# Wyse Road Development 169 Wyse Road

Excavation & Building Construction

Prepared by Geoff MacLean, P.Eng.

Job No. 37568

# CONSTRUCTION MANAGEMENT PLAN

0	NOV 2022	ISSUED FOR REVIEW
REVISION #	DATE	DESCRIPTION





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In consultation with the Developer, contractor, traffic control company and HRM.



# **Section 1: Introduction**

## 1.1: Project Description and Objectives

The developer is planning to build an apartment building on their 169 Wyse Road, Dartmouth property. In preparation for this development, the existing buildings at civic 169 Wyse Road, civic 20-26 George Street and 30 Pelzant Street were previously demolished, and lots consolidated. The planned building will include 98 residential units within a 9-storey building, complete with commercial space accessed from Wyse Road, walk up townhouse units from George Street and 2 levels of underground parking accessed from both Pelzant and George Streets. This CMP has been prepared to address excavation, services and building construction.

The new residential building is planned to have 2 levels of underground parking fronting Wyse Road and Pelzant Street and 1 level fronting George Street, deep excavations (+/- 15ft) fronting the HRM Right of Way (ROW) are required for the project. Given the building setbacks are planned to be tight to the street lines on all sides for public safety from excavation limits and construction activities they are proposing to hoard off the sidewalk on all 3 streets and portion of the street lane directly in front of the project for a truck layby, site office and material storage area on Pelzant and George Streets. The encroachment will close the public sidewalk to pedestrians redirecting them to the opposite side of all streets while maintaining two-way traffic on Pelzant and George streets with 2 - 3.05m wide travel lanes. Only during service work and driveway installation work do we anticipate short term temporary lane drops. It is anticipated that the crane assembly and disassembly will reside within the George Street encroachment or on private property.

The project borders residential properties along its western property line and opposite George Street, residential and commercial properties opposite Pelzant Street, and a commercial business opposite Wyse Road. All neighbouring properties will remain undisturbed throughout the project.

This CMP document is intended to be an evolving document to help guide the project team to mitigate impacts to the adjacent community before they arise and to address unforeseen issues. SDMM, together with the landowner, contractor, and traffic control company, have prepared this Construction Management Plan (CMP) following HRM's CMP (2020) guidelines and administrative order (2018-005-ADM) in an effort to reduce potential negative impacts on the surrounding community, due to construction activities for this project.

The most up-to-date version of this document will be kept on-site at all times during construction. Should ownership or contracting services change throughout the course of this project, HRM will be notified immediately, and new parties will be required to comply with the approved CMP in writing.

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# 1.2: Project Contact Information

The project team for the proposed development consists of:

Role	Name	Contact	Address	Phone
Developer	Zagros Nova Home	Seraj Bagheri	380 Bedford Highway, Suite 100	(902) 219-4040
	Developments Limited		Bedford, NS B3M 2L4	24 Hour Emergency
				Contact
Project Manager	Zagros Nova Home	Salah Hasan	380 Bedford Highway, Suite 100	(902) 830-0222
	Developments Limited		Bedford, NS B3M 2L4	
Site Contractor	Atlantic Road Construction	Greg MacDonald	6 Belmont Avenue, P.O. Box 89	(902) 830-6411
	and Paving		Eastern Passage, NS B3G 1M7	
Traffic Control	Frontline Traffic Services	Phil Pruneau	6 Belmont Avenue, P.O. Box 89	(902) 818-5548
Company			Eastern Passage, NS B3G 1M7	
Rodent Control	Rentokil Pest Control	Main Office	51 Duke Street, (902) 835-2304	
Company			Bedford, NS B4A2Z2	

# **Section 2: Project Schedule and Logistics**

The following is a brief summary of anticipated major project milestones broken down by phase:

# 2.1: Schedule

Project Phase	Start Date		End Date	Time Period
Rodent Control Program	Nov 15, 2022	-	Feb 15, 2023	3 months
<b>Building Demolition</b>	n/a	-	n/a	-
Site Excavation	Dec 1, 2022	-	May 31, 2023	6 months
Substructure	Jun 1, 2023	-	Sep 30, 2023	4 Months
Superstructure	Sep 1, 2023	-	Feb 28, 2025	18 Months
Service Abandonments	May 5, 2023	-	May 28, 2023	4 weekends
Service installs	Jul 1, 2023	-	Jul 17, 2023	3 weekends
HRM Right of Way Flat Works	Sep 15, 2024	-	Oct 15, 2024	1 months
Site Flat Works	Oct 1, 2024	-	Oct 31, 2024	1 months

# 2.2: Key Dates

Install encroachment

December 1, 2023

- Sidewalk closure (Pelzant & George Streets & Wyse Road)
- Street Lane (Pelzant & George Streets)

• Finish encroachment March 31, 2025

• Duration of encroachment 25 months

• Temporary lane/road closures:

Pelzant Street service abandonments
 George Street sewer service installs
 Pelzant Street Water service install
 July 1 – July 9, 2023
 July 15 – July 17, 2023

The encroachment areas are shown in the appendix for reference.

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#### 2.3: Hours of Work

Work will generally take place during normal working hours as outlined in HRM's Noise By-Law and Traffic Control Manual Supplement; these are noted below.

Monday to Friday: 7:00 a.m. – 9:30 p.m.
 Saturdays: 8:00 a.m. – 7:00 p.m.
 Sundays & Statutory Holidays: 9:00 a.m. – 7:00 p.m.

• Servicing Work: Noted Above

Although work is not expected to be required outside of the times listed above, if, for any reason, work is anticipated to be required outside of these hours, the contractor will apply to HRM for approval 5 business days (minimum) in advance of such work and obtain approval prior to proceeding. It is noted that HRM's Noise By-Law cannot be altered without HRM council approval; work must adhere to the Noise By-Law.

# Section 3 – Relevant Regulations & Guidelines

## 3.1: Occupational Health & Safety Regulations

This CMP shall be utilized in agreement with all applicable Provincial and Federal Occupational Health and Safety Regulations. At a minimum, construction activities must at all times meet the standards of:

- a) National Building Code of Canada, as adopted and modified under the Building Code Act and the Nova Scotia Building Code Regulations made under that Act;
- b) Nova Scotia Occupational Health and Safety Act, and the Nova Scotia Occupational Safety General Regulations made under that Act:
- c) The Transportation Association of Canada (TAC)'s Manual of Uniform Traffic Control Devices for Canada (MUTCDC); and
- d) Nova Scotia Temporary Workplace Traffic Control Manual (NSTCM).

### 3.2: Municipal Regulations & Guidelines

In addition to the Provincial and Federal standards referenced in Section 3.1, this CMP shall be utilized in agreement with and meet, at a minimum, the standards of all relevant municipal by-laws including, but not limited to, the following:

- a) HRM Design Guidelines;
- b) HRM Standard Details;
- c) S-300 Streets;
- d) E-200 Encroachments;
- e) B-201 Building;
- f) N-200 Noise;
- g) T-600 Trees;
- h) S-900 Controlled Access Streets;
- i) T-400 Truck Routes;
- j) W-101 Discharge into Public Sewers;
- k) B-600 Blasting;
- I) HRM TCM Supplement;
- m) G-200 Grade Alteration and Stormwater management;
- n) Admin Order 2018-005-ADM regarding encroachments; and
- o) Admin Order 2020-010-OP regarding stormwater management standards for development activities.



# **Section 4: Vehicle Management**

Prior to any construction activity, all temporary workplace traffic control devices and signage will be in place as per the Nova Scotia Temporary Workplace Traffic Control Manual (latest edition). The traffic control company will install the signage and ensure that they are maintained throughout the project. This project's Traffic Control Plans (TCPs) are listed in the Appendix.

#### 4.1: Vehicular Traffic Control

A series of Traffic Control Plans (TCP) have been prepared by the traffic control company and are provided in the Appendix.

We are proposing street lane encroachments that will narrow street lanes fronting the project site on Pelzant and George Streets. Throughout all phases of construction two-way vehicular traffic will be maintained on Pelzant and George with 2 - 3.05m travel lanes to accommodate local traffic. Only during building service work do we anticipate short term temporary lane closures being required. It is anticipated that tower crane assembly and disassembly will be stationed within the encroachment area on George or on private property. Please refer to the appendices for required encroachment plan and traffic control plans.

# 4.2: Haul Route and Staging Areas

The truck Haul Route Plan has been prepared by the traffic control company and is provided in the appendix.

The selected route is intended to minimize traffic congestion and maximize pedestrian safety. During all construction phases vehicles will enter and exit the site at the gate location(s) which will be clearly marked for function. During construction activities concrete and material deliveries shall be contained within private property and George Street encroachment. We anticipate these deliveries entering east gate and exiting the west gate on George and/or backing into the west gate and exiting west gate on George with traffic flow Refer to appendix for concrete delivery schematic.

### 4.3: Vehicular Traffic Notifications

Should any traffic disruptions be required, notifications will be distributed to properties in the impacted area a minimum of five (5) days in advance of vehicular traffic closures. Refer to sample notification letter in the appendix.

# 4.4: Emergency Vehicles

In the event of unforeseen emergency situations, the site will remain accessible to emergency vehicles at all times.

## 4.5: Parking

Un-metered parking spaces directly in front of the project will be occupied by the Pelzant Street encroachment and will closed un-metered on street parking across the street from the Pelzant and George Street encroachment. It is noted that passenger vehicles are not permitted to park within any encroachment areas. To minimize parking requirements in adjacent neighbourhoods, site workers will utilize private property and workers will be encouraged to carpool or rely on public transit.

## 4.6: Bus Stops

Bus service only travels along Wyse Road. Bus service will not be affected by this project.



#### 4.7: Hazard Assessment

A vehicular and pedestrian hazard assessment is provided in the appendix. Any additional site hazards identified or encountered after work has commenced will be added to this list. All personnel on-site will be required to review this list and encouraged to identify additional potential hazards and hazard mitigation methods.

# **Section 5: Pedestrian Management**

A Pedestrian Management Plan (PMP) has been prepared by the traffic control company and is provided in the appendix.

Throughout all construction phases, the project will close the sidewalk in front of the development. This is to ensure construction and deliveries are kept a safe distance from pedestrians. Pedestrian traffic will be maintained with use of existing sidewalks on the opposite side of the street.

### 5.1: Pedestrian Protection

Pedestrians will be protected by physically distancing them from the project. F-type concrete jersey barriers with chain link fencing mounted above will delineate the project. Chain link fencing will be covered with opaque covering to block view of the site. Refer to the appendix for examples of the barriers and fencing.

## 5.2: Pedestrian Safety

Pedestrian safety will be maintained by implementing appropriate signage as shown on the PMP. All navigation and safety signage indicating alternative sidewalks and potential hazards will be inspected and maintained regularly.

#### 5.3: Pedestrian Traffic Notifications

Notifications will be distributed to properties in the impacted area a minimum of five (5) days in advance of pedestrian traffic impacts. A sample traffic notification letter can be found in the appendix. HRM must be notified prior to issuing the notification to neighbours.

# **5.4: Visually Impaired Persons**

In keeping with CNIB requirements and as outlined on their 'Clearing Our Path' website; various items will be incorporated into the pedestrian management signage and barriers. Such as, high visibility contrasting colours with appropriate font types (mix of upper and lower-case lettering), font sizes (between 16mm to 51mm) and sign colours (orange background with black lettering or white background with black lettering).

The contractor will use bright orange sawhorse barricades complete with bold-font signage to identify sidewalk termination points. Sawhorse barriers will incorporate lower cross members, painted and marked consistent with the rest of the sawhorse, these added cross members will be placed near the ground to aid visually impaired persons using a cane. In cases where sawhorses are being relocated by pedestrians, concrete jersey barriers may need to replace these sawhorses to prevent relocation. Reflective tape will also be placed on the ends of fencing, hoarding, sawhorse barricades, and concrete barriers to help delineate pedestrian routes and disruptions. Signage and tape colours will vary but will comply with the colour/brightness contrast as outlined by the CNIB website; examples are black/white, orange/black or dark red/white combinations.

### 5.5: Accessibility

High visibility signage will be used to assist pedestrians to easily navigate around all project related blocked sidewalks.

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#### 5.6: Hazard Assessment

A vehicular and pedestrian hazard assessment is provided in the appendix. Any additional site hazards identified or encountered after work has commenced will be added to this list. All personnel on-site will be required to review this list and encouraged to identify additional potential hazards and hazard mitigation methods.

## 5.7: Pedestrian Management Plans Rendering (PMPR) Signage

The need for a rendered map displayed for pedestrians showing the detoured pedestrian route is not anticipated for this project.

## 5.8: Pedestrian Detour Wayfinding Signage

The need for pedestrian wayfinding signage directing pedestrians to adjacent businesses is not anticipated for this project.

# **Section 6: Encroachments & Disruptions**

During construction, the project will incorporate the sidewalk on all streets and portion of the street lane on Pelzant and George directly in front of the project. This will redirect pedestrian traffic to the opposite side of the street with use of the existing Boland Road, Dawson and John Street crosswalks, and the intersection of George and Dawson streets. This encroachment will close un-metered on street parking directly in front of the project site on Pelzant and across Pelzant and George from both proposed street lane encroachments.

These encroachments are to keep the public away from the excavation zone of influence as well as provide additional room for site workers and deliveries. These encroachments are planned to be delineated interlocking F-type concrete barriers complete and chain link fencing with opaque coverings.

Throughout the project, fencing will be positioned to not obstruct vehicle sight lines. In areas adjacent to the site gates open mesh chain link fence on top of the site barriers to not obstruct sight lines.

Should any utility or traffic disruptions be required, the contractor will first apply to HRM for approval, a minimum of five (5) business days in advance of such work and will then notify neighbours of these disruptions in a timely fashion.

## 6.1: Demolition

The site's existing buildings were previously demolished. This CMP does not speak to demolition.

# 6.2: Site Excavation

This includes deep excavation and removal of common site material. The development is planned to have 1 level of underground parking below grade fronting George Street and 2 levels of parking below grade fronting Wyse Road. If bedrock is found, the contractor will need to apply for a blasting permit and adhere to the HRM blasting by-law and conditions of the blasting permit. Alternatively, if a blasting permit can not be obtained the site's bedrock will be broken by a series of rock breakers to reach footing elevation.

#### 6.3: Site Services Connection

This includes installation of new water and sewer laterals to their respective mains as well as decommissioning existing laterals which will be abandoned. The service installs will require modifications to the encroachment with temporary workplace signage incorporated (refer to the Service Installation Traffic Control Plans (TCP) in the appendix). HRM requires that this service work be limited to weekends only to minimize traffic disruptions. The target dates for this work are provided in the "Key Dates" section above with time of installations adhering to the Noise By-

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Laws noted above. The intent will be to complete this servicing work and reinstate the street as quickly as possible in order to minimize disruptions to the public.

Before scheduling site services connections, the contractor will notify all neighbouring properties, of the intended timeline for this work. A sample notification letter is included in the appendix.

The contractor intends to reinstate the street cut during the season of work. It is noted that street cuts cannot be left gravel or open. HRM reinstatement specifications must be met, and the travel way must be hard surfaced prior to reopening to the public. Asphalt, concrete curb and sidewalk reinstatement must be completed within 72 hours of disturbance and will be considered temporary if reinstated after October 31<sup>st</sup> or prior to May 1 in which case permanent reinstatement will be completed by June 15.

# 6.4: Construction Management Plan Element Inspection and Maintenance

Construction management plan elements will be inspected daily to ensure continued adherence to this CMP. Any deficiencies identified will be reinstated immediately. A CMP's TCP & PMP inspection report summary will be completed for the project, including information on what maintenance activities were conducted. This report must be kept on site at all times and be available to HRM upon request.

# 6.5: Changes to the Construction Management Plan

All departures from the CMP regardless of the significance must be submitted to the Municipality 10 days in advance for review and approval. Any required changes or modifications to the approved CMP will be submitted to HRM for review and approval prior to implementation.

# **Section 7: Environmental Factors**

# 7.1: Damage to HRM Infrastructure

Existing HRM infrastructure will be reinstated within the encroachment area and/or be completely replaced. This includes reinstatement of the HRM tree lawn, sidewalk and curb and gutter post construction. It is anticipated that sidewalks across the street will not be impacted by excavation or other construction activities. However, while efforts will be made to avoid damage, it is anticipated that additional portions of existing curbs, gutters, and sidewalks may become damaged during the construction process which would require repairs or replacement. Pending HRM's review prior to and after construction and subject to damage due to construction activities, the developer acknowledges that items may require to be fully replaced rather than repaired. The developer also acknowledges that any costs incurred to repair or replace this public infrastructure are the responsibility of the owner. For reinstatement timeline requirements, it is noted that asphalt, concrete curb and sidewalk reinstatement must be completed within 72 hours of disturbance and will be considered temporary if reinstated after October 31<sup>st</sup> or prior to May 1 in which case permanent reinstatement will be completed by June 15 of the following construction season.

# **7.2: Protection of Trees**

There is one (1) HRM street tree within the ROW of Pelzant Street, and two (2) HRM street trees within the ROW of George Street. Given there locations within the planned site driveway and encroachment, these 3 HRM street trees will need to be removed. It is noted that HRM street trees shall not be touched prior to approval and/or compensation agreements between the developer and HRM Urban Forestry are in place. Adjacent street trees are to be protected during construction in accordance with the HRM Tree Bylaw (T-600). Refer to HRM tree protection detail in the appendix.

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# 7.3: Line Painting and Temporary Crosswalks

An altered centerline or temporary crosswalk is not proposed for this project.

# 7.4: Street and Right-of-Way Cleaning

The portion of public street adjacent to the project will be cleaned daily of any debris from trucks and silt, dirt, or rock that migrates beyond the encroachments. A sweeper truck will be utilized as required. Rock pads will be installed and maintained at all site entrances behind the curb line to knock dirt free from truck tires with aim to reduce off tracking of site soils.

