

**Engineering**ENGINEERING AND PUBLIC WORKS

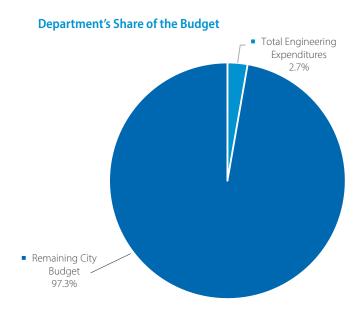
## DEPARTMENT OVERVIEW

The Engineering Department plans and implements the City's capital works, designs and constructs City infrastructure residents rely on daily, including: transportation, water distribution, sanitary sewer, drainage and facilities. A substantial aspect of the work in Engineering is project management, which often includes projects for other departments.

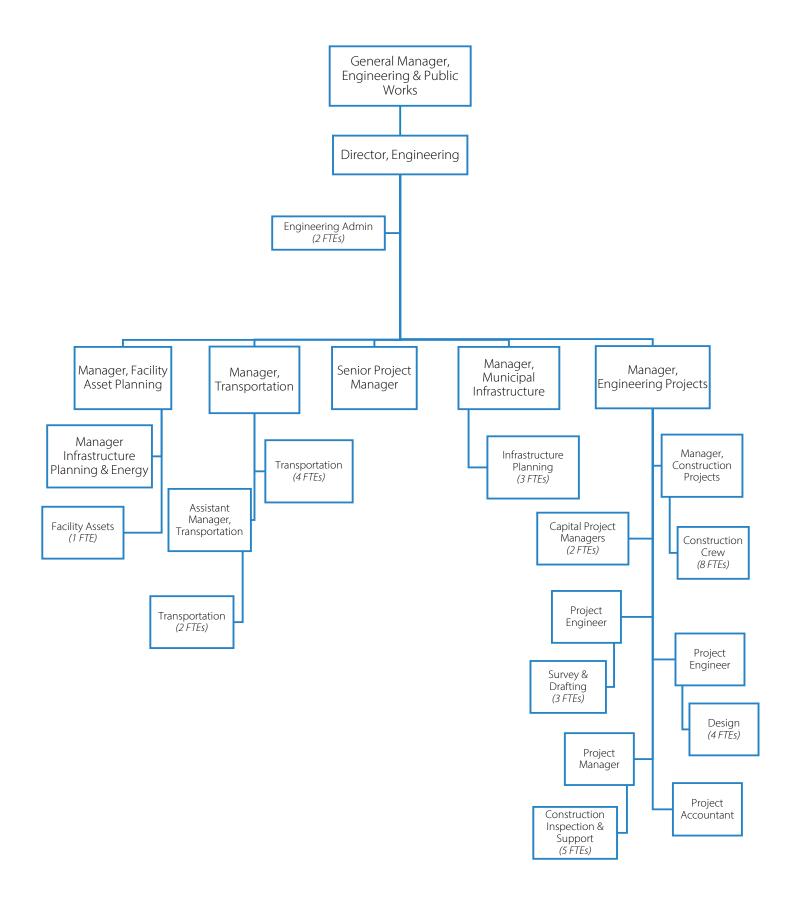
The work of the department focuses on stewarding the condition of public infrastructure and development of new infrastructure in support of City Plan.

The Engineering Department is currently composed of five primary groups:

- Administration
- Transportation
- Infrastructure Planning
- · Capital Projects
- · Facilities Asset Management



Operating Expenditure Budget: \$5,875,353



## **ADMINISTRATION**

The Administration of Engineering provides essential support to the department. These are front-line staff that interact with the public, provide financial and clerical support, records management, organization and ensure that other staff have the day-to-day resources they need.

Administrative services for the Engineering Department is provided by 2 staff members located at the Service and Resource Centre (SARC).

#### **Level of Service:**

- A front counter is available for the public to access and reach staff in Engineering during normal working hours.
- Permit processing and approvals including trucking, film, street use, third-party utility construction, etc.
- Clerical support for Council and Committee reports.
- Records management for the department is maintained.
- Assistance for financial transactions and processing of invoices.
- Administration for Engineering is primarily internally focused and supports matters relating to infrastructure planning, technical and project standards, capital project design and construction.

#### **2024 Accomplishments**

- Over 175 permits processed in 2024.
- Brought a co-op student on board for 8 months of the year.

