

Duke Point Area inset

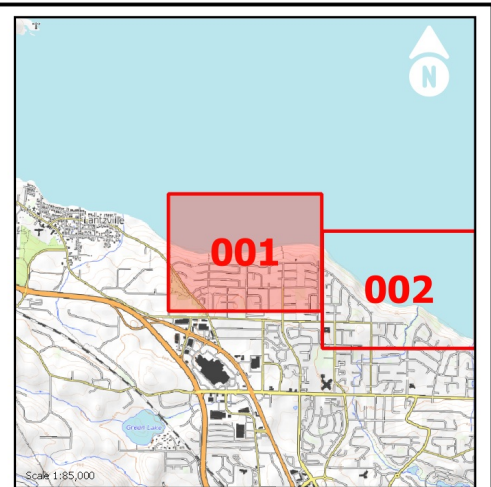
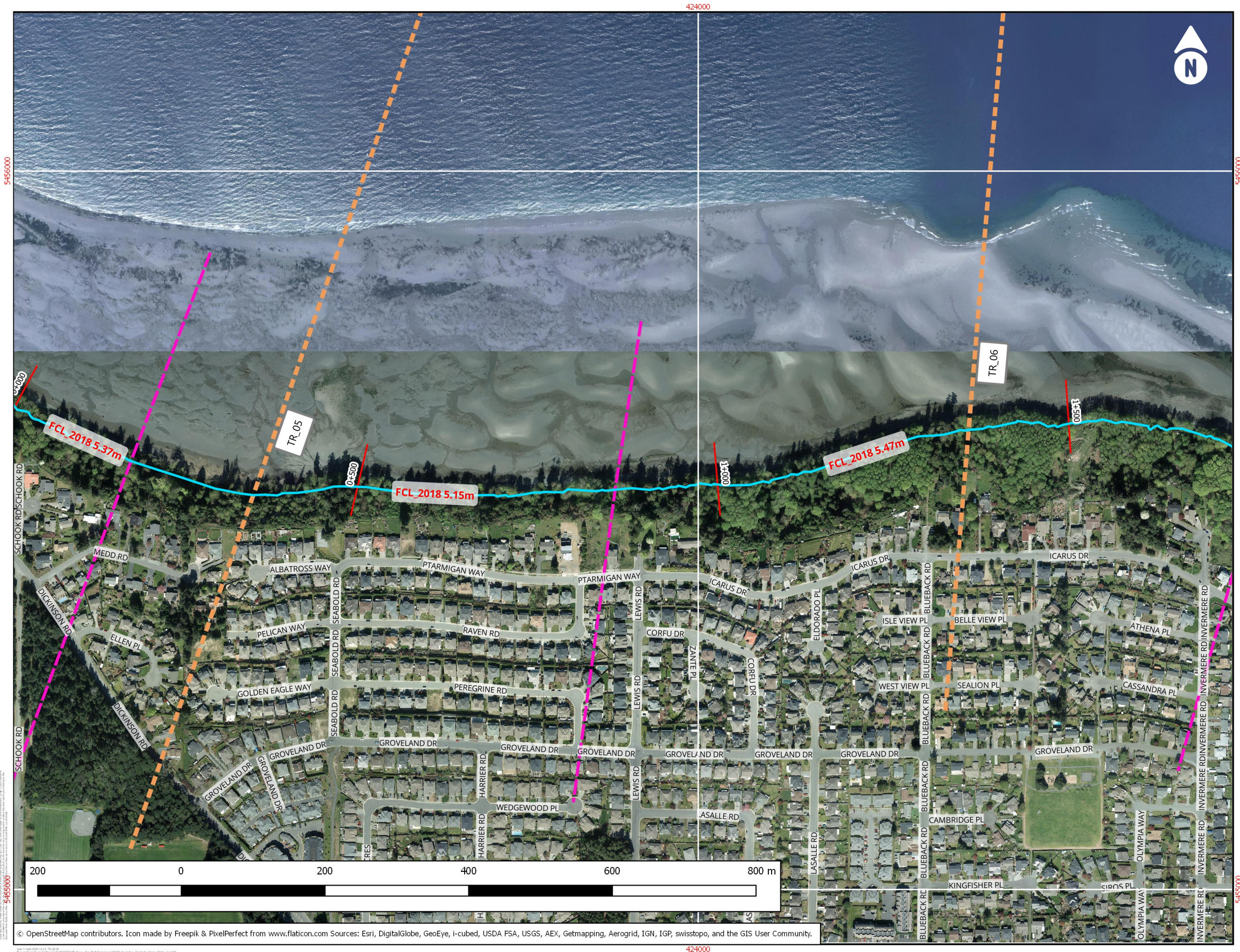
Legend
 — FCL_2018_L

Document Path: I:\DSD ENGINEERING\Environment\Climate Adaptation\Sea Level Rise Study\Final Documents\GIS Files\GIS\GIS\Sea Level Rise GIS Mapping Index Map.mxd

Date: Oct 23 2019
 Drawn By: CLS
 Scale: NTS



Sea Level Rise Key Plan



- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - Coastal Analysis Transect Location
 - 2018 FCL

- Uses and Limitations of Flood Construction Level Map**
1. Users must note that Flood Construction Levels are not inundation extents. FCLs are the maximum water elevation at the land/water interface. Inundation extents require further detailed hydraulic modelling that was outside the scope of this project. Please see the accompanying report for further information (Sea Level Rise Study Report, Dec 2018, AE & DHI).
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 5. Flood Construction level is based on a global sea level rise of 0.5 m by the year 2050 and 1 m by the year 2100.
 6. 2016 orthoimagery supplied by City of Nanaimo & Esri World Imagery.
 7. Users must note the dates of base mapping, aerial photography, ground or bathymetric surveys and issue of mapping relevant to dates of development in the map area. Subsequent changes along the coastline and/or in the floodplain can affect flood construction levels and render site-specific map information obsolete.



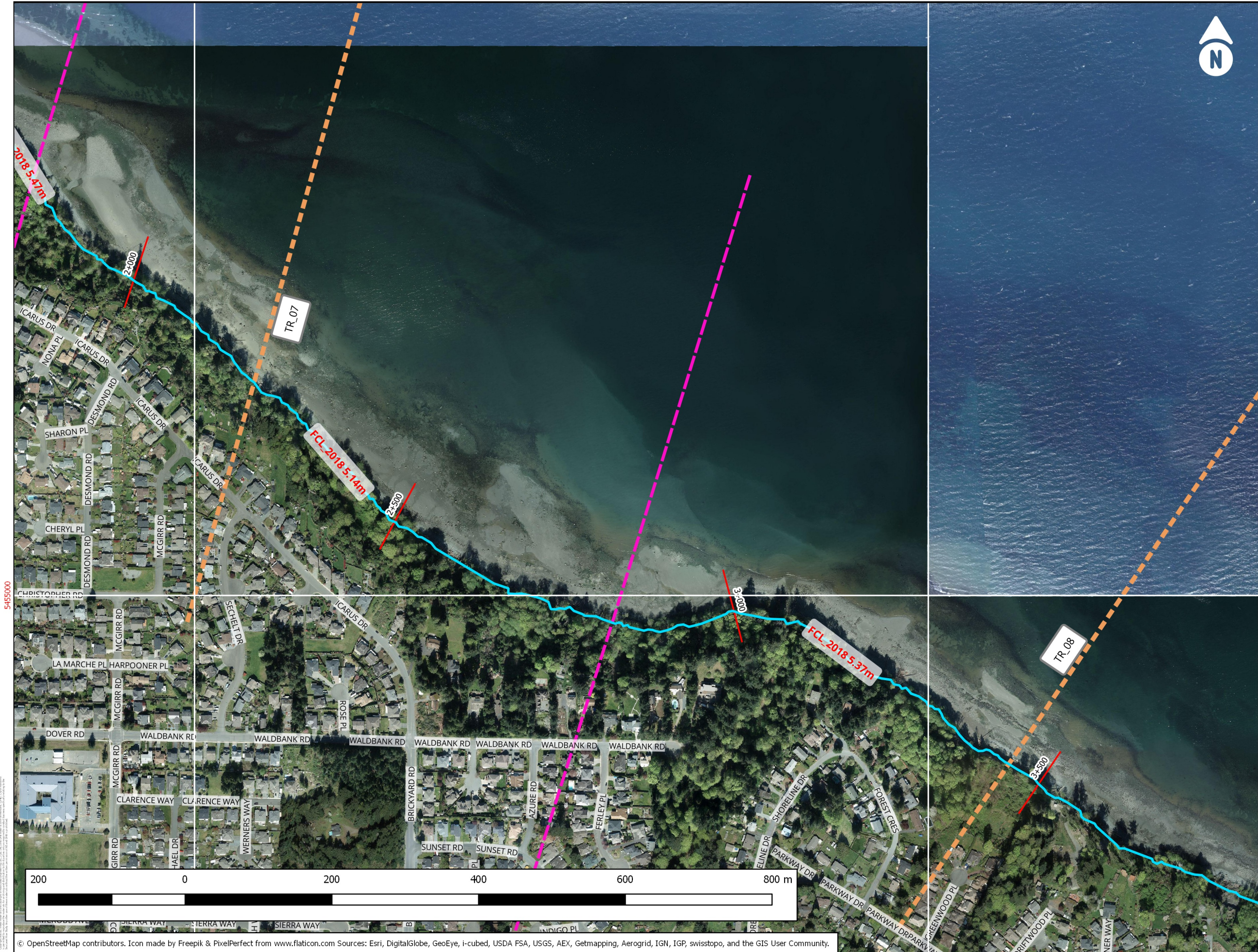

CITY OF NANAIMO
 THE HARBOUR CITY
SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 001

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-001	FINAL	DF	2018-2333

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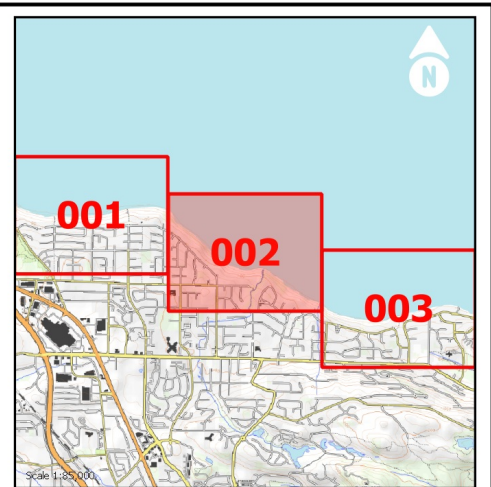
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5455000

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425000

426000



- Legend**
- Study Coastline Chainage (m)
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Uses and Limitations of Flood Construction Level Map

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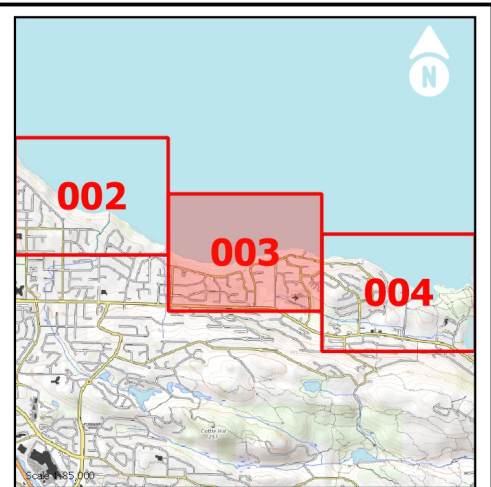


CITY OF NANAIMO
THE HARBOUR CITY

SEA LEVEL RISE STUDY

2018_FCL Mapping Tile 002

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-002	FINAL	DF	2018-2333



- Legend**
- Study Coastline Chainage (m)
 - - - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