Where the developer plans to utilize the ROW for their street encroachments the developer is responsible to clear snow from the street side of these encroachment barriers and gates.

### 7.5: Protection from Inclement Weather

To protect the public from construction debris during inclement weather, the project site will be enclosed by fencing complete with dust control covering, the site will be regularly reviewed and cleaned, with loose items secured when not in use.

# 7.6: Storm Water Management

During construction, nearby catch basins may be fitted with filter fabric to prevent debris from entering the storm system. Stormwater collected inside the project site will be directed to temporary stormwater settling ponds situated within the building footprint to allow clean water to be pumped into the existing public sewer systems in accordance with HW regulations and HRM By-law W-101 complete with appropriate fees to Halifax Water (HW). Sediment ponds may be shifted and positioned as desired by the site contractor during mass excavation however will generally be placed in localized low points within the building excavation.

## 7.7: Noise, Dust and Emission Control

The contractor will at all times adhere to the HRM Noise Bylaw (N-200). No work will take place on the project site outside those hours identified in section 2 of this report.

Dust mitigation for this project will be achieved using rock pads for trucks exiting the site. A water truck and sweeper truck will also be utilized to help prevent dust from becoming airborne and, when required, calcium may need to be used to mitigate dust migration. Additionally, mesh on the inside of the fencing will help to contain any airborne dust inside the site.

Breaking of rock may occur and rock faces cleared to form a wall. Mesh will be used on the inside of all construction fencing to mitigate dust control.

All construction vehicles will be required to use the loading area for parking and idling to keep exhaust emissions within the construction zone. Vehicles will be staged so that idling will not occur for more than 3 minutes at a time.

As indicated above, all work shall be completed in accordance with the HRM Noise By-Law.

#### 7.8: Rodent Control

Rodent movement increases during construction activities. The owner has engaged a rodent control company, to utilize the established Rodent Control Plan (RCP) to help mitigate rodent movement prior to and during site excavation and building construction. The RCP applies to all project phases with the goal of preventing movement of rodents off-site. The RCP will consist of a baiting and monitoring program. Bait stations (traps) will be placed as outlined in the NPMA Pest Management Standards for Food Processing & Handling Facilities.

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The RCP was engaged two weeks prior to the commencement of site excavation to help to lower the number of active rodents in the project area. Bait stations positioned along existing buildings and fence lines prior to excavation. Bait stations positioned along the edges of the project and secured in place using wooden stakes (for open sodded and dirt locations), weighted patio stones (behind walls and on paved areas), and zip-ties (fixed to fences) as per typical industry standards.

Refer to the appendix for a copy of the Rodent Control Plan.

# **Section 8: Site Protection & Hoarding**

#### 8.1: Barriers & Fences

Throughout construction, the encroachment will be delineated using interlocking F-type concrete jersey barriers complete with chain link fencing with a total height (concrete barrier and fencing structure) being 1.8m or 6ft as per the noted administrative order. This fencing will be open chain link fence or covered with an opaque dust control mesh of high quality which will extend a minimum 3m from the public right-of-way. This screening is described in the appendix and will block passersby or tourists view of the construction site. Throughout the project, fencing will be situated to not obstruct vehicle sight lines.

Along the private sidelines where vehicular traffic and non-vehicular traffic is present, the hoarding will be delineated by a combination of concrete waste blocks with rigid fencing mounted on top being 1.8m or 6ft as per the noted administrative order and weighted modular 1.5m (5ft) high fencing or existing fencing where it is at least 1.5m tall. All fencing will have opaque dust control mesh and must be anchored down to prevent unintentional movement or overturning due to snow or wind loads.

The F-type barriers and fencing that define the encroachment will adhere to the Encroachment Plan which is to scale includes dimensions and can be found in the appendix. These areas can be measured for the administering of applicable fees. Encroachment areas and fees will be based on the areas within the public right-of-way enclosed by the barriers and fencing.

Installation of F-Type concrete barriers, fencing and covering will take place during regular working hours as noted above. This work will be scheduled by the contractor after the HRM's pre-construction meeting has been held. HRM will coordinate this pre-construction meeting; the landowner, contractor and traffic control company will attend this site meeting. During the process of erecting and tearing down the traffic barriers, fencing and opaque covering defining the encroachment, traffic control elements will be implemented as per the Traffic Control Plan(s) in the appendix. All work and any traffic interruptions will be coordinated by the contractor who will notify HRM a minimum of 5 business days before work is scheduled to begin.

It is noted that surplus fencing must be stored and installed from private property when relocated for deliveries and be routinely re-established to keep the site secure. Surplus fencing cannot be stored within HRM's right-of-way.

### 8.2: Snow removal

The developer will be responsible to remove snow and ice as required to ensure that emergency access is maintain to the project site, this includes fire hydrants. The contractor will not dump snow or ice onto adjacent property and will truck snow off site as required to prevent the unsafe build-up of snow piles.

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The contractor will clear snow from outside the jersey barriers to keep the edge of the vehicle travel lane clear of snow and ice build up on all streets.

## 8.3: Gate Access and Egress

The site will be accessible through gates. These gates are the only locations that will receive equipment/materials during construction, gates will remain closed and will be locked at all times after work hours. In cases of emergencies, on-site workers will exit the project site through these gates. These gates will remain unlocked at all times when workers are on site in case of emergency allowing unrestricted emergency response units access to the site.

Construction access gates are planned to be stationed at each end the Pelzant and George encroachment to facilitate deliveries. Gates are to swing into site, remain closed when not in use and locked after hours. The encroachment is planned to have four (4) gates.

Any existing fire hydrants located adjacent to the site will remain protected from construction activities. These fire hydrants, along with the existing fire department connections will be accessible to firefighters throughout all phases of the project. Adjacent existing hydrants and fire department connections are not anticipated to be affected by construction.

# **8.4: Hoarding Aesthetics**

The site hoarding will resemble that shown in the appendix; encroachment fee reductions are not anticipated however may be revisited as construction progresses.

## 8.5: Sight Lines

Rigid fencing and signage will be installed as per the CMP drawings such that vehicle sight lines are maintained around corners, particularly at driveway access points and existing intersections.

## **8.6: Project Information and Contacts**

To encourage communication between the project team and the public, contact information will be provided on Project Information Boards; these will be posted prominently around the project site on the fencing; refer to the appendix for a copy of the Project Information Board and the Encroachment Plan for the planned locations. Refer to the signage specification within the appendix describing the required size, materials, mounting hardware, etc. of these signs.

# **Section 9: Lifting, Hoisting, and Crane Operations**

# 9.1: Crane Use Overview

This project will incorporate a tower crane, the crane will be stationed within the project site and will be operated under the direct supervision of a licensed crane operator employed by the formwork contractor. The approximate location of the site's tower crane is shown in the appendix as is the location of the neighbouring tower crane.

It is anticipated that the crane assembly and disassembly will be stationed on private property and within the encroachment area.

The crane swing will extend over neighbouring properties however not swing through the neighbour's tower crane as shown in the Crane Swing Diagrams included in the appendix. The developer will notify adjacent property owners prior to extending the crane over their properties. Refer to the appendix for crane information.

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Depending on the stage of construction, concrete trucks will be stationed within the encroachment area or private property during concrete operations. (See concrete delivery schematic within the appendix).

If lifting operations are required over the public realm, this area will be closed to access. In all cases of lifting, extreme care will be used to ensure public and worker safety.

# 9.2: Transport Canada and Nav Canada Regulations

There are two registered aerodromes in the Halifax region; Halifax International Airport and Canadian Forces Base Shearwater Airfield. According to Transport Canada regulations, the project site is outside of the lands to which regulations for these two aerodromes apply.

#### 9.3: Aerodromes

There are several heliport approaches in the Halifax region; both Emergency Hospitals (QEII and IWK) as well as Point Pleasant Park. Given the location of the project site relative to these various approaches we understand Transport Canada notice does not apply.

# Section 10: On-Site Safety and Security

# 10.1: Site Safety and Security Overview

The contractor will adhere to all Occupational Health & Safety requirements throughout the completion of this project. At a minimum, the following safety protocols will be utilized to further enhance site safety and security:

- a) All workers will be required to have proof of up-to-date safety training;
- a) Personal protective equipment (PPE) will be required for all personnel on site;
- b) Adequate signage will be placed outside the hoarding, which will warn of hazards that may exist;
- c) Gates will be locked and the perimeter fencing secured to provide security against public access during off work hours and will be monitored during operation;
- d) Hoarding will clearly state "No Trespassing Construction Personnel Only" & PPE requirements will be clearly identified (e.g., "Hard Hats and Safety Footwear Must Be Worn Beyond This Point");
- e) Regular safety inspections will be conducted to ensure suitability of hoarding and other safety devices;
- f) Emergency contact information to be prominently posted as per the Project Information Board.

# 10.2: Material Handling: Loading, Unloading, Delivery and Storage

The contractor will adhere to the procedures stipulated in the Haul Route Plan for delivery of materials. Delivery vehicles will use the designated gates for entry and exit. Timing of deliveries will be coordinated to have the least possible negative impact on regular traffic. The staging and delivery area will be coordinated by the delivery companies and site personnel, concrete and material delivery trucks will be housed within encroachment area or private property accessed from George Street.

### 10.3: Emergency Access & Egress

The site will be accessible through gates to facilitate construction vehicle access. In cases of emergencies, on-site workers will exit the project site through these gates. These gates will remain closed but unlocked at all times when workers are on site in case of emergency allowing unrestricted emergency response units access to the site. Gates will be locked and secured afterhours to provide security against public access during off work hour. Emergency contact information will be posted on project information boards surrounding the site, refer to the CMP plan for details.

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Gates are to remain closed at all times unless being used for deliveries to maintain a controlled access site preventing access by the general public to the construction site.

# 10.4: Security Site Lighting

Security site lighting is not anticipated for this project.

# 10.5: Smoking Areas

On site smoking areas will not be provided as this will be a smoke-free site.

## **10.6: Fire Suppression Systems**

There is an existing fire hydrant that's fronts civic 163 Wyse Road that will remain outside the project area and will be protected from construction activities. These fire hydrants, along with any existing fire department connections will be accessible to firefighters throughout all phases of the project.

There are no proposed fire department connections at this stage of the project. These are not available for fire department use until after the water supply lines have been installed, tested and commissioned by the water commission, similar with the fire suppression system. This system will not be active until after the building is near complete and the encroachment fencing has been removed.

# **Section 11: Pre-Construction Consultation & Meeting**

## 11.1: Pre-CMP Community Consultation

Due to the current pandemic, the developer will forego the community consultation meeting. A construction notification letter will be delivered to the properties neighbouring the construction site as well as HRM staff, notifying them of the expected work with contact information for questions and feedback. As part of this notification the surrounding community and businesses will be offered to sign up for a monthly construction project notification from the development. It is understood, HRM requires a confirmation letter from the applicant confirming delivery of notification letters to affected residents. A map indicating these properties has been included in the appendix.

## 11.2: Project Information and Contacts

To encourage communication between the project team and the public, contact information will be provided on Project Information Boards; these will be posted prominently around the project site on the fencing; refer to the appendix for a copy of the Project Information Board and the CMP Plan for the planned locations. Information on signage size and materials is outlined in the appendix.

### 11.3: Preconstruction Meeting

Prior to construction the developer, contractor and traffic control company will attend a pre-construction meeting with HRM staff to review the CMP document on site. HRM's engineering technician will confirm the date and time of this meeting; and may wise to waive the requirement.

#### 11.4: Construction Notification

Approximately five (5) business days prior to the encroachment, an additional notification will be circulated to the neighbouring properties, notifying them that work is starting on site.

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# **Section 12: Summary**

This construction management plan was prepared with the goal to minimize negative impacts to the community, pedestrians, and traffic throughout the scope of this project. This plan will be used as a minimum standard and any further safety protection required or methods to provide a more positive environment will be used throughout construction work as necessary.

Should you have any questions or comments related to this document, please contact SDMM. For all construction-related inquiries, please contact the developer, contractor, or traffic control service provider.

Regards,

Servant, Dunbrack, McKenzie & MacDonald Ltd.

Geoff MacLean, P.Eng.

Project Engineer

Z:\SDMM\37000-37999\37550\37568\CMP\IFR\169 Wyse Road - CMP (IFR) - 37568.docx

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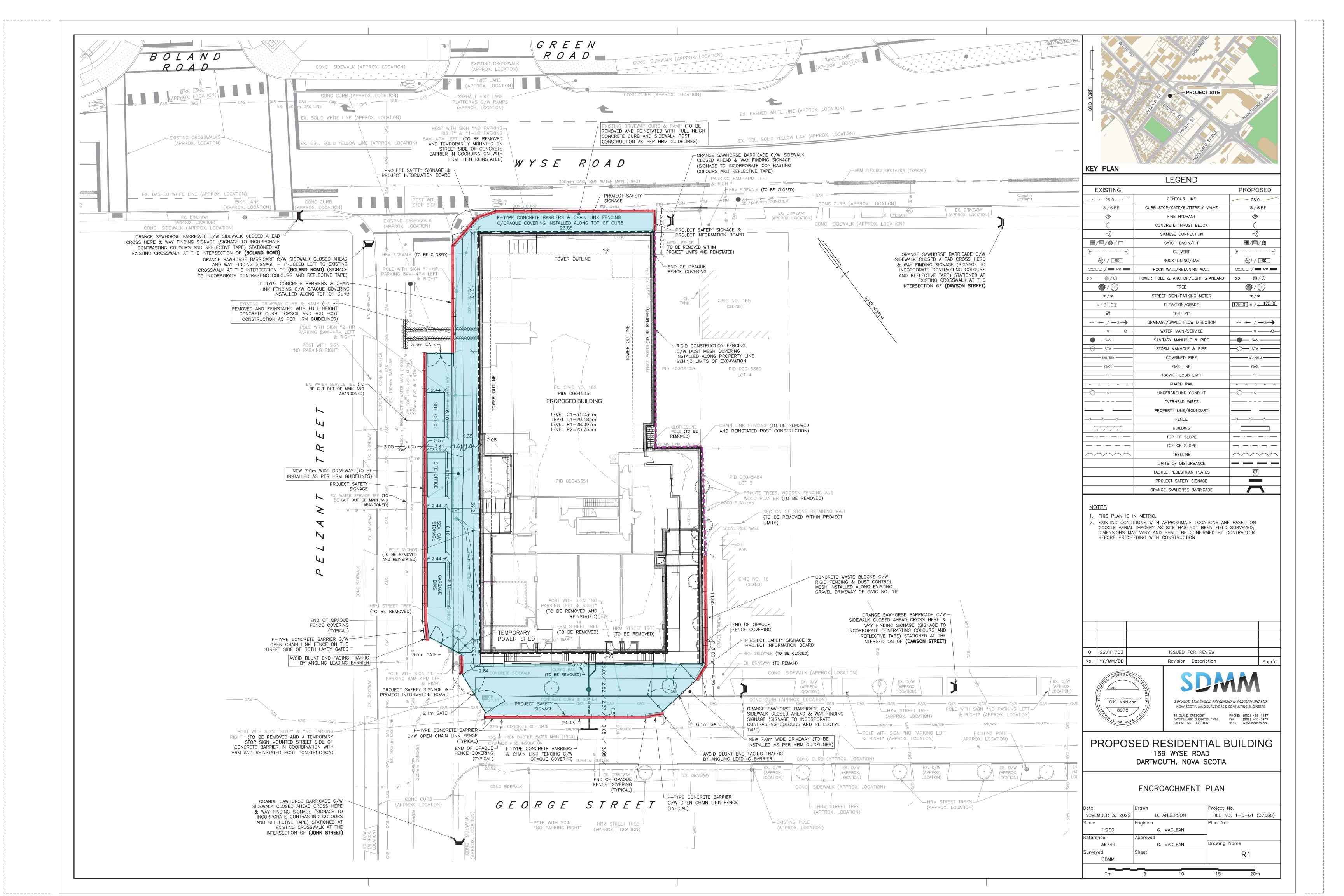
# **APPENDIX**

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# Appendix A – Encroachment Plan

Page | A Job No. 37568





# Appendix B – Traffic Control Plans TCP

Page | B Job No. 37568

# **Encroachment Signage Plan**



Date: 2022-11-14 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 169 Wyse Rd Contrator: SDMM Contact: Geoff MacLean, 902-789-6374