#### 2025 Opportunities

The public-facing level of service in this area is high. Each resident who calls is able to speak with a member of the Admin team. Residents are accustomed to this service. It is increasingly rare in cities of this size. Many cities have opted to move to an automated answering service. In 2025, staff will continue with this level of service; however, use the voicemail box to provide information during periods of high call volumes.

## TRANSPORTATION

Transportation in Nanaimo has seen drastic changes over the past 5 years. The adoption of the Complete Street Standards, an updated Official Community Plan and Integrated Action Plan, as well as unprecedented demand for calls for service. Guided by Council's Strategic Framework and the Integrated Action Plan, Transportation works to ensure fair and equitable use of public spaces and appropriate investments into new infrastructure, while also diligently maintaining and optimizing existing assets.

In 2024, Transportation maintained the following existing assets (\*Note: Transition to new Asset Management Software as well as updated field asset collection has created anomalies between previously reported stats):

- 541 km of roads, 455 km of sidewalks, and 122 km of bicycle lanes/cycle tracks
- 53 signalized intersections, 4 roundabouts (unchanged), and 19,572 traffic signs
- 1,576 pay parking spaces (285 on-street and 1291 off-street (update unavailable)
- 20 bridges (unchanged) and 40 (27 vehicle/13 pedestrian only) railroad crossings
- 4819 City owned streetlights and 4189 lights leased from BC Hydro
- 1223 marked crosswalks
- 76 pedestrian activated crosswalk-warning beacons
- 14 transit shelters

In 2024, Transportation completed the following:

- 1 end of life traffic signal renewal
- 5 mid-life traffic signal renewals
- Added 1.4km of cycling facilities
- Added 1.5km of sidewalks

#### Level of Service:

The Transportation Group is the initial point of contact for all businesses, residents, and visitors to Nanaimo who have enquiries or concerns regarding mobility within the City of Nanaimo. Of the 650 concerns and requests Transportation received in 2023, the most common were speeding, parking, intersections and pedestrian safety. The majority of these enquires consume several hours to complete due to the growing complexity of the transportation system. The theme for priorities has remained in 2024; however, the volume has risen and Transportation is on track to receive more than 800 requests. Managing issues consumes almost 25% of the groups capacity.

To create a well linked multi-model transportation system in Nanaimo, Transportation has prioritized safe, equitable, sustainable and accessible mobility choices. The following priorities were supported by residents through the consultation process and established in City Plan and the accompanying Integrated Action Plan:

- Data driven, fact based and informed decision making is the foundation of Transportation's stewardship of municipal funds.
- Creating complete communities that aim to meet the needs of all residents that provide alternate accessible mobility options to reduce the dependency of personal vehicles.
- "Complete Streets" that safely accommodate all people of all abilities in an attractive and comfortable setting while providing alternate travel options that are more convenient for the community.
- Influencing behavioural changes through street design, encouraging appropriate vehicle speeds and mode shift to support active transportation and decreased pollution.

6

- Maximize investments in safe, healthy and equitable travel for all people and goods within the City, including endorsing safe walking routes, active school travel plans and route connectivity.
- The use of socioeconomic factors when planning and prioritizing new infrastructure or services to provide dignified and safe travel options for vulnerable populations.
- Innovation and technology is used to improve asset management and travel demand models to make better decisions for future investments that improve quality of life.
- Nanaimo's streets and road right-of-ways currently amount to 541 km (approx. 1,100 ha) of public space.
   The Transportation network represents one of the largest opportunities to provide safe, inclusive and accessible places for residents' need to meet and connect. Community events such as street markets, parades, festivals, bike film festival and outdoor patios are just a few examples of reclaiming City streets for public connection. The transportation group balances these desires with the need to maintain mobility.
- In addition to maintaining and planning hard infrastructure, the City provides strategic initiatives that promote, educate, empower and encourage our residents to move and connect throughout our City. Some of these initiatives include:
  - GoByBike Week
  - The Cycle Commuter Challenge
  - Electric Vehicle Advocacy
  - Car Share and Bike Share Advocacy
  - Active School Travel planning in partnership with the School District, the school community and its PAC, as well as other agencies
  - Transit Shuttles for special events with RDN partnership
  - Nanaimo online Cycling Map
  - Ride Hailing



#### 2024 Accomplishments

In 2024, Transportation completed the following:

