

# YELLOWKNIFE OLD TOWN EMERGENCY CIRCULATION REVIEW AND PARKING STUDY



August 5, 2021

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## **Executive Summary**

Parking has been an ongoing issue in the Old Town Area due to its tight development pattern, narrow streets and alleyways, many tourist attractions, and recreational/commercial boating operations. As well, members of the house boater community often park in the neighbourhoods of Old Town in the summer months, which means parking issues are not only experienced during standard business hours, but during off peak hours as well.

Safety is the biggest concern, as Old Town has narrow roads and vehicles that are often parked along the sides of these roads. This means that response times for emergency vehicles and personnel is slowed in several areas.

City Council requested that Administration complete a study and produce a report that details parking issues with respect to parking supply and demand patterns, road access and requirements, and recommended solutions for managing parking throughout Old Town.

Travel restrictions and decreases in parking demand related to the COVID-19 pandemic meant that the parking supply and demand pattern study could not be conducted, as data collected would not be accurate. It may be desirable to collect updated data following the return to typical travel patterns as travel restrictions decrease.

An Emergency Circulation Review was conducted by CREATIVE TRANSPORTATION SOLUTIONS LTD. (CTS) that revealed that on-street parking must be limited in much of the residential areas of Old Town in order to maintain effective emergency servicing. In order to determine solutions that counteract the decrease in supply of on-street parking, a review of No-Parking areas and potential on-street parking areas was conducted by Administration, as well as a jurisdictional analysis of residential parking pass programs across Canada.

This study generated some preliminary conclusions:

- The City of Yellowknife should increase and introduce no-parking signage in areas of Old Town in order to maintain effective emergency servicing;
- The City of Yellowknife should capitalize on existing off-street parking areas, such as the Old Town Parking Lot, and should increase on-street parking through infrastructure improvements;
- The City of Yellowknife should consider implementing a residential parking pass program in the residential parking areas of Old Town.

In order to enact on these preliminary conclusions, it is recommended by Administration that further budgeting and prioritizing be put in place by Council to conduct a parking supply and demand pattern study so that up-to-date data is collected and used; and create a feasibility and implementation plan, which can then be approved through the Capital Planning process.

#### 1.0 Study Purpose and Scope

This study was undertaken to complete a high-level assessment of the parking issues, emergency-circulation and road access requirements throughout Old Town. Considerations for the study included:

- An Emergency Circulation Review of Old Town streets, conducted by ("CTS") demonstrating:
  - o The vehicle path of the Fire Truck showing the outside line of the tire paths,
  - o A 0.5 metre buffer outside each tire line identifying the minimum recommended clearance in order to ensure that the movement of the design vehicle is not impeded.
- A jurisdictional analysis of residential parking pass programs of municipalities across Canada;
- A Review of no-parking areas & potential opportunities for on-street parking areas;
- Alignment with goals to be included in the in-progress Zoning By-law Review.

The areas considered in this study are illustrated in **FIGURE 1**.

FIGURE 1 STUDY AREA



#### 2.0 Study Inputs

#### 2.1 Emergency Circulation Review

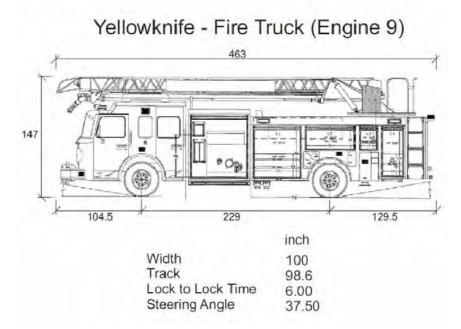
As safety is the biggest concern, an Emergency Circulation Review was completed by CTS by overlaying Fire Truck Engine No. 9 vehicle swept path on top of the City of Yellowknife's satellite imagery and GIS mapping. A total of 52 individual base map drawings were prepared at a scale that shows sufficient detail to identify conflict points. The following roadways were reviewed:

- MacDonald Drive
- Ingraham Drive
- Wiley Road
- Raccine Road
- Doornbos Lane
- Bryson Drive
- Hamilton Drive
- Pilot's Lane
- Bretzlaff Drive
- Ragged Ass Road

- Alley between Bryson Drive & Franklin Avenue
- McAvoy Road
- Lois Lane
- Anderson Thomson Boulevard
- Boffa Drive
- Informal Road in "The Woodyard"
- Knutsen Lane
- Hershman Road
- Stout Road
- Primrose Lane

The dimensions of Fire Truck Engine No. 9 are illustrated in **FIGURE 2.** 

# FIGURE 2 FIRE TRUCK ENGINE NO. 9 DIMENSIONS



The vehicle path of the fire truck in the base map drawings show the outside line of the tire paths and a 0.5 m buffer outside each tire line identifying the minimum recommended clearance so that the movement of the design vehicle is not impeded. The completed drawing package can be found in **APPENDIX A: EMERGENCY CIRCULATION SWEPT PATH DRAWINGS.** 

#### 3.0 Analysis

#### 3.1 Review of No-Parking Areas & Potential Opportunities for On-street Parking Areas

A spatial review of the Emergency Circulation Swept Path Drawings was completed in order to determine onstreet parking supply limitations and opportunities. Areas marked green have capacity to accommodate on-street parking; areas marked yellow would have capacity to accommodate on-street parking with an infrastructure investment (such as removal of trees or widening of the road); and areas marked red do not have capacity to accommodate on-street parking while still maintaining proper access for emergency vehicle circulation. The completed drawing package can be found in **APPENDIX B: REVIEW OF NO-PARKING & POTENTIAL ON-STREET PARKING AREAS** 

#### 3.2 Jurisdictional Analysis of Residential Parking Pass Programs

Residential parking pass programs are implemented in areas with high parking demand and little on-street parking availability. These programs assist in prioritizing residential parking for residents through discouraging longer term parking by visitors. A jurisdictional analysis has been completed of Residential Parking Pass Programs across Canada, which can be found in **APPENDIX C: JURISDICTIONAL ANALYSIS OF RESIDENTIAL PARKING PASS PROGRAMS**. Municipalities considered included cities similar in size and character to Yellowknife, cities with high amounts of tourism, or Capital cities.

#### 3.3 Alignment with Goals of the In-Progress Zoning Bylaw Review

It is recognized that Old Town is an area of mixed residential and commercial uses, that has seen increased tourism and commercial interest. New businesses have moved to Old Town and existing businesses have intensified their uses. However, it is difficult for businesses to meet the parking requirements of Zoning Bylaw No. 4404, as there is little available land and parking takes up large amounts of space. The current parking requirements of Zoning Bylaw No. 4404 are contrary to the 2020 Community Plan Objectives and Policies for Old Town. Old Town is envisioned as an area with retail & commercial operations that service the needs of visitors and local residents, a walkable and bikeable destination, and an area that will adaptively re-use its historical building stock for new uses.

In order to achieve this vision, Administration is proposing to reduce the parking requirements in the Old Town Zone in the new Zoning Bylaw. Residential parking minimums will not decrease for the Old Town area, but reductions for other uses range from ~33% to 75% depending on the use.

**Current Parking Minimums Proposed Parking Minimums Use Type** Residential 1/dwelling unit N/A- No change proposed 2 spaces/100 m<sup>2</sup> 0.5 spaces/100 m<sup>2</sup> Commercial Food/Beverage 1 space/4 seats No parking spaces for less than 200 m<sup>2</sup>; 1/100 m<sup>2</sup> for businesses greater than 200 m<sup>2</sup> Hotel/Motel 1 space/2 guest rooms 1 space/3 guest rooms Office 3 spaces/100 m<sup>2</sup> 2 spaces/100 m<sup>2</sup>

**TABLE 1: OLD TOWN PARKING MINIMUMS COMPARISON** 

By reducing parking requirements, it supports compact development of Old Town and allows businesses to expand, as less lot space is required to be allocated to parking. This will create a more walkable, pedestrian oriented destination that is attractive and retains the Old Town charm. This in turn will encourage transit mode shift of visitors to Old Town from private motor vehicles to sustainable modes of transportation, as it will be less convenient to drive and easier to walk, cycle, or take transit. This will have the impact of decreasing the demand for off-street and on-street parking when combined with other initiatives, such as accessibility improvements of City infrastructure and improvements to the City's transit system.

#### 4.0 Conclusions and Recommendations

In order to enact on these conclusions and recommendations, it is recommended by Administration that further budgeting and prioritizing by Council in order to:

- Conduct a parking supply and demand study so that up-to-date data can be used, especially since parking supply and demand will change as vaccinations increase and travel restrictions decrease. Data collection should consider the following parking groups:
  - Residents of Old Town and Yellowknife;
  - Businesses and Offices located in Old Town;
  - o Tourism Operators, especially tour buses;
  - Houseboaters, especially considering seasonal impacts;
  - o Special Events; and
  - Boats and boat trailers.
- Create a feasibility and implementation plan, utilizing the emergency circulation review and parking demand and supply study as data, which can then be approved through the Capital Planning process.

#### 4.1 Capitalize on Existing Off-Street Parking Areas and Increase On-Street Parking

Paving and improvements of the Old Town Parking Lot have been halted until scoping work is completed for improvements to Lift Station #1. In the meantime, this area is underutilized and the current lay-out does not maximize parking stalls. Until the scoping work has been completed and a permanent configuration with hard surfacing is able to be implemented, it is recommended:

- That the recycling area be moved to the side of the site;
- Additional parking bollards be installed to delineate more stalls.

These improvements are illustrated in **FIGURE 3.** 

Identified in the review of the Emergency Circulation Swept Path Drawings, space for parking exists within the City owned road Right-of-Ways around Old Town, but in order to implement parking, infrastructure improvements would need to take place. These improvements, depending on the area, include:

- Widening of the road bed to include a larger shoulder that can accommodate parking stalls;
- Brush and tree removal of overgrown areas;
- Hard surface asphalting and line delineation of parking stalls;
- Determine feasibility of metered parking stalls along MacDonald Drive.

FIGURE 3
RECOMMENDED INTERIM IMPROVEMENTS TO OLD TOWN PARKING LOT



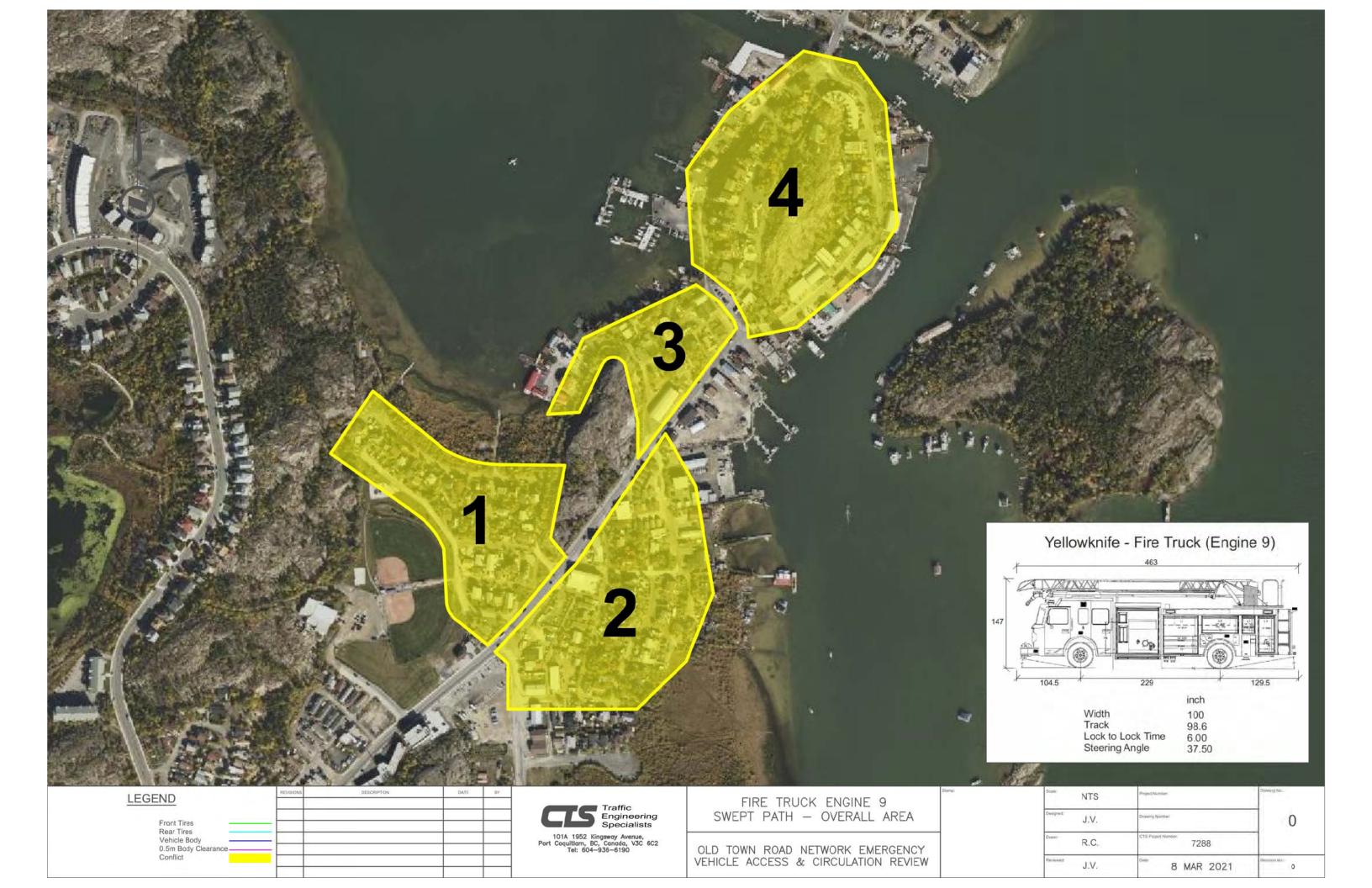
### 4.2 Implementation of a Residential Parking Pass Program in Old Town

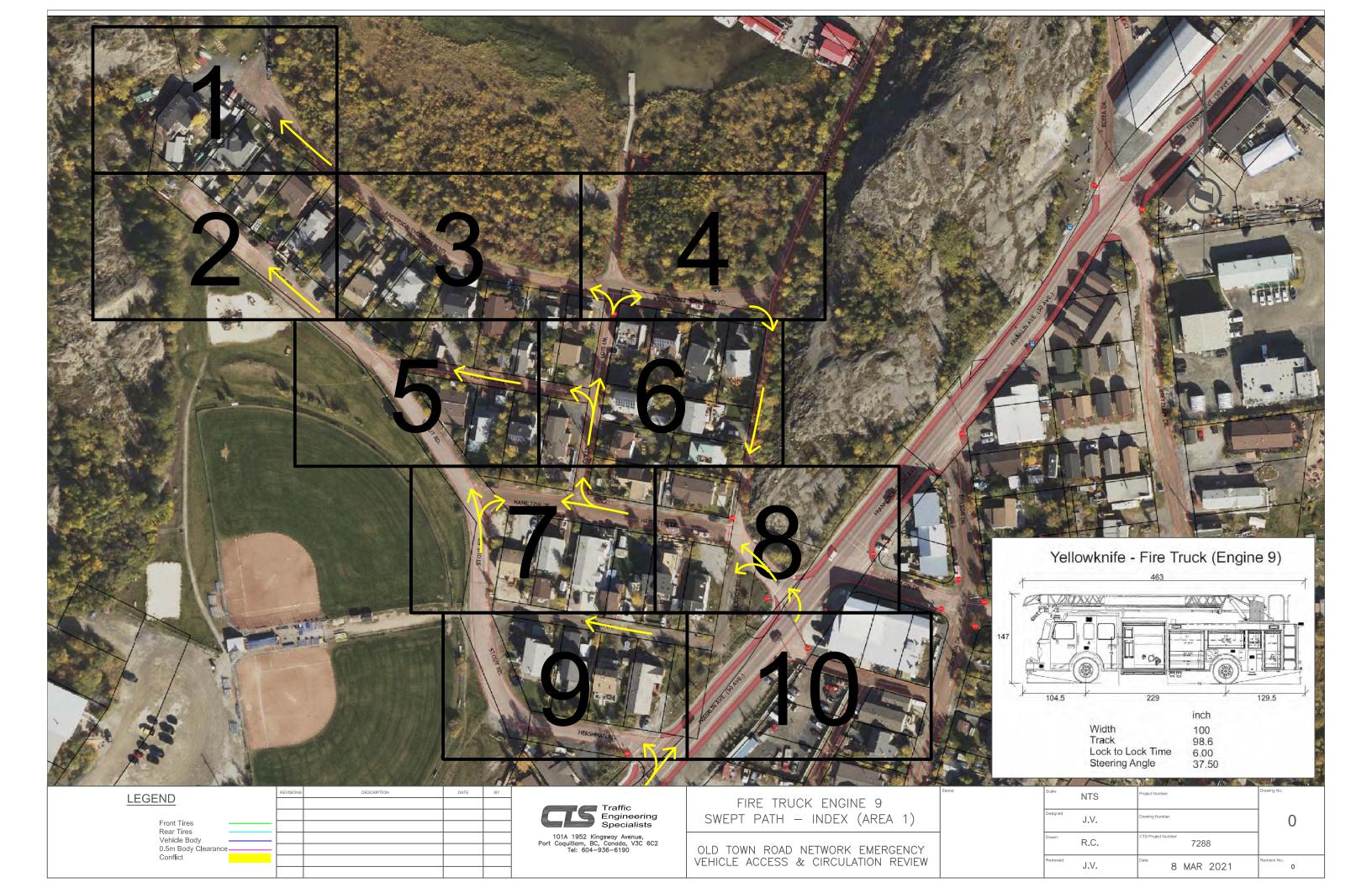
As Old Town is an area with high parking demand and little on-street parking supply, a Residential Parking Pass should be introduced in order to discourage longer term parking by visitors. Below are some preliminary Parking Pass Program criteria extrapolated from the jurisdictional analysis:

**TABLE 2: RESIDENTIAL PARKING PASS CRITERIA** 

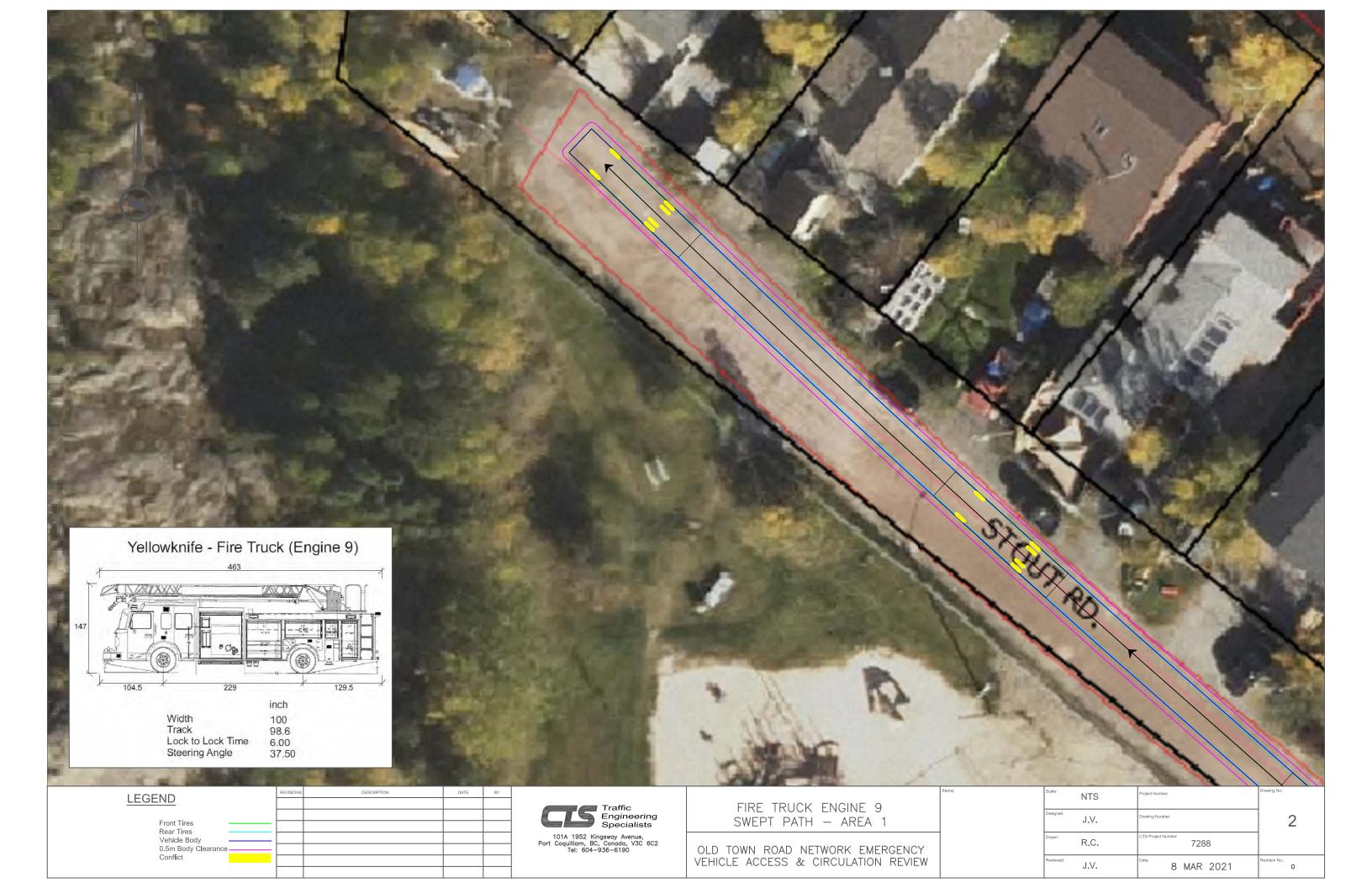
Preliminary Criteria of Parking Pass Program	Rationale
In place year round, 7 days, 24 hours	<ul> <li>Old Town experiences parking pressures year round:</li> <li>Seasonal- Summer, houseboaters and boat trailers; Winter, increased tourism</li> <li>Different Peak times- food/beverage services see increased traffic in the evening; offices and retail see increased traffic during the day.</li> </ul>
Streets closest to the commercial areas of Old Town should allow a 2-3 hour limit during business hours for non-permit holders	Allows for short term parking for businesses, incentivizes stall turnover, and incentivizes longer visits to park in Old Town Parking lot.
Administration fee to be determined	To be determined if the program should be cost recoverable or free.
Permit valid for 1 year	Keeps the database current; vary renewal times to keep administrative load even
Guest pass details to be determined	More data is needed to determine on-street parking stall availability to be able to offer passes to guests of residents.

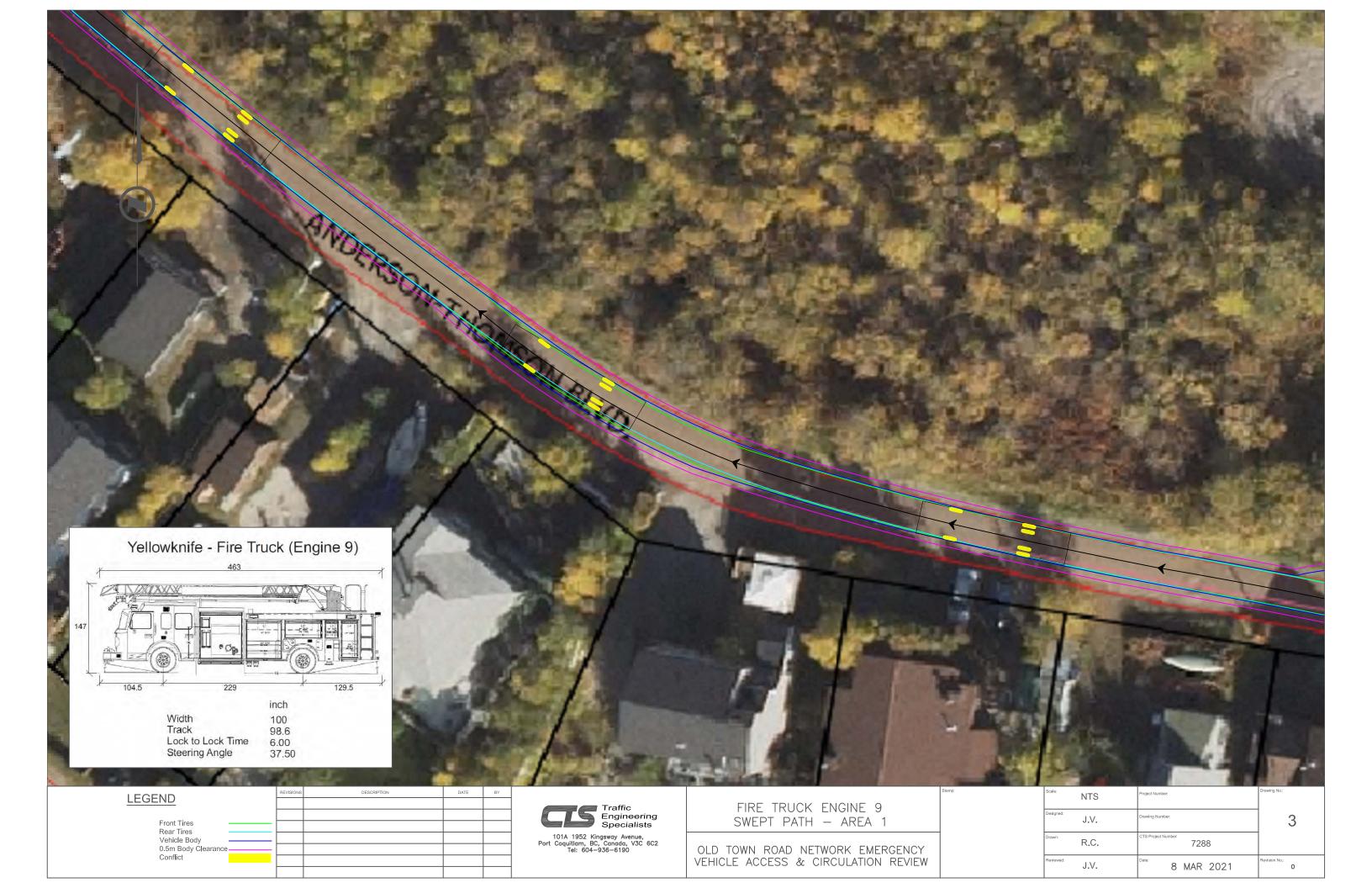
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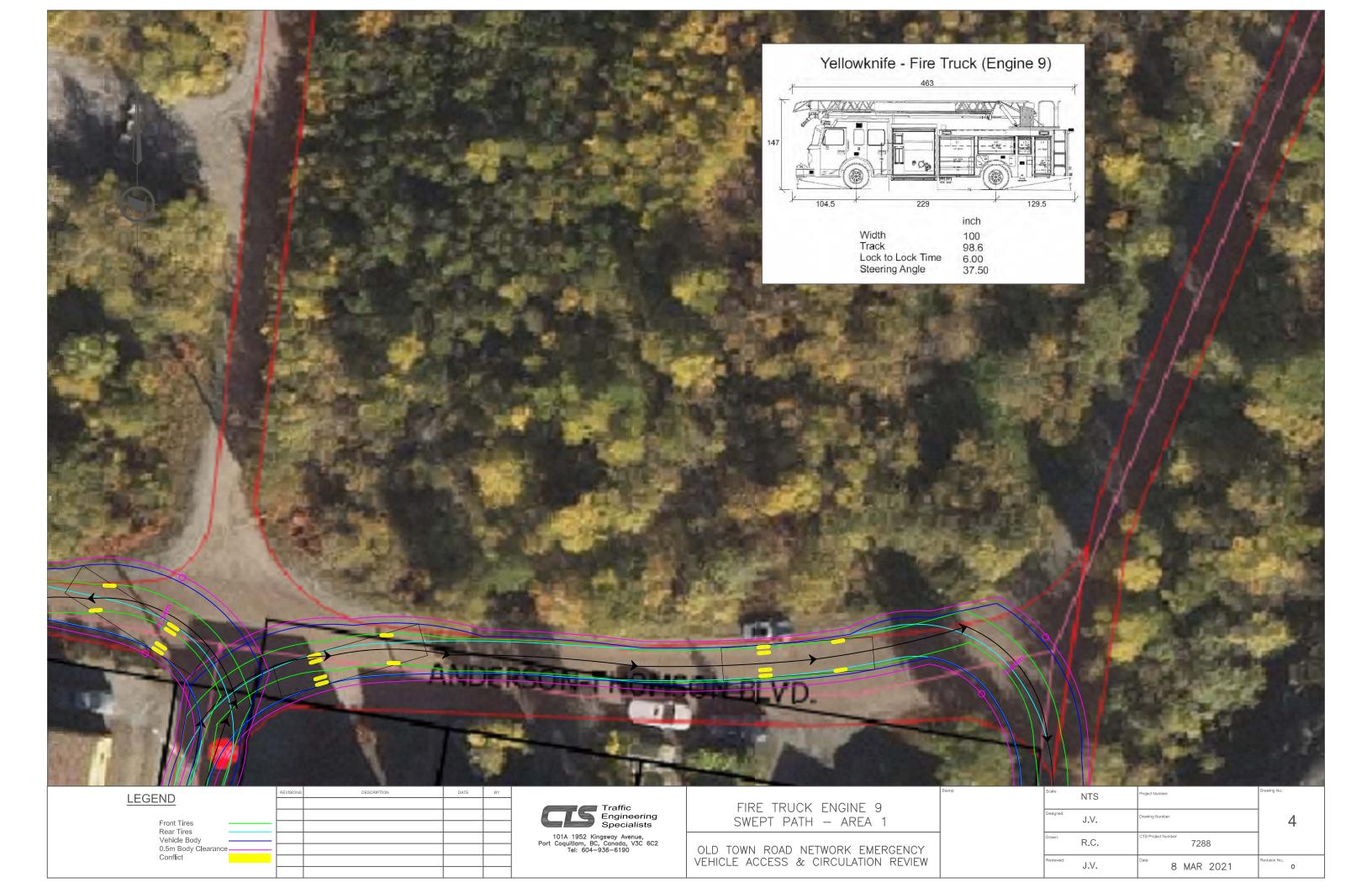