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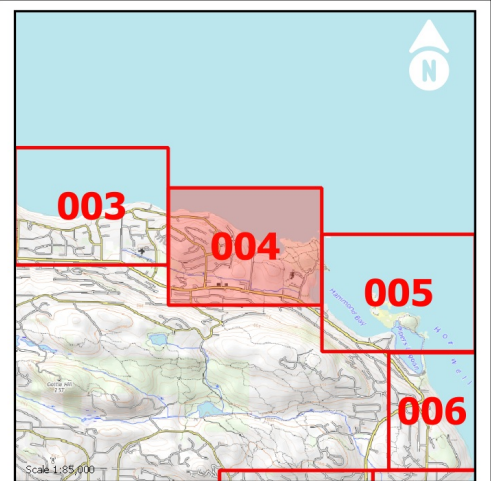
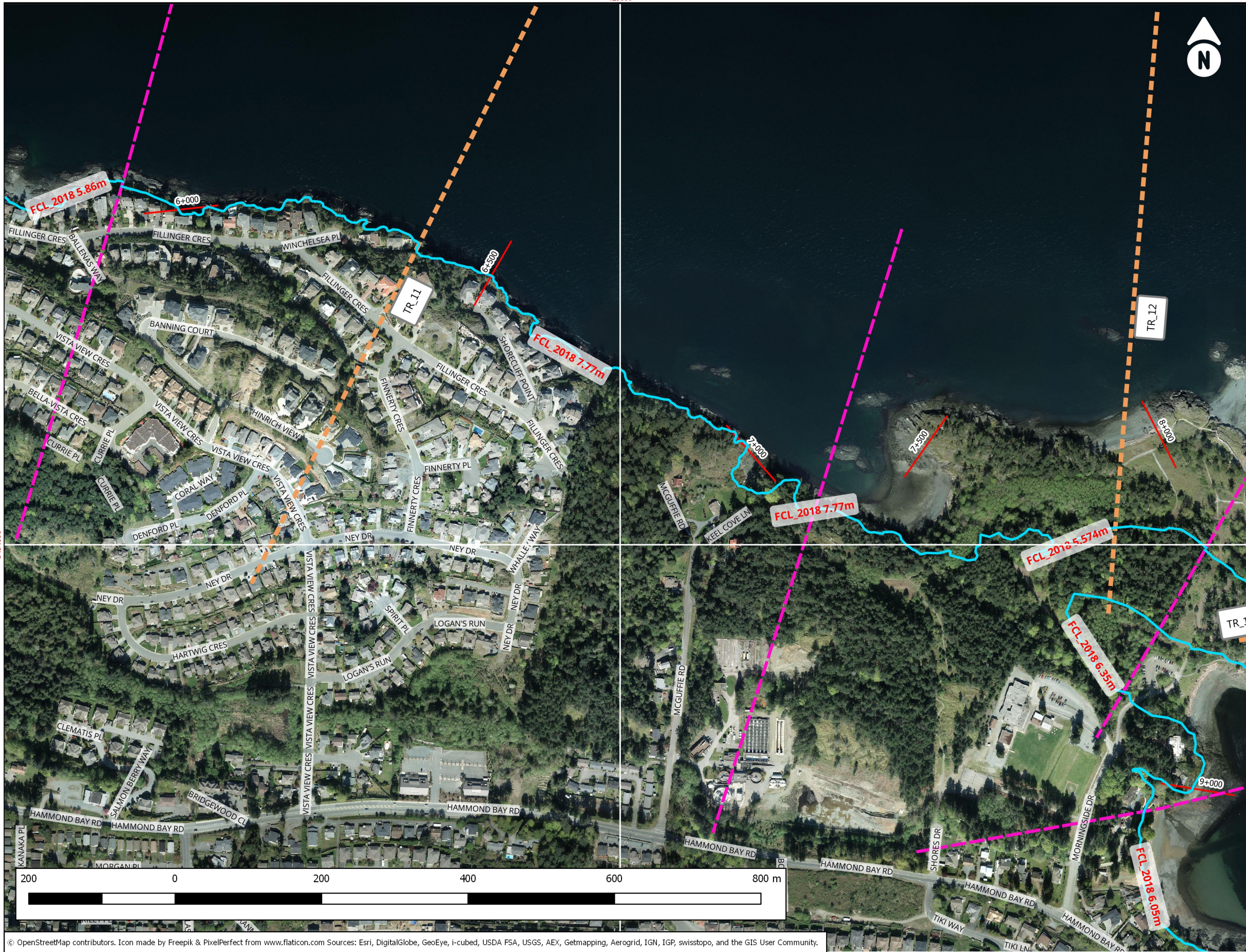


CITY OF NANAIMO
 THE HARBOUR CITY

SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 003

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-003	FINAL	DF	2018-2333

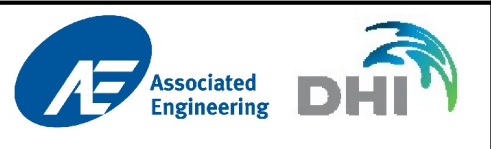
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- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - Coastal Analysis Transect Location
 - 2018 FCL

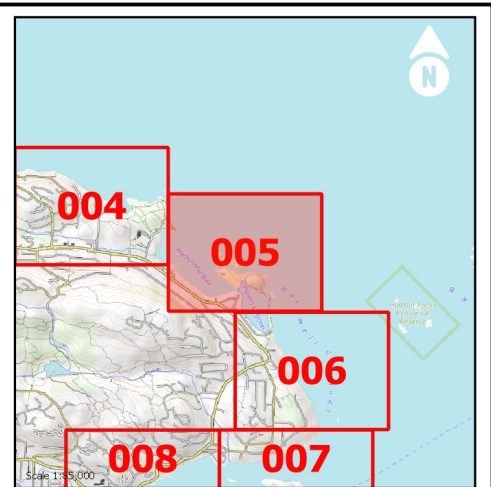
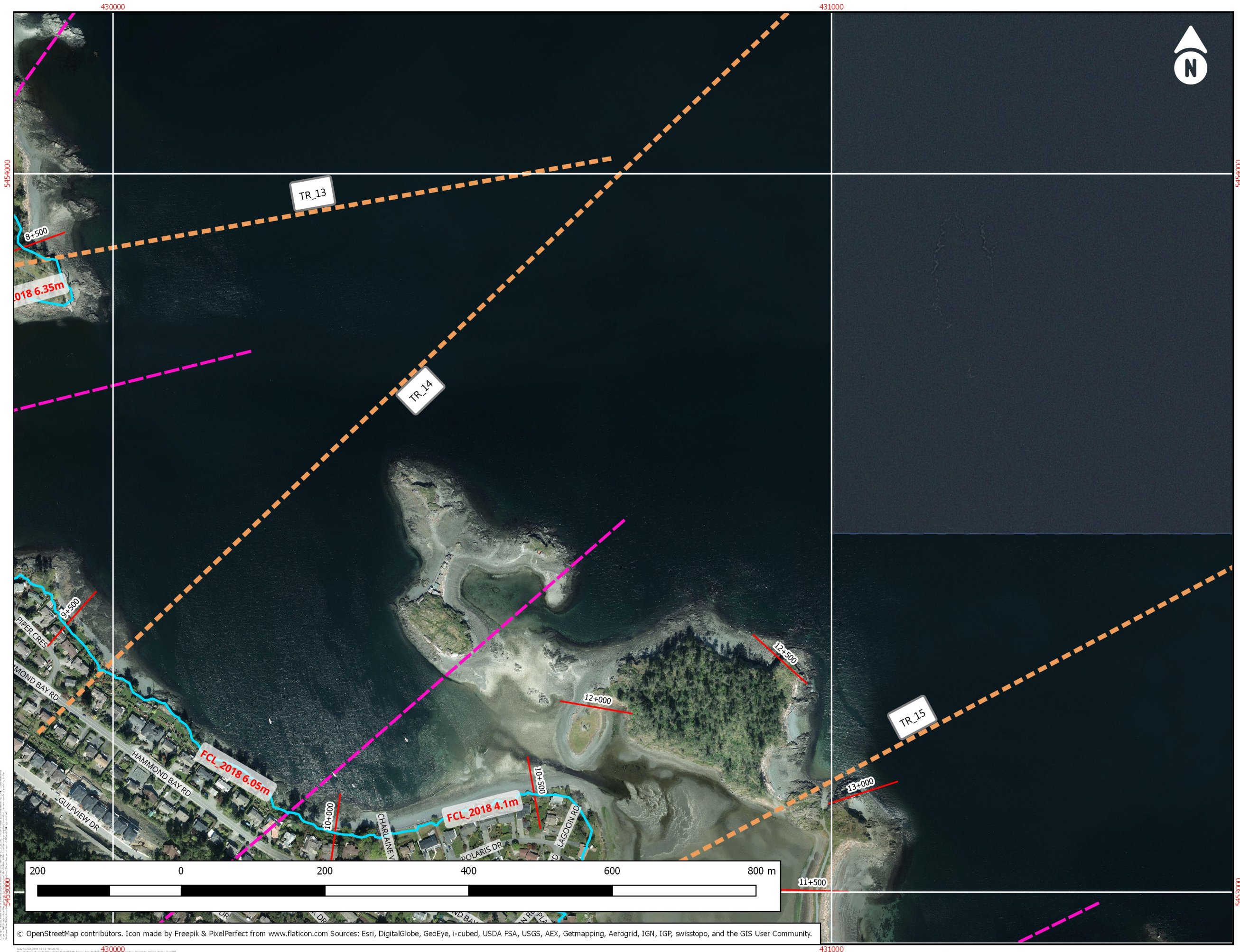
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SEA LEVEL RISE STUDY
2018_FCL Mapping Tile 004

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-004	FINAL	DF	2018-2333



- Legend**
- Study Coastline Chainage (m)
 - - - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

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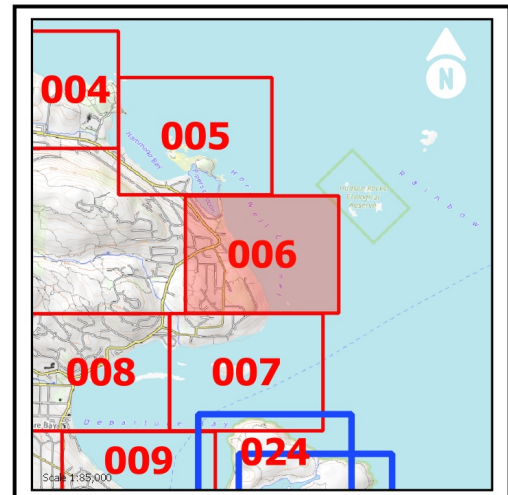
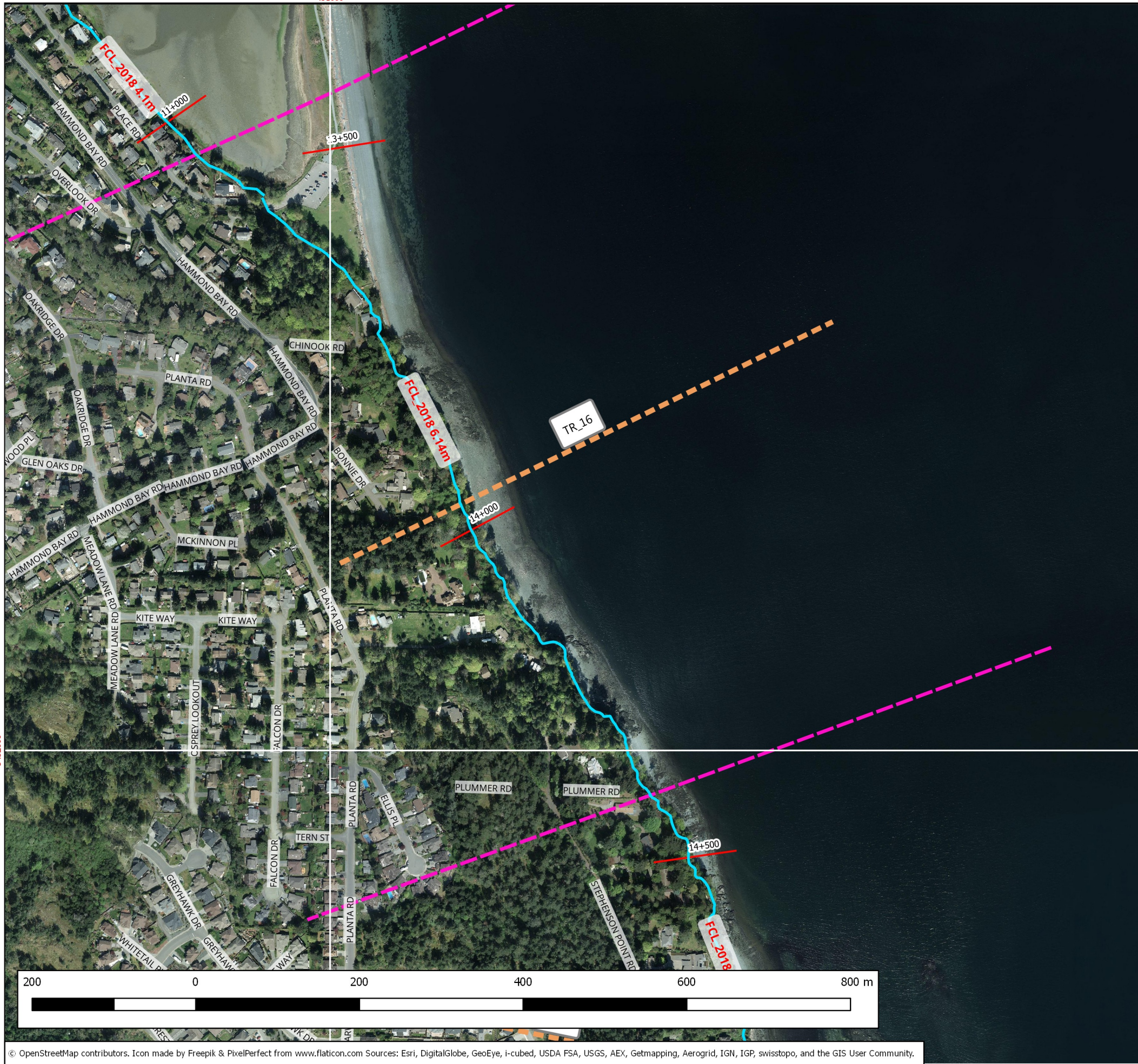