- Transportation guides and influences numerous decisions regarding development, road safety, operational efficiencies, and asset renewal. The financial implications of these decisions inform the annual multimillion dollar capital and operating budgets which maintain and grow the City's services. Staff have historically relied on the manual collection, aggregation and analysis of this data to support these decisions, but this process was time consuming and inefficient. In 2021 a web-based traffic data analysis platform was created to house and analyze mobility data, while respecting and protecting the privacy of Nanaimo residents and visitors. In 2024 a Traffic Signal Management System has been created which not only enhances staffs ability to maintain and operate the network of signals, but can now act as remote sensors to acquire data that was previously gathered manually. The integration of these tools sets the foundation for a more efficient and effective decision-making system.
- Newly developed tools in the traffic data analysis system include:
  - Automated process to view the collected traffic data (speeds, volumes, pedestrian crossing demand, number of cyclists, turning movement counts, etc.).
  - Crash analysis tool where ICBC crash data is incorporated with features to compare the crash numbers at an intersection before and after changes to the roadway, which can include the replacement of a 4-way stop sign with traffic signal.
  - Issues Management Tool to record and track the progress of public concerns and inquiries related to traffic.
- With increasing traffic calming requests over the past few years, staff have worked diligently to deliver Council approved and funded traffic calming projects such as Bay Street, while continuing to carry out the traffic calming process for more than 77 traffic calming investigation tasks over the past two years:

- These requests which were prompted by public concerns require data collection and analysis.
- In 2023, public consultation was carried out simultaneously with the design process for Extension Road traffic calming, which was ultimately supported by Council to advance to the construction stage. A functional design was developed in 2023 and was implemented in Spring 2024.
- Staff also started the work for the first two projects in the growing Traffic Calming Project Consideration list, namely, Bradley Street and Mountain Vista traffic calming.
- Transit Action have the following items outlined in the Integrated Action Plan:
  - Transportation is leading a program in partnership with the RDN, BC Transit (BCT), and the third-party vendor to establish a purposeful transit stop amenity program that supports the objectives of creating a safe, integrated and appealing transit system. IAP Ref. C2.2.10/C2.2.11.
  - Transportation is collaborating with the RDN and BCT to develop a Norwell Drive Corridor Plan which will support Active Mobility within the Country Club Urban Center. IAP Ref. C2.2.13.
- Noting that Nanaimo is one of the fastest growing communities in Canada, it's not surprising that land development is booming. However, availability of vacant land is declining, which has made each development application more challenging to accommodate. These challenges have caused the community to become increasingly sensitive to the impacts of the higher demands on the mobility system, travel time, parking, etc. By the end of 2024, Transportation staff will have reviewed more than 150 applications. The steady increase in complexity in the referral process has identified gaps in the previous referral process. Staff have re-structured workflow to increase efficiencies and introduce a higher degree of rigour. This demand consumes approximately 40% of the groups capacity.

8

- There are both direct and indirect impacts to municipal infrastructure with land development. Direct impacts, such as sidewalks and utility connections, are dealt with by each individual applicant. Indirect impacts, such as large-scale intersection upgrades that are needed to support multiple developments are addressed by the City as part of growth but are partially funded by Development Cost Charges (DCCs). The DCC bylaw is updated regularly to ensure that projects, project costs, and DCC fees are current. The City started this review in 2023 to ensure that appropriate investments are being made to maintain and grow community services. With Provincial regulation changes in 2024 with the creation of the Amenity Cost Contributions (ACCs) both the DDCs and ACCs will be brought forward to Council in 2024.
- The City and School District 68 staff have continued collaborative efforts to support safe and healthy travel to and from school by undertaking multiple Active School Travel projects the past few years.
- Utilizing the recently created pedestrian prioritization tool, which uses common safety and demand metrics and includes socio-economic factors, \$482,000 in pedestrian improvements were moved forward. This includes:
  - Albert Street Crossing Improvements which include adding raised crosswalks, or bump-out curb extensions.
- Completed IAP #37 and C2.1.3 by implementing pay parking technologies in partnership with HotSpot Parking that allows multiple payment methods and remote payment for extending parking.
- Initiated IAP #38 by developing End of Trip facilities for short and long-term bicycle parking around key trip generators.
- Continuation of the VIU Bikeway on Albert Street from Pine Street to Milton Street including widening of Albert Street between Pine Street and Kennedy Street to facilitate the installation of concrete sidewalks, concrete curbs, and cycling facilities.