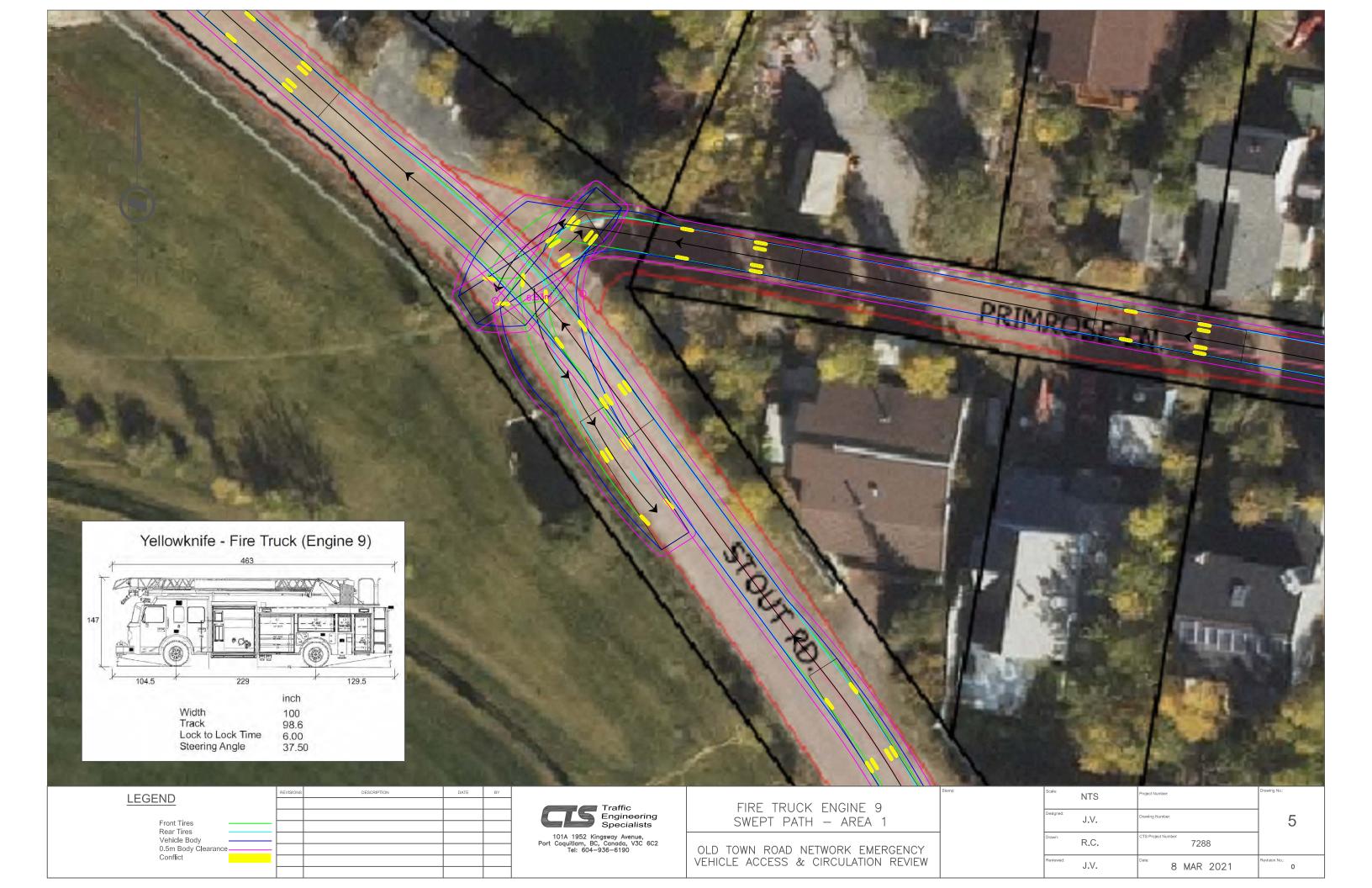




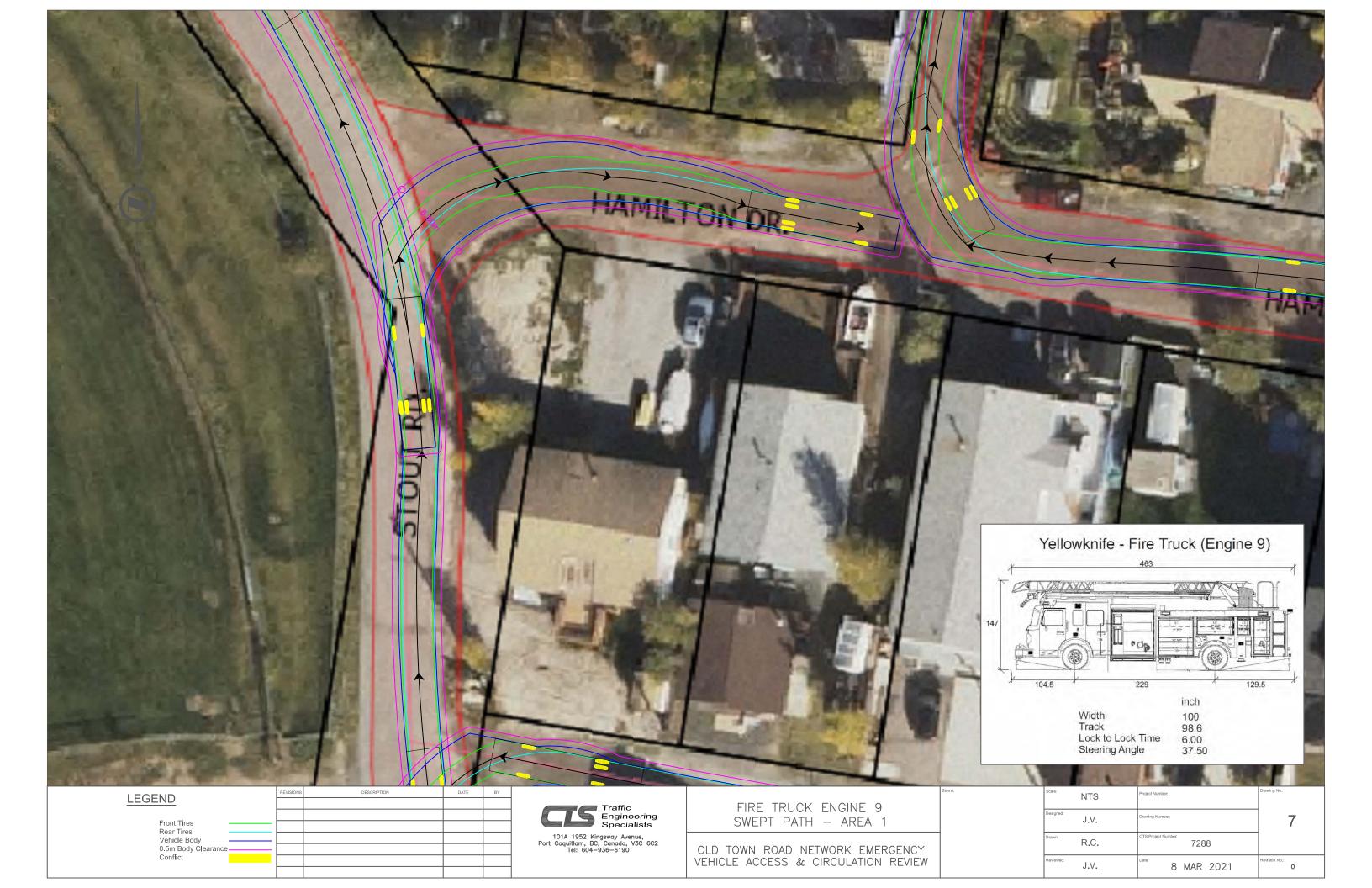


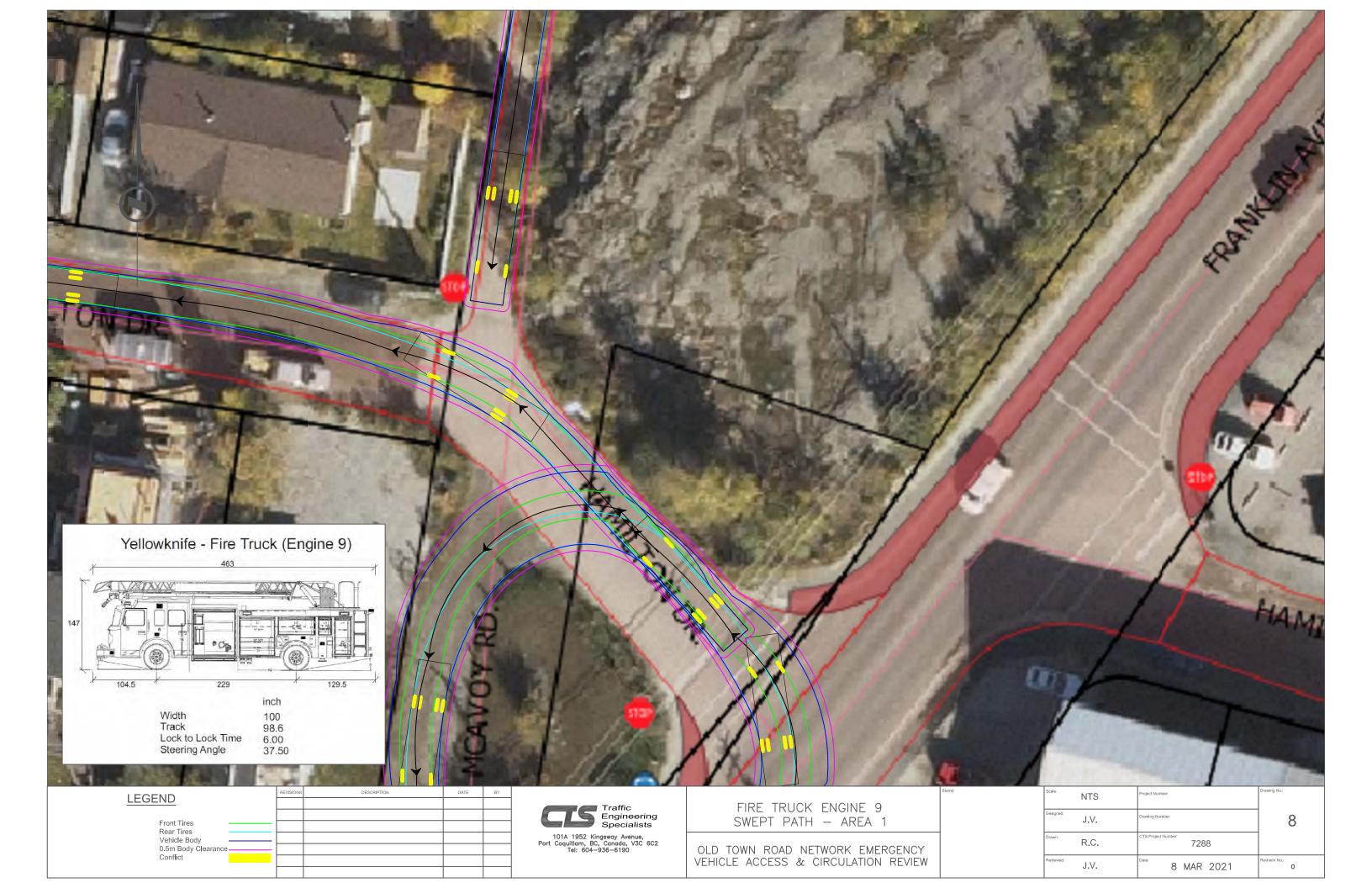


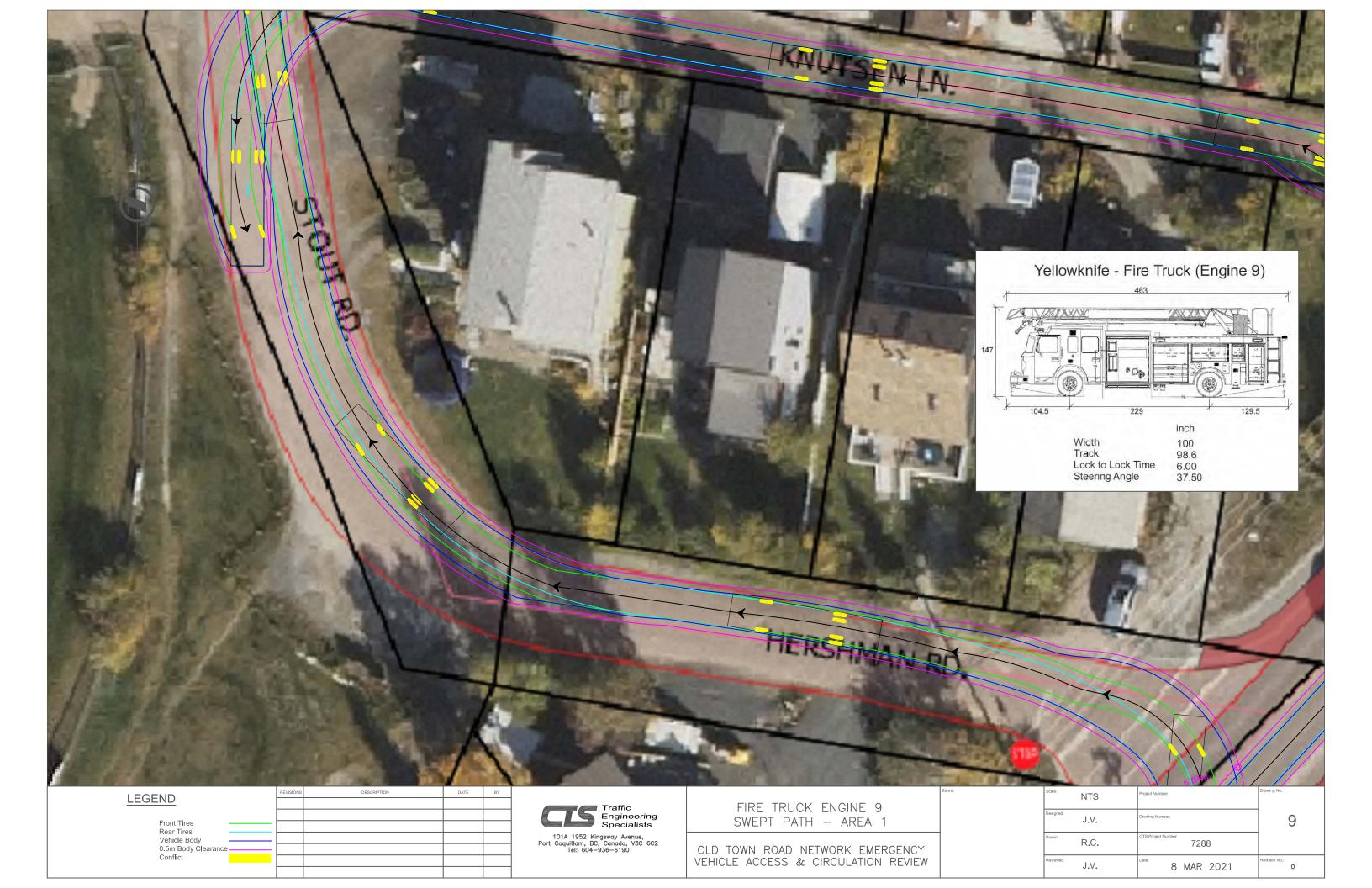


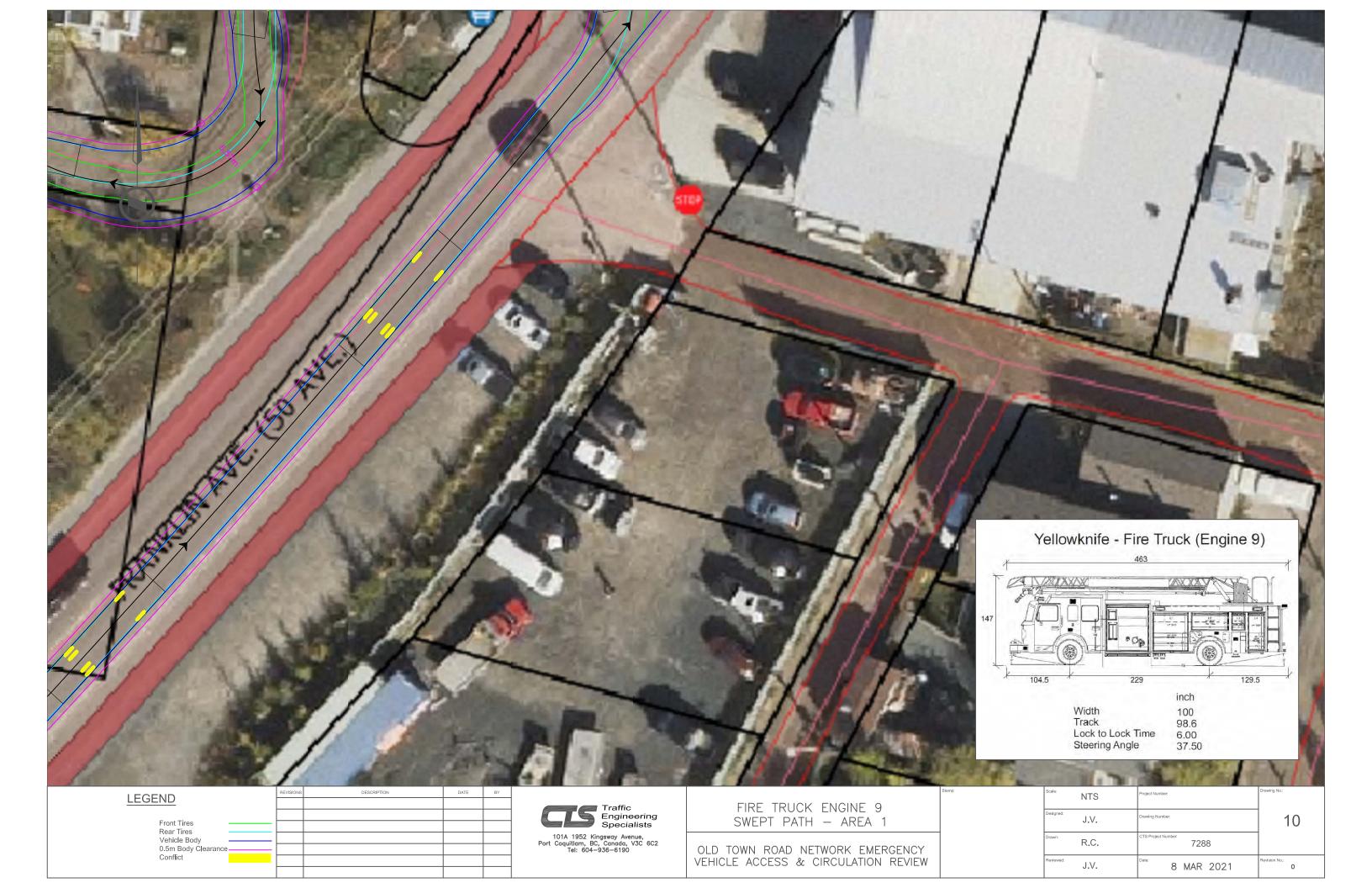


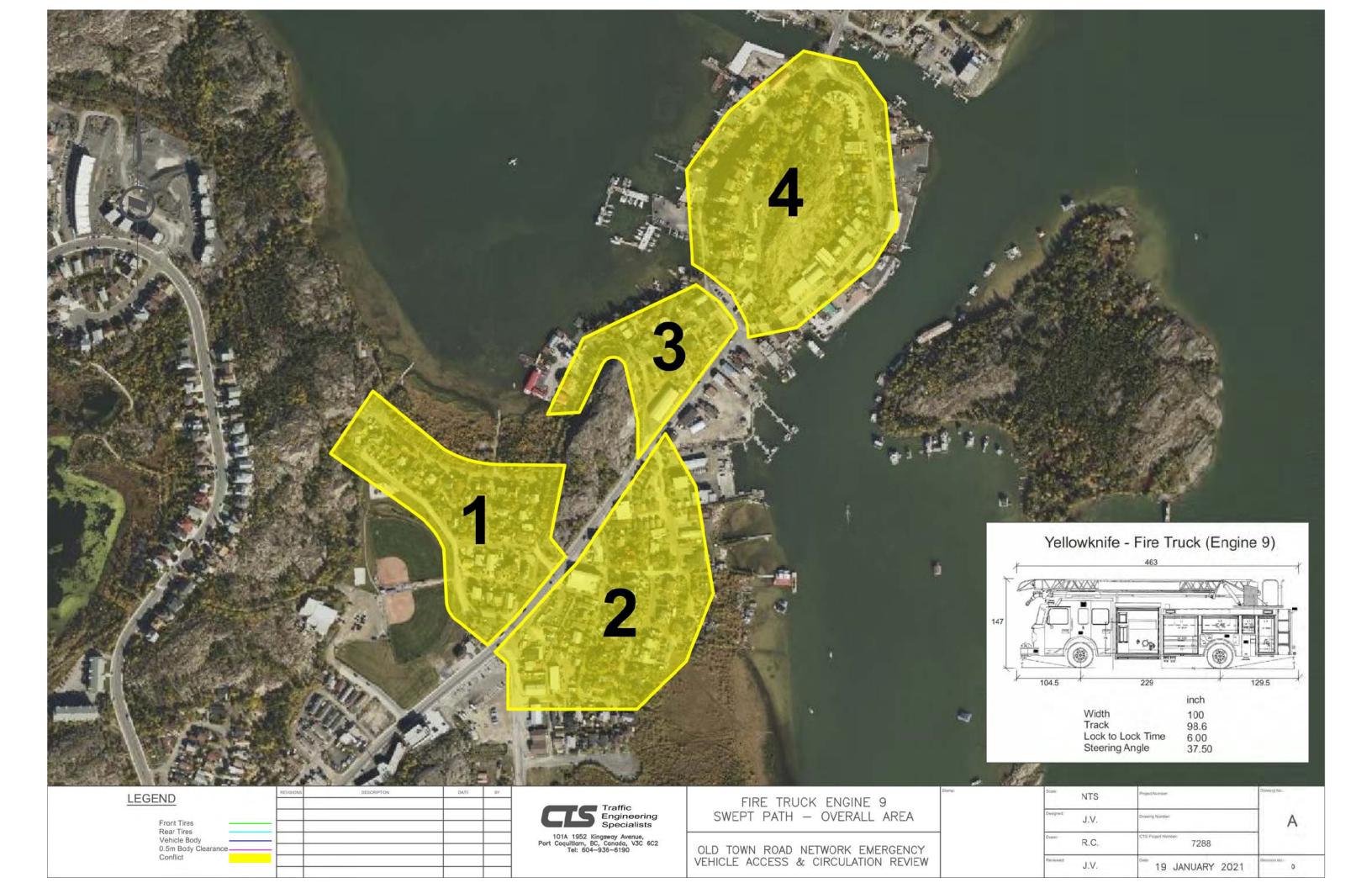


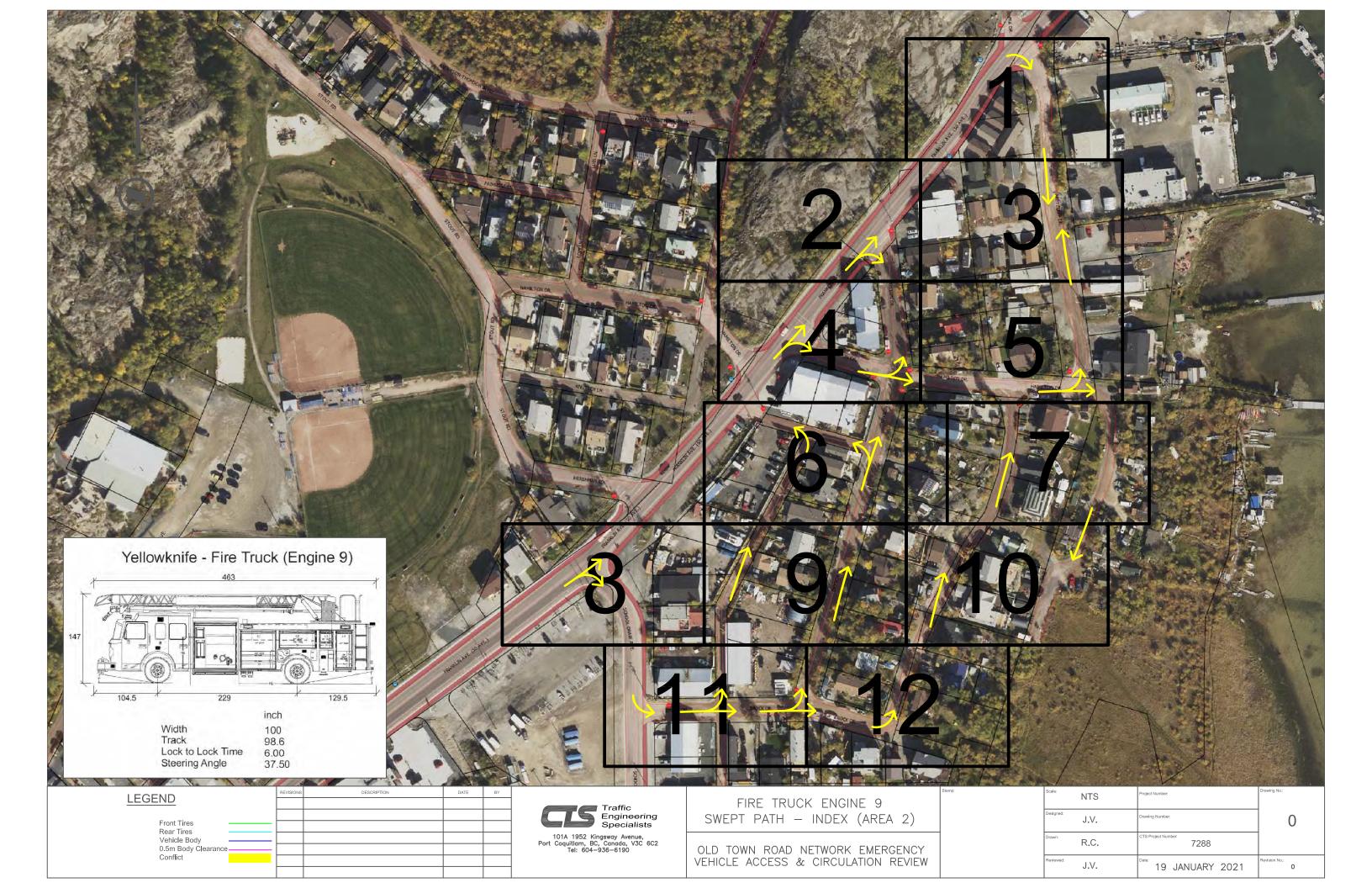


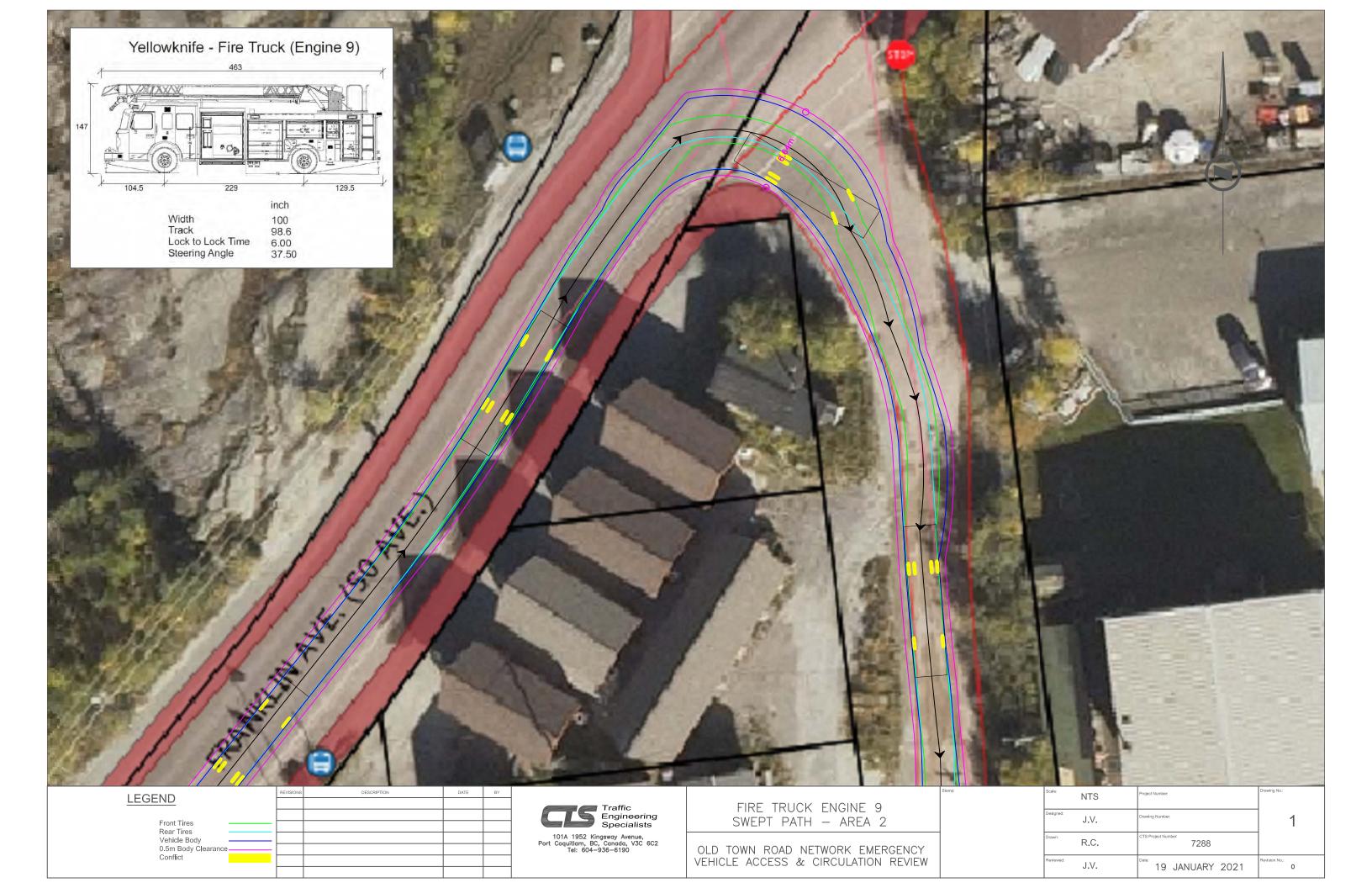


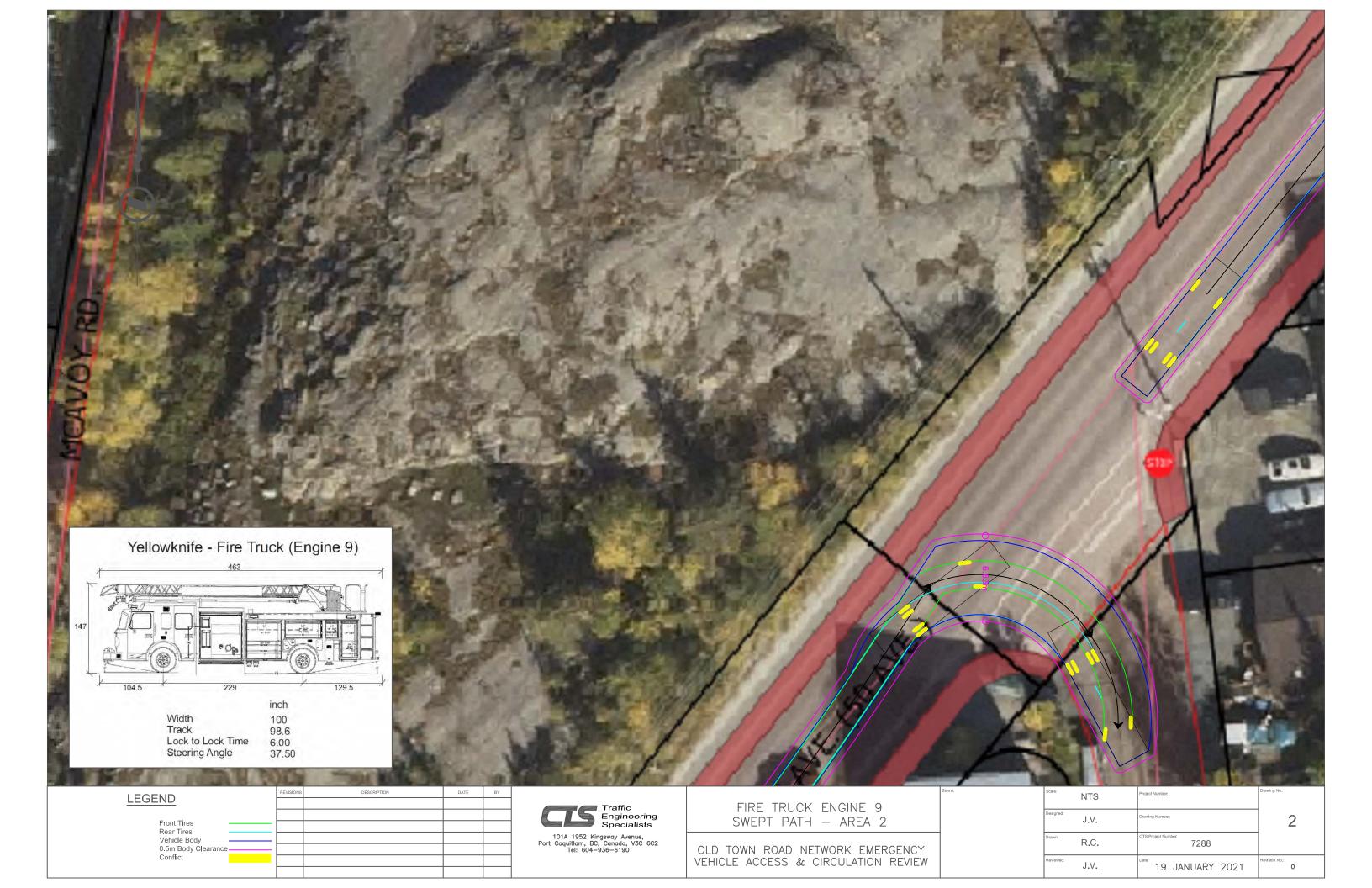




