

File No.: 04-1000-20-2020-268

June 2, 2020

s.22(1)

Dear s.22(1)

Re: **Request for Access to Records under the Freedom of Information and Protection of Privacy Act (the "Act")**

I am responding to your request of May 14, 2020 for:

**Engineering Services Strategic Plan 2017-2020.**

All responsive records are attached.

Under section 52 of the Act you may ask the Information & Privacy Commissioner to review any matter related to the City's response to your request. The Act allows you 30 business days from the date you receive this notice to request a review by writing to: Office of the Information & Privacy Commissioner, [info@oipc.bc.ca](mailto:info@oipc.bc.ca) or by phoning 250-387-5629.

If you request a review, please provide the Commissioner's office with: 1) the request number assigned to your request (#04-1000-20-2020-268); 2) a copy of this letter; 3) a copy of your original request for information sent to the City of Vancouver; and 4) detailed reasons or grounds on which you are seeking the review.

Please do not hesitate to contact the Freedom of Information Office at [foi@vancouver.ca](mailto:foi@vancouver.ca) if you have any questions.

Yours truly,

Cobi Falconer, FOI Case Manager, for

[Signature on file]

**Barbara J. Van Fraassen, BA**  
**Director, Access to Information & Privacy**

[Barbara.vanfraassen@vancouver.ca](mailto:Barbara.vanfraassen@vancouver.ca)

*453 W. 12th Avenue Vancouver BC V5Y 1V4*

\*If you have any questions, please email us at [foi@vancouver.ca](mailto:foi@vancouver.ca) and we will respond to you as soon as possible. Or you can call the FOI Case Manager at 604.871.6584.

Encl.

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# ENGINEERING SERVICES STRATEGIC PLAN 2017–2020





# Message from the General Manager



Vancouver is growing and changing at a rapid pace and the Engineering Services Department is key to successfully shaping the future of our city. We are relied upon daily by our citizens, businesses and visitors to provide critical city services efficiently and effectively. We are entrusted with the responsibility for over \$15 billion of essential city infrastructure that provides for an unmatched quality of life in our

city and is key to Vancouver's high credit rating. Our roughly 2,000 staff are at the core of our department's many successes and global recognition as an innovative leader in a variety of fields.

Moving into the future, we will continue to increase our efficiency, effectiveness and service quality through public consultation, excellent customer service, and meaningful partnerships. To that end, we are committed to developing innovative and sustainable

solutions to meet the demands of maintaining and expanding the city's infrastructure. Our streets, public spaces, water and sewer systems, energy and solid waste utilities are vital to the livability of our community. Providing access, inclusion, and equity for all is at the core of our work across our department. Understanding the vital links between health, happiness, economic development and a sustainable approach to all we do is key to our strategic approach.

I am extremely proud of the Engineering Services Department. I am truly confident that the people of Engineering Services have the passion, determination and intellect to face the formidable challenges of continuing to be a world class city.

I look forward to the years ahead as we continue to lead the way.

**Jerry W. Dobrovolsky, P. Eng., MBA**

**General Manager, Engineering Services**



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# Background

## OUR FOUNDATION

### City of Vancouver's Mission

To create a great city of communities that care about our people, our environment, and our opportunities to live, work, and prosper.

### Corporate Values

The City's corporate values describe the way staff collectively conduct themselves in the workplace.

**Responsiveness:** We are responsive to the needs of our citizens and our colleagues.

**Excellence:** We strive for best results.

**Fairness:** We approach our work with unbiased judgment and sensitivity.

**Integrity:** We are open and honest, and honour our commitments.

**Leadership:** We aspire to set examples that others will choose to follow.

**Learning:** We are a learning workplace that grows through our experience.

## DEVELOPING THE ENGINEERING SERVICES STRATEGIC PLAN

Past goals from the 2012-2014 plan were updated based on a new vision created during a workshop with Directors, the Deputy General Manager, and the General Manager. They were then circulated through Engineering teams for an update of all sub-goals and initiatives, and to identify new priorities.

The enclosed plan summarizes our collective ambitions and the actions we will take to achieve them over the next three years and beyond to ensure that we meet the needs of the public, our teams working here at the City, and of City Council.

# About Engineering Services

## WHAT WE STAND FOR

### Engineering Services Mission

To achieve excellence in public works and engineering services which create and sustain a great city of communities.

### Engineering Services Values

Engineering values reflect the work culture within our divisions.

**Respect:** We respect the needs of our citizens and employees, and make decisions that are in the public's best interest.

**Communication and Collaboration:** We foster continuous and transparent communication and collaboration with our stakeholders and partners.

**Innovation:** We apply creative solutions to achieve sustainable design, construction, service delivery, operations, and maintenance.

**Continuous Improvement:** We are committed to advancing customer satisfaction and we drive service efficiency through continuous improvement.

## WHAT WE DO

### Water & Sewers Green Infrastructure

- Waterworks Design
- Waterworks Operation
- Sewers and Drainage Design
- Sewer Operations
- Green Infrastructure Implementation

### Zero Waste & Resource Recovery

- Solid Waste Strategic Services
- Sanitation Operations
- Transfer and Landfill Operations
- Solid Waste Program Management

### Public Space & Street Use

- Street Activities
- Public Bike Share
- Film & Special Events
- Utilities Management

### Transportation

- Transportation Planning
- Transportation Design
- Traffic & Data Management
- Parking Management
- Rapid Transit

### Green Operations

- Kent Construction Supplies and Services
- Operations Support & Safety
- Team Services
- Equipment Services

### Deputy General Manager

- Project Management Office
- Project Delivery
- Engineering Development Services
- Land Survey

### Streets

- Streets, Traffic and Electrical Operations
- Parking Operations and Enforcement
- Streets and Electrical Design