#### **2025 Opportunities**

In spring 2023 and 2024, Transportation staff participated in the Neighbourhood Association Engagement Event. The discussions at this event highlighted how important mobility is to residents. This, combined with the dramatically escalating calls for service, are a strong indication of what should be expected in 2025.

- Increased demand for engagement and communication.
- Increased demand for road safety improvements.
- Increased demand for curb space management (parking).

Acknowledging how much time is spent by both staff and residents in trying to share concerns and feedback, Transportation is looking to utilize the evolving transportation data system to enhance communication with the community by creating a stronger web interface. The objective of this would be to create an open and transparent data viewer which would enable residents to have direct access to data which should provide seamless insight into what is happening with transportation in the City. This could look like a mobility dashboard which would also assist with tracking targets and indicators from City Plan.

Enhancing road safety and efficiency saves the community money in the long run, however, the capital investments are often significant. Enhancement projects are typically competing for the same scarce funding which is used to maintain assets which creates a very difficult decision process for the City; maintain or grow services. Staff use the best information available to prioritize investments, but maintaining current levels of service and enhancing the system is becoming all but impossible.

Like most municipalities, Nanaimo has acknowledged that the transportation system that was developed decades ago is not environmentally or financially sustainable (for the users or the City). This does not mean that residents should be expected to compromise on safety or overall mobility but will require an acceptance of change in other ways, potentially including a decreased level of convenience. One of the most sensitive aspects of this change is parking.



In 2024, staff started embarking on a broad scale review of how the City manages parking. The review includes:

- implementation of virtual pay options across downtown,
- the re-introduction of pay parking in areas where meters were lost to vandalism in 2018, and
- City-led establishment of Transit Oriented Area Parking Requirements Downtown.

As part of the review an overall review and update of Bylaws 5000, 7266, 3260, 7224 is also required. The review is supported through City Plan "Managing parking city-wide with a focus on right sizing parking to continue fulfilling key needs including access, loading, and pick-up for businesses; accessible parking for people with mobility of family needs, and EV parking, while recognizing that an overabundance of cheap and convenient parking tends to increase vehicle use and reliance.- C2.1.7". A significant element of this task will be public engagement and education. The outcome is envisioned to be a resident guided process for managing curb space in a fashion that is equitable and sustainable.

### **Strategic Priority: Implementing City Plan**



**IAP Priority Action #42** – Third Street Pedestrian Upgrades: Upgrade pedestrian and cycling facilities from Watfield Avenue to Pine Street.



**IAP Priority Action #43** – Downtown Transit Hub: Construct a downtown transit hub to support active transportation connections between Downtown and surrounding Neighbourhoods and Urban Centres.



IAP Priority Action #56 – Cranberry Avenue/Island Highway – Intersection Improvements: Implement intersection improvements and expanded left-turn capacity to reduce congestion for vehicles entering or leaving the Cinnabar Valley via Cranberry Avenue.

### **Strategic Priority: Communicating with the Community**

Transportation is creating a public facing dashboard to more effectively and transparently communicate with the public.

## INFRASTRUCTURE GROUP

The Infrastructure Group is responsible for planning, organizing and implementing programs, and establishing and monitoring policies and standards necessary to provide a safe and efficient water distribution, sanitary sewer collection, and storm drainage infrastructure to support existing needs and future growth.

The group also assembles the 10 Year Project Plan, coordinates across departments and prepares revisions to the Manual of Engineering Standards and Specifications (MoESS), coordinating across departments.

In 2024, there were approximately:

- 597 km of Sanitary Sewer,
- 517 km of Storm Drainage Sewer, and
- 649 km of Watermains.

#### **Level of Service:**

- Oversee the development and implementation of the City's Infrastructure Modeling programs for water distribution, sanitary sewer, and storm drainage systems. The group uses the models as a tool to plan infrastructure capacity improvements, develop operational maintenance strategies and proactively manage our underground utilities systems.
- Oversee the Sanitary Sewer Flow, Storm Drainage Flow and Rainfall Monitoring programs. Sanitary Sewer Monitoring stations and Rainfall gauges provide critical real-time rainfall, flow and level data necessary for calibration of our Sanitary Sewer and Storm Drainage hydraulic models and for storm and sanitary sewer pipe sizing. The group, with the support of Public Works staff, oversees and maintains 15 sanitary sewer flow, 5 rainfall, and 4 level sensors monitoring stations.
- Manage annual program that employs Closed Circuit
  Television (CCTV) inspection of critical sanitary sewers and
  storm drainage. The defect coding output from the program
  provides the ability to identify defects of both a structural
  and operational nature, including observed locations of
  infiltrating ground water. Manage yearly inspection program
  of critical watermains.