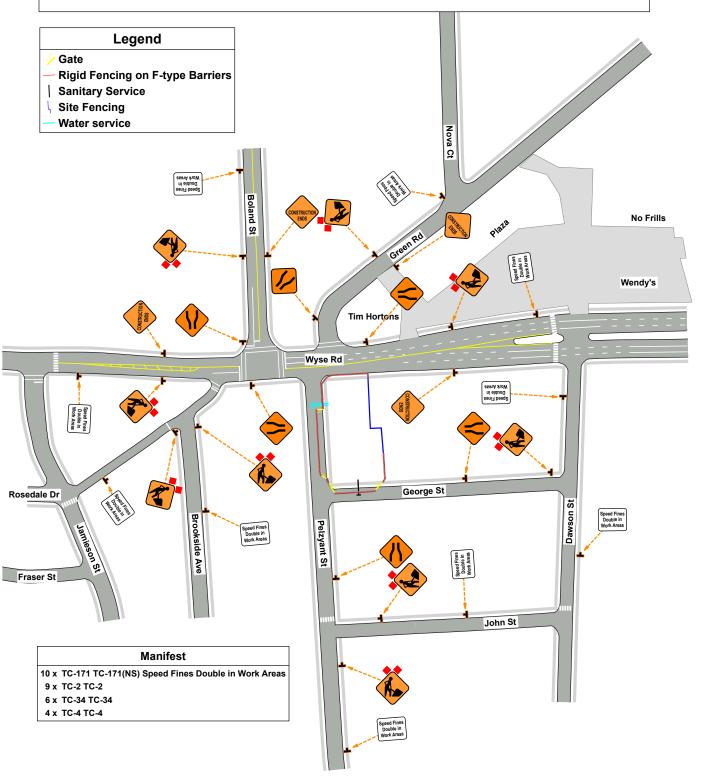
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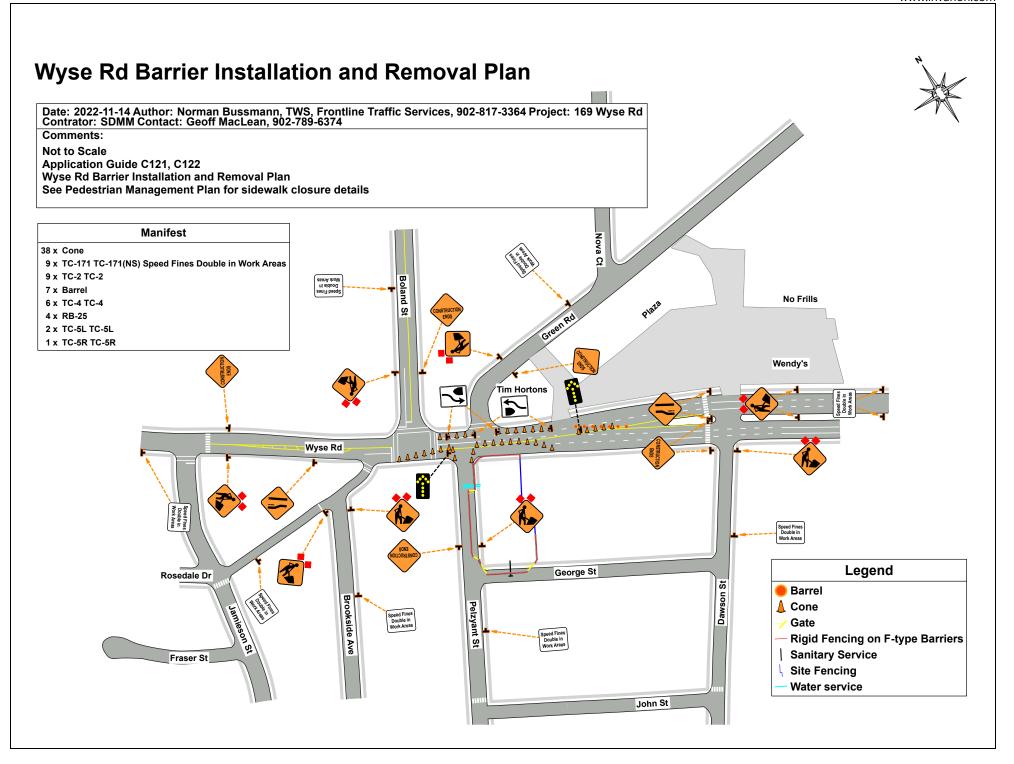
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**Long Duration Encroachment** 

**Application Guide C22** 

There will be a 6m travel lane on both Pelzant St and George St





# George St Barrier Installation and Removal Plan



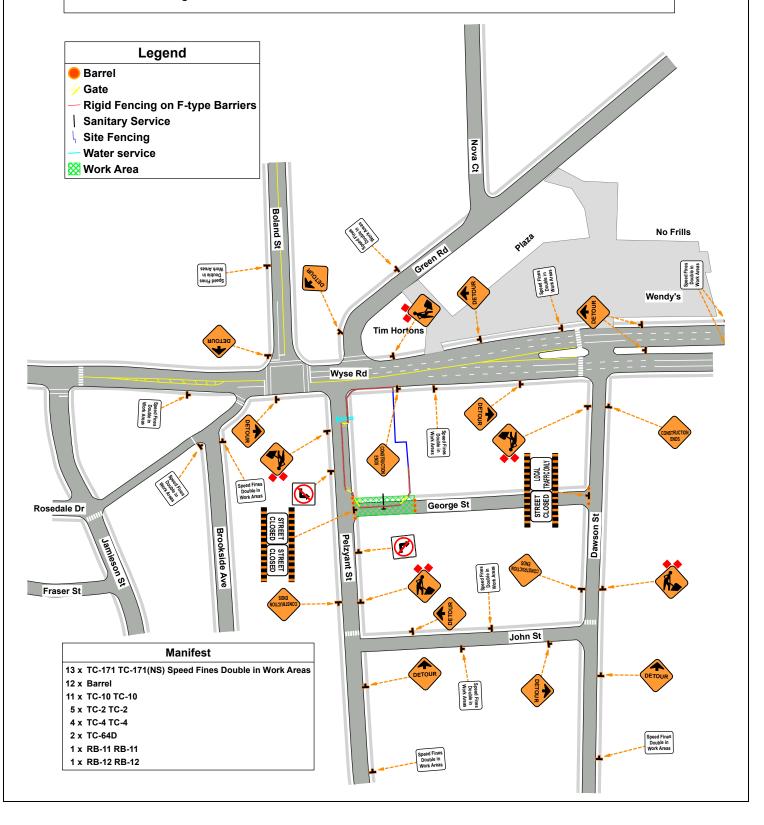
Date: 2022-11-14 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 169 Wyse Rd Contrator: SDMM Contact: Geoff MacLean, 902-789-6374

Comments:

Not to Scale

**Application Guide C114** 

George St Barrier Installation and Removal Plan



# Pelzant St Barrier Installation and Removal Plan



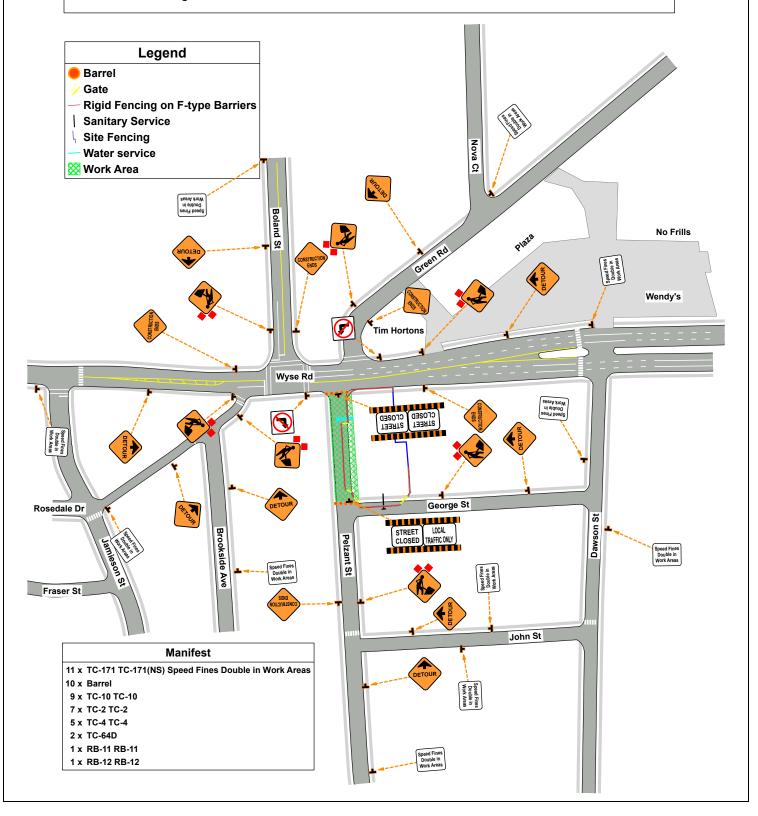
Date: 2022-11-14 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 169 Wyse Rd Contrator: SDMM Contact: Geoff MacLean, 902-789-6374

Comments:

Not to Scale

**Application Guide C114** 

Pelzant St Barrier Installation and Removal Plan



# **Sanitary Service Installation Plan**

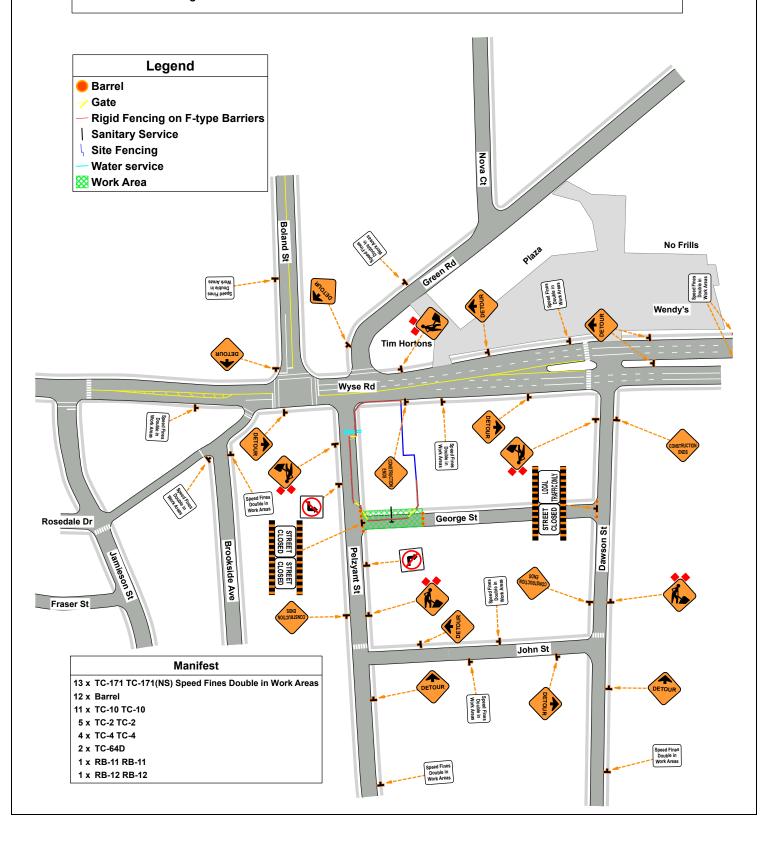


Date: 2022-11-14 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 169 Wyse Rd Contrator: SDMM Contact: Geoff MacLean, 902-789-6374

Comments:

Not to Scale

**Application Guide C114** 



# Water Service Installation and Decommissioning Plan



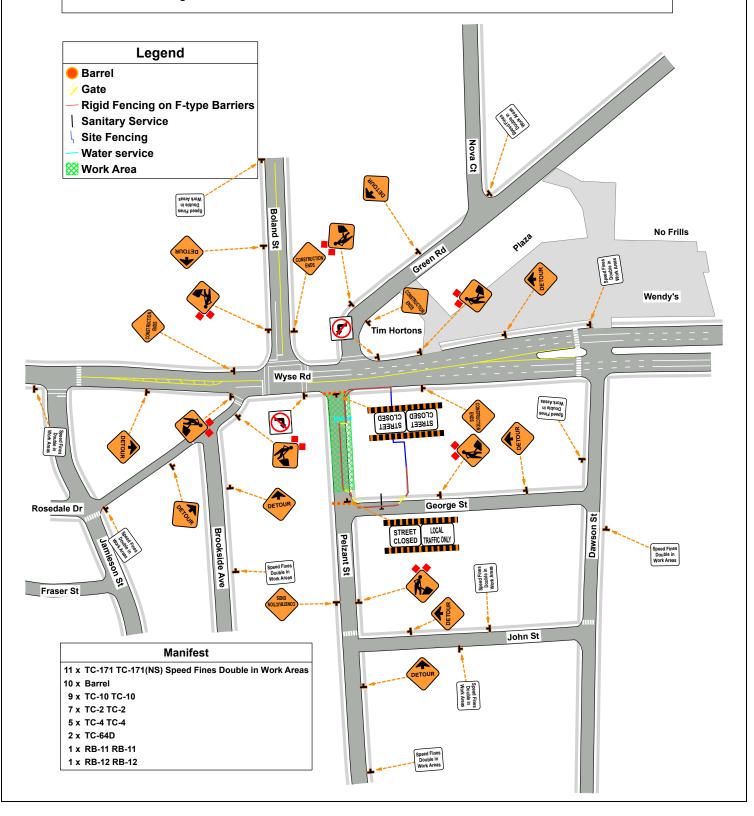
Date: 2022-11-14 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 169 Wyse Rd Contrator: SDMM Contact: Geoff MacLean, 902-789-6374

Comments:

Not to Scale

**Application Guide C114** 

Water Service Installation and Decommissioning Plan



# George St Curb, Sidewalk and Driveway Plan



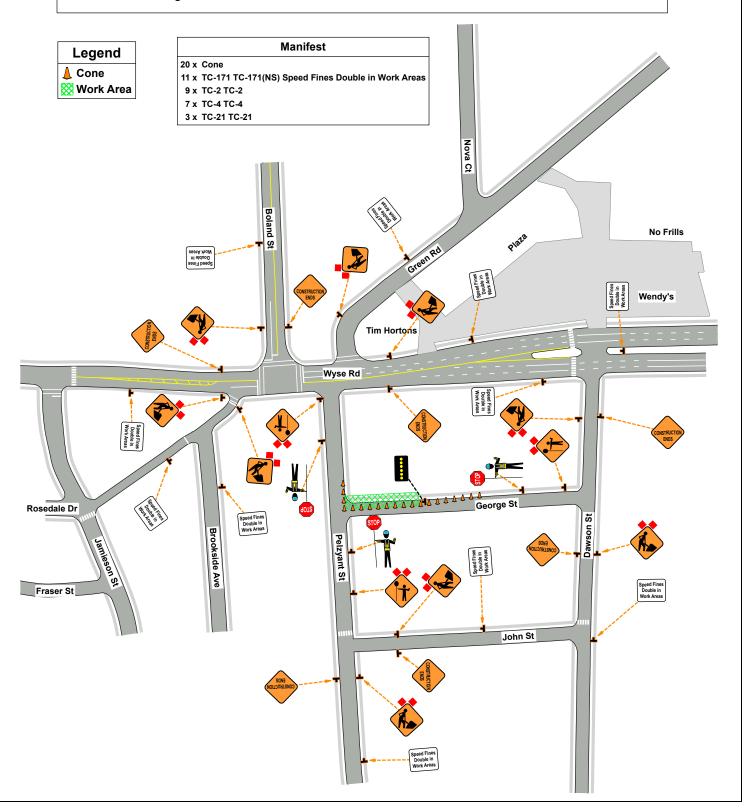
Date: 2022-11-14 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 169 Wyse Rd Contrator: SDMM Contact: Geoff MacLean, 902-789-6374

Comments:

Not to Scale

**Application Guide C114** 

George St curb, sidewalk and driveway Installation Plan See Pedestrian Management Plan for sidewalk closure details



# Pelzant St curb, sidewalk and driveway Installation Plan

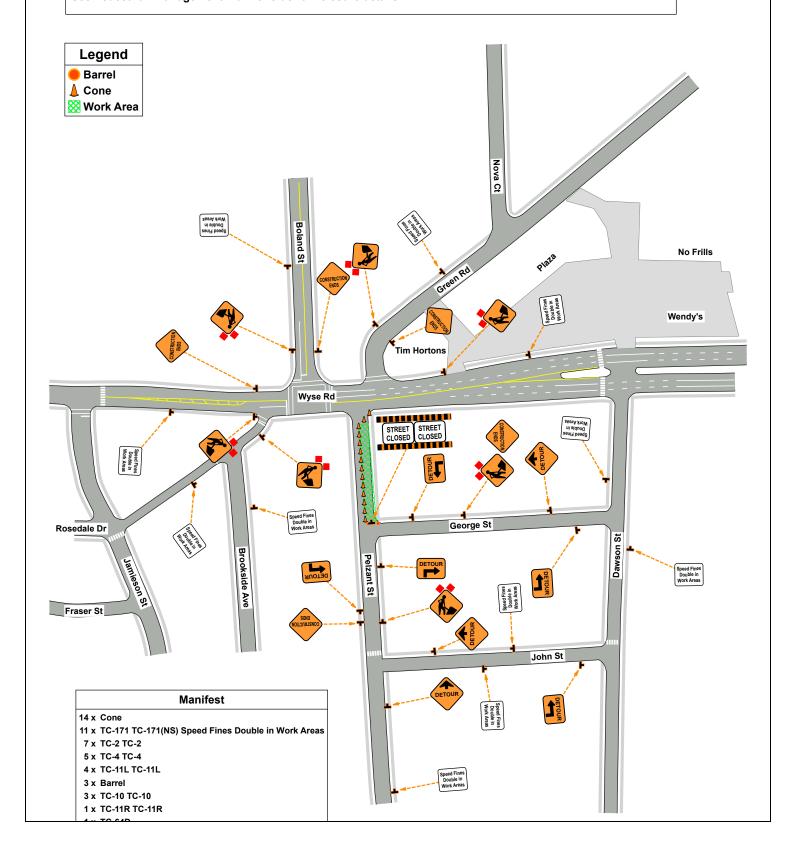
Date: 2022-11-14 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 169 Wyse Rd Contrator: SDMM Contact: Geoff MacLean, 902-789-6374