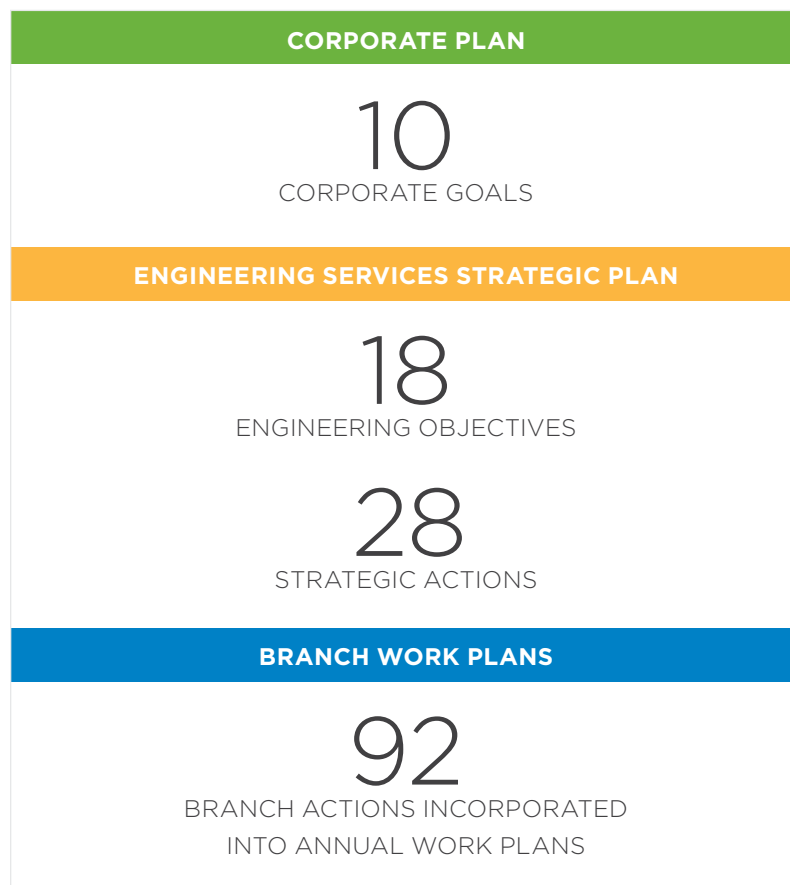
- Neighbourhood Energy



# About the Strategic Plan

## CONTEXT AND STRUCTURE

The Engineering Services Strategic Plan is aligned with the City's Corporate Goals, and drives the development and direction of work plans for our respective branches.



## THE CITY'S CORPORATE GOALS

- 1 The City provides excellent service.
- 2 The City is financially healthy and administratively effective.
- 3 The City leads the way on green issues.
- 4 The City inspires excellence in the workplace and in its employees.
- 5 The City optimizes strategic partnerships and collaborations.
- 6 Vancouver is a sustainable, affordable, livable and inclusive city.
- 7 Vancouver's business climate is dynamic and robust.
- 8 Vancouver is a safe city in which people feel secure.
- 9 Vancouver offers extraordinary civic amenities.
- 10 Vancouver's assets and infrastructure are well-managed and resilient.



*Above: Sanitation Operations team members take extra measures to collect garbage by hand during the unusual snow/thaw/freeze cycle of the 2016/2017 winter.*

# 1

## THE CITY PROVIDES EXCELLENT SERVICE

### HOW IT RELATES TO ENGINEERING SERVICES

Whether we are doing green bin pick up or working behind-the-scenes on designs, our work is inherently for the benefit of our residents. In Engineering, we are working hard to deliver good day to day services with a great attitude that leaves residents and stakeholders happy they've met with us.

### ENGINEERING SERVICES OBJECTIVES

- 1.1 Develop and implement approaches to enhance customer service



## 1.1 Develop and implement approaches to enhance customer service

### STRATEGIC ACTIONS

- Expand and upgrade public-facing systems to improve customer experience and provide timely access to information.
- Improve customer service through review of operational processes.
- Build customer service capacity of front-line staff.

### RECENT ACHIEVEMENTS

**Snow Response:** Engineering Services activated the Departmental Operations Centre (DOC) for the first time during the unusual snowfall and freeze/thaw cycle of the 2016/2017 winter season. Branches came together to take action for garbage pick up, salt distribution, and snow/ice removal.

**Street Cleaning Grants:** The Street Cleaning Grant Program supports existing service providers create low threshold employment opportunities and grow micro-cleaning programs. Micro-cleaning involves daily collection of difficult materials, including needles and litter using brooms, shovels, and wheeled garbage carts and offers job and job skills training for youth and adults with barriers to traditional employment. This work differs from street cleaning done by City crews, which is focused on emptying receptacles and litter collection using sweepers, flushers, or other vehicles.



*Above: Parking Enforcement Officers outside of Vancouver Public Library. This year, the City marked 40 years since meters were first installed. Below: A member of the sanitation operations crew provides service along his route.*



### Did You Know?

In 2015, our proactive leak detection approach saved 1,506 million litres of water.





*Above: National Yards became home to the first activation of the Departmental Operations Centre, providing for easier collaboration between branches.*

## ② THE CITY IS FINANCIALLY HEALTHY AND ADMINISTRATIVELY EFFECTIVE

### HOW IT RELATES TO ENGINEERING SERVICES

In Engineering Services we have many revenue generation operations, but we also have the largest spends of the City's Capital Plans. It's important that the work we do is done efficiently and makes the best possible use of taxpayer funds.

### ENGINEERING SERVICES OBJECTIVES

- 2.1 Deliver on capital plans while maintaining cost-effectiveness
- 2.2 Improve performance management at portfolio and branch levels across engineering
- 2.3 Leverage technology to improve operational efficiency
- 2.4 Continue to standardize processes and tools to improve productivity



## 2.1 Deliver on capital plans while maintaining cost-effectiveness

### STRATEGIC ACTIONS

- Align work plans for all branches with the Engineering Services Strategic Plan.
- Improve financial and cost planning, resourcing, and reporting on major programs.
- Continue to leverage internal and external resources to support cost-effective, high quality delivery of projects.

