WILL BE RECORDED BY THE CONTRACTOR ON "AS BUILT" DRAWINGS AND TOGETHER WITH ALL MANUALS AND DOCUMENTS PROVIDED TO THE OWNER AT THE END OF THE JOB.

1.8 THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. ANY CHANGES MUST BE APPROVED BY THE ENGINEER.

1.9 IT IS THE ELECTRICIAN'S RESPONSIBILITY TO OBTAIN PERMISSION FROM THE DEPARTMENT OF LABOUR TO INSTALL THE LIFT STATION AND ALL ASSOCIATED FEATURES.

1.10 ALL UNDERGROUND UTILITY LINES TO BE LOCATED AND MARKED BY CONTRACTOR PRIOR TO DIGGING.

1.11 ALL RISERS SHALL BE EXTENDED TO THE SURFACE, COMPLETE WITH CHILD PROOF, TAMPER PROOF LIDS.

1.12 ALL GRAVITY CONECTIONS SHALL HAVE A 2% SLOPE, UNLESS OTHERWISE SPECIFIED.

## 2. PRODUCTS:

2.1 DISTRIBUTION BOX: CONCRETE BOX, AS SHOWN ON DRAWINGS, WITH SPEED LEVELLERS AVAILABLE FROM A & P CONCRETE OR APPROVED EQUAL.

2.2 LARGE DIAMETER MATTED PIPE (LDMP): ENVIRO-SEPTIC PIPE AS MANUFACTURED BY PRESBY ENVIRONMENTAL, AVAILABLE FROM J & L MARKETING, OR APPROVED EQUAL.

2.3 GRAVITY SEWER PIPING: 100MM PVC SCHEDULE 40. UNLESS NOTED OTHERWISE, ALL JOINTS TO BE GLUED.

2.4 TREATMENT SAND AROUND LDMP: MATERIAL HAS TO MEET THE FOLLOWING GRADATION:

| Sieve Size (mm) | % Pass by Weight |
|---|---|
| 10 | 100 |
| 2.5 | 80 - 100 |
| 1.25 | 30 - 100 |
| 0.6 | 15 - 95 |
| 0.3 | 4 - 15 |
| 0.2 | 2 - 8 |
| <0.1 | 0 - 3 |

2.5 BEDDING MATERIAL: MATERIAL HAS TO MEET THE FOLLOWING GRADATION:

| Sieve Size (mm) | % Pass by Weight |
|---|---|
| 40 | 100 |
| 28 | 95 - 100 |
| 20 | 90 - 100 |
| 10 | 60 - 100 |
| 5 | 35 - 80 |
| 2.5 | 15 - 60 |
| 0.3 | 0 - 30 |
| 0.1 | 0 - 10 |

2.6 TOP SOIL SHALL BE A MIXTURE OF SOIL AND DECOMPOSING ORGANIC MATTER USED AS A FERTILIZER, MULCH, OR COMPOST. COMPOST IS PROCESSED ORGANIC MATTER CONTAINING 40% OR MORE ORGANIC MATTER. TOP SOIL TO BE COVERED WITH GRASS SEED AND HAY MULCH.

2.7 SEWAGE TREATMENT TANK AND EQUIPMENT TO BE PROVIDED BY RH2O NORTH AMERICA OF BRESLAU, ONTARIO.

2.8 PIPING:

| LOCATION | MATERIAL | DIAMETER | THICKNESS | JOINTS |
|---|---|---|---|---|
| FROM BUILDING TO SEPTIC TANKS | ABS | 100 OR 150MM | | GLUED |
| FROM SEPTIC TANKS TO LIFT STATION | PVC | 100MM | SCHEDULE 40 | GLUED |
| FROM LIFT STATION TO DISPOSAL FIELD | HDPE | 50MM | 100 PSI | |
| IN DISPOSAL FIELD | PVC | 100MM | SCHEDULE 40 | GLUED |

2.9 CONTROL BUILDING:
- EXHAUST FAN: GREENHECK DIRECT DRIVE EXHAUST FAN CW060 OR APPROVED EQUAL
- LOUVER: FIXED LOUVRES MODEL EAL-2F BY CANARM HVAC PRODUCTS OR APPROVED EQUAL.

GENERAL CONDITIONS FOR WSB WASTEWATER TREATMENT PLANT

A. ALL WORK, INSTALLATION AND CONNECTIONS OF THE WSB® CLEAN SYSTEM SHALL BE DONE IN ACCORDANCE WITH THE WRITTEN INSTRUCTIONS IN THE WSB® CLEAN INSTALLATION MANUAL AND IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES AND REGULATIONS.

B. THE WSB® CLEAN SYSTEM SHALL COME EQUIPPED WITH AN AIR BLOWER FOR DELIVERING AIR INTO THE BIOREACTOR. THE AIR BLOWER MUST BE INSTALLED WITHIN 15M (50 FT) OF THE TREATMENT SYSTEM. THE AIR BLOWER MUST BE IDENTIFIED AS AN APPROPRIATE MATCH FOR THE WSB® MODEL.

C. THE WSB® CONTROL PANEL PROVIDES POWER TO THE MECHANICAL EQUIPMENT AND COMES EQUIPPED WITH A VISUAL AND AUDIBLE ALARM CAPABLE OF SIGNALING MECHANICAL MALFUNCTION AND HIGH WATER CONDITIONS. ALARMS SHALL BE A 120 VOLT AUDIBLE ALARM LOCATIED IN A CONVENIENT, ACCESSIBLE AREA, AND CLEARLY AND PERMANENTLY LABELED AS "SEWAGE PUMP TANK-HIGH LEVEL ALARM".

D. ALL ACCESS OPENINGS MUST BE INSTALLED TO GRADE AND SECURED TO PREVENT ACCIDENTAL OR UNAUTHORIZED ACCESS.

E. A MAXIMUM OF 1 METRE BURIAL DEPTH IS ALLOWABLE ON TOP OF THE TANK IN A NON-TRAFFIC AREA. EXTRA REINFORCMENT IS REQUIRED FOR USE IN AREAS WITH VEHICULAR TRAFFIC AND BURIAL DEPTHS OVER 1 METRE.

F. WSB® MUST BE REPRESENTED DURING CONSTRUCTION ACTIVITIES TO VERIFY DESIGN ASSUMPTIONS AND TO DOCUMENT THE THE CONSTRUCTION OF THE SYSTEM. THIS DESIGN CANNOT BE RELIED UPON WITHOUT THIS SUPERVISION.

NOTES:

1. ALL WORK, INSTALLATION AND CONNECTIONS SHALL BE DONE IN ACCORDANCE WITH THE WRITTEN INSTRUCTIONS IN THE TANK MANUFACTURERS INSTALLATION GUIDELINES AND IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES AND REGULATIONS.
2. ALL ACCESS OPENINGS MUST BE SECURED TO PREVENT ACCIDENTAL OR UNAUTHORIZED ACCESS AND INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL CODES AND REGULATIONS.
3. ALL PIPE SEALS ARE FLEXIBLE WATERTIGHT SEALS AND ACCOMMODATE THE PIPE SIZES AS NOTED ON THE DRAWING.
4. STANDARD ACCESS OPENINGS ARE 24" POLYETHYLENE UNLESS OTHERWISE NOTED DRAWING.
5. THE PARTITION IS CAST MONOLITHICALLY WITHIN THE WALLS AND FLOOR UNLESS OTHERWISE NOTED ON DRAWING.
6. ALL JOINTS MUST BE SEALED WITH MASTIC SEALANT TO ENSURE WATER TIGHT SEAL.

2.2.1 SEPTIC TANKS: CSA APPROVED, AS PROVIDED BY RH2O / A & P Concrete

2.2.2 DISTRIBUTION BOXES: COMMERCIAL SIZE CONCRETE BOX, AS SHOWN ON DRAWING, WITH SPEED LEVELERS AND CONCRETE RISERS AND COVERS, AS PROVIDED BY A & P CONCRETE OR APPROVED EQUAL.

2.2.3 TWO 800 IGAL GREASE INTERCEPTOR: PROVIDED BY RH20 / A&P CONCRETE

2.2.4 MECHANICAL PUMP INSTALLATION: STAINLESS STEEL DUPLEX RAIL SYSTEM C/W RAIL SYSTEM AS PROVIDED BY RH20.

2.2.5 ALUMINUM ACCESS DOOR: LOCKABLE DOOR WITH NON-CORRODING HINGES CAST INTO COVER.

## 3. PROCEDURES & TESTING

3.1 ALL SEWER PIPE TO BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.

3.2 ALL NON GASKETED PIPE TO BE GLUED AT JOINTS. ENDS TO BE CAPPED WHERE APPLICABLE.

3.3 PRIOR TO BACKFILLING, THE DISPOSAL FIELD HAS TO BE INSPECTED BY THE ENGINEER.

3.4 THE PUMP SYSTEM IS TO BE TESTED IN PRESENCE OF THE ENGINEER.

3.5 ALL SEPTIC TANKS TO BE LEAK TESTED IN PRESENCE OF THE ENGINEER PRIOR TO BACK FILLING UP TO THE SPRING LINE.

3.6 SOIL GRADATION CURVES AND 4 GAL SAMPLES OF TREATMENT SAND HAVE TO BE SUBMITTED TO THE ENGINEER ONE WEEK PRIOR TO COMMENCEMENT OF THE PROJECT.

3.7 BASE EXCAVATION IS TO BE SCARIFIED PRIOR TO PLACING FILL MATERIAL. NO EQUIPMENT (RUBBER TIRE OR TRACK) IS TO COME INTO CONTACT WITH THE SOIL AFTER SCARIFICATION. SCARIFIED SOILS CANNOT BE LFET EXPOSED TO RAIN. IMPORTED MATERIALS IS TO BE BLADED ONTO THE SCARIFIED AREA IN 0.20 TO 0.25 M LIFTS AND TRACK COMPACTED.

