

The background image shows the Nanaimo Regional General Hospital. It is a multi-story building with a mix of brick and light-colored panels. A sign on the building reads "NANAIMO REGIONAL GENERAL HOSPITAL". In the foreground, there is a paved area, some young trees, and a white car parked on the right side. The sky is clear and blue.

Hospital Neighbourhood Parking Strategy

City of Nanaimo

Community Planning and
Development Committee
March 20, 2018

AGENDA

Part 1: Introductions

Part 2: Overview of Parking Management Strategy and Project Status

Part 3: Hospital Neighbourhood Parking – Current Conditions

Part 4: Guiding Principles

Part 5: Draft Parking Management Strategies

Part 6: Next Steps

a. Public Process and Schedule



Hospital Area Parking Strategy

Previous Work - Public Input

Base Conditions - Parking Surveys

Analysis and Draft Recommendations

Community Input - Round 1

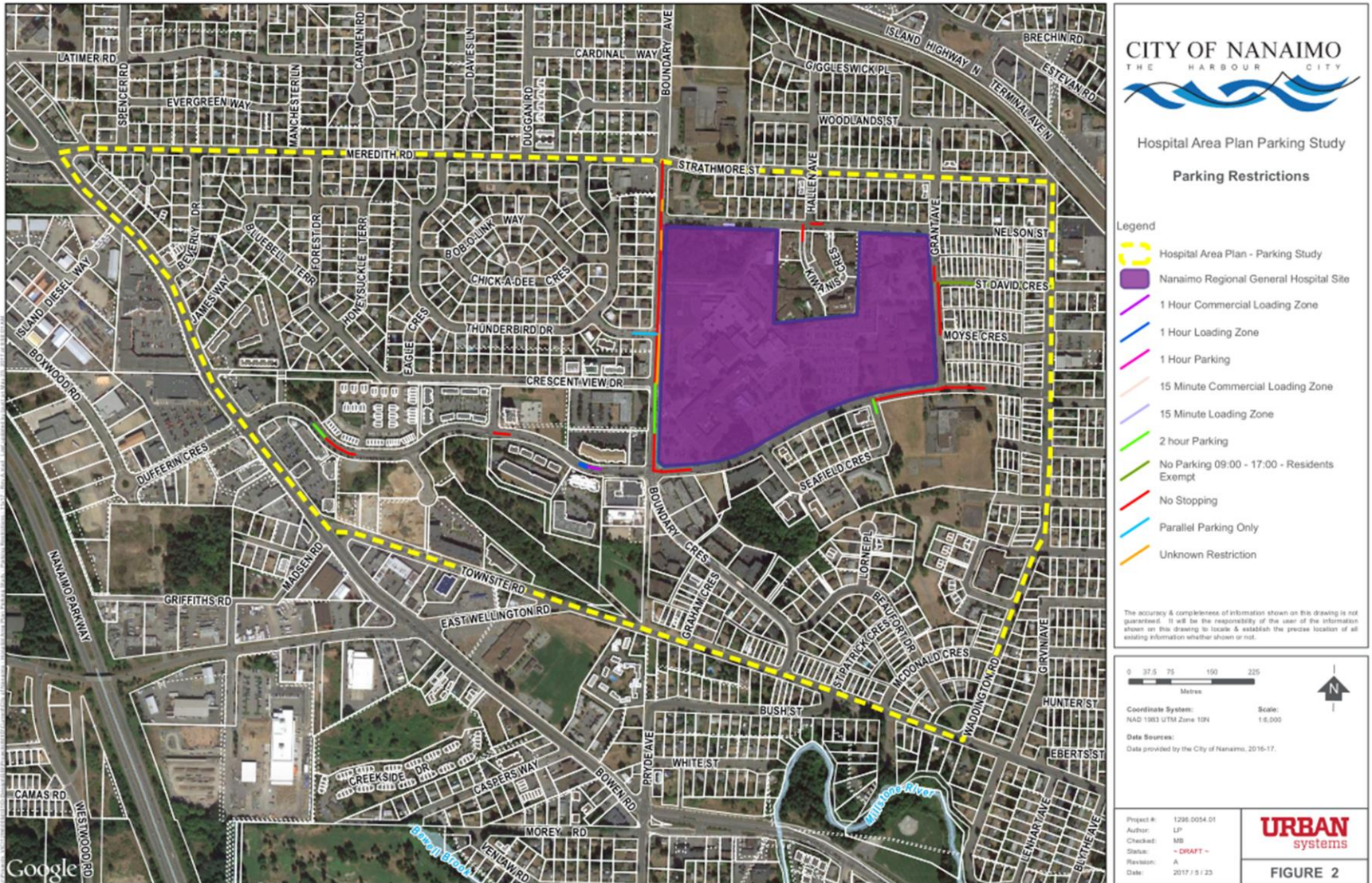
Draft Plan and Mitigation Strategy

Community Input - Round 2

Finalization and Implementation

We are Here

Current Parking Restrictions



Turnover: On-Street Parking

Overall, the degree of turnover varied significantly from street to street

- Relatively low turnover rate on roads adjacent to the hospital with average parking times ranging from 2.35 hrs. to 2.77 hrs.
- A significant number of people parking for 2 hours or less (i.e. turning over somewhat frequently).
- Number of vehicles that did not turnover between at least two passes decreased throughout the day with the highest intersection of parking occupancy and low-turnover occurring in the morning period (83% on-street spaces recorded) on multiple passes.