- Complete master plans and studies for water distribution, sanitary sewer collection, and storm drainage infrastructure.
   Staff from the Infrastructure Planning group are the team leaders and project managers overseeing the engaged consultants.
- Develop scope of projects to renew infrastructure based on network models, condition assessments, operational input, master plans and studies recommendations. The identified projects are prioritized with a triple bottom line risk assessment methodology that considered environmental, social and economic consequences of failure for each pipe segment, both under existing and future conditions, for inclusion in the Ten Year Project Plan. Staff prepare conceptual designs for highest-ranked projects and conceptual designs are handed over to the Projects group for detailed design.
- Coordinates the Ten Year Project Plan across departments on behalf of the Engineering and Public Works (E&PW) group for inclusion into the City's annual Financial Plan. Revisions to the Five Year Project Plan are annual, starting in January of each year. Staff meet individually with stakeholder groups, prepare scopes of projects with updated cost estimates based on input from stakeholders, enters the information in CityProjects, updates the Excel master table, and submits the information to Finance at the end of May.
- Reviews and provides comments for Development Applications about impacts on City Infrastructure from proposed development. Proposed applications for OCP Amendments, Rezoning, Subdivision and Development Permits are reviewed. The available Sanitary Sewer capacity is checked with the most current sewer model to ensure there is adequate sewer capacity or identify any downstream pinch points. Water sprinkler and fire flows are checked with the most current water model to confirm adequate water supply for proposed developments.

- Coordinates, organizes, researches, collaborates with stakeholders and prepares the bylaw amendments for the review and issuing of the City's MoESS. The MoESS is a Bylaw that provides design requirements, material specifications and installation requirements for all works built by developers or City forces that will be operated, maintained and replaced by the City, in perpetuity.
- Engages with the Regional District of Nanaimo (RDN) through participation in Liquid Waste Monitoring Committee.
- Develops policy, bylaws, standards and tools with regards to climate change, storm water management and asset management that take into account the most current CityPlan goals and objectives, Climate Change, industry trends, and initiatives from other jurisdictions.

#### **2024 Accomplishments**

- Undertook two studies and one Master Plan:
  - Catstream Drainage Study
  - Woodgrove Area Sanitary Sewer Study
  - Master Plan for Wellington North Slope Sanitary Sewer
- Completed work on DCC reviews for water distribution, sanitary sewer and storm sewer in preparation for new DCC bylaw.
- Completed the Ecological Accounting Process for Departure Creek in collaboration with Mount Arrowsmith Biosphere Region Research Institute for Departure Creek and started new accounting project for Wexford Creek.
- Maintained yearly Sewer Flow, Storm Drainage Flow and Rainfall Monitoring program for City wide sewer and storm drainage model calibration.
- Completed construction of two sewer monitoring stations to monitor flows from the Millstone and Northfield sewer catchments as well as two new Level Sensor stations to monitor sewer and storm drainage flows.
- Collaborated with Planning staff to complete close to 120 Development reviews to assess impacts of proposed development on underground utilities. Watermain and sanitary sewer models are run to identify impacts/flows from proposed development and the results are documented in a Technical Memo.



- Purchased portable Flodar for calibration of sewer monitoring stations and tracking flows in various manholes.
- Oversaw video inspection and condition assessment of 28 km of sewer pipe and 7 km of drainage pipe.
- Continued collaboration with RDN and RDN jurisdictions working group on possible Inflow & Infiltration (I&I) reduction strategies to include in the Liquid Waste Management Plan (LWMP) Amendment. Work will be ongoing for the next few years.

#### **2025 Opportunities**

- To construct an additional priority sewer monitoring station to monitor flows within the sanitary sewer system.
- To finalize DCC review for water distribution, sanitary sewer and drainage utilities.
- To further develop a Storm Water utility funding model.
- To complete an AMI water meter review.
- To continue to collaborate with MABRRI/VIU, RDN and Municipality of North Cowichan on a three-year commitment to complete Ecological Accounting Process (EAP) training of VIU students with Departure Creek and other areas to be selected.
- To continue researching and collaborating with other jurisdictions to learn new and more efficient ways of organizing and managing capital projects.