3.8 LEACHING BED SHALL BE IMMEDIATELY SODDED OR SEEDED UPON COMPLETION, SLOPED AREAS (4:1 OF STEEPER) MUST BE SODDED.

3.9 NO LANDSCAPING OR BUILDINGS ARE PERMITTED ON THE LEACHING BED AREA UNLESS SPECIFICALLY APPROVED BY WSP.

3.10 PUMP CHAMBERS AND PUMPS SHALL HAVE ALL ELECTRICAL COMPONENTS AND CONNECTIONS INSTALLED IN ACCORDANCE WITH THE CURRENT SPECIFICATIONS OF NB POWER.

3.11 TANKS SHALL BE INSTALLED ON 50 MM OF LOOSE SAND SPREAD EVENLY OVER MINIMUM 200 MM OF COMPACTED GRAVEL OR CRUSHED STONE.

3.12 THE BUILDING SUMP, WATER SOFTENER, WATER TREATMENT, FURNACE CONDENSATE DISCHARGE AND EAVES TROUGH DOWN SPOUTS SHALL NOT BE CONNECTED TO THE SEWAGE SYSTEM. DIRECT ALL SUCH FLOWS TO APPROVED OUTLETS LOCATED AWAY FROM LEACHING BED AND TANK AREAS.

3.13 TANKS SHALL BE INSTALLED AT AN APPROPRIATE DEPTH TO ACCOMMODATE GRAVITY FLOW BETWEEN TANKS (WHERE APPLICABLE) BASED ON FINISHED GRADE.

3.14 ALL JOINT SEALS TO BE DONE WITH PRIMER AND MASTIC BAND, OR AS PER THE MANUFACTURER'S REQUIREMENTS.

3.15 ALL HOLES AROUND PIPES GOING THROUGH CONCRETE STRUCTURE SHALL BE SEALED WITH NON-SHRINKING GROUT FROM INSIDE AND OUTSIDE.

3.16 IF HIGH GROUNDWATER CONDITIONS ARE ENCOUNTERED, TANKS WITH DYNAMIC WATER LEVELS MUST BE ANCHORED. PROVIDE GROUNDWATER DIVERSION DRAINAGE FOR ALL TANKS PLACED IN CLAY SOILS.

3.17 TANK SEAMS AFFECTED BY HIGH GROUNDWATER ELEVATIONS MUST BE WATERPROOFED WITH AN EXTERIOR MEMBRANE.

NATECH
Environmental Services Inc.
2492 Route 640., Hanwell N.B. E3E 2C2
ph: (506) 455-1085, fax: (506) 455-1088

LEGEND

| No/N° | | Date |
|---|---|---|
| FOR APPROVAL | 02 | 16/06/28 |
| FOR INFORMATION | 01 | 16/06/02 |

ON-SITE EFFLUENT TREATMENT AND DISPOSAL FOR CONDOMINIUM DEVELOPMENT SHEDIAC BRIDGE, NB

SPECIFICATIONS

Date: 2016/06/02
Scale: Echelle
Drawn by / Dessine par: T. CLEGHORN
Approved by / Approuvé par: J. SCHROER
Consultant reference number / Numéro de reference de l'expert-conseil:

REGISTERED PROFESSIONAL ENGINEER Province of New Brunswick #M3799 Jochen Schroer Signature 16/06/28 Date Province du Nouveau - Brunswick INGÉNIEUR IMMATRICULÉ

Project No. / N° du projet:
Sheet No. / N° de la feuille: C-06

# Appendix C

## Wastewater treatment and disposal system Approval (NB Public Safety)

New Nouveau Brunswick

# APPROVAL TO INSTALL
# APPROBATION POUR L'INSTALLATION

2016/08/16

Public Safety
Ministère de la Sécurité publique

Technical Inspection Services
Services d'inspection technique

Carter's Septic Tank Service Ltd.
46295 Homestead RD
Second North River, NB
E4J 1Y5

7805

Licence Number / Numéro de licence: **386247**

Telephone of Licensee / No de téléphone du titulaire de licence: **506-852-6104**

| | | | |
|---|---|---|---|
| Permit Type / Type de licence | **OSSD Permit (N/C - Other System)** | PERMIT # | **412930** |
| Name of Property Owner / Nom du propriétaire | **P V C Homes c/o Max Godbout** | | |
| Property Location / Emplacement de la propriété | **3808 134 Rte Shediac Bridge** | PID # / NID | **875237** |

Based on the assessment conducted to ensure the proposed system meets the intent of the Public Health Act, NB Regulation 2009-137 and New Brunswick Technical Guidelines for On-site Sewage Disposal Systems, this on-site sewage disposal system application is

**APPROVED** for the **New Installation** of an on-site sewage disposal system on the property noted above designed for a flow of **2055 + 350/ Additional Room** l/d and for the intended use of

Date of Plan / Date du Plan **2016/07/28**

Compte tenu de l'évaluation menée en vue de vérifier que le système proposé respecte la visée de la Loi sur la santé publique, du Règlement du N.-B. 2009-137 et des lignes directrices techniques du Nouveau-Brunswick relativement aux systèmes autonomes d'évacuation et d'épuration des eaux usées, ce système autonome d'évacuation et d'épuration des eaux usées est

**APPROUVÉ** pour une **Nouvelle Installation** d'un système autonome d'évacuation et d'épuration des eaux usées sur la propriété susmentionnée pour un débit d'eaux usées de **2055 + 350/ Additional Room** litre/jour et pour l'utilisation

## IMPORTANT NOTICE

Should the design and location of the on-site sewage disposal system require any changes encountered during installation or for any other reason, Technical Inspection Services must be notified, in writing, and must approve the changes. All systems are subject to an audit and must remain uncovered for 3 full business days after the Inspector is in receipt of the Notification of Installation form.

**Approvals are valid for a period of 12 months, are not transferable and may be subject to regulatory changes. Expansion beyond the above noted estimated daily sewage flow may require a new approval. Applications are required for all expansions of commercial facilities and those licensed or requiring a licence for food-service premises under the Public Health Act.**

## AVIS IMPORTANT

S'il est nécessaire d'apporter des modifications à la conception et à l'emplacement du système autonome d'évacuation et d'épuration des eaux usées rencontrées pendant l'installation, ou pour toute autre raison, la Direction des Services d'inspection technique doit en être informée par écrit et elle doit approuver ces modifications. Tous les systèmes étant assujettis à une vérification et doit reste ouvert pendant trois jours ouvrables après que le bureau approprié de l'inspecteur ait reçu le formulaire d'avis d'installation.

**L'approbation d'une demande est valable pour une période de 12 mois, elle ne peut pas être transférée et est susceptible d'être modifiée. Un agrandissement qui cause un débit d'eaux usées plus élevé que le montant noté peut exiger une nouvelle demande. Si un établissement est utilisé à but commercial ou comme un local destiné aux aliments en vertu de la Loi sur la santé publique, une demande doit être remplie.**

**Inspector / Inspecteur** _____ **Date / Daté** Aug 16, 2016

**Chief Plumbing Inspector (if required) / L'inspecteur plombier en chef (si requis)** _____ **Date / Daté** _____

# FORM A

## ACCEPTANCE OF ON-SITE SEWAGE SYSTEM DESIGN BY ENGINEERING FIRM

*Please print clearly and complete Sections 1 to 3.

### 1. Engineering Design Firm Information

Engineering Design Firm Name:
**NATECH Environmental Services Inc.**

Individual Submitting Form:
**Jochen Schroer, P.Eng.**

Mailing Address:

**2492 Route 640, Hanwell, NB E3E 2C2**

**This engineering design firm acknowledges professional liability* for the system design dated June 28, 2016 and carrying Jochen Schroer's signature.**
***Liability is defined as and limited to the professional negligence of the engineer.***

Signature: J. Schroer Date: July 28, 2016

### 2. Installation Company Information

Licensed Installer Company Name:
Carter's Septic

Licence Number:
386247

Mailing Address:

### 3. Property Information

Property Owner:
**PVC Home Builder**

Property Location:
**3808 Route 134, Shediac Bridge, NB**

Area and Dimensions:
**1.62 hectares (approx. 186m x 62m)**

PID:
**00875237**

### 4. Office Use Only

An assessment has been conducted to ensure the proposed on-site sewage disposal system design and application meets the intent of *Regulation 2009-137*. Based on this assessment, the Inspector deems the design and application is compliant with *Regulation 2009-137*:

Yes ☒ No ☐ (see comments)

Signature of Inspector: Shawn R Dow Date: August 16, 2016

Approval of Chief Plumbing Inspector:
Yes ☒ No ☐ (see comments)

Signature of Chief Plumbing Inspector: William Fuller Date: Aug 12, 2016

This approval is valid for a period of 1 year (365 days) from date of signature by the Chief Plumbing Inspector and does not confer liability on employees of the New Brunswick Department of Public Safety.

This approval does not constitute a warranty as per Section 24(5) of the *Public Health Act*.