## 2.2 Improve performance management at portfolio and branch levels across Engineering

### STRATEGIC ACTION

- Continue to expand on scorecard/metrics implementation process.

### Did You Know?

The City has approximately 1,800 vehicles, including light duty, heavy duty trucks, and heavy equipment.



Above: Crews work at Pacific Street and Burrard Street to make safety improvements to the intersection. Below: Trucks lined up at National Yard.





## Did You Know?

PayByPhone, a phone app that allows users to pay for parking without using cash, now accounts for more than 50% of all parking revenue.

## 2.3 Leverage technology to improve operational efficiency

### STRATEGIC ACTION

- Continue with deployment of plans, strategies, and actions for improving information technology systems across Engineering.

## 2.4 Continue to standardize processes and tools to improve productivity

### STRATEGIC ACTIONS

- Monitor and sustain the implementation of the Organizational Quality Management Program (OQM).
- Continue to refine and roll out the Project Management Framework (PMF).
- Improve standardization and compliance in all areas associated with occupational health and safety (OH&S).
- Consolidate and update Engineering Design and Construction standards.

## RECENT ACHIEVEMENTS

**Quality Management:** The City of Vancouver is the first municipality in the province to receive Organizational Quality Management (OQM) certification from the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC). The certification process sets benchmarks for the quality and efficiency of engineering and geoscience services to be expected from the organization and professional engineers.

**Project Management Office and Project Delivery Branch:** The creation of two new branches are helping to develop and implement project management standards and frameworks for Engineering Services' capital projects to ensure projects are delivered in a safe, timely, and cost effective manner.

**PlanIt:** The implementation of this new computer software helps to plan and coordinate street use conflicts, allowing for streamlined use of our streets for development, events, and construction. In 2016, it was used to detect and resolve more than 1,400 conflicts.

**GPS Implementation:** Completed Phase 1 of the City's in-vehicle GPS initiative providing broader coverage and better data to support operations and overall fleet management.

**AAA Credit Rating:** In early 2017, the City's credit rating was upgraded to AAA (stable outlook) from AA+ (positive outlook) by international agency Standard and Poor's Rating Service based on their assessment of the City's strong financial management, including strong asset management.



*Above: Mayor Gregor Robertson, Ann English, Chief Executive Officer and Registrar, APEGBC, and Jerry Dobrovolsky, General Manager of Engineering Services proudly show the City's new Organizational Quality Management certification.*

## Did You Know?

The City of Vancouver was the first municipality in BC to receive the Organizational Quality Management certification from APEGBC.





*Above: Staff of the Southeast False Creek Neighbourhood Energy Utility (NEU) look over the two massive heat-transfer units. The NEU was the fourth sewer heat recovery system in the world.*

## 3 THE CITY LEADS THE WAY ON GREEN ISSUES

### HOW IT RELATES TO ENGINEERING SERVICES

The City's Greenest City 2020 Action Plan sets out strategic actions in ten goal areas, several of which are "owned" by Engineering - including Green Transportation, Zero Waste, and Water Conservation. We also play a key role in helping colleagues from other departments realize our collective vision of becoming the greenest city in the world.

### ENGINEERING SERVICES OBJECTIVES

#### 3.1 Demonstrate leadership in greening operations



## 3.1 Demonstrate leadership in greening operations

### STRATEGIC ACTION

- Advance the integration of the corporate environmental framework into all aspects of Engineering functions and services.

### RECENT ACHIEVEMENTS

**Green Fleet:** Currently, the City has the largest municipal electric vehicle fleet in Canada with over 30 vehicles. These vehicles are used by all City departments, including police and fire emergency services, as well as being deployed in the City owned carshare fleet. In 2017, the City will add 12 additional electric cars and two electric police motorcycles. In addition to fully electrified vehicles, there are also 59 hybrid electric vehicles, ranging from cars, to pickup trucks, to larger heavy duty trucks with aerial devices used for arboriculture in the Parks Board fleet.

**Corporate Water Use Reduction:** Water Design have led the development of a Corporate Water Reduction Plan (with Parks and REFM) to reduce corporate water use by 33% over 2006 levels. In less than two years, the City has walked the talk by reducing corporate water use by 19%.

**Landfill Gas Capture and Monitoring:** The Vancouver Landfill, located in Delta, BC, opened in 1966. Since 1991 the City has been working to capture natural gas resulting from aging waste and landfill settlement. We have now reached a 75% collection efficiency at the landfill. We have expanded emission monitoring of landfill gas, including the use of helicopter borne flux measurement to map fugitive emissions from the landfill, solar powered valve stations on gas wells, and use of cell phones to monitor gas well field status.



*Above: In 2017, the City will add 12 additional electric cars to its fleet. Below: The Vancouver Landfill goes beyond "collecting garbage" and has a 75% gas capture efficiency from natural gas resulting from aging waste.*



### Did You Know?

The City has a hybrid diesel electric bulldozer for use at the landfill.





*Above: Team members from Solid Waste Program Management do outreach to help share best recycling and green bin practices with residents.*

## 4

## THE CITY INSPIRES EXCELLENCE IN THE WORKPLACE AND ITS EMPLOYEES

### HOW IT RELATES TO ENGINEERING SERVICES

With over 1,900 employees in Engineering Services, there are hundreds of opportunities to connect with and inspire one another. As the home of STEM and construction opportunities in the City, we can be leaders in national work for gender equality in the workplace by creating an inclusive and inspiring space that's enjoyable to work in for all employees.

### ENGINEERING SERVICES OBJECTIVES

- 4.1 Promote diversity and equal access to opportunities
- 4.2 Focus on capacity building, leadership skills, and professional development
- 4.3 Improve engagement and collaboration within and across branches



## 4.1 Promote diversity and equal access to opportunities

### STRATEGIC ACTION

- Demonstrate leadership to advance diversity and inclusion initiatives.

## 4.2 Focus on capacity building, leadership skills, and professional development

### STRATEGIC ACTIONS

- Develop a sustained training program associated with systems and software training.
- Launch initiatives to improve mentorship and leadership.