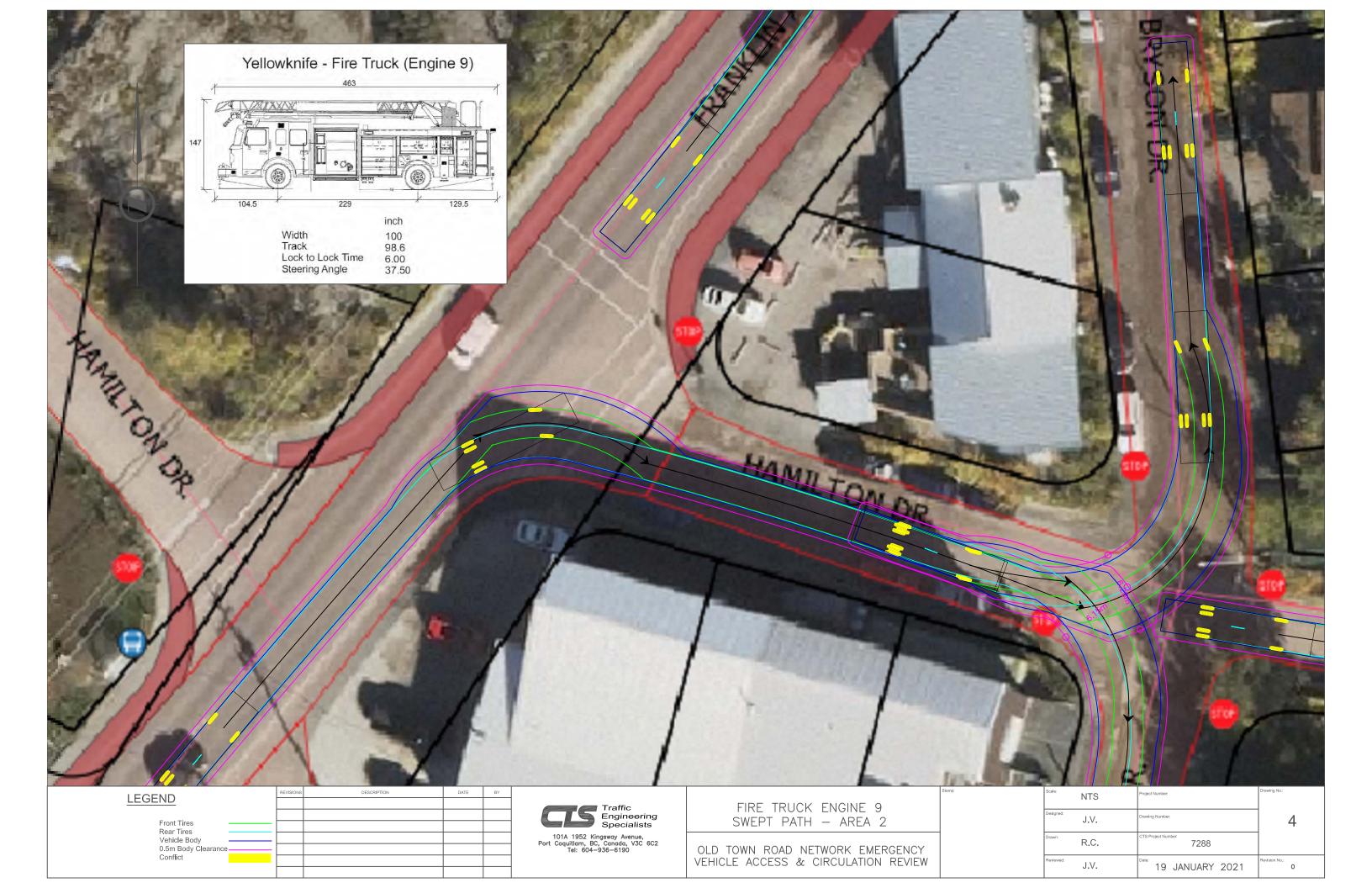


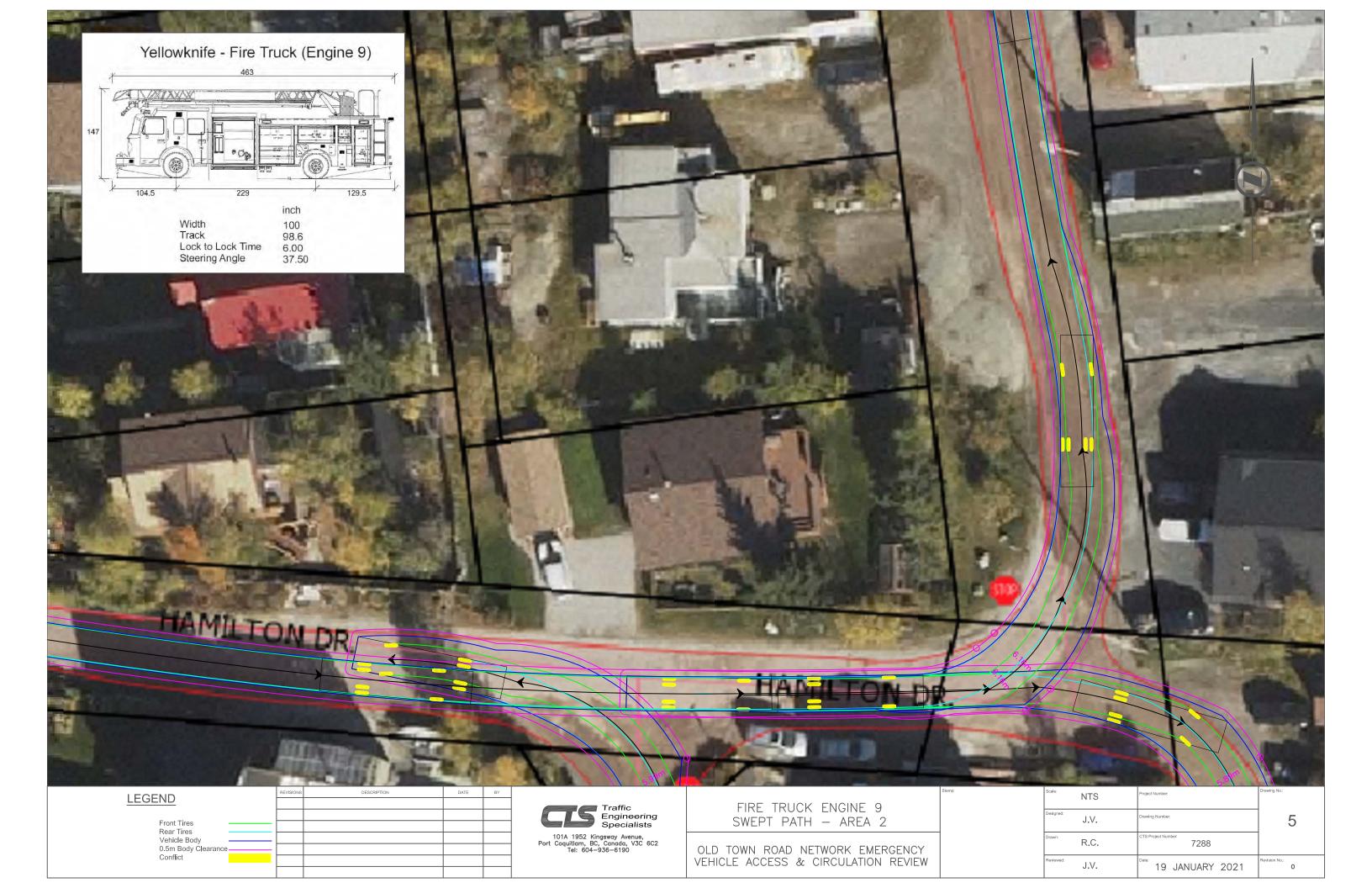


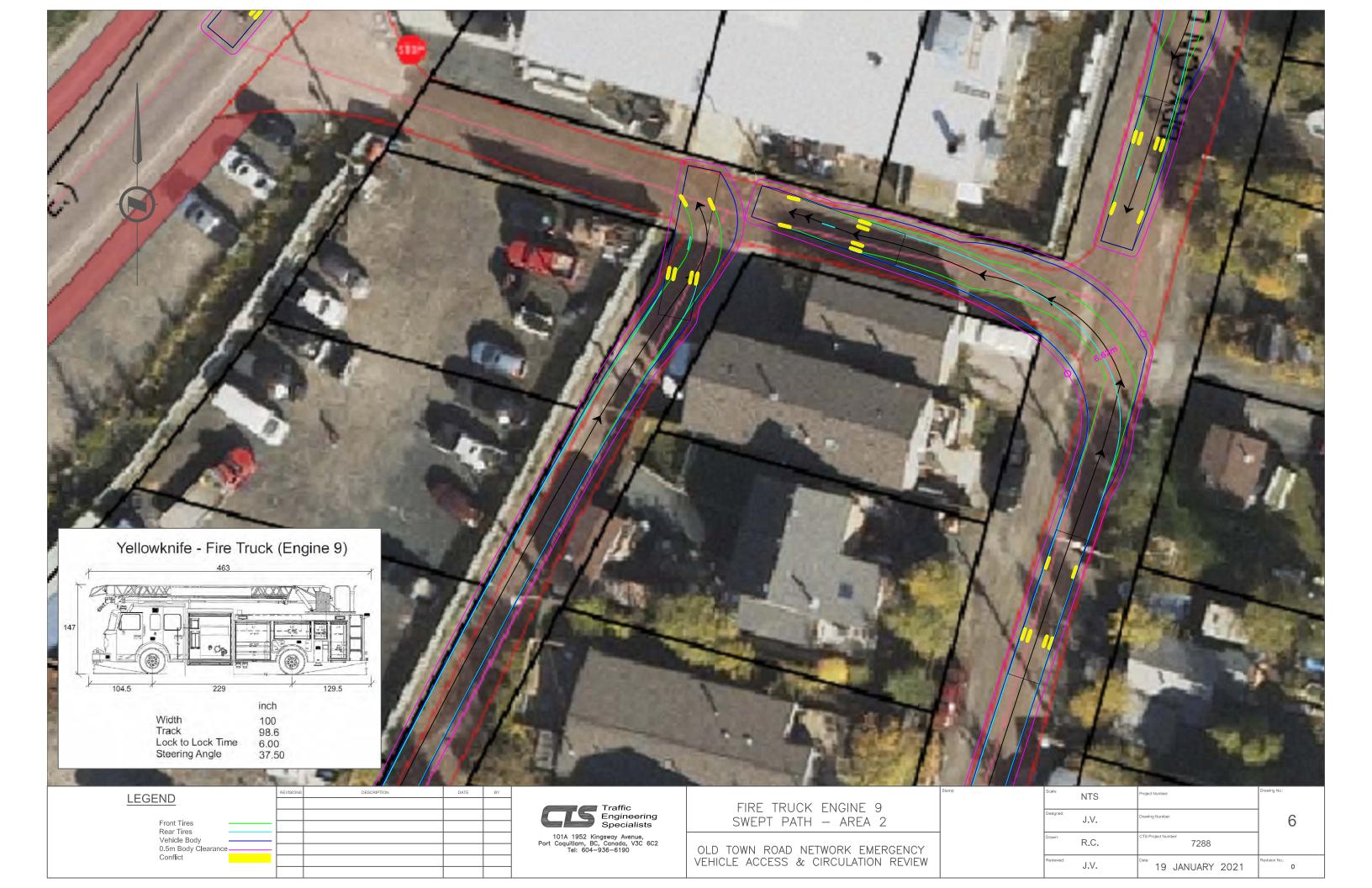


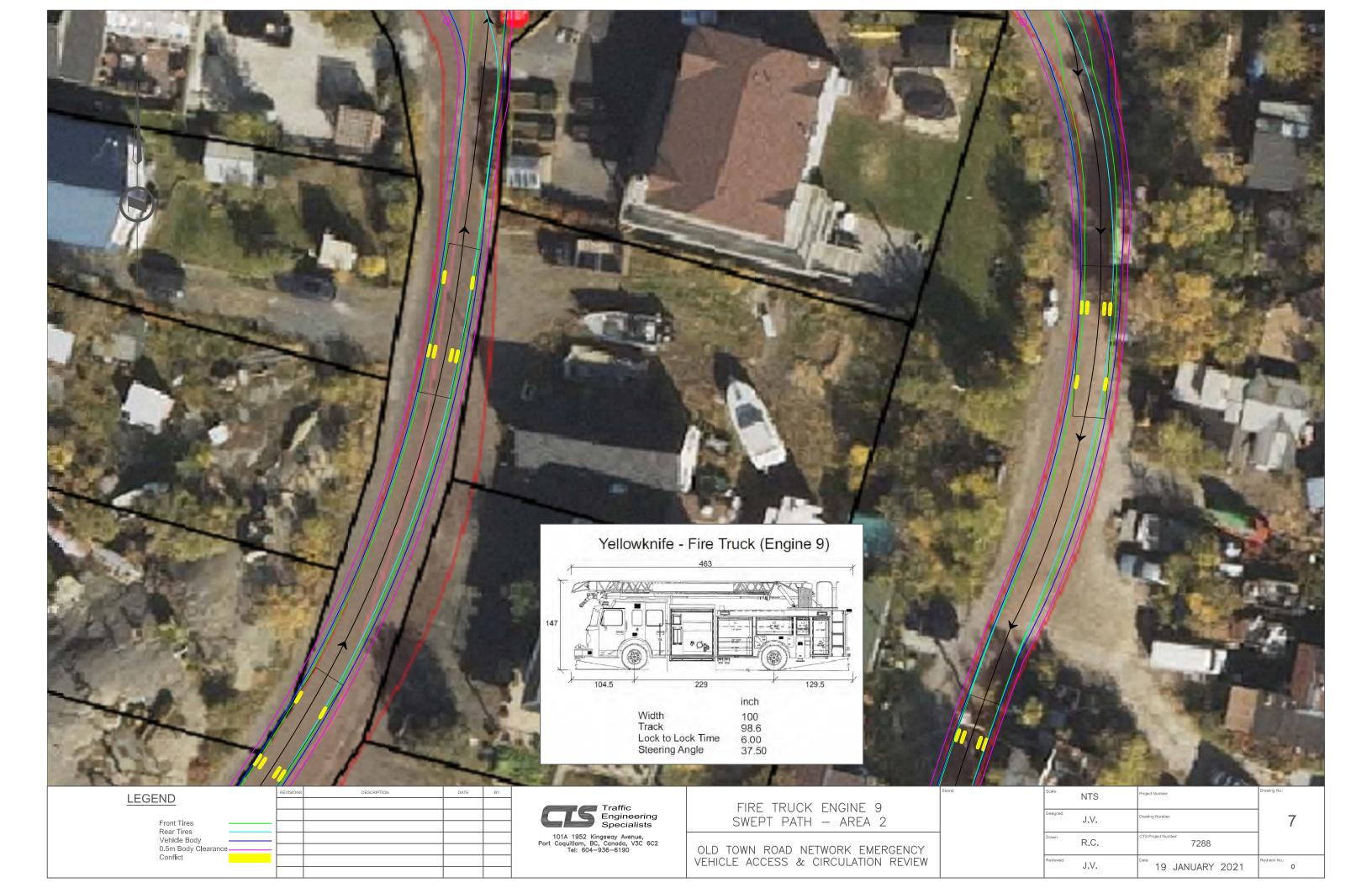


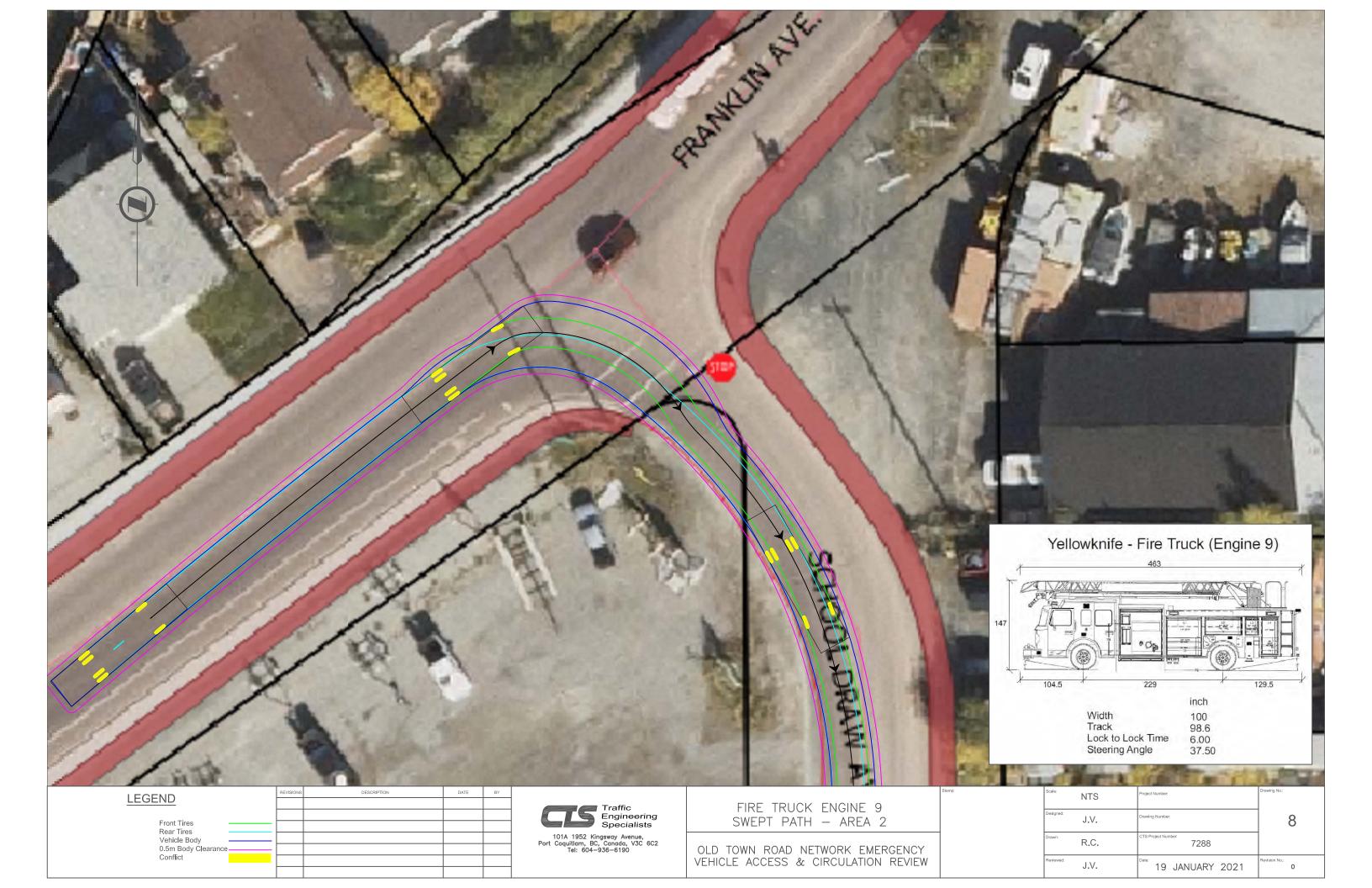






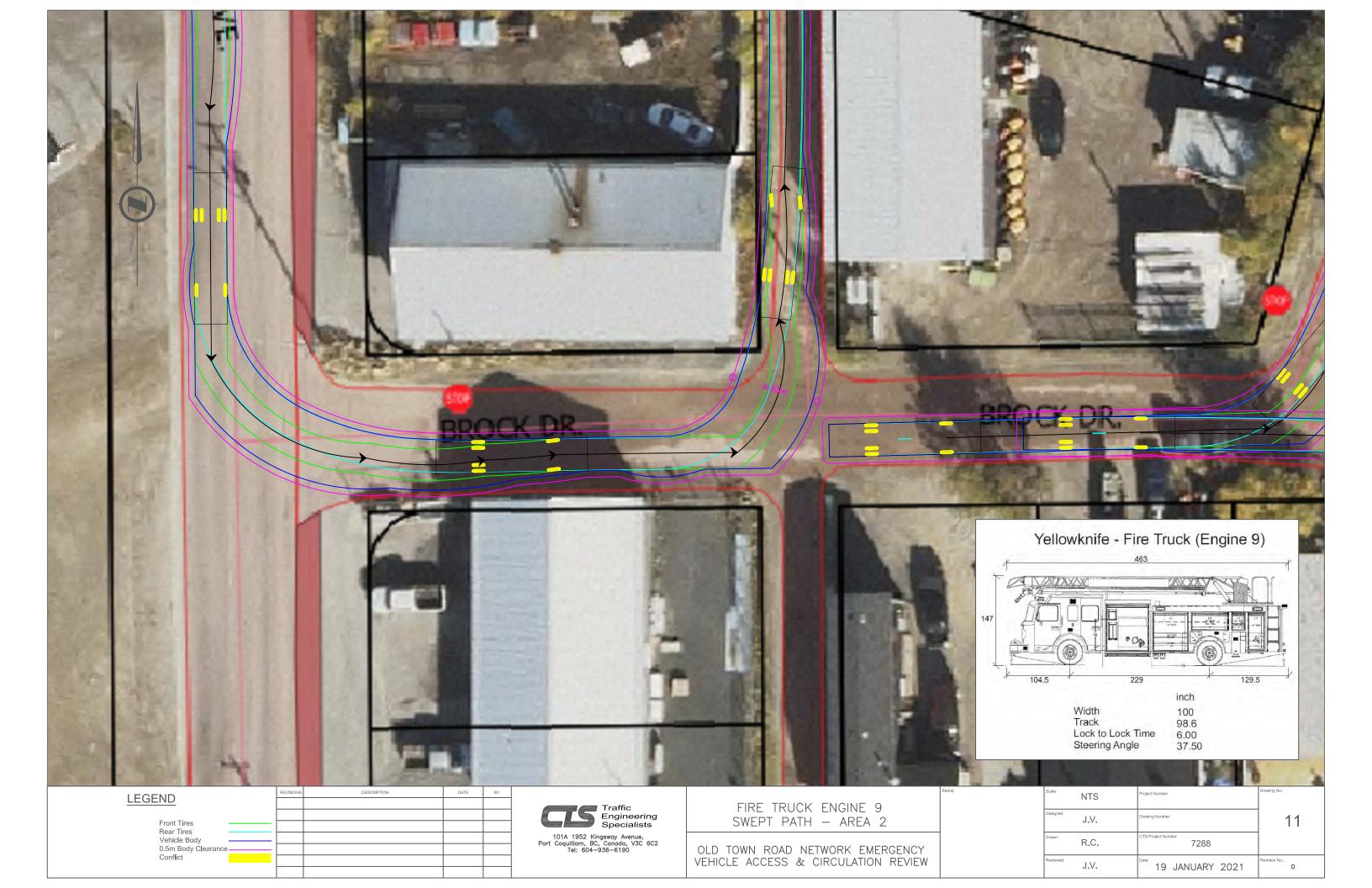


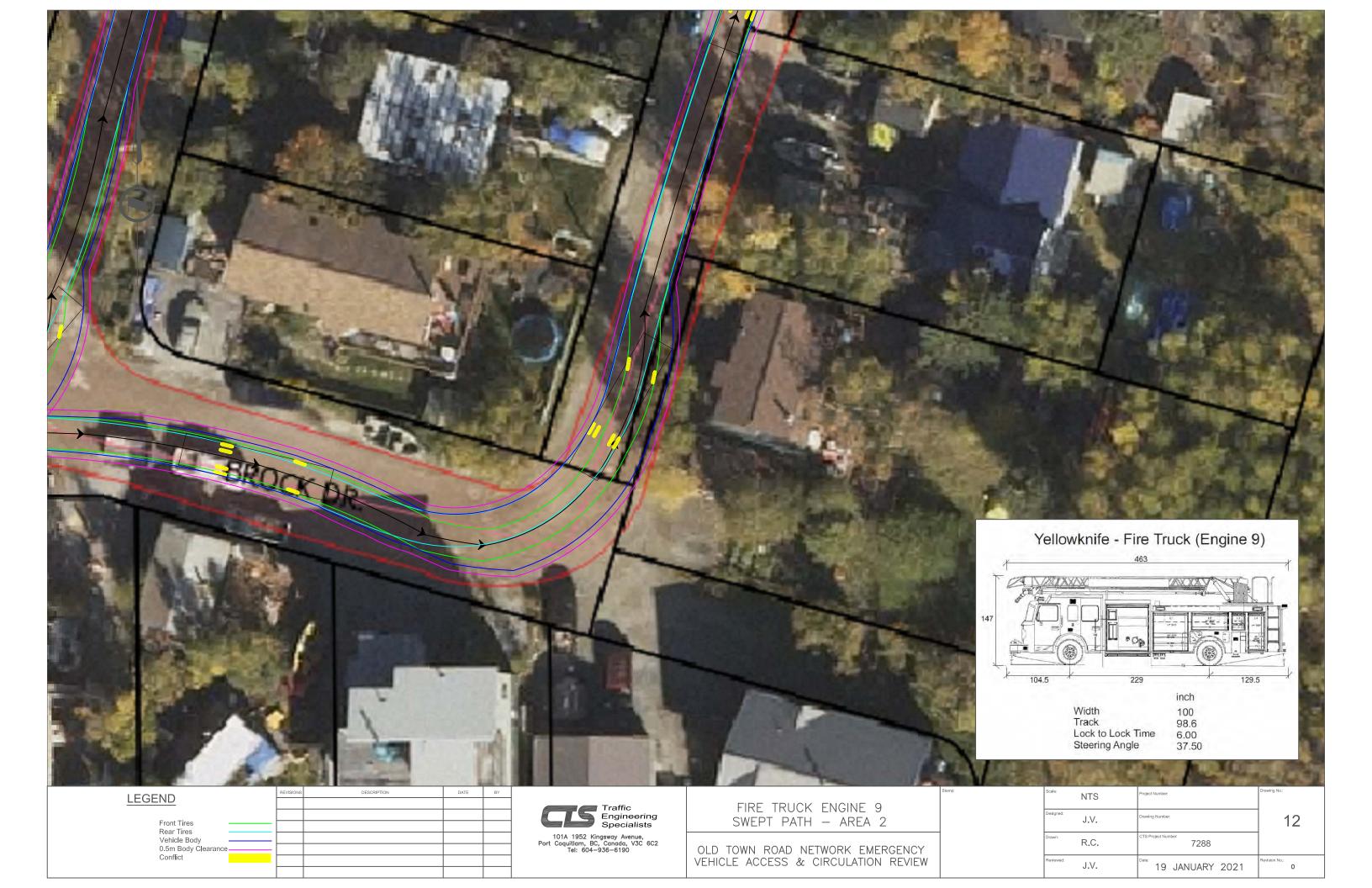


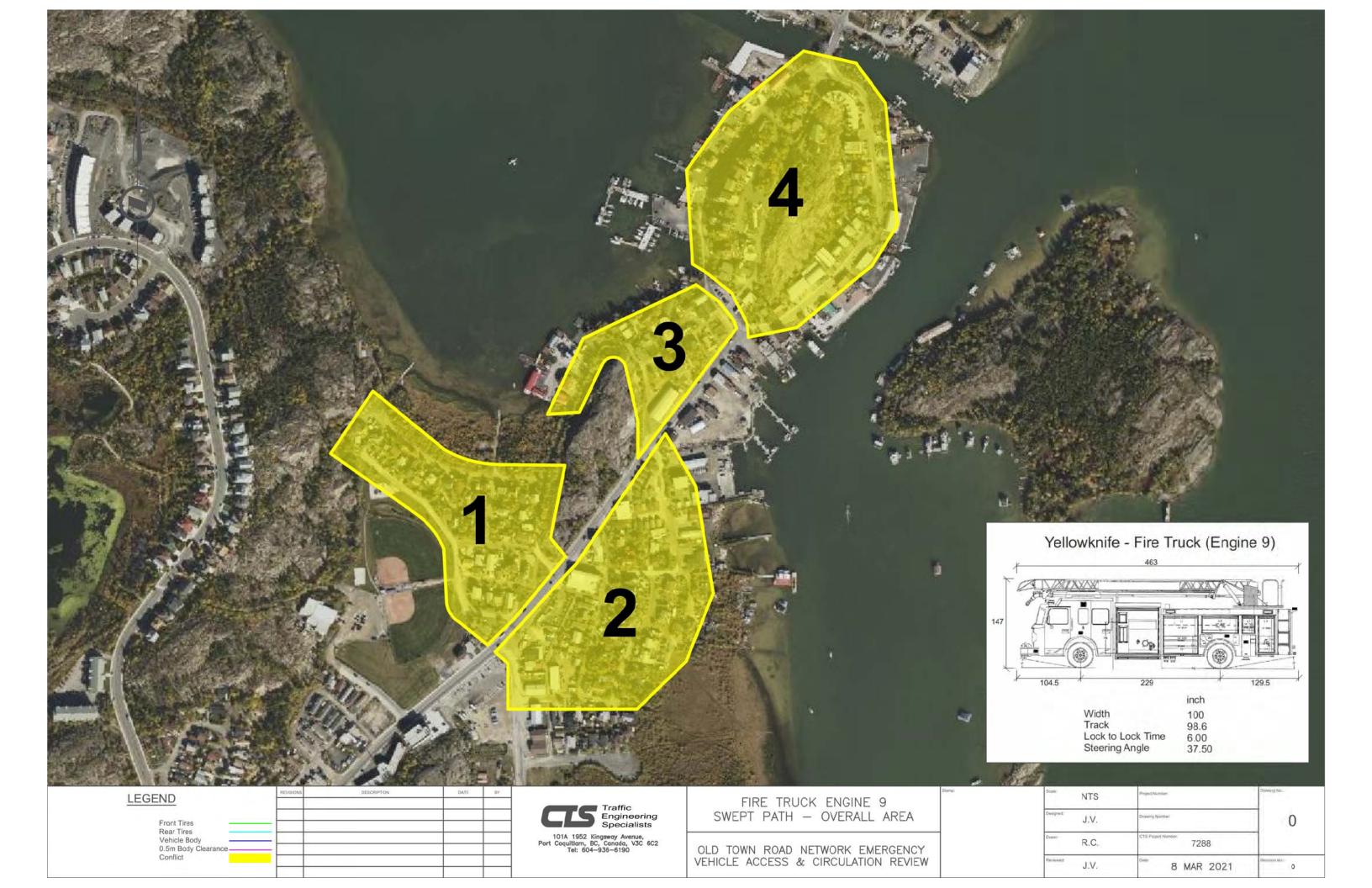


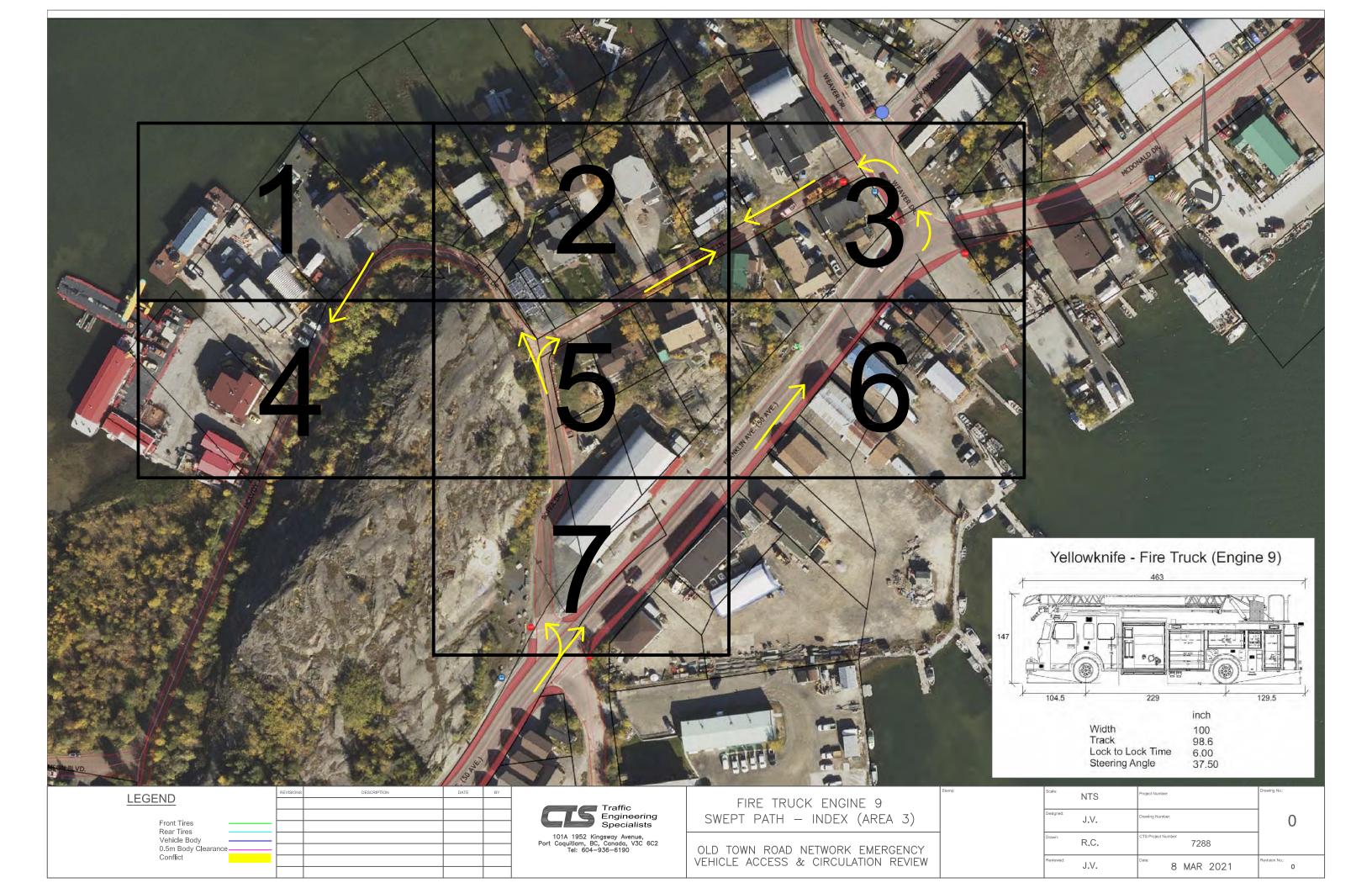