CITY OF NANAIMO
 THE HARBOUR CITY

SEA LEVEL RISE STUDY

2018_FCL Mapping Tile 005

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-005	FINAL	DF	2018-2333



- Legend**
- Study Coastline Chainage (m)
 - - - FCL Boundaries (Delineate areas where FCLs change)
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Uses and Limitations of Flood Construction Level Map

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CITY OF NANAIMO
 THE HARBOUR CITY

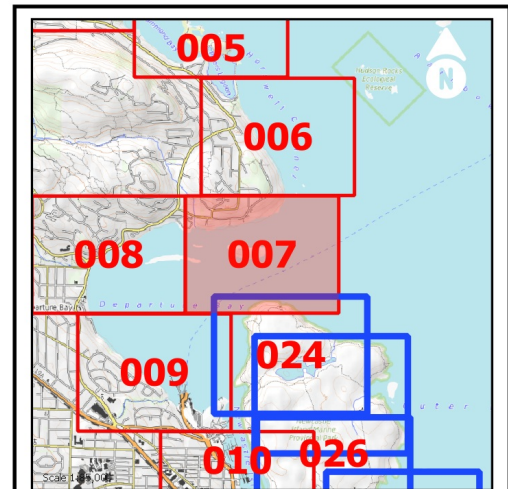
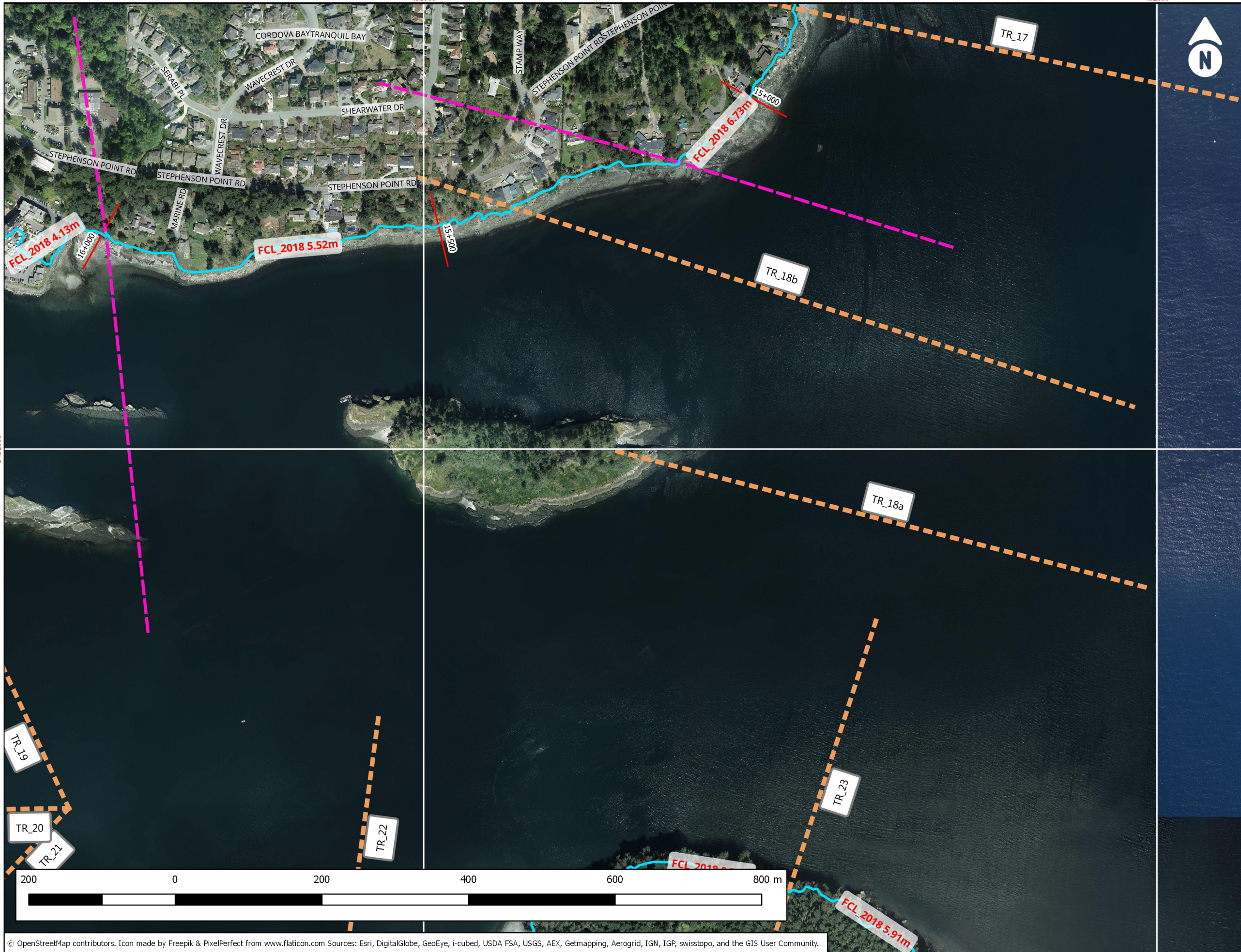
SEA LEVEL RISE STUDY

2018_FCL Mapping Tile 006

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-006	FINAL	DF	2018-2333

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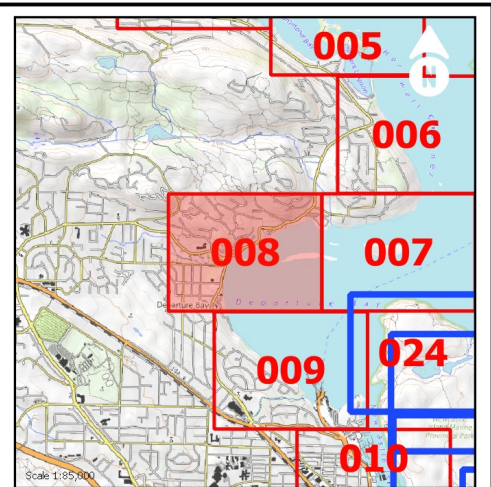
- Legend**
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CITY OF NANAIMO
 THE HARBOUR CITY
SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 007


Drawing No.	Rev.	Drawn	Project No.
2018_FCL-007	FINAL	DF	2018-2333



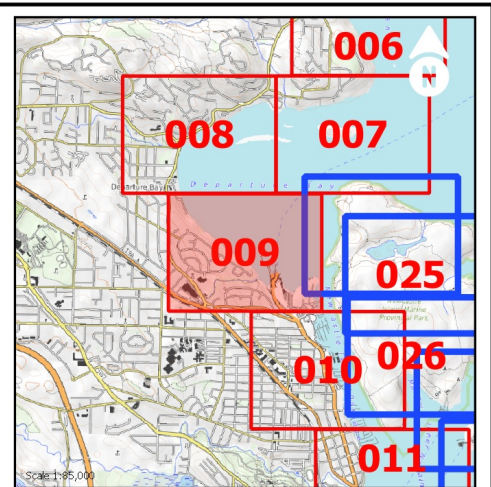
- Legend**
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 - 2018 FCL

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CITY OF NANAIMO
 THE HARBOUR CITY
SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 008

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-008	FINAL	DF	2018-2333



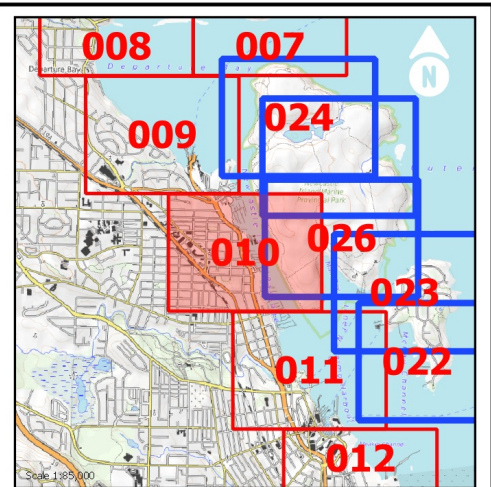
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CITY OF NANAIMO
 THE HARBOUR CITY
 SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 009

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-009	FINAL	DF	2018-2333



- Legend**
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Uses and Limitations of Flood Construction Level Map

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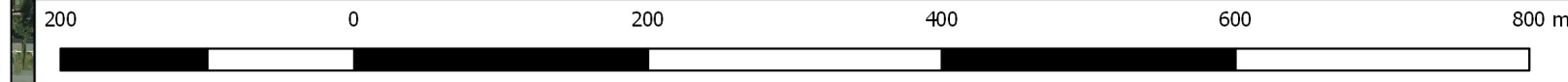


