PEX

Center of Excellence for Preservation
and Service Life Extension

Strategic Plan Progress Update

@ICRI Fall Convention

10/21/2026




ROYAL SONESTA

Center of Excellence for Concrete Preservation and Service Life Extension

Agenda

- General Update of P+Ex
- P+Ex ABC strategy, P+Ex^5 Principle and Closing the Loop
- Case Study – PVM Parking Garage Lessons Learned
- Case Study – A Collaborative Service Life Extension Strategy for the Route 49 Bridge over Maurice River, Millville, NJ
- Case Study – Slave Falls 7-Bay Sluiceway Restoration
- Feedback Session

PEx
Center of Excellence for Concrete Preservation and Service Life Extension

Mission & Vision Statement

Mission

To drive global awareness, education, tools and actions to preserve and extend the service life of concrete structures to ensure a safe and sustainable built environment.

Vision

To promote and lead “Concrete Preservation and Service Life Extension Initiatives” to contribute to sustainable solutions for society

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Strategic Goals

- GOAL 1: Highlight the societal benefits of enhanced service life for new and existing structures.
- GOAL 2: Develop strategies to conserve resources and reduce environmental impact through proper concrete asset management.
- GOAL 3: Raise awareness of the financial benefits of durability design and service life extension.
- GOAL 4: Advocate for responsible stewardship of the built concrete environment.
- GOAL 5: Serve as a knowledge hub for tools and techniques to extend service life.
- GOAL 6: Publish periodic sustainability reports on the repair industry's efforts and set future goals as needed.

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GOAL 1: Highlight the societal benefits of enhanced service life for new and existing structures

Objectives:

- ***Support the inclusion of durability requirements in codes and standards, such as ACI 318 and ASCE 7.***
- Educate owners on the importance of regular maintenance of concrete structures to prevent deterioration and keep them safe.
- Develop a guide for owners regarding inspection and maintenance of concrete facilities.
- Protect public safety by utilizing available technologies to enhance and protect concrete structures against aggressive environments.





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GOAL 2: Develop strategies to conserve resources and reduce environmental impact through proper concrete asset management

Objectives:

- Assess and recommend methodologies and procedures to quantify the environmental and resource consumption benefit of extending the service life of concrete structures vs. replacement
- Assemble case studies using standardized LCA methods
  - PVM Parking Garage Case Study
- Develop **repair system environmental declarations** to calculate and verify the repair system's environmental impact

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GOAL 3: Raise awareness of the financial benefits of durability design and service life extension

Objectives:

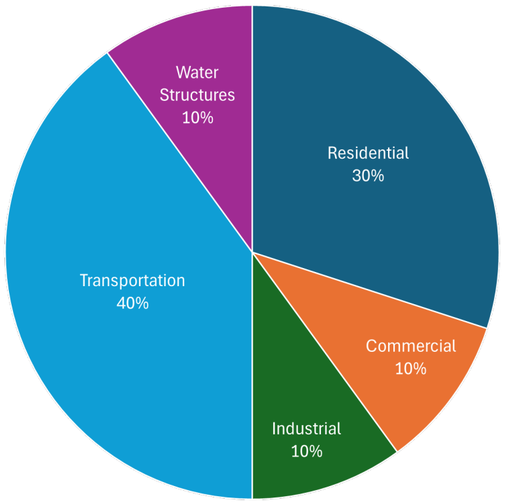
- Conduct **market research** to determine the MAGNITUDE of the concrete repair market
- Assemble asset management best practices for extending the service life of concrete structures.
- Assemble case studies of financial benefits based on Sitter's "Law of Fives"
  - Introducing **P+Ex ABC Strategy** and **P+Ex^5** Principle

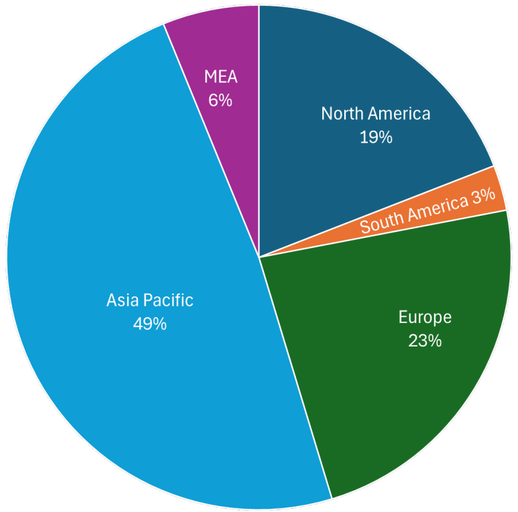
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Repair Market Size Estimation

- Determine current market size of concrete repair, protection, and strengthening (NA/global) was our first task
  - Data collected from material suppliers, contractors and verified with public information

- US repair market is estimated to be ~ $ 65 B
- Global repair market ~ $ 450 B





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GOAL 4 – Advocate for responsible stewardship of the built concrete environment

Objectives:

- Developed and delivering internal and external communication package
  - ✓ Videos for company employees
  - ✓ P+Ex Profile Videos released one per month, starting mid. July
  - ✓ Presentation for company sales pitch
  - ✓ P+Ex article – Closing the loop – at Concrete International
- Host 3 P+Ex events per year
  - ✓ Progress report session at @ICRI Conventions
  - ✓ P+Ex presentations at ACI Spring convention
  - 1 Presentation @ ISI Annual Conference
  - 5 Presentations @ WBEC 2026


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PEX PROFILES

Eric Hauth

CONCRETE REPAIR ADVOCATE

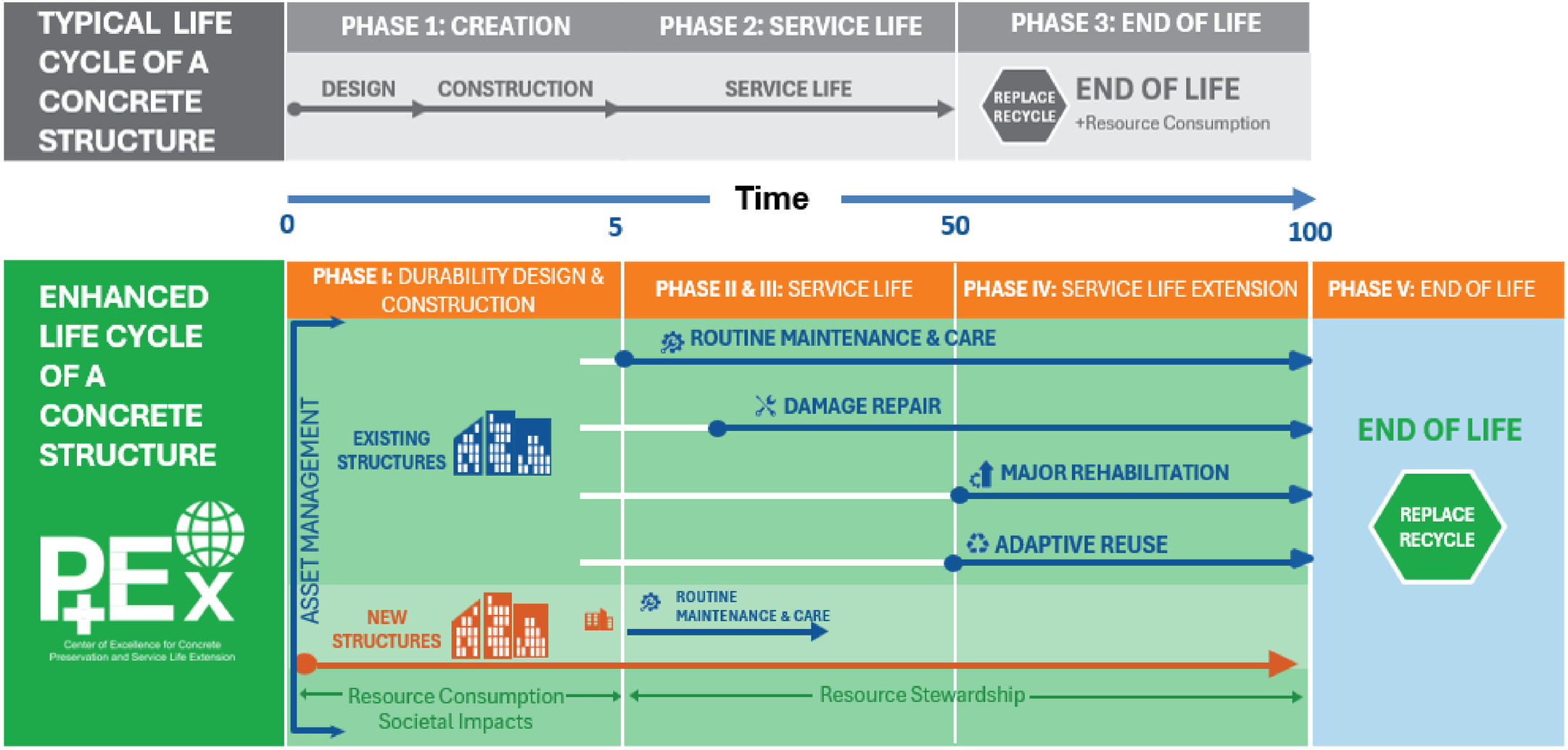
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Enhanced Service Life of Concrete Structures



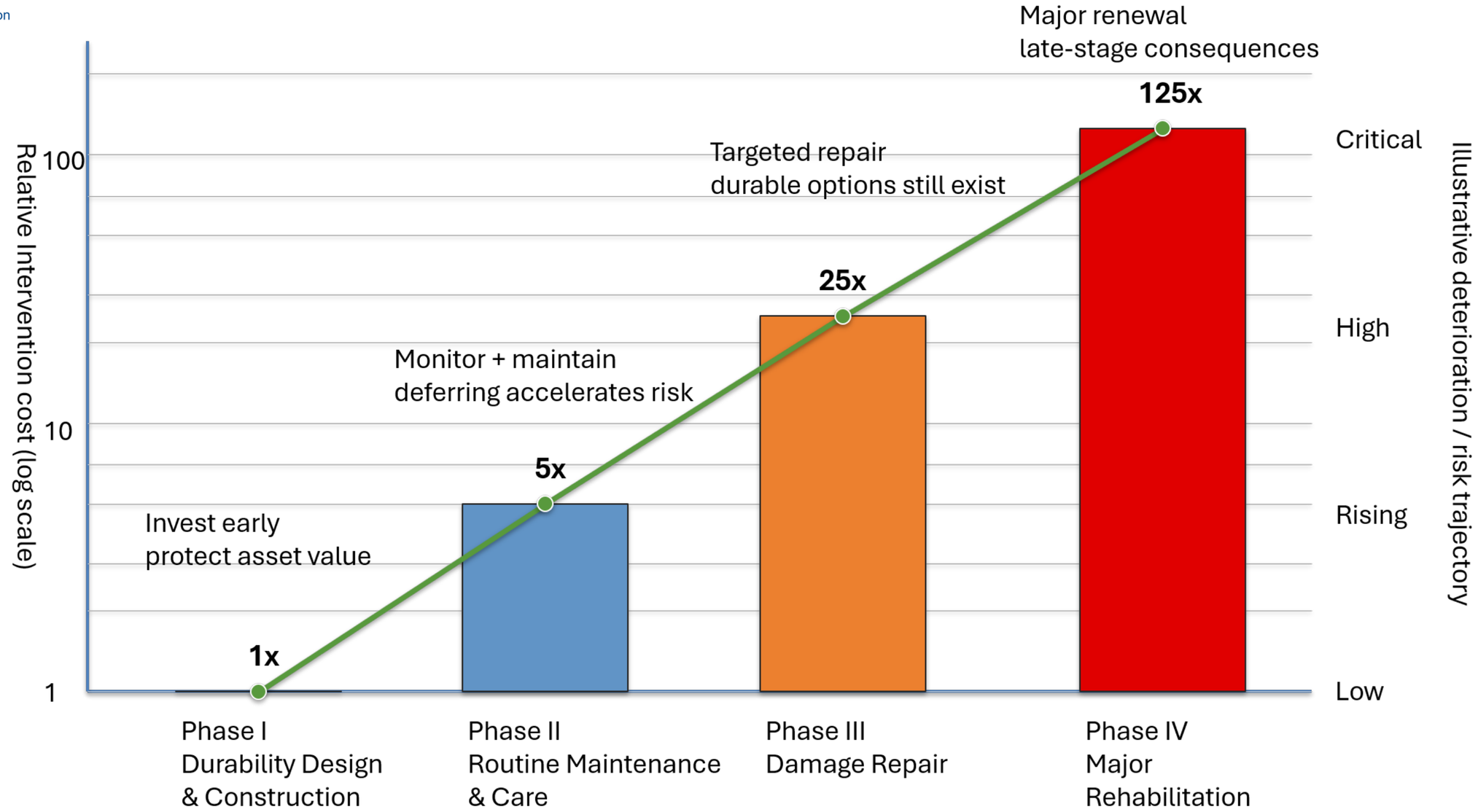
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P+Ex ABC Strategy for Concrete Asset Management

A — Asset Management	B — Before It Is Too Late	C — Concrete Can Be Durable
Asset management is all about taking care of important investments. Concrete structures are capital, community, and carbon investments, not disposable commodities.	Before it is too late, earlier is better. Early maintenance and mechanism-based repair reduce recurrence risk, disruption, lifecycle cost, and embodied carbon.	Concrete can be durable; we have the solutions. Durable design, inspection, membranes, coatings, overlays, corrosion mitigation, cathodic protection, and quality repair can extend service life.