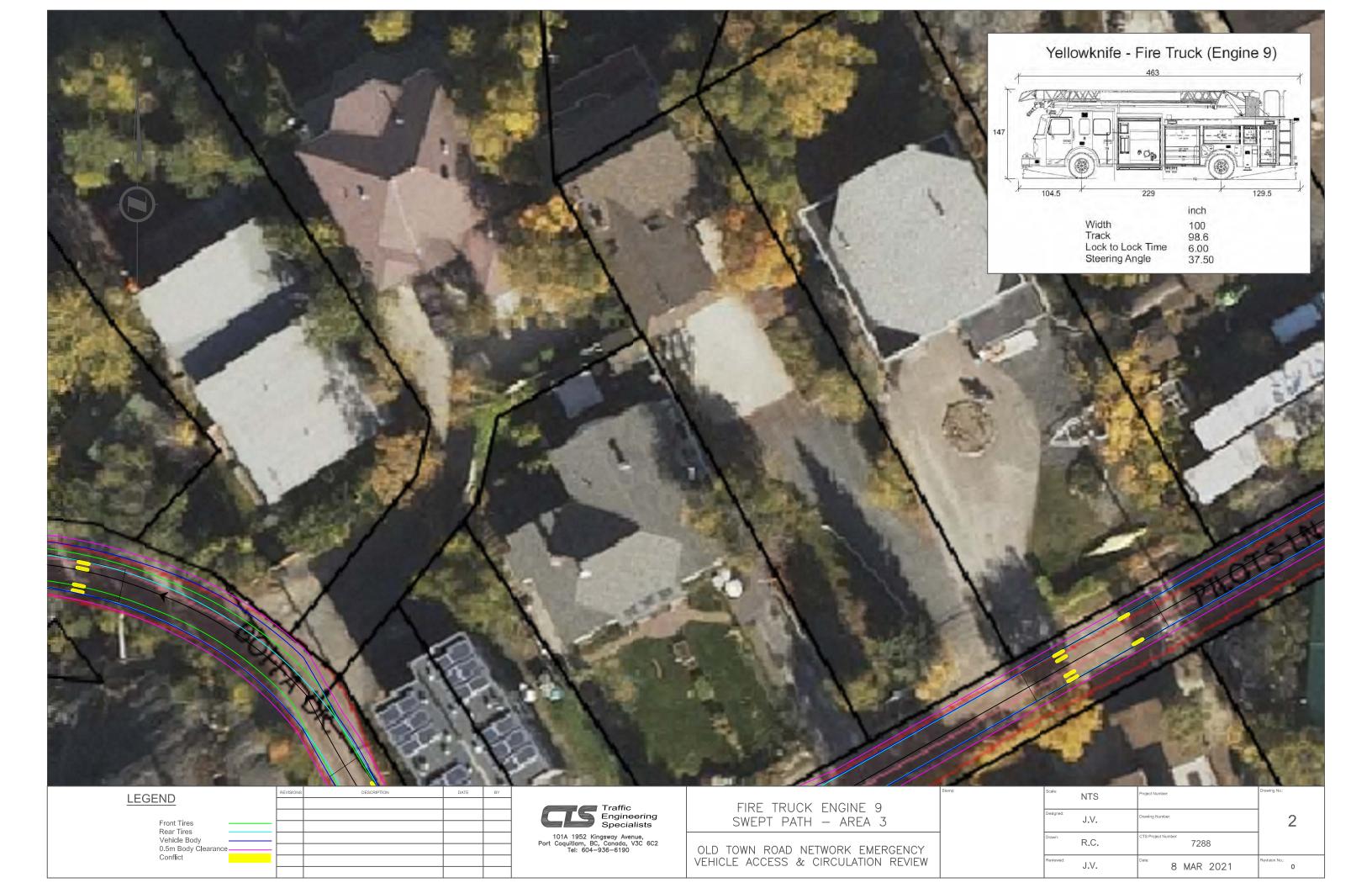


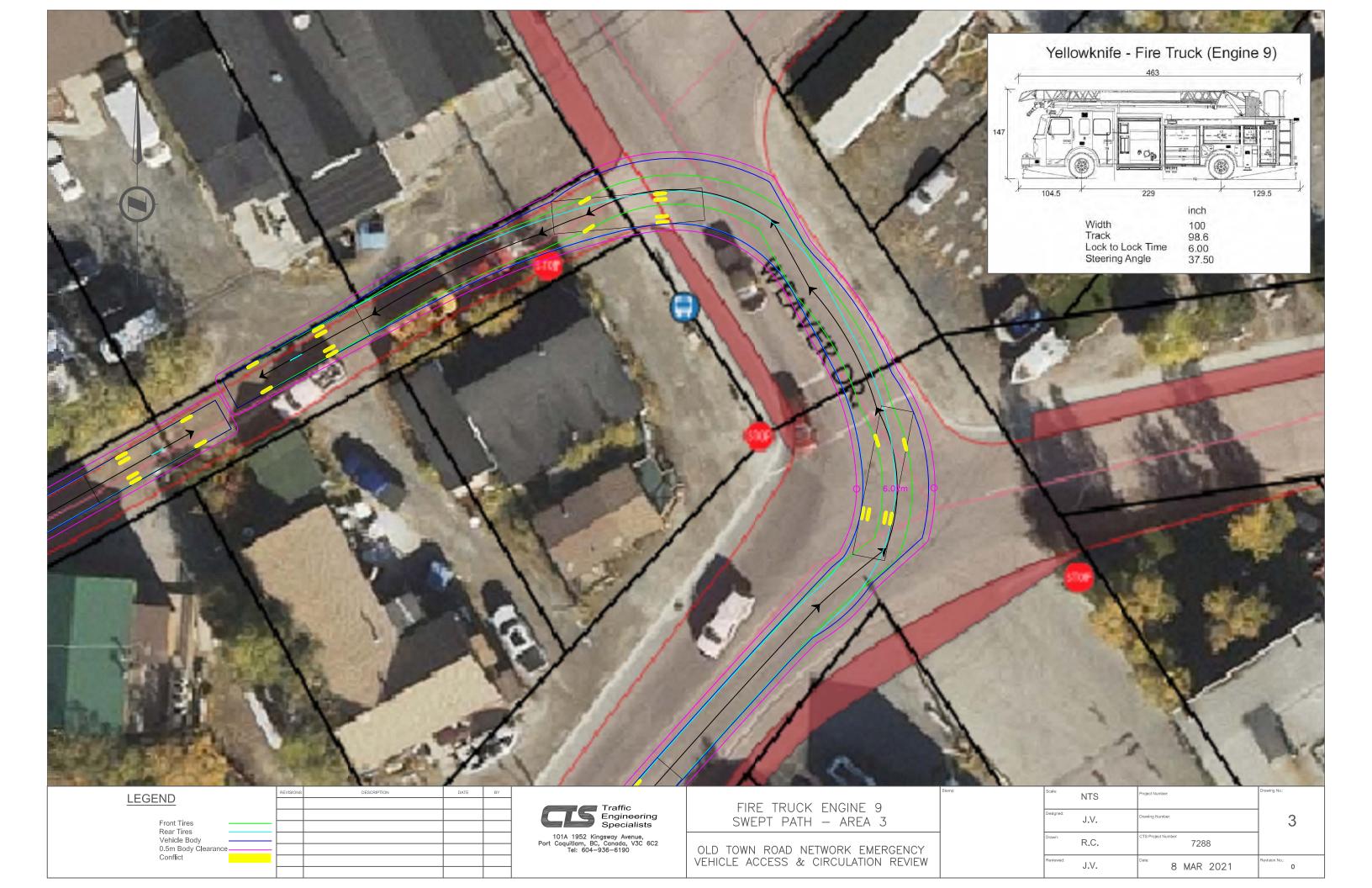


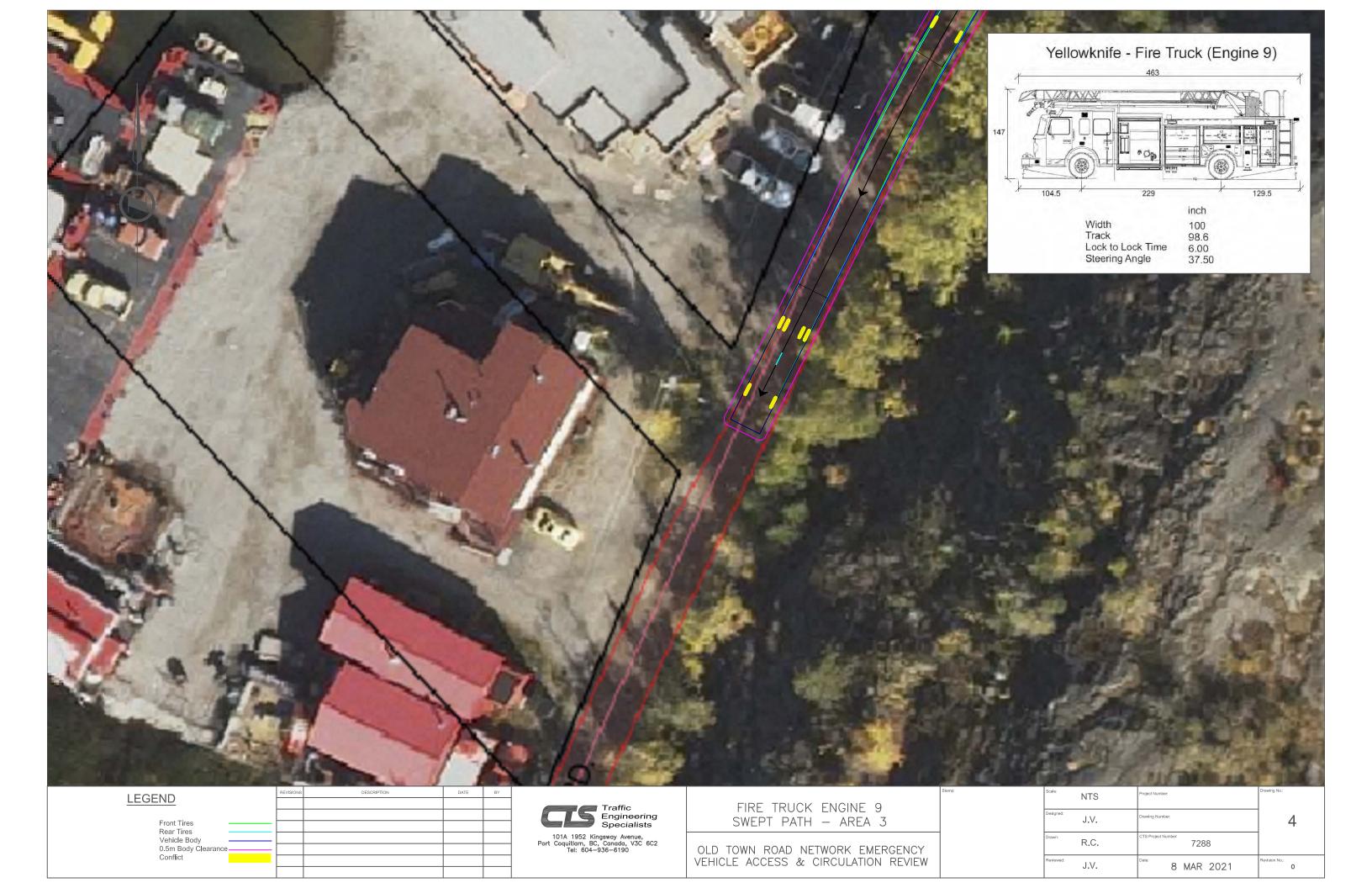


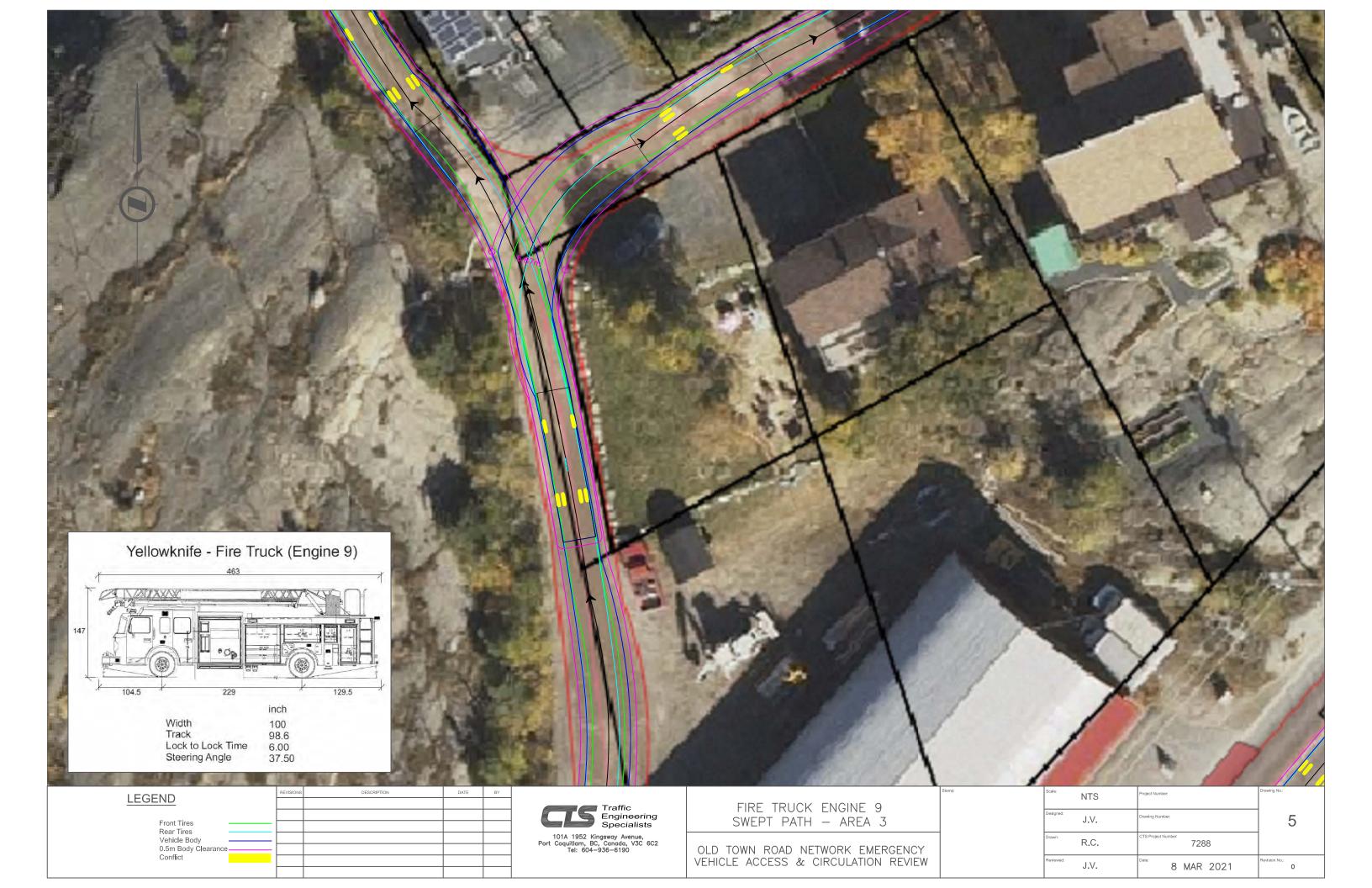




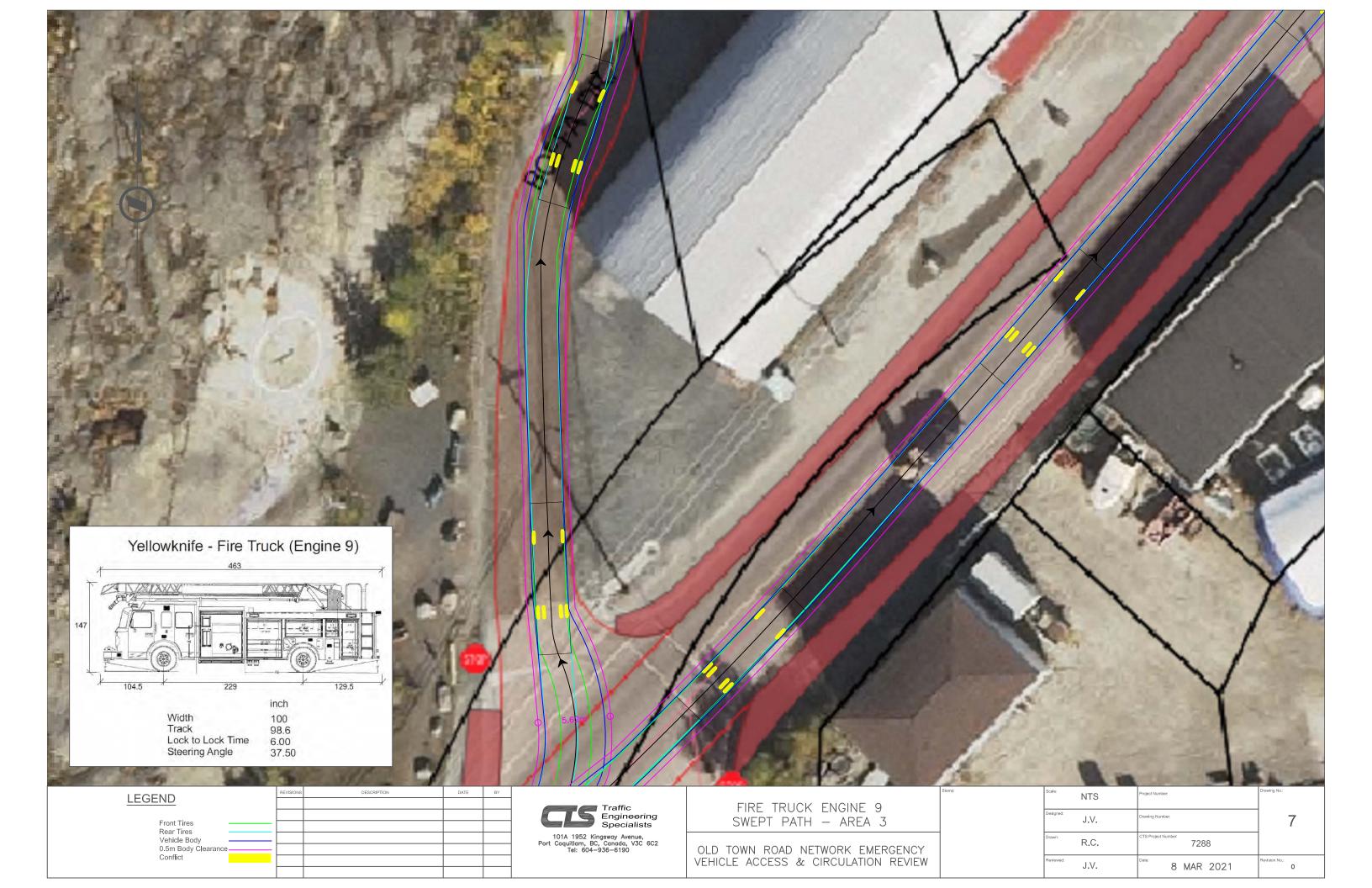


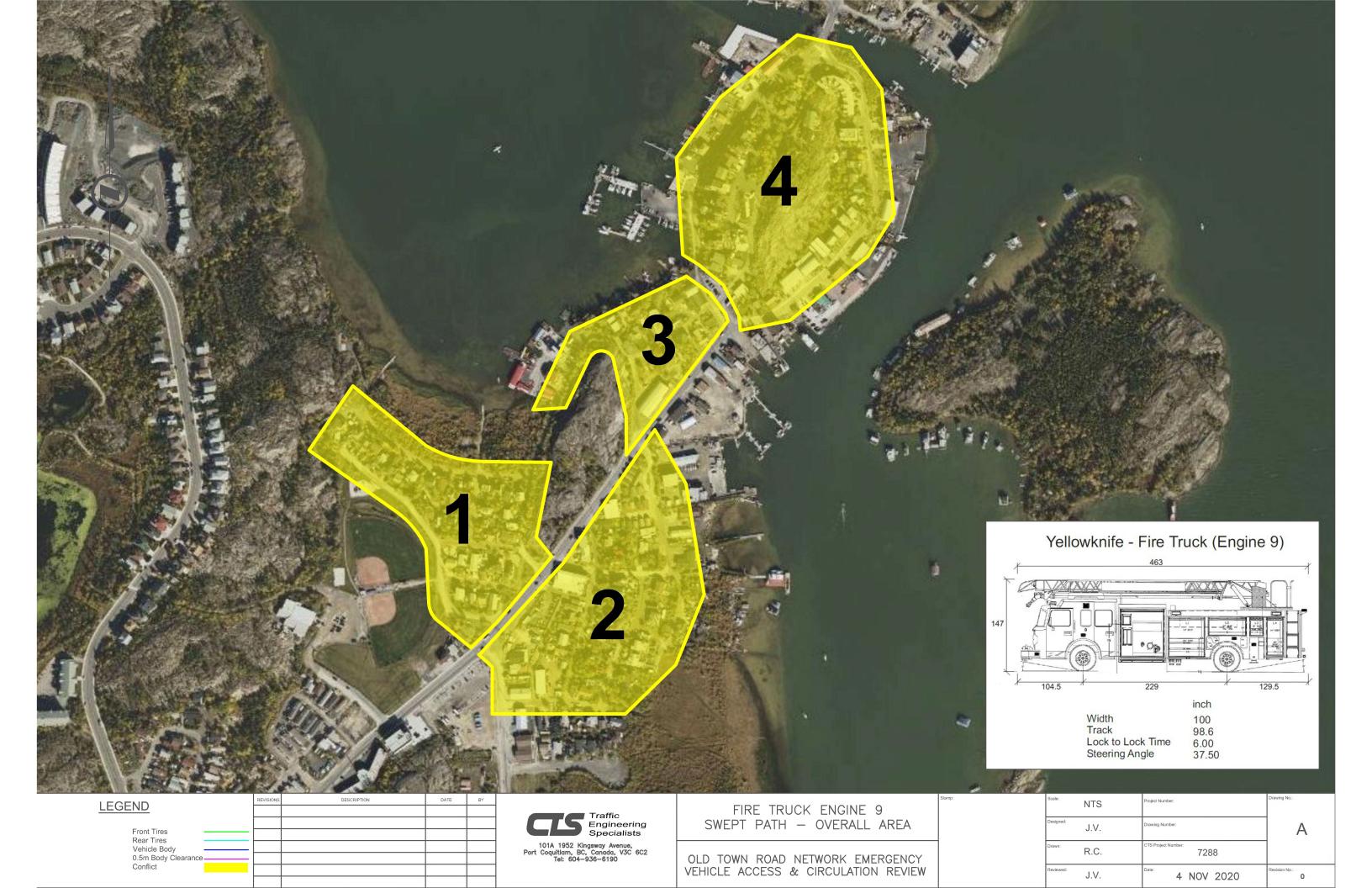


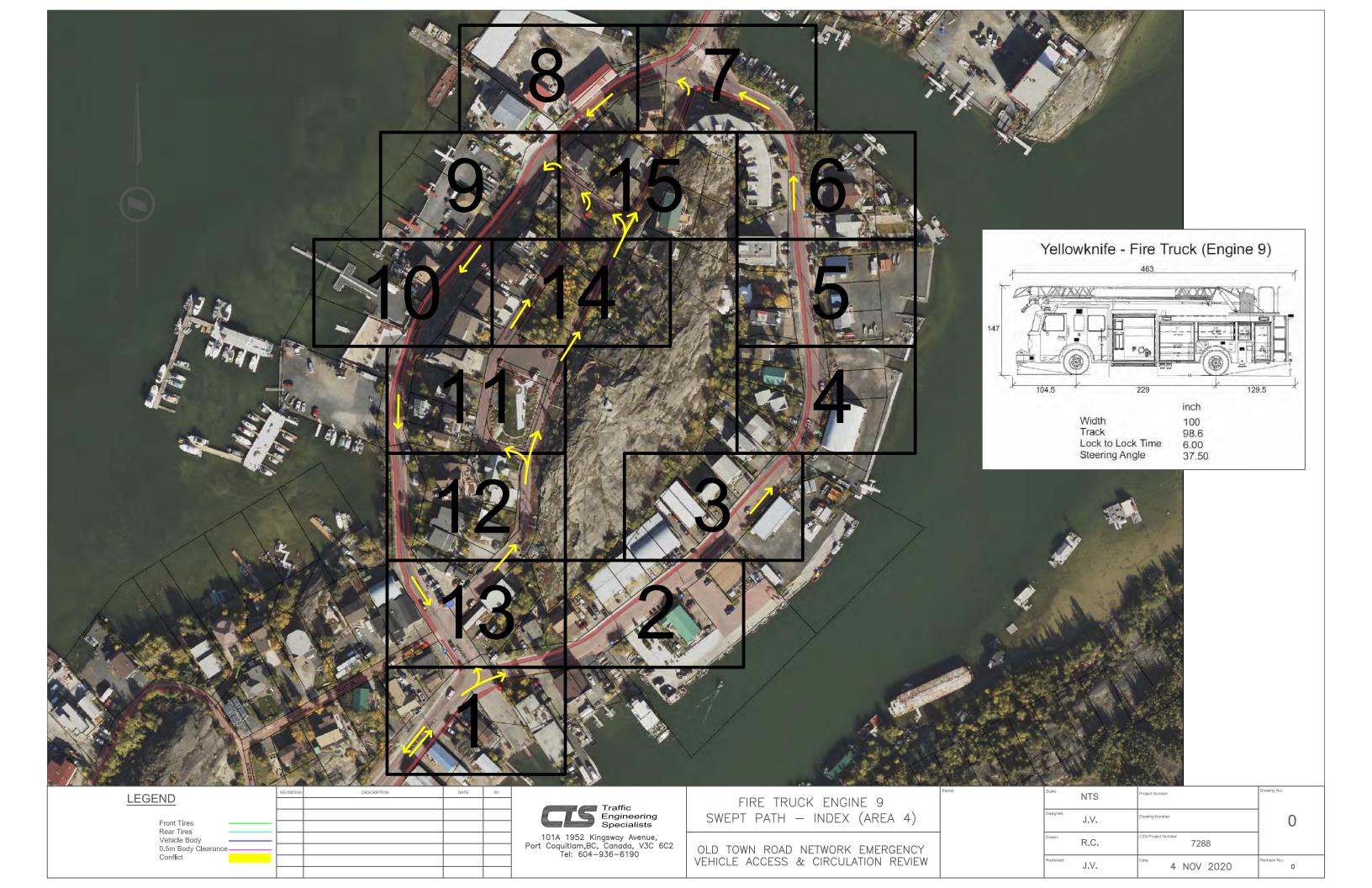


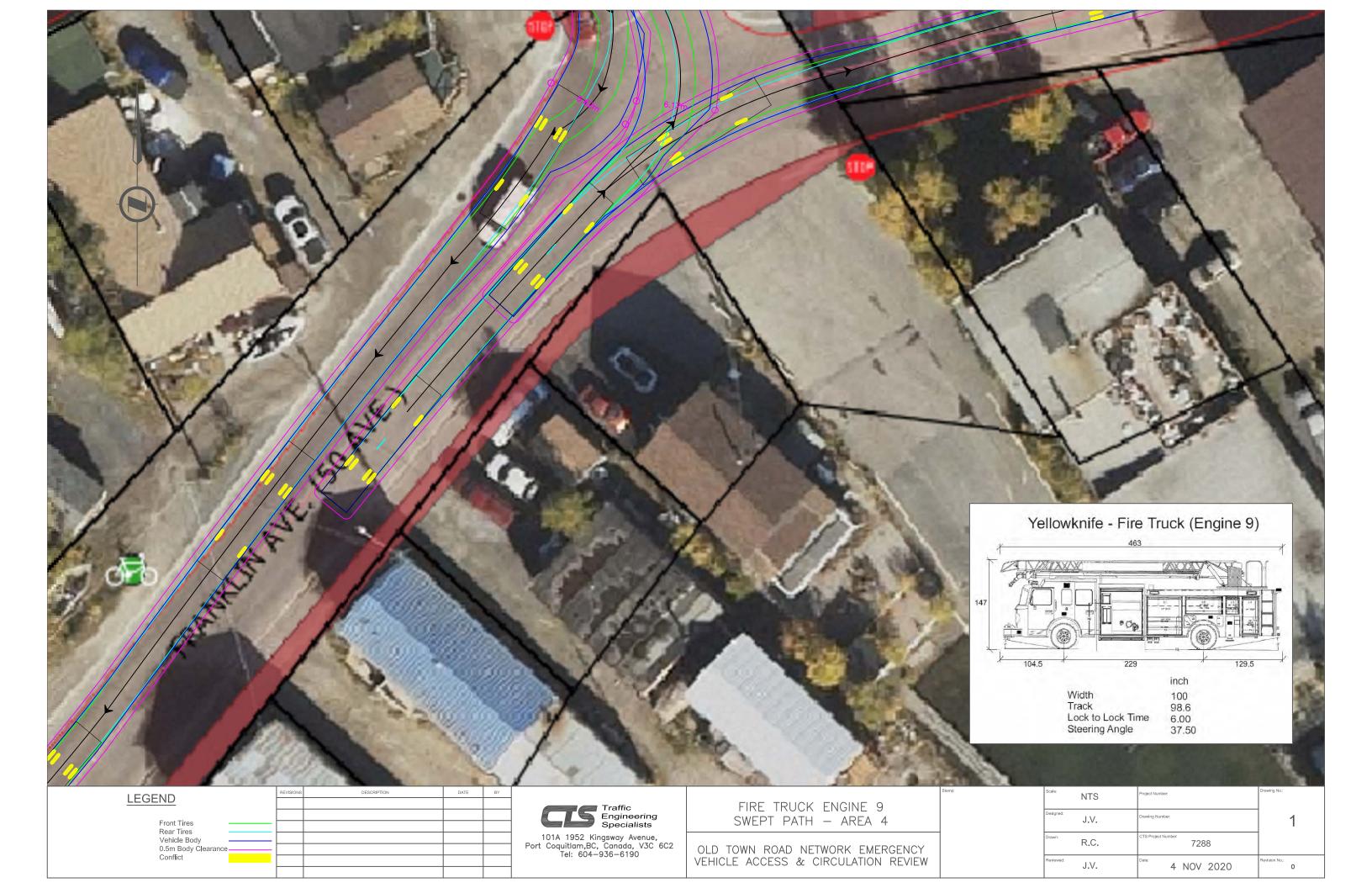


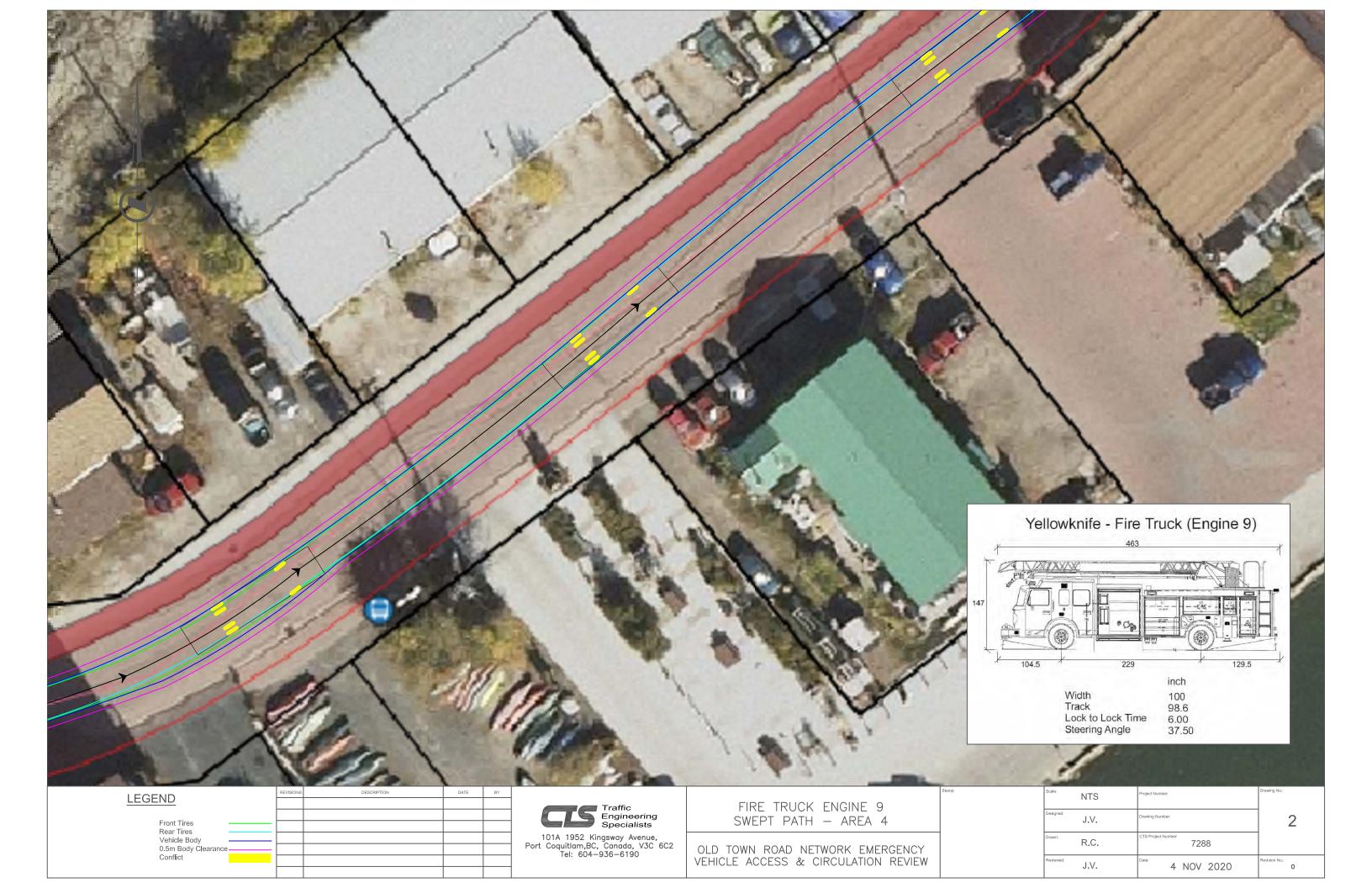