# Appendix D

# Water Supply Source Assessment

# Water Supply Source Assessment

## Step One Application

**1)** Name of proponent: **PVC Home Builder, 281 St-George Street, P.O. Box 272, Moncton NB E1C 8K9, Mr. Philip Couture, Phone 506-312-1068.**

**2)** Locations of drill targets (including property PID) and the purpose of the proposed water supply? **The proposed condo development will be a resort having a total of 33 units, each unit having two bedrooms. The water supply will provide water for drinking, washing and other normal residential activities within the condominium. The property PID is 00875237. The drill target is shown in Figure 1 in blue ink and identified as PW1. The potential drill target location is constrained by the existing and proposed septic systems, overhead power lines and the configuration of the proposed condominium. It is proposed that an existing well on the property be used as an observation well. This is shown in Figure 1 in blue ink as OBS1.**

**3)** Required water quantity (in $m^3$/day) and/or required pumping rate: **The design water demand for private recreational or residential homes is prescribed in the NBDELG Water Supply Assessment Guideline as follows:**

**"The per-person requirement shall be 450 liters per day. Peak demand occurs for a period of 120 minutes each day. This is equivalent to a peak demand rate of 3.75 liters/minute (0.82 igpm) for each person. The basic minimum pumping test rate is this**

**rate multiplied by the "likely number of persons per well" which, for a single family residence shall be the number of bedrooms plus one."**

**The proposed condominium will have 33 units with two bedrooms each, yielding a population estimate of 99 persons. This translates to a daily water requirement of 44.55 $m^3$/day or 6.8 igpm on a 24-hour basis. This produces a peak demand rate of 81 igpm. It is recognized that these design numbers are high and error on the side of high capacity. The NB DOH Technical Guidelines for On-site Sewage Disposal Systems (Version 5, 2016) gives a design number of 1022 L/day for two bedroom units. Using these design numbers, the proposed condominium development would require 31 $m^3$/day or 4.7 igpm over the 24-hour period. This produces a peak demand rate of 56 igpm. It is felt that these latter numbers are more accurate predictions of actual useage.**

**4)** List alternate water supply sources in area (including municipal systems): **There are no practical alternatives to the proposed groundwater supply. A surface water supply would be unsuitable due to potential contamination issues and in any event, the closest potential source is salt water.**

**5)** Discuss area hydrogeology as it relates to the project requirements. **The surficial overburden at the site is red sandy till of approximately 0 to 5.5 meters (0 to 18 feet) in thickness. The overburden is not used for ground water supplies in the area.**

**The bedrock in the area is mapped as Pennsylvanian age sedimentary rocks composed of red and grey conglomerate, sandstone, siltstone, and shale, which also forms the local bedrock aquifer. The bedrock is known to be relatively transmissive (readily conducts the flow of ground water). The bedrock units or layers tend to be lenticular (i.e. of variable lateral extent and thickness) and are thought to have formed as a result of sedimentary particles deposited from flowing water (alluvial deposition). The individual beds average less than 1 meter in thickness; however, the total bedrock unit can be several hundred meters thick. This bedrock aquifer covers a large portion of New Brunswick, stretching from the Fredericton area northeast to Shippigan and southeast to the Shediac area.**

**Based on common knowledge of the area, the bedrock aquifer has been successfully developed for private residential wells by a number of individuals over the general area. The general conditions found in the aquifer are suitable for water supply development. Local well drillers with knowledge of the area confirmed the potential for water supply development in terms of private wells. The near surface layers of sandstone may be soft and prone to caving in the well annulus resulting in the need for greater casing lengths than might normally be used.**

**<u>NBDELG Well Log Data:</u> A search of the NBDOE well log database for records located within a 250 m radius around the proposed development was carried out August 26, 2016 and the search yielded 13 well logs. A summary of the information contained in the well logs is provided in Table 1, immediately below.**

**Table 1: Summary of hydrogeologic information derived from search of NBDOE well log database (250 meter search radius).**

| Well Depth (feet) | Estimated Yield (igpm) | Depth to Bedrock (feet) | Casing Length (feet) |
|---|---|---|---|
| Average: 86.5 | Average: 19.5 | Average: 7.2 | Average: 41.4 |
| Median: 77 | Median: 12 | Median: 7 | Median: 30 |
| Minimum: 32 | Minimum: 5 | Minimum: 0 | Minimum: 20 |
| Maximum: 200 | Maximum: 100 | Maximum: 18 | Maximum: 137 |

**As can be seen from the above information the average well in the area is approximately 86.5 feet deep with an estimated yield of approximately 19.5 igpm. As expected in any rock unit the yields are variable with a minimum yield of 5 igpm being estimated. Based on the average estimated safe yield of 19.5 igpm for the existing domestic wells, the relatively shallow depth of those wells (86.5 feet (26.4meters), the development of a water supply providing 4.7 igpm (31 m3/day) would appear to be a reasonable expectation. The higher the flow that can be developed from a production well without having undue effects on existing wells would result in lower storage requirements. Based on discussions with the well driller it is expected that a deeper freshwater aquifer is present in the area and higher yields are expected from that aquifer.**

**NBDELG Well Water Chemistry Data:** **A search of the NBDELG well chemistry database for locations in a 250 m radius around the proposed development was carried out August 26, 2016 and the search yielded six inorganic chemistry records. The precise locations of the wells from which the ground water chemistry was obtained are not available due to right to privacy considerations for the property owners. These well chemistry analytical results are provided in Table 2, which follows. The average value of the measured result and the Canadian Drinking Water Quality Guideline (CDWQG) are included in the table for the purpose of comparison. Any parameter which exceeds the Canadian Drinking Water Quality Guideline concentration is bolded and shaded for ease of recognition in the data table.**

**Out of the six chemistry records available, one well had an exceedence of the CDWQG for iron of 0.3 mg/L and the same well exceeded the CDWQG concentration for manganese of 0.05 mg/L. The guidelines for iron and/or manganese are based on esthetic considerations, not health. Iron and/or manganese can cause staining of plumbing fixtures and laundry. Iron and/or manganese can usually be readily removed by commercial water softeners at the hardness observed in this water or by filters. The presence of Iron and/or manganese in the groundwater from this aquifer is not uncommon and is commonly the result of natural conditions.**

**A single well out of the 10 samples in the dataset had an exceedance of the CDWQG for lead. The observed concentration was 151 µg/L compared to the CDWQG of 10 µg/L. Elevated concentrations of lead can be treated using distillation, reverse osmosis or**

**Table 2**

CDWQG = Canadian Drinking Water Quality Guideline

## NBDOE Groundwater Chemistry Database

| Parameter | ALK_T (mg/L) | Al (mg/L) | As (µg/L) | B (mg/L) | Ba (mg/L) | Br (mg/L) | COND (µSIE/cm) | Ca (mg/L) | Cd (µg/L) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | 117 | 0.025 | 2.2 | 0.024 | 0.159 | 0.1 | 321 | 9.33 | 0.5 |
| | 44.6 | 0.025 | 1.5 | 0.027 | 0.041 | 0.1 | 269 | 25.4 | 0.5 |
| | 68.2 | 0.025 | 1.5 | 0.01 | 0.128 | 0.1 | 207 | 26.3 | 0.5 |
| | 55.2 | 0.025 | 1.5 | 0.2 | 0.099 | 0.1 | 345 | 44.3 | 0.5 |
| | 64.4 | 0.025 | 1.61 | 0.014 | 0.127 | 0.143 | 230 | 25.9 | 0.5 |
| | 108 | 0.025 | 1.5 | 0.011 | 0.464 | 0.1 | 235 | 13.4 | 0.5 |
| | | | | | | | | | |
| **Mean** | **76.2** | **0.025** | **1.6** | **0.048** | **0.170** | **0.1** | **268** | **24.1** | **0.5** |
| **CDWQG** | | | **<10** | **<5.0** | **<1.0** | | | | **<5.0** |

| Parameter | Cl (mg/L) | Cr (µg/L) | Cu (µg/L) | E_coli P/A (P/A) | F (mg/L) | Fe (mg/L) | HARD (mg/L) | K (mg/L) | Mg (mg/L) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | 27.3 | 11 | 10 | Ab | 0.113 | 0.098 | 29 | 1.57 | 1.4 |
| | 38.1 | 10 | 16 | Ab | 0.1 | 0.047 | 80.8 | 1.3 | 4.2 |
| | 11.3 | 10 | 10 | Ab | 0.1 | 0.037 | 81.6 | 1.38 | 3.87 |
| | 65.4 | 10 | 28 | Ab | 0.1 | 0.3 | 128 | 0.703 | 4.27 |
| | 23.7 | 10 | 42 | Ab | 0.1 | 0.041 | 81.9 | 1.22 | 4.18 |
| | 6 | 10 | 10 | Ab | 0.1 | **0.436** | 37.6 | 1.05 | 1.01 |
| | | | | | | | | | |
| **Mean** | **28.6** | **10** | **19** | | **0.10** | **0.160** | **73.2** | **1.20** | **3.16** |
| **CDWQG** | **<250** | **<50** | **<1000** | | **<1.5** | **<0.3** | | . | |