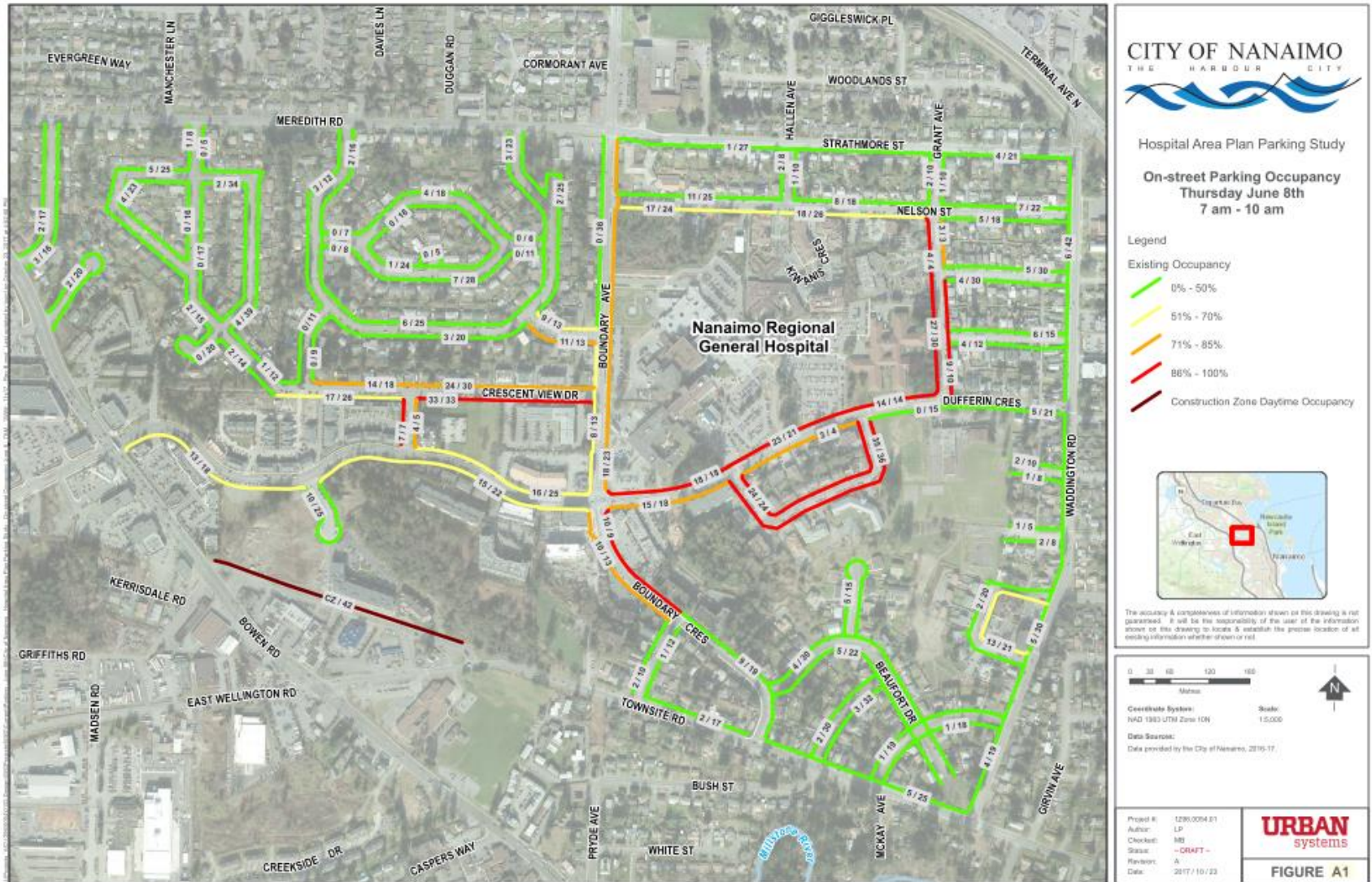
Table 3.5 - Turnover Data

Time Period	Times	Number of Stalls	Number of Overtime Observations ¹	Percent Stalls Overtime	Average Parking Duration
Morning	8:00 am – 12:00 pm	786	656	83%	2.35
Afternoon	1:30 pm – 3:30 pm	786	307	39%	2.68
Evening	4:30 pm – 6:30 pm	786	151	19%	2.77
Overall Averages			918*		2.24

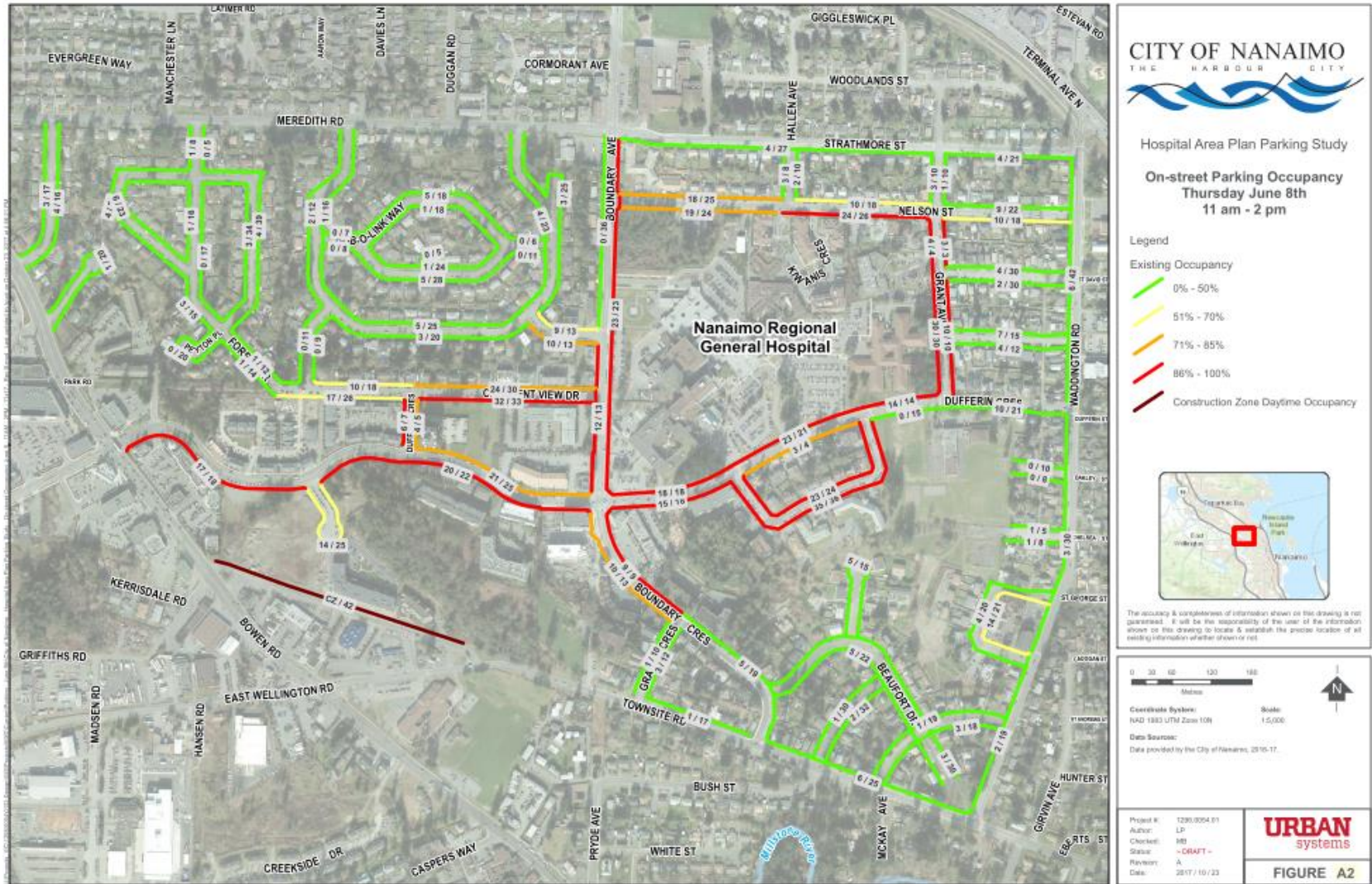
¹ Overtime observation represents the first 'overtime' observation of that vehicle in the series (i.e. recorded on at least 2 passes).

*Some cars were present in more than one time period, which is why this number does not equal Morning + Afternoon + Evening.