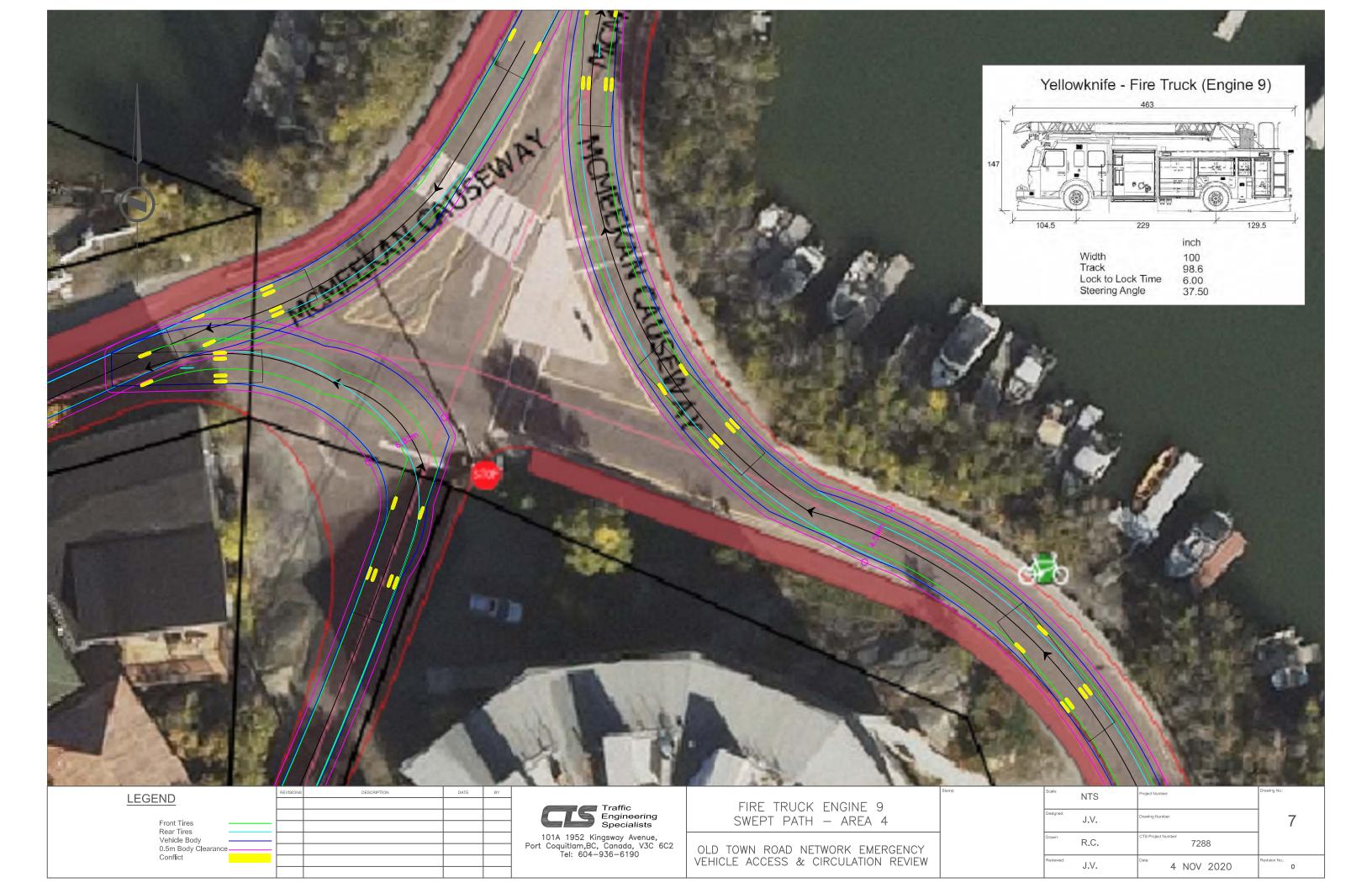










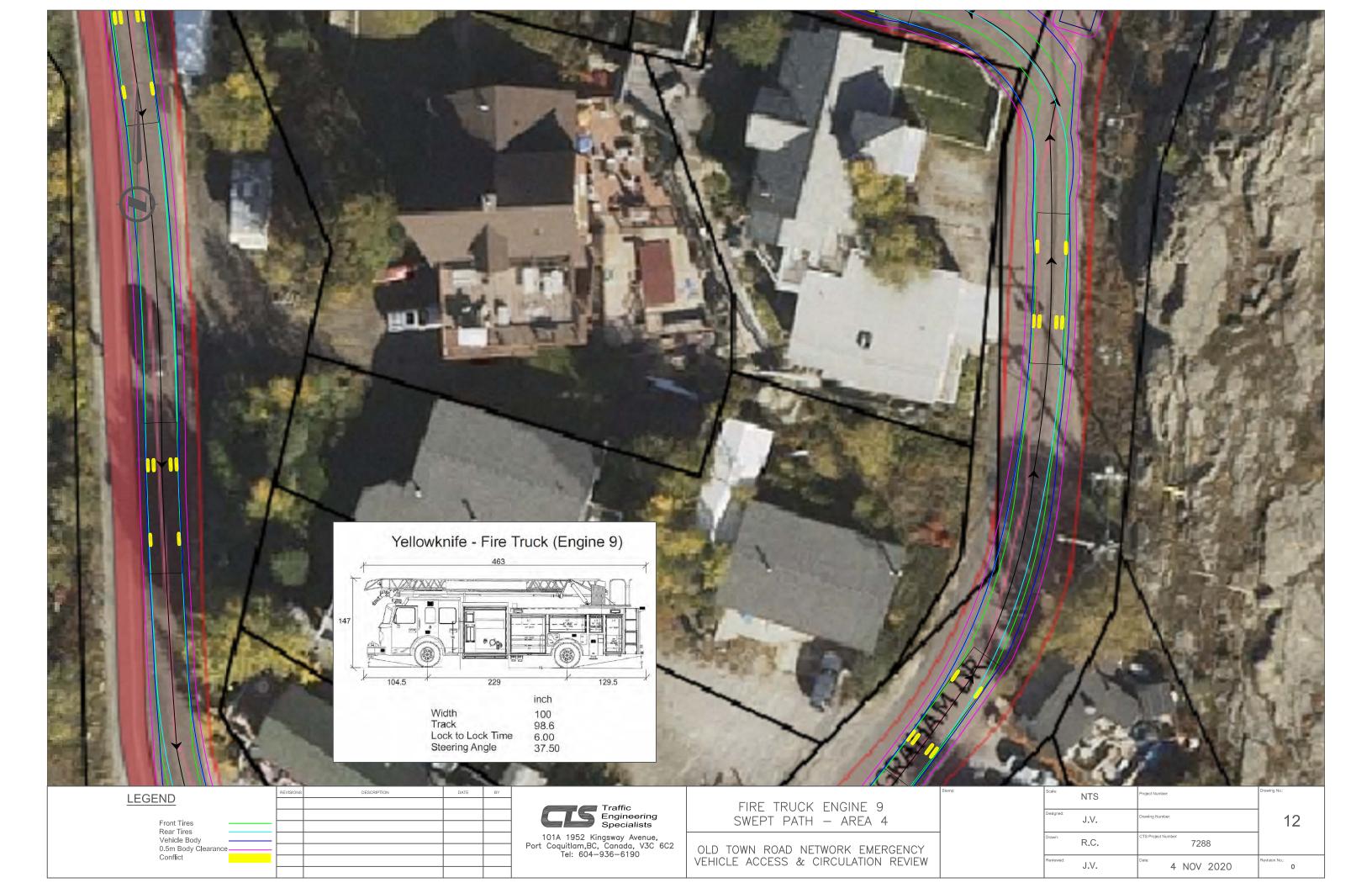


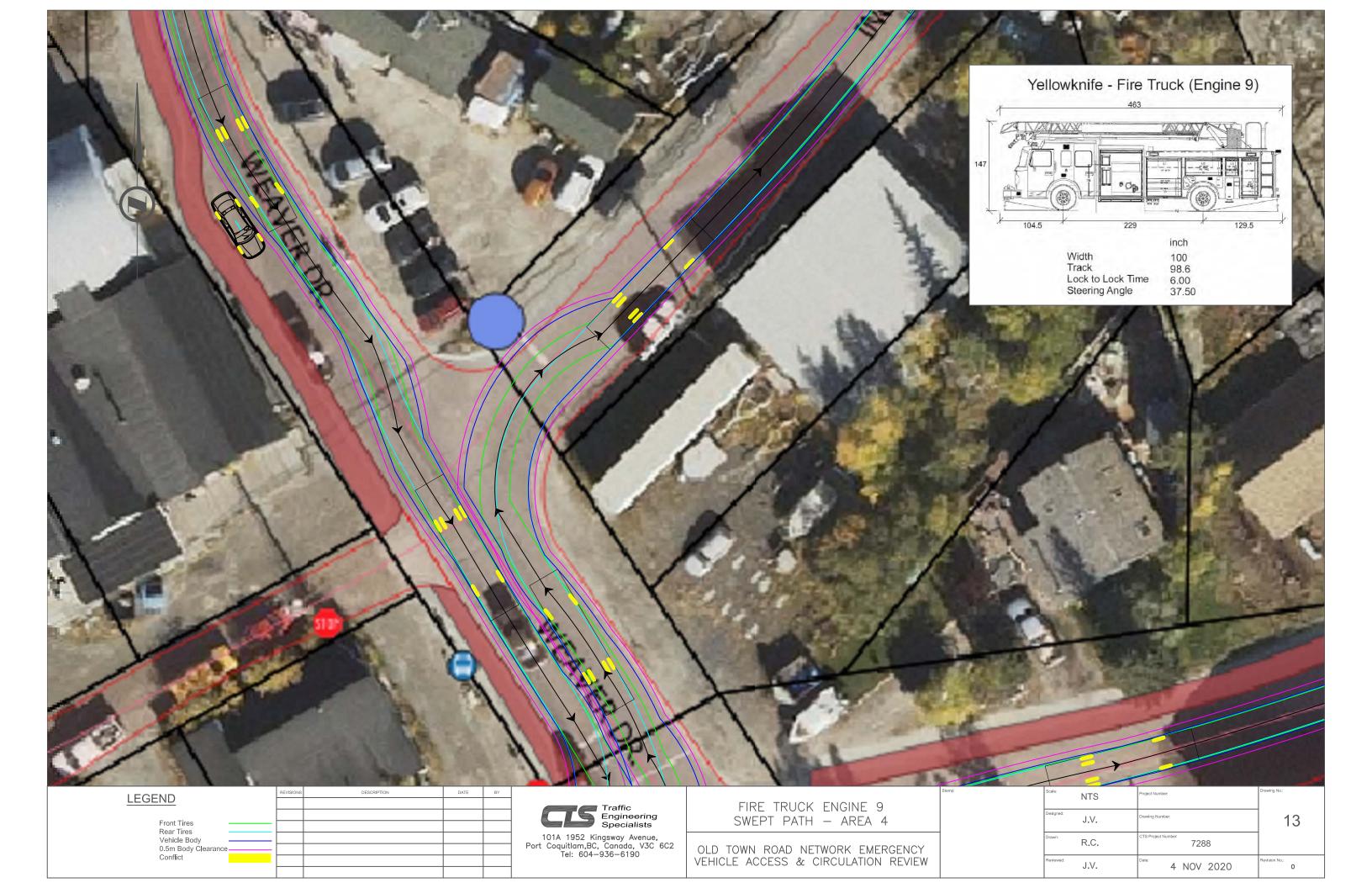








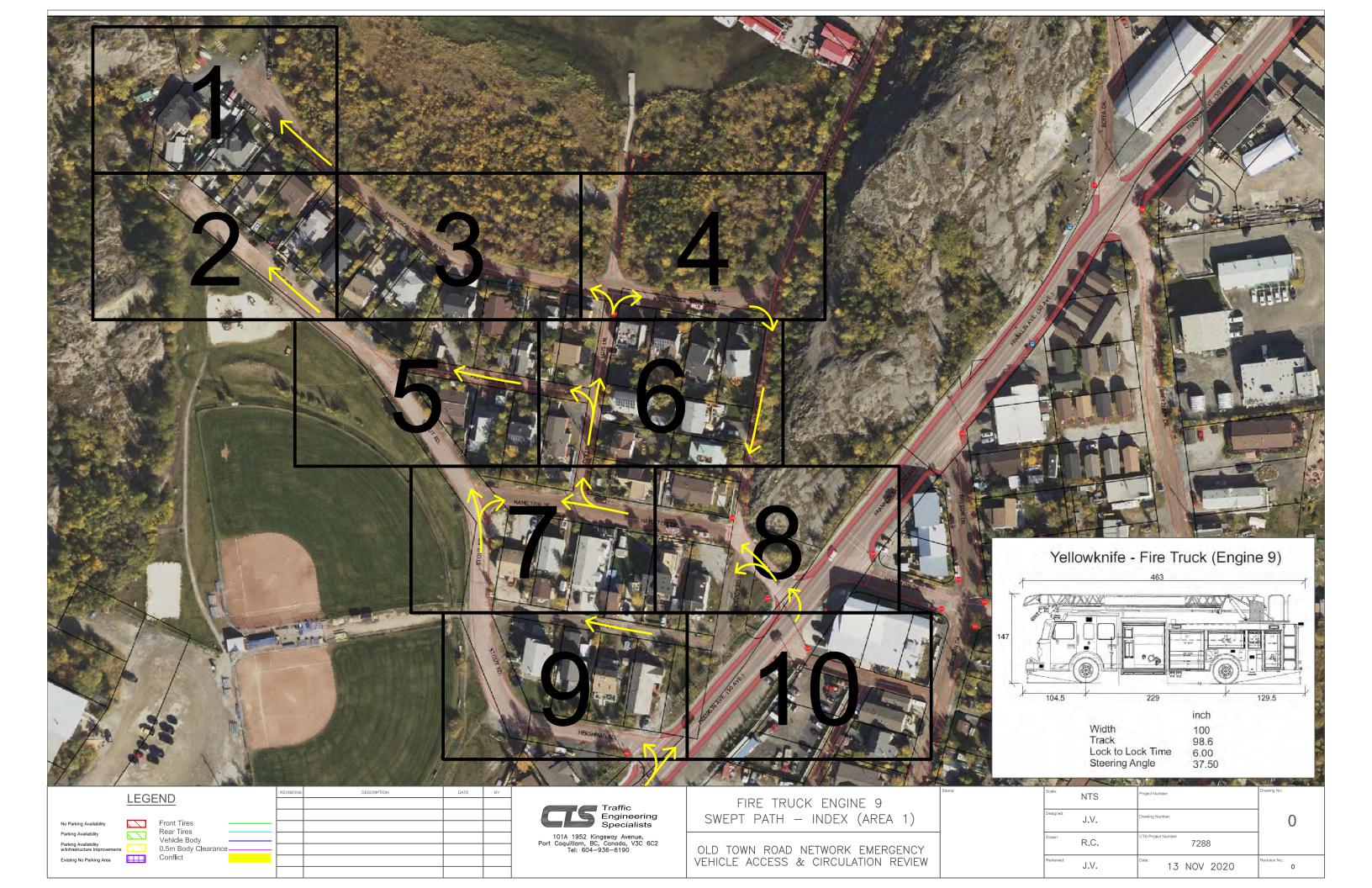




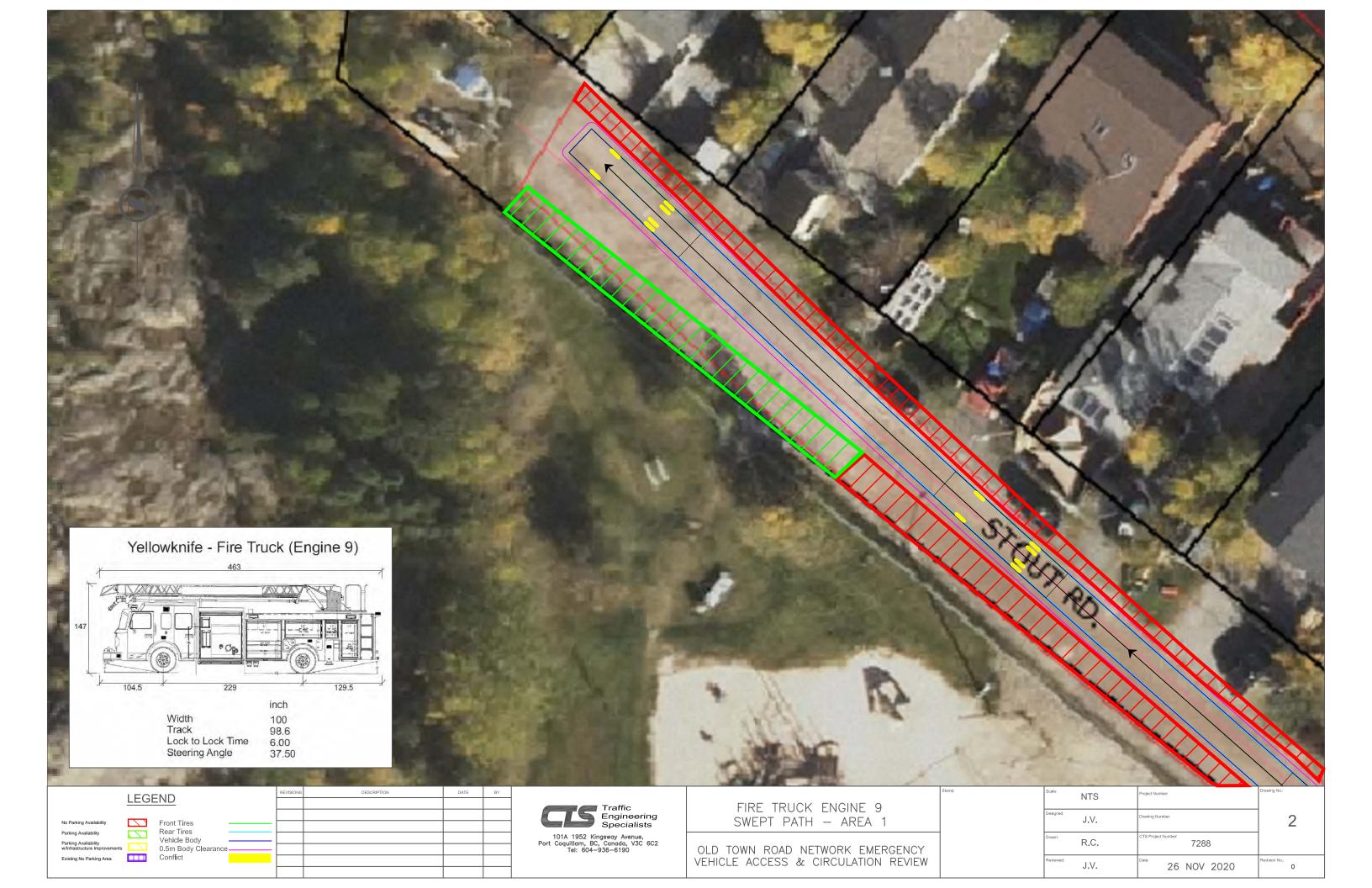


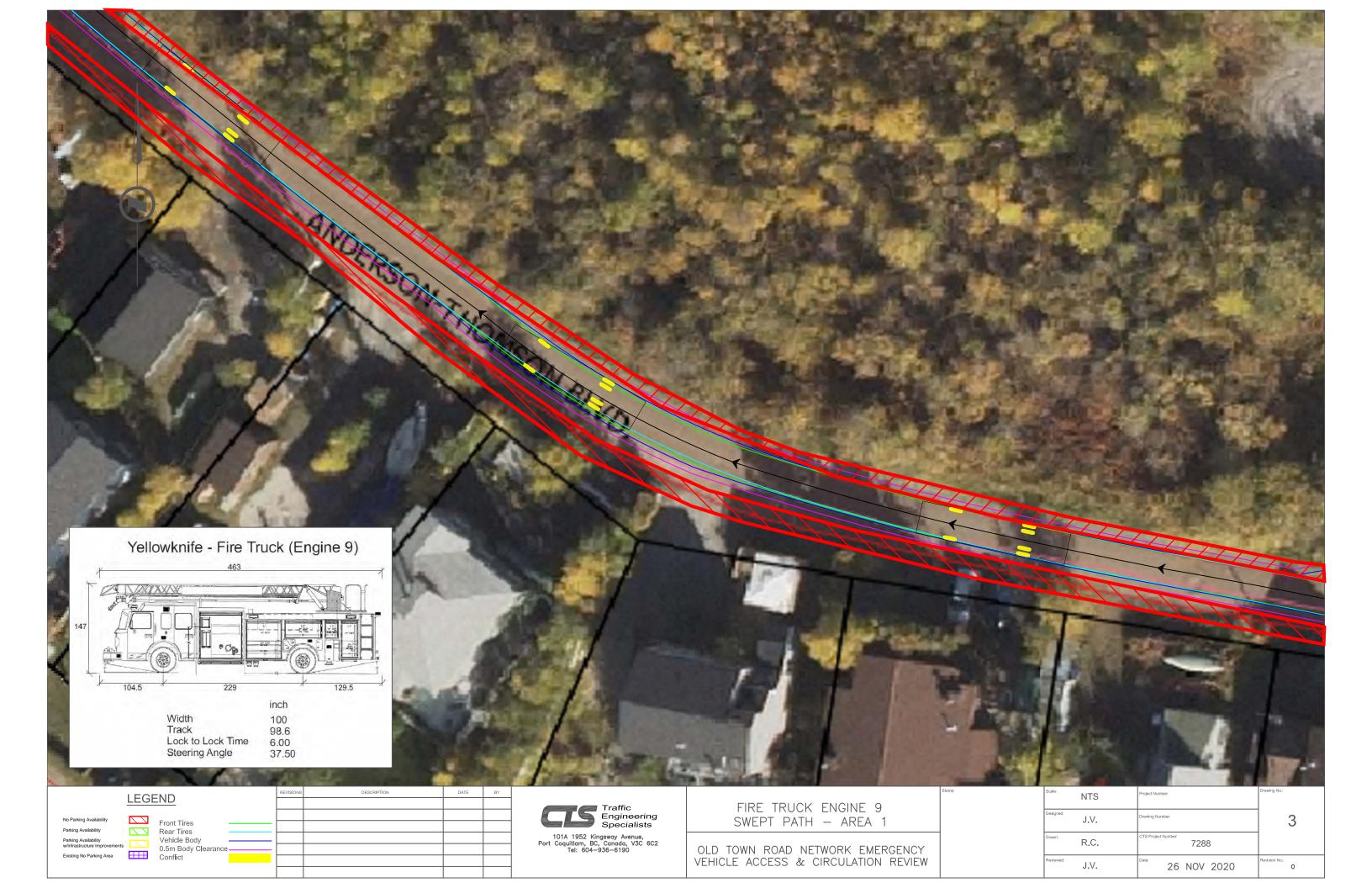


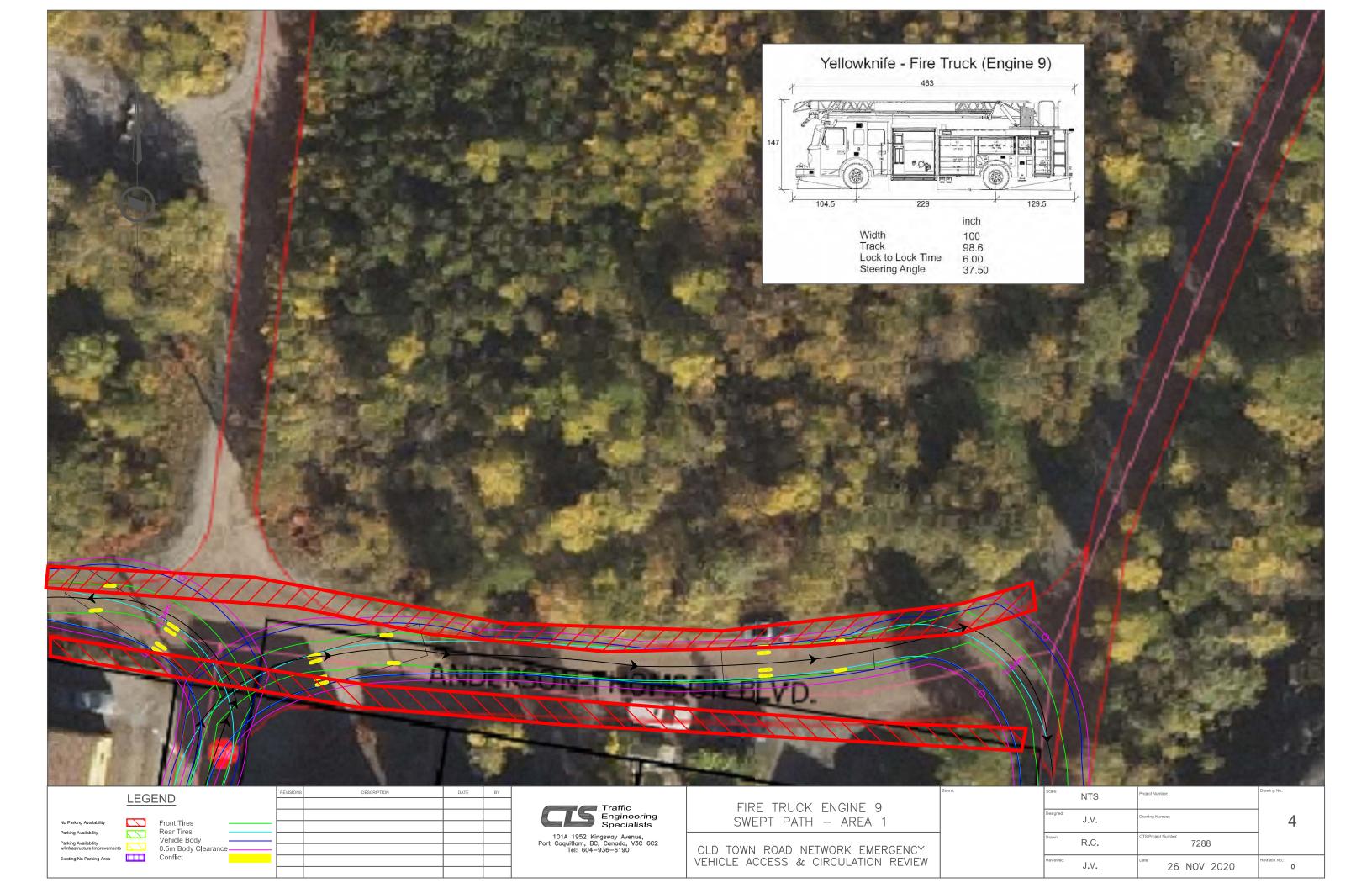
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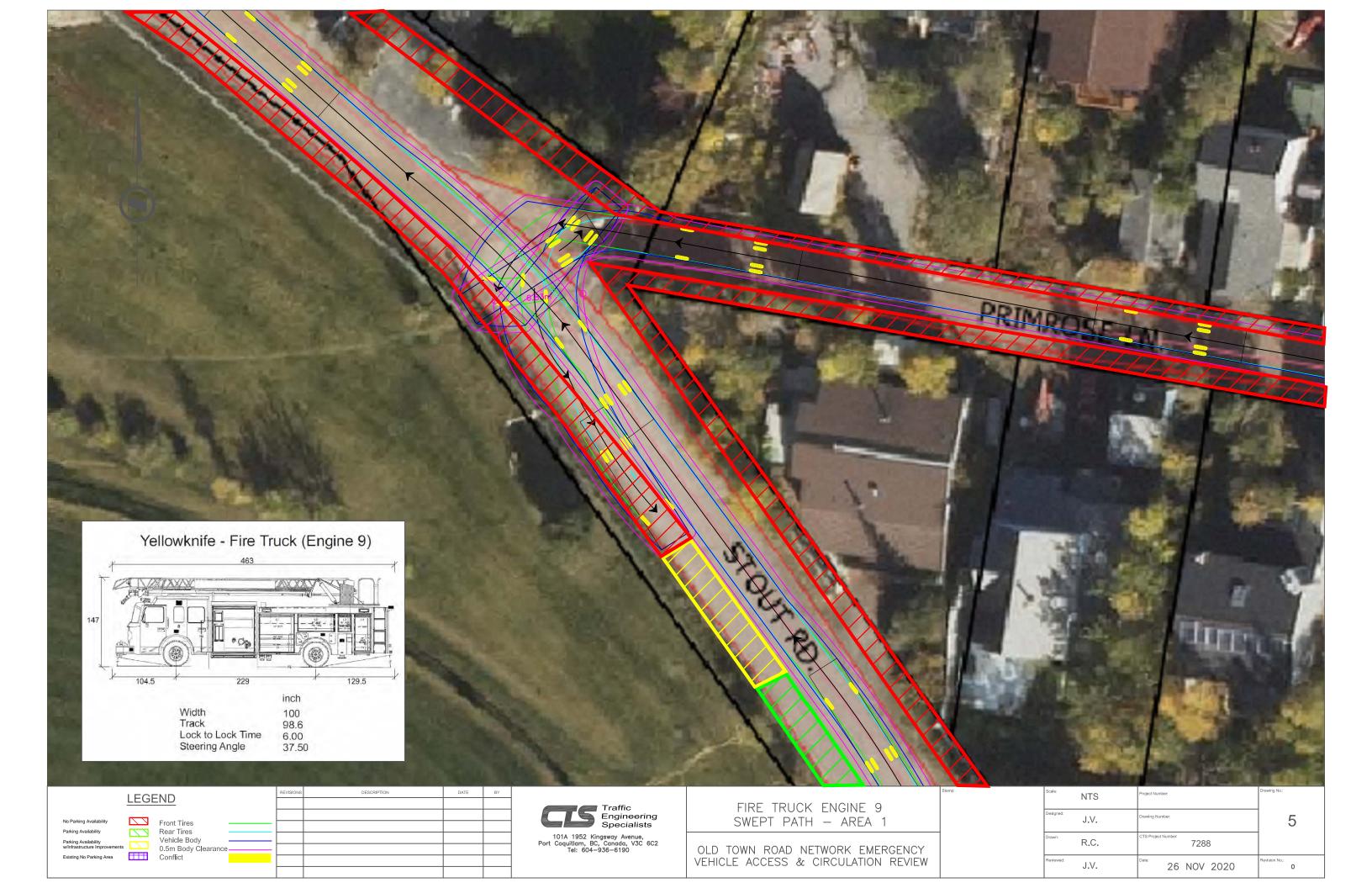