### **Strategic Priority: Implementing City Plan**



**IAP Priority Action #10** - Collaborate with MABRRI/VIU, Regional District of Nanaimo and Municipality of North Cowichan on a three-year commitment to complete Ecological Accounting Process (EAP) training of VIU students with Departure Creek and other areas to be selected.



**IAP Priority Action #24** - Construction of additional priority sewer monitoring station to monitor flows within the sanitary sewer system.



**IAP Priority Action #25** - Complete DCC review for water distribution, sanitary sewer, and drainage utilities.



**IAP Priority Action #26** - Complete Natural Asset Inventory as part of stormwater management.



**IAP Priority Action #27** - Further develop a Storm Water utility funding model.



**IAP Priority Action ##69** - Completed Water Distribution and Sanitary Reviews to ensure there is adequate capacity in the systems to accommodate the Affordable Housing Projects.



IAP Priority Action #182 - Complete an AMI water meter review.



**IAP Priority Action #196** - Complete sanitary sewer review of capacity as part of the infrastructure planning for the Woodgrove Area Plan.

## **Strategic Priority: Maintaining and Growing Current Services**

Continue to provide technical input for the City water distribution, sanitary sewer and storm drainage utilities to support the various asset management initiatives

## CAPITAL PROJECTS

Responsible for the delivery of the majority of capital projects for the City. The Capital Projects group ensures that each project has a dedicated project manager who works with various operational departments to guide the project from a concept idea to finished construction using Nanaimo's robust Project Management Framework (PMF).

The City is located on the traditional territory of the Snuneymuxw First Nation (SFN), and some projects cross registered archeological sites or near watercourses that are of interest to Snuneymuxw First Nation. The projects group continually engages with SFN to ensure that these projects are completed in a respectful manner consistent with the City's commitments to reconciliation.

The City's in-house construction crew completes several million dollars' worth of projects each year and primarily focuses on projects that would be difficult to tender, such as smaller projects, short notice projects or projects that require a high degree of engagement with the public during construction. The construction crew is also tasked with emergency work.

The remainder of the projects are completed by external contractors, most of which are located within Nanaimo, allowing the City's capital construction dollars to flow back into the local economy.

The timing of projects is driven by a number of factors including:

- Staff capacity
- Market capacity (contractors)
- · Environmental consultation
- Seasonal efficiencies

#### Level of Service:

Project governance is undertaken in alignment with the PMF and the Project Management Policy.

- Projects are generally underway in the year they are budgeted.
- Budgets are set with high quality cost estimates prepared by professionals.
- The public is well informed about work that may affect them or their neighbourhood.
- Project risks are identified early in the project, and appropriate risk mitigation measures are put into place.
- Engineering work is completed within the City's Professional Practice Guidelines.

#### **2024 Accomplishments**

Budgeting and estimating has caught up with inflation and the majority of the project tenders were within the project budget.

In August of 2023, there were three breaks in one short section of watermain on Meredith Road. The project was fast tracked and by May of 2024 the affected section of pipe was replaced by the City of Nanaimo's construction crew.

An as and when contract for small civil construction work was implemented to increase efficiency for smaller projects such as crosswalk improvement and water meter installations.

Approximately 53 projects are under construction being managed by the Engineering Project group in 2024 with a value of nearly \$72 million.

Some major projects that were under construction at the end of 2023 and will be completed in 2024 include:

- Albert Streets Complete Street
- Terminal Avenue Phase 1
- 580 Fitzwilliam Street Renovations (RCMP)
- Harewood Artificial Turf Fields (PRC)
- Fifth Street Signalization
- First Street Utility Upgrades Project

Major projects that are under construction and are expected to be completed by the end of 2024 include:

- Departure Bay Sidewalk Project
- 7th Street Pump Station Phase 2
- Princess Street Area Utility Upgrades Project
- Plecas Street, Weber Street and Bruce Avenue Utility Upgrades

Major projects that are under construction and are expected to be completed in 2025 include:

- Midtown Gateway Phase 2B
- Commercial Street Upgrades Phase 1
- Townsite Area Utility Upgrades Phase 1
- Westwood Lake Park Upgrades Phase 2 (PRC)

Major projects that were in the design process 2024 with the anticipation of construction in 2025:

- Wexford Creek Culvert Upgrades
- Third Street Complete Streets
- Millstone Trunk Sewer Upgrades
- · Railway Sewer Project
- Commercial Street Upgrades Phase 2 Diana Krall Plaza
- Beban Roof Upgrades (PRC)
- NAC Mechanical Upgrades (PRC)
- Downtown Transit Exchange

There are also projects that are in the early stages of planning and design with construction expected in 2026 or later. These include:



- Hammond Bay Road upgrades in partnership with the Departure Bay Pumpstation and Forcemain Project.
- · Country Club Urban Centre Mobility Upgrades.