**Table 2**

CDWQG = Canadian Drinking Water Quality Guideline

## NBDOE Groundwater Chemistry Database

| Parameter | Mn (mg/L) | NO2 (mg/L) | NO3 (mg/L) | NOX (mg/L) | Na (mg/L) | PH (pH) | Pb (µg/L) | SO4 (mg/L) | Sb (µg/L) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| | 0.043 | 0.05 | 0.05 | 0.05 | 57.7 | 8.43 | 2.1 | 6.83 | 1 |
| | 0.007 | 0.05 | 2.6 | 2.6 | 19.2 | 7.07 | 1 | 12.7 | 1 |
| | 0.048 | 0.05 | 0.37 | 0.42 | 9.98 | 8.23 | 1 | 14.7 | 1 |
| | 0.0062 | 0.05 | 2.9 | 2.9 | 14.5 | 8.01 | **151** | 9.66 | 1 |
| | 0.019 | 0.05 | 0.05 | 0.05 | 13.5 | 8.13 | 3.88 | 14.8 | 1 |
| | **0.104** | 0.05 | 0.05 | 0.05 | 35.7 | 8.33 | 1 | 5.86 | 1 |
| | | | | | | | | | |
| **Mean** | **0.038** | **0.05** | **1.00** | **1.01** | **25.10** | **8.03** | **26.7** | **10.76** | **1.00** |
| **CDWQG** | **<0.05** | **<10** | **<10** | **<10** | **<200** | **6.5-8.5** | **<10** | **<500** | **6** |

| Parameter | Se (µg/L) | TC-P/A (P/A) | TURB (NTU) | Tl (µg/L) | U (µg/L) | Zn (µg/L) | TDS (mg/L) |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | 1.5 | Ab | 0.89 | 1 | 0.5 | 5 | 175 |
| | 1.5 | Ab | 0.79 | 1 | 0.5 | 5 | 139 |
| | 1.5 | Ab | 0.3 | 1 | 0.5 | 6.5 | 111 |
| | 1.5 | Ab | 0.1 | 1 | | 22 | 185 |
| | 1.5 | Ab | 0 | 1 | 0.5 | 19 | 122 |
| | 1.5 | Ab | **2.7** | 1 | 0.5 | 24 | 129 |
| | | | | | | | |
| **Mean** | **1.5** | | **0.8** | **1** | **0.5** | **14** | **144** |
| **CDWQG** | | | **<1.0** | | **<20** | **<5000** | **<500** |

**specific filtering systems for drinking water which are available from plumbing contractors or water treatment specialists. Water containing elevated concentrations of lead should not be consumed; however, the water can be used for bathing or showering. The significant difference between the analytical result for lead in this sample (151 µg/L) compared to the range of the analytical results for the other samples (1.0-3.8 µg/L) and the relatively normal range for the other parameters for this sample suggests that the result of 151 µg/L could be an error.**

**A total of one out of the six chemistry records available had elevated turbidity present in the samples. The elevated levels of turbidity may be related to the relative newness of the wells and they may not have had sufficient time, or use, to clear naturally. Most new wells clear naturally with time and use. At levels in excess of 5 NTUs turbidity may become noticeable to consumers and therefore, objectionable. The turbidity may be the result of elevated concentrations of iron and or manganese or the presence of particulate in the water. In either case, turbidity can be treated by water softeners and/or particulate filters.**

**The observed water chemistries are of acceptable drinking water quality and can be considered to be typical of this bedrock unit. The elevated turbidity observed in a single well in the sample sets may be related to the newness of the wells and the fact that they have not been pumped sufficiently to clear the water Elevated turbidity values may also impact analytical results leading to overestimates of iron and manganese concentrations or other trace metals. Overall, the review of the inorganic ground water**

**chemistry provided in the NBDOE water quality database for the area did not reveal or indicate significant problems with other water quality parameters.**

**6)** Outline proposed hydrogeological testing and work schedule: **It is proposed that a new production well be drilled, constructed and tested before the end of September. It is our intention to initiate the drilling program as soon as possible, pending approval of the Step One Application. The new production well will be drilled into the deeper fresh water aquifer and the surface aquifer cased off. An existing surface aquifer well on site will be used as an observation well if such a well can be located and accessed. In the event that an existing well cannot be located and accessed an observation well will be drilled. The rational for having the observation well in the surface aquifer is that the majority of the existing private wells adjacent to the site are probably developed in the shallow aquifer. Pump testing of the production well would be carried out as soon as possible, contingent on acceptable weather conditions. The report would be submitted to New Brunswick Department of the Environment within two weeks of the completion of the pump test.**

**7)** Identify any existing pollution or contamination hazards within a (minimum) 500 m radius of the proposed drill targets. If groundwater use problems (quantity or quality) have occurred in the past, then these should be identified. Historical land use that might pose a contamination hazard (i.e. tannery, industrial, disposal, etc.) should also be discussed. **There is an existing septic system on site that will be decommissioned and a new septic field constructed. The shallow aquifer will be cased off to minimize**

**potential interference and this will also isolate the water source aquifer from the new septic field.**

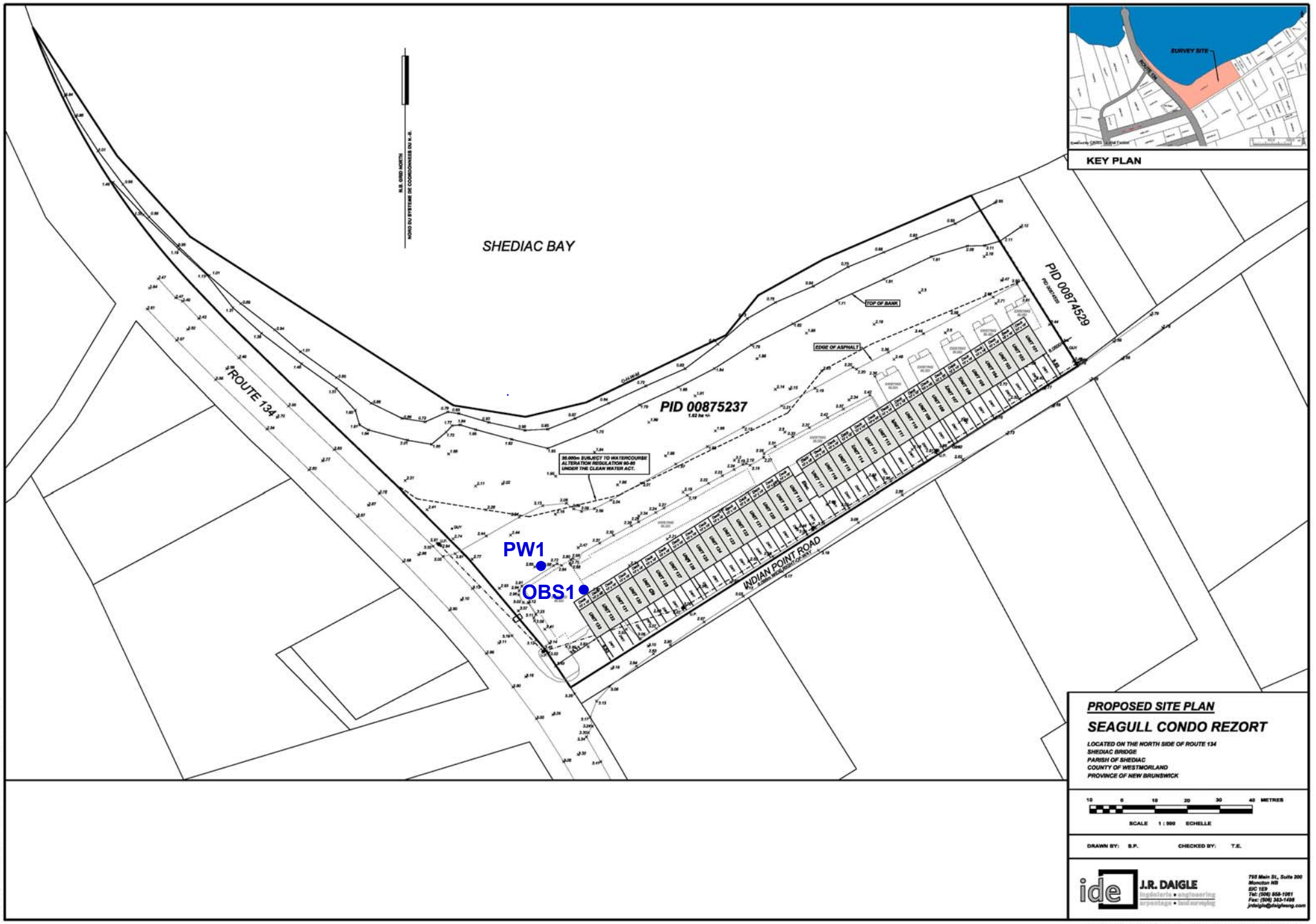
**8)** Identify any groundwater use problems (quantity or quality) that have occurred in the area. **No systematic groundwater use problems are known for this area. Salt water intrusion is possible.**

**9)** Identify any watercourse(s) (stream, brook, river, wetland, etc.) within 60 m of the proposed drill targets. **The Shediac River Harbour is located approximately 45 meters northeast of the proposed drill target.**

**10)** Identify site supervisory personnel involved in the source development (municipal officials, consultants and drillers: **Mr. Doug Craig (Craig Hydrogeologic Inc., 506-659-3064) and Mr. Jacques LeBlanc, (Eastern Well Drillers, 506 532 9797).**

