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Using Value Management for Developing a Fire Infrastructure Plan in downtown Calgary



Downtown Fire Stations: VM Study

Background:

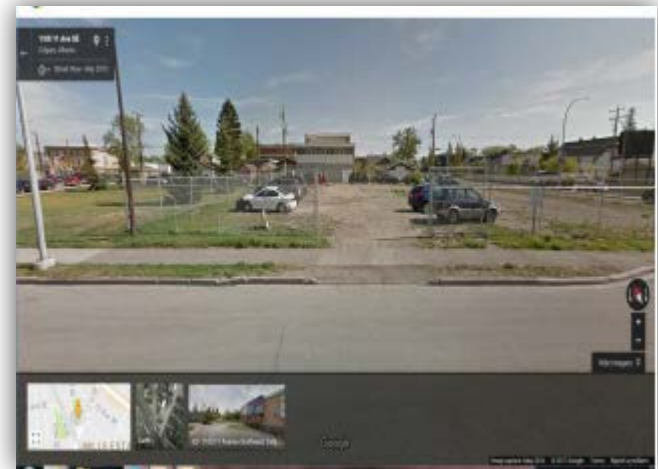
- Calgary Fire Department's (CFD) 30 year Infrastructure Master Plan identified the need to replace/renew Station 1 and Station 2
- Need a robust and defensible analysis to support a business case for capital request – use Value Management