#### **2025 Opportunities**

- The global market conditions for the last few years have led to significant uncertainty with respect to the cost of construction. Continued inflation has made it challenging to estimate costs accurately and control costs; however, in 2024, the cost estimating has caught up with inflation and projects are coming within budget. This has led to more predictable and stable cost estimates that align with project budgets.
- Supply chain issues are recovering and stabilizing but they continue to challenge construction schedules.
- Staff shortages both internally and with contractors and consultants continue to cause challenges with project schedules.
- There is a particular staff resource challenge in delivering facility projects, supporting other departments with capital projects and resourcing Special Projects.
- Completing effective community engagement and managing the public inquiries and communication on projects, often consumes a significant amount of project management time. The ability to increase the proactive communication with the public about projects and to manage complaints is desired, however, difficult to resource.

### Strategic Priority: Implementing City Plan



**IAP Priority Action 42 -Third Street Pedestrian Upgrades** – Design this project will be completed in 2024 with construction scheduled for 2025.



**IAP Priority Action 43-Downtow Transit Hub -** Continue to work with BC Transit and the RDN and design and construction of the Downtown Transit Hub.



**IAP Priority Action 57 -Design Commercial** - Conceptual design is underway with the first phase of construction scheduled for completion in 2025.



**IAP Priority Action 58-**The Midtown Gateway Project scheduled for construction in 2024 & 2025 supports the redevelopment of 2230 Boxwood Road.



**IAP Priority Action 59 - Terminal Ave Corridor Improvements** – Phase 1 construction is underway and was completed in 2024.



**IAP Priority Action 128 -Westwood Lake Park** – Support PRC with the Design and construction of Phase 2 of Westwood Lake Park improvements.



**IAP Priority Action 160 – Harewood Centennial Park Improvements** – Support PRC with the design and construction of Harewood Centennial Park improvements.



**IAP Priority Action 162 – Loudon Park Improvements** – Support PRC with the Design and construction of Loudon Park improvements.



**IAP Priority Action 164 – Stadium District** – Support PRC with the Design and construction of the Stadium District improvements.

## **Strategic Priority: Maintaining and Growing Current Services**

Support maintaining and growing of services through the infrastructure of capital projects.

## **Strategic Priority: Capital Projects**

Terminal Avenue Phase 1 – Construction was completed in 2024.

Commercial Street Upgrades – Construction of Phase 1 started in September summer 2024 & continue the design process for future phases.

Public Works Yard Updates Project

Capital Improvements – Support renewal, replacement and upgrades of infrastructure throughout the city.

## FACILITIES ASSET MANAGEMENT

Responsible for facility project planning, asset management, some facility related capital project delivery and energy and emissions management within facilities, the Facility Asset Management (FAM) group works closely with Facility Operations to plan for and execute capital renewals within the various facilities. While structured as part of the Engineering Department, FAM works closely with Parks, Recreation and Culture, Nanaimo Fire Rescue and Corporate Services on a portfolio of approximately 100 corporate service, recreation and culture facilities.

This group also publishes an annual update to our Strategic Energy Management Plan and works with BC Hydro and other funding agencies toward implementation of our energy and emission goals within the corporate facility portfolio. The Corporate Energy Manager resides in this group and works closely with the Community Energy Manager ensuring alignment with goals and initiatives.

#### **Level of Service:**

- Provide long-term project planning for facility asset renewals and department-lead upgrades.
- Seek out and optimize opportunities to reduce energy consumption and greenhouse gas emissions within the City's facilities.
- Manages condition assessments for City-owned facilities and building components, such as building enclosure, electrical and mechanical systems (including plumbing and HVAC) and structural considerations (including seismic).
- Strategic energy management planning for the corporate utilities, including energy and greenhouse gas emissions reductions and a 20-year partnership with BC Hydro who has provided more than \$2M in funding for studies, grants, incentives, etc. since partnership inception. Additional funding sources including FortisBC and CleanBC initiatives achieve a total of more than \$2.7M.