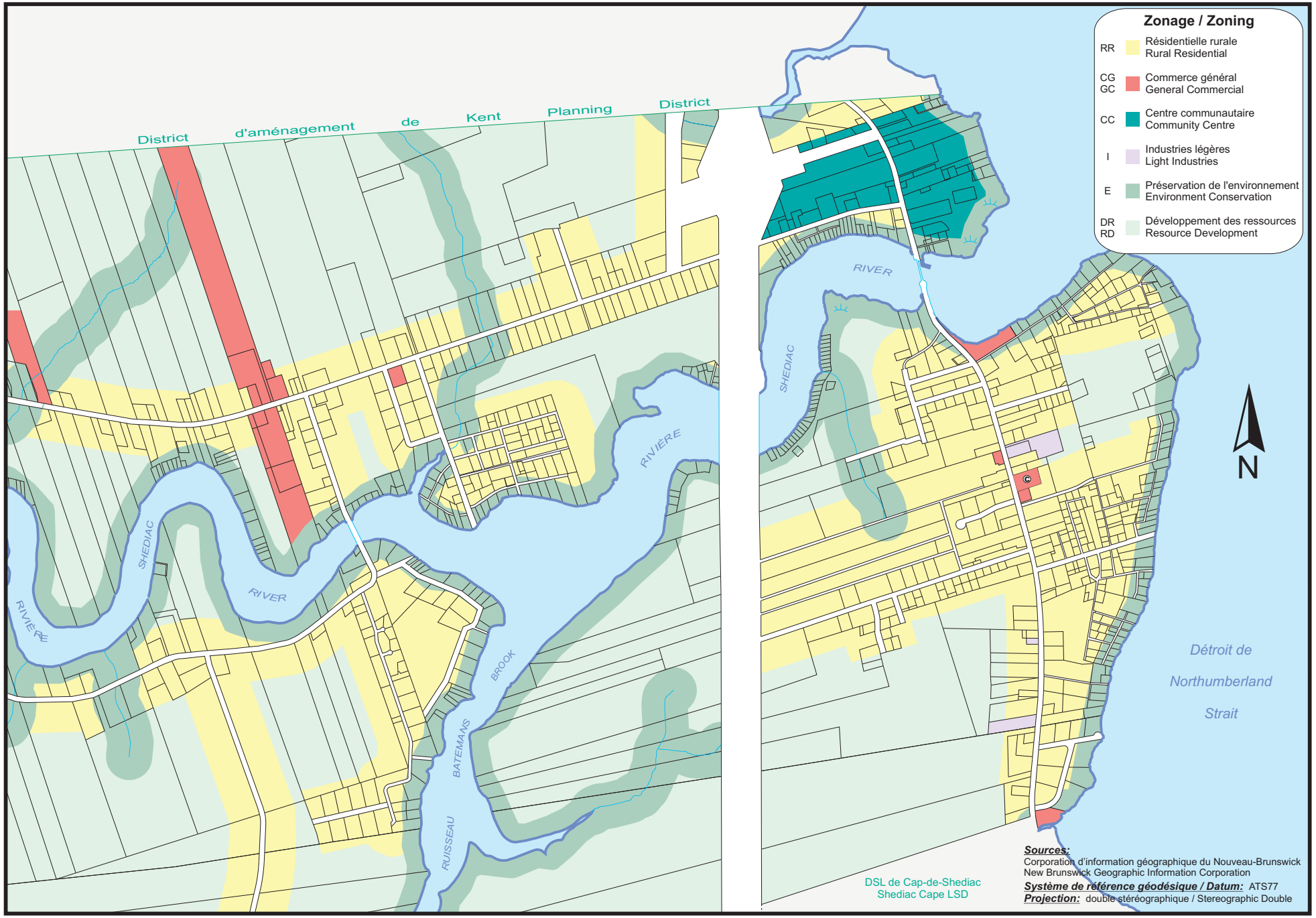
**11)** Figure 1 (site plan): **Please See Attached.**

**12)** Figure 2 (land use/zoning map): **A copy of a zoning map is attached to this Application.**




M:\2016\73900\SITE PLAN 2016 REV1.DWG ISO(N) A1 PRINTED 8:48 AM 23-Jun-2016 BP

# B-2 Carte de zonage de Pont-de-Shédiac / B-2 Shediac Bridge Zoning Map




**Sources:**
Corporation d'information géographique du Nouveau-Brunswick
New Brunswick Geographic Information Corporation

**Système de référence géodésique / Datum:** ATS77

**Projection:** double stéréographique / Stereographic Double

Regional Service Commission
Commission de services régionaux

Mètres / Meters

500 0 500 1000

**Carte préparée par: / Map prepared by:**
Julien Couturier
(le 27 Septembre 1999 / September 27 1999)
R: 30 janvier, January 2014

Seagull Condo, Shediac Bridge 260816

250 meter radius around PID 00875237

| **Well Depth** (Feet) | **Estimated Yield** (igpm) | **Depth to Bedrock** (Feet) | **Casing Length** (Feet) |
|---|---|---|---|
| | | | |
| | | | |
| 137 | 100 | 4 | 112 |
| 87 | 24 | 6 | 30 |
| 40 | 8 | 18 | 20 |
| 32 | 5 | 7 | 20 |
| 120 | 12 | 10 | 23 |
| 63 | 5 | 10 | 21 |
| 42 | 5 | 8 | 20 |
| 80 | 15 | 0 | 30 |
| 100 | 15 | 0 | 40 |
| 77 | 10 | 7 | 32 |
| 77 | 10 | 16 | 33 |
| 70 | 25 | 3 | 20 |
| 200 | 20 | 4 | 137 |
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| | | | |
| **Well Depth** (Feet) | **Estimated Yield** (igpm) | **Depth to Bedrock** (Feet) | **Casing Length** (Feet) |

| | | | | | |
|---|---|---|---|---|---|
| Median | 77 | 12 | 7 | 30 | Median |
| average | 86.5 | 19.5 | 7.2 | 41.4 | AVERAG |
| max | 200 | 100 | 18 | 137 | max |
| min | 32 | 5 | 0 | 20 | min |
| count | 13 | | | | |

New Nouveau Brunswick

**Environment**

Report Number **1616**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well | Rotary | 09/30/2002 |

## Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| 1616 | Steel | 6 inch | 0ft | 112ft | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Air | 0ft | 100 igpm | 1hr | 10ft | 100 igpm | No | 0 igpm |

(BTC - Below top of casing)

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| 1616 | 0ft | 4ft | EMPTY VALUE | Overburden |
| 1616 | 4ft | 46ft | Light brown | Sandstone |
| 1616 | 46ft | 82ft | Grey | Sandstone |
| 1616 | 82ft | 98ft | Soft brown | Sandstone |
| 1616 | 98ft | 104ft | Brown | Sandstone |
| 1616 | 104ft | 106ft | Brown | Shale |
| 1616 | 106ft | 136ft | Brown | Sandstone |
| 1616 | 136ft | 137ft | Soft red | Clay |

Overall Well Depth
137ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| 1616 | 28ft | 5 igpm |
| 1616 | 72ft | 1 igpm |
| 1616 | 82ft | 1 igpm |
| 1616 | 109ft | 7 igpm |
| 1616 | 125ft | 100 igpm |

## Setbacks

There is no Setback information.

New Nouveau Brunswick

**Environment**

Report Number **8797**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well | Cable Tool | 07/09/2004 |

## Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **8797** | **Steel** | **6 inch** | **0ft** | **30ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Bailer | 22ft (BTC - Below top of casing) | 24 igpm | 1hr | 40ft | 24 igpm | No | 0 igpm |

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Other

Qty 0 ig

Pump Installed
Submersible
Intake Setting (BTC)
0ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **8797** | **0ft** | **3ft** | **Brown** | **Fill** |
| **8797** | **3ft** | **6ft** | **Red** | **Clay** |
| **8797** | **6ft** | **22ft** | **Brown** | **Medium Sandstone** |
| **8797** | **22ft** | **87ft** | **Brown** | **Medium Sandstone** |

Overall Well Depth
87ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **8797** | **60ft** | **8 igpm** |
| **8797** | **80ft** | **24 igpm** |

## Setbacks

| Well Log | Distance | Setback From |
|---|---|---|
| **8797** | **65ft** | **Septic Tank** |
| **8797** | **75ft** | **Leach Field** |
| **8797** | **100ft** | **Right of any Public Way Road** |

New Nouveau Brunswick

**Environment**

Report Number **10352**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well | Cable Tool | 09/25/2004 |

## Casing Information

Casing above ground 1ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **10352** | **Steel** | **6 inch** | **0ft** | **20ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Bailer | 8ft (BTC - Below top of casing) | 50 igpm | 0hr | 8ft | 8 igpm | No | 0 igpm |

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
32ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **10352** | **0ft** | **2ft** | **Brown** | **Topsoil** |
| **10352** | **2ft** | **18ft** | **Brown** | **Sand** |
| **10352** | **18ft** | **40ft** | **Brown** | **Fine Sandstone** |

Overall Well Depth
40ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **10352** | **37ft** | **50 igpm** |

## Setbacks

| Well Log | Distance | Setback From |
|---|---|---|
| **10352** | **60ft** | **Septic Tank** |
| **10352** | **80ft** | **Leach Field** |

New Nouveau Brunswick

**Environment**

Report Number **13895**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well | Rotary | 06/10/2008 |

## Casing Information

Casing above ground 1ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **13895** | **Steel** | **6 inch** | **0ft** | **20ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| | 5ft | 75 igpm | 1hr | 5ft | 5 igpm | No | 0 igpm |
| | (BTC - Below top of casing) | | | | | | |

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)
Qty 0 ig

Pump Installed
N/A
Intake Setting (BTC)
0ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **13895** | **0ft** | **2ft** | **Brown** | **Topsoil** |
| **13895** | **2ft** | **7ft** | **Brown** | **Fill** |
| **13895** | **7ft** | **32ft** | **Brown** | **Fine Sandstone** |

Overall Well Depth
32ft

Bedrock Level
7ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **13895** | **25ft** | **15 igpm** |
| **13895** | **30ft** | **60 igpm** |

## Setbacks

| Well Log | Distance | Setback From |
|---|---|---|
| **13895** | **100ft** | **Septic Tank** |
| **13895** | **110ft** | **Leach Field** |
| **13895** | **200ft** | **Right of any Public Way Road** |

New Nouveau Brunswick

**Environment**

Report Number **24058**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well | Rotary | 10/29/2009 |

## Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| 24058 | Steel | 6 inch | 0ft | 23ft | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Air | 5ft (BTC - Below top of casing) | 12 igpm | 1hr | 5ft | 12 igpm | No | 0 igpm |