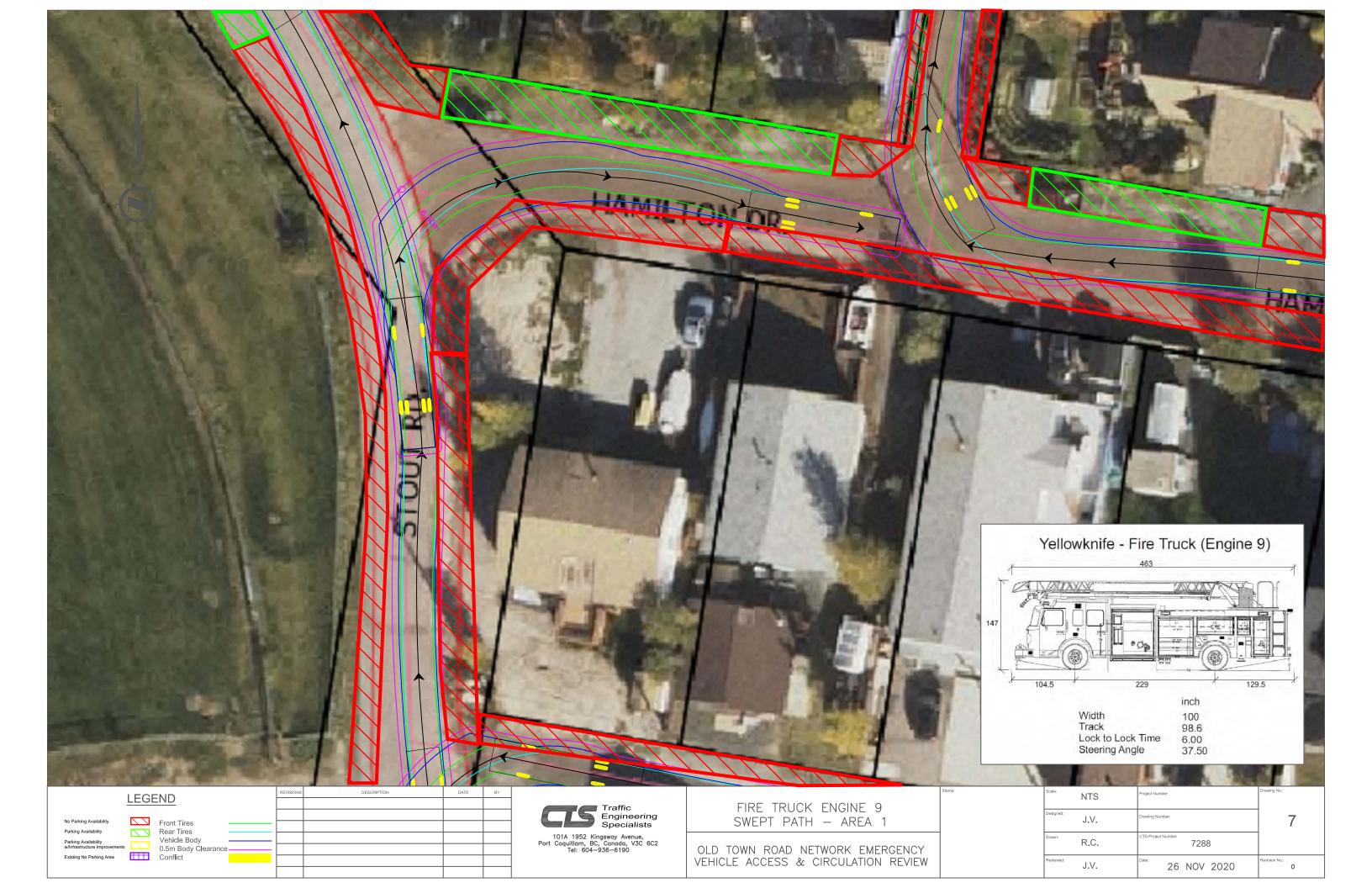


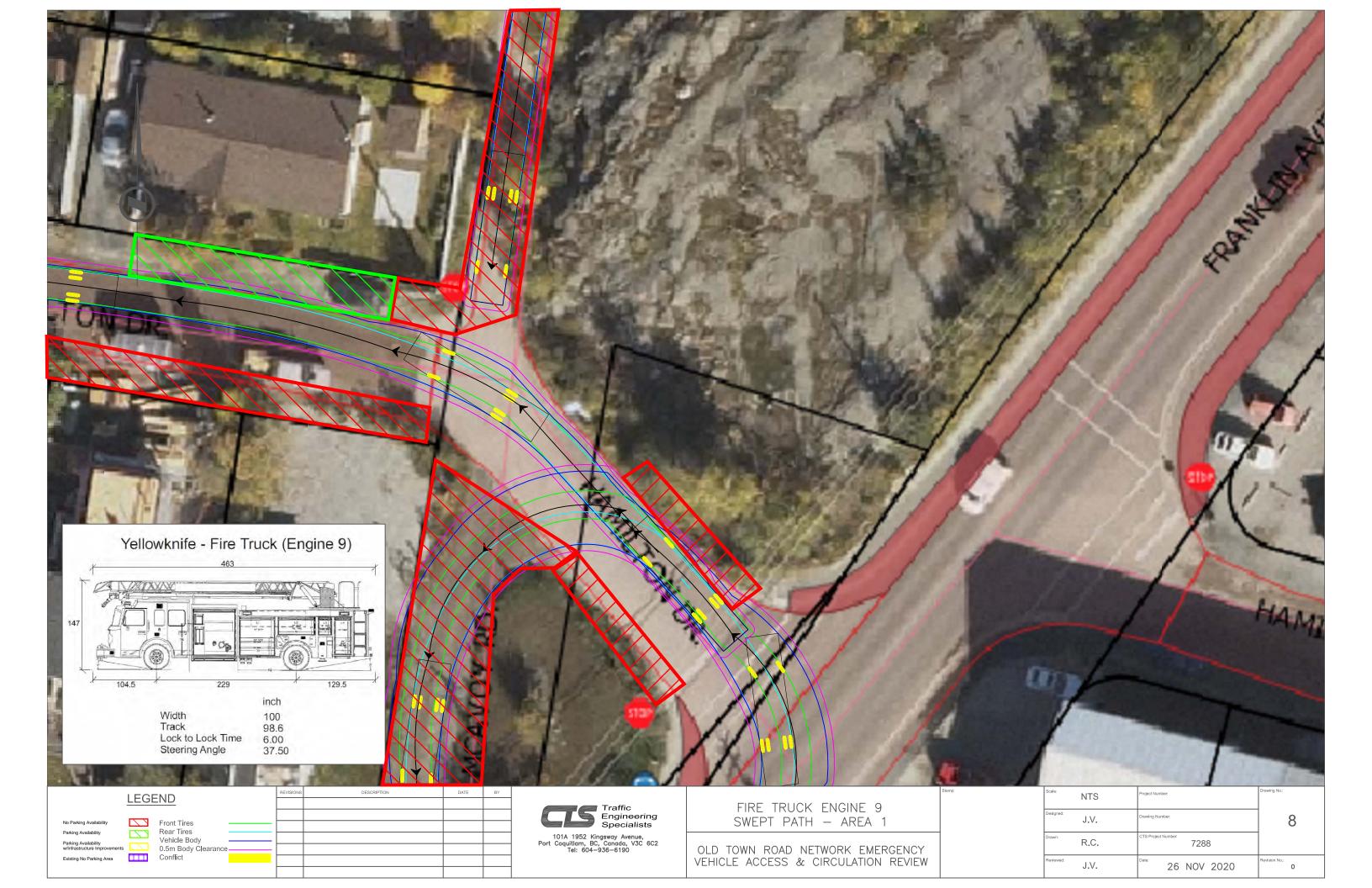


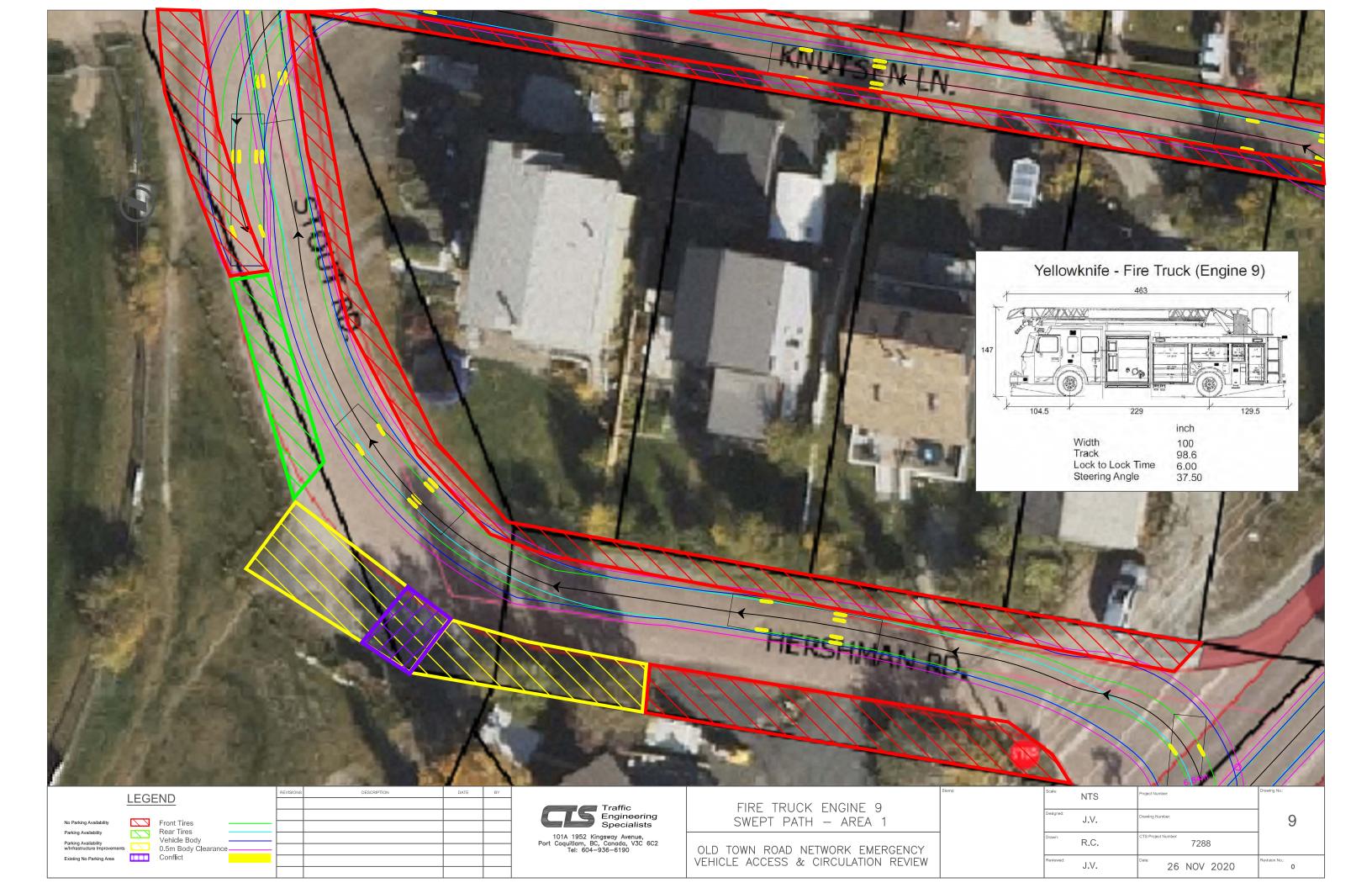


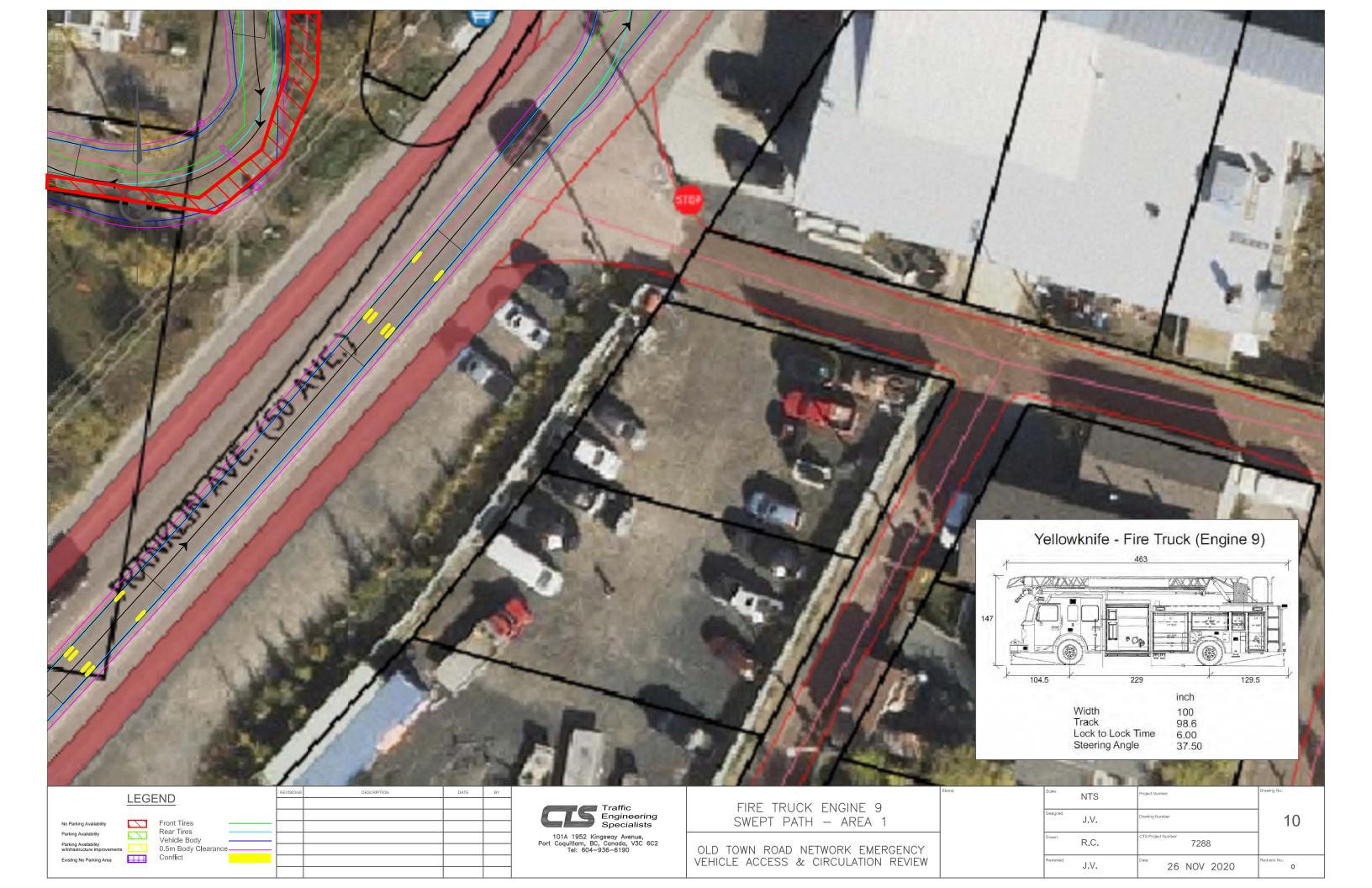


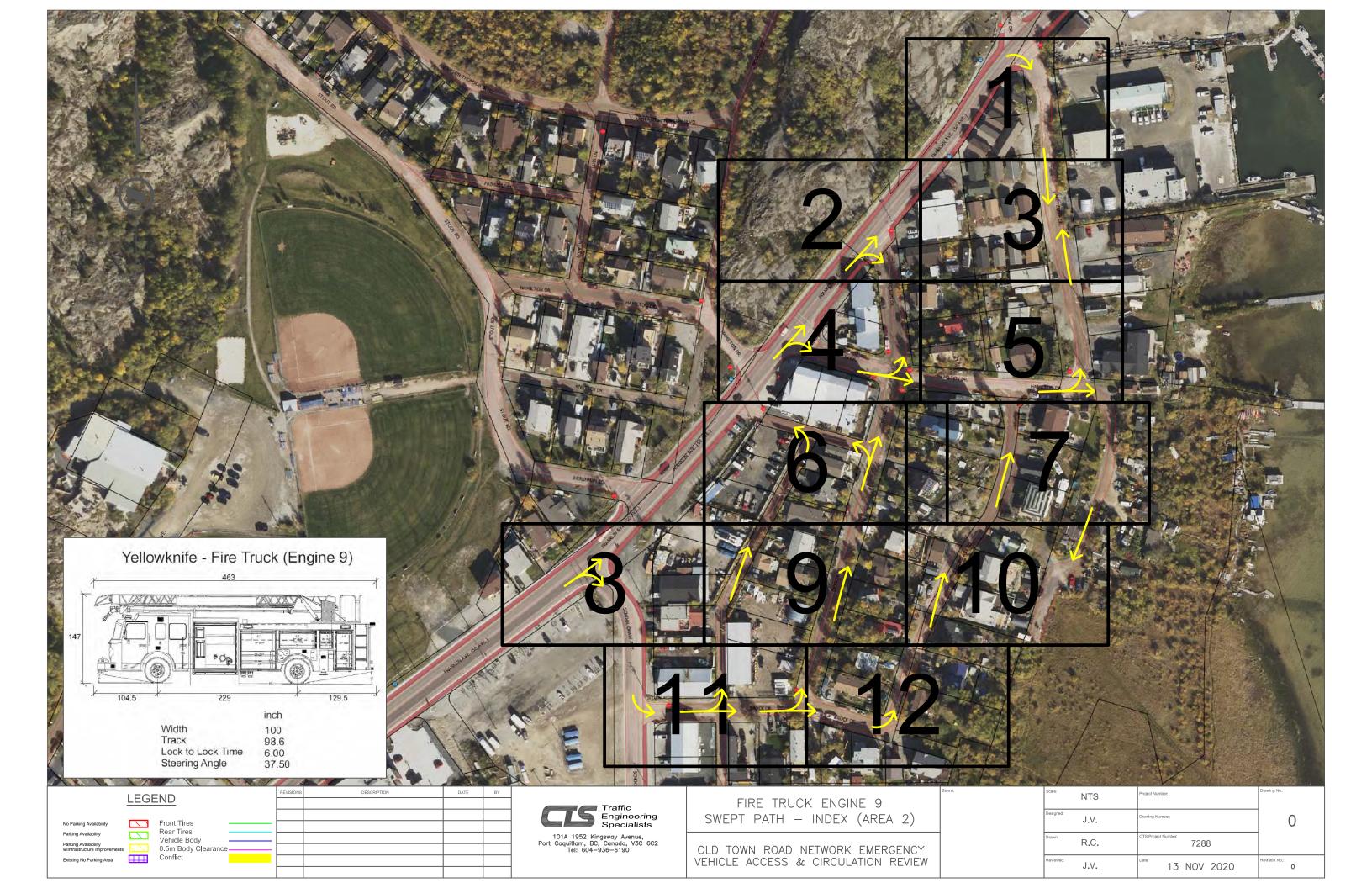


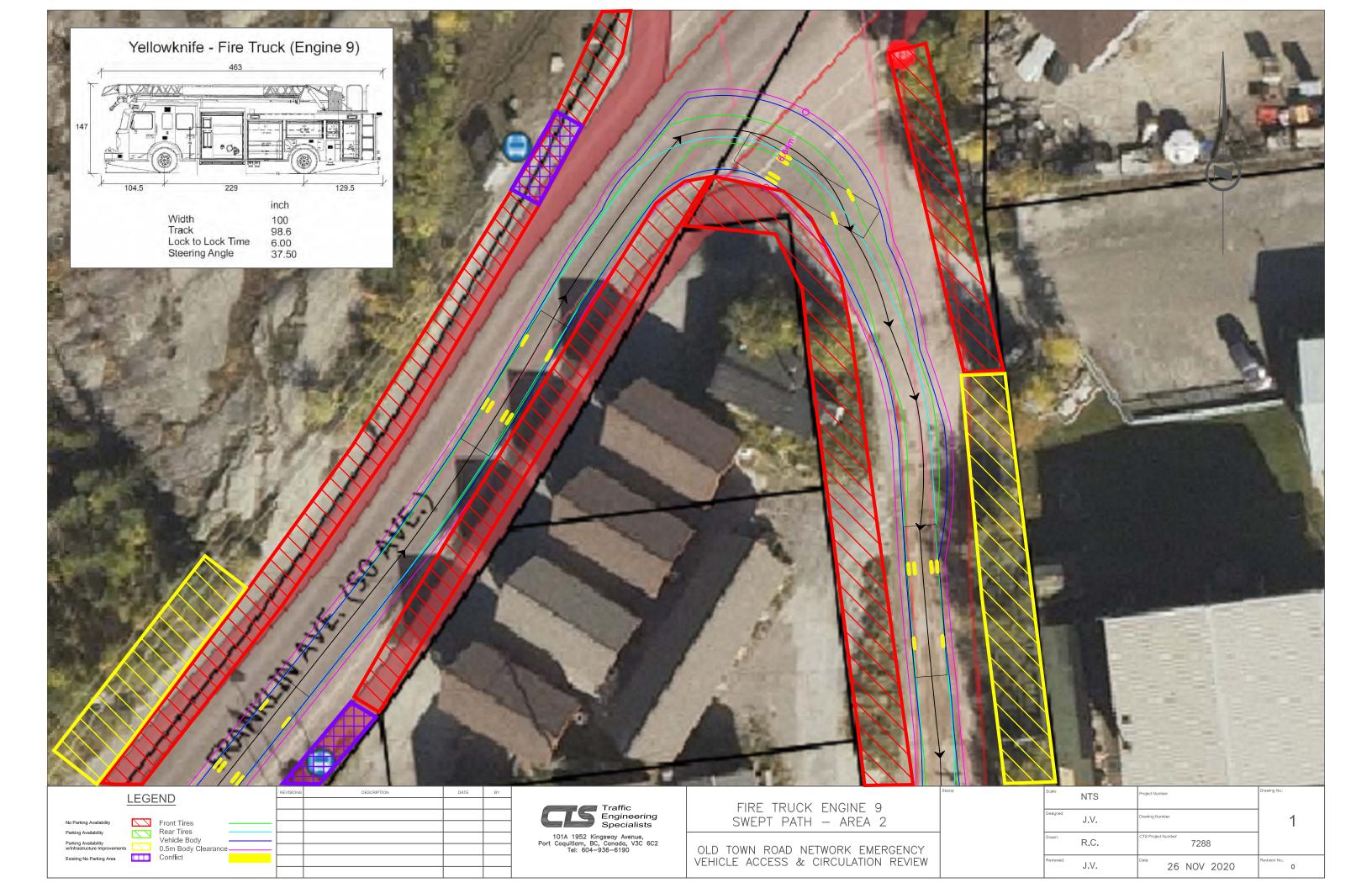


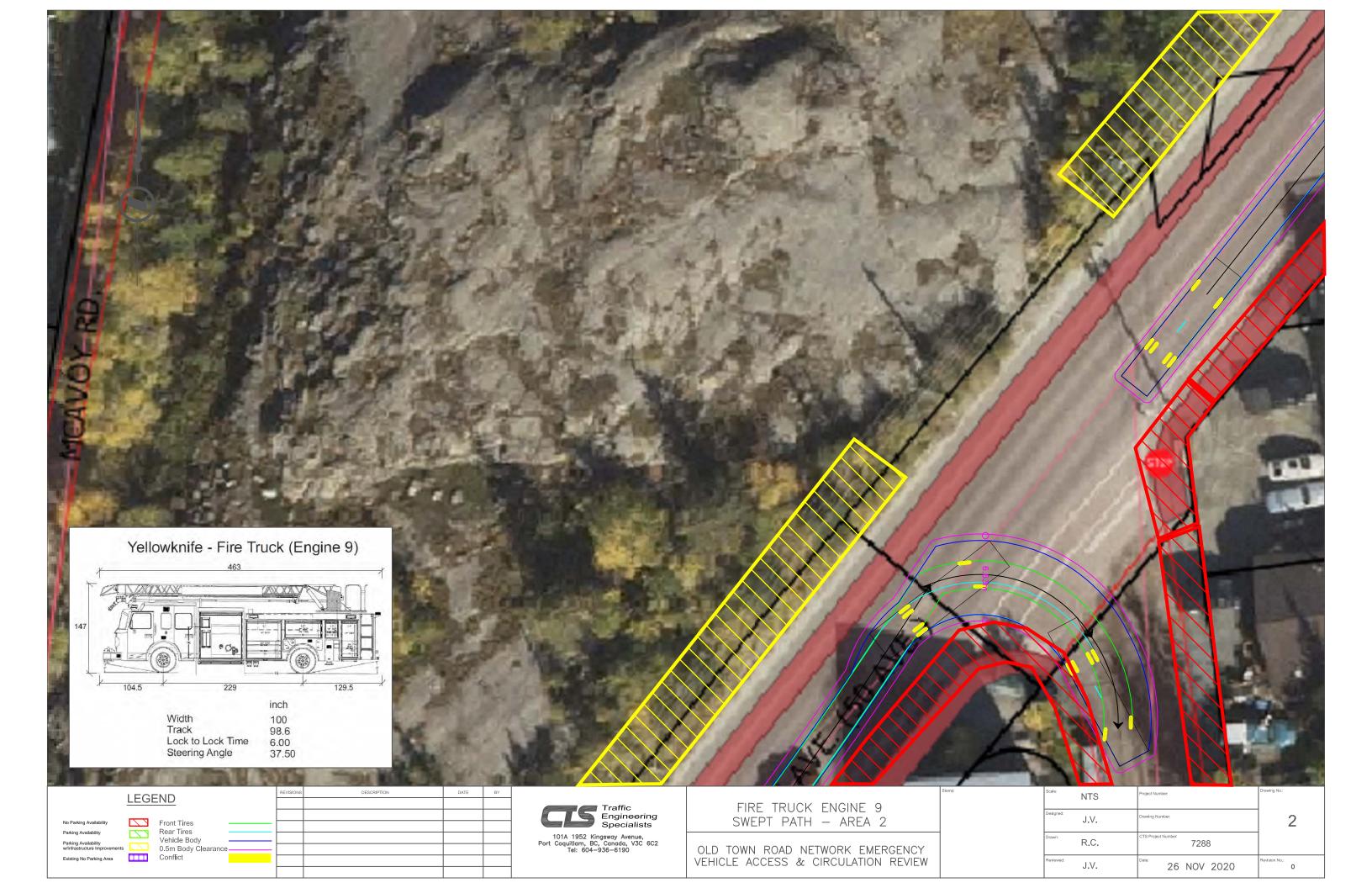




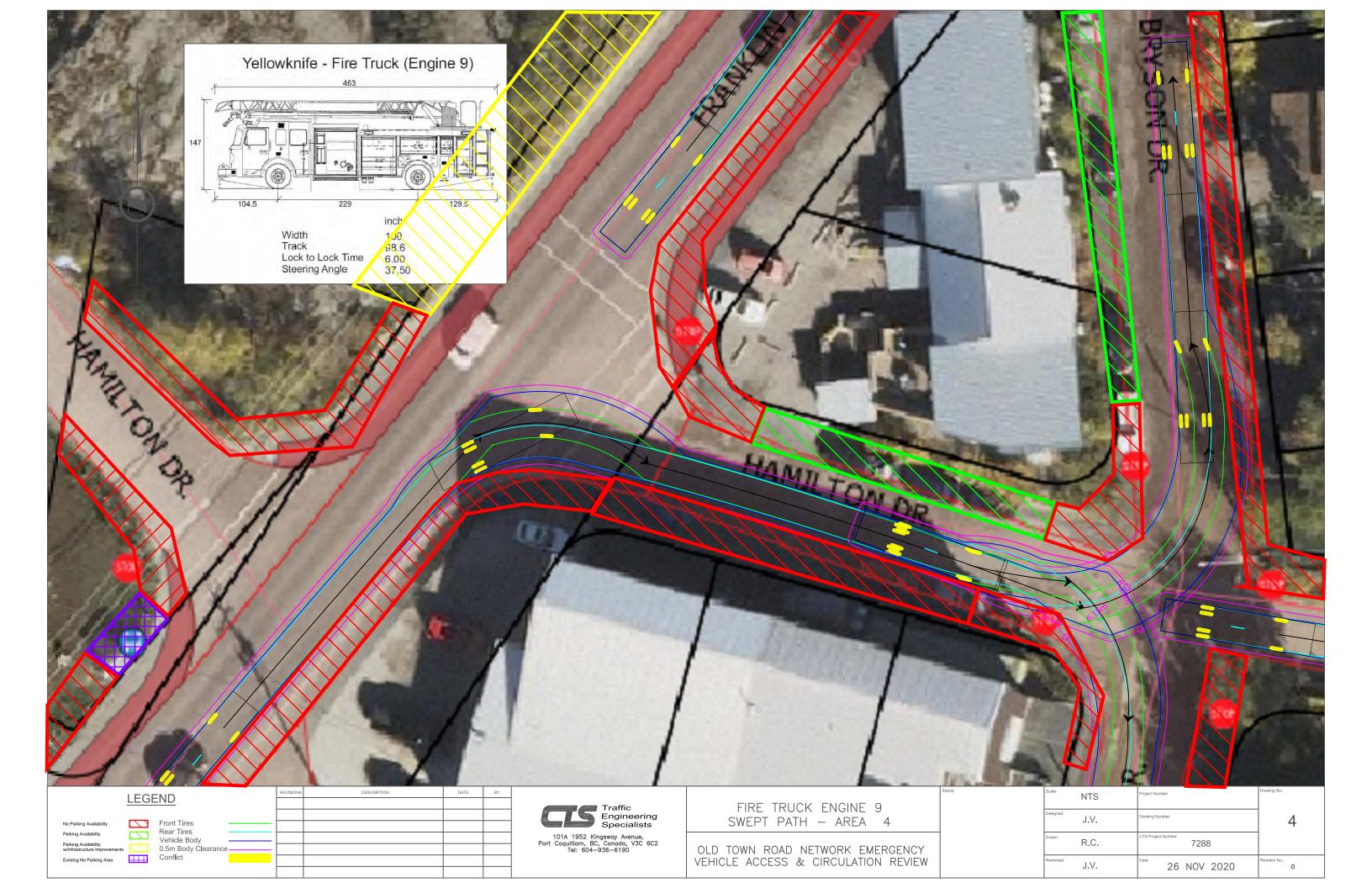


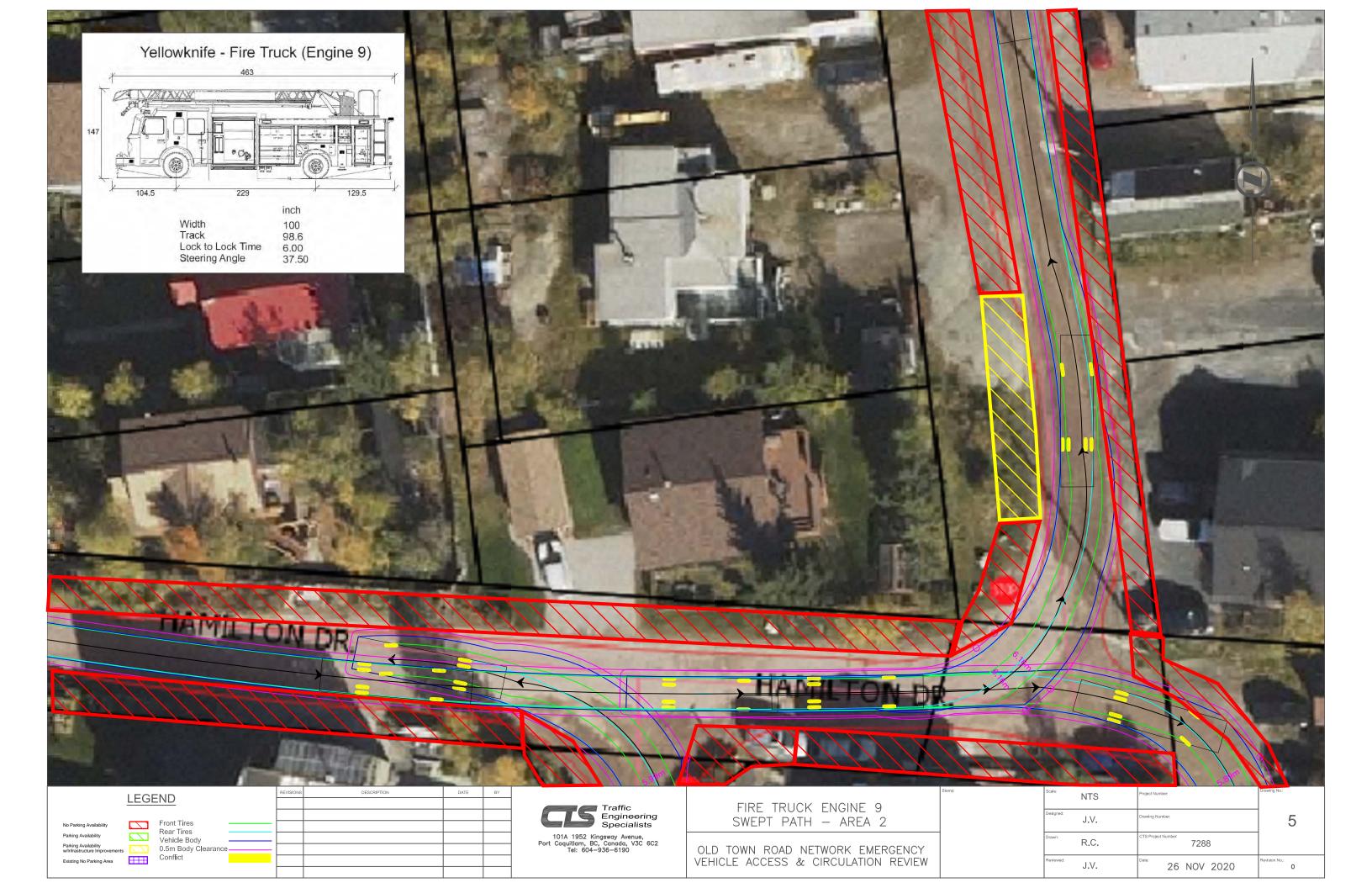


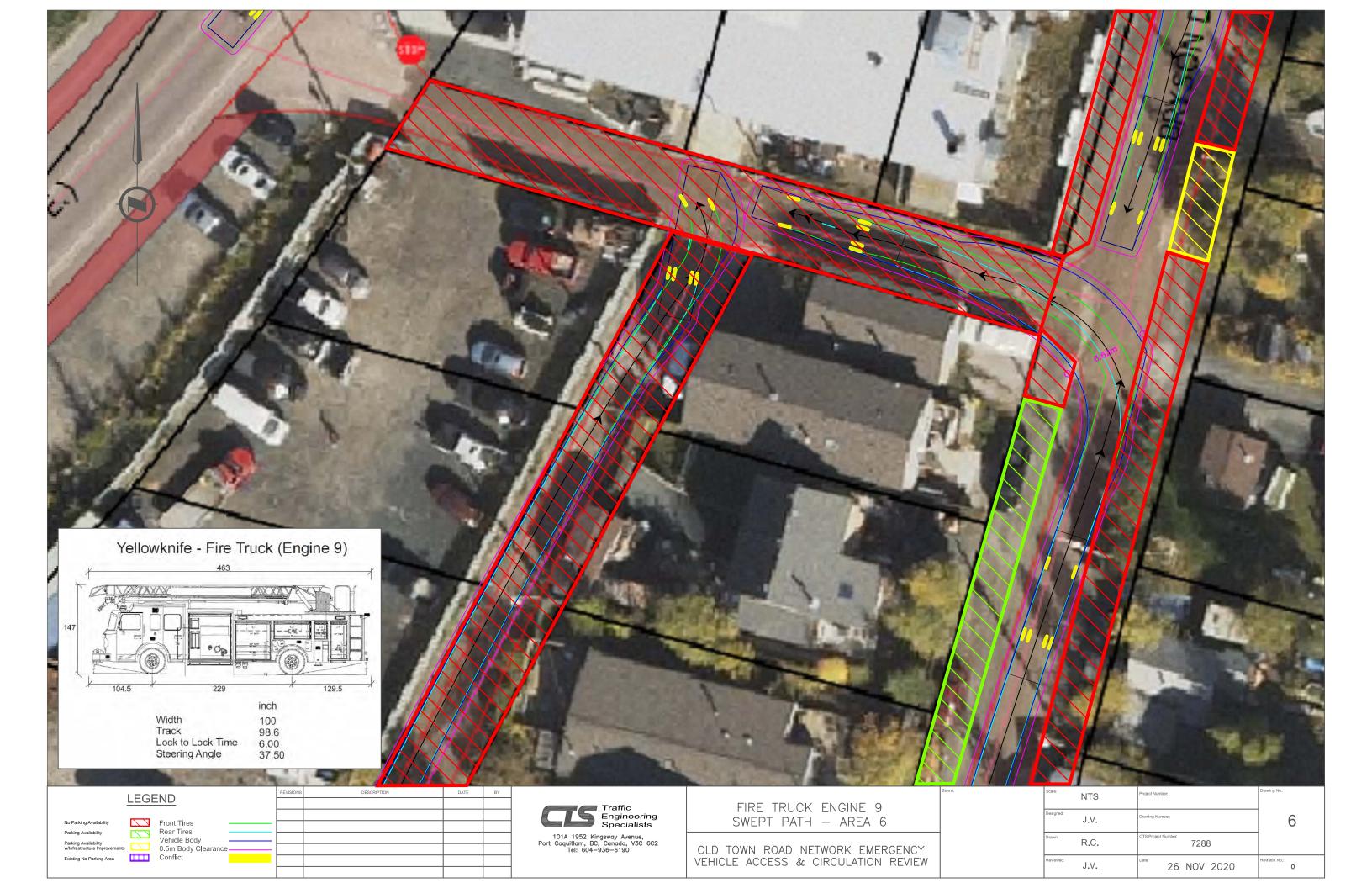


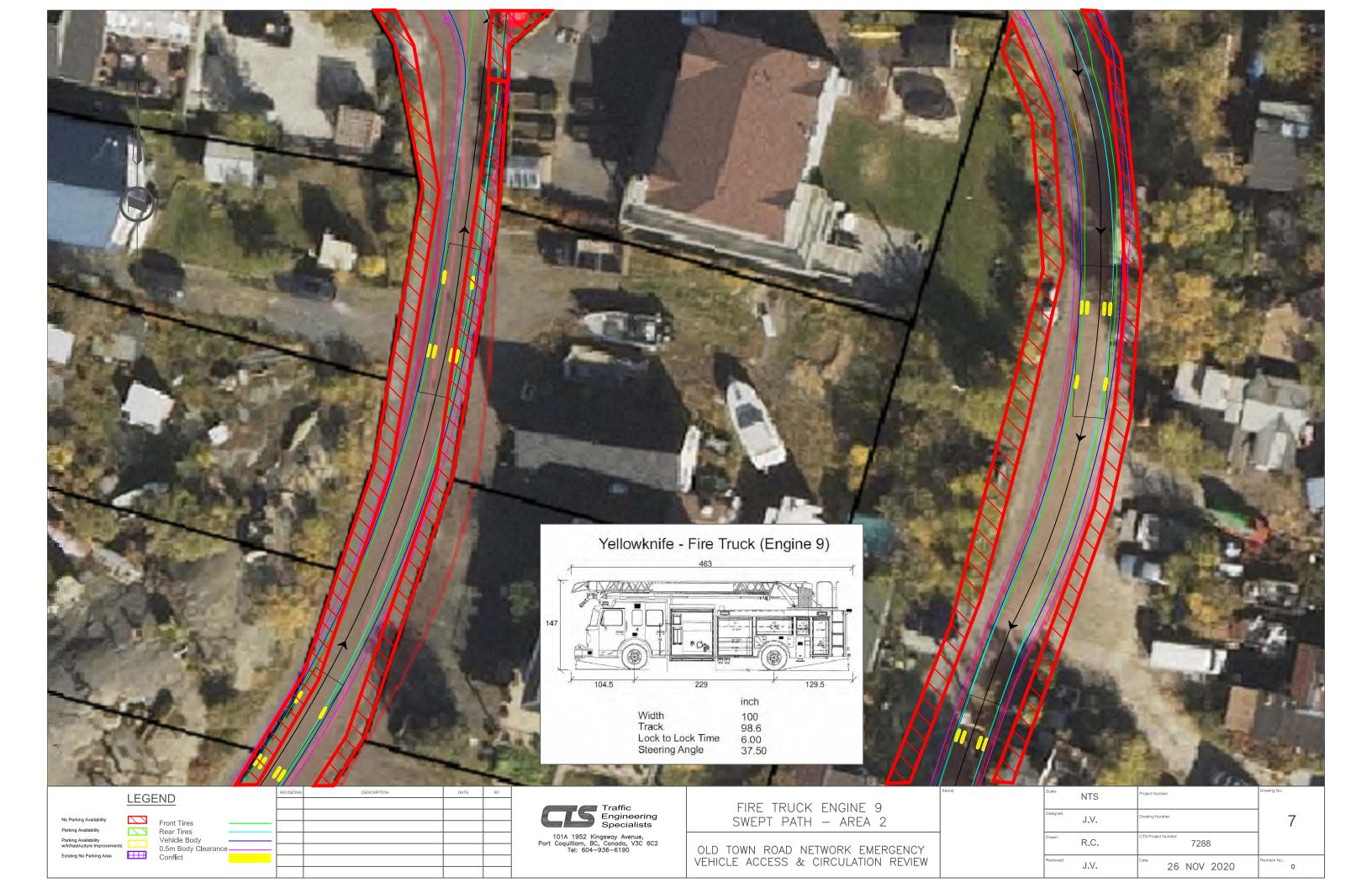


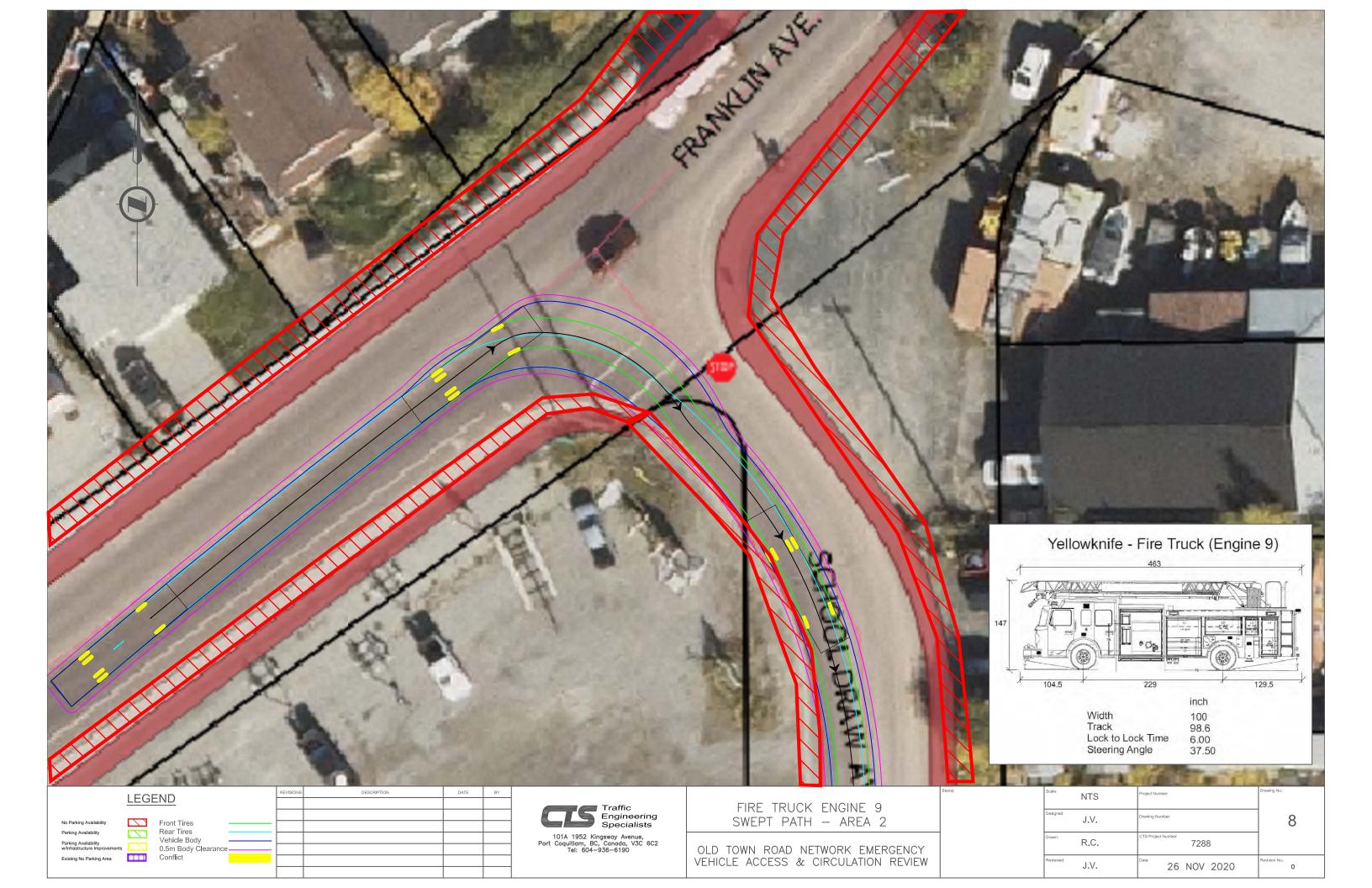




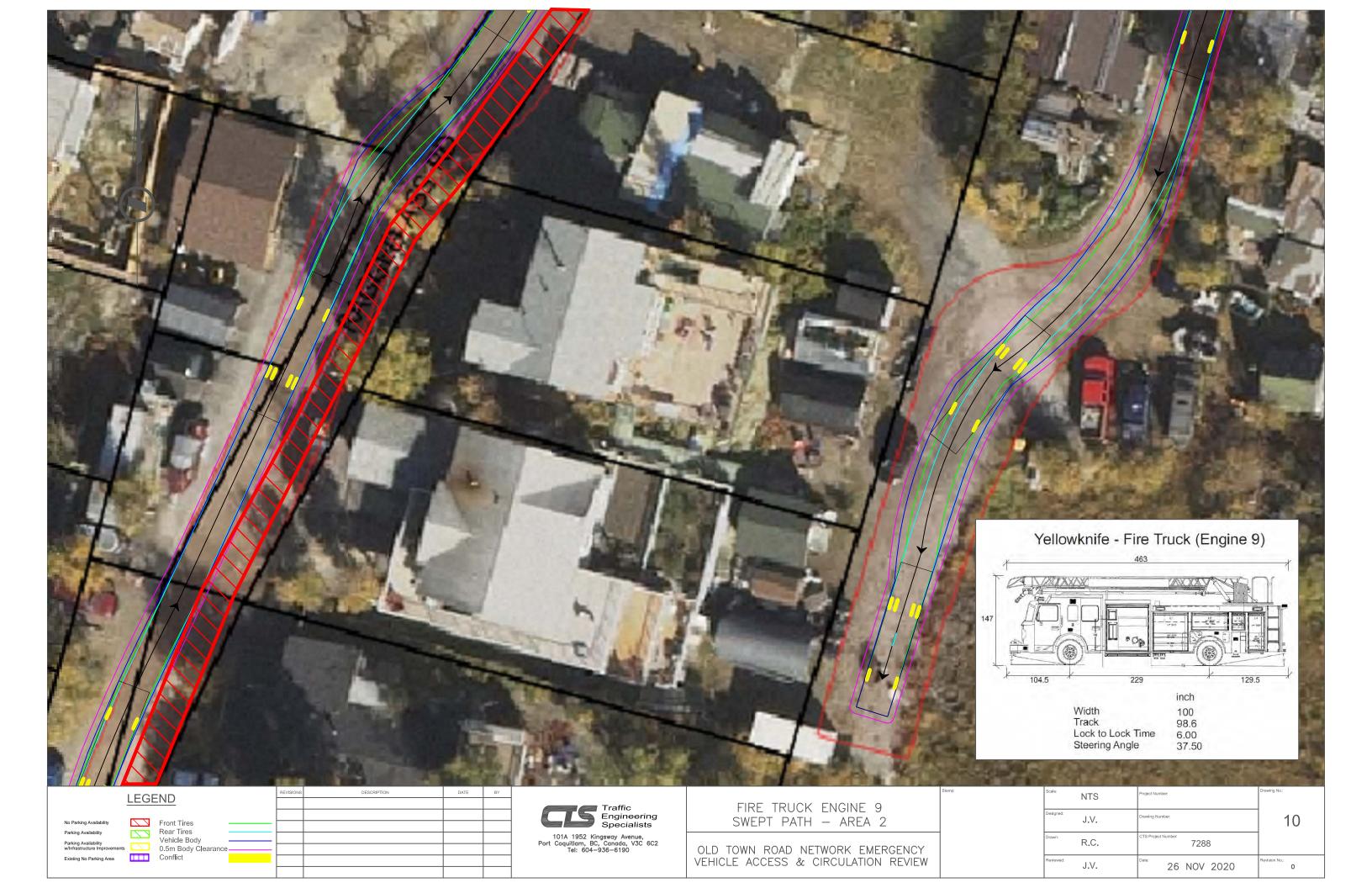


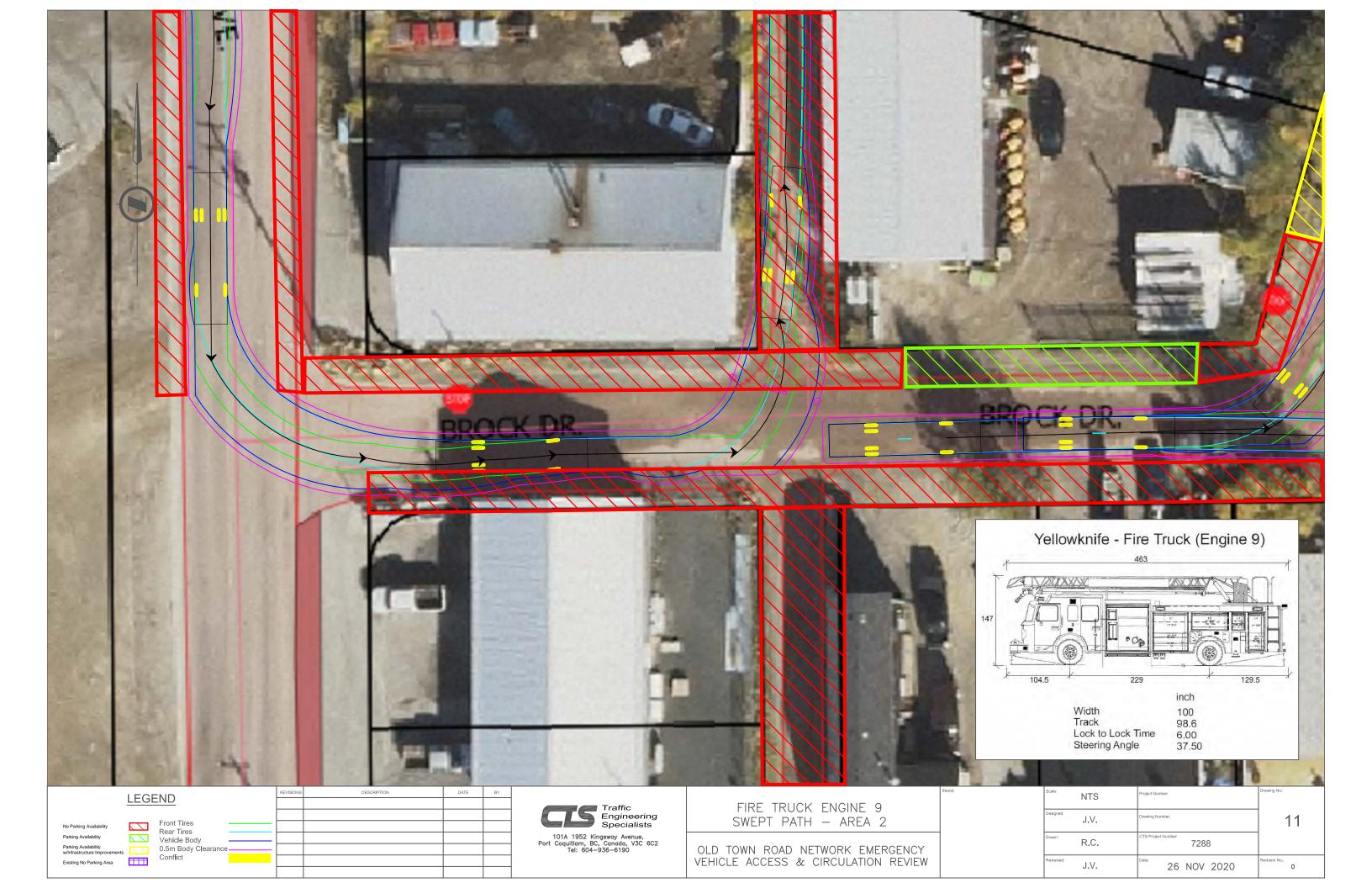


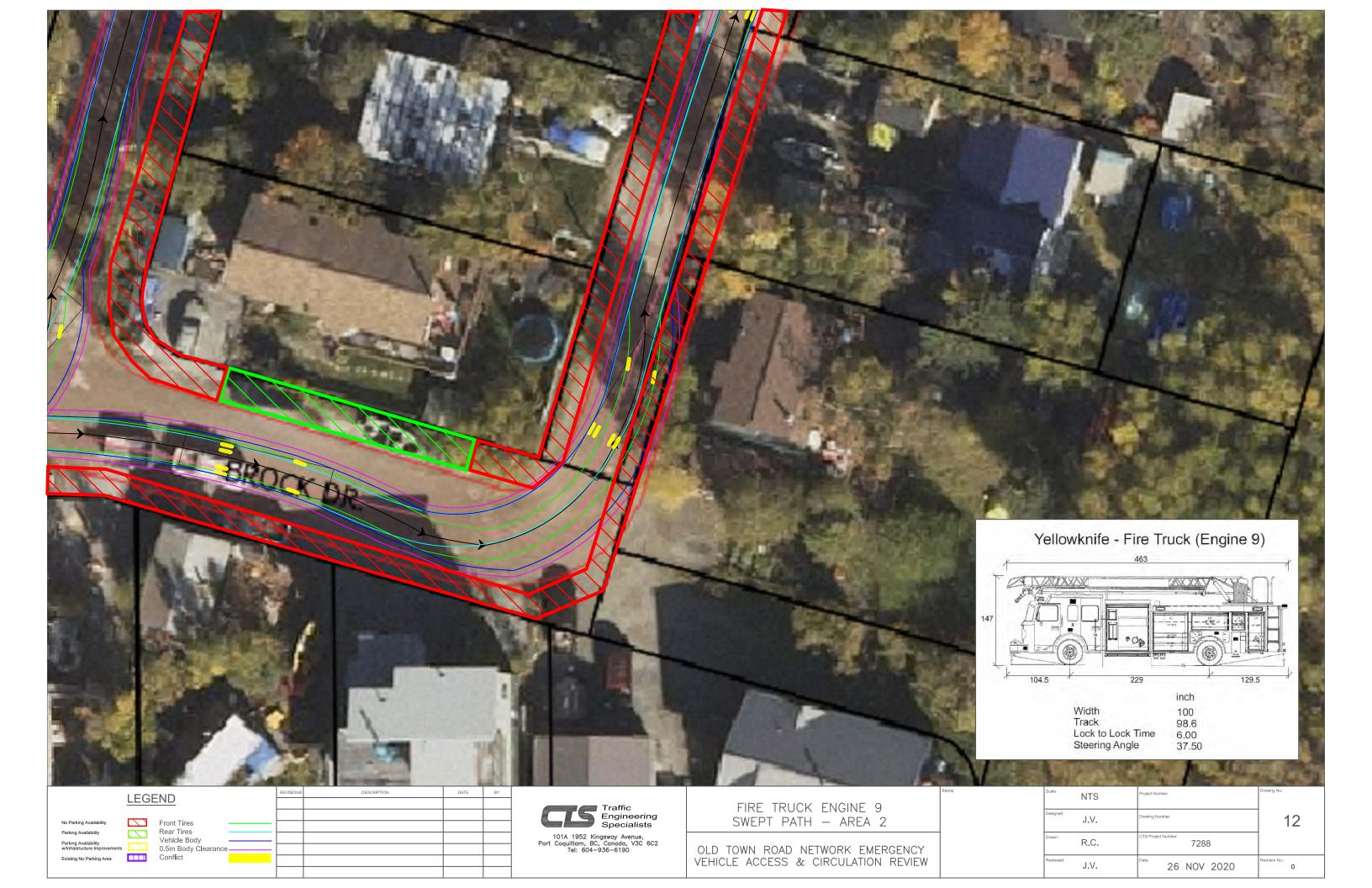


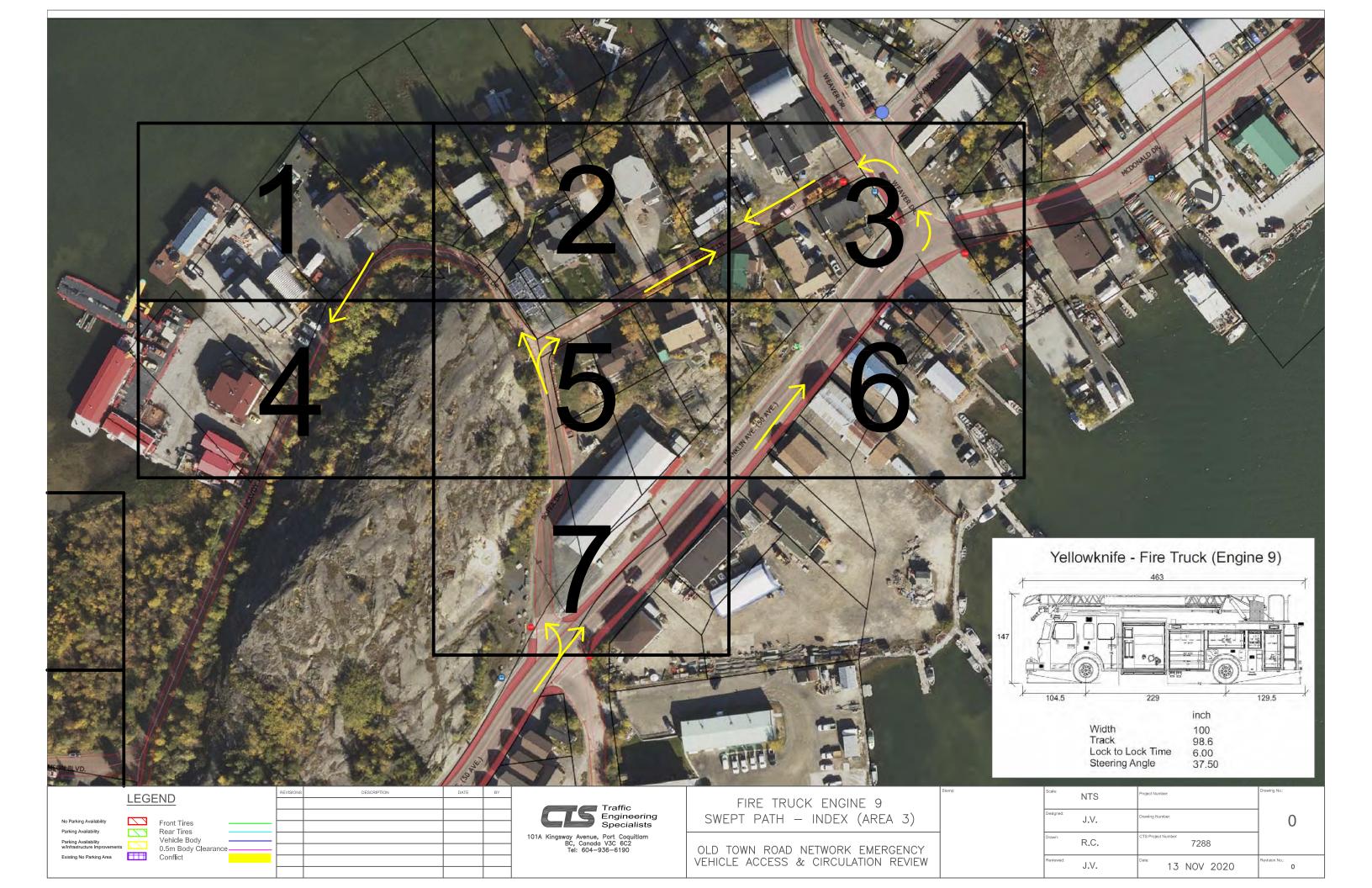






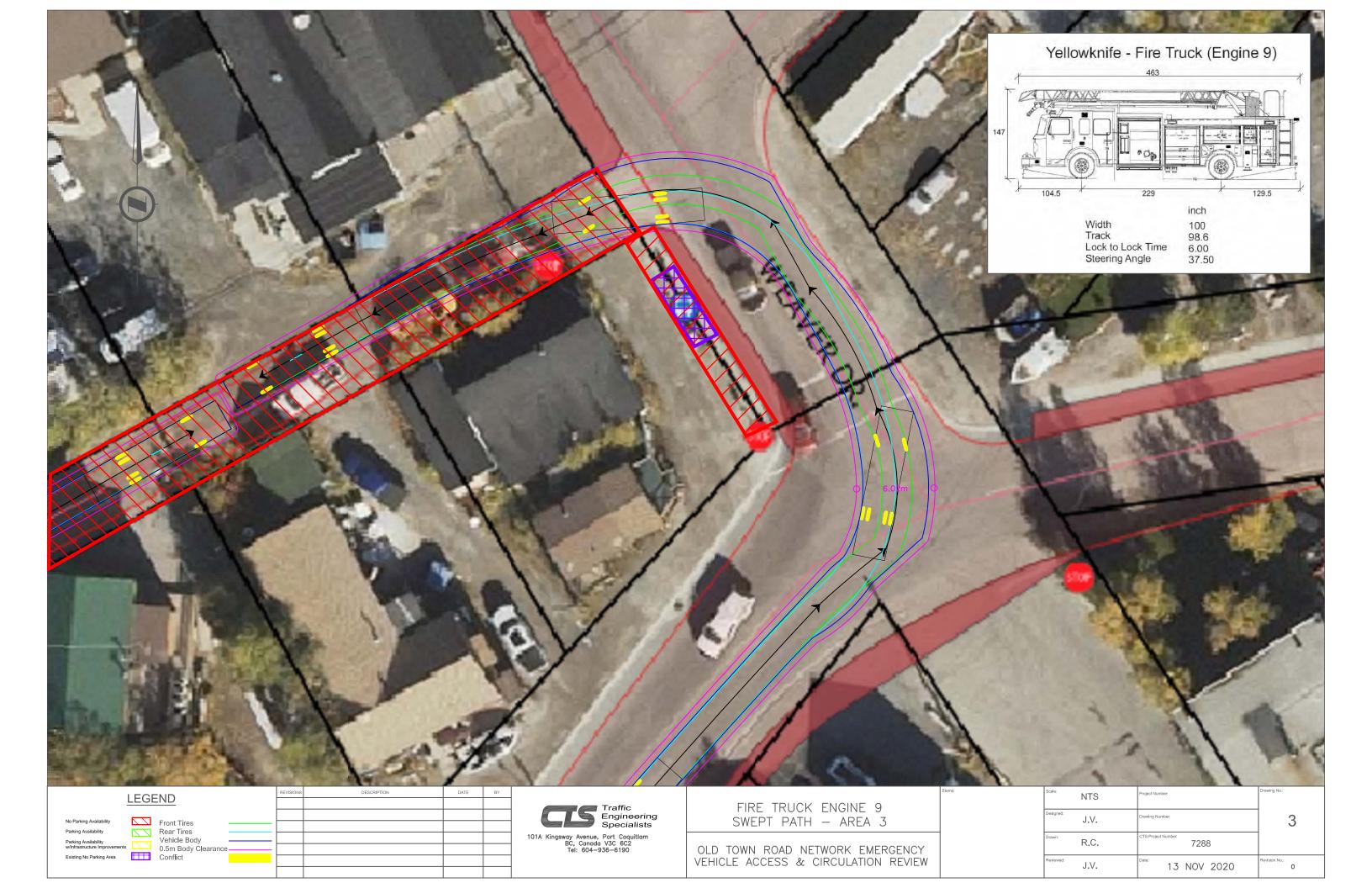


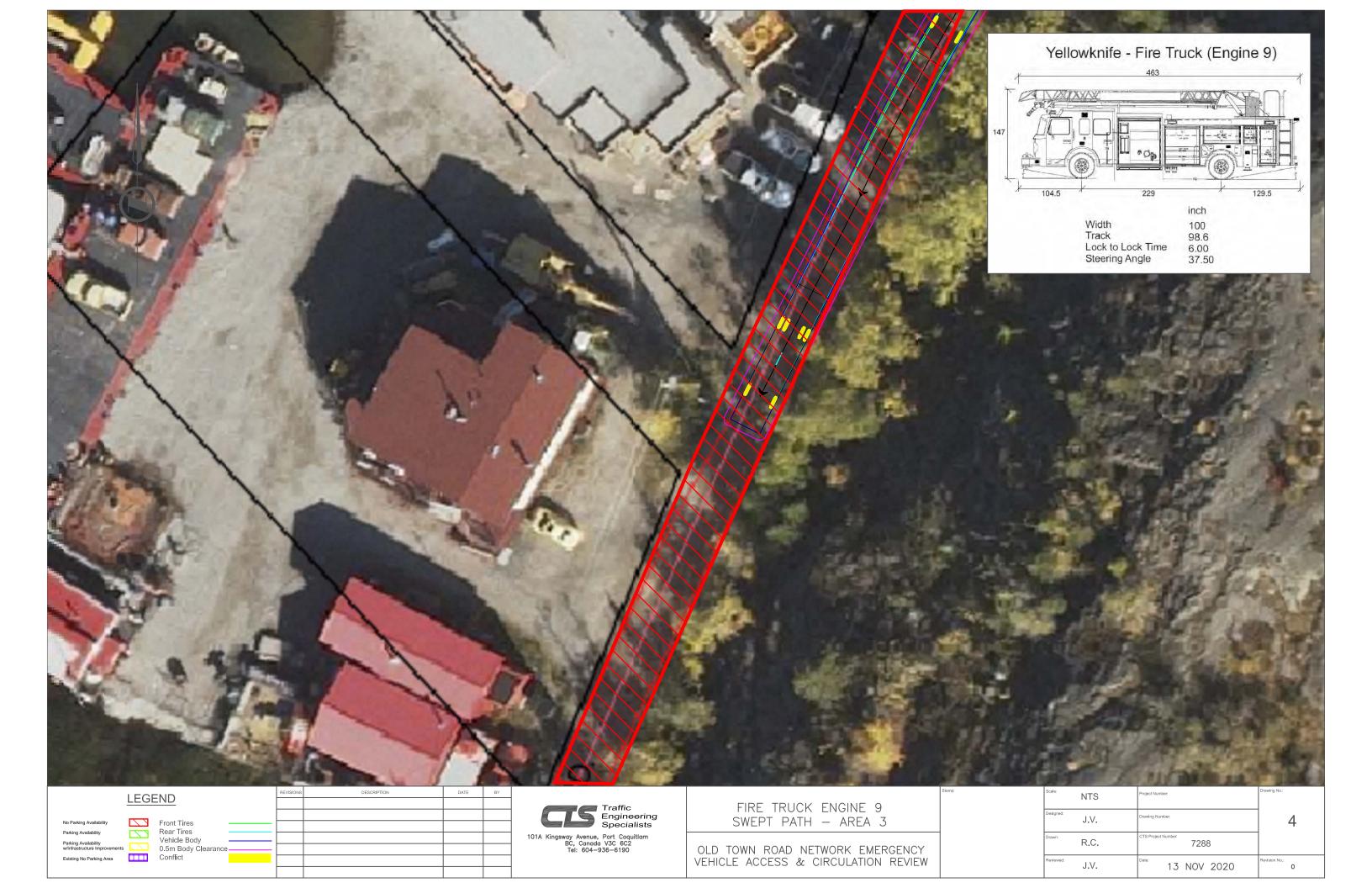


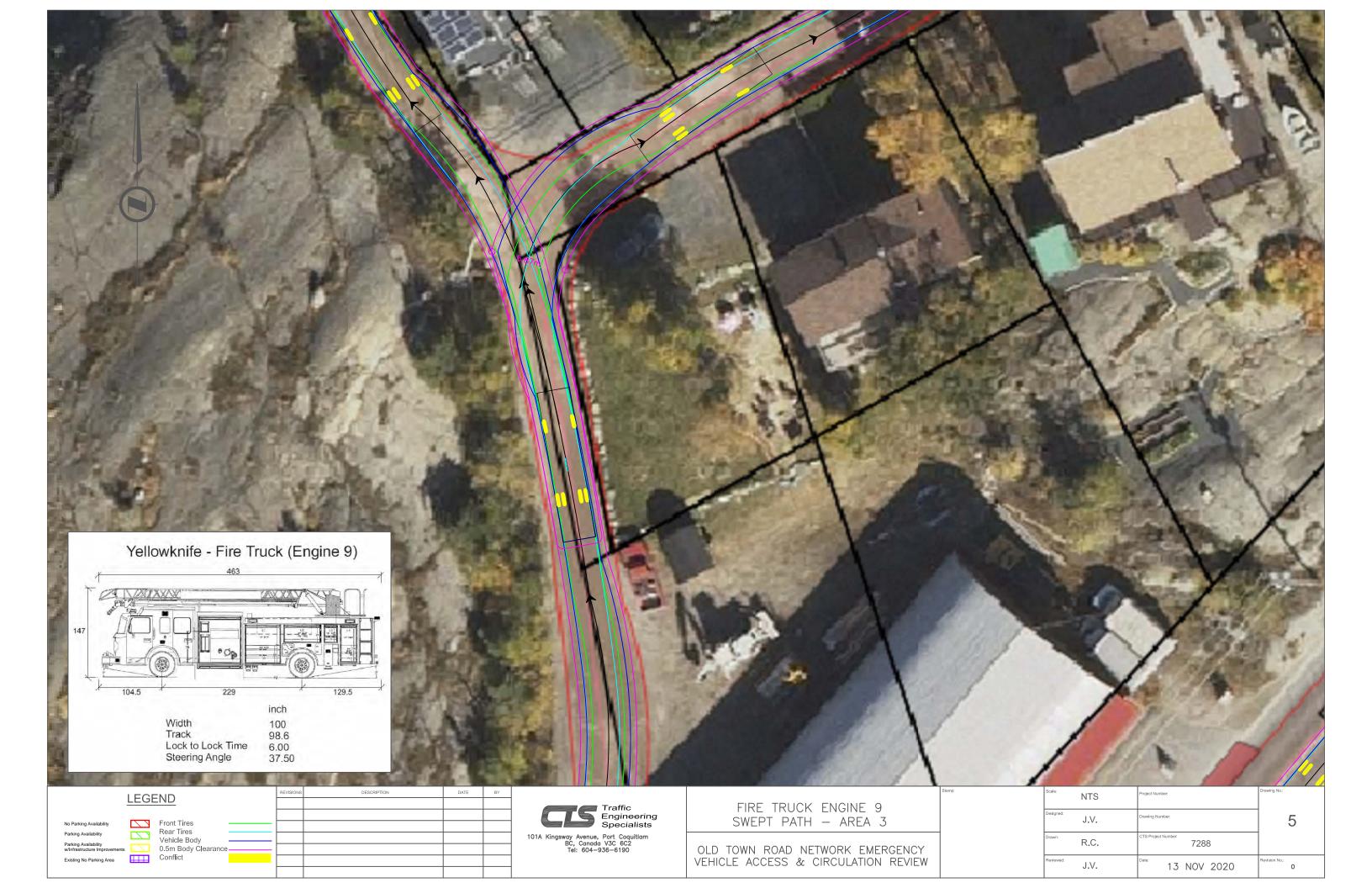


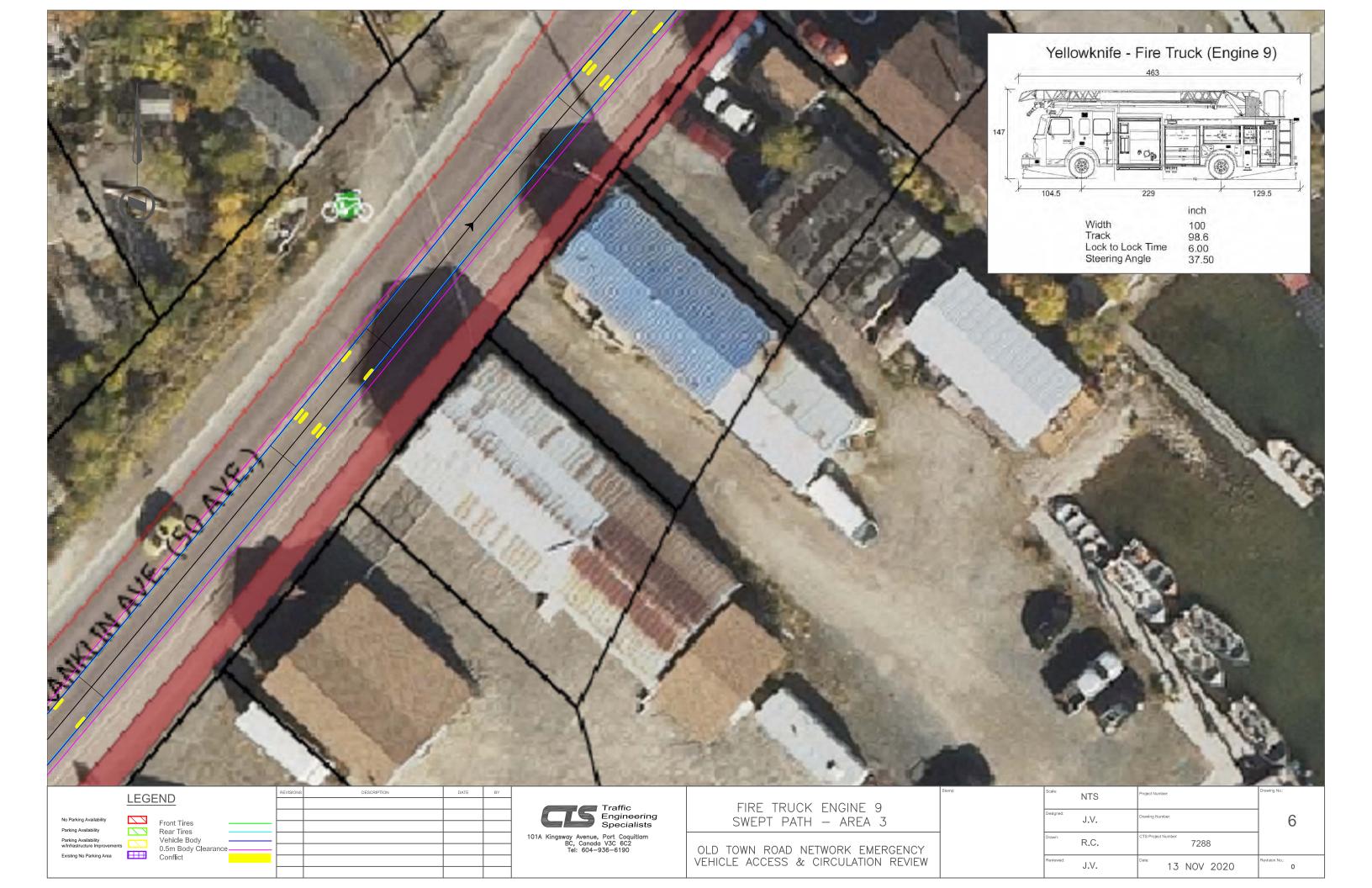


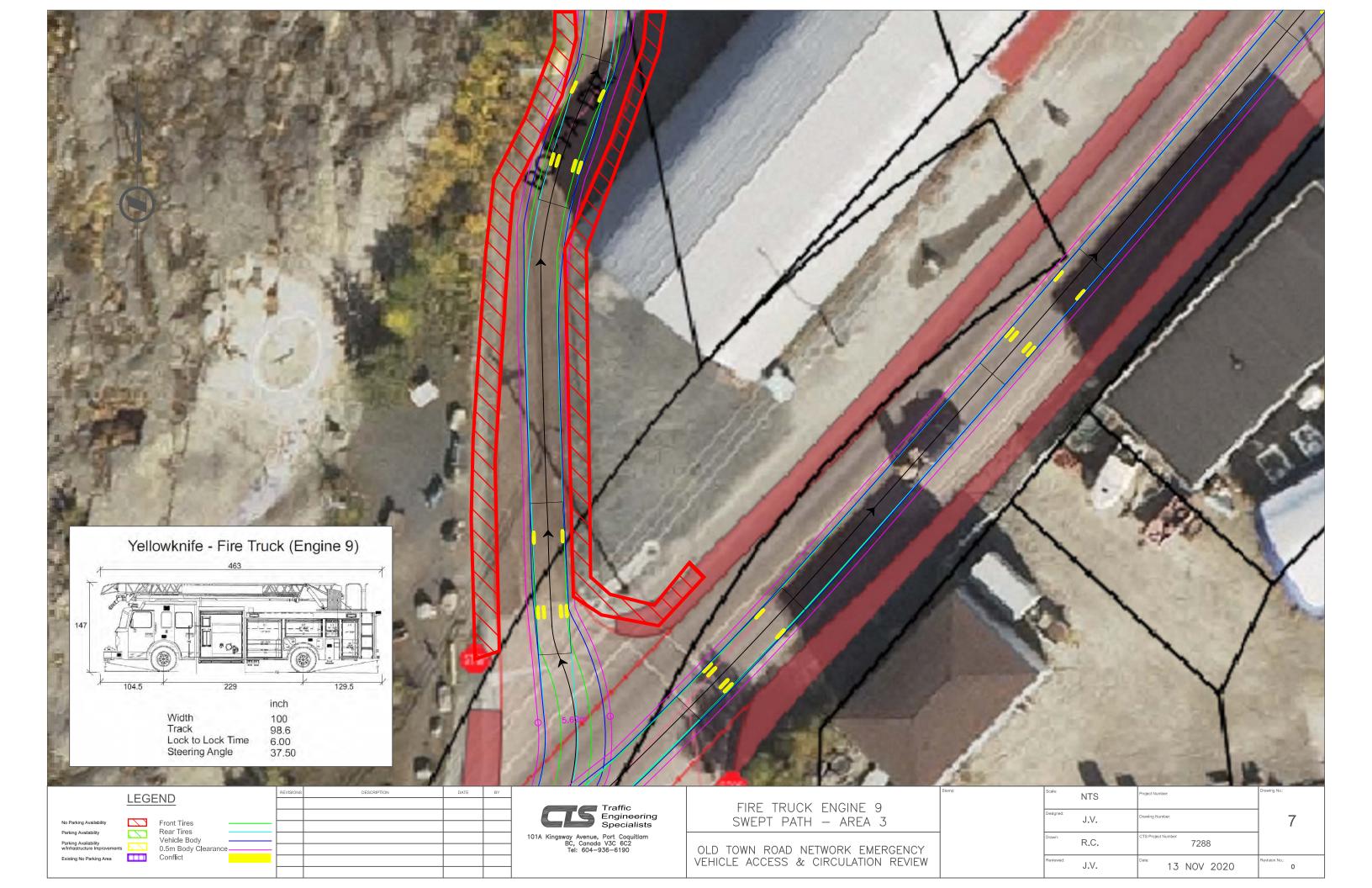


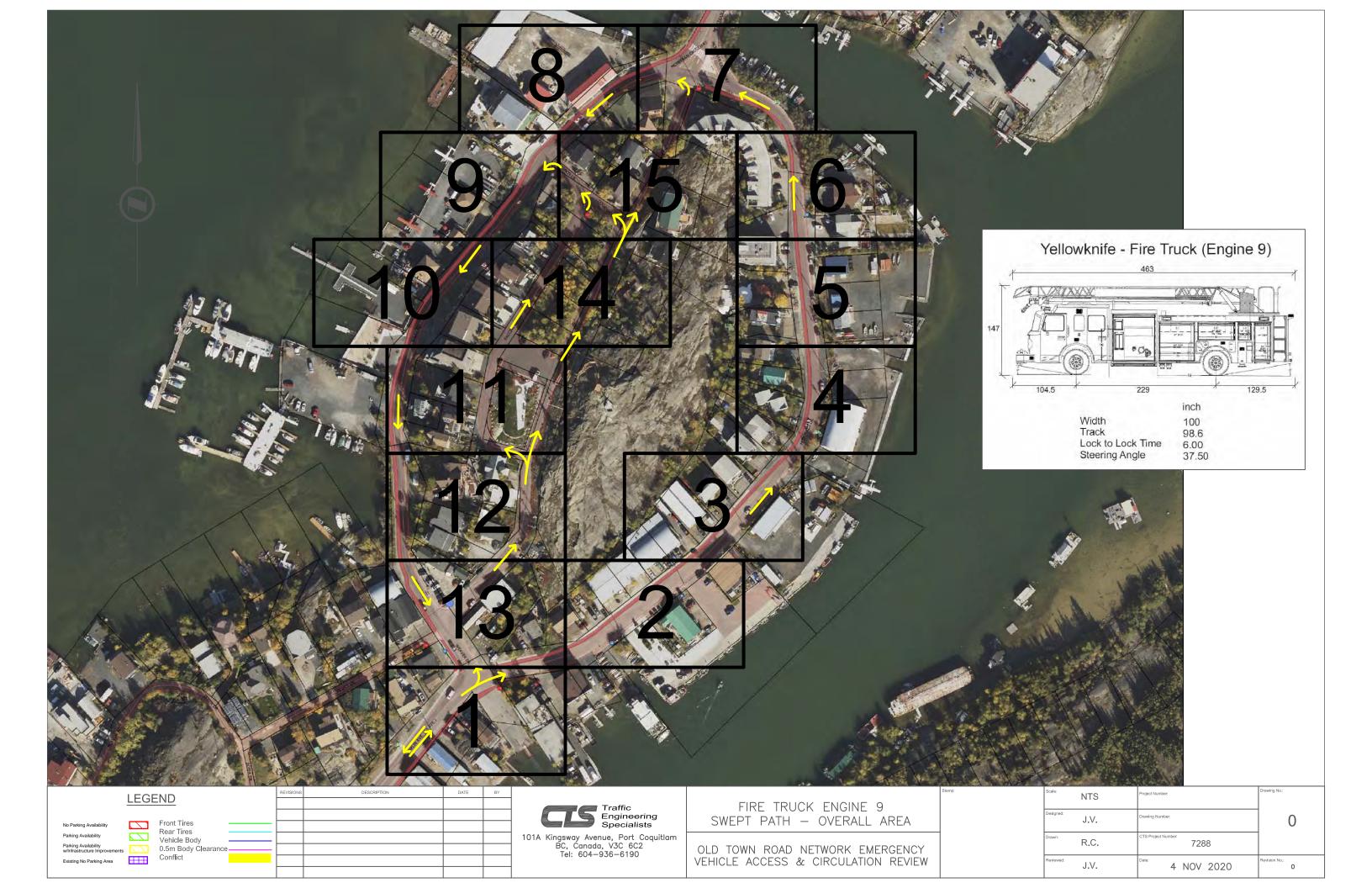


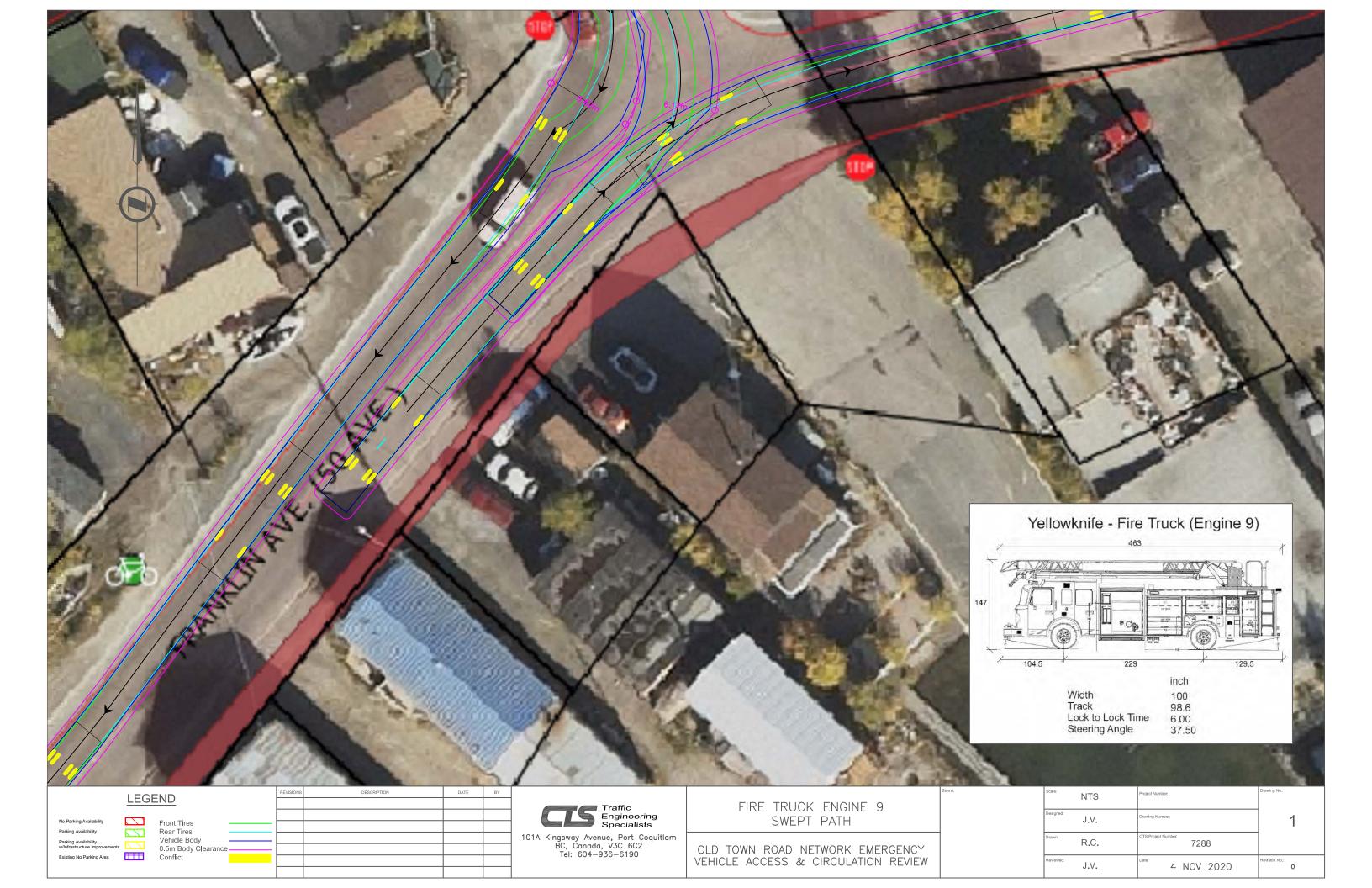


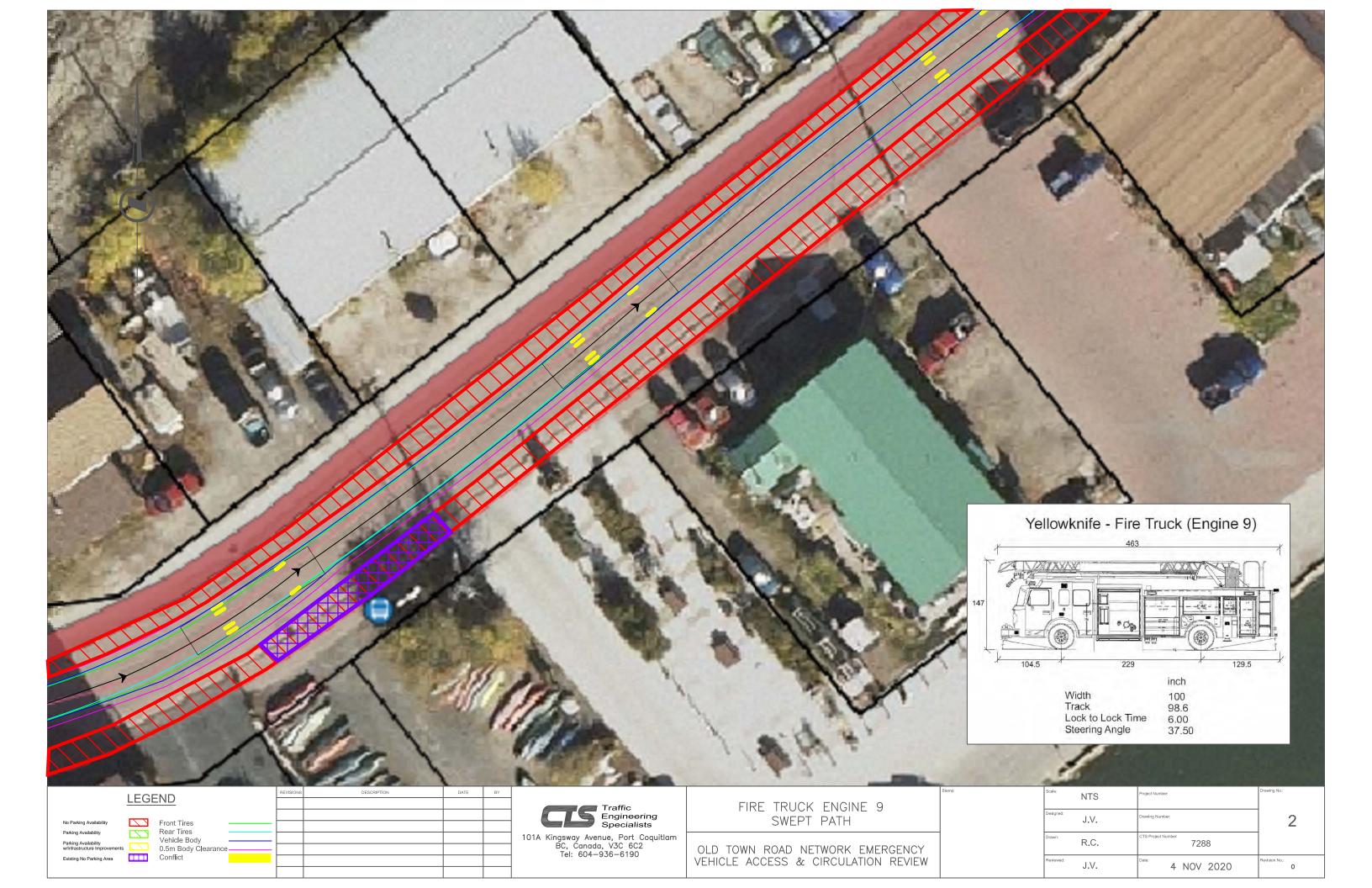


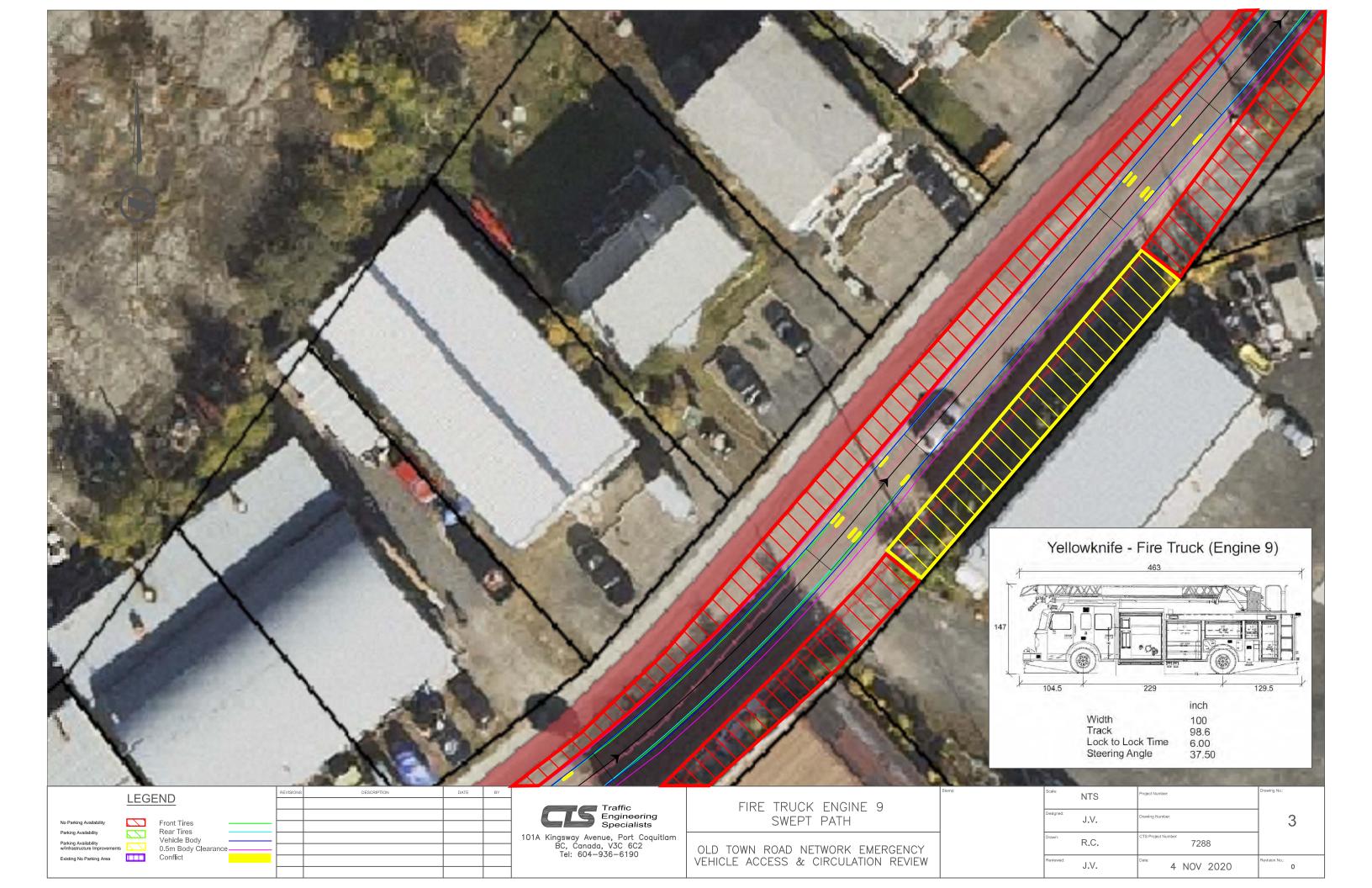


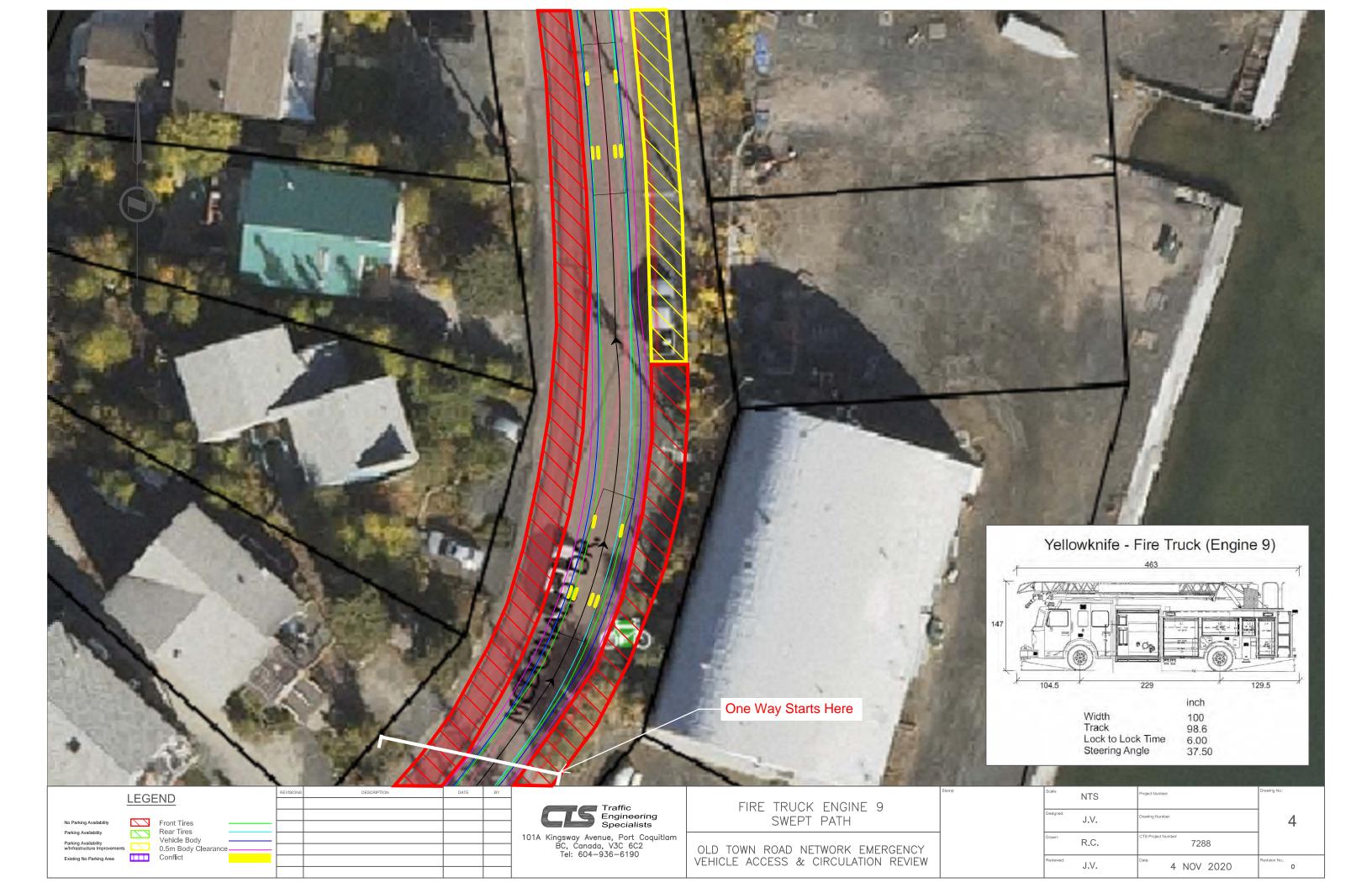


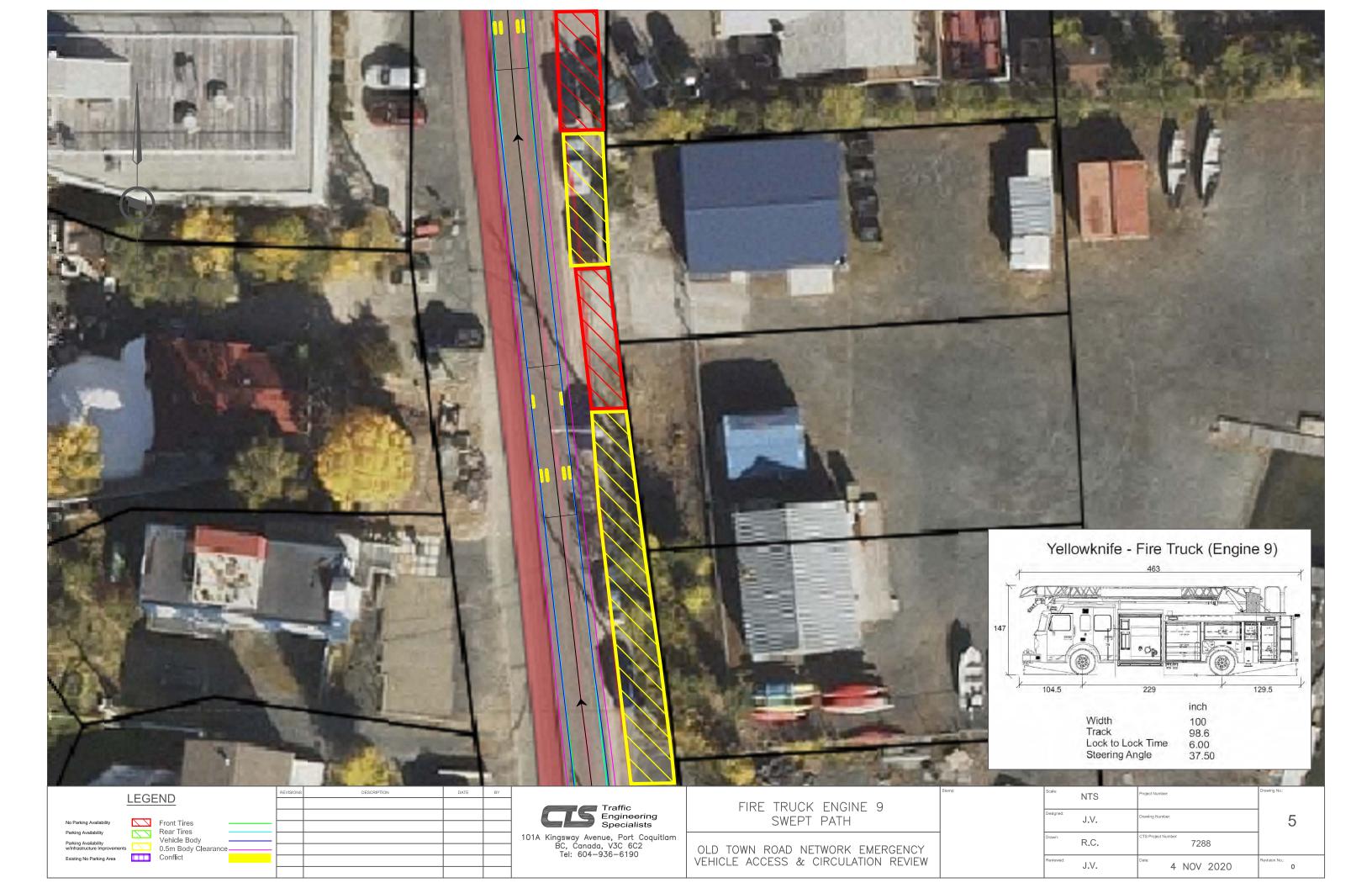


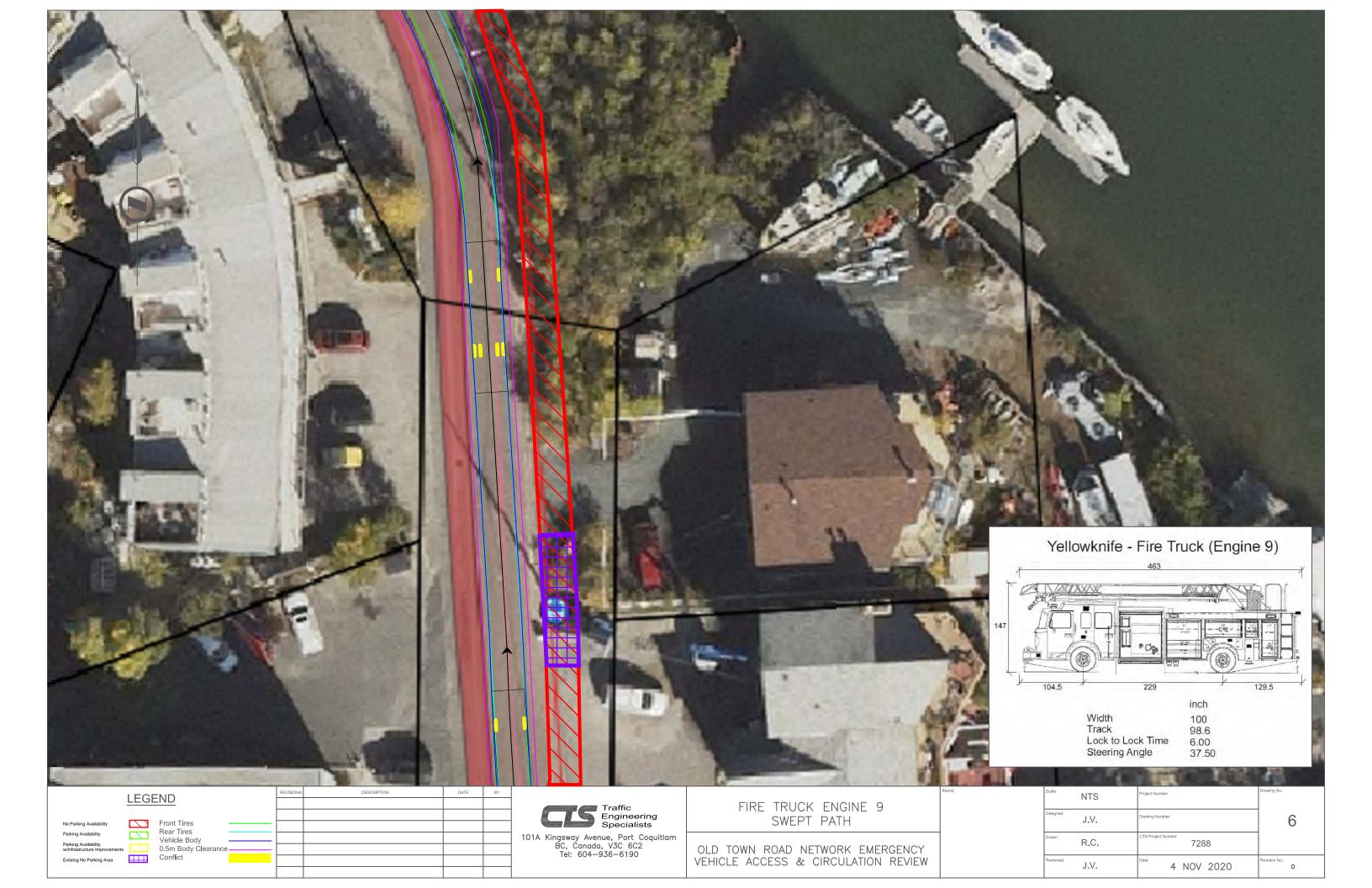


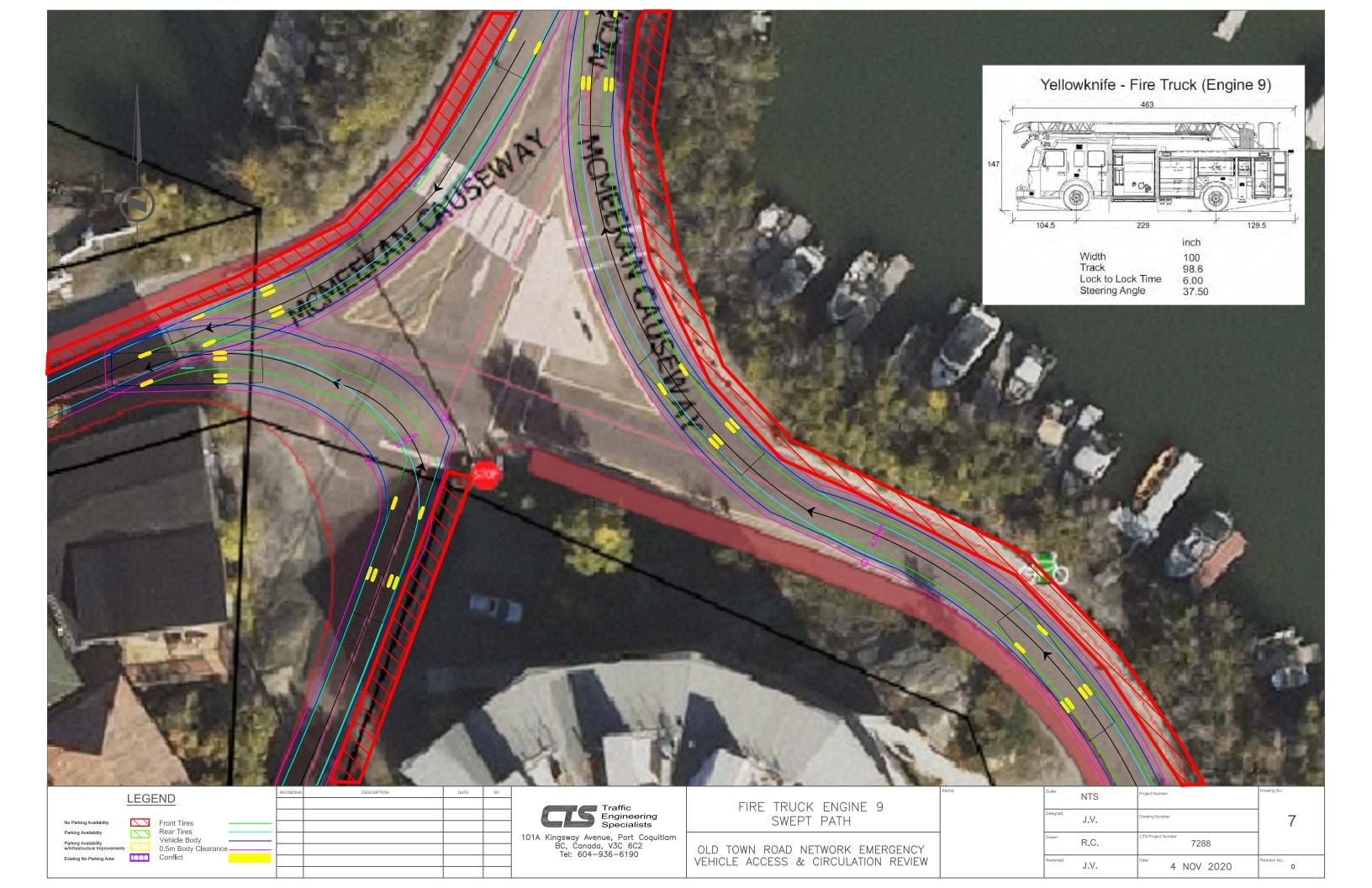












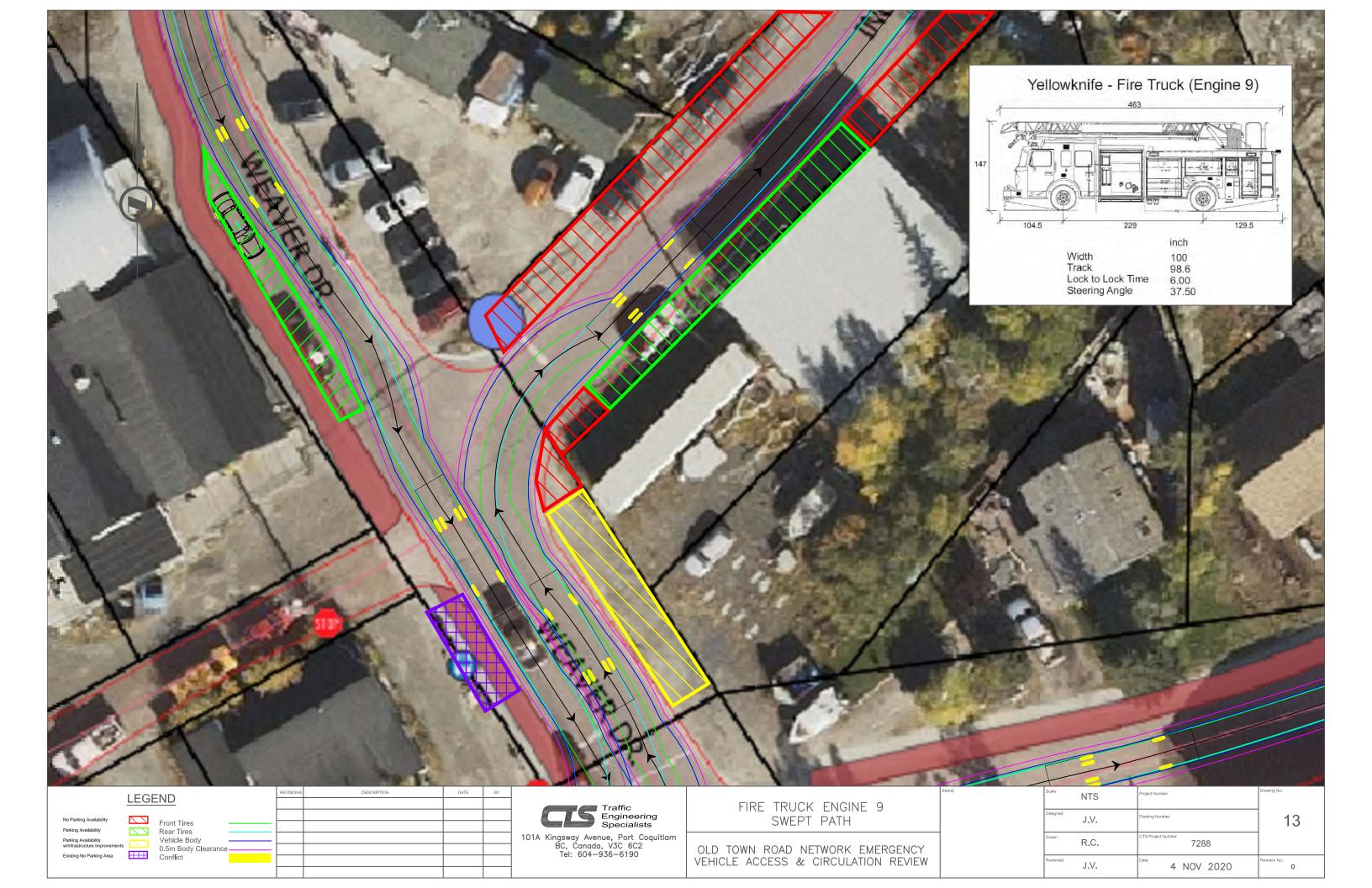
















### APPENDIX C: JURISDICTIONAL ANALYSIS OF RESIDENTIAL PARKING PASS PROGRAMS

#### **Town of Banff**

- Two hour parking time limit for everyone, residential parking permit holders exempted. In place year round, 24 hours.
- \$50.00 fee
- Valid for 1 year