Occupancy: On-Street Parking



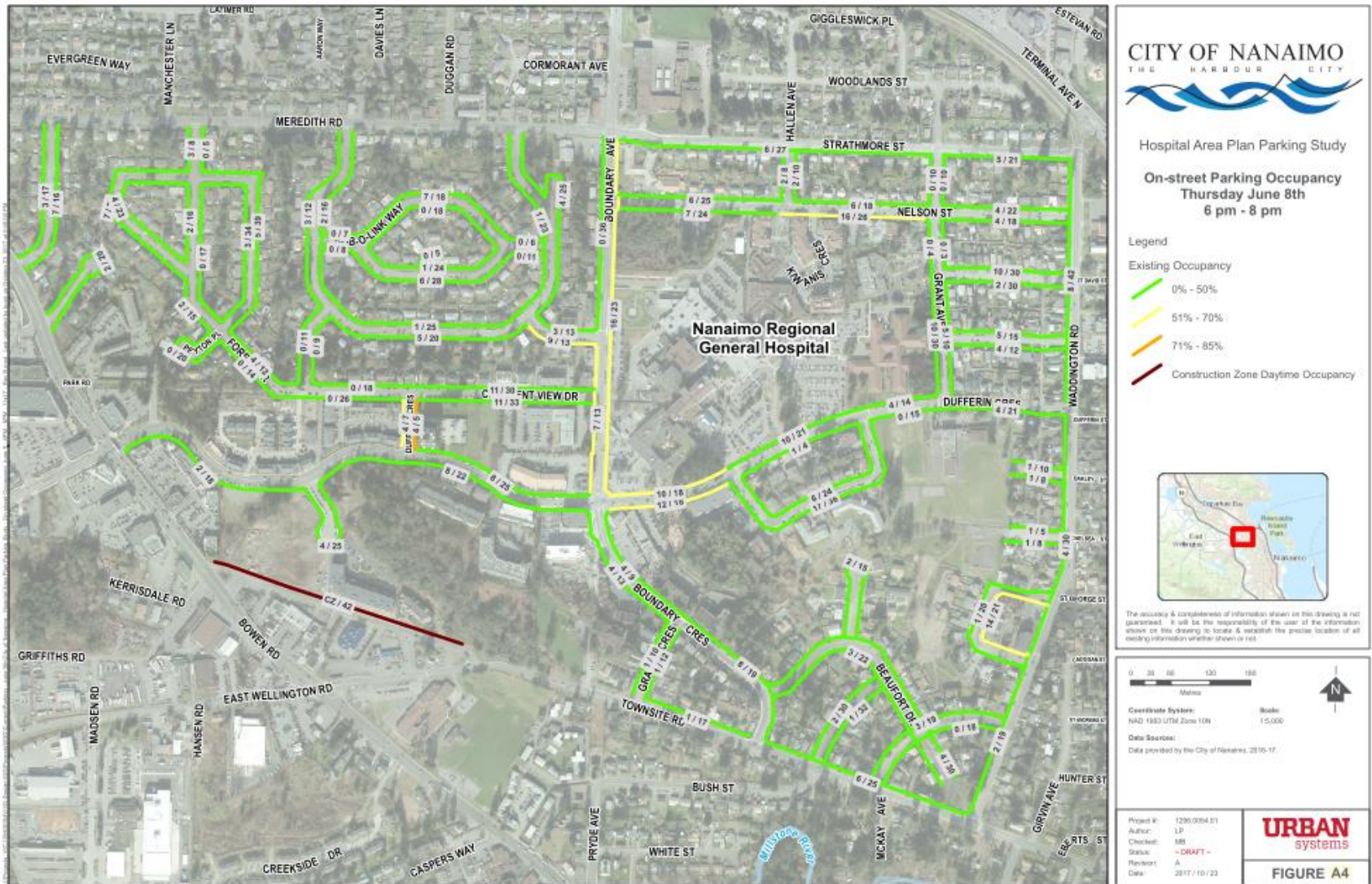
Occupancy: On-Street Parking



Occupancy: On-Street Parking



Occupancy: On-Street Parking

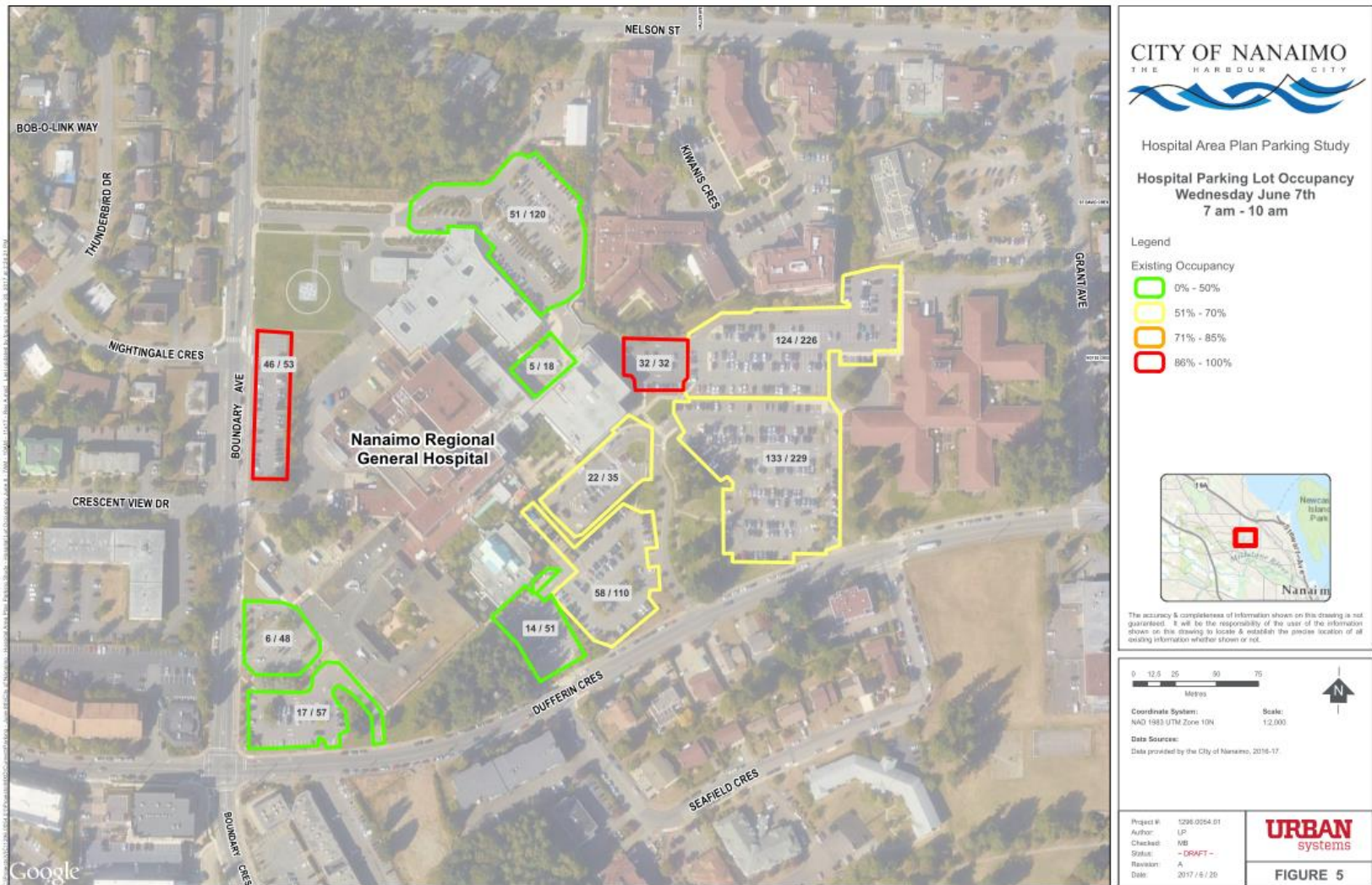


Occupancy: On-Street Parking

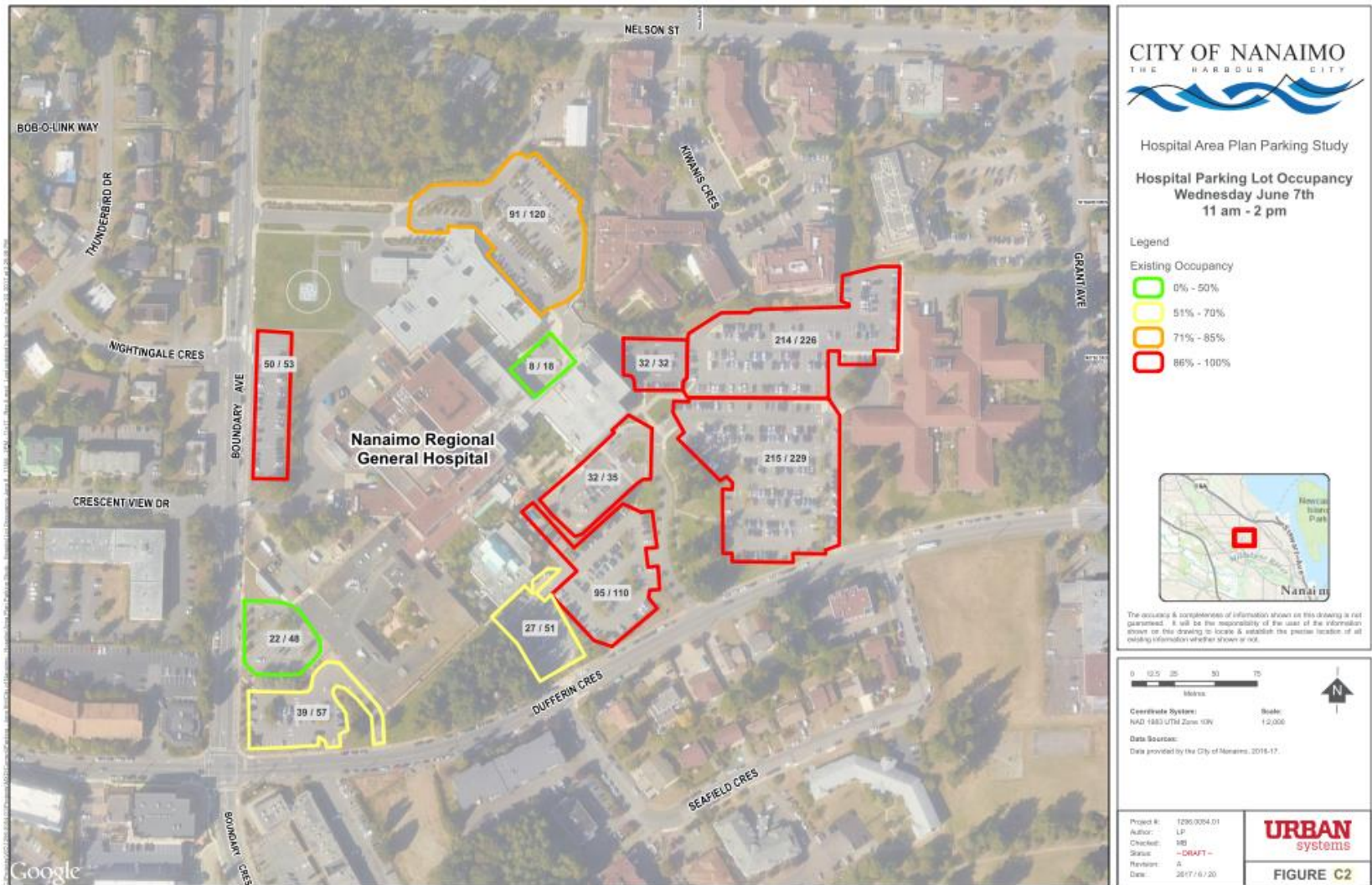


- On-street parking immediately adjacent to hospital is well-utilized with high occupancy rates and low turnover throughout the morning and into the early afternoon.
- Streets in the study area not immediately adjacent to the hospital had ample on-street parking.
- Occupancy rates in excess of 85% on streets immediately adjacent to the hospital, included:
 - Dufferin Crescent,
 - Boundary Avenue,
 - Seafeld Crescent,
 - Grant Avenue,
 - Crescent View Drive and
 - Nelson Street.
- Lower turnover rates were also observed on these busy streets, especially during the morning period where the same vehicles were recorded in 83% of on-street spaces in multiple passes.