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Chlorine Pucks
Qty 0 ig

Pump Installed
N/A
Intake Setting (BTC)
0ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| 24058 | 0ft | 10ft | Brown | Overburden |
| 24058 | 10ft | 25ft | Grey | Soft Sandstone |
| 24058 | 25ft | 44ft | Grey | Sandstone |
| 24058 | 44ft | 56ft | Brown | Clay and Shale |
| 24058 | 56ft | 68ft | Dark grey | Sandstone |
| 24058 | 68ft | 84ft | Brown | Clay and Shale |
| 24058 | 84ft | 110ft | Grey | Sandstone |
| 24058 | 110ft | 120ft | Brown | Clay and Shale |

Overall Well Depth
120ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| 24058 | 12ft | 10 igpm |
| 24058 | 25ft | 6 igpm |
| 24058 | 31ft | 6 igpm |

## Setbacks

| Well Log | Distance | Setback From |
|---|---|---|
| 24058 | 52ft | Right of any Public Way Road |
| 24058 | 75ft | Septic Tank |
| 24058 | 80ft | Leach Field |

New Nouveau Brunswick

**Environment**

Report Number **24806**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well | Rotary | 04/05/2010 |

## Casing Information

Casing above ground 1ft 6in — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **24806** | **Steel** | **6 inch** | **0ft** | **21ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Air | 8ft (BTC - Below top of casing) | 25 igpm | 0hr | 8ft | 5 igpm | No | 0 igpm |

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Bleach (Javex)
Qty 0 ig

Pump Installed
Submersible
Intake Setting (BTC)
40ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **24806** | **0ft** | **3ft** | **Brown** | **Topsoil** |
| **24806** | **3ft** | **10ft** | **Brown** | **Fill** |
| **24806** | **10ft** | **30ft** | **Brown** | **Medium Sandstone** |
| **24806** | **30ft** | **45ft** | **Grey** | **Medium Sandstone** |
| **24806** | **45ft** | **63ft** | **Brown** | **Fine Sandstone** |

Overall Well Depth
63ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **24806** | **45ft** | **4 igpm** |
| **24806** | **60ft** | **21 igpm** |

## Setbacks

| Well Log | Distance | Setback From |
|---|---|---|
| **24806** | **60ft** | **Septic Tank** |
| **24806** | **85ft** | **Leach Field** |
| **24806** | **70ft** | **Right of any Public Way Road** |

New Nouveau Brunswick

**Environment**

Report Number **27199**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well | Rotary | 07/28/2009 |

## Casing Information

Casing above ground 1ft 6in — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **27199** | **Steel** | **6 inch** | **0ft** | **20ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Air | 7ft (BTC - Below top of casing) | 30 igpm | 1hr | 7ft | 5 igpm | No | 0 igpm |

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Chlorine Pucks
Qty 0 ig

Pump Installed
N/A
Intake Setting (BTC)
0ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **27199** | **0ft** | **3ft** | **Brown** | **Topsoil** |
| **27199** | **3ft** | **8ft** | **Brown** | **Fill** |
| **27199** | **8ft** | **42ft** | **Brown** | **Fine Sandstone** |

Overall Well Depth
42ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **27199** | **38ft** | **30 igpm** |

## Setbacks

| Well Log | Distance | Setback From |
|---|---|---|
| **27199** | **60ft** | **Septic Tank** |
| **27199** | **80ft** | **Leach Field** |
| **27199** | **75ft** | **Right of any Public Way Road** |

New Nouveau Brunswick

**Environment**

Report Number **39480**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well | Rotary | 12/09/2015 |

## Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| 39480 | Steel | 6 inch | 0ft | 30ft | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Air | 7ft (BTC - Below top of casing) | 15 igpm | 1hr | 7ft | 15 igpm | No | 0 igpm |

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
Chlorine pellets
Qty 0 ig

Pump Installed
N/A
Intake Setting (BTC)
0ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| 39480 | 0ft | 6ft | Brown | Shale |
| 39480 | 6ft | 52ft | Grey | Sandstone |
| 39480 | 52ft | 53ft | Brown | Shale |
| 39480 | 53ft | 64ft | Grey | Sandstone |
| 39480 | 64ft | 80ft | Brown | Shale |

Overall Well Depth
80ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| 39480 | 22ft | 1 igpm |
| 39480 | 26ft | 6 igpm |
| 39480 | 39ft | 15 igpm |

## Setbacks

| Well Log | Distance | Setback From |
|---|---|---|
| 39480 | 120ft | Septic Tank |
| 39480 | 80ft | Leach Field |
| 39480 | 75ft | Right of any Public Way Road |
| 39480 | 85ft | Center of road |

New Nouveau Brunswick

**Environment**

Report Number **91065500**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well (NEW WELL) | Rotary (ROTARY) | 09/13/1997 |

## Casing Information

Casing above ground 0ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **91065500** | **Steel** | **6 inch** | **0ft** | **40ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Air | 15ft | 15 igpm | 1hr | 40ft | 15 igpm | No | 0 igpm |

(BTC - Below top of casing)

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
Submersible

Intake Setting (BTC)
85ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **91065500** | **0ft** | **15ft** | **Brown** | **Sandstone** |
| **91065500** | **15ft** | **100ft** | **Grey** | **Sandstone** |

Overall Well Depth
100ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **91065500** | **90ft** | **15 igpm** |

## Setbacks

There is no Setback information.

New Nouveau Brunswick

**Environment**

Report Number **91379700**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well (NEW WELL) | Rotary (ROTARY) | 05/05/1999 |

## Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **91379700** | **Steel** | **6 inch** | **0ft** | **32ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Air | 0ft | 10 igpm | 1hr | 12ft | 10 igpm | No | 0 igpm |

(BTC - Below top of casing)

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **91379700** | **0ft** | **7ft** | **EMPTY VALUE** | **Overburden** |
| **91379700** | **7ft** | **14ft** | **Brown** | **Sandstone** |
| **91379700** | **14ft** | **21ft** | **Grey** | **Sandstone** |
| **91379700** | **21ft** | **28ft** | **Brown** | **Sandstone** |
| **91379700** | **28ft** | **29ft** | **EMPTY VALUE** | **Magnease** |
| **91379700** | **29ft** | **75ft** | **Grey** | **Sandstone** |
| **91379700** | **75ft** | **77ft** | **Brown** | **Clay and Shale** |

Overall Well Depth
77ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **91379700** | **36ft** | **6 igpm** |
| **91379700** | **70ft** | **4 igpm** |

## Setbacks

There is no Setback information.

New Nouveau Brunswick

**Environment**

Report Number **91460200**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well (NEW WELL) | Cable Tool (CABLE TOOL) | 04/27/1999 |

## Casing Information

Casing above ground 1ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **91460200** | **Steel** | **6 inch** | **0ft** | **33ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Bailer | 10ft | 10 igpm | 1hr | 30ft | 10 igpm | No | 0 igpm |

(BTC - Below top of casing)

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
65ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **91460200** | **0ft** | **16ft** | **Brown** | **Clay and Sand** |
| **91460200** | **16ft** | **22ft** | **Brown** | **Soft Sandstone** |
| **91460200** | **22ft** | **43ft** | **Brown** | **Hard Sandstone** |
| **91460200** | **43ft** | **70ft** | **Grey** | **Sandstone** |
| **91460200** | **70ft** | **77ft** | **EMPTY VALUE** | **Hard Clay** |

Overall Well Depth
77ft

Bedrock Level
16ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **91460200** | **25ft** | **3 igpm** |
| **91460200** | **70ft** | **10 igpm** |

## Setbacks

There is no Setback information.

New Nouveau Brunswick

**Environment**

Report Number **91471600**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well (NEW WELL) | Rotary (ROTARY) | 06/03/1999 |

## Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **91471600** | **Steel** | **6 inch** | **0ft** | **20ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Air | 0ft | 25 igpm | 1hr | 10ft | 25 igpm | No | 0 igpm |

(BTC - Below top of casing)

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
Submersible

Intake Setting (BTC)
0ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **91471600** | **0ft** | **3ft** | **EMPTY VALUE** | **Overburden** |
| **91471600** | **3ft** | **19ft** | **Grey** | **Soft Sandstone** |
| **91471600** | **19ft** | **30ft** | **Brown** | **Shale Stone** |
| **91471600** | **30ft** | **66ft** | **Grey** | **Sandstone** |
| **91471600** | **66ft** | **70ft** | **Brown** | **Clay and Shale** |

Overall Well Depth
70ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **91471600** | **27ft** | **25 igpm** |

## Setbacks

There is no Setback information.

New Nouveau Brunswick

**Environment**

Report Number **92070400**

# Well Driller's Report

Date printed 2016/08/26

Drilled by

| Well Use | Work Type | Drill Method | Work Completed |
|---|---|---|---|
| Drinking Water, Domestic | New Well | Rotary | 12/19/2000 |

## Casing Information

Casing above ground 2ft — Drive Shoe Used? Yes

| Well Log | Casing Type | Diameter | From | End | Slotted? |
|---|---|---|---|---|---|
| **92070400** | **Steel** | **6 inch** | **0ft** | **137ft** | |

## Aquifer Test/Yield

| Method | Initial Water Level (BTC) | Pumping Rate | Duration | Final Water Level (BTC) | Estimated Safe Yield | Flowing Well? | Rate |
|---|---|---|---|---|---|---|---|
| Air | 0ft (BTC - Below top of casing) | 20 igpm | 1hr | 43ft | 20 igpm | No | 0 igpm |

## Well Grouting

There is no Grout information.