Fire Station 1

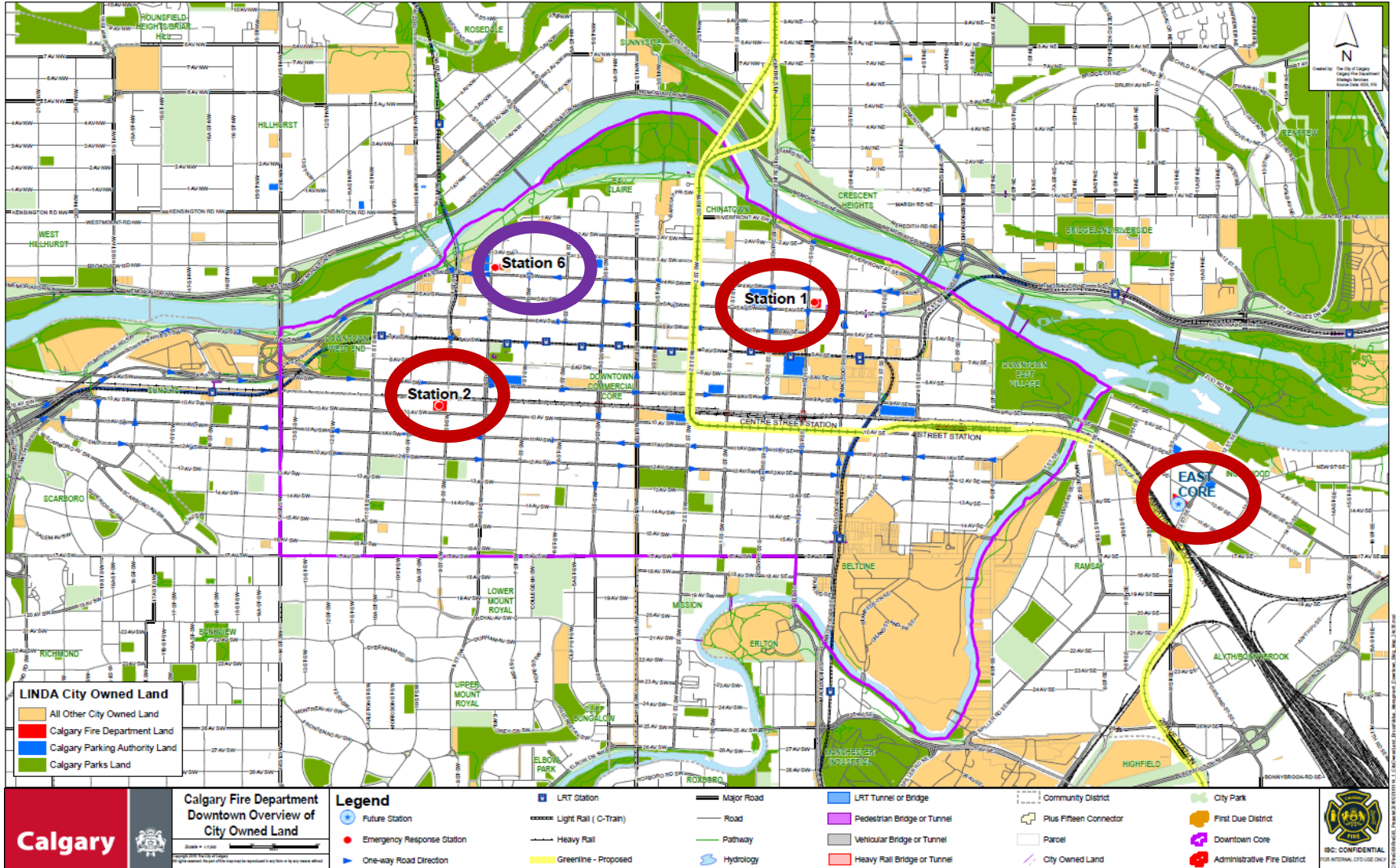


Fire Station 2



Vacant Land- Inglewood

Downtown CFD Fire Stations: Plan Area





What is Value Management?

- **VM Definition:**

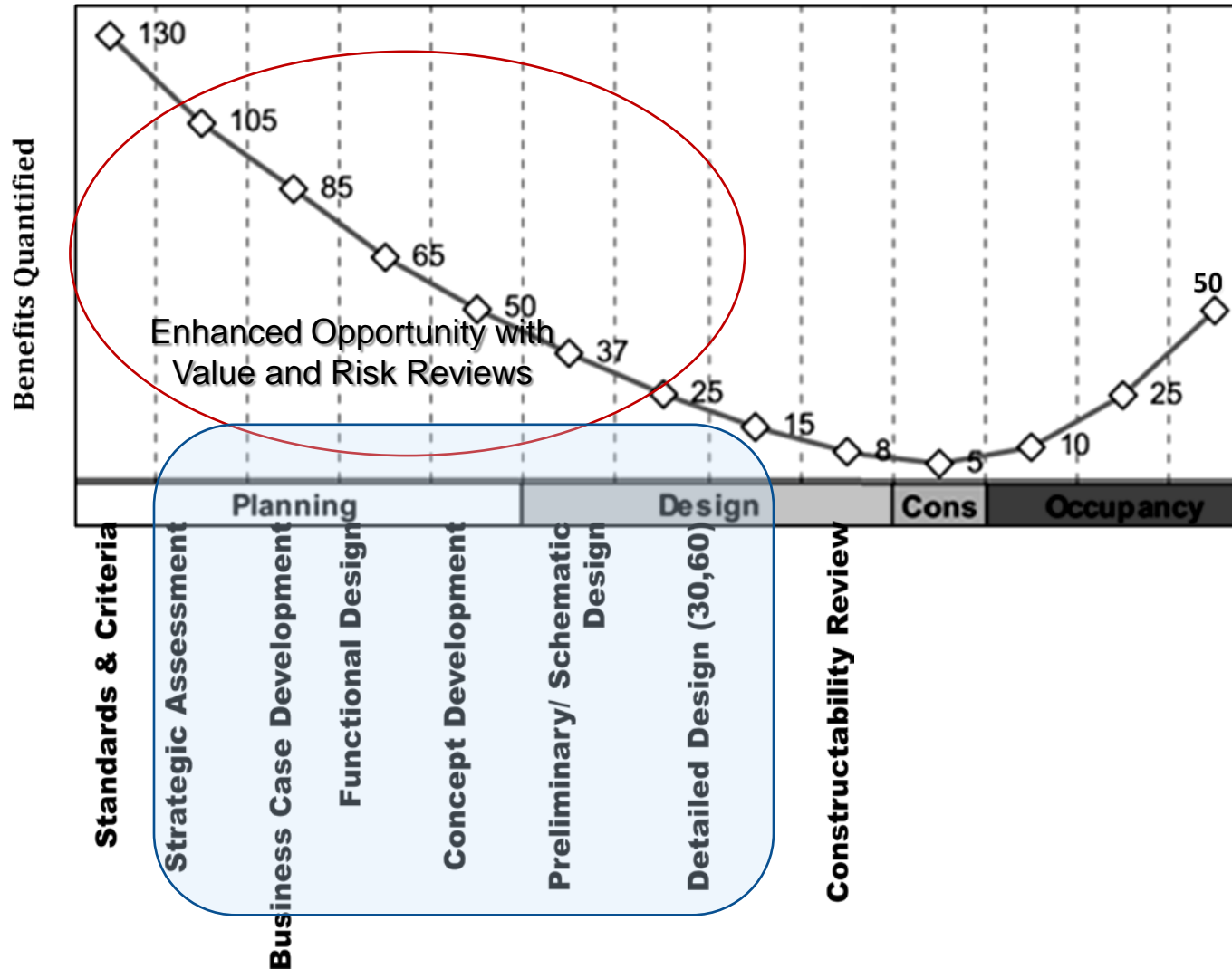
- Value Management is a structured, systematic, creative, multidisciplinary team approach to optimize a program or a project's performance/quality for the resources spent by analyzing its functions