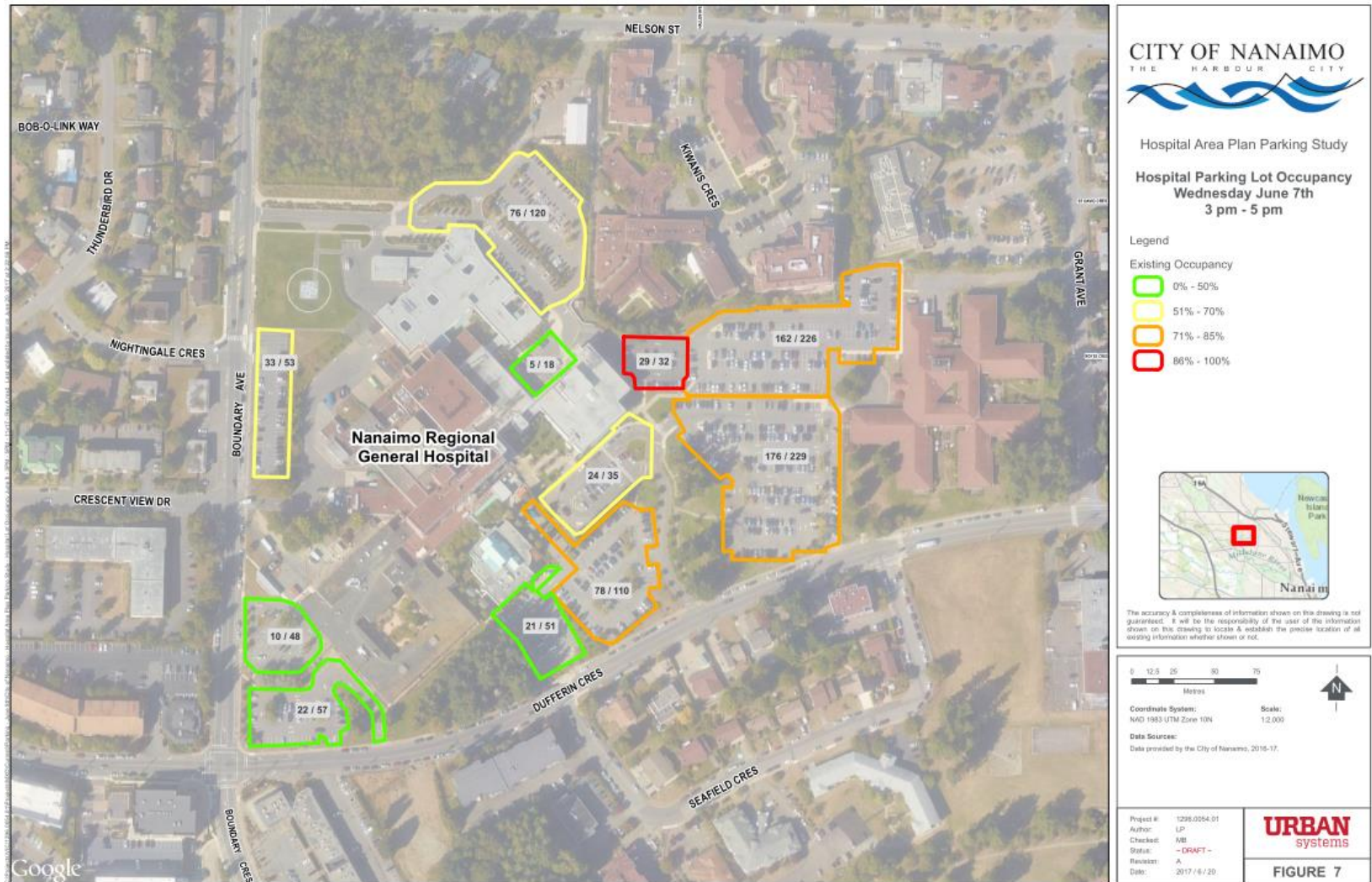
Existing Conditions: Off-Street Parking



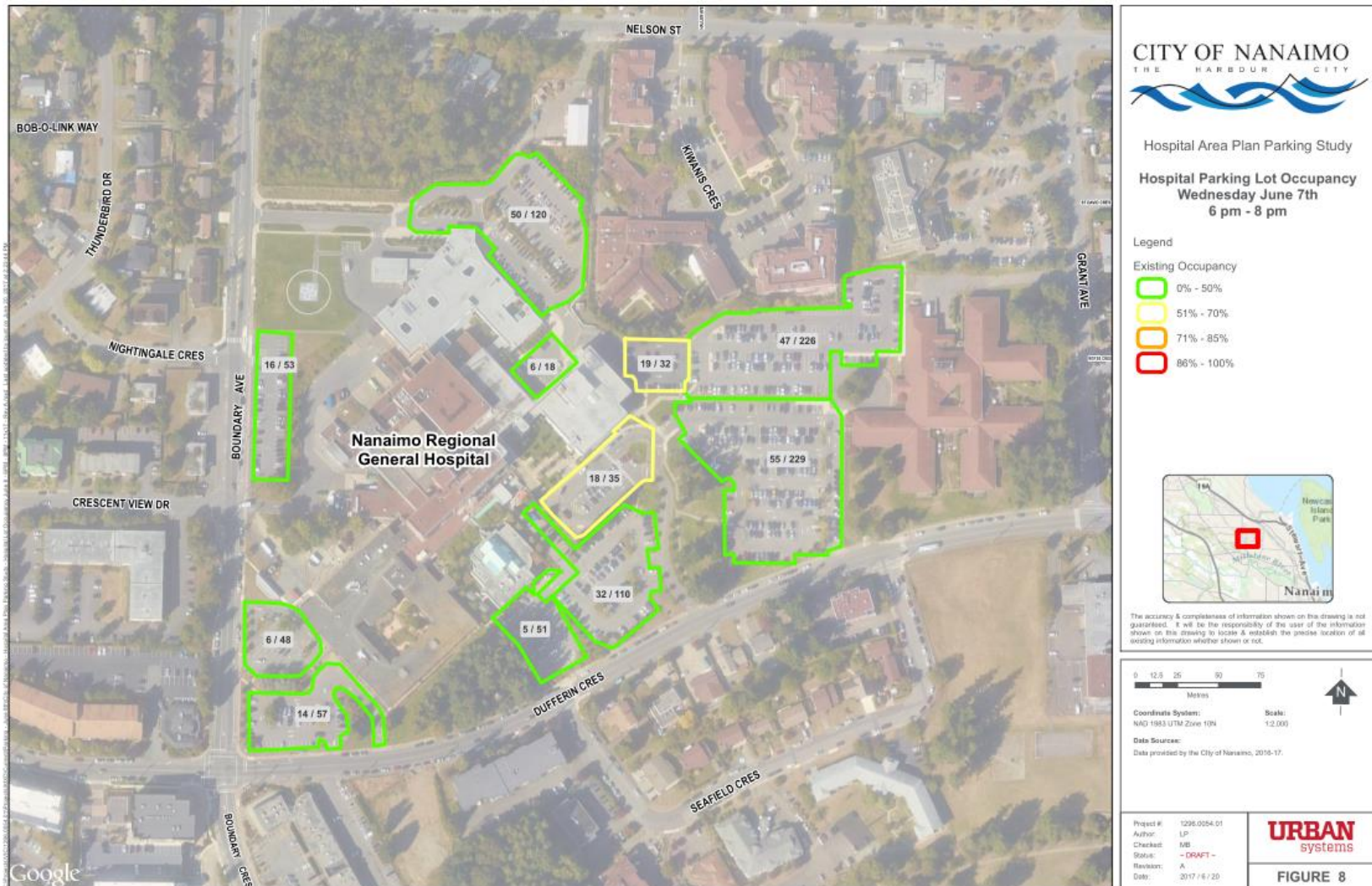
Existing Conditions: Off-Street Parking



Existing Conditions: Off-Street Parking



Existing Conditions: Off-Street Parking



Existing Conditions: Off-Street Parking



Lots A, B, C, E and H were shown to have the highest occupancy rates throughout the day with all of these lots exceeding 85% occupancy in the mid-day period.

Parking Occupancy NRGH Parking Lots – Summary by Lot

Lot ID	Number of Spaces	7:00 AM	8:00 AM	9:00 AM	11:00 AM	12:00 PM	1:00 PM	3:00 PM	4:00 PM	6:00 PM	7:00 PM
A. Lower	229	21%	59%	95%	96%	91%	100%	95%	60%	27%	21%
A.Upper	226	29%	50%	87%	97%	93%	96%	91%	53%	23%	19%
A.Staff	32	100%	100%	100%	100%	100%	100%	94%	84%	63%	56%
B	138	39%	52%	59%	90%	85%	94%	85%	62%	39%	61%
C	110	40%	57%	75%	88%	84%	94%	76%	57%	28%	27%
D	51	18%	27%	41%	39%	53%	65%	53%	29%	8%	10%
E	58	74%	96%	100%	100%	100%	94%	85%	47%	34%	34%
F	48	0%	18%	46%	79%	86%	75%	36%	32%	21%	18%
G	57	11%	27%	44%	67%	69%	64%	51%	29%	27%	24%
H	35	33%	60%	87%	93%	93%	93%	63%	73%	47%	47%
Overall	984	32%	54%	79%	89%	87%	92%	82%	54%	28%	27%

Key Issues Identified



- **High parking occupancy** levels for on-street parking areas immediately adjacent to the hospital during morning and afternoon time periods.
- **Off-street** parking operated by the NRGH was also shown to have **very high occupancy** levels during late morning and early afternoon periods.