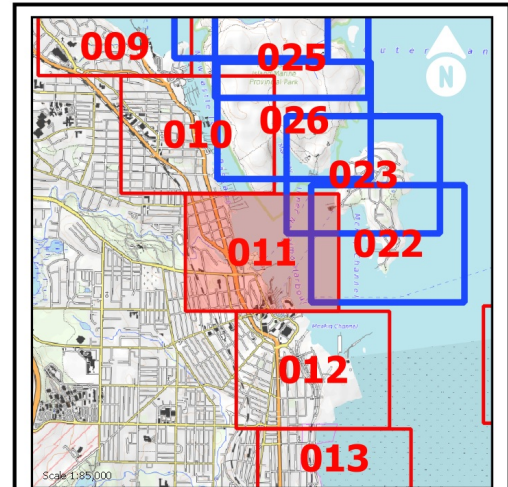
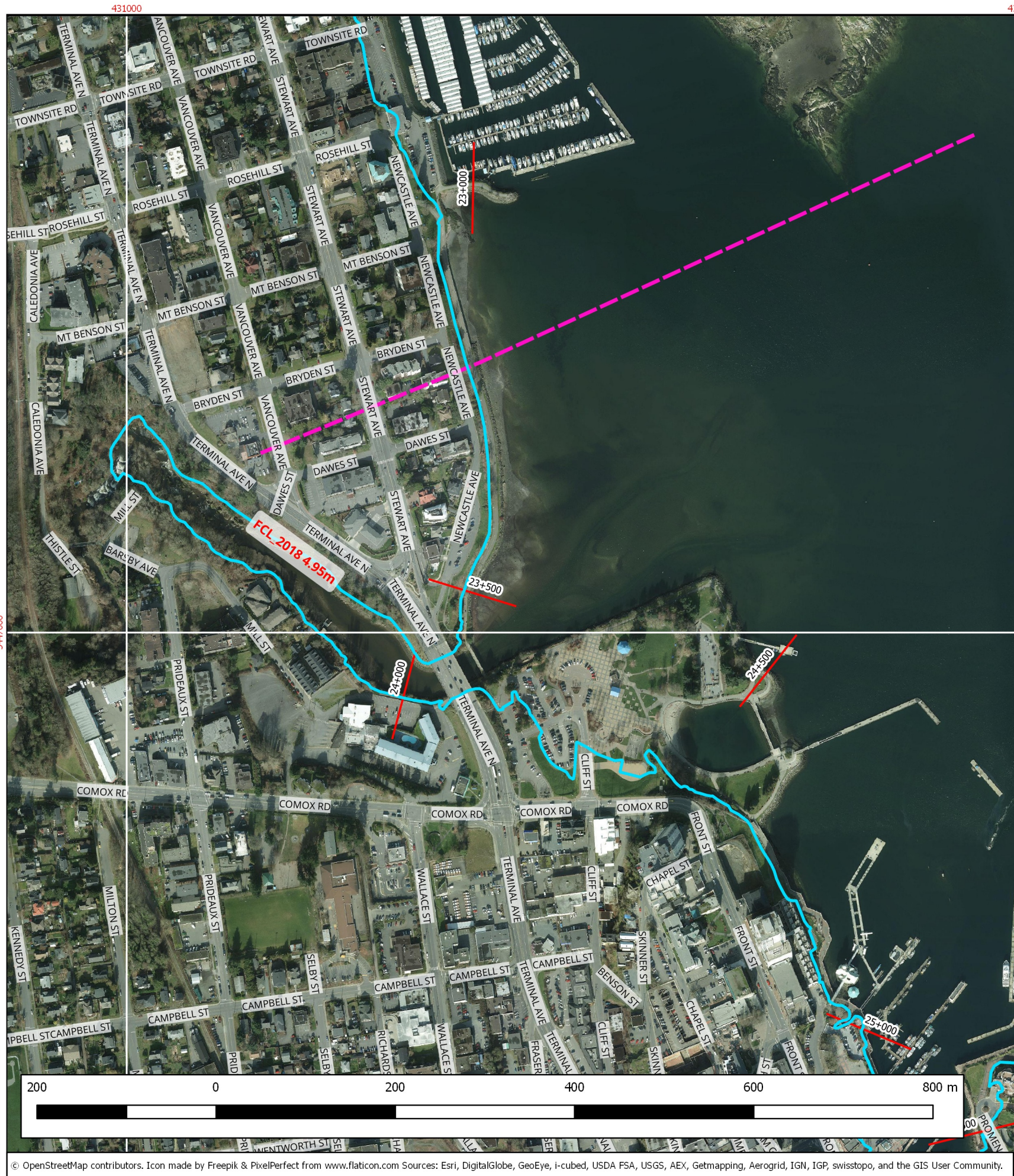
SEA LEVEL RISE STUDY
2018_FCL Mapping Tile 010

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-010	FINAL	DF	2018-2333

5448000

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- Legend**
- Study Coastline Chainage (m)
 - - - FCL Boundaries (Delineate areas where FCLs change)
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 - 2018 FCL

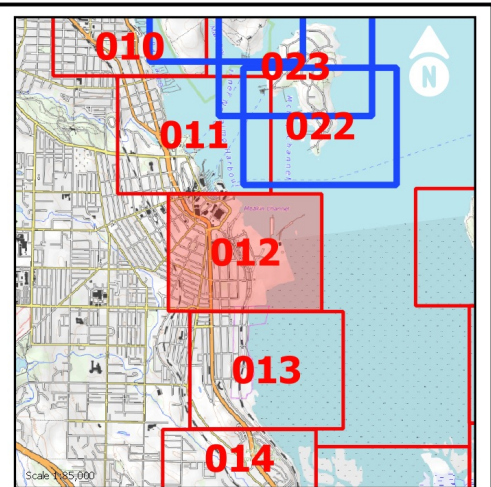
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CITY OF NANAIMO
 THE HARBOUR CITY

SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 011

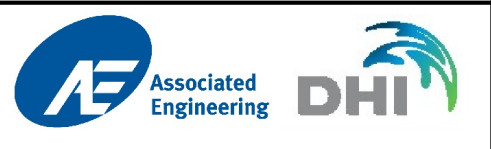
Drawing No.	Rev.	Drawn	Project No.
2018_FCL-011	FINAL	DF	2018-2333



- Legend**
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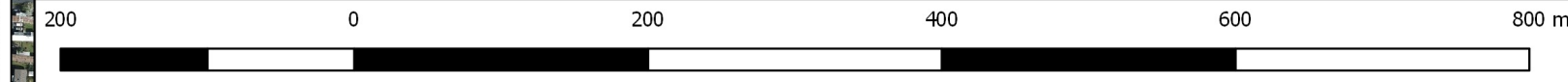
Uses and Limitations of Flood Construction Level Map

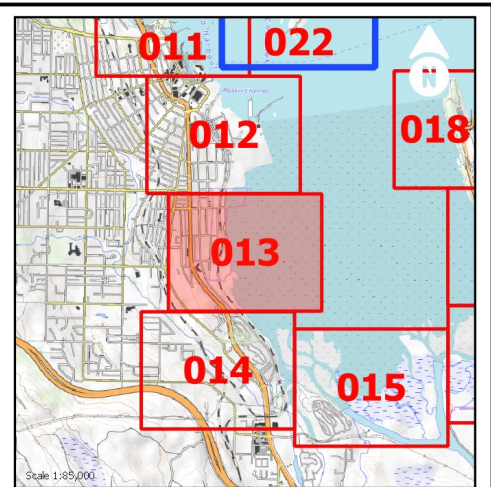
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SEA LEVEL RISE STUDY
2018_FCL Mapping Tile 012

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-012	FINAL	DF	2018-2333

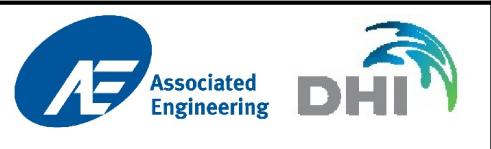




- Legend**
- Study Coastline Chainage (m)
 - - - FCL Boundaries (Delineate areas where FCLs change)
 - Coastal Analysis Transect Location
 - 2018 FCL

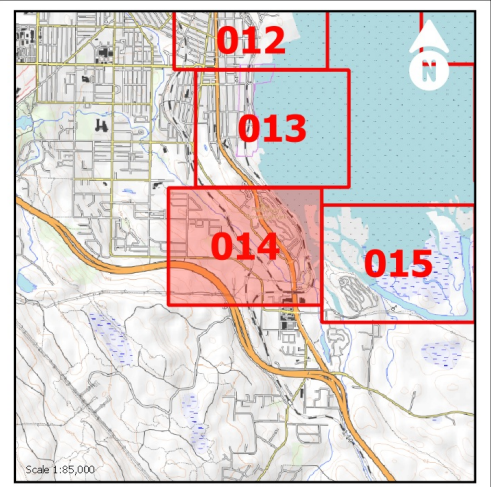
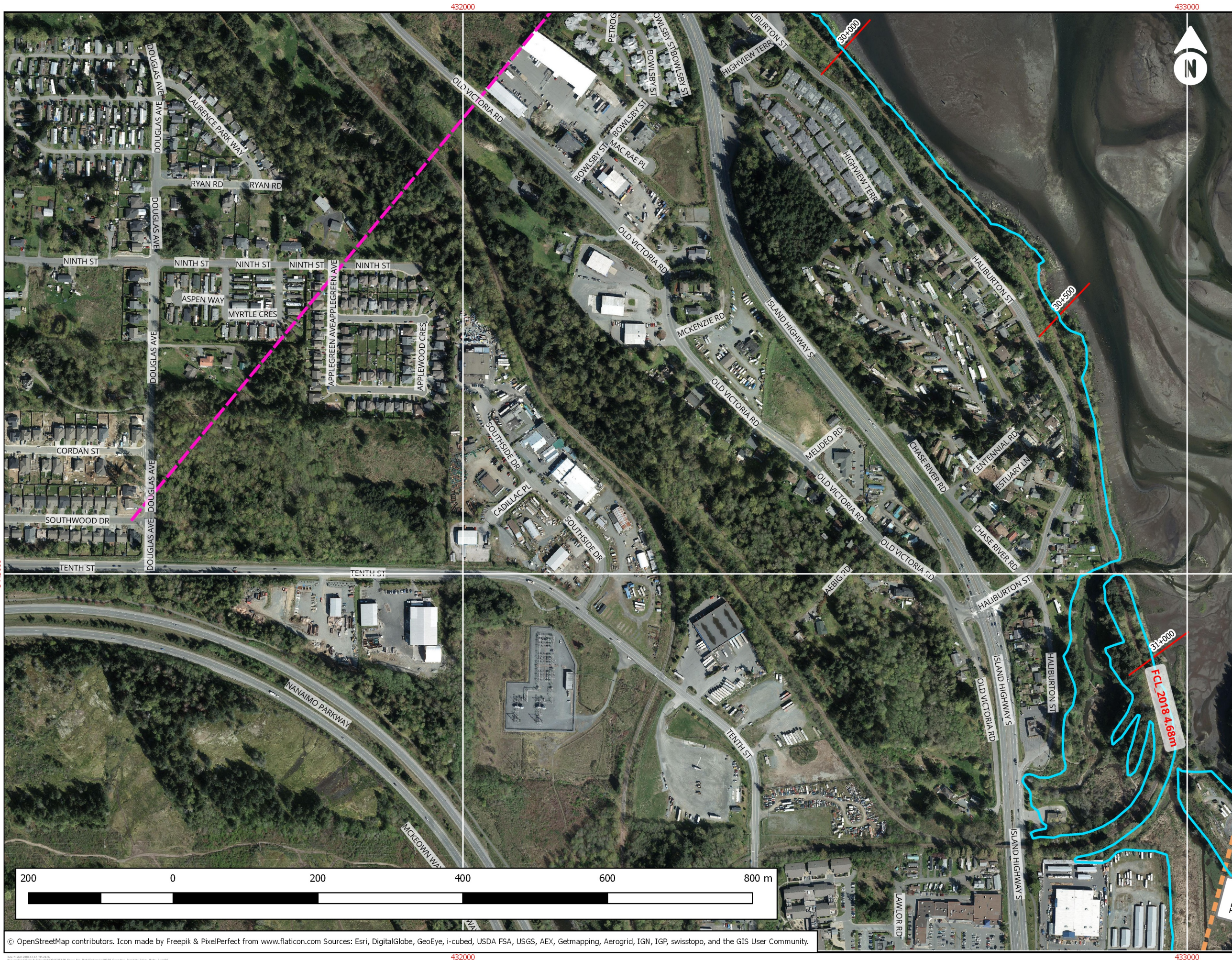
Uses and Limitations of Flood Construction Level Map

1. Users must note that Flood Construction Levels are not inundation extents. FCLs are the maximum water elevation at the land/water interface. Inundation extents require further detailed hydraulic modelling that was outside the scope of this project. Please see the accompanying report for further information (Sea Level Rise Study Report, Dec 2018, AE & DHI).
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5. Flood Construction level is based on a global sea level rise of 0.5 m by the year 2050 and 1 m by the year 2100.
6. 2016 orthoimagery supplied by City of Nanaimo & Esri World Imagery.
7. Users must note the dates of base mapping, aerial photography, ground or bathymetric surveys and issue of mapping relevant to dates of development in the map area. Subsequent changes along the coastline and/or in the floodplain can affect flood construction levels and render site-specific map information obsolete.