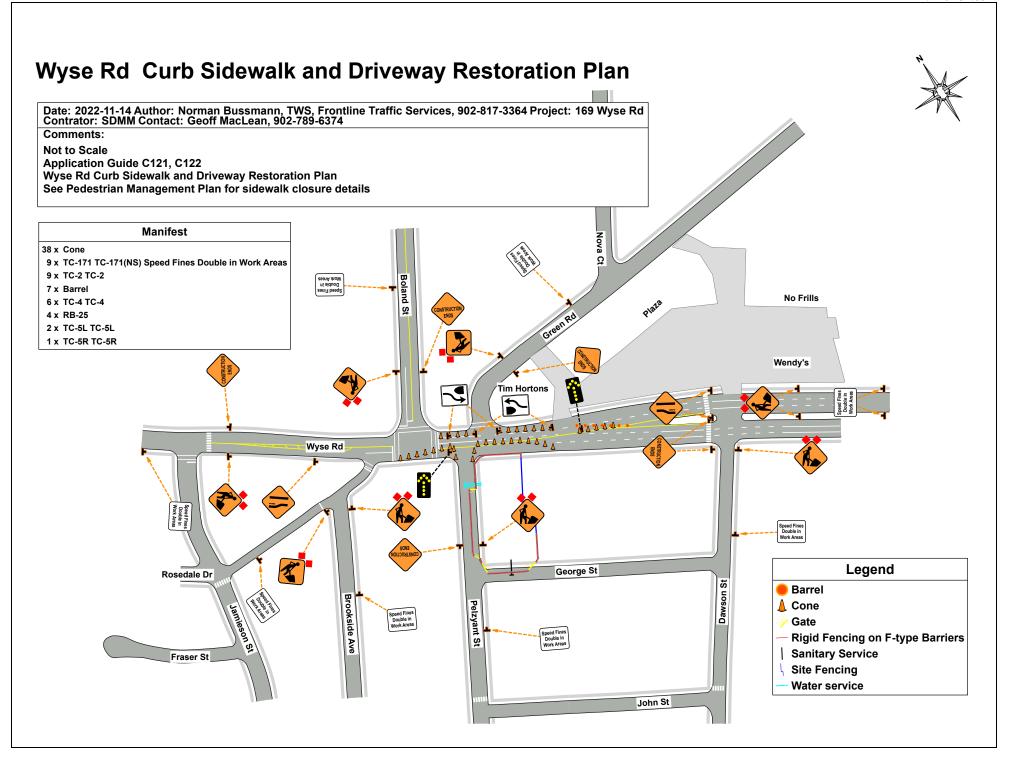
Comments:

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**Application Guide C114** 

Pelzant St Barrier Installation and Removal Plan







# Appendix C – Haul Route Plan

Page | C Job No. 37568

# **Haul Route Plan**



Date: 2022-11-14 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 169 Wyse Rd Contrator: SDMM Contact: Geoff MacLean, 902-789-6374

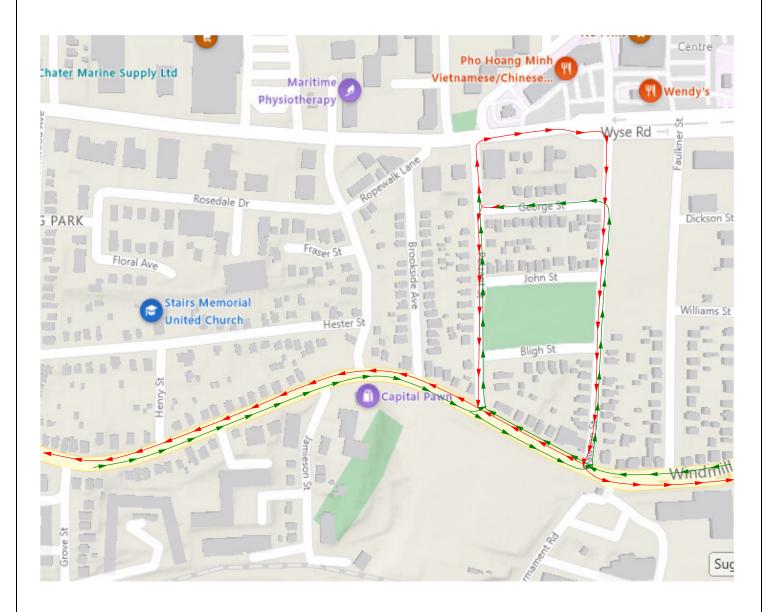
Comments:

**Not to Scale** 

**Haul Route Plan** 

Inbound Via Windmill Rd to Pelzant St (or Dawson St to George St) to Site

Outbound Via Pelzant to Windmill Rd (or to Wyse Rd to Dawson St to Windmill Rd) Trucks should not turn left on Wyse Rd from Pelzant St





# Appendix D – Pedestrian Management Plan (PMP)

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# **Pedestrian Management Plan**

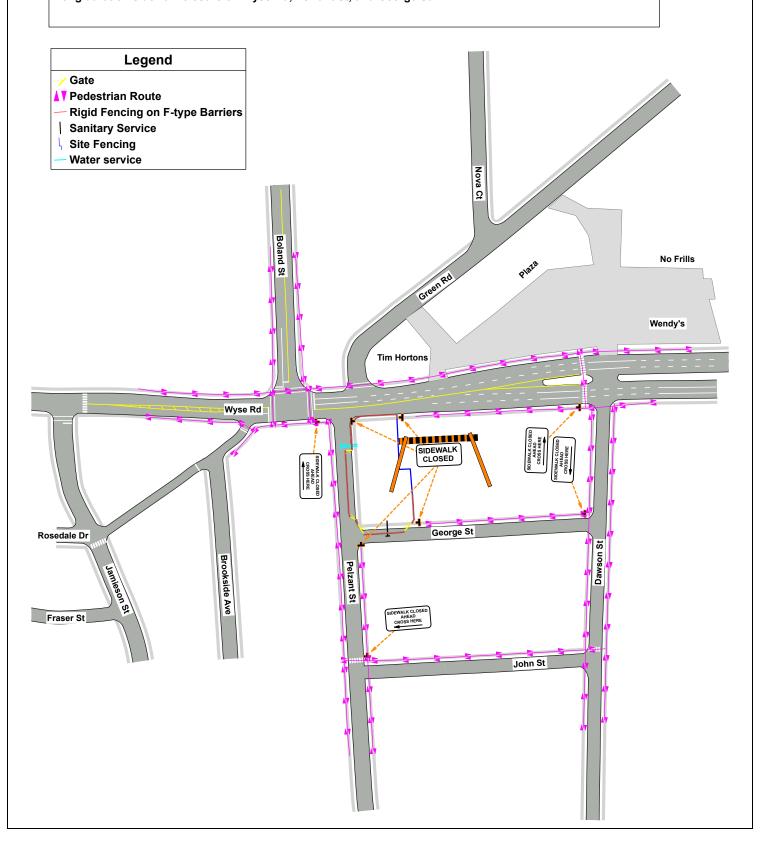


Date: 2022-11-14 Author: Norman Bussmann, TWS, Frontline Traffic Services, 902-817-3364 Project: 169 Wyse Rd Contrator: SDMM Contact: Geoff MacLean, 902-789-6374

Comments:

Not to Scale

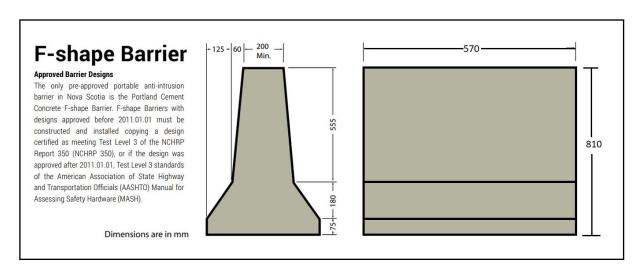
Long duration sidewalk closure on Wyse Rd, Pelzant St, and George St

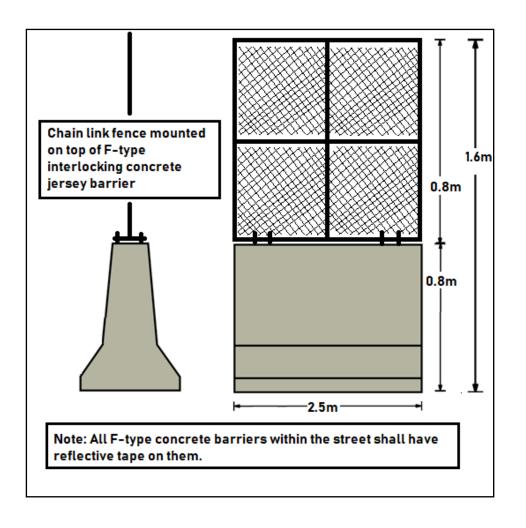


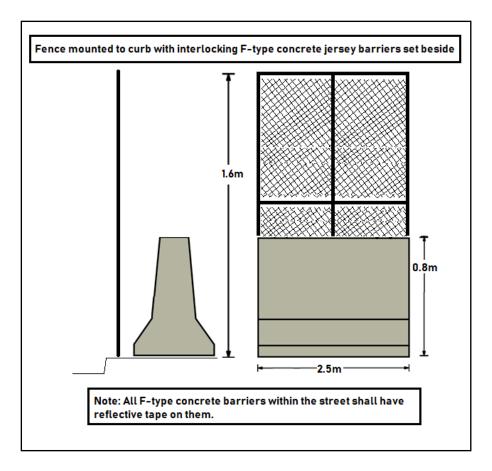


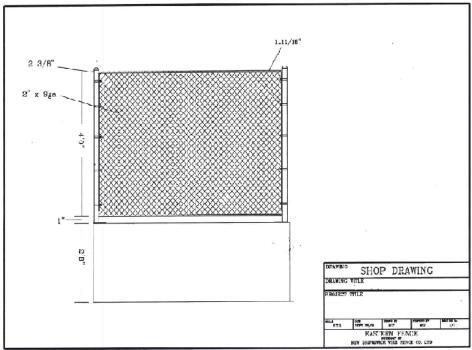
# **Appendix E – Barrier, Waste Blocks, Fence & Gates Information**

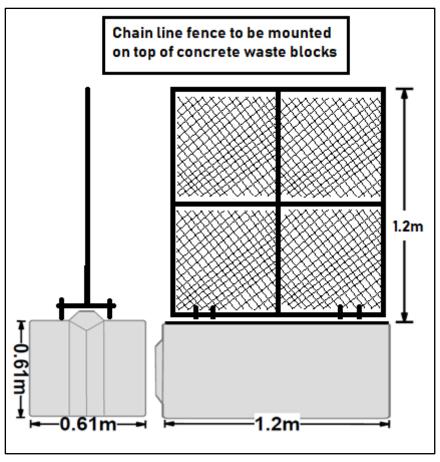
Page | E Job No. 37568

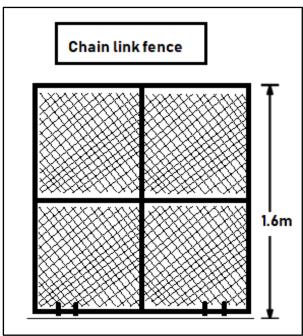


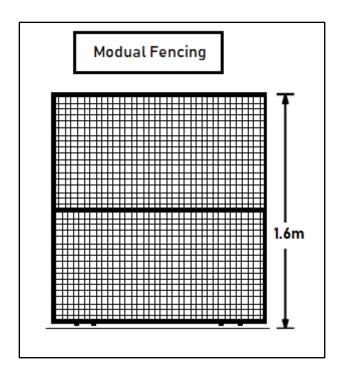


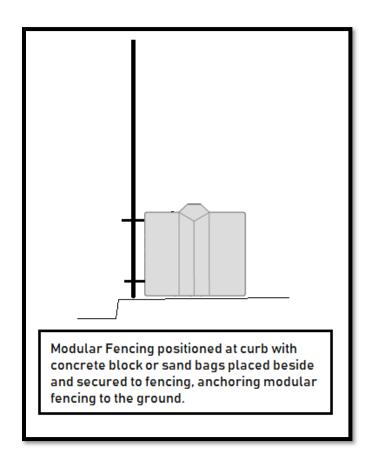


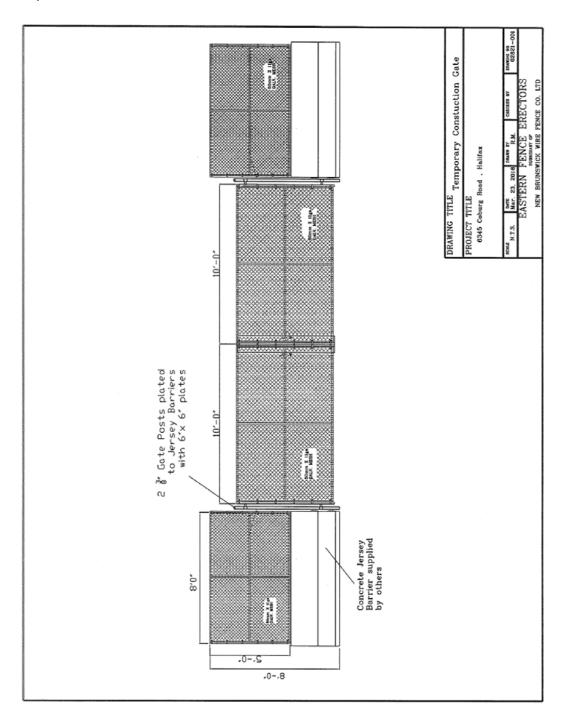














#### Appendix F – Hoarding Information

Page | F Job No. 37568

Opaque construction hoarding material shall covering and be adequately secured to the rigid fencing that outlines the encroachment area. This covering shall be continuous such that it prevents passersby or tourist from seeing through the fencing and gates to the active construction site.

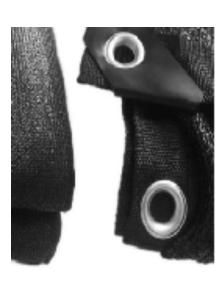
UltraMesh® Eclipse® if a 7.96 oz. which is a polyester, black-backed mesh that is used where complete opacity is required.

UltraMesh Eclipse is UV printable for project renderings and is typically used for building and fence graphic wraps. The product is available in widths of 126" and 196".

Product example is shown below with the technical data sheet on the following page.

#### **Tarp Option**







#### Print Banner Option





#### Technical Data Sheet

#### UltraMesh® Eclipse®

UltraMesh Eclipse is a 7.96 oz. polyester, black-backed mesh. The material is ideal for applications where complete opacity is required. UltraMesh Eclipse is UV printable and may be used for building wraps and fence graphics. Available in widths of 126 and 196.

#### Material Details

CHARACTERISTICS	TEST METHOD	METRIC	ENGLISH
Base Fabric	100% PES	1000D×1000D	
Construction		1	2×12
Total Weight	DIN53352 BS3424 Method5A	270 +/- 20 gsm/m²	7.96 oz/yd <sup>2</sup>
Width		Up to 500cm	
Tensile Strength	DIN53352 BS3424	Warp 1250 n/5cm Weft 1100 n/5cm	142.75 x 130.19 lb/in
Tear Strength	DIN53356 BS3424	Warp 235 N Weft 225 N	52.8 x 50.5 lbf
Air Permeability	GB/T 2410-2008	2649 mm/s	
Light Transmission	GB/T 5453-1997	37% -20°C :70°C	
Temperature Resistance	DIN53357 BS3425 Method 10		

#### Applications

	Back-lit	Banner	Billboard	Block-out	Building Wrap	Fence Graphics	Truckside
Applications		•		•	•	•	

#### Ink Printability

Solvent	Eco Solvent	UV	Latex	Screen Printing	Dye Transfer	Dye Direct

#### Available Sizes

Metric (m)	English (inches)
3.20, 5.00	126 , 196

The information on physical and chemical characteristics is based upon tests believed to be reliable. The values are intended only as a source of information. A legally binding guarantee of specific properties is not to be inferred from our specifications. They are given without guaranty and do not constitute a warranty. A weight variance of +1/-2 is acceptable. The purchaser should independently determine, prior to use, the suitability of this material for his/her specific purpose. (Data represents averages and is not intended for use as a specification.)

ULTRAFLEX

www.ultrafleXX.com updated: 12/2016

Ultraflex Systems Inc.

Ultrafiex Systems Inc. Ultrafiex Europe
1578 Sussex Tumpike, Bidg. 4 Unit 1 Hardwick Road Industrial Park
Randolph, NJ 07869 Great Granaden Bedfordshire Untrafex Systems inc.
Untrafex Systems inc.
Untrafex Systems inc.
Untrafex Europe
Untrafex Europe
1578 Sussex Tumpike, Bidg. 4
203 Kelsey Lane, Suite E
Pandolph, NJ 07869
Figray St. 33519
P: (973)627-8098
Figray St. 257-8098
F

Azafrán No. 112, Col. Granjas Mésico Del. Istacalco, C.P. 08400, México D.F. Tel: (55)31823632,3182 3608 01 800 822 52 31 Email: sales.mx@ultrafex.com

Av. Patria No. 2804 Loma Bonita Sur. Zapopan, Jalisco CP45086 Mexico Tel: (55)3312-049-857



#### **Appendix G – Project Information Board**

Page | G Job No. 37568



#### **December 2022 – March 2025**

#### PROPOSED MULTI-UNIT BUILDING Wyse Road Development

9 Storey - Residential Building

98 Residential Units on 9 Levels Including 4-Two Level Townhouses

2<sup>nd</sup> Level Commercial Space

Level 10 Penthouse with Roof Terrace and Common Areas

Mixture of 1-3 Bedroom Units

2 Levels Underground Parking

Bicycle Parking and Storage

#### **Developer:**

Zagros Nova Home Developments Limited 380 Bedford Highway Suite 100, Bedford, NS

#### 24 Hour Contact:

Seraj Bagheri – (902) 219-4040

#### **Project Manager:**

Zagros Nova Home Developments Limited 380 Bedford Highway Suite 100, Bedford, NS

#### **Contact:**

Salah Hasan – (902) 830-0222

#### **Contractor:**

Atlantic Road Construction and Paving 6 Belmont Avenue, P.O. Box 89 Eastern Passage, NS, B3G 1M7

#### **Contact:**

Greg MacDonald - (902) 830-6411

#### **Traffic Control:**

Frontline Traffic Services 6 Belmont Avenue, P.O. Box 89, Eastern Passage, NS, B3G 1M7

#### **Contact:**

Phil Pruneau - (902) 818-5548

#### **Rodent Control Company:**

Rentokil Pest Control 51 Duke Street, Bedford, Bedford, NS

#### **Contact:**

Main Office - (902) 835-2304



#### Appendix H – Project Safety Signage

Page | H Job No. 37568

### NO TRESPASSING

# CONSTRUCTION SITE To reduce risk of injury, • Hard Hat • Safety Shoes MUST be worn on this site.

# RESTRICTED --- AREA ----

# CONSTRUCTION WORK IN PROGRESS



#### **Appendix I – Project Signage Specifications**

Page | I Job No. 37568

Signage Specifications: Project Signage shall;

- Be constructed of weatherproof material (corrugated plastic)
- Have high visibility contrasting colours (dark letters on white background)
- Incorporate appropriate font types (mix of upper and lower-case lettering)
- Incorporate appropriate font sizes (16mm 51mm) such that the signage is readable from a distance (16-20m)
- Size of signage will be poster size (600mm x 900mm) or larger; to allow community members to see and read the information from a distance
- Signage may incorporate plastic grommets positioned every 300mm around the perimeter of the signage to ensure a secure signage installation
- Signage will be installed/anchored to project fencing using plastic zip-ties
- Signage will be positioned along the project site as per the encroachment plan
- Signage shall not impede traffic of pedestrian sight lines
- Signage shall be placed on site 10days prior to the start of the noted construction activity to
  ensure the passing public has had adequate time to review, adjust their travel patterns, usage
  of streets and or cab be considered 'informed'.