- Guest passes- two per dwelling unit at a time, limited to 10 per month. No charge.
- Qualifier: 1 pass per residence.

## **Town of Jasper**

- Residential parking passes available for residents one block away from major tourist areas. In place from 9:00 am to 5:00 pm.
- Free
- Guest passes- two per dwelling unit at a time; \$5 dollar fee for guest passes for Bed and Breakfasts

### City of Saint John

- Two hour parking time limit for everyone, residential parking permit holders exempted. In place year round, 24 hours.
- \$60.00 fee
- Valid for 1 year
- One vehicle/dwelling unit
- Temporary Residential Zone Parking Permits available for guests- 7.00/vehicle
- Qualifier: Must have no off-street parking available to the resident.

# **City of Prince George**

- Varying parking time limits for everyone, residential parking permit holders exempted. In place year round, 24 hours.
- Free
- Valid for 1 year
- Two vehicles/dwelling unit
- Guest Passes- 1 per dwelling unit at a time, valid for 2 days. No charge.

### **City of Edmonton**

- Varying parking time limits for everyone dependent on area, residential parking permit holders exempted.
- Areas near stadiums only have parking exemptions in place during events.
- Free
- Valid for 1 year, staggered renewal dates
- Guest passes available, and Temporary Residents can apply for a temporary residential parking permit
- Qualifier: Available to residents of single detached homes and multi-family buildings under 4 storeys in height.

#### **Grande Prairie**

- Permit Parking in effect from 8:00 am to 6:00 pm in areas around schools