SEA LEVEL RISE STUDY
2018_FCL Mapping Tile 013

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-013	FINAL	DF	2018-2333



- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - Coastal Analysis Transect Location
 - 2018 FCL

Uses and Limitations of Flood Construction Level Map

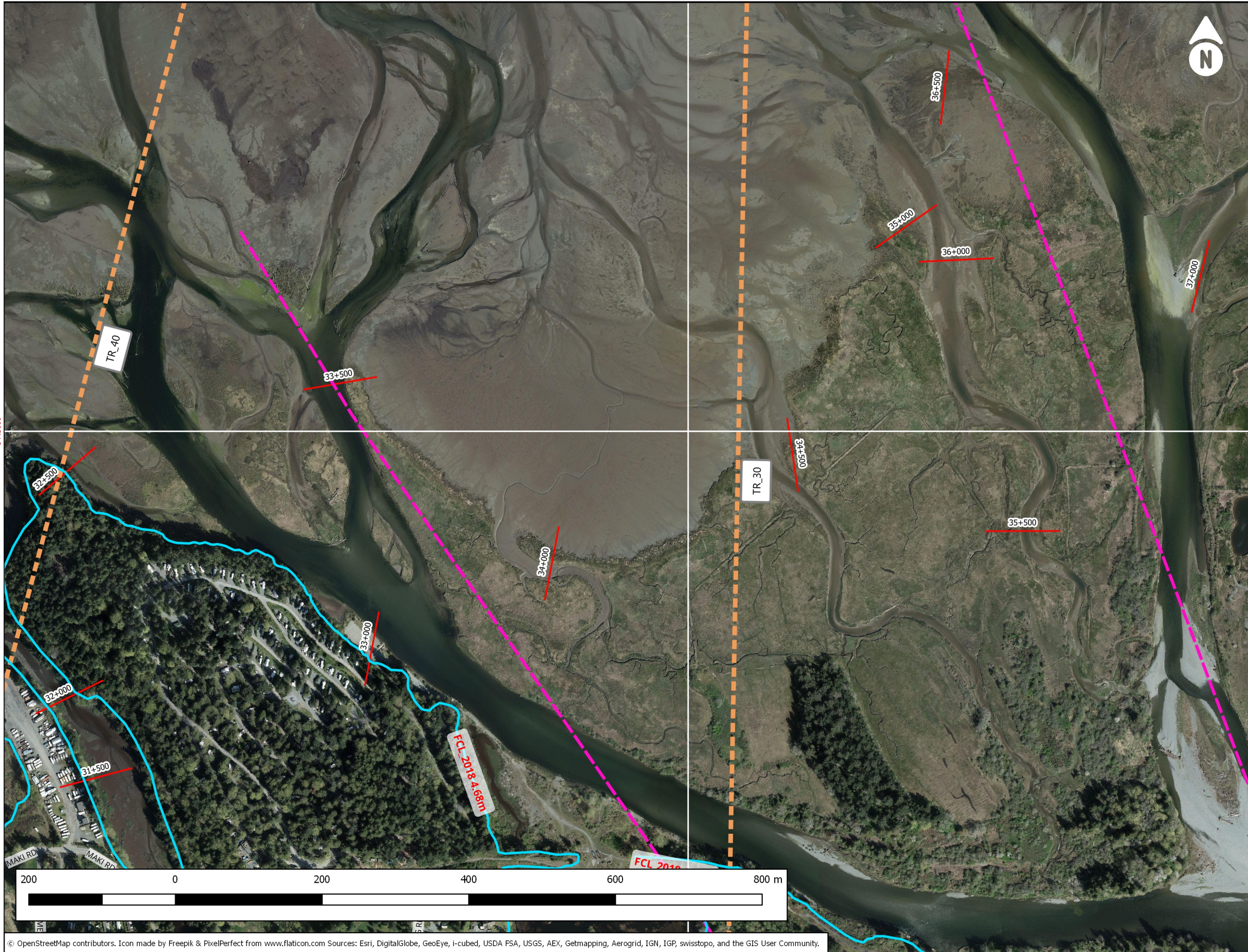
1. Users must note that Flood Construction Levels are not inundation extents. FCLs are the maximum water elevation at the land/water interface. Inundation extents require further detailed hydraulic modelling that was outside the scope of this project. Please see the accompanying report for further information (Sea Level Rise Study Report, Dec 2018, AE & DHI).
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SEA LEVEL RISE STUDY
2018_FCL Mapping Tile 014

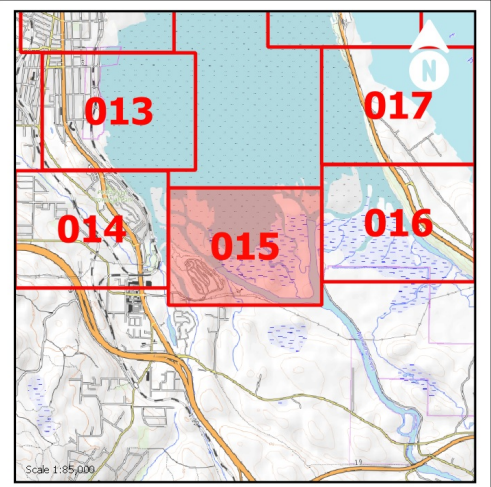
Drawing No.	Rev.	Drawn	Project No.
2018_FCL-014	FINAL	DF	2018-2333

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5443000

5443000




- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - Coastal Analysis Transect Location
 - 2018 FCL

Uses and Limitations of Flood Construction Level Map

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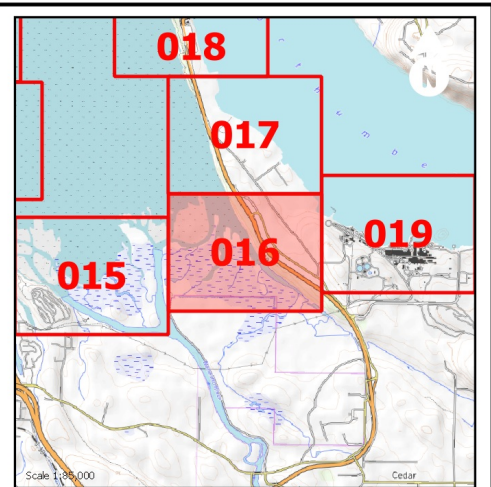
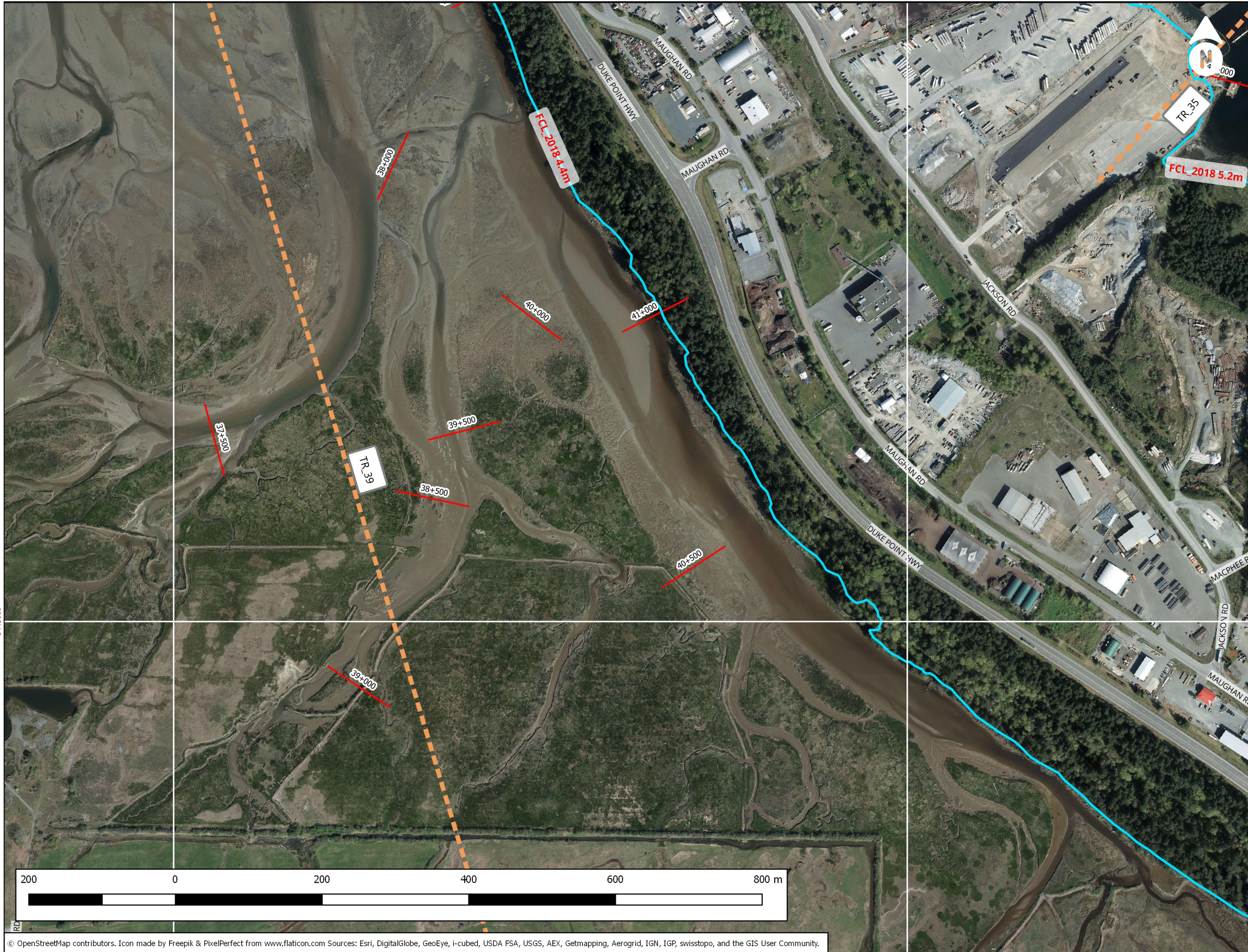



CITY OF NANAIMO
 THE HARBOUR CITY
SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 015

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-015	FINAL	DF	2018-2333

435000

436000



- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

Uses and Limitations of Flood Construction Level Map

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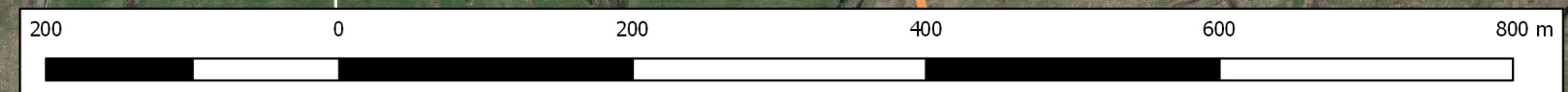



CITY OF NANAIMO
 THE HARBOUR CITY
SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 016