## 4.3 Improve engagement and collaboration within and across branches

### STRATEGIC ACTION

- Develop and launch initiatives to improve cross-team collaboration.



*Above: Devan Fitch explains the replacement street network at the Northeast False Creek area plan launch event.*

### RECENT ACHIEVEMENTS

**Northeast False Creek Project Team:** Staff from Engineering, Planning, and Parks have come together to form a multi-departmental team for creating an area plan for Northeast False Creek and to plan for the removal of the viaducts. The group has produced innovative public engagement and deep, meaningful consultation touch points with stakeholders for the project.

## Did You Know?

Research demonstrates that diversity and inclusion are directly linked to workplace excellence, engagement and innovation. We are focused on building a diverse workforce, including traditionally under-represented groups such as women, Aboriginal Peoples and others. We are equally committed to enhancing inclusion so that all staff can thrive in their jobs and work teams. To further this work, we have established an internal working group to recommend actions on improving diversity and inclusion. We are also continuing our efforts on Respectful Workplace training for our staff.





*Above: Michelle Harris helps share the Keep Vancouver Spectacular program with a potential future clean-up leader.*

## 5

# THE CITY OPTIMIZES STRATEGIC PARTNERSHIPS AND COLLABORATIONS

## HOW IT RELATES TO ENGINEERING SERVICES

We rely on partnerships to achieve many of our aspirations – like working with Metro Vancouver and TransLink to realize regional visions for transportation, water and sewer works, and more. We also work closely with Business Improvement Areas (BIAs) to make ongoing improvements to our public realm and ensure the improvements we recommend will be good for local businesses.

## ENGINEERING SERVICES OBJECTIVES

- 5.1 Leverage strategic partnerships and relationships both externally and internally
- 5.2 Help advance City of Reconciliation goals



## 5.1 Leverage strategic partnerships and relationships both externally and internally

### STRATEGIC ACTIONS

- Collaborate with internal and external stakeholders to advance Engineering Services strategic plans and programs.
- Leverage funding opportunities available to the City.

## 5.2 Help advance City of Reconciliation goals

### STRATEGIC ACTION

- Establish a foundation for understanding, acknowledgment, and respect for First Nations through all aspects of decision-making and programming.



*Above: Mayor Gregor Robertson announces the City's purchase of the CP Rail Lines for the purpose of creating the Arbutus Greenway in spring 2016.*

### RECENT ACHIEVEMENTS

**Improved Transit:** Our Transportation division worked closely with TransLink to deliver a major trolley network expansion, including connecting the West End to Yaletown and Gastown, a major improvement for downtown commuters. Additionally, we've worked with regional, provincial and federal partners to secure funding of the Mayors' Council Transportation and Transit Plan (Phase 1).

**Arbutus Greenway:** A former Canadian Pacific (CP) rail line will become a future greenway with a streetcar following successful negotiations resulting in the City acquiring the land.





*Above: Volunteers and staff celebrate before heading out to do litter pick-up and graffiti clean-up during the Keep Vancouver Spectacular 20th Anniversary event.*

## 6

# VANCOUVER IS A SUSTAINABLE, AFFORDABLE, LIVABLE AND INCLUSIVE CITY

## HOW IT RELATES TO ENGINEERING SERVICES

The City is well known for its Greenest City 2020 Action Plan, but the work we do in Engineering also feeds into a holistic and inclusive Healthy City Strategy and even the Engaged City Strategy. Together, the action we take to implement programs and policies that support these strategies create opportunities for residents to interact with one another, experience nature, and enjoy facilities that support healthy, active living.

## ENGINEERING SERVICES OBJECTIVES

- 6.1 Advance initiatives geared towards shifting trips to sustainable modes of transportation
- 6.2 Advance the implementation of the City's strategic and sustainability plans, initiatives, and policies



## 6.1 Advance initiatives geared towards shifting trips to sustainable modes of transportation

### STRATEGIC ACTION

- Continue to improve the multi-modal transportation network across the city, prioritizing sustainable transportation options while improving safety and reliability for all modes.

## 6.2 Advance the implementation of the City's strategic and sustainability plans, initiatives, and policies

### STRATEGIC ACTION

- Continue to integrate the City's strategic and sustainability plans into Engineering works.
- Develop and launch priority policy and regulatory initiatives associated with climate change adaptation and clean technology.

### Did You Know?

We have already achieved both of the Greenest City 2020 Action Plan Green Transportation targets.  
For most up-to-date stats, visit [vancouver.ca/greenestcity](http://vancouver.ca/greenestcity)



*Above: Participants of the Pro-Walk, Pro-Bike, Pro-Place conference in fall 2016 take Mobi, Vancouver's public bike share program, out for a test spin.*

### RECENT ACHIEVEMENTS

**Public Bike Share:** In the summer of 2016, we used low-cost solutions to add an additional 2.3 km of protected bike lanes as part of the downtown bike network. The addition was completed in advance of the Mobi launch ensuring more safe and accessible routes for all users.

**Electric Vehicles:** In order to support electric vehicle use outside of the organization, an Electric Vehicle Ecosystem Strategy was approved on November 16, 2016, and aims to create flexible options for charging vehicle. Our Streets division is looking at more innovative ways to provide charging for vehicles outside of their homes.





*Above: Thousands of people take part in the annual Main Street Car Free Day.*

# 7

## VANCOUVER'S BUSINESS CLIMATE IS DYNAMIC AND ROBUST

### HOW IT RELATES TO ENGINEERING SERVICES

Permitting the use of public space for film and special events, creating traffic management plans for street use, and working with local utilities all give us an opportunity to give excellent service while supporting the local economy. Additionally, our public realm improvements, whether it's space for gathering or effective parking management, can help to bolster visitors to local businesses.

### ENGINEERING SERVICES OBJECTIVES

- 7.1 Advance initiatives to create a vibrant public realm to support local business, jobs, and community connectedness



## 7.1 Advance initiatives to create a vibrant public realm to support local business, jobs, and community connectedness

### STRATEGIC ACTIONS

- Enable street activations to create vibrant pedestrian places.
- Implement initiatives to support the local business environment.