- Free
- 1 per household, additional permits can be applied for and evaluated on case by case basis
- Qualifier: available to residents in the specified areas.

### City of Regina

- Provides parking passes for neighbourhoods near DT, hospitals or schools.
- \$15.00 fee
- Valid for 1 year
- One vehicle/dwelling, only exempts vehicles when parked on the same road as house
- Guest passes available at \$15.00
- Qualifier: Unavailable for residents in apartments or apartment-style buildings.

## **City of Nelson**

- Provides parking passes for neighbourhoods near DT. Where signage indicates "Residential Parking", a permit is required at all times. Where signage indicates "2-hour Parking", a parking permit is required to park for longer than two hours between 8:00 AM and 6:00 PM.
- No fee
- Valid for 1 year
- A parking permit may be shared between two vehicles
- Qualifier- may only be issued if the dwelling unit does not have off-street parking

### City of Vernon (Policy & detailed process)

- Provides Resident Exempt Parking Areas (REPAs) for areas near hospitals, community centres, and shopping districts, upon initiation from the neighbourhood.
- 12.50 fee
- Valid for 1 year
- Amount of permits dependent on units in the REPA
- Qualifier- must be a low density area, the City assesses the needs of all uses in the area on case-by-case basis.

## **City of Brandon**

- Provides parking passes where required
- No fee
- Valid for 1 year, expire all at once on April 30
- No max amount of permits, must prove residency