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-016	FINAL	DF	2018-2333

5443000

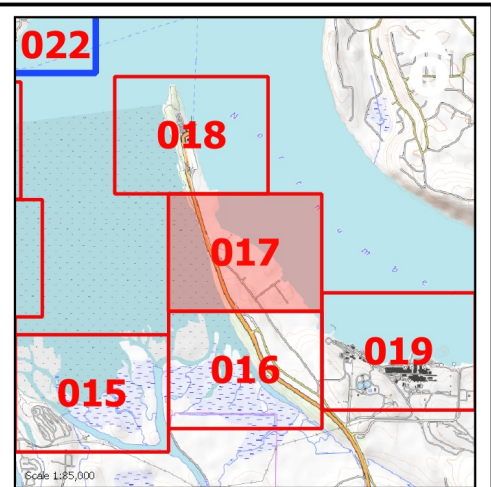
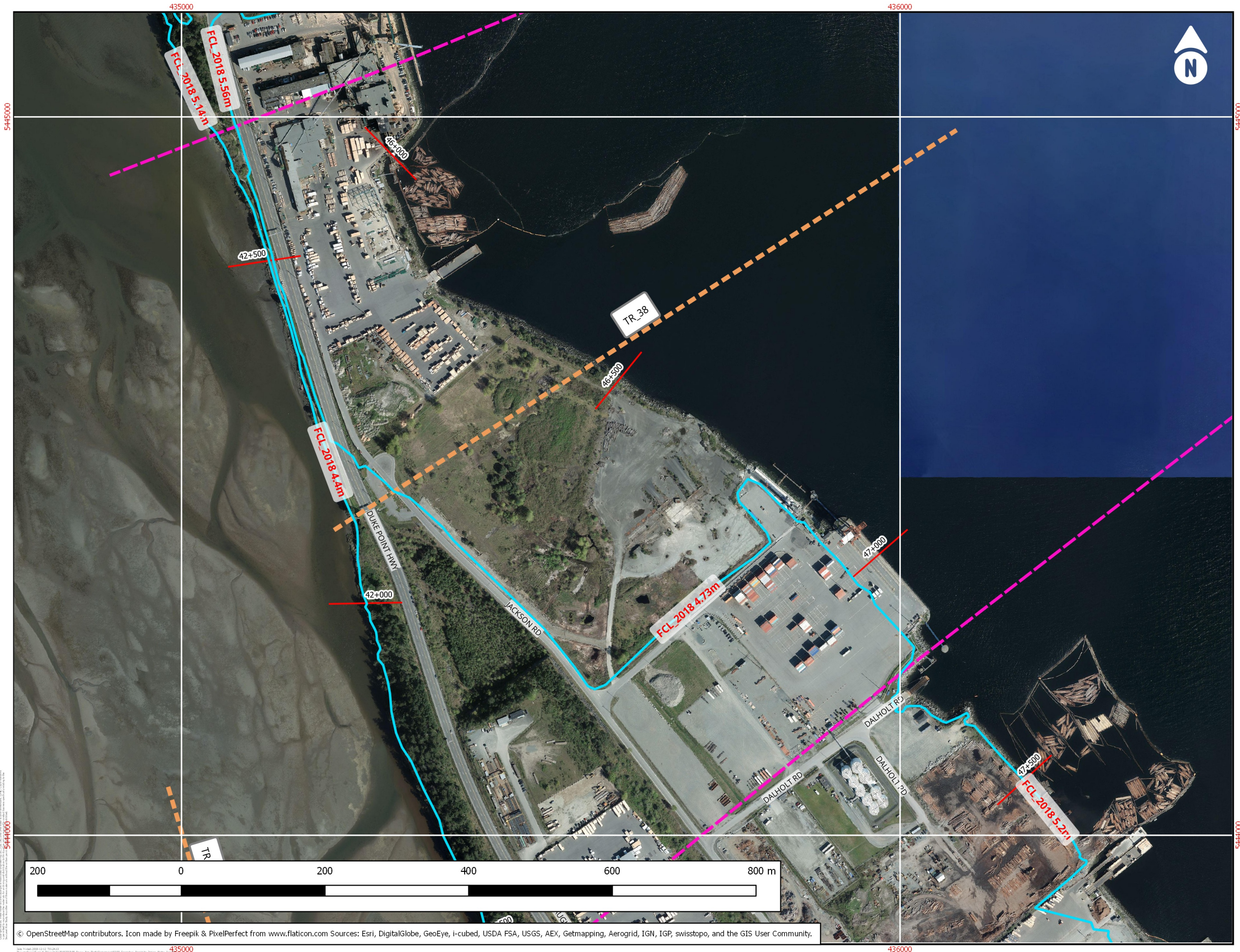
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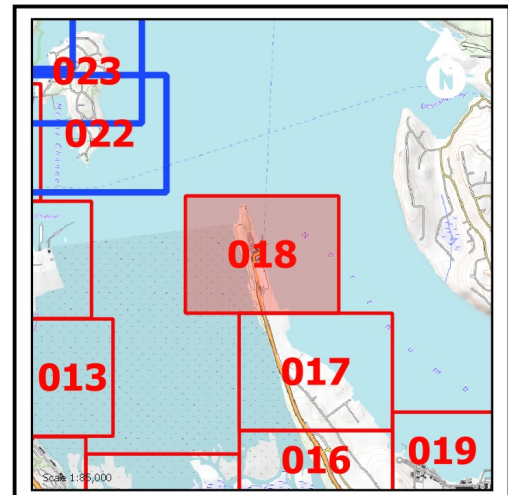
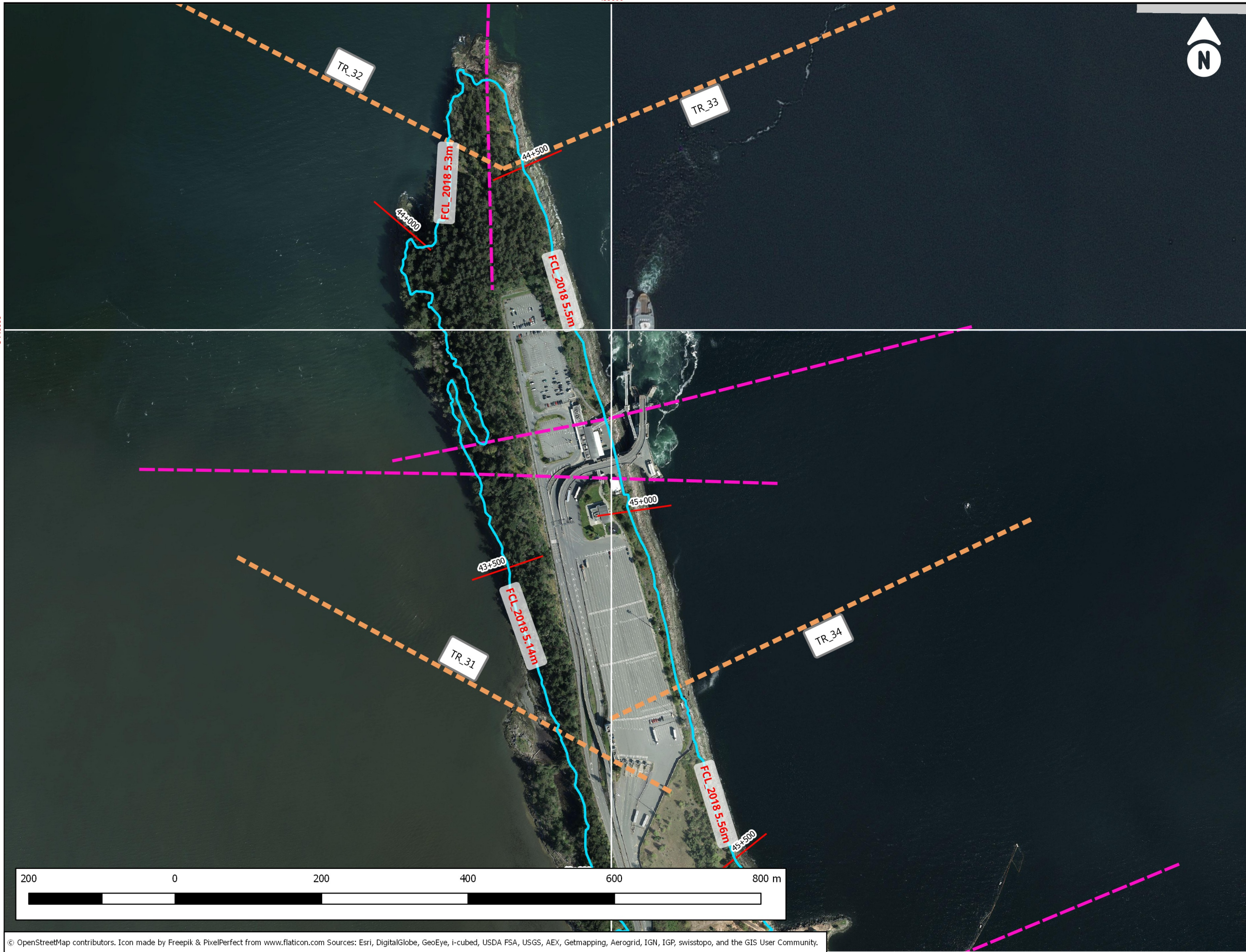
- Legend**
- Study Coastline Chainage (m)
 - - - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

- Uses and Limitations of Flood Construction Level Map**
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CITY OF NANAIMO
 THE HARBOUR CITY
 SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 017

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-017	FINAL	DF	2018-2333



Legend

- Study Coastline Chainage (m)
- - - FCL Boundaries (Delineate areas where FCLs change)
- - - Coastal Analysis Transect Location
- 2018 FCL

Uses and Limitations of Flood Construction Level Map

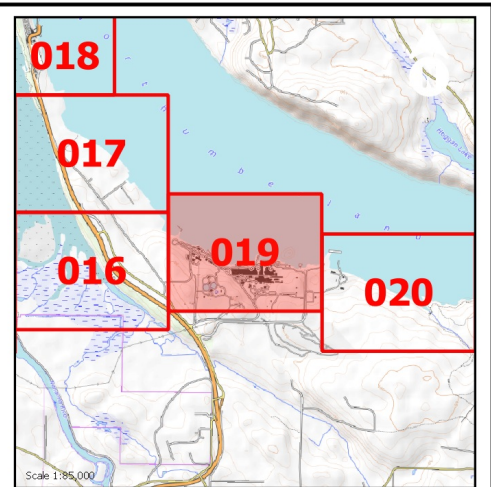
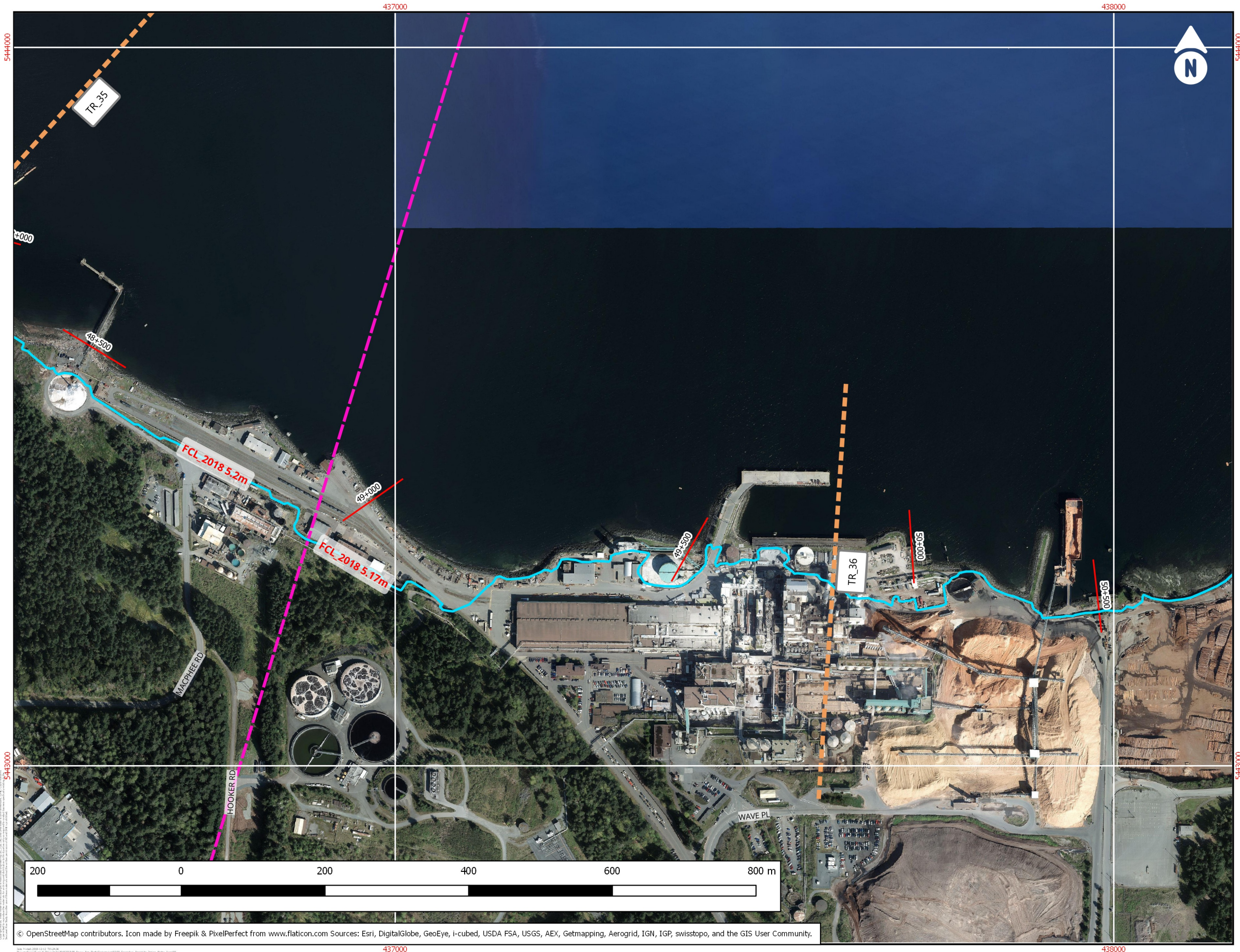
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- 2016 orthoimagery supplied by City of Nanaimo & Esri World Imagery.
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CITY OF NANAIMO
 THE HARBOUR CITY
SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 018

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-018	FINAL	DF	2018-2333


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- Legend**
- Study Coastline Chainage (m)
 - - - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