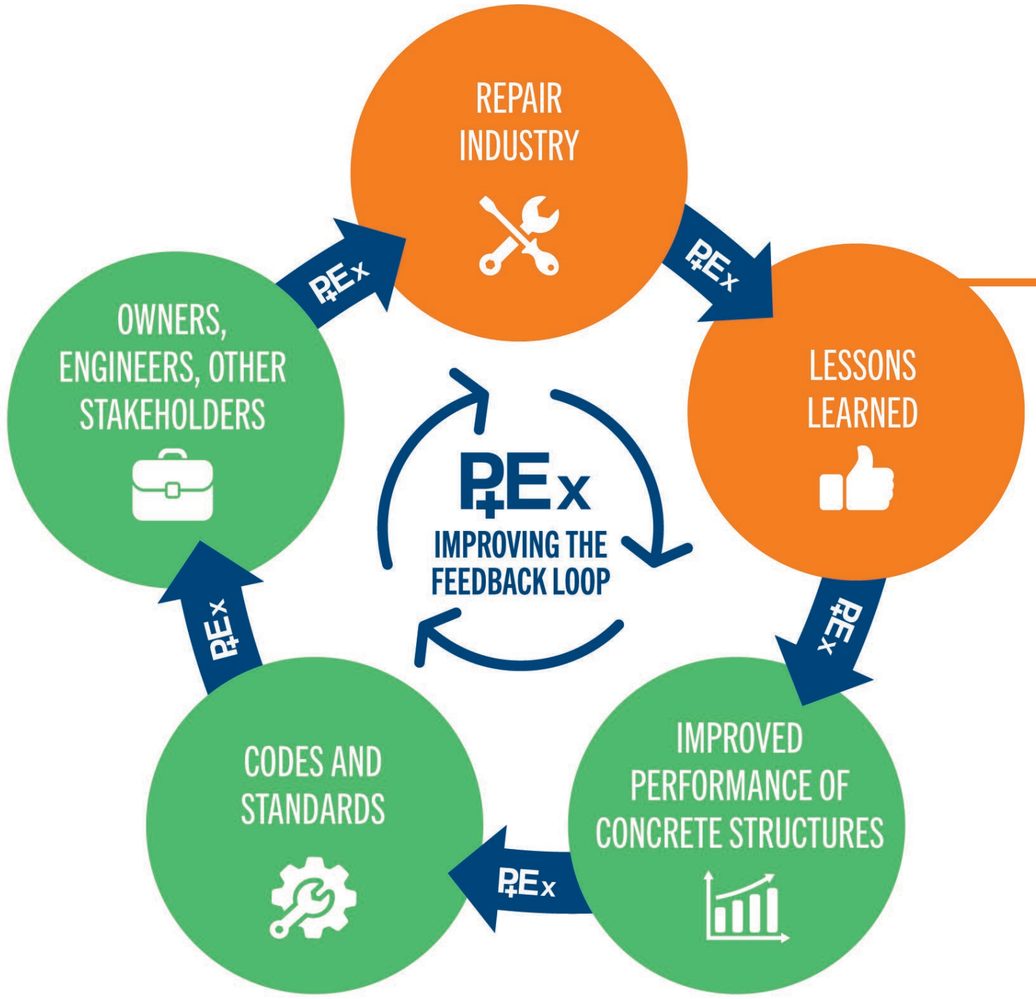
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P+Ex^5 Principle – Investing and Acting Early to Prevent Diminishing of Asset Value



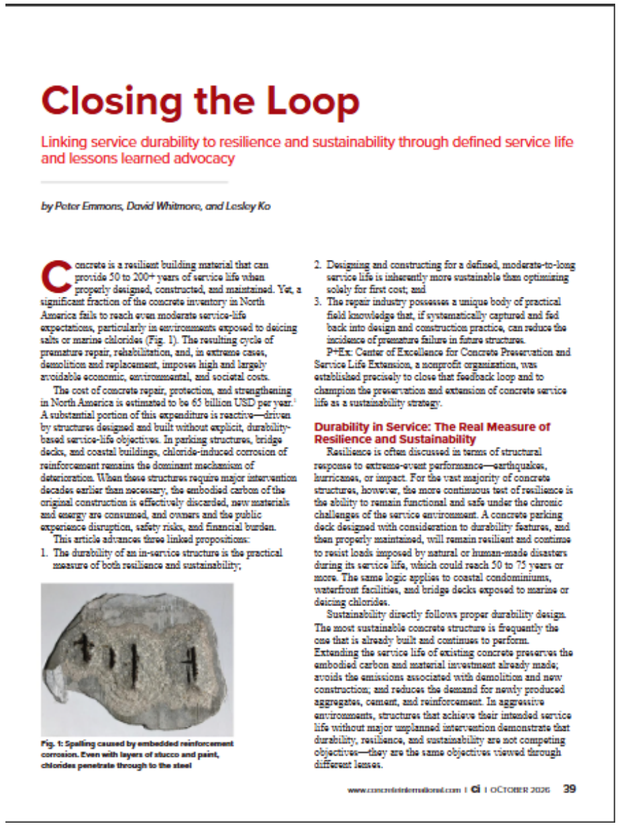
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Closing the Loop – Concrete International article



LESSONS LEARNED

- Causes of concrete failures
- Preventions from failures in new designs and construction during service life
- Strategies for durability and service life designs
- Strategies for care and maintenance



Closing the Loop

Linking service durability to resilience and sustainability through defined service life and lessons learned advocacy

by Peter Emmons, David Whitmore, and Lesley Ko

Concrete is a resilient building material that can provide 50 to 200+ years of service life when properly designed, constructed, and maintained. Yet, a significant fraction of the concrete inventory in North America fails to reach even moderate service-life expectations, particularly in environments exposed to deicing salts or marine chlorides (Fig. 1). The resulting cycle of premature repair, rehabilitation, and, in extreme cases, demolition and replacement, imposes high and largely avoidable economic, environmental, and societal costs.

The cost of concrete repair, protection, and strengthening in North America is estimated to be 65 billion USD per year.[1] A substantial portion of this expenditure is reactive—driven by structures designed and built without explicit, durability-based service-life objectives. In parking structures, bridge decks, and coastal buildings, chloride-induced corrosion of reinforcement remains the dominant mechanism of deterioration. When these structures require major intervention decades earlier than necessary, the embodied carbon of the original construction is effectively discarded, new materials and energy are consumed, and owners and the public experience disruption, safety risks, and financial burden.

This article advances three linked propositions:

1. The durability of an in-service structure is the practical measure of both resilience and sustainability;
2. Designing and constructing for a defined, moderate-to-long service life is inherently more sustainable than optimizing solely for first cost; and
3. The repair industry possesses a unique body of practical field knowledge that, if systematically captured and fed back into design and construction practice, can reduce the incidence of premature failure in future structures.

P+Ex: Center of Excellence for Concrete Preservation and Service Life Extension, a nonprofit organization, was established precisely to close that feedback loop and to champion the preservation and extension of concrete service life as a sustainability strategy.

Durability in Service: The Real Measure of Resilience and Sustainability

Resilience is often discussed in terms of structural response to extreme-event performance—earthquakes, hurricanes, or impact. For the vast majority of concrete structures, however, the more continuous test of resilience is the ability to remain functional and safe under the chronic challenges of the service environment. A concrete parking deck designed with consideration to durability features, and then properly maintained, will remain resilient and continue to resist loads imposed by natural or human-made disasters during its service life, which could reach 50 to 75 years or more. The same logic applies to coastal condominiums, waterfront facilities, and bridge decks exposed to marine or deicing chlorides.

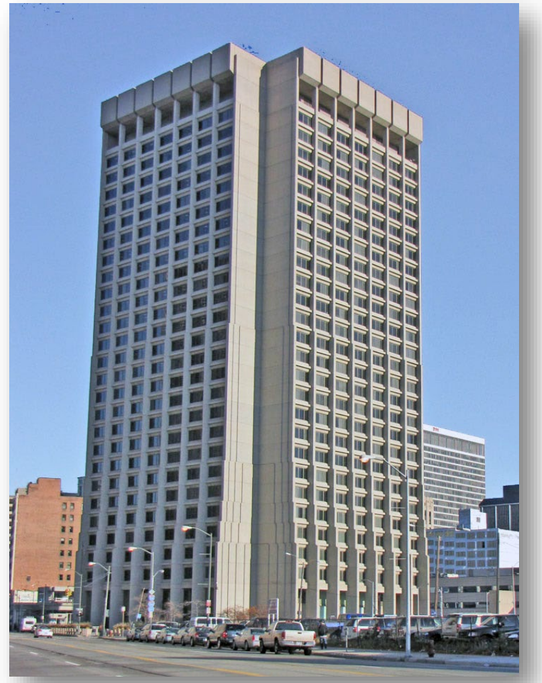
Sustainability directly follows proper durability design. The most sustainable concrete structure is frequently the one that is already built and continues to perform. Extending the service life of existing concrete preserves the embodied carbon and material investment already made, avoids the emissions associated with demolition and new construction, and reduces the demand for newly produced aggregates, cement, and reinforcement. In aggressive environments, structures that achieve their intended service life without major unplanned intervention demonstrate that durability, resilience, and sustainability are not competing objectives—they are the same objectives viewed through different lenses.

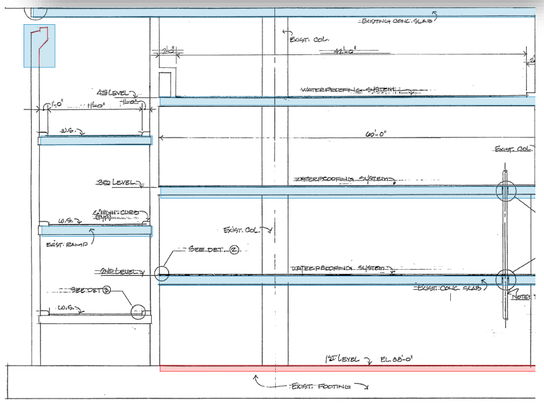
Fig. 1: Spalling caused by embedded reinforcement corrosion. Even with layers of stucco and paint, chlorides penetrate through to the steel

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PVM Parking Garage – Case Study

- Patrick V. McNamara (PVM) federal building located in Detroit, MI
- Built in 1973, this is an existing five-level reinforced concrete parking structure
  - 3 levels below grade (Levels 1-3),
  - 1 level at grade (Level 4), and 1 level above grade (Level 5).
- Major concrete repair work is ongoing
- Data from past inspections and reports were used.
- Frequent exposure to deicing salt led to rebar corrosion.
- Breakout windows showed extensive corrosion damage.
- A desk study combines service-life analysis (SLA) and carbon footprint calculation





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Typical Garage Salt Damage



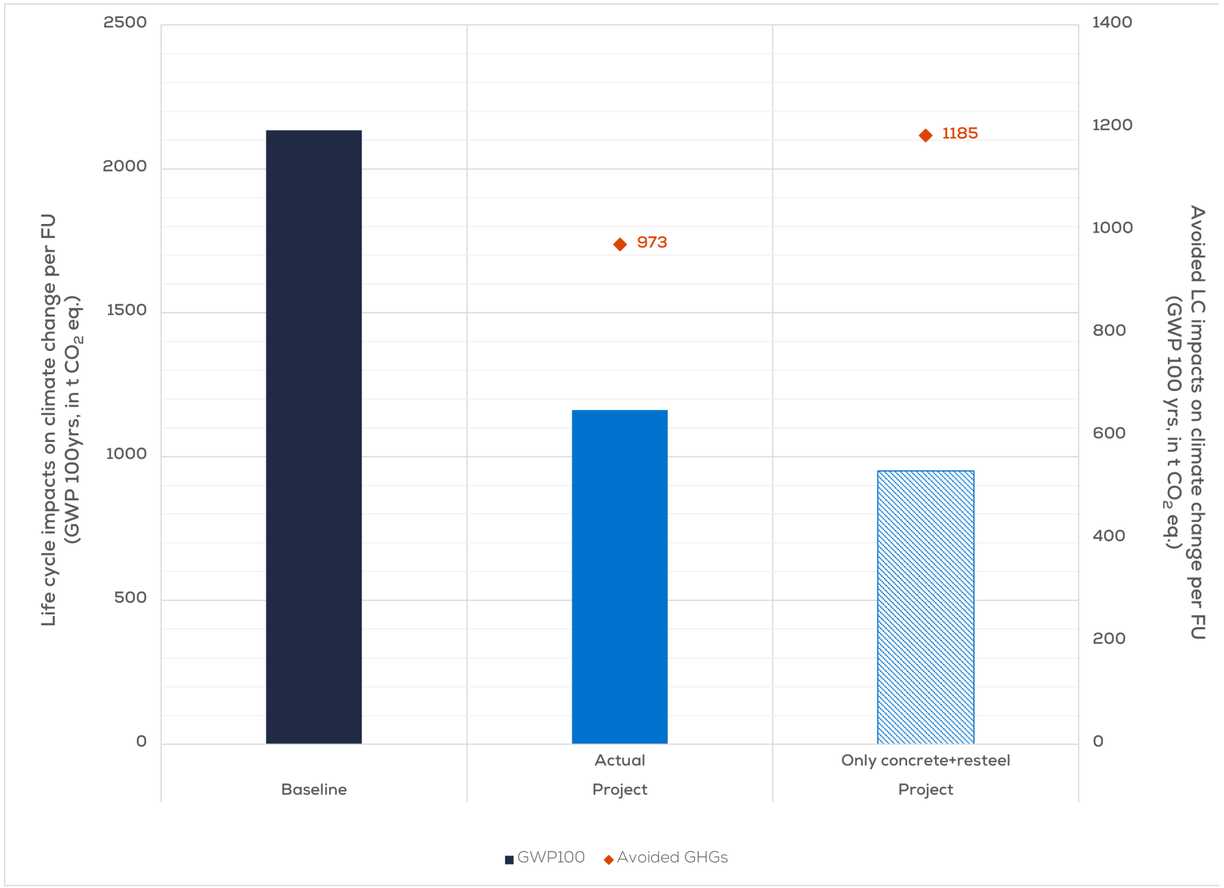


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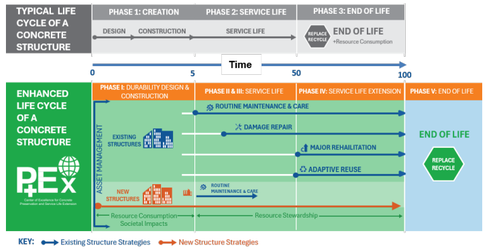
Comparative Carbon Footprint

Functional unit (FU): Sustaining the use of the PVM building garage for an additional 60 years

- Carbon footprint of baseline scenario:
  - 2135 t CO_2 eq. per FU
- Carbon footprint of project scenario:
  - 1162 t CO_2 eq. per FU
- Estimated avoided life cycle GHG emissions of PVM garage project:
  - **~ 973 t CO_2 eq. (~1185 t CO_2 eq., if only consider concrete & steel)**



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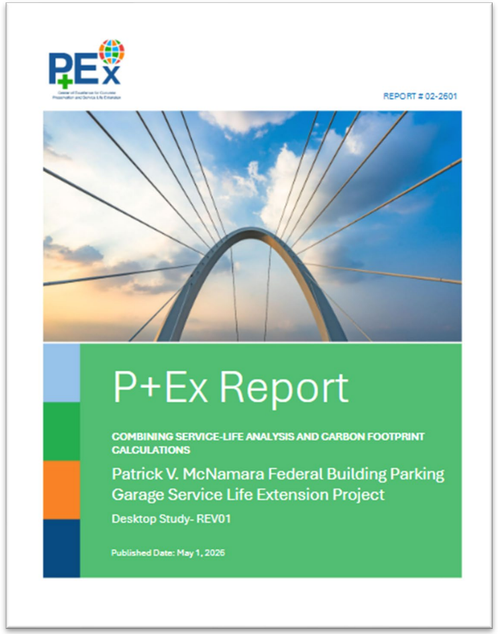
Lessons Learned

Lifecycle stage	Decision question	Preferred owner action
I – Durability Design and Construction	How should the structure be designed for durability and expected service life?	**Define design service life and exposure**. Specify low-permeability concrete, cover, curing, crack control, drainage, waterproofing, corrosion protection where justified, and construction QA/QC. Estimated cost $
II – Routine Maintenance and Care	Is maintenance funded, scheduled, and tied to condition data?	**Implement condition assessment**. Conduct root-cause care e.g. drainage cleaning, joint maintenance, waterproof membranes, and condition-history tracking. Estimated membrane cost $$
III- Damage Repair	When damage appears, is the root cause being addressed or only the symptom?	**Condition assessment** to determine chloride exposure and penetration, cover, moisture paths, and corrosion risk before selecting repair methods. **Global removal of the chloride-contaminated concrete** maybe necessary. Replace with low-permeability concrete, cover, curing, crack control, drainage, waterproofing, and corrosion protection. membrane cost $$$
IV - Rehabilitation	Is the structure fundamentally sound and suitable for repair-first service-life extension?	Compare repair, protection, strengthening, and replacement using lifecycle cost, embodied carbon, user disruption, constructability, safety risk, and recurrence risk. – Estimated cost $$$$

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Summary

- The PVM rehabilitation project preserved existing infrastructure, reduced demand for new materials, and avoided **~973 tons of CO_2-eq.** emissions compared with a replacement scenario
- **Early investment** in durability design and construction would have reduced the scale and cost of later rehabilitation. Savings could amount to ~$30 million
- Inspection and maintenance are part of design service life. Damage repair should be mechanism-based.
- Repair-first strategies should be evaluated before replacement when the structure is fundamentally sound and the deterioration mechanism can be addressed.