- **Another way of looking at it:**

$$\text{Value} \sim \frac{\text{Function}}{\text{Resources}^*}$$

* monetary, schedule, environmental or property impacts, space, etc.

Timing of VM





Value Management Process

Pre-Workshop Activities

- Prepare for Workshop
- Prepare Models
- Review Documents
- Analyze Estimate

Workshop Activities

Information Phase

Understand Project & Issues

Function Analysis Phase

Understand Purposes of Project Parts

Creative Phase

Generate Ideas for Improved Value

Evaluation Phase

Select the Best Ideas

Development Phase

Provide Additional Information

Presentation Phase

Explain Ideas and Rationale

Post-Workshop Activities

- Evaluate Recommendations
- Select Changes
- Document Results

Downtown CFD Fire Stations

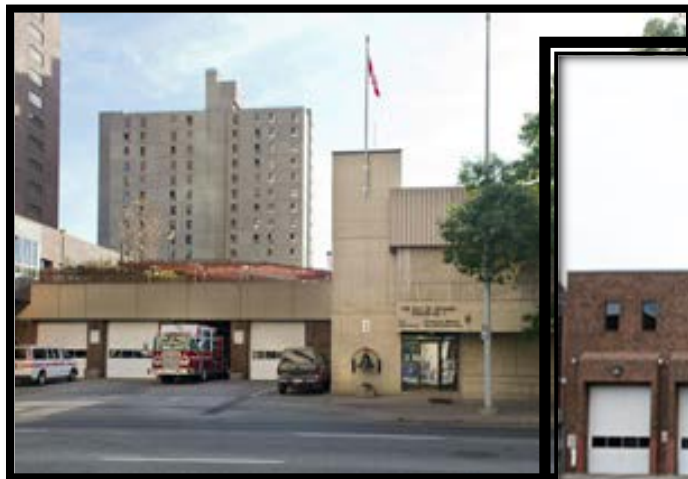
VM Analysis - Key Project Objectives:

- Address deteriorating fire stations in downtown (1 & 2)
- Identify and analyze potential opportunities to support business case
 - Facility alternatives
 - Resource Deployment
 - Other Strategic Projects



