

CITY OF CALGARY
RECEIVED
IN COUNCIL CHAMBER

DEC 16 2020

ITEM: #7.4 TT2020-1397

Public

CITY CLERK'S DEPARTMENT

Sound Wall Lifecycle Replacements for Critical Locations

Minh Huynh, C.E.T.
Roads, Maintenance
Transportation

Report # TT2020-1397
ISC: Unrestricted



Benefits

- Reduce road noise
- Improves privacy
- Provides separation



Design & Materials

- Wood
- Concrete panels
- Stucco
- Composite

work



Subdivision Developments



Existing Funding Programs

Sound Wall Lifecycle Capital Program

Lifecycle replacement of **existing** sound attenuation walls.

Capital Budget 2019-2022: \$1.98M.

Road Upgrades

Construction resulting in new or upgraded infrastructure.

Noise Barrier Retrofit Program

Construction of **new** barriers at warranted locations.

Currently **no funding allocated**. Locations will be reprioritized once funding becomes available.

Calgary



Structural Components



Panels

Posts

Base

Condition Assessment

Severity 1

(Very Good)
no cracking.

Severity 2

(Good)
Minor cracking,
no rebar.

Severity 3

(Fair)
Moderate cracking,
rebar visible.

Severity 4

(Poor)
Severe cracking,
rebar exposed.

Severity 5

(Critical)
Severe deterioration,
rebar exposed,
rupture/breach.

Panel



1



2



3



4

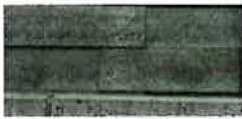


5

Base



1



2



3



4



5

Post



1



2



3

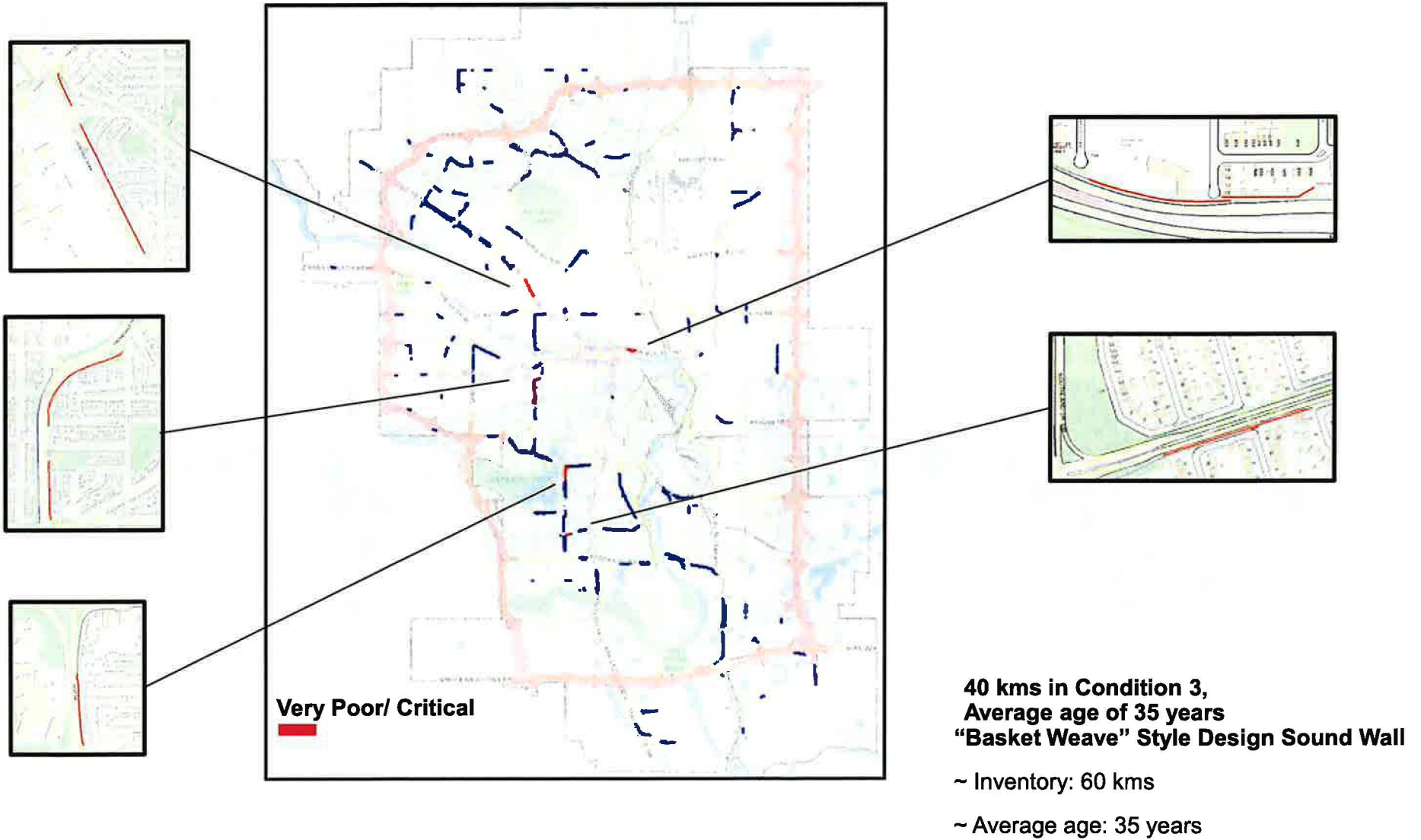


4



5

Network Condition



Poor / Critical Condition

CROWCHILD TRAIL



22 - 22a St SW - off
leash park



24 St SW & Richmond
Rd SW

MEMORIAL DRIVE



7a St NE

14 Street SW



Southland Dr SW, adjacent to Sydney Dr SW

- Buried panels deteriorated.
- Ground settled, buckled panels.
- Prolonged exposure to freeze/ thaw cycles.



Next Steps – Immediate Interim Measures

January 2021

Location	Removal Length (m)	Temporary Measure		Estimated Design Noise Level (dB)
		Chain Link	Post & Cable	
Crowchild Tr SW (22 to 22a St SW)	140	<input checked="" type="checkbox"/>		65
Crowchild Tr & 24 St SW	50	<input checked="" type="checkbox"/>		65

February 2021

Location	Removal Length (m)	Temporary Measure		Estimated Design Noise Level (dB)
		Chain Link	Post & Cable	
14 St SW between Glenmore Tr SW to 75 Av SW	255	<input checked="" type="checkbox"/>		65
14 St SW & Southland Dr SW	70		<input checked="" type="checkbox"/>	60



Recommendation

The Standing Policy Committee on Transportation and Transit recommend that Council:

Allocate \$4.0 million in one-time funding from the Lifecycle Maintenance and Upgrade Reserve (LMUR) to the Sound Wall Lifecycle Program to meet program deficiencies and address remaining high priority locations with immediate needs.