Results reviewed and verified to conform with ISO 14044:2006 & 14071:2024

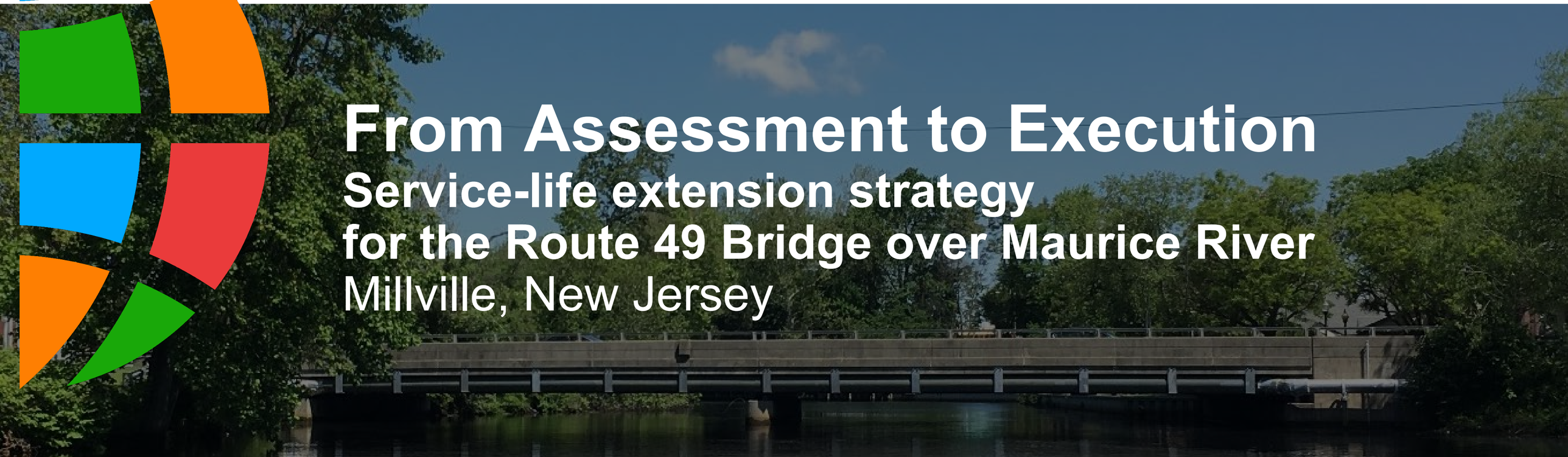
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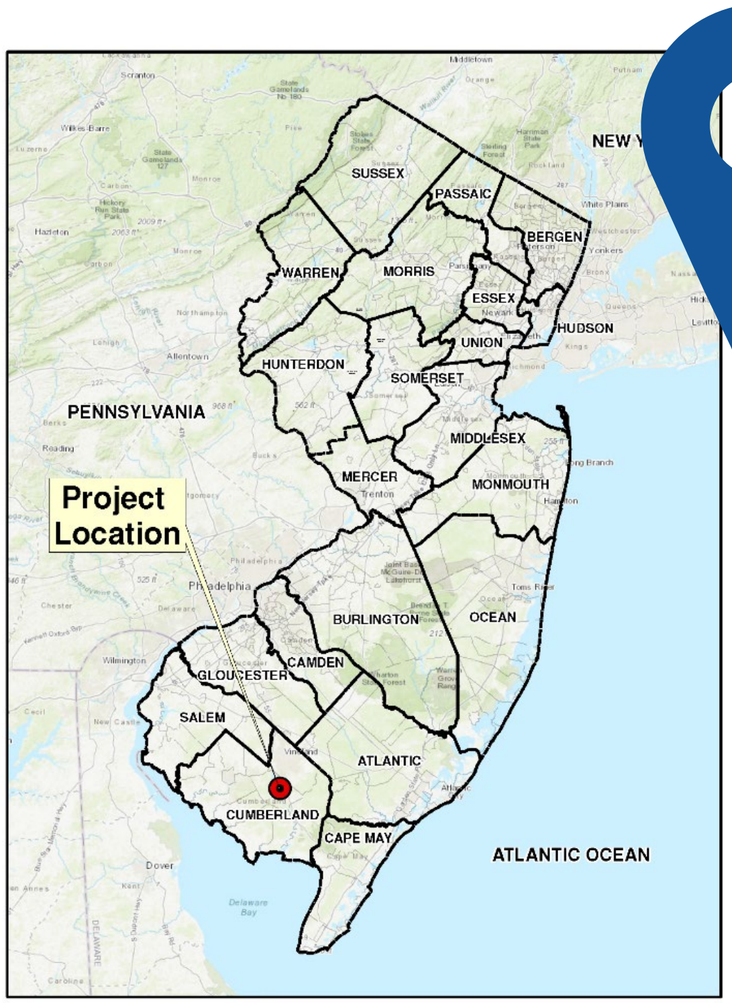
From Assessment to Execution

Service-life extension strategy for the Route 49 Bridge over Maurice River

Millville, New Jersey

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Project Location



- Route 49 M.P. 36.23 (also known as Main St.)
- City of Millville, Cumberland County



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Background

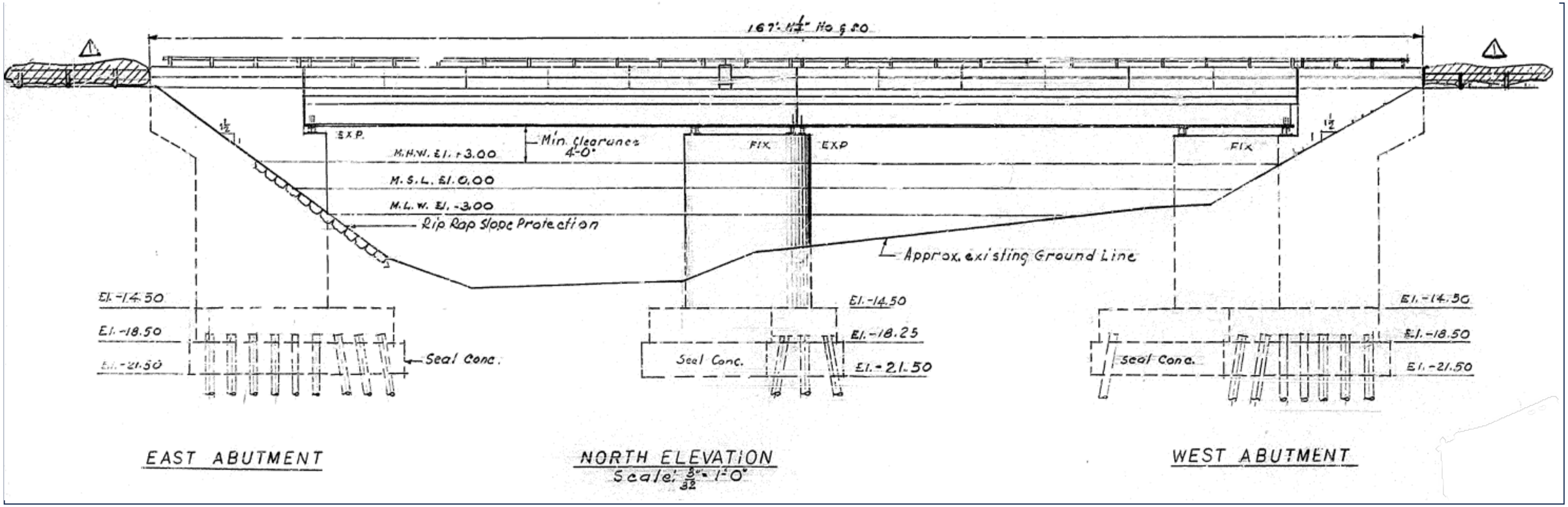
- Built in 1971 (55 years old)
- Two span simply supported bridge with L = 134’
- Structurally Deficient (rating 4) due to superstructure
- Substructure is rated satisfactory (rating 6)
- Curb-to-Curb width of 50’





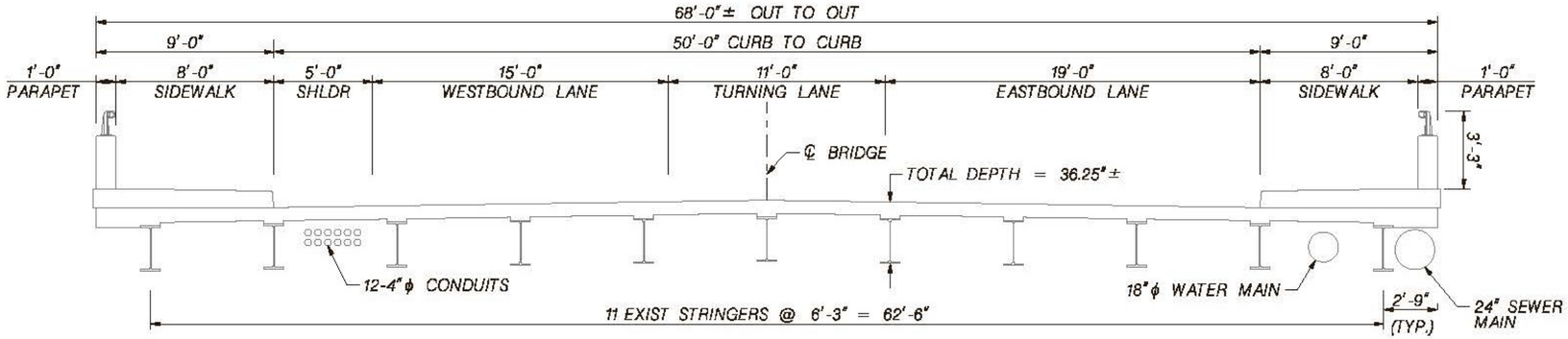
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As-built Drawings



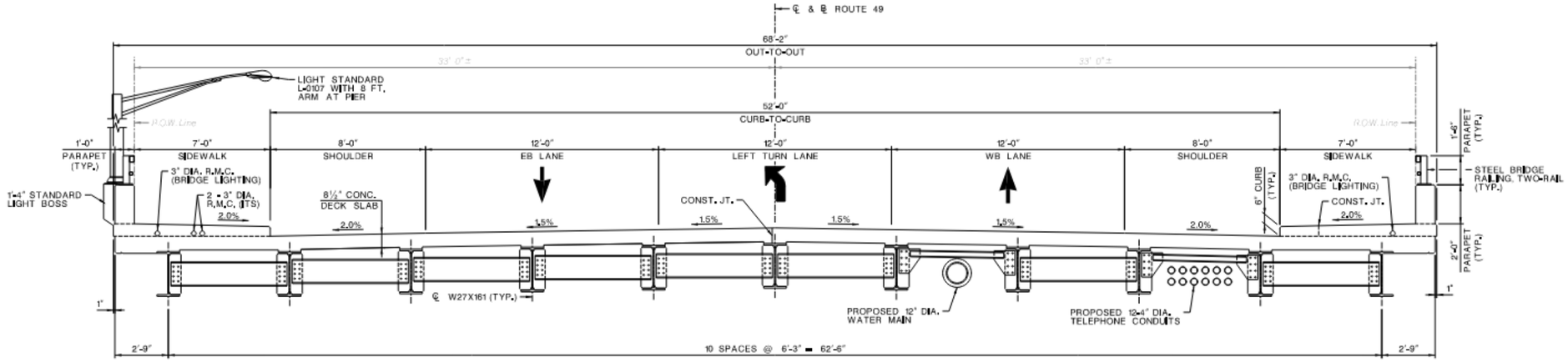
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As-built Drawings



EXISTING TYPICAL BRIDGE SECTION (LOOKING EAST)

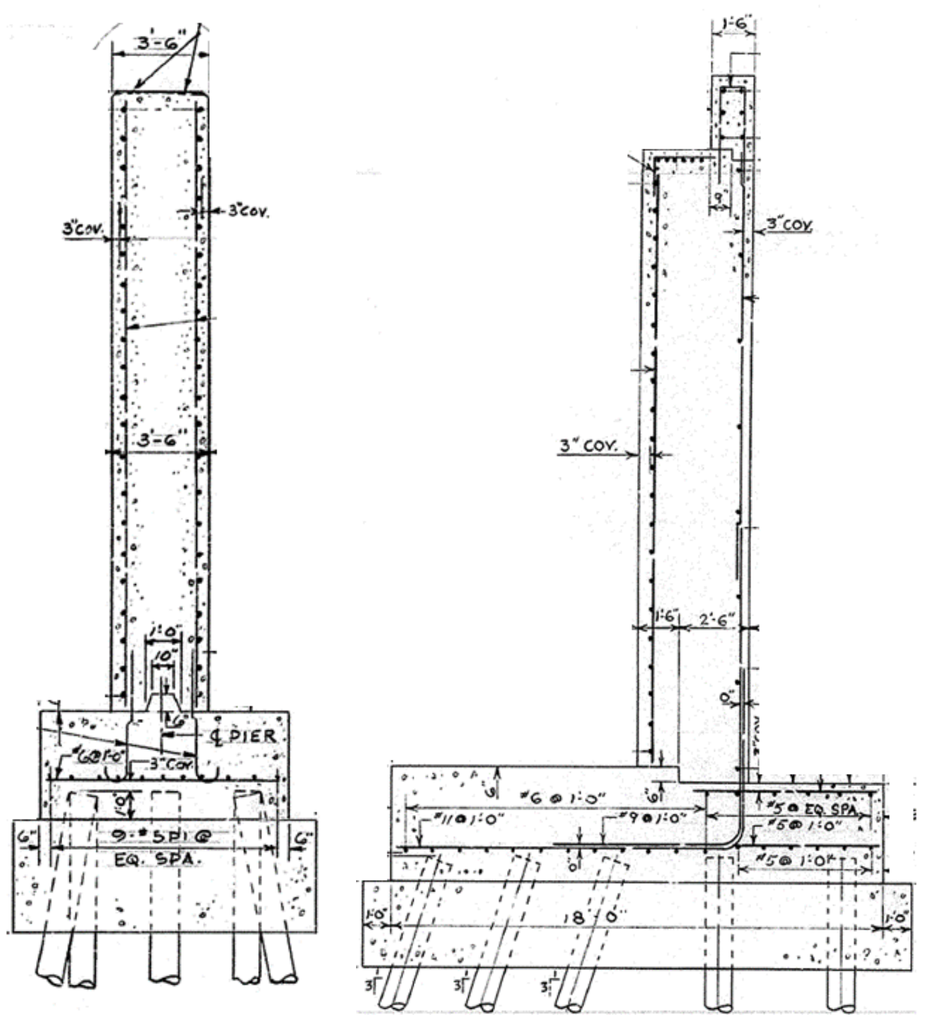
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TYPICAL SECTION

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As-built Drawings





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Background

- Superstructure replacement
  - Extend the service life for the next 40 to 50 years
- Substructure investigation
  - Concrete testing
  - Repair recommendations (+ 40 to 50 years)