#### Samples







#### Appendix J – Sample Traffic Notification Letter

Page | J Job No. 37568



#### **Proposed Multi-Unit Residential Building**

#### **DRAFT NOTIFICATION LETTER**

#### TO WHOM IT MAY CONCERN

**Date** 

#### NOTIFICATION OF TRAFFIC DISRUPTION: Street Name, DARTMOUTH, NOVA SCOTIA

This is to inform you that the to facilitate operations in association with the Multi-Unit Residential building construction work, traffic disruptions will occur on or about **DATE** with an anticipated duration of approximately **TIME**. The street will be **reduced(?)** to one lane of vehicular traffic during this time.

Should you have any questions or concerns please feel free to contact the below:

**CONTACT INFORMATION** 

**General Contractor:** 

Atlantic Road Construction and Paving 6 Belmont Avenue, P.O. Box 89 Eastern Passage, NS B3G 1M7

Phone: (902) 830-6411

Should any questions arise, please feel free to contact the undersigned.

Yours Truly,

**Greg MacDonald** 

**Atlantic Road Construction and Paving** 



#### **Appendix K – Vehicular and Pedestrian Hazard Assessment**

Page | K Job No. 37568

#### Project Date: Location: VEHICULAR & PEDESTRIAN HAZARD ASSESSMENT

	VEHICULAR & PEDESTRIAN HAZARD ASSESSMENT							
No.	Hazard:	Project Phase:	Vehicular Impacts:	Mitigation Methods:	Pedestrian Impacts:	Mitigation Methods:		
			Vehicles may enter project site and fall down excavation.	Place concrete barriers along travel ways. Concrete barriers and existing curbs to prevent vehicle entry.		Place concrete barriers/rigid fencing around entire project site.		
1	Excavation	Excavation	Vehicle weight may surcharge excavation, causing excavation wall failure.	Close sidewalks & driveways adjacent to project site, moving vehicles farther away from excavation.	Pedestrians may enter project site and fall down excavation.			
2	Rock Blasting	Excavation	Blasted rock projectiles may strike vehicles.	Close sidewalks & driveways adjacent to site, moving vehicles farther away from blasted rock.	Blasted rock projectiles may strike pedestrians.	Install solid plywood hoarding along rigid fence adjacent to blasting zone.		
3	Construction Waste	All Phases	Vehicles may be struck by construction waste.	The contractor shall keep the project site and surrounding areas clean and free of construction debris.	Pedestrians may be struck by construction waste.	The contractor shall keep the project site and surrounding areas clean and free of construction debris.		
4	Vehicular & Pedestrian Activities	All Phases	Drivers and pedestrians may become confused or impatient with construction activities. Pedestrians may walk in unmarked crosswalks or in vehicular travel areas. Drivers may fail to obey traffic signage.	Vehicular and pedestrian signage will be posted prominently around the project site to facilitate pedestrian movement. Notification will be sent prior to all traffic interruptions.	Drivers and pedestrians may become confused or impatient with construction activities. Pedestrians may walk in unmarked crosswalks or in vehicular travel areas. Drivers may fail to obey traffic signage.	Vehicular and pedestrian signage will be posted prominently around the project site to facilitate pedestrian movement. Notification will be sent prior to all traffic interruptions.		
5		All Phases	Heavy machinery or vehicles may break down or overturn, damaging other vehicles.	The contractor shall maintain safe distances between vehicles and heavy machinery on-site.Concrete barriers will be installed to separate construction vehicles from public traffic.	Heavy machinery or vehicles may break down or overturn, injuring pedestrians.	The contractor shall maintain safe distances between pedestrians, vehicles, and heavy machinery. Rigid fences will be installed to separate construction vehicles from pedestrians.		
3	Heavy Machinery Operation	All Phases	Heavy machinery or vehicles may overturn due to uneven terrain, damaging other vehicles.	The contractor shall maintain safe distances between vehicles and heavy machinery on-site and ensure travel routes are kept flat.	Heavy machinery or vehicles may overturn due to uneven terrain, injuring pedestrians. Pedestrians may walk on uneven terrain causing them to twist their ankles or fall.	The contractor shall maintain safe distances between pedestrians, vehicles, and heavy machinery and ensure travel routes are kept flat.		
6	Construction Signage	All Phases Const	Construction signage may strike vehicular traffic.	Construction signage will be securely fixed to existing poles, temporary concrete sign bases, or rigid fences.	Pedestrians may walk into construction signage, including traffic signage, wayfinding signs, etc. may.	Signage will be angled in line with pedestrian routes and/or be placed at heights such that they do not pose a risk to pedestrians.		
					Construction signage may strike pedestrians.	Construction signage will be securely fixed to existing poles, temporary concrete sign bases, or rigid fences.		
7	Dangerous Materials	All Phases	Flammable, explosive, & hot materials may damage vehicles if not properly maintained & stored.	The contractor will use and store dangerous materials properly as per manufacturers' specifications.	Flammable, explosive, & hot materials may injure pedestrians if not properly maintained & stored.	The contractor will use and store dangerous materials properly as per manufacturers' specifications.		
8	Hoisting Operations	Superstructure	Precast concrete panels and other items hoisted may fall from heights and damage vehicles.	Proper hoisting and lifting techniques will be used to ensure that materials do not fall from heights. F-Type concrete barriers will be installed such that loads are never suspended above the public realm.	Precast concrete panels and other items hoisted may fall from heights and injure pedestrians.	Proper hoisting and lifting techniques will be used to ensure that materials do not fall from heights. Pedestrians will be moved to opposite sides of street from the project site or onto temporary sidewalks such that loads are never suspended above the public realm.		
9	Reinstatement of Public Infrastructure & Service Installation	Superstructure	Heavy equipment and hot concrete used during public infrastructure reinstatement and service installation may cause damage to vehicles.	The contractor shall maintain safe distances between vehicles and heavy machinery on-site. Concrete barriers will be installed to separate construction vehicles from public traffic during public infrastructure reinstatement and service installation.	Heavy equipment and hot concrete used during public infrastructure reinstatement may injure pedestrians.	The contractor shall maintain safe distances between pedestrians, vehicles, and heavy machinery.		
10	Fallen debris	Superstructure	Debris may fall from upper stories of the new building causing damage to vehicles.	F-Type concrete barriers will be installed such that a safe distance is maintained between the building envelope and vehicular traffic.	Debris may fall from upper stories of the new building injuring pedestrians.	Construction of upper building levels will be set back from the property line/rigid fencing, this separating pedestrians from potential fallen debris.		



#### **Appendix L – Community Consultation Records**

Page | L Job No. 37568

#### **COMMUNITY CONSULTATION MAP OVERVIEW**

#### **Project – Wyse Road Development**



#### **Notification Letter**

Date: \*\*\*\*\*\*

Zagros Nova Home Developments Limited – Building Construction Information Meeting

Dear Neighbour,

As you may be aware, we are planning an apartment building construction project located on Wyse Road, Dartmouth.

If you are interested in receiving more information about our construction plans, practices, schedule and to go over any questions you may have regarding construction of our new project please contact us to discuss. We would be happy to meet with you to discuss.

Thank you.

Seraj Bagheri

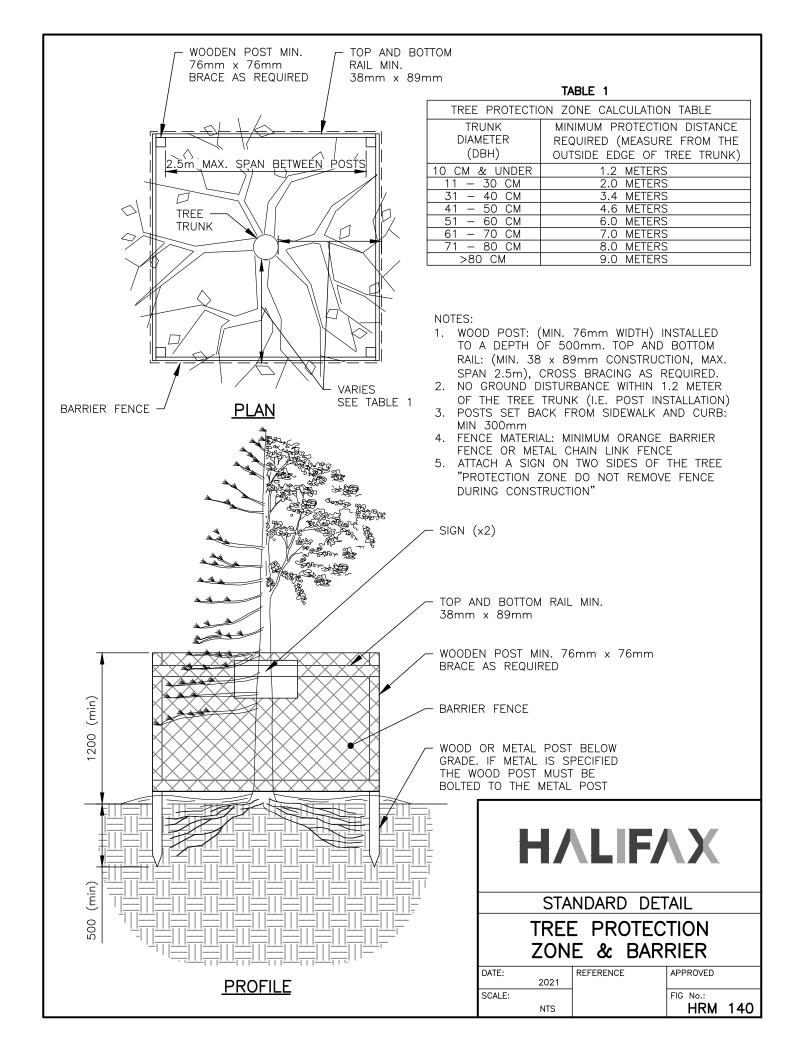
Cell: 902-219-4040

Email: seraj@zagrosnova.ca



#### Appendix M – HRM Tree Detail

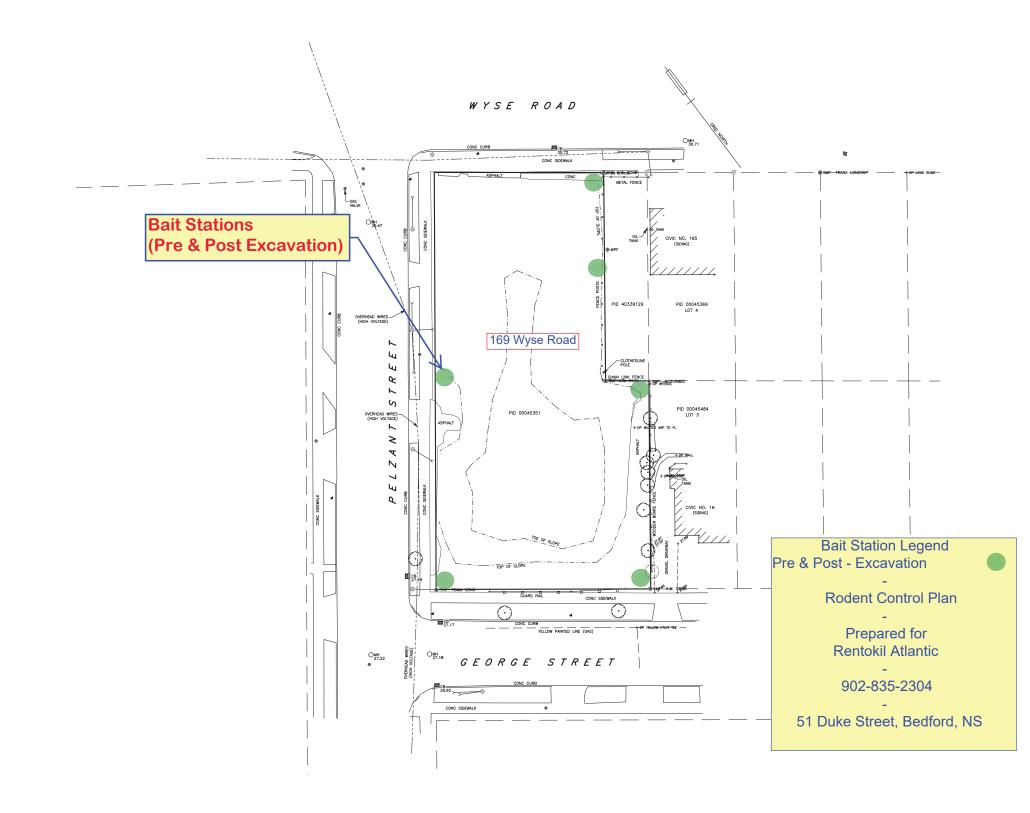
Page | M Job No. 37568





#### Appendix N – Rodent Control Plan

Page | N Job No. 37568





#### THE MOST ADVANCED LOW-PROFILE BAIT STATION







#### **PRODUCT FEATURES:**

- ▶ Single locking mechanism for quick servicing
- ▶ Removable tray for easy cleaning
- ▶ Locking bait rods won't fall out during cleaning
- Dog & child tamper-resistant
- Can hold:

4 - 1 oz. bait BLOX on 4 vertical rods

T-Rex<sup>™</sup> rat trap or Mini-Rex<sup>™</sup> mouse trap

▶ Compatible with Sidekick® Load-N-Lock™ system





More Than Meets The Eye

Madison, Wisconsin 53704 USA | Ph: (608) 241-0202 | Fax: (608) 241-9631

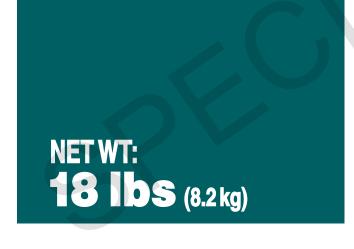
www.belllabs.com

# ALL-WEATHER BLOX TM









#### **KILLS RATS, MICE & MEADOW VOLES\***

**Kills Warfarin Resistant Norway Rats** 

KEEP OUT OF REACH OF CHILDREN CAUTION

See back panels for First Aid and additional precautionary statements.

ACTIVE INGREDIENT:

 Bromadiolone (CAS #28772-56-7):
 0.005%

 OTHER INGREDIENTS†:
 99.995%

 †Contains Denatonium Benzoate
 TOTAL
 100.000%

\*Not permitted for use against the following species in California: Cotton rat, Eastern harvest mouse, Golden mouse, Polynesian rat. Meadow vole. White-throated woodrat, Southern plains woodrat, and Mexican woodrat.

#### FIRST AID

#### HAVE LABEL WITH YOU WHEN OBTAINING TREATMENT ADVICE

#### IF SWALLOWED:

- Call a poison control center, doctor, or 1-877-854-2494, or 1-800-858-7378\*\* immediately for treatment advice.
- . Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.

#### IF ON SKIN OR CLOTHING:

- . Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

#### IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- · Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- · Call a poison control center, doctor, or 1-877-854-2494 immediately for treatment advice.
- \*\* Also call this number for information on health concerns and pesticide incidents.

#### NOTE TO PHYSICIAN

If swallowed or absorbed through the skin, this material may reduce the clotting ability of the blood and cause bleeding. If ingested, administer Vitamin K<sub>1</sub> intramuscularly or orally. Repeat as necessary based on monitoring of prothrombin times.

#### TREATMENT FOR PET POISONING

If animal eats bait, call veterinarian at once.

NOTE TO VETERINARIAN

Anticoagulant Bromadiolone: For animals ingesting bait and/or showing poisoning signs (bleeding or elevated probrombin times), give Vitamin  $K_{\uparrow}$ . If needed, check prothrombin times every 3 days until values return to normal (up to 30 days). In severe cases, blood transfusions may be needed.

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READTHIS LABEL: Read this entire label and follow all use directions and use precautions. Use only for sites, pests, and application methods described on this label.

IMPORTANT: Do not expose children, pets, or nontarget animals to rodenticides. To help to prevent exposure:

- 1. Store unused product out of reach of children and pets.
- 2. Apply bait in locations out of reach of children, pets, domestic animals and nontarget wildlife, or in tamper-resistant bait stations. These stations must be resistant to destruction by dogs and by children under six years of age, and must be used in a manner that prevents such children from reaching into bait compartments and obtaining bait. If bait can be shaken from bait stations when they are lifted, units must be secured or otherwise immobilized. Stronger bait stations are needed in areas open to hoofed livestock, raccoons, bears, or other potentially destructive animals, or in areas prone to vandalism.
- 3. Dispose of product container and unused, spoiled, or unconsumed bait as specified on this label.