- Works with the facility managers and operators to prioritize capital renewals to maintain levels of service at recreation and corporate service facilities.
- Provides project management and project support for projects, overseeing the budget planning, tender process and project execution for several City departments including Parks, Recreation and Culture, Bylaw and Parking Services, Nanaimo Fire Rescue, Police Services, and other civic facilities as resources allow.

#### 2024 Accomplishments

- Ongoing coordination of condition assessment and feasibility studies for equipment and system renewals to maintain effective facility asset management plans.
- Ongoing energy and emission reduction studies to support Council's climate action and energy targets.
- Continued expansion of facility asset management plans with the information from the 5-year Condition Assessment program, including continued expanded contribution of upcoming facility projects to the draft project plan.
- Implemented a new bylaw to recover costs associated with operating and maintaining six, public-facing electrical vehicle chargers.
- In the final stages of completing a greenhouse gas pathway analysis at several major facilities to establish opportunities to achieve 50% emission reduction within 10 years, and 80% emission reduction within 20 years.
- Updated the Green Building Policy.
- Finalized the Facility Asset Management Strategy for prioritizing facility asset investment.
- Continue to source and optimize grant and other external funding opportunities for energy reduction within facilities.
- Secured \$112,000 in grants, incentives, and other financial supports to offset the cost of energy reduction strategies.



#### **2025 Opportunities**

- Continued coordination of condition and feasibility studies for facility systems impacting various departments striving for asset management best practices.
- Continued expansion of facility asset management plans with the renewals identified through condition assessments and feasibility studies.
- Update the Energy Conservation and Management Policy.
- Expand the Facility Asset Management Strategy to include criticality of assets within facilities, and not just the facility itself.

### Strategic Priority: Implementing City Plan



**IAP Priority Action #01** - Update sustainable policies including the Energy Conservations and Management Policy.



**IAP Priority Action #04** – Seek funding opportunities and partnerships to implement the identified pathways to accelerate implementing low-carbon energy systems at corporate facilities.



**IAP Priority Action #24** – Expanding facility asset management plans with the renewals identified in the Condition Assessments.

### **Strategic Priority: Maintaining and Growing Current Services**

Ongoing coordination of condition assessment and feasibility studies for equipment and system renewals to maintain effective facility asset management plans.

## **Strategic Priority: Capital Projects**

Continue to source and optimize grant and other external funding opportunities for energy reduction within facilities.

Secured \$112,000 in grants, incentives, and other financial supports to offset the cost of energy reduction strategies

## Strategic Priority: Governance and Corporate Excellence

Grow the applicability of the Facility Asset Management Strategy by categorizing the criticality of asset types within the various facilities.

# PROPOSED OPERATING BUDGET

	F	2024 Approved Budget	2025 Draft Budget	2026 Draft Budget	2027 Draft Budget	2028 Draft Budget	2029 Draft Budget
Revenues							
Engineering Services Admnistration	\$	2,800	\$ 2,700	\$ 2,727	\$ 2,754	\$ 2,782	\$ 2,810
Capital Projects		-	-	-	-	-	-
Facilities Asset Management		60,000	60,000	15,000	-	-	-
Infrastructure Planning		-	-	-	-	-	-
Transportation		-	-	-	-	-	-
Annual Operating Revenues	\$	62,800	\$ 62,700	\$ 17,727	\$ 2,754	\$ 2,782	\$ 2,810
Expenditures							
Engineering Services Admnistration	\$	666,475	\$ 689,495	\$ 707,084	\$ 722,556	\$ 735,798	\$ 753,872
Capital Projects		2,587,738	2,678,819	2,748,422	2,808,125	2,860,245	2,932,458
Facilities Asset Management		470,912	486,264	498,888	509,700	519,089	532,453
Infrastructure Planning		546,792	570,688	585,517	598,292	609,485	625,045
Transportation		1,248,736	1,450,087	1,490,259	1,525,014	1,553,670	1,591,423
Annual Operating Expenditures	\$	5,520,653	\$ 5,875,353	\$ 6,030,170	\$ 6,163,687	\$ 6,278,287	\$ 6,435,251
Net Annual Operating Expenditures	\$	5,457,853	\$ 5,812,653	\$ 6,012,443	\$ 6,160,933	\$ 6,275,505	\$ 6,432,441
Staffing (FTEs) - Budgeted		47.0	47.0	47.0	47.0	47.0	47.0