- This peak period (late morning and early afternoon) of parking demand where both the on and off street parking **exceeds 85% occupancy** begins to subside around 3:00 pm.
- The turnover analysis revealed that parking duration varied, with a **significant number of people parking for the entire day** and a large contingent parking for two hours or less.

Guiding Principles



Five Guiding Principles have been provided to establish a framework for developing solutions for the parking issues within the hospital area.

- 1. Maximize Benefits For All Users**
- 2. Fairness and Ongoing Customer Service**
- 3. Ongoing Partnerships**
- 4. A Balanced Transportation System**
- 5. A Self-funded Parking System**

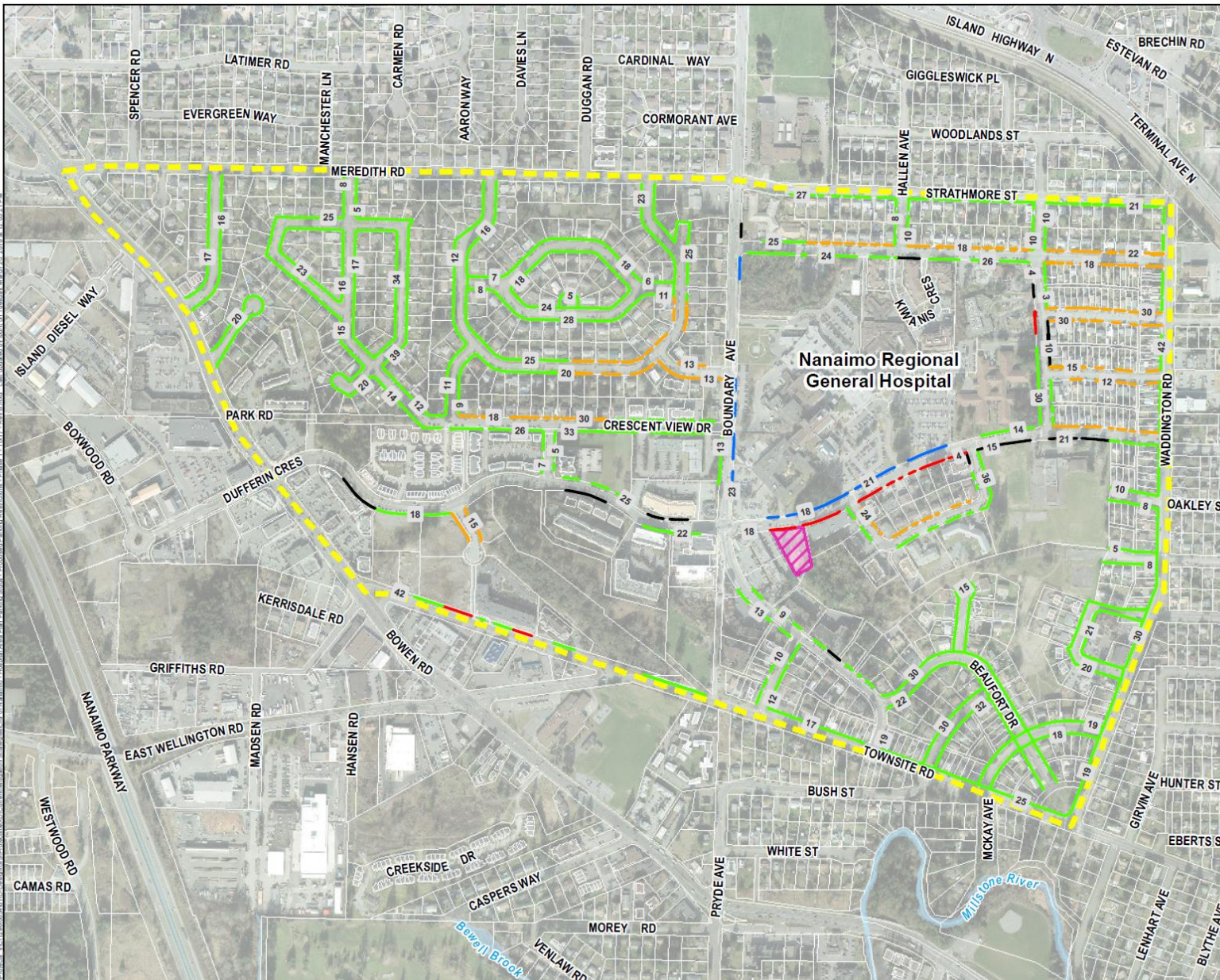
Parking Management Strategies



Overall, the logic behind the proposed parking restrictions can be broken down into four broad actions:

1. Implement **Transportation Demand Management** strategies and policies to reduce or redistribute travel demand to the hospital area.
2. Keep areas of **unrestricted parking in areas** where residents are less likely to be impacted.
3. Implement **pay parking and two hour parking zones** on arterial roads around the hospital to encourage more turnover and create space for short-term parking customers.
4. Introduce **two-hour resident exempt parking** restrictions in single-family residential areas close to the hospital.