### RECENT ACHIEVEMENTS

**Fibre Network Installations:** The Utilities branch recently supported the accelerated implementation of third party fibre projects. In 2015, Vancouver was ranked number 20 among top North American cities for technology. Support for fibre installation helps to improve capacity and speed that has positive impacts for businesses, hospitals, and other organizations.

**Film Industry:** In recent years we have supported record levels of filming. Vancouver was recently voted the best place to live and work as a film-maker, in part thanks to the work the Film & Special Events branch does to make working in Vancouver rewarding and accessible.

**Public Spaces:** Our public realm activations create a vibrant city where people are more likely to choose to walk and cycle to get around. We advance a number of programs and partnerships so that our streets and public space provide exciting and safe places, support cultural opportunities for creative expression and enjoyment as well as stimulate economic vitality and support environmental sustainability.



*Above: The Deadpool production spent more than \$40 million during 58 days of filming in British Columbia. The production also hired over 2,000 local cast, crew, and extras who earned more than \$19 million in wages. Below: Tower cranes at work on the Olympic Village back in 2009.*



### Did You Know?

The value of building construction permitted by the City in 2016 was \$2.8 billion. The Projects and Development Services branch issued 2,417 Street Use Permits to support this construction. In the summer of 2017, we will support ~100 major development sites, ~80 tower cranes, and ~1,600 film productions.





*Above: The vibrant Georgia Street feels safe at night thanks to good lighting, businesses, and public realm improvements that encourage many people to use the streets.*

## 8

## VANCOUVER IS A SAFE CITY IN WHICH PEOPLE FEEL SECURE

### HOW IT RELATES TO ENGINEERING SERVICES

Civic infrastructure can go a long way to improve safety. The lighting designed and installed by teams in the Streets division can enhance visibility at night reducing discomfort for residents as they walk home or enhancing safety while crossing high-volume intersections. Our leadership in Transportation design is improving safety at intersections for people regardless of whether they're walking, cycling, taking transit, or driving a vehicle.

### ENGINEERING SERVICES OBJECTIVES

8.1 Improve safety and perception of safety in the public



## 8.1 Improve safety and perception of safety in the public

### STRATEGIC ACTIONS

- Continue to deploy priority plans and actions to improve safety in the public realm.

### RECENT ACHIEVEMENTS

**Supporting Our Health Colleagues:** The Streets division recently assisted Vancouver Coastal Health in setting up mobile medical units in the Downtown Eastside that are now in use to support the response to the fentanyl crisis.

**Infrastructure Safety Upgrades:** Modest changes to separate walking and cycling along the seawall between Burrard and Cambie Bridges will improve safety and comfort of all seawall users in an efficient and cost effective manner.

**Flashing Beacons:** Rectangular rapid flashing beacons (RRFBs) are being tested at three crosswalks in the City: Victoria Drive and Grant Street, West Boulevard and 42nd Avenue, and Elliot Street and Waverly Avenue. A press of a button initiates high-intensity flashing lights to alert people driving or cycling to people crossing. Flashing beacons are suited where many people cross the road, drivers rarely stop, and a pedestrian signal isn't essential.



*Above: Fully separated walking and cycling facilities near the Olympic Village help to encourage people of all ages and abilities to enjoy the seawall while feeling safe.*  
*Below: A flashing beacon at West Boulevard and 42nd Avenue.*







*Above: The Parallel Park Parklet on Main Street encourages gathering and relaxing while providing more seating for local businesses.*

# 9

## VANCOUVER OFFERS EXTRAORDINARY CIVIC AMENITIES

### HOW IT RELATES TO ENGINEERING SERVICES

Creating desirable features for the public to enjoy go a long way to invite residents to engage with one another, feel safe while they are out, or gather and spend more time in business districts.

### ENGINEERING SERVICES OBJECTIVES

9.1 Increase access to streets and public spaces



## 9.1 Increase access to streets and public spaces

### STRATEGIC ACTIONS

- Increase the amount of public space.
- Enhance public space activation and stewardship.

### RECENT ACHIEVEMENTS

**Pavement to Plaza:** Jim Deva Plaza opened as Vancouver's first pavement-to-plaza project. Located on Bute Street in the heart of Davie Village. This unique community gathering space features a variety of seating and the iconic "megaphone" soap box, commemorating Jim Deva's extensive advocacy work in free speech and gay rights. Over on Robson Street, five years of exciting summer pilots have led the way for the permanent closure of 800-block of Robson to become a new plaza.

**Inviting Spaces:** We provided financial and logistical support to the Downtown Vancouver Business Improvement Association (DVBIA)'s first "More Awesome Now" reimagined laneway. The laneway behind West Hastings street between Seymour and Granville was transformed from utilitarian service corridor into a bright, playful public space to be shared by people and vehicles. The project is a partnership between the DVBIA, the City of Vancouver's VIVA Vancouver program, and HCMA Architecture + Design.

### Did You Know?

Our carpentry unit at Equipment Services supports the building of the parklets, streatries and bike racks you see around town.



*Above: The rainbow crosswalks at Davie St and Bute St. Below: A crowd gathers for the Sunset Serenade, where musicians play a Keys to the Street piano at Spyglass Place along the seawall.*







*Above: Sewer Operation crews install a separated sewer on SW Marine Drive.*

# 10

## VANCOUVER'S ASSETS AND INFRASTRUCTURE ARE WELL-MANAGED AND RESILIENT

### HOW IT RELATES TO ENGINEERING SERVICES

Our first role as civil engineers is to develop and maintain our assets to world-class standards ensuring that they are resilient and meet the needs of our residents. Each time we do upgrades to our assets, we have the opportunity to make them better and more resilient than before.