Bait stations are mandatory for outdoor, above-ground use. Tamper-resistant bait stations must be used wherever children, pets, non-target mammals, or birds may have access to the bait placement location.

USE RESTRICTIONS: This product may only be used to control the following rodent pests in and around man-made structures: House mouse (Mus musculus), Norway rat (Raitus norvegicus), Roof rat (Raitus raitus), Cotton mouse (Peromyscus gossypinus), Cotton rat" (Sigmodon hispidus), Deer mouse (Penithodontomys humuli), Gotden mouse\* (Dehrotomys nuttalii), Peromyscus maniculatus), Eastern harvest mouse\* (Reithrodontomys humuli), Gotden mouse\* (Dehrotomys nuttalii), Peromyscus inta\* (Raitus exutians), Meadow vole\* (Microtus pennsylvanicus), White-footed mouse (Peromyscus leucopus), White-throated woodrat\* (Neotoma albigula), Southern plains woodrat\* (Neotoma micropus), and Mexican woodrat\* (Neotoma mexicana). This product must be used in and within 100 feet of man-made structures constructed in a manner so as to be vulnerable to commensal rodent invasions and/or to harboring or attracting ordent intestations. Examples of such structures include homes and other permanent or temporary residences, food processing facilities, industrial and commercial buildings, trash receptacles, agricultural and public buildings, trashport vehicles (ships, trains, aircraft), docks and port or terminal buildings and related structures around and associated with these sites. Fence and perimeter baiting, beyond 100 feet from a structure as defined above, is prohibited. This product must not be applied directly to food or feed crops.



#### **KILLS RATS, MICE, AND MEADOW VOLES\***

#### **Kills Warfarin Resistant Norway Rats**

Norway rats, roof rats, and house mice may consume a lethal dose in one night's feeding with first dead rodents appearing four or five days after feeding begins.

ACTIVE INGREDIENT:

#### CAUTION

See side panels for First Aid and additional precautionary statements.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store only in original container in a cool, dry place inaccessible to children and pets. Keep containers closed and away from other chemicals.

Pesticide Disposal: Wastes resulting from the use of this product may be placed in trash or delivered to ar approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. [Plastic:] Offer for recycling or reconditioning; or puncture and dispose of in a sanitary landfill; or by incineration. In most states, burning is not allowed.

WARRANTY: To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

#### NET WEIGHT: 18 lbs (8.2 kg)

EPA REG. NO. 12455-79 EPA EST. NO. 12455-WI-1

Manufactured by:

BEET

LABORATORIES, INC.
3699 Kinsman B.v.
Madison, WI 53704 U.S.A.
www.bellabs.com

DIRECTIONS FOR USE (Continued from other panel)

Burrow baiting with Contrac All-Weather Blox is prohibited.

Do not place near or inside ventilation duct openings. Do not contaminate water, food, feedstuffs, food or feed handling equipment, or milk or meat handling equipment or surfaces that come into direct contact with food. When used in USDA inspected facilities, this product must be applied in tamper-resistant bait stations. Do not broadcast bait. Do not use this product in sewers.

Do not sell this product in individual containers holding less than 16 pounds of bait.

SELECTION OF TREATMENT AREAS: Determine areas where rats, mice, or meadow voles\* will most likely find and consume the bait. Generally, these areas are along walls, by gnawed openings, in corners and concealed places, between floors and walls, or in locations where rats, mice, or meadow voles\*, or their signs have been seen. Protect bait from rain and snow. Remove as much alternative food as possible.

#### APPLICATION DIRECTIONS:

RATS: Place 3 to 16 bait blocks (at intervals of 15 to 30 feet) per placement in infested areas. Maintain an uninterrupted supply of fresh bait for at least 10 days or until signs of rat activity cease.

MICE AND MEADOW VOLES\*: Place 1 block per placement. Space placements at 8- to 12-foot intervals in infested areas. Two blocks may be needed at points of very high activity. Maintain

areas. Iwo blocks may be needed at points of very nigh activity. Maintain an uninterrupted supply of fresh bait for at least 15 days or until signs of mouse or meadow vole\* activity cease.

FOLLOW-UP: Replace contaminated or spoiled bait immediately. Wearing gloves, collect and dispose of all dead, exposed animals and leftover bait. To prevent reinfestation, limit sources of rodent food, water, and harborage as much as possible. If reinfestation does occur, repeat treatment. Where a continuous source of infestation is present, establish permanent bait stations and replenish as needed.

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed or absorbed through the skin. Keep away from children, domestic animals and pets. Do not get in eyes, on skin or on clothing

All handlers (including applicators) must wear: shoes plus socks, and waterproof gloves. Any person who retrieves carcasses or unused bait following application of this product must wear gloves.



#### **User Safety Requirements**

Follow manufacturer's instruction for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash hands thoroughly after applying bait and before eating, drinking, chewing gum, using tobacco or using the toilet and change into clean clothing.

#### ENVIRONMENTAL HAZARDS

This product is extremely toxic to fish, birds and other wildlife. Dogs and predatory and scavenging mammals and birds might be poisoned if they feed upon animals that have eaten this bait. Do not apply this product directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff also may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash water or rinsate.

\*Not permitted for use against the following species in California: Cotton rat, Eastern harvest mouse, Golden mouse, Polynesian rat, Meadow vole, White-throated woodrat, Southern plains woodrat, and Mexican woodrat.

587CB-9 MADE IN USA Product Code: CB4051 090415/09-15



#### DETEX®BLOX with LUMITRACK

SAFETY DATA SHEET

**ACCORDING TO REGULATION: OSHA** 

Hazard Communication Standard 29 CFR 1910.1200 January 2016

**DATE OF ISSUE:** 

PREPARED BY:

CAR

#### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: DETEX® BLOX with LUMITRACK

**EPA Registration Number: NA** 

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Activity Monitoring - Ready to use Uses advised against: Use only for the purpose described above

#### MANUFACTURER/SUPPLIER:

Bell Laboratories, Inc. 3699 Kinsman Blvd. Madison, WI 53704, USA Email: sds@belllabs.com Phone: 608-241-0202

Medical or Vet Emergency: 877-854-2494 or 952-852-4636 Spill or Transportation Emergency: 800-424-9300 (CHEMTREC)

#### **SECTION 2. HAZARDS IDENTIFICATION**

Classification according to Regulation OSHA 1910.1200(d): Not classified

Signal Word: None

See Section 15 for information on FIFRA applicable safety, health, and environmental classifications.

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	% By weight
Inert and Non-Hazardous Ingredients	Proprietary	100.00%
(Unlisted components are non-hazardous)		

#### **SECTION 4. FIRST AID MEASURES**

**Description of first aid measures** 

**Ingestion:** Non-Toxic Inhalation: Not applicable. **Eve contact:** Non-Toxic Skin contact: Non-Toxic

Most important symptoms and effects, both acute and delayed

Non-Toxic

Advice to physician: Non-Toxic Advice to Veterinarian: Non-Toxic

#### **SECTION 5. FIRE-FIGHTING MEASURES**

**Extinguishing media** 

Suitable Extinguishing Media: water, foam or inert gas. Unsuitable Extinguishing Media: None known.

Special hazards arising from the mixture: High temperature decomposition or burning in air can result in the formation of toxic gases,

which may include carbon monoxide.

Advice for firefighters: Wear protective clothing and self-contained breathing apparatus.

#### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: None. Non-Toxic

Environmental precautions: None. Non-Toxic

Methods and materials for containment and cleaning up

For Containment: None. Non-Toxic For Cleaning Up: None. Non-Toxic

Reference to other sections: Refer to Sections 7, 8 & 13 for further details of personal precautions, personal protective equipment and

disposal considerations.

Trade Name: Detex Blox with Lumitrack Date Created: January 2016 Supplier: Bell Laboratories, Inc.

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#### **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling: Do not use near heat sources, open flame, or hot surfaces. Non-Toxic.

Conditions for safe storage, including any incompatibilities: None. Non-Toxic

#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### **Established Limits**

Component	OSHA	ACGIH	Other Limits
None	Not Established	Not Established	Not Established

**Appropriate Engineering Controls:** None. Non-Toxic Occupational exposure limits: None. Non-Toxic

**Personal Protective Equipment:** Respiratory protection: Not required Eve protection: Not required Skin protection: None. Non-Toxic

Hygiene recommendations: None. Non-Toxic

#### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Tan wax block Appearance/Color: Odor: Sweet grain-like

**Odor Threshold:** Not applicable, odor not associated with a hazardous material.

Not applicable, is not dispersible with water. pH:

Melting point: Not applicable Not applicable **Boiling point:** 

Flash point: Not applicable, does not contain components classified as flammable.

Not applicable, is a solid. **Evaporation rate:** Flammability: Not applicable, is a solid.

Upper/lower flammability or explosive limits: Not applicable, does not contain components classified as flammable or explosive.

Vapor Pressure: Not applicable

Vapor Density: Not applicable, is a solid **Relative Density:** 1.13 g/mL @ 20°C Solubility (water): Not water soluble **Solubility (solvents):** Not applicable Partition coefficient: n-octanol/water: Not applicable

**Auto-ignition temperature:** Not applicable, does not contain components classified as flammable.

**Decomposition temperature:** Not applicable

Viscosity: Not applicable, is not a liquid.

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity: Not Applicable

Chemical stability: Not Applicable

Possibility of hazardous reactions: Refer to Hazardous decomposition products **Conditions to avoid:** Avoid extreme temperatures (below 0°C or above 40°C).

Incompatible materials: Not Applicable

Hazardous decomposition products: Not Applicable

#### SECTION 11. TOXICOLOGICAL INFORMATION

**Information on toxicological effects** 

**Acute Toxicity** 

LD50, oral (ingestion): Not Toxic LD50, dermal (skin contact): Not Toxic

LC50, inhalation: Not Toxic

Skin corrosion/irritation: Not Toxic Serious eye damage/Irritation: Not Toxic. Respiratory or skin sensitization: Not Toxic

Germ cell mutagenicity: Not Toxic Carcinogenicity: Not Toxic

Trade Name: Detex Blox with Lumitrack Date Created: January 2016 Supplier: Bell Laboratories, Inc.

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Components	NTP	IARC	OSHA
None	NA	NA	NA

Reproductive Toxicity: Not Toxic **Aspiration Hazard:** Not Toxic Target Organ Effects: Not Toxic

#### **SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity Effects:** Not Toxic

Persistence and degradability: Not Toxic Bioaccumulative potential: Not Toxic

Mobility in Soil: Not Toxic. Other adverse effects: None.

#### **SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal:** Wastes resulting from the use of this product may be placed in trash, on-site, or at an approved waste disposal facility. Dispose of all wastes in accordance with all Federal, state and local regulations.

#### SECTION 14. TRANSPORT INFORMATION

**UN number:** Not regulated

**UN proper shipping name:** Not regulated Transport hazard class(es): Not regulated

Packing group: Not regulated **Environmental Hazards** 

**DOT Road/Rail:** Not considered hazardous for transportation via road/rail. **DOT Maritime:** Not considered hazardous for transportation by vessel.

**DOT Air:** Not considered hazardous for transportation by air.

Freight Classification: LTL Class 60

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Not applicable

Special precautions for user: None

#### **SECTION 15. REGULATORY INFORMATION**

Safety, health and environmental regulations/legislation specific for the substance or mixture: Not applicable

Signal Word: None

**Precautionary Statements:** None

**Potential Health Effects:** 

Eye Contact: May cause irritation Skin Contact: Non-irritating to the skin **Ingestion:** Not harmful if swallowed

TSCA: All components are listed on the TSCA Inventory or are not subject to TSCA requirements

CERCLA/SARA 313: Not Toxic CERCLA/SARA 302: Not Toxic

#### **SECTION 16. OTHER INFORMATION**

For additional information, please contact the manufacturer noted in Section 1.

NFPA	Health: 0 (Not Toxic)	Flammability: 1 (slight)	Reactivity: 0 (stable)	Specific Hazard: None
HMIS	Health: 0 (Not Toxic)	Flammability: 1 (slight)	Reactivity: 0 (minimal)	Protective Equipment: None

**Disclaimer:** The information provided in this Safety Data Sheet has been obtained from sources believed to be reliable. Bell Laboratories, Inc. provides no warranties; either expressed or implied, and assumes no responsibility for the accuracy or completeness of the data contained herein. This information is offered for your consideration and investigation. The user is responsible to ensure that they have all current data, including the approved product label, relevant to their particular use.

Trade Name: Detex Blox with Lumitrack Date Created: January 2016 Supplier: Bell Laboratories, Inc.

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# Rentokii Ehrlich | Western | Presto-X Your Local Pest Control Experts

# PestNetOnline

The complete online pest management and reporting solution

Randy Hobbs
Account Executive



#### What is PestNetOnline?

#### Online reporting and analysis of all pest activity

- Intuitive and easy to use
- Complete visibility to minimize risks
- Increased efficiency with information at your fingertips
- Minimize exposure with all your pest control records and data in one place
- Stay in control with a smartphone app



#### Who is PestNetOnline for?

For Food and Beverage, Pharmaceutical, Logistics, Healthcare, Commercial/Residential Property, and Retail... any business that needs online pest management and reporting

#### Offering:

- Personalized Dashboard
- Multiple and Single Site Locations
- Trend Analysis
- Detailed Service Reports
- Recommendation System
- Interactive Site Maps
- Documentation Availability
- Material Usage Reports
- Proof of Service









#### How PestNetOnline works...



Pest devices and inspection points are barcoded





Devices are scanned and information entered into a handheld device

3



Data is immediately transmitted at the end of the service





Data reaches the PestNetOnline servers





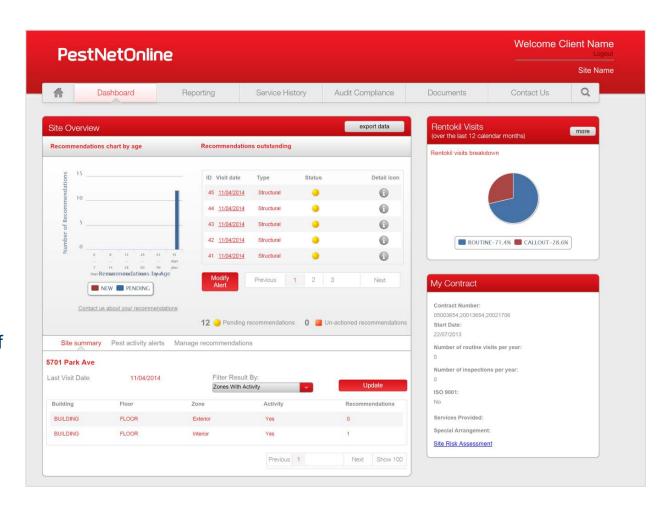
Service email notifications are sent to customer

**PestNetOnline** 

Information is displayed in PestNetOnline and mobile applications

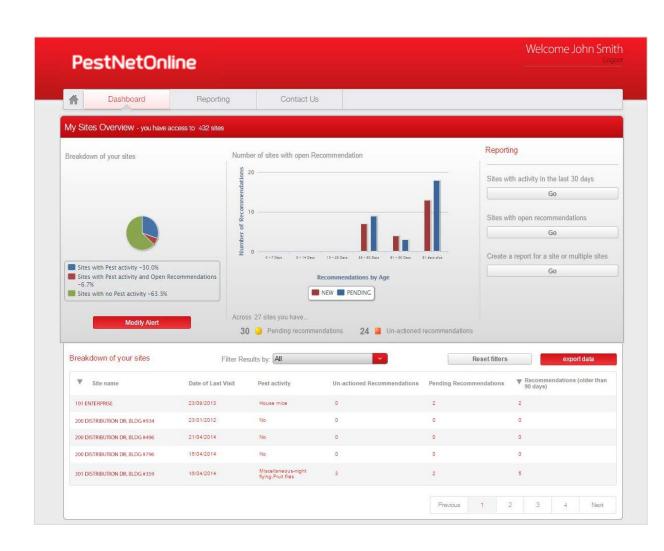
### Single site locations

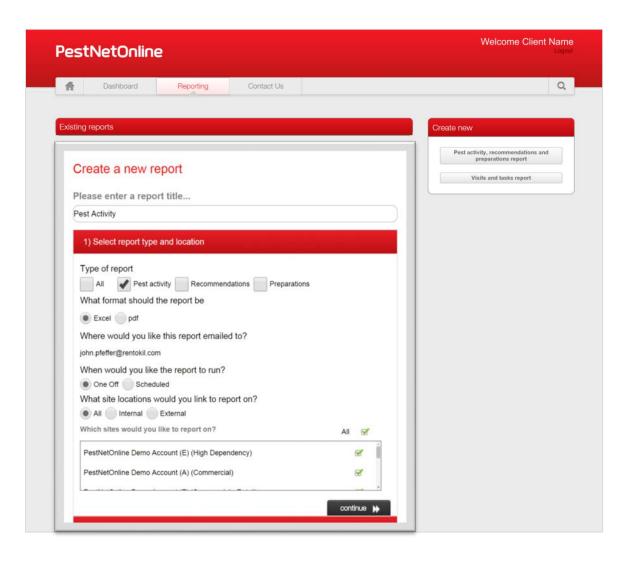
- Provides a comprehensive review of all visit details
- Pest Activity and Recommendation charts summarizing at a high level all issues
- Visit Filters allowing you to quickly locate series of visit and types of visits
- Review and reprint any Proof of Service
- Navigation tabs take you directly to Tasks, Recommendations, Pest Activity and Material Usage detail screen – quickly and easily