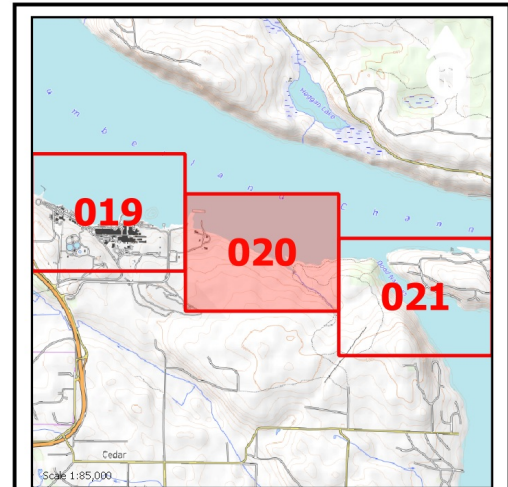
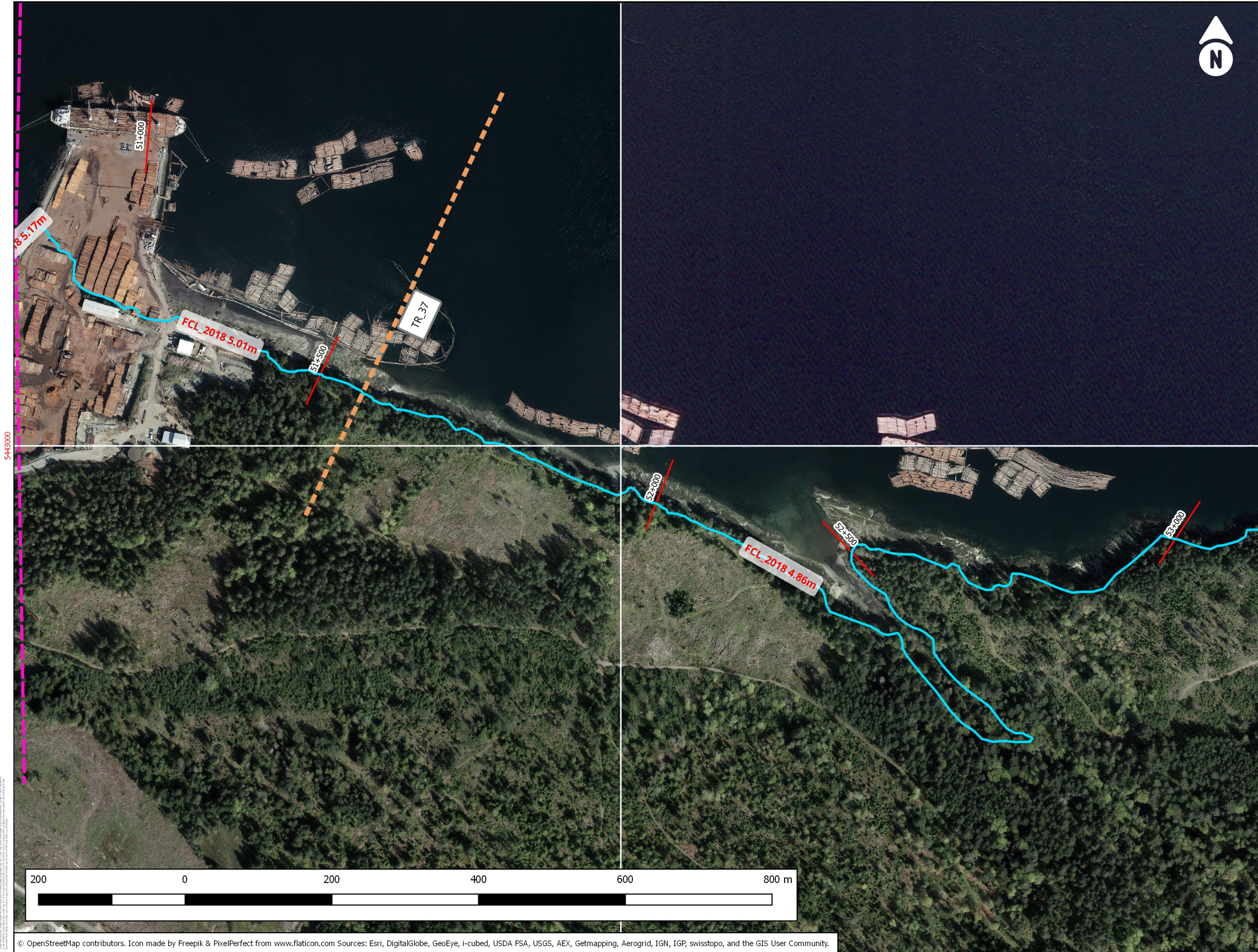
- Uses and Limitations of Flood Construction Level Map**
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CITY OF NANAIMO
 THE HARBOUR CITY
 SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 019

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-019	FINAL	DF	2018-2333

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- Legend**
- Study Coastline Chainage (m)
 - - - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

- Uses and Limitations of Flood Construction Level Map**
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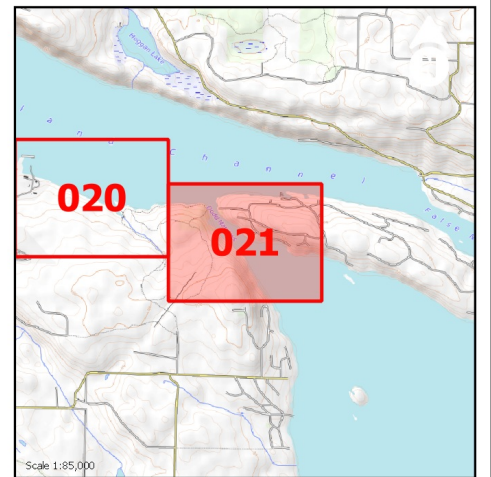
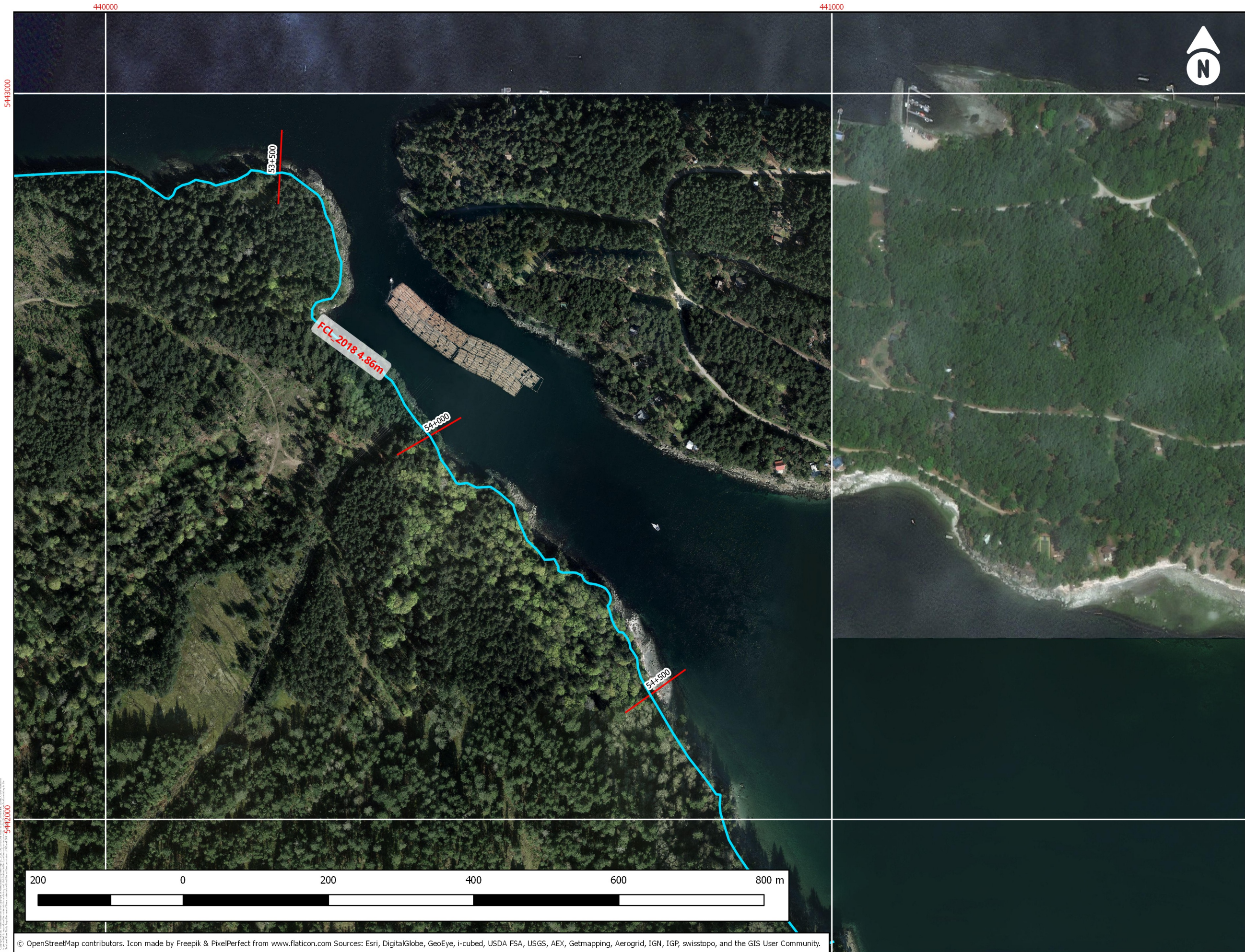
CITY OF NANAIMO
THE HARBOUR CITY

SEA LEVEL RISE STUDY

2018_FCL Mapping Tile 020

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-020	FINAL	DF	2018-2333

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- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - Coastal Analysis Transect Location
 - 2018 FCL

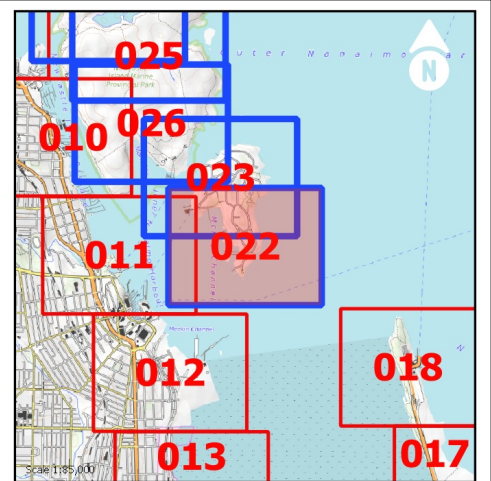
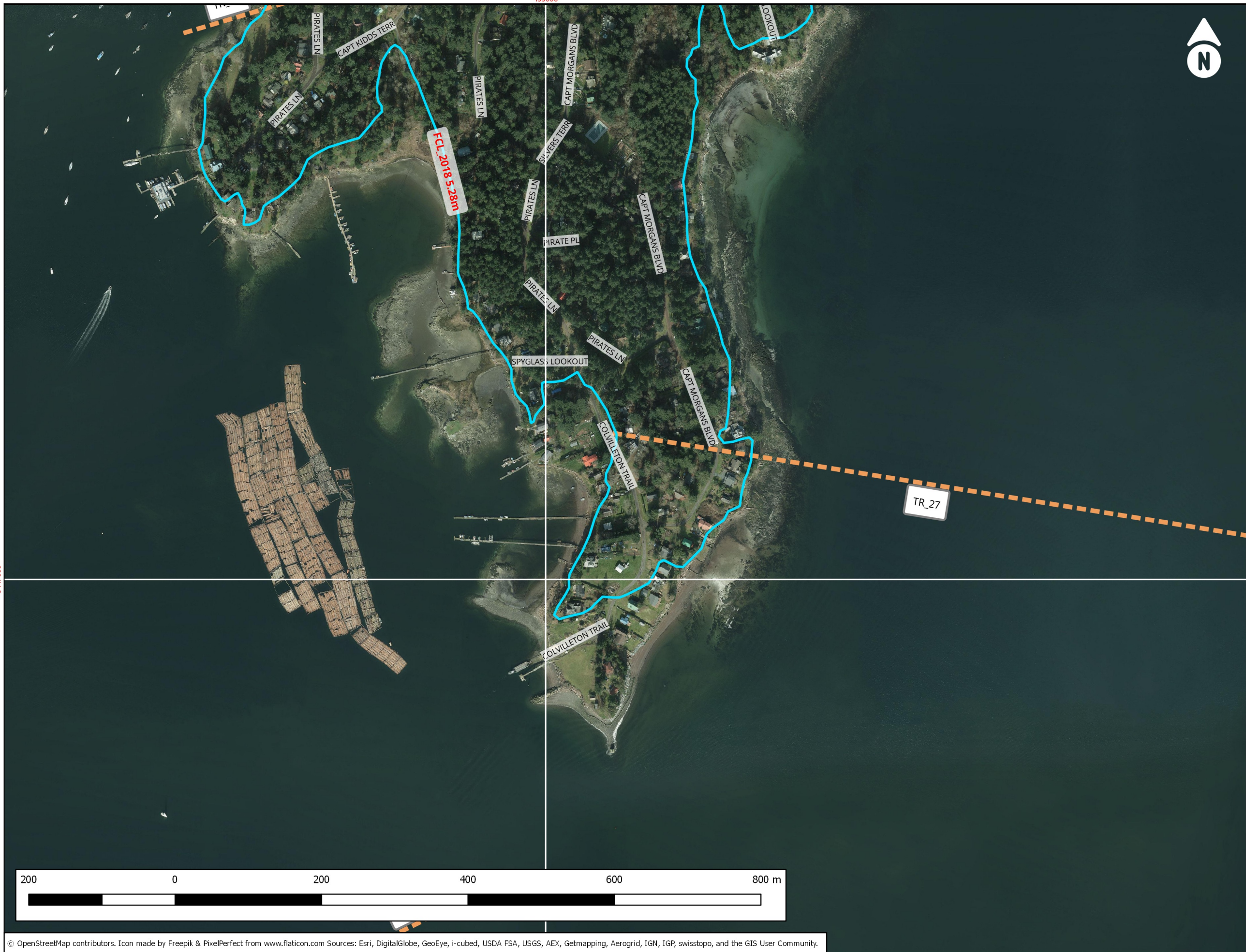
Uses and Limitations of Flood Construction Level Map