- **Objective**
  - **Determine if substructure could remain in use or if it needed to be replaced at the same time**

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Residual Service Life Evaluation

1. Substructure investigation
   - Inspection & core extraction
2. Concrete characterization
   - Concrete properties
   - Degradation mechanisms
   - Contamination extent
   - Exposure conditions
3. Degradation modeling
4. Evaluation of performance of different repair options



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Field Investigation

- Visual Inspection
- Ground-Penetrating Radar (GPR) survey
- Core extraction



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Field Investigation





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Field Investigation





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Field Investigation



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Field Investigation – GPR + Core Extraction





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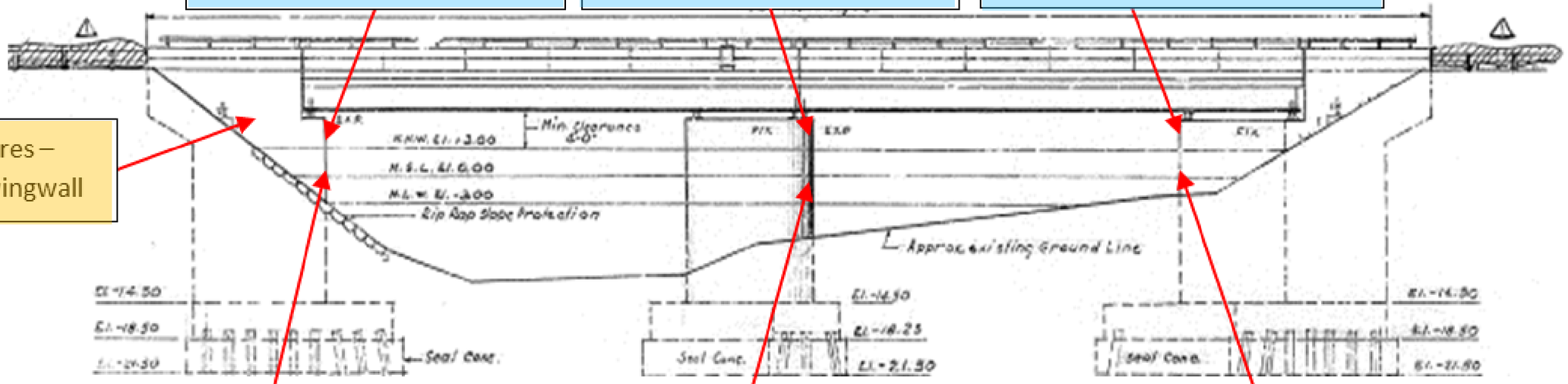
Field Investigation – GPR + Core Extraction

2 cores - East breast wall - Above tidal zone

3 cores - Pier stem wall - Above tidal zone

2 cores - West breast wall - Above tidal zone

2 cores – East wingwall



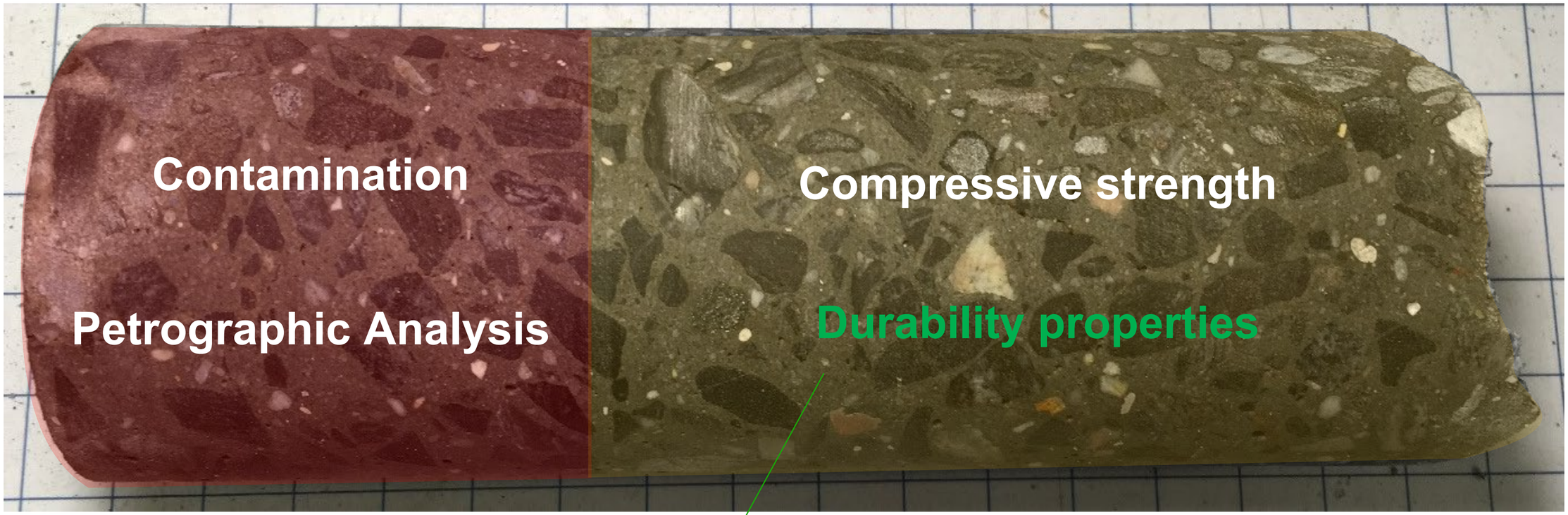
3 cores - East breast wall - Tidal zone
1 core below drain

3 cores - Pier stem wall – Tidal zone

3 cores - West breast wall - Tidal zone
1 core below drain

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Laboratory Testing



- Air void network parameters
- Water-soluble alkali content
- Volume of Permeable Voids
- Ionic diffusion Properties
- Moisture Transport Properties

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Laboratory Testing Results

- Cracking & scaling caused by freeze-thaw and corrosion of steel
    - More critical in areas that are closer to saturation
- Alkali-silica reaction (ASR) not main degradation mechanism
- Shallow depth of carbonation
- **Severe chloride contamination**
    - De-icing salts + extensive cracking

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STADIUM® Service-life Calculations

FIELD INVESTIGATION

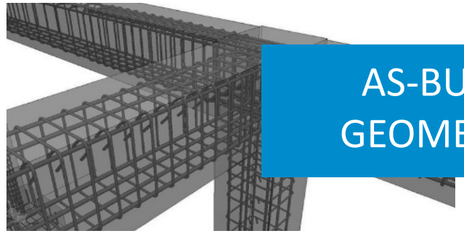
LABORATORY TESTING

LOAD



LOCAL EXPOSURE CONDITIONS

RESISTANCE

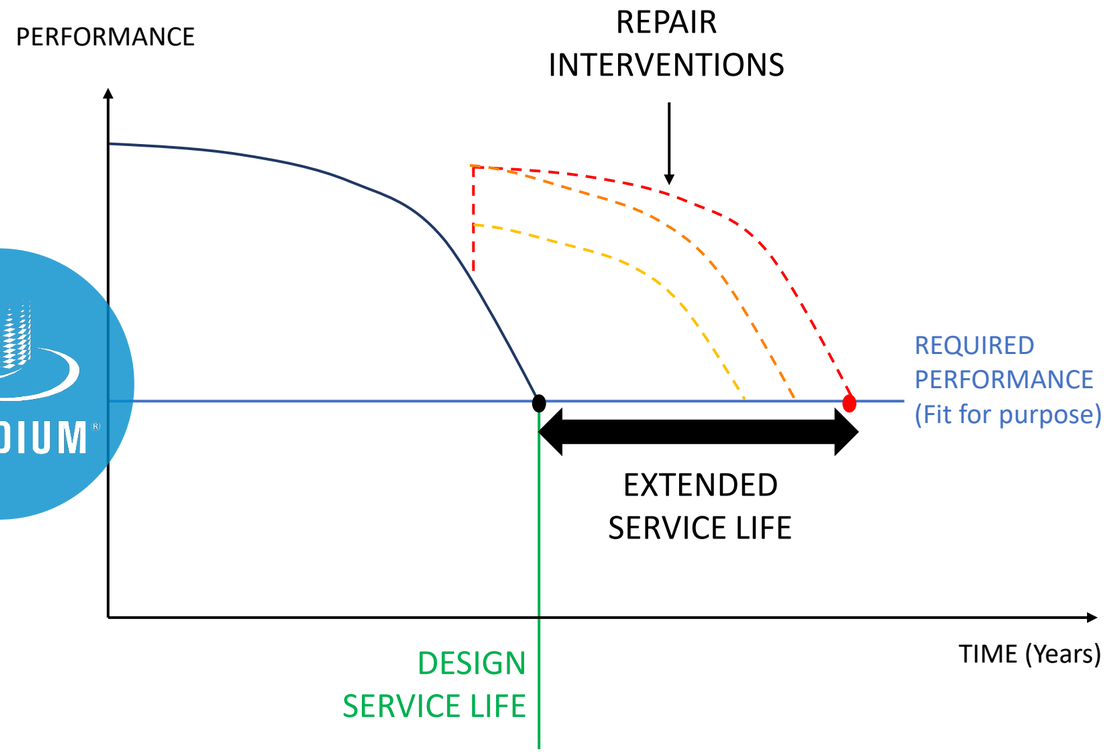


AS-BUILT GEOMETRY



CONCRETE IN-PLACE

STADIUM®



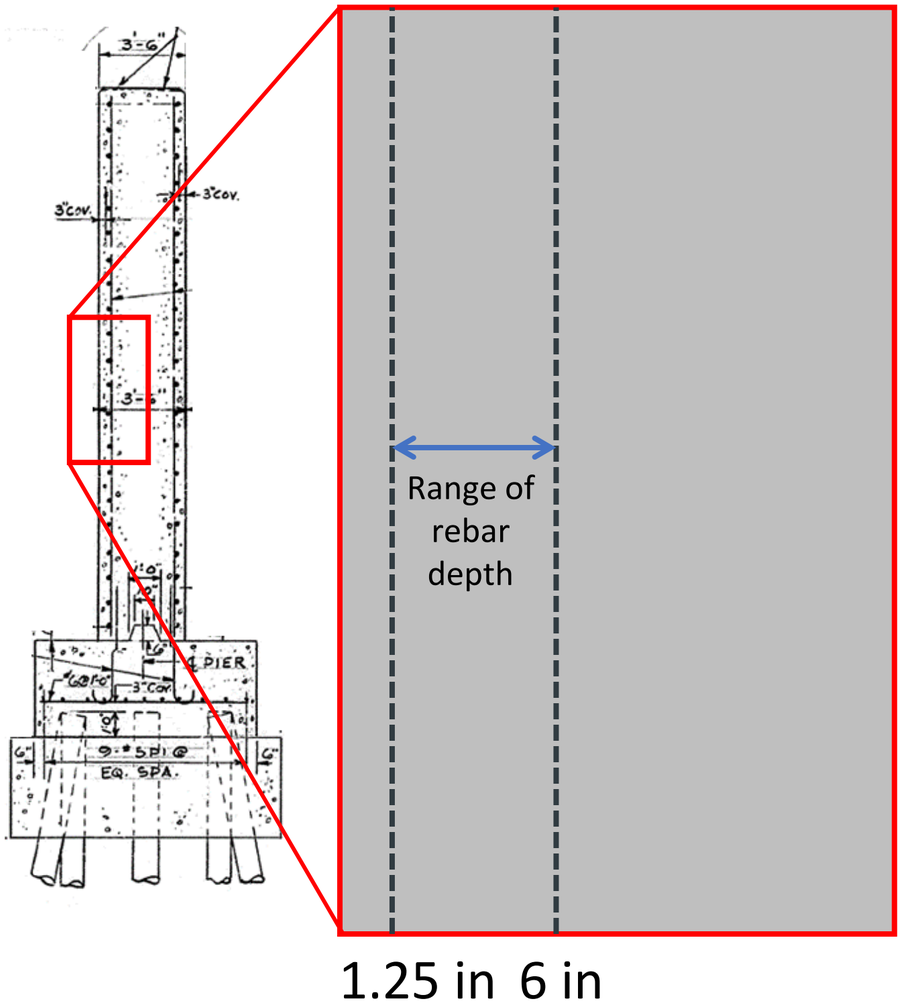
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Repair Scenarios

What depth of concrete removal & new concrete will be sufficient to extend the life by 40-50 years ?

- Extent of current and **future** contamination
- Depth of freeze-thaw damage
- Steel reinforcement location

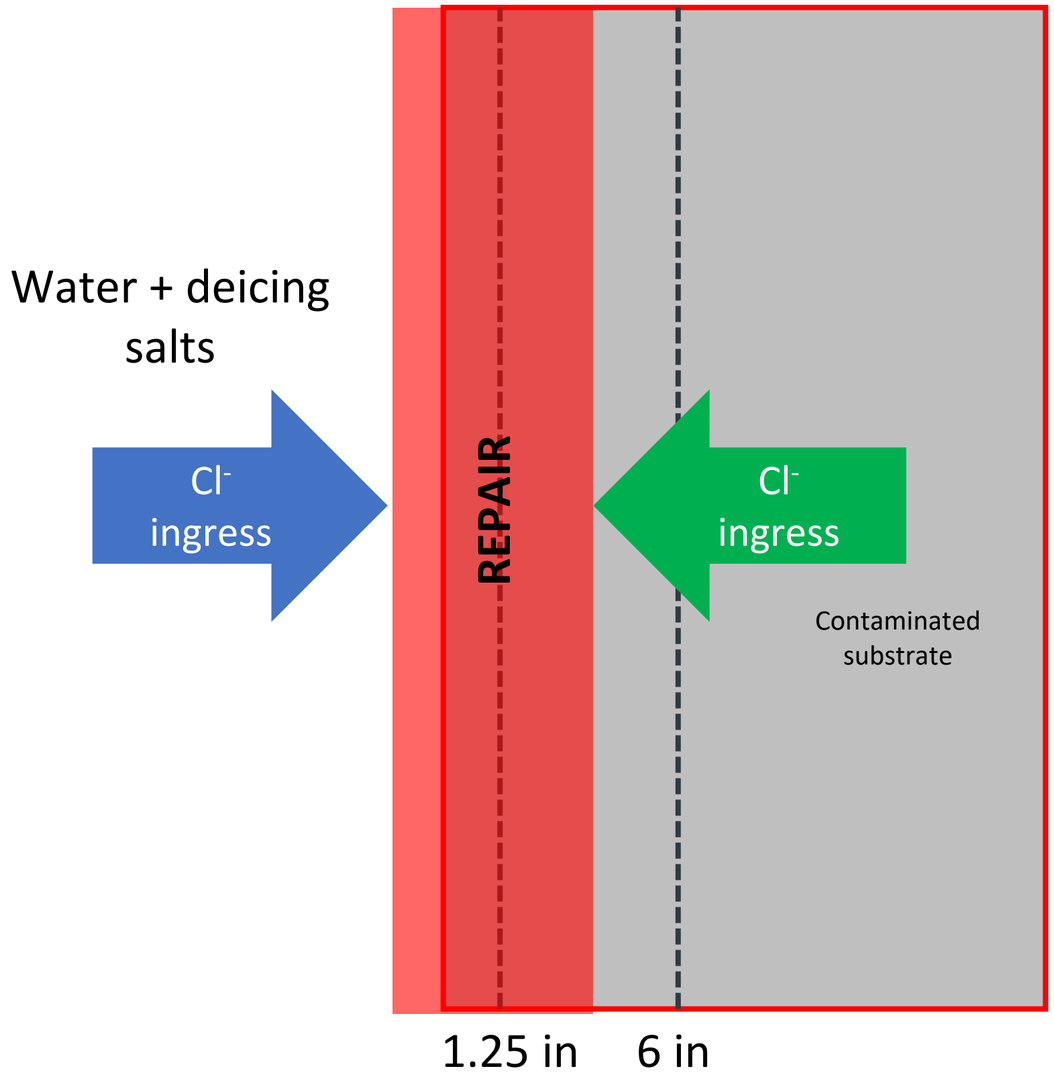
Need for modeling chloride ingress after repair and corrosion initiation