### For multi site locations

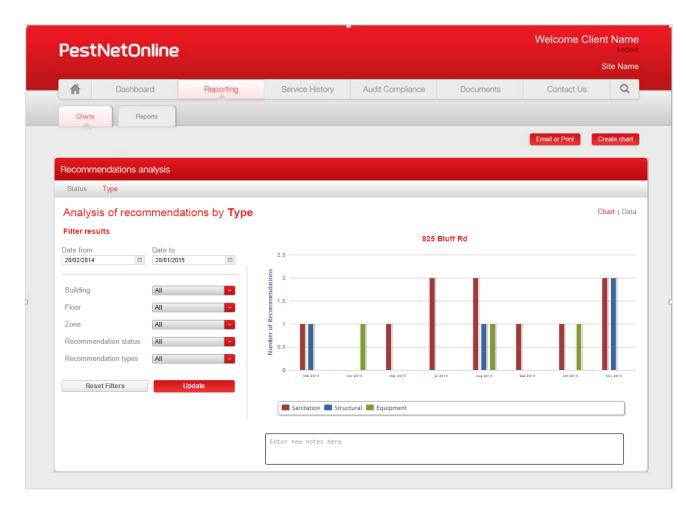
- A dashboard that summarizes all activity
- My Sites allows you to see an overview of your locations
- Navigation shortcuts allowing you to quickly and effortlessly research visit activity
- Link to all related information
- Export data for custom analysis





### **Analysis and reports**

- Provides quick, ad-hoc snapshot analysis reporting on all pest and device type activity
- Reports can be created to document Pest Activity, Recommendations, Visit Performance, Task Performance and Material Usage
- Reports are distributed to you via email
- Can be created and ran once, or proactively scheduled on a Daily, Week, Monthly or Quarterly based upon your needs
- Many options available to customize a snapshot view of Pest Activity

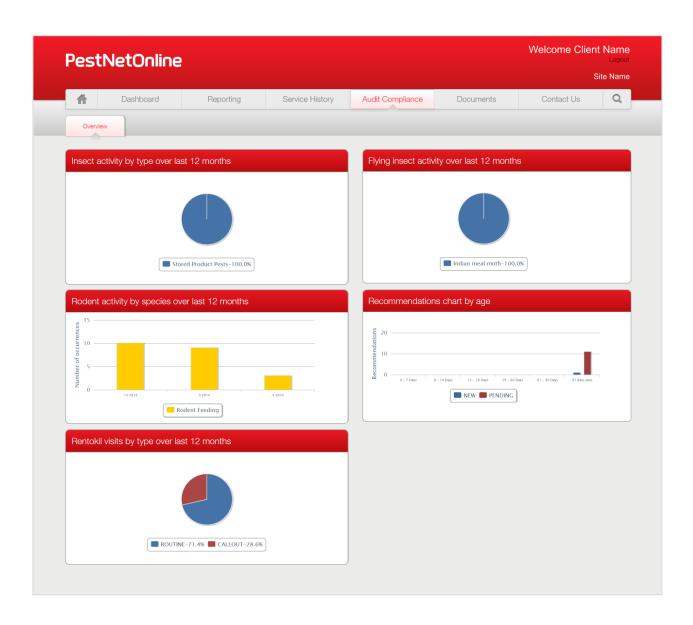


- Options to review an entire worksite, or specific Buildings / Floor / Zones within your worksite
- Feature rich with multiple date range options
- Provides quick, ad-hoc snapshot analysis on all pest activity
- Add commentary to charts



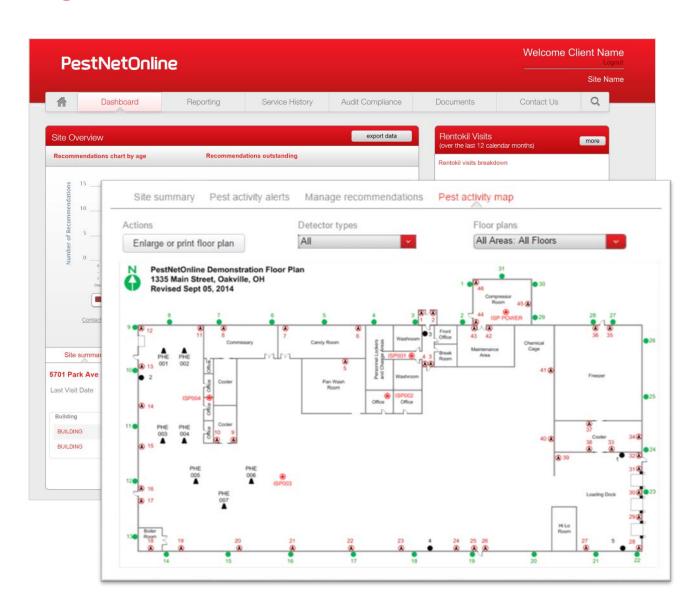
# For high dependency customers

- A dedicated Audit Checklist page
- For AIB, BRC, and other 3<sup>rd</sup> Party
   Auditors, a single page that brings together all necessary visit details and links to related information

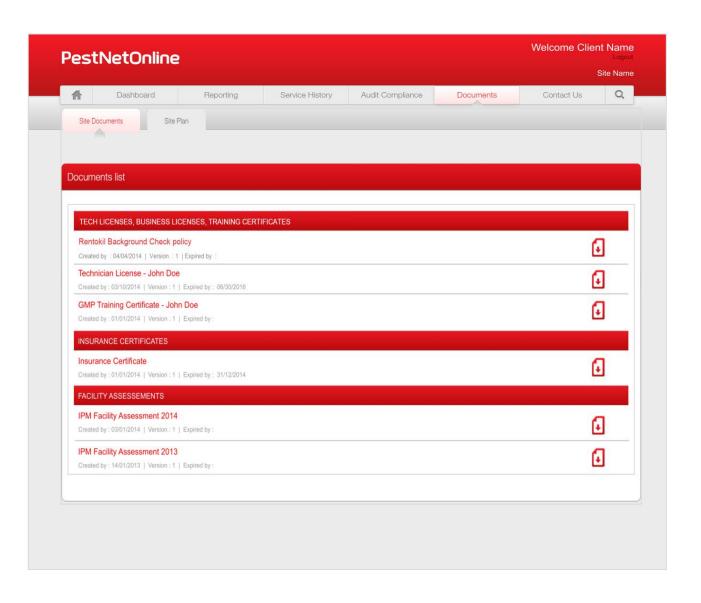


# Site plans for high dependency and commercial customers

- Provide a interactive, graphic representation of device location
- Filters allow you to locate specific types (Mechanical Rodent Traps, Pheromone, etc.) quickly and easily
- Site Maps may also be printed if desired



Site Documents, available to all users of PestNetOnline compliments all printed log book information electronically



# PestNetOnline Smartphone App

### Home Screen

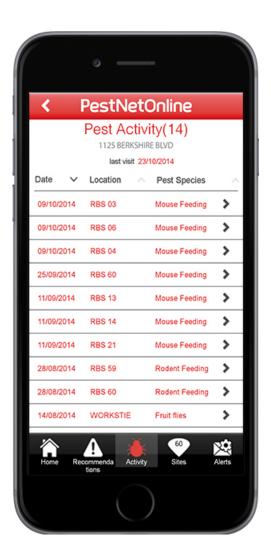
- Open recommendations
- Instances of activity (last 90 days)

### Recommendations

- Open recommendations total and by site
- Open recommendations within a single site
- Individual recommendation detail
  - Update the recommendation on the spot!

### Activity

- · Overall activity and activity instances by site
- Last 90 days activity within a single site
- · Activity details and materials used
- Site list and recommendation and activity indicators
- Email alerts creation



# **PestNetOnline Flexibility**

# PestNetOnline offers three levels of functionality

 Whether you are a homeowner, local retailer, business with multiple branches or manufacturer, PestNetOnline will meet all of your business needs

Level	Residential	Commercial	High Dependency
Functionality	Privately owned residences, condos, and townhouses	Commercial organizations that do not require third party audit support	Businesses and organizations who utilize any third party audit group
Barcode Structure	One barcode is required	✓	✓
Materials Usage	Only through reporting	✓	✓
Pest Activity	✓	✓	✓
Updating Recommendations	✓	✓	✓
Visit Details	✓	✓	✓
Single Site Reporting	✓	✓	✓
Documents	✓	✓	✓
Reports	✓	✓	✓
Smartphone app (lite version)	✓	✓	✓
Alerts	X	✓	✓
Multi-Site Reporting	X	✓	✓
Detector History	X	✓	✓
Trends Analysis	X	✓	✓
Tasks	X	✓	✓
Site Plans	X	X	✓
Audit Compliance	X	X	✓

For more information visit pnol.rentokilna.com



### Appendix O – CMP's TCP & PMP Inspection Records

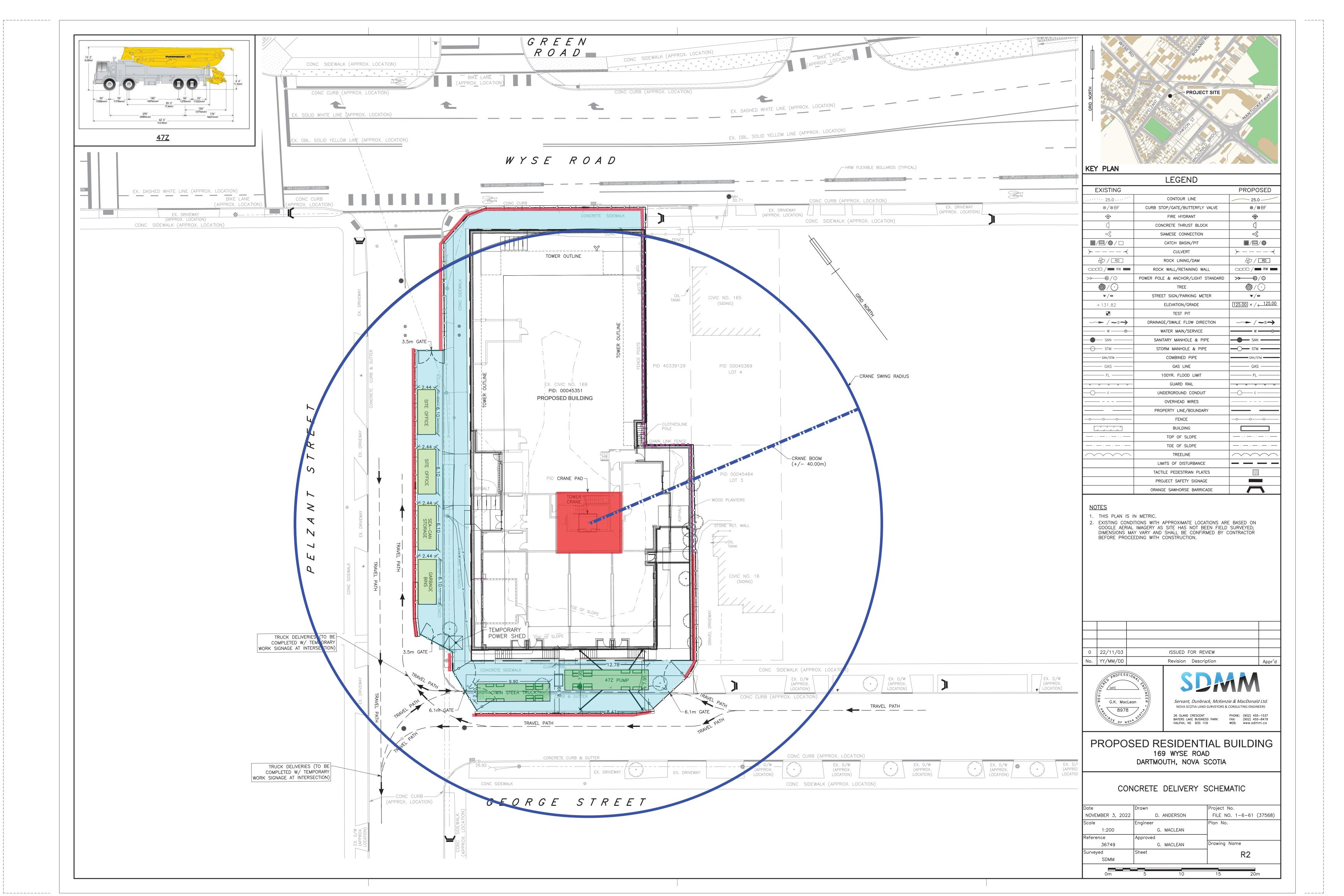
Page | O Job No. 37568

Project:		Locati	on:			Phase:	Date:	Inspector:
		C	ONSTR	RUCTIO	N MAN	AGEMENT PLAN - INSPECT		
CMP Element	Set-u	ıp per l	PMP?	Cond	ition?	Action Required	Action Completed	Comments
Civir Element	Yes	No	N/A	Good	Bad	Action Required	Action Completed	Comments
	-							
	-							
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### **Appendix P – Concrete Delivery Schematic**

Page | P Job No. 37568





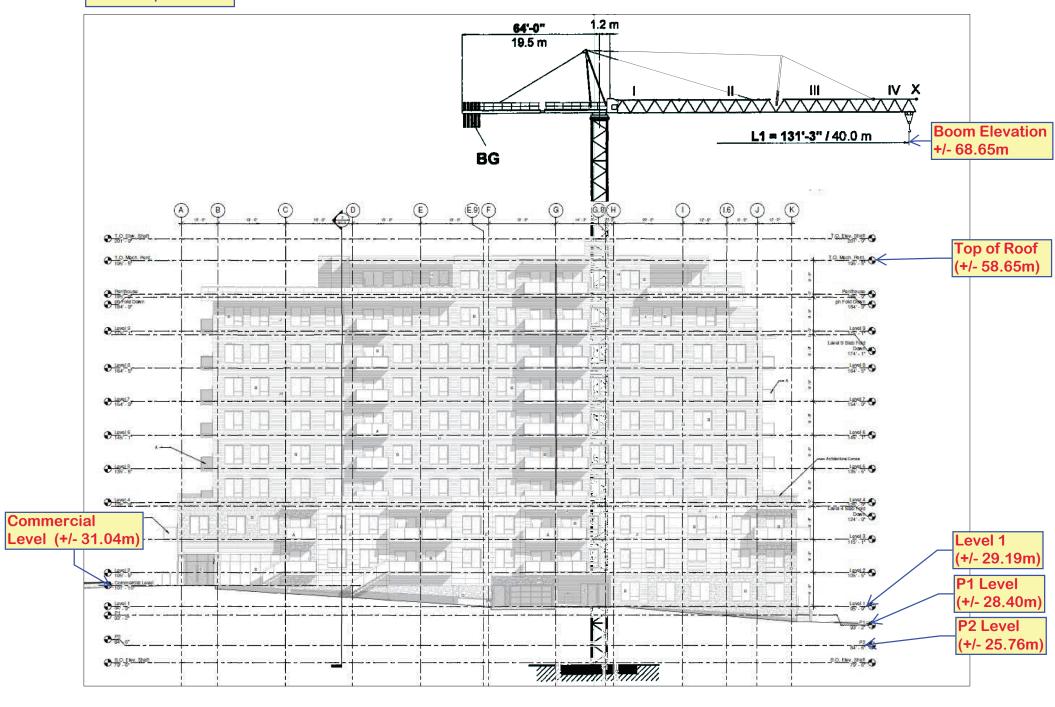
### **Appendix Q – Crane Information**

Page | Q Job No. 37568

### Crane Operations



### **Crane Operations**

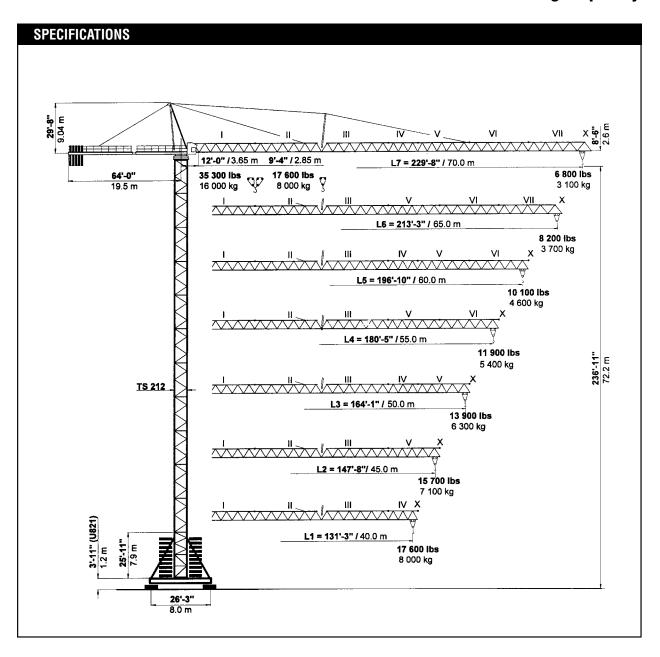


Tel: 1 (888) 337-BIGGE or (510) 638-8100 Web: www.biggetowercrane.com



# **PEINER SK 315**

**Hammerhead Tower Crane** 17,600-35,300 lbs. (8-16 mt) **Lifting Capacity** 



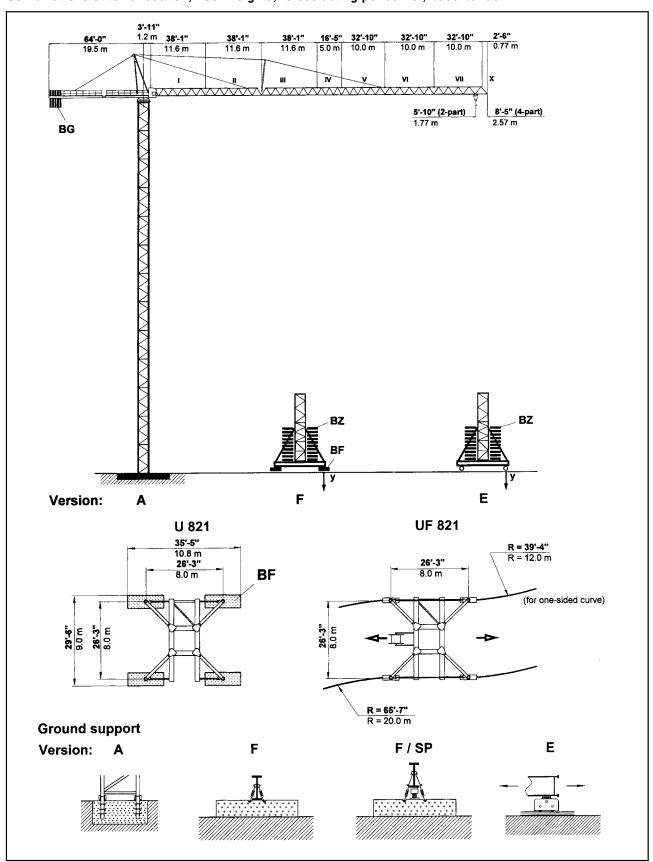
simple, available and cost effective™

Machines shown may have optional equipment.