Baseline Option

- Renovate Station 1 to LEED silver
- Rebuild Station 2 to LEED gold, add another bay
- Maintain Station 6



Station 1



Station 2



Station 6

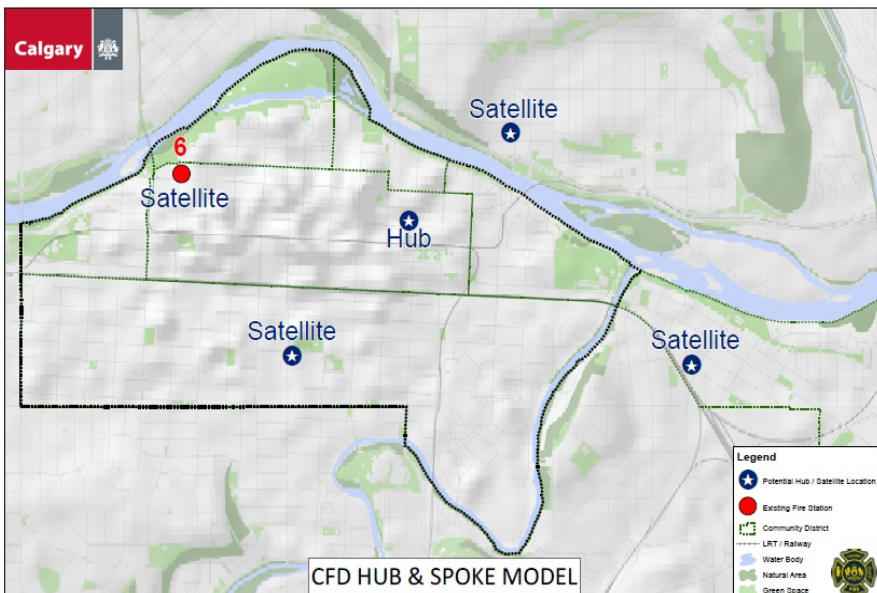
VM Study Results

The VM team identified:

- better value infrastructure alternatives
- more creative infrastructure alternatives

Hub and Satellite Deployment Model

Potential re-use of some Historic Fire Stations



VM Study Results: Re-imagining historic buildings



VM: Project Performance Attributes

FUNCTIONAL ATTRIBUTE	PERFORMANCE DEFINITION	ASPECTS TO CONSIDER	WEIGHTING
a. Maintain Operational Readiness	A measure of the operational readiness of CFD in the downtown core over time	<ul style="list-style-type: none"> • type, number, and location of apparatus and equipment needed • skillsets, number, and location of staff needed 	32
b. Meet Customer Expectations	A measure of how CFD meets the expectations of its downtown customers over time	<ul style="list-style-type: none"> • response time • range of services provided • ability of CFD to outreach and engage community • integration and role of CFD's infrastructure assets within the community 	25
c. Meet Staff Expectations	A measure of how CFD meets the expectations of its downtown staff over time	<ul style="list-style-type: none"> • working environment provided • amenities available to staff • opportunities to enhance wellness, skillsets, training 	15
d. Maintain Flexibility for the Future	A measure of how CFD can adapt to changing service needs over time	<ul style="list-style-type: none"> • changes in risk potential within the downtown core • changing demographics • changing demands • evolving technology 	17
e. Align with Corporate Vision	A measure of how CFD's infrastructure meets corporate objectives	<ul style="list-style-type: none"> • corporate brand/image • corporate vision • opportunities to partner with other department/organizations • policies • city-building initiative 	11



VM Study Results

Top option has a potential lifecycle cost avoidance of \$25M

- ❑ Divest 2 existing fire facilities and land
- ❑ Initial capital budget request: positive cash flow back to the corporation