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Repair Scenarios

Repairs → 1 in. thicker than current thickness to increase minimum concrete cover

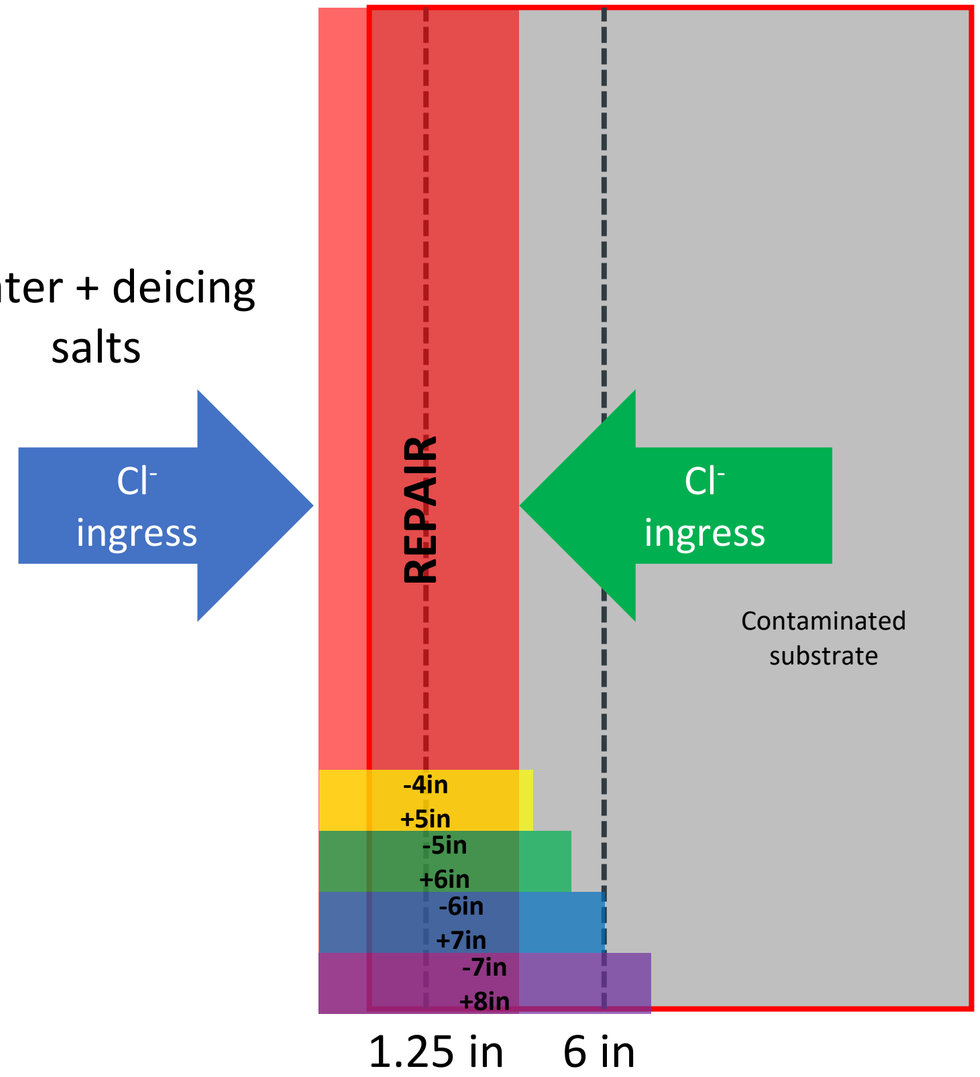


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Repair Scenarios

Repairs → 1 in. thicker than current thickness to increase minimum concrete cover

- 4 scenarios:
  - Concrete removal of 4 in., 5 in., 6 in. and 7 in.

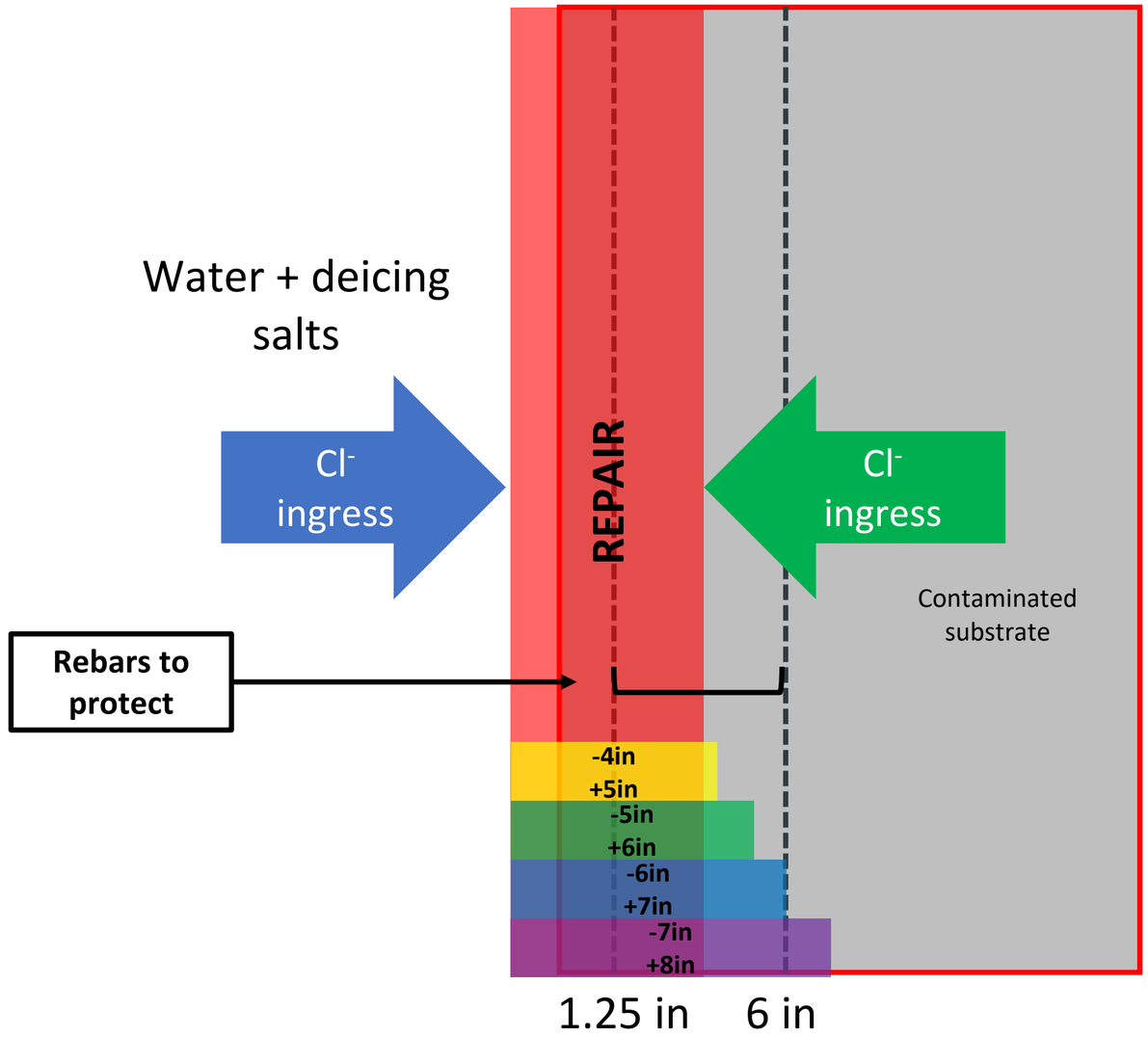


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Repair Scenarios

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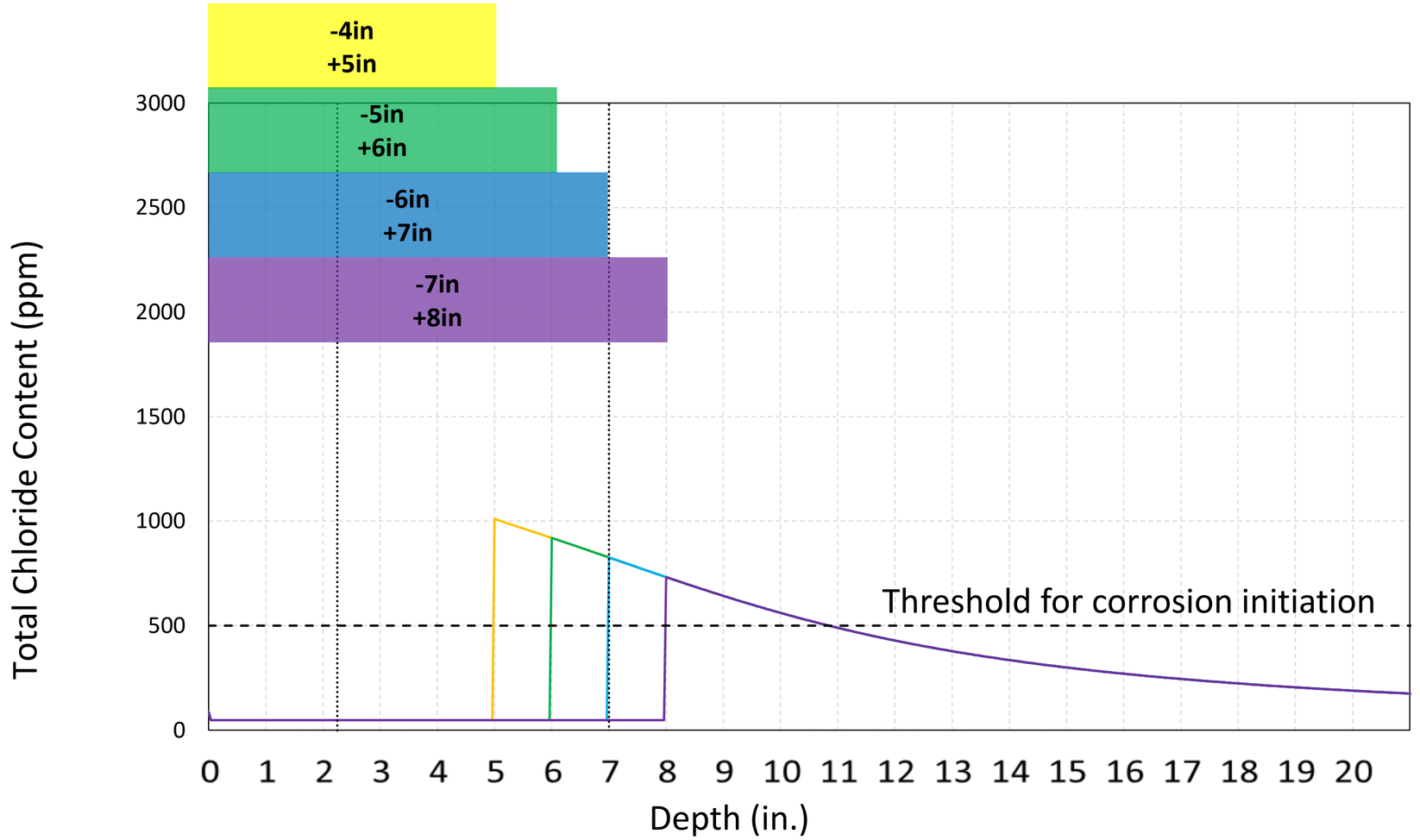
- 4 scenarios:
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Repair Scenarios