Proposed Parking Restrictions Phase 1.0



Hospital Area Plan Parking Study

Proposed Parking Restrictions Phase 1.0

- Hospital Area Plan - Parking Study Area
- 2 hour parking (8AM to 5PM)
- 2 hour parking with Resident Permit Exempt (8AM to 5PM)
- Pay Parking (Current Downtown Rates - 8AM to 5PM)
- Maintain Existing Restrictions
- Unrestricted
- New Parkade - 150 spaces (\$5.00 per day) (est. 2019)
- Number of Parking Stalls



The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.

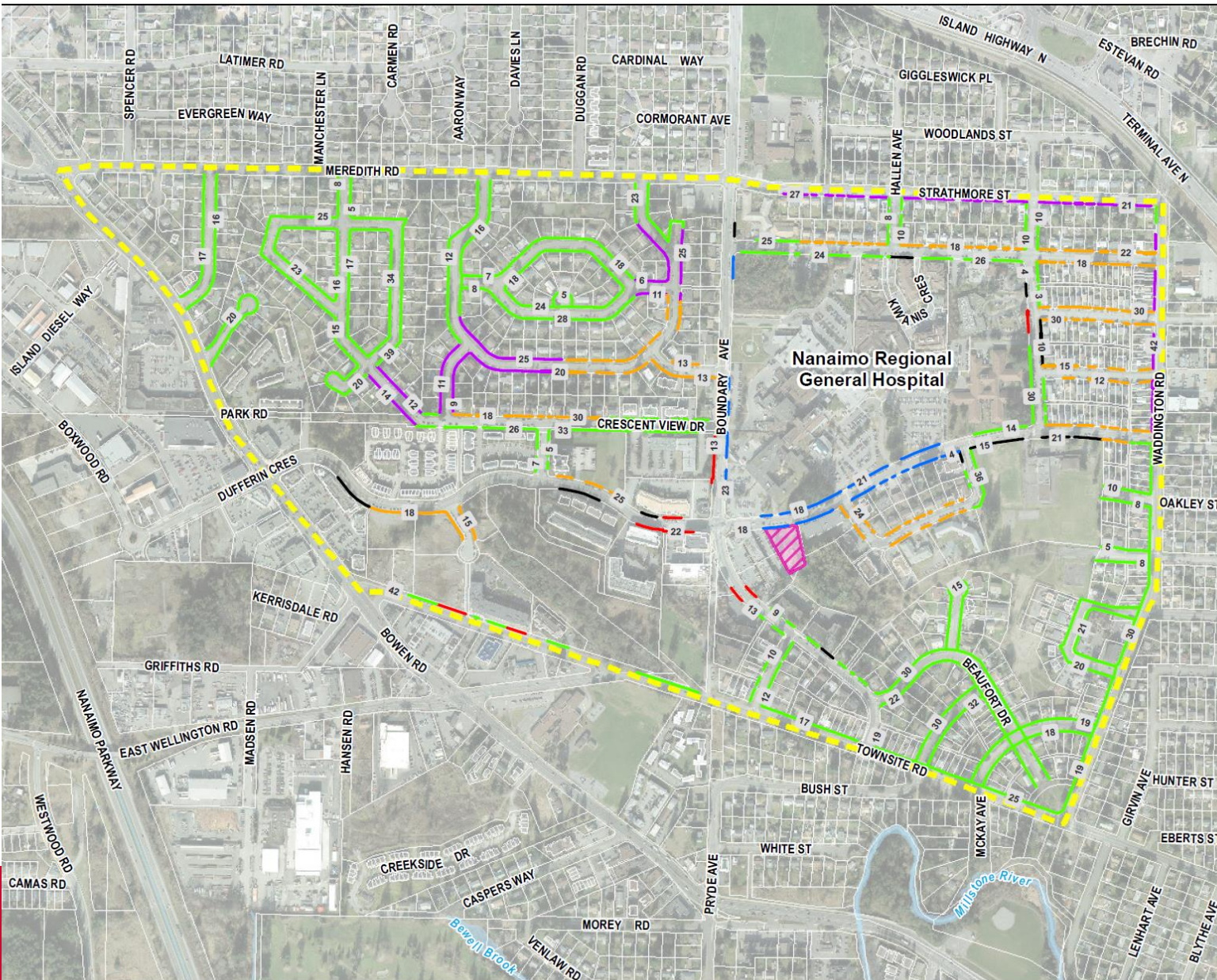


Project #: 1296.0054.01
Author: LP
Checked: SH
Status: **DRAFT**
Revision: A
Date: 2016 / 3 / 20

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FIGURE 6.1

Proposed Parking Restrictions Phase 2.0



Hospital Area Plan Parking Study

Proposed Parking Restrictions Phase 2.0

- Hospital Area Plan - Parking Study Area
- 2 hour parking (8AM to 5PM)
- 2 hour parking with Resident Permit Exempt (8AM to 5PM)
- Pay Parking (Current Downtown Rates - 8AM to 5PM)
- Maintain Existing Restrictions
- Unrestricted
- Review Future Impact in Phase 2.0
- New Parkade - 150 spaces (\$5.00 per day) (est. 2019)
- Number of Parking Stalls

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0 37.5 75 150 225
Metres

Coordinate System: NAD 1983 UTM Zone 10N Scale: 1:6,000

Data Sources:
Data provided by the City of Nanaimo, 2016-17.

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Community Feedback on Draft Strategy



An online survey was conducted in December 2017 to collect feedback on the preliminary direction of Hospital Area Plan and Draft Parking Strategy from the public.

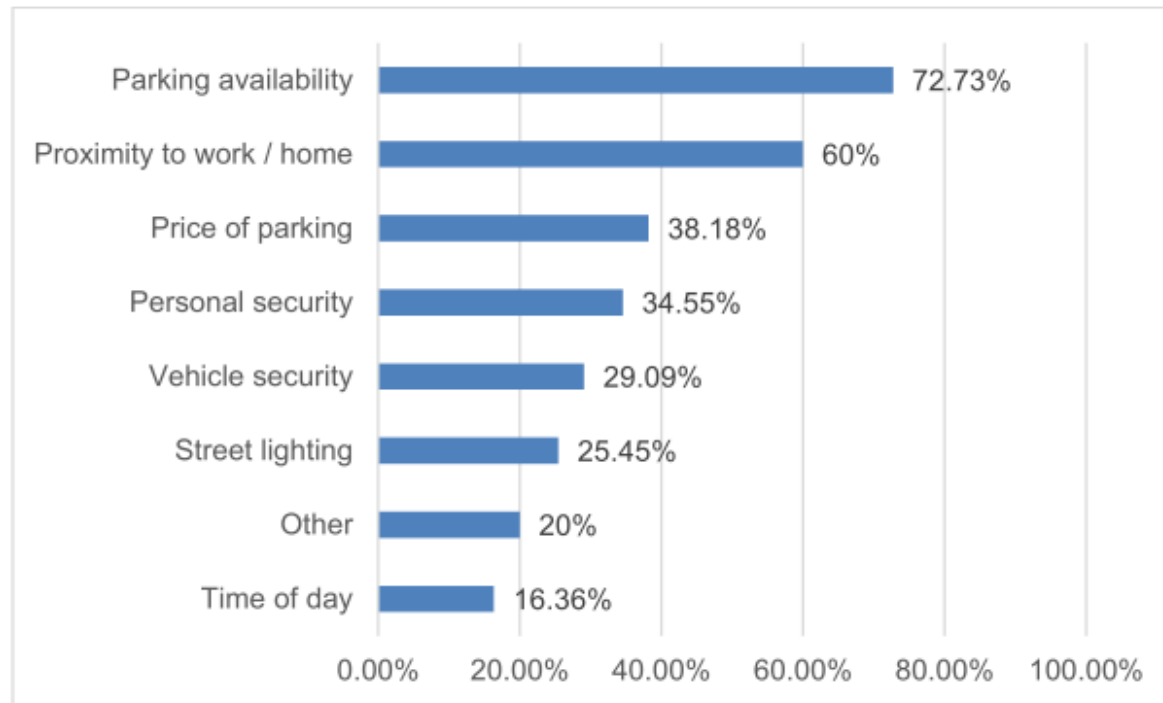
Key Findings:

- 70.3% of respondents stated that on-street parking is the most important element of the street.
- 66.1% of respondents supported the guiding principles for parking. With “Maximize Benefits for All Users” being the most important with 73.3% support.
- For the question “As a strategy to manage parking and increase the turnover of parked vehicles, do you support pricing on-street parking in the Hospital Area?” 36.7% supported this and 63.3% did not.
- For the question “As a strategy to manage parking and increase the turnover of parked vehicles, do you support additional 2 hour parking restrictions in the Hospital Area?” 39.4% supported this and 60.6% did not.

Community Feedback on Draft Strategy



For the question “If you use on-street parking in the Hospital Area, what factors influence where you choose to park? This question was answered by 55 respondents. 40 respondents (72.7%) indicated that parking availability most influences where they choose to park, while another 33 (60%) respondents indicated that proximity to work/home is an influencing factor.



Implementation Strategy



In the short-term it is recommended that Phase 1.0 restrictions be implemented in 2018 after the adoption of this strategy.

The impacts of Phase restrictions should be reviewed after approximately 6 - 8 months to determine their level of effectiveness and impacts on parking conditions.

- Phase 1 – 2019
- Interim Review (6 – 8 months) - 2020
- Phase 2 – 2021 (if required)
- Post Implementation Review (2 Years) - 2022

In the long term (> 5 years) it is suggested that the parking strategy be revisited and reviewed to incorporate changes in land use and development in the Hospital Area.

Pay Parking

Technology	Description	Image
Multi-Space Pay and Display Meters	Pay and display meters allow drivers to purchase a “certificate” for paid parking time which is then displayed to prove compliance. • Can be done on a block or zone basis • This system could be adapted to incorporate remote payment technologies (i.e. pay by cell phone).	
Multi-Space Pay by Space Meters	Pay by space meters allow drivers to pay for parking by entering their specific space number into the pay station when paying, rather than by providing a receipt for display on the dashboard. • Time extensions can be paid remotely (i.e., another station, by cell phone, etc.). • This technology is also available in a pay by license plate variant	
Smart Cards	Smart cards are stored-value cards that can be inserted in the meters to add time. Users insert the card at the meter and allow the meter to increase the time increment purchased in \$0.25 steps. • Users are billed only for the time actually spent parking	

Pay Parking

Technology	Description	Image
Pay by Cell Phone	Paying for parking by cell phone allows customers to pay without cash while eliminating the need to install new revenue collection infrastructure on the street. • People receive text messages notifying them that their time is about to expire and allows them to extend legal parking time remotely. • Upon returning to their vehicle, a person may terminate the parking session and avoid paying for time not used.	
In-Car Meters	In-car meters are small devices which are loaded with pre-paid parking time. The user activates and displays the meter in their car and activates the device when parked at a metered space. • A digital display counts down the amount of paid parking time, allowing a parking enforcement to see that the car is legally paying for parking.	

Implementation Strategy Transit

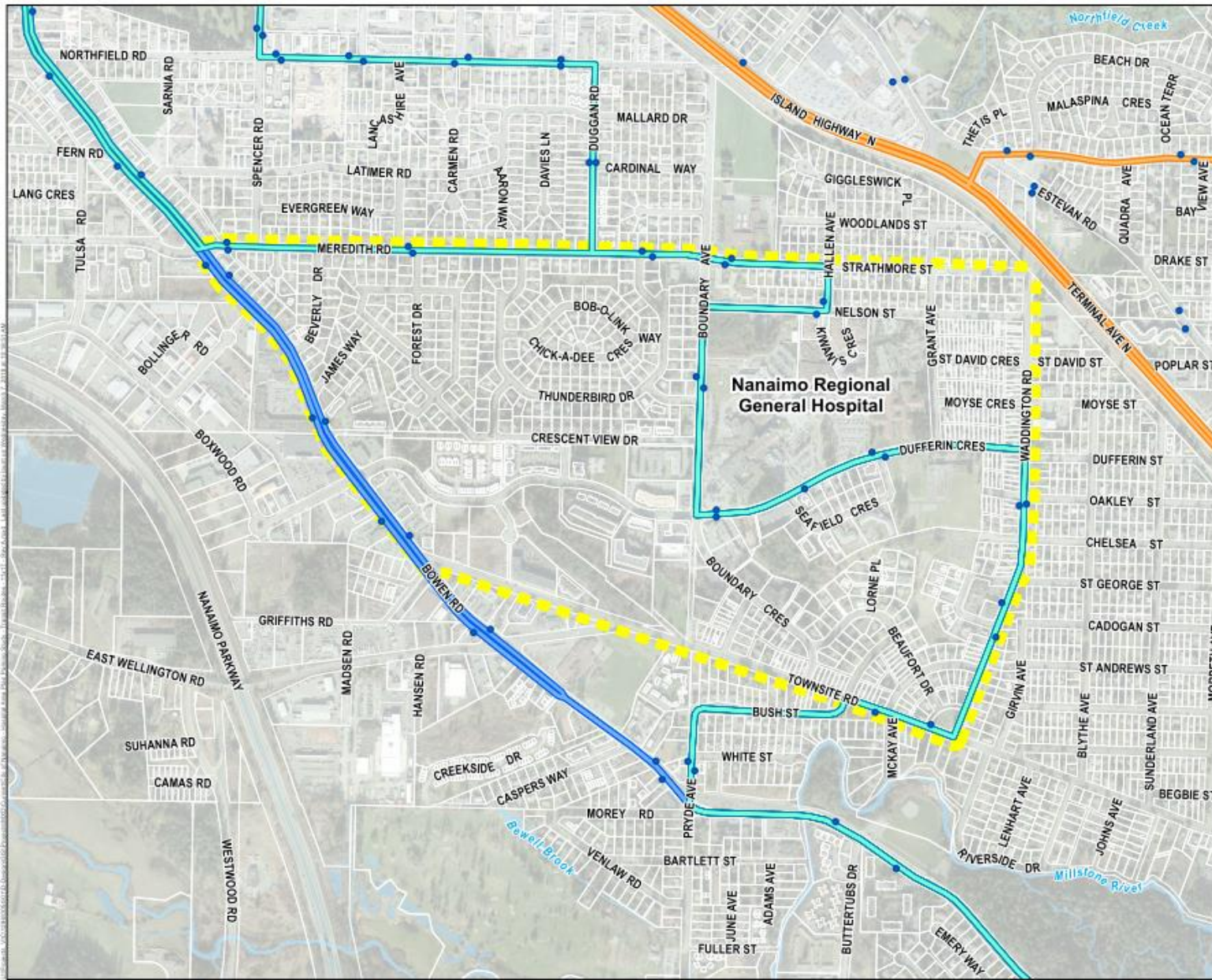


Increasing transit services to the Hospital Area will play an important role in reducing the demand for parking, both on and off street.