### ENGINEERING SERVICES OBJECTIVES

- 10.1 Increase effectiveness of planning and management frameworks for infrastructure delivery, construction, and maintenance
- 10.2 Improve management of infrastructure resiliency-related issues



## 10.1 Increase effectiveness of planning and management frameworks for infrastructure delivery, construction, and maintenance

### STRATEGIC ACTIONS

- Develop and implement an Engineering Asset Management Planning strategy.

## 10.2 Improve management of infrastructure resiliency-related issues

### STRATEGIC ACTIONS

- Refine plans and strategies to improve resiliency of public infrastructure.

### Did You Know?

We have completed 53.2% of the total sewer separation, which will help to protect our natural water ways by ensuring waste water ends up at a treatment plant and not in our recreational water.



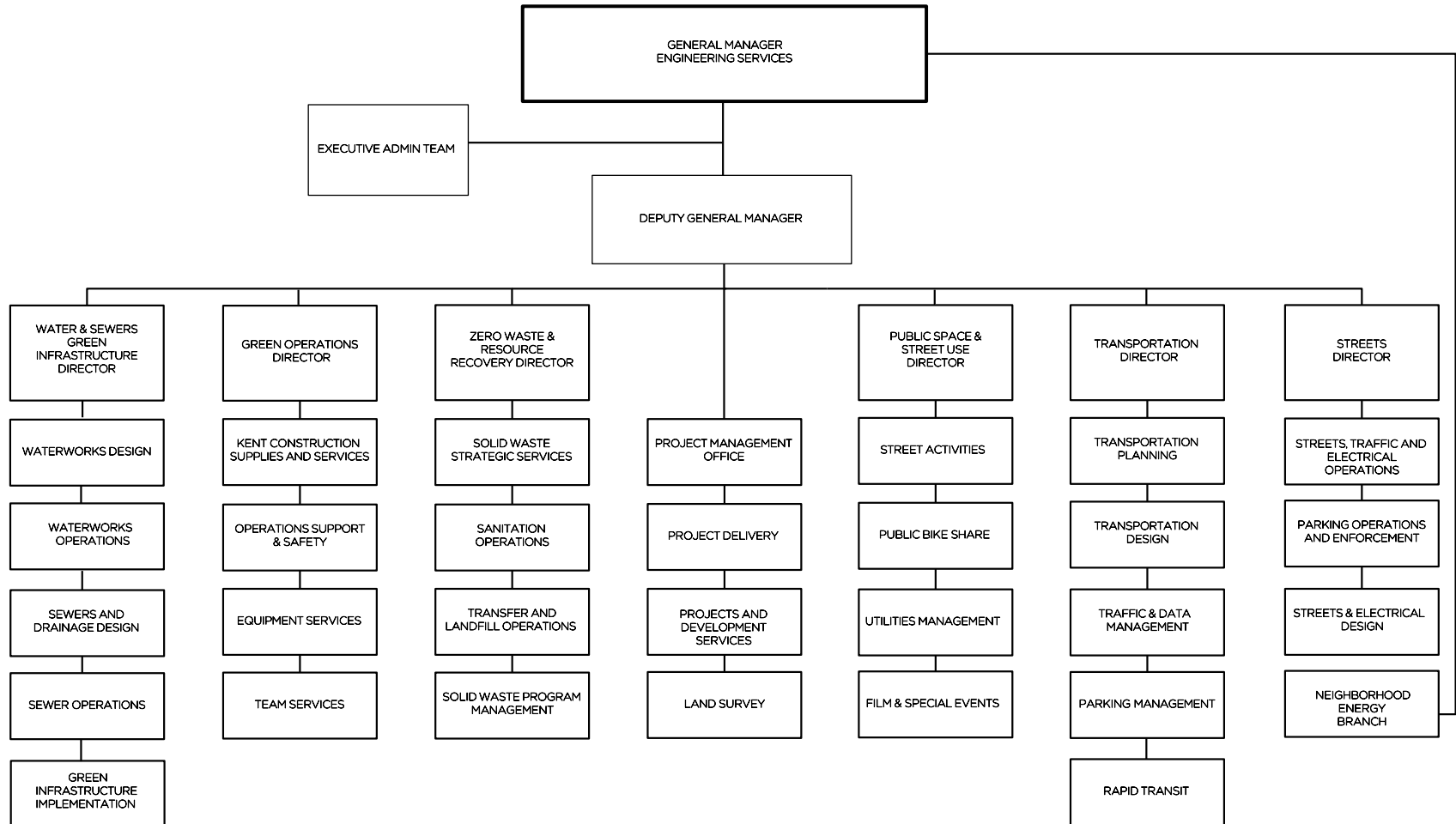
### RECENT ACHIEVEMENTS

**Green Infrastructure:** In 2016 we adopted a goal to capture and treat 90% of Vancouver's average annual rainfall. The recently created green infrastructure team is now working to develop tools and design guidelines on public and private property. This will improve water quality, protect the environment, support recreational water use, and meet current and emerging regulatory requirements.

**Burrard Bridge:** When this more than 80-year-old bridge needed routine upgrades, we went a leap forward to make it serve our residents even better. By adding two directional options for walking, cycling and driving, we make it easier for all modes to travel. Major safety improvements at Burrard and Pacific will address what was previously the second worst collision location in the city, and new means prevention fencing addresses the concerns of our health partners while respecting the heritage aesthetics of the bridge.

**Hardened Network of Water Mains:** Resiliency of the water system, in particular, reliability after an earthquake is critical for fire suppression, public safety and health. Working closely with Vancouver Coastal Health, Office of Emergency Management and Vancouver Fire and Rescue, a coarse network of water mains in the city is proposed to provide resiliency for all critical facilities and neighbourhoods in the city.