Drilling Fluids Used
None

Disinfectant
N/A

Qty 0 ig

Pump Installed
N/A

Intake Setting (BTC)
0ft

## Driller's Log

| Well Log | From | End | Colour | Rock Type |
|---|---|---|---|---|
| **92070400** | **0ft** | **4ft** | **EMPTY VALUE** | **Sand** |
| **92070400** | **4ft** | **35ft** | **Brown** | **Sandstone** |
| **92070400** | **35ft** | **38ft** | **Brown** | **Soft Clay** |
| **92070400** | **38ft** | **43ft** | **Brown** | **Sandstone** |
| **92070400** | **43ft** | **62ft** | **Grey** | **Sandstone** |
| **92070400** | **62ft** | **109ft** | **Brown** | **Clay and Shale** |
| **92070400** | **109ft** | **122ft** | **Grey** | **Sandstone** |
| **92070400** | **122ft** | **126ft** | **Brown** | **Clay and Shale** |
| **92070400** | **126ft** | **135ft** | **Brown** | **Sandstone** |
| **92070400** | **135ft** | **165ft** | **Brown** | **Clay and Shale** |
| **92070400** | **165ft** | **196ft** | **Brown** | **Sandstone** |
| **92070400** | **196ft** | **200ft** | **Brown** | **Clay** |

Overall Well Depth
200ft

Bedrock Level
0ft

## Water Bearing Fracture Zone

| Well Log | Depth | Rate |
|---|---|---|
| **92070400** | **20ft** | **35 igpm** |
| **92070400** | **177ft** | **20 igpm** |

## Setbacks

There is no Setback information.

# Appendix E

# Wetland Map


Environmental Impact Assessment

Seagull Condo Resort

Wetland Map

**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

DATE: 2016/08/30

FILE: SCR-16-01

SCALE: As shown

FIGURE: Appendix E

# Appendix F

# Site Photographs


Existing property entrance


View of Shediac Bay

Environmental Impact Assessment

Seagull Condo Resort

Site Photographs

**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

DATE: 2016/07/27

FILE: SCR-16-01

SCALE:

FIGURE: Appendix F-1

Existing buildings on western side of property

Existing buildings on eastern side of property

Environmental Impact Assessment

Seagull Condo Resort

Site Photographs

**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

DATE: 2016/07/27

FILE: SCR-16-01

SCALE:

FIGURE: Appendix F-2

Existing buildings on eastern side of property

Existing buildings on western side of property

Foundation of existing building

Existing effluent disposal field

Environmental Impact Assessment

Seagull Condo Resort

Site Photographs taken on May 31, 2016

**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

DATE: 2016/07/27

FILE: SCR -16-01

SCALE:

FIGURE: Appendix F-3

# Appendix G

# Historical Aerial Photographs


Environmental Impact Assessment

Seagull Condo Resort

Historical Aerial Photo - 1976

NATECH

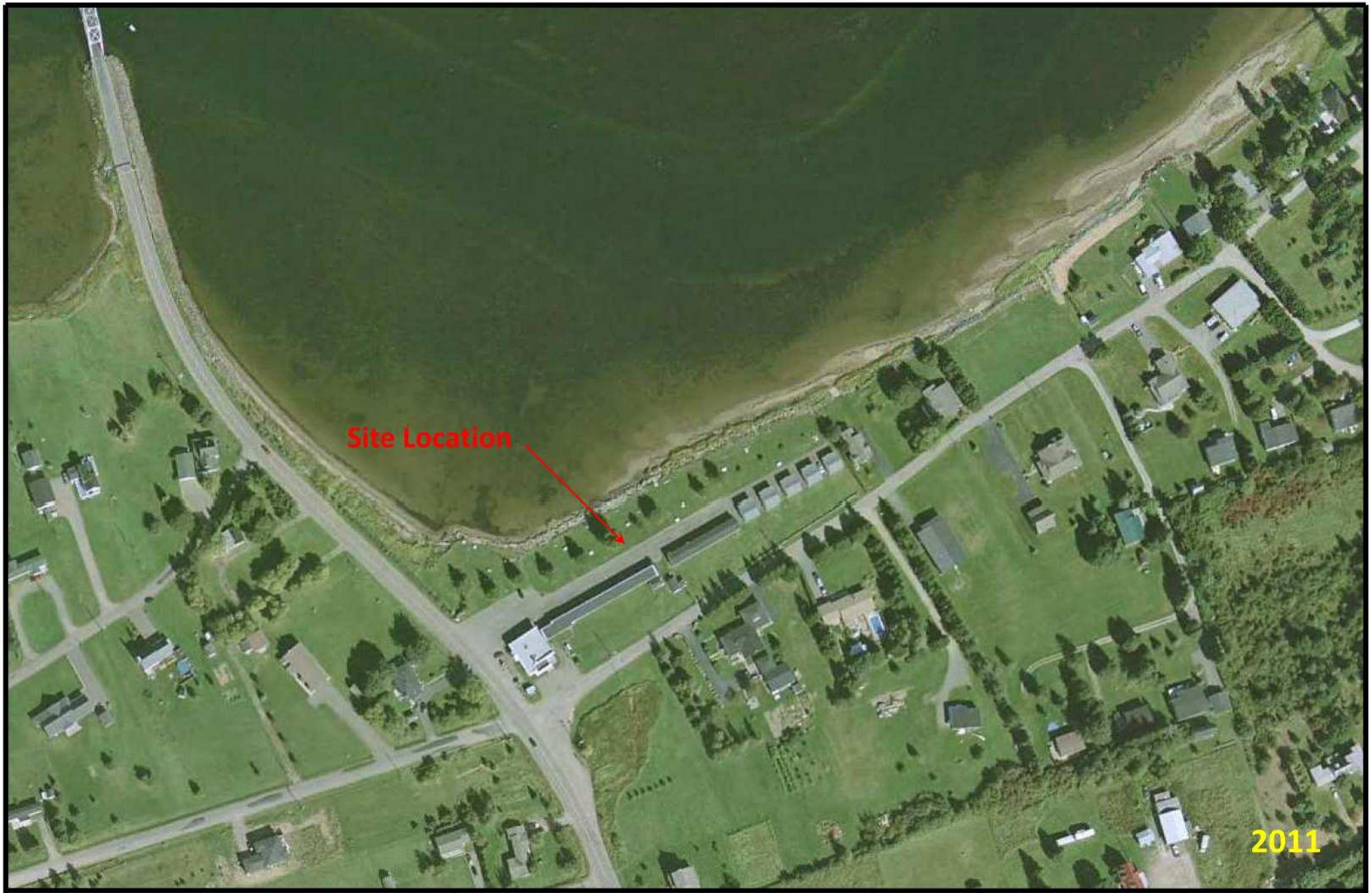
**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

DATE: 2016/09/01

FILE: SCR-16-01

SCALE: NTS

FIGURE: Appendix G-4




Environmental Impact Assessment

Seagull Condo Resort

Historical Aerial Photo - 2011

NATECH

**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

| DATE: | FILE: |
|---|---|
| 2016/09/01 | SCR-16-01 |
| SCALE: | FIGURE: |
| NTS | Appendix G-1 |


Environmental Impact Assessment

Seagull Condo Resort

Historical Aerial Photo - 2001

NATECH

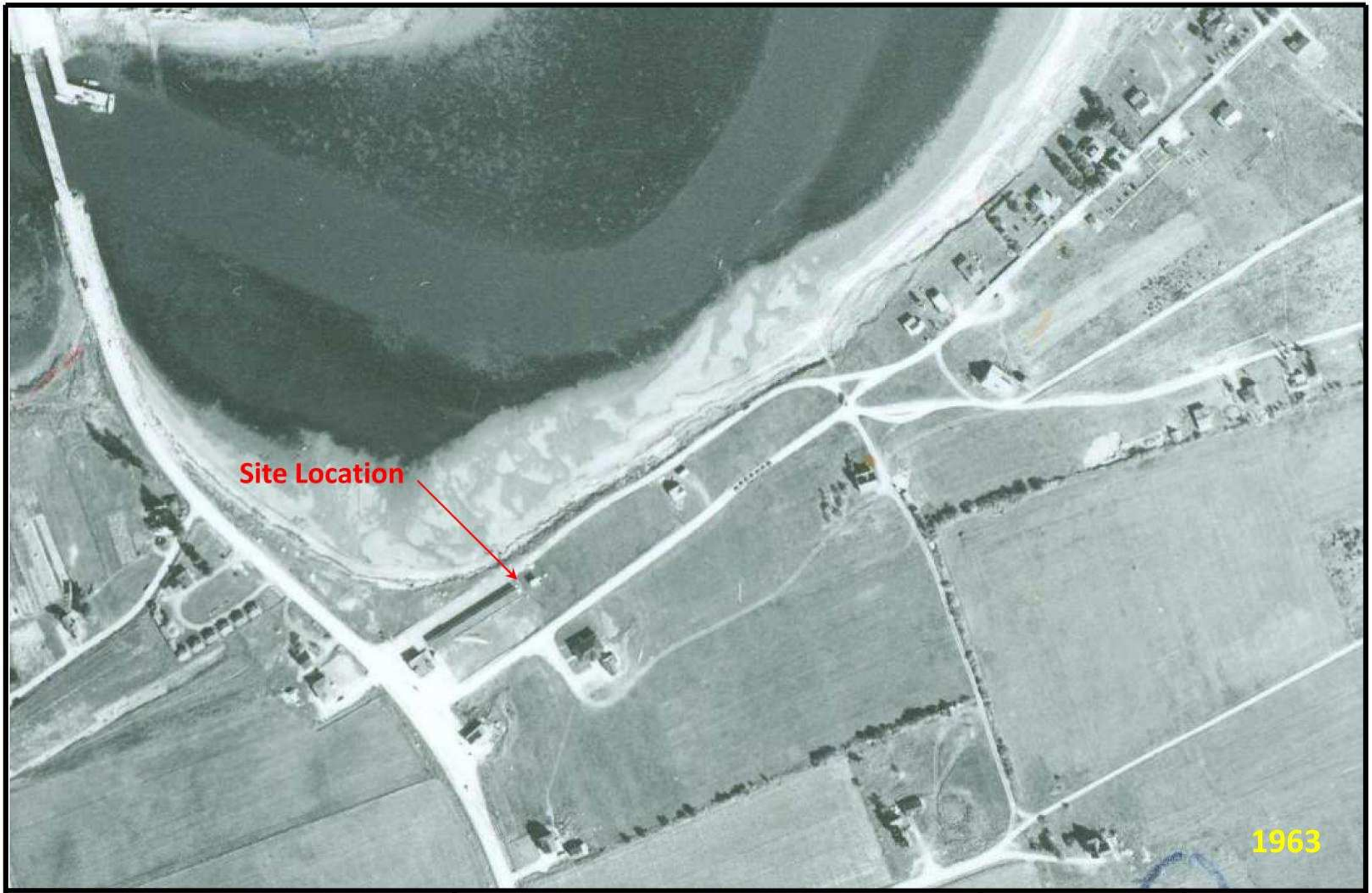
**Environmental Services Inc.**
2492 Route 640, Hanwell, NB, E3E 2C2
ph: (506) 455 1085, fax (506) 455 1088