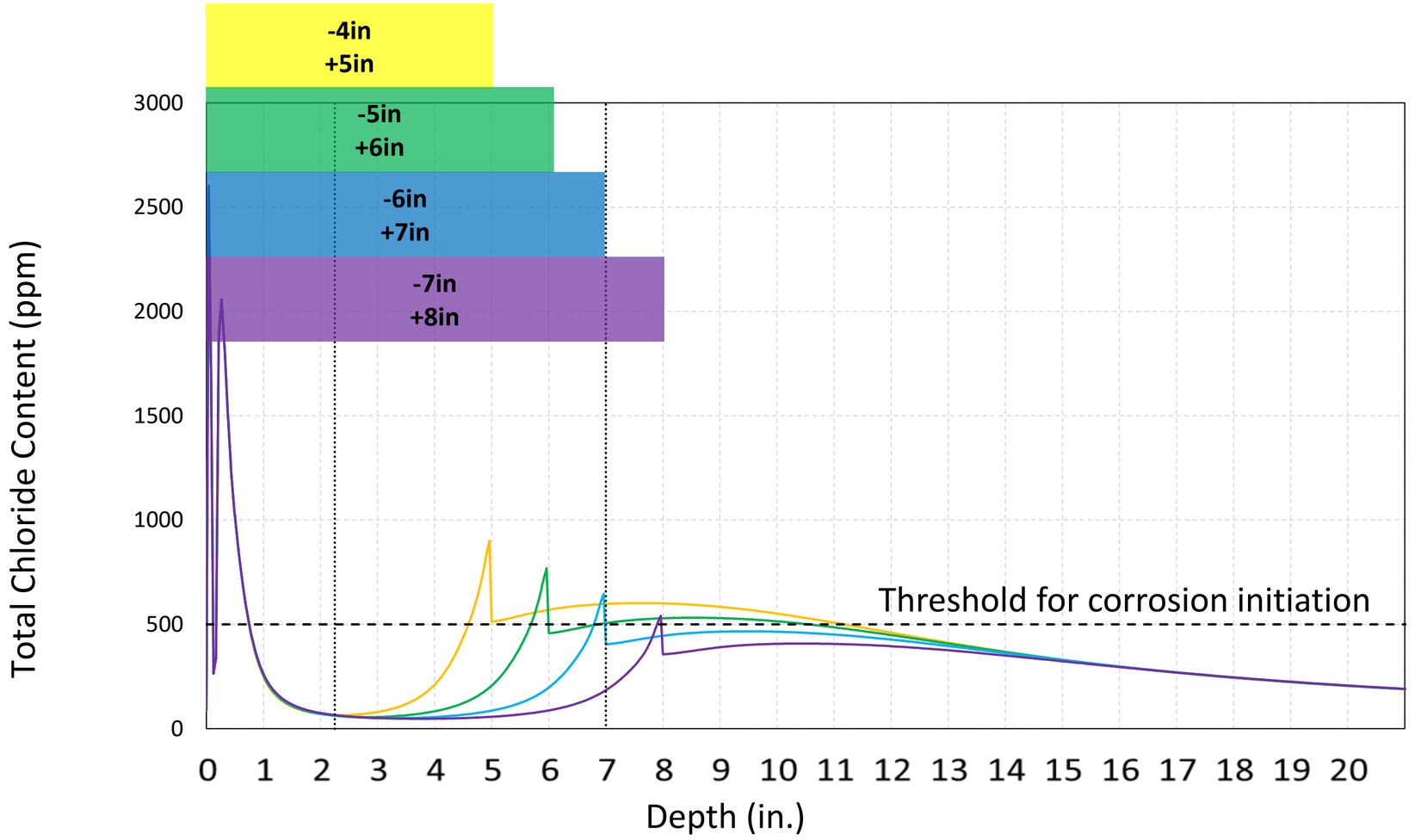
2019



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Repair Scenarios

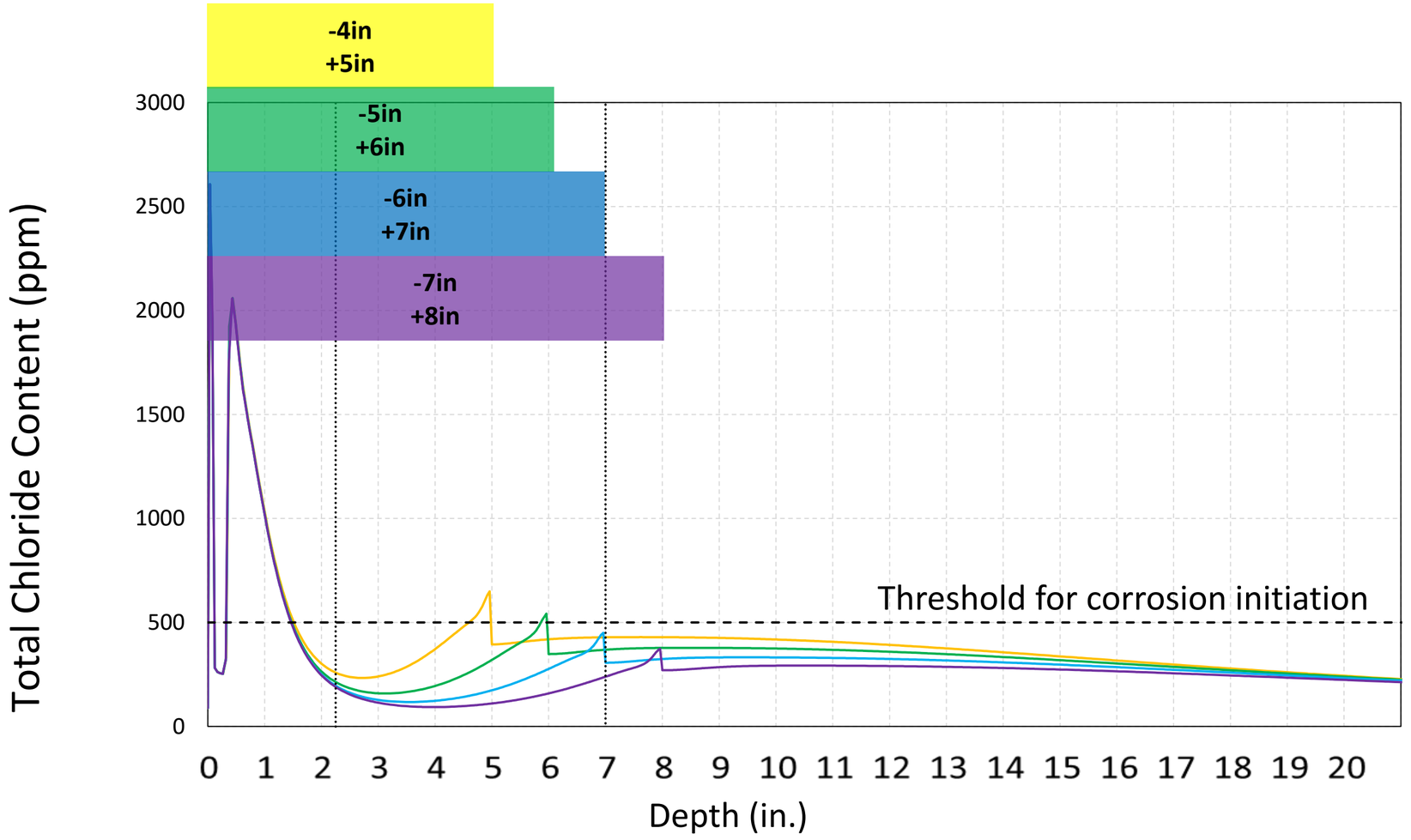
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Repair Scenarios

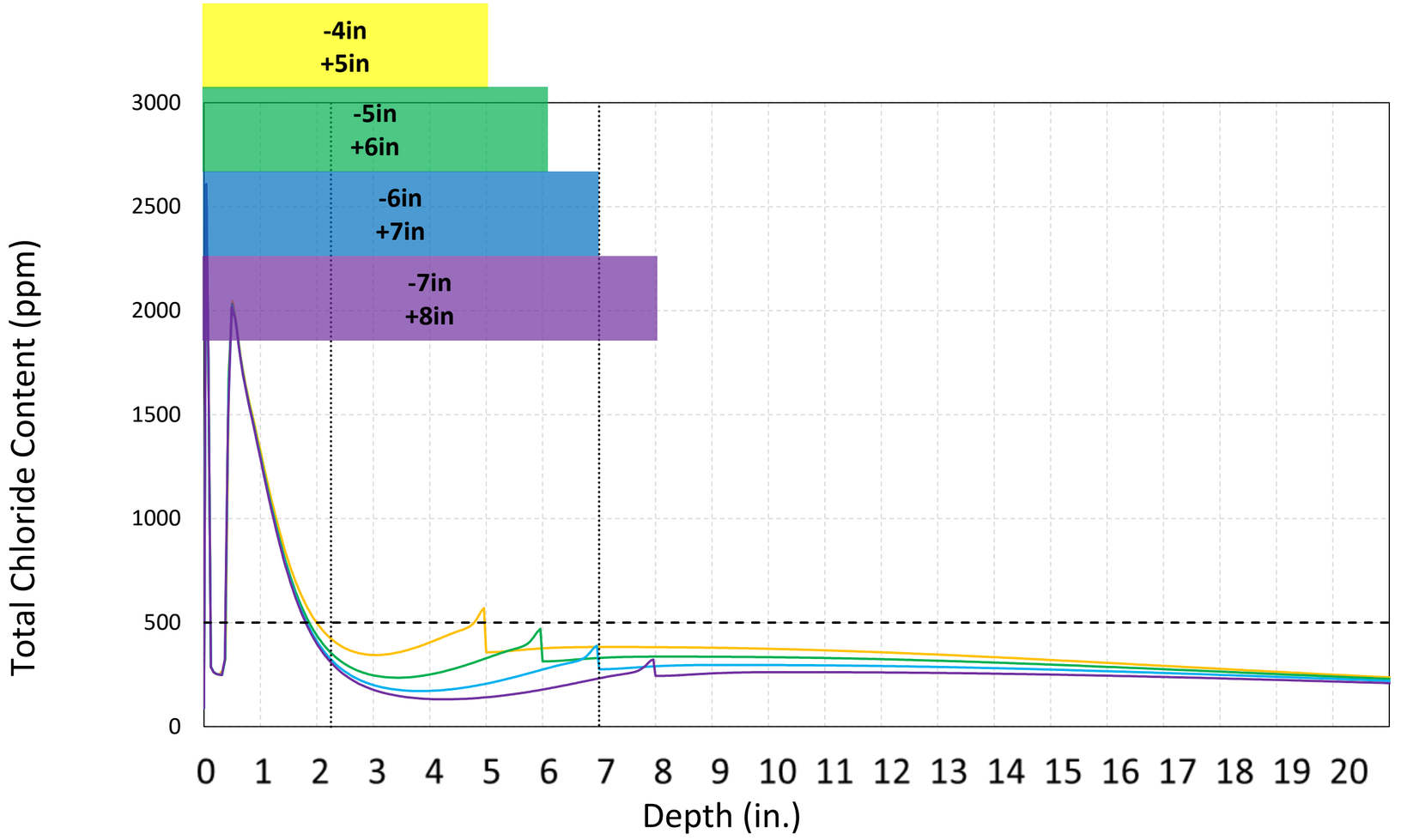
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Repair Scenarios

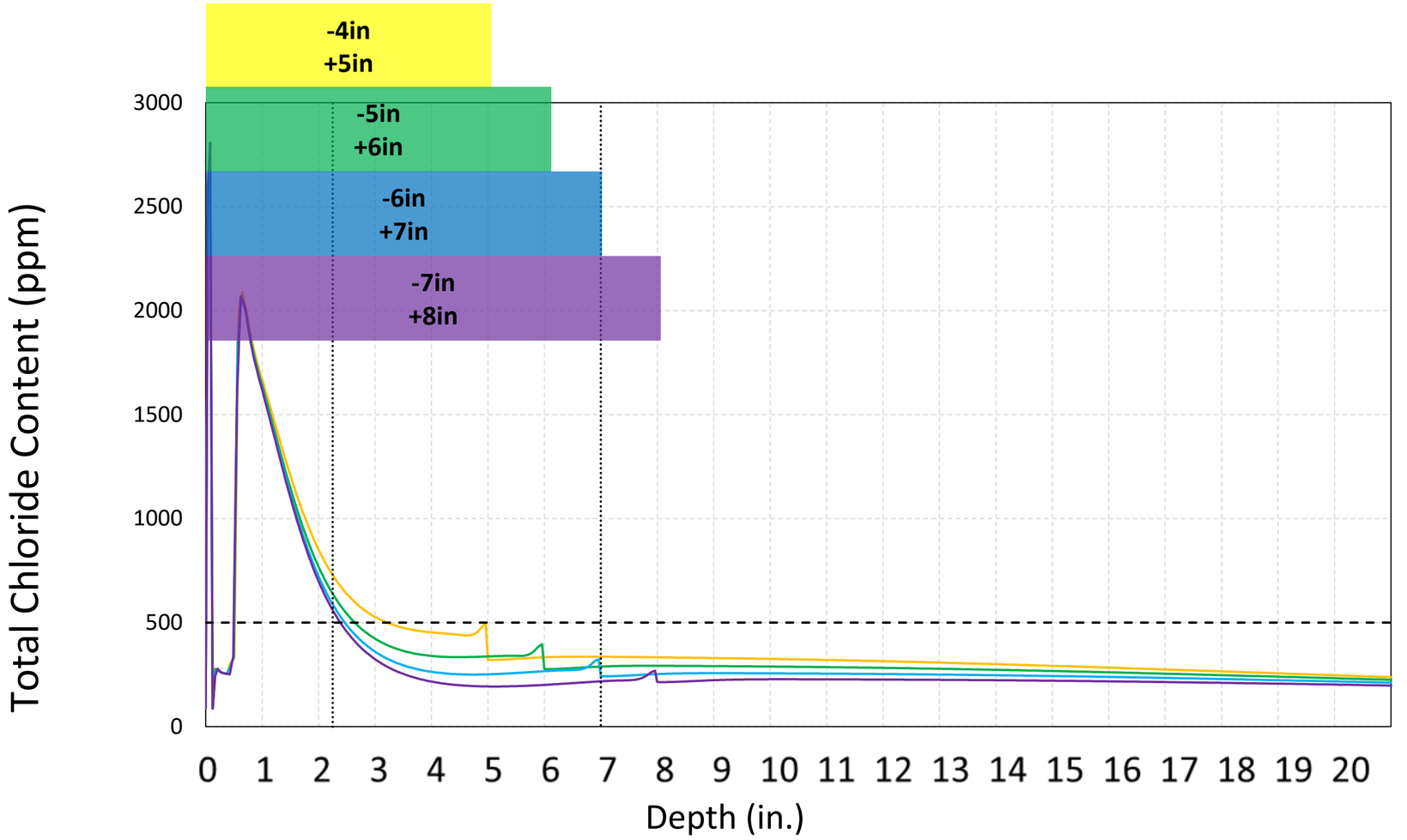
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Repair Scenarios

2049



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Repair Scenarios

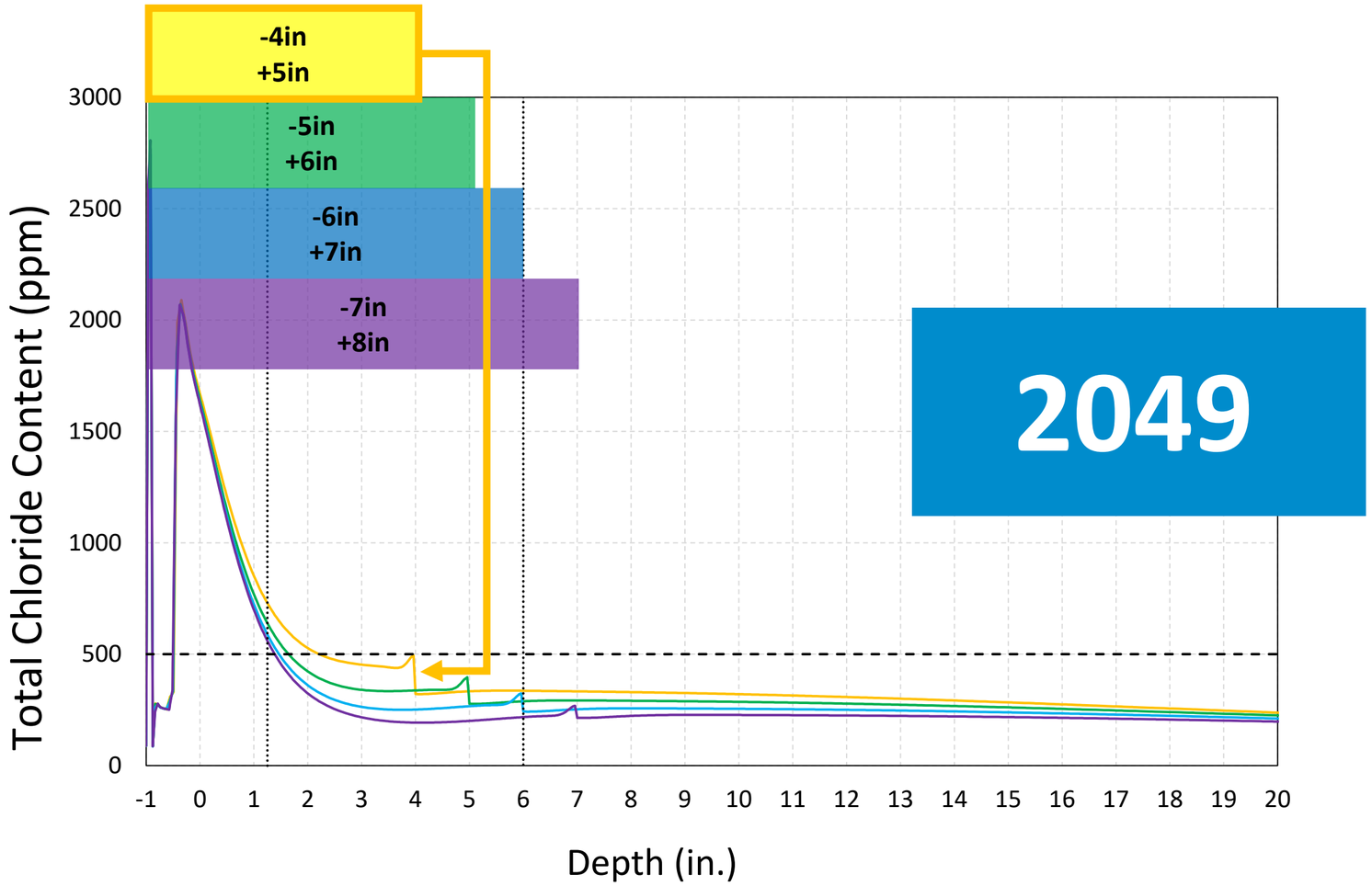
Degradation modeling enabled:

- ✓ **Forecasting of material condition over time**
- ✓ **Optimization of repair interventions for the target service life (40-50 years)**
- ✓ **Reduction of uncertainty regarding repair performance**

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Repair Recommendations

- Remove 4” of concrete and cast 5” of new concrete to prevent damage due to corrosion for next 40 to 50 years.
  - This repair approach is expected to delay corrosion initiation by about 35 years.
  - Considering a corrosion propagation period of 5-15 years.