## ENGINEERING SERVICES ORGANIZATION CHART





Corporate Goal	Engineering Objectives	Strategic Actions	Branch Work Plan Actions	Division
1. The City provides excellent service	1.1 Develop and implement approaches to enhance customer service	Expand and upgrade public-facing systems to improve customer experience and provide timely access to information	Upgrade existing RoadAhead webpage to better reflect available data from PlanIt and Hansen	DGM
			Improve the POSSE interface and communications platform	DGM
			Improve integration of VanConnect to operations	DGM
		Improve customer service through review of operational processes	Implement an effective performance monitoring framework and continue to refine and expand Engineering performance metrics on customer service	DGM
			Develop a priority action plan to improve customer service interface and training across Engineering Services	DGM
		Build customer service capacity of front-line staff	Provide training to front-line staff on working with customers	Eng. HR

**DIVISION ABBREVIATION KEY**

GM	General Manager
DGM	Deputy General Manager
Green Ops.	Green Operations
Transp.	Transportation
PSSU	Public Space and Street Use
W&S GI	Water & Sewers Green Infrastructure
ZWRR	Zero Waste & Resource Recovery
Eng. HR	Engineering Human Resources
Eng. Fin.	Engineering Finance

Corporate Goal	Engineering Objectives	Strategic Actions	Branch Work Plan Actions	Division
2. The City is financially healthy and administratively effective  (Part 1)	2.1 Deliver on capital plans while maintaining cost effectiveness	Align work plans for all branches with Engineering Strategic Plan	Develop division and/or branch-level work plans and implementation road maps	GM
		Improve financial and cost planning, resourcing, and reporting on major programs	Upgrade systems used for project cost estimating, unit rates, quantity takeoffs, and scheduling on projects	DGM
		Continue to leverage internal and external resources to support delivery of engineering plans	Develop in-house expertise and database through identifying needs and a recruiting and training strategy	Eng. HR
			Develop staff resource plans to guide capital and operating project planning	DGM
			Develop departmental risk register and prioritize treatment plans covering key services, asset categories, and projects	DGM
			Develop list of pre-qualified consultants, suppliers and vendors	DGM
			Leverage external services to support sewer separation program	W&S GI
	2.2 Improve Performance Management at portfolio and branch levels across Engineering	Continue to expand on scorecard/ metrics implementation process	Refine Engineering performance metrics, standardize and automate data collection methods, and streamline reporting at portfolio and branch levels	Eng. Fin.



Corporate Goal	Engineering Objectives	Strategic Actions	Branch Work Plan Actions	Division
2. The City is financially healthy and administratively effective  (Part 2)	2.3 Leverage technology to improve operational efficiency	Continue with deployment of plans, strategies and actions for improving Information Technology systems across Engineering	Expand Phase I GPS pilot to deploy program through Engineering Operations	Green Ops.
			Pilot project portfolio management (PPM) platform within Engineering	DGM
			Roll-out new Parking Platform to replace Ticket Manager	Streets
			Update fleet management systems to improve operational efficiency of City fleet	Green Ops.
			Initiate opportunity for Sanitations Operations Management Platform	ZWRR
			Refine SCADA Master Plan to address system scope and financial sustainment	W&S GI
			Enable online submission of annual backflow assembly test reports	W&S GI
	2.4 Continue to standardize processes and tools to improve productivity	Monitor and expand the implementation of the Organizational Quality Management (OQM)	Sustain the Organizational Management System Program Certification through a Quality Management System	DGM
		Continue to refine and roll out the Project Management Framework (PMF)	Implement PMF on all complex, high risk capital projects	DGM
			Implement DARCI model in alignment with corporate guidance	GM
		Improve standardization and compliance in all areas associated with occupational safety	Implement Operational Safety strategies for Engineering	Green Ops
		Consolidate and update Engineering Design and Construction standards	Complete and operationalize Engineering Design Criteria and Construction Standards manuals	DGM

Corporate Goal	Engineering Objectives	Strategic Actions	Branch Work Plan Actions	Division
3. The City leads the way on green issues	3.1 Demonstrate leadership in greening operations across Engineering	Advance the integration of the corporate environmental framework into all aspects of Engineering functions and services	Advance a green operations work plan to develop a business model that supports ongoing operations and programs	Green Ops.
			Assess industry infrastructure sustainability rating systems, and develop a system for Engineering	DGM
			Increase the reuse of recycled materials in operations	Green Ops.
			Increase the outreach of the Engineering accomplishments related to green operations	Green Ops.
			Continue to execute on water conservation plan	W&S GI
			Advance the Green Fleet Strategy	Green Ops.
			Implement the Fuel Strategy and Kent Services Settlement Model project to increase proportion of recycled materials used for public works projects	Green Ops.
			Pilot projects to integrate rainwater management and green infrastructure strategies in select transportation and public realm capital designs	W&S GI
			Develop an implementation plan for the City's Integrated Rainwater Management Plan and Green Infrastructure Strategy	W&S GI
			Develop small scale rainwater management installations in the Marpole area at 63th Ave. and Yukon St.	W&S GI
			Pilot a construction and demolition resource recovery project at the landfill to divert clean wood from waste stream	ZWRR
			Finalize arrangements for projects to convert landfill gas to renewable natural gas and recover carbon dioxide	ZWRR



Corporate Goal	Engineering Objectives	Strategic Actions	Branch Work Plan Actions	Division
4. The City inspires excellence in the workplace and in its employees	4.1 Promote diversity and equal access to opportunities	Demonstrate leadership to advance diversity and inclusion initiatives	Develop and present a draft framework to deliver draft diversity and inclusion strategy by 2017	DGM
			Form an inter-branch working group to deliver draft diversity and inclusion strategy by 2017	DGM
	4.2 Focus on capacity building, leadership skills and professional development for City staff	Develop sustainable training program associated with systems and software training	Develop and refine training programs for Projects and Quality Management across Engineering	DGM
			Undertake a gap analysis to address operations and regulatory requirements associated with systems and training across Engineering	Eng. HR
		Launch initiatives to improve mentorship and leadership	Develop Engineering-wide succession plans	Eng. HR
			Launch initiatives to improve mentorship and leadership	GM
			Build on results from the pilot and expand Engineering Mentoring Program	DGM
	4.3 Improve engagement and collaboration within and across branches	Develop and launch initiatives to improve cross-team collaboration	Improve collaboration between design and operations branches for constructability and design operational considerations	DGM
			Celebrate successes and recognize outstanding employee contributions	DGM
5. The City optimizes strategic partnerships and collaborations	5.1 Leverage strategic partnerships and relationships both externally and internally	Collaborate with internal and external stakeholders to advance Engineering strategic plans and programs	Formalize coordination with third party entities in relation to planning and delivery of major capital project	PSSU
			Work with TransLink on 2017 Major Road Network Pavement Condition Study	Streets
			Work with Government Relations and Sustainability team on increasing Canadian market share for alternative fuels and access to zero emission vehicles	Green Ops.
		Leverage funding and revenue opportunities available to the city	Support regional effort to fund Phase 2 and 3 regional transit investments, including the development of a Mobility Pricing Strategy	Transp.
			Pilot Digital signage (Street ROW, Sign by-law and billboards)	PSSU
			Work with Financial Services Department to reduce capital and operating variances	Eng. Fin.
	5.2 Advance the City of Reconciliation goals	Establish a foundation for understanding, acknowledgment, and respect for First Nations through all aspects of decision-making and programming	Conduct First Nations Awareness Training for Engineering staff	Eng. Fin.
			Develop and deploy archaeological process and heritage policy	DGM