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SEA LEVEL RISE STUDY
2018_FCL Mapping Tile 021

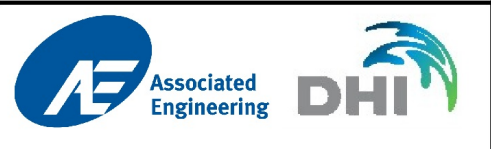
Drawing No.	Rev.	Drawn	Project No.
2018_FCL-021	FINAL	DF	2018-2333



- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

Uses and Limitations of Flood Construction Level Map

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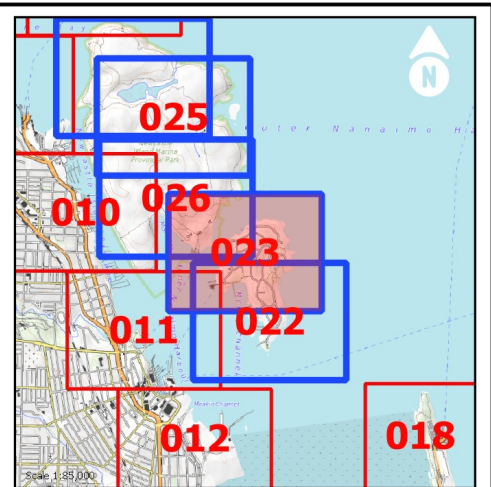



CITY OF NANAIMO
 THE HARBOUR CITY
 SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 022

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-022	FINAL	DF	2018-2333

5447000

5447000



- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

Uses and Limitations of Flood Construction Level Map

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SEA LEVEL RISE STUDY
2018_FCL Mapping Tile 023

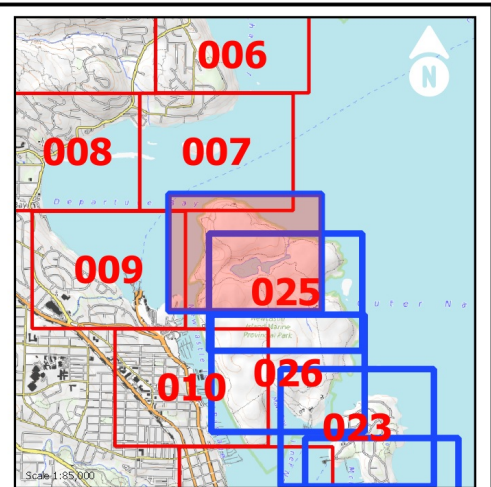
Drawing No.	Rev.	Drawn	Project No.
2018_FCL-023	FINAL	DF	2018-2333

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- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

Uses and Limitations of Flood Construction Level Map

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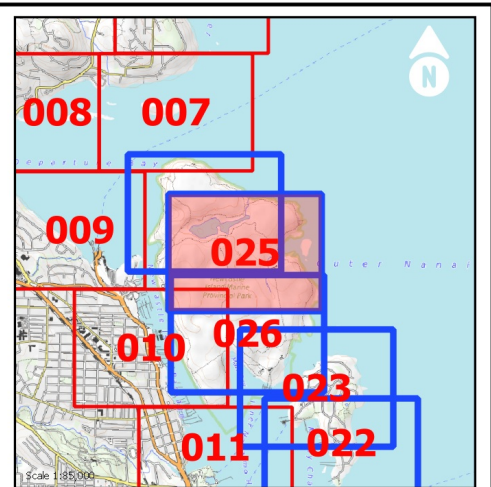
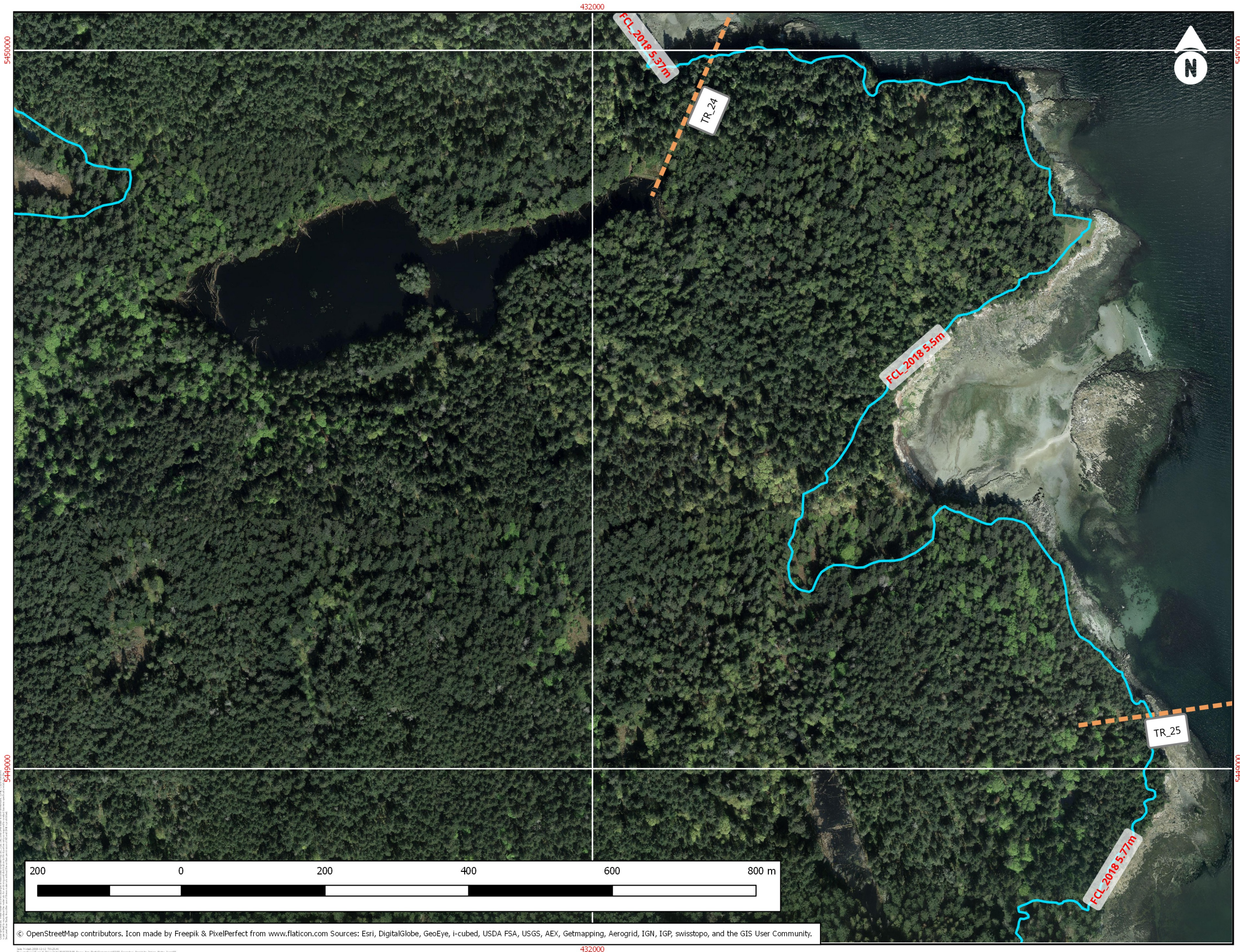



CITY OF NANAIMO
 THE HARBOUR CITY
 SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 024

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-024	FINAL	DF	2018-2333

431000

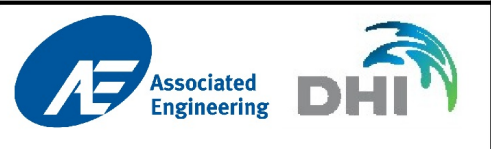
432000



- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - - - Coastal Analysis Transect Location
 - 2018 FCL

Uses and Limitations of Flood Construction Level Map

1. Users must note that Flood Construction Levels are not inundation extents. FCLs are the maximum water elevation at the land/water interface. Inundation extents require further detailed hydraulic modelling that was outside the scope of this project. Please see the accompanying report for further information (Sea Level Rise Study Report, Dec 2018, AE & DHI).
2. Under the provisions of the Flood Hazard Statutes Amendment Act, 2003 (Bill 56), local governments have the role and responsibility for making decisions about local floodplain development practices, including decisions about floodplain bylaws within their communities. Information on floodplain management guidelines can be found in the BC Flood Hazard Area Land Use Management Guidelines.
3. The accuracy of the location of a flood construction level contour as shown on this map is limited by the base topography.
4. Flooding may still occur outside the FCL contours and the local government and project team do not assume any liability by reason of the failure to delineate these flood areas on this map.
5. Flood Construction level is based on a global sea level rise of 0.5 m by the year 2050 and 1 m by the year 2100.
6. 2016 orthoimagery supplied by City of Nanaimo & Esri World Imagery.
7. Users must note the dates of base mapping, aerial photography, ground or bathymetric surveys and issue of mapping relevant to dates of development in the map area. Subsequent changes along the coastline and/or in the floodplain can affect flood construction levels and render site-specific map information obsolete.



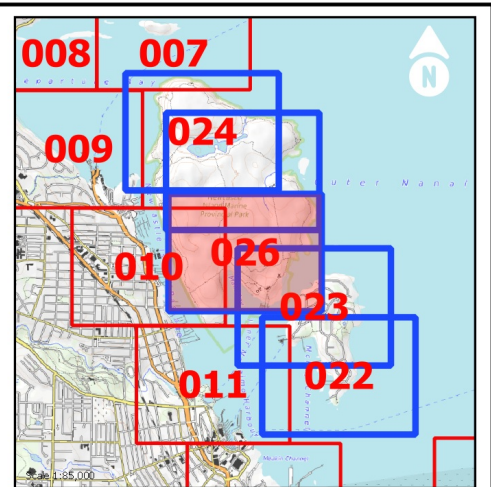

CITY OF NANAIMO
 THE HARBOUR CITY
 SEA LEVEL RISE STUDY
 2018_FCL Mapping Tile 025

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-025	FINAL	DF	2018-2333

5450000
5449000

432000
432000

5450000
5449000



- Legend**
- Study Coastline Chainage (m)
 - FCL Boundaries (Delineate areas where FCLs change)
 - Coastal Analysis Transect Location
 - 2018 FCL

Uses and Limitations of Flood Construction Level Map

1. Users must note that Flood Construction Levels are not inundation extents. FCLs are the maximum water elevation at the land/water interface. Inundation extents require further detailed hydraulic modelling that was outside the scope of this project. Please see the accompanying report for further information (Sea Level Rise Study Report, Dec 2018, AE & DHI).
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CITY OF NANAIMO
THE HARBOUR CITY

SEA LEVEL RISE STUDY

2018_FCL Mapping Tile 026

Drawing No.	Rev.	Drawn	Project No.
2018_FCL-026	FINAL	DF	2018-2333