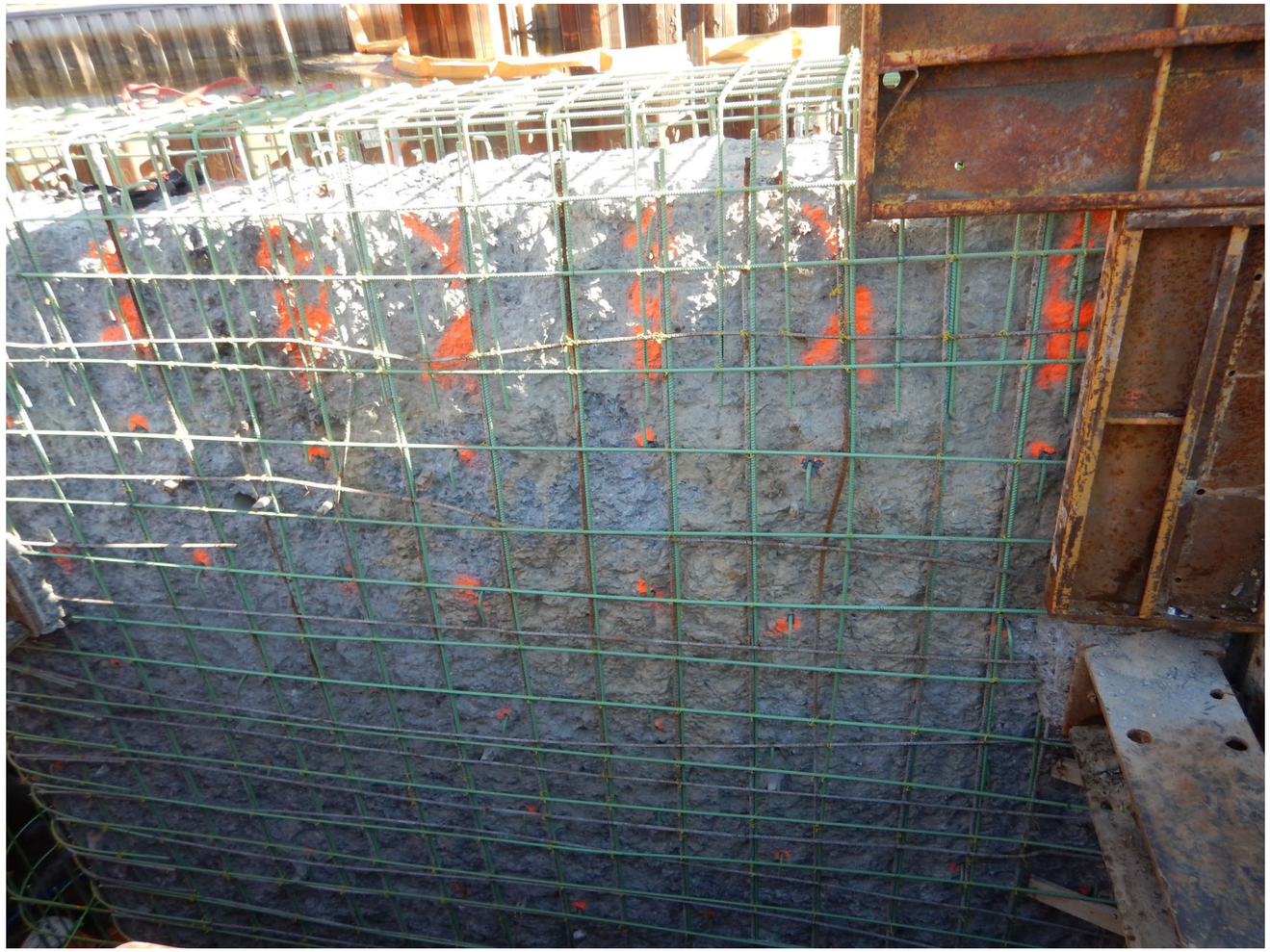
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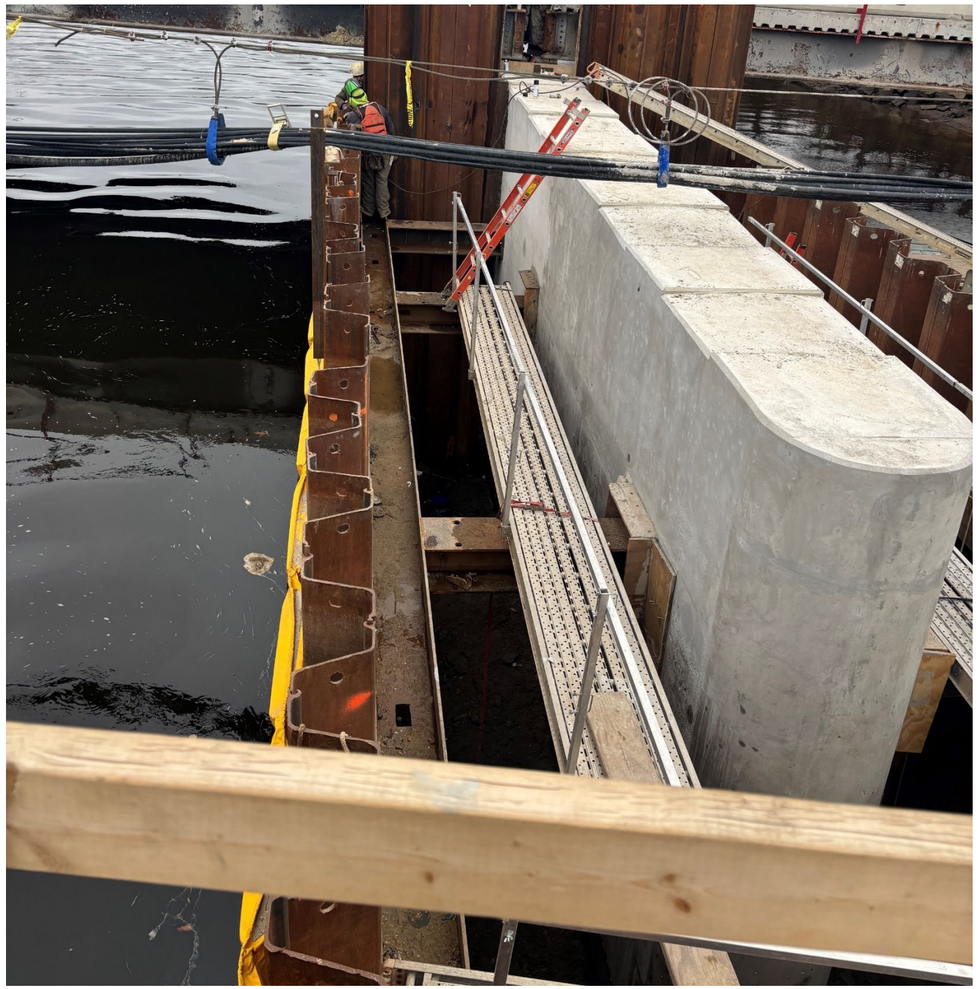
Construction



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Benefits

Societal, Environmental & Financial

About 6 additional months for a complete replacement

Carbon footprint was not calculated or compared

New deck and preserved substructure for $12.4M

Full replacement for $18 to 20M (approx)

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Benefits

Collaborated strategy helped the decision-making process for the owners

Typically, Owner would request an evaluation of the existing concrete substructure units' remaining service life when a bridge has the following conditions:

- superstructure has a poor condition rating (4 or less), and
- their substructure unit condition rating is between 5 (fair) and 6 (satisfactory).

The investigation made clear to the owner that it was possible to keep the substructure and to extend its life to match the new superstructure

The designer was aware about the minimum concrete depth to be removed to reach the goal, manage the risks and move with confidence

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- Case Study – Slave Falls 7-Bay Sluiceway Restoration
- Feedback Session

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SLAVE FALLS 7-BAY SLUICEWAY RESTORATION



University of Manitoba MBA Mofiyinfoluwa Adegbite
Sajedeh Derakhshan
Jordan MacKinnon
Ehsan Sepahi
Greg Toews

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04 FINANCIAL IMPACTS

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Project Overview: Slave Falls Generating Station

Location

Located on the Winnipeg River, in Manitoba, Canada

Established

Constructed between 1928 and 1948 and has provided renewable hydroelectric power for more than 90 years.

Operations

Run-of-river generating station with:

- 8 generating units
- 72 MW generating capacity

Why Rehabilitation was Needed

Condition of the 7-Bay Sluiceway

- Concrete inspections identified:
  - Cracking, Spalling
  - Freeze-thaw deterioration
  - Leakage through joints and cracks
- Coring investigations found significant deterioration in several piers, particularly Pier 1.
- The current piers do not meet Canadian Dam Association (CDA) sliding stability criteria.
- Risks include:
  - Structural failure
  - Ice impact damage
  - Loss of operational capability
  - Dam safety concerns

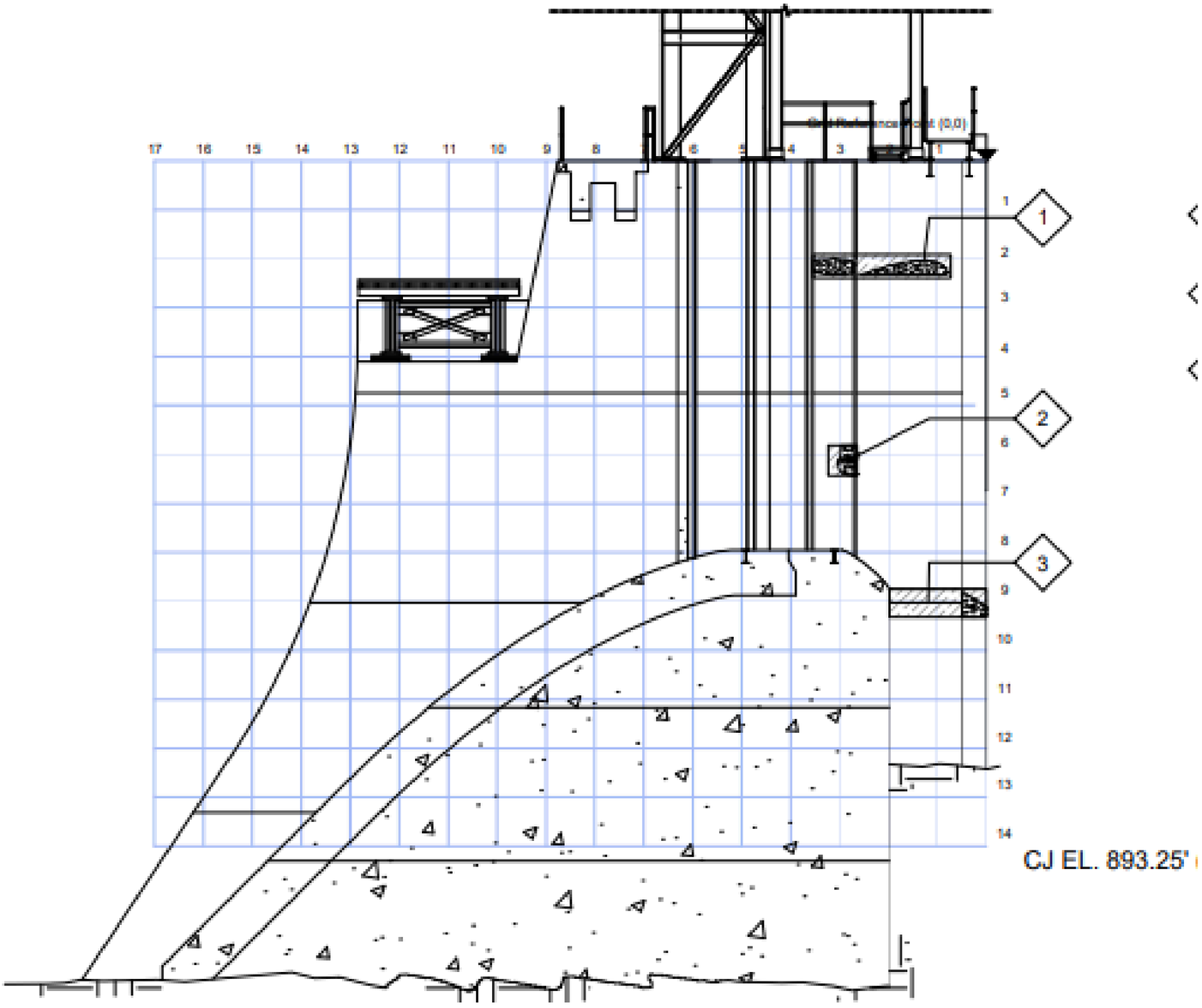
7-Bay Sluiceway Rehabilitation Scope

Project Scope

- The project includes design and construction activities to restore structural integrity and extend service life.