There are currently three bus routes that operate within the study area:

- Route 30 -NRGH local route,
- Route 40 -VIU Express, and
- Route 50 - Downtown /Woodgrove.

Implementation Strategy Transit



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THE HARBOUR CITY



Hospital Area Plan Parking Study

Transit Routes

- Hospital Area Plan - Parking Study Area
- Transit Stop
- Route 30
- Route 40
- Route 50



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Coordinate System:
NAD 1983 UTM Zone 10N

Scale:
1:10,000

Data Sources:
Data provided by the City of Nanaimo, 2016-17.

Project #:
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Author:
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Revision:
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Date:
2016/3/7

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FIGURE 7.1

Implementation Strategy Transit



The Hospital Area Transportation Plan provides several key recommendation for improving transit in the Hospital Area, including

- **Bus Schedule and Routing** - Explore opportunities to provide more frequent and direct transit service to the Hospital and examine potential changes to the transit schedule that would better serve hospital staff.
- **Bus Stops** - Provide clean, safe and lit bus shelters at key stops such as those adjacent to the hospital.
- **On-Site Bus Stop at Hospital** – In the long-term examine the feasibility of locating a bus stop on the hospital site to encourage staff/patients to take transit for trips to/ from hospital.

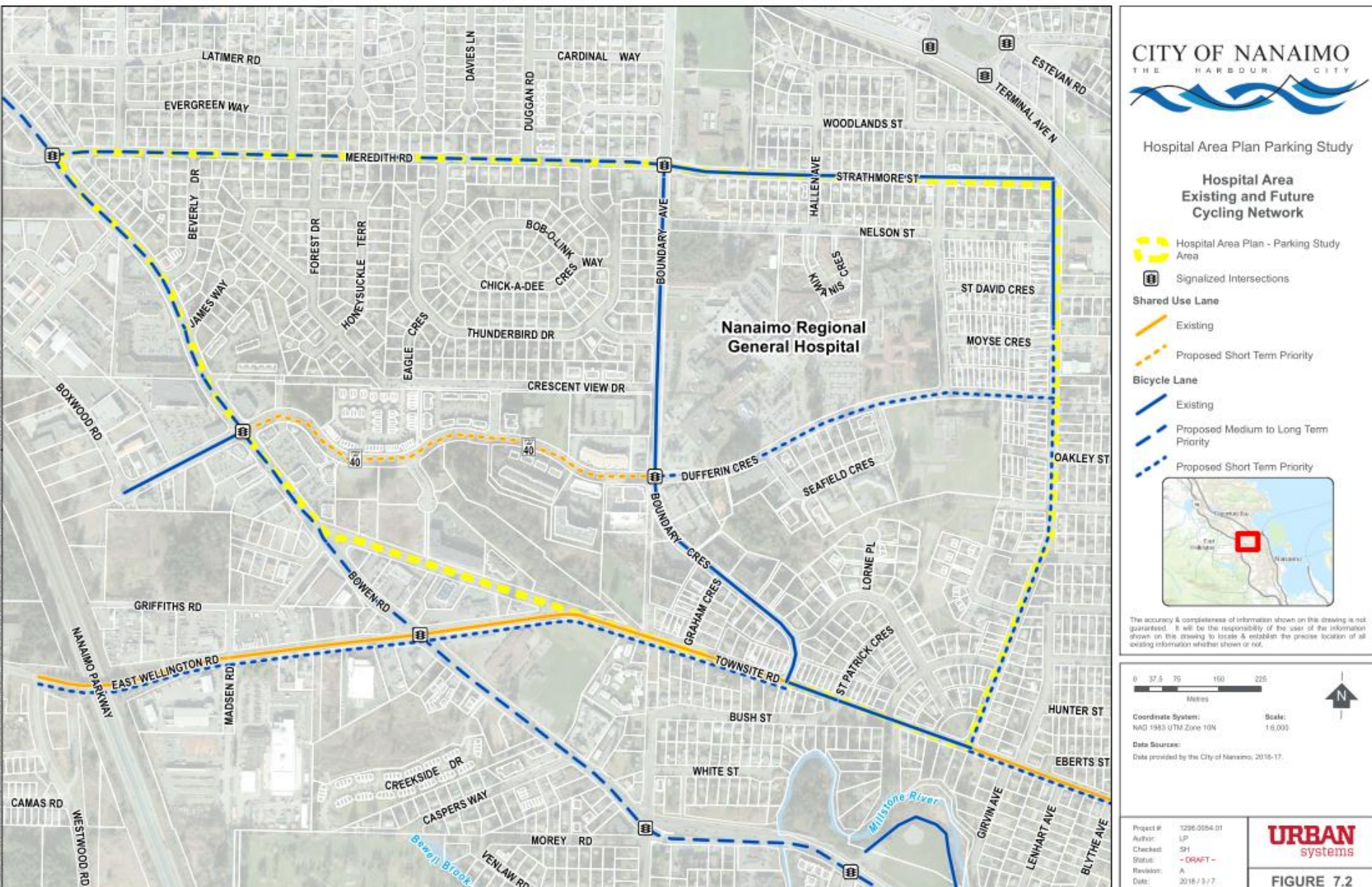
Implementation Strategy Cycling



Improving cycling and walking infrastructure will be an important step in managing parking demand in the Hospital Area.

- **Sidewalks** - The City has expedited the plan to upgrade pedestrian facilities and add a sidewalk along Dufferin Crescent west of the intersection of Bowen Road and Dufferin .
- **Bike Lane** - Additional bike lane on Dufferin Crescent east of the intersection of Boundary Avenue and Dufferin Crescent.
- **Sharrows** - Reduction of speeds to 40 km /h and adding a bike sharrows to Dufferin Crescent to the west of the intersection of Boundary Avenue and Dufferin Crescent.

Implementation Strategy Cycling



Implementation Costs



The total parking revenue from phase 1 paid parking is estimated a \$145,080 a year with 62 spaces operating at 80% occupancy for a cost of \$1.25 per hour. In phase 2 this increases by 35% to \$196,560 with 84 spaces.

The implementation costs for signage and pay parking infrastructure are between \$117,250 and \$175,000; the estimated increase in enforcement costs is \$45,000 - \$60,000 annually.

Estimated Implementation Costs

Phase	Year	Expense	Estimated Cost Range
Phase 1	2019	Signage	\$16,250 - \$18,750
		Pay Parking Metres	\$72,000 - \$120,000
Interim Review	2020	Parking Study	\$20,000 - \$30,000
Phase 2	2021	Signage	\$5,000 - \$6,250
		Pay Parking Metres	\$24,000 - \$30,000
Post Implementation Review	2022	Parking Study	\$20,000 - \$30,000
Enforcement Costs	2019-2022	Enforcement Costs (4 years)	\$180,000 - \$240,000
Total Implementation Costs	2019 - 2022		\$337,250 - \$475,000

Implementation Cash Flow

The cash flow analysis shows that the estimated parking revenue will cover the cost of implementing the Hospital Area Parking Strategy after 2 years and that after 5 years the City could be turning a profit of \$136,560 to \$151,560 a year - assuming no change in parking and enforcement costs.

Estimated Cash Flow

Year	Costs Low End	Costs High End	Revenue	Gain / Loss (+/-) (Low End)	Gain / Loss (+/-) (High End)
Year 1	\$133,250	\$198,750	\$145,080	\$11,830	-\$53,670
Year 2	\$65,000	\$90,000	\$145,080	\$91,910	\$1,410
Year 3	\$74,000	\$96,250	\$196,560	\$214,470	\$101,720
Year 4	\$65,000	\$90,000	\$196,560	\$346,030	\$208,280
Year 5	\$45,000	\$60,000	\$196,560	\$497,590	\$344,840

Note: This assumes parking cost remain the same at a \$1.25 per hour.