DATE: 2016/09/01

FILE: SCR-16-01

SCALE: NTS

FIGURE: Appendix G-2




Environmental Impact Assessment

Seagull Condo Resort

Historical Aerial Photo - 1963

NATECH

**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

DATE: 2016/09/01

FILE: SCR-16-01

SCALE: NTS

FIGURE: Appendix G-5


Environmental Impact Assessment

Seagull Condo Resort

Historical Aerial Photo - 1954

NATECH

**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

DATE: 2016/09/01

FILE: SCR-16-01

SCALE: NTS

FIGURE: Appendix G-6


Environmental Impact Assessment

Seagull Condo Resort

Historical Aerial Photo - 1944

NATECH

**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

DATE: 2016/09/01

FILE: SCR-16-01

SCALE: NTS

FIGURE: Appendix G-7


Environmental Impact Assessment

Seagull Condo Resort

Historical Aerial Photo - 1982

NATECH

**Environmental Services Inc.**
**2492 Route 640, Hanwell, NB, E3E 2C2**
**ph: (506) 455 1085, fax (506) 455 1088**

DATE: 2016/09/01

FILE: SCR-16-01

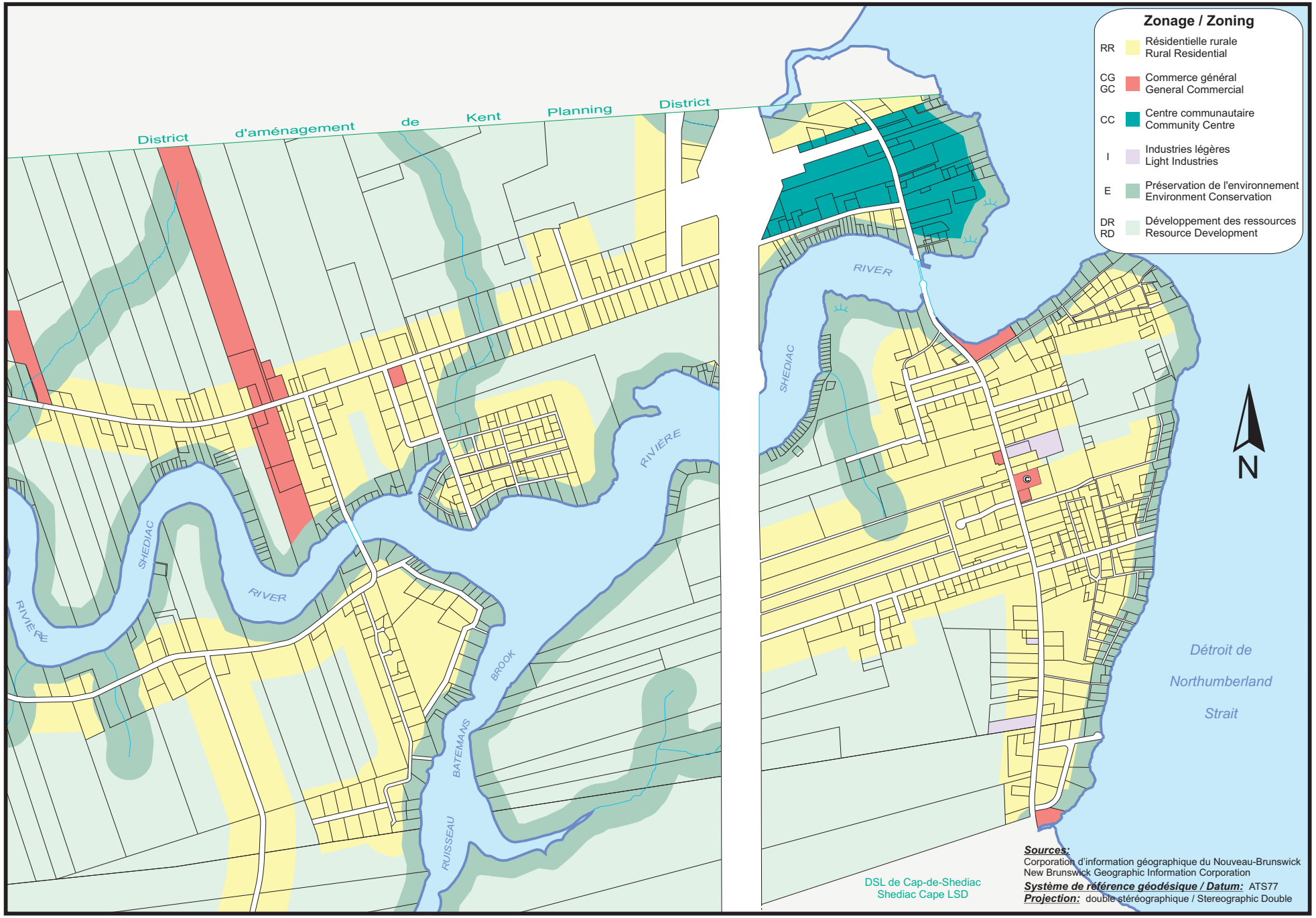
SCALE: NTS

FIGURE: Appendix G-3

# Appendix H

# Zoning map

# B-2 Carte de zonage de Pont-de-Shédiac / B-2 Shediac Bridge Zoning Map




**Sources:**
Corporation d'information géographique du Nouveau-Brunswick
New Brunswick Geographic Information Corporation

**Système de référence géodésique / Datum:** ATS77

**Projection:** double stéréographique / Stereographic Double

Regional Service Commission
Commission de services régionaux

Mètres / Meters

500 0 500 1000

**Carte préparée par: / Map prepared by:**
Julien Couturier
(le 27 Septembre 1999 / September 27 1999)
R: 30 janvier, January 2014

# Appendix I

## Public consultation - draft documents

NATECH Environmental Services Inc.
2492 Route 640, Hanwell, NB E3E 2C2 Ph.: (506) 455-1085 Fax.: (506) 455-1088

**September 2, 2016**

Re: **Public Involvement in Environmental Impact Assessment**

**Dear property owner:**

The new owner of the Seagull Motel and Chalets is planning to replace the existing buildings with a new condominium. This development (so called "undertaking") is undergoing a routine provincial Environmental Impact Assessment (EIA) registration, as outlined in Section 5 (1) and Schedule "A" of the Environmental Impact Assessment Regulation. As part of the EIA registration, the developer is required to inform local interest groups and neighbours of the planned development. The consultation and the EIA registration are being handled by NATECH Environmental Services Inc.

The purpose of the proposed undertaking is to create quality housing that will attract new residents and seasonal tourists to the area. As part of the upgrade, a new well will be drilled, and a state-of-the-art wastewater treatment and disposal system will be installed. The treated effluent will be infiltrated into the ground via a disposal field.

The EIA Registration document is available for public review at the Shediac Municipal Office, at the Beaubassin Planning Commission's Office, and at the Department of Environment, Sustainable Development, Planning and Impact Evaluation Branch, 3rd floor, 20 McGloin Street, Fredericton, NB.

If you have any concerns or questions about the project, we would ask you to contact Mr. Jochen Schroer with NATECH Environmental Services Inc. (506-455-1085, jochen.s@natechenv.com), or Ms. Lee Swanson with the New Brunswick Department of Environment and Local Government (506-444-5382), before October 5, 2016. Thank you for your interest and cooperation.

Best regards,

Jochen Schroer, M.Eng., P.Eng.
President

# NOTICE

**Registration of Undertaking**
**Environmental Impact Assessment Registration**
**Clean Environment Act**
**Opportunity for Public Comment**

On September 2, 2016, CG Group Ltd.registered the following project with the Department of the Environment in accordance with Section 5 (1) and Schedule "A" of the Environmental Impact Assessment Regulation: Seagull Condo Resort.

The purpose of the proposed undertaking is to to create quality housing that will attract new residents and possibly seasonal tourists to the area. The project is located at the intersection of Route 134 and Chemin Indian Point in Shediac Bridge.

The proponent's registration document can be examined at the Shediac Municipal Office, at the Beaubassin Planning Commission's Office, and at the Department of Environment, Sustainable Development, Planning and Impact Evaluation Branch, 3rd floor, 20 McGloin Street, Fredericton, NB.

Any comments should be submitted directly to the proponent at:

CG Group Ltd.,
281 St-George St, PO, Box 272,
Moncton, N.B.,
E1C 8K9.

On or before October 5, 2016.

Additional information about the public involvement process is available at:
http://www.gnb.ca/0009/0377/0002/index-e.asp

Notice placed by: Mr. Philip Couture, proprietor