Structural Rehabilitation

- Refurbish sluiceway piers and rollways
- Install confinement plates
- Construct downstream concrete extensions


17 16 15 14 13 12 11 10 9 8 6 5 4 3 1
1
2
3
CJ EL. 893.25'

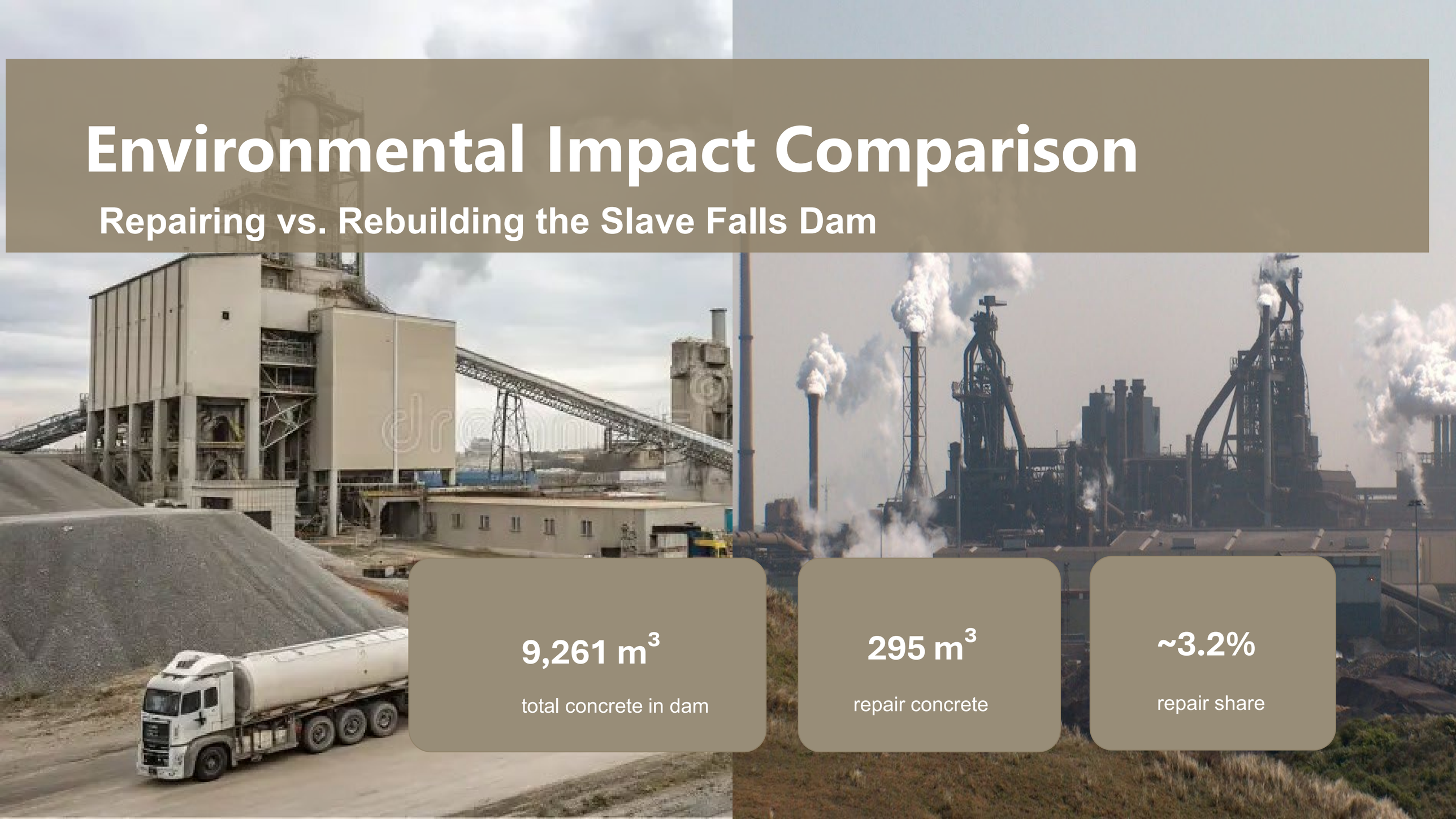
Expected Outcomes

Project Benefits:

- Improved dam safety
- Reduced risk of structural failure
- Protection of renewable generation capacity
- Continued operation of Slave Falls
- Reduced risk of emergency repair costs
- Protection of critical water control infrastructure

Environmental Impact Comparison

Repairing vs. Rebuilding the Slave Falls Dam



9,261 m^3

total concrete in dam

295 m^3

repair concrete

~3.2%

repair share

Impact of producing 1 m^3 of reinforced concrete

393 kg
856 lb

CO_2e per m^3 reinforced concrete

~3.3 GJ
3.1 million BTU

energy per m^3

180 L
47 gal

direct water per m^3

Concrete responsible for 78%

Rebar responsible for 22%

The existing structure already has a large carbon and energy footprint.



Repair avoids most new cement and steel production, which is why the environmental reduction is so large.

What Happens to Demolished Concrete?

Recycling helps, but it does not recover the original cement emissions

Destination	Share	Meaning
Aggregate, road base, fill, or backfill	**74.5%**	Useful diversion, but usually downcycling
Higher-value recycling	**8.1%**	Better recycling pathway, but limited share
Landfill	**17.4%**	Consumes landfill space and loses material value

Preserving concrete in place is usually more circular than demolishing it and recycling it.

Important at Slave Falls: concrete rubble, slurry, dust and sediment are near the river must be contained to prevent water-quality impacts.

Repairing has a much lower environmental impact

Repair is preferred if it can safely and durably restore the structure

Criterion	Rebuild	Repair Dam	Better
CO_2e	~3,797 tonnes	~114–167 tonnes	**Repair**
Energy use	~30,966 GJ	~803 GJ before major specialty systems	**Repair**
Life-cycle freshwater	~15,855 m³	~381 m³ before specialty products	**Repair**
Cement demand	~2,612 tonnes	~83 tonnes	**Repair**
Aggregate demand	~16,531 tonnes	~527 tonnes	**Repair**
New rebar demand	~926 tonnes	~14.75 tonnes before plates/anchors	**Repair**
Concrete waste	~21,300 tonnes	~679 tonnes	**Repair**
Expected concrete to landfill	~3,706 tonnes	~118 tonnes	**Repair**

Repair avoids ~3,630–3,683 tonnes CO_2e, ~30,000 GJ energy, and ~20,622 tonnes of concrete rubble compared with rebuilding.

Recommendation: preserve as much existing concrete and steel as possible; remove unsound concrete; strengthen piers; control slurry and sediment; recycle removed materials.

Unique site advantage: granite bedrock

A replacement elsewhere could require much more concrete

The current location benefits from solid granite bedrock, reducing foundation concrete demand. If similar natural support cannot be duplicated, a replacement dam or spillway could require far more concrete, steel, water, and energy.



CURRENT SITE

9,261 m³

total concrete volume considered

~3,797 t CO_2e

if the existing concrete volume were fully rebuilt

→

if similar bedrock can't be duplicated

REPLACEMENT RISK SCENARIO

300,000 m³

possible larger concrete volume

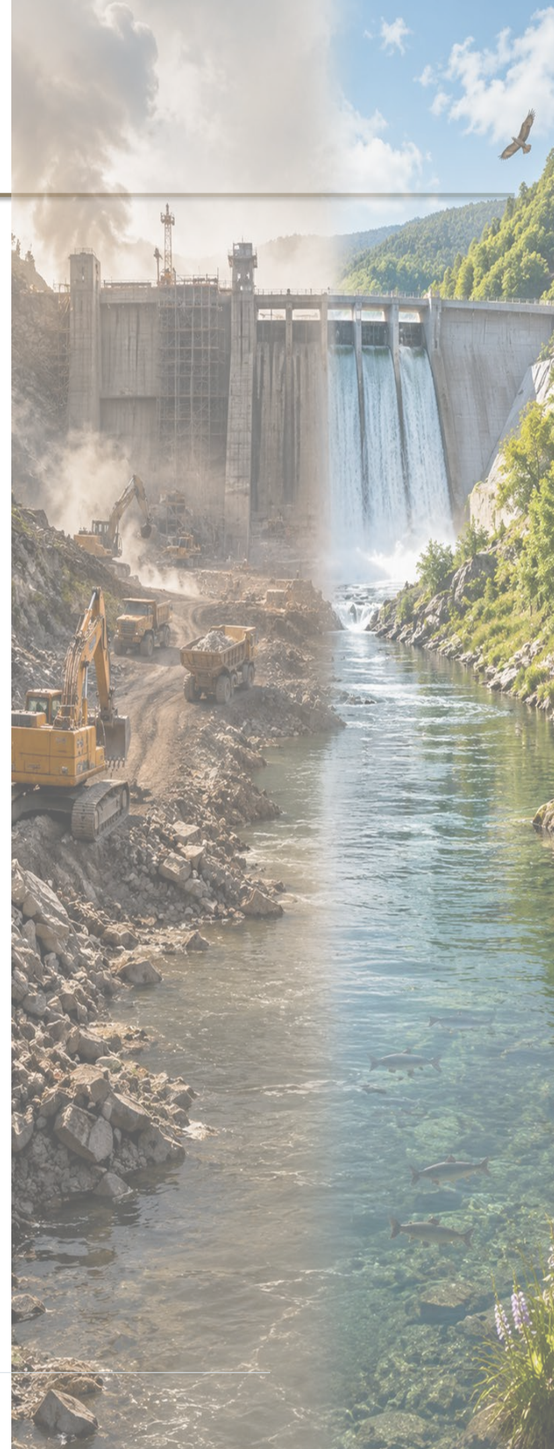
~123,000 t CO_2e

with demolition / typical movement factor

Broader environmental impacts beyond CO_2

Repair also reduces energy, water, smog formation, acidification, eutrophication, and waste

Criterion	Full rebuilding	Repairing the dam	Main interpretation
Global warming potential	~3,645 t CO_2e	~104 t CO_2e	Avoids most new cement and steel
Acidification	~11.36 t SO_2e	~0.33 t SO_2e	Lower acidifying emissions
Eutrophication	~3.63 t N-eq	~0.11 t N-eq	Lower nutrient-related upstream impacts
Smog formation	~251 t O_3e	~7.26 t O_3e	Lower ozone/smog-linked emissions
Life-cycle freshwater	~15,855 m³	~381 m³	Major upstream water reduction
Hazardous waste	~2.42 t	~0.058 t	Lower upstream hazardous waste
Non-hazardous waste	~94.43 t	~2.93 t	Lower industrial material waste
Primary energy	~30,376 GJ	~785 GJ	Much lower cement/steel energy



SIX WAYS REPAIR PROTECTS SOCIETY



COMMUNITY DISTRUPTION

Repair uses the existing footprint, avoiding years of construction impact on nearby communities.



RELIABLE ELECTRICITY

Keeps 72 MW of renewable power flowing to about 150,000 homes until at least 2040.



INDIGENOUS CULTURE

Protects a smaller footprint near sacred sites like the Bannock Point and Tie Creek petroforms.



PUBLIC SAFETY

Directly resolves a declared Dam Safety Emergency and restores Canadian Dam Association stability standards.



HISTORIC IDENTITY

Preserves 90+ years of hydroelectric heritage on the Winnipeg River.



ECONOMIC TRUST

Creates skilled jobs and strengthens public confidence in proactive asset management.

Comparison of Alternatives

Option	Key Societal Impacts
Repair Existing Sluiceway	Improves safety, preserves generation, minimized disruption, lower cost
Build New Spillway	Higher cost, >10 years to implement, greater environmental and community impacts
Decommission Station	Loss of renewable generation, employment, infrastructure value, and heritage
Lower Forebay	Reduced generation, ecosystem impacts, recreation impacts, does not solve deterioration

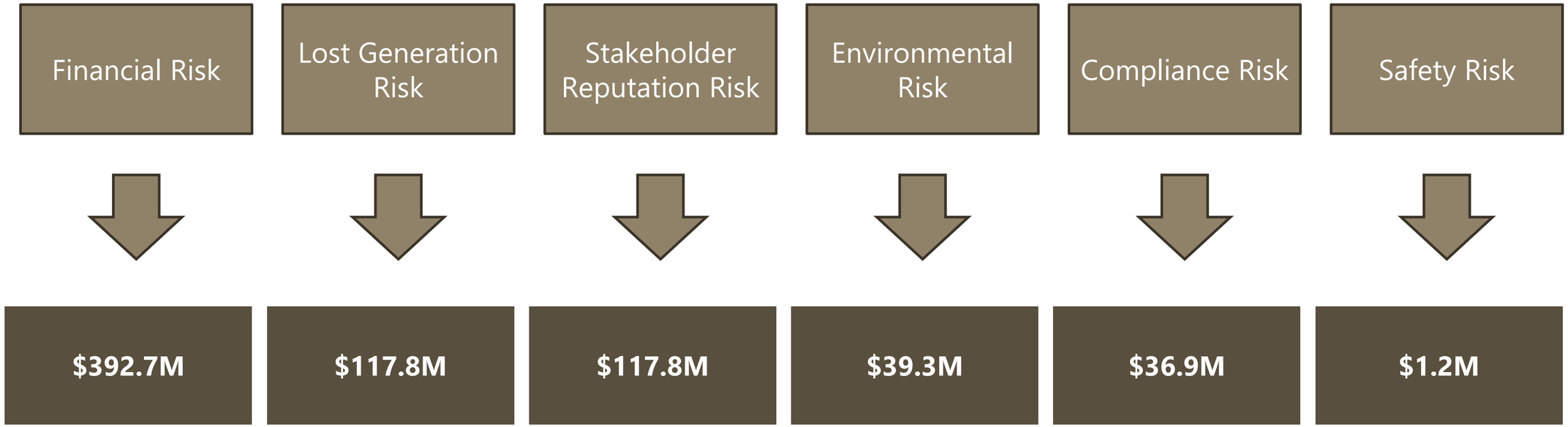
Repair is the best overall option because it:

- *Improves safety immediately*
- *Protects communities*
- *Preserves renewable energy generation*
- *Supports Indigenous and recreational interests*
- *Maintains heritage infrastructure*
- *Provides the greatest long-term societal benefit for Manitobans*

HOW THE OPTIONS COMPARE (1 = BEST, 4 = WORST)

Social Indicator	Repair Existing 7-Bay Sluiceway (Preferred Option)	Alternative 1: New Spillway & Decommission Sluiceway	Alternative 2: Decommission Generating Station	Alternative 3: Lower Forebay Elevation
Public Safety	1	2	3	4
Reliability of Renewable Electricity Supply	1	2	4	3
Community Disruption	1	4	2	3
Indigenous and Traditional Land Use Impacts	1	4	2	3
Preservation of Heritage and Regional Identity	1	4	3	2
Employment and Economic Benefits (lost)*	1	2	4	3
Public Confidence and Institutional Trust	1	2	4	3
Efficient Use of Existing Public Infrastructure	1	3	4	2
Long-Term Social Sustainability	1	2	4	3
Overall Ranking	**1**	**2**	**4**	**3**

What if MB Hydro did nothing?



Total Project Value = $632.2M

Key Insights – 7 bay Sluiceway Repair Project

Environment

- Repair uses just 3.2% of total concrete volume, preserving ~97% of the embodied value already invested
- Avoids:
  - 3,630 CO_2e
  - 30,000 GJ energy
  - 15,474 m^3 freshwater vs. full rebuild

Social

- Repair cuts failure probability ~90%, protecting communities in the area
- Preserves 449 GWh/year of renewable generation through at least 2040
- Avoids repeating Pinawa (1951): decommissioning has historically meant losing an entire community

Finance

- $84.1M investment delivers $632.2M in CVF risk-adjusted value
- Continuous repairs is the least costly option over 75-year lifecycle. ($158M repair vs $276M replace)

Risk

- Without action, failure probability approaches near-certainty over time
- A failure could halt generation for 1–2 years and force full structure replacement
- Repair limits financial, environmental, compliance, safety, stakeholder, and lost-generation risks

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Closing Remarks

- The $65 billion annual repair expenditure contains a component of avoidable cost driven by premature failure or neglection of timely maintenance and care
- Designing and constructing for defined service life is the rational baseline for creating a sustainable built environment.
- Closing the feedback loop – taking the hard-won lessons of the repair industry and feeding them back into codes and standards so the next generation of structures perform better from the start
- **Join P+Ex in shaping the future of concrete preservation (https://www.pexcoe.org/roadmapping/#member)**
- Follow us on LinkedIn and Youtube with the latest updates

P+Ex – Non-Profit Center of Excellence Resource

https://www.linkedin.com/company/pexcoe/posts/?feedView=all

https://www.youtube.com/@PExCenterofExcellence

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Acknowledgements

- Thank you for ICRI's continuous support and hosting our workshops
- Thanks to P+Ex Sponsoring Members' engagement and financial contributions
- We are excited for the collaboration with various Industry Supporters

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