Corporate Goal	Engineering Objectives	Strategic Actions	Branch Work Plan Actions	Division
6. Vancouver is a sustainable, affordable, livable and inclusive city	6.1 Advance initiatives geared towards shifting trips to sustainable modes of transportation	Continue to improve the multi-modal transportation network across the city, prioritizing sustainable transportation options while improving safety and reliability for all modes	Implement Transportation 2040 plan priorities	Transp.
			Develop and implement a new strategy to optimize road network operations and manage congestion	Transp.
			Launch new Active Transportation brand as part of Active Transportation Promotion and Enabling Plan	Transp.
			Develop a Complete Street Policy Framework	Transp.
			Complete the concept design for Arbutus Corridor	Transp.
			Advance the Millennium Line Broadway Extension project to be procurement ready	Transp.
	6.2 Advance the implementation of the City's strategic and sustainability plans, initiatives and policies throughout Engineering Services	Continue to integrate City's strategic and sustainability plans into Engineering works	Integrate priorities of the Greenest City Action Plan, and Renewable City Strategy 2050 into Engineering projects	Green Ops.
			Expand public realm cleanliness programs to increase level of service and implement new pilot programs aimed at waste diversion	ZWRR + PSSU
			Create an Adopt-a-Catch-Basin civic involvement program	W&S GI
			Complete a draft Zero Waste 2040 Plan	ZWRR
			Pilot a bulky item collection program	ZWRR
		Develop and launch priority policy and regulatory initiatives associated with climate change adaptation, and clean technology	Expand opportunities for low carbon fuel switch projects, and establish new neighborhood energy systems in high growth areas of Downtown	Green Ops.
			Assess and provide recommendations for District Energy Fuel Switch	NEU
			Investigate and provide recommendations on the feasibility of Electric Utility in Engineering	Streets
			Create funding tools, such as rainwater utility or other models for Integrated Rainwater Management Plan and Green Infrastructure Strategy	W&S GI
			Investigate and provide recommendations on the feasibility of dyking utility in Engineering to support the Climate Change Adaptation Strategy and sea level rise response	W&S GI



Corporate Goal	Engineering Objectives	Strategic Actions	Branch Work Plan Actions	Division
7. Vancouver's Business Climate is dynamic and robust	7.1 Advance initiatives to create a vibrant public realm to support local business, jobs and community connectedness	Enable street activations to create vibrant pedestrian places	Increase the presence of patios and plazas, filming and events, street vendors, food trucks, active store fronts, public bike share, third party utility street use and other innovations across the city	PSSU
			Work with MobiBikes to complete implementation of first phase and advance potential expansion of Public Bike Share	PSSU
			Deliver pilot projects to test innovative patio formats supportive of patio culture and vibrant public life	PSSU
			Develop an Artist in Residence Program for Engineering	Green Ops.
			Deliver digital advertising on street furniture at 30 locations in 2017	PSSU
			Establish a Film By-Law	PSSU
		Implement initiatives to support local the business environment	Implement a new citywide parking meter strategy	Transp.
			Complete and implement the West End Parking Strategy	Transp.
			Increase engagement with Business Improvement Areas (BIAs) across Engineering	PSSU
8. Vancouver is a safe city in which people feel secure	8.1 Improve safety, and perception of safety in the public	Continue to deploy priority plans and actions to improve safety in the public realm	Apply Crime Prevention Through Environment Design principles in design and assessment of public space	PSSU
			Review sidewalk guidelines	PSSU
			Work with community and strategic partners on DTES initiatives	PSSU
			Pilot and monitor movement and activities in plazas	PSSU
			Implement the first year of Moving to Zero - Transportation Safety Strategy	Transp.

Corporate Goal	Engineering Objectives	Strategic Actions	Branch Work Plan Actions	Division
9. Vancouver offers extraordinary civic amenities	9.1 Increase access to City streets and public spaces	Increase the amount of public space and enhance public space activation and stewardship	Deliver stewardship strategy to address public plazas throughout the city	PSSU
			Increase the amount of public space through street to plaza conversions and laneway activations	PSSU
			Scope and develop a refreshed VIVA Vancouver program	PSSU
10. Vancouver's assets and infrastructure are well-managed and resilient	10.1 Increase effectiveness of planning and management frameworks for infrastructure delivery, construction and maintenance	Develop and implement an Asset Management Planning strategy across Engineering	Develop a Departmental Asset Management Plan to guide long term capital planning	Streets + W&S GI, PMO
			Develop short, medium and long term strategies for repair v/s replace decisions	W&S GI + Streets, ZWRR, Green Ops.
			Complete Phase 1 of Signal Asset Management Strategy	Transp.
	10.2 Improve management of infrastructure resiliency-related issues	Refine plans and strategies to improve resiliency of engineering infrastructure	Refresh emergency response plan for all divisions and branches	Green Ops.



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