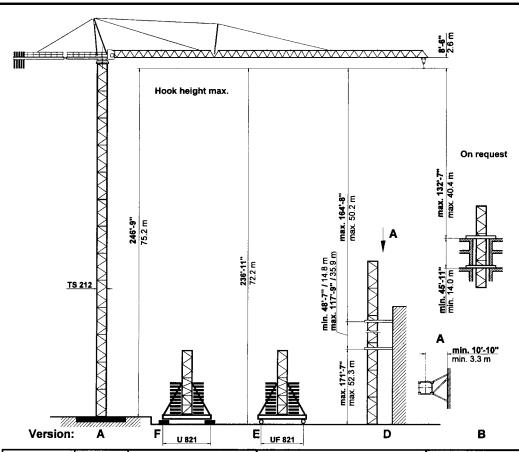
BİGGE

**PEINER SK 315** Combinations of tower section, hook heights, forces acting per corner, base ballast



Bigge

#### **PEINER SK 315 Tower TS 211**



TS 212	Version A		Version F				Version E			
Tower	нн	Tower	НН	BZ + BF	in service	y out of	BZ	in service	/ out of	
TS 212.1	ft m	TSV 212 TS 212.1	ft m	kips / t	kips/kN	service kips / kN	kips/t	kips / kN	service kips / kN	
13 x TS 212.1	<b>246'-9"*</b> 75.2*			T	1					
12 x TS 212.1	<b>227'-4''*</b>	1 x TSV 212	<b>236'-11</b> "*	<b>212.0</b>	<b>204</b>	<b>279</b>	<b>198.0</b>	<b>212</b>	<b>282</b>	
	69.3*	11 x TS 212.1	72.2*	96	909	1243	90	942	1253	
11 x TS 212.1	<b>208'-0"*</b>	1 x TSV 212	<b>217'-6</b> "*	<b>168.0</b>	186	<b>240</b>	<b>154.0</b>	<b>192</b>	<b>242</b>	
	63.4*	10 x TS 212.1	66.3*	76	826	1066	70	856	1075	
10 x TS 212.1	<b>188'-8"*</b>	1 x TSV 212	<b>198'-2"</b>	<b>146.0</b>	<b>173</b>	<b>203</b>	<b>132.0</b>	<b>179</b>	<b>204</b>	
	57.5*	9 x TS 212.1	60.4	66	770	901	60	797	909	
9 x TS 212.1	<b>169'4"</b>	1 x TSV 212	<b>178'-10"</b>	<b>124.0</b>	<b>161</b>	<b>169</b>	<b>88.0</b>	<b>161</b>	<b>169</b>	
	51.6	8 x TS 212.1	54.5	56	715	751	40	715	754	
8 x TS 212.1	<b>149'-11"</b>	1 x TSV 212	<b>159'-5"</b>	<b>101.0</b>	<b>149</b>	<b>145</b>	<b>88.0</b>	1 <b>54</b>	<b>170</b>	
	45.7	7 x TS 212.1	48.6	46	661	645	40	683	654	
7 x TS 212.1	130'-7"	1 x TSV 212	<b>140'-1"</b>	<b>101.0</b>	1 <b>42</b>	<b>128</b>	<b>66.0</b>	141	<b>124</b>	
	39.8	6 x TS 212.1	42.7	46	633	569	30	629	553	
6 x TS 212.1	<b>111'-3"</b>	1 x TSV 212	<b>120'-9"</b>	<b>101.0</b>	<b>136</b>	112	<b>66.0</b>	135	108	
	33.9	5 x TS 212.1	36.8	46	607	499	30	600	482	
5 x TS 212.1	<b>91'-10"</b>	1 x TSV 212	<b>101'-5"</b>	<b>101.0</b>	<b>131</b>	<b>98</b>	<b>66.0</b>	1 <b>29</b>	<b>94</b>	
	28.0	4 x TS 212.1	30.9	46	582	435	30	573	418	
4 x TS 212.1	<b>72'-6"</b>	1 x TSV 212	<b>82'-0"</b>	<b>101.0</b>	<b>126</b>	<b>85</b>	<b>66.0</b>	123	<b>81</b>	
	22.1	3 x TS 212.1	25.0	46	559	376	30	548	359	
3 x TS 212.1	<b>53'-2"</b>	1 x TSV 212	<b>62'-8"</b>	<b>101.0</b>	<b>120</b>	<b>80</b>	<b>66.0</b>	118	<b>75</b>	
	16.2	2 x TS 212.1	19.1	46	536	356	30	523	335	
2 x TS 212.1	<b>33'-9"</b>	1 x T\$V 212	<b>43'-4"</b>	<b>101.0</b>	<b>116</b>	<b>80</b>	<b>66.0</b>	112	<b>75</b>	
	10.3	1 x T\$ 212.1	13.2	46	515	356	30	500	335	
Founda	tion			5	Stationary ba	se	-	Travelling bas	е	
25'- <b>7" x 25</b> '-7 7.8 x 7.8x					U 821			UF 821		
Anchor s	tools			BF		BZ		Bogie		
4 x FF 212				<b>4 x 8.82 k</b> <b>4 x 4.</b> 0		c <b>k 11.02 kips</b> Block 5.0 t		Curve F 500		

If TSK 212 section is used the hook height is increased by 6'-7" (2 m).

\* Lower climbing section after erection.

TS 212.1 = 19'-4 1/4" / 5.9 m

TSV 212 = 2

TSV 212 = 25'-11" / 7.9 m

TSK 212 = 6'-7" / 2.0 m

### PEINER SK 315 Radius and Capacity

Γ	Jib	Max.		ius – fi acitv –	t./m · <b>lbs.</b> /m	nt													
ı		capacity		,		.,	2-Pa	rt Line	· 📆 n	nax. 1	17,60	0 lbs							
ı		max.							ζn	1ax. 8	.0 t								
ı		17,600 lbs	_			-10	I =	÷	<u> </u>	<u>.</u> φ	_	-11	<u>-</u>	<u>.</u>	-10.	စ်ဝှ	ٿ. ب	-4	
	<b>≠</b> E	8.0 t	<b>75'-6"</b> 23	<b>82'-0"</b> 25	<b>985.</b>	<b>114'-1</b> 35	1 <b>31'-3</b> " 40	<b>141'-1</b> 43	1 <b>47'-8</b> " 45	157'-6 48	<b>164'-1</b> " 50		<b>180'-5</b> " 55	<b>190'-3"</b> 58	<b>196'-1</b> 60	20 <b>6'-8</b>	<b>213'-3</b> 65	<b>223'-1</b> 68	<b>229'-8</b> 70
L7	229'-8"	9'-4" - 96'-9"	17600	17600	17400	14800	12800	11900	11200	10600	10100	9500	9000	8600	8200	7700	7500	7100	6800
<u> </u>	70.0	2.85 - 29.5 m	8.0	8.0	7.9	6.7	5.8	5.4	5.1	4.8	4.6	4.3	4.1	3.9	3.7	3.5	3.4	3.2	3.1
L6	213'-3"	9'-4" - 105'-0"	17600	17600	17600	16100	13900	13000	12300	11500	11000	10400	9900	9300	8800	8600	8200		
ı	65.0	2.85 - 32.0 m	8.0	8.0	8.0	7.3	6.3	5.9	5.6	5.2	5.0	4.7	4.5	4.2	4.0	3.9	3.7		
L5	196'-10"	9'-4" -117'-9"	17600	17600	17600	17600	15700	14600	13900	13000	12300	11700	11200	10600	10100				
L		2.85 - 35.9 m	8.0	8.0	8.0	8.0	7.1	6.6	6.3	5.9	5.6	5.3	5.1	4.8	4.6				
L4	180'-5"	9'-4" - 124'-8"	17600	17600	17600	17600	16800	15400	14800	13900	13200	12300	11900						
		2.85 - 38.0 m	8.0	8.0	8.0	8.0	7.6	7:0	6.7	6.3	6.0	5.6	5.4			ļ			
L3		9'-4" - 130'-11"	17600	ľ	17600	17600	17600	16300	15400	14600	13900								
		2.85 - 39.9 m	8.0	8.0	8.0	8.0	8.0	7.4	7.0	6.6	6.3								
L2		9'-4" - 131'-11"			17600	17600	17600	16500	15700							ļ			
L		2.85 - 40.2 m	8.0	8.0	8.0	8.0	8.0	7.5	7.1										
L1		9'-4" - 131'-3"			17600	17600	17600												
<u>L</u>	40.0	2.85 - 40.0 m	8.0	8.0	8.0	8.0	8.0												
	ft	35,300 lbs				4	l-Part I	_ine 👣	167 m	nax. 3	5.300	) lbs			R	adius -	2'-7"	<i>(</i> - 0.8	m)
ı	m	16.0 t								nax. 1					•			( 0.0	,
L7	227'-0"	12'-0" - 48'-7"	21800	19600	16100	13200	11200	10400	9700	9000	8600	7900	7500	7100	6600	6200	6000	5500	5300
<u> </u>		3.65 - 14.8 m	9.9	8.9	7.3	6.0	5.1	4.7	4.4	4.1	3.9	3.6	3.4	3.2	3.0	2.8	2.7	2.5	2.4
L6	210'-8"	12'-0" - 52'-2"	23800	21600	17400	14600	12600	11500	10800	9900	9500	8800	8400	7700	7500	6800	6600		
1	64.2	3.65 - 15.9 m	10.8	9.8	7.9	6.6	5.7	5.2	4.9	4.5	4.3	4.0	3.8	3.5	3.4	3.1	3.0		
L5	194'-3"	12'-0" - 57'-9"	26900	24500	19800	16800	14300	13000	12300	11500	10800	10100	9700	9000	8600				
l	59.2	3.65 - 17.6 m	12.2	11.1	9.0	7.6	6.5	5.9	5.6	5.2	4.9	4.6	4.4	4.1	3.9				
L4	177'-10"	12'-0" - 61'-0"	28700	26000	21200	17900	15200	14100	13200	12300	11700	10800	10400						
	54.2	3.65 - 18.6 m	13.0	11.8	9.6	8.1	6.9	6.4	6.0	5.6	5.3	4.9	4.7						
L3	161'-5"	12'-0" - 63'-8"	30200	27300	22300	18700	16100	14800	14100	12800	12300								
L		3.65 - 19.4 m	13.7	12.4	10.1	8.5	7.3	6.7	6.4	5.8	5.6								
L2		12'-0" - 64'-0"			22500	19000	16300	15000	14100										
		3.65 - 19.5 m	13.8	12.5	10.2	8.6	7.4	6.8	6.4										
L1			31700	28700	23600	19800	17000												
	39.2	3.65 - 20.2 m	14.4	13.0	10.7	9.0	7.7												

#### **Speeds**

FU 8-160/4	<b>10.2 HP</b> 7.5 kW										
SR 10-190/3		<b>2 x 16.3 HP</b> 2 x 12.0 kW									
K WB 120/4	<b>♂</b>	v = (	0.9 r		<b>2 x 11.4 HP</b> 2 x 8.4 kW						
	HK max. = 705' (215 m) 6 - layers										
		2-Part Line	→ 444 fpm 134 m/min	<b>5 500 lbs</b> 2 500 kg	4-Part Line	<b>→ 222 fpm</b> 67 m/min	<b>11 000 lbs</b> 5 000 kg		~140		
Type SR WB 66-	<b>△ 1</b> ↑		<b>→</b>	<b>→ 276 fpm</b> 84 m/min	<b>9 300 lbs</b> 4 200 kg		◆ 138 fpm 42 m/min	<b>18 600 lbs</b> 8 400 kg	SR 10-190/3	<b>HP</b> ∼105	
80/4F		~	<b>→ 180 fpm</b> 54 m/min	<b>13 900 lbs</b> 6 300 kg		➤ 90 fpm 27 m/min	<b>27 800 lbs</b> 12 600 kg		kW		
[108 HP] [79 kW]		•	→ 108 fpm 34 m/min	<b>17 600 lbs</b> 8 000 kg		<b>→</b> 54 fpm 17 m/min	<b>35 300 lbs</b> 16 000 kg		170 kVA		

### Counterweight

Jib		L1	L 2	L 3	L4	L 5	L6	L 7
	BG	30 000 lbs 13 600 kg	32 200 lbs 14 600 kg	36 600 lbs 16 600 kg	<b>39 150 lbs</b> 17 750 kg	<b>43 550 lbs</b> 19 750 kg	41 350 lbs 18 750 kg	<b>45 750 lbs</b> 20 750 kg
Counterweight	[lbs]	3 x 6 950 1 x 9 150	2 x 6 950 2 x 9 150	4 x 9 150	3 x 6 950 2 x 9 150	1 x 6 950 4 x 9 150	2 x 6 950 3 x 9 150	5 x 9 150
	[t]	3 x 3.15 1 x 4.15	2 x 3.15 2 x 4.15	4 x 4.15	3 x 3.15 2 x 4.15	1 x 3.15 4 x 4.15	2 x 3.15 3 x 4.15	5 x 4.15

### **PEINER SK 315** Dimensions and transport weights

See operating manual for mounting weights

	Designation			Dime	nsions (f	ft / m)	Weight	Volume
				1	b	h	lbs / t	ft <sup>3</sup> / m³
1	Jib Section III			<b>39.01</b> 11.94	<b>4.99</b> 1.52	<b>7.09</b> 2.16	<b>4 200</b> 1.92	<b>1 386</b> 39.2
2	Jib Section I Section II Section IV Section V Section VI Section VII			39.01 11.89 38.65 11.78 19.19 5.85 35.34 10.77 36.03 10.98 33.33 10.16	4.99 1.52 4.99 1.52 4.99 1.52 4.99 1.52 4.99 1.52	5.84 1.78 6.17 1.88 5.41 1.65 5.45 1.66 5.48 1.67 5.32	3 790 1.72 4 320 1.96 1 760 0.80 3 090 1.40 2 470 1.12 1 570 0.71	1 137 32.2 1 190 33.7 519 14.7 961 27.2 985 27.9 853 25.0
	Jib tip X			<b>3.12</b> 0.95	<b>5.02</b> 1.53	1.64 0.50	<b>310</b> 0.14	<b>25</b> 0.7
	Turntable with slewing ring support a	and cabin		<b>36.35</b> 11.08	<b>7.64</b> 2.33	<b>7.81</b> 2.38	<b>25 350</b> 11.50	<b>2 169</b> 61.4
3	Turntable with slewing ring suppo	ort		<b>31.99</b> 9.75	7. <b>64</b> 2.33	<b>7.81</b> 2.38	<b>24 030</b> 10.90	<b>1 911</b> 54.1
	Cabin with support and railing			<b>10.17</b> 3.10	<b>4.92</b> 1.50	<b>7.25</b> 2.21	<b>1 320</b> 0.60	<b>364</b> 10.3
4	Counter jib with hoist winch			<b>38.13</b> 11.62	<b>5.91</b> 1.80	<b>6.00</b> 1.83	<b>14 550</b> 6.60	<b>1 353</b> 38.3
	Hoist winch	66 WB		<b>7.51</b> 2.29	<b>5.45</b> 1.66	<b>3.28</b> 1.00	<b>5 400</b> 2.45	1 <b>34</b> 8.4
5	Counterweight	BG	<u> </u>	3.94 1.20 3.94 1.20	1.64 0.50 1.64 0.50	9.32 2.84 12.11 3.69	6 950 3.15 9 150 4.15	60 1.4 78 1.7
		TS 212.1		<b>19.52</b> 5.95	<b>7.78</b> 2.37	<b>8.01</b> 2.45	5 400 2.45 6 950 3.15 9 150 4.15 9 130 4.14	<b>1 216</b> 34.4
6	Tower section	TSV 212 with struts		<b>31.17</b> 9.50	<b>9.84</b> 3.00	<b>10.00</b> 3.05	<b>20 330</b> 9.22	<b>3 067</b> 86.9
		TSK 212		<b>6.63</b> 2.02	<b>7.87</b> 2.40	<b>9.84</b> 3.00	0.60  14 550 6.60  5 400 2.45  6 950 3.15 9 150 4.15  9 130 4.14  20 330 9.22  6 170 2.80  35 050 15.90  17 130 7.77  11 020	<b>513</b> 14.5
7	Travelling base, folded	UF 821		<b>41.01</b> 12.5	<b>9.74</b> 2.97	<b>7.05</b> 2.15		<b>2 816</b> 79.8
8	Stationary base, folded	U 821		<b>34.55</b> 10.53	<b>9.06</b> 2.76	<b>2.79</b> 0.85		<b>873</b> 24.7
9	Central ballast block	BZ	4	<b>11.48</b> 3.50	<b>4.92</b> 1.50	<b>2.20</b> 0.67	5.00	<b>124</b> 3.5
10	Foundation pad	BF		<b>9.19</b> 2.80	<b>3.28</b> 1.00	<b>1.87</b> 0.57	<b>8 820</b> 4.00	<b>57</b> 1.6
11	Accessories						<b>4 800</b> 2.17	

BİGGE

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