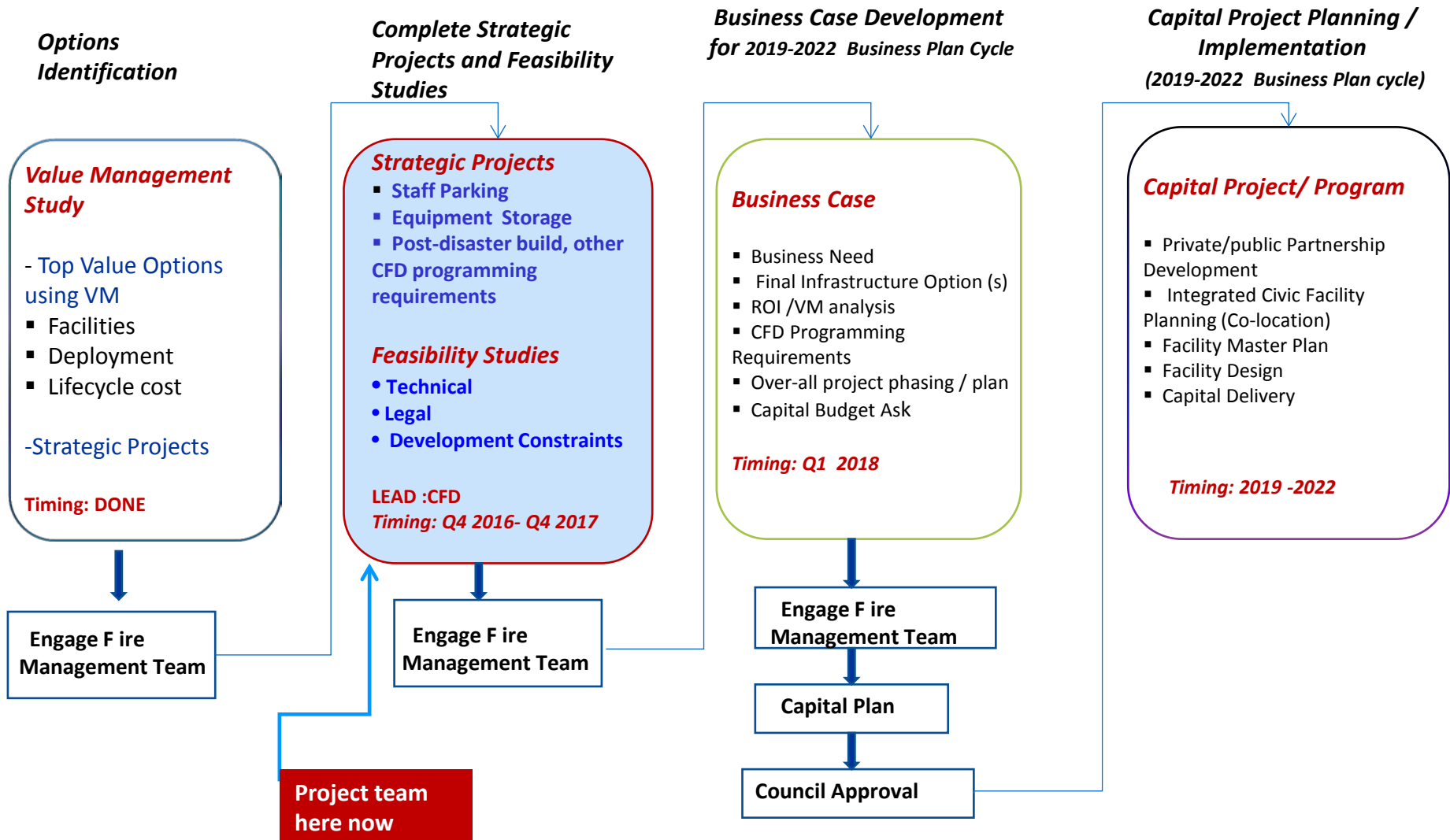


Why VM worked for us?

- Good communication platform
- Creative, value-oriented ideas
- Obtaining buy-in for recommendations became easier



What's the next step?





Questions?

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Calgary

